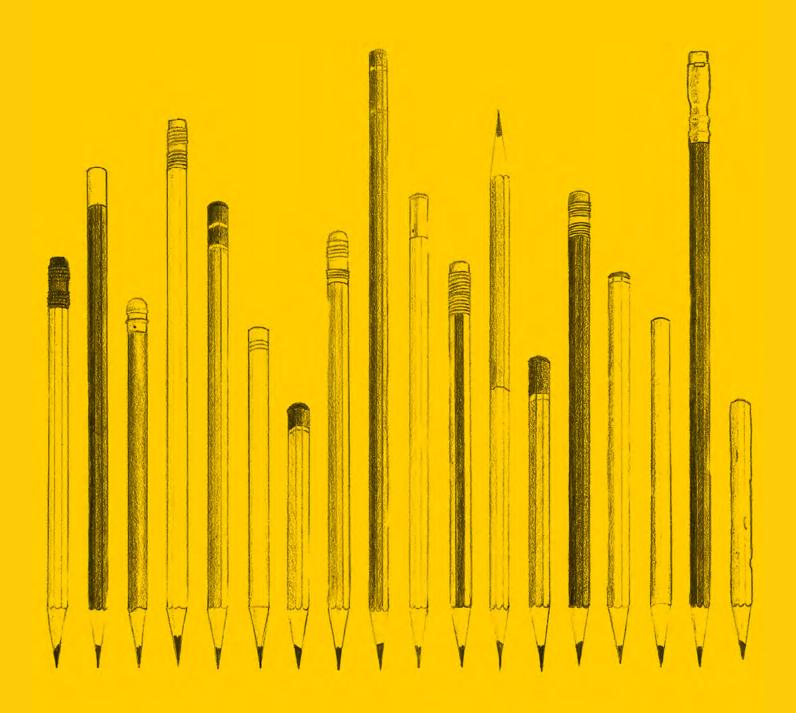
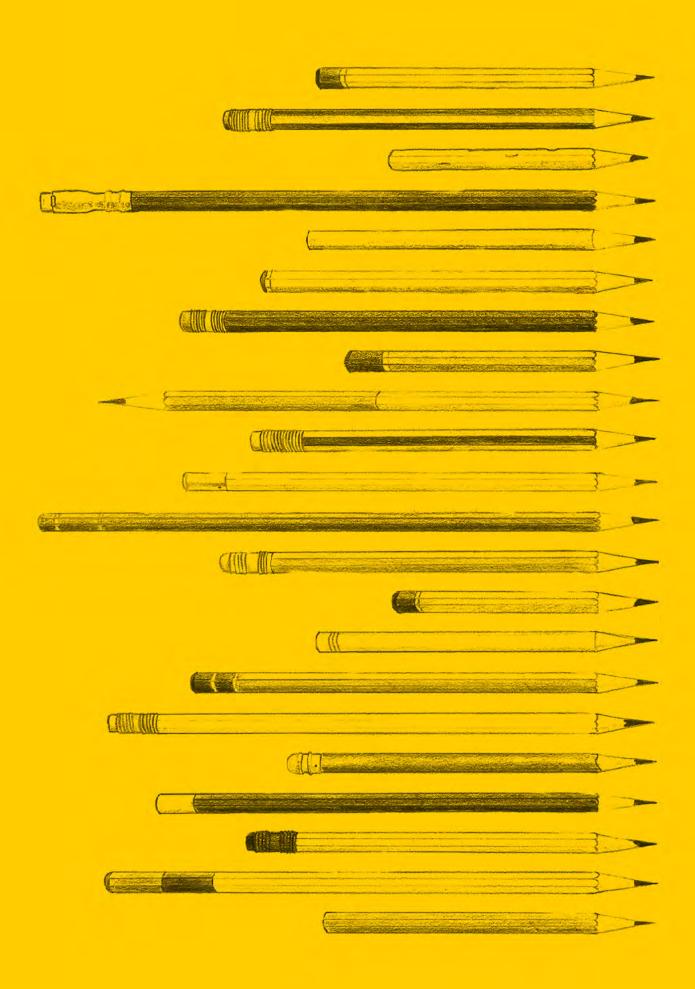
SPECTRUM OF TRUST IN DATA: NEW YORK CITY PARENTS NAVIGATING SCHOOL CHOICE

Claire Fontaine, Kinjal Dave





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1. Executive Summary



Recent years have seen an increase in the provision of "school choice" within school districts nationwide. And yet, there is a gap in school choice literature around how parents consume and interpret online information sources during the decision-making process. We know very little about parental estimations of the validity, trustworthiness, and representational value of school data. This report presents the findings of a qualitative, semi-structured, interview-based study of a racially, socio-economically, and geographically diverse group of 30 New York City (NYC) school decision makers conducted between May and November 2017.

Our findings show that the parent-facing data displays produced by the NYC Department of Education are virtually unused and difficult to find and read, even for those with high information literacy. Most parents reported that Google was their first stop, and that they checked school websites and made use of independent school review sites like Insideschools and GreatSchools. Through discussions of these practices, we locate parents' views of data on schools along three positions on a data trust spectrum:

- Data averse: Predisposed against using data to make decisions, assuming a perfunctory approach to information seeking and relying on gut instinct; most commonly articulated position.
- Contextual: Data is seen as nuanced and contextually produced. This view is typically espoused by those attending underperforming schools or ensconced in a school community.
- Representationalist: Data is regarded as an unproblematic representation of reality. Data on racial demographics, poverty rate, and test scores are often viewed through this lens.

We conclude that providing data to parents within the context of a market-driven school choice ecosystem is not an effective tool for equalizing educational opportunity, but rather a mechanism that replicates and perpetuates existing inequalities. We also found that the general public is more primed to appreciate the limits of quantitative knowledge and statistical modes of analysis than data specialists may realize, especially in domains, like schooling, where they have personal experience. And practically, most of this data is collected to satisfy the requirements of federal accountability legislation, but it is repurposed to support informed parental choice. There is a conflation of the goals of the two, such that parent needs aren't being maximally served.

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2. Introduction

The phrase "school choice" refers to the trend, ascendant in the last 20 years, of increasing government support for alternatives to zoned public schools in the United States. The number of school choice programs around the country has more than doubled between 2010 and 2016, according to pro-school choice advocacy organization EdChoice (2017). Support for these policies has a hybrid parentage. Libertarian ideals hold that "choice" in and of itself is a moral good (Friedman 1955). School choice policies are often justified as improving the quality of schools by introducing competition and market logics (Chubb and Moe 1990). At the same time, the ideals of technocratic corporate reform presume that data collection and analysis aid the process of school improvement, promising to help measure educational program impact, inform decision-making, and guide policy (Coburn and Turner 2012). School choice programs receive support from across the political spectrum but are especially advocated for by conservatives and members of the corporate education reform movement (Kumashiro 2008).

The proliferation of data collection in education can be traced to the rise of the accountability movement. In 2001, the No Child Left Behind Act (NCLB) was the national legislation governing educational data collection. In 2015, NCLB was replaced by the Every Student Succeeds Act (ESSA). To promote accountability, these laws require states and districts to collect data on student achievement in reading and math, to disaggregate it by demographic subgroups, and to issue publically accessible report cards. Rigorously reporting on achievement gaps among subgroups of students is assumed to be the first step in reducing educational disparities. While sometimes framed as a neutral measurement, the act of information collection and publication itself can potentially effect powerful changes. When students do not perform well on state achievement tests, schools are pressured to change their approach. For instance, NCLB threatened financial sanctions and closure for continually underperforming schools, gave students at these schools the right to transfer their enrollment elsewhere, and pressured underperforming districts with the possibility of a state takeover.

Data originally collected to comply with accountability legislation and for use by administrators, teachers, and policymakers is given a second life when districts and third parties publish more user-friendly versions of this data for parent

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consumption. These parent-facing data sources are meant to supplement parents' existing information sources, like school fairs, school visits, pamphlets, flyers, school websites, and word of mouth through formal and informal social networks. In districts with school choice policies, parenting increasingly involves seeking out, consuming, and evaluating data on school quality in addition to traditional information sources. In many cities, including NYC, the site of this study, families parse data from various sources to rank schools in terms of their preference for pre-kindergarten, elementary school, middle school, and high school. The mechanics of the process vary by district and level, but, generally, rank-ordered lists are entered into an online system and are processed algorithmically to generate admission offers.

While many research school choice in NYC (Abdulkadiroğlu et al. 2017; Allen 2017; Jennings 2010; Nathanson et al. 2013; Perez 2011; Roda and Wells 2013; Sattin-Bajaj 2014) and scholars are looking at data use by educators and administrators (Ebbeler et al. 2016; Wachen, Harrison, and Cohen-Vogel 2017), there is limited research on how parents consume and interpret online information sources during the decision-making process (Cho and Wayman 2014; Daly 2013; Jochim et al. 2014), and none that we are aware of in NYC. We also know little about parental estimations of the validity, trustworthiness, representational value, and usefulness of data on school quality. This is an important gap in the research, as current justifications for school choice pivot on the presumption that, given the information to make better choices, parents and students will select the most effective schools and school systems will improve. However, research shows that parents value other factors like peer group and absolute test scores rather than improvement-normed test scores (Abdulkadiroğlu et al. 2017). In other words, parents tend to prefer schools with the highest test scores over schools with the greatest improvements to test scores.

While much of the literature surrounding data-driven decision-making in education focuses on shaping educational policy decisions from the perspective of school districts or educators (Datnow, Greene, and Gannon-Slater 2017), our findings contribute to the school choice literature by explaining how parents use educational data for decision-making. Across various sectors, there is increasing interest in understanding how people view data in everyday contexts. Schooling decisions are one such everyday context. The open municipal data movement sees the release of data as a government responsibility, and the civic data movement regards engagement with data as a citizen right and responsibility (Horrigan and Rainie 2015; Janssen 2012). Implicit in the publication of data on schools is the presumption that such data is a useful and actionable guide to parental decision-making.

However, data is not a neutral reflection of reality but rather a curated representation shaped by the conditions of its production. Furthermore, data can be deployed in social interaction as a kind of currency

to help constitute social identities, as argued by cultural anthropologist Kadija Ferryman, whose concept of data as gift proposes that data mediates social relationships by triggering reciprocal obligations (2017). Examining how parents read, value, trust, and make sense of quantitative data on schools provides a lens to explore lay views of what data reveals, what it obscures, and how it contours social relations. Among parents, there is a range of acceptance and skepticism. As one participant put it, "People need some way to start

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sorting these massive amounts of information, and they need to be careful not to see what they see on a screen and believe that tells the full story." We offer a framework for understanding the range of orientations we observed: a spectrum of relationships toward data validity.



3. The Landscape of School Choice in NYC



The NYC Department of Education is the largest public school district in the United States with over 1.1 million students in more than 1,800 schools. Of these 1.1 million students, 21% attend district school alternatives, including private and parochial schools. For the 2016–17 school year, the NYC public school system had a total budget of \$29.6 billion (NYC Department of Education 2017). There have been elements of choice in the NYC public school system since 1963. The Open Enrollment Program and Free Choice Transfer Policy during that time permitted students in high-minority schools to transfer to schools with open seats to further desegregation goals. Under Mayor Michael Bloomberg (2002–2013) and Chancellor Joel Klein (2002–2011), the animating force behind choice policy evolved away from explicit desegregation goals and toward a market-based model. In this model, new small schools, charter schools, and unzoned-schools were opened in order to compete with existing schools and, it was hoped, raise graduation rates (Nadelstern 2013). However, the de Blasio administration has recently slowed approval for new charter school openings (Wohlstetter, Zeehandelaar, and Griffith 2015).

The change in NYC toward a market-based school choice approach mirrors a similar push occurring nationally. This trend demonstrates what Roda and Wells (2013) have termed colorblind policies, formally agnostic on the question of how they may shift the demographics of school communities and create more homogeneous schools. In practice, the absence of intentional integration provisions leads to greater segregation by race and class (Frankenberg, Siegel-Hawley, and Wang 2012; Hannah-Jones 2014). These relatively recent colorblind policies, which position families as consumers in an educational marketplace, represent a departure from a longer post-Civil Rights era history of elective out-of-zone enrollment, bussing, and magnet programs explicitly developed to promote racially integrated schools and more equal opportunities to high quality education.

NYC has intense income disparities and many starkly segregated schools. In 2014, NYC tax filers in the top 1% received 40.5% of total income generated. At the other end of the income distribution, the bottom 50% of all tax filers received 5.6% of total income received (Chatterjee 2017). In 2010, in the NYC metro area, excluding Long Island, over 90% of black students attended majority-minority schools. Of these students, nearly 75% attended schools that had 90% or greater minority students (Kucsera and Orfield 2014). In NYC in 2010, 73% of charters across NYC were considered "apartheid schools"—with white enrollment of less than 1%—and 90% percent were considered "intensely segregated," with less than 10% white enrollment (Kucsera and Orfield 2014).

While NYC's high school choice program is longstanding and widely known, choice is exercised in some form at all levels. At the elementary level, most students are officially intended to attend the school which serves their geographic catchment zone. But according to an original analysis by the Independent Budget Office, 29% of kindergarten students enrolled in public school do not attend their zoned-school, exclusive of charter schools, private, and parochial schools, and the three mandatory choice districts (Districts 1, 7, and 23) (Kranes 2017). The middle school choice process is more robust than the elementary but less so than the high school process and varies by district and school. Some schools require that students apply directly and

may require an interview or audition—or a lottery entry in the case of charters—while admission to others is granted through the submission of a rank-ordered list to an online system. In theory, eighth graders are eligible to apply to any high school across the city and are placed through a matching algorithm adapted from the national medical residency matching process (Abdulkadiroğlu, Pathak, and Roth 2005). However, admissions policies are competitive and are set by individual schools, and the complexity of the system privileges families able to make substantial investments of time and energy. Each of these processes is informed by physical and digital directories published by the Department of Education, in addition to school fairs and visits.

The Brookings Institution, in their 2016 Education Choice and Competition Index, ranks NYC as the third most choice-friendly city in the United States, behind Denver, Colorado, and the post-Katrina Recovery School District of Orleans Parish, Louisiana (Whitehurst 2017). In contrast, the Fordham Institute's independent calculations rank NYC twelfth among American cities in its friendliness to school choice, reflecting the relatively limited political support for the charters under Mayor de Blasio and now-retiring Chancellor Fariña as well as the strength of its teachers' union (Wohlstetter, Zeehandelaar, and Griffith 2015). Nevertheless, NYC is a valuable case study for researching school choice due to its sheer size, the significant quantity of open educational data it collects and makes available, its longstanding commitment to school choice principles, and for the extremity of its school segregation, residential segregation, and income inequality.

4. School Choice and Equity



A large body of research demonstrates that educational marketplaces disproportionately advantage those with the time, social capital, and institutional knowledge to seek out information, understand the process, and navigate the system. Members of less-advantaged groups, including immigrant youth (Sattin-Bajaj

2014), Latino families (Mavrogordato and Stein 2016), and low-achieving students (Nathanson, Corcoran, and Baker-Smith 2013) may experience more difficulty accessing external supports and may engage the choice process less systematically. Pursuing alternatives to a local public school requires researching options, navigating complicated admissions policies, and dealing with transportation needs. Transportation can be a significant obstacle to accessing high-quality schools of choice, many of which give preference to students living within a certain geographic proximity

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(Gross and Denice 2017). These bars to entry mean that school choice policies benefit the relatively privileged within all racial and social class groups, functionally keeping middle and upper middle class families invested in public schools (Frankenberg 2011; Friedus 2016).



In school choice markets, the most disadvantaged families tend to remain in their local public school, even when they have the opportunity to send their child elsewhere; families with more resources and higher levels of educational attainment are more likely to leave local schools for schools of choice (Musset 2012). Less-privileged families may value different factors in making decisions about schooling, like geographic proximity and the availability of affordable aftercare. Advantaged parents who send their children somewhere other than the local school may choose on the basis of social ties, word of mouth, and socioeconomic status of the student body (Lareau and Goyette 2014; Sims 2017). However, some parents who elect the default may be labeled as non-choosers, or defaulters, despite actively engaging in the choice process (Delale-O'Connor 2018).

5. Methodology

While the current public debate is primarily centered on the social effects of school choice, we were interested in the individual meaning-making processes of families and the role of data in these processes. We sought to learn more about how families did or did not rely on data. We were interested in which data points parents paid most attention to, what meanings they drew from this data, and how they reconciled sometimes decontextualized quantitative data points with other information sources. Such additional sources may include first-hand experience, personal and professional networks, and word of mouth.

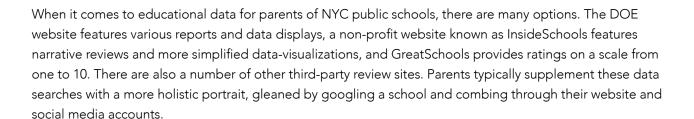
Our primary method was a series of semi-structured interviews with a diverse group of NYC parents. Recruitment was conducted through neighborhood-based listservs, flyers in coffee shops, word of mouth, and the online classifieds website Craigslist. We used snowball sampling toward the end of the recruitment period to increase representation of parents of children in citywide gifted and talented programs. Participants hailed from 12 different districts of the 32 districts in NYC, with between one and six participants per district. Though all had explored their zoned public schools, their children were bound for diverse settings, including private schools, charter schools, district- and citywide gifted and talented programs, as well as homeschooling.

Participants represented a range of social classes, from unemployed and working poor families to upper middle class double-wage earner families with advanced degrees. The median age of participants was 41.5 years, with two participants under 30, 10 participants between the ages of 30 and 39, 15 between the ages of 40 and 49, and three participants over 50. One participant identified as male, and the rest identified as female. Two of our participants were not the guardians, but actively involved older siblings. A wide range of racial and ethnic groups were represented according to participants' self-reports, reflecting the diversity of NYC, including: 15 white participants, six African American participants, five biracial and multiracial participants, two Asian participants, and two Hispanic participants.

^{1.} Most households were zoned for one district (D1 = 2, D2 = 5, D3 = 2, D6 = 1, D12 = 1, D13 = 2, D15 = 3, D22 = 6, D23 = 1, D28 = 2, D29 = 1, D30 = 1). In addition, two families were zoned for both Districts 1 and 2 depending on whether the student was entering middle or elementary school.

Interviews were conducted at the Data & Society office, at participants' homes and offices, and in cafes, per each participant's preference. The 30 interviews ranged in length from 50 to 120 minutes. In the first portion of the interview, we gathered personal experiences of navigating the choice system. In the second portion, we invited participants to examine and interpret various online data tools and information sources, including: InsideSchools, GreatSchools, DOE dashboards, and school websites.

6. Findings



We found that parents seeking information did not typically go directly to the DOE website to review their various reports and data visualizations. They often began the information-seeking process by googling a school's name. Participants were often unable to identify by name the specific data sets and tools they consulted:

I mean, I was Googling, you know? I don't remember, like, all the sources.

- Leila² / 34 / Digital Content Manager

It's different sites. You can go in this one and you got the Board of Education website and then you got SchoolMint, whatever.

- Lady / 39 / Human Resources Administrator

A quick web search provides a wealth of information: the presence or absence of a custom website beyond the standard DOE boilerplate, with information on curriculum and parent involvement, a review by Inside-Schools, a rating on GreatSchools, a Facebook page, perhaps a Wikipedia page, and, sometimes, a link to the DOE website (schools.nyc.gov) with statistics on the school.

In this section, we propose a way of thinking about parents' estimations of the validity, trustworthiness, and representational value of this quantitative data as existing along a spectrum with three main orientations: data-averse, contextual, and representationalist.

2. All names have been changed to protect the identities of participants.



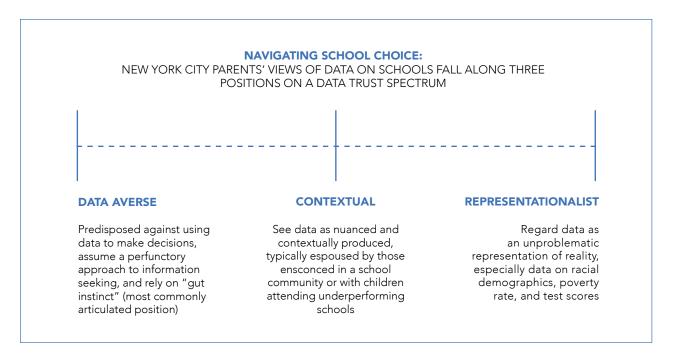


Figure 1. Data trust spectrum

On one end of the spectrum lies the data-averse view, characterized by a form of meaning making, knowledge, and relationship to schooling decisions that precludes data from being a meaningful intermediary. Those who expressed contextual views saw data as nuanced, contextually produced, and meaningful when interpreted within communities of practice and in light of the conditions of its production. On the other end lies the representationalist view, in which data points were taken to be unproblematic representations or

reflections of reality and as a meaningful basis for decision-making. Frequently, participants expressed multiple orientations toward data at different points in the interview.

In contrast to the accessibility of many third-party websites, participants found actionable information on the DOE website difficult to locate. Parents who In contrast to the accessibility of many third-party websites, participants found actionable information on the DOE website difficult to locate.

did find the report and dashboards useful had specifically sought them out, often at the guidance or urging of a peer, and, in order to answer a particular question.

I think I just kind of Google searched. One thing my friend Amy helped me with was actually looking at the DOE data. It's not accessible. It's really hidden deep in their website and it's not easily understandable. It has a lot of jargon.

- Hayoung / 37 / Architect

Hayoung, when referencing "the DOE data" was referring to the Quality Review (QR), a formal evaluation by a trained educator intended to help teachers and administrators reflect on school strengths and weaknesses. Hayoung was referred to the QR as a valuable information source by a friend who works as a public school teacher. Her lack of specificity—referring to the QR as "the DOE data"—was not unusual;

many of the parents we spoke to referred to DOE resources this way, perhaps reflecting the poor organization of the website, or the shifting and overlapping terminology and content of the various information sources. With so many different resources, it is not surprising that many parents conflate them or do not recall which they consulted. Indeed, the experiences of our participants are in line with the Data Quality Campaign's recent report findings, which argued that the ever-changing plethora of reporting formats makes it difficult to find data published by school districts using basic internet search engine results (2017).

As data analytics have become pervasive in schools, colleges, universities, and other educational contexts (Eynon 2013; Selwyn et al. 2017), NYC, like many districts, states, and charter management organizations, is increasingly using graphical data displays, especially dashboards, to organize information about schools and facilitate efficient administration and policymaking. Dashboard interfaces draw on certain assumptions and values and press those charged with interacting with them into certain epistemological modes and frames of managerial control (Crooks 2017). According to Shannon Mattern (2015), screen interfaces "embody in their architectures particular ways of thinking and particular power structures" and discipline their users into quantified, technocratic modes of engagement as they narrow measures of quality to that which can be counted and intelligibly displayed. The School Performance Dashboard, part of which is pictured in the screenshot below, is an example of such an interface.

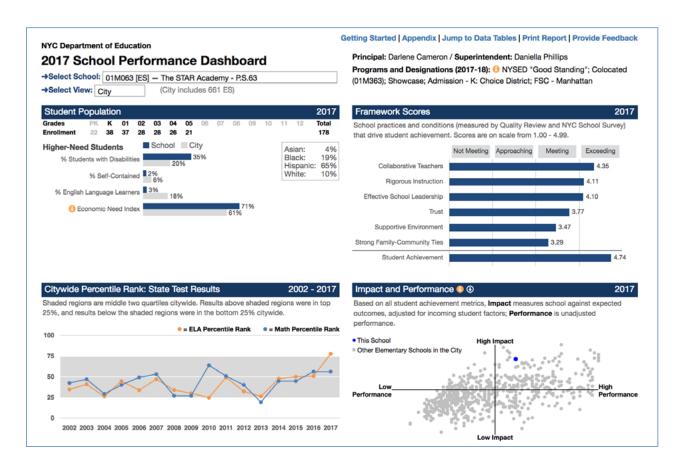


Figure 2. Screenshot of the NYC DOE School Performance Dashboard

Participants varied in their ability to make sense of such dashboards. Interestingly, none of the parents we interviewed had consulted the School Performance Dashboard while researching schools, although many had consulted sources derived from it. The most data-literate parents, including a librarian at a local university with a particular interest in municipal data, had little troubling parsing the display at first glance, but also little energy to delve into the details of how data displays are generated.

Well, I can read this kind of stuff, but if you start talking about methods or anything like that, I'm out. Sometimes I won't bother to try to understand a chart like that, depending on how I feel that day, how tired my eyes are. It's like, 'I'm not going to read the fine print.' But I mean, yeah, I work with data. I love data actually, yeah I do. I'm just not always good at it.

- Meredith / 58 / Librarian

However, less data-literate parents, even those with college degrees, had difficulty decoding the dense dashboard. Nancy, examining the Framework Scores section in the upper-right quadrant of Figure 2, which reports on annual school surveys measuring teacher, parent, and student satisfaction, puzzled:

I'm trying to figure out what this is, what the answer to that is. Okay, so [the website] is just saying, 'Do parents like the school?' but it's not really saying yes or no. It's just giving categories... okay.

– Nancy / 43 / Corporate Training Specialist

Daphne, a highly-educated mother of two children enrolled at the Anderson School, perhaps the most prestigious of the citywide gifted and talented programs, and a professionally-successful NYC native, was similarly perplexed by the Impact and Performance graph. Located in the lower-right hand quadrant of the dashboard, this graph plots student achievement in two ways: location on the vertical-axis of impact represents student test scores relative to those of schools coded as similar in demographic composition and location on the horizontal-axis of performance represents test scores against all schools without adjusting for demographic composition.

I wouldn't really know how to read this, like, "Oh, look, this tells me this is very – at the high end of the spectrum." But what is all – these are other schools, but what is it saying? It just seems kind of vague. Like, if this is a blob, they're obviously ahead of the pack, but I'm not sure what it's really – what I'm supposed to take from that, or how I'm supposed to understand that.

– Daphne / 44 / Non-Profit Management

The school whose performance representation she was evaluating, Anderson, ranks among the highest performing in absolute terms but is barely above average in impact. By one way of thinking, Daphne is limited in her ability to read the dashboard, evidenced by her imprecision and untechnical language. From another perspective, she is problematizing a framework for representing student achievement metrics that she finds counterintuitive, in which high-impact, high-performance schools are rewarded. Indeed, her confusion emphasizes that parents are not the intended audience for these data sets.

Later in the interview, Daphne was insightful as she speculated about the political interests she suspected were informing the push toward quantification of educational outcomes:

One has the impression that a lot of this quest for data is coming from the alternative school movement, maybe the monied sources that are trying to change our system. I think there's a belief, you know, it's hard to argue with data. When somebody wants to close a school, they can say, "Look at what the numbers say. How do you argue with this?"

– Daphne / 44 / Non-Profit Management

Overall, the technical data displays produced to meet the accountability requirements of NCLB and ESSA were seen by parents as, on the one hand, being more detailed and granular than necessary or useful, and on the other hand, not covering data points in which they were more interested. The artifacts that optimally support accountability differ from those that optimally support informed parent choice, but the two ends are often conflated by policymakers. Parents were interested in unpublished data points like the percentage of high school students with lockers, suspension rates, figures on disciplinary infractions, exmissions data

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on what schools graduates go on to attend, and gifted and talented program results disaggregated from general education program results. More generally, parents wanted user-friendly and easily digestible information sources. It is precisely this gap that InsideSchools seeks to fill.

InsideSchools is funded by several philanthropic organizations, primarily the Alfred P. Sloan Foundation, and is housed under the New School's Center for New York City Affairs. The InsideSchools staff conducts site visits and writes narrative reviews of schools, illustrated with photographs. They bestow their "Staff Pick" stamp of approval on selected schools. While the InsideSchools staff houses one statistical data manager, a design firm called Radish Labs was hired to overhaul the backend of their website to automate the process by which school statistics are updated. Radish Labs also redesigned the layout of the site, based on guidance provided by InsideSchools on parent interests. Given InsideSchools' virtual monopoly on public school reviews in NYC, their decisions about what information to privilege may also shape the way parents assess schools.

If you look at InsideSchools, I was just like, "Oh, look at the pretty pictures and all of the kids look engaged and there's this nice little write up."

- Rachel / 40 / Marketing Executive

A photographic slideshow greets visitors to the site. As Rachel points out, the photos draw in the reader and provide visual context that aids in making sense of the quantitative data. The photos shed light on atmosphere and environment, characteristics that were nearly universally cited as important factors by our participants. This is understandable in a city whose physical infrastructure is as old and stressed as New York City's.



Was it crowded? Was it cluttered? Was it clean? Was it dirty? How did it smell? How did it look? You know. There were some schools I toured with a very tiny cafeteria and very short lunch periods and it just seemed chaotic

- Opal / 35 / Lactation Consultant

In many ways, making data feel knowable is what InsideSchools does best. Many participants list the narrative and qualitative information as the most compelling aspect of the individual school profiles. InsideSchools knows its demographic well, and many of its categories reflect what parents pay attention to on school tours and discuss with other parents—what Dalele-O'Connor foregrounds as information sources in her study of families navigating school choice in Chicago (2017). InsideSchools aggregates the plethora of publicly available DOE data-reporting measures into their own metrics, which existed in the paper form of their InsideSchools books long before they became website categories. In fact, InsideSchools created and made available data in publically readable formats before the DOE, and the DOE has, in some ways, had to play catch up by creating its own public-facing dashboards. Unfortunately, these dashboards are rarely used. In addition to their density, the DOE tools simply do not have the brand loyalty and public following of InsideSchools.

Information on the demographic makeup of the student body is prominent on the site, specifically enrollment numbers, racial breakdown by Census categories, and poverty rate. The screenshot below depicts the relative importance given to demographic data. The top-portion of the page is dedicated to a photographic slideshow, and on the bottom-half of the page there are four main sections (the narrative review, the statistical section, user comments, and a map and transportation information). Within the statistical section there are four sub-pages, the first of which is titled "At a Glance."

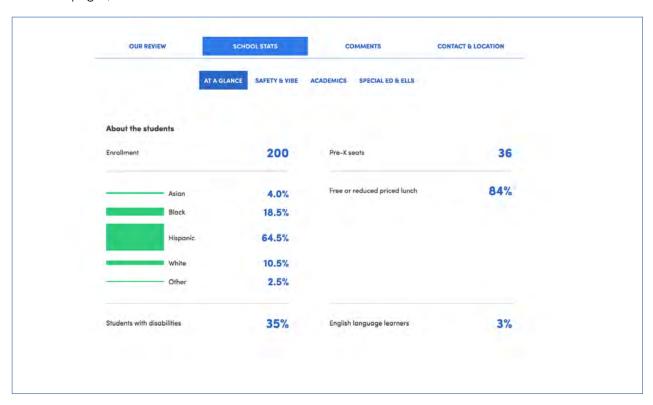


Figure 3. InsideSchools' "at a glance" tab of a school's statistics

The embedded assumption is that at first glance, parents are primarily interested in assessing the constitution of the peer group, easily deduced from the percentage of students eligible for free or reduced-price lunch (which, until recently, was a function of household income; lunch is now free for all NYC public school students) and racial demographics. Parents, regardless of their own race and ethnicity, socio-economic status, and the race and ethnicity of their children, took demographic composition into account when ranking schools:

I noticed it [racial composition] and I felt like because it was displayed so prominently, I thought this must be something that other parents are prioritizing racialcomposition]

- Rebecca / 34 / Healthcare Facility Project Coordinator

I cannot put my kid in an all-Caucasian school. I think it would feel uncomfortable. No, I like mixture. I like Caucasian. I like blacks. I like Hispanic. I like the mixture.

- Blue / 38 / Account Representative

I would look at poverty levels and I would look at racial makeup. I wanted to be aware if my child was going to be a super minority at their school. Like 30 percent fine, but, I didn't want them to be in like just the super small minority.

- Grace / 43 / News Television Camera Operator

Parents varied in their tolerance for integrated schools, expressing support for integration initiatives in the abstract but seeming content for their children to benefit from segregated school environments. Across the socio-economic spectrum, parents insisted their children shouldn't be "guinea pigs" to policy experiments.

7. Orientations Toward Data



7.1 Data Averse

The data-averse orientation is characterized by a form of meaning making, knowledge, and relationship to schooling decisions in which data is seen as irrelevant. For some participants (across the socio-economic

scale), the strongest factors of consideration—distance, safety, strength of community engagement, and whether they would be welcomed to the community—did not require data interpretation. These were seen as self-evident truths, obvious to any longtime resident of NYC. In response to an InsideSchools metric of teachers' and students' assessments of the safety of the school environment, one participant objected:

The data-averse orientation is characterized by a form of meaning making, knowledge, and relationship to schooling decisions in which data is seen as irrelevant.



I would know by the neighborhood, not going on the website unless if you're out of your – [you're] out of state, then that would probably be more relevant to someone who doesn't know the area, you know.

- Nancy / 43 / Corporate Training Specialist

Nancy and other participants are likely to agree that schools will, more often than not, reflect the culture and characteristics of their neighborhoods. Online research can help someone unfamiliar with an area to get their bearings, but it is a poor replacement for insider knowledge.

Participants of low, middle, and high socio-economic status also reflexively pushed back on the validity of data when it reflected poorly on a school in which they were deeply invested.

No, everything is okay. The attendance. The school is safe. At least they got some good-quality teachers in there, you know, that's been there for a minute, good teachers that, you know, they want to see the kids progress and the same school, every Thanksgiving, they give raffles. They give out turkeys. They give the fixings. You know, they give back.

- Kat / 49 / Personal Care Aid

Kat's children attend P.S. 134, which she also attended as a child. P.S. 134 is 97% black and Latino and 97% eligible for free or reduced-price lunch. The principal has less than a year of experience at the school, and

only 15% of students earn proficient scores on the state math exam. While she might appear to not be engaging the choice process by sending her children to an underperforming zoned-school, Kat is in fact making a calculated decision. Kat prefers not to send her children across neighborhood lines; her area is referred to by residents as "the Outs" because, as she puts it, "If you're not from the neighborhood, they don't want you to come in because you might not get out." From this perspective, Kat prioritized the peace

Those who expressed contextual views saw data as nuanced, contextually produced, and meaningful when interpreted within communities of practice and in light of the conditions of its production.

of mind that comes with knowing that her children are physically safe, close to home, and not traversing contested territory. This priority is not worth compromising for the uncertain benefits of a school with higher test scores. Furthermore, the school is a neighborhood linchpin and center of community life.

Others were generally predisposed against quantitative indicators of school quality, expressing a general lack of trust of data on schools and a perfunctory approach to using online and physical resources, preferring to rely on "gut instinct." Parents in this category sought information on schools as an expression of due diligence, looking for red flags like alarmingly-low test scores, poor safety ratings, or administrator malfeasance, discovery of which would lead to deeper investigation.

So, sometimes I think you just go on gut as much as you can look at all the analytics and everything, but it's just like what is your instinct telling you to do.

- Grace / 43 / News Television Camera Operator

7.2 Contextual

Other participants expressed contextual views of data, emphasizing that data is nuanced and contextually produced. Contextual views were most commonly espoused by parents in two situations: those zoned for seemingly underperforming neighborhood schools, who were looking for ways to make sense of and come to terms with the data about a school their child would attend by default; and those who were deeply involved and invested in a school community, had attended meetings where data was being analyzed, and thus become knowledgeable about its limits.

If I looked at a school's data and I saw that less than 15 percent of kids were performing at grade level and I knew that it wasn't a school with a lot of English language learners I would wonder whether it was a good learning environment. I'd say I was more interested in what parents and teachers had to say about the school than the standardized test scores, but even that seems to change pretty quickly sometimes in the space of a few years. I don't know if there's a change in administration or a change in demographics of the neighborhood... I guess I can only say that I took it all with a grain of salt.

- Rebecca / 34 / Part-Time Project Coordinator in Health Care Facility

Rebecca was one of the more careful readers of data among those not already ensconced in a school. She worked hard to assemble a full picture of the strengths and weaknesses of the school and its broader

community from the available data. As a white mother of a biracial child zoned for an underperforming school serving a predominantly West Indian and Central American student population, she had recently moved apartments to be in the zone of a more highly regarded neighborhood school with a lower poverty rate. The zone boundaries were redrawn soon after her move, and she was

The final orientation is the representationalist view, in which data points are taken as unproblematic reflections of reality.

struggling to reconcile her political ideal of local involvement with her concerns about academic environment and outcomes. Even so, her reading of performance data is filtered through a lens of the population served by the school, with the suggestion that achievement expectations be loosened for schools serving challenging populations.

Other contextual data consumers were close enough to the sites of data production and the information the data is supposed to represent to be able to meaningfully grapple with its limitations. Participation on School Leadership Teams (SLTs), in particular, was associated with this stance toward data. SLTs are comprised of an equal number of parents and teachers, and, together, they develop a Comprehensive Educational Plan (CEP), which outlines the school's goals for the year.

If you're a parent in public school, you want to be on the SLT, because you really see how things work, you really see the challenges of the school. When an SLT creates a CEP they take the best data that they have on the school and what they're trying to do is to create those goals to really make and show the best case scenario. You're looking at the numbers that are going to work for you.

- Betty / 46 / Marketing Consultant

According to Betty, the Comprehensive Educational Plans are not neutral documents. They are plans for school improvement developed within the constraints of a school's budget. They draw on existing data and propose achievable and documentable goals. They are posted online and the SLT meetings in which they are developed are open to the public. As the six participants who served on SLTs attested, grappling with the data in this way, as flawed information that nevertheless must be engaged with as if it is unproblematic, opened their eyes to the real tensions around collaborative data-driven decision-making in education. The process is designed to develop buy-in and build rapport among various stakeholders (parents, teachers, administrators) and to hold school communities accountable to these locally defined goals. However, the transparency demands constrain what the CEP can say, for it also has to reflect favorably upon the school.

7.3 Representationalist

The final orientation is the representationalist view, in which data points are taken as unproblematic reflections of reality. Participants articulating representationalist attitudes used data to quickly weed out undesirable options from an overwhelming number of potential schools. Without the data, participants articulating representationalist positions may have considered the reputation or conventional wisdom about a school passed down through neighborhood listservs, word of mouth, or parents of older children. Demographic data was frequently interpreted through a representationalist lens.

It [racial composition] wouldn't be important to me at all, but in my experience and in the experience of other people the more white people in school the better the school is... It's just how it is. It's a fact. It's not just me who thinks it. If you look on Long Island the whiter the area the better the schools are. And the same here if you go to East New York. Just Google their schools.

– Julia / 40 / Bookkeeper

In her somewhat precarious hold on both whiteness and middle-class status, Julia, a Russian immigrant married to a white Hispanic construction company owner, relied on racial stereotypes to evaluate school quality. She specifically sought out schools that were predominantly white and Asian. Her older daughter

was admitted to the racially integrated Midwood High School over her top choice, the predominately white Leon M. Goldstein High School for the Sciences. At Midwood, by Julia's telling, "blacks don't like whites" and her daughter "is being harassed all the time." While she did not claim a causal relationship between race and school quality, she drew on data to justify her reflexive antipathy toward integrated school settings.

The personal experience of schooling that many parents possess . . . cuts powerfully through the facade of data as all-knowing, all-powerful, absolute truth.

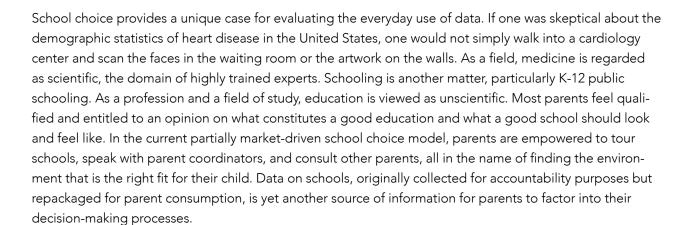
Further, the demographic data gave her a concrete way to act on her existing prejudices. Others articulated representationalist views when it served their needs in other ways.

I went online, got the data, got the numbers. Because they are tested. They do exist. They have a value. I mean it's the kids and how much they learn.

- Amelie / 43 / Alexander Technique Teacher

Amelie, a French transplant with two children at Anderson, used student performance data to make the case to her then-husband to enroll their children at Anderson rather than their zoned and well-regarded school, P.S. 6 on the Upper East Side. However, the husband had located the family to the P.S. 6 catchment zone for the socio-economic peer group it would put his children in contact with. Indeed, many participants acknowledged their social circles played a strong role in demarcating the scope of acceptable choices. Amelie, preferring the international feel, more meritocratic admission criteria, and what she calls "mixicity" of Anderson, makes a case for Anderson that pivots on the realness and representational value of "the numbers."

8. Conclusion



But educational data, like all data, like all knowledge, is constructed. It reflects the conditions of its asking, the methods of its collection, the processes of its cleaning, the possibilities inscribed in its presentation, and the ideologies of its makers and users. So often, the constructedness of data and the partiality and situatedness of knowledge in general passes unnoticed. Educational data may be an exception to this rule. The personal experience of schooling that many parents possess, however outdated, anecdotal, or filtered through the tempered glass of memory, and the general sense of knowability around schools—all of this cuts powerfully through the facade of data as all-knowing, all-powerful, absolute truth.

Skepticism about the validity of data on schools was widely and openly expressed by the diverse group of 30 NYC parental figures we interviewed for this study. When parents expressed belief in the validity of some piece of data, they did so to an end, for some purpose, because it was convenient, because it suited their needs: their view of themselves and their effectiveness as parents, their class- and race-based fears and anxieties, and their sense of their child as worthy, gifted, or resilient. School research was conducted online, in the way so much of contemporary life is now mediated by online information sources. Still, the data discovered was met with a generalized sense of distrust.

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The improvement claim embedded in current school choice policies—situated within a market-driven technocratic corporate reform frame—is predicated on the notion that parents, given the information and the opportunity to choose, will prefer the most effective schools, those that most increase test scores, those that add the most value. This does not seem to be the case. However, there may yet be useful and valid applications of school performance data at a classroom, organizational, or district level. Beyond the specific context of school choice in NYC, our findings about the range of orientations toward data validity, trust, and representational value held by lay audiences, in this case parents, suggests the general public is more primed to appreciate the limits of quantitative knowledge and statistical modes of analysis than data specialists may realize.

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