One of the central debates about school reform is whether or not school choice improves student outcomes. School choice reforms, which comprise a broad category of policies aimed at improving public education through the introduction of market forces that may stimulate customer choice and competition between schools, have grown particularly popular since the 1990s. Private school vouchers, which provide public funds for students to attend K-12 private schools, are one example of an education reform that introduces choice and competition. This evaluation focuses on the impacts of the voucher program known as the Louisiana Scholarship Program, addressing four research questions to determine its direct and indirect effects on Louisiana’s students.

Louisiana, a state whose educational performance has lagged behind national averages for decades, began its experiment with publicly financed scholarships for students to attend private schools in 2008. The pilot version of the Louisiana Scholarship Program (LSP) was expanded statewide with the passage of Act 2 of the 2012 Louisiana state legislative session. Nearly 10,000 students applied to the expanded program in 2012-13, with roughly 5,000 applicants receiving scholarships. The program has continued its rapid expansion every year since then, with nearly 7,500 scholarships awarded in the 2014-15 school year.

This brief summarizes the early results of an ongoing evaluation of the LSP, examining how the program has impacted both individual participants and the educational system as a whole. Four questions are addressed:

1. How did usage of an LSP scholarship affect student achievement?
2. How do self-reported measures of non-cognitive skills and political tolerance differ between LSP scholarship recipients and non-recipients?
3. How did transfers by LSP scholarship users affect racial integration levels at their former public schools and new private schools?

4. How did the LSP affect student achievement in public schools facing competitive pressures from the program?

In general, our results present a mixed picture of the LSP’s effectiveness. We find the program had a negative impact on participating students’ academic achievement in the first two years of its operation, most clearly in math. On the other hand, the results improved between the first and second years and, through market-based pressures, the program may have slightly increased students’ math scores in public schools, particularly those most affected by the competitive threat. Also, the LSP reduced racial segregation. Finally, we find no evidence that the LSP has impacted students’ non-academic skills, such as conscientiousness.

The LSP is limited to students with family income at or below 250% of the federal poverty line.

The LSP is one of four private school choice programs operating in the state of Louisiana. The state offers taxpayers a state tax deduction of up to $5,000 per child for education expenses, including private school tuition. Over 100,000 Louisianans received the tax deduction in 2012. The School Choice Program for Certain Students with Exceptionalities provides a state-funded private school scholarship for students with exceptionalities who would not otherwise be eligible for traditional public school programs. The LSP is available to students with family income at or below 250% of the federal poverty line. Children in these families also have to either be entering kindergarten or be attending a public school that was graded C, D, or F for the prior school year. In the program’s first year, 9,809 students were eligible applicants, with a majority of them located outside of Orleans parish. This group of students, the 2012-13 LSP applicant cohort, is the focus of our evaluation.
in private schools can be problematic. For example, students who choose to use vouchers may be more aware of their options, or better able to navigate the application procedures. Students from these families would tend to have higher scores even without vouchers. This is why researchers often say that “correlation is not causation.”

One of the strengths of our analysis is that many students who applied for the LSP were randomly assigned to receive a scholarship, or not, because they applied to schools that had more applicants than available slots. This method allows for an apples-to-apples comparison that produces a highly rigorous estimate of the achievement effects of using an LSP scholarship to attend one’s first choice school.

We focus on the subset of students who originally attended public schools and took the state tests, the LEAP or iLEAP, in grades 3 through 6 in 2011-12. This ensures we have baseline measures of student performance prior to participation in the LSP and we can test whether in fact the LSP recipients and the control group had similar characteristics before the voucher program. The sample is composed of 1,525 eligible LSP applicants, approximately 40% of whom received an LSP scholarship by lottery. Our sample is quite similar in demographics and test scores to the overall population of students who applied for the program.

Figure 1 presents our estimated effects of LSP scholarship usage on student achievement after one and two years in the program (2012-13 and 2013-14, respectively). The solid lines connect our actual effect estimates and the color fields below represent 95% confidence intervals.

HOW DID THE LSP AFFECT PARTICIPATING STUDENTS’ ACADEMIC ACHIEVEMENT?

Student achievement is an important measure of the effectiveness of education, and with good reason: academic achievement is predictive of success in later life, such as post-secondary degree attainment, employment, and earnings. Student academic achievement plays an important role in the state’s monitoring of the LSP, with participating private schools receiving Scholarship Cohort Index scores, comparable to the state’s School Performance Scores for public schools, which ultimately determine if the private school will continue to be eligible to receive vouchers.

We seek to understand if using LSP scholarships to enroll in private schools affected student achievement in the first two years of the program. Simply comparing students who do and do not enroll
To aid in translation, we present effect estimates from the perspective of a student at the 50th percentile of the control group’s testing distribution at baseline. Our estimates indicate that an LSP scholarship user who was performing at roughly the 50th percentile at baseline fell 24 percentile points below their control group counterparts in math after one year and 8 percentile points below in reading. In year 2, LSP scholarship users continued to score below their control group counterparts by 13 percentile points in math. In reading, however, the upper bound of the possible area of the program’s effect moved above the 50th percentile, signaling that the reading impact of the LSP in year 2 is uncertain: it could be negative, positive, or zero.

As of December 2015, 12 studies have used experimental designs to evaluate the effectiveness of 7 voucher programs operating across the U.S. in improving student achievement. None of these prior studies have found statistically significant negative effects on achievement, instead often finding insignificant or modest positive effects. The initial results of this experimental voucher evaluation differ substantially from those prior studies.

These results are limited to students in grades 3-6, whereas the majority of LSP students actually entered the program in other grades. Therefore, we do not know if the effects that we observe are similar to the achievement outcomes for students entering kindergarten in 2012-13, for example. Our results also may not apply to LSP students who did not face lotteries for admission to their first-choice school. As is typical of experimental analyses, we have produced unbiased estimates of the program’s impact on a small group of participants that may not be representative of voucher-users as a whole.

How Has the Louisiana Scholarship Program Affected Students? | February 22, 2016

How Did the LSP Affect Measures of Student Non-Cognitive Skills and Political Tolerance?

While academic achievement certainly plays an important role in student life outcomes, research has also demonstrated the importance of characteristics not captured by academic tests, such as self-control and conscientiousness. Known collectively as “non-cognitive skills” or “character traits”, these skills have been found to be positively related to later life outcomes such as employment and earnings. In addition, there is a long held belief in the United States in the importance of developing civic values, such as political tolerance, in students. Nevertheless, despite the importance of non-cognitive skills and civic outcomes, no studies have examined the impact of voucher programs on that set of skills.

Research has also demonstrated the importance of characteristics not captured by academic tests, such as self-control and conscientiousness.

To bridge this gap in the research base, we administered surveys via telephone to 999 eligible applicants to the 2012-13 cohort of the LSP. Our final sample represents roughly 11% of the full set of eligible applicants. Over 70% of our survey respondents received an LSP scholarship, compared to 60% of non-respondents. In other regards, however, respondents to our phone survey look similar to non-respondents: with both groups overwhelmingly black, living in urban areas, and scoring below the statewide average in math, ELA, science, and social studies.

We administered four surveys designed to measure non-academic skills that are positively related to important life outcomes. These measures are imperfect. Less measurement precision gives us less certainty that we have truly identified the program’s impact on these outcomes. Unfortunately, initial diagnostics indicate that all of the scales perform poorly in distinguishing among our sample of students. These elements of student growth are simply difficult to measure and therefore we interpret the results with caution.

Figure 2 compares students who received LSP scholarships to non-recipients across our four self-reported measures of non-academic
skills and political tolerance, after controlling for differences in student demographics. The differences between the two groups are minuscule and not statistically significant. We find little evidence to suggest that, after two years, students receiving an LSP scholarship had noticeably different non-academic skills or political tolerance than students who did not receive a scholarship. Moreover, given the limitations in our measures, we stress that our results are largely inconclusive.

"We find little evidence to suggest that, after two years, students receiving an LSP scholarship had noticeably different non-academic skills or political tolerance."

**HOW DID THE LSP AFFECT RACIAL INTEGRATION IN PUBLIC AND PRIVATE SCHOOLS?**

While improving integration is not an explicit goal of the LSP, the fact that the program allows students to voluntarily transfer to new schools raises concerns about the program’s effects on the racial composition of affected schools. Integration has long been a goal of public education, especially following the 1954 decision in *Brown v. Board of Education of Topeka, Kansas*. Some commentators fear that school voucher programs, by giving families more control over their educational options, will increase economic stratification or racial segregation in schools as families seek out school

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**Measures of Students’ Non-Cognitive Skills and Political Tolerance**

**Grit.** Defined by Duckworth and colleagues (2007) as an individual’s “perseverance and passion for long-term goals” the 8-item Grit Scale asks participants a number of questions designed to capture their desire to stick to challenging tasks over a long period. The scale is based on student responses to questions like “New ideas and projects sometimes distract me from previous ones” and “I am a hard worker.” The Grit Scale predicts career stability, undergraduate GPAs, and college retention.

**Locus of Control.** Developed by Rotter (1966), the scale is designed to capture how much rewards are the result of their own actions. Participants are asked to identify the extent to which they agree with statements such as “Good luck is more important than hard work for success” and “Every time I try to get ahead, something or somebody stops me.”

**Self-esteem.** We capture individuals’ self-esteem using Rosenberg’s (1965) Self-Esteem Scale. The scale is based on student responses to questions like “I am able to do things as well as most other people” and “I certainly feel useless at times.”

**Political Tolerance.** The political tolerance protocol developed by Sullivan et al. (1982) first asks individuals to identify a group that “has beliefs that [they] oppose the most” and then asks a series of questions regarding the political freedoms the individual would allow this group to enjoy. For example, individuals are asked how much they agree with the statement: “The government should be able to secretly listen in on the telephone conversations” of the group they oppose the most.
environments populated by highly similar individuals. On the other hand, proponents of voucher programs argue that public school districts already reflect existing residential segregation, a feature that school vouchers allow disadvantaged families to overcome.

The role of school vouchers in promoting or harming integration is particularly relevant in Louisiana, a state with 34 public school districts currently under federal desegregation orders. In August, 2013, the U.S. Department of Justice sought an injunction against the LSP, arguing that the program hampered these desegregation efforts. While the U.S. District Court ultimately sided with the program, the action clearly highlights the need for an examination of the effects of the LSP on system-wide integration.

We compare each school accepting vouchers to a broad community benchmark defined by the U.S. Census Bureau: the Core Based Statistical Area (CBSA). The largest CBSA in our sample is the New Orleans-Metairie-Kenner metropolitan area (student-age population approximately 226,000) and the median population for a CBSA in our sample is 13,047.

To determine how the LSP affected levels of integration in public and private schools, we use individual data on actual students using LSP scholarships to transfer from public schools to private schools. These detailed data allow us to identify when individual student transfers improved or harmed levels of integration at these schools.

For the public schools that students depart:

- Improving Integration: A student leaves a public school in which their race/ethnicity is over-represented relative to its community.
- Harming Integration: A student leaves a public school in which their race/ethnicity is under-represented relative to its community.

For the private schools that voucher students move to:

- Improving Integration: A student enters a private school in which their race/ethnicity is under-represented relative to its community.
- Harming Integration: A student enters a private school in which their race/ethnicity is over-represented relative to its community.

For example, if a black student leaves a school that is 80% black, but is in a community that is 70% black, the transfer improves integration at the student’s former public school. If a white student enters a school that is 40% white, but is in a community that is 30% white, the transfer harms integration at the student’s new private school.

Our analysis focuses on 2012-13 LSP scholarship users who were not entering Kindergarten and were attending traditional public schools in CBSAs in the previous year. These restrictions leave us with a sample of roughly 35% of all scholarship users in the 2012-13 cohort.

Figures 3A and 3B present the results of our analysis for black, white, and Hispanic students. We find the majority of LSP transfers help to improve levels of integration in students’ former public schools, a result largely driven by the overwhelming number of integration-improving transfers made by black students. In contrast, we find that LSP transfers, on average, have a slightly negative impact on levels of integration in new private schools, with more transfers by both black and white students harming as opposed to helping integration in their new private schools.
When we combine the largely integrating effects of the program on students’ former public schools with its slightly segregating effects on their new private schools, the overall effect of the LSP is to improve the racial integration of Louisiana schools.

"the overall effect of the LSP is to improve the racial integration of Louisiana schools"

**HOW DID THE LSP AFFECT STUDENT ACHIEVEMENT IN PUBLIC SCHOOLS?**

Up to this point, our evaluation has focused on the experiences of students who took the active step of applying for the LSP. While it is certainly important to understand how participating in the program affects these students, it is also important to recognize that voucher programs like the LSP can indirectly affect the educational experiences of students remaining in public schools. Supporters of school vouchers, for example, argue that vouchers can improve the U.S. education system as a whole by inducing schools to compete for students in an education marketplace. Competition, proponents claim, will help spur educational innovation, specialization, and program diversity that will benefit, not only those using vouchers, but all students. Opponents counter that school vouchers can harm public education by diverting funds from public to private schools.

While existing research generally finds modestly positive or insignificant competitive effects of school voucher programs on student achievement in public schools many of these studies could not identify the competitive effects of a private school choice program, especially one the size of the LSP.

It is challenging to capture the “competitive pressures” facing a public school. In the absence of a single, clearly defined measure of competition, we instead examine if a consistent story appears across four different measures of competition:

1. Distance: How close is the nearest private school?
2. Density: How many private schools are in a 5 or 10 mile radius?
3. Diversity: How many different types of private schools are within a 5 or 10 mile radius?
4. Concentration: How evenly distributed is the private school market share?

The results of our analysis indicate neutral to modest positive effects of LSP-induced competition on math achievement (Figure 4).

### Figure 4. Effects of LSP-Induced Competition on Student Achievement in English Language Arts and Math in Public Schools

<table>
<thead>
<tr>
<th>COMPETITION MEASURE</th>
<th>ENGLISH LANGUAGE ARTS</th>
<th>MATH</th>
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<tr>
<td>Distance</td>
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<td>Density</td>
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<tr>
<td>Diversity</td>
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<td>Concentration</td>
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As an additional analysis, we also test whether students in “high-C” schools that are exposed to competition from the LSP realize greater performance gains than their peers in “low-B” public schools that are similar in many respects but are unaffected by competition from the program. We find no effects across both math and ELA overall, but find large positive effects on math and ELA test scores when we restrict the sample to those public schools with a private competitor in close proximity. In sum, our analysis of the competitive impacts of the LSP show that public school performance in Louisiana was either unaffected or modestly improved as a result of the program’s expansion.

“our analysis of the competitive impacts of the LSP show that public school performance in Louisiana was either unaffected or modestly improved as a result of the program’s expansion”

**WHAT DO THESE RESULTS MEAN?**

The research summarized in this brief represents a first comprehensive look at how the Louisiana Scholarship Program, one of the first statewide K-12 school voucher programs in the U.S., has affected both participating students and Louisiana’s education
The basic theory behind school vouchers is similar to that for New Orleans' extensive charter school reforms. Both policies give families more choices and allow non-governmental officials to operate schools with the expectation that doing so will lead to more organizational competition and better results.

Most of the work of ERA-New Orleans to date has tried to test this theory, focusing just on the immediate post-Katrina reforms, which were built around charter schooling. For example, Douglas Harris and Matthew Larsen have addressed the question, How did the New Orleans' charter-focused reforms affect student outcomes? Their result is quite different from what we find here: the effects of the charter-based reforms have had large positive effects on student test scores.

The concerns about these market-based policies also overlap. In particular, market-based reforms might not lead to equitable outcomes. ERA-New Orleans' researchers are studying the effects of the city’s reforms on segregation and on the outcomes of specific vulnerable groups—racial minorities, low-income students, English Language Learners and those in special education.

Longer-term, we also hope to follow the lead of Patrick Wolf and his colleagues in studying effects on non-cognitive skills.

The findings highlighted in this brief are part of an on-going evaluation of the LSP. As this evaluation continues, we will be able to shed more light on how participant experiences have evolved over time. For example, it will be important to determine if the initial negative achievement effects continue to trend towards zero or if they stabilize. Moreover, with additional years of data we will be able to explore how the program has impacted long-term outcomes in the 2012-13 cohort, such as high school graduation and post-secondary education experiences. Finally, we will look more closely at the characteristics of participating schools with the goal of determining what factors are correlated with the effects we observe.

How Does This Relate to Other ERA-New Orleans Studies?

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Longer-term, we also hope to follow the lead of Patrick Wolf and his colleagues in studying effects on non-cognitive skills.
This box presents several potential explanations for the negative achievement results observed in our study. We focus on four explanations: misalignment of private school curricula to Louisiana’s state standards, differences between LSP students and students traditionally served by private schools, success of other reforms, and the quality of private schools choosing to participate in the program. While each explanation is plausible, it is important to note that these are, as yet, speculations. We will explore these explanations more closely as our evaluation continues.

Curricula alignment – An unusual feature of the LSP is the requirement that private schools participate in the state’s testing regime. Whereas Louisiana public schools have faced significant incentives to align their instruction to the state standards, private schools have faced no such pressure in the past. We may be observing the short-run growing pains associated with curricula alignment. Moreover, private schools had relatively little time to make such adjustments for the new program. The statewide expansion of the LSP was passed during the end of the Louisiana State Legislative Session in June of 2012 and participating schools did not receive information on their incoming students until later that summer, giving the schools little time to prepare for their new students. For this explanation to hold, we would expect to see less negative effects over time as schools adjust to their new students and modify their curricula to align better with the state test, which appears to have been the case for math. At this point, however, it is unclear if the achievement of LSP scholarship users will continue to trend back towards their control group counterparts. We will be able to explore this further as we add more years of data to our analysis.

Student population – While most of the earlier voucher programs examined by experimental evaluations focused on serving disadvantaged students, none of the students in those evaluations were required to have attended poorly performing public schools prior to joining the program as is the case for the LSP. This additional academic requirement could explain the substantial drop off in performance if participating private schools were not adequately prepared to serve the needs of students who were both financially and academically in great need. While the doubly-disadvantaged nature of LSP participants is a possible explanation for the negative effects, it is not a justification for them. The LSP eligibility requirements are an important design feature of the program and are reflective of program goals. That participating private schools struggled to serve such students in the first year of the state’s implementation suggests the program did not meet its goals in that first year. The fact that the large achievement gap between the LSP and control group students after Year 1 had declined somewhat in Year 2, especially in math, suggests that participating schools had started to adjust to meeting the significant needs of their new students. More time is needed to determine the extent to which the initial negative effects persist in the long run.

Success of other education reforms – Education reforms rarely occur in a vacuum. This is especially true in Louisiana, a state home to an aggressive test-based accountability policy and strong school choice system in New Orleans. In our evaluation, students who did not receive an LSP scholarship by lottery serve as our best guess as to what would have happened to students receiving an LSP scholarship. While this is generally a strength of experimental studies such as ours, it is possible that the negative findings we observe are driven in part by unexpected growth in achievement for students in our experimental control group. Research by Douglas Harris and Matthew Larsen of ERA-New Orleans, for example, suggests that student achievement in New Orleans dramatically increased in the wake of a number of education reforms put in place after Hurricane Katrina. We find some evidence suggesting this could be the case in New Orleans, where effects are more negative compared to the general findings presented in Figure 1. Nevertheless, participation in the LSP had a negative effect on math achievement for students outside of New Orleans, where public school reforms are less intense, suggesting that improvements in New Orleans public schools do not completely explain our results.

Private school quality – It could be the case that a higher-quality set of private schools participated in earlier voucher and scholarship programs in Washington, DC; New York City; Dayton, Ohio; Milwaukee, Wisconsin; and Charlotte, North Carolina. In these cities, researchers found more positive voucher impacts. Less than one-third of the private schools in Louisiana chose to participate in the LSP in its first year, possibly because of the extensive regulations placed on the program by the state combined with the relatively modest voucher value relative to private school tuition. Although it is only speculation at this point, the Louisiana Scholarship Program’s regulatory requirements may have played a role in preventing the private school choice program from attracting the kinds of private schools that would deliver better outcomes to their participants. At the same time, a key feature of the LSP is “back end” accountability provisions that require an acceptable level of student achievement for schools to continue participating in the program. Over time, we may expect to see less negative effects as poorly performing private schools continue to be identified and excluded from the program.
About the Education Research Alliance For New Orleans

The mission of the Education Research Alliance for New Orleans (ERA-New Orleans) is to produce rigorous, objective, and useful research to support the long-term achievement of all students. Based at Tulane University, ERA-New Orleans is a partnership between university-based researchers and a broad spectrum of local education groups. Our Advisory Board includes (in alphabetical order): the Louisiana Association of Educators, the Louisiana Association of Public Charter Schools, the Louisiana Federation of Teachers, the Louisiana Recovery School District, New Orleans Parents’ Guide, New Schools for New Orleans, the Orleans Parish School Board, the Orleans Public Education Network, and the Urban League of Greater New Orleans. For more information, please visit the organization’s website:

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About the School Choice Demonstration Project (SCDP)

Housed within the Department of Education Reform at the University of Arkansas, the School Choice Demonstration Project (SCDP) is an education research center dedicated to the non-partisan study of the effects of school choice policy. Led by Dr. Patrick J. Wolf, the SCDP’s national team of researchers, institutional research partners and staff are devoted to the rigorous evaluation of school choice programs and other school improvement efforts across the country. The SCDP is committed to raising and advancing the public’s understanding of the strengths and limitations of school choice policies and programs by conducting comprehensive research on what happens to students, families, schools and communities when more parents are allowed to choose their child’s school. Reports from SCDP studies are available via their website:

UAedreform.org/school-choice-demonstration-project
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