

[COVID Information Commons \(CIC\) Research Lightning Talk](#)

[Transcript of a Presentation by Debbie Kim \(University of Chicago\) and Jennifer Hamilton \(National Opinion Research Center\), September 28, 2020](#)



[Title: *Pandemic Learning Loss in U.S. High Schools: A National Examination of Student Experiences*](#)

[Jennifer Hamilton CIC Database Profile](#)

[NSF Award #: 2030436](#)

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[Transcript Editor: Elia Bregman](#)

[Transcript](#)

[Katie Naum:](#)

Next up we have Debbie Kim from the University of Chicago. Debbie, we are ready whenever you are.

[Debbie Kim:](#)

Sure, let me see if I can share my screen. Alright, is that showing up the way it's supposed to?

[Katie Naum:](#)

Yes we see it, and you can click the bottom to go into screen share. Perfect.

[Debbie Kim:](#)

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Okay, great. Hi, I am Debbie Kim and I am the senior researcher at NORC at the University of Chicago in the K-12 education and child development group. I will talk quickly about our ongoing project called *Measuring Pandemic Learning Loss: Implications for the Future STEM Workforce*. As we all know, in March 2020 schools across America shut their doors and very quickly pivoted to remote learning, or distant learning, for their students. It was pretty varied in the way that happened in lots of different ways- methods of instruction and access across the country- lots of factors shaped that. There's a lot of talk now about how we know that there is no lack of existing inequalities in the education system prior

to COVID and we know that this time will very likely exacerbate what was there and create new ones. In this project specifically we're interested not in just measuring on a national scale, what we're calling the pandemic learning loss that's occurring during this time, but for high school students to also understand why it's happening so that perhaps in the future we can inform policy and practice in ways that can help mitigate its impact. We're focused on the high school population and looking specifically at STEM subjects.

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So we're doing that using two sources of data. The first is Infinite Campus. Infinite Campus is one of the largest student information systems in the country and they have data on about 2.5 million high school students across 2,000 districts nationwide. Schools and districts use this SIS for all kinds of different things. We have data on information ranging from course enrollment, and achievement in those courses, attendance, discipline, household characteristics like income and the number of siblings in the family, urbanicity, all the way down to where they sit and where their lockers are.

So, using this data we'll be mapping high school students' STEM trajectories pre-COVID. So, what kinds of courses were they taking, how were they doing in that, what kinds of students were engaging in what kind of STEM learning. We also have information on what was happening during COVID. So, how often and for how long were they logging on for remote instruction. If there were assessments, how they were scoring on those and we'll know when they come back to school, when we return to some version of something, what their STEM trajectories will look like at that point. We'll also know there is going to be a disruption in the during period and this will, hopefully, help us understand what caused time A to look so different from time B and for what kind of student. That is a massive data pool, we're working with them now to get all of that into the right shape for us to analyze. We are also using an Amerispeak team panel. We surveyed about 2,000 high school students in late spring 2020. So, asking them in real-time during the quarantine how are you spending your days? What kind of formal/informal STEM learning are you participating in? What are the barriers or facilitators of this learning? And even some questions about if the pandemic has changed their perception of the importance of STEM and if that might have shaped their career trajectories.

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So, we just got that Amerispeak team data panel last week and we are cleaning it and weighing it and all of that. I have some preliminary findings and we are looking to have even more in the near future.

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About one quarter of high school students in late spring 2020 said that they did not feel academically prepared to return to school in the fall and they also reported they spent about three hours a day working on math and science.

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And we also asked them open-ended questions about how these facilitators/barriers for remote learning and we're coding that data now and we're seeing a pretty big range in what they're talking about. Things ranging from home environment and learning structure, so distractions in the household, access which I think is what we've heard the most public discourse around remote learning. So, having spotty internet

or siblings who are battling for the laptop or phone or tablet. This is I think the most interesting to me-the social dimensions of learning. So, really missing that physical and emotional interaction with people in person, that I think no matter how valuable remote instruction is, it's really hard to duplicate that. Also, the lack of support, no support or input from their teachers.

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We've also heard a bit about what is good about remote learning. It's interesting that these seem to be more about personal preference, or things that might be more specific to the student. So, liking that they have control over their own schedule, they can learn on their own time. One person talked about their learning disability and how the text to speech makes it easier for them. Or they get migraines and they're able to control how long they're in front of the screen or when. So, we're hoping that we can learn both from hearing about what's positive and negative and having this broader landscape of what happened for high school students overall to mitigate a bit of that gap that is going to happen as students come back. Do some digging about how to support what kinds of students in what kinds of ways to keep track and diversify the STEM workforce of America.

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Thank you so much.