Learning Together, Working Together? Coeducation and the Gender Wage Gap in France

Lucie Giorgi[1]

[1] *Aix Marseille Univ, CNRS, AMSE, Marseille, France*

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Abstract

Persistent gender differences in earnings remain one of the most striking features of modern labor markets. I examine whether mixing boys and girls in school can reduce gender inequality later in life. This paper exploits the gradual end of sex segregation in French elementary schools between 1958 and 1975. Combining newly digitized historical data on schools with administrative earnings records, I estimate the effect of growing up in a coeducational environment on adult earnings. Exposure to coeducation significantly narrows the gender wage gap by about 17%. The effect operates mainly through occupational sorting, with women entering higher-paying and more male-dominated jobs. The results identify early exposure to the opposite gender in school as a key formative environment shaping long-run gender inequality.

Keywords: France, coeducation, elementary schooling, gender segregation, labor market
JEL codes: I24, I26, J16, J24, J31

1 Introduction

Despite decades of progress, large earning disparities between men and women persist in modern labor markets. In France, women's average income in the private sector was 22.2% lower than men's in 2023 (INSEE, 2025). Although women are now as educated as men, they remain underrepresented in leadership positions, and concentrated in a narrow range of occupations (OECD, 2023). A growing body of research attributes these gaps to differences in gender norms, aspirations, and social behaviors (Carlana, 2019; Chaulagain, 2025; Leaper and Friedman, 2007; Lawson et al., 2015; Breda and Napp, 2019). Yet the timing and institutional origins of these norms remain poorly understood, particularly the influence of the school environment during childhood.

This paper examines whether early socialization in mixed-gender environments can reduce gender inequality later in life. I study a major education reform in France: the nationwide end of gender segregation in elementary schools. While this change fundamentally altered children's everyday social environment, it did so quietly, a silent revolution that attracted little public attention at the time and remains understudied (Prost, 2004).

The reform was implemented gradually between 1958 and 1975. In 1958, the Ministry of Education first allowed to merge boys' and girls' schools into coeducational ones. This process unfolded unevenly across departments, depending on local demographic pressures and school capacity constraints. In 1975, coeducation became compulsory nationwide, although most departments had already adopted it by then. In official documents, the Ministry justified the reform as a pragmatic response to the post-war baby boom, which created acute demographic pressure on school capacity, explicitly describing it as "an experiment undertaken not in the name of principles, but to serve families under the best pedagogical conditions" (Ministère de l'Éducation nationale, 1957). This gradual and administratively motivated rollout provides plausibly exogenous variation in exposure to coeducation across time and space.

To analyze the long-term consequences of this reform, I construct a new dataset combining historical and administrative sources. I hand-collected and digitized archival records from the French Ministry of Education reporting the number of coeducational classrooms by department

and year between 1958 and 1971. From these figures, I compute the average share of coeducational classrooms in each department when a given cohort was aged 6-10. I then merge this information with administrative microdata on individuals' earnings, occupations, and employment sectors. The final sample includes over 260,000 individuals born between 1943 and 1973. Using the staggered rollout of the reform, I estimate a two-way fixed-effects model comparing cohorts and departments differentially exposed to coeducation during ages 6–10, thereby identifying the long-run effect of early-life exposure to mixed-gender schooling on adult earnings and occupational outcomes.

The results show that exposure to coeducation reduced gender inequality in adulthood. A one-unit increase in the share of coeducational classrooms reduces the gender wage gap by 17%. The magnitude of the effect is comparable to other long-term educational impacts found in the literature, such as peer or teacher quality effects (Carrell et al., 2018; Chetty et al., 2011; Getik and Meier, 2025; Chetty et al., 2014). The effect is driven by both a modest decline in men's earnings and an increase in women's earnings. The findings are robust to alternative definitions of exposure: including private schools, focusing on exposure at age six only, or capturing cumulative exposure over childhood. They are also robust to several sample restrictions. Results remain stable when excluding individuals working outside their birth department, focusing only on transition cohorts, excluding the Paris region, or varying the age at which adult outcomes are measured. The effects are broadly similar across departments, though I find stronger impacts in less urbanized areas for men and in moderately urbanized ones for women. Finally, the impact is twice as large for older cohorts, who faced a wider initial gender wage gap, suggesting that coeducation was particularly transformative in settings where gender norms were more traditional.

To shed light on the underlying mechanisms, I first verify that exposure to coeducation is not correlated with changes in class size. I find no relationship between the share of coeducational classrooms and the average number of students per class, suggesting that the observed effects are not driven by differences in school resources or classroom composition. Moreover, coeducation has no detectable impact on women's labor force participation, indicating that the results are not

explained by changes in selection into employment. Instead, the narrowing of the gender wage gap appears to operate mainly through changes in educational and occupational choices: women exposed to coeducation are more likely to pursue academic tracks and to enter higher-paying, more male-dominated occupations.

These results contrast with previous studies reporting neutral or negative effects of coeducation (Lee and Nakazawa, 2022; Calkins et al., 2023; Eisenkopf et al., 2011; Booth et al., 2018). A key difference lies in the timing and scope of exposure. Most existing research focuses on adolescence or higher education, when gender identity and subject choices are already formed. In contrast, this paper examines exposure during ages 6-10, a formative period when beliefs about gender roles remain flexible (Zancarini-Fournel and Thébaud, 2003). The French reform also differs in its institutional nature: it replaced gender segregation with a universal, compulsory system that left little room for parental selection or school sorting. Implemented primarily for administrative reasons, it provides a context free of confounding social or policy motives. Taking place during a period of rapid female educational and labor-market expansion, coeducation likely reinforced broader social change and contributed to reducing gender stereotypes. Overall, the evidence suggests that early, system-wide exposure to coeducation can have lasting effects on gender equality, while later or marginal changes may yield weaker or even opposite outcomes.

These results carry important implications for education and gender-equality policies. They show that structural changes in how schools are organized can have long-lasting effects on gender inequality. By revealing that the early exposure to boys and girls contributed to narrowing the gender wage gap, the findings suggest that interventions targeting the social environment at a young age, rather than only during adolescence or adulthood, can play a key role in promoting equality. More broadly, they highlight the importance of when and how gender equality is addressed in education, and of the social context in which children learn, compete, and form expectations about gender roles, when designing policies aimed at reducing gender disparities.

This paper mainly complements the literature that compares single-sex and coeducational schooling. Overall, evidence suggests that separating students by gender has limited or context-dependent effects (Halpern et al., 2011), with most studies finding small academic differences

once selection is accounted for (Jackson, 2012; Dustmann et al., 2018). While single-sex environments can sometimes enhance girls' confidence or performance in specific subjects (Eisenkopf et al., 2011; Booth et al., 2018), these effects are typically short-lived. Few studies link schooling environments to adult outcomes, but available evidence points to modest or even negative effects of single-sex education on women's later earnings and occupational choices (Lee and Nakazawa, 2022; Calkins et al., 2023). This paper extends that literature by focusing on early exposure, at the elementary level, and by shifting attention from short-term academic performance to long-run gender inequality in the labor market. A complementary line of work examines the share of girls among peers rather than institutional segregation. While I do not contribute directly to this literature, Getik and Meier (2025) offer a comprehensive review and show that variation in peer gender composition during elementary school has long-run effects on occupational sorting and earnings.

This paper also contributes to the literature on the gender wage gap, which has extensively documented persistent earnings differences between men and women despite the closing of educational attainment gaps (Blau and Kahn, 2017; Goldin, 2014). Recent research has emphasized mechanisms operating in adulthood such as motherhood penalties (Kleven et al., 2025,0; Lundborg et al., 2017), nonlinear pay structures (Goldin, 2014), gender sorting across firms and occupations (Mulligan and Rubinstein, 2008; Olivetti and Petrongolo, 2016; Card et al., 2016), differences in negotiation (Azmat and Petrongolo, 2014; Card et al., 2016), and discrimination (Card et al., 2025; Blau and Kahn, 2017) as key drivers of the wage gap. While this literature has deepened our understanding of labor-market and family-related determinants, relatively little is known about how early-life institutional environments shape gender inequality later in life. This paper addresses that gap by showing that exposure to coeducation in elementary school reduces the gender wage gap in adulthood. This finding introduces a previously understudied mechanism: formative social environments during schooling as a determinant of long-run labor-market outcomes.

Closely related is the recent paper by Getik and Meier (2025), who estimate that a higher share of female classmates in elementary school leads to women entering less gender-segregated

and higher-paying occupations in adulthood, with overall earnings effects of similar magnitude to those found. While their analysis focuses on within-school variation in the share of girls, this study emphasizes the broader institutional reform introducing mixed-gender schooling in France. Taken together, these findings suggest that socialization processes during early education play a critical role in shaping gender norms and long-term economic inequality.

Finally, this paper contributes to the broader literature on contact theory, which states that sustained interaction between members of different groups can reduce prejudice, foster cooperation and modify stereotypes (Allport, 1954). Empirical evidence supports these mechanisms in diverse settings: mixed-gender collaboration during military service shifts gender norms (Dahl et al., 2021), while majority–minority collaboration in the same context lowers discriminatory attitudes towards minorities (Finseraas and Kotsadam, 2017); random roommate assignment by race improves empathy and reduces bias (Boisjoly et al., 2006); and exposure to ethnically diverse peers enhances social cohesion and prosocial behavior (Corno et al., 2022; Lowe, 2021). These findings highlight the transformative potential of repeated, equal-status contact for reshaping preferences and beliefs. Building on this evidence, I hypothesize that mixed-gender education functioned as an early-life form of intergroup contact, altering children's perceptions of gender roles and capabilities. By allowing boys and girls to interact, learn, and compete in the same environment, coeducation may have demonstrated gender parity in ability and effort, thereby weakening stereotypes that persist into adulthood.

The remainder of the paper is organized as follows. Section 2 provides historical and institutional background on the introduction of coeducation in France. Section 3 describes the data and presents key descriptive statistics. Section 4 outlines the empirical framework. Section 5 reports the main results and a set of robustness checks and heterogeneity analysis. Section 6 explores potential mechanisms underlying the effects, discusses the findings and compares them with the existing literature. Section 7 concludes.

2 Historical and Institutional Background

Coeducation is now a defining feature of the French educational system, but it is a relatively recent phenomenon in its long history. Its introduction was slow, held back by social norms and religion that discouraged the education of boys and girls together.

The Guizot Law of 1833 required towns with more than 500 inhabitants to open a boys' school. In smaller towns, mixed schools were allowed if no girls' school existed. In practice, boys and girls remained separated even within the same premises: divided by a curtain in the classroom, with different playgrounds, and different entry and exit times (Rochefort and Zancarini, 2007; Sénat, 2004). Girls' education remained largely neglected until the Falloux Law of 1850, which required towns with more than 800 inhabitants to open a school for girls. The Ferry Law of 1882 made schooling compulsory, secular, and free for children aged 6-13. It remains a key foundation of the modern French school system. The education of girls became a more important issue, closely tied to the aim of removing them from the influence of the Church. Yet it remained subject to strict sex segregation, even as the question of coeducation began to emerge. The Goblet Law of 1886 finally abolished the obligation to separate boys and girls within the classroom, marking a decisive step toward genuine coeducation. In 1919, a special *baccalauréat* (French high school diploma) was created for girls, but it was not the same as the one for boys. In 1922, girls were allowed to take the same exam, and the curriculum was unified for both sexes in 1924 (Rochefort and Zancarini, 2007).

The first significant step toward coeducation came in the 1930s, when a decree authorized mixed classes in small rural elementary schools that had at most two classrooms. In these schools, pupils were grouped by age rather than gender. Younger children were usually taught by female teachers, while older ones were taught by male teachers (Rogers, 2020). After the Second World War, the process accelerated[1]. In 1957 coeducation was allowed in all elementary schools, mainly for practical reasons of proximity and cost[2] (Ministère de l'Éducation nationale, 1957). In 1959,

[1] See Appendix Figure A2 for a timeline of coeducation in France.

[2] "This growing crisis in our secondary education, which will be worsened as early as next school year by the effects of the post-war baby boom, is propelling us into an experiment that we are not undertaking in the name of principles, however passionately debated they may be, but in order to serve families, either as close as possible to their homes or under the best pedagogical conditions."

Berthoin's reform made all newly constructed high schools coeducational and raised compulsory schooling from age 14 to 16. In 1963, all middle schools were also required to become mixed gender. In 1965, all the newly built elementary schools had to be coeducational. In 1969, a ministerial circular explicitly acknowledged the normalization and the absence of significant opposition to it[3] (Prost, 2013). Finally, the Haby Law of 1975 established coeducation as the general rule in all educational institutions, both public and private, in France.

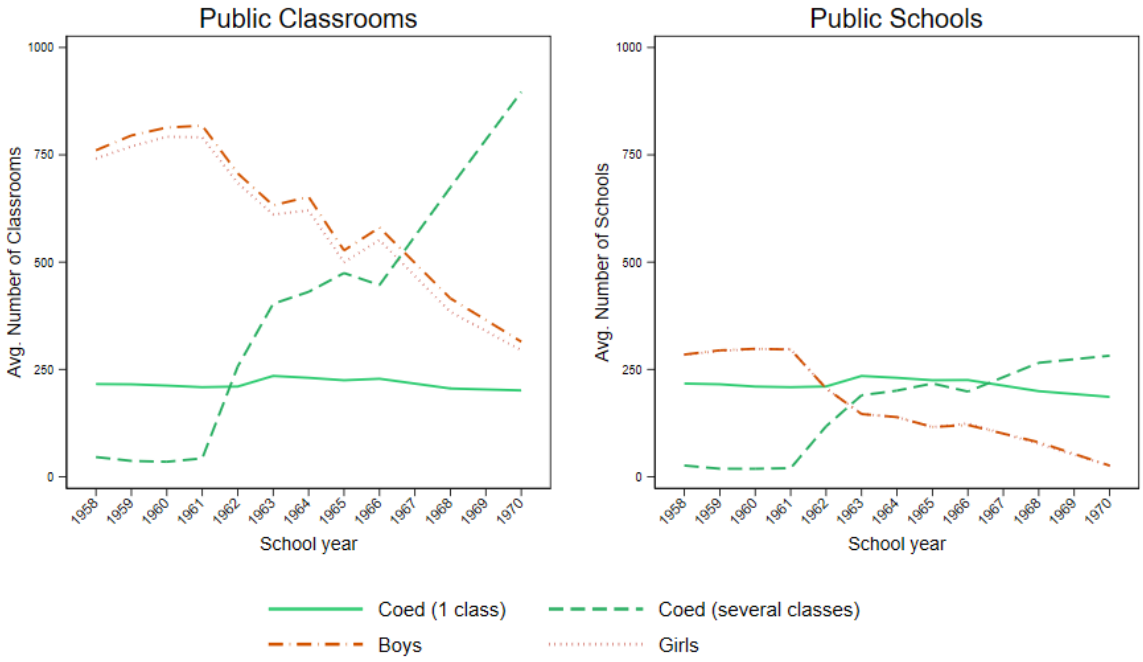
The expansion of coeducation unfolded in a broader context of gradual progress in women's rights. From the late 1930s onward, successive reforms progressively dismantled women's legal dependence and expanded their civic and professional autonomy (Direction Régionale aux Droits des Femmes et à l'Égalité, 2023). Women gained the right to vote and stand for election in 1944, and constitutional recognition of gender equality in 1946. In 1965, the reform of marital law allowed women to work and manage their property without their husband's authorization, followed by the legalization of contraception in 1967 and the creation of paid maternity and parental leave in 1970. The principle of equal pay for equal work was enshrined in law in 1972, and major advances in reproductive rights and family law followed in 1975 with the Veil Law on abortion and the introduction of divorce by mutual consent. These legal changes, however, were implemented uniformly across the country and over several decades, whereas the spread of coeducation varied markedly across departments and cohorts. This distinction underscores that the reform's timing and intensity provide variation largely independent of the broader evolution of women's rights and social norms.

The gradual introduction of coeducation was primarily motivated by cost reductions following the baby boom. Between 1958 and 1970, the total number of schools declined, while the number of classrooms slightly increased[4]. Private institutions only account for a small fraction of the total schools (less than 20% of students were enrolled in private schools during that period). Figure 1 provides further detail by showing the average number of public schools and classrooms per department and by type. As described earlier, coeducation was already present

[3] "It appears today, given the evolution of social conceptions, that in most cases families no longer worry about admitting boys and girls on the same school benches. Except for rare exceptions, coeducation no longer seems to encounter opposition in elected assemblies or among teaching staff."

[4] See Appendix Figure A1 for the evolution of the number of public and private schools and classrooms.

Figure 1: Average Number of Public Schools and Classrooms by Type

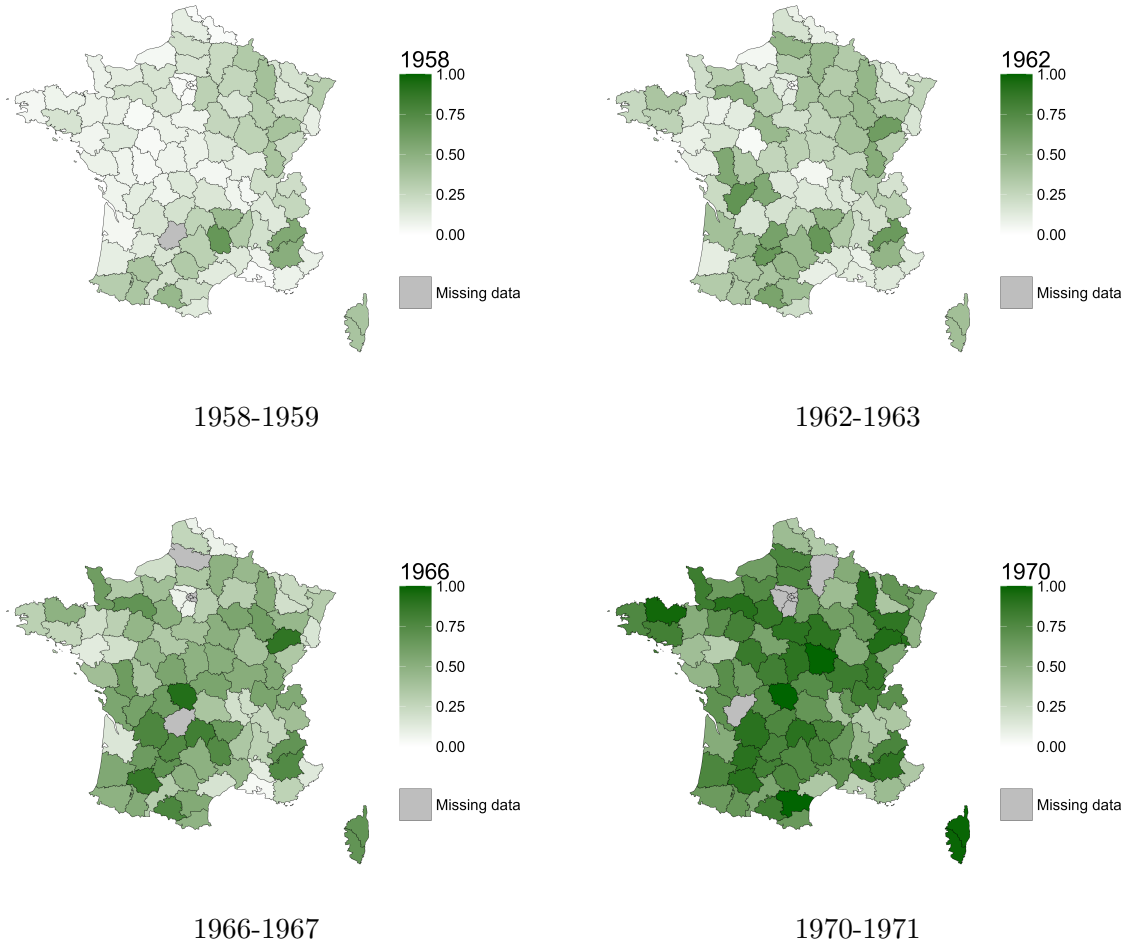


Note: Author's calculations. National averages from the *National Education Tables* (1958-1970). Averages computed across departments for each school year for public institutions.

in small one-class schools located in rural areas, where mixed teaching had long been tolerated for practical reasons. The expansion of coeducation during the reform years thus came mainly from larger schools, where boys' and girls' schools were progressively merged. The number of single-sex boys' and girls' schools and classrooms declines sharply, while the number of multi-class coeducational schools and classrooms increases. The same pattern, though on a smaller scale, is observed among private institutions (see Appendix Figure A3). Detailed numbers are provided in Appendix Tables A1, A2, and A3. The evolution of the share of coeducational classrooms also varies across space. Figure 2 maps this share for selected years[5]. This spatial heterogeneity, combined with the timing of change, forms the empirical basis for the exposure measure used in the analysis.

[5]See in Appendix Figures A4 and A5 for all years.

Figure 2: The Share of Coeducational Classrooms



1958-1959 1962-1963

1966-1967 1970-1971

Note: Author's calculations. Departmental averages from the *National Education Tables* (1958-1970). The share of coeducational classrooms is calculated as the number of mixed classrooms divided by the total number of classrooms. Each map corresponds to one school year.

3 Data and Descriptive Statistics

3.1 Data

This paper combines newly digitized historical data on the introduction of coeducation across French departments with administrative microdata on individual earnings and occupations[6].

[6]See Appendix Table A4 for a summary of the datasets used and the main variables.

School data. The first dataset is newly constructed from the *National Education Tables*, published annually by the French Ministry of Education between 1958 and 1971. I hand-collected and digitized these reports to build a new dataset that records, at the departmental level, the number of coeducational, boys', and girls' schools, as well as the number of classrooms in each category. The data include both public and private schools from the 1957-1958 to 1970-1971 school years, with occasional missing observations[7]. To ensure consistency, I exclude the Paris region, where administrative boundaries changed in 1966 and in 1968.

The analysis focuses on public classrooms, which represent the vast majority of institutions in France.[8] I use the number of classrooms rather than schools to capture the intensity of coeducation as it is independent of differences in school size. For each department and year, I compute the share of coeducational classrooms, defined as the ratio of public coeducational classrooms to the total number of public classrooms. This variable reflects the local intensity of coeducation and serves as the basis for the main exposure variable used in the empirical analysis.

The exposure variable is defined as the average share of coeducational classrooms in the department d when individuals of a cohort c were of elementary school age (6-10):

$$Exposure_{cd} = \frac{1}{5} \sum_{a=6}^{10} ShareCoed_{d,\, year(c+a)}.$$

The variable varies across departments and cohorts, providing the identifying variation used in the analysis. When data for one of the schooling years is missing, the average is computed over the available years (typically four instead of five).

In addition to coeducation exposure, I construct two variables from the same dataset to explore potential mechanisms. The first measures the average class size in public schools by department and year. These data are available for the school years 1961-1962 to 1965-1966. The second variable captures students' choices after compulsory schooling (at age 14). Using figures on student flows by gender, I construct indicators of the decisions made at the end of

[7] The school year 1969-1970 is entirely missing. For public schools, data is missing in 1967-1968; for private schools, in 1968-1969. Some departments also have gaps. In 1970-1971, the number of schools is missing for most departments, although classroom counts remain available.

[8] There were less than 20% of private schools on average at that time. As a robustness check, I include private classrooms in the analysis.

primary education: first, the choice between leaving school to work or continuing education; and second, among those who continue, the choice between repeating the grade, enrolling in a vocational track, or enrolling in a general track. These data are available for the school years 1957-1958 to 1963-1964 and concern individuals in my sample born between 1944 and 1949.

Labor Market Outcomes. The second source is the *All Employees Panel (Panel Tous Salariés, PANACT)* produced by the National Institute of Statistics and Economic Studies (INSEE). This administrative data covers a subset of wage earners in France from 1967 to 2013 and contains information on place of birth, occupation, sector of employment, and annual earnings.

The analysis focuses on individuals at age 40 born between 1943 and 1973 who attended elementary school between 1949 and 1983, before, during and after the progressive rollout of coeducation. Each individual is matched to their department and year of birth, which determines their potential exposure to coeducation during elementary schooling. The final sample contains 260,963 individuals across 88 departments. The main outcome variable is annual earnings at age 40, expressed in constant 2019 euros. Focusing on age 40 captures long-run labor-market outcomes after education is completed and before retirement decisions, while avoiding the years most affected by childbirth. This timing ensures that observed earnings reflect stable career trajectories rather than temporary interruptions related to family formation, while maintaining sufficient sample size across cohorts.

In addition to annual wages, I use information on the sector (public or private), the occupational category,[9] and the number of hours worked to study the underlying mechanisms. From the occupational category, I compute two measures: (i) the male share, defined as the ratio of men to total employed individuals in each occupational category, using data for the cohort that is 15 years older than the first cohort analyzed; and (ii) the median earnings, defined as the median income within each occupational category. Based on these variables, I define Male-Dominated Jobs as occupations where the male share exceeds 0.6, and High-Paying Jobs as occupations with median earnings above the overall median across occupations. Appendix Table A6 summarizes

[9]See Appendix Table A5 for the list of occupations.

these variables by occupational category.

The third source of data is the *Permanent Demographic Sample (Échantillon Démographique Permanent, EDP)*, a longitudinal dataset created by INSEE in 1967. The EDP tracks a large representative sample of the French population over time by linking census data, administrative records, and socio-fiscal information. I use these data to examine labor supply and education as potential mechanisms. Labor-force participation is defined as having ever been employed by age 40, and educational attainment is measured by the total number of years of schooling.

Controls and Department Characteristics. To account for differences in local economic development, I merge the dataset with additional department-level controls from Cagé and Piketty (2023). These variables include GDP per capita, income per capita, average town population growth, total population, and the urbanization rate measured during the schooling years. They capture time-varying local economic conditions that could influence both the timing of coeducation adoption and the long-run earnings of individuals.

3.2 Descriptive statistics

Table 1: Descriptive Statistics

	Male			**Female**		
	N	Mean	SD	N	Mean	SD
Labour Market Variables						
Annual Wage	137,571	24431	13341	123,392	18272	10933
Std. Dev. from the Mean	137,571	0.23	1.06	123,392	-0.26	0.86
Log Annual Wage	137,571	9.89	0.84	123,392	9.53	1.00
Male Share in Occupation	137,571	0.67	0.24	123,392	0.36	0.22
Median Earnings in Occupation	137,571	23868	9068	123,392	21159	7818
Working in Public Sector	134,275	0.13	0.33	121,452	0.27	0.44
Annual Working Hours	137,571	1590	625	123,392	1392	636

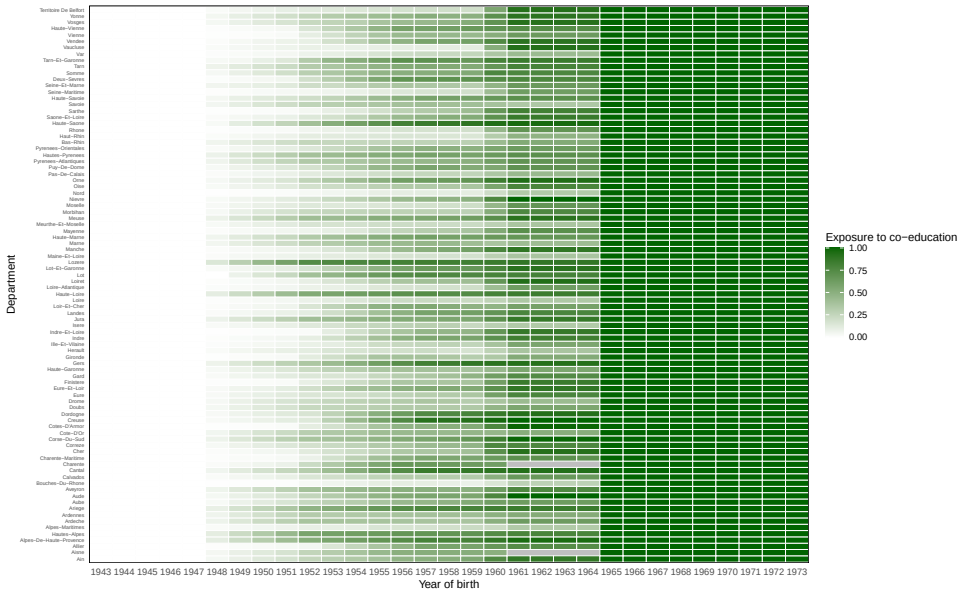
Notes: This table presents summary statistics for the key variables in the paper. Data from PANACT 1983-2013.

Table 1 reports summary statistics for the main labor-market variables by gender. Women

represent 47% of the sample, and their annual earnings at age 40 is on average €18,272 compared with €24,431 for men, a gap of about 25%. Women are also more likely to work in the public sector (27% versus 13%). The mean of log earnings is 9.53 for women and 9.89 for men, confirming gender differences in pay even after controlling for outliers. These descriptive patterns are consistent with well-documented gender inequalities in the labor market.

Figure 3 illustrates the variation in exposure to coeducation across both birth cohorts and departments. Each row corresponds to a department and each column to a birth cohort. Darker shades indicate higher exposure intensity. The figure shows that the reform was implemented gradually for the cohorts born between the late 1940s and early 1970s, with substantial heterogeneity across departments. Some adopted coeducation rapidly, while others lagged by several years. This temporal and geographical variation constitutes the identifying source of the empirical analysis. Appendix Figure A6 further documents the evolution of exposure by birth cohort, showing a clear upward trend and widening dispersion for the cohorts at elementary school during the transition years.

Figure 3: Exposure to Coeducation by Department and Birth Cohort



Note: Author's calculations from the *National Education Tables* (1958-1971). The figure reports the exposure to coeducation by department and birth cohort. Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. Each row corresponds to a department and each column to a birth cohort.

4 Empirical Framework

I exploit the staggered implementation of coeducation in French elementary schools between 1958 and 1975. The 1958 reform generated substantial variations in exposure across the departments and cohorts, which I use to identify the long-run effect of exposure to coeducation on the gender wage gap. The estimates should be interpreted as intent-to-treat effects: they capture the average impact of growing up in a department regardless of whether an individual personally attended a coeducational school.

4.1 Estimation Model

The empirical specification follows a two-way fixed-effects (TWFE) model, which can be interpreted as a difference-in-differences (DiD) framework with continuous treatment intensity.

I estimate the following regression model:

$$Y_{icd} = \alpha + \beta_1 Female_i + \beta_2 Exposure_{cd} + \beta_3 Exposure_{cd} \times Female_i + \lambda X_{cd} + \gamma_d + \delta_c + \varepsilon_{icd}, \quad (1)$$

where Y_{icd} denotes the outcome of individual at age 40 i born in cohort c in department d. The baseline analysis focuses on annual earnings. $Exposure_{cd}$ represents the average share of coeducational classrooms in department d when cohort c was aged 6-10. The vector X_{cd} includes time-varying department-level controls: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita.

The specification includes department fixed effects γ_d to absorb time-invariant differences across departments (e.g., cultural, economic, or educational characteristics), and cohort fixed effects δ_c to control for common time trends. Standard errors are clustered at the department level.

4.2 Validity of the Identification

The credibility of the empirical design relies on the assumption that, conditional on fixed effects and controls, exposure to coeducation varies for reasons unrelated to local gender norms or long-term wage dynamics. This assumption is supported by both institutional evidence and empirical controls.

The timing of coeducation adoption varied across departments for administrative rather than ideological reasons. Following the post-war baby boom, France faced rapid growth in the number of students (Ministère de l'Éducation nationale, 1957). Encouraging coeducation allowed local authorities to merge girls' and boys' schools and reduce construction costs. The reform was mandated nationally and implemented locally according to demographic pressure and existing school infrastructure, not local attitudes toward gender equality. This institutional setting makes the staggered introduction of coeducation plausibly exogenous to local gender norms.

Empirically, to ensure that results do not capture residual differences in economic development or population dynamics that may have affected both reform timing and later outcomes, I control for department-level characteristics (urbanization rate, population size and growth, GDP per capita, and income per capita). These variables absorb the cross-sectional variation in economic development and population growth that could otherwise correlate with both future earnings and exposure to coeducation.

As an additional check, Appendix Figure A8 shows that exposure to coeducation is uncorrelated with predicted earnings based on department characteristics, conditional on department and cohort fixed effects. I predict the earnings based on urbanization rate, average town population, total department population, population growth, GDP per capita, and income per capita, and I regress it on residualized exposure. This test assesses whether the identifying variation in exposure is related to pre-existing economic conditions. If departments that implemented coeducation earlier were also those with higher income, faster growth, or greater urbanization, the estimated effects could partly reflect these differences rather than the reform itself. I find that the relationship is flat, indicating that exposure to coeducation is not related to economic conditions that could have predicted adult earnings.

Exposure is constructed at the department level as the average share of coeducational public classrooms when a given cohort was of elementary school age (6-10). In France, pupils are assigned to the nearest public school. The system leaves little room for parental sorting across schools based on preferences for coeducation. Although a minority of families may have circumvented these rules by moving residence, the department-level definition of exposure is immune to this, as school decisions occur at a finer scale. Private schooling to avoid coeducation is another concern, but over that period the share of students in the private is stable[10] and I test as a robustness check having exposure including private schools. The identification relies on within-department and within-cohort variation, holding constant all time invariant local characteristics and common national trends.

5 Results

5.1 Main Results

Table 2 presents the effect of the exposure to coeducation on the annual earnings at age 40. Columns (1) and (2) report results in euros, Columns (3) and (4) in standardized deviations, and Columns (5) and (6) in logarithms of annual earnings. Odd-numbered columns show specifications without controls, while even-numbered columns include department-level demographic and economic controls.

Consistent with existing evidence, women earn significantly less than men: the estimated gender gap at age 40 is about €7,500, or roughly 51 log points. The coefficient of interest, β_3, is positive and highly significant across all specifications. In the log model with controls, Column (6), a one-unit increase in exposure to coeducation, moving from a fully single-sex to a fully coeducational schooling system, reduces the gender wage gap by approximately 0.17 log points. This corresponds to a reduction of about 17% of the average gap. The effect is economically meaningful and robust across all model specifications, indicating that early exposure to mixed schooling substantially narrows gender disparities in earnings.

[10] See Figure A7

Table 2: Exposure to Coeducation on Earnings

	Annual Earnings					
	Euros		Std. Dev.		Log	
	(1)	(2)	(3)	(4)	(5)	(6)
Female (β_1)	-7567.7***	-7563.0***	-0.599***	-0.598***	-0.514***	-0.514***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Exposure (β_2)	-1017.5***	-1051.3***	-0.0805***	-0.0832***	-0.0988***	-0.0902***
	(0.001)	(0.002)	(0.001)	(0.002)	(0.000)	(0.000)
Exposure × Female (β_3)	1610.0***	1604.9***	0.127***	0.127***	0.174***	0.173***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	-	X	-	X	-	X
Department FE	X	X	X	X	X	X
Cohort FE	X	X	X	X	X	X
Observations	260963	260963	260963	260963	260963	260963
Departments	88	88	88	88	88	88
Mean Outcome (All)	21519	21519	0.000	0.000	9.720	9.720
Mean Outcome (Female)	18272	18272	-0.257	-0.257	9.530	9.530
Mean Outcome (Male)	24431	24431	0.230	0.230	9.890	9.890
$\beta_2 + \beta_3$	592.5	553.6	0.0469	0.0438	0.0753***	0.0833***

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is annual earnings at age 40 (2019 euros). Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. All regressions include cohort and department fixed effects. Standard errors clustered at the department level. Data from PANACT 1983-2013.

This reduction in the gender gap reflects a convergence in earnings between men and women. On the one hand, the coefficient β_2 indicates that men's annual earnings decline slightly with exposure to coeducation: in the preferred log specification with controls, men educated in fully coeducational environments earn about 9% less than comparable men from single-sex systems. On the other hand, women's earnings increase by roughly the same magnitude, with an estimated effect ($\beta_2 + \beta_3$) of 8%. This convergence suggests that the reform primarily altered the relative position of men and women in the labor market. In the next section, I explore whether these effects are consistent with coeducation leading to more balanced occupational choices and career trajectories.

Magnitude of the Effect. The estimated effects, although moderate in magnitude, are comparable to the long-run effects typically found in the education literature. For example, Carrell

et al. (2018) find that exposure to one additional disruptive peer in elementary school reduces adult earnings at ages 24-28 by about 3%. Similarly, Chetty et al. (2014) estimate that a one-standard deviation improvement in teacher quality in a single grade increases annual earnings at age 28 by roughly 1% (about $350 a year). Chetty et al. (2011) show that reducing class size by one-third raises adult wages by around 2-3%. Closely related to my work, Getik and Meier (2025), find that a 10-percentage-point increase in the share of girls in school for around seven years, increases women's annual wages by roughly $350 at age 30. In comparison, I find that a one-unit increase in exposure to coeducation affects men's and women's earnings at age 40 by 8% (about 350 a year). This effect is therefore well within the range of long-term educational impacts identified in the literature.

5.2 Robustness

5.2.1 Data Construction

I conduct several robustness checks to ensure that the results are not driven by modeling choices or sample composition. The results are presented in Appendix Table A7 and in Appendix Figure A9.

Mobility Across Departments. A potential concern is that the place of birth may not perfectly capture the environment in which individuals were educated or employed. Some individuals may have moved to another department during childhood, implying that their measured exposure to coeducation does not correspond to the one they actually experienced. Some might have moved later in life, potentially sorting into higher-paying jobs. The last one would be a mechanism in itself, but since I cannot disentangle the two, I restrict the sample to individuals born and working in the same department at age 40. The results presented in Appendix Table A7 Column (1) remain quantitatively and statistically similar, indicating that the estimated effects are not driven by migration patterns, either during schooling or in adulthood.

Private Schools. The analysis focuses on public schools, which accounted for the vast majority of elementary school enrollment during the period. Nevertheless, about 10% of pupils

attended private schools, often Catholic institutions, which were not subject to the same administrative constraints and might have adopted coeducation differently. To ensure that private-school dynamics do not bias the results, I include private classrooms when defining the exposure variable. Appendix Table A7 Column (2) shows the unchanged results, suggesting that private schooling plays no role in explaining the estimated effects.

Middle Cohorts. It is also informative to focus only on cohorts that were at school during the transition to coeducation. I therefore re-estimate the model restricting the sample to cohorts who attended school between 1958 and 1975. The estimates are smaller in magnitude but they remain positive and statistically significant (Appendix Table A7, Column (3)). This indicates that the results are not driven by the earliest or latest cohorts, but hold for those directly exposed to the reform as it unfolded.

Excluding the Paris Labor Market. Earnings levels and labor-market structures in Paris differ substantially from those in the rest of the country, with higher average wages and greater occupational concentration. To ensure that the results are not driven by these specific conditions, I exclude individuals working in the Paris region (Ile-de-France) from the sample[11]. The estimates in Appendix Table A7 Column (4) remain similar in both magnitude and significance, indicating that the results are not driven by the capital region's distinctive labor-market dynamics.

Exposure when Entering Elementary School. The baseline measure of exposure is defined as the average share of coeducational classes in the department when the cohort was aged 6-10. This captures the full period of elementary schooling, but using a five-year window might introduce measurement errors, potentially at the boundaries of the reform, with a over or underrepresentation. An alternative definition is the exposure at the time of entry to elementary schooling: at age 6. As shown in Appendix Table A7 Column (5), the estimates remain stable, indicating that the results are not sensitive to this definition.

[11] Individuals born in the Paris region were already excluded from the main analysis because of data limitations.

Age of Observation. The main specification measures outcomes at age 40. To verify that the results are not sensitive to this choice, I replicate the analysis from age 30 and 50 when available. Appendix Figure A9 plots the estimated interaction between exposure and being a woman across the different ages. The effects are nearly identical, suggesting that the impact of coeducation on women's relative earnings is persistent rather than concentrated at a single point in the life cycle.

5.3 Heterogeneity

Urbanization Rates. I examine whether the impact of coeducation differs across local contexts. Appendix Table A8 examines whether the effect of coeducation varies with the degree of urbanization in the department, measured as the share of the population living in towns above 2,000 inhabitants. Columns (1) to (4) correspond respectively to departments in the bottom to top quartiles of urbanization. Overall, the gender gap narrows by a similar order of magnitude across quartiles, suggesting that the reform had broad and geographically consistent effects. However, the composition of this convergence differs: men's earnings tend to decline more in less urbanized departments, while women's earnings rise more strongly in moderately urbanized areas. This pattern indicates that coeducation may have affected men and women through distinct channels depending on the local context, reducing traditional male advantages in rural areas and expanding women's economic opportunities where urban labor markets were more dynamic.

Cohort Differences. I next explore whether the long-run impact of coeducation differs across cohorts. Appendix Table A9 compares the effects for individuals born between 1943-1957 (older cohorts) and 1958-1973 (younger cohorts). The gender gap narrows more sharply among the older cohorts (32% vs 15% for the younger group). This stronger convergence reflects the larger initial disparities faced by earlier generations. For men, the negative effect of coeducation on earnings is significant only for the younger cohort, with an average decline of about 10 percent. For women, coeducation significantly increases earnings in both cohorts, with a stronger impact among the older group. These findings suggest that the reform had its largest equalizing effects

on cohorts that began their schooling when gender norms were most rigid.

6 Mechanisms

To better understand the channels underlying the effect of coeducation on earnings, I examine potential mechanisms operating through education and the labor market.

6.1 Changes in Education

Class size. Smaller classes are known to improve long-term earnings (Krueger, 1999; Chetty et al., 2011). However, the introduction of coeducation did not significantly change average classroom size. Using data from the *National Education Tables*[12], I estimate the relationship between coeducation and class size across departments. Appendix Figure A10 and Appendix Table A10 show no systematic relationship between those two variables. This suggests that the effects of coeducation on the gender wage gap are not driven by changes in educational resources.

Choice at the end of compulsory schooling. At that time, schooling in France was compulsory until age 14. Using data from the *National Education Tables* on the number of students choosing each path at the end of compulsory schooling, I examine how exposure to coeducation influenced these choices. Appendix Table A11 reports the results. Column (1) shows that greater exposure to mixed classrooms has no significant effect on the probability of continuing education after age 14. Columns (2) and (3) focus on the type of education chosen among those who continue. Exposure to coeducation significantly increases the share of students enrolling in the general track for both men and women, with a larger effect for women. In contrast, exposure to coeducation decreases the probability of entering a vocational path for women. These results suggest that early exposure to coeducation may have encouraged students, especially girls, to pursue more academic and less gender-typed educational paths. This shift could have long-term implications, as general education has been shown to enhance lifetime earnings relative to vocational training (Golsteyn and Stenberg, 2017). By fostering interactions between boys and girls

[12] Digitized from the national archives

during formative years, coeducation could have altered perceived abilities or aspirations, leading to a higher propensity to choose tracks that keep broader educational opportunities open.

However, these findings should be interpreted with caution, as the data are available only for the period 1957–1963 and concern students age 14. The data cover cohorts born between 1944 and 1949, of which only the 1948 and 1949 cohorts were exposed to coeducation during their final one or two years of primary school. To avoid over-representing cohorts with zero exposure, I restrict the analysis to the 1947-1949 cohorts and compute exposure as the average share of coeducational public classrooms when the cohort was aged 9-10.

Education Attainment. Complementary to the choice at the end of compulsory schooling, I look at the number of years of completed education using data from the *Permanent Demographic Sample*. Appendix Table A12 presents the result. For men, exposure to coeducation significantly reduces educational attainment by about 0.27 years, a small effect given that the average number of schooling years among men is 10.73. For women, the effect is not statistically significant.[13] These results indicate that exposure to coeducation had little influence on overall educational attainment.

6.2 Changes on the Labor Market

Coeducation may alter occupational choices by changing traditional gender roles, leading to a shift in the composition of the labor market. Specifically, I first focus on horizontal segregation by studying entry into male-dominated occupations. Second, I look at vertical segregation using the median earnings of the occupation held. Third, I consider the probability of working in the public sector. Finally, I examine labor supply, looking at the number of hours worked and entry in the job market.

Occupational composition. If coeducation shifts gender norms, women might be more likely to enter professions where there are traditionally more men, reducing horizontal segregation.

[13] Restricting the sample to individuals observed exactly at age 40 substantially reduces sample size. Appendix Table A13 presents results when keeping one observation per individual, the one closest to age 40. For men, the estimated effect remains negative and of similar magnitude, while for women, a small positive effect of 0.53 years emerges.

Table 3: Exposure to Coeducation on Labor-Market Outcomes

	Male Share (1)	**Median Earnings** (2)	**Public Sector** (3)	**Working Hours** (4)
Female (β_1)	-0.325***	-3588.9***	0.126***	-170.9***
	(0.000)	(0.000)	(0.000)	(0.000)
Exposure (β_2)	-0.00921*	-482.2***	-0.0111	29.04*
	(0.089)	(0.009)	(0.198)	(0.084)
Exposure × Female (β_3)	0.0211***	990.4***	0.0171***	-51.60***
	(0.000)	(0.000)	(0.005)	(0.000)
Controls	X	X	X	X
Department FE	X	X	X	X
Cohort FE	X	X	X	X
Observations	260963	260963	255727	260963
Departments	88	88	88	88
Mean Outcome (All)	0.523	22587	0.195	1496
Mean Outcome (Female)	0.361	21159	0.270	1392
Mean Outcome (Male)	0.668	23868	0.128	1590
$\beta_2 + \beta_3$	0.0119**	508.2**	0.0060	-22.56*

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is annual earnings at age 40 (2019 euros). Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional gender gap relative to males. The second row shows the effect of coeducation on males. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ gives the effect of coeducation on females. All regressions include cohort and department fixed effects. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. All regressions include cohort and department fixed effects. Standard errors clustered at the department level. Data from PANACT 1983-2013.

Column (1) of Table 3 presents the results. At baseline, women work in occupations with a substantially lower share of men, about 32 percentage points. Exposure to coeducation has no significant effect on men but increases the share of men in the occupations held by women by about 1.2 percentage points. This implies a reduction in horizontal segregation, consistent with the idea that coeducation may shift gender norms and facilitate women's entry into male-dominated jobs.

Occupational hierarchy. The second mechanism captures vertical segregation, using the median earnings of an individual's occupation as a proxy for their position in the wage distribution. This allows me to examine whether exposure to coeducation influences the type of occupations that men and women sort into. Specifically, whether they enter occupations that are higher or lower in the overall wage hierarchy. Column (2) of Table 3 shows that women are employed in occupations paying on average €3,650 less than those of men. For men, exposure to coeducation

is associated with a small but significant decline in the median earnings of their occupations, while the effect for women is slightly larger and positive. These results point to a convergence in occupational status, with women moving into better-paying jobs and men toward lower-paying ones. This convergence could partly reflect a better allocation within occupations, in which women gain access to positions previously held by lower-performing men. This interpretation is consistent with the literature on gender-based sorting and misallocation (Hsieh et al., 2019; Goldin and Rouse, 2000).

Sectoral Allocation. The third mechanism concerns sectoral allocation. Women have traditionally been overrepresented in the public sector, where employment provides greater job stability and work-life balance. Column (3) of Table 3, shows that exposure to coeducation has no significant effect for men, and the total effect for women is small. However, the positive and significant interaction term indicates that the gender gap in public-sector employment slightly widens in departments with greater exposure to coeducation: women remain more likely than men to work in this sector, and this difference increases marginally. Overall, coeducation did not lead women to shift away from public employment; if anything, it modestly reinforced their relative overrepresentation in this sector.

Labor supply. Labor supply can adjust along both the intensive and the extensive margins. On the intensive margin, I examine annual hours worked. Column (4) of Table 3 reports the results. Women work substantially fewer hours than men, with an average gap of 171 annual hours. Exposure to coeducation slightly increases men's annual hours but decreases women's, resulting in a modest widening of the gender gap in work intensity. On the extensive margin, I explore whether coeducation affects women's decision to participate in the labor market. A concern is that the estimated effects on earnings could reflect changes in selection into employment rather than differences in wages among workers. To examine this, I use data from the *Permanent Demographic Sample* to document participation across cohorts and departments. Female participation increased steadily over the period (INSEE, 2022), but these changes are not systematically correlated with exposure to coeducation. Appendix Table A15 show no sig-

nificant association between exposure and the probability of having ever worked at age 40[14]. This suggests that the observed narrowing of the gender wage gap does not stem from selection into employment, but rather from differences in occupational choices and earnings conditional on work.

Occupational Segregation: A Closer Look. Appendix Table A14 provides a more direct view on occupational segregation by focusing on three binary indicators: (i) working in male-dominated occupations[15], (ii) working in high-paying occupations[16], and (iii) working in occupations that are both male-dominated and high-paying.

Exposure to coeducation significantly increases the probability that women work in male-dominated occupations by about 2 percentage points and in high-paying occupations by about 3 percentage points. Given that only 16% of women work in male-dominated and 36% in high-paying occupations, these effects are economically meaningful. By contrast, there is no detectable effect on the probability of working in occupations that are both male-dominated and high-paying. This pattern implies that coeducation primarily broadened women's occupational opportunities, reducing horizontal and vertical segregation independently, rather than concentrating women in a narrow set of elite jobs.

Taken together, these results suggest that the long-run impact of coeducation on earnings operates mainly through changes in educational and occupational choices rather than through resources or labor supply. While coeducation did not affect class size or extend the length of schooling, it encouraged girls to pursue more academic and less gender-typed educational paths. In the longer run, women exposed to coeducation are more likely to enter male-dominated and better-paid occupations, consistent with a decline in both horizontal and vertical segregation. These mechanisms help explain the observed narrowing of the gender wage gap, supporting the interpretation that early exposure to mixed educational environments reshaped gender norms and broadened women's career aspirations.

[14]Restricting the sample to individuals observed exactly at age 40 substantially reduces sample size. Appendix Table A16 shows that the results are robust when keeping one observation per individual, the one closest to age 40.

[15]Defined as more than 60% of men in the occupation.

[16]Defined as the jobs above the median earnings.

6.3 Discussion and Comparison with the Literature

The main finding of this paper is that exposure to coeducation in elementary school reduces the gender wage gap in adulthood. A one-unit increase in exposure to coeducation raises women's earnings relative to men's by about 17%. The effect is mainly explained by changes in occupational allocation, with women entering better-paid and more male-dominated occupations. These results differ from several studies showing neutral or negative effects of coeducation (Dustmann et al., 2018; Eisenkopf et al., 2015; Booth et al., 2018; Park, 2018; Calkins et al., 2023). This can be explained by several factors.

The timing of exposure. Most existing studies analyze coeducation during adolescence or early adulthood, when gender identity and subject choices are already formed. By contrast, this paper examines exposure during ages 6-10, a period when preferences and beliefs about gender role are still flexible (Zancarini-Fournel and Thébaud, 2003). If coeducation operates mainly through the formation of social norms, early exposure should have stronger and more persistent effects than changes later in schooling.

The nature of the treatment. The reform studied here replaced gender segregation by a universal mixed-school system, while a big part of the literature exploits variation within already coeducational systems, such as the share of girls in a class (Getik and Meier, 2025). These two forms of variation capture different mechanisms. The French reform changed the institutional environment itself: teacher assignment, school organization, and the social meaning of gender separation rather than only peer composition. The effects estimated here therefore reflect a broader institutional change rather than marginal differences in gender balance.

The absence of selection. In many modern settings, single-sex schools are selective and attract parents with stronger preferences for traditional gender roles or higher academic performance. Even in quasi-experimental designs, compositional differences may persist. In contrast, the introduction of coeducation in France was administratively driven, motivated by demographic and budgetary constraints, and applied nationwide. This limits the scope for endogenous selection into school types and helps explain why the estimated effects are more positive.

The historical context. The reform took place during a period of rapid expansion of female

education and entry into the labor force. Coeducation may have reinforced these broader social changes by signaling that boys and girls were expected to study together and could pursue similar paths. In such a setting, exposure to the opposite sex likely reduced stereotypes rather than reinforcing them, consistent with contact theory predictions under conditions of equal status and institutional support.

Mechanism consistency. The effects operate through occupational sorting rather than labor supply, which supports the interpretation that coeducation affected preferences and expectations, not hours or entry to the labor market. The small decline in men's earnings and the rise in women's are consistent with a partial reallocation of comparative advantage across occupations.

Overall, the evidence suggests that the effects of coeducation depend on the timing and institutional form of exposure. Early-life, system-wide integration appears to reduce long-run gender inequality, while marginal or later-life changes may generate different outcomes due to selection, peer competition, or tracking effects.

7 Conclusion

This paper examines the long-run effects of the nationwide introduction of coeducation in French elementary schools between 1958 and 1975. Using newly digitized administrative data linking historical measures of exposure to mixed classrooms with individual earnings records, I estimate intent-to-treat effects in a two-way fixed-effects framework. A one-unit increase in exposure to coeducation during ages six to ten reduces the adult gender wage gap by about 17 percent. The effect comes from both a modest decline in men's earnings and an increase in women's earnings, primarily through occupational reallocation toward higher-paying and more male-dominated jobs for the women. The magnitudes are comparable to other long-run impacts of early educational environments, such as peer quality, teacher value-added, or class size.

These findings provide causal evidence that early social environments, beyond curricula or school resources, shape gendered economic outcomes. They highlight that the organization of schooling, and in particular gender interaction in classrooms, can have persistent effects on labor-market inequality. From a policy perspective, this suggests that interventions that promote

gender integration and collaboration in early schooling are therefore at least as important as those introduced at later stages. Early, equal-status contact between boys and girls appears to play a central role in reducing gender disparities later in life, emphasizing that institutional design matters for equality of opportunity.

The analysis, however, has several limitations. The estimates are intent-to-treat and defined at the department level, so individual treatment is not directly observed, and mechanisms are inferred from outcomes. External validity is bounded by the institutional context of France in the 1960s and 1970s, a period of rapid educational expansion. Although the evidence points to occupational sorting as the main channel, the data do not allow direct observation of changes in attitudes, aspirations, or classroom interactions.

Future research could extend these findings by having more desagregated school data to identify individual exposure and measure mechanisms more directly. It could also examine other long-run outcomes, such as family formation and household specialization, and disentangle the roles of social-norm formation, knowledge acquisition, and network effects. Taken together, the evidence indicates that early institutional exposure to mixed-gender environments altered occupational choices and narrowed the gender wage gap. Coeducation in elementary schools functioned as a structural reform that changed social interactions during formative years, with effects observable decades later in the labor market.

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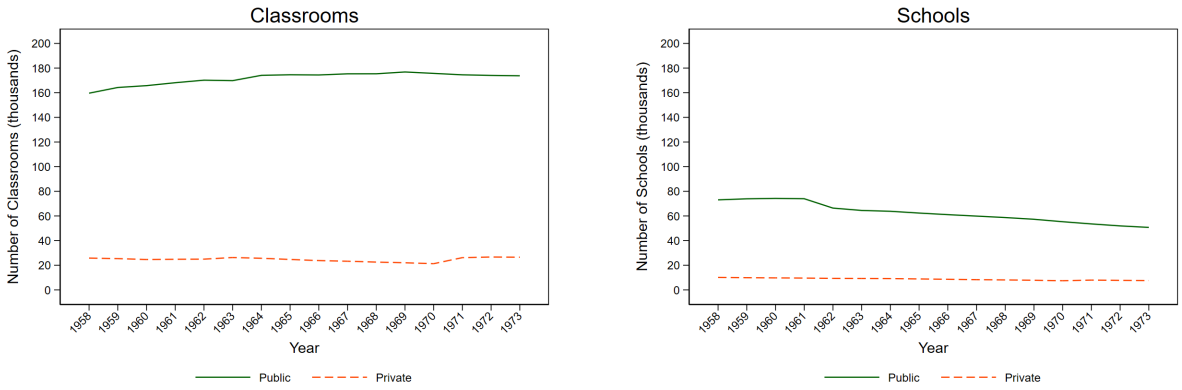
Appendices

Appendix Figures

Figure A1: Evolution of the Number of Schools and Classrooms



Note: Author's calculations. Data from the *National Education Tables* (1958-1973). Total number of schools and classrooms in metropolitan France, separately for public and private institutions.

Figure A2: Timeline of the Introduction of Coeducation in Postwar France (1957–1975)

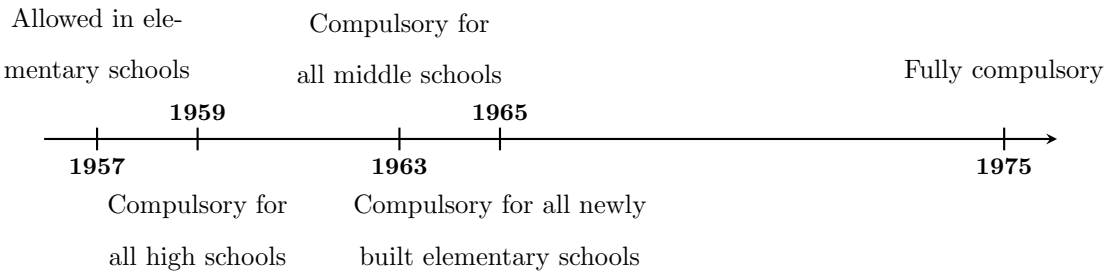
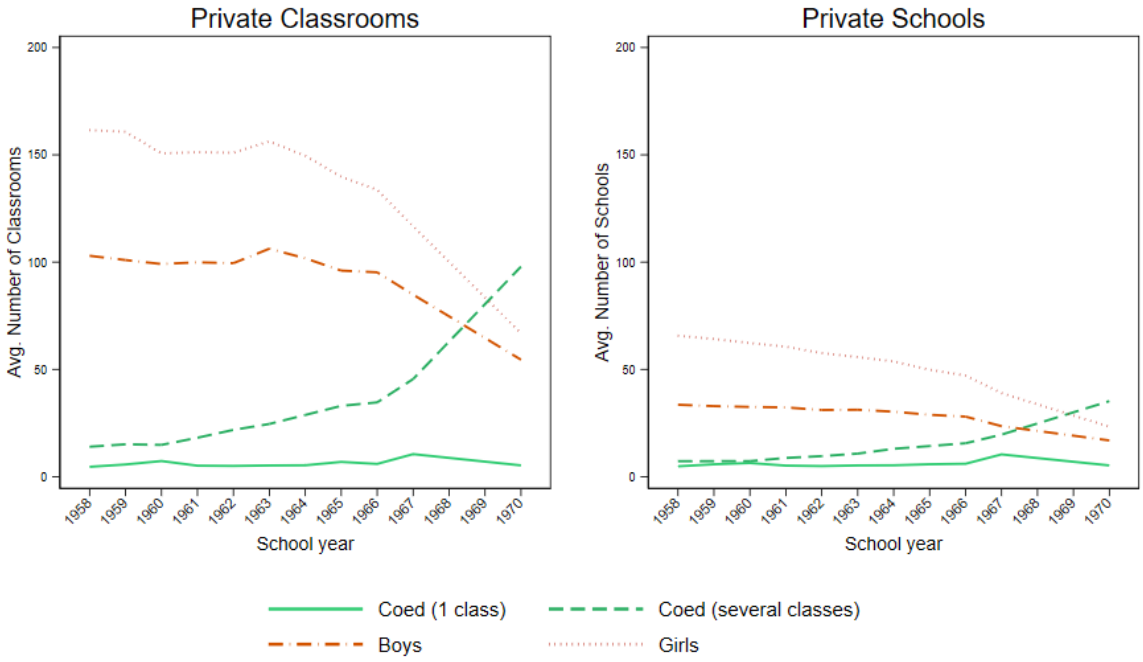
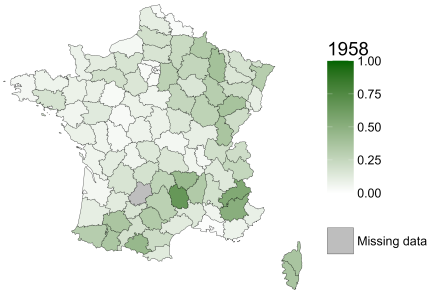


Figure A3: Average Number of Private Schools and Classrooms by Type

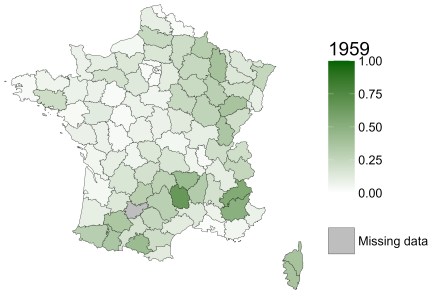


Note: Author's calculations. National averages from the *National Education Tables* (1958-1970). Averages computed across departments for each school year for private institutions.

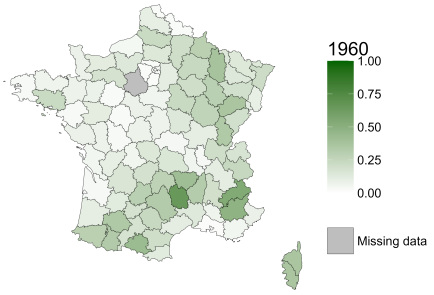
Figure A4: The Share of Coeducational Classrooms from 1958 to 1963



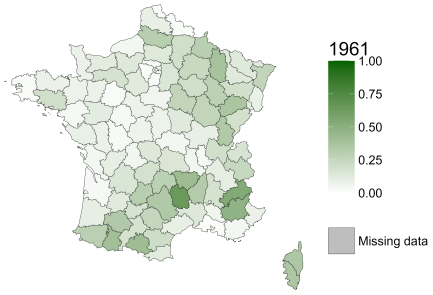
1958-1959



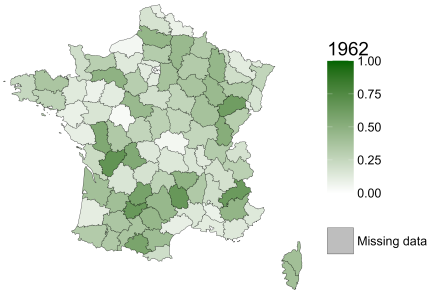
1959-1960



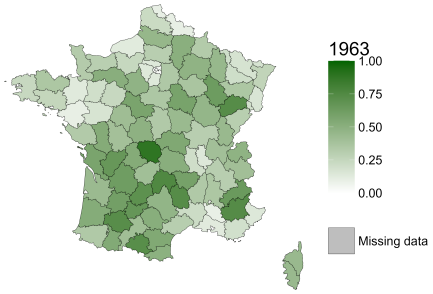
1960-1961



1961-1962



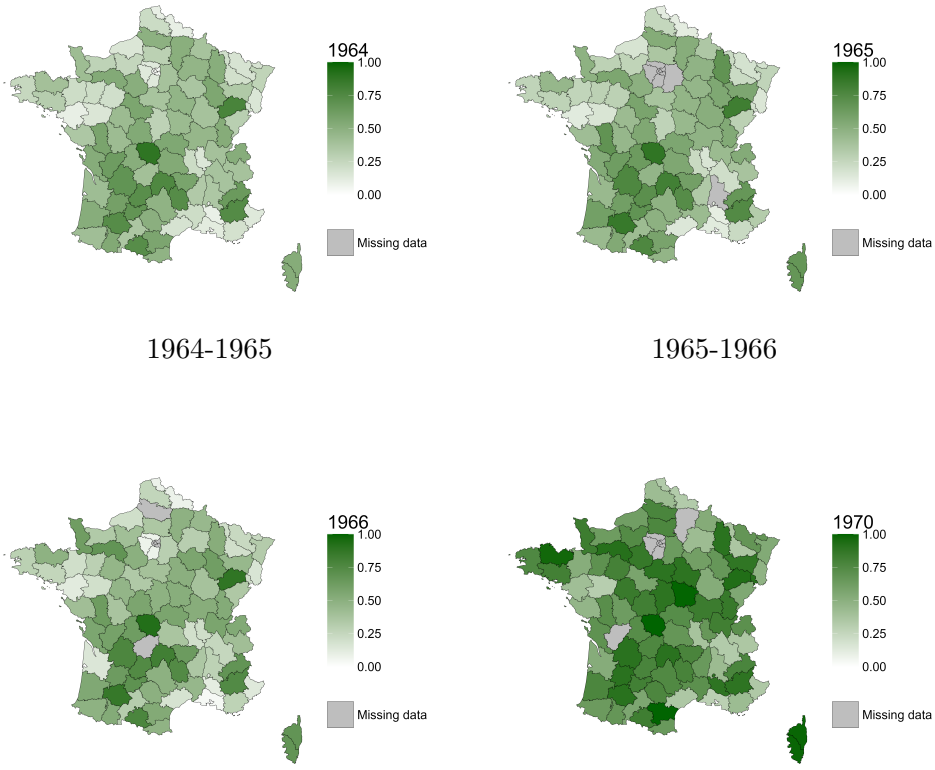
1962-1963



1963-1964

Note: Author's calculations. Departmental averages from the *National Education Tables* (1958-1970). The share of coeducational classrooms is calculated as the number of mixed classrooms divided by the total number of classrooms. Each map corresponds to one school year.

Figure A5: The Share of Coeducational Classrooms from 1964 to 1970



1964-1965 1965-1966

1966-1967 1970-1971

Note: Author's calculations. Departmental averages from the *National Education Tables* (1958-1970). The share of coeducational classrooms is calculated as the number of public mixed classrooms divided by the total number of public classrooms. Each map corresponds to one school year.

Figure A6: Distribution of Exposure to Coeducation by Birth Cohort

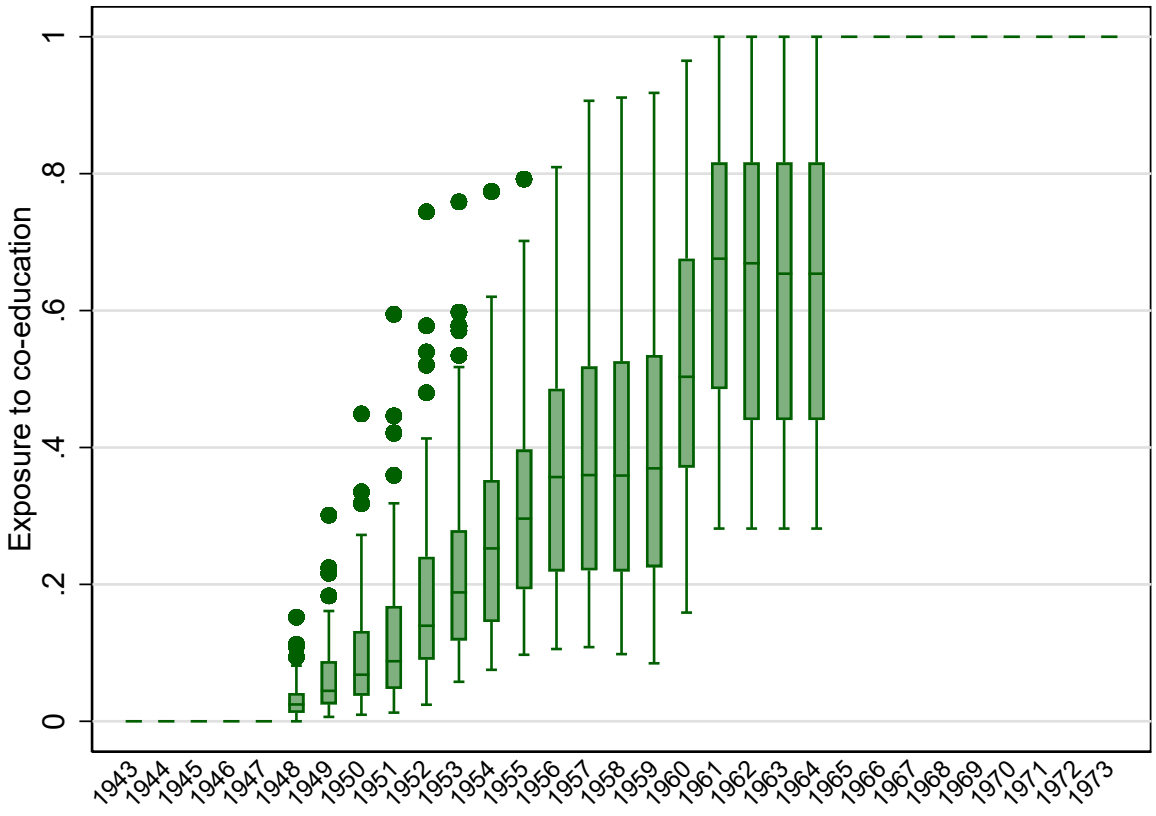
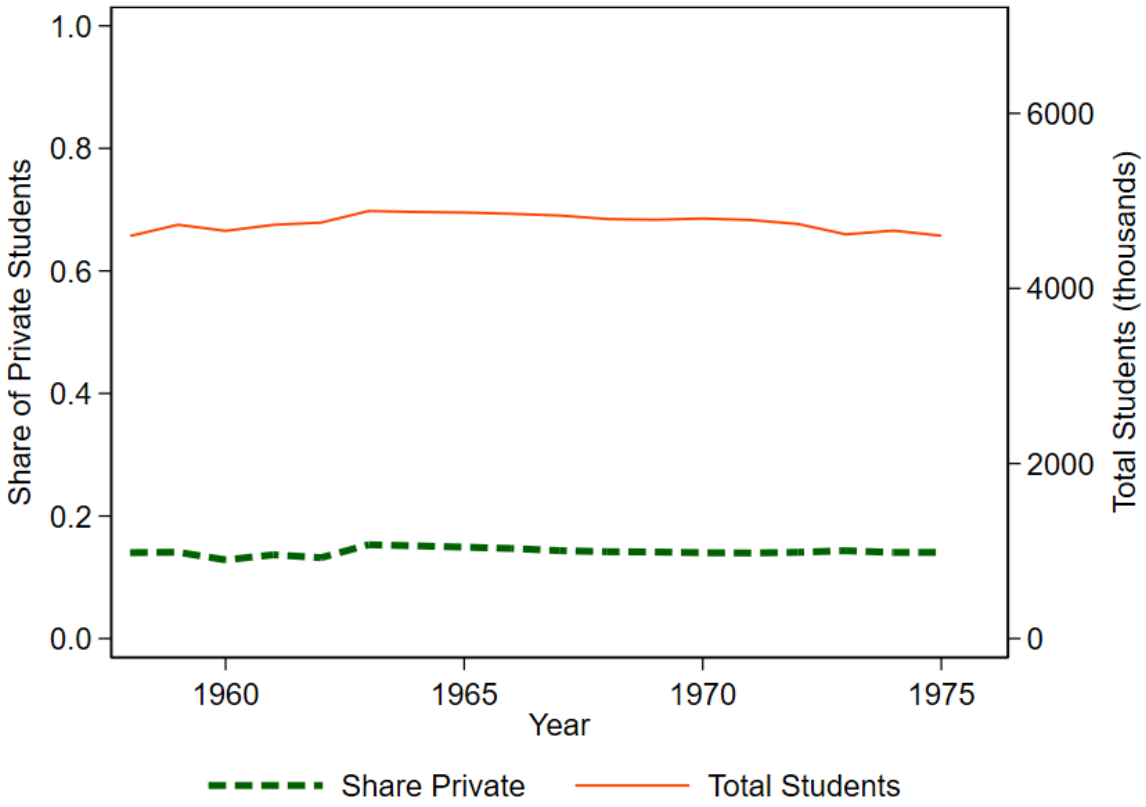
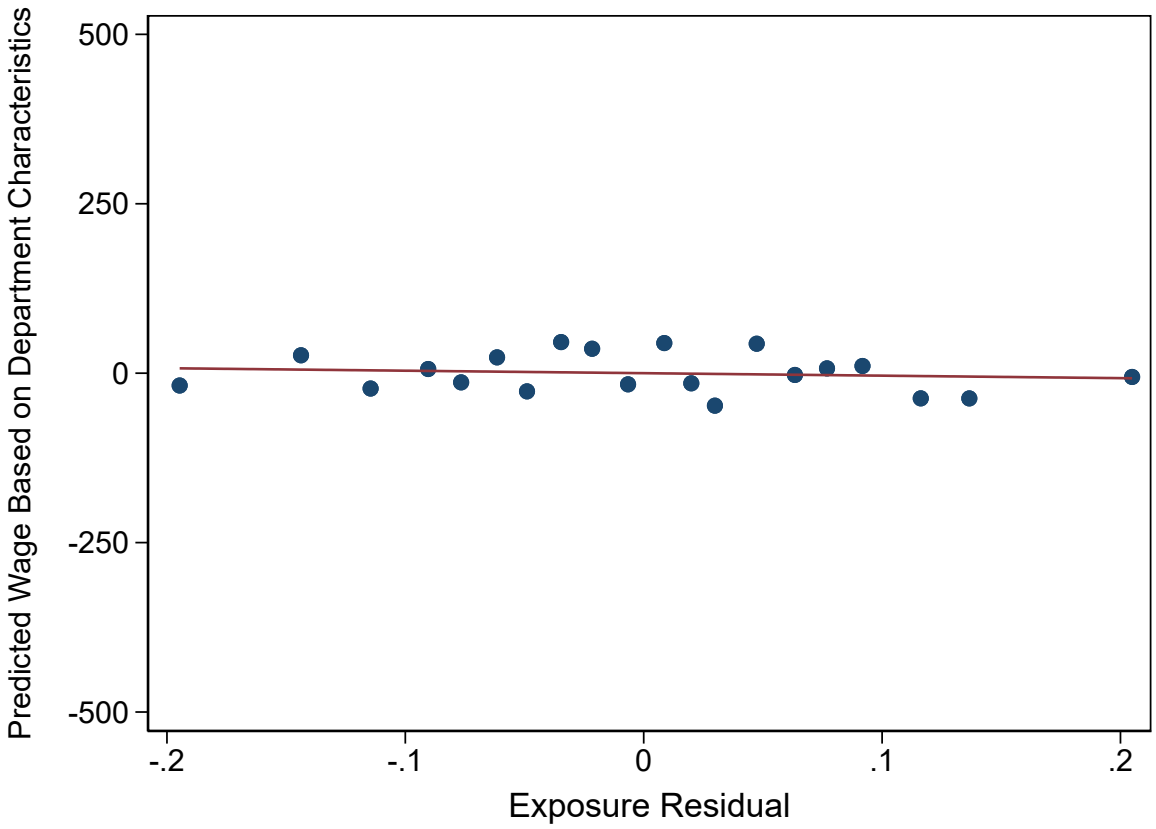


Figure A7: Evolution of the Number of Schools and Classrooms



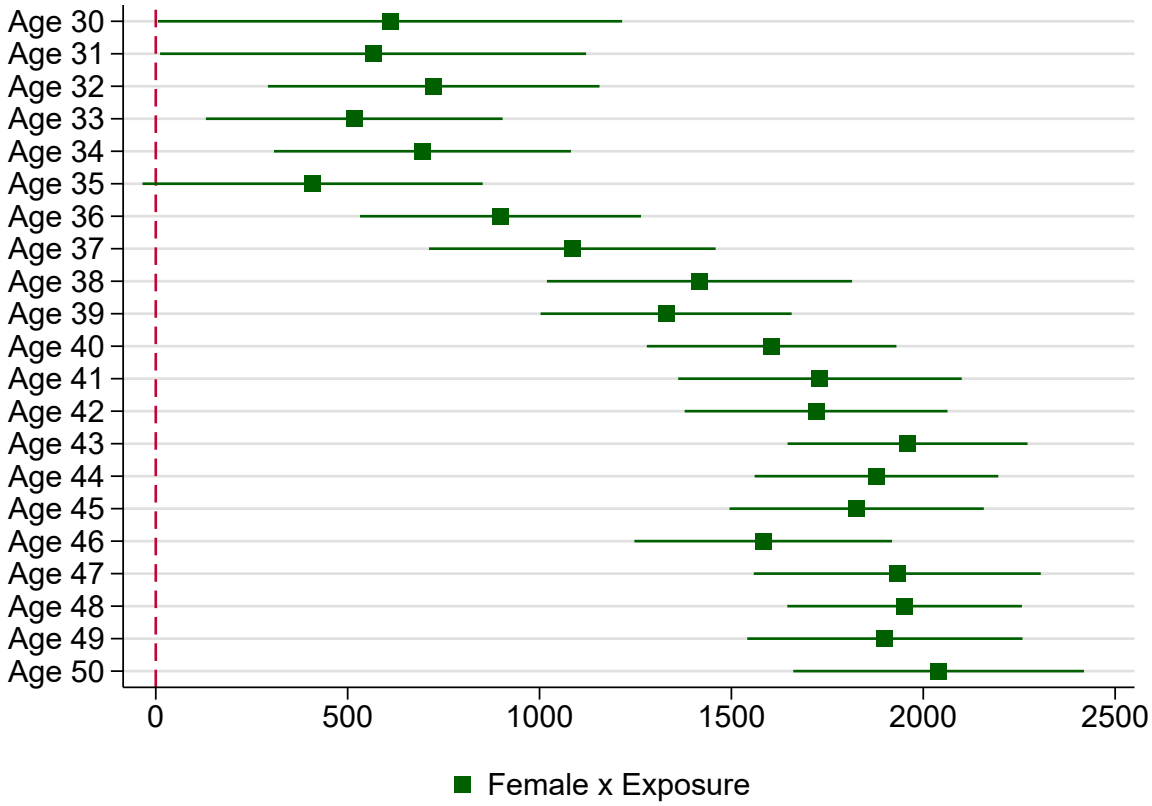
Note: Author's calculations. Data from the *National Education Tables* (1958-1973). The full line represents the total number of students in both private and public institutions. The dotted line represents the share of students enrolled in private schools.

Figure A8: Exposure and Predicted Earnings Based on Department Characteristics



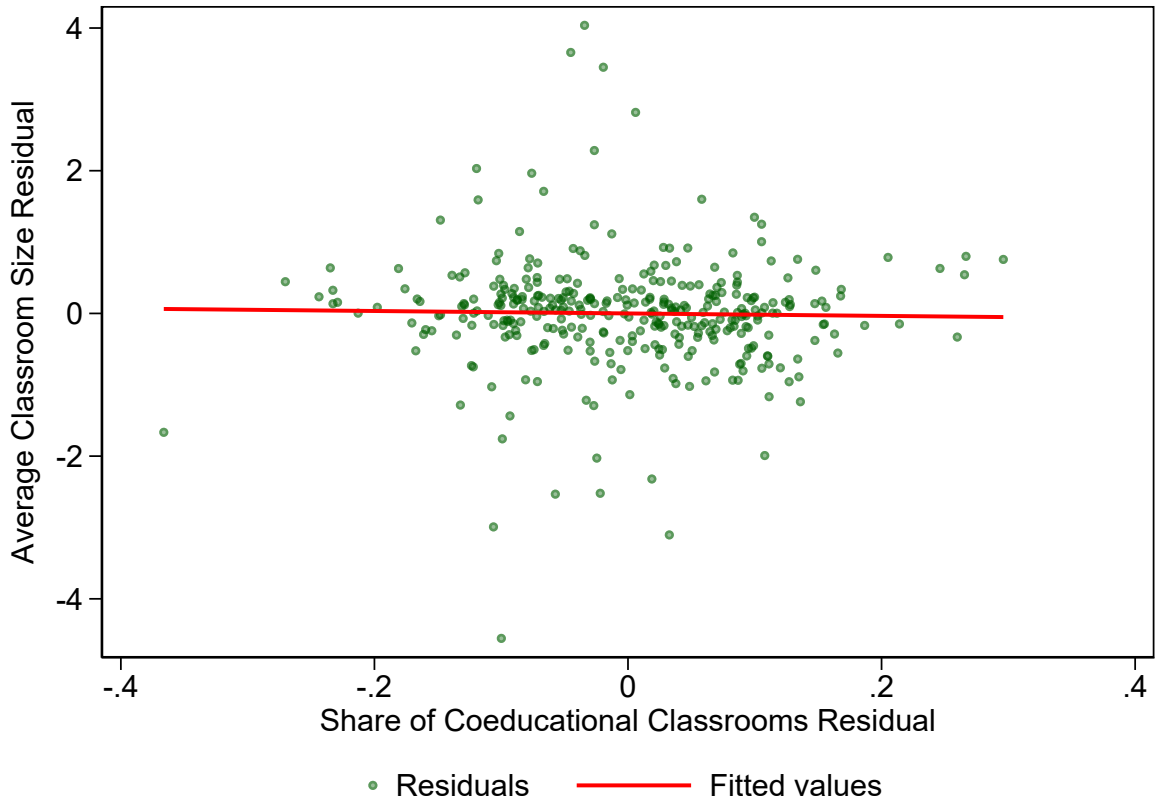
Note: The figure plots the relationship between residualized exposure to coeducation and predicted earnings at age 40 based solely on department characteristics (urbanization rate, average town population, total department population, population growth, GDP per capita, and income per capita). Both variables are residuals from regressions including department and cohort fixed effects. Dots show binned averages across quantiles of the distribution. The fitted blue line represents the linear relationship between the two variables, indicating no systematic correlation ($\beta = -36.65$, $se = 51.72$, $p = 0.48$). Data from PANACT 1983-2013.

Figure A9: Exposure to Coeducation on Annual Earnings - Different Age



Notes: Each point plots the coefficient on the interaction term *Exposure* × *Female* from regressions run separately by age. 95% confidence intervals shown. All specifications include cohort and department fixed effects.

Figure A10: Relationship between Coeducational Classrooms and Class Size



Notes: Classroom size is computed as the average number of students per public classroom in a department and a year. The figure plots the relationship between average class size and exposure to coeducation after removing department and year fixed effects. Each dot represents a department-year observation. The red line shows the fitted regression of residual class size on residual exposure. The relationship is not statistically significant ($\beta = -0.172$, $se = 0.436$, $p = 0.694$). Data from the National Education Tables, 1961-1964. See Appendix Table A10 for details.

Appendix Tables

Table A1: Mean Number of Schools and Classrooms

	(1) 1958	(2) 1959	(3) 1960	(4) 1961	(5) 1962	(6) 1963	(7) 1964	(8) 1965	(9) 1966	(10) 1970
Schools:										
Co-educational (1 class)	244.1	226.5	216.4	213.8	215.2	240.0	235.7	230.8	231.2	191.5
Co-educational (> 1 class)	33.2	25.9	25.7	28.5	127.6	200.6	213.6	231.7	214.0	318.3
Boy's school	317.9	330.9	330.5	335.2	239.1	177.2	169.2	143.9	147.4	40.6
Girl's school	349.8	357.2	360.2	356.5	264.5	201.5	192.4	164.1	169.9	45.1
All	944.9	940.4	932.8	934.1	846.4	819.3	810.9	770.5	762.6	595.5
Classrooms:										
Co-educational (1 class)	217.2	221.0	219.6	213.8	215.4	240.1	235.7	231.8	234.2	206.4
Co-educational (> 1 class)	59.8	51.8	49.6	60.9	275.6	427.4	459.5	507.9	480.7	995.7
Boy's school	863.3	901.4	896.8	917.9	805.6	738.5	753.9	621.3	673.4	370.1
Girl's school	897.9	926.3	1035.9	937.6	836.7	765.0	770.1	633.8	678.9	363.0
All	2045.3	2102.1	2211.8	2130.2	2133.2	2171.0	2219.2	1994.8	2073.8	1935.2
Observations	90	90	90	90	90	90	90	86	88	86

Notes: Author's calculations. National averages from the *National Education Tables* (1958-1970). Averages computed across departments for each school year for public and private institutions.

Table A2: Mean Number of Private Schools and Classrooms

	(1) 1958	(2) 1959	(3) 1960	(4) 1961	(5) 1962	(6) 1963	(7) 1964	(8) 1965	(9) 1966	(10) 1967	(11) 1970
Schools:											
Co-educational (1 class)	4.8	5.8	6.4	5.2	4.9	5.3	5.3	5.8	6.0	10.4	5.3
Co-educational (> 1 class)	7.2	7.3	7.3	8.7	9.6	10.8	13.0	14.3	15.6	19.6	35.2
Boy's school	33.5	32.9	32.5	32.3	31.1	31.2	30.3	28.8	28.0	23.6	16.9
Girl's school	65.7	64.2	62.3	60.6	57.6	55.7	53.7	49.9	47.1	38.9	23.3
All	111.3	110.1	108.5	106.8	103.2	103.0	102.3	98.8	96.8	92.5	80.7
Classrooms:											
Co-educational (1 class)	4.6	5.7	7.3	5.1	5.0	5.2	5.3	6.9	6.0	10.5	5.3
Co-educational (> 1 class)	14.0	15.1	14.8	18.1	21.8	24.6	28.8	33.0	34.6	45.5	97.9
Boy's classrooms	102.9	101.0	99.1	99.9	99.5	106.3	101.8	96.0	95.3	84.8	54.5
Girl's classrooms	161.5	160.8	150.7	151.2	150.9	156.3	149.5	139.8	133.7	116.7	66.9
All	284.4	282.7	271.9	274.4	277.3	292.4	285.4	275.7	271.0	257.5	224.6
Observations	90	90	90	90	90	90	90	90	90	90	88

Notes: Author's calculations. National averages from the *National Education Tables* (1958-1970). Averages computed across departments for each school year for private institutions.

Table A3: Mean Number of Public Schools and Classrooms

	(1) 1958	(2) 1959	(3) 1960	(4) 1961	(5) 1962	(6) 1963	(7) 1964	(8) 1965	(9) 1966	(10) 1968	(11) 1970
Schools:											
Co-educational (1 class)	239.2	220.7	210.0	208.6	210.3	234.7	230.4	224.8	225.2	199.3	186.0
Co-educational (>1 class)	26.0	18.6	18.4	19.8	118.1	189.8	200.6	217.2	198.4	265.5	281.9
Boy's school	284.3	298.0	298.0	302.9	208.0	146.0	138.9	115.7	120.5	80.3	25.8
Girl's school	284.1	293.0	297.9	295.9	206.9	145.7	138.7	115.5	124.1	76.7	25.7
All	833.7	830.3	824.3	827.3	743.2	716.3	708.6	673.3	668.2	621.7	519.4
Classrooms:											
Co-educational (1 class)	212.6	215.3	212.3	208.7	210.4	234.8	230.4	224.7	228.2	205.6	201.0
Co-educational (>1 class)	45.8	36.7	34.8	42.7	253.8	402.8	430.7	474.6	446.5	674.0	896.4
Boy's classrooms	754.8	795.1	797.7	818.0	706.1	632.3	652.1	529.6	580.5	415.6	314.6
Girl's classrooms	736.4	759.7	884.5	786.3	685.7	608.7	620.5	499.6	551.4	384.2	294.9
All	1749.5	1806.8	1938.2	1855.8	1856.0	1878.6	1933.8	1728.4	1806.7	1679.3	1706.9
Observations	90	90	90	90	90	90	90	86	88	86	86

Notes: Author's calculations. National averages from the *National Education Tables* (1958-1970). Averages computed across departments for each school year for public institutions.

Table A4: Overview of Data Sources

Dataset	**Use**	**Level of Observation**
National Education Tables	Coeducation exposure	Department-Year
	Class size	Department-Year
	Choice end of compulsory schooling	Department-Year-Gender
PANACT (All Employees Panel)	Annual Earnings	Individual
	Occupation	Individual
	Sector	Individual
	Annual Working Hours	Individual
Permanent Demographic Sample (EDP)	Labor force participation	Individual
	Education Attainment	Individual
Department Characteristics (Cagé and Piketty, 2023)	Economic controls (GDP, income, population, urbanization)	Department-Year

Table A5: Occupation Categories (PCS 2003) – French and English Labels

French Categories	English Categories
Agriculteurs (salariés de leur exploitation)	**Farmers**
Agriculteurs (salariés de leur exploitation)	Farmers (employees of their farm)
Artisans, commerçants et chefs d'entreprise	**Craftsmen, merchants and business owners**
Artisans salariés de leur entreprise	Craftsmen employed in their business
Commerçants et assimilés salariés de leur entreprise	Merchants and similar, employed in their business
Chefs d'entreprise de 10 salariés ou plus	Business owners with more than 10 employees
Cadres et professions intellectuelles supérieures	**Executives and higher intellectual professions**
Professions libérales salariées	Liberal professions under employee status
Cadres de la fonction publique	Public sector executives
Professeurs, professions scientifiques	Professors, scientific professions
Professions de l'information, des arts et spectacles	Information, arts and entertainment professions
Cadres administratifs et commerciaux d'entreprises	Administrative and commercial executives
Ingénieurs et cadres techniques d'entreprises	Engineers and technical executives
Professions intermédiaires	**Intermediate professions**
Professeurs des écoles, instituteurs, assimilés	Primary school teachers and similar professions
Professions intermédiaires de la santé et du social	Intermediate health and social care professions
Clergé, religieux	Clergy and religious professionals
Professions intermédiaires admin. (secteur public)	Intermediate administrative professions (public sector)
Professions intermédiaires administratives et commerciales (privé)	Intermediate administrative and commercial professions (private sector)
Techniciens (hors techniciens tertiaires)	Technicians (excluding tertiary technicians)
Contremaîtres, agents de maîtrise	Foremen and supervisors (non-admin)
Employés	**Employees**
Employés civils et agents de service (fonction publique)	Civil service employees and support staff
Agents de surveillance	Security and surveillance agents
Employés administratifs d'entreprise	Administrative employees (private sector)
Employés de commerce	Sales employees
Personnels des services directs aux particuliers	Direct personal service workers
Ouvriers	**Workers**
Ouvriers qualifiés de type industriel	Skilled industrial workers
Chauffeurs	Drivers
Ouvriers qualifiés de la manutention et du transport	Skilled workers in handling, warehousing and transport
Ouvriers non qualifiés de type artisanal	Unskilled craft workers
Ouvriers agricoles et assimilés	Agricultural and similar workers

Table A6: Classification of Occupations by Gender Composition and Pay Level

Occupation Category	**Male Share**	**Med. Earnings**	**Male-Dom.**	**High Pay**
Farmers employed on their own farms	0.70	17,266	1	0
Craftsmen employed in their business	0.87	25,703	1	1
Merchants & similar, employed in their business	0.75	25,146	1	1
Business owners with more than 10 employees	0.83	53,144	1	1
Liberal prof. under employee status	0.27	30,709	0	1
Public sector executives	0.58	38,692	0	1
Professors, scientific prof.	0.45	35,486	0	1
Information, arts & entertainment prof.	0.61	20,948	1	0
Admin. & commercial executives	0.63	41,378	1	1
Engineers & technical executives	0.85	43,386	1	1
Primary school teachers & similar prof.	0.37	26,041	0	1
Inter. health & social care prof.	0.20	25,295	0	1
Clergy & religious professionals	0.55	15,644	0	0
Inter. admin. prof. (public sector)	0.37	25,606	0	1
Inter. admin. & commercial prof. (private sector)	0.45	25,125	0	0
Technicians (excluding tertiary technicians)	0.86	27,390	1	1
Foremen & supervisors (non-admin)	0.92	27,628	1	1
Civil service employees & support staff	0.24	18,431	0	0
Security & surveillance agents	0.88	22,846	1	0
Admin. employees (private sector)	0.17	18,580	0	0
Sales employees	0.24	14,427	0	0
Direct personal service workers	0.16	10,055	0	0
Skilled industrial workers	0.83	19,619	1	0
Drivers	0.91	19,022	1	0
Skilled workers in handling, warehousing & transport	0.90	19,106	1	0
Unskilled craft workers	0.53	13,868	0	0
Agricultural & similar workers	0.65	12,868	1	0

Notes: The Male Share is calculated as the ratio of men to total employed individuals in each occupational category, using data for the cohort that is 15 years older than the first cohort analyzed. Median earnings refer to the median income within each occupational category. Male-dominated occupations are defined as those with a male share greater than 0.6. High-pay occupations correspond to those with median earnings above the overall median.

Table A7: Exposure to Coeducation on Log Annual Earnings

	No Movers (1)	**Incl. Private Schools** (2)	**Mid Cohorts** (3)	**Excl. Paris** (4)	**Exposure Age 6** (5)
Female (β_1)	-0.558***	-0.511***	-0.477***	-0.520***	-0.516***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Exposure (β_2)	-0.0637**	-0.0710***	0.0191	-0.0870***	-0.0980***
	(0.046)	(0.004)	(0.726)	(0.000)	(0.001)
Exposure × Female (β_3)	0.198***	0.171***	0.0960***	0.174***	0.212***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	X	X	X	X	X
Department FE	X	X	X	X	X
Cohort FE	X	X	X	X	X
Observations	158268	260963	73385	252202	145977
Departments	88	88	88	88	88
$\beta_2 + \beta_3$	0.1***	0.1***	0.1**	0.1***	0.1***

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is log annual earnings at age 40 (2019 euros). Exposure is defined as the mean share of coeducational classrooms in the birth department during ages 6–10. Columns (1), (3) and (5) measure exposure using public schools only, while Column (2) includes both public and private schools. The sample also varies accordingly: Column (1) excludes individuals who moved between birth and working departments, Column (3) restricts to mid-range birth cohorts, Column (4) excludes individuals born in Paris, and Column (5) defines exposure based on age 6 only. The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. All regressions include cohort and department fixed effects. All regressions include cohort and department fixed effects. Standard errors clustered at the department level. Data from PANACT 1983-2013.

Table A8: Exposure to Coeducation by Level of Urbanization

	Log Annual Earnings			
	Low urbanisation	Medium-low	Medium-high	High urbanisation
	(1)	(2)	(3)	(4)
Female (β_1)	-0.54***	-0.51***	-0.56***	-0.49**
	(0.000)	(0.000)	(0.000)	(0.045)
Exposure (β_2)	-0.17*	-0.02	-0.07*	-0.09**
	(0.06)	(0.850)	(0.099)	(0.045)
Exposure × Female (β_3)	0.22***	0.16***	0.22***	0.15***
	(0.001)	(0.000)	(0.000)	(0.000)
Controls	X	X	X	X
Department FE	X	X	X	X
Cohort FE	X	X	X	X
Observations	27385	52609	68096	112873
Departments	88	88	88	88
$\beta_2 + \beta_3$	0.05	0.13	0.14***	0.06

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is annual earnings at age 40 (2019 euros). Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The urbanization rate is defined as the share of the population living in towns with more than 2000 inhabitants. Column (1) to the first quartile (urbanization rate below 0.43), Column(2) to the second quartile (between 0.43 and 0.51), Column (3) to the third quartile (between 0.51 and 0.63), and Column (4) to the top quartile (above 0.63). The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. All regressions include cohort and department fixed effects. Standard errors clustered at the department level. Data from PANACT 1983-2013.

Table A9: Exposure to Coeducation by Cohorts

	Annual Earnings		**Log Earnings**	
	Older Cohorts	Younger Cohorts	Older Cohorts	Younger Cohorts
	(1)	(2)	(3)	(4)
Female (β_1)	-8482.6***	-7061.5***	-0.545***	-0.496***
	(0.000)	(0.000)	(0.000)	(0.000)
Exposure (β_2)	-2104.3***	-999.3***	-0.0220	-0.104***
	(0.072)	(0.002)	(0.790)	(0.002)
Exposure × Female (β_3)	6441.5***	1066.3***	0.329***	0.155***
	(0.000)	(0.000)	(0.000)	(0.000)
Controls	X	X	X	X
Department FE	X	X	X	X
Cohort FE	X	X	X	X
Observations	19218	241745	260963	260963
Departments	88	88	88	88
Mean Outcome (All)	20834	21574	9.660	9.720
Mean Outcome (Female)	16541	18397	9.370	9.540
Mean Outcome (Male)	24073	24462	9.870	9.890
$\beta_2 + \beta_3$	4337.2	67.1	0.218***	0.1009**

Notes: Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcomes in columns (1)–(2) is annual earnings at age 40 (2019 euros), Columns (3)–(4) is the logarithm of annual earnings. Older cohorts is individuals born from 1943 to 1957, younger cohorts is those born from 1958 to 1973. Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. All regressions include cohort and department fixed effects. Standard errors clustered at the department level. Data from PANACT 1983-2013.

Table A10: Share of Coeducational Classrooms and Average Classroom Size

	Average Classroom Size
Share of Coeducational Classrooms	-0.217
	(0.704)
Department FE	X
Year FE	X
Observations	345
Departments	88

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the average number of students per classroom in a department-year. The key regressor is the share of coeducational classrooms in the department-year. All specifications include department and year fixed effects. Standard errors are clustered at the department level. Data from the National Education Tables, 1961–1964.

Table A11: Choice at the End of Compulsory Schooling

		Path if continue	
	(1)	(2)	(3)
	Continue	General	Vocational
Female (β_1)	0.100***	0.013**	0.060***
	(0.000)	(0.017)	(0.000)
Exposure (β_2)	0.045	0.089**	-0.042
	(0.136)	(0.044)	(0.415)
Exposure × Female (β_3)	-0.042	0.056*	-0.064
	(0.411)	(0.096)	(0.177)
Department FE	X	X	X
Cohort FE	X	X	X
Controls	X	X	X
Observations	997,119	538,328	538,328
Departments	88	88	88
$\beta_2 + \beta_3$	0.003	0.145***	-0.106**

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column (1) reports the probability of continuing schooling after the end of compulsory education (age 14), where "Continue" includes students who repeat a grade or continue in either general or vocational tracks. "Stop" includes those who leave school to work or stay at home. Columns (2) and (3) show, among students who continue, the choice between general and vocational education. Outcome is the choice at the end of compulsory schooling (age 14). Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 9-10. The first row reports the unconditional gender gap relative to males. The second row shows the effect of coeducation on males. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ gives the effect of coeducation on females. All regressions include cohort and department fixed effects. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. All regressions include cohort and department fixed effects. Standard errors clustered at the department level. Data from the National Education Table 1962-1963

Table A12: Exposure to Coeducation on Education

	Years of Education
Female (β_1)	-0.226
	(0.634)
Exposure (β_2)	-0.2767***
	(0.569)
Exposure × Female (β_3)	0.1968
	(0.682)
Controls	X
Department FE	X
Cohort FE	X
Observations	29154
Departments	88
Mean Outcome (All)	10.94
Mean Outcome (Female)	11.16
Mean Outcome (Male)	10.73
$\beta_2 + \beta_3$	-0.8

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is the number of years of education. Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2+\beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. Regression includes cohort and department fixed effects. Standard errors clustered at the department level. Data from EDP 1983-2013.

Table A13: Exposure to Coeducation on Education - All ages

	Years of Education
Female (β_1)	-0.4455***
	(0.000)
Exposure (β_2)	-0.3979***
	(0.000)
Exposure × Female (β_3)	0.9284
	(0.000)
Controls	X
Department FE	X
Cohort FE	X
Observations	674052
Departments	88
Mean Outcome (All)	10.59
Mean Outcome (Female)	10.60
Mean Outcome (Male)	10.59
$\beta_2 + \beta_3$	0.5305***

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is the number of years of education. Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2+\beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. Regression includes cohort and department fixed effects. Standard errors clustered at the department level. Data from EDP 1983-2013.

Table A14: Exposure to Coeducation on Occupational Segregation

	Male Dominated (MD) (1)	**High Paying (HP)** (2)	**MD, HP** (3)
Female (β_1)	-0.52***	-0.12***	-0.19***
	(0.000)	(0.000)	(0.000)
Exposure (β_2)	-0.02*	-0.03***	0.01
	(0.091)	(0.006)	(0.521)
Exposure × Female (β_3)	0.04***	0.06***	0.00
	(0.000)	(0.000)	(0.418)
Controls	X	X	X
Department FE	X	X	X
Cohort FE	X	X	X
Observations	260963	260963	260963
Departments	88	88	88
Mean Outcome (All)	0.41	0.39	0.19
Mean Outcome (Female)	0.16	0.36	0.09
Mean Outcome (Male)	0.64	0.42	0.28
$\beta_2 + \beta_3$	0.02*	0.03***	0.01

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is annual earnings at age 40 (2019 euros). Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional gender gap relative to males. The second row shows the effect of coeducation on males. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ gives the effect of coeducation on females. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. All regressions include cohort and department fixed effects. All regressions include cohort and department fixed effects. Standard errors clustered at the department level. Data from PANACT 1983-2013.

Table A15: Exposure to Coeducation on Labor Participation

	Active
Female (β_1)	-0.03**
	(0.099)
Exposure (β_2)	-0.001
	(0.828)
Exposure × Female (β_3)	0.03
	(0.101)
Controls	X
Department FE	X
Cohort FE	X
Observations	26626
Departments	88
Mean Outcome (All)	0.995
Mean Outcome (Female)	0.9917
Mean Outcome (Male)	0.998
$\beta_2 + \beta_3$	0.033

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is ever worked at age 40. Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. Regression includes cohort and department fixed effects. Standard errors clustered at the department level. Data from EDP 1983-2013.

Table A16: Exposure to Coeducation on Labor Participation - All ages

	Active
Female (β_1)	-0.01***
	(0.000)
Exposure (β_2)	-0.006***
	(0.000)
Exposure × Female (β_3)	0.01
	(0.000)
Controls	X
Department FE	X
Cohort FE	X
Observations	506507
Departments	88
Mean Outcome (All)	0.9934
Mean Outcome (Female)	0.9896
Mean Outcome (Male)	0.9971
$\beta_2 + \beta_3$	0.001***

Notes: P-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Outcome is having ever worked. Exposure is defined as the average share of coeducational classrooms in public schools when the cohort was aged 6-10. The first row reports the unconditional annual earnings gap relative to males. The second row shows the effect of coeducation on males' annual earnings. The third row indicates the differential effect of coeducation between the genders. $\beta_2 + \beta_3$ is the effect of coeducation on females' annual earnings. Controls include: urbanization rate, average town population, total population in department, average town population growth, GDP per capita, and income per capita. Regression includes cohort and department fixed effects. Standard errors clustered at the department level. Data from EDP 1983-2013.