Louisiana’s K–12 schools have historically dealt with numerous obstacles. Louisiana is one of the poorest states in the nation and spent less on education than 36 other U.S. states as recently as 2013 (Education Week Research Center, 2016). Louisiana’s students have scored lower on the National Assessment of Educational Progress (NAEP) than national averages in every tested subject since NAEP was first administered to a state-representative sample of students in Louisiana in 1992. The state’s high school graduation rate has historically been low, and it remains below the national average despite recent improvements (Sentell, 2018).

In the face of these challenges, over the past several years, the Louisiana Department of Education (LDOE) has engaged in several actions to boost K–12 student learning. These actions have built on federal accountability policies, including the emphasis on standards, assessment, and public reporting in the Every Student Succeeds Act of 2015 and its predecessor, the No Child Left Behind Act of 2001 (see Box 2 for a description of those policies). At the same time, Louisiana has taken some deliberate
KEY FINDINGS

■ Louisiana school system administrators and teachers knew about and generally supported the state’s new standards and curriculum recommendations, and those curriculum recommendations appeared to drive widespread adoption of curricula the state had designated as high-quality.

■ Administrators and teachers reported some frustration with the fast-paced adoption of science and social studies standards and assessments before the availability of high-quality curricula.

■ Compared with other U.S. teachers, Louisiana English language arts (ELA) and mathematics teachers reported receiving more professional development related to standards, and many of our interviewees reported attending the state’s professional development and training.

■ Louisiana ELA teachers reported more-extensive use of standards-aligned practices than teachers nationally; there were no differences in reports of standards-aligned practices among mathematics teachers.

■ Louisiana's black and Hispanic students, and those receiving free or reduced-price lunch (FRL), underperformed on standardized assessments compared with their non-FRL, white, and Asian counterparts, and the gap between these groups may be widening.

■ Although this study cannot link outcomes to policy strategies directly, it does provide some positive signals of improvements in standards-aligned instruction and achievement for some students. At the same time, achievement gaps may be widening, which suggests a need for more supports for struggling and vulnerable student populations.

Box 1. The “Raising the Bar” Series

This report is part of a four-part series on how Louisiana policy actions might be connected with teaching and learning from birth through graduation across the state. The other reports that are part of this series and are being published along with this report are

• Raising the Bar for Early Childhood Education: Early Signals on How Louisiana’s Education Policy Strategies Are Working for Early Childhood Providers and Community Networks (Jill S. Cannon, Sophie Meyers, and Julia H. Kaufman, 2019; available at www.rand.org/t/RR2303z1)

• Raising the Bar for Teacher Preparation: Early Signals on How Louisiana’s Education Policy Strategies Are Working Across the State (Maggie Q. Hannan, Laura S. Hamilton, and Julia H. Kaufman, 2019; available at www.rand.org/t/RR2303z3)

steps beyond actions encouraged by federal accountability legislation to emphasize the importance of high-quality curricula and other instructional resources to support standards and accountability.

Some research and student outcome data suggest that LDOE’s actions could be making a difference for students. The first place one might expect to see changes in response to state policies, prior to their impact on students, is in the beliefs and actions of teachers. A 2016 RAND report (Kaufman, Thompson, and Opfer, 2016) highlighted some differences in the knowledge and practices of Louisiana teachers compared with those in other states, drawing on data from the nationally representative RAND American Teacher Panel. Louisiana teachers were more likely than other U.S. teachers to know which reading approaches and mathematics content were well-aligned with their state standards. Also, RAND found that roughly 70 percent of Louisiana teachers were using Eureka Math curricula for their mathematics instruction, even though Louisiana does not require school systems to adopt any particular curricula. Eureka Math has been identified as a high-quality, standards-aligned curriculum by LDOE’s instructional material reviews and by EdReports.org, an independent organization that reviews the alignment of curricula to college and career-ready standards.

Beyond the 2016 RAND report, the state has identified some promising outcomes for Louisiana students. For example, high school graduation rates have been steadily on the rise since 2014 (LDOE, 2018c). In addition, in 2018, more Louisiana students than ever before—including more black students—have earned college credit on Advanced Placement exams (LDOE, 2018a) and achieved scores that earned them college credit on College Level Examination Program exams (LDOE, 2018b).

1 Throughout this report, we use the term school system to be inclusive of school districts and charter school systems in Louisiana.

2 LDOE instructional material review rubrics, and the reviews themselves, were conducted by experienced teachers, in collaboration with LDOE. For more about these instructional material reviews, see LDOE (undated). For EdReports.org’s reviews of mathematics textbooks, including Eureka Math, see EdReports (undated).

Box 2. Federal Accountability Policies and Louisiana

Over the past several decades, federal education policies have aimed to improve student achievement by making schools and teachers more accountable for student learning. With the No Child Left Behind Act of 2001, and now the Every Student Succeeds Act of 2015, states are required to provide rigorous K–12 standards, assess students at particular grade levels, and provide public reports on schoolwide student performance assessments. In addition, beginning in 2010, the federal Race to the Top initiative provided monetary incentives to states that passed additional accountability legislation in the form of more-rigorous state standards modeled on the Common Core State Standards and standards-aligned tests, as well as evaluation systems that consider student achievement in judging teacher and school performance.

Louisiana’s adoption of standards and assessments has been somewhat turbulent. Like many states, Louisiana adopted the Common Core State Standards in 2010 and joined the Partnership for Assessment of Readiness for College and Career (PARCC) in response to Race to the Top incentives. However, litigation and protests from some members of the Louisiana State Legislature led to revisions in K–12 standards and reductions in the number of items in the high-stakes state assessments drawn from PARCC (although some PARCC items were retained) (Sentell, 2015). Independent evaluations indicate that Louisiana’s revised standards retained the high expectations present in the Common Core (Korn, Gamboa, and Polikoff, 2016) and that the Louisiana Educational Assessment Program (LEAP) assessments (Louisiana’s high-stakes assessment for grades 3–8) are comparable to PARCC (DePascale, 2017).
Objectives and Methods

In 2018, RAND published the report *Raising the Bar: Louisiana’s Strategies for Improving Student Outcomes* (Kaufman et al., 2018), which provides an overview of recent Louisiana state policies intended to improve student outcomes in the areas of early childhood education, K–12 academics, teacher preparation, and graduation pathways. The current report, which is part of a four-report series, focuses on Louisiana’s strategies for K–12 academics and addresses two key questions:

1. How are Louisiana’s key actions for K–12 academics being perceived, interpreted, and acted upon by school systems and educators?
2. How have student outcomes—as well as achievement gaps—changed in relation to Louisiana’s recent actions for K–12 academics, starting in about 2012?

This report aims to provide insights to inform the work of other state departments of education working to improve students’ academic outcomes, as well as the educators who are responding to state guidelines while ensuring high-quality teaching and learning in their schools.

Louisiana’s Actions to Support and Improve K–12 Academics

Table 1 summarizes the five key actions Louisiana has undertaken to improve K–12 student learning beginning around 2012. RAND researchers developed this summary from multiple data sources, including interviews with state officials, state policy documentation, observation of professional development for Louisiana educators, and surveys of Louisiana teachers (Kaufman et al., 2018). In addition, Louisiana has engaged in actions specifically intended to help prepare students for college or career while in high school; those actions are summarized in the graduation pathways report that is part of this published series. Each of the five key actions aligns to one of four specific policy levers, as shown in Table 1:

1. **Mandates**: Rules or requirements for individuals or organizations.

2. **Resources**: Tools or information aligned with goals and intended to support individuals or organizations in meeting those goals.

3. **Incentives**: Inducements intended to encourage individuals or organizations to follow mandates and utilize resources.

4. **Communication/planning processes**: Communication networks, messages, technical assistance, and collaborative structures to inform stakeholders and gather inputs from them.

These policy actions mainly occurred starting in 2015, although work related to communications began at the start of the new Department of Education administration in 2012. For more information on these actions and the timeline for them, see Kaufman et al. (2018), which describes these actions in detail.

Data Collection and Analysis

The research team collected data from three sources for this report, described briefly below and in detail in a technical appendix accompanying this report series (available at www.rand.org/t/RR2303z5). The technical appendix also discusses the sample, data sources, and analytic approach in detail. The three data sources we relied on for this report are as follows:

- **Case study interview and focus group data.** We conducted case study visits to four Louisiana school systems (which are not identified in this report in the interests of confidentiality) in spring 2018, where we conducted interviews and focus groups with 23 central office staff, 17 school leaders, and 77 new and experienced teachers. The school systems visited were intentionally selected to vary on key dimensions—such as urbanicity, traditional district or charter, and student demographics—in order to represent a range of school contexts in Louisiana.

- **Survey data.** This report draws on data from two administrations, in February 2016 and March 2017, of the RAND American Teacher Panel survey. The American Teacher Panel
is administered to a nationally representative, longitudinal panel of teachers, as well as a sample that is representative of teachers in Louisiana. Panel data were weighted to account for differential sampling and nonresponse. For this report, we used independent $t$-tests, along with adjustments for multiple comparisons, to compare responses of Louisiana teachers with those of teachers across the United States, and we report any significant differences we found ($p < 0.05$).

- **School- and student-level data.** We analyzed student-level demographic and mathematics and English language arts (ELA) achievement data obtained from LDOE and NAEP. We specifically examined differences in achievement among student subgroups and over time from 2010 or 2011 to 2017. When appropriate, these data were adjusted for several student and school demographics to isolate gaps between specific subgroups.

**Limitations**

Readers should keep several limitations of the data in mind when considering the key findings and implications of this report. First, the sampled case study sites varied in terms of location and student demographics but do not represent the full diversity of schools, staff, and students across Louisiana. Thus, case study findings should not be interpreted as representative of the state as a whole or the full range.
What policies have led to the biggest changes within case study school systems and schools? By far, the most common answer to this question was the adoption of new curricula.

of positive responses, negative responses, and challenges Louisiana schools and school systems faced in relation to state actions. Second, both interview and survey data rely on the self-reports of stakeholders who voluntarily participated, and we have no independent means of verifying the accuracy of their responses. The interview and survey data could also reflect respondents’ own biases rather than reality. Third, the conclusions that can be drawn from the student achievement data are limited because LEAP tests and cut scores changed several times across the years included in our analyses; thus, comparing test scores from one year to the next is challenging. Although we can use the achievement data to inform an understanding of trends and describe differences in achievement across student subgroups, we cannot use the data to infer any actual changes in student achievement. Lastly, it is possible that Louisiana’s policies, which are still being implemented, have not yet fully impacted teaching and learning outcomes. Some of these policies require school systems to make considerable changes to the curriculum materials they have adopted for instruction, the professional development they offer to teachers, and the formative assessments they use regularly; many parish school systems may still be in the process of making these changes. Thus, any shifts in teaching and learning reported here should be regarded as early evidence, and it is possible that further shifts or improvements will occur in the future. Despite these limitations, our data provide some useful insights on the extent to which state policies are supporting real change and generating improvements to teaching and learning.

Findings: On-the-Ground Responses to State Actions

The first findings section that follows is organized by policy actions. We draw upon a combination of survey and interview data to understand how school systems are interpreting and acting upon each action. In the second findings section, we present student outcomes over the past seven years, based on student assessment data. Lastly, we present conclusions and implications.

What policies have led to the biggest changes within case study school systems and schools? By far, the most common answer to this question was the adoption of new curricula. Every one of our case study sites had recently adopted or was considering the prospect of adopting new curricula for mathematics, ELA, science, and/or social studies based on Louisiana’s recommendations for Tier 1 curriculum. Louisiana’s curriculum reviews began in 2015, and they have slowly expanded to include reviews of additional materials. The earliest and largest number of reviews have been conducted for mathematics and ELA, given that new science standards were adopted in Louisiana in 2017, whereas new standards for mathematics and ELA had been adopted in 2016 and were not a huge departure from prior standards. While social studies standards have been in place since 2011, there are somewhat fewer reviews of social studies materials relative to mathematics and ELA materials.

Even though LDOE began releasing reviews in 2016, comments from administrators suggest that the impetus to adopt Tier 1 materials has grown.

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3 A parish in Louisiana is a territorial division corresponding to a county in other states. One school district typically serves students in each parish, although charter school systems serve most students in New Orleans Parish and some proportion of students in some other parishes.
Further, school system adoption cycles may have prevented them from adopting Tier 1 curricula quickly. As one central office administrator remarked:

I would have to say our new curriculum materials, instructional material review process and that implementation school system wide [has been the biggest change]. You know at first it almost felt like a gentle nudge from the state and then through the last four years it’s become a little less gentle, to use those Tier 1 materials.

At each case study site, respondents—including central office staff, school leaders, and teachers—noted the challenges associated with adopting new, more rigorous curricula, including the demands placed upon both students and their teachers. Other policies named as leading to big changes included school performance and accountability, expectations of new standards, and teacher evaluation. Interviewees often spoke about the policies that spurred these changes as intertwined with one another.

In their comments about curriculum changes—and connected standards, accountability, and evaluation policies—many administrators and teachers we interviewed agreed that it was important to hold students to a high standard. But they also expressed concern that standards and curricula were holding students to an expectation they might not be able to meet, at least in the short term. Teachers worried about how more-challenging state tests might lead to negative school ratings and teacher evaluations (see Box 3).

In the remainder of this section, we explore the perspectives of school system administrators—central office staff and principals—and teachers from our case study school systems, as well as perspectives of teachers across Louisiana in line with each key action in which the state has engaged to support and improve K–12 academics in Louisiana.

**Box 3. A school principal's view on rigorous curricula and standards**

[W]e do want to set rigorous and high goals for our children, but then we’re also realistic in what we do. If our goals are not set high enough, [or] our kids don’t get to those goals, then we don’t meet the standard that we’re expected to meet. . . . So, it’s a balancing act and it’s just kind of difficult to balance it all.
According to survey data, Louisiana teachers supported their state standards and assessments at about the same rate as other teachers across the United States in 2016.

As mentioned earlier and discussed in Kaufman et al. (2018), the adoption of standards and assessments has been a somewhat turbulent process in Louisiana. Although the Common Core was adopted by Louisiana in 2010, political and public backlash to the Common Core led Louisiana to adopt new standards for ELA and mathematics in 2016 through a process that included Louisiana teacher feedback (LDOE, undated-c). New standards for science were adopted in 2017. While the newest social studies standards were adopted in 2011, a new social studies assessment for students in grades 3–8 was added in 2016–2017 that emphasized students’ use of evidence from primary sources. New science assessments tied to newly adopted science standards were piloted in 2017–2018 and given to all tested students in 2018–2019. For the 2018–2019 school year, Louisiana school performance scores could be based either on the scores from the previous science assessment in 2016–2017 or the new 2018–2019 assessment (LDOE, 2017, p. 36)

Through the American Teacher Panel, teachers in Louisiana and the rest of the United States were asked for their perspectives on their standards and assessments in February 2016, which was just before Louisiana adopted revised mathematics and ELA standards. The American Teacher Panel asked mathematics and ELA teachers a range of questions about their standards and assessments, from whether they supported use of their standards in classroom instruction to whether standards were too difficult

State Action 1: Use state standards, assessments, and accountability to define and communicate a high bar for what is expected from schools and students.

Approach and Key Findings

How did we explore early signals for how this state action is working?

- We examined RAND American Teacher Panel data about perceptions and supports for K–12 standards and assessments in mathematics and ELA.
- We asked school system administrators and teachers about their support for standards, assessments, and the letter grade system for accountability in Louisiana.

Key findings:

- According to our survey and interview data, Louisiana teachers had mostly positive perceptions about the ELA and mathematics standards, although those we interviewed were less positive about science standards, which have been adopted somewhat later than ELA and mathematics standards.
- A big concern was how to support struggling students to meet the new, more challenging standards.
- While the letter grade rating system appeared to drive instructional decisions, administrators and teachers had reservations about using letter grades as proxy for school quality.

If we are teaching the standards, and I look at it, and I feel like it’s aligned, why aren’t we getting there? I don’t know the answers.

—school system central office administrator
and provided educators with a manageable number of topics to teach in a school year. The panel also asked teachers whether they supported use of their current statewide assessments to test mastery of standards.

As noted in Figure 1, more than three-quarters of teachers in Louisiana and the United States indicated that they supported use of their state mathematics and ELA standards in classroom instruction. On the other hand, less than half of teachers in Louisiana and the United States indicated that they supported use of statewide tests.

Other responses from Louisiana teachers were mostly similar to teachers across the United States. For example, a large majority of teachers nationally indicated that students who mastered the mathematics and ELA standards will be prepared for college and the workforce, with slightly more teachers in Louisiana—compared with the rest of the United States—indicating that students who master the ELA standards will be similarly prepared. On the other hand, roughly half of all teachers—including those in Louisiana—thought that mathematics and ELA standards were too difficult for their students and excluded important concepts students should learn. We found one statistically significant difference between Louisiana teachers and those in other states: 70 percent of Louisiana ELA teachers—compared with 53 percent nationally—thought that their ELA standards were inappropriate for students with special learning needs ($p < 0.05$). Details of these statistical tests for significance can be found in the technical appendix.

**FIGURE 1**
Percentages of Louisiana and Other U.S. Teachers Agreeing with Statements About Standards and Assessments (2016)

NOTE: Teachers could respond that they strongly agreed, agreed, disagreed, or strongly disagreed with each statement. Percentages in the figure represent teachers who agreed or agreed strongly. Other U.S. teachers includes all other teachers in the United States who responded to the American Teacher Panel survey and who responded to this question.
In interviews, teachers expressed more positive perceptions about ELA and mathematics standards than about science and social studies standards, and had concerns about supporting struggling students to meet standards.

Flash forward to spring 2018, when Louisiana’s mathematics and ELA state standards had been in place for a longer period of time, although new science standards had just been adopted in 2017 and students had also begun taking new social studies state assessments in spring 2017. The teachers, principals, and central office administrators we spoke to generally held positive perceptions of Louisiana’s mathematics and ELA standards, which were consistent with the reports of Louisiana teachers we surveyed two years earlier. Most of the teachers with whom we spoke also remarked that the standards guided their conversations with one another and their instructional practices. As one teacher indicated,

I would say that pretty much everything we do focuses around [standards] because our curriculum is based off of it. . . . We have PLCs, which are professional learning communities, daily. So, everything is about unpacking the curriculum and talking about how to differentiate instruction and that sort of thing, so everything kind of goes back to the standards.

But at least some respondents in every case study site shared concerns that the standards were too challenging: both too challenging for students to learn and too challenging for teachers to teach. In the words of one experienced teacher: “They actually expect 5th-grade students to know way more than they should be able to know as a ten-year-old. . . . I think there’s a definite gap [between] where the kids are and where the standards want.”

The self-report data from interviews with administrators and teachers cannot tell us whether the standards were too challenging for students in particular schools or classrooms. However, teachers’ reports about what they did to address the perceived challenges of standards might provide a little more insight on teachers’ perceptions. For example, some teachers reported that students had difficulty meeting the standards because they did not learn foundational skills in previous grades. One teacher who expressed this view said, “I’m like this is ridiculous, [teachers in previous grades] need to do a little bit. You need to teach fractions in 3rd grade; we need to do fractions every year after that.” Some teachers said that meeting grade-level standards was difficult for some students because they did not remember content from previous years. Still other teachers addressed the challenge of standards through scaffolding the content, as this teacher described:

It’s [the curriculum] holding kids to a very rigorous pace, especially if the texts are complicated. . . . I have students who are at a 12th-grade reading level in 6th grade and I have students who are on a 2nd-grade reading level, but I want to believe that every student in the room can access that text, so as a first-year English teacher, I’m like, ‘How do I scaffold this down for the 2nd-grade reading level and then the 12th reading level so they’re not bored out of their mind?’ Trying to do that is more challenging than the standards themselves.

Still, some teachers weren’t sure that the standards were a good match for their students:

We advocate for high standards for all levels of learner, but I’ll say that when we look at the assessment guidance and we look at the standards, and we look at the type of student that we serve, sometimes I feel like the standards are a little bit, I don’t want to say unrealistic, but just a little rigorous for the population that we serve.

At least some respondents in every case study site shared concerns that the standards were too challenging.
Teachers we interviewed also talked about how the new standards were difficult to teach, particularly for new teachers who didn’t have much experience with standards-based instruction. The most frequent complaint teachers made about the standards was that they were broad and that teachers found it difficult to interpret the standards and ensure that foundational content was taught. As one teacher said, “If you don’t know what they [students] should know, what they need to know, it’s difficult . . . really figuring out, what does it look like when they [students] master that standard? We’re still looking for exemplars. . . . It can sometimes be difficult for new teachers, especially, to understand.

The administrators and teachers we interviewed held mixed opinions about the extent to which the standards were aligned to state assessments. About half of those with whom we spoke said that not only were the mathematics and ELA standards better-aligned to the state assessments than in previous years, but the current state assessments were also more rigorous than previous assessments in a way that held teachers and students to higher expectations. As one central office administrator told us:

What the state has made sure to do is as they have updated the rigor of the assessment and updated the goals that the kids have had to reach, they’ve also supported the school districts by adopting new standards. . . . So as they have raised the bar for what the kids have to accomplish on evaluation, they’ve also reformed the academic standards for the state, and then they’ve vetted materials for us. They’ve tiered these materials and resources to point us in the right direction.

In contrast, the other half of the administrators and teachers we interviewed either told us that they didn’t know whether their standards were well-aligned with state assessments because they were not clear about what was on the assessments—or felt that the standards and assessments were not aligned. As an illustration of these perceptions, one principal told us, “At the end of the day, we don’t know exactly what it’s [the state assessment] going to look like. We know what has been given to us throughout the year and the standards.”

In addition, several interviewees expressed concern that the most struggling students would experience a dip in assessment scores because of new and more challenging standards and assessments, and they voiced frustration that they were not yet seeing progress among their students. For example, a central office staff person said,

I just want our kids to do better. . . . If we are teaching the standards, and I look at it, and I feel like it’s aligned, why aren’t we getting there? I don’t know the answers. I do think that the assessments are much closer in alignment than they have been in years past, in my experience.

Interviewees voiced many more concerns about the state science standards and assessments (which were adopted in 2017) and social studies assessments (which were new in 2016–2017) than they did about ELA and mathematics standards and assessments (which were adopted in 2016). Interviewees made similar comments about the challenges involved with science and social studies, but most of the remarks focused on science standards and assessments. Many interviewees said they were frustrated that the state rolled out new standards and assessments for science and social studies before many curricula had been rated as Tier 1, 2, or 3 through the state curriculum reviews. Staff and teachers in three of the four case study sites said they spent long hours writing curriculum aligned to the science and social studies standards because of the lack of state-rated curriculum options. Of science, one school system administrator told us:

We’ve changed standards, but there’s no Tier 1 curriculum. I know there are some things under development, but we’re just kind of trying to prepare students for this test, and I don’t think anyone really has a good sense of . . . what good science instruction looks like. So, it’s like we’re putting the assessment in place before we’re really ready to take it.

LDOE has worked to mitigate these concerns by allowing schools to use either the highest scores from the new science assessment in 2018–2019 or
their scores in 2016–2017 for accountability purposes, although none of our interviewees mentioned this flexibility. Instead, the teachers and administrators we interviewed spoke of concerns about students taking high-stakes new science assessments in 2018–2019. To be sure, these frustrations with science, in particular, may have also been present when ELA and mathematics were newly adopted. In several years, these concerns may be put to rest when more high-quality instructional materials for science are introduced. Nonetheless, these frustrations suggest that shifts in standards and assessments can create considerable burdens on school systems over transition periods, which likely have an impact on teaching and learning.

Interviewees reported that the letter grade rating system drove instructional decisions, but they were not sure that letter grades clearly reflected school quality.

Every school and school system in Louisiana is assigned a letter, from A to F, based on students’ mastery of grade-level content and progress, as well as performance gaps among subgroups—and, for high schools, a set of college and career readiness indicators—to support school accountability. Staff in three of the four case study sites told us that the letter grade system was the driving force behind their instructional decisions, including goal-setting, curriculum adoption, and design of teacher professional development. In the words of one school leader:

So the report card is extremely important, because as a leadership team, that’s what we look at. . . . That’s what we goal-set around. . . . And so everything starts with that, that letter grade.

In addition, several central office staff in each site—particularly superintendents—told us that they found the state data warehouse and portal very helpful and easy to use, adding that they were able to see data at the level of detail they wanted to inform their decisionmaking.

However, many with whom we spoke—both administrators and teachers—were ambivalent about the value of the letter grades for rating school quality. A frequent concern voiced to us was that the letter grade system was biased against lower-performing schools because, at the time of the interviews, it did not include a measure of student growth,4 account for students’ family situations, or reflect that lower-performing schools may sometimes lack the same capacities and resources of higher-performing schools. A related concern was that the letter grades were not good measures of school quality because they didn’t capture important attributes, such as safety and whether students are held to high expectations. As one principal put it, “It’s not always a fair way to grade a school just by a test. There are some really wonderful things that are happening in our elementary schools that they’re not getting credit for because it’s not part of a test.” As a result, leaders in lower-performing schools were worried that talented educators and families might not choose schools with lower letter grades. In addition, several interviewees—particularly teachers—told us that the letter grade data were not useful to them because they were shared too late in the school year and were not detailed enough to support instructional improvement. That said, the letter grades are not necessarily designed to support instructional improvements for individual teachers. Instead, they are intended to provide comparative data on school performance for parents, communities, and schools. It is possible that the interviewees commenting on the usefulness of letter grades were thinking about the state system that provides schools with confidential data on individual students, which could potentially be used to support instructional improvement.

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4 The letter grade system in Louisiana is changing and in 2018–2019 will include a metric for growth. While LDOE had been considering growth measures for a few years, the Every Student Succeeds Act gave LDOE an opportunity to include growth measures formally for the 2018–2019 school year, after the Louisiana Board of Elementary and Secondary Education approved the state’s Every Student Succeeds Act plan.
State Action 2: Signal to educators which instructional materials are high-quality, and which are not.

Approach and Key Findings

How did we explore early signals for how this state action is working?

• We asked administrators and teachers about their awareness of and support for the state’s reviews of instructional materials and formative assessments.

Key findings:

• Awareness of and support for mathematics and ELA curriculum ratings were generally high.
• Many voiced frustration about lack of high-quality curricula in science and social studies.
• Awareness of and support for formative assessments were mixed, with teachers expressing concerns about these assessments contributing to over-testing.

They [Louisiana Department of Education] have raised the bar for what the kids have to accomplish. . . . They’ve also reformed the academic standards for the state, and then they’ve vetted materials for us. They’ve tiered these materials and resources to point us in the right direction.

—central office administrator

Awareness of and support for mathematics and ELA curriculum ratings were generally high.

Adapting rubrics originally developed by Student Achievement Partners and Achieve to determine alignment of materials with college and career ready standards, LDOE provides online public reviews of commonly used curricula and formative assessments on its website. These reviews rate ELA, mathematics, and science curricula and assessments as Tier 1 (exemplifying quality), Tier 2 (approaching quality), and Tier 3 (does not represent quality) (LDOE, undated-a).

Our research suggests that the state’s signal regarding which curricula are high-quality is coming through loud and clear to school system administrators and school leaders. At every site, at least some central office administrators with whom we spoke were aware of the curriculum reviews and tiering process for curricula. None of our interviewees mentioned reading the content of the reviews themselves, but there was high knowledge of the tiering system, and which curricula were rated as Tier 1, among administrators and teachers.

In addition, a large majority of interviewees appeared ready to accept the state’s guidance regarding which materials were high-quality. One principal told us, “When I became principal, our scores were not where they needed to be, and my supervisor and I made [use of Tier 1 curricula] a non-negotiable. It was not an easy sell, but it’s what needed to happen.” Similarly, a central office administrator said “I do appreciate the instructional materials review process, in general. . . . I think it’s not perfect, nothing ever is, but I think for the most part, it does a good job of helping us on the district end, especially small districts like this.” However, at least one central office staff member in each site expressed some uncertainty about the review process, commenting that they did not have a good understanding of how the ratings were determined and questioned whether the reviews were an accurate assessment of curriculum quality.

As one such interviewee said, “I’d love to see how curriculum really makes an impact with students a little more. I personally believe that it’s [Tier 1 curriculum] good. But I have no hard data to back that up.”
Many interviewees voiced frustrations about the lack of high-quality curricula for science and, to a lesser extent, social studies.

In contrast to the generally positive comments about ELA and mathematics curriculum reviews, interviewees voiced a lot of frustration about reviews and tiering of science curricula and, to a lesser extent, social studies curricula. Part of the dilemma is that schools could be accountable for science achievement in the 2018–2019 school year (although they would receive the highest scores from 2017 or 2019), and yet—at the time of our interviews—only one Tier 1–rated science curriculum was available and for 4th grade only. One central office administrator noted, “We’re just kind of trying to prepare students for this test, and I don’t think anyone really has a good sense of what to use in terms of instruction or necessarily what good science instruction looks like.” Another central office administrator made a similar comment:

We’re held accountable for [science standards], but the state doesn’t provide our curriculum.

. . . . If we could defer being held accountable for that year or two, that would be great. We have no problem with standards or curriculum. In fact, having higher standards is a great thing. At the same time, asking us to implement them with our [current] curriculum is, to me, a problem. I think it’s been very hard on teachers with the lack of curriculum, with just having the standards and having to fend for themselves.

This interviewee may not have known that schools could receive the highest science scores from 2017 or 2019.

Interviewees in every site, and at the system, school, and teacher levels, had concerns about filling the curriculum gap for science and social studies while waiting for state reviews. Some interviewees had decided to continue with the curriculum they had been using, with the hope it would be rated at Tier 1. Others—both central office staff overseeing curriculum selection and implementation and teachers—spoke about spending significant amounts of time creating their own curriculum using standards, scope, and sequence documents provided by the state. One teacher told us that she was not a social studies or science major in college, so “to create these takes an extreme amount of time for me to go, first of all, learn the content myself, and then look at the standards and what’s required, and then create this task that you hope is rigorous enough.”

Awareness of and support for benchmark or formative assessments were more mixed, with teachers in particular expressing concerns about excessive testing.

Leaders and teachers in K–12 schools may not be picking up the state’s signal about the quality of formative assessments as clearly as they are for curricula. While the state does provide reviews of widely used formative assessments on its website, it also promotes use of LEAP 360, an online assessment tool that allows teachers to build formative assessments themselves, drawing on a bank of formative assessment items created by LDOE and intended to be aligned with the state’s summative annual LEAP assessments. LEAP 360 has not been reviewed alongside the other formative assessments on the state’s review website. Instead, it is promoted as an optional, state-designed, standards-aligned formative
assessment tool that could be used in lieu of another formative assessment program (LDOE, undated-b).

Staff in all of our case study sites said that they were using LEAP 360 items for assessment in some way, although those were not the only assessments they reported using. However, they did not mention using other benchmark assessments that have been noted by the state as Tier 1; in fact, only one person talked about the formative assessment reviews, which suggests that awareness of those reviews may be lower than awareness of the state’s curriculum reviews. It may be that awareness of these formative assessment reviews is low because most school systems are relying on LEAP 360 instead of other formative assessments.

While staff in all sites spoke about using the state’s LEAP 360 items and/or developing their own assessments, school systems appeared to be using formative assessments in a range of ways. One of the sites we visited adopted a whole system of benchmark assessments before the state began reviewing and rating such assessments, and respondents spoke about using those assessment results to inform professional development and instruction. Several commented that LEAP 360 does prepare students for state tests, and they liked the flexibility of LEAP 360 to select specific items for assessments rather than to use whole tests. On the other hand, interviewees also remarked that the reporting for LEAP 360 wasn’t provided quickly enough to help them adjust their instruction, and the data were not reported in a way that was useful. As one central office administrator described it:

I think the [LEAP 360] items are fantastic. . . . I think the vibe out in the state and with what we feel too is that the reporting a lot of times isn’t necessarily how we want to look at the data and use it. I know they’ve made some improvements, but we’re gonna end up doing a lot of manipulation of the data on the back end to really get the kind of data that we want from it. But I think overall it’s great to have something like that.

Most teachers and some administrators had some negative feelings about benchmark assessments in general, and the most frequent concern—voiced by a majority of teachers and some central office administrators in each site—was that they just added to the number of tests students had to take throughout the year. Another teacher commented that the multiple-choice nature of benchmark assessments may not necessarily provide a clear signal of what students were learning. One teacher said: “I don’t think testing is a bad thing; my problem with testing is that you can assess kids in what they know and whether they’ve mastered something in a variety of ways, and we have some students who just can’t take multiple choice tests.”
Interviewees commented on the major need for deep, intensive professional development tied to standards and/or curricula, but they also recognized challenges due to the fast pace of reform.

Many interviewees across sites acknowledged the importance of intensive professional development tied to the new standards and new curricula, although there were different opinions about which aspects of the reforms should drive professional development. Interviewees who emphasized the role of standards in professional development spoke about using the professional development for teachers to become deeply familiar with standards and standards progressions, particularly for science and social studies. Teachers in this group talked about using professional development for “breaking down what the standard really means” and “unpacking” the standard. School system administrators expressed a wish for more resources and supports to “unpack” and understand science and social studies standards, in particular, because of the lack of tiered curricula for those subject areas.

New teachers especially brought up the need for professional development to help them understand the standards; they said that most teachers didn’t receive information about standards, and how to teach them, in their teacher preparation programs. One new teacher commented,

> What is tough about the standards . . . is we’re going into the dark. In September, I didn’t really know what standard I would be teaching in February. As a first-year teacher, I was worried about next week, not how the standard’s going to connect to the bigger idea.

The majority of the teachers with whom we spoke also noted the importance of curriculum-specific professional development. At the same time, central office administrators emphasized that teachers needed to be familiar with the standards and the instructional shifts represented by those standards before delving deeply into curriculum-specific...
professional development. One administrator, for example, noted, “We’ve started this spring in having teachers learn the standards, learn about the shifts, really dig into some of those initial documents from the state department before digging into a curriculum.” Another administrator similarly commented:

With this shift in academic standards and with this shift in assessment expectations, we have a different set of curricula being offered to teachers that is much more detailed, much more content-heavy, and it does represent new instructional shifts that many of our teachers were not familiar with.

In this way, this administrator noted, the curricula “do represent the reforms,” but he also noted that their priority now is not necessarily to have professional development on the curricula. Rather, “...[It’s] really professional development to help them with these new reforms. ... We drive it [professional development] through the curriculum because it’s there in front of them every day.”

Although every site reportedly provided home-grown professional development driven by standards and curricula, many commented that rapid change and reform presented a challenge for professional development. One central office staff person noted, “Every year, it seems as if it’s something new. We are trying to keep up with what’s happening. ... It’s so much they need to know, and it’s overwhelming because there’s so much that you don’t get to go as deep on as you’d like.” A teacher similarly noted, “Things change so quickly; we’ve gone from Balanced Literacy to Expeditionary Learning to Guidebooks [curricula]. ... There’s so little opportunity to get deep. Everything is surface level.”

Administrators also noted their own lack of expertise in the curriculum: “We were trying to do a lot of in-house professional development, which was a challenge because we were learning it ourselves. ... We might have been experts in content, but not experts in the curriculum.” One central office administrator acknowledged principals’ lack of expertise in curriculum-specific professional development and described making a concerted effort to focus on principal professional development and make sure principals were on the same page as the school system and teachers regarding curriculum reforms.

School systems tended to develop their own professional development, focused on coaching and professional learning communities, rather than rely on external providers.

Since 2016, LDOE has provided an annual catalog of recommended professional development vendors, which only includes vendors offering training connected with Tier 1 curricula. LDOE also offers statewide trainings that focus on improving teachers’ and administrators’ understanding of standards and Tier 1 curricula, in addition to other state-specific topics.

Central office and school-level staff in every site mentioned that school systems developed their own professional development focused on Tier 1 curricula, and rarely relied on outside providers. When asked whether the school system brought in any external professional development providers, a central office administrator commented,

At the school system level, they have done it [brought in outside professional development providers] occasionally. ... Most of the time, it’s in-house with our people, our actual student data, which makes it [the professional
development] really relevant. It’s much more, I feel, beneficial to the teachers when you take that approach.

Professional development and educator collaboration provided within the school system included grade-level professional learning communities, grade level- or subject-specific professional development, and coaching by mentors or teacher leaders. The frequency of these supports varied by site, but central office staff in each site reported that teachers had opportunities to collaborate in small groups at least weekly.

Interviewees spoke occasionally about the state’s role in professional development. A handful of interviewees indicated using professional development resources recommended by the state, although there was no consensus on whether these resources were helpful. Many interviewees spoke about attending the state-provided professional development, which took place through regional quarterly collaboratives. We discuss state-provided professional development, perceptions of that professional development, and communication further as part of Action 5.
Decisions to use Tier 1 curricula appeared driven by the belief that use would lead to better student outcomes; monetary incentives for use of Tier 1 curricula were rarely mentioned by interviewees.

To encourage use of Tier 1 curricula, the state provided discounted rates and created a centralized procurement process for school systems (i.e., school systems that wish to purchase Tier 1 curricula do not have to work directly with the publisher on the paperwork and cost negotiations). In addition, regional trainings provided by the state frequently feature Tier 1 curricula and support teachers on the use of that curricula. Lastly, the state has begun providing funding for the purchase of Tier 1 curricula in struggling schools. For the 2018–2019 school year, any schools rated as Comprehensive Intervention Required—schools with a D or F letter grade rating for three years and a graduation rate of less than 67 percent—had to submit an improvement plan that included use of Tier 1 curricula and curriculum-aligned professional development in order to get additional funding and support. For the 2019–2020 school year, which was the year following our spring case study visits, any schools rated as Comprehensive Intervention Required or Urgent Intervention Required—schools with one or more subgroups receiving an F letter grade for at least two years—could only have an approved and funded school improvement plan if they reported use of a Tier 1 curriculum in ELA and mathematics for all grade levels and used external vendors to provide professional development aligned with Tier 1 curriculum (LDOE, 2018d).

State policies to incentivize use of Tier 1 curricula appear to be working. Staff in every case study

Approach and Key Findings

How did we explore early signals for how this state action is working?

• We asked administrators and teachers about the factors motivating their use of curricula, formative assessments, and professional development.
• We tracked reported patterns in teachers’ use of high-quality curricula and professional development, through survey and interview data, to understand the extent to which incentives might be working.

Key findings:

• Decisions to use Tier 1 curricula appeared to be largely driven by the belief among administrators that their use would lead to better student outcomes.
• Louisiana teachers appeared to be using Tier 1 curricula more than other teachers across the United States, although all teachers reported variation in how they used and modified their materials.
• Louisiana teachers reported receiving standards-aligned professional development more than other U.S. teachers.

Ultimately, we would’ve gone with whatever a Tier 1 [curriculum] was, because it’s going to be tied to the support you get from the state.

—central office administrator
site spoke about using the state tiering system to choose their curricula, particularly for mathematics and ELA. In these sites, the tiering system signaled which curricula were most closely aligned with their standards and assessments. Most staff in the case study sites described using the rating (i.e., the tier) to make curriculum choices, but few reported using any detailed review information beyond the ratings themselves to inform their decisions. A central office administrator noted that when the state began to signal which curricula were aligned with their standards, the school system decided to use Tier 1 curricula: “We’re not focused on any curriculum that’s not Tier 1.” Similarly, a principal pointed out how the state’s curriculum guidance helped leaders prepare teachers:

They’ve [the state] released a lot of curricular supports. Their website has improved tremendously since I started as an administrator. There used to be very little curricular guidance, and now there’s an abundance of it and a lot of assessment guidance as well. So, it helps us to prepare our teachers and it helps the teachers to prepare the students for the assessments that they’re going to take and that are going to be calculated as our school performance scores. Those things are really helpful, I would say.

The financial incentives tied to curricula did not often come up as a reason for adopting Tier 1 curricula, although a few interviewees noted that the financial incentives made adoption easier. One central office administrator described their decision to adopt new curricula as follows:

Well, this year, it’s [the choice of what curriculum to use] based on funding. We have to switch to Tier 1, is our understanding, to get the resources. I think that it’s also something we believe is a key lever is curriculum and there hasn’t really been great stuff at the advent of Common Core, there was just some things thrown together. We certainly want curriculum that millions and millions of dollars has been invested in making sure it’s good and we believe that good curriculum will be definitely a key lever for our kids.

Louisiana teachers appeared to be using many Tier 1 curricula more than other teachers across the United States, although there is likely wide variation in actual curriculum use.

To consider whether incentives to support use of high-quality curricula might be working, we examined reported patterns in curriculum use. RAND American Teacher Panel survey data from the 2016–2017 school year asked teachers nationally and in Louisiana to report how frequently they used curriculum designated by LDOE as Tier 1; the list of curricula included most commonly used materials in the United States, based on U.S. market share information. These use patterns can give us some indication that Louisiana’s incentives to use Tier 1 curricula are working to support district adoption and teachers’ use of such curricula, although they cannot tell us precisely what factors may be incentivizing their use.

Figures 2 and 3 show the most commonly reported published curriculum materials used regularly by Louisiana teachers compared with teachers in the rest of the United States. As noted in Figure 2, high percentages of teachers in Louisiana indicated using Eureka Math regularly, as well as EngageNY, which includes a version of Eureka Math. According to LDOE reviews, Eureka Math is a Tier 1 mathematics curriculum. In addition, about one in five Louisiana teachers reported using LearnZillion for their ELA instruction. LearnZillion likely includes the Louisiana ELA Guidebooks, which were developed by LDOE in partnership with LearnZillion. The Guidebook Units for grades 6–8 have been reviewed as Tier 1, although the Guidebook Units for other grade levels have not yet been reviewed. Furthermore, no Louisiana teachers who responded to our American Teacher Panel survey indicated using many curricula rated as Tier 3, including Saxon Math, Math in Focus, or Investigations, regularly for their mathematics instruction.

However, the American Teacher Panel cannot provide a full picture regarding the extent of

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3 We do not know whether this administrator is referencing the 2018–2019 school year or the 2019–2020 school year.
Top Instructional Materials Used Regularly (i.e., Once per Week or More) by Mathematics Teachers in Louisiana and Other U.S. States

<table>
<thead>
<tr>
<th>Material</th>
<th>Louisiana teachers</th>
<th>Other U.S. teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eureka Math (Great Minds), apart from use within EngageNY*</td>
<td>49%</td>
<td>2%</td>
</tr>
<tr>
<td>EngageNY materials*</td>
<td>37%</td>
<td>12%</td>
</tr>
<tr>
<td>Go Math (Houghton Mifflin Harcourt)</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>Envision Math (Pearson Scott Foresman)</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Glencoe Math (McGraw Hill)</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>My Math (McGraw Hill)</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Springboard Math (College Board)</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Math Expressions (Houghton Mifflin Harcourt)</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Algebra I (Pearson Prentice Hall)</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Math Connects (MacMillan/McGraw Hill)</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Connected Mathematics (Pearson Prentice Hall)</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

NOTES: Data drawn from an American Teacher Panel survey administered to teachers in March 2017. Percentages represent teachers who selected each material in response to the prompt, “Please indicate which instructional resources you have drawn upon regularly (i.e., once a week or more) for your mathematics classroom lessons this year (2016–17).” Other U.S. teachers includes all other teachers in the United States who responded to the American Teacher Panel survey, excluding Louisiana teachers who responded to the question. Asterisks indicate a significant difference between the response of Louisiana teachers and other U.S. teachers (p < 0.05). The Benjamini-Hochberg procedure was used to adjust for multiple comparisons (false discovery rate = 0.05). The materials in bold have been reviewed as Tier 1 materials. EngageNY materials have not been reviewed as Tier 1 but are also in bold because they are materials published by Great Minds as Eureka Math materials.

curriculum use in Louisiana. Even if teachers report using Tier 1 curricula regularly (i.e., once per week or more), they may not be using it every day, or for every lesson, or for every student they teach. Our interviews suggest this is likely the case: Tier 1 curricula were reportedly not universally used by teachers in case study sites. A central office administrator in one school system commented,

I think right now we’re at about three-quarters of our teachers, if you walk in at any particular time—just kind of a random sample—are using the school system–mandated curricula. So it’s definitely been a struggle for us to try to make that shift.

In another school system using a walkthrough approach to understand the extent to which teachers were using the adopted curricula, administrators found teachers sometimes did not use Tier 1 lessons or materials and instead reverted to what they knew and were comfortable with, largely because teachers didn’t have sufficient training in how to teach the Tier 1 curriculum.

Most teachers with whom we spoke, including those using Tier 1 curricula, reported modifying it in the classroom. Only a few teachers said that the school system’s expectation was to use the curriculum materials exactly as written. Most teachers reported that they were generally able to make their own decisions about how to use their materials. Some representative comments from teachers:

For ELA, we’re given the Scope and Sequence [documents]. Each day, you’re given what the objective is that day, the standards it aligns to, and the exit ticket question . . . but the rest, you
make up, like, how you want to get there. The rest of the lesson is up to you.

I don’t particularly have any issues with what [curriculum materials] we’re using. I feel they’re addressing what they need, and our teachers are professional enough to know what to pull in and what to modify to some degree.

Our American Teacher Panel data indicate that most teachers across the United States, as well as in Louisiana, make regular modifications to their curriculum materials when they use them in the classroom. When asked the extent to which they make modifications to lesson plans from their curriculum materials, nearly 60 percent of ELA teachers in the United States and in Louisiana indicated using ELA lesson plans (1) “with major modifications,” (2) “only as a reference to get ideas for my own lesson plans,” or (3) that they do not “typically use lesson plans from existing resources.” Between 40 and 50 percent of all mathematics teachers indicated the same for their lesson plans. Thus, basic “use” of high-quality curricula may not be related to the quality of instruction that students receive in the classroom, which is confirmed by research noting that curricula may not be enacted as intended.6

6 For example, Stein and Kaufman (2010) noted that high-quality mathematics instruction was not always related just to using...
The Tier 1 curriculum represented a significant shift in planning and instruction for most teachers, and many indicated that they were still learning how to use newly adopted curriculum.

LDOE encourages teachers to consider the curriculum design and intent of specific tasks before making changes to curriculum. For example, observation tools released by LDOE to support mathematics and ELA instruction in Comprehensive Intervention Required and Urgent Intervention Required schools for the 2018–2019 school year include numerous measures of the extent to which teachers are using Tier 1 curricula, although those tools were not in place when we conducted our case studies in the spring of 2018. Although we did not ask teachers directly whether they took the curriculum design and intent of tasks into account when modifying curricula, we did ask them to explain why they modify curricula. The most common reason teachers gave us was that they modified to provide scaffolding or supports for students who were not ready for grade-level content. In fact, the need to scaffold curriculum content for struggling students came up in our discussions with administrators and teachers in all subject areas and in all case study sites, particularly in regard to Tier 1 curricula. Most teachers we interviewed commented that they felt the Tier 1 curricula set a high bar but were too challenging for many of their students. In one teacher’s words, “I feel like if you’re giving them a curriculum that’s above where they [students] are, and we are not allowed to scaffold it down to where they need it, then they’re just missing it.”

Teachers also appeared to make a range of choices about how to scaffold. For instance, one 6th-grade teacher with students reading from a 12th-grade level to a 2nd-grade level said that she tried to scaffold materials to meet the needs of each student, scaffolding down for some students and enriching for others. Some teachers talked about creating their own materials as scaffolds, while several said that they greatly appreciated the remediation materials provided within some of their resources (e.g., Eureka Math and Springboard). LDOE has noted to us that it is currently working to build out more scaffolded supports for the ELA Guidebooks, as well as working with Tier 1 curriculum vendors to provide more supports for mathematics curricula.

Regardless of how Tier 1 curriculum was being used, nearly everyone we interviewed agreed that the Tier 1 curriculum represented a significant shift in planning and instruction for most teachers, and many indicated that they were still learning how to use newly adopted curriculum. Two key challenges related to using the new curriculum emerged from our interviews. One challenge was the time-consuming process of planning lessons with a new curriculum, an issue that was mentioned by administrators and teachers at all case study sites. As one teacher said, “Well, in math at the beginning we were heavy on professional development—just learning how to teach it yet and just becoming familiar with the content. But now it’s more just getting organized for the year, developing an order of teaching the content.” In addition, several school leaders and teachers we interviewed suggested that shifting to a new curriculum was particularly difficult for veteran teachers, who had to become familiar with new content and a new scope and sequence. In the words of one teacher,

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1. see the observation tools available in LDOE’s school improvement library (undated-d).

2. ambitious mathematics curricula as the basis of classroom lessons, and—on a related note—Tarr et al. (2008) found that frequency of using a textbook for classroom lessons was not related to student achievement, although use of curricula and evidence of standards-based instruction was. Numerous other studies have documented differences between intended and enacted curriculum (e.g., Tarr et al., 2006; Remillard, 2000).
Anytime you tell a teacher that they have to change—we have new standards, we have new curriculum, man that is hard because they’ve been doing one thing a certain way for a long time. . . . The planning was huge, because whether you taught math, whether you taught English, you had to go back in and plan . . . because it was new, so you didn’t know it as well as you did the other standards. You didn’t know the curriculum like you knew the other curriculum.

The second challenge reported by teachers was that the Tier 1 curricula were more difficult to teach than previous curricula, given that they were tied to new, more rigorous standards. According to a majority of the teachers we interviewed, most students needed scaffolding and support to successfully learn the content in Tier 1 curricula, and this took more planning and preparation on the part of the teacher. One way most teachers spoke about supporting students was to reteach content and reinforce standards taught in previous years, a process that required identifying the previous standards and content to be reinforced and integrating them with grade-level content. As one teacher said,

I think that the standards are way more than just those few words. At the beginning of the year we look at where we need to be and it’s not just a matter of getting there. There’s a lot of mastery that needs to happen to really fully attain that standard by the end of the year, and to attain that standard in a way that a child can use it, not just know it, but analyze it, synthesize it and be a true learner.

Teachers in Louisiana appear to be receiving more standards-aligned professional development than other U.S. teachers.

To examine the extent to which incentives may be working to drive more standards-aligned professional development, we also looked at teachers’ reports of the professional development they were receiving. While we do not have data on the professional development that Louisiana teachers have received over the past school year, data from the 2016 American Teacher Panel asked teachers about standards-aligned professional development they received, as well as whether that professional development supported them to improve their instruction. Nearly all the professional development topics included in the American Teacher Panel survey were intended to align with the Common Core, Louisiana’s state standards, and nationally recognized best practices (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010a, 2010b, 2010c, 2010d).

As noted in Figures 4 and 5, these data indicate that Louisiana teachers reported receiving significantly more professional development focused on many standards-aligned topics than their peers in other states. For example, compared with mathematics teachers across the United States, significantly more Louisiana mathematics teachers—and often more than half of Louisiana mathematics teachers—reported a moderate or high focus on standards-aligned professional development topics, including

- general information about instructional shifts related to state mathematics standards

Louisiana teachers reported receiving significantly more professional development focused on many standards-aligned topics than their peers in other states.
FIGURE 4
Percentages of Louisiana and Other U.S. Mathematics Teachers Indicating a Moderate or High Focus on Each Professional Development Topic

NOTES: Data drawn from an American Teacher Panel survey administered to teachers in February 2016. Question text for this survey item: “How much has your professional development focused on the following topics related to mathematics this school year (2015–16, including summer 2015)? Not a focus/Minor focus/Moderate focus/Major focus.” Asterisks indicate a significant difference between the responses of Louisiana teachers and those in other U.S. states, according to independent t-tests (p < 0.05). The Benjamini-Hochberg procedure was used to adjust for multiple comparisons (false discovery rate = 0.05).

- connections between key mathematics topics and concepts within and/or across grade level(s)
- helping students develop conceptual understanding.

Similarly, compared with other U.S. ELA arts teachers, significantly more Louisiana teachers reported a moderate or high focus on standards-aligned topics, including
- general information about instructional shifts related to state ELA standards
- building knowledge and vocabulary through content-rich nonfiction and informational texts
- building reading skills through use of complex texts.

In addition, we asked teachers to rate the quality of the professional development they received on these topics and their additional development needs. We found very few differences between Louisiana teachers and other U.S. teachers in this regard, with two exceptions. Louisiana ELA teachers were significantly less likely than ELA teachers in other U.S. states to indicate a moderate or high need for additional professional development on two key standards-aligned practices: (1) building knowledge and vocabulary through content-rich nonfiction and informational texts and (2) helping students use textual evidence to make inferences or support conclusions drawn from text (p < 0.05). This finding suggests that teachers in Louisiana may feel more prepared to address these ELA practices than other U.S. teachers.
FIGURE 5
Percentages of Louisiana and Other U.S. ELA Teachers Indicating a Moderate or High Focus on Each Professional Development Topic

NOTES: Data drawn from an American Teacher Panel survey administered to teachers in February 2016. Question text for this survey item: “How much has your professional development focused on the following topics related to mathematics this school year (2015–16, including summer 2015)? Not a focus/Minor focus/Moderate focus/Major focus.”

Asterisks indicate a significant difference between the responses of Louisiana teachers and those in other U.S. states, according to independent t-tests (p < 0.05). The Benjamini-Hochberg procedure was used to adjust for multiple comparisons (false discovery rate = 0.05).
Administrators and teachers had at least some knowledge of most state policies and recommendations, and they learned about state policies through multiple sources.

LDOE utilized numerous mechanisms to communicate with stakeholders at various levels in school systems, including superintendents, curriculum supervisors, principals, school counselors, and teachers. These mechanisms included regular conference calls and webinars, newsletters, and regional collaboratives. LDOE also maintains regional networks that communicate regularly with systems in their region.

These communication mechanisms may be driving the relatively high knowledge about state efforts among interviewees within our case study sites. As discussed throughout this chapter, the central office staff we interviewed were well aware of the state’s accountability policies, curriculum reviews and guidance, and recommended professional development vendors, although fewer spoke about the formative assessment ratings and reviews accompanying those ratings. Many school system staff spoke of attending state trainings to gather information about what the state was doing, and some mentioned that state officials visited their school system to interact with school staff, listen to their concerns, and walk through classrooms. Several also mentioned receiving information about the reforms from the state’s newsletters, and a few spoke of using the state’s department of education website as an information source.

The state’s website not only provides information about state programs and policies, it is also a hub for tools and resources associated with the Tier 1 curricula, such as remediation guides for Eureka Math. It is also the place to access the state’s ELA Guidebooks, which are ELA curriculum developed by LDOE in partnership with LearnZillion. According to American Teacher Panel data from 2016–2017, significantly more Louisiana mathematics and ELA teachers reported using their state department of education website regularly as an instructional resource compared with other U.S. teachers ($p < 0.05$). Specifically, 38 percent of Louisiana mathematics teachers and 32 percent of Louisiana ELA teachers reported regularly using their state department of education website.
department of education website compared with, respectively, 18 percent and 9 percent of other U.S. teachers.

Some staff at every site reported attending the state’s trainings, although they had mixed opinions about their usefulness.

At least some staff in each of the four case study sites indicated knowing about and/or attending the state’s trainings for curriculum supervisors or teacher leaders, as well as the state’s new and more intensive training for content leaders, who receive certification upon finishing their content leader training and completing the assessments that were part of that training. Several reported finding the content of state trainings useful and especially appreciated being able to choose to attend the sessions of greatest interest to them. Several interviewees specifically noted that the all-day sessions focused on curricula were helpful to them.

School system staff also spoke of appreciating the “train-the-trainer” model for teacher leader training. For example, one principal commented:

My content leader is being trained [by the state]. I want to say nine times this school year, she has been out of the classroom for training. My teacher leaders go for the [annual state] Collaborative, and then they come back, and a lot of what they do is teacher support within their grade levels, emailing, sharing resources . . .

Other staff had mixed opinions on the training; several specifically noted that the state trainings were sometimes redundant with what they already knew through their school system professional development or through state newsletters.8

As might be expected, case study site staff had varied opinions on how state communications could be improved. In particular, several with whom we spoke wished that the state would provide test results (both formative results through benchmark assessments and end-of-year results for summative assessments their students had taken) more quickly to help them plan for the following year. Lastly, many indicated frustration about the way in which science and social studies standards and assessments were being rolled out and felt that they were not getting enough information to implement their standards successfully. Despite these drawbacks, state communication appeared to be taking place regularly.

Findings: Outcomes Related to State Actions

The goal of Louisiana’s policy reforms is ultimately to improve student achievement, particularly for vulnerable students. Thus, in this section, we share some data trends regarding key outcomes that we might expect to be related to the actions the state has taken in various areas. We first consider differences in reports of instruction for mathematics and ELA teachers in Louisiana compared with other U.S. teachers. We then look at student achievement in several different ways. First, we discuss differences in performance among various student subgroups on the most recent state LEAP tests to set the stage for analyses of trends in K–8 student achievement changes from 2011 until 2017, with particular attention to changes for black and Hispanic students compared with white students and for lower- versus higher-income students. While a more thorough analysis of high school outcomes is examined in the graduation pathways report that is part of this published series, here we discuss changes in ACT test scores over the same span of years. Eleventh-grade students in Louisiana are required to take the ACT college and career readiness assessment, which is also taken by high school students in many other U.S. states. Lastly, to explore some possible explanations for the observed changes, we highlight a few findings from exploratory analyses of American Teacher Panel data, comparing Louisiana teachers in schools

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8 LDOE also conducts its own surveys to gather feedback from those who attend the collaboratives regarding their experiences. According to LDOE, of those who have attended the most recent regional collaboratives in both the fall and winter of 2018, those who responded to the surveys (response rate of 18 percent) rated their overall “experience at the Collaboration you attended” as a 3.9 on a scale from 1 to 5.
with lower versus higher percentages of minority and low-income students.

We should note some limitations of these analyses. First, we cannot establish that changes in Louisiana’s policies directly caused the observed trends in the outcomes we document; we can only hypothesize on their impact based on what we know about Louisiana’s policies and their implementation. In addition, since most of Louisiana’s policies only went into effect in 2015 and 2016, they may not yet have had enough time to fully affect teaching and learning in Louisiana.

In addition to these limitations, the content of the state’s LEAP test changed—in small to more substantial ways, depending on the year—in nearly every year of our analysis. Thus, any information we share about changes in LEAP trends over time is intended to illustrate differences between subgroups of students who took the same test in each year, as well as changes in those differences over time. In other words, we are able to calculate how subsets of students scored on the statewide test in a given year, and how the location of the scores for these subsets of students in the overall distribution of scores in each year changes over time. However, if the difficulty or format of the test changed, then shifts in the relative scoring of a subgroup over time may reflect either changes in the subgroup’s relative actual performance or changes in how the subgroup adjusted to the test changes, relative to the rest of the population. Throughout, we work under the assumption that any observed changes are more due to changes in the relative actual performance than to how well students adjust to test changes.

Another limitation of these analyses is that we are looking only at trends in teachers’ self-reported instruction in surveys. Some research has suggested that teachers’ survey reports may be subject to social desirability biases and may not provide an accurate depiction of classroom instruction (Spillane and Zeuli, 1998; Kaufman, Stein, and Junker, 2016). However, capturing objective measures of classroom practices, such as classroom observations, from teachers in Louisiana was beyond the scope of this study. That said, these findings do provide some insights on the extent to which teachers perceive themselves to be engaging students in practices that are closely aligned with their state standards, and the findings provide some information about achievement gaps among specific subgroups of students over time that may be associated with Louisiana policy reforms and their implementation in schools.

Louisiana teachers reported student mathematics classroom practices that were similar to other U.S. teachers’; more Louisiana teachers reported students’ engagement in some standards-aligned ELA classroom practices.

The American Teacher Panel Spring 2017 survey (administered in March 2017) asked teachers about the extent to which their students engaged in a range of standards-based classroom practices. For mathematics, those practices focused mainly on the Standards for Mathematical Practice that are part of the Common Core State Standards, which are a prominent part of Louisiana’s state standards for mathematics (LDOE, 2017). For ELA, those practices focused on the anchor standards for reading, writing, listening, and speaking that are part of the Common Core State Standards and also emphasized prominently in Louisiana’s ELA standards (LDOE, 2016).

Students’ classroom practices for mathematics did not differ for Louisiana mathematics teachers compared with mathematics teachers in other states (see Figure 6). For example, between 30 and 40 percent of all U.S. teachers and those in Louisiana indicated that their students “explain and justify their work” and “construct viable arguments and critique the reasoning of others” to a great extent during typical classroom instruction. Similarly, between 40 and 50 percent of all U.S. teachers and those in Louisiana indicated that their students “apply mathematics to solve problems in real-world contexts” and “make sense of problems and persevere in following them.” Louisiana teachers were slightly above the national average in reporting that students engaged in some practices (e.g., explain and justify their work, choose and use appropriate tools when solving problems) to a great extent, but the differences were not statistically significant and
FIGURE 6
Percentages of Louisiana and Other U.S. Mathematics Teachers Indicating Students’ Engagement in Standards-Aligned Mathematics Practices “to a Great Extent”

NOTES: Data drawn from an American Teacher Panel survey administered to teachers in March 2017. Question text for this survey item: “Think about a mathematics lesson you taught this past week that is typical or similar to most lessons you teach over the course of the year. In that lesson, to what extent did your students engage in the following practices? Not at all/To a slight extent/To a moderate extent/To a great extent.” No significant differences between Louisiana and other U.S. teachers were identified, according to independent t-tests. The Benjamini-Hochberg procedure was used to adjust for multiple comparisons (false discovery rate = 0.05).

generally do not appear large enough to be substantively meaningful. The small sample size of Louisiana mathematics teachers (n = 96) in the American Teacher Panel may have limited our power to detect differences between Louisiana teachers and other U.S. teachers. Yet, it is more likely that we did not observe differences between Louisiana teachers and teachers across the United States because both groups may know that these practices are closely aligned with most state standards; these teachers may thus be predisposed to report that they are engaging in most of these practices at least at some level. One reason that teachers may know more about these practices is that they have been emphasized across the United States for decades through the National Council of Teachers of Mathematics, in addition to being part of the Standards for Mathematical Practice within the Common Core, and many teachers may at least recognize the practices as an important aspect of their mathematics instruction.

In contrast to few differences between U.S. and Louisiana teachers’ reports about mathematics practices, higher percentages of ELA teachers in Louisiana reported students’ engagement with standards-aligned practices compared with those in the rest of the United States. Louisiana ELA teachers were significantly different from other U.S. teachers for three classroom practices in particular (see Figure 7):

- participate in a range of conversations and collaborations with various partners (60 percent of Louisiana teachers versus 40 percent of other U.S. teachers \( p < 0.05 \))
- demonstrate a command of conventions of standard English when writing and speaking
**FIGURE 7**
Percentages of Louisiana and Other U.S. ELA Teachers Indicating Students’ Engagement in Standards-Aligned ELA Practices “to a Great Extent”

<table>
<thead>
<tr>
<th>Practice</th>
<th>Other U.S. teachers</th>
<th>Louisiana teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participate in a range of conversations and collaborations with various partners*</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Write arguments to support claims in an analysis of substantive topics</td>
<td>31%</td>
<td>39%</td>
</tr>
<tr>
<td>Analyze how two or more texts address similar themes</td>
<td>26%</td>
<td>23%</td>
</tr>
<tr>
<td>Read a nonfiction text in the classroom</td>
<td>28%</td>
<td>38%</td>
</tr>
<tr>
<td>Use evidence from a text to make inferences or support conclusions drawn from the text*</td>
<td>23%</td>
<td>28%</td>
</tr>
<tr>
<td>Strengthen writing by planning, revising, editing, rewriting, or trying a new approach</td>
<td>28%</td>
<td>30%</td>
</tr>
<tr>
<td>Demonstrate a command of conventions of standard English when writing or speaking*</td>
<td>14%</td>
<td>29%</td>
</tr>
<tr>
<td>Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of text relate to each other and the whole</td>
<td>18%</td>
<td>26%</td>
</tr>
<tr>
<td>Adapt speech to a variety of contexts and communicative tasks</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>Use a range of general academic and domain-specific words and phrases sufficient for college and career readiness</td>
<td>12%</td>
<td>21%</td>
</tr>
<tr>
<td>Know and apply grade-level phonics and word analysis skills in decoding words</td>
<td>9%</td>
<td>17%</td>
</tr>
<tr>
<td>Read for accuracy and fluency</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>Demonstrate understanding of spoken words, syllables, and sounds (phonemes)</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>Connect literacy instruction to other content (e.g., science, social studies)</td>
<td>11%</td>
<td>6%</td>
</tr>
</tbody>
</table>

NOTE: Question text for this survey item: “Think about an ELA lesson you taught this past week that is typical or similar to most lessons you teach over the course of the year. In that lesson, to what extent did your students engage in the following practices? Not at all/To a slight extent/To a moderate extent/To a great extent.”

Asterisk indicates significant difference between the responses of Louisiana teachers and those in other U.S. states, according to independent t-tests ($p < 0.05$). The Benjamini-Hochberg procedure was used to adjust for multiple comparisons (false discovery rate = 0.05).

(29 percent of Louisiana teachers versus 14 percent of other U.S. teachers [$p < 0.05$])
- use evidence from a text to make inferences or support conclusions drawn from the text (38 percent of Louisiana teachers versus 23 percent of other U.S. teachers [$p < 0.05$]).

Louisiana male, black or Hispanic, and low-income students consistently underperformed compared with their female, white and Asian, and higher-income counterparts on LEAP tests for 3rd- through 8th-grade students.

Our achievement analyses examined differences in student performance in key subgroups over time to shed light on whether the state’s policies might be leading to changes in student achievement. Given the high bar set by rigorous standards, curricula, and assessments, it is important to explore achievement effects for vulnerable populations that may typically
struggle in school and be challenged by that high bar. First, we examined subgroup differences in student percentile scores on LEAP tests administered in spring 2017 (the most recent available year of student testing data) for key subgroups of tested 3rd- through 8th-grade students in each subject area. LEAP assessments are the high-stakes summative assessments taken by Louisiana students in 3rd through 8th grade each year. Figure 8 shows average differences between male and female students, rural and nonrural students, students eligible for free and reduced-priced lunch (FRL) versus those not eligible, and black and Hispanic students compared with other students, adjusted for a broad set of student and school characteristics. For example, our estimation of the difference between male and female students holds constant the race and ethnicity of each student, their FRL status, their grade, as well as the proportion of their school that is male, each race, FRL status, etc. More details of the analyses are included in the technical appendix that accompanies this report.

As shown in Figure 8, females consistently outperformed males in ELA, mathematics, and social studies, although the differences were most pronounced for ELA. Nonrural students slightly outperformed rural students in every subject, although those differences were statistically significant only in science and social studies. FRL and black/Hispanic students performed much worse than their counterparts (non-FRL and nonblack/non-Hispanic students).

**FIGURE 8**
Comparisons Among Student Subgroups for Predicted LEAP Percentile Scores for ELA, Mathematics, Science, and Social Studies in 2017

<table>
<thead>
<tr>
<th>Subject</th>
<th>Male</th>
<th>Female</th>
<th>Rural</th>
<th>Nonrural</th>
<th>FRL</th>
<th>Non-FRL</th>
<th>Black or Hispanic</th>
<th>Not black or Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Language Arts</strong></td>
<td>66</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>66</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>66</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td><strong>Social Studies</strong></td>
<td>66</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
</tr>
</tbody>
</table>

NOTES: These predicted scores have been adjusted using regression models that included the following student covariates: gender, race/ethnicity, FRL program eligibility status, economic disadvantaged status, gifted status, special education, English proficiency. The regression also controls for the proportion of students in each of the student covariate groups, total number of students in the school, the rurality of the county the school is in, and year fixed effects. Solid bars denote statistical significance between groups at the 5 percent level; hollow bars denote no significant differences between groups. The black lines at the top of each bar denote 95 percent confidence intervals.
Test scores for non-FRL students, and those who were not black or Hispanic, rose in ELA and mathematics from 2016 to 2017; black and Hispanic student scores decreased somewhat during that time period.

In addition, we looked at performance over time in LEAP tests. As emphasized at the beginning of this section, performance over time cannot be used to draw any conclusions about changes in overall student achievement, given yearly differences in test content and scaling. However, these trends can be used to identify changes for one subgroup relative to another, given that all students included in the analysis took the same test in each year.

Figure 9 compares FRL and non-FRL students and black or Hispanic versus nonblack and non-Hispanic students on average adjusted percentile scores for 3rd- through 8th-grade students on LEAP ELA and mathematics assessments. We calculated the trends for each grade but do not discuss them here (they are similar to the across-grades results).

We examined ELA and mathematics given that major reforms that LDOE has undertaken over the past several years focus on use of high-quality curriculum materials and aligned professional development and assessments in ELA and mathematics. Science standards and assessments, and new social studies assessments, have been adopted more recently. Several case study sites in this project had just adopted new social studies curricula and were discussing what science curricula to adopt as of spring 2018. We therefore would not expect to see major changes in student achievement in those subjects in response to state reforms.

As Figure 9 shows, the average percentile score for FRL students is relatively flat over time, with the

**FIGURE 9**

Predicted LEAP Percentile Scores for ELA and Mathematics for Grades 3–8 from 2011 to 2017 with Comparisons of FRL Versus Non-FRL Students and Black or Hispanic Versus Nonblack and Non-Hispanic Students

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: These predicted scores have been adjusted using regression models that included the following student covariates: gender, race/ethnicity, FRL program eligibility status, economic disadvantaged status, gifted status, special education, English proficiency. The regression also controls for the proportion of students in their school in each of the student covariate groups, total number of students in the school, the rurality of the county the school is in, and year fixed effects. The shaded portion of each line denotes 95 percent confidence intervals.
exception of a slight rise in 2014 and slight decrease in 2015 for ELA. However, from 2016 to 2017, we see a slight rise in both ELA and mathematics percentile scores for non-FRL students, slightly widening the gap between FRL and non-FRL students. The black or Hispanic student scores versus nonblack and non-Hispanic student scores tell a somewhat different story. As with non-FRL students, the ELA and mathematics scores of nonblack and non-Hispanic students appear to rise from 2016 to 2017 somewhat dramatically. However, starting in 2014, we see a slight but steady decline in scores of black or Hispanic students, leading to a statistically significant widening of the gap between the two groups.

**LEAP performance trends are generally consistent with trends on the National Assessment of Educational Progress for Louisiana.**

National Assessment of Educational Progress (NAEP) is a low-stakes national test that can be tracked over time and allows us to compare the overall performance of students in Louisiana to students nationally. NAEP results provide a way to check the trends between groups of students we observed in the LEAP analysis. Similar patterns in the low-stakes NAEP scores as compared with the high-stakes LEAP scores suggests that the patterns are not unique to the LEAP test. Before discussing these similarities, some key differences between the NAEP and LEAP analysis should be noted. The NAEP analysis includes tests given every other year, instead of every year; includes tests administered only to grades 4 and 8, compared with tests given in grades 3–8 for the LEAP analysis; is administered to a representative subsample of students from each state, instead of each eligible student; and presents unadjusted differences between subgroups, instead of controlling for other factors.

We do not have access to the underlying student-level NAEP data, which would allow us to control for other factors. NAEP results likely overstate the differences between the subgroups because of the strong correlation between FRL status and race/ethnicity, as well as the generally negative relationship of scores with FRL and minority status.

Noting these differences, we used the NAEP as a check on the trends observed in the Louisiana LEAP data. Figure 10 presents the trends for Louisiana in terms of percentiles; the national average percentile is by construction the 50th percentile each year. In every year, for both subjects and both grades, the average percentile is below the 50th percentile, meaning that the average student in Louisiana scored lower than the average student in the nation. However,
there are improvements in reading over time, as well as an increase in 2015 for both subjects in grade 4.

We are also able to investigate the gap in achievement on the NAEP for FRL versus non-FRL students as well as black or Hispanic students versus nonblack and non-Hispanic students (see Figure 11). Similar to the LEAP, and true both for Louisiana and the nation, non-FRL students and students who are nonblack and non-Hispanic score significantly higher than FRL students and black or Hispanic students, respectively. We examined how that gap changed from 2011 to 2017 on the NAEP for both Louisiana and the nation. For seven of the eight gaps examined for Louisiana, the gap increased over this time span. This aligns with our findings from the LEAP assessments. On the other hand, across the nation the gap decreased for seven of the eight gaps examined, which is opposite to the Louisiana LEAP results.

ACT composite scores reflect some similar trends to LEAP.

A key strategy to encourage college enrollment was to administer the ACT to all 11th-grade students in Louisiana starting in 2013. When this policy was enacted, Louisiana’s average ACT score was lower than it had been in previous years. This result was not unexpected. Prior to 2013, students taking the ACT would likely have done so with the intention of applying to college (i.e., we would expect more motivated or higher-achieving students to have taken the test before 2013). When the ACT was administered to all Louisiana students, the state average fell. Scores climbed slowly from 2013 to 2017, possibly because schools began to put more effort into ACT preparation. School principals and teachers in our case study sites described how schools integrated ACT preparation more carefully into classroom planning. For example, some schools hired outside ACT training preparation courses using state Course Choice supplemental funding.

As can be seen in Figure 12, subgroup differences in ACT Composite scores (combined ACT score for mathematics, reading, English, and science) were somewhat similar to those for LEAP,

FIGURE 11
Change in the Gap from 2011 to 2017 on the NAEP
including statistically significant performance differences between FRL and non-FRL students, as well as black or Hispanic students compared with nonblack and non-Hispanic students. As with the LEAP analysis, we looked at trends over time in ACT composite scores for subgroups. Figure 13 displays those results and shows that scores for FRL students, non-FRL students, and students who are nonblack and non-Hispanic appear to have risen somewhat since 2013, while scores for students who are black or Hispanic appear to have experienced a flatter trajectory over the same period.

These combined results—LEAP, NAEP, and ACT—suggest differences in achievement trends in Louisiana for higher-income nonblack and non-Hispanic students compared with their lower-income black or Hispanic counterparts, and suggest that these gaps may be growing over time. One possible explanation for these trends could be that teachers of lower-income and minority students may be engaging in different instructional practices than those serving higher-income and mostly white students. We used RAND American Teacher Panel data from 2017 to explore the plausibility of this hypothesis. Specifically, we compared reports of instructional practices of mathematics and ELA teachers in schools above the 75th percentile in terms of the percentage of students who received FRL (High FRL), as well as those above the 75th percentile in terms of percentages of black or Hispanic students (High Black or Hispanic), compared with their counterparts in schools with lower percentages of FRL and black or Hispanic students (Low FRL and Low Black or Hispanic).\(^9\) We specifically examined the ELA and mathematics standards-aligned instructional practices shown in Figures 6 and 7.

\(^9\) We chose to designate teachers in schools above the 75th percentile as “high” FRL and black or Hispanic given that this percentile approximates the cut-off for the top quartile of teachers across the United States, in terms of the percentage FRL and black or Hispanic students. It also provides a uniform cut-off point—as well as good sample sizes for comparison—for these teacher subgroups.
While our samples support comparisons between all Louisiana teachers and those in all other states, only roughly one-quarter of teachers in our Louisiana American Teacher Panel sample teach in schools that we have defined as High FRL and High Black or Hispanic, which only represents 33 ELA teachers and 24 mathematics teachers (as noted in the technical appendix). This reduces the power to detect significant differences, and these analyses should be considered exploratory. We do not make adjustments for multiple comparisons. Readers should interpret these results with caution and keep in mind that they represent trends for a relatively small number of teachers.

For nearly all mathematics and ELA instructional practices asked about in the American Teacher Panel survey, we observed no significant differences for teachers with different populations of students, with the exception of two ELA practices: Compared with ELA teachers in Low Black or Hispanic schools, ELA teachers in High Black or Hispanic schools reported lower percentages of students who “participate in a range of conversations and collaborations with various partners” and “demonstrate understanding of spoken words, syllables and sounds (phonemes)” ($p < 0.05$). We did not find any significant differences for mathematics teachers.

Teachers in different subgroups also reported using similar instructional materials to their counterparts in other schools. We found no difference in reported use of Tier 1 curriculum materials for reading and mathematics among teachers serving more or fewer black or Hispanic and FRL students. There were differences in reported use of some online sources of mathematics content: Teachers in schools with more black or Hispanic students reported more use of ShareMyLesson.com and TeachersPayTeachers.com for their instruction (56 percent and 80 percent, respectively) compared with those with fewer black or Hispanic students (0 percent and 51 percent). Similarly, teachers in High FRL schools also reported more use of ShareMyLesson.com (17 percent) than those in Low FRL schools (0 percent). These results suggest that teachers in schools serving different populations were likely using similar instructional materials in 2017, although teachers in schools with more black, Hispanic and low-income students may have sought out more online materials from some sources, possibly because they felt that their main materials did not support all students’ needs.
In general, these data do not suggest that teachers in schools with more low-income and minority students are engaging in radically different practices or using lower-quality materials than their counterparts in higher-income schools with fewer minority students. These results are encouraging in showing no reported disparities in what teachers are doing when they teach different kinds of students. On the other hand, the data we used to make these comparisons are limited because they are self-report data from teachers, and they do not delve into within-school differences in the instruction that students from different ethnicities and income levels may receive in the classroom. In addition, the survey data were collected after the inception of the reform, and we are not able to compare these results with pre-reform practices. Moreover, it may be that students in more vulnerable subgroups actually need more resources and supports beyond those provided by high-quality textbooks and standards-based instruction. Specifically, to meet the high bar that high-quality standards and textbooks represent, struggling students may need teachers to integrate some additional instruction and materials to accelerate students’ learning to help them access high-quality materials.

Conclusions and Implications

This report examined two key questions:

1. How are Louisiana’s key actions for K–12 academics being perceived, interpreted, and acted upon by school systems and educators?
2. How have student outcomes—as well as achievement gaps—changed in relation to Louisiana’s recent actions for K–12 academics, starting in about 2012?

In this section, we summarize the key findings and then consider the implications for state policies in Louisiana and across the United States. As noted at the beginning of this report, findings based on case study data may not be representative of the state as a whole, but patterns across multiple case study sites do point to some general trends regarding how state policies are being perceived and acted upon by a diverse set of school systems.

Louisiana school system administrators and teachers were aware of, and generally supported, the state’s new standards and curriculum recommendations. According to survey data, three-quarters of Louisiana teachers supported use of their state mathematics and ELA standards in classroom instruction. The case study interviews support this finding: Most of the central office and school administrators and teachers we interviewed told us that the state standards guided instructional practices. However, school staff also voiced concerns that the standards were too challenging for students to learn and for teachers to teach, and some were frustrated that they were not yet seeing progress in their students’ academic outcomes. Respondents in every case study site appreciated that the tiering system sent a clear signal about which curricula were most closely aligned with their standards and assessments, and they described using the rating (i.e., the tier) to make curriculum choices. However, they did not
The state’s curriculum recommendations appeared to drive widespread adoption of Tier 1 curricula, although teachers reported considerable variation in how they used those curricula. Our data suggest that the state sent a clear signal to school system administrators about which curricula were high-quality. Central office staff in each site said that they were aware of the curriculum reviews and tiering process and that they relied on the ratings, rather than the content of the reviews, to guide their curriculum choices. In addition, most of the K–12 administrators and teachers we talked to believed that a Tier 1 rating was an indication of quality and that use would improve student outcomes, although a few interviewees expressed a wish for more evidence of effectiveness. The American Teacher Panel survey data from 2017 confirmed our case study findings: Louisiana teachers reported using Tier 1 curricula more than other U.S. teachers.

That said, our case study data suggested some variation in curriculum use across Louisiana. First, even when a district had officially adopted specific curricula and tried to monitor its use, all teachers were not necessarily using those materials. In addition, both our interview and survey data suggested that teachers modified their curricula. Teachers in our case study sites described using curricula as a guide but adapting or scaffolding lessons to match students’ learning levels, and few teachers reported that they were expected to use the curricula without modification.

Most of the professional development in our case study sites was school-based, yet Louisiana teachers reported receiving more standards-aligned professional development than other U.S. teachers. In general, staff at the case study sites reported that they did not make extensive use of outside vendors, preferring instead to provide teachers with time to collaborate, despite the fact that LDOE provides a catalog of external vendors that provide professional development aligned with Tier 1 curricula and asks schools to include such vendors in their school improvement plans. The frequency and format of these opportunities for teachers to meet together for professional development varied by site, but respondents in each site reported that teachers had the opportunity to collaborate—in grade-level or
subject-specific professional learning communities, for example—at least weekly.

At most sites, the fast pace of reform posed a challenge for professional development, and we heard reports that it was difficult to keep up with changing policies and expectations and to make sure that everyone was on the same page. For example, staff at one site reported they were well into training their teachers on the new curricula when they realized they had forgotten to train principals.

Relative to other U.S. teachers, however, Louisiana ELA and mathematics teachers reported receiving more professional development related to their standards, based on the American Teacher Panel survey administered in 2016, and many teachers we interviewed mentioned attending state-provided professional development and training focused on their standards. The training that LDOE is beginning to roll out for content leaders and mentor teachers in schools may provide further opportunities for standards-aligned professional development within schools, even if schools do not frequently rely on external vendors to provide that professional development.

Case study central office staff, school leaders, and teachers had some knowledge of most state policies and guidance, and they learned about state policies through multiple sources, including state-provided professional development. The central office staff in our case study sites were well aware of the state’s accountability policies, curriculum reviews and guidance, and recommended professional development vendors, although there seemed to be less awareness of the formative assessment ratings, reviews, and recommendations. Many school system staff—including central office staff, school leaders, and teachers—spoke of attending state trainings to gather information about what the state was doing, and some mentioned that state officials visited their school system to interact with school staff, listen to their concerns, and walk through classrooms. Several interviewees also mentioned receiving information about the reforms from the state’s newsletters. In addition, the American Teacher Panel survey data from 2017 indicated that significantly more Louisiana teachers consulted their state’s department of education website compared with other U.S. teachers, and a few interviewees in each case study site mentioned consulting the LDOE website for updates on state policies and curricula.

Louisiana ELA teachers reported more-extensive use of standards-aligned practices than teachers nationally; there were no differences in use of standards-aligned practices for mathematics teachers. The American Teacher Panel survey asked teachers about the extent to which their students engaged in a range of standards-based classroom practices. Louisiana ELA teachers were more likely to report that their students participated in key standards-aligned ELA practices to a greater extent than teachers nationally. These practices included participating in a range of conversations and collaborations with a variety of partners, demonstrating a command of the conventions of standard English in speech and writing, and using textual evidence to support conclusions. We did not find any differences between Louisiana mathematics teachers’ standards-aligned practices and those of teachers nationally. One possible explanation for this finding is that the Standards for Mathematical Practice have been emphasized across the United States for decades through the Common Core and National Council of Teachers of Mathematics process standards, and many teachers—both in Louisiana and nationally—may at least recognize the practices as an important aspect of their mathematics instruction.
Louisiana’s FRL and black or Hispanic students underperformed on standardized assessments compared with their non-FRL, white, and Asian counterparts, and the gap between these groups may be widening. In 2017, the most recent year for which state assessment data were available, FRL and black/Hispanic students’ test scores were much lower than their counterparts (non-FRL students and nonblack and non-Hispanic students) in ELA and mathematics. We also examined trends over time in LEAP percentile scores in ELA and mathematics in order to describe changes for one subgroup relative to another. From 2016 to 2017, in particular, the gap between FRL and non-FRL students widened. A comparison of black or Hispanic students’ with nonblack and non-Hispanic students’ scores revealed a similarly widening gap; even though the percentile scores of both groups rose over time, scores of nonblack and non-Hispanic students increased faster, causing the gap to widen. NAEP data from 2011 to 2017 confirmed these trends.

These findings have implications for Louisiana as these statewide reforms mature, and they have implications for other states seeking to affect statewide policy change using similar levers. In particular:

- **States can provide information and offer incentives that support adoption of high-quality curriculum adoption at the local level, although more research is needed to understand effective modifications of curricula.** A key takeaway from our work is that states can have a big impact on what materials teachers use in the classroom, even without mandating use of those materials. In all our case study sites, administrators reported a desire to adopt Tier 1 curricula. Their concern about the lack of Tier 1 curricula for science and social studies underscores the demand from school systems for the state to recommend high-quality curricula in those subjects. However, our data drive home the point that teachers use and modify curricula in a variety of ways. Louisiana does not wish to dictate exactly how teachers use high-quality curricula, but it—along with other states and researchers as well—should consider examining whether trends in how teachers use and modify curriculum materials are related to student achievement gains. Such information could support clear recommendations to teachers about effective uses of instructional materials, which may be most useful for teachers who are struggling to help students engage with standards and texts that set a high bar.

- **The lack of remediation materials is a problem in Louisiana and likely to be crucial for effective use of high-quality materials among struggling student populations.** Across our case study sites, educators reportedly struggled to help students engage with high-quality curriculum materials and meet rigorous standards. Many teachers we interviewed specifically mentioned the need for remediation materials and supports. Moreover, the LEAP and NAEP data suggest that more vulnerable student populations are doing less well and need more support. LDOE is working with Tier 1 curricula vendors to build out more intensive remedial supports for diverse learners, which may fill this gap moving forward in Louisiana. In addition, our finding on widening achievement gaps between black or Hispanic and white or Asian students suggests a need to ensure that high-quality materials are also culturally relevant.
• National and state policies should reflect that stakeholders need time to adapt before high-stakes assessments are put in place. Our research took place when Louisiana adopted high-stakes assessments for science and social studies, while still working to identify high-quality curricula for those subject areas. One possible reason for the delay in identifying high-quality curricula in these subjects is that publishers need time to revise materials to meet the higher bar set by recently adopted standards in Louisiana and other states (Heitin, 2015; Herold and Molnar, 2014). Another challenge is that federal legislation—the Every Student Succeeds Act of 2015 and its predecessor, the No Child Left Behind Act of 2001—emphasizes use of standards-aligned tests for accountability purposes. However, as suggested by the findings in this report, school systems and teachers may not always have adequate resources to help students meet the higher bar set by those standards. Ideally, state policies—including those adopted in response to federal requirements—would hold school systems accountable for student performance on tests after states provided access to high-quality resources to help students meet the standards. LDOE addressed this issue by allowing schools to take the higher of their science scores from 2017 and 2019, but our interviewees in case study sites still reported considerable anxiety in regard to ensuring that science instruction was better aligned with new standards and assessments.

• High-quality professional development may be challenging for states to incentivize and encourage, although emphasizing curriculum-specific and statewide training may support teachers to get more standards-aligned professional development. Our survey data suggest that Louisiana ELA and mathematics teachers are receiving more standards-aligned professional development than their peers in other states. While Louisiana has been working to identify and encourage the use of high-quality, curriculum-specific professional development through vendor recommendations, our case study sites indicated a preference for locally developed and school-specific professional development, although central office staff noted that they emphasized professional development aligned with curricula and standards. In addition, many central office and school staff with whom we spoke mentioned attending the state professional development trainings. The state’s emphasis on curriculum-specific training and free statewide professional development may be leading to the higher proportions of teachers reporting professional development on standards-aligned topics in Louisiana, compared with teachers in other states, although other explanations of this pattern are possible. Other states might consider such an approach to ensure that teachers receive standards-aligned training. Louisiana is currently taking additional steps to support teacher learning about standards and curricula. Specifically, in 2018, Louisiana began offering content leader trainings for teachers,

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which come with a credential that could count toward a school administrator certification. The state’s intention is to train content leaders who then provide training to teachers within their own school system. This approach provides some teachers with state-approved training, and also aligns with the preferences for locally developed professional development voiced in our case study sites.

- **Multiple avenues of communication can raise awareness and promote buy-in for policy changes.** A state department of education should provide the resources, guidance, and support that school systems need to successfully implement policy changes, and Louisiana’s mechanisms for communication may be helpful as a model. As discussed in prior reports (Kaufman et al., 2018; Kaufman, Thompson, and Opfer, 2016), Louisiana created numerous pathways for sharing resources and communicating with stakeholders at all levels of a school system, and many of these communication avenues were appreciated by staff in our case study sites. Many of the central office staff, principals, and teachers we interviewed mentioned accessing state information through multiple channels, including newsletters, the state website, conversations with state staff who visited their schools, and state-run professional development sessions. In addition, several interviewees appreciated state officials’ responsiveness to questions posed in person, by phone, and via email. Thus, any state wishing to support educators through specific policies and programs may wish to consider a similarly multipronged and responsive approach to communicating their goals to administrators and teachers in schools.
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About This Report

This report is part of a four-part series on how policy actions intended to support students from birth through graduation from high school in the state of Louisiana are being implemented by educators and the organizations they work in, and how those policy actions are related to successful student outcomes. Each of the four reports focuses on a different topic that has been the focus of Louisiana's education policy reforms: early childhood education, K–12 academics, teacher preparation, and graduation pathways. The report series follows up on Raising the Bar: Louisiana’s Strategies for Improving Student Outcomes (Kaufman et al., 2018), which provided an in-depth description of the key actions that the state has been taking, in each of these four areas, to support and improve outcomes for all students in Louisiana. Taken together, these reports provide an overview of how an ambitious set of interconnected state policies, introduced in 2012, are making their mark on teaching and learning in early childhood centers, schools, and teacher preparation institutions across the state.

This report focuses on K–12 academics. It specifically examines the implementation of key state actions—described in Kaufman et al. (2018)—intended to support and improve K–12 academics, and any outcomes that might be associated with those actions. Findings suggest that the state’s standards and curriculum recommendations have been largely supported and have driven widespread adoption of state-recommended curricula.

RAND Education and Labor

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More information about RAND can be found at www.rand.org. Questions about this report should be directed to jkaufman@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.