

GENDER AND ETHNIC WAGE GAPS IN LATIN AMERICA

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Abstract

This paper presents an overview of gender and ethnic wage gaps in the 18 Latin American countries. To formally assess the extent to which these differences correspond to differences in characteristics, the wage gaps are decomposed using a matching comparisons methodology which is a non-parametric alternative to the Blinder-Oaxaca (BO) decomposition. The methodology pursued emphasizes the role of the differences in the supports of the distributions of observable characteristics. The failure to recognize those differences has been found to upwardly bias the estimates of unexplained differences in pay under the traditional BO setup.

After controlling for a set of observable characteristics, we find that men earn 20% more than females, with a high degree of cross-country heterogeneity. The unexplained gap is also higher in urban areas, among the older, informal, self employed and part-time workers. Women are more disadvantaged in comparison to men in households with children. Ethnic wage differences are also found to be larger than along the gender dimension. However educational attainment differential play an important role at explaining the gap. Still, unexplained wage gaps along the ethnic dimension are as larger as in the gender case. We do find evidence that part of the wage gap is explained by the fact that minorities are confronted to “glass-ceilings” in the labor market, failing to reach high-paid positions.

Keywords: gender, ethnicity, wage gaps, Latin America, matching.

JEL codes: C14, D31, J16, O54

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1. Introduction

Following a period of sustained economic growth and reductions on poverty incidence, Latin America and the Caribbean is still challenged with high inequality and lower well-being indicators among certain sectors of the population. Afro-descendants, indigenous peoples and women are often at the lowest economic percentiles, facing barriers to access sustainable income generating opportunities (Paes de Barros et al., 2009).

Gender and ethnic gaps in wealth and income are only some of the outcomes of a series of other disparities that occur at different markets and within households. The most salient of these can be found for instance in education, where not only attainment matters, but also quality. While there have been important advances towards gender parity on the former (Duryea et al., 2007), on the latter there is some evidence that differences have been increasing for recent cohorts (Calónico and Ñopo, 2007). Gender and ethnic differences exist also in labor market participation, unemployment and job turnover. These, voluntarily or involuntarily, reduce the possibilities of on-the-job human capital accumulation for individuals. Last, but not least, intra-household arrangements are likely to be unfavorable to women. Budget constrained parents have to decide, on the one hand, to invest lower (and perhaps differently) in their children's schooling, and on the other, on a division of labor that in general reduces the possibilities of females' labor force participation. All these disparities lead to differences in income generation capabilities, the outcome that has generated the largest share of analytical research.

In this paper we focus on the final outcome, wages. We attempt to provide both a comprehensive summary of the literature developed to date on gender and ethnic wage gaps in the region and a contemporary measure of those disparities. The measure we present is comparable across 18 Latin American countries and improves the methodological limitations of the prevailing empirical approach.

After this introduction, we devote Section 2 to the literature review. Then, the following section provides our contemporary estimates of both gender and ethnic wage gaps. Before presenting our estimations, Section 3 describes and explores some basic statistics of our data sources and highlights the basic features of the methodology used throughout the empirical analysis. Section 4 concludes and discusses areas for further study.

2. The Literature on Gender and Ethnic Gaps

With a significant degree of heterogeneity, the region has experienced recently a period of high growth GDP rates, an expansion of labor force participation, and some increase in real wages in the formal sector (ILO, 2007). However, unemployment and underemployment rates remain high and the quality of jobs has diminished. More workers are found to have no access to health and pension benefits, turnover rates have increased and temporary contracts have spread in the formal sector (Arias et al., 2005). While there are mixed indications on whether they are decreasing overtime, authors agree that gender and ethnic wage gaps still remain.

This section, dedicated to review the empirical literature on gender and ethnic wage differentials is divided into three parts. First, we examine how authors have analyzed the region's labor markets from a gender perspective, with an emphasis on wage gaps. The second part of this review is devoted to the ethnicity perspective. On the third part, we present some evidence that accounts for the interplay between gender and ethnicity. This section is mainly restricted to those pieces of the literature with a regional or multi-country approach. Significant country-specific contributions to this literature have been added in Annex I.

Gender wage gaps: going beyond human capital accumulation

Since the mid 80's the region has seen a stable increase of female labor force participation and currently, women account for approximately 52% of the region's labor force.¹ Recent evidence suggest that women's insertion into the labor market has been facilitated as a result of the region's economic growth, trade liberalization, rapid urbanization and changes in fertility patterns. (Psachapoulos and Tzannatos, 1992; Edwards and Roberts, 1993)

Duryea et al. (2004) highlight that the increase in female labor participation has been accompanied by a slow but steady rise in relative wages for nearly two decades, allowing women in most countries to contribute around one third of households' income. However, in many countries in the region, women are more likely to hold low-paid occupations (Marquez and Prada, 2007), and gender wage gaps, as this paper will show, remain substantial.

As detailed in Table A3 in the Annex, the region's gender wage differentials have evolved heterogeneously. While up to the late 50's gaps in Latin American region was smaller than in other regions, the situation reversed from 1960 onwards (Frankema, 2008). Nowadays, the World Economic Forum ranks the region as the 3rd most unequal region (among 9) in Economic Participation and Opportunity of women in relation to men (Hausman et al. 2008).²

Several authors have attempted to explain the sources of gender wage differentials in the region, exploring issues such as differences in human capital endowments, individual characteristics; regulation (Lim, 2002; Madrigal, 2004; Cruces and Galiani, 2007; Urdinola, 2006) and occupational segregation (Deutsch et al., 2004; Tenjo, 2006), among others.

By the middle of the 2000 decade most Latin American countries have been able to close the education attainment gender gap (Duryea et al., 2007; Hausman, 2008). Moreover,

¹ From these, around 10% are unemployed; almost 10% work in the agriculture sector, 14% in industry and 76% in the service sectors. The latter is significantly higher than in other regions of the world (OIT, 2007).

² This ranking is based on an index that encompasses other variables beyond wage disparities. The index also includes differences in labor participation and access to certain type of occupations as legislators, senior officials and managers and professional and technical workers. For more details, see Hausman et al (2008).

Hertz et al. (2008) establish that women are found to have higher educational attainments than their male counterparts. Therefore women should be found to earn more than males if educational attainment was equally rewarded in the labor market. In an analysis of fifteen countries in the region, Psacharopoulos and Tzannatos (1992) showed that human capital accounted for one-third of the wage differential leaving a large portion of the wage gaps unexplained.

The literature has also attempted to relate gender wage gaps to differences in income generating opportunities available in urban and rural areas. However, no clear link can be found (Hertz et al, 2008).

Still, some empirical research has been able to provide some interesting insights about the linkages between wage differentials and the differences in types of jobs men and women get. For instance, the sector – private or public – may influence the size of the differential. A review of 13 countries in Latin America found that women are paid less than men in both sectors, but the gap seemed to be, on average, larger in the private one (Panizza and Qiang, 2009). Linked to this private-public sorting, the notion of occupational segregation has been thoroughly analyzed. It refers to the overrepresentation or underrepresentation of a group – women, men, youth, or ethnic groups – in a specific activity, and its linkage with wage differentials in the region. Most studies agree that, in an effort to manage their housework and childcare responsibilities, women may permanently or temporarily withdraw from the labor market, diminishing their work experience; choose occupations with flexible or relatively less working hours (Tenjo 2006), or invest less in education or on-the-job training (Terrel 1992). As a result, women would be mostly concentrated in low-paid jobs or face higher barriers when attempting to reach higher level (better paid) positions.

Nevertheless, this may only explain part of the wage gap in the region. For instance, in Costa Rica, Ecuador and Uruguay, high and persistent levels of occupation segregation have been found to explain only a small portion of earnings differentials (Deutsch et al (2004). Moreover, a comparative study between Brazil and Mexico showed that despite higher levels of gender occupational segregation in Mexico, gender wage gaps were wider in Brazil (Salas and Leite, 2007).

Currently, women have an important presence in the region's informal sector and some authors have argued that this fact may provide a potential explanation for wage disparities. A contributing fact to this argument has been that gender wage gaps are larger in the informal sector than in the formal one. Plausible explanations include the small impact of education on wages in the informal sector, contrasting with the larger effect of experience, where for the most part, women have a disadvantage over men (Freije, 2009). Furthermore, looking closely at the region's self-employed, it seems that although there might be no real difference self-employed rates among males and females, there are considerable differences in the quality of self-employment, measured in terms of average earnings, conditions of work and income security (Barrientos, 2002).

Additional pieces of literature have discussed the role of regulation, such as maternity laws, gender quotas and employer child care as important drivers for wage gaps. Created to protect and provide flexibility for women in certain occupations, certain labor legislation such as maternity leave and pregnancy protection laws increase women's non-wage labor costs and therefore may be the cause wage disparities. However, the empirical evidence on this respect is not clear (Urdinola and Wodon, 2006). Other policies such as access to affordable childcare, as well as programs to prevent domestic violence are found to be positively correlated with increases in both female labor force participation and earnings (Deutsch et al., 2004).

The discussion has also stressed that differentials may respond to women's roles in society which, regardless of their skill levels and/or potential, led them to choose careers in low productive sectors, and limited hours-low-skilled occupations (Arraigada, 1997; Tenjo, 2006; Contreras and Plaza, 2004).

Ethnic wage gaps: access and quality of education

According to national statistics there are approximately between 28 and 34 million indigenous peoples in the region; roughly 10% of the population (Patrinos and Hall, 2005). In all countries, these groups are disproportionately represented among the poor and extreme poor; a situation which has not changed significantly overtime. Since the 1990's, despite decreasing poverty rates in most countries in the region, the poverty gap between indigenous and non-indigenous groups either reduced at a significantly slower pace, in comparison to the rest of the population, or increased, like the case of Bolivia. (Psacharopoulos and Patrinos, 1994; Jimenez et al., 2005).

On average, between 63% and 69% of the indigenous population are economically active, overrepresented in agriculture and among the self-employed. Despite increasing levels of labor force participation over time, their salaries are in most countries, significantly lower than their non-indigenous peers. In the last decade this gap has been narrowing, but remains significantly high for countries such as Bolivia, Brazil, Guatemala and Chile. (ILO, 2007).

Although gender wage gaps have been subject of a series of analytical work, the study of ethnic wage gaps has been somewhat constrained. Part of the explanation includes the limitation of data availability especially in household surveys and national census. Currently, only nine countries in Latin America have integrated an "ethnic" question in their national censuses.³ Likewise, another important constraint is the significant number of individuals belonging to ethnic minorities who have not been registered and/or lack an identity document. Despite these constraints, important efforts have been developed.

Attempts to explain ethnic gaps have analyzed differences in human capital, especially education, but also differences in other individual characteristics such as age, migratory condition, and the interplay of ethnicity and gender. Despite improvements in educational achievements, indigenous groups are still found to earn significantly less than their non-

³ These questions usually refer to mother tongue or self-ascription to an ethnic group. CEPAL.

indigenous counterparts (Psacharopoulos, 1992b). Although for some countries the fact that indigenous peoples present the lowest education indicators might explain to some degree persistent ethnic wage differentials; in others, only half of the wage gap is explained by productive characteristics (Patrinos, 2000). Authors have gone beyond school accumulation, to explore other indicators such as quality of education - measured in terms of certification of teachers, teacher/pupil ratio, pertinence of materials - (Rangel, 2004), as potential drivers of ethnic wage differentials in the region. Similarly, analysis have been carried out considering differences in returns by levels of education. Still, most of the differential remains unexplained (Patrinos, 2006).

Sector employment and differences in occupations between indigenous and non-indigenous groups have been identified as a post-market barrier to the labor market, where indigenous groups, tend to be concentrated in low-paid sector, as well as low-skilled, low-paid jobs (Rangel, 2004). One potential explanation could be given by the impact of social networks, which especially among migrants may have a significant influence on the economic sector, type and even quality of the job indigenous groups get. However, this fact is subject to a significant degree of heterogeneity among countries, and between ethnic groups in a country (Fazio, 2007; Patrinos, 2006).

The impact of dominant language proficiency, as well as regional differences (urban/rural, north/south) are among the other potential issues discussed in the literature, mainly in country case studies (Chiswick and Patrinos, 2000 and Contreras and Galvan, 2003)). There are still important issues that remain unexplored, as for instance the significant source of rural income that comes from unwaged labor among non-indigenous people. Also, further regional analysis is pending regarding indigenous peoples in urban areas, their occupations, migratory patterns, sources of income and social capital dynamics.

Further research is needed in order to draw any regional patterns or definite conclusions. In many topic areas studies have constrained their analysis to country case studies, limiting their conclusions to a specific labor market and wage structure. However, most authors agree that albeit that additional research is needed to explain the up-to-date “unexplained” portion of ethnic wages differential, human capital endowments are still a critical component. In other words, important progress could be done if interventions were concentrated in improving human capital accumulation among indigenous peoples, while exploring additional complementary policies to increase their return on these investments (Patrinos, 2006).

Indigenous women represent between 20% and 35% of the population in countries like Bolivia and Guatemala, and between 0.2% and 5% in Brazil, Ecuador and Panama. They represent, however, around 25-50% of the economically active population, not including unpaid work (Calla, 2007). Despite improvements in female labor force participation and earnings, indigenous women persistently remain at the bottom tier, showing the highest levels of poverty and exclusion (Piras, 2004). For instance, in spite of their important achievements in education and occupational attainment, afro-Brazilian women continue

to earn significant less than men, even within their ethnic group (Lovell, 1999). Contreras and Galvan (2003) also state that in Bolivia, being indigenous and female is considered the most unfavorable condition when entering the labor market and securing wages.

We turn next to analyze contemporary and comparable measures of gender and ethnic wage gaps in the region, in an attempt to complement the existing literature with contemporary, extensive, and methodologically refined measures both along the gender and ethnic dimension.

3. A Harmonized Measure of Wage Gap Decompositions for the Region

In this section, we follow non-parametric wage gap decompositions in order to disentangle which part of the observed gaps is explained by differences in observable characteristics. The data sources are the National Household Surveys of 18 countries in the region circa 2005: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Paraguay, El Salvador, Uruguay and Venezuela.⁴ Every data set is representative at the national level with the sole exception of Argentina and Uruguay which have only urban representativeness. Each national survey is being considered with its sampling expansion factors such that, when expanded, each data set represents the working population of its country. The analysis that follows is focused on wage earners between 18 and 65. Pooling all data sources leads to a single data set that is representative for most of Latin America's working population.⁵

As the gender variable is present in all national data sources, the gender wage gap analysis is performed for the whole sample of countries listed above. However, the information on ethnicity is not present in all surveys and we are able to use it in only 7 of the 18 countries: Bolivia, Brazil, Chile, Ecuador, Guatemala, Paraguay and Peru. These countries represent almost 55% of Latin American population. Along the ethnic dimension, individuals are classified as either minority or non minority, depending on the specific ethnic groups that each survey considers. Ethnic minorities are defined by individuals' self assessment of being part of an indigenous group in Bolivia, Chile, Ecuador, Guatemala and Peru, by the skin color in the case of Brazil and by the mother tongue in Paraguay. The details of this classification are presented in table A2 of the Annex.

⁴ The precise description of each data source with the exact year chosen for the analysis is shown in Table A1 of the Appendix.

⁵ We also excluded from the data set all the observations for which hourly income or at least one of the characteristics used below as control variables was missing. Additionally, we excluded observations with outliers on hourly income. Also, in the case of Guatemala, the data is restricted to people with full time jobs (i.e. working more than 35 hours a week).

3.1. Descriptive Statistics: Gender and Ethnic Disparities in Wages but in Observable Human Capital Characteristics as well.

On average men are found to earn 9.5% more than women in the region, while non-minorities earn a striking 38.3% more than minorities.⁶ These and other results are provided in Table 1, which gives raw measures of wage disparities along the gender and ethnic dimension for the whole sample of wage earners between 18 and 65.

Column 1 and 2 shows average wages of each corresponding group as a percentage of female's average wage. Men earn more than women at any age, for each level of education and in any type of employment (salaried workers, employers and employees). Only female in rural areas are found to earn on average the same as their male counterparts. The persistence of disparities on each different subgroup also holds on the ethnic dimension, as seen in Column 3 and 4 which present average wages as a percentage of minorities'. Moreover, ethnic wage gaps do appear both in urban and rural areas.

Table 1: Gender and Ethnic Wage Gaps

	(Base: Average female wage = 100)		(Base: Average minority wage = 100)	
	Male (1)	Female (2)	Non Minority (3)	Minority (4)
All	109.52	100.00	138.25	100.00
Age				
18 to 24	79.45	75.07	98.82	77.87
25 to 34	106.18	100.96	134.11	98.19
35 to 44	121.89	108.70	149.90	109.49
45 to 54	126.50	111.21	160.25	113.40
55 to 65	112.29	97.63	151.68	100.10
Education				
None or Primary Incomplete	72.08	70.15	108.63	74.43
Primary Complete or Secondary Incomplete	94.98	75.99	113.58	90.86
Secondary Complete or Tertiary Incomplete	141.71	118.54	156.05	127.43
Tertiary Complete	203.66	180.79	225.70	160.85
Area				
Rural	89.04	89.77	92.85	67.89
Urban	117.42	102.34	146.17	108.24
Type of Employment				
Employer	164.33	142.17	265.49	215.77
Self - Employed	96.45	89.88	135.75	94.82
Employee	109.92	101.84	131.26	97.96

Source: Author's calculations using Household Surveys.

A first look at some of the observable characteristics of individuals in the data set reveals remarkable gender and ethnic differences that are likely to be related with the wage gaps presented above (see Table 2). For instance, women are underrepresented -in relation to men- in employer positions and overrepresented in some occupations like service workers. Noticeable economic sector differences also appear. Still, as already pointed out

⁶ We use information of wages from the primary occupation. Wages are normalized used PPP exchange rates to 2002 dollars.

by Hertz et al. (2008), women wage-earners in the region are more educated than men: for instance, 46 % percent of women wage-earners have completed secondary school compared to only 34% of men. Disparities in the type of employment, economic sector and occupation also appear along the ethnic dimension. However, ethnic minorities show significantly lower educational attainments than non-minorities.

Table 2: Descriptive Statistics

	Men	Women	Non Minority	Minority
Age	37.18	36.74	37.32	36.47
Education (%)				
None or Primary Incomplete	21.41	16.46	15.05	25.09
Primary Complete or Secondary Incomplete	44.30	37.64	38.72	42.94
Secondary Complete or Tertiary Incomplete	28.74	37.39	38.15	27.41
Tertiary Complete	5.54	8.52	8.08	4.56
Urban (%)	73.03	82.38	86.26	80.12
Type of Employment (%)				
Employer	6.39	3.29	5.19	2.63
Self - Employed	27.62	25.38	24.40	27.89
Employee	65.99	71.33	70.41	69.49
Occupation (%)*				
Professionals and technicians	10.77	18.01	19.17	11.16
Directors and upper management	3.88	3.55	6.81	2.82
Administrative personnel and intermediary level	5.08	10.71	10.86	7.33
Merchants and sellers	8.80	15.02	10.66	10.39
Service workers	11.70	31.44	17.65	24.82
Agricultural workers and similar	14.35	6.74	8.29	13.94
Non-agricultural blue-collars, drivers and similar	30.34	8.43	25.06	27.87
Armed forces	0.86	0.08	0.01	0.00
Occupations not classified above	14.21	6.02	1.50	1.66
Economic Sector (%)**				
Agriculture, Hunting, Forestry and Fishing	17.05	3.35	9.49	14.19
Mining and Quarrying	0.99	0.19	0.70	0.68
Manufacturing	16.56	14.47	16.17	14.13
Electricity, Gas and Water supply	0.87	0.24	0.68	0.53
Construction	11.93	0.83	6.88	9.61
Wholesale and Retail Trade and Hotels and Restaurants	21.13	25.96	23.24	21.39
Transport, Storage	8.71	1.99	6.26	5.27
Financing Insurance, Real Estate and Business Services	2.90	3.06	3.63	1.76
Community, Social and Personal Services	19.85	49.91	32.95	32.43

Source: Author's calculations based on Household Surveys.

* Occupation is not available for Argentina, Dominican Republic, Ecuador, Guatemala, Panama and Peru

**Economic sector is not available for Dominican Republic, Guatemala, Peru and Uruguay.

Having seen the differences in observable human capital and job characteristics, and their potential linkage to wage differentials, we turn next to explore formally the role of these differences in wage gaps. In the next section, we briefly describe the methodology pursued. Then, results for the gender wage gap analysis are presented, followed by the analysis on the ethnic dimension.

3.2. Empirical Methodology

In the same spirit of the Blinder-Oaxaca (BO) decomposition (Blinder, 1973; Oaxaca, 1973), our aim is to explore the extent to which gender and ethnic wage gaps can be attributed to differences in observable characteristics. Even though the BO decomposition is the prevailing approach used in the empirical work on wage gaps, the literature has extensively documented its many drawbacks. For instance, the relationship governing characteristics and wages is not necessarily linear and recent data has been found to violate key implications of the Mincerian model (Hansen and Wahlberg, 1999 and Heckman, Lochner and Todd 2001). Also, BO is informative only about the average decomposition, and therefore gives no clues about the distribution of the components (Jenkins 1994, DiNardo, Fortin and Lemieux 1996 and Donald, Green and Paarsch 2000). Third, as noted by Barsky et al. (2001), BO fails in restricting the comparison to comparable individuals which is likely to substantially bias the results.

The econometric procedure pursued in this paper, introduced in Ñopo (2008), is an extension to the BO decomposition on the basis of a non-parametric matching technique. In the case of gender gap, all females and males showing exactly the same combination of a set of characteristics (control variables) are matched (an equivalent procedure is done in the case of the ethnic gap). The control variables used are discrete so the match is done perfectly and there is no need for any notion of distance. The wage gap Δ , which will be expressed as a percentage of the average wage of the correspondent base group (women and ethnic minorities), is decomposed into four additive elements:

$$\Delta = (\Delta_X + \Delta_M + \Delta_F) + \Delta_0$$

As in the BO decomposition, one component of the gap, Δ_X , is attributed to the differences in the distribution of characteristics of males and females. However, the procedure takes into account that not every combination of characteristics found among men is realized among women (and vice-versa). Therefore, the computation of Δ_X is restricted those males and females for which their characteristics lie in the common support of both characteristic's distributions. In turn, Δ_M is the portion of the gap that is due to the existence of males in the uncommon support, which are males with a combination of characteristics that is not met by any women (for instance, highly educated young workers filling high-profile positions like CEOs). Analogously, Δ_F is the portion of the gap that is due to the existence of females with characteristics that cannot be matched to male characteristics (as may be for instance old and low-skilled domestic workers). That is, Δ_M and Δ_F are two components of the wage gap that exist because the supports of the sets of observable characteristics of males and females do not completely overlap. The sum of first three components, $\Delta_X + \Delta_M + \Delta_F$, is the portion of the gap that can be attributed to differences in observable characteristics. Finally, Δ_0 is the portion of the gap that can not be explained by those characteristics and could be attributable to differences in unobservable characteristics, being discrimination possibly one of them. The reader is referred to Ñopo (2008) for technical details on the matching procedure and the asymptotic consistency of the estimators.

3.3. Gender Wage Gap Decompositions

The decompositions consider 8 possible sets of observable characteristics as control variables. Each set results from adding a new characteristic to the previous one, sequentially. The characteristics are added in an order that considers first those that are likely to be less endogenous to wages. The full set of control variables (in the order included in the matching exercise) are the following: age, education; presence of children in the household (dummy), presence of other wage earner in the household (dummy), urban area (dummy), type of employment (which could be self-employed, employer or salaried worker), part-time work (dummy) and formality status.⁷ Country of residence is another implicit control variable, as we only match individuals within the same country. Table 3 provides the results of the gender wage gap decomposition.

Table 3: Gender Wage Gap Decompositions

	Age	+ education	+ children	+ other with income	+ urban	+ type of empl.	+ part-time	+ formality
Δ	9.52%	9.52%	9.52%	9.52%	9.52%	9.52%	9.52%	9.52%
Δ_0	8.44%	17.05%	16.93%	17.02%	18.23%	16.41%	25.29%	23.05%
Δ_M	0.00%	0.08%	0.20%	0.26%	-0.51%	0.29%	-0.15%	0.32%
Δ_F	0.00%	-0.03%	-0.11%	-0.30%	-0.43%	-0.74%	-2.12%	-3.00%
Δ_X	1.08%	-7.59%	-7.50%	-7.46%	-7.77%	-6.44%	-13.50%	-10.84%
% Men in the Common Support	100.00%	99.82%	99.38%	97.91%	94.94%	88.66%	84.30%	79.78%
% Women in the Common Support	100.00%	99.94%	99.79%	99.43%	98.49%	96.24%	89.76%	86.33%

Source: Author's calculations based on Household Surveys.

After controlling only for age, most of the gender wage gap is unexplained (that is, most of Δ is captured by Δ_0). Only 1 % out of the 9.5% gap can be explained by the fact that the distribution of age is different between male and females in a way that is favorable to men. However, after controlling for education, the unexplained component of the gender wage gap actually surpasses the original gap. This result suggests if males and females had the same distribution of age and education, the gender gap would be even wider than its original level, jumping from 9.5% to 17% of average female wages. This reflects the fact that female workers have higher educational attainment than males, as previously noticed in Table 1.

Furthermore, the unexplained wage gap remains higher than the raw gap after controlling for each subsequent set of controls and even widens substantially after controlling by part-time work. On the one hand, women are overrepresented in part-time positions, and also part-time workers have higher hourly wages than full time workers. The exercise that controls by the full set of observable characteristics suggests that the unexplained gender wage gap reaches 23% of average female wages. Indeed, the portion explained by the individual characteristics over the common support (Δ_x) is negative, close to -11%. This means that should women have the same distributions of characteristics than men (over the common support), the wage gap would jump from 9.5% to more than 20%.

⁷ A job is defined to be part-time if working hours are less than 30. A worker is considered to be formal whenever he/she has social security coverage with the sole exception of Dominican Republic where workers considered as formal are the ones reporting having a contract.

The last two rows of Table 3 provide the percentage of male and females in the common support for each set of characteristics. The common support shrinks when the number of matching variables increases as the likelihood of finding appropriate matches for the individuals gets reduced. However, differences in the support of characteristic's distribution do not play a major role in explaining the wage gap as both Δ_M and Δ_F are low in magnitude.

As previously pointed out, an advantage of the matching approach over the traditional regression-based decompositions is that it is informative not only about the average unexplained gap but it also allows the exploration of its distribution over the sample. For instance, Table 4 provides evidence of substantial country heterogeneity that is hidden behind the averages reported in Table 3. We provide measures of the raw gap and the unexplained component after controlling for age and education and after controlling for the whole set of matching variables.

Table 4: Raw and Unexplained Gender Wage Gap, by Country

Country	Δ [%]	Δ_0 [%]	
		Age and education	Full Set
Argentina	0.7	14.6**	12.3**
Bolivia	-5.5	-1.8	7.6*
Brazil	20	29.4**	34.9**
Chile	9.5	18.1**	19.3**
Colombia	-5.7	7**	11.3**
Costa Rica	-5.9	13.6**	19.2**
Dominican Republic	4	20.4**	24.1**
Ecuador	-3.2	16.4**	15.9**
Guatemala	-3.3	0.3	3.7*
Honduras	4.1	15.7**	29.5**
Mexico	2.6	7.8**	16.6**
Nicaragua	3.1	22.8**	28.5**
Panama	-8.6	13.6**	19.6**
Peru	19.3	19**	24**
Paraguay	18	21.9**	18.1**
El Salvador	4	10.7**	16.8**
Uruguay	5.6	26.3**	27.6**
Venezuela	0.4	13.9**	21.6**
Pooled Data	9.50	17.1**	23.05**

Source: Author's calculations using Household Surveys.

* significant at the 90% level

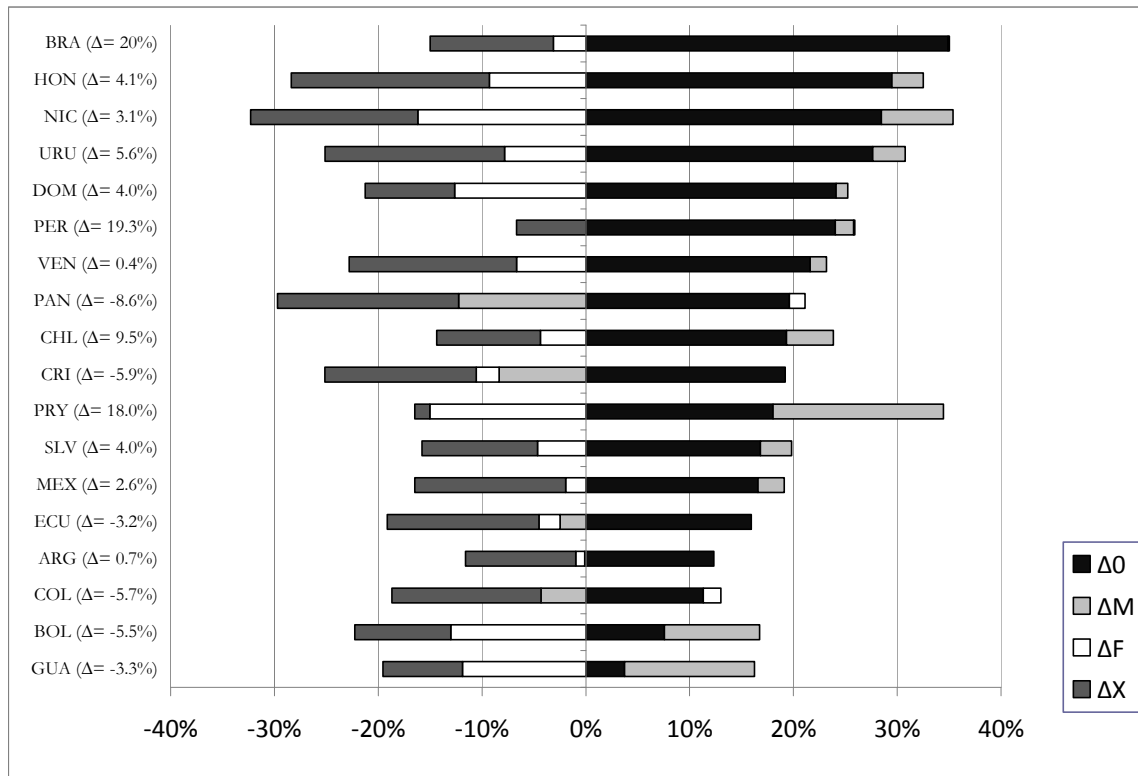
**significant at the 99% level

In the first specification, Δ_0 is null in Guatemala and Bolivia while it reaches 29.4% in Brazil. The influence of controlling by education varies significantly from country to country. While in Peru the unexplained gap is almost equal to the raw gap, in Argentina the former is 20 times the later. The gender differences in educational attainment for both countries differ substantially. For instance, in Argentina 25% of females in the sample

completed tertiary education, compared to only 12% of males. In Peru however, 21% of females and 16% of males reached tertiary education.

Next, we present the four components of the wage gap by country (sorted by the magnitude of the unexplained component), for the specification with the richer set of control variables. Beyond the heterogeneity in the magnitudes of every component, interesting qualitative patterns arise. Importantly, the portion of the gap attributable to differences in distributions of observable characteristics over the common support (Δ_X) is negative in every country (see Figure 1). This reflects that in every country women have combinations of human capital characteristics that have higher payoff in the labor markets than the characteristics of males (in particular, educational attainment)

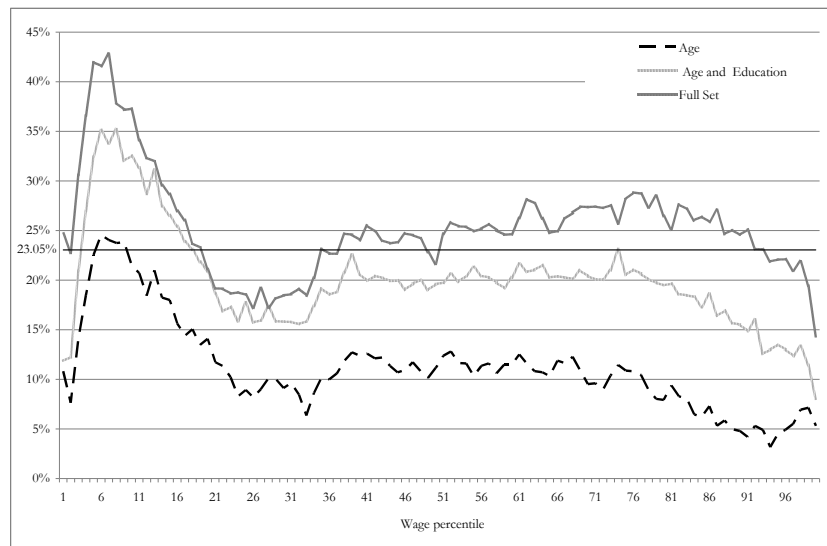
Figure 1: Gender Wage Gaps Decompositions
By Country



Source: Author's Calculations using Household Surveys.

In Figure 2 we explore another source of heterogeneity, as we differentiate the unexplained component of the gap by percentile of the earnings distribution. The gap is expressed as a percentage of the average female's earning in each decile.

Figure 2.
Unexplained Gender Wage Gap by Percentiles of the Wage Distribution



Source: Author's Calculations using Household Surveys.

We identify a sharp increase in the unexplained component in the lower extreme of the distribution, which is followed by a sharp decrease after the 6th percentile, a somewhat flat or slightly increasing pattern in the middle and a negative slope in the upper tail of the distribution. When controlling for the full set of characteristics, the unexplained gap is significantly above the average (showed in the horizontal line) from the 1st to the 20th percentile of wage's distribution and slightly above the average between the 37th and 90th percentile.

More comparisons of the unexplained wage gap along different subgroups of the sample are provided in Figure A1 in the Annex. In a related result to the previous findings regarding wage distribution, the unexplained wage gap is lower among those with tertiary education. One possible explanation is that more educated women fill positions in firms where there is less room to discretionary wage settings. This hypothesis is supported by the fact that the unexplained wage gap is found to be lower among formal workers.

The unexplained wage gap increases with age, which could be explained by a cohort effect, which would lead us to conclude that wage gaps are narrowing through time. However, this could also be due to the effect of some unobservable characteristics, like experience, for which gender differences are likely to be correlated with age. Differences in accumulated experience could be exacerbated as women age and have children. Indeed, we find that the unexplained component of the gender gap is higher among workers with kids.

On average, part-time workers are found to earn higher hourly wages than full time workers. However, our results also provide evidence that the part-time wage premium is higher among men than among women. Logit estimations for the probability of having

part-time work allow us to derive some interpretations for this result (see Table A3 in the Annex). Every control variable, but the presence of kids in the household, works in the same direction when explaining the probability of being part-time for both men and women. However, while the presence of kids in the household significantly increases the probability of women to have a part-time work, the contrary happens for men. While the former seem constrained by the presence of children in the household to get a full time job, the latter are more likely to work part-time when they have no children and thus the financial pressure is lower. Women could be seen as valuing part-time work for the flexibility it provides to accomplish child-care duties rather than the extra hourly wage they may get.

An unexplained wage gaps exist, and it is even higher, among the self employed. This contradicts the common view that gender wage gaps are most likely to be found due to employer-based discrimination.

Occupation and economic sector segregation

One avenue pursued in the research on gender wage gaps has been to determine whether there are some that are highly paid of occupations, as for instance directors or upper management positions that women fail to achieve. In that case, it would be stated that part of the wage gap is attributable to the existence of occupational segregation in the labor market. Economic sector segregation could also be in place, as women may fail to get jobs in highly paid sectors. As seen in Table 2, there are indeed noticeable gender differences in both the allocation of labor by occupation and economic sector.

In this section we include the results of an exercise that adds the occupation and economic sector to the previous set of matching variables. The reason to separate this analysis from the one showed above is mostly a practical one as the data on occupation or economic sector is missing in Argentina, Dominican Republic, Ecuador, Guatemala, Panama, Peru and Uruguay. Therefore the analysis that follows lives asides the aforementioned countries.

Table 5 shows the results of adding occupation and economic sector. Note first that the average raw wage gap is higher among the countries considered here than in the whole sample.⁸ However, the results depicted in Table 3 hold when controlling for the same set of characteristics. After adding all the control variables until formality, the unexplained gap is equal to 23% of average female wages.

The addition of economic sector does not reduce the unexplained portion of the gap. Also, when adding occupation, the gap decreases slightly, but is still high, close to 21%. This findings challenge the existence of occupation segregation, reinforcing previous evidence in this matter (Barrientos, 2002). Economic sector segregation also fails in explaining the gender gaps. Our results show that even if the gender differences in labor allocation between occupations are sector are large, they are not a source of wage

⁸ This is due to the higher representativeness that countries with higher gaps as for instance Brazil and Paraguay

differentials. However, as expected, the common support noticeably shrinks. Almost 65% of males do not have a female counterpart sharing the same combination of characteristics and for 45% of females we are not able to find a single men that has the exactly the same characteristics.

Table 5: Gender Wage Gap Decompositions

	Age	+ education	+ children	+ other with income	+ urban	+ type of empl.	+ part-time	+ formality	+ sector	+ occupation
Δ	11.05%	11.05%	11.05%	11.05%	11.05%	11.05%	11.05%	11.05%	11.05%	11.05%
$\Delta 0$	9.45%	17.61%	17.56%	17.69%	18.88%	17.00%	26.65%	24.36%	26.49%	20.94%
ΔM	0.00%	0.06%	0.16%	0.23%	-0.45%	0.37%	0.16%	0.61%	-5.75%	-1.05%
ΔF	0.00%	-0.03%	-0.08%	-0.26%	-0.43%	-0.83%	-2.23%	-3.07%	-1.39%	-2.72%
ΔX	1.61%	-6.60%	-6.58%	-6.61%	-6.94%	-5.49%	-13.52%	-10.85%	-8.30%	-6.12%
% Men in CS	100.00%	99.87%	99.52%	98.49%	95.99%	90.59%	87.04%	82.90%	50.61%	34.57%
% Women in CS	100.00%	99.95%	99.81%	99.52%	98.75%	96.91%	91.33%	88.17%	70.29%	54.90%

Source: Author's calculations based on Household Surveys.

3.4. Ethnic Wage Gap Decompositions

In this subsection we turn into the analysis of ethnic wage gaps, following the same strategy developed previously for gender. Though, a homogenizing exercise is required before presenting the results. As mentioned above, the ethnic classification is only possible in a restricted subset of countries (Bolivia, Brazil, Chile, Ecuador, Guatemala, Paraguay and Peru). Hence, in order to make the ethnic wage gap decompositions comparable to the gender's, we first provide the decompositions of the gender wage gap that results after restricting the analysis to the subset of countries that will be used in the ethnic analysis. This exercise also adds the ethnicity dummy (distinguishing minorities vs. non-minorities) to the sequence of control variables of Table 3. Results are provided in Table 6.

Table 6: Gender Wage Gap Decompositions

	Ethnicity	+ age	+ education	+ children	+ other with income	+ urban	+ type of empl.	+ part-time	+ formality
Δ	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%
$\Delta 0$	16.94%	16.62%	24.27%	24.17%	24.53%	26.22%	23.69%	33.44%	29.74%
ΔM	0.00%	0.00%	0.29%	0.63%	0.75%	-1.05%	0.44%	-0.25%	1.34%
ΔF	0.00%	0.00%	-0.09%	-0.33%	-0.82%	-0.90%	-1.90%	-4.68%	-6.24%
ΔX	-1.45%	-1.13%	-8.98%	-8.99%	-8.97%	-8.79%	-6.75%	-13.02%	-9.36%
% Men in CS	100.00%	100.00%	99.38%	98.40%	95.58%	90.33%	82.60%	77.29%	71.47%
% Women in CS	100.00%	100.00%	99.77%	99.34%	98.45%	96.92%	93.66%	84.71%	80.36%

Source: Author's calculations based on Household Surveys.

Table 6 reveals that this subsample has a higher gender wage gap that the average for the region (15.5% instead of 9.5%). This is mostly due to the higher share that Brazil, Peru and Paraguay represent within it. Note that controlling for ethnicity alone does not provide much explanation for gender gaps (as ethnicity is evenly distributed among men and women).

Next, Table 7 shows the ethnic gap decompositions for the countries for which the ethnic information is available. The set of matching variables and the sequence in which these variables are augmented follows the same pattern as in the previous section.

Table 7: Ethnic Wage Gap Decompositions

	Gender	+ age	+ education	+ children	+ other with income	+ urban	+ type of empl.	+ part-time	+ formality
Δ	38.25%	38.25%	38.25%	38.25%	38.25%	38.25%	38.25%	38.25%	38.25%
Δ_0	40.28%	39.82%	28.04%	27.04%	26.30%	25.14%	22.73%	23.48%	19.74%
Δ_W	0.00%	0.01%	1.34%	2.27%	3.53%	3.64%	6.77%	8.20%	10.85%
Δ_I	0.00%	0.00%	-0.17%	-0.42%	-0.78%	-0.64%	-1.40%	-2.64%	-3.29%
Δ_X	-2.03%	-1.58%	9.04%	9.35%	9.19%	10.10%	10.15%	9.20%	10.94%
% Non Minority in CS	100.00%	100.00%	98.03%	96.04%	93.40%	89.70%	83.66%	79.30%	73.37%
% Minority in CS	100.00%	100.00%	99.74%	99.29%	98.15%	95.78%	91.32%	86.60%	82.10%

Source: Author's calculations based on Household Surveys.

The raw ethnic wage gap (38.25%) is considerably higher than the gender wage gap (15.5%). This fact is also true for the unexplained component after controlling by gender and age. However, once we control by education, the unexplained component of the ethnic gap decreases significantly, while the contrary happens on the gender gaps analysis (see Table 3). Although on the gender dimension the most disadvantaged group (women) have higher educational attainment, this is not true along the ethnic dimension. As already noticed in Table 2, ethnic minorities have considerably lower educational attainments than non-minorities. After accounting for differences in education, the unexplained ethnic gap (28 %) is comparable to the unexplained gender gap (24%). Still, a considerable portion of the gap remains unexplained suggesting that, besides their lower access to education, ethnic minorities have lower returns to schooling than non ethnic minorities.⁹

The component that exists because non-minorities reach certain combinations of human capital characteristics that minorities do not (labeled as Δ_W in Table 7) explains an important share of the gap after controlling for the full set of characteristics. Almost 11 percentage points out of the 39 percentage points of wage gap is attributable to the existence of non-minorities which combinations of characteristics are not realized among minorities. These constitute more than 25% of the sample of non-minorities after controlling for the full set of characteristics. On the other hand, no important portion of the gap can be explained by the component that accounts for the fact that some minorities reach some combination of characteristics that minorities do not (Δ_I). To better assess which combination of characteristics found among the non-minorities are not met by minorities, Table 8 provides descriptive statistics of the sample of non-minorities depending on whether they belong to the common support or not. The most salient differences between the two groups are that unmatched non-minorities are, in comparison to matched non-minorities: older, more educated, holding a professional, director or upper management position, and working in the agriculture, hunting, forestry or fishing, and reside in rural areas.

⁹ There also could be the case that lower returns to schooling may actually generate incentives to ethnic minorities to drop out the educational system.

Table 8: Descriptive Statistics for non-minorities in and out the common support

	Out of the Common Support	In the Common Support
Age	40.5	35.8
Education		
None or Primary Incomplete	18.6%	13.6%
Primary Complete or Secondary Incomplete	32.6%	40.6%
Secondary Complete or Tertiary Incomplete	33.9%	40.2%
Tertiary Complete	14.9%	5.6%
Presence of children in the household	49.6%	49.4%
Presence of other member with labor income	63.9%	73.3%
Urban	78.1%	87.7%
Job Category		
Employer	10.7%	2.1%
Self - Employed	28.8%	22.2%
Employee	60.5%	75.7%
Part-time	24.4%	9.1%
Formal	41.9%	56.1%
Occupation		
Professionals and technicians	16.7%	12.3%
Directors and upper management	10.0%	4.0%
Administrative personnel and intermediary level	5.8%	11.7%
Merchants and sellers	10.8%	11.5%
Service workers	15.1%	21.2%
Agricultural workers and similar	13.5%	8.5%
Non-agricultural blue-collars, drivers and similar	23.8%	29.7%
Armed forces	0.0%	0.0%
Occupations not classified above	4.1%	1.0%
Economic Sector		
Agriculture, Hunting, Forestry and Fishing	15.0%	9.1%
Mining and Quarrying	1.3%	0.6%
Manufacturing	11.8%	18.9%
Electricity, Gas and Water supply	1.1%	0.6%
Construction	8.5%	7.5%
Wholesale and Retail Trade and Hotels and Restaurants	20.6%	24.5%
Transport, Storage	7.0%	6.4%
Financing Insurance, Real Estate and Business Services	4.4%	3.0%
Community, Social and Personal Services	30.3%	29.4%
Wage (as percentage of Average Minorities Wage)	168.1%	127.4%

Source: Author's calculations based on Household Surveys.

Next, we report the gap disaggregated by country, for three selected sets of control variables which allows us to reveal a high degree of cross-country heterogeneity. For instance, both the raw gap and the unexplained gap after controlling by gender and age are more than two times bigger in Guatemala than in Chile. Also, the effect of controlling by education differs substantially from country to country. For instance, while in Ecuador the unexplained component is no longer significantly different from zero after accounting for differences in education, in Brazil it only falls from 39% to 30%. This result is driven by the fact that the gap in educational attainment differs substantially between these two countries. In Ecuador, the percentage of workers older than 24 with complete tertiary education is 15% among the non-minorities but only 5% among minorities. In Brazil, this

difference is substantially lower as only 5% of non-minority workers have completed tertiary education compared to 4% of minorities.¹⁰

Table 8: Raw and Unexplained Ethnic Wage Gap, by Country

Country	Δ [%]	$\Delta 0$ [%]		
		Gender and age	Gender, age and education	Full Set
Bolivia	30.6	35.6**	16.5**	14.8**
Brazil	38.9	38.9**	30.2**	20.9**
Chile	31.5	30.2**	11.6**	8.4**
Ecuador	30.7	26.7**	3.8	4.9
Guatemala	67.7	67.4**	23.5**	15.8**
Peru	45.8	45.8**	20.9**	15.6**
Paraguay	59.9	60.3**	22.9**	15.6**
Pooled Data	38.2	39.8**	28**	19.7**

Source: Author's calculations using Household Surveys.

* significant at the 90% level

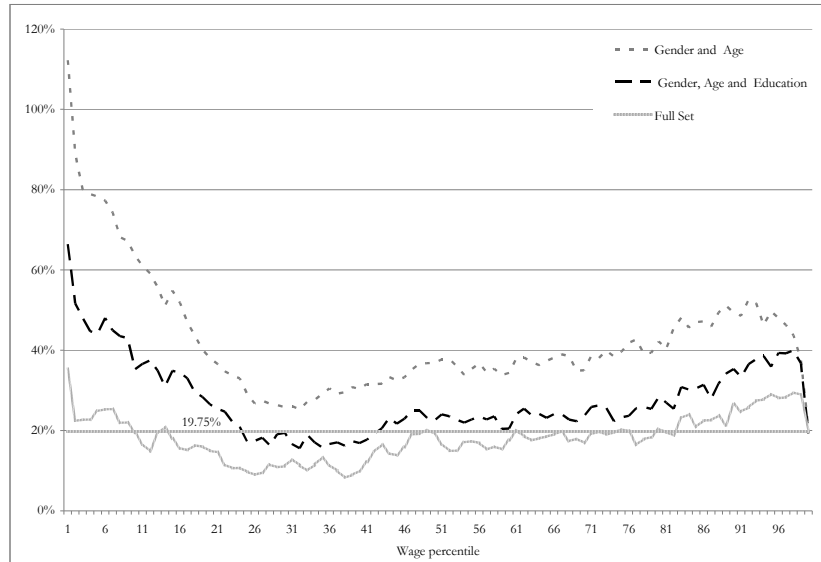
**significant at the 99% level

As in section 3, we present in Figure 4 the unexplained ethnic wage gap for the different percentiles of wage's distributions of minorities and non minorities to asses whether the unexplained component is concentrated, as in the case of the gender gap, in some particular segments of it.

When controlling only for gender and age, the unexplained gap is significantly higher among the low-income. The gap is over 100% in bottom of the distribution and decreases sharply until the 30th percentile where it is close to 27%. Then, the gap presents a slightly upward pattern and closes only at the very right-end of the distribution. When controlling for gender and education the overall pattern described above is maintained. However, the gap is mostly closed for the low income. In other words, differences in wages are better explained by differences in educational attainment among the low-income than among the middle or high income. After controlling for the full set of observable characteristics, the unexplained gap is roughly homogenous along the wage distribution.

¹⁰ This is not to say that Brazil has actually been successful in closing the gap in educational attainment between minorities and non minorities, but that educational attainment is low for both minorities and non-minorities.

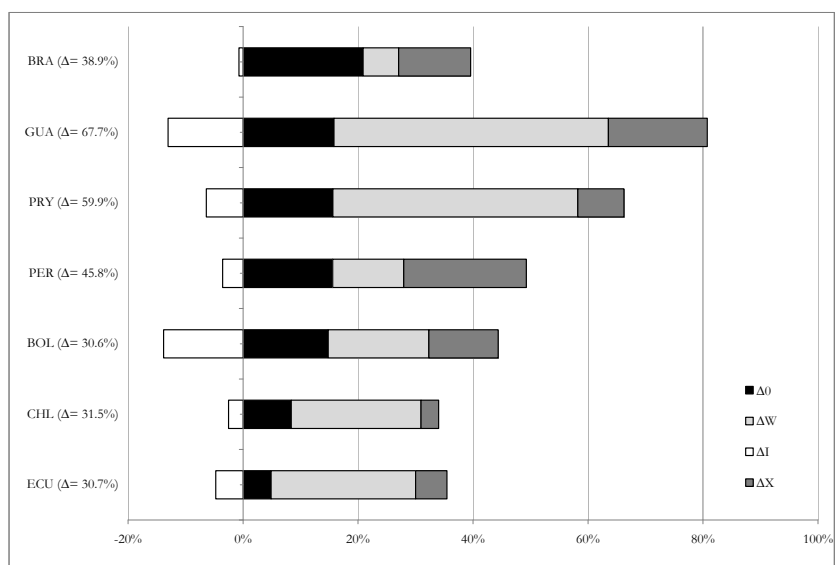
Figure 3: Unexplained Ethnic Wage Gap by Percentiles of the Wage Distribution



Source: Author's Calculations using Household Surveys.

Next, we present the four components of the wage gap by country (sorted by the magnitude of the unexplained component), for the specification with the richer set of control variables. As in the case of the gender gap, there are clear qualitative patterns of for every component. First Δ_X is positive in every country, reflecting that in every country minorities have combinations of characteristics that are related to lower payoff in the labor markets than the characteristics of non-minorities (in particular, educational attainment). Second, Δ_W is positive in most part of the countries, suggesting than in every country the existence of combination of characteristics that are only reached by non-minorities do play an important role in explaining part of the wage gap.

Figure 4: Ethnic Wage Gaps Decompositions
By Country



Source: Author's Calculations using Household Surveys.

The most salient fact that emerges after disaggregating the gap by every level of each of the control variables, is the extremely high unexplained gap among people without education (see figure A2 in the annex). Also, it is interesting to note that the unexplained gap increases with age. While the average gap is close to 25% in the range of 18 to 24 years old, it reaches 25% among workers from 55 to 65 years old.

Sector and Occupational segregation on the ethnic dimension

Again, we include the occupation and economic sector variables in the analysis. The data availability allows us to perform this exercise only for Brazil, Bolivia, Chile and Paraguay. In this subset of countries the raw wage gap is equal to 39.75%.

Table 9 presents the results of the decompositions. It shows that while differences in the economic sector do not explain much of the gap, occupation segregation do plays a role. When adding occupation sector to the set of matching variables, the unexplained component decreases from nearly 18% to 13%.

Table 9: Ethnic Wage Gap Decompositions

	Gender	+ age	+ education	+ children	+ other with income	+ urban	+ type of empl.	+ part-time	+ formality	+ sector	+ occupation
Δ	39.75%	39.75%	39.75%	39.75%	39.75%	39.75%	39.75%	39.75%	39.75%	39.75%	39.75%
ΔO	38.86%	38.43%	28.56%	27.56%	26.79%	25.66%	23.06%	23.86%	19.98%	17.63%	12.82%
ΔW	0.00%	0.00%	0.76%	1.62%	2.96%	3.38%	7.15%	8.92%	11.57%	16.76%	23.95%
ΔI	0.00%	0.00%	-0.19%	-0.46%	-0.92%	-0.85%	-1.69%	-3.16%	-3.60%	-4.55%	-7.83%
ΔX	0.89%	1.31%	10.62%	11.03%	10.91%	11.56%	11.23%	10.13%	11.80%	9.91%	10.80%
% Non Minority in CS	100.00%	100.00%	98.99%	97.99%	96.36%	93.95%	89.14%	86.07%	80.71%	63.02%	50.47%
% Minority in CS	100.00%	100.00%	99.71%	99.27%	98.27%	96.17%	92.32%	88.30%	83.70%	65.40%	53.96%

Source: Author's calculations based on Household Surveys.

The decrease in the unexplained component of the gaps comes along with an increase in the portion of the gap that accounts for differences in the supports of characteristics. This is due mostly to the increase in the component related to those non-minorities for which there is no minority counterpart (ΔW). Table 10 shows the descriptive statistics of non-minorities in and out the common support when controlling for the full set of characteristics considered in Table 9. Consistent with the results presented above, non-minorities out the common support have a higher average wage than those for which we are able to find a minority peer. Unmatched non-minorities are more likely to have no education or tertiary complete education, to be employer or self-employed, to be occupied as professional or technician or have a director or upper management position, and to be in sectors like mining and quarrying, electricity gas and water supply, transport and storage or finance and the related.

Table 10: Ethnic Wage Gap Decompositions

	Out of the Common Support	In the Common Support
Age	39.2	35.0
Education		
None or Primary Incomplete	16.4%	10.9%
Primary Complete or Secondary Incomplete	34.5%	45.2%
Secondary Complete or Tertiary Incomplete	39.6%	41.2%
Tertiary Complete	9.6%	2.8%
Presence of children in the household	45.3%	45.5%
Presence of other member with labor income	66.2%	75.4%
Urban	85.1%	91.0%
Job Category		
Employer	7.6%	1.2%
Self - Employed	26.4%	19.3%
Employee	66.0%	79.5%
Part-time	15.0%	7.8%
Formal	56.2%	62.8%
Occupation		
Professionals and technicians	16.3%	10.1%
Directors and upper management	8.5%	1.9%
Administrative personnel and intermediary level	10.2%	10.9%
Merchants and sellers	10.6%	12.2%
Service workers	16.1%	23.9%
Agricultural workers and similar	9.4%	9.3%
Non-agricultural blue-collars, drivers and similar	26.4%	30.8%
Armed forces	0.0%	0.0%
Occupations not classified above	2.4%	0.9%
Economic Sector		
Agriculture, Hunting, Forestry and Fishing	10.2%	9.4%
Mining and Quarrying	1.4%	0.1%
Manufacturing	17.3%	18.1%
Electricity, Gas and Water supply	1.3%	0.1%
Construction	7.7%	7.6%
Wholesale and Retail Trade and Hotels and Restaurants	23.5%	24.4%
Transport, Storage	8.5%	4.6%
Financing Insurance, Real Estate and Business Services	5.5%	1.1%
Community, Social and Personal Services	24.5%	34.6%
Wage (as percentage of Average Minorities Wage)	164.1%	115.8%

Source: Author's calculations based on Household Surveys.

4. Conclusions

The literature has widely documented the existence of poorer labor market outcomes among women and ethnic minorities in Latin America. This paper reviews extensively the literature on such gaps and contributes to it providing novel and comparative evidence for a widespread sample of Latin American countries. Using a non-parametric matching technique as an extension to the traditional Blinder-Oaxaca decompositions, this paper disentangles the sources of those gaps in terms of observable characteristics.

Latin American men are found to earn on average 9.5% more than women despite their lower educational attainments. Our estimations suggest that, should women have the same characteristics than men (in particular the same educational attainment), the gender wage gap would jump to more than 20%. Though, we also find a high degree of heterogeneity at the country level. After controlling for observable characteristics, the unexplained gender wage gap ranges from 4% in Guatemala to almost 35% in Brazil. Importantly, the effect of controlling by the differences in educational attainment differs substantially across countries. For instance, while in Argentina the unexplained portion of the gap after controlling by education is 20 times higher than the raw gap, there is no sizeable effect of controlling by education in Peru. This is a reflection of the heterogeneity of gender differences in educational attainment.

It is interesting to note that the unexplained wage gap is lower among those with tertiary education. Both supply and demand factors could drive this result. On the one hand, educated women may be less prone to accept lower wages than their male counterparts, and also to work in firms where there is less room to discretionary wage settings. This later hypothesis is supported by the fact that the unexplained wage gap is found to be lower among formal workers. In a related result, gender wage gaps are found to be larger among low wage earners, especially among the first decile of the wage distribution.

The unexplained wage gap increases with age, which could be explained by a cohort effect or by the effect of some observables, like experience, for which gender differences are likely to be correlated with age. Differences in accumulated experience could be exacerbated as women age and have children. Indeed, we find that the unexplained component of the gender gap is higher among workers with kids.

On average, part-time workers are found to earn higher hourly wages than full time workers. However, our results also provide evidence that the part-time wage premium is higher among men than among women. We argue that part-time worker women are more likely to accept lower wages than their male counterparts because part-time work has the indirect utility of easing child-care duties.

An unexplained wage gaps exist, and it is even higher, among the self employed. This defies the common view that gender wage gaps are most likely to be found due to employer-based discrimination, while reaffirms in turn previous findings of considerable gender differences in the quality of self-employment. Our findings do not provide

evidence of an important role of occupation or economic sector segregation in explaining the gender wage gaps. Even if differences in labor allocation between occupations are large, they are not a source of wage differentials.

The raw ethnic wage gap (before controlling for observable characteristics) is found to be considerably higher than the gender raw wage gap, reaching more than 38% of minorities' wages. Ethnic gaps in educational attainment are found to be large in the region, which allow us to explain roughly one-fourth of the gap, but still, an important portion of the gap remains unexplained. The unexplained wage gap reaches almost 20%. As in the case of gender, we identify a high degree of country heterogeneity. After controlling by gender and age, the ethnic ranges from 27% in Ecuador to 60.3% in Paraguay. The effect of controlling by education differs substantially across countries, mainly due to remarkable differences in the gap in educational attainment. The unexplained component of the wage gap is substantially reduced in countries with high educational attainment gaps as Ecuador. On the other hand, in countries like Brazil where non-minorities are as poorly educated as non-minorities, the gap cannot be explained by education.

We find that the unexplained wage gap is considerably higher among persons with no education but it is almost uncorrelated with education for higher educational attainments. As in the case of gender, the unexplained differential increases with age which could be due a supportive evidence for a decreasing trend over time. Again, we do find a significant gap among the self-employed which is in turn higher than among the employees. No considerable differences were found depending on the area (rural or urban), nor depending on whether the job is formal or informal. A distinctive feature of ethnic wage gaps is that there are lower among part time workers than among full time workers.

Even if we do not find significant economic sector segregation, we do find that the ethnic wage gap is related to occupational segregation. The presence of non-minorities having a combination of characteristics not attainable by minorities explains an important part of gap. Almost 11 percentage points out of the 39 percentage points of wage gap is attributable to the existence of non-minorities which combinations of characteristics are not realized among minorities. These are highly paid profiles of old and educated professionals or directors or upper management position in some specific sectors of the economy. In this sense, we find evidence that ethnic minorities in the region are confronted with "glass-ceilings" while trying to attempt high-paid positions.

In sum, this paper provides evidence that the region still faces major challenges in terms of eradicating disadvantages in the labor markets based on characteristics like gender or ethnicity. Policies that are aimed at reducing these inequalities are still in need, not only because of ethical considerations on equality but as major strategy to reduce poverty in the region. Even though policies aimed at boosting school attendance for minorities are welcomed, they should also take into account the lower incentives to schooling completion that the labor market is posing for indigenous minorities, as even if their lower educational attainment, return to schooling completion for the minorities are found

to be lower than for non minorities. As ethnic minorities and women are in a disadvantaged position, indigenous girls in the region should be given special attention.

5. References

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6. Annex

Table A1: Data Sources

Country	Name Of The Survey	Year	Number of Observations*	Coverage
Argentina	Encuesta Permanente de Hogares (EPH), Segundo Semestre	2006	41287	31 urban regions
Bolivia	Encuesta Continua de Hogares (ECH)	2006	4959	National
Brasil	Pesquisa Nacional por Amostra de Domicilio (PNAD)	2007	133764	National
Chile	Encuesta de Caracterizacion Socioeconomica Nacional (CASEN)	2006	85968	National
Colombia	Encuesta Continua de Hogares (ENH)	2003	52388	National
Costa Rica	Encuesta de Hogares de Propositos Multiples (EHPM)	2006	13810	National
Dominican Repu	Encuesta Nacional de Fuerza de Trabajo (ENFT)	2003	9718	National
Ecuador	Encuesta de Empleo, Desempleo y Subempleo (ENEMDU)	2007	15611	National
Guatemala	Encuesta Nacional de Condiciones de Vida (ENCOVI)	2006	18865	National
Honduras	Encuesta Permanente de Hogares de Propositos Multiples (EPHPM)	2007	23278	National
Mexico	Encuesta Nacional Empleo (ENE), Segundo Trimestre	2004	131348	National
Nicaragua	Encuesta Nacional de Hogares sobre medicion de Niveles de Vida (EMN' 2005)	2005	9838	National
Panama	Encuesta de Hogares (EH)	2003	17368	National
Paraguay	Encuesta Permanente de Hogares (EPH)	2006	5592	National
Peru	Encuesta Nacional de Hogares (ENAHO)	2006	27665	National
El Salvador	Encuesta de Hogares de Propositos Multiples (EHPM)	2005	16856	National
Uruguay	Encuesta Continua de Hogares (ECH)	2005	20351	Urban
Venezuela	Encuesta de Hogares Por Muestreo (EHM), Segundo Semestre	2004	47880	National

* Workers between 18 and 65, after eliminating observations with incomplete data or outliers in wage

Table A2: Definition of Ethnic Minority
By Country

Country	Criterion
Bolivia	Self declaring as being: Quechua, Aymara, Guarani, Chiquitano, Mojeño or other
Brasil	Having colour of skin (self reported): Black or brown
Chile	Self declaring as being: Aymara, Rapa nui, Quechua, Mapuche, Atacameño, Coya, Kawaskar, Yagan, Diaguita
Ecuador	Self Declaring as being: Indigenous, Black, Mulato or Other
Guatemala	Self Declaring as being: K'iche', Q'eqchi', Kaqchikel, Mam, Q'anjob'al, Achi, Ixil, Itza', Poqomchi', Chuj, Awakateko, Poqomam, Ch'orti', Jakalteko, Sakapulteco, Mopan, Uspanteko, Tz'utujil, Sipakapense, Chalchiteko, Akateko, Xinka or Garifuna
Paraguay	Self declaring as speaking : Guarani (only)
Peru	Self Declaring as being: Quechua, Aymara, De la Amazonia, Negro, Mulato, Zambo or Other

Figure A1: Mean and Confidence Interval for the Unexplained Gender Wage Gap, by different characteristics.

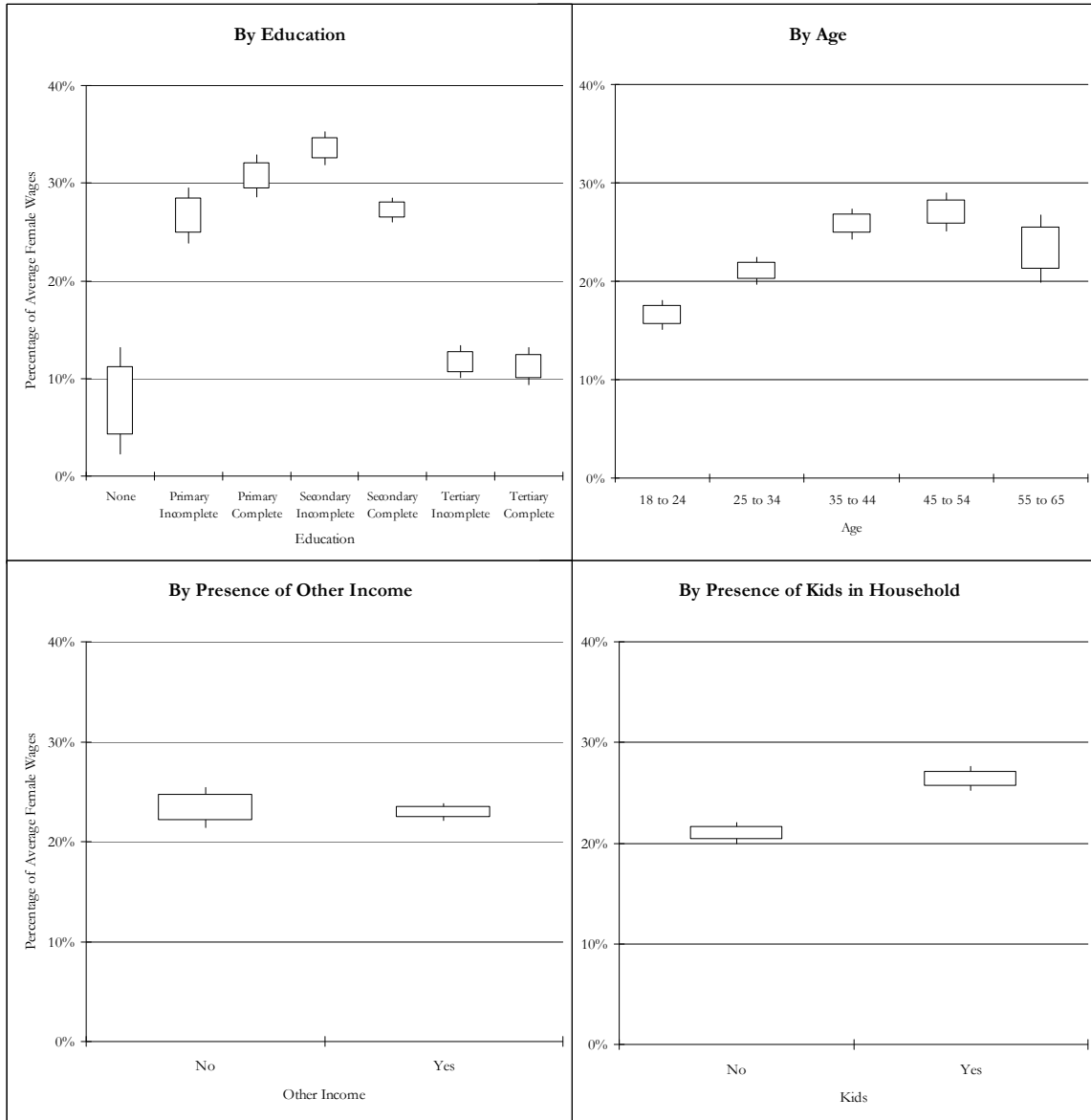


Figure A1: Mean and Confidence Interval for the Unexplained Gender Wage Gap, by different characteristics (cont.)

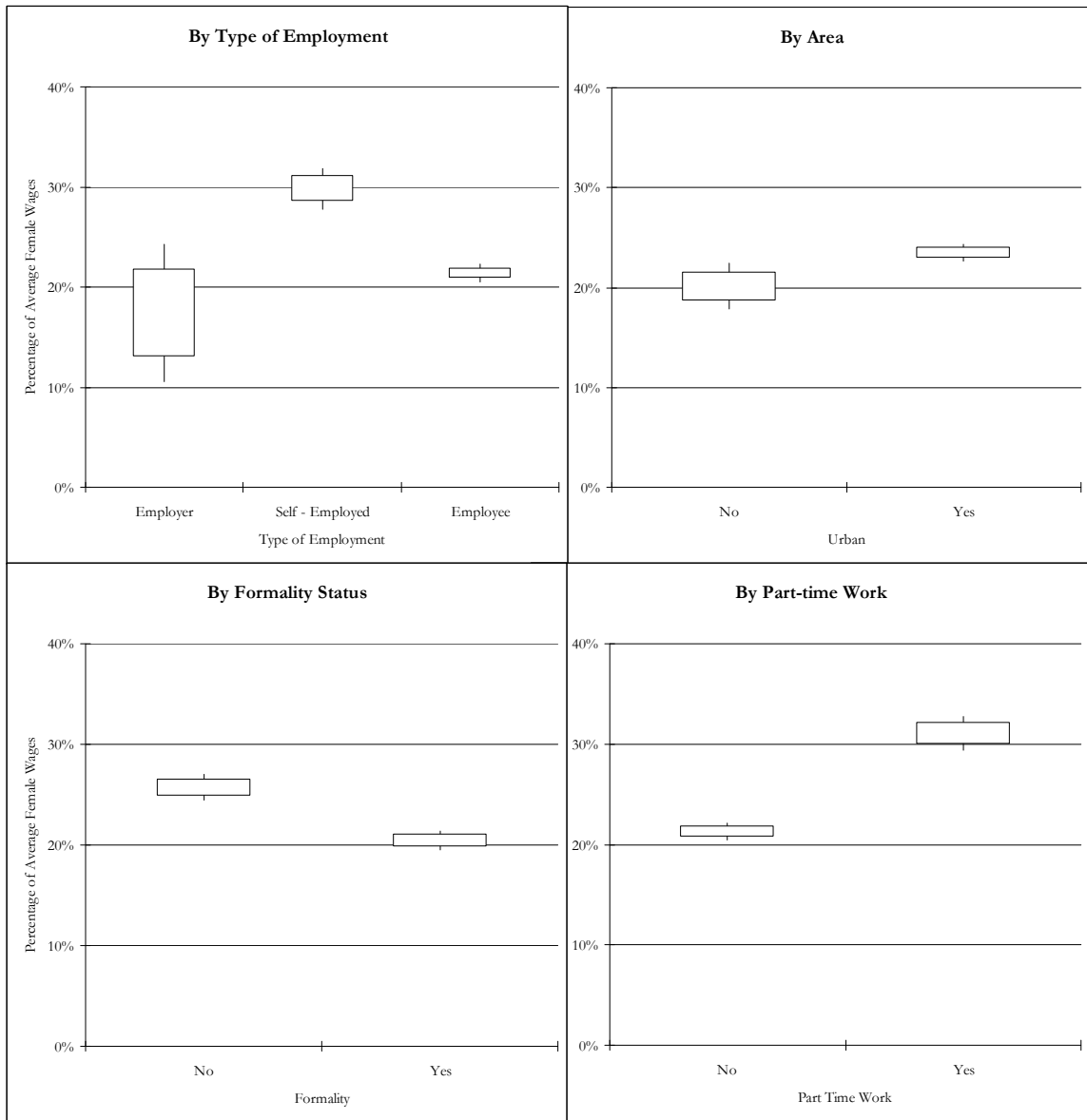


Table A3: Logit, probability of holding a part-time work

VARIABLES	(1)	(2)
	Women	Men
Age	-0.025*** (0.000)	-0.117*** (0.000)
Age^2	0.000*** (0.000)	0.001*** (0.000)
Directors and upper management	-1.220*** (0.003)	-0.595*** (0.003)
Administrative personnel and intermediary level	-1.355*** (0.002)	-0.806*** (0.003)
Merchants and sellers	-0.284*** (0.001)	-0.574*** (0.002)
Service workers	-0.208*** (0.001)	-0.632*** (0.002)
Agricultural workers and similar	-0.021*** (0.002)	-0.620*** (0.002)
Non-agricultural blue-collars, drivers and similar	-0.010*** (0.002)	-0.694*** (0.002)
Armed forces	-2.777*** (0.029)	-3.222*** (0.011)
Occupations not classified above	-0.021*** (0.002)	-0.435*** (0.002)
Primary Incomplete	0.028*** (0.002)	-0.043*** (0.002)
Primary Complete	-0.201*** (0.002)	-0.225*** (0.002)
Secondary Incomplete	-0.338*** (0.002)	-0.318*** (0.002)
Secondary Complete	-0.575*** (0.002)	-0.570*** (0.002)
Tertiary Incomplete	-0.166*** (0.002)	-0.166*** (0.002)
Tertiary Complete	-0.645*** (0.002)	-0.585*** (0.003)
Presence Of Children in the Household	0.268*** (0.001)	-0.183*** (0.001)
Presence of other member with labor income	0.082*** (0.001)	0.074*** (0.001)
Constant	-1.192*** (0.006)	0.137*** (0.007)
Observations	5.05e+07	8.08e+07
Pseudo R2	0.0457	0.0557

Also Controlling By Country and Economic Sector Dummies

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure A2: Mean and Confidence Interval for the Unexplained Ethnic Wage Gap, by different characteristics

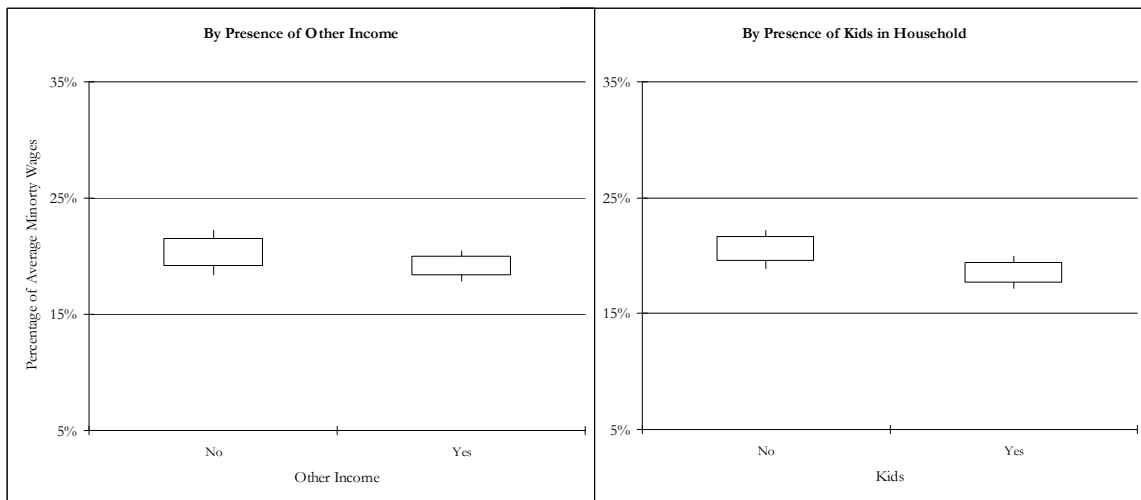
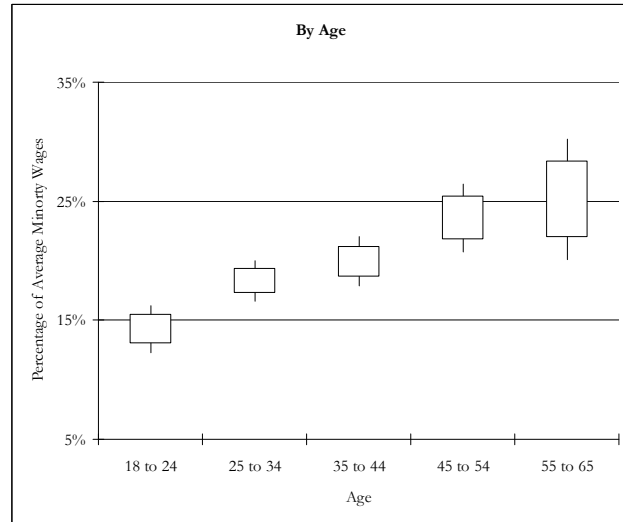
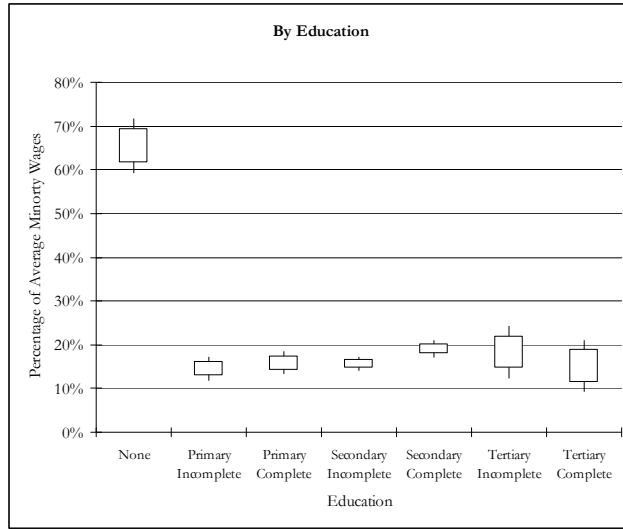


Figure A2: Mean and Confidence Interval for the Unexplained Ethnic Wage Gap, by different characteristics (cont.)

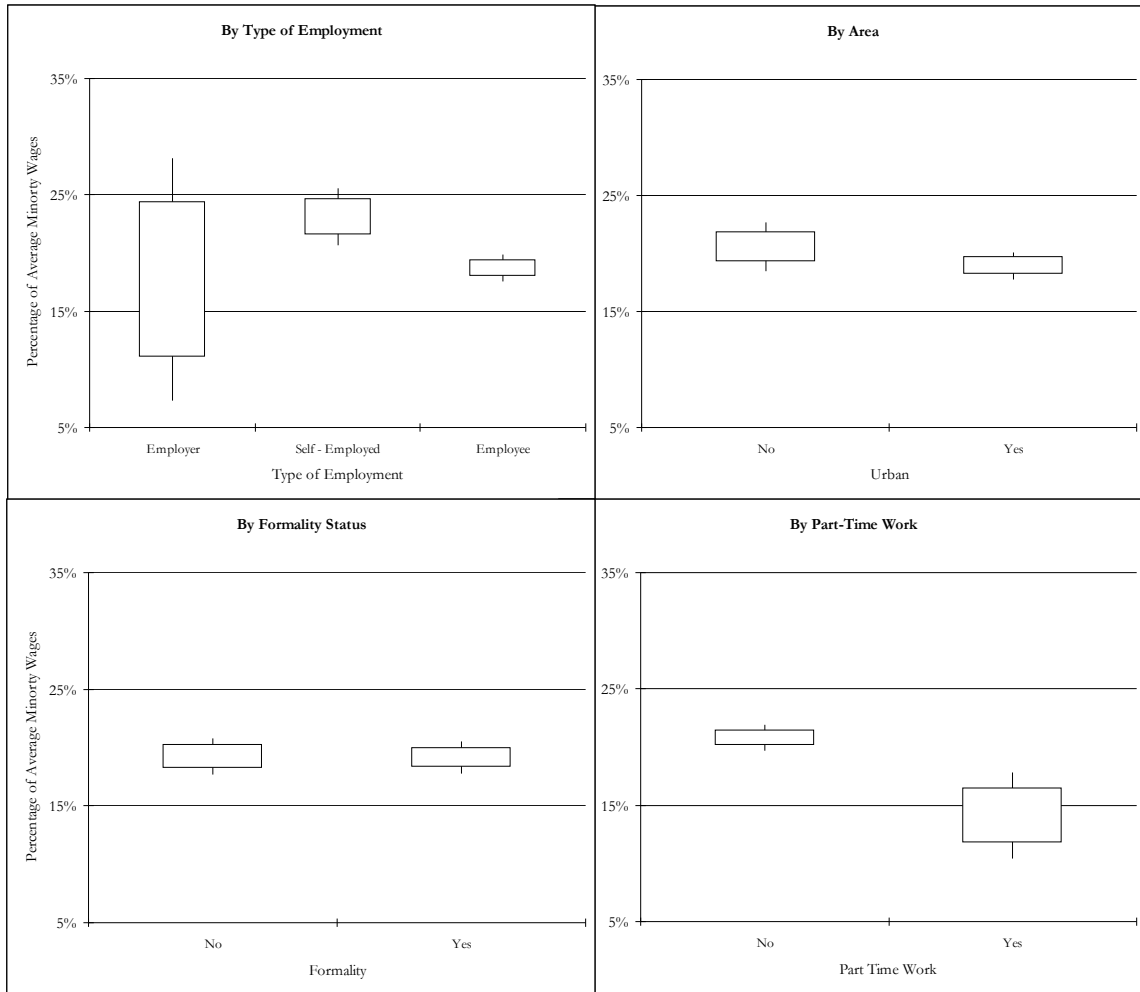


Table A3: Country Literature Review

Authors and Year	Data	Main findings	Methodology
Argentina			
Gender Gaps: Reversed gender wage gap?			
Stelcner, M., Van der Gaag, J., Vijverberg, W. (1989)	Peruvian Living Standards Survey (1985-1986)	Authors objective was to identify potential relationships between wages, education, work experience and their differences between sectors in Peru. In methodological terms, the authors concluded that the finding is that public-private wage comparisons that are based on OLS regressions may be very misleading given inherent selectivity of the samples. The authors' model shows an average wage of .91 in the public sector, and 1.755 in the private sector, almost a 1% differential point. OLS regressions only gave a difference of 0.1.	Switching Regression Model
Chu Nu (1992)	1985 Buenos Aires Household Survey Data	Started discussion on earning differentials in Argentina. In a highly urban labor market, better educated prime age single women are more likely to enter the labor Argentine labor market. An increase in human capital endowments will decrease the existing wage gap, but other factors may also come into play, such as the occupational segregation, job mobility.	BO decomposition
Paz (1997)	EPH 1997	Examines wage differentials between men and women in Greater Buenos Aires and Argentina's Northeastern areas. In all variables reviewed, women receive lower wages than men, except for women with professional scientific skills and those working over 45 hours/week.	Descriptive statistics ; Duncan Index calculation; analysis of income functions (male and female);
		Human capital endowments (rate of returns to education and experience) are important to explain some differences in labor force participation and wage. Among occupational variables, the level of skill of a specific task/occupation determines differentials, highlighting the importance of vertical segregation. However, 90% of the wage differential remains unexplained.	BO decomposition
Sangeeta Pratap & Erwan Quintin (2001)	Argentina's household survey (1993-1995)- urban centers	Paper evaluates hypothesis that informal workers would expect higher wages in formal sector. Authors found no evidence of a formal sector wage premium in Buenos Aires and its suburbs. While wages are higher on average in the formal sector, this apparent premium disappears after controlling semi parametrically for individual and establishment characteristics.	Semi parametric matching estimator
Actis Di Pasquale and Atucha (2003)	EPH 2000	Mar del Plata regional study to show wage disparities at the local level (urban areas). Study was done in an area where women are highly overrepresented in the services sector. Results show, that women's salaries represent 74% of men's. The gap is reduced when education and occupation variables are introduced, but is not closed entirely. The authors conclude that 32% of the difference can be explained by human capital endowment differences; 32% for "clientelism" and 36 by "discrimination" against women.	BO decomposition - & Cotton Neumark Decomposition Methodologies
Cruces and Galiani (2005).	Arg 1991 Census; Mexico 2000 Census	Authors review linkage between fertility and labor force participation. Results show that income levels (i) have a positive relationship with education attainment and b) will initially tend to increase with experience, while decreasing as the worker ages. A little over a third of the wage differentials can be explained by human capital characteristics. However, within the unexplained portion, 32.5% could be explained by male advantages and 35.6% can be attributed to "discrimination" against women.	Casual IV model (Abadie); OLS
		The authors estimated a link between childbearing on maternal labor supply based on the thesis that parental preferences for a mixed sibling sex composition can be seen as an instrument for fertility. Women who are likely to have a third child searching for a balance sex of mix children may be less likely to enter the labor force.	
Ezequiel and Paz (2005)	EPH	Authors introduced the concept of an "Inverse gender wage gap" in Argentina, where the average male worker salary is 4% less than women's; and analyze the different insertion conditions in the labor market and their influence in gender wage gaps. For labor markets such as Argentina, it is essential to make a distinction between regular and on-regular employment - as defined by degree of job satisfaction, underemployment and relative stability-. Taking these elements into account: men regular workers earn 10.2% MORE than women regular workers; who in turn get paid higher than non-regular women workers. (9%).	Tam model/ "A" model (Models although, among other things to include all characteristics of Argentine labor market, including part-time workers, and informal sector)
Ezquivel (2007)	EPH 2003, 2006	Reviews differences in <i>hourly</i> wages between salaried men and females and potential barriers of entry to regular salaried jobs for women. Adjusting for productivity-related variables, women's hourly wages should be higher than men's. This is not the case for Argentina. Potential explanations include: (i) barriers of entry to quality jobs; and (ii) the wage premium associated with certain occupations is greater for women than for men, attracting them to these sectors and occupations. This premium however does not cover the differential of a lower remuneration for same skills.	Tam (1996) & Esquivel y Paz (2005); BO decomposition

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Bolivia			
Ethnic gaps: Targeted or National Intervention?			
MacKinnon Scott (1992)	1989 EIH	Female labor force participation depends upon a series of personal and family characteristics. Women earn less than men: observed differential is due to unexplained differences in the way in which the market values the two genders' labor.	Mincer equations BO decomposition
Rivero and Jimenez (1999)	Encuesta de Hogares (1981;85;90;94;97)	Analysis of wage differentials show certain degree of gender and ethnic "discrimination" in Bolivia' urban areas. Women and rural workers – non-spanish speakers- have less possibilities of receiving equal salaries to non-indigenous panish speaker males, despite their efforts to improve their education standing.	BO decomposition
Chiswick, Patrinos and Hurst (2000)	Integrated Household Survey, 1993	Study reviews labor market implications of limited dominant language proficiency in Bolivia. The authors' analysis on earning showed men with higher salaries than women, increasing 3.3% per year while almost 1% point less for women. Authors identify greater investments in on-the-job training by men as a potential explanation for these disparities. Children also appeared to have a negative effect on women's earning, where childless married women where 9% higher than their peers. Earnings differ significantly by language skills and are greater for women, reflecting the value of speaking Spanish in labor markets.	Chiswick and Paul W. Miller (Model to link education and earnings)
Mercado, Andersen and Muriel (2003)	MECOVI 2000	Pre-market differentials play a key role explaining wage gaps given indigenous peoples' lower education levels and access to low quality systems. More that 50% of the wage gap between indigenous and non-indigenous workers in Bolivia can be explained by differences in quality of education. However, this dynamic is prevalent in the rural areas. In urban areas it seems that differences may be attributable to how the market treats indigenous and non-indigenous workers, occupational segregation, or certain structural characteristics of the labor market, which may tend to favor non-indigenous workers over their indigenous peers.	Mincer equations
Contreras and Galvan (2003)	Encuesta Integrada de Hogares 1994; MECOVI 1999	The contribution of this study is its focus on the evolution of wage gap trends and comparison between two demographic groups: individuals older than 10 years and those between 25 and 65. While gender discrimination increases for individuals between 25 and 65 years, it decreases for those older than 10, showing that younger women have better changes of entering the labor market than their older peers. Ethnic wage gaps remain stable for those between 25 and 65 or increase for those above 10 years, showing that these groups have worse opportunities for labor market integration. Indigenous women have always lower wages in comparison to their white male peers. Similarly to previous analyses, education explains most of ethnic wage differentials.	Mincer equations; Fields decomposition
Villegas et al (2005)	MECOVI 2002	Reviews regional differences – wage differentials: ethnic discrimination in del Valle and del Llano are significant explain wage differentials, such is not the case for the Altiplano region. Discrimination is also high among professional workers, but not among unskilled workers. Although discrimination and productivity effects are important factors in explaining ethnic wage differentials across different geographical and schooling niches of the Bolivian labor market, a significant part of the overall ethnic wage gap is associated with differences in human capital endowments between both populations.	Oaxaca-Ransom; Mincer equations
Jimenez Pozo, Landa Casazola, and Yañez Aguilar (2005)	MECOVI 2002	As part of country review, authors discuss employment and income indicators of indigenous peoples in Bolivia., They found that despite a higher rate of labor participation among indigenous peoples vis-à-vis their peers, non-indigenous peoples earn higher wages. Authors argue these differentials are mainly due to differences in employment type, where most indigenous individuals are involves in informal work or livestock rearing. After analyzing decomposition results, authors agreed that schooling and experience had the largest effect on earnings, where experience reduced wage differentials between indigenous and non-indigenous workers.	BO decomposition
Contreras et al (2007)	MECOVI 2001	Analysis on the impact of social networks in economic decision and thus the transmission of poverty. Social networks may provide an explanation for the high degree of occupational segregation among indigenous individuals. Even though social networks provide important channels to access employment opportunities, and have proven to be especially key and relevant for migrant families, in Bolivia these are not necessarily linked with high quality jobs.	Bertrand et al (2000)

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Brazil			
Gender Gaps: Heterogeneity and barriers for upward mobility in labor market			
Birdsall and Fox (1985)	Census 1970	Concentrated its analysis in a particular occupational category: schoolteachers and found differences in human capital as main explanations for existing wage differentials.	BO decomposition
Tiefenthaler (1992)	PNAD 1989	Wage differences in the formal and informal sector can be attributed to unobserved characteristics.	BO decomposition with correction for selection bias. MNL estimation for formal, informal and self-employed sectors for estimating the participation into labor market
OLIVEIRA, Ana María (2001)	Brazilian Household Sample Survey (PNAD), IBGE, 1981-1999.	Trying to respond to how gender composition of jobs influence gender wage gaps, the study aims to measure (i) the occupational sex segregation of nonagricultural labor force during 1981- 1999 in Brazil; (ii) occupational sex segregation by marital status, and (iii) occupational sex segregation by groups of hours of work and labor market segmentation. In spite of the increasing female proportion in Brazilian labor force, from 33.4% in 1981 to 41.7% in 1999, men and women are still both concentrated in the occupations with predominance of its respective sex. Despite the sharp rise in women's labor force participation and their higher representation in integrated occupations, the gender gap in earnings narrowed only slightly during the two last decades. Results show, a positive role played by marital status in occupational segregation by sex. In addition, results show that compositional effects are very significant; that is, gender composition effects do not operate in isolation of the other structural changes. The gender gap increases with the increase of the female proportion and a divergent trend of men's and women's adjusted curves suggests that the gender wage gap is actually increasing.	Size-standardized dissimilarity index
Arias, Yamada and Tejerina (2002)		Study reviews the linkages between race, family background and education and wage gaps between whites and afro descendant population in Brazil . Results showed that differences in human capital, including parental education and education quality, and in its returns, account for most but not all of the earnings gap, 10% remains unexplained. As a key finding, the studied showed the important role play by gradient of skin color, labor market performance, particularly in earnings.	Mincer equations
Arabsheibani, G. Reza, Galrao and Henley et al (2003)	PNAD 1988-1998	Gender wage gap decreases over time but with an increasing unexplained component	Juhn, Murphy and Pierce's (1993) version of OB decomposition
Loureiro, Carneiro and Sachsida (2004)	PNAD 1992, 1998	Gender wage gaps are greater in urban areas than in rural ones. The unexplained component follows the same pattern	BO decomposition with correction for selection bias (participation in the labor market)
Arcand Jean-Louis and Beatrice D'Hombres (2004)	Pesquisa Nacional por Amostra de Domicilios/ national household survey (PNAD)	Article to analyze ethnic wage and employment gaps, as well as occupational segregation in Brazil, using the Oaxaca decomposition methodology. The most striking result is that the impact of occupational segregation is negligible. Therefore, programs aimed at facilitating the access of Afro-Brazilians to sectors where they are underrepresented do not appear as a legitimate course of action in the Brazilian case. However, a portion of the discrimination and of endowment effects estimated here are potentially due to unequal opportunities in an individual's capacity to finance a private education.	Extension of BO decomposition
Carlos Salas y Marcia Leite (2007)	Pesquisa Nacional Por Amostra Domiciliar (PNAD) de Brasil, y la Encuesta Nacional de	Study analyzes changes in gender occupational segregation patterns in Brazil and Mexico in 1995 and 2004. Given higher levels of education and increase of out-of-home activities among women, wage differentials tend to be highly caused by sectorial and occupational segregation. Results show that in both countries there has been an increase in the level of female labor force participation, decrease in wage gaps, and increase of women's participation in traditionally-male occupations. However, the study showed that Brazil had a more pronounced decrease in the level of occupational segregation, when compared to Mexico.	Indice Karmel-MacLachlan
Scorzafe Luiz Guilherme and Elaine Toldo Pazello (2007)	PNAD 1988;1996;2004	Paper aims to resolve the identification problem in the Oaxaca-Blinder decomposition. Results show that gender wage gap narrowed in Brazil, from 0.475 in 1988 to 0.216 in 2004. In other words, in 1988, men earned 47.5% higher wages than women, but in 2004 this difference had fallen to 21.6%. Study highlights the importance of the part-time variable in the decline in the gender wage gap in Brazil over the past 20 years.	Oaxaca and Ramson ; Yun Decomposition
King, Mary (2007)	PNAD 1989 and 2001	Paper reviews occupational segregation in Brazil. Literature review and data analysis showed more pronounced levels of gender segregation in the informal than in the formal sector, and in the formal labor market than in the public sector. Furthermore, King argues occupational segregation plays an important role in earnings differentials especially between males and females. Education attainment may also determine wage earnings, though with different impacts in the gender and ethnic gaps. Ethnic segregation decreases with higher education, while it increases for women.	Duncan index

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Brazil			
Racial and Gender Gaps			
Silva (1980)	Census 1960	For racial wage gaps, explained component dominates. Black and brown people show similar pattern	BO decomposition
Camargo and Serrano (1983)	Anuário do Trabalho 1976	Differences are mostly linked to personal characteristics such as levels of education, but more so to characteristics of the labor market such as the structure of the firms' sector. The explained component seems to be wider in the formal sector, while in the informal; differences in human capital endowments can explain most of the differential.	Chow Test
Lowell 1994	Census 1960, 1980	Before 1980, gender gaps were greater than racial gaps	Modified version of BO decomposition as proposed by Jones and Kelly (1984)
Lowell and Wood (1998)	Census 1960, 1980	Overtime the unexplained component of the wage gap differential increase while the explained decreases	Modified version of BO decomposition as proposed by Jones and Kelly (1984)
Lowell (2000)	Census 1960; 1991	Review of the relationship between <i>regional</i> development disparities and racial and gender wage differentials. Results showed significant gender and race gaps in education attainment levels and the persistence of wage gaps despite improvements in education.	Modified version of BO decomposition as proposed by Jones and Kelly (1984)
Soares (2000)	PNAD 1987-1998	The racial gap has been consistently higher and remained constant in comparison to a smaller and decreasing gender wage gap. The explained component of the gap (human capital endowments) seem to explain most of the ethnic/race differentials, while for the case of gender wage gaps, the unexplained component is constantly greater.	BO decomposition
Arias et al (2004)	PNAD 1994	Brown people at the bottom of the earning distribution are similar to black individuals, while browns at the top are similar to whites	BO decomposition with quantile regression (Koenker and Bassett, 1978)
Arcand and D'Hombres (2004)	PNAD 1998	Unexplained component is greater in the case of black people than brown individuals. The impact of occupational segregation is negligible	BO decomposition with quantile regression (Koenker and Bassett, 1978) and correction for selection bias for occupational attachment (Brown et al, 1980)
Lowell 2006	Census 1960, 1980, 1991 and 2000:	Examined trends in racial and gender wage disparities in urban Sao Paulo. Despite improvements in terms of education and increased access to higher paying jobs, ethnic minorities (afro Brazilians) and women continued to receive lower salaries than their white male peers. Differences in human capital endowments explain only a small part of wage gaps and identified and increasing trend in the unexplained component of the gap overtime.	Modified version of BO decomposition as proposed by Jones and Kelly (1984)
Carvalho, Neri and Silva (2006)	PNAD 2003	After controlling for selectivity bias, the unexplained component shrinks	BO decomposition with correction for selection bias (participation in the labor market)
Caribbean: Jamaica and Guyana			
Gender Gaps: Labor market insertion barriers			
Mackinnon Scott (1992)	1989 Labor Force Survey	Women have on average higher endowments of human capital than men; however, due to the country's labor market pricing mechanism wages do not reflect these differences.	BO decomposition
Hostchinks (1996)	Jamaica Tax Review Project-USAID (1988)	Mean salary for women in Jamaica in formal sector is 80% of men's. Existence of an asymmetrical distribution of men and women across occupations, whereas men are overrepresented in higher paying jobs. 94% of predicted difference in salary and 95% of difference in total compensation cannot be explained by differences in individual characteristics. (However, dataset lacks EDUCATION variable) Different valuation of individual and occupational characteristics between men and women.	BO Decomposition; Duncan Index
Watson Patrick and Sandra Sookram (2007)	2006 CSSP for Trinidad & Tobago	Study analyzes relationship between the informal sector and gender. Analysis show that formal sector workers earn more than informal sector workers and that men tend to work for higher wages than women in the informal sector. Wage differentials (informal sector gender remuneration penalty is measured as 1.33) are mainly attributed to "wage discrimination" rather than to differences in human capital endowments. The informal sector male-female wage differential also confirms that experience is the main factor contributing to the wage differentials between the sexes in that sector. In other words, in the informal sector, education is not rewarded in the same way as a person's working experience.	Multinomial logit model; Heckman selection model and BO decomposition
Sookram, Sandra and Eric Strobl (2008)	Labour force survey 1991-2004./ Continuous Sample Survey of Population (CSSP) for T&T.	Analysis of the role of educational choice on the degree of occupational segregation in Trinidad and Tobago. Results show that although educational segregation has fallen substantially over sample period, this has not translated into less occupational segregation. In other words, greater equality in human capital has not ensured greater equality in employment opportunities.	BO decomposition

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Chile			
Gender Gaps: structural characteristics of the labor market or built-in society stereotypes?			
Paredes (1982, 1994)	Employment and Unemployment Survey of the University of Chile (69;81)	Higher returns to education for females than for men, partly explained by higher levels of schooling. Between 1969 and 1981 results showed a decrease in "discrimination" against women in the labor market.	BO decomposition; Shapiro-Stelcner
Paredes and Montenegro (1999)	Household Surveys, University of Chile 1960; 1998	Systematic differences in returns to education and experience by gender along conditional wage condition. Returns to education seemed higher for women than for men in lower quintiles. Schooling return for women seems to be more procyclical than men's when estimated at the mean and that the correlation between returns increase the lower the decile. Total wage gap has been falling, but not due to a reduction in "discrimination". The unexplained wage gap increased over the last seven years: While Chile since the early 1990's has had a very tied labor market, with wages growing over 5%, and low unemployment, make discrimination more expensive.	Mincerian equations; quantile regressions; BO decomposition
Montenegro (2001)	National Characterization Socio-economic (CASEN) surveys (90;92;94;96;98)	Systematic differences in the returns to education and experience between men and women to some extent could explain wage differentials. Men and women private returns to education tend to increase as we move from the lower to the upper part of the conditional wage distribution. The unexplained wage gap steadily increases from 10 to 40% as we move from the lower part to the upper part of the conditional wage distribution.	Mincerian equations; OLS
			quantile regression approach
			BO decomposition
Seleme (2004)	CASEN 2000	Reviews links between gender, poverty and employment. Results show that 98.5% of income in women-headed households comes from work or social protection benefits. Also, as a sign of occupational segregation, women are over-represented in low-paid jobs, receiving on average 49.5% of men's salaries. Socio-economic standing of a household has a direct effect on women's labor participation and its level of dependency to house-related responsibilities. Women in Chile face exclusion before entering and <i>in</i> the labor market. Women face unequal conditions of access to labor market due to social norms that define a large portion of women's responsibilities as unpaid (and therefore, unrecognized)	Lit review
Contreras and Plaza's (2004)	Encuesta "Mujer y Trabajo, Familia y Valores". 2005	Analysis of the impact of male chauvinism and values on female labor force participation rates in Chile. Traditional "societal norms" would seem to diminish more than double the positive effects of human capital variables: Human capital variables increase by 9% the probability of a woman to enter the labor force, while cultural factor decreases her chances by 23%.	Regression models
Fuentes, Palma y Montero (2005)	2000 and 2003 CASEN surveys.	Study quantifies the evolution of wage differentials among men and women overtime: wage discrimination has decreased overtime, but remains positive, whereas women are 14.3% underpaid and men are 13.2% overpaid.	BO decomposition; Oaxaca-Ransom
Acosta (2007),	CASEN 2006	Female labor force participation in Chile has increased in the 1990-2000 periods; and a reduction in the level of aggregate gender wage gap. In addition, there has been an increase in the level of unemployment and underemployment among women, coupled with their overrepresentation in the informal sector. Women continue to face structural barriers when trying to access certain types of occupations and decision-making posts.	Lit. Review
Benven and Peticara (2007)	CASEN (1990;1996;2003)	Increase in education levels among women is one of the main determinants of increase in labor force participation rate. Changes in fertility have no impact on participation rates. Although education and the number of children in a household play an important role in women's decision to enter the labor force, the large part of the change cannot be explained by these variables, but by structural changes overtime proper of the labor market or economic context.	Yun decomposition (2004)
Bravo, Sanhueza and Urzua (2008)	raw data collected for study	Review of differences in wages between different occupations in Chile, as well as the extent to which schooling and family background may influence labor market outcomes. Study: distribution of fictions CVs to analyze differences in call response rates. Levels of schooling can explain several differences in the labor market. Men and women have same probability of being called for an interview. In upper class group, women registered a slightly higher response than men.	Experimental study/field work
Bravo, Sanhueza and Urzua (2008b)	raw data collected for study	Review of gender differences in professional labor markets: Business, Law and Medicine. Gender wage gaps only found in the legal profession. Other important variables explaining differences are the level of responsibility in the job, having postgraduate studies, size of firm and regional effect.	Ordered probit model.
Peticar and Astudillo. (2008)	Encuesta de Proteccin Social 2002-06	Education becomes significant to explain gaps only after the 50th quintile, where is favorable to women. The unexplainable gap is larger at the median of the distribution curve of salaries, especially among service sector and skilled agricultural workers. Gaps seem to decrease at both ends of the wage distribution spectrum.	Quintile regression model
			Melly decomposition (2006)

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Central America: Costa Rica, Honduras and			
Gender Gaps: Regional disparities			
Gindling (1991; 1992)	Household survey of employment and unemployment (1989)	Costa Rica: analysis show women being over-represented in public high paying jobs, but also in lowest paying domestic sector.	Brown, Moon and Zoloth (1980)
Yang (1992)	Encuesta de hogares de Propósitos Múltiples (EHPM) 1989	Wage differences are relatively low (19%). This difference may be attributed to differentials in rewards to experience, as women show higher returns to investment in schooling than men. However, differentials seem to be explained by unobserved characteristics.	Mincer; Oaxaca decompositions
Arends (1992)	Encuesta de Hogares-Mano de Obra (1989)	Panama: clear difference between women's earnings in the Canal Zone and Panama City and other areas such as Darien, Veragua and Coclé. Wage decomposition results show that at least 85% of the wage differential cannot be explained by differences in human capital, and thus need to be further examined.	BO decomposition
Funkhouser (1997)	1991/92 National Household Survey	Review of formal and informal employment in El Salvadoran urban areas. Author evaluates movements of individual male and female workers within and between formal and informal employment from 1991 to 1992 and analyze impacts on changes in wages. Results show that: Female workers who moved from the informal sectors and the formal sector had nominal wages increases two to three times those for workers who changed jobs within the same sector of employment. Female workers who moved from the formal sector to the informal sector suffered nominal wage losses. There is little difference in the earnings characteristics of those who stay in the same informal sector job compared to other workers who were employed in the informal sector	OLS regressions
Davila and Pagan (1999)	Encuesta de hogares para propósitos múltiples- CR-1989/ Household Survey-ES-1989.	Review of gender occupational attainment and gender differentials in El Salvador and Costa Rica, comparing their different economic recovery paths and labor reforms. Earnings differential between men and women was larger in Costa Rica than in El Salvador during the late 1980s. This gender earnings gap, however, is due partly to the fact that women in El Salvador worked more hours than Costa Rican women: net of intercountry differences in occupational attainment and hours of work, the gender earning gaps between the two countries was not very large.	Mincer equations
Tenjo Galarza; Medina, Ribero; Bernat Diaz. (2004)	Household surveys	Costa Rica and Honduras, returns to education are always greater for women than for men; however Costa Rica seemed to be the only country with no clear tendency towards wage equalization.	BO decomposition
Monroy, Estela (2008)	EMNV 2005.	As part of WB-IADB gender series ("Serie de Cuadernos de Género") the author survey's Nicaragua's labor market. Analysis found that the gender wage gap is around 19.8%, where the smaller gap is found among unskilled workers and the largest, among agricultural and fishing activities. Ethnic wage gap is around 27.8%. Occupational segregation seems to decrease as educational levels increase, and among the younger segments of the population.	Duncan Index
Colombia			
Gender Gaps: Is high labor participation enough and the Glass ceiling effect			
Tenjo (1992)	Household sample-DANE 1979	In this study, Tenjo founds that a large part of the wage differential was attributed to the inclusion or exclusion of domestic servants ;Colombian women have higher levels of education than men, and on average receive larger percentage premiums than men in the same occupation	Heckman; Gunderson
Velez and Winter (1992)	1988 National Household Survey	The authors found strong positive links between education and female labor force participation, but at the same time a significant percentage of women working in low wage informal jobs.	Earnings functions; Oaxaca decomposition
Urdinola and Wood (2006)	Encuesta Nacional de Hogares (1982-2000)	Review of trends in labor force participation and wage differentials and their potential links with Pregnancy Laws and poverty. Their examination on the impact on poverty of the increase in gender gaps showed that where the gender gap increased in the country, so did relative poverty, as poor households were more vulnerable to the decrease in relative wages among unskilled wages. Review trends of ratio male-female wages: long-term trend towards increase in gender wage gap related to labor regulations (more protection given to women, raising costs of female employment for firms). Link between poverty and gender wage gap: as the gender wage gap increased, so did the relative poverty, sa the decrease in relative wages among unskilled females hit poor households the most.	Standard wage regressions
Bernat Luisa Fernanda and Jaime Vélez Robayo (2008)	Encuesta Continua de Hogares de áreas metropolitana - 2006 and Clasificación Internacional	This article explores the relationship between occupational segregation and the wage differences between men and women in Cali, Colombia. Results show that women in traditionally-male occupations tend to earn higher wages than men, have on average, almost two more years of education, and have lower returns to women in traditionally-female occupations. Occupational segregation seems to be a statistically significant component to explain gender wage gaps in Cali.	Flückiger & Silber (1999) decomposition
Badel and Peña et al. (2008)	Colombian Household Survey 2006	Despite increased female labor force participation, working hours and scope of women in labor force, women earn lower wages than men. Gap explained by differences in rewards to labor market characteristics (age and schooling). The patterns of women's wages seem to suggest a glass ceiling effect whereas there women face barriers for advancement once they reach a certain level or position.	Quantile Regression Framework Machado-Mata Decomposition
Tomal and Johnson (2008)	Survey made specific for study	Study conducted a specific survey to measure the gender earnings gap for self-employed women and men; and, to identify earnings determinants based on both gender and loan source differences among the self-employed within the informal economy of Bogotá. Results showed no statistically significant gender earnings gap between men and women entrepreneurs in the informal economy. It also concluded that the variables that explain earnings are: education attainment, household help and microfinance loans (access to credit).	Mincerian earnings function
Ecuador			
Larrea and Montenegro Torres (2005)	Living conditions Surrey 1998	Authors explore socioeconomic and ethnic determinants of earnings. The study shows that on average indigenous peoples receive 55% of non-indigenous peoples' earnings. Results show that for men, differentials can be explained by difference in education levels, and the number of women employed in the informal sector. When male and women are analyzed together, 74% is explained by differences in human capital endowments, mainly education.	BO decomposition
García-Aracil and Winter (2005)	1999 Household Survey	Reviews relationship between low educational attainments and earnings. Review showed small gender differences in educational attainment, while larger between indigenous males and females. Results indicate that much of the ethnic wage differentials could be explained by higher years of schooling and urban residence.	Proportional Hazard Model; Oaxaca and Ranson

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Guatemala			
Ethnic gaps: How to deal with ethnic wage gaps in ethnically diverse countries?			
Patrinós (1997)	1989 household survey/ Encuesta Nacional Socio-demográfica (ENSD)	Results show clear differences in levels of schooling between ladinos and indigenous individuals, and also differences within ethnicities: the Quiché receive lower returns, while the Mam receive very high returns. Furthermore, the unexplained component of the earnings gap, also varies between groups whereas within the Kakchiquel and Mam this component is far lower than within the Quiché and other. This clearly calls for specific targeted policy interventions.	Oaxaca-Ransom; Oaxaca decomposition
Sauma (xx)	ENCOVI 2000 survey	Despite having the larger labor force in Central America by 2000 (around 4.5 million), the country reached low levels of productivity due to low educational levels of its workforce. In terms of wages, indigenous women have the lowest wages, followed by indigenous men who earn even less than non-indigenous women.	
Pagan (2002)	1997 Survey of Rural Entrepreneurs	Male-female differences in female labor force participation in rural areas (San Marcos, Quezaltenango, Huehuetenango, Alta Verapaz, Petén and Chiquimula). Female workforce participation in rural Guatemala is much lower than that of men. Women are over-represented in self-employment sector.	Even and Macpherson probit decomposition (1990)
Alejos (2003)	National Survey of Employment and Income (ENEI) 2002	Dual labor market. Acknowledging the existence of significant wage gaps between males and females, indigenous and non-indigenous individuals, urban and rural workers, the analysis showed education as playing a key role in income inequality, explaining almost 94% of the differentials.	Fields decomposition
Shapiro (2005)	ENCOVI 2000	In a overall assessment of indigenous peoples in Ecuador, the author's analysis of earnings showed that on average xxx. Moreover, decomposition results indicated that around 71-83% of the wage differential could be explained by differences in human capital endowments. The remainder is attributed to other elements including quality of education, years of unemployment and "discrimination".	OLS regressions Cotton and Oaxaca-Ransom
Fazio 2007	ENCOVI 2000; Censo Nacional de Poblacion y Habitación 2002; Encuesta Nacional de Empleo e Ingresos 2004	Assessment of the role of social networks on the possibilities to find a job, and on economic decisions: indigenous peoples are 7% more likely to find a job using social contacts than non-indigenous. (14% in rural areas) . However, in urban areas, indigenous peoples are more likely to find jobs through formal channels.	Bertrand et al (2000)
Mexico			
Gender Gaps: "Sticky floor" and "Glass Ceiling"			
Steele's (1992)	1984 ENIVH	A large portion of the wage differential can be explained by differences in human capital, the larger part is associated to different market values placed on these female and characteristics. Looking at variables such as productive skills, personal characteristics and other, such as area of residence, there is a positive influence of education on women's labor force participation, and earnings, but also a large unexplained part of the wage differential.	BO decomposition
Brown et al (1999)	Mexico's National Urban Employment Survey	Increase in gender earning gaps explained by: (i) increases in relative education levels for men; (ii) change in gender differences of weekly hours worked and (iii) regional structure of wages. Despite gender wage gap increase, portion attribute to male-female differences in rewards to individual endowments fell. Policies to support improvement of human capital investment for women may not be effective in reducing the existing wage gaps as differentials are linked to barriers of access for women to high quality and stable jobs, as well as less hours of work.	Wellington earnings decomposition (1993)
Pagan and Sanchez (2000)	Survey of Rural Entrepreneurs and Financial Services 1994	Gender differences are more pronounced among working individuals than among overall population. Their analysis showed an increase in female labor force participation but especially in the self-employment and non-agricultural sectors the self-employment sector provides women with the appropriate flexibility and easier access to income generating activities. Negative effect of presence of young children on women's workforce participation- women are forced to balance family and market responsibilities, which becomes a major constraint on women's work, productivity and earnings. Policies aimed at reducing gender inequality in rural labor market need to include both actions to increase individual human endowments, as well as structural demand and supply factors	Standard employment selection model W.E. Even and D.A. MacPherson decomposition
Pagan and Ullibari's (2000)	Encuesta Nacional de empleo urbano	The unexplained portion of wage inequalities is larger for those with lower levels of education, or those with college/university degrees, implying the need to explore group-specific targeted policies rather than programs for women as a whole to close wage differentials.	Jenkins index
Madrigal (2004)	General Population Census (1970; 1990; 2000)	Review links between labor force participation and fertility rates (continuation to Cruces and Galiani study) Results confirm the hypothesis that higher rates of fertility may result in lower levels of female labor participation; differences in the strength of this relationships depends on the level of education attained by women, Women with higher level of schooling have a higher opportunity cost while leaving their jobs, even though it might represent higher incomes for their families. This may lead to think for the need to introduce flexible mechanisms inside work places to that prevent high-qualified women to leave the labor market, and to allow women to maintain stable sources of income.	Angrist y Evans (1998)/ Wald estimators
Popli (2008)	ENIGH (1984; 1994;1996;2002)	Raw wage between men and women is not significant when reviewing workers in the formal sector. However, given higher levels of returns to education for women, women should on average have higher wages than men. Issues such as a persistent occupational segregation, age and region of residence appear to be factoring in to explain differences. Evidence of: "sticky floor" and a "glass ceiling"	BO decomposition; Jenkins measure; non-parametric measure

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Mexico			
Ethnic Wage Gaps			
Chavez Castillo (2006)	INEGI 2000	Discusses women's working as domestic employees, one of the lowest paid occupations in the country. Being the main source of work for indigenous women, especially in Mexico's urban areas,	Lit review
Borja-Vega et al (2007)	INEGI 2000; ENVIH 2002	Attention to the role of social networks in indigenous peoples' labor market decisions and argue that given the lower human capital endowments of indigenous peoples, they have restricted access to professional and high paid jobs, and their reliance in social networks may determine specific employment outcomes.	Shorrocks income decomposition
Ramirez (2005)	National Income and Consumption Survey 2002	Given the significant income disparities between indigenous and non-indigenous peoples found in Ramirez analysis of the Mexican economy, the author analyzed potential determinants of labor earnings and the role of ethnicity in these differentials. Results show that employment type had the greatest impact on earnings, especially in indigenous areas, where being an employer yields higher returns. Decomposition results showed that 59% of the wage gap could be explained by differences in levels of productivity between indigenous and non-indigenous peoples; and within indigenous peoples, 63-68% of the gender wage gap. The remainder could be explained by factors such as culture, quality of education, as well as labor market discrimination. The very high value of this variable means that regardless of work experience, education, employment category, area of residence, etc, gaps will remain.	OLS regressions; Blinder-Oaxaca
Horbath (2008)	INEGI 2000	Author discusses the low levels of schooling and labor training to which indigenous peoples have access to, which to a large extent may define their possibilities of entry to the formal labor market. He provides an overview of indigenous workers characteristics in Mexico's main cities, the characteristics of the disparities seen in education, as well as in the labor market. Pointing to the existence of a significant wage gap ranging from 14 to 57%, and limited labor mobility possibilities among indigenous workers, no further analysis was developed to explain these differentials.	Duncan index
Peru			
Gender Gaps: capital and urban primacy. Self-employment, an alternative for gender equality?			
Khandker (1992)	Peruvian Living Standard Survey ; National Health and Nutrition Survey (1984)	Women have more years of schooling than men, female labor force participation is relative low, in comparison to rates in the region, and wages, especially in the formal sector, are lower for women than for men. Significant differences were found comparing wage structures between Lima, and other regions, giving a clear advantage to women living urban areas, despite levels of education. Different impact an improvement on education have on women's labor market participation in comparison with men's, providing a strong argument against the gender neutrality of investment in education.	BO decomposition
Gill (1992)	1985-86 Peruvian Living Standard Survey	Although highly educated women may be attracted by the wage sector, the lack of flexibility in such sector may lead them to search for other alternatives such as self-employment. Clear barriers to self-employment including access to credit and start-up capital.	BO decomposition
O'Brien (2003)		Despite important improvements in women's wages in 90's, it still only reaches around 60% of men's salaries. Women's participation in family and unpaid work in four times higher than men's, and although the level of unemployment has decreased women are overrepresented in low-paid jobs, which may reinforce their vulnerability to poverty.	
Ethnic Wage gaps: Exclusion or "self-exclusion"?			
MacIsaac and Patrinos (1995)	1991 Living Standards Survey.	Indigenous workers earn significantly less than their non-indigenous peers and have only 6.7 years of schooling in comparison to 10 for Spanish-speaking men; however, indigenous workers tend to have almost twice the amount of experience than non-indigenous men. The larger portion of wage differential (50-70%) seems to be attributable to individuals' characteristics, while the remaining part may be explained by factors such as ability, quality of education, labor force attachment or culture. An increase in human capital characteristics of indigenous workers will tend to improve earnings. However, the specific factors that have an effect of these differentials are precisely in the areas where indigenous peoples are in greater disadvantage: university education; working in public sector; residence in Lima.	BO decomposition; Oaxaca-Ransom; Oaxaca-Cotton
Trivelli (2005)	ENAHO 2001-IV	Study discusses linked between poverty and ethnicity. There is a significant wage gap between indigenous and non-indigenous workers (49%). 43% of this gap can be explained by differences in human capital endowments. Even when indigenous human capital endowments are increased, salaries are still below non-indigenous salaries.	BO decomposition
Nopo, Saavedra and Torero et al (2007),	2000 LSMS; 2001 additional module (racial and ethnic characteristics)	Study developed new methodology to identify earnings differentials related to observable racial and ethnic characteristics. Concept to racial intensity and "score-based" methodology to identify the racial intensities among the mestizo population, as well as to capture the several dimensions of ethnicity, not always included in censuses or surveys: mother tongue, parental background, race, and religion. The analysis showed differentials only among wage earners and not among the self employed. Moreover, there are apparently no effects of ethnic-related variables (religion, birthplace or native tongue) over earnings. The effect is positive however when human capital variables (education) are introduced.	Score-based methodology
Barrón (2008)	2003 ENAHO	Explores the impact of exclusion and discrimination on income inequality. His results showed income for average indigenous workers around 44% of non-indigenous individuals, though no difference between in terms of returns to education. The analysis shows that exclusion plays a bigger role in explaining inequality and income, than discrimination. In other words, indigenous individuals are excluded from certain processes that hinder their human accumulation process. In this sense, the author argues, distribution in the years of schooling would seem to contribute to reduce the income ethnic gap.	Theil T; Minceran Equations

Table A3: Country Literature Review (cont.)

Authors and Year	Data	Main findings	Methodology
Uruguay			
		Gender Gaps: At the forefront of education, still lagging in gender wage equalization	
Arends (1992)	1985 Encuesta Nacional de Hogares (DGEC)	The wave of emigration the country experienced in the 1970's provided an opportunity for women to enter the labor force. Women's earning represented on average 75% of men's wages despite having higher levels of education than men. Differences however are largely attributed to wage structures and occupational segregation, rather than to differences in human capital endowments.	BO decomposition
Rivas and Rossi (2000)	Encuesta Continua de Hogares 1997	Gender wage gap decreased in the 90's. Human capital and labor market insertion mainly explain changes in wage gap; but the "unexplained differences" are what really explain wage differentials.	BO decomposition
Ferre Zuleika and Maximo Rossi (2002)	Encuesta Continua de Hogares y en el Censo de Población y Vivienda del	Study aims to study the evolution of gender occupational segregation in Uruguay 1986-1997. Authors show that the highest levels of occupational segregation are seen among women in rural areas. Almost half of women would need to change their occupations in order to achieve perfect integration into the labor market.	Duncan Index
Deutsch, Morrison, Piras and Nopo (2004)	Household survey (89;93;97)	Authors found that in countries like Uruguay, were the gender gap is relatively smaller, a greater degree of occupational segregation contributed to reducing the wage gap.	Fluckiger and Silber (1999)
Tenjo, Ribero, Bernat (2005)	Household surveys (LAC comparisons)	Wage differential may be attributed to salary patterns in certain sectors, and occupational segregation. However, a strong part was also attributed to traditional social structures in LAC societies preventing women from expanding labor market opportunities. Wage differentials may be a result of societal characteristics and traditional roles assigned to women, competing with their potential role in the labor market.	Heckman; Chow ;BO decomposition