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Committee on Health, Education, Labor, and Pensions

Full Committee Hearing:
Supporting Students and Schools: Promising Practices to Get Back on Track

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Written Statement of:

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Chair Murray, Ranking Member Burr, members of the committee, thank you for inviting me to testify today. My name is Dan Goldhaber. I am the director of the National Center for Analysis of Longitudinal Data in Education Research (CALDER) at the American Institutes for Research. I also direct the Center for Education Data and Research at the University of Washington. For the past 25 years, I have been studying schools and how they affect student learning. I also study how schools affect student outcomes later in life, including college attendance and labor market participation. Much of my work focuses on the impact that teachers have on student outcomes and the public policies that influence the composition, distribution, and quality of the teacher workforce.

Over the last year, I have been working with colleagues from NWEA, Harvard University, and Dartmouth College to better understand the impact of the COVID pandemic on student learning and school district recovery efforts.[1] This is what I will focus on in my testimony today. Before I begin, I should note that the views I express here are my own and do not necessarily represent the views of my organizational affiliations or collaborators.

[1] For more information about our project and what we are learning, see https://caldercenter.org/covid-recovery. Note that people often refer to the pandemic's impacts on learning (especially test-based measures) using the phrase "learning loss." Learning loss does not necessarily mean that individual student test scores decreased; instead, it means student scores are lower than what we would expect given historical (prepandemic) trends.

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COVID Had a Devastating Impact on Student Learning

Consistent with a growing body of research, our team found that COVID has had a devastating impact on student learning.[2] For example, our analysis of millions of students in about 10,000 schools nationwide found on average that students were roughly 3 months behind where they would typically be in math in the fall of 2021.[3] In reading, students were roughly 2 months behind.

At the same time, there is clear evidence that COVID exacerbated preexisting inequities in our schools. Like other researchers, we found that students of color (Black and Hispanic students) and students in higher poverty schools experienced larger COVID learning losses than other students. These disparities threaten the decades-long progress the nation has made on closing racial/ethnic achievement gaps.[4]

Preliminary analyses from NWEA of spring 2022 test data suggest some signs that student achievement is rebounding. But it is clear that there is still an incredible amount of work left to be done.[5] At current rates of improvement, the best-case scenario suggests it would take several years to return to pre-pandemic levels of achievement. And academic recovery will take even longer for historically marginalized students who experienced the worse impacts.

To be blunt, the pandemic put the nation in a deep academic hole. Unless we climb out, many students will face diminished life prospects and social inequity will increase.

COVID Impacts Were Not the Same Everywhere

As devastating as COVID's impact on student learning has been, the story was not the same everywhere. In the face of uncertainty about in-person schooling and community COVID

[2] For more on the magnitude of the pandemic's effects on student tests, see Darling-Aduana (2022); Goldhaber, Kane, McEachin, & Morton (2022); and Kuhfeld et al. (2022). Test scores are only one measure of the academic impact of the pandemic. Critics of testing notwithstanding, test scores are a useful measure because they strongly predict later life outcomes (Goldhaber & Ozek, 2019) and line up with other pandemic impacts on schooling, such as challenges with student attendance and engagement (e.g., Carminucci et al., 2021; Ohio Department of Education, 2021), and enrollment in college (Leukhina & Werner, 2021; National Student Clearinghouse Research Center, 2022).

[3] To put that in perspective, the magnitude of the pandemic learning loss is larger than what we saw in the wake of Hurricane Katrina in New Orleans. Fortunately, New Orleans also shows what is possible: with massive investment and changes to the school system, students largely recovered from academically from the effects of Hurricane Katrina (Harris & Larsen, 2021; Sacerdote, 2012).

[4] The National Assessment of Educational Progress (NAEP) has shown a gradual closure of racial/ethnic achievement gaps over the last 30 years. It is quite likely that we will see a reversal of this trend in the short run because of the pandemic.

[5] There is also some optimistic evidence from state assessments that some students may be bouncing back from the pandemic (e.g., Kilbride et al., 2022; Kogan, 2022; Tennessee Department of Education, 2022). While this is encouraging, restoring pre-pandemic student achievement will not address achievement gaps that have long troubled public education.

spread,[6] some school systems opted to remain remote during significant portions of the 2020–21 school year while others returned to in-person learning.[7] At the time, there were lots of competing ideas about school reopenings. I know because we felt some uncertainty about in-person schooling in my own household.

However, in hindsight it has become clear that students who learned remotely during 2020-21 saw larger learning losses than those who returned to in-person school. Because students of color and students in higher poverty schools were less likely to be learning in person, remote learning explains a substantial amount of the widening test score gaps that happened during the pandemic (Goldhaber et al., 2022). Our team estimated that students in high-poverty schools that stayed remote lost the equivalent of about 5.5 months of learning.

Still, even these broad trends can mask important variation. In some districts, for example, we found that learning losses were—contrary to national trends—worse in reading than they were in math. We also found that, while widespread, learning losses were not universal.[8] Such local variation is unsurprising given the different community contexts in which schools operate and differences in how they approached in-person and remote instruction. The point is that while recovery plans need to be big enough to meet the scale of the challenge they also need to respond to local context and avoid blanket solutions.

How Can We Get Back on Track?

In most systems, the academic recovery from COVID will likely take years. It will also require multiple strategies. In the districts our team is working with, leaders are using everything from expanded learning time (e.g., summer school, after school programs, Saturday Academies, intersessions, extended school days and school years), to tutoring, to extra instructional blocks (e.g., double doses of math).[9]

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[6] The evidence about whether in-person schooling led to community spread of COVID is mixed, which is unsurprising given that spread may be influenced by both conditions in schools (social distancing, etc.) and in the broader community (Goldhaber, Kane, McEachin, Morton, Patterson, et al., 2022).

[7] By our calculations, about 50% of students nationally returned in person in the fall and spent less than a month remote during the 2020–21 school year. In these districts, where classrooms reopened relatively quickly, student-achievement gaps by race and socioeconomic status widened a bit in reading but, fortunately, not in math.

[8] Although the median student experienced lower math test achievement growth during the pandemic than would have been expected based on prepandemic patterns in 89% of districts, pandemic test growth did not trail prepandemic trends in 11% of districts.

[9] Although some similarities in interventions exist, districts vary widely in the students and schools they target and other key features of the implementation of their initiatives. For example, most tutoring initiatives primarily serve students who are performing below a district-determined threshold; most extended school years, intersessions, and additional instructional blocks serve low-performing schools; and summer learning is generally open to all students, with priority given to disadvantaged and low-performing students. Other key characteristics of the initiatives that vary within and across districts include the intended frequency and duration (i.e., "dose"), student–teacher ratio, provider type and qualifications, mode of instruction (i.e., remote vs. in-person), location of delivery, and time of day.

We do not yet know if these strategies are working to help students catch up. But when well implemented and targeted to students who need them the most, these are plausible strategies for recovery. We should, however, be cautious about assuming that the effects of strategies like these can be inferred from prepandemic research estimates. Schools have never tried to implement supplemental academic interventions at the scale they are trying today. Intervention effects at this scale are arguably less certain; there is already evidence, for example, that the tight labor market is making it hard to implement some recovery programs at scale.

In the coming months, our team will be working with our district partners to better understand which of these strategies are working and for whom. In the meantime, I want to highlight six ideas that we should keep in mind on the road to recovery:

1. Keep Schools Open

One of the best things we can do to support COVID recovery is keep schools open. A significant share (roughly 50%) of districts plan to spend Elementary and Secondary School Relief Fund (ESSER) dollars on physical plant investments, such as heating, ventilation, and air conditioning (HVAC) systems.[10] These investments should help reduce the spread of COVID and keep schools open for in-person instruction.

But as we saw during the 2021-2022 school year, surging variants (e.g., Omicron) and tight labor markets can still disrupt learning (Goldhaber & Gratz, 2021; Velez, 2021).[11] So, in addition to investing in new HVAC systems, states should other things to help schools stay open. For example, states can make it find substitute teachers by ensuring that bureaucratic processes do not limit qualified people from subbing in schools when teachers are out sick (Goldhaber & Payne, 2022). Beyond expanding the pool of substitutes, states and school districts should also have plans to redeploy teachers to schools with the most vulnerable student populations during a COVID surge. State and federal governments could provide guidance for and require the disclosure of staffing plans that prevent the closure of whole school systems during potential future COVID surges.

2. Make Sure District Responses Add Up

Even if they can keep schools open, school districts will still need to use a range of strategies to help students catch up. Business as usual will not be enough. As districts implement additional interventions to deal with COVID losses, they should make clear-eyed assessments of whether those interventions are up to the task. Researchers can help here. Estimated effects exist for some of the highest profile interventions that districts are using today, including high-dosage tutoring,

[10] This estimate comes from FutureEd's June 7 summary of data (2022) compiled by Burbio (2022) on spending plans (note that actual spending may deviate from these plans). Burbio's data cover plans submitted by more than 5,000 local education agencies that represent nearly 75% of public school students; see https://www.future-ed.org/local-covid-relief-spending/

[11] See data on school disruptions from Burbio: https://cai.burbio.com/school-opening-tracker/.

longer school days, and summer school.[12] School districts should use these estimates to calculate whether their intervention plans have a plausible chance of helping their students *fully* recover academically.

States or the federal government could help districts make these assessments by supporting a "COVID recovery calculator" that adds up the possible impact of district initiatives and tracks academic improvement over time. Districts need this information now. As one of my colleagues has concluded, too many districts' plans currently appear to fall short of what is needed (Kane, 2022). The broader community also needs to know whether district plans add up to recovery. So I would encourage the federal government to require districts to not just submit their plans for recovery but also make clear that the anticipated achievement effects of their interventions add up to a plausible recovery.

3. Help Districts Monitor and Adjust

Although a recovery calculator would be useful for broad assessments of recovery plans, we should not overstate its precision. As I noted above, the tight labor market and scale of the recovery effort may mean that even smart strategies do not yield the magnitude of positive effects we might expect based on prepandemic impact estimates. It also seems likely that schools will be unable to meet all students' needs during a regular school day and year. Some students will need more schooling time to fully catch up, requiring districts to work with new partners in extended school programming. We know from an abundance of research that programs that are conceptually well grounded often fail to improve student outcomes (e.g., Heinrich et al., 2010). In the months and years ahead, we must be open to the possibility of failure and adjustment and not assume that plans laid out now are set in concrete.

As districts and schools navigate this uncertainty, they will need data on programs and student outcomes so they can monitor results, learn from bright spots, and adapt their strategies before it is too late. Districts need to map out multiyear targets for student achievement that measure whether students systemwide are on a trajectory that looks like it will result in academic recovery and improvement over time. Over the next 3 years that federal resources are available for recovery efforts, states and districts should transparently report on their progress at the end of each school year and comparing their progress relative to estimates of what students need to recover.

4. Narrowly Target Spending on Personnel to Areas of Need

Districts are spending a good deal of their ESSER funds on teachers and other personnel. Decades of research show that having a great teacher (Chetty et al., 2014) and a stable teaching staff (Ronfeldt et al., 2013) can make a huge difference in student learning. But when it comes to teacher compensation, some districts appear to be using their ESSER funds to pay for across-the-board "thank you" bonuses or raises for teachers. This approach recognizes the real hardships

[12] For example, see Figlio et al. (2018), Lynch et al. (2022), Robinson et al. (2021).

and pressures teachers have faced during the pandemic and might help retain some teachers, but I do not see it as the most effective use of dollars.

Long-standing research on teachers suggests that districts need to take a more strategic approach. Districts should target funds to hard-to-staff subject areas and hard-to-staff schools to send clear signals to the labor market about both the teaching skills needed and the places where teachers are needed most (Cowan et al., 2016; Goldhaber & Gratz, 2021).[13] Treating all teachers the same ignores important differences across positions, working conditions, and student needs, differences that have important implications for improvement, efficiency, and equity.

5. Improve Remote Learning

It is easy to conclude that remote instruction worked so poorly that we should abandon it. But the possibility of future disruptions due to staffing issues and other crises suggests we need to improve, not abandon remote learning. Beyond the pandemic, remote learning has the potential to address longer-standing problems in schools. For example, although chronic absenteeism has been an issue during COVID (Fortin, 2022), urban schools struggled with attendance long before the pandemic (Gottfried, 2015). Likewise, snow days are here to stay. And in some school districts, schools may not have enough students interested or ready for advanced physics to merit hiring a new physics teacher, but groups of students across systems might. In each of these cases, effective remote instruction/digital learning could help promote student learning for students who are out of school or for students who lack access to teachers in hard-to-staff subject areas.

It is worth remembering that remote learning during the pandemic was created during a crisis. Better systems are possible. To that end, the Institute of Education Sciences (IES) recently expanded its competitions to support education innovation (Schneider, 2022). We need more of this kind of support for innovation in remote learning and education in general. To recover from the pandemic and expand educational opportunity, we need technological innovation. But we also need to innovate in how we prepare, train, and support teachers so that some teachers can specialize in effective digital instruction.

6. Make Sure There's a Sufficient Sense of Urgency

As we move into the next phase of the pandemic, the impulse to get back to "normal" is strong. But it would be a mistake to believe that we are ready to return to normal. Indeed, I fear too many of us lack the sense of urgency needed to meet this moment. If we do not build a sufficient sense of urgency and act quickly, the devastating impact of the pandemic on students' learning and future opportunities will be our legacy.

[13] Districts should also be cautious about the "fiscal cliff" and the fact that many forms of compensation are pensionable, meaning that compensation today creates downstream costs. In short, raising salaries may be a desirable use of ESSER funds, but once federal ESSER resources run out, districts may need to plan for ways to pay for personnel brought on with ESSER funding.

Leaders need to send clear messages to their communities about the academic challenges students are facing and the importance of addressing them. We need clear communication about the stakes and magnitude of learning loss and recovery. Researchers and professional staff in government must move away from talking about standard deviations and percentiles and toward user-friendly language.[14] Telling a parent that her child is recommended for summer school because he is .3 standard deviations behind what would be expected does not make sense. But telling her that he is a half-year behind where he should be might make summer school feel more urgent.[15]

Leaders will also need to rally political support for academic interventions and frame our collective responsibility to ensure that all students recover. As they clearly communicate about the stakes, leaders will need to encourage families to ensure that their children attend tutoring or summer school if recommended; leaders will need to ask families to help their children learn at home. And in some school districts, leaders will need to rally support for additional funding as ESSER funds run out or prove inadequate (Shores & Stenberg, 2022). State and federal leaders will need to be ready to provide additional funds to support recovery and be clear about how continued funding will be spent to support students. Finally, communities should track recovery in their schools and hold systems accountable for progress. But communities also need to be flexible and supportive when educators make midcourse corrections and work to improve. As tempting as it is to move on, leaders need to make it clear that academic recovery from the pandemic will, in most places, be a long-term project that will require all of us to learn and improve.

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[14] See, for instance, Clifton (2022).

[15] Beyond the need to avoid technical language, some schools may also need to overcome cultural resistance to delivering bad news to families about how students are doing.

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