

Evaluating the Impact of Tennessee's Achievement School District

3rd Annual Report to the Walton Family Foundation

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INTRODUCTION

A number of states and districts have adopted bold strategies for turning around low performing schools. Some of these initiatives have been modeled after Louisiana's Recovery School District (RSD), which, in some cases, took over and directly ran failing schools or, in other cases, turned these schools over to charter management organizations (CMOs).

Inspired by Louisiana's example and the potential of Race to the Top (RTTT) funding, Tennessee passed legislation called First to the Top in January 2010, which created the Achievement School District (ASD) (Public Chapter No. 2, 2010). With this legislation in hand, the state applied for RTTT funding and, in March of that year, Tennessee was awarded \$500 million to carry out the proposed initiatives, including the ASD.

The First to the Top legislation (along with a subsequent ESEA waiver submitted in 2011) called for the State Commissioner of Education to identify the state's lowest-achieving five percent of Title I schools. These schools, known as *priority schools*, would then face one of four interventions: (1) placement in the ASD, (2) turnaround under the auspices of an LEA innovation zone (also known as iZone schools), (3) turnaround through one of the federal School Improvement Grant (SIG) plans; or (4) LEA-led school improvement planning processes (ESEA Flexibility Request, 2013, p. 55).¹ Among these possible interventions, none has been more innovative or controversial than the ASD— a new state-run school district that removes schools from their home districts and either directly manages these schools or turns the schools over to charter management organizations (CMOs).

As initially conceived by the original First to the Top legislation, once a school is selected for the ASD, the school would remain in the ASD for at least five years. The school would return to the home district conditional on the performance of both the school and the home district (ESEA Flexibility Request, 2013, p. 57). While the application did not dismiss the possibility of the state fully operating ASD schools, the emphasis was on partnering with CMOs to take over and manage the school. Policymakers hoped that not only would the takeover of these schools lead to improved student outcomes for state takeover schools, but they also hoped that threat of takeover would improve student outcomes for other low-performing schools.

¹ It should be noted that while it was not clear from the ESEA Flexibility Request, some schools do receive multiple interventions. In addition, for interventions 3 and 4, if there is not improvement in results, the schools can be subject to ASD intervention.

In terms of improving the actual schools taken over by the state and managed by the ASD or a CMO, the overarching strategy for improvement was to provide autonomy to schools to hire talented educators, especially teachers (Race to the Top Application for Initial Funding, 2010). The original goal of the ASD is to move the academic performance of schools taken over from the bottom five percent of schools to the top quartile of schools in Tennessee within five years.

As an alternative strategy, priority schools could also become part of innovation zones or iZones, which are district managed schools (Memphis, Nashville and Chattanooga) that are given greater autonomy and resources to operate.

PROJECT QUESTIONS

Because the state of Tennessee is continually refining the state's policies for turning around low performing schools and because many states are implementing or considering similar approaches, it is important to examine the effectiveness of the ASD and to better understand the movement of teachers and students into and out of ASD schools. Our research team, over the course of three years, has addressed the following questions:

1. What are the characteristics of teachers leaving and entering schools taken over by the ASD, including measures of quality?
2. What is the nature of student in-migration and out-migration to and from ASD schools?
3. What drives employment decisions of ASD teachers?
4. What initial effect has ASD had on student achievement?

NUMBER OF SCHOOLS UNDER THE AUSPICES OF THE ASD AND IZONE

In examining our results, it is important to keep in mind that both the ASD and iZone schools took over additional schools in each year. In 2012-13 school year, the ASD took over the first cohort of six schools with three schools run by CMOs and three run directly by the ASD. In 2013-14, the ASD added a second cohort of 11 schools, eight run by CMOs and three run directly by ASD. In the 2014-15 school year, a third cohort of eight schools were added, all CMO-run, while two schools opened in the 2013-14 school year were merged in with other ASD schools. By the 2014-15 school year, 23 schools were operating under the auspices of ASD with five managed directly by the ASD and 18 managed by CMOs.

For the iZone, in the 2012-13 school year, 13 schools opened under iZone with seven opening in Memphis that year, the remainder in Nashville. In the following school year, 11 total iZone schools opened – five in Memphis and six in Chattanooga. Four schools opened in 2014-15 school year, all in Memphis.

SUMMARY OF PREVIOUS ANNUAL REPORTS

In each project year, we produce an annual report similar to this one highlighting major findings from research over the past year. This is the third of three annual reports. In the first annual report, we provided a summary of our analysis of teacher and student mobility, which addressed questions 1 and 2 above. In the second annual report, we focused on questions 3 and 4 by conducting surveys of current and former teachers in ASD schools as well analyzing student achievement data. Much of our analyses and findings from the first two reports can be found in research briefs entitled “Teacher and Student Migration in and out of Tennessee’s Achievement School District” and “Evaluation of the Effect of Tennessee’s Achievement School District on Student Test Scores” and both are posted on Tennessee Education Research Alliance’s (TERA) website.^{2 3} However, below we provide a brief summary of the two previous annual reports.

In the first annual report, we found that the vast majority of teachers exited schools once they came under the auspices of the ASD. Therefore the ASD faced a significant need to hire new teachers in their first year of operation. Among the new hires, nearly a third were novice teachers. Of those with teaching experience in Tennessee, the ASD hired more high performing teachers, in terms of value-added scores, as compared to the teachers that left before the ASD takeover. In terms of student mobility, we found that ASD had a high rate of student mobility into their schools in the first year of takeover, but the rates declined with each subsequent year. In examining the students that move in and out, the proficiency levels of students transferring into ASD schools had little effect on the overall proficiency rates of ASD schools.

In the second annual report, we reported results of teacher employment preferences from a survey of three groups of teachers: (1) teachers at an ASD school in the 2014-15 school year (the time at which the survey was administered), (2) teachers who had worked at an ASD school prior to the 2014-15 school year, and (3) teachers who had worked in a school that was taken over by the ASD, but moved to a different school before the takeover.

Overall, we found that among the malleable, structural, and school characteristics, teachers put a premium on malleable features including consistent administrative support, consistent enforcement of discipline, school safety, small class sizes, and availability of high quality PD. Generally, short-term unchangeable school characteristics such as income levels or racial composition were the least important attributes to teachers who have worked in high poverty, low achieving schools. Also, structural conditions, such as salary and, to a lesser extent, performance-based pay are important to teachers. Eligibility for tenure appears to be less important overall but is more important to experienced teachers than novice teachers. In general, we view these results as presenting an opportunity for ASD schools since the malleable features teachers value are largely within the control of principals or CMOs and the ASD. Therefore, principals, CMOs, and the ASD can assess and address these factors to improve recruitment and retention.⁴

² https://peabody.vanderbilt.edu/research/tnedresearchalliance/files/ASD_Teacher_Student_Migration.pdf

³ https://peabody.vanderbilt.edu/research/tnedresearchalliance/files/ASD_Impact_Policy_Brief_Final_12.8.15.pdf

⁴ We have developed a technical paper that has been submitted to *American Education Research Journal*.

Also, in our second annual report, we reported the findings from our achievement analysis of ASD schools, iZone schools, and priority schools as a whole. Overall, we found that while the effects across all Priority schools were small but positive, the effects in the iZone schools were consistently positive and generally of meaningful magnitudes across all subjects and the three local districts that operated them. The effects in the ASD schools were mainly statistically insignificant and occasionally significant, sometimes positive and sometimes negative (four times each) depending on subject, cohort, and management organization. However, before drawing strong conclusions, it is important to note that research suggests that it takes three to five years for reforms to take hold (Berends, Bodilly, and Kirby, 2002), which is part of our motivation to seek additional resources to see the student achievement effects as these schools mature.

THIRD YEAR ANALYSIS

In the third year of the project, we focused on the recruitment and retention of teachers in ASD and iZone schools, which not only informs question 1 (teacher mobility and quality), but also provides insights into the results we found for question 4 (student achievement). In addition, we also descriptively examined student mobility and the proportion of special education students for both ASD and iZone schools, relative to other low performing schools. We first summarize the results for teacher recruitment and retention and then describe the results for student mobility and special education.

For the third year analyses, we utilized a database that was provided by the Tennessee Department of Education and compiled by the Tennessee Education Research Alliance. The database contains linked information on each student, teacher, and school in Tennessee, including students' prior test scores and teachers' value-added scores. Value-added scores are estimates of the amount that teachers add to their students' test scores as measured by statewide assessments of achievement and are provided by the Tennessee Value-Added Assessment System, a product of the SAS Institute™. For this analyses, we utilized the most recent data available at the time – teacher data from 2009-10 through 2014-15 and student data from 2009-10 to 2015-16 – allowing us to examine patterns both before and after schools came under the auspices of the ASD and iZones.

Teacher Recruitment and Retention

The full set of results can be found in research brief entitled “Recruitment and Retention of Teachers In Tennessee’s Achievement School District and iZone Schools” on TERA’s website.⁵ In the research brief, we examined teacher recruitment, retention, and development in both ASD and iZone schools. The analysis found that both ASD schools and iZone schools initially did a good job of recruiting high quality teachers. However, iZone schools have been more effective at retaining and developing high quality teachers over time, especially among the first two cohorts of iZone schools. Both the successful retention and recruitment of high quality teachers as well as the apparent development of those teachers could help explain the strong performance of iZone schools. We also found that ASD schools exhibit high turnover rates in comparison with all

⁵https://peabody.vanderbilt.edu/research/tnedresearchalliance/files/Teacher_Retention_in_ASD_and_iZone_vF.pdf

Tennessee Priority Schools and tends to lose teachers who are more effective than those they retain, which may have undermined their ability to increase student test score gains.

We also noted in the research brief that both ASD and iZone schools have had challenges in recruiting high quality teachers in the cohort of our final year of our analysis (2014-15 cohort of schools), consistent with our achievement analysis which found no significant effects for student learning for the third cohort of either ASD or iZone schools. This may indicate that the pool of talented teachers currently interested in teaching in ASD or iZone schools may be too limited to meet the needs in the lowest performing schools or reflect the addition of high schools into Cohort 3 of both ASD and Memphis iZone and a shortage of highly effective high school teachers willing to work in Memphis. These results raise questions about whether the gains posted by the iZone schools can be sustained over time with the existing and new cohort of iZone schools.

Overall, the results from the research brief strongly suggest that the ASD as well as its contracted external operators need to reevaluate and revise their strategies and practices for recruiting and retaining teachers as well as the strategies and practices that they currently implement for teacher development. In addition, the turnover of teachers in the ASD schools makes it less likely that multi-year strategies for developing teachers will be effective since most teachers in any given year will not have been there in the prior year.

Mobility and Special Education Students Served

Before we present our results from our analysis of student mobility and special education students served, we should first note that regardless of whether the schools are managed directly by the ASD or CMOs, the schools are neighborhood schools – not exclusively schools of choice. That is, these schools serve the community residing near the school rather than exclusively serving students whose parents choose to send their children to that school and are admitted. This makes them unique from traditional charter schools. Therefore, we could see different patterns of mobility and the types of students these schools serve relative to previous analyses of the charter sector as a whole.

In the mobility analysis as well as the comparisons of special education students served, we compare the ASD results to other low-performing schools in Memphis, which is where nearly all of the ASD schools are located. The low-performing schools include Memphis iZone schools and other Memphis priority schools, which are schools that are among the lowest-performing five percent of schools, but not in an iZone school or under the auspices of the ASD.

Mobility

For schools serving low-income families, high rates of student mobility present a constant challenge. For instance high rates of student mobility into these schools can make it more challenging to educate students due to the disruption not only to the students transferring in but also for the existing students.

To see if this is true for the ASD schools, we examine non-structural student moves (i.e., transfers of students that are unrelated to the entry or exit grade of a school). In addition to creating an educational challenge, students leaving or entering a school could provide a signal of whether the

schools are perceived as effective by the community. For instance, if more students are entering than exiting, then a school may be perceived as a high-quality school among families.

This analysis is a follow up to a research brief released in the first year of the project entitled “Teacher and Student Migration in and out of Tennessee’s Achievement School District” and can be found [here](#), which found that ASD had a high rate of student mobility into their schools, but these rates declined once these schools became part of the ASD through the 2013-14 school year. In addition, we found that in the 2013-14 school year, ASD schools had a slightly higher percentage of special education students (15.2%) as compared to the Memphis non-priority schools (13.3%) and a slightly lower percent than the rest of Memphis priority schools (17.5%) and Memphis iZone schools (15.7%).

For the current student mobility analysis, we combine the percentage of students *moving into* a school between and within school years, which is presented in Figure 1 for ASD schools and Figure 2 for iZone schools.⁶ In both figures, we show the in-mobility rate relative to non-ASD, non-iZone priority schools, which we referred to as “Other Memphis Priority” schools. As noted previously, since the 2012-13 school year, there have been additional schools that have come under the auspices of the ASD and iZones. We show patterns for each of these cohorts separately, with different-colored lines indicating each cohort.⁷ To capture the staggered nature of the reform, in both figures, the dotted portion of the lines represent mobility rates into these schools prior to ASD or iZone takeover for each school cohort. The solid line represents mobility into these schools after takeover. Similar to the ASD and iZone schools, for Other Memphis Priority schools, we use a dotted line to indicate years prior to a school being designated as a priority school and a solid line after these schools were designated as priority.

As displayed in Figure 1, ASD schools had high mobility rates prior to any takeover with especially high rates for the first cohort of ASD schools. For all cohort of ASD schools, there was a decrease in mobility rates over time with the sharpest decrease for ASD Cohort 1 schools. In Figure 2, we again observe high rates of in-mobility for iZone Cohorts 1 and 2 prior to takeover with these rates increasing for both cohorts, reaching over 50 percent. iZone Cohort 3 had lower rates of in-mobility (both before and after takeover) relative to the other two iZone cohorts, the ASD schools and other priority schools in Memphis, which had relatively stable in-mobility rates over time (only a slight decrease).

⁶ To calculate this, we added up the number of students who made a non-structural move across school years (was not there in the spring, and entered in the fall) plus the number of students who moved into a school within a school year and divided this total by the fall enrollment number.

⁷ We exclude the most recent cohort of ASD schools (Cohort 4) from the figures as this cohort of schools have not had time to stabilize student mobility. There has only been three cohorts of iZone schools, with no fourth cohort.

Figure 1. Within and Across School Year Mobility Into Schools Over Time - ASD Only

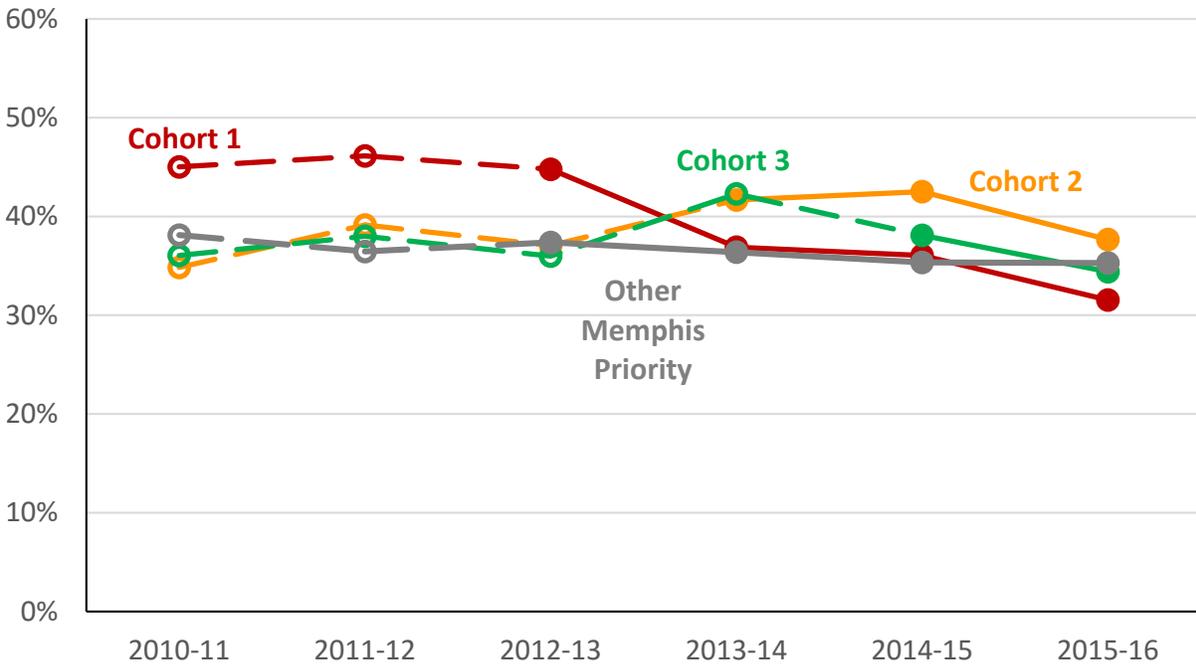
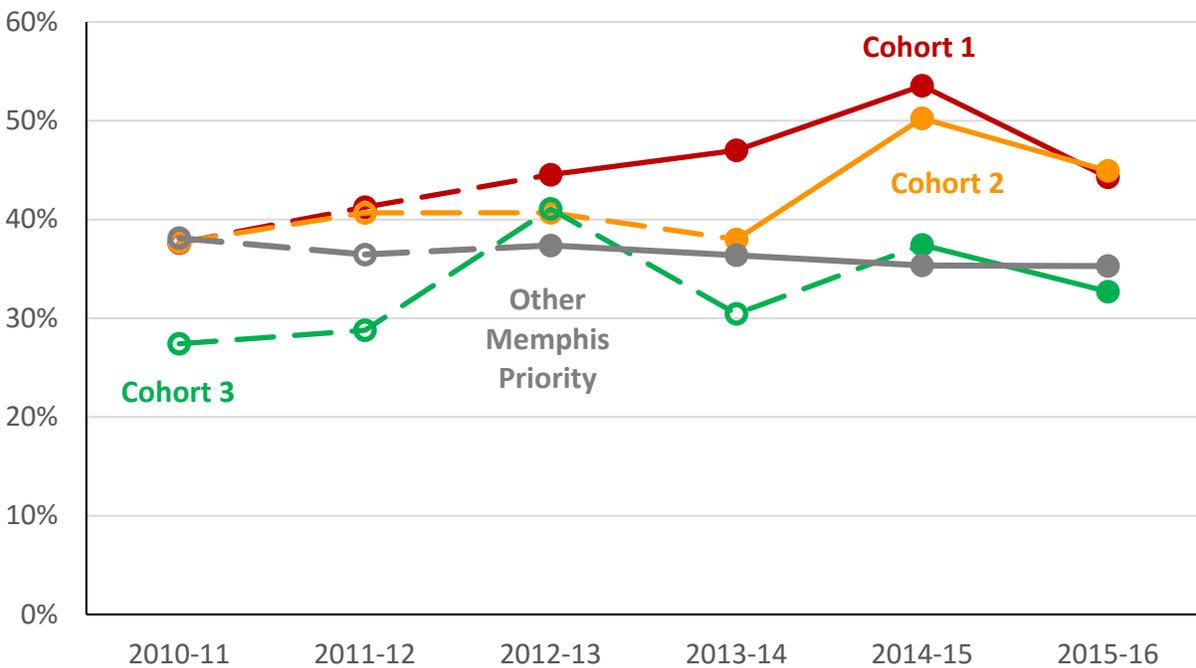


Figure 2. Within and Across School Year Mobility Into Schools Over Time - Memphis iZone Only



In Figures 3 and 4, we show whether schools had a net inflow or outflow of students. A net inflow of students could signal that these schools are viewed favorably among families, while a net outflow may suggest the opposite. Figure 3 focuses on cohorts of ASD schools relative to other Memphis priority schools while Figure 4 focuses on cohorts of iZone schools relative to other Memphis priority schools. It should be noted that other Memphis priority schools have experienced a net outflow both before and after the schools were identified as priority schools, which may not be too surprising given that many urban school systems across the country are experiencing declining enrollments.

Focusing on ASD schools in Figure 3 first, we observe that the patterns vary by cohort with Cohort 1 schools initially experiencing a net inflow in the pre-takeover years that flipped to a significant net outflow in the year of state takeover, possibly as the result of the announcement of takeover. These Cohort 1 schools experience both a net outflow and inflow of students during the takeover years. ASD Cohorts 2 and 3 generally had net outflows in pre-takeover years and then, much like Cohort 1, a mix of net inflows and outflows in the takeover years.

Similarly, in examining Figure 4, we observe that iZone schools have inconsistent patterns over time with all cohorts initially experiencing a net outflow of students in the 2010-11 school year. However, after the 2010-11 school year, the patterns of outward or inward migration varied over time across cohorts and the patterns seem to be unrelated to takeover status as Cohort 3 had a spike leading to inward migration prior to takeover while Cohort's 2 and 3 experienced spikes in 2014-15 school year, after state takeover. In closer examination of the data, these spikes may be related to school closures in the districts, which created new school feeding patterns for schools.

These inconsistent patterns across both ASD and iZone schools are in contrast to the other priority schools, which has had consistent outward migration. The fact that there has been inconsistent patterns across ASD iZone schools may suggest that there is no strong view of these schools from the general public and may be related to school closures within the district as much as anything. Nevertheless, given that the results in Figures 1 and 2, which suggested high rates of inward mobility, these results suggest that there are also high rates of outward mobility. Together, the high rates of in- and out-mobility suggest that these schools face a challenging and transient student population that will not have a history of consistent pedagogy and curriculum within these schools.

Figure 3. Net Mobility - Within and Across School Years Over Time - ASD Only

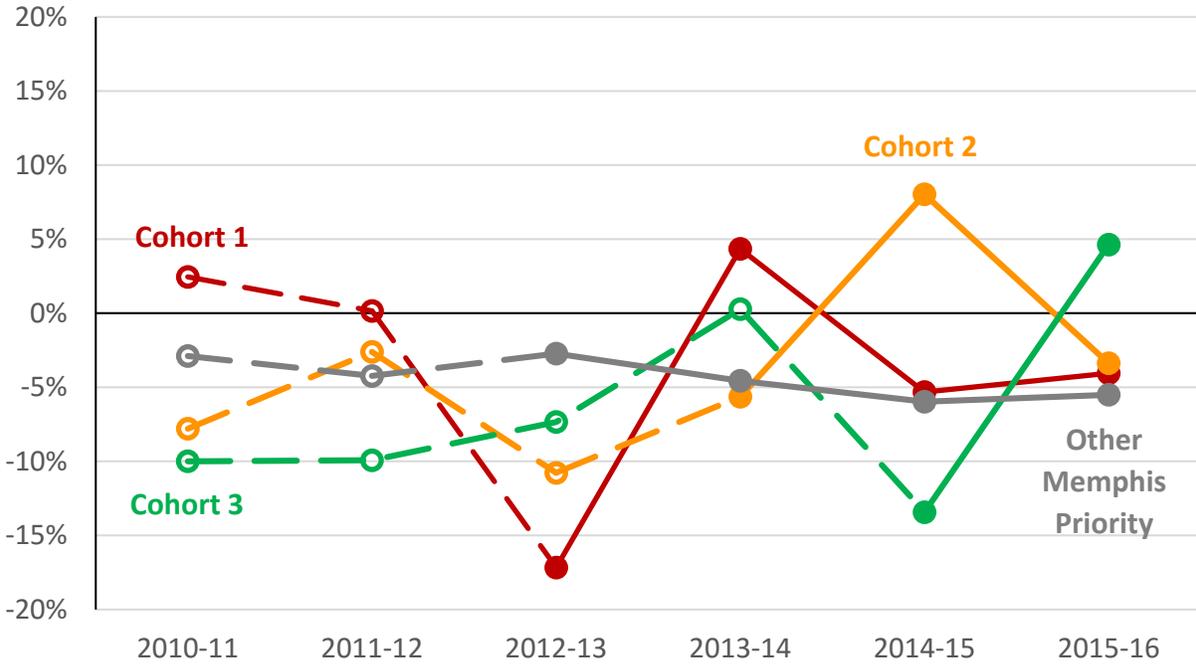
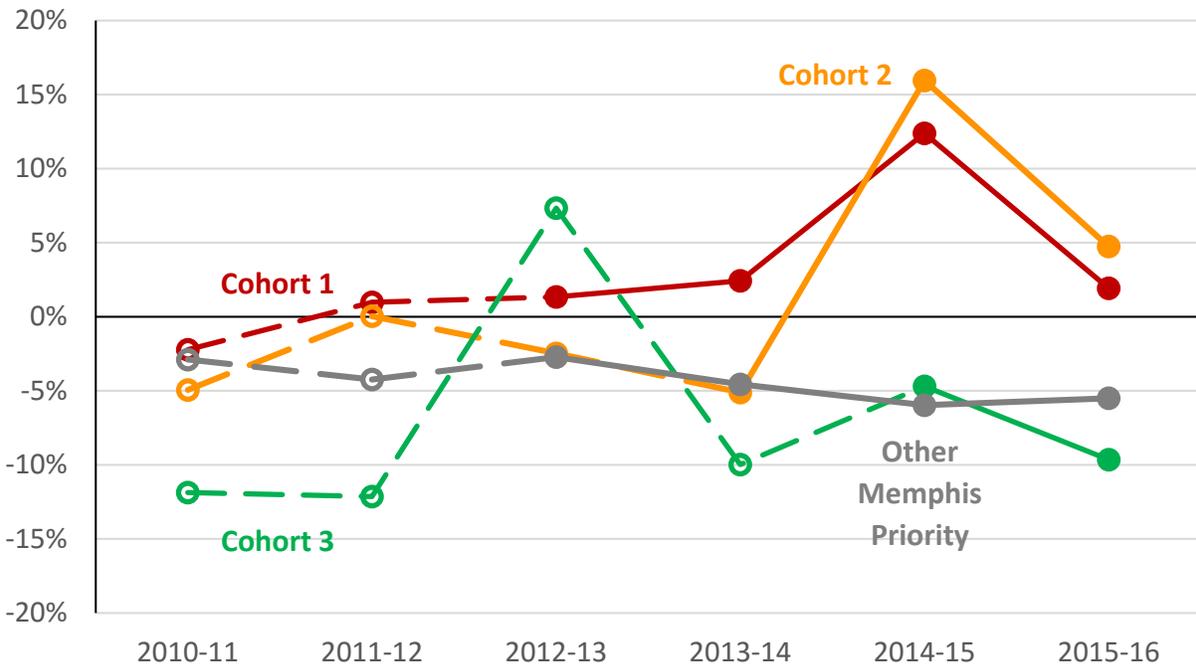


Figure 4. Net Mobility - Within and Across School Years Over Time - Memphis iZone Only



Finally, we examined the percentages of special education students served by school types. A common refrain in the school choice debate is that charter schools do not serve a similar proportion of special education students. To examine this issue, we examined the percentage of special education students in ASD schools and iZone schools relative to other Memphis priority schools, Memphis non-priority schools, all other CMO schools, and the rest of the state (as a point of reference rather than a comparison). The comparisons are shown in Table 1.

Counter to the common refrain, though the percentages vary slightly based on cohort and management type, ASD schools in general are serving a similar percent of special education students relative to Memphis's other priority schools and more than Memphis's non-priority schools. In the case of iZone schools, these schools serve a higher percentage than both Memphis's other priority and non-priority schools.

Table 1. Special Education Rates in 2015-16

Type of Schools	Percentage
<i>All ASD</i>	<i>15.0</i>
ASD Cohort 1	16.8
ASD Cohort 2	13.4
ASD Cohort 3	15.1
ASD Cohort 4	14.8
ASD CMOs	15.3
ASD Direct Run	14.0
<i>Memphis iZones</i>	<i>17.0</i>
Other Memphis Priority	15.8
Memphis Non-Priority	11.8
Rest of State	14.1
Rest of State CMOs	10.0

In summary, the results across the mobility analysis and the examination of the percentage of special education students served in ASD and iZone schools suggest that these schools are serving at least as challenging, if not more challenging students than other low performing schools.