Educators and scholars generally agree that school reform can only improve education if it improves the learning and work environments experienced by students and teachers. Yet, it is difficult to measure and analyze these changes. We address the topic by surveying teachers who were fired after Hurricane Katrina but returned to teach in the city’s publicly funded schools and were still teaching in the city eight years after the school reforms. The following key findings emerge:

• Our sample of returning teachers reported that, after the school reforms, multiple aspects of the learning environment improved: teachers’ emphasis on academic and socio-emotional goals and the use of data to guide instruction.

• Teachers also reported some positive effects on the work environment, including stronger school cultures and better support for teachers.

• However, returning teachers also reported lower satisfaction with their jobs, less job security, less autonomy over their work, longer work hours, and less satisfaction with the evaluation process.

The analysis considers the potential inaccuracy of teachers’ recollections over such a long period of time, as well as, for some outcomes, national urban school trends affecting all cities regardless of their reform efforts. These results show that an intensive, sustained school reform effort can lead to significant change in learning and work environments, including both the intended benefits asserted by reform advocates and the unintended consequences of concern to reform critics.
BACKGROUND

The past quarter-century of American schooling has been characterized by two related types of reform: test-based and market-based accountability. High-stakes testing has been designed to focus schools more on academic outcomes and to raise academic standards. Market-based reforms such as increased school choice and a growing charter school sector have been intended to make schools more responsive to parent and student demands. While there is disagreement on whether these policies are wise, there is wide agreement on one thing: for these policies to matter, they ultimately have to change what happens in schools and classrooms.

Research shows that both charter schools, implemented on a small scale, and test-based accountability can raise student achievement and that these reforms affect teachers’ experiences in both positive and negative ways. Accountability policies lead to changes in instructional practices that teachers tend to dislike, but they also result in increases in professional development and other resources for teachers. Similarly, charter school environments can create a stronger academic culture and more support for teachers, but also often result in longer work hours, lower teacher evaluation satisfaction, and lower participation in high-quality professional development.

In this study, we examined the impact of the post-Katrina school reforms, which combined more intensive test-based accountability with school choice at scale, by surveying pre-Katrina New Orleans public school teachers who returned to teach in publicly funded schools after the storm. We address two related research questions:

1. How did returning teachers perceive the changes in New Orleans publicly funded schools after the reforms?
2. How are teachers’ perceptions of learning and work environments related to the types of schools they worked in after the reforms? In particular, how much does it matter whether they worked in charter schools versus those run by a district, or in higher- versus lower-performing schools?

THE NEW ORLEANS SCHOOL REFORMS

The school reforms put in place after Hurricane Katrina make New Orleans a good place to test the impact of test-based and market-based accountability on learning and work environments, as the reforms here were so much more intensive than in other parts of the country. After Hurricane Katrina, all public school employees were placed on disaster leave without pay and eventually fired, the teachers’ union contract was allowed to expire and not replaced, and teachers’ tenure protections were effectively eliminated. Moreover, school attendance zones were almost entirely removed and replaced by an expansive school choice system, and the vast majority of schools were placed under the control of a state agency, which later turned them into charter schools. In short, the New Orleans school reforms represent perhaps the most intensive accountability ever implemented. If ever there was a reform effort that would change what happens in schools, this is it.

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Evidence from other cities hints at the possible results we might expect in New Orleans. Nationally, charter school teachers often report a stronger emphasis on academic learning, as well as a stronger climate of high expectations as compared to traditional public schools. However, charter school teachers’ reviews of their work environments, compared with those of traditional public school teachers, are mixed. Charter teachers feel more supported, but also feel that they have less collaboration with colleagues, less participation in high-quality professional development, and lower satisfaction with teacher evaluation. Charter teachers also commonly report working longer hours.

New Orleans is unusual, however, because of the strong threat of school closure that charter schools face. More than 25 of the schools that had been opened after Katrina were shut down for low performance by 2014. These closures may have created pressure on school leaders to increase their focus on meeting accountability targets. For example, research from Florida suggests that schools changed instructional and leadership practices in the wake of the implementation of the state’s
test-based accountability system. F-graded schools in Florida increased their focus on low-performing students, instructional time, and the resources available to teachers. Additionally, schools under threat of sanctions raised their spending on instruction and teacher training. Also, a study of teachers and leaders in three states found that schools increased professional development and focused on instructional alignment with assessment standards in response to accountability reform.

Taken together, this prior evidence provides good reason to expect that the New Orleans school reforms not only improved measurable student outcomes, but also changed the schooling environment in fundamental ways. Teachers returning to New Orleans after the reforms provide a useful opportunity to examine how work and learning environments may have changed.

HOW DID WE CARRY OUT THE ANALYSIS?

In the spring of 2014, we carried out a survey of educators intending to reach all of the 88 traditional public and charter schools, their principals, and the 3,219 teachers in the city. Fifty-three schools (60.2 percent) agreed to participate in the survey. Within the participating schools, response rates were high.

One of the first questions on the survey asked teachers whether they taught in a New Orleans public school before Hurricane Katrina. Of the participating teachers, 323 indicated that they taught in New Orleans before the storm and listed a public school in the city (103 of the city’s 128 pre-Katrina schools were listed by study participants). Additional analysis indicates that only 771 teachers who returned to teach after the reforms were still teaching in 2013-14, meaning that the survey included 42% of all the potential respondents. Most respondents answered all questions on the pre-Katrina teacher survey.

We used 15 different survey measures and broke these into two broad categories: learning and work environments. We also examined three teacher outcomes (attendance, retention, and job satisfaction) and two student outcomes (engagement and persistence), as reported by teachers. Measures were categorized as part of the work environment if they were primarily out of teachers’ control and had been identified as important aspects of teachers’ work environments by prior research. However, many of the work environment measures also affect the learning environment. Our analysis focuses on the specific measures, and we use these broad categories simply to organize the discussion of our findings.

HOW DID LEARNING ENVIRONMENTS AND STUDENT OUTCOMES CHANGE AFTER THE REFORMS?

In the figures below, relatively large green bars to the right side of the vertical line mean that the outcome measure was more common post-reform while larger orange bars to the left indicate that the outcome was more common pre-reform. We indicate statistical significance using asterisks. In cases where teachers reported, on average, that the outcome was no different between the two periods, no asterisk is shown.

Teachers, according to Figure 1, reported that their current schools had greater emphasis on both academic and socio-emotional goals, though we found no significant difference in vocational goals, as compared to their pre-Katrina schools. The majority of teachers of tested grades also reported that they used testing data for instruction more now than in their pre-Katrina school.

Teachers, on average, reported no significant differences in teacher-student relationship quality or student engagement. Finally, teachers reported that more students stayed in school (Figure 2). This perception of reduced dropout is consistent with other data showing higher high school graduation rates after the reforms, reinforcing our general confidence in the accuracy of the survey responses.
HOW DID TEACHERS’ WORK ENVIRONMENTS AND OUTCOMES CHANGE AFTER THE REFORMS?

Teachers’ perceptions of changes in the work environment were mixed. Of the ten measured dimensions, teachers reported only two clearly positive changes: an increase in teacher support and a stronger school culture (measured by reported academic rigor, consistent management of student behavior, and a clear vision from the school leader).

By a large margin, teachers reported greater use of data in administrative decisions and an increased likelihood of the dismissal of low-performing teachers...

Teachers also perceived students’ home environments to be more challenging than before the storm. Finally, teachers reported working longer hours and experiencing greater staff turnover, which could also be sources of stress for teachers. Like the survey responses on student dropout, the findings for work hours and staff turnover are corroborated by other data sources for New Orleans, reinforcing the validity of the survey findings.

Given the above results, it is unsurprising that 61 percent of teachers reported that their lives as teachers—what we call job satisfaction—were worse under the reforms. (Note that we did not allow teachers to report “no difference” on overall job satisfaction.)

This reduction in job satisfaction likely results from a combination of higher-stakes teacher evaluations, diminished job security, and longer work hours. These effects were apparently not offset by other improvements in the job or work environment in the minds of the teachers surveyed. For example, in theory, teachers might value increased goal orientation, stronger school culture, and increased teacher support enough to increase their job satisfaction, but this does not seem to have occurred.

We also considered whether the change in teacher job satisfaction might be driven instead by changes in their compensation. Using anonymous individual salary data, we found that returning teachers were earning more after the reforms than similar teachers were before the storm, outpacing the rate of inflation from 2005 to 2014 by an average of approximately $3,500. However, many returning teachers worked in schools that offered defined contribution retirement benefits but did not participate in the state pension system. While this could have reduced net retirement benefits for some, retirement-eligible teachers may have taken state retirement benefits and then returned to teaching in eligible positions or in schools that were not enrolled in the pension system. Overall, our analysis suggests that actual compensation was not very different from what it would have been if the reforms had not occurred. However, teachers may have
perceived this differently, and it is still possible that this had some effect on their reported satisfaction.

HOW DID TEACHER RESPONSES VARY BY TEACHER AND SCHOOL CHARACTERISTICS?

We expected that teachers’ responses would be related to their own characteristics, as well as the characteristics of the schools they worked in before and after the reforms. To test this, we used a regression analysis so that we could, for example, test how School Performance Score (SPS) was related to teacher responses while ensuring that the teachers who had different histories of school SPS were the same for all other characteristics, such as race and gender.

In general, school characteristics were much better predictors of teachers’ responses than teacher characteristics, indicating that teachers were responding to genuine changes in the school environment. The only significant findings by race and gender were that male teachers reported a smaller change in their work hours and in administrators’ data use and that black teachers reported a larger average decline in their job satisfaction compared with non-black teachers.

We also found some differences between RSD and OPSB teachers, after adjusting for SPS scores and charter status. Compared with OPSB teachers, RSD teachers reported a greater increase in professional community practices than OPSB teachers did. RSD teachers also reported no change in satisfaction with the teacher evaluation process, as compared to a drop for OPSB teachers.

Teachers in charter schools also responded more positively than teachers in direct-run schools (i.e., non-charters run directly by the district) to multiple work and learning environment outcomes, reporting a greater increase in school autonomy and a greater increase in emphasis on academic and socio-emotional goals, a finding consistent with the prior research on charter school teachers. In New Orleans, charter school teachers also report a smaller decline in satisfaction with their evaluations and jobs than those in direct-run schools.

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We predicted that teachers would see the reforms more favorably to the degree that their pre-reform school had a lower SPS than their post-reform school. Teachers in higher SPS schools, in which students do well on state tests and which receive more positive public accolades, might feel more successful. Also, the factors leading to a higher SPS are likely to directly and positively influence teachers’ work environment. This is exactly what we find. An increase in school SPS (comparing the teacher’s 2005 and 2014 schools) was the most consistent predictor of teachers’ survey responses. Teachers whose school SPS scores increased felt more positively about changes in both the learning and work environments as compared to teachers whose 2014 SPS scores were similar to or smaller than their 2005 scores.

The fact that teacher responses were more positive in both RSD schools and charter schools—the most extensively “reformed” aspects of the system—is noteworthy. This may be partly explained by the fact that teachers in OPSB direct-run schools had recently lost their tenure protections when the survey was conducted. Our other research shows the tenure reforms drove many educators out of public school teaching, indicating a sharp decline in job satisfaction. It is also possible that teachers who saw a greater need for reform were more likely to choose to work in charter schools. That possibility makes it hard to say whether charter schools in New Orleans saw greater improvements in learning and work environments compared to direct-run schools.

In New Orleans, charter school teachers also report a smaller decline in satisfaction with their evaluations and jobs than those in direct-run schools.

POTENTIAL LIMITATIONS

There are three main potential problems with a survey analysis like this one: (1) these results might reflect national trends rather than the New Orleans reforms; (2) the sample of teachers may not be
Finally, regarding inaccurate recollections, recall that, in the cases where the survey results can be compared with other data sources—student dropout, teacher work hours, and job security—the survey results are corroborated.

In short, results reported in the figures above all appear to reflect primarily the effects of the New Orleans school reforms.

**CONCLUSION**

School reform only has meaning if it changes what students and teachers experiences in classrooms. Our analysis shows a large number of meaningful changes on factors that education scholars generally consider important to school success, which may explain why students’ academic outcomes have increased so much. However, do these aggressive reforms have longer-term consequences for the teaching profession? Can such academic improvements be achieved while still making the work attractive to large numbers of potentially excellent teachers? Can improvements in the learning environment be sustained and scaled in the face of reduced satisfaction with the work environment? These are important questions to address as accountability-based school reforms continue to evolve. Teachers’ job satisfaction matters, not only because attracting and retaining good teachers is essential to students’ achievement, but also because teachers’ work environments directly affect the learning environments and experiences of students. Policymakers and school leaders should strive to create environments in which both students and teachers are set up for success.

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**How is this Research Related to Other ERA-New Orleans Studies on Teacher Policy?**

Teachers are the most important resource in schools, which makes studies related to teachers a central part of the ERA-New Orleans research agenda. The following policy briefs explore our published and upcoming studies on topics related to teachers.

Nathan Barrett and Douglas N. Harris describe changes in the composition of the teacher workforce in their policy brief, *Significant Changes in the New Orleans Teacher Workforce*.

In *When Tenure Ends: Teacher Turnover in Response to Policy Changes in Louisiana*, Katharine Strunk, Nathan Barrett, and Jane Arnold Lincove studied the effects of Louisiana’s near-elimination of tenure protections on teachers’ persistence in the teacher workforce.

In *How Do Schools Respond to State Policies on Teacher Evaluation?*, Julie Marsh, Susan Bush-Mecenas, Katharine O. Strunk, Jane Lincove, and Alice Huguet examine how New Orleans schools implemented a state policy requiring more rigorous teacher evaluation, reinforcing the idea that implementation can be as important as design when considering how policies affect learning and work environments.

In an upcoming paper, we will be examining the employment outcomes of teachers who did not return to classrooms in New Orleans after Hurricane Katrina, including whether they became teachers elsewhere in the state or were promoted into educational administration positions.

In another series of studies, we will be examining how teachers and leaders are paid, which may affect their use of data and other education activities.
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.