

The series Working Papers on Economics is published by the Office for Economic Studies at the *Banco de la República* (Central Bank of *Colombia*). The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.

AUTHOR OR EDITOR

Leonardo Fabio Morales

Carlos Medina

In 2013 Colombia implemented a tax reform which, among other things, reduced payroll taxes by a total of 13.5 percentage points of wages. In this paper we evaluate the effects of this component of the 2012 Colombian tax reform on firms' formal employment and average wages. We construct a panel of firms based on their employees' administrative records. In order to account for the endogeneity of the treatment, we use an instrumental variables technique that exploits the exogenous variation from the decisions of firms that are similar to each other in several dimensions, but belong to different economic sectors. Based on our preferred specification, we estimate a positive and significant increase in formal employment, as a result of the implementation of the reform, of a proximately 213k jobs in existing pre-reform firms. In the long run, these effects will increase to more than 600k jobs. The effect of the reform on the average wages paid by firms was also found to be positive for some sizes of firms, but the overall effect in the short run is rather small.

*En el año 2013 Colombia implementó una reforma tributaria que, entre otros cambios, redujo en 13.5 puntos porcentuales los impuestos a la nómina que las firmas son responsables de pagar. En este trabajo se realiza una evaluación de impacto de este componente particular de la reforma sobre empleo formal y salarios promedio pagados por las firmas. Para este fin se construye un panel de firmas formales usando datos administrativos de la planilla integrada de liquidación de aportes. Con el fin de controlar por posibles problemas de endogeneidad de la variable de tratamiento se usa una técnica de variables instrumentales que explota la variación exógena de decisiones de firmas que son similares entre sí en varias dimensiones, pero pertenecen a diferentes sectores económicos. Con base en la especificación preferida en el trabajo se concluye que, como resultado de la reforma se generaron en el corto plazo 213 mil nuevos trabajos formales en firmas que existían previamente a la reforma. En el largo plazo este efecto en empleo formal se incrementará a casi 600 mil nuevos empleos formales. El efecto de la reforma en el salario medio pagado por las firmas se estima positivo para algunos tamaños de firmas, sin embargo este efecto en el corto plazo es de una magnitud reducida.*

The series Borradores de Economía is published by the Economic Studies Department at the Banco de la República (Central Bank of Colombia). The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.