Changes in Argentina's Gender Earning Gap:

An Analysis from 1995 to 2021

Manuel Urquidi
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Abstract

The earnings gap between men and women in Latin America is a barrier to achieving gender equality and sustainable development. In Argentina, this gap persists even though in many cases women have a better employment profile than men, suggesting the existence of gender biases. It is also observed that this gap is larger among workers in the informal sector. There is also a heterogeneous earnings difference in favor of men in most occupations.

To analyze the gender gap in labor earnings in Argentina between 1995 and 2021, this study uses the permanent household surveys of the National Institute of Statistics and Censuses (INDEC), harmonized by the Inter-American Development Bank (IDB), and presents two methodologies to estimate it: the Blinder-Oaxaca decomposition and the Ñopo decomposition.

Although an analysis of over more than two decades, where gender discrimination was verified, a clear trend of reduction or increase in the labor earnings gap between men and women was not observed during the considered period. This indicates that additional efforts are required to understand the observed disparity.

The analysis shows that although the total gap has been reduced - as has happened in many other countries in the region - this reduction is generally related to the explained gap and not to a reduction in the unexplained gap, which persists over time.

JEL Classification: J16, J31, J71.

Keywords: gender economics, earnings gap, discrimination

Introduction

In recent years, Latin America and the Caribbean (LAC) have experienced significant changes in the traditionally established roles for men and women. There has been an increase in women's political representation, education levels, and labor participation. However, challenges still exist regarding women's labor inclusion and their professional development opportunities (Frisancho and Queijo, 2022).[1]

Previous studies have documented the presence of a labor earnings gap affecting women in the region (Ñopo, 2012). This gap is evident even when women are in similar positions and have comparable educational levels to their male counterparts, highlighting the need to analyze the causal factors of this situation.

Ñopo (2012) points out that a persistent issue in LAC is occupational and hierarchical segregation. Women tend to work in the informal sector in a higher proportion, are less represented in executive positions and perceive significant differences in their labor incomes compared to men. Despite improvements in gender equality indicators since the late 20th century (Chioda, 2011) such as an increase in women's political and labor participation (Ñopo, 2012), most countries in LAC still have earnings disparities for similar jobs, representing an unjustifiable form of inequality (ILO, 2019a).

Additionally, the COVID-19 crisis has primarily affected female labor participation. An estimated 13 million women in the region lost their jobs, and the female labor participation rate decreased by 16 percentage points, compared to a 10-point decrease for men. The crisis highlighted women's employment in more vulnerable sectors, exacerbating gender gaps and partially reversing the progress made (Bustelo, Suaya, and Vezza, 2021). There has also been an increase in women's concentration in part-time jobs.

Argentina currently ranks 33rd out of 146 countries in the World Economic Forum's Global Gender Gap Index (WEF, 2022) and holds the fifth position among 22 countries measured in Latin America and the Caribbean, with a score of 0.756 out of 1. Since the index's implementation in 2006, when Argentina scored 0.683, the country has improved by 0.073 points and climbed eight positions (from 41st), although it's worth noting that only 115 countries were measured in the first year of the index. Specifically, Argentina ranks 102nd in terms of economic participation and opportunity, mainly due to low female labor participation (96th) and income inequality for similar work between men and women (110th). In political representation, the country is in 28th place, with women holding 44.8% of the seats in parliament. Regarding educational achievement, Argentina shares the first position in the index, with a 0% illiteracy rate and high enrollment rates in secondary and tertiary education.

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[1] The study assesses the effect of gender inequalities in the Southern Cone countries of Latin America (Brazil, Chile, Paraguay, and Uruguay) and provides evidence on their economic consequences, drivers, and policy tools that can contribute to mitigate them. It also shows that the female employment rate in Argentina ranged between 40% and 50% during the analysis period from 1991 to 2019, with the last year of analysis being 46%. Furthermore, Argentina had the second highest monthly income gap in the Southern Cone in 2019, with a value close to 25%.

Graph 1. Hourly labor earnings of women versus men in Argentina in 2021
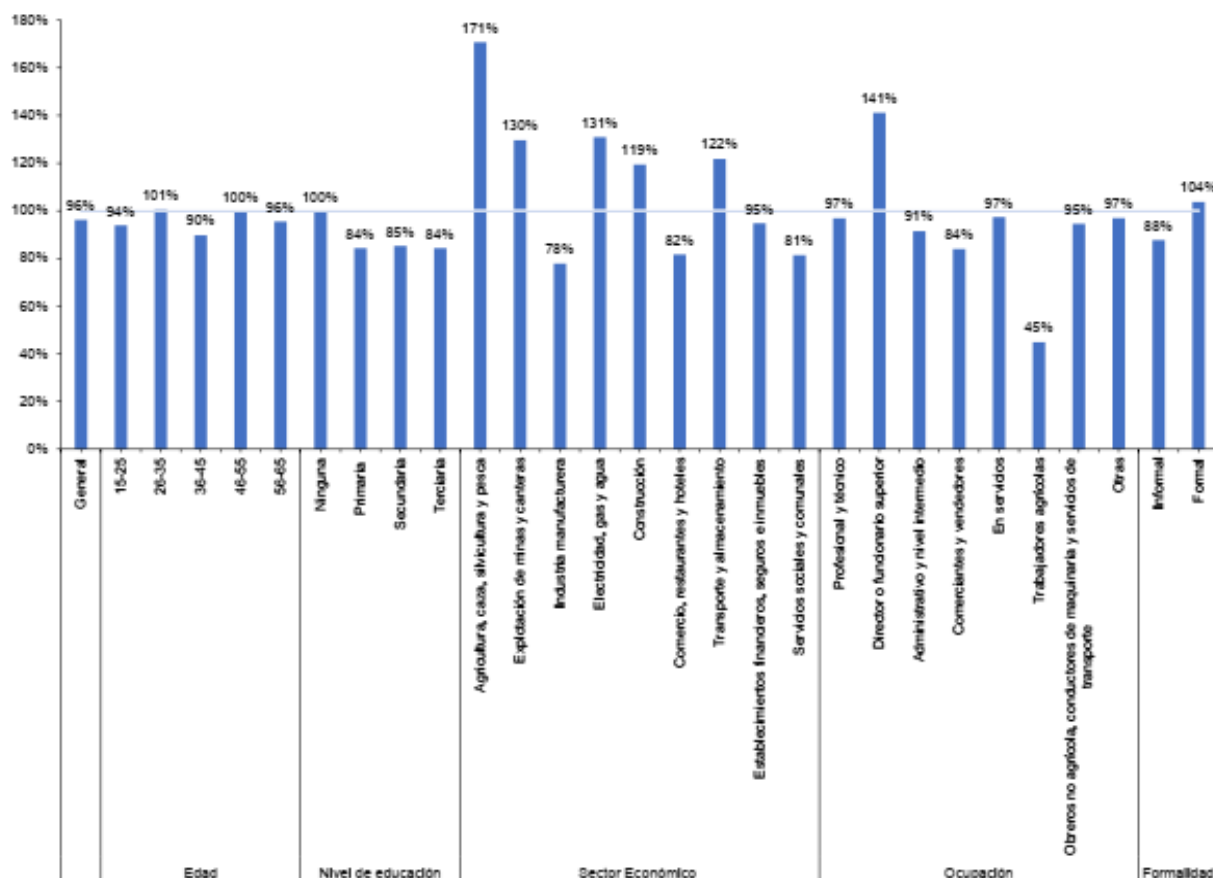
Source: Own elaboration based on household surveys in Argentina harmonized by the Inter-American Development Bank (IDB).

*Only individuals with occupation and income were included in the analysis.

The data analyzed from the permanent household surveys in Argentina, harmonized by the IDB, support these facts. As shown in Graph 1, in 2021, women's hourly earnings were on average 96% of men's, with the highest gap among individuals aged 36 to 45 years (90%), with primary education (84%), in the manufacturing industry (78%), among agricultural workers (46%), and in the informal sector (88%)[2]. Some results that might seem counterintuitive, such as the fact that in the sector including agriculture, forestry, hunting, and fishing, women earn on average 171% of men's hourly earnings, are explained by selection bias. As will be analyzed in more detail in the methodology section, when there are few women in a sector of the economy or in certain regions, it's not unusual to observe that those who enter do so at higher hierarchical levels and with better incomes. This can be verified when studying women's participation in the sector (tables A1 and A2 of the annex) and may have direct effects on their overall labor participation.

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[2] Informal workers are considered to be economically active individuals who are not affiliated and do not contribute to the pension system in Argentina.

However, the analysis requires a specific methodology different from the one used in this work.

Although the availability of information is still limited, in recent years the number of studies on this topic in LAC and the world has increased considerably. For Argentina, the amount of existing research documents is above the regional average, and they mostly use the country's permanent household surveys as an information source. However, given the different approaches to this topic, it is recognized that there is difficulty in comparing the results of different studies and in tracking the evolution of the gap in question.

This study seeks to enrich the current understanding of gender income disparity in Argentina by rigorously analyzing the evolution of the earnings gap during the period from 2002 to 2019. For this, it references three previous studies: the first on Bolivia (Urquidi, Valencia, and Durand, 2021), the second on Paraguay (Urquidi, Chalup, and Durand, 2022), and the third on eighteen countries in the region (Urquidi and Chalup, 2023). Also, two analysis methodologies are used: the Blinder-Oaxaca decomposition and the Ñopo decomposition, which means that results will be obtained from both a parametric and a non-parametric model. This allows for a comparison of the evolution year by year, as well as of the methodologies themselves, to better identify the main variables affecting the earnings gap.

The previous regional study provides comparable information between countries (see Graph 2). The current analysis expands the age range of these data, their evolution over time, and provides more geographically disaggregated information for the country.

Graph 2. Total hourly labor earnings gap estimated using the Blinder-Oaxaca decomposition model*
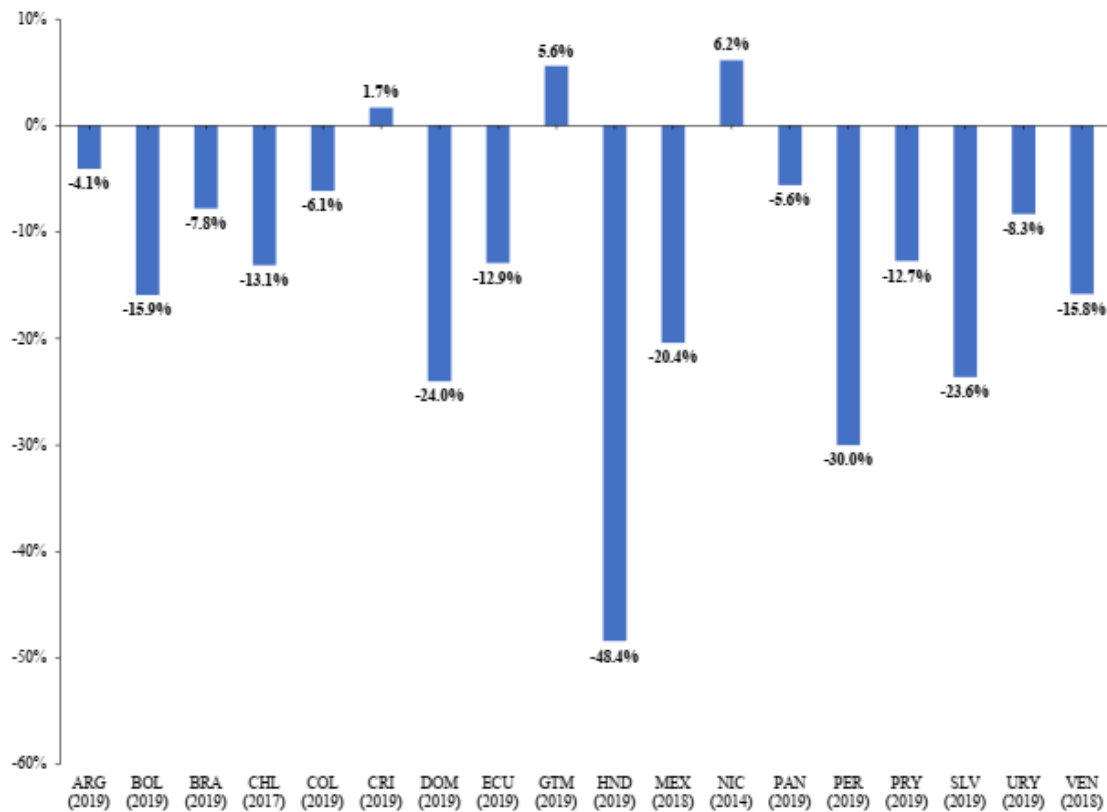
Source: Urquidi and Chalup, 2023.

*Only individuals with occupation and income were used.

The results of the analysis show that the gender earnings gap persists even though women often have a better employment profile than men, suggesting the existence of gender biases. It is also observed that this gap is greater among workers in the informal sector. There is a heterogeneous earnings difference, but it is generally in favor of men in most occupations.

The gap is not explained by various control variables such as experience, personal and family characteristics, economic sector and activity, and region of the country, indicating that it is likely related to normative factors, biases, and/or discrimination (Becker, 1957). Contrarily, it is evident that, based solely on employment profiles, women's wages should be higher. Among the possible factors contributing to this gap are normative aspects, cognitive biases, and labor costs related to childcare[3], which are not visible in society. Despite analyzing over time and verifying the possible existence of gender discrimination, no clear trend of reduction or increase in the labor earnings gap between men and women was observed during the analyzed period. This indicates the need for additional efforts to understand this disparity.

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[3] For strictly stylistic reasons, in this document, the unmarked masculine gender is used inclusively, regardless of the sex of the individuals.

This study is organized as follows: The first section reviews literature related to the gender earnings gap in Argentina and LAC. The second section describes the data used and presents descriptive statistics of the evolution of the earnings gap in Argentina over the years analyzed. The third section briefly describes the methodologies used for estimating the gender labor earnings gap, while the fourth section presents the analysis results. Finally, the fifth section discusses the conclusions of the study and its implications.

1. Literature Review

In the literature on gender earnings gaps, efforts have been made to distinguish between gaps arising from differences in individual characteristics and human capital endowments, and those unexplained parts mainly related to prejudices, biases, and gender discrimination (Atal, Ñopo, and Winder, 2009). The two most used econometric techniques in recent years for analyses based on permanent household surveys from various countries are: (i) the Blinder-Oaxaca decomposition introduced in Oaxaca (1973), and (ii) the Ñopo decomposition introduced more recently in Ñopo (2008).[4]

New studies have identified components not previously analyzed that also contribute to the gender earnings gap. For example, Kleven, Landais, and Søgaard (2019) discussed the maternity penalty and its effect on the earnings gap using administrative data from Denmark. Ajayi et al. (2022) analyzed the impact of socio-emotional skills on the earnings gap in 17 African countries. Ammerman Groysberg (2021) examined widespread organizational obstacles and managerial actions that contribute to the glass ceiling in the United States. Bustelo et al. (2021) focused on the effect of occupational and career selection on income in Brazil, while Bordón, Canals, and Mizala (2020) did the same for Chile.

In the Latin American context, Frisancho and Queijo (2022) compiled studies documenting persistent gender inequalities in the Southern Cone countries of Latin America[5], exploring how reducing these gaps could significantly boost economic growth and development in the region. These authors showed that gender gaps in access to public services, human capital accumulation, and the labor market limit overall productivity and economic growth, implying that policies aimed at mitigating such inequalities have the potential to promote economic development and well-being.

An earlier study by Chioda (2011) noted an increase in women's labor participation in LAC since 1980, facilitated by economic growth, trade liberalization, urbanization, reduced fertility rates, and increased education levels. This phenomenon intensified after 2000 when high regional growth rates increased labor demand, allowing more women to enter the labor market, and was directly promoted through public policies (Gasparini and Marchionni, 2015). However, Ñopo (2012) noted that women are still overrepresented in informal and low-paying jobs, and the earnings gap remains significant.

Psacharopoulos and Tzannatos (1992) studied the earnings gap in 15 LAC countries in the late 1980s, finding that women earned, on average, 65% of what men did for similar work. Two-thirds of this difference was unexplained by education level or human capital, likely due to normative factors, prejudices, or discrimination. Although the total earnings gap has reduced, with a significant part due to the

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[4] These techniques are explained in detail in the third section.
[5] Argentina, Brazil, Chile, Paraguay y Uruguay.

increased education level of women, the unexplained gap remains (Chioda, 2011; Gasparini and Marchionni, 2015).[6]

The International Labour Organization (ILO, 2019a) conducted one of the most recent analyses for LAC, using the Ñopo decomposition (2008) to compare wages among people with the same observable characteristics across 17 countries. The study found that the unexplained gender pay gap decreased by a few percentage points between 2012 and 2017, being generally higher for self-employed workers than for employees, and increasing in households with children under six years and in part-time and/or informal work. For Argentina, the study found that the unexplained gender earnings gap for self-employed workers is the lowest among the 17 countries studied, with female labor participation at 56% versus 73.6% for males.

The International Labour Organization (ILO, 2019b) conducted a similar study using the Firpo, Fortin, and Lemieux (2010) methodology based on the classic Oaxaca-Blinder approach. This study provided varying results across countries. The explained part relates to differences in endowments, such as educational achievements, work experience, and age, along with professional polarization and segregation that tend to assign women to lower-paying occupations and industries. The unexplained part suggests the existence of income discrimination against women.

Hoyos and Ñopo (2010) estimated gender earning gaps for 18 Latin American countries between 1992 and 2007 using the Ñopo methodology. They found an average decrease of 7 and 4 percentage points in the explained and unexplained gaps, respectively. The gap mainly decreased among workers who share one or several of the following characteristics: lower-income distribution, children at home, self-employment, part-time work, and/or living in rural areas. The reduction in the unexplained component occurred within different labor market segments, not due to their recomposition or structural change.

Trombetta and Cabezón (2020) from Argentina's Ministry of Productive Development offered a more recent empirical approach, quantifying the pay gap using a multivariate linear regression model, an Oaxaca-Blinder decomposition, and quantile regressions with data from 2016 to 2019. The Oaxaca-Blinder decomposition revealed a statistically significant negative effect on endowments, suggesting a pay differential favoring women. However, the coefficient effect indicated a gender difference in structures that could be interpreted as discrimination.

Casal and Barham (2013) studied gender wage differences in Argentina using the Oaxaca-Blinder decomposition and Ñopo matching technique with data from 1995 to 2003. Their empirical results showed labor market segmentation where women receive a wage penalty, which increases for those in the informal sector and with more children.

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[6] As can be seen in Table A1 of the annex, the average years of education for women increased from 9.7 to 11.9 between 1995 and 2021, while for men, it increased from 9.6 to 11.2 during the same period.

Pal (2019) analyzed Argentina's 2018 data, disaggregating estimates of gaps by quantiles using the Recentered Influence Function (RIF). Non-conditional quantiles were then decomposed using the Oaxaca-Blinder methodology. The study concluded that there is an unexplained gap disadvantaging women by about 20 percentage points at the upper end of the distribution, responding to a higher return of factors linked to discrimination. At the lower end, a smaller gap responds to differences in endowments related to inequalities in the social distribution of roles. This difference in results between quantiles supports the theory of the glass ceiling[7] and the sticky floor.[8]

Paz (2019) examined the gender wage gap in Argentina, focusing on heterogeneous effects between individuals with and without partners. Based on the 2018 permanent household survey, he found an unexplained 13% gender wage gap favoring men, which is also higher among couples, suggesting a tendency towards the sexual division of household tasks.

Carranza and Alderete (2014) extended the Oaxaca-Blinder decomposition to include a Heckman (1979) correction for sample selection bias, assuming the probability of labor market participation. This avoids underestimating the discrimination effect. Their findings indicated a labor earnings gap favoring men even when women have higher human capital endowments.

Esquivel (2007) identified unfavorable discrimination against women using 2003 and 2006 data. This disadvantage could be explained by various factors, including barriers to access to quality occupations and occupational segregation, whether vertical or horizontal.

Other literature has addressed gender inequities in Argentina using different methodologies or non-empirical perspectives, considering a range of factors that affect the earnings gap, such as unequal access to employment and time constraints due to the sexual division of domestic and care work (Dirección Nacional de Economía, Igualdad y Género, 2020 and 2021). Other relevant factors include the glass ceiling, which can vary by economic sector (Rojo and Tumini, 2008), and territoriality as a factor in gender inequalities (Abeles and Villafañe, 2022). There is also evidence of discrimination in access to productive inputs as a barrier to women's work (World Bank, 2014).

Finally, literature highlighting the negative effects of the COVID pandemic cannot be overlooked. The pandemic exacerbated intersectional inequalities due to the impact of gender roles on the economic structure and social care systems (ECLAC, 2020). Women, especially young ones with limited education, residing in urban areas, and linked to the tertiary sector, were most affected by the health crisis, decreasing their chances of labor market insertion (Acevedo et al., 2022), thus restricting their autonomy (ECLAC, 2022). This limited economic independence is

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[7] The glass ceiling refers to the set of implicit norms within organizations that hinder women's advancement to high-level positions. Therefore, it is considered a gender barrier to career progression.

[8] The sticky floor refers to the series of impediments that women face either to enter or to remain in the labor market. This theory is related to the responsibilities attributed to the female gender, such as domestic and caregiving duties, which can be considered a time constraint working against them.

a key factor in the reproduction of violence against women and diversities, as it impedes the full exercise of their rights (OBS, 2022; Batthyany and Sol, 2020).

2. Data and Descriptive Statistics

The data used in this study are sourced from the database of permanent household surveys harmonized by the IDB. This study includes information from 25 consecutive annual surveys from 1995 to 2021, except for 2003 when the survey was not conducted. The year 1995 was chosen as the starting point, as it marks the beginning of the collection of information from permanent household surveys in Argentina.

It is important to note the challenges associated with data harmonization, which is necessary to ensure comparability across different years and between different countries in Latin America and the Caribbean. This harmonization is carried out by the IDB's data harmonization system.

Unlike most countries, in Argentina, the survey is only representative of the urban area. The design and level of representativeness of these surveys are similar across different years, as they all represent the urban population of Argentina and gather data from the country's main regions[9]. Table 1 presents the sample taken for individuals between 15 and 65 years old, the age range used in the analysis for each year, along with their representativeness in the total Argentinian population[10], disaggregating the analysis by gender and age group.

The proportions of the sample closely match the proportions of the population they represent. Moreover, the sample is evenly distributed between genders, while the variation in the proportions of age groups aligns with the aging of the population observed in Argentina and most countries in LAC (Cardona Arango and Peláez, 2012). There is also a gradual increase in the number of samples over time, consistent with population growth. However, a reduction is evident from 2020, likely related to sampling difficulties during the health crisis.

As an initial approach to calculating the gender earnings gap, Table 2 presents the estimation of hourly labor earnings for women versus men[11]. The analysis is disaggregated by age group, educational level, economic activity, occupation, formality, self-employment, and regions. Additionally, Table A1 in the annex presents the distribution by year and gender of the characteristics of the employed population receiving income, providing a general overview of the characteristics of both men and women.

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[9] The regions included in the survey are Buenos Aires, Catamarca, Chaco, Chubut, Buenos Aires City, Córdoba, Corrientes, Entre Ríos, Formosa, Jujuy, La Pampa, La Rioja, Mendoza, Misiones, Neuquén, Río Negro, Salta, San Juan, San Luis, Santa Cruz, Santa Fe, Santiago del Estero, Tierra del Fuego, and Tucumán.
[10] The use of frequency weightings is applied.
[11] Labor incomes from the main activity and frequency weightings are used.

Table 1. Number of observations in the surveys and their representativeness by gender and age group.

	1995		1996		1997		1998		1999		2000		2001		2002		2004	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Gender																		
Men	30.536	48%	30.597	48%	32.790	48%	29.439	48%	27.347	48%	25.025	48%	25.368	48%	25.120	48%	29.038	47%
Representativity	6.223.549	48%	5.603.898	48%	6.823.272	48%	6.942.228	48%	7.101.646	48%	7.155.116	48%	7.282.193	48%	7.514.947	47%	7.258.289	48%
Women	32.872	52%	33.112	52%	35.414	52%	32.235	52%	29.879	52%	27.399	52%	27.750	52%	27.730	52%	32.195	53%
Representativity	6.692.980	52%	6.029.548	52%	7.266.671	52%	7.603.186	52%	7.788.226	52%	7.864.744	52%	8.008.196	52%	8.325.660	53%	7.853.317	52%
Age																		
15-25	20.331	32%	20.649	32%	22.090	32%	19.947	32%	18.763	33%	17.192	33%	17.437	33%	17.219	33%	19.519	32%
Representativity	4.023.281	31%	3.657.938	31%	4.344.865	31%	4.554.255	31%	4.738.613	32%	4.714.718	31%	4.876.724	32%	5.024.427	32%	4.571.843	30%
26-35	13.654	22%	13.732	22%	14.864	22%	13.455	22%	12.335	22%	11.124	21%	11.295	21%	11.369	22%	13.278	22%
Representativity	2.624.985	20%	2.354.886	20%	2.955.431	21%	3.081.273	21%	3.126.124	21%	3.181.309	21%	3.198.040	21%	3.330.044	21%	3.381.491	22%
36-45	12.992	20%	12.952	20%	13.481	20%	12.224	20%	11.190	20%	10.208	19%	10.114	19%	9.949	19%	10.981	18%
Representativity	2.567.121	20%	2.310.706	20%	2.662.204	19%	2.786.772	19%	2.826.800	19%	2.864.136	19%	2.825.450	18%	2.938.751	19%	2.827.347	19%
46-55	9.692	15%	9.667	15%	10.403	15%	9.551	15%	8.942	16%	8.379	16%	8.575	16%	8.606	16%	10.236	17%
Representativity	2.092.196	16%	1.887.695	16%	2.363.843	17%	2.426.905	17%	2.509.124	17%	2.558.011	17%	2.612.760	17%	2.677.116	17%	2.502.208	17%
56-65	6.739	11%	6.709	11%	7.366	11%	6.497	11%	5.996	10%	5.521	11%	5.697	11%	5.707	11%	7.219	12%
Representativity	1.608.946	12%	1.422.221	12%	1.763.600	13%	1.696.209	12%	1.689.211	11%	1.701.686	11%	1.777.415	12%	1.870.269	12%	1.828.717	12%
Total	63.408	100%	63.709	100%	68.204	100%	61.674	100%	57.226	100%	52.424	100%	53.118	100%	52.850	100%	61.233	100%
Representativity	12.916.529	100%	11.633.446	100%	14.089.943	100%	14.545.414	100%	14.889.872	100%	15.019.860	100%	15.290.389	100%	15.840.607	100%	15.111.606	100%

Table 1 (Continuation).

	2005		2006		2007		2008		2009		2010		2011		2012	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Gender																
Men	28.978	47%	39.957	48%	38.790	48%	39.338	48%	38.290	48%	37.781	48%	36.676	48%	35.332	48%
Representativity	7.345.119	48%	7.505.963	48%	7.694.574	48%	7.767.950	48%	7.847.450	48%	7.965.430	48%	8.113.547	49%	8.196.618	48%
Women	32.045	53%	43.975	52%	42.479	52%	42.473	52%	41.282	52%	41.013	52%	39.611	52%	38.289	52%
Representativity	7.965.411	52%	8.222.817	52%	8.333.570	52%	8.392.963	52%	8.490.697	52%	8.613.513	52%	8.614.180	51%	8.728.533	52%
Age																
15-25	18.753	31%	25.810	31%	24.889	31%	25.150	31%	23.936	30%	23.348	30%	22.451	29%	21.523	29%
Representativity	4.542.877	30%	4.598.584	29%	4.663.715	29%	4.675.134	29%	4.644.622	28%	4.691.898	28%	4.698.653	28%	4.691.006	28%
26-35	13.900	23%	19.356	23%	18.458	23%	18.219	22%	18.550	23%	18.572	24%	17.860	23%	17.086	23%
Representativity	3.529.186	23%	3.717.659	24%	3.645.593	23%	3.639.475	23%	3.787.634	23%	3.864.820	23%	3.874.295	23%	3.938.455	23%
36-45	10.906	18%	15.008	18%	14.601	18%	14.661	18%	14.102	18%	13.814	18%	13.639	18%	13.437	18%
Representativity	2.849.032	19%	2.921.711	19%	3.065.836	19%	3.111.710	19%	3.090.824	19%	3.149.802	19%	3.274.059	20%	3.379.582	20%
46-55	9.940	16%	13.418	16%	13.118	16%	13.374	16%	12.912	16%	12.582	16%	12.144	16%	11.635	16%
Representativity	2.478.373	16%	2.483.552	16%	2.585.685	16%	2.669.526	17%	2.716.042	17%	2.619.426	16%	2.667.969	16%	2.642.684	16%
56-65	7.524	12%	10.340	12%	10.203	13%	10.407	13%	10.072	13%	10.478	13%	10.193	13%	9.940	14%
Representativity	1.911.062	12%	2.007.274	13%	2.067.315	13%	2.065.068	13%	2.099.025	13%	2.252.997	14%	2.212.751	13%	2.273.424	13%
Total	61.023	100%	83.932	100%	81.269	100%	81.811	100%	79.572	100%	78.794	100%	76.287	100%	73.621	100%
Representativity	15.310.530	100%	15.728.780	100%	16.028.144	100%	16.160.913	100%	16.338.147	100%	16.578.943	100%	16.727.727	100%	16.925.151	100%

Table 2. Hourly labor earnings of women versus men*

	1995	1996	1997	1998	1999	2000	2001	2002	2004
General	95,6%	103,5%	98,8%	96,0%	100,8%	99,4%	98,2%	89,0%	98,5%
Age									
15-25	104,9%	110,4%	113,8%	107,4%	118,6%	111,0%	112,5%	93,6%	99,6%
26-35	105,7%	111,2%	110,4%	101,1%	106,9%	107,6%	105,9%	94,2%	94,8%
36-45	91,0%	111,0%	100,2%	95,5%	97,0%	98,0%	95,2%	99,8%	99,9%
46-55	90,4%	92,7%	91,9%	85,8%	97,2%	91,3%	93,0%	80,6%	102,4%
56-65	84,4%	86,0%	69,2%	97,0%	85,2%	90,7%	85,6%	77,7%	93,2%
Level of Education									
None	111,5%	123,0%	93,0%	117,1%	118,5%	111,3%	106,1%	106,3%	99,2%
Primary	96,3%	99,9%	99,0%	93,1%	94,8%	94,6%	94,3%	84,0%	91,7%
Secondary	81,5%	87,3%	88,6%	84,6%	91,1%	87,5%	89,4%	81,6%	87,4%
Tertiary	69,1%	79,9%	68,3%	65,8%	69,0%	72,9%	71,8%	65,6%	83,6%
Economic Sector									
Agriculture, hunting, forestry, and fishing	30,4%	58,1%	91,3%	120,2%	86,9%	62,2%	61,1%	59,4%	78,0%
Mining and quarrying	68,7%	91,0%	193,7%	113,3%	62,3%	144,8%	139,8%	181,2%	90,1%
Manufacturing industry	90,5%	113,2%	84,7%	87,9%	88,2%	84,4%	84,3%	65,0%	96,2%
Electricity, gas, and water	70,0%	73,2%	91,1%	89,2%	118,3%	92,2%	94,0%	97,6%	96,0%
Construction	146,8%	104,1%	92,6%	98,6%	117,7%	122,7%	82,1%	100,4%	128,9%
Trade, restaurants, and hotels	85,5%	85,8%	84,6%	86,4%	81,2%	87,9%	88,4%	90,7%	89,9%
Transport and storage	123,9%	121,8%	131,4%	117,5%	130,4%	94,7%	137,3%	133,0%	165,1%
Financial establishments, insurance, and real estate	78,5%	100,1%	90,0%	74,3%	80,8%	82,1%	90,7%	81,1%	101,0%
Social and community services	87,6%	85,2%	89,8%	85,0%	87,9%	90,1%	87,5%	82,0%	84,6%
Occupation									
Professional and technician	77,4%	81,7%	83,4%	78,9%	81,4%	85,9%	82,5%	82,7%	87,5%
Director or senior official	74,1%	155,8%	61,1%	81,5%	72,5%	68,0%	79,2%	55,8%	114,1%
Administrative and intermediate level	107,8%	101,9%	108,8%	92,4%	96,2%	93,5%	93,6%	92,7%	88,2%
Merchants and salespersons	84,9%	90,9%	82,6%	89,4%	87,5%	85,3%	93,9%	89,5%	86,2%
In services	100,5%	101,4%	101,6%	93,9%	97,9%	98,5%	96,6%	86,5%	103,2%
Agricultural workers	51,0%	274,8%	72,6%	137,8%	81,4%	126,5%	29,3%	31,6%	82,7%
Non-agricultural laborers, machinery operators, and transport services	88,7%	76,4%	85,1%	77,3%	80,6%	84,7%	81,9%	77,0%	89,2%
Armed Forces	68,3%	205,5%	60,6%	109,3%	42,2%	84,0%	65,3%	62,0%	100,4%
Others	72,3%	71,5%	84,9%	64,3%	90,2%	74,7%	103,5%	74,1%	215,5%
Formality									
Informal	91,8%	108,0%	94,8%	89,3%	96,6%	96,5%	89,6%	77,7%	93,4%
Formal	99,3%	99,1%	102,7%	102,4%	104,5%	102,0%	106,3%	100,4%	105,7%
Self-Employed									
Not self-employed	94,3%	99,4%	99,3%	95,4%	100,1%	97,5%	97,2%	86,4%	96,6%
Self-employed	102,8%	124,2%	98,6%	100,1%	105,9%	110,3%	104,0%	106,6%	114,4%
Regions									
Buenos Aires	n.d.	n.d.	n.d.	n.d.	n.d.	101,3%	104,0%	84,2%	96,9%
Catamarca	n.d.	n.d.	n.d.	n.d.	n.d.	107,5%	100,6%	101,7%	105,6%
Chaco	n.d.	n.d.	n.d.	n.d.	n.d.	98,8%	99,1%	86,5%	108,9%
Chubut	n.d.	n.d.	n.d.	n.d.	n.d.	90,4%	85,2%	82,3%	94,3%
Ciudad de Buenos Aires	n.d.	n.d.	n.d.	n.d.	n.d.	85,8%	78,4%	85,6%	91,8%
Córdoba	n.d.	n.d.	n.d.	n.d.	n.d.	99,4%	97,1%	89,7%	100,2%
Corrientes	n.d.	n.d.	n.d.	n.d.	n.d.	97,0%	100,2%	96,2%	92,9%
Entre Ríos	n.d.	n.d.	n.d.	n.d.	n.d.	108,4%	112,9%	101,6%	108,0%
Formosa	n.d.	n.d.	n.d.	n.d.	n.d.	93,4%	103,7%	87,2%	106,6%
Jujuy	n.d.	n.d.	n.d.	n.d.	n.d.	99,9%	97,7%	97,1%	96,3%
La Pampa	n.d.	n.d.	n.d.	n.d.	n.d.	112,2%	104,0%	102,1%	88,5%
La Rioja	n.d.	n.d.	n.d.	n.d.	n.d.	113,0%	102,8%	106,1%	98,9%
Mendoza	n.d.	n.d.	n.d.	n.d.	n.d.	112,8%	107,8%	107,8%	101,2%
Misiones	n.d.	n.d.	n.d.	n.d.	n.d.	99,5%	110,7%	97,8%	93,1%
Neuquén	n.d.	n.d.	n.d.	n.d.	n.d.	101,6%	98,4%	107,8%	98,7%
Río Negro	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	90,1%	n.d.
Salta	n.d.	n.d.	n.d.	n.d.	n.d.	90,2%	97,8%	92,7%	84,5%
San Juan	n.d.	n.d.	n.d.	n.d.	n.d.	95,7%	86,9%	103,6%	94,9%
San Luis	n.d.	n.d.	n.d.	n.d.	n.d.	104,5%	133,3%	97,6%	100,5%
Santa Cruz	n.d.	n.d.	n.d.	n.d.	n.d.	106,7%	105,7%	103,0%	84,8%
Santa Fe	n.d.	n.d.	n.d.	n.d.	n.d.	97,0%	105,6%	84,5%	101,0%
Santiago del Estero	n.d.	n.d.	n.d.	n.d.	n.d.	112,1%	107,0%	111,1%	111,8%
Tierra del Fuego	n.d.	n.d.	n.d.	n.d.	n.d.	95,4%	101,8%	103,0%	99,7%
Tucumán	n.d.	n.d.	n.d.	n.d.	n.d.	99,4%	99,2%	99,9%	88,6%

Table 2 (Continuation).

	2005	2006	2007	2008	2009	2010	2011	2012
General	103,2%	94,9%	95,0%	99,4%	100,5%	102,3%	100,3%	102,8%
Age								
15-25	103,0%	103,1%	98,0%	94,2%	100,7%	105,3%	96,9%	105,8%
26-35	122,6%	101,8%	96,5%	102,3%	102,2%	102,6%	103,2%	98,3%
36-45	96,9%	103,5%	93,0%	107,4%	94,9%	105,6%	101,5%	106,6%
46-55	93,5%	72,9%	96,3%	92,5%	97,9%	97,6%	96,6%	97,0%
56-65	87,2%	98,7%	90,9%	91,1%	104,7%	96,9%	96,8%	102,4%
Level of Education								
None	90,7%	94,9%	93,4%	81,1%	81,2%	88,1%	92,9%	91,8%
Primary	87,7%	86,1%	84,8%	80,6%	88,0%	85,4%	84,6%	89,1%
Secondary	87,9%	87,4%	84,0%	90,4%	85,5%	88,3%	87,4%	88,9%
Tertiary	94,1%	69,8%	82,8%	91,1%	91,7%	93,0%	91,7%	98,0%
Economic Sector								
Agriculture, hunting, forestry, and fishing	59,0%	66,8%	48,5%	166,2%	143,3%	119,1%	118,9%	122,0%
Mining and quarrying	1.362,9%	111,9%	76,2%	82,4%	94,5%	65,6%	94,6%	76,2%
Manufacturing industry	85,1%	78,1%	75,8%	90,3%	88,9%	93,6%	88,7%	86,0%
Electricity, gas, and water	96,9%	103,7%	111,6%	111,1%	87,3%	101,8%	67,4%	99,0%
Construction	145,9%	152,3%	114,0%	168,6%	170,4%	157,0%	174,5%	146,0%
Trade, restaurants, and hotels	89,5%	93,2%	87,8%	88,6%	85,0%	90,0%	91,3%	99,3%
Transport and storage	110,1%	115,5%	138,1%	94,8%	112,1%	110,8%	115,5%	101,3%
Financial establishments, insurance, and real estate	100,6%	65,6%	91,1%	101,3%	89,4%	95,8%	95,3%	102,5%
Social and community services	82,6%	87,8%	80,2%	81,0%	85,9%	85,6%	81,6%	84,2%
Occupation								
Professional and technician	85,6%	104,3%	95,8%	88,7%	97,1%	94,8%	83,9%	101,3%
Director or senior official	167,9%	70,7%	103,5%	116,1%	103,5%	100,5%	103,0%	122,5%
Administrative and intermediate level	92,4%	92,3%	79,9%	90,3%	87,9%	95,1%	87,5%	92,3%
Merchants and salespersons	88,6%	85,4%	80,0%	85,6%	81,4%	85,3%	83,2%	91,9%
In services	102,3%	103,0%	99,0%	96,6%	103,6%	102,0%	102,9%	96,7%
Agricultural workers	76,5%	75,4%	67,3%	391,4%	87,8%	220,9%	114,4%	72,3%
Non-agricultural laborers, machinery operators, and transport services	93,0%	91,0%	94,4%	90,0%	93,2%	108,8%	95,6%	96,7%
Armed Forces	104,6%	102,2%	101,5%	93,3%	109,9%	88,3%	98,3%	89,9%
Others	114,4%	124,9%	77,4%	87,5%	90,6%	131,8%	69,3%	142,1%
Formality								
Informal	101,4%	82,8%	89,5%	91,8%	89,8%	94,5%	95,4%	99,4%
Formal	106,0%	108,0%	101,2%	106,2%	108,3%	108,1%	103,9%	104,9%
Self-Employed								
Not self-employed	101,2%	91,3%	93,1%	97,5%	99,8%	100,8%	98,7%	101,9%
Self-employed	113,8%	112,9%	103,3%	106,4%	97,9%	107,8%	103,9%	104,4%
Regions								
Buenos Aires	97,0%	100,8%	94,1%	98,7%	99,0%	101,0%	99,1%	99,2%
Catamarca	93,9%	97,6%	109,3%	112,1%	107,7%	106,5%	108,0%	101,0%
Chaco	117,1%	111,5%	101,3%	111,5%	107,7%	108,5%	101,6%	115,0%
Chubut	96,7%	85,8%	86,6%	90,3%	91,6%	87,0%	85,7%	87,2%
Ciudad de Buenos Aires	108,1%	97,0%	81,9%	91,2%	92,2%	97,8%	91,4%	102,9%
Córdoba	96,6%	94,9%	101,7%	101,0%	103,1%	100,9%	96,1%	101,9%
Corrientes	98,6%	109,3%	104,3%	133,2%	111,2%	108,0%	107,3%	116,7%
Entre Ríos	97,1%	101,3%	97,0%	109,1%	102,1%	106,7%	104,3%	100,9%
Formosa	83,9%	95,3%	92,8%	95,3%	100,2%	99,4%	101,2%	98,9%
Jujuy	86,6%	108,2%	100,2%	105,0%	104,7%	109,3%	110,2%	107,9%
La Pampa	88,2%	109,7%	114,5%	108,6%	104,7%	105,6%	97,8%	104,2%
La Rioja	94,7%	108,1%	109,9%	113,3%	108,4%	109,8%	110,9%	102,4%
Mendoza	105,9%	95,7%	93,7%	101,0%	105,0%	107,5%	108,7%	101,0%
Misiones	102,1%	102,0%	95,0%	96,5%	110,2%	87,0%	89,2%	113,8%
Neuquén	108,8%	87,8%	98,7%	98,5%	103,5%	77,9%	95,4%	99,9%
Río Negro	n,d,	95,9%	95,6%	103,9%	106,8%	109,0%	106,1%	106,3%
Salta	106,5%	104,3%	106,5%	100,0%	104,2%	104,9%	102,1%	105,0%
San Juan	94,0%	103,5%	102,1%	109,5%	117,7%	110,0%	111,9%	107,2%
San Luis	96,3%	99,8%	93,8%	98,6%	106,5%	101,3%	101,7%	104,9%
Santa Cruz	94,0%	99,8%	104,0%	107,7%	105,0%	86,1%	96,6%	97,7%
Santa Fe	106,6%	101,7%	96,5%	93,8%	99,0%	101,6%	104,8%	104,5%
Santiago del Estero	113,3%	107,6%	102,7%	107,7%	119,8%	119,1%	120,9%	117,9%
Tierra del Fuego	102,6%	90,9%	109,8%	100,6%	99,4%	101,9%	100,4%	97,8%
Tucumán	96,5%	27,2%	110,1%	105,9%	106,0%	116,1%	113,1%	113,5%

Table 2 (Continuation).

	2013	2014	2016	2017	2018	2019	2020	2021
General	100,0%	102,3%	103,8%	100,4%	99,5%	98,2%	104,1%	96,2%
Age								
15-25	102,4%	103,0%	109,9%	110,4%	103,1%	101,8%	112,9%	93,9%
26-35	102,0%	105,8%	101,5%	102,1%	100,0%	102,9%	101,8%	100,6%
36-45	103,8%	103,5%	104,9%	99,1%	102,4%	94,0%	96,3%	89,7%
46-55	89,8%	100,9%	98,9%	96,3%	95,9%	99,8%	107,8%	99,7%
56-65	93,5%	87,8%	99,1%	91,1%	88,5%	87,4%	104,7%	95,5%
Level of Education								
None	87,6%	104,3%	95,9%	93,9%	80,1%	121,5%	93,7%	99,9%
Primary	87,7%	89,1%	89,9%	99,5%	90,8%	84,0%	105,0%	84,3%
Secondary	90,6%	89,3%	90,0%	87,2%	85,2%	86,7%	86,7%	85,2%
Tertiary	89,6%	96,1%	92,0%	89,2%	92,7%	87,8%	86,2%	84,3%
Economic Sector								
Agriculture, hunting, forestry, and fishing	127,0%	84,5%	103,1%	136,7%	114,7%	80,6%	675,0%	170,7%
Mining and quarrying	94,2%	109,1%	41,8%	89,5%	108,3%	167,0%	88,9%	129,6%
Manufacturing industry	84,1%	86,0%	86,9%	80,3%	81,9%	82,0%	74,7%	77,8%
Electricity, gas, and water	97,7%	82,9%	105,9%	85,7%	73,3%	109,0%	104,9%	131,0%
Construction	158,5%	124,8%	156,2%	267,2%	133,6%	142,2%	147,9%	119,4%
Trade, restaurants, and hotels	91,7%	84,1%	88,3%	86,4%	85,3%	87,2%	82,0%	81,6%
Transport and storage	102,0%	100,9%	108,7%	116,3%	105,4%	126,7%	112,4%	121,8%
Financial establishments, insurance, and real estate	100,7%	98,0%	102,7%	101,4%	97,8%	94,2%	104,5%	94,8%
Social and community services	82,5%	87,2%	85,8%	84,1%	86,5%	83,8%	84,4%	81,4%
Occupation								
Professional and technician	98,3%	91,9%	102,1%	99,6%	94,8%	94,5%	89,1%	96,9%
Director or senior official	114,0%	97,2%	146,6%	n,d,	n,d,	n,d,	132,4%	141,2%
Administrative and intermediate level	88,0%	95,6%	95,8%	92,5%	96,3%	91,4%	103,9%	91,5%
Merchants and salespersons	87,0%	80,4%	92,4%	83,2%	83,1%	85,5%	69,5%	84,0%
In services	97,8%	103,7%	89,4%	90,2%	90,0%	88,4%	105,1%	97,4%
Agricultural workers	110,7%	82,7%	124,8%	87,4%	99,6%	112,2%	229,2%	44,8%
Non-agricultural laborers, machinery operators, and transport services	92,3%	95,0%	90,7%	85,9%	84,2%	82,8%	100,3%	94,5%
Armed Forces	91,6%	99,0%	103,5%	99,5%	90,0%	97,0%	107,6%	103,7%
Others	136,7%	141,9%	106,3%	95,1%	99,2%	111,5%	120,5%	97,0%
Formality								
Informal	97,1%	97,5%	99,8%	99,1%	95,1%	93,0%	96,7%	87,7%
Formal	100,5%	104,7%	105,8%	101,2%	103,8%	102,1%	105,8%	103,7%
Self-Employed								
Not self-employed	99,1%	101,3%	102,6%	101,5%	99,7%	98,3%	103,9%	96,1%
Self-employed	98,6%	102,3%	101,8%	91,1%	93,9%	95,4%	97,3%	94,6%
Regions								
Buenos Aires	97,7%	99,0%	99,6%	96,5%	98,5%	95,9%	98,5%	99,3%
Catamarca	111,4%	116,8%	107,0%	110,9%	100,6%	106,5%	121,5%	109,0%
Chaco	115,3%	117,9%	103,8%	114,7%	100,4%	101,8%	90,5%	104,7%
Chubut	91,6%	88,3%	94,9%	89,3%	87,5%	89,8%	103,7%	94,7%
Ciudad de Buenos Aires	95,3%	99,5%	101,8%	101,8%	91,9%	90,5%	99,2%	73,6%
Córdoba	94,7%	105,4%	108,4%	93,7%	98,6%	99,1%	96,8%	99,1%
Corrientes	101,8%	101,2%	95,1%	107,9%	100,3%	102,7%	96,1%	97,7%
Entre Ríos	104,8%	108,5%	111,6%	105,3%	105,9%	103,0%	109,9%	109,2%
Formosa	100,2%	97,5%	105,6%	107,9%	112,1%	106,3%	129,7%	91,4%
Jujuy	110,2%	104,8%	109,7%	106,9%	102,3%	111,1%	108,8%	91,3%
La Pampa	111,9%	100,6%	109,9%	107,0%	111,7%	100,6%	94,8%	97,8%
La Rioja	106,3%	102,5%	103,2%	107,0%	110,9%	108,2%	117,8%	114,4%
Mendoza	100,0%	101,4%	106,9%	104,1%	104,4%	98,1%	107,2%	97,8%
Misiones	101,1%	106,5%	101,7%	99,7%	91,6%	90,8%	100,3%	94,7%
Neuquén	99,3%	98,5%	116,0%	97,2%	100,9%	91,3%	110,6%	91,2%
Río Negro	105,1%	108,1%	115,5%	100,2%	112,0%	121,2%	118,3%	102,5%
Salta	99,1%	100,7%	105,3%	100,2%	103,0%	96,1%	97,1%	98,5%
San Juan	119,9%	109,5%	115,4%	105,8%	105,5%	107,3%	105,6%	102,3%
San Luis	99,6%	96,6%	112,3%	116,4%	112,3%	108,1%	124,7%	116,1%
Santa Cruz	98,9%	100,2%	104,5%	97,6%	93,7%	90,8%	149,4%	108,7%
Santa Fe	107,1%	103,3%	99,5%	94,8%	97,3%	100,3%	104,6%	97,6%
Santiago del Estero	105,6%	100,9%	120,6%	119,1%	106,1%	101,5%	108,3%	108,1%
Tierra del Fuego	101,8%	102,6%	99,3%	109,4%	95,4%	93,2%	97,4%	94,9%
Tucumán	97,3%	105,4%	108,6%	115,1%	107,9%	108,5%	120,9%	101,1%

Source: Prepared by the authors based on Argentina's permanent household surveys harmonized by the IDB.

n.d.: Not available. When the available data are not sufficient to calculate the percentage.

*Only people with occupation and income and frequency weight weightings were used

In Graph 3, the evolution of hourly earnings for women versus men is illustrated. It shows that their earnings are quite similar and fluctuate around parity. The year 2002 stands out, marked by a severe economic crisis in Argentina, which had more pronounced effects on women. In that year, women's average hourly earnings was 89% of men's. By 2021 — the last year of the study — women's average earnings had risen to 96% of that of men.

Graph 3. Hourly labor earnings of women versus men*
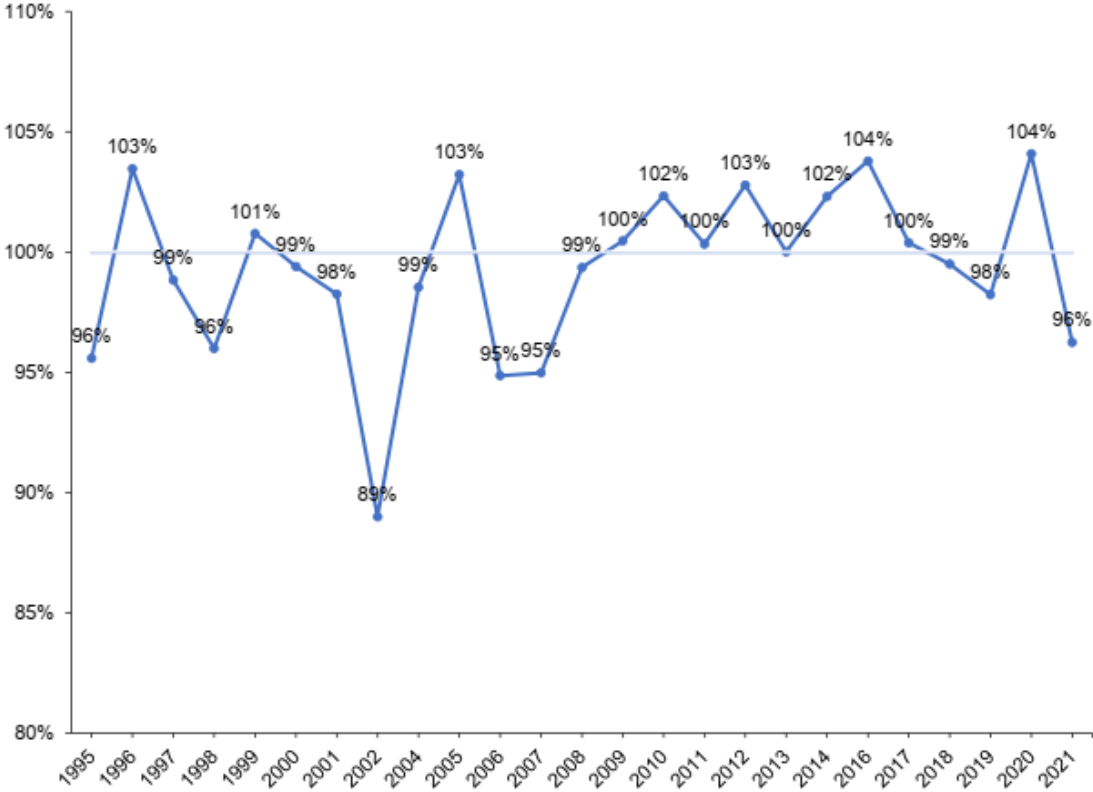
Source: Own elaboration based on the harmonized permanent household surveys of Argentina by the IDB.

*Only individuals with occupation and income were used.

The analysis by occupation examines the situation before and after 2020, the year when the Argentine and global economies were impacted by the COVID-19 pandemic. In Graph 4, it is evident that in 2019, there was a disparity favoring men in almost all occupations, with a clear exception being agricultural workers. In 2021, this pattern deepened, and the only occupation where women did not experience a wage disadvantage was in the roles of director or senior official. However, it's important to note that the sample size for this type of occupation is quite small. In 2021, women's representation in these roles was only 2%, as shown in Table A2. This could lead to a selection bias, meaning that the few women who are in these occupations may have a very high professional profile and therefore higher salaries.

Graph 4. Hourly labor earnings of women versus men by occupation*

Source: Own elaboration based on the harmonized permanent household surveys of Argentina by the IDB.

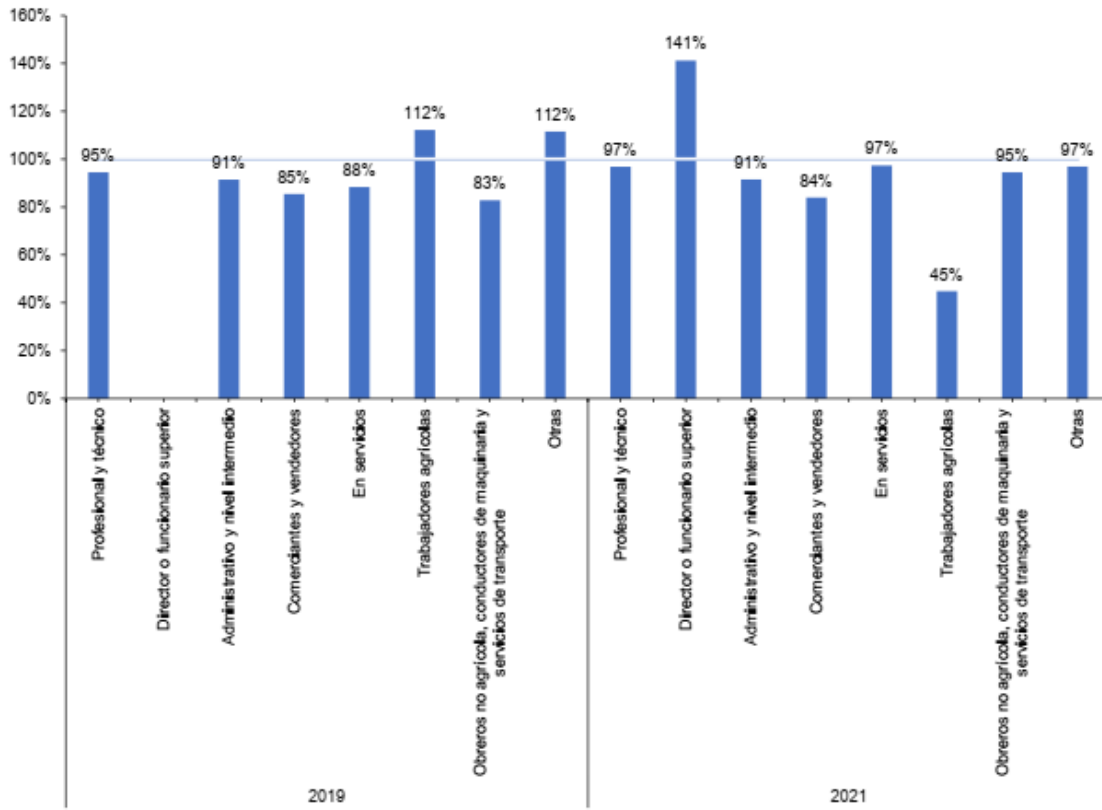*Only individuals with occupation and income were used.

3. Methodology

As previously mentioned, two methodologies will be used to address the gender earnings gap: the Blinder-Oaxaca decomposition and the Ñopo methodology.

Blinder-Oaxaca Decomposition

This first strategy for quantifying the evolution of the gender earnings gap allows us to decompose it into two parts. The first part is explained by the different control variables used to capture human capital, such as education, work experience, and occupation. The second part cannot be explained by these variables and could be associated with gender-differentiated regulations, prejudices, biases, or discrimination, as outlined by Becker (1957). This unexplained gap may originate from personal or statistical preferences, meaning that employers use group characteristics to evaluate individual characteristics. An example of this is the assumption that women of childbearing age are more likely to have children than older women, and therefore may interrupt their careers. Under this assumption, employers might pay lower wages to women of childbearing age to compensate for the higher probability of career interruptions, as explained by Hoyos, Ñopo, and Peña (2010).

The Blinder-Oaxaca method uses Mincer-type wage equations (Mincer, 1974), which, as described in Jann (2008), allow for the division of the difference in labor earnings into:

(i) a part explained by group differences and individual characteristics, such as education and work experience,

(ii) a second residual component that is unexplained.

Since there are two groups composed of men (H) and women (M), an explained variable (the logarithm of hourly labor earnings from the main activity), and a set of explanatory variables X, such as education and experience, among others, we seek to explain the average earnings difference between the two groups using the explanatory variables X.

$$EGap = E(Y_H) - E(Y_M) \qquad\qquad (1)$$

Where $E(Y_g)$ denotes the expectation of the logarithm of labor earnings, which is the variable of interest, and g can be H if the equation is performed for men, or M if it is done for women. A Mincer-type equation is used to explain earnings in the form $Y_g = \alpha_g + \sum_{i=1}^{k} X_{ik}\, \beta_{gik} + \varepsilon_{gi}$. This expression can be substituted into equation [1]:

$$EGap = E\left(\alpha_H + \sum_{i=1}^{k} X_{ik}\beta_{Hik} + \varepsilon_{Hi} \right) - E\left(\alpha_M + \sum_{i=1}^{k} X_{ik}\beta_{Mik} + \varepsilon_{Mi} \right)$$

$$(2)$$

$$EGap = \widehat{\alpha_H} + \sum_{i=1}^{k} \overline{X_{\iota k}}\, \widehat{\beta_{H\iota k}} - \widehat{\alpha_M} - \sum_{i=1}^{k} \overline{X_{\iota k}}\, \widehat{\beta_{M\iota k}}$$

(3)

Reordering, it is possible to identify the contribution of the explanatory variables to the differences between the groups:

$$EGap = (\widehat{\alpha_H} - \widehat{\alpha_M}) + \sum_{i=1}^{k} \overline{X_{\iota k}}(\widehat{\beta_{H\iota k}} - \widehat{\beta_{M\iota k}}) + \sum_{i=1}^{k} (\overline{X_{H\iota k}} - \overline{X_{M\iota k}})\widehat{\beta_{H\iota k}}$$

(4)

where the last component of this equation corresponds to the income gap accounted for by the explanatory variables, while the first two components correspond to unexplained differences.

The model was estimated using the following specification:

$yhora_i = \beta_0 + \sum_{i=1}^{3} \beta_i\, gaedu_i + \beta_4 exp_i + \beta_5 exp_i^2 + \sum_{i=6}^{9} \beta_i\, gedad_i + \beta_{10} casado_i + \beta_{11} men6_i +$
$\beta_{12} cnt\_prop_i + \sum_{i=13}^{20} \beta_i\, rama_i + \sum_{i=21}^{28} \beta_i\, ocupa_i + \beta_{29} formal_i + \beta_{30} zona_i + \sum_{i=31}^{n} \beta_i\, region_i + \epsilon_i$

(5)

Where:

- $yhora_i$ is the logarithm of nominal hourly labor earnings.

- $gaedu_i$ are dummy variables indicating the three highest levels of education attained as shown in table 2, relative to the base category, which is no educational level.

- exp_i are the estimated years of experience, which are calculated as age minus years of education.

- $gedad_i$ are four binary variables indicating age groups from table 2, using the 25-35 years segment as the base category.

- $casado_i$ is a binary variable that takes the value of 1 if the person is married.

- $men6_i$ is a binary variable that takes the value of 1 if there are children under six years of age living in the household.

-

- cnt_{prop_i} is a binary variable that takes the value of 1 if the person is self-employed or an independent worker.

- $rama_i$ are binary variables related to the different economic activities in which people are engaged, with agriculture, hunting, forestry, and fishing as the base category.

- $ocupa_i$ are six binary variables related to the different occupations of the surveyed individuals.

- $formal_i$ is a binary variable that takes the value of 1 if the person works in the formal sector.

- $zona_i$ is a binary variable that takes the value of 1 if the person works in the urban area.

- and $region_i$ are binary variables that refer to the different regions of the country.

This decomposition is performed separately for women and men. While this method is widely popularized in the literature, it has some limitations. On the one hand, it assumes a relationship between explanatory characteristics and earnings that may not be true. On the other hand, the model is only informative in the sense that it addresses how the gap is decomposed, which does not imply a causal relationship. Lastly, the method does not restrict its comparison to individuals with comparable characteristics. Ñopo's (2008) model was developed precisely when trying to address the first and last limitations mentioned.

Ñopo Decomposition

The method proposed by Ñopo (2008) is a non-parametric decomposition technique that, like the Blinder-Oaxaca model, aims to analyze earnings differences between men and women across the income distribution, not just the mean.

This Ñopo approach restricts the comparison solely to differences between men and women with comparable characteristics, known as the "common support." This allows for the generation of a synthetic counterfactual of individuals by matching men and women who have identical observable characteristics, without the need to assume any functional form in the relationship between explanatory variables and earnings. This is done through discrete characteristics, and thus, it does not require matching by propensity score or any other notion of distance between men's and women's characteristics (Ñopo 2008).

This procedure generates three groups:

(i) Women and men matched in the "common support."

(ii) Women with observable characteristics for which there are no comparable men, referred to as the "maid effect."

(iii) Men for whom there are no comparable women, referred to as the "CEO effect."

The method allows men and women with identical characteristics to be part of a "common support," facilitating the breakdown of the income difference by observed and unobserved characteristics. On the other hand, the calculation of the maid and CEO effects is performed among those individuals who fall outside this "common support."

The "maid effect" refers to those women who, given their characteristics, do not have male counterparts with comparable characteristics. This is traditionally associated with women who have lower-ranking jobs that complement their household duties. On the other hand, the "CEO effect" refers to those men who, given their

characteristics, hold top-level positions and do not have female counterparts with comparable characteristics.

In summary, this model decomposes the gender earnings gap into four elements:

- The portion explained by observable characteristics.

- The portion explained by unobservable characteristics.

- The "maid effect," representing women with characteristics for which there are no comparable men.

- The "CEO effect," representing men with characteristics for which there are no comparable women.

$$\delta = \delta_X + \delta_F + \delta_M + \delta_0 \qquad\qquad (6)$$

Where δ represents the total gender earnings difference; δ_X represents the earnings difference related to observable characteristics; δ_F is the measurement of the maid effect; δ_M is the measurement of the CEO effect; and δ_0 represents the unexplained earnings difference. As mentioned earlier, this last component could be related to issues of bias and discrimination. It is worth noting that the unexplained component of this model follows the same logic as the Blinder-Oaxaca model, allowing for a comparison between both estimates.

The Ñopo model is not without limitations. Like the Blinder-Oaxaca model, it is solely informative about how the gap is decomposed but does not imply a causal relationship. Additionally, because matching is constructed with discrete variables, the probability of finding a person with the same characteristics and endowments, both for men and women, decreases as the number of explanatory variables increases, i.e., it reduces the common support, as noted by Enamorado, Izaguirre, and Ñopo (2009). This problem is known as the "curse of dimensionality," and it's the reason why the Ñopo model should carefully consider the inclusion of new variables.

Another limitation shared by both methodologies is that they can only control for observable characteristics, and in the specific case of this study, only for the characteristics included in the harmonized household surveys by the IDB. In this sense, the gender earnings gap could also be affected by characteristics that are not observed in the survey, such as attitudinal factors, effort, and preferences for tasks in the labor market or at home, among others, which could be omitted in the analysis and thus introduce bias in the estimators due to the omission of relevant variables. Chioda (2011) provides a relevant example showing that preferences and attitudes between men and women towards work in the labor market may not be identical.

To achieve greater comparability and consistency, this study decided to perform both estimations. This approach will allow both to be compared with other studies using either of the two methodologies, as well as compared with each other since they share a common logic. Both models used hourly earnings as the dependent variable, allowing the calculation of the gender income gap. The explanatory variables used in the Ñopo model are:

$$gaedu_i, gedad_i, casado_i, men6_i, cnt_{prop_i}, rama_i, ocupa_i, formal_i, zona_i, region_i.$$

Note that here, the experience variables are not added to keep the common support high, i.e., to avoid falling into the "curse of dimensionality." This is considering that the experience variable is constructed with information related to age and education, which are already part of the explanatory variables in the regression, and the model already controls for whether the person lives in the urban or rural area.[12]

In the case of Blinder-Oaxaca estimations, robust standard errors and probabilistic weights were used to be consistent with the survey structure, while in the Ñopo decomposition model, frequency weights were used, as this is what the methodology calls for.

It is worth noting that by considering only the observed wages of employed individuals, both models may suffer from selection bias. Since labor force participation is higher among men, it can often be the case that women destined to receive lower wages do not enter the labor market, unlike men, for whom potential wages may have a smaller impact on labor force participation. If this is the case, the models presented in this study would underestimate the gap. However, the increase in female participation could be mitigating this bias, making it more challenging to compare over time.

Please note that this research uses similar control variables as those presented in past studies on the earnings gap in Latin America and the Caribbean, such as those by Hoyos and Ñopo (2010) and Ñopo (2012).

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[12] The calculations not included in the model showed that aggregating these variables significantly reduced the common support and increased the standard deviation of the variables but did not alter the overall results.

4. Results

Table 3 presents the results of the Blinder-Oaxaca decomposition estimation. Over the 25 years covered by the study, the average hourly earnings gap between genders fluctuated between -3% and 11%[13], without showing a clear pattern over time, as depicted in Graph 5.

In all periods, the explained variables appear to be contributing to closing the gap, showing an effect on it, while the unexplained portion accounts for the entirety of the gap.

Table 4 breaks down the decomposition of the gap according to different aggregated explanatory variables. Notably, the gap explained by education is negative and statistically significant, suggesting that the higher average educational level of female workers compared to men (as shown in Table A1) is reducing the overall earnings gap. Similarly, experience, economic activities, and occupations where most women are employed also contribute to narrowing the total earnings gap.

On the other hand, personal and family characteristics such as age, marital status, and the presence of minors in the home, as well as the proportion of self-employment, have a positive and statistically significant effect on the earnings gap, although their importance diminishes over time.

Finally, the region of the country where workers (both men and women) reside has a negative and statistically significant effect on the gap. This implies that the fact that female workers are more concentrated in urban areas (as shown in Table A1) is also reducing gender earnings inequalities.

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[13] Calculated as $diferencia/yhora_{mujer}$, the explained gap is calculated as $diferencia_{explicada}/yhora_{mujer}$, while the unexplained gap is calculated as $diferencia_{no\ explicada}/yhora_{mujer}$

Table 3. Blinder-Oaxaca decomposition*
(Earnings per hour)

	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2006	2007	2008
Differential													
Estimation for Men	4,119***	3,847***	3,711***	3,978***	3,675***	3,667***	3,647***	3,696***	4,023***	4,938***	6,487***	8,286***	10,00***
	(0,0723)	(0,0720)	(0,0621)	(0,0626)	(0,0517)	(0,0535)	(0,0625)	(0,106)	(0,0452)	(0,0519)	(0,435)	(0,115)	(0,140)
Estimation for Women	3,877***	3,929***	3,627***	3,771***	3,645***	3,640***	3,570***	3,327***	3,876***	4,946***	5,985***	7,669***	9,703***
	(0,0694)	(0,141)	(0,0565)	(0,0669)	(0,0572)	(0,0608)	(0,0597)	(0,0692)	(0,0597)	(0,249)	(0,0895)	(0,0951)	(0,169)
Difference	0,241*	-0,0819	0,0844	0,207*	0,0301	0,0271	0,0765	0,369**	0,147	-0,00745	0,502	0,617***	0,301
	(0,100)	(0,158)	(0,0839)	(0,0916)	(0,0771)	(0,0810)	(0,0864)	(0,127)	(0,0749)	(0,255)	(0,444)	(0,150)	(0,220)
Decomposition													
Explained	-0,558***	-0,591***	-0,595***	-0,629***	-0,691***	-0,675***	-0,527***	-0,521***	-0,422***	-0,436**	-0,657***	-0,801***	-1,056***
	(0,0794)	(0,110)	(0,0741)	(0,0655)	(0,0586)	(0,0636)	(0,0643)	(0,0972)	(0,0519)	(0,137)	(0,0920)	(0,108)	(0,143)
Unexplained	0,799***	0,509*	0,680***	0,836***	0,721***	0,702***	0,604***	0,890***	0,568***	0,429	1,160**	1,418***	1,357***
	(0,113)	(0,215)	(0,0764)	(0,0934)	(0,0809)	(0,0794)	(0,0948)	(0,128)	(0,0867)	(0,364)	(0,398)	(0,191)	(0,291)
Decomposition (as a percentage of hourly labor earnings for women)													
Total	6%	-2%	2%	5%	1%	1%	2%	11%	4%	0%	8%	8%	3%
Explained	-14%	-15%	-16%	-17%	-19%	-19%	-15%	-16%	-11%	-9%	-11%	-10%	-11%
Unexplained	21%	13%	19%	22%	20%	19%	17%	27%	15%	9%	19%	18%	14%
Observations	14.593	17.182	32.739	30.151	27.379	24.728	23.725	24.087	34.517	35.199	48.726	45.359	47.045

t-Statistic in parentheses

* $p < 0,05$, ** $p < 0,01$, *** $p < 0,001$

	2009	2010	2011	2012	2013	2014	2016	2017	2018	2019	2020	2021
Differential												
Estimation for Men	11,73***	14,68***	19,34***	23,52***	30,72***	39,47***	69,81***	90,57***	114,9***	168,1***	227,3***	348,9***
	(0,130)	(0,137)	(0,216)	(0,279)	(0,356)	(0,348)	(0,666)	(0,931)	(1,145)	(2,134)	(5,644)	(10,54)
Estimation for Women	11,61***	14,80***	19,14***	23,99***	30,61***	40,05***	71,76***	90,36***	113,7***	164,0***	234,9***	331,8***
	(0,127)	(0,179)	(0,221)	(0,283)	(0,366)	(0,428)	(0,845)	(1,159)	(1,206)	(1,823)	(5,894)	(5,407)
Difference	0,123	-0,126	0,196	-0,476	0,112	-0,581	-1,948	0,205	1,125	4,145	-7,590	17,11
	(0,181)	(0,225)	(0,309)	(0,397)	(0,511)	(0,552)	(1,076)	(1,487)	(1,663)	(2,807)	(8,161)	(11,84)
Decomposition												
Explained	-1,729***	-2,085***	-2,829***	-3,141***	-4,226***	-5,564***	-9,483***	-10,37***	-12,28***	-17,25***	-36,70***	-42,85***
	(0,149)	(0,176)	(0,225)	(0,362)	(0,405)	(0,394)	(0,781)	(1,212)	(1,131)	(2,064)	(6,673)	(12,08)
Unexplained	1,852***	1,958***	3,025***	2,665***	4,338***	4,983***	7,535***	10,58***	13,40***	21,40***	29,11**	59,96**
	(0,235)	(0,268)	(0,356)	(0,609)	(0,670)	(0,638)	(1,178)	(2,034)	(1,723)	(3,464)	(11,22)	(21,33)
Decomposition (as a percentage of hourly labor earnings for women)												
Total	1%	-1%	1%	-2%	0%	-1%	-3%	0%	1%	3%	-3%	5%
Explained	-15%	-14%	-15%	-13%	-14%	-14%	-13%	-11%	-11%	-11%	-16%	-13%
Unexplained	16%	13%	16%	11%	14%	12%	11%	12%	12%	13%	12%	18%
Observations	44.863	44.964	44.350	42.708	42.662	46.186	36.180	38.336	37.554	39.495	25.776	32.907

t-Statistic in parentheses

* $p < 0,05$, ** $p < 0,01$, *** $p < 0,001$

Source: Own elaboration based on household surveys from Argentina harmonized by the IDB.

Only individuals with occupation and income and probabilistic weightings were used..

Table 4, Components of the explained gap - Blinder-Oaxaca*
(Earnings per hour)

	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2006	2007	2008
Explained Difference	-0,558***	-0,591***	-0,595***	-0,629***	-0,691***	-0,675***	-0,527***	-0,521***	-0,422***	-0,436**	-0,657***	-0,801***	-1,056***
Education	-0,415***	-0,408***	-0,443***	-0,530***	-0,457***	-0,461***	-0,416***	-0,457***	-0,334***	-0,500***	-0,586***	-0,610***	-0,775***
Experience	-0,0135	-0,00244	0,00155	0,0172	-0,00710	0,0207	0,0183	0,0470	0,00522	0,0246	-0,119	-0,0468	-0,0212
Personal and Family Characteristics	0,0958**	0,121**	0,0486	0,0325	0,0848***	0,0519*	0,0725***	0,0799***	0,0470***	0,0644	0,0409	0,116***	0,101**
Self-Employment	0,0223*	0,0103	0,0138*	0,0133*	0,0157**	0,0231***	0,0149*	0,0225	0,0665***	0,0592***	0,0157	0,0730***	0,0819***
Economic Activity	-0,0108	-0,0864	-0,0134	-0,180**	-0,204***	-0,227***	-0,112*	-0,123	-0,228***	-0,133	-0,316***	-0,609***	-0,475***
Occupation	-0,234***	-0,219***	-0,202***	0,0186	-0,124*	-0,0402	-0,0626	-0,0630	0,0331	0,0784*	0,307	0,255**	0,00547
Region	n,d,	n,d,	n,d,	n,d,	n,d,	-0,0435**	-0,0435**	-0,0279	-0,0512***	-0,0614*	-0,0422	-0,0767***	-0,0596*
Formality	-0,00169	-0,00686	-0,00173	-0,000370	0,00142	0,000843	0,00112	0,0000429	0,0392***	0,0316**	0,0425*	0,0976***	0,0864***

	2009	2010	2011	2012	2013	2014	2016	2017	2018	2019	2020	2021
Explained Difference	-1,729***	-2,085***	-2,829***	-3,141***	-4,226***	-5,564***	-9,483***	-10,37***	-12,28***	-17,25***	-36,70***	-42,85***
Education	-1,028***	-1,307***	-1,599***	-1,810***	-2,366***	-2,704***	-4,702***	-4,086***	-5,651***	-6,991***	-17,08***	-23,99***
Experience	-0,0784**	-0,0930*	-0,0599	-0,0425	-0,0791	-0,134	-0,369**	-0,316**	-0,258	-1,701**	-0,850	-0,394
Personal and Family Characteristics	0,0192	0,0688	0,0502	0,0352	-0,0961	0,162	0,0623	0,200	0,682*	0,443	2,011	0,114
Self-Employment	0,0706***	0,117***	0,143***	0,230***	0,137**	0,222***	-0,00883	0,171	0,152	0,424**	0,206	0,302
Economic Activity	-0,823***	-1,123***	-1,468***	-1,413***	-1,741***	-3,296***	-3,271***	-1,920	-2,173*	-2,782	-13,29*	-22,06*
Occupation	0,154	0,273**	0,189	-0,0451	0,222	0,585*	-0,544	-3,948***	-4,947***	-5,751***	-2,133	6,671
Region	-0,0660**	-0,0853**	-0,166***	-0,107*	-0,147**	-0,309***	-0,651***	-0,527**	-0,539**	-1,076**	-3,426*	-5,079**
Formality	0,0225	0,0649	0,0822	0,0120	-0,155*	-0,0899	-0,000581	0,0555	0,455*	0,180	-2,139	1,581*

* $p < 0,05$, ** $p < 0,01$, *** $p < 0,001$

Source: Own elaboration based on household surveys from Argentina harmonized by the IDB.

Only individuals with occupation and income and probabilistic weightings were used..
n.d. Not Available. When data is insufficient to calculate the percentage.

Graph 5. Total earnings gap estimated using the Blinder-Oaxaca decomposition*
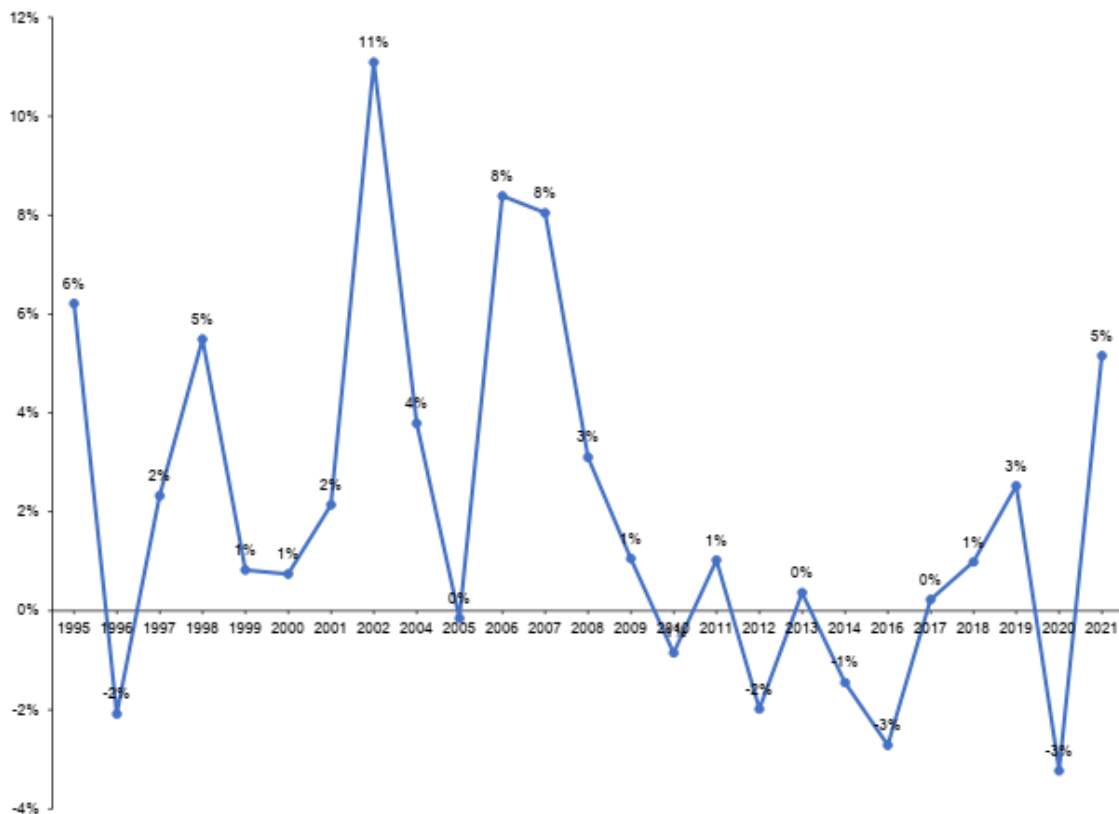
Source: Own elaboration based on the harmonized permanent household surveys of Argentina by the IDB.

*Only individuals with occupation and income were used.

In Table 5, the results of the Ñopo decomposition are presented. This analysis shows a gender earnings gap in the majority of the years studied (16 out of 25), reaching up to 11%. Similar to the Blinder-Oaxaca model results, the reduction in the gap is attributed to the explanatory variables, while the majority of the gap is due to factors not explained by the analyzed variables, as well as what Ñopo (2008) has termed the "CEO Effect." Additionally, the "Maid Effect" has been contributing to closing the gap since at least the beginning of this century. Although there are small differences between the estimates from Blinder-Oaxaca and Ñopo — fundamentally related — both methods follow common practices recorded in international literature, with differences due to methodological aspects.

The common support for different years, for both men and women, is not less than 30%. This value is similar to the models for Latin American and Caribbean (LAC) countries used in Hoyos and Ñopo (2010) and Ñopo (2012), which employ control variables similar to those presented in this study. Like the Blinder-Oaxaca model, there is no clear trend over time, and the gap fluctuates, although mostly in favor of men.

These findings highlight the complex and multifaceted nature of the gender earnings gap, underscoring the significance of various factors, including education, experience, economic activities, personal and family characteristics, and regional differences, in shaping the gap. The persistent portion of the gap not explained by these factors suggests the influence of deeper structural issues, such as societal norms and potential discrimination, which are more challenging to quantify and address.

Table 5. Ñopo decomposition* (Hourly earnings)

	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2016	2017	2018	2019	2020	2021
(Total)	6%	-1%	2%	5%	1%	1%	2%	11%	4%	0%	8%	7%	3%	1%	-1%	1%	-2%	0%	-2%	-3%	0%	1%	2%	-3%	4%
(No explained)	7%	1%	10%	15%	9%	17%	13%	12%	12%	8%	14%	12%	16%	9%	9%	14%	20%	19%	10%	9%	13%	9%	10%	7%	8%
(CEO Effect)	3%	1%	1%	2%	3%	-2%	-2%	5%	-3%	-3%	-10%	0%	-7%	-5%	-6%	-8%	-6%	-8%	-7%	-11%	-13%	-12%	-12%	-13%	-5%
(Maid Effect)	-1%	0%	-1%	-2%	-1%	1%	3%	0%	0%	-4%	1%	0%	3%	3%	2%	5%	5%	4%	4%	8%	8%	8%	8%	12%	8%
(Explained)	-4%	-4%	-7%	-10%	-10%	-15%	-12%	-6%	-5%	-2%	4%	-5%	-9%	-6%	-6%	-10%	-20%	-14%	-9%	-8%	-7%	-4%	-4%	-9%	-7%
% Men	63%	63%	65%	68%	67%	38%	35%	32%	43%	42%	44%	43%	42%	44%	43%	43%	41%	42%	45%	41%	42%	42%	43%	32%	39%
% Women	86%	89%	92%	91%	89%	55%	54%	52%	63%	63%	67%	66%	64%	64%	66%	64%	63%	63%	67%	60%	61%	60%	61%	47%	56%
Standard Error	1%	2%	1%	1%	1%	2%	2%	2%	2%	1%	6%	1%	2%	1%	1%	1%	2%	1%	1%	1%	1%	1%	1%	2%	2%

Source: Prepared by the authors based on Argentina's permanent household surveys harmonized by the IDB.
*Only people with occupation and income and frequency weight weights were used.

In Graph 6, the evolution of the gender earnings gap estimated using the Ñopo decomposition is also presented. It shows that the unexplained part of the gap (represented by the yellow bar) remained high in most of the years, albeit with a decreasing trend over time, with the exceptions being 2012, 2013, and 2020.

For 2021, the component explained by the variables used in the model also contributed to narrowing the gap by 7%, while the unexplained component was responsible for an 8% gap. This unexplained part represents the difference in earnings perceived by women, which is attributed to other unobservable factors such as biases and discrimination mentioned earlier. Collectively, without the higher level of education, favorable employment profiles, and the CEO effect, the gap would be 12% greater in 2021.[14]

This analysis underscores the complexity of the gender earnings gap. While certain observable factors such as education and professional profile contribute positively to reducing the gap, there remains a significant portion that is unexplained by these variables. This unexplained component likely encompasses deeper, systemic issues like gender biases and discrimination that continue to impact women's earnings relative to men, highlighting the ongoing challenges in achieving gender equality in the labor market.

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[14] The 12% corresponds to the sum of the explained gap (7%) and the effect of the senior executive (5%).

Graph 6. Total earnings gap estimated using Blinder-Oaxaca and Ñopo decompositions*
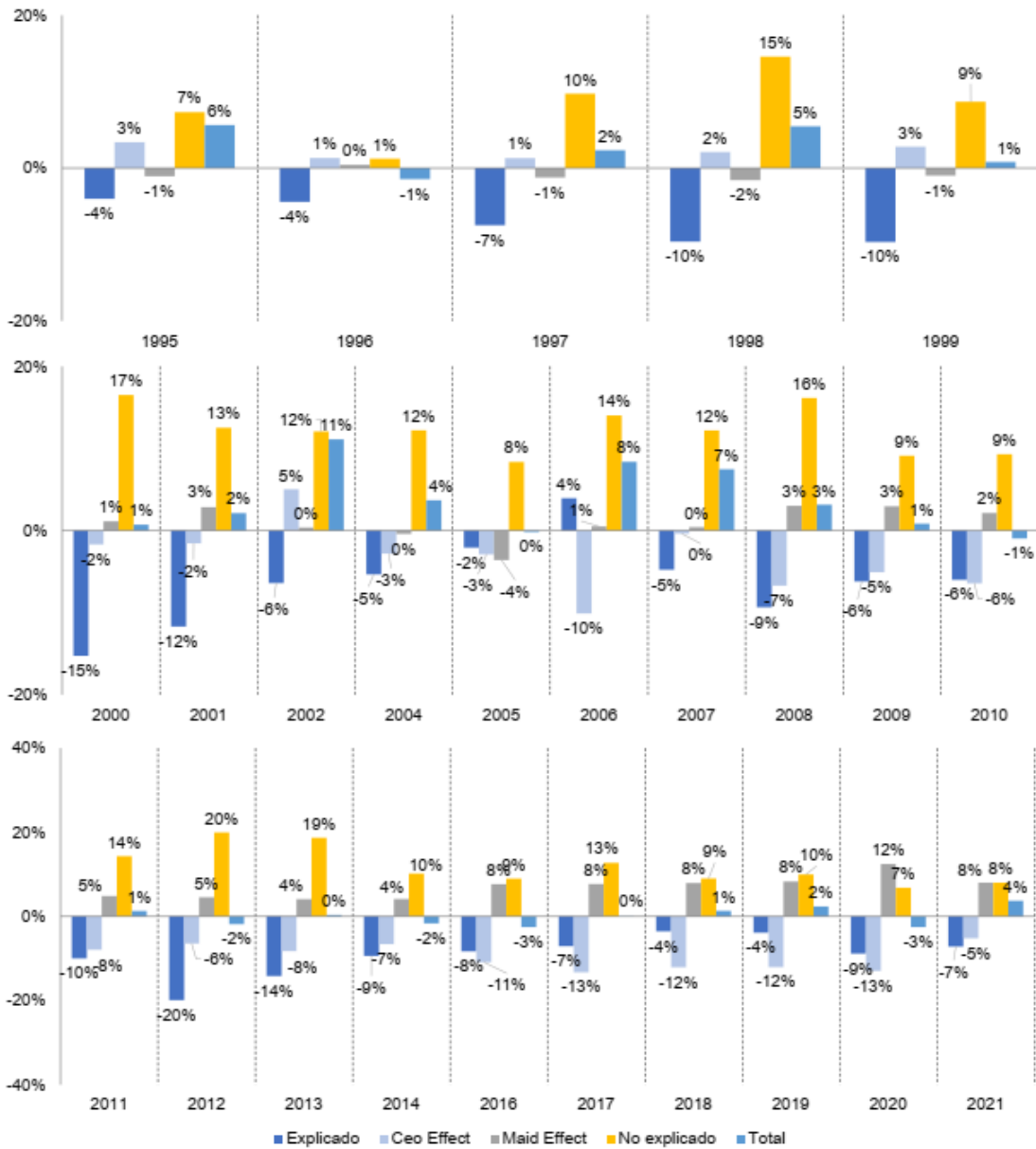
Source: Own elaboration based on harmonized permanent household surveys of Argentina by the IDB.

*Only individuals with occupation and income were used.

In Graph 7, the gender earnings gaps, calculated using both the Blinder-Oaxaca and Ñopo decompositions, are compared for the years 1995, 2001, 2007, 2013, 2019, and 2021. These years were chosen to maintain constant time intervals and to attempt to capture a pre- and post-2020 image, the year in which the COVID-19 crisis emerged. Both the explained and unexplained components are included. It stands out that both methodologies are consistent in showing that for all years there is an unexplained earnings gap favoring men, and that the explanatory variables compensate for this situation by reducing the gap.

Graph 7. Total earnings gap estimated using Blinder-Oaxaca (BO) and Ñopo decompositions*

Source: Prepared by the authors based on Argentina's permanent household surveys harmonized by the
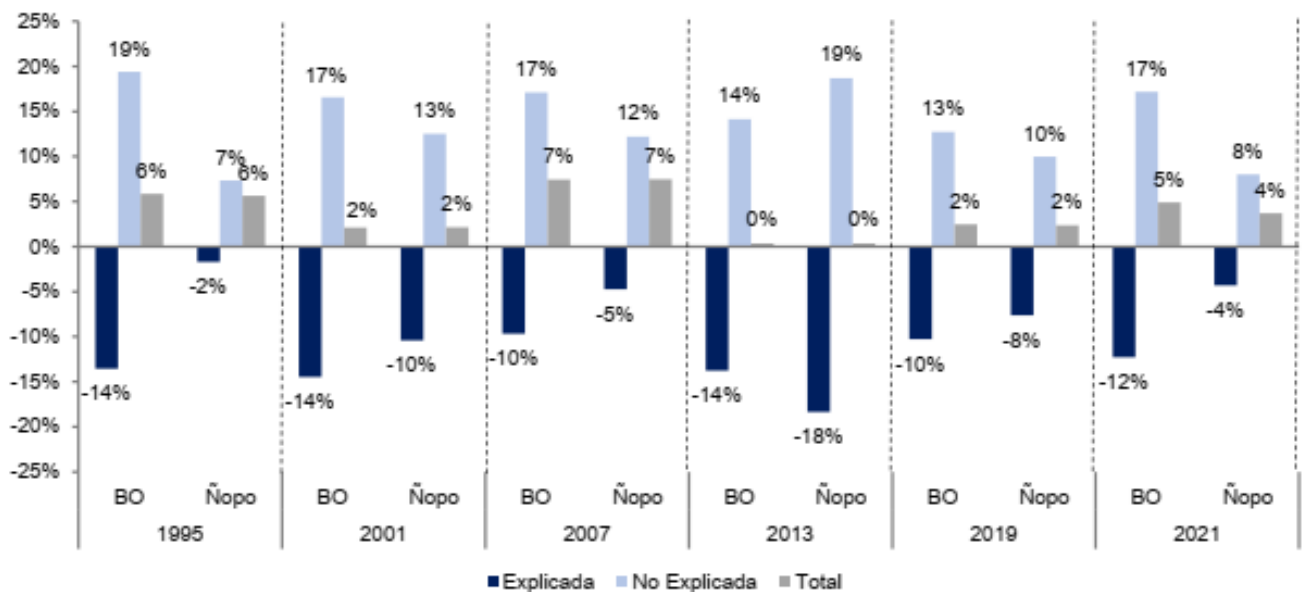

IDB.
*Only people with occupation and income were used.
Note: For Ñopo's methodology, the explained component data is calculated as the sum of the explained
component, the effect of the senior executive, and the effect of the domestic worker.

In Graph 8, the evolution of the unexplained gap is presented for the same periods used in Graph 7. Confidence intervals for 1.96 standard deviations above and below the estimator are included. This allows us to appreciate that both methodologies show a statistically significant unexplained earnings gap for the different years analyzed, being statistically equal for both methodologies at 95% statistical significance, except in the year 1995 when the unexplained gap is statistically greater when using the Blinder-Oaxaca methodology.

Graph 8. Unexplained earnings gap estimated using Blinder-Oaxaca and Ñopo decompositions

Note: The bars represent the unexplained component at a 95% confidence level.

Additionally, the Ñopo decomposition allows for the disaggregation of the earnings gap for the categories of different explanatory variables. In Graph 8, the total and unexplained earnings gaps are presented by the state of formality. A clear distinction is evident in the total gap between people working in the formal sector and those in the informal sector. There is a high gender earnings gap among individuals in the informal sector, while in the formal sector, the gap is smaller and even in favor of women.

Furthermore, the unexplained gap is statistically significant in both the formal and informal sectors. In Graph 9, confidence intervals are added using 1.96 standard deviations above and below the estimator, equating to a 95% level of significance. It is observed that this gap has slightly decreased over time.

Graph 9. Earnings gap estimated by Ñopo decomposition by formality
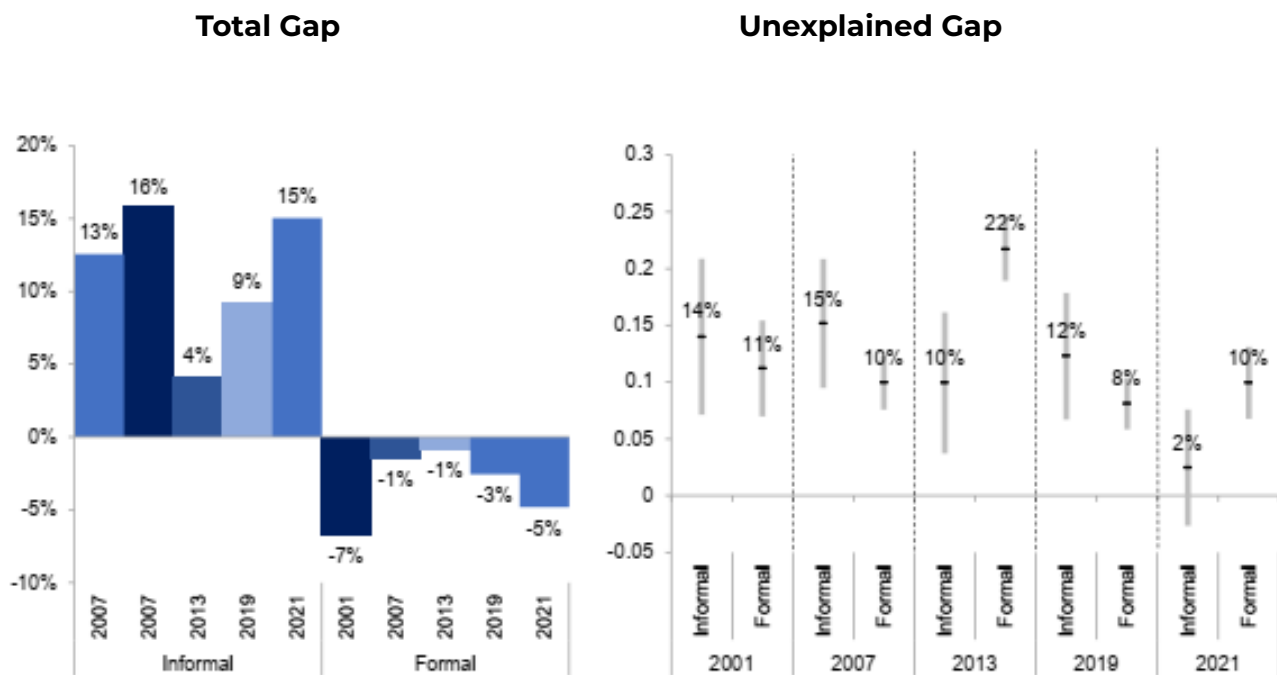
Total Gap   **Unexplained Gap**

Source: Own elaboration based on the harmonized permanent household surveys of Argentina by the IDB.

Note: The bars represent the unexplained component at a 95% confidence level.

The situation of the earnings gap in the informal sector may be due to the lack of labor legislation regulating employment relationships and prevailing business practices there. This is significant as labor informality in Argentina reaches nearly 47% overall (Table A1), with it being 46% for women and 47% for men in 2021.

5. Conclusions

According to the findings of this study, while the overall gender earnings gap oscillates between positive and negative values and seems to show a trend towards reduction, in most years it is unfavorable to women. This is fully explained by factors not observable in permanent household surveys. This implies that variables such as experience, personal and family characteristics, economic sector and activity, and region of the country do not explain the gap, leading to the conclusion that it could be more related to issues of norms, biases, or discrimination, rather than individual characteristics or preferences.

The gap is deeper among those working in the informal sector. It is also heterogeneous among occupations but statistically significant in most of them. This suggests that the unjustifiable earnings gap between men and women has not consistently diminished in the last two decades, limiting women's opportunities to earn income. However, the gap is smaller for those working in the formal sector.

The main variables contributing to closing the gender wage gap in Argentina are education, experience, and activities and occupations where women primarily work. On the other hand, personal and family characteristics such as age, marital status, and the presence of minors in the home represent factors creating a gender earnings gap in favor of men; the same is true for self-employment. Additionally, the regional variable also contributes to reducing the earnings gap, due to the high proportion of women working in areas of the country with high economic dynamism.

These conclusions mostly align with the literature on gender earnings gaps in Argentina. Like Hoyos and Ñopo (2010), it was determined that the unexplained gap remains very significant in the country, although unlike other LAC countries, in Argentina, there is no explained earnings gap in favor of men. On the contrary, given their human capital endowments, women would be expected to have higher salaries. In line with authors like Chioda (2011) and Gasparini and Marchionni (2015), education is a relevant factor in closing the gap, given the increase in the proportion of women who have completed secondary education. Similar to ILO (2019a), it is concluded that the unexplained gap persists and is primarily among low-income workers and among self-employed or informal workers.

In line with the findings of Esquivel (2007), Paz (2019), and Trombetta and Cabezón (2020), it is established that the unobservable factor (traditionally interpreted as discrimination) is the main responsible for the income gap unfavorable to women. Like Carranza and Alderete (2014), this study found that women's greater human capital endowment, i.e., their better employment profile, partly compensates for this disadvantage. Furthermore, as in the work of Casal and Barham (2013), it is established that the gap is more pronounced in the informal sector.

This document contributes to the diagnosis of the evolution of the gender earnings gap year by year in Argentina between 1995 and 2021. The

conclusions offered here are relevant because, for public policies to be based on evidence, it is essential to have reliable data and estimates that can serve as input for decision-making by those responsible for formulating public policies.

The conclusions presented are open to the possibility of being complemented by future analyses through greater disaggregation and deepening of the earnings gap for groups of people with different specific characteristics. The same applies to the use of new resources that allow for improved quantification of the income gap and its determinants. Finally, there is a need to conduct a particular study on the consequences that the pandemic has had – and continues to have – on the earnings gap in Argentina.

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Table A1. Distribution of characteristics of the employed population receiving income by year and gender, males (M) and females (F)

	1995		1996		1997		1998		1999		2000		2001		2002		2004		2005		2006		2007		2008	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Years of Education	9.6	9.7	9.7	9.8	9.8	10.0	9.9	10.1	10.0	10.2	10.1	10.3	10.1	10.4	10.2	10.5	10.5	10.8	10.5	10.9	10.1	10.6	10.3	10.6	10.3	10.7
None	10%	11%	10%	11%	10%	11%	9%	10%	8%	9%	8%	9%	8%	8%	8%	8%	7%	7%	8%	7%	6%	6%	5%	5%	5%	5%
Primaria	56%	49%	55%	50%	54%	49%	54%	49%	54%	48%	53%	47%	52%	47%	51%	45%	48%	43%	47%	43%	48%	42%	46%	41%	46%	41%
Secondary	27%	30%	27%	30%	28%	30%	28%	30%	30%	31%	30%	32%	31%	33%	31%	34%	34%	34%	34%	35%	35%	36%	36%	36%	37%	37%
Tertiary	8%	10%	8%	10%	8%	11%	8%	11%	8%	12%	9%	12%	9%	13%	9%	13%	11%	15%	11%	15%	11%	16%	12%	17%	12%	17%
Years of Experience	20.0	20.8	19.9	20.6	19.8	20.7	19.5	20.2	19.4	19.8	19.4	19.9	19.2	19.8	19.4	19.6	19.3	19.7	19.2	19.7	19.6	20.0	19.6	20.3	19.7	20.2
15-25	33%	30%	32%	31%	32%	29%	32%	30%	33%	31%	32%	30%	33%	31%	32%	31%	31%	29%	31%	28%	30%	28%	30%	28%	30%	28%
26-35	20%	21%	21%	20%	21%	21%	22%	21%	21%	21%	21%	21%	21%	21%	21%	21%	22%	22%	23%	23%	24%	23%	23%	22%	23%	23%
36-45	20%	20%	20%	20%	19%	19%	19%	20%	18%	20%	19%	19%	18%	19%	19%	19%	19%	19%	18%	19%	18%	19%	19%	19%	19%	19%
46-55	16%	17%	16%	16%	16%	18%	16%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	16%	17%	16%	17%	16%	16%	17%	16%
56-65	12%	13%	12%	13%	12%	13%	11%	12%	11%	12%	11%	12%	11%	12%	11%	12%	11%	12%	12%	13%	12%	13%	12%	13%	12%	14%
Married	58%	57%	58%	56%	57%	56%	57%	55%	56%	53%	57%	54%	55%	53%	56%	54%	56%	54%	55%	53%	55%	53%	55%	53%	55%	53%
Children under 6 years old in the household	30%	31%	31%	32%	31%	33%	28%	30%	28%	30%	29%	31%	29%	31%	28%	30%	28%	30%	28%	30%	28%	30%	28%	29%	27%	29%
Agriculture, hunting, forestry, and fishing	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	1%	2%	1%	2%	1%	1%	0%	1%	0%	2%	0%
Mining and quarrying	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	0%	1%	0%	1%	0%
Manufacturing industry	21%	12%	19%	11%	20%	10%	19%	10%	18%	10%	17%	9%	17%	9%	16%	8%	17%	10%	18%	10%	18%	10%	18%	9%	18%	9%
Electricity, gas, and water	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%
Construction	11%	0%	12%	1%	12%	0%	13%	0%	13%	1%	12%	1%	12%	0%	11%	0%	12%	0%	14%	1%	14%	1%	15%	0%	15%	0%
Trade, restaurants, and hotels	25%	20%	24%	20%	23%	21%	24%	22%	24%	20%	25%	22%	25%	22%	24%	18%	24%	20%	23%	19%	24%	20%	23%	21%	23%	21%
Transport and storage	11%	2%	12%	2%	12%	2%	11%	2%	12%	3%	12%	3%	12%	2%	11%	2%	9%	1%	9%	1%	9%	1%	9%	1%	9%	1%
Financial establishments, insurance, and real estate	9%	9%	9%	10%	10%	9%	10%	9%	10%	10%	11%	9%	9%	9%	10%	9%	10%	8%	10%	9%	10%	9%	11%	10%	10%	10%
Social and community services	20%	56%	21%	56%	20%	57%	20%	56%	20%	56%	21%	56%	22%	57%	26%	61%	25%	59%	24%	59%	22%	58%	22%	57%	22%	57%
Buenos Aires	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	48%	46%	48%	46%	47%	46%	49%	47%	49%	47%	48%	48%	48%	48%	48%	48%
Catamarca	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Chaco	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Chubut	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Ciudad de Buenos Aires	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	13%	14%	13%	14%	13%	13%	12%	14%	12%	13%	12%	13%	13%	12%	12%	12%
Córdoba	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	7%	7%	7%	7%	6%	7%	7%	7%	7%	7%	7%	6%	7%	6%	6%	6%
Corrientes	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2%	1%	2%	2%	1%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Entre Ríos	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Formosa	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Jujuy	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
La Pampa	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
La Rioja	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Mendoza	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	4%	4%	4%	4%	4%	4%	3%	4%	4%	4%	4%	3%	4%	4%	4%	4%
Misiones	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Neuquén	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Río Negro	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Salta	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
San Juan	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
San Luis	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Santa Cruz	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Santa Fe	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	8%	8%	8%	8%	8%	8%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Santiago del Estero	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%
Tierra del Fuego	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	0%	0%	1%	0%	1%	0%
Tucumán	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Formal	40%	38%	40%	37%	41%	38%	41%	39%	40%	38%	39%	37%	36%	36%	33%	34%	38%	33%	40%	36%	43%	39%	47%	43%	47%	44%
Cuenta propia	17%	8%	16%	7%	16%	8%	16%	8%	15%	8%	16%	8%	16%	8%	17%	7%	16%	8%	16%	8%	15%	8%	15%	7%	15%	7%

	2009		2010		2011		2012		2013		2014		2016		2017		2018		2019		2020		2021	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Years of Education	10.3	10.7	10.4	10.9	10.5	11.0	10.6	11.0	10.6	11.0	10.5	11.0	10.6	11.0	10.8	11.2	10.8	11.3	10.9	11.4	11.0	11.6	11.2	11.9
None	5%	5%	5%	4%	4%	4%	4%	4%	4%	4%	3%	3%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2%
Primaria	46%	40%	46%	39%	46%	39%	44%	38%	44%	39%	45%	40%	44%	37%	42%	35%	41%	34%	40%	33%	44%	35%	39%	32%
Secondary	37%	37%	37%	38%	37%	38%	39%	39%	39%	38%	38%	38%	39%	41%	40%	42%	42%	42%	42%	43%	39%	41%	43%	43%
Tertiary	12%	18%	13%	18%	13%	19%	13%	19%	13%	19%	13%	19%	13%	19%	14%	20%	14%	20%	15%	22%	14%	22%	16%	23%
Years of Experience	19.6	20.2	19.8	20.1	19.8	19.9	19.7	20.1	19.5	20.2	19.4	20.1	20.0	20.6	20.1	20.7	20.0	20.4	20.2	20.5	19.8	19.9	20.0	20.0
15-25	30%	27%	29%	27%	29%	27%	29%	26%	29%	27%	30%	27%	29%	26%	29%	26%	29%	26%	27%	25%	29%	26%	27%	25%
26-35	23%	23%	24%	23%	23%	23%	23%	23%	23%	23%	22%	23%	21%	21%	21%	20%	21%	20%	21%	21%	22%	22%	21%	22%
36-45	19%	19%	19%	19%	19%	20%	20%	20%	20%	20%	20%	21%	20%	20%	20%	20%	20%	20%	20%	21%	20%	22%	21%	21%
46-55	16%	17%	16%	16%	16%	16%	15%	16%	15%	16%	15%	16%	16%	17%	17%	18%	17%	18%	17%	18%	17%	17%	18%	18%
56-65	12%	14%	13%	14%	13%	14%	13%	14%	13%	14%	13%	14%	14%	16%	14%	16%	13%	15%	14%	16%	13%	14%	13%	15%
Married	54%	53%	55%	53%	55%	53%	54%	53%	54%	53%	53%	53%	52%	51%	52%	51%	52%	51%	52%	51%	52%	50%	52%	52%
Children under 6 years old in the household	27%	29%	27%	29%	27%	29%	27%	30%	29%	31%	29%	32%	25%	28%	26%	28%	25%	28%	23%	26%	24%	27%	22%	26%
Agriculture, hunting, forestry, and fishing	2%	0%	2%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%
Mining and quarrying	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%
Manufacturing industry	17%	9%	18%	9%	17%	10%	16%	9%	18%	7%	18%	7%	16%	8%	15%	8%	14%	7%	14%	8%	16%	9%	14%	8%
Electricity, gas, and water	1%	0%	1%	0%	1%	0%	1%	0%	2%	0%	2%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	2%	0%
Construction	15%	0%	14%	1%	15%	1%	15%	1%	15%	1%	15%	1%	16%	1%	16%	1%	16%	1%	16%	1%	16%	1%	14%	1%
Trade, restaurants, and hotels	23%	21%	23%	20%	22%	20%	23%	20%	22%	21%	21%	20%	22%	20%	23%	21%	23%	21%	23%	21%	21%	20%	23%	21%
Transport and storage	9%	1%	9%	1%	9%	1%	10%	1%	9%	1%	9%	1%	9%	1%	9%	1%	9%	1%	9%	1%	8%	1%	8%	1%
Financial establishments, insurance, and real estate	10%	10%	11%	11%	11%	10%	10%	10%	9%	10%	10%	10%	11%	11%	11%	11%	10%	11%	11%	10%	11%	11%	11%	11%
Social and community services	23%	58%	22%	58%	22%	58%	22%	58%	23%	60%	23%	60%	23%	59%	24%	58%	25%	58%	25%	58%	25%	58%	26%	58%
Buenos Aires	48%	47%	49%	47%	48%	47%	48%	48%	48%	48%	48%	47%	50%	50%	50%	50%	51%	50%	51%	50%	50%	50%	51%	50%
Catamarca	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Chaco	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	2%	1%	1%	2%	1%	1%	2%	2%	1%	2%
Chubut	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Ciudad de Buenos Aires	11%	12%	11%	12%	11%	12%	11%	12%	11%	12%	11%	12%	10%	11%	10%	11%	10%	10%	10%	11%	11%	10%	10%	10%
Córdoba	7%	6%	6%	7%	6%	7%	6%	7%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Corrientes	1%	1%	1%	2%	1%	2%	1%	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Entre Ríos	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%	2%
Formosa	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Jujuy	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
La Pampa	0%	1%	0%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
La Rioja	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Mendoza	4%	4%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	4%	3%	3%	3%	3%
Misiones	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Neuquén	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Río Negro	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Salta	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
San Juan	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
San Luis	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Santa Cruz	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Santa Fe	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	6%	7%	7%	7%	7%	7%
Santiago del Estero	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	1%	2%
Tierra del Fuego	1%	0%	1%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	1%	1%
Tucumán	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Formal	46%	46%	49%	47%	50%	48%	49%	47%	48%	49%	48%	49%	47%	48%	47%	47%	47%	45%	44%	45%	45%	46%	47%	46%
Self-Employed	16%	8%	14%	7%	15%	7%	15%	7%	16%	8%	15%	8%	16%	8%	16%	9%	16%	9%	17%	10%	17%	11%	17%	11%

Source: Own elaboration based on household surveys from Uruguay harmonized by the IDB.
n.d. Not Available. When data is insufficient to calculate the percentage.

Probabilistic weightings are applied.

Table A2. Women's Participation by Occupation (%) and Average Hourly Earnings (ARS)

	1995		1996		1997		1998		1999		2000		2001		2002		2004		2005		2006		2007		2008	
	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS
Professional and Technician	59%	5	58%	5	59%	5	43%	6	44%	6	46%	6	43%	6	45%	6	44%	7	49%	8	46%	11	47%	12	45%	15
Director or Senior Official	25%	9	24%	17	33%	7	26%	11	34%	8	29%	8	29%	9	31%	8	28%	8	28%	16	30%	12	27%	16	29%	17
Administrative and Intermediate Level	25%	6	24%	5	25%	6	60%	3	59%	3	61%	3	58%	3	60%	3	58%	4	59%	5	59%	7	59%	9	58%	11
Merchants and Salespersons	39%	3	38%	3	42%	2	30%	3	29%	2	30%	2	30%	2	29%	2	46%	2	47%	3	45%	4	48%	5	48%	6
In Services	44%	3	46%	3	46%	3	63%	4	65%	4	63%	4	64%	4	63%	3	55%	4	55%	5	56%	6	54%	8	55%	10
Agricultural Workers	8%	3	9%	9	7%	2	13%	2	11%	2	7%	3	12%	2	32%	2	33%	2	29%	3	19%	3	17%	3	19%	21
Non-Agricultural Laborers, Machinery Operators, and Transport Services	4%	2	3%	2	5%	3	12%	2	12%	2	12%	2	13%	2	19%	2	17%	3	17%	4	16%	4	15%	6	14%	7
Others	15%	3	16%	6	13%	2	38%	5	43%	2	46%	4	46%	3	45%	2	28%	4	41%	5	43%	6	30%	8	37%	8
Total	**52%**	**4**	**52%**	**4**	**52%**	**4**	**52%**	**4**	**52%**	**4**	**52%**	**4**	**52%**	**4**	**53%**	**3**	**52%**	**4**	**52%**	**5**	**52%**	**6**	**52%**	**8**	**52%**	**10**

	2009		2010		2011		2012		2013		2014		2016		2017		2018		2019		2020		2021	
	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS	(%)	ARS
Professional and Technician	52%	19	51%	23	51%	30	50%	36	49%	48	49%	64	51%	110	49%	135	50%	170	49%	250	54%	337	52%	493
Director or Senior Official	31%	19	29%	24	29%	29	32%	37	29%	49	32%	55	30%	263	0%	0	0%	0	0%	0	46%	643	2%	1002
Administrative and Intermediate Level	58%	12	58%	16	58%	21	57%	26	60%	34	59%	46	58%	83	57%	105	60%	132	60%	186	60%	291	60%	388
Merchants and Salespersons	48%	8	45%	10	46%	12	45%	17	46%	21	48%	26	50%	43	48%	55	50%	68	49%	97	50%	135	51%	208
In Services	55%	12	55%	15	54%	19	54%	24	55%	31	55%	41	64%	51	62%	68	62%	84	62%	113	60%	174	61%	244
Agricultural Workers	19%	8	17%	22	15%	15	11%	11	12%	20	12%	23	18%	129	8%	57	15%	71	14%	124	22%	704	31%	513
Non-Agricultural Laborers, Machinery Operators, and Transport Services	13%	9	13%	13	14%	16	13%	19	13%	25	13%	32	13%	49	13%	59	13%	75	14%	102	16%	158	15%	239
Others	35%	13	33%	13	39%	19	36%	23	48%	28	30%	45	13%	79	9%	92	11%	118	9%	169	13%	215	17%	343
Total	**52%**	**12**	**52%**	**15**	**52%**	**19**	**52%**	**24**	**52%**	**31**	**51%**	**40**	**52%**	**72**	**52%**	**91**	**52%**	**114**	**51%**	**164**	**52%**	**234**	**51%**	**334**

Source: Self-generated based on Argentina household surveys harmonized by the Inter-American Development Bank (IDB).

Probabilistic weightings are applied.