Decline in values of degrees and recent evolution of wage inequality: Evidence from Chile*

Disminución en el valor de los títulos y la evolución reciente de la desigualdad salarial: Evidencia de Chile

Yoshimichi Murakami**
Tomokazu Nomura***

Abstract

Using data from nationally and regionally representative household surveys, we analyze the association between the changes in coefficients of dummy variables for higher education degrees in the wage equation and evolution of wage inequality in Chile from 2013-2017. Employing a decomposition method using unconditional quantile regressions, we find that a significant decline in the coefficients of professional degrees, especially from new private universities, with a larger magnitude at upper quantiles, is associated with a substantial reduction in wage inequality. The results are robust to the correction for sample selection bias and control for workers' occupation and firm size categories.

Key words: *Higher education, wage inequality.*

JEL Classification: *I23, I24, I26, J31.*

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** Corresponding author. Research Institute for Economics and Business Administration (RIEB), Kobe University, 2-1, Rokkodai, Nada-ku, Kobe 657-8501, Japan. E-mail: y-murakami@rieb.kobe-u.ac.jp

*** Faculty of Information Technology and Social Sciences, Osaka University of Economics, Osaka, Japan. E-mail: t.nomura@osaka-ue.ac.jp

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Resumen

Usamos datos de encuestas de hogares para analizar la asociación entre cambios en los retornos a la educación superior en ecuaciones de salarios y la evolución de la desigualdad salarial en Chile entre 2013 y 2017. Empleamos un método de descomposición con la regresión de cuantiles incondicionales y encontramos que una caída significativa en el retorno a títulos profesionales, especialmente de universidades privadas nuevas, se asocia con reducciones substanciales en la desigualdad salarial. Los resultados son robustos a correcciones por sesgo de selección e inclusión de controles por ocupación y tamaño de empresa.

Palabras clave: *Educación superior, desigualdad salarial.*

Clasificación JEL: *I23, I24, I26, J31.*

1. Introduction

Over the past three decades, Latin American countries (LACs) have experienced rapid expansion in higher education. The average gross enrollment rate in higher education for 16 LACs increased from 18.8% in 1990 to 57.0% in 2017.[1] Such educational expansion is likely associated with wage inequality through changes in the proportion of educated workers and the return to education (Knight & Sabot, 1983).[2] Returns to higher education and income inequality slightly increased in LACs during the 1990s. By contrast, the returns to higher education and income inequality sharply decreased since the 2000s (Gasparini *et al.*, 2011; Figures 9 and 10 of Rodríguez-Castelán *et al.*, 2016: 16-17).

The observed reduction in returns to higher education in LACs since the 2000s, which contrasts with the region's previous trend, is a crucial area of research. A possible reason for the reduction in the returns to higher education is an increase in the share of educated workers, which decreases wage inequality as long as the return to education is negatively correlated with educational attainment (Coady & Dizioli, 2018; Murakami & Nomura, 2020). However, the observed reduction in returns to higher education exceeded what the quantity expansion of educated

[1] The 16 countries are Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, México, Nicaragua, Panamá, Paraguay, Perú, Uruguay, and Venezuela. We sourced the data from CEPALSTAT of the Economic Commission for Latin America and the Caribbean (ECLAC). (https://statistics.cepal.org/portal/cepalstat/index.html?lang=es, accessed on June 21, 2022).

[2] In the literature, the term "returns to higher education" does not necessarily mean the causal effect of higher education on wages. In our study, recognizing that the distinction between a causal effect and correlation is crucial, we use the term "coefficients of higher education" instead.

workers predicts in several LACs (Messina & Silva, 2018). Moreover, the decline in the returns to higher education was not homogenous across different types of degrees and degree-granting institutions (Camacho *et al.*, 2016 for Colombia; González-Velosa *et al.*, 2015 for Chile and Colombia).

Considered among the most successful LACs regarding economic growth as well as far-reaching economic and institutional reforms, Chile, nonetheless, has a similarly high level of income inequality as other LACs and presents an ideal case for analyzing the association between recent changes in returns to degrees and the evolution of wage inequality. Before the reform in 1980, higher education in Chile consisted of two state universities and six private universities, which offered five-year programs leading to college degrees (Brunner, 1993; Cox, 1996). The higher education reform deregulated the country's standards for establishments and diversified its system. Accordingly, many new private universities and non-university higher education institutions have been established with minimum requirements (Brunner, 1993; Cox, 1996). The latter comprise Professional Institutes (*Institutos Profesionales*, IPs), which provide four-year programs leading to professional degrees (*títulos profesionales*), and Technical Training Centers (*Centros de Formación Técnica*, CFTs), which provide two-year vocational programs leading to technical degrees (*títulos técnicos de nivel superior*). Meanwhile, only universities continue to offer five-year programs leading to professional and college degrees (*licenciaturas*) and allow graduates to enroll in post-graduate schools (Brunner, 1993; Cox, 1996; Espinoza & González, 2013). Moreover, universities in Chile are distinguished into (1) traditional universities, known as the Council of Rectors of Chilean Universities (*Consejo de Rectores de las Universidades Chilenas*, CRUCH), which consist of state and private universities that existed before the 1980 reform and those derived from them and (2) new private universities founded after 1980 (Cox, 1996; Espinoza & González, 2013).

Based on these diversified higher education systems, Montoya *et al.* (2017) and Rodríguez *et al.* (2016) precisely estimate the returns to those different types of higher education degrees (i.e., technical, professional, and college degrees) by addressing the endogeneity issue due to unobserved abilities. González-Velosa *et al.* (2015) find that technical and professional degrees' returns are substantially heterogeneous across degree-granting institutions. However, since those studies estimate the returns to degrees in a particular year, they do not analyze their evolution over time. Moreover, the association between the changes in returns to degrees and wage inequality evolution is beyond the scope of their analyses.

Therefore, based on the data from nationally and regionally representative household surveys, this study aims to analyze the association between the changes in the coefficients of dummy variables for higher education degrees in the wage equation and the evolution of wage inequality in Chile from 2013 to 2017. For this purpose, this study takes advantage of a method proposed by Firpo *et al.* (2009). By this method, we can extend the Oaxaca-Blinder (O-B) decomposition (Blinder, 1973; Oaxaca, 1973) and decompose changes in distributional statistics beyond the mean (e.g., quantiles) into a part attributable to the changes in the workforce's average characteristics (e.g., an increase in the share of workers with higher

education) and a part attributable to the changes in the characteristics' coefficients (e.g., a decrease in the coefficients of higher education degrees).

By employing this method, Fernández and Messina (2018) and Murakami and Nomura (2020) find that a decrease in education premiums, with a larger magnitude at upper quantiles, had a prominent role in decreasing wage inequality among full-time employed workers in Chile from 1990 to 2013 and 2000 to 2013, respectively.

However, Fernández and Messina (2018), who use only years of schooling as the variable indicating educational achievements, do not account for any heterogeneous returns to different types of degrees. Moreover, they include only potential experience (and their quadric terms) and a female dummy as control variables. Therefore, the estimated returns to education may contain bias due to omitted variables, and the contribution of the changes in education premiums to the reduction in wage inequality is likely to be overestimated. Although Murakami and Nomura (2020) find a significant difference between returns to technical and professional degrees, they do not consider within-degree heterogeneity associated with degree-granting institutions. Furthermore, both studies do not deal with any potential bias in the estimated returns to education associated with the non-random selection of full-time employed workers.

Consequently, a novel contribution of this study to the literature is identifying the association between changes in the coefficients of different types of degrees and the recent evolution of wage inequality in Chile after including appropriate control variables. We reveal that a significant decrease in the coefficients of professional degrees, especially from new private universities, with a larger magnitude at upper quantiles, is associated with a substantial reduction in wage inequality. Furthermore, we verify that the findings are robust to the correction for the sample selection bias, the control for workers' occupation and firm size categories, and the choice of the analysis period.

This paper is organized as follows. Section 2 explains the data employed in the analysis and presents the descriptive statistics. Section 3 presents the empirical specifications and explains the decomposition method using unconditional quantile regressions. Section 4 presents the estimation results. Section 5 performs several robustness checks, and the final section concludes the paper and provides some policy implications.

2. Data and descriptive statistics

The data used for the analysis were sourced from the 2013 and 2017 Socioeconomic Characterization Surveys (*Encuesta de Caracterización Socioeconómica Nacional*, CASEN).[3] The CASEN survey is a cross-sectional

[3] We sourced the data from the Ministry of Social Development and Family of Chile (http://observatorio.ministeriodesarrollosocial.gob.cl/encuesta-casen-2013 and http://observatorio.

household survey conducted every two or three years by the Ministry of Social Development of Chile, collaborating with the National Institute of Statistics (*Instituto Nacional de Estadísticas*, INE) and the Microdata Center of the Department of Economics at the University of Chile.[4] The survey's objectives are to measure the socioeconomic characteristics of households and provide necessary information to design and evaluate the country's social policies. Thus, the survey provides detailed information on demographic characteristics, education, employment, sources of income, health, and housing. The survey covered 66,725 and 70,948 households and 218,491 and 216,439 individuals in 2013 and 2017, respectively. The survey provides non-response adjusted expansion weights.[5] Using the weights, the sample represents the country at national, regional, and urban/rural levels (Ministerio de Desarrollo Social, 2015). The expansion weights are used for all estimations in this study.

In this study, we define wages as regular monetary earnings from a principal occupation, deflated by the national consumer price index (December 2008 = 1).[6] Thus, the defined wages do not include non-regular wages from a principal occupation, such as overtime wages, commissions, tips, bonuses, or any additional income from a principal occupation, such as housing, transportation, and education allowances. Since the data on income variables had already been corrected and adjusted for non-response and missing income values, we do not apply further data-cleaning, including dropping outliers, to the data on wages.

The sample is limited to full-time (more than 35 hours per week) male and female employed workers aged 24 to 50 years. We limit the sample to those up to 50 years old (i.e., born in 1962 or later) because they enrolled in higher education after the 1980 reform. We exclude self-employed workers, part-time workers, and military personnel because their income or wages are likely to be determined differently from the wages of full-time workers. Since this limitation may lead to potential selection bias in the estimated coefficients of degrees, we try to correct this bias using the seminal Heckman two-step procedure (Heckman, 1979) in Section 5.1.

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ministeriodesarrollosocial.gob.cl/encuesta-casen-2017, accessed on October 3, 2015, and October 4, 2019, respectively). Although the data from CASEN 2020 survey are also available, the survey does not report the educational institution from which individuals obtained their final degree.

4 The former has been responsible for the sampling design and elaboration of expansion weights, while the latter has contracted to implement field surveys and data processing (Ministerio de Desarrollo Social, 2015).

5 According to Chumacero *et al.* (2011), we use the term "expansion weights." The original term of the survey is *factor de expansión* ("expansion factor" in English).

6 We sourced the data from the Central Bank of Chile (http://www.bcentral.cl/estadisticas-economicas/series-indicadores/index_p.htm and https://si3.bcentral.cl/Siete/en, accessed on January 1, 2015, and December 22, 2020, respectively).

The CASEN 2013 and 2017 surveys report the educational institution from which individuals obtained their final degree for those who attended higher education.[7] Meanwhile, the category of a college degree has been incorporated into the category of a professional degree. Therefore, the available degree types for our analysis are technical, professional, and post-graduate degrees, while the available institution types are CFTs, IPs, new private universities, and traditional universities. While universities can offer the above three types of degrees, IPs can offer only technical and professional degrees, and CFTs can offer only technical degrees. In this study, we set a separate category for those who did not complete a given program and thus did not obtain a degree, irrespective of the type of institution that they attended. To minimize any missing observations, we also set a category for those who did not know the type of institution they attended or did not respond to the question. The resulting degree-institution type combinations are listed in Table 1.

Table 1 presents the descriptive statistics of variables used for our wage equation presented in Section 3. We find that the reduction in wage inequality, which was observed during the 2000s as reported by Fernández and Messina (2018), Murakami and Nomura (2020), and Parro and Reyes (2017), persisted from 2013 to 2017. The log hourly wage gap between the 90th and 10th quantiles decreased from 1.552 to 1.409. The gap between the 90th and 50th quantiles decreased from 1.054 to 0.982. We further find that workers with higher educations, including those who did not complete a given program, increased from 34.2% in 2013 to 42.7% in 2017. Although the share of any type of higher education degrees and institutions has increased, the increase is especially evident in workers with professional degrees. We further find an increase in the share of female employment among full-time wage workers in this period.

Figure 1 shows the estimated wage distribution for each workers' group classified by educational achievements in 2013 and 2017. While the share of workers with professional degrees earning wages above the 90th percentile of the overall wage distribution declined, those earning below the 50th percentile increased. As a result, the wage distribution in 2017 is more symmetric. Similarly, while the share of workers with technical degrees earning wages above the 50th percentile of the overall wage distribution declined, those earning below the 50th percentile increased. Thus, the wage distribution of workers with technical degrees became more right-skewed in 2017. The findings indicate that the share of higher wage earners has declined among workers with both professional and technical degrees.

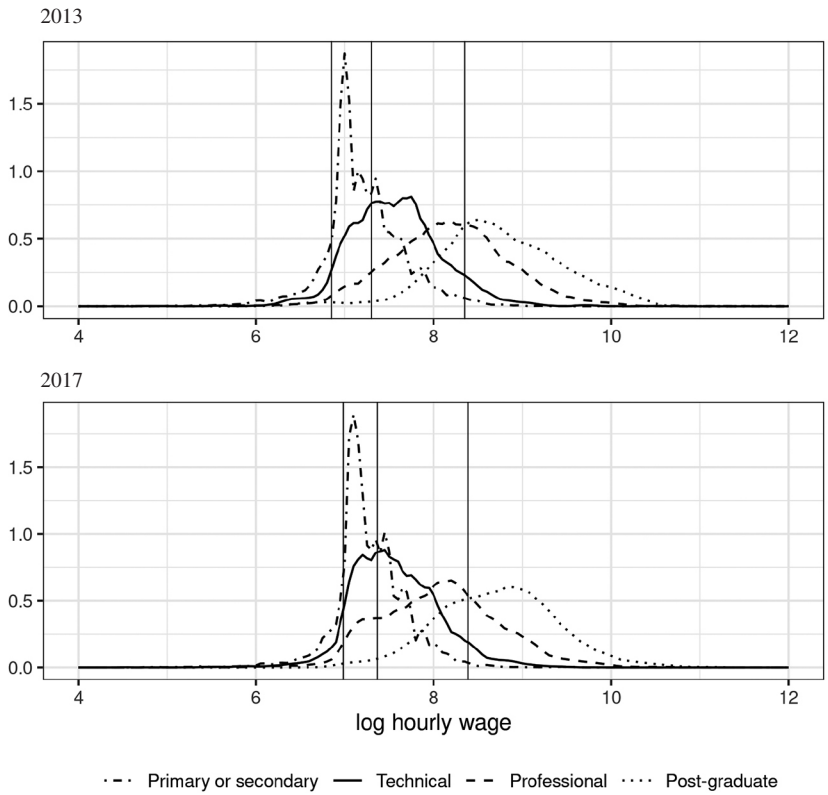
[7] Although the CASEN 2017 survey reports a more disaggregated classification of the degree-granting institution, we have aggregated some categories such that the results correspond with the categories in the 2013 survey.

TABLE 1
DESCRIPTIVE STATISTICS OF THE VARIABLES IN 2013 AND 2017

	2013	2017
Observations	35,626	35,543
Log hourly wage		
Mean	7.481	7.570
Q10	6.878	7.017
Q50	7.375	7.444
Q90	8.430	8.426
Primary education or less	0.143	0.109
Secondary education	0.515	0.465
Scientific-Humanistic school	0.373	0.346
Technical-Vocational school	0.142	0.118
Higher education	0.342	0.427
Technical degree	0.120	0.143
CFT	0.032	0.028
IP	0.059	0.070
New private university	0.004	0.009
Traditional university	0.002	0.005
Does not know/No response	0.004	0.006
Incomplete	0.020	0.024
Professional degree	0.203	0.255
IP	0.014	0.027
New private university	0.061	0.075
Traditional university	0.087	0.111
Does not know/No response	0.009	0.007
Incomplete	0.031	0.036
Post-graduate degree	0.019	0.029
New private university	0.005	0.008
Traditional university	0.011	0.017
Does not know/No response	0.001	0.001
Incomplete	0.002	0.003
Experience	18.658	17.521
Male	0.588	0.558
Head of the household	0.475	0.455
Married	0.355	0.293
Formal	0.903	0.904
Urban	0.895	0.897

Note: Q10, Q50, and Q90 represent the 10th, 50th, and 90th unconditional quantiles of log hourly wages, respectively. CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales)*.
Source: Authors' calculations based on data from the CASEN 2013 and 2017 surveys.

FIGURE 1
THE ESTIMATED LOG HOURLY WAGE DISTRIBUTION IN 2013 AND 2017, CLASSIFIED BY EDUCATIONAL ACHIEVEMENTS



Note: The vertical lines show the 10th, 50th, and 90th quantiles of the overall wage distribution for each year.
Source: Authors' calculations based on data from the CASEN 2013 and 2017 surveys

3. Empirical specification

3.1. Wage equation

To analyze the association between educational achievements and individual wages, we separately estimate the wage equation for 2013 and 2017. Given that recent studies find within-degree heterogeneity in returns to degrees in Chile (González-Velosa *et al.*, 2015; Rodríguez *et al.*, 2016), we consider that the returns to higher education are heterogeneous across different types of degrees and degree-granting institutions (i.e., CFTs, IPs, new private universities, and traditional universities). Thus, we include dummy variables indicating an individual's final educational achievement (i.e., the degree obtained) interacted with

dummy variables indicating the educational institution granting the degrees in the wage equation.

We estimate the following wage equation for each year, $t = 2013$ and 2017, separately:

$$\ln w_{it} = \sum_{jt}\sum_{kt} \rho_{jkt} I\left(degree_{it} = j \ and \ institution_{it} = k\right) + \boldsymbol{Z}_{it}^{'}\boldsymbol{\delta}_t + \varepsilon_{it}, \tag{1}$$

where w_{it} represents hourly wages. $I(\cdot)$ is the indicator function taking a value of 1 if the condition is satisfied and 0, otherwise. The subscript i indicates individual, j type of higher education degree, and k type of degree-granting institution. ρ_{jkt} is the coefficient of the dummy variable for higher education degree given the type of degree and degree-granting institution and what we are focusing on in this study. $\boldsymbol{Z}_{it}$ represents other control variables which may affect the wage, and ε_{ijt} is an error term.

The vector of control variables $\boldsymbol{Z}_{it}$ includes years of potential labor experience (age – years of schooling – 6) and its squared term divided by 100. The vector also includes dummy variables for male workers, heads of household, married workers, workers with written employment contracts, and workers living in urban areas. Industry dummies (classified at the two-digit level of the International Standard Industrial Classification (ISIC) Revision 3) and region dummies are also included in the vector of control variables. Since we evaluate the coefficients of higher education degrees relative to secondary education, a dummy variable indicating whether the individual's educational achievement is primary education or less is also included.

The surveys report a worker's occupation at the four-digit level of the International Standard Classification of Occupations (ISCO)-88. However, we do not include the variable in the wage equation in our main analysis because we consider that the coefficients of higher education degrees include the increasing opportunities for higher-paying occupations rather than the coefficients within a given occupation. However, as a robustness check, we show the results controlling for the occupational categories in Sections 5.3 and 5.4.

3.2. Decomposition of the wage distribution

To analyze the association between the changes in the coefficients of higher education degrees and the evolution of wage inequality, we decompose the evolution of wage distribution from 2013 to 2017 into changes attributable to changes in explanatory variables (i.e., composition effect) and the coefficients of explanatory variables (i.e., wage structure effect). For this purpose, we employ the method proposed by Firpo *et al.* (2009) of estimating unconditional quantile regressions, which allows the O-B decomposition at any unconditional quantiles. A clear advantage of the method is that it allows for the subdivision of the overall composition and wage structure effects into the contribution of each explanatory

variable (Fortin *et al.*, 2011). The O-B decomposition was initially used for the decomposition based on the average between two groups over the same period. However, the extended O-B decomposition, based on the method by Firpo *et al.* (2009), is widely used to analyze the changes in wage distribution between two periods, particularly to analyze the association between educational expansion and the evolution of wage inequality (Firpo *et al.*, 2018).[8]

The key idea of this method is to replace the observed value of a dependent variable with an estimated value of the re-centered influence function (RIF) and regress the RIF value on the covariates (unconditional quantile regression). The RIF value at the τ-th unconditional quantile of the dependent variable $\ln w_{it}$ is given by:

$$\text{RIF}\left(\ln w_{it},\, q_t^{\tau}\right) = q_t^{\tau} + \frac{\tau_t - I\left\{\ln w_{it} \le q_t^{\tau}\right\}}{f_{\ln w_{it}}\left(q_t^{\tau}\right)}, \tag{2}$$

where q_t^{τ} is the τ-th unconditional quantile of the dependent variable, and $\ln w_{it}$. $I(\cdot)$ is an indicator function taking a value of 1 if the condition is satisfied and 0, otherwise. $f_{\ln w_{it}}\left(q_t^{\tau}\right)$ is the density of $\ln w_{it}$ evaluated at q_t^{τ}. Since the expectation of RIF at the τ-th unconditional quantile is equal to the variable's τ-th unconditional quantile and the law of iterated expectations applies in the case of RIF values, the estimated coefficients of the unconditional quantile regression indicate a marginal effect on $\hat{q}_t^{\tau}$ (see Note 5 and equation (4) of Firpo *et al.*, 2009: 954, 957):

$$\hat{q}_t^{\tau} = \mathrm{E}\left[\widehat{\text{RIF}}\left(\ln w_{it},\, q_t^{\tau}\right)\right] = \mathrm{E}\left[\mathrm{E}\left(\widehat{\text{RIF}}\left(\ln w_{it},\, q_t^{\tau}\right)|\boldsymbol{X}_{it}\right)\right] = \overline{\boldsymbol{X}}_{it}^{'}\hat{\beta}_t^{\tau}, \tag{3}$$

where $\boldsymbol{X}_{it}$ is a vector of all explanatory variables in equation (1). The bar over the term denotes the mean. $\hat{\beta}_t^{\tau}$ is a vector of the estimated coefficients of the unconditional quantile regression at the τ-th quantile.

Thus, we can write the equivalent of the O-B decomposition for any unconditional quantile as equation (35) of Fortin *et al.* (2011: 78). That is, by adding and subtracting the counterfactual wage quantile for 2017 $\hat{q}_{2017c}^{\tau} = \overline{\boldsymbol{X}}_{2017}^{'}\hat{\beta}_{2013}^{\tau}$, which would prevail if individuals in 2017 would have been paid under the wage structure in 2013, the change in the wage distribution between 2013 and 2017 at the τ-th quantile is decomposed as follows:

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8 Other examples are Fernández and Messina (2018) for Argentina, Brazil, and Chile; Murakami and Nomura (2020) for Chile; Sámano-Robles (2018) for 18 LACs; Seneviratne (2019) for Sri Lanka; and Yang and Gao (2018) for China.

$$
\begin{aligned}
&\hat{q}^{\tau}_{2017} - \hat{q}^{\tau}_{2013} = \left(\hat{q}^{\tau}_{2017c} - \hat{q}^{\tau}_{2013}\right) + \left(\hat{q}^{\tau}_{2017} - \hat{q}^{\tau}_{2017c}\right) \\
&= \left(\bar{\boldsymbol{X}}'_{2017}\hat{\beta}^{\tau}_{2013} - \bar{\boldsymbol{X}}'_{2013}\hat{\beta}^{\tau}_{2013}\right) + \left(\bar{\boldsymbol{X}}'_{2017}\hat{\beta}^{\tau}_{2017} - \bar{\boldsymbol{X}}'_{2017}\hat{\beta}^{\tau}_{2013}\right) \\
&= \left(\bar{\boldsymbol{X}}'_{2017} - \bar{\boldsymbol{X}}'_{2013}\right)\hat{\beta}^{\tau}_{2013} + \bar{\boldsymbol{X}}'_{2017}\left(\hat{\beta}^{\tau}_{2017} - \hat{\beta}^{\tau}_{2013}\right).
\end{aligned} \tag{4}
$$

In equation (4), the first term on the last line of the right-hand side represents the composition effect, which captures the change in log hourly wages at the τ-th quantile attributable to changes in the average individuals' characteristics, holding the coefficients of individuals constant at the values in 2013. The second term represents the wage structure effect, which captures the change attributable to the changes in the coefficients of explanatory variables, holding the characteristics of individuals fixed at the average of 2017.[9]

Finally, based on the result of equation (4), we can decompose the evolution of wage inequality measured by the difference between the upper quantile *U* and lower quantile *L* $\left(\text{let } \tau \in \{U, L\}\right)$ from 2013 to 2017 as follows (see equation 3.3 of Fernández & Messina, 2018: 560):

$$
\begin{aligned}
&(\hat{q}^{U}_{2017} - \hat{q}^{L}_{2017}) - (\hat{q}^{U}_{2013} - \hat{q}^{L}_{2013}) \\
&= \left(\bar{\boldsymbol{X}}'_{2017}\hat{\beta}^{U}_{2017} - \bar{\boldsymbol{X}}'_{2013}\hat{\beta}^{U}_{2013}\right) - \left(\bar{\boldsymbol{X}}'_{2017}\hat{\beta}^{L}_{2017} - \bar{\boldsymbol{X}}'_{2013}\hat{\beta}^{L}_{2013}\right) \\
&= \left(\bar{\boldsymbol{X}}'_{2017} - \bar{\boldsymbol{X}}'_{2013}\right)\left(\hat{\beta}^{U}_{2013} - \hat{\beta}^{L}_{2013}\right) + \bar{\boldsymbol{X}}'_{2017}\left[\left(\hat{\beta}^{U}_{2017} - \hat{\beta}^{U}_{2013}\right) - \left(\hat{\beta}^{L}_{2017} - \hat{\beta}^{L}_{2013}\right)\right].
\end{aligned} \tag{5}
$$

The first term on the last line of the right-hand side of equation (5) represents the difference in the composition effects between the upper and lower quantiles, and the second term represents the difference in the wage structure effects between the upper and lower quantiles. Following previous studies analyzing LACs, including Fernández and Messina (2018), we choose *U* as the 90th quantile and *L* as the 50th and 10th quantiles. This choice is based on the findings that income inequality in Chile is fundamentally due to the significant inequality between the wealthiest 10 percent and the rest of the population, while the country's inequality among the rest is relatively small (Núñez & Gutiérrez, 2004).

[9] Thus, the O-B decomposition assumes that the counterfactual wages of a group or period can be constructed based on the observed wage structure of the reference group or period. For example, we assume that the counterfactual wage distribution in 2017, which would prevail if the workers were paid on the same basis as in 2013, can be calculated based on the observed wage structure in 2013 (see assumption 3 of Fortin *et al.*, 2011: 16-17). However, it is natural that the wage structure may change because of the compositional changes. Therefore, the assumption is a significant limitation inherent in the O-B decomposition (see Fortin *et al.*, 2011: 3). Overcoming this limitation is beyond the scope of this study.

4. Estimation results

Table 2 reports the estimation results of the mean and unconditional quantile regressions for the selected quantiles in 2013 and 2017, respectively (Table S.1 in the Supplemental file provides those for other quantiles). The coefficients of higher education (relative to secondary education) are heterogeneous across different types of degrees and degree-granting institutions. Expectedly, the coefficients of professional degrees are substantially higher than those of technical degrees, supporting the findings of studies analyzing previous periods in Chile (e.g., González-Velosa *et al.*, 2015; Murakami & Nomura, 2020; Puentes, 2000; Rodríguez *et al.*, 2016; Urzúa, 2017). The types of degree-granting institutions significantly matter in the case of professional degrees: the estimated coefficients indicate that the workers with professional degrees from traditional universities earned 1.063 log points (189.6%) more than high school graduates on average in 2013, whereas those with professional degrees from new private universities earned 0.914 log points (149.5%) more than high school graduates on average in the year.[10] The gap further widened from 40.1% in 2013 to 68.1% in 2017. Additionally, we find that the coefficients of higher education, especially technical education, are substantially lower when workers did not complete the given program and thus did not obtain a degree. In general, the coefficients of higher education degrees decreased from 2013 to 2017. However, the trend is heterogeneous across the different quantiles as well as the types of degrees and degree-granting institutions, as discussed in greater detail below.

Subsequently, we discuss the decomposition results. Table 3 reports the detailed decomposition results of each explanatory variable at the selected quantiles (see Table S.2 in the Supplemental file for other quantiles). The results are visually summarized in Figures 2-4. Figure 2 shows overall wage changes at quantiles from the 5th to 95th and their decomposition into the composition and wage structure effects. Figure 3 decomposes the overall composition and wage structure effects into the contribution of four groups of explanatory variables (education, experience, gender, and all other variables). Further, Figure 4 reports the detailed composition and wage structure effects of our main interest variables, the higher education degrees. Finally, Table 4 reports each variable's contribution of the difference in the composition and wage structure effects between the selected quantiles to the evolution of wage inequality, as presented by equation (5).

Figure 2 shows that the composition effect almost monotonically increases when moving from the lower to upper quantiles. By contrast, the opposite trend is observed in the wage structure effect (though there are some fluctuations between quantiles): the former effect is 0.014 and 0.125 log points at the 10th and 90th quantiles, respectively, whereas the latter effect is 0.125 and -0.129 log points at the 10th and 90th quantiles, respectively (see Table 3). As a whole,

[10] The calculations are based on exp (1.063) – 1 and exp (0.914) – 1.

the overall wage increases are particularly considerable at the lower parts of the distribution (e.g., 0.139 log point at the 10th quantile), whereas they are negative at the upper parts of the distribution (e.g., -0.004 log point at the 90th quantile), thereby indicating the reduction in wage inequality from 2013 to 2017. Additionally, we find that the wage changes are relatively similar in the middle of the distribution (between the 25th and 80th quantiles) except for the 30th and 55th quantiles. Thus, this observed trend of wage changes during the analysis period justifies using the log wage gap between the upper (90th quantile) and lower (10th quantile) ends of the distribution as our inequality measure.

Figure 3 and Table 3 show that the composition effects of higher education increased wages, particularly at the upper quantiles, whereas the wage structure effects of higher education decreased wages, particularly at the upper quantiles. Therefore, as shown in Table 1, the findings show that the increase in the relative supply of workers with higher education is associated with increasing wage inequality, whereas the decrease in the coefficients of higher education is associated with decreasing inequality. The finding concurs with those of Fernández and Messina (2018) and Murakami and Nomura (2020). As reported in Table 4, the difference between the wage structure effect of higher education at the 90th and 10th quantiles is -0.119, accounting for 83.4% of the decrease in the 90-10 log wage gap. Together with Figure 2, the findings indicate that the increase in the relative supply of workers with higher education was accompanied by the decline in the returns to their skills. Moreover, the demand for those skills failed to keep pace with the increase in the relative supply.

A novel contribution of this study is the finding that the wage structure effects of higher education are substantially heterogeneous across the types of degrees and degree-granting institutions. We find that the wage structure effects of professional degrees significantly decreased wages at the upper quantiles (see Figure 4 and Table 3). Given the degree-institution type combinations, professional degrees from new private universities contribute most significantly to the reduction in wage inequality. The decreases in the coefficients of this degree account for 34.0% of the total decrease in the 90-10 log wage gap (see Table 4). The coefficients of post-graduate degrees show a similar trend but to a lesser extent. Conversely, the coefficients of technical degrees are relatively stable from 2013 to 2017 (see Figure 4 and Table 3). Since the new private universities require more extended enrollment periods and higher annual tuition costs than IPs and CFTs, technical degrees are likely to be an alternative to professional degrees, especially for those who cannot gain admittance to traditional universities. Finally, we find that other explanatory variables, such as gender, do not account for the observed reduction in wage inequality because the changes in the male coefficient are similar among the different quantiles (see Figure 4 and Table 3). In summary, the significant decline in the coefficients of professional degrees, especially from new private universities, is primarily associated with the observed reduction in wage inequality from 2013 to 2017.

We consider that the increase in the relative supply of workers with higher education degrees is insufficient to account for the entire decline in the coefficients

TABLE 2

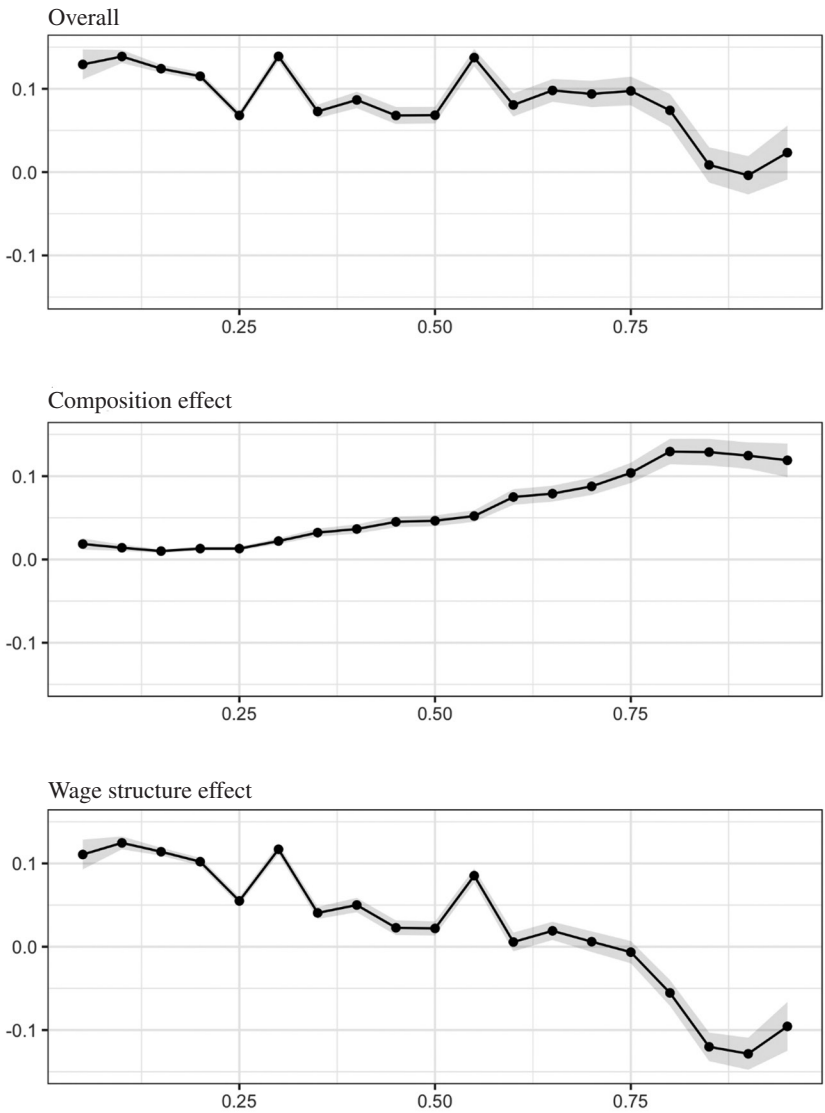
ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES IN 2013 AND 2017

	2013				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Primary	-0.141***	-0.136***	-0.180***	-0.024	-0.117***	-0.075***	-0.169***	-0.019
	(0.009)	(0.023)	(0.020)	(0.020)	(0.009)	(0.012)	(0.014)	(0.015)
Technical degree								
CFT	0.282***	0.079***	0.387***	0.230***	0.252***	0.055***	0.281***	0.208***
	(0.014)	(0.031)	(0.036)	(0.056)	(0.015)	(0.014)	(0.029)	(0.049)
IP	0.336***	0.119***	0.400***	0.249***	0.279***	0.058***	0.331***	0.202***
	(0.011)	(0.016)	(0.037)	(0.056)	(0.010)	(0.010)	(0.029)	(0.041)
New private university	0.401***	0.106***	0.443***	0.542**	0.217***	0.064*	0.205**	0.322***
	(0.039)	(0.035)	(0.062)	(0.254)	(0.026)	(0.037)	(0.097)	(0.091)
Traditional university	0.497***	0.115**	0.610***	0.847**	0.433***	0.103***	0.509***	0.416***
	(0.061)	(0.049)	(0.074)	(0.373)	(0.032)	(0.018)	(0.048)	(0.117)
Does not know/No response	0.322***	0.168***	0.320***	0.400***	0.181***	0.057*	0.235***	0.052
	(0.040)	(0.035)	(0.064)	(0.154)	(0.032)	(0.031)	(0.053)	(0.071)
Incomplete	0.118***	0.015	0.244***	-0.032	0.155***	0.019	0.219***	0.131***
	(0.018)	(0.056)	(0.047)	(0.055)	(0.016)	(0.020)	(0.029)	(0.043)
Professional degree								
IP	0.700***	0.109***	0.646***	1.235***	0.587***	0.086***	0.564***	0.943***
	(0.021)	(0.023)	(0.035)	(0.184)	(0.015)	(0.012)	(0.030)	(0.112)
New private university	0.914***	0.110***	0.687***	1.936***	0.693***	0.081***	0.554***	1.259***
	(0.011)	(0.015)	(0.028)	(0.175)	(0.010)	(0.015)	(0.039)	(0.129)
Traditional university	1.063***	0.149***	0.738***	2.441***	0.986***	0.105***	0.708***	2.019***
	(0.010)	(0.014)	(0.027)	(0.159)	(0.009)	(0.008)	(0.025)	(0.145)
Does not know/No response	0.807***	0.160***	0.710***	1.391***	0.780***	0.130***	0.664***	1.311***
	(0.027)	(0.016)	(0.039)	(0.221)	(0.030)	(0.011)	(0.037)	(0.175)
Incomplete	0.432***	0.062***	0.435***	0.685***	0.301***	0.053***	0.303***	0.444***
	(0.015)	(0.023)	(0.034)	(0.168)	(0.013)	(0.012)	(0.029)	(0.075)

	2013				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Post-graduate degree								
New private university	1.349***	0.012	0.655***	3.230***	1.362***	0.111***	0.734***	3.343***
	(0.036)	(0.080)	(0.068)	(0.378)	(0.028)	(0.013)	(0.035)	(0.329)
Traditional university	1.430***	0.133***	0.720***	3.981***	1.370***	0.101***	0.707***	3.381***
	(0.024)	(0.016)	(0.035)	(0.295)	(0.019)	(0.009)	(0.028)	(0.297)
Does not know/No response	1.277***	0.161***	0.714***	2.979***	0.922***	0.100***	0.562***	1.521**
	(0.080)	(0.035)	(0.084)	(0.664)	(0.080)	(0.019)	(0.146)	(0.772)
Incomplete	1.253***	0.156***	0.689***	2.720***	1.027***	0.111***	0.739***	2.249***
	(0.053)	(0.031)	(0.053)	(0.569)	(0.043)	(0.011)	(0.038)	(0.386)
Experience	0.019***	0.000	0.007***	0.045***	0.025***	0.001	0.012***	0.061***
	(0.001)	(0.003)	(0.003)	(0.012)	(0.001)	(0.001)	(0.002)	(0.008)
Experience-squared	-0.042***	-0.004	-0.015**	-0.104***	-0.055***	-0.003	-0.024***	-0.137***
	(0.003)	(0.007)	(0.007)	(0.027)	(0.003)	(0.004)	(0.005)	(0.017)
Male	0.132***	0.079***	0.158***	0.164***	0.107***	0.042***	0.122***	0.126***
	(0.006)	(0.013)	(0.014)	(0.036)	(0.006)	(0.007)	(0.011)	(0.026)
Head of the household	0.104***	0.001	0.074***	0.256***	0.093***	0.010	0.094***	0.166***
	(0.005)	(0.012)	(0.012)	(0.031)	(0.005)	(0.006)	(0.012)	(0.028)
Married	0.074***	0.031***	0.088***	0.053*	0.100***	0.007	0.075***	0.227***
	(0.006)	(0.010)	(0.013)	(0.031)	(0.006)	(0.006)	(0.010)	(0.031)
Formal	0.223***	0.370***	0.177***	0.011	0.188***	0.207***	0.127***	0.045
	(0.009)	(0.031)	(0.016)	(0.060)	(0.008)	(0.016)	(0.018)	(0.028)
Urban	0.040***	0.025	0.065***	-0.007	0.026***	0.027***	0.046***	-0.050**
	(0.009)	(0.020)	(0.013)	(0.019)	(0.009)	(0.009)	(0.011)	(0.025)
Constant	6.654***	6.414***	6.661***	7.492***	6.734***	6.708***	6.757***	7.370***
	(0.018)	(0.048)	(0.038)	(0.154)	(0.018)	(0.026)	(0.038)	(0.092)
Observations	35,626	35,626	35,626	35,626	35,543	35,543	35,543	35,543
R-squared	0.534	0.111	0.350	0.364	0.513	0.094	0.323	0.350

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales)*. Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

FIGURE 2
THE DECOMPOSITION OF OVERALL WAGE CHANGES INTO COMPOSITION AND WAGE STRUCTURE EFFECTS



Note: Shaded areas show 95% confidence intervals.
Source: Authors' calculations based on data from the CASEN 2013 and 2017 surveys.

TABLE 3

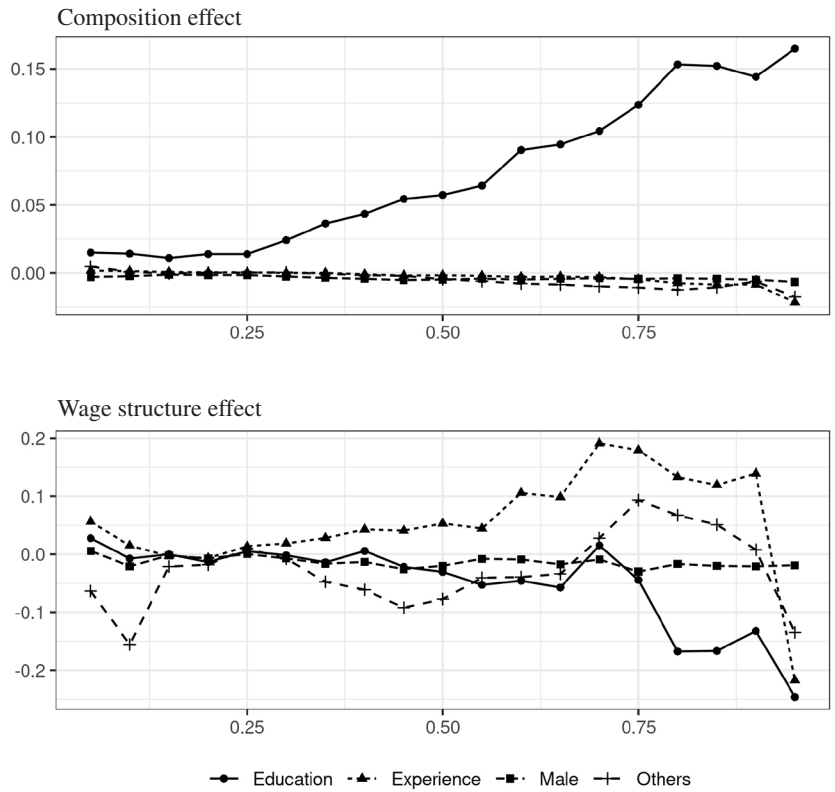
DECOMPOSITION OF WAGE CHANGES FROM 2013 TO 2017 INTO COMPOSITION AND WAGE STRUCTURE EFFECTS OF EACH EXPLANATORY VARIABLE

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Overall	0.0595***	0.0140***	0.0464***	0.1246***	0.0297***	0.1247***	0.0220***	-0.1285***
	(0.0039)	(0.0019)	(0.0033)	(0.0080)	(0.0035)	(0.0039)	(0.0043)	(0.0098)
Primary	0.0048***	0.0047***	0.0062***	0.0008	0.0026*	0.0066***	0.0012	0.0006
	(0.0005)	(0.0005)	(0.0006)	(0.0008)	(0.0014)	(0.0015)	(0.0017)	(0.0038)
Higher education	0.0677***	0.0096***	0.0512***	0.1434***	-0.0418***	-0.0140***	-0.0317***	-0.1329***
	(0.0032)	(0.0010)	(0.0024)	(0.0075)	(0.0037)	(0.0041)	(0.0046)	(0.0103)
Technical degree	0.0078***	0.0024***	0.0093***	0.0085***	-0.0068***	-0.0059***	-0.0116***	-0.0062
	(0.0009)	(0.0005)	(0.0011)	(0.0013)	(0.0016)	(0.0018)	(0.0020)	(0.0045)
CFT	-0.0012***	-0.0003***	-0.0017***	-0.0010***	-0.0008	-0.0007	-0.0030***	-0.0006
	(0.0004)	(0.0001)	(0.0005)	(0.0003)	(0.0006)	(0.0006)	(0.0007)	(0.0016)
IP	0.0039***	0.0014***	0.0047***	0.0029***	-0.0041***	-0.0043***	-0.0049***	-0.0033
	(0.0006)	(0.0003)	(0.0008)	(0.0006)	(0.0010)	(0.0012)	(0.0013)	(0.0029)
New private university	0.0020***	0.0005**	0.0022***	0.0027***	-0.0016***	-0.0004	-0.0021***	-0.0020*
	(0.0003)	(0.0003)	(0.0004)	(0.0006)	(0.0004)	(0.0005)	(0.0005)	(0.0012)
Traditional university	0.0019***	0.0004	0.0024***	0.0033***	-0.0004	-0.0001	-0.0006	-0.0024**
	(0.0003)	(0.0003)	(0.0004)	(0.0008)	(0.0004)	(0.0005)	(0.0005)	(0.0011)
Does not know/No response	0.0006***	0.0003**	0.0006***	0.0008**	-0.0008***	-0.0006*	-0.0005	-0.0019**
	(0.0002)	(0.0001)	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0008)
Incomplete	0.0005***	0.0001	0.0011***	-0.0001	0.0009	0.0001	-0.0006	0.0040**
	(0.0002)	(0.0001)	(0.0003)	(0.0002)	(0.0006)	(0.0007)	(0.0007)	(0.0016)
Professional degree	0.0466***	0.0063***	0.0353***	0.0999***	-0.0330***	-0.0081***	-0.0204***	-0.1146***
	(0.0029)	(0.0007)	(0.0022)	(0.0065)	(0.0026)	(0.0029)	(0.0032)	(0.0072)
IP	0.0085***	0.0013***	0.0079***	0.0151***	-0.0030***	-0.0006	-0.0022**	-0.0078***
	(0.0008)	(0.0004)	(0.0008)	(0.0015)	(0.0007)	(0.0008)	(0.0009)	(0.0019)
New private university	0.0128***	0.0015***	0.0096***	0.0271***	-0.0166***	-0.0021*	-0.0100***	-0.0507***
	(0.0017)	(0.0003)	(0.0013)	(0.0037)	(0.0012)	(0.0013)	(0.0014)	(0.0033)
Traditional university	0.0253***	0.0035***	0.0176***	0.0581***	-0.0086***	-0.0049***	-0.0033*	-0.0470***
	(0.0024)	(0.0005)	(0.0017)	(0.0055)	(0.0015)	(0.0017)	(0.0018)	(0.0041)
Does not know/No response	-0.0019***	-0.0004***	-0.0017***	-0.0032***	-0.0002	-0.0002	-0.0003	-0.0005
	(0.0005)	(0.0001)	(0.0005)	(0.0009)	(0.0003)	(0.0003)	(0.0003)	(0.0007)

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Incomplete	0.0018***	0.0003**	0.0019***	0.0029***	-0.0047***	-0.0003	-0.0047***	-0.0086***
	(0.0006)	(0.0001)	(0.0006)	(0.0009)	(0.0007)	(0.0008)	(0.0009)	(0.0019)
Post-graduate degree	0.0134***	0.0009***	0.0067***	0.0350***	-0.0019***	0.0000	0.0004	-0.0121***
	(0.0016)	(0.0003)	(0.0008)	(0.0042)	(0.0007)	(0.0008)	(0.0009)	(0.0020)
New private university	0.0040***	0.0000	0.0019***	0.0096***	0.0001	0.0008*	0.0006	0.0009
	(0.0008)	(0.0001)	(0.0004)	(0.0019)	(0.0004)	(0.0004)	(0.0004)	(0.0010)
Traditional university	0.0082***	0.0008***	0.0041***	0.0229***	-0.0010*	-0.0005	-0.0002	-0.0103***
	(0.0013)	(0.0002)	(0.0007)	(0.0036)	(0.0005)	(0.0006)	(0.0006)	(0.0015)
Does not know/No response	-0.0001	-0.0000	-0.0000	-0.0002	-0.0003***	-0.0001	-0.0001	-0.0013***
	(0.0003)	(0.0000)	(0.0002)	(0.0007)	(0.0001)	(0.0001)	(0.0001)	(0.0004)
Incomplete	0.0013**	0.0002*	0.0007**	0.0027**	-0.0007***	-0.0001	0.0002	-0.0015**
	(0.0005)	(0.0001)	(0.0003)	(0.0011)	(0.0002)	(0.0002)	(0.0003)	(0.0006)
Experience	-0.0213***	-0.0002	-0.0077***	-0.0515***	0.1134***	0.0132	0.0918**	0.2666***
	(0.0019)	(0.0018)	(0.0017)	(0.0049)	(0.0292)	(0.0324)	(0.0358)	(0.0807)
Experience-squared	0.0175***	0.0015	0.0060***	0.0430***	-0.0508***	0.0017	-0.0385*	-0.1271***
	(0.0017)	(0.0016)	(0.0016)	(0.0045)	(0.0166)	(0.0183)	(0.0203)	(0.0458)
Male	-0.0040***	-0.0024***	-0.0048***	-0.0049***	-0.0139***	-0.0207***	-0.0198***	-0.0209*
	(0.0005)	(0.0004)	(0.0006)	(0.0008)	(0.0045)	(0.0051)	(0.0056)	(0.0126)
Demographic dummies	-0.0067***	-0.0019***	-0.0069***	-0.0083***	0.0026	-0.0027	0.0053	0.0100
	(0.0006)	(0.0005)	(0.0006)	(0.0014)	(0.0039)	(0.0043)	(0.0048)	(0.0108)
Industry dummies	0.0000	0.0021**	0.0013	-0.0008	-0.0331**	-0.0264	-0.0334*	-0.0280
	(0.0010)	(0.0009)	(0.0011)	(0.0024)	(0.0145)	(0.0161)	(0.0178)	(0.0401)
Formal	0.0002	0.0004	0.0002	0.0000	-0.0317***	-0.1469***	-0.0453***	0.0311
	(0.0005)	(0.0008)	(0.0004)	(0.0000)	(0.0108)	(0.0120)	(0.0133)	(0.0299)
Region dummies	0.0010	0.0002	0.0006	0.0029**	0.0149***	0.0186***	0.0136***	0.0340***
	(0.0007)	(0.0005)	(0.0007)	(0.0012)	(0.0040)	(0.0045)	(0.0049)	(0.0111)
Urban	0.0001	0.0001	0.0002	-0.0000	-0.0128	0.0017	-0.0174	-0.0393
	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0114)	(0.0127)	(0.0140)	(0.0316)
Constant					0.0802***	0.2935***	0.0964***	-0.1225*
					(0.0251)	(0.0277)	(0.0307)	(0.0691)
Observations	71,169	71,169	71,169	71,169	71,169	71,169	71,169	71,169

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales).* Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively.

FIGURE 3
THE DECOMPOSITION OF THE OVERALL COMPOSITION AND WAGE STRUCTURE EFFECTS INTO FOUR GROUPS OF EXPLANATORY VARIABLES

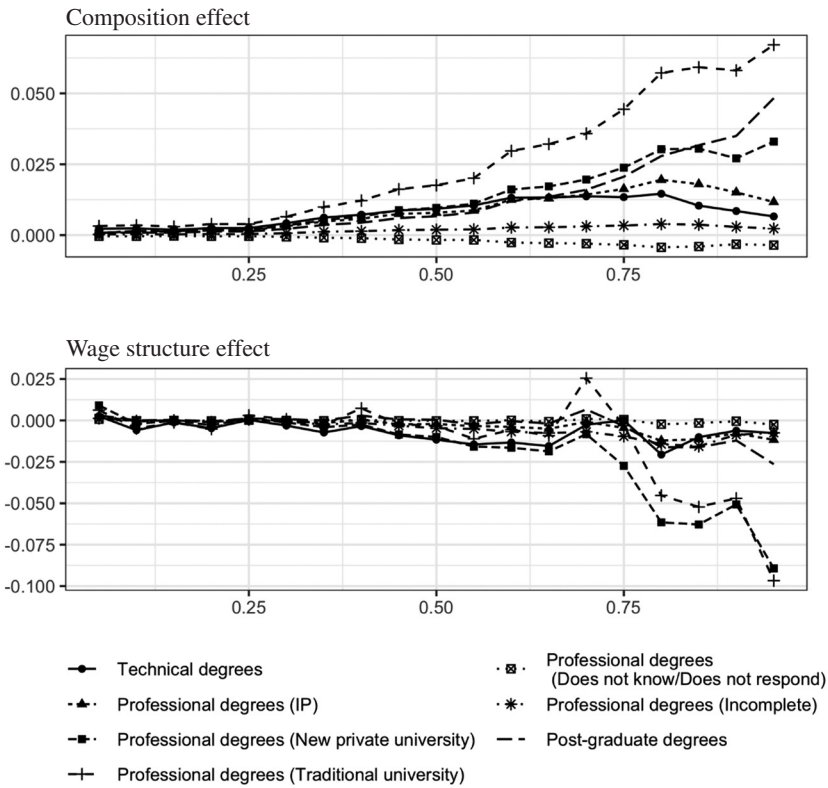


Note: "Education" is the sum of dummies on educational achievements; "Experience" is the sum of years of potential labor experience and its squared term; "Male" is the dummy for male workers; "Others" is the sum of all other explanatory variables except for the constant term.
Source: Authors' calculations based on data from the CASEN 2013 and 2017 surveys.

of higher education degrees. For example, Murakami (2014) finds the estimated coefficient of the relative supply of college-educated workers to be -0.1652 (i.e., the inverse of the elasticity of substitution between college-educated and unskilled workers) in Chile for the previous period.[11] This estimate predicts that the observed increase in the share of workers with higher education (from 0.342 in 2013 to 0.427 in 2017, see Table 1) leads to a 0.059 log point decrease in the coefficient of higher education. Thus, the actual 0.098 log point decrease in the

[11] Note that Table 4.1 of Gasparini *et al.* (2011: 32) provides similar estimation results from 16 LACs.

FIGURE 4
THE DETAILED COMPOSITION AND WAGE STRUCTURE EFFECTS OF HIGHER EDUCATION DEGREES



Note: IP, Professional Institutes (*Institutos Profesionales*). The wage structure effects of technical and post-graduate degrees are not disaggregated into degree-granting institutions. The degree-granting institutions of professional degrees are represented in parentheses.
Source: Authors' calculations based on data from the CASEN 2013 and 2017 surveys.

coefficient is more significant than predicted.[12] Moreover, the quantitative change may not account for the decline in the coefficients of particular types of degrees.

Thus, we discuss several possible reasons for the observed decline in the coefficients of professional degrees, particularly at the upper quantiles. First, in addition to the expansion and diversification of higher education explained

[12] Note that the increase in the log of the relative share of workers with higher education from 2013 to 2017 (i.e., log (0.427/ (1 – 0.427)) – log (0.342/ (1 – 0.342)) = 0.357) multiplied by the estimated coefficient -0.1652 yields the value -0.059. Furthermore, the wage structure effect of overall higher education, -0.042 (see Table 3), divided by the share of workers with higher education in 2017 (0.427), yields the value -0.098.

TABLE 4

CONTRIBUTION OF THE DIFFERENCE IN THE COMPOSITION AND WAGE STRUCTURE EFFECTS BETWEEN SELECTED QUANTILES TO THE EVOLUTION OF WAGE INEQUALITY FROM 2013 TO 2017

	All workers			
	Q90-Q10		Q90-Q50	
2013	1.5516		1.0544	
2017	1.4090		0.9822	
Overall difference	-0.1426		-0.0722	
Total composition effect	0.1106	-77.53%	0.0783	-108.36%
Primary education or less	-0.0038	2.68%	-0.0053	7.38%
Higher education	0.1338	-93.78%	0.0922	-127.60%
Technical degree	0.0061	-4.25%	-0.0008	1.09%
CFT	-0.0006	0.45%	0.0007	-0.93%
IP	0.0015	-1.06%	-0.0018	2.44%
New private university	0.0021	-1.50%	0.0005	-0.67%
Traditional university	0.0028	-1.99%	0.0009	-1.27%
Does not know/No response	0.0004	-0.31%	0.0002	-0.21%
Incomplete	-0.0002	0.15%	-0.0012	1.73%
Professional degree	0.0936	-65.66%	0.0647	-89.56%
IP	0.0138	-9.64%	0.0072	-9.97%
New private university	0.0255	-17.89%	0.0175	-24.17%
Traditional university	0.0546	-38.27%	0.0406	-56.15%
Does not know/No response	-0.0029	2.02%	-0.0016	2.20%
Incomplete	0.0027	-1.87%	0.0011	-1.48%
Post-graduate degree	0.0340	-23.87%	0.0283	-39.13%
New private university	0.0095	-6.68%	0.0076	-10.56%
Traditional university	0.0221	-15.52%	0.0188	-25.97%
Does not know/No response	-0.0002	0.13%	-0.0002	0.21%
Incomplete	0.0026	-1.80%	0.0020	-2.81%
Experience	-0.0513	35.95%	-0.0438	60.62%
Experience-squared	0.0416	-29.13%	0.0370	-51.24%
Male	-0.0026	1.79%	-0.0002	0.25%
Demographic dummies	-0.0064	4.48%	-0.0014	1.99%
Industry dummies	-0.0028	2.00%	-0.0021	2.85%
Formal	-0.0004	0.25%	-0.0002	0.23%
Region dummies	0.0026	-1.84%	0.0022	-3.11%
Urban	-0.0001	0.06%	-0.0002	0.27%
Total wage structure effect	-0.2532	177.53%	-0.1505	208.36%
Primary education or less	-0.0060	4.19%	-0.0006	0.79%
Higher education	-0.1189	83.36%	-0.1013	140.19%
Technical degree	-0.0003	0.20%	0.0054	-7.52%
CFT	0.0001	-0.05%	0.0024	-3.33%
IP	0.0010	-0.68%	0.0016	-2.16%
New private university	-0.0016	1.12%	0.0002	-0.22%
Traditional university	-0.0023	1.61%	-0.0018	2.51%
Does not know/No response	-0.0013	0.93%	-0.0015	2.04%
Incomplete	0.0039	-2.72%	0.0046	-6.36%
Professional degree	-0.1064	74.62%	-0.0941	130.31%
IP	-0.0072	5.04%	-0.0056	7.76%

	All workers			
	Q90-Q10		Q90-Q50	
New private university	-0.0485	34.03%	-0.0407	56.34%
Traditional university	-0.0421	29.53%	-0.0437	60.51%
Does not know/No response	-0.0003	0.23%	-0.0002	0.31%
Incomplete	-0.0082	5.78%	-0.0039	5.38%
Post-graduate degree	-0.0122	8.54%	-0.0126	17.40%
New private university	0.0001	-0.08%	0.0003	-0.38%
Traditional university	-0.0097	6.81%	-0.0100	13.90%
Does not know/No response	-0.0012	0.87%	-0.0012	1.60%
Incomplete	-0.0013	0.94%	-0.0016	2.28%
Experience	0.2534	-177.67%	0.1748	-242.08%
Experience-squared	-0.1288	90.32%	-0.0886	122.69%
Male	-0.0002	0.14%	-0.0011	1.46%
Demographic dummies	0.0127	-8.88%	0.0047	-6.54%
Industry dummies	-0.0017	1.16%	0.0054	-7.47%
Formal	0.1780	-124.77%	0.0764	-105.77%
Region dummies	0.0154	-10.79%	0.0204	-28.20%
Urban	-0.0410	28.74%	-0.0218	30.23%
Constant	-0.4161	291.72%	-0.2189	303.07%

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales)*. *%* indicates the contribution of the respective variables to the evolution of wage inequality between the selected quantiles.

in the Introduction section, the expansion of financial aid from the government in the form of scholarships and loan programs since the mid-2000s has led to a rapid increase in the enrollment in higher education in Chile (Bucarey, 2018; Hastings *et al.*, 2016; Rojas *et al.*, 2016).[13] If sorting into higher education existed, students facing higher returns to education were more likely to enroll in higher education. Thus, the rapid increase in enrollment could have meant the enrollment of students facing lower returns in recent periods. Second, although Chile introduced a quality assurance system based on accreditation processes (Cox, 1996; Espinoza & González, 2013), the quality of the institutions and programs of new private universities has been frequently questioned in comparison with those of traditional universities (Rodríguez *et al.*, 2016). Moreover, until recently, higher education institutions in Chile had not disclosed information regarding the employment prospects and earnings of their graduates

[13] In 2006, Chile introduced a new loan program for students of all accredited higher education institutions, the State Guaranteed Loan (*Crédito con Aval del Estado*, CAE), in addition to the existing loan program only for students of traditional universities, the University Credit Solidarity Fund (*Fondo Solidario de Crédito Universitario*, FSCU) (OECD, 2017). Following the introduction of the CAE, the number of beneficiaries rapidly increased from approximately 21,300 in 2006 to 369,300 in 2015 (MINEDUC, 2017: 143). Simultaneously, total enrollment in higher education increased from approximately 619,000 to 1,233,000 (MINEDUC, 2017: 135-136).

with different careers and degrees (Rodríguez *et al.*, 2016).[14] Thus, it would be possible that some students enrolled in low-quality institutions and programs because of the lack of information. Third, the demand for highly skilled workers might have stagnated recently. In the United States (US), while the employment for highly skilled workers increased in the 1980s and 1990s, it stagnated in the 2000s (Acemoglu & Autor 2011). Gallego (2012) finds that the evolution of the demand for skilled workers in Chile correlated with that in the US from 1960 to 2000, mainly through the international diffusion of technologies. Thus, it is plausible that the demand for highly skilled workers has stagnated in Chile since the 2000s. The explanation is also compatible with Fernández and Messina (2018) and Murakami and Nomura (2020), who find that the returns to higher education declined in Chile in the 2000s.

If the first and second explanations were the main factors, the coefficients of professional degrees should have declined in the lower quantiles. However, we found that the coefficients of professional degrees declined, particularly at the upper quantiles. Therefore, the third explanation is the most plausible for our finding.

5. Robustness checks

5.1. Selection-bias corrections

The limitation of our sample to full-time employed workers may lead to biased estimates in the coefficients of degrees, particularly for females, since a larger share of females in this study are non-participants. That is, the female participation share (share of participants to the sum of participants and non-participants) is 0.488 (14,316 out of 29,366) in 2013 and 0.545 (15,396 out of 28,256) in 2017, whereas the male participation share is 0.868 (21,301 out of 24,553) in 2013 and 0.843 (20,135 out of 23,885) in 2017 (see Tables S.8 to S.10 in the Supplemental file).[15] Since educated individuals are more likely to become full-time employed workers (see Contreras *et al.*, 2011 for the case of Chile), this non-random selection can lead to underestimating the coefficients of degrees. If this selectivity bias changes over time, our decomposition results can also suffer from the bias. Thus, following Seneviratne (2019), we apply the

[14] Currently, we know such information from the Ministry of Education in Chile (http://www.mifuturo.cl/).

[15] Due to very few observations of male post-graduates who did not know their degree-granting institutions nor respond to this question, we cannot estimate the coefficient for this category of the Probit selection equation (A-1) in 2013. Therefore, we exclude the workers of this category in both 2013 and 2017 in advance. Due to this exclusion, the number of observations of male participants decreased from 21,310 to 21,301 in 2013 and from 20,147 to 20,135 in 2017, respectively.

seminal Heckman two-step approach to our decomposition analysis to address this issue.

The processes are as follows (see the Appendix for more detail). First, we estimate the Probit selection equation from which each year's selectivity-correction term (inverse Mills ratio) is estimated for each year. Second, including the correction term, we estimate the wage equation for each year. Since an exclusion restriction variable (the number of children under the age of six years in a given household) is likely to be associated with the participation differently between genders, we separately estimate the selection and wage equations for males and females. Finally, following Neuman and Oaxaca (2004), we decompose all explanatory variables, including the correction term, into the composition and wage structure effects.

We find that workers with higher education degrees are more likely to become full-time employed workers (see Table S.8 in the Supplemental file), as expected, and the coefficients on the correction term are positive at the mean and the 90th quantile for both males and females in 2013 and 2017 (see Tables S.9 and S.10 in the Supplemental file). Thus, the coefficients of degrees estimated without the sample selection correction term tend to be underestimated for males and females in both years (see Tables S.3 and S.4 in the Supplemental file for the estimation results of the wage equation without the correction term for males and females, respectively). However, for females, the decline in the coefficients of professional degrees, with a larger magnitude at the 90th quantile, is robust to the inclusion of the correction term (see Table S.10 in the Supplemental file). Moreover, the decline is strongly associated with the reduction in wage inequality: it accounts for 164.0% of the reduction in the 90-10 log wage gap (see Table A.1). For males, an opposite trend is observed in professional degrees from IPs and traditional universities. However, we again confirm the robust decline in the coefficient of professional degrees from new private universities, with a larger magnitude at the 90th quantile (see Table S.9 in the Supplemental file). The decline accounts for 10.4% of the reduction in the 90-10 log wage gap (see Table A.1).

5.2. Different analysis period

To confirm that the observed decline in the coefficients of professional degrees and its association with the reduction in wage inequality are robust to the choice of the analysis period and continuous trend, it is helpful to include the data from the CASEN 2015 survey in our analysis. Considering that the educational characteristics of the workforce in 2015 are relatively similar to those in 2013 (see Table S.11 in the Supplemental file), we additionally perform the decomposition analysis from 2015 to 2017. Since the 90-50 log wage gap is stable in this period, we only show the contribution to the reduction in the 90-10 log wage gap in Table A.2.

As observed in the analysis period from 2013 to 2017, we find that the coefficients of professional degrees from new private universities declined from 2015 to 2017, with a larger magnitude at the 90th quantile (see Table S.13 in

the Supplemental file). The decline is associated with the reduction in wage inequality and accounts for 23.6% of the reduction in the 90-10 log wage gap in this period (see Table A.2). Thus, the observed decline in the coefficients of degrees and its association with the reduction in wage inequality are robust trends.

5.3. Occupation control

Our next robustness check is to include workers' occupation categories in the wage equation. We find that the inclusion of occupation dummies (the reference category is elementary occupations) provides remarkably similar estimation results in the wage equation (see Table S.14 in the Supplemental file) and the decomposition analysis (see Table S.15 in the Supplemental file). The magnitudes of the contributions of higher education degrees to the reduction in wage inequality are also quite similar; the decline in the coefficients of professional degrees accounts for 76.3% of the reduction in the 90-10 log wage gap (see Table A.3), which is comparable to the previous result of 74.6% (see Table 4). In other words, the correlation between final education achievements and occupation choices was stable from 2013 to 2017.

5.4. Control for firm characteristics

Finally, we check that the findings are robust to the inclusion of characteristics of firms that employ the workers. Note that we have already controlled for workers' industry affiliations in all estimations as variables related to the labor-demand side. In addition, we have controlled for occupation categories in Section 5.3. Since the household surveys provide the data on firm size categories based on the number of workers employed, we use them as the variables representing firm characteristics (the reference category is firms with five workers or less). Firm size is usually considered a proxy for firm productivity (e.g., Bustos, 2011; Infante and Sunkel, 2009). Thus, the variables are likely to be positively correlated with wages. However, we cannot compare the data on firm size in 2013 and 2017 because the questions about firm size in the 2013 and 2017 surveys are different.[16] Consequently, we use the data from the 2015 and 2017 surveys for this robustness check. We dropped the observations which reported unawareness of the firm size in the country.

We find that the firm size distributions are quite stable from 2015 to 2017 (see Table S.16 in the Supplemental file). Thus, we do not find significant changes

[16] The CASEN 2013 survey asked about both firm size in the establishment and firm size in the country, whereas the CASEN 2015 and 2017 surveys asked only about the firm size in the country. The two separate questions in the 2013 survey might have led to a substantial part of respondents not reporting them. Nearly a quarter of the workers in the sample reported that they did not know the firm size in the country in the 2013 survey, whereas only about 10% of the workers reported that they did not know it in the 2015 and 2017 surveys.

in firm characteristics from this variable. Expectedly, we find that employment in larger firms is associated with higher wages in both years (see Table S.17 in the Supplemental file). However, the observed decline in the coefficient of professional degrees from new private universities, with a larger magnitude at the 90th quantile, is robust to the inclusion of the firm size dummies (see Tables S.17 and S.18 in the Supplemental file). The decline accounts for 22.7% of the reduction in the 90-10 log wage gap (see Table A.4), which is comparable to the previous result (without controlling for the occupation and firm size categories in Section 5.2) of 23.6% (see Table A.2).

6. Concluding remarks

After increasing the returns to higher education degrees and wage inequality in the 1990s, LACs have experienced a significant reduction in both since the early 2000s. Considering that the recent decline in the returns to higher education degrees may not be homogenous across different types of degrees and degree-granting institutions, an empirical analysis to identify the association between the changes in coefficients of dummy variables for different types of degrees and the recent evolution of wage inequality is highly required. In this context, Chile presents a fascinating case study because its higher education has experienced significant expansion and diversification.

Thus, this study analyzed the association between the changes in the coefficients of degrees and the evolution of wage inequality in Chile from 2013 to 2017 using data from nationally and regionally representative household surveys. For this purpose, this study takes advantage of a method proposed by Firpo *et al.* (2009), which allowed us to decompose wage changes at any unconditional quantile into composition and wage structure effects. As observed in the previous period in Chile (e.g., Fernández and Messina, 2018; Murakami & Nomura, 2020), we found that the coefficients of higher education degrees continuously decreased in general, with a larger magnitude at the upper quantiles, associated with the reduction in wage inequality among full-time employed workers during this period. However, we found that the coefficients of degrees declined heterogeneously across the types of degrees (i.e., technical, professional, and post-graduate degrees) and degree-granting institutions. We found that the coefficients of professional degrees, especially from new private universities, remarkably declined, which is associated with a substantial part of the reduction in wage inequality. Since the coefficients of professional degrees declined particularly at the upper quantiles, the decline was likely related to the stagnant demand for highly skilled workers in recent periods. Finally, we verified that the findings are robust to the selection of full-time employed workers, the control for workers' occupation and firm size categories, and the choice of the analysis period.

Responding to the widespread protests against the country's higher education policies in 2011, Michelle Bachelet pledged to make higher education tuition-free

for all students in her presidential campaign in 2013 (Bucarey, 2018). The second Bachelet government took office in 2014 and introduced a tuition-free college policy in 2016. We cannot evaluate the effects of this policy change from the data from the CASEN 2017 survey. However, based on the findings of this study, we provide some implications for the tuition-free college policy. On the one hand, we expect an increase in the private returns to higher education owing to the reduction in the cost of higher education will induce a further increase in enrollment. Thus, increasing the relative supply of workers with higher education will decrease their wage premiums, decreasing wage inequality between workers with higher education and those with less education.

On the other hand, the tuition-free college policy does not require students to meet academic standards, unlike the existing scholarships and loan programs (Delisle & Bernasconi, 2018). Thus, the tuition-free college policy will likely allow students with even lower returns to higher education, increasing wage inequality among college graduates. Therefore, the effects of the tuition-free college policy on overall wage inequality will depend on the magnitude of the two effects.

Finally, we note that although we controlled for selection bias and as many observable variables as possible, we still cannot interpret our results as direct causal effects of changes in the coefficients of degrees on the reduction in wage inequality because we did not address the endogeneity issue due to individuals' unobserved abilities and skills before enrolling in higher education institutions. Such an analysis is beyond the scope of this study; however, especially from a policy perspective, it is an interesting subject for future research.

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Appendix: The detailed process of the decomposition with correction for selection bias

First, we estimate a Probit selection equation for the sample of potential wage earners aged between 24 and 50 years, including unemployed and non-labor force participants, except those who reported that their reasons for not seeking employment were enrolling in school, illness or disability, or receiving pensions. The independent variables in the participation equation include all of the explanatory variables in the wage equation except for the current work description (i.e., the industry affiliation and employment contract). We also include the following exclusion restrictions: (1) the sum of an individual's total non-labor income (assets income and transfer income) and income of other family members (in million pesos) and (2) the number of children under the age of six years in the household. Since an individual with a higher non-labor income generally has a higher reservation wage, the individual is less likely to be a full-time worker, regardless of gender.

The number of children under the age of six is likely to be associated with participation differently for each gender. If males tend to be the primary earners in the household and females tend to have more responsibility for childcare, the number of children is likely to correlate positively with full-time labor participation for males but negatively for females. Contreras *et al.* (2011) find a positive correlation between the number of young children and labor participation for males and a negative correlation for females in Chile. Considering this gender difference in the exclusion restriction variable, we separately estimate the following selection equation for males and females (see Table S.8 in the Supplemental file for the estimation results):

$$L_{it} = I\left\{\boldsymbol{H}_{it}^{'}\gamma_t + u_{it} > 0\right\} \tag{A-1}$$

where L_{it} is a binary variable, taking a value of 1 if an individual i becomes a full-time employed worker and 0, otherwise. H is a vector of explanatory variables that determine the full-time labor participation. u_{it} is an error term (note that the variance of the error term σ_{ut} is normalized to 1).

The estimation results of the Probit selection equation show that the marital status and the number of children are positively correlated with the full-time labor participation for males, whereas they are negatively correlated for females, as expected. The coefficient of total non-labor income is negative for both males and females but not significant (see Table S.8 in the Supplemental file).

Second, we include the estimated inverse Mills ratio (the selectivity-correction term), $\hat{\lambda}_{it} = \dfrac{\phi\left(\boldsymbol{H}_{it}^{'}\hat{\gamma}_t\right)}{\boldsymbol{\Phi}\left(\boldsymbol{H}_{it}^{'}\hat{\gamma}_t\right)}$, (where $\phi(\cdot)$ and $\boldsymbol{\Phi}(\cdot)$ are the density and cumulative distribution functions of the standard normal distribution, respectively) as an additional variable in the wage equation (1):

$$\ln\left(w_{it}\right)=\boldsymbol{X}_{it}^{'}\beta_t+\theta_t\hat{\lambda}_{it}+\varepsilon_{it} \tag{A-2}$$

where $\theta_t=\operatorname{cov}\left(\sigma_{\varepsilon t},\,\sigma_{ut}\right)=\sigma_{\varepsilon ut}$. In the case of adding the correction term, we estimate the wage equation separately for males and females (see Tables S.9 and S.10 in the Supplemental file for estimation results for males and females, respectively).

Finally, following Neuman and Oaxaca (2004), we decompose the effect of explanatory variables, including the correction term, into the composition and wage structure effect. To apply the O-B decomposition to the correction term, we construct the following counterfactual values of the inverse Mills ratios for 2017, where individuals in 2017 would have faced the same coefficients of the selection equation faced by individuals in 2013:

$$\hat{\lambda}_{i2017c}=\frac{\phi\left(\boldsymbol{H}_{i2017}^{'}\hat{\gamma}_{2013}\right)}{\boldsymbol{\Phi}\left(\boldsymbol{H}_{i2017}^{'}\hat{\gamma}_{2013}\right)} \tag{A-3}$$

Using the mean value of the counterfactual inverse Mills ratio, $\overline{\lambda}_{2017c}$, we can decompose the change in the mean value of the correction term between t = 2013 and t = 2017 as follows (see equation (8) of Neuman and Oaxaca, 2004: 6):

$$\begin{aligned}&\hat{\theta}_{2017}\overline{\lambda}_{2017}-\hat{\theta}_{2013}\overline{\lambda}_{2013}=\hat{\theta}_{2013}\left(\overline{\lambda}_{2017c}-\overline{\lambda}_{2013}\right)+\hat{\theta}_{2013}\left(\overline{\lambda}_{2017}-\overline{\lambda}_{2017c}\right)\\&+\left(\hat{\theta}_{2017}-\hat{\theta}_{2013}\right)\overline{\lambda}_{2017}\\&=\hat{\theta}_{2013}\left(\overline{\lambda}_{2017c}-\overline{\lambda}_{2013}\right)+\ \hat{\theta}_{2017}\overline{\lambda}_{2017}-\hat{\theta}_{2013}\overline{\lambda}_{2017c}.\end{aligned} \tag{A-4}$$

The first term in the first line of the right-hand side of the equation (A-4) represents the log wage change attributable to changes in the explanatory variables that determine the selection probability (we refer to the composition effect of the inverse Mills ratio). The last two terms represent the log wage change attributable to changes in the coefficients of explanatory variables in the selection equation and the change in the covariance between the selection equation error term and the wage equation error term (we refer to the wage structure effect of the inverse Mills ratio).

Therefore, based on equation (A-4), we can propose the following extension of the decomposition of the wage change from 2013 to 2017 at the τ-th unconditional quantile expressed in equation (4) as follows (see equations (12) and (14) of Neuman and Oaxaca, 2004: 7-8 for the case of mean regression):

$$\begin{aligned}&\hat{q}_{2017}^{\tau}-\hat{q}_{2013}^{\tau}=\left(\overline{\boldsymbol{X}}_{2017}^{'}-\overline{\boldsymbol{X}}_{2013}^{'}\right)\hat{\beta}_{2013}^{\tau}+\hat{\theta}_{2013}^{\tau}\left(\overline{\lambda}_{2017c}-\overline{\lambda}_{2013}\right)\\&+\overline{\boldsymbol{X}}_{2017}^{'}\left(\hat{\beta}_{2017}^{\tau}-\hat{\beta}_{2013}^{\tau}\right)+\hat{\theta}_{2017}^{\tau}\overline{\lambda}_{2017}-\hat{\theta}_{2013}^{\tau}\overline{\lambda}_{2017c}.\end{aligned} \tag{A-5}$$

The decomposition analysis with the sample selection correction term reveals that the negative wage structure effect of the correction term, which is driven by the decline in the covariance between the selection equation error term and the wage equation error term at the 90th quantile (see Tables S.9 and S.10 in the Supplemental file), is strongly associated with the reduction in wage inequality for both males and females (see Table A.1). However, the composition effect of the correction term is associated with increasing and decreasing wage inequality for males and females, respectively (see Table A.1).

TABLE A.1

CONTRIBUTION OF THE DIFFERENCE IN THE COMPOSITION AND WAGE STRUCTURE EFFECTS BETWEEN SELECTED QUANTILES TO THE EVOLUTION OF WAGE INEQUALITY FROM 2013 TO 2017 FOR MALES AND FEMALES, WITH THE SELECTIVITY-CORRECTION TERM

	Males				Females			
	Q90-Q10		Q90-Q50		Q90-Q10		Q90-Q50	
2013	1.5907		1.0676		1.5455		1.0913	
2017	1.4926		1.0100		1.4391		1.0494	
Overall difference	-0.0981		-0.0576		-0.1064		-0.0419	
Total composition effect	0.1013	-103.27%	0.0783	-135.97%	0.1085	-101.91%	0.0556	-132.83%
Primary education or less	0.0003	-0.33%	-0.0036	6.29%	0.0014	-1.33%	0.0014	-3.34%
Higher education	0.1347	-137.29%	0.1062	-184.44%	0.1450	-136.26%	0.0974	-232.57%
Technical degree	0.0087	-8.87%	0.0032	-5.53%	0.0033	-3.13%	-0.0035	8.29%
CFT	0.0000	0.01%	-0.0002	0.27%	-0.0044	4.16%	0.0001	-0.14%
IP	0.0021	-2.19%	0.0006	-1.08%	0.0046	-4.30%	-0.0003	0.72%
New private university	0.0026	-2.65%	0.0017	-2.87%	0.0004	-0.34%	-0.0022	5.32%
Traditional university	0.0013	-1.30%	-0.0001	0.24%	0.0038	-3.60%	0.0018	-4.34%
Does not know/No response	0.0023	-2.30%	0.0013	-2.20%	0.0000	0.00%	0.0000	0.09%
Incomplete	0.0004	-0.45%	-0.0001	0.10%	-0.0010	0.95%	-0.0028	6.62%
Professional degree	0.0935	-95.31%	0.0740	-128.53%	0.1031	-96.88%	0.0697	-166.37%
IP	0.0157	-16.02%	0.0110	-19.06%	0.0162	-15.24%	0.0088	-20.92%
New private university	0.0253	-25.82%	0.0202	-35.08%	0.0289	-27.14%	0.0194	-46.43%
Traditional university	0.0521	-53.06%	0.0437	-75.87%	0.0598	-56.20%	0.0424	-101.36%
Does not know/No response	-0.0050	5.12%	-0.0039	6.75%	-0.0021	2.00%	-0.0011	2.53%
Incomplete	0.0054	-5.54%	0.0030	-5.26%	0.0003	-0.30%	0.0001	-0.19%
Post-graduate degree	0.0325	-33.12%	0.0290	-50.38%	0.0386	-36.26%	0.0312	-74.48%
New private university	0.0077	-7.85%	0.0067	-11.69%	0.0138	-12.97%	0.0109	-26.13%
Traditional university	0.0246	-25.10%	0.0222	-38.50%	0.0227	-21.34%	0.0189	-45.14%
Does not know/No response					-0.0027	2.53%	-0.0022	5.30%
Incomplete	0.0002	-0.17%	0.0001	-0.19%	0.0048	-4.48%	0.0036	-8.51%
Experience	-0.1077	109.75%	-0.1032	179.10%	-0.0445	41.81%	-0.0358	85.53%
Experience-squared	0.0919	-93.69%	0.0886	-153.80%	0.0305	-28.66%	0.0248	-59.17%

	Males				Females			
	Q90-Q10		Q90-Q50		Q90-Q10		Q90-Q50	
Demographic dummies	-0.0388	39.57%	-0.0306	53.13%	0.0250	-23.50%	0.0217	-51.74%
Industry dummies	-0.0003	0.26%	-0.0002	0.27%	0.0008	-0.80%	0.0002	-0.43%
Formal	0.0002	-0.17%	0.0004	-0.69%	-0.0074	6.93%	-0.0099	23.72%
Region dummies	0.0011	-1.10%	0.0010	-1.71%	0.0054	-5.03%	0.0040	-9.48%
Urban	-0.0009	0.96%	-0.0014	2.36%	-0.0007	0.64%	-0.0009	2.05%
Inverse Mills ratio	0.0208	-21.22%	0.0210	-36.49%	-0.0471	44.29%	-0.0471	112.59%
Total wage structure effect	-0.1995	203.27%	-0.1359	235.97%	-0.2149	201.91%	-0.0975	232.83%
Primary education or less	-0.0070	7.10%	-0.0052	8.96%	0.0092	-8.68%	0.0110	-26.20%
Higher education	0.0321	-32.67%	0.0343	-59.61%	-0.2135	200.60%	-0.1874	447.58%
Technical degree	-0.0087	8.83%	-0.0040	7.00%	-0.0132	12.44%	-0.0085	20.28%
CFT	0.0036	-3.65%	0.0040	-6.92%	-0.0055	5.16%	-0.0017	4.00%
IP	-0.0045	4.63%	-0.0031	5.31%	-0.0116	10.86%	-0.0154	36.82%
New private university	-0.0024	2.46%	-0.0010	1.68%	0.0020	-1.85%	0.0044	-10.51%
Traditional university	0.0006	-0.57%	0.0005	-0.80%	-0.0049	4.60%	-0.0039	9.34%
Does not know/No response	-0.0043	4.35%	-0.0033	5.65%	0.0013	-1.18%	0.0008	-1.92%
Incomplete	-0.0016	1.61%	-0.0012	2.07%	0.0055	-5.15%	0.0073	-17.45%
Professional degree	0.0146	-14.91%	0.0140	-24.25%	-0.1745	164.00%	-0.1533	366.24%
IP	0.0048	-4.94%	0.0048	-8.25%	-0.0184	17.25%	-0.0156	37.27%
New private university	-0.0102	10.37%	-0.0096	16.68%	-0.0785	73.77%	-0.0650	155.21%
Traditional university	0.0286	-29.11%	0.0211	-36.55%	-0.0697	65.48%	-0.0692	165.23%
Does not know/No response	-0.0004	0.43%	-0.0006	0.97%	-0.0004	0.33%	-0.0002	0.53%
Incomplete	-0.0082	8.35%	-0.0017	2.91%	-0.0076	7.16%	-0.0033	8.00%
Post-graduate degree	0.0261	-26.58%	0.0244	-42.36%	-0.0257	24.17%	-0.0256	61.07%
New private university	0.0079	-8.07%	0.0078	-13.53%	-0.0073	6.81%	-0.0069	16.59%
Traditional university	0.0150	-15.24%	0.0134	-23.25%	-0.0172	16.12%	-0.0168	40.13%
Does not know/No response					-0.0008	0.73%	-0.0007	1.76%
Incomplete	0.0032	-3.27%	0.0032	-5.58%	-0.0005	0.50%	-0.0011	2.59%
Experience	0.0966	-98.43%	-0.0342	59.34%	0.2181	-204.92%	0.1361	-324.99%
Experience-squared	-0.0742	75.65%	-0.0203	35.16%	-0.1228	115.35%	-0.0816	194.81%
Demographic dummies	0.1070	-108.99%	0.0732	-127.06%	0.0146	-13.71%	0.0299	-71.46%

	Males				Females			
	Q90-Q10		Q90-Q50		Q90-Q10		Q90-Q50	
Industry dummies	-0.0392	40.00%	-0.0218	37.77%	0.1924	-180.74%	0.0183	-43.65%
Formal	-0.0628	63.97%	-0.0523	90.84%	0.1493	-140.30%	0.0874	-208.76%
Region dummies	0.0235	-23.91%	0.0184	-31.92%	0.0302	-28.33%	0.0224	-53.43%
Urban	-0.0036	3.65%	0.0198	-34.32%	-0.1458	137.00%	-0.1651	394.28%
Constant	-0.1902	193.88%	-0.0271	46.98%	-0.0520	48.89%	0.3307	-789.93%
Inverse Mills ratio	-0.0815	83.03%	-0.1209	209.82%	-0.2945	276.74%	-0.2992	714.57%

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales)*. % indicates the contribution of the respective variable to the evolution of wage inequality between the selected quantiles.

TABLE A.2

CONTRIBUTION OF THE DIFFERENCE IN THE COMPOSITION AND WAGE STRUCTURE EFFECTS BETWEEN SELECTED QUANTILES TO THE EVOLUTION OF WAGE INEQUALITY FROM 2015 TO 2017

	All workers	
	Q90-Q10	
2015	1.4789	
2017	1.4090	
Overall difference	-0.0699	
Total composition effect	0.0543	-77.62%
Primary education or less	-0.0009	1.30%
Higher education	0.0731	-104.58%
Technical degree	0.0021	-2.95%
CFT	-0.0011	1.53%
IP	0.0017	-2.40%
New private university	0.0008	-1.10%
Traditional university	0.0009	-1.27%
Does not know/No response	-0.0002	0.28%
Incomplete	0.0000	0.01%
Professional degree	0.0473	-67.70%
IP	0.0033	-4.71%
New private university	-0.0024	3.50%
Traditional university	0.0423	-60.49%
Does not know/No response	0.0028	-4.04%
Incomplete	0.0014	-1.96%
Post-graduate degree	0.0237	-33.92%
New private university	0.0033	-4.65%
Traditional university	0.0198	-28.33%
Does not know/No response	0.0023	-3.36%
Incomplete	-0.0017	2.42%
Experience	-0.0301	43.10%
Experience-squared	0.0252	-36.11%
Male	-0.0009	1.22%
Demographic dummies	-0.0086	12.36%
Industry dummies	-0.0062	8.92%
Formal	0.0018	-2.53%
Region dummies	0.0010	-1.42%
Urban	-0.0001	0.10%
Total wage structure effect	-0.1242	177.62%
Primary education or less	-0.0003	0.38%
Higher education	-0.0174	24.85%
Technical degree	-0.0049	6.99%
CFT	-0.0015	2.13%
IP	-0.0070	10.01%
New private university	0.0004	-0.52%
Traditional university	-0.0001	0.12%
Does not know/No response	0.0003	-0.37%
Incomplete	0.0031	-4.37%
Professional degree	-0.0096	13.69%
IP	0.0002	-0.29%

	All workers	
	Q90-Q10	
New private university	-0.0165	23.64%
Traditional university	0.0024	-3.38%
Does not know/No response	0.0030	-4.36%
Incomplete	0.0014	-1.93%
Post-graduate degree	-0.0029	4.17%
New private university	0.0049	-6.96%
Traditional university	-0.0037	5.36%
Does not know/No response	-0.0018	2.58%
Incomplete	-0.0022	3.19%
Experience	0.2893	-413.72%
Experience-squared	-0.1421	203.26%
Male	0.0098	-14.05%
Demographic dummies	-0.0179	25.60%
Industry dummies	-0.0310	44.33%
Formal	0.1592	-227.72%
Region dummies	-0.0403	57.64%
Urban	-0.0539	77.04%
Constant	-0.2797	400.02%

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). % indicates the contribution of the respective variable to the evolution of wage inequality between the selected quantiles.

TABLE A.3

CONTRIBUTION OF THE DIFFERENCE IN THE COMPOSITION AND WAGE STRUCTURE EFFECTS BETWEEN SELECTED QUANTILES TO THE EVOLUTION OF WAGE INEQUALITY FROM 2013 TO 2017, WITH OCCUPATION DUMMIES

	All workers			
	Q90-Q10		Q90-Q50	
2013	1.5516		1.0544	
2017	1.4090		0.9822	
Overall difference	-0.1426		-0.0722	
Total composition effect	0.1010	-70.79%	0.0756	-104.62%
Primary education or less	-0.0037	2.58%	-0.0044	6.12%
Higher education	0.0846	-59.34%	0.0586	-81.16%
Technical degree	0.0013	-0.94%	-0.0033	4.54%
CFT	0.0001	-0.04%	0.0010	-1.38%
IP	-0.0008	0.58%	-0.0030	4.16%
New private university	0.0008	-0.53%	-0.0003	0.45%
Traditional university	0.0020	-1.42%	0.0006	-0.81%
Does not know/No response	0.0001	-0.07%	0.0000	0.02%
Incomplete	-0.0008	0.55%	-0.0015	2.11%
Professional degree	0.0580	-40.66%	0.0399	-55.27%
IP	0.0068	-4.78%	0.0025	-3.48%
New private university	0.0152	-10.66%	0.0102	-14.14%
Traditional university	0.0358	-25.08%	0.0274	-37.88%
Does not know/No response	-0.0012	0.87%	-0.0004	0.62%
Incomplete	0.0014	-1.01%	0.0003	-0.39%
Post-graduate degree	0.0253	-17.74%	0.0220	-30.42%
New private university	0.0068	-4.80%	0.0057	-7.87%
Traditional university	0.0170	-11.91%	0.0151	-20.86%
Does not know/No response	-0.0001	0.09%	-0.0001	0.15%
Incomplete	0.0016	-1.12%	0.0013	-1.84%
Experience	-0.0492	34.47%	-0.0417	57.70%
Experience-squared	0.0389	-27.30%	0.0350	-48.39%
Male	-0.0024	1.70%	-0.0002	0.28%
Demographic dummies	-0.0058	4.07%	-0.0015	2.01%
Occupation dummies	0.0463	-32.47%	0.0362	-50.09%
Industry dummies	-0.0098	6.84%	-0.0082	11.38%
Formal	-0.0004	0.25%	-0.0002	0.22%
Region dummies	0.0023	-1.63%	0.0021	-2.89%
Urban	-0.0001	0.06%	-0.0002	0.22%
Total wage structure effect	-0.2436	170.79%	-0.1478	204.62%
Primary education or less	-0.0059	4.16%	-0.0007	0.94%
Higher education	-0.1223	85.75%	-0.0818	113.24%
Technical degree	0.0026	-1.80%	0.0129	-17.92%
CFT	0.0010	-0.73%	0.0043	-5.94%
IP	0.0009	-0.65%	0.0048	-6.70%
New private university	-0.0007	0.52%	0.0009	-1.23%
Traditional university	-0.0024	1.67%	-0.0017	2.40%
Does not know/No response	-0.0010	0.68%	-0.0010	1.39%
Incomplete	0.0047	-3.29%	0.0057	-7.85%
Professional degree	-0.1088	76.26%	-0.0810	112.12%

	All workers			
	Q90-Q10		Q90-Q50	
IP	-0.0069	4.86%	-0.0037	5.06%
New private university	-0.0431	30.20%	-0.0327	45.26%
Traditional university	-0.0512	35.89%	-0.0426	58.95%
Does not know/No response	-0.0002	0.12%	0.0004	-0.50%
Incomplete	-0.0074	5.20%	-0.0024	3.35%
Post-graduate degree	-0.0161	11.28%	-0.0137	19.04%
New private university	-0.0008	0.56%	0.0001	-0.10%
Traditional university	-0.0126	8.85%	-0.0112	15.49%
Does not know/No response	-0.0011	0.80%	-0.0011	1.46%
Incomplete	-0.0015	1.07%	-0.0016	2.18%
Experience	0.1402	-98.29%	0.1030	-142.63%
Experience-squared	-0.0786	55.11%	-0.0582	80.53%
Male	0.0141	-9.86%	0.0073	-10.13%
Demographic dummies	0.0074	-5.22%	0.0027	-3.70%
Occupation dummies	-0.0118	8.26%	-0.0457	63.22%
Industry dummies	0.0397	-27.87%	0.0475	-65.72%
Formal	0.1739	-121.92%	0.0710	-98.25%
Region dummies	0.0166	-11.62%	0.0231	-32.01%
Urban	-0.0353	24.74%	-0.0252	34.94%
Constant	-0.3816	267.56%	-0.1908	264.18%

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales)*. % indicates the contribution of the respective variable to the evolution of wage inequality between the selected quantiles.

TABLE A.4

CONTRIBUTION OF THE DIFFERENCE IN THE COMPOSITION AND WAGE STRUCTURE EFFECTS BETWEEN SELECTED QUANTILES TO THE EVOLUTION OF WAGE INEQUALITY FROM 2015 TO 2017, WITH OCCUPATION AND FIRM SIZE DUMMIES

	All workers	
	Q90-Q10	
2015	1.5120	
2017	1.4730	
Overall difference	-0.0391	
Total composition effect	0.0583	-149.04%
Primary education or less	-0.0011	2.78%
Higher education	0.0519	-132.89%
Technical degree	0.0012	-3.06%
CFT	-0.0003	0.83%
IP	0.0010	-2.67%
New private university	0.0003	-0.78%
Traditional university	0.0005	-1.23%
Does not know/No response	-0.0003	0.88%
Incomplete	0.0000	-0.10%
Professional degree	0.0308	-78.87%
IP	0.0016	-4.04%
New private university	-0.0003	0.85%
Traditional university	0.0282	-72.23%
Does not know/No response	0.0007	-1.81%
Incomplete	0.0006	-1.64%
Post-graduate degree	0.0199	-50.95%
New private university	0.0030	-7.78%
Traditional university	0.0165	-42.30%
Does not know/No response	0.0014	-3.52%
Incomplete	-0.0010	2.65%
Experience	-0.0316	80.96%
Experience-squared	0.0267	-68.34%
Male	-0.0010	2.57%
Demographic dummies	-0.0072	18.42%
Occupation dummies	0.0252	-64.35%
Firm size dummies	0.0023	-5.76%
Industry dummies	-0.0097	24.80%
Formal	0.0011	-2.90%
Region dummies	0.0018	-4.63%
Urban	-0.0001	0.30%
Total wage structure effect	-0.0974	249.04%
Primary education or less	-0.0008	1.98%
Higher education	-0.0017	4.30%
Technical degree	-0.0147	37.61%
CFT	-0.0015	3.85%
IP	-0.0160	40.96%
New private university	0.0003	-0.76%
Traditional university	0.0000	0.03%
Does not know/No response	-0.0002	0.55%

	All workers	
	Q90-Q10	
Incomplete	0.0027	-7.02%
Professional degree	0.0067	-17.14%
IP	0.0008	-2.08%
New private university	-0.0089	22.70%
Traditional university	0.0124	-31.70%
Does not know/No response	0.0018	-4.60%
Incomplete	0.0006	-1.46%
Post-graduate degree	0.0063	-16.17%
New private university	0.0077	-19.74%
Traditional university	0.0019	-4.95%
Does not know/No response	-0.0012	3.12%
Incomplete	-0.0021	5.40%
Experience	0.3643	-931.93%
Experience-squared	-0.1822	466.15%
Male	0.0254	-64.95%
Demographic dummies	0.0294	-75.19%
Occupation dummies	0.1448	-370.53%
Firm size dummies	0.0281	-71.97%
Industry dummies	-0.1196	305.90%
Formal	0.2021	-516.87%
Region dummies	-0.0528	135.08%
Urban	-0.0377	96.34%
Constant	-0.4967	1270.73%

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales)*. *%* indicates the contribution of the respective variable to the evolution of wage inequality between the selected quantiles.

SUPPLEMENTAL FILE:

Decline in values of degrees and recent evolution of wage inequality: Evidence from Chile

TABLE S.1

ESTIMATION RESULTS OF THE UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES FOR OTHER QUANTILES IN 2013 AND 2017

	2013				2017			
Explanatory variables	Q25	Q35	Q65	Q75	Q25	Q35	Q65	Q75
Primary	-0.082***	-0.186***	-0.159***	-0.147***	-0.100***	-0.146***	-0.147***	-0.119***
	(0.012)	(0.020)	(0.023)	(0.021)	(0.011)	(0.016)	(0.016)	(0.020)
Technical degree								
CFT	0.103***	0.286***	0.499***	0.383***	0.110***	0.217***	0.398***	0.489***
	(0.014)	(0.027)	(0.058)	(0.061)	(0.013)	(0.023)	(0.041)	(0.055)
IP	0.110***	0.282***	0.614***	0.548***	0.120***	0.235***	0.469***	0.547***
	(0.013)	(0.025)	(0.057)	(0.067)	(0.010)	(0.019)	(0.046)	(0.060)
New private university	0.119***	0.306***	0.646***	0.765***	-0.039	0.055	0.355***	0.338***
	(0.020)	(0.041)	(0.132)	(0.168)	(0.092)	(0.103)	(0.093)	(0.081)
Traditional university	0.156***	0.382***	0.842***	0.819***	0.173***	0.342***	0.730***	0.851***
	(0.021)	(0.052)	(0.169)	(0.208)	(0.017)	(0.033)	(0.079)	(0.118)
Does not know/No response	0.130***	0.327***	0.393***	0.413***	0.124***	0.216***	0.274***	0.461***
	(0.025)	(0.043)	(0.091)	(0.115)	(0.024)	(0.036)	(0.073)	(0.110)
Incomplete	0.040	0.109**	0.236***	0.215**	0.069***	0.151***	0.291***	0.239***
	(0.027)	(0.045)	(0.076)	(0.090)	(0.016)	(0.024)	(0.040)	(0.045)
Professional degree								
IP	0.140***	0.395***	1.063***	1.334***	0.173***	0.335***	0.877***	1.166***
	(0.012)	(0.024)	(0.063)	(0.098)	(0.011)	(0.025)	(0.052)	(0.076)
New private university	0.137***	0.382***	1.230***	1.704***	0.153***	0.327***	0.980***	1.337***
	(0.009)	(0.020)	(0.055)	(0.087)	(0.015)	(0.027)	(0.056)	(0.068)
Traditional university	0.162***	0.415***	1.348***	1.863***	0.189***	0.391***	1.265***	1.835***
	(0.008)	(0.019)	(0.045)	(0.080)	(0.009)	(0.025)	(0.047)	(0.056)
Does not know/No response	0.164***	0.391***	1.214***	1.454***	0.188***	0.354***	1.110***	1.533***
	(0.010)	(0.031)	(0.092)	(0.144)	(0.014)	(0.031)	(0.064)	(0.103)
Incomplete	0.094***	0.275***	0.655***	0.802***	0.107***	0.208***	0.440***	0.533***
	(0.012)	(0.024)	(0.056)	(0.086)	(0.012)	(0.023)	(0.043)	(0.052)

	2013				2017			
Explanatory variables	Q25	Q35	Q65	Q75	Q25	Q35	Q65	Q75
Post-graduate degree								
New private university	0.086**	0.313***	1.357***	2.030***	0.186***	0.393***	1.360***	1.983***
	(0.037)	(0.058)	(0.096)	(0.155)	(0.013)	(0.028)	(0.065)	(0.100)
Traditional university	0.149***	0.391***	1.429***	2.208***	0.168***	0.360***	1.356***	2.086***
	(0.009)	(0.023)	(0.058)	(0.099)	(0.011)	(0.025)	(0.051)	(0.069)
Does not know/No response	0.172***	0.389***	1.416***	2.212***	0.153***	0.316***	0.794***	1.330***
	(0.022)	(0.069)	(0.119)	(0.183)	(0.041)	(0.076)	(0.290)	(0.433)
Incomplete	0.153***	0.404***	1.393***	2.074***	0.181***	0.386***	1.341***	2.026***
	(0.018)	(0.036)	(0.078)	(0.131)	(0.019)	(0.035)	(0.076)	(0.104)
Experience	0.002*	0.005**	0.012***	0.016***	0.003***	0.007***	0.022***	0.036***
	(0.001)	(0.002)	(0.003)	(0.005)	(0.001)	(0.002)	(0.003)	(0.004)
Experience-squared	-0.007**	-0.013**	-0.028***	-0.034***	-0.008***	-0.018***	-0.045***	-0.078***
	(0.003)	(0.006)	(0.008)	(0.012)	(0.003)	(0.004)	(0.007)	(0.009)
Male	0.050***	0.118***	0.141***	0.145***	0.051***	0.089***	0.110***	0.092***
	(0.008)	(0.013)	(0.018)	(0.022)	(0.006)	(0.009)	(0.015)	(0.023)
Head of the household	0.018***	0.052***	0.119***	0.134***	0.034***	0.071***	0.122***	0.161***
	(0.007)	(0.012)	(0.017)	(0.023)	(0.005)	(0.009)	(0.016)	(0.019)
Married	0.014**	0.050***	0.086***	0.089***	0.029***	0.049***	0.118***	0.146***
	(0.007)	(0.011)	(0.016)	(0.020)	(0.005)	(0.007)	(0.013)	(0.019)
Formal	0.171***	0.165***	0.146***	0.087***	0.123***	0.153***	0.128***	0.140***
	(0.013)	(0.021)	(0.019)	(0.020)	(0.012)	(0.017)	(0.017)	(0.023)
Urban	0.018*	0.084***	0.064***	0.047***	0.030***	0.044***	0.042***	0.037**
	(0.010)	(0.017)	(0.015)	(0.017)	(0.008)	(0.009)	(0.012)	(0.017)
Constant	6.775***	6.585***	6.754***	6.989***	6.800***	6.675***	6.784***	6.784***
	(0.022)	(0.044)	(0.048)	(0.064)	(0.021)	(0.032)	(0.049)	(0.052)
Observations	35,626	35,626	35,626	35,626	35,543	35,543	35,543	35,543
R-squared	0.158	0.265	0.411	0.443	0.184	0.248	0.408	0.442

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent bootstrapped standard errors (500 replications). ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. Industry dummies and region dummies are also included.

TABLE S.2

DECOMPOSITION OF WAGE CHANGES FROM 2013 TO 2017 AT OTHER QUANTILES INTO COMPOSITION AND WAGE STRUCTURE EFFECTS OF EACH EXPLANATORY VARIABLE

	Composition effect				Wage structure effect			
	Q25	Q35	Q65	Q75	Q25	Q35	Q65	Q75
Overall	0.0130***	0.0322***	0.0790***	0.1039***	0.0550***	0.0406***	0.0191***	-0.0065
	(0.0012)	(0.0024)	(0.0049)	(0.0062)	(0.0025)	(0.0037)	(0.0056)	(0.0068)
Primary	0.0028***	0.0064***	0.0054***	0.0050***	-0.0019**	0.0043***	0.0013	0.0030
	(0.0003)	(0.0006)	(0.0006)	(0.0007)	(0.0010)	(0.0014)	(0.0021)	(0.0026)
Higher education degrees	0.0112***	0.0300***	0.0890***	0.1185***	0.0073***	-0.0183***	-0.0586***	-0.0473***
	(0.0007)	(0.0015)	(0.0041)	(0.0056)	(0.0026)	(0.0039)	(0.0058)	(0.0072)
Technical degree	0.0025***	0.0062***	0.0133***	0.0134***	0.0003	-0.0073***	-0.0155***	0.0001
	(0.0004)	(0.0008)	(0.0015)	(0.0014)	(0.0012)	(0.0017)	(0.0026)	(0.0031)
CFT	-0.0004***	-0.0012***	-0.0021***	-0.0016***	0.0002	-0.0019***	-0.0028***	0.0030***
	(0.0001)	(0.0004)	(0.0006)	(0.0005)	(0.0004)	(0.0006)	(0.0009)	(0.0011)
IP	0.0013***	0.0033***	0.0072***	0.0064***	0.0007	-0.0033***	-0.0102***	-0.0001
	(0.0002)	(0.0005)	(0.0011)	(0.0010)	(0.0007)	(0.0011)	(0.0016)	(0.0020)
New private university	0.0006***	0.0015***	0.0032***	0.0037***	-0.0014***	-0.0022***	-0.0026***	-0.0038***
	(0.0002)	(0.0003)	(0.0005)	(0.0006)	(0.0003)	(0.0005)	(0.0007)	(0.0008)
Traditional university	0.0006***	0.0015***	0.0033***	0.0032***	0.0001	-0.0002	-0.0006	0.0002
	(0.0002)	(0.0003)	(0.0005)	(0.0006)	(0.0003)	(0.0004)	(0.0006)	(0.0007)
Does not know/No response	0.0002***	0.0006***	0.0008***	0.0008***	-0.0000	-0.0006**	-0.0007	0.0003
	(0.0001)	(0.0002)	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0005)	(0.0006)
Incomplete	0.0002**	0.0005***	0.0011***	0.0010***	0.0007*	0.0010*	0.0013	0.0006
	(0.0001)	(0.0001)	(0.0003)	(0.0003)	(0.0004)	(0.0006)	(0.0009)	(0.0011)
Professional degree	0.0075***	0.0203***	0.0622***	0.0845***	0.0058***	-0.0110***	-0.0411***	-0.0441***
	(0.0006)	(0.0013)	(0.0039)	(0.0053)	(0.0018)	(0.0027)	(0.0041)	(0.0050)
IP	0.0017***	0.0048***	0.0130***	0.0163***	0.0009*	-0.0016**	-0.0050***	-0.0045***
	(0.0002)	(0.0005)	(0.0012)	(0.0015)	(0.0005)	(0.0007)	(0.0011)	(0.0013)
New private university	0.0019***	0.0053***	0.0172***	0.0238***	0.0012	-0.0041***	-0.0187***	-0.0274***
	(0.0003)	(0.0007)	(0.0023)	(0.0032)	(0.0008)	(0.0012)	(0.0018)	(0.0023)
Traditional university	0.0039***	0.0099***	0.0321***	0.0444***	0.0030***	-0.0027*	-0.0092***	-0.0031
	(0.0004)	(0.0010)	(0.0030)	(0.0042)	(0.0010)	(0.0015)	(0.0023)	(0.0028)
Does not know/No response	-0.0004***	-0.0009***	-0.0028***	-0.0034***	0.0002	-0.0002	-0.0007*	0.0005
	(0.0001)	(0.0003)	(0.0008)	(0.0010)	(0.0002)	(0.0003)	(0.0004)	(0.0005)

	Composition effect				Wage structure effect			
	Q25	Q35	Q65	Q75	Q25	Q35	Q65	Q75
Incomplete	0.0004***	0.0012***	0.0028***	0.0034***	0.0005	-0.0024***	-0.0076***	-0.0096***
	(0.0001)	(0.0004)	(0.0009)	(0.0011)	(0.0005)	(0.0007)	(0.0011)	(0.0014)
Post-graduate degree	0.0013***	0.0036***	0.0135***	0.0206***	0.0012**	-0.0000	-0.0019*	-0.0034**
	(0.0002)	(0.0005)	(0.0016)	(0.0025)	(0.0005)	(0.0007)	(0.0011)	(0.0013)
New private university	0.0003***	0.0009***	0.0040***	0.0060***	0.0008***	0.0006*	0.0000	-0.0004
	(0.0001)	(0.0002)	(0.0008)	(0.0012)	(0.0003)	(0.0004)	(0.0006)	(0.0007)
Traditional university	0.0009***	0.0022***	0.0082***	0.0127***	0.0003	-0.0005	-0.0012	-0.0021**
	(0.0002)	(0.0004)	(0.0013)	(0.0020)	(0.0004)	(0.0006)	(0.0008)	(0.0010)
Does not know/No response	-0.0000	-0.0000	-0.0001	-0.0001	-0.0000	-0.0001	-0.0005***	-0.0008***
	(0.0000)	(0.0001)	(0.0003)	(0.0005)	(0.0001)	(0.0001)	(0.0002)	(0.0002)
Incomplete	0.0002**	0.0004**	0.0014**	0.0021**	0.0001	-0.0001	-0.0002	-0.0002
	(0.0001)	(0.0002)	(0.0005)	(0.0008)	(0.0002)	(0.0002)	(0.0003)	(0.0004)
Experience	-0.0026***	-0.0055***	-0.0142***	-0.0185***	0.0181	0.0461	0.1674***	0.3527***
	(0.0010)	(0.0015)	(0.0023)	(0.0028)	(0.0208)	(0.0306)	(0.0459)	(0.0562)
Experience-squared	0.0030***	0.0055***	0.0114***	0.0139***	-0.0042	-0.0180	-0.0691***	-0.1732***
	(0.0009)	(0.0014)	(0.0021)	(0.0025)	(0.0118)	(0.0174)	(0.0260)	(0.0319)
Male	-0.0015***	-0.0036***	-0.0043***	-0.0044***	0.0005	-0.0162***	-0.0174**	-0.0299***
	(0.0002)	(0.0005)	(0.0006)	(0.0006)	(0.0032)	(0.0048)	(0.0071)	(0.0087)
Demographic dummies	-0.0012***	-0.0041***	-0.0077***	-0.0081***	0.0116***	0.0086**	0.0103*	0.0292***
	(0.0003)	(0.0005)	(0.0008)	(0.0009)	(0.0028)	(0.0041)	(0.0061)	(0.0075)
Industry dummies	0.0009*	0.0021**	-0.0017	-0.0038**	0.0402***	-0.0258*	-0.0203	0.0036
	(0.0005)	(0.0010)	(0.0014)	(0.0015)	(0.0103)	(0.0152)	(0.0228)	(0.0279)
Formal	0.0002	0.0002	0.0001	0.0001	-0.0431***	-0.0109	-0.0165	0.0474**
	(0.0004)	(0.0004)	(0.0003)	(0.0002)	(0.0077)	(0.0113)	(0.0170)	(0.0208)
Region dummies	0.0003	0.0010	0.0006	0.0010	-0.0102***	0.0173***	0.0122*	0.0218***
	(0.0003)	(0.0006)	(0.0006)	(0.0008)	(0.0029)	(0.0042)	(0.0063)	(0.0077)
Urban	0.0000	0.0002	0.0002	0.0001	0.0111	-0.0367***	-0.0196	-0.0087
	(0.0000)	(0.0002)	(0.0002)	(0.0001)	(0.0081)	(0.0120)	(0.0180)	(0.0220)
Constant					0.0256	0.0901***	0.0293	-0.2052***
					(0.0178)	(0.0262)	(0.0394)	(0.0482)
Observations	71,169	71,169	71,169	71,169	71,169	71,169	71,169	71,169

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively.

TABLE S.3

ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES FOR MALES IN 2013 AND 2017

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Primary	-0.156***	-0.104***	-0.199***	-0.013	-0.139***	-0.086***	-0.183***	-0.026
	(0.011)	(0.019)	(0.026)	(0.023)	(0.012)	(0.017)	(0.019)	(0.024)
Technical degree								
CFT	0.277***	0.089***	0.364***	0.226**	0.279***	0.065***	0.318***	0.142
	(0.023)	(0.016)	(0.049)	(0.093)	(0.022)	(0.017)	(0.038)	(0.088)
IP	0.357***	0.096***	0.346***	0.327***	0.302***	0.081***	0.305***	0.370***
	(0.016)	(0.014)	(0.052)	(0.088)	(0.015)	(0.015)	(0.032)	(0.067)
New private university	0.442***	0.039	0.407***	1.075**	0.240***	0.047	0.163*	0.634***
	(0.059)	(0.052)	(0.081)	(0.509)	(0.043)	(0.065)	(0.090)	(0.222)
Traditional university	0.341***	0.047	0.387***	0.521*	0.480***	0.115***	0.481***	0.575**
	(0.101)	(0.079)	(0.124)	(0.287)	(0.045)	(0.020)	(0.056)	(0.234)
Does not know/No response	0.410***	0.051	0.367***	0.616**	0.219***	0.097***	0.230***	0.008
	(0.064)	(0.045)	(0.077)	(0.300)	(0.043)	(0.018)	(0.075)	(0.105)
Incomplete	0.072***	-0.060	0.127**	0.054	0.171***	0.035	0.213***	0.216***
	(0.024)	(0.061)	(0.061)	(0.085)	(0.022)	(0.023)	(0.042)	(0.080)
Professional degree								
IP	0.664***	0.098***	0.497***	1.300***	0.583***	0.066***	0.464***	1.543***
	(0.030)	(0.018)	(0.044)	(0.253)	(0.021)	(0.018)	(0.037)	(0.208)
New private university	0.891***	0.084***	0.501***	2.107***	0.687***	0.060**	0.462***	1.897***
	(0.016)	(0.015)	(0.044)	(0.243)	(0.015)	(0.027)	(0.044)	(0.190)
Traditional university	1.073***	0.107***	0.529***	2.684***	1.026***	0.099***	0.598***	3.006***
	(0.014)	(0.013)	(0.041)	(0.309)	(0.012)	(0.011)	(0.030)	(0.217)
Does not know/No response	0.758***	0.108***	0.500***	1.806***	0.772***	0.100***	0.522***	1.787***
	(0.038)	(0.016)	(0.058)	(0.350)	(0.046)	(0.021)	(0.050)	(0.310)
Incomplete	0.456***	0.063***	0.386***	0.824***	0.306***	0.088***	0.252***	0.656***
	(0.019)	(0.019)	(0.038)	(0.225)	(0.017)	(0.016)	(0.040)	(0.116)

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Post-graduate degree								
New private university	1.323***	-0.074	0.407***	3.533***	1.408***	0.090***	0.589***	5.076***
	(0.048)	(0.104)	(0.102)	(0.557)	(0.040)	(0.015)	(0.038)	(0.580)
Traditional university	1.441***	0.081***	0.508***	4.160***	1.450***	0.095***	0.597***	5.082***
	(0.032)	(0.014)	(0.050)	(0.436)	(0.026)	(0.013)	(0.036)	(0.403)
Incomplete	1.228***	0.101***	0.573***	2.890***	1.026***	0.108***	0.584***	2.762***
	(0.068)	(0.037)	(0.069)	(0.810)	(0.064)	(0.019)	(0.063)	(0.666)
Experience	0.021***	0.001	0.005	0.073***	0.026***	0.001	0.010***	0.079***
	(0.002)	(0.003)	(0.004)	(0.013)	(0.002)	(0.002)	(0.003)	(0.011)
Experience-squared	-0.046***	-0.003	-0.010	-0.163***	-0.056***	-0.002	-0.019***	-0.179***
	(0.004)	(0.006)	(0.010)	(0.028)	(0.004)	(0.004)	(0.007)	(0.024)
Head of the household	0.153***	0.049***	0.123***	0.253***	0.124***	0.024**	0.130***	0.308***
	(0.008)	(0.012)	(0.020)	(0.052)	(0.007)	(0.009)	(0.013)	(0.044)
Married	0.045***	0.009	0.065***	0.020	0.084***	0.012	0.058***	0.243***
	(0.008)	(0.011)	(0.019)	(0.047)	(0.008)	(0.010)	(0.013)	(0.052)
Formal	0.215***	0.232***	0.187***	0.117*	0.183***	0.222***	0.158***	0.067**
	(0.011)	(0.027)	(0.025)	(0.064)	(0.011)	(0.031)	(0.023)	(0.034)
Urban	0.039***	0.026	0.080***	-0.023	0.038***	0.024**	0.056***	-0.063
	(0.012)	(0.016)	(0.016)	(0.022)	(0.012)	(0.011)	(0.014)	(0.039)
Constant	6.745***	6.587***	6.841***	7.227***	6.818***	6.726***	6.885***	7.116***
	(0.023)	(0.042)	(0.051)	(0.149)	(0.023)	(0.042)	(0.045)	(0.126)
Observations	21,301	21,301	21,301	21,301	20,135	20,135	20,135	20,135
R-squared	0.514	0.093	0.301	0.402	0.511	0.091	0.285	0.378

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

TABLE S.4

ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES FOR FEMALES IN 2013 AND 2017

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Primary	-0.107***	-0.170***	-0.172***	-0.005	-0.073***	-0.085***	-0.105***	0.016
	(0.014)	(0.060)	(0.028)	(0.024)	(0.015)	(0.030)	(0.033)	(0.023)
Technical degree								
CFT	0.280***	0.057	0.433***	0.162**	0.221***	0.053**	0.317***	0.168***
	(0.018)	(0.059)	(0.055)	(0.069)	(0.020)	(0.026)	(0.051)	(0.055)
IP	0.307***	0.163***	0.448***	0.183***	0.254***	0.064***	0.390***	0.105**
	(0.015)	(0.026)	(0.055)	(0.062)	(0.014)	(0.018)	(0.041)	(0.042)
New private university	0.360***	0.175***	0.512***	0.017	0.181***	0.090**	0.235	0.140
	(0.050)	(0.052)	(0.084)	(0.145)	(0.032)	(0.039)	(0.158)	(0.085)
Traditional university	0.588***	0.176***	0.758***	0.947*	0.379***	0.112***	0.523***	0.292**
	(0.074)	(0.046)	(0.070)	(0.492)	(0.046)	(0.040)	(0.070)	(0.116)
Does not know/No response	0.267***	0.254***	0.445***	0.044	0.141***	-0.001	0.271***	0.117
	(0.050)	(0.043)	(0.108)	(0.075)	(0.048)	(0.079)	(0.072)	(0.097)
Incomplete	0.175***	0.104*	0.357***	-0.132**	0.129***	0.014	0.196***	0.023
	(0.027)	(0.054)	(0.072)	(0.052)	(0.023)	(0.041)	(0.043)	(0.049)
Professional degree								
IP	0.721***	0.104**	0.709***	1.152***	0.582***	0.131***	0.640***	0.715***
	(0.029)	(0.049)	(0.053)	(0.240)	(0.022)	(0.018)	(0.049)	(0.115)
New private university	0.925***	0.125***	0.774***	1.731***	0.695***	0.134***	0.629***	1.111***
	(0.016)	(0.027)	(0.050)	(0.183)	(0.014)	(0.018)	(0.068)	(0.103)
Traditional university	1.041***	0.201***	0.850***	2.062***	0.944***	0.140***	0.783***	1.713***
	(0.014)	(0.019)	(0.048)	(0.163)	(0.012)	(0.015)	(0.046)	(0.098)
Does not know/No response	0.835***	0.218***	0.819***	1.046***	0.781***	0.168***	0.750***	1.219***
	(0.037)	(0.033)	(0.059)	(0.256)	(0.039)	(0.018)	(0.057)	(0.203)
Incomplete	0.377***	0.052	0.497***	0.517***	0.295***	0.044*	0.346***	0.349***
	(0.022)	(0.056)	(0.054)	(0.162)	(0.021)	(0.025)	(0.045)	(0.088)

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Post-graduate degree								
New private university	1.375***	0.173***	0.861***	3.110***	1.317***	0.184***	0.835***	2.545***
	(0.052)	(0.037)	(0.056)	(0.418)	(0.038)	(0.031)	(0.051)	(0.304)
Traditional university	1.380***	0.199***	0.861***	3.573***	1.288***	0.157***	0.794***	2.916***
	(0.035)	(0.031)	(0.053)	(0.373)	(0.029)	(0.017)	(0.048)	(0.212)
Does not know/No response	1.215***	0.274***	0.812***	2.892***	0.812***	0.191***	0.608*	0.938
	(0.103)	(0.050)	(0.143)	(0.813)	(0.188)	(0.049)	(0.347)	(1.027)
Incomplete	1.333***	0.278***	0.838***	2.376***	1.028***	0.146***	0.839***	2.045***
	(0.085)	(0.073)	(0.087)	(0.709)	(0.057)	(0.019)	(0.052)	(0.416)
Experience	0.017***	0.002	0.011***	0.033***	0.025***	0.002	0.016***	0.058***
	(0.002)	(0.004)	(0.003)	(0.010)	(0.002)	(0.002)	(0.003)	(0.008)
Experience-squared	-0.040***	-0.010	-0.028***	-0.072***	-0.055***	-0.006	-0.035***	-0.130***
	(0.005)	(0.013)	(0.009)	(0.023)	(0.005)	(0.007)	(0.009)	(0.019)
Head of the household	0.033***	-0.074***	0.037*	0.138***	0.051***	-0.012	0.052***	0.083**
	(0.008)	(0.022)	(0.021)	(0.044)	(0.008)	(0.010)	(0.020)	(0.034)
Married	0.061***	-0.002	0.047**	0.077*	0.093***	0.006	0.060***	0.270***
	(0.009)	(0.020)	(0.019)	(0.045)	(0.009)	(0.011)	(0.015)	(0.040)
Formal	0.241***	0.573***	0.185***	0.077**	0.194***	0.302***	0.105***	0.020
	(0.013)	(0.064)	(0.023)	(0.032)	(0.013)	(0.034)	(0.031)	(0.051)
Urban	0.052***	0.064*	0.039**	0.021	0.018	0.045**	0.040***	-0.062
	(0.015)	(0.039)	(0.019)	(0.040)	(0.014)	(0.018)	(0.015)	(0.039)
Constant	6.682***	6.062***	6.648***	7.705***	6.744***	6.514***	6.725***	7.568***
	(0.028)	(0.103)	(0.050)	(0.119)	(0.027)	(0.054)	(0.050)	(0.107)
Observations	14,316	14,316	14,316	14,316	15,396	15,396	15,396	15,396
R-squared	0.566	0.152	0.401	0.340	0.521	0.124	0.359	0.319

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

TABLE S.5

DECOMPOSITION OF WAGE CHANGES FROM 2013 TO 2017 INTO COMPOSITION AND WAGE STRUCTURE EFFECTS OF EACH EXPLANATORY VARIABLE FOR MALES

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Overall	0.0485***	0.0070***	0.0300***	0.1100***	0.0274***	0.1059***	0.0424***	-0.0953***
	(0.0051)	(0.0018)	(0.0039)	(0.0111)	(0.0048)	(0.0043)	(0.0056)	(0.0149)
Primary	0.0066***	0.0044***	0.0084***	0.0006	0.0023	0.0024	0.0021	-0.0017
	(0.0007)	(0.0006)	(0.0009)	(0.0012)	(0.0020)	(0.0018)	(0.0024)	(0.0064)
Higher education	0.0588***	0.0057***	0.0343***	0.1360***	-0.0273***	0.0007	-0.0024	0.0407***
	(0.0040)	(0.0009)	(0.0023)	(0.0101)	(0.0045)	(0.0040)	(0.0053)	(0.0139)
Technical degree	0.0063***	0.0009*	0.0064***	0.0091***	-0.0022	0.0015	-0.0030	-0.0015
	(0.0011)	(0.0005)	(0.0012)	(0.0018)	(0.0019)	(0.0017)	(0.0023)	(0.0060)
CFT	0.0001	0.0000	0.0002	0.0001	0.0000	-0.0006	-0.0011	-0.0019
	(0.0004)	(0.0001)	(0.0005)	(0.0003)	(0.0007)	(0.0006)	(0.0009)	(0.0023)
IP	0.0022***	0.0006**	0.0021***	0.0020***	-0.0030**	-0.0008	-0.0023	0.0024
	(0.0008)	(0.0002)	(0.0008)	(0.0008)	(0.0012)	(0.0011)	(0.0014)	(0.0037)
New private university	0.0011***	0.0001	0.0010***	0.0028***	-0.0012***	0.0000	-0.0014***	-0.0025**
	(0.0003)	(0.0001)	(0.0003)	(0.0008)	(0.0004)	(0.0004)	(0.0005)	(0.0013)
Traditional university	0.0014***	0.0002	0.0016***	0.0022*	0.0007	0.0004	0.0005	0.0003
	(0.0005)	(0.0004)	(0.0005)	(0.0011)	(0.0006)	(0.0005)	(0.0007)	(0.0016)
Does not know/No response	0.0013***	0.0002	0.0012***	0.0019***	-0.0011**	0.0003	-0.0008	-0.0035***
	(0.0003)	(0.0002)	(0.0003)	(0.0007)	(0.0005)	(0.0004)	(0.0005)	(0.0014)
Incomplete	0.0002	-0.0002	0.0003*	0.0001	0.0023***	0.0022***	0.0020**	0.0038
	(0.0001)	(0.0001)	(0.0002)	(0.0002)	(0.0008)	(0.0007)	(0.0009)	(0.0023)
Professional degree	0.0413***	0.0045***	0.0240***	0.0955***	-0.0253***	-0.0022	-0.0021	0.0161
	(0.0036)	(0.0007)	(0.0021)	(0.0088)	(0.0032)	(0.0028)	(0.0038)	(0.0098)
IP	0.0079***	0.0012***	0.0059***	0.0155***	-0.0020**	-0.0008	-0.0008	0.0060**
	(0.0010)	(0.0004)	(0.0008)	(0.0020)	(0.0009)	(0.0008)	(0.0011)	(0.0027)
New private university	0.0110***	0.0010***	0.0062***	0.0259***	-0.0129***	-0.0015	-0.0025	-0.0133***
	(0.0020)	(0.0003)	(0.0012)	(0.0048)	(0.0014)	(0.0012)	(0.0016)	(0.0043)
Traditional university	0.0213***	0.0021***	0.0105***	0.0532***	-0.0044**	-0.0008	0.0065***	0.0303***
	(0.0029)	(0.0004)	(0.0015)	(0.0074)	(0.0018)	(0.0016)	(0.0021)	(0.0055)

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Does not know/No response	-0.0022***	-0.0003**	-0.0014***	-0.0052***	0.0001	-0.0000	0.0001	-0.0001
	(0.0006)	(0.0001)	(0.0004)	(0.0014)	(0.0003)	(0.0003)	(0.0004)	(0.0010)
Incomplete	0.0034***	0.0005***	0.0029***	0.0061***	-0.0060***	0.0010	-0.0054***	-0.0067**
	(0.0009)	(0.0002)	(0.0007)	(0.0016)	(0.0010)	(0.0009)	(0.0012)	(0.0032)
Post-graduate degree	0.0111***	0.0003	0.0038***	0.0314***	0.0002	0.0014*	0.0028***	0.0260***
	(0.0020)	(0.0002)	(0.0008)	(0.0057)	(0.0009)	(0.0008)	(0.0011)	(0.0030)
New private university	0.0027***	-0.0001	0.0008**	0.0071***	0.0006	0.0011***	0.0012**	0.0105***
	(0.0010)	(0.0001)	(0.0003)	(0.0027)	(0.0004)	(0.0004)	(0.0005)	(0.0016)
Traditional university	0.0083***	0.0005**	0.0029***	0.0240***	0.0001	0.0002	0.0015*	0.0158***
	(0.0017)	(0.0002)	(0.0006)	(0.0049)	(0.0007)	(0.0006)	(0.0008)	(0.0023)
Incomplete	0.0001	0.0000	0.0001	0.0003	-0.0005**	0.0000	0.0000	-0.0003
	(0.0006)	(0.0000)	(0.0003)	(0.0014)	(0.0002)	(0.0002)	(0.0003)	(0.0007)
Experience	-0.0260***	-0.0013	-0.0060**	-0.0885***	0.0866**	-0.0078	0.0944*	0.1098
	(0.0028)	(0.0019)	(0.0024)	(0.0084)	(0.0410)	(0.0365)	(0.0483)	(0.1283)
Experience-squared	0.0218***	0.0012	0.0047**	0.0769***	-0.0397*	0.0021	-0.0370	-0.0635
	(0.0025)	(0.0018)	(0.0023)	(0.0077)	(0.0230)	(0.0204)	(0.0271)	(0.0724)
Demographic dummies	-0.0121***	-0.0034***	-0.0119***	-0.0159***	-0.0031	-0.0119**	0.0013	0.1024***
	(0.0010)	(0.0006)	(0.0010)	(0.0020)	(0.0055)	(0.0049)	(0.0065)	(0.0173)
Industry dummies	-0.0015	-0.0002	-0.0004	0.0001	-0.0576***	-0.0288*	-0.0393*	-0.0946
	(0.0014)	(0.0009)	(0.0015)	(0.0030)	(0.0183)	(0.0163)	(0.0216)	(0.0576)
Formal	0.0005	0.0005	0.0004	0.0003	-0.0283**	-0.0086	-0.0261	-0.0454
	(0.0006)	(0.0007)	(0.0006)	(0.0004)	(0.0141)	(0.0126)	(0.0167)	(0.0443)
Region dummies	0.0002	-0.0002	-0.0001	0.0008	0.0231***	0.0194***	0.0270***	0.0033
	(0.0009)	(0.0006)	(0.0009)	(0.0014)	(0.0056)	(0.0050)	(0.0067)	(0.0177)
Urban	0.0003**	0.0002*	0.0006**	-0.0002	-0.0011	-0.0014	-0.0212	-0.0351
	(0.0002)	(0.0001)	(0.0003)	(0.0003)	(0.0146)	(0.0130)	(0.0173)	(0.0458)
Constant					0.0727**	0.1398***	0.0435	-0.1112
					(0.0321)	(0.0285)	(0.0378)	(0.1008)
Observations	41,436	41,436	41,436	41,436	41,436	41,436	41,436	41,436

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively.

TABLE S.6
DECOMPOSITION OF WAGE CHANGES FROM 2013 TO 2017 INTO COMPOSITION AND WAGE STRUCTURE EFFECTS OF EACH EXPLANATORY VARIABLE FOR FEMALES

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Overall	0.0760***	0.0212***	0.0741***	0.1304***	0.0381***	0.1476***	0.0302***	-0.0681***
	(0.0060)	(0.0042)	(0.0056)	(0.0114)	(0.0053)	(0.0075)	(0.0067)	(0.0147)
Primary	0.0021***	0.0034***	0.0034***	0.0001	0.0029	0.0072***	0.0057**	0.0018
	(0.0005)	(0.0008)	(0.0007)	(0.0008)	(0.0018)	(0.0025)	(0.0023)	(0.0049)
Higher education	0.0724***	0.0152***	0.0628***	0.1328***	-0.0561***	-0.0224**	-0.0499***	-0.1410***
	(0.0051)	(0.0020)	(0.0043)	(0.0107)	(0.0063)	(0.0089)	(0.0080)	(0.0175)
Technical degree	0.0080***	0.0048***	0.0116***	0.0037*	-0.0122***	-0.0142***	-0.0193***	-0.0046
	(0.0014)	(0.0012)	(0.0021)	(0.0020)	(0.0028)	(0.0040)	(0.0035)	(0.0077)
CFT	-0.0033***	-0.0007*	-0.0052***	-0.0019***	-0.0020**	-0.0001	-0.0040***	0.0002
	(0.0007)	(0.0004)	(0.0010)	(0.0007)	(0.0009)	(0.0013)	(0.0012)	(0.0026)
IP	0.0053***	0.0028***	0.0077***	0.0031***	-0.0047***	-0.0089***	-0.0052**	-0.0070
	(0.0010)	(0.0007)	(0.0015)	(0.0009)	(0.0018)	(0.0026)	(0.0023)	(0.0050)
New private university	0.0028***	0.0013**	0.0039***	0.0001	-0.0023***	-0.0011	-0.0036***	0.0016
	(0.0006)	(0.0007)	(0.0008)	(0.0011)	(0.0008)	(0.0012)	(0.0010)	(0.0022)
Traditional university	0.0020***	0.0006	0.0026***	0.0033***	-0.0012**	-0.0004	-0.0014**	-0.0038**
	(0.0005)	(0.0005)	(0.0007)	(0.0010)	(0.0005)	(0.0008)	(0.0007)	(0.0015)
Does not know/No response	0.0000	0.0000	0.0001	0.0000	-0.0007*	-0.0014**	-0.0009*	0.0004
	(0.0002)	(0.0002)	(0.0004)	(0.0000)	(0.0004)	(0.0006)	(0.0005)	(0.0010)
Incomplete	0.0012***	0.0007**	0.0025***	-0.0009	-0.0012	-0.0023*	-0.0042***	0.0040
	(0.0004)	(0.0004)	(0.0007)	(0.0006)	(0.0009)	(0.0013)	(0.0012)	(0.0025)
Professional degree	0.0489***	0.0081***	0.0416***	0.0930***	-0.0404***	-0.0071	-0.0291***	-0.1181***
	(0.0048)	(0.0014)	(0.0041)	(0.0092)	(0.0043)	(0.0061)	(0.0054)	(0.0120)
IP	0.0089***	0.0013**	0.0087***	0.0142***	-0.0041***	0.0008	-0.0020	-0.0128***
	(0.0013)	(0.0006)	(0.0013)	(0.0022)	(0.0011)	(0.0016)	(0.0014)	(0.0030)
New private university	0.0135***	0.0018***	0.0113***	0.0252***	-0.0205***	0.0008	-0.0130***	-0.0554***
	(0.0030)	(0.0006)	(0.0025)	(0.0055)	(0.0020)	(0.0027)	(0.0024)	(0.0054)
Traditional university	0.0279***	0.0054***	0.0228***	0.0552***	-0.0129***	-0.0080**	-0.0090***	-0.0464***
	(0.0039)	(0.0010)	(0.0032)	(0.0078)	(0.0025)	(0.0035)	(0.0031)	(0.0069)
Does not know/No response	-0.0015	-0.0004	-0.0015	-0.0019	-0.0005	-0.0004	-0.0006	0.0015
	(0.0009)	(0.0003)	(0.0009)	(0.0012)	(0.0005)	(0.0006)	(0.0006)	(0.0013)

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Incomplete	0.0002	0.0000	0.0003	0.0003	-0.0025***	-0.0003	-0.0045***	-0.0050*
	(0.0007)	(0.0001)	(0.0010)	(0.0010)	(0.0009)	(0.0013)	(0.0012)	(0.0026)
Post-graduate degree	0.0155***	0.0022***	0.0096***	0.0361***	-0.0035***	-0.0012	-0.0014	-0.0183***
	(0.0025)	(0.0007)	(0.0016)	(0.0060)	(0.0011)	(0.0016)	(0.0014)	(0.0032)
New private university	0.0057***	0.0007*	0.0036***	0.0129***	-0.0005	0.0001	-0.0002	-0.0051***
	(0.0013)	(0.0004)	(0.0009)	(0.0031)	(0.0006)	(0.0009)	(0.0008)	(0.0017)
Traditional university	0.0080***	0.0011***	0.0050***	0.0206***	-0.0016**	-0.0007	-0.0011	-0.0112***
	(0.0019)	(0.0004)	(0.0012)	(0.0049)	(0.0008)	(0.0011)	(0.0010)	(0.0023)
Does not know/No response	-0.0011***	-0.0002	-0.0007**	-0.0025**	-0.0001	-0.0000	-0.0001	-0.0007*
	(0.0004)	(0.0002)	(0.0003)	(0.0010)	(0.0001)	(0.0001)	(0.0001)	(0.0004)
Incomplete	0.0029***	0.0006*	0.0018***	0.0051***	-0.0012***	-0.0005	0.0000	-0.0013
	(0.0008)	(0.0004)	(0.0006)	(0.0016)	(0.0004)	(0.0006)	(0.0005)	(0.0011)
Experience	-0.0163***	-0.0022	-0.0109***	-0.0315***	0.1332***	-0.0030	0.0777	0.4319***
	(0.0025)	(0.0029)	(0.0025)	(0.0059)	(0.0417)	(0.0590)	(0.0529)	(0.1156)
Experience-squared	0.0127***	0.0030	0.0087***	0.0227***	-0.0555**	0.0126	-0.0281	-0.2173***
	(0.0022)	(0.0024)	(0.0022)	(0.0050)	(0.0240)	(0.0337)	(0.0304)	(0.0665)
Demographic dummies	-0.0007	-0.0034***	-0.0000	0.0035**	0.0143**	0.0243***	0.0088	0.0283*
	(0.0005)	(0.0008)	(0.0006)	(0.0014)	(0.0059)	(0.0084)	(0.0075)	(0.0163)
Industry dummies	0.0050***	0.0062***	0.0087***	-0.0011	0.0065	-0.0713**	-0.0095	0.0818
	(0.0016)	(0.0018)	(0.0018)	(0.0042)	(0.0238)	(0.0338)	(0.0302)	(0.0660)
Formal	-0.0004	-0.0010	-0.0003	-0.0001	-0.0429**	-0.2467***	-0.0726***	-0.0517
	(0.0008)	(0.0019)	(0.0006)	(0.0003)	(0.0169)	(0.0240)	(0.0215)	(0.0469)
Region dummies	0.0017*	0.0005	0.0018	0.0042**	0.0045	0.0121	0.0202***	0.0118
	(0.0010)	(0.0009)	(0.0012)	(0.0018)	(0.0057)	(0.0080)	(0.0072)	(0.0158)
Urban	-0.0004*	-0.0004*	-0.0003	-0.0001	-0.0305*	-0.0174	0.0008	-0.0760
	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0184)	(0.0262)	(0.0233)	(0.0510)
Constant					0.0617	0.4521***	0.0769	-0.1376
					(0.0384)	(0.0543)	(0.0487)	(0.1065)
Observations	29,712	29,712	29,712	29,712	29,712	29,712	29,712	29,712

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively.

TABLE S.7

CONTRIBUTION OF THE DIFFERENCE IN THE COMPOSITION AND WAGE STRUCTURE EFFECTS BETWEEN SELECTED QUANTILES TO THE EVOLUTION OF WAGE INEQUALITY FROM 2013 TO 2017 FOR MALES AND FEMALES

	Males				Females			
	Q90–Q10		Q90–Q50		Q90–Q10		Q90–Q50	
2013	1.5907		1.0676		1.5455		1.0913	
2017	1.4926		1.0100		1.4391		1.0494	
Overall difference	-0.0981		-0.0576		-0.1064		-0.0419	
Total composition effect	0.1031	-105.03%	0.0801	-138.98%	0.1092	-102.61%	0.0564	-134.61%
Primary education or less	-0.0038	3.89%	-0.0078	13.55%	-0.0033	3.11%	-0.0033	7.95%
Higher education	0.1303	-132.77%	0.1018	-176.65%	0.1176	-110.49%	0.0699	-167.04%
Technical degree	0.0082	-8.35%	0.0027	-4.64%	-0.0011	1.06%	-0.0079	18.94%
CFT	0.0001	-0.07%	-0.0001	0.12%	-0.0012	1.17%	0.0032	-7.74%
IP	0.0014	-1.44%	-0.0001	0.20%	0.0003	-0.31%	-0.0045	10.86%
New private university	0.0027	-2.72%	0.0017	-2.98%	-0.0012	1.14%	-0.0038	9.09%
Traditional university	0.0020	-2.00%	0.0006	-0.96%	0.0027	-2.51%	0.0007	-1.56%
Does not know/No response	0.0018	-1.82%	0.0008	-1.36%	0.0000	0.04%	-0.0001	0.17%
Incomplete	0.0003	-0.31%	-0.0002	0.34%	-0.0016	1.54%	-0.0034	8.11%
Professional degree	0.0910	-92.72%	0.0715	-124.07%	0.0849	-79.73%	0.0514	-122.77%
IP	0.0143	-14.60%	0.0096	-16.63%	0.0129	-12.13%	0.0055	-13.02%
New private university	0.0249	-25.34%	0.0197	-34.26%	0.0234	-21.95%	0.0139	-33.23%
Traditional university	0.0510	-52.02%	0.0427	-74.10%	0.0498	-46.80%	0.0324	-77.46%
Does not know/No response	-0.0049	5.01%	-0.0038	6.56%	-0.0015	1.39%	-0.0004	0.97%
Incomplete	0.0057	-5.76%	0.0033	-5.65%	0.0003	-0.24%	0.0000	-0.03%
Post-graduate degree	0.0311	-31.70%	0.0276	-47.94%	0.0339	-31.83%	0.0265	-63.21%
New private university	0.0073	-7.41%	0.0063	-10.95%	0.0122	-11.47%	0.0093	-22.32%
Traditional university	0.0235	-23.96%	0.0210	-36.53%	0.0194	-18.26%	0.0156	-37.31%
Does not know/No response					-0.0023	2.15%	-0.0018	4.35%
Incomplete	0.0003	-0.33%	0.0003	-0.46%	0.0045	-4.26%	0.0033	-7.93%
Experience	-0.0873	88.93%	-0.0826	143.31%	-0.0294	27.59%	-0.0207	49.37%
Experience-squared	0.0757	-77.13%	0.0722	-125.32%	0.0197	-18.54%	0.0140	-33.44%
Demographic dummies	-0.0125	12.70%	-0.0040	6.92%	0.0069	-6.50%	0.0036	-8.54%
Industry dummies	0.0003	-0.33%	0.0006	-0.97%	-0.0072	6.81%	-0.0098	23.40%

	Males				Females			
	Q90–Q10		Q90–Q50		Q90–Q10		Q90–Q50	
Formal	-0.0003	0.27%	-0.0002	0.28%	0.0009	-0.81%	0.0002	-0.45%
Region dummies	0.0010	-0.98%	0.0009	-1.50%	0.0037	-3.49%	0.0023	-5.57%
Urban	-0.0004	0.39%	-0.0008	1.39%	0.0003	-0.28%	0.0001	-0.29%
Total wage structure effect	-0.2012	205.03%	-0.1377	238.98%	-0.2156	202.61%	-0.0982	234.61%
Primary education or less	-0.0040	4.10%	-0.0038	6.55%	-0.0055	5.16%	-0.0039	9.31%
Higher education	0.0400	-40.74%	0.0430	-74.65%	-0.1186	111.43%	-0.0911	217.56%
Technical degree	-0.0030	3.07%	0.0015	-2.61%	0.0096	-8.99%	0.0147	-35.17%
CFT	-0.0014	1.39%	-0.0009	1.51%	0.0003	-0.32%	0.0042	-10.14%
IP	0.0032	-3.28%	0.0047	-8.09%	0.0019	-1.78%	-0.0018	4.19%
New private university	-0.0026	2.62%	-0.0011	1.95%	0.0027	-2.52%	0.0052	-12.33%
Traditional university	-0.0001	0.08%	-0.0002	0.36%	-0.0035	3.25%	-0.0025	5.87%
Does not know/No response	-0.0038	3.84%	-0.0027	4.71%	0.0018	-1.66%	0.0013	-3.18%
Incomplete	0.0016	-1.58%	0.0018	-3.06%	0.0063	-5.96%	0.0082	-19.59%
Professional degree	0.0183	-18.69%	0.0183	-31.70%	-0.1110	104.29%	-0.0889	212.39%
IP	0.0068	-6.92%	0.0068	-11.82%	-0.0136	12.74%	-0.0107	25.63%
New private university	-0.0118	12.03%	-0.0108	18.81%	-0.0562	52.80%	-0.0424	101.22%
Traditional university	0.0311	-31.73%	0.0239	-41.45%	-0.0383	36.03%	-0.0374	89.28%
Does not know/No response	-0.0001	0.06%	-0.0002	0.36%	0.0019	-1.77%	0.0020	-4.87%
Incomplete	-0.0077	7.87%	-0.0014	2.39%	-0.0048	4.48%	-0.0005	1.13%
Post-graduate degree	0.0246	-25.12%	0.0232	-40.34%	-0.0172	16.13%	-0.0169	40.34%
New private university	0.0094	-9.60%	0.0093	-16.14%	-0.0052	4.92%	-0.0049	11.69%
Traditional university	0.0156	-15.86%	0.0143	-24.81%	-0.0105	9.86%	-0.0101	24.05%
Does not know/No response					-0.0006	0.61%	-0.0006	1.45%
Incomplete	-0.0003	0.35%	-0.0003	0.61%	-0.0008	0.74%	-0.0013	3.15%
Experience	0.1176	-119.84%	0.0154	-26.72%	0.4349	-408.65%	0.3542	-845.92%
Experience-squared	-0.0656	66.87%	-0.0265	46.02%	-0.2299	216.05%	-0.1893	452.07%
Demographic dummies	0.1143	-116.50%	0.1011	-175.55%	0.0040	-3.71%	0.0194	-46.37%
Industry dummies	-0.0658	67.08%	-0.0553	95.96%	0.1532	-143.90%	0.0913	-218.12%
Formal	-0.0369	37.57%	-0.0193	33.56%	0.1950	-183.20%	0.0209	-50.03%
Region dummies	-0.0161	16.41%	-0.0237	41.14%	-0.0003	0.26%	-0.0085	20.21%
Urban	-0.0337	34.29%	-0.0139	24.09%	-0.0586	55.06%	-0.0768	183.38%
Constant	-0.2510	255.76%	-0.1547	268.59%	-0.5898	554.12%	-0.2146	512.52%

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). % indicates the contribution of the respective variables to the evolution of wage inequality between the selected quantiles.

TABLE S.8
ESTIMATION RESULTS OF SELECTION EQUATION FOR MALES AND FEMALES IN 2013 AND 2017

	Males		Females	
Explanatory variables	2013	2017	2013	2017
Primary	-0.188***	-0.266***	-0.405***	-0.289***
	(0.055)	(0.045)	(0.038)	(0.035)
Technical degree				
CFT	-0.229	0.145	0.566***	0.542***
	(0.185)	(0.094)	(0.079)	(0.067)
IP	0.248**	-0.026	0.567***	0.545***
	(0.100)	(0.189)	(0.074)	(0.044)
New private university	-0.006	0.033	0.440	0.970***
	(0.225)	(0.232)	(0.280)	(0.228)
Traditional university	-0.239	-0.057	0.811***	0.511***
	(0.279)	(0.141)	(0.252)	(0.124)
Does not know/No response	0.294	0.167	0.425**	0.449***
	(0.192)	(0.158)	(0.166)	(0.119)
Incomplete	0.109	-0.145*	0.145*	0.292***
	(0.105)	(0.086)	(0.085)	(0.065)
Professional degree				
IP	0.245	0.112	0.568***	0.584***
	(0.161)	(0.093)	(0.135)	(0.097)
New private university	0.098	0.176**	0.898***	0.759***
	(0.080)	(0.081)	(0.080)	(0.055)
Traditional university	0.130*	0.101*	0.881***	0.824***
	(0.075)	(0.060)	(0.107)	(0.045)
Does not know/No response	0.092	-0.033	0.816***	0.563***
	(0.160)	(0.145)	(0.165)	(0.146)
Incomplete	-0.033	-0.054	0.279***	0.179***
	(0.101)	(0.075)	(0.085)	(0.064)
Post-graduate degree				
New private university	0.732**	0.024	0.907***	1.126***
	(0.300)	(0.331)	(0.309)	(0.162)
Traditional university	0.526**	0.555**	1.807***	1.296***
	(0.216)	(0.220)	(0.209)	(0.156)
Does not know/No response			1.363***	0.383
			(0.381)	(0.488)
Incomplete	-1.384**	0.176	0.226	1.245***
	(0.609)	(0.248)	(0.422)	(0.209)
Experience	0.027***	0.028***	0.036***	0.020***
	(0.008)	(0.009)	(0.010)	(0.006)
Experience-squared	-0.051***	-0.059***	-0.089***	-0.052***
	(0.020)	(0.018)	(0.022)	(0.014)
Head of the household	0.510***	0.591***	0.403***	0.428***
	(0.046)	(0.035)	(0.039)	(0.037)
Married	0.172***	0.253***	-0.536***	-0.403***
	(0.050)	(0.039)	(0.034)	(0.024)
Urban	-0.127***	-0.073*	0.263***	0.244***
	(0.045)	(0.041)	(0.032)	(0.032)

	Males		Females	
Explanatory variables	2013	2017	2013	2017
Non-labor income	-0.008	-0.022	-0.023	-0.007
	(0.026)	(0.017)	(0.017)	(0.008)
Numbers of children	0.081**	0.171***	-0.215***	-0.240***
	(0.033)	(0.029)	(0.021)	(0.021)
Constant	0.777***	0.563***	-0.189	-0.098
	(0.104)	(0.102)	(0.124)	(0.066)
Observations	24,553	23,885	29,366	28,256

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

TABLE S.9

ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES FOR MALES IN 2013 AND 2017, WITH THE SELECTIVITY CORRECTION TERM

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Primary	-0.187***	-0.104***	-0.198***	-0.112***	-0.178***	-0.102***	-0.210***	-0.164***
	(0.013)	(0.025)	(0.031)	(0.038)	(0.013)	(0.017)	(0.023)	(0.042)
Technical degree								
CFT	0.227***	0.089***	0.365***	0.067	0.296***	0.072***	0.330***	0.204**
	(0.025)	(0.024)	(0.053)	(0.107)	(0.022)	(0.018)	(0.038)	(0.091)
IP	0.395***	0.096***	0.345***	0.447***	0.295***	0.078***	0.301***	0.348***
	(0.018)	(0.021)	(0.052)	(0.104)	(0.015)	(0.014)	(0.032)	(0.067)
New private university	0.434***	0.039	0.408***	1.050**	0.240***	0.047	0.163*	0.636***
	(0.059)	(0.052)	(0.081)	(0.508)	(0.043)	(0.065)	(0.090)	(0.223)
Traditional university	0.288***	0.047	0.389***	0.355	0.466***	0.109***	0.471***	0.526**
	(0.101)	(0.083)	(0.126)	(0.296)	(0.045)	(0.020)	(0.056)	(0.233)
Does not know/No response	0.458***	0.050	0.365***	0.767**	0.240***	0.106***	0.245***	0.081
	(0.065)	(0.049)	(0.078)	(0.302)	(0.043)	(0.019)	(0.075)	(0.109)
Incomplete	0.087***	-0.060	0.126**	0.104	0.144***	0.024	0.194***	0.120
	(0.024)	(0.061)	(0.061)	(0.090)	(0.022)	(0.024)	(0.042)	(0.079)
Professional degree								
IP	0.700***	0.098***	0.495***	1.416***	0.595***	0.071***	0.472***	1.586***
	(0.031)	(0.022)	(0.044)	(0.260)	(0.021)	(0.018)	(0.038)	(0.209)
New private university	0.903***	0.084***	0.501***	2.145***	0.708***	0.068**	0.476***	1.969***
	(0.017)	(0.016)	(0.043)	(0.246)	(0.015)	(0.028)	(0.045)	(0.195)
Traditional university	1.089***	0.107***	0.529***	2.735***	1.034***	0.102***	0.603***	3.033***
	(0.015)	(0.014)	(0.040)	(0.313)	(0.012)	(0.011)	(0.031)	(0.218)
Does not know/No response	0.769***	0.107***	0.499***	1.843***	0.761***	0.096***	0.514***	1.747***
	(0.038)	(0.016)	(0.058)	(0.351)	(0.046)	(0.021)	(0.049)	(0.309)
Incomplete	0.447***	0.063***	0.387***	0.794***	0.292***	0.082***	0.243***	0.609***
	(0.019)	(0.020)	(0.039)	(0.223)	(0.017)	(0.015)	(0.039)	(0.116)

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Post-graduate degree								
New private university	1.389***	-0.074	0.404***	3.742***	1.404***	0.089***	0.586***	5.065***
	(0.050)	(0.108)	(0.109)	(0.579)	(0.040)	(0.015)	(0.038)	(0.578)
Traditional university	1.503***	0.081***	0.506***	4.355***	1.502***	0.117***	0.633***	5.262***
	(0.034)	(0.026)	(0.052)	(0.455)	(0.027)	(0.018)	(0.041)	(0.409)
Incomplete	0.806***	0.103	0.588***	1.552*	1.048***	0.117***	0.599***	2.838***
	(0.112)	(0.152)	(0.204)	(0.926)	(0.064)	(0.020)	(0.064)	(0.663)
Experience	0.027***	0.001	0.005	0.089***	0.031***	0.003	0.014***	0.097***
	(0.002)	(0.003)	(0.004)	(0.014)	(0.002)	(0.002)	(0.003)	(0.012)
Experience-squared	-0.057***	-0.003	-0.010	-0.198***	-0.068***	-0.007	-0.027***	-0.220***
	(0.005)	(0.007)	(0.011)	(0.031)	(0.004)	(0.005)	(0.007)	(0.026)
Head of the household	0.257***	0.048	0.119**	0.583***	0.223***	0.064***	0.198***	0.652***
	(0.023)	(0.042)	(0.051)	(0.121)	(0.017)	(0.019)	(0.032)	(0.104)
Married	0.077***	0.009	0.064**	0.119*	0.123***	0.028**	0.085***	0.380***
	(0.010)	(0.015)	(0.026)	(0.064)	(0.010)	(0.014)	(0.019)	(0.061)
Formal	0.216***	0.232***	0.187***	0.120*	0.184***	0.222***	0.158***	0.067**
	(0.011)	(0.027)	(0.025)	(0.064)	(0.011)	(0.031)	(0.023)	(0.034)
Urban	0.017	0.026	0.080***	-0.094***	0.026**	0.020*	0.047***	-0.104**
	(0.013)	(0.019)	(0.020)	(0.035)	(0.012)	(0.012)	(0.014)	(0.041)
Inverse Mills ratio	0.621***	-0.004	-0.022	1.971***	0.485***	0.197**	0.334**	1.683***
	(0.131)	(0.224)	(0.268)	(0.661)	(0.078)	(0.092)	(0.143)	(0.398)
Constant	6.521***	6.588***	6.849***	6.515***	6.605***	6.640***	6.738***	6.377***
	(0.053)	(0.100)	(0.100)	(0.298)	(0.041)	(0.064)	(0.080)	(0.235)
Observations	21,301	21,301	21,301	21,301	20,135	20,135	20,135	20,135
R-squared	0.515	0.093	0.301	0.403	0.512	0.092	0.285	0.379

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

TABLE S.10

ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES FOR FEMALES IN 2013 AND 2017, WITH THE SELECTIVITY CORRECTION TERM

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Primary	-0.139***	-0.157**	-0.158***	-0.228***	-0.083***	-0.068**	-0.089**	-0.031
	(0.018)	(0.076)	(0.038)	(0.061)	(0.017)	(0.031)	(0.042)	(0.040)
Technical degree								
CFT	0.317***	0.042	0.418***	0.414***	0.236***	0.027	0.292***	0.239***
	(0.022)	(0.064)	(0.064)	(0.099)	(0.023)	(0.032)	(0.058)	(0.075)
IP	0.342***	0.150***	0.434***	0.417***	0.270***	0.038	0.366***	0.176***
	(0.019)	(0.041)	(0.067)	(0.093)	(0.018)	(0.025)	(0.054)	(0.066)
New private university	0.388***	0.163***	0.500***	0.211	0.204***	0.049	0.198	0.249**
	(0.051)	(0.058)	(0.087)	(0.157)	(0.037)	(0.046)	(0.170)	(0.113)
Traditional university	0.635***	0.157**	0.739***	1.263**	0.393***	0.088**	0.501***	0.358***
	(0.076)	(0.065)	(0.079)	(0.512)	(0.048)	(0.042)	(0.079)	(0.124)
Does not know/No response	0.292***	0.244***	0.435***	0.215**	0.154***	-0.024	0.250***	0.179*
	(0.051)	(0.051)	(0.109)	(0.087)	(0.049)	(0.080)	(0.081)	(0.107)
Incomplete	0.188***	0.099*	0.352***	-0.047	0.137***	-0.001	0.182***	0.064
	(0.027)	(0.055)	(0.073)	(0.052)	(0.024)	(0.041)	(0.048)	(0.056)
Professional degree								
IP	0.758***	0.089	0.694***	1.405***	0.598***	0.103***	0.614***	0.790***
	(0.031)	(0.057)	(0.062)	(0.251)	(0.025)	(0.024)	(0.064)	(0.127)
New private university	0.977***	0.104*	0.753***	2.090***	0.715***	0.099***	0.597***	1.205***
	(0.024)	(0.053)	(0.068)	(0.222)	(0.021)	(0.028)	(0.094)	(0.131)
Traditional university	1.093***	0.180***	0.829***	2.415***	0.965***	0.103***	0.748***	1.814***
	(0.022)	(0.052)	(0.068)	(0.205)	(0.021)	(0.027)	(0.070)	(0.128)
Does not know/No response	0.885***	0.198***	0.798***	1.389***	0.796***	0.141***	0.725***	1.290***
	(0.040)	(0.055)	(0.074)	(0.269)	(0.041)	(0.023)	(0.071)	(0.208)
Incomplete	0.395***	0.045	0.490***	0.640***	0.301***	0.034	0.337***	0.375***
	(0.023)	(0.057)	(0.056)	(0.168)	(0.022)	(0.025)	(0.048)	(0.091)

	2013				2017			
	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Post-graduate degree								
New private university	1.428***	0.151**	0.839***	3.473***	1.342***	0.140***	0.795***	2.664***
	(0.055)	(0.062)	(0.073)	(0.435)	(0.043)	(0.040)	(0.078)	(0.316)
Traditional university	1.459***	0.167**	0.829***	4.110***	1.315***	0.108***	0.749***	3.046***
	(0.044)	(0.082)	(0.084)	(0.418)	(0.036)	(0.033)	(0.082)	(0.232)
Does not know/No response	1.277***	0.248***	0.787***	3.321***	0.825***	0.169***	0.588*	0.997
	(0.106)	(0.075)	(0.154)	(0.811)	(0.189)	(0.049)	(0.350)	(1.022)
Incomplete	1.348***	0.272***	0.831***	2.481***	1.055***	0.098***	0.796***	2.172***
	(0.085)	(0.073)	(0.088)	(0.704)	(0.061)	(0.034)	(0.084)	(0.419)
Experience	0.019***	0.001	0.010***	0.047***	0.025***	0.001	0.015***	0.060***
	(0.002)	(0.004)	(0.004)	(0.012)	(0.002)	(0.002)	(0.004)	(0.009)
Experience-squared	-0.045***	-0.008	-0.026**	-0.105***	-0.056***	-0.005	-0.034***	-0.134***
	(0.005)	(0.013)	(0.010)	(0.027)	(0.005)	(0.007)	(0.009)	(0.019)
Head of the household	0.057***	-0.084***	0.027	0.302***	0.061***	-0.031**	0.035	0.133**
	(0.012)	(0.029)	(0.029)	(0.069)	(0.012)	(0.015)	(0.033)	(0.054)
Married	0.024	0.013	0.062*	-0.179*	0.081***	0.027*	0.079***	0.214***
	(0.016)	(0.038)	(0.033)	(0.091)	(0.013)	(0.016)	(0.026)	(0.059)
Formal	0.241***	0.573***	0.185***	0.082**	0.194***	0.302***	0.105***	0.022
	(0.013)	(0.064)	(0.023)	(0.033)	(0.013)	(0.034)	(0.031)	(0.052)
Urban	0.071***	0.056	0.031	0.156***	0.026*	0.032*	0.028	-0.027
	(0.016)	(0.040)	(0.024)	(0.052)	(0.015)	(0.019)	(0.019)	(0.046)
Inverse Mills ratio	0.115***	-0.047	-0.047	0.787***	0.050	-0.088	-0.080	0.234
	(0.039)	(0.105)	(0.086)	(0.213)	(0.039)	(0.054)	(0.094)	(0.149)
Constant	6.566***	6.110***	6.696***	6.908***	6.696***	6.598***	6.802***	7.344***
	(0.048)	(0.142)	(0.105)	(0.264)	(0.046)	(0.068)	(0.110)	(0.191)
Observations	14,316	14,316	14,316	14,316	15,396	15,396	15,396	15,396
R-squared	0.566	0.152	0.402	0.343	0.521	0.124	0.359	0.319

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

TABLE S.11
DESCRIPTIVE STATISTICS OF THE VARIABLES IN 2015

	2015
Observations	44,608
Log hourly wage	
Mean	7.533
Q10	6.936
Q50	7.435
Q90	8.415
Primary education or less	0.124
Secondary education	0.501
Scientific-Humanistic school	0.367
Technical-Vocational school	0.134
Higher education	0.375
Technical degree	0.131
CFT	0.033
IP	0.063
New private university	0.005
Traditional university	0.003
Does not know/No response	0.002
Incomplete	0.024
Professional degree	0.222
IP	0.023
New private university	0.077
Traditional university	0.089
Does not know/No response	0.003
Incomplete	0.032
Post-graduate degree	0.022
New private university	0.007
Traditional university	0.011
Does not know/No response	0.000
Incomplete	0.004
Experience	18.221
Male	0.571
Head of the household	0.467
Married	0.333
Formal	0.909
Urban	0.894

Note: Q10, Q50, and Q90 represent the 10th, 50th, and 90th unconditional quantiles of log hourly wages, respectively. CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*).
Source: Authors' calculations based on data from the CASEN 2015 survey.

TABLE S.12
ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES IN 2015

	2015			
Explanatory variables	Mean	Q10	Q50	Q90
Primary	-0.141***	-0.108***	-0.204***	-0.049***
	(0.008)	(0.017)	(0.015)	(0.014)
Technical degree				
CFT	0.316***	0.138***	0.427***	0.344***
	(0.012)	(0.020)	(0.027)	(0.060)
IP	0.353***	0.147***	0.464***	0.390***
	(0.009)	(0.016)	(0.025)	(0.051)
New private university	0.402***	0.138***	0.502***	0.355***
	(0.029)	(0.035)	(0.052)	(0.107)
Traditional university	0.458***	0.157***	0.501***	0.485***
	(0.040)	(0.035)	(0.064)	(0.168)
Does not know/No response	0.320***	0.155***	0.446***	0.104
	(0.048)	(0.045)	(0.086)	(0.131)
Incomplete	0.170***	0.081***	0.271***	0.067*
	(0.014)	(0.024)	(0.035)	(0.040)
Professional degree				
IP	0.646***	0.163***	0.681***	1.013***
	(0.015)	(0.025)	(0.031)	(0.115)
New private university	0.881***	0.188***	0.799***	1.587***
	(0.009)	(0.017)	(0.024)	(0.134)
Traditional university	1.042***	0.219***	0.862***	2.112***
	(0.008)	(0.017)	(0.021)	(0.150)
Does not know/No response	0.660***	0.208***	0.699***	0.922***
	(0.041)	(0.040)	(0.080)	(0.241)
Incomplete	0.330***	0.083***	0.372***	0.436***
	(0.012)	(0.031)	(0.036)	(0.070)
Post-graduate degree				
New private university	1.225***	0.190***	0.847***	2.799***
	(0.026)	(0.022)	(0.029)	(0.308)
Traditional university	1.541***	0.191***	0.833***	3.690***
	(0.020)	(0.019)	(0.024)	(0.252)
Does not know/No response	1.386***	0.275***	0.887***	3.737***
	(0.145)	(0.062)	(0.081)	(0.916)
Incomplete	1.310***	0.093	0.758***	2.937***
	(0.034)	(0.106)	(0.088)	(0.438)
Experience	0.022***	0.003	0.012***	0.046***
	(0.001)	(0.002)	(0.002)	(0.007)
Experience-squared	-0.048***	-0.006	-0.024***	-0.103***
	(0.003)	(0.005)	(0.005)	(0.016)
Male	0.120***	0.071***	0.145***	0.138***
	(0.005)	(0.011)	(0.011)	(0.025)
Head of the household	0.097***	-0.001	0.093***	0.241***
	(0.004)	(0.009)	(0.010)	(0.023)
Married	0.098***	0.021**	0.092***	0.169***
	(0.005)	(0.009)	(0.011)	(0.026)
Formal	0.215***	0.373***	0.204***	0.035
	(0.008)	(0.034)	(0.015)	(0.023)
Urban	0.012	0.004	0.033***	-0.013
	(0.008)	(0.013)	(0.012)	(0.017)
Constant	6.705***	6.456***	6.664***	7.398***
	(0.015)	(0.053)	(0.032)	(0.109)
Observations	44,608	44,608	44,608	44,608
R-squared	0.531	0.102	0.338	0.346

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

TABLE S.13

DECOMPOSITION OF WAGE CHANGES FROM 2013 TO 2015 INTO COMPOSITION AND WAGE STRUCTURE EFFECTS OF EACH EXPLANATORY VARIABLE

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Overall	0.0341***	0.0077***	0.0299***	0.0620***	0.0032	0.0728***	-0.0208***	-0.0514***
	(0.0035)	(0.0016)	(0.0033)	(0.0065)	(0.0032)	(0.0035)	(0.0042)	(0.0087)
Primary	0.0022***	0.0017***	0.0031***	0.0007**	0.0026**	0.0035**	0.0038**	0.0033
	(0.0003)	(0.0003)	(0.0005)	(0.0003)	(0.0013)	(0.0014)	(0.0017)	(0.0035)
Higher education	0.0433***	0.0096***	0.0365***	0.0827***	-0.0352***	-0.0382***	-0.0631***	-0.0555***
	(0.0030)	(0.0008)	(0.0025)	(0.0062)	(0.0034)	(0.0038)	(0.0045)	(0.0092)
Technical degree	0.0047***	0.0018***	0.0059***	0.0039***	-0.0100***	-0.0116***	-0.0185***	-0.0165***
	(0.0008)	(0.0005)	(0.0011)	(0.0011)	(0.0015)	(0.0016)	(0.0019)	(0.0040)
CFT	-0.0016***	-0.0007***	-0.0022***	-0.0018***	-0.0018***	-0.0023***	-0.0041***	-0.0038***
	(0.0004)	(0.0002)	(0.0005)	(0.0005)	(0.0005)	(0.0006)	(0.0007)	(0.0014)
IP	0.0024***	0.0010***	0.0032***	0.0027***	-0.0052***	-0.0062***	-0.0094***	-0.0132***
	(0.0006)	(0.0003)	(0.0008)	(0.0007)	(0.0010)	(0.0010)	(0.0012)	(0.0026)
New private university	0.0014***	0.0005***	0.0018***	0.0013***	-0.0016***	-0.0007*	-0.0026***	-0.0003
	(0.0003)	(0.0002)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0005)	(0.0009)
Traditional university	0.0012***	0.0004***	0.0014***	0.0013***	-0.0001	-0.0003	0.0000	-0.0004
	(0.0002)	(0.0002)	(0.0003)	(0.0004)	(0.0003)	(0.0003)	(0.0004)	(0.0008)
Does not know/No response	0.0012***	0.0006**	0.0017***	0.0004	-0.0008**	-0.0005	-0.0012***	-0.0003
	(0.0002)	(0.0002)	(0.0003)	(0.0005)	(0.0003)	(0.0004)	(0.0004)	(0.0009)
Incomplete	0.0001	0.0000	0.0001	0.0000	-0.0004	-0.0015***	-0.0013*	0.0016
	(0.0002)	(0.0001)	(0.0003)	(0.0001)	(0.0005)	(0.0006)	(0.0007)	(0.0014)
Professional degree	0.0281***	0.0063***	0.0247***	0.0537***	-0.0221***	-0.0243***	-0.0412***	-0.0339***
	(0.0027)	(0.0007)	(0.0024)	(0.0052)	(0.0024)	(0.0026)	(0.0031)	(0.0064)
IP	0.0025***	0.0006***	0.0026***	0.0039***	-0.0016***	-0.0021***	-0.0031***	-0.0019
	(0.0007)	(0.0002)	(0.0008)	(0.0011)	(0.0006)	(0.0006)	(0.0007)	(0.0015)
New private university	-0.0015	-0.0003	-0.0014	-0.0028	-0.0141***	-0.0080***	-0.0184***	-0.0246***
	(0.0017)	(0.0004)	(0.0015)	(0.0030)	(0.0010)	(0.0011)	(0.0014)	(0.0028)
Traditional university	0.0233***	0.0049***	0.0193***	0.0472***	-0.0062***	-0.0127***	-0.0170***	-0.0103***
	(0.0022)	(0.0005)	(0.0019)	(0.0046)	(0.0014)	(0.0015)	(0.0018)	(0.0036)
Does not know/No response	0.0026***	0.0008***	0.0028***	0.0036***	0.0008**	-0.0005	-0.0002	0.0025***
	(0.0004)	(0.0002)	(0.0004)	(0.0006)	(0.0003)	(0.0004)	(0.0004)	(0.0009)

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Incomplete	0.0013***	0.0003***	0.0014***	0.0017***	-0.0010	-0.0011	-0.0025***	0.0003
	(0.0004)	(0.0001)	(0.0005)	(0.0006)	(0.0006)	(0.0007)	(0.0008)	(0.0017)
Post-graduate degree	0.0104***	0.0014***	0.0059***	0.0252***	-0.0032***	-0.0022***	-0.0034***	-0.0052***
	(0.0016)	(0.0003)	(0.0010)	(0.0038)	(0.0007)	(0.0007)	(0.0008)	(0.0018)
New private university	0.0015**	0.0002*	0.0011**	0.0035**	0.0011***	-0.0006*	-0.0009**	0.0042***
	(0.0007)	(0.0001)	(0.0005)	(0.0017)	(0.0003)	(0.0003)	(0.0004)	(0.0008)
Traditional university	0.0087***	0.0011***	0.0047***	0.0209***	-0.0029***	-0.0015***	-0.0021***	-0.0053***
	(0.0013)	(0.0002)	(0.0007)	(0.0032)	(0.0005)	(0.0005)	(0.0006)	(0.0013)
Does not know/No response	0.0009***	0.0002	0.0006***	0.0025***	-0.0004**	-0.0002	-0.0003	-0.0020***
	(0.0003)	(0.0001)	(0.0002)	(0.0007)	(0.0002)	(0.0002)	(0.0002)	(0.0005)
Incomplete	-0.0008	-0.0001	-0.0005	-0.0017	-0.0009***	0.0001	-0.0001	-0.0022***
	(0.0005)	(0.0000)	(0.0003)	(0.0012)	(0.0002)	(0.0002)	(0.0002)	(0.0005)
Experience	-0.0155***	-0.0022**	-0.0082***	-0.0323***	0.0536**	-0.0389	0.0040	0.2504***
	(0.0016)	(0.0010)	(0.0013)	(0.0036)	(0.0271)	(0.0296)	(0.0352)	(0.0731)
Experience-squared	0.0125***	0.0017*	0.0063***	0.0269***	-0.0277*	0.0129	-0.0013	-0.1292***
	(0.0014)	(0.0009)	(0.0011)	(0.0032)	(0.0156)	(0.0170)	(0.0202)	(0.0420)
Male	-0.0015***	-0.0009***	-0.0019***	-0.0018***	-0.0071*	-0.0165***	-0.0127**	-0.0066
	(0.0004)	(0.0003)	(0.0005)	(0.0005)	(0.0042)	(0.0046)	(0.0054)	(0.0112)
Demographic dummies	-0.0050***	-0.0008***	-0.0047***	-0.0095***	-0.0014	0.0009	-0.0046	-0.0170*
	(0.0005)	(0.0003)	(0.0005)	(0.0012)	(0.0036)	(0.0040)	(0.0047)	(0.0098)
Industry dummies	-0.0013	0.0005	-0.0007	-0.0058***	-0.0038	0.0073	-0.0040	-0.0237
	(0.0008)	(0.0006)	(0.0009)	(0.0018)	(0.0134)	(0.0146)	(0.0174)	(0.0362)
Formal	-0.0011**	-0.0020**	-0.0011**	-0.0002	-0.0240**	-0.1503***	-0.0696***	0.0090
	(0.0004)	(0.0008)	(0.0004)	(0.0001)	(0.0101)	(0.0111)	(0.0132)	(0.0273)
Region dummies	0.0006	0.0002	0.0004	0.0012	0.0039	0.0193***	0.0219***	-0.0210**
	(0.0006)	(0.0005)	(0.0007)	(0.0008)	(0.0037)	(0.0041)	(0.0048)	(0.0100)
Urban	0.0000	0.0000	0.0001	-0.0001	0.0127	0.0206*	0.0117	-0.0332
	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0105)	(0.0115)	(0.0137)	(0.0284)
Constant					0.0297	0.2519***	0.0931***	-0.0278
					(0.0234)	(0.0255)	(0.0303)	(0.0629)
Observations	80,151	80,151	80,151	80,151	80,151	80,151	80,151	80,151

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively.

TABLE S.14

ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES IN 2013 AND 2017, WITH OCCUPATION DUMMIES

	2013				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Primary	-0.117***	-0.123***	-0.145***	-0.016	-0.094***	-0.065***	-0.135***	-0.012
	(0.008)	(0.022)	(0.019)	(0.018)	(0.009)	(0.013)	(0.015)	(0.015)
Technical degree								
CFT	0.151***	0.037	0.257***	0.023	0.123***	0.029*	0.133***	0.052
	(0.014)	(0.031)	(0.033)	(0.062)	(0.014)	(0.015)	(0.027)	(0.041)
IP	0.192***	0.077***	0.264***	0.007	0.114***	0.028***	0.160***	-0.029
	(0.011)	(0.016)	(0.034)	(0.058)	(0.010)	(0.011)	(0.022)	(0.056)
New private university	0.225***	0.067*	0.287***	0.221	0.088***	0.045	0.082	0.116
	(0.038)	(0.037)	(0.067)	(0.256)	(0.024)	(0.041)	(0.081)	(0.095)
Traditional university	0.324***	0.059	0.431***	0.583	0.258***	0.073***	0.327***	0.163
	(0.059)	(0.047)	(0.072)	(0.380)	(0.030)	(0.020)	(0.048)	(0.109)
Does not know/No response	0.191***	0.131***	0.193***	0.187	0.063**	0.031	0.098**	-0.088
	(0.039)	(0.037)	(0.065)	(0.139)	(0.030)	(0.033)	(0.049)	(0.061)
Incomplete	0.029*	-0.008	0.158***	-0.181***	0.071***	0.003	0.128***	0.022
	(0.017)	(0.057)	(0.046)	(0.058)	(0.015)	(0.020)	(0.029)	(0.038)
Professional degree								
IP	0.386***	0.049**	0.402***	0.607***	0.256***	0.044***	0.275***	0.343***
	(0.021)	(0.024)	(0.035)	(0.179)	(0.015)	(0.014)	(0.027)	(0.090)
New private university	0.530***	0.048**	0.405***	1.136***	0.329***	0.041**	0.258***	0.552***
	(0.014)	(0.019)	(0.030)	(0.156)	(0.011)	(0.020)	(0.035)	(0.085)
Traditional university	0.651***	0.082***	0.435***	1.584***	0.514***	0.053***	0.329***	1.095***
	(0.013)	(0.019)	(0.027)	(0.170)	(0.011)	(0.013)	(0.023)	(0.100)
Does not know/No response	0.436***	0.097***	0.437***	0.627***	0.393***	0.083***	0.339***	0.585***
	(0.027)	(0.020)	(0.039)	(0.198)	(0.028)	(0.013)	(0.034)	(0.166)
Incomplete	0.261***	0.024	0.295***	0.362**	0.140***	0.031**	0.162***	0.160***
	(0.014)	(0.024)	(0.031)	(0.158)	(0.013)	(0.013)	(0.028)	(0.056)
Post-graduate degree								
New private university	0.890***	-0.058	0.334***	2.253***	0.836***	0.058***	0.338***	2.266***
	(0.036)	(0.089)	(0.068)	(0.341)	(0.027)	(0.017)	(0.034)	(0.273)

	2013				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Traditional university	0.977***	0.065***	0.399***	3.018***	0.821***	0.046***	0.296***	2.261***
	(0.025)	(0.019)	(0.034)	(0.278)	(0.020)	(0.014)	(0.026)	(0.230)
Does not know/No response	0.822***	0.099***	0.405***	1.999***	0.501***	0.054**	0.262*	0.663
	(0.078)	(0.037)	(0.081)	(0.586)	(0.075)	(0.021)	(0.159)	(0.514)
Incomplete	0.768***	0.085***	0.357***	1.687***	0.499***	0.057***	0.345***	1.175***
	(0.052)	(0.032)	(0.052)	(0.522)	(0.040)	(0.016)	(0.036)	(0.366)
Experience	0.018***	0.000	0.007***	0.043***	0.021***	0.000	0.009***	0.052***
	(0.001)	(0.003)	(0.002)	(0.012)	(0.001)	(0.001)	(0.002)	(0.006)
Experience-squared	-0.039***	-0.003	-0.012*	-0.097***	-0.044***	-0.002	-0.017***	-0.116***
	(0.003)	(0.007)	(0.006)	(0.027)	(0.003)	(0.004)	(0.005)	(0.015)
Male	0.133***	0.083***	0.157***	0.164***	0.119***	0.043***	0.129***	0.149***
	(0.006)	(0.014)	(0.013)	(0.038)	(0.005)	(0.007)	(0.012)	(0.030)
Head of the household	0.100***	0.001	0.071***	0.248***	0.082***	0.008	0.084***	0.149***
	(0.005)	(0.012)	(0.012)	(0.032)	(0.005)	(0.006)	(0.010)	(0.030)
Married	0.065***	0.028***	0.076***	0.043	0.085***	0.004	0.058***	0.210***
	(0.005)	(0.011)	(0.012)	(0.030)	(0.005)	(0.006)	(0.009)	(0.031)
Occupation categories								
Managers	0.855***	0.145***	0.597***	1.646***	1.043***	0.121***	0.682***	2.162***
	(0.022)	(0.027)	(0.042)	(0.245)	(0.020)	(0.014)	(0.042)	(0.347)
Professionals	0.631***	0.143***	0.569***	1.088***	0.727***	0.121***	0.687***	1.211***
	(0.014)	(0.024)	(0.032)	(0.156)	(0.012)	(0.014)	(0.027)	(0.106)
Technicians and associate professionals	0.414***	0.133***	0.474***	0.536***	0.391***	0.110***	0.521***	0.315***
	(0.012)	(0.021)	(0.030)	(0.078)	(0.010)	(0.012)	(0.023)	(0.049)
Clerks	0.196***	0.163***	0.329***	-0.031	0.162***	0.091***	0.271***	-0.036
	(0.010)	(0.021)	(0.029)	(0.031)	(0.009)	(0.011)	(0.020)	(0.024)
Service and sales workers	0.128***	-0.004	0.125***	0.182***	0.123***	0.039***	0.143***	0.132***
	(0.010)	(0.027)	(0.023)	(0.033)	(0.009)	(0.013)	(0.024)	(0.027)
Skilled agricultural and fishery workers	0.085***	0.082**	0.091***	-0.010	0.071***	0.036	0.154***	-0.038
	(0.015)	(0.042)	(0.022)	(0.019)	(0.020)	(0.023)	(0.030)	(0.033)
Craft and related trades workers	0.139***	0.077***	0.245***	-0.015	0.125***	0.081***	0.275***	-0.095***
	(0.010)	(0.024)	(0.026)	(0.041)	(0.009)	(0.011)	(0.020)	(0.027)

	2013				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Plant and machine operators and assemblers	0.153***	0.080***	0.299***	-0.070**	0.132***	0.079***	0.256***	-0.101***
	(0.011)	(0.025)	(0.025)	(0.031)	(0.010)	(0.012)	(0.021)	(0.027)
Formal	0.208***	0.360***	0.158***	-0.000	0.178***	0.204***	0.115***	0.036
	(0.008)	(0.030)	(0.016)	(0.061)	(0.008)	(0.015)	(0.018)	(0.028)
Urban	0.030***	0.020	0.048***	-0.011	0.026***	0.026***	0.043***	-0.044*
	(0.009)	(0.018)	(0.013)	(0.020)	(0.008)	(0.009)	(0.010)	(0.023)
Constant	6.591***	6.368***	6.571***	7.489***	6.720***	6.690***	6.703***	7.430***
	(0.018)	(0.047)	(0.039)	(0.161)	(0.017)	(0.025)	(0.037)	(0.084)
Observations	35,626	35,626	35,626	35,626	35,543	35,543	35,543	35,543
R-squared	0.566	0.118	0.379	0.388	0.577	0.100	0.374	0.399

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

TABLE S.15

DECOMPOSITION OF WAGE CHANGES FROM 2013 TO 2017 INTO COMPOSITION AND WAGE STRUCTURE EFFECTS OF EACH EXPLANATORY VARIABLE, WITH OCCUPATION DUMMIES

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Overall	0.0466***	0.0083***	0.0337***	0.1092***	0.0426***	0.1305***	0.0347***	-0.1131***
	(0.0040)	(0.0020)	(0.0035)	(0.0083)	(0.0034)	(0.0040)	(0.0042)	(0.0096)
Primary	0.0040***	0.0042***	0.0050***	0.0005	0.0026**	0.0063***	0.0011	0.0004
	(0.0004)	(0.0005)	(0.0005)	(0.0008)	(0.0013)	(0.0015)	(0.0016)	(0.0037)
Higher education	0.0411***	0.0049***	0.0309***	0.0895***	-0.0501***	-0.0074	-0.0479***	-0.1297***
	(0.0021)	(0.0012)	(0.0017)	(0.0054)	(0.0048)	(0.0058)	(0.0060)	(0.0137)
Technical degree	0.0044***	0.0015***	0.0061***	0.0029***	-0.0076***	-0.0041**	-0.0145***	-0.0016
	(0.0006)	(0.0005)	(0.0008)	(0.0011)	(0.0017)	(0.0020)	(0.0021)	(0.0047)
CFT	-0.0006***	-0.0002*	-0.0011***	-0.0001	-0.0008	-0.0002	-0.0035***	0.0008
	(0.0002)	(0.0001)	(0.0003)	(0.0002)	(0.0006)	(0.0006)	(0.0007)	(0.0016)
IP	0.0022***	0.0009***	0.0031***	0.0001	-0.0055***	-0.0035***	-0.0074***	-0.0025
	(0.0004)	(0.0002)	(0.0005)	(0.0004)	(0.0011)	(0.0012)	(0.0013)	(0.0030)
New private university	0.0011***	0.0003	0.0014***	0.0011**	-0.0012***	-0.0002	-0.0018***	-0.0009
	(0.0002)	(0.0003)	(0.0003)	(0.0005)	(0.0004)	(0.0005)	(0.0005)	(0.0011)
Traditional university	0.0013***	0.0002	0.0017***	0.0023***	-0.0004	0.0001	-0.0006	-0.0023**
	(0.0003)	(0.0003)	(0.0003)	(0.0007)	(0.0004)	(0.0005)	(0.0005)	(0.0010)
Does not know/No response	0.0004***	0.0003**	0.0004***	0.0004	-0.0007**	-0.0006*	-0.0005	-0.0015*
	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0008)
Incomplete	0.0001	-0.0000	0.0007***	-0.0008***	0.0010*	0.0003	-0.0007	0.0049***
	(0.0001)	(0.0001)	(0.0002)	(0.0003)	(0.0006)	(0.0007)	(0.0007)	(0.0016)
Professional degree	0.0277***	0.0031***	0.0212***	0.0611***	-0.0383***	-0.0037	-0.0315***	-0.1125***
	(0.0018)	(0.0008)	(0.0015)	(0.0043)	(0.0035)	(0.0042)	(0.0044)	(0.0100)
IP	0.0047***	0.0006*	0.0049***	0.0074***	-0.0035***	-0.0001	-0.0034***	-0.0070***
	(0.0005)	(0.0004)	(0.0005)	(0.0010)	(0.0007)	(0.0008)	(0.0009)	(0.0020)
New private university	0.0074***	0.0007**	0.0057***	0.0159***	-0.0150***	-0.0006	-0.0109***	-0.0436***
	(0.0010)	(0.0003)	(0.0008)	(0.0022)	(0.0014)	(0.0016)	(0.0017)	(0.0039)
Traditional university	0.0155***	0.0019***	0.0104***	0.0377***	-0.0152***	-0.0032	-0.0118***	-0.0544***
	(0.0015)	(0.0005)	(0.0011)	(0.0037)	(0.0019)	(0.0023)	(0.0024)	(0.0055)
Does not know/No response	-0.0010***	-0.0002**	-0.0010***	-0.0015***	-0.0003	-0.0001	-0.0006**	-0.0003
	(0.0003)	(0.0001)	(0.0003)	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0007)

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Incomplete	0.0011***	0.0001	0.0013***	0.0015***	-0.0043***	0.0003	-0.0047***	-0.0072***
	(0.0004)	(0.0001)	(0.0004)	(0.0005)	(0.0007)	(0.0008)	(0.0009)	(0.0019)
Post-graduate degree	0.0090***	0.0003	0.0036***	0.0256***	-0.0042***	0.0004	-0.0019**	-0.0156***
	(0.0011)	(0.0003)	(0.0005)	(0.0031)	(0.0008)	(0.0009)	(0.0010)	(0.0022)
New private university	0.0026***	-0.0002	0.0010***	0.0067***	-0.0004	0.0009**	0.0000	0.0001
	(0.0005)	(0.0001)	(0.0002)	(0.0014)	(0.0004)	(0.0004)	(0.0004)	(0.0010)
Traditional university	0.0056***	0.0004*	0.0023***	0.0174***	-0.0027***	-0.0003	-0.0018**	-0.0130***
	(0.0009)	(0.0002)	(0.0004)	(0.0027)	(0.0006)	(0.0007)	(0.0007)	(0.0016)
Does not know/No response	-0.0001	-0.0000	-0.0000	-0.0001	-0.0003***	-0.0000	-0.0001	-0.0012***
	(0.0002)	(0.0000)	(0.0001)	(0.0005)	(0.0001)	(0.0001)	(0.0001)	(0.0003)
Incomplete	0.0008**	0.0001	0.0004**	0.0017**	-0.0008***	-0.0001	-0.0000	-0.0016***
	(0.0003)	(0.0001)	(0.0002)	(0.0007)	(0.0002)	(0.0003)	(0.0003)	(0.0006)
Experience	-0.0204***	-0.0000	-0.0075***	-0.0492***	0.0529*	0.0072	0.0444	0.1474*
	(0.0018)	(0.0018)	(0.0017)	(0.0048)	(0.0278)	(0.0324)	(0.0348)	(0.0786)
Experience-squared	0.0160***	0.0012	0.0052***	0.0401***	-0.0232	0.0042	-0.0162	-0.0744*
	(0.0016)	(0.0016)	(0.0015)	(0.0043)	(0.0158)	(0.0183)	(0.0197)	(0.0446)
Male	-0.0040***	-0.0025***	-0.0047***	-0.0049***	-0.0077*	-0.0223***	-0.0156***	-0.0083
	(0.0005)	(0.0004)	(0.0006)	(0.0008)	(0.0045)	(0.0052)	(0.0056)	(0.0127)
Demographic dummies	-0.0060***	-0.0018***	-0.0061***	-0.0076***	-0.0021	-0.0039	0.0009	0.0035
	(0.0006)	(0.0005)	(0.0006)	(0.0014)	(0.0037)	(0.0043)	(0.0046)	(0.0105)
Occupation dummies	0.0170***	-0.0005	0.0096***	0.0458***	0.0085	-0.0087	0.0252**	-0.0205
	(0.0018)	(0.0010)	(0.0017)	(0.0037)	(0.0089)	(0.0105)	(0.0111)	(0.0251)
Industry dummies	-0.0022**	0.0022**	0.0007	-0.0075***	-0.0497***	-0.0488***	-0.0565***	-0.0090
	(0.0010)	(0.0009)	(0.0010)	(0.0026)	(0.0149)	(0.0175)	(0.0187)	(0.0423)
Formal	0.0002	0.0004	0.0002	-0.0000	-0.0277***	-0.1414***	-0.0385***	0.0325
	(0.0005)	(0.0008)	(0.0003)	(0.0000)	(0.0103)	(0.0120)	(0.0129)	(0.0291)
Region dummies	0.0008	0.0002	0.0004	0.0025**	0.0135***	0.0175***	0.0109**	0.0341***
	(0.0006)	(0.0005)	(0.0006)	(0.0011)	(0.0038)	(0.0045)	(0.0048)	(0.0108)
Urban	0.0001	0.0001	0.0001	-0.0000	-0.0033	0.0054	-0.0046	-0.0299
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0109)	(0.0127)	(0.0136)	(0.0308)
Constant					0.1289***	0.3223***	0.1315***	-0.0593
					(0.0246)	(0.0287)	(0.0307)	(0.0695)
Observations	71,169	71,169	71,169	71,169	71,169	71,169	71,169	71,169

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively.

TABLE S.16
FIRM SIZE DISTRIBUTIONS IN 2015 AND 2017

Firm size categories	2015	2017
200 workers or more	0.344	0.365
50-199 workers	0.203	0.196
10-49 workers	0.242	0.232
6-9 workers	0.076	0.079
5 workers or less	0.134	0.127

Source: Authors' calculations based on data from the CASEN 2015 and 2017 surveys.

TABLE S.17

ESTIMATION RESULTS OF THE MEAN AND UNCONDITIONAL QUANTILE REGRESSIONS FOR LOG HOURLY WAGES IN 2015 AND 2017, WITH OCCUPATION AND FIRM SIZE DUMMIES

	2015				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Primary	-0.110***	-0.092***	-0.166***	-0.023*	-0.083***	-0.058***	-0.132***	0.004
	(0.008)	(0.018)	(0.015)	(0.013)	(0.010)	(0.013)	(0.016)	(0.018)
Technical degree								
CFT	0.201***	0.087***	0.282***	0.156***	0.105***	0.026*	0.117***	0.044
	(0.013)	(0.020)	(0.028)	(0.049)	(0.015)	(0.016)	(0.030)	(0.053)
IP	0.231***	0.093***	0.311***	0.238***	0.101***	0.021*	0.142***	-0.056
	(0.010)	(0.015)	(0.026)	(0.050)	(0.011)	(0.011)	(0.024)	(0.076)
New private university	0.256***	0.069*	0.364***	0.147	0.085***	0.054	0.096	0.164
	(0.029)	(0.040)	(0.052)	(0.100)	(0.026)	(0.041)	(0.081)	(0.113)
Traditional university	0.307***	0.099***	0.306***	0.289*	0.245***	0.073***	0.318***	0.260**
	(0.040)	(0.032)	(0.069)	(0.164)	(0.033)	(0.020)	(0.055)	(0.130)
Does not know/No response	0.210***	0.102*	0.322***	-0.002	0.055	0.016	0.121**	-0.130**
	(0.049)	(0.057)	(0.098)	(0.115)	(0.034)	(0.040)	(0.060)	(0.065)
Incomplete	0.093***	0.050**	0.173***	-0.039	0.065***	-0.002	0.119***	0.021
	(0.014)	(0.025)	(0.033)	(0.036)	(0.016)	(0.021)	(0.034)	(0.055)
Professional degree								
IP	0.375***	0.089***	0.411***	0.520***	0.270***	0.048***	0.281***	0.511***
	(0.016)	(0.025)	(0.033)	(0.103)	(0.017)	(0.015)	(0.033)	(0.119)
New private university	0.540***	0.113***	0.479***	0.878***	0.324***	0.038*	0.256***	0.689***
	(0.012)	(0.016)	(0.028)	(0.112)	(0.012)	(0.022)	(0.042)	(0.104)
Traditional university	0.681***	0.139***	0.532***	1.288***	0.517***	0.051***	0.330***	1.307***
	(0.012)	(0.016)	(0.025)	(0.139)	(0.012)	(0.014)	(0.028)	(0.125)
Does not know/No response	0.397***	0.161***	0.501***	0.365	0.421***	0.082***	0.356***	0.589***
	(0.043)	(0.026)	(0.063)	(0.263)	(0.032)	(0.015)	(0.037)	(0.206)
Incomplete	0.197***	0.038	0.236***	0.209***	0.141***	0.032**	0.164***	0.220***
	(0.013)	(0.034)	(0.033)	(0.060)	(0.014)	(0.014)	(0.031)	(0.066)

	2015				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Post-graduate degree								
New private university	0.827***	0.095***	0.478***	1.858***	0.838***	0.055***	0.345***	2.790***
	(0.029)	(0.019)	(0.032)	(0.274)	(0.029)	(0.019)	(0.036)	(0.371)
Traditional university	1.102***	0.110***	0.477***	2.706***	0.808***	0.042***	0.293***	2.741***
	(0.022)	(0.018)	(0.028)	(0.214)	(0.020)	(0.014)	(0.031)	(0.250)
Does not know/No response	1.062***	0.218***	0.537***	2.397**	0.528***	0.049*	0.295	0.758
	(0.151)	(0.064)	(0.087)	(1.015)	(0.084)	(0.028)	(0.204)	(0.602)
Incomplete	0.888***	-0.008	0.397***	2.046***	0.506***	0.055***	0.351***	1.485***
	(0.035)	(0.111)	(0.097)	(0.366)	(0.042)	(0.016)	(0.042)	(0.412)
Experience	0.022***	0.003*	0.011***	0.046***	0.021***	0.000	0.009***	0.063***
	(0.001)	(0.002)	(0.002)	(0.007)	(0.001)	(0.002)	(0.002)	(0.008)
Experience-squared	-0.047***	-0.006	-0.021***	-0.101***	-0.044***	-0.002	-0.016***	-0.143***
	(0.003)	(0.005)	(0.006)	(0.016)	(0.003)	(0.004)	(0.006)	(0.017)
Male	0.136***	0.083***	0.153***	0.156***	0.120***	0.039***	0.137***	0.158***
	(0.005)	(0.012)	(0.011)	(0.028)	(0.006)	(0.007)	(0.013)	(0.039)
Head of the household	0.087***	-0.004	0.081***	0.202***	0.081***	0.010	0.090***	0.204***
	(0.005)	(0.009)	(0.010)	(0.021)	(0.005)	(0.007)	(0.011)	(0.032)
Married	0.085***	0.018**	0.072***	0.149***	0.084***	0.008	0.056***	0.258***
	(0.005)	(0.009)	(0.011)	(0.024)	(0.006)	(0.007)	(0.010)	(0.034)
Occupation categories								
Managers	0.948***	0.174***	0.593***	1.820***	1.045***	0.124***	0.732***	2.685***
	(0.020)	(0.025)	(0.033)	(0.164)	(0.021)	(0.015)	(0.048)	(0.405)
Professionals	0.563***	0.188***	0.642***	0.828***	0.724***	0.117***	0.731***	1.340***
	(0.013)	(0.023)	(0.029)	(0.117)	(0.012)	(0.015)	(0.034)	(0.116)
Technicians and associate professionals	0.351***	0.183***	0.507***	0.318***	0.389***	0.107***	0.551***	0.383***
	(0.010)	(0.022)	(0.025)	(0.044)	(0.011)	(0.013)	(0.028)	(0.051)
Clerks	0.188***	0.176***	0.354***	-0.001	0.156***	0.087***	0.284***	-0.069***
	(0.009)	(0.022)	(0.023)	(0.037)	(0.010)	(0.013)	(0.024)	(0.027)
Service and sales workers	0.149***	0.079***	0.176***	0.193***	0.125***	0.038**	0.160***	0.163***
	(0.009)	(0.022)	(0.021)	(0.026)	(0.010)	(0.015)	(0.031)	(0.036)

	2015				2017			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Skilled agricultural and fishery workers	0.041***	-0.037	0.106***	0.021	0.087***	0.041*	0.186***	-0.022
	(0.015)	(0.033)	(0.022)	(0.023)	(0.022)	(0.023)	(0.034)	(0.044)
Craft and related trades workers	0.143***	0.136***	0.308***	-0.105***	0.127***	0.083***	0.294***	-0.135***
	(0.009)	(0.020)	(0.023)	(0.026)	(0.011)	(0.013)	(0.024)	(0.034)
Plant and machine operators and assemblers	0.121***	0.106***	0.297***	-0.140***	0.129***	0.076***	0.275***	-0.149***
	(0.010)	(0.022)	(0.022)	(0.024)	(0.011)	(0.013)	(0.026)	(0.032)
Firm size categories								
200 workers or more	0.145***	0.101***	0.190***	0.155***	0.133***	0.069***	0.122***	0.170***
	(0.008)	(0.017)	(0.017)	(0.029)	(0.009)	(0.014)	(0.022)	(0.043)
50-199 workers	0.115***	0.096***	0.180***	0.057**	0.094***	0.058***	0.096***	-0.002
	(0.009)	(0.019)	(0.018)	(0.027)	(0.010)	(0.015)	(0.027)	(0.045)
10-49 workers	0.078***	0.106***	0.153***	-0.010	0.074***	0.059***	0.112***	0.007
	(0.008)	(0.018)	(0.017)	(0.025)	(0.009)	(0.015)	(0.024)	(0.039)
6-9 workers	0.037***	0.072***	0.064***	-0.017	0.034***	0.061***	0.020	-0.026
	(0.010)	(0.022)	(0.023)	(0.027)	(0.012)	(0.016)	(0.024)	(0.048)
Formal	0.183***	0.366***	0.156***	-0.019	0.160***	0.201***	0.087***	0.038
	(0.008)	(0.039)	(0.014)	(0.022)	(0.009)	(0.016)	(0.020)	(0.037)
Urban	0.002	-0.002	0.022*	-0.025	0.034***	0.034***	0.047***	-0.030
	(0.008)	(0.014)	(0.012)	(0.017)	(0.009)	(0.010)	(0.011)	(0.026)
Constant	6.574***	6.333***	6.446***	7.415***	6.646***	6.639***	6.616***	7.224***
	(0.017)	(0.064)	(0.038)	(0.104)	(0.019)	(0.031)	(0.044)	(0.106)
Observations	40,147	40,147	40,147	40,147	30,279	30,279	30,279	30,279
R-squared	0.575	0.117	0.375	0.375	0.588	0.105	0.385	0.390

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors of the unconditional quantile regressions are calculated via bootstrap with 500 replications. Industry dummies and region dummies are also included.

TABLE S.18

DECOMPOSITION OF WAGE CHANGES FROM 2015 TO 2017 INTO COMPOSITION AND WAGE STRUCTURE EFFECTS OF EACH EXPLANATORY VARIABLE, WITH OCCUPATION AND FIRM SIZE DUMMIES

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Overall	0.0338***	0.0065***	0.0241***	0.0648***	0.0102***	0.0784***	-0.0066	-0.0190*
	(0.0039)	(0.0018)	(0.0037)	(0.0070)	(0.0033)	(0.0038)	(0.0045)	(0.0102)
Primary	0.0017***	0.0014***	0.0026***	0.0004	0.0029**	0.0036**	0.0037**	0.0028
	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0013)	(0.0015)	(0.0018)	(0.0041)
Higher education	0.0318***	0.0065***	0.0251***	0.0584***	-0.0631***	-0.0281***	-0.0743***	-0.0298**
	(0.0022)	(0.0009)	(0.0018)	(0.0045)	(0.0048)	(0.0056)	(0.0065)	(0.0146)
Technical degree	0.0032***	0.0011***	0.0041***	0.0023***	-0.0155***	-0.0089***	-0.0218***	-0.0236***
	(0.0006)	(0.0004)	(0.0008)	(0.0008)	(0.0017)	(0.0019)	(0.0023)	(0.0051)
CFT	-0.0009***	-0.0004***	-0.0013***	-0.0007***	-0.0028***	-0.0018***	-0.0048***	-0.0033*
	(0.0003)	(0.0001)	(0.0004)	(0.0003)	(0.0006)	(0.0006)	(0.0008)	(0.0018)
IP	0.0017***	0.0007***	0.0022***	0.0017***	-0.0093***	-0.0051***	-0.0122***	-0.0211***
	(0.0005)	(0.0002)	(0.0006)	(0.0005)	(0.0011)	(0.0012)	(0.0014)	(0.0032)
New private university	0.0010***	0.0003	0.0014***	0.0006*	-0.0016***	-0.0001	-0.0025***	0.0002
	(0.0002)	(0.0002)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0005)	(0.0011)
Traditional university	0.0008***	0.0003*	0.0008***	0.0007**	-0.0003	-0.0001	0.0001	-0.0002
	(0.0002)	(0.0001)	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0008)
Does not know/No response	0.0007***	0.0003	0.0011***	-0.0000	-0.0008**	-0.0004	-0.0010**	-0.0007
	(0.0002)	(0.0002)	(0.0003)	(0.0004)	(0.0003)	(0.0004)	(0.0004)	(0.0009)
Incomplete	-0.0000	-0.0000	-0.0001	0.0000	-0.0007	-0.0013**	-0.0013*	0.0015
	(0.0001)	(0.0001)	(0.0002)	(0.0000)	(0.0005)	(0.0006)	(0.0007)	(0.0016)
Professional degree	0.0200***	0.0044***	0.0170***	0.0352***	-0.0405***	-0.0177***	-0.0477***	-0.0110
	(0.0019)	(0.0007)	(0.0017)	(0.0035)	(0.0035)	(0.0041)	(0.0048)	(0.0105)
IP	0.0014***	0.0003**	0.0015***	0.0019***	-0.0028***	-0.0011	-0.0034***	-0.0003
	(0.0004)	(0.0001)	(0.0005)	(0.0006)	(0.0006)	(0.0007)	(0.0008)	(0.0019)
New private university	-0.0002	-0.0000	-0.0002	-0.0004	-0.0168***	-0.0058***	-0.0173***	-0.0147***
	(0.0011)	(0.0002)	(0.0010)	(0.0018)	(0.0013)	(0.0015)	(0.0018)	(0.0040)

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Traditional university	0.0167***	0.0034***	0.0131***	0.0316***	-0.0191***	-0.0102***	-0.0235***	0.0022
	(0.0016)	(0.0005)	(0.0013)	(0.0031)	(0.0019)	(0.0023)	(0.0027)	(0.0059)
Does not know/No response	0.0014***	0.0006**	0.0017***	0.0013***	0.0001	-0.0005	-0.0009*	0.0013
	(0.0003)	(0.0002)	(0.0003)	(0.0004)	(0.0003)	(0.0004)	(0.0004)	(0.0009)
Incomplete	0.0007***	0.0001*	0.0009***	0.0008**	-0.0020***	-0.0002	-0.0025***	0.0004
	(0.0003)	(0.0001)	(0.0003)	(0.0003)	(0.0007)	(0.0008)	(0.0009)	(0.0021)
Post-graduate degree	0.0087***	0.0010***	0.0040***	0.0209***	-0.0071***	-0.0015*	-0.0048***	0.0048**
	(0.0013)	(0.0003)	(0.0006)	(0.0030)	(0.0008)	(0.0009)	(0.0011)	(0.0024)
New private university	0.0014***	0.0002*	0.0008***	0.0032***	0.0001	-0.0003	-0.0011**	0.0074***
	(0.0005)	(0.0001)	(0.0003)	(0.0012)	(0.0003)	(0.0004)	(0.0004)	(0.0011)
Traditional university	0.0070***	0.0007***	0.0030***	0.0172***	-0.0055***	-0.0013*	-0.0034***	0.0007
	(0.0011)	(0.0002)	(0.0005)	(0.0026)	(0.0006)	(0.0007)	(0.0008)	(0.0017)
Does not know/No response	0.0007***	0.0001	0.0003**	0.0015***	-0.0004***	-0.0001	-0.0002	-0.0014***
	(0.0002)	(0.0001)	(0.0002)	(0.0005)	(0.0002)	(0.0002)	(0.0002)	(0.0005)
Incomplete	-0.0004	0.0000	-0.0002	-0.0010	-0.0013***	0.0002	-0.0002	-0.0019***
	(0.0004)	(0.0000)	(0.0002)	(0.0009)	(0.0002)	(0.0002)	(0.0003)	(0.0006)
Experience	-0.0165***	-0.0026**	-0.0085***	-0.0343***	-0.0233	-0.0576*	-0.0464	0.3067***
	(0.0017)	(0.0011)	(0.0014)	(0.0038)	(0.0275)	(0.0315)	(0.0373)	(0.0855)
Experience-squared	0.0132***	0.0018*	0.0060***	0.0285***	0.0091	0.0163	0.0215	-0.1659***
	(0.0015)	(0.0011)	(0.0012)	(0.0033)	(0.0158)	(0.0180)	(0.0214)	(0.0491)
Male	-0.0019***	-0.0012***	-0.0021***	-0.0022***	-0.0088**	-0.0244***	-0.0091	0.0010
	(0.0005)	(0.0003)	(0.0006)	(0.0006)	(0.0043)	(0.0049)	(0.0058)	(0.0132)
Demographic dummies	-0.0042***	-0.0007**	-0.0036***	-0.0079***	-0.0028	0.0039	-0.0005	0.0333***
	(0.0005)	(0.0003)	(0.0005)	(0.0011)	(0.0038)	(0.0043)	(0.0051)	(0.0118)
Occupation dummies	0.0113***	0.0014*	0.0064***	0.0266***	0.0277***	-0.0469***	0.0118	0.0979***
	(0.0016)	(0.0007)	(0.0017)	(0.0031)	(0.0087)	(0.0100)	(0.0118)	(0.0267)
Firm size dummies	0.0015***	0.0006**	0.0013***	0.0028***	-0.0098	-0.0311***	-0.0541***	-0.0030
	(0.0004)	(0.0003)	(0.0005)	(0.0006)	(0.0099)	(0.0113)	(0.0134)	(0.0307)
Industry dummies	-0.0037***	-0.0004	-0.0035***	-0.0101***	-0.0112	0.0373**	-0.0163	-0.0823*
	(0.0008)	(0.0006)	(0.0009)	(0.0022)	(0.0149)	(0.0170)	(0.0201)	(0.0461)

	Composition effect				Wage structure effect			
Explanatory variables	Mean	Q10	Q50	Q90	Mean	Q10	Q50	Q90
Formal	-0.0005	-0.0011	-0.0005	0.0001	-0.0210*	-0.1506***	-0.0624***	0.0515
	(0.0004)	(0.0008)	(0.0003)	(0.0001)	(0.0108)	(0.0123)	(0.0146)	(0.0334)
Region dummies	0.0011*	0.0007	0.0008	0.0025***	0.0105***	0.0175***	0.0273***	-0.0353***
	(0.0006)	(0.0005)	(0.0008)	(0.0008)	(0.0037)	(0.0042)	(0.0050)	(0.0115)
Urban	0.0000	-0.0000	0.0001	-0.0001	0.0284***	0.0325***	0.0225	-0.0052
	(0.0000)	(0.0001)	(0.0001)	(0.0001)	(0.0108)	(0.0124)	(0.0147)	(0.0337)
Constant					0.0717***	0.3061***	0.1695***	-0.1906**
					(0.0258)	(0.0296)	(0.0350)	(0.0801)
Observations	70,426	70,426	70,426	70,426	70,426	70,426	70,426	70,426

Note: Q, quantile; CFT, Technical Training Centers (*Centros de Formación Técnica*); IP, Professional Institutes (*Institutos Profesionales*). Numbers in parentheses represent standard errors. ***, **, and * indicate significance at 1%, 5%, and 10% levels, respectively.