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An Analysis from 2000-2019

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Manuel Urquidi, Liliana Serrate, and Miguel Chalup[**]

Abstract

The gender earning gap in Latin America poses a significant obstacle to achieving gender equality and sustainable development. In the Dominican Republic, this gap is concentrated in the informal sector, among self-employed workers, and in regions with higher female labor force participation. Despite women often having a better labor profile than men, the gender gap persists, indicating the presence of gender biases. Potential factors contributing to this gap may include inadequate laws, cognitive biases, and relative childcare costs that often go unnoticed in society.

To analyze the gender earning gap in the Dominican Republic between 2000 and 2019, we utilized the National Labor Force Surveys conducted by the National Statistics Office (ONE) and harmonized by the Inter-American Development Bank (IDB). We present two models for estimating this gap: the Blinder-Oaxaca decomposition and the Ñopo model.

Despite a temporal analysis, we did not observe a clear trend of reduction or increase in the gender earning gap during the analyzed period. This suggests that additional efforts are needed to understand this disparity.

Introduction

Women's participation in the labor market has increased in recent decades, highlighting their role as significant contributors to the economy. However, challenges and gender gaps persist in the workplace (Frisancho & Queijo, 2022). Moreover, evidence demonstrates that the COVID-19 crisis and its labor market effects disproportionately affected women in Latin America and the Caribbean, further exacerbating existing gaps and reversing previous progress (Bustelo, Suaya & Vezza, 2021).

Previous studies have documented the presence of a labor earnings gap affecting women in the region (Ñopo, 2012; Marques-Garcia, 2019; Székely & Acevedo, 2021; and Martínez, Ugarte & Zentner, 2021). These studies have shown that women earn lower incomes, even when working in similar positions and having a similar level of education as their male counterparts. This raises the need to identify and analyze the factors that may contribute to this situation.

In the Dominican Republic, approximately five million women reside, with 51% categorized as part of the occupied population (between the ages of 14 and 65) in 2019. On average, they worked 39 hours per week in their primary occupation[1]. Out of this total, 4,057,891 were over 15 years old (the population of analysis in this document), and 1,997,746 were economically active.

In the Dominican labor market, there are challenges and inequalities that affect women. For instance, women dedicate fewer hours to paid work: for every 10 paid hours worked by a man in the country, a woman works approximately 8.7 paid hours (López, Ruiz & Ochoa, 2021). Additionally, other factors such as the number of hours dedicated to unpaid care work and other activities associated with cultural or historical factors also affect women[2]. Considering that mothers are typically the primary caregivers for their children[3], Garganta and Zentner (2020) show that women whose children benefited from the Extended School Day program in public schools significantly increased their labor market participation, especially those with lower education levels and living in urban areas.

Furthermore, in the event of job loss, women in the Dominican Republic tend to take an average of one month longer than their male counterparts to find another source of employment (see graph 1). Their unemployment levels vary by region, highlighting the importance of considering geographical factors when analyzing gender earnings gap (see graph 2).

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[1] Self-compiled based on the National Continuous Labor Force Survey of the Dominican Republic in 2019 harmonized by the Inter-American Development Bank (IDB).
[2] According to the Ministry of Women, in 2016, women over the age of 10 dedicated an average of 31.2 hours per week to unpaid work, compared to 9.6 hours for men.
[3] For stylistic reasons, this document uses the inclusive masculine gender, regardless of the sex of individuals.

Figure 1. Duration of unemployment in months by gender, 2019
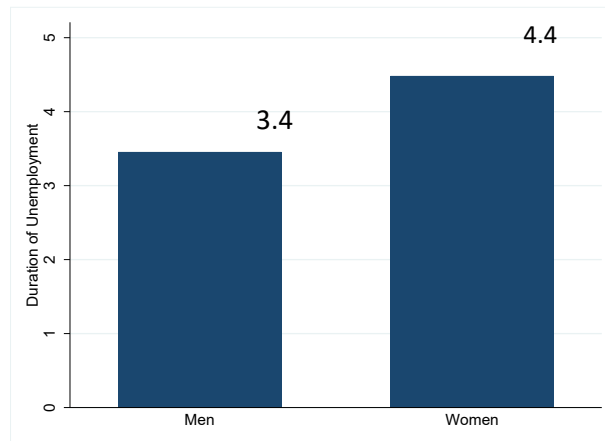
Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.

Note: The population between 14 and 65 years old is included.

Figure 2. Characteristics of labor market participation of the female population classified by provinces, 2019
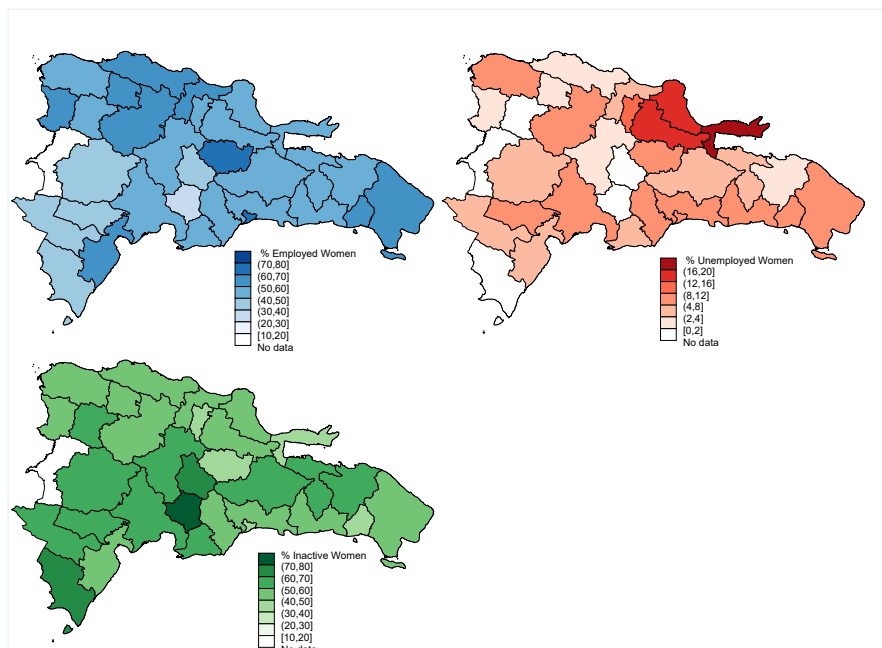
Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
Note: The population between 14 and 65 years old is included.

Compared to 146 other countries, the Dominican Republic ranks 84th in the Global Gender Gap Index of the World Economic Forum (WEF, 2022). In the regional context, the country ranks 19th out of 22 countries in Latin America

and the Caribbean (LAC). The Dominican Republic has shown improvement in its gap score since the measurement of this index began in 2006, increasing from 0.664 to 0.703 in 2022[4]. Nevertheless, its position in this ranking has worsened in recent years.

While it's true that the analysis of the gender pay gap is a globally studied topic, as well as in Latin America and the Caribbean (LAC) in particular, specific information on this topic is still limited in both cases. Therefore, this study aims to deepen the knowledge about the Dominican Republic for the period from 1995 to 2019, using three previous studies as a reference: the first one 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). In all cases, two analytical methodologies were used: (i) the Blinder-Oaxaca decomposition and (ii) the Ñopo decomposition. These methodologies provide results from both a parametric and a non-parametric model, enabling the comparison of the evolution of each year and the identification of the main variables that drive changes in the gender pay gap over time.

The challenges faced by women in the country are confirmed through an analysis of the National Labor Force Surveys. Based on these data, in Figure 3, you can see the earnings gap between 1995 and 2019: on average, women's hourly income was 89% of men's income for the latter year. When analyzed in relation to age, it can be observed that women's income relative to men's is particularly low in the 26 to 35 age group (83%) and among people over 56 years old (68%). The gap is also larger for women with no education (67%) and for those engaged in informal activities (70%)[5].

In fact, the analysis results show that the gender pay gap is concentrated in the informal sector[6], among self-employed workers, and in regions where women's labor force participation is higher. This gap cannot be explained by individual characteristics and occurs even when women in many cases have a better labor profile.

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[4] The World Economic Forum uses the Global Gender Gap Index to assign a score from 0 to 1 to each country, where 1 indicates gender parity measured by various dimensions or indicators.

[5] Informal workers in the Dominican Republic are those economically active individuals who are not affiliated with or do not contribute to the country's pension system.

[6] While the informal employment rate is higher among men than among women – 62% versus 52% in 2021 according to data from the ECNFT – the income gap favoring men is more pronounced among workers in this condition.

Figure 3. Labor earnings of women versus those of men, * 1995 to 2019
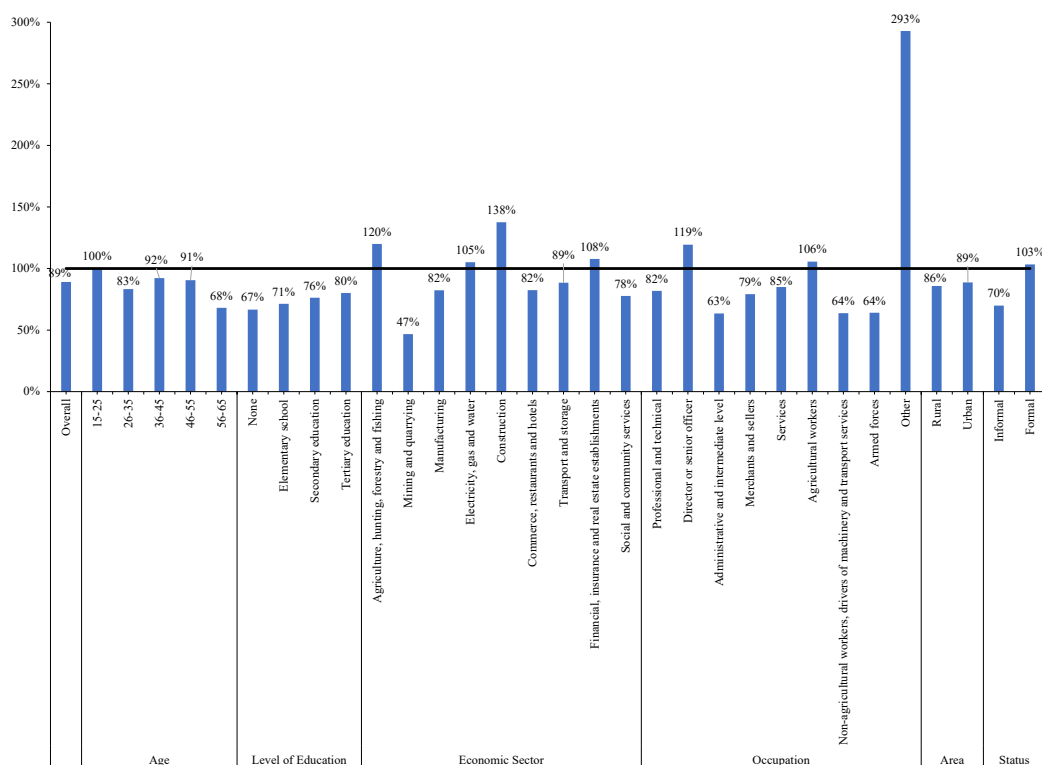
This study consists of five sections. The first section provides an overview of the literature related to the labor earnings gap by gender in the Dominican Republic in particular and in LAC in general. The second section describes the data used and presents descriptive statistics on the evolution of the earnings gap over the years analyzed. The third section provides a brief description of the methodologies used to estimate the labor earnings gap by gender, while the fourth section presents the results of the analysis. Finally, the fifth section offers the conclusions of the study and its implications.

1. Literature Review

The issue of the gender earnings gap at the regional level has been addressed in the literature from two perspectives: one explained by individual characteristics and human capital endowments, and the other unexplained, related to gender biases and discrimination (Atal, Ñopo, & Winder, 2019). In analyzing earnings gaps, two econometric techniques have been commonly used in recent years: (i) the Blinder-Oaxaca decomposition as presented by Oaxaca (1973) and (ii) the Ñopo decomposition as presented by Ñopo (2008). Both techniques are described in detail in the third section of this document.

For Latin America as a whole, Chioda (2011) establishes that women began to achieve greater labor force participation starting from 1980, facilitated by economic growth, trade liberalization, urbanization, reduced fertility rates, and increased educational levels, especially since 2000 thanks to high regional growth rates. This led to an increase in the demand for labor, allowing more women to enter the labor market and promoting women's work directly through public policies (Gasparini & Marchionni, 2015). However, Ñopo (2012) points out that women are still overrepresented in informal and poorly paid jobs, and the income gap continues to be significant.

A classic analysis of this issue is provided by Psacharopoulos and Tzannatos (1992), who studied income gaps in 15 Latin American countries in the late 1980s. They found that, for similar work, women earned incomes that on average represented 65% of what men earned, and two-thirds of this difference were not explained by educational levels or human capital but could be associated with normative issues, biases, or discrimination. In a more recent study by Ñopo and Hoyos (2010), it was found that in Latin America and the Caribbean (LAC), the explained gap reduced from 16% to 9% between 1992 and 2007. It should be noted that a significant portion of the reduction in the pay gap is attributed to the increase in women's educational levels (Chioda, 2011; Gasparini & Marchionni, 2015).

However, the reduction in the explained gap was more notable among workers in the lower income distribution, those working part-time, and those in rural areas, i.e., segments of the labor market that previously had greater gender disparities. Most of the reduction in the unexplained component of the gap occurred within these different segments of the labor market but not as a result of their composition changing.

The most recent analysis for LAC is presented in ILO (2019), where 17 countries were studied using the Ñopo decomposition technique. In this study, it was found that the unexplained gap reduced on average by two to three percentage points between 2012 and 2017. Additionally, it was established that the gap still exists primarily among low-income workers and those who are self-employed.

Using a Mincer regression, Székely and Acevedo (2021) observed that in Haiti, Mexico, Panama, and the Dominican Republic, women's hourly wages are on

average 13.8% lower than men's in the CID[7] region, even when controlling for age, education level, and residence. This wage gap has been documented in other studies that use various methodologies to control for endogeneity and selection bias.

Furthermore, for the CID region, Martínez, Ugarte, and Zentner (2021) used a Heckman model and identified that marital life is associated with a 19% reduction in the probability of women being in the employed population and a 17% reduction in their real hourly earnings. Regarding motherhood, these authors identified that it also leads to a reduction in the mentioned variables, consistent with the findings of Garganta and Zentner (2020). Finally, with respect to education, Martínez, Ugarte, and Zentner (2021) pointed out that it has a positive effect on increasing opportunities for labor force participation and income.

On the other hand, Garganta, Pinto, and Zentner (2022) showed that policies aimed at extending the school day can have indirect effects on the fertility decisions of teenagers. By analyzing the exposure of mothers to the extended school day program in public schools, the authors found that this policy reduced the incidence of teenage pregnancies in the municipalities that implemented it. They also noted that this effect is stronger once the program's coverage reaches at least half of the secondary school students in the municipality.

When studying the MECAPARD region (Mexico, Central America, Panama, and the Dominican Republic), López, Ruiz, and Ochoa (2021) found that the fact that women have fewer opportunities compared to men is not only manifested in access to the labor market but also in their reduced capacity to generate income throughout the life cycle, which tends to extend beyond the retirement age.

Regarding income differences in the Dominican Republic specifically, Navarro (2015) demonstrated the existence of a gender wage gap, with key determinants being age, education, type of occupation, economic sector, marital status, and the number of children in the household. The probability of having higher wages is lower for women in this country, although university education tends to reduce the size of the gender wage gap. Furthermore, Marques-Garcia (2019) showed that once employed, women receive on average lower incomes than men. In 2014, the average monthly income for the main occupation of women represented 81.4% of what men earned.

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[7] For the Inter-American Development Bank (IDB), the CID region consists of 10 countries: Belize, Costa Rica, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Mexico, Panama, and the Dominican Republic.

2. Descriptive Data and Statistics

Two sources of information were used for this analysis:

- The harmonized surveys of the National Labor Force Survey (ENFT, for its acronym in Spanish) from 2000 to 2016.
- The harmonized surveys of the National Continuous Labor Force Survey (ENCFT, for its acronym in Spanish) from 2017 to 2019.

An attempt was made to preserve the structure after the methodological[8] change to maintain comparability between years. It should be noted that both surveys were conducted in the last quarter of each year and harmonized by the Inter-American Development Bank, which allows greater comparability of labor market indicators over time.

The year 2020 was not included so that the effects of the pandemic on the labor market do not distort the historical analysis[9]. It is also considered that the study of the effects of this period merits special study. The surveys used are similar in design and level of representativeness for the different years, being all representative for the total population of the Dominican Republic since they contain data from the different regions of the country [10].

Table 1 shows the sample taken for individuals in the age range of interest, that is, people between 15 and 65 years old, as well as their Dominican representativeness at the population level[11], disaggregating the analysis by gender and age group.

The sample proportions reflect the proportions of the population they represent. In addition, the sample is evenly distributed between genders. At the same time, the variation in the proportions of age groups corresponds to the aging of the population registered in the Dominican Republic and in most LAC countries (Cardona Arango and Peláez, 2012).

It can be seen that in the years 2000 and 2003 the sample was around 14,000 respondents. This number increased to around 18,000 from 2003 onwards and remained at that level until the change in methodology in 2017, when the sample decreased to around 14,000 people again.

As a first approximation to the calculation of the earnings gap by gender, Table 2 presents an estimate of women's hourly labor earnings versus men's. The analysis is disaggregated by age group, educational level, economic

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[8] The main methodological changes in the survey were related to sampling issues, changes in the age limit of the working age population and the adjustment of the situation and occupational categories to the new international standards.

[9] An analysis that includes this year and at least one post-pandemic period is planned for the near future, in order to establish the impacts that the pandemic may have had on the employment situation of women.

[10] The regional division used in the survey is as follows: Ozama, Yuma, Higuamo, Cibao Noreste, Cibao Norte, Cibao Noroeste, Cibao Sur, El Valle, Valdesia and Enriquillo.

[11] Probability weights are used in the above sample.

activity, occupation, zone, formality, self-employment and region[12]. In addition, Table A1 in the appendix shows the distribution by year and gender of the characteristics of the employed population that earns income, which allows to observe the general characteristics of both men and women.

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[12] Labor income from the main activity and probabilistic weight consequences are used.

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

	2000		2001		2003		2004		2005		2006		2007		2008		2009		2010	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Gender																				
Men	6,777	49%	6,646	49%	9,031	49%	8,995	49%	9,333	50%	8,866	49%	8,915	49%	9,598	50%	9,666	51%	9,524	50%
Representativeness	2,480,108	49%	2,500,481	49%	2,649,377	49%	2,710,751	49%	2,807,548	50%	2,850,808	49%	2,924,832	49%	2,989,442	49%	3,050,690	49%	3,117,264	49%
Women	7,133	51%	7,022	51%	9,276	51%	9,243	51%	9,446	50%	9,105	51%	9,274	51%	9,576	50%	9,410	49%	9,375	50%
Representativeness	2,604,379	51%	2,635,194	51%	2,705,451	51%	2,788,604	51%	2,801,437	50%	2,909,495	51%	3,029,041	51%	3,106,623	51%	3,149,121	51%	3,201,019	51%
Age																				
15-25	4,827	33%	4,659	32%	6,072	41%	6,193	42%	6,384	43%	6,102	41%	6,123	42%	6,532	44%	6,567	45%	6,479	44%
Representativeness	1,756,458	40%	1,748,815	40%	1,782,831	41%	1,867,195	43%	1,899,956	44%	1,930,249	44%	1,980,095	46%	2,055,941	47%	2,094,674	48%	2,128,637	49%
26-35	3,336	23%	3,219	22%	4,467	30%	4,384	30%	4,499	31%	4,148	28%	4,206	29%	4,286	29%	4,145	28%	4,069	28%
Representativeness	1,218,143	28%	1,199,156	28%	1,286,022	30%	1,304,491	30%	1,327,322	31%	1,327,877	31%	1,377,343	32%	1,408,529	32%	1,412,629	33%	1,390,957	32%
36-45	2,728	19%	2,679	18%	3,733	25%	3,693	25%	3,788	26%	3,735	25%	3,656	25%	3,919	27%	3,770	26%	3,650	25%
Representativeness	1,009,192	23%	1,015,176	23%	1,091,999	25%	1,093,406	25%	1,123,166	26%	1,182,880	27%	1,190,638	27%	1,261,984	29%	1,243,890	29%	1,263,374	29%
46-55	1,808	12%	1,867	13%	2,417	16%	2,467	17%	2,538	17%	2,345	16%	2,572	17%	2,559	17%	2,740	19%	2,742	19%
Representativeness	657,891	15%	697,777	16%	713,648	16%	760,915	18%	763,587	18%	761,350	18%	856,416	20%	814,503	19%	893,213	21%	923,692	21%
56-65	1,211	8%	1,244	8%	1,618	11%	1,501	10%	1,570	11%	1,641	11%	1,632	11%	1,878	13%	1,854	13%	1,959	13%
Representativeness	442,803	10%	474,751	11%	480,328	11%	473,348	11%	494,954	11%	557,947	13%	549,381	13%	555,108	13%	555,405	13%	611,623	14%
Total	13,910	100%	13,668	100%	18,307	100%	18,238	100%	18,779	100%	17,971	100%	18,189	100%	19,174	100%	19,076	100%	18,899	100%
Representativeness	5,084,487	100%	5,135,675	100%	5,354,828	100%	5,499,355	100%	5,608,985	100%	5,760,303	100%	5,953,873	100%	6,096,065	100%	6,199,811	100%	6,318,283	100%

Table 1 (Continued)

	2011 N	2011 %	2012 N	2012 %	2013 N	2013 %	2014 N	2014 %	2015 N	2015 %	2016 N	2016 %	2017 N	2017 %	2018 N	2018 %	2019 N	2019 %
Gender																		
Men	9,483	51%	9,302	50%	9,416	51%	9,015	50%	8,698	50%	8,669	50%	6,642	50%	6,516	49%	6,748	49%
Representativeness	3,198,626	50%	3,194,289	49%	3,304,245	50%	3,417,180	50%	3,446,879	49%	3,465,874	49%	3,279,132	49%	3,256,621	49%	3,303,479	49%
Women	9,243	49%	9,157	50%	9,223	49%	8,936	50%	8,623	50%	8,517	50%	6,764	50%	6,732	51%	6,928	51%
Representativeness	3,242,867	50%	3,290,516	51%	3,318,452	50%	3,450,158	50%	3,528,672	51%	3,569,435	51%	3,426,559	51%	3,457,978	51%	3,506,070	51%
Age																		
15-25	6,347	43%	6,060	41%	6,209	42%	5,628	38%	5,508	37%	5,385	37%	4,192	28%	3,960	27%	4,142	28%
Representativeness	2,164,224	50%	2,094,826	48%	2,201,650	51%	2,140,432	49%	2,233,242	51%	2,161,508	50%	2,057,904	47%	1,974,385	46%	2,046,619	47%
26-35	3,965	27%	3,900	26%	3,974	27%	3,899	26%	3,687	25%	3,585	24%	2,830	19%	2,883	20%	3,082	21%
Representativeness	1,405,953	32%	1,407,012	32%	1,441,346	33%	1,504,246	35%	1,489,961	34%	1,516,095	35%	1,424,787	33%	1,471,984	34%	1,517,703	35%
36-45	3,631	25%	3,606	24%	3,517	24%	3,516	24%	3,326	23%	3,328	23%	2,586	18%	2,659	18%	2,618	18%
Representativeness	1,242,442	29%	1,296,399	30%	1,243,519	29%	1,332,658	31%	1,334,088	31%	1,359,328	31%	1,302,811	30%	1,354,905	31%	1,290,919	30%
46-55	2,782	19%	2,844	19%	2,871	19%	2,888	20%	2,853	19%	2,868	19%	2,235	15%	2,200	15%	2,229	15%
Representativeness	962,180	22%	1,002,095	23%	1,020,733	24%	1,145,797	26%	1,163,265	27%	1,187,386	27%	1,121,073	26%	1,117,081	26%	1,139,746	26%
56-65	2,001	14%	2,049	14%	2,068	14%	2,020	14%	1,947	13%	2,020	14%	1,563	11%	1,546	10%	1,605	11%
Representativeness	666,694	15%	684,473	16%	715,449	16%	744,205	17%	754,995	17%	810,992	19%	799,116	18%	796,244	18%	814,562	19%
Total	18,726	100%	18,459	100%	18,639	100%	17,951	100%	17,321	100%	17,186	100%	13,406	100%	13,248	100%	13,676	100%
Representativeness	6,441,493	100%	6,484,805	100%	6,622,697	100%	6,867,338	100%	6,975,551	100%	7,035,309	100%	6,705,691	100%	6,714,599	100%	6,809,549	100%

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.

Table 2: Women's hourly earnings compared to men's*

	2000	2001	2003	2004	2005	2006	2007	2008	2009	2010
Gender	89.77%	93.21%	91.04%	88.92%	97.14%	91.37%	89.72%	95.59%	96.30%	99.04%
Age										
15-25	94.5%	109.9%	99.7%	93.2%	102.9%	98.3%	110.7%	115.8%	101.1%	116.3%
26-35	91.7%	95.6%	92.6%	94.2%	104.9%	95.9%	92.3%	94.7%	106.5%	112.9%
36-45	86.0%	83.6%	87.5%	82.8%	97.7%	91.6%	84.7%	78.1%	94.6%	77.3%
46-55	87.0%	90.7%	81.0%	77.6%	85.1%	79.2%	79.5%	110.4%	72.6%	106.4%
56-65	89.8%	93.0%	103.6%	102.2%	77.7%	84.2%	83.9%	89.1%	99.1%	80.1%
Level of Education										
None	82.3%	93.0%	81.6%	75.9%	82.5%	82.8%	77.1%	88.9%	88.5%	78.9%
Elementary school	76.5%	73.7%	70.7%	72.0%	77.4%	75.1%	77.6%	79.1%	79.8%	77.3%
Secondary education	84.9%	90.9%	81.1%	77.1%	77.3%	85.6%	83.1%	79.7%	75.3%	91.2%
Tertiary education	67.2%	67.4%	69.6%	74.1%	85.0%	69.8%	73.5%	77.5%	77.2%	79.9%
Economic Sector										
Agriculture. hunting. forestry and fishing	130.8%	140.8%	128.7%	75.9%	88.0%	83.0%	79.4%	110.3%	102.2%	84.1%
Mining and quarrying	ins. data	ins. data	ins. data	ins. data	57.6%	107.5%	178.8%	70.0%	127.4%	79.3%
Manufacturing	76.5%	76.9%	82.0%	78.6%	88.7%	83.1%	75.0%	80.1%	87.8%	76.6%
Electricity. gas and water	146.1%	90.4%	54.5%	137.0%	124.3%	96.4%	92.3%	50.6%	140.6%	145.1%
Construction	77.9%	166.1%	228.9%	152.1%	156.4%	97.1%	81.7%	202.0%	141.3%	92.7%
Commerce. restaurants and hotels	96.7%	87.7%	84.7%	81.5%	81.6%	83.7%	85.4%	96.9%	98.8%	98.9%
Transport and storage	91.8%	138.5%	124.2%	130.9%	107.7%	127.6%	92.5%	86.1%	110.8%	78.5%
Financial. insurance and real estate establishments	68.2%	107.0%	75.7%	92.4%	76.8%	98.1%	107.0%	66.0%	87.5%	69.2%
Social and community services	67.8%	71.0%	67.8%	71.0%	84.5%	67.3%	73.3%	74.0%	68.9%	90.7%
Occupation										
Professional and technical	71.2%	73.4%	80.1%	74.4%	91.7%	76.9%	79.7%	80.8%	76.8%	88.7%
Director or senior officer	89.3%	78.8%	77.6%	101.1%	76.8%	84.4%	86.0%	77.1%	104.5%	91.2%
Administrative and intermediate level	71.7%	85.3%	74.7%	73.5%	71.8%	80.3%	77.8%	71.8%	79.4%	65.3%
Merchants and sellers	99.1%	95.1%	103.2%	88.5%	100.8%	74.5%	87.4%	96.4%	85.1%	93.6%
Services	114.6%	112.5%	92.8%	102.5%	122.9%	83.0%	101.6%	115.4%	94.7%	105.2%
Agricultural workers	122.7%	156.4%	119.9%	80.6%	94.6%	95.1%	72.8%	115.6%	135.7%	83.9%
Non-agricultural workers. drivers of machinery and transport services	64.6%	69.0%	73.2%	67.6%	64.4%	71.8%	62.9%	66.4%	84.8%	53.4%
Armed forces	55.5%	83.9%	293.6%	113.3%	82.9%	103.1%	219.0%	74.1%	106.7%	81.7%
Other	83.0%	89.1%	80.7%	77.9%	88.9%	84.8%	90.1%	79.1%	82.4%	94.5%
Area										
Rural	96.8%	101.6%	105.5%	88.0%	96.1%	86.7%	86.6%	102.8%	100.2%	102.6%
Urban	83.4%	87.4%	84.8%	83.6%	92.0%	88.2%	87.4%	88.9%	89.6%	93.8%
Status										
Informal	ins. data	ins. data	ins. data	ins. data	88.7%	81.0%	82.5%	93.6%	86.9%	93.6%
Formal	ins. data	ins. data	ins. data	ins. data	106.9%	103.0%	95.8%	92.2%	103.5%	102.6%
	89.8%	93.2%	91.0%	88.9%						
Self-employed										
Self-employed	80.0%	80.2%	80.7%	83.0%	89.3%	84.2%	83.1%	82.5%	85.7%	87.2%
Not self-employed	113.8%	121.2%	112.8%	99.9%	109.5%	101.6%	99.7%	121.8%	113.2%	117.0%
Regions										
Ozama	90.1%	96.0%	87.9%	89.0%	98.4%	87.9%	90.8%	84.7%	95.5%	92.3%
Yuma	88.4%	69.7%	81.9%	79.7%	87.9%	78.7%	80.2%	90.3%	90.1%	89.2%
Higuamo	71.9%	77.6%	101.6%	88.8%	80.8%	86.6%	83.3%	150.3%	76.0%	83.1%
Cibao Noreste	95.7%	108.5%	91.1%	81.2%	91.5%	88.6%	87.9%	90.7%	74.7%	95.0%
Cibao Norte	72.4%	73.0%	78.0%	77.1%	89.0%	93.6%	83.8%	91.8%	92.1%	92.3%
Cibao Noroeste	116.8%	105.3%	98.9%	113.8%	86.5%	79.7%	92.7%	143.6%	82.2%	97.5%
Cibao Sur	84.1%	87.9%	76.1%	75.2%	78.6%	72.1%	79.4%	73.8%	95.8%	118.2%
El Valle	99.5%	102.7%	123.2%	100.6%	108.6%	100.6%	85.9%	97.1%	113.3%	112.8%
Valdesia	83.1%	95.9%	75.4%	85.2%	82.9%	86.4%	82.5%	86.4%	84.4%	91.5%
Enriquillo	109.8%	63.1%	107.7%	94.5%	109.4%	95.7%	88.7%	93.0%	124.2%	112.0%

Table 2 (Continuation)

|	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gender	90.20%	96.95%	99.11%	94.98%	92.22%	93.05%	84.47%	96.84%	89.11%
Age									
15-25	98.4%	112.4%	103.6%	108.9%	101.8%	97.3%	91.3%	106.0%	100.4%
26-35	80.4%	87.6%	97.0%	90.8%	87.5%	87.8%	92.9%	81.1%	83.3%
36-45	89.9%	91.4%	96.1%	94.2%	93.2%	96.5%	88.4%	92.7%	92.2%
46-55	98.3%	99.6%	96.7%	87.9%	92.0%	97.8%	82.8%	83.4%	90.5%
56-65	70.8%	96.7%	92.4%	95.4%	70.5%	75.7%	55.8%	144.1%	68.1%
Level of Education									
None	81.8%	85.5%	84.6%	82.6%	89.9%	71.0%	66.5%	67.2%	66.6%
Elementary school	72.3%	78.8%	78.6%	68.4%	75.2%	71.9%	71.0%	67.7%	71.4%
Secondary education	71.3%	83.1%	98.2%	74.1%	77.2%	80.4%	72.0%	68.6%	76.3%
Tertiary education	78.6%	74.5%	75.1%	88.2%	75.6%	76.9%	63.4%	106.5%	80.1%
Economic Sector									
Agriculture. hunting. forestry and fishing	81.7%	71.9%	93.0%	143.1%	119.7%	79.9%	144.8%	85.1%	120.0%
Mining and quarrying	66.6%	111.8%	475.0%	141.5%	358.7%	26.4%	84.6%	n.d	46.7%
Manufacturing	76.1%	88.9%	79.3%	78.2%	68.7%	81.8%	69.4%	81.3%	82.4%
Electricity. gas and water	94.9%	95.9%	72.4%	84.8%	117.5%	84.0%	79.7%	145.3%	105.1%
Construction	116.8%	82.7%	118.3%	75.6%	223.5%	141.7%	179.7%	150.4%	137.6%
Commerce. restaurants and hotels	82.0%	89.8%	83.8%	85.7%	87.5%	77.5%	71.3%	76.7%	82.4%
Transport and storage	81.8%	131.6%	126.0%	104.9%	117.4%	84.8%	83.1%	77.2%	88.5%
Financial. insurance and real estate establishments	89.5%	76.6%	123.5%	123.1%	79.9%	111.8%	111.1%	281.3%	107.7%
Social and community services	77.6%	78.5%	78.7%	80.3%	78.8%	83.6%	71.3%	75.2%	77.7%
Occupation									
Professional and technical	76.9%	83.8%	90.6%	89.4%	80.0%	91.3%	80.1%	114.0%	81.8%
Director or senior officer	96.7%	78.9%	94.8%	109.1%	80.4%	72.3%	42.7%	58.4%	119.4%
Administrative and intermediate level	67.9%	71.0%	53.7%	77.6%	60.8%	81.7%	70.1%	69.1%	63.5%
Merchants and sellers	66.6%	96.7%	87.3%	79.9%	103.3%	82.0%	80.7%	82.9%	79.2%
Services	89.1%	102.8%	88.3%	82.4%	86.5%	91.1%	80.5%	83.0%	85.0%
Agricultural workers	88.4%	69.8%	71.9%	132.4%	163.6%	77.4%	112.1%	74.4%	105.6%
Non-agricultural workers. drivers of machinery and transport services	59.9%	68.1%	73.7%	68.5%	71.2%	73.1%	63.9%	63.6%	63.7%
Armed forces	58.8%	110.6%	117.4%	81.1%	91.4%	114.3%	137.1%	176.5%	64.0%
Other	84.8%	80.9%	90.7%	86.6%	84.4%	83.1%	ins. data	22.1%	292.8%
Area									
Rural	98.1%	94.9%	96.7%	88.3%	89.8%	93.7%	88.4%	79.2%	85.8%
Urban	83.7%	92.6%	94.7%	91.9%	88.7%	88.6%	82.8%	98.5%	88.7%
Status									
Informal	78.7%	78.8%	83.5%	83.5%	76.9%	76.3%	70.7%	66.4%	69.8%
Formal	99.9%	109.6%	113.7%	105.3%	102.1%	105.6%	93.8%	117.7%	103.3%
Self-employed	88.3%	91.0%	93.6%	90.6%	85.6%	91.3%	83.6%	101.3%	90.9%
Self-employed	89.7%	95.1%	99.0%	100.1%	98.1%	91.9%	79.9%	73.7%	77.8%
Not self-employed									
Regions	83.5%	100.7%	100.9%	93.5%	88.4%	84.9%	90.0%	122.9%	84.6%
Ozama	101.9%	97.4%	102.1%	100.9%	86.8%	86.1%	85.2%	83.9%	78.5%
Yuma	96.8%	91.7%	90.1%	93.7%	97.6%	100.1%	55.4%	66.1%	90.5%
Higuamo	92.0%	95.6%	88.5%	76.9%	87.4%	90.4%	85.8%	61.0%	84.3%
Cibao Noreste	84.1%	69.4%	84.5%	94.3%	85.8%	92.8%	75.0%	78.7%	86.1%
Cibao Norte	92.4%	79.5%	84.5%	72.0%	87.8%	91.4%	89.4%	87.5%	109.3%
Cibao Noroeste	75.3%	88.7%	94.1%	98.7%	101.4%	102.3%	83.3%	82.6%	115.0%
Cibao Sur	107.0%	122.5%	105.3%	114.0%	110.9%	99.0%	98.2%	103.3%	98.0%
El Valle	89.0%	101.6%	94.0%	85.2%	87.2%	95.8%	88.7%	76.5%	94.4%
Valdesia	106.1%	102.7%	99.0%	97.6%	101.9%	98.9%	100.3%	125.7%	96.2%

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.

ins. data: There is not enough data to calculate the percentage.

*Only people with occupation and income were included. We use probability weights.

Figure 4 shows the evolution of women's hourly labor earnings compared to that of men. It can be seen that the relative income of women shows oscillations with respect to that of men throughout the years of the study, showing an apparent deterioration as of 2013. The years that stand out for exhibiting a smaller income gap are 2010 (99%) and 2013 (99.1%). As shown in ONE (2020), the oscillations observed in the earnings gap are related to the high volatility exhibited by women's labor income as opposed to men's, which showed greater stability during the period analyzed.

Figure 4. Labor Earnings of Women vs. Men*
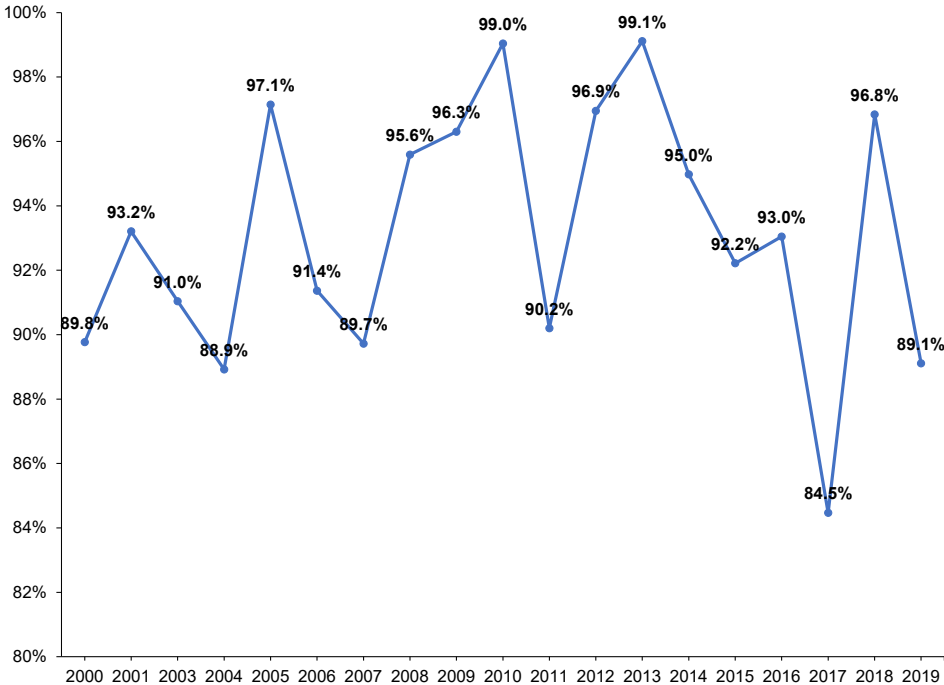
Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*Only people with occupation and income were included.

As in ONE (2020), Table 2 shows that the earnings gap tends to narrow with higher educational attainment. However, it is also observed that women's earnings tend to be more volatile with higher education, which could be producing the high variability in the earnings gap among people with tertiary education.

When the analysis is broken down by age group, Figure 5 shows that the gap widens as we move from younger to older age groups. This trend is stable for all the years analyzed and there is even a reduction in the differences between the different groups. The years 2001, 2007, 2013 and 2019 are used to maintain periodicity and not complicate the graphical analysis by using all the years.

Figure 5. Labor Earnings of Women vs. Men*
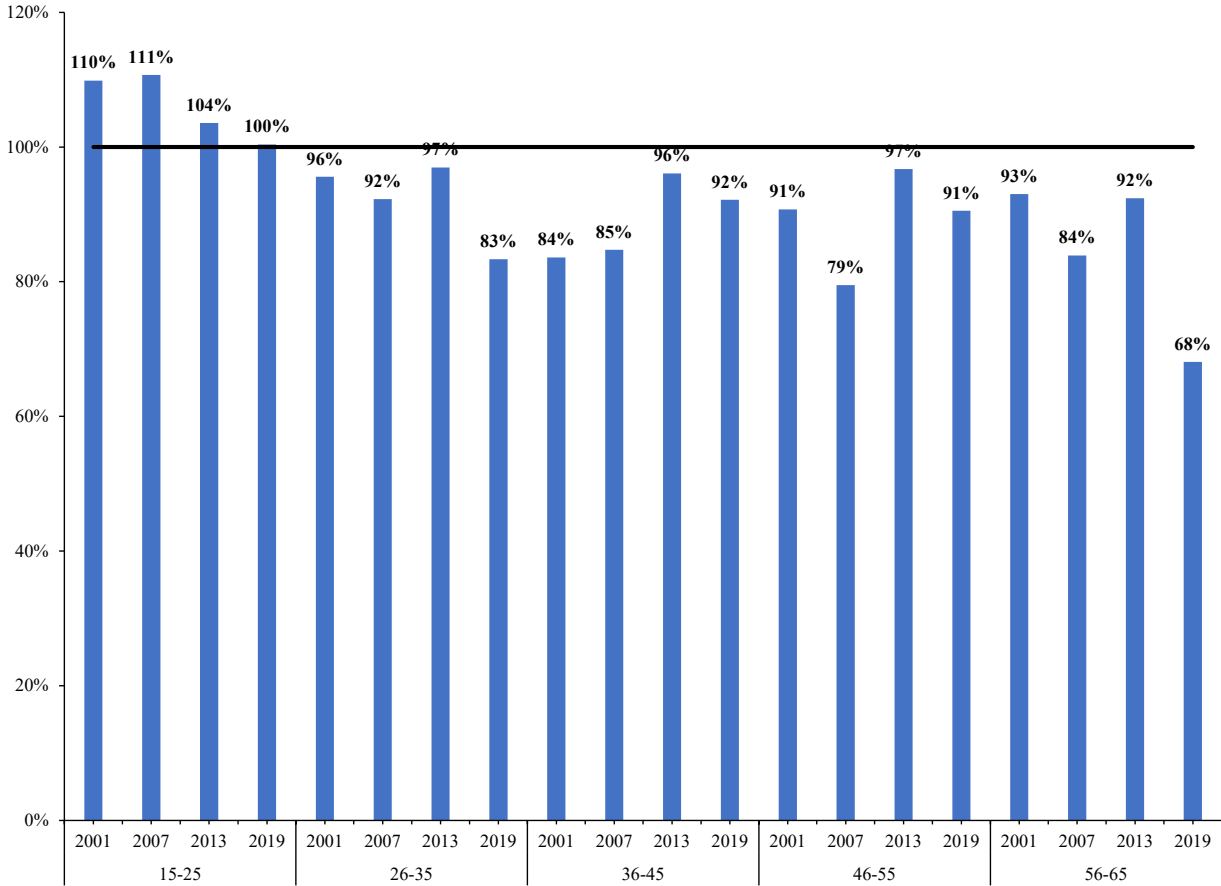**(Temporal Evolution by Age Group)**

Source*:* Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*Only people with occupation and income were included.

When the analysis is conducted by occupation, Figure 6 shows that for the years 2013 and 2019, there was a difference in favor of men in almost all occupations. Similarly, a high and persistent unfavorable gap for women in administrative and mid-level positions is recorded, with this being the occupation where they have the highest representation (Table A2).

It is observed that the gender gap favors women in the occupations of director or senior official, agricultural worker, and in the Armed Forces, although it is true that their participation in these occupations is relatively low (Table A2). This could result in a selection bias, meaning that the few women in these occupations have a very high labor profile, which could result in higher salaries.

Figure 6. Labor Earnings of Women vs. Men*
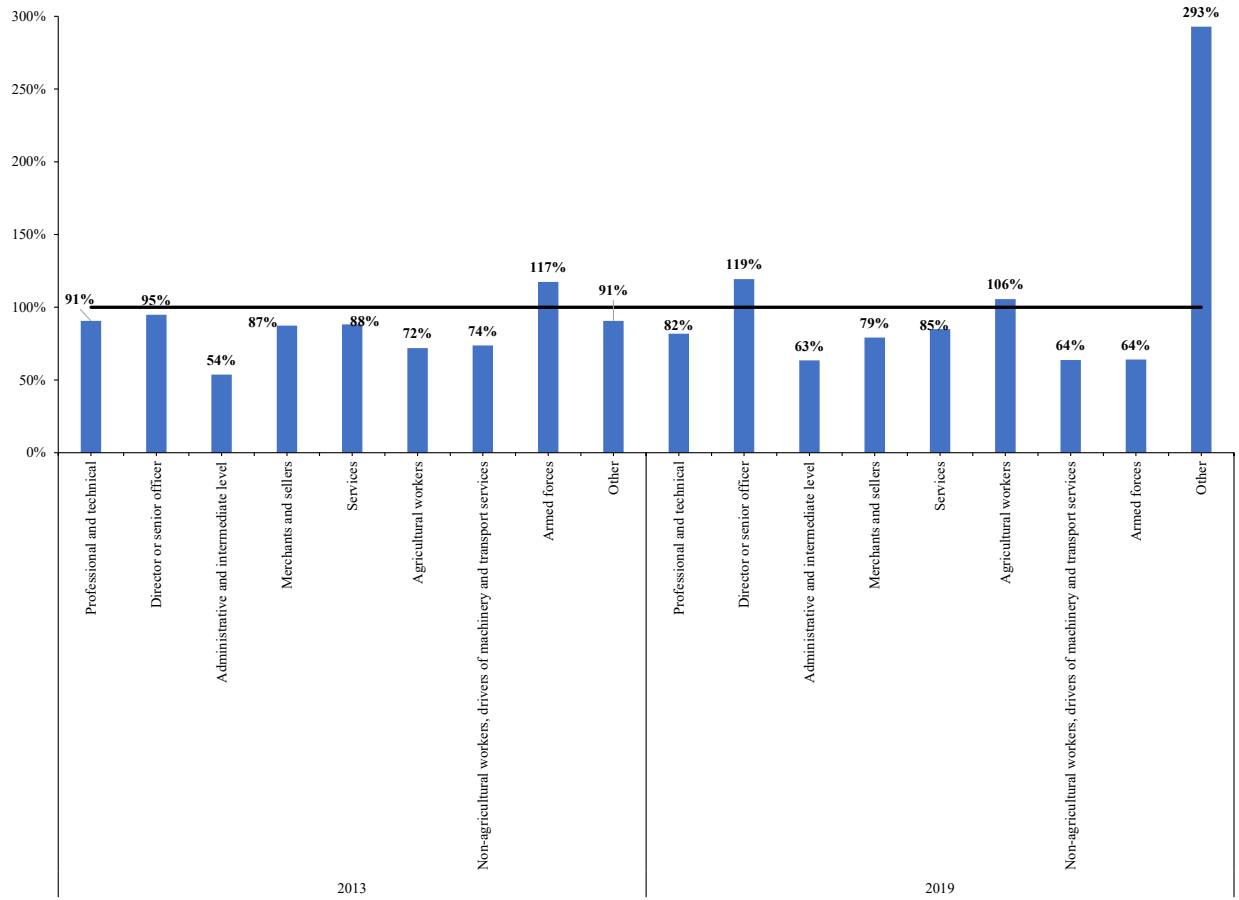## (Time evolution by occupation)

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*Only people with occupation and income were included. The category other includes the occupations not mentioned in the figure.

3. Methodology

As discussed above, we used two methodologies to estimate the gender earnings gap: the Blinder-Oaxaca decomposition and the Ñopo decomposition.[13]

The Blinder-Oaxaca Decomposition

This first strategy for quantifying changes in the gender earnings gap breaks the gap down into two parts. The first is the part explained by the different control variables used to measure human capital, such as education, work experience, and occupation. The second is the part these variables cannot explain, which could reflect gender-differentiated regulations, such as prejudices, biases, or discrimination of the type described by Becker (1957). This unexplained gap is generated by personal or statistical preferences, where employers use group characteristics to evaluate individual attributes. For example, suppose companies believe that women of childbearing age are more likely than older women to have babies and, therefore, to have interruptions in their careers. Based on this assumption, they would pay lower wages to women of childbearing age to compensate for the higher probability of losing the worker, as Hoyos, Ñopo and Peña (2010) assert.

The Blinder-Oaxaca method uses Mincer-type wage equations (1974), which, as explained in Jann (2008), divide the earnings difference into:

>   i) a part explained by group differences and individual characteristics such as education or work experience.

>   ii) a second unexplained residual component.

These equations have two groups, men (M) and women (W), the explained variable Y, which is the logarithm of earnings per hour from the main labor activity, and a group of explanatory variables X, such as education, experience, etc. The aim is to ascertain the average difference in earnings between the two groups that is explained by the explanatory variables X.

$$EGap = E(Y_M) - E(Y_W)$$

(1)

$E(Y_g)$ refers to the expected logarithm of earnings, which is the variable of interest, and g can be M if the equation is calculated for men or W if it is calculated for women.

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[13] In line with Urquidi, Valencia y Durand (2021); Urquidi, Chalup y Durand (2022); Urquidi y Chalup (2023).

A Mincer-type equation is used to explain the income as follows: $Y_g = \alpha_g + \sum_{i=1}^{k} X_{ik} \, \beta_{gik} + \varepsilon_{gi}$. This expression can be substituted into equation [1]:

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

(2)

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

(3)

By rearranging, we can identify the contribution of the explanatory variables to the differences between the groups:

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

(4)

The last component of this equation represents the part of the earnings gap explained by the explanatory variables, while the first two components represent the unexplained differences.

The model was estimated using the following specification:

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

(5)

Where:

- $yhora_i$ is the logarithm of nominal hourly earnings. This variable is constructed using nominal hourly earnings data collected in the previously mentioned surveys, which have been harmonized by the IDB for each year. It is then divided by the annual hours worked by each respondent and subjected to a natural logarithm transformation.
- $gaedu_i$ are the dichotomous variables indicating the three maximum educational levels people have achieved, as listed in Table 1. The base category is no education at all.
- exp_i are the estimated years of experience, calculated as age minus years of education.
- $gedad_i$ are four dichotomous variables indicating the age groups in Table 1, using the 15–25 age group as the base category.

- $married_i$ is a dichotomous variable that takes a value of 1 if the person is married.
- $men6_i$ is a dichotomous variable that has a value of 1 if children under six years old live in the household.
- cnt_prop_i is a dichotomous variable that takes a value of 1 if the person is self-employed or an independent contractor.
- $rama_i$ are the dichotomous variables that refer to people's different economic activities, using agriculture, hunting, forestry, and fishing as the base category.
- $ocupa_i$ are six dichotomous variables that refer to people's different occupations.
- $formal_i$ is a dichotomous variable that takes a value of 1 if the person is formally employed.
- $zona_i$ is a dichotomous variable with a value of 1 if the person lives in an urban area.
- and $region_i$ are dichotomous variables for the different regions of the country.

This decomposition is carried out independently for women and men.

Although this method is prevalent in the literature, it has some limitations. First, it assumes that there is a relationship between explanatory characteristics and earnings, which might not necessarily be true, since it can be also related to the cultural characteristics of the population. Second, the model provides information about how the gap is decomposed but does not imply a causal relationship, and even when it is possible to make conjectures of the causes the unexplained portion of the gap, it offers no further insights into which of these conjectures might be the most plausible (Sen 2014). Third, the method does not limit comparability to individuals with similar characteristics.

Ñopo's (2008) model was created as an attempt to overcome the first and third limitations.

The Ñopo Decomposition

Ñopo (2008) presents a non-parametric decomposition. Pursuing the same objective as the Blinder-Oaxaca model, it takes into account disparities over the entire income distribution, not just in the average.

The Ñopo model limits the comparison of differences to only men and women with comparable characteristics (common support). This feature allows it to generate a synthetic counterfactual of individuals by matching men and women with identical observable characteristics, without the need to assume any functional form of the relationship between the explanatory variables and earnings.

The matching is done using discrete characteristics and thus does not require the use of propensity score matching or any other notion of distance between the characteristics of men and women (Ñopo 2008).

This procedure generates three groups:

(i) Women and men who are matched (common support).

(ii) Women with observable characteristics for whom there are no comparable men, a scenario that the methodology has termed the Maid Effect.

(iii) Men for whom there are no comparable women, which the method calls the CEO Effect.

The method causes men and women with identical characteristics to form part of a common support. The difference in income of this group is then broken down by observed and unobserved attributes. Meanwhile, the Maid Effect and CEO Effect are calculated for those who ended up outside this common support. The Maid Effect refers to women who, because of their characteristics, have no male peers for comparison. This is traditionally associated with women with jobs with low hierarchical status that complement their home duties. In contrast, the CEO Effect refers to men with no female peers with comparable traits—traditionally those with high-status jobs.

Therefore, the model decomposes the earnings gap—more specifically, the difference in the logarithm of hourly earnings from the main labor activity—into four elements:

$$\delta = \delta_X + \delta_F + \delta_M + \delta_0$$

(6)

Where δ represents the total difference in earnings by gender, δ_X represents the difference in earnings related to observable characteristics, δ_F reflects the CEO Effect, δ_M reflects the Maid Effect, and δ_0 represents the unexplained difference in earnings, which, as noted above, could be related to biases and discrimination. The unexplained component of this model follows the same logic as the Blinder-Oaxaca model, so we can compare their estimates.

The Ñopo model has its limitations. Like Blinder-Oaxaca's model, Ñopo's method only provides information on how the gap decomposes; it does not imply a causal relationship. Furthermore, since the matching is built on discrete variables, for both men and women, the probability of finding a person with the same characteristics and endowments declines as the number of explanatory variables increases. This means that the common support decreases, as Enamorado, Izaguirre, and Ñopo (2009) point out, a phenomenon referred to as the curse of dimensionality. For this reason, researchers using Ñopo's model must carefully analyze whether to include new variables to explain differences in earnings.

Another methodological limitation of both Blinder-Oaxaca and Ñopo is that they can only handle observable characteristics, which in this study, are only those included in the household surveys harmonized by the IDB. Therefore, the gender earnings gap could also be affected by variables not included in the survey, such as attitude, effort, or preferences for tasks in the labor market or the household. These variables could be omitted from the analysis, which would skew the estimators by leaving out a relevant factor. For example, Chioda (2011) shows that men and women may not have identical preferences and attitudes towards work performed in the labor market.

We decided to perform both estimates in the study for better comparability and consistency. This approach will allow us to compare our estimates to those of studies that use either of the two methodologies. Additionally, the results of the two methodologies can be compared to each other since they follow the same logic. The two models used hourly earnings as a dependent variable, allowing us to calculate the earnings gap by gender. The explanatory variables used in the Ñopo model are:

$$gaedu_i, gedad_i, casado_i, men6_i, cnt\_prop_i, rama_i, ocupa_i, formal_i, zona_i, region_i.$$

It is worth noting that we refrained from adding the variables that measure experience in order to keep the common support high, that is, to avoid the curse of dimensionality. We also made this decision because this variable is constructed with information on age and education, which form part of the regression's explanatory variables, and because the model already controls for whether the person lives in an urban or rural area.[14]

For the Blinder-Oaxaca estimates, we used robust standard errors and probability weights for consistency with the survey structure. In contrast, we used frequency weights for the Ñopo decomposition model, since that is what the methodology calls for.

Both models may suffer from a selection bias, since they include only the observed wages of employed people. Given that labor force participation is higher among men than among women, women with lower earning potential may more frequently decide not to join the workforce, while earning potential may have less of an impact on men's labor force participation. If this is the case, the models presented in this study underestimate the gap. However, the increase in female participation could be mitigating this bias, which could make the comparison over time more difficult.

This research also uses control similar to those presented in past studies on gender earnings gaps in Latin America and the Caribbean, such as Ñopo and Hoyos (2010) and Ñopo (2012).

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[14] Calculations not included in the model showed that adding these variables significantly decreased the common support and increased the standard deviation of the variables, without modifying the overall results.

4. Results

In Table 3, the results of the Blinder-Oaxaca decomposition estimation are presented. It can be observed that, over the 19 years during which the analysis was conducted, the gender gap in hourly earnings ranged from 1 to 15%, without showing a clear pattern over time, as seen in Figure 7.

In all periods, without exception, the effect of the explained variables is negative on the gap, meaning that if only observable characteristics are considered, women should have earned labor income 8 to 20% higher in different years of the study. This implies that the unexplained part is what would be causing the entirety of the gap.

Table 4 presents the breakdown of the gap according to different aggregated explanatory variables. It can be seen that the gap explained by education is negative and statistically significant in all years. This indicates that the educational level of female workers, which is on average higher than that of men (Table A1), would be reducing the earnings gap caused by the unexplained gap related to gender biases (commonly known as discrimination) that manifest in inadequate laws, cognitive biases, discrimination, or labor costs related to childcare that are not visible in society. Similarly, this phenomenon occurs with the occupational variable because there is a higher proportion of women with professions (Table A2).

On the other hand, personal and family characteristics such as age, marital status, and the presence of minors in the household have a positive and statistically significant effect on the earnings gap in the early years of the study, although their importance diminishes over time and becomes insignificant from 2011 onwards.

The occupational category variable (dichotomous for self-employed workers) has a positive and statistically significant effect in explaining the gap in all years of the study. This implies that the fact that there is a higher proportion of men in self-employed jobs (Table A1) increases the gender pay gap.

Finally, the region of the country and the area where workers (both men and women) are located—in this case, the fact that female workers are more proportionally located in urban areas (Table A1)—would have a negative and statistically significant effect on the gap, thereby reducing gender earnings inequalities. However, this effect diminishes as the years of the study progress.

Table 3: Blinder-Oaxaca Decomposition (Hourly earnings)*

	2000	2001	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Differential																			
Estimate for men	30,52***	32,71***	37,87***	42,98***	55,06***	59,39***	61,44***	69,96***	73,27***	75,97***	82,56***	79,75***	83,38***	88,67***	97,32***	101,7***	105,8***	109,1***	113,5***
	(0,633)	(0,711)	(0,766)	(0,606)	(1,272)	(1,037)	(0,996)	(1,843)	(1,709)	(1,680)	(2,369)	(2,051)	(2,357)	(1,942)	(2,206)	(2,390)	(4,251)	(2,678)	(2,099)
Estimate for women	27,20***	30,05***	34,28***	37,96***	52,19***	53,99***	55,34***	64,22***	69,44***	74,13***	73,23***	76,52***	82,38***	83,83***	89,11***	93,60***	89,48***	105,9***	101,5***
	(0,751)	(0,928)	(0,851)	(0,811)	(2,081)	(1,620)	(1,280)	(2,723)	(2,807)	(2,811)	(2,349)	(3,102)	(3,079)	(2,605)	(2,608)	(2,536)	(2,296)	(8,972)	(2,803)
Difference	3,318***	2,663*	3,590**	5,020***	2,869	5,398**	6,101***	5,740	3,830	1,839	9,329**	3,227	1,000	4,833	8,211*	8,129*	16,33***	3,182	11,98***
	(0,982)	(1,169)	(1,145)	(1,012)	(2,439)	(1,924)	(1,622)	(3,288)	(3,286)	(3,274)	(3,336)	(3,719)	(3,878)	(3,249)	(3,416)	(3,485)	(4,831)	(9,363)	(3,502)
Decomposition																			
Explained	-2,617***	-3,895***	-3,884***	-4,329***	-6,133***	-9,141***	-5,922***	-9,542***	-10,02***	-9,031***	-13,55***	-15,67***	-16,37***	-11,98***	-14,91***	-14,52***	-17,14***	-9,164	-13,74***
	(0,759)	(0,840)	(0,913)	(0,799)	(1,353)	(1,308)	(1,220)	(2,206)	(2,446)	(2,301)	(2,716)	(3,005)	(3,415)	(2,596)	(3,044)	(2,959)	(3,968)	(5,276)	(2,432)
Unexplained	5,935***	6,558***	7,474***	9,349***	9,002***	14,54***	12,02***	15,28***	13,85***	10,87***	22,88***	18,90***	17,37***	16,82***	23,12***	22,65***	33,47***	12,35	25,72***
	(1,021)	(1,298)	(1,284)	(1,013)	(2,163)	(2,116)	(1,590)	(3,203)	(3,741)	(3,292)	(4,163)	(4,059)	(5,056)	(3,475)	(4,091)	(4,089)	(6,646)	(13,03)	(4,001)
Decomposition (as a percentage of women's hourly earnings)																			
Total	11%	8%	9%	12%	5%	9%	10%	8%	5%	2%	11%	4%	1%	5%	8%	8%	15%	3%	11%
Explained	-9%	-12%	-10%	-10%	-11%	-15%	-10%	-14%	-14%	-12%	-16%	-20%	-20%	-14%	-15%	-14%	-16%	-8%	-12%
Unexplained	19%	20%	20%	22%	16%	24%	20%	22%	19%	14%	28%	24%	21%	19%	24%	22%	32%	11%	23%
Observations	7848	7559	10198	10257	10489	10281	10363	10729	10436	10502	10636	10352	10529	10409	10285	10156	7783	7979	8410

t-statistic in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.

*Only people with occupation and income were included. We use probabilistic weights.

Table 4: Components of the Explained Difference—Blinder-Oaxaca (Hourly earnings)*

|	2000	2001	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Explained Difference	-2,617***	-3,895***	-3,884***	-4,329***	-6,133***	-9,141***	-5,922***	-9,542***	-10,02***	-9,031***	-13,55***	-15,67***	-16,37***	-11,98***	-14,91***	-14,52***	-17,14***	-9,164	-13,74***
Education	-2,393***	-2,540***	-3,843***	-4,099***	-4,744***	-5,052***	-6,162***	-6,054***	-7,257***	-6,636***	-8,490***	-9,060***	-9,136***	-10,74***	-10,41***	-11,58***	-12,03***	-10,97***	-10,18***
Experience	-0,513	-0,751	-0,276	-0,277	-1,521*	-0,551	-0,223	-0,110	-0,267	-0,687	-0,335	0,410	-1,435*	-0,0346	-0,0564	-1,221	-0,832	-2,596	-0,408
Personal and family characteristics	1,085***	1,289***	0,992***	1,069***	1,375*	1,578***	1,320***	1,068*	0,307	1,464**	0,204	1,005	0,323	0,534	1,052	1,355	2,414	2,757	0,505
Self-employed	1,866***	1,547***	2,542***	2,042***	3,010***	2,740***	2,054***	5,678***	4,169***	4,322***	5,396***	3,540***	3,473**	6,313***	2,938**	5,713***	4,333***	3,953***	3,520***
Economic Sector	0,551	-0,880	-0,342	1,356*	-0,0517	-0,248	0,489	-1,133	-0,0996	1,514	-0,900	-4,053*	-1,134	-1,916	3,223	-2,241	0,407	0,336	4,997**
Occupation	-2,315***	-1,633*	-1,816**	-2,931***	-2,154*	-5,370***	-1,908*	-7,026***	-4,797*	-7,677***	-7,279***	-4,944**	-6,787***	-4,157*	-9,795***	-3,966*	-9,846***	0,166	-11,18***
Region	-0,591***	-0,677***	-0,998***	-0,713***	-1,460***	-1,457***	-1,074***	-1,419***	-1,506***	-2,232***	-1,935***	-1,534***	-1,702***	-1,241***	-1,370***	-1,492***	-0,250	-0,0769	0,0623
Area	-0,307*	-0,250*	-0,143	-0,777***	-0,566**	-0,852***	-0,486***	-0,518**	-0,832***	0,432	0,327	-0,0861	-0,378	-1,039***	-0,413	-0,766***	-0,221	-0,0923	-0,274**
Status	ins. data	ins. data	ins. data	ins. data	-0,0215	0,0723	0,0674	-0,0282	0,258	0,469	-0,542	-0,951*	0,407	0,301	-0,0808	-0,329	-1,110*	-2,643***	-0,788

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*Only people with occupation and income were included. We use probabilistic weights.
ins. data: There is not enough data to calculate the percentage.

Figure 7. Total labor earnings gap estimated using the Blinder-Oaxaca decomposition*
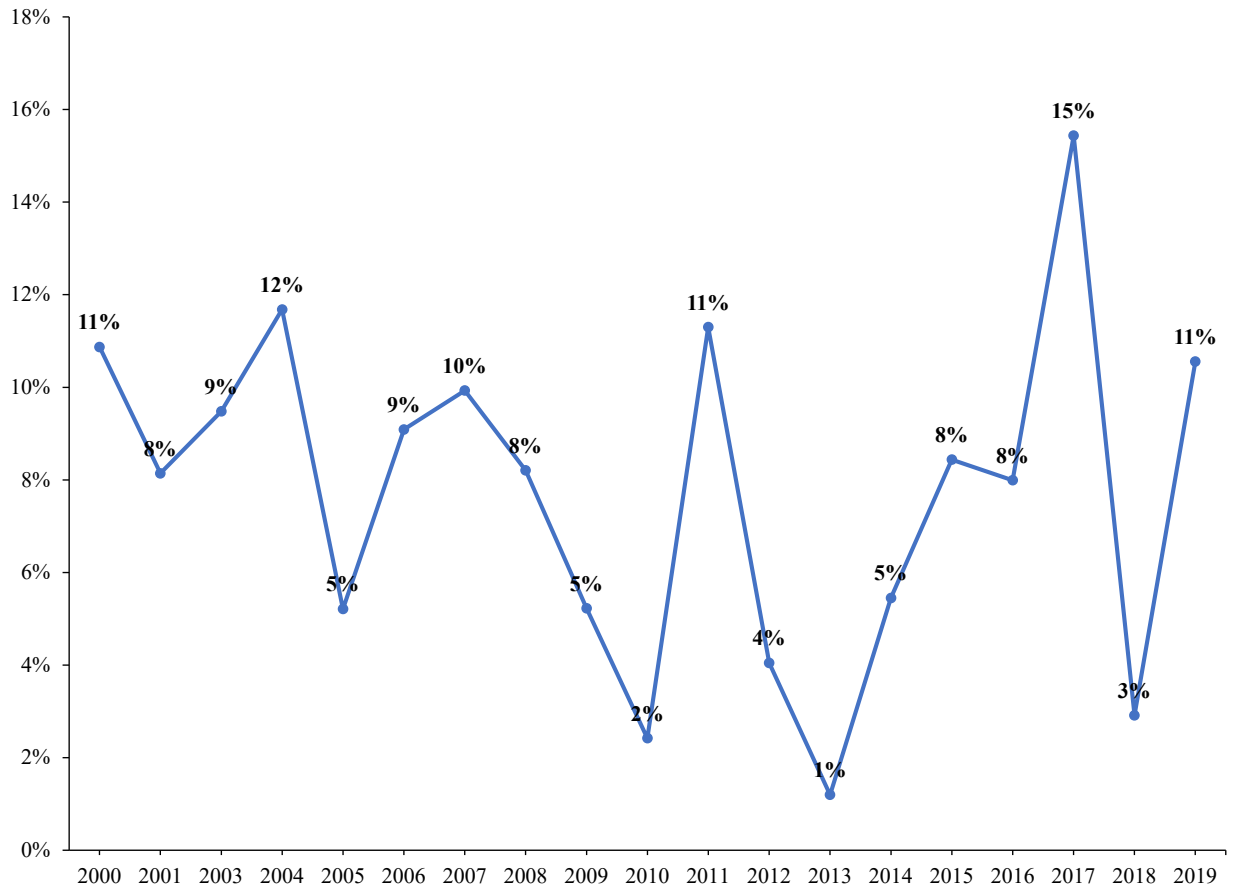
Table 5 presents the results of the Ñopo decomposition estimation. It can be observed that, over the 19 years for which the calculation was made, the hourly earnings gap ranged from 1 to 14%.

The so-called "Maid Effect" and "CEO Effect" refer to earnings gaps explained by the absence of women and men with similar personal and labor characteristics with whom to compare their earnings. The measurement of these components is related to traditional patterns of work in which women tend to concentrate in certain occupations such as nursing or services, while men work in risk or managerial occupations for which there are more opportunities for professional growth. It should be noted that for 2019, the CEO Effect was producing a gap of 19%, which would be related to women's limited access to managerial positions. On the contrary, the Maid Effect would be mitigating the gap by 20%, which is due to the relatively good economic return that women working in the tourism sector in the Dominican Republic receive.

As with the Maid Effect (except for 2011), starting in 2005 (except for 2018), the set of explained variables (educational level, age, marital status, presence of minors in the household, occupational category, economic activity branch of the main occupation, occupation, region, and labor formality) would be helping to close the gap. On the other hand, the unexplained part and the CEO Effect would be generating a positive effect, meaning they would be increasing the gap in all years of the study.

It is worth noting the existence of small differences between the Blinder-Oaxaca and Ñopo estimations, primarily related to the structure of the models used following common practices found in international literature.

The common support for different years, both for men and women, reaches up to 12% in men. In general, the values are similar to those in models for countries in Latin America and the Caribbean (LAC) carried out in Ñopo and Hoyos (2010) and Ñopo (2012), which use similar control variables as presented in this study. Like in the Blinder-Oaxaca model, there is no clear trend over time, and the gap fluctuates in magnitude but is always favorable to men in the years analyzed.

Table 5: Ñopo decomposition*
Hourly earnings

	2000	2001	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
(Total)	12%	10%	10%	14%	6%	9%	11%	9%	6%	2%	13%	4%	1%	6%	9%	9%	13%	5%	6%
(Unexplained)	14%	21%	29%	31%	8%	35%	18%	20%	21%	10%	19%	8%	9%	17%	32%	32%	13%	1%	14%
(Maid Effect)	-17%	-25%	-23%	-22%	-7%	-23%	-20%	-3%	-21%	-1%	8%	-23%	-8%	-20%	-31%	-27%	-12%	-27%	-20%
(CEO Effect)	11%	13%	10%	3%	20%	24%	20%	8%	14%	5%	9%	30%	18%	14%	29%	26%	19%	30%	19%
(Explained)	3%	0%	-6%	2%	-16%	-26%	-5%	-17%	-8%	-13%	-22%	-11%	-19%	-5%	-22%	-22%	-7%	1%	-7%
% Men	21%	20%	21%	21%	18%	17%	16%	16%	14%	14%	15%	14%	12%	13%	12%	12%	20%	21%	21%
% Women	37%	36%	42%	41%	33%	30%	29%	24%	25%	26%	25%	23%	22%	21%	24%	24%	30%	32%	30%
Standard Error	6%	8%	5%	4%	9%	9%	5%	8%	6%	5%	6%	10%	6%	6%	7%	6%	6%	12%	6%

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*Only people with occupation and income were included.

Figure 8 also shows the evolution of the earnings gap by gender estimated using the Ñopo decomposition. It can be observed that the gap remained high most of the years, presenting a significant decrease in 2012 and 2013, then increasing and reaching a stable differential around 5-6% the last years of analysis.

On the other hand, for 2019 the component explained by the variables used in the model would also be helping to close the gap by 7%, while the unexplained

component would be causing a gap of 14%. The latter is the difference in earnings received by women, which is due to other unobservable factors, which as mentioned above are related to bias and discrimination. Overall, without the higher level of education, the good job profile and the Maid Effect, the gap would be 27% higher in 2019.

Figure 8. Ñopo Decomposition

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*Only people with occupation and income were included.
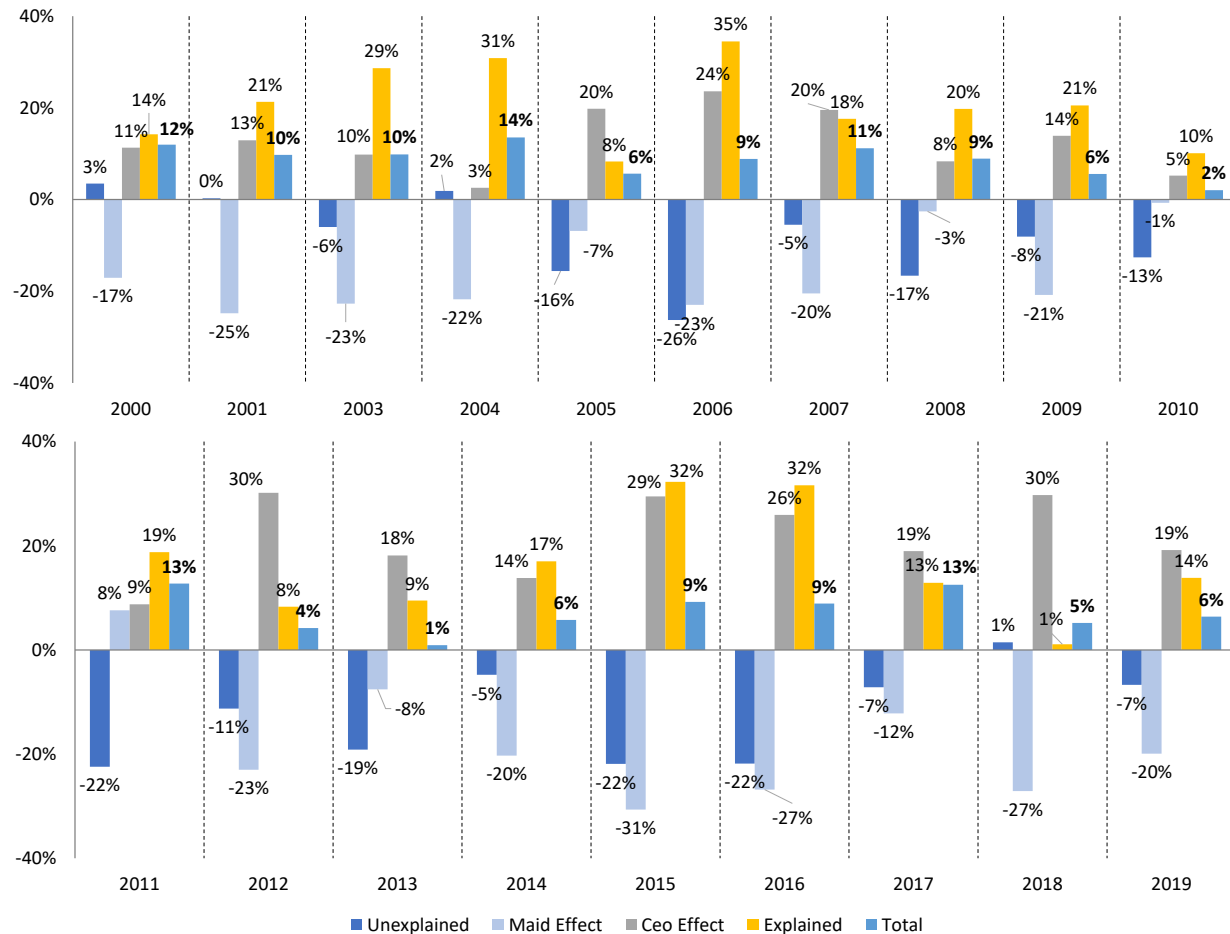
Figure 9 compares the earnings gaps by gender found by calculating both methodologies. As in Figure 5, the years 2001, 2007, 2013 and 2019 are used for the analysis in order to maintain periodicity and not complicate the graphical analysis by using all the years. Both explained and unexplained components are included. It should be noted that both methodologies are consistent in showing that there is for all years an earnings gap in favor of men generated by factors not explained by the analysis variables. Meanwhile, the explanatory variables show that, if only observable

characteristics and their return in income are considered, the gap should be in favor of women.

Figure 9. Total earnings gap estimated by Blinder-Oaxaca (BO) and Ñopo decompositions*

On the other hand, Figure 10 shows the evolution of the unexplained gap in the same periods chosen for Figure 9. This includes 95% confidence intervals (1.96 standard deviations above and below the estimator). Figure 10 shows that both methodologies show a statistically significant unexplained earnings gap for the different years analyzed, with the exception of the Ñopo gap for 2013, which is statistically the same for both methodologies. Since the Ñopo model restricts the comparison of differences only to those men and women with comparable characteristics (common support), the confidence intervals are wider than in the Blinder-Oaxaca model.

Figure 10. Unexplained earnings gap estimated by Blinder-Oaxaca (BO) and Ñopo decompositions*

Additionally, the Ñopo decomposition allows to disaggregate the earnings gap for the categories of the different explanatory variables. Figure 11 presents the earnings gap, both total and unexplained, by formality status. In the unexplained gap, confidence intervals are added using 1.96 standard deviations above and below the estimator, that is, at the 95% confidence level. A clear distinction is observed between people working in the formal and informal sector. A wide gap is shown between the earnings of people in the informal sector, while in the formal sector the gap is smaller and even in favor of women. However, there does not appear to be a statistically significant difference in the unexplained gap.

The gap in the informal sector may be due to the lack of labor legislation regulating the dependency relationships and business practices prevailing in the sector. The Dominican Republic has recorded a 23% of Affiliation at the general level, being 12% for women and 35% for men (Table A2). This is calculated through long-term social security affiliation or contribution using the 2019 Continuous National Labor Force Survey harmonized by the IDB. Affiliation is recorded at 23% at the general level, being 12% for women and 35% for men (Table A1).

Figure 11. Earnings gap estimated using the Ñopo decomposition by formality*
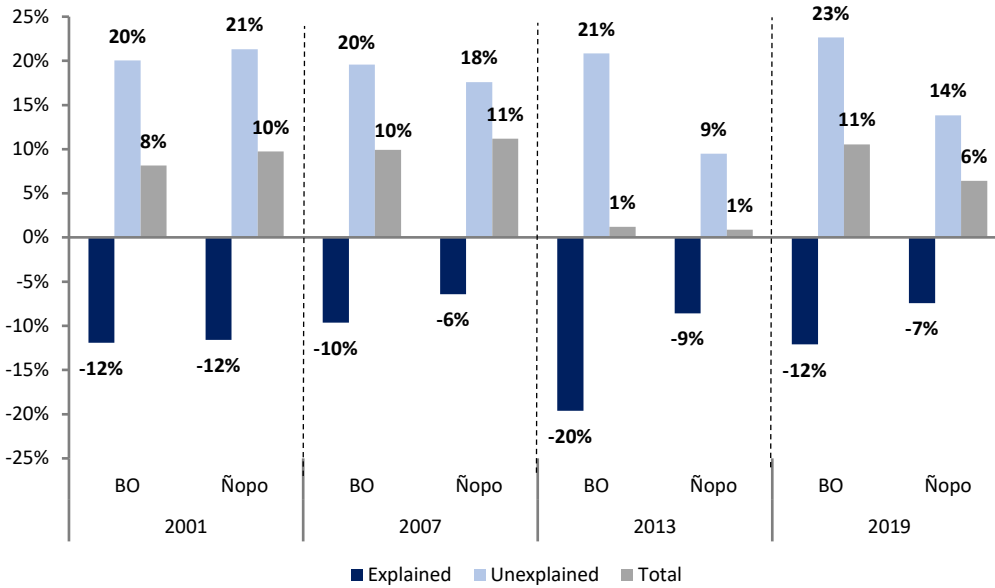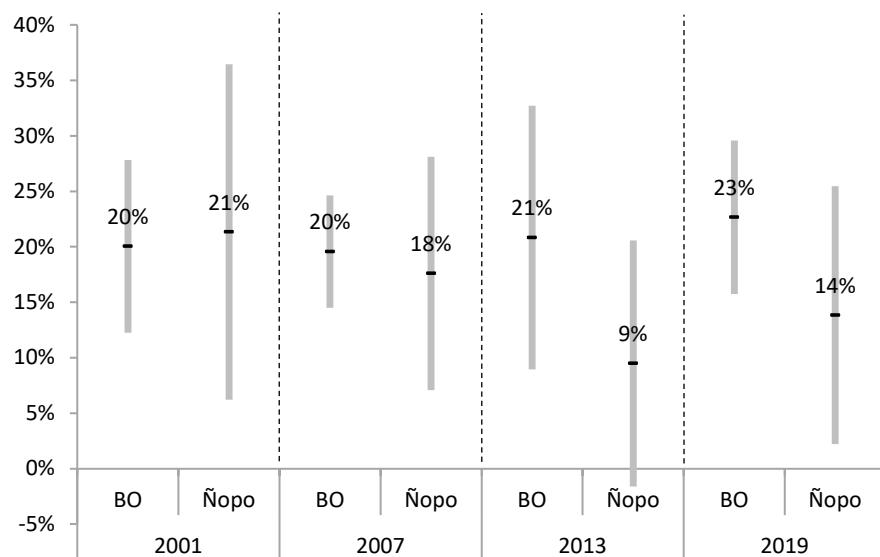

Total gap

Unexplained gap

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*Only people with occupation and income were included.
Note: The bars show the unexplained component at the 95% confidence level. The most significant economic sectors in the labor market and with the highest number of observations for both genders were used.

In the same way, Figure 12 presents the earnings gap—both total and unexplained—dividing the employed population between those who are self-employed and those who are not. A particularly striking situation can be observed, characterized by a persistent decrease in the gap among people who are not self-employed, while among the self-employed there seems to have been a gap in favor of women in 2001, which disappeared over the years until it became a very significant gap in favor of men in 2019. When the unexplained gap is analyzed, it shows a behavior similar to that of the total gap.

Figure 12. Earnings gap estimated by the Ñopo decomposition by self-employment category*

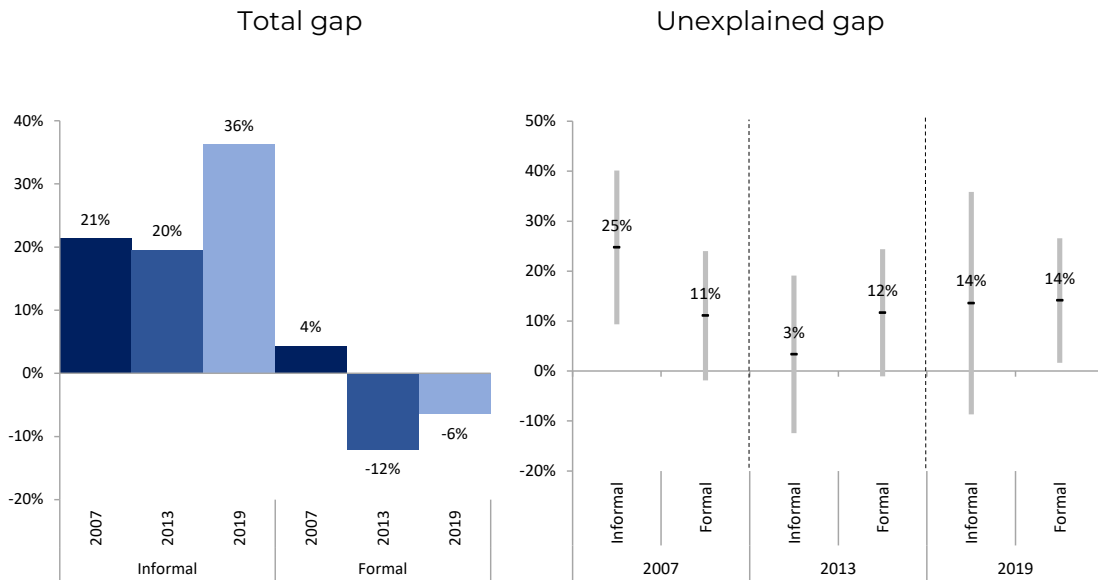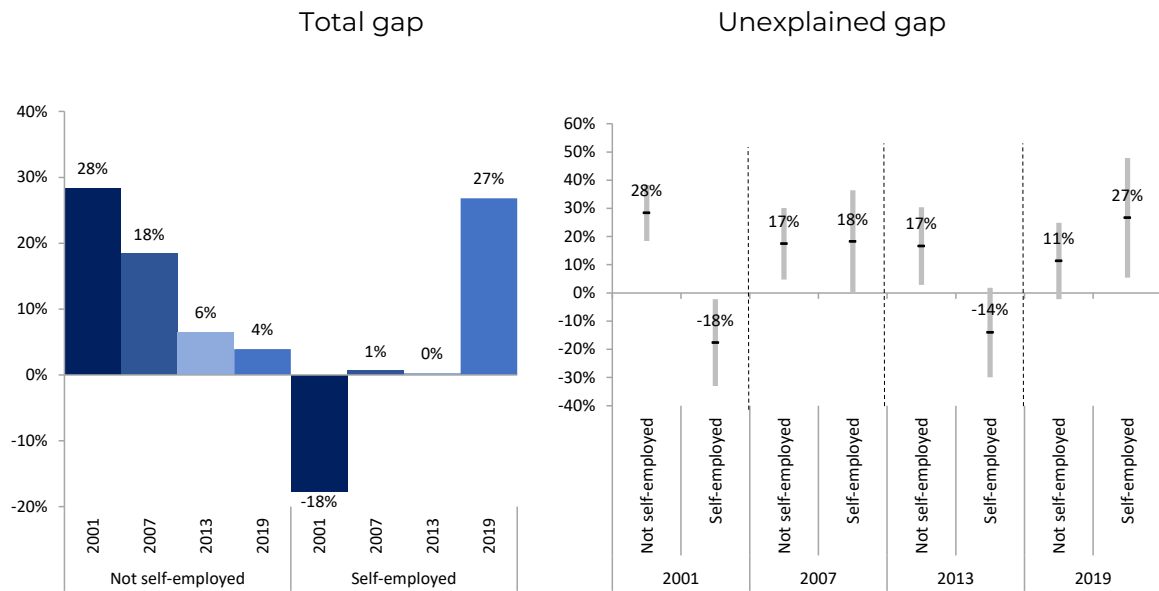Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.

*Only people with occupation and income were included.

Note: The bars show the unexplained component at the 95% confidence level. The most significant economic sectors in the labor market and with the highest number of observations for both genders were used.

5. Conclusions

In conclusion, the analysis shows that, at an aggregate level, there is a significant and statistically significant earnings gap between men and women in the Dominican Republic. This gap cannot be explained by the variables used in the model, such as experience, personal and family characteristics, sector and economic activity, and region or area of the country. Therefore, it is suggested that the gender earnings differential is due to normative issues, biases, or discrimination.

It was established that this gap is larger for people working in the informal economy and those who are self-employed, as well as in regions where women's labor force participation is higher, such as Ozama, Yuma, Higuamo, Cibao Norte, and Cibao Noreste. There was also a strong CEO Effect, related to a low representation of women in managerial positions and high-risk occupations.

Unlike studies on earning gaps in other countries in the region, no distinct pattern was found indicating that the gap is decreasing over time in the case of the Dominican Republic. This suggests that the unjustifiable income gap between men and women has not consistently decreased over the past two decades, limiting income opportunities for women. It was also observed that the gap is smaller for women working in the formal sector.

The characteristics that would contribute to closing the gender earnings gap are education and the occupations in which women work, while personal and family characteristics such as age, marital status, and the presence of minors in the household increase the gap in favor of men. On the other hand, this study establishes that the regions where women reside also contribute to reducing the earnings gap at the aggregate level, as a high proportion of them work in regions like Santo Domingo and tourist areas, both characterized by strong economic dynamism. However, it was found that there is a significant earnings gap within these regions, meaning that women in these regions earn above the average of other women but still earn less than men in these regions.

These conclusions are in line with existing literature on gender income gaps in the Dominican Republic. Similar to Ñopo and Hoyos (2010), it was found that the unexplained gap remains very significant in the country; however, unlike in other countries in Latin America and the Caribbean (LAC), there is an earnings gap explained in favor of men. Consistent with authors like Chioda (2011) or Gasparini and Marchionni (2015), education is a relevant factor in closing the gap due to the increase in the proportion of women who have completed their secondary education. Similar to ILO (2019), the unexplained gap persists and is mainly present among low-earning workers and the self-employed.

This document contributes to the diagnosis of the evolution of the gender earnings gap year by year in the Dominican Republic between 2000 and 2019. The conclusions presented here are relevant because evidence-based policymaking requires reliable

data and estimates that can be used as input in the decision-making process for policymakers.

Future analyses will likely complement the findings of this work by further disaggregating and deepening the earnings gap for groups of individuals with different specific characteristics, as well as by using new resources to improve the quantification of the earnings gap and its determinants. There is also a need for a specific study on the consequences that the pandemic has had and continues to have on the earnings gap in the country.

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Table A1: Distribution of characteristics of the employed population that earns income, by year and gender, men (M) and women (W)

	2000		2001		2003		2004		2005		2006		2007		2008		2009	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Years of Education	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9
None	48%	46%	48%	45%	44%	41%	42%	40%	29%	28%	29%	26%	26%	25%	29%	26%	27%	24%
Elementary school	29%	27%	28%	28%	30%	28%	31%	28%	44%	40%	44%	40%	44%	40%	42%	39%	43%	38%
Secondary education	16%	19%	17%	20%	18%	23%	19%	23%	19%	23%	20%	24%	21%	24%	20%	25%	22%	27%
Tertiary education	8%	8%	7%	7%	7%	8%	7%	9%	7%	9%	8%	10%	8%	10%	9%	11%	8%	11%
Years of experience	20.3	20.0	20.7	20.3	20.4	19.9	19.9	19.8	19.9	20.0	20.4	19.7	20.1	19.8	20.1	19.4	19.6	19.6
15-25	35%	34%	34%	34%	34%	32%	35%	32%	35%	32%	33%	33%	33%	32%	33%	34%	34%	33%
26-35	23%	25%	23%	23%	23%	25%	23%	25%	23%	25%	23%	23%	23%	24%	24%	23%	23%	22%
36-45	20%	20%	20%	19%	20%	21%	20%	20%	20%	20%	20%	21%	20%	21%	21%	21%	19%	21%
46-55	14%	12%	14%	14%	13%	13%	14%	14%	14%	14%	13%	13%	15%	14%	13%	13%	14%	14%
56-65	9%	9%	9%	9%	9%	9%	8%	9%	9%	9%	10%	10%	9%	10%	9%	9%	8%	10%
Married	52%	54%	52%	53%	53%	56%	52%	55%	49%	53%	50%	52%	50%	52%	50%	51%	48%	51%
Children under six years of age in the household	32%	36%	33%	38%	33%	38%	31%	37%	30%	36%	29%	35%	29%	35%	29%	34%	28%	34%
Agriculture. hunting. forestry and fishing	21%	2%	20%	1%	18%	2%	19%	2%	18%	2%	19%	2%	18%	2%	18%	2%	19%	2%
Mining and quarrying	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Manufacturing	17%	19%	16%	15%	16%	14%	17%	14%	16%	14%	16%	13%	15%	13%	14%	10%	12%	8%
Electricity. gas and water	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	1%	1%	1%	1%	1%	1%
Construction	9%	0%	10%	1%	11%	1%	10%	1%	10%	0%	11%	0%	11%	1%	11%	1%	10%	0%
Commerce. restaurants and hotels	25%	28%	23%	32%	24%	28%	24%	28%	24%	29%	25%	28%	26%	27%	25%	28%	27%	28%
Transport and storage	9%	2%	11%	2%	11%	2%	10%	3%	11%	2%	11%	2%	11%	2%	11%	2%	11%	1%
Financial. insurance and real estate establishments	2%	3%	2%	3%	2%	4%	2%	3%	2%	3%	2%	4%	2%	4%	2%	4%	3%	4%
Social and community services	16%	45%	17%	45%	17%	49%	17%	49%	17%	49%	16%	51%	16%	51%	17%	52%	16%	56%
Ozama	32%	34%	32%	34%	32%	35%	33%	34%	33%	34%	33%	34%	32%	34%	31%	34%	31%	35%
Yuma	5%	5%	5%	4%	5%	5%	5%	6%	5%	5%	5%	5%	5%	5%	6%	6%	6%	5%
Higuamo	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	6%	6%	6%	7%	6%
Cibao Noreste	8%	8%	9%	9%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Cibao Norte	17%	17%	17%	17%	18%	17%	17%	17%	17%	17%	17%	17%	18%	18%	18%	17%	18%	17%
Cibao Noroeste	5%	5%	5%	4%	5%	4%	4%	4%	5%	4%	4%	4%	4%	5%	5%	4%	5%	4%
Cibao Sur	8%	8%	8%	8%	8%	8%	8%	8%	9%	8%	8%	8%	9%	8%	9%	8%	8%	8%
El Valle	4%	3%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Valdesia	10%	10%	10%	10%	11%	11%	11%	10%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Enriquillo	4%	4%	4%	4%	4%	3%	4%	3%	4%	3%	4%	3%	4%	3%	4%	3%	4%	3%
Urban	66%	69%	70%	73%	70%	73%	64%	68%	64%	68%	65%	68%	65%	67%	66%	70%	66%	71%
Formal	ins. data	ins. data	ins. data	ins. data	ins. data	ins. data	ins. data	ins. data	20%	27%	23%	30%	28%	35%	30%	39%	29%	37%
Self-employed	34%	10%	34%	10%	34%	9%	33%	9%	33%	10%	35%	10%	33%	11%	36%	10%	36%	10%

Table A1 (Continued)

	2010		2011		2012		2013		2014		2015		2016		2017		2018		2019	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Years of Education	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	7.9	7.6	10.3
None	27%	23%	26%	22%	25%	23%	25%	22%	24%	21%	23%	21%	23%	20%	20%	17%	19%	15%	17%	14%
Elementary school	43%	38%	43%	38%	43%	37%	42%	37%	41%	36%	42%	36%	42%	35%	45%	36%	43%	35%	42%	35%
Secondary education	23%	28%	24%	29%	24%	30%	25%	31%	26%	30%	26%	31%	27%	31%	29%	35%	31%	37%	33%	38%
Tertiary education	7%	11%	7%	10%	7%	11%	8%	10%	8%	13%	9%	13%	9%	14%	6%	12%	7%	13%	7%	13%
Years of experience	20.1	19.7	20.0	19.9	20.3	20.2	20.0	20.2	20.7	20.2	20.4	20.2	20.8	20.3	20.4	20.4	20.6	20.0	20.3	19.8
15-25	34%	33%	34%	32%	33%	31%	35%	32%	32%	30%	33%	31%	31%	30%	32%	29%	30%	29%	31%	29%
26-35	22%	22%	22%	21%	21%	22%	22%	22%	22%	22%	21%	22%	21%	22%	21%	21%	22%	22%	22%	23%
36-45	20%	20%	18%	20%	20%	20%	18%	19%	20%	19%	19%	20%	20%	19%	19%	20%	20%	20%	19%	19%
46-55	14%	15%	14%	16%	15%	16%	15%	16%	16%	17%	16%	17%	16%	17%	16%	18%	16%	17%	16%	17%
56-65	10%	10%	11%	10%	10%	11%	11%	11%	11%	11%	11%	11%	11%	12%	12%	12%	12%	12%	12%	12%
Married	47%	50%	47%	50%	47%	50%	46%	50%	48%	52%	48%	50%	48%	51%	46%	48%	48%	49%	48%	49%
Children under six years of age in the household	28%	35%	26%	33%	27%	33%	27%	34%	26%	32%	25%	31%	25%	32%	25%	31%	24%	31%	24%	31%
Agriculture. hunting. forestry and fishing	19%	2%	20%	2%	19%	2%	19%	2%	19%	3%	17%	2%	18%	1%	14%	1%	12%	1%	12%	1%
Mining and quarrying	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Manufacturing	12%	8%	11%	9%	12%	10%	12%	7%	11%	9%	11%	8%	11%	8%	12%	8%	12%	8%	12%	8%
Electricity. gas and water	1%	1%	1%	0%	1%	1%	1%	1%	1%	1%	1%	0%	1%	1%	2%	1%	1%	1%	1%	1%
Construction	10%	0%	10%	0%	10%	0%	9%	0%	10%	1%	12%	1%	10%	1%	14%	1%	14%	1%	12%	0%
Commerce. restaurants and hotels	26%	29%	26%	29%	26%	28%	25%	29%	27%	28%	26%	29%	27%	27%	19%	19%	20%	17%	21%	18%
Transport and storage	12%	1%	11%	2%	12%	1%	11%	3%	11%	2%	11%	3%	11%	2%	17%	12%	16%	11%	17%	12%
Financial. insurance and real estate establishments	3%	3%	2%	5%	2%	4%	2%	4%	3%	3%	3%	4%	2%	3%	2%	3%	3%	3%	2%	3%
Social and community services	16%	55%	17%	53%	18%	54%	19%	55%	18%	54%	19%	54%	20%	57%	20%	56%	21%	58%	21%	56%
Ozama	31%	33%	32%	34%	32%	33%	32%	33%	32%	33%	32%	33%	31%	33%	37%	38%	37%	39%	38%	38%
Yuma	6%	6%	6%	5%	6%	6%	6%	6%	6%	6%	5%	6%	6%	5%	6%	7%	7%	7%	7%	7%
Higuamo	7%	6%	6%	6%	6%	7%	6%	6%	6%	6%	7%	7%	7%	7%	6%	6%	5%	6%	5%	6%
Cibao Noreste	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	6%	6%	6%	6%	6%	7%
Cibao Norte	17%	18%	17%	17%	17%	18%	17%	18%	17%	18%	17%	18%	17%	18%	16%	16%	16%	16%	16%	16%
Cibao Noroeste	5%	4%	5%	4%	5%	4%	5%	4%	5%	4%	5%	4%	5%	4%	4%	4%	4%	4%	4%	4%
Cibao Sur	9%	8%	9%	8%	9%	8%	8%	8%	8%	8%	8%	8%	9%	8%	7%	7%	7%	7%	7%	7%
El Valle	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	4%	3%	3%	2%	2%	2%	3%	2%
Valdesia	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	10%	10%	10%	10%	10%	10%
Enriquillo	4%	3%	4%	3%	4%	3%	4%	3%	4%	4%	4%	4%	4%	4%	4%	3%	4%	3%	4%	3%
Urban	67%	70%	66%	71%	66%	69%	67%	69%	66%	70%	66%	70%	66%	70%	80%	82%	81%	83%	82%	83%
Formal	31%	38%	28%	37%	29%	37%	30%	36%	33%	41%	35%	42%	35%	44%	36%	43%	37%	45%	39%	47%
Self-employed	37%	12%	37%	12%	36%	12%	35%	11%	37%	10%	36%	11%	35%	10%	35%	13%	35%	12%	35%	12%

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.

ins. data: There is not enough data to calculate the percentage.

*We use probability weights.

Table A2: Women's participation by occupation (%) and average hourly earnings (₵)

	2000 (%)	RD$	2001 (%)	RD$	2003 (%)	RD$	2004 (%)	RD$	2005 (%)	RD$	2006 (%)	RD$	2007 (%)	RD$	2008 (%)	RD$	2009 (%)	RD$
Professional and technical	51%	51	51%	49	50%	61	51%	66	52%	100	51%	101	52%	94	53%	118	52%	122
Director or senior officer	26%	95	37%	83	29%	110	36%	120	34%	151	43%	150	27%	150	28%	171	37%	266
Administrative and intermediate level	66%	23	63%	26	69%	28	66%	29	65%	38	67%	46	69%	49	70%	52	69%	50
Merchants and sellers	46%	23	52%	25	45%	28	46%	29	47%	35	45%	38	44%	43	45%	44	39%	52
Services	57%	24	57%	26	60%	27	57%	34	59%	48	63%	42	62%	50	62%	63	62%	52
Agricultural workers	5%	22	3%	31	3%	23	4%	22	6%	26	5%	24	4%	25	4%	40	4%	49
Non-agricultural workers. drivers of machinery and transport services	19%	18	14%	21	14%	25	14%	28	12%	34	12%	39	12%	38	10%	37	9%	56
Armed forces	4%	12	4%	18	9%	87	16%	31	10%	35	18%	40	9%	95	21%	34	11%	55
Other	37%	14	40%	19	40%	20	41%	22	39%	30	43%	32	45%	36	41%	36	39%	37
Total	**51%**	**27**	**51%**	**30**	**51%**	**35**	**51%**	**38**	**50%**	**52**	**51%**	**55**	**51%**	**55**	**51%**	**64**	**51%**	**69**

	2010 (%)	RD$	2011 (%)	RD$	2012 (%)	RD$	2013 (%)	RD$	2014 (%)	RD$	2015 (%)	RD$	2016 (%)	RD$	2017 (%)	RD$	2018 (%)	RD$	2019 (%)	RD$
Professional and technical	58%	133	57%	132	58%	136	54%	156	55%	155	52%	158	56%	165	61%	191	59%	227	62%	212
Director or senior officer	34%	211	46%	230	46%	208	42%	257	38%	255	51%	201	39%	240	46%	259	42%	285	40%	396
Administrative and intermediate level	64%	57	66%	59	67%	61	65%	68	66%	64	59%	66	68%	75	64%	78	64%	86	64%	84
Merchants and sellers	47%	59	46%	52	46%	52	46%	54	44%	50	47%	73	45%	69	54%	68	51%	74	53%	74
Services	63%	59	60%	57	61%	62	62%	63	55%	71	62%	72	62%	73	63%	60	64%	63	66%	68
Agricultural workers	6%	34	8%	32	5%	36	5%	34	4%	66	4%	96	4%	45	4%	58	6%	42	4%	56
Non-agricultural workers. drivers of machinery and transport services	9%	39	11%	48	10%	52	8%	56	10%	60	10%	65	10%	71	13%	59	12%	62	14%	64
Armed forces	16%	44	27%	45	28%	65	9%	81	17%	58	8%	67	14%	84	10%	247	11%	192	11%	94
Other	40%	46	39%	44	39%	44	41%	48	41%	51	41%	52	43%	54	0%	0	10%	14	24%	209
Total	**51%**	**74**	**50%**	**73**	**51%**	**77**	**50%**	**83**	**50%**	**84**	**51%**	**89**	**51%**	**93**	**51%**	**95**	**52%**	**109**	**51%**	**110**

Source: Own elaboration based on the National Labor Force Surveys of the Dominican Republic harmonized by the IDB.
*We use probability weights.