



Österreichisches Institut für Familienforschung  
*Austrian Institute for Family Studies*

39 | 2004

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## **Religion, Attitudes towards Working Mothers and Wives' Full-time Employment.**

Evidence for Austria, Germany, Italy, the UK,  
and the USA

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PAPERS



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## ABSTRACT\*

This paper uses ISSP-data from the 1990s to analyze the relationship between religion and attitudes towards working mothers both within and across Austria, West and East Germany, Italy, the UK, and the US. In addition, the sub-sample of husbands is used to examine whether these attitudes along with males' religious involvement affect wives' full-time employment. Reinforcing previous research, Austrians and West Germans are the most conservative individuals across the countries examined, whereas British and US-Americans are the most liberal. Denominational affiliation as well as religious participation correlates positively with traditional attitudes across and, though weaker, within countries. Regarding full-time labor participation of wives, the results suggest for a negative effect of both males' attitudes and religious affiliation. Husbands' frequency of church attendance of, however, does not affect the likelihood of wives' full-time employment.

*Keywords:* Attitudes, female labor participation, religion, comparative research

*JEL-Classification:* I12, J30, J70

## ZUSAMMENFASSUNG IN DEUTSCHER SPRACHE

Die Studie verwendet Mikrodaten des ISSP aus den 1990ern und untersucht den Zusammenhang zwischen Religion und Einstellungen zur Erwerbstätigkeit von Frauen bzw. Müttern sowohl innerhalb als auch zwischen Österreich, West- und Ost-Deutschland, Italien, Großbritannien und den USA. Darüberhinaus wird die Stichprobe der verheirateten Männer herangezogen, um zu analysieren, ob derlei Einstellungen und religiöses Engagement sich auf die Neigung zur Vollzeitbeschäftigung der Ehefrauen auswirken. Frühere Ergebnisse finden insofern Bestätigung, als dass einerseits Österreicher und West-Deutsche die konservativsten Individuen im hier betrachteten Länder-Sample sind, wohingegen andererseits Briten und US-Amerikaner die liberalsten sind. Konfessionelle Bindung und Teilnahme an religiösen Aktivitäten korrelieren positiv mit traditionellen Einstellungen sowohl über die Länder hinweg wie auch, gleichwohl etwas schwächer, innerhalb der Länder. In Bezug auf die Vollzeitbeschäftigung von Ehefrauen deuten die Ergebnisse darauf hin, dass insbesondere die Einstellungen der Männer wie auch eine konfessionelle Zugehörigkeit einen negativen Effekt ausüben. Das Ausmaß der Teilnahme an religiösen Aktivitäten durch Ehemänner scheint sich hingegen nicht auf die Wahrscheinlichkeit auszuwirken, dass Ehefrauen vollzeitbeschäftigt sind.

*Schlagworte:* Einstellungen, Erwerbstätigkeit von Frauen, Religion, Komparative Forschung

*JEL-Klassifikation:* I12, J30, J70

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\* The data used in this paper were documented and made available by the Zentralarchiv für Empirische Sozialforschung, Köln. Originally, the ISSP data were collected by independent institutions in each country. Neither the original collectors nor the Zentralarchiv bear responsibility for the analysis or interpretations presented here. I would like to thank Johannes Schwarze for helpful comments on an earlier version of this paper. All remaining errors are mine.

## I INTRODUCTION

In the economic and sociological literature, there is a considerable interest in the rise in women's participation in paid employment in the last decades. There exists extensive research both theoretically and empirically. In addition to single-country analyses, there are several studies tackling the variation in female employment across countries. The development towards comparative research on this issue has profited from the emergence of a range of comparable databases in the last 20 years. It is since possible to examine factors influencing the labor participation decision of women controlling for cross-country differences in institutional settings, like for example, child allowances or the availability of state provided child care services.

Culture, however, as a constituting part of human nature has not been that prominent in particularly economic analyses that examine female employment across countries. This might to some extent be attributed to the complexity of the term. It consists of explicit and implicit patterns of and for behavior. Traditional ideas, i.e. ideas that are historically derived and selected and especially their attached values are of particular importance. Culture may therefore, on the one hand, be considered as products of action but it may, on the other hand, also be considered as conditioning elements of further action (Kroeber and Kluckhohn, 1967). Consequently, culture plays an essential role in the formation of individuals' habits and attitudes on any imaginable aspect of life and therefore influences socio-economic outcomes as well. Aspects like, for example, diligence or honesty shown by employees might be rewarded by employers. However, it is a simple observable fact that behavioral norms and virtues differ across individuals depending on their particular cultural background.

Factors affecting this background include, e.g., the country-specific historical experience or membership to a particular ethnic group. However, there always are interdependencies between these aspects and the religion that is dominant in the country, region, and/or ethnic group. Therefore, religious affiliation and religious belief quite likely influence individual attitudes and behavior. There, in fact, is empirical evidence that religion affects variety of aspects of primarily sociological interest. Examples are marital stability and fertility. Early work has been done by Becker et al. (1977), recent analyses are Lehrer and Chiswick (1993), Lehrer (1996), and Chinitz and Brown (2001). Recently, there furthermore is an increase in analyses on economic outcomes addressing, for example, labor supply (Heineck, 2004; Lehrer, 1995) or earnings or income (Heineck, 2002; Lipford and Tollison, 2002; Steen, 1996).

Regarding the employment of women and particularly mothers there also are several studies that address the formation of attitudes at the basic individual level and the observable cross-country variation in patterns. However, it is surprising that only a few studies incorporate actual labor market behavior in such analyses. Moreover, while cross-country differences in culture in general and institutional settings have been acknowledged by some authors (e.g., Albrecht et al., 2000; Antecol, 2003), religion as a potential factor has largely been ignored, with only a few exceptions (for example, Gomilshak et al., 2000).

This paper therefore adds to the existing research in multiple ways. First, three waves of a cross-national comparable dataset are used spanning time from 1991 to 1998. It is thus possible to get an insight in the recent development of attitudes towards working mothers. This, however, is not the focus of the article and thus remains somewhat crude. Yet, religion and its impact on attitude formation are explored in more detail both within and across countries. Furthermore, building up on the analysis of attitudes, the sub-sample for married males is used to examine the effect of both males' attitudes and their religious involvement on the full-time labor participation of wives. This latter has, as far as apparent, hitherto not been object of investigation in a cross-national perspective.

The structure of the paper is as follows: section II reviews previous research and provides testable hypotheses. Section III presents the data and the statistical methods used. Results are discussed in section IV and are followed by concluding remarks in section V.

## 2 BACKGROUND AND HYPOTHESES

In many Western industrialized countries, women's participation in paid employment increased rapidly in the last decades. This phenomenon has attracted much attention in social sciences, particularly in economics and sociology. Analyses on both macro- and micro-level have been conducted exploring possible factors that caused and advantaged this development. On the macro-level, three prevalent hypotheses from the sociological literature are the *emancipation hypothesis*, the *U-hypothesis*, and the *constancy hypothesis* each offering a different explanation as to why female labor participation has grown and hence also supposing different prospects of future development (for a detailed discussion see Rau and Wazienski, 1999).

However, more of interest in this analysis are studies on the micro-level that focus on both the formation of attitudes towards female and particularly mothers' labor participation and analyses that use such attitudes as predictors of women's employment. Often, micro-level studies also link their analyses to examine cross-country variation in female labor participation where comparisons then are based on differences in welfare states and social policies. The cross-country variation in female employment subsequently may be attributed to differences in, e.g., the taxation of the family or state-provided services of both child care and care of the elderly. Such policy dimensions, however, are subject to support of the society in general and therefore are subject to individual behavior and attitudes towards gender roles and women working outside the home.

As Knudsen and Waerness (1999) point out, there are only few theoretical underpinnings about cross-country differences in attitude formation. These, in general, focus on the differences in institutional patterns. However, they furthermore state that there are two general social processes that lead to different attitudes and behavior in Western industrialized countries. These are (1) the struggle toward gender equality and (2) the individualization process, both being consequences of the secularization process. In this context, there is a certain amount of studies in the spirit of Max Weber's 'Protestant Ethic' addressing secularization or individualization and its relationship to economic well-being and prosperity. However, there surprisingly is only scarce literature that addresses a possible impact of religion on the formation of basic attitudes at the level of the individual. Only recently has scholarly interest in such questions been rediscovered.

For instance, Knudsen and Waerness (1999) acknowledge that, where dominant, religions might influence both a nation's institutional settings like the design of the welfare state and individuals' interpretations of it. However, although they note that Catholic nations might be expected to be less favorable towards female or mothers' employment, they do not include indicators of religion in their empirical analysis.

In another study, Knudsen and Waerness (2001), combine attitudinal indicators from the ISSP into a single index to examine attitudes towards gender roles and mothers' employment comparing the UK, Norway and Sweden. Using frequency of religious participation as explanatory variable, they hypothesize that religiously devoted individuals are more negative towards modern gender roles than the not religiously engaged. Their findings show that a higher level of religious participation has a negative impact on liberal attitudes. While there are no statistical differences between the Swedish and the Norwegians they furthermore find that religiously active individuals in Britain are more in favor of modern gender roles and working mothers than the Norwegian counterparts.

Siaroff (1994) also pursues a comparative analysis and finds that Protestantism is a crucial factor explaining female work desirability. On the one hand, he attributes this result to the greater importance of individual rights in Protestantism. Adding to the overall effect, traditional religions including foremost Catholicism, on the other hand, usually have stricter views towards working mothers. Schmidt's (1993) analysis is along this line of arguments and his findings corroborate the Protestantism-Catholicism split. Gomilshak et al. (2000), using ISSP-data, also find that the higher the share of Protestants in nations the less likely is there accordance with the 'male-breadwinner' model.

Sainsbury (1999), on the other hand, concludes that it is not only the Protestantism-Catholicism split that is responsible for the cross-country variation in the development of female labor participation. While she acknowledges that Protestantism and Catholicism may play a part on its own, she refers to the Norwegian and the US case to indicate that it rather is the political institutionalization of religious and traditional beliefs in the party system also of Protestant nations that maintains societal attitudes in favor of traditional gender roles.

This point of view is shared by Sjöberg (2004), who claims that both Catholic and Protestant doctrines partially share the same traditional ideal of family life, but furthermore suggests that, in terms of policy influences, the Catholic social doctrine with its stress on women's family obligations has been more influential. Using ISSP data, he applies multilevel techniques to examine both micro and macro aspects. On the micro-level, he analyzes attitudes towards female labor participation and includes indicators that interact church attendance by Catholic or Protestant affiliation. His results suggest that it rather is attendance than church membership that affects individuals' attitudes.

Similar results are shown by Guiso et al. (2002) in their quite comprising study analyzing the impact of religion on individuals' economic attitudes. Using data from the World Value Surveys (WVS) they also examine attitudes towards working women. They find that it is the religiously engaged who are less favorable with respect to female labor participation. Furthermore, this result is not only attributed to more hierarchical denominations such as Catholicism or Islam, but across most denominations, with Buddhists being somewhat exceptional. Following their analysis, Protestantism is therefore not *the* religion in support of particularly liberal attitudes. There are some lessons and implications from the findings of all above noted studies. First, despite the complexity of institutional differences across countries with its differences in incentives for women to participate in paid employment, religiosity, in general, has an impact on individuals' behavior also including economic attitudes and outcomes. This, second, seems to be more or less independent from the particular denominational affiliation but rather comes along with religious participation.

However, none of the aforementioned studies shed light on intra-household or intra-family processes. According to New Home Economics (Becker, 1991), it should be expected that both partners bargain over joint labor participation decisions, mostly implying that a husband's career has a negative effect on his wife's employment participation and outcomes. Empirical evidence in this area shows that husbands matter. Bernardi (1999), using data on Italy, concludes that a wife's participation in the labor market is negatively affected if her husband has comparative advantages in market work. Albrecht et al. (2000) explore the 1994 wave of the ISSP to examine both attitudes towards working mothers and their labor market outcomes. Their results suggest that women's attitudes do not affect earnings, but are related to the likelihood of full-time employment. While they separately analyze men and women, they do not attempt to tackle within-household effects. Antecol (2003) presents a cross-country comparison also based on the 1994 wave of the ISSP and OECD labor statistics. She analyzes the impact of males' attitudes on females' decision to participate in the labor market and concludes that labor force participation rates of women are higher in countries where there are more liberal male attitudes towards working women.

Still, these studies again ignore religion and individual religious behavior as a potential source of variation in attitudes. This paper therefore combines elements of previous analyses and

examines both possible influences on attitudes towards mothers' employment and actual labor market participation of wives.

As for a possible impact of husbands' attitudes on wives' full-time employment, a priori reasoning is more difficult as this depends both on the bargaining power of the spouses and the country-specific institutional framework that together may affect female labor participation either positively or negatively. However, it is plausible to assume that there may be 'optimal matches' in the sense that stable marriages occur for partners who share the same set of ideological views, including religious affiliation and attitudes towards the 'proper' allocation of labor among husband and wife. It may thus be expected that males who are more traditionally oriented are married to women who also are more family-oriented. Consequently, female full-time employment should be less likely for males who are in favor of traditional gender roles.

Summing up, the hypotheses with regard to both attitudes on gender roles and actual labor market behavior are as follows:

1. Religiosity, as measured by denominational affiliation and religious participation, is assumed to affect individual attitudes towards gender roles and working mothers negatively. Stronger effects are expected particularly for religious participation.
2. This assumption holds across the variety of denominations that are present in the countries examined here. In particular, given that individuals are religiously active or engaged, there should be no substantial differences in attitudes between Catholics and Protestants, but rather between individuals who are religiously affiliated and those who are not.
3. Moreover, based on prior evidence and on *a priori* theoretical reasoning, both husbands' attitudes in favor of traditional gender roles and family models and their religious involvement are expected to be negatively related with wives' labor participation.

The choice of the countries examined in this analysis is based on Esping-Andersen's follow-up on his classification on welfare state regimes (Esping-Andersen, 1996). Particularly, West Germany, Austria and Italy, having more familialistic welfare regimes, are considered to follow the 'labor reduction route' suggesting that West Germans, Austrians and Italians are expected to show more traditional attitudes. The UK and the US, having more individualistic regimes that are based on less generous and means tested welfare benefits, are representing the 'neoliberal route'. More liberal attitudes should show for these two countries.

East Germany is exceptional: Similar to other post-socialist nations, it also was ideological reasoning prior to German reunification that led to higher female labor participation rates. However, it might be argued that this was only state decreed behavior that was not reflecting true underlying individuals' attitudes. In fact, there is evidence that individuals in the Eastern European countries are as traditionalistic as in the Western industrialized countries. Gomilshak et al. (2000) show that agreement to the traditional role of women ranges from 60% to 73% of the respective population. East Germany is different: following Canadians, where only 17% are in favor of traditional gender roles, East Germans (20% agreement) are even more liberal than the British or the Scandinavian.

However, Braun et al. (1994) argue that the prevalent more egalitarian gender-role attitudes might be undermined once the economic necessity is reduced. For the time period considered, it can nevertheless be expected that East German individuals are more liberal than West Germans, Austrians or Italians.

### 3 DATA AND STATISTICAL METHODS

The data used in this analysis are drawn from the International Social Survey Program (ISSP).<sup>1</sup> This is a continuing, annual program of cross-national collaboration with a focus on social values and attitudes. Adding to the countries' regular surveys a module is administered each year to collect comparable data. It started with a bilateral cooperation between the German ZUMA and the US-American NORC in the beginning of the 1980s. It ever since has grown to 34 participating countries. Three modules from the 1990s are the sources for the sample used. In particular, these are the two available modules on 'Religion' (1991 and 1998) and the second module on 'Family and Gender Roles' in 1994.<sup>2</sup>

The latter provides a rich source on attitudes towards female and mothers' labor participation. It provides five questions of variables pertaining to the family and six questions on gender roles. However, only two indicators drawn from this module are used. In particular, there is one question from the first set of variables on gender roles, reflecting the individual's ideological point of view, and one question from the variables on the beliefs of the consequences of working mothers respectively.<sup>3</sup>

*Do you agree or disagree with*

- (1) *a man's job is to earn money; a woman's job is to look after the home and family and*
- (2) *all in all, family life suffers when the woman has a full-time job.*

Answers to both questions are given on a five-point Likert scale ranging from 'strongly disagree' to 'strongly agree'.

There are mainly two reasons why only these questions are used in the analyses. First, as is obvious from the above noted studies, the 1994 module has been widely explored by both sociologists and economists. Second, and more important, there are almost the same questions in the 'Religion' modules in 1991 and 1998. It is thus possible to explore an admittedly rather crude and descriptive time trend in individual attitudes towards mothers' employment across countries, sexes, and religions. However, the ISSP is not a panel study, i.e. a survey that consists of repeated observations on the same set of cross-section units. Therefore, panel estimators that control for unobservable individual heterogeneity cannot be applied. Furthermore, as the cross-sectional samples used are not extensive, pseudo-panel estimation as outlined by Baltagi (2001) cannot be used either. The advantage of using three waves of the ISSP therefore basically is in the increase of the sample size, making statistical inference more reliable.<sup>4</sup>

Two necessary remarks have to be made: First, whereas the family questions are identical in the three waves there is a change in wording in the gender role question. Instead of 'man' and 'woman', that is used only in 1994, 'husband' and 'wife' are used in 1991 and 1998: *Do you agree or disagree ... A husband's job is to earn money; a wife's job is to look after the home and family.* Secondly, attention should also be paid to the differences in the modules: It might be that the response behavior to the questions on attitudes is not independent from the general focus of all other questions. Therefore, a possible bias in answers cannot be ruled out *a priori*.

The Likert-scale answers on the two indicators on gender roles and the belief about consequences for family life are used both as dependent and independent variables in the

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<sup>1</sup> For more information, see <http://www.issp.org>

<sup>2</sup> Response rates vary both across countries and waves within a range of about 60% to more than 70%. Full details are available upon request.

<sup>3</sup> Scott (1999) distinguishes three domains of gender role attitudes: 'gender ideology', 'beliefs about the consequences of maternal employment' and 'beliefs about the economic necessity of women's work' ("Both the husband and wife should contribute to the household income"). The latter aspect is not addressed in this paper as there is no similar question in the 1991 and 1998 ISSP modules.

<sup>4</sup> It, however, cannot be ruled out that the estimates are biased as unobservable individual heterogeneity is not controlled for.



analyses. To ease estimation and interpretation of the results, binary indicators are generated from the original data that equal one if the individual agrees or strongly agrees with the respective issue and zero else. This also applies to the analysis of wives' employment: It would in general be possible to differentiate supplied labor in categories like full-time, part-time and not being employed. This would allow using models for categorical or nominal outcomes. However, because of sample size restrictions, the original data are again used to generate an 'employed-not employed' dichotomy and estimators for binary outcomes as outlined in more detail below are applied.

The underlying hypothesis in this analysis is that religious involvement is related to the formation of attitudes on gender roles and the actual labor market participation of women. Therefore, a range of variables covering religious affiliation and participation is included. Detailed information on denominational affiliation is given in all three waves of the ISSP used. However, due to the focus on Western industrialized countries, the majority of denominations included are of Christian nature. These denominations are in particular: Roman Catholic, Lutheran, Baptist, Methodist, Presbyterian, Free Presbyterian, Anglican, Protestant, Congregational, and Orthodox. Being aware that there are differences between the Protestant groups across and within the countries examined, affiliation to one of these churches or groups is captured in one 'Protestant' indicator in order to track the potential Protestant-Catholic split.<sup>5</sup> Further non-Christian adherents observed are Muslims, Jews, Hindus, Sikhs and Buddhists. These, as well as individuals who are not affiliated with a religion or denomination, are captured in two further indicators *'other denomination'*<sup>6</sup> and *'no religion'*.

As argued, religious affiliation is only one possible factor influencing individual attitudes. It rather is religiosity that might play another and possibly the more dominant part determining attitudes and behavior. Therefore, and besides denominational affiliation, indicators of the frequency of religious participation are included in the analyses. As Iannaccone (1998) points out, religious participation might be used as a measure for the individual's so-called 'religious human capital', i.e. the stock of knowledge and familiarity with one's own religion, its rituals and doctrines. While this idea might be considered as extension to the familiar 'human capital theory', religious participation is used in this analysis as proxy for the religiosity of individuals.<sup>7</sup>

It may plausibly be expected that a high level of religious participation and, subsequently, a thorough familiarity with church doctrines quite likely affects attitudes towards female or mothers' employment in case the particular church or religious group values the traditional family role model. Therefore, four dummy-variables are used that capture whether the individual attends religious services *'once a week or more'*, *'once a month or more'*, *'less frequently'*, so that *'never'* is the omitted reference category.

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<sup>5</sup> To economize on space, results from analyses that include separate indicators for the Protestant denominations noted are not presented. Moreover, there were substantial convergence problems in the estimations due to sample size limitations. However, these few estimations that run successfully do not yield in findings that differ substantially from those shown in the paper.

<sup>6</sup> Note that, although Christian, adherents from Orthodox churches or groups are included in the 'other denomination' dummy. Furthermore, similar to the differences within Protestant denominations, this indicator also covers rather heterogeneous groups which very likely differ in attitudes and behavior.

<sup>7</sup> In general, attention has to be paid when applying this concept empirically as frequency of participation and religious human capital are endogenous: Frequent religious participation adds to the stock of religious capital and in turn increases participation as the level of satisfaction that arises from the consumption of religious products like church attendance or reading religious scripts increases the higher an individual's religious human capital. However, this potential endogeneity is no problem here as there is no indicator for religious human capital like, for example, the importance of religious belief used in the analyses. Nevertheless, to ensure that frequency of church attendance is a valid proxy, Spearman's rank correlations are computed for variables on (ordinally scaled) attendance rates and the level of the respondent's religious belief. The latter is asked for in the two religion modules in 1991 and 1998, is ordinally scaled, with the lowest score presenting the highest level of belief. In 1991, the Spearman-Rho is -0.676 and statistically significant at the 5%-level. In 1998, attendance rates are measured in reversed order, so that the Spearman-Rho of 0.593 also indicates a strong relation between church attendance and individuals' religious belief.

Moreover, there is a variety of socio-economic characteristics that are also included in the multivariate regressions as control-variables. These are in particular: two age-category dummies (20-34 years and 35-49 years old, individuals older than 50 years being the reference group), a male-dummy, affiliation to lower social class, a binary indicator for married, dummies on part-time and full-time occupation,<sup>8</sup> another indicator on occupation in public services, a dummy indicating whether the individual has completed higher education, two dummy variables representing left or right wing political attitudes (liberal being the reference group), an indicator on household-size, another dummy capturing whether the individual's residence is in a rural area and two time dummies. The final cross-country sample used consists of 14,160 individuals aged 20 to 64 years. At first glance, this age restriction may seem rather arbitrarily when examining attitudes towards mothers' employment. However, it makes sense in the ensuing analysis of married men and the impact of religion on wives' employment.

As the dependent variables are binary, probit or logit estimation would be an appropriate method to apply. However, instead of presenting coefficients resulting from such models, discrete changes in the predicted probabilities following probit regressions are shown. Similar to marginal effects, discrete changes capture the effects of single covariates on the dependent variable. They are calculated as follows (Long, 1997).

Let  $\Pr(y=1 | \mathbf{x}, x_k)$  be the probability of an event, i.e. the agreement to gender roles or wives' actual full-time employment, given a set of explaining characteristics,  $\mathbf{x}$ , and noting the value of  $x_k$ .  $\Pr(y=1 | \mathbf{x}, x_k + \delta)$  then is the probability with  $x_k$  increased by  $\delta$ , with all other variables unchanged. The discrete change in the probability for a change of  $\delta$  in  $x_k$  then equals

$$\frac{\Delta\Pr(y=1 | \mathbf{x})}{\Delta x_k} = \Pr(y=1 | \mathbf{x}, x_k + d) - \Pr(y=1 | \mathbf{x}, x_k) \quad (3.1)$$

For dummy variables, discrete changes are the change as  $x_k$  goes from 0 to 1, holding all other variables at their mean:

$$\frac{\Delta\Pr(y=1 | \bar{\mathbf{x}})}{\Delta x_k} = \Pr(y=1 | \bar{\mathbf{x}}, x_k = 1) - \Pr(y=1 | \bar{\mathbf{x}}, x_k = 0) \quad (3.2)$$

## 4 RESULTS

### 4.1 Attitudes towards gender roles

The three waves drawn from the ISSP allow to crudely picturing the trend of attitudes on the gender allocation of labor and the beliefs about the consequences of mothers' employment in the 1990s. Figure 1 to Figure 3 show the cumulated shares of agreement and strong agreement towards both issues over the time period examined. While Figure 1 shows the time trend across the six countries,<sup>9</sup> Figure 2 and Figure 3 depict agreement to the gender role models subject to denominational affiliation and frequency of religious participation. A distinctive feature of these descriptive results is that, when looking at the three figures, one has to be cautious interpreting the findings. This is because response behavior may be dependent on the wording of the questionnaire and on the focus of the respective module. In particular, responses in 1994 to some extent cause a non-monotonic development between 1991 and 1998. Unless one is

<sup>8</sup> Cassidy and Warren (1996) show that, in comparison to full-time homemakers, full-time employed women are the most supportive of non-traditional gender roles, followed by part-time employed women. A similar result is found by Alwin et al. (1992).

<sup>9</sup> To improve legibility of the figures, further male-female separation is omitted. In general, while following the overall country-trends women are more liberal than men, which is in line with the results of Sundström (1999) who explores the 1994 wave. The exception is found for Austrian females, who in 1998 are somewhat stricter than males. This, however, is due to the development among Austrian men whose agreement towards traditional attitudes decreases stronger than women's agreement.

willing to believe that there have been real up and down changes in attitudes, interpretation demands care.

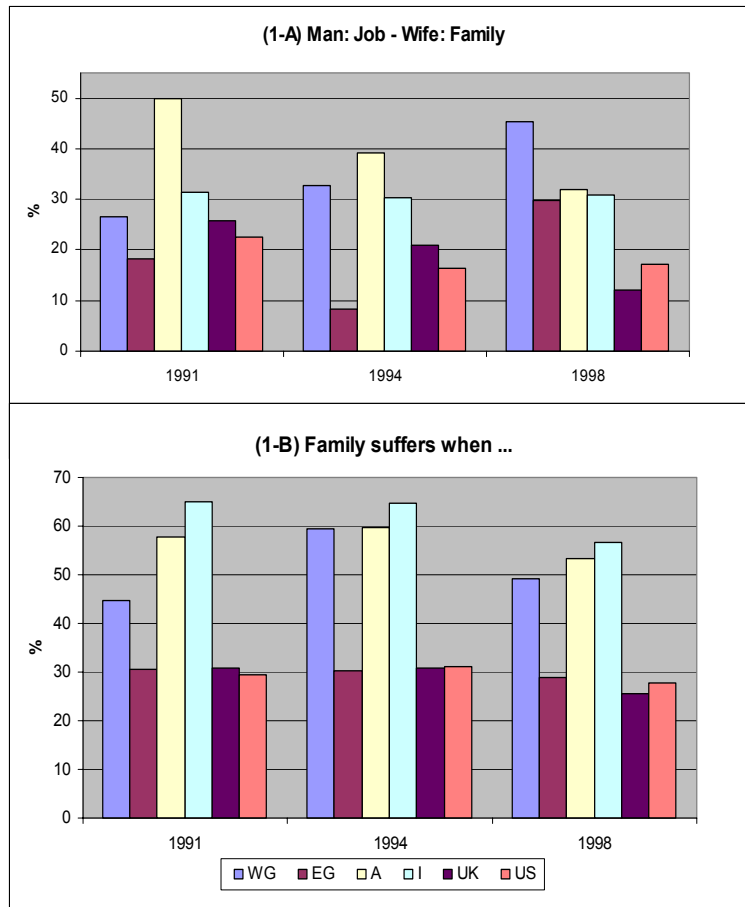


Figure 1: Agreement towards (1-A) "A man's job is to earn money, a woman's job is to look for home and family" and (1-B) "Family suffers when the woman has a full-time job" by country  
 Source: ISSP, own calculations; cumulative shares of agreement and strong agreement, weighted.

Figure 1 shows that there are large differences in agreement with the traditional allocation of labor between spouses or partners across the countries examined. As expected, liberal attitudes are found for the UK and the US. On top of that, there is a trend towards less traditional attitudes in the 1990s in both countries: In Britain, agreement to the 'male-breadwinner' model decreases from 25% in 1991 to less than 15% in 1998 (Figure 1-A). A similar trend is found for the US, though less distinct. Mothers' full-time employment, however, is seen sceptical by about 30% of British and US-Americans in 1991 with only a slight decrease to 25% in the UK and 28% in the US in 1998 (Figure 1-B).

The proponents of Esping-Andersen's (1996) labor-reduction route, Austria, West Germany and Italy, are the most restrictive nations regarding the traditional gender role (1-A) and, even more clearly, pertaining to the belief on negative consequences of mothers' full-time employment (1-B). There, however, are also differences in the development of attitudes among these more traditionalist countries. In particular, on the one hand, agreement towards the 'male breadwinner model' is either rather stable or decreasing in both Austria and Italy. For example, while 50% of Austrians think that it is men's responsibility to financially take care of the family in 1991, only some 30% still do so in 1998. On the other hand, individuals in West Germany show a reversed trend, i.e. a development in favor of the traditional role model (1-A). Agreement increases from about 30% in 1991 to 45% in 1998. A similar picture can be seen for the belief

about negative consequences for family life. Again, Austria and Italy, i.e. the Catholic nations,<sup>10</sup> are the most traditional countries in the sample examined: Only about 30-35% of the respective populations do not think that the family suffers when the woman/mother works full-time (1-B). However, there is a small decrease from 1991 to 1998.

Regarding religious affiliation and participation, the descriptive findings shown in the figures (Figure 2 and Figure 3) are mainly as expected. First, as in the figures shown above, mothers' full-time employment is less accepted (2-B and 3-B). While agreement towards the traditional male-female allocation of labor ranges from about 12% to at maximum 42% (2-A), full-time working mothers are associated with a negative impact on family life by 25% up to even 60% of the interviewed individuals (2-B). The upper shares mainly are attributed to Roman Catholics and the lower ones to individuals without denominational affiliation, i.e. those are the most liberal ones. Attitudes of Protestants and adherents of other religions are found between these lower and upper bounds. However, note that both categories very likely represent a range of heterogeneous groups so that interpretation should be handled with care.<sup>11</sup>

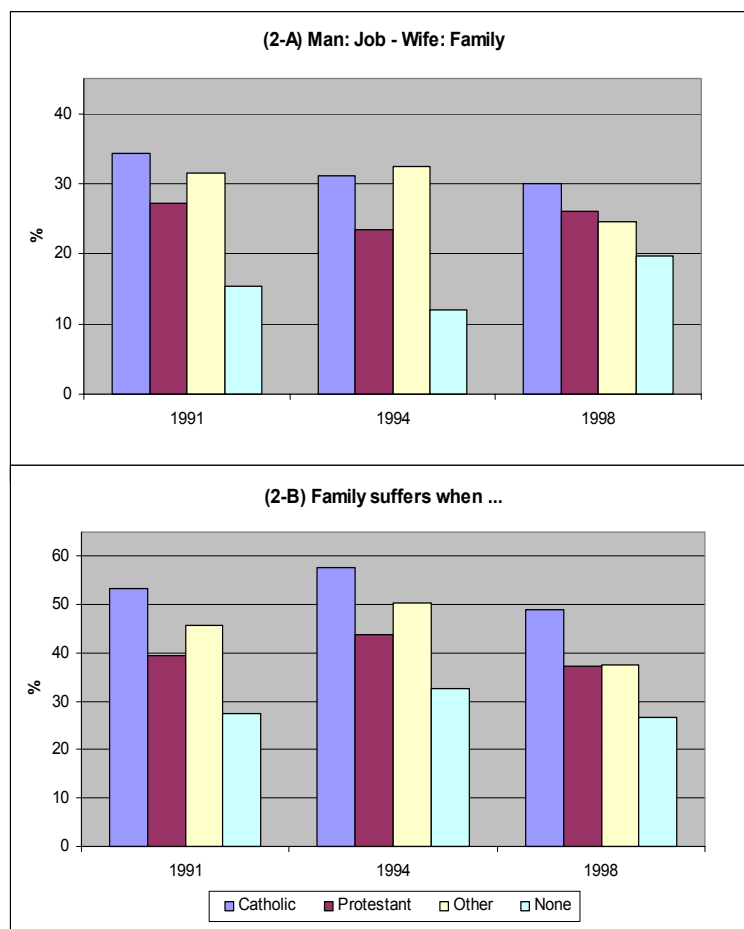


Figure 2: Agreement towards (2-A) "A man's job is to earn money, a woman's job is to look for home and family" and (2-B) "Family suffers when the woman has a full-time job" by religion  
Source: ISSP, own calculations; cumulative shares of agreement and strong agreement, weighted.

As for the trend in time, the 1994 wave introduces some non-monotonic pattern although the overall picture suggests for stability of attitudes across denominational affiliation between 1991 and 1998. However, there are slight increases towards more liberal attitudes among Catholics

<sup>10</sup> In the sample, the share of Roman Catholics in Austria is 80.8% and at 91.9% in Italy.

<sup>11</sup> This, in particular, applies to the 1994 peak found for other adherents in favor of the labor allocation model.

and, in contrast, individuals with no religious affiliation are somewhat more in favor of the 'male-breadwinner' model in 1998 compared to the beginnings of the 1990s.<sup>12</sup>

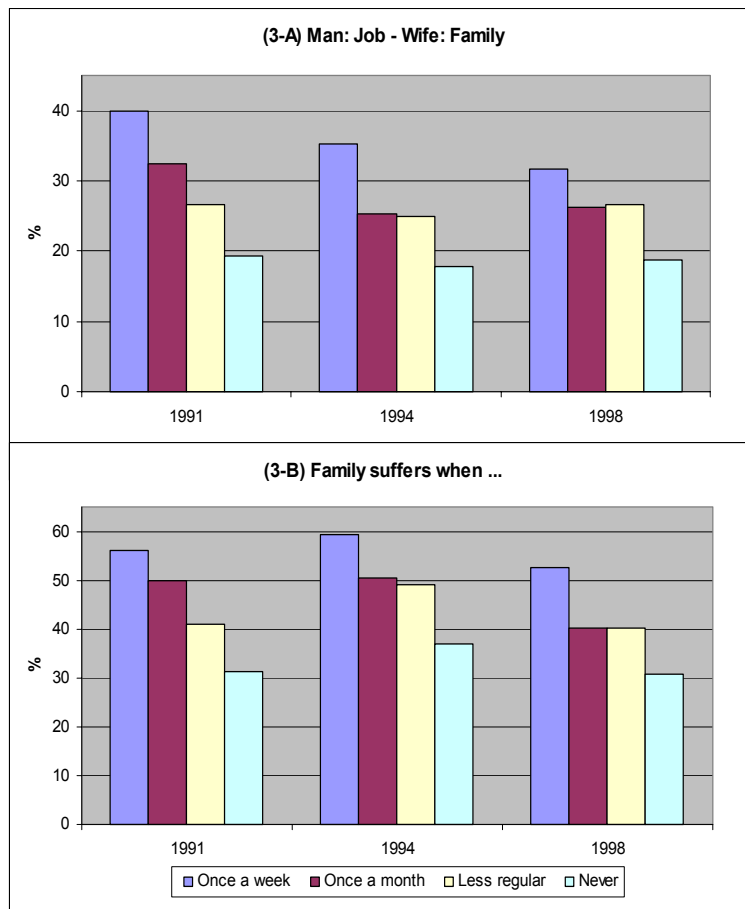


Figure 3: Agreement towards (3-A) "A man's job is to earn money, a woman's job is to look for home and family" and (3-B) "Family suffers when the woman has a full-time job" by attendance  
 Source: ISSP, own calculations; cumulative shares of agreement and strong agreement, weighted.

Figure 3 presents shares for both issues in question across different levels of religious participation. Interestingly, the quasi-cardinal order in the frequency of church attendance mainly finds its equivalents in the ordinally scaled agreement towards attitudes on gender roles and the beliefs about the consequences of mothers' employment. In particular, individuals who attend church once a week or more most often state that families suffer when mothers work full-time. Agreement is at more than 50% (3-B). While the level of agreement is lower (about 35%), it is again the most religiously active who support the 'male-breadwinner' gender role model (3-A).

Subsequently, individuals who attend church once a month or less regular follow in agreement on both indicators. Clearly again, individuals who never participate in religious activities are the most liberal: Some 30% only agree with the idea of a suffering family when mothers work full-time (3-B) and only 15% to about 20% are in favor for the traditional allocation of labor between men and women (3-A).

However, these findings are preliminary as they might be caused by factors that are not accounted for in the underlying cross-tabulations. Therefore, probit regressions are run including the range of socio-economic control variables outlined above. First, Table 1 presents the within-country equations, showing the discrete changes in the predicted probabilities of agreement to

<sup>12</sup> This, however, may also be due to exits from the Catholic Church. That is, individuals' values and attitudes may not change whereas church membership may have been resigned between 1991 and 1998.

the traditional male-female labor allocation and agreement with the notion of the suffering family. Table 2 is based on the between-country regressions, comprising the whole sample. To test for model robustness, two specifications are run respectively. Both indicators, i.e. denominational affiliation and frequency of church attendance are included in the first specification.<sup>13</sup> In addition, the second model uses interaction effects between denomination and regular or no regular attendance in addition to the main effects. Regular attendance in the latter case refers to church attendance of at least once a month or more.

As for the controls, a detailed discussion is omitted to economize on space. Briefly stated, it is found that, where statistically significant, it is the higher educated working young woman from the middle or higher social class, living in small urban households and in favor of left wing political positions who disagrees with traditional gender role attitudes.<sup>14</sup>

Table 1 shows that denominational affiliation to some extent relates to attitudes on the 'male-breadwinner' model (1). In particular, compared to individuals without religious affiliation, Catholics in West Germany and Italy and Protestants in East Germany and the UK are more likely to be in favor of the traditional gender roles. There further are similar findings for adherents of other religions in West Germany, Austria and the UK where predicted probabilities in endorsement change rather strongly, ranging from 0.19 to 0.30. While these results may appear somewhat weakly, it should be noted that, with the US being exceptional, denominational affiliation is positively related to agreement on the male-female labor allocation, and coefficients miss statistical significance mainly due to sample size limitations.

In line with expectations, Table 1 furthermore shows that, except for Italians, individuals who attend church once a week or more are much more prone to agreeing on the 'male-breadwinner' gender role model. Predicted probabilities change by 0.10 for the UK to 0.20 for Austrians. Furthermore, there is an effect for each other frequency of church attendance for both West Germans and Austrians, although changes in predicted probabilities decrease gradually with religious participation.

Regarding belief on the consequences of full-time working women (2), similar patterns show (Table 1). Catholics in Italy, Protestants in East Germany and both Catholics and Protestants in the UK are more likely to think that families suffer from women working full-time compared to individuals without denominational affiliation. Again, rather large effects are found for adherents of other religions: Predicted probabilities change by 0.18 in West Germany, by 0.22 in Italy and by even 0.26 in Austria.

Attending church at least once a week is related with the notion of suffering families for all countries, again except Italy. It is furthermore interesting to note that East Germans show the largest effect in the whole panel of countries: Compared to individuals who never attend church, frequent religious participation affects agreement by a change in probability of 0.34. As above, church attending West Germans and, to less extent, Austrians are more likely to agree on the negative consequences of full-time working women.

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<sup>13</sup> There are two more specifications including either denominational affiliation or frequency of church attendance as main effects only. As the results do not differ from the specification including both sets of indicators, the findings are not shown but are available upon request.

<sup>14</sup> Full estimation results are available upon request.

Table 1: Within-country agreement on (1) „A man’s job is to earn money; a wife’s/woman’s job is to look after the home and family” and (2) “All in all, family life suffers when the wife/woman has a full-time job”

	West Germany		East Germany		Austria		Italy		UK		US	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
D: Catholic	0.055*	0.045	0.055	0.018	0.053	0.062	0.161***	0.247***	0.058	0.072*	-0.027	-0.031
	(0.031)	(0.032)	(0.048)	(0.056)	(0.043)	(0.042)	(0.038)	(0.055)	(0.036)	(0.041)	(0.022)	(0.028)
D: Protestant	0.046	0.043	0.072***	0.073**	0.005	0.046	—	—	0.043**	0.060**	0.024	0.013
	(0.031)	(0.031)	(0.026)	(0.030)	(0.066)	(0.059)			(0.021)	(0.025)	(0.021)	(0.026)
D: Other religion	0.298***	0.184***	0.035	0.075	0.264**	0.267***	0.154	0.225***	0.185**	0.092	-0.041	0.042
	(0.057)	(0.050)	(0.069)	(0.088)	(0.123)	(0.082)	(0.120)	(0.064)	(0.080)	(0.077)	(0.035)	(0.047)
D: None	(omitted reference category)											
A: once a week	0.129***	0.116***	0.151**	0.339***	0.199***	0.149***	0.002	0.040	0.097**	0.069*	0.150***	0.118***
	(0.040)	(0.038)	(0.067)	(0.069)	(0.046)	(0.040)	(0.041)	(0.042)	(0.038)	(0.042)	(0.028)	(0.030)
A: once a month	0.085**	0.085**	-0.007	0.001	0.110**	0.104**	0.016	0.010	-0.013	-0.019	0.017	0.032
	(0.040)	(0.038)	(0.041)	(0.057)	(0.047)	(0.041)	(0.043)	(0.044)	(0.033)	(0.040)	(0.027)	(0.031)
A: less often	0.079***	0.069***	-0.006	0.018	0.066*	0.039	-0.006	0.018	-0.011	-0.023	0.006	-0.010
	(0.025)	(0.026)	(0.022)	(0.027)	(0.037)	(0.034)	(0.038)	(0.040)	(0.021)	(0.026)	(0.023)	(0.027)
A: never	(omitted reference category)											
LR Chi <sup>2</sup>	538.70	371.92	272.01	90.81	356.41	223.01	314.19	226.81	281.74	156.95	295.17	158.44
Log likelihood	-1,636.5	-1,889.7	-1,008.3	-1,443.3	-1,088.6	-1,136.4	-1,035.57	-1,191.6	-869.32	-1,150.0	-1,251.17	-1,686.8
N	3,003		2,435		1,848		1,959		2,005		2,909	

Notes: Discrete changes following probit regressions, including control variables.

D: Denominational affiliation, A: Church attendance

Standard errors in parentheses.

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Source: ISSP, 1991, 1994 and 1998. Own calculations.

In a next step, the country samples are combined to further test for attendance effects between denominations.<sup>15</sup> First, Table 2 reinforces the descriptive results inasmuch as West Germans are the most traditional individuals except for, on the one hand, attitudes on gender roles, where Italians show to be even more conservative. On the other hand, beliefs about negative consequences of female full-time employment are more likely in both Italy and Austria. In contrast, East Germans, British, US-Americans and, regarding the 'male-breadwinner' model only, Austrians are more liberal than West Germans.

Table 2: Between-country agreement on "A man's job is to earn money ..." and "Family suffers, when ..."

	„A man's job ...“		„Family suffers, when ...“	
	(1)	(2)	(1)	(2)
Catholic and regular attendance	—	-0.058 (0.042)	—	-0.063 (0.056)
Protestant and regular attendance	—	-0.087 (0.095)	—	-0.097 (0.127)
Other religion and regular attendance	—	-0.091 (0.131)	—	-0.084 (0.195)
No religion and regular attendance	—	-0.022 (0.052)	—	0.129* (0.068)
<i>Catholic and no regular attendance</i>		<i>(omitted reference category)</i>		
Protestant and no regular attendance	—	-0.051 (0.101)	—	-0.092 (0.119)
Other religion and no regular attendance	—	-0.050 (0.147)	—	-0.025 (0.196)
No religion and no regular attendance	—	-0.148*** (0.014)	—	-0.047** (0.022)
Denomination: Catholic	0.049*** (0.014)	-0.057*** (0.020)	0.053*** (0.015)	0.043* (0.025)
Denomination: Protestant	0.057*** (0.013)	-0.004 (0.110)	0.056*** (0.014)	0.120 (0.126)
Denomination: Other religion	0.134*** (0.029)	0.071 (0.190)	0.132*** (0.029)	0.146 (0.198)
<i>Denomination: None</i>		<i>(omitted reference category)</i>		
Attends church: once a week or more	0.122*** (0.016)	0.161*** (0.053)	0.136*** (0.016)	0.161*** (0.056)
Attends church: once a month or more	0.046*** (0.015)	0.089* (0.051)	0.062*** (0.017)	0.090 (0.057)
Attends church: less often	0.021* (0.011)	0.015 (0.011)	0.032*** (0.012)	0.025** (0.013)
<i>Attends church: Never</i>		<i>(omitted reference category)</i>		
Nationality: East German	-0.132*** (0.011)	-0.133*** (0.011)	-0.188*** (0.014)	-0.185*** (0.014)
Nationality: Austrian	-0.034** (0.013)	-0.025* (0.014)	0.066*** (0.017)	0.069*** (0.017)
Nationality: Italian	0.073*** (0.015)	0.080*** (0.015)	0.042** (0.017)	0.041** (0.017)
Nationality: British	-0.047*** (0.013)	-0.038*** (0.013)	-0.163*** (0.014)	-0.162*** (0.014)
Nationality: US-American	-0.101*** (0.011)	-0.102*** (0.011)	-0.194*** (0.014)	-0.201*** (0.014)
<i>Nationality: West German</i>		<i>(omitted reference category)</i>		
Chi <sup>2</sup>	2,087.18	2,196.00	2,106.56	2,137.75
Log likelihood	-7,161.93	-7,107.52	-8,625.04	-8,609.44

Notes: Discrete changes following probit regressions, including control variables.

Standard errors in parentheses. N = 14,160 observations.

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

<sup>15</sup> Sample size restrictions prohibit the inclusion of interaction-effects in the within-country analyses.



Source: ISSP, 1991, 1994 and 1998. Own calculations.

As for religious affiliation and participation, statistical significance benefits from the increase in sample size. In particular, compared to individuals without religious affiliation, membership to any church or religious group considered is attributed to more traditional attitudes, accompanied by large changes in predicted probabilities for adherents of other religions than Catholic or Protestant. Religious participation also affects agreement on both traditional gender roles and beliefs about the consequences of working wives positively. Reinforcing the descriptive findings, an increase in the frequency of church attendance is associated with increases in changes in predicted probabilities from about 0.02 to 0.12 and from 0.03 to almost 0.14 respectively (columns 1 in Table 2).

Examining whether the effects of attendance differ across denominations, the results for the interaction effects do not suggest for much of an impact. Compared to Catholics who do not attend church, religious participation as well as non-participation mainly is not related to attitudes on gender roles across denominations. There are two exceptions. First, it is found that individuals without religious affiliation and who never attend church are more liberal with regard to both issues in question. While this is not surprising it, however, is interesting to note that individuals without religious affiliation but who nevertheless attend church regularly do agree on the negative consequences of women working full-time. The predicted probability even changes by about 0.13. This finding emphasizes the relevance of religious attendance rather than mere denominational affiliation on the attitudes towards gender roles.

#### 4.2 Wives' full-time labor participation

While the focus of this section is on the impact of husbands' attitudes and their religious involvement on the full-time labor participation of wives', Table 3 first shows that full-time employment among working women is neither detached from females' own attitudes towards gender roles nor from their religious affiliation or participation.

Table 3: Female religious involvement, attitudes towards gender roles and full-time labor participation

	Female full-time labor participation (respective shares)					
	West Germany	East Germany	Austria	Italy	United Kingdom	United States
Mean	31.6	42.7	34.4	30.4	35.2	53.6
Attitudes:						
“A man's job ...”	18.9	26.3	24.7	20.6	12.3	32.1
“Family suffers ...”	22.8	35.3	25.3	25.6	15.1	42.1
Denomination:						
Roman Catholic	30.5	(39.1)	32.8	29.6	32.4	52.4
Protestant	30.4	34.8	(33.0)	—	32.5	53.4
Other	(23.5)	(25.0)	(45.1)	(44.1)	(43.2)	43.0
None	43.7	46.8	48.5	(42.8)	38.0	63.8
Church attendance:						
Once a week	21.5	(30.9)	26.1	24.6	30.6	51.8
Once a month	25.2	(31.5)	30.7	28.1	34.7	52.5
Less regularly	32.1	46.5	36.6	34.2	32.1	55.3
Never	38.4	44.4	40.5	40.9	38.6	55.1
N	1,464	1,262	1,041	991	1,100	1,635

Notes: ( ) Less than 30 observations

Source: ISSP, 1991, 1994 and 1998. Own calculations.

In particular, given that females agree on either the 'male-breadwinner' model or believe in negative consequences for the family, full-time participation is much lower than the respective country's average. Interestingly, for both British and US-American females, the differences raise to even more than 20 percentage points suggesting that attitudes and actual labor market behavior are closely related.

Regarding religious affiliation, the relationship is clear-cut only insofar as, compared to the respective average, women who are not affiliated with a church or religious group are more often full-time employed. Catholic or Protestant women mainly are less than average in full-time jobs, although the differences to the average are rather small. Religious participation, however, is more clearly associated with female full-time labor participation. That is, increasing church attendance coincides with decreasing full-time employment shares. While this relationship is observable for all countries, it holds for only the lower and upper limit in both the UK and the US where, furthermore, the differences to the averages are small.

Turning to the possible impact of males' attitudes and their religious involvement on wives' working full-time, Table 4 first shows that, similar to females' own attitudes, husbands' attitudes towards gender roles quite likely have a large effect on full-time employment. Compared to the respective means, wives are less often full-time working if men either are in favor of the 'male-breadwinner' model or believe that the family suffers by her full-time employment. Differences range from 8 percentage points for the German case, up to a difference of almost 19 percentage points found for the British. This last finding together with the result for females themselves indicates that although individuals from the UK and the US are more liberal on average, traditional attitudes may exert more influence than in the other countries examined.

Table 4: Husbands' attitudes, their religious involvement and wives' full-time employment

	Wives in full-time employment (respective shares)					
	West Germany	East Germany	Austria	Italy	United Kingdom	United States
Mean	23.5	48.0	32.5	31.4	42.4	48.9
Attitudes:						
"A man's job ..."	14.7	35.5	18.8	18.0	25.0	39.3
"Family suffers ..."	15.5	38.5	20.1	23.4	23.5	39.3
Denomination:						
Roman Catholic	21.1	(47.6)	31.5	30.59	(51.1)	41.0
Protestant	24.6	37.6	(24.0)	—	35.8	51.2
Other	(19.3)	(38.5)	(34.3)	(17.1)	(44.6)	(41.1)
None	29.8	50.7	41.8	(46.3)	45.5	57.4
Church attendance:						
Once a week	(16.1)	(37.5)	(25.3)	29.0	(33.1)	40.8
Once a month	(22.3)	(41.7)	(27.2)	24.6	(50.3)	54.9
Less regularly	23.8	48.1	33.1	32.3	37.7	53.6
Never	27.4	50.6	40.1	41.2	45.5	45.1
N	963	834	671	573	618	702

Notes: ( ) Less than 30 observations

Source: ISSP, 1991, 1994 and 1998. Own calculations.

As for males' religious affiliation and participation, the descriptive results follow a similar pattern compared to the women's case. That is, wives of males with no religious affiliation more often hold full-time jobs than average in West Germany, Austria and the US, and, though less clear, also in East Germany and the UK. In contrast, the wives of Protestants in East Germany and the UK, as well as the wives of Catholics in the US are less often full-time working. Again similar to

females, religious participation of males is negatively related to wives employment, although the relationship is less stringent and, due to the lower participation levels of males, less distinct.

Controlling for males' socio-economic characteristics, Table 5 presents the within-country results for changes in predicted probabilities including indicators on both males' religious involvement and their attitudes towards gender roles. Following, males' attitudes on gender roles influence wives' labor participation inasmuch as agreement with the 'male-breadwinner' model is associated with a lower likelihood of full-time employment for West Germany, Austria and Italy, i.e. the proponents of Esping-Andersen's 'labor-reduction route'. Furthermore, the belief that full-time working women exerts negative consequences for the family is associated with rather strong decreases in the predicted probabilities in all countries examined. The changes in probabilities range from -0.1 in the US to about -0.20 in Austria and Italy and to -0.24 in the UK.

Besides these findings for the effects of attitudes, the overall impression is that males' religion mainly does not affect wives' likelihood of full-time employment. However, where statistically significant, denominational affiliation has a negative effect on full-time labor participation. In particular, wives of male Protestants in East Germany and the UK as well as wives of both Catholic males and husbands with any other religious affiliation in the US are less likely to be full-time working. In the latter case, predicted probabilities decrease rather strongly by 0.14 and 0.19.

Males' religious participation in general also does not affect the full-time labor participation of wives. Furthermore, while the coefficients for the highest level of males' church attendance are negative for all countries but one, the result for Austria suggests that the predicted probability of full-time working wives increase by 0.16 for husbands who attend church at least once a week. This finding is even more puzzling compared to the second Catholic country, Italy, where results indicate the *a priori* expected negative relationship between attendance rates and wives' full-time employment, although statistically significant for the 'once a month' category only. Further research may address this divergence in more detail.

While the results for males' religious involvement may appear disappointing from the ex ante point of view, the within-country sample sizes quite likely are too small to infer final conclusions. Furthermore, the results in Table 5 may suffer from potential endogeneity insofar as males' attitudes on gender roles are as well determined by religious involvement as outlined in the previous section. However, further estimations of models that included either set of indicators, i.e. attitudes, religious affiliation and religious participation respectively, did not yield results that differ substantially.<sup>16</sup>

To further test whether males' attitudes have different effects by the level of religious participation, Table 6 presents the between-country regressions that include model specifications of the main effects only and additional interaction variables. The findings first reinforce that West German wives have the lowest likelihood of full-time employment. Similar to the overall within-country results, males' church attendance frequencies have no effect on wives' full-time labor participation. Furthermore, and likely due to the increase in sample size, the coefficients for denominational affiliation now clearly differ from zero. That is, compared to the 'no denomination'-counterparts, wives of husbands who are either Catholic, Protestant or have any other denominational affiliation are less likely in full-time employment. The changes in predicted probabilities, however, are moderate and range from about -0.05 for Catholics and Protestants to about -0.1 for other religiously affiliated individuals.

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<sup>16</sup> Therefore, these results are not presented in the paper, but are available upon request.

Table 5: Intra-country analyses of husbands' gender-role attitudes, religious involvement, and wives' full-time employment

	Wife is full-time employed					
	West Germany	East Germany	Austria	Italy	UK	US
Agreement on "A man's job ..."	-0.075** (0.031)	-0.017 (0.054)	-0.120*** (0.042)	-0.166*** (0.039)	-0.053 (0.064)	-0.059 (0.052)
Agreement on "Family suffers ..."	-0.148*** (0.032)	-0.140*** (0.042)	-0.206*** (0.045)	-0.212*** (0.044)	-0.242*** (0.049)	-0.103** (0.045)
Denomination: Catholic	-0.050 (0.043)	0.043 (0.140)	-0.026 (0.067)	0.068 (0.074)	0.016 (0.090)	-0.145** (0.063)
Denomination: Protestant	-0.028 (0.042)	-0.111* (0.059)	-0.110 (0.075)	—	-0.088* (0.051)	-0.032 (0.058)
Denomination: Other religion	-0.068 (0.070)	0.189 (0.162)	0.003 (0.175)	-0.142 (0.130)	0.010 (0.165)	-0.179** (0.091)
<i>Denomination: None</i>	<i>(omitted reference category)</i>					
Attends church: once a week or more	-0.012 (0.057)	-0.185 (0.129)	0.160* (0.089)	-0.050 (0.068)	-0.063 (0.090)	-0.001 (0.067)
Attends church: once a month or more	0.030 (0.061)	-0.098 (0.125)	0.024 (0.081)	-0.127** (0.062)	0.058 (0.099)	0.111 (0.071)
Attends church: less often	0.009 (0.039)	0.044 (0.055)	0.068 (0.057)	-0.053 (0.062)	-0.031 (0.055)	0.107* (0.063)
<i>Attends church: never</i>	<i>(omitted reference category)</i>					
LR Chi <sup>2</sup>	112.24	137.66	110.91	123.27	206.84	46.98
Log likelihood	-469.77	-508.56	-288.52	-360.69	-315.46	-462.91
N	963	834	573	671	618	702

Notes: Discrete changes following probit regressions, including control variables.

Standard errors in parentheses.

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Source: ISSP, 1991, 1994 and 1998. Own calculations.

Again, the effects of males' religious involvement on female full-time labor participation are outperformed by the impact of attitudes towards gender roles. In particular, the results for single-effect specifications suggest that the predicted probabilities of full-time employed wives decrease by 0.15 if husbands agree on the traditional male-female labor allocation and by 0.19 if husbands believe that full-time employed women affect family life negatively. Combining the indicators in one regression, the effects only slightly weaken to -0.1 and -0.16 respectively. Regarding differences by level of church attendance, the results shown in column 4 of Table 6 do not imply additional effects on wives' full-time labor participation. This, however, may again be due to the low levels of male church attendance rates and because males' attitudes to some extent are determined by religious participation.

Table 6: Between-country analyses of husbands' gender-role attitudes, religious involvement, and wives' full-time employment

	Wife is full-time employed			
	(1)	(2)	(3)	(4)
"A man's job ..." and regular church attendance	—	—	—	-0.022 (0.040)
"Family suffers ..." and regular church attendance	—	—	—	-0.017 (0.037)
Agreement on "A man's job ..."	-0.154*** (0.016)	—	-0.094*** (0.018)	-0.088*** (0.021)
Agreement on "Family suffers ..."	—	-0.194*** (0.015)	-0.164*** (0.016)	-0.160*** (0.019)
Denomination: Catholic	-0.058** (0.026)	-0.053** (0.026)	-0.052* (0.026)	-0.053** (0.026)
Denomination: Protestant	-0.045* (0.023)	-0.052** (0.023)	-0.046** (0.023)	-0.047** (0.023)
Denomination: Other religion	-0.108** (0.044)	-0.102** (0.045)	-0.097** (0.045)	-0.097** (0.045)
<i>Denomination: None</i>	<i>(omitted reference category)</i>			
Attends church: once a week or more	-0.008 (0.029)	-0.006 (0.029)	0.005 (0.029)	0.023 (0.036)
Attends church: once a month or more	-0.011 (0.030)	-0.010 (0.030)	-0.004 (0.030)	0.009 (0.035)
Attends church: less often	0.011 (0.021)	0.015 (0.021)	0.017 (0.021)	0.017 (0.021)
<i>Attends church: never</i>	<i>(omitted reference category)</i>			
Nationality: East German	0.241*** (0.029)	0.231*** (0.030)	0.222*** (0.030)	0.222*** (0.030)
Nationality: Austrian	0.119*** (0.031)	0.114*** (0.031)	0.119*** (0.031)	0.120*** (0.031)
Nationality: Italian	0.133*** (0.030)	0.150*** (0.031)	0.149*** (0.031)	0.150*** (0.031)
Nationality: British	0.161*** (0.030)	0.139*** (0.030)	0.139*** (0.031)	0.139*** (0.030)
Nationality: US-American	0.230*** (0.030)	0.212*** (0.030)	0.207*** (0.030)	0.206*** (0.030)
<i>Nationality: West German</i>	<i>(omitted reference category)</i>			
Chi <sup>2</sup>	590.41	657.46	683.54	684.35
Log likelihood	-2,574.98	-2,541.45	-2,528.41	-2,528.01

Notes: Discrete changes following probit regressions, including control variables.

Standard errors in parentheses. N = 4,361.

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Source: ISSP, 1991, 1994 and 1998. Own calculations.

## 5 SUMMARY AND CONCLUSIONS

This study examines the impact of religion on the attitudes towards female or mothers' labor participation and, furthermore, whether husbands' attitudes and their religious involvement influence wives' full-time employment participation. Theoretical reasoning and prior evidence suggests that particularly hierarchical religions like the Catholic Church promote gender role models in favor of traditional male-female labor allocation. It, moreover, is argued that it is not mere denominational affiliation but the level of religious involvement that affects both attitudes and actual behavior.

Using data from three waves of the ISSP from the 1990s, the cross-country variation in attitudes reinforces prior evidence insofar that proponents of the 'labor reduction route', i.e. West Germans, Austrians and Italians are less favorable towards both liberal gender roles on the male-female labor allocation and full-time employment of mothers'. In contrast, the neoliberal countries in the sample, the UK and the US, and post-socialist East Germany are the least conservative.

Denominational affiliation affects gender role attitudes in favor of the 'male-breadwinner' model and the beliefs about negative family life consequences of full-time working women. While this finding shows in the cross-country estimations, the evidence is less distinct within countries. This holds for religious participation too. That is, while increasing levels of church attendance are associated with increases in traditional attitudes between the countries examined, within-country results suggest that it only is the highest level of religious participation that is related to less liberal views.

As for the effect of husbands' religious involvement on full-time employment of wives, the results imply that religious participation does not exert influence. Religious affiliation, however, is associated with a lower likelihood of wives working full-time in the cross-country analysis only. Still, this holds for all denominations examined, i.e. Catholic, Protestants and others.

Therefore, it may be concluded that husbands' religious affiliation or participation only weakly affects wives' full-time employment. These few effects further are clearly outperformed by males' attitudes. That is, given that males either are in favor of the traditional male-female labor allocation or, ensuing even stronger effects, believe that family life suffers if women work full-time, wives' actual labor market behavior is strongly affected towards less full-time employment participation.

There are several ideas coming out of this study. For example, as the findings presented are based on cross-sectional data, future research might address this issue in a longitudinal context to account for unobservable individual heterogeneity. Furthermore, it might be explored in more detail how gender role attitudes affect the within-household bargaining processes and to what extent religion plays a part in it.

## REFERENCES

- Albrecht, J.W., Edin, P.-A., Vroman, S.B., 2000. A cross-country comparison of attitudes towards mothers working and their actual labor market experience. *Labour* 14(4), 591-607.
- Alwin, D.F., Braun, M., Scott, J., 1992. The separation of work and family: Gender differences in sex-role attitudes in Britain, Germany and the United States. *European Sociological Review* 8, 13-37.
- Antecol, H., 2003. Why is there cross-country variation in female labor force participation rates? The role of male attitudes toward family and sex roles. Claremont McKenna College Working Paper No. 3.
- Baltagi, B.H., 2001. *Econometric analysis of panel data*. John Wiley & Sons, Chichester.
- Becker, G.S., Landes, E.M., Michael, R.T., 1977. An economic analysis of marital instability. *Journal of Political Economy* 85(6), 1141-1187.
- Becker, G.S., 1991. *A treatise on the family*. Harvard University Press, Cambridge.
- Bernardi, F., 1999. Does the husband matter? Married women and employment in Italy. *European Sociological Review* 15, 285-300.
- Braun, M., Scott, J., Alwin, D., 1994. Economic necessity of self-actualization? Attitudes towards women's labour force participation in East and West Germany. *European Sociological Review* 10, 29-49.
- Cassidy, M.L., Warren, B.O., 1996. Family employment status and gender role attitudes: A comparison of women and men college graduates. *Gender and Society* 10(3), 312-329.
- Chinitz, J.G., Brown, R.A., 2001. Religious homogamy, marital conflict, and stability in same-faith and interfaith Jewish marriages. *Journal for the Scientific Study of Religion* 40, 723-733.
- Gomilshchak, M., Haller, M., Höllinger, F., 2000. Weibliche Erwerbstätigkeit und Einstellungen zur Rolle von Frauen. *Österreichische Zeitschrift für Soziologie* 25(3), 65-78.
- Heineck, G., 2002. Treasures in Heaven? The relationship between religion, belief and earnings in Germany. mimeo (<http://www.8ung.at/heineck/files/pdf/treasures.pdf>)
- Heineck, G., 2004. Does religion influence the labour supply of married women in Germany?. *Journal of Socio-Economics* 33(3), 307-328.
- Iannaccone, L.R., 1998. Introduction to the economics of religion. *Journal of Economic Literature* 36, 1465-1496.
- Knudsen, K., Waerness, K., 1999. Reactions to global processes of change: Attitudes toward gender roles and marriage in modern nations. *Comparative Social Research* 18, 161-195.
- Knudsen, K., Waerness, K., 2001. National context, individual characteristics and attitudes on mothers' employment: A comparative analysis of Great Britain, Sweden and Norway. *Acta Sociologica* 44, 67-79.
- Kroeber, A.L., Kluckhohn, C., 1967. *Culture: A Critical Review of Concepts and Definitions*. Random House, New York.
- Lehrer, E.L., 1995. The effects of religion on the labor supply of married women. *Social Science Research* 24(3), 281-301.
- Lehrer, E.L., 1996. Religion as a determinant of marital fertility. *Journal of Population Economics* 9(2), 173-196.
- Lehrer, E.L., Chiswick, C.U., 1993. Religion as a determinant of marital stability. *Demography* 30(3), 385-404.
- Lipford, J.W., Tollison, R.D., 2002. Religious participation and income. *Journal of Economic Behavior and Organization* 1484, 1-12.
- Long, J.S., 1997. *Regression models for categorical and limited dependent variables*. Sage, London.
- Rau, W., Wazienski, R., 1999. Industrialization, female labor force participation, and the modern division of labor by sex. *Industrial Relations* 38(4), 504-521.



- Sainsbury, D., 1999. Gender, policy regimes, and politics. In: Sainsbury, D. (Ed.), *Gender and welfare state regimes*. Oxford University Press, Oxford, pp. 245-275.
- Schmidt, M., 1993. Gendered labour market participation. In: Castles, F.G. (Ed.), *Families of nations: Patterns of public policy in western democracies*. Aldershot, pp. 131-178.
- Scott, J., 1999. European attitudes towards maternal employment. *International Journal of Sociology and Social Policy* 19(9-11), 144-177.
- Siaroff, A., 1994. Work, Welfare and Gender Equality. In: Sainsbury, D. (Ed.), *Gendering Welfare States*. London, pp. 82-100.
- Sjöberg, O., 2004. The role of family policy institutions in explaining gender-role attitudes: a comparative multilevel analysis of thirteen industrialized countries. *Journal of European Social Policy* 14(2), 107-123.
- Steen, T.P., 1996. Religion and earnings: evidence from the NLS Youth Cohort. *International Journal of Social Economics* 23(1), 47-58.
- Sundström, E., 1999. Should mothers work? Age and attitudes in Germany, Italy and Sweden. *International Journal of Social Welfare* 8, 193-205.



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Gefördert durch das Bundesministerium für soziale Sicherheit, Generationen und Konsumentenschutz sowie die Länder Burgenland, Kärnten, Niederösterreich, Oberösterreich, Salzburg, Steiermark, Tirol, Vorarlberg und Wien.



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