The Value of Early Childhood Education: Some Perspective from Higher Education

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The views and opinions expressed are those of the presenter. They do not represent an official position of the Federal Reserve Bank of Richmond or the Federal Reserve System.
Skills: The Payoff
Skills have long inoculated against unemployment...

Unemployment rate, workers 25 years and over

Source: Bureau of Labor Statistics
...and payoffs to skills have steadily increased

Median weekly earnings, workers 25 years and over (2014 constant dollars)

Source: Bureau of Labor Statistics
Recent Breakdown of Unemployment and Labor Force Participation

<table>
<thead>
<tr>
<th>Education Level</th>
<th>North Carolina</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's Degree or Higher</td>
<td>5.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Some College or Associate's Degree</td>
<td>7.3</td>
<td>6.8</td>
</tr>
<tr>
<td>High School Graduate or Equivalent</td>
<td>10.1</td>
<td>9.6</td>
</tr>
<tr>
<td>Less than High School Graduate</td>
<td>10.1</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Unemployment Rate (Percent)

Labor Force Participation Rate (Percent)

Finer Recent Breakdown of Earnings

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Median Earnings North Carolina</th>
<th>Median Earnings United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate or Professional Degree</td>
<td>$59,243</td>
<td>$67,286</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>$46,171</td>
<td>$50,930</td>
</tr>
<tr>
<td>Some College or Associate's Degree</td>
<td>$31,060</td>
<td>$34,377</td>
</tr>
<tr>
<td>High School or Equivalent</td>
<td>$26,632</td>
<td>$29,004</td>
</tr>
<tr>
<td>Less than High School</td>
<td>$20,359</td>
<td>$21,320</td>
</tr>
</tbody>
</table>

Skills: The Response
We have been getting more educated...

...but are we hitting a barrier?

Source: Current Population Survey
Since the 1970s, supply response to skill-biased technological change has been weak. Unprecedented.

Source: Goldin and Katz (2009)
“An Unfinished Transformation”

- College graduation rates for young men born in the mid-1970s are similar to those for men born in the late 1940s.
- The educational attainment of 30-year-olds increased by only 0.8 years between 1980 and 2005.
- Many who enroll do not complete any degree within six years of completing high school.
- “Some college, no degree” is the fastest growing educational category in past 30 years: roughly 15% in 1980 to 29% in 2015.

Why hasn’t skill acquisition responded?

- Proximate answer appears to be that U.S. students lack adequate information and preparedness for higher education.
- Under current collegiate preparedness, college earnings premium no longer an effective spur to educational attainment.
- Preparedness is determined early in life: “learning begets learning”
What about information?

<table>
<thead>
<tr>
<th>Expected Attainment</th>
<th>No Degree</th>
<th>% of No Degree with Loans</th>
<th>Student Loan Debt (borrowers with no degree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>52%</td>
<td>37%</td>
<td>$11,160</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>62%</td>
<td>39%</td>
<td>$10,758</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>38%</td>
<td>51%</td>
<td>$14,457</td>
</tr>
</tbody>
</table>

Note: Data reflect survey results from 2004-2009.

- Students appear to both:
  - overstate their own preparedness and ...
  - ...understate its importance—relative to study effort—in college completion

Source: Avery and Turner (2012) and Stinebrickner and Stinebrickner (2012)
What about preparedness?

Source: Bound, Lovenheim and Turner (2010)
So why isn’t the college earnings premium enough?

- Modestly prepared students already enroll and will continue to do so at higher college premia
- Those not already enrolled in college face both substantial failure risk and earnings risk after graduation
  - Risks attenuate the benefit of the college premium, so at-risk students rationally ignore it
  - For low-wealth households, student loans are scary
- Punchlines
  - Under the status quo, aggregate college attainment will likely remain stagnant
  - Skill-biased technical change will primarily increase economic inequality, not college attainment

Source: Athreya and Eberly (2016)
Preschool programs have been shown to positively impact education, employment, and earnings later in life.

- They have also been shown to boost achievement test scores:
  - A substantial portion of this boost is explained by improvements in personality skills.

- Early childhood education appears to matter for hard and soft skills.

Source: Heckman et al (2013)
Conclusion

- Skills are being rewarded at historically high rates
- People are responding by enrolling in college, but many are not completing
- Targeting people early in life appears to be key to overcoming this challenge
Resources

Working Papers

Email Notification
March 2013, No. 13-02R
Risk, the College Premium, and Aggregate Human Capital Investment (Revised November 2016)
Kartik B. Athreya and Janice Eberly

Special Reports

Educational Attainment in the Fifth District
The Census Bureau's annual American Community Survey includes information on educational attainment by a variety of economic and demographic factors. These reports provide graphs, maps, and tables that visualize select variables using the most recent data available.

- District of Columbia
- Maryland
- North Carolina
- South Carolina
- Virginia
- West Virginia

Source: www.richmondfed.org