

Regional formal and informal wage gaps

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The existence of institutional arraignment or different wage structures may affect the way formal and informal workers are rewarded in the Colombian labor market, and therefore the prices that they perceived for their characteristics. For example, it is well known that the minimum wage is binding in the formal sector, meaning that a large proportion of formal workers earn a minimum wage, in contrast a large proportion of informal workers are paid a wage inferior to the minimum wage. This adds to the fact that the share of workers in the informal sector varies largely across Colombian regions. Thus, grouping formal and informal workers together may give misleading information about the origin of regional wage disparities.

Once the density of hourly wages is computed for formal and informal workers separately, the regional differences are less marked within each of these two groups of workers. As a matter of fact, Pacific region whose density distribution of hourly wages had a very dissimilar behavior compared to other regions for the whole sample, once formal and informal workers are treated separately, its behavior is more alike, especially in the case of formal workers. Undoubtedly, average hourly wages are different between regions, even after splitting the sample into formal and informal workers. However wage gaps are reduced considerably. By comparing formal workers from Pacific region to formal workers of Golden Triangle (Bogotá, Cali and Medellín) the average of gross hourly wages of the Pacific is 95% of that paid in Golden Triangle. When considering only informal workers, the wage gap of Pacific against Golden Triangle is also reduced, although to a lesser extent than when comparing formal workers. On the other hand, the wage gap for formal workers behaves in a different way along the wage distribution for each of the regions, while a non-monotonic behavior throughout the wage distribution is present for informal workers. Since the magnitude and the behavior of regional wage gaps of formal workers are different to those of informal workers, then treating formal and informal workers separately will a more complete understanding of regional wage gaps in a labor market characterized by a high degree of informality. In doing so this paper presents analyze regional wage gaps, but differentiating formal and informal workers. However, the focus is not to compare formal and informal workers, but to compare formal workers across regions and separately doing the same for informal workers. While comparing formal workers to their informal counterparts across regions is of interest, is out of the scope of this study (Garcia, 2014 examines the heterogeneity of the formal/informal wage gap at the regional level in Colombia). Moreover, the selectivity bias associated with non-observable characteristics that could simultaneously affect wages and the sector in which the individuals are currently working is less likely to affect the results when comparing formal (informal) workers of one region with formal (informal) workers of other regions.

Preliminary results concerning the estimates of the Mincer wage equations by OLS and by quantile regressions (conditional and unconditional) show that for

formal workers it is observed that returns to education for these types of workers differ across regions but to a lesser than those found in previous studies. Results from quantile regression (conditional and unconditional) show that returns to education for formal workers increase along the wage distribution and for specific quantiles some differences between regions exist, but again these differences are lower than those found in the past.

Turning now to the results for informal workers it is visible that returns to education differ considerably across regions for this type of workers. Moreover preliminary results suggest that the value of additional education is quite constraint in the informal sector, as more education not necessarily means higher wages.

From these findings it is clear that grouping formal and informal workers does not reveal the complete picture and may produce only incomplete conclusions. There are reasons to suspect that the decomposition analysis might also give new information if it is done for formal and informal workers separately. Table 4.8 and Table 4.9 display the results of the decomposition exercise for formal and informal workers respectively, similar to the results presented in Table 4.5 for the entire sample of workers. Results from the global decomposition, for formal and informal workers, show that for the Atlantic region the results are fairly the same, but for the rest of the regions the results of the decomposition provide new information. First, it is important to notice that for all regions the characteristics component reduces considerably its contribution. This may be the result of comparing more homogenous workers across regions, especially in the case of formal workers who share similar worker and firms' characteristics. For the Pacific region it now turns that formal workers are better endowed than formal workers in the Golden Triangle, and thus the characteristics component reduce the wage gap between these two regions. In the case of Central region the component corresponding to differences in characteristics is not statistically significant neither for formal nor for informal workers. However it remain true that the characteristics of workers in Golden Triangle are better-rewarded compared to other regions.

These results reveals that some of the conclusions derived from the previous analysis that treated formal and informal workers jointly are partially correct. For instance the belief that the Golden Triangle is the region with the largest endowed workforce is not completely accurate. Moreover the distribution of education is generating an equalizing effect of wages across some regions. While the returns to education continue to be a source of wage inequality across Colombian territories.