



## The impact of minimum wage raises on the Bolivian labor market

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### Key messages

- The minimum wage policy has introduced biases into the labor market that negatively affect vulnerable workers, particularly women.
- Enforcement action needs to be considered to guarantee wage increases for women and social security for Bolivian workers.
- The minimum wage should be adjusted annually based on the consumer price index.

### Informal sector poses challenge to minimum wage laws in Bolivia

Since 2006, Bolivia has experienced sustained growth due to the high prices of international commodities boosting the production and exports of minerals and natural gas. This growth prompted the Bolivian government to implement several redistributive policies, including the annual increase to the minimum wage.

For the past 10 years, the president has enacted a decree on May 1<sup>st</sup> of each year to raise the minimum wage. Bolivia's minimum wage is legislated by the central government and is changed by decree, without parliamentary debate. The minimum wage is the same across all departments, economic sectors, and occupations. Although announced on May 1<sup>st</sup>, it is applicable as of January of the same year, requiring retroactive payment to employees working for less than the newly announced rate.

Between 2006 and 2013, these raises ranged from a 5% increase to a 22% increase: disproportionately higher than the consumer price rates index (PRI) increases. Additionally, over the last four years, the increase in minimum wages has been well above inflation and GDP growth rates, indicating that labor productivity was not considered in the minimum wage decision in an effort to increase real wages.

Bolivia's large informal sector – an average of 67% of the employment share between 2005 and 2012 – also poses a challenge to minimum wage policies due to a high level of non-compliance in terms of both employment and social security status. Furthermore, due to a lack of enforcement, informal sector employers may comply with the minimum wage policies but compensate for the increased cost by removing other benefits for employees. Women, indigenous people, and people with a low level of education are the most likely to work informally in Bolivia.

As such, a team of local researchers set out to identify the potential effects of the minimum wage increases on wage and employment of different populations, as well as the effect on informality and self-employment levels and the number of hours worked.



## Data and methodology

The research team used a difference-in-differences strategy to analyze data from a pool of annual household living conditions surveys, the most reliable in Bolivia, from 2005 to 2013. The data included information on employment, occupation, wages, hours worked, household and individual characteristics.

In this study, the working age population (WAP) is identified as the portion of individuals aged 15 to 65, representing 57.7% of the total population in 2005, and 61.4% in 2012. Informal workers are defined as salaried workers who do not contribute to pension funds and are not covered by social security. The data also shows that there is a large group of self-employed workers, at least as large as the group of salaried workers. Self-employed workers are treated as a separate population in this analysis as the research team assumes this group is not covered by the minimum wage legislation.

## Key findings

The team's analysis indicates that **the minimum wage policy has introduced biases into the labor market that negatively affect vulnerable workers, particularly women. Specifically, women's wellbeing and employment conditions are threatened by the minimum wage policy.**

One of the main causes of a negative bias against vulnerable workers appears to be that employers tend to only partially comply with the minimum wage regulation.

The team finds evidence of labor discrimination against women. Men's real wages increase as the minimum wage increases (a 4% real wage increase for a 13.6% national minimum wage increase), however, women's wages do not improve under the policy. Furthermore, there is evidence that the quality of women's employment deteriorates as the minimum wage increases, suggesting that to ensure compliance with the minimum wage regulations for men, employers are displacing women to the informal labor market or reducing the quality of their employment.



The team's results do not indicate that the minimum wage reduces employment, however, increases in minimum wages did generate higher levels of informality for both men and women, increasing by 1.1% and 0.36%, respectively. This is attributed to employers choosing to reduce benefits in order to afford the minimum wage increase. As such, this finding indicates that minimum wage increases leave a large share of the workforce disadvantaged, with little access to health, social protection, and job security.

The results suggest that workers who were earning much less than the minimum wage are the main beneficiaries of the wage increases as employers make less effort to raise the wages of employees earning just under the new minimum wage. This finding suggests that the minimum wage policy does produce a positive redistribution effect on wages.



## Implications for policy

The results of this study indicate that women, who are already in a disadvantaged position in terms of lower wages and higher unemployment rates, do not benefit from the minimum wage policy in terms of wages. Furthermore, women also have their wellbeing and employment conditions threatened due to the labor market effects of the policy. The team's findings indicate that these problems arise from employers either not complying with the minimum wage regulations, or only partially complying.

To address the issues of non- or partial compliance, **enforcement action needs to be considered to guarantee wage increases for women and social security for Bolivian workers.** This is important to prevent greater social problems as the population ages.

The minimum wage should be a reference income that allows workers to live in appropriate conditions. As such, **the minimum wage should be adjusted annually using the consumer price index as a lower bound.** More moderate increases are less likely to introduce the biases that were found to have negative effects on vulnerable workers. Additionally, minimum wage increases need further scientific study to ensure they are sufficient to ensure a minimum level of wellbeing while also remaining realistic in terms of what employers are able to afford.



In 2012, with support of the UK Department for international Development (DfID) and the International Development Research Centre (IDRC) of Canada, PEP launched a new program to support and build capacities in “Policy Analyses on Growth and Employment” (PAGE) in developing countries.

This brief summarizes the outcomes of [PMMA-12869](#) supported under the 3<sup>rd</sup> round of the PAGE initiative (2015-2016). To find out more about the research methods and findings, read the full paper, published as part of the PEP [working paper series](#).

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