Labor Market Opportunities and Women's Decision Making Power within Households

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Abstract

Despite the perceived importance of labor market opportunities in shaping married women's outside option, and their bargaining power within households as a result, this link has received very little empirical attention. Using longitudinal data on who makes the decision on a wide range of issues within Mexican households and data from the administrative records of the Mexican Social Security Institute, this paper identifies the effects of relative changes in labor market opportunities for men and women on both working and non-working women's relative decision making power. The implications for children's health are also investigated. Using the differential effects of China's admission to the WTO across Mexican industries, I check the robustness of my results.

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1 Introduction

There is an abundance of evidence showing that decision making within households does not follow a unitary model of intrahousehold allocation of resources and household decisions are the results of a bargaining process among the household members with different preferences (e.g. Lundberg, Pollak, and Wales 1997; Browning and Chiappori 1998; Bobonis 2009; Cherchye, De Rock, and Vermeulen 2009). Consistent with this evidence, the non-unitary models of household decision making usually consider a bargaining power for each spouse and model it by assigning different weights to women's and men's utility functions. These weights are determined by the factors that affect women's well-being at the threat point —their outside option.

One of the most likely determinants of married women's outside option is the relative number of labor market opportunities for women compared to men.[1] Although the effect of being employed (sometimes in a specific sector) and having labor income on bargaining power has been studied in a few papers before (e.g. Dharmalingam and Morgan 1996; Anderson and Eswaran 2009; Atkin 2009; Antman 2012; Heath 2012), the direct link between labor market opportunities and women's bargaining power has received very little empirical attention.[2] The difference between these two lines of literature is important because a theory of household bargaining predicts that an increase in the number of jobs available for women compared to those for men improves women's outside option, regardless of whether or not a woman decides to participate in the labor market, and this will raise women's bargaining

[1] In section II, I will provide a short survey of other determinants of bargaining power that have been discussed in the literature.

[2] In a cross-section of 800 married women, Rahman and Rao (2004) examines the effect of female and male wage at the village level on women's power within households. Also, Aizer (2010) estimates the effect of changes in labor demand in female dominated industries relative to male dominated ones in California on a potential outcome of bargaining, violence against women. However, the study does not try to directly analyze bargaining power or any of its other outcomes.

power within households.

By investigating a direct consequence of bargaining power, the decisions made within households, this paper tries to shed light on the effects of relative changes in labor market opportunities for men and women on women's bargaining power. I study how decision making on a wide range of issues, that cover almost all aspects of decision making within households, changes hands between men and women in the face of an exogenous shock to their bargaining power. Using data on who makes decisions in 12 different categories within Mexican households and the differential changes in labor demand in different industries across municipalities between 2002-2005, this paper identifies the effects of relative changes in labor market opportunities for men and women on women's relative decision making power within households.

In Mexico, like many other developing countries, the manufacturing sector is a major source of employment for women and different industries have different preferences for hiring female versus male workers. In the early years of the new millennium Mexico suffered from negative shocks to the manufacturing sector. I use this setting to empirically identify shocks to the relative number of jobs available for women. To do this, I follow Bartik (1991), Blanchard and Katz (1992), Bound and Holzer (2000), and Autor and Duggan (2003), using data from the Social Security Institute of Mexico (IMSS), to construct demand indices that capture exogenous shifts in local labor demand for different manufacturing industries. The demand index for each industry-municipality cell is constructed based on the nationwide changes in employment, weighted by the local labor market-specific shares of employment for that industry.

Depending on the initial employment structure in different municipalities, a change in labor demand in a specific industry could strengthen women's relative chance of employment in one municipality and weaken it in another. If, initially, a municipality is specialized in manufacturing industries with primarily male workers, an increase in labor demand in

an industry with some female workers increases the relative number of jobs available for women and their relative chance of employment. If a woman's bargaining power within household is affected by her relative chance of employment, increases in labor demand in this industry raise women's bargaining power in this municipality. The exact change in labor demand would have opposite effects on women's relative chance of employment, and their bargaining power, in a municipality specialized in industries with primarily female workers. In each municipality, a manufacturing industry is categorized as female-intensive if an increase (decrease) in labor demand in that industry raises (lowers) women's chance of employment compared to that of men. Otherwise, the industry would be categorized as male-intensive.

Finally, using two panel waves of the Mexican Family Life Survey, I identify the effect of changes in demand in female and male-intensive industries on women's bargaining power within households, proxied by their relative power over different decisions. Analyzing women's aggregate relative decision making power —the number of household decisions made by wife minus the number of decisions made by her husband —I find that, for married women younger than 45 in the year 2002, a 1 percent increase in labor demand in female-intensive industries in the manufacturing sector translates into relatively 0.1 more decision made within households.[3] Importantly, the effect is not limited to working women, consistent with the idea that married women's bargaining power is a function of their well-being at the threat point and not their earnings while married.[4]

One might argue that a positive change in the total number of decisions made might not necessarily mean an increase in the bargaining power, since there is variation in the im-

[3]Using two separately constructed dependent variables, one using the answers given by women and the other using the answers given by men, I show that the changes in labor demand do not only affect women's perception of their power but also their husbands' perception of their wives' power.

[4]To provide more support for this claim, I also do the analysis with and without labor income as an explaining variable.

portance of different decisions. To address this, and also to analyze which decisions change hands between the two spouses, I provide the results for changes in power over individual decisions. Models of household decision making usually consider three types of consumption goods; wife's private goods, husband's private goods, and public and collective goods, such as children.[5] Looking at the changes in spouses' power over individual decisions, I find that, except for the decision on women's clothing, both men and women respond to the relative changes in labor market opportunities to get involved in (or to take control of) the other decisions over their own and their spouses' private goods and services. These decisions include whether the man or woman should participate in the labor market, the husband's clothing, and also the money that is given to the husband and wife's parents.[6]

Unlike the decisions over private goods, spouses do not react strongly to changes in labor market to get involved in (or take over) the decisions made on public goods. My results suggest that the only decision that is likely to change hands is children's health and medicine and women are more likely to make those decisions as their relative chance of employment in the labor market goes up. However, I do not find any effect on decisions over children's education, children's clothing, strong expenditures, food that is eaten in the house, and the use of contraception by men and women.

Investigating the effect of labor market opportunities on women's bargaining power is important, not only because labor market is one of the most likely determinants of women's outside option, but also since a large body of empirical work has pointed out to the changes in household outcomes as the balance of power shifts between men and women. An important example of these outcomes (especially in the context of developing countries) is children's health. Evidence from across developing countries suggests that mothers value daughters

[5] As first suggested by Weiss and Willis (1985), we can think of children as collective consumption goods from the parents' point of view.

[6] I am assuming money given to the wife's (husband's) parents is her (his) private good.

relatively more than fathers do. If that is the case in my sample of analysis, an outcome of my finding here, that women take control of the decision on children's health as the relative number of jobs for women goes up in the labor market, would be relatively more investment in girls' health. I provide some evidence that girls' health outcomes improve as the relative number of jobs for women goes up in the labor market. I do not find any effect on boys' health.[7]

As it is not obvious how to best measure labor market demand shocks, I test the robustness of my results to the use of another methodology. Increases in Chinese exports to the U.S. following China's entry into the WTO in 2001 had differential effects across industries in the Mexican export manufacturing sector and mostly affected industries with relatively large shares of female labor. I use this differential effect to estimate the effect of changes in demand for labor in female-intensive industries in each municipality, brought about by China joining the WTO, on women's decision making power. Findings are consistent with the earlier results.

Recently, a few papers in the economics literature have looked at direct decisions as a proxy for bargaining power. Friedberg and Webb (2006) looks at a question about whether a husband or wife in the Health and Retirement Study has the final say when making major decisions in the household. The authors use one round of data and do not introduce an exogenous source of variation in the decision of interest. In a cross-section of Mexican households, Atkin (2009) looks at the effects of the first job being in manufacturing on a woman's control over the decisions about her children's health and education, as well as strong expenditures within the household, later in life. More recently, Antman (2012) looks at the relationship between wife's employment status and her involvement in decision

[7]This could also be the effect of more investment in daughters as the prospect of labor market participation improves for them (e.g. Qian 2008). I will provide some suggestive evidence that the effect is (at least) partly driven by changes in mothers' relative decision making power.

making about major household expenditures within Mexican households. Although the study controls for the household fixed effect, it does not provide an exogenous time-varying source of variation in women's employment status.

This paper improves this literature and adds to it in a number of ways. First, by using a household fixed effect, this paper takes care of any fixed unobserved determinant of decision making power at the household level. Also, by analyzing a range of decisions in 12 different categories, it gives a thorough picture of changes in decision making within households. Finally, it introduces an arguably exogenous shock to men's and women's bargaining power and provides evidence that the observed changes in the labor market do not affect the outcomes of interest through changes in income.

The remainder of this paper proceeds as follows. Section II provides a discussion on spousal bargaining, challenges to measure that, and its determinants. Section III discusses the data, empirical strategy, and empirical specification. Section IV shows the results, and Section V concludes.

2 Bargaining Power and Its Determinants

When trying to measure changes in spouses' bargaining power within households or estimate the effect of changes in women's bargaining power on household decisions, researchers usually face two sorts of challenges. The first challenge is that one doesn't observe spouses' bargaining power directly. Because of that, the literature usually examines the changes in household outcomes over which spouses might have different preferences. Examples of these outcomes are spending on men's, women's, and children's clothing (Lundberg et al. 1997; Phipps and Burton 1998; Bobonis 2009), on alcohol and tobacco (Phipps and Burton; Bobonis; Hoddinott and Haddad 1995), and children's health and education (Thomas 1990, 1994; Haddad and Hoddinott; Duflo 2003; Duflo and Udry 2004).

The other challenge is to find an exogenous determinant of bargaining power. Using variables that could be correlated with unobserved household characteristics, that directly affect household outcomes over which spouses have different preferences, would lead to biased estimates. One of these variables is labor income. If a woman earns more because she has a certain type of job that requires more spending on clothing, that increases spending on women's clothing without really changing the woman's bargaining power.

Also, differences in earned (and sometimes unearned) income of spouses are likely to be correlated with differences in wage rates that affect the bargaining power of spouses. An example, relevant to the context of this paper, is the case of married women who do not work and have no earned income. If a woman does not participate in the labor market when married (or in a cooperative relationship), but she would work if that marriage dissolves, the fact that she has zero earnings at the cooperative equilibrium cannot predict her earnings if the equilibrium dissolves. In other words, the wage rate (which is partly determined by the number of jobs available) is exogenous, while earnings are endogenous; they are equal to the product of the exogenous wage rate and the endogenous, optimal choice of, hours worked. As a result, women's earnings while married are not good indicators of their bargaining power, because hours worked could change at the threat point (Pollak 2005, 2011).

On the other hand, the wage rate and employability are indicators of the bargaining power. A theory of household bargaining predicts that increases in a woman's relative wage rate and number of jobs available for her raise her bargaining power by improving her outside option (Aizer 2010; Cherchye et al. 2012). For women who do work when married, the wage rate is a determinant of their bargaining power, not because their earnings at the cooperative equilibrium (marriage) go up, but because it affects their well-being at the threat point.[8]

[8]Chiappori and Donni (2006) shows that any efficient outcome of the collective approach to modeling decision making in households can be constructed as a bargaining solution and if some distribution factors are

In addition to the wagre rate, different factors have been proposed as the exogenous determinants of bargaining power within households in the literature. To test the income pooling hypothesis and because of the exogeneity of non-labor income (when it is randomly distributed among households that are similar otherwise), some studies have looked at the effect of an increase in women's non-labor income on the allocation of resources within households (e.g. Lundberg et al. 1997; Attanasio and Lechene 2002; Bobonis 2009).

Among the extrahousehold environmental parameters, one that has been studied more than others in both the theoretical and empirical literature is the marriage market situation and the legal structure that surrounds it.[9] Some papers have looked at the effects of sex ratio in the marriage market on the decisions made within households, especially female labor force participation (e.g. Becker 1991; Grossbard-Shechtman 1993; Grossbard-Shechtman and Neideffer 1997; Angrist 2002; Chiappori et al. 2002). There are other papers that have looked at the effects of divorce laws and women's rights after divorce to analyze women's utility within marriage (e.g. Gray 1998; Chiappori et al. 2002; Rangel 2006; Stevenson and Wolfers 2006). Laws governing divorce influence spouses' well-being if and when the marriage ends and they should affect their bargaining power within marriage. The features of marriage contract has also been studied as a determinant of the intrahousehold decision process (Lundberg and Pollak 1994).[10]

known to be positively correlated with a member's threat point, then her power in the collective model should be increasing in that distribution factor.

[9]In the wording of McElroy (1990), extrahousehold environmental parameters are variables that affect how well each family member could do in the next best alternative outside of the family. They change the distribution of power within marriage without affecting the preferences or the budget constraint.

[10]Another aspect of marriage that has been discussed as a determinant of bargaining in the literature is the resources brought to marriage by women. The argument is that, more resources women bring to marriage usually translate into more power within marriage (e.g. Quisumbing and Maluccio 2003; Brown 2009).

3 Empirical Implementation

3.1 Data

This paper combines two different datasets at the municipality level to examine how changes in demand for different industries within the Mexican manufacturing sector affect women's bargaining power. The household level data come from the Mexican Family Life Survey (MxFLS). MxFLS is a longitudinal database that collects a wide range of information on socioeconomic, demographic and health indicators of the Mexican population. I use two waves of the data collected in 2002 and 2005. The dataset is nationally representative, covers more than 100 municipalities in Mexico, and gathers information from more than 8000 households.

A unique feature of MxFLS is that it asks the household respondents who makes the decision in 12 different categories. A decision could be made by one of the spouses, jointly, or someone else. Using these answers, I am able to construct a direct measure of decision making power for each spouse within households. Some of the household characteristics in MxFLS are reported in Table 1.

Labor market (municipality-level) data come from the Mexican Social Security Institute (IMSS). It includes monthly employment data from all formal private-sector establishments and reports data on each employee's age, gender, and salary. It also reports the employer's id, the 2-digit, 3-digit, and 4-digit industry of activity, as well as the state and municipality of the firm.[11] The universal coverage of this dataset originates from the fact that all employees must register with IMSS since it provides health insurance and pension coverage.

The characteristics of the manufacturing sector in the IMSS data (for the municipalities represented in MxFLS and used in my analysis) are summarized in Table 2.

[11] The aggregations from the firm to industry-municipality level were carried out at the central office of IMSS in Mexico city where the data is held securely.

3.2 Empirical Strategy

As discussed in section II, researchers usually face different challenges when trying to measure changes in spouses' bargaining power within households or estimate the effect of increases in women's bargaining power on household decisions. In this paper, I am able to address these concerns in a variety of ways. First I use panel data at the individual level. This enables me to control for fixed household characteristics.

I also look at who makes different decisions on a range of issues within households, which is the most direct way to observe spouses' bargaining power. The 12 decisions that are asked from the respondents in MxFLS are the food that is eaten in the house, your cloth, your spouse's cloth, your children's cloth, the education of your children, health services and medicine of your children, strong expenditures for the house (refrigerator, car, furniture, etc.), money that is given to your parents/relatives, money that is given to the parents/relatives of your spouse, if you should work or not, if your spouse should work or not, and if you or your spouse use contraceptives.[12]

According to Table 1, out of 12 different categories of decisions available in MxFLS, wives made 7.94 decisions and husbands made 7.85 decisions on average in my sample of analysis in 2002. These numbers changed to 7.22 and 6.94 in 2005, respectively.

In this study, I make use of this data to construct a measure of women's relative decision making power (as a proxy for women's bargaining power); the number of decisions made by wife minus the number of decisions made by her husband.[13] I use this to reveal whose

[12]In almost 80 percent of households both wife and husband separately answer these questions. However, the dataset does not make it clear whether the answers are given in front of the other spouse. This could be important if household decision-making is characterized by moral hazard and the possibility of hidden action (Ashraf et al. 2012).

[13]I assume a decision is made by one of the partners if it is made either solely by that partner or is made jointly. However, since I analyze changes in the number of decisions made, it does matter whether a partner is solely responsible for the decision or not.

preferences are reflected to a greater degree in household decisions and interpret a change in this variable as a change in women's relative decision making power.

One might argue that a positive change in the number of decisions made does not necessarily mean an increase in the bargaining power since there is variation in the importance of different decisions. To address this and also to investigate which decisions change hands between the two spouses as the relative chance of employment for men and women changes in the labor market, I also provide the results for changes in decision making power over individual decisions.

Finally, I utilize the fact that women are more likely to be employed in some industries compared to others to construct an exogenous determinant of the bargaining power of women within households.

In this paper, controlling for employment opportunities in other sectors of the economy, the number of jobs available for women relative to those available for men in the manufacturing sector is considered to be a potential determinant of women's bargaining power within households. As the relative demand for women in the labor market goes up (down), women's outside option and, as a result, their bargaining power within the household improves (worsens). For working women, as the relative employability of women goes up (down), their relative chance of staying employed at the threat point increases (decreases) and it positively (negatively) affects their bargaining power. Non-working women will also have more (less) opportunities to participate in the labor market compared to men at their threat point. This raises (lowers) their bargaining power within households as well.

A feature of many manufacturing industries across developing countries, including Mexico, has been the employment of female labor. My empirical strategy takes advantage of the fact that different industries have different preferences for hiring female versus male labor and the industrial composition of employment within manufacturing sector in Mexico (and therefore the initial job opportunities available for women relative to men) differ across

municipalities. Hence, depending on where a woman lives, changes in labor demand in a specific industry could strengthen or weaken her relative chance of employment and her relative bargaining power within household.[14]

To clarify this, let's compare two municipalities in Mexico; Lerdo and San Juan Bautista Tuxtepec. In Lerdo, out of 6144 manufacturing jobs in July 2002, 5009 belonged to the clothing industry that is dominated by female labor. In this municipality, keeping labor demand in other industries fixed, an increase (decrease) in labor demand in the chemical industry, in which around a quarter of the labor force is women, weakens (strengthens) women's opportunities to get employed in the manufacturing sector compared to men. Theoretically, it should decrease (increase) women's bargaining power within households. On the other hand, in San Juan Bautista Tuxtepec, in which out of 4244 manufacturing jobs 2376 belonged to the beverage industry, an increase in labor demand in the chemical industry strengthens (weakens) women's opportunities to get employed in the manufacturing sector compared to men (almost 90 percent of the workers in the beverage industry are men).

In each municipality, a three-digit manufacturing industry is categorized as female-intensive if, in the year 2002, the share of female workers at the national level in that industry was larger than the share of female workers within the manufacturing sector in that municipality. In theory, changes in demand in such an industry would be positively associated with the relative number of jobs available for women and women's bargaining power within households. Other three-digit manufacturing industries would be categorized as male-intensive. I exploit the geographic heterogeneity of labor demand in female and male-intensive industries across municipalities between 2002-2005 to measure the effect of changes in labor demand in different industries on women's and men's chance of employment, and their relative decision making power within households.[15]

[14]The sample of households I use for the analysis in this paper are limited to those that stay in the same municipality in both rounds of MxFLS data.

[15]An implied assumption is that the preference for hiring female versus male workers in an industry is more

Next, I discuss the general econometric model used to do the empirical analysis and introduce the two different methodologies I use to estimate changes in labor demand in different industries across municipalities.

3.3 Empirical Specification

To investigate the effect of changes in demand in different industries on married women's relative decision making power, I use the following basic regression specification:

$$q_{imt} = \beta_{fem} D_{fem,m,t} + \beta_{male} D_{male,m,t} + \beta D_{m,t} + \alpha_w y^w_{i,t} + \alpha_h y^h_{i,t} + \zeta_w h^w_{i,t} + \zeta_h h^h_{i,t} + \gamma_{i,t} + \delta_i + \varepsilon_{imt} \quad (1)$$

where q_{imt} represents woman i's relative decision making power; the number of household decisions made by woman i minus the number of household decisions made by her husband. $D_{fem,m,t}$ and $D_{male,m,t}$ are the aggregate labor demand in female and male-intensive industries within the manufacturing sector in municipality m, and $D_{m,t}$ is demand for labor in all other sectors of the economy in municipality m. $y^w_{i,t}$ and $y^h_{i,t}$ represent the wife's and husband's non-labor income, and $h^w_{i,t}$ and $h^h_{i,t}$ represent the wife's and husband's labor income. $\gamma_{i,t}$ is a set of controls for individual and household characteristics, including the number of children, and education and age polynomials. δ_i represents the individual fixed effect. ε_{imt} are unobservable determinants of the outcome variables.

I estimate the equation above both with and without including labor incomes. By including labor income, I (partially) address the concern that changes in labor demand for women might affect the dependent variable through changes in earned income. However, I will address this concern by separately showing the results for non-working women as well. In other words, I estimate the model for the full sample of married women and women who do not work (and generate no earned income as a result).

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or less the same across municipalities.

Given the panel nature of my dataset and the fact that there are two rounds of data available, the empirical specification that is estimated is the difference version of equations (1).

To analyze the effects of changes in labor demand in female and male-intensive industries on women's relative power over individual decisions, I run a similar regression with the dependent variable being the wife's relative power over a single decision and controlling for her relative power over all other decisions.

3.4 Demand Estimation

As it is not obvious how to best measure labor market demand shocks, and to check the robustness of my results, I use two different methodologies to estimate changes in labor demand in different industries within each municipality:

Methodology I: Nationwide changes in employment weighted by the local labor market shares of employment

The first methodology was originally developed by Bartik (1991) and was used by Blanchard and Katz (1992), Bound and Holzer (2000), and Autor and Duggan (2003), among others. It involves creating a demand index for each industry-municipality cell based on the nationwide changes in employment of that industry, weighted by the local labor market-specific share of employment.

Predicted growth of labor employment in group g (g=fem or male) of industries within the manufacturing sector in municipality m, in the period 2002-2005 is given by:

$$\begin{aligned}\hat{D}_{g,m,t} &= (D_{g,m,2005} - D_{g,m,2002}) \\ &= \sum_{k=1}^{K_{g,m}} \gamma_{k,m}\eta_{-m,k} \qquad (2)\end{aligned}$$

$K_{g,m}$ is the number of three-digit industries within group g of manufacturing industries in municipality m and $\gamma_{k,m}$ is the fraction of workers in municipality m in year 2002 employed in industry k. $\eta_{-m,k}$ is the log change in national employment of industry k between 2002 and 2005. The subscript $-m$ in $\eta_{-m,k}$ indicates that each municipality's industry k employment is excluded in calculating the national employment change.

This index is a weighted average of the growth in employment for each category of manufacturing industries in a municipality, where the weights represent the distribution of employment across industries in the municipality. This is built to capture exogenous shifts in local labor demand that are predicted by the municipality-specific industry mix, while avoiding the endogeneity associated with local employment changes. In other words, this methodology predicts what each municipality's change in employment for an industry would be if municipality-level industrial composition was fixed in the short term and changes in industry-level employment happened uniformly across municipalities.

In demand index (3), the second term, the log change in national employment of industry k between 2002 and 2005, excludes employment in municipality m to avoid the endogeneity associated with local employment growth rates. This addresses the concern that the observed change in national employment is driven by the concentration of an industry in a specific municipality. Of course, if a large share of workers employed in an industry live in a specific municipality, one might think that the change in employment in other municipalities does not predict the change in demand in the local labor market. Looking at the share of each municipality in the employment mix of different industries reveals that, excluding Mexico

City, no municipality has a share bigger than 11 percent (followed by 8 percent) in the employment of any three-digit manufacturing industry.[16]

Similarly, the predicted growth of demand for labor in non-manufacturing sectors of the economy in municipality m in the period 2002-2005, is given by:

$$\begin{aligned} \hat{D}_{m,t} &= (D_{m,2005} - D_{m,2002}) \\ &= \sum_{l=1}^{L} \gamma_{l,m} \eta_{-m,l} \end{aligned} \tag{3}$$

L is the number of all three-digit industries of the economy outside manufacturing sector, $\gamma_{l,m}$ is the fraction of workers in municipality m in year 2002 employed in industry l, and $\eta_{-m,l}$ is the log change in national employment in industry l.

Methodology II: China's entry into the WTO as a source of labor demand shocks

As a robustness check, I test the sensitivity of my results on the effects of changes in labor demand in female-intensive industries on women's relative decision making power to an alternative measure of labor market demand shocks: the effects of increases in Chinese exports to the U.S., following China's admission to the WTO in 2001, on Mexican manufacturing industries. At the time, more than 80 percent of Mexican manufacturing exports went to the United States and evidence suggests that, among Latin American countries, Mexico had the largest number of common products with China in the U.S. market at the beginning of the millennium, meaning that the increases in Chinese exports to the U.S. had a significant negative effect on demand for manufacturing exports from Mexico (Shafaeddin 2004).[17]

[16] Even including Mexico City gives us a maximum of 19 percent.

[17] In addition, Hanson and Robertson (2010) explores the impact of China's increased export capacity on Latin American countries' exports of the top manufacturing industries and finds that without the increase in

Increases in Chinese exports, however, had differential effects across industries.[18]

Industries are classified as "negatively affected" by China as follows. I examine two time periods: 1995-2000 and 2000-2005. If the growth in exports from Mexico to the U.S. in a particular industry was smaller in the second period compared to the growth in the earlier period while the growth in exports from China to the U.S. increased relative to the earlier period, that industry is classified as "negatively affected". I end up with five three-digit export manufacturing industries being classified as negatively affected by the Chinese competition; textile, machinery, basic metals, clothing, and other manufacturing. While this is clearly a noisy measure of the industries affected by China's increased exports, it is comforting to see that the industries I find to be affected are almost the same industries classified as such in earlier research.[19]

An important feature of industries negatively affected by China is that they are dominated by industries with relatively large shares of female labor (the only industry among these five industries with very low share of female labor is basic metals). As a result, one could expect that China joining the WTO had larger effects on demand for female labor compared to male labor within the Mexican manufacturing sector.

For estimation, I use a similar specification as previously described but make few changes. First, I replace the measures of demand in different industries with measures of employment.

Chinese supply of these products, export growth in these products could have been 3 percentage points higher in Mexico. Gallagher et al. (2008) finds that, after China's entry into the WTO and as a new trend, Mexico's main non-oil exports' relative share in the US market was either declining or growing slower than China's.

[18] Bloom, Draca, and Van Reenen (2011) argues that increases in Chinese exports following joining the WTO have had differential effects by industry in the destination market depending on whether the industry is one in which China has a comparative advantage.

[19] Lopez-Cordova et al. (2008) shows that during the 2000-2003 period, Chinese exports of apparel and textiles to US grew at 7.3 percent annual rate, while Mexican exports declined 8 percent a year. In machinery and equipment, while China's exports grew by 15 percent a year, exports from Central America went down at almost 18 percent per year.

However, the problem with using the changes in total employment as a proxy for demand shift is that the employment growth in a local labor market can be driven by shifts in local labor supply (through population growth, migration, etc.) as well as demand. Because of that, within female-intensive industries (that are identified as before), I use the initial share of employment in industries negatively affected by China joining the WTO as an instrument for the changes in employment between 2002-2005. The idea is that, within female-intensive industries in each municipality, the more concentrated the initial employment is in industries negatively affected by China's entry into WTO the bigger is the negative demand shock to female-intensive industries.

In the second stage, I estimate the effect of changes in demand in female-intensive industries, generated by negative shocks from China joining the WTO, on women's relative decision making power within households. The instrument that I use here is similar in spirit to the earlier measure of demand shocks, except in this case I focus on the variation induced by China's entry into the WTO.

In the second stage, I run the difference version of the following model:

$$q_{imt} = \beta_{fem} E_{fem,m,t} + \beta_{male} E_{male,m,t} + \beta E_{m,t} + \alpha_w y^w_{i,t} + \alpha_h y^h_{i,t} + \zeta_w h^w_{i,t} + \zeta_h h^h_{i,t} + \gamma_{i,t} + \delta_i + \varepsilon_{imt} \quad (4)$$

where $E_{fem,m,t}$ and $E_{male,m,t}$ represent employment in female and male-intensive industries and $E_{m,t}$ is employment in other sectors of the economy in municipality m. Other variables are defined as before.

The instrument for $\Delta E_{fem,m,t}$ is constructed as:

$$D^C{}_{fem,m} = \left(\frac{C_{fem,m,2002}}{E_{fem,m,2002}}\right) \quad (5)$$

where $E_{fem,m,2002}$ is the number of employees within female-intensive manufacturing

industries in 2002 and $C_{fem,m,2002}$ is a subset of those employees working in negatively affected industries. Across 91 municipalities featured in the analysis in this section, the average value for $D^C{}_{fem,m}$ is 0.48 with the standard deviation being 0.41 (Table 2).

4 Results

In this section, first, I present the effects of changes in labor demand in different industries on women's and men's chance of being employed and women's relative decision making power within households. Next, I estimate the effect of changes in labor demand on women's relative power over individual decisions. Finally, I test the robustness of my results, using China joining the WTO as a source of variation in labor demand in female-intensive industries across Mexican municipalities.

4.1 Changes in Labor Demand and Women's Relative Decision Making Power

Before analyzing the effects of changes in labor demand on women's relative decision making power within households, I show some evidence that women's and men's chance of being employed is associated with changes in labor demand in the first place. Everything else being fixed, I would expect a labor demand shock in female-intensive (male-intensive) industries to have a bigger effect on women's (men's) chance of being employed compared with a shock in male-intensive (female-intensive) industries. Column (1) in Table 3 shows the results from running a regression in which the dependent variable is the change in the employment status of a married woman between 2002 and 2005. The results indicate that a 1 percent increase in labor demand in female-intensive industries in a woman's municipality of residence is associated with 1.7 percent increase in her chance of being employed. The coefficient estimate is significant at the 1 percent level. Changes in labor demand in male-

intensive industries are not significantly associated with women's chance of employment. In the second column I include a state-specific time trend to control for any other trend that might affect the outcomes. The results do not change. Columns (3) and (4) report the results when the dependent variable is the change in the employment status of a married man between 2002 and 2005. The results suggest that labor demand shocks in male-intensive industries affect men's chance of employment, although the estimates are smaller than the ones in Columns (1) and (2).[20]

Next I show the effect of changes in labor demand on women's relative decision making power within households. Table 4 shows the results of estimating the difference version of equation (1) when the dependent variable is women's relative decision making power. In the first four columns the dependent variable is constructed using women's responses to the questions about who makes the different decisions. In the last column, to check the robustness of my results, I construct the same dependent variable using men's responses.

In the first column, the sample includes all married women who live with their husbands in the same municipality in 2002 and 2005 and labor income is excluded from the regression. The magnitude of coefficient estimate on labor demand in female-intensive industries implies that a 1 percent increase in labor demand in female-intensive industries raises women's relative decision making power by 0.075, all else fixed.[21] The coefficient estimate is statistically significant at the 10 percent level. Consistent with the hypothesis in this paper, the estimates suggest that increases (decreases) in labor demand in male-intensive industries lower (raise) women's relative decision making power, however the coefficient estimate is not statistically

[20] One reason for getting smaller effects in columns (3) and (4) might be that men's employment status hardly changes and a much higher percentage of them work in the first place.

[21] As shown in Table 2, female-intensive industries experienced only negative labor demand shocks between 2002-2005. Because of that, one can interpret all the coefficient estimates for female-intensive industries based on negative demand shocks. The average change in labor demand in female-intensive industries across Mexican municipalities between 2002-2005 was -0.01.

significant.

In the second column of Table 4 the sample of analysis is limited to married women who do not participate in the labor market through the period of analysis. In 2002, 27 percent of married women in my sample of analysis worked in the labor market. This number dropped to 24 in 2005 (Table 1). For women who do not work during the period of analysis, similar to women who do work, bargaining power should go up as the value of their outside option increases. The coefficient estimates in the second column confirm this hypothesis.[22]

To provide more evidence in support of the hypothesis that the observed results are not driven by the effects of labor demand on labor income, in columns (3) and (4) I include spouses' labor income as control variables and redo the analysis using the samples in columns (1) and (2). This change has almost no effect on the coefficient estimates of labor demands and the coefficient estimates of labor incomes are not statistically significant.[23]

Using the dependent variable constructed by the answers given by men in column (5) generates very similar coefficient estimates to the ones in columns (1) and (3). This suggests that the changes in labor demand do not only affect women's perception of their power but also their husbands'. The results in Table 4 suggest that women's relative decision making power mostly reacts to the changes in demand in female-intensive industries and not male-intensive industries. However, analyzing individual decisions (as I will show later in this section) will provide a more detailed picture.

If women's relative decision making power is a function of the relative number of jobs available for them in the labor market, one expects to see a larger effect on women who are more "employable". In other words, the relative decision making power of women whose

[22]The results suggest that limiting the analysis to the sample of households in which women do not work during the period of analysis generates larger coefficient estimate for labor demand in female-intensive industries. However, I cannot reject the hypothesis that the two coefficient estimates are equal.

[23]Note that households who receive some kind of non-labor income constitute only about one eighth of my sample and I cannot get any significant coefficient estimate for wife's and husband's non-labor income here.

chance of getting employed improves (deteriorates) more in response to the new jobs available (lost) should react more strongly to the changes in labor demand. For most of the women in my sample of households work experience does not seem to be a determinant of their employability in the manufacturing sector, since most of them do not participate in the labor market and a bigger share of them, naturally, do not work in the manufacturing sector. Under these circumstances, and given the fact that most of the jobs in the Mexican manufacturing sector are low-skill jobs (Atkin 2012), younger cohorts are most probably more employable because of their higher physical abilities (and usually more flexibility), and they should be more likely to think of the jobs available as a determinant of their well-being at the threat point. As a result, one should observe larger effects of the changes in labor demand in female-intensive industries on younger cohorts.

Table 5 summarizes the results of doing the analysis separately for women under the age of 55, 45, and 35. As before, in each sample, I show the results for the full sample of women in column (1) and non-working women in column (2). Consistent with the hypothesis above, the coefficient estimates suggest that the relative decision making power of younger women respond more strongly to the changes in labor demand in female-intensive industries and the coefficient estimates are more statistically significant. The coefficient estimates for male-intensive industries are also bigger in absolute value, although still not statistically significant. The magnitude of coefficient estimate on labor demand in female-intensive industries for married women under the age of 45 suggests that a 1 percent increase in labor demand in female-intensive industries raises women's relative decision making power by 0.106, all else fixed. The coefficient estimate is statistically significant at the 5 percent level.

4.2 Which Decisions Are More Likely To Change Hands?

In this section I investigate which decisions change hands between the two spouses as the relative chance of employment for men and women alter in the labor market.

Models of household decision making usually consider three types of consumption goods; wife's private goods, husband's private goods, and public goods. Corresponding to these different types of goods, I divide the 12 decisions into three categories and analyze the effects of changes in labor demand in female and male-intensive industries on women's relative power over these decisions both individually and in aggregate. For a woman, I categorize the decisions on her cloth, the money that is given to her parents, and whether she should work or not under decisions about her private goods and services. Similarly decisions about her spouse's cloth, whether her spouse should work or not, and the money that is given to his parents under decisions about her spouse's private goods and services. The rest of the decisions are categorized as public.

In Table 6 the dependent variables are wives' relative power over each of the 12 decisions made at the households and reported in the data. In each regression, wives' relative power over all other decisions have been included as control variables. If relatively more labor market opportunities is a positive determinant of women's relative power over a specific decision within households, one expects the coefficient estimate on "labor demand in female-intensive industries" to be positive and the coefficient estimate on "labor demand in male-intensive industries" to be negative. In the top panel, I report the effects on decisions that I categorize as wife's or husband's "private" decisions and in the bottom panel I report the effects on decision making about public goods.

The results suggest that women's relative power over personal decisions (both their own and their husbands') react to the changes in relative labor market opportunities. Relatively more opportunities to participate in the labor market for women affect, most strongly, the decisions over whether a woman should work or not, women's say in their husbands' labor market participation, and also the money that is given to the husbands' parents. The bottom panel shows that, except for the decision over children's health and medicine, women's relative power over other decisions concerning public goods does not react to the relative

number of labor market opportunities.

Table 7 provides the results of a more aggregate analysis, in which the dependent variables in columns (1) to (3) are women's relative power over all the decisions made on her private goods and services, her husband's private goods and services, and public goods, respectively. By doing this exercise, I try to understand which type of decisions are most likely to change hands, as a result of a shock to spouses' bargaining power.

Consistent with the findings in Table 6, columns (1) and (2) indicate that, all else being fixed, a relative increase in labor market opportunities for women (men) translates into women (men) having relatively more power over decisions about their own and their spouses' private goods and services. In column (3), the coefficient estimates are not significant suggesting that, in aggregate, relative labor market opportunities do not affect who makes the decisions about public goods within households. In the last column of Table 7 I specifically focus on all the decisions made on children. The literature suggests that money in the hand of mothers spent more on children. The results I find suggest that a positive shock to mothers' bargaining power does not lead to mothers having more say in their children's affairs (except for their health and medicine). This could be because mothers are heavily involved in those decisions in the first place and those decisions are not necessarily something that fathers want to take over as they experience a positive shock to their power within households.

4.3 Labor Demand Shocks and Children's Health

In the previous section I showed that women are more likely to decide about their children's health as the number of labor market opportunities for women goes up compared to that of men. Evidence from across developing countries suggests that women are more willing to allocate resources to health services than men are. There is also some evidence that women value girls relatively more than men do.[24] In this case, a relative increase (decrease) in

[24]Duflo (2012) provides a survey.

mothers' power over her children's health could lead to more (less) investment in daughters' health. In this section, I provide some suggestive evidence that it actually happened in Mexico.

To do this, I estimate a similar empirical model as used before with dependent variable being children's health outcomes.[25] The idea is to investigate whether the variables that affect women's relative decision making power within households affect investment in children's health the same way.

I separately look at two health outcomes for children. The first is "health condition of the child". The questionnaire in MxFLS asks about the health condition of each child and the answer could be very bad, bad, regular, good, and very good (I assign numbers 1 to 5 to these answers, 5 being very good). Based on these categories, I investigate the effect of changes in labor demand in female and male-intensive industries on the reported health condition of children. In the year 2002, the average reported health condition in my sample of analysis was 3.82 for girls and 3.81 for boys. These numbers were 3.95 and 4.01 in 2005.

The second health outcome that I use to proxy for investment in children's health is a binary variable indicating whether the child has recently been sick. The type of sickness could be having diarrhea, shortness of breath, stomachache, swollen eyes, ear infection, among others. In the empirical analysis, I control for the reported health condition of the child when analyzing this outcome. In other words, controlling for their general health condition, I investigate whether children are more likely to get sick as a result of changes in labor demand in different industries. In 2002, the likelihood of having had some sort of sickness in the recent past was 0.55 for both girls and boys. In 2005, this likelihood (for the

[25] MxFLS defines a child as someone younger than 15 years of age. Because of that, some of the observations are only available for children younger than 15. Hence, "children" in this study are limited to the children of parents in the household who are younger than 15 years of age in year 2005. Also, all the children in the analysis sample were born in the year 2002 or before so that there are two rounds of data available for them.

same sample of children) changed to 0.42 for girls and 0.38 for boys.

Table 8 summarizes the results. The estimates indicate that increases in labor demand in female-intensive industries raise the reported health condition of children and decrease the likelihood of them being sick, even after controlling for the child's reported health condition. However, dividing the sample of children into boys and girls shows that the observed effects are driven by the effects on girls.

The magnitude of coefficient estimates suggest that, all else being fixed, a 1 percent increase in labor demand in female-intensive industries raises girls' reported health condition by 0.023 and lowers the probability of girls recently have been sick by 2.7 percentage points. These results suggest that increases in labor demand in female-intensive industries, that raise women's relative decision making power within households, also improve girls' health outcomes.

If girls' health outcomes change as a result of changes in labor market opportunities for women, a threat to the validity of interpretation that it is mothers' bargaining power that drives changes in girls' health outcomes is that investment in girls' health might react to the prospect of labor market participation for them. Although I will not be able to address this identification threat in this paper, in columns (4) and (8) I include my measure of mothers' relative decision making power as an explaining variable and do the analysis for girls once more. If the effect of labor market opportunities runs through the bargaining power channel, presumably it will load on to that measure rather than the demand shocks. The results on girls' health condition support this argument. When the dependent variable is "Child Reported Being Sick", although the coefficient on mothers' relative bargaining power is significant, the coefficient on labor demand in female-intensive industries turns out to become significant as well. It makes it difficult to argue that all the effect on girls' health goes through mothers' decision making power within households.

4.4 Demand Estimation Methodology II

Finally, as a robustness check, I present the effects of changes in labor demand in female-intensive industries on women's relative decision making power, using the demand estimation methodology that utilizes China's entry into the WTO as an exogenous shock to different Mexican export manufacturing industries.

Columns (1) through (3) in Table 9 report the results for the full sample of married women and columns (4) through (6) report the results for non-working women. Columns (1) and (4) present the OLS results. Although the coefficient estimates have the expected signs, they are potentially biased since the changes in employment reflect both supply and demand shocks. The first-stage results for the two groups of women have been summarized in columns (2) and (5). The sign of the coefficient estimate for the share of employment in industries negatively affected by Chinese competition is negative, as expected, meaning that, within female-intensive industries, the bigger is the share of employment in industries negatively affected by Chinese competition, the larger is the negative shock to labor demand.

The results of the second stage imply that, on average, 1000 less jobs in female-intensive industries, lost because of Chinese competition, translate into relatively 4.37 less decisions made by wives within households. The results follow the pattern observed using the other demand estimation methodology.

5 Conclusion

Using data on who makes the decision on a wide range of issues within households, this paper tries to gain a better understanding of the spousal bargaining and the effect of changes in labor market opportunities for men and women on that. I find that labor demand shocks that change the relative number of jobs available for women in the Mexican manufacturing sector affect women's relative decision making power within households. Importantly, consistent

with the theory of bargaining power, this effect is not limited to working women.

Investigating individual decisions reveals that women gain (lose) power over decisions regarding their own and their husbands' private goods and services as the relative number of jobs available for women in the market goes up (down). However, except for the decision on children's health and medicine, I do not find any effect on decisions over public goods. Spouses react most strongly to decisions regarding their own and their spouses' work status and also the money that is given to the parents.

I also show some evidence that labor demand shocks that alter women's labor market opportunities compared to men affect girls' health outcomes the same way they affect women's relative decision making power. Although I cannot rule out the possibility that girls' health outcomes change because of changes in the prospect of labor market participation for them, I provide some suggestive evidence that the effect is (at least) partly driven by changes in mothers' relative decision making power. These results are consistent with the evidence from across developing countries that women treat girls relatively better than men do.

My results suggest that different job market opportunities could have different effects on women's power within households. This is important, not only because women's empowerment has been considered a goal in the development literature in its own right, but also because creating labor market opportunities for women could lead to different household outcomes. If, for example, more decision making power for women results in more investment in children's health, there is an additional reason for easing women's access to the labor market.

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Table 1: Household Characteristics in MxFLS*

	mean	sd	observations
Wife's education**	3.65	1.74	4181
Husband's education	3.93	2.05	4133
Wife's age in 2002	40.18	13.15	4188
Husband's age in 2002	43.54	14.12	4143
Wife working in 2002***	0.27	0.44	4188
Wife working in 2005	0.24	0.43	4188
Husband working 2002	0.77	0.42	4152
Husband working 2005	0.71	0.45	4131
Number of Children 2002****	1.88	1.61	4188
Number of Children 2005	1.75	1.52	4188
Number of decisions made by wife 2002	7.94	2.55	4188
Number of decisions made by wife 2005	7.85	2.51	4188
Number of decisions made by husband 2002	7.22	2.57	4188
Number of decisions made by husband 2005	6.94	2.68	4188

* These characteristics are only provided for the sample of analysis in this paper.
** Education data is divided into 10 categories. 1.No education, 2.Preschool, 3.Elementary , 4. Secondary, 5.Open secondary 6.High school, 7.Open high school, 8.Normal Basic, 9. College, and 10.Graduate.
*** This variable is 1 if the person participates in the labor market and 0 otherwise.
**** Children are those younger than 15 years old.

Table 2: Mexican Manufacturing Sector Characteristics in IMSS

	mean	min	max	sd	observations
Share of manufacturing sector in municipalities' composition of employment 2002	0.32	0.01	0.95	0.22	113 municipalities
Share of manufacturing sector in municipalities' composition of employment 2005	0.29	0.00	0.91	0.22	113 municipalities
Share of female labor within manufacturing sector across municipalities 2002	0.35	0.05	0.73	0.15	113 municipalities
Share of female labor within manufacturing sector across municipalities 2005	0.32	0.03	0.76	0.13	113 municipalities
Share of employment in female-intensive industries within manufacturing sector across municipalities 2002	0.44	0.00	1.00	0.34	113 municipalities
Share of employment in industries negatively affected by China joining the WTO within female-intensive industries in 2002	0.48	0.00	1.00	0.41	91 municipalities
National Share of female labor across three-digit manufacturing industries 2002	0.28	0.11	0.59	0.13	20 industries
National share of female labor across three-digit manufacturing industries 2005	0.28	0.11	0.59	0.13	20 industries
Growth in labor Demand in Different Categories of Industries					
Change in labor demand in female-intensive manufacturing industries	-0.01	-0.07	0.00	0.02	113 municipalities
Change in labor demand in male-intensive industries manufacturing industries	-0.01	-0.10	0.02	0.02	113 municipalities
Change in labor demand in other sectors of the economy	0.04	0.00	0.06	0.02	113 municipalities

Note: This table only covers the municipalities that are represented in the MxFLS and featured in my sample of analysis.

Table 3: The Effect of Labor Demand on Married Women's and Men's Chance of Employment

Dependent variable	Wife's Employment Status		Husband's Employment Status	
	(1)	(2)	(3)	(4)
Labor demand in female-intensive industries	1.74***	1.71***	0.85	0.86
	(0.49)	(0.49)	(0.74)	(0.74)
Labor demand in male-intensive industries	0.96	0.94	0.98*	0.98*
	(0.58)	(0.59)	(0.57)	(0.57)
Labor demand in other sectors	-0.59	-0.46	0.40	0.41
	(0.58)	(0.57)	(0.72)	(0.72)
State-specific time trend	No	Yes	No	Yes
Observations	5097	5097	5097	5097

Notes: Clustered standard errors are reported in parentheses.
* Significance at the 90 percent confidence level. ** Significance at the 95 percent confidence level. *** Significance at the 99 percent confidence level.

Table 4: The Effect of Labor Demand on Women's Relative Decision Making Power within Households

Dependent Variable:	Wife's Relative Decision Making Power				
	Reported by the Wife				Reported by the Husband
	(1)	(2)	(3)	(4)	(5)
Labor demand in female-intensive industries	7.46*	9.13**	7.46*	9.20**	7.41*
	(3.95)	(4.66)	(3.95)	(4.67)	(4.51)
Labor demand in male-intensive industries	-2.34	-1.42	-2.41	-1.45	-0.70
	(4.28)	(5.53)	(4.29)	(5.53)	(4.87)
Labor demand in other sectors	1.73	3.18	1.69	3.28	2.12
	(4.85)	(5.83)	(4.85)	(5.83)	(5.18)
Own labor income			0.01		-0.01
			(0.02)		(0.01)
Spouse's labor income			0.00	0.00	-0.01
			(0.00)	(0.00)	(0.01)
Own non-labor income	0.04	0.04	0.04	0.03	-0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.02)
Spouse's non-labor income	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	4188	2670	4188	2670	3286

Notes: Clustered standard errors are reported in parentheses. Controls include number of children and wife's and husband's age and education polynomials. Monetary values are reported in thousands of pesos.
* Significance at the 90 percent confidence level. ** Significance at the 95 percent confidence level. *** Significance at the 99 percent confidence level.

Table 5: The Effect of Labor Demand on Women's Relative Decision Making Power for Women in Different Age Categories

Dependent Variable:	Wife's Relative Decision Making Power (Reported by the Wife)					
	Age<55		Age<45		Age<35	
	(1)	(2)	(1)	(2)	(1)	(2)
Labor demand in female-intensive industries	9.56**	11.67**	10.62**	14.00**	12.34*	15.06**
	(4.40)	(5.21)	(5.15)	(6.17)	(6.32)	(7.66)
Labor demand in male-intensive industries	-4.61	-3.84	-7.55	-8.10	-6.51	-6.12
	(5.15)	(4.83)	(5.53)	(7.36)	(5.14)	(6.32)
Labor demand in other sectors	1.93	4.32	1.21	2.65	-3.58	0.07
	(5.44)	(6.50)	(6.43)	(8.59)	(7.56)	(9.38)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3536	2776	2175	1681	1622	1050

Notes: Clustered standard errors are reported in parentheses. Controls include number of children, wife's and husband's age and education polynomials, and wife and husband's labor and non-labor income.
* Significance at the 90 percent confidence level. ** Significance at the 95 percent confidence level. *** Significance at the 99 percent confidence level.

Table 6: The Effect of Labor Demand on Women's Relative Power over Individual Decisions (Reported by Women)

Dependent Variable:	Wife's Relative Power over The Decisions Made on ...					
	Her clothes	Money given to her parents	Her spouse's clothes	Money given to her spouse's parents	If she should work	If her spouse should work
Labor demand in female-intensive industries	0.21	1.59*	-1.05	1.28*	2.85***	2.38***
	(0.72)	(0.88)	(1.23)	(0.76)	(1.20)	(0.81)
Labor demand in male-intensive industries	0.15	0.78	-2.39*	-1.71**	-2.19*	-1.24
	(0.71)	(0.83)	(1.40)	(0.85)	(1.27)	(0.78)
Observations	4165	4165	4165	4165	4165	4165
	Food	Children's clothes	Children's education	Children's health and medicine	Strong expenditures	Using contraceptives
Labor demand in female-intensive industries	0.59	0.50	1.12	1.61*	0.84	0.53
	(0.82)	(0.94)	(0.69)	(0.77)	(0.95)	(0.53)
Labor demand in male-intensive industries	-0.22	-0.79	-0.20	-0.40	0.39	0.33
	(0.79)	(0.93)	(0.69)	(0.80)	(1.01)	(0.54)
Observations	4165	2940	2940	2940	4165	4165

Notes: Clustered standard errors are reported in parentheses. Controls include number of children, wife's and husband's age and education polynomials, and wife and husband's labor and non-labor income. Sample in the regression with the dependent variable being decisions made on children is composed of all couples in union with children less than 15 years old in 2002 and 2005. In other regressions the sample includes all couples in union. * Significance at the 90 percent confidence level. ** Significance at the 95 percent confidence level. *** Significance at the 99 percent confidence level.

Table 7: The Effect of Labor Demand on Women's Power over Different Sets of Decisions Made within Households

Dependent Variable:	Wife's Relative Power over The Decisions Made on ...			
	The Wife's Personal Goods and Services	The Husband's Personal Goods and Services	Public Goods and Services (including children)	Children
	(1)	(2)	(3)	(4)
Labor demand in female-intensive industries	3.06*	2.11*	1.54	1.83
	(1.72)	(1.24)	(1.99)	(1.65)
Labor demand in male-intensive industries	-5.13***	-4.29*	2.26*	-2.97
	(1.81)	(2.28)	(1.20)	(2.02)
Control for other sets of decisions	Yes	Yes	Yes	Yes
Observations	4166	4166	4166	2756

Notes: Clustered standard errors are reported in parentheses. Controls include number of children, wife's and husband's age and education polynomials, and wife and husband's labor and non-labor income. Sample in the regression with the dependent variable being decisions made on children is composed of all couples in union with children less than 15 years old in 2002 and 2005. In other regressions the sample includes all couples in union.
* Significance at the 90 percent confidence level. ** Significance at the 95 percent confidence level. *** Significance at the 99 percent confidence level.

Table 8: The Effect of Labor Demand on Children's Health

Dependent Variable:	Child's Reported Health Condition*				Child Reported Being Sick			
	All Children (1)	Girls (2)	Boys (3)	Girls (4)	All Children (5)	Girls (6)	Boys (7)	Girls (8)
Labor demand in female-intensive industries	1.51*	2.29**	0.70	1.54	-1.79**	-2.67**	-0.77	-2.22**
	(0.89)	(1.16)	(1.35)	(1.12)	(0.80)	(1.12)	(1.12)	(1.03)
Labor demand in male-intensive industries	-1.63*	-1.98*	-1.26	-1.43	-0.64	-0.43	-0.97	-1.07
	(0.83)	(1.13)	(1.24)	(1.09)	(0.76)	(1.00)	(1.19)	(1.04)
Mother's relative				0.02**				-0.01*
decision making power				(0.01)				(0.07)
Control for Child's Health Condition					Yes	Yes	Yes	Yes
Observations	4966	2496	2470	2496	4966	2496	2470	2496

Notes: Clustered standard errors are reported in parentheses. Controls include child's age polynomial, number of siblings, mother's and father's age and education polynomials, and mother's and father's labor and non-labor income. Sample in the regression is composed of all children who were younger than 15 in 2005, who live with their mother and father, and have data for both 2002 and 2005.

∗ A child's reported health condition could take a value between 1 and 5.

* Significance at the 90 percent confidence level. ** Significance at the 95 percent confidence level. *** Significance at the 99 percent confidence level.

Table 9: The Effect of Changes in Labor Demand in Female-Intensive Industries, Generated by China's Entry into the WTO, on Women's Relative Decision Making Power within Households

Dependent Variable:	Wife's Relative Decision Making Power (Reported by the Wife)					
	(Full sample)			(Non-working women)		
	OLS	Fisrt Stage	IV	OLS	Fisrt Stage	IV
	(1)	(2)	(3)	(4)	(5)	(6)
Share of female labor negatively affected by Chinese competition in female-intensive industries		-0.10***			-0.13***	
		(0.03)			(0.04)	
Employment in female-intensive industries	0.14***		4.37***	0.14**		3.07**
	(0.050)		(1.45)	(0.07)		(1.16)
Employment in male-intensive industries	-0.12**	0.45***	-2.05***	-0.03	0.45***	-0.12**
	(0.06)	(0.03)	(0.71)	(0.08)	(0.04)	(0.51)
Employment in other sectors	-0.02	0.02	-0.06	-0.01	0.03*	-0.07
	(0.02)	(0.01)	(0.06)	(0.02)	(0.01)	(0.06)
F Fisrt stage			14.626			18.942
Observations			3549			2244

Notes: Clustered standard errors are reported in parentheses. Controls include number of children, wife's and husband's age and education polynomials, and wife's and husband's labor and non-labor income. Employment is reported in 1000 employees.
* Significance at the 90 percent confidence level. ** Significance at the 95 percent confidence level. *** Significance at the 99 percent confidence level.