

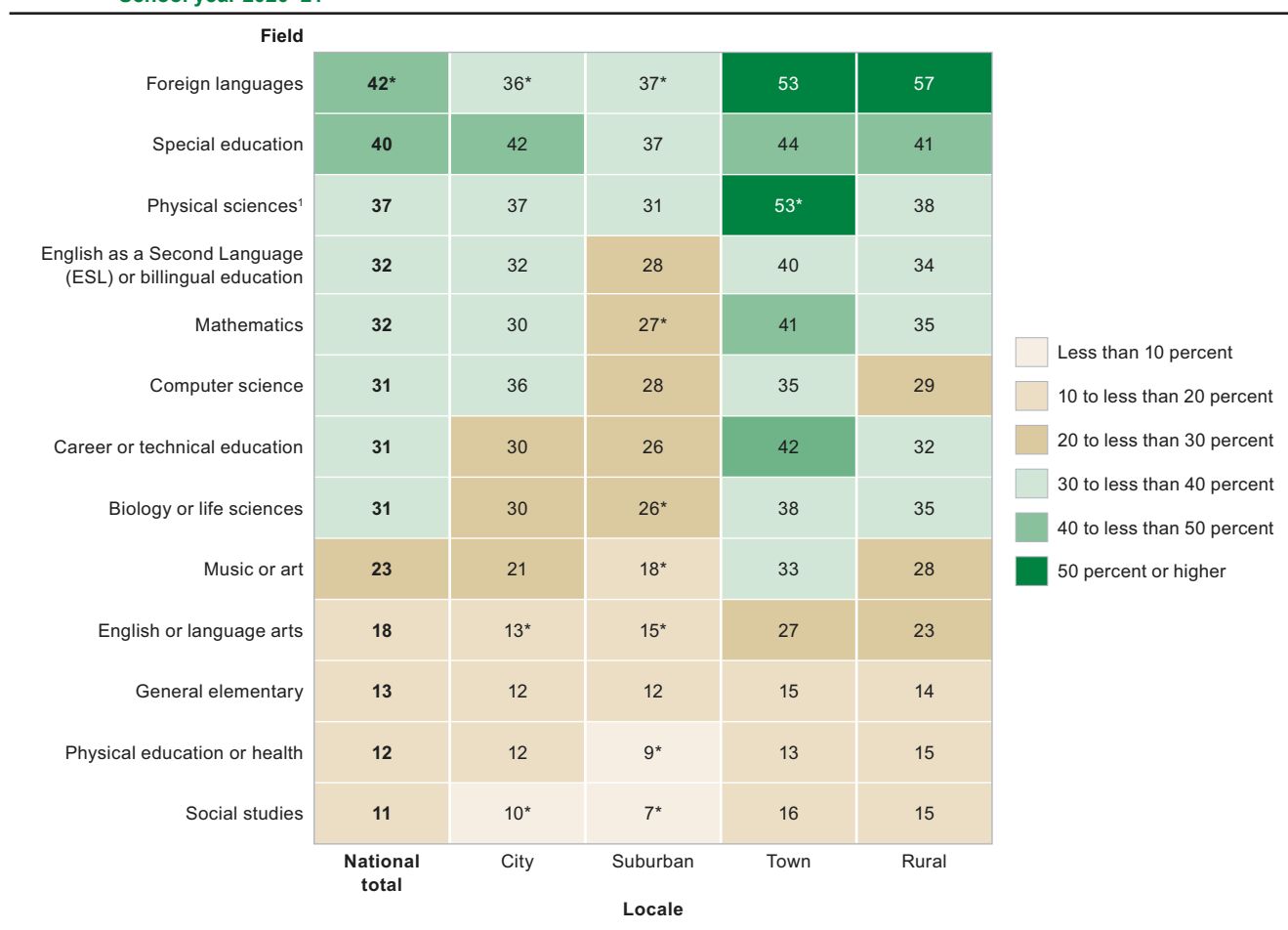
Difficulty Hiring Teachers in Rural Areas

In 2020–21, for some teaching fields, a higher percentage of schools in rural areas than of schools in cities and suburban areas found it very difficult or not possible to fill teaching vacancies. For example, of public schools that had teaching vacancies, 57 percent of public schools in rural areas found it very difficult to fill or were not able to fill foreign language teaching positions, compared with 37 percent of public schools in suburban areas and 36 percent in cities.

Schools, especially those with inadequate resources, can experience difficulty hiring teachers and high turnover. These issues are linked with the availability of new teachers, salaries, and working conditions.¹ Using the National Teacher and Principal Survey (NTPS), this

indicator examines, by locale,² the percentages of public and private schools that found it very difficult to fill or were not able to fill open teaching positions for which they were hiring (discussed hereafter as vacancies).³

Figure 1. Of public schools that had teaching vacancies in a specific field for the current school year, percentage of schools that found it very difficult to fill or were not able to fill those teaching vacancies, by school locale and teaching field: School year 2020–21



*Significantly different from rural areas ($p < .05$).

¹ Physical sciences includes chemistry, physics, and earth science.

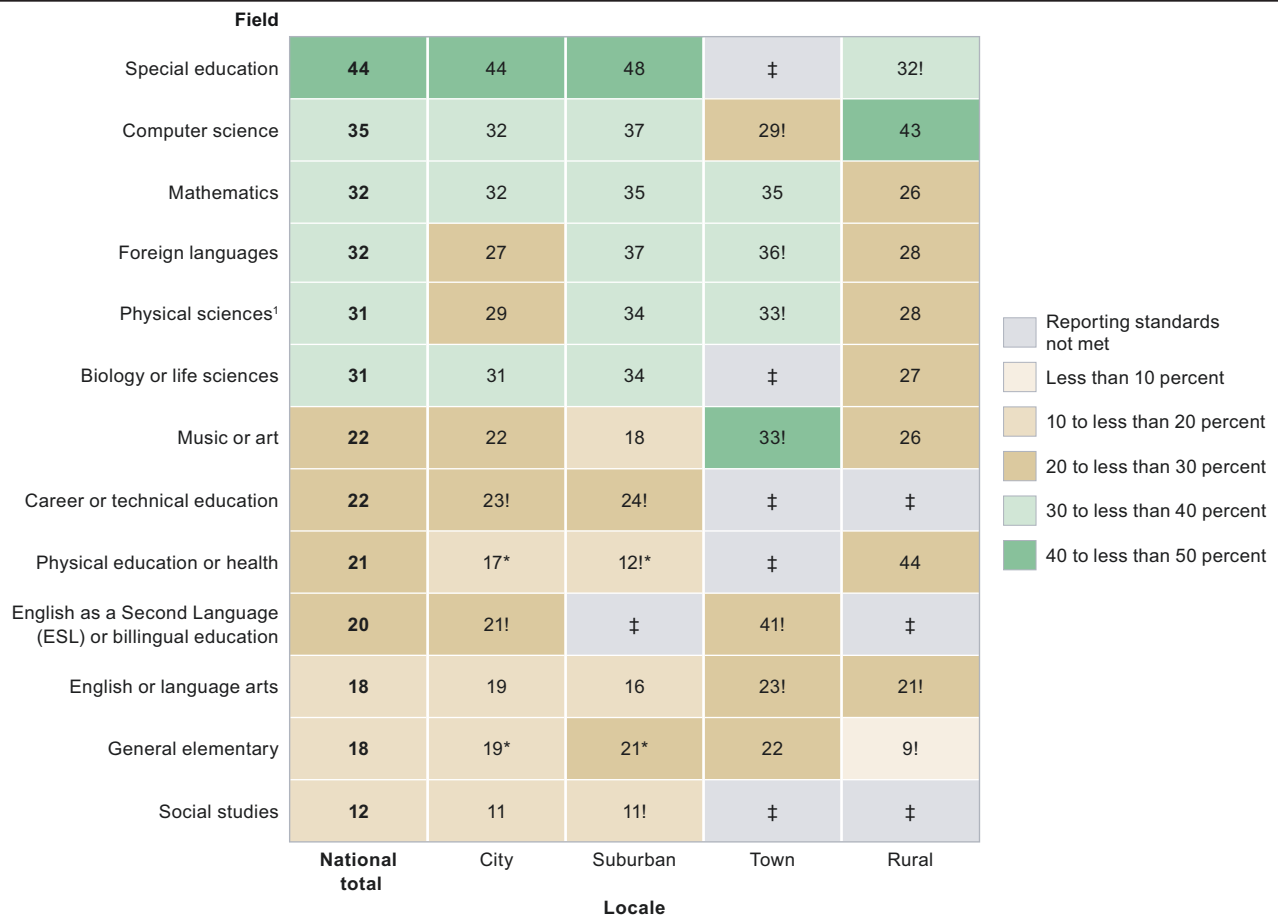
NOTE: For each teaching field, estimates are reported for schools that offered a teaching position in that field and were hiring for at least one open teaching position in that field in the 2020–21 school year. Although rounded numbers are displayed, each cell's fill gradient (i.e., the degree of blue that is displayed) is based on unrounded data. SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Principal and Private School Principal Data Files," 2020–21, *Characteristics of Public and Private Elementary and Secondary School Teachers in the United States: Results From the 2020–21 National Teacher and Principal Survey First Look*, table 7.

In 2020-21, rural public schools, similar to public schools at a national level, experienced difficulty hiring for teaching positions in a variety of fields. In 2020-21, more than 30 percent⁴ of public schools in rural areas that had teaching vacancies in specific fields found it very difficult to fill or were not able to fill vacancies in the following four fields:⁵ foreign languages (57 percent), special education (41 percent), physical sciences⁶ (38 percent), and mathematics (35 percent). At the national level, more than 30 percent⁷ of public schools also found it very difficult to fill or were not able to fill vacancies in foreign languages (42 percent), special education (40 percent), or physical sciences (37 percent).

In 2020-21, for some teaching fields, a higher percentage of schools in rural areas than of schools in cities and suburban areas found it very difficult or not possible to fill teaching vacancies in specific fields. Of public schools that had teaching vacancies, a higher percentage of public schools in rural areas than of those in suburban areas

or cities found it very difficult to fill or were not able to fill those vacancies in the following three fields: foreign languages, English or language arts, and social studies. For example, 57 percent of public schools in rural areas found it very difficult to fill or were not able to fill foreign language teaching positions, compared with 37 percent of public schools in suburban areas and 36 percent in cities. In addition, a higher percentage of public schools in rural areas than of those in suburban areas found it very difficult to fill or were not able to fill teaching vacancies in the following four fields: mathematics (35 vs. 27 percent), biology or life sciences (35 vs. 26 percent), music or art (28 vs. 18 percent), and physical education or health (15 vs. 9 percent). The percentage of public schools in towns that found it very difficult to fill or were not able to fill teaching vacancies was not measurably different from the percentage in rural areas in 2020-21 for any field, with the exception of physical sciences (53 percent for towns vs. 38 percent for rural areas).

Figure 2. Of schools that had teaching vacancies in a specific field for the current school year, percentage of private schools that found it very difficult to fill or were not able to fill teaching vacancies, by school locale and teaching field: School year 2020–21



! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

‡ Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater (i.e., the standard error is 50 percent or more of the estimate).

*Significantly different from rural areas ($p < .05$).

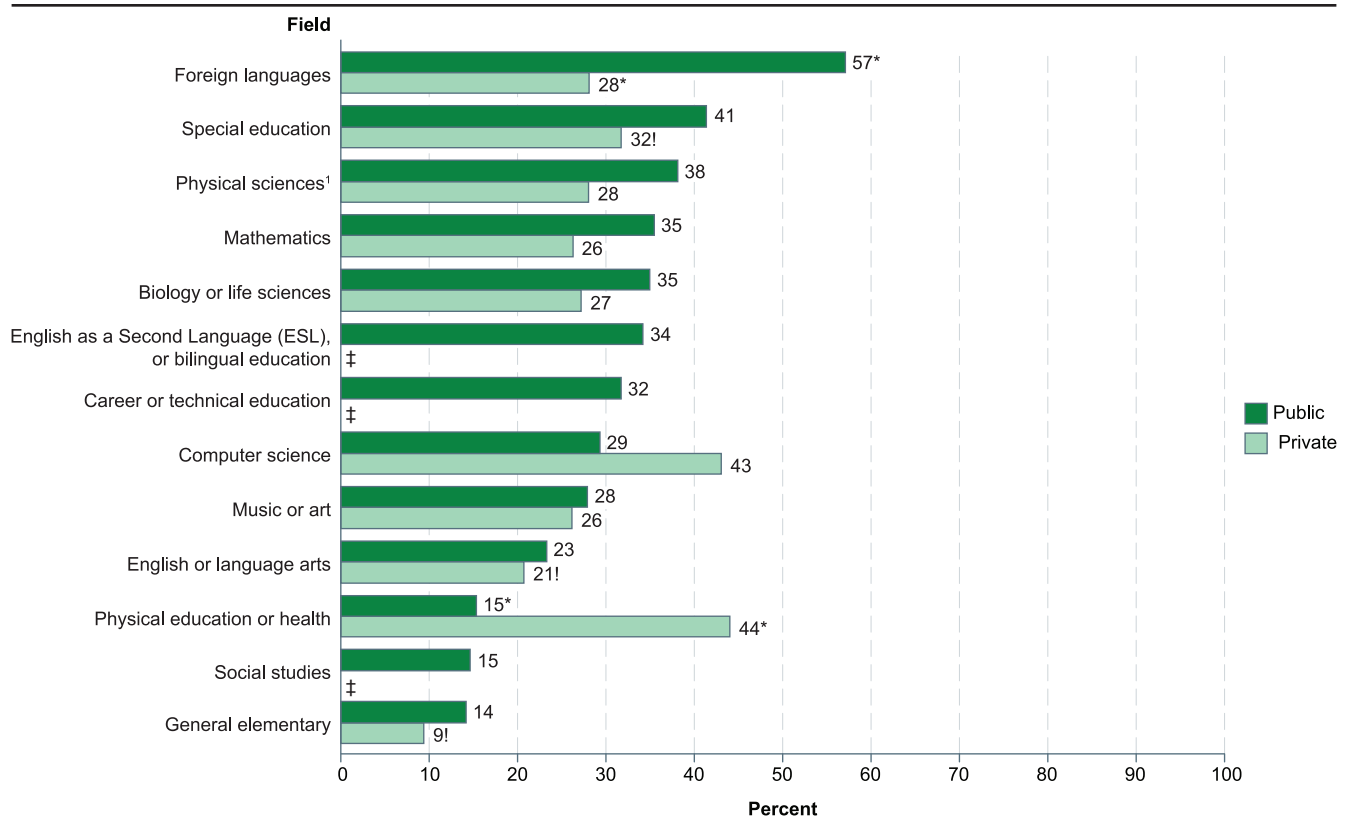
¹ Physical sciences includes chemistry, physics and earth science.

NOTE: For each teaching field, estimates are reported for schools that offered a teaching position in that field and were hiring for at least one open teaching position in that field in the 2020–21 school year. Although rounded numbers are displayed, each cell's fill gradient (i.e., the degree of blue that is displayed) is based on unrounded data. SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Principal and Private School Principal Data Files," 2020–21, and *Characteristics of Public and Private Elementary and Secondary School Teachers in the United States: Results From the 2020–21 National Teacher and Principal Survey First Look*, table 7.

Hiring difficulties across different fields were also reported in private schools. In 2020-21, more than 20 percent⁸ of private schools in rural areas that had teaching vacancies in specific fields found it very difficult to fill or were not able to fill vacancies in the physical education or health (44 percent) field.⁹ Nationally, more than 20 percent of private schools with teaching vacancies found it challenging to fill positions in the following six fields: special education (44 percent), computer science (35 percent), mathematics (32 percent), foreign languages (32 percent), physical sciences (31 percent), and biology or life sciences (31 percent).

As a general pattern across different fields in 2020-21, there were few measurable differences between private schools in rural areas and private schools in other locales in the percentages of schools that found it very difficult to fill or were not able to fill vacancies. The only exceptions were those vacancies in physical education or health and general elementary. Some 44 percent of private schools in rural areas found it very difficult to fill or were not able to fill vacancies in physical education or health, compared with 17 percent in cities and 12 percent in suburban areas. In contrast, some 9 percent of private schools in rural areas found it very difficult to fill or were not able to fill general elementary vacancies, compared with 19 percent in cities and 21 percent in suburban areas.

Figure 3. Of schools that had teaching vacancies in a specific field for the current school year, percentage of schools in rural areas that found it very difficult to fill or were not able to fill those teaching vacancies, by school type and teaching field: School year 2020–21



! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

‡ Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater (i.e., the standard error is 50 percent or more of the estimate).

*Significant difference between public schools and private schools in rural areas ($p < .05$).

¹ Physical sciences includes chemistry, physics, and earth science.

NOTE: For each teaching field, estimates are reported for schools that offered a teaching position in that field and were hiring for at least one open teaching position in that field in the 2020–21 school year. Although rounded numbers are displayed, the figures are based on unrounded data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), “Public School Principal and Private School Principal Data Files,” 2020–21, and *Characteristics of Public and Private Elementary and Secondary School Teachers in the United States: Results From the 2020–21 National Teacher and Principal Survey First Look*, table 7.

In many fields, public and private schools in rural areas both experienced hiring challenges, though there were some fields for which the percentage of each type of school reporting difficulty differed. In rural areas, a higher percentage of public schools (57 percent) than of private schools (28 percent) found it very difficult to fill or were not able to fill vacancies in foreign languages. In

contrast, 15 percent of public rural schools found it very difficult to fill or were not able to fill vacancies in physical education or health, compared with 44 percent of private rural schools. There were no other fields in which there were measurable differences in the percentages of private schools versus public schools that found it very difficult to fill or were not able to fill vacancies.

Endnotes:

¹ Sutchter, L., Darling-Hammond, L., and Carver-Thomas, D. (2019). Understanding Teacher Shortages: An Analysis of Teacher Supply and Demand in the United States. *Education Policy Analysis Archives*, 27(35). Retrieved September 29, 2022, from <https://epaa.asu.edu/index.php/epaa/article/view/3696>.

² Please visit National Center for Education Statistics (NCES) *Education Across America* website for the definition of locale.

³ For each teaching field discussed in this indicator, the estimates are reported for schools that offered a teaching position in that field and were hiring for at least one open teaching position in that field in the 2020-21 school year.

⁴ The 30 percent threshold was chosen to simplify the description and comparison of staffing difficulties across various subjects in rural public schools.

⁵ The percentage for biology or life sciences (35 percent), English as a Second Language (ESL) or bilingual education (34 percent),

career or technical education (32 percent), computer science (29 percent), and music or art (28 percent) were not measurably different from 30 percent.

⁶ Physical sciences include chemistry, physics, and earth science.

⁷ For mathematics, the percentage at the national level (32 percent) was not measurably different from 30 percent.

⁸ The 20 percent threshold was chosen to simplify the description and comparison of staffing difficulties across various subjects in rural private schools.

⁹ The percentage for computer science (43 percent), special education (32 percent), foreign languages (28 percent), physical sciences (28 percent), biology or life sciences (27 percent), mathematics (26 percent), music or art (26 percent), and English or language arts (21 percent) were not measurably different from 20 percent.

Reference table: *Characteristics of 2020-21 Public and Private K-12 Schools in the United States: Results From the National Teacher and Principal Survey*

Related Indicators/Resources: **Data sources:** *Characteristics of Public School Teachers; Teacher Turnover: Stayers, Movers, and Leavers*

Glossary: *Locale codes; Private school; Public school or institution*