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Women and Work: What Role Do Social Norms Play?

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Abstract

Against the background of the current (economic) research which concentrates particularly on individual and structural factors, this paper examines if and to what extent social norms (in terms of attitudes towards gender roles and work commitment) can make a complementary statement in explaining women's employment status and number of working hours. The impact is presumed to be enhanced through norms shared by people belonging to the same households, peer groups, and by residents of the same region.

The analysis relies on a rich German dataset (PASS) and employs a probit model with sample selection. The results highlight, among other things, the importance of 'relevant others' in explaining women's employment status.

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1 Introduction

In many Western industrialised countries, women's participation in paid employment increased significantly over the last decades. This phenomenon has attracted much attention in social sciences, particularly in economics and sociology. Analyses on both the macro- and micro-level have been conducted, exploring possible factors that caused and enhanced this development (Heineck, 2004).

An important attribute of the research conducted so far is that it concentrates extensively on specific topics, such as the relationship between fertility and women's employment, and on the effect of specific family policies (i.e. child care, parental leave) on women's labour market participation (Schröder and Pforr, 2009; Berninger, 2009; Mühlberger, 2000). Beyond this, most of the economic studies exploring the determinants of women's employment status rest heavily on neo-classical models with their assumption that preferences are given and exogenous to the cultural environment of the decision-maker.

However, this approach and the reduction to specific topics and policy fields narrow the holistic mechanism of labour markets. Moreover, the dominance of neo-classical models has relegated the relationship between culture and individual economic behaviour to the fringe.

Against this background, the aim of the present paper is to examine if and to what extent social norms (in terms of attitudes towards gender roles and work commitment) influence women's employment status and the number of working hours in Germany. It is presumed that their impact is enhanced through norms shared by people belonging to the same households (i.e family members), peer groups and by residents of the same region.

The reasons why attitudes towards gender roles and (paid) employment should be important in predicting women's labour force participation are fairly straightforward. According to socioeconomic and institutionalist views, cultural aspects such as language, norms, customs, and conventions determine, in large part, the value and significance people attach to labour market behaviour. Particularly social norms are said to shape an individual's objectives and performance in the labour market (Austen, 2000). Their impact is rendered possible through the adherence of individuals to a peer group (defined in terms of social, geographical and/or cultural proximity) (Loury, 1998).

Derived from this idea, the underlying assumption of the present analysis rests

upon the *homophily principle*, i.e. the contact between similar people occurs at a higher rate than among dissimilar people (*"Birds of a feather flock together"*). According to McPherson et al. (2001) similarity limits peoples social worlds in a way that has powerful implications for the information they receive, the attitudes they form and the interactions they experience. The basic type of relationship which exerts powerful influences on individual labour market outcomes is represented by family and peer group ties. Another source of similarity is space, meaning that individuals are more likely to have contact with, and be influenced by those who are closer to them geographically than those who are distant.

The spatial dimension plays a particularly relevant role in Germany. This is due to the fact that, even two decades after reunification, labour market differentials and gaps in attitudes towards gender roles and work commitment between western and eastern Bundesländer are still substantial. For example, in 2006 in the eastern part of Germany the unemployment rate reached 17.3 percent and the GDP per employable person amounted to € 48,553 while in the western part it reached 9.1 percent and € 61,828, respectively. (Statistische Ämter der Länder, 2009; Federal Employment Agency, 2006). Moreover, whereas employment is a social imperative for men, it is – especially in the western part of Germany – still seen as a choice for women. Because essentialist views about women's maternal nature and structural barriers to women's employment are widespread but differently weighted in Germany, we expect to find interesting insight regarding the role played by social norms in women's employment status and, thus, to complement the existing body of literature.

This paper is structured as follows: the next chapter reviews previous research and provides a brief discussion of the main determinants of women's labour market participation. Subsequently, the data used for the study is presented. Chapter four highlights a range of empirical findings related to the role played by social norms in Germany. The fifth chapter comprises a synthesis of current results obtained from a probit model with sample selection. Section six comprises the main conclusions of this study.

2 Related literature

Drawing on a large body of economic and sociological literature, several key predictors of women's employment status can be identified on the individual, household

and regional (national) level. Among individual and household determinants, the female labour supply literature provides evidence that the presence, number and age of children have a significant negative effect on the female employment probability (Kalwij, 2000). Assuming an efficiency rising, gender-related specialisation in the domestic division of labour, particularly the representatives of the 'New Home Economics' (Becker, 1981) point out that women, mainly after having given birth, are very likely to reduce their work volume.[1] Furthermore, the husband's level of education, work hours, income level and promotion to a higher position are all also considered to restrict the opportunities for a married woman to work outside home (Maume, 2006).

The effect of age on women's employment status follows a course with three phases: while young women (and thus at the beginning of their career) have a higher labour market participation, a drop-off follows for middle-aged women (related to birth and child care responsibilities). In the long-run, women re-integrate in the labour market, though with a lower work volume (Vogel, 2007). Education, particularly in the form of professional training, has a positive effect both on the employment status and work volume of women, i.e. a higher level of education considerably reduces the probability of being a homemaker.

Though some individual and household predictors might change over time, their influence remains long-lasting and significant. According to the sociological labour-supply literature, a particularly formative and persistent influence emanates from cultural and social determinants. Gender egalitarianism, for example, affects couples' decisions about paid work, resulting in men and women placing higher value on income and less on the position and roles each occupies within the relationship (Kubeka, 2007). These developments transformed women's socioeconomic lives in such a manner that their contribution to the household income increased. However, though family patterns have changed on an aggregate level across almost all European countries, along with the norms and attitudes regarding family life and childbearing (Frejka et al., 2008), gender relations within the family have scarcely changed (Blossfeld and Drobnic, 2001). It means that, though men became more helpful in performing household chores, employed women still have to handle both work and a large part of family responsibilities (Wilcox and Nock, 2006).

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[1]However, an issue which remains unsolved in the literature refers to the direction of the causal relationship between women's employment status and fertility. A large numer of empirical studies reveal that it is women's employment status that has a significant negative effect on the presence and number of children in the household (see for a detailed discussion Schröder und Pforr, 2009).

Alternative explanations for women's employment status are also taken into consideration. As shown by Guiso et al. (2003) and Algan and Cahuc (2006), religiosity is associated with less favourable institutions and less favourable attitudes towards working women. Heineck (2004) points out that denominational affiliation (particularly Catholicism) as well as religious participation correlate positively with traditional attitudes both across and within countries.

In addition to the above mentioned research focusing on religiosity, there have also been studies using measures of attitudes towards women's role within a country. While Fernandez et al. (2004) and Kawaguchi and Miyazak (2009) provide evidence for the importance of intergenerational role-models patterns (men raised in households with employed mothers), Fortin (2005) shows that societal gender and work attitudes help explain labour market and fertility outcomes for twenty five OECD countries. More recently, Fernandez and Fogli (2009) strengthen these arguments by revealing the effect of culture (instrumentalised as past female labour force participation and total fertility rates from women's country of ancestry) on economic outcomes and fertility of second-generation American women.

A final set of relevant explanations for women's employment status refer to regional- and national-level predictors. Among these, two determinants seem to play a considerable role, particularly in Germany. Firstly, regional economic conditions such as unemployment rates exert powerful influences on women's employment status. According to Eberharter (2003), labour market adjustments are not gender-neutral, but affect women's employment status to a greater extent than those of men. Secondly, empirical studies point out that good quality childcare services (particularly for infants) can act as a key re-integration mechanism, providing parents with the ability to reconcile both work and family, and promote women's employment continuity (Berninger, 2009). Besides availability, other aspects such as affordability and compatibility of facilities with paid working hours determine whether childcare services support women's employment.[2]

Other regional and national factors often depicted in the literature as determining women's employment status range from the effects of the oral contraceptive (Goldin and Katz, 2002) and of the new consumer durables (washing machine, vacuum cleaner)

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[2]However, Fagan and Hebson (2006) emphasise that these services cannot be examined in isolation. Without employment opportunities, childcare alone cannot provide the impetus for high maternal employment rates. Moreover, Vogel (2007) points that external child care affects the employment status, rather than women's work volume.

which decreased the amount of work required to run a household (Greenwood et al., 2005), to the level of economic development (Pampel and Tanaka, 1986), sectoral composition of the workforce (Schulz, 1990; Akbulut, 2010), the level of job security and other forms of employment protection (Eberharter, 2003) and, more generally, to policies promoted by the state regarding education, taxes or gender equality.

As seen from aforementioned studies, progress is being made in exploring the determinants and consequences of women's employment status. However, though researchers have increasingly become aware that, in addition to individual, structural and institutional determinants, cultural influences also play a role in economic decision-making (Soetevent, 2004), systematic empirical evidence acknowledging the importance of social norms is still scarce. Against this background, our paper purports to complement the existing body of literature by combining elements of previous analyses with cultural influences and by shedding light on the role played by social norms (in terms of attitudes towards gender roles and work commitment) for women's employment status and number of working hours.

3   Data

For analysing the role of gender norms on women's employment status and number of wokring hours we focus our analysis on the German labour market. The motivation for this choice is twofold: firstly, a rich and up-to-date dataset containing both labour market-related variables and information regarding norms (or attitudes) of individuals is available for Germany. Secondly, differences between the western and the eastern part of Germany in structural conditions and social norms are noticeable even after two decades of reunification. Therefore, a joint examination of both German regions may reveal interesting insights regarding the impact of gender and work norms.

The main data set employed for this analysis is the 'Labour Market and Social Security' (PASS) data set. This is an annual household survey which is conducted by the Institute for Employment Research (IAB). For the first wave of the panel study (2006/2007), 16,954 persons in 12,794 households were interviewed. The applied survey design is based on a two-stage random sample including 300 postal code areas. The data set refers to two population groups: the first one includes people and households in receipt of Unemployment Benefit II (ALG II); the second group includes residents and households of Germany. Initially, an individual interview was carried

out with the principals of all selected households. Subsequently, household members over the age of 15 were interviewed. People older than 65 were interviewed with a diffrent questionnaire referred to as a pensioners questionnaire.

The adjusted data set includes 7,155 women (observations) in the age group 15 to 64, who are either homemakers (1,971 people), unemployed (2,825 people) or employed (2,359 people). Not included in the sample are pensioners, people who fulfill either their military or alternate civilian service and people who attend vocational training or a school. The group of unemployed covers not only people who are unemployed, but also those who are in a job creation scheme provided by the Federal Employment Agency. In Table 1, in order to get a better view on the data set used for the present analysis, some descriptive statistics are presented.

Table 1: Descriptive Statistics

Variable	Obs.	Mean	Std.Dev.	Min.	Max.
Individual characteristics					
Weekely working hours	7155	11.3365	17.2240	0	84
Age	7155	40.8867	11.0822	16	64
Age^2	7155	1791.425	905.52	256	4096
Highly qualified	7155	.2113	.4082	0	1
Migration background	7155	.2663	.4420	0	1
Religiosity	7155	.4723	.4992	0	1
Household characteristics					
Child<15	7155	.4247	.4943	0	1
Partner	7155	.3948	.4888	0	1
Income partner	7155	434.0976	1012.155	0	20000
Regional variables (Bundesland level)					
Unemployment rate	16	11.6334	4.0401	6.3	19
Childcare infrastructure	16	.5218	.0812	.4385	.7092

Source: PASS, 2006/2007; Federal Statistical Office, 2006; Federal Employment Agency, 2006.
Note: 'Weekely working hours' displays women's weekly *effective* working hours. 'Age' is women's age (in years). 'Highly qualified' is a dummy variable displaying the educational level (1-highly qualified, 0-otherwise). 'Migration' reveals the migration background of a women (1-with migration background and 0-otherwise). 'Religiosity' is a dummy with the value 1 for women who consider themselves as being religious/very religious and 0 otherwise. 'Child⟨15' is a dummy variable with the value 1 if there are children younger than fifteen years in the household and 0 otherwise. 'Partner' is a dummy variable with value 1 if the woman has a partner/spouse and 0 otherwise. 'Income partner' reveals the income of the partner living in the household (continuous variable). 'Unemployment rate' is the regional unemployment rate. 'Childcare infrastructure' is the share of children in childcare services in relation to the total number of children in the respective age group per Bundesland.

4 Modelling social norms

The main challenges of the present analysis refer to the difficulty of modelling social norms and estimating their impact on women's employment status.

Accordingly, the identification of a measurement method for the norms' strength represents *a sine qua non* prerequisite for the empirical analysis. The measurement should illustrate normative preferences, i.e. the level of belief within households, peer groups and regions that women's paid employment is desirable and represents a positive matter of fact. Our approach is based on proxies capturing attitudes towards gender roles and work commitment. These are constructed on the basis of several items from the PASS dataset (Table 2).

Table 2: Norms referring to gender roles and work commitment: statements and proxies classification

Proxy	PASS Questions
Norms referring to gender roles	Item 1: A woman should be willing to reduce her working hours in order to have more time to take care of her family.
	Item 2: Having a job is quite nice, but the one thing most women really want is a home and children.
	Item 3: A working mother can have an equally warm relationship with her children as a mother who does not work.
	Item 4: It is the responsibility of the husband to earn money, and the responsibility of the wife to keep the house and to take care of the family.
Norms referring to work commitment	Item 1: Work is only a means to earn money.
	Item 2: Work is the most important thing in life.
	Item 3: Work is important, because it gives you the feeling to be part of the society (social affiliation).
	Item 4: I would also like to work, if I didn't need the money.

Source: PASS 2006/2007. The response categories are: 1-'strongly agree", 2-'agree", 3-'disagree" and 4-'strongly disagree"

The other, and perhaps more nebulous challenge refers to the identification of the channel (or the reference group) through which social norms affect women's decisions and labour market behaviour.

Formally, an individual's reference group can be defined as *"the set of people to which he/she attaches a non-zero weight in making the decision of interest"* (Soetevent, 2004). Due to data constraints, models focusing on the effects of social norms strongly simplify the specific links between individuals when defining who interacts with whom

in the society. Most reference group definitions put forward by researchers are based either on social, geographical or cultural proximity.

Mc. Pherson et al. (2001) combine these three dimensions and introduce in the literature the concept of 'homophily' in social networks. This notion implies that similarity breeds connection. The authors argue that people's personal networks are homogeneous with regard to socio-demographic, behavioural and personal characteristics. Geographic proximity, families and organisations are just some of the contexts (dimensions) in which homophilous relations form.

The 'relevant others' of women (i.e the ones who influence their labour market behaviour) are defined in the present analysis by including both elements of social, geographical as well as cultural proximity. The social proximity is modelled particularly at the *household level* by introducing variables denoting their partners' views regarding gender roles and work commitment. In addition, based on a *cluster analysis*[3], and relying on the homophily principles, we define a reference group for each woman according to her age (group), migration background, employment status, presence of children younger than six years in the household and residential place. Finally, the *geographical and cultural proximity* is captured through proxies constructed on the regional level (accroding to primary sampling units, PSUs) denoting the aggregated gender and work attitudes of their inhabitants (see the following chapter).

Social norms – regional specifications

Special attention in this analysis is given to the gender roles and work commitment proxies built on the regional level (PSUs). Primary sampling units are zip-code regions selected in the first stage of a multi-level sample. Based on this regional delimitation one can identify to a certain extent both the spatial dimension individuals live in and the people who leave nearby.

Moreover, according to the PSUs one can draw information also on the federal states individuals live in (eastern or western *Bundesländer*), since people gathered in the same PSUs implicitly also live in the same states. Thus, it becomes possible to

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[3]The cluster analysis is carried out as a hierarchical procedure using the average linkage method and the Jaccard-coefficient for measuring similarity. All variables have been recoded to nominal variables in order to accommodate them in a single cluster analysis. To identify the optimum number of clusters, we calculated the Duda/Hart-index. The clusters were optimised applying the kmeans-method. Following these procedures, 35 clusters were determined that contained observations that are, to a large extent, similar. Due to the large number of clusters identified, we do not purport to interpret and label them any further.

make statements on the East-West dispertion of attitudes towards gender norms and work commitment.

Contemporary Germany provides an unique opportunity to examine how subjective attitudes regarding the 'meaning of work' and gender roles may be shaped by the exposure to different economic systems, divergent ideologies and everyday life conditions. The regional/national context has often been used in the literature to explain differences between countries in gender-role attitudes and (women's) work commitment. While Western European countries have been classified as supporting the male-breadwinner model of the family (Ostner and Lewis, 1994), formerly socialist nations in Central and Eastern Europe are considered to have encouraged the two-income model, by supporting women's (full) employment through state propaganda and policies, universal child care and an mentality stressing work as a civil duty and gender equality as a social goal (Drobnic, 1997; Treas and Widmer, 2000).

Consistent with the arguments revealed so far, a large number of studies emphasised differences in work norms between eastern and western Germans: eastern German (women) are said to attach a higher importance to paid work than their counterparts in western Germany (Adler and Brayfield, 1997). Moreover they are less likely to approve the male-breadwinner model, with women staying home and taking care of children. Previous literature reveals, furthermore, that differences in gender roles and women's own work commitment are not only correlated with national and/or regional environments, but also differ by the individual employment status. Beechey and Perkins (1987) and Hakim (1995) show gaps in attitudes between unemployed, part-time and full-time workers. Other empirical studies point out that particularly non-working women and women working part-time hold more conservative views towards women's role in society (Alwin et al., 1992).

In line with this branch of studies, we also use the regional residence of individuals (eastern versus western PSUs) as a proxy for measuring the remains of state socialist and capitalist economies. Though we acknowledge that regional residence embodies various meanings, we argue that this differentiation reflects a woman's socialisation under different social and economic frameworks.

Descriptive analyses offer in the following first insights about if and to what extent these differences in gender role attitudes and work commitment are still relevant within the current German context (Tables 3 and 4). The results show that twenty years after reunification, implying a common political and institutional framework, we still

experience large discrepancies with regard to the examined patterns. The analysis on the differentials in gender norms illustrates that people living in the western part hold more traditional views than their eastern counterparts, regardless of their gender.

Table 3: Differentials in attitudes towards gender roles

	East Germany			West Germany		
	Men	Women	All	Men	Women	All
1. A woman should be willing to reduce her working hours in order to have more time to take care of her family.	46.00	30.36	37.57	34.57	21.42	27.31
2. Having a job is quite nice, but the one thing most women really want is a home and children.	65.21	69.13	67.34	59.10	59.40	59.27
3. A working mother can have an equally warm relationship with her children as a mother who does not work.	89.36	92.86	91.25	79.36	84.94	82.45
4. It is the responsibility of the husband to earn money, and the responsibility of the wife to keep the house and to take care of the family.	75.28	80.95	78.32	64.67	70.73	67.99

Source: PASS 2006/2007, own calculations. Note: the results refer to the shares of people who stated that they 'strongly disagree'/'disagree' on items 1,2,4 and 'strongly agree'/'agree' on item 3, i.e. the share of those with 'modern attitudes' towards gender roles.

Moreover, the analysis referring to work commitment reveals that also in this case East-West differentials are still visible. While people living in the eastern federal states seem to value work from a non-pecuniary perspective (displaying higher shares for the items 2 and 3), western Germans seem to see work rather from a pecuniary perspective. In line with this idea, the shares of those who see work mainly as a means to earn money are larger in the western part of Germany. This can be historically explained, since in the eastern part work was advocated, irrespective of earnings, as a self-fulfilling activity and as a modality of building a better society (Meulemann,1996)

Table 4: Differentials in attitudes towards work commitment

	East Germany			West Germany		
	Men	Women	All	Men	Women	All
1. Work is only a means to earn money.	38.56	49.49	44.41	46.17	52.64	49.72
2. Work is the most important thing in life.	75.71	79.58	77.78	71.79	75.82	74.00
3. Work is important, because it gives you the feeling to be part of the society (social affiliation).	89.93	92.81	91.47	87.40	88.80	88.17
4. I would also like to work, if I didn't need the money.	76.49	86.36	81.77	75.22	79.92	77.79

Source: PASS 2006/2007, own calculations. Note: the results refer to the shares of people who stated that they 'strongly agree'/'agree' on these items.

For the multivariate analysis, based on these items we constructed dummy variables reflecting the attitudes of women's partners towards gender roles and work commitment. For example, men who strongly agreed/agreed on item 3 but strongly disagreed/disagreed on items 1, 2 and 4 (Table 3) are assumed to have modern gender roles. Regarding work commitment, those partners who stated that they 'strongly agree'/'agree' on items 2, 3 and 4 but strongly disagreed/disagreed on item 1 (Table 4) are assumed to hold a higher work commitment. In this manner we are able to capture the social norms encountered at the household level. Moreover, in order to include the influence of social norms on women' s labour market decisions from a social and geographical perspective, we also contructed variables for each item reflecting the shares of individuals holding traditional gender roles and high work commitment in a women' s reference groups (cluster) and those living in her PSU.

5   Methodology and results

We analyse the influence of norms regarding gender roles and work commitment on two different labor market decisions of women:

• firstly, we explore the influence of social norms on women's decisions and opportunities of finding employment

• secondly, we explore the influence of social norms on the number of working hours of employed women.

The formulation of these propositions is crucial for the empirical approaches employed. In the first proposition we are interested in the women's decision and opportunity to work, that is, we also investigate the hypothetical opportunities of getting a job for those women who actually decided not to work. We do so because some women may decide not to work since they are aware of their higher risk of being unemployed. Since we are aware of possible sample selection problems arising from this assertion, we apply a probit model with sample selection. For the second research question referring to the number of working hours depicted by women, we restrict our sample on employed women and apply a linear regression model.[4]

The linear regression model for the second question is basic and therefore only the structure of the probit model with sample selection is briefly presented subsequently.

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[4]Previously, we applied a linear regression model with sample selection for this question; however we did not find any sample selection bias. Since the results were basically similar, we only present the results for the linear regression model without sample selection.

This consists of two equations (Wooldridge, 2002):

$$y_1 = 1\left[x_1\beta_1 + u_1 > 0\right] \tag{1}$$

$$y_2 = 1\left[x\delta_2 + v_2 > 0\right] \tag{2}$$

The latter equation represents the decision of a woman to participate in the labour market ($y_2 = 1$ for those who decide to participate and $y_2 = 0$ otherwise). For those women who decide to participate, we observe, whether they receive a job opportunity (equation 1): Given a women decided to participate in the labor force we observe, whether she is employed ($y_1 = 1$) or unemployed ($y_1 = 0$). We do not observe y_1 for those women who do not participate. Both equations are based on probit models. As mentioned above there is a potential sample selection bias: Women who decide to participate in the labour force might be less likely to become unemployed (discouraged worker effect). Therefore the error terms of both equations (u_1 and v_2) are likely to be correlated, resulting in sample selection bias as long as we are interested in making a statement on the whole female population.[5] Possible sample selection bias is controlled for by allowing a non-zero correlation between the error terms.

We apply a set of explanatory variables x for the participation decision (i.e. for the first stage of the model). For the job offer-equation (second stage of the model) we apply the set of explanatory variables x_1. While x_1 has to be a strict subset of x, this has to contain at least one variable that is not also included in x_1. The latter is a prerequisite for identification. In other words, the second stage of the model contains a set of variables x, which must be a subset of the explanatory variables x_1 contained by the participation equation (Baum, 2006: 268). Fortunately we observe major differences between the parameters vectors β_1 and δ_2 in the two parts of the model so that identification is not a problem. This observation represents moreover also a confirmation for distinguishing between these two stages of the model.

Table 5 contains the raw results of the model. The marginal effects are summarized in the right columns of the table. These represent the partial derivative of the predicted probability with respect to a given independent variable at the independent variable's mean value; in case of a dummy variable they represent the change in predicted probability as x changes from 0 to 1. For the second equation the predicted probability refers to a woman's probability to participate in the labor force (selection equation); for the first equation the predicted probability refers to a woman's probability to be employed given that she is part of the labor force (conditional probability).

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[5]Refers to our earlier restriction of the sample of women.

Table 5: Results on the influence of social norms on women's decisions and opportunities to find employment

First stage (decisional): being homemaker or participating in the labour market				
Variable	Coeff.	Std.Err.	dy/dx	mean of x
Age	0.1066***	0.0245	0.0356	41.0844
Age^2	-0.0013***	0.0003	-0.0004	1809.94
Highly qualified	4.3027***	0.9291	0.6846	0.2502
Migration background	-0.0189	0.0794	-0.0063	0.2027
Religiosity	-0.1521**	0.0655	-0.0505	0.5542
Child<15	-1.0994***	0.0764	-0.3758	0.3966
Partner	-.0004***	0.0004	-0.2024	0.5495
Income partner	-0.0000*	0.0000	-0.0000	890.893
Partner-high work commitment, item 1	-0.1782**	0.0884	-0.0609	0.2647
Partner-high work commitment, item 3	-0.1463	0.1444	-0.0489	0.4856
Partner-modern gender views, item 1	0.1653	0.1152	0.0535	0.2091
Partner-modern gender views, item 3	0.4256***	0.0989	0.1396	0.4476
Partner-modern gender views, item 4	0.3233***	0.0956	0.1055	0.3971
Cluster-modern gender views, item 4	2.3915**	0.9786	0.7989	0.7310
HighQ*Work commitment-partner, item 3	-0.3953**	0.1597	-0.1418	0.1287
HighQ*Mod.gender views-partner, item 1	0.5680***	0.1832	0.1589	0.0750
HighQ*Mod.gender views-cluster, item 4	-5.2764***	1.2696	-1.7627	0.1845
Unemployment rate	0.0031	0.0121	0.0010	10.7306
Childcare infrastructure	0.8420	0.6639	0.2813	0.5100
PSU-high work commitment, item 1	-0.0503	0.3242	-0.0168	0.5011
PSU-high work commitment, item 3	2.0475***	0.6711	0.6840	0.8716
PSU-modern gender views, item 2	0.9682**	0.3810	0.3234	0.6064
const	-5.3216***	0.9187	-	-
Wald test of indep. eqns. (rho=0): chi2(1)=9.67, Prob>chi2=0.0019				
Second stage: given a positive decision to participate, being unemployed or employed				
Age	0,0800***	0.0254	0.0239	41.0844
Age^2	-0,0009***	0.0003	-0.0002	1809.94
Highly qualified	0,2989***	0.0827	0.2522	0.2502
Migration background	-0,3048**	0.0803	-0.0780	0.2027
Partner	-0,5446**	0.2196	-0.1567	0.5495
Income partner	-0,0002***	0.0000	-0.0000	890.893
Partner-high work commitment, item 1	0,2148*	0.1139	0.0357	0.2647
Partner-high work commitment, item 3	0,4109**	0.2034	0,0829	0.4856
Partner-modern gender views, item 1	0,3228**	0.1152	0,0698	0.2091
Cluster-modern gender views, item 4	1,4211*	0.1393	0,4526	0.7310
Unemployment rate	-0,0502***	0.0139	-0.0110	10.7306
Childcare infrastructure	1,2323*	0.6639	0.2268	0.5100
PSU-high work commitment, item 1	0,7231**	0.3479	0.1583	0.5011
const	-0,7866***	0.6739	-	-

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Table 6: Results from the linear regression on the influence of social norms on employed women

Number of working hours of employed women		
Variable	Coeff.	Std.Err.
Age	-0.1405***	0.0285
Age²	2.6013***	0.6007
Religiosity	-2.0934***	0.6721
Child<15	7.3258***	0.6521
Partner	0.8327*	0.9319
Income partner	-0.0014***	0.0003
Partner-high work commitment, item 1	1.6031**	0.8076
Partner-high work commitment, item 2	-1.7728**	0.7923
Unemployment rate	0.1283*	0.0731
const	-0,7866***	1.5360

Note: 'Age' is women's age (in years). 'Highly qualified' is a dummy variable displaying the educational level (1-highly qualified, 0-otherwise). 'Migration' reveals the migration background of a women (1-with migration background and 0-otherwise). 'Religiosity' is a dummy with value 1 for women who consider themselves as being religious/very religious and 0 otherwise. 'Child⟨15' is a dummy variable with value 1 if there are children younger than fifteen years in the household and 0 otherwise. 'Partner' is a dummy varaible with value 1 for women having a partner/spouse and 0 otherwise. 'Income partner' reveals the income of the partner living in the household (continuous variable). 'Partner-high work commitment, item 1' is a dummy variable with value 1 for partners who stated that they strongly disagree/disagree with item 1 on work commitment. 'Partner-high work commitment, item 2' is a dummy variable with value 1 for partners who stated that they strongly agree/agree with item 2 on work commitment. 'Partner-high work commitment, item 3' is a dummy variable with value 1 for partners who stated that they strongly agree/agree with item 3 on work commitment. 'Partner-modern gender views, item 1' is a dummy with value 1 for partners stating that they strongly disagree/disagree with item 1 on gender roles. 'Partner-modern gender views, item 3' is a dummy with value 1 for partners stating that they strongly sagree/agree with item 3 on gender roles. 'Partner-modern gender views, item 4' is a dummy with value 1 for partners stating that they strongly disagree/disagree with item 4 on gender roles. 'Cluster-traditional gender views, item 4' represents the share of people in a woman's cluster stating that they strongly agree/agree with item 4 on gender roles. 'HighQ*Work commitment-partner, item 3' is an interaction term between the woman's education level and the partner's work commitment, with the value 1 when the woman is highly qualified and her partner strongly agrees/agrees with the item 3 on work commitment. 'HighQ*Mod.gender views-partner, item 1' is an interaction term between the woman's education level and the partner's view on gender roles, with the value 1 when the woman is highly qualified and her partner strongly disagrees/disagrees with item 1 on gender roles. 'HighQ*Mod.gender views-cluster, item 4' is an interaction term between the woman's education level and the views prevaling in her cluster, taking, on the one hand, the value 0 if a woman is not highly qualified, and on the other hand, a value representing the share of people with modern gender roles according to item 4 if the women is highly qualified. 'Unemployment rate' is the regional unemployment rate. 'Childcare infrastructure' is the share of children in childcare services reported to the total number of children in the respective age group per Bundesland. 'PSU-high work commitment, item 1' denotes the share of people living in a woman's PSU who stated that they strongly disagree/agree with item 1 on work commitment. 'PSU-high work commitment, item 3' reflects the share of people living in a woman's PSU who stated that they strongly agree/agree with item 3 on work commitment. Finally, 'PSU-modern gender views, item 2' denotes the share of people living in a woman's PSU who stated that they strongly disagree/disagree with item 2 on gender roles.

*p< .1; **p< .05; ***p< .01

Interpretation of the results

In the following we interpret the results for the two propositions of our model distinctively. We begin by concentrating on **the influence of social norms on women's decisions and chances of finding employment.**

To foreclose the results of the probit model with sample selection, two relevant things can be derived: firstly, it becomes obvious that while certain factors are relevant

for the decisional stage of the model (for example the proxies referring to religiosity and presence of children under 15 years old in the household), other factors exert powerful influences for the second stage of the model (see the proxies for the regional unemployment rate and the childcare infrastructure). Secondly, rho is significant indicating correlation between the error terms of the models, meaning that sample selection is indeed relevant for the analysis.

Since we used age and age squared in the same estimation, the quantitative influence is difficult to interpret, as one has to look at both indicators simultaneously. Instead, the qualitative influence is more demonstrative: for young women, with increasing age, their probability of participating in the labor market as well as their changes of getting employment is higher. However, once they crossed a certain age, further increase in age leads to decreasing probabilities both of deciding to participate in the labour market and of finding employment.

For the participation probability the presence of children younger than fifteen in the household is relevant in the sense that women in this situation are more likely to choose the homemaker status. Nevertheless, this factor does not play a relevant role when it comes to the probability of being (un)employed. Conversely, women's migration background seems to be irrelevant for the decision to participate, but significantly decreases the job opportunities: in other words, compared to women without migration background, the conditional probability of women with migration background to be employed is lower by 7.80 percent – given they are part of the labor force.

As expected, higher qualified women are more likely to decide to participate on the labour market; Moreover, their probability to be employed is higher by 25.2 percent holding all other variables at their means (or dummys at 0) .

When women have a partner, they are less likely to choose to participate and are more likely to be unemployed. The interpretation of the fist result is in line with the classical male breadwinner model, while the interpretation of the second result might reflect a lower pressure put on women since the partner most probably earns the necessary money or receives benefits. In lines with these findings, further results depict that from a financial point of view, starting from the mean partner's income of € 890, an increase in partner's income lowers the predicted probability of women to be part of the labor force. However, given that the women is already part of the labour force, starting from the mean partner's income of € 890, an increase in partner's income raises the conditional predicted probability of women to be employed.In other

words: once the partner earns enough participating on the labour market is more a choice than a necessity for the woman and therefore she is more likely to turn to homemaker status. However, women who decided to participate are more likely to find employment when their partners earn much. This may be due to positive matching between highly qualified couples.

Regarding the influences of social norms in terms of gender roles and work commitment, our findings bring several insights to light. When looking at the influence of partner's work commitment, results seem confusing at first glance: the same dummys indicating a negative influence of partners' high work commitment on women's probability to participate on the labour market have a significant positive influence on her chances to find employment. However, the interpretation is clear cut: women with partners that are very much committed to their work are more likely to be homemakers since domestic work appears to fall into their responsibility. But once women decide to work despite a high work commitment of their partners, their partner's attitudes have actually a positive influence on their chances to find a job. Our interpretation is that these women have a higher work commitment themselves (positive matching), supporting their job prospects as well.

Modern gender roles of the partner instead positively influence both the probability of a woman not to be a homemaker as well as her employment chances. When the partner supports her decision to work she is more likely to do so and has also better chances to find employment. The social norms of the 'relevant others', i.e. the clusters, don't seem to be too influential. This may of course be due to the broad definition we employed for defining the people belonging to the 'relevant others' of a woman. However, still a positive influence of modern gender roles of the relevant others on women's probability to participate in the labour force and her job opportunities is visible. The interpretation is similar to the modern gender roles of the partners.

The first interaction term reveals that for highly qualified women with a partner that strongly agrees/agrees with the statement "work is important, because it gives you the feeling to be part of the society", the chances of participating in the labour market even further decrease by 14.18 percent. This results apears likewise puzzling as the third interaction term, according to which an increase in the share of people strongly disagreeing/disagreeing with the statement "it is the responsibility of the husband to earn money, and the responsibility of the wife to take care of the family" leads to the result that highly qualified women have a lower probability of partici-

pating in the labour force. Nevertheless, the second interaction term reveals that, as expected, when a woman is highly qualified and her husband holds modern gender roles (meaning that he strongly disagrees/disagrees with the statement "a woman should be willing to reduce her working hours in order to have more time to take care of her family"), her chance of participating in the labour market further increses significantly by 15.89 percent.

At regional level, a noticeable result refers to the influence depicted by the variables denoting the regional unemployment rate and childcare infrastructure. While both proxies do play a role for the probability of finding employment (with higher unemployment rates making it more difficult, and with higher shares of children in childcare services reported to the total number of children in the respective age group per Bundesland making it easier of finding employment), they are not significant when it comes to the decision of being a homemaker or participating on the labour market.

Turning to the influence exerted **by social norms on the numbers of working hours of employed women,** the results provide the following insights[6]: women at higher age, religious women and women having children younger than fifteen years old in the household are more likely to work fewer hours. Conversely, highly qualified women work longer. Having a partner does not seem to play an important role for the amount of work load; however, his income reduces the number of working hours depicted by employed women.

The influence of partner's gender views appears not be relevant once a woman is in the labor force, but his attitudes towards work are important in a rather puzzling manner: having a partner who sees work not just as a modality of earning money, increases the number of working hours depicted by his spouse. However, when the partner states that work is the most important thing in his life, this has negative effects on the spouse's number of working hours. In this case women appear more likely to take care of home and family by taking hours in paid employment.

Finally, the regional unemployment rate has a positive influence on the number of working hours since higher unemployment increases pressure and women tend to alter their risk of becoming unemployed by working more.

In both models (probit with sample selection and regression analysis) we previously included east-west dummys to control for distinct regional characteristics. However,

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[6]We ran a sample selection variant of this model controlling for women with zero working hours; the coefficients and standard errors change only marginally.

since these proved to be insignificant, we forgo to include and interpret them into the final model. Furthermore, in a previous version of the model, we constructed proxies for measuring gender roles and work commitment on an aggregated level, i.e the items were combined into one indicator (as an index). However, this method proved to be inadequate as well since, as presented above, each items itself strongly diverge in its individual effects.

6   Conclusions

Against the background of the current economic research, which concentrates particularly on individual and structural explanatory factors, this paper examines if and to what extent social norms (in terms of attitudes towards gender roles and work commitment) can make a complementary statement in explaining women's employment status and number of working hours. The impact is presumed to be enhanced through norms shared by people belonging to the same households (i.e family members), peer groups, and by the residents of the same region.

The empirical analysis, based on a recent German data set, challenges the mainstream discourse by implicitly including cultural aspects such as attitude factors in the model. A distinctive feature of this paper is that it concentrates on the German labour market, which offers, with regard to the explored issue, convenient structural and cultural prerequisites: through its former separation into a socialist and a free-market oriented state, it becomes possible to disentangle more specifically the effects of gender and work norms on women's labour force participation.

The analysis brings to light a number of relevant aspects, which have not yet received much attention in the ongoing academic debate.

The first insight highlights the necessity of considering a broader analytical framework when exploring the causes (and consequences) of women's employment status. The rational approach in economics, though it has demonstrated its power to explain essential features of market processes, cannot entirely accommodate the proposed topic (Tolciu, 2010). Cultural aspects such as language, norms, customs and conventions determine the value and significance individuals attach to labour market behaviour and should, therefore, gain increased attention in empirical research.

The second insight illustrated by the present paper refers to the reference group (or the so called 'relevant others') who influence an individual's labour market status.

The present analysis reveals that family and cluster adherence (which are largely deliberately chosen) are highly relevant, while the (probably more or less involuntary) 'affiliation' to a regional community does not exert same influences. This fact is not self-evident, since, particularly in the German case, the spatial dimension did play - and probably still plays in certain environments - a relevant role. The descriptive statistics show, for example, that attitudinal differences in gender roles and work commitment are still noticeable in Germany. These differentials have their roots, without doubt, in the state organisation and general principles of the two former German states. However, these regional differentials do not seem to influence individuals in the current context. Labour market outcomes are rather determined within the framework of more specific settings, such as families and peer groups.

Finally, the last insight from our analysis shows that women's decision to take up paid employment and the amount of hours they work depend on different factors. While some parameters might help (or hinder) the decision to be part of the labour market (e.g religiosity, the presence of children younger than fifteen years in the household), others play a role rather in determining the employment status and working volume (regional unemployment rate and childcare infrastructure). Moreover, our analysis depicts that certain parameters (such as a partner's income) have contrary influences on the decision to work and the work volume of women. Against these arguments, the methodology employed for the study outclasses related models who have not accounted for the distinction between the decision to take up paid employment and the decision of how much to work.

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