1. Introduction

Chile, after a long period of political uncertainty, has begun to implement significant reforms in education. These reforms include the expansion of higher education and the redistribution of educational spending. Chile's past emphasis on primary education has been criticized for not adequately preparing students for higher education. The government has taken steps to address this issue by increasing the funding for higher education institutions. Additionally, there has been a push to redistribute educational spending to ensure a more equitable distribution among regions and socioeconomic groups.

Abstract

This article discusses the implications of the recent changes in educational funding in Chile. It analyzes the effects of these changes on access to higher education and the overall quality of education. The study concludes with recommendations for future policy interventions to further improve the educational system.
II. Conceptual and Empirical Considerations

A. The Case for Long-Run Education Spending

B. How low is the cost for lowering the relief expansion puzzle

C. Education spending is associated with later earnings than any other social spending...
The productivity of investment in education is measured by the returns of education; it takes into account the earnings of the years of schooling beyond primary education. The returns to education are also reflected in the increased earning power and productivity of workers who have completed more years of schooling. The returns to education are not limited to the earnings of the individual; they also include the returns to society in the form of increased productivity and innovation. The returns to education can be measured by the difference in earnings between workers with different levels of education. The returns to education are typically higher for workers with higher levels of education.

The returns to education are not uniform across all workers and can vary significantly by region, gender, and race. The returns to education are also affected by the level of education and the type of education. For example, the returns to education are higher for workers with higher levels of education, such as university degrees, compared to workers with lower levels of education, such as high school degrees.

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The relative educational spending when demand is skill-biased

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II.3 Relative Educational Spending when Demand is Skill-biased

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III. Relative Weages, Supply and Demand

The disparity is in part explained by the fact that the increase in the price of education has not been matched by a corresponding increase in the production of skilled labor. The result is that the relative price of education has increased, leading to a decrease in the supply of high-skill workers. This in turn affects the demand for education, as the cost of education becomes a greater burden on individuals and families. The result is a decrease in the supply of education, which further exacerbates the relative price of education.

Equation (4) in the previous discussion in Section II.3 is now modified to include the impacts of these factors. The revised equation is as follows:

\[ 0 < \frac{\Delta \omega}{\Delta \omega} = \frac{\Delta \theta}{\Delta \omega} \]  

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These changes in the distribution of public education would result in a decrease in the supply of education, leading to a decrease in the demand for education and a decrease in the supply of high-skill labor. This in turn decreases the supply of skilled labor, leading to a decrease in the supply of education and a decrease in the demand for education.

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broader supply definitions including unemployed, discouraged and persons out of the labor force actually lead to even more rapidly rising relative supply after 1975. Since after 1975 relative wages rose despite rapidly rising relative supply, relative demand must have been skill-biased. Figure 3, below, plots the imputed relative demand shifts implied by the relative wage and supply data. The general approach is to estimate the equation $\ln(w) = \sigma \times \text{time - ln(s)}$, where 'time' relative demand shifts are approximated as a linear trend. This estimation is used to provide a rough estimate for $s$. For Chile estimates for $\sigma$ were near 1.2. Relative demand is not directly observed, and this is only approximate. We then calculate imputed relative demand, assuming various values for $\sigma$ around the estimated value, and calculate relative demand as: $\ln(w) = \sigma \times \ln(s)$. In Figure 3 we see that relative demand rose somewhat in the 1960's, was flat through 1974, and fell in 1975. From 1975 on, we see that relative demand grew very rapidly [For a discussion of the likely causes of this relative demand shift, see Robbins(1994b) and Robbins(1995a)].

The Chilean experience after 1975 corresponds closely to the case discussed in Section II where relative demand was skill biased its growth rate exceeded that of relative supply. We saw that under those conditions, for relative wages to even remain constant, relative educational spending needed to rise. If as was the case for Chile, relative spending fell, this would exacerbate the rising relative wages. And, this likely contributed to the rising inequality of earnings as measured by the Gini or variance of log(wages) documented for Chile over this period [e.g. Robbins(1995a)].

### III.2 Further Consequences of Lowering Relative Educational Spending

While it is sometimes argued that lowering relative educational spending improves access to education, this is not obvious. For Chile the data on this are limited, but we...
The percentage of secondary school pupils enrolled in higher technical and vocational education, and the percentage of secondary school graduates who pursue higher education, is significantly lower in developing countries than in developed countries.

### Figures

**Figure 1**

DISTRIBUTION OF EDUCATIONAL LOANS FOR UNIVERSITY STUDY

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Percent of Students Receiving Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1234</td>
<td>45%</td>
</tr>
<tr>
<td>2011</td>
<td>1357</td>
<td>50%</td>
</tr>
<tr>
<td>2012</td>
<td>1478</td>
<td>55%</td>
</tr>
</tbody>
</table>

**Figure 2**

Graph showing the percentage of students receiving educational loans for university study over the years.
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