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# Do Teachers Think Their Curriculum Materials Are Appropriately Challenging for Their Students?

## Findings from the 2023 American Instructional Resources Survey

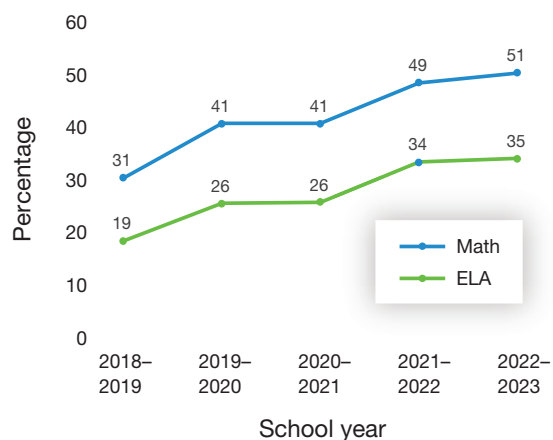
### KEY FINDINGS

- Three in ten K–12 teachers consider the instructional materials that are required or recommended by their school or district to be too challenging for the majority of their students.
- Teachers in high-poverty schools and less experienced teachers were significantly more likely to report that their materials were too challenging for their students.
- Math teachers who reported that their required or recommended materials were too challenging were significantly less likely to use these materials for 75 percent to 100 percent of their classroom instructional time.
- Teachers who reported that they had only been using their required or recommended materials for less than a year were more likely to consider those materials to be too challenging for their students.
- Teachers who reported that their professional learning helped them use their materials to meet student needs were less likely to consider their required or recommended materials to be too challenging for students.

Since 2019, the American Instructional Resources Survey (AIRS) has annually collected information on the types of curriculum materials that K–12 teachers have used and the support they have received to use those materials well. One trend across years of the AIRS is clear: Nationwide, a growing percentage of K–12 teachers report regularly using standards-aligned English language arts (ELA) and math curriculum materials. Figure 1 shows the percentage of teachers who reported regularly using (at least once weekly) at least one core curriculum material that was rated as standards-aligned by EdReports, an independent organization that reviews how well curricula are aligned with college and career-ready standards in ELA and math (EdReports, undated).

During the 2022–2023 school year, 51 percent and 35 percent of K–12 teachers reported regularly using a standards-aligned core curriculum material in math and ELA, respectively. These usage rates have increased by 20 percentage points

FIGURE 1  
Teachers Who Reported Using ELA and Math Standards-Aligned Materials Regularly (Once per Week or More)



NOTE: The figure depicts the percentage of math and ELA teachers reporting that they used at least one standards-aligned material once a week or more (which we refer to as “regularly”) during each school year. Standards alignment is determined by matching teacher-reported lists of the curriculum materials they use regularly to ratings of curriculum materials provided by EdReports; see “How We Conducted This Analysis” for further detail. School year 2018–2019  $N = 4,447$ ; 2019–2020  $N = 4,494$ ; 2020–2021  $N = 5,425$ ; 2021–2022  $N = 6,399$ ; 2022–2023  $N = 6,610$ .

since the 2018–2019 school year (the first year of the AIRS survey). This increase in usage of standards-aligned material has emerged alongside concentrated efforts by officials in multiple state departments of education to communicate the importance of these materials, provide schools and districts with clear information on which materials are high quality, and, in certain cases, provide strong incentives for local

adoption of high-quality materials. For example, fourteen states are part of the Council of Chief State School Officers’ High-Quality Instructional Materials and Professional Development Network, which is a group focused on efforts to increase the use of curriculum materials closely aligned with state standards and supports for K–12 teachers’ use of those materials (Council of Chief State School Officers, undated).

Despite an uptick in the regular usage of standards-aligned materials across the United States, not all teachers use these materials for the majority of their instructional time, even when required or recommended by their district. Rarely do teachers use a single curriculum material in their classroom instruction; teachers frequently modify their assigned materials or generate lesson plans using a combination of materials, some of which might be of unknown quality (Kaufman et al., 2020). For education leaders who hope to use curriculum materials as levers for improving instruction, adopting and purchasing standards-aligned materials is only the first step. Encouraging teachers to use these materials with integrity remains a challenge.

In the 2022 AIRS, the top three priorities teachers cited in determining which tasks and activities to use from their curriculum materials were that materials (1) are engaging for students, (2) align with state academic standards, and (3) provide scaffolding to help students with grade-level content (Doan, Eagan, et al., 2022). Similarly, using a combination of survey and interview data, Wang et al. (2021) found that

### What Is the American Instructional Resources Survey?

The American Instructional Resources Survey (AIRS) is a survey that investigates the use of instructional materials in K–12 English language arts, math, and science classrooms across the United States. Since 2019, the AIRS has been annually administered to a sample of teachers who are members of RAND’s American Teacher Panel. The 2023 AIRS was fielded in March and April of 2023 and allows users to make nationally representative estimates, as well as state-representative estimates for 17 states.

*Instructional materials* are any materials that are intended to provide learning opportunities to students and can include both *curriculum materials*, which constitute a full, comprehensive course of study, and *supplemental material*, such as isolated activities or lesson ideas that do not provide a full course of study but focus on individual topics. This report focuses specifically on how teachers report using and perceiving their **curriculum materials**.

Using ratings provided by EdReports, we categorize curriculum materials as standards-aligned materials if they have been rated as fully meeting expectations of EdReports’ college- and career-ready standards.

teachers’ perceptions of the usability of their curriculum materials are heavily informed by whether they believe these materials are engaging and appropriately challenging for their students.

In this report, we continue this line of research using the 2023 AIRS to explore whether teachers feel that the curriculum materials required or recommended by their school or district are appropriately challenging for their students. Specifically, we examine the following research questions:

1. How do teacher perceptions of how challenging their materials are differ according to teacher and school characteristics and characteristics of the curriculum materials that they use?
2. How do teacher perceptions of materials’ challenge level relate to the share of instructional time they report using required or recommended materials?
3. Which factors within school and district control could improve teacher perceptions of the appropriateness of their curriculum materials?

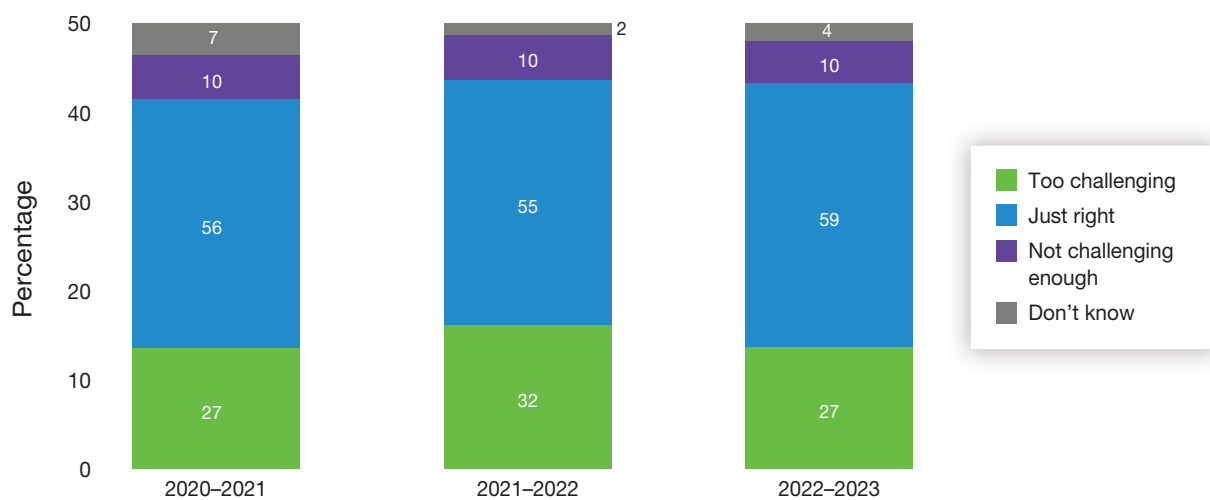
We share key findings across these three topics and conclude with a summary and implications for decisionmakers to consider.

### Finding 1: Three in Ten Teachers Considered Their Required or Recommended Materials “Too Challenging” for the Majority of Their Students, with Higher Rates Among Less Experienced Teachers and Teachers in High-Poverty Schools

The 2023 AIRS asked teachers to indicate whether the curriculum materials required or recommended by their district or school during the 2022–2023 school year were too challenging, at the right level, or not challenging enough for the majority of their students. Importantly, the item asked teachers to report on how challenging these materials were with respect to their students’ needs rather than how challenging the materials are to use from a teacher’s perspective.

During the 2022–2023 school year, 27 percent of K–12 teachers reported that the materials required or recommended by their district were too challenging for the majority of their students (Figure 2). More than half of teachers (59 percent) reported that the materials were at the right level for the majority of their students, and 10 percent reported that the materials were not challenging enough. These patterns

FIGURE 2  
 ELA and Math Teachers Who Report That Required or Recommended Materials Are Too Challenging for the Majority of Their Students



NOTE: The results in this figure are based on the following survey question asked of math and ELA teachers: “The [ELA/math] instructional materials provided by my district or school as a recommendation or requirement are . . .” “Too challenging for the majority of my students,” “At the right level for the majority of my students,” “Not challenging enough for the majority of my students,” or “I don’t know.” 2020–2021 school year *N* = 7,110; 2022–2022 school year *N* = 6,572; 2022–2023 school year *N* = 7,126.

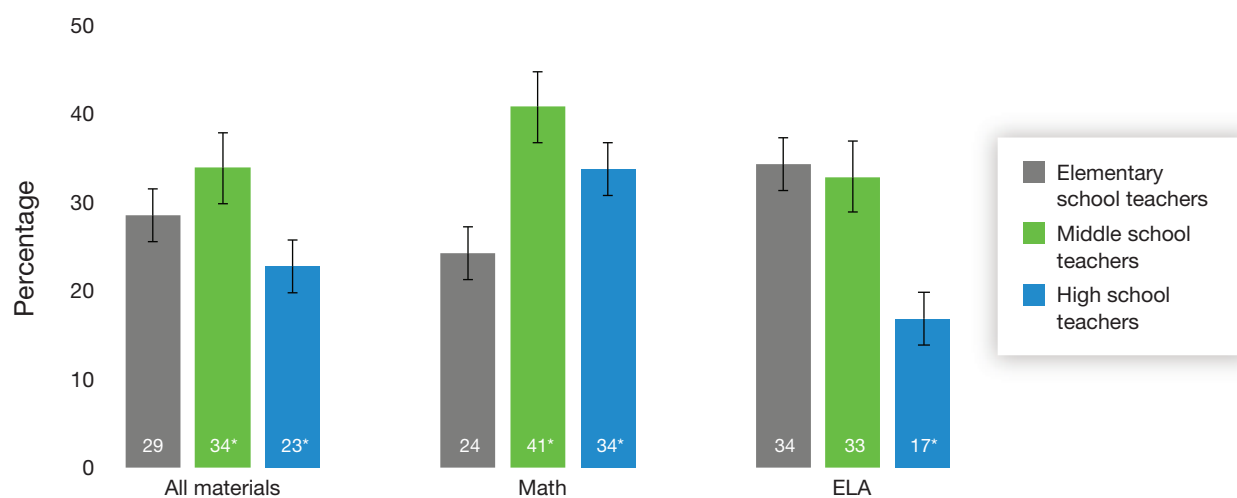
from the 2023 AIRS are similar to teachers’ responses in prior years: In the 2021–2022 school year, there was a small increase of teachers who reported that the materials were too challenging (32 percent). The 2023 AIRS did not ask teachers to specify which specific elements of the curriculum materials were “too challenging” for their students. Through interviews with a subset of teachers who responded to the 2020 AIRS, Wang et al. (2021) found that teachers most commonly cited the availability of scaffolding and the use of grade-appropriate vocabulary as the aspects of curriculum materials that determine whether materials were appropriately challenging; other less-commonly cited aspects included materials using an appropriate amount of text and containing necessary background knowledge.

These patterns differ by grade level and subject matter. Compared with middle school (41 percent) and high school teachers (34 percent), elementary school teachers (24 percent) were much less likely to report that math materials are too challenging (Figure 3). In contrast, elementary and middle school teachers (34 percent and 33 percent, respectively) were more likely than high school teachers (17 percent) to report that ELA materials are too challenging.

As shown in Figure 1, 35 percent of teachers reported using standards-aligned ELA materials and 51 percent of teachers reported using standards-aligned math materials, which echoes similar findings reported by Wang et al. (2021). Using data from the 2023 AIRS, we find that both ELA and math teachers who reported using at least one standards-aligned material were 4 percentage points more likely to report that the materials required or recommended by their district are too challenging for the majority of their students (Figure 4). However, we found that this margin was only statistically significant among ELA teachers.

Familiarity with materials could also be associated with how teachers perceive the level of challenge for their students. Regardless of whether they used standards-aligned material, teachers who reported using at least one new material in the 2022–2023 school year (33 percent) were more likely to report that the materials recommended by their district were too challenging for the majority of their students than were teachers who did not use any new materials (27 percent), particularly math teachers (37 percent) (Figure 5). Additionally, teachers in their first five years of teaching (42 percent) were consid-

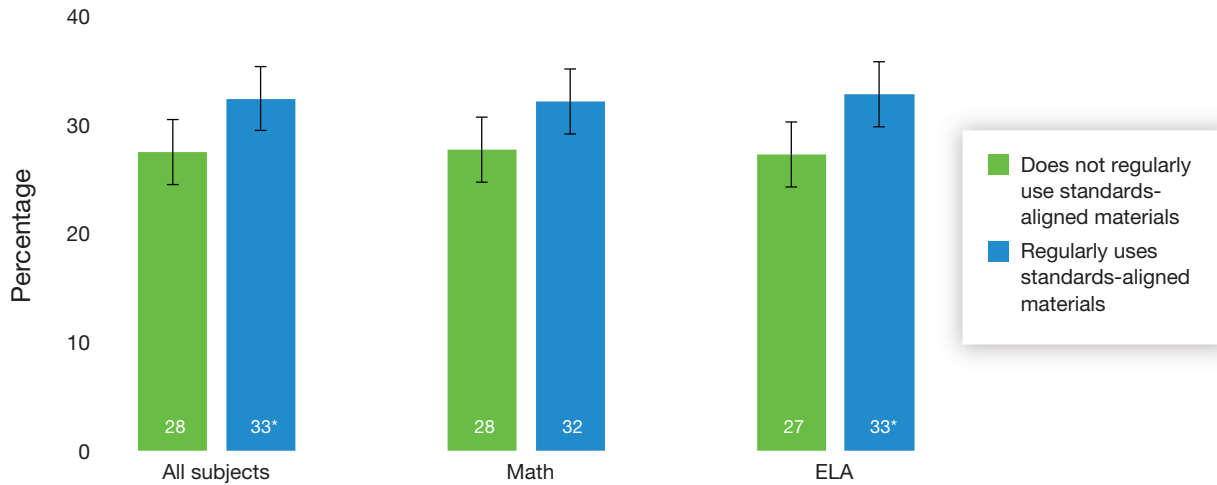
FIGURE 3  
 ELA and Math Teachers Who Report That Required or Recommended Materials Are Too Challenging, by Grade Level



NOTE: The results in this figure reflect math and ELA teachers who answered the survey question “The [ELA/math] curriculum materials provided by my district or school as a recommendation or requirement are . . .” with the response option “too challenging for the majority of my students.” An asterisk indicates that the percentage displayed is statistically significantly different at the  $p < 0.05$  level. Error bars depict 95-percent confidence intervals around each estimate.  $N = 7,126$ ; for math,  $n = 2,567$ ; for ELA,  $n = 3,123$ .

FIGURE 4

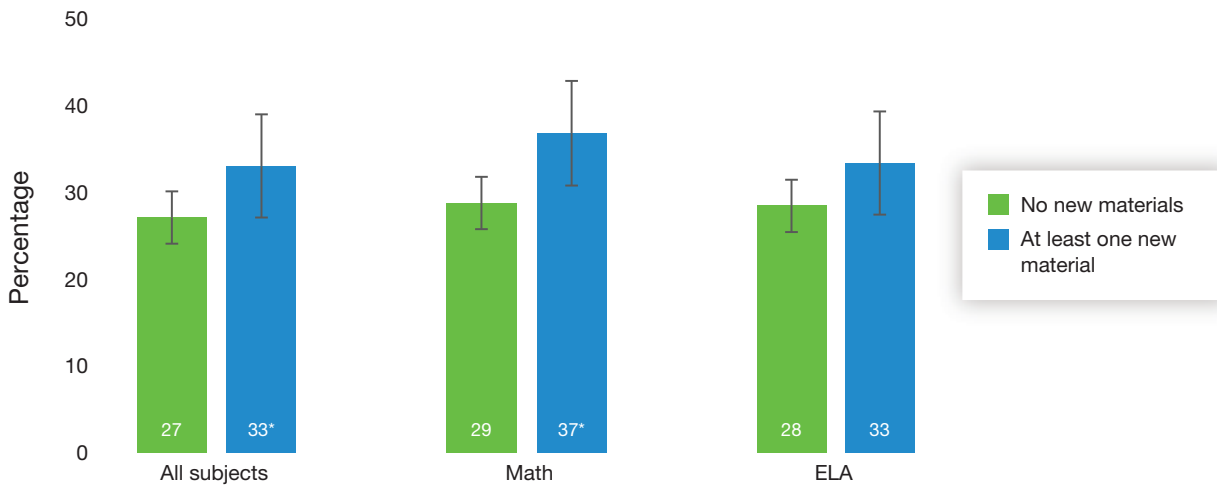
ELA and Math Teachers Who Report That Required or Recommended Materials Are Too Challenging for the Majority of Their Students, by Use of Standards-Aligned Materials



NOTE: The results in this figure reflect math and ELA teachers who answered the survey question “The [ELA/math] curriculum materials provided by my district or school as a recommendation or requirement are . . .” with the response option “too challenging for the majority of my students.” An asterisk indicates that the percentage displayed is statistically significantly different at the  $p < 0.05$  level. The “does not regularly use standards-aligned materials” subgroup includes teachers who reported regularly using materials that were not standards-aligned. The “regularly uses standards-aligned materials” subgroup includes teachers who use at least one material regularly that is standards-aligned. Error bars depict 95-percent confidence intervals around each estimate.  $N = 7,126$ ; for math,  $n = 2,567$ ; for ELA,  $n = 3,123$ .

FIGURE 5

ELA and Math Teachers Who Report That Required or Recommended Materials Are Too Challenging, by New Material Use



NOTE: The results in this figure reflect math and ELA teachers who answered the survey question “The [ELA/math] curriculum materials provided by my district or school as a recommendation or requirement are . . .” with the response option “too challenging for the majority of my students.” An asterisk indicates that the percentage displayed is statistically significantly different at the  $p < 0.05$  level. The “no new materials” subgroup includes teachers who reported having used all their materials during previous school years. The “at least one new material” group includes teachers who reported using at least one of their materials for the first time in the 2022–2023 school year. Error bars depict 95-percent confidence intervals around each estimate.  $N = 7,126$ ; for math,  $n = 2,567$ ; for ELA,  $n = 3,123$ .

erably more likely to report that the materials were too challenging than were teachers with five or more years of experience (28 percent), particularly math teachers (48 percent), as shown in Figure 6.

We also found that school characteristics are associated with perception of materials’ challenge. Teachers in high-poverty schools (35 percent) are more likely than teachers in low-poverty schools (23 percent) to report that materials are too challenging for the majority of their students (Figure 7). These differences are consistent among math and ELA educators. Similarly, teachers in schools that predominantly serve students of color (34 percent) are more likely than teachers in schools that predominantly serve White students (23 percent) to report that materials are too challenging for the majority of their students, in both ELA and math (Figure 8).

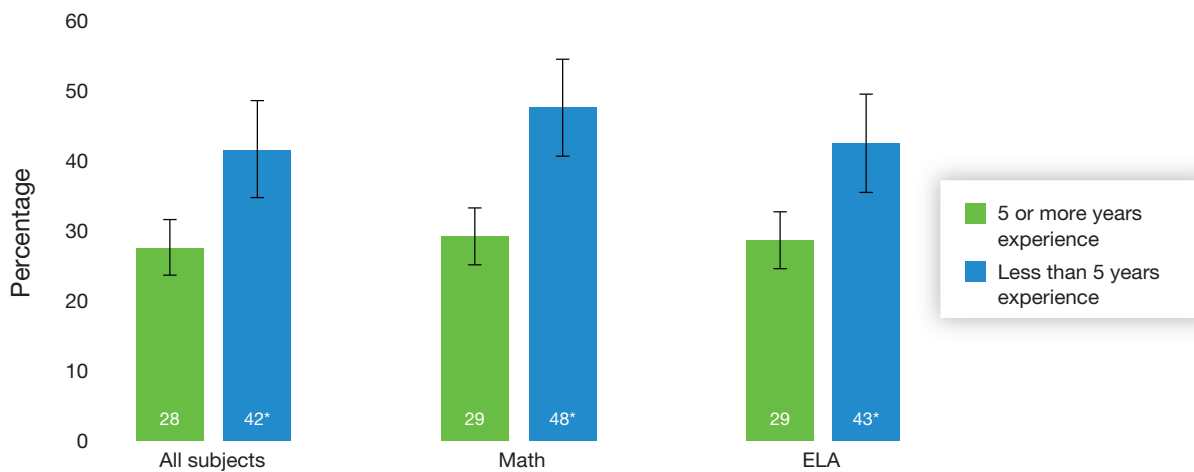
There are two key considerations to keep in mind when interpreting the associations between student characteristics and teachers’ perception of how challenging materials are for their students. First, many of these characteristics are correlated. For example, teachers in high-poverty schools are significantly

more likely to use standards-aligned materials (50 percent) than teachers in low poverty schools (41 percent), which might contribute to the patterns depicted in both Figures 4 and 7. Second, our data do not allow us to disentangle whether teachers’ perceptions of the challenge level of their materials is driven by actual student needs or teachers’ preconceptions of their students. Rather, these findings are useful for identifying where teachers’ perceptions of material challenge might be particularly high and how that might influence teacher practice.

## Finding 2: Math Teachers Who Find Their Curriculum Materials Too Challenging Tend to Use Them for Less of Their Instructional Time

We investigated whether teachers’ perceptions of the challenge level of their required or recommended materials were linked to the share of instructional time they reported using these materials in the classroom. Teachers were asked to report the percentage of instructional time that they dedicated to using

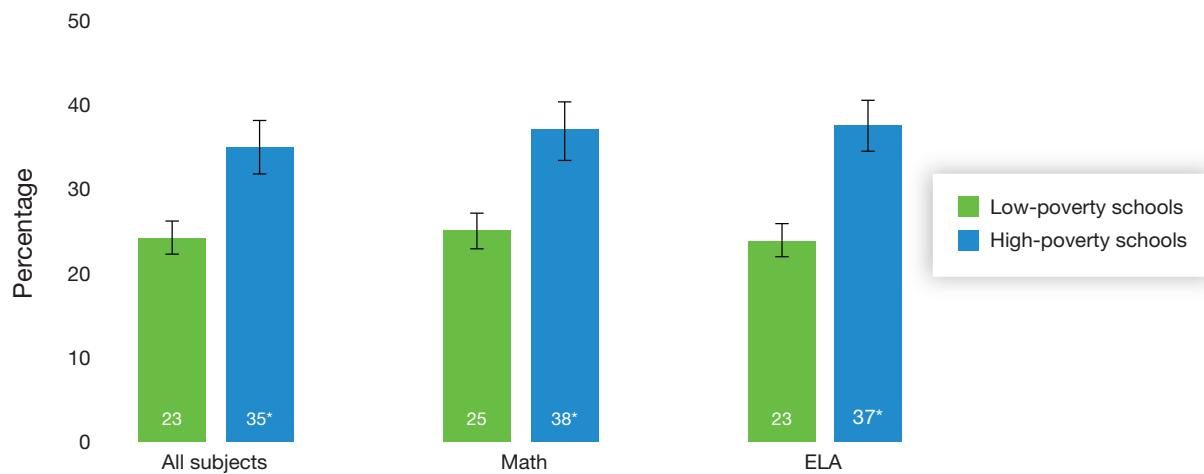
FIGURE 6  
 ELA and Math Teachers Who Reported That Required or Recommended Materials Are Too Challenging, by Teaching Experience



NOTE: The results in this figure reflect math and ELA teachers who answered the survey question “The [ELA/math] curriculum materials provided by my district or school as a recommendation or requirement are . . .” with the response option “too challenging for the majority of my students.” An asterisk indicates that the percentage displayed is statistically significantly different at the  $p < 0.05$  level. Error bars depict 95-percent confidence intervals around each estimate.  $N = 7,126$ ; for math,  $n = 2,567$ ; for ELA,  $n = 3,123$ .

FIGURE 7

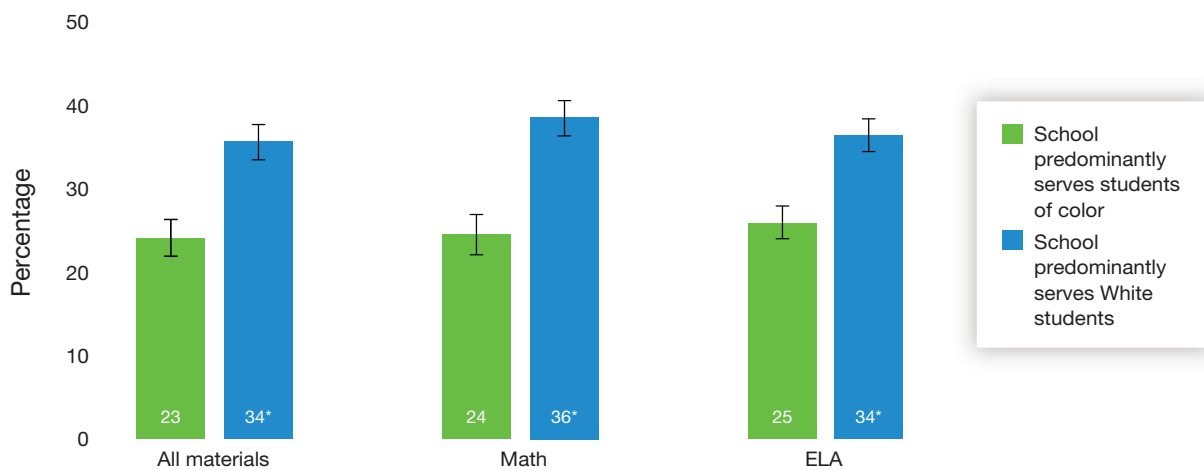
ELA and Math Teachers Who Report That Required or Recommended Materials Are Too Challenging, by School Poverty Level



NOTE: The results in this figure reflect math and ELA teachers who answered the survey question “The [ELA/math] curriculum materials provided by my district or school as a recommendation or requirement are . . .” with the response option “too challenging for the majority of my students.” An asterisk indicates that the percentage displayed is statistically significantly different at the  $p < 0.05$  level. The low-poverty school subgroup includes teachers in schools with more than 50 percent of students eligible for free or reduced-price lunch (FRPL). The high-poverty school subgroup includes teachers at schools with 50 percent or more of students receiving free or reduced-price lunch. Error bars depict 95-percent confidence intervals around each estimate.  $N = 7,126$ ; for math,  $n = 2,567$ ; for ELA,  $n = 3,123$ .

FIGURE 8

ELA and Math Teachers Who Report That Required or Recommended Materials Are Too Challenging, by Student Population Served



NOTE: The results in this figure reflect math and ELA teachers who answered the survey question “The [ELA/math] curriculum materials provided by my district or school as a recommendation or requirement are . . .” with the response option “too challenging for the majority of my students.” An asterisk indicates that the percentage displayed is statistically significantly different at the  $p < 0.05$  level. Error bars depict 95-percent confidence intervals around each estimate.  $N = 7,126$ ; for math,  $n = 2,567$ ; for ELA,  $n = 3,123$ .



their curriculum materials in a typical class over the course of a week. We then identified the highest percentage of instructional time teachers reported using for any single material out of the required or recommended curriculum materials from their school or district. Figure 9 shows the percentage of teachers who reported using at least one of their required or recommended curriculum materials for “75–100 percent” of instructional time, separated by whether they reported that these materials were too challenging for the majority of their students.

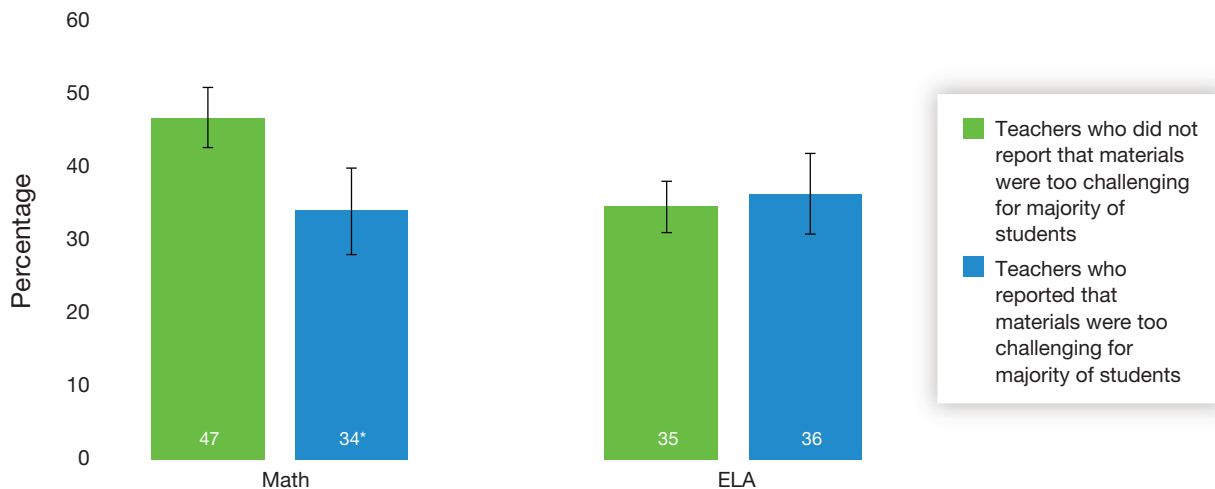
We did not find a correlation between whether a teacher reported that their required or recommended ELA materials were too challenging for students and whether they reported using at least one of these materials for 75 percent to 100 percent of instructional time. However, we do find that teacher-perceived challenge level was related to usage for teachers’ math materials. Teachers who indicated that their required or recommended math materials were too challenging for students were 13 percent-

age points less likely to use them for 75 percent to 100 percent of instructional time than those who were not. These findings reinforce earlier research, which indicated that teachers who believe that their curriculum materials are not appropriately challenging for their students will be more likely to consider their materials less usable (Wang et al., 2021; Wolfe, Schweig, and Steiner, 2022).

### Finding 3: Teachers Who Spend More Time with Their Materials and Those Who Perceive Their Professional Learning to Be Effective Were Less Likely to Consider Curriculum Materials Too Challenging

School and district leaders can support teachers’ ability to skillfully use their curriculum materials and, subsequently, improve their perceptions of these materials in several ways. Two malleable factors that we identified in our data that were linked to teachers’

FIGURE 9  
Teachers Who Reported Using a Required or Recommended Material for 75 Percent to 100 Percent of Instructional Time, by Perceptions of Material Challenge Level



NOTE: This figure shows the percentage of math ( $N = 1,672$ ) and ELA ( $N = 2,057$ ) teachers who reported that they used at least one of the curriculum materials required or recommended by their school or district for 75 percent to 100 percent of instructional time, separated by whether they indicated that their required or recommended materials were too challenging for the majority of their students. Teachers were asked to “indicate approximately what percent of instructional time [they] dedicate towards using [that material] for a typical class of students over the course of a week” for each instructional material they reported regularly using. An asterisk indicates that the percentage displayed is statistically significantly different at the  $p < 0.05$  level. The figure shows the percentage of teachers who selected “75%–100%” of instructional time for at least one of their required or recommended materials. Error bars depict 95-percent confidence intervals around each estimate.



perceptions of the challenge level of their materials were the longevity of curriculum materials and the provision of effective professional learning.

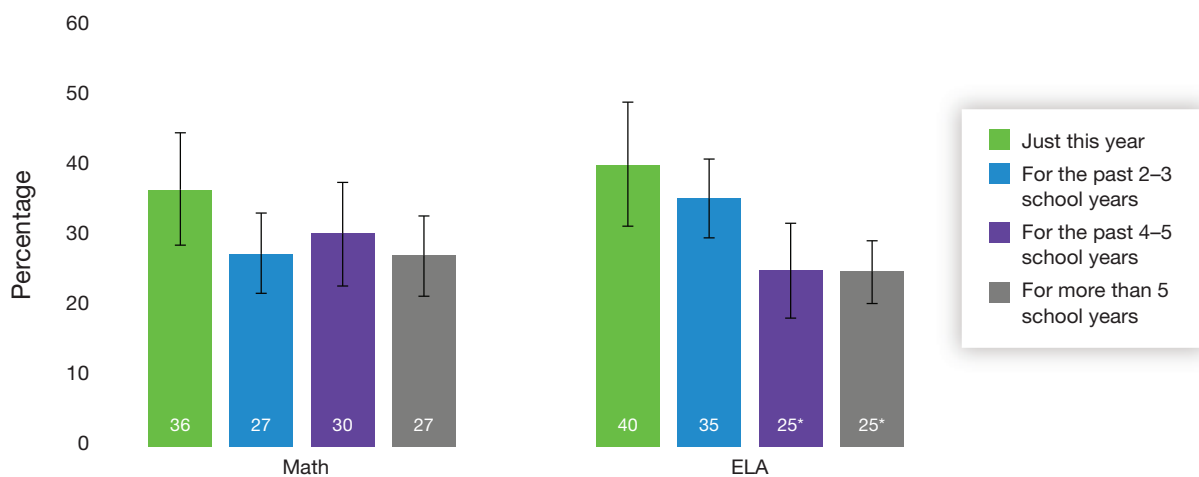
First, teachers who had been using required or recommended materials for longer periods of time were less likely to report that their materials were too challenging. Figure 10 shows the percentage of teachers reporting that their required or recommended materials were “too challenging,” separated by the longest amount of time, measured in school years, they spent using one of these materials.

Compared with teachers who used these materials for the first time during the 2022–2023 school year, teachers who indicated that they used at least one of their required or recommended ELA materials for “the past 4–5 school years” or “more than 5 school years” were 15 percentage points less likely to note that these materials were too challenging for their students. We found a similar pattern for math materials, but these differences were not statistically significant at conventional levels.

We also found that teachers’ propensity to report that their materials were too challenging was correlated with their perceptions of the effectiveness of their professional learning opportunities. Figure 11 shows how teachers’ likelihoods of reporting that their materials are too challenging differs by whether they agreed that the professional learning activities that they participated in “helped [them] to use [their] curriculum materials more effectively to meet student needs.”

Among math and ELA teachers who strongly disagreed that their professional learning helped them use their curriculum materials, four in ten teachers reported that their materials were too challenging; there were significantly lower rates among teachers who somewhat or strongly agreed that their professional learning helped them use their curriculum materials. These margins remained statistically significant even after accounting for school poverty levels and student racial and ethnic composition.

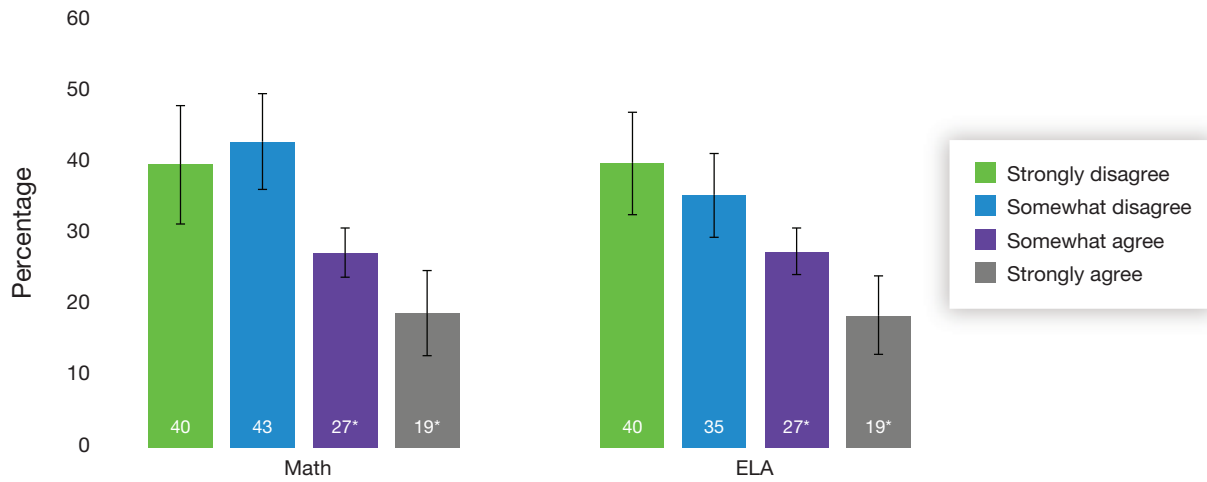
FIGURE 10  
 ELA and Math Teachers Who Indicated That Materials Are Too Challenging, by Maximum Amount of Time Spent Using Materials



NOTE: The figure shows the percentage of math ( $N = 1,672$ ) and ELA ( $N = 2,057$ ) teachers who reported that the materials required or recommended by their district were too challenging for the majority of their students, separated by the maximum amount of time using one of the required or recommended materials. Teachers were asked to “indicate how long you have been using the material” for each instructional material that they reported regularly using. An asterisk indicates that the percentage for that subgroup significantly differs at the  $p < 0.05$  level from the reference group, which is teachers who reported that they have used their required or recommended materials for “just this year.” Error bars depict 95-percent confidence intervals around each estimate.

FIGURE 11

ELA and Math Teachers Who Indicated That Materials Are Too Challenging, by Teacher-Reported Effectiveness of Professional Learning Activities



NOTE: The figure shows the percentage of math ( $N = 2,389$ ) and ELA ( $N = 2,905$ ) teachers who reported that the materials required or recommended by their district were too challenging for the majority of their students, separated by whether teachers agreed that the professional learning activities that they participated in during the 2022–2023 school year helped them use their curriculum materials more effectively to meet student needs. An asterisk indicates that the percentage for that subgroup significantly differs at the  $p < 0.05$  level from the reference group, which is teachers who strongly disagreed that professional learning activities helped them use their curriculum materials more effectively. Error bars depict 95-percent confidence intervals around each estimate.

## Summary and Implications

Rigorous curriculum materials can provide a strong foundation for student learning. However, as we document in this report, roughly three in ten K–12 teachers believe that the materials required or recommended by their school or districts were too challenging for their students. Teachers who perceived that their materials were too challenging for their students disproportionately taught in high-poverty schools, were more likely to be using these materials for the first time, or were in the earlier stages of their teaching careers. Furthermore, whether teachers perceived that their materials were too challenging appeared to significantly differ by grade band and subject taught. These perceptions of whether materials are appropriately challenging were strongly linked to how math teachers reported using materials in the classroom: Math teachers who found their materials too challenging were less likely to use them for 75 percent to 100 percent of instructional time.

Whether teachers *perceive* a curriculum material as being too challenging for their students is linked to

many factors beyond the characteristics of a specific instructional material. As we document throughout this report, the students that teachers serve, the supports teachers have access to, and the settings in which instruction takes place are correlated to teachers’ perceptions of their materials, which suggests a number of entry points for shifting teachers’ opinions on their materials. We share a number of implications that emerged from the 2023 AIRS that we encourage policymakers and education leaders to think about as they consider how these findings apply to schools in their states and districts.

First, **continuity of curriculum materials is an important factor in how teachers perceive usability.** Many states are pushing for teachers to use new, standards-aligned materials (Doan, Kaufman, et al., 2022). These initiatives will inevitably lead to some degree of disruption that, our findings suggest, could lead to teachers viewing these new materials unfavorably. After initial implementation, districts should strive to continually support these materials, which would allow teachers to gain the necessary experience to use these materials most effectively. By dem-

onstrating commitment to standards-aligned materials, schools and districts can encourage and support teachers to use new materials in the long term.

Second, education leaders should work not only to keep materials in place but also to **form coherent instructional systems around them** that actively support teachers' use of materials and integrate materials with other key components of their instructional system, such as professional learning, teacher evaluation, and assessment (Kaufman et al., 2023).

Third, one of the most important components of instructional systems that can support curriculum materials is the availability of **high-quality professional learning opportunities** that are aligned with the specific materials used by teachers in a given school. Curriculum-based professional learning can take place in many forms (e.g., coaching, workshops, professional learning communities) and at any stage in the lifespan of an adoption cycle—from assisting with the selection of a curriculum material to providing ongoing support after adoption (Chu et al., 2022). Many states use Rivet Education's Professional Learning Partner Guide to signal high-quality providers to districts; some states, such as Arkansas, have partnered with Rivet Education to produce state-specific versions of its guide (Rivet Education, 2022). States can further support local efforts to support the implementation of standards-aligned materials by providing grants to purchase curriculum-based professional learning opportunities.

Finally, for teachers who are concerned that materials are not well-suited to their students, demonstrating **how these materials can be successfully used in and adapted to the contexts in which teachers are working** should be prioritized. One potential support, used by the Mississippi Department of Education, consists of recruiting teachers to serve as grade- and subject-specific curriculum ambassadors (Mississippi Department of Education, undated). These ambassadors can serve as local touchpoints for teachers who are building skills in using curriculum materials and can provide support and guidance that is tailored to the grades, subjects, and districts served by a given teacher. **Adaptation of materials could be especially important for teachers serving in high-poverty schools.** These teachers are more likely to indicate that materials are

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Education leaders should work not only to keep materials in place but also to form coherent instructional systems around them.

not appropriately challenging for students. Schools and districts should not shy away from adaptation: Previous research indicates that implementing materials that have been thoughtfully adapted for local context can be just as, if not more, successful than implementing materials with strict fidelity (Hill, Papay, and Schwartz, 2022). However, the nature of these adaptations should be done with the intention of successfully on-ramping students toward, rather than deviating from, content provided by their curriculum materials (Rivet Education, 2022).

## Limitations

There are several limitations to our data and analysis. First, teachers were asked to indicate both the materials they use regularly and the materials that are required or recommended by their district. Teachers were then asked about their perception of the challenge level of the materials as whole, rather than for each material separately. Therefore, while we can compare results between teachers who do and do not use required or recommended materials, we cannot differentiate between specific materials.

Second, as with all survey data, we rely on teachers' self-reports of whether these materials are appropriately challenging and how effective their professional learning experiences are, among other factors. We cannot determine from available data (1) whether perception of how challenging materials are for stu-

dents is actually related to student achievement or (2) the impact of professional learning or more experience with the materials on these perceptions.

Third, we have only self-reported information about whether teachers received professional learning (e.g., coaching) related to their main materials and their perceptions of how these professional learning opportunities helped them to use their materials more effectively. We cannot measure whether teachers received these supports specifically for the district-required or recommended materials.

Finally, in Figures 1 and 2, we present data from multiple years of the AIRS. We note that, although the survey weights used in the AIRS provide nationally representative cross-sectional estimates for each year of data presented, they are not designed to conduct longitudinal analyses, which would require accounting for panel members who do and do not complete the AIRS in multiple years. As a result, we cannot conduct formal significance tests to see whether estimates differ across years, and we present data across multiple years of the AIRS in a purely descriptive fashion.

## How This Analysis Was Conducted

The 2023 AIRS sample includes 8,537 teachers in K–12 ELA, math, and science classrooms across the United States. In this report, we used responses from 7,126 K–12 ELA and math teachers to examine teacher perceptions of how challenging their required or recommended materials are for their students and how these perceptions differ across different teacher characteristics and schooling contexts.

Teacher-reported challenge levels of materials are based on their responses to the following survey item: “[ELA/mathematics/science] instructional materials provided by my district or school as a recommendation or requirement are . . . .” Respondents could indicate that (1) materials were too challenging, (2) materials were at the right level, (3) materials were not challenging enough, or (4) they did not know.

We examined how the likelihood of teachers indicating that their required or recommended materials were “too challenging for the majority of their students” differed across a number of teacher and school characteristics. School demographic characteristics (e.g., school enrollment of students of color, school enrollment of economically disadvantaged students) used in subgroup analyses were obtained using information from the 2020–2021 National Center for Education Statistics Common Core of Data. Information about teacher experience and whether teachers had reported using a new instructional material during the 2022–2023 school year was obtained directly from teacher responses to the 2023 AIRS.

To identify whether teachers used at least one standards-aligned material, we match a list of curriculum materials teachers reported regularly using in the 2023 AIRS to EdReports ratings of standards alignment. Teachers were identified as using a standards-aligned material if they reported using at least one instructional material that is identified by EdReports as meeting expectations for their reported grade level as of September 2023. Additional information on this indicator of standards-aligned material usage can be found in previous AIRS-related reports (Doan, Eagan, et al., 2022; Kaufman, Doan, and Fernandez, 2021). For each instructional material that they reported using on the 2023 AIRS, teachers were asked (1) what percentage of instructional time they dedicate to using that instructional material over the course of a week and (2) how long, in school years, they have spent using that instructional material. Because teachers answered each item separately for each material they reported using, we needed to combine responses to construct a teacher-level indicator for each item to use in our analysis. First, we identified which regularly used materials teachers also indicated are required or recommended by their school or district. Then, we calculated the maximum percentage of instructional time and maximum number of school years they have spent using all these materials. The data in Figures 9 and 11 are based on these identified maximums across all required and recommended materials that teachers reported using and therefore represent best-case estimates of these quantities.

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## **About This Report**

In this report, we draw on surveys of teachers from the American Teacher Panel (ATP), which is a nationally representative sample of more than 25,000 teachers across the United States. The ATP is one of three survey panels that comprise the American Educator Panels, which are nationally representative samples of teachers, school leaders, and district leaders across the country. The panels are a proud member of the American Association for Public Opinion Research's Transparency Initiative. If you are interested in using AEP data for your own surveys or analysis or in reading publications using American Educator Panel data, please email [aep@rand.org](mailto:aep@rand.org) or visit [www.rand.org/aep](http://www.rand.org/aep).

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