The Intergenerational Transmission of Gender Role Attitudes and its Implications for Female Labor Force Participation*

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Abstract

Using a sample of mother-child pairs from the National Longitudinal Survey of Youth 1979 we explore the intergenerational transmission of a social norm regarding women’s roles and examine its implications for the labor market behavior of females. We find that a mother’s attitudes towards working women have a statistically significant effect on those of her children. Furthermore we find that the component of this social norm that is correlated with the individual’s mother’s work behavior during that individual’s youth not only affects the labor market participation decision of an individual who is female, but it also has an equally strong association with that of the spouse of an individual who is male. The findings indicate that cultural transmission contributes to the intergenerational similarity in the work behavior of females.

Keywords: intergenerational cultural transmission, gender role attitudes, female labor force participation

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1 Introduction

Culture, measured in various forms, has been employed in empirical investigations to explain economic behavior ranging from countries’ trade patterns (Guiso, Sapienza and Zingales 2009) to individual consumption and saving decisions (Carroll, Rhee and Rhee 1994, 1998). Culture is also seen as contributing to the correlation in economic behavior across generations. For example, while the parent-child similarity in economic status had typically been attributed to the role of the family financial background (see, for example, Mulligan 1997 and Solon 1999), Charles and Hurst (2003) have argued that it partially reflects the similarity in parent’s and their children’s preferences. The intergenerational transmission of norms, values and beliefs has also been proposed as an explanation of the persistence of ethnic and religious minorities in contemporaneous societies (Bisin and Verdier 2000 and Bisin, Topa and Verdier 2004) and the functioning of current economic institutions (Guiso, Sapienza and Zingales 2006, 2008 and Tabellini 2008a, 2008b).

The role of culture in the similarity of labor market activity across generations is a relatively unexplored aspect of labor economics although Fernández, Fogli and Olivetti (2004), Fernández (2007, 2008), Fernández and Fogli (2009) and Fogli and Veldkamp (2008) are recent exceptions. These papers focus on two important empirical findings. First, a woman’s work behavior is correlated with that of women in her country of ancestry. Second, a woman’s labor market behavior is positively correlated with that of her son’s wife. The authors interpret these findings as evidence that cultural attitudes regarding the role of women in the family and the workplace are transmitted across generations. This interpretation is also consistent with Guiso et al (2006, 2008) and Tabellini (2008a, 2008b) who highlight the importance
of cultural transmission for individual economic behavior. Guiso et al (2006) argue that beliefs and values related to the individual’s religion and ethnic background are transmitted relatively unchanged across generations and this cultural heritage affects economic outcomes. In Guiso et al (2008) and Tabellini (2008b) cultural transmission is seen as a dynamic process where parents choose the appropriate social norms and beliefs to be transferred to their children in order to ensure economic survival.

While the above forms of intergenerational cultural transmission have implications for the economic behavior of subsequent generations they each propose alternative mechanisms. These range from the transfer of quasi time invariant values to the inheritance of social norms which evolve according to economic considerations. Thus, the intergenerational correlation in female labor market behavior may result from values, such as religious beliefs, which are common to parents and children or may reflect the transmission of a social norm which incorporates economic experiences. Uncovering an intergenerational correlation in economic outcomes thus does not provide unambiguous support for all of these mechanisms.

In this paper we examine the presence of an evolving social norm affecting the female labor market. We believe that the component of the intergenerational economic correlation that responds to such a mechanism is the most meaningful from a labor market policy perspective. The last four decades have seen a drastic growth in the participation of women in labor market activities. One explanation of this phenomenon has emphasized the role of cultural transmission whereby the economic success of females affects the development of attitudes towards working women of subsequent generations. If the economic performance of one generation of women affects that of

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the following generations by changing social norms, then economic policies designed to influence the behavior of working age females might have a persistent effect on future generations. Such policies would then seem a powerful tool to address issues relating to gender, for instance, in the labor market. We therefore focus on the development and transmission of individual’s attitude towards the role of women in the workplace and its implications for the intergenerational correlation in female economic behavior.

We note that previous studies (see, for example, Vella 1994 and Fortin 2005) have provided empirical evidence that an individual’s background characteristics affect her attitude towards the role of women in the labor market and that these attitudes partially determine her level of labor supply. Moreover, Thornton, Alwin and Camburn (1983) find that a mother’s attitude towards women working is associated with her children’s attitude. While combining these findings appears to establish an empirical effect for a social norm regarding the role of women it does not, however, provide insight into the development of this norm. In Fernández (2007) attitudes in the women’s country of ancestry in 1990 are shown to have an important effect on the labor supply of second-generation American women in 1970. She exploits the portability of culture relative to markets and institutions and quantifies its contribution to differences in the labor market outcomes of immigrants’ descendants. This strategy restricts the analysis to immigrants and can only identify the effect of cultural factors that are transmitted unchanged across generations.

Below we address the formation of attitudes towards gender roles, their transmission across generations and their impact on female labor market participation. We first construct an index of attitudes towards gender roles for a cohort of women living in the United States in 2004. By constructing the corresponding index for the children
of these women we examine if there is any generational transfer of attitudes. We then investigate whether gender role attitudes expressed during a female’s youth are able to explain her adult labor market participation decision. We also explore whether the attitudes expressed by a male youth can explain the labor market participation of his spouse during adulthood. Using instrumental variables methods we exploit the variation in these attitudes which results from the older generation’s labor market behavior and examine whether it affects that of the younger. Thus, we are able to identify the effect of changes in the cultural heritage brought about by changes in individual experiences.

Our empirical investigation employs observations on females from the National Longitudinal Survey of Youth 1979 (NLSY79) merged with those of their children in the Children and Young Adults of the National Longitudinal Survey of Youth 1979 (CYNLSY79). We examine the relationship between the attitudes expressed in 2004 by female respondents aged between 40 and 47 years with those of their children expressed in the late 1990’s and early 2000’s when they are aged 15 to 22. As the respondents in the CYNLSY79 are too young to investigate the economic long term effects of inherited attitudes, we return to the NLSY79 to examine the role of attitudes reported in 1979 when the respondents are aged 15 to 22 years on their labor market behavior in 2006, when they are 42 to 49. Our results indicate that gender role attitudes are transmitted across generations. Moreover, they reveal an important effect, operating through this cultural transmission, from the work behavior of females of one generation on that of the subsequent generation.

The next section describes the data and presents our measure of attitudes. Section 3 analyzes the intergenerational transmission of gender role attitudes and Section 4
examines whether this transfer of attitudes across generations has implications for female labor market behavior. Section 5 provides some concluding comments.

2 Measuring Attitudes towards Gender Roles

The NLSY79 survey is a nationally representative sample of 12,686 individuals living in the United States and aged 15-22 years when surveyed in 1979. These individuals were interviewed annually through 1994 and are currently interviewed on a biennial basis. Apart from the main cross-sectional sample representative of the population, the NLSY79 contains an over-sample representative of blacks and Hispanics, an over-sample of economically disadvantaged whites, and a sample of members of the military. In our analysis we exclude the over-sample of economically disadvantaged whites and the sample of the military.²

The NLSY79 provides measures of labor market activity and household features which characterize the individual’s home environment when young. It also elicits the individual’s opinion towards a woman’s roles in homemaking and in the labor market. In 1979, 1982, 1987 and 2004, respondents are asked whether they "strongly agree", "agree", "disagree" or "strongly disagree" with the statements shown in Table 1.

The statements ask about different aspects of family and work life of women and generally imply that an unequal burden of homemaking activities should lie with the female and/or that a female’s activities in the labor market are of secondary importance to: (a) her role as a homemaker; and (b) her husband’s role in the labor market. Statement 5 (Q5) is somewhat ambiguous but also seeks the respondent’s reaction to the view that a male should devote his effort to market employment while

²The descriptive statistics for our sample are reported in Table A1 in the Appendix.
a female should devote hers to homework.

Table 1 also displays the percentage of individuals who report valid answers in both 1979 and 2004 which "strongly disagree" or "disagree" with statements 1, 2, 3, 4 and 6, or "strongly agree" or "agree" with statement 5. The responses are reported in both periods to investigate the intragenerational change in attitudes and because we use the 2004 attitudes to explore the intergenerational transfer of attitudes while the 1979 values are employed in the analysis of female labor force participation.

Table 1 reveals substantial variation in opinions towards working women both across gender and time noting that we employ, for convenience, the term "traditional" to reflect the view that females should specialize in home production and males in market production. In the 1979 data males give the more traditional responses although the difference varies by question. This conclusion is similar to Thornton et al (1983) noting that they examine a different sample and a different group of questions. Perhaps the most "definitive" statement here, in terms of defining a female’s role, is the first: "A woman’s place is in the home, not in the office or shop". While 68 percent of males disagree with it the corresponding figure for females is 84 percent. Thus in 1979 a large fraction of both males and females held the opinion that women were not as welcome in the labor market as men. The responses also reflect that a significant number of the respondents, both males and females, think that the household’s members suffer when women are involved in market employment.

With the exception of question 3 the average response to each statement in 2004 is less traditional than in 1979. This indicates that as individuals age they become more supportive of a role for women in market employment. This may reflect a change in attitudes resulting from their own experiences or indicate that the earlier traditional
influences may have weakened. It may also reflect an increasing societal acceptance of females in the labor market. However, despite this shift towards less traditional views in 2004 there remain a significant number of respondents who view a female’s role in the labor market as unequal to that of a male’s.

To examine the relationship between gender role attitudes across generations and its implications for female labor force participation we follow Thornton et al (1983) and Vella (1994) and construct an index of attitudes. Accordingly, we first assign the following values to the answers of each question; 1 if "strongly agrees", 2 if "agrees", 3 if "disagrees", and 4 if "strongly disagrees". By summing these values we obtain an index ranging from 6 to 24, where a score of 6 denotes an extremely traditional attitude while 24 represents an extremely non traditional attitude. We reverse the ordering of the allocation of points for question 5 to retain the traditional nature of the "agree" and "strongly agree" responses.

The resulting aggregate index summarizes an individual’s views towards the role of women in society. The responses to the six questions on gender roles in the survey are too highly correlated to be simultaneously included as independent regressors in the empirical analysis. An alternative would be to investigate the effect of each question from separated regressions. However, as each individual question refers to a very specific women’s role we prefer to conduct the analysis using the attitudes index as it better captures an individual’s general view towards gender roles.

The descriptive statistics for the constructed index are also reported in Table 1 in the row “Attitudes Index (four point scale)” and its histograms by gender and year are presented in Figures 1A and 1B. The general patterns of these indices are similar to

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3See the high value of the Cronbach’s Alpha statistic reported in Table 1.
those of the individual questions. However, some additional points are worth noting. First, since an individual who responded "strongly disagree" to all statements would be allocated a score of 24, the average female score, 17.68 in 1979 and 18.73 in 2004, and the average male score, 16.08 and 17.75 respectively, do not indicate that the "average" individual strongly supports gender equality in the labor market. This is illustrated in Figures 1A and 1B which show the masses of the indices are spread over a range of values and are not located at the higher (less traditional) values. Second, as each question is assigned scores of 1 to 4 a standard deviation of almost 3, as it is for both males and females in 1979 and 2004, suggests there is substantial variation. This is also illustrated in Figures 1A and 1B. Finally, although the views are more supportive of female participation in 2004 than they are in 1979, the change is small.\textsuperscript{4}

\textsuperscript{4}Despite these similarities formal mean comparison tests reject the null hypothesis of equality across samples.
factor. Accordingly, we use this measure below, but reproduce all the major empirical results using the alternative measures. Although we do not provide the results in detail here our main conclusions are unaffected by our index choice.

3 The Intergenerational Transmission of Attitudes

To investigate the intergenerational transmission of gender role attitudes we merge the data for the female respondents of the NLSY79 who subsequently had children with that of their children collected in the Children and Young Adults of the National Longitudinal Survey. A survey of all children born to the NLSY79 female respondents began in 1986 and since 1995 children aged 15 years and older have biennially completed an interview modeled on the NLSY79 questionnaire. In 1994, 1996, 1998 and 2002, children were asked the same questions regarding a woman’s roles that their mothers were asked in 1979 and 2004.

Our sample comprises children aged 15 to 22 years old in 2002 when they reported their attitudes. When this information is not available in 2002 or children are older than 22 years in 2002, we use the information on attitudes from a previous year. Table 2 shows the age distribution and the year in which the children’s attitudes are measured. The observations generally correspond to the years 1998 and 2002 and individuals are, on average, younger than their mothers were in 1979.

The children’s attitudes are presented in Table 3. The comparison between Tables 1 and 3 indicates that both young males and females in the years from 1994 to

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5 Children born to male respondents in the NLSY79 are not interviewed.

6 Some females from the 1979 sample have multiple children which appear in the children’s survey. The distribution of children per mother in the sample is the following: 1 child (10%); 2 children (34%); 3 (29%); 4 (15%); 5 (6%); 6 or more (6%).
2002 have views more supportive of a female role in the labor market than their respective counterparts in 1979. In fact, their answers are more similar to those reported in 2004. A comparison of the descriptive statistics of the four point scale indices indicates an important relationship in the contemporaneous views of these two cohorts in the late 1990’s and early 2000’s. The male score is 17.73 for the younger cohort compared to 17.75 for the older cohort in 2004 and the score for females is 19.51 compared to 18.73 for their older counterparts. The standard deviation of the indices is still approximately 3 for both young males and females although it has reduced in comparison to the responses of the previous cohort. Figure 1C reinforces the similarity of the distribution of contemporaneous attitudes across the two generations.

We now explore the contemporaneous relationship between the index of a woman and that of her child. Alternatively one could explore the relationship between the attitudes of these two cohorts when both were aged 15 to 22 years. The argument behind such a choice would be that this value for the mother captures best what was transferred to her from her own mother. Thus it would capture the elements of the cultural heritage that are transmitted unchanged across generations. However, parents are likely to update their beliefs according to their personal economic experiences (Guiso et al 2008) and optimally choose the social norms to pass on to their children (Bisin and Verdier 2001 and Tabellini 2008b). Therefore the 2004 measurement of the index seems more appropriate to investigate the cultural transmission mechanism.

We first examine the link between the mother’s attitude value recorded in 2004, when the sample is aged from 40 to 47 years, and the value of the child’s index recorded in the late 1990’s or early 2000’s. Regressing the child’s index on her/his mother’s, a gender dummy and an intercept produces a coefficient on the index of
0.169 with a standard error of 0.020. Replacing the 2004 attitudes value for the mother with her 1979 value produces a coefficient of 0.088 with a standard error of 0.018. This reduction in the coefficient indicates that a mother’s contemporaneous views play a more important role in shaping her child’s attitudes.

Before interpreting this relationship as evidence of cultural transmission two estimation issues should be addressed. First, the statistically significant role of mother’s attitudes might reflect the effect of omitted economic and family features of the environment in which the child was raised. Accordingly, we examine whether maternal attitudes play a role after including controls for the child’s background. Second, a mother’s attitude may be endogenous if it is affected by her children’s behavior and attitudes or if contemporaneous unobserved factors affect both attitude values. To account for this potential endogeneity we employ instrumental variables.

Column 1 in Table 4 presents the estimates of a model for the child’s attitudes index that includes a number of variables characterizing the child’s household during her/his youth. These include dummy variables for the child’s gender and religious background, the number and gender composition of siblings, an indicator for first born child, the mother’s age when the child was born, the parents’ education level and work behavior and geographical and regional variables. The results have some interesting features. First, and most important, is the statistically significant contribution of

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7 Estimating the relationship separately for sons and daughters produced almost identical estimates for the slope coefficients.

8 Table A2 in the Appendix examines the mother-child contemporaneous relationship for each individual question used to construct the attitudes index. The table reveals substantial raw similarity between mothers and children’s answers to each question. For example, if the mother agrees with a traditional statement the child’s probability of agreement with the same statement increases by 6 to 14 percentage points, while that of disagreement decreases by 10 to 17 percentage points.

9 We do not include the child’s educational attainment or work experience as explanatory variables due to a possible endogeneity problem. In fact, as the respondents are young the vast majority (80.64%) are still enrolled at school or college.
the mother’s attitudes. The positive coefficient indicates that women with more (less) traditional views have children who have more (less) traditional views. As the coefficient is 0.124 and the mean of the mother’s index approximately 21 the contribution for the average individual is around 3 points. Also, an one standard deviation increase in the mother’s attitude value (2.99 points) leads to an increase of 0.4 points in the child’s index.\footnote{Using the two point scale attitudes index the coefficient on the mother’s index is 0.167 with a standard error of 0.021, and an one standard deviation increase in the mother’s index (1.41 points) leads to an 0.235 points increase in that of the child. Using the aggregate variable obtained from the factor decomposition, the coefficient on the mother’s factor is 0.140 with a standard error of 0.021, and an one standard deviation increase in this measure for the mother (0.91 points) is associated with an increase of 0.128 points in that of the child. Thus the conclusion that attitudes are transferred from mothers to children is invariant to the measure employed.}

In column 1 the only variables with statistically significant coefficients and larger absolute effects than that generated by an one standard deviation change in maternal attitudes, were those associated with gender, the mother immigrant indicator and the indicator for being raised in the Mormon religion. There is evidence that children raised in this religion report more traditional views than those raised in a non-religious context, and that children whose mothers were born overseas have more supportive views towards working women. Consistent with the descriptive evidence in the previous section we also find that sons have more traditional views than daughters.\footnote{The change in the child’s attitudes index for an one standard deviation increase in the remaining continuous variables with a statistically significant coefficient is -0.32 for the number of siblings and 0.40 for the mother’s years of education.}

Consider the other variables which have a statistically significant effect on an individual’s attitude. The education level of the mother is statistically significant and positive. This may result from the higher labor market participation rates of well educated females, which develop positive views towards labor market involvement in their children, or from a greater disposition of well educated parents to transmit
less traditional views. The negative coefficient for siblings implies that individuals living in larger families have more traditional views. Mothers in these families might bear a larger burden of household chores and spend fewer hours engaged in market activities. The last coefficient in column 1 that deserves our attention is that on the work behavior of the mother when the child was 14. The direct experience of having a working mother has an additional positive effect on an individual’s egalitarian views of the gender roles and it increases the attitudes index by 0.3 points. This effect is consistent with the learning and beliefs formation theory in Fernández (2008) and Fogli and Veldkamp (2008), where individuals update their beliefs about the payoffs of working by observing the economic outcomes of women in previous generations.

Column 4 presents the results obtained when the mother’s attitudes index in 2004 is replaced by that in 1979. The estimated coefficient on this index, though statistically significant, is only 0.048. When both attitudes measures are included in estimation (column 5) only the 2004 index remains statistically significant, suggesting that this latter measure contains all the relevant information for the transmission process. Another important difference across the alternative specifications is the size of the coefficient on the mother’s work behavior. This coefficient is large when only the 1979 attitudes measure is included in estimation (in column 4 the point estimate is 0.387 with a standard error of 0.136), however its size decreases when the 2004 measure is considered (0.319 (0.135) in column 1, and 0.317 (0.135) in column 5), suggesting an important correlation between the mother’s work behavior and her 2004 gender role attitudes. These results also reinforce the view that mothers incorporate to the cultural transmission mechanism their own personal experiences.

Columns 2 and 3 report the results when the model in column 1 is estimated
separately by gender. The attitudes coefficients are similar across gender and a formal
test does not reject their equality. The remaining coefficients are also similar by
gender with the exception of the variables capturing the presence of an adult male in
the household when the respondent was 14 years old, his level of education and the
mother’s work decision, which have stronger effects on the son’s attitudes. The first
effect indicates that sons raised in single parent households with a female head have
more positive views towards working women. The last effects suggest that parental
economic behavior has a strong effect on forming the gender role attitudes of sons.\footnote{When the 2004 attitudes index is excluded from estimation the coefficient on the mother’s work behavior is statistically significant for both sons (0.477 with a standard error of 0.181) and daughters (0.366 with a standard error of 0.199). This is additional evidence of the strong correlation between a mother’s contemporaneous attitudes and her work experience.}

The estimates in columns 1 to 3 would be inconsistent if a mother’s views were
endogenous. Accordingly, column 6 displays the two-stage least squares estimates
(2SLS) of the child’s index model when the 2004 attitudes of the mother are instru-
mented using her attitudes in 1979 when most of the females in the sample were
childless. The identification assumption here is that conditional on the mother’s
views in 2004, her attitudes in 1979 do not have any additional effect on that of her
children. This assumption seems reasonable in light of the evidence in column 5 and
the theories of cultural transmission by Bisin and Verdier (2001), Guiso et al (2008)
and Tabellini (2008b). These authors argue that individuals pass on to children their
updated beliefs. Therefore, past values of maternal attitudes should not influence her
children’s views one we condition on contemporaneous attitudes. The IV estimate
on the 2004 mother’s attitudes index is slightly larger than the OLS one. However,
as the regression form of the Hausman test cannot reject the null hypothesis that a
mother’s attitudes are exogenous to those of her children, our conclusions about the
intergenerational transmission mechanism derived from the OLS estimates remain unaffected.\textsuperscript{13}

Overall these results indicate that the mother’s attitude, expressed in 2004 when she was aged between 40 and 47 years, has statistically significant implications for the contemporaneous views expressed by children when they are in their teens or early twenties. The results in Table 4 are consistent with those in Thornton et al (1983) who, using a different group of questions for a different and smaller sample, find that a mother’s contemporaneous view of gender roles in 1980 has a statistically significant and positive impact on that of her 18 year old child. Our findings are also in line with the predictions of the recent theories of intergenerational cultural transmission (Fernández 2008, Fogli and Veldkamp 2008, Tabellini 2008b and Guiso et al 2008). Thus we find that maternal contemporaneous attitudes are the relevant component of the cultural transmission process and that children’s inherited attitudes partly reflect the family and economic environment in which they were raised.

4 Gender Role Attitudes and The Labor Market

Most of the previous empirical studies on the labor market implications of culture employ the work behavior of previous generations as proxies for cultural transmission (see for example Fernández et al 2004, Fernández 2007 and Fernández and Fogli 2009). In this paper we measure an individual’s cultural heritage from the views towards working women expressed during his/her youth. The evidence in the previous section indicates that these attitudes appear to be strongly correlated with that of the mother and influenced by the family background. We next investigate the effect of

\textsuperscript{13}The absolute value of the t-statistic of the Hausman test is 1.36.
this cultural heritage on the labor market behavior during adulthood. As the children in the CYNLSY79 are too young to evaluate the economic long run effects of cultural transmission we return to the original NLSY79 sample. We examine the relationship between gender role attitudes collected in 1979, when the respondents aged 15-22, and their economic decisions in 2006.

Table 5 cross tabulates the individual’s 1979 attitudes index with some of their socioeconomic variables in 2006 and information on the individual’s mother collected from the 1979 survey.\(^{14}\) The table contains information for our two samples of study: i) married and unmarried female respondents and; ii) married male respondents.\(^{15}\)

The upper panel of Table 5 summarizes the data for the female respondents. The woman’s educational level in 2006 is positively correlated with her 1979 attitude. A positive relationship also exists between a woman’s attitude value and her spouse’s education level in 2006. The 1979 education level of the respondent’s mother is also positively correlated with the attitude value. The table also reveals a large reduction in the fertility levels of the younger generation as the attitude value increases. Nevertheless, there appears to be a positive relationship between the traditional attitudes of a woman and; a) the number of her own children; and b) the number of her mother’s children. The table also reports the proportion of the respondents and their partners which are employed in 2006 and the proportion of respondents’ mothers working when the respondent was aged 14 years and in 1978, the two periods for which information on the mother’s work behavior is available in the survey. There is a negative relationship between the respondent’s traditional attitudes, expressed

\(^{14}\) The NLSY79 does not contain information on the mother’s gender role attitudes.

\(^{15}\) Our sample contains only respondents who were not married in 1979. We consider the marital status in 2006. The NLSY79 contains some characteristics of the respondent’s partner but does not include information on her/his attitudes or family background.
in 1979, and her probability of working in 2006. Moreover, the magnitude of the change in the probability is large as we move from the lowest (.73) to the highest (.80) categories. The respondents’ spouse’s employment rate shows a similar trend but given the relatively high participation rates of males the change from the lowest to the highest group is less dramatic. Finally, there is a clear positive relationship between the respondent’s index and the labor force participation of her mother.

The lower panel of the table corresponds to the male respondents. For both respondents and their partners the average level of education increases by two years as one goes from the lowest attitude group to the highest. The mother’s education level shows a similar pattern to that of their son’s partners. For males there appears to be no relationship between attitudes and their number of children. This contrasts with the number of their own siblings which is decreasing with the level of attitudes. The participation rate of males in 2006 is invariant to their attitude expressed in 1979. For mothers, however, there is a drastic increase in employment rates, similar to that for the mothers of the female respondents, as we move from the lowest attitude group to the highest. A similar pattern appears in the employment rate of the respondents’ spouses. The wives of men with a value of the index in the upper tail of the attitudes distribution in 1979 (i.e. above the 90th percentile) have an employment probability 16 percentage points higher in 2006 than wives whose husband’s attitudes index is at the bottom 20 percent of the 1979 attitudes distribution. For the mothers of these males the corresponding differences are 18 percentage points when the respondents are aged 14 years and 20 percentage points in 1978, noting that the magnitude of the differences between mothers and spouses are not directly comparable due to the large increase in the female participation rate across the two generations.
While a number of features in Table 5 are interesting, the most notable is the correlation between the female respondent’s attitudes in 1979 and her 2006 work decision. Equally interesting is the correlation between the attitudes of male respondents and the work decisions of their spouses. To further investigate these relationships we estimate the following model:

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Work_{06i} = \alpha_0 + \alpha_1 Att_{79i} + \alpha_2 X_i + \epsilon_i \tag{1}
\]

where \(Work_{06i}\) is alternatively an indicator that the individual \(i\), or in the case of males the spouse of individual \(i\), is employed in 2006, \(Att_{79i}\) is the individual’s 1979 attitudes index and \(X_i\) is a vector of potential explanatory variables. We change the components in \(X_i\) depending on the question we are asking. First we investigate whether the respondent 1979 socioeconomic conditions, \((X_{79i})\), can explain an individual’s, or his wife’s, probability of working in 2006. Alternatively we explore whether the 1979 characteristics have any statistical relevance for the 2006 employment decision after we include a set of factors capturing the individual’s family and economic environment in 2006, \((X_{06i})\).

We first examine if the individual’s characteristics in 1979 have an impact on their 2006 employment decision. Table 6 reports the results for female respondents recalling that we consider all females in the sample irrespective of their marital status. Tables 6 to 9 have the following format. The column headed OLS contains the results from a linear probability model while PROBIT denotes the estimates from probit MLE. The second (2SLS) and fourth (CML) columns represent the same specifications but account for the potential endogeneity of attitudes. 2SLS employs instrumental variables and CML, which denotes the conditional maximum likelihood procedure of Rivers and
Vuong (1988), accounts for the endogeneity through the inclusion of the reduced form residual as a control function in (1). The OLS and 2SLS estimates are less reliant on distributional assumptions and the adjustment for endogeneity only requires the orthogonality of the instruments to the work equation error \( \varepsilon \). This robustness is associated with a potential efficiency loss and thus we also report the probit estimates. The consistency of these estimates, and the adjustment for endogeneity employed in the CML, are reliant on the normality assumption for both \( \varepsilon \) and the reduced form equation error.

In estimating (1) the vector of the 1979 characteristics, \( X_{79i} \), includes the years of education of the respondent’s mother and father, the number of siblings, an indicator for the presence of the father in the house at the age of 14 years and his employment situation, indicator variables describing the geographical environment at age 14, an indicator variable for whether the respondent was not born in the US, race indicators and a variable capturing the type of school attended. Unfortunately, the NLSY79 does not contain reliable measures of parental income or wealth although the included educational and family composition variables should capture the relevant economic considerations. Previous studies have examined the effect of religion on individual economic decisions (see, for example, Algan and Cahuc 2006 and Guiso, Sapienza and Zingales 2003) and we include a set of religion dummy variables for the denomination in which the respondent was raised.\(^{16}\) The dependent variable takes value 1 if the female respondent is employed during the week of the survey in 2006.

Column 1 of Table 6 indicates that few of the female’s background characteristics\(^{16}\)

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\(^{16}\)The religion dummies included are Roman Catholic, Protestant, Baptist, Episcopalian, Lutheran, Methodist, Presbyterian, Jewish and other religions. The excluded category in the empirical analysis is non-religious affiliation.
in 1979 have a role in explaining if she will be working 27 years later. Only a statistically significant negative effect is found for non-white, non-black females and for those living in a city at age 14. In contrast public school attendance increases, at a 10% level of significance, the chances of being employed. The 1979 attitudes index has a small but highly significant effect on the employment probability in 2006. Surprisingly few of the religion indicator (i.e. Roman Catholic and Protestant) are statistically significant. However, this does not exclude the existence of a religion effect that could be possible operating through the attitudes index. The probit estimates in column 3 give the same substantive conclusions.

The small size of the coefficient on the attitudes variable may reflect its endogeneity. This is not due to simultaneity, which is implausible since attitudes are measured in 1979 and the work variable is observed in 2006, but to two other mechanisms. First, unobserved characteristics which influence attitudes might be positively correlated with the work decision. This would suggest that the coefficient on the control function which measures this correlation is positive. Alternatively, the endogeneity may arise from the measurement of attitudes. That is, the construction of the index employs some responses to statements which are not directly related to labor force participation. If a component of the attitude is irrelevant for the work decision this will downward bias its coefficient, similar to measurement error, and produce a negative coefficient on the control function in the CML estimates. The t-test for whether the coefficient of the control function, denoted $\lambda$ in the tables, is equal to zero is a test of exogeneity.

Accounting for this endogeneity requires instruments. The NLSY79 contains information on the mother’s market participation when the respondent was 14 years
old and also in 1978. Fernández (2008) and Fogli and Veldkamp (2008) argue that
individuals’ beliefs towards working women are partly determined by the economic
outcomes of women in previous generations. This conjecture is supported by our
evidence in the previous section. Accordingly we use the two indicators about the
work behavior of the mother to instrument the attitudes index. We expect these will
capture the component of cultural transmission that responds to economic incentives.
That is, the mother’s work behavior should identify the variation in the respondent’s
attitudes index which is attributable to the economic environment to which the child
was exposed. We give the instrumental variable estimate a local average treatment
effect interpretation (Imbens and Angrist 1994) in that it reflects the change in the
respondent’s, or his wife’s, work decision due to the change in attitudes resulting from
the labor market behavior of the respondent’s mother while she/he was young.

For these instruments to be valid we require that they influence an individual’s
attitudes towards gender roles and that, conditional on these attitudes and the in-
cluded relevant controls that characterize the economic and family background of the
respondent, they do not have any additional direct effect on the work decision of her
daughter or daughter in law in 2006. One might argue that a mother’s work behavior
during an individual’s youth affects the subsequent work decision of her daughter
twenty seven years later through mechanisms other than cultural transmission and
those related to the included economic and family background variables. The presence
of common unobserved skills, for example, would distort our identification strategy.
However, given the profound transformation of the labor market such skills in the
1970’s may be differently valued in the 2006 labor market. The shift toward a service
and skill-intensive economy, for instance, has changed the occupational distribution
of women. In addition, while one may argue that such a correlation exists for mothers and daughters, a similar correlation for mothers and daughters in law seems far less plausible. Hence any similarity in the effect of the attitudes index that we find for female respondents and the wives of the male respondents would reinforce our argument in favor of using the working behavior of the mother or the mother in law during an individual’s youth as a valid exclusion restriction, once we condition on the individual economic and family background. We supplement our discussion with formal tests of the overidentifying restriction below.

The reduced form estimates, containing the exogenous variables in the work equation plus the instruments, for the attitudes equation are in Table A3 in the Appendix noting that the four sets of estimates reported there correspond to the two empirical models for each of the two samples we consider (female respondents and spouses of the male respondents conditional on \( X_{79} \) and \( X_{06} \)). Table A3 indicates that for each of the specifications the instruments appear informative. The F-statistic for the joint significance of the two instruments is 17.08 for female respondents and 12.73 for males. For both male and female respondents the dummy variable denoting that the mother worked in 1978 is statistically significant and has a large effect while the indicator for the work decision of the mother when the respondent aged 14 years has also a sizeable coefficient but it is only marginally significant. This reflects the strong correlation between the work behavior of the mother over these two consecutive periods.

The results from accounting for the endogeneity of attitudes still reveal a statistically significant role for attitudes. The estimated coefficient on the attitudes index has increased to 0.080 in column 2 and 0.271 in the probit specification. The regression form of the Hausman test rejects the exogeneity of attitudes to the work decision and
indicates that the adjusted results are the preferred.\footnote{The absolute value of the t-statistic of the Hausman test is 2.93.} The test of the overidentifying restriction is 0.517 which indicates that the instruments can be excluded from the main equation. According to the 2SLS estimate an one standard deviation increase in the index (about 3 points) now leads to 24 percentage points increase in the probability of working. This suggests a substantial effect from the mother’s work behavior operating through the individual’s attitude towards the role of women noting that the percentage of women working in this sample is 0.78. CML provides similar results in terms of the presence of the attitudes’ effect and the test of the exogeneity, though the magnitude of the effect is slightly smaller (i.e. an one standard deviation increase in the index is associated with 16 percentage points increase in the probability of working).

The estimate on the control function in the CML estimation is negative. This indicates that some component of the attitudes variable is not relevant for the work decision and this reduces the attitudes’ coefficient in the unadjusted OLS and probit estimates. By using the indicator variables that characterize the mother’s labor market attachment while the respondent is young we are exploiting the variation in attitudes due to the "work related behavior" of the mother and this captures the effect in which we are interested. The attenuation bias that affects our OLS and probit estimates is a common feature in empirical studies that employ proxy variables to measure the effect of unobserved latent factors. For example, the cross-country analyses of the relationship between institutional quality and growth use aggregate indices of political risk and social infrastructures as proxies for the quality of institutions. In these studies, IV estimates of the institutions growth relationship are always
significantly larger than the OLS estimates (see for example, Acemoglu, Johnson and Robinson, 2001; Hall and Jones, 1999; or Mauro 1995).\footnote{Table A4 in the Appendix shows the OLS estimates of equation (1) when each individual question is separately employed in estimation. Most individual questions have a positive and statistically significant effect on the adult working decision. The estimated coefficients indicate that female respondents who disagreed with a traditional statement in 1979 are about 2 to 3 percentage points more likely to work in 2006 than those who agreed. Similarly, spouses whose husbands disagreed with a traditional statement in 1979 are 3 to 7 percentage points more likely to work than those whose husbands agreed. While this approach confirms our previous findings, we prefer to conduct our analysis using the attitudes index as it more informative about the aggregate effect of gender role attitudes.}

A last comment about the results in Table 6 is that most of the variables included to capture possible economic considerations appear to have no impact on the work decision. Exceptions are, at the 5% level of significance, public school attendance and the non-white, non-black indicator. This reflects the difficulty in predicting the work behavior in 2006 using variables measured 27 years earlier but highlights the importance of attitudes reported at an early stage.\footnote{The same results hold when the model in Table 6 is estimated using the two alternative measures of attitudes discussed in Section 2. The 2SLS estimation produces a coefficient on the two point scale index of 0.152 with a standard error of 0.054, while the coefficient on the aggregate factor is 0.290 with a standard error of 0.102. These coefficients indicate that an one standard deviation increase in any of the two measures of attitudes (i.e. 1.501 for the two point scale index and 0.877 for the aggregate factor) leads to an increase in the probability of working of about 22 percentage points. Also the null hypothesis of exogeneity is rejected when using any of these two measures. CML provides similar results in terms of the presence, magnitude and exogeneity of attitudes. The role of the other explanatory variables in the model remains unaffected when using these alternative measures.}

Table 7 extends the previous specification by adding variables which reflect the individual’s environment in 2006. The corresponding reduced form for the attitudes index is also presented in Table A3. Columns 1 and 3 of Table 7 reveal that the variables characterizing the environment in 2006 are more important than the 1979 characteristics. Of particular relevance are the individual’s education level and her family characteristics such as the partner’s age and income and the presence of young
children. There is no apparent role for the attitudes variable although the endogeneity argument outlined above is also relevant here. Using the same instruments as in Table 6 we re-estimate the model and report the estimates in columns (2) and (4). Although the coefficients on the attitudes variable are now significant at slightly lower levels of statistical significance the similarity of the estimates with the Table 6 estimates is remarkable. While the estimates in the relevant columns in Table 6 are 0.080 and 0.271 they are now 0.062 and 0.225. The 2SLS and CML estimates, and their associated tests reported in the tables, reject the exogeneity of attitudes indicating that the adjusted results are preferred. The test value of 1.669 for the overidentifying restriction also supports the exclusion of the mother’s work variables from the main equation. The evidence strongly suggests that the attitudes component determined by the individual’s mother’s working behavior is strongly affecting her work decision. Moreover the effect is non trivial in economic terms.

We now focus on the behavior of the male respondents. Fernández et al (2004) argue that "men marry their mothers" and empirically establish this relationship by regressing the labor force participation decision of the son’s wife on a dummy indicating that his mother worked. We now examine whether this relationship reflects men’s preferences towards working women that are inherited from their mothers’ behavior. To conduct this analysis we reproduce Tables 6 and 7 with the respondent’s wife’s employment decision as the dependent variable. Thus our sample comprises only married male respondents. We first regress the wife’s employment decision against the son’s attitude variable and the same series of variables used in Table 6 which characterize the son’s environment in 1979. The employment decision for the wife refers to 2005 and it is constructed from a question about the number of weeks worked. The
indicator for the wife’s work decision takes value 1 if she worked a positive number of weeks in 2005.\textsuperscript{20}

The first set of results for the spouses of the male respondents is reported in Table 8. There are very few 1979 variables which explain the market work decision of the individual’s wife in 2005. However, even for the specification in which attitudes are treated as exogenous there is a statistically significant relationship between the husband’s 1979 attitudes and his wife’s work decision. Controlling for the endogeneity increases the point estimate of the attitudes coefficient. Its magnitude in the wife’s equation, 0.069 for 2SLS and 0.212 for CML, is very similar to those for female respondents. Moreover, as with the female respondents, the tests of exogeneity reject that attitudes are exogenous and the estimates for the control function coefficient are negative. Both specifications lead to a non negligible economic effect of attitudes on the spouse working probability. An one standard deviation increase in the husband’s attitudes index (2.963) increases the wife’s working probability by 21 and 16 percentage points using the 2SLS and CML estimates respectively.\textsuperscript{21}

Table 9 augments the specification with variables capturing the family and economic environment of the couple in 2006. Several of these, such as the wife’s education level, her age, the presence of children as well as the income level of the husband, influence the wife’s employment decision. However, there remains statistically significant evidence of a role for the husband’s attitudes. While accounting for the endogeneity reduces the statistical significance of this effect, the point estimate is similar to that

\textsuperscript{20}We also have information on the weeks worked by the female respondents in 2005. Thus we reproduce Table 6 and 7 using as a dependent variable this alternative employment status indicator. The results are shown in Table A5 in the Appendix and they do not reveal any substantial implications for our investigation.

\textsuperscript{21}As for the case of female respondents we have reproduced the empirical results in Table 8 using the two alternative measures of attitudes and the results are unaffected by the measure employed.
using only the 1979 explanatory variables and also to that for the female respondents. Note, however, in this specification the exogeneity of attitudes is rejected at lower levels of significance. This probably reflects the endogeneity of many of the other explanatory variables in this specification. Note that for both Tables 8 and 9 the tests for the overidentifying restrictions support the imposed exclusions with values of 0.008 and 0.012 respectively. The lower test values for the spouses are interesting as indicate that the economic argument in favor of the restrictions is stronger for this group. Moreover the similarity in the IV results obtained for the spouses of the male respondents and the female respondents can be considered as additional evidence in favor that the mother’s work behavior during an individual’s youth is a valid exclusion restriction for the work decision of the female respondents in 2006.

Our evidence clearly suggests that attitudes towards gender roles are passed from generation to generation and that the transmission of these attitudes has implications for the labor market behavior of younger generations. The evidence here indicates that the component of the attitudes index related to the economic activity of the mother has a substantial effect on the next generation’s females’ labor market behavior. We find that increasing an individual’s attitude in 1979 by one standard deviation has the following effects. For females the probability of employment in 2006 increases from 16 to 24 percentage points depending on the specification. For males, a similar increase in their 1979 attitudes leads to an increase of approximately the same magnitude in the probability that their partner is employed in 2005.

We note that the interpretation for daughters is rather more straightforward than that for the daughters in law. That is, for daughters a causal relationship between attitudes and labor force participation simply reflects that as her attitudes change in
1979, due to her mother’s work behavior, there is a change in her own work behavior in 2006. For daughters in law we have that the 1979 change in male attitudes affects the probability that his wife is working in 2005. To interpret this latter result we rely on the work by Fernández et al (2004) who argue that a working mother in law makes it easier for a woman to work as her husband is more willing to accept his wife’s involvement in the labor market. It is also possible that the effect operates by changing the preferences of men and this affects the marriage market.

Overall these results support the transfer of a social norm which is affected by the labor market behavior of the individual’s mother. The effect of such a norm, for both daughters and daughters in law, is consistent with the theoretical work in Fernández (2008), Fogli and Veldkamp (2008), Guiso et al (2008) and Tabellini (2008b) who argue that the economic behavior of children partly resembles that of their parents as a result of cultural transmission. Moreover, each would argue that this transmission is based on economic motives.

5 Conclusions

This paper investigates the contribution of cultural transmission to the labor market participation decisions across generations. A number of our empirical results are interesting. First, we find evidence of a strong relationship between a mother’s and her children’s contemporaneous views regarding the role of females in the family and the labor market. Second, we find that after accounting for the endogeneity of a woman’s attitudes towards her role in the labor market, these attitudes are able to partially explain that woman’s market work decision despite the fact that the attitudes are asked 27 years earlier. We also find that the same relationship holds regarding a
male’s attitudes towards working women and the employment decision of his spouse. Our results suggest that the transmission of social norms motivated by an individual’s economic experiences has important implications for the intergenerational correlation in economic outcomes.
References


Table 1: Distribution of gender role attitudes for males and females in the NLSY79 (1979-2004)

<table>
<thead>
<tr>
<th>Question</th>
<th>1979</th>
<th>2004</th>
<th>1979</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: A woman’s place is in the home, not in the office or shop.</td>
<td>0.68</td>
<td>0.84</td>
<td>0.89</td>
<td>0.91</td>
</tr>
<tr>
<td>Q2: A woman who carries out her full family responsibilities does not have time for outside employment.</td>
<td>0.63</td>
<td>0.76</td>
<td>0.81</td>
<td>0.85</td>
</tr>
<tr>
<td>Q3: The employment of wives leads to more juvenile delinquency.</td>
<td>0.69</td>
<td>0.75</td>
<td>0.73</td>
<td>0.74</td>
</tr>
<tr>
<td>Q4: It is better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and the family.</td>
<td>0.48</td>
<td>0.62</td>
<td>0.73</td>
<td>0.75</td>
</tr>
<tr>
<td>Q5: Men should share the work around the house with women, such as doing dishes, cleaning and so forth.</td>
<td>0.77</td>
<td>0.84</td>
<td>0.95</td>
<td>0.96</td>
</tr>
<tr>
<td>Q6: Women are much happier if they stay at home and take care of their children.</td>
<td>0.61</td>
<td>0.72</td>
<td>0.66</td>
<td>0.73</td>
</tr>
<tr>
<td>Attitudes Index (four point scale)</td>
<td>16.08</td>
<td>17.68</td>
<td>17.75</td>
<td>18.73</td>
</tr>
<tr>
<td></td>
<td>(2.98)</td>
<td>(3.12)</td>
<td>(2.78)</td>
<td>(3.01)</td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>0.73</td>
<td>0.75</td>
<td>0.77</td>
<td>0.79</td>
</tr>
<tr>
<td>Observations</td>
<td>2809</td>
<td>3369</td>
<td>2809</td>
<td>3369</td>
</tr>
</tbody>
</table>

The Table displays the percentage of individuals who “strongly disagree” or “disagree” with statements 1,2,3,4 and 6, or “strongly agree” or “agree” with statement 5.
Table 2: Age and year at which gender role attitudes are reported by children in the CYNLSY79

<table>
<thead>
<tr>
<th>Age</th>
<th>Observations</th>
<th>Year</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>371 (20%)</td>
<td>2002</td>
<td>488 (26%)</td>
</tr>
<tr>
<td>16</td>
<td>521 (28%)</td>
<td>1998</td>
<td>659 (35%)</td>
</tr>
<tr>
<td>17</td>
<td>129 (7%)</td>
<td>1995</td>
<td>477 (26%)</td>
</tr>
<tr>
<td>18</td>
<td>340 (18%)</td>
<td>1994</td>
<td>242 (13%)</td>
</tr>
<tr>
<td>19</td>
<td>360 (19%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>87 (5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>58 (3%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Distribution of gender role attitudes for children in the NLSY79 (1994-2002), at age 15-22

<table>
<thead>
<tr>
<th>Q1: A woman’s place is in the home, not in the office or shop.</th>
<th>Sons</th>
<th>Daughters</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.84</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Q2: A woman who carries out her full family responsibilities does not have time for outside employment.</td>
<td>0.80</td>
<td>0.89</td>
</tr>
<tr>
<td>Q3: The employment of wives leads to more juvenile delinquency.</td>
<td>0.85</td>
<td>0.90</td>
</tr>
<tr>
<td>Q4: It is better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and the family.</td>
<td>0.71</td>
<td>0.82</td>
</tr>
<tr>
<td>Q5: Men should share the work around the house with women, such as doing dishes, cleaning and so forth.</td>
<td>0.93</td>
<td>0.97</td>
</tr>
<tr>
<td>Q6: Women are much happier if they stay at home and take care of their children</td>
<td>0.70</td>
<td>0.81</td>
</tr>
<tr>
<td>Attitudes Index (four point scale)</td>
<td>17.73</td>
<td>19.51</td>
</tr>
<tr>
<td>(2.58)</td>
<td>(2.73)</td>
<td></td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>0.73</td>
<td>0.77</td>
</tr>
<tr>
<td>Obs</td>
<td>937</td>
<td>929</td>
</tr>
</tbody>
</table>

The Table displays the percentage of individuals who “strongly disagree” or “disagree” with statements 1,2,3,4 and 6, or “strongly agree” or “agree” with statement 5.
Table 4: The effect of mother’s gender role attitudes on children’s attitudes

<table>
<thead>
<tr>
<th></th>
<th>Sons &amp; Daughters</th>
<th>Sons</th>
<th>Daughters</th>
<th>Sons &amp; Daughters</th>
<th>Sons &amp; Daughters</th>
<th>Sons &amp; Daughters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS (1)</td>
<td>OLS (2)</td>
<td>OLS (3)</td>
<td>OLS (4)</td>
<td>OLS (5)</td>
<td>2SLS (6)</td>
</tr>
<tr>
<td>Mother’s Attitudes Index 2004</td>
<td>0.124***</td>
<td>0.125***</td>
<td>0.116***</td>
<td>0.118***</td>
<td>0.200***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.020]</td>
<td>[0.028]</td>
<td>[0.031]</td>
<td>[0.021]</td>
<td>[0.077]</td>
<td></td>
</tr>
<tr>
<td>Mother’s Attitudes Index 1979</td>
<td>0.048***</td>
<td>0.020</td>
<td></td>
<td>0.019</td>
<td>0.019</td>
<td></td>
</tr>
<tr>
<td>Gender of the child (male=1)</td>
<td>-1.602***</td>
<td>-1.629***</td>
<td>-1.605***</td>
<td>-1.589***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.151]</td>
<td>[0.152]</td>
<td>[0.151]</td>
<td>[0.152]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator for older sibling</td>
<td>0.011</td>
<td>-0.085</td>
<td>0.074</td>
<td>-0.007</td>
<td>0.004</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>[0.139]</td>
<td>[0.192]</td>
<td>[0.206]</td>
<td>[0.140]</td>
<td>[0.139]</td>
<td>[0.139]</td>
</tr>
<tr>
<td>Percentage of male siblings</td>
<td>-0.386</td>
<td>-0.091</td>
<td>-0.529</td>
<td>-0.38</td>
<td>-0.388</td>
<td>-0.393</td>
</tr>
<tr>
<td></td>
<td>[0.247]</td>
<td>[0.358]</td>
<td>[0.372]</td>
<td>[0.249]</td>
<td>[0.247]</td>
<td>[0.247]</td>
</tr>
<tr>
<td>Number of siblings</td>
<td>-0.217***</td>
<td>-0.181***</td>
<td>-0.231***</td>
<td>-0.218***</td>
<td>-0.213***</td>
<td>-0.210***</td>
</tr>
<tr>
<td></td>
<td>[0.047]</td>
<td>[0.066]</td>
<td>[0.071]</td>
<td>[0.047]</td>
<td>[0.047]</td>
<td>[0.047]</td>
</tr>
<tr>
<td>Age of the mother at birth</td>
<td>-0.035</td>
<td>-0.004</td>
<td>-0.060</td>
<td>-0.045</td>
<td>-0.036</td>
<td>-0.030</td>
</tr>
<tr>
<td></td>
<td>[0.032]</td>
<td>[0.045]</td>
<td>[0.047]</td>
<td>[0.033]</td>
<td>[0.032]</td>
<td>[0.033]</td>
</tr>
<tr>
<td>Mother immigrant</td>
<td>0.557**</td>
<td>0.442</td>
<td>0.571</td>
<td>0.568**</td>
<td>0.588**</td>
<td>0.599**</td>
</tr>
<tr>
<td></td>
<td>[0.247]</td>
<td>[0.339]</td>
<td>[0.366]</td>
<td>[0.251]</td>
<td>[0.249]</td>
<td>[0.250]</td>
</tr>
<tr>
<td>Mother’s years of education</td>
<td>0.187***</td>
<td>0.171***</td>
<td>0.193***</td>
<td>0.197***</td>
<td>0.183***</td>
<td>0.173***</td>
</tr>
<tr>
<td></td>
<td>[0.030]</td>
<td>[0.041]</td>
<td>[0.046]</td>
<td>[0.031]</td>
<td>[0.031]</td>
<td>[0.031]</td>
</tr>
<tr>
<td>Mother worked when child was 14</td>
<td>0.319**</td>
<td>0.391**</td>
<td>0.256</td>
<td>0.387**</td>
<td>0.317**</td>
<td>0.269*</td>
</tr>
<tr>
<td></td>
<td>[0.135]</td>
<td>[0.184]</td>
<td>[0.201]</td>
<td>[0.136]</td>
<td>[0.135]</td>
<td>[0.143]</td>
</tr>
<tr>
<td>Father at home when child was 14</td>
<td>-0.225</td>
<td>-0.878*</td>
<td>0.258</td>
<td>-0.179</td>
<td>-0.202</td>
<td>-0.216</td>
</tr>
<tr>
<td></td>
<td>[0.331]</td>
<td>[0.465]</td>
<td>[0.484]</td>
<td>[0.334]</td>
<td>[0.331]</td>
<td>[0.330]</td>
</tr>
<tr>
<td>Father worked when child was 14</td>
<td>0.357</td>
<td>0.32</td>
<td>0.396</td>
<td>0.362</td>
<td>0.353</td>
<td>0.345</td>
</tr>
<tr>
<td></td>
<td>[0.279]</td>
<td>[0.379]</td>
<td>[0.419]</td>
<td>[0.281]</td>
<td>[0.279]</td>
<td>[0.279]</td>
</tr>
<tr>
<td>Father’s years of education</td>
<td>0.008</td>
<td>0.047**</td>
<td>-0.018</td>
<td>0.005</td>
<td>0.007</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td>[0.015]</td>
<td>[0.023]</td>
<td>[0.020]</td>
<td>[0.015]</td>
<td>[0.015]</td>
<td>[0.015]</td>
</tr>
<tr>
<td>Religion of the child</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>λ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>14.50***</td>
<td>11.28***</td>
<td>16.13***</td>
<td>16.31***</td>
<td>14.28***</td>
<td>12.86***</td>
</tr>
<tr>
<td></td>
<td>[1.327]</td>
<td>[1.809]</td>
<td>[2.007]</td>
<td>[1.304]</td>
<td>[1.344]</td>
<td>[2.060]</td>
</tr>
<tr>
<td>Observations</td>
<td>1876</td>
<td>941</td>
<td>935</td>
<td>1876</td>
<td>1876</td>
<td>1876</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.191</td>
<td>0.113</td>
<td>0.108</td>
<td>0.178</td>
<td>0.191</td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. Additional controls included in all the regressions are age and year in which the child reports attitudes, his/her race, indicator variables for the region of residence at age 14 (North-East, North-Central, West, North), an indicator variable for living in a city at age 14 and indicators for the religious affiliation of the child (Roman Catholic, Jewish, Baptist, Lutheran, Methodist, Presbyterian, Episcopal, Mormon, Protestant, Other; the excluded category is non-religion). The only statistically significant variables are the age in which attitudes are reported (estimated coefficient is 0.07) and the Mormon religious indicator (the estimated coefficient is -1.27). Column 6 reports the 2SLS estimates where the mother’s attitudes index in 1979 is employed as instruments for her 2004 attitudes. In this specification the absolute value of the t-statistic of the regression based form of the Hausman test is 1.36.
### Female Respondents NLSY79

<table>
<thead>
<tr>
<th>Index Range</th>
<th>Attitudes Index in 1979</th>
<th>Years of Education in 2006 (Respondent)</th>
<th>Years of Education in 2006 (Spouse)</th>
<th>Years of Education in 1979 (Mother)</th>
<th>Number of Children in 2006</th>
<th>Number of Children in 1979 (Mother)</th>
<th>Work in 2006 (Respondent)</th>
<th>Work in 2005 (Spouse)</th>
<th>Mother worked when respondent was 14</th>
<th>Mother worked in 1978</th>
<th>Married in 2006</th>
<th>Nobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=15 (19%)</td>
<td>13.47*</td>
<td>12.53</td>
<td>13.19</td>
<td>9.68</td>
<td>2.21</td>
<td>3.35</td>
<td>0.73</td>
<td>0.91</td>
<td>0.42</td>
<td>0.47</td>
<td>0.40</td>
<td>470</td>
</tr>
<tr>
<td>16-17 (41%)</td>
<td>16.57</td>
<td>13.16</td>
<td>13.53</td>
<td>10.68</td>
<td>2.07</td>
<td>2.87</td>
<td>0.76</td>
<td>0.90</td>
<td>0.51</td>
<td>0.56</td>
<td>0.52</td>
<td>528</td>
</tr>
<tr>
<td>18 (56%)</td>
<td>18</td>
<td>13.81</td>
<td>14.16</td>
<td>11.12</td>
<td>1.94</td>
<td>2.52</td>
<td>0.83</td>
<td>0.89</td>
<td>0.58</td>
<td>0.62</td>
<td>0.54</td>
<td>354</td>
</tr>
<tr>
<td>19-20 (80%)</td>
<td>19.43</td>
<td>13.94</td>
<td>13.98</td>
<td>11.31</td>
<td>1.82</td>
<td>2.63</td>
<td>0.81</td>
<td>0.93</td>
<td>0.60</td>
<td>0.64</td>
<td>0.53</td>
<td>587</td>
</tr>
<tr>
<td>&gt;=21 (100%)</td>
<td>22.05</td>
<td>14.59</td>
<td>14.79</td>
<td>11.99</td>
<td>1.65</td>
<td>2.19</td>
<td>0.80</td>
<td>0.93</td>
<td>0.62</td>
<td>0.73</td>
<td>0.53</td>
<td>474</td>
</tr>
</tbody>
</table>

*Each cell reports the mean value of the variable of interest at the corresponding attitudes range.

### Male Respondents NLSY79

<table>
<thead>
<tr>
<th>Index Range</th>
<th>Attitudes Index in 1979</th>
<th>Years of Education in 2006 (Respondent)</th>
<th>Years of Education in 2006 (Spouse)</th>
<th>Years of Education in 1979 (Mother)</th>
<th>Number of Children in 2006</th>
<th>Number of Children in 1979 (Mother)</th>
<th>Work in 2006 (Respondent)</th>
<th>Work in 2005 (Spouse)</th>
<th>Mother worked when respondent was 14</th>
<th>Mother worked in 1978</th>
<th>Married in 2006</th>
<th>Nobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=14 (24%)</td>
<td>12.47</td>
<td>12.89</td>
<td>13.30</td>
<td>10.73</td>
<td>2.05</td>
<td>2.55</td>
<td>0.91</td>
<td>0.66</td>
<td>0.49</td>
<td>0.55</td>
<td>0.58</td>
<td>267</td>
</tr>
<tr>
<td>15-16 (48%)</td>
<td>15.56</td>
<td>13.75</td>
<td>13.78</td>
<td>10.98</td>
<td>2.09</td>
<td>2.50</td>
<td>0.93</td>
<td>0.69</td>
<td>0.51</td>
<td>0.58</td>
<td>0.58</td>
<td>254</td>
</tr>
<tr>
<td>17 (62%)</td>
<td>17</td>
<td>13.70</td>
<td>14.04</td>
<td>11.38</td>
<td>1.96</td>
<td>2.49</td>
<td>0.93</td>
<td>0.76</td>
<td>0.59</td>
<td>0.67</td>
<td>0.67</td>
<td>161</td>
</tr>
<tr>
<td>18-19 (87%)</td>
<td>18.36</td>
<td>14.66</td>
<td>14.55</td>
<td>12.21</td>
<td>2.13</td>
<td>2.07</td>
<td>0.94</td>
<td>0.72</td>
<td>0.63</td>
<td>0.74</td>
<td>0.74</td>
<td>272</td>
</tr>
<tr>
<td>&gt;=20 (100%)</td>
<td>21.11</td>
<td>15.04</td>
<td>15.08</td>
<td>12.80</td>
<td>2.09</td>
<td>1.59</td>
<td>0.94</td>
<td>0.82</td>
<td>0.67</td>
<td>0.75</td>
<td>0.75</td>
<td>138</td>
</tr>
</tbody>
</table>

*Each cell reports the mean value of the variable of interest at the corresponding attitudes range.
Table 6: The effect of gender role attitudes on female respondents’ work decision

<table>
<thead>
<tr>
<th></th>
<th>Working in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS (1)</td>
</tr>
<tr>
<td>Attitudes Index 1979</td>
<td>0.008***</td>
</tr>
<tr>
<td></td>
<td>[0.003]</td>
</tr>
<tr>
<td>Age</td>
<td>-0.233</td>
</tr>
<tr>
<td></td>
<td>[0.178]</td>
</tr>
<tr>
<td>Age^2</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>[0.002]</td>
</tr>
<tr>
<td>Black</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>[0.024]</td>
</tr>
<tr>
<td>Other race (non-white;</td>
<td>-0.080**</td>
</tr>
<tr>
<td>non-black)</td>
<td>[0.040]</td>
</tr>
<tr>
<td>Immigrant</td>
<td>0.054</td>
</tr>
<tr>
<td></td>
<td>[0.041]</td>
</tr>
<tr>
<td>Living in a city at age</td>
<td>-0.038*</td>
</tr>
<tr>
<td>14</td>
<td>[0.022]</td>
</tr>
<tr>
<td>Living in the South at</td>
<td>-0.011</td>
</tr>
<tr>
<td>age 14</td>
<td>[0.019]</td>
</tr>
<tr>
<td>Siblings</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>[0.004]</td>
</tr>
<tr>
<td>Mother at home when</td>
<td>-0.165</td>
</tr>
<tr>
<td>respondent was 14</td>
<td>[0.113]</td>
</tr>
<tr>
<td>Mother present in 1978</td>
<td>0.086</td>
</tr>
<tr>
<td></td>
<td>[0.063]</td>
</tr>
<tr>
<td>Mother’s years of</td>
<td>0.001</td>
</tr>
<tr>
<td>education</td>
<td>[0.004]</td>
</tr>
<tr>
<td>Father at home when</td>
<td>0.012</td>
</tr>
<tr>
<td>respondent was 14</td>
<td>[0.041]</td>
</tr>
<tr>
<td>Father worked when</td>
<td>0.046</td>
</tr>
<tr>
<td>respondent was 14</td>
<td>[0.037]</td>
</tr>
<tr>
<td>Father’s years of</td>
<td>0.001</td>
</tr>
<tr>
<td>education</td>
<td>[0.002]</td>
</tr>
<tr>
<td>Attended Public School</td>
<td>0.063*</td>
</tr>
<tr>
<td></td>
<td>[0.037]</td>
</tr>
<tr>
<td>Religion</td>
<td>YES</td>
</tr>
<tr>
<td>λ</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>5.97</td>
</tr>
<tr>
<td></td>
<td>[4.019]</td>
</tr>
<tr>
<td>Observations</td>
<td>2413</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. The religion dummies for Roman Catholic and Protestant are positive and statistically significant in the OLS, Probit and CML estimation. λ is the coefficient on the control function. Column(1): Linear Probability Model. The absolute value of the t-statistic of the regression based form of the Hausman test is 2.93; Column(2): Two-Stage Least Squares. The Sargan test for the validity of the overidentifying restriction is NR^2=0.517; the R^2 is obtained from regressing the residuals of the estimated model in column 2 on all the exogenous variables, including the instruments; Column(3): Probit Model; Column(4): Conditional MLE procedure (Rivers and Vuong (1988)), standard errors account for the generated residuals included in the second step of the estimation procedure.
Table 7: The effect of gender role attitudes on female respondents’ work decision (additional controls X06)

<table>
<thead>
<tr>
<th></th>
<th>OLS (1)</th>
<th>2SLS (2)</th>
<th>PROBIT (3)</th>
<th>CML (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Index 1979</td>
<td>0.003</td>
<td>0.062**</td>
<td>0.009</td>
<td>0.225**</td>
</tr>
<tr>
<td></td>
<td>[0.003]</td>
<td>[0.027]</td>
<td>[0.011]</td>
<td>[0.091]</td>
</tr>
<tr>
<td>Years of education</td>
<td>0.027***</td>
<td>0.017**</td>
<td>0.103***</td>
<td>0.063***</td>
</tr>
<tr>
<td></td>
<td>[0.004]</td>
<td>[0.007]</td>
<td>[0.015]</td>
<td>[0.022]</td>
</tr>
<tr>
<td>Living in a North-Eastern region in 2006</td>
<td>0.001</td>
<td>-0.016</td>
<td>0.012</td>
<td>-0.049</td>
</tr>
<tr>
<td></td>
<td>[0.032]</td>
<td>[0.036]</td>
<td>[0.122]</td>
<td>[0.125]</td>
</tr>
<tr>
<td>Living in a North-Central region in 2006</td>
<td>0.024</td>
<td>0.035</td>
<td>0.095</td>
<td>0.134</td>
</tr>
<tr>
<td></td>
<td>[0.030]</td>
<td>[0.033]</td>
<td>[0.114]</td>
<td>[0.116]</td>
</tr>
<tr>
<td>Living in a Western region in 2006</td>
<td>-0.040</td>
<td>-0.052</td>
<td>-0.14</td>
<td>-0.188</td>
</tr>
<tr>
<td></td>
<td>[0.032]</td>
<td>[0.035]</td>
<td>[0.117]</td>
<td>[0.119]</td>
</tr>
<tr>
<td>Living in a city in 2006</td>
<td>0.020</td>
<td>0.015</td>
<td>0.052</td>
<td>0.043</td>
</tr>
<tr>
<td></td>
<td>[0.019]</td>
<td>[0.021]</td>
<td>[0.071]</td>
<td>[0.071]</td>
</tr>
<tr>
<td>Age (husband)</td>
<td>0.070***</td>
<td>0.053**</td>
<td>0.249***</td>
<td>0.189**</td>
</tr>
<tr>
<td></td>
<td>[0.022]</td>
<td>[0.025]</td>
<td>[0.077]</td>
<td>[0.081]</td>
</tr>
<tr>
<td>Age^2 (husband)</td>
<td>-0.001***</td>
<td>-0.001**</td>
<td>-0.003***</td>
<td>-0.002**</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
<td>[0.000]</td>
<td>[0.001]</td>
<td>[0.001]</td>
</tr>
<tr>
<td>Years of education (husband)</td>
<td>-0.002</td>
<td>-0.003</td>
<td>-0.006</td>
<td>-0.010</td>
</tr>
<tr>
<td></td>
<td>[0.005]</td>
<td>[0.006]</td>
<td>[0.020]</td>
<td>[0.020]</td>
</tr>
<tr>
<td>Annual Income (husband)</td>
<td>-0.002***</td>
<td>-0.001***</td>
<td>-0.005***</td>
<td>-0.005**</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
<td>[0.000]</td>
<td>[0.001]</td>
<td>[0.001]</td>
</tr>
<tr>
<td>Weekly hours worked (husband)</td>
<td>0.000</td>
<td>-0.000</td>
<td>0.001</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>[0.001]</td>
<td>[0.001]</td>
<td>[0.003]</td>
<td>[0.003]</td>
</tr>
<tr>
<td>Children younger than 6</td>
<td>-0.125***</td>
<td>-0.113***</td>
<td>-0.423***</td>
<td>-0.382**</td>
</tr>
<tr>
<td></td>
<td>[0.033]</td>
<td>[0.036]</td>
<td>[0.116]</td>
<td>[0.118]</td>
</tr>
<tr>
<td>Number of children</td>
<td>-0.017***</td>
<td>-0.007</td>
<td>-0.055**</td>
<td>-0.019</td>
</tr>
<tr>
<td></td>
<td>[0.006]</td>
<td>[0.008]</td>
<td>[0.023]</td>
<td>[0.028]</td>
</tr>
<tr>
<td>Married in 2006</td>
<td>-1.500***</td>
<td>-1.098*</td>
<td>-5.454***</td>
<td>-3.968**</td>
</tr>
<tr>
<td></td>
<td>[0.529]</td>
<td>[0.602]</td>
<td>[1.845]</td>
<td>[1.947]</td>
</tr>
<tr>
<td>Religion respondent was raised</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Religion spouse was raised</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>X79</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>λ</td>
<td>-0.219**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>6.490*</td>
<td>8.031*</td>
<td>22.74</td>
<td>28.58*</td>
</tr>
<tr>
<td></td>
<td>[3.924]</td>
<td>[4.312]</td>
<td>[14.62]</td>
<td>[14.84]</td>
</tr>
<tr>
<td>Observations</td>
<td>2413</td>
<td>2413</td>
<td>2413</td>
<td>2413</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.094</td>
<td></td>
<td>0.0915</td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. X79 indicates that all the explanatory variables included in the empirical model in Table 6 are also included here. λ is the coefficient on the control function. None of the religion dummies have a statistically significant effect. Column(1): Linear Probability Model. The absolute value of the t-statistic of the Hausman test is 2.42; Column(2): Two-Stage Least Squares. The Sargan test for the validity of the overidentifying restrictions is NR^2=1.669; Column(3): Probit Model; Column(4): Conditional MLE procedure (Rivers and Vuong (1988)), standard errors account for the generated residuals included in the second step of the estimation procedure.
Table 8: The effect of husband’s gender role attitudes on wives’ work decision

<table>
<thead>
<tr>
<th>Wife Working in 2005</th>
<th>OLS (1)</th>
<th>2SLS (2)</th>
<th>PROBIT (3)</th>
<th>CML (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Index 1979 (husband)</td>
<td>0.018***</td>
<td>0.069**</td>
<td>0.056***</td>
<td>0.212**</td>
</tr>
<tr>
<td></td>
<td>[0.005]</td>
<td>[0.033]</td>
<td>[0.015]</td>
<td>[0.096]</td>
</tr>
<tr>
<td>Age (husband)</td>
<td>-0.736***</td>
<td>-0.650**</td>
<td>-2.421***</td>
<td>-2.179**</td>
</tr>
<tr>
<td></td>
<td>[0.275]</td>
<td>[0.294]</td>
<td>[0.864]</td>
<td>[0.877]</td>
</tr>
<tr>
<td>Age^2 (husband)</td>
<td>0.008***</td>
<td>0.007**</td>
<td>0.0270***</td>
<td>0.024**</td>
</tr>
<tr>
<td></td>
<td>[0.003]</td>
<td>[0.003]</td>
<td>[0.010]</td>
<td>[0.010]</td>
</tr>
<tr>
<td>Black (husband)</td>
<td>0.003</td>
<td>-0.048</td>
<td>0.009</td>
<td>-0.149</td>
</tr>
<tr>
<td></td>
<td>[0.045]</td>
<td>[0.058]</td>
<td>[0.141]</td>
<td>[0.170]</td>
</tr>
<tr>
<td>Other (non-white; non-black) (husband)</td>
<td>0.039</td>
<td>0.059</td>
<td>0.147</td>
<td>0.215</td>
</tr>
<tr>
<td></td>
<td>[0.071]</td>
<td>[0.076]</td>
<td>[0.228]</td>
<td>[0.233]</td>
</tr>
<tr>
<td>Immigrant (husband)</td>
<td>0.104</td>
<td>0.134*</td>
<td>0.347</td>
<td>0.438*</td>
</tr>
<tr>
<td></td>
<td>[0.070]</td>
<td>[0.076]</td>
<td>[0.227]</td>
<td>[0.234]</td>
</tr>
<tr>
<td>Living in a city at age 14 (husband)</td>
<td>-0.034</td>
<td>-0.048</td>
<td>-0.108</td>
<td>-0.152</td>
</tr>
<tr>
<td></td>
<td>[0.034]</td>
<td>[0.037]</td>
<td>[0.106]</td>
<td>[0.110]</td>
</tr>
<tr>
<td>Living in the South at age 14 (husband)</td>
<td>0.015</td>
<td>0.040</td>
<td>0.046</td>
<td>0.123</td>
</tr>
<tr>
<td></td>
<td>[0.033]</td>
<td>[0.038]</td>
<td>[0.100]</td>
<td>[0.111]</td>
</tr>
<tr>
<td>Siblings (husband)</td>
<td>0.004</td>
<td>0.008</td>
<td>0.013</td>
<td>0.026</td>
</tr>
<tr>
<td></td>
<td>[0.007]</td>
<td>[0.007]</td>
<td>[0.021]</td>
<td>[0.022]</td>
</tr>
<tr>
<td>Mother at home when husband was 14</td>
<td>0.328*</td>
<td>0.353*</td>
<td>0.919*</td>
<td>0.992*</td>
</tr>
<tr>
<td></td>
<td>[0.174]</td>
<td>[0.183]</td>
<td>[0.522]</td>
<td>[0.525]</td>
</tr>
<tr>
<td>Mother present in 1978 (husband)</td>
<td>-0.129</td>
<td>-0.147</td>
<td>-0.427</td>
<td>-0.478</td>
</tr>
<tr>
<td></td>
<td>[0.119]</td>
<td>[0.125]</td>
<td>[0.389]</td>
<td>[0.390]</td>
</tr>
<tr>
<td>Mother’s years of education (husband)</td>
<td>0.008</td>
<td>0.002</td>
<td>0.027</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>[0.006]</td>
<td>[0.008]</td>
<td>[0.019]</td>
<td>[0.022]</td>
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<td>Father at home when husband was 14</td>
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<td>-0.007</td>
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<td>[0.005]</td>
<td>[0.013]</td>
<td>[0.015]</td>
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<tr>
<td>Attended Public School (husband)</td>
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<td>[0.172]</td>
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<td>Religion (husband)</td>
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<td>YES</td>
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<td>YES</td>
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<td>λ</td>
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<td>-0.159*</td>
<td>-0.159*</td>
<td>-0.159*</td>
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<td>[0.097]</td>
<td>[0.097]</td>
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<td>53.46***</td>
<td>46.15**</td>
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<td>[19.60]</td>
<td>[20.13]</td>
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<td>1092</td>
<td>1092</td>
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<td>R-squared</td>
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<td>0.0445</td>
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<td>.</td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. The husband religion dummies for Jewish, Presbyterian and Protestant are negative and statistically significant. Column(1): Linear Probability Model. The absolute value of the t-statistic of the regression based form of the Hausman test is 2.66; Column(2): Two-Stage Least Squares. The Sargan test for the validity of the overidentifying restrictions is NR^2=0.008; Column(3): Probit Model; Column(4): Conditional MLE procedure (Rivers and Vuong (1988)), standard errors account for the generated residuals included in the second step of the estimation procedure.
Table 9: The effect of husband’s gender role attitudes on wives’ work decision (additional controls X06)

<table>
<thead>
<tr>
<th></th>
<th>Wife Working in 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS (1)</td>
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<tr>
<td>Attitudes Index 1979 (husband)</td>
<td>0.015***</td>
</tr>
<tr>
<td>[0.005]</td>
<td>[0.031]</td>
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<tr>
<td>Years of Education (wife)</td>
<td>0.029***</td>
</tr>
<tr>
<td>[0.007]</td>
<td>[0.009]</td>
</tr>
<tr>
<td>Living in a North-Eastern region in 2006</td>
<td>-0.064</td>
</tr>
<tr>
<td>[0.052]</td>
<td>[0.055]</td>
</tr>
<tr>
<td>Living in a North-Central region in 2006</td>
<td>-0.051</td>
</tr>
<tr>
<td>[0.047]</td>
<td>[0.054]</td>
</tr>
<tr>
<td>Living in a Western region in 2006</td>
<td>-0.066</td>
</tr>
<tr>
<td>[0.050]</td>
<td>[0.054]</td>
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<tr>
<td>Living in a city in 2006</td>
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<tr>
<td>[0.030]</td>
<td>[0.031]</td>
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<tr>
<td>Age (wife)</td>
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<td>[0.027]</td>
<td>[0.029]</td>
</tr>
<tr>
<td>Age^2 (wife)</td>
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<tr>
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<td>[0.000]</td>
</tr>
<tr>
<td>Years of education (husband)</td>
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</tr>
<tr>
<td>[0.007]</td>
<td>[0.008]</td>
</tr>
<tr>
<td>Annual Income (husband)</td>
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</tr>
<tr>
<td>[0.000]</td>
<td>[0.000]</td>
</tr>
<tr>
<td>Weekly hours worked (husband)</td>
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</tr>
<tr>
<td>[0.001]</td>
<td>[0.001]</td>
</tr>
<tr>
<td>Children younger than 6</td>
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</tr>
<tr>
<td>[0.041]</td>
<td>[0.042]</td>
</tr>
<tr>
<td>Number of children</td>
<td>-0.023**</td>
</tr>
<tr>
<td>[0.011]</td>
<td>[0.012]</td>
</tr>
<tr>
<td>Religion wife was raised</td>
<td>YES</td>
</tr>
<tr>
<td>Religion husband was raised</td>
<td>YES</td>
</tr>
<tr>
<td>X79</td>
<td>YES</td>
</tr>
<tr>
<td>λ</td>
<td>-0.129</td>
</tr>
<tr>
<td>Constant</td>
<td>17.21***</td>
</tr>
<tr>
<td>[6.109]</td>
<td>[6.450]</td>
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<td>Observations</td>
<td>1092</td>
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<tr>
<td>R-squared</td>
<td>0.127</td>
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</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. X79 indicates that all the explanatory variables included in the empirical model in Table 8 are also included here. λ is the coefficient on the control function. Column(1): Linear Probability Model. The absolute value of the t-statistic of the Hausman test is 1.39; Column(2): Two-Stage Least Squares. The Sargan test for the validity of the overidentifying restrictions has the value NR^2=0.012; Column(3): Probit Model; Column(4): Conditional MLE procedure (Rivers and Vuong (1988)), standard errors account for the generated residuals included in the second step of the estimation procedure.
Figure 1.A: Females and males in the NLSY79 (Attitudes measured in 1979)

Figure 1.B: Females and males in the NLSY79 (Attitudes measured in 2004)

Figure 1.C: Children of the NLSY79 (Attitudes measured in different years from 1994 to 2002)
# Appendix

Table A1: Descriptive Statistics

Intergenerational transmission of gender role attitudes (Table 4):

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child’s Attitudes Index (1994-2002)</td>
<td>21.27</td>
<td>2.88</td>
<td>Mother worked when child was 14</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>Mother’s Attitudes Index 2004</td>
<td>20.83</td>
<td>2.99</td>
<td>Father at home when child was 14</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td>Mother’s Attitudes Index 1979</td>
<td>19.79</td>
<td>3.38</td>
<td>Father worked when child was 14</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>Age at which the child reports the attitudes</td>
<td>17.16</td>
<td>1.71</td>
<td>Father’s years of education</td>
<td>12.20</td>
<td>4.78</td>
</tr>
<tr>
<td>Race of the child (black)</td>
<td>0.34</td>
<td>1.71</td>
<td>Roman Catholic (religion child was raised)</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Race of the child (non-white; non-black)</td>
<td>0.08</td>
<td></td>
<td>Jewish</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Living in a city at age 14</td>
<td>0.73</td>
<td></td>
<td>Baptist</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>Living in a North-Eastern region at age 14</td>
<td>0.11</td>
<td></td>
<td>Lutheran</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Living in a North-Central region at age 14</td>
<td>0.24</td>
<td></td>
<td>Methodist</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Living in a Western region at age 14</td>
<td>0.20</td>
<td></td>
<td>Presbyterian</td>
<td>0.01</td>
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</tr>
<tr>
<td>Sex of the child (male=1)</td>
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<td></td>
<td>Episcopalian</td>
<td>0.01</td>
<td></td>
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<tr>
<td>Indicator of older sibling</td>
<td>0.57</td>
<td></td>
<td>Mormon</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Percentage of male siblings</td>
<td>0.51</td>
<td>1.43</td>
<td>Protestant</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>Number of siblings</td>
<td>3.11</td>
<td>1.43</td>
<td>Other</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>Age of the mother at birth</td>
<td>21.01</td>
<td>2.76</td>
<td>Non-religion</td>
<td>0.17</td>
<td></td>
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<tr>
<td>Mother immigrant</td>
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<td></td>
<td>Number of Observations</td>
<td>1876</td>
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<tr>
<td>Mother’s years of education</td>
<td>12.35</td>
<td>2.23</td>
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Table A1: Descriptive Statistics (cont’d)

The effect of gender role attitudes on female respondents’ work decision (Table 6 and 7):

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<th>S.D.</th>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working in 2006</td>
<td>0.78</td>
<td></td>
<td>Other Religion</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Attitudes Index in 1979</td>
<td>17.95</td>
<td>3.01</td>
<td>Non-religion</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>44.99</td>
<td>2.08</td>
<td>Years of education</td>
<td>13.60</td>
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<tr>
<td>Black</td>
<td>0.31</td>
<td></td>
<td>Living in a city in 2006</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td>Other race (non-white; non-black)</td>
<td>0.06</td>
<td></td>
<td>Living in a North-Eastern region in 2006</td>
<td>0.16</td>
<td></td>
</tr>
<tr>
<td>Immigrant</td>
<td>0.05</td>
<td></td>
<td>Living in a North-Central region in 2006</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Living in a city at age 14</td>
<td>0.81</td>
<td></td>
<td>Living in a Western region in 2006</td>
<td>0.18</td>
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<tr>
<td>Living in the South at age 14</td>
<td>0.37</td>
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<td>Age (husband)</td>
<td>46.17</td>
<td>5.30</td>
</tr>
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<td>Siblings</td>
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<td>Years of education (husband)</td>
<td>13.95</td>
<td>2.63</td>
</tr>
<tr>
<td>Mother at home when respondent was 14</td>
<td>0.99</td>
<td></td>
<td>Annual Income (husband)</td>
<td>60.78</td>
<td>60.16</td>
</tr>
<tr>
<td>Mother present in 1978</td>
<td>0.98</td>
<td></td>
<td>Weekly hours worked (husband)</td>
<td>41.25</td>
<td>16.81</td>
</tr>
<tr>
<td>Mother worked when respondent was 14</td>
<td>0.54</td>
<td></td>
<td>Children younger than 6</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Mother worked in 1978</td>
<td>0.60</td>
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<td>Number of children</td>
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<td>Married in 2006</td>
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<td>Roman Catholic (husband)</td>
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<td>Father worked when respondent was 14</td>
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<td>Protestant (husband)</td>
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<td>Baptist (husband)</td>
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<td>Attended Public School</td>
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<td>Episcopalian (husband)</td>
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<tr>
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<td>Lutheran (husband)</td>
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<td></td>
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<td>Methodist (husband)</td>
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<td></td>
<td>Presbyterian (husband)</td>
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<tr>
<td>Episcopalian</td>
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<td></td>
<td>Jewish (husband)</td>
<td>0.02</td>
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</tr>
<tr>
<td>Lutheran</td>
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<td>Other religion (husband)</td>
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</tr>
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<td>Methodist</td>
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<td>Non-religion (husband)</td>
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</tr>
<tr>
<td>Presbyterian</td>
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<tr>
<td>Jewish</td>
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Table A1: Descriptive Statistics (cont’d)

The effect of husband’s gender role attitudes on wives’ work decision (Table 8 and 9):

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<th>Variables</th>
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<th>S.D.</th>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
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<td>Wife Working in 2005</td>
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<td>Jewish (husband)</td>
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<tr>
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<td>16.42</td>
<td>2.95</td>
<td>Other Religion (husband)</td>
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</tr>
<tr>
<td>Age (husband)</td>
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<td>Non-religion (husband)</td>
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</tr>
<tr>
<td>Black (husband)</td>
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<td></td>
<td>Years of education (husband)</td>
<td>13.92</td>
<td>2.70</td>
</tr>
<tr>
<td>Other race (non-white; non-black) (husband)</td>
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<td></td>
<td>Living in a city in 2006</td>
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<td>Living in a North-Eastern region in 2006</td>
<td>0.16</td>
<td></td>
</tr>
<tr>
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<td>0.79</td>
<td></td>
<td>Living in a North-Central region in 2006</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Living in the South at age 14 (husband)</td>
<td>0.31</td>
<td></td>
<td>Living in a Western region in 2006</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Siblings (husband)</td>
<td>3.29</td>
<td>2.30</td>
<td>Age (wife)</td>
<td>42.46</td>
<td>4.88</td>
</tr>
<tr>
<td>Mother at home when respondent was 14 (husband)</td>
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<td></td>
<td>Years of education (wife)</td>
<td>14.05</td>
<td>2.39</td>
</tr>
<tr>
<td>Mother present in 1978 (husband)</td>
<td>0.99</td>
<td></td>
<td>Annual Income (husband)</td>
<td>70.15</td>
<td>(66.63)</td>
</tr>
<tr>
<td>Mother worked when respondent was 14 (husband)</td>
<td>0.57</td>
<td></td>
<td>Weekly hours worked (husband)</td>
<td>41.11</td>
<td>(16.05)</td>
</tr>
<tr>
<td>Mother worked in 1978 (husband)</td>
<td>0.65</td>
<td></td>
<td>Children younger than 6</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>Mother’s years of education (husband)</td>
<td>11.52</td>
<td>3.03</td>
<td>Number of children</td>
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</tr>
<tr>
<td>Father at home when respondent was 14 (husband)</td>
<td>0.86</td>
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<td>Roman Catholic (wife)</td>
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</tr>
<tr>
<td>Father worked when respondent was 14 (husband)</td>
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<td>Protestant (wife)</td>
<td>0.11</td>
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<tr>
<td>Father’s years of education (husband)</td>
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<td>4.34</td>
<td>Baptist (wife)</td>
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</tr>
<tr>
<td>Attended Public School (husband)</td>
<td>0.93</td>
<td></td>
<td>Episcopalian (wife)</td>
<td>0.02</td>
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</tr>
<tr>
<td>Roman Catholic (husband)</td>
<td>0.37</td>
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<td>Lutheran (wife)</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Protestant (husband)</td>
<td>0.04</td>
<td></td>
<td>Methodist (wife)</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>Baptist (husband)</td>
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<td></td>
<td>Presbyterian (wife)</td>
<td>0.03</td>
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</tr>
<tr>
<td>Episcopalian (husband)</td>
<td>0.02</td>
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<td>Jewish (wife)</td>
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</tr>
<tr>
<td>Lutheran (husband)</td>
<td>0.08</td>
<td></td>
<td>Other religion (wife)</td>
<td>0.07</td>
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</tr>
<tr>
<td>Methodist (husband)</td>
<td>0.08</td>
<td></td>
<td>Non-religion (wife)</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Presbyterian (husband)</td>
<td>0.03</td>
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<td>Number of observations</td>
<td>1092</td>
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</tr>
</tbody>
</table>
### Table A2: Linear probability estimates of the mother-child gender role attitudes

<table>
<thead>
<tr>
<th>Mother’s Views (2004)</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1: A woman’s place is in the home, not in the office or the shop</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>-0.065***</td>
<td>0.034</td>
<td>0.024</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>[0.025]</td>
<td>[0.025]</td>
<td>[0.015]</td>
<td>[0.009]</td>
</tr>
<tr>
<td>Agree</td>
<td>-0.173***</td>
<td>-0.028</td>
<td>0.140***</td>
<td>0.061***</td>
</tr>
<tr>
<td></td>
<td>[0.045]</td>
<td>[0.045]</td>
<td>[0.027]</td>
<td>[0.016]</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>-0.148**</td>
<td>0.066</td>
<td>0.087**</td>
<td>-0.005</td>
</tr>
<tr>
<td></td>
<td>[0.072]</td>
<td>[0.073]</td>
<td>[0.044]</td>
<td>[0.026]</td>
</tr>
<tr>
<td><strong>Q2: A woman who carries out her full family responsibilities does not have time for outside employment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>-0.025</td>
<td>-0.010</td>
<td>0.004</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>[0.023]</td>
<td>[0.026]</td>
<td>[0.016]</td>
<td>[0.009]</td>
</tr>
<tr>
<td>Agree</td>
<td>-0.114***</td>
<td>-0.025</td>
<td>0.064***</td>
<td>0.043***</td>
</tr>
<tr>
<td></td>
<td>[0.035]</td>
<td>[0.039]</td>
<td>[0.024]</td>
<td>[0.014]</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0.057</td>
<td>-0.077</td>
<td>0.046</td>
<td>-0.026</td>
</tr>
<tr>
<td></td>
<td>[0.060]</td>
<td>[0.067]</td>
<td>[0.040]</td>
<td>[0.024]</td>
</tr>
<tr>
<td><strong>Q3: The employment of wives leads to more juvenile delinquency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>-0.052*</td>
<td>0.011</td>
<td>0.037*</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>[0.026]</td>
<td>[0.031]</td>
<td>[0.02]</td>
<td>[0.007]</td>
</tr>
<tr>
<td>Agree</td>
<td>-0.129***</td>
<td>0.032</td>
<td>0.087***</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>[0.032]</td>
<td>[0.036]</td>
<td>[0.023]</td>
<td>[0.009]</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>-0.08</td>
<td>-0.065</td>
<td>0.118***</td>
<td>0.030**</td>
</tr>
<tr>
<td></td>
<td>[0.055]</td>
<td>[0.062]</td>
<td>[0.040]</td>
<td>[0.015]</td>
</tr>
<tr>
<td><strong>Q4: It is better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and the family</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>-0.070***</td>
<td>0.049</td>
<td>0.032</td>
<td>-0.011</td>
</tr>
<tr>
<td></td>
<td>[0.025]</td>
<td>[0.030]</td>
<td>[0.024]</td>
<td>[0.011]</td>
</tr>
<tr>
<td>Agree</td>
<td>-0.097***</td>
<td>-0.007</td>
<td>0.078***</td>
<td>0.026*</td>
</tr>
<tr>
<td></td>
<td>[0.030]</td>
<td>[0.035]</td>
<td>[0.028]</td>
<td>[0.013]</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>-0.213***</td>
<td>0.017</td>
<td>0.116**</td>
<td>0.081***</td>
</tr>
<tr>
<td></td>
<td>[0.058]</td>
<td>[0.069]</td>
<td>[0.055]</td>
<td>[0.026]</td>
</tr>
<tr>
<td><strong>Q5: Men should share the work around the house with women, such as doing dishes, cleaning and so forth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>-0.030</td>
<td>0.018</td>
<td>0.011</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>[0.024]</td>
<td>[0.024]</td>
<td>[0.009]</td>
<td>[0.005]</td>
</tr>
<tr>
<td>Agree</td>
<td>-0.022</td>
<td>-0.011</td>
<td>0.027</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>[0.069]</td>
<td>[0.070]</td>
<td>[0.026]</td>
<td>[0.015]</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>-0.078</td>
<td>-0.015</td>
<td>0.104**</td>
<td>-0.012</td>
</tr>
<tr>
<td></td>
<td>[0.127]</td>
<td>[0.130]</td>
<td>[0.049]</td>
<td>[0.029]</td>
</tr>
<tr>
<td><strong>Q6: Women are much happier if they stay at home and take care of their children</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>-0.013</td>
<td>-0.034</td>
<td>0.046</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>[0.025]</td>
<td>[0.034]</td>
<td>[0.030]</td>
<td>[0.009]</td>
</tr>
<tr>
<td>Agree</td>
<td>-0.039</td>
<td>-0.101***</td>
<td>0.123***</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td>[0.028]</td>
<td>[0.038]</td>
<td>[0.033]</td>
<td>[0.010]</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0.069</td>
<td>-0.225***</td>
<td>0.133**</td>
<td>0.022</td>
</tr>
<tr>
<td></td>
<td>[0.052]</td>
<td>[0.071]</td>
<td>[0.061]</td>
<td>[0.019]</td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. The results correspond to linear probability estimates of the likelihood that a child "strongly disagrees", "disagrees", "agrees" or "strongly agrees" with a traditional statement, given the mother's opinion collected in 2004. In all the regressions mothers who "strongly disagree" with a traditional statement are the omitted category.
### Table A3: Reduced form equation for gender role attitudes in 1979

<table>
<thead>
<tr>
<th>Attitudes Index 1979</th>
<th>Female Respondent</th>
<th>Male Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother worked when respondent was 14</td>
<td>0.202 [0.157]</td>
<td>0.339 [0.224]</td>
</tr>
<tr>
<td>Mother worked in 1978</td>
<td>0.584*** [0.163]</td>
<td>0.659*** [0.232]</td>
</tr>
<tr>
<td>Age</td>
<td>1.772 [1.242]</td>
<td>-1.94 [1.717]</td>
</tr>
<tr>
<td>Age^2</td>
<td>-0.018 [0.014]</td>
<td>0.023 [0.019]</td>
</tr>
<tr>
<td>Black</td>
<td>0.504*** [0.167]</td>
<td>0.920*** [0.280]</td>
</tr>
<tr>
<td>Other race (non-white; non-black)</td>
<td>0.804*** [0.280]</td>
<td>-0.444 [0.443]</td>
</tr>
<tr>
<td>Immigrant</td>
<td>-0.045 [0.289]</td>
<td>-0.646 [0.436]</td>
</tr>
<tr>
<td>Living in a city at age 14</td>
<td>-0.203 [0.153]</td>
<td>0.285 [0.215]</td>
</tr>
<tr>
<td>Living in the South age 14</td>
<td>-0.251* [0.136]</td>
<td>-0.537*** [0.203]</td>
</tr>
<tr>
<td>Siblings</td>
<td>-0.057** [0.025]</td>
<td>-0.069* [0.041]</td>
</tr>
<tr>
<td>Mother at home when respondent was 14</td>
<td>0.531 [0.790]</td>
<td>-0.79 [1.088]</td>
</tr>
<tr>
<td>Mother present in 1978</td>
<td>-0.311 [0.446]</td>
<td>-0.164 [0.750]</td>
</tr>
<tr>
<td>Mother’s years of education</td>
<td>0.148*** [0.025]</td>
<td>0.112*** [0.038]</td>
</tr>
<tr>
<td>Father at home when respondent was 14</td>
<td>-0.308 [0.285]</td>
<td>-0.628 [0.482]</td>
</tr>
<tr>
<td>Father worked when respondent was 14</td>
<td>0.023 [0.258]</td>
<td>0.285 [0.436]</td>
</tr>
<tr>
<td>Father’s years of education</td>
<td>0.050*** [0.017]</td>
<td>0.065** [0.027]</td>
</tr>
<tr>
<td>Attendend Public School</td>
<td>-0.329 [0.257]</td>
<td>0.028 [0.351]</td>
</tr>
<tr>
<td>Constant</td>
<td>-26.75 [28.08]</td>
<td>55.77 [39.04]</td>
</tr>
<tr>
<td>Observations</td>
<td>2413</td>
<td>1092</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.107</td>
<td>0.139</td>
</tr>
<tr>
<td>F-test</td>
<td>17.08</td>
<td>12.73</td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. All the explanatory variables refer to the respondent. In the first column, the variables indicating that a female was raised in the Jewish, Methodist or Episcopalian religion have a positive and statistically significant coefficient. In the second column, the indicator variable for a male being raised in the Episcopalian religion has a positive and statistically significant coefficient on his attitudes.
Table A3 (cont’d):
Reduced form equation for gender role attitudes in 1979
(additional controls X06)

<table>
<thead>
<tr>
<th></th>
<th>Female Respondent Attitudes Index 1979</th>
<th>Male Respondent Attitudes Index 1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother worked when respondent was 14</td>
<td>0.221 [0.154]</td>
<td>0.335 [0.220]</td>
</tr>
<tr>
<td>Mother worked in 1978</td>
<td>0.547*** [0.160]</td>
<td>0.700*** [0.228]</td>
</tr>
<tr>
<td>Respondent’s years of education</td>
<td>0.188*** [0.0266]</td>
<td>0.153*** [0.0431]</td>
</tr>
<tr>
<td>Living in a North-Eastern region in 2006</td>
<td>0.366 [0.229]</td>
<td>-0.287 [0.328]</td>
</tr>
<tr>
<td>Living in a North-Central region in 2006</td>
<td>-0.155 [0.214]</td>
<td>-0.786*** [0.292]</td>
</tr>
<tr>
<td>Living in a Western region in 2006</td>
<td>0.19 [0.223]</td>
<td>-0.551* [0.315]</td>
</tr>
<tr>
<td>Living in a city in 2006</td>
<td>0.0401 [0.135]</td>
<td>0.00618 [0.188]</td>
</tr>
<tr>
<td>Age (spouse)</td>
<td>0.244 [0.156]</td>
<td>0.257 [0.171]</td>
</tr>
<tr>
<td>Age(^2) (spouse)</td>
<td>-0.00243 [0.00162]</td>
<td>-0.00349* [0.00199]</td>
</tr>
<tr>
<td>Spouse years of education</td>
<td>0.0238 [0.0370]</td>
<td>0.146*** [0.0413]</td>
</tr>
<tr>
<td>Annual income (husband)</td>
<td>-0.00114 [0.00157]</td>
<td>-0.000245 [0.00147]</td>
</tr>
<tr>
<td>Weekly working hours (husband)</td>
<td>0.00803 [0.00520]</td>
<td>0.00291 [0.00541]</td>
</tr>
<tr>
<td>Children young than 6</td>
<td>-0.115 [0.235]</td>
<td>0.0889 [0.256]</td>
</tr>
<tr>
<td>Number of children</td>
<td>-0.166*** [0.0454]</td>
<td>0.0459 [0.0713]</td>
</tr>
<tr>
<td>Married in 2006</td>
<td>-6.099 [3.741]</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-23.44 [27.77]</td>
<td>48.18 [38.32]</td>
</tr>
<tr>
<td>Observations</td>
<td>2413</td>
<td>1092</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.149</td>
<td>0.201</td>
</tr>
<tr>
<td>F-test</td>
<td>16.47</td>
<td>14.08</td>
</tr>
</tbody>
</table>

Standard errors in parentheses, * significant at 10%; ** significant at 5%; *** significant at 1%.
Table A4: The effect of each 1979 individual question on the work decision (OLS estimates)

<table>
<thead>
<tr>
<th>Gender Role Attitudes Questions (1979)</th>
<th>Female Respondent working 2006</th>
<th>Wife Working 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Q1: A woman’s place is in the home, not in the office or shop</td>
<td>0.027** [0.011]</td>
<td>0.053*** [0.017]</td>
</tr>
<tr>
<td>Q2: A woman who carries out her full family responsibilities does not have time for outsider employment</td>
<td>0.010 [0.011]</td>
<td>0.041** [0.020]</td>
</tr>
<tr>
<td>Q3: The employment of wives leads to more juvenile delinquency</td>
<td>0.027** [0.011]</td>
<td>0.037** [0.018]</td>
</tr>
<tr>
<td>Q4: It is better for everyone concerned if the man is the achiever outsider the home and the woman takes care f the home and the family</td>
<td>0.019* [0.011]</td>
<td>0.032* [0.018]</td>
</tr>
<tr>
<td>Q5: Men should share the work around the house with women, such as doing dishes, Cleaning and so on.</td>
<td>0.017 [0.012]</td>
<td>0.038* [0.020]</td>
</tr>
<tr>
<td>Q6: Women are much happier if they stay at home and take care of their children</td>
<td>0.017 [0.012]</td>
<td>0.066*** [0.021]</td>
</tr>
</tbody>
</table>

Observations | 2413 | 1092

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. The first column displays the OLS estimates for the working decision of the female respondents and the second column that for the spouses of the male respondents. Each number comes from a different labor supply equation. In addition to the corresponding attitude question the empirical model also includes the variables that characterize the socioeconomic environment of the female or the male respondent in 1979 (the same explanatory variables that in Table 6 and 8).
Table A5:

The effect of gender role attitudes on female respondents’ work decision

<table>
<thead>
<tr>
<th>Attitudes Index 1979</th>
<th>Working in 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS (1)</td>
</tr>
<tr>
<td>Attitudes Index 1979</td>
<td>0.008***</td>
</tr>
<tr>
<td></td>
<td>[0.003]</td>
</tr>
<tr>
<td>X79</td>
<td>YES</td>
</tr>
<tr>
<td>λ</td>
<td>-0.202**</td>
</tr>
<tr>
<td>Constant</td>
<td>3.231</td>
</tr>
<tr>
<td></td>
<td>[3.735]</td>
</tr>
<tr>
<td>Observations</td>
<td>2413</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. X79 indicates that all the explanatory variables included in the empirical model in Table 6 are also included here.

The effect of gender role attitudes on female respondents’ work decision

(additional controls X06)

<table>
<thead>
<tr>
<th>Attitudes Index 1979</th>
<th>Working in 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS (1)</td>
</tr>
<tr>
<td>Attitudes Index 1979</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>[0.003]</td>
</tr>
<tr>
<td>X06</td>
<td>YES</td>
</tr>
<tr>
<td>X79</td>
<td>YES</td>
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<tr>
<td>λ</td>
<td>-0.180*</td>
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<tr>
<td>Constant</td>
<td>2.908</td>
</tr>
<tr>
<td></td>
<td>[3.627]</td>
</tr>
<tr>
<td>Observations</td>
<td>2413</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.104</td>
</tr>
</tbody>
</table>

Standard errors in brackets, * significant at 10%; ** significant at 5%; *** significant at 1%. X79 indicates that all the explanatory variables included in the empirical model in Table 6 are also included here. X06 indicates that all the explanatory variables included in the empirical model in Table 7 are also included here.