



Are returns to education on the decline in Venezuela and does Mission Sucre have a role to play?

Naihobe Gonzalez^a, Ruth Uwaifo Oyelere^{b,c,*}

^a Department of Economics, Columbia University, United States

^b School of Economics, Georgia Institute of Technology, 221 Bobby Dodd Way, Atlanta, GA 30332-0615, United States

^c IZA, Bonn, Germany

ARTICLE INFO

Article history:

Received 5 February 2010

Received in revised form 2 July 2011

Accepted 5 July 2011

JEL classification:

J2

J24

J38

I21

O12

O15

Keywords:

Human capital

Economic impact

Rate of return

Educational economics

ABSTRACT

Anecdotal evidence points to a falling standard of living for the educated in Venezuela. During this same period, President Hugo Chávez implemented several education reforms. We focus on a major university education reform known as Mission Sucre and its potential impact on returns to university education. First, we show that returns to education decreased significantly in Venezuela from 2002 to 2008. Subsequently, we explore the impact of the program on non-program participants and provide evidence that a substantial part of the falling returns at the tertiary level can be linked to Mission Sucre. Our results suggest that the reform created a negative externality on students who did not participate in the program, leading to a 2.7 percentage point decline in returns to university education for non-Mission Sucre students in the 23–28 age cohort.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

After experiencing an economic downturn in 2002 and 2003, Venezuela's economy has boomed, in large part due to the rise in the price of petroleum, which increased four-fold between 2002 and 2007 to just under \$100 a barrel. In Venezuela, the oil sector accounts for about 90% of export earnings. Since 2004, the annual growth rate of Venezuela's gross domestic product has hovered between 8 and 18%. However, contrary to what one might expect given an economic boom, anecdotal evidence suggests a trend in the opposite direction. "Things are worse than ever. You can't

afford to live like you used to," said a middle-class resident of Caracas. Statements like this have become commonplace in Venezuela, especially among the more educated.

During this same period, President Hugo Chávez implemented a number of education reforms that may have had important labor market impacts and should be evaluated in light of this puzzling anecdotal evidence. Specifically, we focus on the implementation of a major university education reform and whether it led to a decline in returns to education in Venezuela. The reform program, known as Mission Sucre, was enacted in September 2003 to provide free mass tertiary education, eliminating screening and providing scholarships to the poor. Given the nature of the program's implementation, there are two potential economic channels that may have led to a decline in the returns to education.

The first is a simple demand-supply argument. The program, which in 2007 enrolled 336,499 students,

* Corresponding author at: School of Economics, Georgia Institute of Technology, 221 Bobby Dodd Way, Atlanta, GA 30332-0615, United States.

E-mail addresses: ndg2109@columbia.edu (N. Gonzalez), ruth.uwaifo@econ.gatech.edu (R.U. Oyelere).

dramatically increased the supply of skilled labor. All other things equal, returns to education will decline if the supply of labor increases and demand does not. Even if demand for skilled labor increases, as long as the increase in demand is less than the increase in supply, there is potential for a fall in the returns to education. The second possible channel is quality. There is evidence that education in the Mission Sucre universities is of low quality. If this is true, it follows that returns to education will decline when graduates from this program join the work force. A related issue is the decline in the quality of students receiving tertiary education. The Sucre Mission universities eliminated entrance exams, which applicants to public or private universities had to pass before entry into tertiary education. The removal of this quality screening mechanism implies that the quality of students in Mission Sucre universities would be lower than elsewhere. In addition, the average quality of students who graduate from universities in Venezuela would decline over time, resulting in a fall in average returns to education.

Though these two channels could affect returns to education, the fall in returns to education resulting from a decline in the quality of education is harder to tease out due to the potential change in the selection into university education after the establishment of Mission Sucre universities. The absence of screening mechanisms at these universities would facilitate the entry of low ability individuals, making it difficult to disentangle the effect of an increase in low ability graduates in the labor market from the effect of a fall in the quality of tertiary education itself. We avoid this problem by not estimating the returns to education for either Mission Sucre graduates or all tertiary graduates in general. Rather, we focus on the labor market impact of this program on graduates from non-Mission Sucre universities. By focusing solely on non-Mission Sucre students, we do not address the full impact of the program, but rather focus on the externalities on non-Mission Sucre students. Given the scope of this university education expansion, short-term labor market externalities are an important area of research in their own merit.

A different reason for a decline in the returns to education during this period could be linked to the oil boom. [Uwaifo \(2006\)](#) shows that in Nigeria, another country heavily dependent on oil, returns to education have consistently declined during resource booms due to the high returns to rent-seeking activities during these booms and the greater ability of those with lower levels of education to move to rent-seeking jobs. This mechanism implies that the difference in income between low and high education individuals will be attenuated over the period of a boom, and hence the average returns to education will decline. However, there is also evidence of the importance of policy reforms and changes in institutional structures on returns. [Uwaifo \(2006\)](#) also highlights how democratic reforms and institutional change in Nigeria led to an increase in returns to education. Venezuela has undergone significant policy reforms over the last decade, and it is the link between a specific policy and returns to education that we provide evidence for in this paper.

First, we answer whether returns to education decreased in Venezuela after 2002. This exercise is particularly useful given [Patrinos and Sakellariou \(2006\)](#)'s result of increasing overall returns from 2000 to 2002. Using data from Venezuela's household survey for 2002, 2003, 2007 and 2008, we estimate simple [Mincer \(1974\)](#) wage equations. Though we do not control for ability, we do not worry about the potential endogeneity of the schooling variable in the wage equation, since our focus is not on obtaining a consistent estimate for schooling, but rather for the change in returns to education over time. This difference will be consistent as long as the effect of ability on the returns to education estimate does not vary over time for the sample considered. Prior to 2004, we expect the effect of ability in Venezuela to be constant. However, the implementation of an education policy in late 2003 has the potential of varying the impact of ability. We test for a possible change in the impact of ability, noting no such change between 2004 and 2008.

We find that the average returns to education declined by 3.1 percentage points over 2002–2008. This decline occurred for both men and women, though the decline for women was about one percentage point higher. Similarly, we note a decline in returns across states in Venezuela that varied significantly, between 1.2 and 5.6 percentage points. This variation across states is interesting and we explore it further in later parts of the study. Given our interest in potential changes in returns for the highly educated, we also compute the change in returns to different levels of education. We find that returns to all levels of education declined during this period, but that the return to university education fell by over 10 percentage points more than other levels.

Motivated by these preliminary findings, we move to evaluating the possible role of Mission Sucre on the significant decline in returns to university education. To provide evidence of the impact of Mission Sucre on non-Mission Sucre students, we exploit some of the unique features of the program to estimate the returns to education for different occupation categories we believe should be affected differently by the program. The results from these analyses provide suggestive evidence for the impact of Mission Sucre. For our main analysis, we compare the returns to university education and technical education. We focus on these particular levels of education because both are tertiary levels and are more likely to have similar general trends in returns. More importantly, Mission Sucre originally focused on only expanding university education. This allows us to classify those with university education as a treatment group and those with technical education as a potential control group. Identification is based on the premise that if Mission Sucre is responsible for the fall in returns to university education, we should only find significant changes in the returns to university education between 2007 and 2008. In contrast, we should find no change or insignificant changes in returns for those with technical education.

Using a difference in difference strategy, we estimate the impact of Mission Sucre between 2007 and 2008 on returns to university education of non-Mission Sucre graduates. We focus on these two years because the first

Download English Version:

<https://daneshyari.com/en/article/354527>

Download Persian Version:

<https://daneshyari.com/article/354527>

[Daneshyari.com](https://daneshyari.com)