

Data Management Plan

Study information

Title(s): Effectiveness of strategies for presenting school report card data to parents

Abstract: The District of Columbia’s (DC) Office of the State Superintendent of Education (OSSE) is developing a new, interactive web-based system to present school report cards for all public schools in DC, both charter and traditional public schools, and has asked for community feedback to guide this process. This study is one component of the feedback process. It examines the impacts of different design choices on user satisfaction with and comprehension of school report card data using an experiment in which participants (1) complete baseline measures of school familiarity and reputation, (2) view school profiles and answer questions about their contents, and (3) report satisfaction with and usability of the design.

Authors: Jesse Chandler, Jacob Hartog, Ignacio Martinez

Principal investigator’s contact information: JChandler@Mathematica-mpr.com

Data sources

The study will analyze data that OSSE will collect.

Name of data source	Owner/publisher of the data	Year(s)	Variable(s) <i>Please include the variable name and brief definition</i>
School Choice Experiment	OSSE	2019	<p>Respondent characteristics</p> <ul style="list-style-type: none"> • Number of children ages 3 to 18 in household • Grades of children ages 3 to 18 • Respondent’s relationship to children—<i>categorical variable indicating whether respondent is (1) a biological or adoptive parent, (2) a stepparent or other guardian, (3) a romantic partner of a guardian, (4) other relative, or (5) other adult who is not a relative</i> • Age—<i>categorical measure of respondent’s age (younger than 25, 25 to 34, 35 to 44, 45 to 54, 55 or older)</i> • Sex—<i>binary variable indicating whether respondent is male or female</i> • Ethnicity—<i>categorical variable indicating whether respondent is (1) non-Hispanic, (2) Mexican or Chicano, (3) Puerto Rican, (4) Cuban, or (5) Other</i>

			<p><i>Hispanic (paralleling the American Community Survey, or ACS)</i></p> <ul style="list-style-type: none"> • Race—<i>categorical variable indicating whether respondent is white, black, Asian, American Indian or Alaskan Native, Native Hawaiian or Other (closely corresponding to the ACS)</i> • Education—<i>highest degree or level of school completed</i> • Income—<i>categorical variable measuring household income range (less than \$10,000, \$10,000 to \$14,999, \$15,000 to \$24,999, \$25,000 to \$34,999, \$35,000 to \$49,999, \$50,000 to \$74,999, \$75,000 to 99,999, \$100,000 to \$124,999, \$125,000 to \$149,999, \$150,000 to \$199,999, \$200,000 to \$249,999, \$250,000 or more)</i> • Language(s) spoken at home—<i>English, Spanish, another language, English and Spanish, English and another language</i> • Five-digit ZIP code • Internet use—<i>how much time the respondent spends on the Internet per week</i> <p>Knowledge about schools</p> <ul style="list-style-type: none"> • School choice experience—<i>whether any child in the household has applied to schools other than his or her home school</i> • School decision making—<i>whether the respondent makes decisions about where children attend school</i> • School familiarity—<i>reported familiarity (on a scale of 1 to 4) with each school in the set of schools in the experiment</i> • Baseline school ranking—<i>rank order preference for schools the respondent is familiar with</i> <p>Outcome measures</p> <ul style="list-style-type: none"> • Final school ranking—<i>rank order preference for schools after viewing report cards for schools in the choice set</i> • Ease of use—<i>index of questions that measure ease of finding information on the school report card</i>
--	--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

			<ul style="list-style-type: none"> • Satisfaction—<i>index of questions that measure the degree of satisfaction with the school report card design</i>
--	--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------

Data confidentiality procedures

The study does not collect sensitive personally identifiable information, thus the potential consequences of inadvertent disclosure are minimal. The study data include information on respondents’ demographic and background characteristics, rank preference of schools in the study, ease of finding information about those schools in the school report card, and satisfaction with different website designs.

The team will ensure study data remain confidential and minimize the possibility of disclosure. OSSE will transmit the study data to the study team through a secure file transfer site. The study team will store the data in encrypted folders on Mathematica’s network. Only study team members will have access to the folders. All study team members will sign a pledge to protect the confidentiality of study data. Breaking this pledge will be grounds for immediate dismissal and possible legal action.

Any reports that are released under this project will present data only in aggregate form and will not identify any respondent. The study does not contain variables that are personally identifiable in isolation, making it difficult to identify individual respondents. It is conceivable that individuals with unique combinations of rare demographic characteristics could be identified. In the raw data, most demographic questions provide response options that are ranges, rather than specific values, limiting this risk. In the final data file, rare demographic groups will be further collapsed to reduce identifiability, with a goal of ensuring that at least 50 cases with a corresponding demographic (sex, race, ethnicity, and age) and geographic profile (ZIP code) are observed in the American Community Survey. For example, we anticipate grouping all Hispanic, Latino, and Spanish respondents into a single category and grouping non-black or white respondents into a single category. We will also collapse the question about number and grade level of children into a less granular categorical variable (such as whether the respondent has a child in high school). We will also remove questions from the data file that are not directly relevant to the analysis, such as any open-ended comments OSSE decides to solicit about school report cards as a part of the survey.

The original data file is the property of OSSE. If OSSE allows us to make the analytic data file public, we will upload it to a digital repository (such as the Open Science Framework).

Jesse Chandler, the principal investigator, will oversee data management and ensure that all study staff adhere to the data confidentiality procedures described here. Ignacio Martinez and yet-to-be-determined programmers will also work directly with the study data and implement all data confidentiality procedures.

If Dr. Chandler leaves the study, the applied research task lead for Regional Educational Laboratory (REL) Mid-Atlantic, Alison Wellington, will appoint, in consultation with REL Mid-Atlantic leadership, a new principal investigator. Dr. Wellington will work with the new

principal investigator and all other study staff to ensure the transition is smooth and that study data remain confidential.

Format for final data file

We plan to secure permission to produce a publicly available data file containing the analytic variables and demographic variables. Data will be made available as an SPSS .sav file, which has the advantage of directly linking variable names and response values to their plain text descriptions through variable and value labels in the file. We will also make available a corresponding .csv file, which is easily readable in all statistical programs. The data file will be accompanied by the original questionnaire, documenting all questions that participants were asked and the values associated with different response options. It will also indicate which variables the final data file includes. We will also make the code used to perform all data cleaning and analysis publicly available so anyone with access to the data file can replicate the analyses.

If we cannot secure permission to share the file, the study will produce an alternate data file following the requirements described in the Data Management Plans and Data Files Guidance document, with the relevant documentation needed to replicate the analysis. In a .txt format, the alternate file will describe the data and all of the steps the study team took to merge and clean the data, create variables, and run analyses. This file will be accompanied by a copy of the instrument and the code used to perform the analysis.

Why public use files might not be available

We are waiting for confirmation from OSSE that releasing the data files is consistent with its data use and privacy regulations. If the data file cannot be made available, the REL research team will provide OSSE with an analysis data file that includes any necessary component files and documentation, and OSSE will be able to control access in accordance with the district's policy on research requests.