

# Federal funding supports critical education research at the University of Michigan

This brief provides examples of federally funded research projects led by Education Policy Initiative and Youth Policy Lab-affiliated faculty. This research spans the full educational pipeline—from preschool to career—and has helped improve learning opportunities and outcomes for students throughout the U.S.

**M** | EDUCATION POLICY INITIATIVE

**M** | YOUTH POLICY LAB

# 1 High-quality early education boosts children's learning

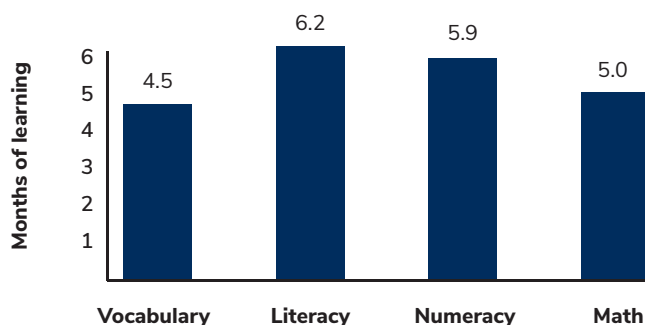
Preschool programs can—but don't always—have benefits that last into adulthood. EPI's [Boston Early Childhood Research Practice Partnership](#) found that Boston's Pre-K model—which includes evidence-based curriculum, coaching for teachers, and pay parity with K-12 teachers—led to [substantial impacts](#) on children's kindergarten readiness (see Figure 1). In subsequent work that followed children into their elementary school years, EPI and partners also found that preschool gains are more likely to last in [high-quality schools](#), for more [broadband early skills](#), and if children receive an [aligned Pre-K to first grade curriculum](#).

**POLICY IMPACT:** These findings were cited widely in the national media, including the [New York Times](#), [NBC News](#), the [Boston Globe](#), and [NPR](#), and informed the design and development of other early learning programs in the nation, including programs in Seattle, Mississippi, Maine, and Washington DC.

**FUNDER:** U.S. Department of Education Institute of Education Sciences

**PARTNERS:** Boston Public Schools, MDRC, Harvard Graduate School of Education, RAND

FIGURE 1  
Impacts of Boston Pre-K on children's school readiness



Source: [Weiland & Yoshikawa, 2013](#). Figure shows impacts on Boston Pre-K participants' kindergarten readiness, translated into months of additional learning versus the comparison group.

# 2 Transitional Kindergarten expands early learning opportunities in Michigan

Thousands of children in multiple states attend transitional kindergarten (TK) programs, yet little is known about children's experiences in these programs nor their effects on children's learning. EPI conducted the [first-ever research](#) on Michigan TK, the second-largest TK program in the U.S. (see Figure 2 below for the program's geographic reach).

## KEY FINDINGS

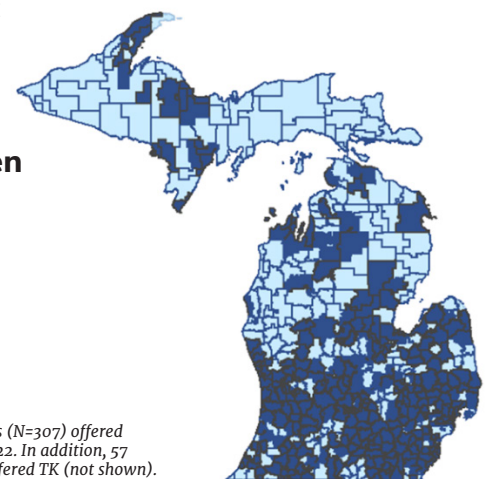
- Michigan TK is the best-funded public early learning in the state, with many research-aligned features.
- Michigan TK significantly [expanded](#) early learning options for families.
- Michigan TK has large effects on kindergarten readiness and [effects on math last](#) through the end of third grade.

These findings have been covered by media outlets such as [MSN](#) and the [Associated Press](#) and in Michigan, by [Bridge Magazine](#). Findings also have informed research and policy discussions in [Washington State](#), which has the nation's third-largest TK program.

**FUNDER:** U.S. Department of Education Institute for Education Sciences, Smith Richardson Foundation

**PARTNERS:** Michigan Department of Education, MILEAP

FIGURE 2  
Geographic reach of Michigan transitional kindergarten



Note: Dark blue districts (N=307) offered a TK program in SY21-22. In addition, 57 charter schools/PSAs offered TK (not shown).

### 3 School-based mental health support can help improve student wellbeing

Amid rising youth depression and anxiety rates, schools are uniquely positioned to identify students facing mental health challenges and provide them with the resources and support they need. YPL has been partnering with the Detroit Public Schools Community District and the [TRAILS program](#) since 2019 to identify student mental health needs, analyze trends, and assess the effectiveness of school-based cognitive behavioral therapy interventions. The project outlines a model that school districts nationwide can use to improve adolescent wellbeing so that students can focus on academic and other learning.

**KEY FINDINGS:** Over the course of our involvement, [depression and anxiety symptoms in Detroit Public Schools fell below pre-pandemic levels and well below national averages](#) (see Figure 3).

**FUNDER:** U.S. Department of Education Institute for Education Sciences

**PARTNERS:** TRAILS program, Detroit Public Schools Community District

### 4 1-on-1 tutoring improves reading skills

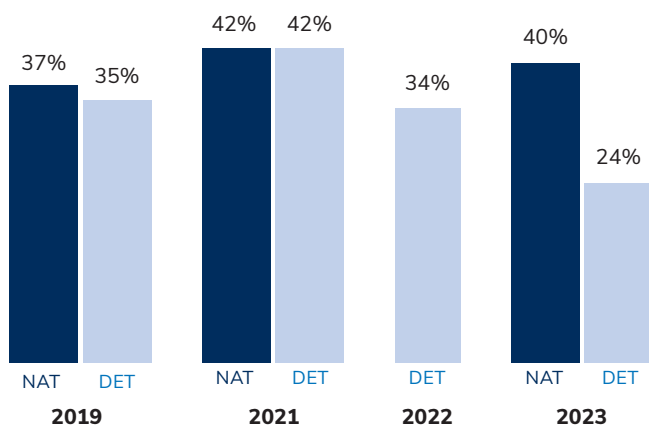
Students who struggle with reading are at risk of falling behind academically. 1-on-1 tutoring can substantially improve reading skills, setting a strong foundation for long-term educational achievement. YPL is evaluating Reading Partners, a program that supports students who need additional support in reading through in-person and online 1-on-1 tutoring provided by community volunteers.

**ONGOING WORK:** This research builds on a 2014 Reading Partners [evaluation](#) that found significant gains in literacy levels among students in 2nd through 5th grade who participated in the program. The gains translated to 1-2 months of additional reading growth (see Figure 4). The program's efficacy and [cost-efficiency](#) have gained recognition in the [New York Times](#), the first-ever [White House What Works Showcase](#), and the [Evidence First](#) podcast. The new study measures the effects of online and in-person tutoring and adds to the evidence base about the effectiveness of volunteer tutoring programs.

**FUNDER:** U.S. Department of Education, Education Innovation and Research (EIR) Grant, Arnold Ventures, Edna McConnell Clark Foundation, Social Innovation Fund

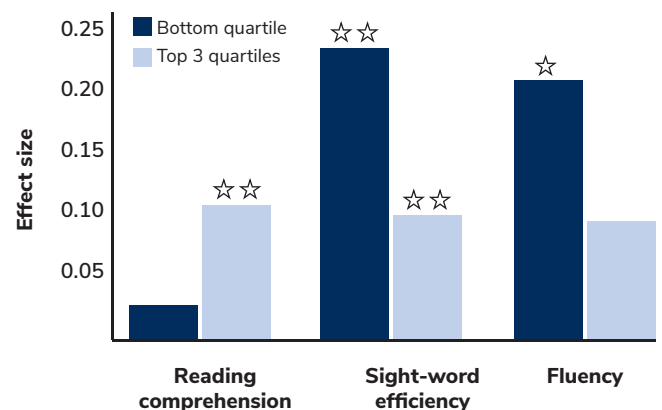
**PARTNER:** MDRC

FIGURE 3  
**Detroit Public Schools students report lower levels of depression compared to their peers nationwide**



Sources: National YRBS Data and DPSCD UWS

FIGURE 4  
**Reading Partners improves reading skills for 2nd-5th graders, especially those who struggle the most**



Sources: MDRC calculations using study-administered reading tests, student records from school districts, and Reading Partners program data.

## 5 Michigan’s Read by Third Grade Law improves reading test scores

Most U.S. fourth graders are not proficient in reading and states have struggled for decades to improve literacy on a large scale. EPI and YPL evaluated Michigan’s “Read by Third Grade” Law, which mandated reading support for struggling readers, and—controversially—required in-grade retention for third graders scoring below the fifth percentile. Nearly 40% of U.S. public-school third graders are subject to similar state retention laws.

### KEY FINDINGS

- Students flagged for retention showed modest, yet meaningful improvements in reading scores the next year (see Figure 5).
- Few students were actually retained, and similar improvements were seen in districts that did not retain any flagged students.
- Retention may be less important to literacy reforms than previously understood.

The study’s [initial findings](#) informed policymakers, who cancelled the retention component of Michigan’s law.

**FUNDER:** U.S. Department of Education Institute of Education Sciences

**PARTNERS:** EPIC at Michigan State University

## 6 Research helps increase access and participation in career and technical education

CTE prepares students with the academic, technical, and professional skills to succeed in post-secondary education and the workforce. YPL’s [analyses](#) help stakeholders understand access, barriers to participation, and alignment with local labor markets.

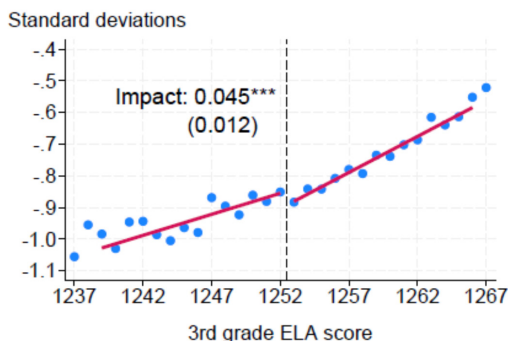
**KEY FINDINGS:** Female, Black, Hispanic, and economically disadvantaged students are less [likely to participate in CTE in Michigan](#) (see Figure 6). Race and income gaps are driven by disparities in access.

### POLICY IMPACT

- YPL’s 2021 report informed the development of Kalamazoo’s [new \\$100M countywide CTE center](#).
- The Washtenaw Intermediate School District used YPL’s 2024 analysis to guide [its CTE expansion](#).
- In the [2026 Executive Budget](#), Gov. Whitmer cited YPL’s work in calling for \$125M to allow districts to open new programs in CTE “deserts,” emphasizing programs in high-wage, high-demand fields.
- YPL continues to work with the Michigan DOE to understand the impact of early middle college CTE programs, and to help guide on credentials of value.

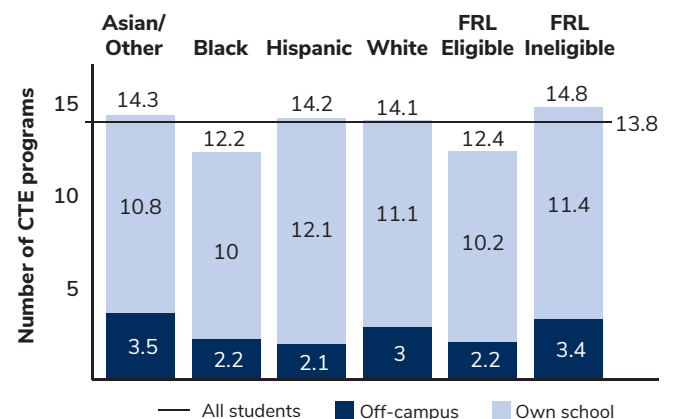
**FUNDERS:** U.S. Department of Education Institute for Education Sciences, Smith Richardson Foundation

FIGURE 5  
Impact of being flagged for retention on reading test scores in the next school year



Source: Berne et al., 2025. The figure shows that being flagged for retention in third grade improves students’ reading scores modestly, relative to not being flagged.

FIGURE 6  
CTE access varies across racial and socioeconomic groups



# 7 Multiple charter school models boost college graduation

Charter schools are an increasingly popular education option in the U.S., with over 7% of students enrolled nationwide and over 50% enrollment in cities like Detroit. But it is hard to know whether the student outcomes like test scores and college enrollment are due to the schools themselves, or because families that opt for charters are different from other families. EPI research uses charter school lottery data to [compare students in Massachusetts](#) who randomly win a seat in the lottery to those who do not (see Figure 7).

### KEY FINDINGS

- Researchers and policymakers should be wary of evaluating educational interventions solely on standardized test results.
- Both urban and nonurban charter schools boost college enrollment and graduation, despite only urban charter schools raising test scores.
- Multiple charter school models can increase college completion outcomes.
- Although higher test scores are typically correlated with positive college outcomes, this does not hold in all contexts.

**FUNDER:** City Fund, Blueprint Labs, IES grant to MA Dept. of Education

# 8 School-community collaboration improves rural youth mental health

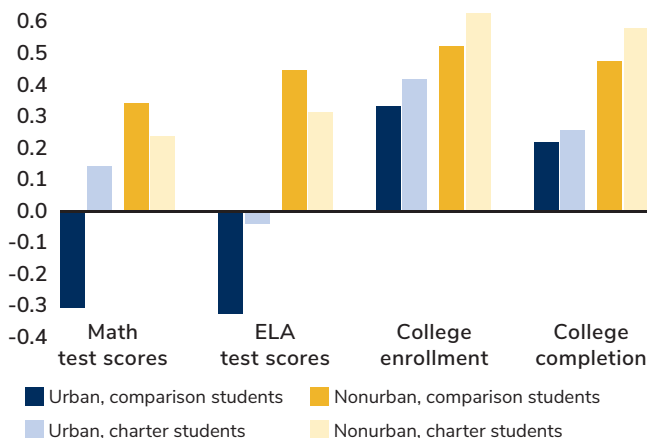
Michigan's rural communities have shortages of healthcare professionals and high rates of youth depression and suicide. Enhancing coordination between schools and community organizations is one strategy for addressing these challenges. YPL has been evaluating Project AWARE (Advancing Wellness and Resiliency in Education) in three school districts in rural Michigan to help identify effective practices for providing mental health support to students in areas that lack a robust health care infrastructure.

**KEY FINDINGS:** YPL's evaluation of Project AWARE found that participating communities substantially increased the number of students referred to and receiving mental health services (see Figure 8). Mental health-focused community gatherings have also resulted in more adults who are aware of and able to recognize and respond to youth mental health challenges. This research demonstrates that when school and community organizations coordinate to support students' access to needed mental health services, it enhances the overall provision of care.

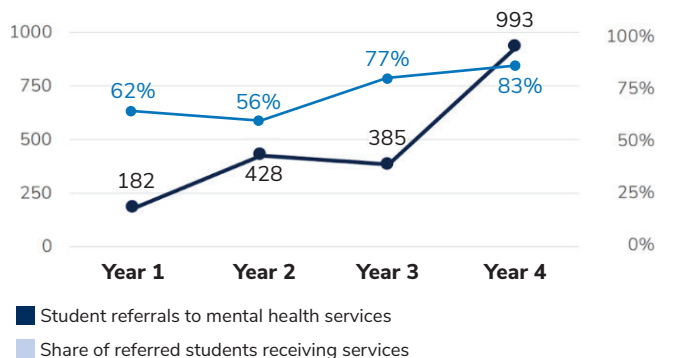
**FUNDER:** Substance Abuse and Mental Health Services Administration via Michigan Department of Education Office of Health and Nutrition Services

**PARTNERS:** Michigan Department of Education, Michigan Department of Health and Human Services

**FIGURE 7**  
Mean outcomes for admitted charter applicants who attended charters vs. comparable applicant lottery non-winners



**FIGURE 8**  
Project AWARE communities have substantially increased the number of students referred to and receiving mental health services



## 9 Educators now have knowledge to adapt and innovate following COVID

The COVID-19 pandemic drastically disrupted the functioning of U.S. public schools, potentially changing the relative appeal of alternatives such as homeschooling and private schools.

**KEY FINDINGS:** [EPI researchers were the first to provide evidence on how families make schooling decisions relative to learning being remote or in-person](#), with many families leaving public schools for homeschooling and private options (see Figure 9). A [follow-up study](#) found pandemic-driven disenrollment persisted, particularly for those that left for private schools and among higher-income families.

**POLICY IMPACT:** Research about the shifts in school enrollment help policymakers and educators plan for resource allocation, staffing, and infrastructure needs—and help adapt and innovate to meet future educational needs.

**FUNDER:** U.S. Department of Education Institute of Education Sciences

**PARTNERS:** Wheelock Educational Policy Center at Boston University

## 10 Research documents negative impacts of the Flint Water Crisis on children

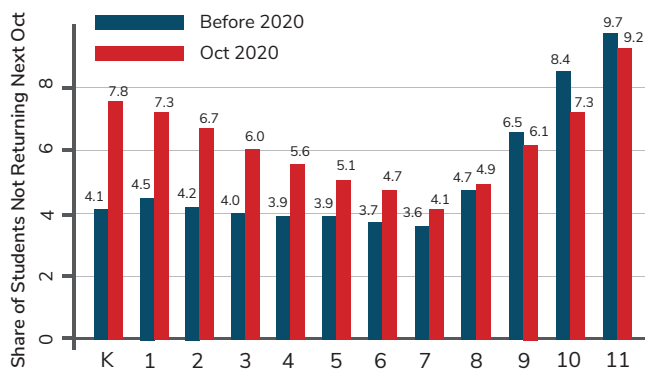
In 2014, Flint, Michigan changed its municipal water source, causing lead from aging pipes to contaminate the city’s drinking water. While the average increase in lead exposure among Flint children was modest, some children experienced high levels of exposure. Surveys revealed that Flint residents also suffered increased stress, anxiety, and depression due to the water crisis. YPL researchers used comprehensive longitudinal student education data and advanced statistical methods to analyze how this environmental disaster affected the educational outcomes of children in Flint.

### KEY FINDINGS

- The crisis led to decreases in math achievement and increases in special needs classification (see Figure 10).
- Younger students, boys, and those living in families with low-income experienced the largest effects.
- The negative effects were not simply a result of direct exposure to higher lead levels, but also reflect the social disruption and psychological distress caused by the crisis.

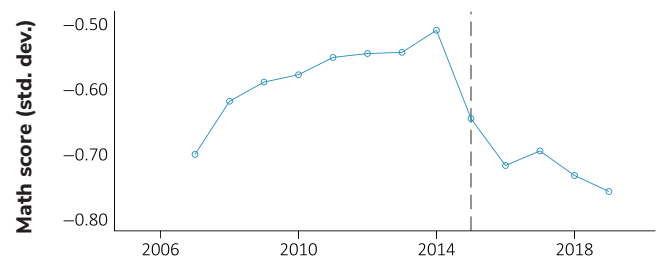
**FUNDERS:** U.S. Department of Education Institute for Education Sciences, National Science Foundation Graduate Research Fellowship Program

FIGURE 9  
**Exit rate from Michigan public schools by grade**



Note: Figure plots the share of students that were enrolled in a Michigan public school in October that were not enrolled in a Michigan public school the following October.

FIGURE 10  
**Mean math achievement outcomes in Flint**



Note: Vertical dashed line marks the time the Flint Water Crisis occurred.

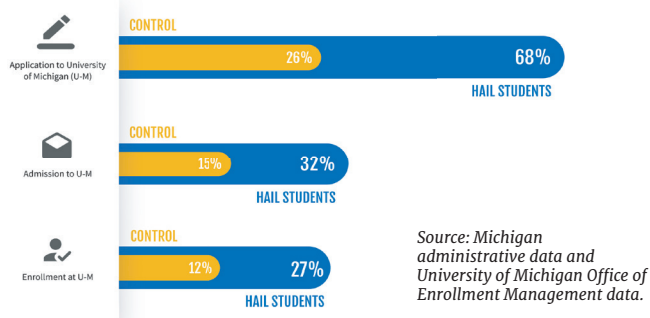
# 11 U-M tuition-free promise boosts enrollment of students from families with low incomes

Students from families with low incomes, even those with strong academic credentials, are unlikely to attend highly selective colleges. EPI researchers designed the High Achieving Involved Leaders (HAIL) scholarship program, to reach low-income, high-achieving students uncertain about attending U-M. Eligible students received a personalized mailing that encouraged them to apply, with a promise of four years of free tuition and fees if admitted—a value of about \$60,000, with no requirement to complete financial aid forms. This assurance [doubled their application, admission, and enrollment rates at U-M](#) (see Figure 11).

**KEY OUTCOMES:** The success of HAIL inspired U-M’s Go Blue Guarantee scholarship program that changed the college trajectory of thousands of low-income students in Michigan. The intervention was [widely covered by the media](#), and led to similar efforts, such as [Washington legislation](#) and West Virginia University’s [financial aid guarantee program](#).

**FUNDER:** U.S. Department of Education Institute for Education Sciences

FIGURE 11  
**Estimated effect of HAIL Scholarship on University of Michigan application, admission, and enrollment rates for 1st & 2nd cohorts**



# 12 States and regions produce talent through postsecondary investment

Nearly three-quarters of jobs over the next decade will require postsecondary education. But student enrollment is dropping and there is a common perception among many business leaders that U.S. colleges don’t prepare students for what employers need. EPI researchers examined how states and regions create a talented workforce through postsecondary investment. Companion [public data](#) has been downloaded more than 600 times and used by regional business associations, economic development agencies, and others to analyze talent mobility.

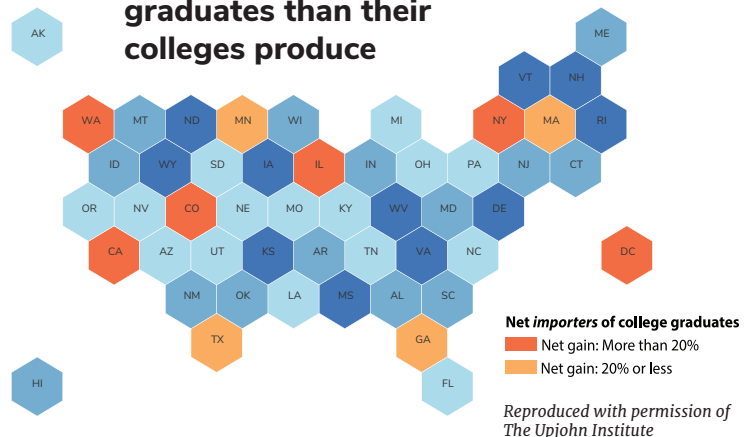
**KEY FINDINGS**

- Some [states experience “brain drain” exporting many of their college graduates, while others attract graduates from other states](#) (See Figure 12).
- The average college retains about three graduates in-state for every \$200,000 in state funds—a steal compared to the cost to create one new job.
- Students and colleges [respond to labor market demand](#); a 1% greater demand for jobs in a particular college and field leads to 1.3% greater course-taking and degrees.

**FUNDERS:** National Science Foundation, Russell Sage Foundation, U.S. Department of Education Institute of Education Sciences

**PARTNER:** Upjohn Institute, University of North Carolina

FIGURE 12  
**Only nine states import more graduates than their colleges produce**



# 13 Students are leaving financial aid on the table

Michigan aims to increase postsecondary attainment to 60% by 2030. One major hurdle to reaching that goal is college affordability. EPI is identifying ways to make Michigan's Tuition Incentive Program (TIP) more effective and accessible to students.

**KEY FINDINGS:** The [research shows](#) only 14% of eligible high school graduates and 29% of eligible community college students access TIP (see Figure 13), and that a major barrier to higher program participation is unclear information about eligibility.

**POLICY IMPACT:** These insights are guiding conversations with MiLEAP, the state agency overseeing these financial aid programs, to reform and optimize their processes. The ultimate aim is to streamline access, clarify eligibility criteria, and improve program outreach to ensure more students can afford a college degree.

**FUNDER:** U.S. Department of Education Institute for Education Sciences

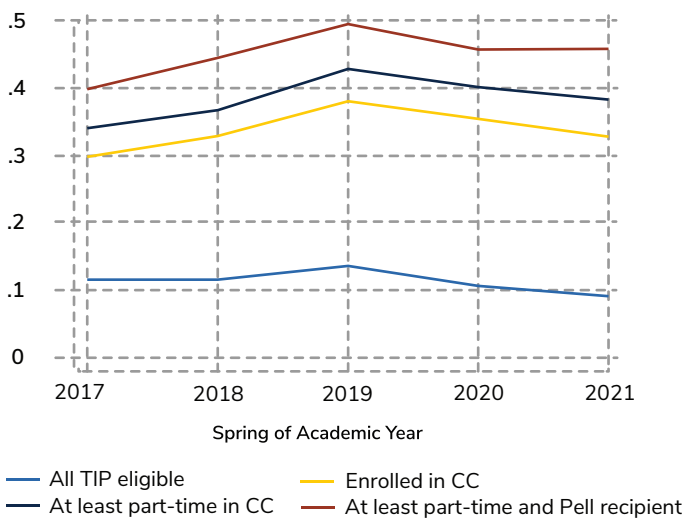
# 14 IES grants train the next generation of researchers in rigorous educational methods

EPI's training programs prepare students to design, implement, and analyze research to evaluate the causal impacts of education programs and policies in partnership with educational agencies.

**KEY OUTCOMES:** We currently are training 18 PhD students from a broad range of disciplines and interests. We have also trained 14 Postdoctoral fellows, 20 PhD graduates, and many BA/MA students. The training program underlies so much of EPI and YPL's research and other work. Our alumni have taken a range of leadership positions in states, academic and other research institutions, nonprofits, and consulting firms.

**FUNDER:** U.S. Department of Education Institute of Education Sciences

FIGURE 13  
Share of TIP-eligible students receiving TIP Phase 1 immediately after HS grad



Note: This figure reports the average take-up rate by high school graduation cohort. Rates are reported separately for four different levels of samples of students. Take-up is defined as the proportion of TIP-eligible students who receive TIP aid within one year of high school graduation.

For more information



YOUTH POLICY LAB  
UNIVERSITY OF MICHIGAN

[youthpolicylab.umich.edu](http://youthpolicylab.umich.edu)



FORD SCHOOL  
EDUCATION POLICY  
INITIATIVE  
UNIVERSITY OF MICHIGAN

[edpolicy.umich.edu](http://edpolicy.umich.edu)