

Gender wage gaps in Argentina and how collective agreements could reduce them

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Abstract

One of the characteristic features of labor markets in Latin America in general and Argentina in particular is inequality. The inequality that arises between men and women is one of the most important aspects of this.

This article aims to show one of the most significant characteristics of the inequity of Argentina's labor market—gender wage gaps—and identify the causes of these gaps, in order to contribute to the debate on policies for equal opportunities for men and women. We also reflect on the role labor institutions are playing with regard to gender inequality, particularly the effect of collective labor agreements on gender wage gaps at the firm level.

Introduction

One of the characteristic features of labor markets in Latin America in general and Argentina in particular is inequality. The lack of equity between men and women is a vital issue that must be studied and understood if we are to build a more equal, cohesive, and inclusive society. From the perspective of individual rights—given that the right to paid work is a civil right and that such work is the main source of citizens' incomes—it is important to examine how far the salaries paid to men and women differ. Adopting this approach implies that income allows and/or facilitates economic independence and is an expression of citizenship from which adults of neither sex should be excluded. The traditional approach to this issue suggests that gender wage gaps are the result of an unfair distribution of educational capital, which would explain why women have less access to high-quality employment and receive lower salaries than men.¹ However, education has been women's great achievement in recent decades, yet it has not brought about major changes to this situation, nor has it significantly altered the prejudices and cultural issues that continue to prevent women from obtaining jobs that are in keeping with their higher levels of formal training.

Women's inclusion in Argentina's workforce has grown since the 1960s as a result of various factors, notably their increased access to higher levels of education and the cultural transformations that have led to changes in the birth rate (Barrancos 2007; Contartese and Maceira 2006; Cerrutti 2000). This process advanced slowly until the 1980s, and then sped up during the 1990s as a result of the growth in unemployment and the deterioration in men's real salaries. Women joined an unequal labor market that was characterized by wide wage gaps which tended to shrink over time (27% in 1994 and 25% in 2002).

¹ The corrective policies that have derived from this diagnosis have therefore focused on the education system.

Between 1998 and 2002, Argentina went through the longest, deepest recession in its economic history, a period which is known as the convertibility crisis.² This cycle ended in 2002 with the devaluation of the Argentine peso and a radical reduction in the GDP, an increase in the employment rate, and unprecedented levels of poverty which affected about half of the country's population. The worsening of the crisis affected women's jobs less than men's, due to their segregation in health- and education-related occupations, which are more stable. For the first time, men and women's unemployment rates were on par, both at extremely high levels (2002). The increase in poverty and the deterioration of labor conditions had repercussions on women's living conditions, particularly as a result of the increase in unpaid work.

The devaluation of 2002 resulted in a seriously damaged labor market: unemployment was high, real wages were lower than historic averages, and there was high wage disparity between workers in branches of economic activity that had become more competitive as a result of devaluation, and the rest of the economy. The main policy objectives in response to this situation involved the creation of jobs and wage policies. In this regard, the labor policies that were instigated were the minimum living wage and fixed sum salary increases. Furthermore, the government stimulated collective bargaining, which intensified over the following years, leading to a wage convergence process that has corrected the effects of devaluation.

Once Argentina had come through the financial crisis of the late 1990s, the proportion of women in the workforce remained fairly high—in other words, women have joined the labor market for good. However, Argentina's economic recovery has been less favorable to them than to their male counterparts: unemployment has been reduced less among women than men, women's salaries have grown less than men's, and the feminization of the workforce that took place during the 1990s has come to a halt as a result of the greater growth of branches of activity that are traditionally seen as male (Castillo et al. 2008).

As such, in 2010, levels of gender inequality in the labor market were notably high. Women's salaries are lower than men's, which is the result of their more unfavorable inclusion in the labor market: lower labor market participation rates (37.4% and 55.3%), higher unemployment rates (9.1% and 6.9%), less access to formal employment conditions (54% and 64%), and lower hourly incomes. Lower proportions of female workers reach leadership positions, even within very female activities, despite the fact that women have higher levels of education. The degree of work-related gender inequality also varies by economic sector, occupation, geographic region, and workers' education levels (Barrancos 2007; Castillo et al. 2008; Contartese and Maceira 2006, Cortés 2003, Galvez 2001).

Indeed, in 2010, the wage gap between men and women, expressed in terms of the difference between their average monthly incomes, was close to 20% for all wage earners. It is important to highlight that the lower incomes received by women have direct effects on the wellbeing of their homes (Rodríguez Enríquez, 2007; Giacometti, 2005). Given this context, this article aims to show one of the most significant characteristics of the inequality of Argentina's labor market—gender wage gaps—and identify the factors that give rise to these gaps in order to contribute to the discussion on equal opportunities for men and women. Likewise, we reflect on the role of institutions that regulate the labor market on issues of gender equality.

² The “convertibility model” is the name given to the economic model that Argentina followed between 1991 and 2002. This was characterized by a monetary system in which a currency board pegged the Argentine peso to the US dollar.

The complexity of wage gaps and the factors that cause them led us to turn to a range of complementary sources and methodological approaches, thus allowing us to have a broader perspective on the situation. This paper is based on the results of three studies undertaken by the Ministry of Employment³ based on permanent household surveys, social security records⁴, and the Ministry of Employment's Human Resource Management surveys.

The article begins by presenting an exercise measuring the gender wage gap for all wage earners in which situations of discrimination and occupational segregation⁵ are identified (Esquivel 2007). The focus of the study is then narrowed to concentrate on formal wage-earning jobs in the private sector, in order to show how employment specialization patterns in traditionally "female" branches of activity help to explain the abovementioned wage gap (Castillo et al. 2008).

These analyses are complemented by the results of a more specific study which examines the way the workforce is organized within four selected branches of activity. In this section, we examine in detail the production management and human resources processes that produce the wage gaps we have observed. We also study the patterns of women's and men's inclusion in labor market in terms of occupational families and leadership positions, and we explain how far these are responsible for gender wage gaps. In order to contribute further to this discussion, we analyze whether different human resources and production management practices (innovation, linkages with the environment, quality management) lead to differences in the workforce and whether better organizational practices generate greater equality.

Our perspective on the role played by different institutions that regulate the labor market and the effect of this on gender wage gaps has been enriched by applying a multivariate econometric model which evaluates how far collective agreements have modified gender wage gaps in Argentina's industrial firms. Finally, we present our main conclusions.

1. Gender wage gaps and their causes: the main approaches

A large number of studies have been carried out in relation to the issue of gender in the labor market. The main schools of economic and sociological thought have made important contributions in this area, identifying possible causes for the high levels of inequality that are observed in labor markets—in other words, women's lesser participation in the labor market, the fact that their working conditions are worse than men's, and that their salaries are lower. The broad range of empirical studies that have been carried out in Latin America support the conclusions that arise from these theoretical frameworks, to a greater or lesser extent.

Neoclassical theory—which assumes that labor markets function efficiently, that employers maximize profits, and that workers optimize their incomes—establishes that salaries are a function of the marginal product of labor. From this perspective, the differences in men's and

³ "Género y diferenciales de salarios en la Argentina" (Gender and wage differences in Argentina), Esquivel V. 2007; "Los efectos del nuevo patrón de crecimiento sobre el empleo femenino, 2003-2006" (The effects of the new growth model on female employment, 2003-2006), Castillo, et al 2008; "Gestión productiva y diferenciales en la inserción laboral de varones y mujeres" (Production management and differences in men's and women's inclusion in the labor market), Castillo et al 2008.

⁴ Social security records at the Employment and Business Dynamics Observatory.

⁵ We analyze the effect that different opportunities of access have on wage gaps, based on the methodology used by Tam (1996) and Esquivel and Paz (2005). By applying the Oaxaca-Blinder approach—and some more recent methodological innovations which introduce selection bias and the effects of horizontal occupational segregation—the effects of human capital and discrimination on the wage gaps between men and women can be estimated. (Esquivel, 2007)

women's labor supply (skills and individual preference) would be the only possible explanation for both gender wage gaps and the different patterns of labor market inclusion that men and women display.

On the one hand, the theory of human capital postulates that there is a direct relationship between labor income and work skills acquired through formal education, training, experience, etc. The decision to invest in human capital is rational and is the result of comparing the cost of education with the wages that will be earned in the course of the individual's working life. The fact that women have greater responsibilities in the areas of child rearing and care for family members limits their chances of accumulating human capital. This curbs the productivity of their paid labor and thus their salaries, too. Furthermore, women's labor costs are also increased by the greater burden they carry in terms of household work, which leads to higher levels of absenteeism, unpunctuality, and rotation between jobs, and also to greater infrastructure costs (such as the need to provide day care). In this sense, the lower salaries that women are paid are a way of compensating for the higher labor costs they incur.

However, the empirical evidence for Latin America does not seem to support, in an aggregate fashion, the assumptions established by neoclassical approaches regarding women's reduced productivity and higher labor costs. Specific studies on labor costs in Argentina and Chile did not find significant gender-related differences (Berger and Szretter, 2002; Lerda and Todaro, 1996). In a study on the career paths of formally employed workers in Argentina, women showed less rotation between jobs than men (Castillo, 2006). Similarly, women in Latin America—particularly those in employment—have high education levels, so it would be unreasonable to expect them to have fewer work skills.

However, the ideas that derive from the neoclassical approach remain highly relevant because they form part of the perceptions of business owners, who tend to apply these criteria more freely when hiring or restructuring their staff in contexts of high unemployment or under-regulated markets.

The theory of dual or segmented markets has made significant contributions to understandings of nature of labor inequality between men and women. This theory refers to situations where groups of workers with comparable characteristics are compartmentalized and isolated (segregated) into core and periphery sectors within a firm's employment structure. The needs that derive from the use of technology and greater training give rise to a core sector which offers better working conditions (higher salaries) to retain workers because it requires a stable workforce. Women are associated with greater labor mobility due to their child-rearing responsibilities, and so they tend to be excluded from firms' core sectors. As such, the theory predicts that women and men have equal access to periphery sectors of the labor market, but men have greater chances of accessing the core sector (where salaries are higher) (Piore, 1970; Rumberger and Carnoy, 1980).

Another level of labor segmentation derives from the heterogeneity of the productive system (technology, firms' organizational structures, the nature of the demand for the product, and the degree to which employees are unionized) (Thomson, 2003)⁶.

⁶ From this point of view, Beck, Horan, and Tolbert II (1978) define the core and periphery sectors from the relationship between the product market type and industrial structure: the core sector is dominated by large firms which make up an oligopolistic production system. This contrasts with the periphery, which is characterized by small companies that operate in a more competitive environment. The firms that operate in more stable markets generate primary jobs.

Numerous empirical studies for Latin America show that, in different areas of activity, female employment is concentrated in periphery sectors of the productive fabric: firms with lower productivity and technological sophistication, and/or occupations in which repetitive and dangerous tasks are carried out. (Abramo 1999; Leite 2000; Abramo and Armijo 1995; Buitelar, Padilla, and Urrutia 1999; Aguilar Benítez 1998; Hernández 1995). Neoclassical theory — particularly that on labor market segmentation — has contributed significantly to analyses of gender inequality in the world of work. However, these contributions alone do not account for the segregation process that divides occupations into “masculine” and “feminine” groups, and the wage gaps that result from this. Feminist perspectives complement these understandings by integrating other factors from outside the labor market into explanations for this segregation. These lines of research are making headway in the analysis of how established gender stereotypes are transferred onto occupations. In this way, the positive attributes associated with women⁷ contribute to their being considered suitable for occupations related to care, health, education, domestic service, trade, and administrative roles, among others. The negative characteristics⁸ assigned to women disqualify them from taking on management positions and technically and professionally qualified occupations. One final group of stereotypical female qualities⁹—which includes a lower inclination to join unions—explains the main features of female occupations, such as low wages, high flexibility, lower social prestige, and limited decision power¹⁰ (Anker 1998).

In this sense, a study undertaken in Chile provides a description of the mechanisms that make up a gender order which characterizes and classifies certain types of firms and occupations as more or less suitable for men or women, thus defining veritable “male territories” and “female territories” in the world of work. The limited possibilities for promotion and leadership positions can be explained by the existence of an invisible, impassable barrier, known as the “glass ceiling.” This conceals indirect discrimination which, although not present in labor laws, can be measured through the differential results between men’s and women’s employment, and is another mechanism that defines the quality of employment to which women have access (Todaro, Abramo, and Godoy 2001)

2. Gender wage gaps. An exercise considering all wage earners.

As we have mentioned, one of the issues that reflects women’s unfavorable inclusion in the labor market is the fact that they earn lower wages. The quantification and analysis of the reasons behind this are therefore extremely important.

⁷ A “natural” inclination to take care of others, honesty, skill at household chores and manual tasks, and an attractive appearance.

⁸ Reluctance to supervise work, less physical strength, less inclination to travel or face physical danger.

⁹ Greater docility, less inclination to complain about their work or join unions, greater willingness to carry out repetitive and monotonous tasks.

¹⁰ In this sense, the typification of occupations (that is, categorizing them as female or male) is what determines segregation patterns in the labor market and is the reason that most studies focus on occupations themselves. (Watts and MacPhail, 2004)

Valeria Esquivel's article "Género y diferenciales de salarios en la Argentina" (Gender and wage differences in Argentina)¹¹ tackles this issue in relation to those employed on a permanent basis. Esquivel considers that "the concept of gender-based discrimination and occupational segregation is predicated on the existence of discriminatory employers, who are not found in unsalaried occupations." The source she refers to is the Permanent Household Survey for the second trimester of 2006.

The study seeks to identify the possible causes of the gender wage gap, including the type of labor inclusion (quality of position, length of working day, etc.) and the differences between men's and women's profiles (skills, work experience, and education levels). These differences cause methodological difficulties when comparing salaries, but Esquivel's study resolves this by applying analytical approaches usually employed in this sort of study.

Female wage earners have less access to stable (permanent) jobs that are protected by the social security system (that is, formal employment) and that have eight-hour working days. This is the main explanatory factor for women's lower monthly incomes, the greater incidence of underemployment (less hours worked) among them, which is more pronounced among informal female workers and domestic helpers.

Indeed, in 2006, the gender wage gap stood at 20% in favor of men when calculated on the basis of monthly incomes, but was substantially lower (3.8%) if calculated by hourly income, which isolates the effect of the working day.

Another explanatory factor for the gender wage gaps might be the difference between men's and women's educational profiles. However, when equivalent profiles were compared—for which a decomposition model¹² was used—the gender wage difference also emerged in favor of men (18.2%), and the difference was much greater than in the previous calculation (3.8%).

This shows that women's educational levels do not explain the gender wage gaps in Argentina's labor market, as the characteristics and work skills of women in employment make them more productive than men. In other words, the supposed education deficit used by some perspectives to explain gender wage gaps is not corroborated by the evidence.

As Esquivel's study says, "Traditional interpretations label phenomena related to demand for work as *discrimination* and *occupational segregation*." In the labor market, discrimination refers to a situation in which two people who are equally productive in material and physical terms are treated differently (one worse than the other) solely because of visible characteristics, such their gender. This differential treatment is expressed both in terms of different salary levels for comparable individuals (the visible result of discrimination) and as different demands for their particular work services for the salary in question, in other words, as segregation" (Esquivel 2007).

An interesting detail included in the article, and which is also corroborated by other studies, is that the gender wage gap, measured in terms of hourly income, was favorable to women (without adjusting profiles) until 2003, indicating that women were receiving higher hourly wages (Esquivel and Paz 2005; Cristini 2007).¹³ However, a comparison of equivalent

¹¹ Esquivel V. (2007) "Género y diferenciales de salarios en la Argentina" (Gender and wage differences in Argentina). In *Estructura productiva y empleo. Un enfoque transversal* (Productive structure and employment: a transversal approach). Ministry of Employment and Social Security. Buenos Aires, Argentina.

¹² Oaxaca-Blinder decomposition method.

¹³ As we have mentioned, this situation changed around 2006, when the wage differential became unfavorable for women, because the context of a strong economic recovery meant that the number of hours men were working increased more than women's did, as did their monthly incomes.

profiles reveals that this “apparent advantage” did not actually exist. Indeed, the positive gap was actually the result of comparing the salaries of men and women with different productive profiles. From this perspective, the results clearly indicate wage discrimination.

Another determining factor that was analyzed in connection with gender wage gaps was the quality of positions that men and women attain, defined in terms of issues such as whether the person is formally employed, the stability of the position, and the length of the working day¹⁴. In order to do so, two employment sectors were defined: *high- and low-quality positions*.

In each of these sectors there were significant gender wage gaps, although there was less discrimination among high-quality positions. The incomes of men who reached these positions were 14% greater than those of the women who had, while the gender wage gap was far greater for low-quality positions (22%).

However, the incomes of those with high-quality positions were 70% higher than those with low-quality ones. In other words, the wage gap between the different quality levels of posts was greater than the gender wage gap within each of the two sectors (14% and 22%). As such, a central factor to explaining the gender wage gap among all people in employment is the different probability that men and women have of accessing stable, formal employment with full working days (high-quality positions).

The evidence from the ongoing government-led household surveys shows relatively unfavorable employment inclusion for women. Women’s hourly income is lower than men’s, even though it should be higher if the personal characteristics associated with productivity are taken into account. However, the econometric exercises that were carried out do not explain how these differences in the type of labor inclusion come about or why they continue to exist. To answer this question, the study proceeds by investigating if women come up against barriers when applying for high-quality positions. The results obtained¹⁵ indicate that, due to their personal characteristics, there should be more women employed in high-quality occupations than men, but in reality they are less likely to access these positions.

In all cases, these models analyze the phenomena of segregation and wage discrimination taking the characteristics of supply, including family-related restrictions, as givens. None of these static models incorporates the feedback effect that unequal treatment and labor market discrimination—in the form of lower-than-expected salaries—might have on women’s choices and behavior, so they should be used with caution (Esquivel 2007).

In other words, the statistics reveal visible gender inequality in the labor market, as expressed by wage gaps that are unfavorable towards women.

In order to increase the complexity of our analysis of wage gaps and the processes that produce them, we need to include other sources and approaches that will provide more detailed information on the characteristics of the demand for work, as well as the business management processes that generate these gaps.

¹⁴ Tam (1996) and Esquivel and Paz (2005).

¹⁵ Probit model, which includes a coefficient called the Inverse Mills Ratio (IMR).

3. Differences in men’s and women’s labor inclusion patterns and wage gaps—formal wage-earning employment.

In order to delve deeper into women’s occupational segmentation and the implications of this on wage gaps, we will focus our analysis on formal wage-earning employment in the private sector.¹⁶ This type of employment, which according to the parameters established above is “high quality,” is a protected sector of the labor market, as institutions which regulate work-related activity can operate within it with greater transparency (in contrast to the informal sectors which were also taken into consideration above). Within this protected segment, one would expect to find more egalitarian gender behavior and thus smaller salary gaps, according to the conclusions reached above (section 2).

To carry out this analysis, monthly salary (income) was a more suitable criterion than hourly income (price) as it allows us to understand the individual’s *income-generating capacity and the average amount of this*. In this sense, the relationship between men’s and women’s incomes is a synthesis indicator of the gender gap and expresses both the degree to which women access the labor market and the income levels they attain in comparison to men (Galvez 2001).¹⁷

The results show that, even in the universe of formal employment, wide gender wage gaps prevail.¹⁸ As we have mentioned, among the total of people in employment (including formal and informal employment, and the public and private sectors)¹⁹, the gender wage gaps stand at 20%; while among private, formally employed workers, they are at 26.2%. Once again, the horizontal segmentation patterns of female employment—that is, their concentration in certain areas of activity which pay the lowest wages—lead to very wide wage gaps, even higher than those in the informal employment sector.

In the post-crisis period (2002 onwards), in a context of general growth of nominal salaries, the gender wage gaps tend to fluctuate around 24%, indicating that although economic growth does bring many women into the labor market, it is not enough to change the sector- and hierarchy-based occupational segregation patterns that are reflected in the wage gap.

¹⁶ Domestic employment has not been included.

¹⁷ A methodological consideration that should be made before the analysis is the salary measurement that will be used to quantify the gender wage gaps. This section of the article is based on the comparison of average monthly income (in contrast to the previous section, which used hourly wages). Likewise, the source does not provide information about the number of hours worked nor the workers’ profiles. However, the census-like nature of the sources gathered by the Employment and Business Dynamics Observatory allows us to undertake a detailed analysis of the economic activities that men and women take part in.

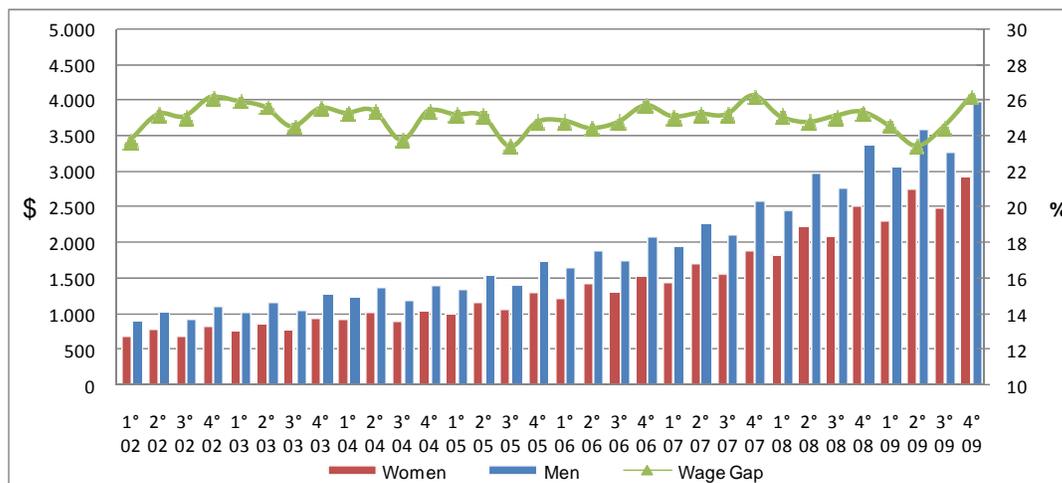
¹⁸ Calculated over average monthly incomes.

The wage gap between men and women is calculated as one minus the quotient of women’s average salary over men’s average salary. $B = 1 - \frac{W_{Women}}{W_{Men}}$

When the gap is 0 it means that salaries are equal; when the gap is positive and large it means that there is greater inequality in terms of the deficit in women’s salaries in comparison with men’s. When the gap is negative it means that women’s incomes are higher than men’s.

¹⁹ Permanent Household Survey. Urban total, 1st quarter of 2007-

Figure 1. Average salary in Argentine pesos and the wage gap for all formally employed wage-earners. Quarterly 2002–2009



Source: Employment and Business Dynamics Observatory (OEDE), General Directorate of Employment Research and Statistics (DGEyEL), Subsecretariat for Technical Coordination and Employment Research Studies (SSPTyEL), Ministry of Employment and Social Security (MTEySS), based on the Integrated Pension System (SIJP).

There are great differences between women's employment participation across the different activities studied. In 2009, women accounted for 18.8% of industrial employment, 34.4% of commercial employment, and 42.8% of services. The service sector reflects the traditional division of labor, wherein teaching (where three of every four employees are women), social services, and health (where women make up 73% of the workforce) are clearly feminized activities. Although women's participation in industrial employment is lower than in service and commerce, certain branches of this sector stand out for having had continually high levels of female employment. In 2009, 62% of the total number of women working in industry did so within four branches: Food, Confectionary, Chemical Products, and Textile Products.

A sector-by-sector analysis of this phenomenon reveals that although the service sector has the greatest number of female employees, it is also where the greatest wage gaps can be seen (26.3%). Industry is at an intermediate point: the low female presence in the sector is accompanied by a 23% salary difference. Finally, women in commerce have the least salary differences in comparison to men (20%).

The gender pay gaps can be seen to be more pronounced in financial intervention services, business services, and manufacturing in general. The most egalitarian activities, in terms of salary differences, include: teaching, health, hotels and restaurants, and commerce. Note that in these branches of activity (where wages are similar to or below the average for the economy) the minimum wage policy and collective bargaining tend to even out men's and women's salaries amongst the least qualified workers.

With regard to the average salaried paid in each branch of industrial activity and women's participation in these, the result was paradoxical. Although there has been an increase in female participation in the branches of employment with the highest average salaries, these are also the sectors of industry with the widest pay gaps between men and women. The same is also true of the service sector. This speaks of greater inclusion, accompanied by gender-based segregation expressed through salary levels.

Table 1. Formally employed wage-earners in the private sector— gross monthly income in Argentine pesos according to sex and wage gap, 2009

Sector	Women	Men	Gap
Manufacturing industry	3,663	4,758	23%
Commerce	2,592	3,250	20%
Services	2,897	4,004	28%
Hotels and restaurants	2,076	2,435	15%
Transport, storage, and communications	4,002	5,049	21%
Financial intervention	5,303	7,429	29%
Business services	2,609	3,406	23%
Teaching	2,318	2,312	0%
Health and social services	3,347	4,325	23%
Other service activities	2,813	3,699	24%
Total	2,948	3,996	26%

Source: Employment and Business Dynamics Observatory (OEDE), General Directorate of Employment Research and Statistics (DGEyEL), Subsecretariat for Technical Coordination and Employment Research Studies (SSPTyEL), Ministry of Employment and Social Security (MTEySS), based on the Integrated Pension System (SIJP).

In other words, the analysis of men’s and women’s labor inclusion patterns, even within formal employment, shows a high degree of segmentation within certain branches of activity, which coincided with different pay levels. This pattern explains a substantial part of the unfavorable salary differences for women. However, the results also show large wage gaps within branches of activity.

4. Production management and gender wage gaps

The continued existence of large gender wage gaps within specific branches of economic activity and even within firms themselves indicates the need for deeper analysis. It is worth emphasizing that the education level of women in the economically active population is higher than that of men. It should also be borne in mind that if there were no discrimination, the characteristics of employed women would be consistent with higher income levels than those earned by men (section 2).

We therefore need to turn to another source of information that will allow us to understand the production and personnel management processes that take place within firms, and how these affect the gender wage gap. In order to do so, we analyzed the results of the *Human Resource Management Survey* from 2007.²⁰ (See details in the appendix on information sources.)

This section of the article focuses on four branches of activity which have made advances in the process of feminization (growth in the proportion of women employed in these sectors)

²⁰ The study is based on a survey carried out on a **sample of 240 firms** which were representative of four sectors which had made headway in the feminization of their workforce. In order to analyze the link between modern sectors and more egalitarian forms of inclusion in the labor market, software development firms and advertising agencies were examined. Two traditional sectors were also included: a service (hotels) and an industry (manufacture of cosmetic chemical products). In order to identify possible differences resulting from local practices, the survey was carried out in the last trimester of 2007 in two different urban areas: Greater Buenos Aires and Greater Cordoba.

and which have large numbers of women on their staff. Indeed, while in 2007 women only made up 18% of the industrial workforce, they represented 51% of those employed in the cosmetic chemical production sector. With regard to the service sector, where the feminization of employment is notably higher (42%) than in industry, the situation in advertising agencies and hotels is essentially one of equal access (women make up 50% and 48% of the workforce, respectively). A different situation can be seen among software development firms, where only 36% of employees are women.

Although the situation in the branches of activity that were studied is fairly equitable in terms of women's presence on the workforce, the existence of marked wage gaps indicates differences in the quality and type of jobs that men and women have access to.²¹ Within the activities studied, the widest wage gaps²² were found in advertising agencies, where on average women received salaries that were 46% lower than men's. In chemicals and software, women's salaries were 30% lower. Women working in hotels faced the smallest wage gap, as their average salaries were only 7% less than men's.

In order to identify possible causes for wage gaps, we investigated further. We first considered those responsible for human resources to see if they found women to be less productive or more costly for the company, issues which, if true, could justify the wage gap. According to the opinions of the majority of those consulted, there were no differences between male and female works in terms of efficiency, training, or inclination to change jobs. Indeed, women were described as being more reliable, more disciplined, more committed to their work, and more interested in becoming qualified.

The only negative evaluation of women's work was in connection to the loss in productivity associated with maternity leave (40% of respondents). Although maternity leave in Argentina is financed by the Social Security System, finding and training replacement staff requires an effort on the part of the firm. In the first place, the survey showed that only a very low percentage of firms provide daycare services for female employees' children, be it onsite or by paying an offsite daycare center. This result is noteworthy when we consider that women represent nearly half of the total workforce in the branches of activity studied, particularly given that in Argentina there is a law (the regulations for which are yet to be established) which obliges larger firms to provide daycare services for their employees. It is probable that there is a certain distance between the "politically correct" discourse of the interviews carried out for this study and the value judgments that arise when staffs are being hired for a specific position. It is feasible that negative judgments have greater weight in relation to certain occupations (and occupational hierarchies) where attitude-related issues associated with each gender's skills exist. In the second place, the analysis tried to determine whether, within firms, differential labor inclusion patterns could be observed that were consistent with the existence of "male and female territories"²³. These segregation patterns, as defined by the

²¹ For this analysis, the average wage gap was understood as the difference in wages for full-time positions.

²² The wage gap between men and women is calculated as one minus the quotient of women's average salary

over men's average salary. $B = 1 - \frac{W_{Mujeres}}{W_{Varones}}$

When the gap is 0 it means that salaries are equal; when the gap is positive and large it means that there is greater inequality in terms of the deficit in women's salaries in comparison with men's. When the gap is negative it means that women's incomes are higher than men's.

²³ To do so, we analyzed whether men and women were distributed evenly among all the occupational areas that made up each firm or whether, in contrast, workers of one or the other sex were segregated into male or female occupational areas or territories, depending on which sex predominated. An occupational area is considered a

abovementioned territories, were given a positive or negative evaluation depending on the differences they generate in women's labor conditions in general, and in particular on the salaries they are paid.

In all four of the areas studied, segregation emerges as a major phenomenon in employment structure. Indeed, 60% of employees work within either male or female occupational areas. Only 40% of employees work in integrated or mixed areas.

The information revealed by the survey shows clear segregation patterns in all four branches of activity studied. In general terms, women's participation is high in support areas (although the software development branch does not have female areas). Men tend to predominate in general management and production. Finally, administration and commerce are both mixed areas²⁴.

This reflects an experience-based "naturalization" of female and male territories which leads business owners to believe that horizontal segregation is appropriate and even efficient. Indeed, the very respondents who had stated that there were no differences between male and female work in terms of costs and productivity, when asked about the characteristics that they valued when hiring new staff for different areas of the firm, openly indicated that they prefer to have men working in areas where men predominate and women in ones where women predominate.

The pattern of segregation of men and women largely coincides with the pattern of skill requirements for positions, in that positions with lower skill requirements fall predominantly into female areas. Women working in women's areas are not the only ones holding positions with lower skill requirements: in all the occupational areas studied (male, female, and mixed) it was observed that higher proportions of women work in low-skill occupations, while men are more likely to access professional and technical positions.

Even though the branches of activity studied represent heterogeneous segments of the productive fabric in terms of the skills required in each, the behavior described above is repeated throughout: female employment is concentrated at the base of the skills pyramid. This contrasts with the opinions of those responsible for human resource management, who state that women do not have lower skills levels than men and that they are more interested in receiving training. It also contrasts with the fact that, within the economically active population of Argentina, women have spent more years in formal education than men.

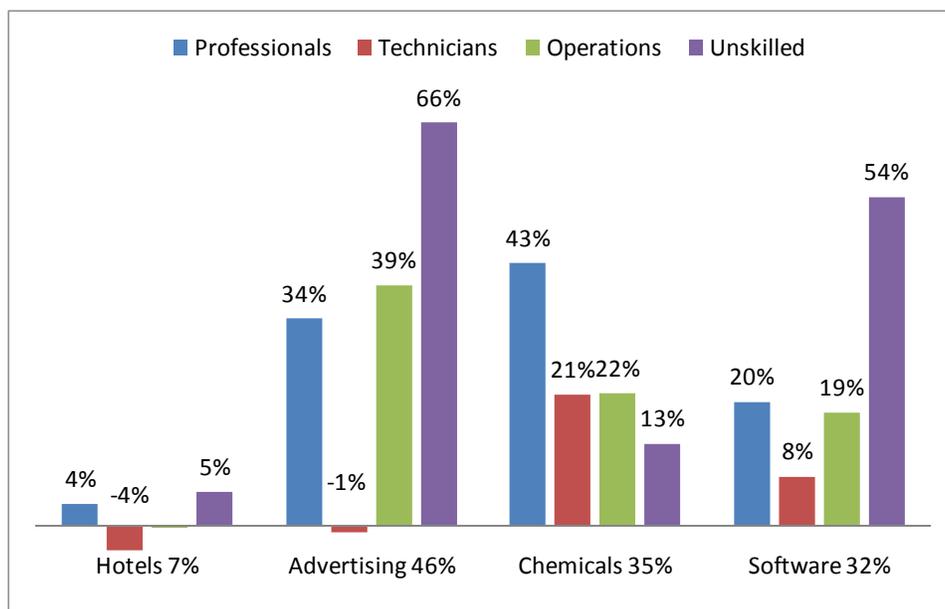
Women's concentration in positions with low-skill requirements, despite not necessarily having low skills themselves, has direct effects on wage gaps. However, this is not the only explanatory factor for the difference. Women receive substantially lower salaries at all skills levels (with the exception of those employed in the hotel industry), as can be observed in Figure 1.

There is no systematic relationship between skill level and the breadth of the gender wage gap. As such, in cosmetic chemical factories it is female professionals who have the largest income deficit in comparison to their male colleagues. In contrast, in advertising agencies and software development firms, the widest gaps are for positions with low skill requirements.

mixed or integrated territory when the proportion of men and women within it is similar to the average for the branch of activity as a whole.

²⁴ Other mixed areas include food and drinks in the hotel trade, media and creativity in advertising, production in chemicals, and implementation and testing in software.

Figure 1. Wage Gaps by Skills Level



Source: Employment and Business Dynamics Observatory (OEDE), General Directorate of Employment Research and Statistics (DGEyEL), Subsecretariat for Technical Coordination and Employment Research Studies (SSPTyEL), Ministry of Employment and Social Security (MTEySS), based on the Human Resource Management Survey.

How far does the existence of segregated occupational areas affect the wage gap? Comparing incomes between the different areas shows that that preponderantly female areas tend to have lower salaries than male or mixed areas. Given that a high proportion of women (41%) were found within these areas in the firms that were studied, segregation into “territories” explains a substantial part of the total wage gap that was observed.

However, gendered occupational spaces are not the only explanation for wage differences. An analysis of each area reveals a more complex situation. In low-wage occupational “territories” (housekeeping in the hotel industry and supply in chemicals), the wage gap between men and women tended to disappear. More pronounced gaps were visible in medium-wage female areas, such as the commercial areas of advertising and chemicals, where women’s salaries were less than half those of men. Once again, the hotel industry was an exception, in that there were no gender wage gaps in its commercial departments.

Taken together, mixed and male occupational territories—where women have only a limited presence and where salaries are relatively high—show smaller wage gaps between male and female employees. This state of affairs suggests that when women manage to access male or mixed territories, even as a minority, they receive more equitable salaries in comparison to their male colleagues. What is more, they are paid even more highly than in areas that are “typically” female.

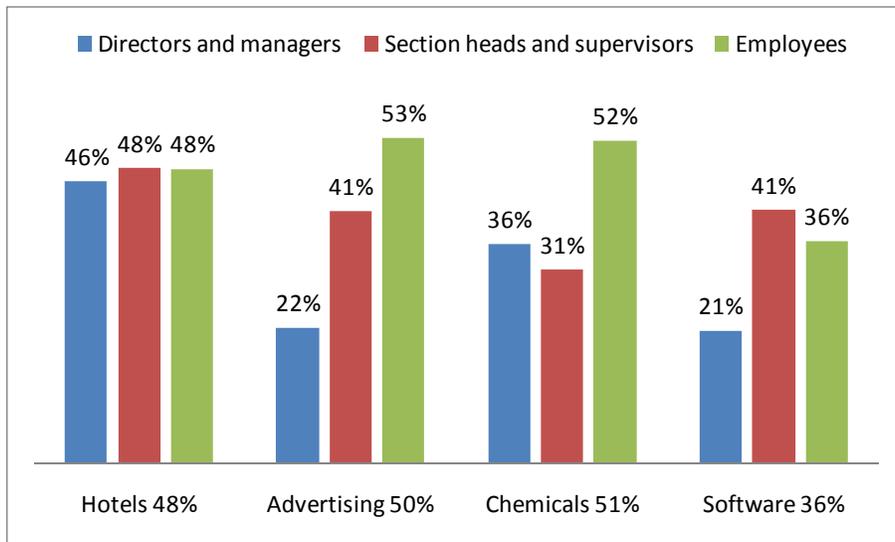
An important aspect arising from this analysis is the “equalizing” role of wage-regulating labor institutions. Between 2004 and 2007, collective bargaining and the minimum wage and “fixed sum” increase policies implemented by the Argentine government have played an important part in raising both minimum and average salaries within the economy. In this context, it can be observed that those occupations and branches of activity where take-home pay is close to the legal minimum wage (either the adjustable minimum living wage or that established by collective agreement), the wage gaps between men and women tend to disappear. The hotel industry and production and logistics in cosmetic chemical factories are three such examples.

Occupational hierarchies

Another dimension of the analysis of wage gaps is access to leadership positions, namely the situation that the literature labels “vertical segmentation” or “the glass ceiling”, in reference to the invisible barriers which make it difficult for women to develop their professional careers. The differences in men’s and women’s employment inclusion patterns were analyzed in terms of hierarchical occupational categories (see Appendix 1) in the selected branches of activity.

In the total firms studied, the hierarchical pyramid is very pronounced: around 3% of the workforce is made up of managers and directors, 7% are middle management (supervisors and section or department heads), and the remaining 90% are employees with no other staff under their supervision²⁵. The survey results show that in advertising agencies, software development firms, and cosmetic chemical factories, women’s participation in the workforce decreases the higher they move up the hierarchical ladder. The exception, once again, is the hotel industry, where access to management positions is equal. These results confirm the existence of a glass ceiling for women who work in advertising, chemicals, and software.

Figure 2. Proportion of Women According to Hierarchical Level of Occupation—by Branch of Activity, 2007



Source: Employment and Business Dynamics Observatory (OEDE), General Directorate of Employment Research and Statistics (DGEyEL), Subsecretariat for Technical Coordination and Employment Research Studies (SSPTyEL), Ministry of Employment and Social Security (MTEySS), based on the Human Resource Management Survey.

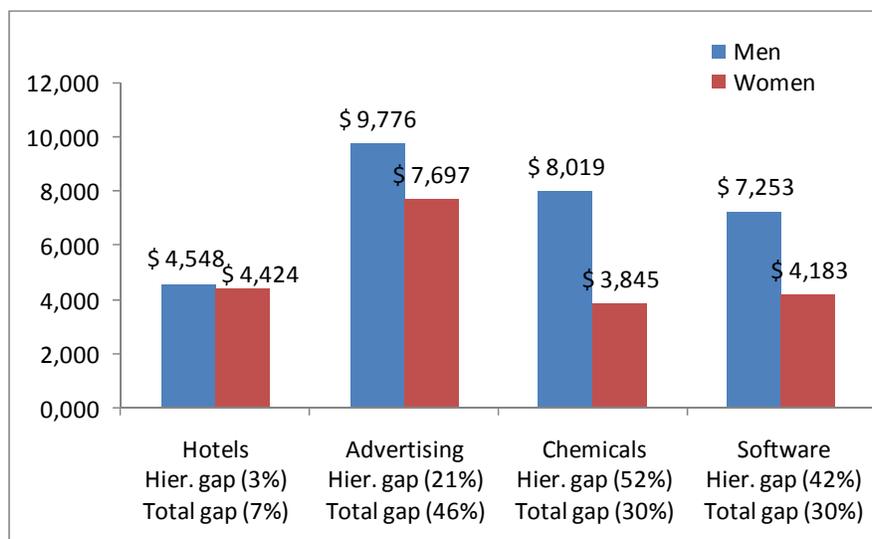
The difficulties in reaching management positions only serve to explain part of gender inequality, as the women who do to reach management positions receive notably lower salaries than their male counterparts. Management salary differences are particularly pronounced in software development firms (42%) and cosmetic chemical factories (52%), as female managers’ incomes are almost half those of male managers. The wage gap for these

²⁵ The category of employees with no other staff under their supervision includes people occupying positions with different skill requirements (unskilled, operations, technicians, and professionals), as was established in the previous section.

positions within advertising agencies is relatively smaller, but is still substantial (21%), while management incomes in hotels are approximately equal for both sexes (men earn 3% more).

The wage gaps observed in management positions are partly explained by the fact that men and women access positions with different characteristics and job descriptions. The types of management position occupied by larger proportions of women are mainly in support areas, where incomes are lower. This is also the case for administrative and commercial management positions²⁶.

Figure 3. Gross Monthly Income and Gender Wage Gaps for Management Positions—by Branch of Activity, 2007, Argentine pesos



Source: Employment and Business Dynamics Observatory (OEDE), General Directorate of Employment Research and Statistics (DGEyEL), Subsecretariat for Technical Coordination and Employment Research Studies (SSPTyEL), Ministry of Employment and Social Security (MTEySS), based on the Human Resource Management Survey.

The extremely low proportion of women in management positions in the areas where “critical” processes are carried out is noteworthy; in these areas, men predominate and salaries are higher.²⁷ However, some mixed and male-dominated areas are in transition, and women with high levels of education have attained management positions in these.²⁸ Generally speaking, women are underrepresented in middle management in the branches studied, and are found mainly in female territories.

Individual imaginaries of the skills affecting men’s and women’s job performances are a determining factor when it comes to selecting personnel and promoting employees. These processes take place in Human Resources, where decisions are mostly made by men.

The attributes that are most valued in management positions (availability for long or unpredictable working days and for travel) are largely incompatible with the family responsibilities that women tend to have, and thus obstruct women’s access to management

²⁶ The low proportion of women in management positions in the commercial areas of advertising agencies is noteworthy.

²⁷ In advertising agencies and software firms.

²⁸ This is true for production management in chemical cosmetic factories and customer support in software development firms.

positions. Another aspect that is hard for women to achieve is the prior experience necessary for management positions. This gives rise to a vicious circle which is hard to escape from, given that the lower proportion of women in management roles leads to a lower proportion of women with experience, and thus access to these positions becomes more complicated.

It is interesting to note that, according to the information obtained, there is no positive relationship between gender equality and how recent the sector is. Clearly, gender segregation cannot be seen to be any less marked in more modern, knowledge-intensive sectors (software development and advertising agencies) than in traditional branches of activity (hotels and cosmetic chemicals).

Nor are the degree of modernity and complexity of production management variables which explain the gender differences studied here: even universalist modern management paradigms do not incorporate measures or policies that compensate for the discriminatory attitudes that are part of the social imaginary of employers and employees alike.

5. Collective bargaining as an equalizing institution for salaries

The function of institutions that regulate the labor market is to reduce inequality. This is the case with labor unions: collective bargaining is their main instrument of intervention, and through it salaries are determined. A recent study (Trajtemberg, 2008) has confirmed, for 2006, the equalizing effect of collective agreements on wage gaps in Argentina's labor market.

The international literature on the subject offers numerous arguments for why unions tend to even out salary distribution: wage equality reinforces solidarity, reduces the possibility of discrimination, provides security to workers who are risk-averse, and is a desirable value for union members (Freeman and Medoff, 1984) (Gartner and Gesine, 2004).

In Argentina, collective agreements establish minimum wage levels for each job, independently of the personal attributes of the individual carrying it out (for example, race, nationality, religion, and gender). These agreements also set out guidelines that determine increases in salary related to factors such as seniority. Within firms, groups of workers who are covered by a collective agreement which establishes their working conditions perform alongside other groups of workers who negotiate their salaries individually.

However, the effect of this institution on wage gaps is not the same for workers at different hierarchical levels and with different skill levels. They have a greater equalizing effect on workers with lower skill levels, for whom collective labor agreements are more wide-reaching.

Another interesting issue is the weight of employment history. Among workers who are covered by collective agreements, there is greater gender-related inequality among those who have been working for longest, which reflects the fact that men would have had greater chances for promotion. Likewise, the smallest wage gaps are found among the youngest workers.

In order to provide empirical evidence for Argentina which supports these claims and evaluates how the endorsement of these labor institutions has improved gender wage inequality since the end of the financial crisis in 2002, an econometric model with panel data was estimated, the aim of which was to evaluate how far the proportion of workers with

collective agreements within a firm functions as a limiting factor for firm-level wage gaps. The study was for formal employment in manufacturing firms between 2002 and 2008.

Within the model, there is control over structural characteristics of the firm such as age, size, activity sector, origin of capital (multinational subsidiaries or Argentinian firms), its exporting status, and other aspects related to the firm's gender policy, such as the percentage of female employees.

The results of the model show that the amount of workers with collective agreements within firms significantly reduces the gender wage gap, independently of the size, activity, or age of the firm.

The study also shows that of the variables analyzed, the firm's branch of activity is the aspect which accounts most for gender wage differences. This result is consistent with the approach which argues that the gender-related contents of occupations are the main causes of gaps in labor inclusion, as different branches of activity group together different occupational profiles. These results are consistent with those presented in section 2.

The size of firms also helps explain wage gaps: there are higher levels of inequality within smaller firms. One surprising result is that—once the sector and branch have been controlled—multinational firms have great levels of inequality than Argentinian firms. This result may also reflect the lower incidence of collective bargaining within foreign firms, which translates into greater wage inequality. The age of a firm has no effect on the wage gap, indicating that new firms replicate predominant behavior patterns within the sector they become part of.

In turn, the proportion of women in each firm is a variable which contributes to widening the wage gap between men and women: in work environments where women predominate, men tend to be better paid. Other studies indicate that this process is associated with greater access to hierarchical positions.

Our interpretation of these results shows that the type of growth that Argentina's economy underwent between 2002 and 2009, characterized by the incorporation of numerous new firms into the productive fabric and by increased dynamism within industrial sectors that have traditionally had low numbers of female employees, has brought the feminization of the workforce to a halt, on the one hand. On the other, it has also led to an intensification of gender wage gaps within firms. That is, micro- and meso-economic incentives have favored a change in employment structure that is beneficial to those sectors that have traditionally presented the widest gender gaps (smaller firms and the industrial sector).

However, the exercise shows that the intensity of collective bargaining and the increase in the number of workers covered by collective labor agreements have had a compensatory role and have tended to equalize salaries between the sexes.

6. Conclusions

Through this article, we have been able to characterize not only the size of the gender wage gaps within Argentina's labor market but also some of the factors causing and maintaining these, by examining first the situation for all permanent employees before moving on to specific behaviors observed in four branches of activity.

This journey has been enriched by the analysis of traditional sources with wide coverage of cases (Permanent Household Surveys and Administrative Records) and by issues revealed by more specific studies, such as the opinions of those responsible for hiring and promotions within firms. In this way, the statistically significant conclusions reached by applying econometric models can be seen in the perceptions and behavior that are developed in management processes.

The results show that gender wage gaps are wide. Even though they have higher skills levels than their male colleagues, Argentinian women's incomes are 20% lower.

This study provides evidence that supports the idea that gender discrimination at work is the main factor explaining the fact that women's opportunities for inclusion and advancement in the labor market are worse and smaller than men's. The categorization of occupations according to their supposed suitability for either men or women leads to employment configurations wherein most employees, both male and female, work in gender-segmented areas. This segmentation pattern has clear effects on the unfair conditions of female employment.

In effect, women have greater difficulty in accessing high-quality employment, but as this is not explained by their educational background, it points clearly to discrimination. The large proportion of women who are informally employed or unemployed is another important cause of the wage gap as these occupations receive lower overall incomes, independently of their hourly wage. On a second level of analysis, it can be seen that within formal employment (that is, high-quality employment), work opportunities for women are still mainly concentrated in branches of activity that are traditionally considered to be female. This configuration also affects gender wage gaps as incomes in these branches of activity are relatively low. Likewise, the analysis of the distribution of jobs by gender within firms showed that women's occupational territories are predominantly support areas which have lower salaries, lower skills requirements, and fewer opportunities for career development.

Another facet of the segmentation issue was the discovery that women have less access to management and middle management jobs. In other words, the glass ceiling is alive and well as a barrier to promotion and career development for women. Furthermore, those women who have managed to access management roles receive lower salaries than their male colleagues. The pattern of segregating female employees from certain areas of firms is reproduced at the management level, whereby the managers responsible for female territories earn less than their peers.

This article has also demonstrated how, in Argentina, women's educational qualifications and general abilities in terms of their human capital are relatively higher than men's, such that the lack of investment in women and their skills does not seem to be the reason for their lower hourly wages. On the contrary, the positive actions necessary to revert this state of affairs include promoting women's access to high-quality, formal, stable employment and to further reduce hourly underemployment.

It was also observed that gender inequality was less intense in more modern knowledge-intensive sectors than in traditional ones. All the same, no evidence was found of a virtuous circle that associates better management practices with more equitable gender-related behavior. In other words, applying modern management paradigms, with their high quota of universalism, is not enough to modify situations of prevailing inequality with regard to gender and employment in employers' social imaginaries.

Wage gaps are caused by multiple factors and are based on the interaction of the productive system with the set of gender-related beliefs that predominate in society, and which are present in both the supply of and demand for labor.

Clearly, the substantial differences between analyses of supply and those that emphasize demand are connected to policy recommendations. While human capital theorists favor increased investment in women's education and skills, segregation theorists favor government intervention in terms of positive action policies and antidiscrimination legislation.

This article has demonstrated that labor institutions such as the minimum living wage and the base salaries that are established by collective labor agreements function as an equalizing base between the salaries men and women earn in low-income areas.

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Appendix 1: Human Resource Management Survey

The Human Resource Management Survey was carried out in June and July, 2007. Some 240 people who were responsible for human resources (departmental managers, if a department existed, otherwise the owners of the firm) were interviewed from private firms from the following branches of activity: the hotel industry, advertising agencies, software development, and cosmetic chemical manufacturers, located in Greater Buenos Aires and Greater Córdoba.

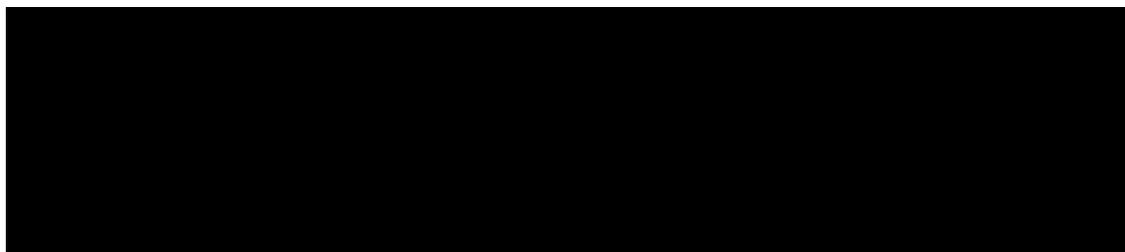
The aim of the survey was to find out how each firm's management type is linked to women's inclusion in occupational structures and their salary differences. To do so, basic information was first collected about the firm (structural characteristics and management capacities), the composition of the workforce, and salaries according to employees' occupation and sex. Secondly, an interview was used to investigate into the opinions of those responsible for human resources with regard to the costs, productivity, and performance of male and female employees. In this sense, it must be stressed that the survey gathered expressions of respondents' social imaginaries, as the surveyed firms, most of which were small, generally did not have information systems that allowed these aspects to be measured objectively.

Based on the supposition that value judgments regarding gender and employment would also depend on the type of occupation and the area of the firm in which the employee worked (each business owner could give their opinion as to whether women are more less suitable for a job, depending on the position they occupy), the survey was carried out for different "hierarchically structured occupational families" and for "occupational areas", in other words, occupational families that coincide with the specific areas of the firms' organization charts. These were identified before fieldwork begun, and were based on the Argentine Ministry of Employment's national classification of occupations, company organization charts from the studied sectors, interviews with key informants, and the results of the pilot test of the questionnaire used on this survey.

Positions were classified according to their occupational hierarchy using the second digit of the Ministry of Employment and Social Security's National Occupational Classifications. This allowed us to identify the hierarchical and organizational aspects of labor processes by revealing the internal socio-productive order of the units. Positions were categorized in three groups: (i) Management occupations: those whose role is to lead the firm. Includes directors and managers. (ii) Middle management occupations: those who oversee other employees and directly supervise the production of goods or services, or the creation of conditions that enable these to be produced. Includes section or department heads and supervisors. (iii) Direct operation occupations: those who produce a product or service directly. They are not responsible for any other employees. (In dec, 2001)

Appendix 2. Econometric model with panel data

Table A2. Mean values of explanatory variables: manufacturing firms



Wage gap (firm level) Random-effects GLS regression

xi: xtreg firm-level wage gap age % of female employees % workers with collective agreements ln employees i.multi i.año
i.r32 i.multi i.size , r

Random-effects GLS regression	Number of obs = 158.887
Group variable (i): firm	Number of groups = 35.064
R-sq: within = 0.0094	Obs per group: min = 1
between = 0.0007	avg = 4,5
overall = 0.0023	max = 21
Random effects u_i ~ Gaussian	Wald chi2 (38) = 1270.78
corr(u_i, X) = 0 (assumed)	Prob > chi2 = 0,0000

firm-level wage gap	Coef.	Std. Err.	t.
age	0.0015438	0.0012018	1.28
% of female employees	0.5507944	0.0185324	29.72 ***
% workers with collective agreements	-0.1858515	0.0531392	-3.5 ***
ln employees	-0.0376172	0.0043332	-8.68 ***
Multinational subsidiaries	0.2260497	0.0833882	2.71 ***
Firm Size			
Large	-0.1515116	0.1781924	-0.85
Medium	-0.0442266	0.1669762	-0.26
Small	-0.0236509	0.1667155	-0.14
Micro	-0.0116741	0.1666062	-0.07
Year			
2002	-0.0217261	0.0083158	-2.61 **
2003	-0.0111113	0.0068557	-1.62 *
2004	0.0033032	0.0074736	0.44
2005	0.0030069	0.0045514	0.66
2006	0.0087398	0.0045388	1.93 **
2007	0.0011894	0.0035864	0.33
Branch of activity			
Tobacco products	-0.059834	0.192638	-0.31
Textiles products	-0.2093925	0.0745082	-2.81 ***
Confectionary	-0.3039566	0.0823639	-3.69 ***
Leather and shoes	-0.1637237	0.0790549	-2.07 **
Wood	-0.0297899	0.108705	-0.27

Paper	-0.0677357	0.0958984	-0.71
Edition	-0.0678368	0.075494	-0.9
Petroleum products	0.1017999	0.3069585	0.33
Chemicals	-0.053365	0.0773648	-0.69
Rubber and plastic products	-0.0248394	0.0763183	-0.33
Other metallic minerals	-0.0206972	0.0840605	-0.25
Base metals	0.0600158	0.0976409	0.61
Other metal products	0.0764306	0.0879409	0.87
Machinery and equipment	0.061185	0.076523	0.8
Office machinery	-0.0584687	0.1890845	-0.31
Electrical appliances	-0.013646	0.094544	-0.14
Radio and TV	-0.0448709	0.1548841	-0.29
Medical Instruments	-0.0214394	0.1385977	-0.15
Automotive	0.0321908	0.0847782	0.38
Other transport equipment	0.0181008	0.1259491	0.14
Furniture	-0.0967379	0.0830233	-1.17
Recycling of waste and scrap	-0.0281842	0.2552015	-0.11
<u>_cons</u>	<u>0.3919736</u>	<u>0.1735951</u>	<u>2.26</u>
sigma_u	2.746		
sigma_e	0.46573		
rho	0.972044	(fraction of variance due to u_i)	

Note: Dependant variable wage gender gap (firm level)

***Coefficients are significant at $\alpha=0.001$ ** Coefficients are significant at $\alpha=0.05$