

Reflections: Education



**Loretta J. Mester
President and Chief Executive Officer
Federal Reserve Bank of Cleveland**

May 3, 2021

Today, I would like to share some reflections on education and the central role it plays in expanding economic inclusion and opportunity.

Education is transformational for individuals, families, and communities

After World War II, my father used funding available through the GI Bill to further his education. My family benefitted from this because my dad was able to get a good job and provide a higher standard of living for us. It also helped instill in my sister, my brother, and me a desire to learn and that desire has stayed with us throughout our lives.

Education changes the economic path not only of the student but of future generations. To see this, all you need to do is look at differences in family income and wealth by educational attainment. The median income for families with a college degree is more than twice as high as that of a family with a high school diploma, and the median wealth is four times as high.¹ Cleveland Fed economists have found that the key driver of the increase in wage inequality in the U.S. over the last 30 years is differences in educational attainment.²

Businesses are demanding ever greater levels of skills and people with higher education earn higher wages. The gap in wages between those with a college degree and those without, the so-called skill premium, has widened substantially over time, more than doubling since the 1970s. In fact, the median college-educated worker earns about 80 percent more per week than the median worker with a high school education.

¹ According to the 2019 Survey of Consumer Finances, in 2019, the median income of families whose reference person had a college degree was \$95,700 compared with \$45,800 for families whose reference person had only a high school diploma. The median wealth of families whose reference person had a college degree was \$308,200 compared with \$75,000 for families whose reference person had only a high school diploma. See Federal Reserve System (2020) and Table 1, Bhutta, et al. (2020). For further discussion see Mester (2021).

² See Pinheiro and Tasci (2019).

These averages mask another important benefit to education: labor market security. Those who have obtained a higher level of education are less likely to find themselves unemployed in both good and bad economic times.³

These data clearly show that the average person benefits from becoming better educated. But communities are also transformed when the people who live there are better educated. States with higher education levels tend to have higher per capita income growth and lower poverty rates. And cities with more highly educated populations experience lower unemployment rates, higher productivity growth, and higher growth in entrepreneurship than what would have been predicted by considering only the educational levels of individuals.⁴ So education conveys benefits to whole communities, making investments in education worthwhile at the individual and community level.

A high-quality education is not available to everyone

While the labor force as a whole has become more educated over time, educational attainment is uneven across racial and ethnic groups. According to the Fed's 2019 Survey of Consumer Finances, 41 percent of white heads of household held a college degree compared to 26 percent of Black heads of household and 16 percent of Hispanic heads of household.⁵ The likelihood of completing a degree also differs by race and by type of institution. The completion rates have remained particularly low at for-profit institutions for all races, with less than 20 percent of Black students who started at a for-profit institution in 2013 having earned a degree by 2019 and only 40 percent of white students having done so. At both public and nonprofit private institutions, the graduation rates for whites, Hispanics, and Asians have all

³ Over the last expansion, the unemployment rate for those with a bachelor's degree or higher averaged 3.2 percent compared to 6.6 percent for those with a high school diploma and no college. During the current recovery, college-educated workers have been regaining jobs lost due to the pandemic at a faster pace than those with less education.

⁴ For further discussion of the research linking educational attainment and economic outcomes of communities, see Mester (2015).

⁵ Calculations based on the 2019 Survey of Consumer Finances data, Federal Reserve System (2020a).

risen over time, but those of Blacks remain well below those of these other groups and have shown only a little progress over time.⁶

The reasons for these differentials are complex. Cost can be an important barrier to entering and staying in college, particularly for those coming from lower-income families. In a Fed survey, over half of the respondents who said they couldn't complete their associate or bachelor's degree said it was because it was too expensive.⁷ The average cost of tuition and fees at four-year institutions is now over \$16,500 a year, and adjusted for inflation, it has more than doubled over the past three decades.⁸ To afford this cost, many students have to take on debt and have to work while in school, which takes time away from their studies. As of late 2019, over 40 percent of those who went to college had taken on debt for their education and about half of those people still owe money on this debt.^{9,10} So while, on average, and for society as a whole, the return to investing in education is positive, for some individuals it is not, especially if they have to take on high levels of debt.

In addition to cost, another barrier to entering and completing college is not being adequately prepared. According to the Fed survey, 22 percent of respondents not completing a college degree said that one of the reasons was low grades.¹¹ Research is increasingly pointing to the fact that the foundation for educational attainment and the economic benefits it offers has to be laid very early in life – at the pre-elementary school level. A high-quality kindergarten experience has been shown to translate into higher

⁶ Satisfaction with college also varies by race. About 70 percent of white recipients of bachelor's degrees felt that their education was worth the cost, but only slightly more than half of Black recipients did. See Figure 28, p. 39, in Board of Governors (May 2020).

⁷ Respondents could choose more than one reason, and 52 percent also said it was because they needed to earn money to take care of their family. See Table 23, p. 41 in Board of Governors (May 2020).

⁸ See Digest of Educational Statistics (2021).

⁹ See pp. 43-46, Board of Governors of the Federal Reserve System (May 2020).

¹⁰ New York Fed analysis shows that compared to borrowers in majority white areas, those in majority Black areas have higher student loan balances and those in majority Black and majority Hispanic areas have higher rates of default on those loans. See Chakrabarti, Nober, and van der Klaauw (2020).

¹¹ See Board of Governors of the Federal Reserve System (May 2020), Table 23, p. 41.

educational attainment and economic benefits later in life.¹² When children fall behind early on, it is often difficult to catch up. The differences in access to high-quality education at the pre-K, kindergarten, and elementary school level can influence a person throughout his or her life.

What can be done? What is being done?

The barriers to extending educational opportunities to all students also point to solutions, and several programs are underway to increase access to high-quality education. Funding needs to be more available to students who want to further their education. This will lower the burden to earn money while in college and lower their debt burden once they are through. Some programs are already in place. Place-based scholarship programs have arisen in recent years to encourage students to excel in high school with the promise of covering the cost of going to college. The Pittsburgh Promise, launched in 2008, offers scholarships to promising students in the Pittsburgh public school district and has sent over 10,000 students on to a post-secondary educational institution. This appears to be money well spent: research indicates that the Promise has increased college enrollment rates and lowered dropout rates.¹³ The Say Yes Cleveland initiative provides Cleveland public school students with mentors and offers college scholarships as well.

In addition to increased funding, we also need to make it easier for parents and students to learn what the cost of attending college really is, what the quality of education is across different institutions, and what types of financial aid are available. Low-income, high-achieving students are much less likely to apply to selective colleges even though these colleges are often less expensive options for them because of the aid they would receive to attend.¹⁴ Newer research shows that inexpensive interventions that increase

¹² Chetty, et al. (2011).

¹³ Page, et al. (2017).

¹⁴ Hoxby and Turner (2013a, 2013b).

transparency about costs and aid can lead students and parents to make more informed choices.¹⁵

But focusing only on college isn't enough. We need to ensure that students are well prepared before they get to college. This means increasing investment in early childhood, elementary, and high school education in ways that have been proved to yield good outcomes. This investment includes financial support to schools and to families so they have access to better technology, books and supplies, and laboratories, as well as tutoring and mentoring to support children as they learn. In many cases it means access to healthy food and transportation to get to school – a wrap-around approach, such as the one being taken by Akron's I Promise School. Research suggests that over the past two decades increased enrollment in pre-K programs has helped to lower racial and income disparities in students' readiness for kindergarten, although the gaps remain wide.¹⁶ In our District, PRE4CLE in Cleveland and the Cincinnati Preschool Promise are working to expand access to high-quality preschool to prepare students for kindergarten.

Research also shows that the educational outcomes of children living in high-poverty neighborhoods are lower than those of children living in higher-income neighborhoods.¹⁷ So a holistic approach to improving overall economic conditions will likely be needed in order to increase access to better education in underserved areas. In our region, that also includes solving the problem of lead exposure, which stems from Cleveland's old housing stock. The Cleveland Fed has been highlighting this issue because it poses a significant risk to children's health and their ability to learn, and the city is taking important steps to remedy the situation.¹⁸ It also means closing the digital divide by extending access to home broadband to underserved areas, since a large part of formal and informal education is delivered

¹⁵ Bettinger, et al. (2012), and Dynarski, et al. (forthcoming).

¹⁶ Reardon and Portilla (2016).

¹⁷ Chetty, et al. (2016).

¹⁸ Johnson (2019).

digitally. Among communities with a population of 100,000 or more, the city of Cleveland has among the lowest home broadband access in the nation. Business leaders through the Greater Cleveland Partnership are working with city government leaders and other organizations to remedy this situation. In Pittsburgh, the Level Up 412 initiative, a cross-sector partnership between Verizon, Pittsburgh public schools, and Pittsburgh-area community groups, is offering classes to both children and adults on computer skills.

Organizations and individuals can help by providing mentors and getting involved in their school districts. The Cleveland Fed has associations with several organizations that focus on increasing educational attainment. Our staff members are serving as mentors with College Now, with the Clermont County Chamber of Commerce Foundation's Work Readiness Initiative in Cincinnati, and with the Urban League's African-American mentoring program in the Pittsburgh public schools. The Cleveland Fed has a robust internship program and we are extending it even further by working with younger students to develop their skill sets in preparation for productive three-year internships at our Reserve Bank. And our Learning Center, with its education and museum outreach programs, is reaching many students and their teachers with materials on financial literacy and the economy. Margie Wright-McGowan, who leads our People, Culture, and Communications function, serves on the board of Ohio Excels, which promotes increasing access to high-quality education in Ohio, and Dionissi Aliprantis, a senior economist in our Bank who leads our Program in Economic Inclusion, is working with gtmath.org, an organization that uses mathematics to increase creativity and build community among middle and high school students.

These examples show that there are multiple ways to get involved. And survey results show that we should do so, if we expect the U.S. to maintain its competitive position in the global economy. The Organisation for Economic Co-operation and Development's (OECD) latest survey assessing adult skills indicates that the U.S. is lagging behind other advanced economies in terms of educational achievements

and skill levels in literacy, numeracy, and problem-solving.¹⁹ Among 15-year-olds, many countries are ahead of us in reading, math, and science.²⁰ If we want to avoid falling further behind and remain competitive in the global economy, quality education needs to be a reality for all of our children.

I have been writing about the value of college, but other forms of training also provide a pathway to better jobs and economic opportunities. The Federal Reserve Bank of Cleveland, in collaboration with other Reserve Banks, offers information on so-called opportunity occupations that offer a relatively high wage without a four-year college degree.²¹ I plan to talk about such workforce development programs in a future “Reflections.”

¹⁹ This OECD survey was conducted in three rounds: 2011-2012, 2014-2015, and 2017-2018. The results indicate that the U.S. ranks 15th in terms of literacy and 24th in terms of numeracy among the 32 OECD countries that participated in the assessment of these skills, and 15th in terms of problem-solving out of the 29 OECD countries that participated in that part of the assessment. See the OECD (2019a, 2019b).

²⁰ The latest results from this triennial OECD survey of the skills of 15-year-olds are from 2018 and indicated that the U.S. ranked 9th out of 36 OECD countries in reading, 31st out of 37 OECD countries in math, and 13th out of 37 OECD countries in science. See the OECD (2019a). In terms of statistically significant (at the 5 percent level) differences, U.S. was out-ranked by 4 OECD countries in reading, 24 OECD countries in math, and 6 OECD countries in science. See National Center for Education Statistics (2018).

²¹ See Federal Reserve Bank of Cleveland (2020).

References

- Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu, “The Role of Application Assistance and Information in College Decisions: Results from the H&R Block Fafsa Experiment,” *Quarterly Journal of Economics* 127 (2012), pp. 1205-1242.
(<https://doi.org/10.1093/qje/qjs017>)
- Bhutta, Neil, Jesse Bricker, Andrew C. Chang, Lisa J. Dettling, Sarena Goodman, Joanne W. Hsu, Kevin B. Moore, Sarah Reber, Alice Henriques Volz, and Richard A. Windle, “Changes in U.S. Family Finances from 2016 to 2019: Evidence from the Survey of Consumer Finances,” *Federal Reserve Bulletin*, Board of Governors of the Federal Reserve System, 106 (September 2020).
(<https://www.federalreserve.gov/publications/files/scf20.pdf>)
- Board of Governors of the Federal Reserve System, “Report on the Economic Well-Being of U.S. Households in 2019, Featuring Supplemental Data from April 2020,” May 2020.
(<https://www.federalreserve.gov/publications/files/2019-report-economic-well-being-us-households-202005.pdf>)
- Chakrabarti, Rajashri, William Nober, and Wilbert van der Klaauw, “Measuring Racial Disparities in Higher Education and Student Debt Outcomes,” Federal Reserve Bank of New York *Liberty Street Economics*, July 8, 2020.
(<https://libertystreeteconomics.newyorkfed.org/2020/07/measuring-racial-disparities-in-higher-education-and-student-debt-outcomes.html>)
- Chetty, Raj, John Friedman, Nathaniel Hilger, Emmanuel Saez, Diane Whitmore Schanzenbach, and Danny Yagan, “How Does Your Kindergarten Classroom Affect Your Earnings? Evidence from Project Star,” *Quarterly Journal of Economics* 126, 2011, pp. 1593–1660.
(<https://doi.org/10.1093/qje/qjr041>)
- Chetty, Raj, Nathaniel Hendren, Lawrence F. Katz, L. F. “The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment,” *American Economic Review*, 106, 2016, pp. 855-902.
(<http://dx.doi.org/10.1257/aer.20150572>)
- Digest of Education Statistics, Table 330.10, “Average Undergraduate Tuition and Fees and Room and Board Rates Charged for Full-Time Students in Degree-Granting Postsecondary Institutions, by Level and Control of Institution: Selected Years, 1963-64 through 2019-20,” February 2021.
(https://nces.ed.gov/programs/digest/d20/tables/dt20_330.10.asp)
- Dynarski, Susan, C.J. Libassi, Katherine Michelmore, and Stephanie Owen, “Closing the Gap: The Effect of Reducing Complexity and Uncertainty in College Pricing on the Choices of Low-Income Students,” *American Economic Review* (forthcoming).
(<https://assets.aeaweb.org/asset-server/files/13861.pdf>)
- Federal Reserve Bank of Cleveland, “Opportunity Occupations: A Way Ahead for People Without College Degrees,” June 18, 2020.
(<https://www.clevelandfed.org/newsroom-and-events/publications/a-look-behind-the-numbers/albfn-opportunity-occupations.aspx>)
- Federal Reserve System, *2019 Survey of Consumer Finances*, 2020a.
(<https://www.federalreserve.gov/econres/scfindex.htm>)

Hoxby, Caroline, and Sarah Turner, “Expanding College Opportunities for High-Achieving, Low Income Students,” Discussion Papers 12-014, Stanford Institute for Economic Policy Research, March 2013a. (<https://siepr.stanford.edu/research/publications/expanding-college-opportunities-high-achieving-low-income-students>)

Hoxby, Caroline, and Sarah Turner, “Expanding College Opportunities,” *The Journal, Education Next*, 3 (August 26, 2013b) (<https://www.educationnext.org/expanding-college-opportunities/>)

Johnson, Treye, “Why We Should All Care About Lead,” *Notes from the Field*, Federal Reserve Bank of Cleveland, February 19, 2019. (<https://www.clevelandfed.org/newsroom-and-events/publications/notes-from-the-field/nftf-20190219-why-we-all-should-care-about-lead.aspx>)

Mester, Loretta J., “Community Development and Human Capital,” remarks at the 2015 Policy Summit on Housing, Human Capital, and Inequality, sponsored by the Federal Reserve Banks of Cleveland, Philadelphia, and Richmond, June 19, 2015. (<https://www.clevelandfed.org/newsroom-and-events/speeches/sp-20150619-community-development-and-human-capital>)

Mester, Loretta J., “The Cycle of Disparities in Economic Outcomes and Opportunities,” Swarthmore College, Swarthmore, PA (via videoconference), April 15, 2021. (<https://www.clevelandfed.org/en/newsroom-and-events/speeches/sp-20210415-the-cycle-of-disparities-in-economic-outcomes-and-opportunities.aspx>)

National Center for Education Statistics, Program for International Student Assessment (PISA) 2018 U.S. Results, 2018. (<https://nces.ed.gov/surveys/pisa/pisa2018/#/>)

OECD, *Programme for the International Assessment of Adult Competencies (PIAAC)*, 2019a. (<https://www.oecd.org/skills/piaac/>)

OECD, *Skills Matter: Additional Results from the Survey of Adult Skills*, OECD Skills Studies, OECD Publishing: Paris, 2019b. (<https://doi.org/10.1787/1f029d8f-en>)

Page, Lindsay C., Jennifer Iriti, Danielle Lowry, and Aaron Anthony, “The Promise of Place-Based Investment in College Access and Success: Investigating the Impact of the Pittsburgh Promise,” SSRN working paper (November 15, 2017). (<http://dx.doi.org/10.2139/ssrn.3071727>)

Pinheiro, Roberto, and Murat Tasci, 2019, “Firms, Skills, and Wage Inequality,” Federal Reserve Bank of Cleveland, Working Paper no. 17-06R. (<https://www.clevelandfed.org/en/newsroom-and-events/publications/working-papers/2019-working-papers/wp-1706r-firms-skills-and-wage-inequality.aspx>)

Reardon, Sean, and Ximena A. Portilla, “Recent Trends in Income, Racial, and Ethnic School Readiness Gaps at Kindergarten Entry,” *American Economics Research Association (AERA) Open* 2 (2016), pp. 1-18. (<https://doi.org/10.1177/2332858416657343>)