

Centralized Lottery Systems

Report prepared by the NMPED Charter Schools Division (CSD)
for the Public Education Commission (PEC) Work Session
September 21, 2023

Introduction

Unified Enrollment (UE) Systems are commonly city- or district-based and often include a partnership between the traditional LEA, magnet schools, and the charter schools in a particular region. However, there are some instances, like the state of Delaware where a statewide enrollment system, which includes a school choice component, is used. Delaware codified this system into [law](#). Most of the other centralized enrollment systems however are implemented on an *opt-in basis* for charter schools. The National Alliance for Public Charter Schools (NAPCS) distinguishes **Unified Enrollment Systems** from **Common Application Systems** with the latter including only charter schools (Hesla 2018). For the purpose of this brief, the term **Centralized System** will be used to include all kinds of student placement systems which can include the “lottery/admission” process as well as the “enrollment/registration” process.

Centralized systems streamline the lottery and enrollment processes by creating a comprehensive “one-stop” website that often includes: a school finder (like Google Maps); a common application; uniform timelines for applications, acceptances, and registration; school profiles; and an allowance for school-specific or universal preferences (i.e., sibling preference) (Allender et al. 2018). The features, benefits, and drawbacks of these systems are outlined below.

Methodology and Sources

Research was conducted by CSD contractor Rachel Stofocik, who consulted with Rachel Johnston at the D.C. Charter School Alliance, Ben Erwin at the Education Commission of the States, Lauren Morando Rhim at the Center for Learner Equity, Dr. Atila Abulkadiroglu at Duke University, Alex Caple at the Office of the State Superintendent of Education in D.C., Parag Pathak at MIT, and Kristi Pelezo at the Delaware Department of Education. Several providers of centralized lottery systems provided information about their products and services, which are described near the end of this report.

Background

The concept of matching theory was first introduced by David Gale and Lloyd Shapley in 1962; the Gale-Shapley algorithm was initially used for college admissions and in doctoral-residency programs (Abulkadiroglu & Andersson 2022). The matching theory was then further developed

by economists: Alvin Roth (Stanford), Atila Abulkadiroglu (Duke), and Parag Pathak (MIT). It was not long before experts saw the value of using matching or student placement systems in the K-12 market where school choice was gaining popularity.

The first cities to implement a K-12 unified enrollment system were Denver and New Orleans in 2012. The District of Columbia and Camden and Newark, New Jersey followed shortly after. In D.C., the charter school community was interested in a common lottery system but did not have the capacity to implement it, so they organized several meetings with LEA leaders to garner buy-in, to design a plan, and initiate a timeline. D.C. charter schools have always been included in the centralized system on an opt-in basis; however, only two charter schools (except for adult-based charter schools) are not a part of the system (Johnston 2023).

Features

There are various platforms that customize centralized systems and each has its own unique components. A state or district can choose how simple or complex the system will be. The following tools are often available in centralized systems:

- A website maintaining a lottery and an enrollment guide, a school finder, and a school comparison tool (Hesla 2018). Examples: <https://find.myschooldc.org/> or <https://newarkcommonapp.org/>
- Rank Order: parents and students rank the schools by preference (Kasman & Valant 2019). Different systems allow or require parents to rank different numbers of schools. The District of Columbia allows parents to rank as many as 12 schools, for example, while Denver only requires five (Hesla 2018).
- Priorities or preferences can be school-specific or universal. For example, all schools may include a sibling preference while one school has a weighted placement for students with disabilities (Kasman & Valant 2019).
- Applicants are not punished for ranking highly-coveted schools as a first choice even though there are limited seats (Kasman & Valant 2019).
- Placement algorithms that prevent applicants from “gaming the system” by ranking schools out of their true order of preference (Kasman & Valant 2019).
- Waitlist tracking (Hesla 2018).
- Interoperable systems: most platforms can connect to other Student Information Systems (SIS) like PowerSchool, etc.
- The common application is most often offered in several languages (Hesla 2018).
- Second round of applications: this is available in certain districts when families are not content with first placement (Kasman & Valant 2019). See Chicago Public Schools: <https://www.cps.edu/sites/cps-policy-rules/policies/600/602/602-2/>
- To avoid the detrimental effect of waitlists, some systems allow schools to eliminate the possibility of mid-year acceptance (Johnston 2023).

Benefits

Centralized systems can reduce time and effort for both families and school leaders. Most notably, the centralized system increases school visibility; parents may browse options that they may not have otherwise known about and as a result make more informed decisions (Kasman & Valant 2019). For charter schools it eliminates the task of creating and managing an independent lottery system. The advantage for all stakeholders in the implementation of a centralized system is the direct access to important data that informs future decisions.

The National Alliance for Public Charter Schools reports that when properly implemented, centralized systems can “empower disadvantaged students to more easily opt into better schools, pressure low-performing schools to improve or face closure, allow schools to specialize and differentiate, and provide data on parent preferences and school demand” (Hesla 2018).

For Applicants

- One website: simplifies the process for families and centralizes school information, allowing parents to consider more options and to make more informed decisions (Kasman & Valant 2019). (D.C. Charter School Alliance reports that enrollment increased for all charter schools as a result of the unified enrollment system.)
- Single deadline: Application, Acceptance, Registration (Allender et al. 2018).
- A centralized system has the potential to improve the percentage of disadvantaged students enrolling in high-performing charter schools (Hesla 2018).
- Eliminates the need for parents to navigate the application process for many different charter schools which all have their own complicated rules (Hesla 2018).
- Some systems like the deferred acceptance algorithm improve likelihood of desired placement (Kasman & Valant 2019). In D.C., 80-90% of families get one of their top three choices (Johnston 2023).
- Independent lotteries have no mechanism for incorporating varied preferences or in other words, a student can be offered a seat in multiple schools and each independent charter does not know about the others (Kasman & Valant 2019). This is a problem when it comes to tracking “waitlist data” (Abulkadiroglu 2023).

For School Leaders

- Keeps school leaders free from managing burdensome process (Allender et al. 2018)
- Enables school leaders to project enrollment more accurately by allowing student to hold a maximum of only one seat at a time (Kasman & Valant 2019).

For the General Public

- Promotes transparency and equity because the process is visible and accessible to the public (Allender et al. 2018). See Delaware’s tracking of schools and waitlists <https://www.schoolchoicede.org/ChoiceApplications.aspx>

For Policymakers

- Generates data on parents' preferences and effects of school which can inform education policy and practice (Kasman & Valant 2019). Authorizers and administrators find it useful to have accountability, supply & demand, and demographic trending data.
- Provides a method to grant priority access to desirable schools to most vulnerable or disadvantaged students. Some school districts have laws in place to allow for “equitable integration nudge” (Kasman & Valant 2019) (Rhim 2023).

Disadvantages

Centralized enrollment systems do come with disadvantages especially when there is not a robust and detailed plan for onboarding and implementation.

In Denver, researchers discovered that minority and low-income families participated less in the centralized enrollment system than their white and more affluent counterparts (Allender et al. 2018). Similarly, in New Orleans where participation in the centralized enrollment system was made mandatory, many parents reported that the centralized system was challenging and difficult to navigate as opposed to the former informal local neighborhood school enrollment system (Allender et al. 2018). Uniform enrollment systems can be expensive and if an authorizer is interested in making charter schools more equitable, there are other pathways for ensuring that schools are not formally or informally discouraging certain students from enrolling in their school; for instance, some states use “mystery or [secret shoppers](#)” or setting enrollment quotas for underserved students to ensure charter schools are not screening their student body (Rhim 2023). Finally, many charter schools are initially hesitant to agree to a centralized system as it can impede some of the autonomies that the schools previously employed in setting up their own enrollment processes (Hesla 2018).

For Applicants

- Applicants can make mistakes or have misunderstandings (i.e., parents uninformed about schools, not ranking their first choice to game the system) (Kasman & Valant 2019).
- Because the systems are often complex, there can be general distrust among families about how students are placed (Hesla 2018).
- Parents perceptions or misgivings about centralized systems—can lead to dissent among the 20% who do not get any of top three choices (Kasman & Valant 2019).
- Outreach to the most marginalized communities is a significant challenge for states or districts with unified enrollment systems. Most systems remain solely online which is limiting to many families (Allender et al. 2018).
- Without an accompanying and enforced transportation and meal program, the ability of students to thrive in a charter school that is not geographically near their home, may

undermine the ability of a centralized system to diversify student populations (Johnston 2023).

For School Leaders

- Centralized systems reduce a charter school’s autonomy over the enrollment process and add an additional administrative layer between families and schools (Hesla 2018).

For Policymakers

- Mistakes and misunderstandings by policymakers (Kasman & Valant 2019).
- Complexity of system and how the hierarchy of priorities works (Kasman & Valant 2019).
- Enrollment decisions influenced by peers or word of mouth and this affects applicant behaviors and school make up or population. The “parent network” is quite influential and can positively or negatively affect family choice (Rhim 2023).
- Centralized systems do force policymakers to make some trade-offs even in some goals/values that they consider a priority (Kasman & Valant 2019).
- The after-market placements can throw off the system (Kasman & Valant 2019).

Considerations for Effective Implementation

The Brookings Institute’s report, “The Opportunities and Risks of K-12 Student Placement Algorithms” includes several suggestions for ensuring that a centralized system is successful.

First, the report recommends that policymakers determine their values and goals for a student placement system.

Second, the report underscores the importance of disseminating information and providing good communication about how it works, its benefits, and its limitations. In Camden, NJ the centralized system implementation included launching an enrollment campaign, setting up hotlines, and creating school fairs where parents and families could essentially browse school choice options (Hesla 2018). Similarly, the District of Columbia has an “ED Fest day” in which all schools set up booths that families can visit to learn about the various options (Johnston 2023).

Third, Brookings highlights the benefits of a system that shows where and how students are placed. While the issue of privacy is a concern in this factor, most common enrollment systems code students by a placement number.

Fourth, the report discusses the use of Agent Based Modeling or AMB, which is a tool that allows policymakers to evaluate the potential effects that the placement policies have on student placement like the demographic make-up of a school, etc.

Finally, the report as well as other literature on the subject, recommends designing a robust applicant complaint process where families can provide thoughtful input that policymakers can consider as the system evolves.

Cost and Administrative Burden

The capital outlay necessary for implementing and maintaining a centralized system usually requires an initial downpayment and then an annual payment based on per student costs. Commonly, the entity housing the system has at least one full-time administrator or a team of administrators to oversee the work and to interact with the technology experts, the applicants, the school leaders, and the public. The annual fee ranges from \$25,000-500,000.

Some state agencies or districts who maintain a centralized system choose to cover all the costs for the schools while others charge participating schools an annual fee anywhere between \$1,000-7,000. Many cities have chosen to implement the system incrementally. For instance, in Philadelphia, the system was initially only a common application with a uniform timeline housed at a website that then directed families to the charter school that would then run its own lottery. Now, [Apply Philly Charter's](#) platform includes the deferred acceptance algorithm and houses the lottery, enrollment, and registration process of each student.

Considerations for Implementation in New Mexico

Professor Atila Albulkadiroglu of Duke University is currently developing an open source system that addresses complex enrollment issues in Boston and Denver, and has offered to schedule a meeting with the PEC and PED to explain the details behind how these systems function, the opportunities of using such systems, and where his research is headed toward improving these systems. According to Dr. Albulkadiroglu, one important point to is whether a student placement system is capable of expansion if the state chose to gather data beyond that of lottery or enrollment trends.

Currently, there are 58 state-authorized and 42 district-authorized charter schools in New Mexico. The system could be initially designed to include the 58 state-authorized charter schools with an opt-in basis. In this case, the PED or PEC would need to design a plan for educating and recruiting the state-authorized schools to participate. In this case however, not including the district-authorized charter schools in the state, especially the 30 charter schools authorized by Albuquerque Public Schools (APS), could be confusing for parents and families who do not normally understand the distinction between a state-authorized or a district-authorized school. Ideally, the system would engage other authorizers, especially APS, in the possibility of an opt-in centralized system to include *all* charter schools in the process.

WestEd's report by Allender, Estacion, and Nabors underscores the importance of collaboration. The report specifically highlights collaboration between traditional LEAs and charter schools in order to give students a wider range of opportunities, but in New Mexico's case, collaboration between all charter schools may be the first step. The WestEd report also emphasizes how important it is to look for any trends toward resegregation in the school choice context (Allender et al. 2018).; thus, prior to the implementation of a centralized system, the PED and PEC may consider student population data of charter schools and whether a centralized system would result in diversifying charter school populations.

The important first step for New Mexico when considering a centralized lottery system would be determining what is the desired outcome, which, based on how these systems have been administered in other states and cities, would include a campaign to engage the various stakeholders in the decision-making process: parents, families, and students; charter school leaders in state- and possibly, district-authorized schools; Public Charter Schools of New Mexico, and district authorizers.

Enrollment System Providers

There are many providers that have the capacity to help New Mexico's Charter Schools implement a centralized system. There are also instances when local data collection and tech companies handled the needs of the state or district. For instance, the school choice centralized system in Delaware was created by a local data gathering firm which handles all components of the system including the lottery, student matching, registration, waitlists, outreach, guidance, and complaints; this system is paid for by the state and costs between \$100,000-\$200,000 per year. Most district or state-based systems however are handled by the most prominent providers in K-12 data collection.

The providers contacted for and included in this report are: [Avela](#), [Lotterease](#), [Maker Pro](#), [Salesforce](#) (Acumen), and [SchoolMint](#). Representatives from all of these providers except Maker Pro responded and provided proposals (see below).

Avela

Avela is an education software company and consulting practice focused on equity in school enrollment and admissions. Avela was founded in 2019 by Nobel Laureate Josh Angrist, Clark Medalist Parag Pathak, and social entrepreneur Greg Bybee to empower districts to boost enrollment, streamline operations, support families, and promote equity using research-proven approaches. Avela offers a complete student application and enrollment solution for education providers. Avela covers all stages of the enrollment journey, including discovery, application, admission, and registration. Avela offers four key components that can be purchased in a package or individually. Those four components include: Explore, Apply, Match, and Enroll. **Explore** is a school finder. **Apply** is a common application with a common timeline. **Match** is a

student placement system using a research-based, award-winning algorithm. Finally, **Enroll** includes online registration, transfers, and an enrollment platform with document collection, SIS integration, and enrollment workflows. Avela's most current work includes an enrollment system for Newark, NJ ([Newark Common App](#)), for Tulsa Public Schools ([enrollTulsa](#)), a matching system for Teach for America, and a matching system for soldiers through The Department of Defense. [Avela's full proposal is available here.](#)

Lotterease

Lotterease has a lottery and enrollment system. Lotterease includes one click lottery execution, automatic parent notifications, preference groups and weights, and transparent, fair, and compliant placement. The platform can also expand to include Enrollease which includes easy online forms, re-enrollment options, automatic parent reminders, and comprehensive reports. Lotterease covers all customer service needs; as a result, all parent complaints, school leader inquiries, and any other lottery or enrollment questions are handled by Lotterease staff. Examples of work pertinent to this brief include Orange Unified School District links to Lotterease as an example of use (click on McPherson Magnet on left): [New Student Enrollment - Orange Unified School District \(orangeusd.org\) and](#) Maine Charter School Commission (division of State of Maine) schools use Lotterease (Acadia & Fiddlehead): [Home | Maine Charter School Commission](#). Note that Maine Charter Schools opt-in to using Lotterease and parents have one application account for the Maine schools. Their contract is directly with the State.

Salesforce

Salesforce is one of the largest technology companies in the world. A cloud-based software company, it handles customer relationship management software and applications focused on sales, customer service, marketing automation, e-commerce, analytics, and application development. Salesforce manages multiple projects and has created a multitude of centralized enrollment systems. A suite of tools is available from Salesforce and all features are customizable. The common suite of tools includes a family information tool, a common application, a common lottery, a post lottery, the ability to provides results back to students and families, and the ability to see reports and centrally view data. Salesforce has a team of experts with more than a decade of experience who can help translate policy into system and process; has a service team that can provide ongoing support and offer a variety of options based on client capacity; has a change manager who is included with services to help with communication, adoption, and training planning; and has the family facing infrastructure that has been tested and iterated on based on the feedback of hundreds of thousands of families. Examples of Salesforce's work similar to the work being considered in this brief includes: [Enroll Rhode Island](#) (contact jenclarkpiccolo@gmail.com), and [Apply Philly Charter](#) (contact Eileen.Walsh@elevate215.org). The biggest costs are in year one and after year one there are many cost-effective options to expand and scale the system significantly. The system is compatible and can easily connect with other student information systems for collecting data.

SchoolMint

SchoolMint’s Strategic Enrollment Management (SEM) platform is used by a third of the charter schools in the country and by more than half of the largest school districts. SchoolMint currently supports several New Mexico Charter Schools in their independently-run lottery and enrollment systems. SEM is a comprehensive process designed to help educational institutions achieve financial and operational stability by maintaining optimum recruitment, enrollment, and retention rates. SchoolMint focuses on three key components: Attract, Enroll, Retain. **Attract** focuses on keeping families engaged and informed about available school options. **Enroll** is composed of two main parts—Apply and Register and it works to make an information-rich, easy to navigate, transparent, and accessible portal for families. **Retain** focuses on data collection and trend analyses using data points to facilitate individual student support and tracking. The tools highlighted in SchoolMint’s Unified Enrollment Systems include: geographically-based priorities and finders, open-seat tracking, options for school-based autonomy, easy-to-use parent interface, a fair and transparent student placement process, the ability to communicate with other student information systems, and the ability to customize according to state or district needs. [Full proposal and informational videos](#). [SchoolMint Sample School Finder](#). [Dallas School Finder](#) (use address 9400 North Drive, Dallas, TX).

Further Reading

[Equitably Improve Enrollment \(Avela panel discussion\)](#)

[National Charter Schools conference presentation](#)

[Blueprint Labs discussion paper](#)

[My Schools Newark](#)

[Washington Post article on D.C. lottery](#)

[CLE Citywide Framework](#)

[Colorado Schools Report](#)

[Mystery shopper brief](#)

[Peter Bergman e-mail study about parent inquiries](#)

[NEPC report on virtual schools](#)

[CLE webinar about equitable access](#)

[Universal enrollment in Newark](#)

[CRPE study about impact of uniform enrollment in Chicago \(2018\)](#)

References

- Abulkadiroglu, A., & Andersson, T. (2022). National Bureau of Economic Research: School Choice. *Journal of Economic Literature*, 2–62.
https://doi.org/https://www.nber.org/system/files/working_papers/w29822/w29822.pdf
- Hesla, K. (2018, September). Department of Education. Unified Enrollment. Retrieved September 15, 2023, from <https://files.eric.ed.gov/fulltext/ED595153.pdf>.
- Julie, M. F., & Green, P. (2019, March 7). *Advancing Intentional Equity in Charter Schools*. Washington, D.C. Retrieved September 15, 2023.
- Kasman, M., & Valant, J. (2019, February 28). The opportunities and risks of K-12 student placement algorithms. Washington, D.C. Retrieved September 15, 2023.
- Stofocik, R. S., & Abulkadiroglu, A. (2023, September 8). Unified Enrollment Systems: School Choice Algorithms. personal.
- Stofocik, R. S., & Erwin, B. (2023, September 6). Unified Enrollment Systems: Education Commission of the States. personal.
- Stofocik, R. S., & Johnston, R. (2023, September 6). Unified Enrollment System in the District of Columbia: D.C. Charter School Alliance. personal.
- Stofocik, R. S., & Rhim, L. M. (2023, September 7). Unified Enrollment Systems: Center for Learner Equity. personal.
- WestEd, Allender, S., Estacion, A., & Nabors, A., *Working Together to Support Equitable Access to Charter Schools 1–14* (2018). Washington D.C.; WestEd.