



Topic: Dropout Prevention Practice: Data Systems

Highlights

- Chicago Public Schools (CPS) uses a centralized data system and works with the Consortium on Chicago School Research to use these data to support its dropout prevention and recovery program.
- Researchers use the freshman on-track indicator (less than two F's in core subjects and earning five credits in the freshman year) to predict with 80 percent accuracy who will graduate from high school.
- Other indicators are used to help schools identify students who are off-track: failures, course grades, and absences. They also look at school climate.

About the Interviewee

Nicholas Montgomery is a Research Analyst at the Consortium on Chicago School Research. Nicholas holds a master's degree in Education Research and Policy from the University of Michigan's School of Education and a bachelor's degree in Computer Science from Brown University. Currently, Nicholas is a leader of the Data and Practice Collaborative, a new effort to deliver coherent data reports to schools based on the Consortium's research and to work with networks of schools



to improve the reports and their usage. Nicholas is also researching the effects of high school curriculum policy changes in the Chicago Public Schools.

Full Transcript

My name is Nicholas Montgomery, and I am a Research Analyst for the Consortium on Chicago School Research located at the University of Chicago in Chicago, Illinois.

We have a data system which is a comprehensive set of data that is input by teachers and administrators and then centralized by the district—Chicago Public Schools or CPS. That data is then transferred to the Consortium on Chicago School Research. Researchers here and at CPS then use that data to address a whole variety of questions and provide information back to teachers and school leaders.

The indicators that we use are, first, to focus on the freshman year. By looking at the freshman year, we're able to accurately tell for 80 out of 100 students whether or not they'ld graduate from high school four years later. So by looking at the freshman year, we've got an 80% accuracy. And we look at a variety of indicators. We look at the on-track indicator, which a student is on track if they have failed no more than one semester in a core class—that being science, social science, English, or math—and they have enough credits to become a sophomore. So that's five credits at the end of the freshman year, and that makes up the on-track indicator.

We also look at other components of the freshman year to understand what's really going on with students and how severe their risk is of dropping out. So the next thing that we look at is failures. For every F that a student gets in the freshman year, they become less likely to graduate from high school. The next indicator that we look at is grades. The grades that the students get in their class, beyond just whether or not they're passing or failing, give us an indication of how much effort they are really putting in and how connected are they. So students who have a B average or higher have over a 90% chance of graduating from high school.

We also look at absences because absences are highly predictive of whether or not students will fail their classes and also whether or not they'll get good grades. You don't show up to your class, how are you going to do well and perform in that class? Similarly if you're not showing up to class there's an indication that you don't see high schools relevant for your future, and you become disconnected from the high school. And so we also can look at absences. If students have high absences, just going from less than one week to one week of absence make students more likely to fail courses as well as drop out from high school.

So those are some of the indicators that are related to student behavior in the freshman year, and then we also look at school culture. We work with these networks of dedicated schools that are already coming together to improve their practice and first start by using a process that we call a data form where we present the research on a particular topic. So, in this case, on the freshman year and how it's critical for preventing student dropout. Once we've provided them with that research on the freshman year, we then



walk them through understanding an individual school's data so that every school can see how to analyze a particular school's data. And then we have them each break up into individual school groups, provide them with their individual school data, and support them in walking through and understanding that.

We also have a proverb that we've been using to help school leaders and teachers remember and understand what the on-track indicator is. And that proverb is, "Two or more core Fs in grade 9 won't graduate anytime." What we have also done is worked with the principals and administrators to help them present the information themselves so that they are really taking ownership over this information on what's important for preventing dropout and getting students to graduate. So we help them understand that data so that they can then present it to their teachers and support their work.

We integrate the feedback from the schools and what we're learning from the schools into our reports and then create these reports for all schools in the network. The outcome that we expect after working with schools is for them to have a better understanding of how students become dropouts and what the early warning signs are. We want them to have an improved understanding of the current dropout risk within their school and an understanding of whether or not the programs they have implemented or have been implementing have made a difference by looking at trends over time.