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Student Learning During the COVID-19 Pandemic

In response to the COVID-19 pandemic, elementary and secondary schools across the nation closed their doors and pivoted to alternative methods of providing instruction and other services, such as school meals. According to *Education Week*, by the end of March 2020, all U.S. public school buildings had closed. By May 2020, 48 states (Montana and Wyoming were the exceptions), the District of Columbia, Puerto Rico, the outlying areas, and the Department of Defense Education Activity ordered or recommended that school buildings be closed for the remainder of the 2019-2020 academic year, affecting at least 50.8 million students. For many schools, shifts to alternative forms of instruction, including remote learning, extended into some portion of the 2021-2022 school year.

The cumulative and ongoing effects of the pandemic appear to have affected student learning. This In Focus provides a brief examination of declines in student learning that have been observed since the start of the pandemic as measured by standardized test scores. It also examines federal requirements for assessments and accountability and federal resources that have been provided to help address learning loss.

Student Learning During the Pandemic

While not a holistic measurement of student achievement, much of the research on learning loss during the pandemic has relied on standardized testing data, including annual state assessments administered as a condition of receiving funds under Title I-A of the Elementary and Secondary Education Act (ESEA), the National Assessment of Educational Progress (NAEP), and NWEA's Measures of Academic Progress (MAP). The results of the state assessments administered in accordance with ESEA Title I-A are also used, in part, to identify schools in need of support and improvement.

Federal Assessment and Accountability Requirements

As a condition of receiving ESEA Title I-A funds, each state (and the District of Columbia and Puerto Rico) must administer annual academic assessments in reading/language arts (RLA) and mathematics in 3rd-8th grade and once in high school, and in science once in each of three grade spans (3rd-5th, 6th-8th, and 10th-12th). Each state is also required to have an educational accountability system that is based on several indicators, including student performance on RLA and mathematics assessments for all students and for student subgroups (e.g., students from major ethnic/racial groups and children with disabilities). States must establish a system of meaningfully differentiating among all public schools in the state based on these established indicators to determine which public schools should be identified for additional support and improvement efforts.

The COVID-19 pandemic substantially altered operational implementation of Title I-A assessment and accountability requirements. Given the timing of the onset of the pandemic and widespread school building closures, the U.S.

Department of Education (ED) waived the requirement for states to administer the assessments required by Title I-A for the 2019-2020 school year. During the 2020-2021 school year, nearly all states administered the assessments but may have done so in a modified way (e.g., using shorter assessments). Regular state assessments did not resume until the 2021-2022 school year. Thus, annual state assessments were not fully administered by all states for two years, reducing data available on student performance and hindering the use of state accountability systems.

The waivers of assessment requirements were accompanied by waivers of accountability requirements. For example, states were not required to identify new schools for support and improvement during the 2020-2021 or 2021-2022 school years. Similarly, states could not remove schools from support and improvement requirements except under limited circumstances. States were once again required to identify schools for support and improvement for the 2022-2023 school year. Thus, additional schools that may have benefitted from extra support may not have been identified for support and improvement for two years.

NAEP

The NAEP consists of two assessment programs—the long-term trends (LTT) NAEP, and a group of assessments referred to as the *main NAEP* assessments. All states that accept funding under Title I-A of the ESEA are required to participate in the main NAEP biennial assessments of 4th and 8th grade reading and mathematics. Student participation in all NAEP assessments is voluntary.

Both the LTT and main NAEP have been administered since the onset of the COVID-19 pandemic. In 2022, LTT reading and mathematics assessments for age 9 students were administered. Average scores for students declined by five points in reading and seven points in mathematics compared with results from the 2020 assessments. This was the largest average score decline in reading since 1990, and the first time scores had ever declined in mathematics. While scores decreased across the board for students at all performance levels, the decline in scores compared to 2020 levels was higher for lower-performing students than for higher-performing students. When examined by race/ethnicity, Black, Hispanic, and White students scoring at the 25th percentile had larger score declines than students from those groups scoring at the 75th percentile. In addition, while Black, Hispanic, and White students all had a six point decrease in reading, differences in mathematics score declines between Black and White students widened the score gap.

Similar declines in test scores were found on 4th and 8th grade reading and mathematics assessments administered in 2022. The average 4th grade mathematics score declined by five points, the average 8th grade score declined by eight points, and average 4th and 8th grade reading scores declined by three points compared to 2019.

Surveys conducted in 2022 as part of the NAEP assessments found that the majority of students recalled participating in remote learning during the last school year. It also found that higher-performing students were more likely than lower-performing students to have greater access to an electronic device for learning all the time, a quiet place to work some of the time, and greater access to teacher help with schoolwork. However, the data did not establish a causal relationship between the extent of remote learning and student achievement levels.

Learning Loss, Remote Learning, and Income

One of the most comprehensive studies to date on changes in student achievement during the pandemic was conducted by researchers at Stanford University and Harvard University. Using NAEP 2022 data and 2021-2022 state assessment data from 29 states and thousands of local educational agencies (LEAs), researchers found that the declines in learning between 2019 and 2022 varied by LEA, with students in some LEAs falling behind by a grade level or more and students in other LEAs not seeing a decline in performance. On average, the researchers found that public school students in 3rd-8th grade lost the equivalent of half a year of learning in mathematics and a quarter of a year of learning in reading.

Their analysis found that the pandemic exacerbated existing educational inequalities based on school-level income measures. The quarter of schools with the most students receiving free or reduced-price lunch (FRPL) lost two-thirds of a year of mathematics, while the quarter of schools with the lowest number of students receiving FRPL lost two-fifths of a year of mathematics. The same pattern held for reading, but the losses were smaller for both groups.

Researchers also found that average test scores declined more in LEAs where students were learning remotely compared to LEAs where students were in school, but their descriptive analysis was unable to separate the effects of remote learning from the effects of other correlated factors, such as socioeconomic factors. They also found that learning losses varied among LEAs that had the same share of remote learning during the 2021-2022 school year and some LEAs that were fully in-person during the 2021-2022 school year experienced substantial declines in math and reading scores, leading them to conclude that “school closures do not appear to be the primary factor driving achievement losses.”

Other researchers using NWEA data for about 3,000 LEAs in 49 states and the District of Columbia found that remote and hybrid instruction exacerbated gaps in student achievement by race and poverty. They determined that achievement growth was lower for all subgroups of students in LEAs that employed remote or hybrid learning but especially for students in high-poverty schools. The researchers also found achievement declines in areas where

schools remained open for in-person learning, but the existing gaps between low-poverty and high-poverty schools were not increased to the same extent as in areas with remote or hybrid learning.

Federal Response

The federal government provided support for elementary and secondary education during the pandemic primarily through the Elementary and Secondary School Emergency Relief (ESSER) Fund. Overall, the ESSER Fund received \$190.3 billion, with \$122.8 billion provided through the American Rescue Plan Act of 2021 (ARPA; P.L. 117-2). ESSER funds were allocated to states by formula and subsequently suballocated to LEAs by formula. Under ARPA ESSER, states and LEAs are required to reserve at least 5% and 20%, respectively, of their ESSER funds to address learning loss. Both of the aforementioned studies noted that recovering from learning loss may require LEAs to use a higher percentage of funds for this purpose.

Limited data exist on how states and LEAs are using ESSER funds for learning recovery or other purposes. However, both states and LEAs were required to describe how they planned to use their ARPA ESSER funds. FutureEd at Georgetown University has analyzed the ARPA ESSER plans of about 5,000 LEAs, serving 74% of public school students and receiving 83% of the ARPA ESSER funds. FutureEd found that staffing (27.0% of spending), academic recovery (25.0%; e.g., summer learning, extended day programs, tutoring), and facilities and operations (23.3%) were the areas with the highest anticipated levels of spending.

Possible Policy Issues

While Congress has appropriated billions of dollars that could be used to assist in learning recovery efforts, it could consider several additional issues, including the following:

- Could more timely data be collected on how states and LEAs are using their ESSER funds, especially to address learning loss?
- Could the federal government support comprehensive studies of learning recovery strategies and the dissemination of promising practices?
- Could the quality of remote learning models employed during the pandemic be evaluated and best practices disseminated?
- As more data become available on learning loss and the estimated costs of recovery, are federal funds targeted specifically for learning recovery needed even if states and LEAs continue to have unused ESSER funds? Is there a need for a sustained learning loss recovery program to be created at the federal level?
- Should any additional federal funds for learning recovery be targeted fully or partially on certain groups of students (e.g., students with disabilities) who may have been particularly affected by pandemic-related disruptions to educational supports and services?

Rebecca R. Skinner, Specialist in Education Policy

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