Slides available at edunomicslab.org

Marguerite Roza
MR1170@georgetown.edu
@MargueriteRoza

Maggie Cicco MAC407@georgetown.edu

Laura Anderson LMA86@georgetown.edu

Raghav Chutani RC1566@georgetown.edu

Note: Presentation is on-the-record but Q&A after is off-the-record unless otherwise noted

Will academic recovery stall when the federal relief funds dry up?

A look at public education spending and outcomes over a decade, nationally and state by state.

June 6, 2024





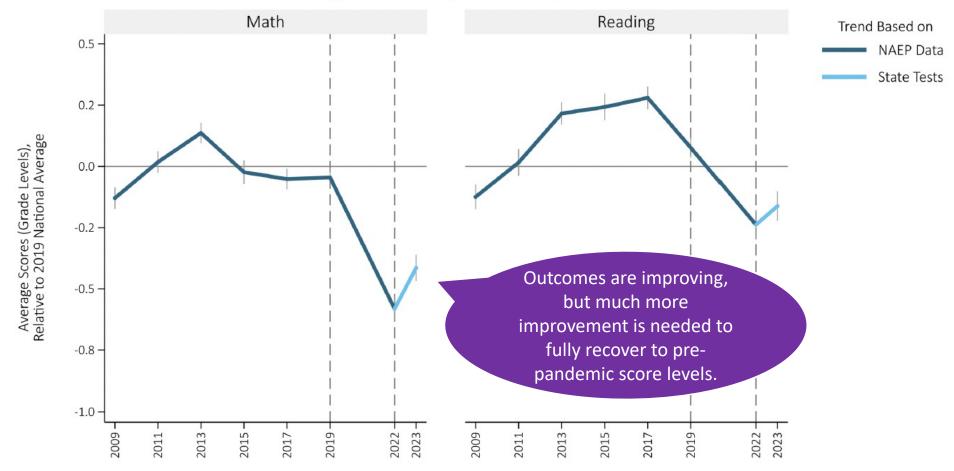
Big takeaways

- Can recovery in math and reading scores continue as relief funds dry up in Sept?
- Over two decades, the relationship between spending and scores is messy inconsistent. Rough ROI varies across different time periods (aka "eras") where national context clearly played a role.
- Districts make different choices in spending. But on average, while spending has grown faster than inflation, districts have <u>not invested those increases to raise</u> <u>teacher pay</u>. Instead, they added <u>many new staff positions</u>.
- In the recent recovery period, the ROI on federal ESSER relief funds has been wildly uneven across districts. Different spending choices do not explain level of gains.
- What we do find is that <u>states matter</u>. In some states, districts saw much larger test score gains for the dollar than others. In states like MS, TN, NC, and WI, increases in spending corresponded to stronger recovery in both reading & math.
- We urge state leaders to engage with our state-by-state ROI data to leverage their limited dollars to drive continued recovery even as relief funds end.



The pandemic era resulted in a widespread drop in scores, followed by a partial recovery (more in math) per Ed Recovery Scorecard analysis of NAEP and State Tests.

Trend in Average Test Scores, 2009-2023, 30 States



Some of this growth was fueled by ESSER relief funds, and likely propelled continued progress in 2024. But this is far from a complete recovery.





But ESSER relief funds dry up in September.

By last month, at least a quarter of districts had spent all their ESSER and were no longer delivering services funded by federal relief funds.

Can recovery continue?

See here for how much ESSER remains in each district: edunomicslab.org/esser-spending

So, we've been asking...

Where is there a chance of substantial new funds to offset the loss of ESSER?

- 1. A bigger new federal package
- 2. A sizable increase in state funds
- 3. New (or big increases) in local levies
- 4. None. (You can't get me to bet on any of these)

Little hope for #1 or #2. Some optimism for local funds, but in some regions there's an uptick in levy failures.



And we've also been asking...

Is it possible to get improved outcomes (math and reading scores) without sizable funding increases?

- a) Yes. There are policies/strategies that wouldn't require new funds.
- b) Small-ish marginal improvement could be possible.
- c) Probably not likely on a larger scale (e.g. statewide)

Responses are varied. Certainly no consensus.

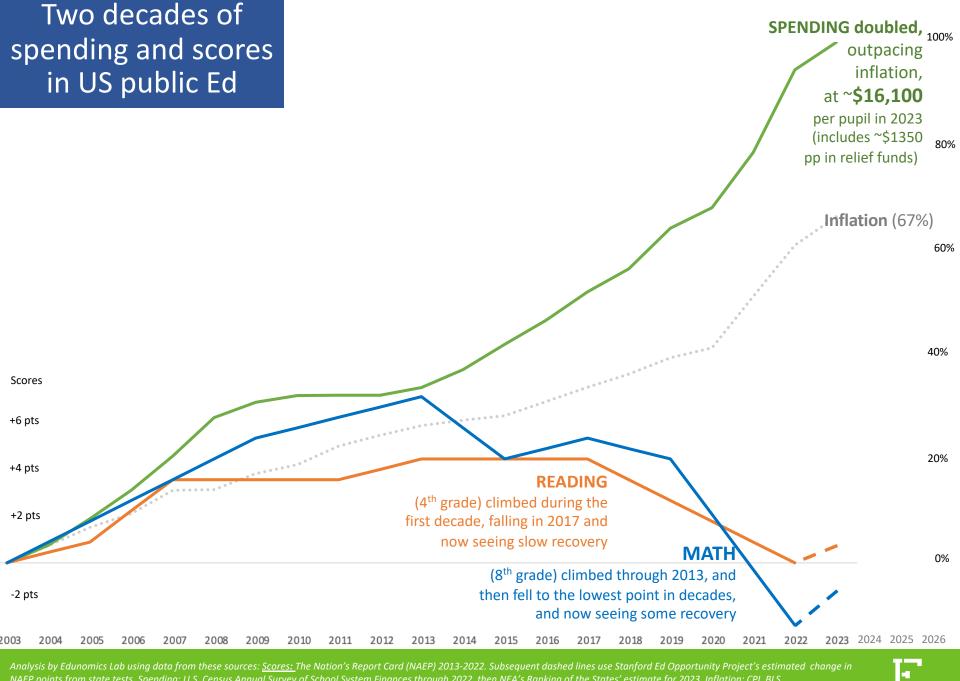
Q for today:

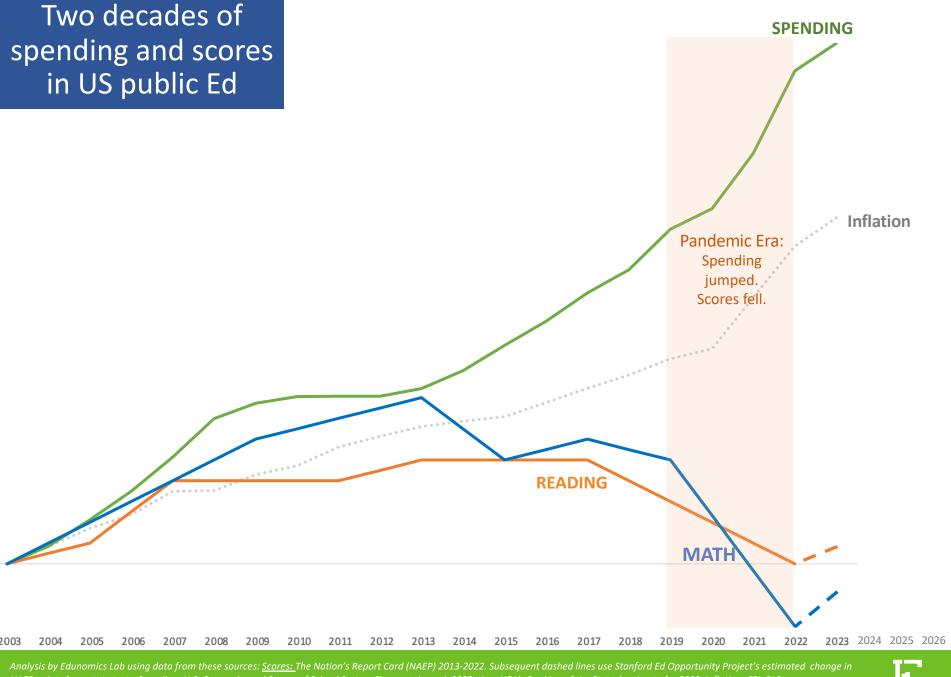
What happens when revenue is flat? Can outcomes still improve? (Historically, have widespread improvements in scores typically been propelled by revenue increases?)

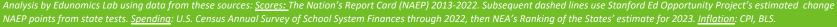
We take a look at spending and scores for answers.

Obviously spending isn't only about math and reading scores, but it is a helpful place to start.

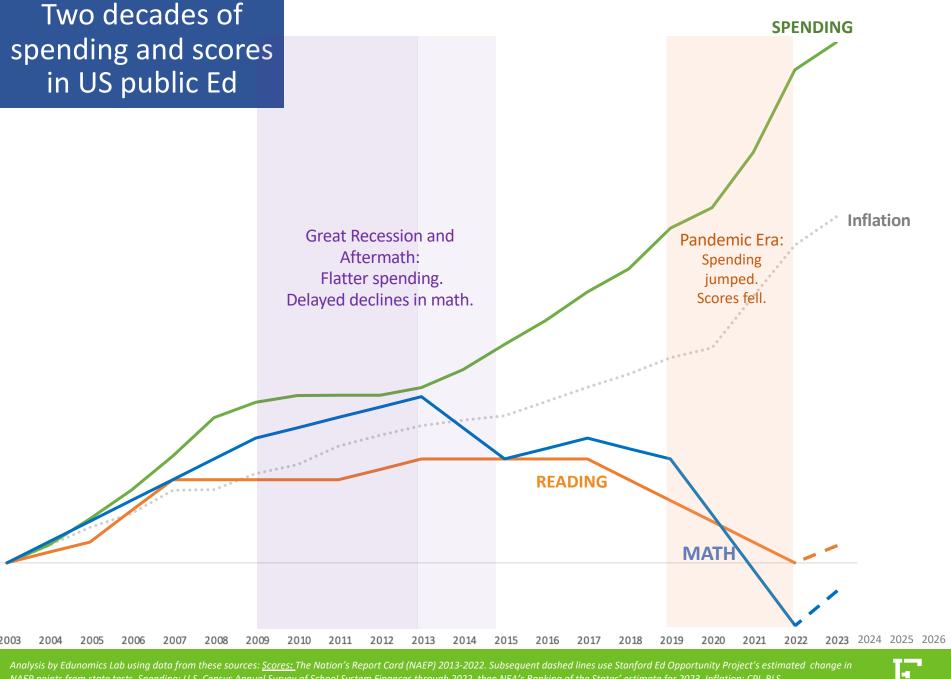




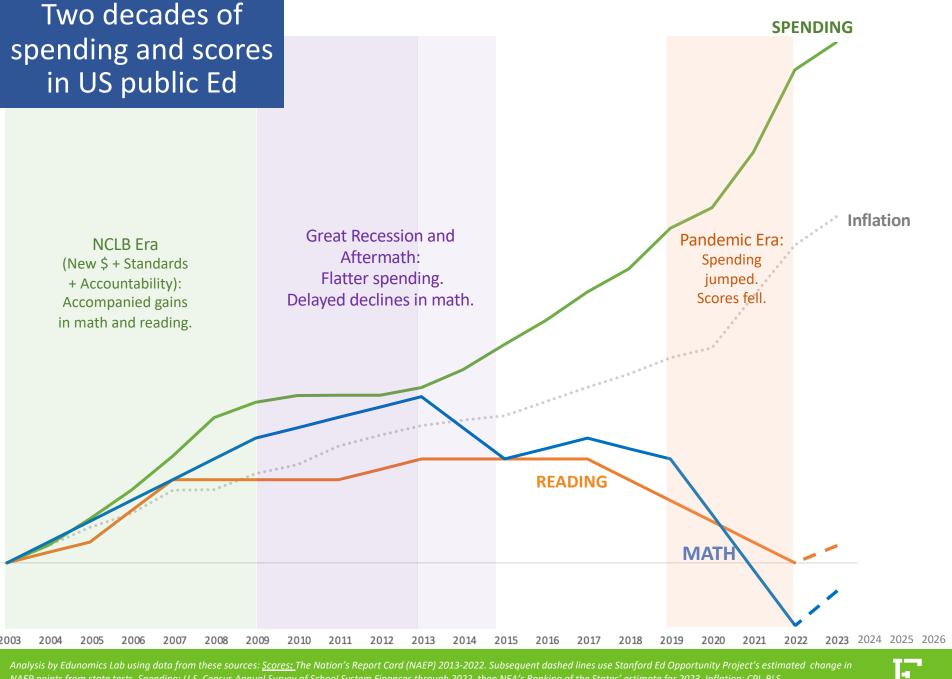


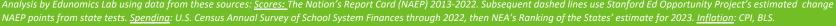




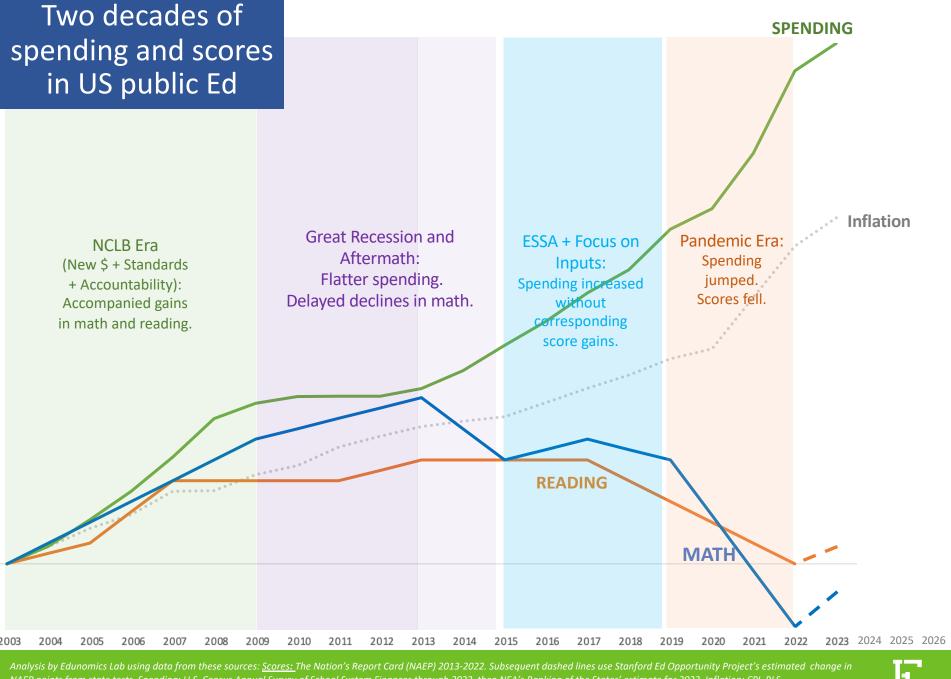






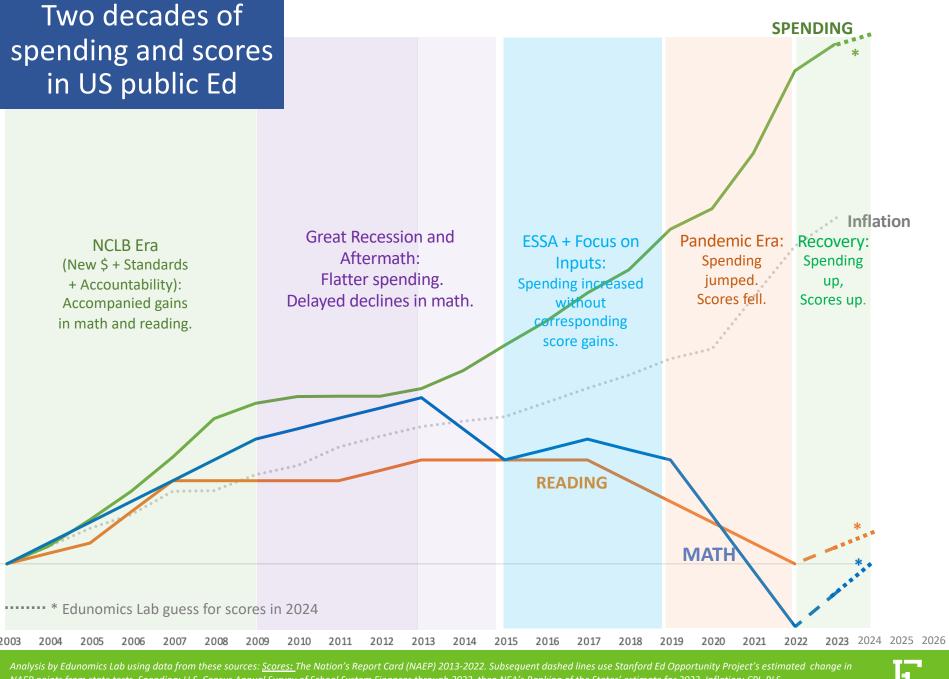






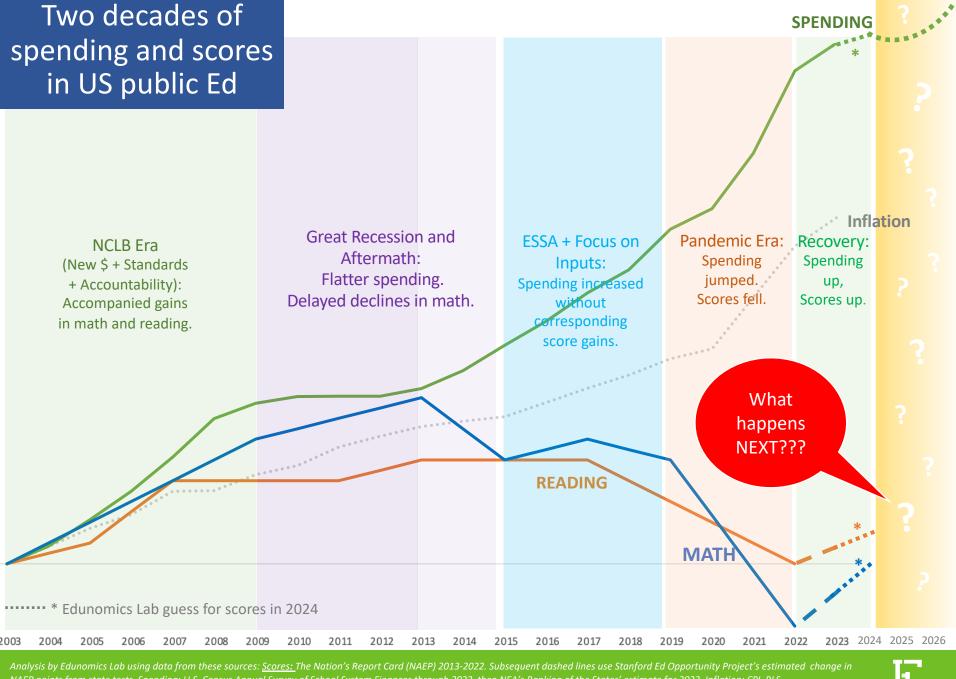




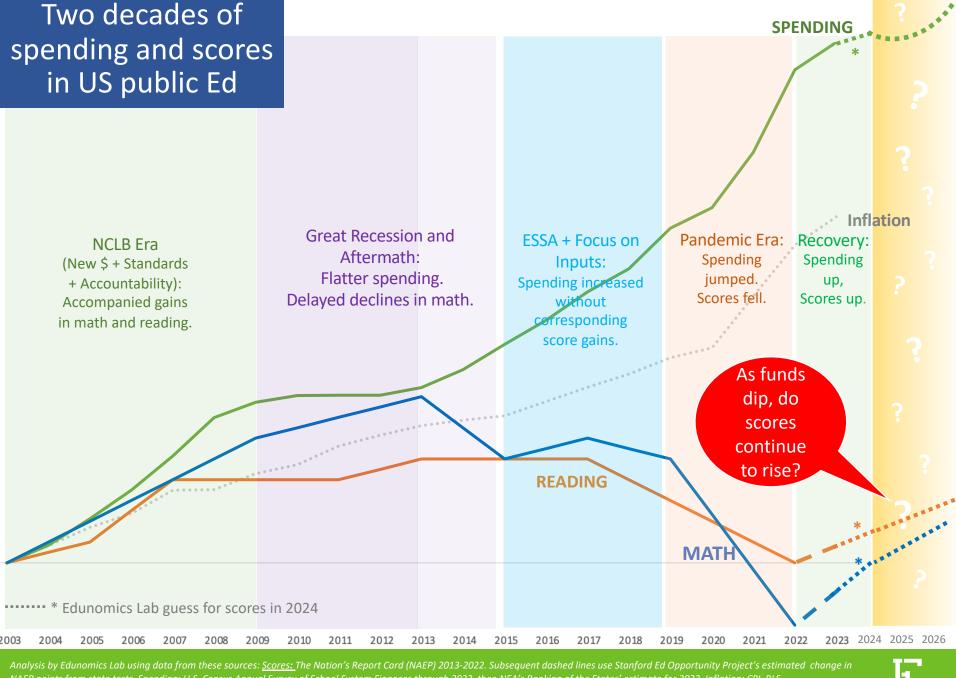




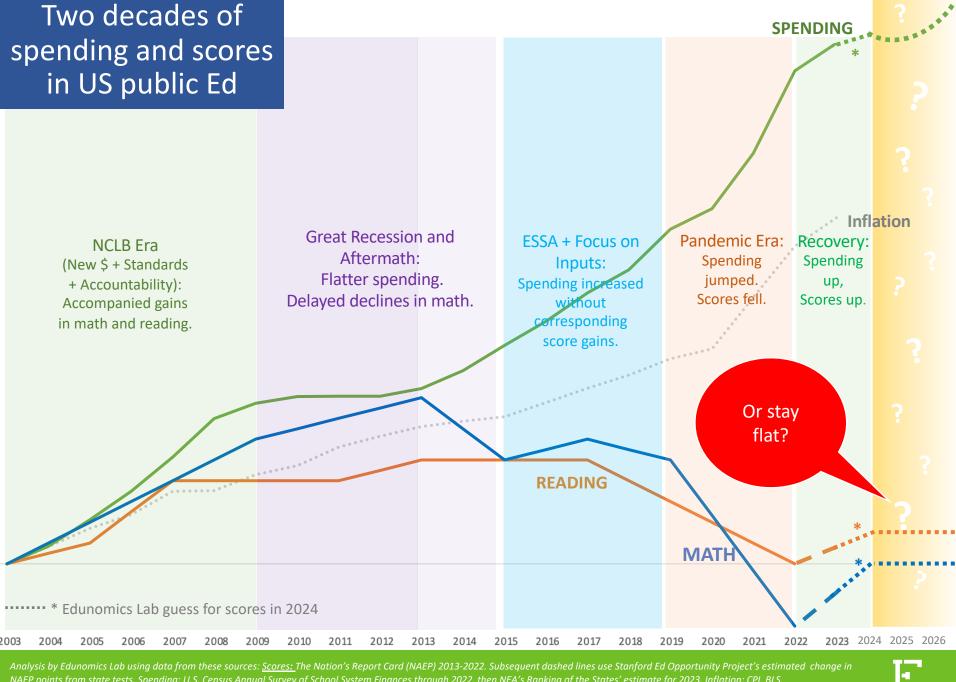




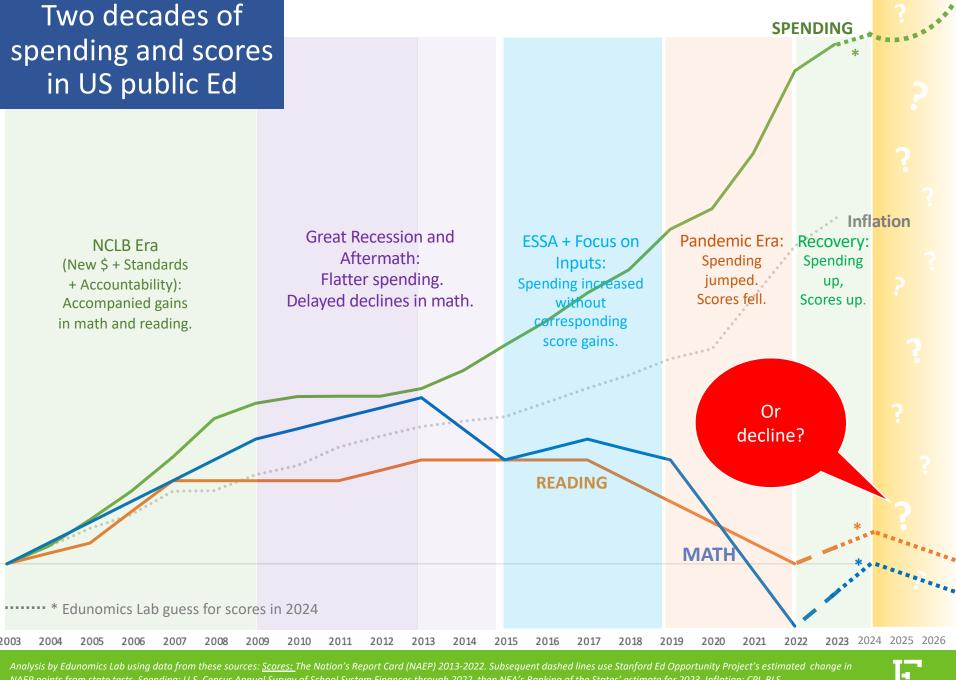














The raw relationship between spending and scores through the "Eras"



NCLB Era: Increased spending corresponded with improved scores from 2003 to 2010. Steady ROI

Recession Era: Spending was flat.

Reading grew. Math grew then fell.



ESSA/Inputs Era: Spending grew.
Scores fell.
Lousy ROI



<u>Pandemic Era</u>: Scores fell. Spending stalled then grew.



Recovery Era: Spending grew. Scores grew

Some ROI!



What can we learn from prior "Eras" to help ensure continued recovery?

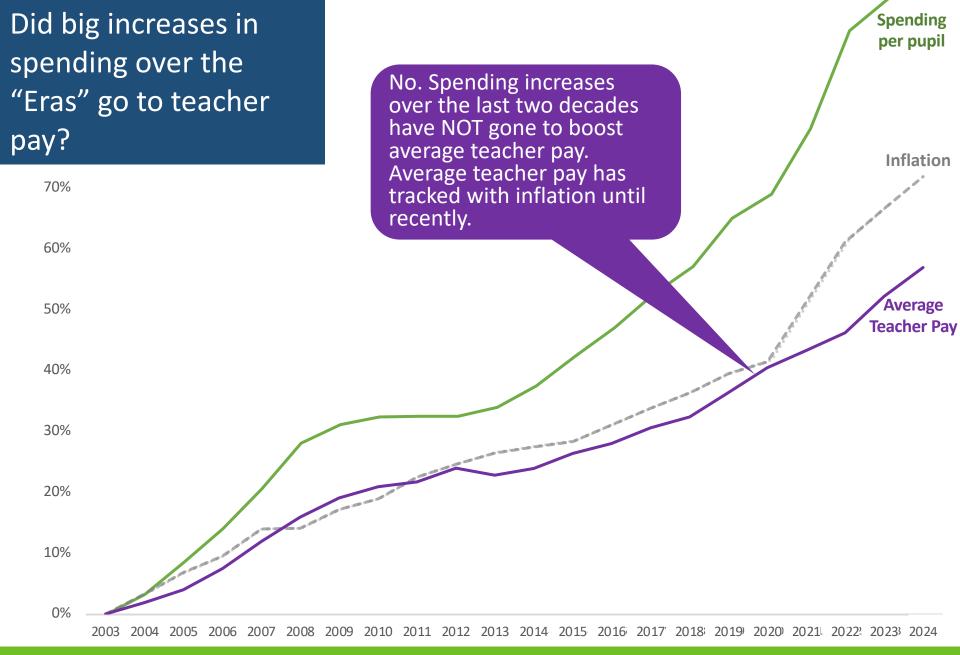
Qs for today:

What did school systems do with increased funds?

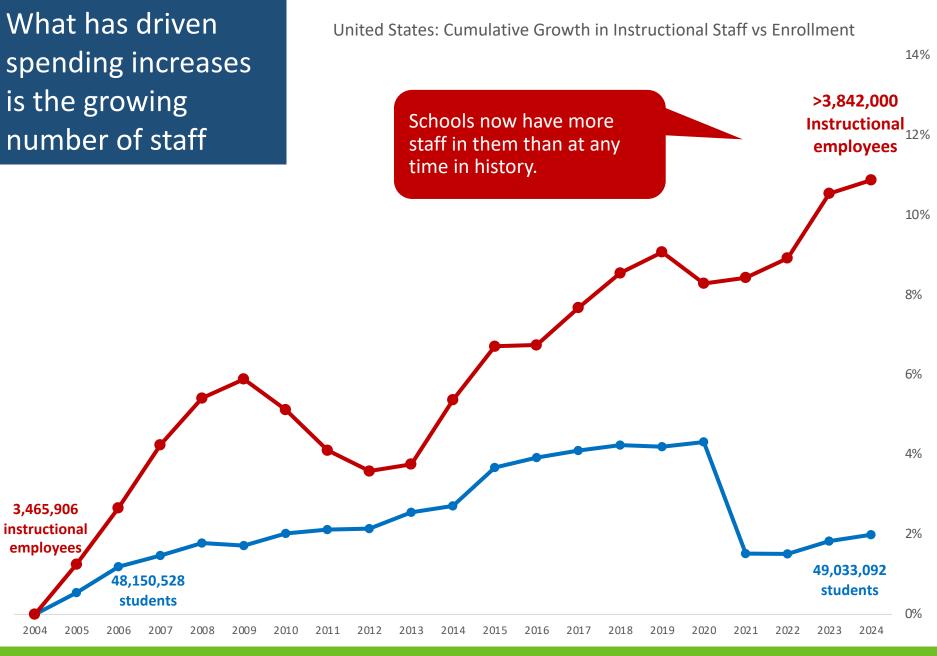
What explains stronger/weaker relationship between spending and scores in different Eras?

What would help ensure that scores continue to rise/don't fall in the coming years of constrained spending?





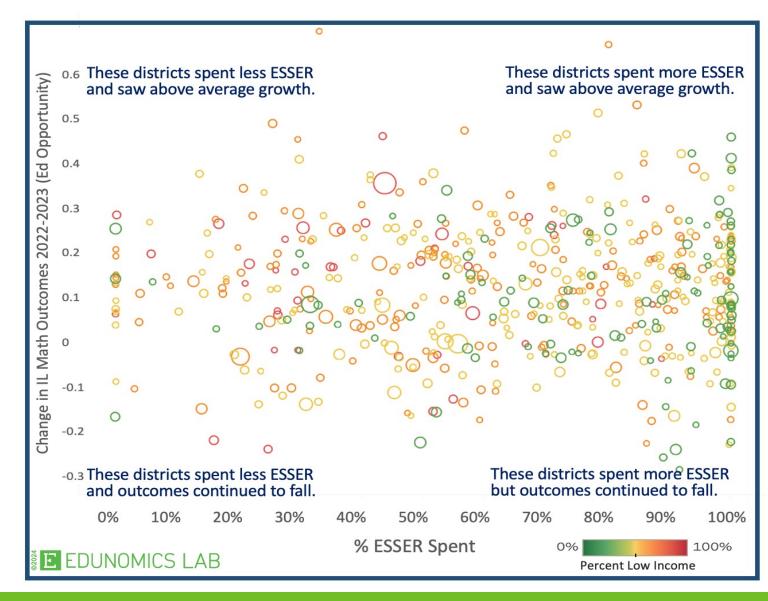






ROI on federal ESSER relief funds was wildly uneven across districts.

For instance, in IL from 2022 to 2023, some districts saw major gains in math while others spent ESSER but saw continued declines.

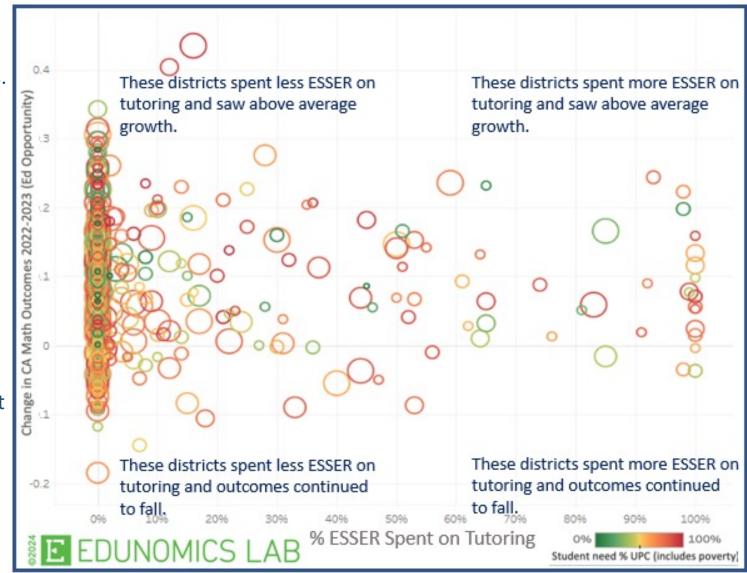




How districts spent money did not explain level of gains.

E.g. So far in CA, disproportionately more spending on summer programs, tutoring or SEL was not associated with greater/lesser test score.

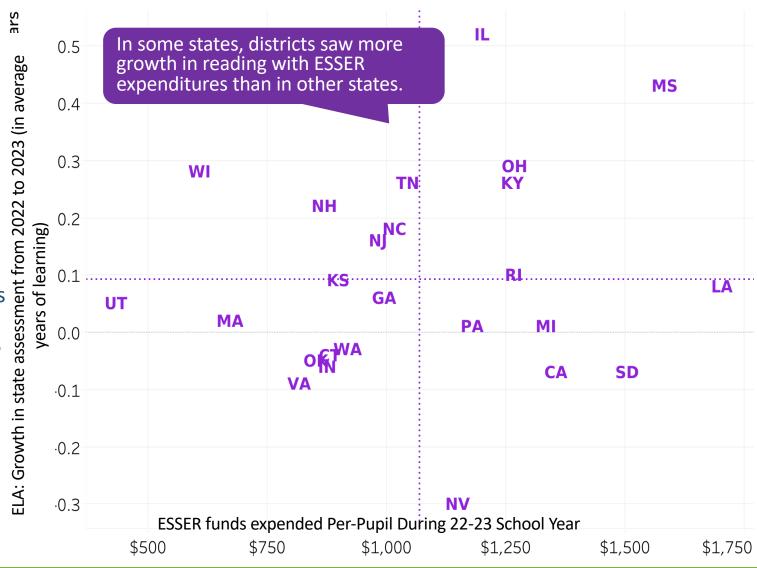
That's not to say that the money didn't matter, because on average districts did see score growth.





But we did find that STATES matter when it comes to getting more gains for the dollar:

From 22 to 23, in some states, districts got much larger reading gains for the dollar, vs others where scores fell as ESSER was spent





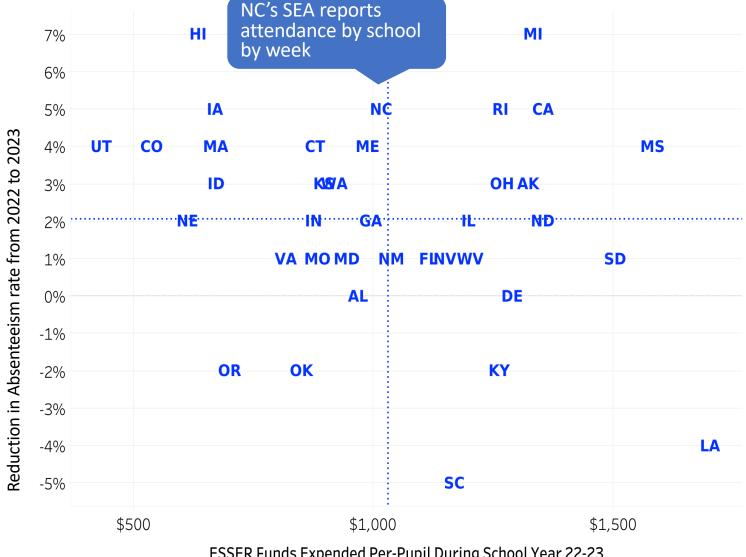
STATES matter when it comes to getting improvement in math scores for the dollar



ESSER Funds Expended Per-Pupil During 22-23 School Year



And STATES matter when it comes to improvements in attendance (for the dollar spent)



ESSER Funds Expended Per-Pupil During School Year 22-23



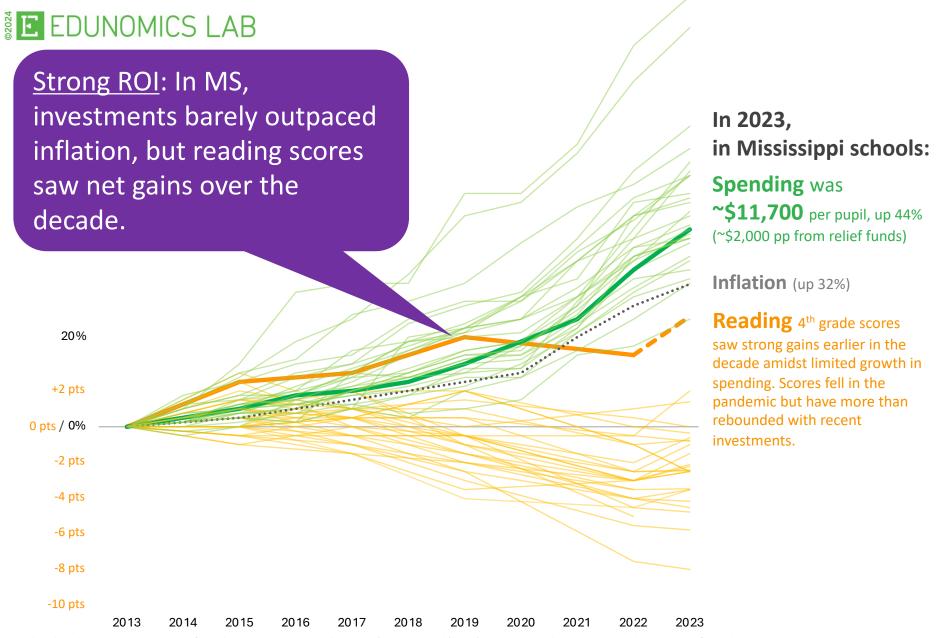
Which <u>states</u> are more/less successful at driving score gains?

How do ROI patterns play out across different states?

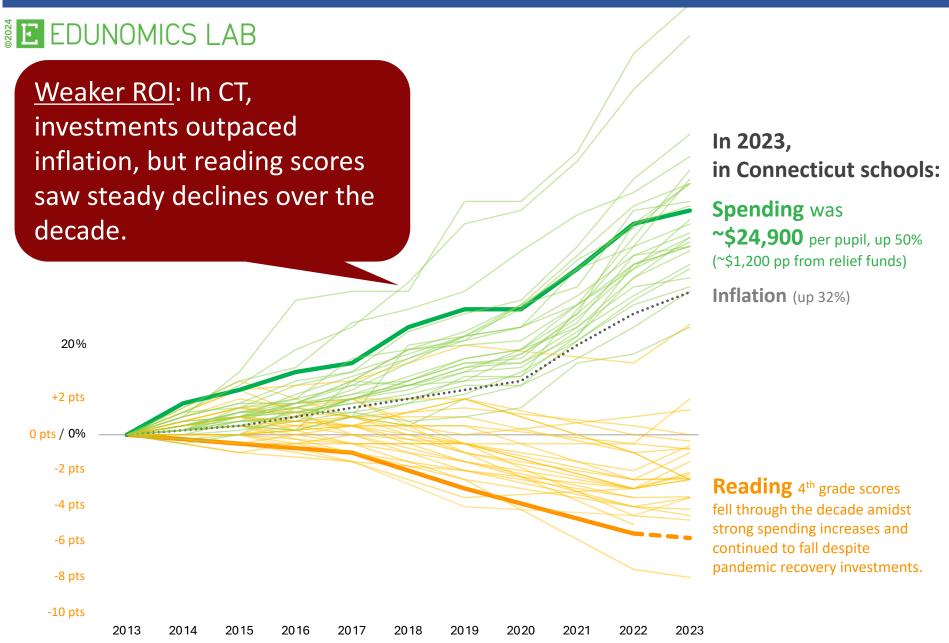
Clearly they start with different spending and scores, but to what extent does added spending correspond to changes in scores?



A Decade of Spending and Reading Scores: Mississippi highlighted

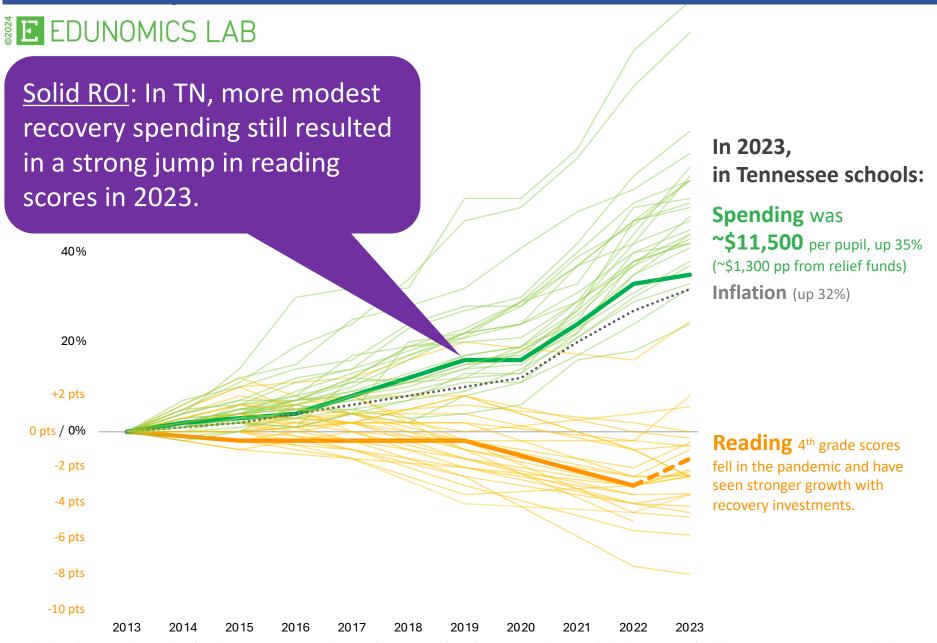


A Decade of Spending and Reading Scores: Connecticut highlighted



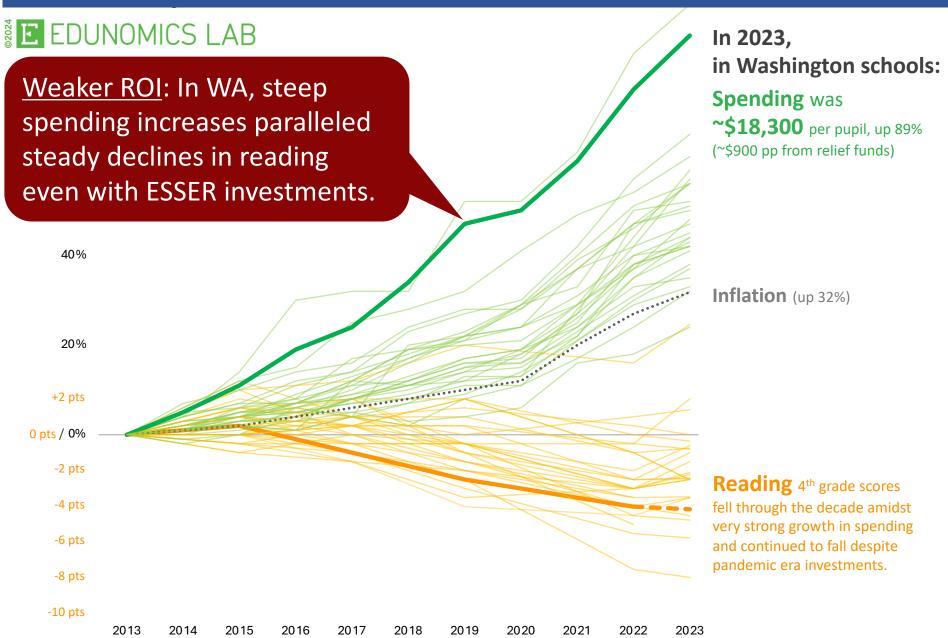
Analysis by Edunomics Lab using data from these sources: <u>Scores:</u> The Nation's Report Card (NAEP) 2013-2022. Subsequent dashed lines use Stanford Ed Opportunity Project's estimated change in NAEP points from state tests. Spending: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. Inflation: CPI, BLS.

A Decade of Spending and Reading Scores: **Tennessee** highlighted

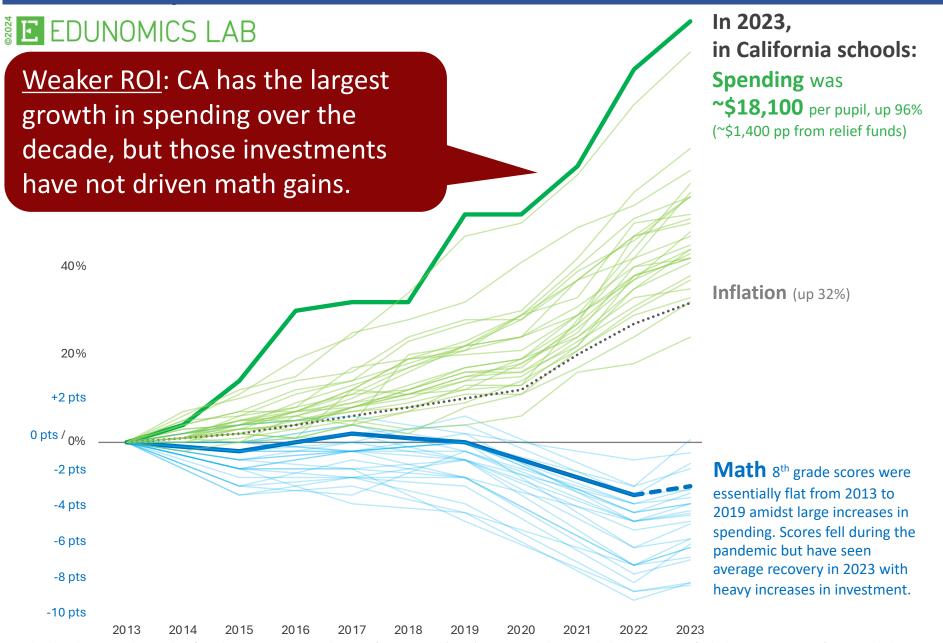


Analysis by Edunomics Lab using data from these sources: <u>Scores:</u> The Nation's Report Card (NAEP) 2013-2022. Subsequent dashed lines use Stanford Ed Opportunity Project's estimated change in NAEP points from state tests. <u>Spending</u>: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. <u>Inflation</u>: CPI, BLS.

A Decade of Spending and Reading Scores: Washington highlighted

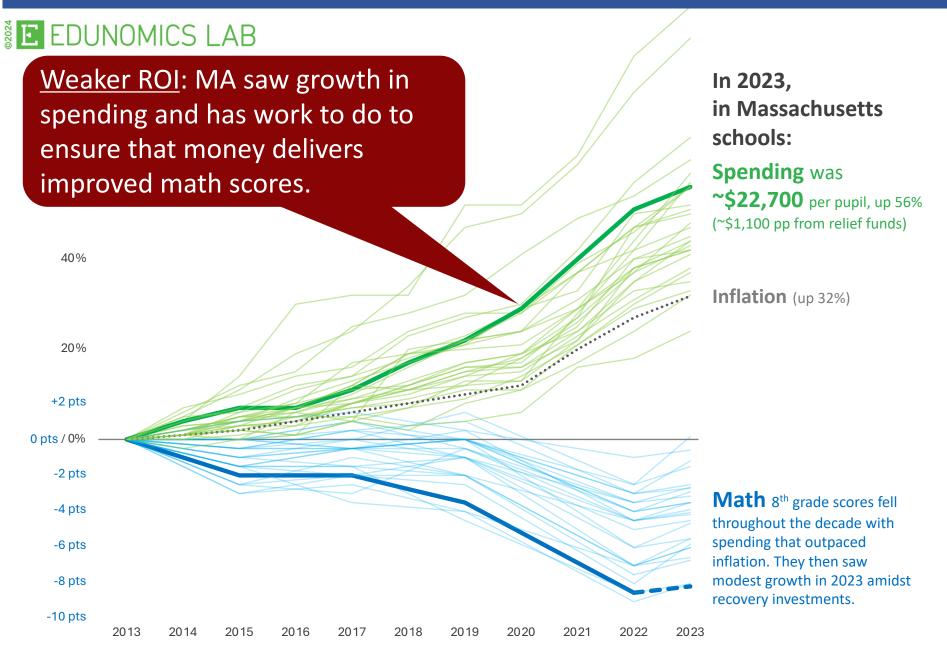


A Decade of Spending and Math Scores: California highlighted



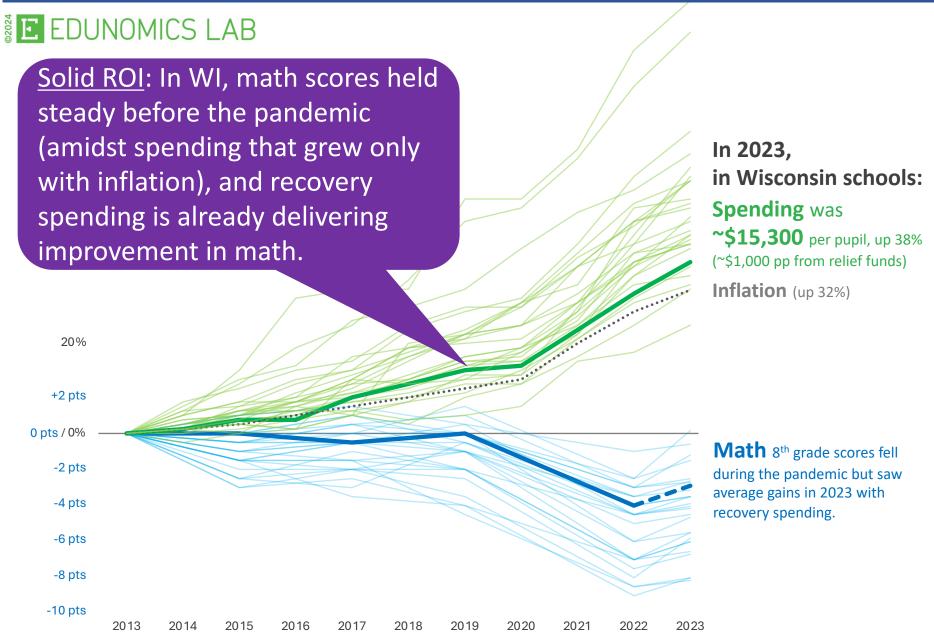
Analysis by Edunomics Lab using data from these sources: <u>Scores:</u> The Nation's Report Card (NAEP) 2013-2022. Subsequent dashed lines use Stanford Ed Opportunity Project's estimated change in NAEP points from state tests. <u>Spending</u>: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. <u>Inflation</u>: CPI, BLS.

A Decade of Spending and Math Scores: Massachusetts highlighted



Analysis by Edunomics Lab using data from these sources: <u>Scores:</u> The Nation's Report Card (NAEP) 2013-2022. Subsequent dashed lines use Stanford Ed Opportunity Project's estimated change in NAEP points from state tests. <u>Spending</u>: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. <u>Inflation</u>: CPI, BLS.

A Decade of Spending and Math Scores: Wisconsin highlighted



Analysis by Edunomics Lab using data from these sources: <u>Scores:</u> The Nation's Report Card (NAEP) 2013-2022. Subsequent dashed lines use Stanford Ed Opportunity Project's estimated change in NAEP points from state tests. Spending: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. Inflation: CPI, BLS.

So, will academic recovery continue or stall when relief funds dry up?

Our guess: It's up to the states.

State spending and scores graphs are attached to the end of the deck (where we have data).

Ahem... AZ, NM, and VT have not posted complete 2023 test scores files publicly.



Q&A

Note: Q&A is off the record unless otherwise stated

Visit <u>EdunomicsLab.org</u> for webinar slides, recording, and other resources. Sign up for our newsletter at http://bit.ly/EdFiNews

Marguerite Roza @MargueriteRoza MR1170@georgetown.edu

Laura Anderson LMA86@georgetown.edu Maggie Cicco MAC407@georgetown.edu

Raghav Chutani RC1566@georgetown.edu

THANK YOU

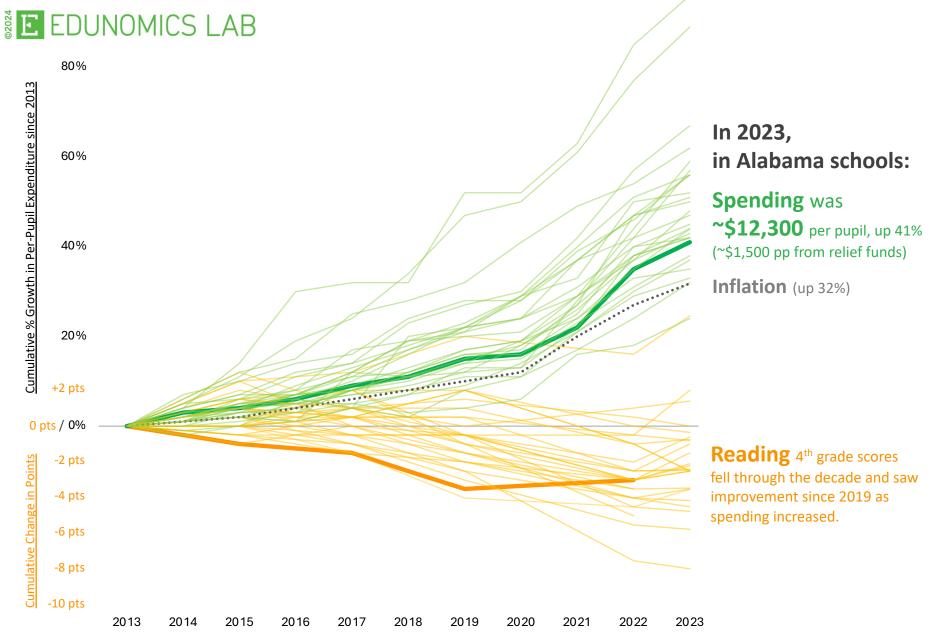
Edunomicslab.org @edunomicslab



Sign up for our newsletter at: edunomicslab.org/newsletters



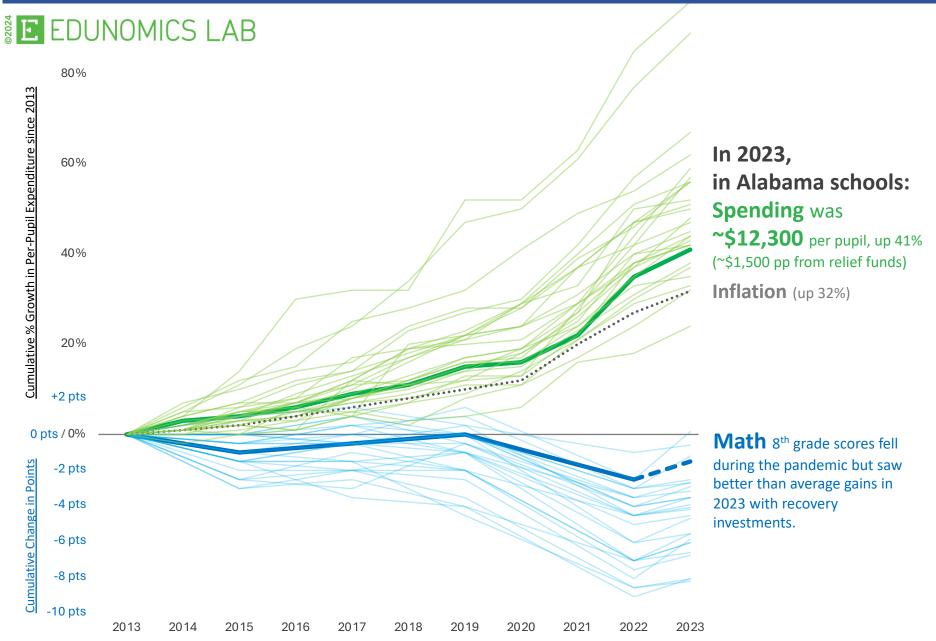
A Decade of Spending and Reading Scores: Alabama highlighted



Analysis by Edunomics Lab using data from these sources: <u>Scores:</u> The Nation's Report Card (NAEP) 2013-2022.

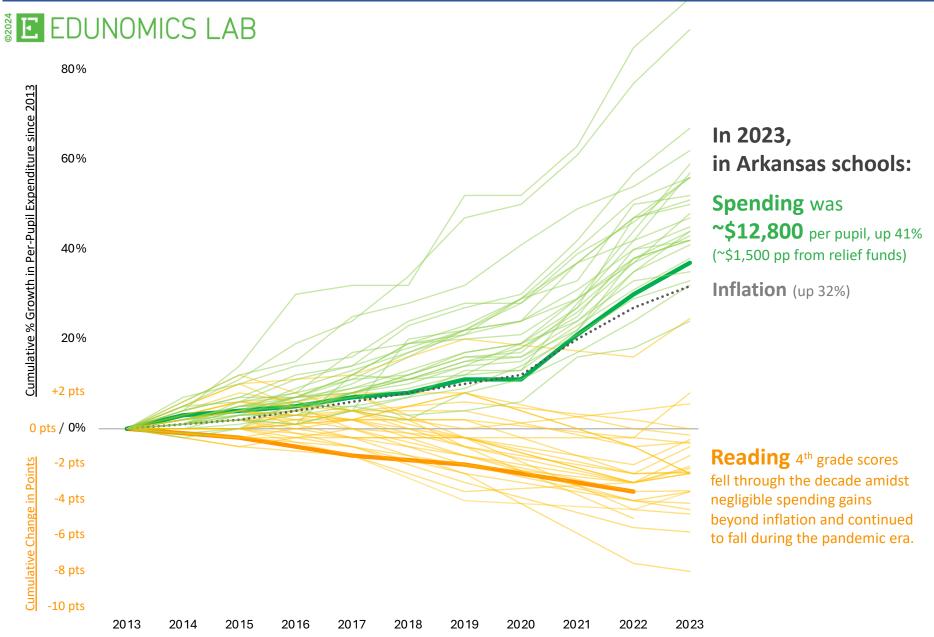
Spending: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. Inflation: CPI, BLS. Questions: Edunomics@Georgetown.edu

A Decade of Spending and Math Scores: Alabama highlighted



Analysis by Edunomics Lab using data from these sources: Scores: The Nation's Report Card (NAEP) 2013-2022. Subsequent dashed lines use Stanford Ed Opportunity Project's estimated change in NAEP points from state tests. Spending: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. Inflation: CPI, BLS. Questions: Edunomics@Georgetown.edu

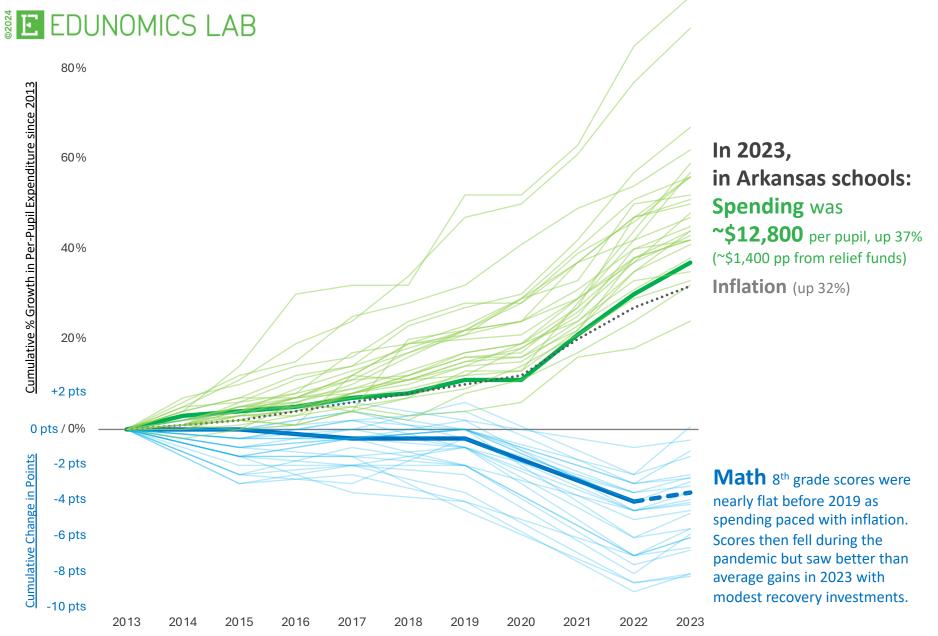
A Decade of Spending and Reading Scores: Arkansas highlighted



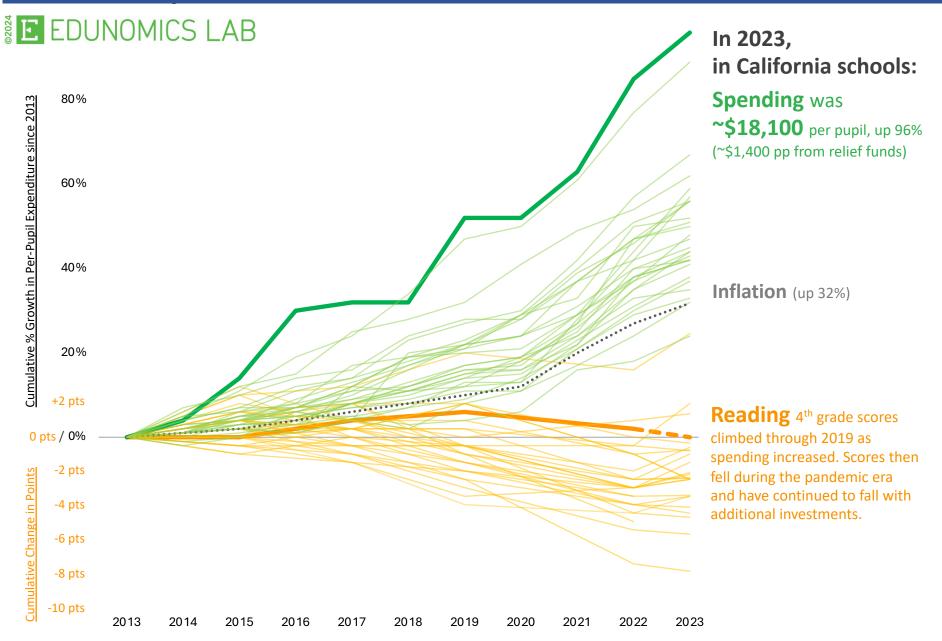
Analysis by Edunomics Lab using data from these sources: <u>Scores:</u> The Nation's Report Card (NAEP) 2013-2022.

Spending: U.S. Census Annual Survey of School System Finances through 2022, then NEA's Ranking of the States' estimate for 2023. Inflation: CPI, BLS. Questions: Edunomics@Georgetown.edu

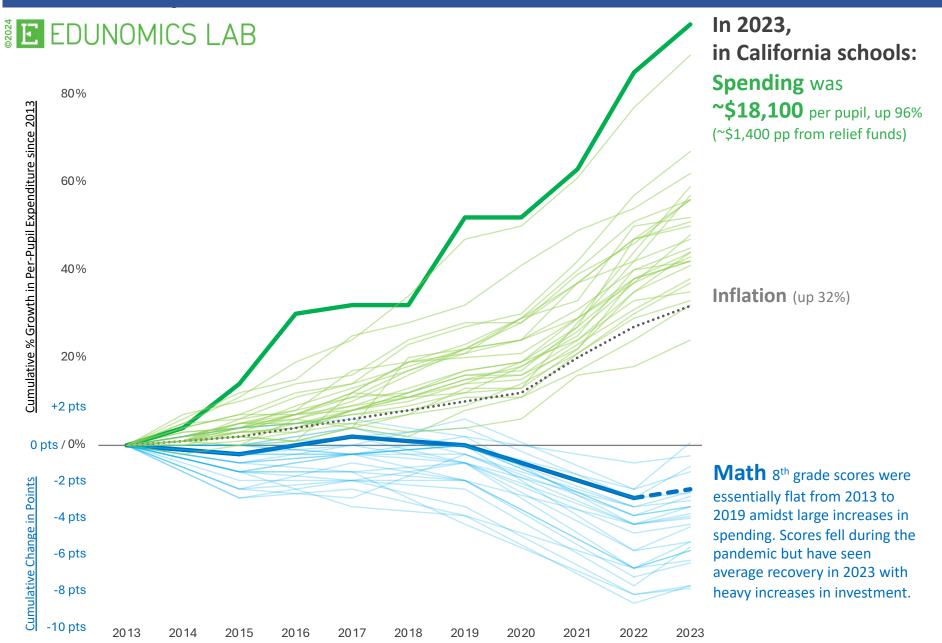
A Decade of Spending and Math Scores: Arkansas highlighted



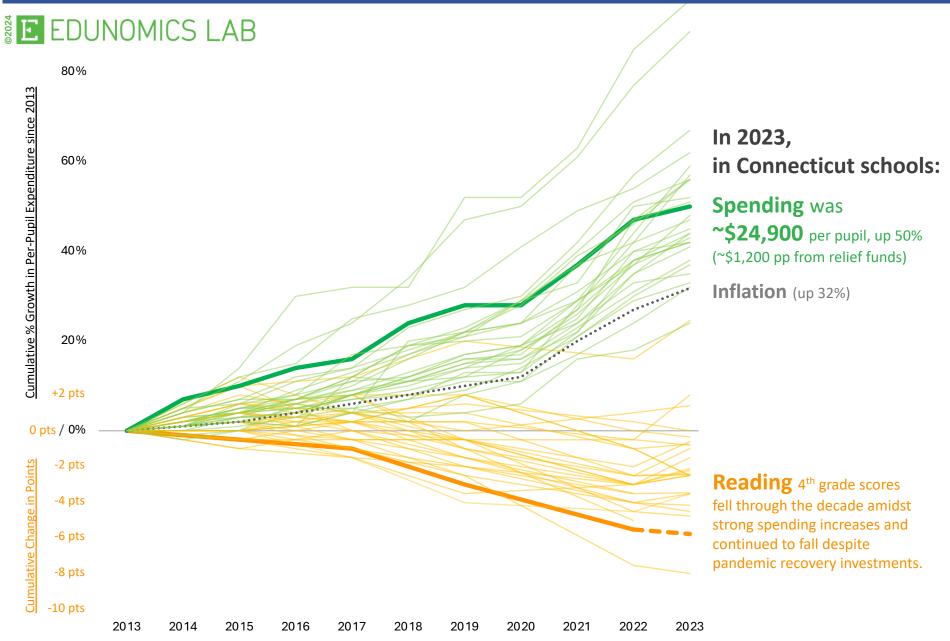
A Decade of Spending and Reading Scores: California highlighted



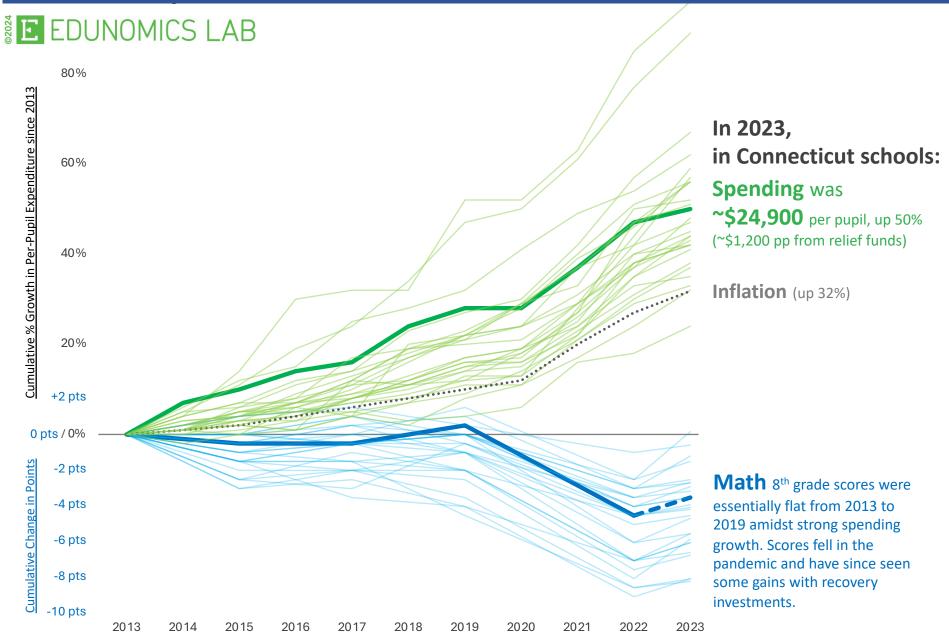
A Decade of Spending and Math Scores: California highlighted



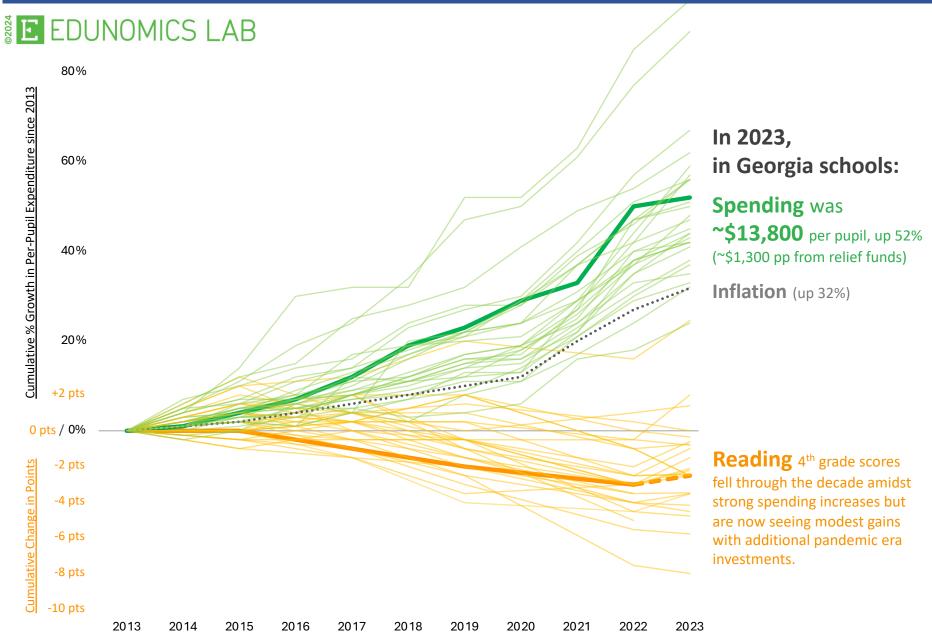
A Decade of Spending and Reading Scores: Connecticut highlighted



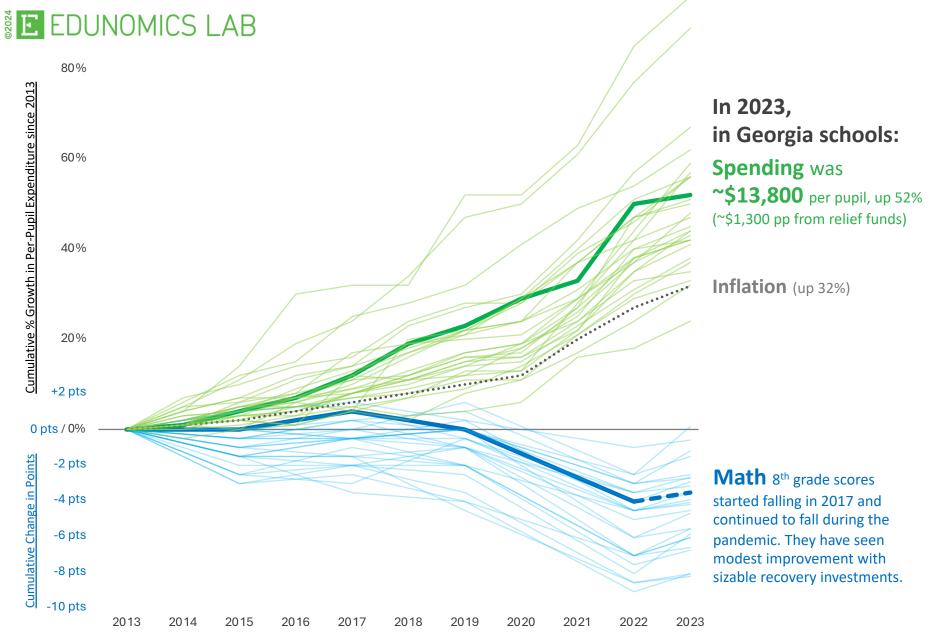
A Decade of Spending and Math Scores: Connecticut highlighted



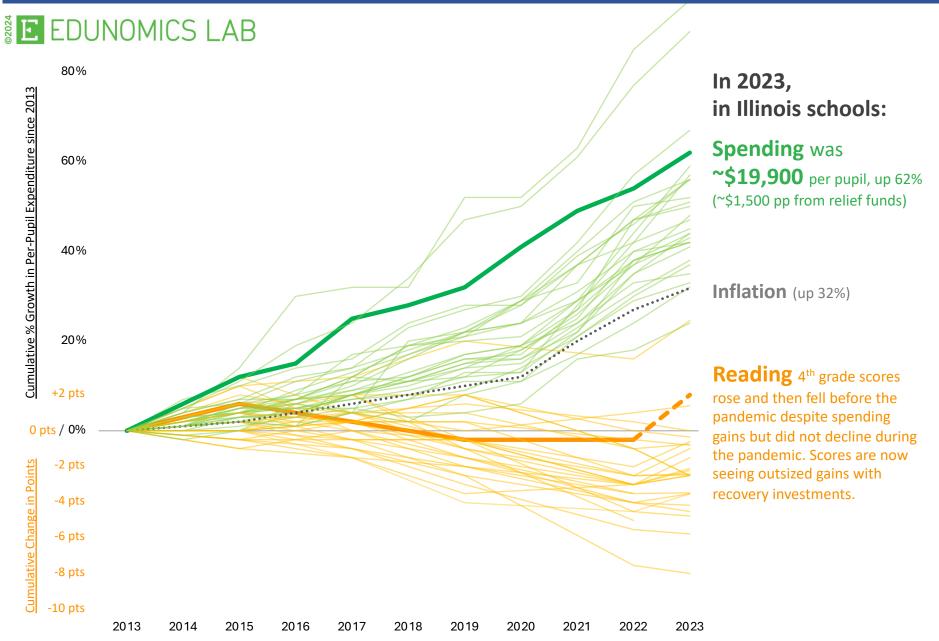
A Decade of Spending and Reading Scores: Georgia highlighted



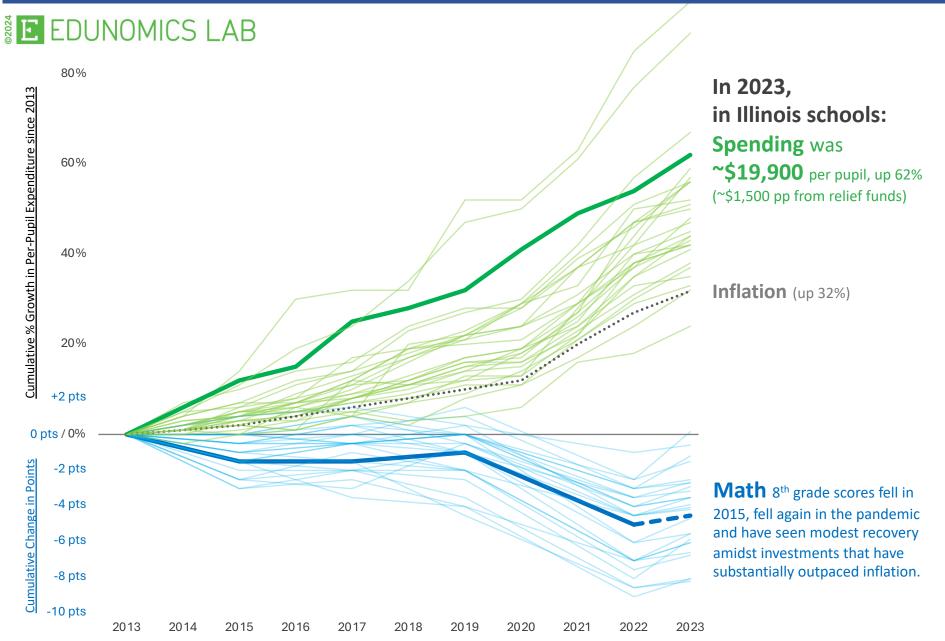
A Decade of Spending and Math Scores: Georgia highlighted



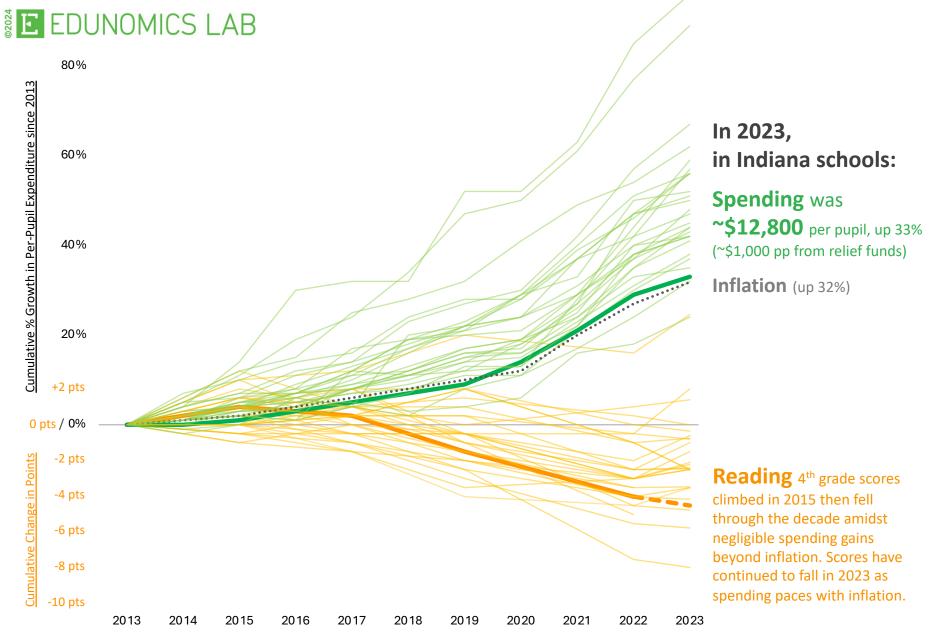
A Decade of Spending and Reading Scores: Illinois highlighted



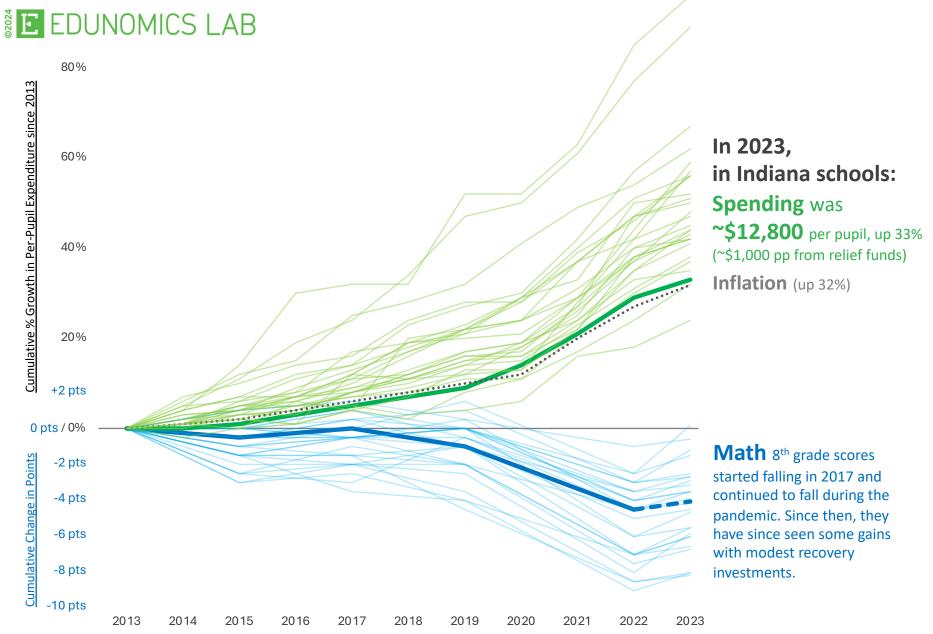
A Decade of Spending and Math Scores: Illinois highlighted



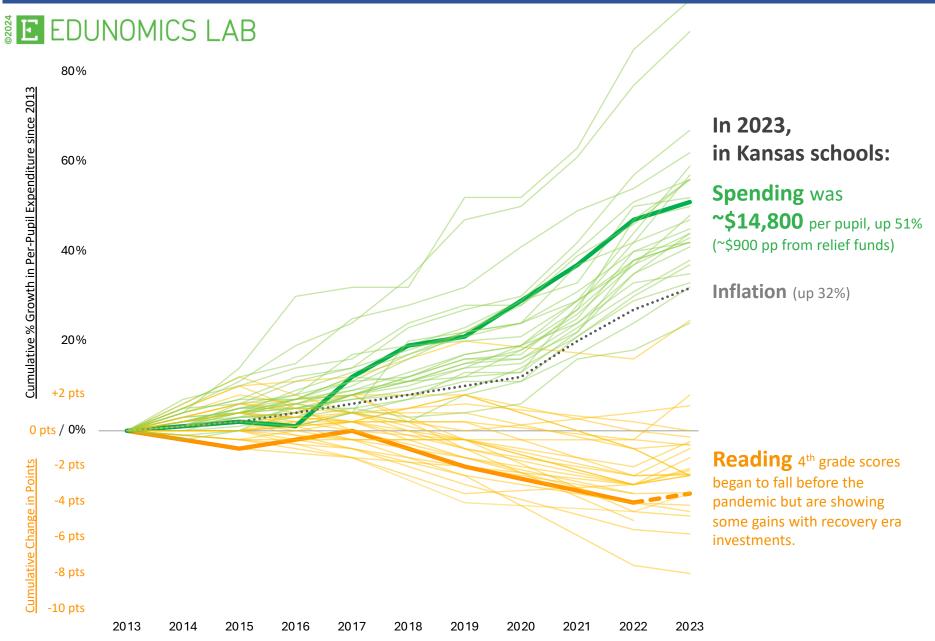
A Decade of Spending and Reading Scores: Indiana highlighted



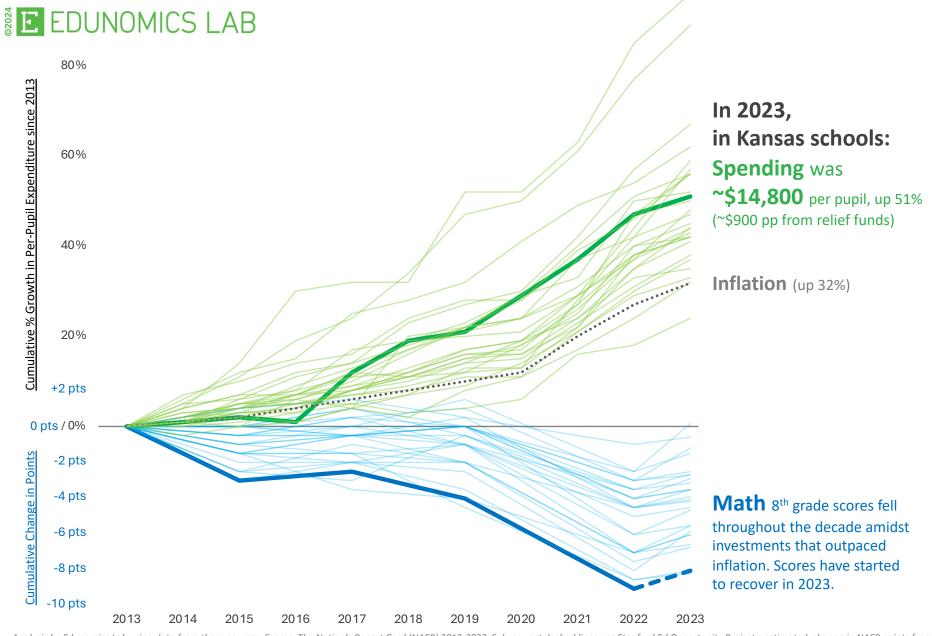
A Decade of Spending and Math Scores: Indiana highlighted



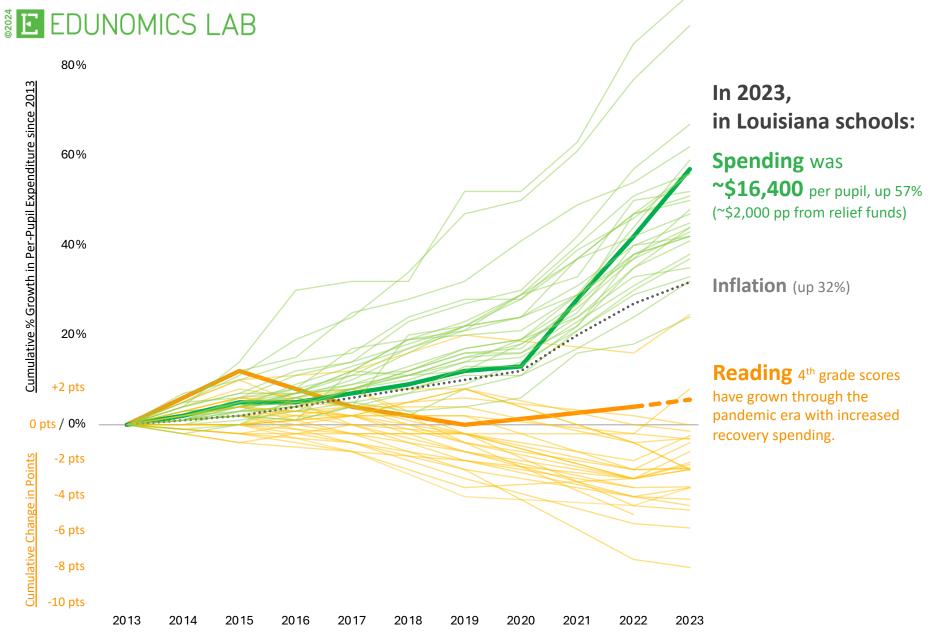
A Decade of Spending and Reading Scores: Kansas highlighted



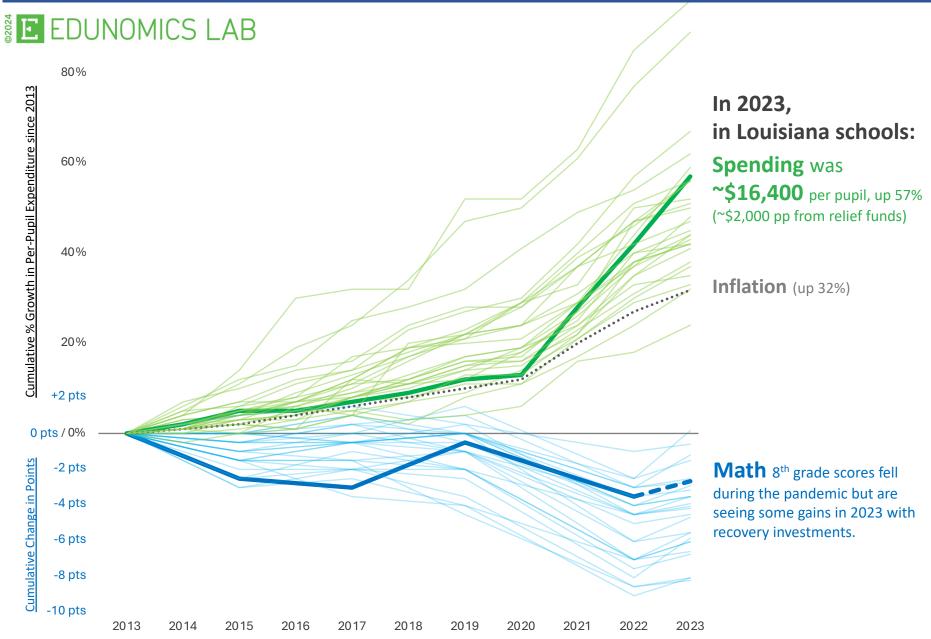
A Decade of Spending and Math Scores: Kansas highlighted



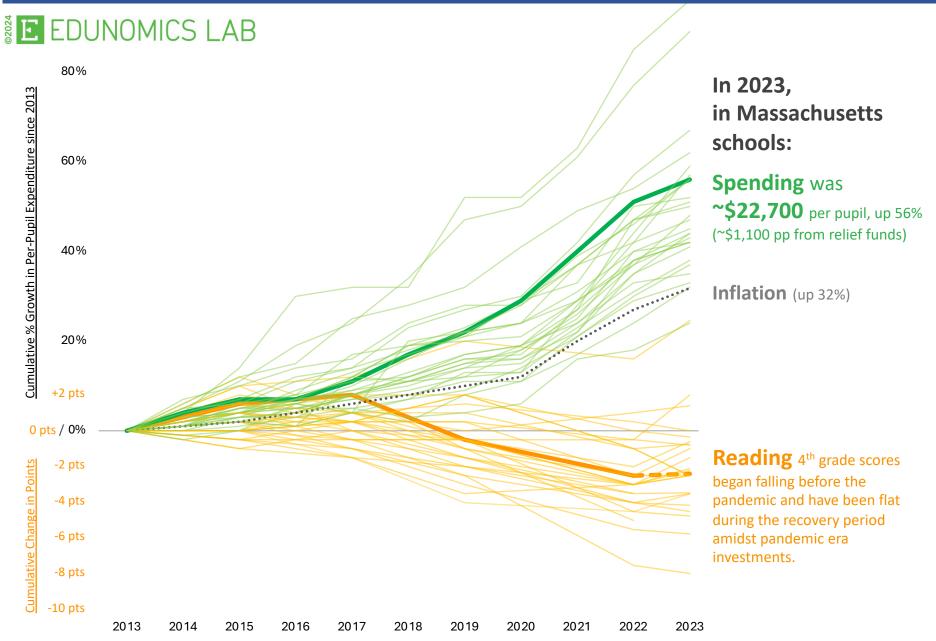
A Decade of Spending and Reading Scores: Louisiana highlighted



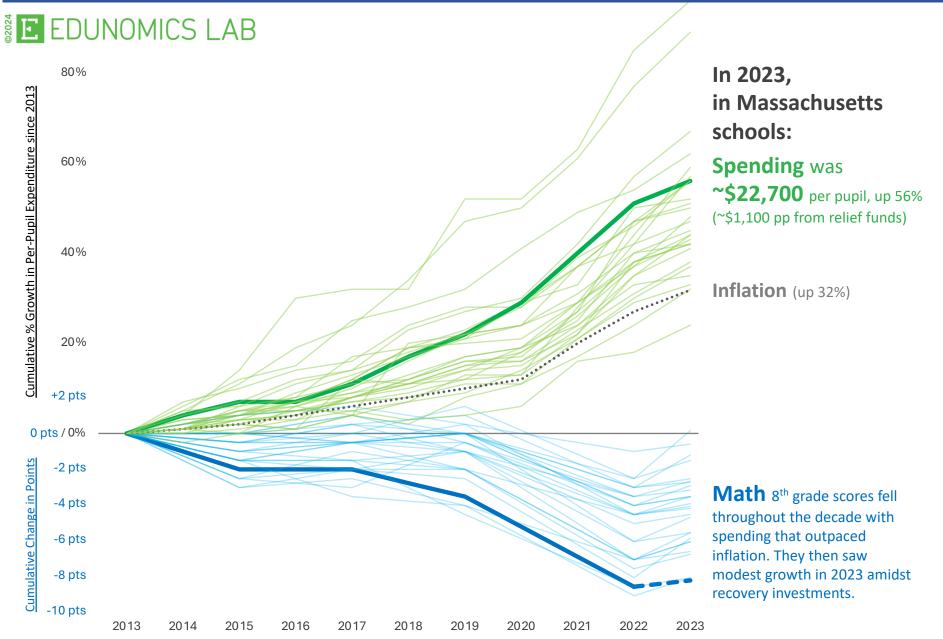
A Decade of Spending and Math Scores: Louisiana highlighted



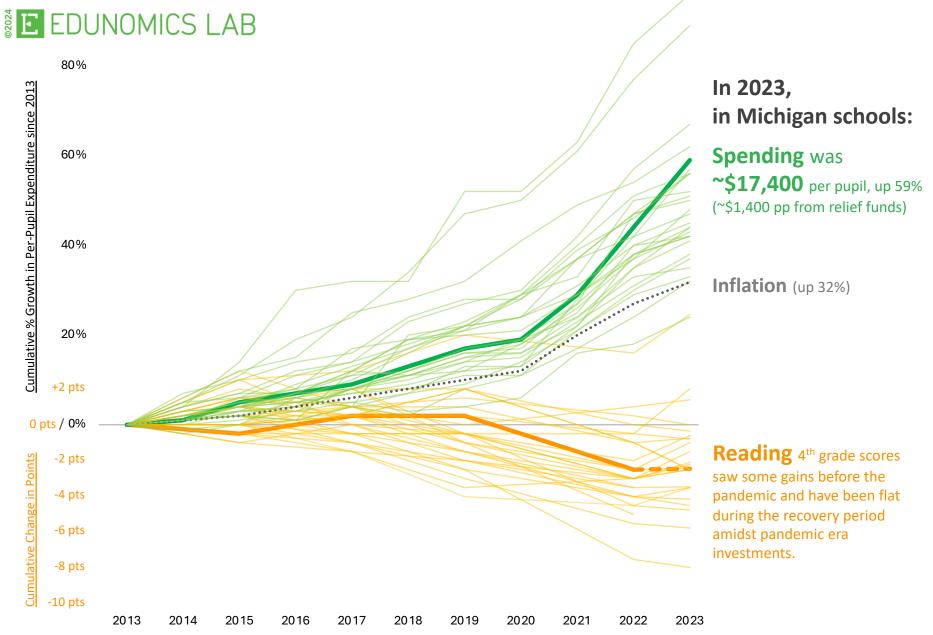
A Decade of Spending and Reading Scores: Massachusetts highlighted



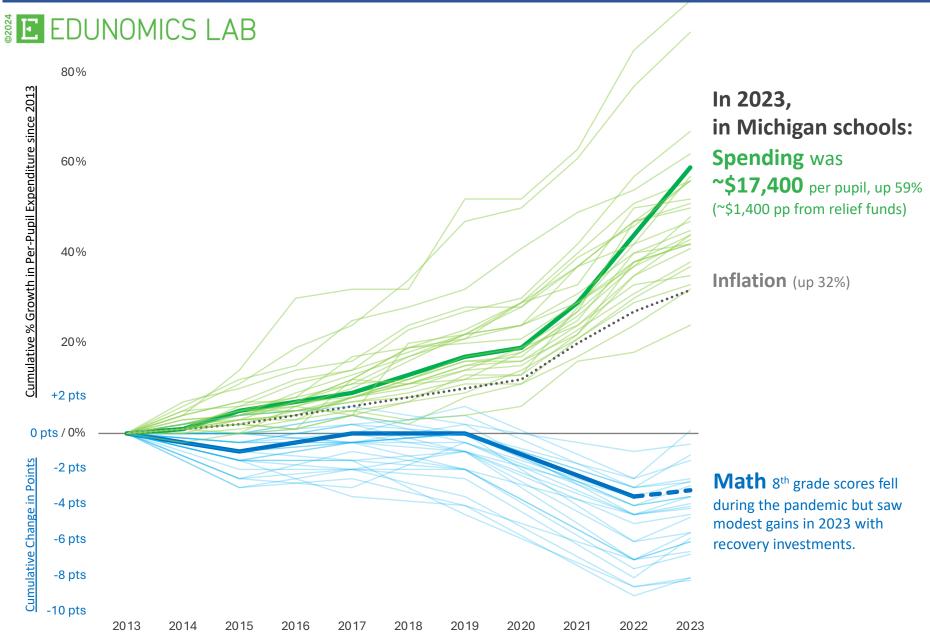
A Decade of Spending and Math Scores: Massachusetts highlighted



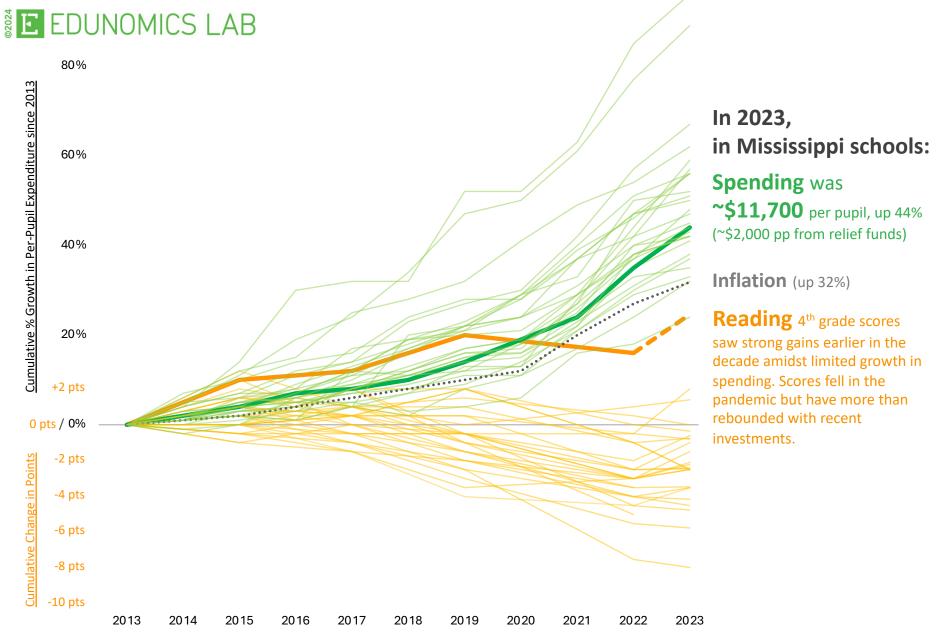
A Decade of Spending and Reading Scores: Michigan highlighted



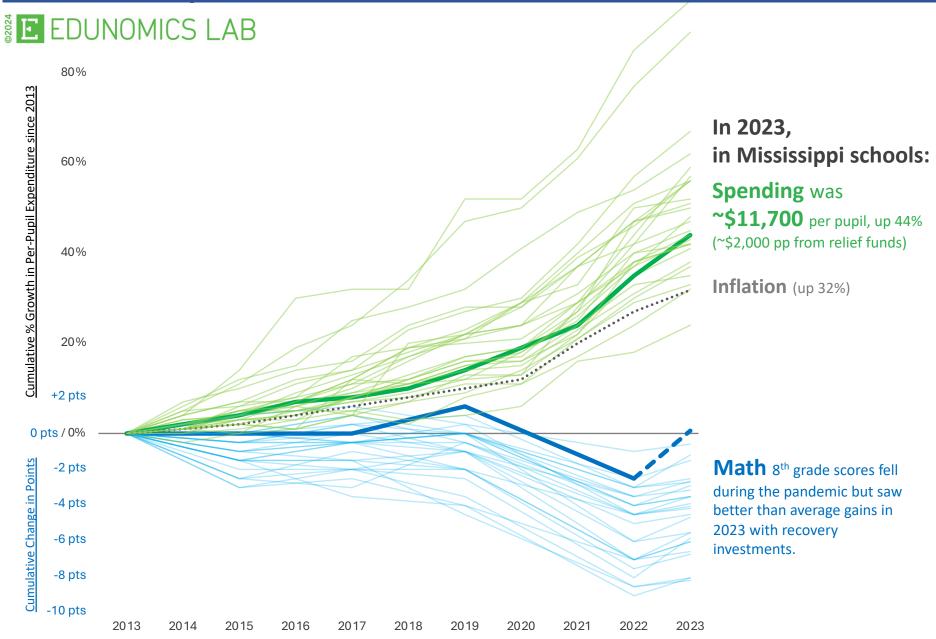
A Decade of Spending and Math Scores: Michigan highlighted



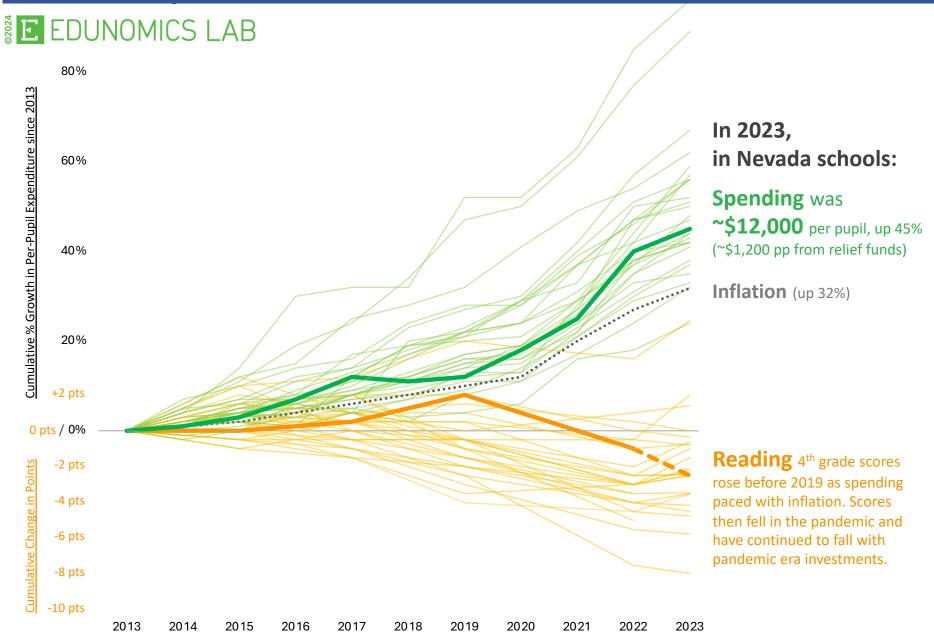
A Decade of Spending and Reading Scores: Mississippi highlighted



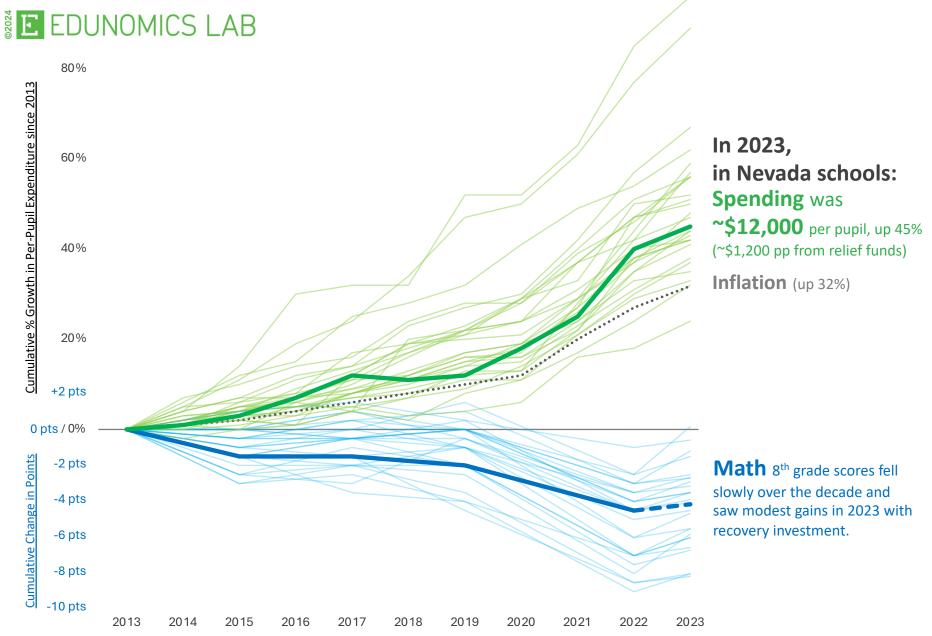
A Decade of Spending and Math Scores: Mississippi highlighted



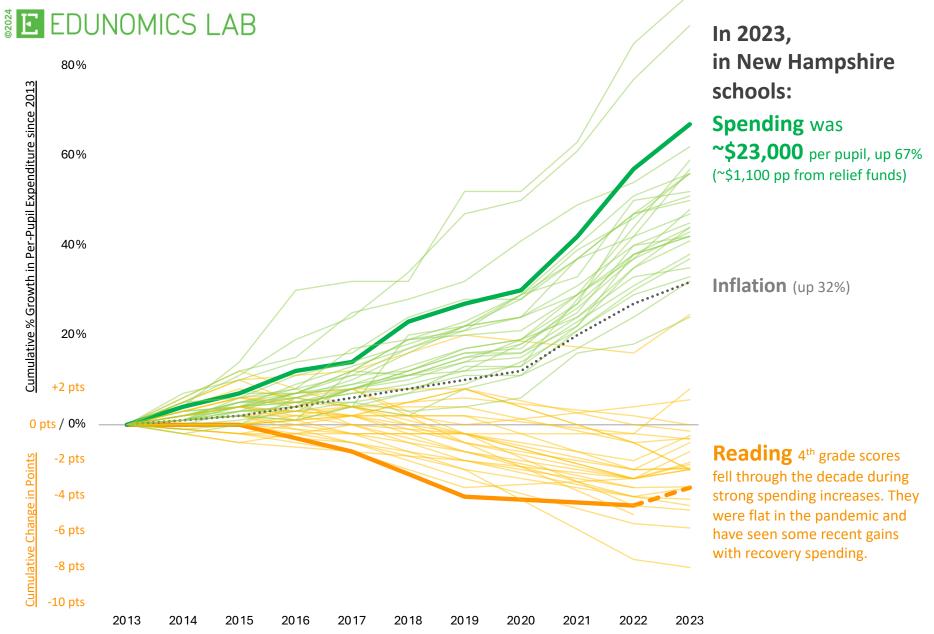
A Decade of Spending and Reading Scores: Nevada highlighted



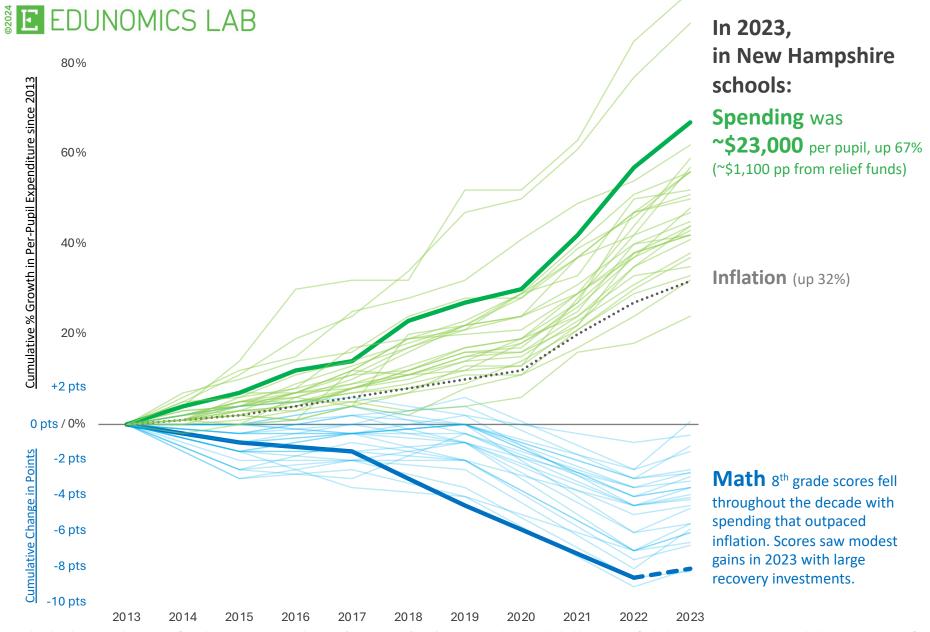
A Decade of Spending and Math Scores: Nevada highlighted



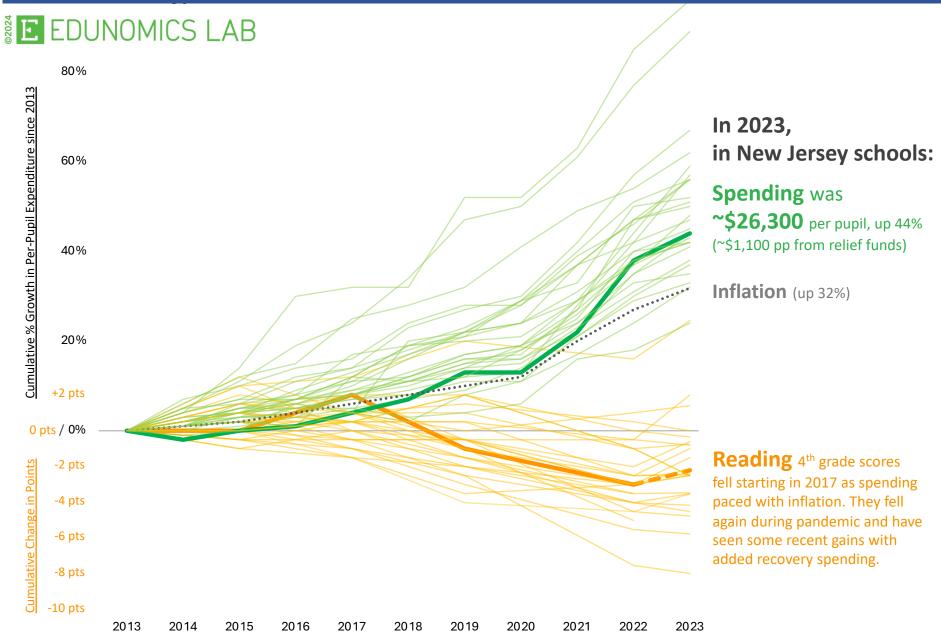
A Decade of Spending and Reading Scores: New Hampshire highlighted



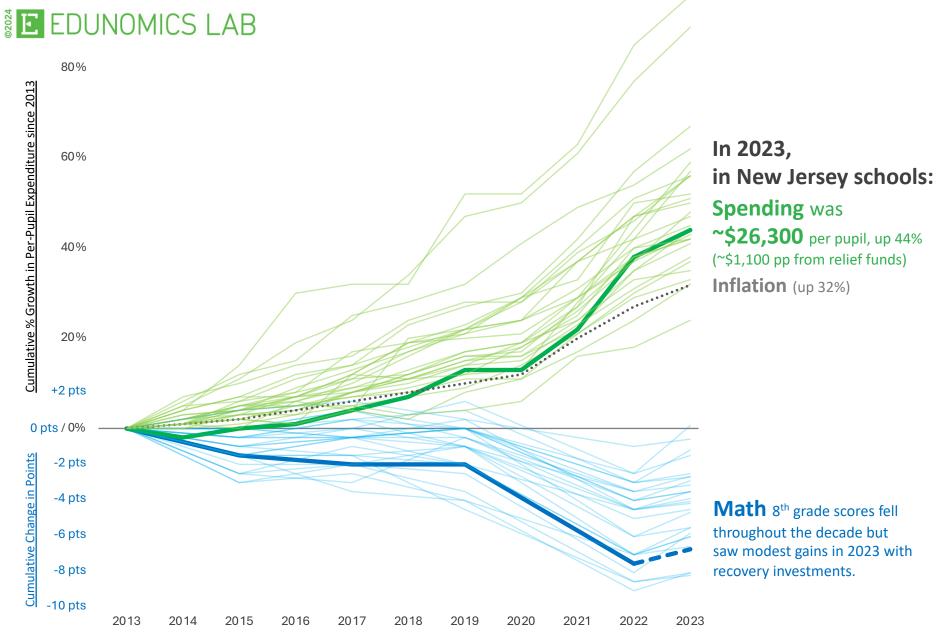
A Decade of Spending and Math Scores: New Hampshire highlighted



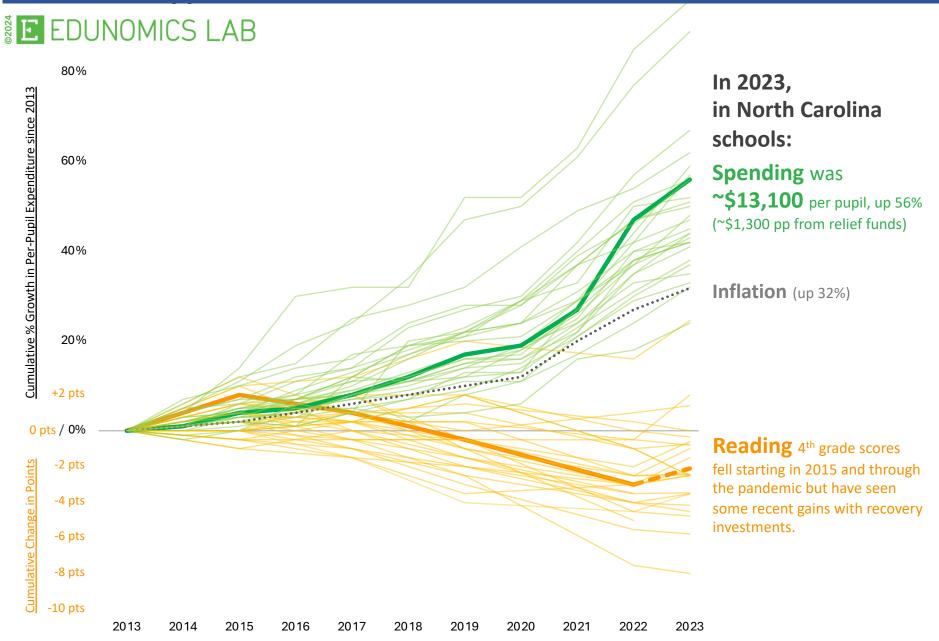
A Decade of Spending and Reading Scores: New Jersey highlighted



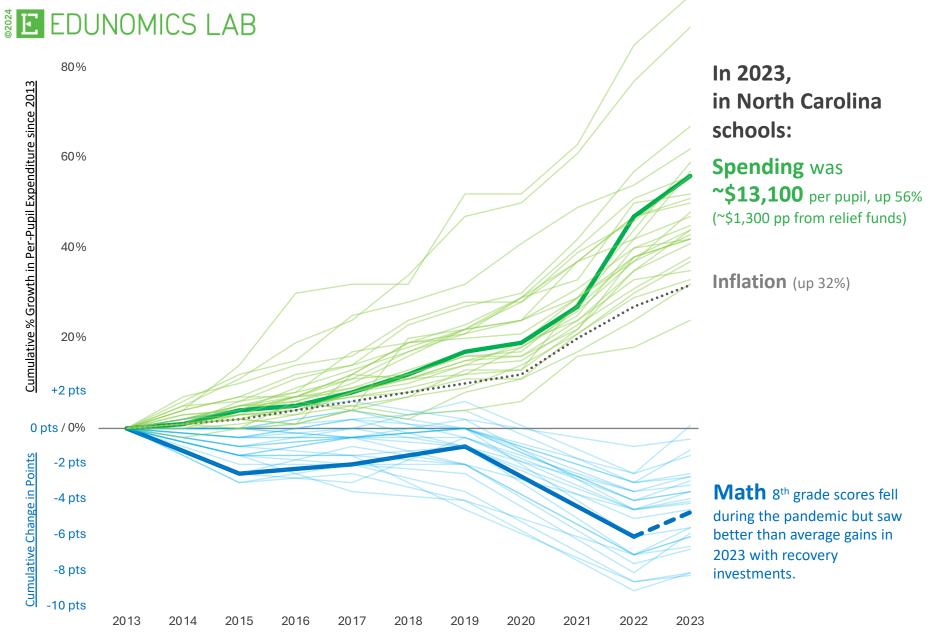
A Decade of Spending and Math Scores: New Jersey highlighted



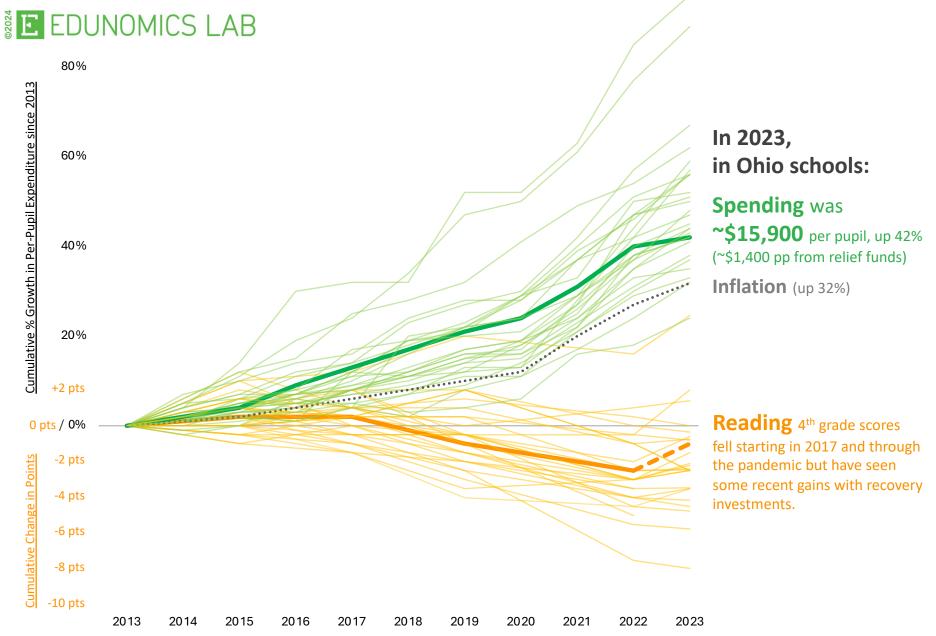
A Decade of Spending and Reading Scores: North Carolina highlighted



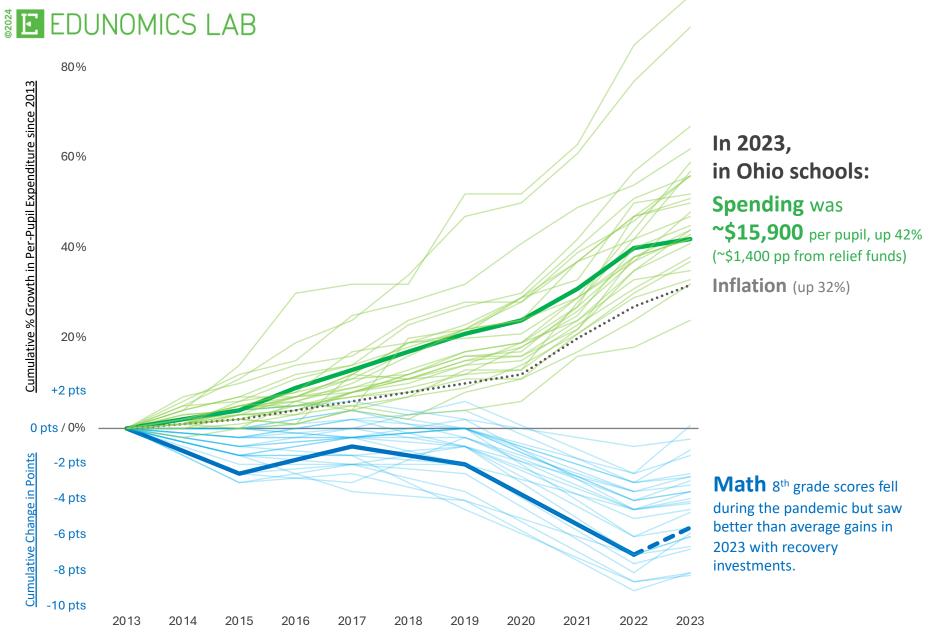
A Decade of Spending and Math Scores: North Carolina highlighted



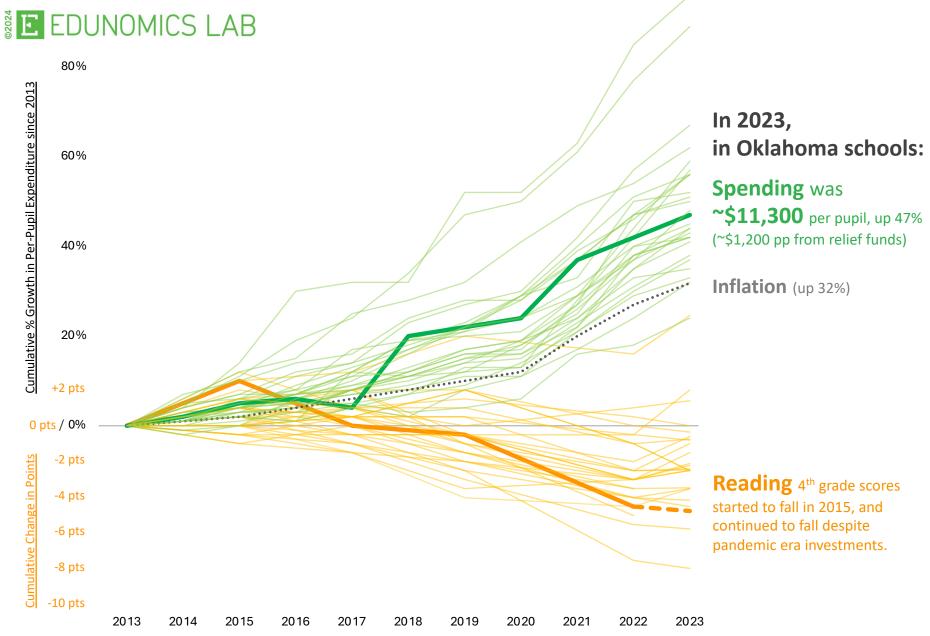
A Decade of Spending and Reading Scores: Ohio highlighted



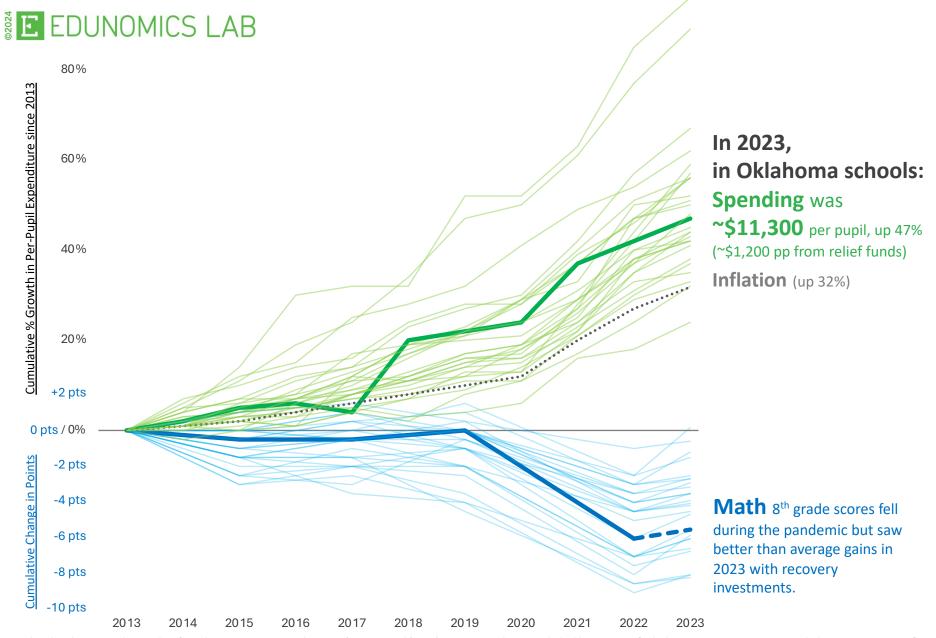
A Decade of Spending and Math Scores: Ohio highlighted



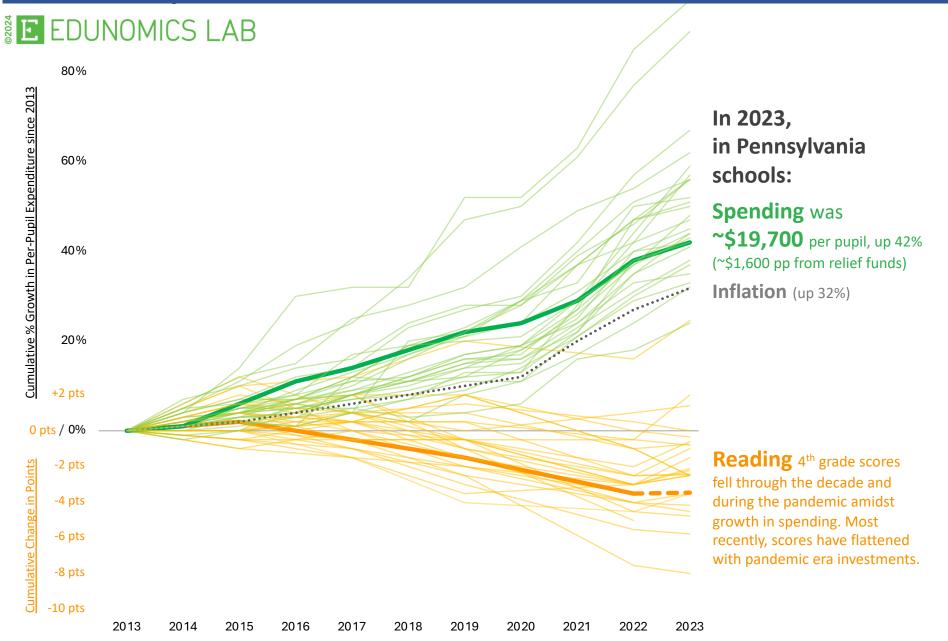
A Decade of Spending and Reading Scores: Oklahoma highlighted



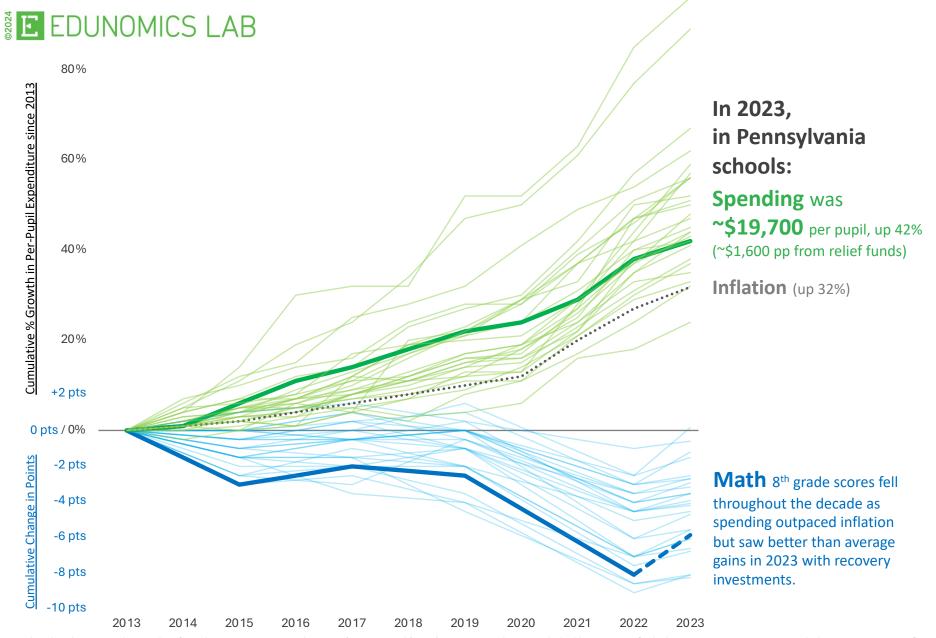
A Decade of Spending and Math Scores: Oklahoma highlighted



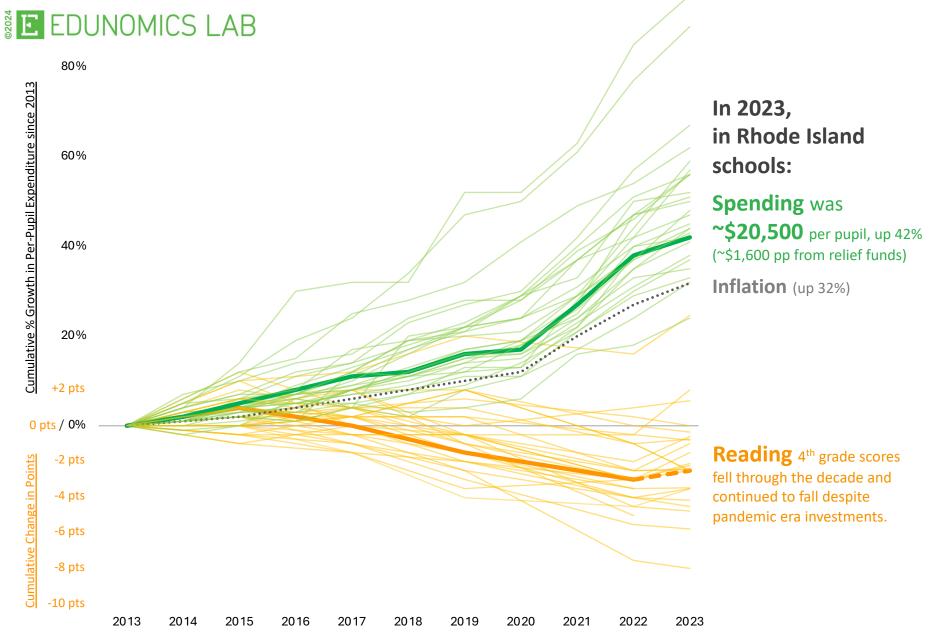
A Decade of Spending and Reading Scores: Pennsylvania highlighted



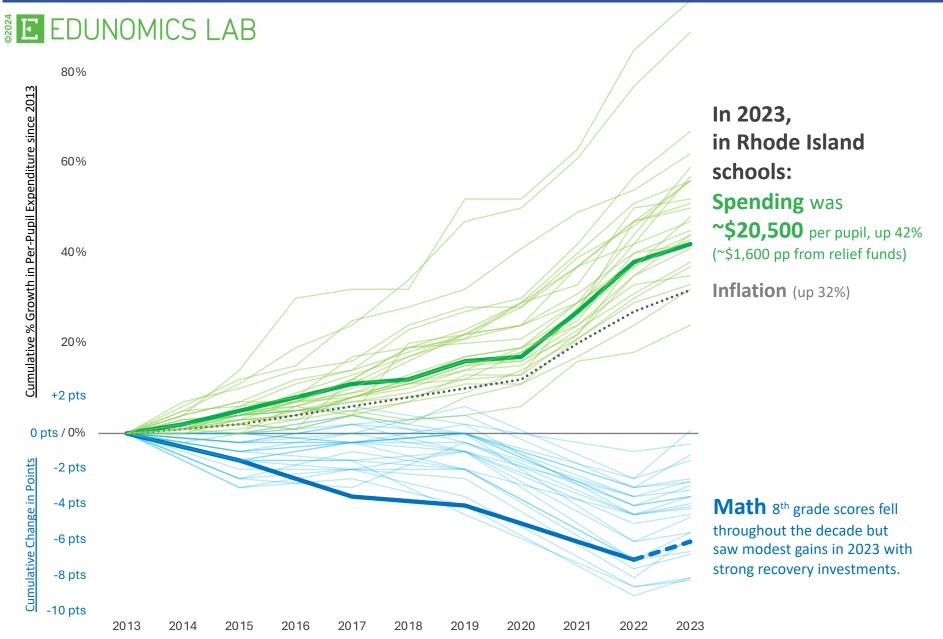
A Decade of Spending and Math Scores: Pennsylvania highlighted



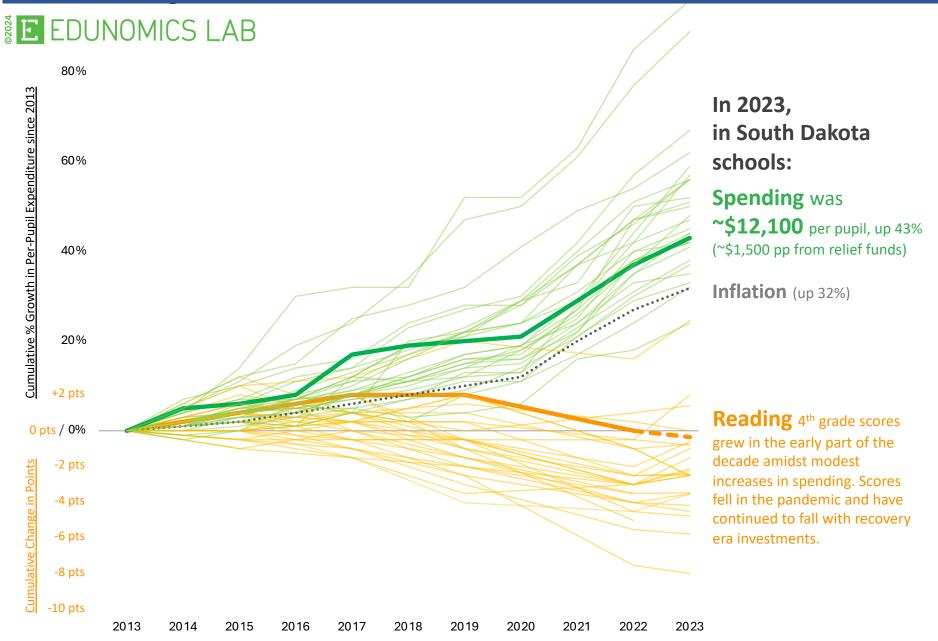
A Decade of Spending and Reading Scores: Rhode Island highlighted



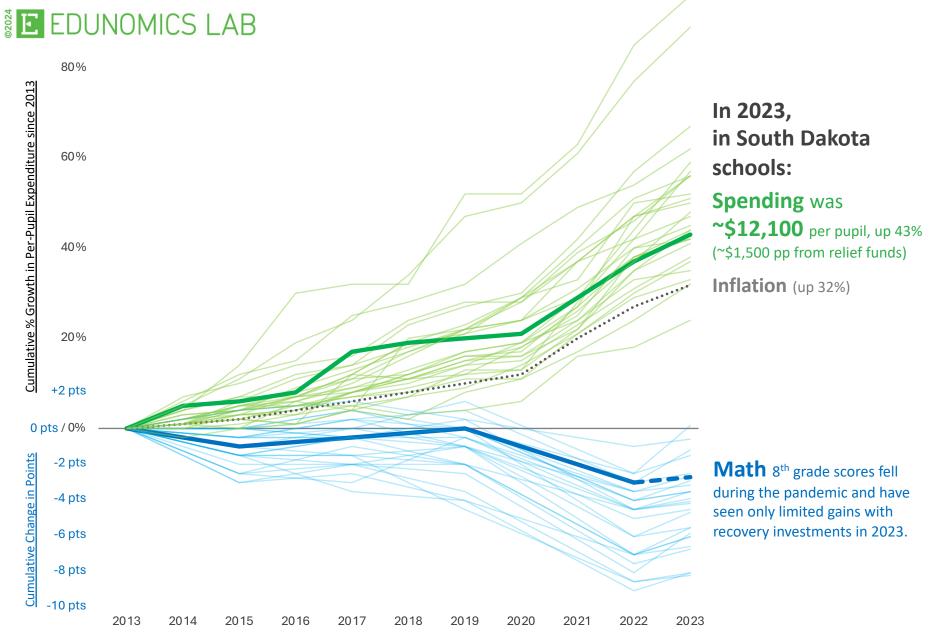
A Decade of Spending and Math Scores: Rhode Island highlighted



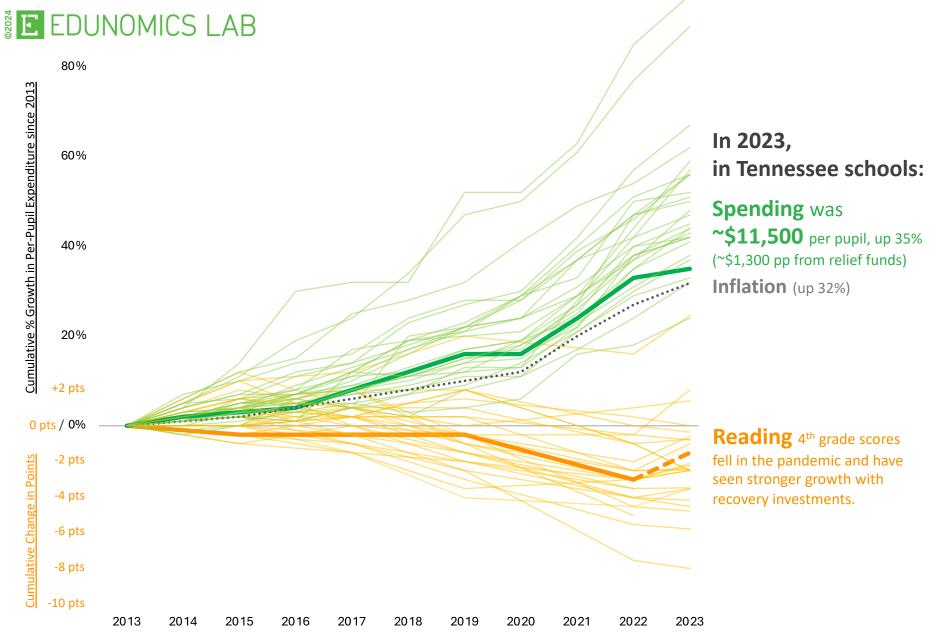
A Decade of Spending and Reading Scores: South Dakota highlighted



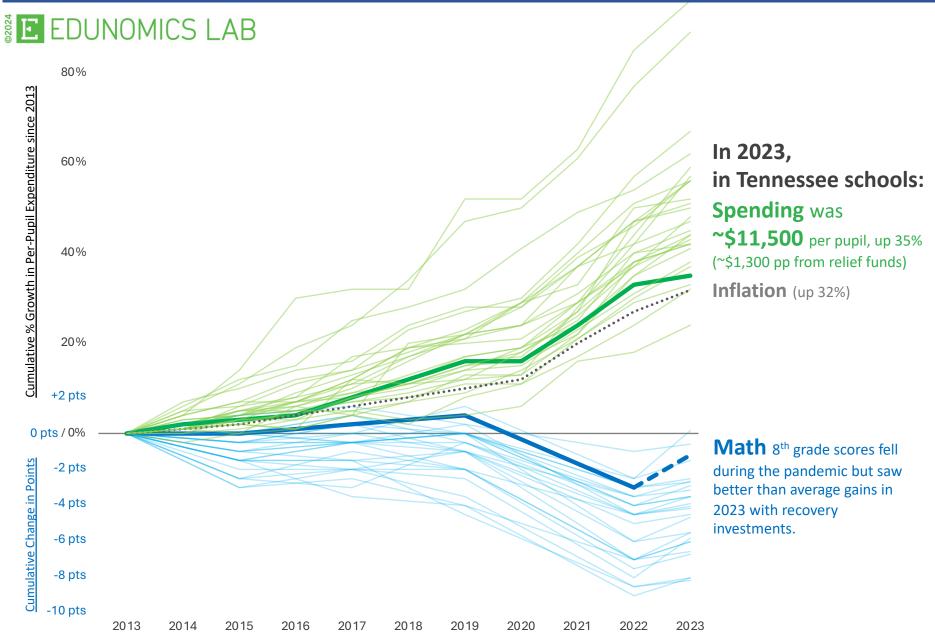
A Decade of Spending and Math Scores: South Dakota highlighted



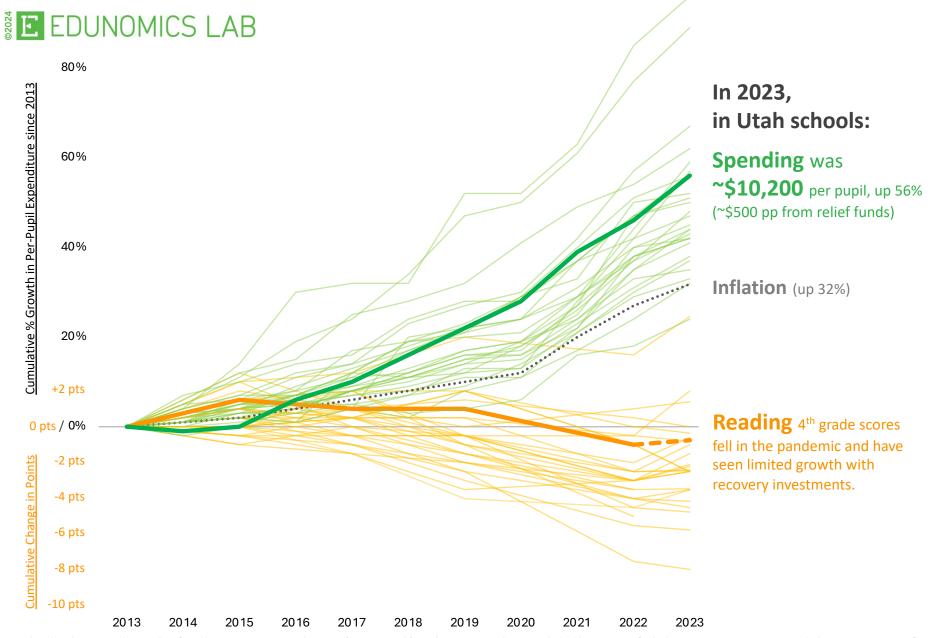
A Decade of Spending and Reading Scores: **Tennessee** highlighted



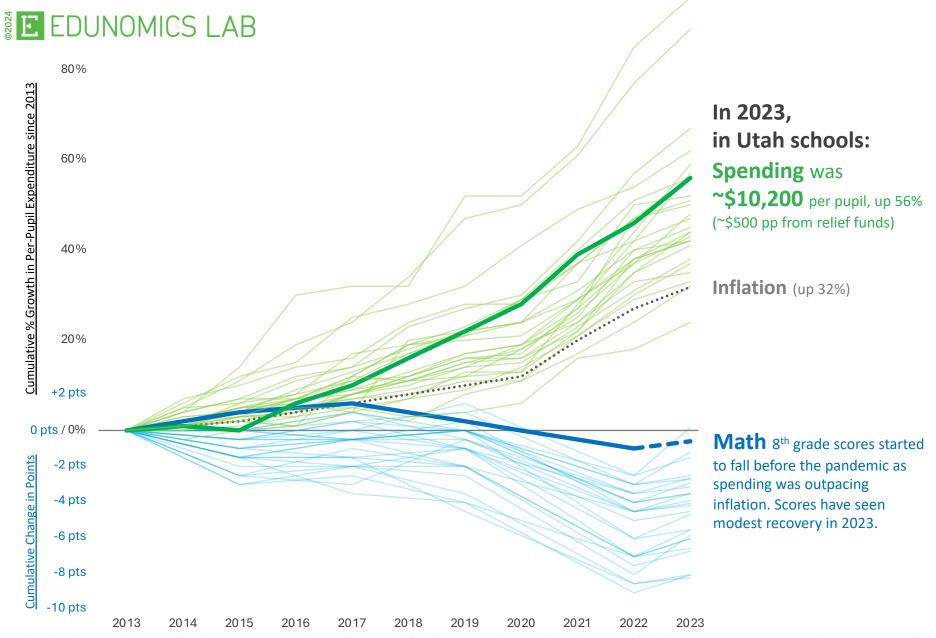
A Decade of Spending and Math Scores: **Tennessee** highlighted



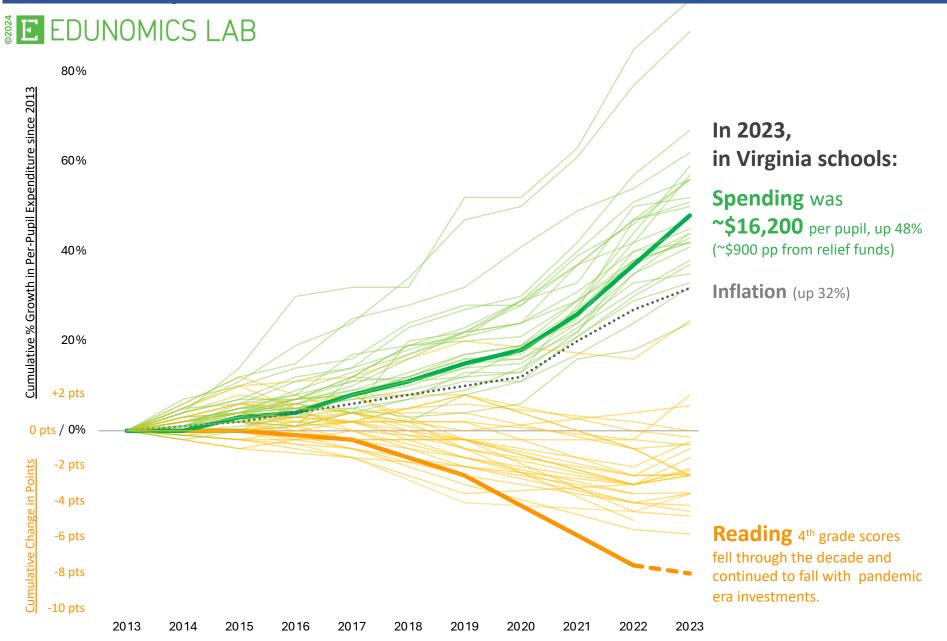
A Decade of Spending and Reading Scores: Utah highlighted



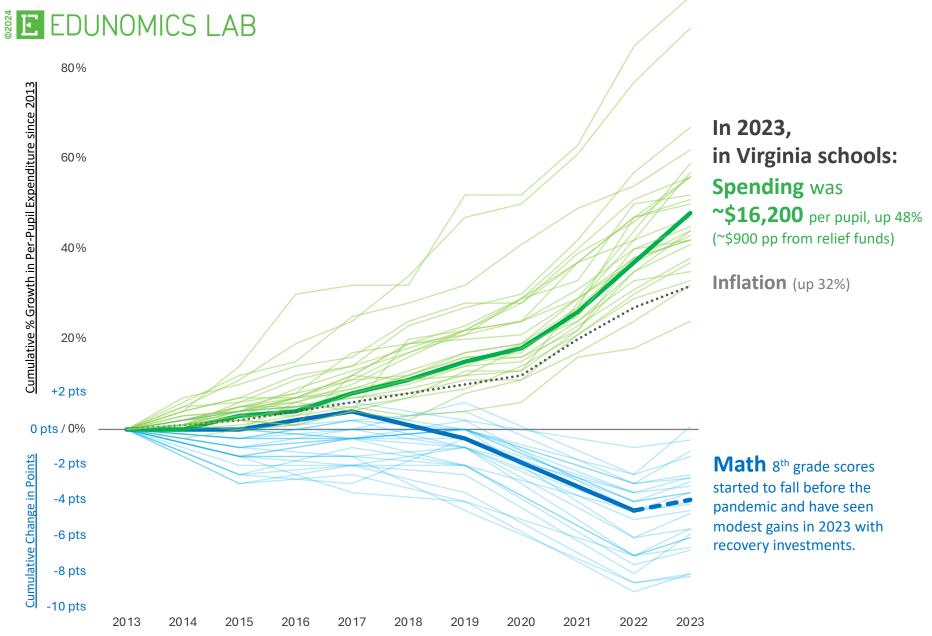
A Decade of Spending and Math Scores: Utah highlighted



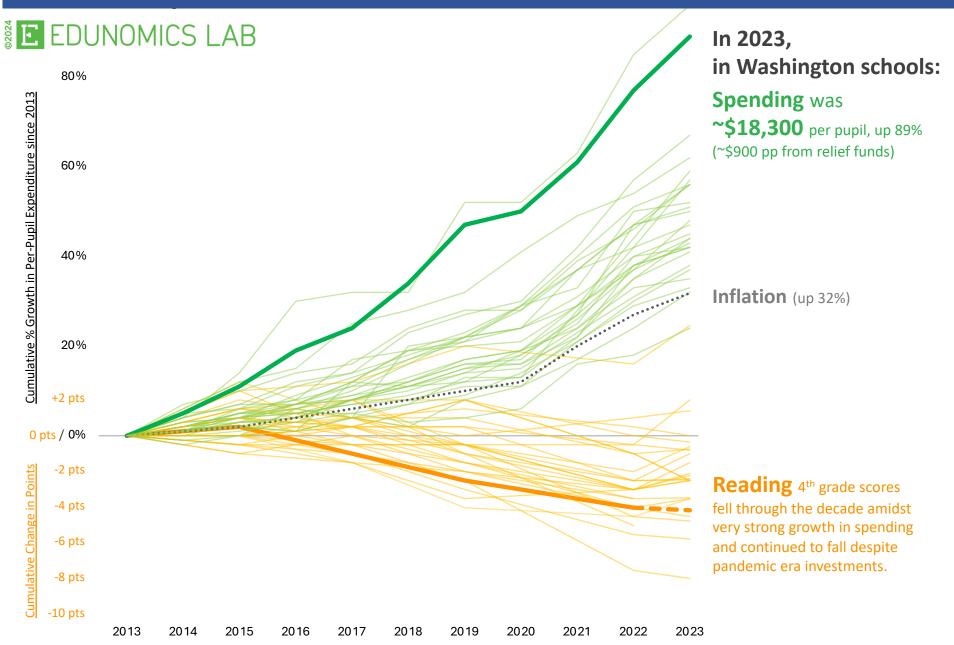
A Decade of Spending and Reading Scores: Virginia highlighted



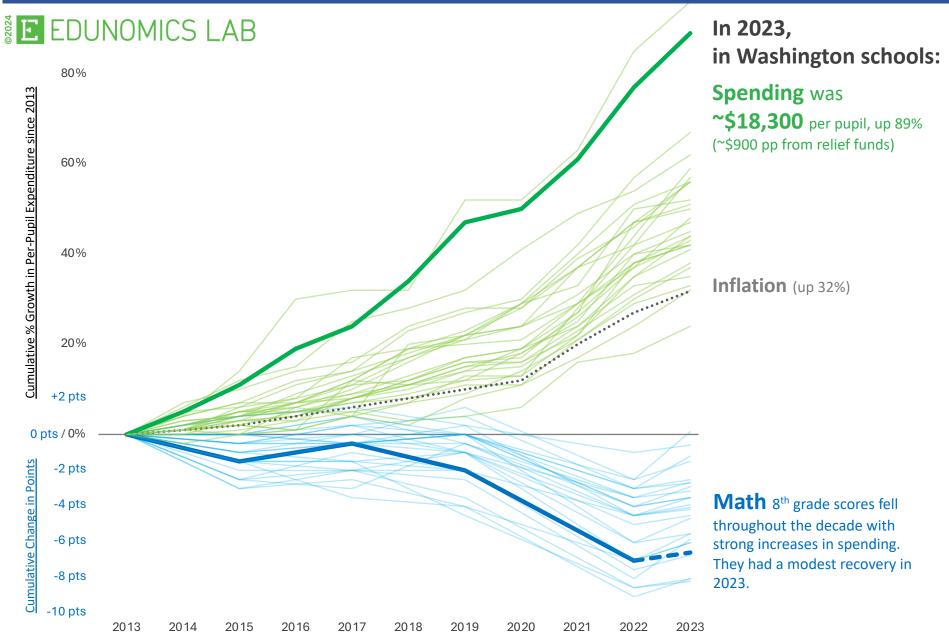
A Decade of Spending and Math Scores: Virginia highlighted



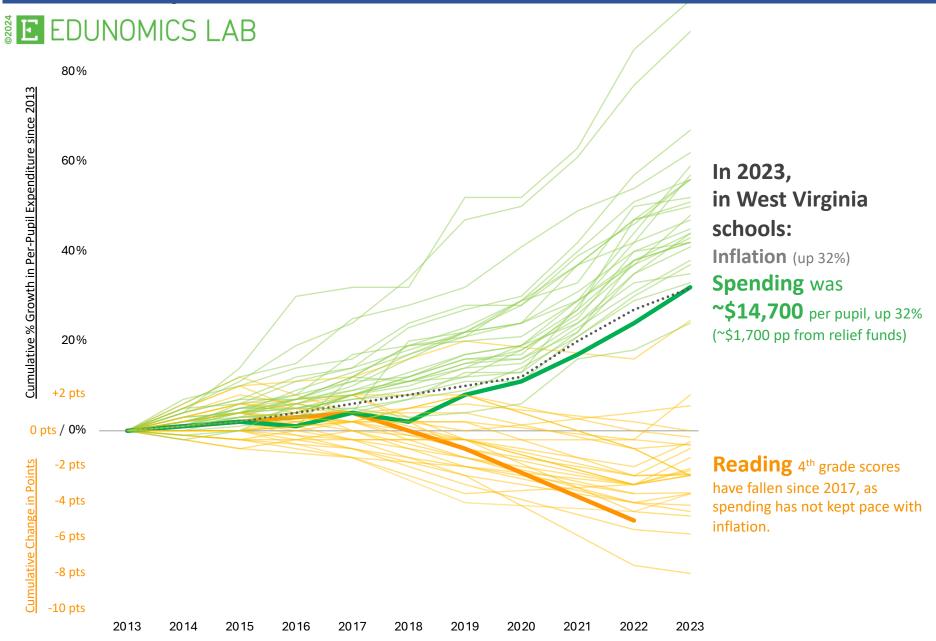
A Decade of Spending and Reading Scores: Washington highlighted



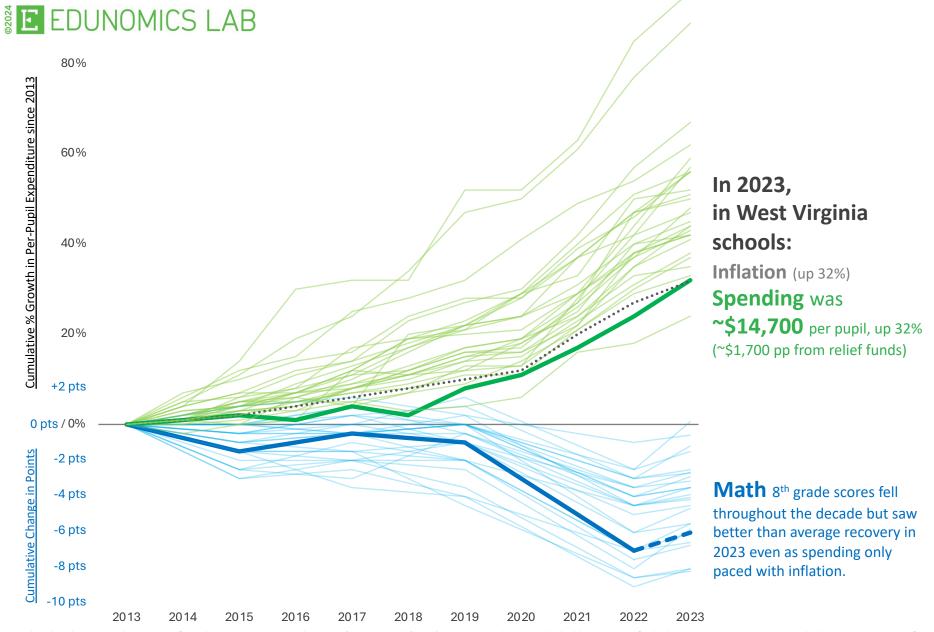
A Decade of Spending and Math Scores: Washington highlighted



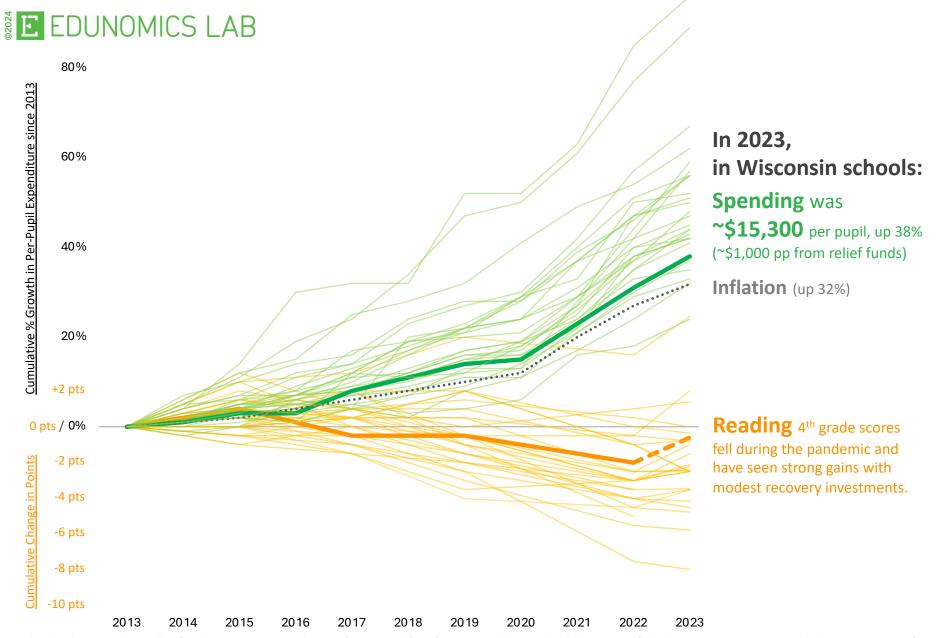
A Decade of Spending and Reading Scores: West Virginia highlighted



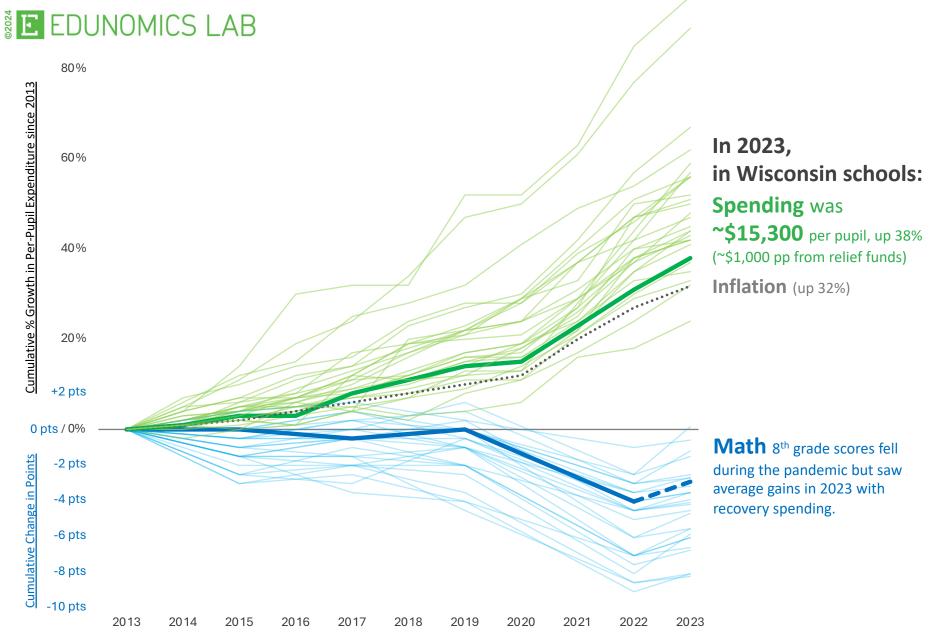
A Decade of Spending and Math Scores: West Virginia highlighted



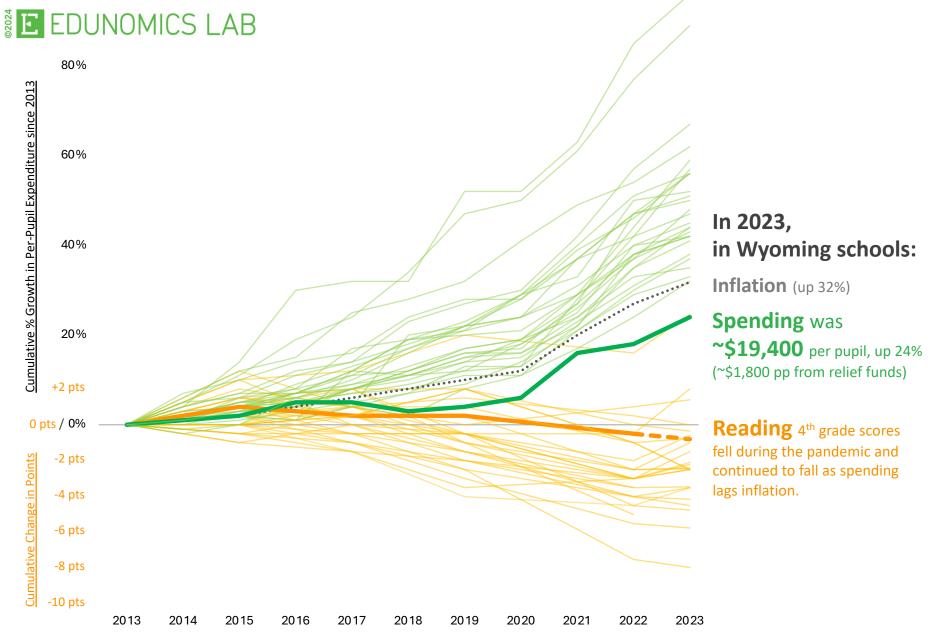
A Decade of Spending and Reading Scores: Wisconsin highlighted



A Decade of Spending and Math Scores: Wisconsin highlighted



A Decade of Spending and Reading Scores: Wyoming highlighted



A Decade of Spending and Math Scores: Wyoming highlighted

