The Gender Pay Gap in a Highly Regulated Market*

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Abstract

This paper studies gender pay disparities in Mexico's public-school system, a highly regulated labor market with standardized pay schedules and centralized wage setting. Using administrative payroll data from 2016 to 2024, we compare teachers in identical positions within the same school to estimate gender differences in pay for equal work. We find an equal-work wage gap of 0.018 log points. About half of this gap is accounted for by slower progression of women through the horizontal promotion system. Gender differences in total earnings are larger, at 0.045 log points, reflecting both men's greater likelihood of holding multiple positions and the larger gender pay gap in teachers' secondary jobs. We also show that motherhood reduces women's wage rates—-as well as labor supply and earnings—and identify one novel mechanism underlying the decline in wage rates: mothers' switching to working in localities with greater amenities but lower pay.

Keywords: Gender gap, motherhood effects, teacher markets, pay standardization, regulated markets.
JEL Codes: J16, J31, J45, I21, J13.

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1 Introduction

Can gender inequality persist even when pay is standardized? In many organizations, including public-sector employers, wages are governed by centralized schedules that limit the scope for discretionary wage setting. Pay standardization is therefore often viewed as a potential solution to concerns about discrimination—e.g., unequal treatment in evaluations (Cullen and Perez-Truglia, 2023)—and gender differences in pay negotiation (Bertrand, 2011; Biasi and Sarsons, 2021). Yet there is limited evidence on gender disparities in such settings.

This paper studies gender pay disparities in Mexico's public-school system, a large regulated labor market with standardized salary schedules and centralized wage bargaining. This setting is useful for studying gender inequality for two reasons. First, high-quality administrative data allow us to estimate the gender wage gap for equal work with unusual precision. A central challenge in this type of estimation is that commonly used datasets record only broad occupation codes and therefore risk confounding pay differences for equal work with gender differences in sorting across sub occupations—for example, if male and female physicians are unevenly distributed across specialties such as neurosurgery and general medicine (Strittmatter and Wunsch, 2021). Second, this setting features a particularly high degree of pay standardization. For example, base wages are uniquely determined by the combination of position and region of work, with no wage brackets of the type commonly found in other systems. If gender gaps persist even in this highly standardized setting, they may point to more deeply rooted sources of inequality.

We use administrative payroll records from 2016 to 2024 covering 10.57 million job-quarter observations in the main equal-work analysis. The data report detailed job codes and school identifiers, which allow us to compare male and female teachers in identical positions within the same schools. To enhance comparability, we focus on generalist teachers in regular primary schools.

We find small but nonzero inequality under pay standardization. For equal work, female teachers earn 0.018 log points less than comparable men. Although survey-based estimates are not directly

comparable to our administrative estimates, they provide a useful benchmark: the hourly gender wage gap is substantially larger in private schools than in public schools, consistent with the idea that pay standardization limits gender differences in wages. In terms of mechanisms, about half of the gap can be traced to slower progression of women through the horizontal promotion system, while the remaining gap reflects gender differences in allowances.

Gender differences are larger in earnings. Female teachers earn 0.045 log points less in earnings, in part because men are 3.7 percentage points more likely to hold multiple jobs within the public education system. Among teachers holding multiple jobs, the pay differential between primary and secondary jobs differs by gender by 0.113 log points, indicating that secondary jobs are relatively more remunerative for men.

Looking over the life cycle, we find that widening gender gaps consistent with the accumulation of post-childbirth disparities emphasized in recent work on child penalties (Kleven et al., 2019; Berniell et al., 2023; Aguilar-Gomez et al., 2025). We therefore study directly how motherhood shapes women's labor market trajectories in this regulated setting. We find that motherhood reduces women's wage rates and identify one novel mechanism underlying this decline: mothers' switching to working in localities with greater amenities, but lower pay. Motherhood also reduces women's labor supply, although the overall effects on earnings are smaller than those documented for the general population.

Our paper contributes to several literatures. Its primary contribution is to gender economics, particularly to the study of gender wage gaps and motherhood effects on labor market outcomes. We first contribute to these strands of literature by providing new evidence from a highly regulated labor market with standardized pay scales and strong job protection, a setting in which gender pay disparities are expected to be limited. Such features are common in public–sector employment across countries. Yet, despite the importance of these labor markets, related evidence in the existing literature remains scarce.[1]

[1] Nielsen et al. (2004) and Duvivier and Narcy (2015) study motherhood effects in the public sector in Denmark and France, respectively, and find smaller effects than those observed in the private sector. However, these studies predate the recent literature that exploits event-study designs to trace dynamic labor market responses to childbirth.

Our second contribution to these strands of literature concerns mechanisms. We show how differential gender progression within horizontal promotion systems—in which workers advance through pay steps without changes in job responsibilities—can widen gender wage gaps for equal work. These systems are common in teacher career structures and are also prevalent in many public sector, and to a lesser extent, private–sector jobs. We also uncover a novel mechanism underlying the negative effect of motherhood on wage rates: mothers' increased preference for working in localities with greater amenities, highlighting the importance of compensating differentials in regulated labor markets. To the best of our knowledge, this is the first study to document these mechanisms empirically. Taken together, our results shed light on how gender disparities can persist even in institutional environments designed to promote pay equality.

In contrast to most of the previous literature, we are able to precisely estimate the gender wage gap for equal work by exploiting highly granular administrative data on job positions and workplaces, together with an institutional setting that permits direct pay comparisons between women and men holding identical positions and performing the same tasks within the same schools. Our finding of smaller gender wage gaps when using more granular data—relative to estimates based on the coarser information typically available in labor force surveys—is consistent with the results of Strittmatter and Wunsch (2021), who in a methodological paper use Swiss administrative data to study the sensitivity of gender pay estimates to the quality of data and methodological choices.

In work focused on the gender earnings gap, Cook et al. (2020), using data on Uber drivers in the United States, document an earnings gap arising from gender differences in driving patterns, including driving speed, accumulated experience, and location choices. Bolotnyy and Emanuel (2022) use administrative data from the Massachusetts Bay Transportation Authority and find that although men and women receive identical hourly wages and perform the same tasks, female bus and train operators earn about 89 cents for every dollar earned by their male counterparts. This gap is entirely driven by differences in workload choices (e.g., women take more unpaid leave and accept fewer overtime

shifts). Our findings extend this line of research by focusing on gender gaps in wage rates, rather than solely from differences in hours worked or other labor–supply choices.

We also contribute to the literature on personnel economics of the state and particularly to the study of pay standardization systems—an understudied topic. In recent work, Anderson and Pardo Martinez (2025) analyze the effects of the U.S. Classification Act of 1923, which introduced standardized pay grades and position categories in the federal civil service and mandated equal pay for equal work between women and men. They find negative effects on women's pay, as women were more likely to be downgraded to lower-paying positions following the reform.

Finally, we contribute to the literature on teacher labor markets by documenting and explaining gender disparities within this occupation. Empirical evidence on gender wage gaps among teachers is largely drawn from the United States and relies on less granular data (Ransom and Lambson, 2011; Quintero et al., 2024).

2 Institutional Setting

2.1 Wage Setting

In Mexico, state governments operate primary schools, while the federal government regulates the system and finances a large share of public education spending. There are approximately 87,000 public primary schools, serving more than 11 million students and employing around 500,000 teachers. Private schools account for around 10% of total primary enrollment (Secretaria de Educacion Publica, 2025). Primary education spans six years and relies mainly on generalist teachers, who are responsible for one class, alongside a smaller number of specialist teachers such as arts and physical-education instructors.

Compensation in public basic education is highly structured. Each teaching position follows a wage schedule with three main elements: a base salary, a horizontal-promotion category, and allowances. Base salary is determined by the position, the economic zone of the school, and the state salary table.

Schools in more marginalized zones pay higher base wages, and there are typically two economic zones per state. Horizontal promotions raise pay without changing job responsibilities and follow centralized rules. There are multiple allowances, including notably those related to tenure and locality characteristics. Thus, teachers in the same position and school face the same basic pay rules, while horizontal promotion categories and allowances remain potential sources of residual pay differences.

The system allows teachers to have multiple positions. This is more common in lower secondary education, where part-time hour-based contracts are standard, but it also occurs in primary education, which is the focus of our study. The primary-school day is short, at about 4.5 hours, and many schools operate separate morning and afternoon shifts. As a result, a teacher may simultaneously hold one position in the morning shift and another in the afternoon shift. This creates scope for differences in total earnings that need not mirror differences in pay for a given job.

Wage increases are negotiated centrally with the participation of the national teachers' union together with the federal education and finance authorities and state education secretariats (Estrada, 2019). Public-school teaching in Mexico is relatively well paid. Using the Mexican Labor Force Survey (ENOE) as a benchmark, Table B.1 in Appendix B shows that public primary-school teachers earn about 5% more per month than comparable workers in private schools and about 8% more in hourly wages; relative to other salaried university-educated workers, hourly wages are also higher.The better pay of public school teachers in Mexico, compared to other university-educated workers, stands in contrast to the norm in much of Latin America (Elacqua et al., 2018).

2.2 Promotion and Hiring

Our sample spans 2016 to 2024, a period in which three policy layers matter for interpreting pay progression. First, many teachers continue to receive salary increments earned under the earlier *Carrera Magisterial* (CM) system, even though that program formally ended before our sample begins. Second, the *Servicio Profesional Docente* (SPD) governed hiring and promotion during the first part of our

sample. Third, since 2019 those rules have been replaced by the *Sistema para la Carrera de las Maestras y los Maestros* (SICAMM). For our purposes, the key point is that horizontal promotions are mediated by formal policy regimes rather than by decentralized school-level bargaining.

CM, in place from 1992 to 2014, managed horizontal promotions through a national incentive system with six pay categories and sizable salary increments. Advancement depended on centralized evaluations and observable criteria such as seniority, educational attainment, test performance, professional-development participation, supervisor and peer assessments, and student achievement (Santibanez et al., 2007). Eligibility required minimum seniority and an open-ended contract, and participation among eligible teachers was very high. Although CM ended in 2014, the salary benefits earned under the program remained in place. This is why CM categories remain relevant in our sample and in the decomposition of the equal-work wage gap.

Under SPD, horizontal promotions were determined through national evaluations based on standardized tests. As with CM, salary benefits earned under the program remained in place after its termination. SICAMM also relies on national evaluations, which consider teachers' seniority, highest degree earned, preparation as measured through teacher testing, and participation in professional development courses. Table B.2 in the Appendix summarizes the three horizontal-promotion regimes relevant to our analysis.

Access to additional teaching positions followed a different evolution. Prior to 2008, state education ministries and the teachers union effectively controlled those decisions, with substantial discretion and limited transparency. The 2008 *Alianza por la Calidad de la Educación* (ACE) reform introduced national competitive examinations for hiring, but their use was not mandatory (Estrada, 2019). A more consequential change came with the 2013 SPD reform, which mandated competitive examinations for hiring in basic education (Bedoya, de Hoyos, and Estrada, 2026). SPD was repealed in 2019 and replaced by SICAMM, which continues to rely on national evaluations for access to additional teaching positions.

3 Data and Sample Construction

Our main source of data is the *Fondo de Aportaciones para la Nómina Educativa* (FONE), a quarterly administrative payroll dataset for public education personnel. FONE is assembled by SEP using information reported by state education ministries. The data cover public education personnel paid with federal funds, excluding those based in Mexico City. Teachers paid directly from state-government payrolls are not included in the data; according to Bedoya, de Hoyos, and Estrada (2026), they account for roughly 14 percent of teachers. The analysis should therefore be interpreted as covering the federally funded public-school workforce outside Mexico City.

FONE records quarterly pay, an individual identifier, position code, school identifier, economic zone, and CM pay category. A key advantage of the data is its unusually detailed classification of teaching positions. FONE distinguishes more than 100 teacher codes, including 11 separate categories for teachers in regular primary schools. This granularity is essential for our equal-work analysis, which compares men and women in narrowly defined positions within the same schools.

Our main analysis focuses on generalist teachers in regular primary schools. This restriction is intended to keep comparisons as close as possible in terms of job content and compensation rules. We exclude pre-school teachers because the occupation is overwhelmingly female (94.32% women), lower-secondary teachers because FONE does not report contracted hours for those positions, specialist teachers within regular primary schools because their duties differ from those of generalist classroom teachers, and teachers in alternative settings such as special education and bilingual or indigenous schools because both job content and workforce composition differ systematically. Since teachers may hold multiple positions, the teacher-level earnings analysis aggregates all public teaching positions held by teachers in the main sample.

We use data from 2016Q2 to 2024Q1 and restrict the sample to teachers aged 22 to 65 with at least one generalist primary-school job. Using school identifiers, we merge FONE to the national catalog of education centers to recover school characteristics, and we add locality characteristics from

CONEVAL. The merge rates are high: 99.9% of observations are matched to the school catalog and 99.0% to locality data. We also merge the payroll records to the 2015–2018 SPD examination data to identify teachers who obtained horizontal promotions under that system. Minor data-cleaning exclusions, such as invalid personal identifiers and extremely sparse job-quarter cells, affect less than 0.01% of observations.

The job-quarter sample used for the equal-work wage-gap analysis contains 10.57 million observations. The teacher-quarter sample used for total earnings and multiple-job outcomes contains about 9.43 million observations, depending on the outcome. Table 1 summarizes these data in two complementary ways. Panel A reports job-quarter statistics for generalist primary-school positions, and Panel B reports teacher-quarter statistics aggregated across all teaching positions held in the quarter. Panel C reports summary statistics for secondary teaching jobs held by teachers in the main sample, which are useful for interpreting the earnings results.

Panel A shows that the teaching workforce in our sample is predominantly female: women account for about two thirds of job-quarter observations. Female teachers are younger on average, earn less, and are less likely to work in rural, poorer, and more distant localities or in the afternoon shift. Panel B shows that men are more likely than women to hold multiple teaching positions within the public education system, which is relevant for the distinction between job-level pay gaps and teacher-level earnings gaps. Panel C indicates that secondary teaching jobs held by teachers in the main sample are mostly part-time and lower paid.

Table 1: Descriptive Statistics

	Female				Male			
	Mean	SD	P10	P90	Mean	SD	P10	P90
A. Generalist primary jobs								
Wage per Job	50,016	21,993	30,597	72,819	52,666	24,759	31,869	78,826
Age	39.53	10.00	27.00	54.00	42.02	10.39	28.00	56.00
CM low pay category	78.93	40.78	0.00	100.00	73.85	43.95	0.00	100.00
CM top pay category	0.89	9.39	0.00	0.00	1.36	11.59	0.00	0.00
High-pay economic zone	30.15	45.89	0.00	100.00	32.66	46.90	0.00	100.00
Full-time (%)	100.00	0.00	100.00	100.00	100.00	0.00	100.00	100.00
Rural (%)	28.24	45.02	0.00	100.00	36.87	48.25	0.00	100.00
Locality marginalization	-0.70	0.71	-1.28	0.21	-0.55	0.77	-1.26	0.42
Distance to state capital (kms.)	94.40	104.84	5.38	226.20	103.04	92.65	7.43	230.11
Homicide rate (per 1,000)	0.07	0.10	0.00	0.18	0.07	0.10	0.00	0.18
Morning Shift (%)	81.24	39.04	0.00	100.00	77.49	41.77	0.00	100.00
SPD high pay cateogry	1.72	13.00	0.00	0.00	1.39	11.72	0.00	0.00
Obs	6,864,616				3,702,781			
B. Teachers								
Total earnings	55,701	29,123	33,540	86,921	61,114	35,002	34,927	101,733
PR having other teaching job	0.11	0.31	0.00	1.00	0.15	0.36	0.00	1.00
No. of teaching jobs	1.12	0.38	1.00	2.00	1.18	0.50	1.00	2.00
No. of jobs	1.15	0.42	1.00	2.00	1.24	0.55	1.00	2.00
Obs	6,206,555				3,230,525			
C. Other teaching jobs								
Wage per Job	8,899	6,527	3,090	17,889	9,397	8,216	2,210	20,745
Age	46.59	8.70	35.00	58.00	51.04	7.77	39.00	60.00
CM low pay category	100.00	0.00	100.00	100.00	100.00	0.00	100.00	100.00
CM top pay category	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High-pay economic zone	68.92	46.29	0.00	100.00	55.05	49.76	0.00	100.00
Full-time (%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rural (%)	5.52	22.84	0.00	0.00	11.58	32.00	0.00	100.00
Locality marginalization	-0.96	0.42	-1.24	-0.58	-0.77	0.67	-1.24	0.17
Distance to state capital (kms.)	55.18	65.93	3.41	149.10	55.68	61.90	3.41	149.10
Homicide rate (per 1,000)	0.11	0.11	0.02	0.29	0.10	0.10	0.01	0.28
Morning Shift (%)	69.46	46.06	0.00	100.00	67.48	46.86	0.00	100.00
SPD high pay cateogry	1.37	11.64	0.00	0.00	0.14	3.67	0.00	0.00
Obs	4,656				2,220			

Notes: Panel A reports job-quarter summary statistics for generalist primary-school positions. Panel B reports teacher-quarter statistics aggregated across all teaching positions held in the quarter. Panel C reports other teaching jobs held by teachers in the main sample. Wage variables are quarterly pesos expressed in constant 2019Q4 pesos, and percentage variables are reported on a 0–100 scale.

4 Gender Pay Gaps

4.1 Gender Wage Gap for Equal Work

We begin our analysis by estimating the gender wage gap for equal work using the following specification:

$$ln(wage_{ist}) = \beta_0 + \beta_1 Female_i + \Phi\, X_{ist} + \delta_s + \gamma_t + U_{ist} \tag{1}$$

where $wage_{ist}$ is the quarterly pay of teacher i working in school s in quarter t, $Female_i$ is an indicator for whether teacher i is female, X_{ist} includes age controls, δ_s are school fixed effects, and γ_t are quarter fixed effects. The parameter of interest, β_1, captures the average pay difference between female and male teachers conditional on these controls. Because the analysis is restricted to teachers in the generalist primary-school position, and our richest specification compares teachers within the same schools and quarters, the estimates capture gender differences in pay for equal work within this specific position rather than across different teaching positions. Standard errors are clustered at the teacher level. Since teachers may hold multiple positions, the unit of observation in this subsection is the job–quarter.

Table 2 reports the estimates. Our preferred specification is Column 4, which includes quarter fixed effects, age controls, and school fixed effects. In that specification, female teachers earn 0.018 log points less than comparable male teachers. The progression across columns is nevertheless informative. The raw gap is 0.050 log points, changes little after adding quarter fixed effects, and narrows to 0.023 once we control for age, reflecting that women in the sample are younger on average. School characteristics, including locality and student composition, affect teachers' school choices (Bobba et al., 2021), and some of these features are also reflected in compensation (see Section 2). Adding school fixed effects therefore provides a tighter within-school comparison and further reduces the estimate slightly. Even in this highly regulated setting, however, a nonzero equal-work gap remains.

As an external benchmark, Table B.3 in Appendix B reports survey-based estimates from the ENOE. The hourly gender wage gap among primary-school teachers is -0.036 log points in public schools

and -0.144 in private schools, with a similar public-private difference for monthly wages. Although these survey estimates are not directly comparable to the administrative estimates, the public-private contrast is consistent with the view that pay standardization substantially compresses gender wage gaps.

Table 2: Gender Wage Gap for Equal Work

	(1)	(2)	(3)	(4)
Female	-0.050***	-0.054***	-0.023***	-0.018***
	(0.001)	(0.001)	(0.001)	(0.001)
Obs.	10,567,397	10,567,397	10,567,397	10,567,397
Quarter FE		X	X	X
Age FE			X	X
School FE				X

Notes: The dataset for this estimation includes information on Mexican teachers aged 22 to 65 from the second quarter of 2016 to the first quarter of 2024, excluding the State of Ciudad de Mexico. Controls include quarter FE, teacher's age FE and school FE. Observations with ages below 22 (standard bachelor's in education age) and where the national identifier (CURP) was incorrect, leading to misidentification of sex or negative age, were excluded. Additionally, observations with negative values were excluded for estimations with logarithmic dependent variables. Clustered at the teacher level are reported in parentheses. Statistical significance is indicated by p-values: * for p <0.1, ** for p <0.05, and *** for p <0.01.

4.2 Gender Earnings Gap

As Table 1 suggests, men are more likely than women to hold multiple teaching jobs, which may widen earnings gaps relative to wage-rate gaps. Table 3 formalizes this distinction. Panel A reports the gender gap in the probability of holding more than one teaching job, and Panel B reports the corresponding gap in total quarterly earnings using one observation per teacher-quarter and aggregating earnings across all teaching positions held in the quarter.

In Panel A, men are 4.6 percentage points more likely than women to hold more than one teaching job in the raw data and 3.7 percentage points more likely after controlling for age and the main school of employment. In Panel B, the raw gender gap in total earnings is 0.077 log points, and the preferred specification with quarter fixed effects, age controls, and main-school fixed effects yields an estimate of 0.045 log points. Thus, the earnings gap is substantially larger than the equal-work wage

gap, consistent with differences in access to additional positions. Figure A.1 in Appendix A shows that the gaps in wage rates, total earnings, and number of jobs are stable over time.

Table 3: Gender Gaps in Employment Intensity and Total Earnings

	(1)	(2)	(3)	(4)
Panel A: More than 1 job				
Female	-0.046***	-0.050***	-0.035***	-0.037***
	(0.001)	(0.001)	(0.001)	(0.001)
Obs.	9,427,490	9,427,490	9,427,490	9,427,490
Panel B: Total earnings				
Female	-0.077***	-0.080***	-0.044***	-0.045***
	(0.001)	(0.001)	(0.001)	(0.001)
Obs.	9,426,270	9,426,270	9,426,270	9,426,270
Quarter FE		X	X	X
Age FE			X	X
School FE				X

Notes: The dataset for this estimation includes information on Mexican teachers aged 22 to 65 from the second quarter of 2016 to the first quarter of 2024, excluding the State of Ciudad de Mexico. Controls include quarter FE, teacher's age FE and school FE. Observations with ages below 22 (standard bachelor's in education age) and where the national identifier (CURP) was incorrect, leading to misidentification of sex or negative age, were excluded. Additionally, observations with negative values were excluded for estimations with logarithmic dependent variables. Clustered at the teacher level are reported in parentheses. Statistical significance is indicated by p-values: * for p <0.1, ** for p <0.05, and *** for p <0.01.

Multiple-job holding is not the only margin through which earnings diverge. Men's additional jobs may also be relatively better paid. To examine this, Table 4 studies the within-teacher log wage difference between the first and second teaching positions among teachers holding at least two jobs in a quarter. Specifically, we construct:

$$\Delta \ln w_{it} \equiv \ln w_{1,it} - \ln w_{2,it},$$

where $w_{1,it}$ and $w_{2,it}$ denote trimmed quarterly earnings in the teacher's first and second teaching positions, respectively. Teaching positions are ranked within each teacher-quarter according to a deterministic ordering that prioritizes core positions and, within those, higher earnings. This ensures that

the first position corresponds to the teacher's main job and the second position corresponds to the next highest-ranked job.

We estimate regressions of the form:

$$\Delta \ln w_{it} = \alpha + \beta \, Female_i + X_{it}'\gamma + \delta_s + \lambda_t + \varepsilon_{it},$$

where $Female_i$ is an indicator for female teachers, X_{it} includes age controls, δ_s are school fixed effects corresponding to the main job, and λ_t are quarter fixed effects.

A positive coefficient on $Female_i$ means that women's second jobs pay less relative to their first jobs than men's second jobs do. In the baseline specification the coefficient is 0.148 log points, and in our preferred specification with quarter fixed effects, age controls, school fixed effects, and location characteristics it is 0.113 log points. In plain terms, secondary positions are relatively less remunerative for women than for men. Appendix Table B.4 reports complementary results by number of jobs held.

Taken together, these results show that the gender gap in total earnings exceeds the gap in wage rates because men are both more likely to hold multiple teaching jobs and more likely to obtain relatively better-paid secondary positions.

Table 4: Gender Gaps in the Wage Differential Between First and Second Teaching Positions

	(1)	(2)	(3)	(4)
Female	0.148***	0.144***	0.096***	0.113***
	(0.004)	(0.004)	(0.004)	(0.004)
Obs.	1,035,175	1,035,175	1,035,175	1,035,175
Quarter FE		X	X	X
Age			X	X
School FE				X
Location characteristics				X

Notes: The dependent variable is the within-teacher log wage differential between the first and second teaching positions in a given quarter, defined as $\Delta \ln w_{it} = \ln w_{1,it} - \ln w_{2,it}$, where wages correspond to trimmed log quarterly earnings. Teaching positions are ranked within each teacher-quarter according to core status and earnings, so that the first position corresponds to the teacher's main job. A positive coefficient on Female indicates that the female-male wage differential is larger in secondary positions relative to primary positions. All specifications include quarter fixed effects and controls for age; Columns (3) and (4) additionally include school fixed effects and location characteristics. The sample includes teachers holding at least two teaching positions in a given quarter. Standard errors clustered at the teacher level are reported in parentheses. Statistical significance is indicated by * for $p < 0.1$, ** for $p < 0.05$, and *** for $p < 0.01$.

5 What Explains the Gender Pay Gap?

This section examines two mechanisms that help interpret the results in Section 4. We first ask how much of the equal-work wage gap is associated with differential progression through horizontal promotion systems. We then study how wage and earnings gaps vary over the life cycle. The first exercise is mainly descriptive; the second motivates the direct analysis of motherhood in Section 6.

5.1 The Role of Horizontal Promotion Systems

Horizontal promotions are a natural candidate mechanism because, as discussed in Section 2.2, they raise pay within the same teaching position. To assess their role, Table 5 augments our preferred equal-work specification with controls for CM and SPD pay categories. These estimates should be interpreted as descriptive decompositions of the gap rather than as causal effects of any specific promotion regime.

Although the CM system was discontinued in 2014, its salary benefits remained in place, and a large share of teachers in our sample had already accumulated CM categories. Adding CM pay-category controls reduces the female coefficient from -0.018 to -0.008 log points, a decline of roughly one half. By contrast, adding SPD high-pay-category controls leaves the estimate essentially unchanged.

We do not observe the pay categories associated with SICAMM, so we cannot perform an analogous decomposition for the current regime. However, restricting the sample to the pre-SICAMM period yields a similar residual gap of -0.011 log points. Taken together, these results suggest that differential progression through horizontal promotion systems, particularly CM, explains an important share of the equal-work wage gap, but not all of it.

Table 5: Gender Wage Gap for Equal Work: The Role of Horizontal Promotions

	(1)	(2)	(3)	(4♠)
Female	-0.018***	-0.008***	-0.008***	-0.011***
	(0.001)	(0.001)	(0.001)	(0.001)
Obs.	10,567,397	10,567,397	10,567,397	8,237,671
Quarter FE	X	X	X	X
Age FE	X	X	X	X
School FE	X	X	X	X
CM. Pay category		X	X	X
SPD. High pay category			X	X

Notes: The dataset for this estimation includes information on Mexican teachers aged 22 to 65 from the second quarter of 2016 to the first quarter of 2024, excluding the State of Ciudad de Mexico. Controls include quarter FE, teacher's age FE, school FE, homicide rate, municipality marginalisation index, CM ("Carrera Magisterial") category and SPD recognition bonus. The category level is a national categorisation from the "National Teaching Career Program," designed to incentivise horizontal earning increases among Mexican teachers, with categories progressing as follows: 07, 7A, 7B, 7C, 7D, and 7E. The SPD recognition bonus is a salary increase given to teachers with the best results in the teaching validation tests. Columns with ♠ are restricted to before 2023Q2. Observations with ages below 22 (standard bachelor's in education age) and where the national identifier (CURP) was incorrect, leading to misidentification of sex or negative age, were excluded. Additionally, observations with negative values were excluded for estimations with logarithmic dependent variables. Clustered at the teacher level are reported in parentheses. Statistical significance is indicated by p-values: * for p <0.1, ** for p <0.05, and *** for p <0.01.

5.2 Life-Cycle Dynamics

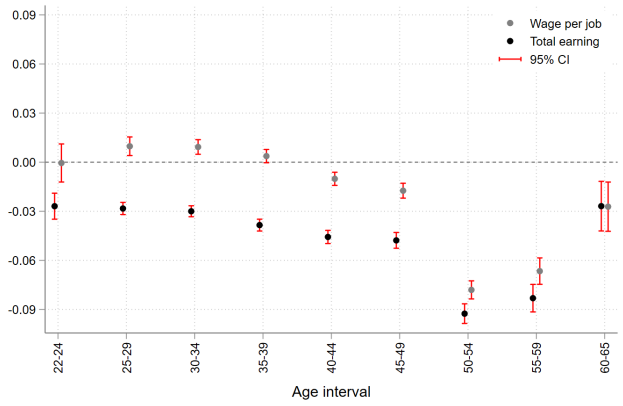
Figure 1 reveals pronounced age heterogeneity in the gender gaps. The equal-work wage gap is close to zero through roughly age 39, then becomes increasingly negative after age 40, reaching -0.078 log points at ages 50–54 and remaining sizable at ages 55–59. By contrast, the total-earnings gap is already negative at ages 22–24 (-0.028 log points), and the multiple-job gap widens from -1.81 percentage points at ages 22–24 to -5.74 percentage points at ages 40–44. This pattern suggests that labor-supply margins diverge earlier in the life cycle than within-position wage rates.

When we additionally control for horizontal promotion categories, the age profile of the wage gap remains similar for younger teachers and becomes flatter for older teachers; the late-career gap shrinks by roughly one third (Figure A.2 in Appendix A). This pattern is consistent with differential progression through promotion systems explaining part of the steeper wage gap later in the career. The remaining gap at older ages is also consistent with differences in other compensation components not directly absorbed by those controls, such as allowances.

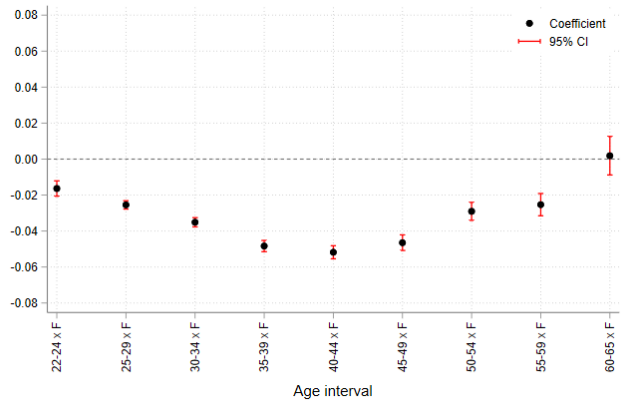
These age profiles are informative but not definitive about mechanism. They may reflect life-cycle effects, cohort differences, or composition effects arising because women enter and exit teaching at younger ages than men, as documented in Table 1 and Figure A.3 in Appendix A. For that reason, we interpret Figure 1 as evidence of heterogeneity over the life cycle rather than as a causal estimate of motherhood. Still, the fact that earnings and multiple-job gaps emerge well before the late-career wage gap points to labor-supply adjustments linked to family responsibilities as a plausible channel, which we study directly in the next section.

Figure 1: Gender Gaps by Age

Panel A: Wage rates and total earnings



Panel B: Probability of holding multiple jobs



Notes: Panel A plots age-specific estimates of the gender gaps in log wage per job and log total earnings. Panel B plots the corresponding age-specific gap in the probability of holding multiple jobs. Vertical bars denote 95% confidence intervals.

Overall, this section points to both institutional and life-cycle forces. Differential progression through horizontal promotions explains part of the equal-work wage gap, while the age profiles indicate that the larger earnings gap is amplified by labor-supply margins over the life cycle. Next section turns to direct evidence on the latter mechanism.

6 The Effect of Motherhood on Labor Market Outcomes

6.1 Empirical Strategy

We next estimate the effect of motherhood on women's wages, labor supply, and earnings in the public education system. Following the literature, we implement an event-study design centered on the birth of the first child. Specifically, we estimate:

$$Y_{it\tau} = \sum_{j \neq 0} \alpha_j \, \mathbf{1}[\tau = j] + \sum_{y} \gamma_y \, \mathbf{1}[t = y] + \beta_1 age + \theta_i + \nu_{it\tau}. \tag{2}$$

where $Y_{it\tau}$ denotes the outcome of female teacher i at calendar quarter t and event time τ. The first term on the right-hand side consists of event-time dummies with respect to child conception, the second term includes calendar-quarter dummies to control for time trends, and the third term is age entered as a scalar to capture life-cycle effects. θ_i is a set of individual fixed effects and $\nu_{it\tau}$ a noise term. Because we omit the event-time dummy at $\tau = 0$, the estimated event-time coefficients measure the effect of having a first child relative to the quarter of conception.

Because of our shorter observation window, our specification departs from the standard approach in the literature, which measures effects on an annual basis. Furthermore, we include individual fixed effects to avoid potential bias due to individual and cohort heterogeneity—and hence control linearly for age (Thakral and To, 2025). As in related studies, our estimates capture the impact of motherhood on women's labor market outcomes relative to the counterfactual of not having children. We exclude male teachers from the analysis due to data limitations. As a result, we do not provide additional estimates of child penalties defined as the impact of children on women relative to men.

We observe in FONE the quarter in which a female teacher takes maternity leave. Maternity leave lasts 90 calendar days, divided into 30 days before childbirth and 60 days after. Accordingly, we define the event—conception of a child—as occurring three quarters prior to the start of maternity leave, consistent with the typical nine-month duration of pregnancy. Male teachers are entitled to five days of paternity leave, but information on these licenses is not available in the data.

As in the previous section, we focus on female generalist primary-school teachers in school establishments outside Mexico City who are observed by 2023Q1 at age 25 or younger and whose first active payroll quarter also occurs by 2023Q1. The staggered-DID design includes both women who take maternity leave during the sample period and never-treated women. For total earnings, wage rates, number of jobs, and school characteristics, we use active teacher-quarters. For the employment outcome, we use the broader post-entry female sample so that exits from the public education system are captured.

We estimate equation 2 using the estimator proposed by de Chaisemartin and D'Haultfoeuille (2020). Standard errors are clustered at the individual level. Table 6 describes this sample. It compares teacher-quarters before and after conception within the motherhood sample: post-conception observations are older, involve fewer jobs, and are somewhat more likely to be in the morning shift and in less marginalized localities closer to the state capital, while average earnings and wage rates are fairly similar in levels.

Table 6: Descriptive Statistics: Mothers

	Not yet mothers				Mothers			
	Mean	SD	P10	P90	Mean	SD	P10	P90
Total earnings	45,716.58	13,885.67	31,572.33	63,808.15	45,811.33	17,284.23	32,280.51	65,020.13
Num of jobs	1.08	0.29	1.00	1.00	0.95	0.30	1.00	1.00
Wage per job	44,497.52	12,864.75	30,824.60	61,078.29	45,456.86	16,870.11	32,134.65	64,639.95
Max CM category	1.19	0.72	1.00	1.00	1.13	0.62	1.00	1.00
Age	25.98	1.92	24.00	29.00	27.98	1.92	26.00	31.00
Rural %	34.38	47.50	0.00	100.00	33.71	47.27	0.00	100.00
Marginalization index	-0.80	0.69	-1.37	0.07	-0.82	0.65	-1.34	-0.01
Homicides per 1,000	0.08	0.11	0.00	0.20	0.08	0.10	0.00	0.19
Distance to Mun. Center	98.55	105.12	7.30	248.49	95.85	102.65	6.95	237.26
Morning Shift %	76.61	42.33	0.00	100.00	79.89	40.09	0.00	100.00
Obs	7,935.00				7,935.00			

Notes: The table reports summary statistics for the motherhood event-study sample. The "Not yet mothers" columns use teacher-quarters observed before the first conception event, and the "Mothers" columns use teacher-quarters observed afterward. Wage variables are quarterly pesos expressed in constant 2019Q4 pesos, and percentage variables are reported on a 0–100 scale.

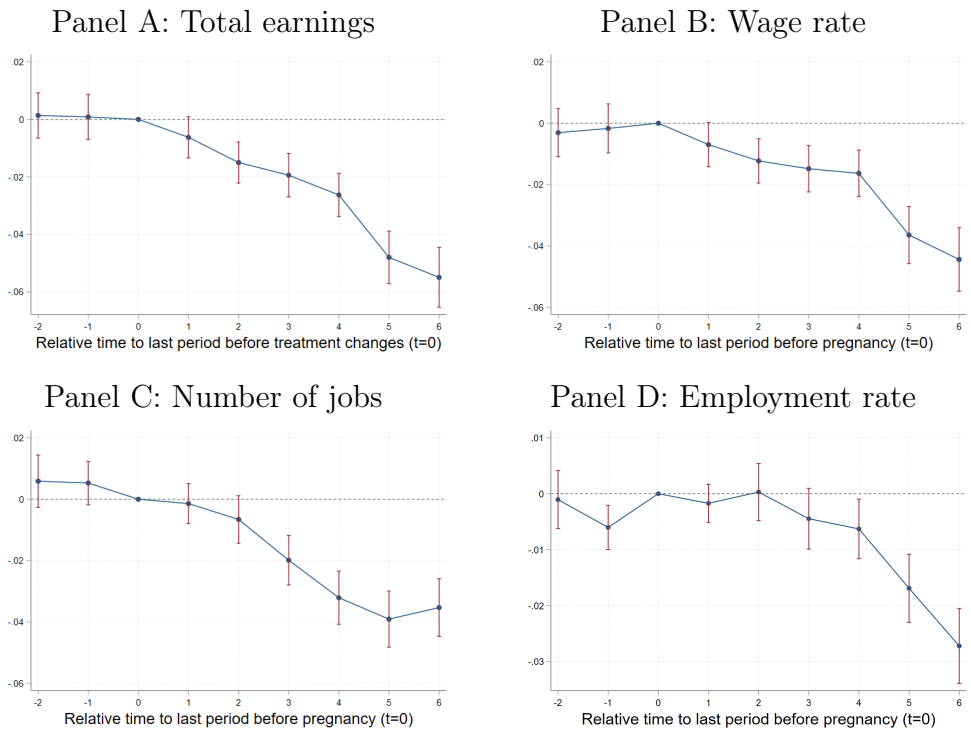
A key difference relative to Section 4 is that the specification in this section allows both position type and school of employment to adjust after conception. The estimates therefore capture not only within-job changes, but also reallocations across jobs and schools.

6.2 The Effect of Motherhood

Panel A of Figure 2 shows that motherhood reduces female teachers' total earnings by about 0.02 log points by the third post-treatment quarter and by about 0.05 log points by the sixth. This decline reflects changes along both the intensive margin (Panel B: wage rates) and the extensive margin (Pan-

els C and D: number of jobs and employment rates, respectively). The effect on wage rates is slightly smaller than the effect on total earnings, amounting to roughly 0.005 to 0.01 log points. In terms of labor-market participation, female teachers hold 0.02 fewer teaching jobs by the third post-treatment quarter and 0.03 fewer jobs by the sixth, while the probability of leaving the public education system increases by close to 3 percentage points by the sixth quarter; the corresponding estimate for the third post-treatment quarter is small and not statistically significant at the 95 percent level. All effects remain broadly stable when extending the horizon to 12 quarters after conception (see Figure A.4 in Appendix A). The emergence of motherhood effects already during pregnancy is consistent with evidence for the general population in Mexico (Aguilar-Gomez et al., 2025).

Figure 2: Effect of Motherhood on Employment Outcomes in the Public Education Sector



Notes: The estimation sample consists of female generalist primary-school teachers in school establishments outside Mexico City who are observed by 2023Q1 at age 25 or younger and whose first active payroll quarter also occurs by 2023Q1. The DID-Staggered design includes both women who take maternity leave during the sample period and never-treated women. Total earnings, wage rates, number-of-jobs, and school-characteristics outcomes are estimated using active teacher-quarters. The employment-rate outcome uses the broader post-entry female sample so that payroll exits are captured. Coefficients are estimated using the estimator of de Chaisemartin et al. (2025).

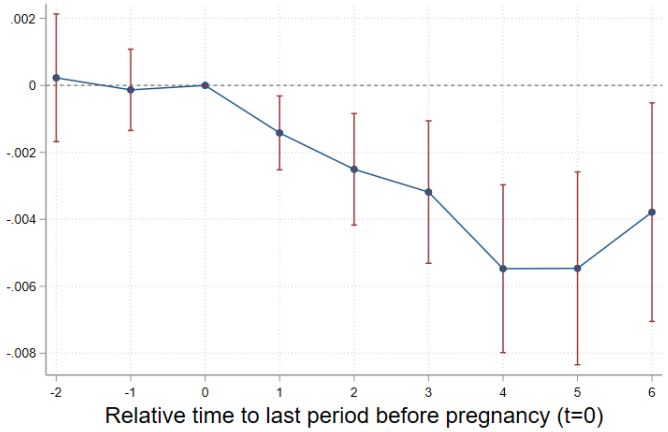
The magnitudes are modest relative to estimates for the full population of Mexican women. For example, Aguilar-Gomez et al. (2025) find a 24% decline in labor income fifteen months after childbirth and a 17-percentage-point reduction in labor-force participation. The smaller effects in our setting are consistent with the high degree of regulation and the presence of wage premia in the Mexican public education system. They are also in line with evidence from Denmark and France indicating that motherhood effects tend to be smaller in the public sector than in the private sector (Duvivier and Narcy, 2015; Nielsen et al., 2004).

6.3 What Explains the Motherhood Effect on Wage Rates

The negative effect of motherhood on women's labor supply—and, through this channel, on labor income—is well documented in both developed and developing countries (Kleven et al., 2019; Berniell et al., 2023) and is largely attributed to gender norms that generate disparities in childcare responsibilities. Consistent with this mechanism, Aguilar-Gomez et al. (2025) document that Mexican mothers increase the time they spend on unpaid work by 12 hours per week after birth, while the corresponding increase for fathers is only 3 hours. What is less obvious is why motherhood leads to an immediate decline in mothers' wage rates in a setting with centralized wage-setting.

Figure 3 provides evidence on this margin. The estimated wage premium of the school in which women work is essentially flat before conception and then declines gradually afterward, reaching its largest drop around four to five quarters later. This pattern shows that part of the decline in wage rates reflects sorting into schools with lower wage premia. We measure school wage premia using the school fixed effects recovered from equation 1.

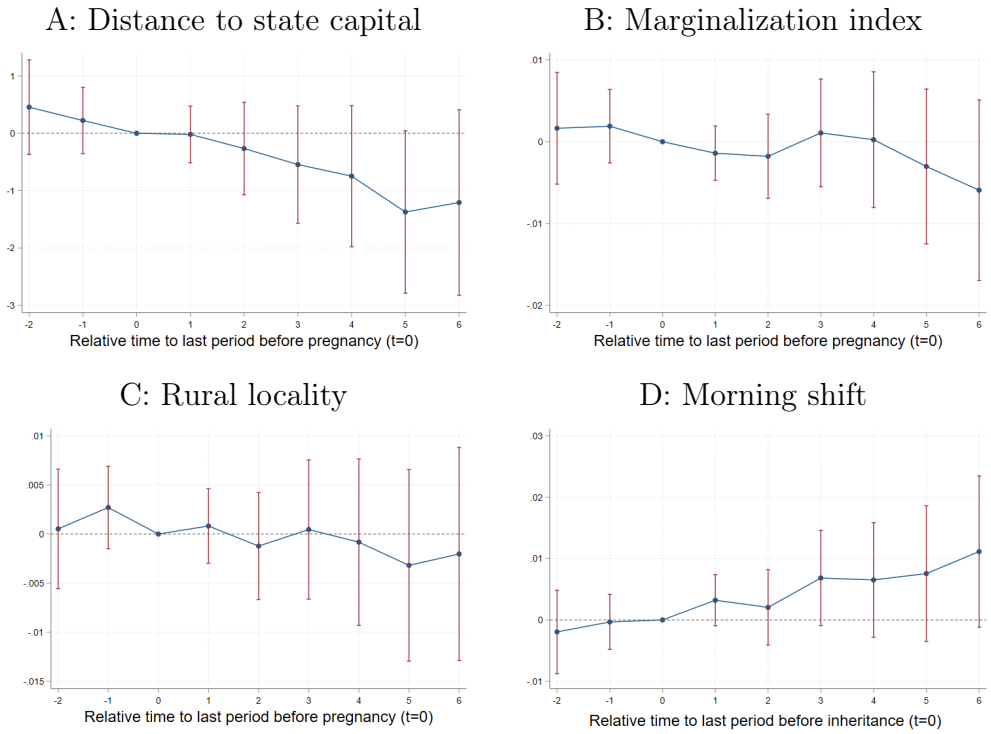
Figure 3: Effect of Motherhood on the Wage Premium of the School of Employment



Notes: The estimation sample consists of female generalist primary-school teachers in school establishments outside Mexico City who are observed by 2023Q1 at age 25 or younger and whose first active payroll quarter also occurs by 2023Q1. The DID-Staggered design includes both women who take maternity leave during the sample period and never-treated women. Total earnings, wage rates, number-of-jobs, and school-characteristics outcomes are estimated using active teacher-quarters. The employment-rate outcome uses the broader post-entry female sample so that payroll exits are captured. Coefficients are estimated using the estimator of de Chaisemartin et al. (2025). The school wage premium is the school fixed effect estimate from Table 2, column (4).

Why does motherhood lead women to work in schools with a lower wage premium? One possibility is that this pattern reflects changes in the amenities women value in their work locations. As noted earlier, teachers' base salaries are mechanically determined by position, economic zone, and state. Schools are classified into two economic zones, with higher pay in the more marginalized zone, and additional allowances are provided for teaching in more isolated and poorer localities. Figure 4 indicates that, following conception, female teachers reallocate toward schools closer to the state capital (Panel A), in less poor areas (Panel B), and in more urban settings (Panel C), although some of these estimates are imprecise. Consistent with the idea that childcare needs become more salient after childbirth, we also find that mothers become more likely to work the morning shift rather than the afternoon shift (Panel D). In addition, Table B.5 in the Appendix shows that women are less likely to hold a second job when working in localities with higher homicide rates, which is also consistent with locality characteristics shaping gender differences in labor supply.

Figure 4: Effect of Motherhood on the Characteristics of the School of Employment



Notes: The estimation sample consists of female generalist primary-school teachers in school establishments outside Mexico City who are observed by 2023Q1 at age 25 or younger and whose first active payroll quarter also occurs by 2023Q1. The DID-Staggered design includes both women who take maternity leave during the sample period and never-treated women. Total earnings, wage rates, number-of-jobs, and school-characteristics outcomes are estimated using active teacher-quarters. The employment-rate outcome uses the broader post-entry female sample so that payroll exits are captured. Coefficients are estimated using the estimator of de Chaisemartin et al. (2025). In Panel A, lower values indicate schools closer to the state capital.

Overall, the evidence shows motherhood shifts women toward school locations with more amenities, even though these choices are associated with lower pay. Because involuntary school transfers and dismissals are extremely rare in the Mexican education system, this pattern is unlikely to be driven by employer–initiated reassignments and more likely reflects womenâ€™s own choices.

7 Conclusions

This paper investigates gender pay disparities in Mexico's public education system, a highly regulated labor market with standardized pay. Using administrative payroll records from 2016 to 2024, we compare male and female teachers holding identical positions within the same schools and examine how gaps in wage rates, total earnings, and labor supply evolve over the life cycle.

Our analysis reveals a modest wage penalty for women for equal work. We find that pay standardization narrows, but does not eliminate, gender inequality. Female teachers earn 0.018 log points less than comparable men for equal work. Roughly half of this gap is accounted for by differential progression through horizontal promotions. The gender gap in total earnings is larger because men are more likely to hold multiple positions and because their secondary positions are relatively better paid.

We find that motherhood reduces women's wage rates and identify one novel mechanism underlying this decline: mothers' switching to working in localities with greater amenities, but lower pay.[2] Motherhood also reduces women's labor supply, although the overall effects on earnings are smaller than those documented for the general population.

These findings speak to a broader question in labor economics: which margins of inequality remain when base pay is governed by formal rules rather than decentralized bargaining. In our setting, gender disparities persist not only through wage-setting itself, but also through promotion dynamics, access to additional positions, and post-childbirth changes in job location and labor supply. More broadly, the results underscore the role of household responsibilities and gender norms when evaluating gender inequality in regulated labor markets (Goldin, 2014, 2021; Frederiksen et al., 2026; Harrington and Kahn, 2026).

Future work could build on this evidence by studying the determinants of progression through horizontal promotion systems and access to additional positions, including the roles of performance evaluations, informal networks, and mobility constraints. It could also examine how pay standardization

[2]This finding is consistent with Morchio and Moser (2026).

affects other outcomes, including teacher productivity and retention.

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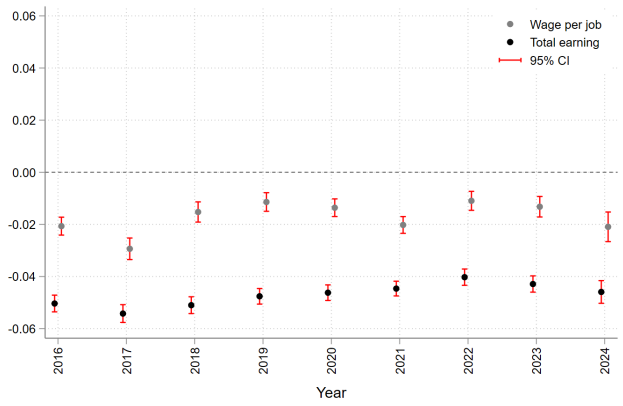
Appendix

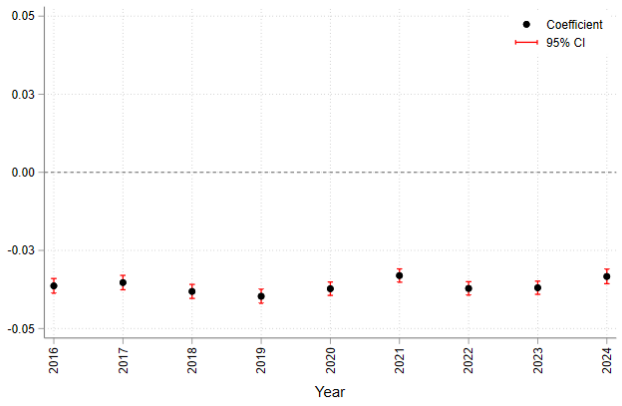
A Additional Figures

Figure A.1: Gender Gaps by Year

Panel A: Wage rates and total earnings



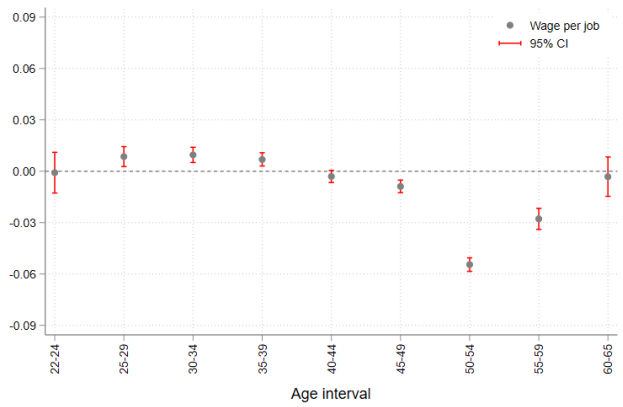
Panel B: Probability of Holding Multiple Jobs



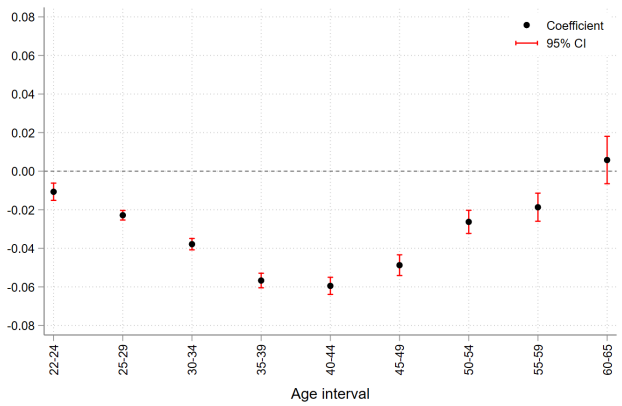
Notes: Panel A plots year-specific estimates of the gender gaps in log wage per job and log total earnings. Panel B plots the corresponding year-specific gap in the probability of holding multiple jobs. Vertical bars denote 95% confidence intervals.

Figure A.2: Gender Gaps by Age: Controlling for Horizontal Promotions

Panel A: Wage rates and Total Earnings

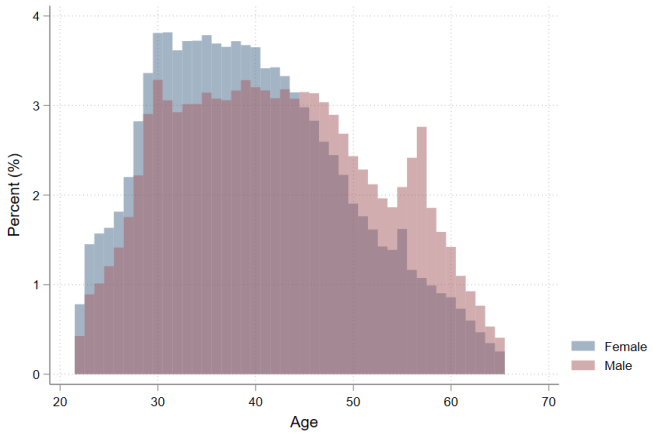


Panel B: Probability of Holding Multiple Jobs



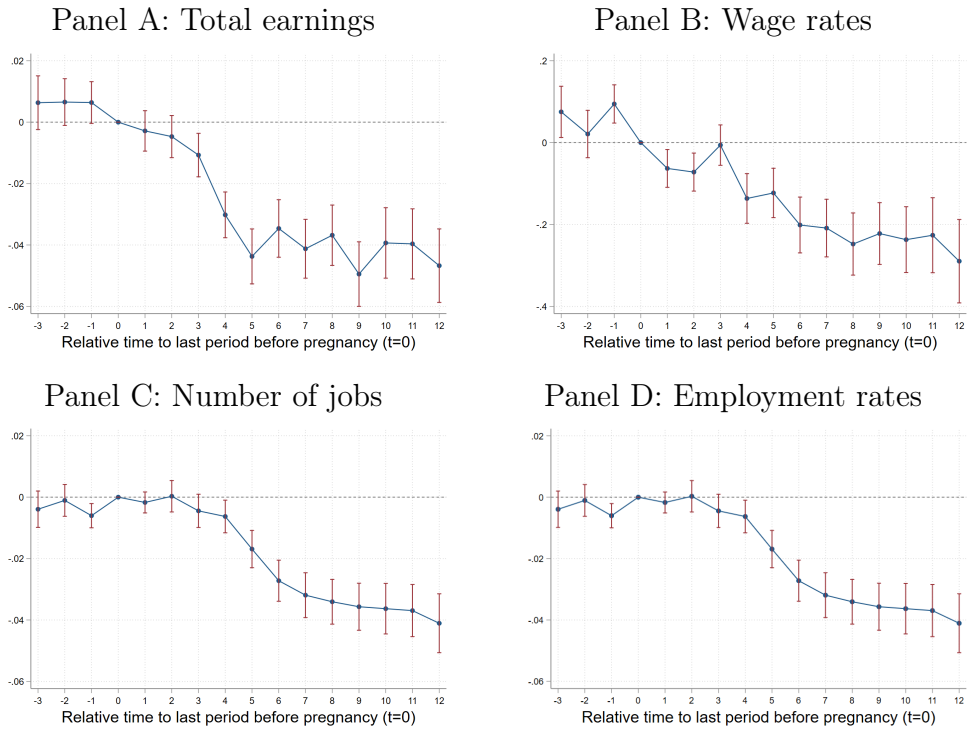
Notes: Panel A plots age-specific estimates of the gender gaps in log wage per job and log total earnings after controlling for CM and SPD horizontal-promotion categories. Panel B plots the corresponding age-specific gap in the probability of holding multiple jobs. Vertical bars denote 95% confidence intervals.

Figure A.3: Age Distribution by Gender



Notes: The figure plots the pooled age distribution of female and male teachers in the main sample.

Figure A.4: Effect of Motherhood on Employment Outcomes in the Public Education Sector (Longer Time Horizon)



Notes: The estimation sample consists of female generalist primary-school teachers in school establishments outside Mexico City who are observed by 2023Q1 at age 25 or younger and whose first active payroll quarter also occurs by 2023Q1. The DID-Staggered design includes both women who take maternity leave during the sample period and never-treated women. Total earnings, wage rates, number-of-jobs, and school-characteristics outcomes are estimated using active teacher-quarters. The employment-rate outcome uses the broader post-entry female sample so that payroll exits are captured. Coefficients are estimated using the estimator of de Chaisemartin et al. (2025).

B Additional Tables

Table B.1: Wage Premium to Teaching in Public Primary Schools

	Women		Men	
	Monthly wage (ln)	Hourly wage (ln)	Monthly wage (ln)	Hourly wage (ln)
Public School	-	-	-	-
Private School	-0.054***	-0.080***	-0.045*	-0.077**
	(0.0147)	(0.0167)	(0.0268)	(0.0306)
Other occupations	-0.009	-0.050***	0.032***	-0.062***
	(0.0086)	(0.0101)	(0.0106)	(0.0128)
Obs	466,120		528,068	
Individuals	193,313		219,881	

Notes: Table reports the coefficients (and standard errors) for the sector categories of an individual fixed effects wage model (the baseline category is in the first row). The indicators for public and private school include teachers working in primary education. All regressions include as controls age, state FE, and time FE. The top and bottom 2 percentiles of the quarterly wage distribution are trimmed. Wages are expressed in constant pesos at the fourth quarter of 2019. The sample is composed of individuals aged 21 to 65 years old with a university degree who report positive wages and worked at least 20 hours in the reference week, and excludes teachers not working in primary schooling. Data come from ENOE from the first quarter of 2015 to the fourth quarter of 2019.

Table B.2: Horizontal Promotion Systems

Characteristics	Carrera Magisterial (CM)	Servicio Profesional Docente (SPD)	Sistema para la Carrera de las Maestras y los Maestros (SICAMM)
Period	1992–2013	2013–2019	2019–Current
Participation	Optional	Mandatory	Optional
Eligibility*	Seniority of 2 to 6 years. Permanent contract with some exceptions for temporary contracts.	Seniority of 2 years. Permanent contract.	Seniority of 2 years in current position. Permanent contract.
Evaluation Criteria (and method)	Seniority, highest degree earned, preparation (teacher testing), participation in professional development activities, performance (school principal and peer reviews), and student achievement (student testing).	Preparation (teacher testing), participation in professional development activities, and evidence of good teaching practices (teaching portfolio).	Seniority, highest degree earned, preparation (teacher testing), and participation in professional development activities.
Maintenance Requirements	Eligibility for next pay category required a waiting period. Maintanence of current category required a good performance in an evaluation held within the waiting period.	Teachers were evaluated every four years, determining access to next pay category, maintenance, or loss of current category.**	None. Eligibility for next pay category required a four-year waiting period.
No. of Pay Categories	6.	7.	8.
Compensation	36% to 168% of basic salary.	35% to 180% of basic salary (41% to 222% in marginalized areas).	35% to 205% of basic salary (41% to 247% in marginalized areas).

Notes: This table compares the three national systems that governed horizontal promotions for Mexican public-school teachers over time: Carrera Magisterial (CM), Servicio Profesional Docente (SPD), and Sistema para la Carrera de las Maestras y los Maestros (SICAMM). The columns summarize each system's operating period, participation rules, eligibility requirements, evaluation criteria, maintenance requirements, number of pay categories, and associated salary supplements. * Teachers with temporary contracts were excluded from all horizontal promotion systems. ** New teachers were evaluated after their first year of service.

Table B.3: Gender Pay Gap in Public and Private Schools: Labor Force Survey

	Public School		Private School	
	Monthly earnings (ln)	Hourly wage (ln)	Monthly earnings (ln)	Hourly wage (ln)
Female	-0.040***	-0.036***	-0.096***	-0.144***
	(0.0054)	(0.0059)	(0.0224)	(0.0225)
Obs	26,034		4,087	
R^2	0.14	0.13	0.24	0.24

Notes: Table reports the coefficients (and standard errors) for the gender wage gap of regressions including as controls age, state FE, and time FE. The top and bottom 2 percentiles of the quarterly wage distribution are trimmed. Wages are expressed in constant pesos at the fourth quarter of 2019. The sample consists of primary school teachers aged 21 to 65 years who hold a university degree, report positive wages, and worked at least 20 hours during the reference week. Following Estrada, Goyheix, and Lombardi (2024), only individuals who self-responded to the employment questionnaire are included in the sample. The data come from the ENOE and cover the period from the first quarter of 2015 to the fourth quarter of 2019.

Table B.4: Gender Wage Gap by the Number of Jobs

	(1)	(2)	(3)	(4)	(5)	(6)	(7♠)
Panel A: Just one Job							
Female	-0.041***	-0.044***	-0.022***	-0.016***	-0.008***	-0.009***	-0.011***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Obs.	8,308,771	8,308,771	8,308,771	8,307,814	8,307,814	8,307,814	6,394,483
Panel B: More than One Job							
All Jobs							
Female	-0.130***	-0.130***	-0.083***	-0.094***	-0.079***	-0.079***	-0.074***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)
Obs.	2,235,880	2,235,880	2,235,880	2,232,403	2,232,403	2,232,403	1,821,150
First Job							
Female	-0.056***	-0.059***	-0.036***	-0.041***	-0.030***	-0.030***	-0.031***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)
Obs.	1,117,940	1,117,940	1,117,940	1,112,875	1,112,875	1,112,875	907,278
Second Job							
Female	-0.203***	-0.202***	-0.130***	-0.151***	-0.137***	-0.137***	-0.125***
	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Obs.	1,117,940	1,117,940	1,117,940	1,113,072	1,113,072	1,113,072	907,434
Quarter FE		X	X	X	X	X	X
Age			X	X	X	X	X
School				X	X	X	X
CM. Pay category					X	X	X
SPD. High pay category						X	X

Notes: Panel A reports the coefficient on Female for teachers holding exactly one job. Panel B reports the corresponding coefficient for teachers holding more than one job, separately for all jobs, the first job, and the second job. The sample includes Mexican generalist primary-school teachers aged 22 to 65 observed from 2016Q2 to 2024Q1, excluding Mexico City. Columns progressively add quarter fixed effects, age fixed effects, school fixed effects, CM pay-category controls, and SPD high-pay-category controls; Column (7♠) uses the restricted sample described in the text. Standard errors clustered at the teacher level are reported in parentheses.

Table B.5: Gender Gap in the Number of Jobs: Heterogeneity by Locality Homicide Rates

	Total Homicides	Women Homicides	$Total\ Homicides_{t-1}$
Panel A: More than one Job			
Female	-0.028***	-0.027***	-0.002
	(0.001)	(0.001)	(0.001)
Homicides	0.005***	0.005***	0.004***
	(0.001)	(0.001)	(0.000)
Female × Homicides	-0.017***	-0.013***	-0.007***
	(0.002)	(0.001)	(0.003)
Obs.	9,426,534	9,426,534	9,426,534
Panel B: Teaching Jobs			
Female	-0.044***	-0.043***	-0.011***
	(0.002)	(0.002)	(0.002)
Homicides	0.023***	0.019***	0.013***
	(0.002)	(0.002)	(0.001)
Female × Homicides	-0.024***	-0.018***	-0.009***
	(0.000)	(0.002)	(0.000)
Obs.	9,296,932	9,296,932	9,296,932

Notes: The estimation sample includes Mexican teachers aged 22 to 65 observed from 2016Q2 to 2024Q1, excluding Mexico City. All specifications include quarter fixed effects, age fixed effects, and school fixed effects. Observations with ages below 22, incorrect national identifiers (CURP) that implied misclassified sex or negative age, and negative outcome values in specifications with logarithmic dependent variables were excluded. Total Homicides and Women Homicides denote municipality-quarter homicide counts for all victims and female victims, respectively. $TotalHomicides_{t-1}$ denotes the total number of homicides in the municipality during the previous year. Standard errors clustered at the teacher level are reported in parentheses. Statistical significance is indicated by $^{*}p < 0.1$, $^{**}p < 0.05$, and $^{***}p < 0.01$, based on unrounded p-values.