How States Are Creating Conditions for Use of High-Quality Instructional Materials in K–12 Classrooms

Findings from the 2021 American Instructional Resources Survey

Supported by the Bill & Melinda Gates Foundation, Charles and Lynn Schusterman Family Philanthropies, Overdeck Family Foundation, and Walton Family Foundation
About This Report

The American Instructional Resources Survey (AIRS) has been investigating adoption and use of instructional materials in K–12 public schools in the spring of each school year since 2019. The American Educator Panels (AEP) are nationally representative samples of teachers, school leaders, and district leaders across the country. The AIRS sample was selected to be representative of K–12 teachers within 16 states: Arkansas, California, Delaware, Florida, Kentucky, Louisiana, Massachusetts, Mississippi, Nebraska, New Mexico, New York, Ohio, Rhode Island, Tennessee, Texas, and Wisconsin. In this report, we focus on survey data on adoption and use of instructional materials of teachers across the United States and from state-representative samples of teachers in states that are participating in the Council of Chief State School Officers’ High-Quality Instructional Materials and Professional Development (IMPD) Network, which includes 13 of the 16 state oversamples for AIRS (excluding California, Florida, and New York). The IMPD Network focuses on supporting state reforms that encourage use of high-quality materials in K–12 schools.

If you would like to know more about the dataset, please see the American Instructional Resources Surveys: 2021 Technical Documentation and Survey Results (RR-A134-10, www.rand.org/t/RRA134-10) for more information on survey recruitment, administration, and sample weighting. If you are interested in using AEP data for your own analysis or reading other AEP-related publications, please email aep@rand.org or visit www.rand.org/aep.

RAND Education and Labor

This study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. This report is based on research funded by the Bill & Melinda Gates Foundation, the Charles and Lynn Schusterman Family Philanthropies, the Overdeck Family Foundation, and the Walton Family Foundation. The findings and conclusions we present are those of the authors and do not necessarily reflect the positions or policies of the foundations that supported this research.

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

Acknowledgments

We are extremely grateful to the U.S. public school teachers and leaders who have agreed to participate in the AEP. Their time and willingness to share their experiences are invaluable for this effort and for helping us understand how to better support their hard work in schools. We also would like to acknowledge the following people and organizations for their contributions to this work. First, we would like to thank the Council of Chief State School Officers—particularly Shannon Glynn Thomas and Joanne Weiss—along with state officials from states featured in this report for their review of this report to ensure its accuracy, particularly regarding state policies. Second, a sincere thanks to our quality assurance manager, Benjamin Master, and reviewers—Elizabeth Steiner and David Steiner (no relation)—who provided constructive feedback that improved the report. We are also grateful to Rachel Ostrow and Monette Velasco, who provided expert editing and project management assistance. We also appreciate the efforts of the RAND AEP research...
team for the work that went into the programming, testing, and fielding of this survey, as well as for conducting the sampling and weighting to ensure precise nationally and state-representative estimates. We greatly appreciate the project management and strategy support provided by Kitamba, including Alexa Verme, Erin Daniels, and Barbara Zappala. The spring 2021 AIRS, on which these findings are based, was developed by the AIRS team—in particular, Julia Kaufman, Sy Doan, and Ashley Woo, with considerable guidance and feedback from both our funders and reviewers. That survey included some repeated items from the 2019 and 2020 AIRS surveys, along with new items. Thanks to those who supported our survey development effort by reviewing and providing feedback on the AIRS survey items and this report, including individuals from EdReports, the Council of Chief State School Officers, English Language Success Forum, New America, and WestEd.
Contents

About This Report .......................................................................................................... iii
Figures and Tables .......................................................................................................... vii
Summary ..................................................................................................................... ix

CHAPTER ONE
Introduction .................................................................................................................. 1
The Potential for Standards-Aligned Materials and Curriculum-Aligned Supports to Improve Student Learning ........................................................................................................................................... 2
The Role of States in Promoting the Selection and Implementation of Standards-Aligned Curriculum Materials ..................................................................................................................... 3
The Theory of Action Guiding This Report ........................................................................ 4
Overview of the Methods and Organization of This Report .................................................. 5

CHAPTER TWO
IMPD Network Strategies for Increasing Adoption and Supporting the Use of Instructional Materials ...

CHAPTER THREE
Standards-Aligned Material Adoption, Use, Buy-In and Supports Nationally and in IMPD Network States ..................................................................................................................... 13
Indicators for Standards-Aligned Material Adoption, Use, Buy-In, and Supports ....................... 14
Patterns in Standards-Aligned Material Adoption, Use, Buy-In, and Supports ......................... 15
State Variation in Standards-Aligned Material Adoption, Use, Buy-In and Supports for Mathematics ... 19
State Variation in Standards-Aligned Material Adoption, Use, Buy-In, and Supports for English Language Arts .......................................................................................................................... 23
Connecting Supports with Teachers’ Use of Standards-Aligned Materials .................................... 27

CHAPTER FOUR
State Snapshots of Standards-Aligned Material Adoption, Use, Buy-In, and Supports .............. 35

CHAPTER FIVE
Conclusions .................................................................................................................. 85
IMPD Network Strategies ................................................................................................. 85
Standards-Aligned Curriculum Material Adoption, Use, Buy-In, and Supports Across the United States and in IMPD Network States .............................................................................................. 86
Limitations ..................................................................................................................... 88
Implications for State and District Policy ............................................................................. 88
Implications of Our Findings for Future Research .................................................................. 90

APPENDIX
Policies in IMPD Network States and Additional Analyses Tables .......................................... 91

Abbreviations .................................................................................................................. 101
References .................................................................................................................... 103
Figures and Tables

Figures

S.1. Theory of Action ............................................................................................................. ix
1.1. Theory of Action ........................................................................................................... 5
2.1. States in the IMPD Network as of 2021 ........................................................................ 7
3.1. Standards-Aligned Material Adoption, Use, Buy-In, and Supports in the 2020–2021 School Year, Based on Responses from U.S. Teachers .................................................................................... 18
3.2. State-Level Variation in Standards-Aligned Material Indicators for Math in the 2020–2021 School Year, According to Math Teacher Reports ................................................................. 20
3.4. State-Level Variation in Standards-Aligned Indicators for ELA in the 2020–2021 School Year, According to ELA Teacher Reports ........................................................................................................ 25
3.5. Standards-Aligned Material Indicators for ELA in the 2020–2021 School Year, by State, According to ELA Teacher Reports ........................................................................................................ 26
3.6. Rates of Standards-Aligned Material Adoption Among IMPD Network (Original and New) and Non-IMPD Network Member States ........................................................................... 28
3.7. Prevalence of Support and Buy-In Indicators, by IMPD Network Participation and Adoption of Standards-Aligned Materials ........................................................................................................ 30

Tables

2.1. Types of Strategies Enacted by IMPD Network States to Encourage or Mandate Adoption of HQIM and Provision of Supports .......................................................................................... 10
3.1. Standards-Aligned Materials Indicators ........................................................................... 14
3.2. Pressure for Supports and Use of Standards-Aligned Materials ........................................ 27
3.3. Relationships Between Supports for Material Use and Teachers’ Use of Standards-Aligned Materials, by IMPD Network/Material Adoption Condition in 2020–2021 ............................................. 33
A.1. Summary of State Strategies to Support Adoption and Use of HQIM Enacted by Arkansas, Delaware, Kentucky, Louisiana, Massachusetts, Mississippi, and Nebraska .................................. 92
A.2. Summary of State Strategies to Support Adoption and Use of HQIM Enacted by New Mexico, Ohio, Rhode Island, Tennessee, Texas, and Wisconsin ...................................................... 96
A.3. State Variation in the Percentage of Teachers Reporting Standards-Aligned Material Adoption, Use, Buy-In, and Supports, by Indicator and Teacher Subject Area in the 2020–2021 School Year .......................................................... 99
A.4. Association Between Indicators of Supports or Adequacy and Teacher Use of Standards-Aligned Materials, by IMPD Participation and Adoption of Standards-Aligned Material Condition ........................................................................................... 100
Summary

Policymakers and practitioners increasingly have looked to instructional materials to signal the content that students are expected to learn and how to teach that content. Although instructional materials by themselves cannot be expected to lead to student learning, a growing body of evidence suggests that use of instructional materials that are high quality, accompanied by professional learning supports, is associated with improvements in student achievement (e.g., Jackson and Makarin, 2018; Hill et al., 2020).

The High-Quality Instructional Materials (HQIM) and Professional Development (IMPD) Network is a group of 13 states supported by the Council of Chief State School Officers (CCSSO). Since 2018, states in the IMPD Network have developed and adopted a variety of policies and strategies to encourage the use and support of high-quality curriculum materials—as defined by the state—in K–12 public school systems. Figure S.1 summarizes the theory of action for the IMPD Network. Specifically, IMPD Network state actions to promote HQIM and HQIM-aligned supports are expected to influence school and district actions to promote and adopt materials and supports. In turn, these school and district changes hypothetically should be connected to shifts in teachers’ knowledge, buy-in, and use of standards-aligned curriculum materials, which might then be expected to affect student outcomes.

**FIGURE S.1**
**Theory of Action**

Focus on HQIM as defined by individual states

**State actions**
- A. State signals and incentives/mandates for adoption of HQIM
- C. School or district provides standards-aligned supports:
  - Principal encourages use of standards-aligned curriculum
  - School/principal incorporates curriculum use into observations
  - School or district provides curriculum-specific professional learning (PL), such as collaborative learning, coaching, and workshops

Focus on standards-aligned curriculum materials, as rated by EdReports

**School or district actions**
- B. School or district adopts standards-aligned curriculum materials
- D. Teacher buy-in for standards-aligned curriculum materials
- E. Teachers’ regular use of standards-aligned curriculum materials

Focus on standards-aligned curriculum materials, as rated by EdReports

**Teacher perceptions and actions**
- F. Teacher engages students in standards-aligned classroom practices

Focus of IMPD Network states

Focus of RAND research for this report

Focus of RAND research for this report

Focus on standards-aligned curriculum materials, as rated by EdReports

**Teacher and student or student actions**
- G. Student learning

Focus of IMPD Network states

Focus of RAND research for this report

Focus on standards-aligned curriculum materials, as rated by EdReports

**Teacher and student or student actions**
- G. Student learning
In this report, we investigate the variables and linkages in this theory of action in several ways:

- In Chapter Two, we investigate the policy strategies undertaken by IMPD Network states to encourage and/or support the selection and use of curriculum materials that the state has defined as high quality. For this investigation, we draw on ongoing discussions with state education leaders about their policy contexts and policy documentation on state department of education websites.
- In Chapter Three, we summarize standards-aligned material adoption, use, and supports across the United States and in the IMPD Network states during the 2020–2021 school year using teacher survey self-reports to AIRS, which was administered to a nationally representative sample of teachers in spring 2021. AIRS also was administered to state-representative samples of teachers in all IMPD Network states.
- Also in Chapter Three, we use AIRS data to examine relationships among IMPD Network participation, adoption and use of standards-aligned curriculum materials, along with supports for use of those materials.
- In Chapter Four, we provide state-specific profiles for each state in the IMPD Network; these profiles summarize patterns and trends within each state on key indicators relating to standards-aligned curriculum material adoption, use, buy-in, and supports.
- Chapter Five provides an overview of key findings and conclusions, followed by an appendix that includes more detail on state policies and strategies related to curriculum reform.

Readers should keep in mind that the definition for standards alignment that is used in this report takes into account whether a particular material meets expectations based on EdReports reviews. EdReports is an independent organization that reviews the extent to which published K–12 curriculum materials align with most college- and career-ready academic standards across the United States. Although many IMPD Network states incorporate EdReports reviews into their definitions of HQIM, the EdReports and state definitions of HQIM are not synonymous. Hence, our measures of the use of standards-aligned curriculum materials might not fully capture all the specific HQIM that each state is encouraging districts and schools to adopt (see Box S.1 for definitions of commonly used terminology in this report).

Findings on IMPD Network Strategies

IMPD Network states provide school systems and teachers with a range of signals and incentives to encourage use of HQIM in classrooms and the provision of curriculum-aligned supports. A brief overview of the most common strategies, which are also summarized in Table 1.1, follows:

- All IMPD Network states provide teachers with information about the quality of math and English language arts (ELA) instructional materials as a signal to guide district and school decisions about which materials they should adopt.
- Most states also incentivize adoption of HQIM by tying funding sources—such as Elementary and Secondary School Emergency Relief (ESSER) funds, grant opportunities, competitive funding, or other supports—to the selection of HQIM.
- Furthermore, most IMPD Network states directly provide HQIM-aligned professional learning in some form to school or district staff, and many provide districts with signals or incentives to encourage districts and schools to choose vendors who meet quality criteria and/or provide professional learning aligned to HQIM.
Finally, states in the IMPD Network are beginning to work with teacher preparation programs to increase the focus on HQIM within preparation courses and clinical experiences.

Importantly, the coronavirus disease 2019 (COVID-19) pandemic had at least some effect on reform efforts in all states, given the need for states to focus heavily on supports for online learning and struggling students in spring 2020 and over the course of the 2020–2021 school year. For these reasons, state reform efforts might have slowed, but all states maintained their commitment to encouraging use of HQIM throughout the pandemic.
Findings on Standards-Aligned Material Adoption, Use, and Supports

We investigated the presence of ten indicators across the United States and in each IMPD Network state that reflect district, school, and teacher actions that are related to our theory of action, including (1) one indicator related to adoption of standards-aligned curriculum materials in districts and schools, (2) five indicators related to supports for use of curriculum materials, (3) two indicators related to teacher buy-in for standards-aligned materials, (4) and two indicators of teachers’ use of standards-aligned curriculum materials. We specifically investigated the extent to which being in the IMPD Network predicted teachers’ reports regarding standards-aligned material adoption, use, and supports. There are three important notes about that investigation: First, ratings on all indicators were determined via teachers’ survey self-reports, which is a limitation of our data but also made it possible to provide consistent data for all states. Second, determination of standards-aligned curriculum material adoption and usage was based on our independent coding of teachers’ indications that they used particular curriculum materials that we determined as meeting expectations of EdReports reviews. Our rating of standards alignment thus might conflict with what some IMPD Network states have designated as HQIM, although nearly all states point to or use EdReports as one internal indication of HQIM. Third, our support indicators were focused on supports for use of curriculum materials, regardless of whether teachers had reported adoption of standards-aligned materials or curriculum materials that were not rated as standards-aligned. Thus, our support indicators might be more applicable to the curriculum support efforts in all states given that they do not depend on EdReports ratings.

What follows is an overview of our key findings:

- There was higher variance in teachers’ reports of adoption and use of standards-aligned materials when compared with support and buy-in indicators; that higher variance could imply that those indicators are more malleable through state policies but also could imply that IMPD Network state progress is initially best measured through adoption and use indicators.
- Generally, there were higher adoption and usage rates for standards-aligned mathematics materials across the United States and in IMPD Network states compared with adoption and usage of standards-aligned ELA materials. Higher rates of adoption and use of standards-aligned mathematics materials might be partially explained by the greater number of standards-aligned materials available in mathematics versus ELA and the longer period of time that many of those materials have been on the market.
- Participation in the IMPD Network was positively linked to usage of standards-aligned materials in two ways:
  - Teachers in IMPD Network states, particularly states that have been active in the network the longest, were more likely to clear the all-important first gateway to standards-aligned material usage—the adoption of said materials.
  - On the condition of being in a school/district that has adopted a standards-aligned material, teachers in IMPD Network states were significantly more likely to report increased usage of standards-aligned materials, the presence of principal support for use of curriculum materials, and the presence of professional learning supports for use of materials.

Thus, perhaps unsurprisingly, school and district decisions to adopt standards-aligned materials (regardless of IMPD Network participation) were critical, necessary gateways to realizing the goals of the IMPD Network, such as increased teacher usage of standards-aligned materials and access to curriculum-focused professional learning. These findings are consistent with our theory of action in that it appears that IMPD Network policy signals and incentives successfully drive more adoption of standards-aligned materials, which, in turn, can drive higher usage and supports for those standards-aligned materials. Together, these
findings suggest that the IMPD Network state context is the optimal setting for all aspects of our theory of action to work as intended to encourage greater usage of standards-aligned materials.

Several states stood out in terms of adoption and use of standards-aligned materials, supports for standards-aligned materials, or both. Two states that led the IMPD Network in terms of standards-aligned material adoption, use, and supports in both ELA and mathematics were Louisiana and Delaware, which suggests that those states’ approaches might be worth studying in more detail. Louisiana’s approaches already have been studied closely at RAND and elsewhere. Strategies that have stood out as potentially most useful in those studies included clear identification of materials that were aligned with state standards—via public reviews—and identification of commonly used materials that were not aligned; state contracts and other incentives to encourage uptake of standards-aligned materials, with requirements to use standards-aligned materials in districts with repeated low achievement results (Kaufman, Steiner, and Baird, 2019; Kaufman, Thompson and Opfer, 2016). In Delaware, state leaders described several promising supports that are intended to assist districts to acquire and provide high-quality professional learning opportunities. These supports included guidance for selecting professional learning vendors, a grant process to provide funds to districts that are partnering with high-quality vendors, and partnerships with vendors to provide professional learning at the state level for districts through an annual professional learning series.

Several IMPD Network states other than Louisiana and Delaware stood out to varying degrees regarding adoption and use, supports for curriculum-aligned materials, or both across both ELA and mathematics. For example, the following states had stronger results than the rest of the United States for at least three indicators for both ELA and mathematics: Mississippi, Rhode Island, and Tennessee. All these states have been in the IMPD Network since 2018. Mississippi teachers reported high rates of adoption of standards-aligned and curriculum-specific supports in mathematics, along with high supports and buy-in for curriculum materials in ELA. These might be precursors to more use of standards-aligned materials in both subjects in the future. Mississippi’s mathematics coaching efforts, in particular, could be leading to higher rates of teacher reports of curriculum-specific mathematics coaching.

In Rhode Island, adoption and usage of standards-aligned materials was high across both mathematics and ELA, although curriculum-specific supports were higher than the national average only in one area: collaborative learning with other teachers that focused on mathematics curriculum materials. These data suggest that Rhode Island’s approaches to encourage adoption and usage of standards-aligned materials, including annual data on curriculum use publicly posted on the Rhode Island Department of Education website and legislation requiring adoption of HQIM by 2023, could be useful models of approaches for encouraging adoption and usage in other states. For Rhode Island, the supports for use of those materials will be an important next focus for policy.

In Tennessee, adoption and usage of standards-aligned materials was high in both mathematics and ELA. Tennessee teachers also reported very high levels of support for curriculum-specific supports relative to the country as a whole. As with Rhode Island, Tennessee is requiring districts to adopt only approved curricula as determined by the state. As noted previously, Tennessee has been focused on ELA standards-aligned materials adoption over the past several years, which might explain its impressive results for indicators in ELA. These positive results could be a precursor to similarly impressive results for mathematics when the state places more emphasis on adoption of standards-aligned mathematics materials in the 2023–2024 school year.

Finally, although not the focus of our findings, some individual states that have been in the IMPD Network since 2018 have experienced considerable growth in usage of standards-aligned materials over time. We do not have consistent adoption data since 2019, but we did track shifts in “regular (once a week or more)” use of standards-aligned materials in each IMPD Network state in a separate report (Kaufman, Doan, and Fernandez, 2021). In that analysis, several states saw an average rise of more than 10 percentage points in teachers’ reports of standards-aligned mathematics material use between 2019 and 2021, including Massachusetts,
Nebraska, New Mexico, and Rhode Island. Likewise, the following states saw an average rise of more than 10 percentage points in teachers’ reports of standards-aligned ELA material use between 2019 and 2021: Delaware, Mississippi, Nebraska, Rhode Island, Tennessee, and Wisconsin. These findings are particularly notable because these rises continued over the course of the COVID-19 pandemic and given where many of these states started in use of standards-aligned materials. For all these reasons, the approaches of these states are worth understanding in greater depth through additional research.

Implications for State and District Policy

State networks, such as the IMPD Network, have great potential for shifting teaching and learning at scale. Our findings first and foremost suggest that such collaborations as the IMPD Network can have substantive effects on what happens in K–12 classrooms. In particular, these collaborations can affect the materials that teachers use in their classrooms, which research shows has a demonstrable effect on which topics teachers address in class and how they teach them (Correnti and Rowan, 2007; Rowan, Camburn, and Correnti, 2004; Stein and Kaufman, 2010; Tarr et al., 2008). We do not know as much about the specific mechanisms by which the IMPD Network has led to shifts across participating states and whether shifts in usage of standards-aligned materials will be sustained and have clear effects on student achievement, which could be the focus of follow-on research. However, these results suggest that states should be seeking more ways to collaborate and learn from one another in ways that support their reform efforts.

To increase curriculum-specific supports and usage of standards-aligned materials, state and district policymakers should focus first on encouraging adoption of standards-aligned materials. For state and district policymakers seeking to increase the usage of and support for standards-aligned instructional materials in the classroom, this report suggests a clear, if obvious, lever for action: adoption of standards-aligned instructional materials as a critical first step for encouraging greater use of those materials. Although other indicators of support and adequacy of materials—such as whether principals encourage the use of curriculum or whether teachers believe materials are adequate for teaching state standards—were linked to usage of standards-aligned materials in our analysis, this is only the case if schools and districts have adopted, required, or recommended such materials for their teachers. Very few teachers reported that they used a standards-aligned material if they did not report that their school or district had adopted one. Through efforts to identify HQIM and signal the importance of their use, states can play an important role in encouraging local adoption, as evidenced by the higher rates of adoption of standards-aligned materials that we found among states participating in the IMPD Network. That said, the work of implementing HQIM in the classroom does not end with local adoption. Roughly one-quarter of math teachers and one-third of ELA teachers who reported that their districts had adopted a standards-aligned material did not report regular or intensive use of those materials.

Requirements likely encourage more adoption of standards-aligned materials, but other levers, such as those that aim to increase buy-in for use of standards-aligned materials among principals and teachers, might also encourage adoption and use. In Tennessee and Rhode Island, which have had mandates or requirements for districts to adopt HQIM, those mandates could explain higher adoption and use of standards-aligned materials for both ELA and mathematics in those two states. That said, other states without such mandates also had high rates of standards-aligned materials adoption and usage, including Delaware and Louisiana. Furthermore, such states as Nebraska have seen large rises in use of standards-aligned materials for both ELA and mathematics without any mandates in place. In these states, a combination of a large variety of signals and incentives for use of standards-aligned materials might be making a difference. However, we should point out that Delaware is a relatively small state where state officials might find it easier to interact directly with school systems. Furthermore, Louisiana has worked to encourage standards-aligned
material adoption, use, and supports for a longer time than almost any other state in the United States. The work of these states suggests that, absent mandates, much consensus-building, long-term work is necessary to encourage a high rate of usage of standards-aligned materials.

Implementing strategies encouraging buy-in among principals and teachers regarding the importance of using standards-aligned materials—rather than simply requiring use—could be effective for encouraging more use of those materials. In Nebraska, for example, in both mathematics and ELA, teachers indicated more principal encouragement for use of curriculum materials than in the country as a whole, which could explain large jumps in usage of standards-aligned materials over time. State and district leaders who desire greater usage of HQIM also might consider how they could support principals in encouraging teachers to use their adopted materials. Some states, such as Tennessee, have launched professional development opportunities to help school principals with the implementation of HQIM in their schools. Other states, such as Massachusetts and Louisiana, are designing subject-specific tools to support school leaders in conducting observations, which could further encourage teacher use of HQIM in the future.

Efforts to improve teachers’ understanding of what is standards-aligned and what is not could encourage greater usage of standards-aligned materials. Teachers’ perceptions of the adequacy of standards-aligned materials for teaching state standards and the preparation of students for state assessments (what we also refer to as teacher buy-in in this report, established by teacher ratings of their materials) were other factors that were linked to the higher usage of such materials among teachers who reported that these materials had been adopted in their districts. One barrier to the use of HQIM that has been observed in prior RAND research is that teachers using HQIM are more likely to indicate that these materials are “too challenging” for their students and, as result, less usable (Wang et al., 2022). One potential strategy for improving teacher buy-in and perception of adequacy of their materials that was employed in Louisiana and Mississippi, among other states, was the use of teacher curriculum ambassadors who served as advocates and supporters of their colleagues to better implement HQIM. These kinds of teacher leader roles, along with principal support, could be particularly helpful in increasing teachers’ acceptance that their materials will do the job of helping students master state standards and thus encourage usage of such materials.

School district superintendents and leaders of charter management organizations must lean into supports for standards-aligned materials to ensure uptake in usage. As indicated by our findings, states likely play a large role in the adoption of standards-aligned materials. However, variability across IMPD Network states was relatively low when it came to curriculum-specific supports. Those results suggest that the school systems themselves likely play the greatest role when it comes to the provision of those supports, which, in turn, are connected to higher usage of standards-aligned materials. Collaborative learning—which also might encompass teachers’ instructional planning time together—is one way in which teachers are most likely to report engaging in curriculum-specific learning, and this could be a space in which school systems elect to provide clearer guidance or encouragement for teachers to engage with their curriculum materials. In addition, providing clearer guidance to school principals will provide more direct messaging to teachers about expectations to use standards-aligned materials.

Implications for Future Research

Much more research is necessary to fully understand the mechanisms by which IMPD Network states are influencing actions of schools and districts along with those of teachers, and how various aspects of our theory of action are related and driving improvements to teaching and learning. First, we need to understand the key policy mechanisms that could be most responsible for driving changes in the use of instructional materials, and how networks like the IMPD Network are supporting policy change and building state leader capacity to undertake change. Second, we need to know more about the actions that districts and individual
schools can take—both within states that are undertaking curriculum reforms and those that are not—to understand which district and school roles require more funding and how those roles can be most effective. Third, it is critical to understand linkages among the usage of standards-aligned materials and other important outcomes, including high-quality instructional practices, student engagement, and student learning. Each of those linkages could be its own study. In particular, teacher survey data collected at scale is important but not sufficient to fully understand optimal use and supports for standards-aligned materials. Much more in-depth qualitative and quantitative study of how teachers use curricula and which types of modifications and supplementations along with particular instructional strategies support student learning, will continue to be critical to studies of curriculum use. We hope to leverage AIRS data in future research to further investigate relationships among state policy, district and school actions, and what teachers do in classrooms to support student learning.
CHAPTER ONE

Introduction

Policymakers and practitioners have increasingly looked to instructional materials to signal the content that students are expected to learn and how to teach it. Although instructional materials by themselves cannot be expected to lead to student learning, a growing body of evidence suggests that the use of instructional materials that are high quality and accompanied by professional learning supports is associated with improvements in student achievement (e.g., Hill et al., 2020; Jackson and Makarin, 2018).

Since 2018, states in the High-Quality Instructional Materials and Professional Development (IMPD) Network—a network of 13 states supported by the Council of Chief State School Officers (CCSSO)—have developed and adopted a variety of policies and strategies to encourage the use and support of high-quality instructional materials (HQIM) in K–12 public school systems. HQIM are those materials that states explicitly encourage K–12 teachers to use. The materials designated as HQIM can differ by state. In some cases, the state has designated HQIM as materials that have been rated by EdReports—an independent organization that reviews curriculum materials—as meeting expectations of college- and career-ready standards (i.e., what we refer to as standards-aligned curriculum materials throughout this report). In other cases, the state designates HQIM as materials that meet their standards, EdReports standards, other bars or measures for quality, or some combination thereof, based on state priorities and foci.

In this report, we build on the RAND Corporation’s previous research on use and support of instructional materials aligned with state academic standards (e.g., Kaufman et al., 2020; Kaufman et al., 2021). We present our analysis in two chapters. First, we share some takeaways on key strategies undertaken by IMPD Network states to encourage and/or support the selection, use, and implementation of HQIM, using documentation, interviews with, and additional input from IMPD Network states and CCSSO staff. Second, using data collected through the American Instructional Resources Survey (AIRS), we summarize standards-aligned material adoption, use, and supports across the country and in IMPD Network states during the 2020–2021 school year. We also use the AIRS data to explore relationships among IMPD Network participation, adoption, and use of standards-aligned curriculum materials, and supports for use of those materials. Lastly, we provide state-specific profiles for each state in the IMPD Network that summarize patterns and trends within each state on key indicators relating to standards-aligned curriculum material adoption, use, buy-in, and supports.

Readers should keep in mind that the definition for standards alignment that is used in this report takes into account whether a particular material meets expectations of EdReports reviews. Although many IMPD Network states incorporate EdReports reviews into their definitions of HQIM, the EdReports and state definitions of HQIM are not synonymous. Hence, our measures of the use of standards-aligned curriculum materials might not fully capture all the specific HQIM that each state is encouraging districts and schools to adopt. Box 1.1 shows our definitions for commonly used terminology in this report.
The Potential for Standards-Aligned Materials and Curriculum-Aligned Supports to Improve Student Learning

The instructional materials that teachers use in the classroom can influence both the topics that teachers cover in their classes and how those topics are taught (Rowan, Camburn, and Correnti, 2004; Correnti and Rowan, 2007; Stein and Kaufman, 2010; Tarr et al., 2008). Relatedly, previous RAND research suggests that the use of standards-aligned materials is associated with teacher knowledge of state standards and perceived engagement of students in standards-aligned practices (Kaufman et al., 2018; Opfer et al., 2018). However, research on the extent to which instructional materials influence student learning has yielded mixed findings. Although some studies have found that specific curricula in reading, math, and science are linked to meaningful improvements in students’ achievement (Borman, Dowling and Schneck, 2008; Koedel and

---

**BOX 1.1**

**Definitions of Key Terms Used in This Report**

We recognize that the following terms might be used in different ways by different school systems and state departments of education. We provide our intended definition of these terms here to ensure accurate interpretations of our results for readers of this report.

**Instructional materials** are any materials that are intended to provide learning opportunities to students, including both curriculum materials that constitute a full, comprehensive course of study and other supplemental instructional materials that do not constitute a full course of study, such as isolated activities or lesson ideas found on websites or online repositories.

**Curriculum materials** are instructional materials that are intended to constitute a full, comprehensive course of study for a particular subject and grade level. Curriculum materials could be provided through a textbook, online platform, or both. When we asked teachers in our survey to name the curriculum materials that they used regularly for their instruction, we provided them with this same definition for what was meant by curriculum materials.

**Standards-aligned curriculum materials** are any materials that have been judged by EdReports as fully meeting expectations of college- and career-ready standards.

**HQIM** are materials that states explicitly encourage K–12 school systems to adopt and teachers to use. These materials include standards-aligned materials and those materials that meet other bars or measures for quality on the basis of state priorities and foci. For example, although Delaware leverages EdReports reviews to determine HQIM, New Mexico conducts its own reviews of instructional materials to assess quality and alignment to its state standards. We describe state-specific review processes in Chapter Two and in the state snapshots in Chapter Four.

**IMPD Network** is a network of 13 states that is supported by the CCSSO to develop and undertake policies and strategies to encourage the use of high-quality materials in individual states.

**Curriculum-aligned supports** provide guidance or training for curriculum implementation through various mechanisms, such as professional development, coaching, teacher evaluations, and principal observations that focus on curriculum use.

**EdReports** is a nonprofit organization that reviews the most commonly used curriculum materials to determine the extent to which those curriculum materials meet expectations of college- and career-ready standards for mathematics and English language arts (ELA). We used these EdReports ratings to code curriculum materials as fully, partially, or not standards-aligned for teachers’ subjects and grade levels.
Polikoff, 2017; Smith et al., 1993; Zucker et al., 2008), a recent multi-state study to assess textbook efficacy found no differences in achievement growth for schools using different 4th- and 5th-grade math textbooks, including instructional materials that were aligned with college- and career-ready standards (Blazar et al., 2019). As Steiner (2017) points out, variance in comparison groups and measures of the effectiveness of a given curriculum or set of curricula make it difficult to make conclusive statements about curriculum impact.

Although the use of standards-aligned curriculum materials alone is unlikely to affect student learning, recent research suggests that curriculum use that is accompanied by curriculum-aligned supports—such as coaching, collaborative learning, or professional development workshops—is associated with improved student performance. A meta-analysis found that curriculum-aligned professional development for science, technology, engineering, and math (STEM) teachers was associated with above-average student performance gains (Hill et al., 2020). In addition, findings from an experimental study of the use of online middle school math lessons showed that students of teachers who received curriculum-aligned supports had higher gains in math achievement compared with the students of teachers that only received access to the math lessons without supports (Jackson and Makarin, 2018).

It is possible that curriculum-aligned supports, including professional development, coaching, or evaluations, could lead to academic gains by supporting teachers’ understanding of their materials, strengthening teachers’ implementation of standards-aligned instructional practices, bolstering the fidelity with which teachers use their materials, guiding productive versus less helpful adaptations of materials, or increasing teacher buy-in of materials chosen by their school or district. RAND and other research suggest that the provision of generic supports for teachers implementing standards-aligned materials are not as helpful as ensuring that supports are aligned to the materials that teachers use in their classroom every day (Correnti and Rowan, 2007; Garet et al., 2001; Kaufman, Thompson, and Opfer, 2016). Research on standards-aligned materials and supports suggests that, when used together, both can play a role in helping state and district policymakers and educators in delivering standards-aligned instruction that improves student learning.

The Role of States in Promoting the Selection and Implementation of Standards-Aligned Curriculum Materials

Historically, across the United States, the locus of authority over textbook adoption has been split between states and local school systems. An analysis conducted in the 1980s found that 22 states retained authority over textbook selection, while in 28 states, that authority was held by local districts (Tulley, 1985). However, states gradually have been delegating more authority to local school systems, releasing them from the requirement to adopt instructional materials on a state-approved list and instead providing recommendations rather than mandates (Gewertz, 2015; Scudella, 2013). At the same time, with the adoption of the Common Core and similar standards, many states across the United States have begun encouraging the use of curricula aligned with their state standards and considering ways to support use of those curricula.

Underlying these shifts is a unique challenge with which states must grapple—that of ensuring high-quality instruction and equitable access to grade-level content across the state while allowing teachers to thoughtfully tailor their instruction to their students’ needs and maintain local and professional autonomy over decisions about instructional materials. Although greater local autonomy might be appreciated and valued by educators and district leaders, such autonomy also can lead to greater variation in instruction (Tulley, 1985) and shifts away from standards-aligned curriculum materials and therefore standards-aligned instruction (Gewertz, 2015).

Requiring adoption of standards-aligned materials is not the only way for states to encourage the use of those materials in local districts and, as our own research suggests, requirements alone do not always lead
to significant shifts in what materials teachers use (Kaufman et al., 2020). For example, states can provide school systems with supports and resources, such as state-level reviews of materials and curriculum frameworks, to incentivize the adoption of standards-aligned materials and build capacity at the district and school levels for how to support educators in the thoughtful use of those materials, as exemplified by the policy actions undertaken by IMPD Network states.

Several RAND research projects have linked state policies to more uptake of standards-aligned materials and coherent supports. For example, several studies of Louisiana’s state policies have indicated that its long-time focus on coherence among standards, curriculum, and professional development have encouraged more knowledge and uptake of standards-aligned materials and instructional practices (Kaufman, Thompson, and Opfer, 2016; Kaufman, Steiner, and Baird, 2019). Furthermore, our additional studies of state policies and teachers’ self-reported data in Louisiana, Massachusetts, Rhode Island, and Tennessee suggest that states can set up conditions by which teachers perceive greater coherence and clear messages about what to teach and how to teach it (Polikoff et al., 2020; Wang et al., 2022).

The Theory of Action Guiding This Report

In this report, we describe state actions that might be driving use and supports for HQIM in ELA and mathematics. We then examine evidence on standards-aligned material adoption, use, and supports among U.S. public school teachers. In Figure 1.1, we present a top-down theory of action in which state actions to promote HQIM and HQIM-aligned supports go on to influence school and district actions to promote and adopt materials and supports. In turn, these school and district changes hypothetically should be connected to shifts in teachers’ knowledge, buy-in, and use of standards-aligned curriculum materials, which might then be expected to affect student outcomes. As mentioned earlier, while state actions are focused on HQIM as defined by each state, we measure school-, district-, and classroom-level changes related to standards-aligned materials as defined by EdReports (Boxes B through F in Figure 1.1). Specifically, we hypothesize the following:

- States’ actions (Box A)—and specifically their policies and strategies—can encourage and/or mandate school system adoption of HQIM and provision of HQIM-aligned supports.
- These strategies are intended to increase school or district adoption of standards-aligned curriculum materials (Box B) and school or district provision of standards-aligned supports (Box C), such as
  - principal encouragement of the use of standards-aligned materials
  - schools’ incorporation of curriculum use into criteria for teacher observations
  - curriculum-specific professional learning opportunities such as collaborative learning, coaching, and workshops.
- Taken together, these two school-system components (Boxes B and C) are intended to encourage particular teacher actions and perceptions, including teacher buy-in of standards-aligned curriculum materials (Box D) and, ultimately, teachers’ use of standards-aligned curriculum materials in the classroom (Box E).
- Teachers’ use of standards-aligned materials (Box E) along with adequate supports for the use of those materials (Box C) will be linked to teachers’ ability to engage students in standards-aligned classroom practices (Box F) and, finally, to student learning gains (Box G).

In this report, we use AIRS teacher survey self-reported data to explore the extent to which state actions are leading to shifts in the actions that schools and districts take and teacher perceptions and actions.
We are exploring the extent to which teachers’ actions are leading to shifts in their instruction and student learning in other AIRS research. But, for this report, we focus on the outcomes that are most proximal to and thus most likely to be influenced by state policies, which are also the current primary foci of the IMPD Network: district-level adoption and supports, alongside teacher perceptions and actions. Should we see shifts in these more proximal actions, we also might see shifts in teacher instruction and student learning. Future reports will focus on the aspects of use of materials—along with other factors—that increase the likelihood of more standards-aligned teaching and learning.

Overview of the Methods and Organization of This Report

In this report, we draw on a range of data. In Chapter Two, we draw on documentation and interviews with state officials along with CCSSO and individual states’ input to describe the policy levers and strategies that IMPD Network states have used to increase adoption of HQIM and the provision of supports for the use of HQIM. State official interviews were relatively unstructured and meant to elicit information about both the policies that states were undertaking and the officials’ reflections regarding the most-useful or -effective aspects of those policies. Because we were not able to engage all state officials in systematic interviews to gather that data, we do not provide any in-depth information about the usefulness or effectiveness of policies. However, we did use those interviews—along with documentation from CCSSO—to provide an overview of key policies that states were undertaking, and all states were provided with the opportunity to review that...
information and correct any inaccuracies in our reporting. States responded to our request for their review with suggested edits and corrections, which we used to inform report revisions.

In Chapter Three, we use data from the spring 2021 AIRS to share findings on use and supports for standards-aligned curriculum materials across the United States and in IMPD Network states. AIRS surveyed nationally representative samples of K–12 school principals and K–12 teachers of mathematics, ELA, and science, along with state representative samples of teachers in all IMPD Network states, along with California, Florida, New York, and Washington state. Chapter Three includes additional information on the methodological approaches used for our analyses, and additional information on survey sampling, survey administration, weighting, and results for AIRS 2021 can be found in the technical documentation for that survey. Chapter Three begins with a discussion of key metrics, both nationally and across IMPD Network states, that reflect standards-aligned material adoption, use, and supports. Then, we share findings on how these metrics are associated with one another within U.S. schools and how IMPD Network participation might be related to these metrics. Although our analysis does explore how IMPD Network participation is related to key metrics, we do not provide any analyses about specific state policies (e.g., signals or incentives) that might be related to our district, school, or teacher metrics. Such analysis would be challenging to undertake given both the variety of strategies that states undertook and aspects of state context that also could explain teacher survey results. However, these are areas that are ripe for further investigation and research.

Chapter Four provides more-fine-grained state-by-state information for all IMPD Network states; this mirrors our national data, for those who are interested in learning more about standards-aligned material adoption, use, and supports in specific states. We provide summary and implications of those data in Chapter Five.

Finally, we should emphasize that all our data for this investigation was collected during the coronavirus disease 2019 (COVID-19) pandemic, which many would describe as one of the most turbulent, chaotic, and challenging periods of our history overall and for K–12 schools. While we collected our first wave of survey data from teachers in spring 2019, before the COVID-19 pandemic began, subsequent waves of survey data collection coincided with school closures in spring 2020 and periods of online instruction and COVID-19 school outbreaks in spring 2021. The pandemic likely slowed state reforms and the adoption and usage of standards-aligned materials across IMPD Network states, which is somewhat evidenced in teachers’ reports of their usage of standards-aligned materials from the 2018–2019 school year through the 2020–2021 school year, as discussed in prior reports (Kaufman et al., 2021).
CHAPTER TWO

IMPD Network Strategies for Increasing Adoption and Supporting the Use of Instructional Materials

In 2017, CCSSO formed a network of eight states—the IMPD Network—that is dedicated to providing information and support to promote school system adoption and teachers’ use of HQIM for K–12 schools. Those original states were Delaware, Massachusetts, Mississippi, Nebraska, New Mexico, Rhode Island, Tennessee, and Wisconsin.1 By 2020, the IMPD Network had expanded with five additional states: Arkansas, Kentucky, Louisiana, Ohio, and Texas (see Figure 2.1).

Data collected from the IMPD Network states as part of the AIRS indicate that the use of standards-aligned materials is rising in these states, and, during the 2020–2021 school year, the proportions of teachers reporting the use of standards-aligned materials was higher than the national average for both ELA and math in over half of the IMPD Network states (Kaufman et al., 2021). These increases in use could be ascribed to

---

1 In 2022, Wisconsin left the IMPD Network. We include Wisconsin in the report because this state was an IMPD Network member through the 2020–2021 school year, the last year of AIRS data analyzed as part of this report, although we do not include a state snapshot for Wisconsin in Chapter Four.
state strategies and policies—which we describe later in more detail—that were adopted to increase school system adoption of HQIM and support the use of HQIM (Box A in Figure 1.1).

To support IMPD Network states, CCSSO developed a policy roadmap, which includes a series of guiding questions that assist states in developing comprehensive plans to successfully drive adoption of HQIM and supports for teachers (CCSSO, 2020). Guidance provided by CCSSO within the roadmap aims to increase: (1) the selection and adoption of HQIM, such as signaling the quality of instructional materials and incentivizing the selection of HQIM; (2) the provision of HQIM-aligned supports, such as providing or facilitating teachers’ and leaders’ participation in high-quality professional development about HQIM; and (3) the provision of HQIM-aligned teacher preparation, such as collaborating with educator preparation programs to increase their focus on the use of HQIM (CCSSO, 2020). Notably, IMPD Network states are at different stages in crafting and implementing policies and strategies to meet these goals, especially because some states joined the IMPD Network in 2018 while others joined later in 2020 (see Tables A.1 and A.2 for more information). Furthermore, some states chose to focus on policies and strategies around one subject first, and there is substantial variation in states’ laws, norms, and policy contexts that influences how states can encourage and support the adoption of HQIM. For example, who holds the authority to determine textbook adoption—whether it is the state, school systems, or schools themselves—varies a great deal across the United States. Even in states that have laws dictating the creation of lists that include recommended curriculum materials, final curriculum decisions still might be made by districts and schools.

Based on the questions and guidance in the CCSSO IMPD Network policy roadmap, states developed strategies and policies in the categories of (1) **signals** providing information and guidance about HQIM and (2) **incentives** providing school systems with benefits for adopting or supporting particular materials or providing ways to ease the burdens or challenges that might be involved in adopting particular materials or supports. In the following paragraphs, we draw on documentation and interviews with state officials along with CCSSO and individual states’ input to provide some examples of how signals and incentives were used by states to increase adoption of and supports for HQIM.

**Strategies to encourage or mandate adoption of HQIM:** As a first step in encouraging the adoption of HQIM, we found that all IMPD Network states provided information about the quality of instructional materials to provide signals and guidance to districts and schools on the types of materials that they should adopt. This includes states that have conducted their own state-specific reviews of materials, used EdReports reviews, or a combination of both. When we spoke to state officials in the IMPD Network, many mentioned the importance of this signaling effort because it helped them identify and articulate the attributes of quality that they considered critical, such as standards alignment or cultural responsiveness. Often, states publicly posted reviews and rubrics for instructional materials on their state department of education website. Examples include the instructional materials reviews available on the Louisiana Department of Education’s website and Massachusetts Department of Elementary and Secondary Education’s CURATE (Curriculum Ratings by Teachers) website (Massachusetts Department of Elementary and Secondary Education, undated). In addition, state leaders reported that being clear about the state’s definition of quality and communicating that widely helps educators develop a common vocabulary for discussing the key attributes of HQIM and helps school systems become better, more knowledgeable consumers of materials.

Other signaling mechanisms used by some states to encourage more knowledge and adoption of HQIM included providing public information about which districts adopted HQIM and guidance about best processes for selecting instructional materials.

Only a few states within the IMPD Network have enacted policy to mandate district adoption of materials from a state-approved list of materials. For example, Tennessee and Rhode Island require districts to adopt from a state-approved list of materials. To adopt materials that are not on the state-approved list, districts must go through the process of obtaining and justifying a waiver (Rhode Island House Bill 7539, 2019; Tennessee Code 49-6-2202, 2021).
In contrast to requiring adoption of HQIM from state-approved lists, most states rely on incentives for schools and districts to encourage adoption of HQIM by tying funding sources, such as Elementary and Secondary School Emergency Relief (ESSER) funds, grant opportunities, competitive funding, or other supports to the selection of HQIM. Some states also incentivize adoption by reducing the administrative burden of adopting HQIM to help make selection of HQIM an easy choice. For example, states can incentivize HQIM adoption and supports by streamlining lengthy procurement processes for specific materials and allowing districts to directly contract with state-approved HQIM vendors without going through separate procurements.

**Strategies to encourage the provision of HQIM-aligned supports:** In addition to signaling the quality of materials and incentivizing the adoption of HQIM, many states provide districts with signals about vendors who meet quality criteria, provide professional learning aligned to HQIM, or both. To incentivize uptake of both HQIM and supports, most IMPD Network states also directly provide HQIM-aligned professional learning in some form to district staff, school leaders, coaches, teacher leaders, teachers, or some combination thereof. The scope of HQIM-related professional learning across IMPD Network states also varies. Many states have focused their efforts on cohorts of districts or pilot districts, while some provide statewide professional learning. IMPD Network states are developing and strengthening their strategies to increase the provision of HQIM-aligned supports because their efforts first focused on HQIM adoption.

Notably, there is a sequential nature to states’ actions. For HQIM-aligned supports, such as professional learning or HQIM-focused observations, to be effective and useful, HQIM itself must be adopted to at least some extent across a state. As a result, IMPD Network states’ first step often is supporting the adoption of HQIM by schools and districts, with other policies and strategies to support the use of HQIM then following.

Table 2.1 summarizes policies and strategies used by IMPD Network states to encourage or mandate HQIM adoption and the provision of HQIM-aligned supports, along with some illustrations of those strategies in specific states. As described in Chapter One, the information presented is based on interviews with state officials, documentation from state department of education websites, and CCSSO documentation. In addition to strategies described in Table 2.1, as of February 2022, most states in the IMPD Network have begun to engage educator preparation programs to ensure pre-service coursework and clinical experiences address identification and use of HQIM. Some states, for example, have invited teacher preparation programs to curriculum-specific trainings, delivered presentations to preparation program leaders on the importance of HQIM, and created guidance documents or resources for programs. We do not discuss state strategies related to teacher preparation programs in more detail in this report because this work was in its early stages at the time of this writing.

Although IMPD Network states have made notable progress in adopting the strategies and policies that we outline in Table 2.1, the IMPD Network state officials with whom we spoke also described some of the challenges that they experienced with their work to encourage and support the uptake and use of HQIM. Echoing the challenge of balancing state support and control with local autonomy, some state leaders noted challenges, such as a lack of teacher trust, ensuring that teachers actually use HQIM “once the [classroom] door is closed,” and the need to change the perception around HQIM given teachers’ resistance to “scripted materials.” One state leader also spoke of the challenge of providing support for HQIM implementation when districts have the autonomy to choose from a wide array of materials, thus resulting in the use of a mix of materials across the state. Another state leader mentioned the challenge of changes to state education agency leadership in sustaining a focus on specific strategies related to HQIM. Taken all together, these challenges highlight the importance of providing professional learning supports that are aligned to HQIM and the need to increase educator buy-in for the use of HQIM.

Tables A.1 and A.2 in the appendix provide more details about each of the IMPD Network states’ policies and strategies. The information is meant to provide information about states’ key activities under each of the two categories outlined in this section and does not represent a comprehensive list of all the work that states have undertaken in relation to HQIM.
### TABLE 2.1

Types of Strategies Enacted by IMPD Network States to Encourage or Mandate Adoption of HQIM and Provision of Supports

<table>
<thead>
<tr>
<th>Strategies to Encourage or Mandate Adoption of HQIM</th>
<th>Number of IMPD Network States Using Strategy</th>
<th>Illustrative Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signaling</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides definitions and guidance regarding the quality of instructional materials</td>
<td>13</td>
<td>Louisiana provides reviews of specific materials in ELA, math, and science. Reviews are available online, and the state has plans to add reviews of social studies materials (Louisiana Department of Education, undated).</td>
</tr>
<tr>
<td>Provides information about uptake of HQIM across districts</td>
<td>6</td>
<td>Massachusetts maintains a publicly accessible map of the instructional materials that districts report using (Massachusetts Department of Elementary and Secondary Education, 2020).</td>
</tr>
<tr>
<td>Creates guidance documents on HQIM selection</td>
<td>12</td>
<td>Rhode Island created a guidance document to help districts select and implement HQIM (Rhode Island Department of Education, 2021).</td>
</tr>
<tr>
<td><strong>Incentives and mandates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requires all districts to adopt HQIM, as defined by state</td>
<td>3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Tennessee requires districts to adopt approved curricula off a state list (see Tennessee Department of Education, undated, for more information on that process).</td>
</tr>
<tr>
<td>Makes eligibility for specific funding, grants, and/or supports contingent on the adoption of HQIM</td>
<td>12</td>
<td>Arkansas has state grants to support purchase and adoption of ELA and math curriculum. Both ELA and math have HQIM requirements.</td>
</tr>
<tr>
<td>Reduces administrative burden and cost of adopting HQIM through statewide contracts</td>
<td>6</td>
<td>In Delaware, local education authorities (LEAs) can use a request-for-proposal process to directly contract with vendors who are included in the Delaware Professional Learning Partner Guide without going through separate procurements.</td>
</tr>
<tr>
<td>Strategies to Encourage or Mandate Adoption of HQIM</td>
<td>Number of IMPD Network States Using Strategy</td>
<td>Illustrative Example</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Provides guidance regarding the quality of particular vendors’ PL on HQIM</td>
<td>9</td>
<td>New Mexico offers a High-Quality Professional Learning Marketplace List, which provides guidance to districts and schools on professional development providers and opportunities that are evidence-based and aligned to HQIM (New Mexico Public Education Department, 2021).</td>
</tr>
<tr>
<td>Directly provides HQIM-aligned PL to some or all districts</td>
<td>10</td>
<td>In Kentucky, the state provides professional development for state, regional, district, and school-based staff on the selection of and research around HQIM during an annual leadership training. Nearly all districts were represented at the training.</td>
</tr>
<tr>
<td>Funds vendors to deliver HQIM-aligned PL to some or all districts</td>
<td>12</td>
<td>In Mississippi, the state has engaged vendors to train math content leaders and literacy ambassadors across the state to support the adoption and implementation of HQIM.</td>
</tr>
<tr>
<td>Reduces administrative burden of obtaining high-quality, curriculum-aligned PL</td>
<td>2</td>
<td>Rhode Island has developed a master price agreement for HQIM-aligned professional learning, thus reducing the administrative burden on districts</td>
</tr>
</tbody>
</table>

NOTE: The information presented in this table was gathered via interviews with state officials, documentation from state department of education websites, and CCSSO documentation. For an overview of our methods, see Chapter One.

a One of these states only requires the adoption of HQIM for K–6 literacy.
CHAPTER THREE

Standards-Aligned Material Adoption, Use, Buy-In and Supports Nationally and in IMPD Network States

This chapter explores both national and state trends (in IMPD Network states only) in school and district adoption and teachers’ use of standards-aligned materials, and various indicators of supports for material use and teacher buy-in of materials. After describing the ten indicators that we used to assess integration of standards-aligned materials, we then present our findings in three sections. First, we present descriptive trends at the national level, focusing on how teachers across the United States perform against our ten indicators that are related to standards-aligned materials. In the next section, we focus at a high level on state variation across these indicators and discuss common patterns observed across states. (More information on how individual states performed across all indicators are available in the state profile pages in Chapter Four.) We conclude with an exploratory analysis of the many relationships between these indicators, and the overlapping role states, districts, schools, and teachers play in adopting, using, and supporting the use of standards-aligned materials. Throughout our analyses, we consider similarities and differences between math and ELA teachers.

The analyses presented in this chapter use survey data from the 2021 AIRS. This survey was administered to ELA, math, and science teachers in the spring of the 2020–2021 school year; this current report is focused solely on ELA and math teachers because of the emergent nature of curriculum ratings for science. The survey asked teachers various questions about their school’s or district’s adoption of standards-aligned materials and their use of standards-aligned materials and the supports that they receive from their school system to do so.1

Our analyses used teacher reports of standards-aligned adoption, use, buy-in, and supports, with the assumption that teachers are best positioned to report on what instructional materials they use in the classroom and what supports they receive to use these materials. However, readers should keep in mind that self-reported survey data can be subject to bias; that is, survey data reflect teachers’ perceptions, which might or might not align with objective data on which materials are used and which supports are provided. That said, surveys have been found to provide reasonably accurate data on the curriculum and content of teachers’ instruction if not the quality of that instruction (Blank, 2002; Burnstein et al., 1995; Kaufman, Stein, and Junker, 2016; Reddy et al., 2015; Smithson and Porter, 1994).

As noted earlier, the state strategies enacted by IMPD Network states are aimed at encouraging adoption of HQIM as defined by states. However, because of variation in states’ definitions of HQIM, we cannot use our survey data to look at national trends in school and district adoption and teachers’ use of HQIM. Thus,

---

1 As we note in Chapter Two, six IMPD Network states collect and publish information about the adoption of HQIM in their districts. Although this data could provide us with additional information on district adoption of HQIM, we chose to limit our analysis to AIRS data because of our goal of creating indicators that allow for the investigation of national and state trends using comparable data.
the analyses in this section measure school and district adoption and teachers’ use of standards-aligned materials as defined by EdReports, allowing us to obtain a consistent metric across states that can be used to examine national patterns. Although many states draw on EdReports to define HQIM for their state, there is not exact overlap between state-specific HQIM and standards-aligned materials.

### Indicators for Standards-Aligned Material Adoption, Use, Buy-In, and Supports

Table 3.1 describes the ten indicators that we used to assess adoption, use, buy-in, and supports of standards-aligned materials, both across the country and in individual IMPD Network states. These indicators were chosen to capture some of the many school-, district-, and state-level factors we hypothesize are related to teachers’ use of standards-aligned materials per our theory of action shown in Figure 1.1.

As shown in Table 3.1, we include one indicator to capture school and district adoption of standards-aligned materials, focusing on teachers’ reports that their school or district requires or recommends at least one standards-aligned material. We include five indicators that focus on supports that teachers might receive from their school system that we hypothesize are related to teachers’ likelihood of using standards-aligned materials. These five indicators can be roughly grouped into two categories: (1) principal supports for curriculum use and (2) teacher participation in curriculum-focused professional learning. We include two indicators focused on teachers’ belief or buy-in about the adequacy of their materials for covering state standards.

**TABLE 3.1**

**Standards-Aligned Materials Indicators**

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>School and district adoption of standards-aligned curriculum materials (Box B in Figure 1.1)</td>
<td>Percentage of teachers reporting that their school or district requires or recommends use of at least one standards-aligned material.</td>
</tr>
<tr>
<td>Supports for standards-aligned materials (Box C in Figure 1.1)</td>
<td>Percentage of teachers who agreed that their principal encourages them to use the curriculum materials that are required or recommended by their district or school as the basis for lessons.</td>
</tr>
<tr>
<td></td>
<td>Percentage of teachers who agreed that their principal takes into account their use of the required curriculum materials as part of their teacher observations.</td>
</tr>
<tr>
<td></td>
<td>Percentage of teachers who participated in collaborative learning, with other teachers, that focused on use of main instructional materials four or more times per year.</td>
</tr>
<tr>
<td></td>
<td>Percentage of teachers who participated in coaching focused on the use of main materials four or more times per year.</td>
</tr>
<tr>
<td></td>
<td>Percentage of teachers who participated in workshops or trainings that are focused on use of main materials four or more times per year.</td>
</tr>
<tr>
<td>Teachers’ buy-in for standards-aligned curriculum materials (Box D in Figure 1.1)</td>
<td>Percentage of teachers who agreed that materials provided by their district or school as recommendations or requirements were adequate for helping students master state standards.</td>
</tr>
<tr>
<td></td>
<td>Percentage of teachers who agreed that materials provided by their district or school as recommendations or requirements were adequate to cover the content addressed in state assessments.</td>
</tr>
<tr>
<td>Teacher use of standards-aligned materials (Box E in Figure 1.1)</td>
<td>Percentage of teachers reporting regularly using (once a week or more, on average) at least one standards-aligned material. We refer to this as regular use of materials.</td>
</tr>
<tr>
<td></td>
<td>Percentage of teachers reporting that they intensively use (for 50 percent or more of their instructional time) at least one standards-aligned material. We refer to this as intensive use of materials.</td>
</tr>
</tbody>
</table>
and assessments, based on ratings provided by teachers. Finally, we include two indicators about teachers’ use of standards-aligned materials, which together capture the varying levels of intensity with which teachers use these materials. We describe methodology in Box 3.1.

Patterns in Standards-Aligned Material Adoption, Use, Buy-In, and Supports

In this section, we present descriptive trends in the IMPD Network states, focusing on how math and ELA teachers across the United States responded on our ten indicators. When reviewing these patterns, it is important to consider that although states share IMPD Network membership in common, states entered the IMPD Network at different points with varying levels of support for HQIM and, since joining the IMPD Network, have had different timelines for their curriculum reforms. Therefore, differences between states in the data that we present are not necessarily indicative of the relative efficacy of the initiatives that have been put in place in each of those states, but rather simply might reflect differences in the implementation timeline of those initiatives.

In addition to state-specific data, we also present an overview of patterns observed at the national level to use as a benchmark against which to examine results in individual IMPD Network states. For reference, responses from teachers in IMPD Network states accounted for 28 percent of responses nationwide in the 2021 AIRS. Although we present subject-level differences in this section, we do not discuss trends over time at the national level or differences by teacher or school characteristics.

Nationally, Math Teachers Reported Higher Rates of School and District Adoption of Standards-Aligned Materials than ELA Teachers

In the spring of the 2020–2021 school year, 44 percent of K–12 math teachers nationally reported that their school or district required or recommended use of at least one standards-aligned material (see Figure 3.1). In comparison, only 32 percent of ELA teachers said the same.

The gap in math versus ELA teachers’ reports of adoption of materials might reflect that adoption is (1) inherent to subject matter (e.g., increased reliance on standalone works of literature rather than textbooks among middle and high school ELA teachers), or (2) related to state rather than local-level supports (e.g., states might be earlier along in their adoption efforts for math than they are for ELA). In addition, many curriculum materials that have been rated by EdReports as standards-aligned for mathematics have been on the market for a longer period than many of the curriculum materials that have been reviewed as standards-aligned for ELA. We consider additional factors that explain gaps in school and district adoption of mathematics versus ELA standards-aligned materials in our analysis of the relationships among adoption, supports, and use in subsequent sections.

Both ELA and Math Teachers Commonly Received Support from Their Principals That Was Related to Standards-Aligned Materials

Unlike the differences observed in teachers’ reports of school and district adoption of standards-aligned materials by subject area, math and ELA teachers reported similar levels of principal support for using standards-aligned curriculum materials (see Figure 3.1). Roughly eight in ten of both math and ELA teachers reported that their principal encouraged them to use the curriculum materials that are required or recommended by their district or school as the basis for lessons. Two-thirds of both math and ELA teachers also reported that their principals consider their use of required curriculum materials in their teacher observations.
Box 3.1 Methodology

In this report, we used responses from 4,447 K–12 ELA and mathematics teachers from the 2019 AIRS and from 5,425 ELA and mathematics teachers from the 2021 AIRS to examine standards-aligned material adoption, use, buy-in, and supports. Although we provide some information about the specific survey items that we used in this analysis in this text box, additional detail on the 2019 and 2021 AIRS—including a complete list of survey items—can be found in the technical documentation for both surveys (Prado Tuma et al., 2020; Doan et al., 2021).

How We Determined Adoption of Standards-Aligned Materials

On the 2021 AIRS (but not in previous AIRS surveys from 2019 and 2020), teachers were asked to indicate which materials their school or school system had recommended or required for them for the 2020–2021 school year. We used teacher responses to these items as a proxy measure for whether a particular material was adopted in their school or district and calculated the percentage of teachers who indicated that at least one standards-aligned instructional material was adopted at their school in the 2020–2021 school year. Teacher responses to these items, matched to EdReports ratings of standards alignment, were used to assign teachers a rating for adoption of standards-aligned curriculum material, which is the same definition applied in our previous AIRS-related reports (e.g., Kaufman et al., 2020; Kaufman et al., 2021).

How We Calculated Indicators of Supports for Standards-Aligned Materials

We constructed two indicators of principal support based on teachers’ responses to two survey items on both the 2019 and 2021 AIRS: (1) “My principal encourages me to use the [ELA/math] curricula required or recommended by my district or school as the basis for my lessons” and (2) “My teacher observations take into account my use of the required [ELA/math] curricula.” Teachers provided responses to these items on a four-point agreement Likert scale. We calculated the percentage of teachers who indicated that they “somewhat agree” or “strongly agree” with these statements as indicators of principal support.

Next, we constructed three indicators of professional learning participation, each for the three types of curriculum-focused professional learning we asked about in the 2019 and 2021 AIRS: (1) coaching, (2) workshops or trainings, and (3) collaborative learning. For each of these types of professional learning, teachers were asked whether, in a given school year, they participated in this activity: (1) never, (2) 1–3 times per year, (3) 4–6 times per year, (4) 1–3 times per month, or (5) weekly or more often. Our indicator of professional learning—one for each of the three types—is the percentage of teachers who report participating in that type of professional learning at least 4–6 times per year.

How We Determined Teachers’ Buy-In of the Adequacy of Their Materials

We included two indicators that pertain to teachers’ belief that their recommended or required materials are adequate for (1) “helping students master state standards” and (2) “[covering] content addressed in state assessments.” For each of these items, teachers were asked to indicate the adequacy of their recommended/required curriculum materials on a seven-point adequacy scale from 1 (completely inadequate) to 7 (completely adequate). We used the percentage of teachers scoring 4 or over as an indicator of teacher-perceived adequacy of materials for that specific purpose. These indicators are only available from the 2021 AIRS.

How We Determined Teachers’ Use of Standards-Aligned Materials

On the 2019 and 2021 AIRS, teachers were asked about the curriculum materials they used regularly (defined on the survey as once a week or more, on average) for their ELA, mathematics, and science instruction during the 2018–2019 and 2020–2021 school years, respectively. Teacher responses to these items, matched to EdReports ratings of standards alignment, were used to assign teachers ratings for their use of
standards-aligned curriculum material, which is the same definition applied in our previous AIRS-related reports (e.g., Kaufman et al., 2020; Kaufman et al., 2021). Specifically, we consider all curriculum materials that teachers report using and code teachers as regularly using standards-aligned materials if they indicated regularly using one or more curriculum materials that were rated as standards-aligned by EdReports, making our indicator of standards-aligned materials use a “best case” rating.

In addition to noting usage of a standards-aligned material once a week or more among teachers, we also considered the intensity with which teachers used those materials. Specifically, for each material that teachers indicated that they regularly use, they were subsequently asked to “indicate approximately what percentage of [ELA/mathematics] instructional time [they] dedicate toward using it for a typical class of students each week,” with the following response options: (1) 10 percent or less, (2) 11–24 percent, (3) 25–49 percent, (4) 50–74 percent, and (5) 75–100 percent. We calculated the percentage of teachers who indicated using a standards-aligned instructional material for 50 percent or more of instructional time as an indicator of more-intensive usage of a standards-aligned material.

Significance testing. Unless otherwise noted, all comparisons mentioned in this report are unadjusted for statistical controls because of the exploratory nature of these analyses, with the statistical significance across subgroups tested using pairwise t-tests with critical values at the $p < 0.05$ level. We provide cross-sectional (i.e., within-year) tests of statistical significance that compare whether average values in a given state are significantly different, at the $p < 0.05$ level, from average values obtained from the rest of the country (e.g., the percentage of Delaware teachers reporting regular use of standards-aligned materials compared with the percentage of teachers who do not teach in Delaware who said similarly).

As described in the “Limitations” section, we do not provide formal significance testing of differences across years (e.g., comparing 2019 with 2021) because of a lack of longitudinal survey weights that properly account for the partial overlap in respondents and changes in representativeness of survey respondents across years. Statistics for each survey are produced using cross-sectional survey weights that are designed specifically to provide nationally representative estimates in the year that each survey was administered. Furthermore, the 2021 AIRS survey was administered in the spring of the 2020–2021 school year when the COVID-19 pandemic still was causing significant disruptions to schooling. Thus, comparisons between 2019 and 2021 should be made with caution because teachers’ responses in 2021 might reflect COVID–19 pandemic conditions.

Both ELA and Math Teachers Were Far More Likely to Report Participating in Collaborative Learning That Was Focused on Materials than Other Types of Curriculum-Focused Professional Learning

Both math and ELA teachers were much more likely to report that they participated in collaborative learning on materials as opposed to receiving coaching or workshops focused on their materials in the 2020–2021 school year (see Figure 3.1). Specifically, roughly half of math and ELA teachers reported engaging in collaborative learning on materials at least four times during the 2020–2021 school year, while fewer than one in five said that they received coaching or participated in workshops about their use of materials. Despite their low participation in coaching or workshops relative to collaborative learning, ELA teachers were still slightly more likely than their math counterparts to have participated in both coaching and workshops focused on materials at least four times during the 2020–2021 school year.
Roughly Two-Thirds of ELA and Math Teachers Reported Buy-In of Standards-Aligned Materials

To gather information on teachers’ buy-in regarding the adequacy of their materials, we asked teachers to what extent they agreed that their materials were aligned to their state standards and assessment context. Nationally, roughly two-thirds of both math and ELA teachers felt their required or recommended materials were adequate to help students master state standards and to cover content that is included in their state assessment (see Figure 3.1).

Nationally, Math Teachers Reported Higher Rates of Use of Standards-Aligned Materials than ELA Teachers

Nationally, a higher percentage of math teachers reported using standards-aligned materials than ELA teachers: In spring 2021, 42 percent of math teachers reported regularly using at least one standards-aligned material, compared with only 26 percent of ELA teachers (see Figure 3.1). However, even when ELA and math teachers reported regular use of such materials, they did not always use those materials intensively (for 50 percent or more of their instructional time). That said, math teachers were still more likely than their ELA
counterparts to report using standards-aligned materials intensively: 31 percent of math teachers reported using standards-aligned materials intensively and only 17 percent of ELA teachers said the same.

State Variation in Standards-Aligned Material Adoption, Use, Buy-In and Supports for Mathematics

In this section, we focus on variation across our ten indicators of interest in IMPD Network states among mathematics teachers, key findings of which are summarized in Box 3.2. We first examine the extent of state-level differences within indicators for mathematics then state performance across indicators to identify any patterns both within and across states. To learn more about how states individually performed across our indicators—relative to national benchmarks that are inclusive of data from both IMPD Network and non-IMPD Network states—see the state profile pages in Chapter Four. Table A.3 also includes national and state-level estimates across all ten indicators.

Figures 3.2 and 3.3 present variation across IMPD Network states as compared with the United States as a whole on each of our indicators for mathematics and indicate whether each IMPD Network state differed significantly from the national average.

BOX 3.2

Key Findings Comparing IMPD Network States with the National Average on Standards-Aligned Mathematics Indicators

- IMPD Network states differed more from one another and the country on adoption and use of standards-aligned math materials than on teachers’ participation in professional learning (especially coaching and workshops) and their buy-in that their materials were aligned with state standards and assessments. These data might suggest that adoption and use are more malleable through state policies than other indicators. However, these data also could imply that some state contexts allow for greater adoption and use of standards-aligned materials than other state contexts.
- States that consistently outperformed the country on at least three of the ten indicators for mathematics in our analyses included Arkansas, Delaware, Louisiana, Mississippi, Nebraska, New Mexico, Rhode Island, and Tennessee. All these states—with the exception of Arkansas and Louisiana—have been in the IMPD Network since 2017, although Louisiana teachers reported high uptake of standards-aligned materials for mathematics long before that state’s participation in the IMPD Network starting in 2020 (e.g., Kaufman, Steiner, and Baird, 2019; Kaufman, Thompson, and Opfer, 2016).
- The school and district adoption and use metrics were the ones on which IMPD Network states were most likely to be doing better than the national average. At the same time, Texas did less well on adoption and use of standards-aligned materials for mathematics than the country. However, Texas just joined the IMPD Network in 2020, so it would not be expected to have put in place any reforms that boosted performance on those metrics. In future reports, we will consider whether there have been adoption and use shifts in Texas over time, which possibly could be attributed to its recent participation in the IMPD Network. Several IMPD Network states were doing better than the country as a whole in terms of teachers’ participation in collaborative learning tied to use of materials and principals’ consideration of curriculum in evaluation. These are two additional areas in which states might have more leverage or opportunity to shift practices.
Implications of the Study

The findings of this study highlight the importance of state policies and practices in shaping the use of high-quality instructional materials in K–12 classrooms. States that develop strong policies to support the adoption and use of standards-aligned materials can create conditions that encourage teachers to select and use these materials effectively. Conversely, states that lack such policies may struggle to ensure widespread and high-quality use of these materials.

One implication for educators is the importance of engaging directly with state policymakers to advocate for policies that support the adoption and use of standards-aligned materials. Educators can also work with colleagues and school leaders to create local systems that align with state policies and promote the use of high-quality instructional materials.

For policymakers, the study suggests the need for continued investment in teacher professional development and ongoing support for the implementation of standards-aligned materials. States can also consider policies that reduce barriers to the adoption and use of these materials, such as providing financial incentives for teachers who use high-quality materials or implementing strategies to ensure that materials are aligned with state standards.

The study’s findings emphasize the critical role of state policymakers in shaping the conditions for the adoption and use of high-quality instructional materials. By creating a supportive policy environment, states can help ensure that all K–12 classrooms have access to materials that support student learning and achievement.

FIGURE 3.2
State-Level Variation in Standards-Aligned Material Indicators for Math in the 2020–2021 School Year, According to Math Teacher Reports

NOTE: See Table 3.1 for more information about the survey items used to construct this figure (n = 2,322). IMPD Network states in spring 2021 were Arkansas, Delaware, Kentucky, Louisiana, Massachusetts, Mississippi, Nebraska, New Mexico, Ohio, Rhode Island, Tennessee, Texas, and Wisconsin.

IMPD Network States Varied Considerably from One Another and the Country as a Whole on School/District Adoption and Teacher Use of Standards-Aligned Materials

We observed a high level of variation across the 13 states in the IMPD Network regarding teachers’ reports of school and district adoption of standards-aligned materials in math. The percentage of math teachers who reported that their school or district requires or recommends use of at least one standards-aligned material varied by more than 50 percentage points, ranging from 23 percent in Texas to 75 percent in Delaware (see Figure 3.2). There were several other very high–performing states on this indicator, including Louisiana (74 percent) and Rhode Island (72 percent).

In all IMPD Network states, at least three-quarters of math teachers said that their principal “encourages” them to use the curriculum materials that are required or recommended by their district or school as the basis for lessons (see Figure 3.2). There was greater state-level variation in the percentage of math teachers who said that their principal considers the use of required curricula in their teacher observations: While
85 percent of math teachers in Delaware said that their principal considers curricula in teacher observations, six in ten math teachers or fewer in New Mexico, Ohio, and Massachusetts said similarly.

In contrast with the high prevalence of principal support across IMPD Network states, coaching and training activities in the 2020–2021 school year were quite rare, which might be related to the COVID-19–related context in which our survey was administered. Additionally, we observed lower levels of variation across IMPD Network states in terms of the percentage of math teachers who reported receiving coaching or training on their use of materials at least four times per year. The percentage of teachers who reported participating in workshops ranged from under 10 percent in Nebraska and Ohio to 31 percent in Delaware—the only state that outperformed the national average. A similar pattern was observed with coaching, ranging from fewer than 10 percent of teachers in Ohio, Wisconsin, and Nebraska to nearly 30 percent in Delaware.

As noted previously, across IMPD Network states, math teachers were much more likely to report participation in collaborative learning that is focused on materials than participation in coaching or workshops. That said, the percentage of math teachers who reported participating in collaborative learning four or more times in the 2020–2021 school year ranged from 33 percent in Nebraska to 58 percent in Arkansas and Texas.

Finally, majorities of math teachers in all IMPD Network states agreed that their required or recommended materials were adequate to help students master state standards and to cover the content included in their state assessment.

We observed wide variation in teachers’ reports of material use across IMPD Network states, including both regular use (at least once per week) and intensive use (50 percent or more of instructional time). On
both indicators, Texas math teachers reported the lowest levels of use among the 13 IMPD Network states, while Delaware, Louisiana, and Rhode Island reported the highest levels of use. Notably, state context could contribute to these observed levels of use. For example, Texas is a relatively new member of the IMPD Network, having just joined in 2020, while Louisiana has invested in these efforts for numerous years, and Rhode Island passed legislation in 2019 that requires districts to select HQIM during their next adoption cycles. Additionally, states begin at different starting points when they join the IMPD Network; while some states might see large increases in the adoption of standards-aligned materials across years, they might have low levels of adoption when compared with other states if they had a lower initial starting point. Nevertheless, we see many IMPD Network states outperforming the national average.

Multiple IMPD Network States Significantly Outperformed the National Average on Several Indicators for Mathematics

Delaware and Louisiana math teachers consistently outperformed the national average for many indicators in our analyses, including reported rates standards-aligned material adoption, use, and supports (see Figure 3.3). As noted earlier, Louisiana has been engaged in supporting the uptake and use of HQIM for a much longer period, which might partially explain these results. Additionally, Delaware's initial focus in its work with the IMPD Network centered on math. Delaware also pursues an array of varied supports for use of standards-aligned materials directly to school districts and funds vendors to provide professional development; districts are authorized to contact approved vendors directly to access that funding. Delaware's small size might make these types of policies and initiatives easier to implement than in other states with similar policies.

Arkansas, Mississippi, Nebraska, New Mexico, Rhode Island, and Tennessee also scored highly on at least three of the ten indicators in our analyses. Mississippi math teachers were particularly more likely than the national average to report collaborative learning and coaching that is focused on materials and that their schools and districts had adopted standards-aligned materials. Mississippi's initiative that specifically provides math coaches to struggling schools likely has something to do with the greater proportion of teachers who report coaching supports in that state.

Interestingly, New Mexico and Tennessee teachers all scored higher than the national average in terms of reported adoption and use of mathematics materials, but not reported supports for use of those materials. While Tennessee had already completed its adoption cycle for ELA curriculum materials in 2019—potentially explaining relatively high levels of adoption and use of ELA standards-aligned materials across the state—it has not yet completed its math curriculum adoption cycle. In contrast, New Mexico reviewed mathematics materials for adoption in 2019, with ELA reviews in 2020 and 2021. In addition, the Tennessee Department of Education refers to supports for curriculum materials as implementation support with leaders and teachers, which is different terminology than was used in the AIRS survey to ask teachers about how their professional development supported their use of curriculum materials. This different terminology could have led to variance in survey responses among Tennessee teachers compared with other teachers.

Findings in Nebraska and Texas were somewhat more mixed. Although a higher percentage of Nebraska teachers than teachers nationally reported alignment with state standards and the assessment context, provision of supports in Nebraska relative to the national average were more varied. Nebraska teachers were more likely to report principal supports but less likely to report professional learning supports, such as collaborative learning and coaching. Importantly, while Nebraska teachers reported a rate of regular use of standards-aligned mathematics materials that was not significantly different from the national average, the rate of reported regular use of standards-aligned mathematics materials has grown considerably over the past few years, from 21 percent of mathematics teachers in 2019 to 35 percent in 2021. Nebraska does have an array of tools and resources to encourage use of standards-aligned materials (e.g., their nematerialsmatter.org web-
Standards-Aligned Material Adoption, Use, Buy-In, and Supports Nationally and in IMPD Network States

These results suggest that those tools and resources could be leading to increased teachers’ perceptions about standards alignment of materials and principal encouragement to use those materials, which, in turn, could lead to even more increased usage over the next few years.

In Texas, adoption and use metrics were low but support was high. Again, Texas’ involvement in the IMPD Network began in 2020, and it is too early to know whether its participation might have led to increased use and supports for standards-aligned materials in the state.

Lastly, reports from Massachusetts and Ohio teachers were most similar to the country as a whole in comparison with other states. Of course, Ohio had just joined the IMPD Network at the time of this writing, so its similarities with the United States as a whole might be expected. Massachusetts has been in the IMPD Network for a longer period. However, our findings on relatively low uptake of standards-aligned materials in that state reflect similar findings from our previous reports from other RAND survey projects (e.g., Polikoff et al., 2020).

IMPD Network States Outperformed the National Average Most on Adoption and Use of Standards-Aligned Mathematics Materials, Curriculum-Specific Collaborative Learning Among Teachers, and Principals’ Consideration of Mathematics Curriculum in Observations

The specific indicators for math for which IMPD Network states were consistently more likely to be doing better than the national average included those indicators related to adoption and use, along with collaborative learning that was focused on materials and principals’ consideration of curriculum in observation. The large number of states that were higher than the national average in terms of rates of adoption and observation perhaps makes sense because of the more obvious ability for states to use policy tools, such as state curriculum approval lists or mandates and state-required observations. The somewhat higher proportion of states where teachers reported that collaborative learning focused on materials is less easy to explain. One potential explanation is if a state is pressing for school systems to adopt particular materials, those school systems may adopt those materials and—as a result—teachers may spend more collaborative learning time focused on materials.

State Variation in Standards-Aligned Material Adoption, Use, Buy-In, and Supports for English Language Arts

Next, we examine the extent of state-level differences within indicators for ELA and state performance across those indicators to identify any patterns across or within states, key findings of which are presented in Box 3.3. Figures 3.4 and 3.5, respectively, present variation across IMPD Network states as compared with the national average on each of our indicators for ELA and indicate whether each IMPD Network state differed significantly from the national average.

IMPD Network States Varied Considerably from One Another and the National Average on School and District Adoption and Teacher Use of Standards-Aligned Materials

As we saw in math, we observed a high level of variation across the 13 states in the IMPD Network regarding the rate of adoption of standards-aligned materials in ELA. The percentage of ELA teachers who reported that their school or district requires or recommends use of at least one standards-aligned material varied by more than 50 percentage points, ranging from 17 percent in Wisconsin to 70 percent in Louisiana (see
Similar to math, we observed wide variation in teachers’ reports of material use, both for regular use (at least once per week) and for intensive use (50 percent or more of instructional time). Also similar to the patterns that we observed among math teachers, at least two-thirds of ELA teachers said that their principal encourages them to use the curriculum materials that are required or recommended by their district or school as the basis for lessons. There was greater state-level variation in the percentage of ELA teachers who said that their principal considers the use of required curricula in their teacher observations. Wisconsin was a bit of an outlier on this indicator, with less than half of ELA teachers (47 percent) reporting principal consideration of curricula in observations.

As in math, ELA teachers were much more likely to report participation in collaborative learning focused on materials than participation in coaching or workshops. That said, the percentage of ELA teachers who reported participating in collaborative learning four or more times in the 2020–2021 school year ranged by more than 25 percentage points, from 40 percent in Ohio to 67 percent in Delaware.

Across both measures of teachers’ buy-in, between 50 and 74 percent of ELA teachers indicated that their materials were adequate for preparing students to master state standards and cover state assessment content, showing similar patterns to these measures among math teachers.

Multiple IMPD Network States Significantly Outperformed the National Average on Our Indicators for ELA, but Many States also Underperformed the National Average on Some Indicators

Even more than in mathematics, several states stood out in terms of state performance on our indicators in ELA. Delaware, Louisiana, Tennessee, and Texas all scored higher than the national average on an array of
use and support indicators. In addition, states that scored higher on at least three of our indicators were Mississippi and Rhode Island.

Again, state context could play a role in these results. As mentioned previously, Louisiana has been a frontrunner in promoting the statewide use of HQIM, and, in recent years, Rhode Island has passed legislation requiring districts to select HQIM in upcoming adoption cycles. Tennessee, which requires the adoption of curricula on state-approved lists, also completed an adoption cycle for ELA in 2019, and, as a result, saw a large uptick in adoption and use of ELA HQIM.

Unlike what we observed in math, a handful of IMPD Network states tended to underperform the national average across indicators for ELA. Massachusetts and Wisconsin teachers reported lower-than-average rates of adoption and use of standards-aligned materials. Teachers in Ohio consistently reported lower-than-average rates of support, including less principal support, collaborative learning, and coaching. However, Ohio was new to the IMPD Network and would not be expected to have shifted rates of use of standards-aligned materials or supports in any meaningful way as of 2021.
How States Are Creating Conditions for Use of High-Quality Instructional Materials in K–12 Classrooms

IMPD Network States Outperformed the National Average Most Frequently on Adoption and Use of Standards-Aligned ELA Materials, Workshops, and Coaching Focused on Use of Materials

IMPD Network states were most likely to be doing better than the national average on indicators of adoption and use of standards-aligned ELA materials. However, unlike in mathematics, several states underperformed on multiple indicators for ELA in comparison with the country as a whole, including Massachusetts, Ohio, and Wisconsin. Wisconsin has since withdrawn from the IMPD Network, which might explain its somewhat lower performance in ELA, although it had not performed markedly less well than the national average in mathematics. Massachusetts’ performance on ELA adoption and usage is less easy to explain because it has been in the IMPD Network since the network’s inception.

Teachers in five states (Delaware, Louisiana, Rhode Island, Tennessee, and Texas) were more likely to report workshops or trainings on ELA materials four or more times per year, compared with the national average. Teachers in four states reported more coaching on ELA materials than the national average: Delaware, Louisiana, Tennessee, and Texas.

![Figure 3.5: Standards-Aligned Material Indicators for ELA in the 2020–2021 School Year, by State, According to ELA Teacher Reports](image-url)

**FIGURE 3.5**
**Standards-Aligned Material Indicators for ELA in the 2020–2021 School Year, by State, According to ELA Teacher Reports**

<table>
<thead>
<tr>
<th>Supports for standards-aligned materials</th>
<th>National percentage</th>
<th>ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers' buy-in of standards-aligned curriculum materials</td>
<td>National average</td>
<td>AR, DE, KY, MA, MS, NE, NM, OH, RI, TN, TX, WI</td>
</tr>
<tr>
<td>School/district adoption of standards-aligned curriculum materials</td>
<td>Not significantly different from national average</td>
<td></td>
</tr>
<tr>
<td>At least one standards-aligned material required or recommended</td>
<td>Significantly lower than the national average</td>
<td></td>
</tr>
<tr>
<td>Principal encourages use of required curricula</td>
<td>Significantly higher than the national average</td>
<td></td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
<td>Significantly higher than the national average</td>
<td></td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
<td>Significantly higher than the national average</td>
<td></td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
<td>Significantly higher than the national average</td>
<td></td>
</tr>
<tr>
<td>Workshops or trainings on materials 4+ times per year</td>
<td>Significantly higher than the national average</td>
<td></td>
</tr>
<tr>
<td>Materials adequate for mastering state standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher use of standards-aligned materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular use of at least one standards-aligned material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensive use of at least one standards-aligned material</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** See Table 3.1 for more information about the survey items used to construct this figure (n = 2,322).
Connecting Supports with Teachers’ Use of Standards-Aligned Materials

In this section, we explore the extent to which being in an IMPD Network state was related to the rate of adoption of standards-aligned materials, and how IMPD participation and adoption were related to the rate of teacher usage of standards-aligned materials and access to supports related to curriculum use. We start by examining how being in an IMPD Network state was related to teachers’ reports that their school had adopted standards-aligned materials. Then, we examine how teachers’ reports about the supports that they received to implement their materials and their reported usage of these materials differed by IMPD participation and adoption of standards-aligned materials.

As we hypothesized in our theory of action (Figure 1.1), participation in the IMPD Network and adoption of standards-aligned material could be factors that support teachers in using standards-aligned materials, accessing supports for their use, and believing that their materials were adequate for teaching state standards. We investigated how the intersection of IMPD Network participation and standards-aligned material adoption were related to use and supports by categorizing teachers into one of four conditions, as described in Table 3.2; we used whether teachers had reported that their school or district recommended or required at least one standards-aligned material as a proxy measure for whether a standards-aligned material was adopted in that school or district.

Slightly under half of teachers (47 percent) were Condition 1 teachers: those who were in non-IMPD Network states and did not report the adoption of at least one standards-aligned material. We hypothesized that these teachers and their schools and districts would have the lowest pressure to use and support standards-aligned materials. Conversely, Condition 4 teachers, who comprised 11 percent of the sample, were both in IMPD Network states and reported adoption of a standards-aligned material, creating conditions for strong pressure. Condition 2 and Condition 3 teachers represented those who were in either (but not both) an IMPD Network state or reported local adoption of a standards-aligned material, respectively. Throughout this section, we use these conditions as a framework to explore how use of and supports for materials differ depending on IMPD Network participation and material adoption status.

Adoption of Standards-Aligned Materials Was Higher in IMPD Network States than the National Average, Particularly for Those States That Had Been in the IMPD Network Longer

One key finding is that the two factors that define each of the conditions laid out in Table 3.2—IMPD Network participation and adoption of a standards-aligned material—are significantly linked. Figure 3.6 presents the percentage of teachers who reported that their school or district adopted a standards-aligned material; this is separated by whether the teacher was located in an original IMPD Network state (Delaware, Louisiana, Massachusetts, Mississippi, Nebraska, New Mexico, Rhode Island, Tennessee, Wisconsin); a new

**TABLE 3.2**

<table>
<thead>
<tr>
<th>Pressure for Supports and Use of Standards-Aligned Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In school or district that has adopted standards-aligned materials?</strong></td>
</tr>
<tr>
<td><strong>No</strong></td>
</tr>
<tr>
<td><strong>In IMPD Network state?</strong></td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>
How States Are Creating Conditions for Use of High-Quality Instructional Materials in K–12 Classrooms

When it comes to adoption of standards-aligned ELA materials, teachers in IMPD Network states—original (41 percent) or new (38 percent)—were significantly more likely to report that their school or district had adopted a standards-aligned ELA material than teachers in non-IMPD Network states (29 percent). Rates of standards-aligned ELA material adoption did not differ significantly according to whether teachers were in an original or new IMPD Network state.

However, for the adoption of standards-aligned math materials, there were substantive differences that depended on how long a state had been in the IMPD Network. Over half of teachers in original IMPD Network states reported that their school or district had adopted a standards-aligned ELA material, a rate that was statistically significantly higher than teachers in non–IMPD Network states (29 percent). Rates of standards-aligned ELA material adoption did not differ significantly according to whether teachers were in an original or new IMPD Network state.

However, for the adoption of standards-aligned math materials, there were substantive differences that depended on how long a state had been in the IMPD Network. Over half of teachers in original IMPD Network states reported that their school or district had adopted a standards-aligned ELA material, a rate that was statistically significantly higher than teachers in non–IMPD Network states. However, teachers in new IMPD Network states were significantly less likely than those in non-network states to indicate that their school or district had adopted at least one standards-aligned math material.

Teachers in IMPD Network States Who Reported District Adoption of Standards-Aligned Materials Were Also More Likely to Receive Curriculum-Aligned Supports and Believe Their Materials Were Adequate for Students to Master Standards and Assessments

Following our proposed theory of action (Figure 1.1), we next investigate how participation in the IMPD Network and the adoption of standards-aligned materials in a teacher’s school or district were related to the indicators of supports for and teacher buy-in of standards-aligned materials, as defined in Table 3.1. These indicators of supports and buy-in included: (1) having a school principal who encouraged teachers to use the curriculum materials that are required or recommended in their district; (2) having a principal...
who considered the use of curriculum materials in teacher observations; (3) receiving professional learning opportunities—including workshops, coaching, and collaborative learning with other teachers—that are curriculum specific and a measure of teacher buy-in; and (4) having materials that teachers judge as adequate for covering content in state standards and state assessments.

In Figure 3.7, we report the prevalence of each of the “supports and buy-in” indicators separately for each of the four categories that we summarized (based on whether teachers are in an IMPD Network state and whether their school has adopted standards-aligned materials for the subject and grade level that they teach).

Across groups, we find the following two patterns:

• First, teachers who were both in an IMPD Network–participating state and reported adoption of a standards-aligned material (Condition 4) were more likely to report that they received any of the categories of support for curriculum materials that we asked about in our survey when compared with teachers who were neither in an IMPD Network–participating state nor reported adoption of a standards-aligned material (Condition 1).
• Second, teacher reports of receiving curriculum-aligned supports did not significantly differ between teachers who were in IMPD Network states but did not report adoption of a standards-aligned material (Condition 2) and those who were neither in an IMPD Network state nor reported adoption of a standards-aligned material (Condition 1).

These findings suggest that IMPD Network membership will not lead to more supports for curriculum use within districts absent those districts having taken the essential first step of adopting a standards-aligned material that sits at the core of the IMPD Network effort. This is aligned with our earlier assertion that adoption of standards-aligned materials must precede the effective provision of standards-aligned supports.

Interestingly, each group of indicators suggests different ways in which IMPD Network participation and adoption of standards-aligned materials could combine to associate with supports for curriculum use. In Panel A of Figure 3.7, principal supports, we find that Condition 4 teachers reported significantly higher rates of principals encouraging them to use required materials (88 percent) and principals considering curriculum use in observations (74 percent) than Condition 1 teachers (80 percent and 64 percent, respectively). Yet, we also find that Condition 3 teachers (those who indicated adoption of a standards-aligned material but were in a non–IMPD Network state) also reported significantly higher rates on both these indicators (86 percent and 74 percent) than Condition 1 teachers. These data suggest that school system adoption of standards-aligned materials is an important precursor to principal support for curriculum use, regardless of whether a teacher is in an IMPD Network state.

However, patterns among indicators of professional learning (Figure 3.7, Panel B) and teacher buy-in regarding the adequacy of their materials (Figure 3.7, Panel C) suggest that the combination of both IMPD Network participation and adoption of standards-aligned materials were particularly strongly linked to the prevalence of these indicators, with neither Condition 2 nor Condition 3 teachers being significantly different from Condition 1 teachers on these indicators. This interactive association was most visible among indicators of professional learning (Figure 3.7, Panel B).

Whether Schools and Districts Have Adopted Standards-Aligned Materials Was the Most Important Predictor of Whether (and How) Teachers Used Standards-Aligned Materials

We also considered how IMPD Network participation—alongside standards-aligned material adoption, use, buy-in, and supports—was related to whether, and how intensively, teachers used standards-aligned materials in the 2020–2021 school year. To do so, we classified teachers’ use of standards-aligned materials into one of three categories: whether a teacher (1) does not use standards-aligned materials, (2) uses standards-aligned
FIGURE 3.7
Prevalence of Support and Buy-In Indicators, by IMPD Network Participation and Adoption of Standards-Aligned Materials

Panel A. Percentage of teachers agreeing that their principal (1) encourages them to use required curricula and (2) takes curriculum use into account during observations.

Panel B. Participation in curriculum-focused (1) workshops, (2) coaching, or (3) collaborative learning.

Panel C. Percentage of teachers indicating their required/recommended materials are adequate for (1) mastering state standards or (2) covering state assessment content

NOTE: Condition 1 (IMPD State = No; Adopted SA Materials = No); Condition 2 (IMPD State = Yes; Adopted SA Materials = No); Condition 3 (IMPD State = No; Adopted SA Materials = Yes); Condition 4 (IMPD State = Yes; Adopted SA Materials = Yes). This figure shows the rates of the supports and adequacy of standards-aligned materials indicators, as defined in Table 3.1, disaggregated by IMPD Network/material adoption condition, as defined in Table 3.2. Panel A presents two indicators that pertain to principal support for standards-aligned material use, Panel B presents three indicators pertaining to participation in curriculum-focused PL, and Panel C presents two indicators pertaining to teacher buy-in regarding the adequacy of their adopted materials. * denotes that the percentage from that group is statistically significantly different, at the $p < 0.05$ level, from the percentage among Condition 1 teachers.
materials *regularly*—at least once a week but not for 50 percent or more of instructional time, or (3) uses standards-aligned materials *intensively*—i.e., at least once a week and for 50 percent of more of instructional time.

In Figure 3.8, we look at how teachers’ state IMPD Network and material adoption status was related to whether and how intensively teachers used standards-aligned math and ELA materials. Similar to the patterns shown across Figure 3.7 but in much starker contrast, the most substantial predictor of whether teachers used a standards-aligned material was whether they reported that at least one standards-aligned material was required or recommended to them. Roughly nine in ten teachers who reported that their school or district had not adopted at least one standards-aligned material (i.e., Condition 1 and Condition 2 teachers) indicated that they did not use a standards-aligned material. Less than 25 percent of math teachers and less than 40 percent of ELA teachers who reported adoption (i.e., Condition 3 and Condition 4) indicated that they did not use a standards-aligned material.

Furthermore, there were minimal differences in usage between Condition 1 and Condition 2 teachers, suggesting that IMPD Network participation has little effect on teachers’ use of standards-aligned materials if their school or district also have not adopted them.

IMPD Network participation appeared to have an association with the intensity of usage among teachers who reported that their school or district had adopted a standards-aligned material. Teachers in Condition 4—who reported *both* being in an IMPD Network state and adopting a standards-aligned material—

![Figure 3.8](image-url)

**FIGURE 3.8**

*Use of Math and ELA Standards-Aligned Materials, by IMPD Network Participation and School and District Adoption of Standards-Aligned Materials in the 2020–2021 School Year*

<table>
<thead>
<tr>
<th></th>
<th>Intensively uses SA material</th>
<th>Regularly uses SA material</th>
<th>Does not use SA material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition 1</td>
<td>4 (9)</td>
<td>3 (9)</td>
<td>21* (9)</td>
</tr>
<tr>
<td>Condition 2</td>
<td>3 (9)</td>
<td>3 (9)</td>
<td>21* (9)</td>
</tr>
<tr>
<td>Condition 3</td>
<td>1 (7)</td>
<td>64* (13)</td>
<td>21* (6)</td>
</tr>
<tr>
<td>Condition 4</td>
<td>1 (7)</td>
<td>64* (13)</td>
<td>21* (6)</td>
</tr>
</tbody>
</table>

* indicates that the percentage of teachers in that use category is statistically significantly different at the $p < 0.05$ level from the percentage among Condition 1 teachers. Percentages may not sum to 100 because of rounding.

NOTE: SA = standards-aligned. Condition 1 (IMPD State = No; Adopted SA Materials = No); Condition 2 (IMPD State = Yes; Adopted SA Materials = No); Condition 3 (IMPD State = No; Adopted SA Materials = Yes); Condition 4 (IMPD State = Yes; Adopted SA Materials = Yes). Lefthand bars show results for math, righthand bars show results for ELA. This figure shows the percentage of teachers who (1) do not use a standards-aligned material, (2) regularly use a standards-aligned material, and (3) intensively use a standards-aligned material, separated by subject and teachers’ IMPD Network and material adoption condition, as defined in Table 3.2.
were 9 percentage points more likely to indicate using a standards-aligned material for over 50 percent of instructional time than teachers in Condition 3 who reported adopting a standards-aligned material but were not in an IMPD Network state.

The Association of Supports for and Buy-In of Materials and Use of Standards-Aligned Materials Differed According to State IMPD Network Participation and Adoption of Standards-Aligned Materials

Finally, we dug deeper into the various factors that might predict intensity of use of standards-aligned materials through multinomial logistic regression models to examine how usage was predicted by (1) reported IMPD Network participation and adoption of a standards-aligned material, (2) principal supports for curriculum use, (3) participation in curriculum-focused professional learning, and (4) teacher-reported buy-in of the adequacy of their materials. These models also included statistical controls for school locale, school enrollments of students eligible for free or reduced-price lunch (FRPL) and non-White students, and teachers’ subject and grade level assignments.

When considering how supports were related to the rate of usage of standards-aligned materials in the full sample of teachers alongside adoption and IMPD Network participation, very few support indicators were significantly linked to the rate of teacher usage of standards-aligned materials, emphasizing—as shown in Figure 3.8—the importance of adoption decisions for eventually encouraging teachers to use standards-aligned materials. Those indicators significantly linked to teachers’ reported usage, such as principal encouragement to use required materials, were only modestly associated with differences in how teachers used their materials.

However, when we investigated linkages and supports separately by teachers’ state IMPD Network status and standards-aligned material adoption condition, we found that not only were teachers’ network and adoption statuses associated with their access to supports (Figure 3.7) and their usage of standards-aligned materials (Figure 3.8), but they were also related to how supports and usage associate with each other. In Table 3.3, we summarize the results of regressions run between supports and use of materials that were run separately for each of the four network and adoption status categories. Table A.4 provides the estimated associations between each indicator and use category that are summarized in Table 3.3.

Several patterns emerge from Table 3.3. First and most clearly, supports for material use are most likely to be significant predictors for use among Condition 3 and 4 teachers—those in schools or districts that have adopted a standards-aligned material. This was especially true for Condition 4 teachers who were also in IMPD Network–participating states. Among these Condition 4 teachers, indicators of principal support (whether principals encourage use of required curricula, whether principals consider curriculum use in observations) and teacher buy-in of the adequacy of their materials (i.e., adequate for mastering state standards, adequate for covering state assessment content) are significant positive predictors of whether teachers intensively used a standards-aligned material. Specifically, among Condition 4 teachers, each of these indicators was associated with an over 10 percentage point increase in the probability that a teacher intensively used a standards-aligned material (Table A.3). Principal encouragement was also a significant positive predictor of intensive use of standards-aligned materials among Condition 3 teachers.

Among Condition 1 and 2 teachers who did not report that their school or district had adopted a standards-aligned material, regardless of IMPD Network participation, only one support indicator—whether principals consider curriculum use in observations—was significantly related to either type of standards-aligned material use. We hypothesize in our theory of action (Figure 1.1) that curriculum-specific supports and perceived adequacy of materials was linked to whether teachers used standards-aligned materials. The results presented in Table 3.3 suggest that there might be prerequisites for these relationships to appear as we hypothesize: Specifically, that teachers are in a school or district that has adopted a standards-aligned material.
One set of supports that behaved curiously were whether teachers reported participating in professional learning (e.g., workshops, coaching, collaborative learning). Professional learning indicators were not significant predictors of use among Condition 1 and 2 teachers who did not report adoption of standards-aligned material. Relationships between professional learning participation and usage among teachers who did report adoption of standards-aligned materials varied by type of professional learning, type of usage, and IMPD Network participation. First, across teachers of any IMPD Network/material adoption status, we did not find evidence that participation in workshops on standards-aligned material use was significantly related to usage. Second, participation in coaching was a significantly positive predictor of regular usage of standards-aligned materials among Condition 4 teachers but with no significant association with intensive use time. Last—and most perplexingly—among Condition 3 teachers who reported adoption of a standards-aligned material but were not in an IMPD Network state, participation in collaborative learning was significantly positively associated with regular usage but significantly negatively associated with intensive usage. This pattern might reflect findings from prior studies that used AIRS data that indicate that teachers frequently modify and supplement their core instructional materials (Kaufman et al., 2020; Wang et al., 2022). If collaborative time with other teachers is not intentionally structured around implementing a single curriculum with fidelity, teachers who spend additional time with their peers to discuss curriculum might decide to use a variety of materials to meet the diverse needs of their classrooms. If this is true, it is possible that collaborative learning could increase the likelihood that a single standards-aligned material is used but decrease the likelihood that this single material is the primary basis for classroom instruction.
In this chapter, we provide snapshots for each state in the IMPD Network on standards-aligned material adoption, use, and supports.
Arkansas

Joined IMPD Network: 2020

Total Enrollment: 496,900

Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Arkansas Department of Education (ADE), which joined the IMPD Network in 2020, is working with EdReports to develop review tools for ELA and math to support districts in assessing the quality of their curricula. Currently, the ADE provides reviews and ratings for specific K–6 ELA materials that align with the state’s science of reading law. Districts are required to adopt materials that align with the science of reading for K–6 ELA, but there are otherwise no requirements to adopt HQIM.

Furthermore, the state provides several HQIM-aligned supports, including state grants to support the purchase and adoption of HQIM and a pilot initiative providing professional development to districts in their first year of adopting HQIM.

To learn more about state strategies to support adoption and use of HQIM in Arkansas, see Table A.1.

Key Findings

- In 2021, Arkansas mathematics teachers reported a higher rate of regular use of standards-aligned materials than math teachers nationally (54 versus 42 percent, respectively). In contrast, Arkansas ELA teachers reported a lower rate of regular use of standards-aligned materials in 2021 than ELA teachers nationally (19 versus 26 percent, respectively).
- A higher proportion of math teachers in Arkansas than in the United States as a whole (58 versus 45 percent, respectively) said that they participated in collaborative learning on materials four or more times in the 2020–2021 school year.
- Participation in collaborative learning was less prevalent among teachers in schools that served higher proportions of low-income students, while participation in coaching on materials was more prevalent in lower-income schools.
In 2021, math teachers in Arkansas reported school or district adoption of standards-aligned materials at a rate (54 percent) roughly on par with math teachers nationally. Although Arkansas teachers were significantly more likely to report regular use of standards-aligned math materials than teachers nationally (54 percent versus 42 percent), they were no more likely to report intensive use of materials.

In terms of supports for their use of math materials in 2021, Arkansas teachers were significantly more likely than math teachers nationally to report that their principals considered curricula in observations (78 percent) and that they participated in collaborative learning focused on math materials at least four times a year (58 percent). In contrast, Arkansas math teachers said that they received other supports, such as coaching and workshops on materials, at rates comparable to those observed among other math teachers nationwide. Two-thirds of Arkansas math teachers felt that their materials were adequate to help students master state standards, and seven in ten said that their materials covered state assessment content.

---

**FIGURE 1**

**How Arkansas Compares with the Country**

<table>
<thead>
<tr>
<th>School/district adoption of standards-aligned curriculum materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one standards-aligned material required or recommended</td>
<td>State Snapshots of Standards-Aligned Material Adoption, Use, Buy-in, and Supports</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Supports for standards-aligned materials</td>
<td></td>
</tr>
<tr>
<td>Principal feedback</td>
<td></td>
</tr>
<tr>
<td>Principal encourages use of required curricula</td>
<td></td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
<td></td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
<td></td>
</tr>
<tr>
<td>Professional learning</td>
<td></td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
<td></td>
</tr>
<tr>
<td>Workshops or trainings on materials 4+ times per year</td>
<td></td>
</tr>
<tr>
<td>Teachers’ buy-in of standards-aligned curriculum materials</td>
<td></td>
</tr>
<tr>
<td>Materials adequate for mastering state standards</td>
<td></td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
<td></td>
</tr>
<tr>
<td>Teacher use of standards-aligned materials</td>
<td></td>
</tr>
<tr>
<td>Regular use of at least one standards-aligned material</td>
<td></td>
</tr>
<tr>
<td>Intensive use of at least one standards-aligned material</td>
<td></td>
</tr>
</tbody>
</table>

In 2021, math teachers in Arkansas reported school or district adoption of standards-aligned materials at a rate (54 percent) roughly on par with math teachers nationally. Although Arkansas teachers were significantly more likely to report regular use of standards-aligned math materials than teachers nationally (54 percent versus 42 percent), they were no more likely to report intensive use of materials.

In terms of supports for their use of math materials in 2021, Arkansas teachers were significantly more likely than math teachers nationally to report that their principals considered curricula in observations (78 percent) and that they participated in collaborative learning focused on math materials at least four times a year (58 percent). In contrast, Arkansas math teachers said that they received other supports, such as coaching and workshops on materials, at rates comparable to those observed among other math teachers nationwide. Two-thirds of Arkansas math teachers felt that their materials were adequate to help students master state standards, and seven in ten said that their materials covered state assessment content.
Arkansas ELA teachers were just as likely to report school or district adoption of at least one standards-aligned material as ELA teachers nationally. Despite a similar rate of adoption in 2021, Arkansas ELA teachers were less likely than their ELA counterparts nationwide to report regular use at least one of the standards-aligned materials (19 percent versus 26 percent, respectively). Only 15 percent of ELA teachers in Arkansas reported intensive use of standards-aligned materials.

With regard to supports for and buy-in for standards-aligned instructional materials in 2021, Arkansas ELA teachers reported similar rates of access to principal feedback and professional learning as ELA teachers nationally. Two-thirds or more of Arkansas ELA teachers said that their principals encourage use of required curricula, their principals consider curricula in observations, and materials are adequately aligned to master state standards and to cover state assessment content. In contrast, only 12 and 13 percent, respectively, of Arkansas ELA teachers participated in workshops and coaching on materials four or more times per year.
In Arkansas, math teachers reported higher rates of school or district adoption, regular use, and intensive use of standards-aligned instructional materials than ELA teachers. Rural teachers and teachers in schools serving higher proportions of low-income students also were more likely to report both regular and intensive use of standards-aligned instructional materials.

In terms of supports, teachers in higher-poverty schools were less likely to report receiving collaborative learning on materials at least four times per year, while these same teachers were more likely to report coaching than teachers in the lowest-poverty schools. Teachers in schools serving the highest percentages of non-White students were more likely to report receiving principal encouragement to use standards-aligned materials and coaching on materials at least four times per year. In Arkansas, there was no variation in teacher buy-in about standards-aligned materials across school characteristics.
Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Delaware Department of Education (DDOE) leverages EdReports reviews to signal the quality of instructional materials. Although the DDOE does not mandate the adoption of any specific curricula, LEAs are expected to select or develop curricula that are aligned with state standards. To support the implementation of HQIM, the DDOE has created an online platform focused on HQIM, Digital DE (DDOE, undated-a), where educators can access instructional and professional development resources.

The DDOE also has developed an Online Vendor Guide to provide guidance on high-quality vendors that provide professional learning on HQIM (DDOE, undated-b). To reduce the administrative burden of obtaining high-quality professional learning, districts are able to directly contract with approved vendors without going through separate procurements. The state also both directly provides and funds vendors to provide professional development to opt-in cohorts of district staff and others within the school system.

To learn more about state strategies to support adoption and use of HQIM in Delaware, see Table A.1.

Key Findings

- In Delaware in 2021, math teachers reported higher rates of school or district adoption of standards-aligned materials and use of materials than ELA teachers. In math, rates of use of materials were relatively unchanged between 2019 and 2021. However, in ELA, three times as many teachers reported regularly using materials in 2021 than in 2019 (33 versus 11 percent, respectively).

- Math teachers also were more likely than their ELA counterparts to feel that materials were adequate for students to master state standards and to cover state assessment content.

- Despite this subject divergence, both math and ELA teachers in Delaware reported higher rates of school or district adoption and higher rates of use of standards-aligned materials and supports for materials than other math and ELA teachers nationally.
Delaware math teachers reported higher rates of school or district adoption and use of standards-aligned materials than math teachers nationally. This was true in both 2019 and in 2021. Most recently in 2021, 75 percent of Delaware math teachers reported that their school or district had adopted at least one standards-aligned material, 61 percent reported regularly using these materials, and 57 percent reported intensively using these materials.

In 2021, math teachers in Delaware were just as likely as or more likely than teachers nationally to report receiving various supports related to standards-aligned materials. Delaware math teachers were more likely to report receiving coaching and workshops or trainings related to standards-aligned materials than math teachers nationally. Nine in ten math teachers in Delaware said that their principal encourages them to use the required curricula, and three-quarters said that required or recommended materials were adequate to help students master state standards and cover state assessment content.
In 2021, Delaware ELA teachers reported higher rates of both school or district adoption and intensive use of standards-aligned materials than ELA teachers nationally. Notably, there was significant growth in Delaware ELA teachers’ reported use of standards-aligned materials between 2019 and 2021. Back in 2019, only 11 percent of Delaware ELA teachers reported intensive use of materials, a rate on par with ELA teachers nationally. By 2021, roughly three in ten Delaware ELA teachers were intensively using materials, exceeding the national average.

In 2021, ELA teachers in Delaware were just as likely or more likely than ELA teachers nationally to report receiving supports related to materials and having bought in to their materials. For example, Delaware ELA teachers were more likely to report receiving collaborative learning, coaching, and workshops or trainings related to standards-aligned instructional materials than teachers nationally. In contrast to math teachers, Delaware ELA teachers were no more likely than their national counterparts to feel that their required or recommended materials were adequate to help students master state standards and cover state assessment content.
In Delaware, math teachers, teachers in rural schools, and teachers in schools serving the highest percentages of non-White and low-income students were more likely to indicate their school or district had adopted at least one standards-aligned material. Similarly, math teachers, teachers in suburban schools, rural schools, and schools serving higher percentages of non-White students were more likely to report both regular and intensive use of materials. Notably, teachers in schools serving the highest percentages of low-income students were less likely to report use of standards-aligned materials.

Subgroup differences were also observed across supports and teacher buy-in, the bulk of which were concentrated in student racial or ethnic composition categories. Teachers in schools serving more non-White students were more likely to receive coaching and workshops related to standards-aligned materials four or more times in the 2020–2021 school year. However, these same teachers were less likely to say that their materials were adequate for mastering state standards or adequate to cover content included in the state’s assessment.
Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Kentucky Department of Education (KDE), in partnership with EdReports, is developing a consumer guide for educators and school districts to publish information about the alignment of curriculum materials with state standards. KDE also has developed instructional alignment rubrics to help schools and districts understand the quality of instructional materials and encourage the use of HQIM. In addition, the state publishes newsletters that highlight state initiatives and research on HQIM.

Recently, KDE selected 12 districts—including representatives from 27 schools—from across the eight educational cooperative regions in Kentucky to participate in a curriculum adoption and implementation pilot program. Participation in the pilot program required districts to select HQIM. KDE also has provided professional development to school- and district-based staff on selection of and research on HQIM. Additionally, KDE partnered with teacher preparation programs to define HQIM.

To learn more about state strategies to support adoption and use of HQIM in Kentucky, see Table A.1.

Key Findings

- In 2021, even though Kentucky math teachers were less likely than math teachers nationally to indicate that their school or district had adopted at least one standards-aligned material, they were just as likely as those nationwide to report both regular and intensive use of standards-aligned materials.

- Kentucky ELA and math teachers reported receiving supports related to standards-aligned materials at similar rates to ELA and math teachers nationally, with one exception: Kentucky math teachers were more likely than their national counterparts to report that their principal considers use of curricula in their teacher observations.

- Among Kentucky teachers, there was a consistent pattern of suburban and rural teachers being less likely to report school or district adoption of standards-aligned materials, use of materials, receipt of supports, and teacher buy-in for standards-aligned materials than urban teachers.
Although Kentucky math teachers were significantly less likely to indicate that their school or district required or recommended a standards-aligned material than math teachers nationally (32 versus 44 percent, respectively), they reported comparable rates of use of standards-aligned materials in 2021. Forty-five percent of Kentucky math teachers regularly used standards-aligned materials in 2021, and 30 percent intensively used such materials.

Kentucky teachers reported comparable rates of supports for the use of math materials and teacher buy-in of materials with one exception: Kentucky teachers were significantly more likely than math teachers nationwide to indicate that their principal considers math curricula use in observations (74 versus 65 percent, respectively).
Kentucky ELA teachers were just as likely as ELA teachers nationwide to report that their schools or districts had adopted at least one standards-aligned material. Thirty percent of Kentucky ELA teachers reported regularly using standards-aligned material in 2021, and 20 percent reported intensively using such materials—percentages on par with ELA teachers nationally.

In 2021, Kentucky ELA teachers were similar in most aspects to ELA teachers nationally regarding supports for standards-aligned instructional materials and teacher buy-in with one exception: Kentucky ELA teachers were more likely than ELA teachers nationally to report that their recommended or required materials adequately covered state assessment content (71 versus 61 percent, respectively).
In Kentucky, suburban and rural teachers were less likely than their urban counterparts to say their schools or districts had adopted at least one standards-aligned material. Suburban and rural teachers consistently reported lower levels of use—both regularly and intensively—of standards-aligned instructional materials than urban teachers. In contrast, higher percentages of teachers in middle-poverty schools reported regular and intensive use of standards-aligned materials than teachers in the lowest-poverty schools.

Mirroring the pattern that we observed in adoption and use of materials, there was also a fairly consistent pattern in suburban and rural teachers indicating that they receive less support related to standards-aligned materials and have lower buy-in of these materials than teachers in the lowest-poverty schools. Specifically, suburban and rural teachers reported lower rates of principal encouragement to use materials and were less likely to participate in workshops and trainings on materials at least four times per year. These same teachers were also less likely to say that their materials were adequate to cover state assessment content, and fewer suburban teachers said their materials were adequate for mastering state standards.

## FIGURE 3
### Differences by Subgroups

<table>
<thead>
<tr>
<th>School/district adoption of standards-aligned curriculum materials</th>
<th>At least one standards-aligned material required or recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>ELA</td>
</tr>
<tr>
<td>0–25% non-White</td>
<td>26–50% non-White</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supports for standards-aligned materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal encourages use of required curricula</td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
</tr>
<tr>
<td>Workshops or trainings on materials 4+ times per year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teachers’ buy-in of standards-aligned curriculum materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials adequate for mastering state standards</td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher use of standards-aligned materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular use of at least one standards-aligned material</td>
</tr>
<tr>
<td>Intensive use of at least one standards-aligned material</td>
</tr>
</tbody>
</table>

### Reference group
- Not significantly different from reference group
- Significantly higher than reference group
- Significantly lower than reference group

- Suppressed because of small sample size
Louisiana

Policy Context: Signals and Incentives for Adopting and Supporting HQIM

Louisiana uses its Instructional Materials Review process to conduct reviews of curriculum materials. Materials are rated as Tier 1, signifying that they are high-quality, Tier 2, or Tier 3, meaning they are approaching or not representing quality, respectively, and the reviews are made public through the state’s Department of Education website. Louisiana has invested significantly in the development of its own Tier 1 curricula, the ELA Guidebooks, which are used widely throughout the state.

To incentivize the adoption of Tier 1 materials, Louisiana provides competitive funding to districts only if they purchase Tier 1 materials. Additionally, the state secures contracts with Tier 1 vendors so that districts do not have to conduct their own competitive bid processes, allowing districts to reduce administrative burden and cost. Louisiana provides numerous forms of professional learning tied to Tier 1 curricula, including training of teacher leaders, and has developed a list of vetted professional development vendors supporting Tier 1 curricula to guide districts’ selection of vendors.

To learn more about state strategies to support adoption and use of HQIM in Louisiana, see Table A.1.

Key Findings

- In math, the proportion of Louisiana teachers using standards-aligned materials decreased from roughly eight in ten in 2019 to six in ten in 2021. Meanwhile, in ELA, the proportion of teachers using standards-aligned materials was relatively unchanged between 2019 and 2021. Nonetheless, higher percentages of both math and ELA teachers in Louisiana than teachers nationally reported use of standards-aligned materials in 2021.

- In a similar pattern, consistently higher percentages of both math and especially ELA teachers in Louisiana reported the receipt of supports related to materials than teachers nationally.

- Few subgroup differences were observed among Louisiana teachers in reports of school or district adoption and use of materials, teacher buy-in, and supports.
The percentage of math teachers in Louisiana who reported that their school or district adopted at least one standards-aligned material was higher than the percentage of math teachers nationally who said the same (74 versus 44 percent, respectively). Louisiana math teachers also were more likely than their national counterparts to report both regular and intensive use of standards-aligned materials in both 2019 and 2021. Notably, however, there was a drop off in Louisiana math teachers’ use of standards-aligned materials between 2019 and 2021—a pattern not commonly observed among other IMPD Network states and a pattern that potentially could be attributed to the COVID-19 pandemic.

In both 2019 and 2021, mathematics teachers in Louisiana were more likely than their national counterparts to indicate receiving principal support in using standards-aligned materials. While Louisiana math teachers were slightly more likely than their national counterparts to report participating in collaborative learning that was focused on standards-aligned materials four or more times, they were no more likely to participate in coaching or workshops on materials or to say that their materials align with state standards and assessments.
As in math, consistently higher percentages of ELA teachers in Louisiana relative to the rest of the country reported school or district adoption of standards-aligned materials, use of standards-aligned materials, and receipt of supports related to materials. However, unlike in math, where we observed a drop-off in the use of standards-aligned materials between 2019 and 2021, levels of use were relatively unchanged among ELA teachers in Louisiana during this period.

Although Louisiana ELA teachers also reported higher-than-average levels of principal support and coaching, training, and collaborative learning on standards-aligned materials, they were no more likely than their national counterparts to say that their materials were adequate for mastering state standards and for covering state assessment content.
There were relatively few subgroup differences observed among teachers in Louisiana in standards-aligned material adoption, use, buy-in, or supports. There were no differences by subject taught nor by school locale across indicators. However, there were a handful of differences observed in teachers’ receipt of professional learning activities in terms of the percentage of White students served by the school. Teachers in schools serving the highest percentages of non-White students were especially likely to report receiving collaborative learning, coaching, and workshops/trainings related to standards-aligned materials four or more times per year.
Massachusetts

Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Massachusetts Department of Elementary and Secondary Education (DESE) developed its own curriculum review process, CURATE, which draws on both EdReports and the findings of a panel of teachers who review and rate evidence of curriculum materials’ quality and standards alignment. The reviews are made public through DESE’s website.

To incentivize the adoption of HQIM and standards-aligned materials, DESE has streamlined the procurement process for state-recommended materials to reduce the administrative burden on districts. The adoption of HQIM is also required for many department-sponsored competitive grants. Some of the strategies that DESE has enacted around curriculum-specific PL include directing school and district leaders to Rivet Education’s Professional Learning Partner Guide for ratings of curriculum-specific PL offerings about HQIM.

To learn more about state strategies to support adoption and use of HQIM in Massachusetts, see Table A.1.

Key Findings

- Massachusetts math teachers’ use of standards-aligned materials increased between 2019 and 2021, bringing usage rates in 2021 to a comparable level with those seen nationwide. However, in ELA, fewer teachers in Massachusetts reported both regular and intensive use of standards-aligned materials than ELA teachers nationwide.

- In 2021, math teachers in Massachusetts were significantly less likely than teachers nationally to indicate that their principals consider curriculum use in observations (54 versus 65 percent, respectively). Meanwhile, ELA teachers in Massachusetts were less likely to have principals who encourage the use of required curricula than teachers nationally (68 versus 80 percent, respectively).

- Massachusetts teachers in the highest-poverty schools reported higher rates of school or district adoption of standards-aligned materials, principal support, collaborative learning on standards-aligned materials, and use of standards-aligned materials than their counterparts in the lowest-poverty schools.
In 2021, 42 percent of Massachusetts teachers reported that their schools or districts had adopted at least one standards-aligned material, a rate roughly on par with math teachers nationally. Regular and intensive use rates of standards-aligned materials among Massachusetts math teachers increased by at least 10 percentage points from 2019 to 2021; rates in 2021 are comparable with those seen nationwide.

Massachusetts teachers reported rates comparable with the national average of supports for and teacher buy-in of standards-aligned materials in 2021 with one exception: Massachusetts teachers were significantly less likely to indicate that their principals consider curriculum use in observations than teachers nationally (54 versus 65 percent, respectively). Teachers’ reported rate of available supports in 2021 were relatively on par with those reported in 2019. However, there was growth in the proportion of Massachusetts teachers who said that their principals encourage the use of standards-aligned materials between 2019 and 2021 (from 59 to 78 percent, respectively).

### FIGURE 1
How Massachusetts Compares with the Country

<table>
<thead>
<tr>
<th>School/district adoption of standards-aligned curriculum materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one standards-aligned material required or recommended</td>
<td>42</td>
</tr>
<tr>
<td>Supports for standards-aligned materials</td>
<td></td>
</tr>
<tr>
<td>Principal encourages use of required curricula</td>
<td>59</td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
<td>59</td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
<td>37</td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
<td>24</td>
</tr>
<tr>
<td>Workshops or trainings on materials 4+ times per year</td>
<td>15</td>
</tr>
<tr>
<td>Teachers’ buy-in of standards-aligned curriculum materials</td>
<td>58</td>
</tr>
<tr>
<td>Materials adequate for mastering state standards</td>
<td>58</td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
<td>59</td>
</tr>
<tr>
<td>Teacher use of standards-aligned materials</td>
<td>59</td>
</tr>
<tr>
<td>Regular use of at least one standards-aligned material</td>
<td>59</td>
</tr>
<tr>
<td>Intensive use of at least one standards-aligned material</td>
<td>59</td>
</tr>
</tbody>
</table>

Percentage of teachers

- State (2019)
- State (2021)
- National average

| Significantly higher than the national average |
| Significantly lower than the national average |
| Not significantly different from the national average |
| Data are not available |

In 2021, 42 percent of Massachusetts teachers reported that their schools or districts had adopted at least one standards-aligned material, a rate roughly on par with math teachers nationally. Regular and intensive use rates of standards-aligned materials among Massachusetts math teachers increased by at least 10 percentage points from 2019 to 2021; rates in 2021 are comparable with those seen nationwide.

Massachusetts teachers reported rates comparable with the national average of supports for and teacher buy-in of standards-aligned materials in 2021 with one exception: Massachusetts teachers were significantly less likely to indicate that their principals consider curriculum use in observations than teachers nationally (54 versus 65 percent, respectively). Teachers’ reported rate of available supports in 2021 were relatively on par with those reported in 2019. However, there was growth in the proportion of Massachusetts teachers who said that their principals encourage the use of standards-aligned materials between 2019 and 2021 (from 59 to 78 percent, respectively).
Compared with ELA teachers nationally, ELA teachers in Massachusetts were less likely to report that their schools or districts had adopted at least one standards-aligned material (32 versus 21 percent, respectively). ELA teachers in Massachusetts also were less likely to report any level of use: 15 percent of Massachusetts teachers reported regularly using at least one standards-aligned material, compared with 26 percent of ELA teachers nationwide. However, use of standards-aligned materials among ELA teachers in Massachusetts did grow between 2019 and 2021.

Reported rates of supports for standards-aligned instructional materials and teacher buy-in among Massachusetts ELA teachers were similar in most aspects to the national average with one exception. Notably, in 2021, Massachusetts ELA teachers were less likely to indicate that their principal encouraged use of required curricula than ELA teachers nationwide (68 versus 80 percent, respectively).

ELA teachers in Massachusetts consistently reported lower rates of school or district adoption of standards-aligned materials and use of these materials than their math counterparts. In another consistent pattern,
Massachusetts teachers in the highest-poverty schools reported higher rates of school or district adoption and use of standards-aligned materials than their counterparts in the lowest-poverty schools.

Patterns in supports across teacher subgroups were less consistent than the patterns observed in adoption and use of materials. Teachers in the highest-poverty schools were more likely to report receiving feedback and encouragement from principals on their curriculum use; higher rates of these teachers said that their principals encourage use of required curricula and that their principals consider curricula in observations. In terms of collaborative learning and coaching on materials, rural teachers were less likely to indicate that they have received these supports than urban teachers, while teachers in schools serving the highest proportions of non-White students were more likely to say that they have received these supports. Importantly, teachers in higher-poverty schools were less likely to say that materials were adequate to help students master state standards than teachers in the lowest-poverty schools.
How States Are Creating Conditions for Use of High-Quality Instructional Materials in K–12 Classrooms

Mississippi

Key Findings

- Even though Mississippi math teachers were significantly more likely than math teachers nationally to report that their schools or districts had adopted standards-aligned materials, they were no more likely to report any level of use of these materials. However, the proportion of Mississippi teachers who reported regular use of at least one standards-aligned material grew by roughly 10 percentage points between 2019 and 2021 in both ELA and math.

- In 2021, both math and ELA teachers in Mississippi were more likely than teachers nationally to indicate that their school principals consider curricula in observations.

- In 2021, fewer teachers in higher-poverty schools reported that their principals encourage use of required curricula than teachers in the lowest-poverty schools. Conversely, teachers in the highest-poverty schools reported higher rates of collaborative learning, coaching, and workshops or trainings on materials at least four times per year than their counterparts in the lowest-poverty schools.

Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Mississippi Department of Education (MDE) developed a definition for HQIM in fall 2017 (Mississippi Instructional Materials Matter, undated-a) that is rooted in alignment with Mississippi’s college- and career-readiness standards. MDE has lists of state-adopted materials for math, ELA, and grades 6–12 social studies with upcoming adoptions in science for the 2023–2024 school year. Rubrics are available on MDE’s website and are communicated frequently to teachers. Throughout the 2021–2022 school year, MDE used ESSER and American Rescue Plan (ARP) funds to provide grants to roughly 18 districts to support (1) adoption of HQIM, (2) summer school or afterschool programming that uses standards-aligned materials, and (3) professional development or coaching on HQIM.

To support the use of HQIM in the state, MDE developed a curriculum support guide (Mississippi Instructional Materials Matter, undated-b) that provides teachers, school leaders, and district leaders with resources to support the implementation of HQIM. In addition, the state trains its literacy and math coaches on the use and implementation of HQIM such that coaching around material usage can be integrated into the support that teachers receive from coaches.

To learn more about state strategies to support adoption and use of HQIM in Mississippi, see Table A.1.

Race or Ethnicity

- White 44%
- Black 48%
- Hispanic 4%
- Asian 1%
- Other 3%

FRPL Eligibility

- FRPL-eligible 75%
- Not FRPL-eligible 25%
Compared with math teachers nationally, Mississippi teachers were significantly more likely to report that their school or district adopted a standards-aligned material (57 versus 44 percent, respectively). Nonetheless, their usage of standards-aligned materials—both regularly and intensively—was not significantly different in 2021 from math teachers nationwide. Furthermore, the proportion of Mississippi math teachers who reported intensive use of standards-aligned materials in 2021 was relatively unchanged from 2019.

In 2021, Mississippi math teachers were significantly more likely than math teachers nationally to report that principals consider their use of mathematics curricula in their observations (78 versus 65 percent, respectively) and were more likely to report that they participated in collaborative learning on standards-aligned materials (58 versus 45 percent, respectively) and coaching on such materials (23 versus 13 percent, respectively). Seventy percent of Mississippi math teachers felt that their materials were adequate to cover state assessment content, and 57 percent said that their materials were adequate to help students master state standards—percentages roughly on par with math teachers nationally.

**FIGURE 1**
How Mississippi Compares with the Country

<table>
<thead>
<tr>
<th>School/district adoption of standards-aligned curriculum materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one standards-aligned material required or recommended</td>
<td>57%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supports for standards-aligned materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal encourages use of required curricula</td>
<td>69%</td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
<td>78%</td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
<td>68%</td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
<td>58%</td>
</tr>
<tr>
<td>Workshops or trainings on materials 4+ times per year</td>
<td>16%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teachers’ buy-in of standards-aligned curriculum materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials adequate for mastering state standards</td>
<td>57%</td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
<td>70%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher use of standards-aligned materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular use of at least one standards-aligned material</td>
<td>52%</td>
</tr>
<tr>
<td>Intensive use of at least one standards-aligned material</td>
<td>19%</td>
</tr>
</tbody>
</table>
In 2021, Mississippi ELA teachers were just as likely as their national counterparts to report that their school or district required or recommended a standards-aligned material. Thirty-three percent of ELA teachers in Mississippi reported regularly using a standards-aligned material, while 17 percent intensively used these materials—percentages roughly on par with ELA teachers nationally.

Mississippi ELA teachers were also similar in most aspects to the country as a whole in 2021 in regard to supports for standards-aligned instructional materials and teacher buy-in, with three exceptions. Mississippi teachers were (1) more likely than teachers nationally to have principals who consider curricula in observations (80 versus 67 percent, respectively), (2) more likely to report having materials that are adequate for mastering state standards (72 versus 60 percent, respectively), and (3) more likely to have materials adequate for covering state assessment content (70 versus 61 percent, respectively).
In Mississippi, we observed few differences across subgroups in teachers’ reports of school or district adoption of standards-aligned materials. As noted previously, ELA teachers reported a lower level of school or district adoption of standards-aligned materials, and ELA teachers in Mississippi also were less likely to report any level of use of materials than their math counterparts. Notably, a higher percentage of ELA than math teachers in Mississippi said that required or recommend materials were adequate to help students master state standards.

More variation was observed across subgroups in teachers’ receipt of supports related to materials. For example, fewer teachers in higher-poverty schools reported that their principals encourage use of required curricula than teachers in the lowest-poverty schools. Conversely, teachers in the highest-poverty schools reported higher rates of collaborative learning, coaching, and workshops/trainings on materials at least four times per year than their counterparts in the lowest-poverty schools. This same pattern also was observed among teachers in schools that serve the highest proportions of non-White students. In contrast, fewer suburban than urban teachers reported coaching and workshops/trainings specifically focused on standards-aligned materials.
Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Nebraska Department of Education (NDE) promotes the use of HQIM through its Nebraska Instructional Materials Collaborative (NIMC). The NIMC website uses EdReports reviews and supplements these reviews with bridge documents to ensure that instructional materials align to Nebraska’s own content standards. While districts make decisions about which materials to adopt, NDE has provided guidance on the process for selecting instructional materials that highlights the importance of standards alignment.

Recently, NDE incentivized the adoption of HQIM by making eligibility for the receipt of certain ESSER funds or participation in particular initiatives contingent on the adoption of partially or fully standards-aligned instructional materials. In addition, the NIMC website provides access to vendor webinars about HQIM.

To learn more about state strategies to support adoption and use of HQIM in Nebraska, see Table A.1.

Key Findings

- Nebraska math teachers’ use of standards-aligned materials increased between 2019 and 2021, bringing regular and intensive usage rates in 2021 to comparable levels with math teachers nationally.

- While ELA teachers’ use of standards-aligned materials grew between 2019 and 2021, the proportion of Nebraska ELA teachers who reported using materials regularly in 2021 remained below the rate of use of ELA teachers nationally.

- Both math and ELA teachers in Nebraska were more likely than teachers nationally to say that their principals encourage them to use the required curriculum.

- Suburban teachers were less likely to say that their schools or districts had adopted a standards-aligned material and to report using standards-aligned materials regularly or intensively. They were also less likely to report that required or recommended materials were adequate to help students master state standards and to cover state assessment content.
In 2021, 40 percent of Nebraska math teachers reported that their schools or districts had adopted at least one standards-aligned material, a rate roughly on par with math teachers nationally. Nebraska math teachers also reported using standards-aligned materials at rates roughly comparable with teachers nationally, representing considerable growth from 2019 when the rates of both regular and intensive usage of standards-aligned math materials were significantly lower than the nationwide rates of usage.

In terms of supports for standards-aligned materials and teacher buy-in, Nebraska teachers were more likely than math teachers nationally, in both 2019 and 2021, to say that their principals encourage use of required curricula and take use of curricula into consideration during teacher observations. Nebraska math teachers were also more likely to report buy-in that their required math materials are adequate for mastering state standards and state assessment context. Conversely, Nebraska teachers were less likely to report participating in collaborative learning and coaching that is focused on their math materials four or more times per year than math teachers nationwide.
Compared with other ELA teachers nationally, Nebraska ELA teachers were just as likely to report that their schools or districts required or recommended at least one standards-aligned material. However, in 2021, these teachers were less likely to regularly use at least one of the standards-aligned materials, compared with ELA teachers nationally (18 versus 26 percent, respectively). Nevertheless, ELA teachers reported considerable growth in usage of materials between 2019 and 2021.

Nebraska ELA teachers were similar in most aspects to ELA teachers nationally with one exception when reporting receipt of supports for standards-aligned instructional materials and level of teacher buy-in. Notably, Nebraska ELA teachers were more likely to have principals who encourage the use of required curricula than ELA teachers nationally (89 versus 80 percent, respectively).
In Nebraska in 2021, ELA teachers, suburban teachers, and rural teachers were less likely to report regular use of standards-aligned materials than their math and urban counterparts. ELA teachers and suburban teachers (and teachers in schools serving the highest proportions of non-White students) were also less likely to report intensive use of materials.

There were few consistent patterns across subgroups in terms of receipt of supports and teacher buy-in. More teachers in the highest-poverty schools said that their principals consider curricula in observations than teachers in the lowest-poverty schools. Interestingly, suburban teachers were less likely than their urban counterparts to say that their materials were adequate to master state standards or were adequate to cover content included in their state assessment.
Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The New Mexico Public Education Department (PED)’s HQIM reviews are conducted by New Mexico educators who have been trained to undertake reviews. HQIM reviews are published on the PED website to signal the quality of materials: Reviews for mathematics materials were provided in 2019 and reviews for ELA materials were provided in 2020 and 2021. Once a curriculum is added to the state-approved list of HQIM, the state enters into a contract with publishers of those HQIM so that districts can avoid time-consuming local procurement processes for purchasing those materials.

Another facet of PED’s strategy is to provide information around how the use of HQIM can support teachers in meeting the needs of students. PED has created a statewide resource manual to guide local decisionmaking around adoption of HQIM and implementation of HQIM (New Mexico Public Education Department, undated). In 2019, PED also held a statewide conference focused on HQIM. In 2020, PED started biannual convenings for curriculum and instruction leaders that emphasize the importance of HQIM. The state not only provides professional development for districts or schools that select HQIM but also offers a list of professional development vendors that are aligned to HQIM as a way of highlighting high-quality professional development.

To learn more about state strategies to support adoption and use of HQIM in New Mexico, see Table A.2.

Key Findings

- New Mexico math teachers were significantly more likely than math teachers nationally to report that their schools or districts adopted standards-aligned materials in 2021. In contrast, ELA teachers were no more likely than teachers nationwide to say that their schools or districts had adopted at least one standards-aligned material, although the later adoption and review cycle for ELA materials could explain some of these results.

- Higher proportions of math teachers in New Mexico reported regular and intensive usage of standards-aligned materials than math teachers nationally in both 2019 and in 2021. However, in 2019, higher percentages of ELA teachers in New Mexico reported regular and intensive use of standards-aligned materials compared with percentages nationally; by 2021, rates in New Mexico were roughly on par with rates nationally.

- Perhaps related to their lower levels of usage relative to math teachers, ELA teachers were less likely than math teachers to say that their materials were adequate for covering content included in their state assessment.
In 2019 and 2021, New Mexico teachers consistently reported higher rates of regular and intensive use of standards-aligned math materials than math teachers nationally. In 2021, New Mexico’s rates of regular and intensive use were 14 percentage points and 22 percentage points higher than the national average, respectively. Importantly, New Mexico math teachers also were more likely to indicate that their schools or districts recommended or required at least one standards-aligned material than math teachers nationally.

When it comes to supports and teacher buy-in relating to materials, New Mexico math teachers reported comparable rates of principal feedback, professional learning participation, and buy-in of the adequacy of required materials to teachers nationwide.
Compared with ELA teachers nationally, New Mexico ELA teachers were just as likely to indicate that their schools or districts required or recommended at least one standards-aligned material in 2021. ELA teachers were also just as likely as teachers nationally to report regular use of at least one standards-aligned material and to report intensive use in 2021. This is in contrast with 2019, when higher percentages of ELA teachers in New Mexico than ELA teachers nationally reported regular and intensive use of standards-aligned materials.

New Mexico teachers’ rates of reporting of supports for and buy-in of standards-aligned materials were similar in all aspects to the national average. Roughly half or more of New Mexico ELA teachers reported that their principals encourage use of required curricula and consider curricula in teacher observations, and that they felt that recommended or required materials were adequate to address state standards and assessment content. Meanwhile, fewer than one in five teachers reported participating in coaching or workshops related to standards-aligned materials at least four times in 2021.
In New Mexico, ELA teachers consistently reported lower levels of school/district adoption and use of standards-aligned materials than their math counterparts. Notably, ELA teachers in New Mexico were less likely than math teachers to say that their materials were adequate for covering content included in their state assessment.

There were few consistent patterns across subgroups in teachers’ receipt of supports related to materials. Interestingly, teachers in the highest-poverty schools were more likely to report intensively using standards-aligned materials but not regularly using those materials than their counterparts in the lowest-poverty schools. There were also few consistent patterns across teacher subgroups in teachers’ reported supports. However, teachers in higher-poverty schools were more likely to report receiving coaching on materials at four times per year as were suburban teachers. Suburban teachers were also more likely than their urban counterparts to say that their principals consider curricula in observations.
Policy Context: Signals and Incentives for Adopting and Supporting HQIM

Ohio, which joined the IMPD Network in 2020, is at the stage of raising awareness about the use of HQIM. Districts have the autonomy to select their own curricula, but Ohio state leaders are leveraging EdReports to signal the quality of materials and are having conversations with district leaders to help them understand the purpose behind HQIM and what adoption and implementation of HQIM look like.

State leaders have crafted a curriculum support guide to support the selection and implementation of HQIM. The support guide includes guidelines for curriculum-focused professional development, although direct provision of professional development is more limited (Ohio Curriculum Support Guide, undated). Currently, state leaders are working with Instruction Partners, a nonprofit professional development vendor, to provide direct support to one school district; this effort is intended to generate lessons learned that can be shared with the field.

To learn more about state strategies to support adoption and use of HQIM in Ohio, see Table A.2.

Key Findings

- In both math and ELA, Ohio teachers reported rates of school or district adoption and use of standards-aligned math instructional materials that were comparable with the national average in 2021.

- Although math teachers reported the receipt of supports that were roughly on par with teachers nationally, Ohio ELA teachers tended to have fewer supports than ELA teachers nationally, such as encouragement from their principals to use their required curricula, collaborative learning focused on standards-aligned materials, and material-focused coaching.

- In Ohio, teachers in the highest-poverty schools and in schools serving the highest percentage of non-White students were more likely to say that they had received coaching or training on using standards-aligned materials at least four times in the 2020–2021 school year.
Ohio math teachers reported rates of school or district adoption and use of standards-aligned math instructional materials that were comparable with the national average: 48 percent indicated that their school or district had adopted a standards-aligned math material, 43 percent indicated that they regularly use a standards-aligned math material, and 38 percent indicated that they intensively use a standards-aligned math material.

Similarly, when we look at supports for standards-aligned material use and teacher buy-in, Ohio teachers reported rates of principal supports for math curriculum use, participation in curriculum-focused professional learning, and buy-in of the adequacy of required math materials that were not significantly different from rates nationwide.

### FIGURE 1
How Ohio Compares with the Country

<table>
<thead>
<tr>
<th>School/district adoption of standards-aligned curriculum materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one standards-aligned material required or recommended</td>
<td>🍽️ 2019</td>
</tr>
</tbody>
</table>

**Supports for standards-aligned materials**

- **Principal feedback**
  - Principal encourages use of required curricula
  - Principal considers curriculum in observations

- **Professional learning**
  - Collaborative learning on materials 4+ times per year
  - Coaching on materials 4+ times per year
  - Workshops or trainings on materials 4+ times per year

**Teachers’ buy-in of standards-aligned curriculum materials**

- Materials adequate for mastering state standards
- Materials adequate for covering state assessment content

**Teacher use of standards-aligned materials**

- Regular use of at least one standards-aligned material
- Intensive use of at least one standards-aligned material

---

Data are not available

Significantly higher than the national average

Significantly lower than the national average

Not significantly different from the national average
In 2021, 30 percent of Ohio ELA teachers said their school or district had adopted at least one standards-aligned material, a percentage roughly on par with ELA teachers nationally. Meanwhile, 24 percent of ELA teachers in Ohio reported regularly using standards-aligned materials and 13 percent reported intensive use of such materials.

Looking at the curriculum-aligned supports that are available to ELA teachers, Ohio teachers tended to report fewer supports than ELA teachers nationally, such as encouragement from their principals to use their required curricula, collaborative learning, or coaching. However, ELA teachers in Ohio were just as likely as those nationwide to say that their materials are adequate for mastering state standards or for covering content on their state assessment.
In Ohio, ELA teachers consistently reported lower levels of school or district adoption and use of standards-aligned materials than their math counterparts. Rural teachers also reported lower levels of school or district adoption and use of standards-aligned materials than their urban counterparts. Conversely, teachers in the highest-poverty schools consistently reported higher rates of adoption and use of standards-aligned materials than their lowest-poverty counterparts.

In terms of curriculum-focused supports, variation across subgroups was primarily concentrated in teachers’ reports of their coaching and trainings on materials. Rural teachers were less likely than their urban counterparts to report receiving coaching or training on using standards-aligned materials at least four times per year. In contrast, teachers in the highest-poverty schools and in schools serving the highest percentage of non-White students were more likely to say that they had received coaching or training on using materials. Meanwhile, teachers in all subgroups were roughly equally likely to say that their materials were adequate for mastering state standards and covering state assessment content.
Policy Context: Signals and Incentives for Adopting and Supporting HQIM

In 2019, Rhode Island’s governor signed legislation that requires all districts to adopt HQIM—based on a state-approved list of materials—by no later than June 2023 for ELA and mathematics (Rhode Island House Bill 7539, 2019). The Rhode Island Department of Education (RIDE) uses EdReports reviews as its primary source to determine which curriculum materials are high-quality and standards-aligned. To further incentivize adoption, RIDE has tied eligibility for grant opportunities to the adoption of HQIM and aligned supports.

In addition, RIDE developed an Educator Course Network that provides districts with a list of professional development vendors that offer curriculum-aligned professional development about HQIM that meets certain quality criteria, and RIDE contracts with vendors to provide curriculum-specific PL to select districts that have adopted HQIM.

To learn more about state strategies to support adoption and use of HQIM in Rhode Island, see Table A.2.

Key Findings

- In both math and ELA, higher proportions of Rhode Island teachers than teachers nationwide reported adoption and any level of use of standards-aligned materials in the 2020–2021 school year. School or district adoption and teacher usage rates among both math and ELA teachers were also significantly higher in 2021 than in 2019.

- Despite their higher-than-average rates of school or district adoption and use of standards-aligned materials, Rhode Island teachers generally did not report above-average levels of curriculum-focused supports. However, more Rhode Island math teachers than math teachers nationwide reported participating in collaborative learning, while ELA teachers were more likely than their national counterparts to report participating in workshops or trainings on use of standards-aligned materials.

- Suburban and rural teachers were more likely to report receiving supports, such as collaborative learning, workshops, and trainings related to standards-aligned materials. Meanwhile, teachers in the highest-poverty schools and in schools serving the highest concentrations of non-White students were more likely to say that they had received these supports.
Over 70 percent of Rhode Island teachers indicated that their schools or districts had adopted a standards-aligned math material, with rates of regular and intensive use at least 20 percentage points above math teachers nationwide. The rates of standards-aligned math material use in 2021 also represent substantial increases from rates in 2019, with the percentage of teachers reporting regular use of a standards-aligned math material increasing by 27 percentage points and the percentage of teachers reporting intensive use increasing by 19 percentage points.

Rhode Island math teachers were comparable with math teachers nationwide for indicators of support for standards-aligned materials and teacher buy-in except on one indicator, participation in collaborative learning, where Rhode Island teachers were significantly more likely to report participating at least four times a year.
Similar to the patterns observed among math teachers, the rates of school or district use of standards-aligned ELA materials were higher than the national average in 2021. Additionally, the percentage of teachers reporting regular and intensive use of at least one standards-aligned ELA material rose between 2019 and 2021.

However, Rhode Island did not differ significantly from the country as a whole in 2021 in most aspects when we examine ELA teachers’ perceptions of their curriculum supports or the adequacy of their materials in meeting state standards or covering state assessment content. Notably, Rhode Island ELA teachers were more likely than ELA teachers nationwide to report attending workshops or trainings on their ELA standards-aligned materials four or more times per year.
Teachers in the highest-poverty schools and in schools serving the highest proportions of non-White students were more likely to indicate that at least one standards-aligned material is recommended or required by their school or district and to report intensive use of at least one standards-aligned material. In addition to these teachers reporting more use and more school or district adoption of materials, they were also more likely to say that they have received curriculum-focused supports. These same teachers were more likely to say that their principals encourage use of these materials and that they have received various profession learning supports, including collaborative learning, coaching, and workshops/trainings on materials at least four times per year. Conversely, suburban and rural teachers were less likely than their urban counterparts to report having received these professional learning supports.
How States Are Creating Conditions for Use of High-Quality Instructional Materials in K–12 Classrooms

Tennessee

Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Tennessee Department of Education (TDOE) provides a list of materials that have been approved by the state because they demonstrate quality and alignment to state standards. Unlike many other IMPD Network states, Tennessee requires districts to adopt curricula from the state-approved list. To facilitate implementation, TDOE has statewide pricing agreements to lower the administrative burden and cost for districts to adopt materials on the state-approved list. In addition, TDOE has used grant opportunities to fund implementation support for districts that are focused on improving use of HQIM. Recently, the state directly provided a professional development series focused on HQIM implementation to school and district leaders, and in some cases, it also provides professional development to teachers.

To learn more about state strategies to support adoption and use of HQIM in Tennessee, see Table A.2.

Key Findings

- In both math and ELA, teachers in Tennessee reported higher rates of school or district adoption and use of standards-aligned materials in 2021 than their national counterparts. In Tennessee, ELA teachers were just as likely as math teachers to report school or district adoption and use of materials—a pattern that is distinct from many other IMPD Network states.

- Rates of usage of materials—both regularly and intensively—increased between 2019 and 2021 for math and especially ELA teachers.

- Despite their higher-than-average rates of school or district adoption and use, Tennessee math teachers generally received similar levels of curriculum-focused support in 2021 as teachers nationally. However, ELA teachers in Tennessee were more likely than other ELA teachers nationally to report receiving workshops or trainings on standards-aligned materials at least four times per year.

- Urban teachers and teachers in schools serving the highest proportions of non-White students in Tennessee were also more likely to say that they have received supports, such as coaching and workshops or trainings on using standards-aligned materials, at least four times per year.
Tennessee teachers reported significantly higher rates of school or district adoption and use of standards-aligned math materials than teachers nationally. Nearly 60 percent of Tennessee teachers indicated that their schools or districts adopted a recommended or required standards-aligned material, compared with 44 percent of teachers nationally. Likewise, Tennessee teachers were also roughly 10 percentage points more likely than math teachers nationally to indicate that they regularly or intensively use a standards-aligned math material.

Tennessee teachers reported comparable rates of principal supports, participation in curriculum-focused professional learning, and buy-in of the adequacy of recommended or required materials for state standards and assessments to teachers nationwide in 2021.
In 2021, ELA teachers in Tennessee were more likely than teachers nationally to report that their schools or districts adopted a recommended or required material and more likely to report both regular and intensive use of standards-aligned materials. Additionally, regular and intensive use of at least one standards-aligned material among ELA teachers in Tennessee rose between 2019 and 2021.

In 2021, Tennessee ELA teachers also generally reported more curriculum-focused supports than ELA teachers nationally, including greater principal feedback (which increased from 2019 to 2021) and more coaching, workshops, and trainings on standards-aligned materials. Tennessee did not differ significantly from the national average in terms of teacher buy-in of the adequacy of their materials for mastering state standards or covering state assessment content.
In Tennessee, there was very little variation across subgroups in terms of teachers’ reports of their school or district adoption and use of standards-aligned materials. However, teachers in the highest-poverty schools were more likely to report that their schools or districts required or recommended at least one standards-aligned material.

There was more variation in teachers’ receipt of supports and buy-in. ELA teachers, urban teachers, and teachers in schools that serve the highest proportions of non-White students were more likely to say that they have received curriculum-focused supports, such as coaching and workshops/trainings on standards-aligned materials, at least four times per year. Meanwhile, teachers in all subgroups were roughly equally likely to say that their materials were adequate for mastering state standards and covering state assessment content.
Policy Context: Signals and Incentives for Adopting and Supporting HQIM

The Texas Education Agency (TEA) provides reviews of specific materials through its website (Texas Education Agency, undated). The website also provides tools and guidance on the selection of HQIM. In addition, LEAs in Texas can use ESSER set-aside funds to purchase print materials and PL for HQIM. Some of the strategies that TEA has enacted around curriculum-specific PL include providing PL to districts that participate in HQIM pilot programs and developing a list of state-approved HQIM PL vendors that requires vendors to go through training.

To learn more about state strategies to support adoption and use of HQIM in Texas, see Table A.2.

Key Findings

- Texas math teachers reported lower rates of school or district adoption and use of standards-aligned materials than math teachers nationally.
- ELA teachers in Texas reported higher rates of school or district adoption of materials than their math counterparts—a pattern distinct from all other IMPD Network states.
- Higher percentages of math and ELA teachers in Texas reported receiving coaching on use of standards-aligned materials four or more times per year than math and ELA teachers nationally.
- In Texas, teachers in schools serving higher proportions of non-White students were more likely to report receiving collaborative learning and coaching on standards-aligned materials at least four times per year.
Texas math teachers reported lower rates of school or district adoption and use of standards-aligned math materials than teachers nationwide. Roughly one-quarter of Texas teachers reported that their school or district had adopted a required or recommended standards-aligned math material or that they themselves regularly used a standards-aligned math material—rates significantly lower than the rest of the country. Likewise, only 16 percent of Texas teachers indicated that they intensively used a standards-aligned math material.

However, when it comes to principal supports for standards-aligned materials and teacher buy-in, Texas teachers generally reported rates comparable with the rest of the country. For professional learning, Texas teachers were significantly more likely to report participating in two types of professional learning at least four times per year than teachers nationally: collaborative learning and coaching.
In Texas, rates of school or district adoption and teacher use of standards-aligned ELA materials were higher in 2021 than among ELA teachers nationally. Texas teachers also reported receiving several more professional learning supports than did teachers nationwide, such as coaching and workshops or trainings on standards-aligned materials. In contrast, Texas ELA teachers were no more likely to report receiving principal-related supports than their national counterparts. Texas ELA teachers were more likely than teachers nationally to consider their materials adequate for mastering state standards and covering state assessment content.

---

### FIGURE 2
How Texas Compares with the Country

<table>
<thead>
<tr>
<th>School/district adoption of standards-aligned curriculum materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one standards-aligned material required or recommended</td>
<td>2019 2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supports for standards-aligned materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal encourages use of required curricula</td>
<td>2019 2021</td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
<td>2019 2021</td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
<td>2019 2021</td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
<td>2019 2021</td>
</tr>
<tr>
<td>Workshops or trainings on materials 4+ times per year</td>
<td>2019 2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teachers’ buy-in of standards-aligned curriculum materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials adequate for mastering state standards</td>
<td>2019 2021</td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
<td>2019 2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher use of standards-aligned materials</th>
<th>How state compares with country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular use of at least one standards-aligned material</td>
<td>2019 2021</td>
</tr>
<tr>
<td>Intensive use of at least one standards-aligned material</td>
<td>2019 2021</td>
</tr>
</tbody>
</table>

---

In Texas, rates of school or district adoption and teacher use of standards-aligned ELA materials were higher in 2021 than among ELA teachers nationally. Texas teachers also reported receiving several more professional learning supports than did teachers nationwide, such as coaching and workshops or trainings on standards-aligned materials. In contrast, Texas ELA teachers were no more likely to report receiving principal-related supports than their national counterparts. Texas ELA teachers were more likely than teachers nationally to consider their materials adequate for mastering state standards and covering state assessment content.
In Texas, there were virtually no differences in rates of teachers’ reported use and school or district adoption of standards-aligned materials across subgroups. The one exception was that ELA teachers were more likely than their math counterparts to say that their schools or districts had adopted a required or recommended standards-aligned material.

There were some differences across teacher subgroups in terms of supports for standards-aligned materials and teacher buy-in, although there were fewer clear patterns to interpret these differences. However, one clear pattern did emerge: Teachers in schools that serve higher proportions of non-White students were more likely to report having received collaborative learning and coaching on standards-aligned materials at least four times per year.
CHAPTER FIVE

Conclusions

In this report, we drew on conversations with state officials and documents provided by CCSSO to better understand strategies undertaken by IMPD Network state leaders to support the adoption and implementation of standards-aligned materials. We drew on data from the AIRS, which was administered to teachers in spring 2021, to understand how standards-aligned material adoption, use, buy-in, and supports varied across IMPD Network participating states, and how IMPD Network participation was related to adoption, use, and supports.

The main goal of our report was to understand key IMPD Network strategies and the extent to which participation in the IMPD Network was associated with a series of district, school, and teacher actions that the IMPD Network was developed to shift: (1) adoption of more standards-aligned curriculum materials in districts and schools, (2) supports for use of standards-aligned curriculum materials, and (3) teacher buy-in and use of standards-aligned curriculum materials. These are not the only actions that the IMPD Network might be expected to change, but, as described in our theory of action in the introduction of this report, they are some of the critical steps toward improving students’ mastery of academic standards at scale across an entire state. Our research was not structured in a way to help us understand relationships between specific state policies and actions at the district, school, or teacher level, although we make some hypotheses in that regard using the data available to us.

In this concluding chapter, we briefly summarize what we learned and its implications for state and district policy and for future research.

IMPD Network Strategies

IMPD Network states provide school systems and teachers with a variety of signals and incentives to encourage the use of HQIM in classrooms and the provision of curriculum-aligned supports. What follows is a brief overview of the most common strategies, which are also summarized in Table 2.1:

- All IMPD Network states provide teachers with information about the quality of math and ELA instructional materials to guide district and school decisions about which materials they should adopt.
- Most IMPD Network states also incentivize adoption of HQIM by tying funding sources—such as ESSER funds, grant opportunities, competitive funding, or other supports—to the selection of HQIM.
- Furthermore, most IMPD Network states directly provide HQIM-aligned professional learning or support to implement HQIM in some form to school or district staff, and many states provide districts with signals or incentives to encourage districts and schools to choose vendors who meet quality criteria, provide professional learning aligned to HQIM, or both.
- Finally, states in the IMPD Network are beginning to work with teacher preparation programs to increase the focus on HQIM within preparation courses and clinical experiences.
Importantly, the COVID-19 pandemic likely had at least some effects on reform efforts in all states, given the need for states to focus heavily on supports for online learning and struggling students in spring 2020 and over the course of the 2020–2021 school year. For these reasons, state reform efforts might have slowed, but all states maintained their commitments to encouraging use of HQIM throughout the pandemic.

Standards-Aligned Curriculum Material Adoption, Use, Buy-In, and Supports Across the United States and in IMPD Network States

We investigated the presence of ten indicators across the country and in each IMPD Network state that reflect district, school, and teacher actions related to our theory of action, including (1) one indicator related to adoption of standards-aligned curriculum materials in districts and schools, (2) five indicators related to supports for use of curriculum materials, (3) two indicators related to teacher buy-in for standards-aligned materials, and (4) two indicators of teachers’ use of standards-aligned curriculum materials. We specifically investigated the extent to which being in the IMPD Network predicted teachers’ reports regarding adoption of, supports for, and usage of standards-aligned materials. There are three important caveats to our findings: First, ratings on all indicators were determined via teachers’ survey reports, which could be construed as a limitation but also made it possible to provide consistent data for all states. Second, determination of standards-aligned curriculum material adoption and usage was derived from teachers’ indications that they used particular curriculum materials that we determined met expectations of EdReports reviews. Our rating of standards alignment thus might conflict with what some IMPD Network states have designated as HQIM, although nearly all states point to or use EdReports as one internal indicator of HQIM. Third, our support indicators were focused on supports for the use of curriculum materials regardless of whether teachers had reported adoption of standards-aligned materials or curriculum materials that were not rated as standards-aligned. Thus, our support indicators might be more applicable to the curriculum support efforts in all states because they do not depend on EdReports ratings.

Overall, we found much more variance in teachers’ reports of adoption and use of standards-aligned materials than on our support and buy-in indicators, which could imply that those indicators are more malleable through state policies but could also imply that IMPD Network state progress is initially best measured through adoption and use indicators. We also found generally higher adoption and usage rates for standards-aligned mathematics materials across the country and in IMPD Network states compared with adoption and usage of standards-aligned ELA materials. Higher rates of adoption and use of standards-aligned mathematics materials might be explained partially by the greater number of standards-aligned materials available in mathematics versus ELA and the longer period that many of those materials have been on the market.

We found that participation in the IMPD Network was positively linked to usage of standards-aligned materials in the following two ways:

- First, teachers in IMPD Network states, particularly states that have been active in the network the longest, were more likely to clear the all-important first gateway to standards-aligned material usage— the adoption of said materials.
- Second, we were more likely to identify significant and positive linkages among increased usage of standards-aligned materials, the presence of principal support for use of curriculum materials, and the presence of professional learning supports for use of standards-aligned materials conditional on teachers being in a school or district that has adopted a standards-aligned material.

Thus, perhaps unsurprisingly, school and district decisions to adopt standards-aligned materials (regardless of IMPD Network participation) were a critical, necessary gateway to realize the goals of the IMPD
Network, such as increased teacher usage of standards-aligned materials and access to curriculum-focused professional learning. These findings are consistent with our theory of action in that it appears that IMPD Network policy signals and incentives successfully drive more adoption of standards-aligned materials, which, in turn, can drive higher usage and supports for those standards-aligned materials. Together, these findings suggest that the IMPD Network state context is the optimal setting for all aspects of our theory of action to work as intended to encourage greater usage of standards-aligned materials.

Several states stood out in terms of adoption and use of standards-aligned materials, supports for standards-aligned materials, or both. Two states that led the IMPD Network in terms of standards-aligned curriculum material adoption, use, and supports for both ELA and mathematics materials were Louisiana and Delaware, which suggests that their approaches might be worth studying in more detail. Louisiana’s approaches have already been studied closely at RAND and elsewhere. Strategies that have stood out as potentially most useful in those studies included (1) clear identification of materials that were aligned with state standards—via public reviews—and identification of commonly used materials that were not aligned and (2) state contracts and other incentives to encourage uptake of standards-aligned materials, with requirements to use standards-aligned materials in districts with repeated low achievement results (Kaufman, Steiner, and Baird, 2019; Kaufman, Thompson, and Opfer, 2016). In Delaware, state leaders described several promising supports that are intended to assist districts to acquire and provide high-quality professional learning opportunities. These included guidance for selecting professional learning, a grant process to provide funds to districts partnering with high-quality vendors, and partnerships with vendors to provide professional learning at the state level for districts through an annual professional learning series.

Several IMPD Network states beyond Louisiana and Delaware stood out to varying degrees in regard to adoption and use, supports for curriculum-aligned materials, or both across ELA and mathematics. For example, the following states had stronger results than the national average for at least three indicators in both ELA and mathematics: Mississippi, Rhode Island, and Tennessee. All these states have been in the IMPD Network since 2018. Mississippi teachers reported high adoption of standards-aligned and curriculum-specific supports in mathematics, along with high rates of support and buy-in for curriculum materials in ELA. These might be precursors to higher use of standards-aligned materials in both subjects in the future. In particular, Mississippi’s mathematics coaching efforts might be leading to higher teacher reports of curriculum-specific mathematics coaching.

In Rhode Island, rates of adoption and usage of standards-aligned materials are high across both mathematics and ELA, although rates of curriculum-specific supports are just higher than the national average for our indicator of curriculum-specific collaboration with other teachers. These data suggest that Rhode Island’s approaches to encourage adoption and usage of standards-aligned materials, including annual data on curriculum use publicly posted on the RIDE website and legislation requiring adoption of HQIM by 2023, might be useful models for encouraging adoption and usage in other states. For Rhode Island, the supports for use of those materials will be an important next focus for policy.

In Tennessee, too, adoption and usage of standards-aligned materials is high in both mathematics and ELA. Tennessee teachers also reported very high rates of support for curriculum-specific supports relative to the national average. As with Rhode Island, Tennessee is requiring districts to adopt only approved curricula as determined by the state. As noted previously, Tennessee has been focused on ELA standards-aligned materials adoption over the past several years, which might explain its impressive results for indicators in that subject area. These positive results might be a precursor to similarly impressive results for mathematics when the state places more emphasis on adoption of standards-aligned mathematics materials in the 2023–2024 school year.

Finally, although not the focus of our findings, some individual states that have been in the IMPD Network since 2018 have experienced considerable growth in the usage of standards-aligned materials over time.
We do not have consistent adoption data since 2019, but we did track shifts in regular (once a week or more) use of standards-aligned materials in each IMPD Network state in a separate report (Kaufman, Doan, and Fernandez, 2021). In that analysis, several states (Massachusetts, Nebraska, New Mexico, and Rhode Island) saw an average rise of more than 10 percentage points in teachers’ reports of standards-aligned mathematics material use between 2019 and 2021. Likewise, the following states saw an average rise of more than 10 percentage points in teachers’ reports of standards-aligned ELA material use between 2019 and 2021: Delaware, Mississippi, Nebraska, Rhode Island, Tennessee, and Wisconsin. These findings are particularly notable because these rates continued to rise over the course of the COVID-19 pandemic and because of where many of these states started in use of standards-aligned materials. For all these reasons, the approaches of these states are worth understanding in greater depth through additional research.

Limitations

The findings in this report carry several limitations. First, the measures of curriculum adoption, usage, and supports presented in this report are teacher perceptions and thus might be susceptible to self-report bias. We have no way to independently verify teachers’ responses. This self-report bias potentially affects teachers’ estimated rates of adoption, usage, and supports (e.g., teachers might be inclined to report participating in professional learning more frequently than they actually participated) and the estimated relationships among adoption, usage, and supports (e.g., teachers who report favorably on their principals’ consideration of curriculum use might be more likely to overestimate the frequency of their standards-aligned material use).

Secondly, throughout this report, we consider usage (and more-intensive usage) of standards-aligned materials to be a desired outcome, based on our interviews with state department of education representatives. However, we note that standards alignment is but one of many considerations that teachers consider when deciding which materials are best for their students (Wang et al., 2022). Teachers might decide that thoughtful supplementations of their school or district’s required materials are best to serve the learning needs of their students. Additionally, teachers might also consider such factors as cultural relevancy and digital availability when choosing which materials to use in the classroom.

Finally, while our theory of action (Figure 1.1) guided the relational analyses that we conducted in this report, decisions to adopt, use, and support curriculum materials are likely to be related in ways that are more complex and bidirectional than what is suggested in our theory of action. For example, we interpreted the significant relationship between principals’ encouragement to use curriculum materials and increased usage of standards-aligned curriculum as evidence that principal reinforcement of the importance of curriculum materials could encourage usage. However, the relationship could flow the opposite way: It could be that teacher usage of a high-quality, standards-aligned curriculum makes it easier for principals to subsequently support the use of such curriculum. That we find significant linkages between principals’ encouragement to use curriculum materials and teacher use of those materials is a valuable signal that these factors are related, although the directionality of this relationship likely will vary across teaching contexts.

Implications for State and District Policy

State networks, such as the IMPD Network, have great potential for shifting teaching and learning at scale. Our findings first and foremost suggest that such collaborations as the IMPD Network can have substantive effects on what happens in K–12 classrooms. In particular, such networks can affect the materials that teachers use in their classrooms, which research shows has a demonstrable effect on what students learn. We do not know as much about the specific mechanisms by which the IMPD Network has led to shifts across
Conclusions

participating states and whether shifts in usage of standards-aligned materials will be sustained and have clear effects on student achievement, which could be the focus on follow-on research. However, these results suggest that states should be seeking more ways to collaborate and learn from one another in ways that support their reform efforts.

To increase curriculum-specific supports and usage of standards-aligned materials, focus first on encouraging adoption of standards-aligned materials. For state and district policymakers seeking to increase the usage of and support for standards-aligned instructional materials in the classroom, this report suggests a clear, if obvious, lever for action: adoption of a standards-aligned instructional materials as a critical first step for encouraging greater use of those materials. While other indicators of support and adequacy of materials—such as whether principals encourage the use of curriculum or whether teachers believe that materials are adequate for teaching state standards—were linked to usage of standards-aligned material in our analysis, this is only the case if schools and districts have adopted, required, or recommended one such material for their teachers. Very few teachers reported that they used a standards-aligned material if they did not report that their school or district had adopted one. Through efforts to identify HQIM and signal the importance of their use, states can play an important role in encouraging local adoption, as evidenced by the higher rates of adoption of standards-aligned materials we find among states participating in the IMPD Network. That said, the work of implementing HQIM in the classroom does not end with local adoption. Roughly one-quarter of math teachers and one-third of ELA teachers who reported the adoption of a standards-aligned material in their district still did not report regular or intensive use of those materials.

State requirements likely encourage more adoption of standards-aligned materials, but other levers, such as those increasing buy-in for use of standards-aligned materials among principals and teachers, might also encourage adoption and use. In Tennessee and Rhode Island, which have had mandates or requirements for districts to adopt HQIM, those mandates might explain higher rates of adoption and use of standards-aligned materials for both ELA and mathematics in those two states. That said, other states without such mandates also have high rates of standards-aligned materials adoption and usage, including Delaware and Louisiana. Furthermore, Nebraska has seen large rises in the rates of use of standards-aligned materials for both ELA and mathematics without any mandates in place. In these states, a combination of a large range of signals and incentives for use of standards-aligned materials might be making a difference. However, we should point out that Delaware is a relatively small state where state officials might find it easier to interact directly with school systems. Furthermore, Louisiana has been at work to encourage adoption of, supports for, and use of standards-aligned materials for a longer time than almost any other state in the country. The work of these states suggests that, absent mandates, much consensus-building, long-term work is necessary to encourage high usage of standards-aligned materials.

Encouraging buy-in among principals and teachers regarding the importance of using standards-aligned materials—rather than simply requiring use—could be an effective strategy for encouraging more use of those materials. In Nebraska, for example, in both mathematics and ELA, teachers indicated more principal encouragement for use of curriculum materials than the national average, which could explain large jumps in usage of standards-aligned materials over time. State and district leaders who desire greater usage of HQIM also might consider how they could support principals in encouraging teachers to use their adopted materials. Some states, such as Tennessee, have launched school leader-specific professional development opportunities to help school leaders with the implementation of HQIM in their schools. Other states, such as Massachusetts and Louisiana, are designing subject-specific tools to support school leaders in conducting observations, which could further encourage teacher use of HQIM in the future.

Efforts to improve teachers’ understanding of what is standards-aligned and what is not could encourage greater usage of standards-aligned materials. Teacher buy-in of the adequacy of their standards-aligned materials for teaching state standards and preparing students for state assessments was another factor linked
to higher usage of such materials among teachers who reported that these materials had been adopted in their districts. One barrier to the use of HQIM observed in prior RAND research is that teachers using HQIM are more likely to indicate that these materials are “too challenging” for their students and, as result, less usable (Wang et al., 2022). One potential strategy for improving teacher buy-in and perceived adequacy of their materials that was employed in Louisiana and Mississippi, among other states, was the use of teacher curriculum ambassadors who served as advocates and supporters of their colleagues who are seeking to better implement HQIM. These kinds of teacher leader roles, along with principal support, could be particularly helpful in increasing teachers’ beliefs that their materials will do the job of helping students master state standards and, thus, encouraging the usage of such materials.

School systems leaders must lean into supports for standards-aligned materials to ensure uptake in usage. As indicated by our findings, states likely play a large role in the adoption of standards-aligned materials. However, variability across IMPD Network states was relatively low when it came to curriculum-specific supports. Those results suggest that school systems themselves likely play the greatest role when it comes to the provision of those supports, which, in turn, are connected to higher usage of standards-aligned materials. Collaborative learning—which also might encompass teachers’ instructional planning time together—is one place where teachers are most likely to report engaging in curriculum-specific learning, and this might be a place where school systems elect to provide clearer guidance or encouragement for teachers to engage with their curriculum materials. In addition, providing clearer guidance to school principals will provide more-direct messaging to teachers about expectations for them to use standards-aligned materials.

Implications of Our Findings for Future Research

Much more research is necessary to fully understand the mechanisms by which IMPD Network states are influencing the actions of schools, districts, and teachers, and how various aspects of our theory of action are related and driving improvements to teaching and learning. First, we need to understand the key policy mechanisms that might be most responsible for driving changes in use of instructional materials and how such networks as the IMPD Network are supporting policy change and building state leader capacity to undertake change. Second, we need to know more about the actions that districts and schools can take—both within states that are undertaking curriculum reforms and those that are not—to understand which district and school roles require more funding and how those roles can be most effective. Third, it is critical to understand linkages among usage of standards-aligned materials and other important outcomes, including high-quality instructional practices, student engagement, and student learning. Each of those linkages could be its own study. In particular, teacher survey data collected at scale are important but not sufficient to fully understand optimal use and supports for standards-aligned materials. Much more in-depth, qualitative and quantitative research of how teachers use curricula—and which types of modifications and supplementations along with particular instructional strategies—support student learning, will continue to be critical to studies of curriculum use. We hope to leverage AIRS data in future research to further investigate relationships among state policy, district and school actions, and what teachers do in classrooms to support student learning.
APPENDIX

Policies in IMPD Network States and Additional Analyses Tables

Tables A.1 and A.2 show details on policies related to adoption of and supports for HQIM in IMPD Network states. Tables A.3 and A.4 show additional details regarding analyses of teacher survey data from the American Instructional Resources Survey.
### TABLE A.1
Summary of State Strategies to Support Adoption and Use of HQIM Enacted by Arkansas, Delaware, Kentucky, Louisiana, Massachusetts, Mississippi, and Nebraska

<table>
<thead>
<tr>
<th>Policies and strategies to increase the adoption and use of HQIM</th>
<th>Arkansas*</th>
<th>Delaware</th>
<th>Kentucky*</th>
<th>Louisiana</th>
<th>Massachusetts</th>
<th>Mississippi</th>
<th>Nebraska</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signaling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides definitions and guidance regarding the quality of particular instructional materials</td>
<td>Provides reviews of specific K–6 ELA materials and is working with EdReports to develop review tools for ELA and math.</td>
<td>Points to EdReports as one measure to determine quality of materials.</td>
<td>Provides instructional alignment rubrics for determining quality of materials. Is developing a “consumer guide” in partnership with EdReports to signal alignment of resources with Kentucky standards.</td>
<td>Provides reviews of specific materials.</td>
<td>Provides reviews of specific materials.</td>
<td>Points to EdReports as one measure to determine quality of materials and provides guidance documents on what EdReports quality criteria mean in relation to Nebraska standards.</td>
<td></td>
</tr>
<tr>
<td>Provides information about uptake of HQIM across districts</td>
<td>N/A</td>
<td>Provides information on all district adoptions by grade band and subject area directly to all districts.</td>
<td>N/A</td>
<td>N/A</td>
<td>Provides a curriculum heat map to visualize curricula-in-use by districts across the state.</td>
<td>N/A</td>
<td>Annually collects data on instructional material use from districts across the state and provides an instructional materials map to visualize collected data.</td>
</tr>
<tr>
<td>Creates guidance documents on HQIM selection</td>
<td>Has provided guidance documents via an information card and a comprehensive digital guidebook that provides districts with resources to focus on priorities for building pathways for HQIM.</td>
<td>Provides guides for teachers, school leaders, and district leaders to support the selection and implementation of HQIM.</td>
<td>Updated the state’s Model Curriculum Framework, which provides support to schools as they select HQIM. Issues newsletters highlighting state initiatives and HQIM research base.</td>
<td>Publishes district textbook policy guidance.</td>
<td>Publishes reference guides on critical components of curriculum.</td>
<td>Provides workbooks and guides for teachers, school leaders, and district leaders to support the selection and implementation of HQIM.</td>
<td>Created a website that includes Nebraska-specific guidance and steps for the selection and implementation of instructional materials.</td>
</tr>
<tr>
<td>Policy Area</td>
<td>Arkansas*</td>
<td>Delaware</td>
<td>Kentucky*</td>
<td>Louisiana</td>
<td>Massachusetts</td>
<td>Mississippi</td>
<td>Nebraska</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-----------</td>
<td>----------</td>
<td>-----------</td>
<td>-----------</td>
<td>---------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Incentives and mandates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requires all districts to adopt HQIM, as defined by state</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes eligibility for specific funding, grants, and/or supports contingent on the adoption of HQIM</td>
<td>Provides state grants to support purchase and adoption of HQIM.</td>
<td>Grant opportunities prioritize LEAs that are focusing on HQIM implementation. Creation of an online hub of resources with a focus on HQIM.</td>
<td>Selection of 12 districts with representatives from 27 schools across the state to participate in an HQIM adoption and implementation pilot for reading and writing.</td>
<td>Ties use of competitive funds to selection of HQIM. Any additional funding for low-performing districts is tied to use of HQIM and supports.</td>
<td>Selection of HQIM is required for participation in many competitive grant opportunities.</td>
<td>Use of ESSER/ARP-funded grants to districts for supporting adoption of HQIM, programming aligned with materials, or professional development/coaching aligned to HQIM.</td>
<td>Required districts to provide evidence of quality if ESSER funds were used to purchase instructional materials.</td>
</tr>
<tr>
<td>Reduces administrative burden and cost of adopting HQIM through statewide contracts</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policies or strategies to increase the provision of HQIM-aligned professional learning supports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signaling</td>
<td>Provides guidance regarding the quality of particular vendors’ PL on HQIM</td>
<td>Provides a state-developed professional learning partner guide to support selection of professional development vendors.</td>
<td>N/A</td>
<td>Provides vendor guide that identifies vendors who provide training for Tier 1 curricula.</td>
<td>Points to a national professional learning partner guide to support selection of professional development vendors.</td>
<td>Points to a national professional learning partner guide to support selection of professional development vendors.</td>
<td>Points to a national professional learning partner guide to support selection of professional development vendors.</td>
</tr>
</tbody>
</table>
### Table A.1—Continued

<table>
<thead>
<tr>
<th>Incentives</th>
<th>Arkansas*</th>
<th>Delaware</th>
<th>Kentucky*</th>
<th>Louisiana</th>
<th>Massachusetts</th>
<th>Mississippi</th>
<th>Nebraska</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directly provides HQIM-aligned PL to some or all districts</td>
<td>N/A</td>
<td>Provides direct professional development to districts via opt-in initiatives. Provides annual state PL summit supporting HQIM implementation.</td>
<td>Provides professional development on HQIM selection to nearly all districts.</td>
<td>Provides curriculum-focused professional development during annual teacher leader summit. Provides direct training and support to underperforming schools. Provides training for teacher leaders who can then deliver professional development and support teachers at a local level.</td>
<td>Provides direct professional development to districts via opt-in initiatives.</td>
<td>State literacy and math coaches provide HQIM-aligned support to identified schools and provide on-demand support to all districts in the state.</td>
<td>Provides access to HQIM-aligned resources on state website.</td>
</tr>
<tr>
<td>Funds vendors to deliver HQIM-aligned PL to some or all districts</td>
<td>Conducting a pilot with TNTP (formerly The New Teacher Project) to provide support to a set of districts and schools during their first year of adoption.</td>
<td>Funds vendors to provide professional development to district leaders, coaches, teachers, and other staff.</td>
<td>Funds Achievement Network to support 27 pilot schools on HQIM selection and implementation for two years.</td>
<td>Funds professional development that is aligned to HQIM.</td>
<td>Grant initiatives include access to HQIM-aligned PD with vetted vendors.</td>
<td>Engaged vendors to train content leaders, who can support the adoption and implementation of HQIM across the state, and grant initiatives include access to HQIM-aligned professional development using LEA- or state-vetted vendors.</td>
<td>Partners with Zearn Math and Instructional Partners to provide HQIM-aligned professional learning.</td>
</tr>
<tr>
<td></td>
<td>Arkansas*</td>
<td>Delaware</td>
<td>Kentucky*</td>
<td>Louisiana</td>
<td>Massachusetts</td>
<td>Mississippi</td>
<td>Nebraska</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------</td>
<td>----------</td>
<td>-----------</td>
<td>-----------</td>
<td>---------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>Reduces administrative burden of obtaining high-quality, curriculum-aligned PL</td>
<td>N/A</td>
<td>Districts can directly contract with approved vendors in the state-approved Professional Learning Partner Guide without going through separate procurements.</td>
<td>N/A</td>
<td>Use of state contracts to reduce the price and administrative burden of purchasing high-quality, curriculum-aligned PL.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**NOTE:** N/A = not applicable. An asterisk (*) indicates that the state joined the IMPD Network in 2020. All other states joined the IMPD Network in 2018.
### TABLE A.2

**Summary of State Strategies to Support Adoption and Use of HQIM Enacted by New Mexico, Ohio, Rhode Island, Tennessee, Texas, and Wisconsin**

<table>
<thead>
<tr>
<th>Policies and strategies to increase the adoption and use of HQIM</th>
<th>New Mexico</th>
<th>Ohio*</th>
<th>Rhode Island</th>
<th>Tennessee</th>
<th>Texas*</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signaling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides definitions and guidance regarding the quality of particular instructional materials</td>
<td>Provides reviews of specific materials.</td>
<td>Points to EdReports as one measure to determine quality of materials.</td>
<td>Provides reviews of specific materials.</td>
<td>Provides reviews of specific materials.</td>
<td>Points to EdReports as one measure to determine quality of materials.</td>
<td>Points to EdReports as one measure to determine quality of materials.</td>
</tr>
<tr>
<td>Provides information about uptake of HQIM across districts</td>
<td>N/A</td>
<td>N/A</td>
<td>Collects annual data on curriculum use, which are shared publicly on the RIDE website.</td>
<td>N/A</td>
<td>Collects data regarding districts’ curriculum choices, which are used to share information about the percentage of districts that have adopted HQIM.</td>
<td>Collects data on districts’ curriculum use, published on a website.</td>
</tr>
<tr>
<td>Creates guidance documents on HQIM selection</td>
<td>Created a statewide adoption resource manual to guide district-level decisionmaking and implementation. HQIM Reviews website provides an overview into their adoption process.</td>
<td>Developed a curriculum support guide to support the selection and implementation of HQIM.</td>
<td>Has a guidance document for selecting and implementing high-quality curriculum.</td>
<td>N/A</td>
<td>There are tools and recommendations within the Texas Resource Review.</td>
<td>Shares the Instruction Partners Curriculum Support Guide.</td>
</tr>
<tr>
<td><strong>Incentives and mandates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requires districts to adopt HQIM, as defined by state</td>
<td>No requirement</td>
<td>No requirement</td>
<td>Passed legislation in 2019 requiring all districts to adopt HQIM by no later than 2023.</td>
<td>Requires districts to adopt approved curricula off a state list.</td>
<td>No requirement</td>
<td>No requirement</td>
</tr>
<tr>
<td>Policies/strategies to increase the provision of HQIM-aligned professional learning supports</td>
<td>New Mexico</td>
<td>Ohio*</td>
<td>Rhode Island</td>
<td>Tennessee</td>
<td>Texas*</td>
<td>Wisconsin</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Signaling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides guidance regarding the quality of particular vendors’ PL on HQIM</td>
<td>Provides a state-developed professional learning marketplace list to guide selection of professional development vendors.</td>
<td>N/A</td>
<td>Provides a state-developed list to guide selection of professional development vendors.</td>
<td>N/A</td>
<td>Provides a state-approved vendor list that requires vendors to go through training.</td>
<td>Provides a state-developed professional learning partner guide to support selection of professional development vendors.</td>
</tr>
<tr>
<td><strong>Incentives</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directly provides HQIM-aligned PL to some or all districts</td>
<td>Provides professional development for districts or charter schools that select HQIM from state-approved list.</td>
<td>Providing support to one school district as a model for future support.</td>
<td>N/A</td>
<td>Provides professional development to school leaders and district leaders to support HQIM implementation; in some cases, also provides PD to teachers.</td>
<td>Provides direct professional development to districts via opt-in initiatives.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Table A.2—Continued

<table>
<thead>
<tr>
<th>Funds vendors to deliver HQIM-aligned PL to some or all districts</th>
<th>New Mexico</th>
<th>Ohio*</th>
<th>Rhode Island</th>
<th>Tennessee</th>
<th>Texas*</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with TNTP and SchoolKit to deliver HQIM-aligned PL.</td>
<td>N/A</td>
<td></td>
<td>Contracts with vendors to fund curriculum-specific professional development to select districts that have adopted HQIM.</td>
<td>Provides grant funding for implementation networks and other PL opportunities.</td>
<td>Provides districts with ESSER money to support implementation of HQIM.</td>
<td>Contracts with a vendor to provide HQIM support to several districts. Vendors facilitate and participate in a professional learning series focused on HQIM.</td>
</tr>
<tr>
<td>Reduces administrative burden of obtaining high-quality, curriculum-aligned professional learning</td>
<td>N/A</td>
<td></td>
<td>RIDE has established a Master Price Agreement for professional learning.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

NOTE: An asterisk (*) indicates that the state joined the IMPD Network in 2020. All other states joined the IMPD Network in 2018.
### TABLE A.3
State Variation in the Percentage of Teachers Reporting Standards-Aligned Material Adoption, Use, Buy-In, and Supports, by Indicator and Teacher Subject Area in the 2020–2021 School Year

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
</tr>
<tr>
<td>At least one standards-aligned material required/recommended</td>
<td>44</td>
<td>32</td>
<td>54</td>
<td>30</td>
<td>75</td>
<td>45</td>
<td>32</td>
<td>33</td>
<td>74</td>
<td>70</td>
<td>42</td>
<td>21</td>
<td>57</td>
</tr>
<tr>
<td>Supports for standards-aligned materials</td>
<td>33</td>
<td>40</td>
<td>27</td>
<td>66</td>
<td>40</td>
<td>30</td>
<td>72</td>
<td>62</td>
<td>58</td>
<td>59</td>
<td>23</td>
<td>43</td>
<td>56</td>
</tr>
<tr>
<td>Principal encourages use of required curricula</td>
<td>82</td>
<td>80</td>
<td>82</td>
<td>79</td>
<td>89</td>
<td>84</td>
<td>83</td>
<td>91</td>
<td>86</td>
<td>78</td>
<td>68</td>
<td>84</td>
<td>94</td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
<td>65</td>
<td>67</td>
<td>78</td>
<td>64</td>
<td>85</td>
<td>80</td>
<td>74</td>
<td>81</td>
<td>81</td>
<td>54</td>
<td>65</td>
<td>78</td>
<td>80</td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
<td>45</td>
<td>48</td>
<td>58</td>
<td>55</td>
<td>52</td>
<td>67</td>
<td>48</td>
<td>54</td>
<td>55</td>
<td>58</td>
<td>40</td>
<td>46</td>
<td>58</td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
<td>13</td>
<td>16</td>
<td>18</td>
<td>13</td>
<td>28</td>
<td>28</td>
<td>10</td>
<td>15</td>
<td>19</td>
<td>26</td>
<td>11</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Workshops/trainings on materials 4+ times per year</td>
<td>12</td>
<td>16</td>
<td>15</td>
<td>12</td>
<td>31</td>
<td>27</td>
<td>12</td>
<td>13</td>
<td>15</td>
<td>24</td>
<td>12</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Materials adequate for mastering state standards</td>
<td>60</td>
<td>60</td>
<td>66</td>
<td>63</td>
<td>72</td>
<td>54</td>
<td>59</td>
<td>68</td>
<td>52</td>
<td>58</td>
<td>58</td>
<td>57</td>
<td>72</td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
<td>63</td>
<td>61</td>
<td>70</td>
<td>63</td>
<td>75</td>
<td>50</td>
<td>69</td>
<td>71</td>
<td>58</td>
<td>63</td>
<td>59</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Teachers’ buy-in of standards-aligned materials</td>
<td>63</td>
<td>61</td>
<td>70</td>
<td>63</td>
<td>75</td>
<td>50</td>
<td>69</td>
<td>71</td>
<td>58</td>
<td>63</td>
<td>59</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Teacher use of standards-aligned materials</td>
<td>63</td>
<td>61</td>
<td>70</td>
<td>63</td>
<td>75</td>
<td>50</td>
<td>69</td>
<td>71</td>
<td>58</td>
<td>63</td>
<td>59</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Regular use of at least one standards-aligned material</td>
<td>42</td>
<td>26</td>
<td>54</td>
<td>19</td>
<td>61</td>
<td>33</td>
<td>45</td>
<td>30</td>
<td>64</td>
<td>54</td>
<td>38</td>
<td>15</td>
<td>52</td>
</tr>
<tr>
<td>Intensive use of at least one standards-aligned material</td>
<td>31</td>
<td>17</td>
<td>43</td>
<td>15</td>
<td>57</td>
<td>27</td>
<td>30</td>
<td>20</td>
<td>64</td>
<td>54</td>
<td>29</td>
<td>9</td>
<td>39</td>
</tr>
</tbody>
</table>

**NOTE:** M = math; E = ELA. See Table 3.1 for more information about the survey items used to construct this table (n = 3,051).
TABLE A.4
Association Between Indicators of Supports or Adequacy and Teacher Use of Standards-Aligned Materials, by IMPD Participation and Adoption of Standards-Aligned Material Condition

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C1</td>
<td>C2</td>
<td>C3</td>
</tr>
<tr>
<td>Principal encourages use of required curricula</td>
<td>0.3</td>
<td>-0.5</td>
<td>-16.3</td>
</tr>
<tr>
<td>Principal considers curricula in observations</td>
<td>-4.9</td>
<td>-2.1</td>
<td>-4.3</td>
</tr>
<tr>
<td>Collaborative learning on materials 4+ times per year</td>
<td>-1.1</td>
<td>-2.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Coaching on materials 4+ times per year</td>
<td>-3.6</td>
<td>-2.0</td>
<td>10.3</td>
</tr>
<tr>
<td>Workshops/trainings on materials 4+ times per year</td>
<td>-0.3</td>
<td>2.7</td>
<td>0.4</td>
</tr>
<tr>
<td>Materials adequate for mastering state standards</td>
<td>1.1</td>
<td>2.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Materials adequate for covering state assessment content</td>
<td>0.4</td>
<td>-5.1</td>
<td>-1.8</td>
</tr>
</tbody>
</table>

NOTE: C1 = Condition 1; C2 = Condition 2; C3 = Condition 3; C4 = Condition 4. This table presents estimated average marginal effects from a multinomial logistic regression model predicting whether teachers (1) do not use a standards-aligned material, (2) regularly use a standards-aligned material, or (3) intensively use a standards-aligned material as a function of indicators of supports and adequacy of standards-aligned materials. This model was estimated separately for each of the four IMPD Network/material adoption conditions (C1, C2, C3, C4), as defined in Table 3.2. Each cell includes the average marginal effect, in percentage point form, of the row indicator on the usage outcome listed in the column header for the teacher group indicated by the subcolumn header. Cells are color coded so that cells that are more green have larger, more-positive average marginal effects and cells that are more red have larger, more-negative average marginal effects. Cells that are bordered in black contain average marginal effects that are statistically significant at the \( p < 0.05 \) level.
Abbreviations

ADE Arkansas Department of Education
AEP American Educator Panels
AIRS American Instructional Resources Survey
ARP American Rescue Plan
CCSSO Council of Chief State School Officers
COVID-19 coronavirus disease 2019
CURATE Curriculum Ratings by Teachers
DDOE Delaware Department of Education
DESE Department of Elementary and Secondary Education (Massachusetts)
ELA English language arts
ESSER Elementary and Secondary School Emergency Relief
FRPL free or reduced-price lunch
HQIM high-quality instructional materials
IMPD Network High-Quality Instructional Materials and Professional Development Network
KDE Kentucky Department of Education
LEA local education authority
MDE Mississippi Department of Education
NDE Nebraska Department of Education
NIMC Nebraska Instructional Materials Collaborative
PED Public Education Department (New Mexico)
PL professional learning
RIDE Rhode Island Department of Education
STEM science, technology, engineering, and mathematics
TEA Texas Education Agency
TDOE Tennessee Department of Education
References


CCSSO—See Council of Chief State School Officers.


DDEO—See Delaware Department of Education.


https://www.rand.org/pubs/research_reports/RRA134-1.html

Kaufman, Julia H., V. Darleen Opfer, Lindsey E. Thompson, and Joseph D. Pane, *Connecting What Teachers Know About State English Language Arts Standards for Reading and What They Do in Their Classrooms: Findings from the American Teacher Panel*, Santa Monica, Calif.: RAND Corporation, RR-2258-HCT, 2018. As of January 6, 2022:
https://www.rand.org/pubs/research_reports/RR2258.html

https://www.rand.org/pubs/research_reports/RR2303z2.html

https://www.rand.org/pubs/research_reports/RR1613.html


Louisiana Department of Education, “Online Instructional Materials Reviews,” webpage, undated. As of March 10, 2022:
https://www.louisianabelieves.com/academics/ONLINE-INSTRUCTIONAL-MATERIALS-REVIEWS

Massachusetts Department of Elementary and Secondary Education, “Center for Instructional Support: Curriculum Ratings by Teachers,” webpage, undated. As of March 10, 2022:
https://www.doe.mass.edu/instruction/curate/

https://www.google.com/maps/d/viewer?mid=1Pk-D6LGs2yTFLTqShirBzc1ER0pjiO8A&ll=42.066622903101894%2C-71.67761895&z=8

Mississippi Instructional Materials Matter, “Definitions,” webpage, undated-a. As of May 3, 2022:
https://msinstructionalmaterials.org/resources/definitions/

Mississippi Instructional Materials Matter, homepage, undated-b. As of May 3, 2022:
https://msinstructionalmaterials.org/

New Mexico Public Education Department, “High Quality Instructional Materials (HQIM) Reviews,” webpage, undated. As of May 12, 2022:


Ohio Curriculum Support Guide, homepage, undated. As of May 12, 2022:
https://ohiocurriculumsupport.org/

https://www.rand.org/pubs/research_reports/RR2487.html


