A Global Perspective On US Learning Losses

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As concerns about the health aspects of the pandemic have receded, more of the public discussion has turned to the learning losses that resulted from school closures and erratic reopenings. Results of the Programme for International Student Assessment (PISA) and of the National Assessment of Educational Progress (NAEP) provide data on student performance that make it possible to place both the nation and the individual states in the world achievement distribution. The resulting picture is disturbing.

Aggregate Performance Levels in 2022

Before the pandemic, the United States was not performing well by world education standards. The school closures and various governmental actions had varying impacts on learning in different countries. But after the pandemic, the US position was essentially unchanged, with learning losses near the middle of the range of learning losses internationally. In 2022, the United States fell slightly below the Organisation for Economic Co-operation and Development (OECD) mean math score, competing with Malta and the Slovak Republic. This level of performance does not bode well for America's future position, as economic growth is directly linked to a country's skills.
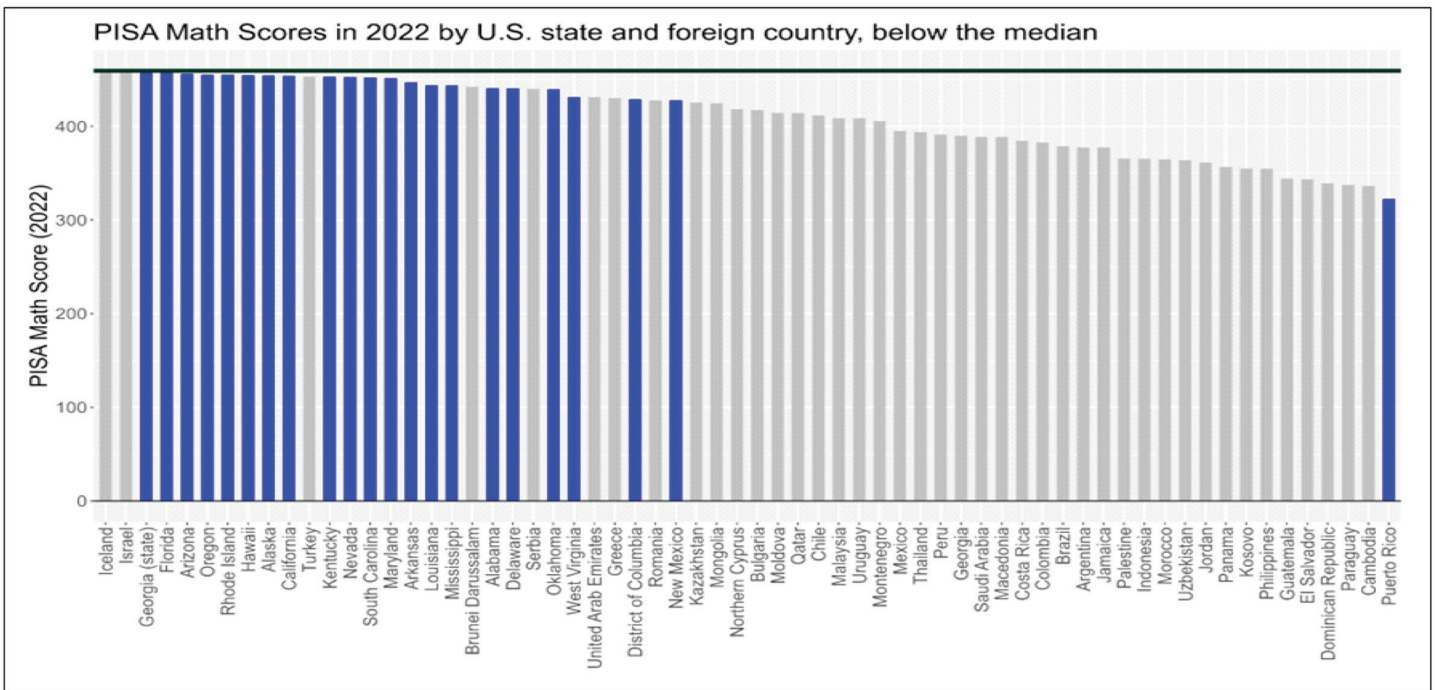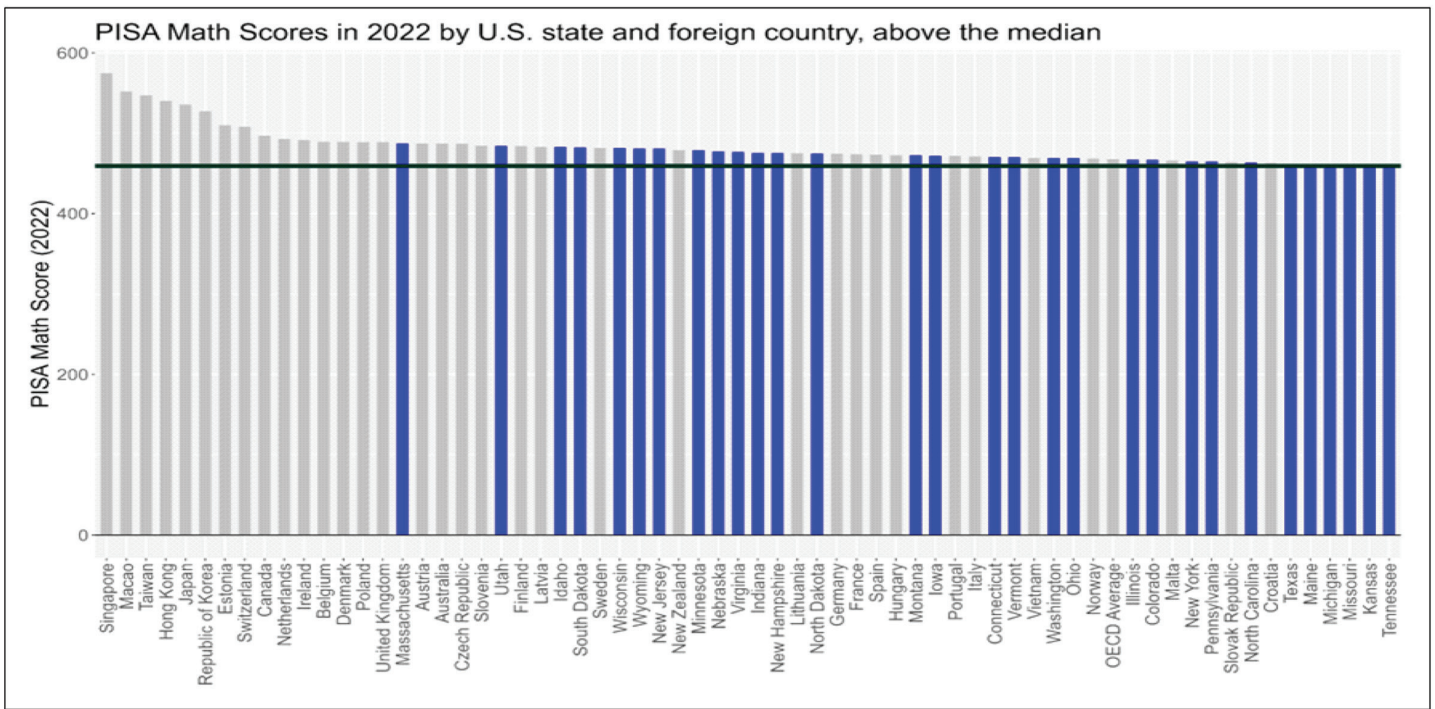
International Position of States

It is possible to put the individual states into the world distribution of math achievement by combining PISA and NAEP results. The state rankings on the reverse of this page show that the heterogeneity of performance within the United States places students at very different places in achievement terms, but that none are well-positioned for international competition. The highest-achieving state (Massachusetts) would place sixteenth in the world distribution. The lowest-ranking state (New Mexico) competes with Romania and Kazakhstan. The large number of countries where the average student performs better than those in the best states raises concerns about America's economic future.

The Costs of Learning Losses

Both future earnings of individuals in the COVID-19 cohort and future growth of the nation will be lowered by the educational setbacks coming out of the pandemic. The average student in school during the pandemic will lose 5–6 percent of lifetime earnings. The nation will lose $31 trillion in present value terms—above a year of output of the US economy as measured by GDP. The economic costs of the learning losses equal six times the total economic losses from the 2008 recession.

The very different losses across American states imply very different economic effects for students. While the COVID cohort in Utah will on average lose only 2 percent of lifetime earnings, those in Delaware and Oklahoma can expect to lose 9 percent. And because state economic growth depends on the skills of the state workforce, the cumulative economic losses for states will differ by the amount of learning loss among each state's population as well as the size of that state's economy. The largest state, California, had better-than-average learning loss, but the impact on future growth is the largest of all states: $1.3 trillion. Four other states (Texas, New York, Florida, and Pennsylvania) will lose over $500 billion in present value.

PISA Math Scores in 2022 by U.S. state and foreign country, above the median

PISA Math Scores in 2022 by U.S. state and foreign country, below the median

Responses to Learning Losses

The recessionary losses in 2008 and during the pandemic differ significantly from the learning losses. The recessionary costs have already been incurred and cannot be changed, but the expected costs of learning losses are future costs and can be reduced. Lowering this toll, however, requires making the schools better than they were in 2020. If schools only return to their old achievement levels, the learning losses will be permanent. Moreover, because virtually the only chance of offsetting the learning loss comes while students are in K–12 schools, the future economic costs must be absorbed by the seventeen million students have already left the schools.

This harsh dynamic requires immediate improvement. While some tutoring and extended-time programs might do this, they have not permeated the majority of schools. The best potential policy is to leverage the skills of the most effective teachers by incentivizing them to teach more students.