Parental Response to Changes in Return to Education for Children: The Case of Mexico *

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Abstract

Previous research has shown that school enrollment in developing countries responds to the changes in return to education generated by a change in demand in the export sector, that pays higher wages for a given skill level. Using data from Mexico, I show that the negative effects of a lower return to education are not limited to lower rates of school enrollment. Parents also respond to a decrease in the return to education for children, as a result of an increase in labor market opportunities for unskilled labor in the export sector, by reducing spending on children's education even while they are enrolled at school. This suggests that parents respond along the intensive margin as well as on the extensive margin.

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1 Introduction

Previous research has shown that school enrollment responds to the changes in return to education in a variety of developing countries.[1] However, we do not know much about whether other forms of investment in education, such as parental spending on children's education that could affect the quality of the education received by children, are also affected by the changes in return to education. This is important because, similar to the quantity of education, the quality of education could affect the labor market outcomes of students (Card and Krueger 1992; Betts 1995; Evans and Schwab 1995).[2]

This paper examines the effect of decreases in the return to education for children, generated by an increase in labor market opportunities for unskilled labor in the Mexican export manufacturing sector, on spending on children's education while they are enrolled at school. It has been shown in many emerging economies that firms in the export sector pay more for a given level of skill. In Mexico, most of the jobs in the export manufacturing sector are low-skill jobs and by paying more for these jobs the return to education goes down (Atkin 2012). I construct demand indexes for different gender-age categories and interpret the effect of changes in demand for the age group of 15-19 years old male and female labor (that is mostly composed of low-skill workers who have not finished high-school) on spending on children's education as the parental reaction to the decrease in return to education.[3] I do not have access to the education level of workers in my labor market data. However, in comparison with constructing demand indexes for low educated labor (if education data were available), looking at the changes in demand for very young (mostly unskilled) labor as a source of a change in return to education has the advantage that the effect is not mixed up with the effect of an increase in the bargaining power of older, married, women when demand for female labor goes up in the market (Majlesi 2012).

To do this, first, following Bartik (1991), Blanchard and Katz (1992), Bound and Holzer (2000), and Autor and Duggan (2003), and using data from the Social Security Institute of Mexico (IMSS), I construct demand indices that capture exogenous shifts in local labor demand for different gender-age categories: women and men in the age category of 15-19 years and women and men who are 20 years of age or older. The demand index for each

[1] Oster and Millet (2010) and Shastry (2010) document higher school enrollment in India as high-skill service export jobs are created. Atkin (2010) shows that school enrollment drops in Mexico as the result of higher wages offered to unskilled workers in the export manufacturing sector.

[2] Psacharopoulos and Patrinos (2004) provides a survey on the rate of return to the quantity of education.

[3] The labor market data comes in an aggregate form at the municipality-gender-age level and I have access to employment data for male and female labor in 5-year age categories: 15-19, 20-24, 25-29, etc.

gender-age-municipality cell is constructed based on the nationwide changes in employment of that gender-age category in different industries, weighted by the local labor market-specific shares of employment in each industry.

Next, I use two panel waves of the Mexican Family Life Survey to identify the effect of an increase in demand for young female and male labor on spending on children's schooling. I find that households reduce their expenditures on education-related expenses of their children while they are at school in response to the higher wages offered to unskilled workers in the export sector. The magnitudes I find suggest that a 1 percent increase in demand for female labor in the age category of 15-19 years old, caused by a demand shock to the export manufacturing sector, leads to a 5.2 percent decrease in the educational expenses for each schoolgirl. Also, a 1 percent increase in demand for male labor in the age category of 15-19 years old leads to a 8.2 percent decrease in the educational expenses for each schoolboy.

To shed more light into why educational expenses of children change, I also look at the changes in spending on two major components of educational expenses; school fees and cost of school materials. I find that increases in demand for young male labor reduces spending on school fees for schoolboys, that could result in lower quality of education received, but increases in demand for young female labor does not affect the school fees for schoolgirls. Cost of school materials is negatively affected for boys and girls as demand for young male and female labor goes up in the Mexican export manufacturing sector.

By focusing on the export sector, this paper contributes to the very recent literature on how the proliferation of export jobs changes the incentives to invest in education (Oster and Millet 2010; Shastry 2010; Jensen 2010; Atkin 2012). In recent decades, many developing countries have relied on exports for growth and, since education is considered a major determinant of long run growth (Lucas 1988), it is important to understand how investment in education responds to the growth in exports. The results of this paper imply that the negative effect of higher wages offered to unskilled workers is not limited to higher dropout rate and even if governments make policies to ensure students' education decisions remain unchanged by the arrival of new export jobs (as suggested in Atkin 2012), the quality of the education gained by children might be affected.

The remainder of this paper proceeds as follows. Section II discusses the data, empirical strategy, and empirical specification. Section III shows the results, and Section IV concludes.

2 Empirical Implementation

2.1 Data

This paper combines two datasets to examine how changes in demand for young, unskilled, labor within the Mexican export manufacturing sector affect households' spending on children's education. The household level data come from the Mexican Family Life Survey (MxFLS). MxFLS is a multi-thematic and 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. Table 1 shows some of the household characteristics in MxFLS. The data used in the paper (and presented in Table 1) does not include the extended households. Also, children are limited to the children of the parents in the household who are 15 years old or younger.

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.[4] The universal coverage of this dataset originates from the fact that IMSS provides health insurance and pension coverage and all employees must enroll.

To identify export manufacturing sector in the labor market data, I define a 3-digit manufacturing sector as an export sector if more than 50 percent of output was exported in year 2000. The export and output data come from the Trade, Production and Protection 1976-2004 database (Nicita and Olarreaga 2007).[5] The characteristics of the export sector in the IMSS data (for the municipalities represented in MxFLS) are summarized in Table 2.

2.1.1 Empirical Specification

In addition to the individual and household characteristics, I let demand for young unskilled labor in the export sector, that could change the return to investment in education, to be a potential determinant of spending children's education. For household i, the basic regression

[4]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.

[5]The industry categories used by IMSS and the 3-digit ISIC classification (Rev. 2) were matched by hand.

specification is:

$$q_{jimt} = \sum_a \beta_{f,a} D^E_{fem,a,m,t} + \sum_a \beta_{m,a} D^E_{male,a,m,t} + \beta D_{m,t} + \alpha x_{i,m,t} + \gamma_{i,m,t} + \delta_i + \epsilon_{jimt} \quad (1)$$

where q_{jimt} is outcome variable j, the natural logarithm of a variable representing spending on boys or girls education in household i in year t.[6] $D^E_{fem,a,m,t}$ and $D^E_{male,a,m,t}$ are demand for female and male labor belonging to age-category a in municipality m in export manufacturing sector (superscript E represents the export sector) and $D_{m,t}$ is demand for labor in all other sectors of the economy in municipality m. The argument in this paper is that, when a identifies the very young age-group, $D^E_{fem,a,m,t}$ and $D^E_{male,a,m,t}$ affect return to education for girls and boys respectively by paying more for (compared to the other sectors of the economy to the unskilled labor). The reason behind looking at sex-specific investment in children's education is the fact that, as discussed in Majlesi (2012), there is a segregated labor market for men and women. Some export industries like apparel and the manufacturing of electric systems are dominated by female labor and the share of female labor out of total labor remaines almost unchanged between 2002-2005. On the other hand, male labor constitutes the majority of labor in industries like car and truck manufacturing. As a further evidence, I also show in Majlesi (2012) that a shock to demand for female or male labor, only affects the wage rate and employment of the respective group and not the other. An implication of this segregation is that a shock to a particular industry mainly affects the labor market opportunities for female or male labor (not both) and, as a result, it is changes in demand for female (male) labor that could potentially affect investment in girls' (boys') education through changing return to education.

In the specification above, $x_{i,m,t}$ is total household expenditures. $\gamma_{i,m,t}$ is a set of controls for household characteristics, including the number of children by gender and age (0-5, 6-10, and 11-15 years) and each parent's age and education. δ_i represents the household fixed effect. By including household fixed effects in the reduced form regression I am able to control for the unobservable fixed household characteristics that could affect the household decisions. ϵ_{jimt} are unobservable determinants of the outcome variables.

One concern about the specification above could be that the households' income is ex-

[6]Having natural logarithm of the outcome variables as dependent variables allows easy interpretation of the empirical model coefficient estimates. However, the empirical results are robust to the choice of the form for dependent variables.

cluded from the regression. If changes in labor demand for young adults affect the dependent variables through changes in earned income, the coefficient estimates for the changes in labor demand would be biased.[7] However, in my estimation, the earned income is controlled for, by using total household income as an instrument for total expenditures. Usually it is the case that in datasets that report expenditures on high-frequency basis (e.g., monthly), one would observe unusually high or low expenditures on a consumption good. For example, if a household spends money on school materials for one of the household members in a given month, the same expenditure might not happen again for the next few months. When the dependent variable is spending on school material, this could induce a correlation between the error term and total expenditures. To deal with this, Browning and Chiappori (1998), among others, uses total household income as an instrument for total expenditures because it is correlated with aggregate household expenditures, but conditioning on it should have no effect on the distribution of expenditures. Therefore, in this paper, I exploit variation in total household income as an instrumental variable for variation in total expenditures.

2.2 Estimating Demand

One problem with using the change 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. To isolate changes in demand for different gender-age categories within each municipality, I use a methodology that 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 gender-age-municipality cell based on the nationwide changes in employment of that gender-age category in different industries, weighted by the local labor market-specific shares of employment in each industry. In other words, I exploit the fact that municipalities have different industrial composition and different gender-age groups play different roles in various export industries.

Predicted growth of labor employment within the export sector in the period 2002-2005 for gender g in age-category a residing in municipality m is given by:

[7] Although, one could think that the bias from not including the household income would be positive and the actual coefficient estimate for demand for young labor is more negative.

$$\begin{aligned} \hat{D^E}_{g,a,m,t} &= (D^E_{g,a,m,2005} - D^E_{g,a,m,2002}) \\ &= \sum_{k=1}^{K} \gamma_{k,m} \eta^{g,a}_{-m,k} \end{aligned} \tag{2}$$

K is the number of three-digit industries within export manufacturing sector and $\gamma_{k,m}$ is the fraction of workers in municipality m in year 2002 employed in industry k $\left(\frac{e_{m,k,2002}}{e_{m,2002}}\right)$. $\eta^{g,a}_{-m,k}$ is the log change in national employment of gender g-age category a labor in industry k between 2002 and 2005. The subscript $-m$ in $\eta^{g,a}_{-m,k}$ indicates that each municipality's industry k-gender g-age category a employment is excluded in calculating the national employment change.

This index is a weighted average of the growth in employment in the export manufacturing sector for each gender-age category in each municipality, where the weights represent the different distributions of employment across industries in each 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 a gender-age category in the export manufacturing sector 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 (2), the second term, the log change in national employment of gender g-age category a labor in industry k, 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 people employed in an industry live in a specific municipality, then one might think that the change in employment in other municipalities does not predict the change in demand in the industry. Looking at the share of each municipality in the employment mix of different industries reveals that, excluding Mexico City from the analysis, no municipality has a share bigger than 11 percent (followed by 8 percent) in the employment of any industry.[6]

Similarly, the predicted growth of demand for labor in all other sectors in municipality

[6]Even including Mexico City, which has the biggest share of employment in 7 industries among all municipalities, gives us a maximum of 19 percent.

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 export manufacturing sector, $\gamma_{l,m}$ is the fraction of workers in municipality m in year 2002 employed in industry l $\left(\frac{e_{m,l,2002}}{e_{m,2002}}\right)$, and $\eta_{-m,l}$ is the log change in national employment in industry l.

2.3 Outcome: Spending on Children's Education

IMSS does not report the education level of employees and it prevents constructing demand variables for different skill categories. Because of that, one cannot directly estimate the effect of changes in demand for skilled or unskilled labor on households' investment in their children's education using this data.

However, most of the jobs in the Mexican export manufacturing sector are low-skill jobs and (when compared to the other sectors of the economy) pay higher salaries for the same level of skills. This lowers the return to education. Atkin (2012) argues that during 1986-2000, an increase in the number of manufacturing export jobs decreased the perceived rate of return to education and induced children to drop out of high-school to get the new jobs. Based on Atkin (2012)'s estimates in year 2000 only around 20 percent of those worked in the export manufacturing sector had a high-school diploma.

If one assumes all the jobs created in the export manufacturing sector are low-skill (which is not the case since some of the highest skill jobs are also created in the same sector), interpreting the effect of changes in demand for labor in this sector on parents' investment in children as the effect of changes in return to education is problematic, as parental reaction to lower rate of return to education is confounded by the effect of changing parents' bargaining power within households (Majlesi 2012).

To circumvent this problem, I make use of the fact that the jobs created in the age group of 15-19 are mostly low-skill jobs (since most of the people in this category could not have possibly finished high-school and the ratio of workers with high school degree is

definitely much smaller in this age-category compared to the whole population of workers), and interpret the effect of changes in demand for that age category on investment in children's education as a proxy for parental response to a lower return to education.[7] Even if education information were available, an advantage of looking at demand for the $15-19$ age group, compared to demand for low-skill jobs in general, to predict parental response to a lower return to education is that I can look at the effect of an increase in jobs that arguably lower the return to education without worrying about confounding that effect with other factors, namely bargaining power of parents, since an increase in demand for very young single workers does not affect parents' bargaining power.

For each gender, I construct demand variables for two age-categories; $15-19$, and 20 years and older, using the methodology explained before. When the model is estimated with the dependant variable being spending on girls' education, in case that parents respond to the lower return to education by investing less in their children's education, I expect $\beta_{f,15-19} < 0$. If parents make the decisions only based on what happens to demand for very young females in the labor market, and not very young males, $\beta_{m,15-19}$ should not have a significant effect on the dependant variables. Similarly, when the dependant variable is investment in boys' education, I expect $\beta_{m,15-19} < 0$ with $\beta_{m,15-19}$ not having significant effect. If these predictions hold in data, it could be suggested that, controlling for other factors, an increase in low-skill export manufacturing jobs in general contributed to less spending on children's education.

One should notice that a more negative effect of an increase in demand for very young male (female) labor on spending on boys' (girls') education does not necessarily mean that parents respond more strongly for changes in return to education for boys (girls), since it could be the case that the jobs that are created for young male (female) labor decrease the return to education more than the jobs that are created for female (male) labor.

3 Results

In this section I show how parents change spending on children's education in response to an increase in demand for young, unskilled, labor in the export manufacturing sector and, as a result, changes in return to education. Table 2 shows the effect of changes in labor demand for different gender-age categories on the average educational expenses for each schoolgirl

[7] As the next step, I am trying to get the employment data for the age category of 15-17 to make sure that all people in my "young" age group are low-skill labor.

and schoolboy separately. The coefficient estimates in column (1) indicate that a 1 percent increase in demand for female labor in the age category of 15-19 years old, caused by a demand shock to the export manufacturing sector, leads to a 5.2 percent decrease in the educational expenses of each schoolgirl. Changes in demand for male workers (as well as older female labor) do not appear to affect spending on girls' education.[8]

Column (2) reports the same coefficient estimates when the dependent variable is the natural logarithm of the educational expenses for each schoolboy. The coefficient estimates indicate that a 1 percent increase in demand for male labor in the age category of 15-19 years old, caused by a demand shock to the export manufacturing sector, leads to a 8.2 percent decrease in the educational expenses for each schoolboy. Similar to the estimates in column (1), changes in demand for opposite sex labor do not affect spending on boy' education.

Increases in demand for older women do not seem to affect spending on education. However, as discussed before, it could be argued that this effect contains both the effect of changes in women's bargaining power (Majlesi 2012) and return to education and if the effect of return to education is big and negative it would overcome the effect of an increased bargaining power.

3.1 Disaggregating Spending on Education

In addition to spending on each child's education separately, MxFLS reports spending on two major categories of education as well; school enrollment fee and school materials. Analyzing the effect of changes in demand for young, unskilled, labor on these two categories could be helpful in analyzing what exactly changes when educational expenses go down.

The dependent variable in the first and second columns of Table 3 are the logarithm of the average school enrollment fee for each schoolgirl and schoolboy respectively. The coefficient estimates imply that changes in demand for young, unskilled, women do not affect the school enrollment fee for schoolgirls, while an increase in demand for young, unskilled, men negatively affects the school enrollment fee for schoolboys. More precisely, 1 percent increase in demand for male labor in the age category of 15-19 years old, caused by a demand shock to the export manufacturing sector, leads to a 8.8 percent decrease in spending on school enrollment fee for each schoolboy. If school enrollment fee is an indicator of the school quality,

[8]Note that these are the effects of a 1 percent increase in demand in the labor market, generated solely by demand shocks to the export sector. Given that in a typical Mexican municipality export manufacturing sector employs around 20 percent of workers, the effects are equivalent to the effect of a 5 percent increase in demand within the export manufacturing sector.

it might be the case that as demand for unskilled male labor in the export manufacturing sector rises, parents have less incentive to send their boys to higher quality schools.

Table 4 repeats the same analysis using the other component of spending on children's education, cost of school materials, as dependent variables. The coefficient estimates imply that a 1 percent increase in demand for female labor in the age category of 15-19 years old, caused by a demand shock to the export manufacturing sector, leads to a 4.9 percent decrease in spending on school materials for schoolgirls and a 1 percent increase in demand for male labor in the age category of 15-19 years old leads to a 4.5 percent decrease in spending on school materials for schoolboys.

The results here suggest that a lower return to education make parents to spend less on both school enrollment fees and school materials for boys but to only lower spending on school materials for girls. The reason for this could be that labor market returns to education is a more important determinant of investment in boys' education compared to girls'. However, it could also be the case that changes in demand for young male labor

3.2 Robustness Check

If it is the change in return to education that makes families to spend less on children's education, one would expect to see no changes in other types of spending on children as demand for very young labor goes up. Table 5 reports the coefficient estimates when the same empirical model is used and dependent variables are spending on girls' and boys' clothing. As expected, changes in demand for young labor does not affect how much households spend on children's clothing.

4 Conclusion

The previous research has shown that in many developing countries, including Mexico, export manufacturing sector pays more for a given level of skill and creating low-skill jobs in this sector lowers the return to education. This paper finds that an increase in demand for young (mostly unskilled) labor in the Mexican export manufacturing sector and, as a result, a decrease in return to education reduces spending on children's education while they are enrolled at school.

These results are important because they show that the negative effects of a decrease in return to education, caused by an increase in demand for unskilled labor in the export

manufacturing sector, are not limited to higher drop out rates (Atkin 2012) and government policies to keep students at school cannot address all aspects of the problem. The results in this paper suggest that an increase in demand for unskilled male labor leads to a reduction in school fees paid by parents, that could mean lower quality schools and education for boys. Also an increase in demand for both male and female unskilled labor lowers how much parents spend on school materials which could affect children's learning ability.

Since human capital is considered an important determinant of long-run growth, it is important for developing countries that rely on exports for growth to pay attention to the effects of the jobs created in this sector on incentives to invest in human capital.

In the next step, I will divide the changes in demand within the export manufacturing sector into demand for lower skill and higher skill industries and analyze the effect of each. If a lower return to education disincentives parents to spend on their children's education, one would expect to see a more negative effect on parental spending on education as the result of an increase in demand in lower skill industries.

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Table 1: Household Characteristics in MxFLS

Panel A: Year 2002			
	mean	sd	observations
Wife's education*	3.79	1.79	5467
Husband's education*	4.07	2.03	5291
Wife's age	38.18	9.075	5537
Husband's age	41.63	10.406	5487
Woman working**	0.29	0.45	5522
Man working**	0.89	0.40	5493
Number of boys***	1.32	1.37	4100
Number of girls***	1.49	1.96	4100

Panel B: Year 2005			
	mean	sd	observations
Wife's education*	3.82	1.84	5443
Husband's education*	4.09	2.03	4911
Wife working**	0.26	0.44	5479
Husband working**	0.87	0.47	5406
Number of boys***	1.35	1.48	4021
Number of girls***	1.53	2.14	4021

* 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 works outside home and 0 if not
*** Number of boys and girls is conditioned on families having children.
Note: The data does not include the extended households. Children are limited to the children of the parents in the household who are 15 years old or younger.

Table 2: The Effect of Labor Demand on The Educational Expenses of Children

	Dependent Variable: Ln (Educational expenses for each...)	
	Schoolgirl	Schoolboy
15-19 female	-5.162*	-3.029
	(3.031)	(4.319)
20 and older female	1.529	7.971*
	(4.565)	(4.411)
15-19 male	3.358	-8.275**
	(2.701)	(3.705)
20 and older male	-4.795	-1.871
	(3.887)	(2.561)
Demand in other sectors	3.608	5.833*
	(3.243)	(3.260)
Total HH expenditures	0.271***	0.397***
	(0.051)	(0.054)
Observations	2083	2137

Notes: Standard errors are clustered at the municipality level and reported in parentheses. Controls include wife's and husband's education, age, and number of children by gender and age group categories (0-5 years, 6-10 years, 11-15 years). Sample in the regression is composed of households with school age children in both periods. 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 3: The Effect of Labor Demand on The School Fee

	Dependent Variable: Ln (School enrollment fee for each...)	
	Schoolgirl	Schoolboy
15-19 female	-1.432	0.346
	(8.857)	(5.523)
20 and older female	-0.926	-2.120
	(8.842)	(7.425)
15-19 male	-3.554	-8.823**
	(4.292)	(4.390)
20 and older male	3.419	12.154
	(6.926)	(4.981)
Demand in other sectors	4.005	4.318
	(44.692)	(45.130)
Total HH expenditures	0.025	0.038
	(0.049)	(0.056)
Observations	2129	2186

Notes: Standard errors are clustered at the municipality level and reported in parentheses. Controls include wife's and husband's education, age, and number of children by gender and age group categories (0-5 years, 6-10 years, 11-15 years). Sample in the regression is composed of households with school age children in both periods. 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 4: The Effect of Labor Demand on School Material Expenditure

	Dependent Variable: Ln (Cost of school material fee for each...)	
	Schoolgirl	Schoolboy
15-19 female	-4.926*	2.813
	(2.863)	(4.999)
20 and older female	-6.678	2.039
	(4.727)	(6.574)
15-19 male	4.205	-4.544*
	(2.862)	(2.524)
20 and older male	6.787	1.445
	(4.703)	(5.712)
Demand in other sectors	3.392	1.945
	(36.329)	(43.470)
Total HH expenditures	0.060	0.237***
	(0.043)	(0.054)
Observations	2110	2173

Notes: Standard errors are clustered at the municipality level and reported in parentheses. Controls include wife's and husband's education, age, and number of children by gender and age group categories (0-5 years, 6-10 years, 11-15 years). Sample in the regression is composed of households with school age children in both periods. 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 Children's Clothing Expenditure

	Dependent Variable: Ln (Cost of clothing for each...)	
	girl	boy
15-19 female	-3.773	0.484
	(6.247)	(5.509)
20 and older female	4.110	-2.231
	(6.852)	(6.685)
15-19 male	-2.465	4.441
	(2.862)	(4.247)
20 and older male	2.504	-0.977
	(6.347)	(6.383)
Demand in other sectors	2.886	-2.391
	(5.074)	(4.676)
Total HH expenditures	0.004***	0.005***
	(0.0009)	(0.0007)
Observations	2952	2978

Notes: Standard errors are clustered at the municipality level and reported in parentheses. Controls include wife's and husband's education, age, and number of children by gender and age group categories (0-5 years, 6-10 years, 11-15 years). Sample in the regression is composed of households with school age children in both periods. 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.