

Investing in an Excellent and Equitable Education for Each and Every Child

THE INVEST IN EXCELLENCE AND EQUITY
IN AMERICAN EDUCATION ACT

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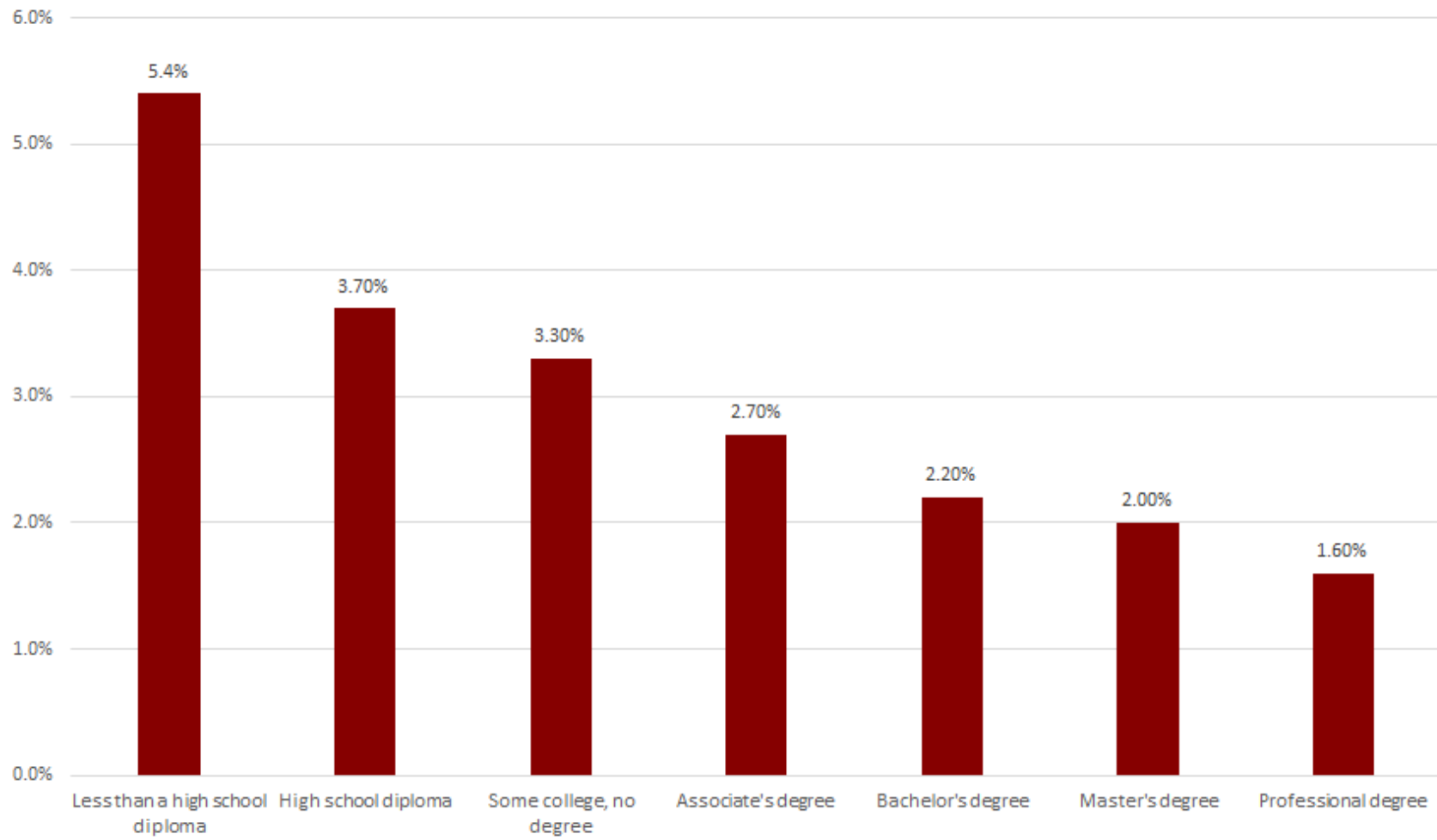
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Why Investing in a Quality Education for Each and Every Child is a National Priority

America's economic competitiveness is directly tied to ensuring every child receives a high quality, rigorous public education for one compelling reason:

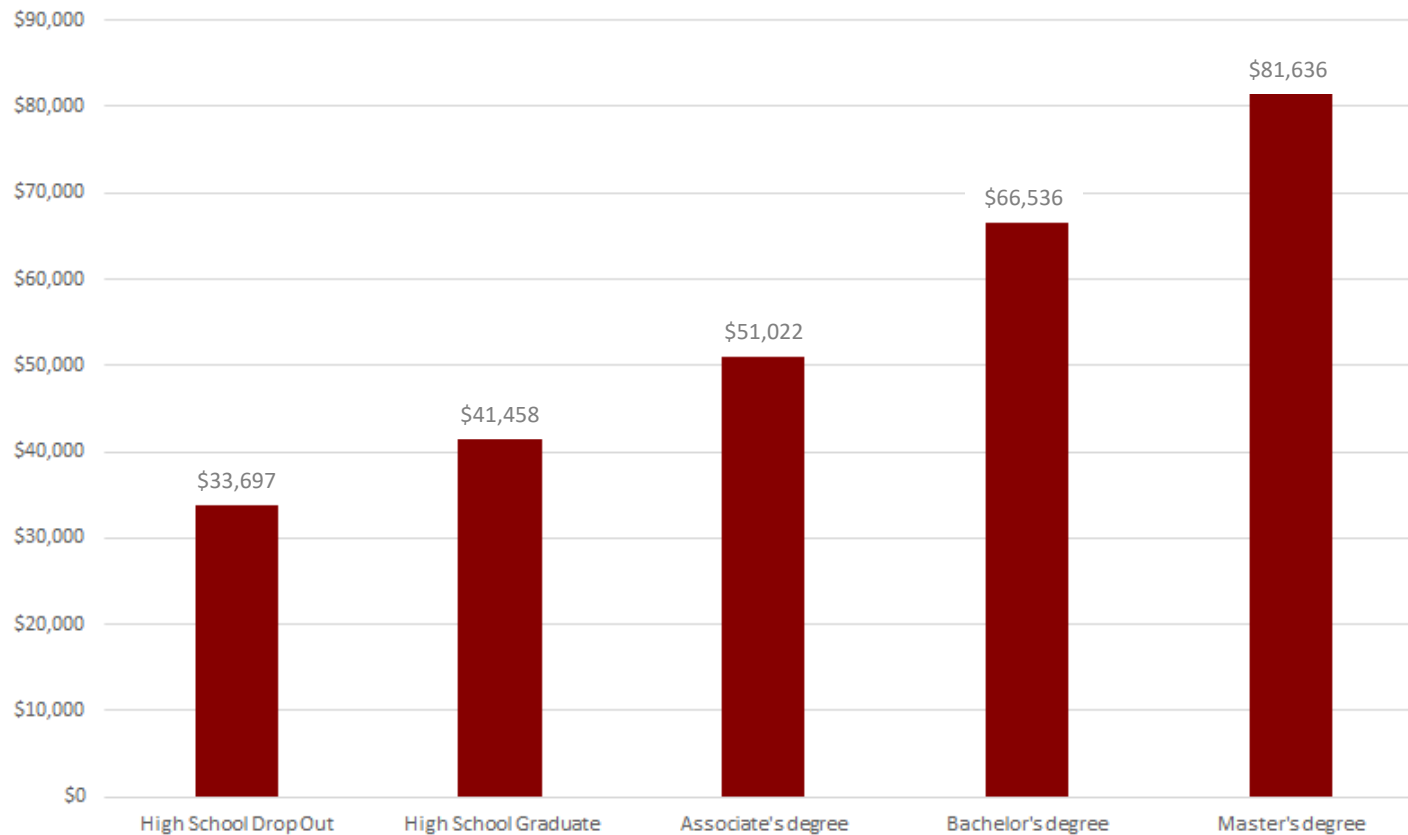
Correlations between educational attainment and economic viability have never been greater.

Unemployment Rates of U.S. Workers, by Educational Attainment, 2019



Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics

Median Annual Earnings of U.S. Workers (Age 25+) by Educational Attainment, 2019



Source: U.S. Census Bureau, Current Population Survey, 2020 Annual Social and Economic Supplement (CPS ASEC).

Education Wage Gaps Over Time

You've Got to Learn to Earn!

| Education wage gap over time | 1980 | 1990 | 2000 | 2010 | 2019 | Percentage Change |
|------------------------------|-------|-------|-------|-------|-------|-------------------|
| College/high school | 30.4% | 38.7% | 42.9% | 43.7% | 45.4% | 50.7% |
| Advanced degree/high school | 41.2% | 50.6% | 54.8% | 56.8% | 58.0% | 40.8% |

Source: Economic Policy Institute's State of Working America Data Library; Wages are adjusted into 2019 dollars by the CPI-U-RS.

Education Wage Gaps Today

- In 2019, high school dropouts on average made 25 percent less (\$10,046) in annual earnings than those with a high school degree.
- In 1979, college graduates earned 29.3 percent more than those with a high school diploma; by 2019 the gap had grown to 45.4 percent, a 16-percentage point increase.

States with the highest overall “knowledge stocks” (i.e. with the highest high school and college attainment rates) have the highest per capita personal incomes.

Source: CTBA analysis of EPI Data Library-Wages and Educational Attainment

That Creates a National Challenge Because America's current system of funding education is not:

Adequate

- to fund a quality education for each and every child

Equitable

- in how extant funding is distributed

Accountable

- to stakeholders, students or their families

Tied to Evidence

- covering those educational practices which the **research** shows enhance student achievement

This produces disparities in educational opportunity that contribute to gaps in academic achievement along income, racial and ethnic lines, and directly diminishes the nation's economic competitiveness.

There has been a bipartisan conversation going on for almost 50 years regarding the health of public education in America and what can be done to fix it.

- In 1972, the **Nixon Commission** found that funding as the greatest detriment to successful public education in America.
- Educational funding at the state level is too tied to property taxes—and rarely connected to the educational needs of children.
- Money can help solve many of the educational problems that have surfaced.
- States have the initial responsibility to reform school financing to eliminate disparities and ensure adequacy. If they don't, the feds need to step in

State funding systems today remain inadequate in amount, inequitable in distribution, and over reliant on property taxes as a revenue source.

35 states predicate K-12 funding on a per pupil “Foundation” level but...

- Rarely tie it to the actual cost needed to educate even non-at-risk children. Instead, state level fiscal capacity tends to drive K-12 funding levels.

The base Foundation amount is usually supplemented in formula:

- 35 states supplement the base amount w/ a factor for low-income students
- 27 states have a factor for ELL
- 25 states have a factor for disability
- 29 states have a factor for local property tax effort

Frequently supplemented out of formula with categories for transportation, special ed, etc

The Good News

The data show taking an evidence-based approach to investing in a quality education for each and every child will both:

1

Boost academic achievement for all students-- irrespective of income, race or ethnicity

2

Generate a return on investment that stimulates the economy making America more competitive.

Source: EPI, "A Well-Educated Workforce Is Key to State Prosperity"; Hanushek, Ruhose & Woessmann; and <https://www.cbpp.org/research/state-budget-and-tax/its-time-for-states-to-invest-in-infrastructure>

Spending Per Pupil Correlates to Wages and Income

CTBA analysis of per pupil spending in all 50 states and Washington, D.C., confirms those states that did the best job investing in K-12 education have a statistically meaningful advantage over other states in:

- 1 Median income (.746)
- 2 Mean hourly wage (.746)
- 3 Median hourly wage (.740)
- 4 Annual mean wage (.740)

Source: CTBA analysis of 2018 1) NCES spending per pupil data; 2) BEA GDP data; and 3) CPS wage by educational attainment data.

Investing Adequately in Education Pays Off

States which made the greatest investment in building the capacity of their public school system to meet the educational needs of all their children, from the poorest on up—

experienced a statistically meaningful advantage in GDP growth over states that invested less.¹

High-investing states also had greater increases in worker wages over a period of 30 years.²

1. Source: Noah Berger and Peter Fisher, *A Well-Educated Workforce is Key to State Prosperity*
2. Source: Michelle T. Bensi, David C. Black, and Michael R. Dowd. "The Education/Growth Relationship Evidence from Reach State Panel Data." *Contemporary Economic Policy* 22, no. 2 (April 22, 2004): 297.

Investing in Education Pays Off

Examples include Massachusetts, which realized “dramatic” economic gains after making enhanced investment in better schools (*Source: Hanushek*)

According to Moody’s Analytics Economists Mark Zandi and Alan Binder, the impact of an additional dollar of infrastructure spending on GDP growth is estimated to be \$1.60, meaning for every \$1 of infrastructure investments in schools, the economy could realize a growth of an additional \$1.60.

Source: EPI, “A Well-Educated Workforce Is Key to State Prosperity”; Hanushek, Ruhose & Woesmana; and <https://www.cbpp.org/research/state-budget-and-tax/its-time-for-states-to-invest-in-infrastructure>

All the data Confirm: Investing in Education Pays Off Economically for All

The Federal Reserve of Cleveland found that differences in personal income between states could be explained in large part by differences in educational attainment.

Findings include states that had a greater percentage of their population attaining a high school diploma, also had 1.5% higher per capita income.

Source: Connaughton, John & Madsen, Ronald. (2004). Explaining Per Capita Personal Income Differences between States. The Review of regional studies. 34.; and <https://research.stlouisfed.org/publications/page1-econ/2017/01/03/education-income-and-wealth/>

To Generate These Outcomes, America First Has to Face Reality

Public Education in the US is not as **Broken**, so much as it is under-resourced to educate each and every child.

Learning From Test Scores

Federal Equity and Excellence Commission looked at:

The International Benchmark:

Combined PISA (Reading, Math, Science, Critical Thinking)

Overall, U.S. schools scored a middling 500 with the OECD average @ 493

Reality Check #1

Adjusting for poverty

1 U.S. schools w/ 0-10% poverty scored 551, best in the world (Finland was 2nd @ 536)

2 U.S. schools w/ 10-24.9% poverty scored 527, top in the world for similar profiles (Canada was 2nd @ 524 and 4th overall)

Poverty And Test Scores

U.S. scores did not start to drop significantly
until poverty got over 25%

That's a concern because...

Poverty And Public Education in America

1

U.S. Poverty Rate for school age children is more than double the OECD average—and higher than most advanced industrial nations in Europe, North America or Asia

2

A majority, 52.6 percent, of public-school children in America were low income in 2017-2018

3

As a region, southern states have the greatest % of total student population represented by low-income children—58%--or roughly 9.869 million children

4

Mississippi had the highest concentration at 74.5%, but populous states like California (60.1%), New York (54.8%), Texas (58.7%), Florida (57.3%), Georgia (60.9%), and North Carolina (55.9%) all had low-income concentrations well over 50%

5

In large urban districts, poverty can be very high—Chicago Public Schools is over 74 % while LA is at 80%. Meanwhile, 48.3% of students in rural communities attend public schools that have low-income concentrations above 51%, and fully 83.7% attend schools with low-income concentration above 26%.

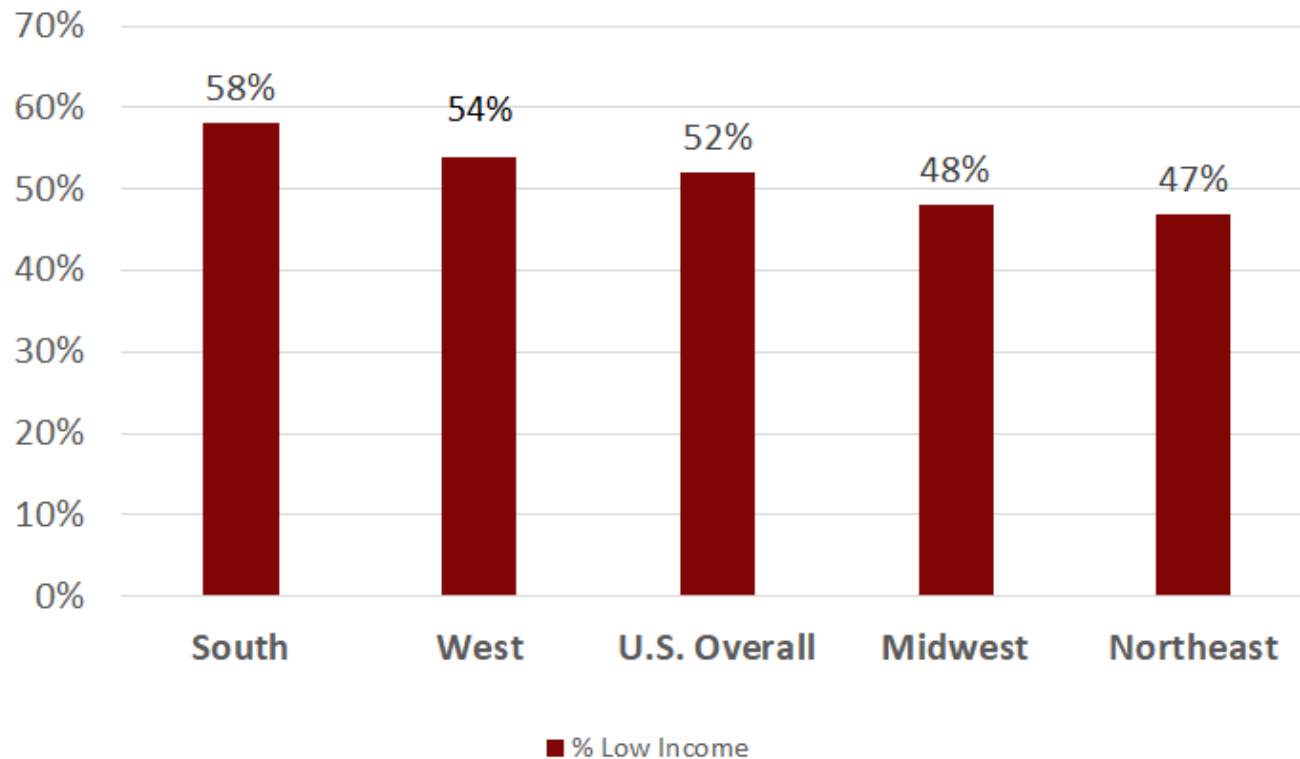
Income & Racial / Ethnic Divides

Students Attending Schools with Low-Income Concentrations of over 50% in 2017-2018

- 73% of all African American Children
- 74% of all Latino Children
- 35% of all Asian/Pacific Islander Children
- 31% of all White Children
- Achievement GAP between children from high- and low-income families is 30%-40% worse among children born in 2001 than those born 25 years earlier.

Percentage of Low Income Public School Students by U.S. Region: 2017-2018

NCES Data: US Overall 52.6%



The Data Confirm the Core Issues Remain:

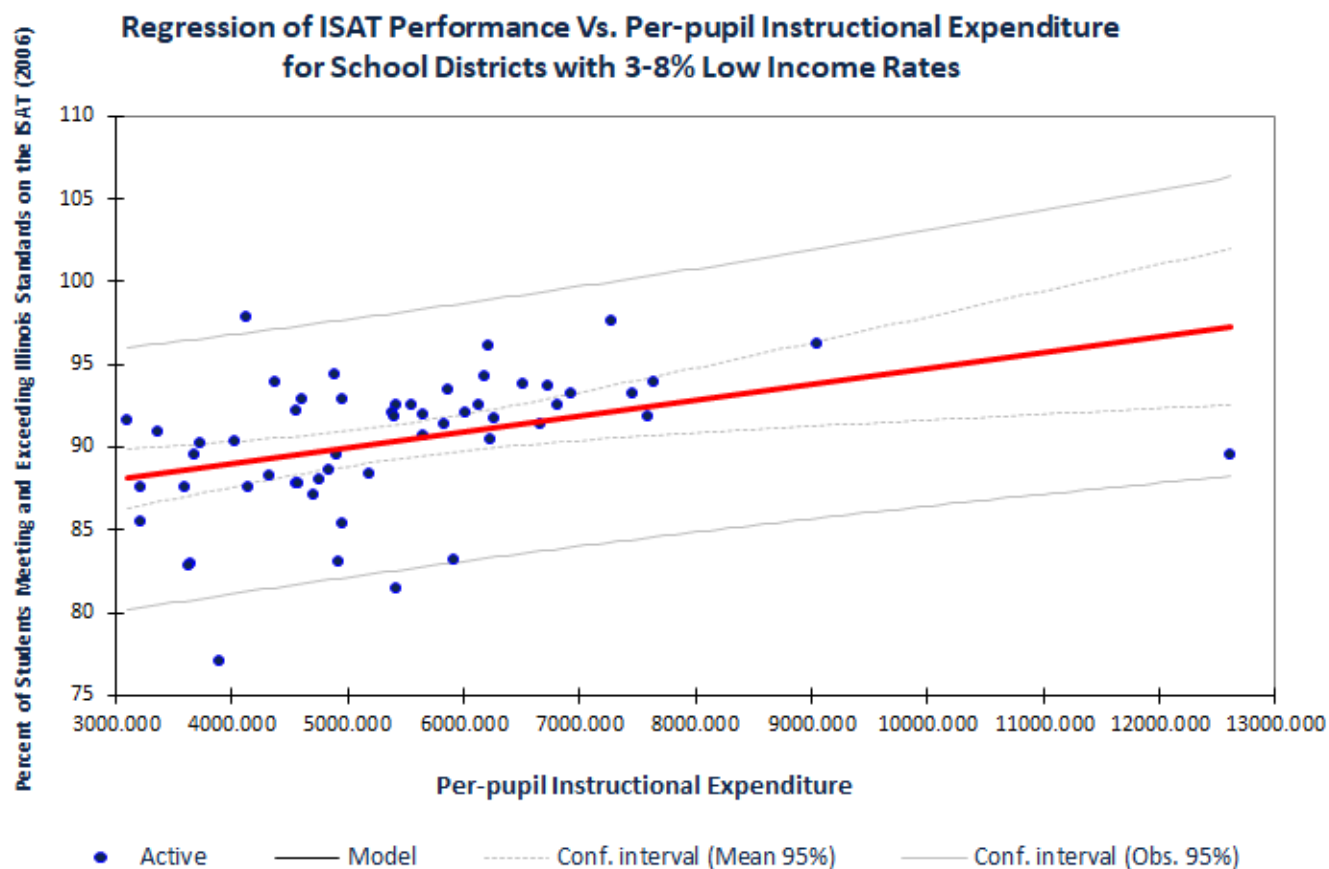
Insufficient Resources

&

Inequitably Distributed

\$ Does Appear to Matter

Example: Illinois

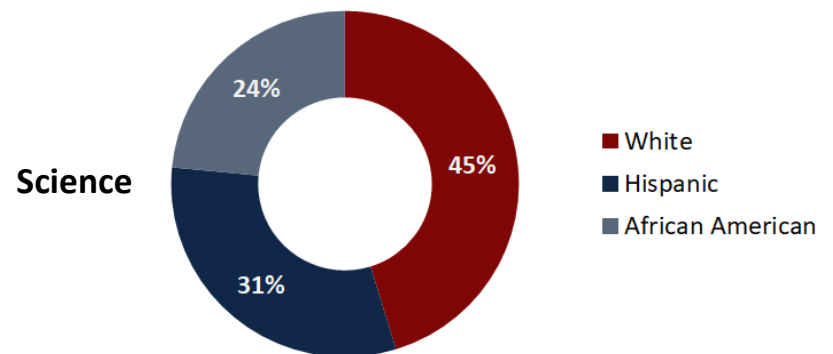
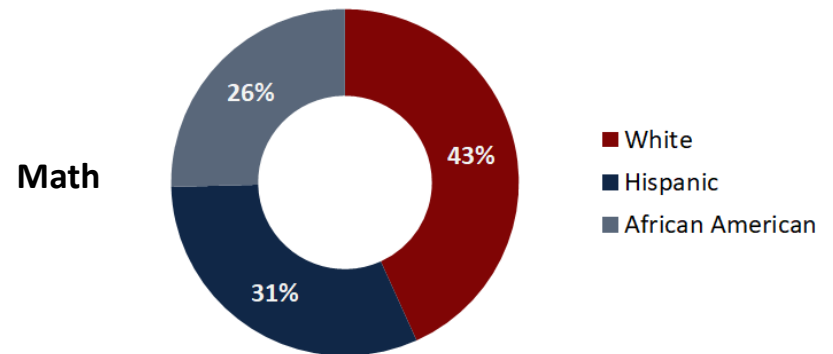
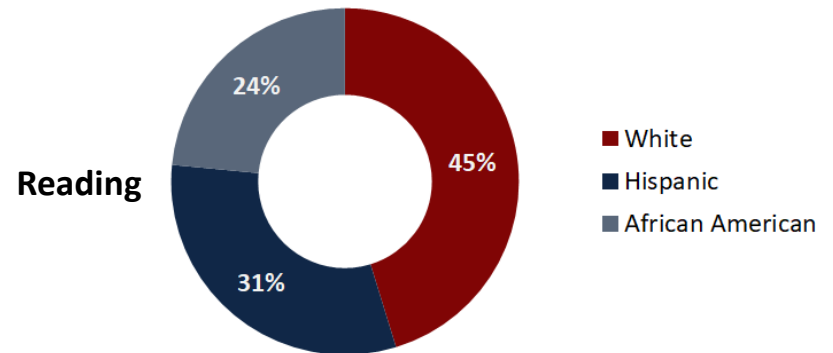


**Linear regression is a statistical analysis that shows the correlation of two or more variables, in this case, how per-pupil expenditures correspond to ISAT test scores. The regression line (heavy red) represents the predicted test score results a school district should obtain, given a specific level of instructional expenditure.*

\$6,000 in 2006 \$ is the equivalent to about \$8,500 in 2021 \$. Since 2006, inflation using ECI has increased by approximately 40%.

2019 National Assessment of Educational Progress

8th Grade NAEP Percent At or Above Basic Achievement



The Solution—Build Capacity Nationwide with the “Invest in Excellence and Equity Act”.

Ties new federal investments in education to those evidence based best practices the research shows enhance student achievement in the classroom.

1

Adjusts this evidence-based funding level predicated on the needs of each district’s unique student body. The greater the student need, the greater the funding level.

2

Invests new federal dollars in the neediest districts across America —i.e. those furthest from having the \$ the evidence indicates is required to educate the students they serve.

3

Equitably builds the capacity of public schools which serve low-income students generally, and minority students specifically, ensuring students attending traditionally underfunded schools receive a meaningful educational opportunity.

4

Economic Accountability is Built into this Bill

The Bill is also accountable to taxpayers because it limits the total amount of public funding a school district can receive to the amount needed to cover the cost of implementing those evidenced-based educational practices that work, and not a penny more

The Invest in Excellence and Equity Act Has Three Core Provisions:

1

Equity and Excellence Initiative, creates a federal matching grant program to co-invest with the states that elect to increase their per pupil funding in those “Targeted Schools” that have less than 75% of the resources the evidence indicates they need to educate the children they serve.

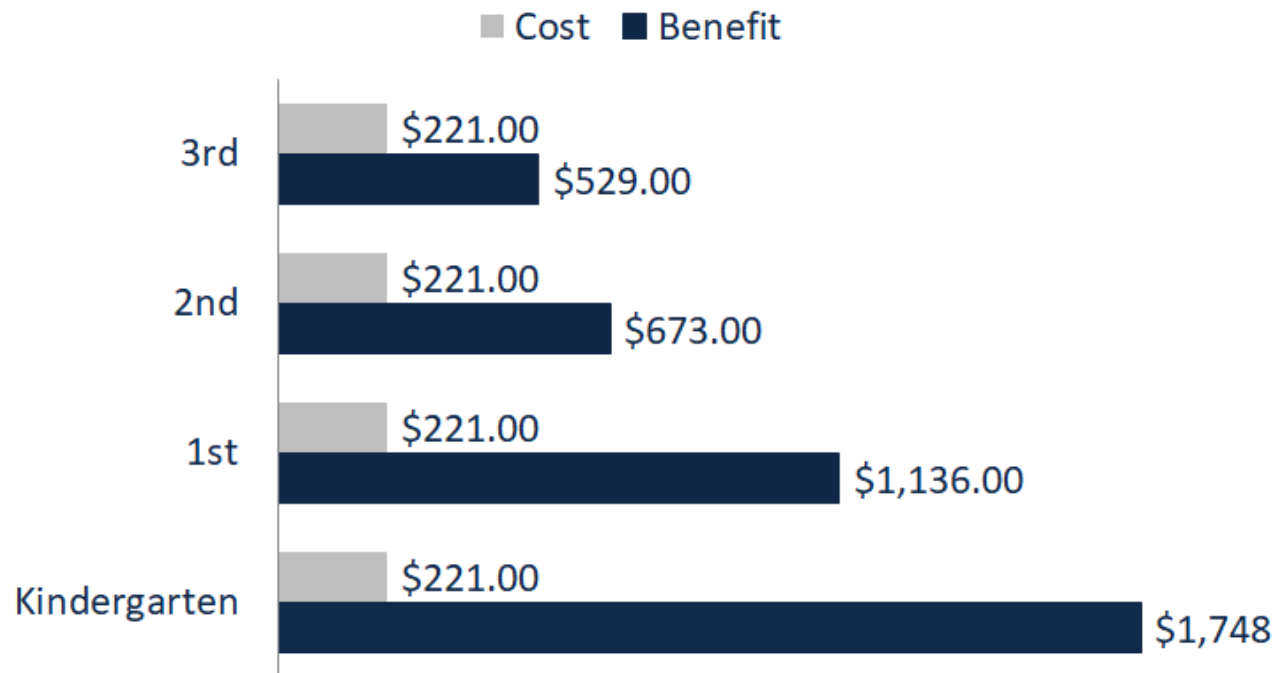
2

Educating Each and Every Child Initiative, empowers the DOE to make grants directly to Targeted Schools furthest away from having the resources the evidence indicates they need to educate the students they serve.

3

Facilities Modernization Initiative, which creates a federal grant program to assist Targeted Schools in making capital investments needed either to modernize existing or construct new school buildings, so that all such facilities are safe, modern, environmentally friendly, capable of housing current and future technologies, and create an atmosphere that promotes learning.

Net ROI of Reducing Class Size by One Student



Source: *Washington State Institute for Public Policy*

ROI in the Form of Reduced Societal Costs

- Research demonstrates that high school graduation reduces criminal activity.
- Nationally, a 1 percent reduction in the male dropout rate would save as much as **\$1.4 billion** per year in reduced correctional costs, or about **\$2,100** per additional high school graduate in 2005, which would be about **\$3,000** in 2021 dollars.
- Across the United States, the smoking duration rate for individuals with a high school education is more than twice as many years as those with a college degree
- Those with more education are more likely to exercise and have lower rates of alcohol consumption, which helps, in part, explain why college graduates had reduced risks of premature death.

Source: Enrico Moretti, Does Education Reduce Participation in Criminal Activities?”, CTBA adjusted for inflation ;CDC Tobacco-related disparities; U.S. Dep. of Health and Human Services, DPHH, Social Determinants of Health

Making These New, Evidenced-Based Investments will Generate an ROI:

\$50trillion

1

The Federal Equity and Excellence Commission found that **eliminating the achievement gap** between white students on the one hand, and **African-American and Hispanic students** on the other, would **add "some \$50 trillion to our economy" over the next 80 years.**¹

\$6.6 billion

2

Simply achieving a 90% graduation rate for students of color would add in as much as \$6.6 billion annual earnings to the U.S. economy.¹

\$70 trillion

Higher skilled students would **improve** GDP over the next 80 years in present value of \$70 trillion.

3

If American students performed comparable to higher-scoring students from other nations (e.g. Canada) in math (scoring approximately 40 points higher on the Programme for International Student Assessment):²

Source: 1. U.S. Department of Education, *For Each and Every Child—A Strategy for Education Equity and Excellence*, (Washington, D.C.: 2013), 13.
2. Hanushek, Ruhose & Woessmann; Read new Hanushek

Potential ROI From Enhancing College Graduation

1

If the U.S. were to increase the *percentage of people* who have a college degree from its current rate of 36.4 percent to the 40 percent rate attained by the state of New Hampshire: the number of college graduates in the U.S. would grow by **3,151,071**, and those new college graduates would earn **\$172** billion more in wages annually.

2

If the U.S. were to increase its high school graduation rate to 90 percent and its percent of people who have a college degree to 40 percent, the total increase in wages would approach **\$180** billion annually.

Source National Science Board. "Bachelor's Degree Holders among Individuals 25–44 Years Old." Science and Engineering Indicators: State Indicators. Alexandria, VA: National Science Foundation. <https://nces.nsf.gov/indicators/states/indicator/bachelors-degree-holders-per-25-44-year-olds>. Accessed on [February 17, 2021].:

Appendix

ROI Continued: Potential Annual Increase in Wages and Societal Cost Savings if High School Dropout Rate is Reduced

| | Increase in Wages (annual) | Annual Savings in Societal Costs¹ |
|---------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------|
| Reduce the Dropout Rate by One Percentage Point (2019) | \$616,486,12 | \$495,502,022 |

¹savings in a year calculated by using lifetime aggregate savings and dividing average life expectancy less eighteen (the years in high school)

Source: CTBA analysis of Table 502.30. Median annual earnings of full-time year-round workers 25 to 34 years old and full-time year-round; Table 219.57 Among 15- to 24-year-olds enrolled in grades 10 through 12, percentage who dropped out (event dropout rate), and number and percentage distribution of 15- to 24-year-olds in grades 10 through 12, by selected characteristics: Selected years, 2008 through 2018; and <https://nces.ed.gov/programs/dropout/intro.asp>

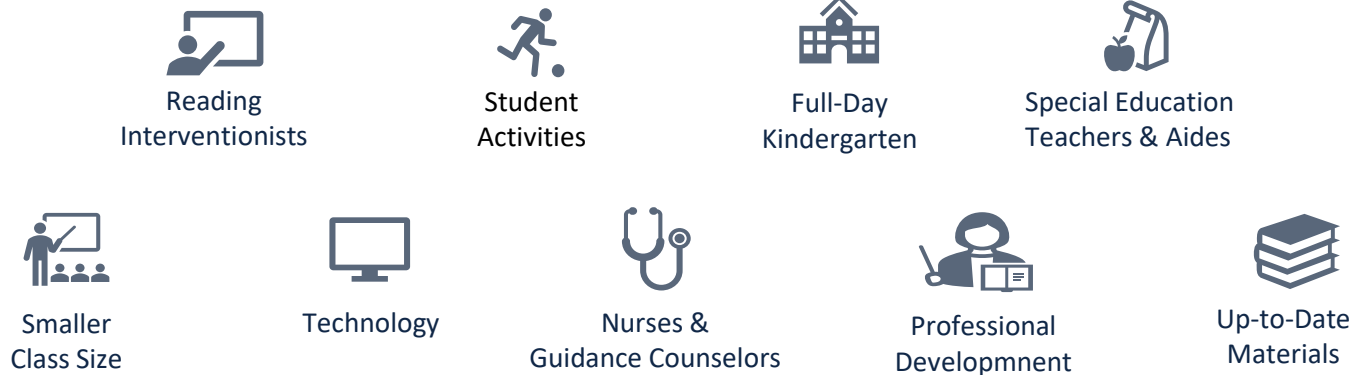
Potential ROI From Investments That Increase High School and College Graduation Rates

| Action | Estimated Increase in Wages | Estimated Increase in Graduates |
|-------------------------------------------------------------|-----------------------------|---------------------------------|
| Increasing National HS Graduation Rate from 85% to 90% | \$7.516 Billion | 215,502 |
| Increasing National College Graduation Rate from 62% to 70% | \$13.979 Billion | 255,567 |

Source: CTBA analysis of Table 502.30. Median annual earnings of full-time year-round workers 25 to 34 years old and full-time year-round; Table 219.57 Among 15- to 24-year-olds enrolled in grades 10 through 12, percentage who dropped out (event dropout rate), and number and percentage distribution of 15- to 24-year-olds in grades 10 through 12, by selected characteristics: Selected years, 2008 through 2018; and [High School Graduation rates](#); [College Graduation Rates](#)

Step 1

How it Works: Costing out evidence based educational practices



Step 2

Adjust these costs based on the specific demographics of individual districts



Step 3

Adjust salary-based elements for regional wage differences

= DISTRICT ADEQUACY TARGET

Effect Sizes of Practices

| Recommended Strategy | Effect Size |
|-----------------------------------------------------------------|--------------|
| Full Day Kindergarten | 0.77 |
| Class Size of 15 in Grades K-3 | |
| Overall | 0.25 |
| Low Income and Minority Students | 0.50 |
| Multi-age Classrooms | |
| Multi-grade Classrooms | -0.1 to 0.0 |
| Multi-age Classrooms | 0.0 to 0.50 |
| Professional Development with Classroom Instructional Coaches | 1.25 to 2.70 |
| Tutoring with Tier 2 Intervention Teachers, 1-1 and small group | 0.4 to 2.5 |
| English Language Learners Direct Intervention Support | 0.45 |
| Structured Academic Focused Summer School | 0.45 |
| Embedded Technology | 0.30 to 0.38 |
| Gifted and Talented | |
| Accelerated Instruction or Grade Skipping | 0.5 to 1.0 |
| Enrichment Programs | 0.4 to 0.7 |

Demographic Adjustments

1

Tier 2 and 3 Intervention Teachers

- 1FTE/125 DHS and EL Students (Duplicate Count)

2

Additional Pupil Support Teachers

- 1FTE/125 DHS and EL Students (Duplicate Count)

3

Extended Day Programs

- 1FTE/120 DHS and EL Students (Duplicate Count)

4

Academic Summer School

- 1FTE/120 DHS and EL Students (Duplicate Count)

That All Leads To:

1

Percent Of Adequacy

% = State & Local

Funding Adequacy Target

2

Allows districts to be prioritized for new funding based on the evidence of how much \$ they actually need



Thank You!

Center for Tax & Budget Accountability

