The Philippine Review of Economics

FESTSCHRIFT FOR RAUL V. FABELLA

Guest Co-editors — Emmanuel S. de Dios
Sarah Lynne S. Daway-Ducanes

Aims and Scope: The *Philippine Review of Economics* (PRE) invites theoretical and empirical articles on economics and economic development. Papers on the Philippines, Asian and other developing economies are especially welcome. Book reviews will also be considered.

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of Economics

Festschrift for Raul V. Fabella

This special edition of the *Philippine Review of Economics* honors Dr. Raul V. Fabella in his 70th year and recognizes his invaluable contribution to the economics discipline and profession. This edition comprises 13 articles from his colleagues and several generations of former students inspired or mentored by Dr. Fabella who are themselves making their mark in economics. The broad spectrum of topics covered—agricultural economics, competition policy, contract theory, game theory, history of economic thought, international economics, issues in productivity, growth and development, monetary policy, political economy and rent-seeking, public economics, and the theory of teams—are issues that Dr. Fabella himself has written on or taught his students during his long, productive years as a Professor of Economics at the UP School of Economics, nurturing an "oasis of excellence" in his spheres of influence, as well as advocated as a roving academic in his later years, endeavoring to engage policymakers and the public in general, in pursuit of welfare-improving changes for a better Philippines.

The wide gamut of topics in this issue is a testament to Dr. Fabella's eclectic intellectual interests yet unwavering devotion to upholding a high standard of academic excellence. As his biographical sketch at the National Academy of Science and Technology summarizes:

> Fabella's very development as a scholar and intellectual leader presents numerous paradoxes: a classicist turned mathematical economist; a rational-choice theorist who derives material and metaphor from both history and physics; a solitary thinker who agonizes over pedagogy; a pure theorist immersed in policy-debate; an inherently shy, private man who must deal with crowds. His career displays to the fullest the range of issues – from the mathematical to the moral – that economists can and must confront if they are to attain to that "cool head and warm heart" that was Marshall's ideal. A classicist, however, might simply recall Terentius: *Homo sum: humani nil a me alienum puto*.

Indeed, to Dr. Fabella, nothing related to human behavior is outside his interest. At 70 years of age, National Scientist of the National Academy of Science and Technology (Philippines) and Professor Emeritus at the University of the Philippines, he is yet to reach the zenith of his intellectual verve: Fabella the economist is transfiguring into Fabella the social scientist – one to whom *homo economicus* is no longer the norm, but the exception in the vast complexity of human interactions in society. It is thus unlikely that this will be the last festschrift in his honor.

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Recent trends in the gender gap in the labor market in the Philippines

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We use linear and nonlinear decomposition methods to explore recent trends in male-female differentials in labor market performance in the Philippines. Using the 2018 Labor Force Survey, we calculate an unadjusted wage gap of 5.77 percent, an employment rate gap of 0.36 percentage points, and a labor force participation rate gap of 19 percentage points. We provide further context by showing the evolution of these figures over time (2002-2018), which indicates that women generally perform worse in the labor market than men as measured by the pay gap and the gap in labor force participation (LFP). The decomposition exercise reveals that the pay and LFP-rate differentials are largely due to women receiving lower returns to their observable characteristics relative to men. The gender gap in employment status is not significant.

1. Introduction

In 2018, the Philippines was the only Asian country included in the top 10 most gender equal countries (the country landed in 8th place among 149 countries) based on the Global Gender Gap Index developed by the World Economic Forum [WEF 2018]. This is largely due to the impressive performance of the country on

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the composite "educational attainment" measure used to construct the index[1], where it shared the top spot with advanced economies like New Zealand, the Netherlands, and Luxembourg. Using "economic participation and opportunity" alone, the Philippines is ranked 14th, which is still notable relative to its Asian neighbors. However, this composite sub-index masks the poor performance of the country in terms of the male-female differential in labor force participation (25.5 percentage points) and estimated earned income (USD 3,084 at purchasing-power parity), where it ranked 106th and 37th, respectively.

In the 2020 report, the country tumbled out of the top 10 and dropped to 16th place [WEF 2020]. This raises concern because it is the first time for the Philippines to rank outside the top 10 since 2006, when the Global Gender Gap Report was first published by the WEF. Still, it is the highest-ranked Asian country followed by Laos in 43rd place. The downgrade is largely attributable to the political empowerment index, with fewer women in the legislative branch and heading departments in the executive branch. In terms of the relative performance of men and women in the economy, the country seems to have been able to sustain its comparatively good performance.

The existence and persistence of a gender wage gap[2] have implications for important outcomes. In a canonical model of human capital investment [Becker 1962], the amount spent on schooling or training is a function of its rate of return, which can be operationalized as wages received in the labor market. If women are paid less compared to men, it could discourage the former to invest in human capital. This can generate a gap in worker skills or educational attainment between the men and women that can lead to other gaps in the labor market, such as labor force participation and earnings. Perhaps less obvious—but equally important— is the relationship between the gender wage gap and health. Aizer [2010], for example, showed that a decrease in the wage gap improved the health of women in the US through a reduction in domestic violence.

Our principal aim is to document recent trends in labor market performance between men and women in the Philippines. We are interested in whether the improving trends documented elsewhere (ADB [2013]; Valientes [2015]; Albert and Vizmanos [2017]) have persisted using more recent data. We recognize that the gap in performance may be due to differences in observable characteristics between men and women, differences in the returns to these characteristics, or a combination of both. To quantify these differences, we decompose the observed gap into these three constituent parts and we trace their evolution over time.

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[1] The Global Gender Gap Index uses four underlying composite measures: economic participation and opportunity, educational attainment, health and survival, and political empowerment. Economic participation and opportunity are based on male–female differentials in labor force participation; wage for similar work; estimated earned income; the number of legislators, senior officials, and managers; and the number of professional and technical workers. See WEF [2018] for details.

[2] We are aware that the use of the term "gender gap" to describe differentials between male and female labor-market performance is problematic since we do not actually know the gender of the individual respondents in our dataset. However, the gender gap, as a term, is fairly well-established in the literature, so we adopt it here, too, but this footnote serves as an acknowledgment of the potential issues associated with it.

To decompose the gender disparity in labor market outcomes, we use the standard Blinder-Oaxaca decomposition (Blinder [1973]; Oaxaca [1973]), which works well for continuous outcomes, such as the average daily wage. For binary labor market outcomes, such as labor force participation and employment status, we use the extension of the Blinder-Oaxaca technique developed by Bauer and Sinning [2008] for nonlinear models. The decomposition approach improves upon a basic regression which controls for sex with an indicator variable since it quantifies how the raw differential can be apportioned across the three sources of disparity. As an example, men may receive higher wages on average, but this may be because men, on average, have more years of schooling, because men are rewarded more for the same amount of schooling relative to women, or because of an interaction of these two features.

Our results indicate the following: First, recent trends in labor market performance show that the Philippines is closing the gap in pay between men and women. Second, women have lower returns to education and experience based on daily basic pay, although women do have higher average years of schooling than men. Third, the size of the gap in labor force participation rates between men and women is persistent over time even as the gap in employment status—defined as having worked at least one hour a week prior to the interview date in the survey—is largely inconsequential. Finally, the gap in daily basic pay and labor force participation is largely due to differences in the returns to endowment as opposed to the differences in endowment between men and women.

The rest of the paper is organized as follows: Section 2 explains the methods used to decompose the differentials in observed outcomes for men and women in the labor market. Section 3 describes the dataset and descriptive statistics with respect to the relevant outcome variables. In Section 4, we present and discuss the estimation results. We conclude in Section 5 with a summary and a discussion of the limitations of the study. We also point out avenues for future research.

2. Counterfactual decomposition

The decomposition technique of Blinder [1973] and Oaxaca [1973] is a popular approach to study differences in outcomes between groups. Jann [2008] described it for linear models (i.e., continuous outcome variables). Oaxaca and Ransom [1994] and Elder, Goddeeris, and Haider [2010] also provided an integrative discussion. Bauer and Sinning [2008] developed the extension for nonlinear models (i.e., for discrete or limited-dependent outcome variables). In this section, we provide a concise re-exposition while dispensing with a discussion of statistical inference (i.e., estimating standard errors), although Jann [2008: 458-460] specifically discusses this.

Suppose s is a group indicator, where $s \in \{M, F\}$, y_s is a generic continuous outcome measure (e.g., the natural logarithm of wages), $\mathbf{x}_s$ is a row vector of

observable characteristics, and $\hat{\boldsymbol{\beta}}_s$ is a column vector of estimated coefficients from a linear regression of y_s on $\mathbf{x}_s$. Blinder (1973) and Oaxaca (1973) showed that mean differences in outcomes can be expressed as

$$\overline{y}_M - \overline{y}_F = (\overline{\mathbf{x}}_M - \overline{\mathbf{x}}_F)\hat{\boldsymbol{\beta}}_M + \overline{\mathbf{x}}_F(\hat{\boldsymbol{\beta}}_M - \hat{\boldsymbol{\beta}}_F)$$

where overbars indicate means. The first term on the right-hand side is the part of the outcome difference due to differences in observable characteristics between the two groups (the "explained" component); the second term is the part of the difference that is due to differences in coefficient estimates (the "unexplained" component).[3]

Daymont and Andrisani [1984] decomposed the mean outcome difference into three components as follows:

$$\overline{y}_M - \overline{y}_F = (\overline{\mathbf{x}}_M - \overline{\mathbf{x}}_F)\hat{\boldsymbol{\beta}}_F + \overline{\mathbf{x}}_F(\hat{\boldsymbol{\beta}}_M - \hat{\boldsymbol{\beta}}_F) + (\overline{\mathbf{x}}_M - \overline{\mathbf{x}}_F) + (\hat{\boldsymbol{\beta}}_M - \hat{\boldsymbol{\beta}}_F) \quad (1)$$

In this case, the first term or component is the part of the difference attributable to differences in observable characteristics between the two groups (the "endowment effect"), the second component is the part attributable to differences in the coefficient estimates (the "coefficients effect"), while the final component is the part due to the interaction between the first and second components (the "interaction effect").[4] The decomposition is characterized as "counterfactual" because the endowment effect captures the change in mean outcomes for women if they had men's endowments. The coefficients effect is the change in expected outcomes if women experienced the same rates of return to endowments as men.[5]

A complication arises when the conditional expectation, $E(y_s | \mathbf{x}_s)$, is different from $\overline{\mathbf{x}}_S \hat{\boldsymbol{\beta}}_S$, which is the case with nonlinear models. For instance, if a researcher were interested in the gender gap in labor force participation, the outcome variable (an indicator for participating in the labor force) will be binary, and she may prefer to estimate the regression model via probit or logit. To generalize the linear decomposition in Equation (1) to accommodate nonlinear models, Bauer and Sinning [2008] showed that one can replace each element with its corresponding conditional expectation. Estimation is straightforward by substituting the sample analogues for these conditional expectations.

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[3] Blinder [1973] and Oaxaca [1973] both point out that an alternative decomposition can be $\overline{y}_M - \overline{y}_F = (\overline{\mathbf{x}}_M - \overline{\mathbf{x}}_F)\hat{\boldsymbol{\beta}}_F + \overline{\mathbf{x}}_F(\hat{\boldsymbol{\beta}}_M - \hat{\boldsymbol{\beta}}_F)$. There is often no compelling reason to prefer one over the other.

[4] Like the original Blinder-Oaxaca "twofold" decomposition, this "threefold" decomposition can be viewed from the other group's perspective. We use the terms "endowment effect" and "coefficients effect" because they are somewhat conventional in the literature. However, causality is neither guaranteed nor claimed here.

[5] If the vector of regressors include categorical variables, then one can see from Equation (1) that the choice of the base or reference category can change the decomposition results. One approach to circumvent this problem is to transform the model to ensure that the results are invariant to the choice of the base category (Yun [2005]; Jann [2008]).

Although variants of the Blinder-Oaxaca decomposition are prominent in the discrimination literature (indeed, the title of Blinder [1973] begins with the words "wage discrimination"), the unexplained component or the coefficients effect should not necessarily be construed as evidence of discrimination. There are likely unobserved confounders that generate the wage gap. Since the Blinder-Oaxaca approach essentially involves running separate regressions for two groups, $s \in \{M, F\}$, as in $y_s = \mathbf{x}_s \boldsymbol{\beta}_s + \varepsilon_s$, the econometric issue is whether one can credibly assume conditional mean independence (i.e., whether the equation $E(\varepsilon_s \mid \mathbf{x}_s) = E(\varepsilon_s)$ holds).

If one were interested in discrimination, one could expand the list of control variables to make the assumption of conditional mean independence more likely to hold. However, this can potentially introduce more bias in the estimation. For instance, adjusting for occupational choice—although common—is problematic since segregation across occupations by gender can itself be a consequence of discrimination in the labor market. By now, this is well-known (see the discussion on "bad controls" in Angrist and Pischke [2009:64-68] or "collider bias" in Cunningham [2018:71-79]): within a regression framework, if one conditions or controls for what is itself essentially an outcome of discrimination (such as occupational choice), typical estimators become biased.

In a sense, therefore, unadjusted gaps in labor market performance between men and women are probably more informative about discrimination in the labor market than adjusted gaps. That is, the unadjusted gap captures the totality of what causes the difference, including discrimination at all levels leading up to the differential in labor market performance. To say that there is no pay gap if we control for occupational choice is hardly informative if discrimination causes occupational segregation in the first place (or differences in schooling outcomes, tenure, or years of labor market experience).

3. Data

We use various years of the Labor Force Survey (LFS) of the Philippines. In particular, we use the years 2002-2018. The LFS is managed by the Philippine Statistical Authority. The purpose of the LFS is to monitor changes in the labor force, which consists of people aged 15 years or above. People are classified as either economically active or inactive, with the former being considered as part of the labor force and the latter as outside the labor force. Among those who are in the labor force, people may either be employed or unemployed. The LFS surveys around 50,000 households four times per year (January, April, July, and October), with annual estimates of the variables constructed.[6] For representativeness, our calculations below are always calculated using survey weights.

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[6] Constructing annual estimates based on the quarterly rounds of the LFS is based on the Philippine Statistical Authority Board Resolution No. 01, Series of 2017–151, "Approving and adopting the official methodology for generating annual labor and employment estimates".

Our indicators for labor market performance are the following: (log) daily basic pay, employment status, and labor force participation status. Being employed means working for at least one hour in the reference period, which, in the LFS, is defined as the past week. Those who are in the labor force are either employed or unemployed, with the latter satisfying the following three criteria: currently not working, looking for work, and available for work during the reference period or within two weeks after the interview date.

In Figure 1, we present the percentage gap between men and women's (log) daily basic pay from 2002 to 2018. Except for some erratic movements within the period 2002-2015, the series exhibits a general downward trend, which means that the gender gap in pay is declining in the Philippines. In 2018, the unadjusted gap (i.e., without accounting for differences in occupational choice, experience, and schooling outcomes) was 5.77 percent.

FIGURE 1. Raw national gender gap in daily basic pay
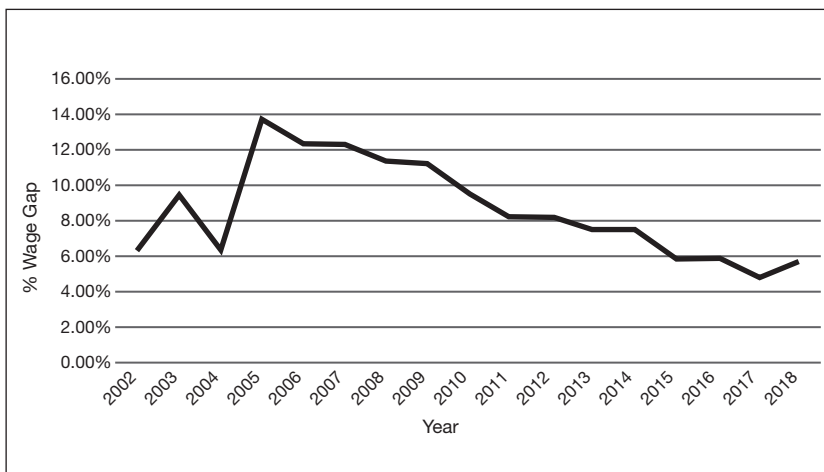
Figure 2 shows the equivalent series using the employment gap. This series shows that, in recent years, more women were actually employed than men in the Philippines. Note, however, that the definition of employment that is used within the framework of the LFS is whether the person worked for at least one hour in the previous week. This means that both full-time and part-time workers are included in this measure.

FIGURE 2. Raw national gender gap in employment
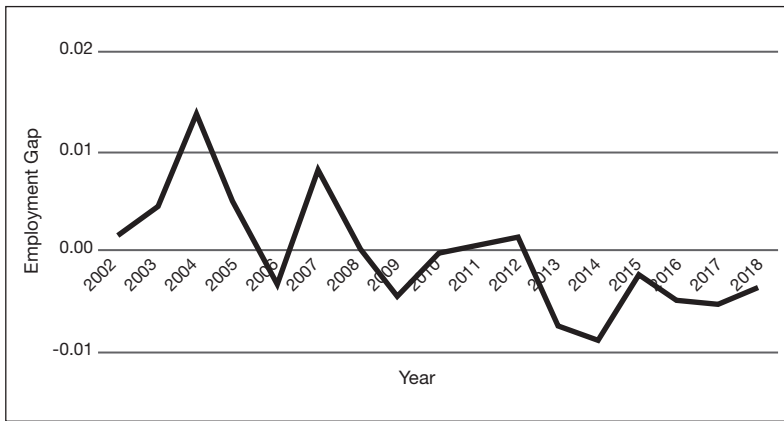
The national gender gap in labor force participation has remained roughly constant over time (Figure 3). In recent years, this gap has remained slightly below 20 percentage points, implying that more men are economically active relative to women. Just a little over a third of women of working age do not participate in the labor market at all. For both sexes, however, labor force participation rates have been increasing over time.

FIGURE 3. Raw national gender gap in labor force participation
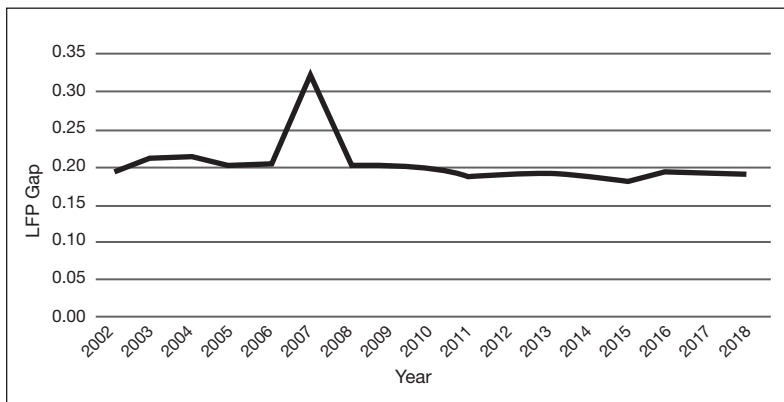
Although the trends for these three outcome variables are already quite informative about the relative performance of men and women in the labor market in the Philippines, we can derive more insight from the data by characterizing the sources of these gaps. As mentioned previously, any gap between the sexes could come from the differences in endowments, the differences in the return to these endowments, and a combination of both. The Blinder-Oaxaca decomposition described earlier allows us to quantify the extent to which these factors contribute to the observed gap in performance.

We also note that males, on average, have lower mean years of schooling in the Philippines, which is somewhat unusual for a developing economy. As noted elsewhere [Paqueo and Orbeta 2019], the education gender gap is widening in favor of females. Women have better academic outcomes compared to men, which is likely due to the fact that more women finish college compared to men in the Philippines [Paqueo and Orbeta 2019]. One may posit that this is because the counterfactual situation for women—that is, not having completed a tertiary degree—is worse than it is for men with no tertiary degree, since the latter have more "rewarding" occupational choices even in the absence of a higher-degree diploma.

4. Results and discussion

In this section, we discuss the decomposition results for the gender gap in (log) daily basic pay, employment status, and labor force participation. The decomposition is threefold: the endowment effect, the coefficient effect, and the interaction of the two (i.e., the interaction effect). Regressions are adjusted for differences in years of schooling, years of experience, and the square of years of experience.

In Table 1, we present the decomposition for (log) daily basic pay from 2002 to 2018. The "male" and "female" rows represent the mean (log) daily basic pay for each sex per year; the difference is the row labelled "difference". The "endowments" row represents the change in women's wages if they had comparable characteristics as men. The majority of the estimates here are negative, which implies that women would have even lower (log) daily basic pay if they had men's characteristic. This is largely because women's mean years of schooling in the Philippines is higher than men's. The "coefficients" row indicates that women would receive higher (log) daily basic pay if they enjoyed the same returns as men for each year of additional schooling and of experience. This implies, for example, that a man who completes an extra year of schooling will be rewarded more in the labor market than a woman who completes an additional year of schooling. The "interaction" row is the joint impact of the "endowment" and "coefficient" effects. This does not seem to play as large a role as the other two sources of the gender pay gap. The succeeding rows of Table 1 show a more detailed decomposition with the estimated results for each of the control variables (years of schooling, years of experience, and the squared years of experience).

TABLE 1. Decomposition for daily basic pay from 2002-2018

		2002			2003			2004			2005			2006			2007		
		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.	
Overall	Male	5.232	5.224	5.241	5.236	5.228	5.244	5.269	5.261	5.277	5.33	5.321	5.339	5.372	5.363	5.381	5.525	5.513	5.536
	Female	5.169	5.156	5.182	5.142	5.129	5.155	5.205	5.192	5.219	5.193	5.178	5.208	5.25	5.236	5.264	5.401	5.359	5.444
	Difference	0.063	0.047	0.079	0.094	0.079	0.109	0.064	0.048	0.079	0.137	0.12	0.154	0.122	0.105	0.139	0.123	0.079	0.167
	Endowments	-0.209	-0.221	-0.196	-0.196	-0.208	-0.184	-0.203	-0.215	-0.19	-0.192	-0.205	-0.179	-0.194	-0.207	-0.181	-0.168	-0.203	-0.132
	Coefficients	0.219	0.206	0.231	0.237	0.225	0.248	0.209	0.197	0.221	0.268	0.255	0.281	0.253	0.24	0.267	0.273	0.239	0.306
	Interaction	0.053	0.047	0.059	0.053	0.048	0.059	0.057	0.051	0.064	0.061	0.055	0.068	0.063	0.056	0.07	0.018	-0.002	0.039
Endowments	Schooling	-0.22	-0.232	-0.208	-0.204	-0.215	-0.193	-0.215	-0.227	-0.204	-0.209	-0.221	-0.196	-0.213	-0.226	-0.201	-0.19	-0.222	-0.158
	Experience	0.016	0.01	0.023	0.005	0	0.011	0.017	0.01	0.024	0.02	0.013	0.028	0.031	0.022	0.04	-0.084	-0.127	-0.042
	Experince^2	-0.005	-0.009	-0.001	0.003	-0.001	0.006	-0.004	-0.009	0	-0.004	-0.009	0.001	-0.012	-0.018	-0.005	0.107	0.06	0.153
Coeffieicnts	Schooling	-0.234	-0.259	-0.209	-0.25	-0.274	-0.226	-0.262	-0.287	-0.237	-0.303	-0.33	-0.275	-0.315	-0.343	-0.287	-0.223	-0.287	-0.16
	Experience	0.194	0.136	0.252	0.199	0.145	0.254	0.116	0.06	0.172	0.133	0.072	0.195	0.042	-0.018	0.102	-0.077	-0.372	0.218
	Experience^2	-0.092	-0.126	-0.058	-0.096	-0.126	-0.065	-0.045	-0.077	-0.014	-0.046	-0.081	-0.012	0.004	-0.03	0.038	0.121	-0.047	0.288
interaction	Schooling	0.049	0.043	0.055	0.049	0.044	0.054	0.054	0.048	0.06	0.057	0.051	0.063	0.06	0.054	0.067	0.041	0.028	0.055
	Experience	0.007	0.004	0.011	0.003	0	0.005	0.004	0.002	0.007	0.005	0.002	0.009	0.002	-0.001	0.006	0.011	-0.032	0.055
	Experience^2	-0.003	-0.006	0	0.002	-0.001	0.004	-0.001	-0.003	0	-0.001	-0.002	0	0	-0.002	0.002	-0.034	-0.082	0.013

		2008			2009			2010			2011			2012			2013		
		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.	
Overall	Male	5.463	5.455	5.472	5.495	5.486	5.504	5.526	5.517	5.535	5.544	5.535	5.552	5.592	5.583	5.6	5.644	5.635	5.652
	Female	5.353	5.339	5.368	5.384	5.37	5.398	5.431	5.417	5.445	5.462	5.448	5.476	5.51	5.496	5.523	5.567	5.553	5.58
	Difference	0.11	0.093	0.127	0.111	0.095	0.128	0.095	0.079	0.112	0.082	0.066	0.098	0.082	0.066	0.098	0.077	0.061	0.093
	Endowments	-0.223	-0.236	-0.21	-0.225	-0.238	-0.212	-0.224	-0.237	-0.211	-0.23	-0.243	-0.218	-0.223	-0.235	-0.211	-0.225	-0.237	-0.213
	Coefficients	0.26	0.247	0.273	0.266	0.254	0.279	0.25	0.237	0.263	0.243	0.231	0.256	0.239	0.226	0.251	0.238	0.226	0.251
	Interaction	0.073	0.066	0.079	0.07	0.063	0.076	0.069	0.063	0.076	0.069	0.062	0.075	0.066	0.06	0.072	0.064	0.057	0.07
Endowments	Schooling	-0.235	-0.248	-0.223	-0.236	-0.249	-0.224	-0.232	-0.245	-0.22	-0.235	-0.247	-0.223	-0.229	-0.241	-0.218	-0.229	-0.241	-0.217
	Experience	0.015	0.008	0.021	0.014	0.007	0.02	0.008	0.001	0.014	0.003	-0.003	0.009	0.006	-0.001	0.012	0.003	-0.004	0.009
	Experince^2	-0.002	-0.007	0.002	-0.002	-0.006	0.002	0	-0.004	0.005	0.002	-0.002	0.006	0.001	-0.003	0.005	0.002	-0.003	0.006
Coeffieicnts	Schooling	-0.332	-0.359	-0.305	-0.326	-0.353	-0.299	-0.346	-0.373	-0.319	-0.335	-0.361	-0.308	-0.319	-0.345	-0.293	-0.314	-0.339	-0.288
	Experience	0.181	0.121	0.24	0.181	0.122	0.24	0.175	0.114	0.235	0.182	0.122	0.242	0.109	0.049	0.169	0.098	0.037	0.159
	Experience^2	-0.079	-0.114	-0.045	-0.086	-0.12	-0.052	-0.073	-0.108	-0.038	-0.079	-0.114	-0.045	-0.053	-0.088	-0.019	-0.037	-0.072	-0.003
interaction	Schooling	0.068	0.061	0.074	2008	0.059	0.072	0.066	0.06	0.072	0.066	0.06	0.073	0.064	0.058	0.07	0.063	0.057	0.069
	Experience	0.006	0.003	0.009	0.006	0.003	0.009	0.003	0	0.006	0.001	-0.001	0.004	0.001	0	0.003	0.001	-0.001	0.002
	Experience^2	-0.001	-0.003	0.001	-0.001	-0.004	0.001	0	-0.002	0.002	0.001	-0.001	0.003	0	-0.001	0.002	0	-0.001	0.001

		2014			2015			2016			2017			2018		
		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.	
Overall	Male	5.701	5.693	5.708	5.727	5.719	5.734	5.83	5.822	5.838	5.862	5.854	5.869	5.946	5.941	5.951
	Female	5.624	5.611	5.637	5.668	5.656	5.681	5.771	5.758	5.784	5.812	5.799	5.824	5.888	5.88	5.897
	Difference	0.077	0.061	0.092	0.059	0.044	0.073	0.059	0.044	0.074	0.05	0.035	0.064	0.058	0.048	0.067
	Endowments	-0.231	-0.243	-0.219	-0.232	-0.243	-0.221	0.007	0.003	0.01	0.003	0	0.006	0.005	0.003	0.006
	Coefficients	0.236	0.223	0.248	0.222	0.21	0.233	0.054	0.039	0.068	0.048	0.034	0.062	0.053	0.043	0.063
	Interaction	0.072	0.066	0.078	0.069	0.063	0.076	-0.001	-0.003	0.001	-0.001	-0.003	0.001	0	-0.001	0.002
Endowments	Schooling	-0.234	-0.246	-0.223	-0.238	-0.249	-0.227	-0.001	-0.002	0	-0.001	-0.002	0	-0.001	-0.001	0
	Experience	-0.001	-0.008	0.005	0.004	-0.002	0.011	0	-0.009	0.01	-0.004	-0.012	0.004	-0.001	-0.005	0.003
	Experince^2	0.005	0	0.01	0.001	-0.004	0.007	0.007	-0.003	0.017	0.007	-0.001	0.016	2017	0.002	0.012
Coeffieicnts	Schooling	-0.346	-0.372	-0.32	-0.317	-0.342	-0.292	0.04	-0.173	0.253	-0.051	-0.244	0.142	-0.057	-0.178	0.065
	Experience	0.096	0.036	0.156	0.043	-0.015	0.101	0.077	-0.003	0.157	0.095	0.015	0.174	0.189	0.132	0.245
	Experience^2	-0.031	-0.065	0.003	0.006	-0.026	0.039	0.044	-0.001	0.089	0.027	-0.018	0.071	-0.028	-0.06	0.003
interaction	Schooling	0.072	0.065	0.078	0.069	0.063	0.075	0	0	0	0	0	0	0	0	0
	Experience	0	-0.002	0.001	0	0	0.001	0	-0.001	0.001	-0.001	-0.002	0.001	0	-0.002	0.001
	Experience^2	0.001	0	0.002	0	0	0	-0.001	-0.002	0.001	-0.001	-0.002	0.001	0.001	0	0.001

We present the decomposition for employment status in Table 2. As shown earlier, there is hardly any difference between men and women in employment status. Again, we note the caveat that employment is defined in the LFS as having worked for at least one hour in the reference week (in this case, within the week before the interview date). It is, therefore, hardly surprising that the majority of the estimated endowment, coefficient, and interaction effects are not statistically significant. However, based on the point estimates, we note that the small differentials in employment status are largely accounted for by the coefficient and interaction effects.

TABLE 2. Decomposition for employment status from 2002-2018

		2002			2003			2004			2005			2006			2007		
		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.	
Overall	Male	0.899	0.895	0.904	0.9	0.896	0.904	0.896	0.892	0.9	0.899	0.895	0.903	0.899	0.895	0.903	0.961	0.958	0.963
	Female	0.898	0.893	0.903	0.898	0.893	0.902	0.884	0.879	0.889	0.895	0.89	0.899	0.903	0.899	0.907	0.952	0.945	0.96
	Difference	0.001	-0.005	0.007	0.002	-0.003	0.007	0.012	0.007	0.017	0.004	-0.001	0.009	-0.004	-0.009	0.001	0.008	0.001	0.016
	Endowments	-0.001	-0.003	0.001	0.001	-0.001	0.002	0.001	-0.001	0.002	0.003	0.001	0.004	0.004	0.002	0.005	-0.008	-0.012	-0.003
	Coefficients	-0.006	-0.012	-0.001	-0.007	-0.012	-0.002	0.002	-0.003	0.008	-0.005	-0.01	0	-0.014	-0.019	-0.009	0.001	-0.007	0.009
	Interaction	0.008	0.006	0.01	0.009	0.007	0.01	0.009	0.007	0.011	0.007	0.005	0.009	0.007	0.005	0.008	0.015	0.01	0.02
Endowments	Schooling	0.002	0	0.004	-0.004	-0.023	0.015	-0.004	-0.03	0.023	0.01	0.001	0.019	0.009	0.006	0.012	0	-0.001	0.001
	Experience	-0.008	-0.018	0.002	0.014	-0.057	0.085	0.014	-0.086	0.114	-0.022	-0.049	0.005	-0.017	-0.028	-0.006	-0.035	-0.048	-0.022
	Expericne^2	0.005	-0.001	0.011	-0.01	-0.061	0.04	-0.01	-0.082	0.061	0.014	-0.003	0.031	0.012	0.004	0.019	0.027	0.015	0.04
Coefficients	Schooling	-0.017	-0.029	-0.006	-0.021	-0.032	-0.011	0.031	-0.091	0.152	-0.013	-0.023	-0.003	-0.018	-0.025	-0.01	0.006	-0.078	0.09
	Experience	-0.038	-0.056	-0.019	-0.032	-0.045	-0.019	0.043	-0.125	0.212	-0.025	-0.042	-0.009	-0.045	-0.057	-0.033	0.067	-0.862	0.996
	Experience^2	0.015	0.005	0.025	0.008	0.002	0.014	-0.011	-0.054	0.032	0.006	0.001	0.012	0.015	0.007	0.022	-0.025	-0.375	0.325
Interaction	Schooling	0.006	0.004	0.008	0.006	0.005	0.008	0.006	0.006	0.009	0.005	0.004	0.007	0.005	0.004	0.007	0.002	0	0.003
	Experience	0.005	0.003	0.007	0.004	0.002	0.005	0.003	0.002	0.004	0.002	0.001	0.003	0.003	0.002	0.004	0.039	0.025	0.052
	Experience^2	-0.003	-0.004	-0.001	-0.001	-0.003	0	-0.001	-0.002	0	-0.001	-0.002	0	-0.002	-0.003	-0.001	-0.026	-0.039	-0.013

		2008			2009			2010			2011			2012			2013		
		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.	
Overall	Male	0.906	0.902	0.91	0.897	0.893	0.902	0.9	0.896	0.902	0.906	0.902	0.91	0.9	0.896	0.903	0.904	0.9	0.907
	Female	0.906	0.901	0.91	0.902	0.898	0.906	0.9	0.896	0.904	0.906	0.902	0.91	0.899	0.894	0.903	0.912	0.908	0.915
	Difference	0.001	-0.004	0.005	-0.005	-0.01	0	0	-0.005	0.005	0	-0.005	0.005	0.001	-0.004	0.006	-0.008	-0.012	-0.003
	Endowments	0.003	0.002	0.005	0.003	0.001	0.005	0.003	0.001	0.005	0.001	0	0.003	0.001	0	0.003	-0.001	-0.003	0.001
	Coefficients	-0.009	-0.014	-0.004	-0.015	-0.02	-0.01	-0.01	-0.015	-0.004	-0.01	-0.014	-0.005	-0.008	-0.014	-0.003	-0.016	-0.021	-0.011
	Interaction	0.007	0.005	0.008	0.007	0.005	0.009	0.006	0.004	0.008	0.008	0.007	0.01	0.008	0.006	0.01	0.009	0.007	0.011
Endowments	Schooling	0.011	0.006	0.017	0.014	0.001	0.027	0.013	0.004	0.023	0.03	-0.179	0.239	0.069	-1.572	1.71	0.001	0	0.002
	Experience	-0.024	-0.042	-0.006	-0.032	-0.072	0.008	-0.028	-0.057	0	-0.079	-0.666	0.507	-0.234	-5.885	5.417	-0.006	-0.012	0
	Expericne^2	0.016	0.005	0.027	0.021	-0.004	0.047	0.018	0.001	0.035	0.051	-0.325	0.427	0.166	-3.842	4.175	0.004	0	0.007
Coefficients	Schooling	-0.013	-0.02	-0.006	-0.015	-0.021	-0.009	-0.011	-0.017	-0.005	-0.019	-0.027	-0.011	-0.016	-0.023	-0.008	-0.022	-0.029	-0.015
	Experience	-0.028	-0.038	-0.017	-0.043	-0.054	-0.032	-0.03	-0.043	-0.017	-0.04	-0.053	-0.027	-0.036	-0.049	-0.022	-0.047	-0.058	-0.035
	Experience^2	0.006	0	0.012	0.012	0.006	0.018	0.007	0.001	0.014	0.013	0.007	0.02	0.011	0.005	0.017	0.013	0.006	0.02
Interaction	Schooling	0.005	0.003	0.007	0.005	0.004	0.007	0.004	0.003	0.006	0.007	0.005	0.008	0.006	0.005	0.008	0.007	0.005	0.009
	Experience	0.003	0.002	0.004	0.004	0.003	0.005	0.003	0.002	0.004	0.004	0.003	0.005	0.004	0.002	0.005	0.004	0.003	0.006
	Experience^2	-0.001	-0.002	0	-0.002	-0.003	-0.001	-0.001	-0.002	0	-0.002	-0.003	-0.001	-0.002	-0.003	-0.001	-0.002	-0.003	-0.001

		2014			2015			2016			2017			2018		
		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.		Coeff.	95% C.I.	
Overall	Male	0.908	0.905	0.912	0.913	0.909	0.916	0.951	0.948	0.955	0.948	0.945	0.952	0.948	0.944	0.951
	Female	0.917	0.913	0.921	0.915	0.911	0.919	0.956	0.952	0.96	0.953	0.949	0.957	0.952	0.948	0.956
	Difference	-0.009	-0.013	-0.004	-0.002	-0.007	0.002	-0.005	-0.009	0	-0.005	-0.01	0	-0.004	-0.008	0.001
	Endowments	-0.002	-0.003	0	0	-0.002	0.002	-0.003	-0.004	-0.002	-0.003	-0.004	-0.002	-0.003	-0.004	-0.002
	Coefficients	-0.017	-0.022	-0.013	-0.012	-0.016	-0.007	-0.002	-0.006	0.002	-0.003	-0.007	0.002	-0.002	-0.006	0.002
	Interaction	0.01	0.008	0.012	0.009	0.007	0.011	0.001	0	0.001	0.001	0.001	0.002	0.001	0	0.001
Endowments	Schooling	0.001	0.001	0.002	0	-0.004	0.004	0	0	0	0	0	0	0	0	0
	Experience	-0.006	-0.01	-0.003	-0.001	-0.016	0.014	-0.007	-0.009	-0.005	-0.007	-0.009	-0.004	-0.005	-0.007	-0.003
	Expericne^2	0.004	0.002	0.006	0.001	-0.009	0.01	0.003	0.002	0.005	0.003	0.002	0.005	0.002	0.001	0.004
Coeffieicnts	Schooling	-0.024	-0.031	-0.017	-0.02	-0.028	-0.012	0.001	-0.007	0.008	-0.012	-0.035	0.01	0	-0.005	0.005
	Experience	-0.032	-0.043	-0.021	-0.031	-0.042	-0.02	-0.005	-0.014	0.004	-0.008	-0.019	0.003	-0.003	-0.009	0.003
	Experience^2	0.002	-0.005	0.009	0.006	0	0.013	0.001	-0.003	0.004	0.001	-0.003	0.005	-0.001	-0.004	0.002
interaction	Schooling	0.008	0.006	0.009	0.008	0.006	0.009	0	0	0	0	0	0	0	0	0
	Experience	0.003	0.002	0.004	0.003	0.002	0.004	0.001	0	0.002	0.001	0	0.003	0.001	0	0.001
	Experience^2	0	-0.001	0.001	-0.001	-0.002	0	0	-0.001	0.001	0	-0.001	0.001	0	0	0.001

Finally, we present our decomposition estimates of labor force participation in Table 3. There is a substantial and persistent gender gap in this measure of labor market performance. In particular, men have significantly higher participation rates relative to women. If women had men's endowments, their participation rate would actually be lower—as in the results of the pay gap. This is likely due to the fact that women, on average, have higher years of schooling than men in the Philippines. That said, a nontrivial part of the differential in LFP rates is due to the coefficient effect. In other words, women would perform better on this measure if the labor market rewarded them as much as it rewards men. The interaction effect does not seem to play a significant role in explaining the differential in LFP rates.

TABLE 3. Decomposition estimates for Daily basic pay from 2002-2018

		2002 Coeff.	2002 95% C.I.		2003 Coeff.	2003 95% C.I.		2004 Coeff.	2004 95% C.I.		2005 Coeff.	2005 95% C.I.		2006 Coeff.	2006 95% C.I.		2007 Coeff.	2007 95% C.I.	
Overall	Male	0.836	0.831	0.84	0.858	0.855	0.862	0.853	0.85	0.857	0.85	0.846	0.853	0.84	0.836	0.843	0.919	0.915	0.922
	Female	0.542	0.535	0.549	0.533	0.527	0.539	0.527	0.521	0.533	0.542	0.536	0.548	0.532	0.526	0.539	0.596	0.582	0.609
	Difference	0.293	0.286	0.3	0.325	0.318	0.331	0.327	0.32	0.333	0.308	0.301	0.314	0.307	0.301	0.314	0.323	0.31	0.336
	Endowments	-0.013	-0.014	-0.011	-0.01	-0.011	-0.009	-0.011	-0.012	-0.009	-0.009	-0.011	-0.008	-0.011	-0.012	-0.009	0.057	0.047	0.067
	Coefficients	0.298	0.291	0.305	0.324	0.318	0.331	0.326	0.319	0.332	0.306	0.3	0.313	0.307	0.301	0.314	0.251	0.237	0.264
	Interaction	0.008	0.007	0.01	0.011	0.009	0.012	0.012	0.01	0.013	0.011	0.01	0.012	0.011	0.01	0.012	0.015	0.005	0.026
Endowments	Schooling	-0.007	-0.008	-0.007	-0.008	-0.009	-0.007	-0.009	-0.01	-0.008	-0.008	-0.009	-0.007	-0.009	-0.01	-0.008	-0.001	-0.003	0
	Experience	-0.024	-0.028	-0.021	-0.017	-0.019	-0.014	-0.009	-0.012	-0.007	-0.008	-0.011	-0.006	-0.01	-0.013	-0.007	0.109	0.06	0.157
	Experince^2	0.019	0.016	0.022	0.014	0.012	0.017	0.007	0.005	0.009	0.007	0.005	0.009	0.008	0.006	0.01	-0.05	-0.095	-0.006
Coefficients	Schooling	-0.175	-0.186	-0.165	-0.189	-0.199	-0.18	-0.198	-0.208	-0.189	-0.183	-0.193	-0.173	-0.182	-0.192	-0.172	-0.088	-0.102	-0.074
	Experience	0.61	0.578	0.643	0.655	0.628	0.681	0.651	0.624	0.678	0.599	0.572	0.627	0.619	0.592	0.647	-1.035	-1.276	-0.795
	Experience^2	-0.382	-0.406	-0.359	-0.398	-0.416	-0.38	-0.394	-0.413	-0.375	-0.364	-0.383	-0.345	-0.377	-0.396	-0.358	0.332	0.207	0.458
Interaction	Schooling	0.018	0.013	0.022	0.012	0.01	0.013	0.014	0.012	0.015	0.012	0.01	0.014	0.013	0.011	0.015	0	0	0.001
	Experience	-0.057	-0.076	-0.039	-0.03	-0.037	-0.024	-0.017	-0.023	-0.012	-0.014	-0.019	-0.009	-0.018	-0.023	-0.012	0.032	0.01	0.055
	Experience^2	0.048	0.034	0.062	0.029	0.024	0.035	0.016	0.011	0.02	0.013	0.009	0.017	0.015	0.011	0.02	-0.017	-0.03	-0.004

		2008 Coeff.	2008 95% C.I.		2009 Coeff.	2009 95% C.I.		2010 Coeff.	2010 95% C.I.		2011 Coeff.	2011 95% C.I.		2012 Coeff.	2012 95% C.I.		2013 Coeff.	2013 95% C.I.	
Overall	Male	0.839	0.836	0.843	0.84	0.837	0.844	0.841	0.838	0.845	0.852	0.849	0.856	0.837	0.833	0.841	0.835	0.831	0.838
	Female	0.533	0.527	0.54	0.54	0.534	0.546	0.547	0.541	0.553	0.57	0.564	0.576	0.546	0.54	0.552	0.547	0.541	0.553
	Difference	0.306	0.299	0.312	0.3	0.294	0.307	0.295	0.288	0.301	0.283	0.276	0.289	0.291	0.285	0.297	0.288	0.281	0.294
	Endowments	-0.011	-0.012	-0.009	-0.011	-0.013	-0.01	-0.013	-0.014	-0.011	-0.011	-0.013	-0.01	-0.011	-0.012	-0.009	-0.012	-0.013	-0.01
	Coefficients	0.302	0.295	0.309	0.297	0.291	0.303	0.293	0.287	0.3	0.28	0.273	0.286	0.287	0.281	0.293	0.285	0.278	0.291
	Interaction	0.014	0.013	0.016	0.015	0.013	0.016	0.014	0.013	0.015	0.014	0.013	0.016	0.014	0.013	0.016	0.015	0.013	0.016
Endowments	Schooling	-0.01	-0.011	-0.009	-0.011	-0.012	-0.01	-0.011	-0.012	-0.01	-0.011	-0.011	-0.01	-0.01	-0.011	-0.009	-0.011	-0.012	-0.01
	Experience	-0.012	-0.014	-0.009	-0.011	-0.014	-0.009	-0.013	-0.016	-0.01	-0.011	-0.014	-0.009	-0.012	-0.014	-0.009	-0.013	-0.016	-0.01
	Experince^2	0.011	0.008	0.013	0.011	0.008	0.013	0.011	0.009	0.014	0.01	0.008	0.012	0.011	0.009	0.014	0.012	0.01	0.015
Coefficients	Schooling	-0.197	-0.207	-0.187	-0.188	-0.198	-0.178	-0.182	-0.193	-0.172	-0.188	-0.198	-0.178	-0.178	-0.187	-0.168	-0.179	-0.189	-0.17
	Experience	0.601	0.575	0.626	0.589	0.563	0.614	0.589	0.563	0.615	0.525	0.499	0.551	0.598	0.572	0.623	0.554	0.528	0.579
	Experience^2	-0.37	-0.387	-0.352	-0.363	-0.381	-0.346	-0.36	-0.378	-0.342	-0.328	-0.345	-0.31	-0.37	-0.388	-0.352	-0.344	-0.361	-0.326
Interaction	Schooling	0.014	0.012	0.016	0.015	0.013	0.016	0.015	0.013	0.017	0.015	0.013	0.016	0.014	0.012	0.015	0.015	0.013	0.016
	Experience	-0.017	-0.021	-0.012	-0.017	-0.022	-0.012	-0.02	-0.025	-0.015	-0.016	-0.021	-0.012	-0.017	-0.022	-0.013	-0.016	-0.021	-0.012
	Experience^2	0.017	0.013	0.021	0.017	0.013	0.021	0.019	0.014	0.023	0.016	0.012	0.02	0.018	0.014	0.022	0.016	0.012	0.02

		2014 Coeff.	2014 95% C.I.		2015 Coeff.	2015 95% C.I.		2016 Coeff.	2016 95% C.I.		2017 Coeff.	2017 95% C.I.		2018 Coeff.	2018 95% C.I.	
Overall	Male	0.835	0.832	0.839	0.826	0.822	0.83	0.805	0.799	0.81	0.791	0.786	0.796	0.774	0.769	0.78
	Female	0.551	0.545	0.557	0.55	0.544	0.556	0.522	0.515	0.53	0.509	0.501	0.517	0.497	0.489	0.504
	Difference	0.284	0.277	0.29	0.276	0.269	0.282	0.283	0.274	0.291	0.282	0.273	0.291	0.278	0.269	0.286
	Endowments	-0.012	-0.014	-0.011	-0.014	-0.016	-0.013	0	-0.001	0.002	0.002	0	0.003	0.002	0	0.004
	Coefficients	0.28	0.274	0.286	0.271	0.265	0.278	0.283	0.275	0.292	0.279	0.27	0.288	0.275	0.267	0.284
	Interaction	0.016	0.015	0.018	0.019	0.017	0.02	-0.001	-0.002	0	0	0	0.001	0	0	0.001
Endowments	Schooling	-0.012	-0.013	-0.011	-0.014	-0.015	-0.012	0	-0.002	0.002	0	0	0	0	0	0
	Experience	-0.013	-0.016	-0.01	-0.014	-0.017	-0.011	-0.06	-0.843	0.723	-0.031	-0.039	-0.023	-0.036	-0.047	-0.025
	Experince^2	0.013	0.01	0.015	0.013	0.01	0.016	0.06	-0.72	0.839	0.033	0.026	0.04	0.037	0.028	0.047
Coeffieicnts	Schooling	-0.183	-0.193	-0.173	-0.196	-0.206	-0.186	-0.022	-0.079	0.034	0.006	-0.048	0.06	-0.047	-0.094	0.001
	Experience	0.544	0.518	0.571	0.571	0.545	0.597	0.537	0.499	0.575	0.543	0.506	0.58	0.612	0.572	0.651
	Experience^2	-0.338	-0.356	-0.32	-0.352	-0.37	-0.335	-0.336	-0.362	-0.31	-0.347	-0.373	-0.321	-0.388	-0.415	-0.361
interaction	Schooling	0.016	0.014	0.017	0.018	0.016	0.02	0	0	0	0	0	0	0	0	0
	Experience	-0.015	-0.019	-0.011	-0.017	-0.022	-0.013	0.018	-0.019	0.056	-0.005	-0.012	0.001	-0.006	-0.015	0.003
	Experience^2	0.015	0.012	0.019	0.018	0.014	0.022	-0.019	-0.057	0.019	0.006	-0.002	0.013	0.007	-0.003	0.016

Although there are a number of reasons for these observed patterns in the Philippine labor market, one potential explanation is the rapid rise of the services sector between 2005 and 2017. Unlike other sectors (notably agriculture), the services sector is likely to accommodate men and women equally. Valientes [2015] noted that agriculture is the top employer of men; this sector ranks only second for women. Serafica [2019] showed that Philippine services exports (this includes business-process outsourcing) grew by 335 percent in 2018, particularly in technical, trade-related, and other business services as well as computer services. The shares of travel, digital trade, and creative industries have also increased.

5. Conclusion

This study demonstrates that the status of women in the Philippine labor market, as measured by the gender pay gap, has been improving over time. The raw gap in the (log) daily basic pay has come down from a high of about 14 percent in 2005 to about 6 percent in 2018. There is basically no gap in employment status. If anything, women have a higher share of employment overall if we do not distinguish between full- and part-time employment. A significant and persistent of gender gap, however, remains in labor force participation: Men have LFP rates around 85 percent for much of the analysis period while women's participation rates are closer to 65 percent in most years. Notably, the LFP of women is generally on an upward trajectory.

The present paper has a number of limitations. First, our adjustment variables consist only of the years of schooling and years of experience (and its square). This "short" regression has the advantage of avoiding the risk of bias in estimating the coefficients because of the "bad control" or "collider" problem mentioned in Section 2. However, other control variables (notably, occupational choice) certainly have a strong predictive power for the labor market outcomes that we consider here. In the future, one may extend the vector of control variables to account for a variety of characteristics that may explain labor market performance.

Second, for consistency, we adopted the definition of "employed" in the Labor Force Survey. To reiterate, this means that an individual is classified as employed if he or she worked for at least one hour in the reference period (i.e., within the last week prior to the interview). This conflates full- and part-time employment, but it is much more likely that women would be employed part-time relative to men. To the extent that this is a relevant issue in the context of gender-based gaps in labor market performance, there is scope to decompose differences in full- and part-time employment between men and women.

An obvious step forward would be to examine heterogeneity in regional differences. Apart from directly accounting for occupational choice or industrial composition, there may be regional differences that can independently explain gender-based gaps in labor market performance. We might observe, for example, that regions in the Visayas demonstrate more gender equity than other parts of the country. If we do, one could potentially explore this even further to understand how a specific region is more successful at closing the gender gap.

Finally, we reiterate that none of the estimates here ought to be interpreted as evidence for or against the existence of gender-based discrimination in the labor market. One way to directly test for the presence of discrimination would be to conduct an audit study: say, sending identical applications save for the sex of the application to the same jobs and estimating differences in call-back rates (e.g., Bertrand and Mullainathan [2004]). To our knowledge, no similar audit study has ever been conducted in the Philippines, but it would certainly be informative about the gender-based dynamics that are at play in the Philippine labor market.

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