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School Choice Architecture

Daniel E. Rauch*

Scholars have focused extensively on how “choice architecture” impacts policy. Their key insight is that by changing how choices are presented, policymakers can “nudge” people toward better decisions. To date, though, this framework has not been applied to a decision-making institution at the core of American education: school choice.

American cities once assigned students to schools through the “neighborhood school” model: absent special circumstances, parents would enroll their children in the school closest to their home. In recent years, however, cities from New York to New Orleans have embraced “school choice,” a model that

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* Yale Law School, J.D. expected 2016. I am grateful to Professor John Simon, whose feedback and encouragement made this project possible. Professor David Schleicher took the time to read early drafts of this project and offered valuable advice on how to improve it. Thank you to the participants of the Spring 2015 Education and the Law seminar for thoughtful critiques and suggestions. Aurelia Chaudhury, Mark Jia, Charlie Metzger and Zayn Siddique each read drafts and offered assistance in developing this piece. Thanks to Sarah Burack for thoughtful suggestions and editing, to Tiffany Bailey, Diana Li, and Bradley Silverman for investing considerable time and care on this project, and to all of the other editors of the Yale Law & Policy Review whose work made this Comment possible. All errors are my own.


3. In this Comment, the term “parents” will be shorthand for “parents and/or other legal guardians.”
allows families to choose from a vast menu of public schools, charter schools, and other options no matter where in the city they live.4

The process by which families select schools creates important choice-architectural opportunities for policymakers to help parents make the best decisions possible. Cities, however, have not seized them. Instead, even in the most “choice friendly” districts, parents pick schools from spare, alphabetically sorted ballots of options. These options, often numbering in the dozens, can seem overwhelming and indistinguishable, especially for those families with the fewest resources. As a result, school choice is often an uninformed choice, thus failing to realize its potential to improve urban education.

In response, this Comment offers five behavioral-economic “fixes” to improve the school selection process at the heart of school choice: (1) default rules favoring high-performing schools; (2) enrollment ballots arranged by quality, not alphabetically; (3) ballot disclaimers next to substandard school options; (4) “box scores” with high salience information next to each ballot option; and (5) computerized selection assistance. Combined, these fixes offer crucial benefits for urban school choice.

Two caveats before proceeding: first, this Comment assumes cities employ school quality rankings that can roughly distinguish between successful schools, average schools, and failing schools. “Roughly” is the key word, though, since rankings needn’t be perfect for the fixes to be beneficial. Second, this Comment will not assess if school choice is, in itself, a good system.5 It simply claims that if school choice is in place,6 it should work as well as possible.

The remainder of the Comment proceeds as follows. Part I outlines key tools of choice architecture. Part II analyzes the current choice architecture of urban school choice. Part III outlines the five choice-architectural interventions proposed above. Part IV responds to two interrelated objections, and the Conclusion offers final considerations.

I. Core Tools of Choice Architecture

Choice architecture begins with the observation that real-world decision-making often breaks from the rational ideal; this concept is known as “bounded rationality.”7 Mental resources are finite, and so people often use cognitive

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5. For critiques of school choice, see id.4


shortcuts when making decisions. Unfortunately, these shortcuts often lead to systematically poor choices, like the tendencies to prefer the current situation over change (status quo biases) or to underestimate risks that have not yet materialized (availability heuristics).

In recent years, scholars have used these insights to analyze how the ways in which choices are presented can lead people, despite bounded rationality, toward better decisions. This field is known as “choice architecture.”

To illustrate, consider organ donations. In some countries, citizens consent to posthumous organ donation by default. They may opt-out and withdraw consent at will, yet few do. Instead, around ninety percent keep their organs available. By contrast, in some countries the default is that organs are not donated, though one may opt-in to donation. Opt-in and opt-out countries ask the exact same question: would you posthumously donate your organs? However, in opt-in countries, the donating percentage is comparatively miniscule, around ten percent. As this case shows, by accounting for bounded rationality—in this case, the tendency to favor defaults—choice architects can dramatically shape outcomes.

Choice-architectural frameworks have been applied in a variety of fields including contract law, retirement savings, and personal nutrition. Across these disciplines, five tools emerge as particularly important: (1) smart defaults; (2) choice ordering; (3) risk disclaimers; (4) “box scores” featuring high-salience information; and (5) computerized selection assistance.

Smart Default Rules: Defaults are the results that occur if no affirmative decision is made. If decision-making were perfectly rational, the choice of default would be meaningless, since it would only be retained when optimal. Bounded rationality, however, means the path of least resistance (namely, the default) gets chosen disproportionately often, even if it is worse than the alternatives.

Choice Ordering: For similar reasons, the order in which choices are presented also impacts outcomes. For example, when an option is listed first, it is
selected at a disproportionately higher rate. Thus, in elections, candidates benefit from being listed earlier on ballots.\textsuperscript{16} This dynamic is especially pronounced for less-informed voters.\textsuperscript{17}

**Risk Disclaimers:** Sometimes, people systematically underestimate risk, especially risks that unfold over long periods of time, like the cumulative dangers of smoking.\textsuperscript{18} Recognizing this, choice architects sometimes look to disclaimers: compelling warnings that increase risk salience. For instance, vivid warning labels on cigarette packaging can effectively realign smokers’ risk-estimates with reality.\textsuperscript{19}

**High Salience “Box Scores”:** Paradoxically, bounded rationality means mass disclosure leads to worse decision-making, since people fail to process information that is too copious—think of the experience of “glazing over” while reading dense instructions.\textsuperscript{20} As such, choice architects aim to give decision makers just a few, high salience pieces of information, a technique I call “box scores.” The classic examples are the restaurant calorie counts popularized by former New York Mayor Michael Bloomberg; these highlight just one datapoint (calories), but do so in an easy-to-use way.\textsuperscript{21}

**Computerized Selection Assistance:** Choice architects can also improve decision-making through computerized selection assistance that combines the above techniques. Arizona State University, for instance, requires students to use such programs when choosing classes. Based on declared subject matter preferences, these programs provide students with recommended classes (defaults), highlight courses associated with delayed graduation (disclaimers), and offer key data like pass rates (box scores). Apparently, the system has worked to greatly reduce student dropout rates.\textsuperscript{22}

Together, these tools offer key possibilities for choice-architectural interventions. With these resources in mind, we may turn to consider school choice.

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\textsuperscript{17} Id. at 316.

\textsuperscript{18} David Hammond et al., *Effectiveness of Cigarette Warning Labels in Informing Smokers About the Risks of Smoking: Findings from the International Tobacco Control (ITC) Four Country Survey*, in 15 TOBACCO CONTROL iii, 19 (2006).

\textsuperscript{19} Id.


II. School Choice and Its Discontents

School choice is said to let families pick the best schools for their needs. It is said to foster equity by letting children enroll anywhere in the city, even if they do not live near good schools. It is said to offer systemic benefits by making schools compete for students and the funding students bring. Schools attracting students gain resources; schools failing to attract students lose funding and, eventually, face closure.

To realize these benefits, school choice cities have historically used two main selection mechanisms. Originally, school choice was opt-in. In this model, students would be enrolled in their neighborhood schools by default, while families wishing to attend a different school would have to obtain and submit a separate application for each non-default school they were interested in attending.

In time, policymakers came to believe such opt-in systems posed problems. In particular, they were seen as adding substantial difficulty and complication to the process of school choice—especially for parents who were the least well off economically.

23. DANIEL J. BROWN, SCHOOL CHOICE UNDER OPEN ENROLLMENT 44 (2004). At least some empirical research appears to support this proposition. See Jack Buckley & Mark Schneider, Are Charter School Parents More Satisfied With Schools? Evidence From Washington, DC, 81 PEABODY J. EDUC. 57, 59 (2006) (collecting sources and noting that “[e]xisting research, without exception, has found that parents are more satisfied with schools they have chosen”).


27. Editorial, Houston Area Needs Common School Application, HOUSTON CHRON. (Mar. 30, 2014), http://www.chron.com/opinion/editorials/article/Houston-area-needs-common-school-application-536410.php (“Congratulations to HISD for going online this year. But from the parents’ point of view, the application process is still unnecessarily complex. Parents who struggle to get by and desire a better education for their children than they had will be particularly daunted by the process of school choice.”).
Recognizing this, cities like New Orleans and Newark came to adopt a common application school choice model. Under this system, students enrolling in city schools rank their preferences on what I term the ballot—a sheet that lists every school in the city in alphabetical order. Based on their preferences, students are then sorted into schools. 28

Neither of these mechanisms works, however, unless families choose better schools than they would otherwise be assigned to. If this is not the case (if, for example, parents choose randomly), the benefits of choice do not accrue. School choice only works when it is informed choice. Unfortunately, current school selection models—whether opt-in or common application—fall below this standard.

School selection is a complex, time-consuming decision. 29 Parents must spend substantial time and resources to research schools, and must often do so with incomplete information. This challenge falls heaviest on poor parents. 30 Poor families frequently lack transportation to visit schools. 31 They are more likely to struggle with the complex documents associated with researching school quality. 32 Their social networks are less likely to include families at high-

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32. See BEN-SHAHAR & SCHNEIDER, supra note 20, at 8.
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performing schools.\textsuperscript{33} And in some cases, they may be disengaged from their children’s education altogether.\textsuperscript{34}

Given this challenge, it seems imperative that cities design school choice to make it as easy as possible to select high-quality schools. They have not done so. In opt-in systems, the burden falls wholly on parents to conduct research and secure documentation from each school applied to on their own initiative.\textsuperscript{35} Accordingly, as commentators have recognized, such opt-in systems can inhibit families from selecting the best schools possible.\textsuperscript{36}

Unfortunately, common application systems also fall short. Even in ideal circumstances where families have the time and resources to carefully weigh options, lists of dozens of alphabetically-sorted choices in small print can prove overwhelming, leading to sub-optimal decisions.\textsuperscript{37} For poorer families, the problem is even greater. The upshot, as the most recent empirical data confirm, is that parents in common application cities are likely to use heuristics like which school is closest, which has well-known sports teams,\textsuperscript{38} or which has prominent advertisements,\textsuperscript{39} rather than choosing based on school quality. The promise of school choice thus remains unfulfilled. Something more is needed.

III. Five Fixes For School Choice

Flawed choice architecture limits the efficacy of school choice. In response, this Part offers five choice-architectural “fixes.”


\textsuperscript{34} Carey E. Cooper et. al., Poverty, Race, and Parental Involvement During the Transition to Elementary School, 31 J. FAM. ISSUES 859, 876 (2010).

\textsuperscript{35} Editorial, supra note 27.

\textsuperscript{36} Ash, supra note 26.


A. **Quality-Based Default Schools**

As a first option, cities looking to retain default schools should base their defaults not on proximity (which school is closest), but on quality (which school is best). Of course, proximity will remain important: a great school located hours away may still be a bad choice. Fortunately, smarter defaults, like “the best school within the transit zone,” could balance these priorities.

This proposal is most relevant to opt-in cities like Chicago, where students are already assigned default schools. Yet one could also imagine such rules in common application contexts, where default rules could set families’ first preferences to top-ranked schools. Either way, such default rules could helpfully shift parent selections toward better-quality options.

B. **Performance-Based Ballot Groupings**

Cities could also organize common-application ballots by school quality, with top-ranked schools listed first and low-ranked schools listed near the bottom. Of course, given the limited granularity of ranking systems, it might be counterproductive to list schools solely by quality. A better solution might be quality groupings: schools ranked “A” would share a box labeled “A schools,” schools designated “B” would take the next box down, and so on, with the worst-ranked schools at bottom. Within each grouping, though, schools could be sorted alphabetically or geographically.

Performance-based groupings are an easy way for parents to see, at the moment of decision, how schools perform. Moreover, at least some families will choose “A” schools simply because they appear first, a shift that should be most pronounced—as in elections—for those least able to devote resources to school selection.\(^\text{40}\) This too is a benefit.

C. **School Failure Disclaimers**

Most cities have designations indicating failing schools—schools that are deeply substandard. However, such information can be relatively tough to access, requiring online research or the reading of dense government documents. Even when rankings are accessible, pallid indicators of “F” grades\(^\text{41}\) in state-issued catalogs can seem insubstantial next to more immediate concerns like a convenient location.

As a third change, then, choice ballots should include school failure disclaimers next to each failing school option. For instance: *This school received a “failing” grade on the State of Utopia’s yearly assessment. Schools graded “failing” fail substantially below academic standards.*

\(^{40}\) See *supra* notes 16-17 and accompanying text.

\(^{41}\) See, e.g., One App 2015-2016 School Year, *supra* note 28.
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This disclaimer could be in a different font or color than the ballot’s text. Additionally, parents might be required to sign next to any failing option before selecting it as a preference. In this way, ballots could underscore the risks of picking substandard schools.

D. High-Salience “Box Scores”

Fourth, ballots could provide high-salience information next to each option via “box scores.” Such boxes would contain two or three data points to help parents pick schools. Parsimony is crucial since, as noted, excessive disclosure often leads to sub-optimal decision-making. Within this constraint, though, box scores could take many forms. Cities emphasizing traditional metrics might include graduation rates or SAT averages. Boxes could include graphics, like stars for schools receiving Blue Ribbon awards. Alternatively, boxes could advance progessive ends, like identifying schools with high suspension rates in order to staunch school-to-prison pipelines.

E. Computerized Selection Assistance

Finally, cities might replace ballots altogether with computer-based programs that feature interactive selection assistance. Programs could begin by

43. Cf. JAMES WILLIAMS, THE STATUTE OF FRAUDS SECTION FOUR (2013) (noting the traditional signature requirement within the statutes of frauds, a requirement aimed at impressing participants with the seriousness of a transaction).
44. E.g., BEN-SHAHAR & SCHNEIDER, supra note 20, at 8.
47. Of course, any such system would require that parents have access to the electronic system used in the sign-up process. Therefore, families without Internet access would need to be able to sign up at publicly available computers, such as at public libraries or in school buildings themselves. Such sign-up, in turn, would require ensuring that parents are aware of the sign-up process itself, perhaps through mass mailers. Should providing such access prove infeasible in a particular city, this suggestion would, of course, be inappropriate. However, notwithstanding the lingering effects of the “digital divide” on poor communities, recent studies suggest that even the most disadvantaged are increasingly likely to have access to the digital technologies that computer assisted selection would require. See, e.g., Aaron Smith, Smartphone Ownership 2013, PEW RES. CTR. (June 5, 2013), http://www.pewinternet.org/2013/06/05/smartphone-ownership-2013; Alexis
asking a few simple questions, such as what size school a parent prefers. Based on the responses, programs could then offer short lists of school recommendations which parents could either accept or override.

Computerized assistance could, as seen in the selection of college courses,\textsuperscript{48} harness many choice-architectural tools, from smart defaults to warning disclaimers to “box scores.” Moreover, as artificial intelligence improves, the usefulness of such systems should only increase, as computers become better able to engage in the data analysis and pattern recognition needed to identify better school choices.\textsuperscript{49}

For many—especially poor families—the fixes proposed above increase the likelihood that school choice will enhance educational opportunities. For school systems, the fixes improve the choice “market,” accelerating the closure of bad schools and the expansion of good ones. In sum, these five fixes would help school choice reach its potential.

IV. STRIKING A BALANCE

Before closing, two interrelated objections must be considered: the risk these fixes cannot shift parent behavior, and the risk these fixes could shift parent behavior excessively. Fortunately, however, there is reason to believe that the interventions proposed in this Comment would be a balance between these two extremes, allowing for important changes and improvements without overwhelming urban school systems.

A. Will The Fixes Change Behavior?

One risk is that the proposed fixes will not change parent behavior. Not every choice-architectural intervention is effective, as when deciders already have a strong set of preferences in mind prior to choosing.\textsuperscript{50} In the school choice context, this might mean that, irrespective of ballot design, factors like poor transportation could lead families to still choose neighborhood schools regardless of their quality.

Fortunately, the fixes proposed each rely on different cognitive approaches, suggesting that if one mechanism proves ineffective, others might still succeed. Moreover, there remains an important equity argument for adopting even

\textsuperscript{48} See supra note 22 and accompanying text.

\textsuperscript{49} See generally STUART ARMSTRONG, SMARTER THAN US: THE RISE OF MACHINE INTELLIGENCE (2014).

comparatively marginal improvements to school choice mechanisms. Even if structural factors like transit do limit options for most families, at least some students will live equidistant from high- and low-quality schools; for them, choice-architectural improvements will still make a difference. Finally, if the fixes’ efficacy remains uncertain, cities could always launch the changes as limited pilot programs, then collect data on whether and how they were effective.

B. Will the Fixes Change Behavior Too Much?

The second concern, paradoxically, stems from an opposite fear: that choice architecture would shift parents’ choices “too much,” wreaking havoc on city school districts.

One such danger is oversubscription. If ballot redesign succeeds, too many parents may apply for too few spots at top schools, meaning revamped choice architecture would not improve education and might cause disillusionment with the school system.

However, it is unclear that zero-sum dynamics would emerge. Vigorous outreach by high-performing urban schools suggests that even top options can sometimes struggle to fill seats. Thus, sometimes improved choice architecture will create win-win situations by guiding parents to successful schools with empty chairs. Moreover, in the long-term, shifts in parent preferences create incentives for high-performing schools to expand. For instance, parental demand could signal to charter operators to open new facilities, or signal to politicians to allow new schools to come online. And the frustration of being frozen out of top schools (and knowing it) might galvanize parents to greater involvement in education policy, leading to further improvements.


In other choice-architecture domains, like credit disclosure, such “empirically informed regulation” is a key tool for crafting policy. See Sunstein, Essay, supra note 1. That said, it would be crucial for any such trial to conform to the highest ethical standards.

See, e.g., Frequently Asked Questions: How Does KIPP Recruit Students?, KIPP, http://www.kipp.org/faq (last visited Feb. 14, 2016) (noting that for schools in the high-performing KIPP charter school network, “[i]ndividual KIPP schools have a variety of methods for recruiting students, from community meetings to advertisements in a local newspaper. Many KIPP principals also recruit door-to-door in the communities around their schools, to make sure that families know that KIPP is an available educational option for their children”).
Finally, even if school spots were zero-sum, equity demands that ballots be designed to allocate such opportunities fairly—irrespective of parental resources.

A related argument stems from fears of school closure. The school choice model assumes failing schools will close. Yet school closure has costs for students and communities. One might fear revamped ballots could exacerbate this problem, such as if failure disclaimers scared off so many families that any “F”-ranked school faced closure.

However, it is unlikely that ballot redesign would cause such disruption. As noted, parent choice is often determined by concerns that are not related to a school’s quality, like its location. Indeed, if “F” rankings caused rampant closures, one would expect more evidence of it in the (many) cities that already rank schools. Instead, the greater danger is not that parents are swayed too much by quality rankings, but that they are swayed too little.

Yet even if new ballots dramatically changed preferences, top schools still have finite seats, meaning that, so long as the scarce seats are allocated randomly, most students would still be assigned to lower-ranked options. Bluntly put, even if all parents selected “A” schools and none selected “F” schools, some unlucky students would still be sorted to the latter due to limited space. This reality connects to a crucial ethical conclusion: so long as school choice exists—as long as some families have the information to make informed choices about education—all families should be given such opportunities. Put simply, in the case of oversubscription, it is better for seats in bad schools to be apportioned by chance, rather than systematically going to families who are disadvantaged by the format of the school selection process.

Conclusion

The model suggested here is not a panacea. Yet in presenting it, I hope to highlight that the mechanics and procedures of school choice can matter as much as the actual availability of excellent schools. Cities and education reformers have invested considerable effort in making school choice a reality. Now it is time to ensure that when choices are made, they are made as well as possible.

54. See Ben Kirshner et al., Tracing Transitions: The Effect of High School Closure on Displaced Students, 32 EDUC. EVALUATION & POL’Y ANALYSIS 407 (2010).

55. Of course, this is in no way meant to praise such an outcome; indeed, a core purpose of the changes suggested in this Comment is to ensure that, over the long run, incentives are created to increase the overall number of high quality schooling options.