

Legislative Briefing on the Assessment of Delaware Public School Funding by the American Institutes of Research

March 7, 2024

Agenda

1. Welcome
2. Review Agenda
3. Committees' Roll
4. Introduce Speakers
 - a. **Drew Atchison, Senior Researcher, American Institutes of Research** (in person)
 - Findings and Recommendations: [Assessment of Delaware Public School Funding](#) December 2023
 - State Comparisons: performance and level of investment
 - Q&A
 - b. **Bruce Baker, Professor and Chair of the Department of Teaching and Learning, University of Miami** (via Zoom)
 - Impacts of investments
 - Flexibility
 - Q&A
 - c. **Kenneth Shores, Assistant Professor, University of Delaware** (in person)
 - Impacts in states that invest more in student-based systems
 - Q&A
 - d. Discussion with panel on next steps for Delaware
5. Next Steps and Closing Comments



Drew Atchison

Senior Researcher

American Institutes of Research

Assessment of Delaware Public School Funding

Recommendations

Independent Assessment of Delaware Public School Funding

- Study was a requirement from a 2020 legal settlement between plaintiffs and the state.
- July 2022, AIR was hired to conduct a comprehensive assessment of Delaware's current public education funding system and provide recommendations for improvement.
- Our charge, as outlined in the request for proposals:
 - Conduct comparative analysis to other states
 - Fully research and understand existing funding structure
 - Evaluate revenue and spending in a variety of ways to highlight existing disparities
 - Present recommendations for future improvements that may result in improved funding equity with a focus on improving outcomes for all students – including recommended funding levels.

education.delaware.gov/community/data/reports/assessment-of-delaware-public-school-funding/

Emphasis of The Study

- **Adequacy**

- Are current funding/spending levels sufficient to meet the state's educational goals?
- How should funding be distributed across districts and schools to provide equal educational opportunity?

- **Equity and Wealth Neutrality**

- How is existing school funding/spending distributed with respect to student needs (e.g., low-income status, English learner status, disability status)?
- To what extent are school funding levels dependent on local revenue capacity?

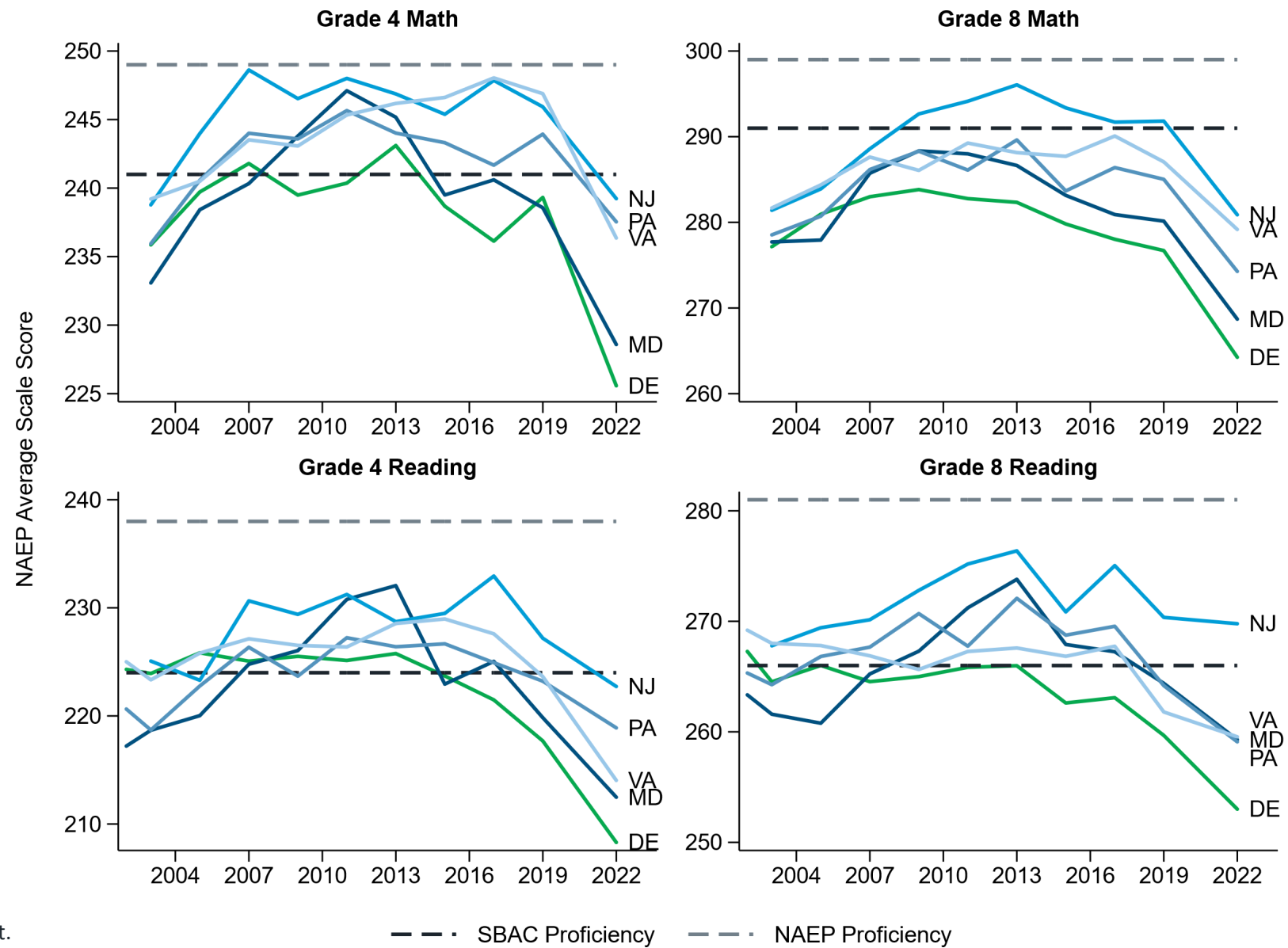
- **Transparency, Flexibility, and Stability**

- Are funding mechanisms easy to understand and are funding amounts easily calculable?
- Is funding provided in a way that allows districts and schools flexibility in how to use it?
- Are funding amounts stable over time and predictable, allowing for long-term planning?

Recommendations

1. Increase investment in Delaware's public education

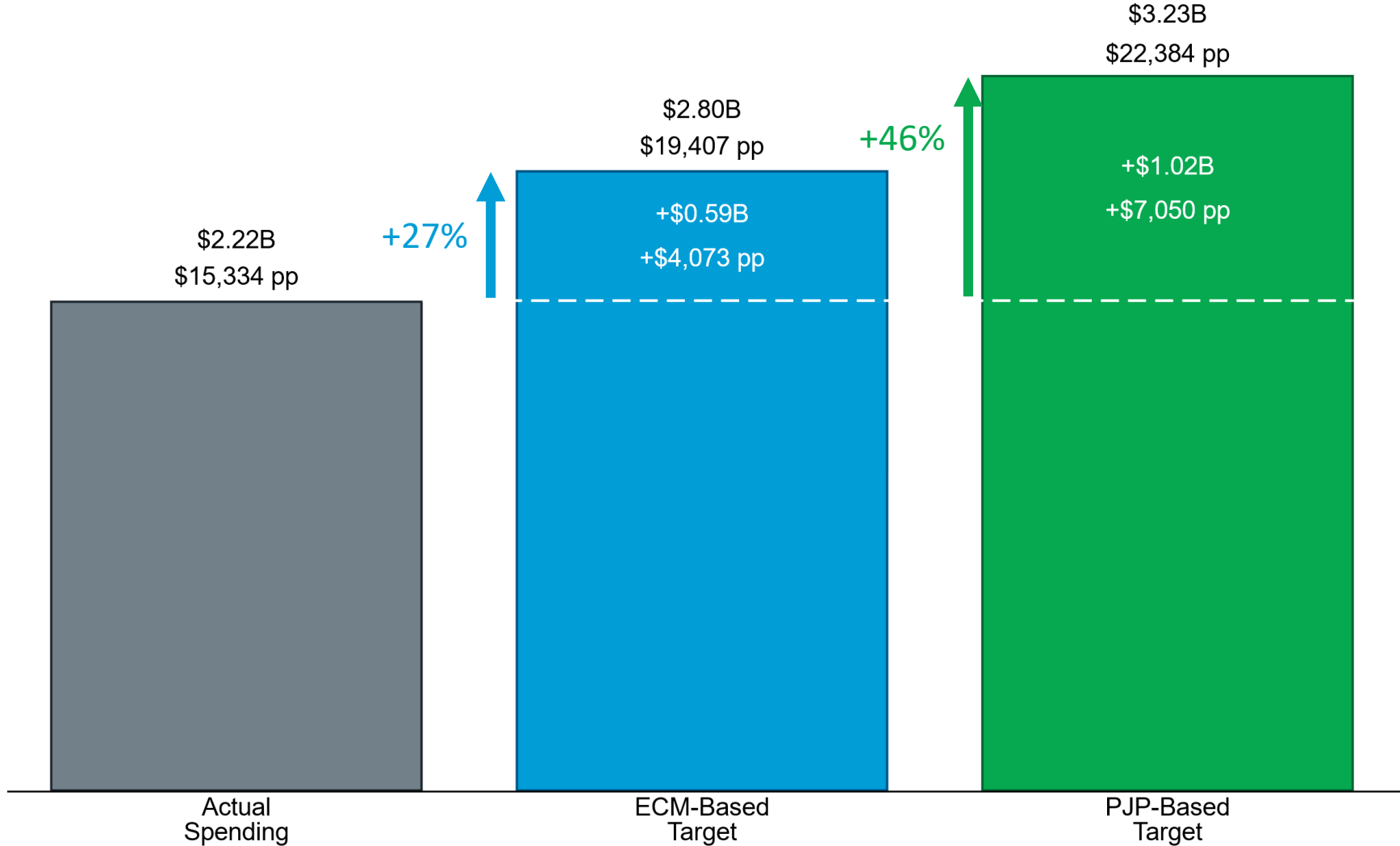
Delaware's performance on NAEP lags neighboring states and is in decline



Note: Exhibit 9 in main report.



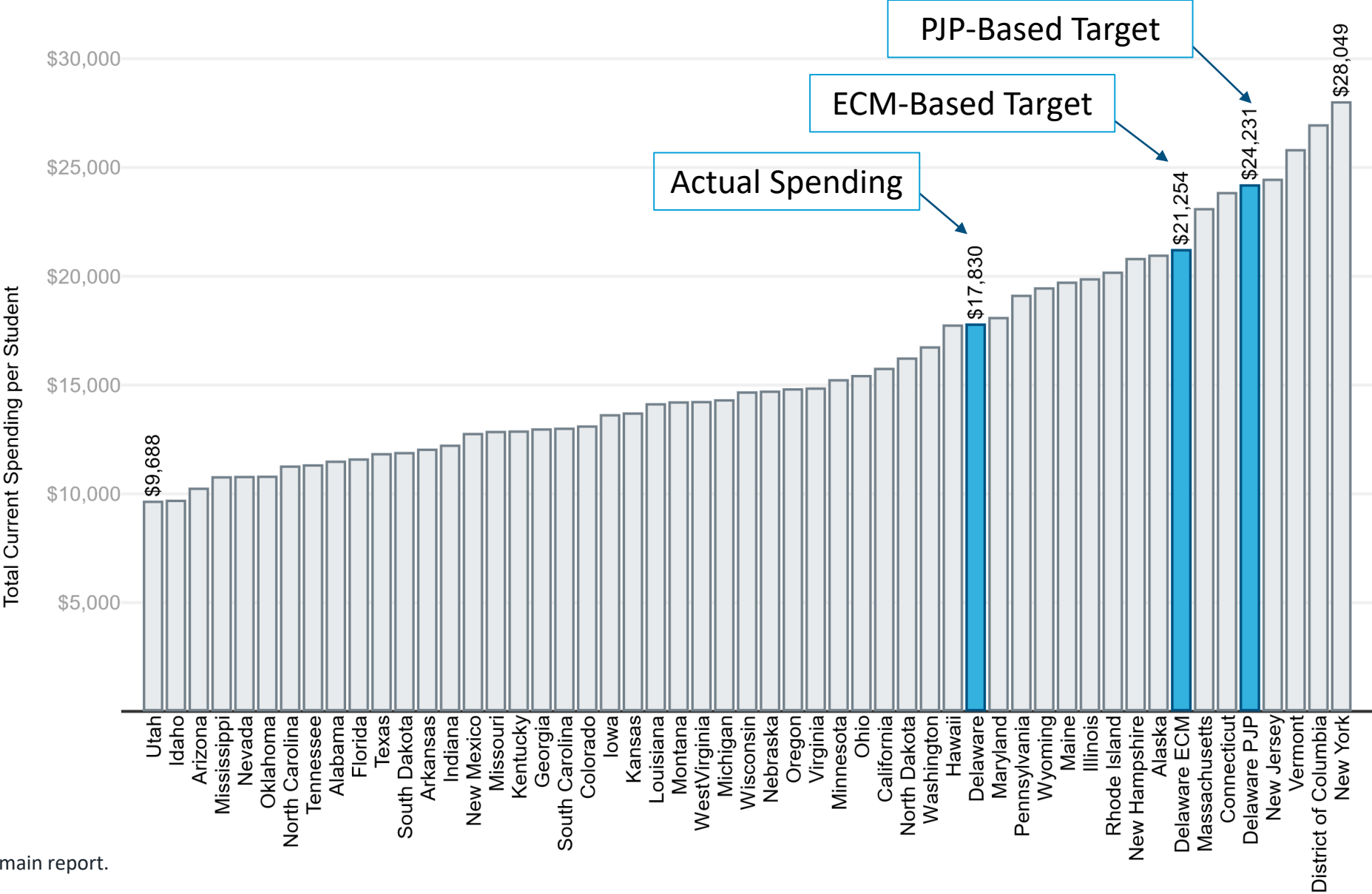
The Education Cost Model and Professional Judgment Panel adequacy analyses suggest a need to spend an additional \$590 million (27%) to \$1 billion (46%) on public education to meet the state’s educational goals.



Note: Data from 2022. Exhibit 67 in main report.



The amounts suggested by the two adequacy analyses are attainable. Several states already spend at rates higher than what was suggested by the analyses.



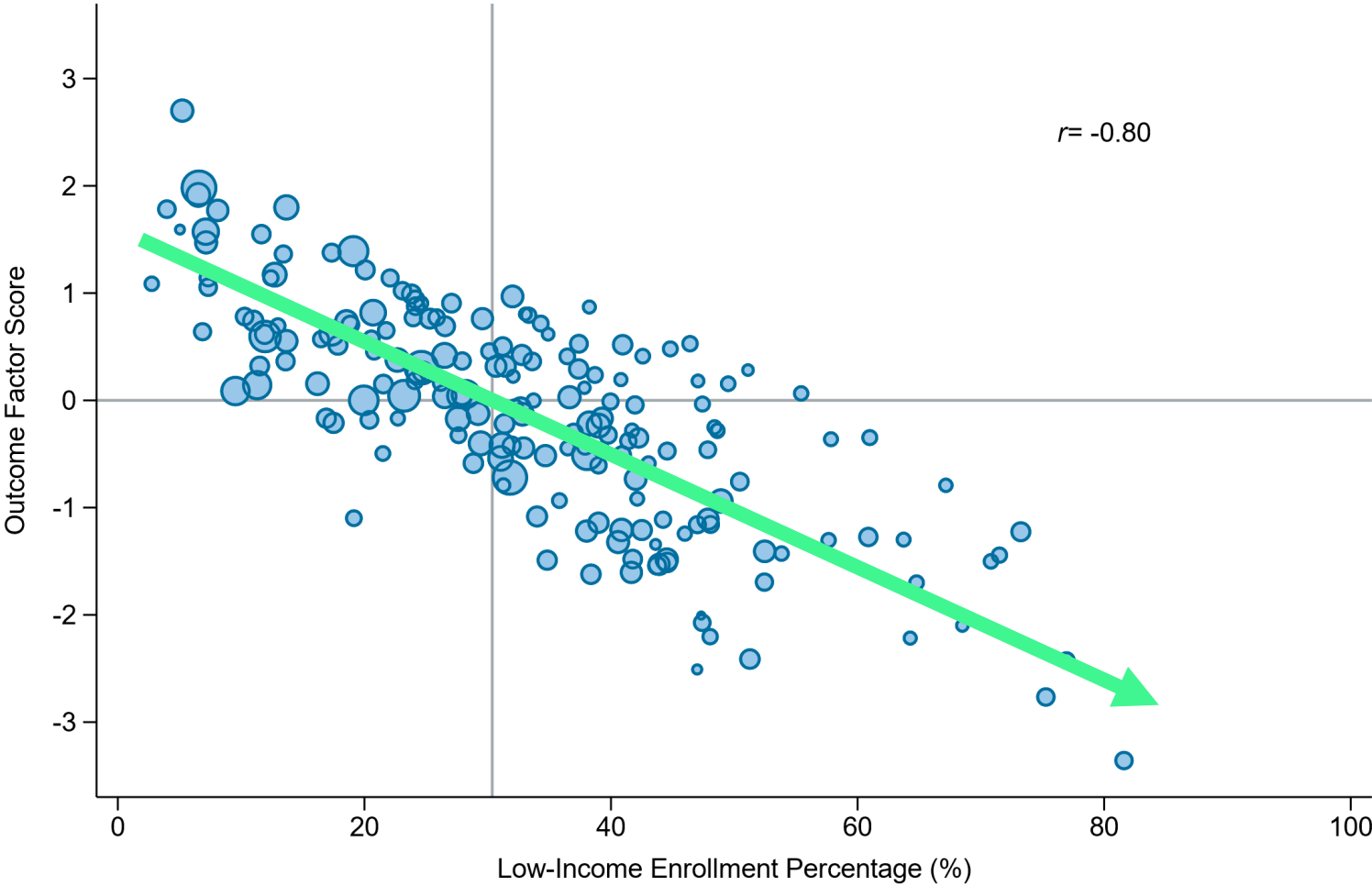
Note: Exhibit 78 in main report.



Recommendations

1. Increase investment in Delaware's public education
2. Distribute more resources according to student need

Student outcomes are systematically lower in schools with higher percentages of low-income students

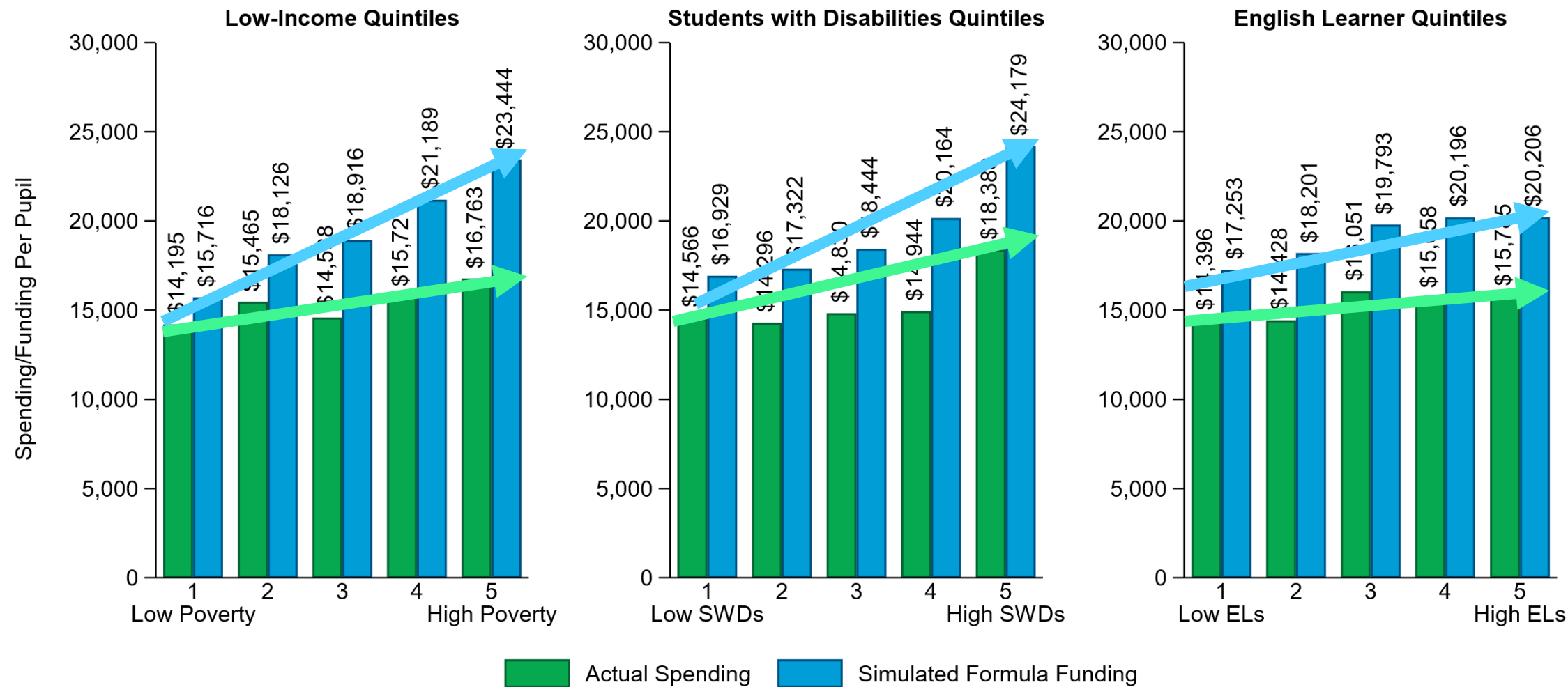


Schools with higher percentages of SWDs and ELs also tend to have lower outcomes.

Note: Data from 2022. Exhibit 9 in main report.



Both the ECM and PJP adequacy analyses suggest a need to distribute funding more strongly based on student need.



Note: Results from ECM analysis. Data from 2022. Exhibit 53 in main report. Exhibit 64 in the main report shows the comparable results for the PJP analysis.



Recommendations

1. Increase investment in Delaware's public education
2. Distribute more resources according to student need
3. Improve funding transparency

- The presence of many formulas that allocate different resources and pots of money along with the uncertain translation of a unit into a funding amount creates a system in which understanding the sum of resources and funding that flow to schools and districts difficult, if not impossible, for most.
- Increased transparency will bring more people to the table and allow for families, community members, and other stakeholders to be more effective advocates.

Recommendations

1. Increase investment in Delaware's public education
2. Distribute more resources according to student need
3. Improve funding transparency
4. Allow for more flexibility in how districts use resources

- In most state funding systems, dollars are allocated to districts largely as **general funding, which districts can then decide how to use.**
- **Delaware's unit system allocates positions with the expectation that positions are used how they are allocated.**
- **Delaware administrators noted that requirements to use dollars in certain ways added burden and reduced efficiency.**
- **Flexibility, in theory, should result in more effective use of resources that better meet the varied needs of students across schools and districts.**

Recommendations

1. Increase investment in Delaware's public education
 2. Distribute more resources according to student need
 3. Improve funding transparency
 4. Allow for more flexibility in how districts use resources
 5. Account for local capacity and address tax inequity
- **In large part, Delaware's state funding system allocates state resources in a way that is independent of the ability of districts to raise revenue locally.**
 - **Equalization funding is outdated and insufficient.**
 - **Most states account for local capacity through a varying local share, where an overall spending/funding target is set, and then districts with higher local capacity are expected to fund a higher percentage of the overall target (more on this to follow).**

Equalization funding has not been updated for over a decade and was described by district administrators as “broken,” “flawed,” and “outdated.”

We're not able to pay our teachers as hefty a salary as other districts who have a better source [of local revenue]. The real estate property values are much higher, they have more property in their district that they can tax. So, we're at a disadvantage. We're also in an economically depressed area, in addition to that. You mentioned the equalization formula; that's been frozen since 2009. It's outdated; it's not functioning correctly. So that's where, when you want to talk about equity and funding, I mean, that's the heart of it right there—there is no equity in the funding anymore.

– District administrator

Recommendations

1. Increase investment in Delaware's public education
2. Distribute more resources according to student need
3. Improve funding transparency
4. Allow for more flexibility in how districts use resources
5. Account for local capacity and address tax inequity
6. Regularly reassess property values

PROGRESS UNDERWAY

- **Because assessed property values are outdated and perceived to be inaccurate, they undermine trust in any approach attempting to address differences in local capacity.**
- **The fact that assessed property does not increase over time also strains the ability of local revenue to keep up with increased costs. This means that tax rates must continually increase – exacerbating issues related to the referendum requirement.**

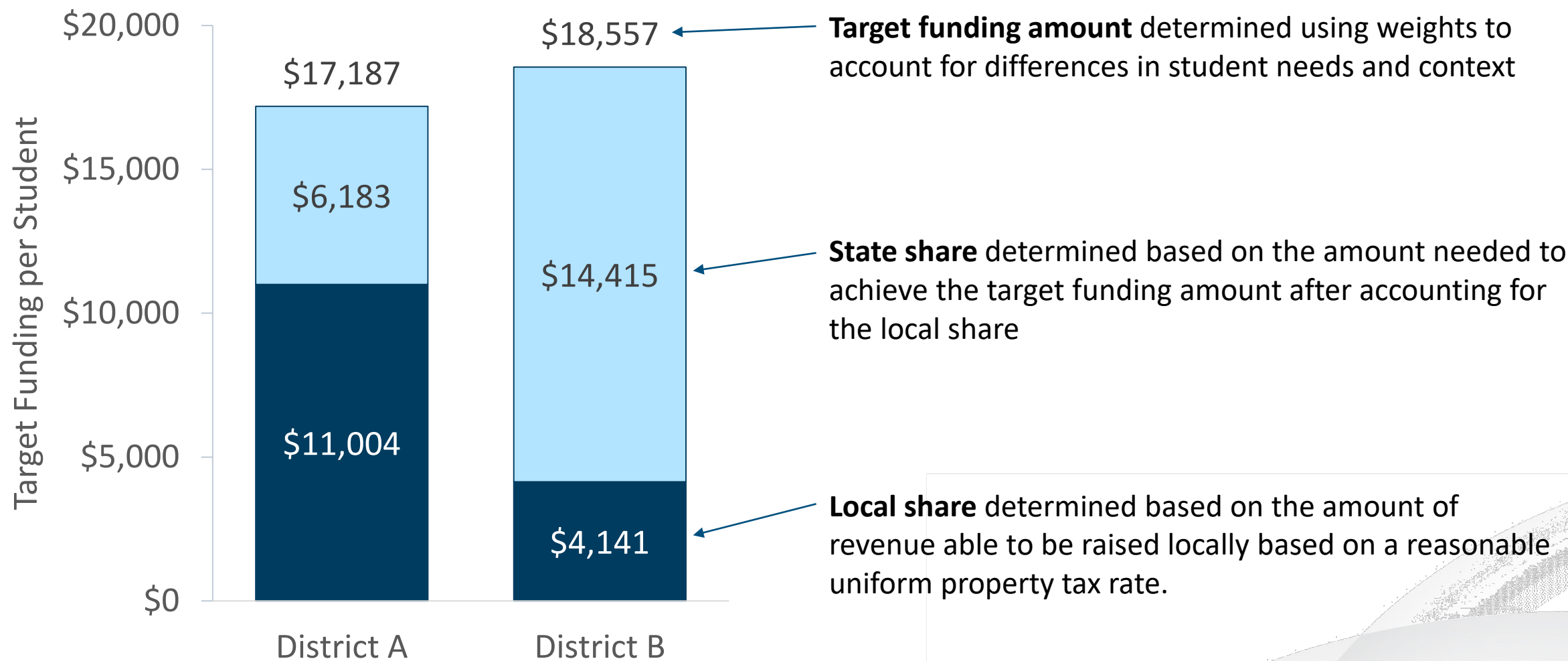
Recommendations

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 2. Distribute more resources according to student need
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 4. Allow for more flexibility in how districts use resources
 5. Account for local capacity and address tax inequity
 6. Regularly reassess property values
 7. Simplify the calculation of local share provided to charter schools
- **Charter school leaders perceive the current system of calculating the local share to lack transparency and be excessively variable from year-to-year and across districts.**
 - **A formula based on local revenue would be simpler and more consistent from year-to-year.**

Recommendations

1. Increase investment in Delaware's public education
2. Distribute more resources according to student need
3. Improve funding transparency
4. Allow for more flexibility in how districts use resources
5. Account for local capacity and address tax inequity
6. Regularly reassess property values
7. Simplify the calculation of local share provided to charter schools
8. Implement a weighted student funding (or foundation) state funding formula

Weighted Student (Foundation) Formula – Approach Used in Many Other States



Recommendations

1. Increase investment in Delaware's public education
2. Distribute more resources according to student need
3. Improve funding transparency
4. Allow for more flexibility in how districts use resources
5. Account for local capacity and address tax inequity
6. Regularly reassess property values
7. Simplify the calculation of local share provided to charter schools
8. Implement a weighted student funding (or foundation) state funding formula

Our recommendations would most easily be implemented through a foundation formula that uses student weights to distribute dollars to districts:

- **Dollars can be easily distributed according to student need**
- **Funding is distributed transparently through easy calculations**
- **Funds can be used flexibly**
- **Differences in local capacity can be easily incorporated**
- **The formula can be applied consistently to both districts and charter schools**

Q&A



Bruce Baker

**Professor and Chair of the
Department of Teaching and
Learning**

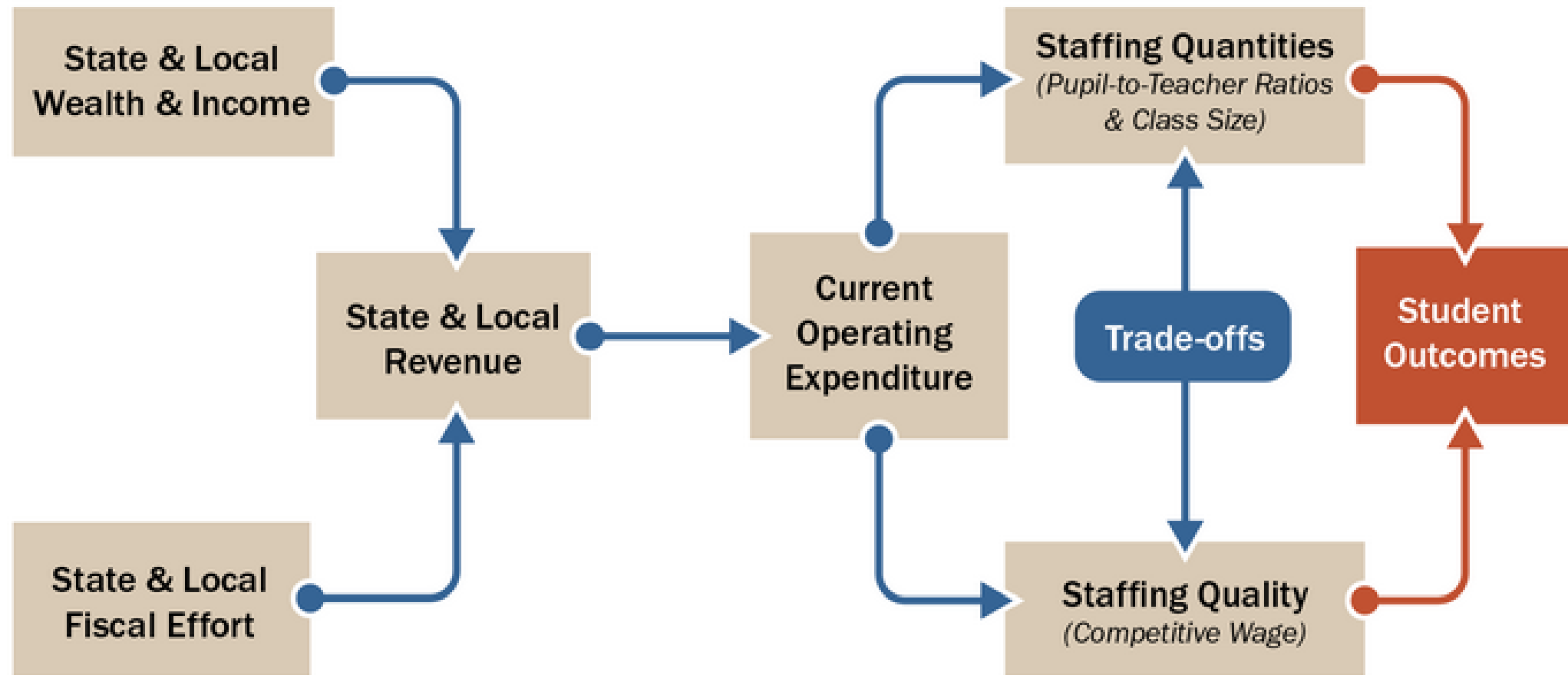
University of Miami

Outline

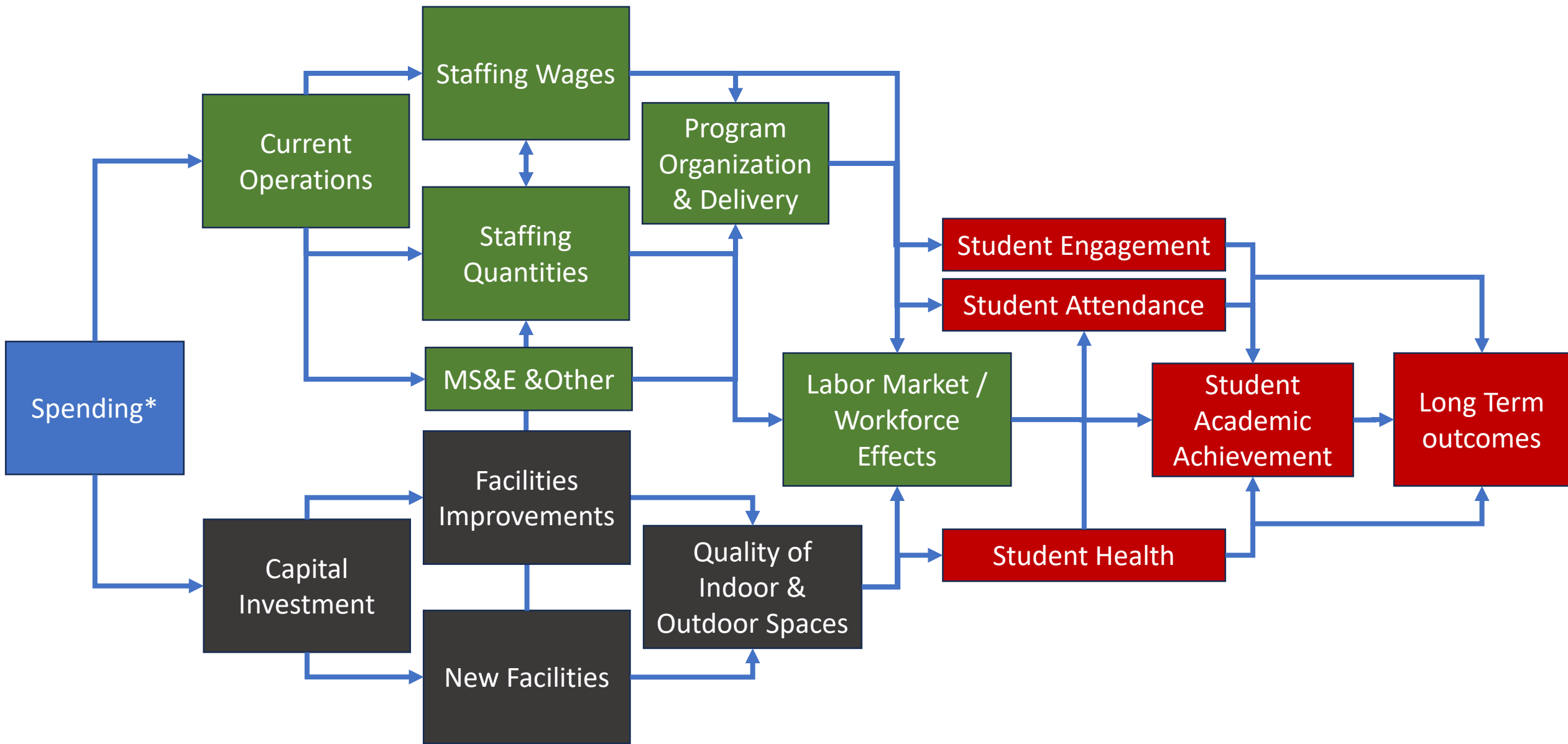
- **How & Why Money Matters for Schools**
- **What we Know from Recent Research**
- **Thoughts on Policy Design & Implementation**

Figure 1

Conceptual Map of the Relationship of Schooling Resources to Children's Measurable School Achievement Outcomes



Production Analysis



Evolving Research on “Money Matters”

Conclusive evidence over the last 20 years: investing more, particularly in targeted populations, leads to gains in academic attainment

School Funding Context

1971

Wealth Equalization

1989

*r**

1992

*Targeted Increases
(Progressiveness)*

2007

Great Recession

2019

Research & Eval

1966
Coleman

National

Hanushek, 1986

*Meta-Wars
EAH v. HLG
Regression-based
Production Functions*

Card & Payne, 2002

JJP, 2014&15

JL, JR & DS,
2018

C&S, 2019

J&M, 2023

JR&DS, 2022

ER&YS, 2022

J&W, 2021

JWX, 2021

State (or Policy) Specific

Guryan, 2001
Mass ('93)

Deke, 2003
KS ('92)

Downes, 2004
VT ('98)

Roy, 2011
Mich ('95)

Hyman, 2017
Mich ('95)

Barron, 2022 (WI)
Abbott, 2020 (7)
Rauscher, 2020 (KS)
Kreisman, 2019 (TX)
Gigliotti, 2018 (NY)
Johnson, 2018 (CA)

***Cost Modeling, 1994 →**

Chaudhary, 2009
Mich ('95)

2023 Meta-Analysis of Causal Impacts

- [Jackson, C. K., & Mackevicius, C. L. \(2023\). What impacts can we expect from school spending policy? Evidence from evaluations in the US. *American Economic Journal: Applied Economics*.](#)
 - Identified 31 studies that met specific conditions as of December 1, 2020.
 - **Of 32 unique study-outcomes, 25 present estimates of test score impacts (either test scores or proficiency rates) and 12 present estimates of impacts on educational attainment (high school dropout, high school graduation, or college enrollment).** The studies represent a range of estimation strategies and sources of variation.
 - To facilitate direct comparison, for each study we constructed an estimate of the marginal policy-induced impact on standardized outcomes of exposure to a \$1000 per-pupil spending increase (in 2018 dollars) over four years.
 - **On average, a policy increasing spending by \$1000 per-pupil for four years improves test scores by 0.0316 Standard Deviations and college-going by 2.8pp.**

Reconciling “Cost” modeling & causal effects

- Concept:
 - Outcomes = $f(\text{Spending}, \text{Context}, \text{Students})$
 - Spending = $f(\text{Outcomes}, \text{Context}, \text{Students}, \text{Inefficiency})$
 - Cost = Spending – Inefficiency (that portion we can predict)
- Cost model estimates generally find that it would cost less to achieve the same amount of gain in achievement than would be extrapolated from assuming that each additional \$1,000 per pupil investment yields an additional .3 to .4 standard deviations in achievement gain.

Thoughts on Policy Design/Implementation

- **Weighted formula built on Education Cost Function**

- “Soft” guidance for resource allocation based on Professional Judgment Panels, tied to accountability
- Districts receiving adequate funding but struggling on outcomes will be audited on resource allocation, using PJP as benchmark

- **3-Year Recalibration Cycle**

- Recalibration of base and weights, tied to contemporary standards every three years
- Should involve re-estimating Education Cost Function with updated data and outcome goals
- Modeling done under oversight of state education agency, and/or Legislative research division/dept
- Structural features of formula written into statute
- Weights/calibration of those features can be recalibrated under regulatory authority of state education agency

Q&A



Kenneth Shores

Assistant Professor, School of Education

**University of Delaware Center for
Research in Education and Social Policy**

Four points about DE K-12 funding

Constraints

1. **Increasing state contributions will be difficult without adjustments to tax base:** Delaware *state* contribution to K-12 education is greater than comparison states, whereas *district* contributions are lower than comparison states

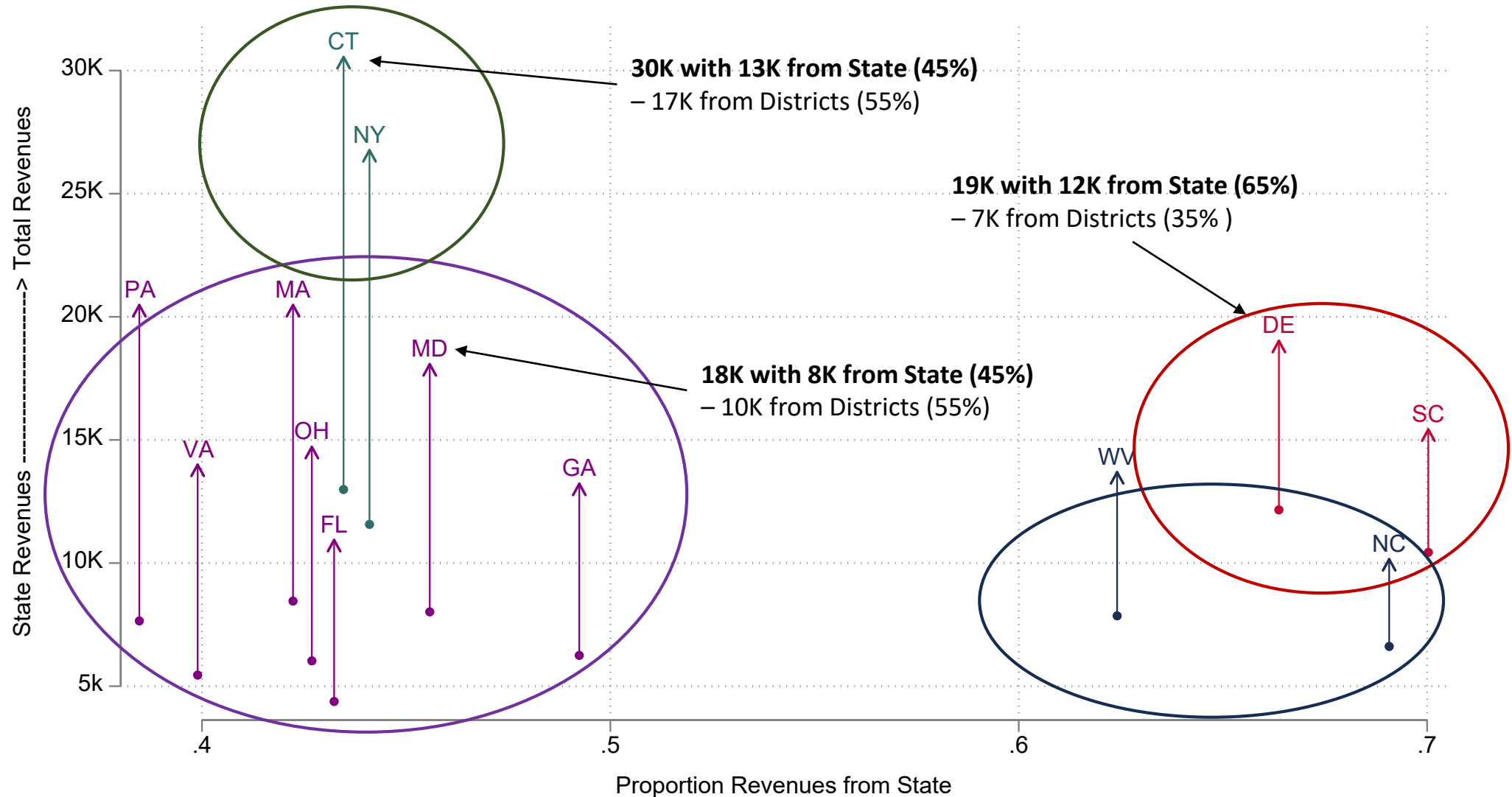
Room for Improvement

2. **A lot can be improved simply by fixing how DE allocates revenues:** All states but Delaware use state revenues to compensate for district ability to pay

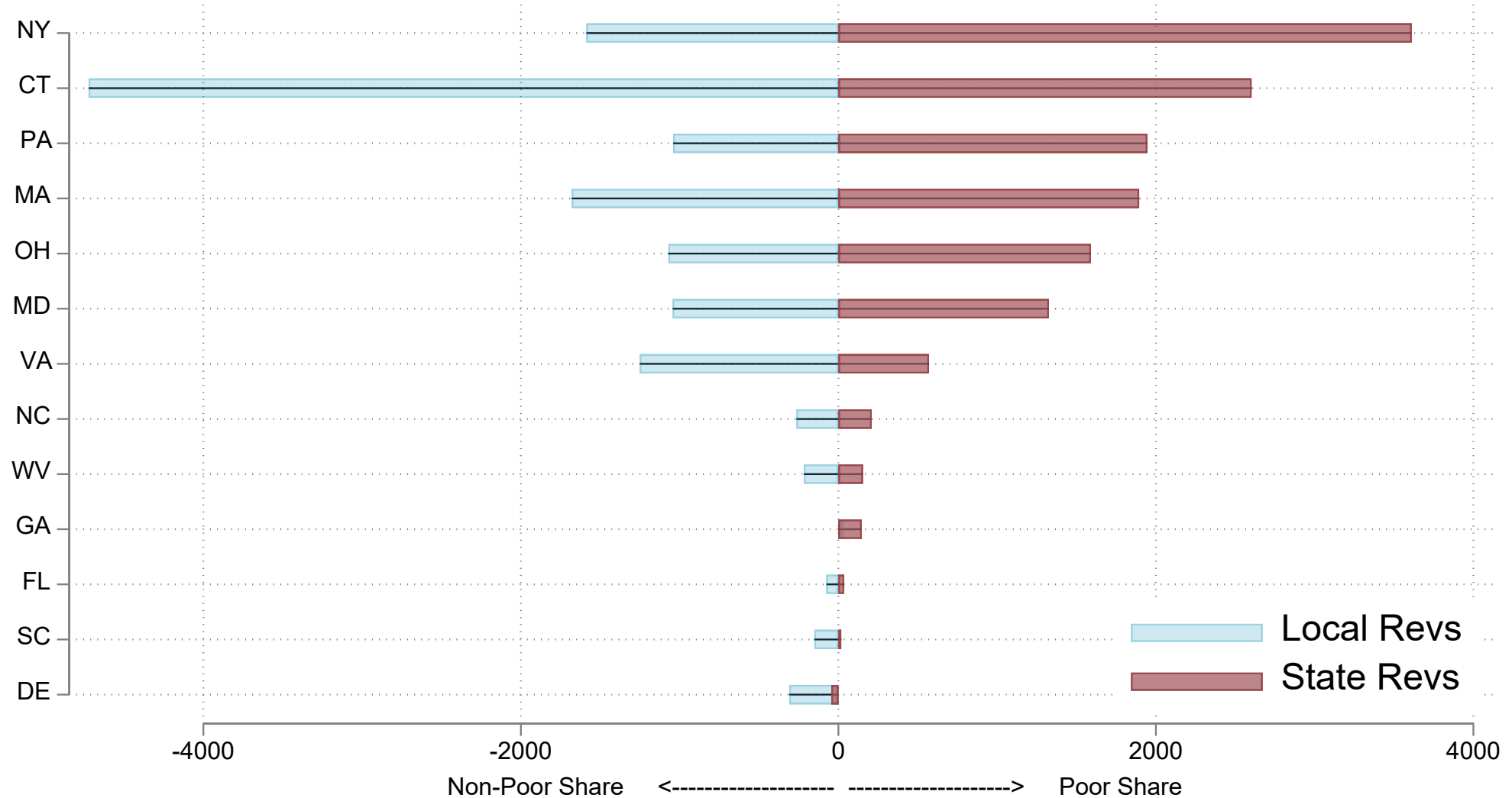
Possibility of Change

3. **Dramatic increases to state investment in education have historical precedent:** 38 states (*other than Delaware*) enacted K-12 funding reform between 1987 – 2008, increasing state revenues by \$1,000 per pupil on average (a 22% increase), and in some cases much more than that
4. **States tend to raise tax revenues to pay for education spending:** State tax revenues also increased by \$1,000 per pupil on average in this period (a 9% increase); tax sources varied but many states introduce state property tax and/or increase sales taxes

1] Delaware *state* contribution to K-12 education is greater than comparison states, whereas *district* contributions are lower than comparison states



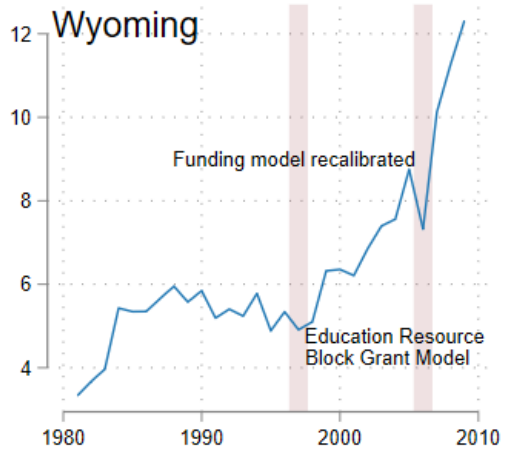
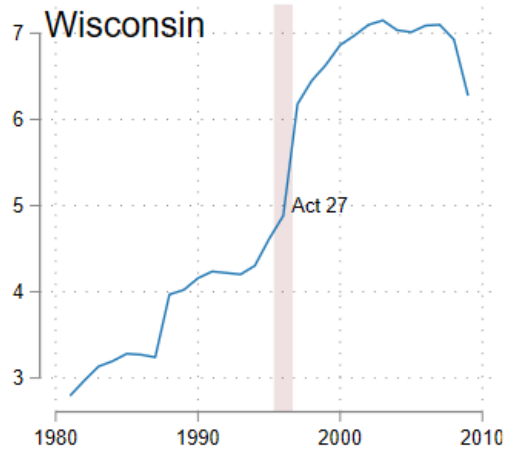
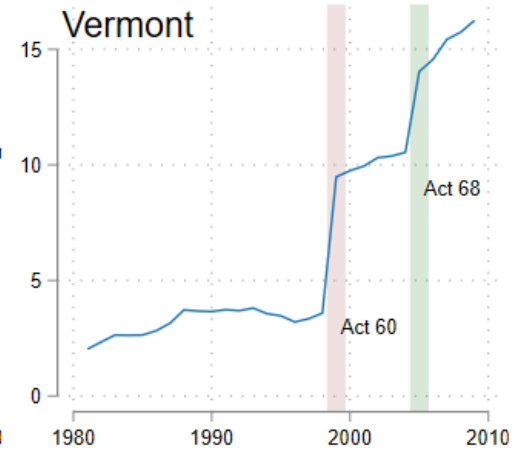
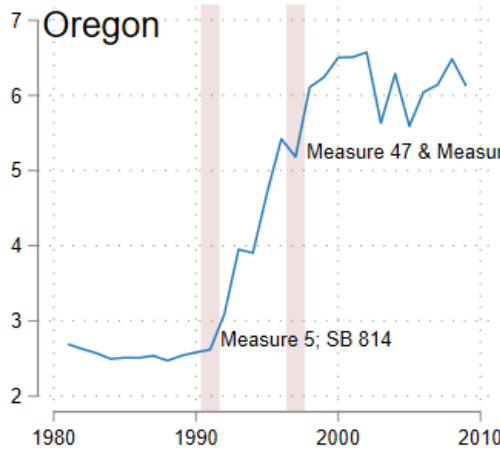
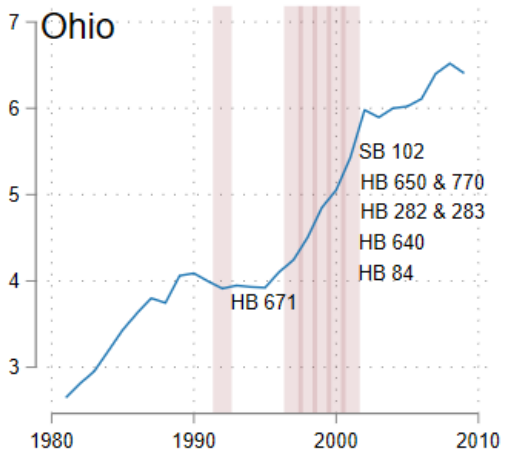
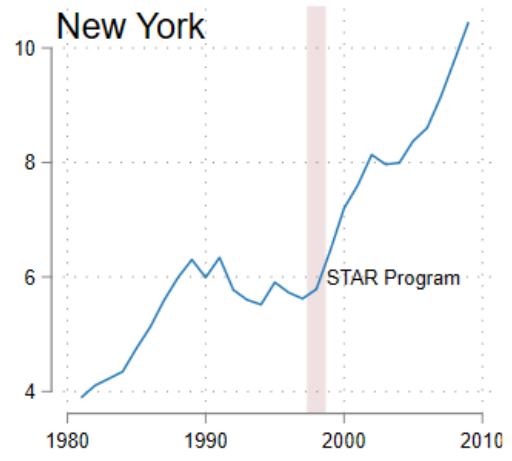
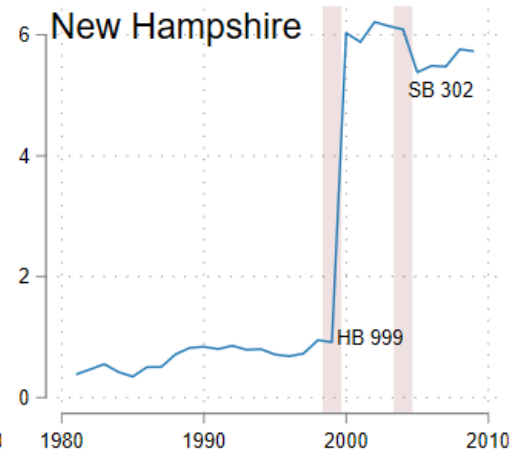
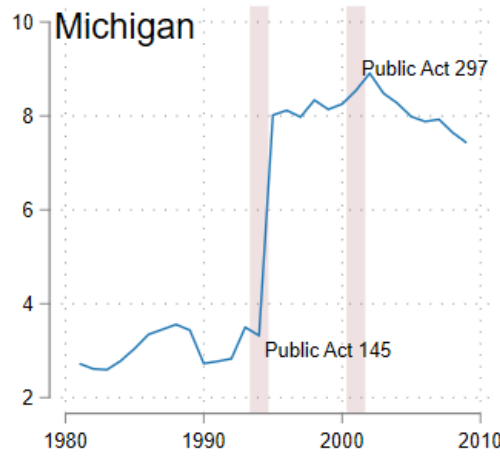
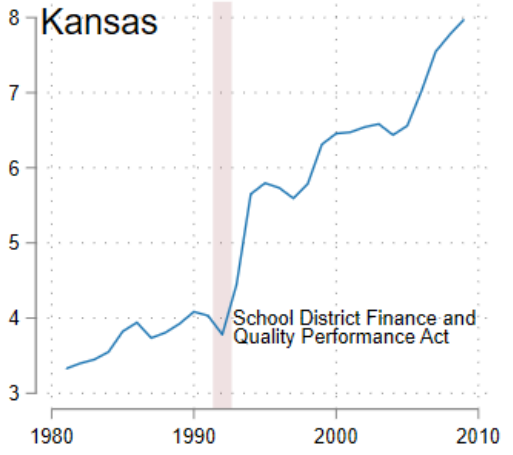
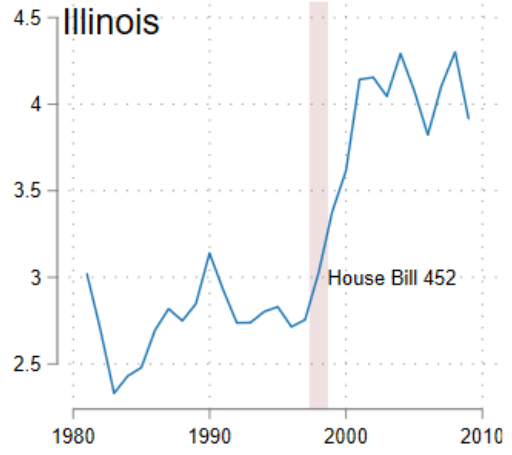
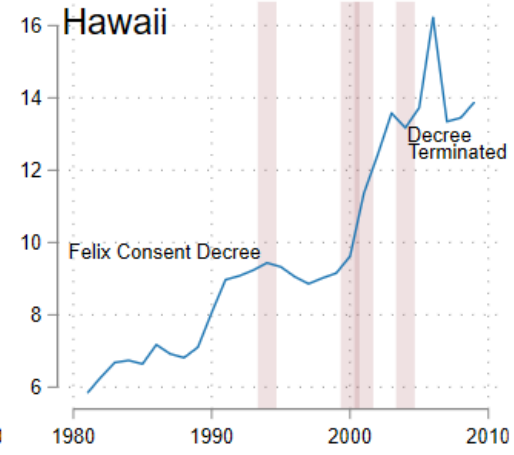
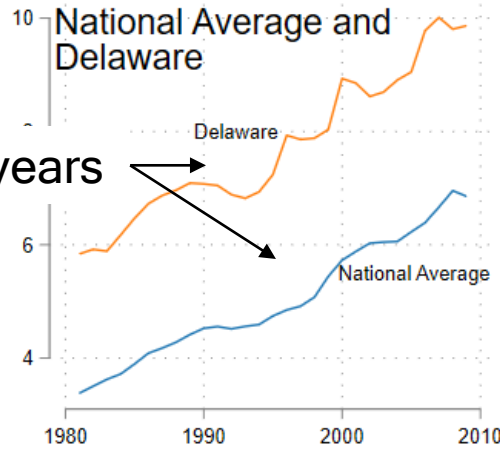
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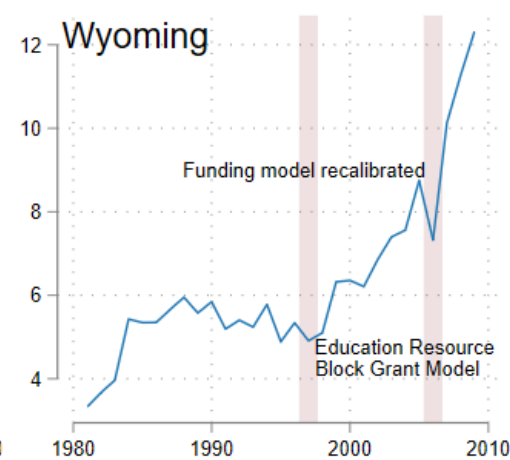
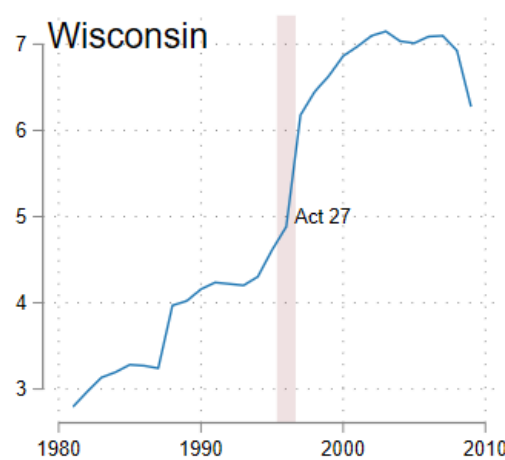
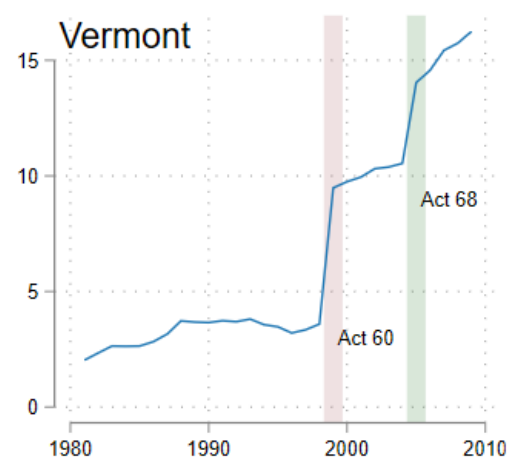
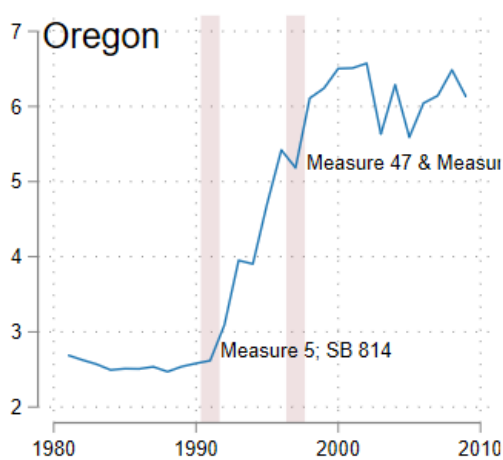
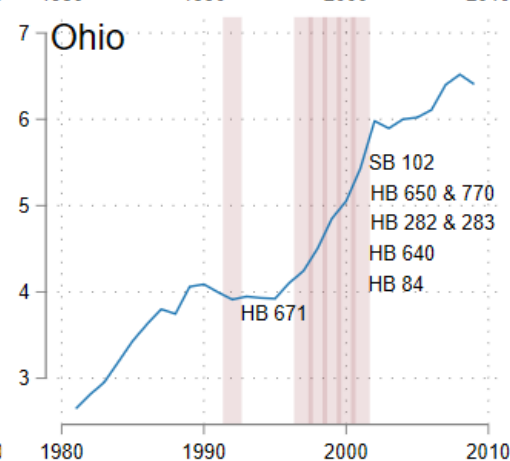
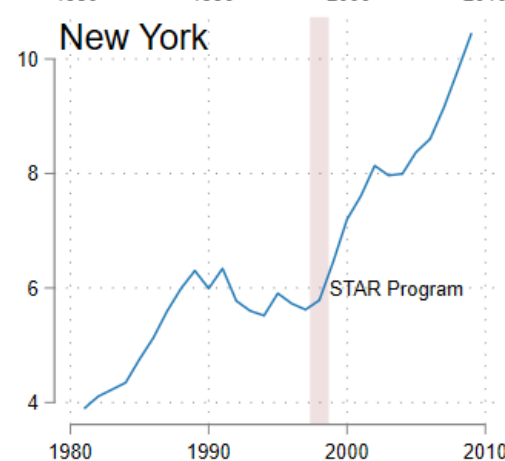
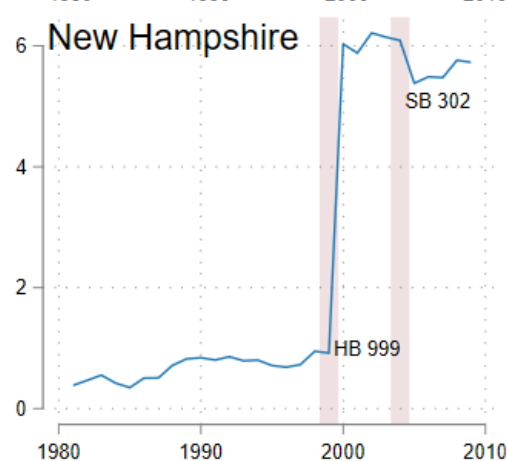
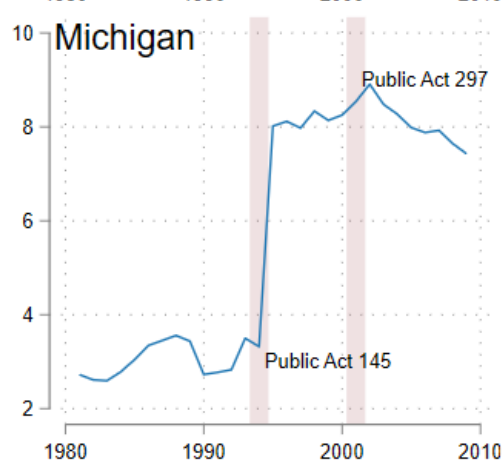
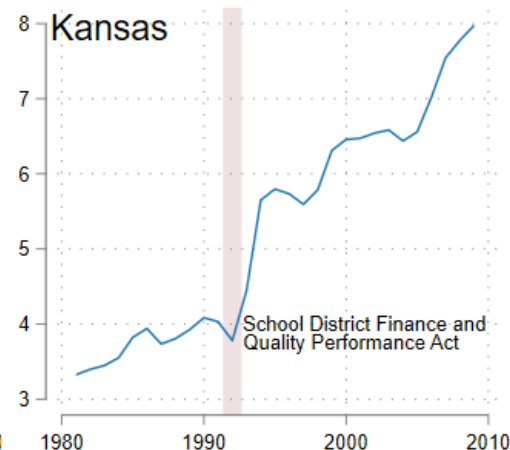
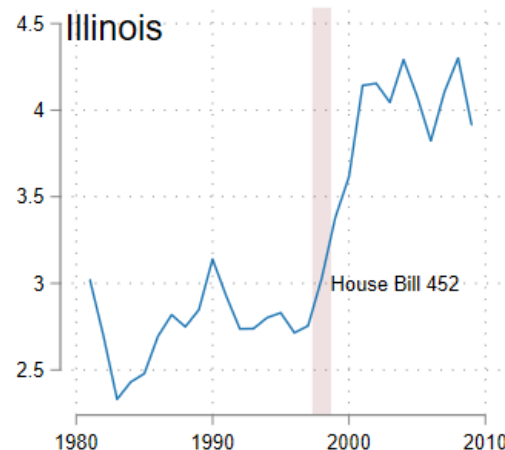
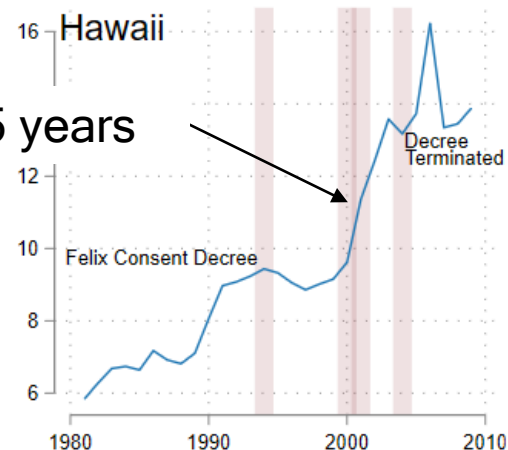
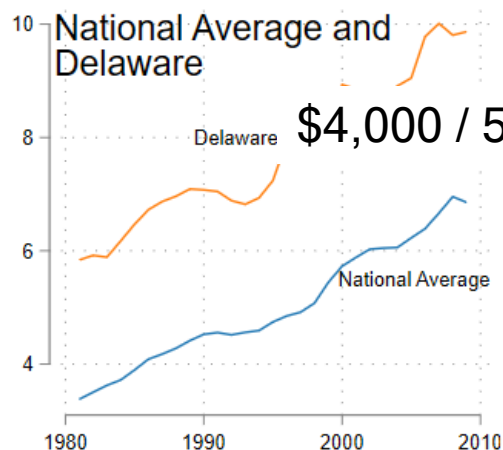
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\$1,250 / 10 years

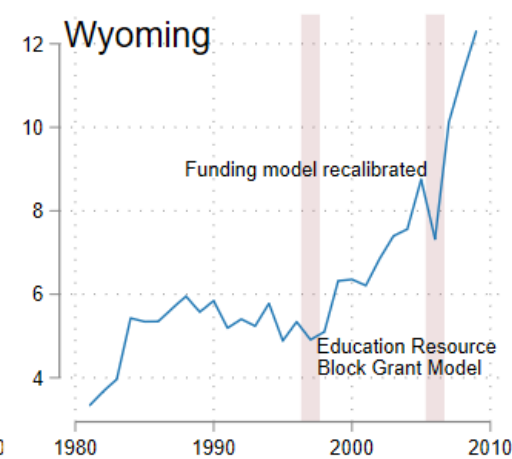
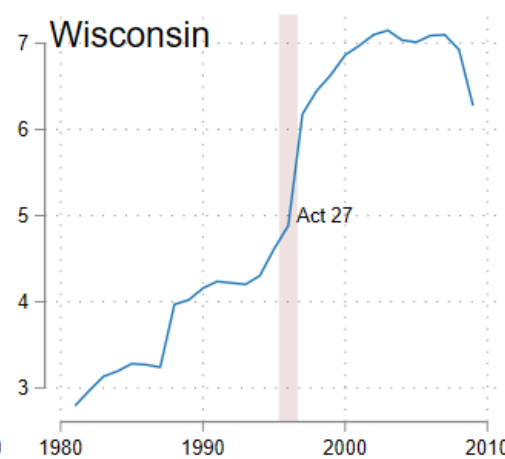
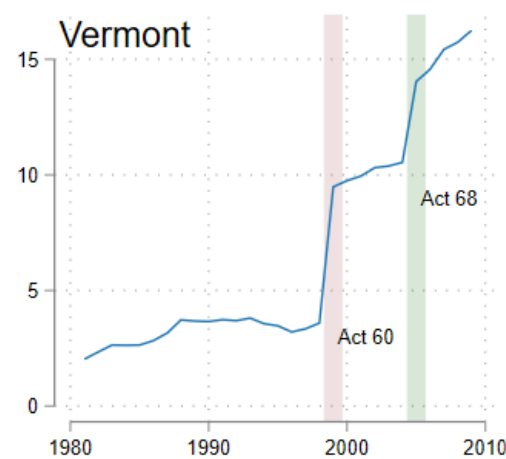
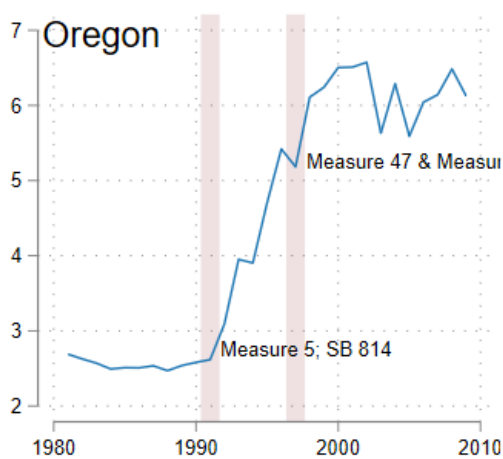
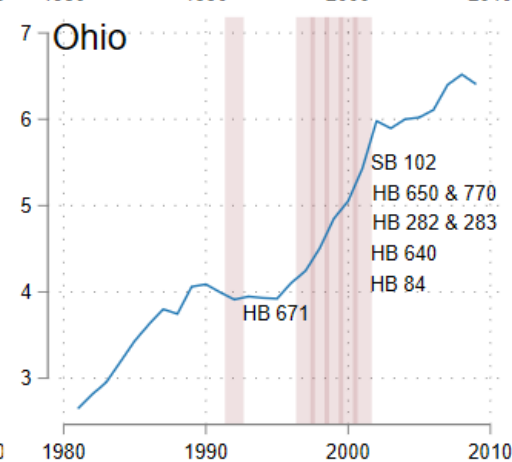
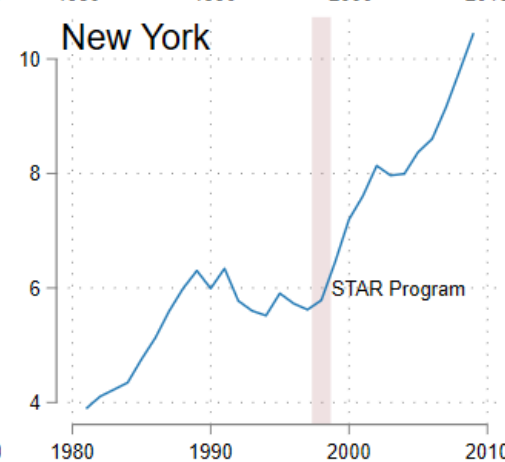
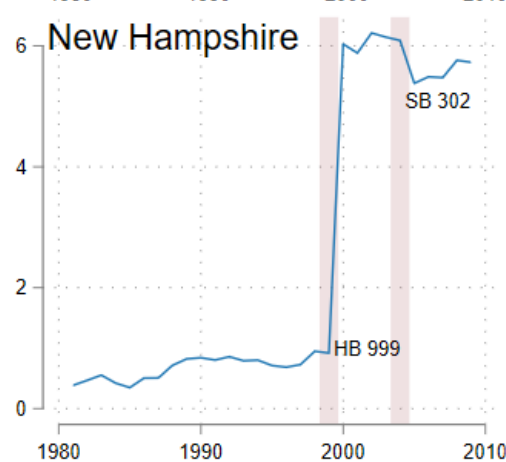
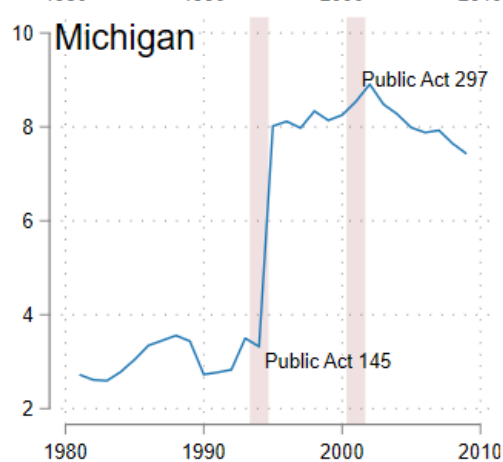
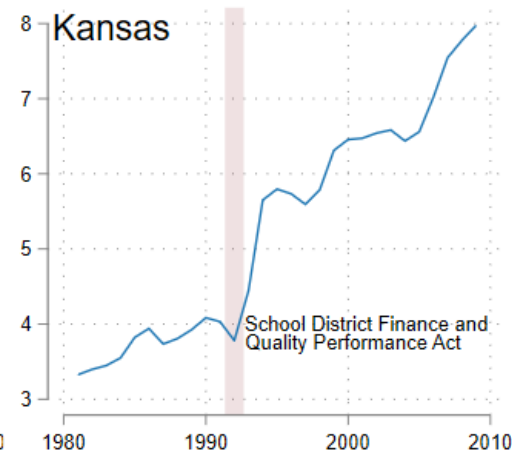
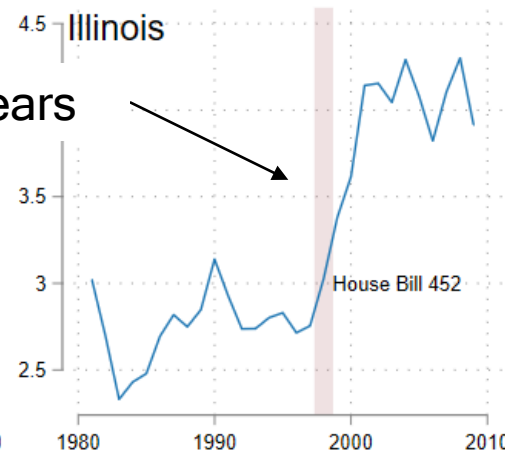
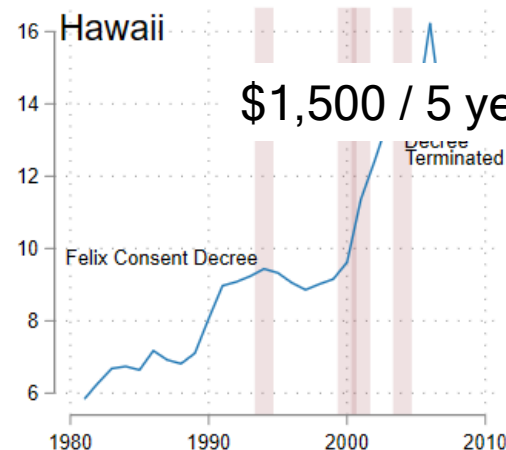
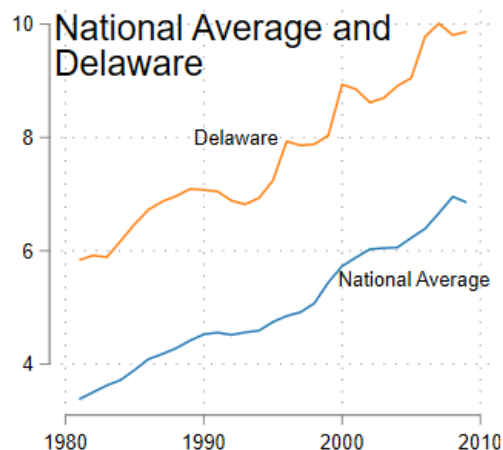
State Revenues per Pupil (\$2017 in 1000s)



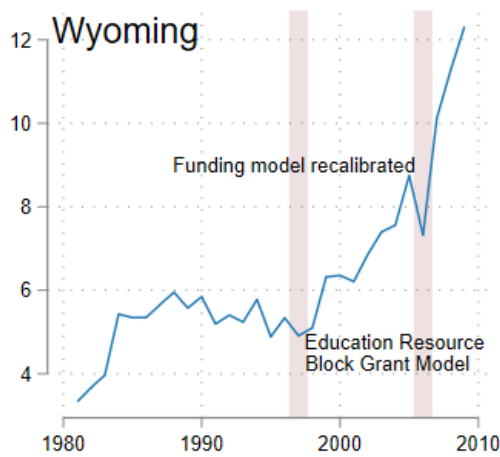
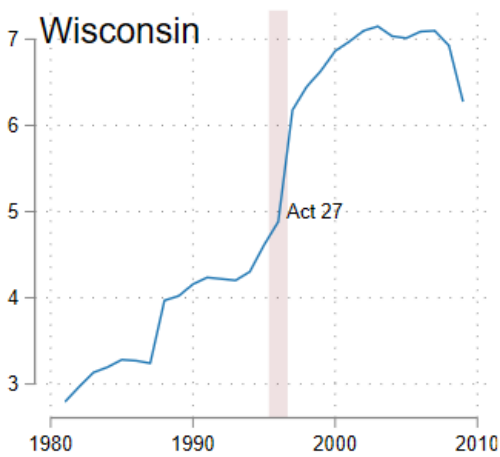
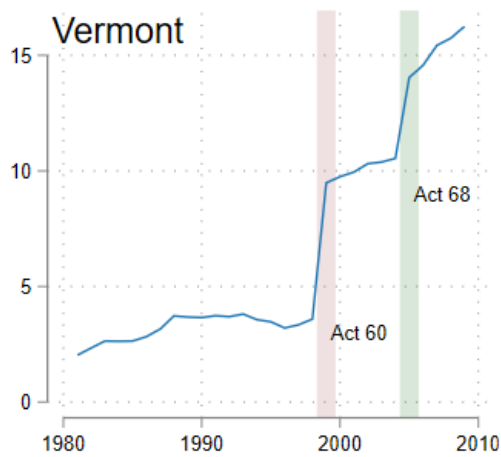
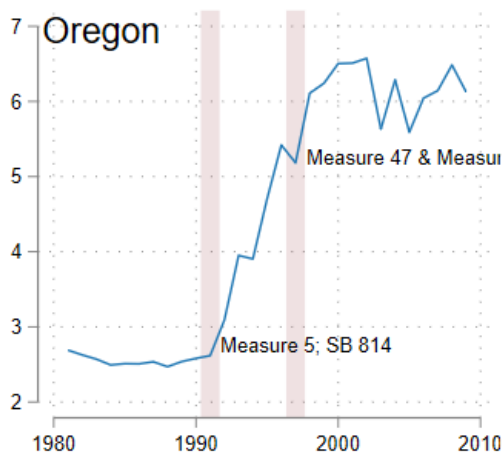
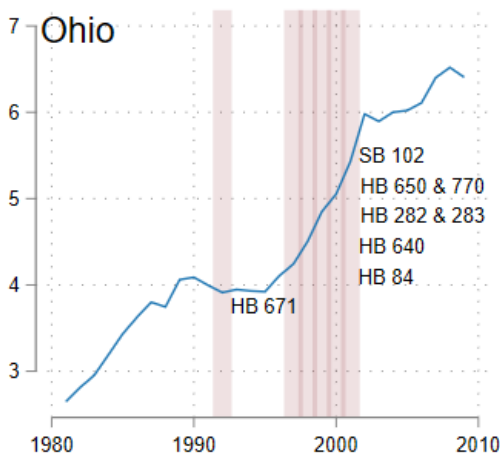
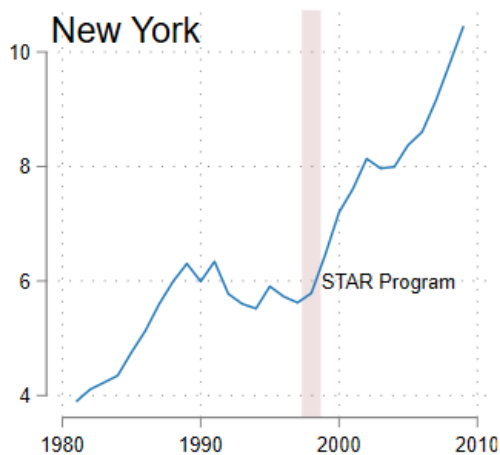
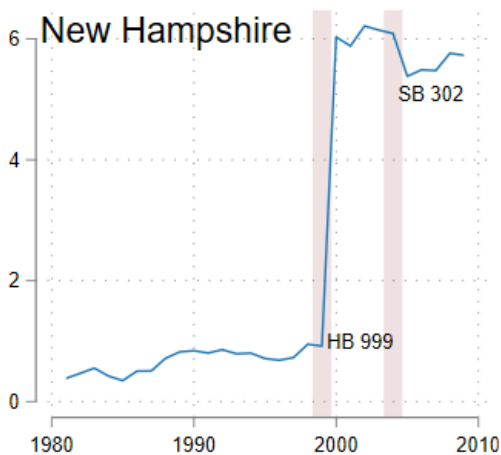
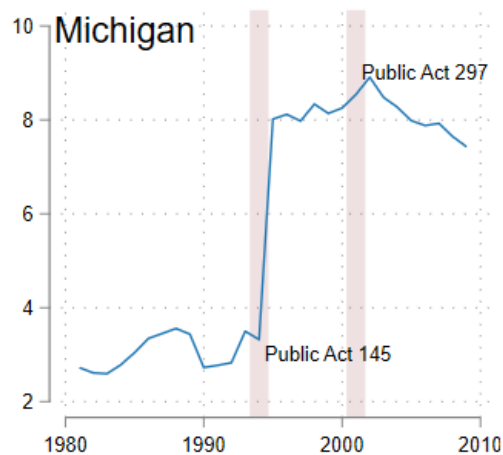
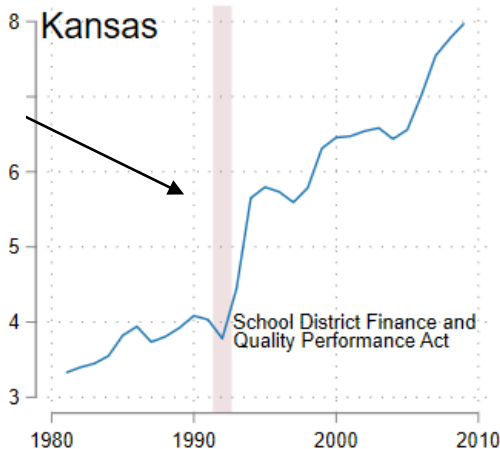
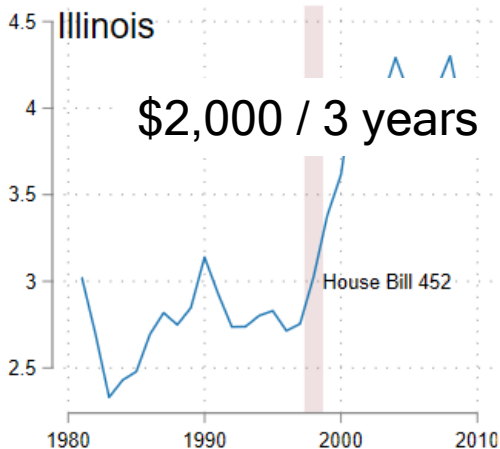
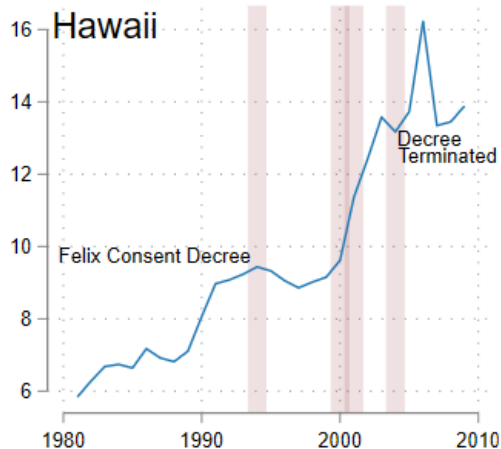
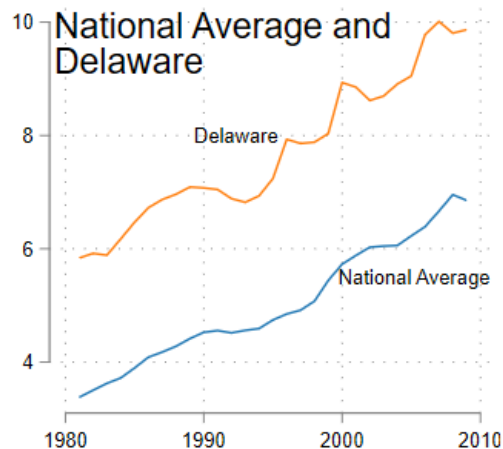
State Revenues per Pupil (\$2017 in 1000s)



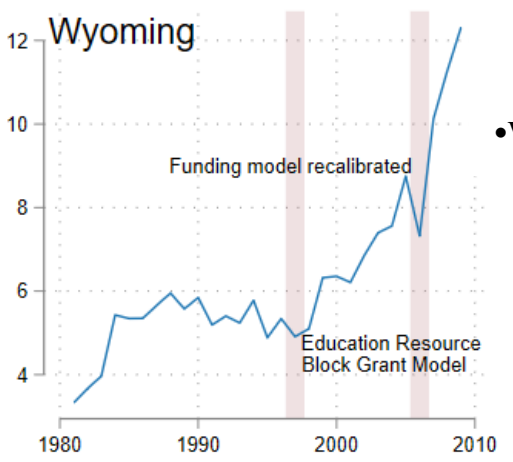
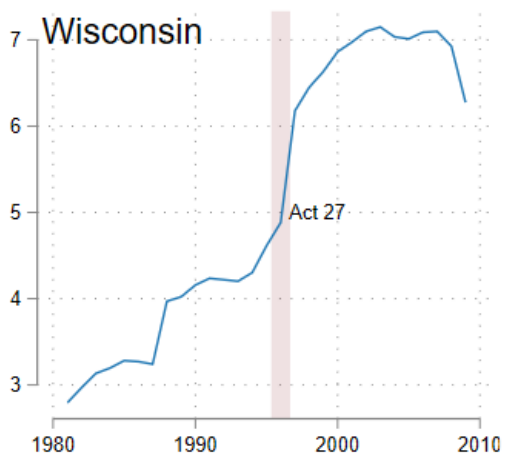
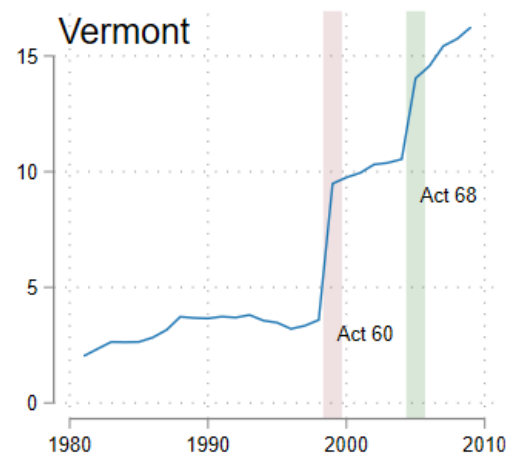
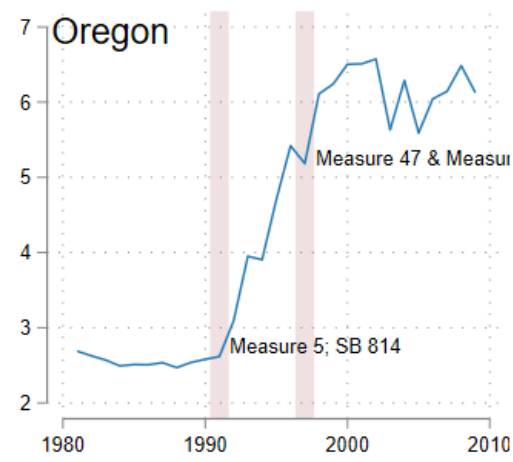
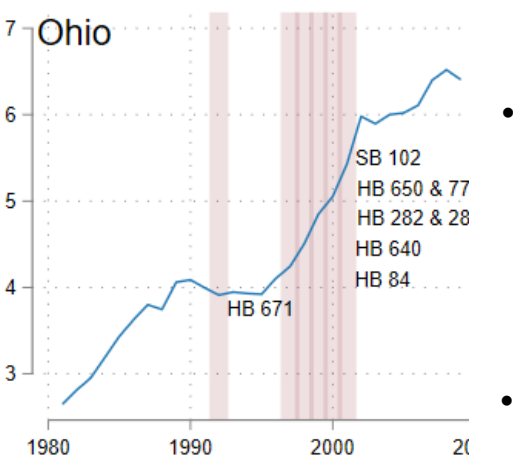
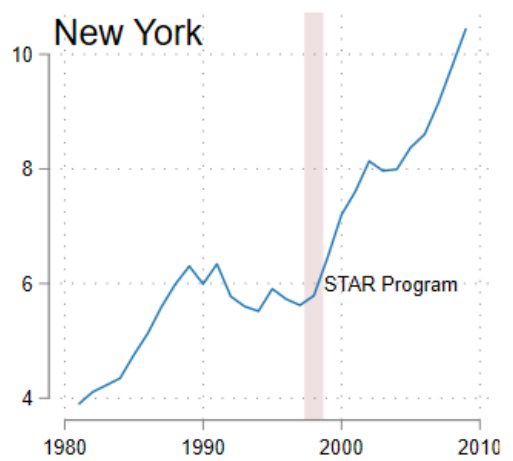
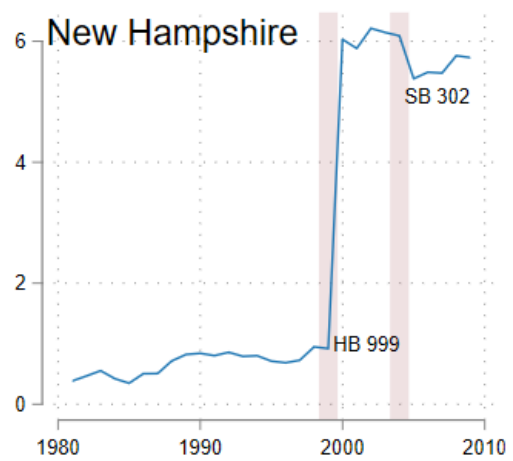
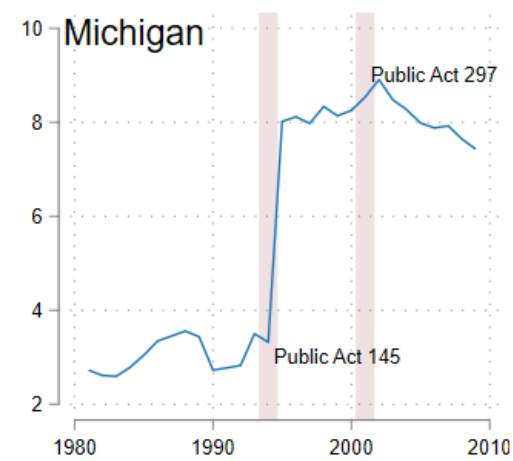
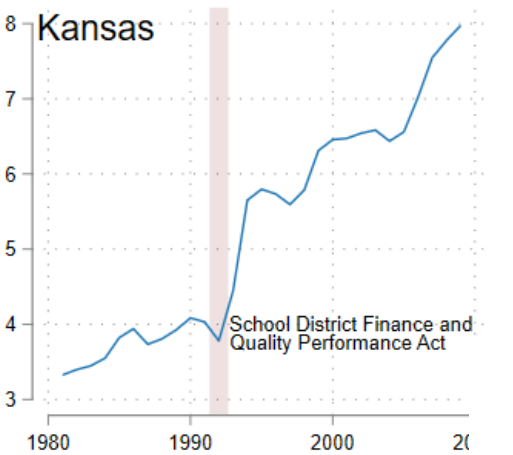
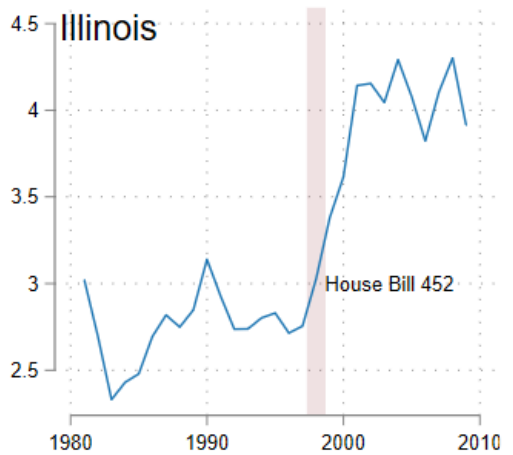
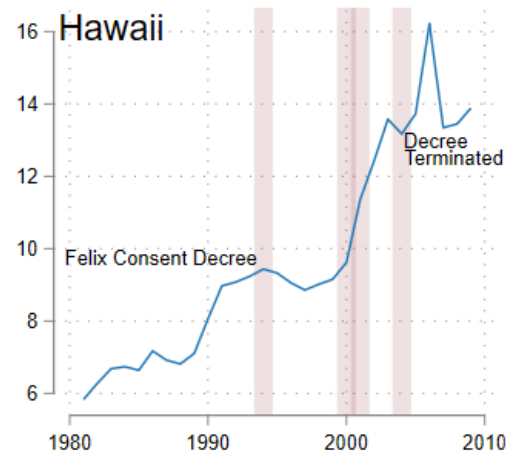
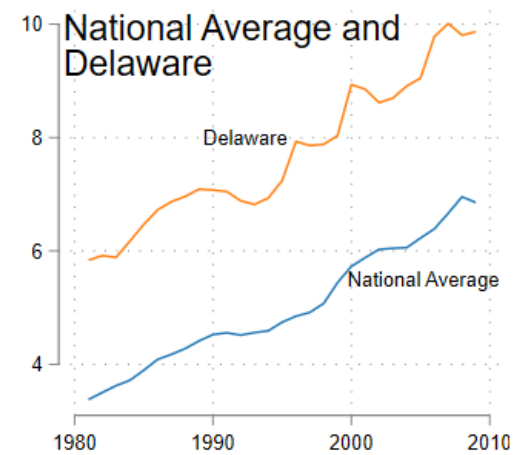
State Revenues per Pupil (\$2017 in 1000s)



State Revenues per Pupil (\$2017 in 1000s)

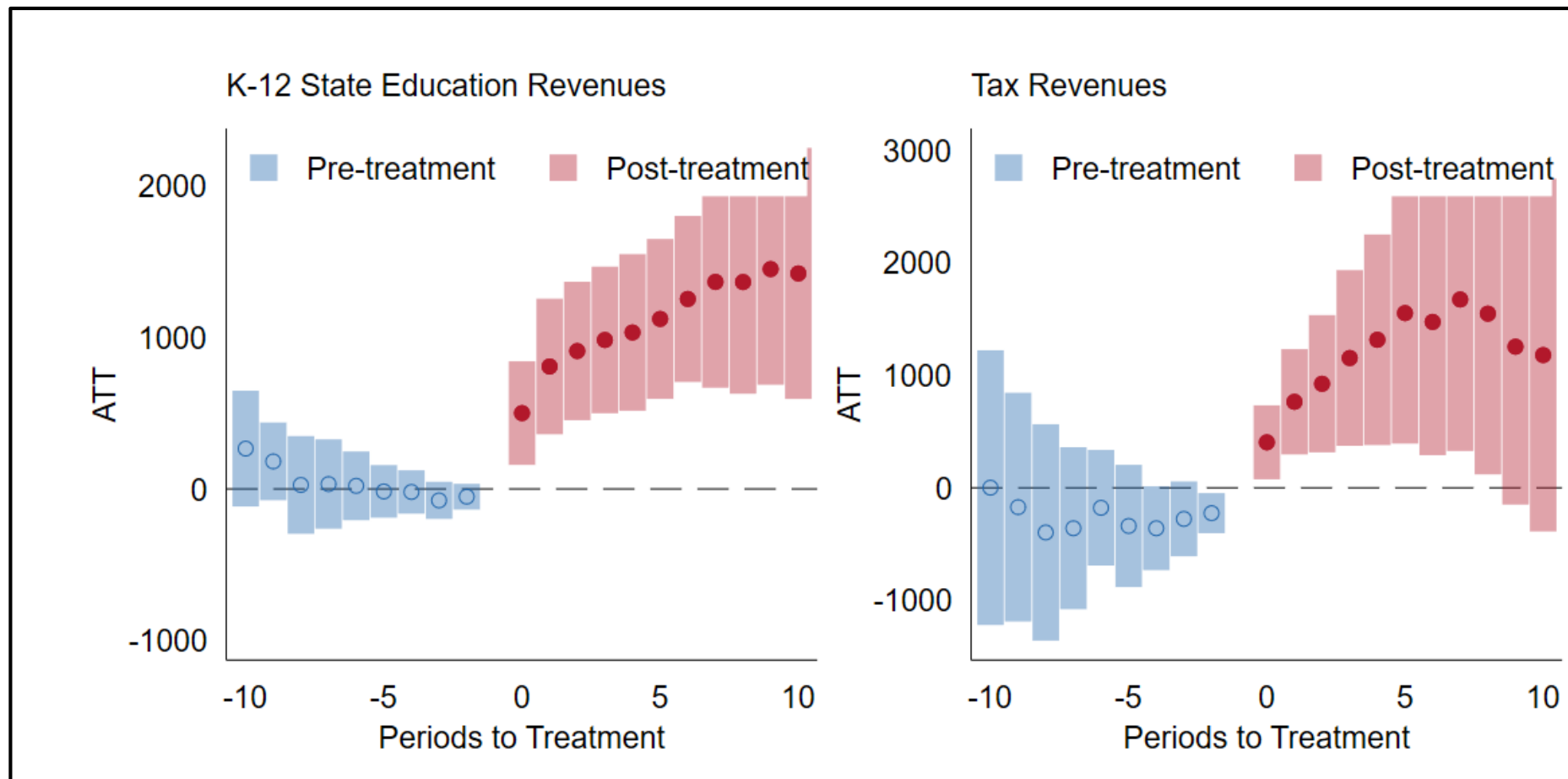


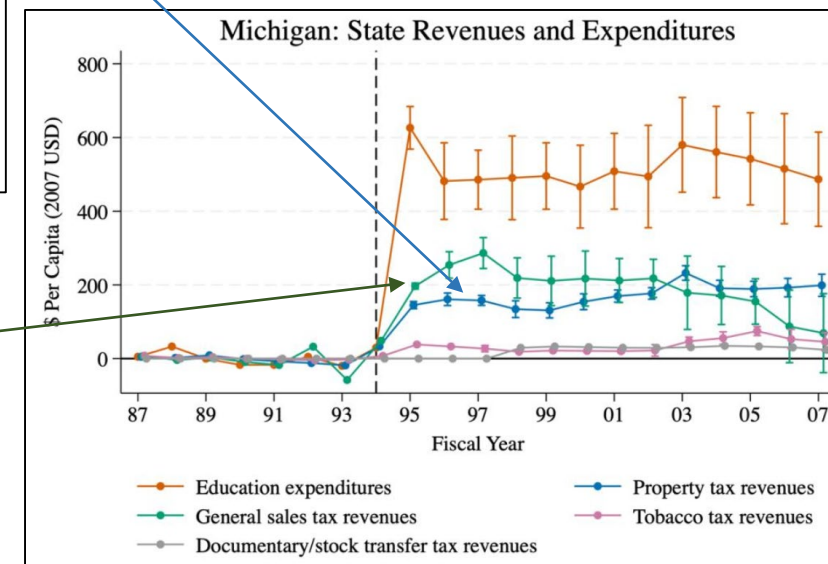
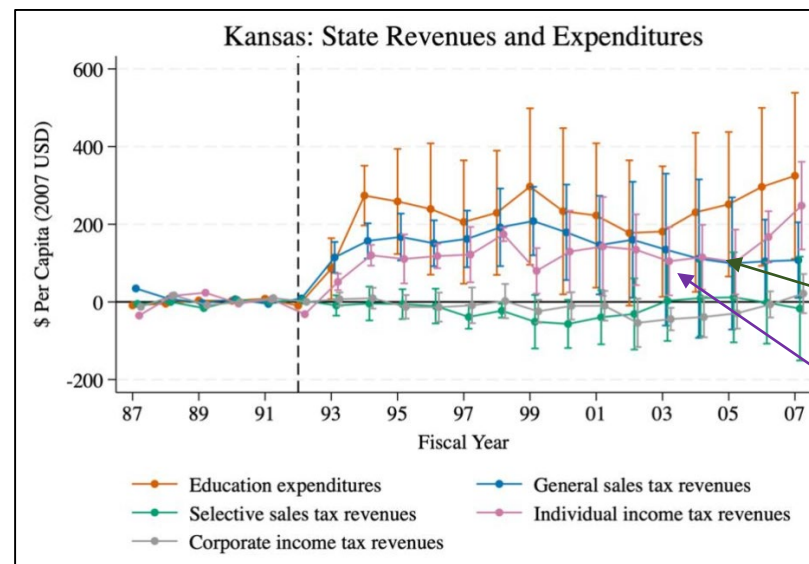
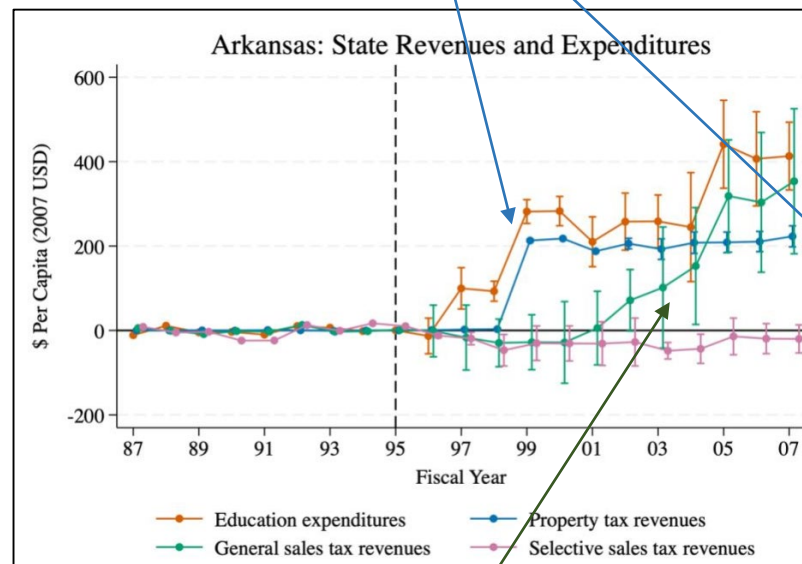
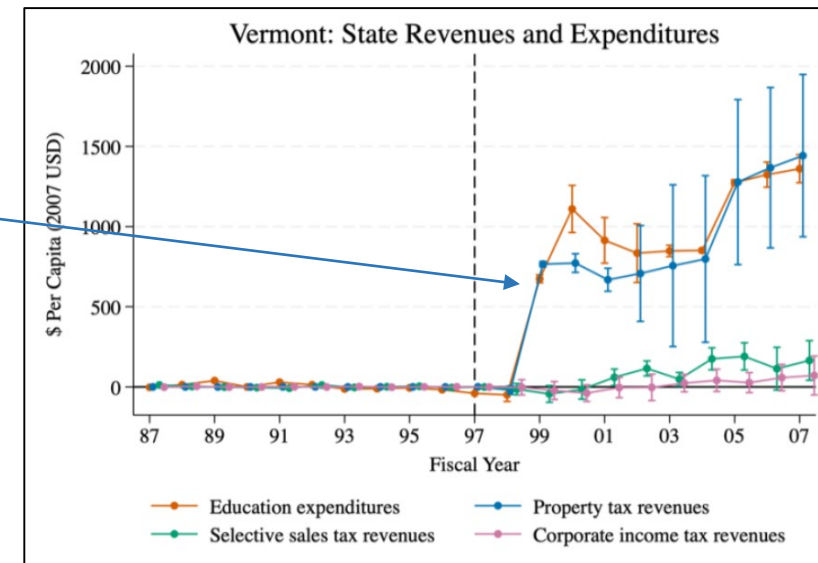
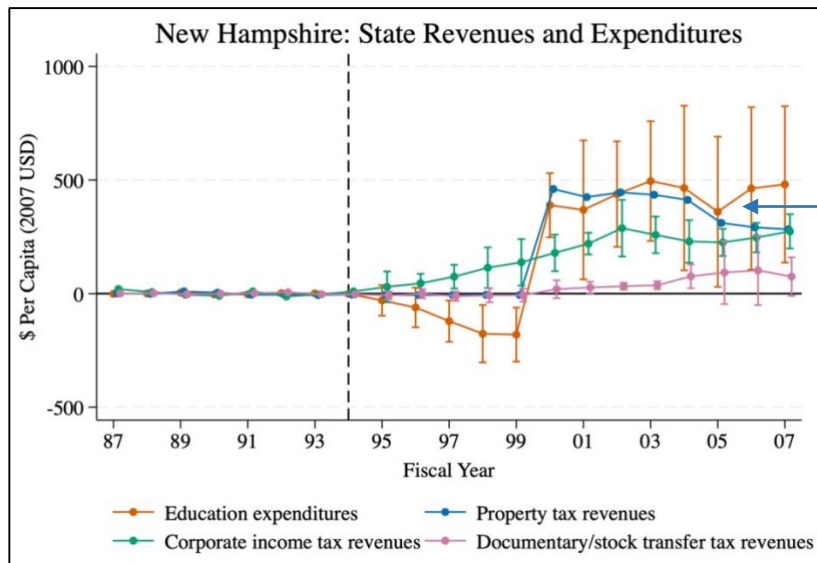
State Revenues per Pupil (\$2017 in 1000s)



- Michigan: \$4,000 / 1 year
- NH: \$5,000 / 1 year
- New York: \$2,000 / 5 years
- Ohio: \$2,000 / 7 years
- Oregon: \$4,000 / 10 years
- Vermont: \$10,000 / 10 year
- Wisconsin: \$1,000 / 1 year
- Wyoming: \$3,000 / 10 years

4] States tend to raise tax revenues to pay for education spending: State tax revenues also increased by \$1,000 per pupil on average in this period (a 9% increase); tax sources varied but most states introduce state property tax and/or increase sales taxes





State property tax revenues

Sales tax revenues

Income tax revenues

Q&A and Discussion with Panel on Next Steps for Delaware