

Do Charter Schools Keep Their Best Teachers and Improve Quality?

Retention and Rewards for Teachers in New Orleans

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Overview

Teachers are widely considered the most important factor in school success. However, schools often struggle to attract and retain high-performing teachers and to develop or remove low-performing ones. In this study, we consider whether this is true in New Orleans where almost all schools are charters with flexibility over personnel policies and practices, and where schools compete against one another and face pressure to improve.

Specifically, we compared New Orleans to similar neighboring districts from 2010 to 2015, using student test score growth to measure teacher performance. We draw the following conclusions:

- Teacher retention is more closely related to teacher performance in New Orleans than in traditional public school districts. Lower performing teachers in New Orleans are 2.5 times more likely to leave their school than high-performing teachers, compared with only 1.9 times in similar neighboring districts.
- The stronger link between retention and performance might imply that teacher quality would improve faster in New Orleans than in similar districts. However, this is not the case. The difference in average teacher performance between New Orleans and comparison districts remained essentially unchanged between 2010 and 2015. This is apparently because of the larger share of new teachers in New Orleans, whose lower quality roughly offsets the city's advantages in retaining higher performing teachers.
- The stronger retention-performance link in New Orleans is somewhat related to financial rewards, though not in a way that is likely to increase the overall quality of teaching. We find that higher performing teachers only receive pay increases when they switch schools, which may increase teacher turnover. High-performing teachers do not receive raises for performance when they stay in the same school.

These findings highlight the complexities of policies intended to increase the quality of teaching. Increased teacher accountability might improve teacher performance, but it also creates more job uncertainty for teachers and seems to give them less autonomy over their day-to-day work. This can affect the number and types of teachers who seek to work in charter schools and could push teachers of all performance levels to exit the profession or transfer to other schools. Given that teaching experience positively affects student achievement, this trade-off is problematic. Indeed, even with New Orleans' advantages in retaining quality teachers and in improving teacher quality, it will likely be difficult for the city's schools to improve over time with a high rate of teacher turnover and, resulting, low average teacher experience levels.

Background

In traditional public school districts, local union contracts and state tenure provisions protect teachers from political influence, give them autonomy to exercise professional judgment, provide them with a voice in school leadership, and generally make teaching a secure long-term profession with a fair degree of autonomy. Union contracts also specify predictable salary schedules based on years of experience and credentials, rewarding teachers for longevity and encouraging them to develop their skills.

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A common criticism of these policies, however, is that they prevent teachers from being held accountable for their performance. Union contracts and tenure protect high-performing teachers from arbitrary firings, for example, but they also protect low-performing teachers from losing their job. This can make school improvement difficult.

Research is limited regarding the practical effects of removing tenure and union contracts, which protect most teachers in publicly funded schools in the United States. Studies about the removal of tenure protections suggests that turnover rates increase, though the effect on average quality is less clear. The evidence on teacher unions is mixed, though the most recent and rigorous research suggests they may reduce test scores and high school graduation.

Charter schools rarely have tenure or union contracts. Two studies similar to this one, in Florida and Massachusetts, both found that high-performing teachers in charter schools are no more likely to stay in their jobs than those in traditional public schools. The results might be different in New Orleans for several reasons. First, the city's charter schools are under intense pressure to improve, because the state (and now school district) regularly shuts down low-performing schools; this pressure likely filters down to school leaders who are responsible for personnel decisions. In addition, New Orleans has an unusually large share of charter schools, which are run by over 40 independent organizations. This gives teachers more employment options to choose from and may force schools to compete for the best teachers.

In this study, we address three main questions:

1. Is teacher turnover in New Orleans more closely tied to teacher performance than in similar, neighboring districts?
2. Is teacher compensation in New Orleans more closely tied to teacher performance than in similar, neighboring districts?
3. Is average teacher performance improving in New Orleans as a result of these patterns in turnover and compensation?

How Did We Carry Out the Analysis?

We analyze the link between policy, teacher quality, and reform by comparing New Orleans to otherwise-similar neighboring districts. Using a method called difference-in-differences, we look at the difference in outcomes between low- and high-performing teachers in New Orleans. We then do the same for two neighboring traditional districts that have broadly similar demographics and economic conditions, but where nearly all teachers are still employed by the school district under collective bargaining agreements and compensated under salary schedules.

Teacher turnover is the main outcome of interest, but this can be defined in many ways. We consider: (a) whether teachers stay in the same school; (b) whether they stay with the same employer (i.e., the charter organization or school district); and (c) whether they continue teaching in any publicly funded school within the same parish.

The relationship between turnover and teacher performance is a key focus of the study. Our single available performance measure is a teacher's contribution to the achievement growth of his or her students, sometimes called value-added. Loosely speaking, this is calculated by subtracting students' prior year scores from the current year (i.e., calculating student growth) and then adjusting for factors such as a student's family income and disability status, which are correlated with academic outcomes.

We report results using teacher value-added measures that compare each teacher to the average teacher employed in the state or similar districts in the local region (Orleans, Jefferson, and St. Bernard Parishes); this makes it easier to compare teachers across districts using a common scale. However, schools are more likely to make employment decisions based on how teachers perform relative to others in the same school; therefore, we also carry out analyses using within-school teacher performance comparisons. Again, the results are generally the same using both methods, so we report only results comparing teachers across the region or state.

We use data from the Louisiana Department of Education (LDOE) for 2010-2015. (Throughout the brief, we refer to academic years by the spring year, e.g. 2015 is the 2014-2015 school year.) We could not use earlier years because the teacher performance measures are not available. Also, the fact that we need to compare each student's score this year to that same student's score in the prior year means that we are limited to studying teachers in grades 4-8.

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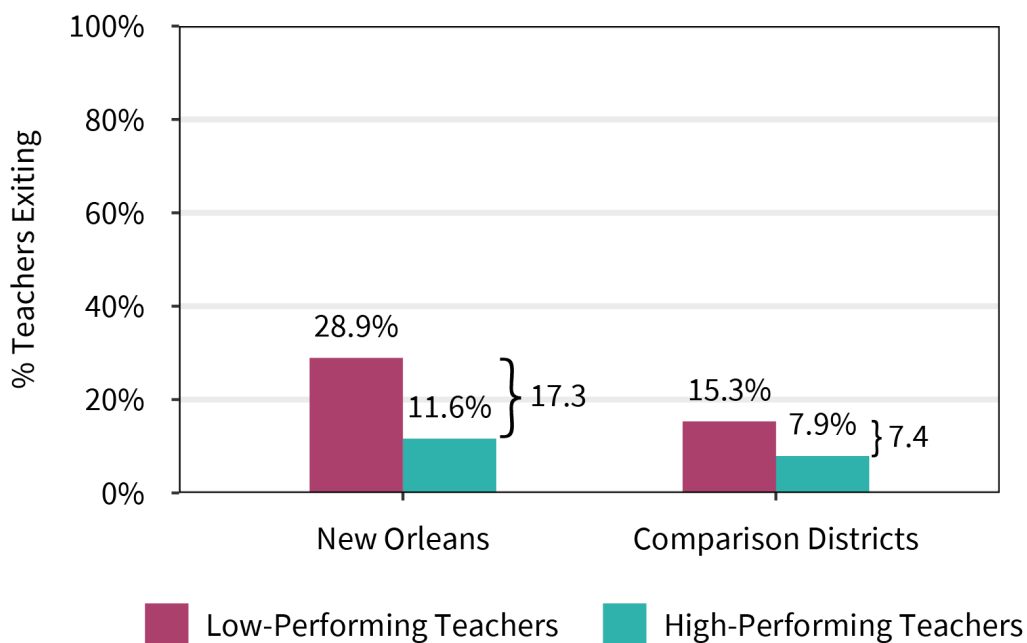
In addition to the difference-in-differences method, we also carry out a similar analysis using a different method called hazard analysis. The results from the two analyses were not different in any meaningful way. Below, we focus on results from the difference-in-differences comparison across parishes and discuss results of the additional analysis when they differ.

In our main analysis, we compare all New Orleans charter and district-run schools to all district-run schools in Jefferson Parish and St. Bernard Parish. Since there were a small number of schools in New Orleans that were not charter schools at the time of analysis, we carry out an additional analysis where we compare only New Orleans charter schools to district-run schools. Again, the results are not meaningfully affected by these changes.

Is Teacher Turnover in New Orleans More Closely Tied to Teacher Performance Than in Similar, Neighboring Districts?

Figure 1 reports the turnover rates of low- and high-performing New Orleans teachers relative to those in the comparison group. We define low- and high-performing teachers as those in the bottom 20% and top 20% of all teachers in the state, respectively. These results are averaged across 2010-2015. Consistent with the theory of the reforms, there is a much larger difference in turnover between low and high performers in New Orleans (17.3 percentage points) relative to the comparison group (7.4 percentage points).

Figure 1. Teacher turnover is more closely related to performance in New Orleans than in the comparison districts



Note: Low-performing teachers are those in the bottom 20% of the state. High-performing teachers are in the top 20%. Exit is defined as leaving teaching in publicly funded schools in Louisiana.

Some of this difference is due to the higher *overall* turnover rate in New Orleans, but this accounts for only a portion of the differences between the parishes. For example, the lowest performing teachers in New Orleans are 2.5 times as likely to leave as high-performing teachers. In comparison districts, they are only 1.9 times as likely to leave. This suggests that performance has a greater influence on teacher exit when teacher unions and tenure are absent and the performance pressures on school leaders are high.

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The results are similar across the additional analyses we previously mentioned: (a) redefining “market-oriented” to mean only charter schools; (b) conducting a hazard analysis; (c) redefining low and high performance using thresholds other than the bottom and top 20%; (d) redefining turnover to mean changes in employers, instead of changes in schools; and (e) restricting the sample to black teachers. The analysis of black teachers is of particular interest because there was a sharp drop in black teachers after Hurricane Katrina.

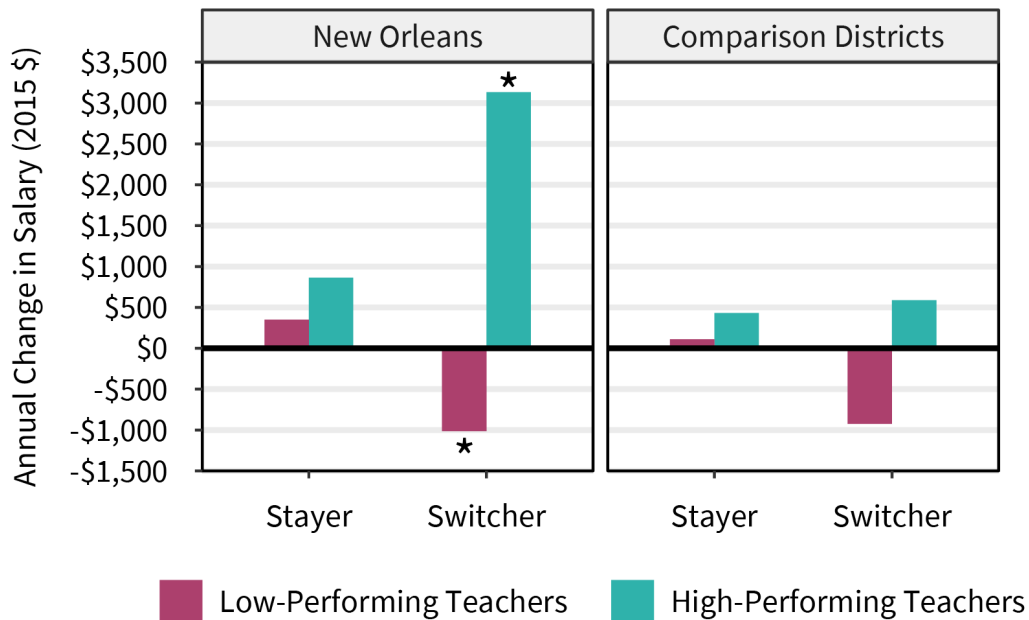
However, the relationship between turnover and teacher performance (i.e., the gap between low- and high-performing teachers in Figure 1) is more limited when we account for school characteristics (e.g., state accountability grade, percent of students eligible for free or reduced-price lunch, percent of students who are black) and teacher characteristics (e.g., race, gender, in-state college graduate, and types of certificates). This means the patterns depend on the characteristics of teachers who apply to, and are hired by, schools in the different parishes—not just whether New Orleans schools push out low-performing teachers. The turnover-performance relationship is also weaker (but still significant) when we define turnover as exiting the parish and when we eliminate teacher moves that are due to school closures.

The other key observation from Figure 1 is that, at both performance levels, the turnover rate is noticeably higher in New Orleans. This higher overall rate of turnover in New Orleans is potentially problematic given the research consensus that experience is an important contributor to teacher performance. A high turnover rate requires hiring more, usually more novice, teachers. The gains New Orleans schools make by removing low-performing teachers may be offset by a decline in quality of teachers hired to replace them. We test this possibility later in the brief.

Is Teacher Compensation in New Orleans More Closely Tied to Teacher Performance Than in Similar, Neighboring Districts?

Figure 2 reports the annual *changes* in salaries of low- and high-performing New Orleans teachers compared to those in the comparison group. Specifically, we align each year’s performance with the salary in the subsequent year based on the idea that rewards usually follow from recent performance. As above, these salary changes are averaged across 2010-2015.

Figure 2. High-performing teachers in New Orleans seem to receive larger raises than those in comparison districts, at least when teachers switch schools



Notes: Asterisks indicate that the change in salary from one year to the next was statistically significant. Low performing was defined at bottom 25% of the region, high performing as top 25%.

We consider two groups of teachers: those who stayed in the same school from one year to the next and those who switched schools within the same parish. With the “stayers,” we might see raises if schools generally reward high performance with annual salary increases. With the “switchers,” schools might offer extra pay to high-performing teachers to entice them away from other schools.

In every category, high-performing teachers receive larger raises than others. However, once again, we see a stronger connection to performance in New Orleans. For example, when higher performing teachers switch schools (but stay within the parish), they receive roughly a \$3,000 raise, while low-performing teachers take a pay cut. The largest raise shown in Figure 2 amounts to a 7% salary increase for the average teacher (the average teacher salary in New Orleans is around \$47,000). Importantly, however, these estimates are not usually statistically significant (especially among the stayers).

These results, however, are inconsistent with the theory that eliminating unions and job protections generally will create better incentives and improve teacher quality. While paying more to encourage quality teachers to switch schools suggests there are some performance incentives, this also likely increases teacher turnover. The fact that high performance might encourage switching is important given prior research that suggests higher turnover has negative side effects for teacher collaboration, school culture, and student outcomes.

The fact that we see higher pay for better teachers only when they switch schools may also be driven by schools with more total resources recruiting teachers away from schools that have fewer resources. This would raise additional concerns about educational equity. (We are exploring this possibility in a separate, ongoing study.)

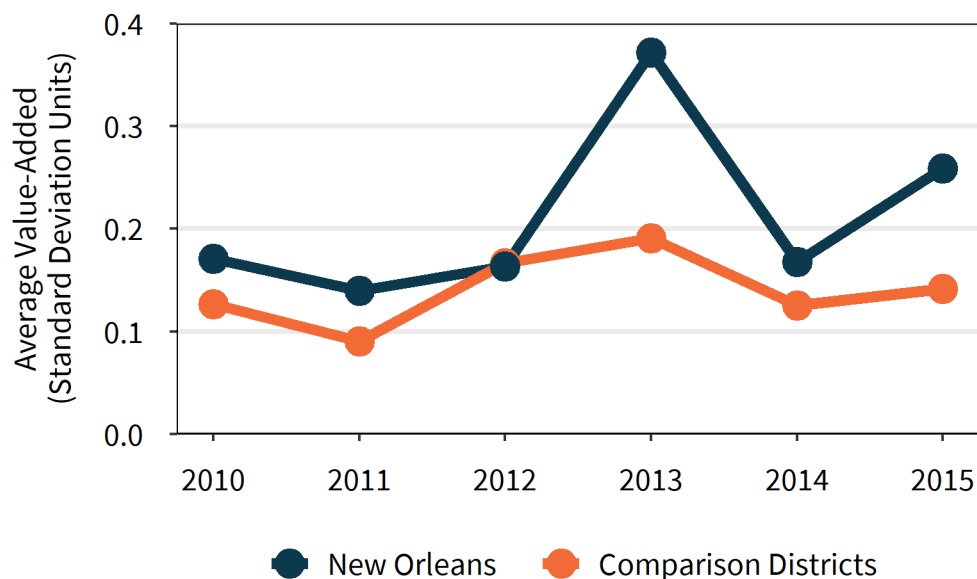
Is Average Teacher Performance Improving in New Orleans as a Result of These Patterns in Turnover and Compensation?

Given that high-performing teachers are more likely to stay than lower performing ones, we might expect that the average teacher performance level in New Orleans would gradually improve relative to similar neighboring districts, but this is not what we see. Figure 3 compares the trends in average value-added in New Orleans to nearby districts. The lines show that New Orleans teachers have higher value-added, but the gap between the two groups is not consistently widening over time. The comparison group actually seems to catch up with New Orleans in 2012 and 2014, though the gaps widen in 2013 and 2015.

These results may seem surprising given that New Orleans is more effective at exiting low performers. We might have expected, instead, that New Orleans teachers would gradually increase in performance relative to similar neighboring districts.

As noted earlier, however, that logic ignores the fact that average teacher performance also depends on the quality of entering teachers. Given that New Orleans has a much higher turnover rate, New Orleans schools must recruit more applicants and/or hire a larger share of those who apply. With less job security for teachers, they may have more trouble attracting strong candidates. Taken together, this means New Orleans schools need to hire more teachers and, instead of hiring the top two or three candidates who apply, they may have to hire the fourth- and fifth-best candidates, too.

Figure 3. New Orleans teachers are higher performing on average, but have not been improving consistently relative to similar, neighboring districts



Notes: Value-added is shown in comparison to the state average, which is set at 0. Therefore, both New Orleans and comparison districts are above the state average. The y-axis is in teacher-level standard deviation units.

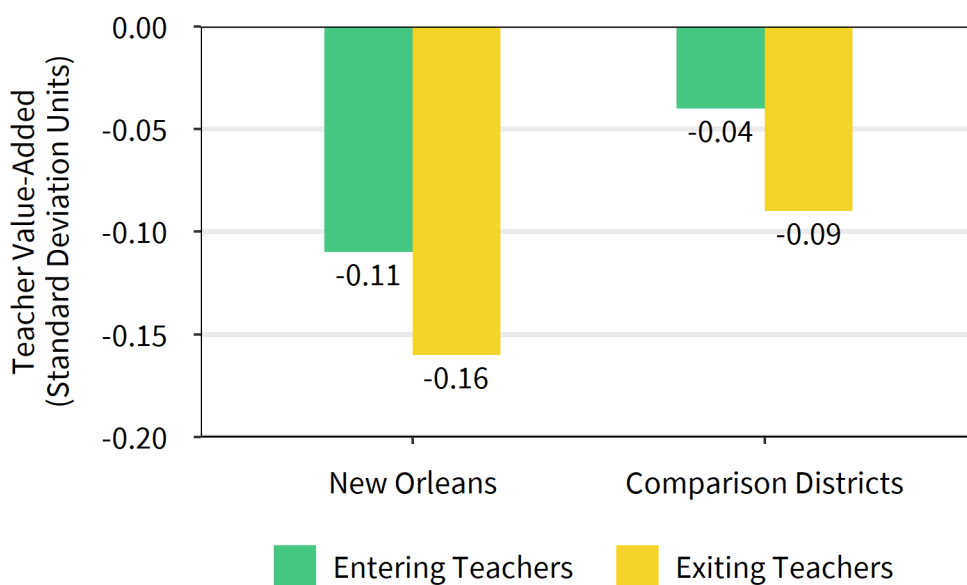
We test this theory in Figure 4, which shows the average teacher value-added of entering and exiting teachers in New Orleans and the comparison group. Note all the bars are negative because the entering and exiting teachers are below the state average.

The results for exiting teachers (the yellow bars) mirror what we see in Figure 1; that is, New Orleans does a better job of keeping its higher performing teachers. However, this is offset by very low performance among the city’s newly hired teachers (the left-hand, green bars). Recall, too, that New Orleans’ high turnover rate means that there are a lot of these very-low-performing teachers entering the city’s schools each year.

We can now see more clearly why average teacher performance in New Orleans is not improving relative to similar neighboring districts. While New Orleans schools more consistently *retain* high-performing teachers, they do not *attract* high performers.

Why might this be? While New Orleans and the comparison groups have almost identical percentages of students who qualify for free and reduced price lunch, there could be some other differences in the student population that affect teacher supply. New Orleans, for example, has a higher percentage of students who are black, and teacher supply tends to be weaker in districts with more black students, other factors being equal. Another possible explanation is that the all-charter-school setting in New Orleans attracts different types of teachers who are less well trained, and perhaps more willing to temporarily accept long hours and strict accountability.

Figure 4. Exiting teachers are lower performing in New Orleans than in other districts, but so are entrants to New Orleans



Notes: Entering teachers are those who are new to teaching in publicly funded schools in Louisiana. Likewise, exiting teachers are those who leave teaching in publicly funded schools in Louisiana. Value-added is measured in the first year of teaching after entry.

Some observers might attribute the lack of relative improvement to the prevalence of teachers from Teach for America (TFA) and The New Teacher Project (TNTP) in New Orleans. These programs provide roughly one-quarter of new teachers in the city and have exit rates that are roughly 50% higher than for teachers who entered New Orleans teaching through other pathways.

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However, it is important to note that New Orleans teachers who came from other alternative certification programs also have higher turnover rates in New Orleans compared with other districts, which suggests that the teachers' pathways into the profession are not the only reason for higher turnover. Also, prior research suggests that TFA/TNTP teachers are similarly effective or even more effective than traditionally prepared teachers, so the prevalence of TFA/TNTP teachers is not a likely explanation for the results in Figure 4.

Conclusion

Part of the rationale behind school reforms such as charter schools is to give school leaders more autonomy and more control over personnel. The thinking is that traditional public schools, with teacher union contracts and tenure provisions, cannot hold teachers accountable and reward performance, and this reduces performance. Removing those rules might enable school leaders to increase teacher accountability, especially given that charter leaders in New Orleans are under heavy pressure to raise academic outcomes.

We find evidence to support this. The difference in the turnover rates of low- and high-performing teachers is larger in New Orleans than in similar neighboring districts. This is also consistent with our prior research where we surveyed teachers who had taught in New Orleans schools both before and after the city's unprecedented school reforms. These teachers reported that low-performing teachers were more likely to be fired after the reforms than they were before.

In the same survey, however, teachers reported that, while the learning environment had improved, the work environment worsened—they were less satisfied with their jobs after initiation of the New Orleans school reforms. This could be because their performance was under greater scrutiny from school leaders and they had less job security and autonomy over their work, all of which could explain the relatively high average turnover rate in the city, and the low quality of entering teachers.

It is therefore no surprise that New Orleans schools have trouble attracting sufficient high-quality replacements. The higher turnover rate, amplified by salary-based competition for teachers and perhaps other factors, means that New Orleans schools have to hire more teachers every year. The evidence here suggests that the benefit gained by pushing out low-performing teachers (Figure 1) may be offset by hiring lower quality teachers to replace them.

Even if schools could manage to bring in better new teachers to replace those being pushed out, there is only so much improvement that could be expected from this approach. It is difficult to produce great schools with such high turnover rates and the low levels of teacher experience that come with them.

Of course, the effects of all policies depend on how they are designed and implemented, and what other policies accompany them. It may be possible to increase accountability and autonomy, raise the quality of entering teachers, and reduce turnover all at the same time, but the analysis here suggests that this may be difficult. All of the effects of policy changes, intended or otherwise, have to be considered when designing policies to increase the quality of education for students.

How is This Research Related to Other Studies From the REACH Team?

Teachers' Perspectives on Learning and Work Environment under the New Orleans School Reforms (Lindsay Bell Weixler, Douglas Harris, and Nathan Barrett; Education Research Alliance for New Orleans). This study, referenced in the text above, reported results from surveys of teachers who had taught before and after the New Orleans school reforms. We found that measures of the learning environment consistently improved, but the work environment, as reflected in teacher satisfaction, worsened. Also, the results suggested a possible decline in teacher autonomy.

When Tenure Ends: Teacher Turnover in Response to Policy Changes in Louisiana (Katharine O. Strunk, Nathan Barrett, and Jane Arnold Lincove; Education Research Alliance for New Orleans). In 2012, the Louisiana legislature made major reforms to teacher tenure for the entire state. This study shows that, after the removal of tenure, the overall teacher exit rate for all traditional public school teachers increased, especially among teachers who already held tenure, as their loss of job security was greatest. The effects were largest among teachers who were eligible for retirement and in schools with the lowest standardized test scores. These results reinforce prior findings that teachers value the job security that tenure provides.

Significant Changes in the New Orleans Teacher Workforce (Nathan Barrett and Douglas Harris; Education Research Alliance for New Orleans). This study described the changes in the workforce after the reforms started, including the reduction in teacher experience and certification and the drop in the percentage of teachers who are black. Though research generally finds small relationships between certification and performance, the drop in the number of teachers with higher levels of certification is consistent with the idea that entering teachers were of lower quality.

We have several additional studies ongoing on related topics. First, as noted earlier, we are studying teacher pay in greater depth and trying to understand whether high-performing teachers (and administrators) move to higher resourced schools. Second, we are digging deeper into what happens to teachers when their schools close.

About the National Center for Research on Education Access and Choice (REACH)

Founded in 2018, REACH provides objective, rigorous, and applicable research that informs and improves school choice policy design and implementation, to increase opportunities and outcomes for disadvantaged students. REACH is housed at Tulane University with an Executive Committee that includes researchers from Tulane, Michigan State University, Syracuse University, and the University of Southern California.

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Corresponding Technical Paper

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