

**Why is there Cross-Country Variation in Female Labor Force Participation Rates?
The Role of Male Attitudes Toward Family and Sex Roles**

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Abstract: Antecol (2000) finds that culture plays a role in explaining inter-ethnic variation in the gender gap in labor force participation rates (LFPR). However, Antecol (2000) was unable to determine what the components of culture, such as differences in preferences regarding family structure and women's role in market versus home work, actually are and how to quantify these components in an empirically meaningful manner. Using data from the 1994 International Social Survey Programme (ISSP), this paper proxies culture using a set of questions on male attitudes toward family and sex roles. I find that women are more likely to work if men in their country view female LFP in a favorable light.

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1. Introduction

There exists substantial cross-country variation in female labor force participation rates (LFPR). Figure 1 reveals that in 1995 participation rates range from 44 percent for Irish women to 93 percent for Czechoslovakian women, with American women falling approximately in the middle at 77 percent.¹ Of further interest, women in Eastern Europe (EE) and the Former Soviet Union (FSU) are, in general, more likely to work than women in any other region.

Although most of the literature on this cross-country variation is largely descriptive in nature (see for example, Pfau-Effinger 1994, Pott-Buter 1993, Meulders, Plasman, and Vander Stricht 1993, David and Starzec 1992, Wolchik 1992, Haavio-Mannila and Kauppinen 1992, OECD 1988, and Dex and Shaw 1986), Antecol (2000) examines the role cultural factors play in explaining cross-country variation in the gender gap in LFPR. In particular, Antecol (2000) uses evidence on the gender gap in LFPR across home country groups in the United States to analyze cross-country differences in these gaps. In the earlier paper, I found that for first generation immigrants, over half of the overall variation in the gender gap in LFPR is attributable to home country LFPR. This suggests that there exists a permanent, portable factor (such as culture) that is not captured by observed human capital measures, that affects outcomes. However, I was unable to determine what the components of culture, such as differences in preferences regarding family structure and women's role in market versus home work, actually are and how to quantify these components in an empirically meaningful manner.

¹ Female participation rates in Figure 1 are from the ILO Yearbook of Labor Statistics. The figure is limited to these countries to match the countries covered in the International Social Survey Programme (ISSP) 1994, which is the data used in the analysis presented in this paper.

This paper attempts to further our understanding of the role culture plays in explaining cross-country variation in female LFPR using data from the International Social Survey Programme (ISSP) 1994. The ISSP is an annual cross-country survey covering a number of topics relevant to social scientists, such as the role of governments, social networks, and work orientations. The 1994 ISSP is ideal for my purposes for several reasons. First, a diverse group of countries, including countries from Eastern Europe (EE) and the Former Soviet Union (FSU), Europe, the Middle East, Asia, North America, and Oceania, participated in the 1994 survey. Secondly, individual demographic characteristics (such as marital status) and human capital characteristics (such as education) are available. Finally, and most importantly, the 1994 ISSP survey is on family and changing gender roles, therefore there is detailed information on attitudes toward family and sex roles.² Thus I am able to quantify the components of culture using country-specific average male attitudes toward family and sex roles.

Albrect, Edin, and Vroman (2000) use individual female attitudes from the 1988 ISSP to examine the effect of attitudes toward mothers working on individual female labor force participation rates by country.³ This is potentially problematic because the direction of the causality between individual female attitudes and individual female labor force participation rates is unclear. In fact, Haller and Hoellinger (1994) use the same data (1988 ISSP) to examine the *opposite* relationship, that is, the effect of individual female labor force participation on individual female attitudes toward family and sex

² The 1988 ISSP survey is also on family and changing gender roles, however, it only includes 8 countries (Austria, Germany (West), Great Britain, Hungary, Ireland, Italy, Netherlands, and the United States), which is not a large enough or representative enough group of countries to ascertain the importance of cultural factors in explaining cross-country variation in female LFPR.

³ A number of studies have also used the 1994 ISSP to specifically examine within- and between-country differences in attitudes toward family and sex roles (see for example, Knudsen and Waerness 1999, 2001 and Sundstrom 1999).

roles across countries. Focusing instead on the effect of country-specific average male attitudes toward family and sex roles, as opposed to individual female attitudes, on individual female labor force participation rates by country, is more compelling. In particular, it is a measure based on averages as opposed to individual views.⁴

Not surprisingly, I find that there exists substantial cross-country variation in female LFPR. As in Antecol (2000), I find that controlling for demographic and human capital characteristics does not eliminate the cross-country variation in female LFPR. In addition, I find that average male attitudes toward family and sex roles vary substantially from country to country. Moreover, there are (in general) clear differences in average male attitudes between EE and the FSU and the remaining countries in the analysis. Finally, I find that there is a clear link between the cross-country variation in average male attitudes toward family and sex roles and the cross-country variation in female LFPR. In particular, the participation rates of women are higher in countries where male attitudes are in favor of women working outside of the home. Further, this effect is larger once controls for EE and the FSU are included. I argue that these findings are consistent with cultural factors playing a role in explaining differences in female LFPR across countries.

The remainder of the paper is as follows. Section 2 describes the data. Section 3 examines the role demographic and human capital characteristics play in explaining cross-country variation in female LFPR. Section 4 illustrates the patterns in male attitudes toward family and sex roles. Section 5 analyzes the importance of culture, that

⁴ If one believes that the evolution over time in male attitudes is affected by female labor force participation rates, then causality may be an issue with this measure as well.

is, average country-specific male attitudes toward family and sex roles, in explaining differences in female LFPR across countries. Section 6 concludes.

2. Data

This paper examines the role cultural factors play in explaining cross-country variation in female labor force participation rates (LFPR) using data drawn from the International Social Survey Programme (ISSP) 1994. The 1994 ISSP includes 23 countries: Australia, Austria, Bulgaria, Canada, Czech Republic, (East) Germany, (West) Germany, Hungary, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Philippines, Poland, Russia, Slovenia, Spain, Sweden, the United Kingdom (Northern Ireland and Great Britain) and the United States. Although each country employed a random sample methodology, some countries used simple random sampling (e.g., Australia and Norway) while others used multi-stage stratified random sampling (e.g., Austria and Canada).⁵ The fieldwork method utilized by each country was either face-to-face interviews (e.g., Hungary and Italy) or self-completion questionnaires (e.g., New Zealand and the United States). The response rates varied from country to country, ranging from 53 percent for East Germany to 98 percent for Bulgaria.⁶

I restrict the sample to women between the ages of 25 and 54. I chose this age range so as to focus on women who have completed their formal schooling and are young enough to rule out a substantial outflow from the labor force into retirement. Women from Spain are excluded from the sample because educational data is not available for

⁵ In general, the surveys took place in 1994 with the following exceptions: Austria (December 1995-January 1996), Bulgaria (March 1995), Canada (February 1993-March 1994), and Slovenia (October 1993-November 1993).

⁶ The response rate could not be calculated for Ireland, Israel, Netherlands, Northern Ireland, Philippines, Russia and the United States because the total surveys issued (eligible) was not reported.

them. These restrictions produce a final sample of 9,813 female respondents with non-missing values for all of the variables of interest. Each country represents between 3 and 6 percent of the sample (see Column 1 of Table 1).⁷

A woman is defined as a labor force participant if she reports being full-time employed, part-time employed, less than part-time employed, or unemployed. Column 2 of Table 1 reports LFPR for women by country. There is substantial cross-country variation in female LFPR: ranging from 42 percent for women in the Netherlands to 94 percent for women in the Czech Republic.⁸ In addition, women in Eastern Europe (EE) and the Former Soviet Union (FSU) are, in general, more likely to work than women from any other region. This is not all that surprising considering the EE and the FSU were formerly under a communist regime where, as pointed out by Knudsen and Waerness (1999), women were generally expected to work outside the home.

The ISSP 1994 survey also collected information about individual's attitudes toward family and sex roles. In particular, individuals were asked the following questions about family. Do you agree or disagree with (1) a working woman can establish just as warm and secure of a relationship with her children as a mother who does not work; (2) a pre-school child is likely to suffer if his/her mother works; and (3) all in all, family life suffers when the woman has a full-time job. In addition, individuals were asked the following questions about sex roles. Do you agree or disagree (1) with a man's job is to earn money; a woman's job is to look after the home and family; (2) a job

⁷ Sampling weights used in this table and all remaining tables. Countries who did not weight are assigned a weight of one.

⁸ The LFPR in the ISSP 1994 are in line with those reported in the ILO Yearbook of Labour Statistics (see Appendix Figure 1), although the LFPR for women in the Netherlands in the ISSP is low.

is all right, but what most women really want is a home and children; and (3) both the husband and the wife should contribute to the household income.⁹

For each question I construct five indicator variables: “strongly disagree” equals one for individuals reporting that they strongly disagree and zero otherwise; “disagree” equals one for individuals reporting that they disagree and zero otherwise; “neither” equals one for those individuals reporting that they neither agree or disagree and zero otherwise; “agree” equals one only for those individuals reporting that they agree and zero otherwise; and “strongly agree” equals one only for those individuals reporting that they strongly agree and zero otherwise. Section 4 discusses these attitudes in greater detail.

The surveys also included detailed information on demographic characteristics (such as marital status) and human capital characteristics (such as education). See Appendix Table 1 for descriptive statistics.

3. Cross-Country Variation in Female Labor Force Participation Rates (LFPR)

Table 1 reveals substantial cross-country variation in female LFPR. Does this variation persist once demographic and human capital characteristics are controlled for?

To consider this I estimate the following linear probability regression:¹⁰

⁹ While a total of five (six) questions pertaining to family (sex roles) are asked, I only focus on three questions each for family and sex roles because these questions are more representative of preferences, are easily categorized into questions pertaining to either family or sex roles, and pertain specifically to women/mothers. The two omitted questions on family are: family life often suffers because men concentrate too much on their work and most women these days have to work to support their families. The three omitted questions on sex roles are: it is not good if the man stays at home and cares for the family and the woman goes out to work; being a housewife is just as fulfilling as working for pay; and having a job is the best way for a woman to be an independent person. For completeness however information regarding these questions is presented in appendices and discussed in further detail in Sections 4 and 5.

$$L_i = \alpha + \sum_{j=1}^{J-1} \gamma_j C_{ij} + \varepsilon_i \quad (1)$$

where L_i is an indicator variable equal to 1 if person i participated in the labor force and zero otherwise, C_{ij} are country dummy variables, and j indexes the country. This is referred to as specification 1.

I then re-estimate equation (1) adding controls for demographic and human capital characteristics (referred to as specification 2). The vector (X_i) of demographic and human capital characteristics includes age (25-34 (omitted category), 35-44, and 45-54), education (less than high school (omitted category), high school, and more than high school)¹¹, and marital status (single (omitted category), married, separated/divorced/widowed). Because children have been shown to have a negative effect on female LFP, X_i also includes household size.¹² Further, mother's employment status before the respondent was 14 years of age is included in the model to capture past attitudes towards female LFP.

Finally, I calculate the weighted standard deviation (WSD), which is a summary statistic of the total variation in the female LFPR across countries for both specifications 1 and 2.¹³ While variation in female LFPR across countries can be attributed to demographic and human capital characteristics if the WSD for specification 2 is

¹⁰ Alternatively, I could have estimated a probit or logit model. However, for convenience the linear model is used because it allows for easier calculation of the weighted standard deviation measure discussed below. The probit results, which are similar, are available from the author upon request.

¹¹ Although more disaggregated education categories are preferred, a number of the countries (such as, Austria and Hungary) do not separate out some college from college graduate.

¹² Household composition is used to determine the number of household members for the Netherlands.

¹³ The WSD is the standard deviation of female LFPR across countries that corrects for least squares sampling errors. For a detailed discussion of how the WSD is calculated see Krueger and Summers, 1988 and Haisken-DeNew and Schmidt, 1997.

substantially smaller than that for specification 1, most of the variation in female LFPR across countries remains unexplained if the WSDs are similar in magnitude.

Table 2 reports the estimated determinants of the decision to participate in the labor market by women for both specifications 1 and 2. Focusing on specification 1, women in Eastern Europe (EE) and the Former Soviet Union (FSU) are much more likely to participate in the labor market than women in the United Kingdom. For example, women in the Czech Republic are 24 percentage points more likely to work than similar women in the United Kingdom. Although by a lesser amount, women in North America are also more likely to participate in the labor market than their United Kingdom counterparts. On the other hand, women in Europe (with the exception of Norway and Sweden) and Asia are less likely to work than women in the United Kingdom.

Turning to specification 2, there are several results worth mentioning. First, older women and more educated women are more likely to participate in the labor market than are their younger and less educated counterparts. Secondly, relative to single women, both married and separated/divorced/widowed women are less likely to participate in the labor market. Thirdly, household size also has a negative effect on female labor market participation; this is not that surprising as household size is likely a proxy for the presence of children. Further, women are more likely to participate in the labor market if their mother participated in the labor market when they were young. Finally, the coefficients on the country indicator variables, in general, remain similar in both magnitude and significance to those in specification 1.

The WSD for specification 1 is 14.1 percentage points while that for specification 2 is 12.7 percentage points (see the bottom row of Table 2). Given that the WSDs remain

similar in magnitude, most of the variation in female LFPR across countries remains unexplained. The remainder of the paper analyses the role culture, such as differences in preferences regarding family structure and women's role in market versus home work, plays in explaining this substantial cross-country variation in female LFPR.

4. Male Attitudes by Country

Before formally analyzing the relationship between culture and female LFPR, it is worth simply looking at the patterns in male attitudes toward family and sex roles across countries. Tables 3 and 4 present male attitudes toward family and sex roles, respectively, by country. The following patterns are noteworthy. Men are generally more likely to agree or strongly agree with all the questions pertaining to family, although the pattern for “family life suffers if woman working full time” is a little less clear (see Table 3).¹⁴ However, the degree of agreement varies from country to country. For example, 75.7 percent of men in Russia agree or strongly agree that “pre-school children suffer if mother working” relative to only 42.6 percent of men in the United Kingdom, 49.4 percent of men in Israel, 57.0 percent of men in the Philippines, 49.3 percent of men in the United States, and 55.7 percent of men in Australia.

Further, men in Eastern Europe (EE) and the Former Soviet Union (FSU)¹⁵ and Asia are generally more likely to agree or strongly agree while men in the remaining countries are generally more inclined to disagree or strongly disagree with the following questions pertaining to sex roles: “a man’s job is to earn money and a woman’s job is to look after the home and family” and “job is all right but what most women really want is

¹⁴ A similar pattern is found for “family life suffers because men concentrate too much on their work” and “most women have to work these days to support their families” (see Appendix Table 2).

¹⁵ The one exception is East Germany, which is discussed in greater detail in section 5.

home and children” (see Table 4).¹⁶ The remaining question on sex roles reveals that men in all countries are more inclined to agree or strongly agree with “both husband and wife should contribute to household income”. However the degree of agreement varies from country to country, with men in EE and the FSU in general being more likely to agree or strongly agree than men in the remaining countries.¹⁷

These patterns illustrate that male attitudes toward family and sex roles vary from country to country, although more so for male attitudes toward sex roles. They also reveal that there are (in general) clear differences in male attitudes between EE and the FSU and the remaining countries in the analysis. In particular, they show that men in EE and the FSU tend to have more traditional views toward family and sex roles relative to the remaining countries in the analysis. This may not be all that surprising considering that during the communist era men (and women) in these countries continued to hold traditional views towards family and sex roles that existed prior to the communist era (Knudsen and Waerness 1999). The following section examines whether these patterns in male attitudes, and therefore cultural factors, play a role in explaining differences in female LFPR across countries.

5. The Impact of Male Attitudes on the Decision to Participate in the Labor Market

This section estimates the role cultural factors play in explaining cross-country variation in female labor force participation rates (LFPR). In particular, I replace the country indicator variables (C_{ij}) in equation (1) with the various measures of average

¹⁶ A similar pattern is found for “it is not good for the man to stay home to care for the family and the woman to go to work” (see Appendix Table 3).

¹⁷ A similar pattern is found for “having a job is the best way for a woman to be an independent person” while less of a consistent pattern is found for “being a housewife is just as fulfilling as working for pay” (see Appendix Table 3).

country-specific male attitudes toward family and sex roles (A_i) discussed in Section 4 and estimate the following linear probability regression:

$$L_i = A_i\delta + X_i\beta + \varepsilon_i \quad (2)$$

All the variables in equation (2) are as before except X_i now also includes a measure for real gross domestic product (GDP) per capita by country (see Appendix Table 4).¹⁸ Simply estimating equation (2) by ordinary least squares (OLS) would lead to standard errors that are biased downwards since it merges aggregate data with micro units by country (Moulton 1990). Therefore, I correct the standard errors to reflect the fact that observations are independent across countries but not necessarily within countries.

For each of the attitudes toward family and sex roles four specifications are estimated which successively allow the omitted category to be more inclusive. In particular, specification 1 includes indicator variables for strongly disagree, disagree, neither, and agree and the omitted category is strongly agree; specification 2 includes indicator variables for strongly disagree, disagree, and neither and the omitted category is now a combination of strongly agree and agree; specification 3 includes indicator variables for strongly disagree and disagree and the omitted category is now a combination of strongly agree, agree, and neither; and specification 4 includes an indicator variable for strongly disagree and the omitted category is a combination of strongly agree, agree, neither, and disagree.

Panel A of Tables 5 and 6 present the regression results for the four specifications described above (columns 1 through 4) for each of the male attitudes toward family and

¹⁸ Real GDP/capita was not available separately for East and West Germany in 1994. Thus, I use the ratio of the real GDP/capita from 1988 to approximate the real GDP/capita in 1994 for East and West Germany. The results are similar if both East and West Germany are assigned the same real GDP/capita from 1994 and are available from the author upon request.

sex roles, respectively. There are several key points to note. First, country-specific average male attitudes toward family do not appear to impact female LFPR.¹⁹ Second, country-specific average male attitudes toward sex roles, with the exception of “job is all right but what most women really want is home and children”, do appear to impact female LFPR. Although some of the coefficients are imprecisely measured depending on the omitted category.²⁰ In particular, women are less (more) likely to work if men in their country strongly disagree with “both husband and wife should contribute to household income” (“a man’s job is to earn money and a woman’s job is to look after the home and family”). These results suggest that, as one might expect, if country-specific male attitudes are supportive of female employment, then female employment will be higher in that country.

The results presented in Panel A of Tables 5 and 6 may be biased downward because women in EE and the FSU have higher female LFPR relative to the remaining countries in the analysis, which may be a remnant of being part of a formerly communist regime, while men from these countries tend to have more traditional views toward family and sex roles relative to the remaining countries in the analysis (see Tables 3 and 4). To test this, I re-estimate equation (2) including an indicator variable for EE and the FSU.

¹⁹ While a similar pattern is found for “family life suffers because men concentrate too much on work”, average country-specific attitudes toward “most women have to work these days to support their families” does impact female LFPR (see Appendix Table 5). This difference may be due to the fact that this question focuses on budget constraints as opposed to preferences.

²⁰ A similar pattern is found for “being a housewife is as fulfilling as working for pay”, however, no relationship is generally found between “it is not good if the man stays home to care for the family and the woman goes to work” and “having a job is the best way for a woman to be an independent person” and female LFPR (see Appendix Table 6). The former result is somewhat surprising given the results on “a man’s job is to earn money and a woman’s job is to look after the home and family”, however it may be due to fact that the wording of the question is less objective. The latter result may reflect the fact that this question does not specifically ask about whether or not men feel that it is a good thing for women to have a job.

Panel B of Tables 5 and 6 present these results for male attitudes toward family and sex roles, respectively. Focusing on country-specific male attitudes toward family, some of the male attitudes that were insignificant in the absence of a control for EE and the FSU are now statistically significant. Specifically, women are more likely to participate in the labor market if men from their country disagree with “pre-school children suffer if mother working” (regardless of the omitted category) and “family life suffers if woman working full-time” (only when omitted category is strongly agree/agree and strongly agree/agree/neither). Further, the magnitude is generally higher with controls for EE and the FSU. For example, without (with) controls for EE and the FSU women are 1.83 (5.33) percentage points more likely to work if they are from a country where there is a 10 percentage point rise in men disagreeing with “pre-school children suffer if mother working” (see Column 2 of Panels A and B of Table 5).

Turning to country-specific male attitudes toward sex roles, it can be seen that in general the magnitude and significance level is higher when controls for EE and the FSU are included, and this is particularly true for “a man’s job is to earn money and a woman’s job is to look after the home and children” and “job is all right but what most women really want is a home and children”. For example, without (with) controls for EE and the FSU women are 4.84 (5.93) percentage points more likely to work if they are from a country where there is a 10 percentage point rise in men strongly disagreeing with “a man’s job is to earn money and a woman’s job is to look after the home and family” and the significance level increases from 7 percent to less than 1 percent (see Column 4 of Panels A and B of Table 6). These results suggest that in the absence of a control for

EE and the FSU the results are biased downward and female LFPR indeed appear to be influenced by male attitudes toward both family and sex roles.

The results presented in Tables 5 and 6 separate East and West Germany because East Germany was under a communist regime. However, East Germany may be systematically different than the other countries that were under a communist regime because they shared a border with a western country.²¹ The fact that East Germany shared a border with a western country appears to be particularly important for male attitudes, which more closely align themselves with the other western countries than with the formerly communist countries (see Tables 3 and 4). Further, in 1994 East and West Germany no longer existed as separate entities. Thus, there is some argument that East and West Germany should be treated as one country. To test this I re-estimate equation 2, with and without controls for EE and the FSU, combining East and West Germany.²²

Tables 7 and 8 present the results for male attitudes toward family and sex roles, respectively, when East and West Germany are combined. As before, male attitudes toward family play a limited role in explaining differences in female LFPR across countries when controls for EE and the FSU are excluded (see Panel A of Table 7). However, once controls for EE and the FSU are included there is a relationship between female LFPR and male attitudes toward “pre-school children suffer if mother working” and “family life suffers if woman working full-time” (see Panel B of Table 7). The magnitude of the coefficients is higher when East and West Germany are combined. For example, when East and West Germany are separated (combined) women are 5.33 (6.17) percentage points more likely to work if they are from a country where there is a 10

²¹ See Knudsen and Waerness (1999) for a more detailed discussion (pg. 172-173).

²² Therefore the indicator variable for EE and the FSU does not include East Germany.

percentage point rise in men disagreeing with “pre-school children suffer if mother working” (see Column 2 of Panel B of Tables 5 and 7). This may not be that surprising given the attitudes of men in East Germany more closely align with those of men in the remaining western countries and female LFPR are high in East Germany.

Furthermore, the results on country-specific male attitudes regarding sex roles reveals some interesting patterns. When East and West Germany are combined, there is no longer a statistically significant relationship found between female LFPR and male attitudes toward “a man’s job is to earn money and a woman’s job is to look after the home and family” when controls for EE and the FSU are excluded (see Panel A of Tables 6 and 8). However, once controls for EE and the FSU are included, the results are similar to those when East and West Germany were not combined (see Panel B of Tables 6 and 8). In fact, the magnitude of the results is higher for “a man’s job is to earn money and a woman’s job is to look after the home and family” when East and West Germany are combined relative to when they are separated. This again may reflect the fact that the attitudes of men in East Germany more closely align with those of men from the remaining western countries with respect to this question and female LFPR are high in East Germany. Interestingly, the magnitude of the results for the remaining male attitudes toward sex roles remain similar in magnitude regardless of whether East and West Germany are separated or combined.

The results in this section illustrate that labor force participation rates of women will be higher in countries where male attitudes are in favor of women working outside of the home. Further, this effect is larger once controls for EE and the FSU are included because women from EE and the FSU have higher female LFPR than the remaining

countries in the analysis, which may be a remnant of being part of a formerly communist regime, while men from these countries tend to have more traditional views toward family and sex roles relative to the remaining countries in the analysis. I argue that these findings are consistent with cultural factors playing a role in explaining cross-country differences in female LFPR.

6. Conclusion

There exists substantial cross-country variation in the female LFPR. A recent study on this cross-country variation examined the role of two factors: human capital and culture (Antecol, 2000). While Antecol (2000) finds that cultural factors play a role in explaining this cross-country variation in female LFPR, I was unable to determine what the components of culture, such as differences in preferences regarding family structure and women's role in market versus home work, actually are and how to quantify these components in an empirically meaningful manner.

Using data from the 1994 International Social Survey Programme (ISSP), this paper attempts to further our understanding of the role culture plays in explaining cross-country variation in female LFPR. In particular, this paper quantifies the components of culture using a set of questions on male attitudes toward family and sex roles. Although I find that there is substantial cross-country variation in female LFPR, this variation persists despite the inclusion of controls for demographic and human capital characteristics. Moreover, I find that there is substantial cross-country variation in male attitudes toward both family and sex roles, although more so for male attitudes towards sex roles. I also find that there are (in general) clear differences in male attitudes

between Eastern Europe (EE) and the Former Soviet Union (FSU) and the remaining countries in the analysis. In particular, they show that men in EE and the FSU tend to have more traditional views toward family and sex roles relative to the remaining countries in the analysis.

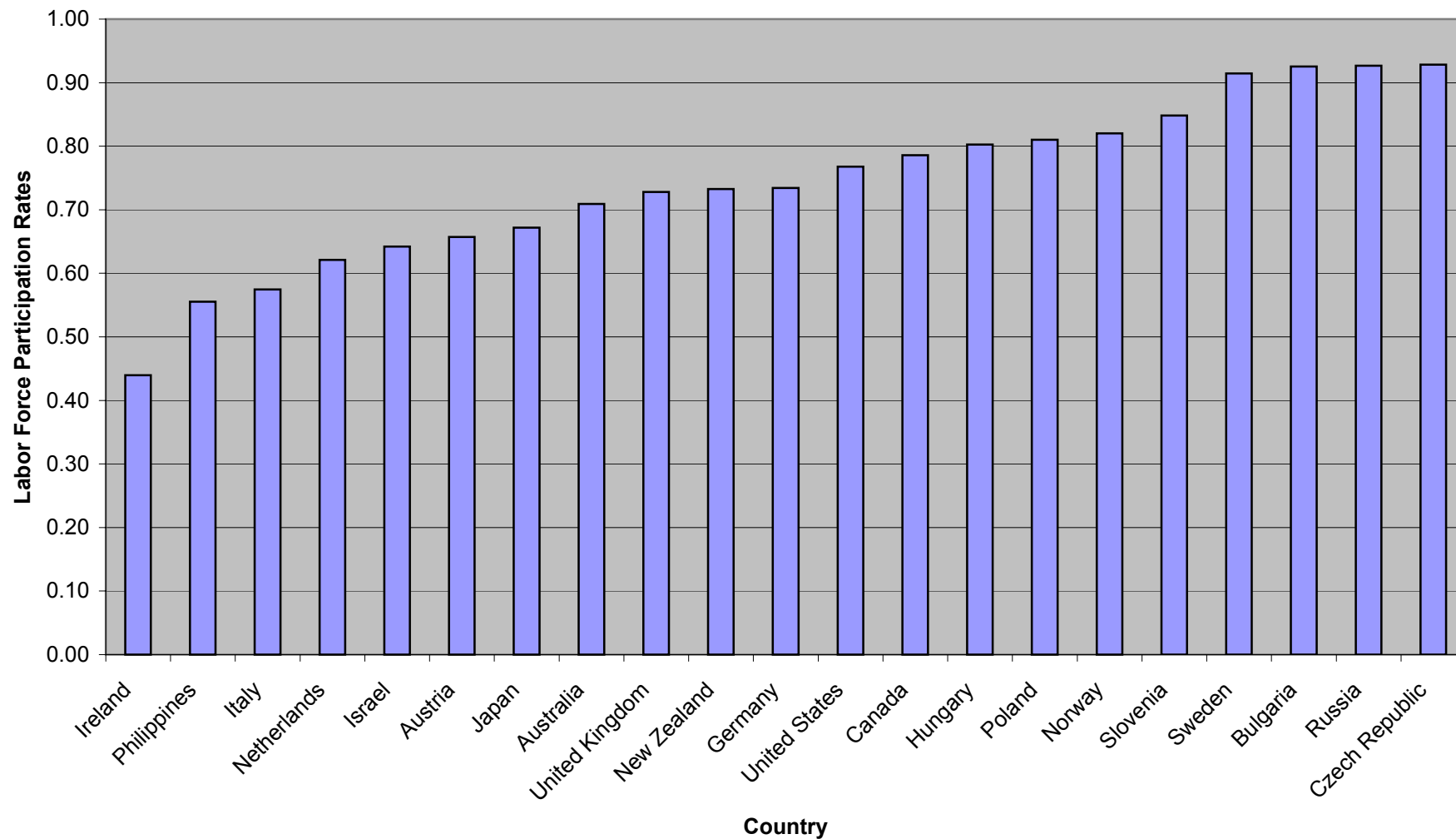
Finally, I find that there is a clear link between the cross-country variation in male attitudes and the cross-country variation in female LFPR. In particular, I find that labor force participation rates of women are higher in countries where male attitudes are in favor of women working outside of the home. Further, this effect is larger once controls for Eastern Europe (EE) and the Former Soviet Union (FSU) are included. I argue that these findings are consistent with cultural factors playing a role in explaining cross-country differences in female LFPR.

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**Figure 1. Labor Force Participation Rates by Country
(Women 25-54)**



■ Source: ILO Yearbook of Labour Statistics 1995

Table 1. Female Labor Force Participation Rates (LFPR) by Country

Country of Origin	% of Sample (1)	LFPR (2)	Std. Error (3)
Eastern Europe (EE) and the Former Soviet Union (FSU)			
Bulgaria	0.027	0.918	0.015
Czech Republic	0.029	0.943	0.014
(East) Germany	0.030	0.942	0.013
Hungary	0.042	0.753	0.021
Poland	0.044	0.729	0.020
Russia	0.059	0.883	0.011
Slovenia	0.031	0.803	0.023
Europe			
Austria	0.026	0.635	0.028
(West) Germany	0.062	0.618	0.019
Ireland	0.029	0.512	0.029
Italy	0.028	0.537	0.029
Netherlands	0.062	0.415	0.020
Norway	0.063	0.748	0.017
Sweden	0.042	0.845	0.019
United Kingdom	0.047	0.701	0.021
Middle East			
Israel	0.046	0.725	0.021
Asia			
Japan	0.038	0.581	0.025
Philippines	0.110	0.519	0.025
North America			
Canada	0.051	0.810	0.016
United States	0.049	0.773	0.019
Oceania			
Australia	0.049	0.691	0.021
New Zealand	0.035	0.751	0.023
Number of Observations	9813		

Source: International Social Survey Program (ISSP) 1994.
Sampling weights used.

Table 2. Linear Probability Model of Female Labor Force Participation Rates

	Specification 1		Specification 2	
	Mean	Robust Std. Error	Mean	Robust Std. Error
Eastern Europe (EE) and the Former Soviet Union (FSU)				
Bulgaria	0.216	0.027	0.206	0.028
Czech Republic	0.242	0.026	0.231	0.027
(East) Germany	0.241	0.026	0.248	0.027
Hungary	0.051	0.031	0.057	0.031
Poland	0.027	0.032	0.072	0.032
Russia	0.182	0.026	0.138	0.026
Slovenia	0.101	0.032	0.106	0.032
Europe				
Austria	-0.066	0.039	-0.030	0.039
(West) Germany	-0.083	0.030	-0.067	0.029
Ireland	-0.189	0.037	-0.161	0.036
Italy	-0.164	0.038	-0.148	0.037
Netherlands	-0.286	0.030	-0.282	0.029
Norway	0.046	0.028	0.014	0.028
Sweden	0.144	0.030	0.135	0.030
Middle East				
Israel	0.024	0.030	0.026	0.030
Asia				
Japan	-0.120	0.034	-0.117	0.034
Philippines	-0.182	0.035	-0.089	0.036
North America				
Canada	0.109	0.029	0.052	0.029
United States	0.072	0.029	0.000	0.029
Oceania				
Australia	-0.010	0.030	0.001	0.030
New Zealand	0.050	0.032	0.032	0.032
Age				
35-44			0.086	0.012
45-54			0.034	0.014
Education				
High School			0.078	0.014
More than High School			0.125	0.013
Marital Status				
Married			-0.121	0.016
Separated/Divorced/Widowed			-0.070	0.019
Household Size				
			-0.034	0.004
Mother's Employment Status^a				
Mother Worked			0.040	0.011
Did Not Live With Mother			-0.022	0.046
Constant	0.701	0.022	0.805	0.030
Weighted Standard Deviation (WSD)		14.13	12.71	

Source: International Social Survey Program (ISSP) 1994. Sampling weights used.

Omitted Categories: Age 25-34, Less Than High School, Single, and the United Kingdom.

Bold (shaded) coefficients significant at the 5 (10) percent level. Number of observations is 9813.

a. Refers to before the respondent was 14 years of age.

Table 3. Male Attitudes Toward Family by Country

Country	Working Mother Can Establish Just as Warm of a Relationship w Children as Non-Working Mother					Pre-School Children Suffer if Mother Working					Family Life Suffers if Woman Working Full-Time				
	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
Eastern Europe (EE) and the Former Soviet Union (FSU)															
Bulgaria (n=283)	0.218	0.138	0.067	0.271	0.305	0.120	0.056	0.085	0.280	0.459	0.124	0.117	0.108	0.264	0.388
Czech Republic (n=423)	0.165	0.296	0.106	0.262	0.170	0.071	0.251	0.194	0.319	0.165	0.090	0.210	0.206	0.291	0.203
(East) Germany (n=436)	0.009	0.073	0.021	0.305	0.592	0.133	0.323	0.183	0.284	0.076	0.156	0.383	0.163	0.220	0.078
Hungary (n=572)	0.110	0.194	0.161	0.227	0.307	0.041	0.055	0.137	0.268	0.498	0.061	0.103	0.232	0.259	0.346
Poland (n=484)	0.079	0.357	0.056	0.344	0.164	0.024	0.206	0.071	0.522	0.177	0.024	0.282	0.136	0.412	0.145
Russia (n=466)	0.024	0.182	0.087	0.476	0.231	0.021	0.147	0.075	0.500	0.257	0.010	0.117	0.075	0.490	0.308
Slovenia (n=365)	0.030	0.277	0.090	0.441	0.162	0.027	0.203	0.162	0.493	0.115	0.025	0.203	0.137	0.490	0.145
Europe															
Austria (n=366)	0.043	0.168	0.052	0.279	0.458	0.041	0.114	0.112	0.360	0.373	0.095	0.150	0.133	0.311	0.311
(West) Germany (n=855)	0.039	0.198	0.051	0.394	0.318	0.028	0.145	0.115	0.441	0.271	0.053	0.168	0.136	0.388	0.255
Ireland (n=341)	0.094	0.240	0.067	0.460	0.138	0.097	0.311	0.085	0.405	0.103	0.111	0.276	0.091	0.419	0.103
Italy (n=453)	0.115	0.220	0.116	0.375	0.174	0.041	0.153	0.118	0.554	0.134	0.049	0.145	0.127	0.518	0.161
Netherlands (n=698)	0.029	0.189	0.112	0.521	0.149	0.050	0.234	0.208	0.426	0.083	0.063	0.288	0.213	0.371	0.064
Norway (n=692)	0.071	0.325	0.118	0.389	0.097	0.092	0.285	0.184	0.384	0.055	0.092	0.318	0.210	0.318	0.062
Sweden (n=388)	0.040	0.211	0.147	0.431	0.171	0.133	0.309	0.210	0.270	0.077	0.158	0.336	0.203	0.246	0.057
United Kingdom (n=629)	0.060	0.219	0.113	0.449	0.159	0.079	0.341	0.155	0.358	0.068	0.122	0.408	0.133	0.277	0.061
Middle East															
Israel (n=474)	0.084	0.181	0.112	0.445	0.177	0.080	0.264	0.162	0.409	0.084	0.116	0.232	0.228	0.331	0.093
Asia															
Japan (n=450)	0.093	0.091	0.151	0.167	0.498	0.293	0.109	0.204	0.233	0.160	0.260	0.124	0.218	0.258	0.140
Philippines (n=594)	0.010	0.236	0.116	0.596	0.042	0.019	0.273	0.138	0.537	0.033	0.021	0.299	0.131	0.508	0.040
North America															
Canada (n=406)	0.036	0.225	0.069	0.404	0.266	0.146	0.308	0.157	0.324	0.064	0.210	0.357	0.154	0.220	0.060
United States (n=503)	0.058	0.264	0.062	0.433	0.183	0.082	0.286	0.139	0.402	0.091	0.127	0.324	0.165	0.290	0.093
Oceania															
Australia (n=835)	0.104	0.332	0.095	0.345	0.125	0.049	0.249	0.145	0.451	0.105	0.068	0.269	0.128	0.432	0.102
New Zealand (n=350)	0.066	0.351	0.097	0.426	0.060	0.034	0.211	0.171	0.454	0.129	0.069	0.274	0.200	0.383	0.074

Source: International Social Survey Programme (ISSP) 1994. SD, D, N, A, and SA are strongly disagree, disagree, neither agree/disagree, agree, and strongly agree, respectively.

Sampling weights used.

Table 4. Male Attitudes Toward Sex Roles by Country

Country	A Man's Job is to Earn Money; A Woman's Job is to Look After the Home and Family					Job is All Right, But What Most Women Really Want is Home and Children					Both Husband and Wife Should Contribute to Household Income				
	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
Eastern Europe (EE) and the Former Soviet Union (FSU)															
Bulgaria (n=283)	0.098	0.078	0.155	0.271	0.399	0.063	0.102	0.147	0.234	0.453	0.034	0.016	0.030	0.118	0.801
Czech Republic (n=423)	0.057	0.168	0.217	0.319	0.239	0.028	0.151	0.243	0.376	0.201	0.009	0.071	0.135	0.307	0.478
(East) Germany (n=436)	0.289	0.484	0.124	0.087	0.016	0.289	0.447	0.103	0.108	0.053	0.002	0.028	0.041	0.447	0.482
Hungary (n=572)	0.063	0.088	0.264	0.203	0.382	0.018	0.046	0.238	0.282	0.416	0.042	0.069	0.205	0.261	0.422
Poland (n=484)	0.012	0.142	0.122	0.472	0.252	0.009	0.137	0.173	0.547	0.134	0.041	0.315	0.141	0.394	0.108
Russia (n=466)	0.011	0.142	0.135	0.435	0.277	0.009	0.216	0.133	0.474	0.168	0.017	0.125	0.121	0.467	0.270
Slovenia (n=365)	0.066	0.312	0.186	0.301	0.134	0.025	0.170	0.145	0.518	0.142	0.003	0.027	0.058	0.523	0.389
Europe															
Austria (n=366)	0.132	0.211	0.189	0.239	0.229	0.132	0.268	0.186	0.235	0.179	0.020	0.124	0.143	0.320	0.393
(West) Germany (n=855)	0.138	0.296	0.172	0.277	0.117	0.133	0.325	0.193	0.243	0.105	0.019	0.189	0.150	0.448	0.194
Ireland (n=341)	0.150	0.346	0.117	0.308	0.079	0.088	0.199	0.170	0.475	0.067	0.018	0.126	0.109	0.548	0.199
Italy (n=453)	0.140	0.273	0.180	0.264	0.143	0.087	0.239	0.182	0.387	0.105	0.009	0.139	0.112	0.552	0.188
Netherlands (n=698)	0.172	0.440	0.173	0.163	0.052	0.096	0.294	0.282	0.295	0.033	0.046	0.357	0.307	0.244	0.047
Norway (n=692)	0.251	0.423	0.168	0.129	0.029	0.111	0.316	0.264	0.267	0.040	0.017	0.133	0.243	0.506	0.101
Sweden (n=388)	0.314	0.402	0.175	0.079	0.031	0.083	0.286	0.280	0.301	0.050	0.000	0.024	0.131	0.514	0.331
United Kingdom (n=629)	0.146	0.435	0.169	0.206	0.045	0.123	0.343	0.237	0.233	0.063	0.011	0.108	0.212	0.465	0.204
Middle East															
Israel (n=474)	0.192	0.371	0.156	0.181	0.099	0.089	0.289	0.194	0.327	0.101	0.013	0.068	0.082	0.445	0.392
Asia															
Japan (n=450)	0.229	0.113	0.193	0.233	0.231	0.142	0.089	0.236	0.153	0.380	0.169	0.087	0.229	0.171	0.344
Philippines (n=594)	0.011	0.078	0.084	0.704	0.123	0.003	0.117	0.144	0.666	0.070	0.005	0.033	0.064	0.768	0.130
North America															
Canada (n=406)	0.361	0.410	0.133	0.063	0.033	0.206	0.341	0.294	0.136	0.022	0.008	0.098	0.326	0.343	0.225
United States (n=503)	0.151	0.366	0.211	0.219	0.054	0.087	0.296	0.278	0.262	0.076	0.014	0.117	0.322	0.380	0.167
Oceania															
Australia (n=835)	0.159	0.332	0.187	0.262	0.060	0.075	0.253	0.283	0.321	0.068	0.035	0.266	0.259	0.337	0.104
New Zealand (n=350)	0.171	0.389	0.209	0.194	0.037	0.111	0.366	0.263	0.206	0.054	0.026	0.237	0.329	0.331	0.077

Source: International Social Survey Programme (ISSP) 1994. SD, D, N, A, and SA are strongly disagree, disagree, neither agree/disagree, agree, and strongly agree, respectively.

Sampling weights used.

Table 5. Linear Probability Model of Female Labor Force Participation Rates including Controls for Average Country-Specific Male Attitudes Toward Family

Panel A: Excluding Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	Working Mother Can Establish Just as Warm of a Relationship w Children as Non-Working Mother				Pre-School Children Suffer if Mother Working				Family Life Suffers if Woman Working Full-Time			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	-0.251 (0.558)	0.749 (0.446)	0.637 (0.480)	0.652 (0.501)	-0.539 (0.417)	0.525 (0.599)	0.379 (0.517)	0.376 (0.551)	-0.699 (0.427)	0.662 (0.566)	0.603 (0.537)	0.603 (0.506)
Disagree	0.280 (0.279)	0.055 (0.243)	0.076 (0.305)		0.402 (0.305)	0.183 (0.317)	0.091 (0.277)		-0.074 (0.186)	-0.001 (0.269)	0.000 (0.274)	
Neither	-0.900 (0.735)	-1.017 (0.775)			-1.027 (0.997)	-0.563 (0.989)			-1.002 (0.589)	-0.280 (0.579)		
Agree	-0.647 (0.310)				-1.044 (0.321)				-1.262 (0.313)			

Panel B: Including Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	Working Mother Can Establish Just as Warm of a Relationship w Children as Non-Working Mother				Pre-School Children Suffer if Mother Working				Family Life Suffers if Woman Working Full-Time			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	-0.089 (0.500)	0.158 (0.403)	0.098 (0.367)	0.143 (0.362)	-0.180 (0.319)	0.371 (0.444)	0.287 (0.316)	0.288 (0.478)	0.033 (0.412)	0.562 (0.428)	0.507 (0.388)	0.590 (0.451)
Disagree	0.229 (0.284)	0.171 (0.202)	0.182 (0.217)		0.596 (0.232)	0.533 (0.225)	0.487 (0.166)		0.231 (0.135)	0.320 (0.164)	0.322 (0.169)	
Neither	-0.360 (0.761)	-0.294 (0.686)			-0.608 (0.914)	-0.318 (0.872)			-0.552 (0.560)	-0.257 (0.514)		
Agree	-0.215 (0.440)				-0.565 (0.263)				-0.507 (0.250)			

Source: International Social Survey Program (ISSP) 1994. Sampling weights used. Number of observations is 9813. Robust standard errors in parentheses. Standard errors corrected to reflect the fact that observations are independent across countries but not necessarily within countries. All probits also include controls for age, education, marital status, household size, mother's employment status, and real GDP/capita. Bold (shaded) coefficients significant at the 5 (10) percent level.

Table 6. Linear Probability Model of Female Labor Force Participation Rates including Controls for Average Country-Specific Male Attitudes Toward Sex Roles

Panel A: Excluding Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	A Man's Job is to Earn Money; A Woman's Job is to Look After the Home and Family				Job is All Right, But What Most Women Really Want is Home and Children				Both Husband and Wife Should Contribute to Household Income			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	0.043 (0.531)	0.624 (0.320)	0.495 (0.323)	0.484 (0.252)	-1.025 (0.506)	0.357 (0.376)	0.364 (0.435)	0.567 (0.394)	-1.973 (0.315)	-0.764 (0.254)	-0.768 (0.252)	-1.076 (0.492)
Disagree	-0.155 (0.271)	0.064 (0.319)	-0.017 (0.318)		0.486 (0.224)	0.249 (0.243)	0.250 (0.234)		-0.582 (0.326)	-0.463 (0.340)	-0.470 (0.321)	
Neither	-0.028 (0.866)	1.076 (0.596)			-0.593 (0.652)	-0.026 (0.606)			-0.192 (0.226)	-0.018 (0.257)		
Agree	-0.530 (0.316)				-0.786 (0.168)				-0.537 (0.139)			

Panel B: Including Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	A Man's Job is to Earn Money; A Woman's Job is to Look After the Home and Family				Job is All Right, But What Most Women Really Want is Home and Children				Both Husband and Wife Should Contribute to Household Income			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	1.392 (0.685)	0.609 (0.286)	0.606 (0.284)	0.593 (0.184)	-0.201 (0.303)	0.202 (0.185)	0.123 (0.289)	0.455 (0.199)	-1.268 (0.257)	-1.020 (0.174)	-0.982 (0.183)	-1.301 (0.578)
Disagree	0.252 (0.251)	-0.018 (0.295)	-0.020 (0.286)		0.472 (0.148)	0.419 (0.160)	0.403 (0.140)		-0.569 (0.243)	-0.552 (0.234)	-0.493 (0.226)	
Neither	1.183 (0.796)	0.031 (0.480)			0.095 (0.633)	0.307 (0.538)			0.094 (0.204)	0.153 (0.230)		
Agree	0.719 (0.495)				-0.239 (0.171)				-0.123 (0.110)			

Source: International Social Survey Program (ISSP) 1994. Sampling weights used. Number of observations is 9813. Robust standard errors in parentheses. Standard errors corrected to reflect the fact that observations are independent across countries but not necessarily within countries. All probits also include controls for age, education, marital status, household size, mother's employment status, and real GDP/capita. Bold (shaded) coefficients significant at the 5 (10) percent level.

**Table 7. Linear Probability Model of Female Labor Force Participation Rates
including Controls for Average Country-Specific Male Attitudes Toward Family
(East and West Germany Combined)**

Panel A: Excluding Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	Working Mother Can Establish Just as Warm of a Relationship w Children as Non-Working Mother				Pre-School Children Suffer if Mother Working				Family Life Suffers if Woman Working Full-Time			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	-0.055 (0.540)	0.783 (0.426)	0.700 (0.451)	0.737 (0.451)	-0.645 (0.416)	0.259 (0.589)	0.106 (0.531)	0.130 (0.510)	-0.847 (0.434)	0.420 (0.593)	0.361 (0.575)	0.366 (0.543)
Disagree	0.370 (0.252)	0.211 (0.161)	0.240 (0.210)		0.253 (0.319)	0.006 (0.308)	-0.087 (0.277)		-0.193 (0.174)	-0.144 (0.261)	-0.138 (0.264)	
Neither	-0.744 (0.644)	-0.813 (0.647)			-1.063 (0.977)	-0.674 (0.997)			-0.995 (0.570)	-0.316 (0.574)		
Agree	-0.535 (0.302)				-0.950 (0.323)				-1.197 (0.284)			

Panel B: Including Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	Working Mother Can Establish Just as Warm of a Relationship w Children as Non-Working Mother				Pre-School Children Suffer if Mother Working				Family Life Suffers if Woman Working Full-Time			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	0.054 (0.487)	0.173 (0.404)	0.138 (0.358)	0.180 (0.341)	-0.086 (0.358)	0.424 (0.484)	0.370 (0.388)	0.189 (0.504)	0.226 (0.503)	0.636 (0.456)	0.594 (0.422)	0.543 (0.537)
Disagree	0.277 (0.270)	0.250 (0.180)	0.257 (0.196)		0.682 (0.278)	0.617 (0.278)	0.592 (0.236)		0.330 (0.179)	0.414 (0.193)	0.421 (0.194)	
Neither	-0.217 (0.687)	-0.198 (0.643)			-0.518 (0.883)	-0.259 (0.853)			-0.450 (0.547)	-0.234 (0.503)		
Agree	-0.097 (0.420)				-0.517 (0.256)				-0.362 (0.257)			

Source: International Social Survey Program (ISSP) 1994. Sampling weights used. Number of observations is 9813. Robust standard errors in parentheses. Standard errors corrected to reflect the fact that observations are independent across countries but not necessarily within countries. All probits also include controls for age, education, marital status, household size, mother's employment status, and real GDP/capita. Bold (shaded) coefficients significant at the 5 (10) percent level.

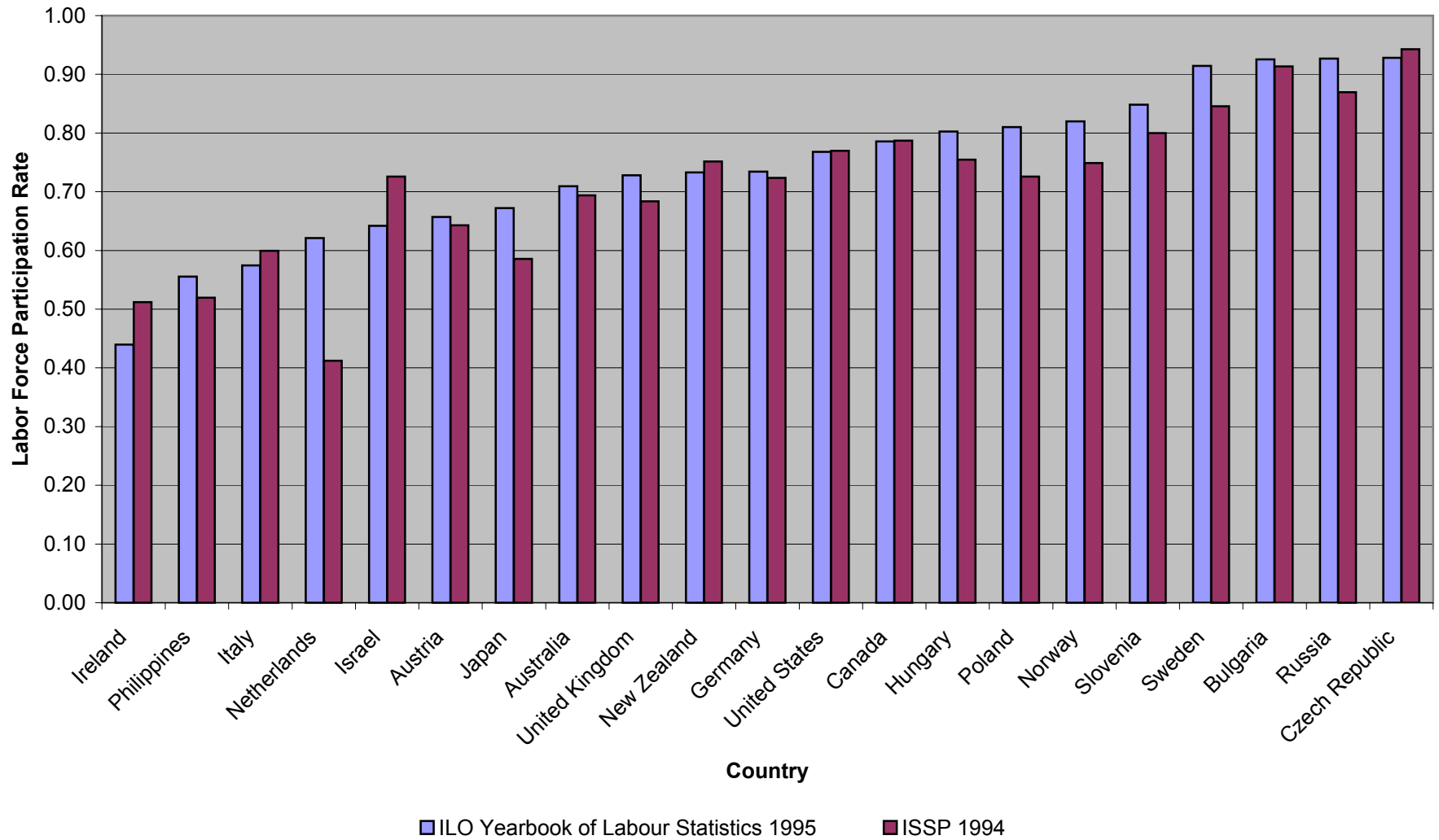
**Table 8. Linear Probability Model of Female Labor Force Participation Rates
including Controls for Average Country-Specific Male Attitudes Toward Sex Roles
(East and West Germany Combined)**

Panel A: Excluding Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	A Man's Job is to Earn Money; A Woman's Job is to Look After the Home and Family				Job is All Right, But What Most Women Really Want is Home and Children				Both Husband and Wife Should Contribute to Household Income			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	-0.033 (0.555)	0.485 (0.319)	0.338 (0.323)	0.293 (0.261)	-1.506 (0.682)	-0.044 (0.424)	-0.036 (0.489)	0.138 (0.399)	-1.894 (0.285)	-0.767 (0.247)	-0.770 (0.240)	-1.018 (0.439)
Disagree	-0.206 (0.298)	-0.012 (0.338)	-0.103 (0.344)		0.458 (0.216)	0.224 (0.239)	0.225 (0.229)		-0.524 (0.340)	-0.394 (0.354)	-0.399 (0.337)	
Neither	0.050 (0.870)	1.046 (0.609)			-0.602 (0.677)	-0.027 (0.608)			-0.169 (0.203)	-0.013 (0.233)		
Agree	-0.476 (0.312)				-0.794 (0.169)				-0.499 (0.128)			

Panel B: Including Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	A Man's Job is to Earn Money; A Woman's Job is to Look After the Home and Family				Job is All Right, But What Most Women Really Want is Home and Children				Both Husband and Wife Should Contribute to Household Income			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	1.578 (0.652)	0.641 (0.314)	0.645 (0.309)	0.645 (0.263)	-0.195 (0.433)	0.165 (0.291)	0.063 (0.427)	0.365 (0.339)	-1.177 (0.255)	-1.035 (0.177)	-0.999 (0.186)	-1.287 (0.560)
Disagree	0.331 (0.274)	-0.004 (0.299)	-0.000 (0.292)		0.463 (0.145)	0.425 (0.152)	0.407 (0.134)		-0.553 (0.252)	-0.543 (0.249)	-0.484 (0.240)	
Neither	1.298 (0.770)	-0.050 (0.482)			0.164 (0.620)	0.329 (0.534)			0.121 (0.219)	0.151 (0.237)		
Agree	0.814 (0.445)				-0.186 (0.185)				-0.069 (0.112)			

Source: International Social Survey Program (ISSP) 1994. Sampling weights used. Number of observations is 9813. Robust standard errors in parentheses. Standard errors corrected to reflect the fact that observations are independent across countries but not necessarily within countries. All probits also include controls for age, education, marital status, household size, mother's employment status, and real GDP/capita. Bold (shaded) coefficients significant at the 5 (10) percent level.

**Appendix Figure 1. Labor Force Participation Rates by Country
(Women 25-54)**



Appendix Table 1. Descriptive Statistics

	Mean	Standard Error
Labor Force Participation Rate	0.700	0.005
Age		
25-34	0.353	0.005
35-44	0.357	0.005
45-54	0.290	0.005
Education		
Less than High School	0.428	0.005
High School	0.311	0.005
More than High School	0.261	0.004
Marital Status		
Married	0.114	0.003
Separated/Divorced/Widowed	0.769	0.004
Single	0.117	0.003
Household Size	3.667	0.016
Mother's Employment Status^a		
Mother Worked	0.537	0.005
Mother Did Not Work	0.454	0.005
Did Not Live With Mother	0.010	0.001
Number of Observations	9813	

Source: International Social Survey Program (ISSP) 1994.

Sampling weights used.

a. Refers to before the respondent was 14 years of age.

Appendix Table 2. Male Attitudes Toward Family by Country

Country	Family Life Suffers because Men Concentrate too Much on their Work					Most Women Have to Work these Days to Support their Families				
	SD	D	N	A	SA	SD	D	N	A	SA
Eastern Europe (EE) and the Former Soviet Union (FSU)										
Bulgaria (n=283)	0.036	0.083	0.096	0.276	0.510	0.017	0.027	0.016	0.200	0.741
Czech Republic (n=423)	0.033	0.175	0.239	0.400	0.154	0.012	0.043	0.050	0.362	0.534
(East) Germany (n=436)	0.034	0.183	0.209	0.479	0.094	0.009	0.046	0.073	0.514	0.358
Hungary (n=572)	0.030	0.043	0.181	0.368	0.378	0.007	0.017	0.062	0.201	0.713
Poland (n=484)	0.022	0.197	0.147	0.534	0.101	0.016	0.050	0.029	0.589	0.316
Russia (n=466)	0.028	0.241	0.317	0.352	0.062	0.000	0.011	0.013	0.482	0.494
Slovenia (n=365)	0.025	0.148	0.205	0.545	0.077	0.025	0.104	0.104	0.488	0.279
Europe										
Austria (n=366)	0.043	0.162	0.135	0.427	0.232	0.038	0.130	0.097	0.411	0.324
(West) Germany (n=855)	0.023	0.146	0.151	0.552	0.127	0.023	0.106	0.124	0.519	0.227
Ireland (n=341)	0.032	0.141	0.070	0.633	0.123	0.021	0.088	0.097	0.601	0.194
Italy (n=453)	0.032	0.165	0.158	0.552	0.093	0.075	0.213	0.181	0.401	0.130
Netherlands (n=698)	0.013	0.170	0.234	0.542	0.042	0.044	0.417	0.272	0.241	0.026
Norway (n=692)	0.014	0.121	0.172	0.629	0.064	0.019	0.108	0.140	0.591	0.142
Sweden (n=388)	0.055	0.205	0.242	0.451	0.047	0.002	0.029	0.048	0.540	0.382
United Kingdom (n=629)	0.027	0.196	0.179	0.541	0.057	0.007	0.103	0.128	0.595	0.167
Middle East										
Israel (n=474)	0.030	0.124	0.160	0.527	0.158	0.027	0.135	0.143	0.447	0.247
Asia										
Japan (n=450)	0.264	0.104	0.122	0.280	0.229	0.098	0.064	0.158	0.298	0.382
Philippines (n=594)	0.013	0.266	0.217	0.460	0.044	0.010	0.095	0.108	0.726	0.062
North America										
Canada (n=406)	0.047	0.191	0.179	0.484	0.099	0.006	0.119	0.110	0.602	0.164
United States (n=503)	0.020	0.161	0.197	0.537	0.085	0.012	0.068	0.097	0.632	0.191
Oceania										
Australia (n=835)	0.012	0.101	0.132	0.647	0.109	0.020	0.144	0.137	0.537	0.163
New Zealand (n=350)	0.009	0.120	0.103	0.660	0.109	0.011	0.163	0.160	0.549	0.117

Source: International Social Survey Programme (ISSP) 1994. SD, D, N, A, and SA are strongly disagree, disagree, neither agree/disagree, agree, and strongly agree, respectively. Sampling weights used.

Appendix Table 3. Male Attitudes Toward Sex Roles by Country

Country	It is not Good if the Man Stays Home to Care for the Family and the Woman Goes out to Work					Being Housewife as Fulfilling as Working for Pay					Having Job Best Way for a Woman to be Independent Person				
	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
Eastern Europe (EE) and the Former Soviet Union (FSU)															
Bulgaria (n=283)	0.098	0.039	0.045	0.096	0.722	0.146	0.098	0.180	0.254	0.322	0.085	0.102	0.156	0.228	0.428
Czech Republic (n=423)	0.121	0.194	0.189	0.182	0.314	0.113	0.338	0.307	0.182	0.059	0.057	0.187	0.286	0.314	0.156
(East) Germany (n=436)	0.101	0.239	0.222	0.239	0.200	0.266	0.404	0.138	0.135	0.057	0.034	0.064	0.108	0.429	0.365
Hungary (n=572)	0.072	0.081	0.109	0.217	0.521	0.054	0.122	0.273	0.258	0.292	0.156	0.245	0.253	0.182	0.165
Poland (n=484)	0.034	0.174	0.095	0.458	0.239	0.018	0.180	0.178	0.503	0.120	0.004	0.206	0.158	0.515	0.117
Russia (n=466)	0.031	0.127	0.060	0.438	0.344	0.004	0.058	0.065	0.572	0.301	0.038	0.265	0.155	0.414	0.128
Slovenia (n=365)	0.066	0.266	0.175	0.332	0.162	0.049	0.252	0.181	0.433	0.085	0.025	0.225	0.164	0.447	0.140
Europe															
Austria (n=366)	0.205	0.238	0.175	0.101	0.280	0.084	0.217	0.178	0.210	0.311	0.021	0.123	0.135	0.342	0.379
(West) Germany (n=855)	0.106	0.271	0.188	0.229	0.205	0.081	0.274	0.167	0.304	0.174	0.029	0.117	0.140	0.502	0.212
Ireland (n=341)	0.141	0.361	0.117	0.308	0.073	0.053	0.158	0.158	0.507	0.123	0.059	0.173	0.097	0.554	0.117
Italy (n=453)	0.017	0.104	0.159	0.290	0.430	0.157	0.340	0.175	0.274	0.053	0.032	0.188	0.119	0.478	0.182
Netherlands (n=698)	0.168	0.536	0.158	0.112	0.027	0.032	0.272	0.340	0.302	0.054	0.036	0.215	0.248	0.440	0.062
Norway (n=692)	0.234	0.418	0.186	0.139	0.023	0.066	0.303	0.298	0.272	0.061	0.081	0.285	0.244	0.334	0.056
Sweden (n=388)	0.206	0.399	0.234	0.120	0.041	0.064	0.326	0.374	0.182	0.055	0.035	0.090	0.225	0.488	0.162
United Kingdom (n=629)	0.103	0.402	0.207	0.227	0.062	0.055	0.277	0.204	0.398	0.066	0.020	0.205	0.172	0.517	0.086
Middle East															
Israel (n=474)	0.095	0.207	0.175	0.329	0.194	0.173	0.409	0.173	0.196	0.049	0.042	0.160	0.165	0.451	0.181
Asia															
Japan (n=450)	0.258	0.120	0.189	0.151	0.282	0.078	0.064	0.184	0.238	0.436	0.167	0.104	0.233	0.144	0.351
Philippines (n=594)	0.038	0.279	0.088	0.515	0.081	0.014	0.147	0.166	0.628	0.045	0.005	0.114	0.116	0.685	0.079
North America															
Canada (n=406)	0.281	0.404	0.150	0.120	0.044	0.121	0.262	0.243	0.318	0.056	0.045	0.249	0.249	0.355	0.101
United States (n=503)	0.127	0.388	0.231	0.173	0.082	0.026	0.149	0.280	0.410	0.135	0.054	0.235	0.250	0.376	0.085
Oceania															
Australia (n=835)	0.184	0.390	0.246	0.135	0.044	0.044	0.214	0.285	0.358	0.098	0.062	0.261	0.189	0.407	0.080
New Zealand (n=350)	0.180	0.463	0.171	0.146	0.040	0.046	0.254	0.254	0.360	0.086	0.049	0.300	0.206	0.391	0.054

Source: International Social Survey Programme (ISSP) 1994. SD, D, N, A, and SA are strongly disagree, disagree, neither agree/disagree, agree, and strongly agree, respectively.

Sampling weights used.

**Appendix Table 4. Real Gross Domestic Product Per Capita by Country
(Current International Prices)**

Country of Origin	Real GDP/Capita
Eastern Europe (EE) and the Former Soviet Union (FSU)	
Bulgaria	6717
Czech Republic	13075
(East) Germany*	15911
Hungary	8525
Poland	6486
Russia	7350
Slovenia	11683
Europe	
Austria	19538
Germany	19385
(West) Germany*	22197
Ireland	15021
Italy	18546
Netherlands	19340
Norway	22437
Sweden	18559
United Kingdom	18053
Middle East	
Israel	15224
Asia	
Japan	22135
Philippines	2975
North America	
Canada	21262
United States	26816
Oceania	
Australia	20189
New Zealand	16330

Source: Penn World Tables (PWT) 1994.

*Real GDP/capita was not available separately for East and West Germany in 1994. Thus, I use the ratio of the real GDP/capita from 1988 to approximate the real GDP/capita in 1994 for East and West Germany.

**Appendix Table 5. Linear Probability Model of Female Labor Force Participation Rates
including Controls for Average Country-Specific Male Attitudes Toward Family**

Panel A: Excluding Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)								
	Family Life Suffers because Men Concentrate too Much on their Work				Most Women Have to Work these Days to Support their Families			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	-0.909 (0.372)	-0.147 (0.334)	-0.188 (0.353)	-0.141 (0.348)	-1.974 (0.769)	-1.004 (0.432)	-1.740 (0.405)	-2.977 (0.992)
Disagree	-0.449 (0.489)	-0.665 (0.462)	-0.334 (0.358)		-0.382 (0.366)	-0.074 (0.256)	-0.826 (0.091)	
Neither	0.118 (0.693)	0.560 (0.633)			-0.964 (0.614)	-1.475 (0.579)		
Agree	-0.526 (0.234)				-0.217 (0.132)			

Panel B: Including Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)								
	Family Life Suffers because Men Concentrate too Much on their Work				Most Women Have to Work these Days to Support their Families			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	-0.650 (0.276)	-0.220 (0.254)	-0.196 (0.271)	-0.223 (0.274)	-1.818 (0.770)	-1.724 (0.472)	-1.815 (0.331)	-2.660 (0.897)
Disagree	0.532 (0.496)	0.458 (0.493)	0.223 (0.298)		-0.551 (0.376)	-0.533 (0.319)	-0.614 (0.116)	
Neither	-0.531 (0.691)	-0.318 (0.704)			-0.173 (0.707)	-0.176 (0.691)		
Agree	-0.299 (0.187)				-0.029 (0.153)			

Source: International Social Survey Program (ISSP) 1994. Sampling weights used. Number of observations is 9813. Robust standard errors in parentheses. Standard errors corrected to reflect the fact that observations are independent across countries but not necessarily within countries. All probits also include controls for age, education, marital status, household size, mother's employment status, and real GDP/capita. Bold (shaded) coefficients significant at the 5 (10) percent level.

**Appendix Table 6. Linear Probability Model of Female Labor Force Participation Rates
including Controls for Average Country-Specific Male Attitudes Toward Sex Roles**

Panel A: Excluding Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	It is not Good if the Man Stays Home to Care for the Family and the Woman Goes out to Work				Being Housewife as Fulfilling as Working for Pay				Having Job Best Way for a Woman to be Independent Person			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	0.278 (0.663)	0.542 (0.477)	0.396 (0.445)	0.173 (0.281)	0.444 (0.722)	1.013 (0.404)	0.905 (0.502)	0.851 (0.374)	-2.383 (0.852)	0.024 (0.753)	0.205 (0.465)	0.221 (0.470)
Disagree	-0.444 (0.305)	-0.472 (0.289)	-0.376 (0.303)		-0.061 (0.269)	-0.120 (0.232)	-0.056 (0.310)		-0.166 (0.354)	-0.017 (0.376)	0.081 (0.356)	
Neither	1.513 (0.703)	1.550 (0.658)			-0.098 (0.464)	0.163 (0.412)			-0.082 (0.872)	0.349 (0.884)		
Agree	-0.269 (0.318)				-0.300 (0.311)				-1.042 (0.302)			

Panel B: Including Controls for Eastern Europe (EE) and the Former Soviet Union (FSU)												
	It is not Good if the Man Stays Home to Care for the Family and the Woman Goes out to Work				Being Housewife as Fulfilling as Working for Pay				Having Job Best Way for a Woman to be Independent Person			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Strongly Disagree	0.674 (0.536)	0.561 (0.353)	0.430 (0.310)	0.394 (0.247)	0.662 (0.499)	0.437 (0.327)	0.385 (0.474)	0.563 (0.264)	-1.193 (0.697)	-0.472 (0.594)	-0.363 (0.338)	-0.377 (0.309)
Disagree	-0.179 (0.306)	-0.182 (0.314)	-0.080 (0.332)		0.126 (0.163)	0.140 (0.175)	0.170 (0.252)		-0.228 (0.312)	-0.216 (0.306)	-0.157 (0.273)	
Neither	1.411 (0.615)	1.403 (0.619)			0.184 (0.312)	0.073 (0.366)			0.096 (0.768)	0.217 (0.746)		
Agree	0.115 (0.321)				0.132 (0.208)				-0.353 (0.234)			

Source: International Social Survey Program (ISSP) 1994. Sampling weights used. Number of observations is 9813. Robust standard errors in parentheses. Standard errors corrected to reflect the fact that observations are independent across countries but not necessarily within countries. All probits also include controls for age, education, marital status, household size, mother's employment status, and real GDP/capita. Bold (shaded) coefficients significant at the 5 (10) percent level.