Lottery data required to evaluate charter school effectiveness: a researcher's guide

Overview

You need information about school applicants to compare those who are and are not offered seats in a school's admissions lotteries. These lottery-based comparisons provide a good guide to the impact of charter school attendance. Methods that don't rely on lotteries may paint a misleading picture of school effectiveness if, for example, students who are more motivated or from better-connected families are more likely to enroll in charter schools. This guide provides information on the types of school lottery data that are necessary for you to conduct lottery-based research on school effectiveness.

Required Data

A few key pieces of information need to be included in a lottery dataset:

Category	Variable
Student lottery (for each applicant)	**Initial offer**: Who received an offer to attend the school on lottery day?
	Ever offer: Who received an admissions offer, even after lottery day?
	Lottery number: What was the random order of students on lottery day?
	Waitlist number (if different from lottery number)
	Admissions offer date: When did an applicant receive an offer, if ever?
Lottery rules and details	**Priority groups**: Which applicants were given preference in the lottery? Common examples: applicants with siblings who already attend or are offered a spot at the school, students who live close to the school, and children of teachers and staff.
	School: School the student applied to
	Year: School year the student applied for
	Application submission date: Did the student apply after the deadline?
Student details	**First, middle, and last names**
	Date of birth
	Grade: Grade the student applied to

Student outcomes in the lottery
First, you need to know which students applied to a school and which applicants were offered a seat. It's even better if you can obtain the random number each student was assigned in the lottery, which allows you to verify that offers to attend the school coincide with the random ordering of students on lottery day.

Lottery rules and information
To ensure that you're comparing students with the same likelihood of being offered a seat, it's also important to know the rules of the lottery. For example, some applicants may be given preference in the lottery based on where they live or if they have siblings attending the school. Some applicants may be bumped up the offer list if they apply with a sibling who gets an offer. Additionally, students who apply after the deadline may be ranked by their application date rather than by a random lottery number. This information is essential for researchers aiming to make apples-to-apples comparisons of charter applicants.

Student identifying information
Finally, you need information about applicants to help you identify them in the state's administrative records, such as their name, date of birth, and grade.

This information may come from many different sources and files. As long as students can be identified in each file (e.g., by name and date of birth or by an identification number), you can compile information across files. Additionally, files can contain additional variables we haven't listed. After you process and clean the data, it will look something like this:

ID	Name	Birth Date	Year	School	Grade	Priority	Submit Date	Lottery #	Offer Date	Outcome
00	Sarah Smith	3/8/12	2021–2022	BP Charter	3	Sibling attends	12/2/20	1	4/1/21	Enrolled
01	John Jeff Johns	5/2/11	2021–2022	BP Charter	3	In zone	2/12/21	2	5/22/21	Enrolled
02	Jane Jansen	6/1/12	2021–2022	BP Charter	3	None	1/3/21	3		Waitlist
03	Lou Lars	5/9/11	2021–2022	BP Charter	4	In zone	2/26/21	1	4/1/21	Declined offer
04	Jacob Jacks	8/3/11	2021–2022	BP Charter	4	In zone	1/1/21	2		Waitlist