## Women's Deviation from Gendered Social Norms:

# Assembly Plant Employment in Tehuacan, Mexico

By
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#### Abstract

The objective of the research is to deepen the understanding on how social norms influence wives's freedom to achieve well-being through their participation in salaried vs. reproductive and traditional self employment activities. The capability approach is used as a framework of thought and as a means to assess wives welfare.

Thus the research site was based in two towns belonging to the Tehuacán region. Following the NAFTA treaty in 1994, Tehuacán experienced a surge of textile assembly plants. These offered salaried job opportunities for women in rural towns of the area where previously they where non existent. Information was gathered initially by applying in depth interviews followed by a representative survey.

Social norms are defined as informal moral rules that are enforced by social approval and disapproval. Findings indicate that in both towns, three main moral arguments sustain the norm discouraging wives' participation in assembly plants. The first indicates that wives are home makers. The second states that women working for assembly plants are promiscuous. The last refers to men's obligation as breadwinners. Further, two mechanisms by which social norms influence individuals are recognized: internalization of the moral arguments and social sanctions (criticism and gossip) by different reference groups. Additionally, because wives live in households they bargain their participation in assembly plants with their husbands. Thus the influence of social norms on each, wives and husbands was investigated as well as on their decision making process. Biprobit regressions relating the extent to which each spouse disagrees with the prevailing moral arguments to the probability of wives' participation in assembly plants were estimated. Further, the impact social sanctions of each identified reference group have on wives' probability to work for assembly plants were calculated using Probit Regressions.

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### 1 Introduction

#### 1.1 Motivation and justification

It is a well known fact that in all parts of the world the economic activities to which women allocate their time to are divergent to those of men. In both developed and developing countries, there is a tendency for men to take over the main incomegenerating occupations while the women are chiefly responsible for reproductive ones. This is especially true of married women as they are expected to make these activities their priority. While differences in human capital levels by sex account to some extent for this trend, a large part of it still remains to be explained. While social norms and roles have also been suggested as important determinants of this outcome, there are still few empirical economic studies on the extent and mechanisms by which they influence this result.

Table 1-1: Labour force participation rates by gender, 2007

	Labour force	Labour force	% Labour
	participation	participation	force, female
	rate, female *	rate, male*	
Mexico	44.8	85.2	35.55
Bolivia	68.2	82.5	45.71
Colombia	68.6	82	46.06
Nicaragua	38.5	88.9	30.31
Iran, Islamic Rep.	32.5	76.5	29.06
Egypt, Arab Rep.	25.4	74.5	25.18
Israel	58.9	67.6	45.92
India	36.2	84.5	28.44
Afghanistan	29.6	88.6	
Zimbabwe	61.8	80.4	43.81
Kenya	76.1	88.1	46.4
Ethiopia	81.2	91.3	47.23
Nigeria	38.9	72.2	35.51
United Kingdom	70	82.7	45.3
Spain	60.5	81.8	41.43
Italy	50.7	74.6	39.58
Germany	68.3	81.4	44.46

<sup>\*(%</sup> of population ages 15-64)

Source: GenderStats, World Bank.

In countries all over the world, female labour force participation rates are lower than male ones, Table 1-1. Excluding some countries of Africa, the participation rates are related to the economic development of a country. Yet even in developed nations such as Germany or the UK women's participation rates are lower than those of men.

While the widespread pattern is that women engage in household tasks while men do the farm work or work for wages, this varies by region, country and by whether the setting is rural or urban. In Africa, women spend more time doing every type of work, (agricultural and non-agricultural activities) than men. In Asia and Latin America men do more income-generating work while women undertake household tasks (Ilahi 2000). It is usual in rural areas of developing countries for household members to diversify their time allocation into multiple activities; agricultural, livestock, reproductive and paid work. Further, individuals may engage in two or more of these (Horell and Mosley, 2008).

Based on (Becker 1991), economists have generally owed these differences in participation rates to gendered discrepancies in the accumulation of human capital. However, the role of social norms in this outcome has recently been recognized and explicitly studied by neoclassical economists (Cunningham 2000; Fafchamps and Quisumbing 2003; Fernandez and Fogli 2005; Fletschner and Carter 2008; Kevane and Wydick 2001). The aim of this study is to contribute to this new line of research in the economics discipline by deepening understanding of how social norms influence women's allocation outcomes.

Using official data from Mexico from 1987 to 1993, Cunningham (2000), finds that the labour supply patterns of male household heads are similar to those of female household heads. Yet when women are married their labour supply is contingent on their reproductive responsibilities, thus they become the secondary workers in the household. What is more, when they do participate in the labour force they generally engage in the informal sector so that their income-generating activities are compatible with their roles. As labour participation is primarily restricted for married women, and essentially limits them to waged employment, these two subgroups will be the focus of the current investigation.

Here we will focus particularly on the participation of married women in a specific type of salaried employment; that of textile assembly plants. To this end, research was conducted in two towns of the Tehuacan region in Mexico: San Gabriel Chilac and Santiago Miahuatlan. These two rural towns have recently experienced a major transformation. After 1994, when the North Free Trade Agreement was enacted, textile assembly plants arrived in the region creating salaried employment. As in many

regions globally where textile plants have been established, a large share of their labour demand was female. This implied that salaried employment opportunities were created for women in places where they had not previously existed. The abundant demand for female labour plus the persistence of traditional customs in these towns made them ideal sites to explore the effects of social norms on married women's participation in assembly plant employment.

Social norms are defined in this study as informal moral rules (rules that are concerned with the principles of right and wrong behaviour) which are followed by a group in a society. As moral rules, norms are validated or supported by one or more arguments which explain why they are the correct behaviour to follow. In both San Gabriel Chilac and Santiago Miahuatlan, three main moral arguments which sustain that women should not work in assembly plants were identified. First, women were perceived as responsible for childbearing and household tasks. Women who worked in assembly plants were seen as neglecting their children, their husbands and their homes. Secondly, it was sensed that married women who worked in these plants were promiscuous and unfaithful to their husbands. Finally, it was understood that it was men's role to be the economic providers of the family. Thus, husbands would feel they failed at this role if their wives entered assembly plant employment. These moral arguments are not unique to this area of study as they have been found to persist in various communities throughout the world (Cunningham 2001, Ilahi 2000, Kabeer 2000) Thus, though this study is only representative at the two towns of study, it could provide a basis to understand how gendered social norms operate in other areas also. Social norms impact individuals in various ways. They can affect the possible functionings they are able to achieve, such as the working conditions employers offer them and the social benefits they can obtain from the government. Equally, as is the focus of this research, social norms influence individuals' motivations. This occurs via two mechanisms: social sanctions and internalisation of norms. Social approval and disapproval by certain groups will be manifested in the form of gossip and criticism advocating for different moral arguments. Because social norms and the moral arguments that support them are value laden, a person who violates them may also experience feelings of guilt and remorse.

Given that in these towns social norms indicate that married women should not participate in assembly plant employment, they will have an influence on wives' desire to take these jobs via these mechanisms. But even if women perceive that it is best for them to enter into waged labour, they usually do not make decisions independently. They have to negotiate this decision with other members of their household, generally their husbands. Their husbands may in turn experience the influence of social norms

on their notions of masculinity and their perceptions of what their wives should do. Furthermore, social norms will also influence the power that women have to negotiate their labour allocation decisions with their husbands. Thus we will consider both the effect of social norms on each spouse's decisions and negotiating mechanisms.

In orthodox neoclassical economic models, individuals assess how much income they can obtain from engaging in a salaried activity. They then compare how much utility they can obtain from the goods and services purchased with it, compared to those they can attain by investing their time in alternative activities (including reproductive ones). The wage women obtain by working in an assembly plant is generally higher than the income they could gain by engaging in alternative activities available to them (Fussel 2000; Glick and Roubaud 2006; Kabeer and Mahmud 2004; Tiano 1994). Yet the impact of salaried employment, especially that of textile assembly plants, on female labourers' welfare has been debated (Barrientos et al. 2004; Barrios Hernandez 2004; Carr and Chen 2004; Chant 1995; Robeyns 2003; Sagrario Floro 1995). The working conditions of assembly plants can be harsh, for example, resulting in stress and tiredness. Yet, it is not only these negative aspects that neoclassical economists do not consider. For instance, by working in assembly plants women can increase their self esteem and gain a space to interact socially with others. We will thus attempt to discover and consider all the positive and negative effects of salaried employment on wives.

It is to this end that the Capability approach is employed. This approach relies on assessing the liberty a person has to achieve functionings, what a person manages 'to do or be'. It is assumed that women have the potential to achieve different functionings depending on the activity they engage in (the focus here being only reproductive work versus waged employment). Each will have different functionings related to physical health, mental well-being, bodily integrity and safety, social relations, respect and enjoyment of leisure activities. Even though it is not readily evident which activity will provide women with a greater level of well-being, it is possible to asses what restricts women's opportunities to engage in whichever activity they believe will give them a superior level of well-being – in the present study, social norms.

This is another fundamental advantage of the Capability approach, as it evaluates individuals' opportunities, leaving space for agents' freedom to decide which type of functioning to achieve. In this case, wives will obtain different functionings depending on whether they engage in assembly plant work or not. Therefore, the focus of this research will be on how social norms restrict wives' opportunities to work or not to work in salaried employment, and achieve the functionings corresponding to each state.

In summary, this research empirically analyses how social norms restrict wives' opportunities to achieve well-being by influencing their and their husbands' desires and their labour allocation negotiating mechanisms. Social norms, which are informal moral rules concerned with right and wrong behaviour, are validated by one or more moral arguments. To varying degrees, these are internalised by both husbands and wives. If a wife disregards the social norm indicating she should not work, both spouses might experience feelings of guilt and remorse. They might also suffer social sanctions in the form of gossip and criticism by various reference groups. This research will analyse how and to what extent each moral argument has an impact on wives' employment in assembly plants.

### 1.2 Directly related literature on the effect of social norms on women's time allocation

There are few econometric studies on the influence of social norms on women's time allocation. Generally, the presence of these is deduced indirectly. Fafchamps and Quisimbing (2003), for example, use a panel data set from Pakistan to corroborate whether the allocation of tasks within the household is driven uniquely by their comparative advantage. They find that after controlling for household members' human capital, learning by doing, and personal characteristics, these vary by gender and family status. Men specialize in market work and women in household chores. They then conclude that something else, which they call social roles, is at play in intrahousehold division of labour. Cunningham (2000), in a study mentioned previously, estimated a logit regression model for women's labour force participation using official data on Mexico. He encountered that married women are secondary workers and that their labour supply is contingent on household responsibilities. Fernandez and Fogli (2005) use the 1970 US census to econometrically study the effect of individuals' country of ancestry (as a proxy for culture) on labour participation and total fertility rates by gender. They find that even after controlling for possible indirect effects on culture, these significantly affect female labour outcomes but not male ones. Yet, these proxies affect both female and male fertility rates. Although all these studies show that variables related to human capital are not sufficient to explain the divergence of tasks by gender and household status, they do not explicitly model, develop a theoretical argument for, or explain the mechanism by which social norms influence wives' labour allocation decisions.

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<sup>&</sup>lt;sup>1</sup> To this effect they use both a Tobit model to estimate the number of hours worked and a Probit to estimate the probability that a person participates in laboured employment.

In an innovative analysis, Keavane and Wydick (2001), do explicitly model the effects of social norms on household members' time allocation. To achieve this, they use a unitary household model in which utility depends both on pecuniary rewards from participating in diverse activities and on the social norms regulating women's involvement in them. The latter are considered to enter the utility function as a cost that the household experiences when women's actions deviate from the female social mean. From this unitary household model, they relate women's responsiveness on the time they dedicate to their husbands' fields to the higher levels of their husbands' farm capital. Further, they compare the effect of this response in two culturally diverse ethnic groups of Burkina Faso, the Mossi and the Bwa groups. In general, women in Burkina Faso divide their time between working in their husbands' fields, working in independent income-generating activities and working at home. In one ethnic group, the Mossi, women are supposed to work in their husbands' fields while in the Bwa group they are more oriented toward market activities. They conclude that because women's labour allocation changes significantly with husbands' farm capital within the Bwa while it is insignificant for the Mossi group, social norms are present.

Several aspects need to be noted from this study. On one hand, it does not consider that a social norm is validated by one or more moral arguments which may have a differential impact on wives' responsiveness to their husbands' greater farm capital. Further, it assumes that individuals follow norms solely because other individuals in a society follow them. Therefore they do not take into account that individuals might internalise norms and as a consequence follow them, independently of whether members of their reference group adhere to them or not. Nor do they take into consideration that people might comply with the norm because otherwise they would be subject to gossip and criticism by members of their reference groups. Finally, as they use a unitary household model, they do not acknowledge the distinct influence internalisation and social sanctions can have on women's and their husbands' preferences regarding the women's employment in assembly plants.

Another study on the effects of social norms on women's economic activities is done by Fletschner and Carter (2008). Specifically, they study the effects of norms on women's demand for capital to carry out entrepreneurial activities in Paraguay. Theoretically, they model women's demand for entrepreneurial capital as dependent upon her reference group's demand for capital. Yet unlike Kevane and Wydick (2001), they do take into consideration that women's utility might be influenced by social norms directly and independently of her reference group's behaviour. They do this by assuming that women's utility depends on a social environment term, which is not explicitly defined but is determined by social institutions and by their male partners. Empirically, they

determine who are the members of a women's reference group by asking them to identify female friends and family members who they feel closest to for various social purposes. Using a probit regression estimation model they find that women's demand for capital is positively and significantly affected by the behaviour of their reference group. A woman is more likely to demand credit the larger the proportion of cooperative members in her reference group. This could reflect social learning, but they argue that in the absence of cross gender social effects (men not affected) their results support the social norm interpretation. As a proxy of the social environment effect, they use the variable indicating whether a woman's husband opposes her taking a loan and has significant bargaining power. They find that this variable negatively and significantly affects female demand for credit.

Interestingly, in the introduction to their paper, the authors recognise that there are strongly held beliefs regarding the appropriateness of women undertaking entrepreneurial activities. The validating argument which supports these beliefs is wives' role as responsible for reproductive tasks, while husbands are supposed to support their family economically. Furthermore, they recognize the existence of social sanctions as they state that neighbours gossip about wives when they engage in these types of activities. Therefore, while they identify distinct arguments validating the norm indicating that wives should not undertake entrepreneurial activities, they do not theoretically or empirically consider them. This is true as well of social sanctions being enforced by different reference groups. In addition, while they do consider whether a husband agrees or disagrees with a wife asking for a loan, they do not consider the direct effects of each moral argument on husbands' preferences either.

Therefore, this study explicitly considers the various moral arguments which validate a social norm. Particularly, it examines the role of their internalisation as well as that of the social sanctions enforced by each reference group upholding them. Furthermore, it considers the effect of both these enforcement mechanisms on each spouse's desires regarding wives' participation in a particular type of waged employment, that of assembly plants. Importantly, it does so by initially collecting qualitative information via in-depth interviews. This made it possible to examine the perceptions and motivations of wives and husbands regarding each moral argument against wives' participation in assembly plant employment. The negotiating mechanisms between couples regarding wives' engagement in this type of job were also explored. These were part of the aims of the research, but having this information also aided in refining the theoretical framework, research questions and the methodology. Finally, this study differs from previous ones in that it uses the Capabilities framework as a conceptual framing and a means to asses the welfare impacts of wives' engagement in each economic activity.

#### 1.3 Research proposal and thesis outline

The objective of this project, therefore, is to understand how social norms influence wives' opportunities to achieve well-being through their employment in textile assembly plants. To achieve this goal, four general research questions were posed:

- 1) What are the functionings wives can achieve by working in assembly plants compared to those they can attain by being involved in traditional female activities?
- 2) How does the internalisation of each moral argument by each spouse influence wives' probability of working in an assembly plant?
- 3) How do social sanctions by each reference group, using each moral argument, influence wives' probability of working in assembly plants?
- 4) How are decisions regarding women's employment negotiated between spouses and how are they influenced by social norms?

The findings relating these questions were separated firstly into qualitative and quantitative descriptive information and secondly into statistical and econometric analysis. The chapters of the thesis thus followed this structure. Table 1-2 shows how each chapter contributes to answering each of the research questions.

The thesis is thus organised into seven main chapters. Chapter 2 presents the conceptual framework. It initially describes the Capabilities approach and provides the arguments for which this framework is the optimal one for this research. It then defines the concept of social norms and illustrates the mechanisms by which they influence individuals' motivations: internalisation and social sanctions. Next, the way in which several lines of thought frame household bargaining and spouses' power in it are compared. This aids in constructing a characterisation of couples' power to negotiate wives' participation in salaried employment. Once this is achieved, the complete framework is delineated. Finally, the framework is mathematically formalised.

Chapter 3 details the study's methodology. First, the choice of the location where fieldwork was conducted is justified. Next, the techniques used to collect qualitative information and quantitative data are delineated, and how they were interpreted and analysed is elucidated.

Table 1-2: Elements of each research question covered, by chapter

Chapter	Research Question	Specific aspect of question answered
Chapter 5	1. What are the functionings wives can achieve by working in assembly plants compared to those they can attain by being involved in traditional female activities?	<ul> <li>Welfare outcomes spouses perceive wives can obtain when wives engage in each type of economic activity</li> <li>How social norms, acting as social conversion factors, affect wives' achievement of functionings when working in assembly plants.</li> <li>Factors influencing the achievement of functionings by wives when they work in an assembly plant</li> </ul>
Chapter 6	2. How does the internalisation of each moral argument by each spouse influence wives' probability of working in an assembly plant?	<ul> <li>How each moral argument shapes the beliefs and motivations of each spouse.</li> </ul>
	3. How do social sanctions by each reference group, using each moral argument, influence wives' probability of working in an assembly plant?	<ul> <li>How social sanctions by each reference group and upholding each moral argument are experienced by spouses.</li> </ul>
	4. How are decisions regarding women's employment negotiated between spouses, and how are they influenced by social norms?	<ul> <li>The mechanisms employed by spouses to negotiate wives' participation in assembly plants.</li> <li>How social norms influence the mechanisms and arguments couples use when negotiating wives' engagement in assembly plant employment.</li> </ul>
Chapter 7	3. How does the internalisation of each moral argument by each spouse influence wives' probability of participating in assembly plant employment?	<ul> <li>Extent to which internalisation of each moral argument influences wives' probability of working in an assembly plant.</li> <li>Test characteristics of people who internalise moral arguments versus those who deviate from them.</li> </ul>
Chapter 8	4. How do social sanctions by each reference group, using each moral argument, influence wives' probability of working in an assembly plant?	Extent to which each reference group upholding each moral argument influences wives' probability of working in an assembly plant?

Chapter 4 describes the process by which textile assembly plants arrived in the Tehuacan region of Mexico, and specifically the two towns which are the focus of this research; San Gabriel Chilac and Santiago Miahuatlan. Next, the main population and household characteristics of these towns is portrayed. In conclusion, the main incomegenerating activities available to wives in these two localities are explored.

Chapter 5 uses qualitative information to explore the three main moral arguments current in both towns, which validate the norm that wives should not work in assembly plants. It aims at answering how each moral argument shapes the beliefs and motivations of each spouse regarding wives' engagement in this type of job. It also considers how social sanctions by each reference group, by moral argument are experienced by couples. The second part of the chapter illustrates how couples negotiate wives' employment in assembly plants. It examines the mechanisms used by couples to negotiate about this decision, and how they are influenced by social norms. Chapter 6 surveys the welfare impacts of wives' engagement in assembly plant employment versus traditional female activities. It does so by first exploring the welfare outcomes spouses perceive wives obtain by engaging in each type of economic activity. Special attention is paid to how social norms, acting as social conversion factors, affect wives' ability to achieve functionings by working in assembly plants. It also aims at identifying other conditions influencing the achievement of functionings by wives when engaging in this type of job. It concludes with a synopsis of all the different functionings that can be achieved by working for assembly plants.

Chapter 7 assesses the effect that disagreement with each moral argument by each spouse (as a proxy for internalisation) has on wives' probability of working in assembly plants. As these two factors might be jointly determined, a biprobit regression model is estimated. Next, we examine whether specific characteristics of couples have an impact on their beliefs in each moral argument. These characteristics are husbands' activity; whether a wife or her husband has lived in a city or was born in one; and whether any female relatives work in an assembly plant.

Chapter 8 uses Probit estimation models to analyse the effect of social sanctions by each reference group, according to each moral argument, and directed to each spouse, has on wives' probability of working in an assembly plant.

## 2 Conceptual framework

#### 2.1 Introduction

The objective of this investigation is to analyse by which means and to what extent social norms deter married women's participation into salaried employment. To achieve this, the Capability approach is used. As Robeyns (2000) explains, the Capability approach can be used both as a framework of thought and as a way to evaluate individual welfare. This chapter will describe this approach and further expand on why, for given both these aspects, is the optimal one for achieving the goals of the research. Next, given that there is no widespread convention on the definition of social norms, one will be established. The means by which norms are enforced in a society and influence individuals' motivations will also be outlined.

Further, as wives negotiate with their husbands the decision to work in a salaried job, the effect of social norms on the latter is also considered. Moreover, the outcome of this negotiation will depend on the bargaining power of each. For this reason bargaining power is also conceptualised. Finally the whole framework is summarized and formalized.

#### 2.2 Well-being and capabilities

This research uses the concept of well-being put forth in the Capability Approach developed by Sen (1985; 1990; 1999). This framework places importance in evaluating social states according to the richness of human life resulting from them. It sees human life as a set of 'beings and doings' such as being well nourished, being healthy, being housed, being able to read and write, being confident, escaping morbidity, achieving self respect, etc. These beings and doings are referred to as Functionings and reflect the state of a person, what he or she has managed to do or be. Even though functionings are a very important aspect of well-being, an assessment of them alone would not be completely adequate given that they do not reflect the freedom a person has to function in a certain manner. The example provided by Sen (1999) to illustrate this approach is that of a poor person who is undernourished because he does not have the opportunity of having enough food. On the other hand, an ascetic will also be undernourished, but because he chooses to be so. Even though being well nourished is an important aspect of human life it is essential to respect the choices of individuals. In this case, it is important not that the ascetic achieves the functioning of being well nourished, but that he has the opportunity to be so. Acknowledging the importance of having the freedom to achieve functionings, Sen thus introduces the notion of *capability*, which refers to the combination of functionings a person has the potential to achieve. It reflects a person's freedom to choose between different ways of living. The evaluation of the quality of life, then, is made through assessing the capability to function.

Some functionings can be achieved through the use of commodities. Still, it is imperative to recognize that there are some basic functionings that do not depend on them, for example having self respect. In the first case, functionings are achieved through the consumption of commodities which have certain characteristics. For example, Sen (1999) offers the example of how the possession of food gives the owner access to the properties of the food, which can be used to satisfy hunger, to yield nutrition, to give eating pleasure and to provide support for social meetings. Yet, as Robeyns (2000) explains, the characteristics of the goods do not tell us what the person will or can do with those properties. For example a person can have a disease which makes the absorption of nutrients difficult. That person then may suffer from undernourishment even though he may consume the same amount of food as another person who is not under nourished. The relation between the good and the functioning achieved will depend then on personal characteristics as metabolism, physical condition, reading skills and intelligence. This relation also depends on social characteristics like infrastructure, institutions, public goods, public policies, social norms, discriminating practices, gender roles, societal hierarchies, power relations, etc... Robeyns uses the example of a bike: a bike will enable the functioning of being mobile, but this mobility will be restricted if, for example, there are no paved roads or if a society imposes a social or legal norm that women are not supposed to cycle.

The Capability approach can be represented by Figure 2-1 taken from Robeyns (2000). Thus functionings and functioning capabilities stand midway between commodities and utility. They are posterior to the endowment of goods and services and the income needed to acquire them, neither which are good indicators of well-being. As Sen (1990) states, "prosperity is no more than one of the means to enriching the lives of people. It is a foundational confusion to give it the status of an end. Secondly, even as means, merely enhancing average economic opulence can be quite inefficient in the pursuit of the really valuable ends."

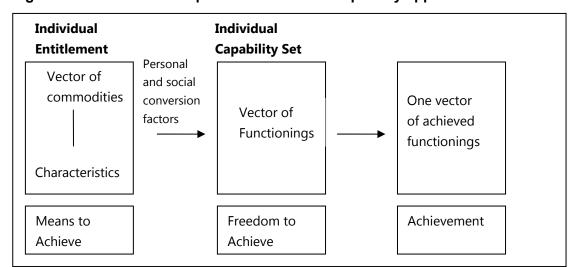


Figure 2-1: A schematic representation of the Capability approach.

On the other hand, the vector of functionings is previous to the concept of utility which for Sen (1985; 1999), in none of its three conceptions, is appropriate to assess well-being either. Firstly, as he explains, utility can be seen as choice. The problem with this approach is that a person's choice may be guided by a number of motives of which the pursuit of personal well-being is only one. This mixture of motivations makes it hard to form an idea on the basis of choice information only. This is especially a relevant issue when analyzing gendered well-being given that many women may perceive that their interests are trivial, choosing as a result states that will not necessarily lead to their well-being. The way in which women come to perceive this has much to do with social norms and will be discussed in detail later on.

Secondly, he suggests that utility can also be seen as happiness. The problem with happiness is that it is a mental condition. A person in abject poverty who has come to terms with his condition can be happy. Additionally, there are also mental states other than happiness, such as stimulation, excitement, etc. which are of direct relevance to a person's well-being.

The third and last way he distinguishes utility is as a desire. The problem with this approach is that for an account of well-being to serve as a basis for a utilitarian calculus, it must be feasible to present a cardinally and interpersonally comparable view of utility. Neither of these types of information can be obtained by just checking whether the person's desires have been realized.

In addition to being a better reflection of an individual's the state than the utility approach, the Capability approach has the quality of assessing 'objective' outcomes. If for example one is interested in comparing the functioning of being healthy between

men and women, one can obtain objective information with respect to nutrition levels, number of visits to the health centre and types and number of diseases obtained by sexes. Individual utility, on the other hand, is a subjective perspective that "has been extensively used, but it can be misleading, since it may fail to reflect a person's real deprivation" (Sen, 1990).

For the purpose of this research the Capability approach was considered to be the most adequate framework, not only for the advantages previously revealed. The Capability approach is primarily appealing because income is a deficient measure of the welfare benefit to women and their families from women's incorporation into salaried employment. Some of these welfare effects will be discussed in the next section. Yet also very importantly, the Capabilities approach is concerned with evaluating opportunities while leaving space for agents' freedom to decide which type of functioning to achieve. It is an opportunity-based, rather than an outcome-based, theory (Robeyns 2000). Social norms will restrict wives' opportunities to engage in paid work. Yet regardless of these norms, it is important to acknowledge that people have different characteristics and preferences which will make each state, participating or not in salaried employment, attractive or unattractive for them. A wife may find it more rewarding to do housework even though working for a wage can allow her to achieve some types of functionings. For another woman, housework can be unbearable. As Robeyns (2000) explains, "One of the major strengths of the capability approach is that it can account for interpersonal variations in conversion of the characteristics of the commodities into functionings. The Capability approach accounts for diversity in two ways: by its focus in functionings and capabilities as the evaluative space, and by the explicit role it assigns to individual and social conversion factors of commodities into functionings."

Another important quality of the Capability approach compared to the utility one, and which is especially important for this research is that people may lack a notion of individual welfare. Sen (1987) provides the example of traditional societies such as India, where generally a woman from a rural area, when asked about her personal welfare, would find the question unintelligible and would answer in terms of her family's welfare. This is an example of how social norms can shape perceptions and notions of deserving. In this case individuals will not be seeking to improve their well-being but are instead maximizing their utility. So being deprived is consistent with the utility notion of well-being but not with the capability one. Because a key part of the research interest is precisely to analyze how social norms affect individual's perceptions and how this influences their well-being, the Capability approach is thus the best framework to employ as it uses an objective measure of well-being.

Despite the significant advantages the Capability approach offers, there are also disadvantages. An important difficulty that arises when applying the Capability approach is its operationalization. Further, the number of empirical applications to draw examples from is limited. The operationalization first involves defining the functionings that need to be taken into account, given that the Capability approach does not prescribe a list of the relevant ones (Robeyns 2000; Qizilbash 2001). For the purpose of this research, a pragmatic approach will be taken. The functioning vectors that will be taken into account will be those that have been related in some way by the literature to the incorporation of women into waged work and those identified by couples in the area as significant. Another issue that must be addressed once the relevant functionings are defined is how they are to be measured, compared and aggregated. This issue will be discussed in depth in the methodology chapter.

Next I will discuss the ways in which women's incorporation into paid activities has been related to their well-being and link this with the discussion of the Capability approach.

#### 2.3 Women's well-being from participating in paid work versus housework.

In the standard neoclassical economic model, people allocate time to productive activities (income generating activities, self-consumption or reproductive ones) because they are the means of obtaining goods and services for consumption. Individuals weigh how much satisfaction (generally utility) they obtain through these goods and services, by dedicating themselves to this type of activity compared to spending time in leisure, and then decide how much time to spend in each. Therefore, productive activities provide satisfaction as long as they produce goods and services for consumption.

Even in the neoclassical intra-household model in which income-generating activities are seen as the means to obtain bargaining power (the utility a member of the household will obtain versus that of other household members) what provides utility in the end is the consumption of goods and services. However, the allocation of time in different activities is in itself an important part of a person's life with important repercussions for their well-being.

Feminists concerned with women's disadvantage in society have highlighted the non-economic implications for their welfare when they participate in income-generating activities. For example, Sagrario Floro (1995) argues that for a serious discussion of individual and social welfare it is necessary to take into account the length and intensity

of individual's work time. To this effect, work intensity is defined as the extent to which work causes fatigue or stress, is arduous, burdensome or intensive. Related to this, Jackson and Palmer-Jones (1999) argue that the burdensomeness of a task depends on the type of body one has (female/male, large/small, healthy/unhealthy, experienced/inexperienced), which they conceptualize as 'body capital'.

Also related to work intensity, salaried employment will have a particularly important effect on married women as they are usually responsible for making sure reproductive work is completed within the household. What is more, they generally have to carry out these reproductive tasks after completing their jobs. For this reason, Hochschild (1989) referred to the reproductive work wives have to complete after their shifts in their salaried jobs as a 'double shift'. Having these double shifts is usually tiring and stressful and has direct impacts on wives' welfare and on the way in which they relate to their families.

Robeyns (2003) also examines other effects of the actual gendered division of labour which are not related to work time, and which also have an impact on women's well-being. She identifies some economic disadvantages such as the risks of specializing in unpaid household labour (especially in the case of divorce) and the depreciation of human capital through not accumulating work experience when taking care of children. She also recognizes the non-pecuniary rewards of participating in the labour market. For instance, it enables women to socially interact with others, to have contact with a network of colleagues and to have a source of self-esteem. Psychological and emotional effects of participating in paid versus reproductive work also surface. Care for children can be emotionally very gratifying and less stressful than working in a hard and competitive labour market. Further, household chores can be less rewarding, and women can feel isolated in their homes and feel under-appreciated for the work they do. On the other hand, paid work can be stressful, tiring and boring. Thus, in general salaried employment will have both positive and negative non-pecuniary effects on women's welfare.

Further, women's well-being will not only depend on whether or not they participate in a salaried job, but also on the characteristics which are specific to the place in which the activity takes place. Garment manufacturing factories around the world are identified as having dire working conditions. Studies on manufacturing factories from the Philippines, Mexico and Bangladesh, have found that employees generally are asked to work overtime and sometimes they have to do so without pay. They also have challenging production quotas which increase the stress of employees. Added to this, employees frequently lack the respect of supervisors, even to the extent that female employees have complained about the limited number of toilet breaks they were

allowed (Barrientos et al. 2004, Barrios Hernandez 2004, Carr and Chen 2004, Chant 1995). Further, Carr and Chen (2004) found that contracts are rarely written, and benefits such as maternity leave, sick leave, annual leave and health insurance are unlikely to be provided. In Bangladesh, Kabeer (2004) noted that female workers who were married were also worried about obtaining adequate childcare. In the Philippines, Chant (1995) found that as a consequence of the suboptimal working conditions female employees experienced a number of illnesses. Employees complained about urinary tract infections, kidney problems and menstrual complications due to the limited amount of time they had to go to the toilet. They also experienced occupational hazards such as backache, eye strain, blurred vision and headaches as a result of sitting and concentrating for long periods. Because of the handling and inhalation of substances, some had chest infections and skin irritation. Yet although there is room for improvement within factories, Kabeer (2004) sustains that working conditions are not as critical as activists usually claim. This is true, especially in the light of the limited salaried alternatives that women in these regions have. What is more, women workers do not only perceive negative aspects of participating in textile assembly plants but also positive and important ones. For instance, those identified by Kabeer (2004) are regularity of payment, an increase in sense of self-reliance, and an augmented involvement in decision-making within the household. Very importantly, most of the previous conditions have also been found to exist in the Tehuacan area. This is evidenced by the extensive descriptive analysis on textile manufacturing assembly plants done by Barrios Hernandez (2003). It can be anticipated then, that participation in assembly plant employment both enhances and worsens wives achievement of functionings. Further, couples will take some of these into account in their process of deciding whether wives should work for textile factories or not. Which functionings can be achieved by taking on this type of job, and the conditions that influence their attainment, are one of the main foci of this research.

Summing up, wives achieve pecuniary and non-pecuniary gains from working in textile assembly plant jobs. The functionings that can be achieved by participating, or not, in them will depend on personal characteristics such as preferences, on the activity's characteristics, and on the working conditions offered in each. What is more, gender stereotypes and norms acting as *social conversion factors* will play an important role in influencing the functionings wives can achieve. Next, the concept of social norms is characterised.

#### 2.4 Social norms

#### 2.4.1 Definition of social norms

There is no consensus among academics on a definition of social norms. Generally, the meaning depends on the focus of the researcher. To complicate things, they use a variety of terms – custom, convention, role, identity, institution, culture and so forth – to refer to concepts that are similar to or overlap with notions about norms (Horne 2001; Biccieri 2006).

The definition that will be used here is a modified version of that put forth by Rutherford (1996). Social norms, then, are defined as informal moral rules (rules that are concerned with the principles of right and wrong behaviour) sustained by a group of individuals in a society. They are enforced both by the internalization of the moral rule by members of a group belief and/or by social approval and disapproval. Rule violation, on one hand, will be punished by social sanctions such as gossip, criticism and in extreme cases ostracism or violence by others. On the other hand, it will raise feelings of guilt and remorse on the part of the transgressing individual.

It is useful to differentiate social norms from other rules, to understand them better and not to confuse them.

- Conventions are a pattern of behaviour that is customary, expected and self-enforcing. Everyone conforms, because it is in their interest to do so, given what everyone else does. Familiar examples include following the rules of the road, adhering to conventional dress codes and using words with their conventional meanings (Young 1996).
- Legal Norms are rules enforced by police power and a judicial system that will act to punish violations. "Although most people do not consider punishment to be merely a price tag, laws are often designed as if this were the case, so that legal sanctions will suffice to deter people from breaking the law. The law does not rest on informal sanctions and the voice of conscience, but provides formal punishment (Elster 1989b)."
- Habits and Routines are maintained by convenience, inertia, rules of personal morality and by private conscience. They are personal with no broader social significance (Rutherford 1996). Therefore, they are not social rules.

To make the distinction between social norms and conventions is especially important given that some economists use them interchangeably. For example, Dasgupta (2000) defines social norms as a 'behavioural strategy' (rules such as 'do this if that happens'). By a social norm he means a behavioural strategy that is subscribed to by all. For this to occur, the strategy would have to be self-enforcing. This means that for a norm to be

a social one, it would have to be in the interest of each party to act in accordance with it, if all others were to act in accordance with it too. In short, it would have to be an equilibrium strategy.

However, for a behavioural strategy to be subscribed to by all, it does not have to be enforced by social approval or disapproval, or to be moral. A convention is also a behavioural strategy that is subscribed to by everyone. For example, in England everyone drives on the left side of the road. This is the best strategy for an individual to follow because everybody else drives in the left side. No one follows this rule because it is morally correct to do so, but because if they don't they would crash. The distinction would reside in defining the *reason* for which the behavioural strategy or social rule is subscribed to by all. A social norm, as defined here, will be followed and individuals will sanction a person who does not obey it, because of its moral content. It is important, then, to highlight that the focus of this research will be that of social norms and not conventions.

Biccieri (2006) on the other hand has a definition for social norms that stands midway between the definitions of conventions and social norms that have been proposed for this research. For her, a social norm exists if a sufficiently large subset of the population knows that a behavioural rule exists and is applied to certain types of situations. One of this subset of the population will follow the norm, if he believes that a sufficiently large subset of the population will conform to the rule and: a) he either believes that a sufficiently large subset of the population expects him to conform to this rule; or b) if a sufficiently large subset of the population might sanction his behaviour as they prefer and expect him to conform to the rule. Therefore, in her definition of social norms she incorporates both the notion of social sanctions and that of the expectations of other members of the society. Further, she introduces an additional concept allied to that of social norms; a moral norm. A moral norm demands to be followed by an individual independently of whether others expect him to conform to it. The reason to obey it resides in the norm itself, because it is reasonable. As such, other people's expectations to conform to it are not a good reason to obey it. The example provided by Biccieri (2006) is the moral norm of not killing. A person will not kill another because this is what is sensible, not because other expect her not to do it.

Thus the necessary conditions put forth by Biccieri (2006) for an individual to follow a norm differ from those suggested in this research on two counts. Very importantly in the definition used for this research, a social norm is a moral rule. That is, a subset of the population will believe that following the norm is the appropriate behaviour. Therefore, they will subscribe to it independently of what others expect them to do. For instance, in some societies individuals will follow the norm of not having premarital sex

because they believe this is the appropriate behaviour. They would therefore act in accordance with it regardless of whether they expect others to obey it. Yet, Biccieri's definition of a moral norm also contrasts with that employed for social norms in this research. In accordance with the later definition, a subset of the population might follow the social norm because they expect a sanction from a reference group. They will obey it even if they do not themselves consider it to be appropriate. Using the same example of the norm regarding not having premarital sex, some might fear the social sanctions that might rise if it is known that they did not obey this norm. Thus, they will obey it, even if they do not believe it is the correct behaviour to follow.

A fundamental aspect of social norms which should be highlighted is that because they are concerned with the principles of right and wrong behaviour, there are one or more arguments which explain why the norm is considered the appropriate conduct. These validate and sustain the norm in society. For example, in some cultures arranged marriage is a social norm and there are several arguments that legitimize it. One claim is that as parents choose the spouse for their children; they are assured that he or she will have a similar background in terms of religion, caste and values. It is also claimed that arranged marriages are more stable and that divorce rates are lower.

Thus, the goal of this research is to analyze is how the moral content and the arguments that validate the norm affect wives' opportunities to achieve well-being. Special focus is placed on how they influence their motivation to engage in paid work. With respect to this the definition of (Kandori 1992), brings light to an additional feature of social norms. For him social norms are a 'specification of a *desirable*, behaviour, together with sanction rules in a community.' An observations follows form this definition. Social norms are considered to be a desirable behaviour by a group in the society. However, just because they are desirable, it does not mean they are followed by all the individuals in the society. Individuals also have dissimilar characteristics that will be in accord or not with the norm. Akerlof and Kranton (2000), identify this in their paper. Therefore, 'persons whose actions are subject to norms (who themselves may or may not hold the norm) take into account the norms, and the accompanying potential rewards or punishments, not as absolute determinants of their actions, but as elements which affect their decisions about what actions it will be in their interest to carry out.' (Coleman 1990)

As the framework which will be used in the analysis is a capabilities one, the aim is to analyse how social norms relating to wives' labour allocation affect their opportunities to achieve well-being. One way in which social norms restrict people's options is by affecting their motivations. For this reason, the following section will analyze how social norms are enforced, this is, how they influence people. At social level they are enforced

by means of gossip and criticism, and at the individual level through the feelings of guilt and anxiety a person experiences if he does not follow a prescribed norm. In the next section I will analyze with greater detail these enforcement mechanisms.

#### 2.4.2 Effect of social norms on motivations

#### 2.4.2.1 Social sanctions

For norms to be social they must be a) shared by other people and b) partly sustained by their approval. Sometimes norms and the arguments which validate them are shared by a large segment of the society and in other cases they will be supported only by a group within it (Elster 1989b). For gossip to occur the people involved have to be part of the segment of the society who approves of the norm, that is, they have to have the same idea of what is proper. Merry (1884) distinguishes three phases of gossip. First, when a social norm is disregarded by someone, information about the event is circulated. Second, this can be followed with the formation of some consensus about the moral meaning of that event; how it is to be interpreted. Third, after this there might be transformation of shared opinions into some form of action (sanction). This action can be manifested in the form of criticism, defined as disapproving comments, by people who approve the norm directed to the person who broke it. In more extreme cases it can even lead to violence and ostracism.

I will refer to gossip in the first two phases, as distinct from criticism. This is so because the anticipation that gossip might occur if failing to subscribe to the norm might serve as a strong incentive to comply with it. This view disagrees with Coleman (1990) who argues that gossip in itself does not constitute a sanction given that it can spread without the person who is being gossiped about knowing it. It is maintained however, that the expectation of an individual that people will disapprove of his action, even if they do not explicitly express it, can be perceived by him as a cost for breaking a norm. As Merry (1984), explains: 'Gossip creates cognitive maps of social identities and reputations. It forms dossiers on each member of one's community: who is a good curer, who can be approached for loans, who is powerful, who is a witch, who is a good worker, and who is a thief.' People care about their image in society to varying degrees and will therefore experience distress when they are gossiped about.

Additionally, not all groups of people might feel the same right to express their disapproval to a violator of a norm. For example, if a woman goes against the norm of not working outside her home, people who are acquainted with her might gossip about this fact and express their disapproval amongst themselves, but if they are not very

close to her they might not express it to her directly. A closer friend or a member of her family, however, might feel the right to express this disapproval to her. Making the distinction between pure gossip and criticism is therefore crucial if one is to understand the mechanisms used by different reference groups and the importance wives place on each. This importance may depend on the closeness of the person to the different reference groups or by the groups' moral authority.

Additional features of gossip deserve special attention. First, gossip flows more readily in highly connected, morally homogeneous social networks, and it is here that the impact is greatest. If only minor differences in norms exist, gossip can forge consensus, but where fundamental ideas of proper behaviour differ, gossip will be stunted (Coleman 1990).

Secondly, those individuals who are targets of a sanction but have contacts with others outside who are not norm-holders are less likely to be compliant with sanctions. So a woman who engages in waged labour, might become part of a social group in her workplace that does not hold the norm of staying at home. This will support her or ameliorate the negative feelings she will experience in the event of criticisms by others. Interviewing female garment workers in Bangladesh, Kabeer (2000) found that many women in her sample reported starting out with reservations about the propriety of factory employment, but changed their minds in the light of the observed presence of other women like themselves within the factories.

Thirdly, gossip 'attacks a person's honour and social prestige, but also leads to tangible political, economic and social consequences' (Merry 1984). It is imperative then to also analyze whether gendered norms regarding household members' time allocation have these extra costs.

Fourth, at the household level, it is also extremely relevant to note that when a household member violates a norm, not only is he himself or herself subject to gossip and criticisms, but members of his family will also be targeted. This is exemplified in the following paragraph transcribed by Zapata (2003) from a woman engaged in labour outside her home:

'At the beginning they would say that I, that my husband has no strength of character he does not control me, that as is said vulgarly, one is an asshole, he does not know how to control. And now they think that I cheat on him with another person, the people then have come to say, the person who is out of their home is because they have a lover. Yes, in the beginning that is what his friends said '

Not only is there a social sanction for the partner, who broke the norm, but gendered roles are interlinked in such a way that when a partner is violating a norm it directly

implies that the other is violating a norm too. Turning back to the previous example, the wife leaving home to go to work directly implied that the husband was not observing the norm of 'controlling' his wife. Therefore, it is imperative to study how social sanctions influence and affect both spouses. This will be explored with more detail in a following section of this chapter.

#### 2.4.2.2 Internalization of norms

'I did notice a little that, for example, I would go out and he would stay alone. He even, look at this, when my daughters were small he would make his meal, and for me well I would feel, once I even went out, and at ten at night I entered here, between nine and ten at night I entered here and he was alone preparing his meal, it gave me so much, a remorse and I said "How is this possible? I am working for the people, and the people do not give me anything and my husband is making himself his own dinner, and there is no one to serve him, and I used to think, and I would stare and stare, and there I would be thinking." (Odette, Campeche, 1999)' (Zapata 2003)

These words come from a Mexican woman who participated in a micro-credit scheme that required its participants to attend group meetings. It illustrates perfectly how norms have a grip on the mind. Given that norms are upheld by moral arguments and thus are value laden, a person who violates a norm independently of receiving social sanctions may also experience feelings of guilt and remorse which can be considered an internal policing system. 'The process of creating an internal policing system is part of a broader process which is ordinarily called socialization. It is the installation in the individual of something which may be called a conscience or a super ego: I will call it an internal sanctioning system.' (Coleman 1990)

When a person internalizes a moral argument, his sense of agency, the 'ability to define one's goals and act upon them can be devalued. This problem plays out in the literature on gender & well-being in the form of behaviour on the part of women which suggests that they have internalized their social status as persons of lesser value' (Kabeer 1999).

Norms vary in their level of subjectivity, this is, the extent to which a norm has been naturalized or internalized by people in the society. 'Every established order tends to produce (to very different degrees and with very different means) the naturalization of its own arbitrariness. Of all the mechanisms tending to produce this effect, the most important and the best concealed is undoubtedly the dialectic of the objective chances and the agent's aspirations, out of which arises the sense of limits, commonly called the sense of reality. When, owing to the quasi-perfect fit between the objective structures and the internalized structures which results from the logic of simple

reproduction, the established cosmological and political order is perceived as not arbitrary i.e. as one possible order among others, but as self-evident and natural order which goes without saying and therefore goes unquestioned, the agents aspirations have the limits as the objective conditions of which they are the product' (Bourdieu 1977). Bourdieu calls the experience *doxa* to distinguish it from other beliefs which imply awareness and recognition of the possibility of different antagonistic beliefs. This level of subjectivity will determine the extent to which the norm is widespread in the community.

But how does a doxic norm in a society becomes uncovered? 'The truth of doxa is only ever fully revealed when negatively constituted by the constitution of field of opinion, the locus of the confrontation of competing discourses-whose political truth may be overtly declared or may remain hidden, even from the eyes of those engaged in it, under the guise of religious or philosophical oppositions.' (Bourdieu 1977)

The previous condition put forth by Bourdieu is a chief necessary condition, but others such as technological change also need to be acknowledged. Take for example the story of how norms relating to women's employment in strawberry packing plants changed in Quiringucharo, a town in Mexico. The women's realm was the domestic, and in the absence of running water and grinding mills for corn, household chores were extremely time consuming. Daughters remained clustered in the house, emerging only for such tasks as fetching water or washing clothes in the river. By 1970, with the availability of electricity, running water and wells for drinking water, domestic chores became less onerous and mothers would be more readily forgo their daughters' assistance. The packing plants began selecting women recruiters from the village. Generally somewhat older than the majority of workers and well known to the local populace, the recruiters served as chaperones. Today, the packing plants are widely deemed to be appropriate workplaces for the young women of Quiringucharo (Gail 1994). Thus, this research aimed to further uncover the household and individual characteristics that influence individuals' internalization of social norms in both towns of Tehuacan.

#### 2.4.3 Social roles and social norms

There is a concept which is closely related and interlinked to that of social norms, and which is key to the topic on wives participation in salaried employment: social roles. This term 'refers to the behaviour expected of individuals who occupy particular social categories. Those categories have included statuses (positions) in social systems,

such as fathers in families, clerics in churches and professors in universities. They have also included less formal statuses, such as member of a movie audience, jogger in a park and consumer in a supermarket. Finally, they have included statuses reflecting cultural values of a society such as hard worker, concerned citizen and hip Californian (Zurcher 1983).'

These behavioural expectations are learnt in the process of socialization. Further, they can be institutionalized in a society, organization or group, but do not have to be. They can also arise in temporary groups in which shared understandings are developed (Zurcher 1983). Therefore, social roles can be conventions, social norms or rules in an institute regarding the expected behaviour of a social category.

Marriage is a social category within a society. As such, married women and men will have roles to fulfil within this institution. Yet the roles each of them has to conform to depend on gender and are therefore dissimilar. As Whitehead (1981) states: 'Marriage based households are constructed by definition on the basis of gender, with economic relations within such households also structured by gender.'

According to Moser (1993), women in developing countries have a triple role. They are expected to be responsible for reproductive activities. These include childbearing and rearing and guarantee the maintenance and reproduction of the labour force. Women are also expected to carry out productive work, but as secondary earners. Usually, these income earning activities are done as self employment and are generally carried out within the household or in the neighbourhood. Thus, salaried employment is not part of a wife's role as a married woman. Finally women also do some community managing work by providing items of collective consumption. Married men, on the other hand, have the role of primary income earners. Contrary to wives, they do not have a specifically defined reproductive role. Further, their role in the community is that of leadership. They organize at the formal political level.

Therefore, the social norm indicating that a wife should not participate in salaried employment in this case is also a social role that wives are expected to fulfil, and is the expected behaviour of a woman in the social institution of marriage. Furthermore, it is an informal moral rule enforced by its internalization by other individuals and by social approval and disapproval.

# 2.4.4 Explaining the content of social norms

But why and how do social norms come into existence? Horne (20001) describes three approaches for explaining the existence of social norms. The first claims that whatever the reason for initial action, when many people engage in the same behaviour, that behaviour comes to be associated with a sense of 'oughtness'. Therefore, patterns of action emerge that then become normative.

The second claims that norms emerge in response to externalities produced by behaviours of others. To the extent that individuals in a group or society benefit from others' behaviours, they will want norms that institutionalize those behaviours. As long as people recognise a right to sanction such externality-behaviour and the group has the ability to enforce its decisions there are grounds for a social norm to exist. An example is the norm of not stealing. People in a society can recognize that the existence of this type of norm benefits them and provides them with a positive externality.

The third approach focuses on meanings produced through negotiation. For people to interact successfully, they must share a common understanding of the situation they are in, their behaviours and their roles. These commonalities have typically been developed during previous encounters. For example, there may be tensions when husbands and wives attach different meanings to behaviour. For example if a husband offers to take care of children, he may perceive it as a gift while the wife may perceive it as an entitlement. Therefore, to avoid tensions, spouses need to negotiate common meanings for their actions.

The argument put forth by the evolutionary psychological perspective is consistent with the first and second claims. It seeks to discover universal human nature as a collection of domain specific psychological mechanisms. A psychological mechanism is an information processing procedure or decision rule, acquired through natural and sexual selection that allows human beings to solve a particular adaptative problem (a problem of survival or reproduction). An adaptive problem, then, leads to an evolved psychological mechanism, which produces fitness maximizing behaviour in an environment of evolutionary adaptation. Evolved psychological mechanisms are therefore responsible for most of the preferences, desires and emotions produced in us, which account for human behaviour. However, the environment we live in now is very different from that of the environment of evolutionary adaptation and the original problem may no longer exist. Nevertheless, norms exist because most people behave in certain ways and their actions become statistically expected and socially prescribed.

Sanctions exist when many people are negatively affected by others' non compliance with norms (Kanazawa and Still 2001).

This line of argument is especially significant given that in the discussion of the causes of gender inequalities, biological and psychological differences are given considerable weight. 'In modern society we feel that male-female is one social division that works in full and realistic harmony with our "biological inheritance" and is something which can never be denied' (Goffman 1987). This is so especially for gendered norms regulating allocation of time in different activities within the household. Not everyone agrees with this point 'Critics argue that because a trait is more or less universal, it does not follow that it is biological in its origin; there may be cultural factors of a general kind that produce some characteristics' (Giddens 2001).

Even though feminists have also strongly rejected biological determinism there is a new acknowledgement for the importance on gendered body differences. 'The neglect of the body in the gender and development discourses is at least partly a result of anxiety about biological determinism which social theorists have, in different ways, moved beyond. It is now possible to think about biology and bodies in ways in which are not deterministic, since biology is no longer conceived as fixed, unchanging, rather the human body is seen as incomplete project whose material form is transformed over the passage of a life, through the inscriptions of health and working experience, culture and the intentions and choices of actors. Whilst twenty years ago "body talk" involved ideas of biology as destiny, it is now possible to see the body as central to the very antithesis of determinism to agency" (Jackson and Palmer-Jones 1999).

The research will take a pragmatic approach. The objective of the research is to analyze how gendered social norms, *once they are already in existence* limit or expand individuals' (as members of a household) opportunities to achieve well-being and what are the mechanisms or policies that reinforce these opportunities. This does not mean that biological differences are not to be taken into account. Given that women give birth and breastfeed their children, they will need additional labour conditions or extra help from their partners to achieve well-being (if we assume that working outside does in fact give them a greater level of well-being).

## 2.5 Capabilities and social norms

It has been maintained previously in the chapter that it is necessary to study how social norms shape people's motivations to understand how they influence their opportunities to achieve different functionings. This has some fundamental implications on the way in which the Capability approach is to be employed. I will examine the implications of social norms on the concept of entitlements, followed by a discussion of the reasons for which agency has to be included in the approach. Finally it will be argued that rationality cannot be used as a form of motivation.

#### 2.5.1 Entitlements and norms

The Capability approach is concerned with the opportunities that individuals have for achieving well-being. The freedom that a person has in terms of the choice of functionings, given his personal features, will depend on his command over commodities or entitlements<sup>2</sup> (Sen 1999). An entitlement relation applied to ownership connects one set of ownerships to another through certain rules of legitimacy. Each link in this chain of entitlement relations 'legitimizes' one set of ownership by reference to another. It will depend on the legal, political, economic and social characteristics of the society in question and the person's position in it (Sen 1981).

Social norms are a type of rule of legitimacy. We have to distinguish nevertheless between those social norms that influence household members' incentives, and those which household members face as a restriction. An example of the first type of norms, are those which regulate the labour decisions in the household. In Mexico, social norms dictate that women should be the ones to dedicate themselves to housework while men should dedicate themselves to waged work. In a society where this is a doxic norm (i.e. naturalized) no one will question it and it will become a rule generally followed, or an entitlement. However if the norm is not doxic, not everyone will follow it. On the other hand, there are also social norms that affect households' command over commodities or the ability to achieve functionings over which household members have no decision-making power. An example is that of women in Tehuacan, Puebla who receive a smaller wage controlling for age and education (Diaz Nuñez 2002). Another example is the lack of respect supervisors have towards women due to the stereotype that women are docile and weak. These last norms can be thought of as the social conversion factors that influence the means to achieve functionings, in this case

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ime others like freedom of r

<sup>&</sup>lt;sup>2</sup> Some others like freedom of movement, are independent to the commodities owned by an individual.

participating in an assembly plant, into the freedom to achieve them, or capabilities. It will be an additional aim of this research to examine these.

## 2.5.2 Agency and capabilities

Social norms not only regulate the behaviour of individuals by specifying what is correct and what is not, but also end up shaping people's perceptions of legitimacy and therefore their agency. As (Sen 1987) explains 'Our actual agency role is often overshadowed by social rules and by conventional perceptions of legitimacy. In the case of gender divisions, these often act as barriers to seeking a more equitable deal and sometimes even militate against recognizing the spectacular lack of equity in the existing social arrangements.'

Given that the focus in the Capability approach is to evaluate the opportunities people have to achieve well-being, this agency aspect has to be included. However, the only agency aspect that materializes in the Capability framework is the choice between available functionings and achieved ones. 'It could perhaps be argued that the presence of a distinct self is integral to or taken for granted in the capability approach and therefore not a matter of concern in evaluative exercises (that is, exercises that seek to measure and/or assess individual well-being and social states). This might well be a reasonable assertion in non-traditional societies. In traditional societies, in contrast, a woman's opportunity for achieving well-being would depend on very basic aspects of her agency' (Iversen 2003). Thus when possible, wives' agency will be taken into consideration.

## 2.5.3 Rationality and norms

It has been argued that there are two mechanisms by which social norms are enforced: one at the social level and another at the individual level. If social norms were only enforced at the social level by means of gossip and criticism, rationality could be feasibly defended with the argument that individuals weigh the benefits they would obtain from not complying with the norm, with the costs which come from social sanctions. A man wanting to dedicate himself to housework would therefore make a cost benefit analysis of the satisfaction he would get from dedicating himself to this activity versus the strong criticism he would receive from his friends and family from not complying with the role of a manly man.

If one continues this argument, the next question that needs to be asked is why people sanction others. Sanctioning is not a pleasurable activity. Criticizing your friend can provoke unease in the relationship. It can be considered as a cost to the person who

sanctions. Axelrod (1986) offered the concept of 'metanorms', indicating that individuals would themselves be sanctioned by third parties if not they did not do so themselves. 'Unfortunately this leads to an infinite regress' (Rutherford 1996). 'People do not usually frown upon others when they fail to sanction people who fail to sanction people who fail to sanction a norm violation' (Elster 1989a). Therefore this previous explanation is not a satisfactory one.

Another reason for which rationality cannot be sustained is because social norms are also internalized. 'To examine the process by which norms are internalized is to enter waters that are treacherous for a theory grounded in rational choice' (Coleman 1990). Because norms are value laden, the violation of them gives rise to feelings of unease such as embarrassment, anxiety, guilt and shame. To better understand what motivates individuals to comply with norms, it is necessary to comprehend the strong emotions that norms trigger. Yet Akerlof and Kranton (2000) model the effect of internalization of a socially prescribed behaviour by incorporating it into a utility function. Whether this is appropriate or not will depend on whether the feelings of guilt and remorse which arise from disregarding a social norm still follow the assumption of rationality with which a utility function can be determined.

Additionally, norms in the case of doxa also determine preferences. A woman might prefer to dedicate herself exclusively to housework because this is seen as natural in the society or and because she has been taught that this is the correct thing to do. As Sen (1987) suggests, people might attach less value to their own well-being and thus their personal interest might not be directed toward improving their personal welfare.

Rationality thus does not seem to be a sufficient explanation for adherence to social norms. But can we throw away altogether the argument that rationality acts as a motivational structure? (Elster 1989a) argues for an eclectic view where 'To accept social norms as a motivational mechanism is not to deny the importance of rational choice. One eclectic view is that some actions typically are influenced both by rationality and by norms. Sometimes, the outcome is a compromise between what the norm prescribes and what rationality dictates.'

Because trying to understand how the feelings of embarrassment, guilt and shame influence individuals' actions is a whole study in itself, this concern will not be accounted for in this research. Yet the concern related to wives' perceived preferences will be acknowledged using the idea suggested by Sen (1987) in which individuals respond to perceived interests instead of utilities. As was discussed in the last section, the perception of interest might be influenced negatively by social norms. This might lead to these perceptions of interest to differ from a more objective notion of well-being. Focusing on perceived interests of women and their husbands, then, will shift the

interpretation of these neoclassical models without necessarily changing the mathematical properties of the solution. This can lead to a comparison between perceived interests and achieved functionings.

At the social level, the extent to which a social norm is complied with will depend on the level of subjectivity of the moral arguments. This will determine the existence of groups who subscribe to the moral arguments or not (reference groups) and the existence of social sanctions in the society. At the individual level, it will depend on the individual characteristics, including his agency aspect, and the level of internalization of the arguments. An analysis of how social norms affect individual opportunities has to include these last factors, which ultimately affect their decisions (Figure 2-2)

Level agreement of moral arguments in the society

Level of subjectivity in society

Reference groups

Social

Level of compliance of individual

Characteristics

Internalization

Agency

Figure 2-2: Social Norms influence on individuals motivations

# 2.6 Capabilities at the household level

Up to now, all the analysis has been on how social norms influence *individuals*' desires and the mechanisms through which social norms are enforced. What has not been taken into account, however, is that because individuals generally live in households with others, they usually do not make their decisions independently. If an individual desires to undertake an activity, he usually has to arrive at some form of arrangement with other members of his household. As Iversen (2003) argues 'In interpersonal comparisons it is necessary to recognize that capabilities often have a distinctly interdependent dimension.' 'One would expect such interdependencies to be particularly stark within the household. This implies not only that the goods and services under your control may depend quite strongly on the characteristics of your partner, but also that the group-dependent constraints facing your partner will have repercussions for you. In short, by affecting the balance of power, possibly in complex ways, group dependent constraints will influence the intra-household distribution of goods and services; that is the means to achieve in the Capability Approach.'

These bargaining processes are especially relevant for the Capability approach given that they influence the opportunity to achieve functionings. However, assessing how these bargaining processes affect the capabilities of household members is not a simple task. In the household cooperation and conflict simultaneously coexist (Sen 1987).

This is why, to understand how social norms ultimately have their impact on women's labour decisions, it is crucial to explore first the effect of social norms on each member's stance. This secondly should be followed by surveying the mechanisms by which the household members come to their decisions and each household member's potential of actually engaging in these bargaining processes.

Next, I will provide some evidence of negotiation in the household over the allocation of time, specifically, bargaining over waged labour. This will be followed by an exploration of intra-household economic theories that analyse how decisions are made within the household, and their approach to the concept of bargaining power, followed by a deeper analysis of these power relations and how social norms influence them.

## 2.6.1 Bargaining over labour

In economics, intra-household models have focused on how household members divide between them consumption goods and services (gains from cooperation), which have already been produced or bought in the market. The allocation of time to different activities by household members will be determined by the maximization of the utilities household members obtain from the consumption of goods and services. Nevertheless, given a set of goods and services purchased by the household, there exist several cooperative arrangements which members of the household can allocate their time to.<sup>3</sup> For example, assume that a household has access only to waged work and housework. Several possibilities exist: the wife can do the housework while the husband engages in income earning activities, or it could be the other way round where the husband does the housework while the wife works for a wage, or they can ultimately decide to both do some amount of both types of activities. What makes couples decide which of these possibilities will prevail in their household?

Household members' human capital, households' endowment of capital and land, and demand for labour will of course have much to do with the allocation of time in a household. Social norms, nevertheless, also play an important role in this determination. When there is no complete internalization of norms and if women perceive that waged work will provide them with well-being, they might engage in some negotiation processes with their husbands to engage in these activities.

From interviews carried out with women on the Mexican border, Gates (2002) finds that employment is an important interest for which women negotiate. She found that women sometimes offered housework, a financial contribution to the household or specific large household endeavours such as house-building, as a bargaining strategy to win the right to work. Some wives used economic crisis to justify their interest in working for wages. Some women even resorted to threats in their negotiations about seeking employment.

Kabeer (2000) also finds evidence of married women negotiating with their husbands the right to take up factory employment in Bangladesh. A common strategy for women to overcome men's resistance was to invoke the welfare of the children. Some women had even taken up employment in the face of their husbands' opposition.

The process through which household members bargain and the power or chances they have of winning consent to their participation in different types of activities must be

<sup>&</sup>lt;sup>3</sup> Most economic models do not take this fact into account given that they assume that there is only one productive activity and leisure. The solution on how much time to allocate in which one is de facto solved by the maximization of utilities that will follow from participating in each one.

analyzed to understand exactly how social norms affect household labour decisions, which in turn affect members' well-being. Next, some economic intra-household models are analysed.

#### 2.6.2 Intra-household models

The first economic models that took into account the possibility of preference differences between household members and analyzed how these bargained over the distribution of commodities were those based on the 'axiomatic bargaining approach'. In this approach 'Bargaining occurs when there are several cooperative arrangements and parties have conflicting preferences over them... Parties are assumed to have a common interest in arriving at some agreement that is to be' (Elster 1989b). The determination of reasonable social compromises can be understood as an implicit arbitrator who tries to distribute the gains from cooperation in a manner that reflects 'fairly' the bargaining strengths of the different agents. The objective of these models is to obtain a rule that assigns a solution to every bargaining problem adopting an axiomatic point of view and the origin of the theory is game theoretic (related to ideas of cooperative game theory) (Mas-Collell, Whinston et al. 1995).

Nash (1950) proposed the first bargaining rule, the most prevalent one and the one used in cooperative bargaining models. To obtain this bargaining rule, he idealizes the bargaining problem by assuming that the two individuals are highly rational, that each can accurately compare his desires for various things and that each has full knowledge of the tastes and preferences of the other. He also establishes several axioms<sup>4</sup> of which a very important and controversial one is that of Pareto optimality. This axiom states that it should not be possible to improve the outcome of one party without loss for the other. Given these axioms, the only possible bargaining rule will be the product of their utilities.<sup>5</sup> Given a set of feasible utility pairs, the bargaining rule and the disagreement point which specifies the utility of the outcome that will be produced if the

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<sup>&</sup>lt;sup>4</sup> These include the necessary axioms for having Von-Morgenstern utility functions, another one which states that the solution should be invariant with respect to positive linear utility transformations, one requiring that if the solution to a larger game remains feasible in a smaller game, it should also be a solution in the latter and is the feasible set is symmetrical around the 45 degree line, with the disagreement point on that line, the solution should also be on that line.

<sup>5</sup> Other bargaining solutions have been explored, like that of the Pareto Optimal point which equalizes the utility for its members, or the one which maximizes the sum of utilities of the parties or some point which implies a larger utility gain from the poor person than for the rich. However these do not satisfy one axiom which the Nash bargaining solution does. Elster, J. (1989b). The Cement of Society: The Study of Social Order. Cambridge, Cambridge University Press, Mas-Collell, A., M. D. Whinston, et al. (1995). Microeconomic Theory. New York, Oxford.

parties fail to reach an agreement, a solution to the bargaining problem can be determined.

The disagreement point is determined by the utility one can expect in the absence of cooperation with the other player, and is what establishes which Pareto optimal agreement is reached. In intra-household models the disagreement point reflects either the dissolution of the marriage or the ceasing of cooperation within it. Which one holds will depend on the credibility of threatening on each state, which in turn will be affected by the payoffs the members can obtain in each state and if there is redistribution of assets upon separation (Fafchamps 2001). The members' alternative to participating in the household economy, or 'exit option' will in the end be influenced by 'a person's independent wealth (non-labour income), their market wage rate, their independent basket of consumer goods and a series of Extra-Environmental parameters that capture individual or gender specific well-being outside the household – the state of the marriage market, property rights legislation and enforcement, labour or capital market discrimination' (Katz 1997). The threat point or exit option is thus what gives an individual bargaining power or the power to achieve a Pareto optimal point to their advantage.

Several criticisms both to this approach and its application to intra-household models have emerged. With regard to the approach, a strong criticism is provided by (Elster 1989b). He argues that 'Beginning with Nash himself, many writers have felt that the cooperative theory of bargaining is an unsatisfactory description of behaviour. Pareto Optimality should be derived as a theorem from individualistic premises, not stipulated as an axiom.' As a predictive theory there is no evidence that the outcome of a bargaining situation will necessarily be Pareto Optimal. From a normative point of view it is not attractive either. Pareto optimality would allow a member of the household to have all the resources while the other would not have much.<sup>6</sup> This is an especially important aspect to bear in mind. The aim is to normatively assess the well-being of all members of the household. However, in this research there are two different basic concerns from those of the intra-household cooperative bargaining models. One is household members' well-being, not in utility terms but in terms of functionings and the opportunity to achieve them (capabilities). The other is the concern for equality in one's opportunities to achieve functionings, not the efficiency of the outcomes. It must be made clear nevertheless that to be able to normatively assess a certain outcome one cannot ignore the predictive content of the problem, or explain how people react to different factors.

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<sup>&</sup>lt;sup>6</sup> For critiques to other axioms, see Elster, J. (1989b). <u>The Cement of Society: The Study of Social Order</u>. Cambridge, Cambridge University Press.

With respect to the application of the bargaining approach to intra-household models strong criticisms have been made by feminist scholars. They argue that intrahousehold models fail to recognize that household members are treated as gendered beings and not just separate individuals. Additionally, the axiomatic nature of the Nash solution deprives these models of any institutional content, since they say nothing about the way in which threat points are actually utilized in the negotiation process, much less about the nature of the conjugal contract that enforces the particular allocation of household resource that results from cooperative bargaining (Katz 1997). Based on these criticisms Carter and Katz (1997) introduce to intra-household models the concept of 'Voice', meaning the right and ability to enter into the household bargaining process. This concept includes both personal attributes such as boldness and lack of fear of disagreement that make members more willing and able to assert themselves in the household decision-making process, and institutional characteristics such as roles determined by prevailing social norms. Mathematically, the voice parameter of an individual is incorporated into the bargaining models as a relative weight.

A special concern which has been addressed previously is the critique of (Sen 1987): 'the main drawback of the bargaining problem format applied to gender divisions arises not so much from the nature of any particular solution but from the formulation of the problem itself... the perception of interest is neither likely to be precise nor unambiguous.' He argues that there are two distinct issues. The first is the perception of interest of each household member and some more objective notion of well-being. The second limitation comes from not taking into account the perceived contributions of members of the family. In terms of this research, these concerns are addressed by focusing on perceived interests instead of utilities and by analyzing how these are influenced by the internalization of social norms of each member of the household family.

Agarwal (1997) argues that traditional bargaining models typically employ narrow view of the determinants of power within households. She further points out that both quantifiable and qualitative factors determine relative bargaining strength within a family. Specifically, these can be listed as: ownership of and control over assets, especially arable land; access to employment and other income earning means; access to communal resources such as village commons and forests; access to traditional social support systems such as patronage, kinship, caste groupings, etc.; support from NGO's; support from the state; social perceptions of needs, contributions and other determinants of deservedness and social norms. These last are the concerns of this research.

It is clear that the bargaining solution to any cooperative arrangement in the household will depend greatly on the household members' power. If one is to analyze decisions related to women's incorporation in the labour market, it is imperative then to study what it is that gives them and their partners a say in, or the power to decide, these issues. Economists have reduced this concept of power to a parameter for the convenience of simplification, but the power of household members and the mechanisms through which it is enforced is evidently more complex. This is why a deeper analysis on these will follow.

It is also very important to notice that social norms will not only influence a couple's desires for the wife to enter in salaried work, but will also have an effect on the relative power of each. If one is to investigate how social norms influence women's labour participation, it is chief to include in the analysis how they influence household members' power too.

#### 2.6.3 Power

The meaning of the word 'power' has been greatly disputed in the social sciences. As Lukes (2005) explains, this disagreement arises because the word 'power' is polysemic: it has multiple meanings which are appropriate to different settings and concerns. This has led to authors using it as it suits them to understand the specific question they are trying to answer. Going to the Latin roots of the word helps to better understand the discrepancies that have risen with relation to its definition:

Potentia: signifies the power of things in nature, including persons, 'to exist and act'.

Potestas: is used when speaking of being in the power of other.

Potestas then, is a subset of Potentia. The distinction between them is an important one. In the literature, 'power' is sometimes used to mean potentia and sometimes potestas. I will first explore the latter and then go into the former, which will be the one of interest for the actual research.

#### **Potestas**

Lukes (2005) constructs the following definition from John Locke's characterization of power: to be 'able to make, to receive or resist change.' This scope of power is consistently used in the feminist studies of empowerment. For example, a definition is provided by Kabeer (1999) who refers to power as 'the ability to make choices'. Both are quite similar given that if someone has the ability to make choices then he/she is able to make and resist change.

The use of this wider view of power by feminists is understandable. Their objective is to analyze how it is possible for women to become powerful, or be empowered. 'Empowerment entails a process of change. People who exercise a great deal of

choice in their lives may be very powerful, but they are not empowered... because they where never disempowered in the first place'(Kabeer 1999). Their objective is to empower women or to provide them with means that allow them to make choices in *all aspects of their lives*. Feminists' definition of power needs then to encompass all important areas where women can take decisions.

Given that power, used in this broad sense, manifests itself in numerous ways it is useful to categorize it. Rowlands (1997) classifies the different forms of power in the following way:

- Power over: Controlling power, which may be responded to with compliance, resistance (which weakens processes of victimization), or manipulation.
- Power to: Generative or productive power (sometimes incorporating or manifesting as forms of resistance or manipulation) which creates new possibilities and action without domination.
- **Power with:** the whole being greater than the sum of the individuals, especially when a group tackles the problems together.
- Power from within: the spiritual strength and uniqueness that resides in each one of us and making us truly human. Its basis is self acceptance and self respect which extend in turn, to respect for and accept others as equals.

Moreover, these different forms of power can operate either at the personal, relational or collective level. In the present research the interest is to focus on power at the relational level, specifically the processes and mechanisms household members use to negotiate wives' labour allocation in waged work. Specifically, the concern is to explicitly analyze the forms of power that restrict members' capabilities, automatically excluding power to and power with from the analysis. This does not mean that some of these forms of power will not be included implicitly. Power to, for example, is implied by the cooperation of members in the household while engaging in doing tasks.

Power from within is a key concept for this research and in the capability approach. To be able to bargain for ones preferences, one must have power from within. However, this concept is almost identical to that of agency. Agency implies the ability to define one's goals and act upon them. Agency is about more than observable action; it also encompasses the meaning, motivation and purpose which individuals bring to their activity, their sense of agency, or the 'power from within' (Kabeer 1999). The concept of agency has been more commonly used in the capabilities literature instead of power from within. It will also be used in this manner in the research.

#### Potentia and freedom

This research will take on Lukes (2005) characterisation of power. It is important to note that in his conceptualization, the focus is primarily on power in the political sphere. For this reason, some adaptations will be made to better suit the discussion at the household level.

Lukes focuses on a subset of 'potestas': power as domination or power over. 'Potestas' refers to the ability to constrain the choices individuals face. Nevertheless, constraining the choices of someone may sometimes favour instead of disfavour the interests of these who are subject to it, and thus promote *freedom*. His example is one where the government restricts the choices of the population by regulating the use of seat belts or when a mother prohibits her child to do something for the sake of the child's well-being. To distinguish between this form of power and those which are not in the interest of those subject to it, he defines 'Power as domination' which refers to the ability to constrain the choices of others, coercing them or securing their compliance, by impeding them from living as their own judgment dictate.

This type of freedom is different to the one Sen uses in the Capability approach. Sen (1985) distinguishes between two different types of freedom: 'Agency Freedom' and 'Well-being' freedom. A person's 'agency freedom' refers to what a person, as a *responsible* agent, is free to do and achieve in pursuit of whatever goals and values he or she regards as important. The term 'responsible' does not imply that the person's view of his agency has no need for discipline, and that anything that appeals to him must, for that reason, come into accounting of his agency freedom. The need for careful assessment of aims, objectives, allegiances, etc. and of conception of the good may be important and enacting. This is the type of freedom Lukes seems to be referring to. Well-being freedom relates to a person's capability to have various functioning vectors and to enjoy the corresponding well-being achievements. The capability approach, compared to Lukes, is concerned with well-being freedom.

Sen (1985) does not imply that agency freedom is not valuable. He only maintains that each type of freedom is important for different reasons. 'The well-being aspect of a person is important in assessing a person's advantage, whereas the agency aspect is important in assessing what a person can do in line with his conception of the good.' 'the well-being aspect may be particularly important in some specific contexts, in making public provisions for social security, or in planning for the fulfilment of basic needs (Sen 1985).'

The distinction between agency freedom and well-being freedom is especially important in the context of the proposed research. The internalization of norms may imply that the notions of deservedness of women are affected. Their incentives then

would be different from the enhancement of their well-being. Would they be achieving agency freedom? This would depend on whether these women are considered *responsible* or not. This sounds difficult to imply given the negative weight of the term. It is not the same to identify as irresponsible a person whose conception of the good is to kill people as one who relinquishes his/her well-being for that of others.

On the other hand, we can be certain that the diminution of a women's notion of deservedness does imply a curtailment of agency as defined by Kabeer (1999): 'ability to define one's goals and act upon them.' This curtailment of agency does lead to a restriction of well-being agency. As Iversen (2003) explains, if 'developing the agency aspect of Nirmala's (X) personhood is instrumental to her achievement of equality and well-being within the household, it is reasonable to expect this aspect of her agency to provide information that will be relevant to an evaluation of her opportunities to achieve well-being.' Because the research objective is to measure household members' well-being freedom, special attention needs to be given to agency and a comparison with well-being freedom needs to be done.

#### 2.6.4 Three dimensions of power

Lukes (2005) argues for a three-dimensional view of power, which basically consists of the following aspects:

## One Dimension

Some forms of power can be observed by identifying specific outcomes to see who actually prevails in the decision-making. It is assumed that decisions involve direct actual and observable conflict over selected issues that are controversial. The conflict is between preferences that are assumed to be consciously made, exhibited in actions and thus to be discovered in observing peoples behaviour. In the case that corresponds to our study, one-dimensional view of power would prevail if for example the wife wants to work for a wage in the factory and her husband does not want her to. There will then be an observable power if the woman manifests her desire to work but is not allowed to.

# Second Dimension

Creating barriers that prevent decision-making from being actual and manifesting itself as non-decision-making can reflect power. Someone can succeed from preventing someone else from bringing up an issue. It therefore includes covert conflict. For example, a man may have such authority over his wife that even if she desires to work for waged employment, if he does not want her to work she will not explicitly express her desire.

Both for the first and second dimensions of power, the mechanisms a person can use to obtain it are coercion, influence, authority, force and manipulation.

Coercion: A secures B's compliance by the threat of severe deprivation where there is a conflict over values or course of action between A and B.

Influence: A, without resorting to either tacit or an overt threat of severe deprivation, causes B to change his course of action.

Authority: B complies because he recognizes that A's command is reasonable in terms of his own values either because its content is legitimate and reasonable or because it has been arrived at through a legitimate and reasonable procedure.

Force: A achieves his objectives in the face of B's non-compliance by stripping him of the choice between compliance and non-compliance.

Manipulation: is an aspect or sub-concept of force, where the compliance is found in the absence of recognition on the complier's part either of the source or of the exact nature of the demand upon him.

#### Third Dimension

There are also socially constructed and culturally patterned behaviour of groups, and policies by institutions. A may also exercise power over B by shaping his wants by control of information through mass media and through the process of socialization. As mentioned before, Lukes (2005) here is conceptualizing 'power as domination' to analyze its use in the political sphere. Power's third dimension then fits perfectly well with an analysis of the collective level. What about at the relational level?

In this research, the interest is precisely to analyze how these culturally and socially patterned behaviours impact the household at a given moment in time. The shaping of wants of household members will be closely related to the concepts of subjectivity and internalization of social norms and will therefore be of interest in the research. But, because the culturally patterned behaviour of groups is not established at a given moment by the household members, we cannot talk about the power of household member A over B. However because the freedom to achieve well-being of a member, say A, is being restricted, it can be said that there is power over member A.

#### 2.6.5 Power at the household level

The aim of this research, then, is to study how the power of household members relates to the intra-household division of activities. Power will therefore refer to the ability to constrain the choices of individuals or to be able to take one's own choices relative to the participation on the different activities household undertake. Two crucial

remarks need to be made at this point about the exercise of power in one and two dimensions. One is that only when the preferences of household members contravene each other it is possible for the *exercise* of power in these dimensions to be present. For example, if the woman desires to deviate from the norm and the husband agrees she should do this, then there would be no exercise of power even though there might be an understanding that he has the capacity or 'power' to stop her from doing so if he wishes. The second crucial point is that in both dimensions the exercise of power will only have one of two outcomes (discrete outcomes): if a wife desires to work for a wage, the end result is either that she does or that she doesn't. Therefore, power will be zero-sum. If one person wins, the other loses.

The exercise of power for a wife X and a husband Y in different dimensions can be represented by the following diagram:

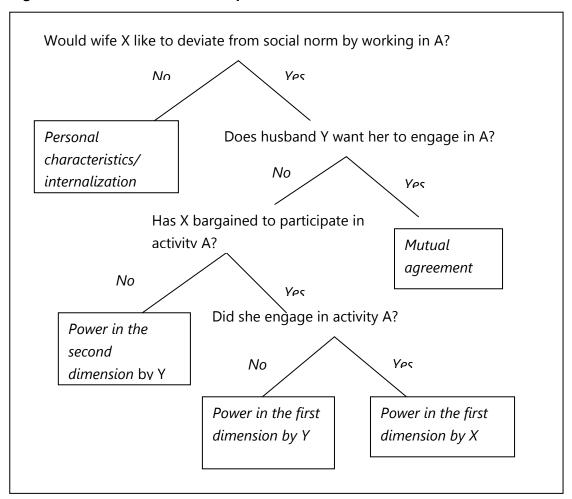


Figure 2-3: Three dimensions of power

Power identifies a capacity, not an actuality. Take for example the case in which, because of her preferences, the wife decides she wants to engage in waged work, and her husband agrees. There is no exercise of power. However, if he were against the

idea, there might be an understanding that he has the capacity or 'power' to stop her from doing so.

It is crucial therefore to understand which factors enable this capacity or 'power' that a household member has. The entitlements of a person, including social norms, can influence their relative power as a household member. For example, a social norm which stipulates that women have to ask their husbands' permission to engage in an activity will provide the husband with all the authority in a relationship and therefore with the power to decide whether women are able to engage in waged employment.

# 2.7 Complete framework

The objective of this research is to comprehend the mechanisms by which social norms restrict women's opportunities to deviate from their established gendered time allocating roles. To achieve this, it is necessary first to understand the different functionings these women can achieve by engaging in an activity that agrees with their prescribed social norm versus one that would imply a deviation from it. The study will focus on reproductive and self-employed occupations as an example of the first type of activities and waged work (specifically, assembly plant employment) as an example of the second type.

The possibility of achieving different functionings by engaging in these activities will depend on four factors. The first is the activity's characteristics (gratification, having a wage or not). The second relates to the working conditions offered in each place (temperature, light, ventilation). The third relates to the human capitaland body capital women posses (weight, health). Finally, it will depend upon the social conversion factors (social norms).

A straightforward assessment of which activity provides wives with greater well-being is not straightforward. This is so because wives' participation in assembly plant employment has both positive and negative effects on their achievement of functionings. What is more, wives also have dissimilar characteristics and preferences. What is considered by one wife as attractive might not be so for another. For this reason, the aim will be to identify how and the conditions that influence wives engagement in maquilas enhances or worsens wives achievement of functionings.

The objective is to analyze how social norms influence spouses' motivations and thus restrict wives possibilities to achieve those functionings which are attainable through salaried employment. Social norms are validated in a society by one or more moral arguments which aim at explaining why the norm is the appropriate behaviour to follow. Further there are two mechanisms by which social norms are enforced. One is through

the internalization of a norm by people in the society. Given that norms are value laden, a person who violates it might experience feelings of guilt and remorse. We can say then that norms influence and shape preferences and perceptions of individuals in the society. On another hand, norms are enforced through social sanctions upholding each moral argument. The violation of a norm will be punished by gossip, criticism and in extreme cases ostracism and violence by others. These social sanctions can be thought of as costs in which individuals incur in the case of norm violation.

Social Norms Moral argument Regarding Activity Existence of Reference Groups Level of Subjectivity -Internalization **Activities** Characteristics Social Sanctions **Working Conditions** Household Wife Husband **Individual Endowments Individual Endowments** Well-being achieved Preferences Preferences in Activity Agency Agency Household Desire to Desire for wife to Endowengage in activity engage in activity ments Power Power ▶ Bargaining ◀ Wife Deviates or not from Social Norm by Participating in Activity

Figure 2-4: Mechanisms by which social norms influence individual's motivations

In the case of women's time allocation to different activities, social norms will dictate the socially accepted occupations they should participate in. Therefore social norms through their two enforcing mechanisms, plus a wife's entitlements (i.e. the wage she can receive for waged work given her level of education and experience) and those of personal characteristics will influence their desires to deviate from an established norm. However, because married women live in households they usually have to negotiate their involvement in waged activities with their husbands. Their husbands, in turn, are also subject to social sanctions and the internalization of norms relating to their wife's norm deviation. Therefore, the effect of social norms on their perceived preferences regarding their wives' involvement in salaried employment also needs to be explored. If a married woman has an interest in deviating from a norm and this desire contravenes that of her husband then the outcome will depend on the bargaining power and negotiation mechanisms each spouse uses. This power can be classified in several ways. In the first dimension there will be power if the wife participates in assembly plant employment. On the other hand, the husband will be the one with power in this first dimension if she does engage in a salaried job. In a second dimension the wife will prefer to dedicate time to wage work but does not explicitly express her desire to do so. We can then say that the husband exercises power in this second dimension. There will be power in a third dimension (though it cannot be said the husband has it) if the wife does not desire to participate in salaried employment due to her internalization of the moral arguments. Figure 2-4 illustrates the mechanisms by which social norms influence spouses' motivation and negotiation mechanisms within the household.

her household (representing household's availability of commodities) added to their

#### 2.7.1 Mathematical formalization

A mathematical formalization on the previous framework is complex for the various reasons stated previously. To begin with, social norms do not only influence individual motivations, but they also act as social conversion factors in their achievement of functionings. Furthermore, a violation of a norm can raise feelings of shame and guilt with which the assumption of rationality can be difficult to hold. Furthermore, social norms also have an influence on household members' power and the mechanisms that each use. Yet for description and depiction purposes, following, a model will be established.

It is challenging to set up a quantitative relation between social norms and individuals' actions. Economists have so far attempted it by using the concept of social interactions to connect these two variables. This last term refers to the 'the propensity of an individual to behave in some way that varies with the prevalence of that behaviour in

some reference group containing the individual (Manski 1993).' Social norms are not the only reason why these effects might be present, however. The effects may arise because of peer influences, imitation, contagion or neighbourhood effects. Yet, Kevane and Wydick (2001) in their study on the effects of social norms on women's time allocation in Burkina Faso use a social interaction term to fully represent social norms. Fletschner and Carter (2006), in their study of women's demand for credit in Paraguay, combine the use of this term with a 'social environmental' one, which identifies the role women inherit and which are articulated by institutions such as the church or her spouse.

Still, neither of these studies account for the two mechanisms by which norms are enforced; internalization and social sanctions. This might be due to the definition of social norms which is commonly specified in which an individual subscribes to a norm given that others subscribe to it as well. It must also be clarified that in this study the actions of the members of a wife's reference group are not directly identified and measured as done in Feltchner and Carter (2006) and Bandiera and Rasul (2006). Alternatively, wives were asked about their beliefs regarding the behaviour of those in their refrence group. Nonetheless, even if the term 'social interactions' is much broader than the definition used in this research, its mathematical representation will be helpful for constructing a model.

In this section a binary choice model for a married woman's desire to participate in salaried employment will be specified. The model is an adaptation to the one developed by Brock, W. A. & Durlauf, S. N., (2001). To this end, we assume there is a population of I wives and each one is identified with an integer  $i=1,\ldots,n$ . Each wife faces a binary choice of action  $a \in \{0,1\}$ , where a=1 if she participates in assembly plant employment, and a=0 if she does not. Further, every wife maximizes her expected perceived preference function U. This function will depend upon the observable characteristics of wives and the functionings which can be achieved in each state; on wife's beliefs concerning the behaviours of others in the society  $\mu(\cdot)$  (in this case, the extent to which wives expect members of their reference group to participate in assembly plant employment and to socially sanction them); and on unobservable characteristics of wives  $\varepsilon_i(1)$  and  $\varepsilon(0)$ .

The expected perceived preference function will also depend on the moral arguments which validate the social norm indicating that wives should not participate in assembly plant employment. Thus, if for wife i,  $a_i = 1$ , she will be deviating from this specified norm. If she has internalized the norm, she will experience guilt and remorse and will

therefore experience a 'cost' in doing so. It is assumed that the internalization of a moral argument will depend upon how much the norm is followed in the society. Additionally, if a wife participates in assembly plant employment each one of her reference groups k=1,...,K, each one a subset of  $\{1,...,n\}$  that does not contain i, will impose a cost on her  $p_i^k$  by sanctioning her using each one of the moral arguments.

Without loss of generality and for simplicity's sake, it is assumed in the model that there is only one moral argument (instead of the three identified in the area of study). It is also assumed that the perceived preference function can be additively decomposed into the following:

$$u_i(a_i, Z_i, P_i^k \mu(a_{-i})) = V(a_i, Z_i) + I(a_i, Z_i \mu(a_{-i})) + S(a_i, \mu(P_i^k)) + \varepsilon_i(a_i),$$

where  $V\left(a_{i},Z_{i}\right)$  represents the deterministic private utility,  $I\left(a_{i},Z_{i,}\mu(a_{-i})\right)$  represents the deterministic utility from the internalization of a social norm,  $S\left(a_{i},\mu(P_{i}^{k})\right)$  represents the utility from social sanctions and  $\varepsilon_{i}(a_{i})$  represents a random unobservable utility.

To illustrate the effects of social sanctions parametric assumptions about the perceived payoff function are made. Firstly, it is assumed that the private deterministic utility function can be represented by a linear function:

$$U_i(a_i, Z_i) = h_i a_i + k_i,$$

where  $h_i = h(Z)$  and  $k_i = k(Z)$  are chosen so that

$$U(1,Z) = h_i + k_i$$
 , and

 $U(0,Z) = k_i$  . Note that  $k_i$  can be negative.

This linearization can be done as this function coincides with the original utility function on the support of the individual choices.

Second, it is assumed that internalization of a moral argument has a quadratic effect and depends on the mean of others' actions. The payoff for following an internalized norm has a quadratic conformity effect and  $\theta_i$  represents the desire for conformity with the moral argument.

$$I(a_i, Z_i, \mu(a_{-i})) = -a_i \theta_i (a_i - \overline{a}_{-i})^2$$

The previous argument implies that a norm is felt more strongly the higher the number of individuals who obey it.

Third, it is assumed that each reference group imposes a social sanction in the form of a fixed cost  $p_i^k$  when the wife participates in assembly plant employment:

$$S(a_i, \mu(P_i^k)) = -\sum_{k=i=1}^{K_i} p_{-i}^k (a_i - \overline{a}_{-i}^k)^2$$

Therefore the expected perceived preference function can be expressed as:

$$u_{i}(a_{i}, a_{-i}Z_{i}, P_{i}^{k}, \theta_{i}) = ha_{i} + k - a_{i}\theta_{i}(a_{i} - \overline{a}_{-i})^{2} - \sum_{k=1}^{K_{i}} p_{i}^{k}(a_{i} - \overline{a}_{-i}^{k})^{2} + \varepsilon_{i}(a_{i})$$

Where,

$$u_i(1, a_{-i}, Z_i, P_i^k, \theta_i) = h + k - \theta_i(1 - \overline{a}_{-i})^2 - \sum_{k=1}^{K_i} p_i^k (1 - \overline{a}_{-i}^k)^2$$

Therefore, when a wife participates in assembly plant employment she experiences two direct costs in doing so: a negative internalization effect whose magnitude depends upon the number of individuals in the society who follow the norm, and the social sanctions she receives from each of her reference groups.

When a wife does not participate in assembly plant employment, her utility is:

$$u_i(0, a_{-i}, Z_i, P_i^k, \theta_i) = k$$

Note that if a wife does not participate in assembly plant employment, and thus complies with the prescribed norm, her utility will depend only upon her characteristics and achieved functionings.

A wife will desire to participate in salaried employment if:

$$u_i(1, Z_i, P_i^k, \mu(a_{-i})) > u_i(0, Z_i, P_i^k, \mu(a_{-i}))^7$$

Yet, even if she desires to work in an assembly plant job it does not imply that she will, because she has to negotiate this decision with her husband. It is assumed that a husband will have the same perceived preference function as his wife, which depends upon her actions:

$$u_{i}^{h}(a_{i}, a_{-i}Z_{i}, P_{i}^{k}, \theta_{i}) = h^{h}a_{i} + k^{h} - a_{i}\theta_{i}^{h}(a_{i} - \overline{a}_{-i})^{2} - \sum_{k=1}^{K_{i}} p_{i}^{hk}a_{i} + \varepsilon_{i}(a_{i})$$

If  $u_i^h(1,Z_i,P_i^h,\mu(a_{-i}))>u_i^h(0,Z_i,P_i^h,\mu(a_{-i}))$  then she will participate in assembly plant employment, as the payoff function for both husband and wives is greater when she participates than when she doesn't. Yet if:

$$u_i^h(0,Z_i,P_i^k,\mu(a_{-i})) > u_i^h(1,Z_i,P_i^k,\mu(a_{-i}))$$

She will have to negotiate with her husband on this decision. The outcome will depend on the bargaining power of each. Therefore, her expected perceived well-being resulting from her negotiating with her husband will be:

$$E(u_i^w) = \lambda_i \cdot u_i(1, Z_i, P_i^k, \mu(a_{-i})) + (1 - \lambda_i) \cdot u_i(0, Z_i, P_i^k, \mu(a_{-i}))$$

Here  $\lambda$  is the probability she attributes to winning the bargaining process, which can be interpreted as the relative bargaining power of women. This bargaining power  $\lambda_i = \lambda_i(Z_i, Z_i^h, S, \mu^e(m))$ , where  $Z_i$  are the characteristics and achieved functionings of wives,  $Z_i^h$  are those of her husband,  $\mathbf{S}$  are the social sanctioning related to negotiating mechanisms and  $m^e$  are the expected mechanisms she ascribes to her husband.

It is assumed that if she bargains she will incur a fixed bargaining cost  $b^e(\mu^e(m))$  which depends on the mechanisms she believes her husband will use. For example if she

<sup>&</sup>lt;sup>7</sup> Generally, economic studies construct a model for the equilibrium in a society where each individual maximizes his utility subject to the actions of others. This is out of the scope of this research.

expects her husband to hit her, this can be considered an emotional cost she incurs in bargaining.

The wife will bargain to engage in productive activities if her expected perceived wellbeing resulting from doing so is greater than her well-being if she only dedicates herself to reproductive work. She will therefore bargain if:

$$E(u_i^w) + b^e \ge u^i (a = 0)$$

There are two important issues to be highlighted here. First, women will not always get involved in a negotiation process with their husbands, even though they may desire to, and expect to win the bargaining process, given that there are bargaining costs in doing so. In this case power in the second dimension will prevail.

Second, without the existence of norms regulating women's engagement in different activities, women's desire to participate in each activity will depend only on their characteristics and the perceived well-being resulting from the functionings achieved by such participation. The same would be true regarding their husbands' perceived preferences, as they are also subject to social sanctions and internalization regarding their wives' engagement in paid work. Further, without norms, wives would also have more power to negotiate with their husbands. Norms then, by imposing costs on individuals, restrict women's opportunities to achieve well-being.

# 3 Research methodology

#### 3.1 Introduction

This chapter gives an overview of the methods used to answer the research questions. First, the choice of the fieldwork location is justified and explained. Second, the techniques used to collect information are detailed. It is also explained why for the terms of this research it was optimal to gather qualitative and quantitative information. Finally, it outlines how the recollected materials were analyzed and interpreted.

### 3.2 Characteristics of this case study

The objective of the study was to investigate how social norms restrict wives' opportunities of participating in salaried employment. To achieve this, the research site needed to be one where there was widespread demand for female labour. Since 1994, textile assembly plants that largely hire female employees were established in the Tehuacan region of Mexico. Thus a source of salaried jobs for women was created where previously it was nonexistent. However, the recent creation of these types of jobs meant that social norms regarding female employment were still widespread.

Specifically, fieldwork was conducted in two towns of the Tehuacan area: San Gabriel Chilac and Santiago Miahuatlan. These towns were ideal research sites given that both were rural locations before assembly plants were built, and thus employment for uneducated female labour<sup>8</sup> was created. Additionally, these two towns were attractive because they share similar characteristics. The population size of both is similar; Miahuatlan has a population of 12,765 while Chilac's population is 11,333<sup>9</sup>. Education levels and access to services such as drinking water, drainage and electricity are also comparable. Moreover, the two are very close and well connected to the city of Tehuacan where they can access services such as banks, hospitals, and markets.

The focus of the research was narrowed to analyzing how social norms influence wives' decisions to participate in assembly plant employment. Even though there exist other alternative salaried opportunities for women in these towns, such as being a sales clerk or working as a maid for a rich home, these do not compare to those created by textile plants. This lack of alternative sources of employment for wives led to

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<sup>&</sup>lt;sup>8</sup> As will be seen later, the average years of education for a married woman are 5.63 years, only a little less that primary level. It can be concluded therefore that overall, education levels of married women are low.

<sup>&</sup>lt;sup>9</sup> Instituto Nacional de Geografía y Estadística. (INEGI). Conteo de Población y Vivienda. 2005.

our narrowing the analysis down to assembly plant jobs. Moreover, the functionings wives can obtain by participating in salaried employment differ for each occupation. For example, the timetable of a maid differs greatly from that of a worker in an assembly plant. While the latter has a fixed and full timetable, the former depends more on her boss' current needs. The social norms and moral arguments regulating the participation of wives in each activity are also dissimilar. For instance, it might be regarded as improper for women to work in an assembly plant because they interact with men there. Maids, on the other hand, do not interact with men other than their bosses. Therefore analyzing the effects of social norms on one specific activity, the prevalent one, will allow us to better investigate the mechanisms in question.

Participation rates of married women in the assembly plants of San Gabriel Chilac are starkly different from those of Santiago Miahuatlan. Wives' employment rate in assembly plants in Santiago Miahuatlan is 18.6% while that of Chilac is 6.9%. It is pertinent to ask, then, whether social norms have a role to play in this outcome. This is yet another reason why these were the optimal research sites. Thus, the location allows us to see the different mechanisms through which social norms are enforced and affect both individual and household decisions.

## 3.3 Fieldwork techniques

Given the restrictions in both time and resources, the research used a cross-sectional design where information was collected at one specific point in time. Additionally, both qualitative and quantitative information was collected. As a first step, qualitative information was gathered through in-depth interviews. This was crucial, first to appreciate the insights and motivations of both wives and husbands regarding moral arguments against wives' participation in assembly plant employment; the social sanctions upheld by each reference group, and the negotiation mechanisms within the household. It also permitted us to discern spouses' perceptions regarding the welfare impacts of wives' employment in assembly plants. Second, qualitative information also allowed us to identify factors that influenced the phenomena being researched. For instance, it aided in determining the factors that influence internalization of moral arguments. Third, given that economics still does not completely understand the mechanisms by which social norms are enforced, it helped to refine our research questions. Finally, in-depth knowledge of the contexts of both towns informed the construction of a survey and thus the collection of quantitative data.

Quantitative data, on the other hand, allowed for a representative survey at the town level. Therefore results can be generalized for the area where the study was conducted. The magnitude to which the phenomena studied occurred in these localities, can thus be understood. For example, we observed the prevalence of each moral argument in each town. Also and very importantly, it allowed us to correlate the mechanisms by which social norms are enforced with wives' propensity to work in assembly plant jobs.

It must be noted that even though in-depth interviews and the survey were the main techniques used to obtain information, observation and secondary data, where pertinent, were also used. Secondary data was primarily obtained through Mexican official datasets of the Instituto Nacional de Estadistica y Geografia (INEGI). Table 3-1 shows the types of data and information by chapter obtained by each technique.

Although asking for permission to enter and observe assembly plants and interviewing their managers would have provided fruitful information for the research, this was not done. During the period in which fieldwork was carried out, there was uncertainty in the Tehuacan area. Human rights organizations were promoting better quality jobs for textile plant workers and this made their managers fearful of providing information about their operations. Martin Barrios, the President of the Mexican Human and Labour Rights Commission of the Tehuacan Valley, had even been arrested by state police and accused of blackmailing a maquila owner. Following his release some months later, which was granted after pressure from national and international organizations, he received several death threats (Amnesty International 2007). Therefore, to avoid jeopardising the research, we only sought information from households.

Written consent from the local authorities (Presidente Municipal) was obtained before gathering information from households. This aided in gaining individuals' trust, as the letter confirmed I was a research student. Below, there follows a description on how the in-depth interviews and surveys were carried out.

<sup>&</sup>lt;sup>10</sup> An assembly plant owner of San Gabriel Chilac also made the municipal police arrest me by claiming I was mugging people. However, I had the full support of the municipal authorities and therefore was released immediately.

Table 3-1: Types of data obtained by each technique

			-		
		Obser va tion	In-Depth Interviews	Household Survey	Secondary Data
Ch	Textile Plants in Tehuacan				
4.	Mexico				
	■ Figures on maquilas in				•
	Mexico and Tehuacan				
	<ul> <li>Figures on population and</li> </ul>			•	•
	household characteristics of				
	Chilac and Miahuatlan				
Ch	Moral arguments and				
5.	decision-making within the				
	household				
	<ul> <li>Description of moral</li> </ul>	•	•		
	arguments				
	<ul> <li>Figures on extent of internalisation and social</li> </ul>			•	
	sanctions				
	Description of decision-	•	•		
	making mechanisms within	•	•		
	household				
	<ul> <li>Descriptive data and figures</li> </ul>			•	
	on extent of decision-making				
	mechanisms within				
	household				
Ch	Welfare effects of wives'				
6.	engagement in assembly plant				
	employment vs. traditional				
	activities		_		
	<ul> <li>Qualitative information on possible functionings</li> </ul>	•	•		
	achieved in each activity.				
	Descriptive data on possible			•	
	functionings achieved in each				
	activity.				
Ch	The effect of beliefs in moral				
7.	arguments on wives'				
	propensity to work in				
	assembly plants				
	<ul> <li>Descriptive data on belief in</li> </ul>			•	
	moral arguments by spouses.				
	<ul> <li>Regressions on the effect of</li> </ul>			•	
	beliefs in moral arguments on				
	wives' propensity to work in assembly plants.				
Ch8	The effect of social sanctions				
0110	on wives' propensity to work				
•	in assembly plants				
	Descriptive data on social			•	
	sanctions by reference group			•	
	Regressions on the effect of			•	
	social sanctions on wives'			-	
	propensity to work in				
	· · · · ·				

assembly plants.

# 3.3.1 In-depth interviews

In-depth interviews were posed to both to married women and men in each town. To this end, several interview guides were prepared depending on:<sup>11</sup> 1) whether a wife currently worked in an assembly plant 2) whether she worked outside her home but in a different activity 3) whether she had previously worked outside their home but did not do so anymore, or 4) if she had never engaged in salaried work.

Purposive sampling was used to obtain a sufficient number of interviews in each of the previous categories. As women participating in assembly plant employment were scarce and were difficult to enumerate and locate, especially in Chilac, these were sampled using a snowball approach. Table 3-2 shows the total amount of interviews obtained by category and town. Because men also had full-time jobs, locating them was also complicated, and for this reason a smaller number of husbands than wives were interviewed.

At the beginning of the interviews we explained to individuals how we would use the information provided by them. They were also assured that they would remain anonymous, that they could stop the interview at any point and could refuse to answer any question they didn't feel like answering. Additionally, we asked permission to tape the interviews, and notes were taken whether permission was granted or not.

Table 3-2: Number of in-depth interviews by town

	Wives		Husbands		Total		
	Miah	Chil	Miah	Chil	Miah	Chil	Total
Currently working in maquila	26	23	19	16	35	39	74
-Previously worked in maquila	14	13	11	8	25	21	46
-Has never worked	10	10	6	7	16	17	33
-Works in another activity	2	2	2	1	4	3	7
Total wives without salaried work	26	25	10	9	80	80	160

<sup>&</sup>lt;sup>11</sup> If the interviewee was a married woman then the guide used depended on her current and previous occupation. If it was a married man who was being interviewed the guide depended on his wife's current and previous occupation.

# 3.3.2 Household survey

In the second step, a survey was applied to married women with the purpose of obtaining representative data from both towns. Information obtained from the in-depth surveys helped in the construction of the questionnaire. Before implementing the survey, a pilot test was conducted in both towns to refine the questions.

A random sample of dwellings was obtained from each town to obtain representative data at the town level. A map with the location of each dwelling was obtained from the Instituto Nacional de Estadistica y Geografia (INEGI). Thus, the sampling frame was the number of dwellings in each town. The sample size for each town was calculated by estimating the following formula for proportions under simple random sampling (Lohr 1999, Raj 1972):

$$n \ge \frac{z^2(1-p)}{\varepsilon^2 p \tau(AHD)(AWH)}$$

z = Z value in table for a normal distribution for a 95% confidence interval

*r* = maximum acceptable error

p = 0.5 (unknown of proportion of interest)

 $\varepsilon$  = response rate

AHD= average households per dwellings

AWD= average women 12 years or older living with a couple per household.

Thus, correcting for population size:

$$ss = \frac{n}{1 + \frac{n-1}{pop}}$$

For both towns, a confidence interval of 95%, an estimated error of 7%<sup>12</sup> and a response rate of 85% were assumed. In San Gabriel Chilac, the population of married women is 2,045. On average there are 1.03 households per dwelling and there are on

<sup>12</sup> Using a smaller estimated error would have meant a much larger simple size for which resources were not available.

average 0.89 women of 12 years and older residing as a partner per household. This resulted in a representative sample size for this town of 231 dwellings. In Miahualtlan, the population of women living with a partner is approximately 2,061. On average there are 1.04 households per dwelling and there are 0.91 women of 12 years or older with a resident partner. For Santiago Miuahuatlan, the sample size was of 225 dwellings. Two interviewers were hired to apply the questionnaires. Including me, this totalled three interviewers. Given the lack of a list of households and household members for each town (information from INEGI exists but is not available because of confidential reasons), blocks were chosen randomly and every third house was selected. This was done because several families lived next to each other, so that a sample of 20 blocks would have provided information on around 40-50 families.

### 3.4 Data analysis and interpretation

Information resulting from in-depth interviews was divided up by its relevance to each research question. Next, basic coding was done. On the other hand, data obtained from surveys was entered into SPSS software, but was then transferred into STATA to be analyzed.

Where needed, t-tests were performed to test whether the means of a variable in two groups were statistically different from each other. This type of test was also used to see whether the means of different variables were statistically significantly different from each other. Binomial probability tests were performed to compare the proportions of two different variables or to test the difference in proportions for two groups on one variable.

Next, we will look at how the Capabilities approach was operationalised to assess the welfare changes resulting from wives' participation in different occupations (as analyzed in Chapter 6). Following, we will look at the regression model and techniques used to determine the effect of internalization of moral arguments and social sanctions from different reference groups on wives' propensity to work in assembly plants, analyzed in in chapters 7 and 8.

### 3.4.1 Operationalization of the Capability approach

Theoretically, the capability approach is very attractive yet several challenges to its operationalization have been found. The first is the difficulty in specifying the list of functionings to be considered. As Robeyns (2000) explains, there are innumerable

<sup>&</sup>lt;sup>13</sup> Data obtained from INEGI, 2000 XII Censo General de Poblacion y Vivienda.

functionings which can be taken into consideration to provide a picture of people's well-being, and the Capability approach does not prescribe a list. Nussbaum (2003) argues for a definite list of functionings and has drawn up a list that she defends as universally valid. However, Robeyns (2003) disagrees with this view and states that 'Given the intrinsic underspecification of Sen's Capability approach, there cannot be one catch-all list. Instead, each application of the Capability approach will require its own capability set.' Indeed, given the particular objective of the proposed research, only those functionings that are related to people's engagement in different economic activities are of interest here. Therefore, the functionings that will be taken into account will be those that have been considered relevant in the literature to the participation of individuals in different activities. These will be complemented with those observed to be important for a significant proportion of the people interviewed in the qualitative study.

Assessing the capability space is conceptually attractive, given that the well-being of a person does not depend on the combination of achieved functionings, but also on the freedom they have to choose their well-being. In practice, however, this is not easy. As Comin (2001) explains, 'Perhaps the most important (and intriguing) characteristic in influencing the difficulty of operationalizing the Capability Approach (through the use of empirical measures) is its counterfactual nature. Capability could be high but for any reason individuals may choose not to actualise it; or they may choose to have more of one sort of freedom than another. Because the informational basis of welfare incorporates counterfactual choices and scenarios, it does not correspond to the empirical observation of facts.' This poses a problem because it implies that the measurement of a hypothesis which has never occurred and might never occur must be taken into account. 'In most cases, statistical surveys collect data on facts that actually occurred rather than on facts that could happen or could have happened. Statisticians involved in questionnaire design say that 'If you ask a hypothetical question you will get a hypothetical answer.' This difficulty has mainly to do with the vagueness of the hypothetical alternatives. In asking a person whether she has a job, one only needs to describe what is meant by 'having a job', with little or no reference other external circumstances, on the contrary, in asking whether she can have a job, one must qualify the them by fixing the boundaries of the hypothetical world she has to consider.' (Brandolini and Giovanni 1998)

Then again this counterfactual challenge is not peculiar to capability measures. The same problem arises in the neoclassical framework. For example Manski (2004) argues that a given choice by an agent may be consistent with many alternative specifications of preferences and expectations. Consequently the identification of decision processes from choice data must rest on strong assumptions. The possibilities

for inference, and thus the implications for decision making, depend fundamentally on the assumptions maintained about these counterfactual outcomes. For example, it is customary to assume that decision-makers have specific expectations that are objectively correct or rational. This practice reduces the task of empirical inference to the revelation of preferences alone, but has contributed to a crisis of credibility. As a result, Manski (2004) defends the idea that economists have to contend with the logical unobservability or counterfactual outcomes.

This research focuses on women's engagement in different economic activities. Their freedom to engage in each, as well as the possibility of achieving functionings in each, will depend on a variety of factors. This study focuses on how social norms restrict this freedom. Therefore the counterfactual arguments are restricted to the expected social sanctions wives and husbands expect to receive. For this purpose, Manski (2004) argues in favour of the collection of data in the form of subjective probabilities. This type of data has two major appealing features. Perhaps the most basic attraction is that probability provides a well-defined absolute numerical scale for responses, which is a reason to think that they may be interpersonally comparable. Another attraction is that empirical assessment of the internal consistency of respondents' expectations is possible. A researcher can use the algebra of probability (Bayes' Theorem, the Law of Probability, etc.) to examine the internal consistency of a respondent's expectations about different events. Initially, the use of subjective probabilities was planned here. In the pilot of the survey, however, it was discovered that this was not an appropriate instrument given the context in which the survey would be applied. Because women had no formal education, it would be hard for them to answer in the form of probabilities or on a numerical scale from 1 to 10. For this reason, the Likert scale was used instead, involving five options (and in some cases four)...

The use of the Likert scale is a second choice for several reasons. The first regards interpersonal comparisons of responses, that is, whether different people interpret the answers in the same way, and the resulting degree of comparability. Secondly, there are doubts as to whether responses are intra-personally comparable, i.e. whether a given person may interpret the same phrase in different ways in different contexts (Manski 2004). However, even if there are many theoretical arguments against using the Likert scale instead of subjective probabilities, the scale was adopted based on the idea that it is better to have good answers from a non-optimal method than almost no response using the best one possible.

Once the relevant achieved functionings are specified a third difficulty arises: how one is to rank the different functionings? 'One first has to decide whether to aggregate the elementary indicators to obtain an overall evaluation for each single dimension

(functioning/capability) of well-being. The main advantage of the aggregation process refers to the criteria on which aggregation is based. However, whatever the criteria in which aggregation is based we will inevitably lose some important pieces of information' (Chiappero Mertinetti 2000). For this study, not losing these pieces of information is fundamental. Understanding how the activity's features and gendered characteristics influence individuals' potential to achieve *different* functionings is central. This is especially true if one wants to compare how individuals' perceptions of well-being resulting from their participation in different activities differ from the actual facts. Also, it was not our objective to measure gendered well-being resulting from these activities, but to gain an understanding of how social norms influence, both directly and through their effect on the power household members have to bargain, individuals' opportunities to achieve functionings by participating in these activities.

### 3.4.2 Regression specification

### 3.4.2.1 Econometric specification of woman's labour participation

In chapter 2 a model for wives' desire to participate in assembly plant employment was specified. In it, each wife faced a binary choice of action  $a \in \{-1,1\}$ , where a=1 if she participates in assembly plant employment, and a=-1 if she does not. A social norm indicating that wives should not work in an assembly plant is supported by a certain social group. Therefore, if a wife works in an assembly plant she will experience guilt and shame because of her internalization of these moral arguments, and will also be socially sanctioned by the reference groups enforcing them. Thus, her perceived preference function of participating in assembly plant employment is specified as:

$$u_{i}(a_{i}, a_{-i}Z_{i}, P_{i}^{k}, \theta_{i}) = ha_{i} + k - a_{i}\theta_{i}(a_{i} - \overline{a}_{-i})^{2} - \sum_{k_{i}=1}^{K_{i}} p_{i}^{k}(a_{i} - \overline{a}_{-i}^{k})^{2} + \varepsilon_{i}(a_{i})$$

Where Z includes both her characteristics and her achieved functionings in each state ,  $p_i^k$  are the social sanctions she expects to receive from each reference group and  $\varepsilon_i(1)$  and  $\varepsilon(-1)$  are wives' unobservable characteristics.

A wife will desire to participate in assembly plant employment if:

$$u_i(1, Z_i, P_i^k, \theta_i, \mu(a_{-i})) > u_i(0, Z_i, P_i^k, \theta_i, \mu(a_{-i}))$$

Yet, the fact that she desires to work in the assembly plant is not a sufficient condition for her to actually do so. This will depend upon her husband's perceived preference function, her bargaining power and the costs of bargaining. Her bargaining power will be jointly determined with her work in the plant, and thus is not considered a determining variable in the following regression models. Additionally, for simplicity of exposition, her husband's perceived preference function is not explicitly considered in the following regression specification. Further, without a loss of generality, the perceived preference function will be considered to take the following form:

$$u_i(a_i, Z, \varepsilon_{pi})^{14}$$

Given that  $u_i(a_i,Z,\varepsilon_{pi})$  is a random variable, we don't know if a woman with certain values of Z will experience greater utility if she works than if she does not. It can be assumed, though, that  $u_i(a_i,Z,\varepsilon_{pi})$  has a probability distribution governing the probability that woman i with specific values of  $\mathbf{z}$  will desire to work.

Then:

$$prob\left[a=1\mid z,\varepsilon_{p}\right]=prob\left[u^{i}\left(a=1\mid z,\varepsilon_{p}\right)>u^{i}\left(a=0\mid z,\varepsilon_{p}\right)\mid z\right]$$

$$= prob \big[z'\beta_{a=1} + \varepsilon_{a=1} > z'\beta_{a=0} + \varepsilon_{a=0} \mid z\big]$$

= 
$$prob[z'(\beta_{a=1} - \beta_{a=0}) + \varepsilon_{pa=0} - \varepsilon_{pa=1} > 0 \mid z]$$

= 
$$prob[z'\beta + \varepsilon_n > 0 \mid z]$$

Two commonly used distributions for the previous expression are widely used. The Probit model makes use of the normal distribution, where:

 $^{14}$  The costs related to social norms are therefore not explicitly considered, but can be regarded as to be included in Z .

$$\Pr{ob(Y=1\mid z)} = \int_{-\infty}^{z'\beta} \phi(t)dt = \Phi(z'\beta)$$

The Logit model makes use of the logistic cumulative distribution function and is commonly used because of its mathematical convenience:

$$\Pr{ob(y=1\mid z)} = \frac{e^{z'\beta}}{1+e^{z'\beta}} = \wedge (z'\beta)$$

Because the logistic and the normal distributions are very much alike, except for the tails, which are heavier in the logistic distribution, the Probit and Logit models generally provide very similar results within intermediate values of  $z'\beta$ . Consequently, the two give different predictions if the sample contains very few responses (y's equal to 1) or very few non-responses (y's equal to zero) and very wide variation in an independent variable. Because of these similarities, it is very difficult to assess on theoretical grounds which model is best to use, since this would necessitate the knowledge of the true  $\beta$ .

It is important to note, that whatever distribution is chosen, the parameters of  $\beta$  do not represent the marginal effects as they do in the linear regression models because:

$$\frac{\partial E[y \mid z]}{\partial x} = \left\{ \frac{dF(x'z)}{d(x'z)} \right\} \beta = f(z'\beta)\beta$$

From the previous expression it can be observed that the marginal effects will vary with the values of z. For this reason, it is common to evaluate the marginal effects for every observation and to use the sample average of the individual effects.

In both the Probit and Logit models, the parameters of interest  $\beta$  are estimated via the Maximum Likelihood method. This method the aims to estimate the vector  $\beta$  that implies the highest probability or likelihood of having obtained the sample Y. To attain this, each observation is treated as a draw from a Bernoulli random variable. The likelihood function is expressed as follows:

$$l = \prod_{a=-1} [1 - F(z'\beta)] \prod_{a=1} F(z'\beta)$$

The parameters  $\beta$  can be estimated by maximizing this likelihood function or its logarithm with respect to  $\beta$ . These Maximum likelihood estimators will have asymptotic properties of unbiasedness, efficiency and normality. However, the estimates are obtained by assuming that the functional form is known, which is seldom true. If the functional form is misspecified, then the estimates of the coefficients and the inferences based on them can be highly misleading.

In Chapter 7, the effect of beliefs in moral arguments by both spouses on wives' probability of participating in assembly plant employment is estimated. Given that beliefs in moral arguments and wives' employment in an assembly plant might be jointly determined, a model that accounts for this is estimated; the Biprobit regression model. This model is fully explained in Chapter 7.

In Chapter 8 the impact of each type of social sanction on wives' propensity to work in an assembly plant, according to each moral argument and each reference group, is estimated. Probit estimates are used in this analysis.

### 3.4.2.2 Wage estimation issues

In the previous section it was established that a linear function for the probability of a wife participating in an assembly plant can be calculated if it is assumed that her utility function has a distribution function. Yet, an estimation complication arises given that this probability function depends upon the wage a wife would obtain when participating in a textile plant. Information on this variable can only be available for wives who actually do work and receive a wage. Therefore the probability that a wife decides to participate in waged work is also the probability of having data on her wage. Yet, because data regarding working individuals also contains information on those variables that determine wage, it is possible to calculate an imputed wage for the whole population (including non-working individuals). To this end, we assume that the wage  $w_i$  that individual i can obtain is given by a wage function:

$$w_i = \alpha x_i + \varepsilon_{iw}$$

Where  $x_i$  is a vector of variables explaining wage, such as education, age, etc, which can be observed for all the individuals in the sample and  $\varepsilon_{wi}$  is a mean zero random error representing unobserved factors.

This function can be estimated in principle via a least squares regression, but doing so would not be adequate because the calculated wage would be based on data for workers only and this would give rise to sample selection or selectivity bias. This means that the wage data is not selected from a random sample of the population but from an endogenous subgroup, working wives. When this happens, the error term does not have a mean zero random variable, which is a basic assumption of the least squares regression estimation.

Assuming that  $\varepsilon_p$  and  $\varepsilon_w$  are normally distributed, then:

$$E[w_i \mid a=1]$$

$$= E \left[ w_i \mid \varepsilon_{pi} > -z_i' \beta \right]$$

$$= x_i'\alpha + E[\varepsilon_{wi} \mid \varepsilon_{pi} > -z_i'\beta]$$

$$= x_i' \alpha + \rho_{pw} \sigma_w \lambda_i(\delta_p)$$

Where, 
$$\delta_p = -z'_i \beta / \sigma_p$$
 and  $\lambda_i(\delta_p) = f(z_i' \beta / \sigma_p) / F(z_i' \beta / \sigma_p)$ 

Hence, unless  $\varepsilon_{pi}$  and  $\varepsilon_{wi}$  are uncorrelated, the least square estimates of  $\alpha$  will suffer from sample selection bias and will be inconsistent. Additionally, if  $\varepsilon_{pi}$  is correlated with  $\varepsilon_{wi}$ , then it is also necessarily correlated with w, meaning that endogeneity will be present. Therefore, neither imputed nor actual wage data would be appropriate for estimating the probability of desired participation.

A solution proposed by Heckman (1974) will be employed to derive an expression for wives' participation in assembly plant employment. Thus we note that a wife will work for an assembly plant if the wage she would obtain by doing so exceeds her reservation wage, which is the minimum wage at which she would choose to work. Then the probability a wife will work in an assembly plant can be expressed as:

$$prob[w_i > w_i^*],$$

### Where

 $w_i = \alpha X_i + \varepsilon_{iw}$  is the equation for the market wage and  $w_i^* = Y_i \cdot \mathcal{G} + \varepsilon_{iv}$  where  $Y_i = \{A, v, c, s\}$ , is the equation for the reservation wage,

It is assumed that both  $\mathcal{E}_{iy}$  and  $\mathcal{E}_{iw}$  are normally distributed. It must also be clarified that both Y and X can contain common exogenous variables. However for this system of endogenous equations to be identified (i.e. for the parameters in both equations to be estimable) there must be at least one variable in X not included in Y and at least one variable in Y not included in Y.

It then follows that:

$$prob[w_i > w_i^*]$$

= 
$$prob[\alpha X_i + \varepsilon_{iw} > \theta Y_i + \varepsilon_{ip}]$$

= 
$$prob[\varepsilon_{iw} - \varepsilon_{ip} > \theta Y_i - \alpha X_i]$$

= 
$$prob[\varepsilon_{ri} > \theta Y_i - \alpha X_i]$$
, where  $\varepsilon_{ri} = \varepsilon_{ip} - \varepsilon_{iy}$ 

$$= prob \left[ 0 > \frac{\theta Y_i - \alpha X_i}{\varepsilon_{ri}} \right]$$

Given that  $\varepsilon_{ip}$  and  $\varepsilon_{iy}$  are mean zero normally distributed functions, then  $\varepsilon_{ri}$  is also a mean zero normally distributed random variable with  $Var(\varepsilon_{ri}) = \sigma_r = \sigma_p^2 + \sigma_y^2 - 2\sigma_{py}$ , where  $\sigma_{py}$  is the covariance between the errors.

There are two ways in which the parameters  $\alpha$  and  $\theta$  can be consistently estimated. On one hand, a two step estimation procedure can be employed. As a first step, from the previous probability expression the following likelihood function is specified.

$$L = \prod_{a=1} 1 - F(\Delta/\sigma_r) \prod_{a=-1} F(\Delta/\sigma_r)$$

where:  $\Delta = \alpha Z_i - \beta Y_i$ , and  $\varepsilon_{ri} = \varepsilon_{ip} - \varepsilon_{iy}$ 

This function depends only on exogenous variables for which data for the whole sample, workers and non-workers, is available. Probit estimates of this function will provide estimates of  $(\theta_j-\alpha_j)/\sigma_r$  for common variables in Y and Z,  $\alpha_j/\sigma_r$  for variables in Z not in Y, and  $\theta_j/\sigma_r$  for variables in Y not in Z.

As a second step, the parameters of the wage equation  $\alpha$  are estimated. To achieve this, first observe that:

$$E(\varepsilon_{iw} \mid a=1)$$

$$E(\varepsilon_{iw} \mid \frac{\varepsilon_{ri}}{\sigma_r} > \frac{\Delta}{\sigma_r}) = \frac{\sigma_w^2 - \sigma_{pw}}{\sigma_r} \frac{\phi(\Delta)}{1 - \Phi(\Delta)}$$

Thus the wage equation can be written as:

$$W_{i} = \alpha X_{i} + \frac{\sigma_{w}^{2} - \sigma_{pw}}{\sigma_{r}} \frac{\phi(\Delta)}{1 - \Phi(\Delta)} + V$$

Where V is the new residual, and E(V) = 0

Given that estimates of  $\hat{\Delta}$  were obtained from the first step Probit estimation, estimates of  $\frac{\phi(\hat{\Delta})}{1-\Phi(\hat{\Delta})}$  can also be obtained. These can be replaced in the wage equation, which

can then be estimated using ordinary least squares to obtain consistent estimates of  $\theta$ . Because there is at least one variable in Y not included in X, we can get an estimate of  $\theta_{1j}/\sigma_r$  from the Probit estimation and an estimate of  $\beta_{1j}$  from the wage equation, and obtain an estimate of  $\sigma_r$ . Following, all estimates of  $\alpha$  can also be obtained.

Alternatively, a second way to estimate  $\alpha$  and  $\theta$  is by expressing a joint normal distribution function for the reservation wage and wage functions. The likelihood function for participation on waged employment can be expressed in the following manner:

$$prob(a = 0) = prob(\alpha Z_i - \beta Y_i \le \varepsilon_{ip} - \varepsilon_{iy}) = \Phi(\Delta / \sigma)$$

Thus the following likelihood function can be specified:

$$L = \prod_{a=1} F(W, W^*) \cdot \prod_{a=0} \Phi(\Delta/\sigma)$$

This model can be estimated by the Full Information Maximum Likelihood method. Following the specification of the variables to be included in wives' participation in assembly plant employment, equations and the wage estimates resulting for the Heckman wage regressions are described.

### 3.4.3 Specification of variables

Above, we developed an econometric specification for wives' participation in assembly plant employment. Next, Table 3-3 denotes and describes the variables to be included both in the desire for participation and wage equations. The variables which will proxy for internalization of social norms, which will be used for the estimations in chapter 7, and those of social sanctions used in chapter 8 are also included.

Table 3-3: Variables included in regression equations.

Explanatory variables	Proxy for Variable	Measurement of Variable
Labour Participation		Dummy variable for current
		participation in an assembly plant
Age	Wife's age	Wife's age
Household Income	Household Income that does not depend on women's engagement in salaried employment	Includes income earned by husband, transfers, income earned from farming plots.
Young children	Children younger than 6	Dummy variable indicating whether the wife has children less than 6 years old.
Older children	Children older than 6 and younger than 16	Dummy variable indicating whether the wife has children between 6 and 16 years old
Internalization	Woman's beliefs	Dummy on disagreement on each moral argument
	Husband's beliefs	Dummy on disagreement on each moral argument
Characteristics that potentially shape	Wife lived in a city for more than a year	Dummy variable indicating whether wife has ever lived in a city for more

internalization of a		than a year
norm <sup>15</sup>		
	Husband lived in a city	Dummy variable indicating whether
	for more than a year	husband has ever lived in a city for more than a year
	Husband Farmer	Dummy variable indicating whether husband is a farmer.
	Husband Assembly	Dummy variable indicating whether
	Worker	husband is an assembly plant worker
Social Sanctions	Gossip by each of four reference groups	Dummy variables representing woman believes each reference group to
		gossip about her using each moral
		argument if she works for an assembly plant
	Criticism to wife by	Dummy variables representing woman
	each of four reference	believes each reference group to
	groups	criticize her using each moral
		argument if she works for an assembly plant
	Criticism to wife by	Dummy variables representing woman
	each of four reference	believes each reference group to
	groups	criticize her husband using each moral
		argument if she works for an assembly plant.
Wage (Mincer		
equation)		
Years of Education	Years of completed formal education	Number of years woman completed formal education
Wife's age	Woman's age	Woman's age
Wife's age squared	Woman's age squared	Woman's age squared

### 3.4.4 The use of Likert scale questions

The use of Likert Scale questions was proposed to measure both the beliefs which proxy for internalization, and gossip and criticism by the different reference groups, to proxy for social norms. The use of these qualitative measures, however, has its setbacks. As Dominitz and Manski, (1997) describe, these types of responses are of concern because they are not interpersonally and intrapersonally comparable. The former refers to different people interpreting each scale in a different manner, while the latter concerns the same person interpreting the results in a different manner in different settings.

Because of these concerns, Manski (1993), and Dominitz and Manski (1997) argue in favour of the collection of data in the form of subjective probabilities. This type of data has two major appealing features. Perhaps the most basic is that probability provides a

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<sup>&</sup>lt;sup>15</sup> Justification as to why these variables are considered as characteristics that potentially shape internalisation of norms is expanded on in chapter 7.

well-defined absolute numerical scale for responses, which is a reason to think that they may be interpersonally comparable. Another attraction is that an empirical assessment of the internal consistency of respondents' expectations is possible. A researcher can use the algebra of probability (Bayes Theorem, the Law of Probability, etc.) to examine the internal consistency of a respondent's expectations about different events.

Because of these advantages, the use of these subjective probabilities was intended and proposed before field work started. However, this was found not to be feasible in the research area. During the pilot of the questionnaire, married women were posed questions in the form of subjective probabilities (a 0 to 100 chance of an event occurring), but most of them found this type of questions confusing. This made the implementation of subjective probabilities not viable. A high proportion of women in the research area have not received basic formal education where the use of percentages is taught. Even though they are very smart, they are not familiar with this type of ranking. As Dominitz and Manski (1997) point out, even people with formal education may have trouble thinking probabilistically about certain events.

Given the difficulties with getting responses in the form of subjective probabilities that we encountered during the pilot of the questionnaire, Likert Scale-type questions were posed. These are entered into the regression in the form of dummy variables. For example, in the case of beliefs in moral arguments, a dummy variable with the values 0 if a person does not totally agree and 1 if she totally agrees with the moral argument, is employed. Four other dummy variables are constructed for each of the other possible answers. One is taken as the baseline for the regression (e.g. 'totally disagree') and the others are compared to it. The results of these regressions, however, must be taken with caution, given that they cannot be assigned any quantitative or numerical value. Furthermore, probability distributions cannot be obtained as Dominitz and Manski (1997) do in the case of income expectations. These responses do, however, provide important information on whether beliefs and expectations of future events are at play.

## 4 Economic, population and household characteristics of Tehuacan

### 4.1 Introduction

This chapter describes the process by which assembly plants, and consequently employment opportunities for women, arose in Tehuacan, Mexico. It focuses specifically on the two towns where the research took place; San Gabriel Chilac and Santiago Miahuatlan. First, the main population and household characteristics of these towns will be explored. This will be done initially by using secondary data. Then the results obtained from the survey applied specifically for the purpose of this research will be discussed. Special attention will be given to exploring the traditional and non-traditional activities that wives participate in and have access to.

### 4.2 Mexico's maquila industry

During the 1960s a new pattern of production emerged in which multinational companies from labour intensive industries outsourced part of their productive processes to developing countries in search of cheaper labour. The falling of transportation and communication costs served as incentives to this new global production process, while the promotion of Export Processing Zones (EPZ) in developing countries in South East Asia, Latin America, the Caribbean and parts of Sub Saharan Africa was a catalyst for its expansion. Via these zones inputs such as machinery, equipment and materials could enter these developing countries free of import tariffs (Barrientos et al. 2004; Tiano, 1994).

Mexico was one of the countries which promoted an export processing program. It was put in place in 1965 as a response to the unilateral suspension by the United States of America of a treaty it had signed with Mexico in 1942. In this treaty, the US had temporarily admitted migrants from Mexico because it was short of agricultural workers due to the Second World War. This agreement led to high in-migration to the border cities by Mexicans in search of these agricultural jobs. When the US suspended the treaty, there was a sharp and critical increase in the unemployment rates in these border cities. Thus the free zones were established in these areas with the objective that the newly created assembly plants, or Maquilas as they are called in Mexico, would absorb the surplus of labour. (de la O. Martinez, 2006; Mendiola, 1999)

During the 80's the Mexican government extended the free zones to other areas of the country and passed several decrees and laws to foster the establishment of assembly plants. When Mexico signed the North Free Trade Agreement with the US and Canada in 1994 there was a rapid increase of assembly plants there (De la O. Martinez, 2006;

Mendiola, 1999). This can be verified by growth rates of employment in the maquila for export sector, presented in Table 4-1. After 1994 and previous to the economic crisis in 2001, annual growth rates rose to above 10%. After the economic crisis in 2001, however employment growth rates were negative for three consecutive years, but then started to catch up again.

Table 4-1: Employment levels and rates for the maquila for export in Mexico

National	Employment	% Change
	level	Employment
		Level
1975	67,214	-
1980	119,546	-
1985	211,968	-
1990	451,169	-
1991	434,109	-3.78
1992	503,689	16.03
1993	526,351	4.50
1994	562,334	6.84
1995	621,930	10.60
1996	748,262	20.31
1997	903,736	20.78
1998	1,014,023	12.20
1999	1,143,499	12.77
2000	1,291,232	12.92
2001	1,198,942	-7.15
2002	1,071,467	-10.63
2003	1,062,105	-0.87
2004	1,115,230	5.00
2005	1,166,250	4.57
2006	1,202,134	3.08

Source: INEGI. Industria de la Maquiladora de Exportacion, 2007.

INEGI. <u>Sistema de Cuentas Nacionales de México. La producción, salarios, empleo y productividad de la industria maquiladora de exportación.1997, 2002</u>.

However, the noteworthy characteristic of assembly plant employment for this study is that it is significantly female. This is true especially within the textile and electronics sectors (De la O. Martinez, 2006). One of the main reasons why women are predominantly hired is their lower educational levels and therefore the lower salaries assembly plants can pay them. Another explanation is that female employees are considered to have better manual dexterity (nimble fingers) and to be more docile and prone to accept tough and repetitive work (Elson & Pearson, 1981). Thus in many areas where assembly plants were established, the fact that women were being hired meant they had the possibility to participate in salaried jobs for the first time.

However, while historically a larger proportion of women than men have been hired in assembly plants, this tendency has declined over time. In Mexico, De la O. Martinez (2006) identifies three stages of feminization of employment in maguilas for export. First, during the 80's and 90's mainly women were hired by the assembly plants on the Mexico/US border. During the 90's, the maguila workforce started to be de-feminized. In the third stage, during the 2000's both men and women have been hired almost equally. This pattern can be confirmed by the figures in Table 4-2 where it can be observed that while a male hiring rate of 30% prevailed in the mid 70's to 80's, this rose to 85% by 2005. Yet, even if a lower percentage of women have been hired over time in the assembly plants, these still offer employment opportunities for women in areas where these were previously nonexistent. This is the case of the arrival of assembly plants to the Tehuacan area, specifically in the two towns which are the focus of the study; San Gabriel Chilac and Santiago Miahuatlan. The relatively recent arrival of assembly plants in these sites makes them ideal for investigating how social norms influence wives' participation in a specific type of salaried employment compared to their involvement in traditionally female activities.

Table 4-2: Male hiring rates of maquilas for export in Mexico

		Nation	al Level	
	Total	Obreros	Techni	Admini
			cians	strative
1975	-	0.28	-	-
1980	-	0.29	-	_
1985	-	0.45	-	_
1990	-	0.64	-	_
1995	-	0.69	-	_
1997	0.89	0.74	2.53	1.47
1998	0.92	0.77	2.48	1.51
1999	0.95	0.79	2.58	1.54
2000	0.97	0.81	2.62	1.58
2001	1.00	0.82	2.69	1.61
2002	1.02	0.84	2.78	1.67
2003	1.04	0.85	2.74	1.77
2004	1.04	0.86	2.79	1.78
2005	1.05	0.85	2.82	1.82
2006 <sup>P</sup>	1.04	0.84	2.83	1.85

Source: INEGI. Industria de la Maguiladora de Exportacion, 2007.

INEGI: Sistema de Cuentas Nacionales de Mexico. La producción, salarios, empleo y productividad de la industria maquiladora de Exportacion. 1997, 2002.

### 4.3 The Tehuacan region in Mexico

Tehuacan is a region of Puebla, a state in the southern region of Mexico. It consists of 18 municipalities (provinces) and contains a city of the same name: Tehuacan. This city is the second largest of the state of Puebla, and in 2005 had a population of 238,229<sup>16</sup>. Most of the towns within this region are predominantly indigenous, from Nahuatl, Mixteco, and Popoloca groups.

This area used to be mainly an agricultural one, where maize, beans, gourds, wheat, oats, alfalfa and tomato were grown. Although most of the crops are still cultivated in the area, with time agriculture has declined in importance. The main causes of this decline are identified by Barrios Hernandez (2003) as the industrialization of the region, the lack of capitalization and the privatization of access to water and land. Tehuacan is also known for its mineral water industry, with a very important soft drink producer, Peñafiel, established there. There is also production of livestock, pigs, sheep, and cattle. Apiculture too has become quite a significant activity in the zone (Ayuntamiento de Tehuacan, 2008).

During the 80's textile factories arrived in the Tehuacan area, set up by local entrepreneurs. Initially, these produced shirts, trousers, school and industrial uniforms and underwear, mainly for domestic consumption. During those years textile production coexisted with agricultural production (Diaz Nuñez 2002; Martinez De Ita 2002; Barrios Hernandez 2004).

However in 1994 the North Free Trade Agreement (NAFTA) between the US, Canada and Mexico prompted transnational companies to make arrangements with local entrepreneurs. Thus there was an explosion in the establishment of textile maquilas in the region. The greatest growth rate occurred between 1995 and 2000. The region's maquilas assemble mainly jeans for transnational companies from the US such as Guess Incorporated, Levi Strauss, Calvin Klein, Gap, Polo Ralph Lauren, Tommy Hilfiger, The Limited, Sarah Lee, VF Corporation and others (Barrios Hernandez 2004). It is very difficult to calculate how many maquilas exist in Tehuacan as many do not register with the government. Barrios Hernandez (2003) calculated that in 2002 there were close to 700 maquiladoras in the region. According to estimates made this year, 80% of the textiles produced in the area were exported. In 2001 the proceeds of this industry were the most important for the region.

Thus from 1995 to 2000 many textile assembly plants were established in the zone, providing plenty of employment. According to a survey carried out by Diaz Nuñez

<sup>&</sup>lt;sup>16</sup> Instituto Nacional de Estadistica y Geografia (INEGI). Conteo de Población y Vivienda, 2005.

(2002), 52.8% of the maquila's workforce in the area of Tehuacan was female. Estimates of gendered hiring trends over time in the maquilas of the Tehuacan area specifically are not available, so that data on this trend from the state of Puebla are instead reported in Table 3-1. These figures confirm the results obtained by Diaz Nuñez (2002) which assert that men represent almost half the workforce. They also show that over time they comprise a greater proportion of the workforce. However, though employment created during the textile maquila boom was shared almost equally between the sexes, during this period a specific type of salaried employment for women was generated.

Table 4-3: Masculinity rates of maquila for export employment in Puebla<sup>17</sup>.

			Puebla	
	Total	Obreros	Technicians	Administrative
1997	0.91	0.83	2.07	1.27
1998	0.98	0.91	1.89	1.27
1999	1.01	0.93	1.85	1.31
2000	1.00	0.95	1.73	1.19
2001	0.99	0.92	1.80	1.12
2002	1.00	0.93	1.80	1.10
2003	1.11	1.03	1.93	1.35
2004	1.07	0.98	2.16	1.15
2005	1.05	0.97	2.06	1.04
2006 <sup>P</sup>	1.02	0.94	1.89	1.06

INEGI. <u>Sistema de Cuentas Nacionales de México. La producción, salarios, empleo y</u> productividad de la industria maquiladora de exportación.1997, 2002.

Field work was conducted in two towns of the Tehuacan area where textile maquiladoras had been set up and where, as a consequence, demand for female employment was created. Previous to the arrival of assembly plants, there were no other significant salaried employment opportunities for women in the region. This characteristic makes these towns optimal sites for the study, as previously women only dedicated themselves to traditional self-employment activities. Thus customary social norms still prevail in the towns alongside an abundant source of homogeneous employment for women.

<sup>&</sup>lt;sup>17</sup> Masculinity rates are calculated by dividing the number of males over the number of females.

### 4.4 Population and household characteristics of San Gabriel Chilac and Santiago Miahuatlan

The two towns which are compared in the study are San Gabriel Chilac and Santiago Miahuatlan. These sites have not only experienced a surge in textile maquilas, but also share similar population and topographical characteristics. Both are in municipalities that are adjacent to the city of Tehuacan where all the services like banks and hospitals are available. Both have easy access and transportation to this city. However, wives' participation levels in assembly plant employment are lower in San Gabriel Chilac than in Miahuatlan. San Gabriel Chilac is also a very traditional and indigenous town. Therefore it is plausible to explore whether social norms play any role in influencing wives' lower participation levels here than in Miahuatlan.

Table 4-4 shows figures of the population and number of homes in each town for 2005. As can be observed they have very similar size, with only a 1,000-person difference in their populations. They also have very similar proportions of men and women. The number of homes in each are also similar. Further, homes in the two towns have largely male heads of households.

Table 4-4: Percentage of female and male population

	Total Popu- lation	Total Homes	% Female Popu- lation	% Female headed house holds	% Popu- lation of 5 years or older that speaks an indigenous language	% Popu lation of 5 years or older that speaks an indigenous language and no Spanish
Chilac	11333	2664	52.46	26.46	52.85	0.54
Miahuatlan	12765	2617	52.30	27.74	1.21	0.00

INEGI. Conteo de Poblacion y Vivienda. 2005.

Nevertheless, as Table 4-4 also shows, there is a great divergence in the proportion of indigenous people in each town. INEGI classifies an individual as indigenous if he speaks an indigenous language. While almost half of the population in San Gabriel Chilac speak an indigenous language, almost none in Santiago Miahuatlan does. This is so, even though the population of the two have the same ethnic background. Originally, Nahuatl was spoken in both towns, but has now been lost almost completely in Santiago Miahuatlan. As such, it could well may be that norms have evolved differently in each town.

It can also be said that San Gabriel Chilac has higher levels of marginalization than Santiago Miahuatlan. The National Council of Population (Consejo Nacional de Poblacion, CONAPO), in Mexico constructs a marginalization index for each locality in the country. This index is based on illiteracy rates of the population; the population without basic levels (primary) of education; the proportion of dwellings without services such as electricity, drainage or running water; overcrowding of dwellings; and the proportion of dwellings with refrigerator. Out of this index, this institution ranks localities into five levels of marginalization: very high, high, medium, low and very low. San Gabriel Chilac has a high level of marginalization (index of -0.46) while Santiago Miahuatlan has a medium one (index of -0.72)<sup>18</sup>. Although each town has a different level of marginalisation the difference in the index between each is not very high.

However, when each of the elements which compose this marginalisation index are analysed separately, there is much more of a mixed story. Some components are better in San Gabriel Chilac and others in Santiago Miahuatlan. For instance, it can be observed in Table 4-5 that education levels are better in the latter than in the former, though they are quite low in both towns. The primary or basic level of education takes six years to complete. In Chilac, the average years of education of the population does not even reach this level. In Miahuatlan on the other hand, it is slightly above it. The situation is much worse for women, as in each of the towns their average years of education is lower than that of men.

The same pattern is observed when analysing the illiteracy rates from Table 4-6. Almost a fifth of the population is illiterate in San Gabriel Chilac, while this proportion is close to a tenth in Santiago Miahuatlan. This rate is also much higher for women in both towns.

Table 4-5: Average years of education of the population

	Average years of education of the population	Average years of education of the male population	Average years of education of the female population
Chilac	5.09	5.48	4.78
Miahuatlan	6.49	6.8	6.23

INEGI. Conteo de Poblacion y Vivienda. 2005.

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A very low level of marginalisation ranges from -2.00 to -1.35, a low one from -1.35 to -1.02, a medium from -1.02 to -0.70, a high from -.70 to 0.61, a very high from 0.61 to 3.23.

Table 4-6: Percentage of population 15 years or more, that is illiterate.

	% population 15 years or more illiterate	% male population 15 years or more illiterate	% female population 15 years or more illiterate
Chilac	19.88	15.00	24.00
Miahuatlan	12.74	9.30	15.62

INEGI. Conteo de Poblacion y Vivienda. 2005.

In both towns, the majority of houses have access to basic services (Table 4-9). However, surprisingly a greater proportion have all the services in Chilac than in Miahuatlan. The difference between the two towns in the number of houses that have running water and those which have dirt floors is even more surprising. Usually, the infrastructure to access to these services (except for non-dirt floors) is provided by the government. So while these services have a large impact on the community's welfare, it is still possible for households to have lower income levels in San Gabriel Chilac than in Miahuatlan.

Table 4-7: Percentage of dwellings with basic services

	% Dwellings with toilet	% Dwellings with running water	% Dwellings with drainage	% Dwellings with electricity	% Dwellings with dirt floor
Chilac	95.64	96.37	87.57	97.68	50.18
Miahuatlan	91.04	85.58	82.80	97.39	27.24

INEGI. Conteo de Poblacion y Vivienda. 2005.

Except for televisions, the percentage of dwellings with domestic appliances is generally quite low as shown in Table 4-7. Only around half the houses have a refrigerator and even less have a washing machine, while the share of households with a computer is almost negligible. A lower proportion of dwellings in San Gabriel Chilac have each of these appliances than in Santiago Miahuatlan. It must be noted, however, that only the percentage of households with a refrigerator form part of the marginalisation index. Nevertheless, the proportions of households with other types of domestic appliances are also good indicators of households' wealth.

Additionally, it must be noted that washing machines and refrigerators are appliances that would help perform domestic chores which are usually carried out by female household members. It can be deduced, then, that for a large proportion of women these chores will be guite strenuous.

Table 4-8: Percentage of households with appliances

	% Dwellings with computer	% Dwellings with washing machine	% Dwellings with refrigerator	% Dwellings with television
Chilac	4.20	28.54	52.02	89.77
Miahuatlan	6.03	40.70	56.29	90.48

INEGI. Conteo de Poblacion y Vivienda. 2005.

To sum up, Chilac has lower levels of education and a lower proportion of its dwellings have domestic appliances. Yet, in this town a there is a larger share of houses with basic services, which are usually provided by the government. Data on income levels of the population in each town are unfortunately not available. Evidence however seems to suggest that San Gabriel Chilac is slightly more marginalised than Miahuatlan.

Table 4-9: Manufacturing industry in Miahuatlan and San Gabriel Chilac, 2004

	Economic Units		Total Production (thousands of pesos)		Total persons employed	
	Miah	Chilac	Miah	Chilac	Miah	Chilac
Manufacturing Industries	81	112	424,555	60,877	1,232	692
-Food industry	30	63	348,681	9,007	423	136
-Fabrication of textile inputs	6	0	36,833	0	169	0
-Garment Fabrication	16	33	27,611	50,056	524	529
-Fabrication of metallic	9	0	870	0	14	0
products						
-Wholesale trading	0	8	5,204	1,533	22	20
-Retail commerce	231	289	6,103	7,698	313	434
-Food preparation services	42	29	2,360	2,160	64	65

INEGI. Censos Economicos 2004.

The economic activity of each town is also quite dissimilar. If we analyze data on the manufacturing industry, it can be seen that garment fabrication is very important for both towns in terms of total production and employment levels.<sup>19</sup> It must be observed nevertheless that there are fewer economic units dedicated to the fabrication of textiles in Miahuatlan than in Chilac. This does not mean that there are more textile assembly plants in the latter, as in this town sewing and broidery is a tradition. As such there are workshops which dedicate themselves to the production of customary garments. From Table 4-9, it can also observed that there are economic units that fabricate textile

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<sup>&</sup>lt;sup>19</sup> It must be clarified though, that official data on the manufacturing industry can be quite inaccurate as many assembly plants are not registered and operate clandestinely. For the whole of Tehuacan, for example, Barrios (2003) notes that there are 248 maquilas registered, but it is calculated that there are actually around 700 of them.

inputs in Miahuatlan, while these do not exist in Chilac. This industry seems to be very important in terms of production and employment. However, while in Chilac the production of textiles is the most important manufacturing industry in terms of production, in Miahuatlan the food industry is much more significant.

### 4.5 Characteristics of sample of wives and their husbands

Next, the characteristics of the wives surveyed and their households will be described. First the personal characteristics of wives and husbands such as language, age, education will be explored. second, average information regarding household income; husbands' main and secondary occupations; and household' access to land will be displayed. Finally, the different activities of wives in both towns will be discussed.

From Table 4-10 it can be seen that while in Miahuatlan very few speak the indigenous language Nahuatl, a large majority of them do in San Gabriel Chilac. Yet it can be observed that the result obtained for the proportion of wives speaking the indigenous language in Chilac, in the current sample, is much higher than that of the census shown in the previous section. This can be explained by the census' inclusion of both males and females. The census also includes people older than five years old, while the survey includes married women only. This might be an indication that indigenous language is being lost over time in San Gabriel Chilac, as a lower percentage of younger people speak Nahuatl. This could be due to a slow transformation of the town from an agricultural one to a more industrial and 'modern' one.

Table 4-10: Percentage of wives who speak an indigenous language

	%
Both	39.5
Miahuatlan	1.86
Chilac	76.5

Table 4-11, shows the basic statistics for the age of wives and their husbands. As expected, the average age of husbands is larger than that of wives. An interesting observation is the minimum age of wives and their husbands. In Chilac, the youngest wife is 15 years old while in Miahuatlan the youngest is 17. The youngest husband in Chilac is 16, and in Miahuatlan 19. Thus, individuals still get married fairly young in these towns, which is common in rural areas of Mexico.

Table 4-11: Age of wives and husbands

	Wife			Husband		
	Both	Miahuatlan	Chilac	Both	Miahuatlan	Chilac
Mean	37.18	36.61	37.75	39.46	38.61	40.29
Median	35	35	36	38	37	40
Std. Dev	11.18	10.72	11.62	11.96	11.36	12.40
Min	15	17	15	16	16	19

As for education levels, it can be seen in Tables 4-12 and 4-13, that these are quite similar to those of the Census. The majority have at most primary, which is a basic level of education. What is more, women have even lower levels of education than men. Towns' educational levels on average are inferior in San Gabriel Chilac to those of Miahuatlan. An interesting exception is the relatively high proportion of wives in San Gabriel Chilac who have studied a 'normal' course, i.e. in preparation to teach children at public schools. As will be shown later, teachers, apart from a good salary, receive many other benefits. Thus for women in these towns, being a teacher is the best professional option.

Table 4-12: Education levels of wives and husbands

		Wives			Husbands		
	Both	Miahuatlan	Chilac	Both	Miahuatlan	Chilac	
None	10.19	5.12	15.21	12.35	7.98	16.67	
Pre-school	0.69	1.40	0.00	0.00	0.00	0.00	
Primary	60.88	61.4	60.37	52.68	48.83	56.48	
Secondary	20.37	24.19	16.59	23.08	30.05	16.2	
Bachillerato	3.01	4.19	1.84	6.53	7.51	5.56	
Normal	1.39	0.47	2.3	0.93	0.47	1.39	
Technical	2.31	2.79	1.84	1.63	2.82	0.46	
<b>Professional</b>	1.16	0.47	1.84	2.8	2.35	3.24	
Total	100.00	100.00	100.00	100.00	100.00	100.00	

Table 4-13: Years of education of wives and husbands

		Wives			Husbands		
	Both	Chilac	Miah	Both	Chilac	Miah	
Mean	5.63	5.79	5.46	5.94	6.50	5.39	
Median	6	6	6	6	6	6	
Std Dev	3.73	3.41	4.03	4.08	3.89	4.20	

Total household income per week, reported by wives is displayed in Table 4-14. It can be seen that on average, household income is lower in Chilac than in Miahuatlan. It can also be observed that in both towns, the variance in income between households is

large. Yet, this figure is much larger for Miahuatlan. Nevertheless, the median in household income for this town is also larger than that of Chilac.

Table 4-14: Household income per week<sup>20</sup>

	Both	Miahuatlan	Chilac
Mean	\$1,664.02	\$1,937.39	\$1,395.76
Median	\$1,087.11	\$1,200.00	\$958.46
St. Dev	\$3,709.17	\$5,028.58	\$1,537.67

The average number of household members in each dwelling is displayed in Table 4-15. The mean number of household members was 5. This suggests that on average they were not very large compared to what is common in rural areas of Mexico. Traditionally, spouses in rural areas have many children. This result might then reflect the process of urbanization and modernization in both towns, as well as the increase in use of contraception. It also has to be considered that income has to be distributed between them.

Table 4-15: Number of household members

	Both	Miahuatlan	Chilac
Mean	4.96	5.24	4.68
Median	5	5	4
St. Dev	1.79	1.86	1.67

Table 4-16: Husbands' main occupation

	Both	Miahuatlan	Chilac
Assembly worker	28.31	40	16.67
Merchant	4.87	5.58	4.17
Driver	7.42	10.7	4.17
Farmer	31.79	13.95	49.54
Electrician	0.93	0.93	0.93
Migrant USA	3.02	3.72	2.31
<b>Building worker</b>	6.03	5.12	6.94
Own business	1.16	1.4	0.93
Professional	1.86	1.86	1.85
Teacher	0.93	0.47	1.39
Animals	0.23	0.47	0.00
Retired	1.39	1.4	1.39
Sick	1.16	0.93	1.39
Other	10.9	13.49	8.33
Total	100.00	100.00	100.00

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<sup>&</sup>lt;sup>20</sup> The average exchange rate according to the Mexican Central Bank (BANXICO) was of \$11.09 Mexican pesos per 1 US Dollar, on May 2006.

Exploring husbands' occupations, it can be verified in Table 4-16 that working in an assembly plant and being a farmer are the most common activities. Yet, while the former is more common in the town of Santiago Miahuatlan, the later is much more prevalent in San Gabriel Chilac. It can also be seen that in the two towns there are relatively few self-employed husbands, or husbands who are not in the workforce.

We also asked whether husbands had a secondary activity. As Table 4-17 shows, only a modest proportion from both towns had a secondary income-generating activity. These secondary activities are displayed in Table 4-18. Almost half the husbands with a secondary activity from the two towns worked as farmers. Thus overall, around 39.58% of husbands are farmers as a first or second activity. In Chilac this percentage is 21.40%, while in Miahuatlan it is 57.60%.

Table 4-17: Percentage of husbands with a secondary activity

	Both	Miahuatlan	Chilac
Secondary activity	15.51	16.28	14.75

Table 4-18: Husbands secondary occupations.

	Both	Miahuatlan	Chilac
Driver	2.99	5.71	0.00
Farmer	50.75	45.71	56.25
Blacksmith	1.49	2.86	0.00
Electrician	4.48	8.57	0.00
<b>Building worker</b>	5.97	2.86	9.38
Own business	7.46	5.71	9.38
Animals	5.97	11.43	0.00
Other	20.90	17.14	25.00
Total	100.00	100.00	100.00

Besides having a main occupation, if households have access to land, be it rented, lent or owned, husbands also allocate time to farming. Nonetheless, only a small proportion of households in the two towns of Tehuacan had a plot to cultivate. As observed in Table 4-19, around a sixth of households had access to land. A slightly higher proportion of households in San Gabriel Chilac have access to a plot of land than those of Miahuatlan.

Table 4-19: Percentage of households with access to land

	% of households with land
Both	15.97
Miahuatlan	14.88
Chilac	17.05

As can be seen in Table 4-20, the decisions regarding the cultivation of land were mostly taken by husbands. Only around 9% of decisions on how and what to grow are taken by wives. Fathers and fathers-in-law also take part in the farming decisions, much more than mothers and mothers-in-law. Thus, it can be said that the cultivation of land is mainly a male decision.

Table 4-20: Family member who takes the main decisions regarding cultivating land

	Both	Miahuatlan	Chilac
Wife	8.96	9.38	8.57
Husband	73.13	65.63	80.00
Mother-in-Law	1.49	3.13	0.00
Father-in-Law	5.97	6.25	5.71
Father	2.99	6.25	0.00
Mother	1.49	3.13	0.00
Children	1.49	3.13	0.00
Brother/sister	1.49	3.13	0.00
Other	2.99	0.00	5.71

Table 4-21: Type of crop grown in households' available land

	Both	Miahuatlan	Chilac
Maize	53.62	62.50	45.95
Garlic	20.29	0.00	37.84
Alfalfa	8.70	15.63	2.70
Courgette	10.14	0.00	18.92
Tomato	4.35	3.13	5.41
Beans	8.70	18.75	0.00
Chilli	1.45	3.13	0.00
Nopal	1.45	3.13	0.00

In Table 4-21, the crops which households cultivated previous to the year of reference are displayed. The main crop grown in both towns was maize. However, this is the only

crop that was grown in the two localities. In Chilac, growing garlic was quite common, followed by courgettes, whereas alfalfa and beans were the main crops in Miahuatlan. Now we will address the economic activities wives carry out in the two towns of the Tehuacan area. These are much more diverse than the husbands'. Wives are commonly responsible for housework, but also have to perform other economic activities, including taking care of animals destined for household consumption or for selling in case of need; helping without pay in a family business; farming in the household's plot; self-employed income-generating activities and in some cases salaried jobs. Wives do not restrict themselves to one activity only, but usually engage in several. Next, the participation rates in each of these occupations will be explored. As can be verified in Table 4-22, the participation rates for married women in salaried employment are very low. Overall, only a fifth of wives had worked for a salary in the previous year of reference and even fewer had done so previous to the week of reference. The gap in the rates between towns is surprising, as almost double the share of women worked for a salary in Miahuatlan to that in Chilac.

Table 4-22: Percentage of wives with a salaried activity

	Ever salaried	Salaried last year	Currently Salaried
Both	77.78	21.53	16.90
Miahuatlan	85.58	28.37	22.79
Chilac	70.05	14.75	11.06

Table 4-23 shows that textile assembly plant employment is by large one of the main waged occupations for wives, especially for those of San Gabriel Chilac. The next, but by far most popular salaried activity is that of a school teacher, again particularly in San Gabriel Chilac. However, it must be emphasised that in order to be a school teacher, women need 4 years of training once they have completed high school. As is shown in Tables 4-14 and 4-15, very few have the opportunity to obtain these higher levels of education. The other viable alternative occupations for women without formal education are being hired in a store or working as a maid. As can be seen, only a very small proportion of wives participating in salaried employment undertake these activities. It can be concluded then, that for wives without formal educational levels, maquila employment is the essential activity.

**Table 4-23: Wives salaried occupations** 

	Last Year			Week of Reference		ence
	Both	Miah	Chilac	Both	Miah	Chilac
Assembly	75.00	80.70	64.52	75.34	81.63	62.50
Maid	4.55	7.02	0.00	4.11	6.12	0.00
Teacher	10.23	3.51	22.58	12.33	4.08	0.00
In store or small business	4.55	5.26	3.23	2.74	4.08	29.17
Nurse	1.14	1.75	0.00	1.37	2.04	0.00
Farmer	1.14	0.00	3.23	1.37	0.00	4.17
Other professional non manual	2.27	1.75	3.23	2.74	2.04	4.17
Other non professional manual	1.14	0.00	3.23	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00

Another income-generating activity available for wives in the area is that of self-employment. As can be seen in Table 4-24, a much larger proportion of wives, almost half, engaged in this form of activity. Further, when comparing the share of wives who are self-employed in each town, it is found that in Chilac almost double the proportion of wives engage in this activity to that in Miahuatlan. This is opposite to the results obtained when the percentage of salaried wives was compared by town.

Table 4-24: Percentage of self employed wives

	Self employed last year	Self employed week of reference
Both	53.7	45.14
Miahuatlan	40	29.77
Chilac	67.28	60.37

It must be noted, however, that even if for some wives self-employment can be a substitute for salaried employment as an income-generating activity, for some it can also be a complementary strategy. Table 4-25 shows the percentage of salaried wives who engaged in self-employment. It can be seen that, especially for those wives who are currently working compared to those who did so in the previous year, this proportion is very low, especially for salaried wives in Miahuatlan. It can be concluded therefore that for the great majority of wives self-employment is an alternative incomegenerating strategy instead of a complementary one.

Table 4-25: Percentage of salaried wives who are also self-employed

	Salaried wife also self-employed last Year	Salaried wife also self-employed last week
Both	18.18	9.59
Miahuatlan	14.04	6.12
Chilac	25.81	16.64

It can be observed that wives are diversified into a number of self-employment activities. In San Gabriel Chilac, there is a strong tradition of sewing and weaving. This activity is passed on from generation to generation as mothers teach their daughters how to embroider and sew. Many women embroider clothes for 'baby Jesus' effigies which are sold once a year for ceremonies in Catholic churches. Another group of women embroider napkins or dresses which are bought by intermediaries once a week. Some even have workshops and sell the clothes themselves in city markets (Puebla or Mexico City). A large proportion of self-employed wives in Chilac undertake this work.

Table 4-26: Wives' self-employment activities

		Last Year		We	Week of Reference		
	Both	Miah	Chilac	Both	Miah	Chilac	
Sew	39.66	10.47	56.85	42.05	14.06	44.27	
Sell Garlic	6.03	0.00	9.59	5.64	0.00	8.4	
Store	16.81	20.93	14.38	19.49	26.56	16.03	
De-threading	5.17	6.98	4.11	4.1	4.69	3.82	
Make Tortillas	7.76	16.28	2.74	7.18	15.63	3.05	
Prepare Food	8.62	15.12	4.79	8.72	15.63	5.34	
Hawking	6.03	6.98	5.48	5.13	6.25	4.58	
Sell items in	7.76	11.63	5.48	7.18	12.5	4.58	
stall							

Selling garlic in the market of Tehuacan, mainly on weekends, is also a frequent activity that is exclusive to San Gabriel Chilac. Garlic is cultivated in the town, so wives sell their families' or others' produce in the markets. In Miahuatlan a large share of wives prepare tortillas, a corn-based type of bread commonly used in Mexico in almost every meal.

Convenience stores are a common enterprise for wives in both towns. These grocery shops range from the most simple, where only candy and non-perishable food is sold, to those which are fully equipped and have refrigerators and a much more varied stock. Usually, women keep an eye on them all day long while their husbands or sons work.

These types of business are more common in Miahuatlan but are still widespread in Chilac.

A less common activity linked to assembly plants is removing threads from jeans. Maquilas distribute jeans to women's houses and pay them per piece de-threaded. Finally, wives also sell products such as Avon from door to door, prepare food and sell it in stalls on the street, or sell items such as cosmetics or CD's in market or street stalls. However, these are the least common activities.

It is important to note that wives' self-employment activities in both towns are socially considered to be female ones. Sewing, cooking and making tortillas are activities women carry out within the house. Thus except for selling, the other self-employment activities are an extension of their reproductive activities.

Apart from self-employment and salaried activities, another kind of economic activity by which wives in the area help support their families is by taking care of animals in their back yard. These are usually consumed or can be sold when cash is needed. As can be seen from Table 4-27, this activity is equally popular in both towns.

Table 4-27: Percentage of wives taking care of animals

	Have Animals
Both	43.75
Miahuatlan	42.79
Chilac	44.7

A smaller percentage of wives working in salaried employment had animals compared to those who were self-employed, especially if they had worked previous to the week of reference. However, a significant proportion still did. Self-employed wives on the other hand have an equal proportion of animals to the general population of wives. This could be due to working wives having less time, or that they have higher income levels and thus depend less on animal husbandry than self-employed wives.

Table 4-28: Percentage of salaried and self-employed wives keeping animals

	Salaried wife last year keeping animals	Salaried last week also keeping animals	Self employed wife last year keeping animals	Self employed last week also keeping animals
Both	39.78	34.55	43.53	44.62
Miahuatlan	39.34	37.50	41.86	46.88
Chilac	40.63	26.67	44.52	43.51

As can be verified in Table 4-29, by far the most common animals wives keep in the two towns are turkeys and chickens. A smaller proportion of wives have large animals like pigs, cows, lambs, donkeys and bulls, which are much more common in Miahuatlan than in Chilac. This is surprising as Chilac is much more of a rural and agricultural town. This finding, nevertheless, could be due to people in Miahuatlan having higher household income levels and therefore greater ability to buy these kinds of animals.

Table 4-29: Types of animals wives keep

	Both	Miahuatlan	Chilac
Turkey	65.61	51.09	79.38
Chicken	42.86	46.74	39.18
Hen	21.16	32.61	10.31
Goat	7.41	9.78	5.15
Pig	7.94	14.13	2.06
Cow	3.70	7.61	0.00
Lamb	10.05	14.13	6.19
Duck	1.59	1.09	2.06
Donkey	3.70	6.52	1.03
Bull	2.12	4.35	0.00

Women also help out in family or friend's businesses without pay. For example, they can help attend on their mother in law's corner shop regularly, as a favour to herwithout expecting any cash reward for their time. Therefore, they are providing labour to their family members (which can also be members of their households) or friends freely. Table 4-30 shows the proportion of wives in each town who helped in a business without pay. Some (around 10%) dedicated time to help a business previous to the week of reference. A larger proportion of them did so in San Gabriel Chilac than in Miahuatlan.

Table 4-30: Percentage of wives that helped in a business without pay

	Helped business last year	Helped business last week
Both	9.74	7.40
Miahuatlan	7.01	5.12
Chilac	12.44	9.68

The relationships wives have with the individuals they help are varied, as shown in Table 4-31. In both towns, the relation they helped most often was a husband. A lower

but also meaningful share of wives assist their mothers, particularly in San Gabriel Chilac. Surprisingly, only in Miahuatlan were wives found to help their friends. Furthermore, they helped them almost as often as their husbands. Women in this town reported having more friends than those from Chilac, where due to cultural norms wives have more mobility restrictions and participate less in salaried employment (where they meet friends) than in Miahuatlan.

Table 4-31: Relation whose business wives' helped with

	Both	Miahuatlan	Chilac
Spouse	30.95	33.33	29.63
Mother	19.05	13.33	22.22
Mother-in-law	7.14	13.33	3.70
Daughter	9.52	0.00	14.81
Sibling	11.90	6.67	14.81
Other family members	11.90	6.67	3.70
Friends	9.52	26.67	0.00
Total	100.00	100.00	100.00

Table 4-32 displays the kinds of businesses wives helped to run. In the two towns, a majority of wives who aided in a business did so in a corner shop. Fewer wives helped their relatives preparing food in stalls and making tortillas to sell there. As with wives' own self-employed occupations, they commonly helped in activities commonly were considered female.

Table 4-32: Type of business wives helped with

	Both	Miahuatlan	Chilac
Corner shops	55.00	53.85	55.56
Sell food	15.00	15.38	14.81
Sewing	7.50	7.69	7.41
<b>Medical center</b>	2.50	7.69	0.00
Repair shop	2.50	0.00	3.70
Tortilla	12.50	15.38	11.11
Craft	2.50	0.00	3.70
Professional	2.50	0.00	3.70
Total	100.00	100.00	100.00

Finally, wives also contributed economically by working the household's land. Overall few wives helped in this way, as is shown in Table 4-35 since few households had access to a plot. If households with land are taken into account, it can be seen that a majority of wives there helped cultivating it.

Table 4-33: Percentage of wives that helped cultivate land

	Help with land	Help with land, of those who have it
Both	8.8	55.07
Miahuatlan	6.98	46.88
Chilac	10.6	62.16

### 4.6 Conclusion

Wives thus can engage in a wide range of possible activities to provide economically for their households, with or without pay. Among these, salaried employment and particularly assembly plant employment are untraditional activities for married women. Social norms regulate and sanction wives' participation in them. In the following section, the main moral arguments and mechanisms by which norms in both San Gabriel Chilac and Santiago Miahuatlan prevent wives from participating in assembly plant employment will be explored.

Although not the main focus of this study, it must be remembered that husbands are generally the ones who take the decisions as to what to cultivate. Finally, a notable proportion of wives helped without pay in their husbands' businesses.

# 5 Moral arguments and decision-making within the household

### 5.1 Introduction

In Mexico 'the stereotype was that a manly man had to be a good provider for his family (as well as a heavy drinker, socializing mainly with his mates when not engaged with vigorous promiscuity). A womanly woman, on the other hand, was chaste and pure, the bearer of her husband's honour; she stayed in the home, cared well for him and their children, and had an enduring capacity for suffering' (Townsend 1999).

The previous paragraph depicts the main roles of husbands and wives in Mexico. As such, it describes the ideal behaviour that is expected of women and men once they are married. Consistent with these roles are the main moral arguments that sustain the social norm that women ought not to participate in assembly plant employment in the two towns of the Tehuacán area. The first moral argument which will be explored is that of wives' having the duty of fulfilling and being responsible for reproductive activities. Thus they should stay at home fulfilling these. The second one refers to women's sexual integrity and states that women working for assembly plants are promiscuous. They should therefore avoid being dishonoured by taking jobs there. The last moral discourse refers to men's obligation as breadwinners. If their wives are working for a salary in assembly plants, it implies that they are failing to fulfil their role or duty to their families. This is, as a result, another reason for wives to stay out of assembly plant employment.

This chapter then, first makes an in-depth description of each one of these arguments. Second, it gives an overview of the extent to which these moral arguments permeate both towns. And finally, it described how couples negotiate wives' participation or not in assembly plant employment. It also focuses on the roles that moral arguments play in the bargaining process between spouses.

### 5.2 Women as homemakers

Many of the women interviewed from both towns perceived staying at home as their *obligation* as wives. Thus, they did not consider it appropriate to work in an assembly plant. Some women had been raised to fulfil this role throughout their lives and had stayed at home since they stopped studying, usually at a very young age. Therefore they had never taken part in any sort of paid job.

This was the case, for example, of Sonia, a wife from San Gabriel Chilac who has three sons aged 14, 12, and 10, and an 8-year-old daughter. As she states, she had never

taken part in a salaried activity as 'since a girl, I have always been in my home.' Consistent with her upbringing, she viewed her place in the home when married, as her *obligation* of 'ama de casa'<sup>21</sup>. However, when asked if she would like to work for the maquila independently of having to fulfil this role, she said that she would. This is an illustration of how girls are raised to fulfil their role as homemakers and thus, when they get married, continue to perceive it as their duty.

Other wives have had the experience of participating in some form of salaried employment when they were single. Nevertheless, they had ceased doing so when they got married so that they could fulfil their role as housewives. The most common jobs for single women in both towns were assembly plant employment and working as a maid. Generally, those women who had been maids while single had migrated temporarily to another city such as Mexico City or Tehuacan. Thus they had also had the experience of living in another city but had returned to their towns and now fulfilled their socially ascribed roles.

Pilar is a case of a wife from Chilac who had had a salaried job when unmarried. She had gone to the state of Veracruz, Mexico to work in an assembly plant when single, but had stopped doing so when she got married. She was 48 years old and had had 5 children, now aged 18 to 25. In accordance with wives' social role, she believed that a woman should cease working after she got married. She stated:

'Once one has a husband, once one has, as one says, a husband, one doesn't work somewhere else'

Women's responsibility of being a homemaker once they got married was also an argument reference groups would use to sanction them when they broke the social norm of not working in assembly plants. For example, Clara was a 16-year-old and mother of a one-year-old baby. She had recently quit working for the maquila but had continued for some time during her marriage. She recalled how throughout this period, her mother and father would criticize her by telling her that as she had gotten married, therefore she now had the obligation to stay at home.

Ana, a 23-year-old from Chilac working for the maquila, believed that there would be gossip in the community upholding this moral argument, although she wasn't able to exactly identify by whom. As she said, when married women worked in the maquila people would say:

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<sup>&</sup>lt;sup>21</sup> Term in Spanish meaning 'Mistress of the house.'

'For what did she get married, if she was going to continue working...'

This statement not only supports wives' role as homemakers, but even stronger, implies that the only purpose of women is marriage.

Marriage alone is enough reason for some individuals to believe wives should stay at home. However, for many wives and husbands, the defining responsibility of married women in their role as homemakers is that of childbearing. For example, Susana, a wife from Miahuatlan used to work previously in the maquila. Yet now she stayed at home taking care of her three children aged 6, 3 and 1. She described:

'Its one's turn to look after the kids at home, but then one does not worry (about them). But, if it were for me I go to work. To be honest, I like to work.'

Consistent with her argument, she believed that it was her duty to take care of her children all day instead of working. Nevertheless, she preferred to do the later. Another illustrative case is that of Raul, a 37-year-old husband from Miahuatlan with four children aged 16 to 11 and who had a wife who had never engaged in salaried employment in her life. Even though his wife did want to work for the maquila, he did not agree this was desirable.

'No, because my child is small and she has never worked. Since they are small, she has never worked. Her obligation is towards them, not the maquila. At home she has more time for my children. Further, she has the dinner table ready. You arrive and you know she can wait for her family. Now my children go to school, they will arrive here and they will ask, -and the food? Who will feed them?'

So, this is another example of how it can be considered by some as wives' *obligation* to stay at home. What is more, as depicted in this case, the wife stayed at home with the purpose of being available to serve her family, especially her children, even if they were not at a very young age.

A crucial fear individuals had about wives not staying at home taking care of children, especially if the children were boys, was that they could become 'street' children and join gangs. As Mariana, a 33-year-old housewife explained:

'I say that while they do not have children one can go to work, but once with children, well then one neglects them, especially if they are boys. It is when they need their mother most. Because the mother guards that they do not go to the street that they do not become slackers, because you know that in these times...'

It could be presumed that families in the region did not have an alternative childcare option and that therefore wives with children had no other alternative but to stay at home taking care of them. In both towns, day care centres were scarce. A few assembly plants had their own nurseries, but the great majority of them did not. Nevertheless, several wives that did not participate in assembly plant jobs did have the option of leaving their children with their relatives, particularly their mothers. In the survey, questions were included which asked wives whether there was a female relative who could take care of their children if they had to work for the maquila. Table 5-1 shows that the majority, 60%, of wives reported having at least one person with whom to leave their children. Also, a large proportion of wives considered their own female family members more able to carry out this task than their husbands' family members.

Table 5-1: Percentage of wives who stated there was at least one relative who could take care of their children if they had to work for the maquila<sup>22</sup>

	At least one person	Mother	Mother in law	Sister	Sister in law	Neigh bours	Other person
Both	61.13	39.21	24.78	22.87	17.27	6.51	11.11
Mihuatlan	59.20	34.91	28.70	27.88	20.39	7.14	13.59
Chilac	62.86	42.98	21.31	18.49	14.53	5.98	9.02

Despite this, there was a consistent argument in the towns which stated grandmothers could not take care of children the same way as their mothers did. Lilia, for example, had two girls aged 6 and 3. Although her mother was willing and able to look after her daughters, her husband would disagree with her working for a maquila. As she describes:

'I have already told him (her husband) I want to work, but I tell you he says no because of the girls, that we already have kids and I have to take care of them, because it is not the same thing to stay with a grandmother or another family member, it is not the same...even once I even told my mum and she told me that if it was for the sake of my children I should go to work and she would help me take care of them.'

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<sup>&</sup>lt;sup>22</sup> Figures are calculated for wives who have children less than or equal to 16 years old

Karina, a 40–year-old from San Gabriel Chilac with 2 children, one 13 and another 9, would also prefer to look after them herself instead of having her mother taking care of them for this reason. She explained:

'As I have my children, I could not dedicate myself for example, to the maquila, because I couldn't take care of them, even though I have my mum. But it is very different one as a mother than a grandmother, besides my mother is old. Then, one thinks of something where I can not neglect my children, that is why I dedicate myself to my animals, embroidering, a little of everything. This way I can look after my children.'

Therefore, while some families did not have alternative childcare options, the majority of them did. Nevertheless, couples would prefer not to use them as they believed childcare from other relatives was not a substitute for their mothers' attention. As a consequence, it was wives' duty to stay at home to take care of them.

The argument that wives neglected their children if they went to work for an assembly plant was also commonly used by reference groups to sanction both spouses. This, for example, happened to Clara, a 50-year-old wife from Miahuatlan who had had 7 children, all adults now. The oldest was 40 while the youngest was 17 years old. While her children were younger she used to work for the maquila. She recalls that during this period, her friends would criticize her by asking:

'Why do you work? Because they would say that maybe I was neglecting my children.'

In the end, Clara stopped working because her children started growing up and they demanded that she attend to them.

Mariana the 33-year-old housewife (whose situation was also described previously in the chapter) is another case of a wife who would get criticised for working in the maguila. In this instance, she was criticised by her mother in law.

'She says I shouldn't work. Up to this date I tell her-well I am going to work, she says -no, well you are not going to work. She doesn't want me to go to work because of my youngest boy'

However, it is not only wives who are socially sanctioned when they participate in assembly plant employment, but their husbands as well. Marco is a 33-year-old husband whose wife goes to the maquila. He and his wife have three children aged 13, 12 and 10. His father criticises him because in his opinion their children are being neglected.

Therefore each spouse gets criticised and gossiped about if the wife leaves her duty as homemaker and instead works for an assembly plant. This is especially true if they have children.

It could be argued that taking care of children and even doing housework is a valid argument for wives to stay at home and work. This statement is not denied in this research. How can it be asserted, then, that wives' freedom is curtailed by a social norm that accords with this reasoning? While childcare is considered an unquestionable reason for wives to stay at home, the fact that it is generally considered their *obligation* and *duty* can be regarded as limiting their freedom to decide. Furthermore, it is believed that men should also have the same opportunity to fulfil this role. As Nussbaum (2000) argues: 'If love and imagination are important both as social goals and as moral abilities for each and every person, this already suggests some form of family structure: for we see that not only that women need to acquire the so called male abilities of choice and independent planning, but also that males need to acquire at least some skills traditionally associated with women's work and the female sphere.'

Dolores is a 40-year-old wife from Miahuatlan with 5 children. The oldest is 20 years old while the youngest is 9. When asked whether she would like to work in an assembly plant, she replied she would not because:

'For me the most important thing is to enjoy my children now that they are still with me, young.'

# Nevertheless, she would also believe the following:

'We all have our way of living, of expression, and also for the work. Because even if we are women, we now count with all these liberties and if we sometimes do not do it, it is because we solve it in another way.' Women who work in the maquila 'try to become better, and that is why they work as a couple, the wife together with the man, to live better that is what I believe. Because that idea that a woman has to stay at her home..., no! I think that it is the decision of each family.'

Therefore, even though Dolores had the preference of staying at home to look after their children, she did not think it was wives' duty to do so. It therefore can be implied that she has not internalized this moral argument. However, it must also be recognized that she does imply the idea that wives work only to obtain an additional income.

## 5.3 Male breadwinners

In the two towns studied the husbands as well as the wives had a role to fulfil within their marriage. While wives had the obligation to stay at home to carry out reproductive activities, husbands' duty was to be the breadwinners. Wives' engagement in assembly plants earned them a considerable and visible salary. Therefore, it was considered that if wives went to work for the maquila, husbands were not fulfilling this role.

This responsibility is embodied in what Fernando a 57-year-old husband from Miahuatlan said about wives working for the maquila:

'It is wrong... because that is what we are here for, to work and provide with what is necessary.'

In accord with this statement Fernando did not want his wife to work for the maquila even though she wanted to, had previously done so for 6 years and although their 6 children were already adults.

Raul a 37-year-old husband from Miahuatlan with four children aged 16, 14, 13 and 11, is another example of someone holding these views. Like Fernando, he would not agree to his wife working for an assembly plant, even though she desired to. He stated:

'Since we got married she never worked, lets say, that one is doing ok with the expenses, there are times when one is up to date and there are some times when... what is one to do.'

It was not only husbands who assumed it was their obligation to provide economically for their family: wives expected them to do so as well. Sonia, for example, a wife from Chilac who had never worked for the maquila, implicitly believed this. This is illustrated by her answer when inquired whether she would like to work there:

'now, while he lives, I do not have the apprehension of having to work in the maquila.'

From the previous statements, it is important to notice that these arguments suggest that the only reason why wives would go to work for an assembly plant is to obtain income. Thus, if it is the men's duty to provide economically for their family's expenses, there is no reason for wives to work there. However, even though income can be an important driving force behind women's desire to participate in assembly plant employment, there are other important features of maquila jobs besides the salary that are attractive for wives. These will be explored in the next chapter.

Just as wives suffered social sanctions if they did not comply with the obligation to be homemakers, husbands were also criticised and gossiped about by others if they did not fulfil their role as breadwinners. Further, a series of negative adjectives were attached to these criticisms.

Paola, for instance, a 30-year-old wife from Miahuatlan with three children aged 12, 4 and 3, would claim that husbands would be criticised by people saying:

'that 'huevon'<sup>23</sup> is in the street and his wife working. There is lots of criticism for everything.'

Another wife from Miahuatlan, Claudia, 23 years of age and with two children, a 5 and 4-year-old, also illustrated how husbands were named:

'If she (his wife) went to work, they would say that the husband is a 'mandilon'<sup>24</sup>.

Clara, for instance, a 50-year-old wife from Miahuatlan with 7 children aged 35 to 17 also describes how husbands would be denoted if their wives worked for an assembly plant:

'They would say he is the one who sends her to work because he is very *irresponsible*, because sometimes they do have to go to work because they are *irresponsible*.'

An interesting feature of Clara's statement is that it implies that husbands are the ones who *send* their wives to work in the maquila. This was not an uncommon belief. For example, Marco, the husband of a wife working for the maquila, also suspected there was gossip about him that suggested he was the one making his wife work:

'They haven't said it to me, but I imagine that, it is almost the normal, that he sends her to work because there is not enough for the expenses, that is what they first believe.'

Marco would claim nevertheless that his wife's participation in the assembly plant was a mutual agreement and was due to their having debts at the moment.

Both the previous quotes imply not only that husbands are the ones who want their wives to work in assembly plants, but that they have the authority to make them do so if they wish. Further, by sending their wives to work, husbands are being lazy and irresponsible in their role as breadwinners.

In some instances the irresponsibility imputed to husbands was further heightened by stating that wives' participation in assembly plant employment was related to husbands

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<sup>&</sup>lt;sup>23</sup> Is a pejorative expression that stands for 'lazy', but its literal meaning is 'without balls'.

<sup>&</sup>lt;sup>24</sup> This is also a derogatory word, which is best translated as 'apron wearer.'

drinking too much and therefore not having enough money to provide for their family. For instance, Raul, the 37-year-old husband from Miahuatlan believed:

'If wives go to work the first thing they (society) say when a wife goes to work is 'huevon', this and that, that he is 'echado<sup>25</sup>' or he is in the 'cantina'<sup>26</sup>.'

Carlos, a 32-year-old from Miahuatlan, had a wife who had never worked in her life and three children aged 9 to 15. He believed some husbands made their wives work because they drank and therefore didn't give their wives enough money:

'There are husbands that drink, they don't give (money) to their wives, they don't give them enough, then they have to go to work, now in the situations we live in.'

Occasionally, the same working wives will be socially sanctioned for allowing and promoting their husbands to be irresponsible, lazy and in cases even drunk. As Juana, a 33-year-old wife who sold tortillas part of the year and worked for an assembly plant the rest, illustrated:

'Sometimes they say that we make our husbands to be badly accustomed, because we give them a hand.'

Luisa, a 26-year-old from Miahuatlan, with three children aged 9, 5 and 3, who worked in the maguila, also received criticism:

'Members of my husband's family do not really agree. His father says that only he has to work, that I am getting him into a bad habit.'

However, wives working in the maquila and their husbands used an alternative explanation of husbands' *duty*. This way they would offset the arguments given by some members of the society implying that husbands were irresponsible for not complying with their role as breadwinners when their wives engaged in salaried employment. According to them, as long as the husbands of the working wives were also participating in an income generating activity, then they were fulfilling their responsibility within the marriage. As Marco, a 33-year-old husband from Miahuatlan with three children aged 13, 12 and 10 explained:

'There are different cases, for example, the ones who are married and live with their husbands and children, they do it to bring up properly their children. If the husband does not work and she has to work to sustain the husband and the children ... who knows why they do it'

<sup>26</sup> A bar where only men are allowed.

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<sup>&</sup>lt;sup>25</sup> Word which means lying down, but is used for animals, so pejorative when used

Tonia is a 28-year-old from Miahuatlan with three children of 12, 9 and 6 years, who works for the maquiladora. She defended her husband, stating:

'If he were only in the house, they would say he does not go to work and she is outside the house to go to work. They would say, why does he stay at home? But if both of us go, I do not think they will think badly.'

Husbands of wives working for the maquila would get criticised and gossiped about for being irresponsible. Yet the idea of a wife working in an assembly plant was plausible. Nevertheless, the idea of husbands taking over the role of wives and staying at home engaging in reproductive activities while their wives economically provided for their families was unconceivable. For instance, Claudia a 29-year-old homemaker with two children, one 5 and the other 6, would argue:

'if she goes to work and the husband stays (at home), then what would the husband do? The food? She will want him to stay preparing the food and her working he he (laughs) One has to wake up early, leave the food done, it is also lots of work, it is lots of work.. but if one wants to prosper, she prepares the food, the husband comes, arrives from work, he eats. But if she goes to work and the husband stays being a 'mandilon' there, taking care of the children... that is not ok, then he gets used to it, then the woman works and he does not want to work any more, isn't that true?'

Even Gabriela, a 20-year-old wife from Miahuatlan with a one-year-old son who would work for periods in the maguila, believed that:

'The work is for the man, but the home work is of the women. If a man has time to do his work during the day and the household chores during the night, well, then it is ok. But if he is only doing house work like a woman, then I believe it is not ok.'

Thus the role of each spouse within the marriage was clearly specified. Yet, while there was room for wives to challenge their duty of being at home by going to work to an assembly plant, they still had to be responsible for housework and their husbands had to continue being economic providers. Thus, husbands did not have any opportunity to take on wives' socially ascribed role.

### 5.4 Promiscuous wives

The maquila is a place where women relate and interact with men on a daily basis. Previous to the arrival of assembly plants, married women would mainly stay at home. Therefore, there was no space where women constantly associated with men. As this space was created, the opportunity and fear that wives might meet other men and get

romantically involved with them also emerged. The third moral argument relates to this concern, implying that women who work for assembly plants are promiscuous.

Luisa a 26-year-old from Miahuatlan with three children aged 9, 5 and 3, for example, expressed what was thought of wives working for the maquila in these terms:

'that they are crazy<sup>27</sup>, that is what they say.'

Raul a 37-year-old husband from Miahuatlan had a wife who desired to work in the maquila, yet he was opposed to the idea. He would also refer to married women working for an assembly plant and would do so even in a harsher way:

'Here it is not said, it is known that they are bitches there (in the maquila)'

Some people would even go further and affirm that the whole motivation for married women to participate in assembly plants was to be unfaithful to their husbands. As Martha, a 26-year-old from Chilac who works in the maquila and has two sons, one 6 and another 2 years old, puts it:

'they say that you are in bad steps there, that that is why you it is in your interest to go to the maquila.'

Adela a 47-year-old housewife with 5 children aged 25 to14, articulated couples' refusal to see wives working for the maquilas in similar terms.

'Sometimes, not everybody, sometimes, they see young women and they say that they are searching for a lover, that the woman searches for another man, that she has an affair with some guy. It is what is said sometimes.'

Mariana, the 33-year-old housewife from Miahuatlan with four children also stated:

'The people, who know them (women in the assembly plant) say that they (wives) go because they are searching for another man.'

It is interesting to observe that because cheating on a husband is a negative trait, individuals always make reference to third parties making these types of statements. Raul is an exception, but also a case of a person who has a strong view on the topic. It

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<sup>&</sup>lt;sup>27</sup> In this context, 'crazy' woman means loose woman.

can de deduced accordingly that it is more usual for individuals to refer to gossip and criticism of others on the subject, than to their beliefs about it.

On another note, a good explanation of how gossip and criticism is disseminated is given by Adela (previously quoted).

'They comment about it (infidelity) in the maquila. They then comment it to the neighbour and the neighbour already came to tell. Mainly they would they would tell to my husbands family. It is what they would come to say, or to my father, or to some neighbour or a relative, and then the gossip is constructed, and then, even if I would want to amend things I could not, because there are times that they do believe them, as it happens to some women. There are sometimes that men believe they are very independent, they feel they are self sufficient and they do not listen to the women.'

On the other hand, some wives would defend maquila wives by claiming that the promiscuity of female employees could not be applied to all the workers in the maquila. Mariana, for example, the 33-year-old housewife who stated that others believed wives worked in the maquila in order to be unfaithful to their husbands, contended:

'For one person that gets spoiled inside the maquila, they do not say her, they say, them.'

Camila, a 20-year-old from Miahuatlan with a one-year-old child who was employed in the maquila, also asserted that these comments could not apply to all the wives working for an assembly plant, as it depended on their conduct.

'It depends on the behaviour. If a woman that is already married goes to the maquila, goes to work and she goes to what she is there for, there is no problem. But if instead of working she talks or starts flirting then people judge badly.'

Further, not only were there contentions stating that women's infidelity could not be generalized to all female employees, but also that these were exaggerated. Juana, for instance, a housewife from Chilac, when asked whether she believed there would be rumours about her if she worked in the maquila stated there would be because:

'Well for example, I say that, there is every type of person there, if for example, you have a friendship with someone, they do not say it is friendship... that is why.'

For this reason, Juana believed that even if she was not unfaithful to her husband, there would be gossip about her anyway. There would be rumours about women for having a friendship with a man.

Camila from Miahuatlan also implied that people would misunderstand. She commented:

'Many times we like to beautify ourselves, but they (community) think we make it to attract someone else.'

These last quotes reflect how it is uncustomary in both towns for married women to have regular interaction with males. Additionally, there was concern about any type of female conduct that would give rise to wives potentially flirting with other men.

To avoid suspicions both from husbands and from wider society, some couples would even use the strategy of working for the same maquila. This way husbands would ensure their wives were not having an affair. Additionally, there would not be any scope for gossip on the matter. This was the case, for example, of Mariana, who worked in a maquila in Miahuatlan. Even if she believed rumours were likely to arise when wives worked for the maquila, when asked whether she believed there was gossip about her, she replied:

'No, because both of us work there (in the same maquila).'

Another arrangement partners would use to avoid gossip would be for husbands to go and pick up their wives at the assembly plants. This was the strategy that Susana, now a housewife in Miahuatlan with three children aged 6, 3 and 1, adopted previously when she worked for an assembly plant. This way, her husband would not have any problem with her working.

It must be observed, that contrary to the previous moral arguments, this one does not specify any direct *duty* that needs to be followed by women. However, it implicitly it draws on the stereotype that women have to be chaste, pure and faithful to their husbands. This is contrary to what is expected from husbands. While wives and society in general do not regard husbands' infidelity as a desirable behaviour, it is viewed as natural and even sometimes as part of their essence and therefore not as scandalous. As Mariana, the wife from Miahuatlan with four children, stated:

'It is not gossip (that husbands cheat on wives), it is the truth. In these times there is not one man that is not with women. This already happens worldwide, you can now see it anywhere.'

Further, as it is the husband's obligation to be the breadwinners, their infidelity has no effects on their labour participation.

# 5.5 Internalization of moral arguments

arguments.

Gabriel Chilac and Santiago Miahuatlan maintain that married women should not participate in assembly plant employment were described in detail. We will now explore the extent to which these moral arguments have been internalized by society at large. To proxy for the internalization of each moral argument, Likert scale questions were included in the survey posed to wives. These asked whether wives on one hand, and husbands on the other, believed in each of the moral arguments. Five possible answers were included: whether individuals 'completely agreed', 'somewhat agreed', 'were indifferent', 'somewhat disagreed' or 'completely disagreed' with each of the moral arguments. From these, dummy variables which indicated whether each spouse

'somewhat disagreed' or 'completely disagreed' with each moral argument were constructed. Thus a total of eight dichotomous variables were created; for each spouse there are three which indicate whether they disagreed with each of the moral arguments and an additional one which showed if they disagreed with all the moral

Up to now the three main moral reasons according to which individuals in both San

From Tables 5-2 and 5-3 it can be inferred that a lower percentage of wives and husbands disagreed with the moral argument that wives had to be the homemakers. On the other hand, a much larger share of couples disagreed with the argument that wives working in an assembly plant were promiscuous. Further, the proportions of wives who disagreed with all of the moral arguments are significantly different from each other at a 95% confidence and a 5% significance level. This is also true for husbands' disagreement with all the moral arguments.

Table 5-2: Wives' disagreement on moral arguments

	Women's	Women	Men	All Moral
	place home	Promiscuous	Breadwinners	arguments
% Not Disagree	52.55	25.52	41.63	68.75
% Disagree	47.45	74.48	58.37	31.25
Total	100	100	100	100

Table 5-3: Husbands' disagreement on moral arguments

	Women's	Women Men		All Moral
	place home	Promiscuous	Breadwinners	arguments
% Not Disagree	57.94	37.3	43.63	73.38
% Disagree	42.06	62.7	56.37	26.62
Total	100	100	100	100

From the same tables, it can also be inferred that a larger share of wives would disagree with all the moral arguments than their husbands. The difference between the proportion of wives' and husbands' disagreement is the greatest, for the moral argument stating that wives working in the maquilas were loose. This gap is even significant at a 5 percent level. On the other hand, the divergence between spouses' disagreements on women's obligation to be the homemakers is significant but only at a 10 percent level. Further, the gap between wives' and husbands' disagreement is smallest regarding men having to be the breadwinners. What is more, this difference is not significant at all. Therefore, husbands seem to have internalized norms regarding their wives' behaviour to a much larger extent than wives. Yet this is not the case for the moral argument regarding their role within marriage. In chapter 7 we investigate the extent to which both wives and husbands' beliefs in each moral argument have an effect on the probability that wives will work in assembly plant jobs. It is also investigated whether wives' or husbands' internalization of these rules has the greatest impact on this probability.

Furthermore, beliefs in moral arguments by individuals are not assumed to be given but to depend on a series of variables. Firstly, it is presumed that the degree to which moral arguments are internalized diverge in each town. It should be noted that wives' participation rates in the maquila were much larger in Miahuatlan than in Chilac. A fundamental premise in this research is that differences in participation rates between towns are due to the divergence in beliefs in moral arguments<sup>28</sup>.

Secondly, individuals' internalization of moral arguments is assumed to depend on characteristics such as age, education and household income. Younger generations are bound to believe less in each of these moral arguments. Therefore age is presumed to be negatively correlated to the belief in the moral arguments on the part of both spouses. Additionally, it is presumed that the higher the level of education an individual has, the more he or she will disagree with all the moral arguments. Finally, the level of income of a household is also expected to have a positive effect on spouses' disagreement with moral arguments.

Thirdly, one of the aims of the present research is to discover unconventional variables that influence wives' and husbands' internalization of the moral arguments. Two different characteristics were identified during in-depth interviews which possibly have an influence on people's beliefs in moral arguments. On one hand, whether a husband participates in a traditional activity like farming or works in the newly created assembly plants is bound to have an effect on his perceptions. Previous to the arrival of maguilas

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<sup>&</sup>lt;sup>28</sup> Tables on the share of wives and husbands believing in each moral argument are included in chapter (), where analysis on internalization of norms are extensively analyzed.

to the region, agriculture used to be the predominant activity. Therefore, husbands who still engage in this traditional activity might have less access to alternative views and ways of thinking. Conversely, husbands working for an assembly plant will have first hand information as to what goes on inside them. They will also interact with wives who work in assembly plants and probably with their husbands as well. Therefore to some extent they might have laxer beliefs. Thus, it is expected that husbands in farming will believe more strongly in each moral argument whereas husbands working in assembly plants will believe less in each moral argument.

A second set of determinants of individual beliefs considered in this investigation involves whether the person has lived in a city for an extended period of time, or was born in one. As Bourdieu (1997) explained, people might adopt a social norm because it has been naturalized in society. People perceive there to be a natural order of things and therefore do not question it. When individuals live in a place where the order of things is different from those in their towns, they may begin to doubt whether norms and the arguments that sustain them are natural. They can therefore start questioning them. For example, a wife might believe that her role within her marriage is to be the homemaker because this is what is done in the town where she grew up. If she migrates to a city where these norms are not prevalent and therefore not widely followed, she can start challenging and changing her original beliefs. With even greater reason a person growing up in a city will have come to internalize diverging arguments and norms. Thus, in chapter () we will test whether couples' temporary migration to another city has an effect on their belief in each of the moral arguments.

Finally, individual's beliefs are shaped by interacting with others in the society. In Tehuacán, women had strong ties with their family members. Therefore it is proposed that having participating in assembly plant employment, has an important effect on spouses' beliefs in the moral arguments. Specifically, it is examined whether having a sister or sister in law has any influence in these beliefs.

## 5.6 Social sanctions

People not only have feelings of guilt and shame when they violate a social norm but also face social sanctions by different reference groups when they do. Four different reference groups believed to gossip and criticise couples if wives worked for an assembly plant were mentioned consistently in the previous descriptions of moral arguments. These were the wife's family, the husband's family, neighbours and friends.

Therefore, questions were included in the survey to account for the effect of social sanctions on wives' participation in the maquila. These took the form of Likert scale questions which asked wives how likely they thought it was that they and their husbands would be gossiped about and criticised by each of the reference groups using each of the moral arguments if they participated in an assembly plant. These questions contained four possible answers: whether a wife believed it was sure, likely, unlikely, or impossible for the reference group in question to socially sanction them. For each question a dummy variable was constructed which had a value of one if wives were 'sure' or thought it was 'very likely' that they would be socially sanctioned. Thus, a total of 36 dummy variables were created. These first indicated whether wives felt that there would be gossip about them, second whether they would be criticized, and third whether their husbands would be criticized by each of the four reference groups using each of the three moral arguments.

Tables 5-4, 5-5 and 5-6 show the proportion of wives who expected to be socially sanctioned by each reference group using each of the moral arguments. Consistent with the prevalence of the moral argument of wives being homemakers, a larger share of wives expected to be socially sanctioned by all reference groups for this reason than for the two others. Furthermore, this difference is significant at a 1% level, for every type of sanction and every reference group. Conversely, even though the belief in husbands' obligation to be breadwinners is also quite widespread in both towns, a relatively low proportion of wives believed they and their husbands would be sanctioned by almost all reference groups on the counts of this moral argument. Thus, while a greater portion of wives anticipated that they and their husbands would be sanctioned due to their socially constructed role, they believed the contrary was true for that of their husbands, even though this might be quite extensively accepted in society. Further, a similar proportion of wives believed they would be sanctioned with the moral argument that wives working in a maquila were loose, to that stating that husbands were not fulfilling their duty as breadwinners. They believed this with reference to the groups. An exception, however, was that wives expected their husband's family to gossip and criticize them and their husbands less with the argument of men not being good breadwinners than with one stating that wives working in an assembly plant were promiscuous. This difference is significant at a 1% level.

From the same tables it can be observed that the degree to which wives thought different reference groups would sanction them and their husbands largely depends on the moral argument at hand. For the argument of wives' place being the home, the reference group which a largest share of wives thought would gossip and criticize them and their husbands were their own family, followed by their husbands' family, their

neighbours and finally their friends. Thus for this moral argument, the closer the reference group is to the wife the more likely she is to think she will be be sanctioned if she violates the norm.

Table 5-4: Percentage of wives<sup>29</sup> who expected to be socially sanctioned with the argument of women's place being the home, by reference group and social sanction.

	Wife's	Husband's	Neighbours	Friends
	Family	Family		
% Gossip	58.92	55.03	53.01	44.24
% Criticism Wife	56.86	49.49	41.80	41.29
% Criticism Husband	52.33	48.73	39.67	38.38

On the other hand, a greater proportion of wives believed that their husband's family would sanction them compared to the rest of their reference groups, using the moral argument that maquila women were promiscuous. It is noticeable that a large share of wives suspected their neighbours of gossipping using this moral argument. The percentage of wives who believed they would be gossiped about by this reference group was slightly larger than those who thought they would be sanctioned by their husband's family. Nevertheless, this does not hold for the social sanctions of criticism from wives' and husbands' families. Thus a very large proportion of wives expected their neighbours to gossip saying they were promiscuous if they worked for an assembly plant, but did not expect them to say this directly to them or to their husbands.

Table 5-5: Percentage of wives who expected to be socially sanctioned with the argument of being promiscuous, by reference group and social sanction

	Wife's	Husband's	Neighbours	Friends
	Family	Family		
% Gossip	25.74	29.95	30.85	22.25
% Criticism Wife	22.77	25.63	22.38	22.38
% Criticism Husband	23.59	28.24	24.44	20.75

Per centage of wives form total wives interviewed who stated they thought it was likely of very likely to be sanctioned for moral argument, by reference group.

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Wives believed their husband's family would sanction them and their husbands the least on the counts of husbands not being the breadwinners. Interestingly, wives believed they would be sanctioned harshly by their own family if they did not comply with their role of being housewives. Yet on the other hand, they thought their husbands' family would not criticise their husbands if they were the ones who did not comply with their role as breadwinners. A larger percentage of wives thought that their own family and neighbours would sanction them using this moral argument.

Table 5-6: Percentage of wives who expected to be socially sanctioned with the argument of men not being good providers, by reference group and social sanction

	Wife's Husband's		Neighbours	Friends
	Family	Family		
% Gossip	27.45	21.01	27.40	23.45
% Criticism Wife	25.06	17.47	22.59	19.95
% Criticism Husband	22.6	17.81	21.33	20.00

Finally, from the three previous tables it can be inferred that a larger proportion of wives considered that reference groups would rather sanction by gossiping than criticize them or their husbands. Thus, a larger share of wives expected people to circulate information regarding them than to directly mention it to them or their husbands.

It is also the aim of this research to examine the extent to which social sanctions by each reference group impact wives' probability of working in assembly plants. This will be explored in Chapter 8. We will also analyze whether lower participation rates in San Gabriel Chilac compared to those in Santiago Miahuatlán are due to differences by town in wives' expected social sanctions. Contrary to the internalization of moral arguments by husbands and wives, social sanctions are considered to be exogenous variables. Whether a wife expects her neighbour or a family member to gossip or criticize her will not depend on her personal characteristics.

## 5.7 Decision making within the household

Up to now, the three main moral arguments which sustain the social norm that wives should not work for an assembly plant have been described. The extent to which these

are internalized by both husbands and wives has also been examined. Yet because married women do not take labour participation decisions by themselves but generally negotiate them with their husbands, their bargaining process remains to be understood. This is the aim of this section. Further, how social norms influence these decisions is also explored.

Most relationships are based, at least at the discursive level, on the commonly believed grounds that husbands have authority over their wives.<sup>30</sup> This is especially true in the case of wives' labour participation decisions. Thus, if wives want to work in an assembly plant, they have to ask their husbands' *permission* to do so. As Claudia, a 23-year-old wife from Miahuatlan, with two children, one 5 and the other 4, stated:

'If when you get married, the man does not let you, then everything is finished.'

Teresa is a wife from Chilac. She was asked whether she would like to work for an assembly plant, however, during the interview her husband arrived and answered for her:

'In particular... you see that when it is a marriage, you have to ask for permission... there are single mothers that have to, would not want to, but work here in the maquiladora.'

Angelica a 40-year-old wife from Miahuatlan with three sons aged 20, 16 and 14, wanted to work for the maguila, but her husband did not allow her to. She said:

'Oh no... if he has never let me, and we don't have enough for the expenses..., no... he has never let me.' 'There are sometimes when I arrive and I tell him because there are several maquilas here. Sometimes I tell him, there is one close by, but no...'

Teresa and Angelica's statements are examples of how couples in general perceive that if wives desire to work for an assembly plant they have to convince their husbands and obtain the *permission* to do so. It is important to highlight that the fact that husbands have the authority to decide important aspects of their wives lives, means the latter are not generally considered adults in their own right. Their sense of agency is underestimated and undermined. It is very likely however, that wives use other

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<sup>&</sup>lt;sup>30</sup> There are exceptions to this rule, as there are some decisions which are extended to the female role of housework such as what is cooked for the day, which are of the wives' domain.

informal negotiating mechanisms than those that persist at the discursive level. These, however are not within the scope of this investigation<sup>31</sup>.

So how is it that wives try to convince their husbands to allow them to work? As can be observed in Table 5-7, the great majority negotiate with their husbands by telling them that available income for household expenses is not sufficient. In Chilac, a significantly higher proportion of wives argued that money was needed for current expenses. In Miahuatlan, on the other hand, a much higher percentage of wives stated money was needed to buy a house. A significant proportion of wives used the strategy of offering to do more housework, but it was not as common as stating that additional income was needed for the household.

Table 5-7: Percentage of wives using following arguments to convince their husbands to agree to their working for the maquila.

	Money was needed for children	Money was needed for current expenses	Money was needed to buy a house	Offered to do more housework
Both	71.07	84.3	42.98	44.63
Miahuatlan	69.64	76.79	60.71	46.43
Chilac	72.31	90.77	27.69	43.08

Given that it was husbands' social role to be economic providers for their family, a wife's claim that the income was not enough to cover household expenses meant that they were not fulfilling their duty. Thus, many husbands met their wives' claims with resistance and would even offer to work double shifts to sustain their families' needs.

This is the case of Manolo, a 29-year-old husband from Chilac. He has two children aged 6 and 5. His wife had told him she wanted to work in a maquila, as she had done so before getting married. However, he was not of the same opinion:

Thus Manolo's wife would stay at home and sell beauty articles from door to door to earn some money.

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<sup>&#</sup>x27;She has expressed that she wants to work because of the economic pressure she experiences. The truth is I do not want that, I prefer to work a double turn, but I prefer to work double so that she takes care of the children.'

<sup>&</sup>lt;sup>31</sup> To understand these, further qualitative methods are needed.

Valeria, a 47-year-old wife from Chilac whose 5 children are already adults, also explained how her husband responded to her desire to work in an assembly plant by stating he would provide more money for expenses:

- 'I wanted to work in the maquila, when he arrived, my husband, I told him:
- -you know what I cannot manage with expenses, you know what, I am going to cook for the maquila.
- -no. why? I will not let you work. I will give you more money.
- -It is not that I tell him, I want to win my own money, to help my children.'

Nevertheless, sometimes wives' approach of demonstrating to their husbands that extra income would be available for the household was successful. This was the case of Gabriela, a 20-year-old wife and maquila worker from Miahuatlan with a one-year-old boy. As she explained:

'I did find it difficult to convince my husband, because my child is ill, but at the end I convinced him.'

'I tell him that we need the money. I make him a budget of everything that needs to be paid, plus everything that we owe, plus the doctor appointments and medicines and all that, and we make the balance and we see that it is necessary for both of us to work to get through with all the expenses. Imagine if we do not pay this, we might even end up in jail and the kid is left alone and no... It is best to pay so that there are no more problems. This is how I convince him.'

This is a very extreme case of economic need and maybe because of this, Gabriela ended up persuading her husband. But even so, Gabriela found it difficult to convince her husband that it was best for her to work for the maquila.

Another wife, Luisa, a 26-year-old from Miahuatlan with three children aged 9, 5 and 3, also worked for an assembly plant. Her case was not an emergency situation like Gabriela's but she had also managed to convince her husband with the argument that the family needed more income.

'We talked. I didn't find it difficult to convince him because he saw we needed more things. We didn't have a house and as he worked there for a while, he trusted me. We talked to his mother to see if she could take care of our children and I went to work.'

In Luisa's case she did not even have a hard time persuading her husband of her participation in maquila employment.

Elena, a 28-year-old wife from Miahuatlan had also managed to convince her husband to let her work for an assembly plant. In her case, she used the argument of the family needing more income to cover educational expenses for their children aged 12, 9 and 6.

'When I got married there was a time when I didn't work or anything, but now that the children have grown up, my son is in secondary school and that is why. Now as they need more, I told him, if you give me permission we both work together. That is why we decided to work, but if not I would only be a homemaker.'

Another way in which husbands responded to wives' request to work was by pointing out their wives' socially ascribed roles as homemakers. This was already illustrated in Manolo's refusal of his wife working. Yet another example is the response given to Pilar by her husband. Pilar is a 48-year-old wife from Chilac with five children who are now adults, the youngest being 18 and the oldest 25. Her husbands' refusal to let her work was given in terms of her obligation to attend on him:

'He doesn't want because I have already told him. Firstly, because they must think that that is why they searched for us, no? So that one attends on them and one does for them what one has to. See there are men who just don't understand us, sometimes they think that one is here for them.'

On the other hand, Pedro, a 27-year-old husband from Chilac, used the argument of his wife having the duty to take care of their four children. Because of this he would not agree on his wife working for the maquila. As he explained:

'She has commented that she wants to help me, but now the three of them are studying, and the girl is young, she needs her care. If she neglects her, she might learn the lesson the bad way.

He stated that he would feel this even if there was an alternative childcare option available to them. As a matter of fact, during one of their children's illnesses his wife had worked in the maquila during a period of time. During that time they had left their son with Pedro's mother.

Miriam's husband used the same argument. A 25-year-old wife living in Miahuatlan with two daughters of 7 and 3 years, she desired to work for an assembly plant. She explained:

'As a matter of fact my husband does not let me work because of the girls, because those who work leave them alone for long. I have told him that I want to work, but I tell you he tells me no, because of the girls. We have children now and we have to take care of them, because it is not the same if they stay with the grandmother or another family member. It is not the same.'

It is possible that husbands using this argument truly believed their wives' reproductive role had to be fulfilled by them. Thus this would be the genuine reason for not allowing them to work. However, the fact that it was socially accepted that wives had the moral obligation to complete these tasks also gave validity to their claims. Further, if wives

had internalized this moral argument, then husbands could also call upon wives' sense of guilt and shame for not complying with the norm.

Another important reason behind husbands' refusal to agree on their wives' inclusion in the assembly plants was the fear of their being unfaithful if they did so. Thus in some cases, though not often, husbands would use as arguments the moral argument that wives in assembly plants were promiscuous. Cristina, a wife from Chilac, for instance, had wanted at some point to work for the maquila because her small business was not giving her enough profits. Therefore, she had told her husband she wanted to work. Nevertheless, he didn't want her to because he believed maquila women were promiscuous.

'He only told me not to go to work, I would tell him –There is not enough (money), I am going to work. -I don't want you to work because there... you see.. there are many things there.. as a matter of fact I had the experience of a woman that worked there and she became.. I mean she went on the wrong side instead of working.. and it has happened... that women have worked in the maquila and this has happened, I mean infidelities.'

In other instances, husbands would fear that wives were being unfaithful to them, but would not explicitly express it. Instead they would use an alternative reason. This was the case of Clara's husband. Clara is a 16-year-old wife from Miahuatlan with a one-year-old boy. She had still worked for a while during her marriage but her husband used the argument that she had to take care of children when in fact he was fearful that his wife was unfaithful to him.

'My husband didn't want me to continue working. Who knows why he didn't want to any more. He would get upset many things of me working for the maquila. Of the gossip saying I was going out with another. My husband many times told me to stop working. He said that because of the boy, I couldn't.'

It also must be reminded that when spouses worked together, doubts regarding wives' fidelity would be dissipated. Thus husbands' fears in this regard would cease to exist. Therefore, husbands would be keener to allow their wives to participate in assembly plant jobs if they worked for the same factory as they did. This option, however, was only available to wives whose husbands worked for a factory.

Lastly, an interesting observation is that none of the wives interviewed alluded to negotiating their employment by making reference to their own well-being. Only Valeria from Chilac, whose situation was described previously, claimed she wanted her own money after her husband offered to find more money to cover household expenses. This can be a sign of its being socially acceptable for a wife to work in a maquila because her family is in economic need. Thus it is reasonable for her to work if she

sacrifices herself for her family's well being. Her working in an assembly plant for pleasure might be seen as selfish and contrary to her role as a care provider.

Up to now the different motives husbands use to disallow wives' employment in the maquila have been described. However, the extent to which husbands use each remains to be examined. In Table 5-8 it can be observed that the argument used by a larger proportion of husbands is that wives would neglect their children, followed by wives neglecting household chores. It is interesting to note that these reasons were much more widely used in Chilac than in Miahuatlan. In this last town, however, a higher percentage of husbands answered that they would find a way to provide economically for their family. Almost the same share of husbands in this town used this argument compared to another that wives neglected household chores if they worked in an assembly plant. This is unexpected and intriguing, given that couples disagreed equally on the former moral argument in both towns. It is also surprising to find that very few husbands stated that they did not want their wives to work because then they did they would be unfaithful to them. However, this could be because being unfaithful is a negative trait. Therefore, as in Clara's case, husbands would conceal their real fears and use an alternative argument during their negotiating process with their wives. Further, although not the most popular arguments, those related to wives' health and tiredness were also used by a share of husbands.

Table 5-8: Percentage of husbands using following arguments as response to wives wanting to work in the maquila.

	Would neglect children	Would neglect household chores	Too much work load	Said he could sustain her	Said it was bad for her health	Said she would leave him
Both	68.03	36.89	15.57	18.03	8.2	1.64
Miahuatlan	58.18	30.91	18.18	27.27	7.27	0
Chilac	76.12	41.79	13.43	10.45	8.96	2.99

It must be stressed that although it was widely accepted that husbands had the authority to give or deny their wives the permission to work for an assembly plant, in some instances this mechanism was also reinforced with the threat of physical violence.

For instance, Valeria, the 47-year-old wife from Chilac, remembered:

'He never let me work. It is best not to look for problems so that on one day God would not want it, he will hurt me and then who will see for my children. So this is why I said, I will have patience until God gives me strength.'

This was also the case of Claudia, the 23-year-old wife from Miahuatlan, who had two children, a five-year-old and a four-year-old. She wanted to work and would quarrel strongly about this with his husband. She believed her husband would use physical violence against her if she went without his *permission*. In other cases, wives believed that if they disobeyed their husbands and went to work in a factory without their consent they would divorce them. In other instances, however, they only expected to quarrel badly with them. Thus the expected consequences of wives disobeying their husbands by working without their consent were varied, from facing quarrels to physical violence and in some instances divorce. These outcomes can be regarded as what economists call the threat point, this is, what gives members of a household bargaining or negotiation power.

Summing up, if wives wanted to work for assembly plants they had to come to an agreement with their husbands first. It was generally accepted in both towns that husbands had authority over their wives' labour participation decisions. Thus wives had to convince their husbands to give them permission to work for an assembly plant. The majority of wives would approach their husbands with the argument that extra income was needed, for current expenses, their children's education or to buy a house. If husbands were not convinced by their wives' arguments, a large percentage of them would respond by pointing out their socially ascribed role as homemakers. Some would offer to work more to obtain the necessary income. However, few husbands would use their concern about their wives being unfaithful to them if their wives went to work as arguments with their wives. Instead they would state alternative motives. Wives expected a diverse range of reactions from their husbands if they went to work in an assembly plant without their consent. These would range from physical violence to having regular quarrels with them.

Depending on wives' expectations of the results of the negotiation process and the intensity of their desire to work in an assembly plant, a series of outcomes arise. Consistent with Luke's three-dimensional views of power (2005), four different outcomes are distinguished. In the first dimension, decisions regarding wives labour participation involve direct actual and observable conflict. Thus in this case, husband and wife have explicitly bargained over her participation in an assembly plant. It is said that the wife has power in the first dimension if she desires to work, expresses it to her husband, her husband does not want her to do so (at least not initially), and she ends

up doing so. However, information on husbands' preferences regarding their wives participation in assembly plants was not collected. Only data on whether a wife actually works was available. Yet, if a wife articulates her desire to work to her husband and the result is her non-participation in assembly plant employment, then it is inferred that husbands have power in the first dimension. In the second dimension of power, barriers are created that prevent bargaining from being real and interests being manifested. Therefore, it is considered that the husband has power in the second dimension if the wife desires to work for the maquila but does not express her desire to do so. Thus there is never an explicit bargaining process on the matter. Finally, there is considered to be power in the third dimension if wives do not desire to work, due to their socially constructed role.

Table 5-9: Percentage of wives in each labour bargaining outcome.

	Both	Miahuatlan	Chilac
Wife works	16.11	22.17	10.33
Wife desires work, husband won't let her	27.64	27.09	28.17
Wife desires work, has not told husband	7.93	6.90	8.92
Wife doesn't want to work	48.32	43.84	52.58

Table 5-9, shows the proportion of wives in each of the possible outcomes by town. A large share of those wives who agreed they wanted to work for an assembly plant would not obtain permission from their husbands. In both towns, this proportion represented almost half of the wives who admitted they desired to work. What is more, this percentage was larger than that of wives currently in a salaried job. On the other hand, the proportion of wives who desired to work in a maquila but had not manifested this interest to their husbands is moderate. Yet almost half the wives stated they did not desire to work in the maquila.

When comparing outcomes by towns, it is observed that Chilac greatly differs from Miahuatlan on two counts. On one hand, the percentage of wives who actually do work in an assembly plant is much lower in the latter than in the former. On the other, the proportion of wives who do not want to work in the maquila is much larger in Chilac than in Miahuatlan. Also, to a much smaller extent, this same pattern is observed for those wives who desired to work but could not convince their husbands and for those who did not even discuss the issue with them. Therefore it can be inferred that wives in Chilac have less power in the first and second degree. Nevertheless, the main reason wives worked less in a maquila in this town was because they did not desire to do so.

Table 5-10: Reasons for which wives preferred not to work in an assembly plant.

	Household chores	Household child	Workload	Likes home
Both	43.43	46.29	49.71	36.57
Miahuatlan	50.00	50.00	62.20	34.15
Chilac	37.63	43.01	38.71	38.71

However, to know whether wives preferred not work due to their socially constructed role their reasons for this must be examined. As can be corroborated in 5-10, a large share of wives preferred not to participate in the maquila due to motives regarding their roles as wives. Yet in Miahuatlan, a much larger proportion of wives preferred not to work because it represented a heavy workload.

It must be recalled however, that preferring to stay at home and taking care of the children is considered as a valid argument for wives to stay at home instead of working. However, wives' freedom is considered to be restricted when they consider it is their obligation or duty to stay at home.

Table 5-11: Percentage of wives who did not disagree on moral arguments, by reason why they preferred not to work in an assembly plant.

	Both	Miahuatlan	Chilac
Household chores	50.00	43.90	57.14
Childcare	56.79	48.78	65.00

Table 5-11 shows the percentage of those wives who preferred not to participate in assembly plants in order to focus on household chores and taking care of their children, according to their agreement with the moral argument of wives having to stay at home. It can be seen that of those wives who stated they did not want to work for the maquila to take care of their children, around half stated they did not disagree with their ascribed role.

A greater proportion of wives in Chilac believed it was a wife's obligation to stay at home to take care of their children than those in Miahuatlan. Therefore, it can be concluded that in this town, wives had less power in all the three dimensions than those in Miahuatlan.

Up to now, the three moral arguments sustaining the social norm that wives should not work for an assembly plant have been described. The mechanism by which spouses bargain over wives' engagement in the maquila has also been explored. Special attention has been paid to the way in which social norms shape this decision-making

process. Next, the welfare benefit wives and their families achieve when they work in an assembly plant, compared to when they dedicate themselves to the traditional activities in their towns, will be examined, and the impact internalization of each moral argument by each partner has on the probability of wives' working for the maquila will be analyzed. Then the effect that the social sanctions suffered by each spouse have on this probability will be calculated.

# 6 Welfare effects of wives' engagement in assembly plant employment vs. traditional activities

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### 6.1 Introduction

This chapter will infer the possible welfare states wives can obtain by participating in the different activities available to them; these are the recently created textile assembly plant jobs and the traditional self-employment activities women carry out in the area. In line with the Capabilities framework, wives' potential to achieve the appropriate functionings when participating in different occupations will be explored. Because it is of interest to infer the different functionings which wives can attain, each of these will be explored separately. This will additionally allow for an examination of the factors which influence wives' welfare outcomes when engaging in these types of occupations. There are several studies which have already examined the effects of textile assembly plant jobs on their female employees' well-being in Mexico and around the world (Barrientos et. al. 2004, Barrios Hernandez 2004, Elson and Pearson 1981, Kabeer and Mahmud 2004, Kabeer 2000, Tiano, 1994). This one differs from them on several counts. Firstly, it focuses on married women's welfare. Because married women are expected to fulfil their socially ascribed roles within the household, the effect their participation in an assembly plant has on their well-being can differ greatly from that of single or divorced women. Secondly, it links the welfare effects resulting from wives working in an assembly plant with the Capabilities framework. The achievement of different functionings can be enhanced or worsened with wives' engagement in the maquila. Therefore, these are explicitly outlined at the end of the chapter. Given that it is the focus of the research, special attention will be paid to the role of social norms as factors which influence the achievement of the different functionings.

The rest of the chapter is structured as follows. Although not a functioning, but a means to obtaining some, the hourly income wives obtain by participating in each of the income generating activities will be examined. Further, other benefits provided by assembly plants apart from income will also be explored. Next, the number of hours dedicated to assembly plant and self-employment will be investigated. This will be followed by an examination of the number of hours wives and their husbands dedicate to housework. Working conditions in assembly plants will also be taken into account, as well as other non pecuniary benefits of participating in the maquila. Next, we will look at the health implications of wives' participation in the different occupations. Finally, the effect on decision-making processes within the household depending on wives' engagement in the multiple types of occupation will be examined. Finally, a synopsis will be offered of all the different functionings which can be achieved by taking part in assembly employment. Special attention will be paid to the conditions that influence wives' attainment of these diverse functionings while engaging in these occupations.

# 6.2 Income available to married women in different types of activities

This section will compare the income that wives obtain through assembly plant employment to that acquired by alternative activities available to them in the two towns of the Tehuacan area. Income is one of the main arguments used by spouses to defend wives' participation in an assembly plant employment. As such, an analysis of the implications of wives' engagement in the maquila cannot avoid considering this aspect. It must be reiterated, nevertheless, that under the adopted framework, income is not an indicator of well-being but the means to attain certain aspects of it. An assessment of the specific functionings obtained with income go beyond the scope of this research. Additional methods from the ones obtained during fieldwork would be needed to achieve this. Thus, the income obtained in each activity available to wives is explored as a proxy for the functionings that can be achieved with it. Additionally, spouse's perceptions of the use and significance of this income will be explored to see which relevant functionings are obtained with it.

Evidence suggests that manufacturing assembly plants worldwide offer higher wages than alternative jobs in the areas where they are established. Kabeer and Mahmud (2004) find this pattern in Bangladesh, while Glick and Roubaud (2006) find the same in Madagascar. What is more, studies based in Mexico, which have compared income obtained in textile manufacturing plants to that which is offered in alternative activities available to women without formal education, have also found that wages are higher in the former than in the latter (Tiano 1994; Fussel 2000). Thus, we will verify whether this pattern also holds for Miahuatlan and San Gabriel Chilac.

To calculate this, both weekly and hourly income will be used as units of analysis. Assembly plant employees are paid weekly. Therefore individuals from both towns specify their income over this period of time. However this variable depends on the number of hours wives worked during the week. Thus, values can vary greatly between and within each activity. As a consequence we will also examine the hourly income wives obtained by participating in a certain occupation. For this unit of analysis, the amount of time they invested in each activity will be irrelevant.

Table 6-1: Wage obtained by wives who participated in salaried employment activities in both towns<sup>32</sup>

	Salary	Assembly	Maid	Shop Asst	Professional
Weekly Income					
Mean	723.15	672.11	330.00	613.20	1233.33
Median	700	675	350	700	1275
Std	346.94	204.50	135.09	153.53	484.92
Obs	92	68	5	5	12
Hourly Income					
Mean	17.42	13.72	8.52	12.07	44.74
Median	13.64	13.33	8.33	10.29	48
Std	13.32	4.22	1.20	4.15	19.70
Obs	91	67	5	5	12

As was previously described in Chapter 4 there are few salaried options for women in both towns of the Tehuacan region. Besides assembly plant employment, the two other feasible salaried jobs for women without formal education are being a maid and being employed in a shop. From Table 6-1, it can be confirmed that both weekly and hourly income obtained by wives in maquila jobs is higher than that acquired in these two types of employment. Thus in terms of income, assembly plant work is the best option for women without formal education.

Women with higher levels of education have the possibility of engaging in professional activities. Because of this, they earn a much greater income than women working in the maquila. This difference is even larger when comparing hourly income. Both the mean and median the hourly salary obtained in professional activities is more than triple that offered by assembly plants. Yet few women are able to achieve the higher levels of education that permit professional activities. Therefore, for most married women in both towns the greatest income opportunity is obtained by working in assembly plants.

Next, income obtained for working in the maquila is contrasted to the statutory minimum wage in the region. The legal minimum wage for an 8-hour working day in the area is \$45.81 pesos, which implies a minimum hourly rate of \$5.73 pesos. From the Table 6-1, it can be verified that no woman working in an assembly plant reported earning less than the minimum wage. What is more, the mean and median hourly wage of married women working in an assembly plant more than doubled the statutory minimum wage. A previous study done by Barrios Hernandez (2004), which covered the whole Tehuacan region, came to the same conclusion. Therefore, it can be

<sup>&</sup>lt;sup>32</sup> The numbers include the hourly wage that all women who had worked during the previous year had earned, even if they were not currently employed. This was done because wages are not expected to change significantly throughout the year and wives would not find it difficult to remember how much they earned if they were not currently employed. Thus more observations, and therefore more precision is obtained by using this sample of women.

concluded that assembly plant employment not only provides a higher wage than other salaried options, but also fares well compared to the legal minimum wage.

It must be remembered from chapter 4 however, that salaried employment is not the only source of income for married women. They can also engage in self-employment. However, both women who have a salaried job and those who don't have the option to take on this type of activity. Yet, women in salaried employment will have a much more limited amount of time available for self-employment. As such, only 9.56% of the married women who had worked in an assembly plant in the week of the survey had also engaged in a self-employed activity in that same time frame. It can be concluded then that self-employment acts more as a substitute form of income generating activity than as a complement. Thus, income obtained from both these types of activities will be compared<sup>33</sup>.

Table 6-2 shows that weekly income acquired through maquila jobs is almost double that of self-employment, and that this is consistent across towns. Nevertheless, this gap might be due to the difference in the amount of hours wives dedicate to each activity. Therefore, hourly income is also explored. It can be observed that hourly income in assembly plant jobs is still greater than that of self-employment. The average difference is even significant at a 1% level. However, when disaggregating these results by town, it is found that while this pattern holds for Chilac, in Miahuatlan mean hourly income for self-employment is slightly higher than that of assembly plant employment. Yet in this town, the *median* hourly income of self-employed women is much lower than that of women working for assembly plants. This is explained by the extremely large standard deviation of self-employment hourly income observed not only for Miahuatlan, but also for Chilac

<sup>&</sup>lt;sup>33</sup> Numbers include hourly income obtained by those wives who engaged in both selfemployment and assembly plant employment. This is done to obtain a greater number of observations.

Table 6-2: Income obtained by wives in assembly plant employment vs. those who been self-employed in each town.

	Assemb	ly Plant Emp	oloyment	Self Employment			
	Both	Miah	Chilac	Both	Miah	Chilac	
Weekly Income							
Mean	672.11	705.28	592.5	333.45	411.69	229.95	
Median	675	700	600	200	300	190	
Std	204.5	216.65	148.04	517.52	675.64	195.42	
Obs	68	48	20	222	83	139	
Hourly Income							
Mean	13.72	14.39	12.15	11.49	14.95	9.51	
Median	13.33	14.14	11.44	7.56	10	6.25	
Std	4.22	4.44	3.22	13.14	15.37	11.26	
Obs	67	47	20	217	79	138	

To further explore the reasons for the great divergence in income obtained by selfemployed women, the returns of the main self employment activities are explored in Table 6-3. Both average and median weekly income obtained by each of the selfemployment activities is much lower than that of assembly plant employment. More importantly, however, results show that sewing and selling garlic at the market, which are Chilac's main female activities, on average provide women with a lower hourly income than assembly plant employment. The same is true for having a corner store, selling tortillas and selling door to door. In turn, selling goods from stalls and selling food provide women with a larger average hourly income than maquila employment. However, the standard deviation of hourly income obtained via these last two activities is quite large compared to that of the other self-employment activities. This is especially true for selling goods from stalls, which could be due to the variety of possible items which can be sold, and which can yield in turn a diverse range of profits. Further, only the median hourly income obtained by selling food is greater than that of working in an assembly plant. Therefore evidence suggests that only through a small number of selfemployment activities is a woman likely to earn a greater hourly income than she can obtain through assembly plant work. Greater amounts of capital may be needed to access these highly remunerative self-employment activities, which are thus available to few women.

Table 6-3: Income obtained by wives participating in various self-employment activities

	Self- empl oyed	Sew	Sell Gar lic	Grocer (cor ner) store	De thread	Sell Torti Ilas	Sell Goods Stalls	Sell door to door	Sell Food
Weekly Income									
Mean	333.4	157.3	172.7	542.4	183.5	216.5	462.0	244.4	406.9
Median	200	100	100	350	200	200	300	200	200
Std	517.5	152.3	143	800.6	110.6	120.8	677.8	137.8	592.1
Obs	222	88	13	33	12	17	17	13	19
Hourly Income									
Mean	11.49	7.75	9.08	8.88	7.12	8.74	25.72	12.16	19.38
Median	7.56	5.52	8.59	6.67	6	8.33	10.56	11.03	14.5
Std	13.14	6.89	5.30	9.58	5.05	3.85	30.16	5.91	14.26
Obs	217	86	13	33	12	17	16	13	18

In general then, it can be said that income obtained by engaging in assembly plant employment is greater than that offered by other forms of salaried activities that do not require formal levels of education. It is also greater than the income acquired through most self-employment activities. This is especially true in the case of conventional and traditional self-employment such embroidery and selling garlic in the market.

Income has been recognized as one of the many endowments influencing wives' bargaining power within the household (Carter & Katz 1997, Katz 1997, Fafchamps 2001)<sup>34</sup>. Some decision-making and time arrangements within the household depending on wives' occupation will be analysed further in the chapter. Yet in the meantime it is important to uncover the extent to which each of the income generating activities contributes to total household income. Table 6-4 shows the proportion that wives' income contributes to this total. As can be seen, wives participating in assembly plant employment, on average, contribute half the household's income. Alternatively, the income wives obtain from self-employment represents on average only a quarter of the total. What is more, the median of this share is much less than the average. From these results it can be concluded that wives working for an assembly plant are equal economic providers to their husbands. This means that the income contributed by maquila working wives is much more visible than that of self-employed women. It is therefore possible that society perceives husbands as not complying with their role when their wives are working in an assembly plant but not when they are selfemployed.

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<sup>&</sup>lt;sup>34</sup> It must be noted nevertheless that many scholars emphasize that income is not the unique factor influencing women's power within the household (Sen, 1987, Agarwal 1997, Kabeer 1994)

Table 6-4: Wives' contribution to household income

	Assembly Plant Employment			Self- Employment		
	Both	Miah	Chilac	Both	Miah	Chilac
Mean	47.34	46.25	50.18	24.66	24.67	24.65
Median	47.14	47.01	50.69	19.91	21.01	16.67

Up to now data has revealed that the income earned in assembly plants is the greatest that wives without formal education and without large amounts of capital can obtain. Next, couples' perceptions on the benefits and usefulness that this additional income provides for wives' and their families' welfare will be explored.

In both towns, there view was prevalent that there was plenty of economic need, and that income earned only by husbands was not 'enough' to cover family expenses. Income was frequently stated to be one of the main motivations for women's employment in garment factories. However this was not exclusive to this type of income-generating activity. Wives' engagement in any type of in paid work was seen by some as a means to complement their husbands' scarce income.

For example Luisa is a 34-year-old from Miahuatlan who is working for the maquila. She has five children aged 9, 6, 5, 4 and 2. When asked her reasons for working in an assembly plant, she answered that she did it out of necessity because her husband did not earn enough.

'Sometimes we cannot manage with the earnings of one, in the maquila we can manage better.'

On the other hand Consuelo, who lives in Chilac, had the same reasons for engaging in an income-generating occupation. In her case, nevertheless, she decided to wash clothes for other people.

'The thing is that , sometimes, the money is not enough, because I have my children who ask me for their things, I have to force myself to wash, what my husband earns is not enough, and I have to force myself to wash '

Furthermore, as by Consuelo, it was constantly emphasized by married couples that the main beneficiaries of this additional income were their own children. Specifically, they would argue that it would help toward their children's educational expenses. Schools in both towns are public, and thus school fees are completely subsidized by the government. Yet, teachers asked for several school materials which households found it difficult to purchase. For this reason households sometimes could not cope

with educational expenses, and thus wives would seek additional income by working in assembly plants.

For instance, Juana would intersperse selling tortillas in the market with maquila employment. She sold tortillas at a market stall, but because during the rainy season the market would flood, she worked in an assembly plant until the rains passed. She was the wife of a builder and had a 13-year-old boy, and two girls a 7-year-old and a 5-year-old. Both she and her husband agreed it was best for her to engage in some form of income generating activity, including the maquila, to be able to provide for their children's education.

'We have our children in the school and they pay them (husbands) very little, it is to help each other in the maquila or in any activity.' We do it 'to provide our children with education, because we didn't study we need to give them the best.'

Claudia, a 28-year-old mother of three children aged 12, 9 and 6, also worked to be able to pay for her children's education. Both she and her husband worked in the fields together.

'you know they ask for many things in the school, the money is not enough, this is why both of us decided to work.'

Eventualities such as the illness of a family member are other important motives for wives' participation in a maquila. Women could easily enter and exit assembly plant employment and many worked only at certain times of year. Maquilas offered a more regular and higher wage than other income generating activities. This meant that some wives could participate in assembly plant employment in case of contingencies, even if it was for a short period of time.

For example, Pedro is a 37-year-old farmer in San Gabriel Chilac. He and his wife had three boys of 12, 10, 9 and a 3-year-old girl. His wife generally did not engage in any type of income-generating activity. However, she would work for an assembly plant in times of crisis. The last time she had worked in the 'maquila' for instance, it had been because one of his sons had gotten sick and they needed money for the medicines. As soon as Pedro's son got better and was able to go back to school, his wife left the maquila and stopped working for income.

'Last time (she worked in the maquila) it was because my son had become ill, because it was necessary to cover the expenses and we had no money. Both of us worked, her in the maquila and me in the fields, because really I couldn't manage by myself.'

In Miahuatlan, Marco, a 37-year-old builder, and his wife followed the same strategy. They have three children who were at that time 13, 12 and 10 years old. At the time of the interview his wife was working in the assembly plant because his mother-in-law had gotten sick. As a consequence they had had to ask for a loan, which they now needed to pay.

'We asked for a loan and this is why she works, only so that we can pay the bill and that's it, she will not work for another period. As long as one does not owe anything, we can get by with my scarce salary.'

Marco and his wife had used this strategy previously on several occasions. Marco's wife had always worked in the maquila to pay loans, which they had obtained for different purposes. This time it was his mother–in-law's illness, while the previous one had been for his son's first communion.

Thus, wives' work in the assembly plant was also used as a strategy for large expenditures for which households would otherwise have to get a loan or would simply not be able to afford. Another illustration of this case is that of Marianna, a 33-year-old married housewife, with four children aged, 15, 14, 11 and 5. She had previously engaged in maquila work to start building her house. Without her work there she would have never been able to accomplish this. However, she had stopped working before she and her husband had completed paying for the construction of her house because her younger son, now 5, had been born.

Self-sufficiency was identified as another advantage of earning a high income. Furthermore, this benefit related to wives' welfare only, and not their families. Susana, for instance, a 25-year-old maquila worker with three children living in Miahuatlan, stated:

'one pulls through by oneself, the day that we become widows, we already have from where.'

Susana makes reference to having an economic backup in case of becoming a widow. But this would also be true for wives in the case of a separation from their husbands. This is another positive aspect of wives' having access to a sufficiently high income to subsist by themselves. Moreover, although not the focus of this investigation, Miahuatlan had a very high rate of separation and divorce, possibly facilitated by wives' opportunity to work in an assembly plant. Therefore, while self-sufficiency was only

mentioned by one of the women interviewed, it is a crucial positive aspect for wives working in the maquila.

A final important feature of income earned through assembly plant employment compared to that of self-employment, besides the amount earned, is the security and regularity of the work. Maquilas pay their workers weekly, so women knew they could count on a specific amount of regular income. Women who were self-employed did not enjoy this privilege, as they earned different amounts each week. This is consistent with findings of a study carried out by Kabeer and Mahmud (2004) on assembly plant employment conditions in Bangladesh. In it, they find that this is the most valued aspect of assembly plant employment for the majority of workers in their sample.

Thus, to sum up, the income earned in maquilas tends to be the highest that formally uneducated women can aspire to. Households in general had the perception that income obtained by husbands alone was scarce and that there was plenty of economic need. However, much of wives' participation in maquila employment (and in other income-generating activities) was validated in terms of doing the best for their children. This was especially true in terms of their children obtaining a better quality education. This could be due to or related to women's moral role of making their children's well-being their utmost concern. Therefore, social norms could also be playing a role in shaping these preferences. Nevertheless, if it is a discursive or authentic concern of wives and their partners, it cannot be discarded as unimportant. As discussed in the previous chapter, care and love for children is regarded as a valuable functioning. It is only as a social obligation that it restricts wives' freedom to choose to participate or not in maquila employment. For this reason functionings achieved by children cannot be separated from an analysis of wives' well-being.

Wives' assembly plant employment also benefited the household as an extra source of income in case of contingencies or their need to acquire a costly service or item. This is possible due to the low entry requirements and barriers of this type of employment. Furthermore, wives' employment in the maquila also meant that the family had a regular and extra amount of income they could count on with certainty each week. This feature was especially significant for households given their limited ability to achieve basic needs such as health or shelter, due to their low income levels and their few channels to access formal credit.

Finally, by working in assembly plants wives obtained a sufficiently high income to support themselves and their children, and thus became self-sufficient. Consequently, they and their children were protected in the case of their husband's death. Further, wives could also separate themselves from their husbands much more easily. This

meant that wives were able to liberate themselves from marriage in the case that husbands physically or mentally abused them.

# 6.3 Other benefits offered by salaried jobs

Besides a regular income, some salaried jobs provide women with further benefits which self-employment do not offer. These benefits can take financial form or can supply wives with access to services such as health, credit or childcare. Women in the study area rarely had an alternative opportunity to gain access to these services, hence their significance. This implies that wives can obtain different functionings by choosing to dedicate themselves to different activities: salaried vs. self-employment. This will be explored in this section.

In Mexico, by law there are some benefits which all types of salaried jobs should offer. However some are provided voluntarily by some workplaces. In Mexico, according to the Federal Law of Work, all employers should provide their workers access to the Social Security System, a year-end bonus, paid holidays and a share of the profits. The social security system (IMSS, Instituto Mexicano del Seguro Social) is a state-run organization which provides employees with health services and retirement pensions. The employers subscribe their workers to this system by paying a monthly quota. The year-end bonus consists of firms paying their workers 15 days of additional salary each year, at the latest by the 20<sup>th</sup> of December. Furthermore, the employer also has to provide workers with at least 6 days of paid holidays after one year of completed work. Each subsequent year of work the employer needs to give 2 additional days of paid holidays until these reach 12 days. After that, 2 additional days of paid holidays are added with each 5 years of work completed. Finally, firms also have to distribute a share of their profits amongst their workers.

From the figures provided in Table 6-5 it can be seen that not all maquila employers provide workers with the benefits stipulated under the law. Only half the wives were granted social security by the assembly plant they worked for. This benefit implies access to health services for the wives and their families. For this reason, if their husbands do not already have access to this system, it can be quite important for wives to obtain. On the other hand, most wives working in assembly plants did receive the year-end bonus but less than half received paid holidays and profit sharing.

Table 6-5: Percentage of wives in assembly plant employment who received each type of benefit.

	Both	Miahuatlan	Chilac
Social security	51.47	58.33	35.00
Year end bonus	72.06	79.17	55.00
Paid holidays	41.18	43.75	35.00
Profit share	38.24	41.67	30.00
Credit house	32.35	39.58	15.00
Nursery	30.88	37.5	15.00

Furthermore it can be verified that in Chilac a much lower proportion of maquilas offered their employees legal benefits, compared to those in Miahuatlan. This result is an important one, as it could explain wives' lower participation rates in assembly plant employment in this town. Unfortunately, this assumption cannot be tested statistically as benefits are only provided to those wives who do participate in assembly plants. Therefore it is impossible to deduce whether wives who do not participate in maquila jobs would obtain them if they did.

The strategy by which some maquilas would get round the law and not provide the stipulated benefits varies. According to Hernandez Barrios (1993) some plants only supply their workers with a 28-day contract so that they never accumulate seniority or have the right to benefits. Other plants did not provide benefits because they relied on their workers never claiming them.

Maria from Miahuatlan is 22 and has a six-month-old baby. She has a university degree but the best job she could find in terms of income was in the maquila. As a consequence, this is where she worked. As she explained:

'The rest of the workers do not receive the (social) security. I do have it because I do not let myself. They think that because one is an ignorant person you have no clue. As a matter of fact almost the majority (of workers) do not have it. I demanded it, because if not, they don't give it.'

Further, to avoid paying the year-end bonus, a number of assembly plants would stop production each year in December and lay off their workers. Ana, for example is a 37-year-old maquila worker in Miahuatlan who has three children aged, 21, 20 and 19. She has been working for almost 14 years in the maquila sector. She describes why she would work for a different assembly plant each year:

'I enter to one (assembly plant), I go out. I go to another one. At the end of the year they close them because of the year end bonus, so that they don't have to pay it. That's when I change jobs.'

On the other hand, while some assembly plants would avoid supplying the legal benefits to their employees, others would offer some voluntarily. Examples include providing a nursery and credit to buy or build a house. Around a third of married women working for assembly plants stated they received these types of benefits. Again, maquilas in Chilac were less likely to provide these types of benefits than those in Miahuatlan. This could also be an explanation for wives' lower participation rates in maquilas in Chilac.

Overall, there is evidence of the heterogeneity of assembly plants in terms of the compulsory and voluntary benefits they give to their workers. On one hand, some assembly plants give their workers non-compulsory and valuable benefits. On the other, some do not even comply with the law by providing their workers with obligatory ones. In general it can be concluded that assembly plants in Miahuatlan are more likely to offer these benefits to their employees.

But then, how do assembly plants fare in providing benefits compared to the other types of salaried jobs? From Table 6-6, it can be deduced that a larger share of wives in factories were awarded benefits compared to those in all other salaried occupations. Still, however, not even wives working for these types of activities received all the benefits stipulated by law. Judging assembly plant employment against the other two salaried activities that do not require formal education, the former fared much better. A wife without formal education, then, is more likely to receive benefits by working in an assembly plant than in the two other alternative occupations.

Table 6-6: Percentage of wives who received each type of benefit, by type of employment.

	Salaried	Assembly	Maids	Sales	Profess
				Assistant	ional
Social Security (IMSS)*	50.00	51.47	0.00	40.00	75.00
Year end bonus*	69.57	72.06	20.00	40.00	100.00
Paid holidays*	44.57	42.65	0.00	20.00	91.67
Profit sharing*	34.83	39.71	0.00	0.00	44.44
House credit	34.78	32.35	0.00	20.00	75.00
Nursery	30.11	30.43	0.00	20.00	50.00
Obs	91	67	5	5	12

Thus, while working for an assembly plant could potentially provide women with benefits such as access to health services or a nursery, not all of them do. There is great heterogeneity of assembly plants in terms of the benefits they offer. While many do not even give their workers those which are stipulated by the national law, some supply valuable ones voluntarily. Also, while it cannot be denied that not providing the benefits that are required by the law is quite serious, evidence does suggest that a greater share of maquilas offer these benefits compared to other employers of women without formal education.

### 6.4 Wives' working hours in each type of activity

Another working condition through which wives' occupation influences their and their families' welfare, is the amount and flexibility of hours they need to dedicate to each. This limits the amount of time they can put into other pursuits such as leisure or reproductive activities. In economic terms, each hour spent in paid labour represents the opportunity cost of not dedicating this time to the next-best activity option. In this section, the amount of hours women invest in each activity is explored as well as its implications on wives and their family's welfare and their opportunity costs.

Table 6-7: Hours a week wives who participated in salaried employment worked

	Both	Chilac	Miahuatlan
Mean	49.69	49.88	49.25
Median	50	50	50
St. Dev	7.29	7.66	6.48
Obs	68	48	20

Employment in the maquila is, with very few exceptions, a full-time job where it is specified that employees should work 40 hours during the week and 5 hours on Saturdays. However, as can be seen in Table 6-7, wives working in an assembly plant on average worked 50 hours a week not 45 (a finding consistent across towns), because maquilas frequently make their employees work extra hours. Furthermore, workers were generally not paid for these extra hours. They received the same weekly salary regardless of whether they had worked extra time or not.

Martha, a 26-year-old maquila worker with two children, one 6 and another 2, clearly illustrates how this operates within assembly plants.

'Well they make you work more, because the working hours of an employee are from 8 to 6 in the evening, and you stay until you finish your part, until 9 or 10 at night. On Saturdays they make you work all day when on Saturdays it is only four hours and a half... and they do not pay you, for instance they pay you the four hours and a half and they do not pay you for the work of all the day.'

According to the Mexican Federal Law of Employment, employers can only make their employees work 3 extra days a week for a maximum of 3 hours. Further, these extra hours must be paid at the same rate as the standard working hours. Employers can ask their workers in extraordinary cases to work more than 9 extra hours a week. Yet in this case the employee has the right to refuse. Further, in this case each hour must be paid at double the standard rate. Therefore, assembly plants in the area are in several cases breaking this law.

However, while this was true for a large number of assembly plants, there were a few which offered better schedules for their workers. Luisa for example, is a 26-year-old worker in Miahuatlan with three children aged 9, 5 and 3. Contrary to most of the maguila workers, she would leave her job early.

'They give me a task to complete, I go in at 8 and I finish at 2:30, and they pay me the equivalent of a days worth of work.'

This however is an exception to the rule rather than the norm for most of the assembly plants in the area. It is also yet another example of heterogeneity among maquilas in the area.

The fact that various assembly plants do not respect the stipulated timetable would not only reduce wives' available time for alternative interests. It would also affect wives in indirect ways. For instance some women would claim that working extra time would lead them to have serious arguments with their husbands. In some cases their husbands would even turn violent toward them. This was the case for example of Clara, a 50-year-old with 7 children from Miahuatlan. All of them where already adult, and because of their insistence Clara had already stopped working for an assembly plant. However, she remembers that when she worked for the maquila and she had to stay extra hours, her husband would frequently react violently when she returned home.

'He would say that the job was during the day, not the night.'

In cases, wives who returned home late because they had to work extra time for an assembly plant would even encounter physical violence from their husbands. As Ana, the 37-year-old maquila worker from Miahuatlan with 3 grownup children aged, 21, 20 and 19; stated:

'Yes, they get angry because they arrive late, they hit them, they hit the, because they are not there, they do not take care of their children. There are some that have small children and also work for the maquila. There is where the problems come from.'

Ana admitted it had happened to her on several occasions. Her husband would get angry because she would arrive late when their children were younger and her mother would take care of their children. Therefore, by demanding that their employees work extra hours at night, assembly plants would indirectly affect wives with violent husbands by triggering discussions.

Table 6-8: Hours worked by wives in each type of salaried employment

	Salaried	Assembly	Maid	Store	Professional
Mean	46.39	49.69	39.2	56.5	30
Median	49.5	50	40	60	27.5
St. Dev	11.62	7.29	15.85	18.74	7.07
Obs	92	68	5	6	12

Up to now the amount of hours wives worked in the maquila has been compared to those specified by their employers and stipulated in Mexican law. But how many hours do assembly plant employees work compared to those in other salaried jobs? As can be observed from Table 6-8, the average number of hours wives in assembly plants work is much higher than that of wives in professional activities. However, women without formal education do not have access to these types of jobs. If we compare assembly plant employment to the other two accessible types of jobs for formally uneducated women, results differ for each. It can be observed that on average maids work fewer hours than maquila workers, while sales assistants work more. Therefore married women employed in assembly plants work longer, on average, than wives in one type of salaried employment, but not the other. It must be noted though that there are few observations of formally uneducated salaried wives who do not work in assembly plants. This fact, plus the great variance in the number of hours wives work in each occupation, makes it difficult to draw strong comparative conclusions.

Also, while assembly plant workers and sales assistants have a fixed timetable, maids' schedules depend on their bosses' needs Monica, a 25-year-old from Miahuatlan with three children aged 9, 7 and 4, explained this situation. She had experience working both as a maid and in the maquila and preferred the latter, as she explained:

'Because in the maquila, they have a timetable, you have a time to go in and a time to go out. In a house (as a maid) you have to wait for the employers, and it is later. In the maquila, because of the timetable you go out quickly.'

Now, compared to maquila employment, women who are self-employed have greater flexibility to decide the number of hours they work. It must be recognized though that for some specific types of self-employment there are certain limits to this flexibility. For example, women who sew in their homes can decide to work as many hours as they wish. They have no type of constraint. On the other hand, however, women who have a home-based grocery store need to have regular opening hours, which are usually all day.

Juana from Chilac has a food stand and explains how important the flexibility of being self-employed is for her. She highlights the fact that her business is something she owns, and therefore she has the autonomy and power to decide what and how to sell.

'I can stop working whenever I want to, it is my own business. For example if I say, today I am not going to go and sell, if I leave earlier or later, nobody tells me anything, nor will they discount money from my salary.'

But how much time do self-employed women decide to dedicate to their activities? Table 6-9 shows that on average, these women spend much less time on their activities than maquila workers on their jobs. Moreover, the median is significantly lower than the average. This finding is consistent across towns.

Table 6-9: Hours worked by self-employed wives

	Both	Miah.	Chilac
Mean	32.45	31.56	32.94
Median	24	21	25.5
St. Dev	24.26	24.17	24.38
Obs	225	81	144

Yet, another interesting finding from Table 6-9 is the great variation in the hours worked by self-employed wives. For this reason, the average number of hours that women decide to work each week by each type of activity is analysed. As can be corroborated, in Table 6-10, with the exception of having a grocery store at home, the majority of self-employed wives dedicated, on average, fewer hours to work women in assembly plants were required to<sup>35</sup>.

<sup>35</sup> It must be noted that it is difficult to calculate the total amount of hours women dedicate to self-employment activities. Adding up the number of hours each woman dedicated to each of her self-employment activities is not very accurate as many women multitask and carry out

Table 6-10: Hours worked by wives in each type of self-employed activity.

	Sew	Sell Garlic	Store	Des hebrar	Sell Tortill As	Sell Goods Stalls	Haw king	Food Stand
Mean	19.71	16.54	64.46	26.75	25.36	32.13	20.04	21.87
Median	18	14	67.5	24	28	32.5	19	18
St. Dev	13.01	7.74	24.49	14.65	13.53	24.68	11.60	17.36
Obs	90	14	37	12	18	16	14	19

Moreover, self-employed women are not only able to decide on the number of hours they put into this activity and have the flexibility to decide at which point of the day they engage in it, but can usually also multitask while they are working.

This is what Rosa does. She is 56 years old and has 10 children, aged from 45 to 20. She sews in her house, and goes every weekend to Mexico City to sell what she has sewn during the week. She explains how she engages in both this activity and her house chores during the day.

(The maquila)' is very demanding because it is from 8 in the morning, and I am already used that I sit at my (sewing) machine, I work for a while, I cook my food, then I work some more, then I am there with my animals and there I am all day long.'

Most importantly, due to the possibility of multi-tasking while engaging in selfemployment and the lower and more flexible hours needed for this type of activity, women are able to fulfil their roles as homemakers. They can look after their children while earning an income at the same time. This was one of the most attractive features of self-employment and one of the main reasons women would argue against working for an assembly plant.

This was the case for example of Consuelo, the wife from Miahuatlan who washed clothes to earn additional family income. She would not work for a maquila because if she did, she would not able to take care of her children. Instead, she washed clothes which enabled her to look after her children at the same time.

'I cannot (work for the maquila) because of my children, I cannot leave them alone and here washing, I am also watching them. And if I worked outside, then I would leave my children. Therefore I better dedicate myself to wash and not go out. My children as they are small, I have to take care of them as well.'

several activities at the same time. For example, woman might sew while they wait for clients at their home based grocery store.

This is also the case of Juana, the 33-year-old wife who combined selling tortillas with working in a maquila but previously worked only in the former. However, because of the long hours she had to dedicate to her job in the assembly plant, she decided to sell tortillas instead. In her own words:

'Before I only worked in the maquila, but because sometimes we would stay later, we would stay to 'velar36', then because of my children, to serve them, then, I decided to work for a while like this, selling tortillas.' 'It gives me more time to see my girls, to take care of them, I do not neglect them, like the maquila is all day long, and here it is only until two in the afternoon.'

Another interesting example is that of Pilar, a 34-year-old wife from Miahuatlan with 6 children aged 9 to 20. She explains how she prefers to have her own income generating activity, sewing, than to work for the maquila. This way she has greater flexibility in managing her time. She as Juana highlights the fact that she is the owner of her own business and thus has the power to decide upon her working hours. As a result she can look after her children constantly:

'I acquired some places to sell at the market, it is just one day, but it is something of my own. I know what I sell, how I sell it. Maybe I earn little, but well, in the maquila I would have to be locked up. One has a starting hour and an hour to come out, and I would neglect my family. There would be help for my family but I would neglect my family, because I dedicate almost all morning to my girls who go to primary school. I take them their lunch and I am with them, and because I am at home I do not neglect my family, because that for me is what is most important.'

In accordance to the discourses of wives in both towns of the Tehuacan area, the opportunity cost of working in the maquila is the time available to look after their children. It must be noted that spouses' arguments advocating in favour of income generating activities also revolved around children's well-being. In this case the focus was on providing their children with better access to education. Therefore there was a trade off for wives between having additional income to better educate their children, and being able to spend time with them.

Further, the reasoning supporting wives' non-participation in assembly plant employment so that they could take care of their children goes hand in hand with their socially prescribed role. As it is what society expects them to conform to, they might be upholding this discourse to appear to be conforming to their expected role. It is also likely that they have internalized this moral argument and they therefore believe it is their duty as wives. However, as was argued in Chapter 5, wives' concern for their children's care and welfare cannot be disregarded as unimportant. This is true as well

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<sup>&</sup>lt;sup>36</sup> Word which means to "vigil". It implies that employers stay up late at night working.

for spouses' concern for the quality of their children's education. For this reason, both are considered as valuable functionings which are taken into account in the evaluation of welfare states achieved by wives' participation in different activities.

## 6.5 Wives' and husbands' engagement in housework

Part of wives' socially ascribed role as homemakers is also to be responsible for making sure that the household chores are completed. However, husbands' involvement in this occupation is usually minimal. Even wives who engage in a full-time salaried job with their husbands have to carry out the bulk of the housework. This trend has been referred to as a 'double burden of work' by Hochschild (1989). She refers to the domestic chores working wives have to complete after their salaried jobs as a 'double shift'. These household chores which have to be completed after work imply both effort and time for wives. These usually wear them out and leave them with little time for leisure and plenty of stress. Meanwhile, husbands of salaried employed women usually have double the amount of leisure their wives do.

Wives in the two towns of the Tehuacan area who worked in the maquila experienced this double burden of work. Jobs in assembly plants were generally full-time and wives were usually responsible for housework. For instance, Monica was a maquila worker in the town of Miahuatlan because her family sometimes needed extra money. Yet, her husband would not help her at all to accomplish the domestic chores.

'At midnight I am sometimes there washing clothes and ironing.'

Marco, a 35-year-old husband of a maquila employee in Miahuatlan, lamented that his wife got very tired working. He explained:

'She gets very tired. She has to arrive and do the housework and also work for the maquila. That is why she works for a while and then quits, she works one year and then rests for another.'

However when asked whether he would help doing the housework, he responded that he helped his wife to tidy the house, to clean the patio and once in a while to wash one or two pieces of clothes. Therefore, although he helped his wife to complete some tasks, she was still the one who carried out the bulk of work needed in a household with three children. Thus, even though Marco noticed and was concerned for his wife

tiredness due to her double burden of work, he would not participate equally in the house chores.

Next, it is explored to what extent wives' employment in assembly plants versus self-employment influences the amount of time they dedicate to domestic chores. Further, it also examined to what degree this has an impact on their husbands' involvement in these tasks. As a first step, wives from both towns in the Tehuacan area were asked which member of the household was responsible for making sure the domestic chores were completed. As can be seen in Table 6-11, almost 85% of the wives interviewed were solely responsible for the housework. Another 7% of wives were jointly responsible for these tasks with other women in the household (mother, mother-in-law, daughter, etc.). Almost 4% of wives shared this responsibility with their husbands, and only 1.4% of husbands had this responsibility by themselves. Thus, the total percentage of husbands who took on this responsibility is extremely low. This is yet more evidence that domestic chores are considered the domain of women.

Table 6-11: Percentage of households in which each member is responsible for the house work

	Both	Miahuatlan	Chilac
Wife alone	84.95	82.79	87.10
Husband alone	1.39	1.86	0.92
Wife and husband only	3.47	3.72	3.23
Wife and other	6.25	6.98	5.53
Other only	3.24	3.72	2.76
Wife, husband and other	0.69	0.93	0.46
Total	100.00	100.00	100.00

From Table 6-11, it can also be deduced that this tendency is even greater in San Gabriel Chilac than in Santiago Miahuatlan. In Chilac the proportion of men who do the housework is almost half of that in Miahuatlan. Further, a larger percentage of women are fully responsible for this activity. This is consistent with Chilac being more conservative on several counts than Miahuatlan.

It has been established that women bear the responsibility for the domestic chores within households. It still needs to be verified whether this continues to be true for women engaging in assembly plant employment, which is a full-time job. As is shown in Table 6-12, a much lower percentage of wives working for an assembly plants than those self-employed or without an income generating activity are solely responsible for housework. This is corroborated by a larger proportion of maquila wives sharing the house work responsibility with their husbands or with other members of her household. Moreover, a large share of wives stated that other family members were solely

responsible. This shows that wives seek support from other family members in order to be able to cope with their 'double shifts' – support that does not always come from their husbands but from other family members, usually female ones.

Table 6-12: Percentage of households in which each member is responsible for the house work, by activity.

	Assembly	Self- employed	Only home
Wife alone	60.00	88.72	86.10
Husband alone	0.00	2.05	1.07
Wife and husband only	10.91	3.59	2.14
Wife and other	9.09	4.10	8.56
Other only	18.18	1.54	1.07
Wife, husband and other	1.82	0.00	1.07
Total	100.00	100.00	100.00

However, even if a large percentage of wives do share the responsibility of housework with other family members, the majority of them (60%) still continue to be solely responsible. These wives have to cope with this duty after their long day shifts in the maquila. Therefore, the term 'double shift' applies to the majority of assembly plant wives.

As for their husbands, it is puzzling to discover that none are solely responsible for the housework. A proportion of husbands do divide this responsibility with their wives, but the great majority of husbands are not involved. As noted previously, wives working for an assembly plant on average contribute half the household income. Thus, as women share the task of being the providers, one would expect husbands to also share in the housework. Yet in the majority of the cases, this does not happen. However, it can be observed that a much larger percentage of husbands of maquila workers compared to the rest do share the responsibility with their wives.

One can also observe from Table 6-12, that a larger percentage of self-employed women compared to those without income-generating activities are solely responsible for the house chores. There is also a large percentage of husbands of self-employed women who are solely responsible for housework. Yet compared to the other two groups of wives, there is overall still a very low share of husbands sharing this responsibility with their wives. Further, a lower proportion of self-employed wives than the rest divide this responsibility with other family members. It must be remembered, however, that in many instances self-employed women could undertake both activities at the same time, and that this was often the purpose of their engagement in this type

of activity. It makes sense then, that the majority of self-employed wives bear the sole responsibility of the domestic chores in their households.

Up to now the focus has been on identifying the household member responsible for the domestic chores. Yet, this information does not tell us the amount of time or effort that wives and their husbands dedicate to the task. Thus, the average number of hours that wives in different activities and their husbands spend doing housework is compared. This will give us an idea of the magnitude of the 'extra shift' for salaried women. It will also inform us how much time wives who do not engage in any form of incomegenerating activity, invest in doing house work.

Table 6-13 shows the average number of hours that wives and husbands in each town dedicate to housework. It can be observed that both wives and husbands in Chilac on average dedicate less time to doing domestic chores than those in Miahuatlan. What is more, this difference is significant at a 1% level. This result could be explained by the lower number of children couples have in Chilac. It must be reminded that in Chilac on average spouses had 2.27 children while in Miahuatlan they had 2.74.

Table 6-13: Hours wives and husbands dedicate to house work.

	Wives			Husbands		
	Both	Miah	Chilac	Both	Miah	Chilac
Mean	31.58	34.15	29.03	5.52	6.31	4.73
Median	27	28	24	1.17	2	1
Std Dev	19.52	20.29	18.42	8.64	9.84	7.18
Obs	432	215	217	432	215	217

Yet the interest is to analyse the difference in couples' involvement in domestic chores depending on whether wives work in an assembly plant, are self-employed or neither. As can be seen in Table 6-14, wives who do not have an income-generating activity spend on average almost the same number of hours doing housework as if they had a full time job, i.e. eight hours a day during the week. This shows that engaging in household chores can be quite demanding. The effort needed to complete these tasks will depend on the number of children the family has and the appliances the household owns (the equivalent to the amount of capital households have to achieve these chores). It must be remembered that both towns of the Tehuacan region are quite poor and the majority of households did not have domestic devices to do housework. For example, wives still had to wash by hand and cook from scratch. It could be argued therefore that house work is quite an arduous task and an equivalent to a full-time job.

Table 6-14: Number of hours a week wives spend doing housework

	All wives	Current Assembly	Current Self- employed	Current Housewife
Mean	31.58	21.28	28.41	38.42
Median	27	20	23	35
St. Dev	19.51	11.76	18.83	20.48
Obs	432	55	195	171

Assembly plant workers, on the other hand, were the ones who on average spent fewer hours per week doing housework. As we have seen, this could be a reflection of the help they get from other family members. Still, on average they spend 20 hours a week on these chores plus the 50 hours they work in the maquila. An average wife would then be working a total of 70 hours a week (10 hours a day including weekends). This is bound to be tiring and stressful for them. Thus, the term 'double shift' for these women is quite accurate.

Self-employed women do not dedicate much time to domestic chores as women who do not engage in income-generating activities. Yet they spend much more time on these tasks than assembly plant workers. It must be recalled that on average wives dedicate 20 hours a week to self-employed activity, which is much less than salaried wives spend at work. Yet this amount, plus the 30 hours a week self-employed wives dedicate on average to domestic chores is a significant figure (on average 50 hours a week). This is true especially if we take into account that some women have two self-employment activities. However, it be remembered that self-employed wives frequently multi-task between these activities and the domestic chores.

In contrast, husbands on average spend six times fewer hours doing housework than their wives. However, there is a large difference between the average time husbands of assembly plant workers dedicate doing house chores compared to the rest of the husbands (Table 6-15). On average, the latter complete three hours more a week of housework than the former. This represents almost a third more than the time husbands of self-employed women and wives without an income-generating activity dedicate to this task. However, even if husbands of maquila workers help their wives with the domestic chores, it is still less than half the time of their wives dedicate to them.

Table 6-15: Number of hours a week husbands spend doing housework

	AII wives	Current Assembly	Current Self- employed	Current Housewife
Mean	5.52	8.81	4.71	5.48
Median	1.17	5	1	1
St. Dev	8.64	11.72	7.23	8.87
Obs	432	55	195	187

In contrast, husbands of self-employed wives are the ones spend less time on average doing housework. They also dedicate less time to these tasks than husbands of women who do not have an income-generating activity (although this last result is only significant at a 10% level). It should be noted that self-employed wives on average contribute a quarter of family income. Yet husbands do not engage in domestic chores correspondingly. This might have to do with self-employment not being as visible work as assembly plant employment. As Agarwal (1997) explains, self-employment can be seen as less valuable because it is physically<sup>37</sup> and/or financially less visible. This can influence the perceived contribution of self-employed wives to the household. As Sen (1987) explains, household member's perceived overall contribution may be different from his/her actual contribution. Where wives engage in domestic chores and a selfemployed income generating activity, their burden of work might not be as visible. This might be perceived by the household members including their husbands as a lesser contribution and effort than it actually is. Self-employed wives do not contribute half the household income like assembly plant workers, which is a much larger and visible share. Therefore, their husbands might not be as willing to help them with the house chores, even if their wives are helping them with their role of providers.

Yet another plausible explanation for this outcome is that for a large number of selfemployed wives, the real purpose of engaging in this type of activity is to be able carry out reproductive activities. Thus, employment might be viewed as an overall strategy for wives to be able to do domestic work and still earn some extra money. Therefore, both spouses might not expect husbands to be involved in household chores.

Summing up, wives working for assembly plants receive much more help with housework from other family members, including their husbands. They also spend fewer hours doing this task than self-employed wives or wives who do not have an income-generating activity. Further, their husbands spend more hours doing domestic

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<sup>&</sup>lt;sup>37</sup> As a great proportion of self-employed women work from their homes, members of the society do not see them perform this activity. Thus, it is not physically visible.

chores than those of the rest. Nevertheless, most wives are still those mainly responsible for housework and they invest a large number of hours in the task. Therefore, it can be concluded that by large, wives working for assembly plants experience the double burden of a salaried job and domestic chores.

Self-employed wives, however, have the same responsibility structure as those who do not engage in income-generating activities. In addition, they do not receive more help to achieve this task from their husbands than those from the former group. This could be due of the lack of visibility of their income and thus a lower perceived contribution to the household than there actually is. Yet it could also be because self-employment is an overall strategy for wives to be in charge of domestic activities while earning some income.

## 6.6 Other welfare effects of assembly plant employment

Working conditions at each assembly plant also have a strong influence on their employees' welfare. These conditions include the rules governing the plant; how workers are treated by their superiors; and the safety provisions that protect employees. These factors will shape wives experiences when participating in maquila employment and thus the welfare they can achieve by doing so.

For instance, in several of the assembly plants, employees had to complete a quota of production in short time frame. This resulted in workers being under a huge amount of pressure and stress. Alejandro, for example, a 42-year-old assembly plant worker, explained how this was the case for his wife:

'In the job there are several pressures, and sometimes they affect one's health, and I would like there to be some type of business or something like that, so that she wouldn't be so mentally pressured. She gets stressed and everything, I do not like that'

Therefore, even if he appreciates his wife helping him by bringing additional income into the household, he worries because she suffers from pressures related to the job. Therefore he would prefer her to work somewhere else.

Further, besides the strict quotas, maquilas operate under an organizational structure where workers are under the strict vigilance of 'encargados' or supervisors. The main task of these supervisors is to certify that workers are doing their jobs accurately and at high speed. To achieve this, a large share of these supervisors resorted to scolding and yelling at the workers. Of the wives surveyed 44% stated they were told off and scolded by their supervisors. This is a quite significant share although it also reflects

the dissimilar conditions that different assembly plants provide to their workers. According to Barrios Hernandez et al. (2003) many employees felt abused and humiliated when being scolded by their supervisors.

Pablo, a husband from Chilac with two children aged 6 and 10, had worked previously as a supervisor in a maquila. He explained this situation when asked whether he would like his wife to work in the maquila:

'The supervisors abuse their authority position. They shout at them. Women cannot possibly work that fast.'

Employees who are scolded face additional pressure on top of having to complete a rigorous production quota fast. But more importantly, workers who are scolded and shouted at in a derogatory way are not being respected as human beings.

Additionally, maquila workers have to perform a repetitive job in which they have to stay either sitting down or standing up for long hours, which also makes the job harder. As Laura, a 47-year-old maquila worker and mother of 4, explains:

'To go to a maquila you need to know how to sew and endure there all day, either standing up or sitting down...'

Thus, because maquila employees have to work very long hours; doing a repetitive job; having the stress and pressure of having to complete a production quota in a restricted amount of time; and even sometimes have a person scolding them, this type of employment is a very strenuous and tiring one. However, even though several women stated that working for the maquila was exhausting, for others staying at home was an even greater burden. For example, Maria is a 22-year-old with a six month baby, who was working for the maquila. She had previously been a housewife for a while and for her this was much more tiring:

'It is more tiring to be at home than to be working, because (at home), one wakes up early, you prepare the lunch, clean all day, then make the food that the husband eats when he arrives, and then the next day the same thing.'

Therefore although maquila jobs are demanding, when comparing to the alternative options for wives, it was a matter of perception as to what was considered as more fatiguing. It must be noted however, that in general assembly plant employment was viewed as more demanding.

Another negative working condition found by Barrios Hernandez et al (2003) at some assembly plants was sexual harassment of female employees. From the survey, 4.35% of wives stated that they had been harassed by their supervisors. However, no person interviewed mentioned having experienced this or perceived this as being a problem within maquilas. While harassment of female employees represents a very grave situation which needs to be tackled, it does not, at least on the surface, seem to be a widespread problem. It must be acknowledged, nevertheless, that harassment is not an issue which is openly discussed. As a result, it is possible that, even if a large number of wives endured it, only a few wives declared to being victims of it.

What does seem to be a prevalent but less serious condition is the docking of employees' pay if they are late for work. From the survey, it was found that 74% of wives working in maquilas stated that they were charged if they arrived late to work. Employees were also charged for absence, regardless of the reason. In this case, 91.3% of wives who had worked for an assembly plant stated that they were docked if they missed a day of work. While docking workers's pay is a mechanism by which employers' disincentivize workers from arriving late and missing days of work, employees generally find this unjust and unbalanced as they usually have to work extra hours without being paid. Further, employees might have a justifiable reason such as sickness which prevents them from attending work.

On another note, a positive condition provided by some assembly plants is that they offer their employees the opportunity of promotion. For example, Elena had been working since she was 13 years old. She had stopped working because she had had a baby, but she explained how during the time she worked she climbed up the ladder within the assembly plant.

'I like working for the maquila. I started working as manual and ended up working for the last machine. I was very happy because I earned what I wanted.'

Of the wives surveyed, 62% stated they had the opportunity to progress at the assembly plant where they had worked during the last year. Thus, employees of many plants had the opportunity of promotion.

There is yet another non-pecuniary benefit of working in the maquila independent of the conditions each plant offers but inherent to this activity. Because in an assembly plant various people gather together to work, it is also a place where socialization between co-workers occurs. Thus a maquila is a place where wives can meet people and create friendships. This was highly valued by wives and was frequently mentioned in the interviews.

Ana, for example, the maquila worker from Miahuatlan, describes:

'There I forget about all my pressures that I have at home. I am fine and I feel well there. I meet my friends, my colleagues.'

Further, several wives without an income-generating activity who were self-employed and worked from home wished they could work in assembly plants for this reason. This is the case of Sonia, who works from home unthreading for a maquila plant and also does some embroidering. She wanted to work for an assembly plant but didn't because her husband would not let her. She explains:

'I would like to work for a maquila because, well, there you meet lots of people, you mingle with them, and you say... good morning, good afternoon, you get to know people.'

On the contrary, wives had very few alternative places and opportunities to meet and spend time with people. As Carla, a wife with no income-generating activity said:

Being a housewife, 'one almost does not go out, one is always in the house.'

Thus, although she had never worked in an assembly plant she wanted to because it represented an opportunity for her to socialize. This statement accords with the idea that wives' place is the home. Because of this, they have restricted mobility and few spheres where they can interact with others. Mostly, wives only associated with members of their family.

Further, because wives without an income-generating activity would spend most of their time at home without going out, they had their children as their only companions which would also tire them sometimes. As Patricia, a 34-year-old maquila worker with 5 children aged 9 to 2 who had had a period of being a housewife, puts it:

'At home, one also gets bored with one's children.'

It must be noted that 68% of self-employed wives carried out their activities from home. Even though some wives would perform these activities outside their home, they would do so only one or two days a week. Therefore a large majority of wives performing these types of activities did not have the opportunity to associate with other people. This resulted in them having fewer or no friends and only their extended family to

socialize with. Thus, maquila employment provides wives with the opportunity to break with the isolation of their homes.

Thus there are positive and negative aspects for wives' welfare when working for a textile plant. Some working conditions that maquilas provide for their workers can be harsh and tiring. This is the case, for example, where wives are mistreated by supervisors and are pressured to work fast. Yet on the other hand, assembly plants also allow for wives' promotion and socialization with colleagues.

## 6.7 Wives' health conditions when participating in different activities.

Some studies examining textile assembly plant employment conditions in Mexico have found that they are mostly suboptimal and that health protective measures are deficient (Barrios Hernandez 1993; Tiano 1994). As a consequence, maquila employees frequently suffer from poor health. Barrios Hernandez (1993) in his evaluation of maquilas in the area of Tehuacan, Mexico found that several workers suffered from respiratory problems due to the inhalation of fluff; kidney and back pains for sitting down all day; allergies due to the contact with chemicals in textiles; eye weakness and stress. Also, Villegas, J. et al. (1997) argue that to perform the maquila tasks, employees have to focus the eyes intensly in the performed task. This leads to a high deterioration of the sight.

A number of the wives surveyed and interviewed from both Chilac and Miahuatlan also experienced health problems. Some had even stopped working because of them. Of the wives who worked in a maquila in the year of reference and had stopped working for a period of time, 35% (7 out of 22) stated they had done so because they had fallen ill. One of them had already returned to her job and 5 planned to do so soon<sup>38</sup>.

However, several wives with deteriorating health conditions continued to work for the maquila. Thus to further assess the extent to which wives working for an assembly plant faced detrimental health conditions, questions were included in the survey about whether wives had experienced a number of symptoms in the past month<sup>39</sup>. These are compared with the ones experienced by self-employed wives and those not working for an income generating activity.

Table 6-16 shows the percentage of wives in each town that experienced symptoms. There are several symptoms suffered by at least a third of the wives interviewed.

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<sup>&</sup>lt;sup>38</sup> Unfortunately information regarding which illnesses these women suffered is not available.

<sup>&</sup>lt;sup>39</sup> To this effect, the percentage of those who participated in each activity during the last year is considered. This is done so that those wives who left the maquila because they were ill are not excluded from the analysis. Further, some symptoms may be due to wives' work in assembly plants in the last year even though they do not work there any more.

Thus, it can be deduced that in general, wives from both towns do not have good health conditions. Some of these were experienced to a higher degree in Miahuatlan than in Chilac, for example coughing, difficulty breathing, swollen joints with pain, body aches, stress, and eye weakness. Nevertheless, only the symptom of difficulty breathing is significantly different between towns.

Table 6-16: Share of wives who have experienced health related symptom in the last month, by town

	Both	Miah	Chilac
Cough	26.51	28.37	24.42
Difficulty Breathing	14.42	17.21	11.52
Swollen Joints with Pain	24.19	26.51	21.66
Irritated eyes, with pain	30	30.7	29.03
Sore Throat	35.43	32.56	37.79
Kidney Pain	28.84	25.58	31.8
Back Pain	27.44	22.79	31.8
Swollen Irritated & Itchy Skin	13.95	12.56	15.21
Allergy	9.53	6.51	12.44
Blood Pressure	29.6	26.51	32.26
Body Ache	31.63	37.21	25.81
Stress	40.23	42.79	37.33
Eye Weakness	33.02	35.81	29.95

However, as can be observed in Table 6-17 a larger share of maquila workers suffered from a substantial number of symptoms than self-employed or non-income-generating wives. These symptoms include coughs, swollen joints, irritated eyes, sore throat, kidney pain, swollen, irritated and itchy skin, allergies, stress, and eye weakness. However, only the percentage of maquila workers experiencing irritated eyes, sore throat, difficulty breathing, kidney pain, irritated skin and eye weakness was significantly from between non-assembly-plant workers (both self-employed and those without an income-generating activity). <sup>40</sup> However, if we compare those who are currently working in the maquila, with those currently self-employed on one hand, and housewives on the other, it ceases to be true that a higher share of maquila workers, compared to each of the two other groups, experience the symptoms of stress and swollen, irritated and itchy skin. Further, if we take into account those wives who are currently working for a maquila, only the symptoms of irritated eyes, sore throat and

<sup>40</sup> For all of these symptoms, (except for eye weakness) the same tendency is observed in each town.

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eye weaknesses are significantly different from non-assembly-plant workers. These are exactly the same health problems Barrios Hernandez (1993) had found that employees of textile assembly plants suffered in the area of Tehuacan, Puebla and it is likely they are due to the working conditions also identified by him.

Table 6-17: Share of wives who have experienced symptoms in the last month

	AII	Assembly	Self-	Home last
	Wives	last year	employed	year
			last year	
Cough	26.51	31.88	23.28	28.87
Difficulty Breathing	14.42	17.39	13.36	14.79
Swollen Joints with Pain	24.19	18.84	25.43	24.65
Irritated eyes, with pain.	30.00	42.27***	30.17	27.46
Sore Throat	35.43	44.93**	35.34	29.58**
Kidney Pain	28.84	36.23*	31.47	21.13***
Back Pain	27.44	30.48	33.19	16.90***
Swollen Irritated & Itchy Skin	13.95	18.84*	15.09	11.97
Allergy	9.53	13.04	10.34	7.04
Blood Pressure	29.60	26.09	29.31	30.99
Body Ache	31.63	33.33	26.72	38.73**
Stress	40.23	43.48	40.52	38.03
Eye Weakness	33.02	42.03**	32.76	30.28

<sup>\* 1%</sup> significance

It can be concluded then, that in general wives from both towns have poor health. There are many factors which can influence this: nutrition, access to health centres and the intensity of in each activity. However, a significant and large percentage of wives working in assembly plants experience illnesses and deteriorating health, which can be traced back to suboptimal protective measures and working conditions. Maquilas could equip themselves and have protective measures for their workers. For example, women could be made to wear masks to protect themselves from inhaling fluff. They could also, for instance, be allowed to have more periods of rest and allowed to go to the toilet more often.

#### 6.8 Decisions within the household

Many economists have suggested that salaried employment might increase wives' bargaining power within the household (Katz 1997, Fafchamps 2001, Agarwal, 1997). We will therefore examine the effect maquila employment has on decision-making

<sup>\*\* 5%</sup> significance

<sup>\*\*\* 10%</sup> significance

within the household. Although analysing which household member takes decisions on certain issues is far from being a measure of bargaining power, investigating how these decisions are altered with wives' employment in assembly plants can serve as an indicator of changes within the family power structure. Thus first we assess which household member takes decisions within the household regarding preparing food, children's education, children's permissions, large expenditures and contraception. Next, we see how this decision structure differs for households in which wives engage in different activities.

Table 6-18: Percentage of household members who take decisions

	Food prepa ration	Child ren's educati on	Child ren's permissi ons	Strong expen ditures	Contra ception
Wife	63.43	26.18	20.62	9.05	29.18
Spouses	20.83	68.08	70.88	63.10	58.62
Husband	1.62	2.74	6.96	24.05	11.67
Mother	1.16	0.00	0.77	0.71	0.53
Children	0.00	1.75	0.26	0.24	0.00
Husband's mother	0.93	0.00	0.00	0.24	0.00
Wife and other	12.04	0.52	0.52	2.62	0.00
Total	100.00	100.00	100.00	100.00	100.00

From Table 6-18, it can be seen that decisions taken within the household are consistent with the socially ascribed roles for wives and husbands. The large majority of wives take the decisions within the household regarding food preparation, with a much lower percentage of husbands involved in this decision. Furthermore, of those husbands who are engaged in it, a greater share does so with their wives than by themselves. The rest of the decisions are generally taken jointly. Yet, while in a much larger percentage of households wives take decisions by themselves regarding children's issues and contraception, a greater share of husbands take decisions alone regarding large household expenditures.

Table 6-19, shows the proportion of household members who take decisions, by town. In Chilac a slightly smaller proportion of wives take the decisions regarding food preparation alone. A larger proportion of them share these decisions with other family members. However a larger proportion of wives in Chilac than in Miahuatlan take decisions alone regarding their children. On the other hand, a larger percentage of wives in Miahuatlan than in Chilac take decisions on large expenditures and contraception, both alone and with their husbands. Thus it can be concluded that wives in Miahuatlan are involved to a greater extent than those in Chilac in significant

decisions like large expenditures and contraception. On the other hand, in Chilac wives are more engaged in decisions regarding children's education and permissions.

Table 6-19: Percentage of household members who take decisions

	Food		Child	ren's	Children's		Str	ong	Cor	ntra-
	Prepa	ration	Educ	ation	Permissions		Expenditures		ception	
	Miah	Chil	Miah	Chil	Miah	Chil	Miah	Chil	Miah	Chil
Wife	65.58	61.29	23.08	29.53	18.41	22.99	17.50	13.33	32.63	25.67
Spouses	19.53	22.12	70.19	65.8	72.64	68.98	70.00	60.00	59.47	57.75
Husband	2.33	0.92	3.85	1.55	7.96	5.88	7.50	13.33	0.00	0.00
Mother	0.00	0.00	1.92	1.55	0.5	1.07	0.00	0.00	0.00	0.00
Children	0.93	1.38	0.00	0.00	0.5	0.00	0.00	0.00	0.00	0.00
Husbands	0.93	0.92	0.00	0.00	0.00	0.00	0.00	0.00	6.84	16.58
mother										
Wife &	10.7	13.36	0.96	1.55	0.00	1.07	5.00	13.33	1.05	0.00
other										
Total	100	100	100	100	100	100	100	100	100	100

It can be seen in Table 6-20 that decisions regarding food preparation are taken differently in households where wives work for assembly plants compared to those where wives are self-employed or do not have an income-generating activity. It is evident that a lower proportion of maquila-employed wives are in charge of this arrangement by themselves. This is in part due to a greater involvement of husbands in this decision, but mostly because wives share this responsibility with someone else in the household. This is consistent with the finding that maquila wives have less responsibility for the housework, share it with other female family members, and spend less time on it during the week, than wives in other occupations. Therefore decisions over food preparation continue to be mostly female, with the prescribed gender role regarding food preparation only challenged in a few households.

Table 6-20: Household members who take decisions within the household regarding food preparation

	AII wives	Current assembly	Current self- employed	Current home
Wife	63.43	38.18	68.72	64.17
Spouses	20.83	29.09	19.49	20.32
Husband	1.62	0.00	1.54	2.14
Mother	1.16	3.64	0.51	1.60
<b>Husbands</b> mother	0.93	1.82	0.00	1.60
Wife and other	12.04	27.27	9.74	10.16
Total	100.00	100.00	100.00	100.00

The structure of household decisions regarding children's education and permissions are not very different in household where wives work in assembly plants compared to those where they are in self-employed (Tables 6-21 and 6-22). For a slightly higher percentage of households in which wives work for the maquila, decisions regarding children's permissions are taken by their mothers. This could be explained by their taking care of the children while wives go to work. Nonetheless, it can be said that overall, there is no radical divergence on decisions regarding children's affairs in households were wives work for the maguila.

Table 6-21: Household members who take decisions within the household regarding children's education

	All wives	Current assembly	Current self- employed	Current home
Wife	26.18	24.00	27.93	25.57
Spouses	68.08	72.00	66.48	68.18
Husband	2.74	0.00	2.79	3.41
Children	1.75	0.00	1.68	2.27
Wife and other	1.25	4.00	1.12	0.57
Total	100.00	100.00	100.00	100.00

Table 6-22: Household members who take decisions within the household regarding children's permissions

	All wives	Current assembly	Current self- employed	Current home
Wife	20.62	21.28	19.32	21.89
Spouses	70.88	74.47	73.30	67.46
Husband	6.96	2.13	6.25	8.88
Children	0.77	0.00	0.00	1.78
Mother	0.26	2.13	0.00	0.00
Wife and other	0.52	0.00	1.14	0.00
Total	100.00	100.00	100.00	100.00

On the other hand, it can be observed from Table 6-23 that decisions over large expenditures are different depending on whether wives engage in each one of the activities; maquila employment, self-employment or only reproductive activities. In those households where wives do not have an income-generating activity, they are less involved in these decisions. Additionally, in these households a very large share (more than a third) of husbands take these decisions by themselves. On the other end of the

spectrum, in households where wives participate in assembly plant employment, a larger percentage take these types of decisions alone, and thus a a lower percentage of their husbands do so. There is quite a large share of households in which wives are self-employed and where decisions of this type are taken jointly by both spouses. This proportion is even larger than for those households in which wives dedicate themselves to maquila employment or reproductive activities only. Yet in these households wives generally do not take these decisions by themselves. These results might be explained due to the fact that decisions over expenditure are related to income. Wives working in assembly plants contribute double the share of income to their households of self-employed wives. It makes sense, then, that a larger proportion of wives working for an assembly plant are engaged in these types of decisions. Thus, what could generally be considered a male decision is transformed if wives engage in self-employment and even more if wives work for the maquila.

Table 6-23: Household members who take decisions within the household regarding large expenditures

	AII wives	Current assembly	Current self- employed	Current home
Wife	9.05	16.36	9.63	6.56
Spouses	63.10	67.27	72.19	52.46
Husband	24.05	9.09	14.97	37.16
Children	0.71	0.00	0.00	1.64
Mother	0.24	0.00	0.00	0.55
<b>Husbands</b> mother	0.24	0.00	0.00	0.55
Wife and other	2.62	7.27	3.21	1.09
Total	100.00	100.00	100.00	100.00

Finally, decisions concerning contraception are also different in household were wives work for an assembly plant (Table 6-24). In a large share of households, where there is a wife working for an assembly plant, she alone takes this decision. In the other households contraceptive issues are primarily resolved by both spouses. This could be an indicator that wives achieve greater empowerment within the household. Yet other factors could be influencing this result. Wives working in an assembly plant are younger, and thus might be taking these decisions by themselves. Yet on average assembly plant workers are 33 years old, while the self-employed and those without income-generating activities are each on average 37 years old. Thus, the average difference in age does not suggest that this variable is what influences the larger share of maguila wives deciding contraception matters by themselves.

Table 6-24: Household members who take decisions within the household regarding contraception

	All wives	Current assembly	Current self- employed	Current home
Wife	29.18	59.18	28.31	21.82
Spouses	58.62	38.78	59.04	63.64
Husband	11.67	2.04	12.65	13.33
<b>Husbands</b> mother	0.53	0.00	0.00	1.21
Total	100.00	100.00	100.00	100.00

Thus compared to households where wives are self-employed or do not have an income-generating activity, those in which they work for a textile plant have a number of different decision-making arrangements. Food preparation is one of them. Yet the difference in this decision structure in households where wives participate in the maquila corresponds both to wives sharing these decisions with other female family members, and to husbands' incorporation into them. Decisions regarding large expenditures are also dissimilar in households where wives participate in assembly plant employment. Not only there is a larger share of wives who are involved in this decision, but also a greater proportion of them who decide by themselves. To a lesser extent, self-employed wives also take part in these decisions in a larger proportion than those without an income-generating activity. This finding could be due to large expenditures being related to income. As maquila wives have a higher income, they have the ability to spend and to decide by themselves how much to spend. The third type of decision which is different in households where wives work in the maguila is that of contraception. Decisions related to children do not differ by wives' occupation. Thus, it can be said that wives' employment in maquilas has some influence on gender-related decisions.

#### 6.9 Achievable functionings in assembly plant employment

From the evidence above, it is clear that a single assessment as to whether assembly plant employment is better or worse for wives (or their families) is suboptimal. Women's participation in this activity has both positive and negative effects on them and their family. These in turn depend on a series of conditions within the workplace, the household and the society. Spouses' determination of which are the most important

functionings, and therefore their resolution on whether wives should work or not in the maquila, will depend on their perceived preferences. However, to enhance women's capacities to attain different functionings when engaging or not in the maquila, a separate analysis of each of the conditions influencing the achievement of these is needed. For example, employees who inhale fluff may develop asthma, thus preventing them from achieving the functioning of being free of sickness.

By analyzing functionings separately, policies can be formulated regarding each of the negative conditions influencing working wives' welfare. Thus, their opportunities to achieve better welfare states can be enhanced. For the previous example, employees' functioning of being free of sickness can be improved if they are provided with masks and plants have better ventilation.

Thus in this section, all the positive and negative conditions found to influence wives' experiences in maquila employment are summarized. Additionally, they are mapped onto the different functionings whose achievement can be enhanced or worsened by wives' working in maquilas.

It must be remembered, however, that for both husbands and wives, children's wellbeing was of utmost importance, at least in the discourse. For many it even governed the decision regarding wives' employment in assembly plants. In this sense, the main argument wives gave for not participating in maquila employment was that if they did, they would not be able to provide quality care for their children. On the other hand, the chief reason wives supplied for their inclusion into this activity was to obtain supplementary income to be able to provide for their children's educational expenses. Because one of the traditional moral arguments states that wives are those responsible for childrearing, this last claim can be considered a moral counterargument. It implies that wives still name their children as their main concern. Instead of dedicating time to childbearing they decide to invest in their children's education. However, as been discussed previously, whether both these reasons are internalized concerns, are only used as a discourse, or reflect an authentic interest, they cannot be discarded as nonfundamental. Therefore, the functionings children achieve by wives' participation in assembly plant employment will also be incorporated into the current analysis. Taking this into account, Table 6-25 summarizes all the positive and negative conditions within the maquila, the household, and society that influence wives and their children's achievement of functionings when the former work as maguila employees.

Table 6-25: List of wives' achievable functionings when employed in assembly plants

		Wo	men	Chile	dren
Category	Functionings	Negative	Positive	Positive	Negative
Physical	Being free of	- Unhealthy	-Access social	-Social	
health	sickness	working conditions	security -Additional income	Security -Additional income	
	Being free of tiredness	-Long working hours -Double burden work			
Mental well	Being free of	-Pressure from	-No isolation		
being	pressure	managers			
	Being free of	-Quotas to be			
	Stress	completed			
Education	Being able to		-Opportunity to	-Income to	
and	have a		get	provide	
knowledge	Personal		job promotion	education	
	development				
Quality	Being able to	-Long working			-Quality
time	have quality	hours limit time			time
with family	time with	to spend with			With
	children	family			mother
	and family	- Double work burden			
Social	Being able to	-Being	-Space to make		
Relations	see and have	accepted in	friends		
Relations	friends	society (norms)	menas		
Allocation	Being able to	-Double work			
of time	engage in	burden			
	leisure	-Long working			
	activities	hours			

		Wo	omen	Chil	dren
Category	Functionings	Negative	Positive	Positive	Negative
Respect	Being respected in the workplace		-Scolding by supervisors -Not being provided stipulated benefits		
	Being respected in the household  Being free of domestic violence Self worth	-Social norms plus long working hours	-Decisions within household -Financial independence - Financial independence - Financial		
			independence -Choice of activity		

As is shown in Table 6-25, many positive and negative welfare states depend on the working environment within assembly plants. However, a fundamental aspect to consider is that assembly plants are heterogeneous in terms of the conditions they offer to their employees. For example, some assembly plants do not offer benefits stipulated by law, while others offer not only those but also voluntary ones such as access to credit or childcare. Some make their employees work long extra hours, while a few allow their employees to complete their quota and then leave early. Generally, in both towns most assembly plants offer suboptimal working conditions. In his study of textile assembly plants in the area of Tehuacan, Barrios Hernandez (2004) affirms that the maquilas who generally do not provide their workers with social security are the medium, small, and clandestine ones. As Tiano (1994), explains, apparel maquilas have very low startup costs: often just renting a building and acquiring second-hand sewing machines is enough to start a business. This allows small and domestically owned shops to operate easily. Nevertheless, these plants are the ones which generally offer suboptimal working conditions.

Another main finding is that social norms are crucial in the determination of wives' possible functioning outcomes and that they operate through several channels. On one

hand, norms and managers beliefs regarding women's skills and roles determine the fact that it is women who are mainly hired by assembly plants. Furthermore, they also affect the way in which women are treated within these maquilas. On this issue, Elson and Pearson (1981) have suggested that textile assembly women are perceived as being more passive and compliant workers.<sup>41</sup> We do not know if this is true for the maquilas of both towns in the Tehuacan area, but we do know that employees are subject to scolding by their supervisors (who are mostly male), sometimes mistreatment by them, and in a small number of cases to sexual harassment.

On another hand, it is difficult to make a straightforward assessment of the influence that wives participation in assembly plant employment has on their agency. Information suggests however, that the effect is positive. Wives who work for the maquila generally have more mobility outside their home and socialize more. They also contribute with half the share of household income. These could be regarded as determinants of wives agency. Further, it was also encountered that a larger share of wives also take decisions within the household related to strong expenditures and contraception. Yet, these decisions are only one small aspect of what can be considered a persons agency. What is more, these last results must be taken with caution as it is also very likely that wives with greater agency are also the ones who work in the maguila.

Further, norms shape the demands that certain institutions like schools and government place on wives and thus restrict their ability to achieve certain functionings. This is the case, for instance, where schools ask mothers to take part in school events and meetings. This makes wives feel that they are failing to comply with their duties and provide quality childcare if they are unable to attend.

Additionally, the acceptance of wives' and husbands' social roles within the household also determines wives' welfare when employed or not in assembly plants. This is shown, for example, in the double burden of work that wives working for the maquila experience. It is also manifest in spouses' marital disputes due to their long hours of work. As this role is additionally part of the moral argument which holds that women should not work for assembly plants, it also determines the outcome of their participation.

Finally, social norms directly affect the welfare of wives who work in assembly plants via the guilt they feel in violating the social norm and by receiving social sanctions from their reference groups. These, internalization and social sanctions, are the two

<sup>&</sup>lt;sup>41</sup> Information in this regards, for maquila employment in San Gabriel Chilac and Santiago Miahuatlan is not available though, given that it was not the focus of the analysis and additional information would have needed to be gathered.

mechanisms by which social norms are enforced, and are the focus of the next two chapters.

The functionings wives can achieve by being self-employed also depend on the conditions and environment in which they perform their activities. However, these usually do not depend on superiors, will be less strenuous and will involve fewer hazards than those existing within assembly plants. Also, they conform to the traditional roles of wives and husbands, and therefore do not affect their sense of guilt. Further, by engaging in these activities, they will not receive social sanctions from their reference groups. Thus social norms will not influence their well-being directly. However, they implicitly do have an effect on self-employed wives' well-being. The social rule of women's place being the home restricts their mobility and makes for scarce spaces where they are able to socialize. This can contribute to wives' isolation and thus influence their ability to achieve the functioning of being able to see and have friends.

Hence, it is clear that working conditions and social norms influence wives' opportunities to achieve certain functionings. It must be remembered, though, that the extent to which wives actually achieve certain functionings while participating in each of these activities will depend on individual characteristics. What is tiresome for some wives might be enjoyable for others. For instance, some wives might find maquila employment tiresome, but others might find staying at home doing housework even more wearing. This, each of the spouses preferences and their decision-making process will determine whether wives work in assembly plants.

As a final note, it must be reminded that social norms also influence wives' and husbands perceived preferences. For example, wives might be educated and socialized to prefer to stay at home due to the rule that women are responsible for housework and child care. Therefore she will prefer to engage in a self-employed income-generating activity, or none.

It is important to remember that social norms are ubiquitous. They influence factory-employed wives' achievement of functionings through several channels. More importantly, they also shape spouses' preferences regarding wives' occupations, and the decision-making process within the household. The next two chapters analyse the effect that the internalization of moral arguments and the impact of social sanctions associated with them have on wives' propensity to engage in maquila work.

# 7 The effect of internalization on women's propensity to participate in salaried employment

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#### 7.1 Introduction

It has been proposed that social norms are sustained by or validated by one or more moral arguments. These arguments are internalized to varying degrees by individuals and because they are value laden, violation of the norm can cause feelings of guilt and anxiety. It is the concern of this chapter to assess the effects that internalization of each of these moral arguments has on women's participation in assembly plant employment. Furthermore it is of utmost importance to single out the individual and household characteristics that might lead to believing in these moral arguments. These characteristics would then also have an indirect influence on women's participation in salaried employment through their relationship to moral arguments.

In the case of San Gabriel Chilac and Santiago Miahuatlan, it is possible to identify three main moral arguments which sustain the norm that a woman should not work in assembly plants. First, women are perceived as responsible for taking care of children, serving their husbands and carrying out the household chores. Thus it is believed that a women's place is the home. Second, women who work in assembly plants are regarded as promiscuous and thus engaging in this type of employment to be unfaithful to their husbands. Finally, husbands also have a traditional role to fulfil. This is to be the economic providers of a household, i.e. the breadwinners. If their wives work for a wage it is considered they are not fulfilling this role.

Having identified these moral arguments, questions in a Likert scale form were included in the survey and posed to married women. These asked whether wives and their husbands believed in each one of these rules to proxy for internalization of moral arguments. Answers to these questions were used to test whether and to what extent the internalization of moral arguments influences women's participation in salaried employment, and in turn whether specific individual and household characteristics influence these beliefs.

Specifically, from each of the Likert scale questions a dummy variable was constructed which had a value of 1 if the answer was they "somewhat disagreed" or "completely disagreed" with the moral arguments. An additional dummy variable was created which had a value of 1 if they disagreed with *all* of the moral arguments. This was done for two main reasons: first, because the aim was to identify the characteristics of those who deviated or *disagreed* with the social norm. Second, it was operationally much simpler to use dichotomous variables than those with five values such as Likert scale questions. Therefore a total of eight dummy variables were created, three for each spouse indicating whether they disagreed with each of the moral arguments and an additional two showing whether they disagreed with all the moral arguments.

Table 7-1 shows the proportion of wives and husbands who stated disagreement with each of the moral arguments. Figures suggest that the most internalized argument is that of women's place being the home. Conversely, a larger proportion of women disagree with the argument of women being promiscuous if they work in an assembly plant. From It can also be observed from Table 7-1 that men's disagreements on moral arguments follow the same pattern. Furthermore, disagreements on each one of moral argument are significantly different from each other at a 95% confidence and a 5% significance level for both spouses. Thus, each moral argument is internalized to a different degree both by women and by men. This demonstrates the importance of analyzing separately the beliefs on each one of the moral arguments which sustain the norm that women should not participate in assembly plant employment.

Table 7-1: Disagreement on moral arguments

	Women's place home	Women Promiscuous	Men Breadwinners	All Moral arguments
% Wives Disagree	52.55	25.52	41.63	68.75
% Husbands Disagree	42.06	62.7	56.37	26.62

It can also be discerned from Tables 7-1 that wives' and husbands' beliefs differ from each other. A lower proportion of men than women disagree on each one of the moral arguments. Yet only for the argument of women being promiscuous if they work at assembly plants is the proportion of women's disagreement significantly different from men's at a 5% significance level. For the argument of women's place being the home, the proportion of women disagreeing is significantly different from men's at a 10% level. Therefore the only argument which cannot be said to be significantly different between genders is that of men having to be the breadwinners. Moral arguments then seem to be more installed in men's consciousness than in women's. As spouses in some form or another have to settle whether wives participate in assembly plant employment, it is of fundamental interest to analyze the differential impact that internalization of norms for each partner has. Due to both women's and men's discourses implying men's authority over the allocation of wives' time into waged activities, it is anticipated that husbands' disagreements will have a greater effect than that of their wives.

Furthermore, statistical figures suggest that these disagreements both by husbands and wives can be associated with participation in salaried employment. Table 7-2 shows that a larger proportion of wives participating in assembly plant employment than those who do not, disagree with all the moral arguments. This result is also found for men: as a greater proportion of husbands of those who participated in assembly

plant employment disagreed with all of the moral arguments. It must be tested, however, whether these beliefs are correlated with assembly plant employment, once other variables are taken into account. Previous results might surface, for example, because a woman with a higher level of education might also disagree much more with each moral argument, but as she would earn a higher wage, she would also be bound to have a higher probability of participating in waged employment.

Table 7-2: Disagreement on moral arguments by participation in assembly plant employment

	Women's place home		Women Promiscuous		Men Breadwinners	
	Works	Not	Works	Not	Works	Not
		works		works		works
% Wives disagree	44.63	62.32	72.65	84.06	55.12	75.36
% Husbands disagree	61.84	37.68	40.56	20.29	46.48	28.99

Furthermore, as was discussed previously in Chapter 4, a vastly greater proportion of women work in assembly plants in Santiago Miahuatlan than in San Gabriel Chilac. In the week of reference, 18.6% of wives worked in an assembly plant on Santiago Miahuatlan, as opposed to 6.91% in San Gabriel Chilac. This raises the question as to whether this can be attributed to social norms. Tables 7-3 show women's and men's disagreement on moral argument by towns. It can be observed that a greater proportion of women and men in San Gabriel Chilac disagree with both the argument of women's place being the home and women being promiscuous. However, only for this last argument is this difference significant at a 5% level and for a 95% confidence interval. Conversely, a very small (insignificant) but higher proportion of men and women in San Gabriel Chilac disagree with the argument of men having to be the breadwinners. This can be explained by the prevalent opinion in San Gabriel Chilac that women are hard workers (being self-employed in their home) and are proud to help their husbands to economically provide for the family. 42 At the same time, husbands are also used to their wives earning some form of income. This is not so in Santiago Miahuatlan, where previous to assembly plants, women had no income generating activity.

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<sup>&</sup>lt;sup>42</sup> It will be explained in another chapter that women in Chilac traditionally sew, even the founder of the town and therefore its name come after a woman called Maria la Chilaca who was a woman who worked (sewing). Therefore husbands see it as normal for women to help them economically. The amount earned by this activity however is very low.

Table 7-3: Disagreement on moral arguments, by town

	Women's place home		Women Promiscuous		Men Breadwinners	
	Miah.	Chilac	Miah.	Chilac	Miah.	Chilac
% Wives Disagree	50.23	54.84	19.53	31.48	41.31	41.94
% Husbands Disagree	44.34	39.81	67.61	57.87	55.77	56.94

Overall, figures have shown that women and men internalize each of the moral arguments to a varying degree. Also beliefs in them by both spouses coincide with wives' lower participation rates in assembly plant employment, and this is consistent across towns. However, it still remains to be verified whether there is indeed a correlation between these two variables when taking into account other variables such as years of education and age, and if so, the magnitude it has. This is not a simple task given that it is very likely that internalization of moral arguments and participation in assembly plant employment are jointly determined. Yet, in the next section, a regression model which accounts for this difficulty is specified. Regression results and their analysis then follow. Subsequently, it is tested whether further household characteristics influence women's participation in assembly plant employment through their effect of their impact in beliefs on moral arguments. Specifically, these are husband's main activity; whether either partner has lived in a city or was born in one and whether relatives also participate in assembly plants.

### 7.2 Biprobit regression model

The aim of this chapter is to empirically assess to what extent disagreement on these moral arguments influence women's participation in assembly plant employment. However, disagreement on norms and participation in assembly plant employment are presumably jointly determined. Due to this, a simultaneous equation model, a recursive Birpobit model, is employed. To this end, let disagreement on a moral argument be denoted as  $D^j$ , where j is each moral argument plus disagreement on all moral arguments, therefore  $j \in \{1,2,3,4\}$ . It is assumed that  $D^j$  is a latent random variable which is only observed as a dichotomous variable which takes values 0 or 1. Then,

$$D^{j^*} = \beta x_2 - u_i$$
 $D^{j} = 1 \text{ if } D^{j} >^* 0$ 
 $D^{j} = 0 \text{ if } D^{j^*} \le 0$ 

Variables that are considered to influence women's and men's disagreement on norms and which are included in  $x_2$  are age, per capita household income, the town they belong to and years of education. Later in the chapter, we will test whether other variables such as husbands' activity, having lived or been born in a city or having female relatives who work in assembly plants also have an influence on disagreements.

The participation equation is specified in a similar manner:

$$Y_i^* = \beta_1 x_1 + \gamma D^j - \varepsilon$$

$$Y = 1 \text{ if } Y^* > 0$$

$$Y = 0 \text{ if } Y^* \le 0$$

Variables included in  $x_1$  are age, predicted wage, predicted wage squared, number of sons or daughters less than 6, number of sons or daughters greater than 6, per capita household income, and the town they belong to.

Following (Maddalla 1983, pg 123) we then have the following system of equations:

$$\begin{aligned} D_i^{j*} &= \beta_2 x_2 - u_i \\ Y_i^* &= \beta_1 x_1 + \gamma D^j - \varepsilon_i \\ E(u_i) &= 0 = E(\varepsilon_i) = 0, \\ Var(\varepsilon_i) &= 1 = Var(u_i) = 1, \\ Cov[u_i, \varepsilon_i] &= \rho \end{aligned}$$

A condition for identification of the model is that  $x_2$  does not include all the variables of  $x_1$  if  $\varepsilon_i$  and  $u_i$  are not independent. For this model, each equation can be estimated separately by a Probit regression given that  $\varepsilon_i$  and  $u_i$  are independent. However if this condition is not satisfied, the estimates obtained using this method would not be consistent. Therefore an alternative estimation method is used in which a joint distribution function of  $u_i$  and  $\varepsilon_i$ ,  $F(u_i, \varepsilon_i)$ , is specified. For notational simplicity, it is assumed that the errors have symmetric distributions.

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<sup>&</sup>lt;sup>43</sup> Theoretically it could be assumed that participation in assembly plant employment influences disagreement of the moral arguments. However it would be empirically logically inconsistent to do so. Proof of this is in Maddalla (1983) pg 118.

Then, the joint probability distribution of  $(D^j, Y)$  is given by:

$$P_{11} = \operatorname{Pr} ob(D^{j} = 1, Y = 1) = F \Big[ \beta_{2} x_{2}, (\beta_{1} x_{1} + \gamma D^{j}); \rho \Big]$$

$$P_{01} = \operatorname{Pr} ob(D^{j} = 1, Y = 0) = F \Big[ \beta_{2} x_{2}, (-\beta_{1} x_{1} - \gamma D^{j}); \rho \Big]$$

$$P_{10} = \operatorname{Pr} ob(D^{j} = 0, Y = 1) = F \Big[ -\beta_{2} x_{2}, (\beta_{1} x_{1} + \gamma D^{j}); -\rho \Big]$$

$$P_{00} = \operatorname{Pr} ob(D^{j} = 0, Y = 0) = F \Big[ -\beta_{2} x_{2}, (-\beta_{1} x_{1} - \gamma D^{j}); -\rho \Big]$$

The likelihood function to be maximized then is:

$$L(\beta_1, \beta_2, \gamma) = \prod P_{11}^{D^j, Y} P_{10}^{D^j(1-Y)} P_{01}^{(1-D^j)Y} P_{00}^{(1-D^j)(1-Y)}$$

This Biprobit regression model is estimated for disagreement on each one of the moral arguments plus on disagreement on all moral arguments, first by wives and then by husbands. Thus, a total of eight Biprobit regressions were estimated. The variables included in the participation equation are those which are commonly used in the standard female labour participation models (Greene, 2003; Killingsworth, 1983; Smith, 1980). However, nostudies have previously econometrically assessed the determinants of the probability of an individual to disagree with a moral argument. Thus, those variables which are presupposed to have an impact on the belief in social norms are included in the disagreement in moral arguments equation. Social norms are very likely to evolve generation by generation. As such, age is assumed to have an important effect in an individual's beliefs in moral arguments. It is also presumed that formal education shapes children's perceptions regarding appropriate behavior. Thus, years of education is also included as a determinant of the beliefs in moral arguments. Further, household income is a proxy for class and status of its members. Individual's beliefs regarding moral argument are also thought to change depending on his class and status in the society. Therefore, household income is also an independent variable of disagreement on moral arguments. Finally, an important premis of this thesis, is that the degree to which moral arguments are held by spuses differs greatly by town. Because of these differences in percentions by town, wives participation in an assembly plant differs in each. The variables included in each, the participation and disagreement equations are listed in Table 7-4.

Table 7-4: Variable included in the participation and disagreement equations

Explanatory variables	Measurement of Variable	Expected Sign
Labour Participation	Dummy variable for current participation in an assembly plant	
Age	Wife's age	+
Wage	Heckman predicted wages	+
Wage squared	Heckman predicted wages squared	-
Young children	Dummy variable indicating whether the wife has children less than 6 years old.	-
Older children	Dummy variable indicating whether the wife has children between 6 and 16 years old	-
Chilac	Dummy variable indicating whether wife is from Chilac.	-
Wive's or husband's disagreement on moral arguments	Dummy on disagreement on each moral argument	+
Dissagreement on Moral Argument	Dummy variable for wives or husband's disagreement on moral arguments.	
Age	Wife's or husband's age	+
Household per capita income	Household Income that does not depend on women's engagement in salaried employment	+
Years of education	Number of completed years of formal education	-
Chilac	Dummy variable indicating whether wife or husband is from Chilac	-

Unlike OLS, the resulting coefficients of the explanatory variables in the Biprobit regression models will not provide us with the marginal effects. This is because these will vary with the value of x. The mathematical formulation of the marginal effects in the Biprobit model are fairly involved and thus are nor reproduced here<sup>44</sup>. Yet it must be noted that this is a recursive model, this is, wives and husbands disagreement in each moral argument is a determinant of the probability a wife has to work for maquila. Thus, if a variable influences either spouses probability to disagree with a moral argument, it also indirectly affects the probability of a wife to participate in an assembly plant. As such, if one variable, such as age, is an explanatory variable for both the participation and disagreement equation, it will have two different effects on wives participation in an assembly plant, a direct influence on participation and an indirect one through spouses

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<sup>&</sup>lt;sup>44</sup> For a mathematical formulation of marginal effects refer to Greene (2003), pg 821.

disagreement on a moral argument. Thus the expected effect of a variable on wife's participation is:

$$E[y \mid x_1, x_2] = \Pr{ob[d = 1]} E[y \mid d = 1, x_1, x_2] + \Pr{ob[d = 0]} E[y \mid d = 0, x_1, x_2]$$

$$\Phi_2(x_1, \beta_1 + \gamma d, x_2, \beta_2, \rho) + \Phi_2(x_1, \beta_1 - x_2, \beta_2, -\rho)$$

Further, to compute the effect of disagreement on moral arguments on the probability of a wife of working in a maquila, the following should be

$$\Pr{ob[y_1 = 1 \mid y_2 = 1, x_1, x_2]} - \Pr{ob[y_1 = 1 \mid y_2 = 0, x_1, x_2]}$$

The results of the Biprobit regression models are portrayed and explained in the next section.

#### 7.3 Results for simple biprobit estimates

Table 7-5 shows the Biprobit regression results for wives' disagreements on each one and on joint disagreement on moral arguments. Figures indicate that wives' disagreements on every one of the moral arguments are significantly correlated with women's propensity to work in assembly plants. Interestingly, the moral argument of women's place being the home, which is the most prevalent in both towns, was the argument with the weakest effect on this probability. This could well be a reflection of the norm being instilled so powerfully in some women's consciousness that even those working in assembly plants believe in this moral argument. Disagreement as to husbands having to be the providers, on the contrary, has the highest coefficient, which is also very similar to that of women being promiscuous if they work in assembly plants. However, none of the disagreement coefficients are significantly different from each other. 45 Surprisingly, disagreement on all moral arguments is not significant in the participation equation and its magnitude is lower to disagreement on any moral argument taken into account separately. Hence, each one of the moral arguments has a distinctive effect on women's participation in assembly plant employment, though these effects cannot be said to be significantly different from each other.

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<sup>&</sup>lt;sup>45</sup> Statistical tests are portrayed in the appendix so that the narrative flows better.

Table 7-5: Biprobit results for wives' disagreement on moral arguments

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree All
	Home	Promiscuous	Providers	
Participation Equation				
Age	-0.03277**	-0.00729	-0.00019	-0.02720
Wage	52.53271**	21.87066**	27.69230*	53.29875**
Wage Squared	-10.30257**	-4.29624**	-5.39323*	-10.35588**
Number children older 6	0.02657	-0.00087	0.02042	0.02357
Number of Children less 6	-0.18107	-0.14658**	-0.12775*	-0.14603
Household p.c. income	0.00005	0.00002	0.00004	0.00003
Chilac	-0.55980**	-0.05288	-0.28992*	-0.41185
Disagreement on argument	1.19298**	1.81694***	1.90134***	1.04808
Constant	-67.11275**	-29.58950**	-37.18475*	-68.72345**
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Age	-0.00175	-0.01692***	-0.02436***	-0.01092
Household p.c. income	-0.00001	-0.00002	-0.00002	0.00000
Years of Educ.	0.09583***	0.02807**	0.01802*	0.04917***
Chilac	-0.09023	-0.40036***	0.03465	-0.22289
Constant	-0.48620	1.37409***	1.01289***	-0.26770
Antrho	-0.34288	-10.31003	-10.46490	-0.30349
Alluno	-0.54200	-10.51005	-10.40430	-0.30348
Rho	0.33004	-1.00000	-1.00000	-0.29450
P(rho=0)	0.4296	0.0331	0.0041	0.6020

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Another explanatory variable of interest is the dummy representing whether a person is originally from Chilac or not. It has been found that more women work in assembly plants in this town than in Miahuatlan. This coincides with the fact that more couples disagree with the moral arguments in the latter than the former. It is a main interest then to discern whether and to what extent these discrepancies in participation rates between towns are due to internalization differences in social norms. From Table 7-5 it can be observed that in the Biprobit regression for disagreement with women being promiscuous, the dummy variable for the town Chilac is significant in the disagreement equation but not in the participation one. From this, it can be deduced that all the influence of being from Chilac on wives' work in assembly plants comes via the effect it has on the disagreement on this moral argument. Conversely, in the Biprobit

regressions for the two other moral arguments, the dummy variable Chilac is not significant in the disagreement equation, but is in the participation equation. Thus, it cannot be concluded that a lower probability of women participate in assembly plant employment in Chilac due to beliefs in these two moral arguments.

Turning the attention now to other variables which influence the disagreement on moral arguments, it can be noted from Table 7-5 that only one variable is significant in this equation for all four Biprobits. This is years of education, which positively influences disagreement with moral arguments. By far, it has the strongest effect on wives' beliefs that women's place is the home. Another remarkable finding is that age significantly and positively influences disagreement on the moral arguments of women being promiscuous and on men being the breadwinners. Surprisingly however, it has no significant effect on women's beliefs about their place being the home. Therefore, while the variable years of education has the greatest effect on this moral argument, age apparently has none.

Finally, it can be observed that the significance of correlation between the errors of both equations, rho, also varies from one Biprobit to another. This coefficient measures the correlation between the outcomes after the influence of the independent variables is accounted for (Greene, 2007). In the previous calculations rho is significant in both the Biprobits on disagreements on women being promiscuous and men being the providers. However this is not the case of the Biprobit regressions on women's place being the home and disagreements on all the moral arguments equations, in which rho is insignificant.

Up to now the effects of wives' disagreements on their participation in salaried employment have been analyzed. However, wives usually do not take their labour decisions individually as they have to negotiate them with their husbands (Table 7-6). Therefore, let us now turn to the influence that men's disagreements with moral arguments have on their wives' participation in assembly plant employment. Contrary to expectation, there seems to be no significant correlation between the disbelief in every moral argument by husbands and their wives' participation in assembly plant employment. This is perplexing given women's discourses, which imply that husbands have authority over them when it comes to labour market decisions, as they state they ask their husbands for *permission* to enter into assembly plant work. However, Biprobit results show that these beliefs do not have much impact on women's participation in assembly plant employment, while those of women do. Two likely explanations could be at work here. On one hand, women's informal negotiation or power mechanisms in the household can be much stronger than they admit in open discourse. On the other, it must be reminded that a very low share of wives negotiated over this decision with their

husbands. Husbands had to use their authority only when wives desired to work for an assembly plant and expressed this to them. Therefore, the final impact of husbands' disagreement on moral arguments on wives working in assembly plants is lower than that of wives.

Table 7-6: Biprobit results for husbands' disagreement on moral arguments

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at Home	Women Promiscuous	Men	Disagree
- · · · · · · · · · · · · · · · · · · ·	поте	Promiscuous	Providers	AII
Participation Equation	0.0000=+	0.0040=	0.00==4	
Age	-0.02985*	-0.02137	-0.02751	-0.02788
Wage	57.85216**	52.03334*	52.16436**	55.3428**
Wage squared	-11.24816**	-10.05201*	-10.06065**	-10.68153**
Number children older 6	0.00097	-0.01664	-0.00765	0.01204
Number of children less 6	-0.12368	-0.18986	-0.15497	-0.13225
Household p.c. income	0.00004	0.00001	0.00004	0.00003
Chilac	-0.49457*	-0.29219	-0.44072	-0.41730
Disagreement argument	0.45623	1.33215	0.43816	0.67589
Constant	-74.28674**	-68.10281*	-67.61275**	-71.67307*
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Husband's Age	-0.01102*	-0.02647***	-0.01526***	-0.01677**
Household p.c. income	-0.00003	0.00004	-0.00005	0.00000
Husband's years of educ.	0.03919**	-0.00919	0.02776	0.02078
Chilac	-0.03553	-0.22921*	0.143128	-0.14830
Constant	0.00544	1.51553***	0.51861*	-0.05069
Athrho	0.23402	-0.55794	0.07970	0.07918
, talling	0.20402	0.00704	0.07070	0.07010
Rho	0.22984	-0.50645	0.07953	0.07918
P(rho=0)	0.7801	0.5505	0.9233	0.9694

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

The determinants of husbands' disagreements on moral arguments also differ from those of wives. While years of education appear to be an important determinant of moral arguments for women, for men, this variable is only significant in the disagreements on women's place being the home. Age, however, does seem to be negatively correlated to all beliefs in moral arguments. The older the husband the less likely he is to believe on this norm.

Finally, rho is not significant in any of the Biprobit estimates for men's disagreements on moral arguments. Therefore, their wives' participation in assembly plant work and

their beliefs in moral arguments seem to bear no relation whatsoever with to each other.

Summing up, as expected, wives' disagreements on moral arguments significantly influence their participation in assembly plant employment. Yet, there is no evidence of their husbands' beliefs having any impact on their decisions regarding this activity. This comes as a surprise given that it was very common for women to state that they had to ask their husbands for permission to work. Also, years of education and age are crucial variables in the determination of the propensity to disagree with moral arguments. Next, additional factors are tested to investigate whether they have an effect on beliefs on moral arguments and thus on married women's probability to work in assembly plants.

#### 7.4 Husbands' activity as a determinant of beliefs in moral arguments.

Up to now, some of the evident individual and household characteristics which have an influence on both women and their husbands' beliefs in moral arguments have been identified. This is the case, for example, of the years of education and the age a person has. However, it is also the aim to discover additional, less apparent characteristics which aid in improving the understanding of the channels by which internalization of norms can be strengthened or eroded.

One of these possible characteristics is the husband's activity. Throughout fieldwork two distinctive activities amongst husbands were singled out as possible determinants of norm internalization by both spouses. These were assembly plant employment and farming. Farming was the predominant activity in both towns before assembly plants arrived in the area. It is a traditional activity and as such husbands involved in it might have had less contact with competing discourses or ways of thinking. Conversely, assembly plant workers will not only have first-hand information on what is going on within the plants but will also interact with married women who work there, and with their husbands who might also have different views and beliefs on moral arguments. It is therefore hypothesised that husbands engaged in assembly plant employment will believe less in every moral argument than farmers and the rest of the population, holding other variables like education constant. On the other hand, it is suspected that farmers are the ones who most strongly subscribe to all moral arguments. Both these activities are also quantitatively important, given that they constitute husbands' main activity in the two towns as can be seen in Table 7-7. For these reasons it is of great relevance to test the extent to which these two specific activities; farming or assembly

plant work, have an influence on husbands' beliefs in moral arguments and thus on wives' participation in assembly plant employment.

Table 7-7: Percentage of husbands participating in each activity

	All	Miahuatlan	Chilac
Assembly	27.23	37.14	17.59
Farmer	34.98	17.62	51.85
Commerce	3.99	4.76	3.24
Teacher	0.94	0.48	1.39
Truck driver	7.28	10.48	4.17
Builder	5.87	5.24	6.48
Other	19.71	24.28	15.28
Total	100	100	100

Furthermore, not only will husbands have different beliefs depending on their activity, but through interaction, they can also influence their wives' views as well. Therefore, we also assess whether husbands' activities influence their wives' internalization of norms. Thus we focus on the extent to which farming and assembly plant employment influence both spouses' disagreement with moral arguments and if, via this means, they have an indirect effect on wives participation in assembly plant employment.

Data on the participation rates of women according to their husbands' activity seem to agree with the previous line of reasoning. As Table 7-8 shows, a much higher percentage of wives of assembly plant workers than that of farmers work in a maquila. Furthermore, this finding is consistent in both San Gabriel Chilac and Santiago Miahuatlan.

Table 7-8: Wives' participation rates in assembly plant employment by their husbands' activity.

	AII	Miahuatlan	Chilac
Assembly Worker	22.41	23.08	21.05
Farmer	4.03	10.81	1.79
Others	12.72	16.16	8.11

Figures in Table 7-9 show the plausibility of beliefs in moral arguments as an explanation for the higher participation rates of assembly plant workers' wives than those of farmers. A higher proportion of men participating in assembly plant employment along with their wives disagrees with each of the moral arguments. Nevertheless, both assembly plant workers and farmers disagree much less with moral arguments than the rest of the husbands in the sample. This is also true for their wives.

This finding comes as a surprise given that it was initially expected that husbands working in assembly plants would believe less in every moral argument. This observation could be due to the higher educational levels needed to perform other types of activities, such as teaching, because years of education positively influence disagreements on moral arguments. However, it could be also be that the hypothesis of assembly plant workers' wives participating in this type of activity is due to the internalization of moral arguments not holding.

Table 7-9: Percentage of wives and husbands disagreeing with each moral argument by husband's activity

	Women's place home	Women Promiscuous	Men Breadwinners
Wives			
Dissagreement			
Assembly Worker	44.83	77.59	57.76
Farmer	36.24	67.57	51.68
Other	60.12	79.65	64.53
Husbands'			
dissagreement			
Assembly Worker	42.24	63.79	53.1
Farmer	30.61	54.73	49.66
Other	52.63	70.00	64.12

To verify this two dummy variables, one which indicates whether husbands work in assembly plants and the other indicating husbands in farming, were added in the Biprobit regression for women's participation in assembly plant employment and disagreement on moral arguments by both spouses. These were included in both the participation and the disagreement equation to verify whether they have an indirect influence on wives' employment in assembly plants through their effect on beliefs in moral arguments or whether there are other direct effects at work.

Table 7-10 shows the results obtained for the Biprobit regression on wives' participation in assembly plant employment and their disagreements with moral arguments. 46 Unexpectedly, the results indicate that having a husband in an assembly plant decreases the probability of disagreeing with every moral argument. On the other hand, having a husband in farming only significantly influences wives' disagreements with women's place being the home. Even so, the probability of disagreeing with this

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<sup>&</sup>lt;sup>46</sup>For simplicity, only relavent variables (those representing husband's activities and disagreement on moral arguments) are shown.

moral argument is reduced more by having a husband working in an assembly plant than in farming, although this difference, however, is not significant. This was unanticipated given that it was initially assumed that assembly plant employment would lead to husbands believing less on moral arguments than the rest of the population, especially farmers. Conversely, it was thought that farming was a much more conventional activity and that they would therefore have more conservative beliefs. This finding completely refutes the previous reasoning as regression results show that assembly plant workers believe more in every moral argument than husbands in any other activity, controlling for other variables such as years of education and age.

Table 7-10: Biprobit results for wives' disagreement on moral arguments depending on their husbands' main activity.

	Biprobit Women at Home	Biprobit Women Promiscuous	Biprobit Men Providers	Biprobit Disagree All
Participation Equation				
Husband assembly plant Husband farmer Disagreement argument	0.48432** -0.05653 1.27263*	0.33779** -0.18364 1.63973***	0.40181*** 0.04877 1.92594***	0.38300 -0.23087 0.86104
Dissagreement Equation	Chdissag	Infdissag	Mandissag	Dissagint
Husband assembly plant Husband farmer Years of education	-0.43668*** -0.38635** 0.08223***	-0.31262* -0.15220 0.00831	-0.35110** -0.13013 0.01397	-0.38152** -0.23682 0.03877
Athrho	-0.36068	-1.09250	-9.47136	-0.15443
Rho	-0.345813	-0.79779	-1	-0.15443
Likelihood-rat	0.4691	0.3107	0.0109	0.8113

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Another very interesting result obtained in the Biprobit regression is that while having a husband in an assembly plant negatively influences wives' propensity to work in assembly plants indirectly through their beliefs in moral arguments, it also has a significantly positive direct effect. This on a first view is startling; however it was very common for couples to work in the same assembly plant and to go there together.<sup>47</sup> This would both reassure husbands and show to the rest of the community that wives

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<sup>&</sup>lt;sup>47</sup> I would explain this with much more detail on another chapter, this is why I only mention it here.

were not being unfaithful. This is the most likely explanation of these results and if true, it would be yet another interesting way in which belief in moral arguments, specifically on the argument on women being promiscuous, influences women opportunities to work in assembly plants. By restricting women's employment to having a husband participating in the same activity and by having to work in the same assembly plant, women's freedom to choose their activities is constrained.

Also, when comparing closely this set of regressions with the simple Biprobits which did not include dummy variables for husbands' activities, it is found that years of education had a significant effect on women's disagreements in all four Biprobits in the later, while it remains significant only on women's place being home in the former. To investigate this further, wives' years of education is compared for each husband's activity group; farmers, assembly plant workers and the rest. Interestingly it is found that farmer's wives have a much lower level of education than the other groups of wives. The average years of education for a farmer's wife is 3.7 while that of assembly plant workers is 6.16 and other wives 6.75. It subsequently follows that being a farmer's wife is strongly and negatively correlated to years of education. Hence the effect of years of education in these new set of regressions is diminished in significance and magnitude because of the influence of the new additional dummy variable.

Table 7-11: Biprobit results for husbands' disagreement on moral arguments depending on their main activity

	Biprobit Women at	Biprobit Women	Biprobit Men	Biprobit Disagree
	Home	Promiscuous	Providers	all rules
Particiation Equation				
Husband assembly plant Husband farmer Disagreement argument	0.25010 -0.30272 0.26030	0.37463* -0.23735 1.34716*	0.27912 -0.31185 0.49728	0.20613 -0.34889 0.01330
Dissagreement Equation	Chdissag	Infdissag	Mandissag	Dissagint
Husband assembly plant Husband farmer Husbands years of education.	-0.31113** -0.49133*** 0.02513	-0.40597** -0.21120 -0.01753	-0.35580** -0.27024 0.02016	-0.31996* -0.35874** 0.01144
Athrho	0.35889	-0.55340	0.05421	0.50100
Rho	0.35889	-0.50306	0.05416	0.50101

Likelihood-rat	0.6679	0.4377	0.9368	0.5725
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<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Table 7-11 shows the results for Biprobit regressions on husbands' disagreement with moral arguments and wives' participation in assembly plant employment. Results are similar to those of wives' Biprobits. Participating in assembly plant employment significantly diminishes husbands' propensity to disagree with all moral arguments. Moreover, being a farmer diminishes the probability to disagree with the moral argument on wife's place being the home only. However, in this case being a farmer diminishes the probability of disagreeing with this moral argument more than being an assembly plant worker, although as for women's disagreements, this difference is not significant. However, unlike wives' Biprobits, having a husband working in an assembly plant does not have a significant direct effect on women's participation equation, except on the Biprobit for the disagreement on wives' being promiscuous.

Another very interesting outcome from the Biprobit on women being promiscuous is that the disagreement dummy influences women's propensity to participate in assembly plant employment positively and significantly (at a 10% level). Previously, in the simple Biprobit for this moral argument, this variable was not significant. Furthermore, this moral argument is the one on which working in an assembly plant affects the husband's beliefs most strongly. These results suggest that the internalization of this moral argument by husbands has the most powerful effect on women's participation in assembly plant employment.

Also, as for women's Biprobits, the magnitude of the coefficients for years of education is reduced in the disagreement equations compared to the simple Biprobit estimates, where dummy variables for husband's activities were not included. The same explanation is applied here as in wives' Biprobits results. The mean years of education of farmers is 3.57 while this figure is 7.02 for assembly plant workers and 7.04 for husbands who work in other activities. Thus the dummy variable farmer is correlated with husbands' years of education, and therefore the reduction of the effect of years of education is due to the influence of the inclusion of this new variable.

From the Biprobit regressions in this section it can be concluded that husbands' economic activities do influence women's participation in assembly plant employment through their effect on women's disagreement with moral arguments. They do not do so in the anticipated way, however. It was believed that being or having a husband working in an assembly plant would positively influence women's beliefs in moral arguments. It was found, however, that the effect was contrary to expectation. Having or being a husband working in an assembly plant does influence women's participation in assembly plants, but not through beliefs in moral arguments. Husbands' farming

only significantly influences disagreement by both spouses on the moral argument on women's place being the home.

## 7.5 Living in a city or being born in a city as determinants of beliefs in moral arguments

People in a town might subscribe to a norm because it has been naturalized by society, and is perceived as being part of 'a natural order that goes without saying and therefore goes unquestioned' (Bourdieu 1977). However, an individual who moves from his native town which has established norms and settles in an alternative location where different views and beliefs exist might come to realize that his norms and moral arguments are not so natural. For example, a husband might originally believe that the women's place is the home because he grew up in a town where this moral argument persists and is extensively followed. If he temporarily migrates to a city where it is widely perceived that women should work to help provide for the family, then he may come to realize that there are other moral values different from those in his home town. He may then begin to doubt and change his original beliefs. Thus, another plausible determinant of whether an individual disagrees or not with a moral argument can be whether he has lived in a place with different beliefs in social norms. Generally, in Mexico, cities have less traditional views than those of towns. We therefore test whether both wives and husbands who have lived in a city for more than one year have a higher probability of disagreeing with each of the three moral arguments and on all moral arguments jointly, which validate the norm that women should not work in an assembly plant.

Also, following the previous line of reasoning, a person born in a city is even more likely to uphold the beliefs established there. If these values are less conventional and in dissonance with those pertaining to both towns of Tehuacán, then a person who is born in a city has a greater likelihood of disagreeing with each moral argument. Therefore, we also examine whether being born in a city influences either spouse's disagreement with moral arguments and thus wives' participation in assembly plant employment.

To verify whether women's participation rates in assembly plants are consistent with the preceding arguments, these percentages are shown in Table 7-12 depending on whether wives and husbands have lived in a city, were born in one or neither<sup>48</sup>. Results show that overall, participation rates of women who have lived in a city do not vary much from those of women who have not. Yet, analyzing this pattern by town, it

<sup>&</sup>lt;sup>48</sup> The three groups, those who have lived in a city, those who were born in a city and those who have neither lived in a city nor were born in one are mutually exclusive groups. Therefore those who were born in a city and also claimed to live in a city, were included in the group of those born in a city.

can be observed that in San Gabriel Chilac women who have husbands who have lived in a city for more than a year have greater participation rates than the rest, and this difference is significant at a 10% level. Thus, the hypothesis that women's participation in assembly plant employment is greater for women who have lived in a city or have a husband who has done so, does not generally seem to hold. However, this does not rule out the possibility of there being an indirect influence on having lived in a city or having a husband who lived in one through their effect on beliefs in moral arguments.

Table 7-12: Wives' participation rates in assembly plant employment depending on whether they and their husbands have lived or were born in a city.

	None	Chilac	Miahuatlan
Wives			
None	11.73	6.17	17.28
Lived in a city	10.61	6.98	17.39
Born in a city	23.81	16.67	26.67
Husbands			
None	12.19	4.64	18.93
Lived in a city	12.50	10.42	16.67
Born in a city	17.50	16.67	18.18

On the other hand, women who were born in a city or who have husbands born in one, are the ones who participate the most in assembly plant employment. This is consistent across towns as well. Yet, the effect is greater if women themselves were born in a city than if their husbands were born in one. The difference between the participation rates of those women born in a city compared to those who were not is significant at a 5% level, while this is not so for those who have husbands that have lived in a city. Therefore, overall, the suggestion that being or having a husband born in a place where conventional beliefs are more permissive, increases wives' propensity to work in an assembly plant seems to hold. It still remains to be verified however, if this rise in participation rates is in fact correlated to being born in a city once other factors are taken into account like years of education and age and if so, whether these are due to differences in disagreements on moral arguments.

Thus, to verify whether living in a city, being born in one and or having a husband who has done so can be potentially related to wives' propensity to participate in assembly plants through their effect on beliefs, disagreements on each moral argument are

<sup>49</sup> The significance regards the difference between those women who have lived in a city compared to those who were not born in a city nor lived in a city.

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compared. Figures in Table 7-13 suggest that living in a city does not have a strong effect on women's disagreements with any of the three moral arguments. A much larger share of women who were born in a city, nevertheless, do believe less in every moral argument. On the other hand, differences in men's beliefs depending on whether they have lived in a city, or were born in one varies with each moral argument. The only moral argument with which men who have lived in a city tend to disagree less is women's place being the home. Yet, the same proportion of men who were born in a city disagree with this moral argument. Also, being born in a city has the strongest effect on men's belief in women being promiscuous. Beliefs in the third moral argument, however, do not seem to vary depending on whether the respondents have lived in a city or were born in one.

Table 7-13: Beliefs in moral arguments depending on whether wife and husband has lived of been born in a city.

	Women's place home	Women Promiscuous	Men Breadwinners
Wives			
Not lived City	45.06	72.76	57.76
Lived City	46.97	75.76	54.55
Born City	66.67	85.71	69.05
Husbands			
Not lived City	38.49	62.26	56.23
Lived City	52.11	53.52	54.93
Born City	52.5	82.5	60

Simple statistical analysis, then, does not support the theoretical argument that individuals beliefs are challenged by living in a city. The only exceptions are that men who have lived in a city have different beliefs from those who haven't, on the moral argument of women's place being the home. Beliefs, however, do seem to differ depending on whether persons are born in a city. This is especially so in the case of men's disagreement regarding women being promiscuous. These last findings corroborate the idea of cities having less conventional beliefs in all three moral arguments. Yet at first glance it appears that living in one for more than a year is not enough for transforming beliefs of those who come from more traditional societies. It seems then, that individuals have to grow up in a place for their perceptions to be shaped by it.<sup>50</sup> Wives' participation rates in assembly plant employment reflect this both

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<sup>&</sup>lt;sup>50</sup> It was also checked whether living in a city for more than five years had an effect on both women's and men's beliefs. The results however are basically similar.

these findings. Living in a city or having a husband who lived in a city for more than one year has no effect on the percentage of women participating in assembly plant employment nor on either spouses' beliefs. Women born in a city or who have a husband born in a city do however have higher participation rates. Although living in a city does not seem to have any influence either on participation rates or on beliefs, dummy indicators for both variables, living in a city and being born in a city, are included in Biprobit regressions. Specifically, they are incorporated into the disagreement on moral arguments equation. This is done in order to corroborate whether, once other variables are taken into account, living in a city is still not correlated with disagreements and if being born in a city is, and if so, the magnitude of the effect.

Table 7-14 shows the Biprobit results for women's participation in assembly plant employment and their disagreement with moral arguments. As expected from the previous statistical results, living in a city has no significant effect on any of the moral arguments. Also, as predicted, those women who were born in a city, with a significance of 10%, influence women's propensity to disagree with the moral arguments of women's place being the home, women being promiscuous and on all the moral arguments jointly. Also, disagreement with each of these moral arguments significantly influences women's propensity to enter assembly plant employment. Therefore, being born in a city indirectly influences women's propensity to participate in assembly plant employment via its influence on beliefs in these moral arguments. The notable exception is the moral argument of men having to be the economic providers, since it is not significantly influenced by either living in a city or being born in one. This might suggest that this moral argument is held in cities equally to the two towns of Tehuacán.

An interesting observation, is that while in previous Biprobit results, disagreement on all moral arguments was not significant in the participation equation, it becomes so when being born in a city and having lived in one are incorporated as explanatory variables in the disagreement equations. The magnitude of this coefficient also becomes much larger. This suggests that having been born in a city has an important effect on wives'

<sup>&</sup>lt;sup>51</sup> Biprobit regressions were run in which both Dummy variables were also included in the participation equation. These two variables however, were highly insignificant. Furthermore, there is no theoretical argument for which there two variables could have a direct effect on women's participation in assembly plant employment. Because including irrelevant variables reduces estimation efficiency, results where these variables are only included in the disagreement equation are analyzed.

<sup>&</sup>lt;sup>52</sup> As on the other hand, exclusion of relevant variables will result in biased estimates. As in the last section, husbands participation in assembly plant employment was significant in most cases in the participation and disagreement equation, this variable is also included for the estimation of the following Biprobit regressions.

participation in assembly plant employment, through its influence on their disagreement with all moral arguments. To a lesser degree, the same happens with the moral argument of women's place being the home. This variable becomes more significant (at a 1% level instead of 5%) and its coefficient becomes larger when an indicator variable for a wife's being born in a city is included.

Table 7-14: Biprobit results for wives' disagreement with moral arguments & lived in city.

	Biprobit Women at Home	Biprobit Women Promiscuous	Biprobit Men Providers	Biprobit Disagree All
Participation Equation				
Disagreement argument	1.39789***	1.82975***	1.92627***	1.37522**
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation	Chalcoag	maiooag	manalooug	Dioougiiit
Lived city	0.07606	0.13257	-0.02331	0.00544
Born city	0.35744*	0.34488*	0.22752	0.35399*
Athrho	-0.46178	-11.47868	-14.79687	-0.51462
Rho	-0.43153	-1	-1	47353
Likelihood-rat	0.2614	0.0076	0.0029	0.3359

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Having been born in a city or have lived in one for more than a year affects men's beliefs in a different manner to women's. As Biprobit figures show in Table 7-15, living in a city significantly increases the probability of husbands disagreeing with the moral argument of women's place being the home. However, this is the only moral argument for which living in a city has an influence on husbands' beliefs. It should be noted that conversely, this dummy variable had no effect on any of women's disagreements. Moreover, having been born in a city only influences significantly the probability that husbands will disagree with the moral argument of working women being promiscuous. The magnitude of the effect also appears to be quite large. However, beliefs in neither of these two moral arguments have a significant influence on women's propensity to participate in assembly plant employment. Therefore even if living in a city or being born in one has a significant effect on husband's beliefs, these are not significantly translated into higher participation rates for wives. Also, as for women, men's Biprobit

results indicate that there is no effect from either living in a city or by being born in one, on the probability of husbands' disagreeing with the moral argument of them having to be the economic providers.

Table 7-15: Biprobit results for husbands' disagreement on moral arguments, born in city.

	Biprobit Women	Biprobit Women	Biprobit Men	Biprobit Disagree
	at Home	Promiscuous	Providers	AII
Participation Equation				_
Disagreement variable	1.34203	1.20440	0.64476	0.83517
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Husband lived city	0.34725**	-0.07287	0.06070	-0.01595
Husband born city	0.18135	0.64927**	0.00450	0.20992
Athrho	-0.32739	-0.43077	-0.03247	-0.00158
rho	-0.31617	-0.40597	-0.03246	-0.00158
Likelihood-rat	0.6893	0.5463	0.9678	0.9969

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

An interesting observation is that for the Biprobit estimate of husbands' beliefs in moral arguments, the coefficient for husbands' assembly plant employment in the disagreement equation ceases to be significant when the dummy variables for having lived in a city and having been born in one are included. This could be an indication that the later are correlated with the former.

Overall then, both statistical and regression results suggest that having lived in a city does not challenge beliefs in moral arguments. The theoretical argument of individuals realizing that there are laxer beliefs in other areas and thus having an important impact on their own perception of norms seems not to hold. The only exception is the belief of husbands in the moral argument that women's place is the home. On the other hand, those wives who are born in a city do tend to disagree to a greater extent on moral arguments, and thus have a higher propensity to participate in assembly plant employment. This indicates that indeed cities have less traditional views on the moral arguments related to women's participation in salaried employment. Husbands who were born in a city however only have only different views on working women being promiscuous. This moral argument again seems to have a very important effect on men's consciousness.

## 7.6 Relatives working in assembly plants influence on beliefs in moral arguments.

Individual's beliefs, perceptions and values are constantly being shaped in the course of interactions with members of their social or reference groups. In both towns of the Tehuacán area people maintain especially significant and strong ties with members of their family. This is true particularly for women, who generally have more mobility restrictions and fewer activities outside their homes than men. Thus, being such a noteworthy reference group, actions and choices by family members are bound to have a considerable influence on individual's beliefs in moral arguments. Having female relatives participating in assembly plant employment is expected then to affect both wives and husbands' beliefs on moral arguments. As social norms and moral arguments condemn specifically married women's participation in assembly plant employment, it is considered that the incorporation of married relatives in this activity will have an even larger impact. In this section, this line of reasoning is tested by assessing in particular whether having sisters or sisters-in-law working in assembly plants is related to women's participation in assembly plant employment indirectly, via their connection with either partner's beliefs in moral arguments. Furthermore, it is examined if the effect is greater if married sisters and sisters-in-law are considered.

To this end, a dummy variable is created on one hand, for those who have at least one sister participating in assembly plant employment and another, on the other hand, for those with at least one sister-in-law working in this occupation. Further, this dummy variable is incorporated in both the participation and the disagreement on moral arguments equations. This will indicate whether there is a correlation between each dummy variable and wives' participation in assembly plant employment by means of a correlation with disagreement on moral arguments, or if there are other direct correlations present.

It must be noted however, that there exist difficulties in assessing the causality of the influence on participation in assembly plant employment by sisters and sisters-in-law has on the couple's beliefs in each moral argument. This is because other contextual and correlated effects can be present which are not accounted for in the regression model. Contextual effects are those in which the propensity of an individual to act in a certain way depends upon exogenous characteristics of the group. Correlated effects, in contrast, can be present when individuals belonging to a certain group behave in a similar way given that they share similar individual characteristics or face similar institutional environments (Manski, 1993). In this case, for example, contextual effects

can be present because both the wife and her sisters are likely to live in the same village and face the same markets and institutions. Correlated effects might be present given that generally sisters are brought up in the same family and thus are raised with the same set of values and have the same level of education. These correlated and contextual effects can be at work both through the disagreement equation and/or the participation equation. While contextual effects are controlled for by including town dummy variables in the Biprobit regression models, correlated effects are not. Therefore, results must be taken with caution.

Table 7-16: Wives with Female Relatives Participating in Assembly Plant Employment

	Sister	Sister-in-law
All	18.52	16.44
Married	9.26	9.03

In Table 7-16 it can be observed that 18.52% of married women have sisters working in assembly plants while slightly less, 16.55%, have a sister-in-law working in this activity. Statistical data does not seem to contradict the premise that women's participation in assembly plant employment is positively affected by having a sister and/or a sister-in-law participating in this occupation. A larger (and significant at 5%) share of married women who have a sister working in an assembly plant, work in one, compared to those who do not have a sister working in this activity. The difference is not as great and only significant at 10% for those women who have sisters-in-law working in an assembly plant.

Table 7-17: Wives participation rates in assembly plant employment of those having female relatives in assembly plants.

	Sister	Sister-in-law
Single or married Relatives		
With Relatives	20.00	18.31
Without Relatives	11.08	11.63
Married relatives		
With Relatives	17.50	25.64
Without Relatives	12.24	11.45

Table 7-17 shows that almost half of the sisters and sisters-in-law participating in assembly plant employment are married. However, unexpected results are obtained

when comparing the participation rates of wives who have married sisters working in assembly plants with those who have not. While there still is a positive gap in wives' participation rates between those who have married sisters and those who do not, this is lower than when those who have sisters in assembly plants, irrespective of whether they are married or not, are considered. Even more, this difference is not significant, even at a 10% level. At first glance, this seems to be perplexing given that the effect on wives' participation rates in assembly plants was anticipated to be greater if they were married than the outcome of having either a sister or sister-in-law already working in one. These divergent results however, can be due to the correlated effects on wives of their sisters, which are not related to beliefs in moral arguments. For example, sisters share very similar characteristics such as education levels and thus the ability to obtain similar wages in the labour market which might lead both of them to search for a waged job. An alternative or additional explanation to these findings is the influence that single sisters working in assembly plants are likely to have on wives' beliefs. Even though they are single, sisters working in this occupation might grasp alternative beliefs regarding moral arguments on married women's participation in assembly plant employment. Through their interaction, they can transmit these beliefs to their sisters. On the other hand, the difference in participation rates between those who have married sisters-in-law working in assembly plants compared to those who haven't, is greater than the gap in participation rates when sisters-in-law, irrespective of whether they are married or not, are taken into account. And in this case, the difference even becomes significant at a 1% level. This result is consistent with our hypotheses. Married women are bound to have less contextual and correlated effects with their sisters-in-law than with their sisters. Therefore having an unmarried sister-in-law who works in an assembly plant will have less of a correlation with a wife's likelihood of working (since this is not related to beliefs) than having a sister who works in one. Up to now, results have indicated that wives are more likely to work in assembly plants when they have a sister or sister-in-law who works in one. However, it remains to be explored whether this increase in participation rates is related to beliefs in moral arguments, or is due to other direct influences. Thus, the share of wives, and subsequently of husbands, that disagree with each of the moral arguments depending on whether they have sisters and sisters-in-law who work in assembly plants will be analyzed.

Table 7-18: Percentage of wives disagreeing with each moral argument depending on whether they have sisters or sisters-in-law working in assembly plants.

	Women's place home		Women Promiscuous		Men Breadwinners	
	Sister	Sister-in- law	Sister Sister-in- law		Sister	Sister-in- law
Single or married						
With Relative	47.50	50.70	81.25	66.20	61.25	61.97
Without Relative	47.44	46.81	72.73	75.90	57.39	57.34
Married						
With Relative	42.50	48.72	80.00	61.54	67.50	56.41
Without Relative	47.96	47.33	73.72	75.57	57.14	58.27

It can be observed in Table 7-18, that a larger share of wives who have at least one sister working in an assembly plant disagree significantly (at 10%) more with the moral argument of women being promiscuous. The effect seems to be slightly reduced if disagreements of wives who have married sisters are taken into account. Yet, even given this, a greater percentage of wives disagree with this moral argument if they have a married sister than those who do not have married sisters working for assembly plants. However, the difference ceases to be significant.

An unforeseen result, however, is encountered when the beliefs of wives with and without sisters-in-law participating in assembly plant employment are compared. A much lower and significant (at 5%) proportion of women who have a sister-in-law working for an assembly plant disagree with this moral argument. Moreover, there is a difference between the share of wives disagreeing with the moral argument regarding promiscuity, when we compare those who have a married, working sister-in-law with those who don't. This difference is greater and more significant than where the sister-in-law's marital status is not taken into account. These are startling results; but they may be a reflection of wives state of affairs with their-in-laws compared to their own family. While they tolerate their own sisters' participation in assembly plant employment, they censure their sister-in-laws'.

Furthermore, woman being promiscuous is the only moral argument with which a significantly larger percentage of women disagree if they have a sister or sister-in-law who works. Women seem to disagree more often with the moral argument of men not being good providers if they have a sister working in an assembly plant, especially if she is married. However this difference is not large enough to be significant. Having sisters-in-law working for assembly plants seems to influence the proportion of wives who disagree with this moral argument only if the former are married, though again this is not significant. The moral argument regarding women's place being the home seems

to be even less affected by having sisters or sisters-in-law who work, especially if they are married. Again, this is the most rigid moral argument, with few variables associated with disagreeing with it.

Men's beliefs in moral arguments, on the other hand, do not seem to be much affected by having a sister or sister-in-law who works whether she is married or not, as can be verified in Table 7-19. Nevertheless, there are two significant and guite surprising results. On one hand, a lower and significant (at 10%) proportion of men disagree with the moral argument of women being promiscuous if they have at least one married sister working in an assembly plant. This is quite astounding, given that instead of their beliefs on moral arguments being challenged by having a female member of their own family defying them, they are strengthened. The second unforeseen result is that a higher and significant (at 10%) share of husbands disagree with the moral argument of men not being good providers if they have a married sister-in-law working in an assembly plant. This again is a perplexing outcome given that beliefs are being challenged more by someone belonging not to his own family, but to his wife's. As with their wives' beliefs, the moral argument which does not seem to be transformed at all by having a sister or sister-in-law, married or not, working in an assembly plant is that of women's place being the home. Again, beliefs in this moral argument by both husbands and wives are the most rigid.

Table 7-19: Percentage of husbands disagreeing with each moral argument depending on whether they have sisters or sisters-in-law working in assembly plants.

	Women's place home		Women Promiscuous		Men Breadwinners	
	Sister- in-law	Sister	Sister- in-law	Sister	Sister- in-law	Sister
Single or married						
With Relative	43.75	43.66	65.00	60.56	60.00	52.11
Without Relative	41.19	41.27	61.65	62.60	54.26	55.96
Married						
With Relative	37.50	41.03	60.00	51.28	65.00	51.28
Without Relative	42.09	41.73	62.50	63.36	54.34	55.98

Up to now, statistical results regarding wives' participation in assembly plant employment and beliefs by both spouses in moral arguments, suggest that there might indeed be a correlation between having a sister or sister-in-law who works in an assembly plant and wife who does so, via their correlation with disagreements with

certain moral arguments, especially regarding women being promiscuous. It still remains, though, to verify whether by holding constant some variables such as years of education, household income and age, this correlation still exists. Furthermore, it should be noted that the dummy variables for having a sister or sister-in-law who works are also included directly in the participation equation, to control for effects that might influence wives' propensity to work but that are unrelated to disagreement with moral arguments.

Table 7-20 shows the findings for the Biprobits on wives' participation in assembly plant employment and wives' disagreement with each moral argument. Results show that having a sister working in an assembly plant does not significantly affect wives' propensity to disagree with any moral argument, or to work themselves. This, despite previous statistical results that point to a possible relation between wives' having a sister who works, disagreeing with certain moral arguments, and working themselves. This is an example of how once other variables like age and household income are controlled for, the significant relationship between sister's participation in assembly plant and disagreement on moral arguments disappears.

Table 7-20: Biprobit results for wives' disagreement on moral arguments, depending on having a sister or sister-in-law who works in an assembly plant.

	Biprobit Women at	Biprobit Women	Biprobit Men	Biprobit
	Women at Home	vvomen Promiscuous	wen Providers	Disagree All
Sister	0.15618	0.06644	0.09413	0.06660
Sister-in-law	0.09961	0.44042***	0.04947	0.16586
Disagreement equation	1.26312**	1.86840***	1.92575***	1.07459
	Chdissag	Infdissag	Mandissag	Dissagint
Sister	-0.06032	0.07328	0.03930	0.11182
Sister-in-law	-0.03659	-0.52620***	-0.02305	-0.23227
	0.00004	10 50 10 1	10.00505	0.00070
Athrho	-0.33831	-10.59434	-10.30585	-0.28076
Rho	-0.32597	-1	-1	-0.27361
KIIO	-0.32597	-1	-1	-0.27301
Likelihood-rat	0.4351	0.0276	0.0024	0.6559
	21.00			212300

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Having a sister-in-law who works in an assembly plant, on the other hand, has a significant and negative effect on the probability that wives will disagree with the moral

argument of women being promiscuous if they work in an assembly plant. Additionally, in this Biprobit it has a positive and significant direct effect on women's propensity to work. Furthermore, it is the only Biprobit for which this variable is significant in this equation, which indicates a correlation between sisters-in-law working and disagreement with women being promiscuous. It could well be that having a sister-in-law who works at a plant has the same effect as having a husband working at one. It reassures both the husband and society that the wife will not be unfaithful. Also, in this Biprobit, having a husband working for an assembly plant ceases to be significant in the disagreement equation. Therefore there is also evidence of a correlation between husbands and sisters-in-law working in assembly plants in the disagreement equation.

Table 7-21: Biprobit results for wives' disagreement on moral arguments, depending on having a married sister or sister-in-law working in an assembly plant.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree
	Home	Promiscuous	<b>Providers</b>	AII
Participation Equation				
Married sister	-0.01996	-0.12043	-0.23121	-0.11452
Married sister-in-law	0.36741	0.66915***	0.33454	0.45487*
Disagreement dummy	1.25589**	1.70714***	1.94927***	1.00730
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Married sister	-0.20943	-0.02988	0.23692	-0.05597
Married sister-in-law	-0.09533	-0.65445***	-0.16171	-0.31527
Athrho	-0.33138	-1.01320	-10.77600	-0.21910
Rho	-0.31976	-0.76708	-1	-0.21566
	0.4540	0.0044	0.0040	0.7000
Likelihood-rat	0.4548	0.3211	0.0042	0.7393

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Next, the outcomes of having a married sister or a married sister-in-law participating in an assembly plant are analyzed (Table 7-21). Just as with the results when sisters' marital status is not taken into account, having a married sister working in an assembly plant influences neither the participation equation nor the beliefs in moral argument equations. Including the dummy variable denoting married sisters-in-law who work in assembly plants provides similar results to that denoting sisters-in-law irrespective of their marital status is used. This variable is only significant in the Biprobit on women

being promiscuous, and is also significant in the participation and disagreement equations. Also, as expected, the effect of having a married sister-in-law who works in an assembly plant is greater in both the participation and disagreement equations than when the dummy variable for sisters-in-law that does not take into account their marital status is included. Another result that comes as a surprise is that rho ceases to be significant in the Biprobit for women being promiscuous. This implies that the errors from the disagreement and the participation equations cease to be correlated.

Let us now turn to the Biprobits on husbands' beliefs. Table 7-22 reveals that having a sister or a sister-in-law working in an assembly plant does not have any significant influence on the probability of husbands disagreeing with any moral argument. For these Biprobits, these dummy variables are not significant in the wives' participation equation either.

Table 7-22: Biprobit results for husbands' disagreement with moral arguments, depending on having a sister or sister-in-law working in an assembly plant.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree
	Home	Promiscuous	Providers	AII
Participation Equation				
Husbands sister-in-law	0.11355	0.14467	0.08715	0.03827
Husbands sister	0.07342	0.18242	0.12442	0.12238
Disagreement dummy	0.36787	1.21714	0.41564	0.81700
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Husbands sister-in-law	0.01669	-0.08323	0.13210	0.20212
Husbands sister	-0.01413	-0.24396	-0.16731	-0.11899
Athrho	0.30410	-0.41915	0.11467	0.00813
Rho	0.29506	-0.39622	0.11417	0.00813
Likelihood-rat	0.6695	0.5601	0.8614	0.9615

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Therefore we test whether when only married sisters and married sisters-in-law are considered, an impact on men's probability to disagree with any moral argument will exist (Table 7-23). Amazingly, it is found that having a sister who works for an assembly plant decreases the probability that husbands will disagree with the moral argument of women being promiscuous. In this Biprobit, similarly to the one on women's beliefs regarding women being promiscuous if they work, for husbands,

having a sister (or sister-in-law for wives) also becomes significant in the participation equation. However, disagreement with this moral argument remains insignificant in the participation equation. Therefore it cannot be concluded that having a sister-in-law who works in an assembly plant influences a wife's propensity to do the same, through the influence it has on the probability that they will disagree with this moral argument.

Table 7-23: Biprobit results for husbands' disagreement with moral arguments, depending on having a married sister or sister-in-law working in an assembly plant.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree
	Home	Promiscuous	<b>Providers</b>	AII
Participation Equation				
Husbands sister-in-law	-0.12630	-0.04899	-0.16388	-0.12822
Husbands sister	0.32961	0.56343**	0.39890	0.31993
Disagreement dummy	0.33571	1.26728	0.37793	0.03274
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Husbands sister-in-law	-0.21131	-0.18719	0.30630	0.02834
Husbands sister	-0.10856	-0.48626**	-0.26537	-0.23653
Athrho	0.32725	-0.42264	0.16264	0.51270
Rho	0.31605	-0.39915	0.16122	0.47205
Likelihood-rat	0.6307	0.5821	0.8094	0.5586

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

The aim of this section was to explore the effects of having a relative who breaks the social norm regarding women (especially married ones) working in assembly plants on the probability of disagreeing with each moral argument. Specifically, two types of relatives were considered, wives' sisters and husbands' sisters. Results were quite contrary to expectations. First of all, the participation of wives' sisters in assembly plant employment did not influence the beliefs of either partner at all. Nor did it have any direct influence on wives' participation in assembly plant employment. This came quite as a surprise given that on one hand wives' perceptions and beliefs were initially believed to be highly dependent on the actions of their sisters, and on the other, strongly correlated effects between sisters were anticipated. Furthermore, it was found that violation of the norm by husbands' sisters, in particular married ones, did have an influence on both partners' beliefs in the moral argument of promiscuity. Nevertheless,

the effect was contrary to that anticipated. Instead of challenging beliefs, the inclusion of husbands' wives in assembly plant employment reinforced them. This result also highlights the importance of this moral argument as more susceptible to change.

### 7.7 Change in couple's beliefs due to wives participation in a salaried activity.

Wives beliefs regarding the moral rules indicating that they should not work for an assembly plant could be challenged when they do so. On one hand, this could be a result of wives interacting with other wives holding different beliefs than theirs, and who as a result also participate in assembly plant employment. On another hand, married women working for an assembly plant can experience what is called "cognitive dissonance". This is, "if a person holds two cognitions (perceptions) that are psychologically inconsistent, he experiences dissonance: a negative drive state. Because the experience of dissonance is unpleasant, the person will strive to reduce it-usually by struggling to find a way to change one or both cognitions to make them more consonant with one another" (Aronson 1997). Thus, if a wife initially believes in one or all the moral arguments against wives participation in an assembly plant, and then for some reason she works for one, her initial perceptions regarding married women's engagement in this type of job might be changed to be consistent with this choice. This might be true as well for husbands. If they have a wife who has worked in a waged job, he can adjust his beliefs to be consistent with his wives actions.

If spouses' beliefs regarding wives participation in an assembly plant change when she actually works for one, then there might be an issue of identifying the causality in the Biprobit regression. This is, a significant coefficient for disagreement on the moral arguments in the participation equation can be due to the probability of wives engagement in the maquila being influenced by their or their husbands' beliefs and/or because the probability to disagree with a moral argument is influenced by wives participation in assembly plant employment.

To investigate whether wives who work for a wage adjust their beliefs to justify this choice, a dummy variable was constructed which represents whether a woman had ever worked in a salaried job while married. Information on the specific salaried activity the wife engaged in while married is unavailable. Therefore, it was not possible to construct a dummy variable which specifically represented whether a wife had engaged in assembly plant.

It must also be noted that by constructing this indicator variable, it is assumed that any woman who has worked in a salaried activity while married, not only those currently

work there, will have adjusted their beliefs if these are in disagreement with their views before participating in them. <sup>53</sup>

Also, this dummy variable includes salaried wives who have worked in professional activities for which higher levels of education are needed. Thus, there can be some correlation with this dummy variable and the educational level of wives. Therefore, an additional dummy variable was created which represented the interaction between professional activities and wives having worked while married.

Table 7-24 shows the percentage of wives in each town that have engaged in a salaried activity while married and the percentage of wives who are currently working. It can be observed that almost half of the wives in the sample have worked in a salaried activity at some point during their marriage. Nevertheless, less than one fifth of wives currently participated in a waged job. Furthermore, less married women in Chilac than in Miahuatlán had engaged in a salaried activity while married.

Table 7-24: Percentage of married wives who worked in a salaried activity at some point during their marriage.

	AII	Miahuatlan	Chilac
Worked while married	49.07	58.14	40.09
Currently worked	16.90	22.79	11.06

Results of Biporbit regressions which include a dummy variable in the disagreement equation representing wives who have worked in salaried employment at some point during their marriage, are portrayed in Tables 7-25 and 7-26. These indicate that having participated in a salaried activity while being married strongly, significantly and positively influences wives' beliefs in each one of the moral arguments. Also, having a wife who has worked for the maquila while she was married significantly influences the probability of a husband believing in each one of the moral rules. Furthermore, rho is significant for all the Biprobits on wives and husbands disagreements. This means that the errors of both equations are correlated.

Furthermore, in this regression the variables representing disagreement on women being promiscuous and men being providers influence the probability of wives working

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It might also be that those who have just started working hold stronger beliefs in each of the moral arguments. However, information regarding how long wives had worked in an assembly plant for is only available for those who currently engage in a salaried activity. Thus, this variable could not be included in the Biprobit equations. Simple Probits that included a variable for length of time working were estimated for the probability of wives disagreeing with each one of the moral arguments for the sub sample of currently working wives. Yet, this variable did not yield significant results.

in an assembly plant to a similar extent than in the simple Biprobit regressions (which do not include dummy variables for wives who have ever worked in a salaried activity). Yet, the coefficient for the variable indicating wives disagreement on the moral argument of wives place being the home becomes larger and even greater than those representing disagreement on the other two moral arguments. It must be reminded that in the simple Biprobit, this coefficient had the lowest value of all moral arguments in the participation equation. What is more, the variable indicating disagreement on all moral arguments by both husbands and wives is not significant in the simple Biprobits, but it is in the regressions which include the dummy variable representing wives who have worked while married in the disagreement equation. However, some variables that used to be significant in the participation equation cease to be so when including this dummy variable. Having a child less than six years old is no longer significant in the participation equation for the Bipribits including wives beliefs on being promiscuous or husbands being the breadwinners. This is true also for wives age in the participation equation of the Biprobit including husbands' disagreement on wives being the homemakers.

On the other hand, wives who have been engaged in professional salaried activities while married, have a significantly lower probability than those who have participated while married in non professional salaried jobs, of believing that women who work for an assembly plant are promiscuous. What is more the later coefficient is larger than that of the dummy variable representing wives who have worked while married in a salaried activity. This implies that overall, wives who have worked while married in professional activities have a negative and significant probability of disagreeing with these moral arguments. <sup>54</sup>

Additionally, compared to the simple Biprobit regressions coefficients for the other independent variables (in both the participation and disagreement equation) were generally reduced in magnitude. Furthermore, some variables that significantly influenced wives beliefs in moral rules in the simple Biprobit estimations, no longer did so. For instance, years of education ceased to be a significant variable for wives beliefs in wives being promiscuous and husbands not being good providers. The indicator variable for belonging to the town of Chilac also stops being a significant determinant for wives being promiscuous. In the case of husbands' beliefs, age is no longer a significant determinant of their disagreement on wives place being the home.

<sup>&</sup>lt;sup>54</sup> Biprobit regressions that did not include the interaction dummy of wives who have ever worked and had professional activities were also run. The effect of variables included in the disagreements and participation equation were similar.

Additionally, being from Chilac does not influence significantly the probability of them disagreeing with wives being promiscuous.

Overall then, there does seem to be some evidence that having worked in a salaried activity (or having a wife who has worked for a salaried activity) has an effect on spouses beliefs on each one of the moral arguments. As previously explained, this could be due to the cognitive dissonance experienced by beliefs being in discord with the choice of wives participating in an assembly plant. It could be also a consequence of wives socialization with individuals holding different beliefs.

Table 7-25: Biprobit results for wives' disagreement on moral arguments depending on whether a wife has worked in a salaried activity while being married and if this salaried activity is a professional one.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree all
	Home	Promiscuous	Providers	rules
Participation Equation				
Age	-0.01555*	-0.00446	0.00139	-0.00866
Wage	33.07110**	26.67697**	36.63454*	38.34115***
Wage Squared	-6.47704**	-5.13453**	-7.06098**	-7.42264***
Number children older 6	0.02584	0.00563	0.00237	0.04558
Number of Children less 6	-0.10935	-0.10046	-0.10377	-0.08151
Household p.c. income	0.00005	0.00002	0.00004	0.00003
Chilac	-0.34852*	-0.01190	-0.26493	-0.16202
Disagreement argument	1.98231***	1.73582***	1.80059***	2.05115***
Constant	-43.23751**	-36.51211**	-49.16633**	-50.56832***
Disagreement Equation				
Age	-0.00218	-0.01116*	-0.01777***	-0.00711
Household p.c. income	-0.00002	-0.00004	-0.00003	0.00000
Years of Educ.	0.04643***	0.01835	0.01986	0.02750***
Worked Married	0.70455***	0.59435***	0.52720***	0.65302***
Worked Married*Prof	-0.26914	-1.10979**	-0.77356	-0.98846**
Chilac	0.05397	-0.17009	0.18654	-0.02277
Constant	-0.61790**	0.78717**	0.41025	-0.68981**
		10.0010:	0.400=5	10 =0 10 =
Athrho	-9.62601	-10.86191	-9.13059	-12.50429
Rho	-1	-1	-1	-1
P(rho=0)	0.00000	0.00000	0.00000	0.00000

Table 7-26 Biprobit results for wives' disagreement on moral arguments depending on whether a wife has worked in a salaried activity while being married and if this salaried activity is a professional one.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree all
	Home	Promiscuous	Providers	rules
Participation Equation				
Age	-0.01792	-0.00060	-0.00413	-0.01530
Wage	25.84296**	30.07547**	35.63334***	38.34905*
Wage Squared	-5.04748**	-5.72849**	-6.89027***	-7.46794**
Number children older 6	0.02201	0.00522	-0.00220	0.01915
Number of Children less 6	-0.07384	-0.10034***	-0.07763***	-0.11904
Household p.c. income	0.00005	-0.00002	0.00006	0.00003
Chilac	-0.34767*	-0.05457	-0.32367**	-0.23709
Disagreement argument	2.13411***	1.84999***	1.90497***	2.24720***
Constant	-34.04477**	-41.24440**	-47.51663***	-49.99875*
Disagreement Equation				
Husband's Age	-0.00703	-0.01569***	-0.00852*	-0.00978*
Household p.c. income	-0.00002	0.00006	-0.00005	-0.00001
Years of Educ.	0.01921	0.00558	0.01961	0.01311
Wife Worked Married	0.77508***	0.66199***	0.55771***	0.77285***
Wife Worked Married*Prof	0.14405	-0.97673**	-0.70714	-0.40809
Chilac	0.08460	-0.05987	0.27401**	0.03922
Constant	-0.49576	0.59005**	-0.05111	-0.76137***
Athrho	-11.34661	-11.84082	-10.90294	-10.19633
Rho	-1	-1	-1	-1
P(rho=0)	0.00000	0.00000	0.00000	0.00000

## 7.8 Conclusion

The results obtained in this chapter reveal the importance of using a Biprobit regression model in which joint determination of disagreements on moral arguments and wives participation in salaried employment is accounted for. Usually, empirical female labour participation studies do not consider the influence of social norms on variables which also affect women's participation in salaried employment. Take the case, for example, of the variable 'age' which is generally associated with women's propensity to participate in waged employment. In this study, this variable was found to significantly affect beliefs in moral arguments, which in turn also have an impact on

wives propensity to work at a plant. If the age variable were only included in the participation equation, the resulting coefficient would encompass the effects of any direct influence this variable has on women's labour participation, such as aging, plus the indirect effect age has through the beliefs in moral arguments. In this case then, there would be a significant loss of information on the means by which women's labour participation takes place. Furthermore, when studies empirically assess the propensity of wives to participate in salaried employment and exclude the influence of beliefs in moral arguments, they are omitting relevant variables, leading to biased results.

Furthermore, findings in this chapter also highlight the usefulness of analyzing each moral argument's internalization separately. Not only does each belief influence participation in salaried employment to a different extent, but also, each is affected to varying degrees by diverse individual and household characteristics. This shows that each has its own foundations and justifications, thus the importance of analyzing each one independently.

It is also very important to consider the influence and determinants of both wives' and husbands' beliefs in moral arguments and the effects these have on wife's participation in assembly plant employment. Usually the former are much more prone to change than the latter. It can be implied then that husbands' beliefs are much more rigid than wife's. Moreover, contrary to what was expected, husbands' beliefs in moral arguments had no significant effect on wife's propensity to participate in assembly plant employment. This is quite an unexpected result given that it was anticipated that husbands' beliefs would have a greater influence on wife's participation in assembly plants than wives' beliefs. In their discourses, both husbands and wives implied that wives had to ask their husbands for permission to work in assembly plants and that it was they who had the last word when it came to making this decision. As previously explained, two possible reasons can account for this finding. On one hand, informal bargaining mechanisms different from those which are socially expected can be present within marriages. On the other hand, beliefs might not play an important role in husbands' decisions as to whether their wives are to participate in assembly plant employment or not. This is evidence of the importance of quantitatively testing social discourses, as individuals might not necessarily act upon them. 55

Moreover, it was not only that husbands' beliefs in moral arguments did not have the hypothesised effect. In the qualitative exploration, various factors seemed to affect wives' participation in assembly plant employment via disagreement on moral arguments. Nevertheless, they did not prove to do so in the expected way, for diverse

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<sup>&</sup>lt;sup>55</sup> This does not imply that other more profound qualitative methods than the one used in this study would not aid in uncovering decision mechanisms within the household.

reasons. For example, statistical results supported the argument of wives' beliefs being correlated with their sisters' participation in assembly plant work. When included in the Biprobit, where other contextual factors were accounted for, the relation was insignificant. Disagreement with moral arguments by both spouses were also expected to be greater where the husband participated in assembly plant employment. However, a husband working in an assembly plant has a negative effect on disagreement with moral arguments by both partners, but a positive direct one on women's participation in salaried employment. Furthermore, it was suggested that if living in a city where moral arguments were less traditional, individuals would internalize them. In this case, no significant correlation between living in a city with beliefs in moral arguments was found. All these outcomes also highlight the importance of empirically testing, via the use of Biprobit regressions, hypotheses which arise through the use of in-depth interviews.

Overall, results in this chapter show the difficulties in finding statistically representative variables which influence moral arguments. Beliefs in norms seem to be quite unchanging. This, however, does not allow for the importance of searching for the determinants of social norms which are not so apparent. This, and analyzing the influence each moral argument and each spouse's belief in them has on women's participation in waged employment, aids us in thoroughly understanding the mechanisms by which social norms restrict women's freedom to choose their own activities. This can also prove to be useful in informing policy.

# 8 The effect of social sanctions on women's propensity to participate in salaried employment

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#### 8.1 Introduction

In the last chapter we analysed the extent to which wives and husbands believed in each of the moral arguments that justify the norm that married women should not work in an assembly plant. Further, we explored the effect these beliefs actually had on wives' propensity to work. Statistical and regression results indicated that to a varying extent, believing in each of the moral arguments had a significant effect on married women's propensity to work in assembly plant jobs. It was concluded therefore that internalization of moral arguments is an effective mechanism by which social norms influence wives' labour allocation into assembly plant employment. However, it is also posited that social norms affect wives participation in this activity via a second mechanism; social sanctions. Given that social norms are value laden, those who believe in the moral arguments will not only feel guilt and anxiety when they disregard a norm, but might also take it upon themselves to punish those who violate it, by gossiping or criticising them. Therefore the expectation of being socially sanctioned might make some wives disregard the norm and work in assembly plant jobs. This chapter empirically tests the extent to which these social sanctions affect women's probability to take factory jobs.

Those individuals who gossip or criticize the person who breaks the norm will belong to different social or reference groups that will vary in their relationship with the violator. In both Miahuatlan and San Gabriel Chilac four reference groups were identified to be relevant during field work; wife's family, husband's family, neighbours and friends. Individuals will generally be affected to varying degrees by the sanctions of each type of reference group. The importance individuals place on the sanctions they receive from each of them is proposed to be related to their proximity. For example, a women working in an assembly plant will feel more concerned if her father or mother criticize her for not fulfilling her role as mother or wife, than if that criticism comes from a neighbour. This assumes that they have a much closer relationship with their mothers than with their neighbours.

Also, individuals will be affected differently by gossip and criticism. A woman might feel uncomfortable if she suspects her neighbours are gossiping about her and calling her promiscuous because she works in an assembly plant. However, if they directly accuse her or criticise her of being unfaithful to her husband, she might feel even more embarrassed. Furthermore, the effects are even more extreme if neighbours go and tell this to her husband. For this reason, three different types of social sanctions were distinguished; gossip, criticism directed to the wives and criticism directed to their husbands.

Overall then, the analysis will focus on the extent to which married women's expectations of being gossiped about, being criticised themselves or their husband being criticised, along the lines of each of the three moral arguments, and by each of the four reference groups, influences the probability that they will participate in salaried employment.

To achieve this, Likert scale questions were posed to wives asking how likely they thought it that they and their husbands would undergo gossip and criticism from different reference groups drawing upon the three types of moral arguments, if they worked. Each of the questions contained four possible answers: whether a wife believed it was sure, likely, unlikely, or impossible for the reference group in question to socially sanction them. From each of the questions, a dummy variable was constructed which had a value of 1 if they were "sure" or they thought it was "likely" they would be socially sanctioned. Therefore, a total of 36 dummy variables were created that indicated how likely wives felt that 1) there would be gossip about them, 2) they would be criticised, or 3) their husbands would be criticised, by each of the four reference groups using each of the three moral arguments.

Table 8-1 shows the percentage of married women who believed they would be socially sanctioned on the basis of each of the moral arguments validating the norm that women should not work in assembly plants i.e.; not fulfilling their role as mothers and wives; being promiscuous if they work in an assembly plant; and their husbands not fulfilling their role as breadwinners, respectively. Results show that a much larger proportion of married women believed they would be socially sanctioned according to the moral argument that women are not fulfilling their role as wives and mothers than the other two moral arguments. What is more, the difference in the percentage of women believing they would be sanctioned by this moral argument and by the other two is significant at a 1% level, for every type of sanction and every reference group. Furthermore, approximately a similar share of women believed they would be sanctioned by all reference groups owing to the moral argument of women being promiscuous than that stating that men are not fulfilling their role as providers when their wives work in an assembly plant. There is one exception to this similarity however: wives expected their in-laws to gossip and criticise them and their husbands significantly less (at 1%) with the argument of men not being good breadwinners, than with the rule of women being promiscuous.

An interesting observation is that the moral arguments of women's place being the home and women being promiscuous if they work in an assembly plant were believed by approximately a similar percentage of women and their husbands to the proportion of women who expected to be sanctioned because of these moral arguments.

Conversely, however, a much lower proportion of women expected that they or their husbands would be socially sanctioned when working in an assembly plant owing to the moral argument stating that men should be the breadwinners, than the percentage who agreed with this argument. Therefore, even though quite a large percentage of the population believed that it is the men's role to be the breadwinners, there did not seem to be a great deal of social sanctioning because of its violation.

Table 8-1: Percentage of wives who expected to be socially sanctioned with each moral argument when working in an assembly plant, by reference group and social sanction.

	Wife's	Husband's	Neighbours	Friends
	Family	Family		
Women's place				
being the Home				
% Gossip	58.92	55.03	53.01	44.24
% Criticism Wife	56.86	49.49	41.8	41.29
% Criticism Husband	52.33	48.73	39.67	38.38
Wives being				
promiscous				
% Gossip	25.74	29.95	30.85	22.25
% Criticism Wife	22.77	25.63	22.38	22.38
% Criticism Husband	23.59	28.24	24.44	20.75
Men not being good				
providers				
% Gossip	27.45	21.01	27.4	23.45
% Criticism Wife	25.06	17.47	22.59	19.95
% Criticism Husband	22.6	17.81	21.33	20

Wives generally believed that their own and their husbands' families would be the ones to socially sanction them and their husbands. A family might feel the responsibility to prevent their family members from violating a moral argument. Women expected less disapproval from their friends. This could be either because they expect loyalty from their friends or because individuals usually seek out friends with similar beliefs.

Nevertheless, the reference groups which wives most expected to be reprehended by vary depending on the moral argument. For instance, most women believed they would be sanctioned by their family rather than any of the other reference groups for not

being good mothers or wives when working for assembly plants<sup>56</sup>. Conversely, the largest proportion of women believed they and their husbands would be gossiped about and criticised by their husbands' family with the moral argument of promiscuity<sup>57</sup>. However, wives believed their husbands' families were the group that would least sanction both spouses on the count of husbands not being good providers if their wives worked for assembly plants. The largest proportion of wives believed they would be socially sanctioned by their own family on the basis of this moral argument, though almost the same share thought they would be gossiped about and criticised by their neighbours. Moreover, the difference between the share of women who expected to be reprehended on the basis of the moral argument of men not being good providers, by their husband's family compared to their own family and their neighbours, is significant (at the 5% level)<sup>58</sup> for all social sanctions. What is notable about these results is that women are sanctioned largely by their own family when they are not fulfilling what society perceives as their role; i.e. being housewives and mothers. On the other hand, men are least sanctioned by their own family when they do not comply with their socially ascribed role as breadwinners. It must be remarked however, that wives generally expect their families to take it upon themselves to sanction them according to only one of the two moral arguments they are supposed to ascribe to: being good mother and wives. They do not believe families will sanction them much based on the moral argument of their being promiscuous if they work in an assembly plant.

Furthermore, when comparing social sanctions, the results show that a large proportion of wives expected to be sanctioned with gossip than with criticism, and that a high percentage of them believed criticism would be directed to them instead of their husbands. It is interesting to note that there is not a wide gap between the percentage of married women who believed they would be gossiped about compared to those who expected to be criticised, when these sanctions came from family and friends. In contrast, the gap between the proportion of wives who believed they would be gossiped about, compared to those who thought they would be criticised by the two other reference groups is much wider, especially for their neighbours. Only for this last

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<sup>&</sup>lt;sup>56</sup> The percentage of wives who expected to be reprehended by their families on the basis of this moral argument, however, is only significantly different at a 5% level from the proportion who thought they would be sanctioned by neighbours and friends. The percentage of wives expecting to be sanctioned by families is only significantly different at 5% to the percentage of wives believing they would be reprehended by their in-laws using direct criticism.

Yet the percentage of wives expecting to be sanctioned with this moral argument by their husband's family is only significantly different at a 5% level to the percentage who believed they would be reprehended by their friends. The percentage of wives who thought they would be sanctioned with this moral argument by neighbours is also only significantly different at 5% to this last reference group, but only in the case of gossip.

<sup>&</sup>lt;sup>58</sup> There is an exception to this statement: the proportion of married women believing their husbands would be criticised because of this moral argument is not significant.

reference group is gossip significantly different (at least at 10%) from criticism of both wives and husbands, for each moral argument. This can be explained by the closeness and loyalty they expect from both friends and family compared to that of their neighbours, with whom they have a more distant relationship. Because of this closeness, these two former reference groups might have the trust to be straightforward and tell them what is on their minds, thus criticizing them for breaking the social norm.

Up to now, the proportion of women who believe it is likely that they will be sanctioned by each reference group, using each type of sanction and upholding each moral argument has been analysed. The aim of the chapter, however, is to assess whether wives' expectations of being socially sanctioned with each moral argument actually has an effect on the probability of their participating in salaried employment and if so, which sanctions and from which reference group have the strongest impact. Thus, as a first step in exploring whether social sanctions actually influence married women's participation in assembly plant employment, the proportion of women who believe they will be reproved depending on whether they work in this activity or not by each social group on the count of each moral argument is shown in Table, 8-2. Results show that a much larger proportion of wives who did not engage in assembly plant employment stated it was likely they would be socially sanctioned, compared to those who did work.<sup>59</sup> Results are consistent across reference groups and moral arguments. What is more, for the moral argument of women's place being the home, the difference in the proportion of women who expect to be sanctioned, is significant at a 1% level, for wives who work compared to those who do not. For the moral argument of women being promiscuous this difference is significant at a 5% level. This shows, then, that there is an apparent correlation between women's participation in salaried employment and the sanctions they expect to receive from their relations. This relationship appears to be stronger for the moral argument of women having to stay home to serve their husbands and having to take care of their children than for the other moral arguments. It must be confirmed, though, whether after controlling for other variables, the correlation still exists and if so, to what extent. It is also necessary to analyze which sanctions, and by whom, affect the probability of wives' participating in assembly plant employment, and to what degree.

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<sup>&</sup>lt;sup>59</sup> Except for gossip by family on the moral argument regarding men not being good providers if their wives work in an assembly plant, where the percentage of working wives who expected to be gossiped about was close to the percentage of nonworking wives.

Table 8-2: Percentage of women who expected to be socially sanctioned with the argument of women's place being the home, by reference group and social sanction by town and whether they work or not in an assembly plant.

	Wife's		Husba	nd's	Neighb	ours	Frie	nds
	Family		Fam	ily				
	Not	Work	Not	Work	Not	Work	Not	Work
	work		work		work		work	
Wives place being								
the home								
% Gossip	62.75	32.69	57.93	35.29	56.29	31.25	47.2	25.49
% Criticism Wife	61.24	26.92	52.75	27.45	45.11	20.41	44.72	19.61
% Criticism Husband	55.77	28.85	51.45	30.00	42.54	20.83	41.07	21.57
Wives being								
promiscous								
% Gossip	26.70	19.23	30.9	23.53	32.38	20.83	24.22	9.80
% Criticism Wife	23.86	15.38	27.11	15.69	23.96	12.24	21.5	11.76
% Criticism Husband	25.35	11.54	29.74	18.00	26.28	12.50	23.13	5.88
Men not being good								
providers								
% Gossip	27.25	28.85	21.80	15.69	29.43	14.29	25.94	7.84
% Criticism Wife	25.92	19.23	18.60	9.80	24.28	12.00	21.88	7.84
% Criticism Husband	23.66	15.38	18.66	12.00	22.76	12.24	21.63	9.80

Before addressing this, it must be noted that a much larger share of married women participated in salaried employment in San Gabriel Chilac than in Santiago Miahuatlan. It is thus essential to verify whether differences in expected sanctions can explain this dissimilarity. As an illustration of how social sanctions operate differently in San Gabriel Chilac from in Santiago Miahuatlan, Table 8-3 displays the percentage of women who thought it was likely they would be socially sanctioned, by town. These figures show that in San Gabriel Chilac a much higher proportion of women believed they would be reproved by all reference groups with the argument that they were neglecting their duties as mothers and wives when participating in assembly plant employment. This difference is significant at least at a 10% level for all sanctions and reference groups, except for criticism to husbands by husband's family and criticism to wives by neighbours. Conversely, a larger share (though not significant) of women in Miahuatlan expected to be sanctioned by their families with the moral argument of women being promiscuous if they worked for an assembly plant. For the other two reference groups, however, there was no difference in women's expectations of being sanctioned with

this moral argument, by town. Also in Miahuatlan, a larger percentage of wives believed they would be gossiped about and criticised with the argument of men not accomplishing their role as breadwinners when working in an assembly plant. Though this is true for all reference groups, only for wives and husband's family is this gap significant, and at a 5% level for all types of sanctions. There is an especially stark difference between towns in the percentage of women who stated it was likely that their husbands would be criticised with this moral argument.

Table 8-3: Percentage of women who expected to be socially sanctioned with the argument of women's place being the home by reference group, social sanction and by town.

	Wife's Husband's		oand's	Neighbours		Friends		
	Fa	mily	Family					
	Miah	Chilac	Miah	Chilac	Miah	Chilac	Miah	Chilac
Wives place being the								
home								
% Gossip	52.55	64.79	50.53	59.13	48.33	57.53	39.89	48.42
% Criticism Wife	50.26	62.91	45.74	52.88	38.89	44.62	37.70	44.74
% Criticism Husband	48.45	55.87	45.74	51.46	32.77	46.24	35.00	41.58
Wives being								
promiscous								
% Gossip	28.50	23.22	32.62	27.54	29.21	32.43	22.40	22.11
% Criticism Wife	22.80	22.75	27.27	24.15	23.73	21.08	19.78	20.53
% Criticism Husband	25.77	21.6	29.95	26.7	25.71	23.24	23.76	17.89
Men not being good								
providers								
% Gossip	34.36	21.13	27.13	15.46	27.93	26.88	25.97	21.05
% Criticism Wife	29.38	21.13	21.28	14.01	22.6	22.58	21.55	18.42
% Criticism Husband	22.99	13.11	22.29	20.43	24.44	15.79	34.36	21.13

Overall then, only expected sanctions regarding the moral argument of women's place being the home are higher in San Gabriel Chilac than in Santiago Miahuatlan. Nevertheless, the importance wives place on sanctions regarding each of the moral arguments can still be higher in either town. For example, a greater proportion of women in Miahuatlan can expect to be sanctioned with the moral argument of them being promiscuous. However, the impact these social sanctions actually have on women's participation in assembly plant work could be greater in Chilac than in Miahuatlan. Therefore, it will be further explored via regression analysis whether

differences in expected social sanctions by town have an effect on women's propensity to undertake factory work.

Summing up, the evidence up to now strongly suggests that there is a relationship between wives' participation in assembly plant employment and the social sanctions they expect to receive by each of the moral arguments, and from whom. Yet, it must be confirmed whether this correlation still exists when controlling for other variables. Also to be tested is whether the lower participation rates in San Gabriel Chilac compared to Santiago Miahuatln are due to differences by town in expected social sanctions. To achieve both these goals, we will next specify a regression model where the probability of married women's participation in assembly plant employment is explained by their expectations of receiving social sanctions by each moral argument and reference group.

## 8.2 Regression model specification

To analyze the extent to which each social sanction, by each reference group, regarding each moral argument affects married women's probability of participating in assembly plant employment, the following regression model is specified. Contrary to the variables used in the previous chapter, which represent disagreement in moral arguments by women and their husbands, it is assumed that the social sanctions wives expect to receive for breaking the social norm and the participation of wives in an assembly plant employment are not jointly determined..<sup>60</sup> This is because wives expectations on them or their husbands receiving a social sanction is dependant upon other people's beliefs regarding the moral arguments, not theirs. For this reason, simple Probit regression models are specified in which dummy variables accounting for the expected sanctions by each reference group using each moral argument are used to test whether they have a role in determining the dichotomous variable of women's participation in assembly plant employment.

In this case, assuming for simplicity's sake that there is only one moral argument, working in assembly plant is modelled as a latent variable as follows:

<sup>&</sup>lt;sup>60</sup> The reference group which could be an exception is that of friends. The proportion of friends who will sanction them on each moral argument might depend on whether they participate or not in assembly plant employment.

$$y^* = x \beta - \sum_{k_i=1}^{K_i} p_i^k (a_i - \overline{a}_{-i}^k)^2 + \varepsilon_i(a_i)$$
$$y = 1 \text{ if } y^* > 0$$
$$y = 0 \text{ if } y^* \le 0$$

Where y represents wifes' participation in assembly plant employment;  $a_i$  represents the choice of action of wives, where  $a_i=1$  if she participates in assembly plant employment, and  $a_i=-1$  if she does not;  $p_i^k$  are the social sanctions she expects to receive from each reference group; k denotes each reference group, thus  $k \in \{1,2,3,4\}$ ; and  $\mathcal{E}(a_i)$  are wives' unobservable characteristics. Finally, the variables included in x are: wives' age, predicted wage, predicted squared wage, number of children less than 6, number of children older than 6 and per capita total exogenous household income. It is assumed, as in standard Probit models, that  $\Pr{ob(Y=1|x)}$  is normally distributed.

The issue of which set of social sanction variables to incorporate in the regression model is a complex one. Given that the correct specification of  $y^*$  is unknown, it is not easy to discern the accurate variables to be included in the regression equation. While omission of relevant variables might lead to biased results, inclusion of irrelevant variables leads to the reduction of estimation efficiency (Hansen, 2008; Greene, 2007). Therefore, the issue of which set of social sanction variables are to be incorporated in the regressions has no straightforward answer. Even though there are tests that aid in selecting a model, in this case a variable selection decision was based upon another concern. Social sanction dummy variables show indications of being highly collinear. When several subsets of these variables were incorporated in the regression estimation, small changes in the data produced ample fluctuations in the parameter estimates. In addition, coefficients had very high standard errors and low significance levels even though they were jointly significant. Also, the coefficients had the wrong All these are indications of multicollinearity (Greene, 2007). In this case, because regressors are highly dependent on each other, it is difficult to disentangle the effect of one parameter against the other, reducing the precision of each one (Hansen, 2008). It was due to this imprecision that each of the social sanction dummies was incorporated in a regression separately, so that the effect of each on the probability of women's participation in assembly plants could be assessed. Also, each one of these regressions was run twice; once including an interaction dummy variable accounting for

sanctions in San Gabriel Chilac and again excluding it. Thus, a total of 72 Probit estimations were run, two for each expected sanction from each moral reference on each moral argument. In the following section, these are compared and analyzed in detail.

Additionally, given that social sanction dummy variables are strongly collinear and that resulting regression coefficients for each are sometimes very similar to each other, tests were performed to verify whether the coefficients obtained for different reference groups and those obtained for different moral arguments were statistically different from each other. To this effect, cross-model Wald tests using a simultaneous covariance matrix (variance covariance matrix for coefficients from two different models) of the sandwich robust type were carried out. The results for each one of these Wald tests will be included in the appendix. However, when relevant, the significance in the difference between two variables will be mentioned in the text.

### 8.3 Probit estimation results

Initially, Probits including expected sanctions which employ the moral argument of women's place being the home were explored. Table 8-4 shows the coefficient results for the effect of sanctions women anticipated to receive on their propensity to work, by each of the reference groups: family, husband's family, neighbours and friends<sup>61</sup>.

The results show that all the dummy variables representing the sanctions used by each reference group regarding the moral argument stating that women's place is the home are significant at a 5% level. The magnitude of each one is also very similar. What is more, for this moral argument, the difference in the effect on women's participation in assembly plant employment by each reference group is not significant. However, even if the differences are very small and cannot be said to be significant, coefficients on expected sanctions coming from the wife's family are slightly higher than those coming from other reference groups. This is especially true in the case of direct criticism of wives. It must also be noted that a larger percentage of married women expected to be sanctioned by this reference group and with this moral argument than by any of the others. This signals not only that families generally take it upon themselves to make sure that their female relatives follow their prescribed gender role, but also that wives themselves place great importance on the sanctions they receive from their relatives, as results suggest that they are effective in preventing them from seeking factory jobs.

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<sup>&</sup>lt;sup>61</sup> Coefficient results for the rest of the explanatory variables are included in the Appendix.

Table 8-4: Probit coefficient results on the effect of sanctions by different reference groups on wives participation in assembly plant employmeny using the moral argument of wives' place being the home.

	Gossip		Criticism	of Wife	Criticism of Husband	
	With	Without	With	Without	With	Without
	interaction	dummy	interaction	dummy	interaction	dummy
	dummy		dummy		dummy	
Wife's Family						
Sanction	-0.5083**	-0.6303***	-0.6780***	-0.7907***	-0.5053**	-0.6287***
Sanction*Chilac	-0.3582		-0.3331		-0.3766	
Husband's						
Family						
Sanction	-0.4186*	-0.4532**	-0.5290**	-0.6021***	-0.4744**	-0.4964***
Sanction*Chilac	-0.0981		-0.2226		-0.0633	
Neighbours						
Sanction	-0.5362**	-0.5850***	-0.5528**	-0.6892***	-0.5522**	-0.5351*
Sanction*Chilac	-0.1458		-0.5323		0.0466	
Friends						
Sanction	-0.3662	-0.5566***	-0.5470**	-0.7300***	-0.5616**	-0.5477***
Sanction*Chilac	-0.6057		-0.6675		0.0394	

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

On the contrary, anticipated sanctions based on the moral argument that women's place is the home, coming from the husband's family have the least effect on wives' propensity to work. This is surprising, given that a large proportion of married women expected to be criticised by their husband's family with this moral argument. In fact, after their own families, a larger percentage of women expected to receive sanctions from this reference group than from the other two. It seems then that even if plenty of husbands' families take it upon themselves to sanction wives, the wives might not be so affected by them as by other reference groups. It must be noted however, that these results are not significant.

As regards the two reference groups, expected sanctions from neighbours and from friends have the same effect. However, a result worthy of note is the high value of the coefficient representing criticism from wives' friends, which is almost as great as that denoting criticism from their family. A smaller percentage of wives believed they would be sanctioned by friends with this argument (and with the two others as well). Thus, while married women believed they would generally not be sanctioned by their friends, the expectation that they would be criticised by them on the basis that they were not good wives and mothers does seem to have a large impact on their propensity to work. Another unanticipated finding is the non-significance among wives in San Gabriel Chilac of the interaction dummy variables representing expected sanctions by each of

the reference groups, based on the moral argument of women's place being the home.. As was shown previously in this chapter, a larger proportion of married women expected to be sanctioned with this rule by all reference groups in this town. This is also coincident with the finding that a much smaller share of wives in San Gabriel Chilac worked. Nevertheless, evidence shows that the impact of sanctions on wives' decisions to work is not significantly different in Chilac than in Santiago Miahuatlan, even if they are much more widespread in the former.

Moving on to social sanctions regarding another moral argument, attention is now turned to wives' expectation of reproof based on the idea that married women working in assembly plants are promiscuous. Table 8-5, shows the Probit regression results for the dummy variables accounting for wives' expectation of sanctions according to this moral argument by each reference group and by each sanction.

Results indicate that sanctions based on this moral argument significantly influence wives' propensity to work in the case of all moral arguments and all types of sanctions at least at a 10% level, except for two cases: criticism of wives by their own family and gossip by their husband's family.

However, sanctions based promiscuity in the form of criticism directed at husbands are significant at least at a 5% level for all reference groups. Furthermore, except for the Probit including criticism of husbands by their own family<sup>62</sup>, this sanction has the highest magnitude of coefficient. The difference between sanctions is extremely stark regarding the wives' families, and even more so regarding friends. For both these reference groups the difference in magnitude between criticism of wives and that of husbands is significant at a 5% level, while the difference between gossip and criticism of husbands is significant at a 10% level only.

On the other hand, the sanction regarding the moral argument of women being promiscuous has a very low impact on wives' propensity to work, for all reference groups (except for friends) when it surfaces in the form of gossip. In the case of gossip coming from the husband's family, the coefficient is not significant, and for the other two reference groups, wives' family and friends, the coefficient is only significant at a 10% level. Therefore, it can be concluded that women do not really place much importance on gossip about their being promiscuous if they work, compared to where people tell their husbands that they are being unfaithful.<sup>63</sup>

The great and very important exception is that of gossip coming from friends. The coefficient representing this sanction by this reference group and on this moral

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<sup>&</sup>lt;sup>62</sup> In this case criticism to wife has almost the same magnitude. It is even slightly larger.

<sup>&</sup>lt;sup>63</sup> It must be reminded though that gossip is only significantly different to the sanction, criticism directed to husbands and only if these come from friends and the wives family.

argument is significant at a 5% level. Moreover, after criticism to husbands from the same reference group, it is the sanction coefficient with the largest value. Interestingly though, criticism of wives by the same reference group is not as large and is only significant at a 10% level.

An interesting contrast is offered by the different types of sanctions which ultimately have an impact on women's participation in employment. Here we compare sanctions that call on the moral arguments of women being promiscuous, and of women's place being the home. In the case of the former, the probability that women will work in assembly plants is not greatly affected by gossip about and criticism of wives by their own families, compared to sanctions in the form of criticism of husbands coming from the same reference group, and to all sanctions expected from all other reference groups. In the case of criticism of wives, the coefficient is not even significant and in the case of gossip it is significant but at a 10% level only. In contrast, the wife's family is the reference group with the greatest influence on women's propensity to work in assembly plants when it comes to the moral argument of women's place being the home. Furthermore, criticism of wives had the greatest impact on married women's assembly plant employment, followed by gossip. Therefore, even though both moral arguments are directed at influencing married women's behaviour, the reference groups and type of sanctions associated with each differ in their influence on married women's ultimate employment decisions. It seems that families are more effective in sanctioning women with the moral argument of women's place being the home, and less so with that of women being promiscuous.

Also significant is the evidence suggesting that the moral argument regarding wives being promiscuous if they work in a factory has a particularly strong hold on their husbands. Ultimately, husbands have a strong effect on wives' participation in salaried employment. On one hand, this criticism when directed at husbands, especially by friends, is quite effective in influencing women's participation in salaried employment. On the other, it must be noted that in the case of internalization of moral arguments by husbands, the dummy variable that proxied for husbands belief in the moral argument of women being promiscuous was the only moral argument internalized by husbands which showed a significant influence on married women's employment. Therefore both criticism of husbands and their internalization of this moral argument are an effective operating mechanism for the social norm indicating that wives should not work in assembly plants.

Finally, the interaction dummy variables for sanctions regarding this moral argument in Chilac are not significant either. However, it is useful to note that a larger proportion of women in Miahuatlan than in San Gabriel Chilac believed they would be sanctioned

with this moral argument. Interaction dummies, in all cases where they were available, indicated on the other hand that the impact on women's propensity to work was lower in Chilac than in Miahuatlan. Therefore, though it must be remembered that these figures were not significant, it seems that even if expected sanctions are greater in Miahuatlan, it is in Chilac where they have a greater importance in influencing women's participation in assembly plant employment.

Table 8-5: Probit coefficient results on the effect of sanctions by different reference groups on wives participation in assembly plant employment, using the moral argument of wives being promiscuous

	Gossip		Criticism	of Wife	Criticism o	f Husband
	With interaction dummy	Without dummy	With interaction dummy	Without dummy	With interaction dummy	Without dummy
Wife's Family						
Sanction	-0.1785	-0.3483*	-0.1327	-0.3605	-0.5395*	-0.6356***
Sanction*Chilac	-0.7015		-0.7884		-0.3545	
Husband's						
Family						
Sanction	-0.1499	-0.3298	-0.3232	-0.4842**	-0.3168	-0.4688**
Sanction*Chilac	-0.7501		-0.6109		-0.5984	
Neighbours						
Sanction	-0.1861	-0.3776*	-0.3789	-0.5454**	-0.4156	-0.5905**
Sanction*Chilac	-0.7014					
Friends						
Sanction	-0.4479	-0.6560**	-0.3377	-0.4574*	-0.8680***	-0.9835***
Sanction*Chilac	-		-0.4022		-	

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Finally, results for sanctions regarding the moral argument of men not being good providers for their family when their wives work for an assembly plant are explored (Table 8-6). When comparing the influence of sanctions from each reference group, friends are found to have the strongest effect on wives' employment. They are the only reference group for which all types of sanctions based on this moral argument are significant at least at a 5% level. Coefficients representing sanctions from this reference group are also much higher than those associated with other reference groups. What is more, the magnitude of the coefficient representing gossip coming from friends is different (at a 5% significance level) from gossip coming from the husband's family and significantly different (at 1%) from gossip coming from the wife's family. Also, criticism of wives from this reference group is different (at 5%) from criticism by the wife's family.

Furthermore, all types of sanctions by neighbours based on the moral argument of men not being good providers are significant, but in this case criticism of husbands is significant at a 10% level only. However, sanctions from this reference group are not much greater than those coming from other reference groups. Gossip using this moral argument and coming from this reference group is only significantly different (and at a 5% level) from gossip coming from the wife's family.

Sanctions based on this moral argument by the husband's family are not generally significant. In this case it can be seen that only in the case of criticism of wives and husbands do sanctions significantly (although only at the 10% level) affect wives' propensity to work. Finally, the least effective sanctions come from family. The coefficients for gossip about and criticism of wives by this reference group are the smallest for the argument that husbands are not good providers, and are not significant at all. However, there is an important exception. Criticism directed at husbands by this reference group and on this moral argument is significant at a 5% level, and has the same or similar magnitude as this type of sanction by the husband's family and neighbours.

From these results it can be seen that in the case of this moral argument the hypothesis does not seem to hold that the closer the reference groups are to wives, the greater their influence on their propensity to work. This is so because the family is considered to be much closer to wives than neighbours and friends, but also has the least effect on women's employment.

Next, the effects of the different types of sanctions using the moral argument of men not being good providers if their wives work are explored. It can be observed that the types of sanctions which have a much greater impact on women's employment for the reference groups of neighbours and especially friends is gossip, followed by criticism of wives and finally criticism of husbands<sup>64</sup>. For the case of sanctions coming from the husband's family, criticism of wives has a slightly higher effect on their propensity to work than criticism directed at husbands, while both have a much higher effect than gossip. Finally, as has already been described, criticism of husbands bears the largest (and the only significant) coefficient of all sanctions coming from wives' families. It seems then that for those reference groups which are not close to wives, the expectation of gossip that husbands are not being good providers has a stronger effect on their employment than more direct sanctions such as criticism. However, for those

<sup>&</sup>lt;sup>64</sup> The only significant differences between the effects of sanctions however, are gossip compared to criticism coming from friends and gossip compared to criticism of husbands, coming from the wife's family.

reference groups which are close to wives, such as their husbands' and their own families, criticism is more important than gossip.

Finally, it can also be observed that the coefficients for the interaction dummy variables representing sanctions for this moral argument in San Gabriel Chilac are not significant either. This coefficient is negative in the case of wives' and husbands' families. Yet, the coefficients for gossip and criticism from neighbours in this town are positive. For expected sanctions coming from friends in Chilac no coefficients are available. It should be noted that the proportion of women who believed they would be sanctioned with this moral argument was lower in Chilac, just as it was for the moral argument of women being promiscuous. However, results suggest that the influence of sanctions from either spouse's family, based on this argument, on women's employment are stronger in this town. They also seem to be weaker for neighbours. However, given that results are not significant, interpretations must be made with caution.

Table 8-6: Probit coefficient results on the effect of sanctions by different reference groups, on wives participation in assembly plant employment using the moral argument of husbands not being good providers by different reference groups.

	Gossip		Criticism	of Wife	Criticism of Husband	
	With interaction dummy	Without dummy	With interaction dummy	Without dummy	With interaction dummy	Without dummy
Wife's Family						
Sanction	-0.0018	-0.1180	-0.2440	-0.2958	-0.4061	-0.4601**
Sanction*Chilac	-0.4545		-0.1844		-0.2435	
Husband's						
Family						
Sanction	-0.3392	-0.3789	-0.3518	-0.4960*	-0.4421	-0.4496*
Sanction*Chilac	-0.1906				-0.0337	
Neighbours						
Sanction	-0.6001**	-0.5655**	-0.6027*	-0.4907**	-0.4357	-0.4692*
Sanction*Chilac	0.1031		0.3193		-0.1167	
Friends						
Sanction	-0.7594**	-0.8807***	-0.6255**	-0.7556***	-0.5693**	-0.6624**
Sanction*Chilac						

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

The moral argument with the greatest overall influence in all reference groups and all types of sanctions is that of women's place being the home. It must be reminded that all sanction coefficients from this moral argument were also significant at a 5% level.

Comparing specific results from all the moral arguments, it can be inferred that the expected sanction with the greatest impact on women's propensity to participate in salaried employment is criticism directed at husbands from their friends, stating that their working wives are promiscuous. The expected sanction with the second greatest impact on this probability is gossip among a wife's friends that her husband is lazy and not good a provider because she undertakes factory work.

#### 8.4 Conclusion

These results show that social sanctions are an effective and important mechanism by which social normsrestrain women's participation in assembly plant employment. Unfortunately, however, given that dummy variables representing wives' expectations of being sanctioned according to a certain moral argument and by each reference group are highly correlated, each of these had to be included separately in a Probit regression equation. Because of this correlation, the resulting coefficients representing these sanctions were frequently similar to each other.

Nevertheless, some patterns could be seen in the obtained results. For example, sanctions by all reference groups regarding the moral argument of the women's place being the home, where they can be child carers and serve their husbands, are not only the most widespread, but consistently have a significant and high effect on women's propensity to work. What is more, though not significant, sanctions which came from the wife's family seem to have a particularly influential effect. Wives' families effectively take it upon themselves to reprove wives when they do not comply with their ascribed role. Therefore, in this case, the premise that the sanctions coming from reference groups with a closer relationship with wives will have a greater effect on their participation in salaried employment, does hold.

This closeness assumption, though, does not hold for the other two moral arguments. For expected sanctions according to the moral argument regarding men's socially subscribed role of being the breadwinners of the family, the converse is true. In this case, sanctions of both wives and husbands, coming from friends, followed by those of neighbours, have the greatest effect on wives' participation in assembly plant employment. The remarkable feature of expected sanctions regarding this moral argument is not only that the closer the reference group, the less the effect on wives' employment, but also that the reference group with the lowest impact on this probability is the husband's family. While the wife's family can significantly influence wives to

follow their prescribed gender role, the contrary is true for the husband's family when they sanction men regarding their being the family breadwinners.

In the case of the moral argument implying that women who work in assembly plants are promiscuous, there is no overall reference group whose sanctions have the strongest effect on wives' employment. Therefore there is also no support for the proposition suggesting that the closer the reference group, the greater the effect on wives' employment. However, the striking peculiarity of this moral argument is the importance of the specific sanction of criticism of husbands. This result, and that of the effects of husband's internalization of this moral argument on wives' employment, evidences how meaningful this specific moral argument is to husbands.

Overall then, these findings suggest that sanctions regarding each moral argument follow quite different courses of action. First, each differs in its influence on wives vs. husbands. Second, the reference groups which use each of them, and the effect they ultimately have on wives' employment, also varies. Lastly, they also diverge in the types and impacts of the sanctions with which reference groups decide to reprove spouses. This not only shows the great importance of analysing each of the different moral arguments associated with a norm separately, but also of singling out the effects of each type of sanction and each reference group. Many of these different patterns can be deduced, even if several coefficients are not significantly different from each other.

Finally, another important question posed at the beginning of this chapter was whether social sanctions played any role in the higher factory employment rates of married women. Though generally sanction coefficients did have the expected negative sign, these were not significant. Thus, it cannot be concluded from this analysis that sanctions have a higher effect on wives' participation in factory jobs. It must be noted, however, that there were few observations accounting for women's assembly plant employment in San Gabriel Chilac. In several Probit regression cases, these were dropped from the regression analysis. Therefore, this could have also been an important factor in the non-significance of the sanctions in this town.

# 9 Conclusions

#### 9.1 Introduction

The objective of this research was to analyse how social norms influence wives' opportunities to achieve well-being when working in textile assembly plants. To achieve this goal, four main research questions were initially posed. In this chapter I review the main findings and issues which surfaced in answering these questions. Next, the theoretical implications of these findings are considered. Finally, the main limitations of the research are described. Throughout the sections, findings are presented in relation to the research question to which they respond.

# 9.2 Empirical Findings

This section reviews the key findings of the research and expands on how these are pertinent to each of the research questions. Further, though not a research question, an important query of this dissertation was to discover whether differences in participation rates between towns are due to social norms. Econometrical results did not support this assertion. Thus, it is also elaborated on which other possible factors might explain the disfference in wives participation rates in the maquila between towns.

1. What are the functionings wives can achieve by working in assembly plants compared to those they can attain by being involved in traditional female activities?

The research assessed the functionings wives can achieve by working in assembly plants in the two towns of the Tehuacan area. We found that these types of jobs have both positive and negative characteristics. Equally, wives will have different personalities so that what is attractive to one might be a burden for another. Therefore a clear-cut assessment of whether assembly plant employment is better or worse for wives is impossible. Evaluating separately the way in which working in this job influences wives' achievement of each of the relevant functionings, and of the factors influencing their attainment, is much more fruitful.

Moreover, wives' employment in assembly plants influenced not only their achievement of functionings but also those of their family members. At least at the discourse level,

they placed especial importance on their children's welfare. Both arguments supporting wives' employment in assembly plants, and those deploring it evolved around their children's wellbeing. On one hand, it was widely perceived that an important benefit of wives' staying at home was that they could then take care of their children. However, husbands who supported their wives' engagement in assembly plant work argued that this provided them with additional income that would improve their children's welfare. They particularly emphasised that this additional income was destined to economically support their children's educational expenses. Thus, wives' employment in assembly plants was commonly perceived as a trade-off between quality of childcare (which, it was sometimes emphasised, could only be provided by their mother) and the quality of their education.

As husbands had the role of being the main economic providers of the household, wives' temporary employment in an assembly plant in instances acted as a reserve for waged labour. In case of contingencies such as the sickness of a family member, households could obtain additional income if wives worked in the maquila for a period of time. Thus in cases, these types of jobs acted as safety nets. Yet this temporary reserve of labour could also be used as a household strategy to make larger expenditures, such as a house. This was feasible due to the availability and the low entry barriers of assembly plant jobs. Yet this feature is rarely considered in the literature. It is also quite a significant one, as there was an absence of financial institutions in both towns that could easily provide credit or saving plans to households. This is another example of how wives' employment in assembly plants was used to enhance their family's well-being.

As for the effect of assembly plant employment on wives' personal welfare, positive outcomes (apart from the greater income they obtained) had to do with the possibility of interacting socially and having friends; achieving personal development within the plant; and having greater decision-making power within the household in areas such as large expenditures (which were not usually considered to be female decisions) and contraception. Negative effects had to do mainly with the stress and pressure of performing their tasks for long hours, as well as juggling their jobs with their reproductive activities. Further, wives were sometimes scolded and insulted by their supervisors and thus were not respected as human beings. What is more, some developed health problems such as coughs, swollen joints, difficulty breathing, irritated skin, eye weakness and kidney pain from their assembly-plant work.

Factors influencing wives' welfare when they worked in an assembly plant are those inherent to salaried employment, the working conditions they offer, and social norms. As to the working conditions offered by maquilas, it is very important to highlight that

these were heterogeneous. On one end of the spectrum some offered benefits superior to those stipulated by the law, fewer working hours and better treatment of their workers by supervisors. On the other end were those factories which made employees work extra hours without pay; which did not provide benefits stipulated by the law; which had managers who scolded and pressured their employees; and those with insufficient health and safety provisions.

As for social norms, these influence wives' welfare when they work in diverse occupations through several channels. Foremost, as social norms prescribe that wives should not work in assembly plant jobs, they influence wives' motivations to work for them. They do so through two mechanisms: internalisation and social sanctions. If a wife disregards the norm and works for an assembly plant, she and her husband will experience the guilt and social sanctions as direct costs that affect their well-being. Social norms also affect wives' welfare when they work in assembly plant jobs through other means. As described previously, wives' social role of responsibility? for household tasks affected their well-being by being a moral argument influencing their

household tasks affected their well-being by being a moral argument influencing their motivation to work in an assembly plant. Yet this role also influenced working wives' welfare through other means. On one hand, it was generally perceived that wives had a duty to undertake household tasks regardless of whether or not they had a salaried job. Therefore when they did work in assembly plants they had to perform a substantial amount of housework, even when they obtained help, which came mainly from other female family members and to a lesser extent from their husbands. This added to the workload they had overall, was tiring for them and thus had a severe effect on their welfare. The social norm stipulating that wives were responsible for childcare also had an effect on their well-being. Given that assembly plants often made employees work extra and long hours, the quality of the childcare working wives could provide was strongly and negatively affected. It must be remembered that they and their husbands regarded their children's care as a fundamental aspect of their well-being. In addition, the extra hours wives had to work and the effect this had on childcare also fed into the conflicts they had with their husbands, thus further affecting their welfare.

Social norms are also imbedded in institutions. These institutions include the assembly plants themselves, governmental organisations, education, services, etc. Within assembly plants for example, managers can perceive women to be more passive and compliant and therefore might push them to work to obtain difficult production quotas and scold them. Similarly schools, presuming that wives have the role of child rearers, would sometimes demand their presence of in their daily activities, adding to the pressure for working wives. Thus the effect social norms have on wives who work in

assembly plants is ubiquitous, as these are imbedded in both individuals and institutions.

2. How does the internalisation of different moral arguments by each spouse influence wives' probability of employment in an assembly plant?

Two of the three moral arguments validating the social norm that indicates that wives should not work for an assembly were related to spouses' appropriate economic roles within the family. One of them specified that wives should stay at home to do the household chores, take care of children and attend on their husbands. The other stated that husbands had to be the breadwinners of their family. Both women and men believed it was their duty and responsibility within the marriage to fulfil these roles. But not only did each couple believe it was their duty to fulfil their ascribed social roles; they also expected and demanded that their partner fulfil theirs. What is more, they sometimes perceived it to be the sole purpose of their marriage.

What is important to highlight is that these roles were viewed as an obligation instead of an option. This does not imply that individuals did not have the option to disregard the norm. Yet if they did so they would face feelings of guilt and remorse on one hand and sanctions from their reference groups on the other. In the absence of the norm, individuals would not have to face these costs, which could be prohibitive.

Furthermore, it is interesting to note that while it was socially regarded as plausible for wives to work for an assembly plant, this did not imply that they ceased to have the responsibility for the household tasks. As such, it was inconceivable for husbands to take on these chores. While they did dedicate marginally more time to these activities when their wives worked in assembly plants, the idea of spouses exchanging their socially ascribed roles was implausible.

In addition, there was the conception that if wives worked for an assembly plant, husbands ceased to fulfil with their socially ascribed roles as economic providers. This implicitly assumed that wives would take on a maquila job only to obtain an income, disregarding the possibility of their working to achieve other welfare outcomes.

The third moral argument which stated that women who worked for an assembly plant were promiscuous also regulated wives' behaviour. However, in this case, it had nothing to do with their appropriate economic duty but more to do with their sexual integrity. Probably because of the negative cast of this argument, individuals always referred to third persons upholding it, and rarely admitted to believing it.

Some argued that the sole reason wives sought jobs in assembly plant jobs was to find someone with whom to cheat on their husbands. Yet some debated these claims, stating that they were exaggerated. They would assert that people would invent stories just because a woman had a friendship or talked with a man. As importantly, while the idea of wives cheating on their husbands was strongly sanctioned, the idea of husbands cheating on their wives was viewed as more natural.

The most widespread arguments for both husbands and wives were those related to spouses' economic role within the household, especially that specifying that it was wives' responsibility to be the homemakers. On the other end of the spectrum, a smaller proportion of spouses believed in the moral argument about wives being promiscuous. This could be due to the negative trait this moral argument implies. Furthermore, wives disagreed more widely with all moral arguments than husbands.

As for wives' beliefs in moral arguments, although they were most likely to disagree with their role as homemakers, this norm had the smallest effect on their propensity to work in assembly plants. It is presumed that this might have to do with this moral argument being so widespread that even wives that worked for an assembly plant upheld it. This line of reasoning is consistent with wives' carrying out the main bulk of the household chores even when they work in the maquila. The moral argument which had the largest effect on wives' probability to participate in assembly plant employment was that of men having to be the providers. Moreover, wives' disagreement with the notion of women being promiscuous if they work for the maquila had marginally lower impact on this probability than the norm stating that men were the providers. Yet a lower proportion of wives believed in this last moral argument. While none of the disagreement variables for wives were significantly different from each other, it is still clear that each has a quality and impact of their own. It is therefore important to analyse separately the effect of each moral argument.

In contrast, results indicated that husbands' disagreement with each of the moral arguments had no significant effect on their wives engagement in maquila jobs. This was completely unexpected, not only because wives perceived that their husbands agreed more with each moral argument than they did, but also because of the widespread discourse implying husbands' authority over wives' freedom to work in the maquila. While this could be due to informal mechanisms wives use to negotiate with their husbands, it must be noted that this result could also be explained by the low proportion of wives (less than half) that negotiated with their husbands about working for an assembly plant. Further, while not significant (yet almost so), husbands' beliefs regarding wives being promiscuous had the greatest impact on wives' probability of employment in assembly plants.

One of the aims of this research was to discover whether differences between towns in wives' participation rates in assembly plant employment was due to social norms. Participation rates in Chilac were much lower than those in Miahuatlan. This was consistent with the finding that fewer wives and husbands disagreed with all moral arguments in the latter than the former. Yet comparing the impact of each moral argument by town, it was found that being from Chilac rather than Miahuatlan only negatively influenced both spouses' beliefs in the moral argument that wives were promiscuous. This was also the moral argument for which there was a much lower disagreement in Chilac than in Miahuatlan. Therefore the differences in the impact on participation between towns due to internalisation of norms were only driven by this moral argument. However, differences in wives' rates of assembly plant employment between towns were so great that there must have been other direct influences, unrelated to beliefs in moral arguments, that drove these dissimilarities.

Another goal of the research was to discover factors which influenced the disagreement with moral arguments by each spouse. It was found that years of education had a significant effect on *wives'* beliefs in all moral arguments. It had the greatest effect on beliefs regarding their role as homemakers. On the other hand, education had a significant effect on *husbands'* beliefs only for this last moral argument. This result is important, as higher education can be used as a policy aimed at improving women's opportunities to achieve welfare. Not only does this variable improve women's potential of obtaining a higher income, but it also erodes beliefs in moral arguments. While this by itself improves wives' welfare, it also increases their freedom to engage in salaried employment.

Age is another important factor influencing disagreement with moral arguments by both spouses. The exception however, is that it does not significantly influence wives' disagreement with the argument that they are the home-makers. This indicates how beliefs in moral arguments wane with each generation. Although the establishment of assembly plants offered wives the opportunity to achieve some positive functionings, norms restricting their participation, and thus their freedom to obtain them, are taking time to phase out.

It was hypothesised in this research that spouses' beliefs would depend on the occupation of the husband. Those who work in assembly plants interact with wives who also work there, and are thus violating the norm. Those who interact with wives who have disregarded the norm, might find their conventional notions challenged. On the other hand, husbands who are farmers participate in traditional activities and thus their views might not have been challenged. However, surprisingly, it was found that husbands' employment in assembly plants had a negative influence on their

disagreement with every moral argument by each spouse. This was completely contrary to what was expected. However husbands employment in an assembly plant did have a direct effect on their wives' propensity to work at one.. This might also be due to wives and husbands working for the same assembly plant to quieten suspicions regarding the wife's infidelity to her husband. Therefore beliefs in the moral argument of wives being promiscuous might be indirectly influencing this outcome.

Once a norm is naturalised in a society, individuals think of it as the natural order of things. It is when they experience life in another society they might come to challenge these norms. Thus, we tested whether living in a city or being born in one had an effect on spouses' beliefs in moral arguments. It was found that overall living in a city has no effect on spouses' beliefs in moral arguments. The exception, however, was living in a city for more than a year, which greatly influenced husbands' beliefs in the moral argument of wives' role as home-makers. Furthermore, wives who were born in a city tend to disagree to a greater extent with all moral arguments. Yet being born in a city only negatively influences husbands beliefs in moral arguments related to wives being promiscuous.

Finally it was tested whether having a relative disregarding the norm had a positive influence on wives and husbands beliefs in moral arguments. To this effect, two kinds of relatives were considered: wives' sisters and husbands' sisters. Contrary to what was expected, the employment in an assembly plant of a wife's sister had no effect on either spouse's beliefs. However, where a husband's sister worked in an assembly plant employment both spouses believed more in the moral argument that working wives were promiscuous. This effect was contrary to what was expected, as instead of confronting couples' beliefs, the employment of husbands' sisters in assembly plants actually reinforced them. These results, nevertheless, might be not be very strong due to correlated effects such as the sisters' educational levels, which might be at play and are not controlled for in the estimations.

Overall, there were not many factors that influenced the internalisation of norms. Results suggest that embedded moral arguments are difficult to change. With a few exceptions, neither having a close relation employed in an assembly plant nor living in a city for more than one year significantly changed spouses' beliefs in moral arguments. Further, most of the factors which did have an impact on spouses' beliefs had to do with their upbringing, such as being born in a city and their formal educational level.

3. How do social sanctions by each reference group, using each moral argument, influence wives' probability of working in an assembly plant?

The evidence from this study suggests that individuals do sanction spouses when wives disregard the social norm by working in the maquila, using several different moral arguments. Yet, while two of these arguments make reference to what is appropriate behaviour for wives, and one to husbands' behaviour, each of these tends to be used regarding both spouses.

Additionally, it was found that distinguishing between the two types of social sanctions, gossip and criticism, was pertinent. On occasions, when wives transgressed the social norm, information circulated between individuals making allusion to the event. These comments referred to how spouses were disregarding the moral arguments. In other instances, individuals directly confronted spouses by criticising them using each moral argument. In extreme cases, individuals close to the couple (for instance, one spouse's mother) even tried to prevent wives from working in assembly plants, and thus breaking the norm. It is important to highlight, though, that spouses regarded that people gossiping about them was in itself a negative experience. It can therefore be considered a cost of breaking a social norm, which is separate from that of criticism.

Furthermore, four reference groups that sanctioned spouses were identified: spouses, the wife's family, the husband's family, and friends and neighbours. Sometimes information on a spouse breaking a moral argument flowed from one group to another. For instance, gossip regarding a wife being promiscuous could start with friends but pass on to neighbours who would then tell her family members, who would finally criticise the couple directly. It was therefore presupposed that the closer the relation of the reference group to the couple, the likelier it was that they would sanction by criticising rather than gossiping. It was also assumed that the impact of sanctions on wives' propensity to work in the maquila would be greater the closer the relation of the reference group to the couple.

Gossip and criticism could include a series of derogatory epithets to condemn men who were not considered to be the breadwinners, and wives who were not complying with their roles as home-makers. In the case of the former, the epithets made reference to husbands being lazy and irresponsible. They also implied that these husbands were taking on the role of women and therefore not being manly enough. In instances they were even considered drunkards. In the latter case, they were considered crazy and in cases even called by the pejorative term 'bitch'. Interestingly, while gossip and criticism were directed at wives on the counts of them not being good home-makers and

especially that they were neglecting their children, specific epithets to refer to their violation of the moral norm were not employed.

Analysis of the extent to which each type of social sanction was employed in each town shows that gossip was more widely used than criticism. This makes sense as few individuals are willing to make an effort to directly confront those who break the norm. It was also found that wives perceived that they received more criticisms than their husbands. It must be noted, though, that these results are not significantly different from each other and thus need to be regarded with caution.

Moreover, the extent of sanctions by each reference group using each moral argument differed greatly, as as did their effect on wives' employment in assembly plants. It was found that wives largely believed they would be sanctioned on the counts of not complying with their role as home-makers. In particular, a large proportion believed they would be sanctioned by their families because of this argument. Yet not only did their families largely make it their function to sanction wives, results suggest they were also very effective in doing so. The probability of a wife working in an assembly plant was significantly and largely affected by sanctions coming from her family.

However, sanctions regarding husbands' economic role followed a completely different pattern. Not only were they (and their wives) less likely to be sanctioned by their own family using this moral argument, but this sanction also had a smaller impact on wives' probability of working in an assembly plant. Sanctions from friends and to a lesser extent neighbours were more widespread and had a greater effect on wives' probability of working in the maguila.

Comparing the reference groups whose sanctions had the greatest impact on wives' probability of assembly plant employment using the moral argument of wives being promiscuous, the results indicated that these followed the same pattern as those sanctions concerning men having to be the breadwinners. That is, sanctions from friends and neighbours had a larger effect on this probability than those from either spouse's family. Therefore, the presumption that sanctions from reference groups that have a closer relationship to spouses will have a larger impact on wives' probability of working in the maquila did not hold in the case of these two moral arguments.

A very important finding is the strong influence that criticisms received by husbands from their friends (related to the previous moral argument regarding their wives being promiscuous) had on wives' propensity to work in an assembly plant. Of all the sanctions upholding each moral argument and used by each reference group, this was the one which had the highest impact on this propensity. Furthermore, it must be noted that that husbands' beliefs in this moral argument had a very strong effect on this same propensity. It therefore seems that this moral argument has a particular grip on

husbands, and thus a very influential effect on their resistance to their wives' participation in assembly plant employment.

Overall, these results indicate that valuable information would be overlooked by regarding social sanctions as if they homogeneously influenced wives' propensity to work in assembly plants instead of disaggregating them by group, argument and destination. Furthermore, wives and husbands regarded different reference groups and moral arguments as significant for their preferences regarding this decision.

Comparing the effects of sanctions between towns, it was found that a larger proportion of wives from Chilac expected to be sanctioned with the argument of wives being the home-makers, while a larger percentage of wives in Miahuatlan expected to be sanctioned with the arguments of husbands being the breadwinners and wives being promiscuous. Nevertheless, these findings do not suggest any significant difference in the impact of these sanctions by town on wives' employment in assembly plants.

4. How are decisions regarding women's employment negotiated by couples, and how is this process influenced by social norms?

At least at the discursive level, it was believed that if a wife wanted to work for an assembly plant she had to ask their husband's permission to do so. Therefore, it was socially considered that husbands had authority over wives regarding this decision and wives had to convince their husbands to allow them to work in the maquila. Thus, socially, wives' sense of agency was undermined and they were not regarded as humans in their own right. It must be acknowledged, however, that wives might be using some other informal mechanisms different from those used at the discursive level, which where not identified in this study, to negotiate their employment with their husbands.

Husbands would also sometimes use other power mechanisms besides their authority over their wives. While apparently not widespread, the use of force in the form of physical violence was reported by some.

The outcomes wives expected if they went to work for an assembly plant without their husbands' permission ranged from divorce to bad quarrels with their husbands. Thus the threat points of neoclassical intra-household bargaining models take diverse forms. The most common strategy couples would use to negotiate about wives' assembly plant employment was persuasion of the other partner. Yet because husbands had the

authority over this decision, it was wives who had to do the convincing. What is more, moral arguments were widely used as part of this strategy. In a first instance, it was common for wives to try to persuade their husbands to allow them work for an assembly plant by stating that his income was not enough to cover their household expenses. Given that it was husbands' role to be the economic providers of the family, this would imply that they were not fulfilling this duty. As such, husbands would sometimes offer to work double shifts when faced with their wives' indication that their income was insufficient. Conversely, husbands would also remind wives of their role as home-makers as a strategy to deny them permission to work for assembly plants. While this argument might represent their true motives, the fact that they were socially regarded as moral arguments upholding a norm would also give validation to their arguments.

Interestingly, husbands would seldom make allusion to the possibility of their wives being unfaithful to them if they worked for the maquila. This result is interesting as there was evidence that both husbands' belief in this moral argument and their expectations of being subject to social sanctions because of it had a very important effect on wives' propensity to work in an assembly plant. This could be due either to husbands not explicitly expressing their fear of their wives being unfaithful to them, or to this fear not being widespread (it was the argument that fewer husbands agreed with), yet being quite powerful when they did.

Thus social norms also had a fundamental influence on couples' negotiation process regarding wives' participation in assembly plant employment. They did so firstly by specifying husbands' authority over wives. Secondly, moral arguments validating the norm that wives should not work for assembly plants were used as reasons to persuade the other spouse.

Finally, the extent to which each dimension of power was used in the negotiation process was analysed. While more information was needed to do this, some conclusions can be observed. Approximately half the wives wished to work in assembly plants. Further, a lower but still considerable proportion of wives did not negotiate the decision with their husbands. Therefore less than half actually engaged in this negotiation process with their husbands. This low share might be the reason why in general husbands' beliefs in moral arguments did not have a significant effect on wives' participation in assembly plants, while those of wives did.

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<sup>&</sup>lt;sup>65</sup> Interestingly, the case in which a husband desires her wife to work while she didn't was not encountered in the investigation.

Further, results indicate that a lower proportion of wives in Chilac than in Miahuatlan took on assembly plant jobs. This could be due to wives having less power in the first dimension in the later town than in the former. Yet this is also contrasted with their having less power in the third dimension. This means that a lower proportion of wives in Chilac than in Miahuatlan wished to go work due to their ascription to the social norm indicating that they should not do so.

# 5. What Determines the Difference in Participation Rates between Chilac and Miahuatlán?

A central query of this thesis was whether social norms could explain the lower participation rates in the maquila of wives in Chilac than in Miahuatlán. Throughout the thesis it was assessed whether the two mechanisms through which social norms operate; internalization of moral arguments and social sanctions from reference groups, were determinants of this dissimilarity of participation rates between towns.

As for internalization of the moral arguments by spouses, it was encountered that a larger share of spouses disagreed with two of three of three of the moral arguments in Chilac than in Miahuatlán: wives having to be the homemakers and wives working for an assembly plant being promiscuous. As for the third moral argument, husbands having to be the homemakers, the percentage of spouses who disagreed with it was similar between towns. However, being from Chilac only had a significant influence on the probability of spouses disagreeing with the moral argument of wives being promiscuous. Thus, pertaining to this town only had an impact on wives probability to participate in an assembly plant through the internalization of this moral argument.

As for the different impact of social sanctions on wives engagement in the maquila by town; it was encountered that only a larger proportion of wives form Chilac expected to be the object of sanctions by all reference groups, for not complying with the moral argument of not being the homemakers if they work for an assembly plant. Yet, there was no evidence that gossip or criticism to them or their husbands with this, or the other two, moral arguments had a significant influence on wives probability to work for an assembly plant.

Overall then, except for the internalization by spouses of the moral argument of wives who work for an assembly plant being promiscuous, there is not much evidence of social norms being the whole reason for wives lower participation rates in Chilac than in Miahuatlán. Therefore the question regarding which factors are the responsible for this outcome remains to be answered.

Another likely explanation for the lower participation rates of wives in the maquila in Chilac than in Miahuatlán, are the lower wages and benefits that assembly plants offer to wives in this town. As was observed in Table 6-2, assembly plants in Miahuatlán on average offer 100 pesos per week more to their employees than those in Chilac (700 pesos versus 600 pesos). In terms of hourly income, they offered 2 pesos more to their employees (14 pesos versus 12). Thus, assembly plant workers in Chilac receive on average 15 per cent less in wages than workers from Miahuatlán. Furthermore, it must be reminded that imputed wages had a strong and significant effect on wives probability to participate in the maquila. Thus, there is sound evidence supporting the assertion that lower wages offered by maquilas in Chilac explain a great part of the lower participation rates in these jobs in this town.

Moreover, a larger share of maquilas in Miahuatlán than in Chilac offer all types of benefits to their workers. For instance, 58% of maquilas gave social security to their workers in Miahuatlán compared to only 35% of those in Chilac. Also, 37.5% of assembly plants had nurseries in Miahuatlán, while only 15% of those in Chilac had one. It cannot be corroborated whether assembly plants offering benefits to their employees have a significant effect on wives probability to participate in assembly plant employment<sup>66</sup>. Yet, the importance families place in having access to the services and income these benefits provide, suggests that this is another plausible explanation of wives lower participation rates in maquilas in Chilac than in Miahuatlán.

The reason as to why assembly plants offer lower wages and inferior benefits in one town than the other is not clear. A possible explanation could be the prevalence of larger maquilas in Miahuatlán than in Chilac. It must be reminded that there is a correlation between the size of the maquila and the wages and benefits they offer to their employees. Yet, another reason could be the prevalence of very small and poor towns surrounding Chilac, from which maquilas draw part of their workforce. The largest of these is San Juan Atzingo, a locality with a population of 2027 inhabitants. The Mexican institution Consejo Nacional de Poblacion y Vivienda (CONAPO), in 2005 categorized this town as being very highly marginalized. Further, 72.8% of the population of this town has not even completed the primary formal level of education. As families seem to be much poorer in these small surrounding towns of Chilac, the

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<sup>&</sup>lt;sup>66</sup> Information of which wives receive benefits can only be obtained for those who work in an assembly plant. Thus, this information is not available for wives who do not participate in the maquila. To include this variable in a regression, it must be known whether all wives, working and not working, would obtain a benefit.

reservation wages of individuals coming from them might be lower. Thus, this enables assembly plants to offer lower wages in Chilac.

There is yet another possible alterative explanation for lower participation rates of wives in the maquila in Chilac. As was portrayed in Table 4-18, there are a much larger proportion of husbands who dedicate themselves to farming as their main activity in this town (49.5%) than in Miahuatlán (14%). When a husband dedicates himself to farming, the duties and tasks of his wife are tied to this activity. For instance, it is common for farmer's wives to help their husbands carry out some tasks in the field. Also, wives of farmers not only prepare the meals for members of the household, they also go to the fields to hand the food to their husbands. Francisco, a 70 year old man who used to be a farmer, explains how his wife used to accompany him while he performed his job when younger:

"When we were young, she would recollect the wood, she would accompany me to the fields with the oxens, sometimes she would go and feed us. It was tiring in that she would have to wake up early, rinse the nixtamal<sup>67</sup>, go to the mill, come and turn on the fire, take care of the fire, it is a job that now no.. that is why now tortillas are done by machines." "Sometimes I would think of going back to the oxens, but then the wife also goes back, one moves the home for the food, it is a hard job to have to follow to the fields."

Farmer's wives will have less time available to participate in assembly plant employment. Thus, there is a strong basis to presume that being a farmer's wife has a negative effect on her probability to work for the maquila, However, as regression results show, there is no significant evidence to support this claim. Having a husband whose main activity is farming, affects negatively wives probability to participate in assembly plant employment, but this effect is not statistically significant.

Finally, one could wonder whether differences in household income could determine the lower participation rates of wives in Chilac than in Miahuatlán. Yet this is not a plausible argument as one would presume that a wife is more likely to participate in assembly plant employment the lower her household income and per capital household income is lower in Chilac than in Miahuatlán. The average household per capita income in Chilac is of 378 pesos while in Miahuatlán it is of 406 pesos. What is more, per capita household income was not a significant determinant of wives probability to work for an assembly plant.

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<sup>&</sup>lt;sup>67</sup> "Nixtamalizar" is the process by which corn is boiled with lime. It is a process to prepare "tortillas" which is a flat bread made out of corn.

Thus, besides from the internalization of spouses of the moral argument of wives who work for an assembly plant being promiscuous, there is only evidence for the difference in wages offered by each town being a determinant of the different participation rates of wives in the maquila between Chilac and Miahuatlán. While the difference in benefits could also explain this divergence, there is no form to prove this econometrically. Being a farmer's wife also seemed to be an important determinant of her probability to participate in the maquila, yet this variable was not significant in the regressions.

#### 9.3 Conceptual implications

This section presents the main findings' contributions to the conceptual and theoretical framework. The research employs the Capabilities approach to assess the welfare states of spouses. This approach is contrasted throughout with that of the normative neoclassical economics framework. However, several of the conceptualisations and methods of neoclassical economics are employed. Therefore, the main conceptual implications relate to both these frameworks and the concepts contained within them.

1. What are the functionings wives can achieve by participating in assembly plant employment compared to those they can attain by being involved in traditional female activities?

The results suggest that the Capabilities framework is an appropriate one to study the effects that assembly plant employment has on wives' welfare. This type of employment has positive and negative effects on their opportunity to achieve functionings. An assessment of each *individually* as well as the factors which inhibit or enhance the achievement of them is necessary. This is true especially if the goal is to inform policies aimed at improving wives' welfare.

However, a drawback of the Capabilities framework which was elucidated in the conceptual framework and which was made evident in this study is that the achievement of functionings has an interdependent feature. This is so especially at the household level (Iversen 2003). Wives' assembly plant employment will not only have an effect on their own welfare, but also on that of their husbands and especially their children. This is the case, for example, of husbands receiving criticism from their friends stating that their wives are loose because they work in an assembly plant. This might be a detriment to husbands' self-worth and thus to his welfare. The question

arises then how to judge the state of wives' welfare in comparison to their husbands. By focusing on the welfare of individuals, the Capabilities approach does not consider these interdependencies.

Moreover, it should also be recognised that wives' participation in assembly plant jobs also has positive and negative effects on their husbands' welfare For example, husbands also enjoy the rewards that come from the greater income available to the household. Thus a clear-cut assessment of the effect of wives' labour participation on husbands' welfare is not clear either.

Furthermore, individuals also place importance on other family members' welfare. This was the case, for example, where husbands cared about how their wives were treated in an assembly plant. Yet, most importantly it was reflected in both spouses' assignment of the utmost importance to their children's welfare (at least in discourse). As such, the decision as to wives' employment in assembly plants seemed a trade-off between providing quality childcare and obtaining additional income to purchase commodities, including education. Thus including children's welfare in the analysis of wives' well-being as a result of their engagement in the maquila was fundamental.

The perception of having to choose between working in an assembly plant to be able to afford commodities (primarily education) for their children and staying at home to provide quality childcare shows that social norms and roles did indeed shape the perceived preferences of wives and husbands. Yet these preferences were not only shaped because they were the factors taken into consideration by spouses. Couples' preferences were also influenced by social norms in their conception of what consists of quality childcare and education. Especially in the former, for example, some spouses insisted that no one, even grandmothers, could provide childcare as well as mothers. Furthermore, couples were highly suspicious of nurseries. Therefore, while leaving children in nurseries could be regarded as acceptable in some societies, in these towns many families believed that only mothers should care for their children. While care for children cannot be disregarded as a significant functioning, what is regarded as adequate childcare is complicated to determine.

Another important element which is difficult to assess is the extent to which social norms affect wives' agency and how it is influenced when they work for an assembly plant. Wives' decisions within the household were limited to those regarding their reproductive roles. Additionally, their mobility was restricted and they therefore spent most of their time in the home. Thus their chances to meet friends were also curtailed. Although these are inexact indications of wives' agency, they do suggest it is quite low. Wives who worked in an assembly plant had the chance to meet friends. There are also some indications that wives who participate in assembly plants have more power

in making decisions about large expenditures and contraception. Yet it could also be that wives who have a high level of agency are those who decide to go to work in an assembly plant. Thus the effect of wives' employment in assembly plants on their agency is difficult to isolate.

2. How does the internalisation of each moral argument by each spouse influence wives' propensity to work in an assembly plant?

Social norms have been defined in this research as informal rules, upheld by one or more moral arguments which explain why they are considered the appropriate behaviour to adopt. This definition differs from others used by some economists in that it considers the moral aspect of norms as fundamental to the analysis. Other definitions have disregarded this moral aspect with the aim of mathematical simplicity. The implications of this omission for neoclassical mathematical modelling will depend on whether feelings of guilt and remorse for disregarding a norm follow the axioms from which rational behaviour is constructed. Akerlof and Kranton (2000), for example, assume they do, and they just incorporate individuals' internalisation of norms in the utility function as another independent variable. Yet even if this rationale is accurate and individuals' internalisation of social norms does follow these axioms, it must be reminded that these will also shape the perceived preferences of individuals (i.e. the utility function itself). Thus while neoclassical mathematical formalisation is a useful tool in analysing and representing economic behaviour, it can be quite inaccurate when studying social norms.

Further, this study also adds to previous empirical research on the influence of social norms on wives' labour participation decisions. It does so by incorporating and distinguishing between the different moral arguments validating the social norm indicating that wives should not work in an assembly plant. Previous economic studies have not considered their effects. Moreover, it has been shown in this research that each influences wives' in assembly plant employment in a dissimilar way. Therefore valuable information on the mechanisms through which social norms influence individuals has been disregarded in the past.

These findings also support the premise that moral arguments are perceived as part of the natural order within which a society functions. Moreover, evidence suggests that once individuals have been naturalised into believing these arguments, their views on them do not easily change. This is so even when they confronted with societies where different and mutually incompatible beliefs exist. This is indicated by the small effect

that living in a city for more than a year had on couples' disagreements with moral arguments. It is also suggested by the results indicating that even if husbands worked for an assembly plant and therefore had interacted with wives and husbands who had broken the norm, their beliefs in each moral argument were strengthened instead of weakened. Furthermore, besides formal education few factors were found to change beliefs in norms and the moral arguments that validated them.

3. How do social sanctions by each reference group, using each moral argument, influence wives' propensity to work in assembly plants?

This research shows that individuals will sanction others seen violating a norm. Given that sanctioning is not a pleasurable activity, the question as to why an individual might sanction a person who breaks a social norm is raised. This is so especially if the neoclassical assumption of rationality is maintained. Yet there was evidence in this research supporting the premise that individuals sanction due to the moral content of social norms. People feel displeasure by observing someone disregarding a moral argument. By criticising and gossiping about the event, they are judging the person who violates the norm and they are also condemning them. They might even take such an effort to try to stop the person from breaking the norm. The repercussions this other moral aspect has on the assumptions of rational choice also need to be further investigated.

This research also supports the position that gossip and criticism need to be differentiated from each other. It must be recalled that Coleman (1990) stated that gossip in itself does not constitute a sanction given that it can spread without the person who is being gossiped about knowing. Yet the expectation of it spreading is enough for individuals to take it into consideration when deciding whether to disregard a social norm. This is sustained not only by the perceptions of spouses, which were recognised in the study, but also by the differential impact that gossip and criticism have on wives' probability of working in assembly plants.

4. How are decisions regarding women's employment negotiated between spouses, and how are they influenced by social norms?

In the conceptual framework, the neoclassical intra-household model was considered deficient on several counts. These mainly evolved around its implications for spouses' well-being. First of all, being a neoclassical model, it assesses the utility each spouses obtains. It was posited in the conceptual framework, however, that utility is not an

optimal measure of well-being. Secondly, intra household models predict a Pareto efficient solution to couples' bargaining problem. Nevertheless, a Pareto efficient solution might be one where one spouse has all the resources while the other is destitute. Alternatively, the Capabilities approach would consider each person's capability and thus asses the well-being of each member of the household individually. However, evidence obtained in this research also supports the claim that there are interdependencies in the capabilities spouses can achieve. What might increase the achievement of functionings of one spouse might decrease that of another. However, this is a disadvantage of the Capability approach as it does not consider these interdependencies. Therefore, while the approach has a better criterion to asses an individual's well-being, it also has drawbacks when taking the household as a unit of analysis.

Another downside of the neoclassical intra-household models is that they do not fully describe the negotiating mechanisms that couples engage in. These results have shown that these mechanisms might themselves have welfare effects for spouses. This is so, for instance, in the case of couples quarrelling when negotiating this decision or when husbands use physical violence. Modelling the effect of the negotiating mechanisms on spouses' utility functions in an intra-household model can be very intricate.

Results show that social norms were also present in the negotiation process regarding wives' assembly plant employment in several ways. Firstly, they indicated that husbands had authority over their wives regarding this decision. Secondly, arguments validating the norm stating that wives should not work in assembly plants were used as legitimate arguments in the negotiating process. Finally, they influenced the agency and willingness of wives to engage in this negotiating mechanism. Thus social norms also have an important effect on spouses' bargaining processes, which go beyond being a determinant variable in a utility function.

While this was the aspect that needed to be developed further in this research, distinguishing between the three dimensions of power of spouses in this decision-making process also provided fruitful. First, by ignoring the second dimension of power in which a wife wishes to work for an assembly plant but does not negotiate with her husband, important information regarding her welfare and agency is neglected. Moreover, to distinguish the third dimension of power also helps isolate the effect of norms on wives' agency and on how these norms affect their perceived preferences. Thus this three-dimensional view of power provides a much more complete picture of the negotiation process.

#### 9.4 Main limitations

Although most of the field work went smoothly and the majority of the relevant information to answer the research questions was gathered, some limitations were encountered by the study. Many of these were related to financial and time constraints. In spite of these, the thesis has raised a number of topics and issues for further exploration.

This section reviews these limitations following the format of the previous sections. However, because the limitations in answering the second and third research questions were closely related to each other, these are presented together.

1. What are the functionings wives can achieve by assembly plant employment compared to those they can attain by being involved in traditional female activities?

Limitations in obtaining additional and more precise information on how wives' employment in assembly plants had an impact on their achievement of functionings were due primarily to financial, time and scope restrictions. Obtaining information from the managers of assembly plants themselves would have been fruitful. Also, visiting in order to see how these plants operated would have also been useful. This would have allowed a comparison of spouses' perceptions regarding wives' welfare when working in a plant with what can be directly observed there. Yet, there was local uncertainty due to the presence of several workers' rights campaigners, making managers fearful of providing information about their operations. For this reason, data-gathering was restricted to households only.

Other methods for collecting data would have provided more precise information on wives' welfare by occupation, for instance, using time diaries to obtain data on time allocation by wives and husbands. Further, more sophisticated methods for obtaining information regarding healthcare could have been used. However, in both cases this would have required more resources.

- 2. How does the internalisation of each moral argument by each spouse influence wives' propensity to work in assembly plants?
- 3. How do social sanctions by each reference group, using each moral argument, influence wives' propensity to work in assembly plants?

Following Manski (2004), initially the data on the extent to which each spouse believed in each moral argument, and the extent to which they believed they would be sanctioned, was going to be collected in the form of subjective probabilities. That is, individuals were going to be asked, on a scale from 1 to 100, how likely they believed this to be. According to Manski (2004), this type of data has two major advantages. The first is that probability provides a well-defined absolute numerical scale for responses, and thus provides a reason to think that these may be interpersonally comparable. Also, an empirical assessment of the internal consistency of respondents' expectations is possible. A researcher can use the algebra of probability (Bayes' Theorem, the Law of Probability, etc.) to examine the internal consistency of a respondent's expectations about different events. Unfortunately, during the pilot survey, it was found that because of the lack of formal educational levels among wives, they were not able to answer in the form of subjective probabilities. For this reason the feasible next option, Likert scale questions, were posed. Yet, using these Likert scale responses in the empirical study would have had disadvantages, the main one being that they are not interpersonally comparable. Thus, instead answers were incorporated in the form of dummy variables. This also provided simplicity of interpretation and comparison when incorporated in the regression models.

Furthermore, because of financial and time constraints the survey was applied to wives only. Therefore questions regarding husbands' beliefs and expectations regarding social sanctions were not posed directly to them. Although it was assumed that wives knew their husbands well enough to have this information, it is also possible that data would have been more exact if these questions were asked of the husbands directly.

The study examined whether having a relative, specifically a married sister or sisterinlaw, who worked in an assembly plant had an effect on spouses' beliefs in moral arguments. However the results were not as expected. As explained previously in the research, this could be due to several correlated effects which were not controlled for in the estimations, since relevant information on sisters and sisters-in-law was not collected. Thus further research on the impact of the violation of a norm by members of a reference group on individuals' beliefs in moral arguments could be useful.

Finally, dummy variables representing beliefs in moral arguments were highly correlated with each other. While the omission of relevant variables in a regression model might lead to biased results, only one dummy variable was incorporated in each regression estimation due to this correlation. Dummy variables representing social sanctions also had this drawback.

4. How are decisions regarding women's employment negotiated between spouses, and how are they influenced by social norms?

The discourses regarding the negotiating mechanisms which spouses engaged in when wives wished to work for an assembly plant were identified. However, there could well be some informal negotiating mechanisms used by wives (and maybe husbands) that have not been identified in this study. Other qualitative methods could be useful to capture them, yet again because of financial and time restrictions, they were out of the scope of this research.

Furthermore, the three-dimensional view of power was not expanded in the research, as initially intended, to study the effect of both internalisation and social sanctions on each dimension. This was not accomplished for several reasons. Partly, this was due to failure to recollect all the relevant information, but it also made it possible to narrow down the focus of the analysis with the aim of achieving empirical and estimation simplicity.

#### 9.5 Concluding remarks

The aim of this research was to explore the mechanisms by which social norms restricted wives' opportunities to achieve well-being by limiting their employment in assembly plants. In contrast to other studies on this subject, the Capabilities approach was employed both as a framework of thought and as a means to assess wives' welfare. The study also acknowledged the existence of moral arguments and distinguished the main channels through which they influenced wives' employment in assembly plants. Although there is still a long way to go to fully understand the mechanisms by which social norms function and affect individuals' economic behaviour, this thesis provides some useful insights toward this end.

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# 11 Appendices

#### Appendix 1: Interview Guides

#### 1. Interview Guide for Wives who Work for the Maquila.

- 1) Where do you generally meet your friends? Do you get along with them?
- 2) In general, what is the main occupation of your neighbours? Your married friends? Your married female family members? And those of your husband?
- 3) Can you tell me, how was it that you decided to work for the maquila? When did you start working there? Where you already married?
- 4) Have you ever worked in something else? If so, what did you like most, working there or in the maquila? Why?
- 5) Why did you decide to work in the maquila and not somewhere else? For example, as a saleswoman
- 6) Do you like working in the maquila? Why? How do you think the working conditions compare to those of the maquila?
- 7) How do you think that working in the maquila compares to working doing household tasks?
- 8) Is there something that bothers your husband of you working in the maguila?
- 9) If you worked somewhere else previously, was there something that bothered your husband of you working there?
- 10) Have you known of any husbands that react violently when their wives work for the maquila? And when they work somewhere else? Has it ever happened to you that your husband reacted violently because you work?
- 11) When you told your husband you wanted to work in the maguila, did he agree?
- 12) If he didn't, how did you convince him?
- 13) In general, what do people in the community think of married women who work for the maguila?
- 14) What do you think of women who work for the maquila?
- 15) Is there someone who does not agree on you working for the maguila?
  - a. Do you believe they mention things behind your back? What do you think they say? How did you feel because of this?
  - b. Do they mention something to you? What do they say? How did you feel because of this?
  - c. Has somebody ever stop talking to you because you worked for the maquila? How did you feel because of this?

- d. Did they ever stop helping you in some way? How did you feel because of this?
- 16) Has the gossip ever influenced your desires of working in the maquila?
- 17) What is it thought in the community of husbands of women who work for the maquila?
- 18) And about your husband,
  - a. Do they say things behind his back? How does he feel about it?
  - b. Would they mention something to him? How does he feel about it?
  - c. Have they stop talking to him or helping him in some way?
- 19) Do you think that gossip and criticism influence in any way your husband supporting you or not for working for the maquila?
- 20) Does anybody support your decision to work for the maguila?
- 21) Do you think 10 years ago it was normal for women to work for the maquila? Has there been any change in the way people in the community perceive women who work in the maquila? Why do you think this change occurred?

#### 2. Interview Guide for Wives who have never Worked

- 1) Where do you generally meet your friends? Do you get along with them?
- 2) In general, what is the main occupation of your neighbours? Your married friends? Your married female family members? And those of your husband?
- 3) Currently, would you like to work for the maquila? why? What do you think you would and wouldn't like?
- 4) Would you like to work somewhere else? Where? How do you think that working there compares to working for the maquila?
- 5) Do you like working at home only? How do you think it compares to working for the maquila?
- 6) If you currently wanted to work for the maquila, what would your husband think? If he would not agree on you working, what do you think your husband would do to avoid you going to work?
- 7) Have you known of any husbands that react violently when their wives work for the maquila? Do you think it could happen to you if you worked for the maquila?
- 8) In general, what is it said in the community of married women that work for the maguila?
- 9) What do you think of women who work for the maguila?

- 10) If you worked for the maquila, would there be someone who would not agree with you working? Who?
  - a. Do you believe they would mention things behind your back? What do you think they would say? How would you feel?
  - b. Would they mention something to you? What would they say? How would you feel?
  - c. Would somebody stop talking to you because you worked for the maguila? How would you feel?
  - d. Would they ever stop helping you in some way? How did you feel because of this?
- 11) What is it thought in the community of husbands of women who work for the maquila?
- 12) And about your husband,
  - a. Would they say things behind his back? How would he feel about it?
  - b. Would they mention something to him? How would he feel about it?
  - c. Would they stop talking to him or helping him in some way?
- 13) Do you think that gossip and criticism influence in any way your desire to work or not for the maquila?
- 14) Do you think that gossip and criticism influence in any way your husband supporting you or not in working for the maquila?
- 15) If you wanted to work in the maquila, would anybody support your decision? who
- 16) Do you think 10 years ago it was normal for women to work for the maquila? Has there been any change in the way people in the community perceive women who work in the maquila? Why do you think this change occurred?

#### 3. Interview Guide for Wives who do not Work but have Done so in the Past

- 1) Where do you generally meet your friends? Do you get along with them?
- 2) In general, what is the main occupation of your neighbours? Your married friends? Your married female family members? And those of your husband?
- 3) You have told me that you previously worked as an employee? How was it that you decided to work? Where you married already?
- 4) Why did you stop working?
- 5) Was there someone who did not agree on you working?
  - a. Do you believe they mentioned things behind your back? What do you think they said? How did you feel because of this?
  - b. Did they mention something to you? What did they say? How did you feel because of this?

- c. Did somebody ever stop talking to you because you worked? How did you feel because of this?
- d. Did they ever stop helping you in some way? How did you feel because of this?
- 6) Did this gossip and criticism influence you to stop working?
- 7) Is there something that bothers your husband of you working in the maquila? Did your husband influence you in any way to stop working? how?
- 8) Have you known of any husbands that react violently when their wives work? Did it ever happen to you when you worked?
- 9) Would you currently like to work for the maquila? Why? What do you think you would and wouldn't like?
- 10) Would you like to work somewhere else? Where? How do you think that working there compares to working for the maquila?
- 11) Do you like working at home only? How do you think it compares to working for the maquila?
- 12) If you currently wanted to work for the maquila, what would your husband think? If he would not agree on you working, what do you think your husband would do to avoid you going to work (if he would not agree)?
- 13) Have you known of any husbands that react violently when their wives work for the maquila? Do you think it could happen to you if you worked for the maquila?
- 14) In general, what is it said in the community of married women that work for the maquila?
- 15) What do you think of women who work for the maquila?
- 16) If you worked for the maquila, would there be someone who would not agree with you working? Who?
  - a. Do you believe they would mention things behind your back? What do you think they would say? How would you feel?
  - b. Would they mention something to you? What would they say? How would you feel?
  - c. Would somebody stop talking to you because you worked for the maquila? How would you feel?
  - d. Would they ever stop helping you in some way? How did you feel because of this?
- 17) What is it thought in the community of husbands of women who work for the maquila?
- 18) And about your husband,
  - a. Would they say things behind his back? How would he feel about it?
  - b. Would they mention something to him? How would he feel about it?
  - c. Would they stop talking to him or helping him in some way?

- 19) Do you think that gossip and criticism influence in any way your desire to work or not in working for the maquila?
- 20) Do you think that gossip and criticism influence in any way that your husband would support you or not in working for the maquila?
- 21) If you wanted to work in the maquila, would anybody support your decision? who
- 22) Do you think 10 years ago it was normal for women to work for the maquila? Has there been any change in the way people in the community perceive women who work in the maquila? Why do you think this change occurred?

#### 4. Husbands of Wives who Work in the Maquila

- 1) Where do you generally meet your friends? Do you get along with them?
- 2) In general, what is the main occupation of your female married neighbours? The wives of your married friends? Your married female family members? And those of your wife?
- 3) Can you tell me, how was it that your wife started working for the maquila? When did she start working there? Where you already married?
- 4) Did your wife ever work in something else?
- 5) Why does she work in the maquila and not somewhere else? For example, as a saleswoman
- 6) What do you think are the advantages of your wife working in the maquila in comparison to other places
- 7) Do you like your wife working for the maguila? Why?
- 8) In which ways do you think that your wife working in the maquila compares to her working only on household tasks?
- 9) Did you agree when your wife wanted to work in the maquila?
- 10) If you did not agree, how did she convince you? How was the negotiation process
- 11) In general, what do people in the community think of women who work for the maquila?
- 12) What do you think of women who work for the maquila?
- 13) Is there someone who does not agree on your wife working for the maguila?

- a. Do you believe they mention things about your wife behind your back? What do you think they say?
- b. Do they mention something to her? What do they say?
- c. Has somebody ever stop talking to her because you worked for the maguila?
- d. Did they ever stop helping you her in some way?
- e. How did she feel because of this?
- 14) Has the gossip and criticism ever influenced your wives desires of working in the maguila?
- 15) What is it thought in the community of husbands of women who work for the maguila?
- 16) And of you,
  - a. Do they say things about you behind your back? How do you feel about it?
  - b. Would they mention something to you? How do you feel about it?
  - c. Have they stop talking to him or helping him in some way?
- 17) Do you think that gossip and criticism influence in any way that your desires of your wife working or not for the maquila?
- 18) Does anybody support your wife's decision to work for the maguila?
- 19) Do you think 10 years ago it was normal for women to work for the maquila? Has there been any change in the way people in the community perceive women who work in the maquila? Why do you think this change occurred?

#### 5. Husbands of Wives who have Never Worked

- 1) Where do you generally meet your friends? Do you get along with your friends?
- 2) In general, what is the main occupation of your neighbours? Of the wives of your married friends? Your married female family members? And those of your wife?
- 3) Do you think there would be any advantage of your wife working for the maquila?
- 4) How do you think your wife staying at home compares to her working for the maquila?
- 5) Do you think your wife would like to work for the maguila?
- 6) If your wife would currently want to work for the maquila, would you agree? How do you think she would convince you? What would you do to convince her otherwise (if he does nor agree)?

- 7) In general, what is it said in the community of married women that work for the maguila?
- 8) What do you think of women who work for the maquila?
- 9) If your wife worked for the maquila, would there be someone who would not agree it? Who?
  - a. Do you believe they would mention things about your wife behind her back? What do you think they would say? How would she feel?
  - b. Would they mention something to her? What would they say? How would she feel?
  - c. Would somebody stop talking to her is she worked for the maquila? How would she feel?
  - d. Would they ever stop helping her in some way if she worked in the maquila? How did you feel because of this?
- 10) Do you think criticism and gossip influences your wives desires to work for the maquila in any way?
- 11) In general, what is it thought in the community of the husbands of women who work for the maguila?
- 12) And about you if your wife worked for the maquila,
  - a. Would they say things behind your back? How would you feel about it?
  - b. Would they mention something to you? How would you feel about it?
  - c. Would they stop talking to you or helping you in some way?
- 13) Do you think that gossip and criticism influence in any way your desires of your wife working or not for the maquila?
- 14) If your wife wanted to work in the maquila, would anybody support her to do so? Who?
- 15) Do you think 10 years ago it was normal for women to work for the maquila? Has there been any change in the way people in the community perceive women who work in the maquila? Why do you think this change occurred?

#### 6. Husbands of Wives who do not Work but have Done so in the Past

- 1) Where do you generally meet your friends? Do you get along with them?
- 2) In general, what is the main occupation of your neighbours? Of the wives of your married friends? Your married female family members? And those of your wife?
- 3) You have told me that you previously worked as an employee? How was it that you decided to work? Where you married already?
- 4) Why did your wife stop working?

- 5) Was she already married? If so, was there something that bothered you of her working? If so, did you try to convince her to stop working? How?
- 6) Was there some other person that did not agree on your wife working?
  - a. Do you believe they mentioned things behind your wife's back? What do you think they said?
  - b. Did they mention something to her? What did they say?
  - c. Did somebody ever stop talking to her because she worked?
  - d. Did they ever stop helping to her in some way?
  - e. How did your wife feel because of this?
- 7) Do you think there is an advantage of your wife working for the maquila? And of her working in any other activity?
- 8) Do you think your wife would currently like to work for the maquila?
- 9) If your wife would currently want to work for the maquila, would you agree? How would she try to convince you? How would you try to convince her of not working (if he does not agree)?
- 10) In general, what is it said in the community of married women that work for the maquila?
- 11) What do you think of married women who work for the maguila?
- 12) If your wife worked for the maquila, would there be someone who would not agree it? Who?
  - a. Do you believe they would mention things about your wife behind her back? What do you think they would say? How would you feel?
  - b. Would they mention something to her? What would they say? How would she feel?
  - c. Would somebody stop talking to her is she worked for the maquila? How would she feel?
  - d. Would they ever stop helping her in some way if she worked in the maquila? How did you feel because of this?
- 13) Do you think criticism and gossip influences your wives desires to work for the maquila in any way?
- 14) In general, what is it thought in the community of the husbands of women who work for the maguila?
- 15) And about you if your wife worked for the maquila,
  - a. Would they say things behind your back? How would you feel about it?
  - b. Would they mention something to you? How would you feel about it?
  - c. Would they stop talking to you or helping you in some way?
- 16) Do you think that gossip and criticism influence in any way your desires of your wife working or not for the maquila?
- 17) If your wife wanted to work in the maquila, would anybody support her to do so? Who?



### Appendix 2: Survey

Locality	-		
Street Name	Number	between Streets	
Date   _	Star	rting time   _:_ _	Ending time   : _
Interviewee's characte	ristics		
1a. How old are you?			
1b. Up to what grade an	d school year did	•	
a) Grade		b)Year	
0) Nama			
0) None			
1) Preschool 2) Primary (first	t six years of schoo	olina)	
	ollowing three year	<u> </u>	
, , , , , , , , , , , , , , , , , , ,	three years before		
5) Degree to be a		university)	
6) Technical care			
7) University des			
8) Post grad			
99) Does not kno	ow, did not answer		
1 1771	1 4 9 6 1 14	· \	
1c. What is your marital		ernatives)	
<ol> <li>Marrie</li> <li>Single</li> </ol>			
3) Widow			
4) Live to			
	ced or separated		
6) Other	4 1		
7) Does n	not know, did not a	nswer	
1d. Do you speak an ind	ligenous language	e?	
1) Yes		1da) ¿Which one?	
2) No			
1e. Which is your main	activity?		
1f. Which is the main ac	ctivity of your hu	sband?	
lg. Does your husband l	have another acti	vity?	
1) Yes	nave another acti	1ga) ¿Which one?	
2) No		iga) (, which one:	
1h. Do all the people tha	at live in this hou	se share the same allowance	e?
1) Yes Pass to	2a.		
2) No Contin	ue		
1i How many other how	iseholds are there	e who share the allowance a	nd prepare food separately?
		ginning with your husband?	

	2a. Relatio nship	2b. Sex? 1)Male 2)Female	2c. Age?	2d. ¿Study level?  0)None 1) Preschool 2) Primary 3) Secondary 4) High School 5) Normal 6)Technical Career 7) Professional 8) Post grad 99)NK		2e. ¿Main acti vity?	2f. During the last year did he/she contribut e to househol d income?  1)Yes → 2) No	2g. ¿From April 2005 to April 2006, for how long did he/she work? 1) Days 2) Weeks 3) Months 4) Other specify 5) NK		2h. ¿From April 2005 to April 2006, how much did he/she receive for her job or activity? 1) daily 2) weekly 3) monthly 4) biweekly 5) by piece 6) other specify 7) NK	
				Level	Year			Quan tity	Pe riod	Quan tity	Pe riod
A)											
B)											
C)											
D)											
E)											
F)											
G)											
H)											
I)											
J)											
K)											
*Código para 2a). 01) Spouse 05) Mother father 09) Grandson /daughter 13) Cousin 02) Son/daughter 06) Mother/father in law) 10) Grandfather/mother 14) Worker 03) Step son/daughter 07) Brother/sister 11) Uncle/aunt 15) Other (Specify) 08) Brother/sister in law 12) Niece							cify)				
		racteristics			.• .						
3a. The house you live in is (Read all options)  1) your property but you are still paying for it  2) your property and is paid for  3) Lent  4) Rented Pass to 3c.  5) Other:											

1) Interviewee	· <del></del> -			
2) Spouse				
3) Father/mother				
4) Father/Mother in l 5) Brother/Sister	aw			
6) Brother/Sister in la	w			
7) Other (Specify)				
<b>3c</b> . What material is your house made of?  1) Brick				
2) Wood				
3) Sun dried brick				
4) Asbestos plate				
5) Carton plate				
6) Other (Specify)				
7) NK				
3d. How many rooms do you use for sleep	oing?			
3e. Your house has:	1) Yes			
	2) No			
	3)Nk			
a) Electric Energy				
b) Drinking Water				
c) Sewage				
d) Telephone				
4a. How many years have you lived with y 4b. When you started living with your par	· · · · · · · · · · · · · · · · · · ·			
<ol> <li>Live alone as a couple?</li> <li>Live alone as a couple with your rest</li> </ol>				
<ol> <li>Live with your parents?</li> <li>Live with your husband's parents?</li> <li>Live with other family members of you</li> <li>Lived with other family members of you</li> <li>Other? Specify</li> <li>Not reply</li> </ol>				
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> </ul>				
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of yo</li> <li>6. Lived with other family members of yo</li> <li>7. Other? Specify</li> <li>99. Not reply</li> </ul>				
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> </ul>				
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> </ul>	our husbands?			
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> <li>4e. The place where you were born was?</li> </ul>	our husbands?			
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> <li>4e. The place where you were born was?</li> <li>1) Town</li> </ul>	our husbands?			
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> <li>4e. The place where you were born was?</li> </ul>	our husbands?			
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> <li>4e. The place where you were born was?</li> <li>1) Town</li> <li>2) City</li> <li>3) Ranch settlement</li> <li>4) Communal land</li> </ul>	our husbands?			
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> <li>4e. The place where you were born was?</li> <li>1) Town</li> <li>2) City</li> <li>3) Ranch settlement</li> <li>4) Communal land</li> <li>5) Hacienda</li> </ul>	our husbands?			
<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> <li>4e. The place where you were born was?</li> <li>1) Town</li> <li>2) City</li> <li>3) Ranch settlement</li> <li>4) Communal land</li> <li>5) Hacienda</li> <li>6) Vila</li> </ul>	our husbands?			
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<ul> <li>4. Live with your husband's parents?</li> <li>5. Live with other family members of you</li> <li>6. Lived with other family members of you</li> <li>7. Other? Specify</li> <li>99. Not reply</li> <li>4c. Where you born in this community?</li> <li>1. Yes pass to 4g.</li> <li>2. No Continue</li> <li>4d. Where were you born?</li> <li>4e. The place where you were born was?</li> <li>1) Town</li> <li>2) City</li> <li>3) Ranch settlement</li> <li>4) Communal land</li> <li>5) Hacienda</li> <li>6) Vila</li> <li>7) Other, Specify</li> </ul>	our husbands?			

TTIBOTO BOTT	a)						
where born	1) Yes Continue						
	2) No Pass a <b>4i</b>						
	2,1.0						
4h. ¿Since	you were 12, which are the places y	you have lived in	n outside this community for longer than a				
year?							
4ga.	4gb. The place was a:	4gc.How	4gd. What was the motive you lived				
Place	1) Town 5) Hacienda	many <b>years</b>	there?				
(name)	2) City 6)Vila 3) Ranch 7) Other specify	did you live	1) Her work 4) She got married				
,	4) Communal land 8)NS/NC	in?	2) Her husbands work 5)Her family moved there				
			3) Study 6)Other (Specify)				
A)			<u> </u>				
B)							
C)							
	,,		<u>,                                      </u>				
4i. Was vo	our husband born in the community?	,	1 1				
J	1) Yes Pass to <b>4m</b>		' <u></u> '				
	2) No Continue						
4j. Where	was your husband from?						
41 751 1							
4k. The pla	ace your husband was from was a						
	1) Town						
	2) City 3) Ranch						
	4) Communal land						
	5) Hacienda						
	6) Vila						
	7) Other, Specify 8) Nk						
	<i>5)</i> 1111						
4l. How m	any years has your husband lived in	this community	7?				
		•	· <del></del> ·				
4m .Since	your husband was 12 years old, did	he ever live out	side this community for longer that a year?				
(not count	ing the place he was born)?						
1) Yes Continue							
2) No Pass to 5a.							
		T					
4	4 1 TPL 1		4 1 3371 1 41 41 11 1				
4na.	4nb. The place was:	4nc.¿How	4nd. ¿Which was the motive he lived				
4na. Place	4nb. The place was:  1) Town 5) Hacienda 2) City 6)Vila	many <b>years</b>	there?				
	1) Town 5) Hacienda 2) City 6)Vila 3) Ranch 7) Other, specify	many <b>years</b> did he live	there? 1) Her work 4) She got married				
	1) Town 5) Hacienda 2) City 6)Vila	many <b>years</b>	there?				
Place	1) Town 5) Hacienda 2) City 6)Vila 3) Ranch 7) Other, specify	many <b>years</b> did he live	there? 1) Her work 2) Her husbands work 4) She got married 5)her family moved there				
Place A)	1) Town 5) Hacienda 2) City 6)Vila 3) Ranch 7) Other, specify	many <b>years</b> did he live	there? 1) Her work 2) Her husbands work 4) She got married 5)her family moved there				
Place	1) Town 5) Hacienda 2) City 6)Vila 3) Ranch 7) Other, specify	many <b>years</b> did he live	there? 1) Her work 2) Her husbands work 4) She got married 5)her family moved there				

### 5. Employment

5a. Since you we	ere 10 y Yes No	years old, did y Continue pass to <b>6a</b> .	ou ever work as an <b>employee</b> in exchange of a salary?
5b. When you w	orked t	for the first tim	e
	a) .	It was in?	<u></u>
		1)	•
		2)	In a house (as maid)
		3) 4)	
	b)	How old were	you?
	c) <sup>1</sup>	What was your	marital status?
		1)	Married
		2)	Single
		3) 4)	
		5)	
		6)	Other
		7)	Nk
5c. Since you go was for a short p			h your partner, did you ever work in exchange of a salary, even if it  Continue
	2)	No	Pass to <b>5f.</b>
5d. How difficul	t was i	t to convince y	our husband to agree on you working? (READ OPTIONS)
	1)	A lot	
	2) 3)	Some Little	
	<i>4</i> )	Nothing Nothing	
	5)	It was his idea	Pass to <b>5f</b>
5e. How did you	convi	nce your husba	nd to agree on you working? (Read and tick all those that apply)
	1)	-	us needed for the education of their children
	2)		us needed for household expenses
	3) 4)		us needed to construct a house  more household chores
	<i>5</i> )		neglect her household chores
	6)		ould leave him if he didn't agree
	7)		ement they had before they got married
	8)	Other (Specify	)
<b>5f.</b> From April 2 short period of ti		April 2006 did	you work as an employee in exchange of a salary even if it was for a
II	1)	Yes Con	tinue
	2)		tinue to <b>6a.</b>
	,		
5fa. ¿In how man	ny plac	es did you wor	k, from April 2005 to April 2006?

From April 2005 to April 2006, In which places did you work? (from the first until the last)

Job	A)	B)	C)
	11)	В)	
5fb. Which was your responsibility?			
5fc. How often did you get paid?*		<u> </u>	<u> </u>
5fd. How much income did you earn in each	\$	\$	\$
period?		·	Ψ <u> </u>
5fe. Currently, the minimum wage is of \$			
45.81 pesos, the quantity you obtain from			
your job is?: (Read options)		<u> </u>	
1) Less 6) From 5 to 10 m.w.?			
2) Equal to this quantity 7) De 10 m.w.?			
3) From 1 to 2 m.w.? 8) Did not answer			
4) From 2 to 3 m.w? 9) N.k.			
5) From 3 to 5 m.w.?			
5ff. ¿Which days and how many hours and			
minutes did you usually dedicate to your		1 11 1 1 1	
job?	hrs    min	hrs    min	hrs    min
Monday	hrs    min	hrs    min	hrs    min
Tuesday	hrs    min	hrs    min	hrs    min
Wednesday	hrs    min	hrs    min	hrs    min
Thursday	hrs    min	hrs    min	hrs    min
Friday	hrs    min	hrs    min	hrs    min
Saturday	hrs    min	hrs    min	hrs    min
Sunday			
5fg. For how long did you work there?	years	years	years
	months	months	months
	weeks	weeks	weeks
	days	days	days
5fh. Approximately, ¿how many persons,			
including the owner, work in this place?			
1) 2 to 5 people 6) 101 to 250 people			
2) 6 to 15 people 7) 251 to 500 people			
3) 16 to 20 people 8) 501 and more people			
4) 21 to 50 people 9) NS			
5) 51 to 100 peoples			
5fi. How did you find out about this job??			
5) Did you go directly to the place?  Through a friend or family			
<ul><li>6) Through a friend or family</li><li>7) She got offered the job</li></ul>			
8) It was announced in a public place			
9) Other (Specify)			
5fj. In that job they provided: 1) Yes 2) No			
3)Nk			
(ask each one)			
a) End year money, obligatory by law			
b) Paid holidays			
c) Utility repartition, obligatory by law			
d) Credit to buy home			
e) Nursery			
f) Time for maternal care			
g) Social Security			
h) Permission for school meeting			
i) Permission to be absent one day			
5fk. In this job, (ask each one)			
a) Did you have to work extra hours?			
b) Did the managers scold you?			
c) Did the manager sexually harass you?			

d) Did your work fellows sexually harass you? e) Do you have the possibility of getting promoted?				
	f) Do you get money discounted if you are			
absent a day? g) Would they discount money if you were late?		<u> </u>		
*CODIGO PARA	, , , , , , , , , , , , , , , , , , ,	4) Daily	,	ant to answer
	<ol> <li>Every 2 weeks</li> <li>Each week</li> </ol>	<ul><li>5) Gets paid by pie</li><li>6) Could not tell</li></ul>	ece	
	3) Euch week	o) Could not lett		
5g In the last if they are cero, <b>pas</b>	year, for how many periods to 5i	ds longer than a wee	k have you stopped wo	orking for?
5ha. Period	5hb. Reason for which	she 5hc. How	many days did she	stop
	stopped working	working?		
1				
2				
3				
4				
* 5hb CODE	1) Holidays 2) Own illness 3) Illness children 4) Illness other family member	5) Arrange personal n 6) Husband did not wa 7) Finished saving who 8) Maquila closed tem	nt her to work 10) Cha at she needed 11) Woo	quila closed anged jobs rks temporarily er (Specify)
	w your salary is used? (R		wers that apply)	
1) Interview	\\	6) Her mother		
2) Her hus 3) Her mot	· <del></del> -	7) Her children 8) Her siblings		
4) Her fath		9) Other (specify)		
5) Her fath		(**************************************	11	
5j. Who helps you l	by taking care of your chil	ldren when you worl 5) Daughter	k? (Read and tick al	ll answers that apply)
2) Mother in l	·	6) Nursery	<u> </u>	
3) Sister 4) Sister in lav		<ul><li>7) Does not have chil</li><li>8) Other, Specify</li></ul>	dren	
,	you continue working as a		ange of a salary?	
1) Yes	pass to 5n			
2) No	continue			
51.For which reason	n did you stop working?			
1) Holidays		rrange personal mattei		aquila closed
2) Own illness 3) Illness child	,	usband did not want he nished saving what she	,	hanged jobs as not found a job
,	,	aquila closed temporai		ther, which one?
5m. Do you plan to	go back to work?			1 1
	a. In how many days?	C	ontinue	II
2) No		Pa	ass to <b>6a</b>	

	1)	Yes	5na. why?	<ol> <li>She likes to work</li> <li>To learn a new occupation</li> <li>She likes the atmosphere</li> <li>She gets bored at home</li> <li>For personal development</li> <li>To have her own money</li> </ol>
	2)	No	5nb. why?	7. Other (Specify) (Read and tick all answers that apply)  1. Neglect her home
50. Now	imagin	e vou co	ould choose a v	working timetable earning the same as you do right now per hour
	_			d you like to work on a weekday? From [:  hrs to [:
				d you like to work on Saturdays? From  :  hrs to  :
5oc	From wh	nat to w	hat time would	d you like to work on Sundays? From:  hrs to  :
				Pass to 6l.
] ] ] 2)	Yes No	pass contin	to <b>6c</b> . ue	in the maquila?  ou working in the maquila, would you like to work there?
1)	Yes	conti	nue.	
2)	No	pass	to <b>6d</b>	
60 Why	would v	ou lika	to work in the	maquila? (Read and tick all answers that apply)
1.	She like			
2.			occupation	
3.			mosphere	<u> </u>
4.			at home	
5.			evelopment	
6. 7.			n money	 
/.	Other (	эресіју,		1 ass to 00
<b>6d</b> . Why	would y	ou like	to work in the i	maquila? (Read and tick all answers that apply)
1.	Neglect	her ho	me	
2.	Neglect			
3.	It is ver			
4.	Salary			
<i>5</i> .			he atmosphere	
6. 7.			nged for anoth ere she curren	
8.			staying at hom	
			. 0	· <del></del>
<b>6e</b> Have	-	-	-	ou want to work for the maquila?
1) 2)	Yes No	Continu Pass to		

**5n**. If it were not economically necessary for you to work, would you like to work in a maquila anyway?

2) She would neglect household chores 6)	Other (Specify, It is very tiring He can econom Other (Specify, It is the same as reekday? From urdays? From	you do right i	her now per hour to  :  to  :
1) She would neglect children 5) A 2) She would neglect household chores 6) 3) He would leave her 7) 4) It would be bad for her health  6h Now imagine you could choose a working timetable earning 6ha. Form what to what time would you like to work on a w 6hb. From what to what time would you like to work on Sat	He can econom Other (Specify, g the same as eekday? From urdays? From	you do right nn   hrs	now per hour to  :  to  :
2) She would neglect household chores 6) 3) He would leave her 7) 4) It would be bad for her health  6h Now imagine you could choose a working timetable earning 6ha. Form what to what time would you like to work on a w 6hb. From what to what time would you like to work on Sat	He can econom Other (Specify, g the same as eekday? From urdays? From	you do right nn   hrs	now per hour to  :  to  :
3) He would leave her 4) It would be bad for her health  6h Now imagine you could choose a working timetable earning 6ha. Form what to what time would you like to work on a w 6hb. From what to what time would you like to work on Sat	Other (Specify, g the same as eekday? Fron urdays? From	you do right nn   hrs	now per hour to  :  to  :
6h Now imagine you could choose a working timetable earning 6ha. Form what to what time would you like to work on a w 6hb. From what to what time would you like to work on Sat	eekday? Fron urdays? From	n  :  hrs	to  :  to  :
6ha. Form what to what time would you like to work on a w 6hb. From what to what time would you like to work on Sat	eekday? Fron urdays? From	n  :  hrs	to  :  to  :
6ha. Form what to what time would you like to work on a w 6hb. From what to what time would you like to work on Sat	eekday? Fron urdays? From	n  :  hrs	to  :  to  :
6hb. From what to what time would you like to work on Sat	urdays? From	ı  :  hrs	to  :
6hc From what to what time would you like to work on Sur	ndays? Fron	n   <u>:</u>   hrs	s to  :
C1 T00			
<b>6i</b> . If for any reason you <b>had</b> to work in the maquila			
	6ia.	6ib.Why co	uldn't she?
	1) Yes	1) Not live an	
	2) No		ive in community
	3) Nk	3) Takes care 4) Does not v	e of other children vant to
		5) Other (Spe	
Could your <b>mother</b> help you take care of children?			
Could your <b>mother in law</b> help you take care of children?		]_	
Could your <b>sisters</b> help you take care of children?		]_	
Could your <b>sisters in law</b> help you take care of children?			
Could your <b>neighbours</b> help you take care of your children?		-	
Could <b>another person</b> help you take care of children, who?		l.	
6j. In the last year, ¿did any female member of <b>your or your h</b> 1) Yes Continue 2) No pass to <b>6k</b>	usband's fan	<b>ily</b> work in a	ı maquila?
	s your marita	l status?	6jd. How
of your household? 1) Married		d separated	many
1) Yes 2) Single	6) Other		children
2) No 3) Widow 4) Live togeth	7) Nk		does she
			have?
A)			
B)			
C)			
D)	<u>  </u>		
<b>6k</b> . Do you have any married friends who work in the maquila?	?	1	
1) Yes	·	<del>_</del> ·	
2) No			

61. For working in the maquila (if s	. For working in the maquila (if she works in the maquila) or				
if you worked in the maquila (	is she does not work in the maquila), do you	believe	believe they		
think it is:		they would	would		
1) Impossible		mention	mention that		
2) Somewhat possible 3) Very possible		that to you?	to your		
3) Very possible 4) Surely			husband?		
5) N.A.					
		1)Impossible	1) Impossible		
		2)Somewhat	2)Somewhat		
		Possible	possible		
		3) Very possible	<ol> <li>Very possible</li> <li>Surely</li> </ol>		
		4) Surely	5) N.A.		
		5) N.A.	5)11.21.		
Your family members will or	You neglect household chores and children				
would tell other people that:.	You cheat on your husband				
(even if it is not true)	That your husband is lazy &does not work				
Your husband's family members	You neglect household chores and children				
will or would tell other people	You cheat on your husband				
that:. (even if it is not true)	That your husband is lazy &does not work				
Neighbours will or would tell	You neglect household chores and children				
other people	You cheat on your husband				
(even if it is not true)	That your husband is lazy &does not work				
Friends (not family members)	You neglect household chores and children				
will or would tell other people	You cheat on your husband				
that (even if it is not true)	That your husband is lazy &does not work				

## 7. Self-employment Activities

7a. In the last year	did you engage in an	y income generating	activity? (ex, broiderin	g & selling tortillas)

1) *Yes* 

continue pass to 8a. 2) *No* 

7b. From April 2005 to April 2006, Which activities did you engage in?

Activity	A)	B)	C)
7bb.Which days and how many hours and			
minutes did you usually dedicate to that			
activity?			
Monday	hrs    min	hrs    min	hrs    min
Tuesday	hrs    min	hrs    min	hrs    min
Wednesday	hrs    min	hrs    min	hrs    min
Thursday	hrs    min	hrs    min	hrs    min
Friday	hrs    min	hrs    min	hrs    min
Saturday	hrs    min	hrs    min	hrs    min
Sunday	hrs    min	hrs    min	hrs    min
7bc. For how long have you worked	years	years	years
there?	months	months	months
	weeks	weeks	weeks
	days	days	days
7bd. How much did you earn last week?			
	\$	\$	\$
7be.Did you carry out this activity last			
week? 1)Yes, 2)No			

7bf Last week did you dedicate the same			
number of hours that you usually do?			
1) Yes pass to <b>7bh</b>			
2) No continue			
7bg. Which days and how many hours			
and minutes did you dedicate to that			
activity last week?			
Monday	hrs     min	hrs     min	hrs     min
Tuesday	hrs   min	hrs   min	hrs   min
Wednesday	hrs min	hrs   min	hrs   min
Thursday	hrs min	hrs   min	hrs   min
Friday	hrs    min	hrs    min	hrs    min
Saturday	hrs    min	hrs    min	hrs    min
Sunday	hrs    min	hrs    min	hrs    min
<b>7bh</b> . How much did you earn last week?			
	\$	\$	\$
7bi.With how many people did you carry			
out this activity?			·
7bj.Of these, how many where members			
of your family?			II
-	1 1	1 1	1 1
7bk. What relationship do they have with			
you?			
1) Husband 4)Father in law			
2) Mother 5) Siblings 3) Father 6)Brother/sister in law			
4) Mother in law 7)Other, specify			
7bl. Who takes the decisions regarding			
this activity?			
1) Her 4) Father 7) Brother/sister			1 1
2) Husband 5) Mother in law 8) Brother/sister			
in law			
3)Mother 6) Father in law 9) Other (specify)			
7bm.Did you receive the money directly?			
1) Yes 2) No			
7bn.How did you learn to execute this			
activity?			
1) Her parents taught her 4) Private			
courses			
2) Other family members taught her 5) Technical career			
3) Courses DIF			
7bo. Where did you carry out these			
activities?	\ <u></u> '	\ <u></u> '	\ <u></u> '
1) In the fields			
2) From house to house or in the street			
3) Improvised stand			
4) In your own home with special installations.			
5) In your own home without special			
installations 6) Fixed stand			
7) Other			
., one.	<u> </u>	<u> </u>	<u> </u>
7c. Who decides how the money you earn fro	om vour work is spe	nt? (Read and tick al	l antions that annly)
1) Interviewee   4) Father in	-	nt? (Read and tick at our children	i opuons mai appiy)
2) Husband   5) Father	·	our chitaren our siblings	ll 
3) Mother in law 6) Mother		her (specify)	'' 
· <del></del> ,		•••	

## 8. Help Business

<b>8a</b> . From April 2005 to April 2006, did you help a friend or family member in their business?							
1) Yes Continue	1) Yes Continue						
2) No Pass to <b>9a</b> .							
8aa. How many people did you help?							
8ab. Whose business was it?	a)	b)	c)				
1) Husband							
2) Mother in law							
3) Brother/sister							
4) Brother/Sister in law 5) Friends							
8ac What type of business was it?							
8ad. Does this person belong to your							
home? (Does he/she share the same							
expenses)							
1) Yes							
2) No							
8ae.Which days and how much time do							
you usually dedicate to this business?							
Monday	hrs    min	hrs    min	hrs    min				
Tuesday	hrs    min	hrs    min	hrs    min				
Wednesday	hrs    min	hrs    min	hrs    min				
Thursday	hrs    min	hrs    min	hrs    min				
Friday	hrs    min	hrs    min	hrs    min				
Saturday	hrs    min	hrs    min	hrs    min				
Sunday	hrs    min	hrs    min	hrs    min				
8af.Last week, did you dedicate the same							
amount of hours than you usually do?	1 1						
1) Yes pass to 8ah	<u> </u>						
2) No continue  8ag. Which days and how much time did							
you dedicate to this business last week?							
Monday	hrs     min	hrs     min	hrs     min				
Tuesday	hrs    min	hrs     min	hrs     min				
Wednesday	hrs    min	hrs    min	hrs    min				
Thursday	hrs    min	hrs    min	hrs    min				
Friday	hrs    min	hrs    min	hrs    min				
Saturday	hrs    min	hrs    min	hrs    min				
Sunday	hrs    min	hrs    min	hrs    min				
<b>8ah.</b> For how long have you helped	years	years	years				
him/her?	months	months	months				
	weeks	weeks	weeks				
	days	days	days				
8ai.How many people including you work							
in this business?							
8aj.Of these, how many are family							
members?							
8ak.How much money did you receive for	\$	\$	\$				
helping him/her?							

9. Help work						
9a. Last year,	, did your	household	have access to land	?		
	1)	Yes	Continue			
	2)	No	pass to 10a.			
9b. Is this lan	ıd					
			This land is	W	hat is the	7
		1) Yes	1) private		tension of the	
		2) No	2) rented		nd?	
			3) on loan 4) taken		PECIFY UNITS)	
			5) partnership	(3		
Ejidales (type						
communal la	nd)					
Private prope	erty					
Communal			<u></u>			
other:	-					
		•				_
9c. Do you re	ent all or p	art of the l	and?			
1) <i>Yes</i>			9ca. How much d	lid you charge f	for the land? \$	
2) No						
01111	. 1:1	1 1		1 10		
	-	-	ate time to work this	s land?		
1) Yes 2) No	Continue Pass to 9					
2) 110	1 433 10 2	5				
9e. On averas	ge, which	davs and h	ow much time did y	ou usually dedi	cate to work the la	nd?
	Monday			nin		
	Tuesday			min		
	Wednesda	av		min		
	Thursday	•		min		
	Friday			min		
	Saturday		·——·	min		
	Sunday			min		
	Sunday		III3	111111		
9f From Ann	ril 2005 to	April 200	6, how much time di	d vou dedicate	to working the lan	d?
71. 1 10III 7 <b>1</b> pi	11 2003 to	months	o, now much time an	d you dedicate	to working the fair	u:
		weeks				
		_ days				
	l	_  uays				
Og Who make	as tha mai	a decision	s about what to culti	vote?		1 1
og. Who mak		l) Intervi			dron	
		2) Husba	•	,	ther/sister	
		3) Mothe	r in law 6) Mother	9) Othe	r specify	
9h. Last year						
9ha What	9gb. Ho		9gc. What is the	9gd. How	9ge. How	9gf. How
did you	-	obtain of	market price of	much did	much did you	much went
cultivate?	the crop		the crop?	you sell?	consume?	for the
	(specify	unit)				consumption
						of animals?
			\$			
			\$			

\$ |

9.	Anima	

10a. How many a		you have tha	it are not dogs and c	ats?		
	1) Yes	Cont				
	2) No	Pass	to <b>11a</b>			
10b. What type o						
Type of animal		ny do you	What is their main		What is the	
	have?		1) Consumption	4) Savings	approximate	
			2) Sell	5) To work the fields	price of the	
			3) Sell by products	6) Other (Specify)	animal?	
					\$	
					\$	
				 	\$	
			'-	<u>'</u>	\$	-
		l	I_		\$	_
	<u> </u>		I_		<b>1</b>	
10c. Last year, or	average, v	which days a	nd how many hours	and minutes did you o	dedicate to take car	e of
your animals?						
Mo	nday	h	rs    min			
Tue	esday	h	rs    min			
We	dnesday	h	rs   min			
Thu	ırsday		nrs   min			
Fric	-	<u>'</u> '	nrs   min			
	ırday	·	nrs   min			
	day	,	nrs   min			
Sun	iday	1	113    111111			
10.1 F A	2005 4- 4	.:1.2007 1		. 1	. 1 41	.0
_	2005 to Ap	rii 2006, nov	v much did you eari	n by selling animals an	a their by products	.?
\$						
11. Domestic cho	ores					
11a. Who is respo	onsible of r	naking sure	the domestic chores	are carried out in you	r household?	
	1.	Interviewee				
	2.	Husband				
	3.	Mother in la	w.			
	4. 5.	Sister Sister in law	,			
	<i>6</i> .	Other Spec				
			J			
11b.Last year, on	average. w	hich days a	nd how many hours	and minutes did you u	sually dedicate to	
domestic chores?	_				,	
	nday	hı	rs    min			
	esday	· <del></del> -	rs   min			
	•		· <del></del> '			
	dnesday		rs    min			
	ırsday	,	rs    min			
Fric	•		rs    min			
Sati	urday	h	rs    min			
Sun	day	h	rs    min			

11bLast year, on average, which days a dedicate to domestic chores?	and how many	hours a	nd minu	tes d	id your <b>hus</b> h	and usually
Monday    hrs Tuesday    hrs Wednesday    hrs Thursday    hrs Friday    hrs Saturday    hrs Sunday    hrs	s     min s     min s     min s     min s     min					
11c.Did the following people also help do  1) Daughters    2) Sons    3) Pays for the service    4) Other people, specify		tic chor	es? 1) Y	es, 2	) No	
12 Government Programmes and Tran 12.In the last year did you receive money		1)Yes	How		How much	did you
12.111 the last year did you receive money	nom?.	2)No	many times of you receive money last ye	e ,		each occasion?
12a. Oportunidades (antes Progresa)?					1)   2)   3)	4)      5)      6)
12j. Another government programme?					1)   2)   3)	4)
121. Severance pay			<u> </u>		1)   2)   3)	4)      5)      6)
12m. Money or gifts received from family	y members or				1)	4)
friends who live in Mexico or another cou	ıntry?			·	2)  3)	5)      6)
12n. Pension or retirement?				_	1)   2)   3)	_  4)    _  5)    _  6)
13. Welfare						
In the last month	Never	Few	times	Sev	veral times	Always
(Read all options)						
13a. Have your felt sad or upset?						
13b. Have you slept badly?						
13c. Did you feel physically week?						
13d. Did you wake up in low spirit?						
13e. Did you feel useful and needed?						
12f Did you feel life was full?	1	1		1		i i

13g. Currently, can you say your he  1. Very good 2. Good	ealth is: (Rea	nd all options)	L
3. Regular 4. Bad			
5. Very bad			
13h. In the last month, have you suf	fered from		1)Yes, 2)No
13ha. Coughs			
13hb. Difficulty breathing			
13hc. Pain in the joints			
13hd. Red/irritated eyes			
13he. Headache			
13hf. Throat ache			
13hg. Kidney pain			
13hh. Back pain 13hi. Itching, irritation or swell	ing in the skin		
13hk. Allergy	ing in the skin		
13hl. Pressure			<u> </u>
13hm. Body ache			
13hn. Stress			
13ho. Eye weakness			
13hp. Other (Specify)			
14a. Have you ever used a contracepy Yes Continue No Pass to 14d	·		
14b. Which of the following contract		s have you used? (READ OPTIO	
14ba. Oral contraceptive pills	1) Si, 2) No	5bg. Withdrawal	1)Si, 2) No
14bb. Diaphragm, DIU		5bh. Emergency contraception	
14bc. Contraceptive injections		5bi. Herbs or teas	
14bd. Condom preservative		5bj. Tubal ligation	
14be. Implants		5bk. Vasectomy	
14bf. Periodic abstinence		5bl. Other	
14c. How many children did you ha  Pass to 14e.     14d. Why haven't you used them?	ve when you fin	rst used this contraceptive metho	d?
Does not trust them Her husband does not want her to Does not know about them Does not know how to get them She wants the children God sends her			
14e. If you could have chosen, how	many children	would you have liked to have?	

## 15. Relationship with husband and family violence

15a. In all relationships it is common for situations that cause anger to arise, tell me if any of the following, does your husband get angry with you because... (Read all options)

	1)Yes	What ha	ppens v	vhen your	husband g	ets ang	ry with	you?	
	2)No	Stops	You	Не	Hits or	Hits	Doe	You	Other
	3)NA	talking	argu	yells	throws	you	S	talk	
		to you	e	&	things		noth		
				insults			ing		
15aa. You work?									
15ab. You arrive late because you work?									
15ac. You earn more money than your husband?									
15ad. Because you do not work?									
15ae. Because you visit or family and friends visit you?									
15af. Because you do not obey him?									
15ag. Because you use contraceptive methods?									
15ah. Because he does not like the way you dress?									
15ai. Because he thinks you do not fulfil your role as a wife?									
15aj. Because he thinks you cheat on him?									
15ak. Other (specify)									_

15b. Now let's see it the other way round, ¿You get angry at your husband because...... (Read all options)

	1)Yes	1)Yes What happens when you get angry with him?							
	2)No	You	Arg	Yells	Throw	Hit	Doe	Tal	Other
	3)NA	stop	ue	&	s or	him	S	ks	
		talking		insults	hits		not		
		to him		him	things		do		
							anyt		
							hing		
15ba. He works too much?									
15bb. He does not work?									
15bc. He gets jealous?									
15bd. He visits family or friends too									
much?									
15be. You think he cheats on you?									
15bf. He does not help with									
household chores?									
15bg.Does not take care of money?									
15bh.He brings friends home?									
15bi. He drinks or takes drugs?									
15bj. He doesn't obey you?									
15bk.He does not give you enough									
money for expenses?									
15bl. Other? (Specify)									

#### 16. Household Decisions

16a. At home, who takes decisions regarding (...) (Read and tick all options that apply )

	Inter	Part	Chil	Mo	Fath	Fath	Mot	Other
	Vie	ner	d	th	er	er	her	specif
		iici		-	CI	1 .	l .	_
	wee		ren	er		ın	ın	У
						law	law	
16aa. Food eaten at home								
16ab. Your children's clothes								
16ac. Your children's education								
16ad. Your children's permissions								
16ae. Health services and medicines for your								
children								
16af. Strong household expenditures (fridge,								
car, furniture, etc)								
16ag. Money your parents or family gives you								
16ah. Money your husbands parents and								
family gives you?								
16ai. If you work or not								
16aj. If you or your partner use contraception								

16b. How much do you and your	Nothing	Everything	A larger	Only a	No sabe	Not
partner contribute to household			share	share		apply
expenditures (Read all						
options)						
a) You						
b) Your husband						

16c. The income of your household (R	ead all options)
--------------------------------------	------------------

- 1) Your husband manages it and gives you some for the expenses?
- 2) Is placed in a fund and your husband and you use what is needed?
- 3) Your husband gives you what he earns and you decide how it is used?
- 4) You and your husband independently decide how the income is used?
- 5) Other

## 17. Beliefs

17. Do you strongly disagree, somewhat disagree, indifferent, somewhat agree, very much agree with the following:

	Completely	Disagrees	Indifferent	Agrees	Completely
	disagrees				agrees
17a. If a woman is married she should					
take care of the household chores and					
children					
17b.If a wife works for an assembly					
plant she will cheat on her husband					
17c. Is a wife works it is because her					
husband is lazy					

. Do you think your  $\mathbf{husband}$  strongly disagrees, somewhat disagrees, is indifferent, somewhat agrees, very much agrees with the following:

	Completely	Disagrees	Indifferent	Agrees	Completely
	disagrees				agrees
17d. If a woman is married she should					
take care of the household chores and					
children					
17e.If a wife works for an assembly					
plant she will cheat on her husband					
17f. Is a wife works it is because her					
husband is lazy					

#### **Appendix 3: Wage regression results**

In this section the results for the estimated Heckman regression model are displayed. The obtained estimates were further used to obtain predicted wages for all the wives in the sample, those who worked in an assembly plant and those who didn't. As the focus of the research is to analyze the influence of social norms on wives' employment in assembly plants, the joint regression model was estimated for the sample of wives who worked in textile plants and not on those who had a salaried job (including assembly plants). Using data on the latter would have provided biased estimates, as it is the wage that wives expect to receive in an assembly plant that is taken into consideration when deciding whether to work there or not. Thus for example, wives with a university degree would participate less in assembly plant employment due to the lower salary they would obtain there, compared to what they actually do receive for teaching. If wage estimates included the wage teachers obtain, the participation estimates would suggest that women had a high probability of working for an assembly plant, when they do not. Therefore, this must be accounted for in the regression estimates.

#### Heckman regression model results

	Coef	Std. Err	P> z
Age			
Years education	-0.0636*	0.0370	-1.72
Years education squared	0.0051**	0.0025	2.03
Age	0.0027	0.0056	0.48
Constant	3.1508***	0.2369	13.30
Participation in assembly plant			
Number children less 6	-0.1717*	0.0951	-1.80
Number children more 6	0.0181	0.0673	0.27
Age	-0.0459***	0.0097	-4.73
Per capita total income	0.00005	0.00005	0.88
Chilac	-0.6319***	0.1432	-4.41
Constant	-0.9165***	0.3813	2.40
anthro	-1.359	0.3677	-3.70
Insigma	-0.8654	0.0766	-4.75
Rho	-0.8762	0.0853	-0.876
Sigma	0.4209	0.0766	
Lambda	-0.3688	0.1002	

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Chi2= 9.24

Prob > chi2 = 0.0024

As can be observed, from the results in the previous table, the coefficient for years of education has a negative sign when it would be expected to have a positive influence on wage. It is also found that the quadratic expression of years of education is positive and significant. This means that education has a convex relationship with wage. Furthermore, the minimum is obtained at 6.18 years of education. It must be reminded that the primary grade in Mexico is obtained after 6 years of education, the average years of education of married women in the sample.<sup>68</sup>

Textile factory employment is intended for formally uneducated women. Therefore, although these are not generally the expected results for wage estimates, it does seem plausible that for workers in an assembly plant, with low levels of education, an additional year of education has no return in terms of wages. Yet, past a certain threshold, like the achievement of technical education, an additional year of education does have positive returns<sup>69</sup>. It seems that the wage a wife obtains has more to do with her capacity to sew and use a sewing machine than her formal levels of education. According to Hernandez Barrios (2003) there are some complicated elements of dressmaking that are highly paid. Similarly some machine operators, especially in laundries, are the ones who earn the most<sup>70</sup>.

Years of education using general wages, also seem to have a convex relationship with wages. The minimum is obtained in 5.67 years of education.

<sup>&</sup>lt;sup>69</sup> Regressions were also estimated using levels of education instead of years of education to learn more about the relationship between education and wage. Though not significant, all levels of education negatively influence wages, except for technical education which has a positive and significant at a 10% level. A regression including years of education and a dummy variable for technical education was also estimated. Model selection tests were performed to test whether technical education should be included as a dummy variable in the regression estimates. The Alkaike Information Criterion (AIC) was best for years of education with technical level dummy, while the Bayesian Information Criterion (BIC) was best for years of education without levels. The model selection criterion BIC is consistent while the BIC is not. Therefore final regressions were estimated were ran including years of education only. (Hansen 2009)

<sup>&</sup>lt;sup>70</sup> A Heckman regression was estimated which included some activity dummies. Results suggested that 'manuals' earn significantly less than sewers. It is not possible to predict what type of activity women who do not work in assembly plants would perform if they did engage in this type of employment. Thus they are not included as explanatory variables in the wage estimations.

## **Appendix 4: Chapter 6, Statistical Tests**

Statistical tests comparing health symptoms by wives working in assembly plants vs. those not working in Assembly plants.

## **Test Cough**

Two-sample tes	st of proport	ion 			umber of obs : umber of obs :		
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]	
0 1	.2534435 .3188406				.2086962		
diff	0653971 under Ho:	.0605706	-1.13	0.259	1841132	.0533191	
<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>							
Ha: diff $z = -2$ $P < z = 0$	L.130	Ha: dif z = - P >  z  =	1.130		Ha: diff > 0 z = -1.130 > $z = 0.870$		

## **Test Difficulty Breathing**

Two-sample tes	st of proporti	ion			Number of obs :	
Variable	   Mean +	Std. Err.	z	P>   z	[95% Conf.	Interval]
0 1	.137741	.0180883 .0456304			.1022887 .0844791	.1731934
diff	036172	.0490848	-0.79	0.432	1323765	.0600325

```
Ho: proportion(0) - proportion(1) = diff = 0
```

#### **Test Inflammation of Joints**

.T.M.C	-sample test	OI	proport	ıon			0:	Number	ΟĪ	ado	=	363
							1:	Number	of	obs	=	69
	Variable		Mean	Std.	Err	  7	 P> z	10]	 5%	 Conf		Intervall

 Variable	Mean	Std. Err.	z	P> z	[95% Conf.	Interval]
0   1	.2506887 .1884058				.2061032 .0961401	.2952742
 diff	.0622829 under Ho:	.0522834 .0561479	1.11	0.267	0401906	.1647564

Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: diff > 0
z = 1.109	z = 1.109	z = 1.109
P < z = 0.8663	P >  z  = 0.2673	P > z = 0.1337

#### **Test Irritated Eyes.**

Two-sample test of proportion 0: Number of obs = 3631: Number of obs = 69

Variable	   Mean			 [95% Conf.	Interval]
0 1	.2754821	.0234487		.2295236 .3038227	.3214406 .536757
	1448078	.0638823	-2.41	2700147	0196008

Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = -2.409	z = -2.409	z = -2.409
P < z = 0.0080	P >  z  = 0.0160	P > z = 0.9920

## **Test Head ache**

Two-sample test of proportion 0: Number of obs = 3631: Number of obs = 69

Variable	•	Std. Err.	z	P> z	[95% Conf.	Interval]
0   1					.4169872 .4333573	.5196519
		.0653593	-1.26		210507	.0456968

Ho: proportion(0) - proportion(1) = diff = 0

#### **Test Throat Ache**

Two-sample tes	st of	proport	ion			0:	Number	Οİ	obs	=	363
						1:	Number	of	obs	=	69
Variable		Mean	Std.	Err.	 z	P> z	 !9 ]	 5왕	 Conf.	. I	Interval]

				[95% Conf.	Interval]
 0 1	.3333333	.0247423 .0598824		.2848393 .3319081	.3818274
	115942			2429332	.0110491

Ho: proportion(0) - proportion(1) = diff = 0

#### **Test Kidney Ache**

Two-sample test of proportion 0: Number of obs = 3631: Number of obs = 69

Variable	   Mean			' '	[95% Conf.	Interval]
0 1	.2727273	.0233754 .0578659			.2269123 .2489038	.3185423
	0895916 under Ho:	.0624089	-1.51		2119108	.0327277

Ho: proportion(0) - proportion(1) = diff = 0

#### **Test Back Ache**

Two-sample test of proportion 0: Number of obs = 3631: Number of obs = 69

Variable	Mean		z	P>   z	[95% Conf.	Interval]
0 1	.2672176 .3043478	.0232256 .0553932			.2216963 .1957791	
		.0600653			154856	.0805956

-----

Ho: proportion(0) - proportion(1) = diff = 0

## **Test Irritated Skin**

Two-sample tes	st of proport	ion			Number of obs = Number of obs =					
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]				
0 1	.1294766 .1884058				.0949399 .0961401					
diff	0589292 under Ho:	.0502651	-1.30	0.194	1574469	.0395885				
Ho: proportion(0) - proportion(1) = diff = 0										
Ha: diff $z = -1$ $P < z = 0$	L.297	Ha: diff $z = -$ P > $ z  =$	1.297		Ha: diff > 0 z = -1.297 P > $z = 0.9028$					

## **Test Allergy**

Two-sample tes	st of proport	ion			umber of obs :				
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]			
0	0881543				.0589883				
diff	0422805   under Ho:	.0431883	-1.10	0.272	1269281	.0423671			
Ho: proportion(0) - proportion(1) = diff = 0									
Ha: diff $z = -1$ $P < z = 0$	1.098	Ha: diff $z = -3$ P > $ z  = 0$	1.098		Ha: diff > 0 $z = -1.098$ > $z = 0.8640$				

## **Test Blood Pressure**

Two-sample tes	st of proport	ion			umber of obs : umber of obs :	
Variable	Mean	Std. Err.	Z	P>   z	[95% Conf.	Interval]
0   1	.3002755				.2531215 .157261	
diff	.0394059 under Ho:	.0580798	0.66	0.510	0744283	.1532402
	Ho: proport	ion(0) - prop	ortion(1	L) = diff	= 0	
Ha: dif z = 0 P < z = 0	0.659	Ha: diff $z = 0$ $P >  z  = 0$			Ha: diff > 0 $z = 0.659$ > $z = 0.2553$	

## **Test Body Ache**

Two-sample test	of proporti	lon		0:	Number	οİ	obs	=	363
				1:	Number	of	obs	=	69
Variable	Mean	Std. Err.	 Z	P> z	! !9]	 5% C	onf.	Inter	val]

Variable	Mean			[95% Conf.	Interval]
0 1	3112948	.0243024 .0567504		.2636629 .2221045	.3589266
	0220386			1430371	.0989599

Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: diff > 0
z = -0.361	z = -0.361	z = -0.361
P < z = 0.3589	P >  z  = 0.7179	P > z = 0.6411

#### **Test Stress**

Two-sample test of proportion 0: Number of obs = 3631: Number of obs = 69

Variable	   Mean				[95% Conf.	Interval]
0 1	.3939394	.025646 .0596787			.3436742 .3178145	.4442046 .5517507
	0408432 under Ho:	.0649559	-0.63	0.526	1681543	.0864679

Ho: proportion(0) - proportion(1) = diff = 0

Ha: $diff < 0$	Ha: diff != 0	Ha: $diff > 0$
z = -0.635	z = -0.635	z = -0.635
P < z = 0.2628	P >  z  = 0.5256	P > z = 0.7372

## **Test Eye Weakness**

Two-sample test of proportion 0: Number of obs = 3631: Number of obs = 69

Variable	   Mean +		Z	P>   z	[95% Conf.	Interval]
0 1	.3112948 .4202899	.0243024 .0594231			.2636629	
	1089951   under Ho:	.0642006	-1.77		2348259	.0168357

| under Ho: .0616912 -1.// 0.0//

Ho: proportion(0) - proportion(1) = diff = 0

## Statistical Tests Comparing Health Symptoms by Wives without Income Generating Activity vs, those with an Income Generating Activity

## **Test Cough**

Two-sample te	st of proport:	ion			Number of obs : Number of obs :	
	Mean				[95% Conf.	Interval]
0 1	.2517241 .2887324	.0254856 .0380295			.2017733 .214196	.3016749
	0370083				1267342	.0527177
	Ho: proport:	ion(0) - pro	portion(	l) = dif	f = 0	

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = -0.820	z = -0.820	z = -0.820
P < z = 0.2062	P >  z  = 0.4123	P > z = 0.7938

## **Test Difficulty Breathing**

Two-sample tes	st of proports	ion		Number of obs	
Variable	Mean		1 1	[95% Conf.	Interval]
0   1	.1413793	.0204595		.1012795 .0895001	
	006508 under Ho:	.0361391			.0643232

Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = -0.181	z = -0.181	z = -0.181
P < z = 0.4281	P >  z  = 0.8562	P > z = 0.5719

#### **Test Inflammation of Joints**

Two-sample test of proportion			0:	Number of obs	= 290
			1:	Number of obs	= 142
l .			1 1	=	=
.237931	.0250048 .0361654			.1889225 .175596	.2869396
0085478   under Ho:	.0439679	-0.20	0.845	0947234	.0776277
	Mean .237931 .2464789	Mean Std. Err237931 .0250048 .2464789 .0361654	Mean Std. Err. z .237931 .0250048 .2464789 .03616540085478 .0439679	1:    Mean Std. Err. z P> z    .237931 .0250048   .2464789 .0361654  0085478 .0439679	1: Number of obs    Mean Std. Err. z P> z  [95% Conf.     .237931 .0250048 .1889225     .2464789 .0361654 .175596    0085478 .04396790947234

Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = -0.195	z = -0.195	z = -0.195
P < z = 0.4226	P >  z  = 0.8452	P > z = 0.5774

## Test Irritated Eyes.

Two-sample tes	st of proport:	ion			Number of obs	
Variable	!	Std. Err.		, ,	[95% Conf.	Interval]
0 1	.3103448 .2746479	.0271668			.2570988 .201236	.3635909
diff	.0356969 under Ho:	.0462706 .0468739	0.76	0.446	0549918	.1263857

Ho: proportion(0) - proportion(1) = diff = 0

Ha: $diff < 0$	Ha: diff != 0	Ha: $diff > 0$
z = 0.762	z = 0.762	z = 0.762
P < z = 0.7768	P >  z  = 0.4463	P > z = 0.2232

#### **Test Head ache**

Valiable	:   Mean	Sta. EII.	2	F >   2	[95% COIII.	Incervar
	.4965517					.5540969 .5325418
diff	.0458475 under Ho:	.0510439 .0511765	0.90	0.370	0541967	.1458917

Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = 0.896	z = 0.896	z = 0.896
P < z = 0.8148	P >  z  = 0.3703	P > z = 0.1852

#### **Test Throat Ache**

Two-sample test of proportion 0: Number of obs = 290 1: Number of obs = 142 

Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]

1	.3793103	.0382994		.3234654 .2207092	.4351553
	.0835357			0100243	.1770957

Ho: proportion(0) - proportion(1) = diff = 0

## **Test Kidney Pain**

Two-sample t	est of	proporti	on	0:	Number	of	obs	=	290
				1:	Number	of	obs	=	142

Variable	   Mean +			 [95% Conf.	Interval]
0 1		.027485 .034256		.2702684 .144127	.3780074
	:	.0439192	2.44	.0267902	.1989504

Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: diff > 0
z = 2.436	z = 2.436	z = 2.436
P < z = 0.9926	P >  z  = 0.0149	P > z = 0.0074

#### **Test Back Ache**

Two-sample test of proportion 0: Number of obs = 2901: Number of obs = 142

Variable		Std. Err.	z	P>   z	[95% Conf.	Interval]
0	.3241379 .1690141	.027485			.2702684 .1073741	.3780074
diff	.1551238 under Ho:	.0417672	3.40	0.001	.0732617	.236986

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Ho: proportion(0) - proportion(1) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = 3.399	z = 3.399	z = 3.399
P < z = 0.9997	P >  z  = 0.0007	P > z = 0.0003

#### **Test Irritated Skin**

Two-sample test of proportion 0: Number of obs = 290 1: Number of obs = 142

Variable	I .		1 1	[95% Conf.	=
0 1	.1482759   .1197183	.0208682 .0272425		.1073749 .066324	
	.0285576			038702	.0958171

Ho: proportion(0) - proportion(1) = diff = 0

## **Test Allergy**

Two-sample tes	st of proport:	ion			umber of obs :	
Variable	Mean	Std. Err.				Interval]
0 1	.1068966 .0704225	.018144			.0713349 .0283399	
diff		.0281107 .0300189	1.22	0.224	018622	.0915701
Ho: proportion(0) - proportion(1) = diff = 0						
Ha: dif z = 1 P < z = 0	1.215	Ha: diff $z = 1$ $P >  z  = 0$	.215		Ha: diff > 0 z = 1.215 > z = 0.1122	

## **Test Blood Pressure**

Two-sample tes	st of proport	ion			Number of obs	
	Mean			1 1	[95% Conf.	Interval]
0 1	.2862069	.0265416 .0388067			.2341863 .2337994	
diff	0236523 under Ho:				1158001	.0684956
	Ho: proport	ion(0) - pro	portion(	1) = di:	ff = 0	

## **Test Body Ache**

Two-sample tes	st of proport:	ion			umber of obs	
Variable	Mean		Z	P>   z	[95% Conf.	Interval]
0   1	.2793103 .3873239	.0263462			.2276727 .3072011	
diff	1080136	.0486341			2033348	0126924
	under Ho:	.0475697	-2.27	0.023		
<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>						
Ha: diff $z = -2$ $P < z = 0$	2.271	Ha: diff $z = -2$ P > $ z  = 0$	2.271		Ha: diff > $z = -2.271$ > $z = 0.988$	

#### **Test Stress**

Two-sample tes	st of proport:	ion			umber of obs	
Variable	Mean	Std. Err.	Z	P>   z	[95% Conf.	Interval]
0 1	.4103448				.353731 .3004356	
diff	.0300631 under Ho:		0.60	0.549	067817	.1279433
<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>						
Ha: diff $z = 0$ $P < z = 0$	0.599	Ha: diff $z = 0$ $P >  z  = 0$	.599		Ha: diff > $z = 0.599$ > $z = 0.274$	-

## **Test Eye Weakness**

Two-sample tes	st of proport:	ion 			umber of obs	
Variable	Mean	Std. Err.	Z	P>   z	[95% Conf.	<pre>Interval]</pre>
0 1	.3413793 .3028169				.2868054 .2272438	
diff	.0385624 under Ho:	.0475611 .0481125	0.80	0.423	0546557	.1317805
Ho: proportion(0) - proportion(1) = diff = 0						
Ha: dif z = ( P < z = (	0.802	Ha: diff $z = 0$ P > $ z  = 0$	.802		Ha: diff > $z = 0.802$ > $z = 0.2116$	

# Statistical Tests Comparing Health Symptoms by Self Employed vs. Non Self Employed Wives.

## Table (). Test Cough

Two-sample tes	st of proport	ion		-	umber of obs	
Variable	Mean	Std. Err.	Z	P>   z	[95% Conf.	Interval]
yes no	.2327586	.0277444			.1783807 .2364899	
diff	!	.0426585 .042527	-1.58	0.114	1508506	.0163678
Ho: proportion(yes) - proportion(no) = diff = 0						
Ha: diff $z = -2$ $P < z = 0$	1.581	Ha: dif z = - P >  z  =	1.581		Ha: diff > z = -1.581 > z = 0.943	

## **Test Difficulty Breathing**

Two-sample te	st of proport	ion		-	Number of obs = Number of obs =	
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
yes no	.1336207   .155				.0898388 .1048435	
diff	!	.0339686	-0.63	0.527	0879566	.045198
Ho: proportion(yes) - proportion(no) = diff = 0						
Ha: di: z = - P < z =	0.632	Ha: diff $z = -1$ P > $ z  = -1$	0.632		Ha: diff > 0 z = -0.632 P > $z = 0.7363$	

#### **Test Inflammation of Joints**

Two-sample tes	st of proport	ion		-	Number of obs :	
Variable		Std. Err.			[95% Conf.	Interval]
yes no	2543103	.0285902			.1982746 .1671271	
diff	.0293103 under Ho:	.0411008	0.71	0.477	0512457	.1098664
Ho: proportion(yes) - proportion(no) = diff = 0						
Ha: di: z = ( P < z = (	0.711	Ha: diff $z = P >  z  =$	0.711		Ha: diff > $z = 0.711$ P > $z = 0.238$	

## **Test Irritated Eyes**

Two-sample tes	st of proport	ion		-	mber of obs	
Variable	'	Std. Err.			[95% Conf.	Interval]
yes no	3017241	.0301352			.2426602	
diff	.0067241 under Ho:	.0441362 .0441586	0.15	0.879	0797813	.0932296
<pre>Ho: proportion(yes) - proportion(no) = diff = 0</pre>						
Ha: dii z = ( P < z = (	0.152	Ha: diff $z = 0$ $P >  z  = 0$	.152		Ha: diff > z = 0.152 > z = 0.439	

#### **Test Head Ache**

Two-sample test of proportion yes: Number of obs = 232 no: Number of obs = 200

Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
yes no	.4913793	.0328217 .0352916			.4270499	.5557087 .5391703
diff	.0213793   under Ho:	.0481951 .048212	0.44	0.657	0730813	.1158399

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Ho: proportion(yes) - proportion(no) = diff = 0

#### **Test Throat Ache**

Two-sample test of proportion yes: Number of obs = 232 no: Number of obs = 200

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Ho: proportion(yes) - proportion(no) = diff = 0

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 z = 0.075 z = 0.075

P < z = 0.5298 P > |z| = 0.9403 P > z = 0.4702

#### **Test Kidney Pain**

Two-sample test of proportion yes: Number of obs = 232 no: Number of obs = 200

Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]

yes | .3146552 .0304879 .2548999 .3744104
no | .255 .03082 .1945938 .3154062

diff | .0596552 .0433519 -.025313 .1446234

| under Ho: .0436501 1.37 0.172

Ho: proportion(yes) - proportion(no) = diff = 0

## **Test Back Ache**

Two-sample tes	st of proport:	ion		-	Number of obs	
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
yes no	.3318966   .205	.0309157 .028546			.2713029 .1490508	.3924902
diff	.1268966   under Ho:	.0420792 .0429937	2.95	0.003	.0444229	.2093702
	Ho: proportion	on(yes) - pro	pportion	(no) = 0	diff = 0	

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = 2.952	z = 2.952	z = 2.952
P < z = 0.9984	P >  z  = 0.0032	P > z = 0.0016

#### **Test Irritated Skin**

Two-sample tes	st of proport:	ion		-	Number of obs	
Variable		Std. Err.	z	1 1	[95% Conf.	=
yes no	.1508621	.0234982 .0233854			.1048064 .0791655	.1969178
diff	.0258621	.0331518	0.78	0.438	0391143	.0908384

Ho: proportion(yes) - proportion(no) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: $diff > 0$
z = 0.775	z = 0.775	z = 0.775
P < z = 0.7808	P >  z  = 0.4383	P > z = 0.2192

## **Test Allergy**

Two-sample tes	st of proporti	ion		-	Number of obs	
Variable		Std. Err.	z	P> z	[95% Conf.	Interval]
yes   no	.1034483	.0199943			.0642602 .0463497	.1426363
diff     	.0184483 under Ho:	.0280828	0.65	0.514	0365931	.0734896

Ho: proportion(yes) - proportion(no) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: diff > 0
z = 0.652	z = 0.652	z = 0.652
P < z = 0.7429	P >  z  = 0.5142	P > z = 0.2571

## **Test Blood Pressure**

Two-sample tes	st of proport:	ion		-	umber of obs	
Variable	Mean	Std. Err.			[95% Conf.	Interval]
yes no	.2931034	.0298844			.2345311	
diff		.0439653	-0.04	0.966	088067	.0842739
	Ho: proportion	on(yes) - pro	oportion	(no) = dif	Ef = 0	
Ha: di: z = -( P < z = (	0.043	Ha: diff $z = -0$ P > $ z  = 0$	0.043		Ha: diff > $z = -0.043$ > $z = 0.517$	

## **Test Body Ache**

Two-sample tes	st of proport:	ion		-	Number of obs	
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
yes no		.0290528			.2102989	.3241839
diff	1027586 under Ho:	.0448282	-2.29	0.022	1906203	014897
	Ho: proportion	on(yes) - pr	oportion	(no) = d	liff = 0	

Appendix 5: Chapter 7

Regression Results

Biprobit results for wives' disagreement on moral arguments

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at Home	Women Promiscuous	Men Providers	Disagree All
Participation Equation				
Age	-0.03277**	-0.00729	-0.00019	-0.0272
Wage	52.53271**	21.87066**	27.6923*	53.29875**
Wage Squared	-10.3026**	-4.29624**	-5.39323*	-10.3559**
Number children older 6	0.02657	-0.00087	0.02042	0.02357
Number of Children less 6	-0.18107	-0.14658**	-0.12775*	-0.14603
Household p.c. income	5.24E-05	2.33E-05	4.84E-05	3.94E-05
Chilac	-0.5598**	-0.05288	-0.28992*	-0.41185
Disagreement on argument	1.19298**	1.81694***	1.90134***	1.04808
Constant	-67.1127**	-29.5895**	-37.1847*	-68.7234**
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation	_		_	_
Age	-0.00175	-0.01692***	-0.02436***	-0.01092
Household p.c. income	-1.4E-05	-2.4E-05	-2.3E-05	1.13E-06
Years of Educ.	0.09583***	0.028065**	0.01802*	0.04917***
Chilac	-0.09023	-0.40036***	0.03465	-0.22289
Constant	-0.4862	1.37409***	1.01289***	-0.2677
Antrho	-0.34288	-10.31	-10.4649	-0.30349
Rho	0.33004	-1	-1	-0.29450
P(rho=0)	0.4296	0.0331	0.0041	0.6020

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

## Biprobit results for husbands' disagreement on moral arguments

	Biprobit Women at Home	Biprobit Women Promiscuous	Biprobit Men Providers	Biprobit Disagree All
Participation Equation				
Age	-0.02985*	-0.02137	-0.02751	-0.02788
Wage	57.85216**	52.03334*	52.16436**	55.3428**
Wage squared	-11.2482**	-10.0521*	-10.0607**	-10.6815**
Number children older 6	0.000971	-0.01664	-0.00765	0.012038
Number of children less 6	-0.12368	-0.18986	-0.15497	-0.13225
Household p.c. income	4.06E-05	1.01E-05	3.89E-05	0.000034
Chilac	-0.49457*	-0.29219	-0.44072	-0.4173
Disagreement argument	0.45623	1.33215	0.43816	0.67589
Constant	-74.2867**	-68.1028*	-67.6127**	-71.6731*

	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Husband's Age	-0.01102*	-0.02647***	-0.01526***	-0.01677**
Household p.c. income	-3.3E-05	3.82E-05	-5.4E-05	2.24E-06
Husband's years of educ.	0.03919**	-0.00919	0.02776	0.02078
Chilac	-0.03553	-0.22921*	0.143128	-0.1483
Constant	0.005435	1.515526***	0.518605*	-0.05069
Athrho	0.234023	-0.55794	0.079702	0.079176
Rho	0.22984	-0.50645	0.07953	0.07918
P(rho=0)	0.7801	0.5505	0.9233	0.9694

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for wives' disagreement on moral arguments depending on their husbands' main activity.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree
	Home	<b>Promiscuous</b>	<b>Providers</b>	AII
Participation Equation				
Age	-0.02594	-0.01042	0.00417	-0.02128
Chilac	-0.45195	-0.02892	-0.22307	-0.29062
Wage	51.16249**	48.50041***	27.42500	52.48139**
Wage squared	-10.00762**	-9.40132***	-5.34842	-10.16895**
Number children older 6	0.02585	-0.00632	0.00829	0.02202
Number of children less 6	-0.20645	-0.17154	-0.13560*	-0.16736
Household p.c. income	0.00006	0.00004	0.00006	0.00004
Husband assembly plant	0.48432**	0.33779**	0.40181***	0.38300
Husband farmer	-0.05653	-0.18364	0.04877	-0.23087
Disagreement on argument	1.27263*	1.63973***	1.92594***	0.86104
Constant	-66.01969*	-64.20166	-37.13134*	-68.15204**
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Age	-0.00440	-0.02315***	-0.02742***	-0.01387**
Household p.c. income	-0.00003	-0.00002	-0.00003	-0.00001
Husband assembly plant	-0.43668***	-0.31262*	-0.35110**	-0.38152**
Husband farmer	-0.38635**	-0.15220	-0.13013	-0.23682
Years of educ.	0.08223***	0.00831	0.01397	0.03877
Chilac	-0.06037	-0.38832***	0.00316	-0.23132*
Constant	-0.07420	1.84890***	1.31302***	0.08743
Athrho	-0.36068	-1.09250	-9.47136	-0.15443
Rho	-0.345813	-0.79779	-1	-0.15443
Likelihood-rat	0.4691	0.3107	0.0109	0.8113

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for husbands' disagreement on moral arguments depending on their main activity

	Biprobit Women at	Biprobit Women	Biprobit Men	Biprobit
	Home	Promiscuous	Providers	Disagree all rules
Participation Equation				
Age	-0.02355	-0.01418	-0.02024	-0.02354
Chilac	-0.35228	-0.13765	-0.30409	-0.29254
Wage	55.79266**	50.98094*	51.09294**	50.21113*
Wage squared	-10.82616**	-9.82065*	-9.84149**	-9.67450*
Number children older 6	0.00067	-0.01294	-0.00631	0.00787
Number of children less 6	-0.14077	-0.20355	-0.16751	-0.14229
Household p.c. income	0.00004	0.00001	0.00004	0.00003
Husband assembly plant	0.25010	0.37463*	0.27912	0.20613
Husband farmer	-0.30272	-0.23735	-0.31185	-0.34889
Disagreement argument	0.26030	1.34716*	0.49728	0.01330
Constant	-71.96777**	-67.33338*	-66.68269**	-65.09002*
	Chdissag	Infdissag	Mandissag	Dissagint
Dissagreement Equation				
Age husband	-0.01130*	-0.02990***	-0.01737***	-0.01741**
Household p.c. income	-0.00004	0.00003	-0.00006	-0.00001
Husband assembly plant	-0.31113**	-0.40597**	-0.35580**	-0.31996*
Husband farmer	-0.49133***	-0.21120	-0.27024	-0.35874**
Husbands years of educ.	0.02513	-0.01753	0.02016	0.01144
Chilac	0.04486	-0.25925*	0.15210	-0.11357
Constant	0.30252	1.90924***	0.83444**	0.21143
Athrho	0.35889	-0.55340	0.05421	0.50100
Rho	0.35889	-0.50306	0.05416	0.50101
Likelihood-rat	0.6679	0.4377	0.9368	0.5725

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for wives' disagreement with moral arguments & lived in city.

	Biprobit Women at	Biprobit Women	Biprobit Men	Biprobit Disagree
	Home	<b>Promiscuous</b>	Providers	AII
Participation Equation				
Age	-0.02591	-0.00536	0.00438	-0.01895
Chilac	-0.44208	0.00852	-0.17804	-0.26310
Wage	51.08956**	18.83299	26.08599	50.83710**
Wage squared	-9.99895**	-3.71611	-5.05006	-9.85833**
Number children older 6	0.02781	0.00433	0.01223	0.02673
Number of children less 6	-0.21255	-0.17986***	-0.15102*	-0.17102
Household p.c. income	0.00006	0.00003	0.00005	0.00005
Husband assembly plant	0.49924***	0.35269**	0.39419***	0.47543***
Disagreement equation	1.39789***	1.82975***	1.92627***	1.37522**
Constant	-65.95008**	-25.84555	-35.66604	-66.26994**

	Chdissag	Infdissag	Mandissag	Dissagint
Disagreement Equation				
Age	-0.00629	-0.02239***	-0.02852***	-0.01508**
Household p.c. income	-0.00002	-0.00003	-0.00003	-0.00001
Husband assembly plant	-0.31450**	-0.26578*	-0.31232**	-0.31046**
Lived city	0.07606	0.13257	-0.02331	0.00544
Born city	0.35744*	0.34488*	0.22752	0.35399*
Years of educ.	0.08764***	0.01267	0.01240	0.04065**
Chilac	-0.13695	-0.43984***	-0.00848	-0.25773*
Constant	-0.20211	1.71426***	1.30075***	0.00494
A 4 la vila a	0.46470	11 47060	14 70607	0.51460
Athrho	-0.46178	-11.47868	-14.79687	-0.51462
Rho	-0.43153	-1	-1	47353
Likelihood-rat	0.2614	0.0076	0.0029	0.3359

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for husbands' disagreement on moral arguments, born in city.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree
	Home	Promiscuous	<b>Providers</b>	AII
Participation Equation				
Age	-0.01994	-0.01810	-0.02149	-0.02221
Chilac	-0.40386	-0.20251	-0.35992	-0.32485
Wage	55.74473**	53.56097*	51.21343**	54.18071**
Wage squared	-10.83091**	-10.30430*	-9.85224**	-10.43244**
Number children older 6	0.00142	-0.02912	-0.01234	0.00571
Number of children less 6	-0.14515	-0.21898*	-0.17917	-0.16072
Household p.c. income	0.00006	0.00002	0.00005	0.00004
Husband assembly plant	0.39529**	0.42616**	0.37380*	0.38289**
Disagreement equation	1.34203	1.20440	0.64476	0.83517
Constant	-72.52222**	-70.58426**	-67.02871**	-70.73586**
	Chdissag	Infdissag	Mandissag	Dissagint
Disagreement Equation				
Age husband	-0.01454**	-0.03020***	-0.01851***	-0.01904***
Household p.c. income	-0.00005	0.00001	-0.00006	-0.00001
Husband assembly plant	-0.15531	-0.32300**	-0.27344*	-0.20876
Husband lived city	0.34725**	-0.07287	0.06070	-0.01595
Husband born city	0.18135	0.64927**	0.00450	0.20992
Husband years of educ.	0.03191*	-0.01613	0.02726	0.01855
Chilac	-0.11793	-0.29848**	0.07658	-0.19197
Constant	0.19568	1.80961***	0.75303**	0.11849
Athrho	-0.32739	-0.43077	-0.03247	-0.00158
rho	-0.31617	-0.40597	-0.03246	-0.00158
Likelihood-rat	0.6893	0.5463	0.9678	0.9969

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for wives' disagreement on moral arguments, depending on having a sister or sister-in-law who works in an assembly plant.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at Home	Women Promiscuous	Men Providers	Disagree All
Participation Equation	Home	Tromisouous	Troviders	
Age	-0.02550	0.00101	0.00706	-0.02040
Chilac	-0.44510	0.06361	-0.18056	-0.29586
Wage	50.77625*	24.04574**	29.29499*	51.00214**
Wage squared	-9.93430**	-4.70795**	-5.66927*	-9.88079**
Number children older 6	0.02829	-0.00170	0.01240	0.02479
Number of children less 6	-0.21557	-0.14405*	-0.12337	-0.17581
Household p.c. income	0.00007	0.00004	0.00006	0.00005
Husband assembly plant	0.47470**	0.30495**	0.38196**	0.44605**
Sister	0.15618	0.06644	0.09413	0.06660
Sister-in-law	0.09961	0.44042***	0.04947	0.16586
Disagreement equation	1.26312**	1.86840***	1.92575***	1.07459
Constant	-65.59527*	-33.05342**	-39.95467*	-66.46319**
	- · · ·			
	Chdissag	Infdissag	Mandissag	Dissagint
Disagreement Equation		0.00000444	0.00=0=+++	0.04.400**
Age	-0.00604	-0.02299***	-0.02787***	-0.01492**
Household p.c. income	-0.00002	0.00001	-0.00003	-0.00001
Husband assembly plant	-0.30223**	-0.24337	-0.30453**	-0.30814**
Years of educ.	0.09476***	0.02857***	0.01542	0.04943***
Chilac	-0.16771	-0.50589***	-0.04029	-0.30010**
Sister	-0.06032	0.07328	0.03930	0.11182
Sister-in-law	-0.03659	-0.52620***	-0.02305	-0.23227
Constant	-0.17519	1.79503***	1.27797***	0.01981
Athrho	-0.33831	-10.59434	-10.30585	-0.28076
Rho	-0.32597	-1	-1	-0.27361
Likelihood-rat	0.4351	0.0276	0.0024	0.6559

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for wives' disagreement on moral arguments, depending on having a married sister or sister-in-law working in an assembly plant.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree
	Home	Promiscuous	Providers	AII
Participation Equation				
Age	-0.02620	-0.01036	0.00531	-0.02135
Chilac	-0.43564	-0.00647	-0.18368	-0.29557
Wage	50.38619*	53.46540***	25.97227**	50.62714**
Wage squared	-9.85042**	-10.33425***	-5.04241**	-9.80041**
Number children older 6	0.03227	-0.00288	0.01937	0.02641
Number of children less 6	-0.21963	-0.18801	-0.14736**	-0.18230
Household p.c. income	0.00007	0.00005	0.00006	0.00005
Husband assembly plant	0.49177***	0.39087**	0.41251***	0.46594**
Married sister	-0.01996	-0.12043	-0.23121	-0.11452
Married sister-in-law	0.36741	0.66915***	0.33454	0.45487*
Disagreement dummy	1.25589**	1.70714***	1.94927***	1.00730
Constant	-65.11886*	-70.99366	-35.50347**	-65.98649
	Chdissag	Infdissag	Mandissag	Dissagint
Disagreement Equation				
Age	-0.00626	-0.02520***	-0.02847***	-0.01546**
Household p.c. income	-0.00002	-0.00003	-0.00003	-0.00001
Husband assembly plant	-0.29063*	-0.23291	-0.32629**	-0.29704
Years of educ.	0.09489***	0.01762	0.01388	0.04829**
Chilac	-0.18044	-0.48623***	-0.01501	-0.31636**
Married sister	-0.20943	-0.02988	0.23692	-0.05597
Married sister-in-law	-0.09533	-0.65445***	-0.16171	-0.31527
Constant	-0.15413	1.92518***	1.30236***	0.06991
A.()	0.05.155	4.0.1	10 =====	0.01010
Athrho	-0.33138	-1.01320	-10.77600	-0.21910
Rho	-0.31976	-0.76708	-1	-0.21566
Likelihood-rat	0.4548	0.3211	0.0042	0.7393

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for husbands' disagreement with moral arguments, depending on having a sister or sister-in-law working in an assembly plant.

	Biprobit Women at	Biprobit Women	Biprobit Men	Biprobit Disagree
	Home	Promiscuous	Providers	All
Participation Equation				
Age	-0.02434	-0.01695	-0.02207	-0.02151
Chilac	-0.40662	-0.18972	-0.34459	-0.32230
Wage	55.47540**	51.87970*	49.50023**	52.91663**
Wage squared	-10.76122**	-9.99069*	-9.52147**	-10.18991**
Number children older 6	-0.00023	-0.01694	-0.00679	0.01196
Number of children less 6	-0.14853	-0.21948*	-0.18183	-0.16173
Household p.c. income	0.00005	0.00002	0.00005	0.00004
Husband assembly plant	0.32750	0.39693**	0.33898	0.37470**
Husbands sister-in-law	0.11355	0.14467	0.08715	0.03827
Husbands sister	0.07342	0.18242	0.12442	0.12238
Disagreement dummy	0.36787	1.21714	0.41564	0.81700
Constant	-71.72821**	-68.46844*	-64.70549*	-69.15060**
	Chdissag	Infdissag	Mandissag	Dissagint
Disagreement Equation				
Age	-0.01278**	-0.03210***	-0.01865***	-0.01907***
Household p.c. income	-0.00004	0.00003	-0.00006	0.00000
Husband assembly plant	-0.16870	-0.31334**	-0.27763*	-0.23926
Years of educ.	0.03988**	-0.00947	0.02817*	0.02068
Chilac	-0.06942	-0.33047**	0.08726	-0.18405
Husbands sister-in-law	0.01669	-0.08323	0.13210	0.20212
Husbands sister	-0.01413	-0.24396	-0.16731	-0.11899
Constant	0.13612	1.94542***	0.76404**	0.10515
Athrho	0.30410	-0.41915	0.11467	0.00813
Rho	0.30410	-0.41915 -0.39622	0.11467	0.00813
Likelihood-rat	0.29506	-0.39622 0.5601	0.11417	0.00613
LINCIII IUUU-I at	0.0090	0.5001	0.0014	0.3010

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for husbands' disagreement with moral arguments, depending on having a married sister or sister-in-law working in an assembly plant.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree
	Home	Promiscuous	<b>Providers</b>	AII
Participation Equation				
Age	-0.02470	-0.01710	-0.02302	-0.02563*
Chilac	-0.40382	-0.16983	-0.34257	-0.34931
Wage	54.88234**	51.23973*	48.62761*	48.35308*
Wage squared	-10.63471**	-9.85299*	-9.34909*	-9.29996*
Number children older 6	0.00199	-0.01316	-0.00625	0.00929
Number of children less 6	-0.15124	-0.22947*	-0.19027	-0.15528
Household p.c. income	0.00005	0.00002	0.00005	0.00004
Husband assembly plant	0.34383*	0.42511**	0.36301	0.30965
Husbands sister-in-law	-0.12630	-0.04899	-0.16388	-0.12822
Husbands sister	0.32961	0.56343**	0.39890	0.31993
Disagreement dummy	0.33571	1.26728	0.37793	0.03274
Constant	-71.00178**	-67.77372*	-63.54178*	-62.83989*
	Chdissag	Infdissag	Mandissag	Dissagint
Disagreement Equation				
Age	-0.01329**	-0.03202***	-0.01853***	-0.01947***
Household p.c. income	-0.00004	0.00002	-0.00006	-0.00001
Husband assembly plant	-0.14531	-0.31232**	-0.29523*	-0.21893
Years of educ.	0.04044**	-0.00878	0.02813*	0.02129
Chilac	-0.09330	-0.35437***	0.09365	-0.20393
Husbands sister-in-law	-0.21131	-0.18719	0.30630	0.02834
Husbands sister	-0.10856	-0.48626**	-0.26537	-0.23653
Constant	0.18918	1.96008***	0.75599**	0.16035
A the observe	0.00705	0.40004	0.40004	0.54070
Athrho	0.32725	-0.42264	0.16264	0.51270
Rho	0.31605	-0.39915	0.16122	0.47205
Likelihood-rat	0.6307	0.5821	0.8094	0.5586

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Biprobit results for wives' disagreement on moral arguments depending on whether a wife has worked in a salaried activity while being married and if this salaried activity is a professional one.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree all
	Home	Promiscuous	Providers	rules
Participation Equation				
Age	-0.01555*	-0.00446	0.00139	-0.00866
Wage	33.07110**	26.67697**	36.63454*	38.34115***
Wage Squared	-6.47704**	-5.13453**	-7.06098**	-7.42264***
Number children older 6	0.02584	0.00563	0.00237	0.04558
Number of Children less 6	-0.10935	-0.10046	-0.10377	-0.08151
Household p.c. income	0.00005	0.00002	0.00004	0.00003
Chilac	-0.34852*	-0.01190	-0.26493	-0.16202
Disagreement argument	1.98231***	1.73582***	1.80059***	2.05115***
Constant	-43.23751**	-36.51211**	-49.16633**	-50.56832***
Disagreement Equation				
Age	-0.00218	-0.01116*	-0.01777***	-0.00711
Household p.c. income	-0.00002	-0.00004	-0.00003	0.00000
Years of Educ.	0.04643***	0.01835	0.01986	0.02750***
Worked Married	0.70455***	0.59435***	0.52720***	0.65302***
Worked Married*Prof	-0.26914	-1.10979**	-0.77356	-0.98846**
Chilac	0.05397	-0.17009	0.18654	-0.02277
Constant	-0.61790**	0.78717**	0.41025	-0.68981**
Athrho	-9.62601	-10.86191	-9.13059	-12.50429
Rho	-1	-1	-1	-1
P(rho=0)	0.00000	0.00000	0.00000	0.00000

Biprobit results for wives' disagreement on moral arguments depending on whether a wife has worked in a salaried activity while being married and if this salaried activity is a professional one.

	Biprobit	Biprobit	Biprobit	Biprobit
	Women at	Women	Men	Disagree all
	Home	Promiscuous	Providers	rules
Participation Equation				
Age	-0.01792	-0.00060	-0.00413	-0.01530
Wage	25.84296**	30.07547**	35.63334***	38.34905*
Wage Squared	-5.04748**	-5.72849**	-6.89027***	-7.46794**
Number children older 6	0.02201	0.00522	-0.00220	0.01915
Number of Children less 6	-0.07384	-0.10034***	-0.07763***	-0.11904
Household p.c. income	0.00005	-0.00002	0.00006	0.00003
Chilac	-0.34767*	-0.05457	-0.32367**	-0.23709
Disagreement argument	2.13411***	1.84999***	1.90497***	2.24720***
Constant	-34.04477**	-41.24440**	-47.51663***	-49.99875*
Disagreement Equation				
Husband's Age	-0.00703	-0.01569***	-0.00852*	-0.00978*
Household p.c. income	-0.00002	0.00006	-0.00005	-0.00001
Years of Educ.	0.01921	0.00558	0.01961	0.01311
Wife Worked Married	0.77508***	0.66199***	0.55771***	0.77285***
Wife Worked Married*Prof	0.14405	-0.97673**	-0.70714	-0.40809
Chilac	0.08460	-0.05987	0.27401**	0.03922
Constant	-0.49576	0.59005**	-0.05111	-0.76137***
Athrho	-11.34661	-11.84082	-10.90294	-10.19633
Rho	-1	-1	-1	-1
P(rho=0)	0.00000	0.00000	0.00000	0.00000

### Tests comparing proportion of individuals believing in each moral argument

# Test wives' beliefs in women's place being home (chdissag) vs. women promiscuous (infidssag).

Two-sample test of proportion				fumber of obs			
Variable	Mean		z	P>   z	[95% Conf.	. Interval]	
	.474537	.024025				.5216253 .7842593	
diff		.0319242	-8.09	0.000	3310889	2059482	
<pre>Ho: proportion(chdissag) - proportion(infdissa) = diff = 0</pre>							
Ha: diff < 0 Ha: di $z = -8.087$ $z = P < z = 0.0000$ $P >  z  = 0.0000$				7	Ha: dif z = -8 P > z = 1	3.087	

# Test wives' beliefs in women's place being home (chdissag) vs. men breadwinners (manddssag).

Two-sample	e test of prop	portion	_		Number of obs	
Variable	Mean		z	P>   z	[95% Conf.	Interval]
chdissag	.474537 .5810185	.024025			.4274488 .5344922	
diff	1064815 under Ho:	.0337744	-3.13	0.002	1726781	0402848
Ho: proportion(chdissag) - proportion(manddiss) = diff = 0						
z	diff < 0 = -3.135 = 0.0009	Z	diff != 0 = -3.135 = 0.0017		Ha: dif $z = -3$ $P > z = 0$	.135

### Test husband's beliefs in women's place being home (chdissag) vs. women promiscuous (infdissag).

Two-sample	e test of prop	portion		_	Number of ob		
Variable	Mean		Z		[95% Con	f. Interval]	
chdissag   infdissa	.4166667 .6226852	.0237198				.4631566 .6683932	
diff		.033264	-6.06	0.000	2712147	1408224	
Ho: proportion(chdissag) - proportion(infdissa) = diff = 0							
z	diff < 0 = -6.060 = 0.0000	Z	diff != = -6.060 = 0.000	)	Ha: d. z = P > z =		

### Test wives' beliefs in women's place being home (chdissag) vs. men breadwinners (manddssag).

Two-sample	test of prop	portion	_		Number of obs =	
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
_ !	.4166667 .5532407				.3701767 .5063594	
diff		.0336864	-4.02	0.000	2025981	07055
Ho: proportion(chdissag) - proportion(manddiss) = diff = 0						
Z	diff < 0 = -4.016 = 0.0000	Z	diff != = -4.016 = 0.000		Ha: diff $z = -4$ . $P > z = 1$ .	.016

### Test wives' beliefs in women's place being home (chdissag) vs. husband's beliefs in women's place being the home (chdissagh).

## Test wives' beliefs in women being promiscuous (infdissag) vs. husband's beliefs in women being promsicous (infdissagh).

Two-sample test of proportion					umber of obs	
Variable	Mean		z		[95% Conf.	Interval]
infdissa infdissa	.7430556	.0210227			.7018518 .5769772	.7842593 .6683932
diff	.1203704 under Ho:	.0313977	3.80	0.000	.058832	.1819087
Ho: proportion(infdissa) - proportion(infdissa) = diff = 0						
Z	diff < 0 = 3.802 = 0.9999	Z	diff != = 3.802 = 0.000	}	Ha: dif $z = 3$ $P > z = 0$	.802

## Test wives' beliefs in men being breadwinners (chdissag) vs. husband's beliefs in men being breadwinners (chdissagh).

Two-sample test of proportion				Number of obs			
Variable	Mean	Std. Err.	z P>   z	[95% Conf.	Interval]		
manddiss   manddiss	.5810185 .5532407			.5344922 .5063594			
diff		.0336994	0.82 0.410	0382719	.0938274		
Ho: proportion(manddiss) - proportion(manddiss) = diff = 0							
Ha:	diff < 0	Ha:	diff != 0	Ha: dif:	f > 0		
	= 0.824		= 0.824	z = 0			
P < z	= 0.7950	P >  z	= 0.4100	P > z = 0	.2050		

# Test wives' beliefs in women's place being home, depending on whether she works in an assembly plant or not.

Two-sample	e test of prop	portion			Number of obs Number of obs		
	Mean				[95% Conf.	Interval]	
Not Work	.4350133 .7454545	.0255329				.4850568	
diff	3104413 under Ho:	.0640466	-4.31	0.000	4359703	1849123	
	<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>						
z	diff < 0 = $-4.307$ = $0.0000$	Z	diff != = -4.307 = 0.000	7	Ha: dif $z = -4$ P > $z = 1$	1.307	

### Test wives' beliefs in women being promiscuous, depending on whether she works in an assembly plant or not.

Two-sample	test of prop	portion			Number of obs Number of obs		
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]	
Not works	.7214854 .8909091					.7667351 .9732997	
diff		.0479594	-2.69	0.007	2634223	075425	
Ho: proportion(0) - proportion(1) = diff = 0							
Z	diff < 0 = -2.686 = 0.0036	z	diff != = -2.686 = 0.007	5	Ha: diff $z = -2$ P > $z = 0$	2.686	

# Test wives' beliefs in men being the breadwinners, depending on whether she works in an assembly plant or not.

Two-sample	e test of prop	portion			Number of obs Number of obs	
	Mean				[95% Conf.	Interval]
	.5517241	.0256132				.601925 .8909695
diff		.0612981 .0712168	-3.23	0.001	3502362	1099519
<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>						
z	diff < 0 = -3.231 = 0.0006		diff != = -3.231 = 0.001		Ha: dif $z = -3$ $P > z = 0$	.231

# Test husbands' beliefs in women's place being home, depending on whether she works in an assembly plant or not.

Two-sample	e test of prop	portion			Number of obs Number of obs	
	Mean		z	P>   z	[95% Conf.	Interval]
Not Works	.3687003 .7454545	.0248476				.4174006
diff	3767543 under Ho:	.0637765	-5.29	0.000	5017539	2517547
Ho: proportion(0) - proportion(1) = diff = 0						
z	diff < 0 = -5.294 = 0.0000	Z	diff != = -5.294 = 0.000	1	Ha: dif $z = -5$ P > $z = 1$	.294

### Test husbands' beliefs in women being promiscuous, depending on whether his wife works in an assembly plant or not.

Two-sample	e test of prop	portion			Number of obs Number of obs	
Variable	Mean	Std. Err.	z	P> z	[95% Conf.	Interval]
Not Works	.5915119 .8363636				.5418928 .7385939	.641131 .9341333
diff		.0559399	-3.50	0.000	3544919	1352115
<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>						
z	$\begin{array}{l} \text{diff} < 0 \\ = -3.500 \\ = 0.0002 \end{array}$	Z	diff != = -3.500 = 0.000	)	Ha: diff $z = -3$ P > $z = 0$	3.500

# Test husbands' beliefs in men being breadwinners, depending on whether his wife works in an assembly plant or not.

Two-sample	e test of prop	portion			Number of obs	
	Mean		z		[95% Conf.	Interval]
Not Works	.5198939 .7818182	.0257309			.4694622 .6726669	
diff	2619243	.0613474 .0717602	-3.65	0.000	382163	1416855
Ho: proportion(0) - proportion(1) = diff = 0						
z	diff < 0 = -3.650 = 0.0001	Z	diff != = -3.650 = 0.000	)	Ha: dif $z = -3$ $P > z = 0$	.650

### Test wives' beliefs in women's place being home, by town

Two-sample test of proportion					Number of obs Number of obs	
	Mean			1 1	[95% Conf.	. Interval]
miuahuat	.4976744 .4516129	.0340993			.4308409 .3853996	.5645079 .5178262
diff		.0480005	0.96	0.338	0480178	.1401408
Ho: proportion(miuahuat) - proportion(chilac) = diff = 0						
z	diff < 0 = 0.959 = 0.8311	z	diff != = 0.959 = 0.337	)	Ha: dif z = ( P > z = (	).959

### Test wives' beliefs in women being promiscuous, by town

Two-sample	Two-sample test of proportion				Number of obs	
Variable	Mean	Std. Err.	z	P>   z	[95% Conf	. Interval]
	.8046512 .6820276				.7516558 .6200673	.8576466 .743988
diff	.1226235 under Ho:	.0415991 .0420458	2.92 	0.004	.0410907	.2041563
<pre>Ho: proportion(miuahuat) - proportion(chilac) = diff = 0</pre>						
Z	diff < 0 = 2.916 = 0.9982	Z	diff != = 2.916 = 0.003	5	Ha: di: z = : P > z = :	2.916

### Test wives' beliefs in men being the breadwinners, by town

Two-sample test of proportion				Number of obs Number of obs		
Variable	Mean	Std. Err.	Z	P>   z	[95% Conf.	Interval]
miuahuat   chilac	.5813953 .5806452				.5154527 .5149907	
diff	.0007502 under Ho:	.0474771	0.02	0.987	0923033	.0938037
<pre>Ho: proportion(miuahuat) - proportion(chilac) = diff = 0</pre>						
	diff < 0 = 0.016		diff != = 0.016	-	Ha: dif $z = 0$	
	= 0.016		= 0.016		P > z = 0	

### Test husbands' beliefs in women's place being home, by town

215 217						
terval]						
5035144 4613927						
1338028						
Ho: proportion(miuahuat) - proportion(chilac) = diff = 0						
0						
43						

#### Test husbands' beliefs in women being promiscuous, by town

Two-sample	o-sample test of proportion				Number of obs Number of obs	
Variable		Std. Err.			[95% Conf	. Interval]
miuahuat   chilac	.6697674	.032074			.6069036 .5102851	.7326313
diff	.0937306 under Ho:	.046413	2.01	0.044	.0027627	.1846985
<pre>Ho: proportion(miuahuat) - proportion(chilac) = diff = 0</pre>						
Z	diff < 0 = 2.010 = 0.9778	Z	diff != = 2.010 = 0.044	)	Ha: different $z = 2$ $z = 2$	2.010

#### Test husbands' beliefs in men being the breadwinners, by town

Two-sample test of proportion				Number of obs Number of obs		
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
	.5395349 .5668203					.6061598
diff	0272854 under Ho:	.0478228	-0.57	0.568	1210163	.0664455
Ho: proportion(miuahuat) - proportion(chilac) = diff = 0  Ha: diff < 0						

#### **Simple Biprobit Regression Coefficient Tests**

Test women's beliefs on women's place being home (chdissag) equal to beliefs of women being promiscuous (infdissag) in participation equation (currasemb)

```
[A_currassemb]chdissag - [B_currassemb]infdissag = 0
chi2( 1) = 1.32
Prob > chi2 = 0.2511
```

Test women's beliefs on women's place being home (chdissag) equal to men being breadwinners (manddissag) in participation equation (currasemb)

```
[A_currassemb]chdissag - [C_currassemb]manddissag = 0
chi2( 1) = 1.67
Prob > chi2 = 0.1960
```

Test women's beliefs on women being promiscuous (infdissag) equal to men being breadwinners (manddissag) in participation equation (currasemb)

```
[B_currassemb]infdissag - [C_currassemb]manddissag = 0
chi2( 1) = 0.23
Prob > chi2 = 0.6336
```

Test women's beliefs on women being promiscuous (infdissag) equal to men beliefs on women being promiscuous (chdissagh) in participation equation (currasemb)

```
[B\_currassemb] infdissag - [F\_currassemb] infdissagh = 0 \\ chi2( 1) = 0.41 \\ Prob > chi2 = 0.5230
```

Test women's beliefs on all moral arguments jointly (dissagint) equal to men beliefs on all moral arguments jointly (dissagint) in participation equation (currasemb)

```
[H_currassemb]dissagint - [I_currassemb]dissaginth = 0
chi2( 1) = 0.01
Prob > chi2 = 0.9354
```

Biprobit Regression Coefficient Tests Comparing Effect of Having a Husband working in an Assembly Plant v.s. Farming.

Test husband in assembly plant coefficient equal to farmer husband coefficient in wives' disagreement on women being promiscuous equation (chdissag)

```
- [chdissag]husbass + [chdissag]farmer = 0
chi2( 1) = 0.07
Prob > chi2 = 0.7864
```

Test husband in assembly plant coefficient equal to farmer husband coefficient in husbands' disagreement on women being promiscuous equation (chdissag)

```
- [chdissagh]husbass + [chdissagh]farmer = 0
chi2( 1) = 0.90
Prob > chi2 = 0.3440
```

Tests comparing proportion of wives' who work in assembly plant employment depending on whether they or their husbands have lived in a city or were born in a city.

Test proportion of women working in assembly plants depending on whether they have a husband who lived in a city compared to those who have a husband who hasn't lived in a city or was born in one.

Test proportion of wives working in assembly plants depending on whether they were born in a city compared to those who were born in a city or lived in one.

Test proportion of wives working in assembly plants in Santiago Miahuatlán depending on whether they were born in a city compared to those who were born in a city or lived in one.

Two-sample	e test of prop	portion			Number of obs	
Variable	Mean	Std. Err.	z	P> z	[95% Conf.	Interval]
	.172973 .2666667					.2274748
diff		.0853919 .076592	-1.22	0.221	2610588	.0736714
<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>						
Z	diff < 0 = -1.223 = 0.1106	z	diff != = -1.223 = 0.221	3	Ha: diff $z = -1$ P > $z = 0$	. 223

Test proportion of wives working in assembly plants in San Gabriel Chilac depending on whether they were born in a city compared to those who were born in a city or lived in one.

Test proportion of women working in assembly plants depending on whether they have a husband who was born in a city compared to those who have a husband who hasn't lived in a city or was born in one.

```
Two-sample test of proportion
                                0: Number of obs =
                                1: Number of obs =
______
Variable | Mean Std. Err. z P > |z| [95% Conf. Interval]
.0899987 .1548993
.0572491 .2927509
Not works | .122449 .0165566
Works | .175 .0600781
_____
 diff | -.052551 .0623177
| under Ho: .055327 -0.95 0.342
                                   -.1746915 .0695894
______
     Ho: proportion(0) - proportion(1) = diff = 0
    Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 z = -0.950 z = -0.950 z = -0.950
                                       z = -0.950
  z = -0.950 z = -0.950 z = -0.950

P < z = 0.1711 P > |z| = 0.3422 P > z = 0.8289
```

Test proportion of women working in assembly plants in Santiago Miahuatlán depending on whether they have a husband who was born in a city compared to those who have a husband who hasn't lived in a city or was born in one.

```
193
Two-sample test of proportion
                               0: Number of obs =
                              1: Number of obs =
Variable | Mean Std. Err. z P>|z|
                                  [95% Conf. Interval]
Not Works .1865285 .0280392
                               .1315727 .2414843
                                   .0206496
Works .1818182 .0822304
        _____
  diff | .0047103 .0868794 | under Ho: .0875669 0.05 0.957
                                  -.1655702 .1749908
         Ho: proportion(0) - proportion(1) = diff = 0
               Ha: diff < 0

z = 0.054

P < z = 0.5214
```

Test proportion of women working in assembly plants in San Gabriel Chilac depending on whether they have a husband who was born in a city compared to those who have a husband who hasn't lived in a city or was born in one.

Tests comparing proportion of wives' who work in assembly plant employment depending on whether they have sisters or sisters in law working in assembly plants.

### Test proportion of women working in assembly plant depending on whether they have a sister working in an assembly plant or not

Two-sample	e test of prop	portion			Number of obs	
	Mean				[95% Conf.	Interval]
	.1107955 .2	.0167298 .0447214			.0780057 .1123477	
diff					1827892	.0043801
<pre>Ho: proportion(0) - proportion(1) = diff = 0</pre>						
z	diff < 0 = -2.161 = 0.0154	z	diff != = -2.161 = 0.030	-	Ha: dif $z = -2$ P > $z = 0$	.161

# Test proportion of women working in assembly plant depending on whether they have a married sister working in an assembly plant or not

Two-sample	e test of pro	portion			Number of obs Number of obs	
	Mean				[95% Conf.	Interval]
:	.122449	.0165566			.0899987 .0572491	
diff		.0623177			1746915	.0695894
	Ho: pro	portion(0) -	proporti	ion(1) =	= diff = 0	
Z	diff < 0 = -0.950 = 0.1711	Z	diff != = -0.950 = 0.342	)	Ha: dif $z = -0$ $P > z = 0$	.950

# Test proportion of women working in assembly plant depending on whether they have a sister in law working in an assembly plant or not

Two-sample	test of prop	portion			Number of obs	
	Mean				[95% Conf.	Interval]
Not Works	.1163435 .1830986	.0168756				.1494191 .2730579
diff		.0489025	-1.54	0.123	1626022	.029092
	Ho: prop	portion(0) -	proporti	on(1) =	= diff = 0	
Z	diff < 0 = -1.543 = 0.0615	z	diff != = -1.543 = 0.122		Ha: diff $z = -1$ P > $z = 0$	.543

# Test proportion of women working in assembly plant depending on whether they have a married sister in law working in an assembly plant or not

Two-sample	test of prop	portion			Number of obs :	
	Mean		z		[95% Conf.	Interval]
Not works	.1145038	.0160623			.0830223	
diff	1419064 under Ho:	.0717413	-2.54	0.011	2825169	001296
	Ho: prop	portion(0) -	proporti	on(1) =	= diff = 0	
z	diff < 0 = -2.536 = 0.0056		diff != = -2.536 = 0.011	5	Ha: diff z = -2 P > z = 0	.536

### Appendix 6: Chapter 8

### **Regression Results**

#### Variable Names

# ch less 6	Number of children less than 6
# ch old 6	Number of children older than 6
Pc. Hh inc	Per capita household income
Age	Age
Chilac	Dummy variable representing whether individual is from Chilac
Wage	Inputed wage
Wage sq	Inputed wage squared
S. sanc	Dummy variable representing whether wife believes will be recipient
	of social sanctions
S. san Ch	Interaction variable whether wife believs recipient of social sanction
	and is from Chilac Chilac
Constant	Constant term

Probit regression results including sanctions by wife's family using the moral argument of wives' place being the home.

	Gossip		Criticisn	Criticism of Wife		of Husband
	With interaction dummy	Without dummy	With interaction dummy	Without dummy	With interaction dummy	Without dummy
# ch less 6	-0.25517*	-0.24729*	-0.22876	-0.21342	-0.26031*	-0.25641*
# ch old 6	-0.02849	-0.02712	-0.00071	0.006496	-0.02652	-0.01737
Pc. Hh inc	3.03E-05	2.51E-05	1.74E-05	1.42E-05	3.11E-05	2.94E-05
Age	-0.03378**	-0.03362**	-0.03615**	-0.036**	-0.03638**	-0.0366**
Chilac	-0.3176	-0.46639	-0.35928	-0.47398*	-0.38621	-0.51892*
Wage	50.35961**	50.89365**	49.31024*	49.42217*	49.31011**	49.02389*
Wage sq	-9.83327**	-9.93168**	-9.60774**	-9.61783**	-9.63408**	-9.5788**
S. sanc	-0.50831**	-0.63034***	-0.67798***	-0.79072***	-0.50525**	-0.62872***
S. san Ch	-0.35824		-0.33308		-0.37659	
Constant	-63.6564*	-64.3346*	-62.3394*	-62.5359*	-62.2013*	-61.7849*

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by husband's family using the moral argument of wives' place being the home.

	Gossip		Criticism of Wife		Criticism of Husband	
	With Without		With	Without	With	Without
	interaction dummy	dummy	interaction dummy	dummy	interaction dummy	dummy
# ch less 6	-0.23858*	-0.23888*	-0.23607	-0.23587	-0.21039	-0.21042
# ch old 6	-0.04796	-0.04724	-0.02927	-0.02476	-0.01997	-0.01869
Pc. hh Inc	0.000027	2.58E-05	1.76E-05	1.68E-05	2.06E-05	2E-05
Age	-0.02938*	-0.02939*	-0.0328**	-0.03295**	-0.02713*	-0.02707*
Chilac	-0.39082	-0.431	-0.41116	-0.48181	-0.3693	-0.38971
Wage	53.26415**	53.57643**	53.60087**	54.00019**	57.39634**	57.53329**
Wage sq	-10.3391**	-10.3981**	-10.4154**	-10.4901**	-11.1006**	-11.1245**
S. sanc	-0.4186*	-0.45315**	-0.52902**	-0.60211***	-0.47439**	-0.4964***
S. san Ch	-0.09813		-0.22262		-0.06335	
Constant	-67.9702**	-68.3678**	-68.1871**	-68.6909**	-73.6789**	-73.8675**

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by neighbours using the moral argument of wives' place being the home

	Gos	ssip	Criticisn	n of Wife	Criticism o	of Husband
	With	Without	With	Without	With	Without
	interaction	dummy	interaction	dummy	interaction	dummy
	dummy		dummy		dummy	
# ch less 6	-0.30601**	-0.3050**	-0.30493**	-0.29939**	-0.29653*	-0.29641*
# ch old 6	-0.01384	-0.01315	0.00890	0.01697	0.01586	0.01514
PC. hh Inc	0.00003	-0.00003	0.00002	0.00002	0.00004	0.00004
Age	-0.04141**	-0.04191**	-0.04583**	-0.04586**	-0.04318**	-0.04317*
Chilac	-0.52458	-0.59336*	-0.59359*	-0.69748**	-0.63405*	62215*
Wage	42.90753	42.01973	38.39492	39.14839	38.87277	38.71933
Wage sq	-8.44871*	-8.28361	-7.60603	-7.74047	-7.70007	-7.67186
S. sanc	-0.53620**	-0.58502***	-0.55282**	-0.68919***	-0.55224**	53508*
S. san Ch	-0.14579		-0.53228		0.04658	
Constant	-53.35043	-52.12318	-47.21156	-48.22862	-47.96744	-47.76368

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by friends using the moral argument of wives' place being the home

	Gossip		Criticisn	Criticism of Wife		Criticism of Husband	
	With	Without	With	Without	With	Without	
	interaction	dummy	interaction	dummy	interaction	dummy	
	dummy		dummy		dummy		
# ch less 6	-0.26722*	-0.25612*	-0.25481*	-0.25590*	-0.26809*	-0.26749*	
# ch old 6	-0.00297	0.00277	0.01660	0.02681	0.01457	0.01432	
Pc. hh Inc	0.00004	0.00004	0.00002	0.00002	0.00002	0.00002	
Age	-0.03047*	-0.03180*	-0.03399**	-0.03573**	-0.03289**	-0.03283**	
Chilac	-0.21473	-0.41377	-0.29744	-0.46349	-0.44178	-0.43095	
Wage	55.39666**	56.11219**	56.00322**	56.02832**	52.84844**	52.79240**	
Wage sq	-10.7082**	-10.8702**	-10.8543**	-10.8803**	-10.2343**	-10.2240**	
S. sanc	-0.36615	-0.55656***	-0.54697**	-0.72994***	-0.56162**	-0.54771***	
S. san Ch	-0.60573		-0.66747		0.03938		
Constant	-71.0237**	-71.6921**	-71.4564**	-71.2407**	-67.4838**	-67.4137**	

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by wives' family using the moral argument of wives being promiscuous

	Gossip		Criticisn	n of Wife	Criticism of Husband	
	With	Without	With	Without	With	Without
	interaction	dummy	interaction	dummy	interaction	dummy
	dummy		dummy		dummy	
# ch less 6	-0.26406*	-0.25463*	-0.27307*	-0.25258*	-0.25495*	-0.24881*
# ch old 6	-0.03377	-0.02923	-0.03084	-0.02357	-0.02552	-0.02064
PC. hh Inc	2.79E-05	2.59E-05	2.88E-05	2.67E-05	2.67E-05	2.58E-05
Age	-0.03279**	-0.03328**	-0.03328**	-0.03363**	-0.03436**	-0.03429**
Chilac	-0.35814	-0.49179*	-0.32393	-0.46518*	-0.42627	-0.47808*
Wage	54.00334**	53.0322**	54.3822**	51.9372**	55.56469**	54.7833**
Wage sq	-10.4631**	-10.2986**	-10.5314**	-10.0824**	-10.777**	-10.6322**
S. sanc	-0.17847	-0.34829*	-0.1327	-0.3605	-0.53946*	-0.63555***
S. san Ch	-0.7015		-0.78843		-0.35445	
Constant	-69.0724**	-67.608**	-69.5976**	-66.2419**	-70.9062**	-69.8472**

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by husband's family using the moral argument of wives being promiscuous.

	Gossip		Criticism of Wife		Criticism of Husband	
	With	Without	With	Without	With	Without
	interaction	dummy	interaction	dummy	interaction	dummy
	dummy		dummy		dummy	
# ch less 6	-0.22187	-0.21944	-0.23642	-0.23366	-0.20392	-0.20253
# ch old 6	-0.03166	-0.02936	-0.0233	-0.0221	-0.01961	-0.01935
PC. hh Inc	2.36E-05	2.22E-05	2.38E-05	2.11E-05	2.46E-05	2.14E-05
Age	-0.02846*	-0.02952*	-0.02956*	-0.02987*	-0.02687*	-0.02726*
Chilac	-0.29031	-0.43658	-0.31146	-0.42189	-0.29369	-0.39629
Wage	57.6876**	57.71053**	60.27082**	58.25569**	60.46975**	59.62786**
Wage sq	-11.1315**	-11.1465**	-11.6253**	-11.2527**	-11.6691**	-11.5084**
S. sanc	-0.14989	-0.32983	-0.32316	-0.48424**	-0.31678	-0.46881**
S. san Ch	-0.75008		-0.61094		-0.5984	
Constant	-74.2923**	-74.1624**	-77.5984**	-74.8369**	-77.9434**	-76.7909**

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by neighbours using the moral argument of wives being promiscuous

	Gos	ssip	Criticisn	n of Wife	Criticism of Husband	
	With	Without	With	Without	With	Without
	interaction	dummy	interaction	dummy	interaction	dummy
	dummy		dummy		dummy	
# ch less 6	-0.28260*	-0.29433**	-0.31699**	-0.31933**	-0.30399**	-0.30487*
# ch old 6	0.01147	0.01804	0.03100	0.03452	0.03365	0.03511
PC. hh Inc	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Age	-0.03966**	-0.04149**	-0.04229**	-0.04399**	-0.04250**	-0.04409*
Chilac	-0.47861	-0.64816**	-0.61259*	-0.71704**	-0.61612*	-0.72721*
Wage	41.36917	39.88060	38.91473	37.64819	34.47933	32.77385
Wage sq	-8.14808	-7.88702	-7.68716	-7.45867	-6.84171	-6.52108
S. sanc	-0.18611	-0.37761*	-0.37893	-0.54543**	-0.41557	-0.59047**
S. san Ch	-0.70139					
Constant	-51.65538	-49.43647	-48.25203	-46.41742	-42.44142	-40.08751

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by friends using the moral argument of wives being promiscuous.

	Gossip		Criticism	Criticism of Wife		of Husband
	With	Without	With	Without	With	Without
	interaction dummy	dummy	interaction dummy	dummy	interaction dummy	dummy
# ch less 6	-0.25035*	-0.24325	-0.24788*	-0.24487*	-0.26442*	-0.26010*
# ch old 6	0.01511	0.01707	0.00154	0.00785	0.02730	0.02949
PC. hh Inc	0.00002	0.00002	0.00002	0.00002	0.00001	0.00001
Age	-0.02692	-0.02826*	-0.03016*	-0.03093*	-0.03153*	-0.03185*
Chilac	-0.28812	-0.40937	-0.34740	-0.41611	-0.44505	-0.49106*
Wage	57.07771**	55.87258**	53.81786**	52.99603**	54.50355**	53.74507**
Wage sq	-10.9759**	-10.7724**	-10.3675**	-10.2279**	-10.5313**	-10.3895**
S. sanc	-0.44792	-0.65597**	-0.33774	-0.45735*	-0.8680***	-0.98346***
S. san Ch	-		-0.40215		-	
Constant	-73.7742**	-71.9436**	-69.3145**	-68.0853**	-69.8618**	-68.8286**

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by wife's family using the moral argument of husbands not being good providers.

	Gossip		Criticism	of Wife	Criticism of Husband	
	With Without		With Without		With	Without
	interaction	dummy	interaction	dummy	interaction	dummy
	dummy		dummy		dummy	_
# ch less 6	-0.25501*	-0.25315*	-0.25447*	-0.25242*	-0.26266*	-0.26266*
# ch old 6	-0.02891	-0.03197	-0.02147	-0.01921	-0.01778	-0.01577
PC. hh Inc	2.8E-05	2.64E-05	2.28E-05	2.22E-05	2.27E-05	2.23E-05
Age	-0.03102**	-0.03258**	-0.03116**	-0.03174**	-0.03271**	-0.03348**
Chilac	-0.34055	-0.4643*	-0.41479	-0.45833*	-0.45714	-0.49806*
Wage	53.92664**	51.26926**	52.02999**	50.82901**	52.47508**	51.614**
Wage sq	-10.4256**	-9.93329**	-10.0546**	-9.83072**	-10.1543**	-9.99625**
S. sanc	-0.00181	-0.11804	-0.24403	-0.2958	-0.40613	-0.46014**
S. san Ch	-0.45452		-0.18438		-0.24346	
Constant	-69.2546**	-65.5814**	-66.7682**	-65.1312**	-67.159**	-65.9524**

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by husband's family using the moral argument of husbands not being good providers.

	Gossip		Criticism	of Wife	Criticism of Husband		
	With	Without	With	Without	With	Without	
	interaction	dummy	interaction	dummy	interaction	dummy	
	dummy		dummy		dummy		
# ch less 6	-0.22056	-0.21867	-0.21347	-0.21366	-0.20391	-0.20371	
# ch old 6	-0.02016	-0.02005	-0.01866	-0.02053	-0.02149	-0.02151	
PC. hh Inc	2.54E-05	0.000026	2.49E-05	2.47E-05	2.33E-05	2.32E-05	
Age	-0.03002	-0.03043*	-0.02768	-0.02918**	-0.02733	-0.0274*	
Chilac	-0.44756	-0.47682*	-0.38696	-0.46819	-0.4193	-0.42375	
Wage	56.68051**	56.54175**	56.65913**	55.95172**	58.28978**	58.22084**	
Wage sq	-10.9721**	-10.953**	-10.9523**	-10.8367**	-11.2613**	-11.2489**	
S. sanc	-0.33923	-0.37891	-0.3518	-0.49603*	-0.44214	-0.44956*	
S. san Ch	-0.19062				-0.03373		
Constant	-72.6793**	-72.4257**	-72.8632**	-71.7287**	-75.0179**	-74.9188**	

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by neighbours using the moral argument of husbands not being good providers.

	Gossip		Criticisn	n of Wife	Criticism of Husband	
	With	Without	With	Without	With	Without
	interaction	dummy	interaction	dummy	interaction	dummy
	dummy		dummy		dummy	
# ch less 6	-0.25482*	-0.25432*	-0.27559*	-0.27351*	-0.24930*	-0.25169*
# ch old 6	-0.01028	-0.01121	-0.00731	-0.00964	0.00567	0.00719
PC. hh Inc	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Age	-0.03130*	-0.03073*	-0.03373**	-0.03191**	-0.02864*	-0.02941*
Chilac	-0.44273	-0.41607	-0.52976*	-0.45892	-0.41737	-0.44076
Wage	47.42347*	48.09386*	42.62796*	44.33600*	47.84131*	47.24444*
Wage sq	-9.15885*	-9.28209*	-8.24957*	-8.56332*	-9.23247*	-9.12332*
S. sanc	-0.60009**	-0.56548**	-0.60274*	-0.49067**	-0.43566	-0.46918*
S. san Ch	0.10312		0.31929		-0.11671	
Constant	-60.75666*	-61.69151*	-54.35079	-56.74787*	-61.49443*	-60.6491*

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

Probit regression results including sanctions by friends using the moral argument of husbands not being good providers

	Gossip		Criticisn	n of Wife	Criticism of Husband		
	With	Without	With	Without	With	Without	
	interaction	dummy	interaction	dummy	interaction	dummy	
	dummy		dummy		dummy		
# ch less 6	-0.25025	-0.24854	-0.23760	-0.23521	-0.24632	-0.24916*	
# ch old 6	0.03113	0.03605	0.02315	0.02881	0.02386	0.03023	
PC. hh Inc	0.00002	0.00002	0.00002	0.00002	0.00001	0.00001	
Age	-0.03150*	-0.03294**	-0.03214*	-0.03381**	-0.03124*	03361**	
Chilac	-0.44411	-0.51236*	-0.44699	-0.51599*	-0.41769	-0.51194*	
Wage	53.41171**	52.78544**	51.29289*	50.70244*	49.89919*	48.61773*	
Wage sq	-10.3184**	-10.2150**	-9.9240*	-9.9240* -9.8296*		-9.4085	
S. sanc	-0.75940**	-0.88074***	-0.62548**	-0.75558***	-0.56929**	-0.6624**	
S. san Ch							
Constant	-68.47055*	-67.47929*	-65.65282*	-64.68665*	-64.02575*	-62.1144*	

<sup>\*</sup> p<0.10; \*\* p<0.05; \*\*\* p<0.01

#### Tests comparing social sanctions from different reference groups

Test comparing gossip regarding women's place being home, by wives family (dgfamch) vs. husbands' family (dgfhusch).

Two-sample	Two-sample test of proportion		_		Number of o			
Variable	Mean	Std. Err.	Z	P> z	[95% Co	onf. Interval]		
dgfamch dgfhusch		.0243264			.541563 .50137			
diff	.0389908 under Ho:	.0348363	1.12	0.263	029287	.1072688		
ŀ	Ho: proportion(dgfamch) - proportion(dgfhusch) = diff = 0							
Z	diff < 0 = 1.119 = 0.8683	Z	diff != = 1.119 = 0.263	9	Ha: z = P > z =	/		

Test comparing gossip regarding women's place being home, by wives family (dgfamch) vs. neighbours (dgneigch).

```
dgfamch: Number of obs = 409
dgneigch: Number of obs = 366
Two-sample test of proportion
______
Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]
dgfamch | .5892421 .0243264
dgneigch | .5300546 .0260882
                                       .5415631 .636921
                                        .4789228
                                                 .5811865
  diff | .0591874 .0356703
| under Ho: .0357052 1.66 0.097
                                        -.010725 .1290998
_____
     Ho: proportion(dgfamch) - proportion(dgneigch) = diff = 0
                                       Ha: diff > 0
                   Ha: diff != 0
     Ha: diff < 0
                                          z = 1.658
     z = 1.658
                       z = 1.658
   P < z = 0.9513 P > |z| = 0.0974
                                       P > z = 0.0487
```

Test comparing gossip regarding women's place being home, by wives family (dgfamch) vs. friends (dgfriench).

Two-sample test of proportion			_	Number of obs Number of obs				
Variable	Mean		z P> z	[95% Conf.	Interval]			
	.5892421	.0243264		.5415631 .391956	.636921 .4927625			
diff	.1468828   under Ho:		4.11 0.000	.0775015	.2162641			
	Ho: proportion(dgfamch) - proportion(dgfrienc) = diff = 0							
Z	diff < 0 = 4.106 = 1.0000	z	diff != 0 = 4.106 = 0.0000	Ha: dif z = 4 P > z = 0	1.106			

### Test comparing gossip regarding women's place being home, by husbands family (dgfhusch) vs. neighbours (dgneigch).

Two-sample test of proportion			_		Number of obs Number of obs	
Variable	Mean	Std. Err.	Z	P> z	[95% Conf.	Interval]
dgfhusch   dgneigch	.5502513 .5300546	.0249358			.5013779 .4789228	.5991246 .5811865
diff     	.0201966 under Ho:	.0360886 .0360911	0.56	0.576	0505358	.090929

Ho: proportion(dgfhusch) - proportion(dgneigch) = diff = 0

### Test comparing gossip regarding women's place being home, by husbands family (dgfhusch) vs. friends (dgfriench).

Two-sample	e test of prop	portion	_	nusch: Num rienc: Num			398 373
Variable	Mean	Std. Err.	z	P> z	-	Conf.	Interval]
dgfhusch dgfrienc	. 5502513   .4423592	.0249358 .0257164			.5013		.5991246 .4927625
diff	.107892   under Ho:	.0358208	2.99	0.003	.0376	5845	.1780995

Ho: proportion(dgfhusch) - proportion(dgfrienc) = diff = 0

### Test comparing gossip regarding women's place being home, by neighbours (dgneigch) vs. friends (dgfriench).

Two-sample	e test of prop	portion	_	_	Number Number		
Variable	Mean	Std. Err.	Z	P>   z	=	% Conf	. Interval]
dgneigch dgfrienc	.5300546 .4423592	.0260882			.47	89228 91956	.5811865 .4927625
diff	.0876954 under Ho:	.0366323	2.38	0.017	.01	58974	.1594934

Ho: proportion(dgneigch) - proportion(dgfrienc) = diff = 0

Test comparing criticism to women on women's place being home, by wives family (dcfamch) vs. husbands family (dgfhusch).

Two-sample test of proportion dcfamch: Number of obs = dcfhusch: Number of obs = 396 Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] ------dcfamch | .5686275 .0245194 dcfhusch | .4949495 .0251247 .5205703 .6166846 .4457061 .5441929 dcfhusch diff | .073678 .0351063 .0048709 .142485 under Ho: .0351974 2.09 0.036 Ho: proportion(dcfamch) - proportion(dcfhusch) = diff = 0 Ha: diff != 0 

Ha: diff < 0 z = 2.093P < z = 0.9818

Test comparing criticism to women on women's place being home, by wives family (dcfamch) vs. neighbours (dcneigch).

Two-sample test of proportion dcfamch: Number of obs = 366 dcneigch: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] .3205703 .6166846 -----+----dcfamch | .5686275 .0245194 dcneigch | .4180328 .0257818 .5205703 dcneigch | diff | .1505947 .0355796 .08086 .2203293 under Ho: .0359968 4.18 0.000

Ho: proportion(dcfamch) - proportion(dcneigch) = diff = 0

z = 4.184 z = 4.184 P > |z| = 0.0000 Ha: diff > 0 Ha: diff != 0 Ha: diff < 0 z = 4.184 P < z = 1.0000

Test comparing criticism to women on women's place being home, by wives' family (dcfamch) vs. friends (dcfriench)

Two-sample test of proportion dcfamch: Number of obs = 408 dcfrienc: Number of obs = \_\_\_\_\_\_ Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] dcfamch | .5686275 .0245194 dcfrienc | .4128686 .0254929 .5205703 .6166846 .3629035 .4628338 dcfrienc | .4628338 diff | .1557588 .0353707 .0864334 .2250842 | under Ho: .0358164 4.35 0.000

Ho: proportion(dcfamch) - proportion(dcfrienc) = diff = 0

Ha: diff != 0 Ha: diff < 0  Test comparing criticism to women on women's place being home, by husbands' family (dcfamch) vs. neighbours (dcniegch).

Two-sample test of proportion					Number of obs Number of obs			
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]		
	.4949495 .4180328				.4457061 .3675013			
diff		.0359993 .0361262	2.13	0.033	.0063593	.1474741		
<pre>Ho: proportion(dcfhusch) - proportion(dcneigch) = diff = 0</pre>								
z	diff < 0 = 2.129 = 0.9834		diff != = 2.129 = 0.033	)	Ha: diff $z = 2$ P > $z = 0$	.129		

Test comparing criticism to women on women's place being home, by husbands family (dcfhusch) vs. friends (dcfrienc).

Two-sample test of proportion					Number of obs		
Variable	Mean		z		[95% Conf	. Interval]	
	.4949495 .4128686	.0251247			.4457061	.5441929 .4628338	
diff		.035793	2.28	0.022	.0119279	.1522338	
Ho: proportion(dcfhusch) - proportion(dcfrienc) = diff = 0							
Z	diff < 0 = 2.284 = 0.9888	z	diff != = 2.284 = 0.022	ŀ	Ha: di $z = P > z =$	2.284	

Test comparing criticism to women on women's place being home, by neighbours (dcneigch) vs. friends (dcfriench).

Two-sample	Two-sample test of proportion			_	Number of obs Number of obs	
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
dcneigch dcfrienc	.4180328 .4128686	.0257818 .0254929			.3675013 .3629035	.4685643
diff	.0051642 under Ho:	.0362573 .0362572	0.14	0.887	0658988	.0762271

Ho: proportion(dcneigch) - proportion(dcfrienc) = diff = 0

Test comparing criticism to husbands on women's place being home, by wives' family (dchfamch) vs. husbands' family (dchfhusch).

Two-sample test of proportion					Number of obs Number of obs		
Variable					[95% Conf.		
dchfamch dchfhusc	.5233415	.0247571			.4748186 .4379548	.5718645	
diff	.0360319	.0353132	1.02	0.308	0331807	.1052444	
Ho: proportion(dchfamch) - proportion(dchfhusc) = diff = 0							
	: diff < 0	Ha:	diff !=	0	Ha: dif	Ef > 0	

z = 1.020

P > |z| = 0.3079

z = 1.020

P < z = 0.8461

Test comparing criticism to husbands on women's place being home, by wives family (dchfamch)vs. neighbours (dchneigch).

z = 1.020

P > z = 0.1539

Two-sample test of proportion					Number of obs			
Variable	Mean	Std. Err.	z	P>   z	[95% Conf	. Interval]		
dchfamch dchneigc	.5233415 .3966942				.4748186 .3463683	.5718645 .4470201		
diff	.1266473 under Ho:		3.52	0.000	.056739	.1965556		
<pre>Ho: proportion(dchfamch) - proportion(dchneigc) = diff = 0</pre>								
z	diff < 0 = 3.518 = 0.9998	Z	diff != = 3.518 = 0.000	3	Ha: di z = P > z =	3.518		

Test comparing criticism to husbands on women's place being home, by wives' family (dchfamch) vs. friends (dchfriench).

Two-sample test of proportion					Number of obs :	
Variable	Mean	Std. Err.	z 	P> z	[95% Conf.	Interval]
dchfamch   dchfrien	.5233415 .3837838	.0247571			.4748186 .3342323	.5718645
diff	.1395577 under Ho:	.0353848	3.90	0.000	.0702048	.2089107

Ho: proportion(dchfamch) - proportion(dchfrien) = diff = 0

Test comparing criticism to husbands on women's place being home, by husbands' family (dchfhusch) vs. neighbours (dchneigch).

Two-sample test of proportion dchfhusc: Number of obs = 363 dchneigc: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_+\_\_\_\_ .4379548 .5366645 .3463683 .4470201 dchfhusc | .4873096 .0251815 dchneigc | .3966942 .0256769 \_\_\_\_\_\_ diff | .0906154 .0359641 .0201271 .1611037 | under Ho: .0361461 2.51 0.012 Ho: proportion(dchfhusc) - proportion(dchneigc) = diff = 0 Ha: diff > 0 Ha: diff != 0 Ha: diff < 0 z = 2.507P < z = 0.9939z = 2.507 P > |z| = 0.0122z = 2.507P > z = 0.0061

Test comparing criticism to husbands on women's place being home, by husbands' family (dchfhusch) vs. friends (dchfriench).

Ho: proportion(dchfhusc) - proportion(dchfrien) = diff = 0

Test comparing criticism to husbands on women's place being home, by neighbours (dchneigch) vs. friends (dchfriench).

Two-sample test of proportion dchneigc: Number of obs = 363 dchfrien: Number of obs = 370

Ho: proportion(dchneigc) - proportion(dchfrien) = diff = 0

Test comparing gossip on working wives being promiscuous, by family (dgfamin) vs. husbands' family (dgfhusin).

Test comparing gossip on working wives being promiscuous, by wives family (dgfamin) vs. neighbours (dgneigin).

Ho: proportion(dgfamin) - proportion(dgneigin) = diff = 0

Test comparing gossip on working wives being promiscuous, by wives family (dgfamin) vs. friends (dgfrienin).

Ho: proportion(dgfamin) - proportion(dgfrieni) = diff = 0

### Test comparing gossip on working wives being promiscuous, by husbands' family (dgfhusin) vs. neighbours (dgneigin).

Two-sample test of proportion						
Mean	Std. Err.	Z	P> z	<del>-</del>	conf.	Interval]
.2994924	.0230755					.3447195
0090476 under Ho:	.0334694	-0.27	0.787	07464	164	.0565513
	Mean .2994924 .3085399	Mean Std. Err2994924 .0230755 .3085399 .0242430090476 .0334694	Mean Std. Err. z  .2994924 .0230755 .3085399 .024243 0090476 .0334694	dgneigin:  Mean Std. Err. z P> z   .2994924 .0230755 .3085399 .024243 0090476 .0334694	dgneigin: Number of  Mean Std. Err. z P> z  [95% 0  .2994924 .0230755 .25426 .3085399 .024243 .26102 0090476 .033469407464	dgneigin: Number of obs  Mean Std. Err. z P> z  [95% Conf.  .2994924 .0230755 .2542652 .3085399 .024243 .2610246 0090476 .03346940746464

Ho: proportion(dgfhusin) - proportion(dgneigin) = diff = 0

Test comparing gossip on working wives being promiscuous, by husbands' family (dgfhusin) vs. friends (dgfrienin).

Two-sample test of proportion dgfhusin: Number of obs = 394 dgfrieni: Number of obs = 373

 Variable | Mean
 Std. Err.
 z
 P>|z|
 [95% Conf. Interval]

 dgfhusin | .2994924
 .0230755
 .2542652
 .3447195

 dgfrieni | .2225201
 .0215365
 .1803094
 .2647308

 diff | .0769723
 .0315642
 .0151076
 .138837

 | under Ho:
 .0317692
 2.42
 0.015

Ho: proportion(dgfhusin) - proportion(dgfrieni) = diff = 0

Test comparing gossip on wives being promiscuous, by neighbours (dgneigin) vs. friends (dgfrienin).

Two-sample test of proportion dgneigin: Number of obs = 363 dgfrieni: Number of obs = 373

Ho: proportion(dgneigin) - proportion(dgfrieni) = diff = 0

Test comparing criticism to wives on wives being promiscuous, by wives family (dcfamin) vs. husbands family (dcfhusin).

Two-sample test of proportion dcfamin: Number of obs = dcfhusin: Number of obs = 394 Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] dcfamin | .2277228 .0208641 dcfhusin | .2563452 .0219963 .1868299 .2686156 .2132332 .2994572 dcfhusin | \_\_\_\_\_\_ -.0880435 .0307987 diff | -.0286224 .0303175 under Ho: .0303191 -0.94 0.345 Ho: proportion(dcfamin) - proportion(dcfhusin) = diff = 0 Ha: diff != 0 Ha: diff < 0

Test comparing criticism to wives on wives being promiscuous, by wives family

z = -0.944P < z = 0.1726

(dcfamin) vs. neighbours (dcneigin).

dcfamin: Number of obs = 404 dcneigin: Number of obs = 362 Two-sample test of proportion  $z \quad P>|z| \quad [95\% \text{ Conf. Interval}]$ Variable | Mean Std. Err. .1868299 .2686156 .1808249 .2666889 dcfamin | .2277228 .0208641 dcneigin | .2237569 .0219045 -----+----diff | .0039659 .0302509 | under Ho: .0302615 0.13 0.896 -.0553248 .0632565 \_\_\_\_\_\_

Ho: proportion(dcfamin) - proportion(dcneigin) = diff = 0

Ha: diff != 0 Ha: diff > 0 z = 0.131P > z = 0.4479

Test comparing criticism to wives on wives being promiscuous, by wives family (dcfamin) vs. friends (dcfrienin).

Two-sample test of proportion dcfamin: Number of obs = dcfrieni: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_\_ dcfamin | .2277228 .0208641 .1868299 dcfrieni | .2016129 .0208015 .1608427 diff | .0261099 .029462 | under Ho: .0295307 0.88 0.377 -.0316347 .0838544

Ho: proportion(dcfamin) - proportion(dcfrieni) = diff = 0

Ha: diff != 0 Ha: diff > 0 z = 0.884P > z = 0.1883Ha: diff < 0 z = 0.884z = 0.884P > |z| = 0.3766z = 0.884P < z = 0.8117

Test comparing criticism to wives on wives being promiscuous, by husbands' family (dcfhusin) vs. neighbours (dcneigin).

Two-sample test of proportion					Number of obs Number of obs		
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]	
	.2563452 .2237569				.2132332 .1808249		
diff	.0325883 under Ho:	.0310426	1.05	0.295	0282541	.0934307	
Ho: proportion(dcfhusin) - proportion(dcneigin) = diff = 0							
z = 1.047			diff != = 1.047 = 0.295		Ha: dif $z = 1$ P > $z = 0$	.047	

Test comparing criticism to wives on wives being promiscuous, by husbands' family (dcfhusin) vs. friends (dcfrienin).

Two-sample test of proportion					Number of obs Number of obs		
Variable	Mean	Std. Err.			[95% Conf.	Interval]	
dcfhusin   dcfrieni		.0219963			.2132332 .1608427		
diff	.0547323 under Ho:	.0302744	1.80	0.072	0046045	.114069	
<pre>Ho: proportion(dcfhusin) - proportion(dcfrieni) = diff = 0</pre>							
z = 1.800 z			diff != = 1.800 = 0.071		Ha: dif z = 1 P > z = 0	.800	

Test comparing criticism to wives on wives being promiscuous, by neighbours (dcneigin) vs. friends (dcfrienin).

Two-sample test of proportion				_	Number of obs			
Variable					[95% Conf.			
dcneigin   dcfrieni	.2237569	.0219045 .0208015			.1808249 .1608427	.2666889		
diff	.022144	.0302077			0370621	.0813501		
Ho: proportion(dcneigin) - proportion(dcfrieni) = diff = 0								

Test comparing criticism to husbands on wives being promiscuous, by family (dchfamin) vs. husbands' family (dchfhusin).

Ho: proportion(dchfamin) - proportion(dchfhusi) = diff = 0

Test comparing criticism to husbands on wives being promiscuous, by family (dchfamin) vs. neighbours (dchneigin).

Ho: proportion(dchfamin) - proportion(dchneigi) = diff = 0

Test comparing criticism to husbands on wives being promiscuous, by wives family (dchfamin) vs. friends (dchfrienin).

Ho: proportion(dchfamin) - proportion(dchfrien) = diff = 0

Test comparing criticism to husbands on wives being promiscuous, by husbands' family (dchfhusin) vs. neighbours (dchneigin).

Test comparing criticism to husbands on wives being promiscuous, by husbands' family (dchfhusin) vs. friends (dchfrienin).

Ho: proportion(dchfhusi) - proportion(dchfrien) = diff = 0

Test comparing criticism to husbands on wives being promiscuous, by neighbours (dchneigin) vs. friends (dchfrienin).

Ho: proportion(dchneigi) - proportion(dchfrien) = diff = 0

Test comparing gossip regarding husbands not being breadwinners, by wives family (dgfamch) vs. husbands' family (dgfhusch).

Test comparing gossip regarding husbands not being breadwinners, by wives family (dgfamch) vs. neighbours (dgneiglz).

Ho: proportion(dgfamlz) - proportion(dgneiglz) = diff = 0

Test comparing gossip regarding husbands not being breadwinners, by wives family (dgfamlz) vs. friends (dgfrienlz).

Ho: proportion(dgfamlz) - proportion(dgfrienl) = diff = 0

#### Test comparing gossip regarding husbands not being breadwinners, by husbands family (dgfhuslz) vs. neighbours (dgneiglz).

Two-sample	wo-sample test of proportion		_		Number of obs	
Variable	Mean	Std. Err.	Z	P> z	=	Interval]
dgfhuslz   dgneiglz	.2101266	.0204984			.1699504 .2282183	.2503028
diff	063846 under Ho:	.0310668	-2.06	0.040	1247359	0029561
Но	: proportion	(dqfhuslz) -	proporti	on(dqne	eiglz) = diff =	0

z = -2.057z = -2.057z = -2.057P < z = 0.0199P > |z| = 0.0397P > z = 0.9801

#### Test comparing gossip regarding husbands not being breadwinners, by husbands family (dgfhuslz) vs. friends (dgfrienlz).

Two-sample	sample test of proportion				Number of obs	
Variable	Mean	Std. Err.	Z	P> z	=	. Interval]
dgfhuslz dgfrienl	.2101266 .2345013	.0204984 .0219967			.1699504 .1913886	.2503028 .2776141
diff	0243748 under Ho:	.0300673	-0.81	0.417	0833056	.034556

Ho: proportion(dgfhuslz) - proportion(dgfrienl) = diff = 0

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 z = -0.811P > |z| = 0.4172z = -0.811z = -0.811P > z = 0.7914P < z = 0.2086

#### Test comparing gossip regarding husbands not being breadwinners, by neighbours (dgneiglz) vs. friends (dgfrienlz).

Two-sample test of proportion				_	Number o		
Variable	Mean	Std. Err.	z	P> z	=		. Interval]
dgneiglz   dgfrienl	.2739726	.0233444 .0219967			.228 .191	2183 3886	.3197269 .2776141
diff	.0394713 under Ho:	.0320752 .0320948	1.23	0.219		3395	.1023375

Ho: proportion(dgneiglz) - proportion(dgfrienl) = diff = 0

Ha: diff > 0 Ha: diff < 0 Ha: diff != 0 z = 1.230P < z = 0.8906z = 1.230P > |z| = 0.2188z = 1.230P > z = 0.1094 Test comparing criticism to wives on husbands not being breadwinners, by wives family (dcfamlz) vs. husbands family (dcfhuslz).

Two-samp	-sample test of proportion				Number of obs Number of obs	
Variable	Mean	Std. Err.	Z	P> z	[95% Conf	. Interval]
dcfamlz dcfhuslz	.2506143   .1746835	.0214812			.2085119	.2927166
diff	.0759307   under Ho:	.0287476	2.62	0.009	.0195864	.1322751
	Ho: proportio	n(dcfamlz) -	- proport:	ion(dcfl	nuslz) = diff :	= 0

Test comparing criticism to wives on husbands not being breadwinners, by wives family (dcfamlz) vs. neighbours (dcneiglz).

Two-sample test of proportion		<pre>dcfamlz: dcneiglz:</pre>					
Variable	Mean	Std. Err.	z	P> z	_	% Conf	. Interval]
dcfamlz dcneiglz	.2506143	.0214812			.20	)85119 328775	.2927166
diff	.0247189 under Ho:	.030711	0.80	0.422	03	354736	.0849115

Ho: proportion(dcfamlz) - proportion(dcneiglz) = diff = 0

Ha: diff != 0 Ha: diff > 0 Ha: diff < 0 z = 0.803z = 0.803z = 0.803P < z = 0.7890P > |z| = 0.4220P > z = 0.2110

Test comparing criticism to wives on husbands not being breadwinners, by wives family (dcfamlz) vs. friends (dcfrienlz).

Two-sample test of proportion				Number of Number of			
Variable	Mean	Std. Err.	Z	P>   z	=	Conf.	Interval]
dcfamlz dcfrienl	.2506143 .1994609	.0214812			.20853		.2927166 .2401222
diff	.0511533 under Ho:	.0298636	1.70	0.089	0073	783	.109685

Ho: proportion(dcfamlz) - proportion(dcfrienl) = diff = 0

Ha: diff < 0 z = 1.703P < z = 0.9557

Test comparing criticism to wives on husbands not being breadwinners, by wives family (dcfamlz) vs. neighbours (dcneiglz).

Two-sample test of proportion				Number of obs		
Variable	Mean	Std. Err.	z	P> z	[95% Con:	f. Interval]
dcfhuslz   dcneiglz					.1372392 .1828775	.2121279
diff		.0290983	-1.76 	0.078	1082434	.0058199
Нс	o: proportion	(dcfhuslz) -	proporti	lon(dene	eiglz) = diff	= 0
z	diff < 0 = -1.763 = 0.0389	Z	diff != = -1.763 = 0.075	3		iff > 0 -1.763 0.9611

Test comparing criticism to wives on husbands not being breadwinners, by husbands family (dcfhuslz) vs. friends (dcfrienlz).

Two-sample test of proportion					ber of obs = ber of obs =	395 371		
Variable	Mean	Std. Err.			[95% Conf.	Interval]		
:	.1746835 .1994609	.0191046			.1372392 .1587996			
diff	0247774 under Ho:	.0282025	-0.88	0.379	0800532	.0304985		
Ho: proportion(dcfhuslz) - proportion(dcfrienl) = diff = 0								
Z	diff < 0 = -0.880 = 0.1896		diff != = -0.880 = 0.379		Ha: diff $z = -0$ . $P > z = 0$ .	.880		

Test comparing criticism to wives on husbands not being breadwinners, by neighbours (dcneiglz) vs. friends (dcfrienlz).

Two-sample	sample test of proportion			_	Number of obs Number of obs	
Variable	Mean	Std. Err.	Z	P>   z		. Interval]
dcneiglz   dcfrienl	.2258953 .1994609	.0219483 .0207459			.1828775 .1587996	.2689131 .2401222
diff	.0264344 under Ho:	.0302013	0.88	0.381	0327591	.0856279
Но	: proportion	(dcneiglz) -	proporti	ion(dcfi	cienl) = diff =	= 0

```
Ha: diff > 0
                      Ha: diff != 0
  Ha: diff < 0
                      z = 0.875
P > |z| = 0.3814
z = 0.875
P < z = 0.8093
                                                  z = 0.875
P > z = 0.1907
```

Test comparing criticism to husbands on husbands not being breadwinners, by wives family (dchfamlz) vs. friends (dchfrienlz).

Two-sample test of proportion | dchfamlz: Number of obs = 407 | dchfhus1: Number of obs = 393 | dchfhus1 | Number of obs = 393 | dchfamlz | .2260442 | .0207328 | .1854087 | .2666797 | dchfhus1 | .178117 | .0193002 | .1402894 | .2159447 | diff | .0479272 | .0283257 | -.0075902 | .1034445 | under Ho: .0284203 | 1.69 | 0.092 | .1034445 | diff | .0479272 | .0283257 | -.0075902 | .1034445 | under Ho: .0284203 | 1.69 | 0.092 | .1034445 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .10284203 | .1

Test comparing criticism to husbands on husbands not being breadwinners, by wives family (dchfamlz) vs. neighbours (dchneiglz).

Two-sample test of proportion dchfamlz: Number of obs = 407 dchneigl: Number of obs = 361

Ho: proportion(dchfamlz) - proportion(dchneigl) = diff = 0

Test comparing criticism to husbands on husbands not being breadwinners, by wives family (dchfamlz) vs. friends (dcfrienlz).

Two-sample test of proportion dchfamlz: Number of obs = 407 dchfrien: Number of obs = 370

Ho: proportion(dchfamlz) - proportion(dchfrien) = diff = 0

Test comparing criticism to husbands on husbands not being breadwinners, by husbands family (dchfhuslz) vs. neighbours (dcneiglz).

Two-sample	e test of proportion				Number of obs Number of obs	
Variable					[95% Conf	
	.178117 .2132964	.0193002 .0215598			.1402894	.2159447 .2555527
diff		.0289365	-1.22		0918938	
Нс	o: proportion	(dchfhusl) -	proporti	ion(dchr	neigl) = diff =	= 0

Test comparing criticism to husbands on husbands not being breadwinners, by husbands family (dchfhuslz) vs. friends (dcfrienlz).

Two-sample	ple test of proportion				Number of obs	
Variable	Mean	Std. Err.	Z		[95% Conf.	Interval]
dchfhusl dchfrien		.0193002 .020795			.1402894 .1592425	.2159447
diff	021883 under Ho:	.0283713	-0.77	0.440	0774896	.0337237

Ho: proportion(dchfhusl) - proportion(dchfrien) = diff = 0

Test comparing criticism to husbands on husbands not being breadwinners, by neighbours (dchneiglz) vs. friends(dchfrienlz).

Two-sample test of proportion		_		Number of Number of			
Variable	Mean	Std. Err.	z 	P> z	=	Conf.	Interval]
dchneigl   dchfrien	.2132964	.0215598			.1710 .1592		.2555527 .2407575
diff	.0132964 under Ho:	.0299542	0.44	0.657	0454	128	.0720056

Ho: proportion(dchneigl) - proportion(dchfrien) = diff = 0

# Tests comparing types of sanctions used by a particular reference group on a certain moral argument.

Test comparing gossip (dgfamch) vs. criticism to wives (dcfamch) on women's place being home, by wives family

Test comparing gossip (dgfamch) vs. criticism to husbands (dchfamch) on women's place being home, by wives family

```
dgfamch: Number of obs =
Two-sample test of proportion
                          dchfamch: Number of obs =
______
Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]
dgfamch | .5892421 .0243264
dchfamch | .5233415 .0247571
                                    .5415631 .636921
.4748186 .5718645
______
     .0659005 .0347086
under Ho: .0347839 1.89 0.058
  diff
                                   -.0021271 .1339281
_______
     Ho: proportion(dgfamch) - proportion(dchfamch) = diff = 0
  Ha: diff > 0
 z = 1.895
P > z = 0.0291
                 z = 1.895
P > |z| = 0.0581
```

Test comparing criticism to wives (dcfamch) vs. criticism to husbands (dchfamch) on women's place being home, by wives family

```
Two-sample test of proportion
                        dcfamch: Number of obs =
                                          408
                        dchfamch: Number of obs =
                                          407
______
Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]
_____
dcfamch | .5686275 .0245194
dchfamch | .5233415 .0247571
                                .5205703
                                .4748186
       .5233415 .0247571
_____
           ______
 diff | .0452859 .0348441 -.0230073 .1135792 | under Ho: .0348799 1.30 0.194
                               -.0230073 .1135792
    Ho: proportion(dcfamch) - proportion(dchfamch) = diff = 0
```

Test comparing gossip (dgfamch) vs. criticism to wives (dcfamch) on working wives being promiscuous, by wives family.

Test comparing gossip (dgfamch) vs. criticism to husbands (dchfamch) on working wives being promiscuous, by wives family.

Ho: proportion(dgfamin) - proportion(dchfamin) = diff = 0

Test comparing criticism to wives (dcfamch) vs. criticism to wives (dchfamch) on working wives being promiscuous, by wives family.

Ho: proportion(dcfamin) - proportion(dchfamin) = diff = 0

Test comparing gossip (dgfamlz) vs. criticism to wives (dcfamlz) on husbands not being the breadwinners, by wives family.

Two-sample test of proportion dgfamlz: Number of obs = 407 dcfamlz: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] -------.2312073 .3178123 .2085119 .2927166 dgfamlz | .2745098 .0220935 dcfamlz | .2506143 .0214812 ------diff | .0238956 .030815 -.0365007 .0842919 under Ho: .0308275 0.78 0.438 Ho: proportion(dgfamlz) - proportion(dcfamlz) = diff = 0 Ha: diff != 0 Ha: diff > 0 z = 0.775P > z = 0.2191Ha: diff < 0 z = 0.775 P > |z| = 0.4383z = 0.775

P < z = 0.7809

Test comparing gossip (dgfamlz) vs. criticism to husbands (dchfamlz) on husbands not being the breadwinners, by wives family.

dgfamlz: Number of obs =
dchfamlz: Number of obs = 408 Two-sample test of proportion  $z \qquad P>|z| \qquad [95\% \text{ Conf. Interval}]$ Variable Mean Std. Err. .2312073 .3178123 .1854087 .2666797 dgfamlz | .2745098 .0220935 dchfamlz | .2260442 .0207328 diff | .0484656 .030298 | under Ho: .030348 1.60 0.110 -.0109175 .1078486 \_\_\_\_\_\_ Ho: proportion(dgfamlz) - proportion(dchfamlz) = diff = 0

Ha: diff < 0 Ha: diff != 0 z = 1.597 z = 1.597 P < z = 0.9449 P > |z| = 0.1103Ha: diff > 0 z = 1.597P > |z| = 0.1103z = 1.597P > z = 0.0551

Test comparing criticism to wives (dgfamlz) vs. criticism to husbands (dchfamlz) on husbands not being the breadwinners, by wives family.

Two-sample test of proportion dcfamlz: Number of obs = 407 dchfamlz: Number of obs = .\_\_\_\_\_ Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_\_ .2085119 dcfamlz | .2506143 .0214812 dchfamlz .2260442 .0207328 .1854087 diff | .02457 .0298545 | under Ho: .0298669 0.82 0.411 -.0339437 .0830837

Ho: proportion(dcfamlz) - proportion(dchfamlz) = diff = 0

Ha: diff < 0 z = 0.823P < z = 0.7946

Test comparing gossip (dgfhuslz) vs. criticism to wives (dcfhuslz) on women's place being the home, by husbands family.

Test comparing gossip (dgfhusch) vs. criticism to husbands (dchfamch) on women's place being home, by husbands family

Ho: proportion(dgfhusch) - proportion(dchfhusc) = diff = 0

Test comparing criticism to wives (dcfhusch) vs. criticism to husbands (dchfamch) on women's place being home, by husbands family

Ho: proportion(dcfhusch) - proportion(dchfhusc) = diff = 0

Test comparing gossip (dgfhusin) vs. criticism to wives (dchfhusin) on working wives being promiscuous, by husbands family.

Two-sample test of proportion			_		Number of obs Number of obs	
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
_ !	.2994924 .2563452				.2542652 .2132332	
diff	.0431472 under Ho:	.0318797	1.35	0.176	0193359	.1056303
<pre>Ho: proportion(dgfhusin) - proportion(dcfhusin) = diff = 0</pre>						
z	diff < 0 = 1.352 = 0.9118		diff != = 1.352 = 0.176		Ha: dif z = 1 P > z = 0	.352

Test comparing gossip (dgfhusin) vs. criticism to husbands (dchfhusin) on working wives being promiscuous, by husbands family.

Two-sample test of proportion			_		Number of obs	
Variable	Mean	Std. Err.	Z	P>   z	[95% Conf	. Interval]
_	.2994924 .2824427				.2542652 .237934	.3447195
diff		.0323755	0.53	0.599	0464053	.0805045
Ho: proportion(dgfhusin) - proportion(dchfhusi) = diff = 0						
Z	diff < 0 = 0.527 = 0.7007	Z	diff != = 0.527 = 0.598	,	Ha: di z = P > z =	0.527

Test comparing criticism to wives (dcfhusin) vs. criticism to husbands (dchfhusin) on working wives being promiscuous, by husbands family.

Two-sample test of proportion				Number of Number of			
Variable	Mean	Std. Err.	z 	P> z	 [ 95% 	Conf.	Interval]
dcfhusin   dchfhusi	.2563452	.0219963			.2132		.2994572
diff	0260976 under Ho:	.0316154 .0316279	-0.83	0.409	0880	627	.0358675

Ho: proportion(dcfhusin) - proportion(dchfhusi) = diff = 0

Ha: diff < 0	Ha: diff != 0	Ha: diff > 0
z = -0.825	z = -0.825	z = -0.825
P < z = 0.2046	P >  z  = 0.4093	P > z = 0.7954

Test comparing criticism to wives (dcfhusin) vs. criticism to husbands (dchfhusin) on husbands not being the breadwinners, by husbands family.

Two-sample test of proportion dqfhuslz: Number of obs = dcfhuslz: Number of obs = \_\_\_\_\_ Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] dgfhuslz | .2101266 .0204984 dcfhuslz | .1746835 .0191046 .1699504 .2503028 .1372392 .2121279 \_\_\_\_\_ diff | .035443 .0280209 | under Ho: .0280493 1.26 0.206 -.0194769 .090363 Ho: proportion(dgfhuslz) - proportion(dcfhuslz) = diff = 0 Ha: diff != 0 Ha: diff > 0 Ha: diff < 0 z = 1.264 z = 1.264z = 1.264z = 1.264

P < z = 0.8968

Test comparing gossip (dgfhuslz) vs. criticism to husbands (dchfhuslz) on husband not being the breadwinners, by husbands family.

P > z = 0.1032

P > |z| = 0.2064

Ho: proportion(dgfhuslz) - proportion(dchfhusl) = diff = 0

Test comparing gossip (dgfhuslz) vs. criticism to husbands (dchfhuslz) on husband not being the breadwinners, by husbands family.

Ho: proportion(dcfhuslz) - proportion(dchfhusl) = diff = 0

Test comparing gossip (dgneigch) vs. criticism to wives (dcneigch) on women's place being home, by neighbours.

Test comparing gossip (dgneigch) vs. criticism to husbands (dchneigch) on women's place being home, by neighbours.

Ho: proportion(dgneigch) - proportion(dchneigc) = diff = 0

Test comparing criticism to wives (dcneigch) vs. criticism to husbands (dchneigch) on women's place being home, by neighbours.

Ho: proportion(dcneigch) - proportion(dchneigc) = diff = 0

Test comparing gossip (dgneigin) vs. criticism to wives (dcneigin) on working wives being promiscous, by neighbours.

Two-sample test of proportion			_	Number of obs Number of obs		
Variable	Mean	Std. Err.	z	P>   z	[95% Conf	. Interval]
	.3085399 .2237569				.2610246 .1808249	
diff	.084783 under Ho:		2.58	0.010	.020745	.148821
Но	o: proportion	(dgneigin) -	proporti	on(dcne	eigin) = diff :	= 0
Z	diff < 0 = 2.583 = 0.9951	z	diff != = 2.583 = 0.009		Ha: di: $z = 0$ $P > z = 0$	2.583

Test comparing gossip (dgneigin) vs. criticism to husbands (dchneigin) on working wives being promiscous, by neighbours.

Two-sample test of proportion		_	_	Number of obs		
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]
dgneigin	.3085399 .2444444	.024243			.2610246 .2000509	
diff	.0640955 under Ho:	.0331776	1.93	0.054	0009314	.1291224
Нс	o: proportion	(dgneigin) -	proporti	on(dchr	neigi) = diff =	0
Z	diff < 0 = 1.926 = 0.9730	Z	diff != = 1.926 = 0.054		Ha: diff $z = 1$ P > z = 0	.926

Test comparing criticism to wives (dcneigin) vs. criticism to husbands (dchneigin) on working wives being promiscous, by neighbours.

Test comparing gossip (dgneiglz) vs. criticism to wives (dcneiglz) on husbands not being the breadwinners, by neighbours.

Two-sample test of proportion dgneiglz: Number of obs = dcneiglz: Number of obs = 363 Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] -----+------.2282183 .3197269 .1828775 .2689131 dgneiglz | .2739726 .0233444 dcneiglz | .2258953 .0219483 \_\_\_\_\_\_ diff | .0480773 .032042 -.0147239 .1108784 under Ho: .0320972 1.50 0.134 Ho: proportion(dgneiglz) - proportion(dcneiglz) = diff = 0 Ha: diff > 0 Ha: diff != 0 Ha: diff < 0 z = 1.498P < z = 0.9329z = 1.498 P > |z| = 0.1342z = 1.498P > z = 0.0671

Test comparing gossip (dgneiglz) vs. criticism to husbands (dchneiglz) on husbands not being the breadwinners, by neighbours.

Ho: proportion(dgneiglz) - proportion(dchneigl) = diff = 0

Test comparing criticism to wives (dcneiglz) vs. criticism to husbands (dchneiglz) on husbands not being the breadwinners, by neighbours.

Ho: proportion(dcneiglz) - proportion(dchneigl) = diff = 0

# Test comparing gossip (dgfriench) vs. criticism to wives (dcfamch) on women's place being home, by friends

Two-sample test of proportion		_		Number of ob Number of ob		
Variable	Mean	Std. Err.	z	P>   z	[95% Con	f. Interval]
_	.4423592				.391956 .3629035	
diff		.0362108 .0362269	0.81	0.416	0414812	.1004625
Ho: proportion(dgfrienc) - proportion(dcfrienc) = diff = 0						
	diff < 0 = 0.814		diff != = 0.814			iff > 0 0.814
	= 0.7922		= 0.814		P > z =	

Test comparing gossip (dgfriench) vs. criticism to husbands (dchfriench) on women's place being home, by friends.

Two-sample test of proportion		_		Number of ol Number of ol		
Variable	Mean	Std. Err.	z	P>   z	[95% Cor	nf. Interval]
dgfrienc   dchfrien	.4423592 .3837838				.391956	
diff	.0585755 under Ho:		1.62	0.105	0121058	3 .1292567
<pre>Ho: proportion(dgfrienc) - proportion(dchfrien) = diff = 0</pre>						
z	diff < 0 = 1.621 = 0.9475		diff != = 1.621 = 0.105			diff > 0 1.621 0.0525

Test comparing criticism to wives (dcfriench) vs. criticism to husbands (dchfriench) on women's place being home, by friends.

Two-sample test of proportion				Number of obs		
Variable	Mean	Std. Err.	z	P>   z	[95% Conf	. Interval]
	.4128686 .3837838	.0254929			.3629035 .3342323	
diff		.0359035	0.81	0.418	0412847	.0994544
<pre>Ho: proportion(dcfrienc) - proportion(dchfrien) = diff = 0</pre>						
Z	diff < 0 = 0.810 = 0.7909	Z	diff != = 0.810 = 0.418		Ha: di: z = ( P > z = (	0.810

Test comparing gossip (dgfrienin) vs. criticism to wives (dcfrienin) on working wives being promiscous, by friends.

Two-sample test of proportion dgfrieni: Number of obs = 372 dcfrieni: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] .1803094 .2647308 .1608427 .2423831 dgfrieni | .2225201 .0215365 dcfrieni | .2016129 .0208015 \_\_\_\_\_\_ diff | .0209072 .029942 -.037778 .0795924 under Ho: .0299532 0.70 0.485 Ho: proportion(dgfrieni) - proportion(dcfrieni) = diff = 0 z = 0.698 Ha: diff != 0 z = 0.698 z = 0.698 z = 0.7574 z = 0.698Ha: diff > 0 z = 0.698 P > |z| = 0.4852z = 0.698P > z = 0.2426

Test comparing gossip (dgfrienin) vs. criticism to husbands (dchfrienin) on working wives being promiscous, by friends.

Two-sample test of proportion dgfrieni: Number of obs = dchfrien: Number of obs = z P>|z| [95% Conf. Interval] Variable | Mean Std. Err. .1803094 .2647308 .1662799 .2488145 dgfrieni | .2225201 .0215365 dchfrien | .2075472 .0210551 .2488145 -----+----+ diff | .0149729 .0301188 | under Ho: .0301258 0.50 0.619 -.0440587 .0740046 \_\_\_\_\_\_ Ho: proportion(dgfrieni) - proportion(dchfrien) = diff = 0 Ha: diff != 0 Ha: diff > 0 Ha: diff < 0 z = 0.497P < z = 0.6904

Test comparing criticism to wives (dcfrienin) vs. criticism to husbands (dchfrienin) on working wives being promiscous, by friends.

z = 0.497P > |z| = 0.6192

z = 0.497P > z = 0.3096

Two-sample test of proportion dcfrieni: Number of obs = dchfrien: Number of obs = -----Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] dcfrieni | .2016129 .0208015 .1608427 dchfrien | .2075472 .0210551 .1662799 diff | -.0059343 .0295977 | under Ho: .029598 -0.20 0.841 -.0639446 .0520761

Ho: proportion(dcfrieni) - proportion(dchfrien) = diff = 0

Ha: diff > 0 Ha: diff < 0 z = -0.200P < z = 0.4205Ha: diff != 0 z = -0.25P > z = 0.5795z = -0.200P > |z| = 0.8411

Test comparing gossip (dgfrienlz) vs. criticism to wives (dcfrienlz) on husbands not being the breadwinners, by friends.

Two-sample test of proportion dgfrienl: Number of obs = 371 dcfrienl: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] ------dgfrienl | .2345013 .0219967 dcfrienl | .1994609 .0207459 .1913886 .2776141 .1587996 .2401222 \_\_\_\_\_\_ diff | .0350404 .0302366 -.0242221 .094303 under Ho: .0302639 1.16 0.247 Ho: proportion(dgfrienl) - proportion(dcfrienl) = diff = 0 Ha: diff > 0 z = 1.158P > z = 0.1235z = 1.158 P > |z| = 0.2469

Test comparing gossip (dgfrienlz) vs. criticism to husbands (dchfrienlz) on husbands not being the breadwinners, by friends.

Test comparing criticism to wives (dcfrienlz) vs. criticism to husbands (dchfrienlz) on husbands not being the breadwinners, by friends.

Ho: proportion(dcfrienl) - proportion(dchfrien) = diff = 0

### Tests comparing Social Sanctions by Town

P < z = 0.0050

Test comparing gossip by wives family regarding women's place being home, by town.

Two-sample test of proportion				Number of obs Number of obs		
	Mean				[95% Conf.	Interval]
miuahuat   chilac	.5255102	.0356678 .0327266			.4556027 .5837444	
diff     	1223771	.0484068			2172527	0275015
H	Io: proportion	n(miuahuat)	- proport	cion(chi	ilac) = diff =	0

Test comparing criticism to wives by wives family regarding women's place being home, by town.

```
195
                                miuahuat: Number of obs =
Two-sample test of proportion
                                  chilac: Number of obs =
                                                            213
Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]
                                             .4323871 .5727411
.5642379 .6939781
miuahuat | .5025641 .0358053
chilac | .629108 .0330976
 -----<del>'</del>-----
  diff | -.1265439 .0487593
                                            -.2221103 -.0309774
      under Ho: .0490866 -2.58 0.010
       Ho: proportion(miuahuat) - proportion(chilac) = diff = 0
                                       Ha: diff > 0
                     Ha: diff != 0
      Ha: diff < 0
                     z = -2.578
P > |z| = 0.0099
      z = -2.578
                                               z = -2.578
```

Test comparing criticism to husbands by wives family regarding women's place being home, by town.

P > z = 0.9950

```
Two-sample test of proportion miuahuat: Number of obs =
                           chilac: Number of obs =
                                               213
Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]
______
miuahuat | .4845361 .0358807
chilac | .5586854 .0340226
                                   .4142111
                                            .554861
                                   .4920023
                                           .6253686
-----+------
  diff | -.0741494 .0494466
                                  -.1710629 .0227642
     under Ho: .0495682 -1.50 0.135
```

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

```
Ha: diff != 0
             Ha: diff < 0
 z = -1.496
P < z = 0.0673 P > |z| = 0.1347
```

# Test comparing gossip regarding working wives being promiscuous by wives family, by town.

Two-sample test of proportion				Number of obs Number of obs		
Variable	Mean				[95% Conf	. Interval]
	.2849741	.0324926				.3486585
diff	.0527466 under Ho:	.043598 .0435479	1.21	0.226	0327039	.1381971
I	Ho: proportion	n(miuahuat)	- proport	ion(ch:	ilac) = diff =	0
На	: diff < 0	Ha:	diff !=	0	Ha: di	Ef > 0
z	= 1.211	z	= 1.211	-	z = 2	1.211
P < z	= 0.8871	P >  z	= 0.225	8	P > z = 0	0.1129

# Test comparing criticism to wives regarding working wives being promiscuous by wives family, by town.

Two-sample test of proportion					Number of obs Number of obs	
	Mean				[95% Conf.	Interval]
miuahuat	.2279793 .2274882	.0301984			.1687916 .1709243	.287167
diff		.041771	0.01	0.991	0813786	.0823609
Ha z	Ho: proportion diff < 0 0.012 0.5047	Ha:	- proport diff != = 0.012 = 0.990	0	ilac) = diff =  Ha: dif	Ef > 0 0.012

Test comparing criticism to husbands regarding working wives being promiscuous by wives family, by town.

Two-sample	o-sample test of proportion				Number of ob Number of ob	
Variable	Mean				[95% Con	f. Interval]
	.257732	.0314025			.1961843 .1607018	.3192796
diff	.0417695   under Ho:		0.99	0.322	040946	.124485
I	Ho: proportion	n(miuahuat) -	- proport	ion(chi	ilac) = diff	= 0
Z	: diff < 0 = 0.991 = 0.8392	Z	diff != = 0.991 = 0.321	-	Ha: d z = P > z =	

#### Test comparing gossip by wives family regarding husbands not being the breadwinners, by town.

Two-sample	Two-sample test of proportion				Number of obs	
Variable	Mean				[95% Conf	. Interval]
	.3435897 .2112676	.0340087			.2769338 .1564475	.4102456 .2660877
diff	.1323221 under Ho:		2.99	0.003	.0460189	.2186254
I	Ho: proportion	n(miuahuat) -	- proport	ion(chi	ilac) = diff =	
Z	diff < 0 = 2.992 = 0.9986	Z	diff != = 2.992 = 0.002	2	Ha: di z = P > z =	

Test comparing criticism to wives by wives' family regarding husbands not being the breadwinners, by town.

Two-sample test of proportion				Number of obs		
Variable	Mean	Std. Err.	z	1 1	=	Interval]
miuahuat   chilac	.2938144	.0327036			.2297166 .1564475	.3579122
diff	.0825468 under Ho:	.043033	1.92	0.055	0017963	.16689
Н	Io: proportion	n(miuahuat) -	proport	cion(ch	ilac) = diff =	0

Ha: diff != 0 Ha: diff > 0 z = 1.919P > z = 0.0275Ha: diff < 0 z = 1.919P > |z| = 0.0549z = 1.919P < z = 0.9725

Test comparing criticism to husbands by wives' family regarding husbands not being the breadwinners, by town.

Two-sample test of proportion				Number of o			
Variable	Mean	Std. Err.		1 1	=		=
miuahuat   chilac	.2835052 .1737089	.0323583			.22008	84 02	.3469263
diff	.1097962 under Ho:	.0414841	2.65	0.008	.028488		.1911036

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Ha: $diff < 0$	Ha: diff != 0	Ha: $diff > 0$
z = 2.645	z = 2.645	z = 2.645
P < z = 0.9959	P >  z  = 0.0082	P > z = 0.0041

Test comparing gossip by husbands family regarding women's place being home, by

Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = 208 Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] .4341717 .5763546 .5245402 .6581521 miuahuat | .5052632 .0362718 chilac | .5913462 .0340853 ------diff | -.086083 .049774 -.1836382 .0114722 under Ho: .0499228 -1.72 0.085 Ho: proportion(miuahuat) - proportion(chilac) = diff = 0 Ha: diff != 0 Ha: diff < 0 z = -1.724

P < z = 0.0423

Test comparing gossip by husbands family regarding women's place being home, by town.

Two-sample test of proportion miuahuat: Number of obs = 207 chilac: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] miuahuat | .3262032 .0342837 chilac | .2753623 .0310476 .2590084 . 393398 .2145102 .3362144 diff | .0508409 .0462528 | under Ho: .0462106 1.10 0.271 -.039813 .1414948

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Ha: diff > 0 Ha: diff < 0 Ha: diff != 0 z = 1.100 P > z = 0.1356z = 1.100P > |z| = 0.2712z = 1.100P < z = 0.8644

Test comparing criticism to wives by husbands family regarding women's place being home, by town.

Two-sample test of proportion miuahuat: Number of obs = 188 208 chilac: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] miuahuat | .4574468 .0363339 .3862336 chilac .5288462 .034611 .4610098 .5966825 diff | -.0713993 .0501805 | under Ho: .0503135 -1.42 0.156 -.1697512 .0269525

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Ha: diff > 0 Ha: diff < 0 Ha: diff != 0 z = -1.419z = -1.419z = -1.419P < z = 0.0779P > |z| = 0.1559P > z = 0.9221 Test comparing criticism to husbands by husbands family regarding women's place being home, by town.

Two-sample test of proportion				Number of ok				
Variable	Mean	Std. Err.	z	P>   z	[95% Cor	nf. Interval]		
	.4574468 .5145631					5 .52866 5 .5828127		
diff		.0503261 .0504157	-1.13	0.257	1557537	.0415211		
<pre>Ho: proportion(miuahuat) - proportion(chilac) = diff = 0</pre>								
Z	: diff < 0 = -1.133 = 0.1286	z	diff != = -1.133 = 0.257	3	Ha: 0 z = P > z =	-1.133		

Test comparing gossip by husbands family regarding working wives being promiscous, by town.

Two-sample test of proportion				Number of obs Number of obs				
Variable	Mean	Std. Err.	z	P>   z	[95% Conf.	Interval]		
miuahuat   chilac					.2590084 .2145102	.393398		
diff	.0508409 under Ho:	.0462528	1.10	0.271	039813	.1414948		
<pre>Ho: proportion(miuahuat) - proportion(chilac) = diff = 0</pre>								
z	diff < 0 = 1.100 = 0.8644		diff != = 1.100 = 0.271	)	Ha: dif z = 1 P > z = 0	1.100		

Test comparing criticism to wives by husbands family regarding working wives being promiscous, by town.

```
187
Two-sample test of proportion
                                   miuahuat: Number of obs =
                                    chilac: Number of obs =
                                                                207
Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]
                                                 .208895 .3365595
.183238 .2998538
miuahuat | .2727273 .0325681
chilac | .2415459 .0297495
  diff | .0311814 .0441102
| under Ho: .0440494 0.71 0.479
                                               -.0552731 .1176358
        Ho: proportion(miuahuat) - proportion(chilac) = diff = 0
                                                 Ha: diff > 0
      Ha: diff < 0
                            Ha: diff != 0
      z = 0.708
                            z = 0.708
                                                   z = 0.708
                       P > |z| = 0.4790
   P < z = 0.7605
                                                P > z = 0.2395
```

Test comparing criticism to husbands by husbands family regarding working wives being promiscous, by town.

Two-sample test of proportion				Number of obs Number of obs			
Variable	Mean		z		[95% Conf.	Interval]	
miuahuat chilac	.2994652 .2669903	.033494			.2338182 .2065791	.3651123 .3274014	
diff		.0455179	0.71	0.475	0567385	.1216884	
Ho: proportion(miuahuat) - proportion(chilac) = diff = 0							
Z	diff < 0 = 0.714 = 0.7624	z	diff != = 0.714 = 0.475		Ha: dif z = 0 P > z = 0	).714	

Test comparing gossip by husbands family regarding husbands not being the providers, by town.

Two-sample test of proportion				Number of obs		
Variable	Mean	Std. Err.	z	P> z	[95% Conf.	Interval]
	.2712766 .1545894				.2077206 .1053416	.3348326
diff	.1166872 under Ho:	.0410229	2.84	0.004	.0362838	.1970906
F	Ho: proportion	n(miuahuat) -	- proport	cion(ch:	ilac) = diff =	0
Ha:	diff < 0	Ha:	diff !=	0	Ha: dif	f > 0
Z	= 2.843		= 2.843		z = 2	.843
P < z	= 0.9978	P >  z	= 0.004	<del>1</del> 5	P > z = 0	.0022

Test comparing criticism to wives by husbands family regarding working wives being promiscous, by town.

Two-sample test of proportion				Number of obs					
Variable	Mean	Std. Err.	Z	P>   z	[95% Conf.	Interval]			
!	.212766 .1400966				.1542638 .092814				
diff	.0726693 under Ho:	.0383786	1.90	0.057	0025514	.14789			
<pre>Ho: proportion(miuahuat) - proportion(chilac) = diff = 0</pre>									
Z	diff < 0 = 1.900 = 0.9713		diff != = 1.900 = 0.057	)	Ha: diff $z = 1$ P > $z = 0$	.900			

Test comparing criticism to husbands by husbands family regarding working wives being promiscous, by town.

Two-sample test of proportion miuahuat: Number of obs = 187 chilac: Number of obs = \_\_\_\_\_\_ Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] .1696349 .2902582 .0849834 .1771525 miuahuat | .2299465 .0307718 chilac | .131068 .023513 diff | .0988786 .0387268 .0229754 .1747817 under Ho: .0386456 2.56 0.011 Ho: proportion(miuahuat) - proportion(chilac) = diff = 0 Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 z = 2.559 P > |z| = 0.0105z = 2.559P < z = 0.9947z = 2.559P > z = 0.0053

Test comparing gossip by neighbours regarding on women's place being the home, by town.

Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] miuahuat | .4833333 .0372471 .4103304 chilac | .5752688 .036244 .5042319 diff | -.0919355 .0519709 | under Ho: .0521833 -1.76 0.078 -.1937965 .0099256 \_\_\_\_\_\_ Ho: proportion(miuahuat) - proportion(chilac) = diff = 0 Ha: diff > 0 Ha: diff < 0 z = -1.762P < z = 0.0391 P > Ha: diff != 0 z = -1.762z = -1.762P > |z| = 0.0781P > z = 0.9609

Test comparing criticism to wives by neighbours regarding on women's place being the home, by town.

Two-sample test of proportion miuahuat: Number of obs = 180 chilac: Number of obs = 186

Variable | Mean Std. Err. z P>|z| [95% Conf. Interval]

miuahuat | .3888889 .036336 .3176717 .4601061 chilac | .4462366 .0364492 .3747974 .5176757

diff | -.0573477 .051467 -.158221 .0435257 | under Ho: .0515706 -1.11 0.266

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Test comparing criticism to husbands by neighbours regarding on women's place being the home, by town.

Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = 186 Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] miuahuat | .3276836 .0352799 chilac | .4623656 .0365578 .2585362 .396831 .3907137 .5340175 diff | -.134682 .050805 -.2342579 -.0351061 under Ho: .0513697 -2.62 0.009 Ho: proportion(miuahuat) - proportion(chilac) = diff = 0 Ha: diff != 0 Ha: diff < 0 z = -2.622

P < z = 0.0044

Test comparing gossip by neighbours regarding working wives being promiscous, by town.

Two-sample test of proportion miuahuat: Number of obs = 178 chilac: Number of obs = 185 z P>|z| [95% Conf. Interval] Mean Std. Err. Variable .2253304 .3589392 .2568682 .3917804 miuahuat | .2921348 .0340845 chilac | .3243243 .034417 .3917804 diff | -.0321895 .0484384 -.1271271 .0627481 under Ho: .048495 -0.66 0.507

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Ha: diff > 0 z = -0.664P > z = 0.7466

Test comparing criticism to wives by neighbours regarding working wives being promiscous, by town.

Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] .1746152 miuahuat | .2372881 .0319766 chilac | .2108108 .0299883 .1520349 .2695867 \_\_\_\_\_\_ diff | .0264773 .0438383 | under Ho: .0438196 0.60 0.546 -.0594441 .1123988

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Ha: diff != 0 Ha: diff > 0 z = 0.604P > z = 0.2728Ha: diff < 0 z = 0.604P > |z| = 0.5457z = 0.604P < z = 0.7272

Table () Test comparing criticism to husbands by neighbours regarding working wives being promiscous, by town.

## Test comparing gossip by neighbours regarding husbands not being the providers, by town.

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Test comparing criticism to wives by neighbours regarding husbands not being the providers, by town.

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Test comparing criticism to husbands by neighbours regarding husbands not being the providers, by town.

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Test comparing gossip by friends regarding on women's place being the home, by town.

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Test comparing criticism to wives by friends regarding on women's place being the home, by town.

183 Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = \_\_\_\_\_\_ Mean Std. Err. z P > |z|Variable | [95% Conf. Interval] -----.4472672 miuahuat | .3770492 .0358262 .3068312 .376668 .4473684 .0360723 chilac diff | -.0703192 .0508402 -.1699642 .0293257 under Ho: .0509948 -1.38 0.168

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Test comparing criticism to husbands by friends regarding on women's place being the home, by town.

Test comparing gossip by friends regarding working wives being promiscous, by town.

Test comparing criticism to wives by friends regarding working wives being promiscous, by town.

miuahuat: Number of obs = Two-sample test of proportion 183 chilac: Number of obs = \_\_\_\_\_\_ z P> | z | Variable | Mean Std. Err. [95% Conf. Interval] .2844535 miuahuat | .2240437 .0308219 .1636339 .2210526 .0301041 .1620498 chilac diff | .0029911 .0430842 | under Ho: .0430806 0.07 0.945 -.0814523 .0874345 Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Test comparing criticism to husbands by friends regarding working wives being promiscous, by town.

Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = 190 Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] -------.1755673 .2995708 .1244445 .2334502 miuahuat | .2375691 .0316341 chilac | .1789474 .0278081 diff | .0586217 .042119 -.02393 .1411734 under Ho: .0421227 1.39 0.164 Ho: proportion(miuahuat) - proportion(chilac) = diff = 0 Ha: diff != 0 Ha: diff < 0

Test comparing gossip by friends regarding husbands not being the providers, by

z = 1.392P < z = 0.9180

town.

181 Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] .1957934 .3235436 .1525576 .268495 miuahuat | .2596685 .0325899 chilac | .2105263 .0295764 .268495 diff | .0491422 .0440098 | under Ho: .0440064 1.12 0.264 -.0371155 .1353999 \_\_\_\_\_\_

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0

Ha: diff != 0 Ha: diff > 0 Ha: diff < 0 z = 1.117P < z = 0.8679z = 1.117P > z = 0.1321z = 1.117P > |z| = 0.2641

Test comparing criticism to wives by friends regarding husbands not being the providers, by town.

181 Two-sample test of proportion miuahuat: Number of obs = chilac: Number of obs = 190 Variable | Mean Std. Err. z P>|z| [95% Conf. Interval] miuahuat | .2154696 .0305604 .1555724 .2753668 chilac .1842105 .0281235 .1290895 diff | .0312591 .0415315 | under Ho: .0415041 0.75 0.451 -.0501412 .1126594

Ho: proportion(miuahuat) - proportion(chilac) = diff = 0 Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 z = 0.753 z = 0.753 z = 0.753z = 0.753z = 0.753 z = 0.753 z = 0.753 P < z = 0.753 P > |z| = 0.4514 P > z = 0.2257 Test comparing criticism to husbands by friends regarding husbands not being the providers, by town.

Two-sample	Two-sample test of proportion				Number of obs = Number of obs =	
	Mean				[95% Conf.	Interval]
miuahuat	.2444444 .1578947	.0320322			.1816624 .106046	
diff	.0865497 under Ho:	.0415436 .0416052	2.08	0.038	.0051257	.1679737
F	Ho: proportion	n(miuahuat) -	- proport	cion(chi	ilac) = diff = 0	)
Z	diff < 0 = 2.080 = 0.9812	Z	diff != = 2.080	)	Ha: diff $z = 2$ . $P > z = 0$ .	.080

### Regression tests comparing gossip and criticism for different reference groups

Only relevant tests, those where a significant sign was plausible, are displayed.

Test gossip by neighbours on women's place being home (gneigch) vs. criticism to wives by neighbours on women's place being the home (cneigch).

Test gossip by neighbours on women's place being home (gneigch) vs. criticism to husbands by neighbours on women's place being the home (chneigch).

Test criticism to wives by neighbours on women's place being home (cneigch) vs. criticism to husbands by neighbours on women's place being the home (chneigch).

Test gossip by neighbours on women's place being home (gneigch) vs. gossip to wives by wives family on women's place being the home (gfamch).

Test gossip by neighbours on women's place being home (gneigch) vs. gossip to wives by husbands family on women's place being the home (gfamch).

Prob > chi2 =

Test gossip by wives family on women's place being home (gneigch) vs. gossip to wives by friends on women's place being the home (gfamch).

0.3722

```
testnl [gfamch]gfamch=[gfriench]gfriench
    chi2(1) =      0.44
    Prob > chi2 =      0.5052
```

Test criticism to wives by neighbours on women's place being home (cneigch) vs. criticism to wives by wives family on women's place being the home (cfamch).

Test criticism to wives by neighbours on women's place being home (cneigch) vs. criticism to wives by husbands family on women's place being the home (cfhusch).

```
testnl [cneigch]cneigch=[cfhusch]cfhusch
  chi2(1) =      0.11
  Prob > chi2 =      0.7439
```

Test criticism to wives by neighbours on women's place being home (cneigch) vs. criticism to wives by friends on women's place being the home (cfriench).

```
testnl [cneigch]cneigch=[cfriench]cfriench
chi2(1) =      0.06
Prob > chi2 =      0.8033
```

Test criticism to wives by wives family on women's place being home (cfamch) vs. criticism to wives by friends on women's place being the home (cfriench).

```
testnl [cfamch]cfamch=[cfriench]cfriench
    chi2(1) =      0.38
    Prob > chi2 =      0.5395
```

Test gossip by wives family on women's place being home (gfamch) vs. criticism to wives by wives family on women's place being the home (gfamch).

```
testnl [gfamch]gfamch=[cfamch]cfamch
    chi2(1) = 2.10
    Prob > chi2 = 0.1473
```

Test gossip by husbands family on women's place being home (gfamch) vs. criticism to husbands by wives family on women's place being the home (chfamch).

testnl [gfamch]gfamch=[chfamch]chfamch

$$chi2(1) = 0.71$$
  
Prob >  $chi2 = 0.3988$ 

Test gossip by neighbours on women being promiscous (gneigin) vs. gossip by friends on women being promiscuous (gfrienin).

testnl [gneigin]gneigin=[gfrienin]gfrienin

Test gossip by wives family on women being promiscous (gfamin) vs. gossip by friends on women being promiscuous (gfrienin).

test [gfamin]gfamin=[gfrienin]gfrienin

$$chi2(1) = 3.43$$
  
 $Prob > chi2 = 0.0640$ 

Test gossip by wives family on women being promiscous (gfamin) vs. gossip by friends on women being promiscuous (gfrienin).

test [gfhusin]gfhusin=[gfrienin]gfrienin

$$chi2(1) = 3.62$$
  
Prob >  $chi2 = 0.0572$ 

Test criticism to husbands by wives family on women being promiscous (chfamin) vs. criticism to husbands by friends on women being promiscuous (chfrienin).

test [chfamin]chfamin=[chfrienin]chfrienin

$$chi2(1) = 2.63$$
  
Prob >  $chi2 = 0.1047$ 

Test criticism to husbands by husbands family on women being promiscous (chfhusin) vs. criticism to husbands by friends on women being promiscuous (chfrienin).

test [chfhusin]chfhusin=[chfrienin]chfrienin

$$chi2(1) = 7.66$$
  
Prob >  $chi2 = 0.0057$ 

Test criticism to husbands by neighbours on women being promiscous (chneigin) vs. criticism to husbands by friends on women being promiscuous (chfrienin).

test [chneigin]chneigin=[chfrienin]chfrienin

$$chi2(1) = 4.47$$
  
Prob >  $chi2 = 0.0345$ 

Test criticism to husbands by wives family on women being promiscous (chfamin) vs. criticism to husbands by neighbours on women being promiscuous (chfrienin).

test [chfamin]chfamin=[chneigin]chneigin

$$chi2(1) = 0.41$$
  
Prob >  $chi2 = 0.5196$ 

Test criticism to wives by wives family on women being promiscous (cfamin) vs. criticism to wives by friends on women being promiscuous (cfrienin).

test [cfamin]cfamin=[cfrienin]cfrienin

$$chi2(1) = 0.60$$
  
Prob >  $chi2 = 0.4393$ 

Test criticism to wives by husbands family on women being promiscous (cfhusin) vs. criticism to wives by friends on women being promiscuous (cfrienin).

test [cfhusin]cfhusin=[cfrienin]cfrienin

$$chi2(1) = 0.01$$
  
Prob >  $chi2 = 0.9155$ 

Test criticism to wives by neighbours on women being promiscous (cneigin) vs. criticism to wives by friends on women being promiscuous (cfrienin).

test [cneigin]cneigin=[cfrienin]cfrienin

$$chi2(1) = 0.02$$
  
 $Prob > chi2 = 0.8768$ 

Test gossip by husbands family on husbands being lazy (gfhuslz) vs. gossip by friends on husbands being lazy (gfrienlz).

test [gfhuslz]gfhuslz=[gfrienlz]gfrienlz

$$chi2(1) = 3.01$$
  
Prob >  $chi2 = 0.0828$ 

Test gossip by neighbours on husbands being lazy (gneiglz) vs. gossip by friends on husbands being lazy (gfrienlz).

test [gneiglz]gneiglz=[gfrienlz]gfrienlz

$$chi2(1) = 1.62$$
  
Prob >  $chi2 = 0.2037$ 

Test gossip by neighbours on husbands being lazy (gneiglz) vs. gossip by friends on husbands being lazy (gfrienlz).

test [cfhuslz]cfhuslz=[cfrienlz]cfrienlz

$$chi2(1) = 0.26$$
  
Prob >  $chi2 = 0.6101$ 

Test criticism to wives by neighbours on husbands being lazy (cneiglz) vs. criticism to wives by friends on husbands being lazy (cfrienlz).

test [cneiglz]cneiglz=[cfrienlz]cfrienlz

Test criticism to wives by wives family on husbands being lazy (cfamlz) vs. criticism to wives by friends on husbands being lazy (cfrienlz).

test [cfamlz]cfamlz=[cfrienlz]cfrienlz

$$chi2(1) = 4.88$$
  
Prob >  $chi2 = 0.0272$ 

Test criticism to wives by husbands family on husbands being lazy (cfamlz) vs. criticism to wives by wives family on husbands being lazy (cfamlz).

test [cfhuslz]cfhuslz=[cfamlz]cfamlz

$$chi2(1) = 3.36$$
  
Prob >  $chi2 = 0.0668$ 

Test criticism to wives by husbands family on husbands being lazy (cfamlz) vs. criticism to wives by wives family on husbands being lazy (cfamlz).

test [cneiglz]cneiglz=[cfamlz]cfamlz

$$chi2(1) = 1.01$$
  
Prob >  $chi2 = 0.3139$ 

Test criticism to husbands by neighbours on husbands being lazy (cfamlz) vs. criticism to friends on husbands being lazy (cfamlz).

test [chneiglz]chneiglz=[chfrienlz]chfrienlz

$$chi2(1) = 0.85$$
  
Prob >  $chi2 = 0.3571$ 

Test criticism to husbands by husbands family on husbands being lazy (cfamlz) vs. criticism to husbands by friends on husbands being lazy (cfamlz).

test [chfhuslz]chfhuslz=[chfrienlz]chfrienlz

$$chi2(1) = 1.40$$
  
Prob >  $chi2 = 0.2374$ 

Test criticism to husbands by wives family on husbands being lazy (cfamlz) vs. criticism to husbands by friends on husbands being lazy (cfamlz).

test [chfamlz]chfamlz=[chfrienlz]chfrienlz

$$chi2(1) = 1.80$$
  
Prob >  $chi2 = 0.1803$ 

# Comparison between Gossip and Criticism for different Reference Groups Diff moral arguments

Test gossip by wives family on womens place being the home (gfamch) vs. gossip by wives family on men bein lazy (gfamlz).

Test gossip by wives family on womens place being the home (gfamch) vs. gossip by wives family on women being promiscous (gfamin).

```
testnl [gfamch]gfamch=[gfamin]gfamin
    chi2(1) = 0.24
Prob > chi2 = 0.6248
```

Test gossip by wives family on women being promiscous (gfamin) vs. gossip by wives family on husbands being lazy (gfamlz).

```
chi2(1) = 2.05
Prob > chi2 = 0.1521
```

Test criticism by wives family to wives on wive place being the home (cfamch) vs. criticism by wives family to wives on husbands being lazy (cfamlz).

```
chi2(1) = 4.37
Prob > chi2 = 0.0366
```

Test criticism by wives family to wives on wive place being the home (cfamch) vs. criticism by wives family to wives on wives bieng promiscous (cfamin).

Test criticism by wives family to wives on husbands being lazy (cfamlz) vs. criticism by wives family to wives on wives being promiscous (cfamin).

Test criticism by wives family to husbands on wive place being the home (chfamch) vs. criticism by wives family to husbands on husbands being lazy (chfamlz).

Test criticism by wives family to husbands on wive place being the home (chfamch) vs. criticism by wives family to husbands on wives bieng promuscous (chfamin).

Test criticism by wives family to husbands on husbands being lazy (chfamlz) vs. criticism by wives family to husbands on wives being promiscous (chfamin).

Test gossip by husbands family on women's place being the home (gfhusch) vs. gossip by husbands family on wives being promiscous (gfhusin).

Test gossip by husbands family on women's place being the home (gfhusch) vs. gossip by husbands family on husbands being lazy (gfamlz).

Test gossip by husbands family on wives being promiscous (gfhusin) vs. criticism by husbands family on husbands being lazy (gfhuslz).

Test criticism by husbands family to wives on wive place being the home (cfhusch) vs. criticism by wives family to wives on wives being promiscuous (cfhusin).

Test criticism by husbands family to wives on wive place being the home (cfhusch) vs. criticism by wives family to wives on husbands being lazy (cfhusin).

Test criticism by husbands family to wives on wive place being the home (cfhusch) vs. criticism by wives family to wives on husbands being lazy (cfhuslz).

Test criticism by husbands family to husbands on wives place being the home (chfhusch) vs. criticism by wives family to husbands on wives being promiscuous (chfhusin).

Test criticism by husbands family to husbands on wives place being the home (chfhusch) vs. criticism by wives family to husbands on husbands being lazy (chfhuslz).

Test criticism by husbands family to husbands on wives being promiscous (chfhusin) vs. criticism by wives family to husbands on husbands being lazy (chfhuslz).

Test gossip by neighbours on women's place being the home (gneigch) vs. gossip by neighbours on wives being promiscous (gneigin).

```
testnl [gneigch]gneigch=[gneigin]gneigin
    chi2(1) = 1.29
Prob > chi2 = 0.2553
```

Test gossip by neighbours on women's place being the home (gneigch) vs. gossip by neighbours on husbands being lazy (gneiglz).

Test gossip by neighbours on wives being promiscous (gneigin) vs. gossip by neighbours on husbands being lazy (gfamlz).

Test criticism by neighbours to wives on women's place being the home (cneigch) vs. criticism by neighbours to wives on wives being promiscous (cneigin).

Test criticism by neighbours to wives on women's place being the home (cneigch) vs. criticism by neighbours to wives on husbands being lazy (cneiglz).

Test criticism by neighbours to wives on wives being promisous (cneigin) vs. criticism by neighbours to wives on husbands being lazy (cneiglz).

Test criticism by neighbours to husbands on women's place being the home (chneigch) vs. criticism by neighbours to husbands on wives being promiscous (chneigin).

Test criticism by neighbours to husbands on women's place being the home (chneigch) vs. criticism by neighbours to husbands on husbands being lazy (chneiglz).

```
testnl [chneigch]chneigch=[chneiglz]chneiglz
chi2(1) = 0.43
Prob > chi2 = 0.5138
```

Test criticism by neighbours to husbands on wives being promisous (chneigch) vs. criticism by neighbours to husbands on husbands being lazy (chneiglz).

Test gossip by friends on women's place being the home (gfriench) vs. gossip by friends on wives being promiscous (gfrienin).

```
testnl [gfriench]gfriench=[gfrienin]gfrienin
    chi2(1) = 1.01
Prob > chi2 = 0.3152
```

Test gossip by friends on women's place being the home (gfriench) vs. gossip by friends on husbands being lazy (gfrienlz).

```
testnl [gfriench]gfriench=[gfrienlz]gfrienlz
chi2(1) = 2.38
Prob > chi2 = 0.1226
```

Test gossip by friends on wives being promiscous (gfrienin) vs. gossip by friends on husbands being lazy (gfrienlz).

```
testnl [gfrienin]gfrienin=[gfrienlz]gfrienlz
chi2(1) = 0.48
Prob > chi2 = 0.4881
```

Test criticism by friends to wives on women's place being the home (cfriench) vs. criticism by friends to wives on wives being promiscous (cfrienin).

Test criticism by friends to wives on women's place being the home (cfriench) vs. criticism by friends to wives on husbands being lazy (cfrienlz).

Test criticism by friends to wives on wives being promisous (cfrienin) vs. criticism by friends to wives on husbands being lazy (cfrienlz).

```
testnl [cfrienin]cfrienin=[cfrienlz]cfrienlz
chi2(1) = 0.92
Prob > chi2 = 0.3368
```

Test criticism by friends to husbands on women's place being the home (chfriench) vs. criticism by friends to husbands on wives being promiscous (chfrienin).

Test criticism by friends to husbands on women's place being the home (chfriench) vs. criticism by friends to husbands on husbands being lazy (chfrienlz).

testnl [chfriench]chfriench=[chfrienlz]chfrienlz

chi2(1) = 0.17Prob > chi2 = 0.6819

Test criticism by friends to wives on husbands being promisous (chfrienin) vs. criticism by friends to husbands on husbands being lazy (chfrienlz).

testnl [chfrienin]chfrienin=[chfrienlz]chfrienlz

chi2(1) = 3.76Prob > chi2 = 0.0524