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POLICY BRIEF

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SIGNIFICANT CHANGES IN THE NEW ORLEANS TEACHER WORKFORCE

By Nathan Barrett and Douglas Harris

While there is much debate about the success of school reform, there is one thing almost everyone, on all sides of the debate, agrees on—teachers are the most important school resource. This may seem obvious, especially to educators themselves, since schools are groups of teachers working together to help students learn. But there is growing evidence that teachers affect students' long-term life outcomes and that performance varies considerably across teachers. There is also considerable variation in teacher performance within schools.

Equally clear is that teacher performance is not closely linked to teacher credentials like certification and college degrees or other common metrics of school quality like teacher turnover. While some studies find that teacher credentials predict teacher performance, the connection is weak. Even with years of experience, the teacher qualification most positively linked with teacher performance, the likelihood that an inexperienced teacher is low-performing is only slightly higher than the probability the teacher is high-performing. This evidence mirrors the two main, and sometimes competing, visions for the future of the teacher workforce: increasing teacher effectiveness either by increasing certification requirements and making teaching a career versus opening access to the profession

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and instituting stronger teacher accountability. It is hard to do both because when schools dismiss low-performing teachers through accountability, they need a larger supply and increasing entry requirements reduces the pool of teachers.

The New Orleans school reforms adopted after Hurricane Katrina side with the accountability advocates. After the storm, all the city's public school teachers were fired and the district's collective bargaining agreement (CBA) expired, never to be renewed. New Orleans public school teachers are at-will employees. Charter schools, which now make up 93% of the city's public schools, are not required to hire certified teachers. This combination of policies has led to significant changes in teachers' backgrounds, with an influx of new teachers from Teach for America, The New Teacher Project, and other non-university-based alternative preparation programs.

This is the first in a series of studies by the Education Research Alliance for New Orleans on the New Orleans teacher workforce. Here, we provide a comprehensive description of the changes in New Orleans' teacher demographics, credentials, and turnover rates. We also consider whether New Orleans teachers have roots in the local community and whether local attachment of teachers has changed over time. Finally, we discuss how to reconcile the changes in the teacher workforce with our other report indicating positive effects of the reforms on student outcomes.

HOW DID WE CONDUCT THE ANALYSIS?

We use data provided by the Louisiana Department of Education for all teachers in the state during the school years 2002-03 through 2013-14. To protect privacy, teachers in our data are identified only by unique identification numbers that were created for research purposes only and cannot be linked back to teachers' names or any other identifying information. We include public school teachers citywide, including all employees of schools governed by the Board of Elementary and Secondary Education (BESE), Orleans Parish School Board (OPSB), and Recovery School District (RSD).

IDENTIFYING TEACHER CERTIFICATIONS

The state has several different certification levels and we adopt the state definitions. We consider teachers to be "certified" if they have a level 1, 2, or 3 certification. The labels attached to these certification levels changed during the time period we study and we equate levels 1, 2, and 3 after the storm with levels C, B, and A from beforehand—where C or 1 are the entry level certifications and A or 3 are the highest certifications. Teachers are also defined here as certified if they have either a World Language, PK-12/FLES, or Career and Technical Trade and Industrial Education certification. We consider

Policy Changes Directly Affecting the New Orleans Teacher Workforce

- · Firing essentially all teachers
- Allowing the CBA to expire (and not replacing it)
- Eliminating certification requirements for charter schools (though charter school teachers are still supposed to meet the federal definition of "highly qualified")
- · Eliminating tenure
- Mandating statewide teacher evaluation (COMPASS)
- · Decentralizing hiring
- Selecting charter management organizations to operate schools
- · Closing charter schools due to low test scores

a teacher to be "uncertified" if they have no certification or an out of field, out of state, or temporary certification.

MEASURING TEACHER EXPERIENCE

Teacher experience is calculated using information from several data sources. We combine data on a teacher's earliest hire date in the state, the year the teacher was initially certified, the year the teacher completed a bachelor's degree, and matching a teacher's salary to the district salary schedule where salary is based on experience. We compare the information across all these data sources to get a best estimate of total years of teaching experience. Due to data limitations, experience outside the Louisiana public schools, such as years teaching in private schools, is usually omitted. There is anecdotal evidence that charter management organizations (CMOs) in New Orleans recruit experienced teachers from other states and, in the first year, these teachers can show up in our analysis as having zero years of experience.

MEASURING TEACHER MOBILITY

Teacher mobility and turnover rates are determined based on changes across school years. The data do not allow us to observe mobility during the school year.

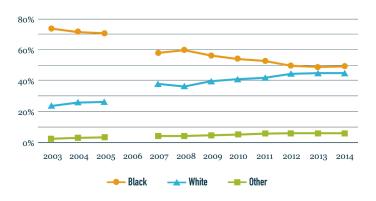
HOW DID THE RACIAL COMPOSITION OF NEW ORLEANS TEACHER WORKFORCE CHANGE?

The racial make-up and local roots of the teacher workforce have been a regular topic of conversation in New Orleans. For example, some have emphasized the need for black role models for the district's predominantly black student population, the ability of teachers to make instruction culturally relevant, and the ability and willingness of teachers to relate to local community members. These concerns are important in their own right and some also have direct implications for academic learning; for example, there is some evidence that, other things being equal, students learn somewhat more when they have teachers of the same race.

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Prior to Hurricane Katrina, the New Orleans teacher workforce included a higher proportion of black teachers than most urban U.S. school districts. According to the 2003-04 Schools and Staffing Survey (SASS), black teachers accounted for 15.1% of all teachers in large cities, but 72% of New Orleans' teachers were black. From 2004-05 to 2013-14, however, the percent of black teachers in New Orleans dropped from 71% to 49%. About half of this change occurred in the immediate aftermath of the hurricane when many teachers were dismissed and not rehired, followed by a steady reduction in proportion of black teachers and an increase in the proportion of white teachers.

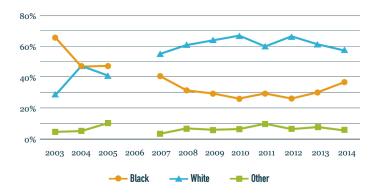
Figure 1: Racial Make-Up of New Orleans Public School Teachers
Percent of Teachers in New Orleans Public Schools from 2003-2014 by Race



Over the last few years, some local leaders have made a concerted effort to increase minority teacher hiring. These efforts appear to be paying off. In 2012, only 27% newly hired teachers were black; this increased to 37% in 2014, but at levels still far below pre-Katrina rates. [Figure 2]

Figure 2: Racial Make-up of Newly Hired Teachers

Percent of Newly Hired Teachers in New Orleans Schools from 2003-2014 by Race



The recent increase in minority teacher hiring helps to explain why the overall proportion of teachers who are black has stabilized in recent years [Figure 1]. However, the percentage of new hires who are black is still below that of the overall teacher workforce (49%) therefore there is a good chance the overall percentage will continue to decline unless additional steps are taken.

DO NEW ORLEANS TEACHERS CONTINUE TO HAVE LOCAL ROOTS?

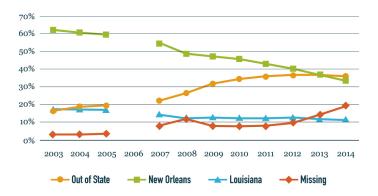
The mass dismissal of teachers after Hurricane Katrina has been a point of public concern in part because of a perception that the replacement teachers were not from the local community. To test this, we used data about the location of the institutions where teachers obtained their undergraduate degrees. This is not a perfect measure because some people from outside New Orleans or Louisiana attended colleges in these locations. Likewise, some local students may have left New Orleans for college and then returned to teach. These two patterns partly cancel each other out, but we cannot be sure to what degree. Also, college location is sometimes missing for individual teachers in our data, and this missing data increases over time.

Figure 3 shows a steady drop in the percentage of teachers who graduated from New Orleans-based colleges—from 60% in 2005 to 34% in 2014. An additional 11% of current teachers of teachers graduated from other institutions within Louisiana. In short, the percentage of teachers with local roots has declined since the reforms were put in place.

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Figure 3: Location of Teacher Undergraduate Institution

Percent of Teachers in New Orleans Schools from 2003-2014 by the Location of their Undergraduate Institution



HOW DID TEACHER QUALIFICATIONS CHANGE?

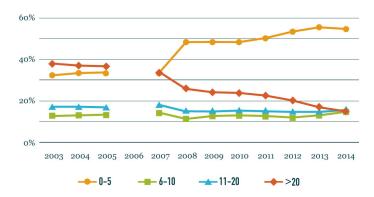
In most public schools, state and federal laws make it difficult to hire teachers who are not certified. Among those who are hired, compensation depends on years of experience and degrees. Again, one reason the New Orleans case is important is that state policies have reduced legal requirements that focus on credentials, while increasing requirements and opportunities to hold teachers directly accountable for performance.

We start by considering teacher experience because this is the credential that research suggests is most closely related to teacher performance. Over the first 5-10 years, teachers gradually improve through a combination of trial and error, mentoring, evaluation, feedback, and professional development activities. After 10 years, teacher performance typically remains steady.

Figure 4 shows that teacher experience levels in New Orleans have dropped considerably since Katrina. For example, the percentage of teachers with 5 or fewer years of experience increased from 33% to 54%. At the same time, the percent with 20 or more years of experience dropped by over 20 percentage points.

Figure 4: Experience Levels of New Orleans Teachers

Percent of Teachers in New Orleans Schools from 2003-2014 by their Years of Experience



Similarly, the percentage of teachers who are certified dropped from 79% to 56% over the same period [Figure 5]. It is important to clarify, however, who is considered certified. All teachers who complete a state accredited certification program count as certified teachers. This includes both university-based programs and independent programs such as Teach for America, The New Teacher Project, and iTeach Louisiana.

Figure 5: Teacher Certification Over Time

Percent of Teachers in New Orleans Schools from 2003-2014 by their Certification Level

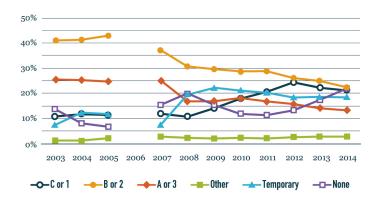
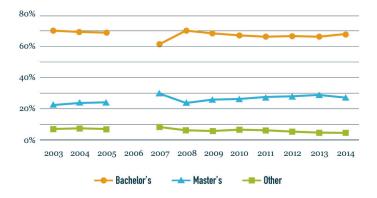


Figure 6 reports the highest degree earned among teachers by year. Unlike the other qualifications, the percentage with master's degrees has been relatively stable over time. Based on anecdotal evidence, it appears that some teachers who come to New Orleans without certification decide to pursue teaching long-term as a career and seek a master's degree to facilitate that transition.

Figure 6: Teacher Degrees Over Time

Percent of Teachers in New Orleans Schools from 2003-2014 with a Bachelor's, Master's, or other Degree



The changes in certification and master's degrees is arguably less important than experience, however, because research suggests that teacher performance is less closely linked to certification and degree types.

HOW DID TEACHER TURNOVER CHANGE?

The turnover rate is the percentage of teachers each year who move out of a school or group of schools from one year to the next. This rate is often seen as an indicator of school quality, partly because turnover is associated with low teacher experience. Turnover may also be a sign of other problems since high turnover often occurs at schools with weak leadership, low administrative support for teachers, or a lack of complementary school resources. Finally, schools with unstable instructional teams are less likely to develop and improve, which ultimately harms students.

We define four types of teacher turnover:

 Move-within: New Orleans teachers who move to other schools or positions within either Orleans Parish School Board (OPSB) or within a single charter management organization (CMO).

- Move-out/Stay-NOLA: New Orleans teachers who move from OPSB or a New Orleans CMO and move to a New Orleans school managed by a different organization (note that this measure includes, for example, teachers who were in schools that were closed, taken over, or changed CMO affiliations).
- Move-out/Leave-NOLA: Teachers who move from a New Orleans public school to another Louisiana parish.
- Exit: Teachers who no longer appear as teachers in any
 Louisiana public school. Exiting teachers may have continued
 teaching in public schools in other states or in private schools,
 or they may have left the profession at least temporarily. Note
 that teachers who switch among public schools but change
 positions, such as becoming school principals or teacher
 aides, are *not* considered exited and instead show up in the
 above mover categories.

the annual rate of exit from teaching nearly doubled after the reforms

Figure 7 below shows that the annual rate of exit from teaching nearly doubled after the reforms. As with the changes in experience and certification, this was not a sudden shift after the reforms, but rather a gradual change over time.

Figure 7: Trends in Teacher Turnover
New Orleans' Teacher Turnover Rates from 2003-2014

200%

16%

12%

8%

4%

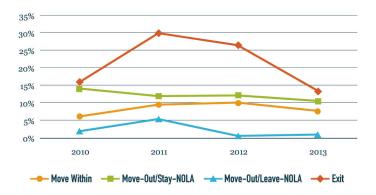
2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Move Within Move-Out/Stay-NOLA Move-Out/Leave-NOLA Exit

Figure 7 includes teachers at all levels of experience. Since the prior figures showed that the type of teachers being hired has changed over time, it is also worth considering the annual turnover rates of a single cohort of teachers. We focus in Figure 8 on the turnover rates of just those teachers whose first year teaching in New Orleans was 2010.

Figure 8: 2010 Teacher Cohort Mobility and Turnover Trends

New Orleans'2010 Teacher Cohort Turnover Rates from 2010-2014



The rates of exit and movement within New Orleans are much higher for this group compared with the overall teaching workforce shown in Figure 7. This likely reflects the fact that new teachers have higher turnover generally and perhaps the different backgrounds of post-Katrina teachers (see above).

WHAT CAUSED THESE CHANGES IN THE TEACHER WORKFORCE?

It is difficult to attribute these trends to a specific factor, but the drop in certification rates and experience levels, and increase in turnover are predictable from the changes in policy. It all started with the mass dismissal of all the city's public school teachers soon after Hurricane Katrina. This was followed by the end of teacher collective bargaining and the elimination of certification requirements for charter schools, both of which allowed schools to use hire, evaluate, and compensate teachers as they preferred. Also, charter schools nationally rely more on teachers who have less experience and who come from alternative certification pathways. Teachers who are less experienced and from alternative preparation programs also tend to have higher turnover rates.

While we have limited direct evidence on the causes of the drop in minority hiring, this appears to be partly an outgrowth of both diminished supply of minority teachers from local universities and of the shift toward alternative preparation programs. Relatedly, school leaders may have changed their hiring priorities and the the degree to which minority status was a factor.

The drop in minority teachers may also be due to the available pool of teachers. The pool of minority recent college graduates from local universities appears to be relatively small. Likewise, it may have been harder for minority pre-Katrina teachers to be hired because black neighborhoods were hit harder by Hurricane Katrina. It may have been more difficult for black teachers to return because of a lack of housing. We cannot be sure which of these reasons, or others, were most important in explaining the change in minority hiring. This is a topic for future research.

WHAT DO THE RESULTS MEAN?

In other research, Douglas Harris and Matthew Larsen of the Education Research Alliance for New Orleans found that the increases in student outcomes after Hurricane Katrina were mostly due to the reforms. The question is, how is it possible to see large improvement in student outcomes when all the typical measures of teacher quality seem to be going in the wrong direction? Also, how might we have the best of both worlds—an experienced, prepared, stable teacher workforce and high student outcomes?

How is it possible to see large improvement in student outcomes when all the typical measures of teacher quality seem to be going in the wrong direction?

The first question is a difficult question to answer, but there seem to be four main possibilities to consider: First, it could be that student outcomes improved despite these changes in the teacher workforce. School choice, closure policies, and increased funding are all potential explanations we are considering in other research. Some schools in the city seem to be generating high test scores with more experienced, traditionally prepared teachers and school leaders may be able to learn lessons from those experiences.

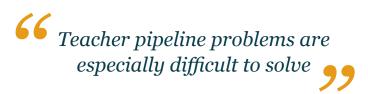
Second, part of the reform package involves allowing schools to dismiss low-performing teachers and paying them based on performance. If school leaders are responding to the pressure from school closure policies by making personnel decisions based on teacher performance—such as providing more professional development or dismissing low-performing teachers—this could increase student outcomes. We are examining these types of school practices in our other studies.

Third, despite their lack of experience and limited formal training, the new teacher workforce in New Orleans comes from preparation programs that have some evidence of effectiveness. Academic studies of teacher performance commissioned by the Louisiana Department of Education using "value-added" methodology suggest that teachers from non-university-based alternative preparation programs—the types hired at high rates in New Orleans—contribute more to measured student learning than do teachers from traditional university-based programs. That said, it is difficult to separate the effectiveness of the certification and preparation program from the effects of accountability on which teachers end up in the classroom. If low-performing alternatively prepared teachers are more likely to be dismissed than low-performing teachers from other programs, who are hired by schools experiencing less accountability pressure, then alternative programs will tend to look more effective than they really are.

Fourth, while many of the city's new and younger teachers do not intend to make teaching a career, their life circumstances make it possible to work extremely long hours in the short run for the few years they are in the classroom. Research shows that students may learn more when they have more time on task, even though, in this case, these younger alternatively prepared teachers have higher turnover rates.

There are both advantages and disadvantages to this new teacher workforce. On the one hand, the change in the teacher workforce coincided with a large improvement in student outcomes. Among the disadvantages, however, are concerns that changes in the racial and local composition of teachers may have consequences for students not captured by test scores, that the current teacher workforce model is unsustainable, and that any further school improvement may not be possible with inexperienced teachers with limited formal training. While it seems clear that schools have

improved, they are still low-performing and different strategies may be necessary to get students and schools to the next level.



In another article with The Brookings Institution and The Data Center, we teamed up with other researchers and argued that teacher pipeline problems are especially difficult to solve because New Orleans schools—almost all of which are charter schools—vary considerably in the types of teachers they are looking for and tend to prefer teachers who are prepared differently from typical university-based schools of education. Moreover, the city's local universities have struggled to produce graduates, in part because they have experienced such large budget cuts that it is difficult for them to improve or develop new programs. While charter management organizations have banded together to try and solve this problem, it remains to be seen whether a decentralized system such as New Orleans can solve a system-level problem like the teacher pipeline.

Even if the New Orleans system can respond in a productive way and sustain or improve the current model, other school districts should be cautious in drawing lessons. In many situations, reducing certification rates and experience levels, and increasing turnover, may lead to worse outcomes for students, particularly if schools

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have limited autonomy to make personnel decisions. Such negative consequences for students may not have emerged in New Orleans in part because of the still-substantial supply of able teachers—people with local roots returning to their homes, people from across

the state and country wanting to help the city rebuild, and people wanting to be a part of an unprecedented school reform effort. Many urban school districts face teacher shortages. In New Orleans, the supply of teachers increased even as the number of positions decreased, and schools had to the ability to select and retain the best among them.

The debate about the teacher workforce also involves some fundamental questions about the goals of education. The New Orleans reforms increased test scores as measures of academic skill in the short run. But it remains unclear how things will turn out for students later in life or with other student outcomes such as creativity, civic engagement, and perseverance. The New Orleans teacher workforce model might have improved all these outcomes, but we do not yet know.

What we can say is that a narrow focus on increasing teacher certification, experience, and local roots, and reducing turnover, is generally not the path to success. Job security, higher salaries, reasonable work hours, and positive work environment will improve all the usual metrics of a strong teacher workforce, but they must be accompanied by careful evaluation carried out by strong instructional leaders who have the ability to act to improve or remove low-performing teachers. Teaching is simply too complicated to rely on a simple set of qualifications. The policies that govern evaluation, compensation, professional development, and dismissal are clearly important too.

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What New Questions Does the Analysis Raise?

This is just the first of many reports that the Education Research Alliance for New Orleans is carrying out on the city's teachers. Below are some additional questions we are addressing:

- How successful are the recent efforts to increase minority hiring?
- How specifically have the city's human capital practices—hiring, dismissal, compensation, and professional development—changed with the reforms?
- How have the city's schools implemented state requirements related to teacher evaluation (called COMPASS)?
- · How have instructional practices changed?
- What happened to pre-Katrina teachers? Who returned to teaching in New Orleans? How many found teaching positions elsewhere?
- What school characteristics do teachers most value when deciding where to teach and how do schools value teacher qualifications?

We will be releasing reports on many of these topics in the near future.

About 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 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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