How U.S. public investments in education can spur equitable growth while paying for themselves over time

Overview

The United States currently under-invests in education, and our country is both poorer overall and more unequal because of our decision to skip on these badly needed investments. A new Washington Center for Equitable Growth report demonstrates this by measuring the return on investment of new educational spending. The author of the report—Robert Lynch, the Young Ja Lim professor of economics at Washington College—details how investments in education pay for themselves through stronger long-term economic growth, additional tax revenues, and long-term savings on public expenditures.

Specifically, U.S. public investments in school facilities, pre-Kindergarten services, and Kindergarten through grade 12 educational services over the next 60 years would:

- Create at least 1.7 million annual new jobs this decade
- Generate a significant increase in GDP and tax revenue that both outstrip the cost of the investments
- Grow the economy equitably—benefitting the middle class and those at the lower end of the income distribution the most

When education facilities and services are inadequate in supply and quality, unevenly located, and serving the needs of the most-advantaged in society, then racial, ethnic, class, and gender-based inequalities worsen. Inequality, in turn, slows economic growth and degrades social welfare.

Why education’s economic benefits exceed its cost

Education is one of the most important long-term drivers of both economic growth and equity. Education adds to human capital (the education, training, and health of workers), increasing labor productivity, which in turn propels overall growth. Education also improves the quality of life of people and their families because they are not only better educated and healthier but also higher earning and able to procure more food, clothing, shelter, and other amenities. Present day investments are also crucial to rectify the harms of unfair past and present racial and gender discrimination in the distribution of education. Three broad educational investments that would promote widely shared or equitable growth are:
1. A $50 billion annual investment in school facilities over 12 years

Not surprisingly, studies show that students do better in well-maintained schools. Issues such as mold, poor ventilation, and problems controlling temperature and humidity, can trigger allergies and respiratory problems that undermine student performance. What’s more, existing school facilities are inadequate to accommodate future student growth. And access to safe, adequate school facilities varies by race and income, blunting schools’ ability to reverse existing inequities in society.

2. A $30 billion annual public investment in high-quality pre-K schooling over 35 years

Long-term studies of pre-K programs consistently find that investing in children delivers a number of lasting, important benefits for the children, their families, and society at large. Children have better nutrition, health and behavior while in pre-K and then years later have higher test scores, less grade retention, higher graduation rates, better earnings and lower levels of incarceration. Their parents benefit by having more ability to work or get education for themselves, leading to higher earnings, less stress and better health.

3. A $63 billion annual investment in K-12 educational services over 60 years

The United States suffers from mediocre average K-12 educational outcomes compared to our international peers. There are also large gaps in children’s educational outcomes by socioeconomic status and race. These educational achievement gaps contribute to subsequent racial inequality in economic outcomes and constrain overall U.S. economic growth. Studies show, however, that educational investments increase individual earnings, improve health, reduce crime, and increase productivity and technological innovation.

These three proposed investments are large, but their benefits are even greater. Lynch monetizes and adds up the benefits to worker productivity, working hours, public health, tax revenues, job creation and lessened public program use, and compares them to the costs. This gives us a snapshot of the full returns on these three sets of investments. (See Figure 1.)

![Figure 1](image)

**Public investments in U.S. education result in economic growth greater than the amount invested**

Dollars of present value GDP realized for each one dollar investment in different educational programs.

<table>
<thead>
<tr>
<th>Investment</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>School facilities</td>
<td>$3.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Kindergarten services</td>
<td></td>
<td>$2.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-12 educational services</td>
<td></td>
<td></td>
<td>$4.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s analysis assuming a 6 percent discount rate.

Note: The school facilities project is a 12-year investment; the Pre-K project is a 35-year investment; and the K-12 educational services project is a 60-year investment.

These investments would also pay for themselves in tax revenues over time. (See Figure 2.)

![Figure 2](image)

**Public investments in U.S. education would result in more tax revenue, sometimes exceeding the investment**

Dollars of present value tax revenue realized for each one dollar investment in different educational programs.

<table>
<thead>
<tr>
<th>Investment</th>
<th>0</th>
<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>School facilities</td>
<td>$0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Kindergarten services</td>
<td></td>
<td>$1.61</td>
<td></td>
<td></td>
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<tr>
<td>K-12 educational services</td>
<td></td>
<td></td>
<td>$1.66</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s analysis assuming a 6 percent discount rate.

Note: The school facilities project is a 12-year investment; the Pre-K project is a 35-year investment; and the K-12 educational services project is a 60-year investment. For the Pre-K investment, the figure is the present value budgetary savings from increased tax revenues and public expenditure savings.

Moreover, these investments are also job creators. They would lead to the creation of more than one-and-a-half million new jobs over two years. (See Figure 3.)

![Figure 3](image)

**Public investments in U.S. education would create nearly 1.7 million jobs**

Jobs created over 2 years by each of the three investments in educational programs proposed in this brief, in thousands.

<table>
<thead>
<tr>
<th>Investment</th>
<th>150k</th>
<th>350k</th>
<th>550k</th>
<th>750k</th>
</tr>
</thead>
<tbody>
<tr>
<td>School facilities</td>
<td></td>
<td></td>
<td>568,000</td>
<td></td>
</tr>
<tr>
<td>Pre-Kindergarten services</td>
<td></td>
<td>353,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-12 educational services</td>
<td></td>
<td></td>
<td>741,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s analysis.
These investments are synergistic and interdependent, meaning they should be undertaken simultaneously. For instance, research shows that the benefits of high-quality pre-K programs may fade if children progress from high-quality pre-K programs into poor-quality K-12 education. And, obviously, our nation cannot offer high-quality pre-K, kindergarten, and primary and secondary school educational services without safe and properly equipped facilities.

**These investment do not need pay-fors**

The long-term nature of the benefits of these investments suggest that policymakers should take advantage of our current near-zero interest rate environment and borrow to finance these investments, without raising other taxes or cutting spending.

Investing in the education and skills of our people, our most valuable resource, can immediately boost the economy, create jobs, and help lift us out of our current economic malaise, while simultaneously laying the groundwork for future equitable growth by closing race- and class-based divides. Investments in the cognitive skills of our people help create pathways for more rapid future growth by enhancing long-run productivity, and they reduce economic disparities by providing ladders of opportunity for all.

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