EDUCATION RESEARCH ALLIANCE FOR NEW ORLEANS

Objective, rigorous, and useful research to understand the post-Katrina school reforms.

POLICY BRIEF

EducationResearchAllianceNola.org

October 17, 2016

EXTREME MEASURES: WHEN AND HOW SCHOOL CLOSURES AND CHARTER TAKEOVERS BENEFIT STUDENTS

By Whitney Bross, *Indiana Legislative Services Agency and Tulane University*

Douglas N. Harris and Lihan Liu, *Tulane University*

Overview

This study examines school closures and charter takeovers in New Orleans and Baton Rouge that occurred between 2008 and 2014, focusing on the effects these interventions had on student achievement, high school graduation, and college entry. Our key findings are as follows:

- The effects of school closure and charter takeover on student outcomes depended substantially on whether students ended up in higher quality schools, as well as, perhaps, how much disruption they experienced.
- Intervening in elementary schools was more effective in these cities than intervening in high schools. New Orleans elementary students' math standardized test scores increased by 13 percentile points after the interventions, but the policies may have reduced the college entry rates of high school students.
- The results varied greatly between New Orleans and Baton Rouge. New Orleans high school students experienced positive effects, while Baton Rouge high school interventions reduced the high school graduation rate by 10 percentage points and reduced the college entry rate as well. These poor results in Baton Rouge are predictable because the city's students ended up in lower quality schools after the interventions.

Sample and Data Sources

Sample: 26 schools in New Orleans and 5 in Baton Rouge with takeovers and closures during 2008-2014

Data: Test scores from the Louisiana Education Assessment Program (LEAP) and Integrated Louisiana Education Assessment Program (iLEAP) for grades 3-8; Graduate Exit Exam for grade 10; high school graduation and college attendance rates

Source: Louisiana Department of Education

- The positive effects of closure and takeover in New Orleans explain 25% to 40% of the total effect of the New Orleans post-Katrina school reforms on student achievement.

Our analysis helps explain the wide variety of results not only between Baton Rouge and New Orleans, but also between this and prior studies of closure and takeover. As with most programs and policies, the effects depend on policy design and implementation. In this brief's final section, we discuss certain steps that, according to the evidence, yield a high probability of success for these interventions. Without following these steps, closure and charter takeover can do considerable harm.

BACKGROUND

Over the past several decades, the pressure to improve U.S. public schools has grown stronger than ever. Federal requirements to turn around low-performing schools have led school system leaders to expand professional development practices, hire school turnaround specialists, and replace school principals. Even when the effects of turnarounds have been positive, the degree of improvement has seemed small. As a result, some school reformers argue that more aggressive steps are necessary.

The most extreme steps are to close low-performing schools entirely or to convert them into charter schools. While these more aggressive steps are rarely taken in the U.S., advocates claim that they lead to better student outcomes, as students move to better schools and failing schools are turned over to more effective groups of educators. Starting over with new school leaders and educators might facilitate larger and more fundamental change. Moreover, the threat of being taken over may create incentives for other schools to improve and avoid such upheaval.

Critics, on the other hand, point out that closures and takeovers are often forced on local communities by state and federal laws that measure school performance and require changes in school practice that are inconsistent with local needs. Closures, in particular, may also harm neighborhoods where schools sometimes serve as community anchors in ways that go beyond their direct responsibility to educate children. In cases where charter schools take over district schools, the larger criticisms of charter schools, such as "cream-skimming" higher-performing students and pushing out low performers, become relevant.

> *"A key objective of our research is to understand whether these disruptions from closures and takeovers overshadow other potential longer-term benefits."*

These intensive interventions also create job insecurity for teachers and disrupt the lives of students and families, especially the most disadvantaged students. A key objective of our research is to understand whether these disruptions from closures and takeovers overshadow other potential longer-term benefits or whether the improvements in school quality are large enough to overcome the disruptions and upheaval.

A growing number of studies have examined the effects of these more intensive school interventions. Figure 1 shows that the results have been quite mixed across cities and states. The second column also highlights that prior studies have not been able to directly compare intervention types. The evidence is especially lacking with charter takeover—Figure 1 includes only a single study—since that approach is so rarely used.

Figure 1. Results from Prior Studies of Closure and Charter Takeover

City	Intervention Types	Students go to better schools?	Results	
			Elementary/Middle Schools	High Schools
[Anonymous District]	Closure	Majority Yes	No effect when elem. students moved to higher quality schools; negative effect when moved to lower quality elem. schools	N/A
Houston	Closure	Unclear	No / Negative effects (combining elementary and HS)	
Michigan (various districts)	Closure	Yes	No effect on avg., but positive when moving to much higher quality school	N/A
Milwaukee	Closure	Unclear	N/A	Negative effects on HS grad. and college entry rates
New York City	Closure	Unclear	N/A	Positive effects on HS grad. rate
Ohio (various districts)	Closure	Majority Yes	Pos. effect overall and larger when moving to higher quality schools	N/A
Philadelphia	Private Mgmt. Takeover	Unclear	No effect	N/A
Chicago	Closure/ Restart	Unclear	Positive effect	Limited evidence
Tennessee	Charter Takeover	Unclear	No / Negative effects (combining elementary and HS)	

Note: More details and citations for these studies can be found in the technical report that accompanies this brief: Bross, W., Harris, D.N. & Liu, L. (2016). *The Effects of Performance-Based School Closure and Charter Takeover on Student Performance.*

We designed our study to test several specific theories about why the results vary and when these interventions are most likely to work. Using data from schools in New Orleans and Baton Rouge, Louisiana, we test the effects of different kinds of school interventions on average and for different groups of students. Specifically, we address five questions:

1. What was the effect of closure and charter takeover on student test scores, high school graduation, and college entry in the affected schools? How do the results compare in New Orleans and Baton Rouge?

2. How much does the impact on students depend on the change in school quality that students experience?

3. Are the effects more positive when there is less disruption? In particular, are the effects of takeovers and closures different? Are the effects different for students who stay at the same facility afterwards versus those who leave?

4. How do the intervention effects on current students compare with those on future student cohorts?

5. In New Orleans, what share of total improvement resulting from the post-Katrina school reforms can be explained by closure and takeover?

By combining analyses across cities, grades, and types of intervention, we are able to answer this wide range of questions, compare our results to prior studies, and better understand how implementation affects the results.

CLOSURE AND TAKEOVER POLICIES IN NEW ORLEANS AND BATON ROUGE

An important theme of education research is that policies work in some places and not others. The design of policies, their implementation, and the context can all make a difference.

New Orleans and Baton Rouge are both in Louisiana and are, therefore, subject to many of the same state policies, but the two cities differ in important ways. In New Orleans after Hurricane Katrina, control of almost all schools was shifted from the local Orleans Parish School Board (OPSB) to the state. The state is also in charge of some schools in Baton Rouge, but especially in the years of this analysis, these schools comprise only a tiny fraction in Baton Rouge. Overall, the Baton Rouge schools in the post-Katrina period look more like the New Orleans system pre-Katrina.

This means that closure and takeover decisions in New Orleans from 2008-2014 were made by the state, while in Baton Rouge, those decisions were generally made by the local district, East Baton Rouge Public Schools. The analysis that follows suggests that this difference in policies across the two cities was associated with differences in the choice of schools for intervention in ways that affected student outcomes.

HOW DID WE CARRY OUT THE ANALYSIS?

We study interventions that occurred during 2009-2012 for elementary/middle schools and 2008-2014 for high schools using test scores from the Louisiana Education Assessment Program (LEAP) and the Integrated Louisiana Educational Assessment Program (iLEAP) for grades 3-8 and the Graduate Exit Exam for 10th grade. Since the results were generally very similar for English Language Arts, we report only math results. The Louisiana Department of Education (LDOE) provided these data as well as high school graduation and college attendance data.

The high school analysis differs from the elementary school analysis in two respects. First, while we study student test scores at both levels, we also study high school students' graduation and college entry rates. Also, the elementary school analysis includes only New Orleans, while the high school analysis includes both New Orleans and Baton Rouge.

We study three different types of interventions: *school closure*, where students are required to leave and the school building is left empty; *district-to-charter takeover,* where a district school is taken over by a charter school; and *charter-to-charter takeover,* where control over a school is transferred from one charter operator to another. In about half of the cases we examined, school closures were implemented through a phase out process, meaning that current students could stay in the school but no new students were admitted. We include only those schools that we could clearly place in one of these three categories, yielding 31 schools in all.

A common concern in this type of research is that correlation is not causation. We cannot simply look at student results before and after and expect to understand whether the strategy worked. Instead, we use a statistical method called matched difference-in-differences. The first step of our analysis is to compare the performance of students in the affected schools before and after the intervention occurred. Then, we do the same for a matched comparison group of students that came from similarly low-performing schools within the same district but did not experience either closure or takeover. In some cases, we also compare schools affected now to those affected by intervention in the future. The results are similar no matter how we carry out the analysis, providing confidence that our conclusions are valid and that we are identifying the effects of school intervention.

One of our main questions is whether the effects of closure and takeover depend on how much school improvement students

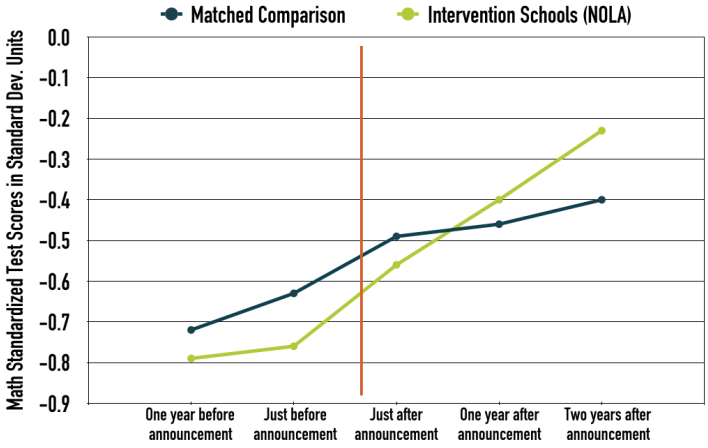
experience as a result of the process. We measure school quality in two ways. First, we use the state's School Performance Score (SPS), which is mostly a weighted average of test scores. However, these types of metrics are not very accurate measures of school performance. Some schools have low SPS scores mainly because they serve especially disadvantaged students who may enter a school with lower test scores. Therefore, we mainly rely on a measure of student growth (sometimes called value-added) that focuses on students' performance improvement after they enter a school.

Later, we discuss school quality changes, which we calculate as the difference between the average school quality of the affected schools when the intervention occurred and the school quality that the students experienced the following year. For example, if a school closed immediately, forcing students to change schools, then we subtract the quality of the closed school from the average quality of the schools to which students moved.

WHAT WAS THE EFFECT OF CLOSURE AND CHARTER TAKEOVER ON STUDENTS IN THE AFFECTED SCHOOLS?

In our analyses of elementary school students, we can follow individual students over time and track performance year by year. Figure 2 describes the results for elementary schools in New Orleans. The zero at the top of the vertical axis refers to the statewide average. The fact that all of the data points are below this means that students in the affected schools had lower-than-average performance, as we may expect of the low-performing schools that face these interventions. We are not able to carry out the analysis in Baton Rouge elementary schools. Also, for purposes here, we combine the results for closures and takeovers.

Figure 2. Test Scores in Intervention and Comparison Elementary Schools



Data Source: LEAP and iLEAP math scores reported in spring of designated year.

The vertical line indicates when the announcement of the school intervention occurred. The left side of the graph shows that students in the intervention schools initially had lower test scores than the comparison group, but the two groups followed a similar trend before the school interventions occurred. This provides confidence that the matching process and the changes in achievement after the school interventions represent the effects of the interventions, showing causation not correlation.

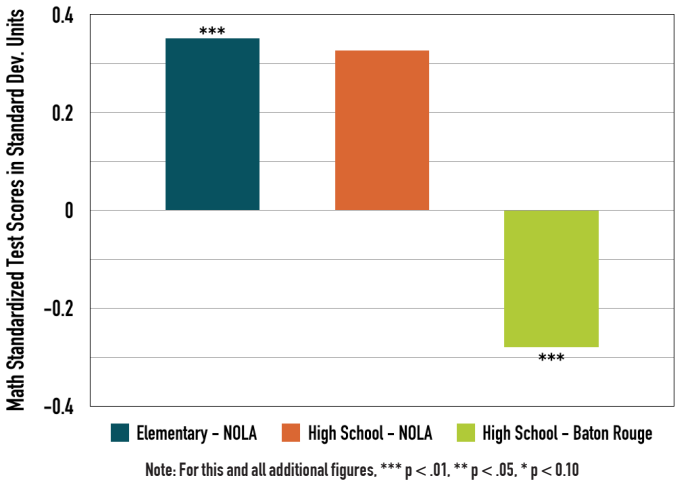
> *"After the interventions, there is a sharp increase in outcomes for students in those schools."*

After the interventions, there is a sharp increase in outcomes for students in those schools. The directly affected students, initially behind by 0.1 standard deviation (s.d.) or 4 percentile points, not only caught up with the comparison group but surpassed them. This suggests that students in schools that were closed or taken over benefited academically. This was true almost from the time of the intervention announcement but is even clearer two years afterwards.

The results vary considerably when we compare across grade levels and cities. Figure 3 is based on the same general type of analysis as Figure 2, except that we boil down the different degrees of improvement between the intervention and comparison schools into a single number, representing the effect of the interventions on math standardized test scores two years after implementation. Asterisks here and in other figures indicate the estimates are statistically different from zero.

The first bar reiterates the positive effects for elementary students shown in Figure 2. In New Orleans high schools, the point estimates are slightly smaller and statistically insignificant, and in Baton Rouge, they are strongly negative at -0.3 s.d. (-11 percentile points). These results tend to reinforce the theory that closures and takeovers are more disruptive to high school students than elementary students.

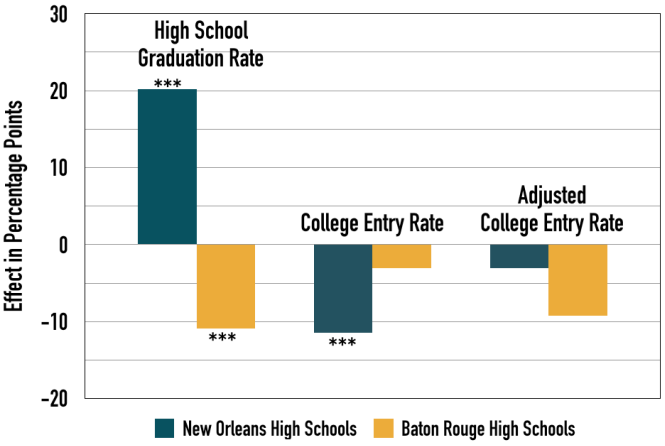
Figure 3. Intervention Effects Across Cities and Grade Levels



Note: For this and all additional figures, *** p < .01, ** p < .05, * p < 0.10

High school graduation and college entry are arguably more important outcomes, as they are better predictors of students' long-term life success. Figure 4 shows that the results for high school graduation rates largely match those for high school math test scores in Figure 3. Again, we see positive effects for New Orleans high schools and negative effects in Baton Rouge.

Figure 4. Effects on High School Graduation and College Entry

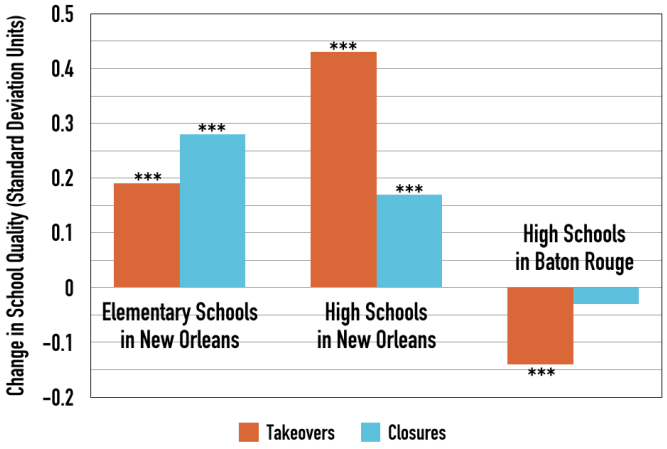


Interpreting the effects on college entry is complicated by the fact that we can only measure this outcome for high school graduates. For example, the positive effect of New Orleans high school interventions on the high school graduation rate increases the number of students who could enter college. If these additional students are less likely to go to college than those who would have graduated anyway, this would artificially reduce the interventions' estimated effect on college entry. To address this connection between the high school graduation effects and the college entry effects, we report the effects on college entry in two different ways. The first makes no adjustment. The second adjusts the college entry rate by assuming that the additional students graduating from high school will not attend college. This provides a more realisitic assessment of the college effect because students who barely graduate from high school go to college at much lower rates than those who graduate more easily and without the help of school interventions. After making this adjustment when calculating the college entry rates, the results again look better for New Orleans than Baton Rouge, though neither of the adjusted college entry effects are positive or stastically different from zero.

HOW MUCH DOES THE IMPACT ON STUDENTS DEPEND ON THE CHANGE IN SCHOOL QUALITY THAT STUDENTS EXPERIENCE?

The effects of either intervention are likely to be more positive if students end up in better schools. Figure 5 below summarizes the average school quality change experienced by students in the two cities by grade level.

Figure 5. Changes in School Quality by City and Intervention



The school quality changes are much more positive in New Orleans than in Baton Rouge. This can be traced to two related factors. First, New Orleans more consistently shut down schools with the lowest student growth measurements while leaders in Baton Rouge sometimes shut down schools that were not the lowest performing. Second, New Orleans leaders were apparently more successful in moving students to better existing schools and attracting and selecting high-quality charter operators to take over schools. Either

way, the changes in school quality documented in Figure 5 are consistent with the more positive effects in New Orleans in Figures 3 and 4. The difference in results may be due to a difference in policies that led to more performance-based decisions in New Orleans, but it is difficult to be sure exactly why the two cities' results are so starkly different.

To test the school quality change theory further, we separated students into two equal-sized groups based on the degree of school quality change experienced by each individual student, regardless of what city they were in or what type of intervention they experienced.

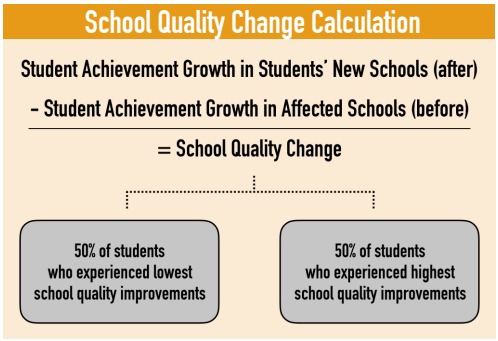


Figure 6 shows that the effects for both elementary and high schools are much more positive for students experiencing more positive changes in school quality than for those experiencing reductions or smaller improvements in school quality. In elementary schools, for example, students' test scores improved by 0.43 s.d. (16 percentile points) among students with high school quality improvement, but by only 0.27 s.d. (11 percentile points) for other students.

We carried out the same test based on high school graduation and college entry rates. These results, provided in the longer technical paper, show no clear and consistent pattern in how high school graduation and college entry effects relate to school quality improvement. This is not surprising since prior evidence suggests that schools that are effective in generating high test scores are not consistently more effective with other student outcomes.

ARE THE EFFECTS MORE POSITIVE WHEN THERE IS LESS DISRUPTION?

In addition to school quality changes, the effects of closure and takeover may influence students through the disruptions they create in students' lives and classroom experiences. Prior research specifically suggests that these disruptions create greater challenges for high school students, so this may be why we find that the effects of closure and takeover are also generally less positive, and sometimes negative, for high school students (See Figure 6).

To provide additional evidence on the role of disruption, we separated students into groups based on the best measure of disruption we have: whether students stayed in the same school in the year following closure or takeover. In the case of immediate school closures, students have to switch schools, but this is not true of the other interventions.

Figure 7 further reinforces the role of disruption. The data show more positive effects on high school graduation and college entry for stayers compared with leavers, especially with the more realistic adjusted college entry estimates (Note: the unadjusted rates are so close to zero that they are difficult to see).

Figure 6. Effects by Level of School Quality Improvement

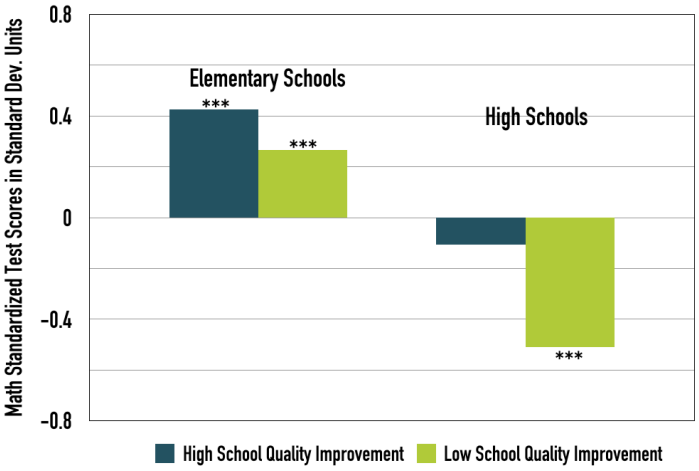
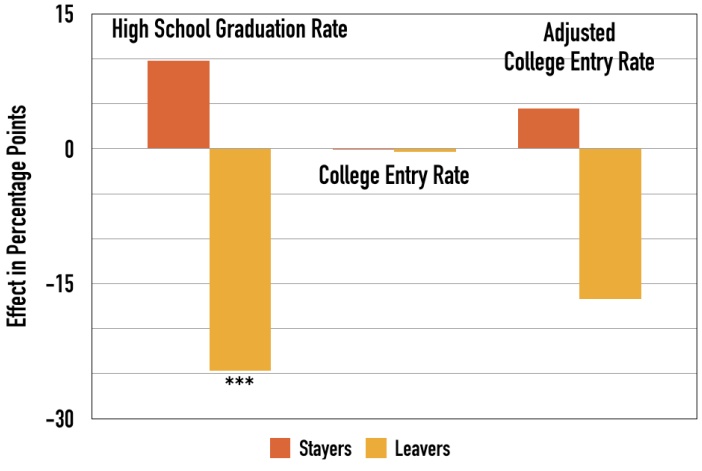


Figure 7. Intervention Effects on Stayers and Leavers



We do not see the same patterns in the test score analyses. Also, as indicated by the absence of asterisks, the individual estimates for college entry are not statistically different from zero, nor are the estimates different from one another across stayers and leavers. We, therefore, interpret these results cautiously.

HOW DO THE EFFECTS ON STUDENTS IN SCHOOLS AT THE TIME OF INTERVENTION COMPARE WITH THOSE ON FUTURE STUDENT COHORTS?

So far, we have focused on the effects on students who were attending schools at the time the interventions were announced. The effects are likely to be more positive (or less negative) for future cohorts of students because they will not experience the same disruption.

Since it is more difficult to estimate the interventions' effects on future cohorts, we start with some illustrative examples. Suppose that a school's current students experience a -0.1 s.d. effect, but that the next cohort simultaneously experiences a +0.1 s.d. effect because of school quality improvement. In this simple example, the benefit to the next cohort exactly offsets the effect on students directly impacted by the intervention. However, there is not just one future cohort. Three years after the intervention, the net effect becomes +0.2 s.d. and grows from there. All future cohorts benefit, which means the net effect is clearly positive. On the other hand, as a general rule, it is worth following the principle of "do no harm," so it makes sense to weight the negative effects on students who are in the schools at the time of intervention somewhat more heavily.

While the above scenario, with its mix of positive and negative effects, is perhaps most interesting, we see two other possibilities in our analysis. First, Baton Rouge shows that both the directly affected students and future cohorts can experience negative effects. If that is the case and if the decline in directly affected school quality is any indication, there are no benefits for future cohorts, and the overall effects are negative no matter which group of students we consider. Second, in New Orleans elementary schools, we saw that the effects could be positive both for directly affected students and for future cohorts, a clear net gain. Below, we explore these possibilities further in considering the larger New Orleans school reforms as a whole.

WHAT SHARE OF TOTAL IMPROVEMENT IN NEW ORLEANS SCHOOLS RESULTING FROM POST-KATRINA SCHOOL REFORMS CAN BE EXPLAINED BY CLOSURE AND TAKEOVER?

The idea of closing and taking over schools based on performance is at the heart of the New Orleans school reform strategy. In prior research, ERA-New Orleans' researchers Douglas N. Harris and Matthew Larsen found that the entire package of reforms in the city after Hurricane Katrina—from closing and taking over schools to dismissing teachers, eliminating teacher union contracts, and expanding choice—increased elementary and middle school student achievement quite substantially, by 0.2 to 0.4 s.d. (8-15 percentile points) between 2006 and 2012.

To test what share of these effects can be attributed to school closure and takeover, we used the same approach outlined in the prior section. First, for each intervention, we combined the effects on directly affected students with those for future cohorts (based on the changes in school quality). Second, we multiplied the combined effects by the fraction of students in the city who experienced one of these interventions. Other adjustments were also necessary to make this a fair comparison.

> *"Our best estimate is that the closure and takeover policies account for 25% to 40% of the total improvement of New Orleans' schools through 2012."*

Our best estimate is that the closure and takeover policies account for 25% to 40% of the total improvement of New Orleans' schools through 2012. This approximation may be conservative. First, we assumed in these calculations that the closure and takeover policies did not create any pressure for improvement on schools that were not experiencing interventions. If those pressures improved outcomes for students other than just those in the intervention schools, then we are under-stating the total effect. Also, since the logic of this approach is to improve outcomes for future cohorts and most of the interventions occurred just before 2012, it is likely

that the decisions to close and take over low-performing schools will continue to benefit students in 2013 and beyond. In ongoing research, we are updating analyses of the total reform effects to test this and extending the analysis, along the lines of the present study, to include high school graduation and college entry.

LIMITATIONS OF THE ANALYSIS

It is generally difficult to determine why the effects of a given program are more positive in some situations versus others. However, with the data we collected, we have been able to carry out a wider variety of analyses than any prior study of closure and takeover, and these results paint a coherent picture of when and how these interventions affect students.

We tested our findings by using multiple approaches to match the comparison group, and the results remained similar. Also, we generally carried out multiple tests for each theory, so we do not have to rely on any one analysis.

While there are clear patterns, the case is not airtight. For example, it is possible that the stayers experience different effects because the stayers are different in some way that led them to make different schooling decisions after the intervention announcement. The same can be said of the analyses that break down the results based on the school quality changes; the students who moved to better schools may have had some advantage that also led them to have higher scores. At the same time, it is worth pointing out that when students were choosing their schools, they did not have access to the school quality measures (student growth) we used in the analysis, so they could not have made decisions based on that information.

DISCUSSION

Prior studies find wide variation in the effects of closure and takeover. We do as well. The effects are more positive in New Orleans compared to Baton Rouge, in elementary schools compared to high schools, and perhaps for stayers over leavers.

These patterns, as well as those in prior studies, are predictable. First, we find strong evidence that the results are more positive for students who experience improvements in school quality. The results are negative in Baton Rouge, apparently because the average affected student ended up in a worse school than where he or she started. We see the same pattern when we separate students in both New Orleans and Baton Rouge into groups based on how much school quality improvement they experienced (see Figures 5 and 6).

Our key contribution to the debate over closures and takeovers is this study's ability to help explain why the results of prior studies have varied so much and, in the process, to suggest ways of implementing these interventions more effectively. In short, the key to making closures and takeovers work is to ensure that directly affected students end up in better schools after the intervention. If they do not, the results will be generally negative for students no matter what we call the intervention or what other redeeming qualities it might have. This means decisions should be based on educational quality rather than politics or ancillary issues, and much thought should be given to what other schools will be available to future generations of students. Moreover, leaders should recognize the ways in which families choose schools and the unfortunate geography of low performance. The schools nearest to low-performing schools also tend to be low performing, and these are the schools that directly affected students are most likely to attend after the intervention.

> *"In short, the key to making closures and takeovers work is to ensure that directly affected students end up in better schools after the intervention."*

In Louisiana, charter schools were a key a part of the closure and takeover processes. In that case, the question is, can effective charter operators be brought in to take over failing schools? Our results in Baton Rouge, as well as prior evidence in Tennessee, suggest that this is not guaranteed. Anecdotally, charter operators also seem more interested in starting schools from scratch rather than taking over existing schools and their students. This means that the availability of quality charter schools may be more limited with takeovers even though takeovers may be less disruptive than closures.

> *... our results suggest these interventions can offer promising strategies for improving student achievement when well implemented.*

Some might respond to this study by saying that decision makers should never close or take over schools for all the reasons mentioned earlier—the uncertainty for teachers, conflicts with union contracts, and disruption for families. That may be, and certainly the potential broader consequences must factor in to such a high stakes decision. At the same time, to the extent that we are trying to improve students' academic outcomes, our results suggest these interventions can offer promising strategies for improving student achievement when well implemented.

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

This study helps explain the positive effects on student test scores previously reported by Douglas N. Harris and Matthew Larsen in their study, *The Effects of the New Orleans Post-Katrina School Reforms on Student Academic Outcomes*. A shorter version of their study was published by the journal *Education Next*. We are also engaging in other studies to better understand the sources of these overall effects. Our larger research agenda focuses on the roles played by school choice, charter schools, teacher quality, and accountability.

Whitney Bross and Harris recently released a companion study, *The Ultimate Choice: How Charter Authorizers Approve and Renew Schools in Post-Katrina New Orleans*, which focuses on how the state of Louisiana made decisions about authorizing and renewing charter schools. The schools not renewed in that study are the ones whose effects we studied in the present analysis. The Bross and Harris study includes analysis of recommended implementation steps and how those played out in New Orleans where the effects of closure and takeover were apparently fairly positive.

With researchers from across the country, we are engaging in a long-term study of state policies and their effects on authorizers in New Orleans compared with Denver and Los Angeles. As the present study with New Orleans and Baton Rouge suggests, multi-city analyses often help illuminate the reasons why system-wide results vary and identify solutions to make school improvement more predictable and successful.

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 understand the post-Katrina school reforms and their long-term effects on 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.

EducationResearchAllianceNola.com

Contact Information

1555 Poydras Street
7th Floor, Room # 701
New Orleans, LA 70112
(504) 274-3617
ERANewOrleans@gmail.com

An Initiative of

Tulane University

About the Authors

Whitney Bross

Whitney Bross holds a Ph.D. in Economics from Tulane University and is a Senior Fiscal Analyst for the Legislative Services Agency of Indiana and Research Associate at the Education Research Alliance for New Orleans.

Douglas N. Harris

Douglas N. Harris is Professor of Economics, the Schleider Foundation Chair in Public Education, and the founding Director of the Education Research Alliance for New Orleans at Tulane University. He is also a Non-Resident Senior Fellow at the Brookings Institution.

Lihan Liu

Lihan Liu is a Senior Research Fellow at the Education Research Alliance for New Orleans. She holds a Ph.D. in Economics from the University of Wisconsin-Madison, where she also earned an M.S. in Economics. She also received an M.A. in Economics from Shanghai University of Finance and Economics.