

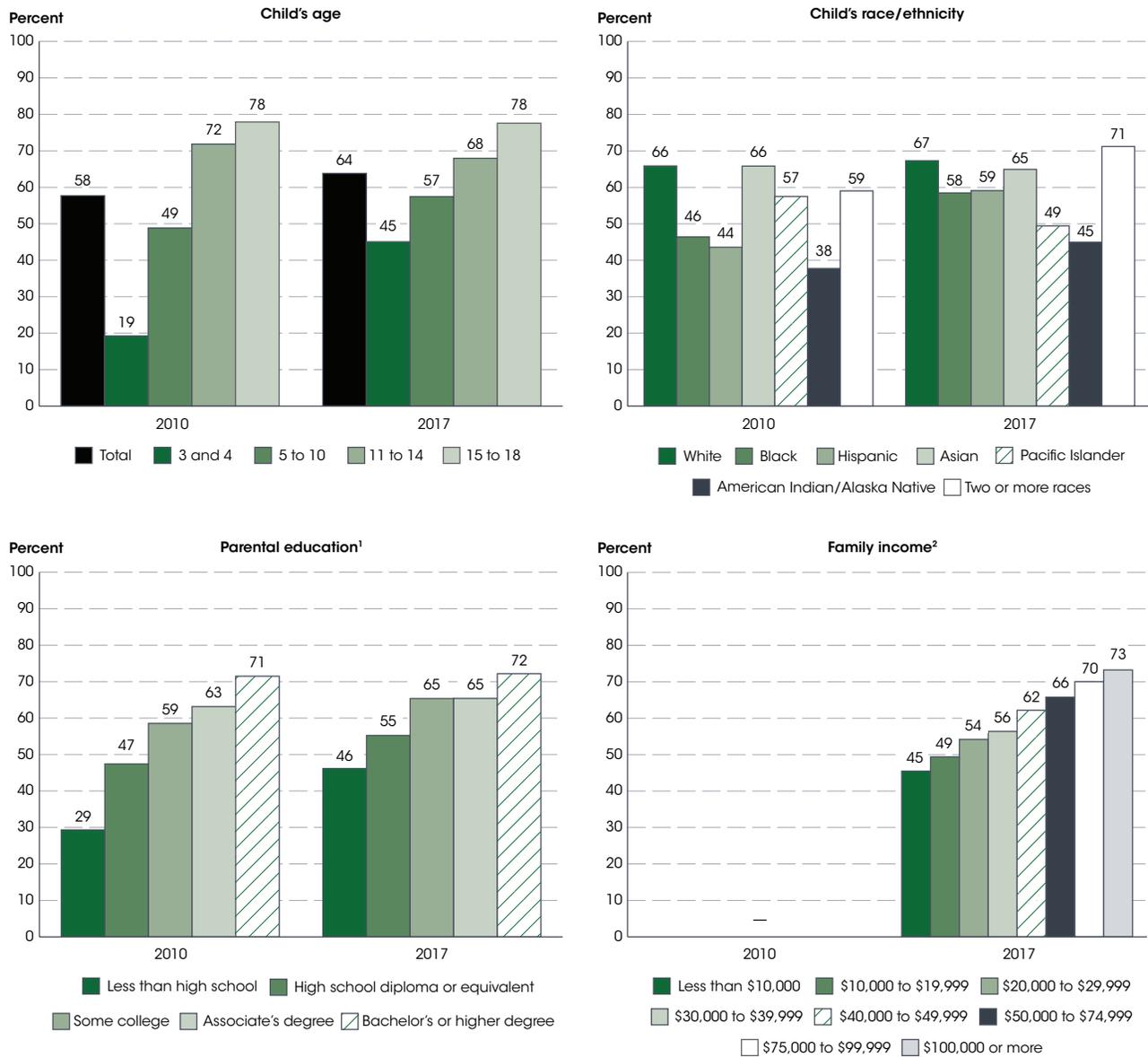
## Children's Access to and Use of the Internet

*The percentage of children ages 3 to 18 who had no internet access at home was lower in 2017 (14 percent) than in 2010 (21 percent). Among those who did not have home internet access in 2017, the two most commonly cited main reasons were that the family did not need it or was not interested in having it (43 percent) and that it was too expensive (34 percent).*

This indicator describes the percentage of children between the ages of 3 and 18 who used the Internet from home in 2017 and the percentage of children with no internet access at home, as well as changes from the

corresponding percentages in 2010. This indicator also describes the prevalence of different types of internet access at home, and the main reasons reported for not having access in 2017.<sup>1</sup>

**Figure 1. Percentage of children ages 3 to 18 who used the Internet from home, by selected child and family characteristics: 2010 and 2017**



— Not available.

<sup>1</sup> Highest education level of any parent residing with the child (including an adoptive or stepparent). Includes only children who resided with at least one of their parents. High school completion includes those persons who graduated from high school with a diploma as well as those who completed high school through equivalency programs, such as a GED program.

<sup>2</sup> In current dollars.

NOTE: Race categories exclude persons of Hispanic ethnicity. Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons in the military and persons living in institutions (e.g., prisons or nursing facilities). Data for 2017 were collected in the November supplement to the Current Population Survey (CPS), while data for 2010 were collected in the October supplement. The November supplement consists solely of questions about computer and internet use. The October supplement focuses on school enrollment, although it also included questions about computer and internet use. Measurable differences in estimates across years could reflect actual changes in the population; however, differences could also reflect seasonal variations in data collection or differences between the content of the November and October supplements. Therefore, caution should be used when making year-to-year comparisons. Although rounded numbers are displayed, the figures are based on unrounded data.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October 2010 and November 2017. See *Digest of Education Statistics 2018*, table 702.15.

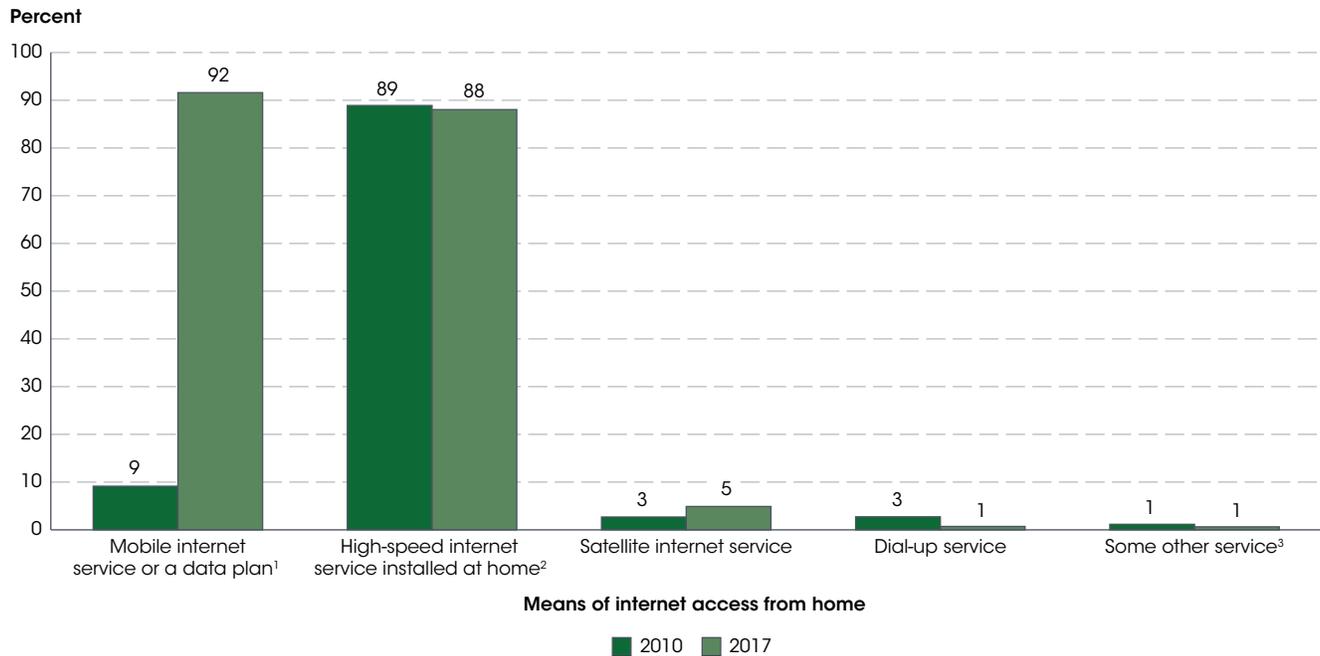
In 2017, the percentage of all children using the Internet from home was highest among 15- to 18-year-olds (78 percent), followed by 11- to 14-year-olds (68 percent), 5- to 10-year-olds (57 percent), and 3- and 4-year-olds (45 percent). A higher percentage of children used the Internet at home in 2017 than in 2010 (64 vs. 58 percent). However, this pattern was not consistently observed for children from different age groups. During this period, the percentage of children using the Internet from home was higher in 2017 than in 2010 for children ages 3 and 4 (45 vs. 19 percent) and ages 5 to 10 (57 vs. 49 percent); in contrast, the percentage was lower in 2017 than in 2010 for children ages 11 to 14 (68 vs. 72 percent). For 15- to 18-year-olds, the percentages were not measurably different between 2010 and 2017 (78 percent in both years).

In 2017, higher percentages of children who were of Two or more races (71 percent), White (67 percent), and Asian (65 percent) used the Internet from home than did Hispanic (59 percent), Black (58 percent), and American Indian/Alaska Native (45 percent) children. The percentages of children using the Internet from home were higher for those who were of Two or more races and those who were White than for those who were Pacific Islander (49 percent). The percentage of children using the Internet from home was higher in 2017 than in 2010 for Black children (58 vs. 46 percent), Hispanic children (59 vs. 44 percent), and children of Two or more races (71 vs. 59 percent), but the 2017 and 2010 percentages for children of other racial/ethnic groups were not measurably different from each other. As a result, the White-Black and White-Hispanic gaps in home internet use was smaller in 2017 than in 2010. The White-Black gap was 10 percentage point in 2017, compared with 19 percentage points in 2010; and the White-Hispanic gap was 8 percentage points in 2017, compared with 22 percentage points in 2010.

In general, the percentage of children ages 3 to 18 using the Internet from home was higher for children whose parents had attained higher levels of education. For instance, 72 percent of children whose parents had attained a bachelor's or higher degree used the Internet from home in 2017, compared with 55 percent of children whose parents had completed high school only and 46 percent of children whose parents had not completed high school.<sup>2</sup> The percentage of children using the Internet from home was higher in 2017 than in 2010 for children whose parents had not completed high school (46 vs. 29 percent), for those whose parents had completed high school only (55 vs. 47 percent), and for those whose parents had some college education (65 vs. 59 percent); however, for those whose parents had attained an associate's degree and those whose parents had a bachelor's or higher degree, the percentages in 2017 and 2010 were not measurably different from each other. Consequently, from 2010 to 2017, the gap in home internet use between children whose parents had attained a bachelor's or higher degree and children whose parents had not completed high school was smaller in 2017 (26 percentage points) than in 2010 (42 percentage points). The gap between children whose parents had a bachelor's or higher degree and children whose parents had completed high school only was also smaller in 2017 (17 percentage points) than in 2010 (24 percentage points).

The percentage of children ages 3 to 18 using the Internet from home was generally higher for children in higher income families. In 2017, about 73 percent of children with family incomes of \$100,000 or more and 70 percent of children with family incomes of \$75,000 to \$99,999 used the Internet from home, compared with 49 percent of children with family incomes of \$10,000 to \$19,999 and 45 percent of children with family incomes of less than \$10,000. Comparable time series data on home internet use by family income was unavailable.

**Figure 2. Of home internet users ages 3 to 18, percentage who used various means of internet access: 2010 and 2017**



<sup>1</sup> Includes data plan for a cellular phone, smartphone, tablet, laptop, or other device.

<sup>2</sup> Includes cable, DSL, or fiber-optic service.

<sup>3</sup> Respondents were asked whether they accessed the Internet at home using “some other service.” Examples of other services were not provided to respondents.

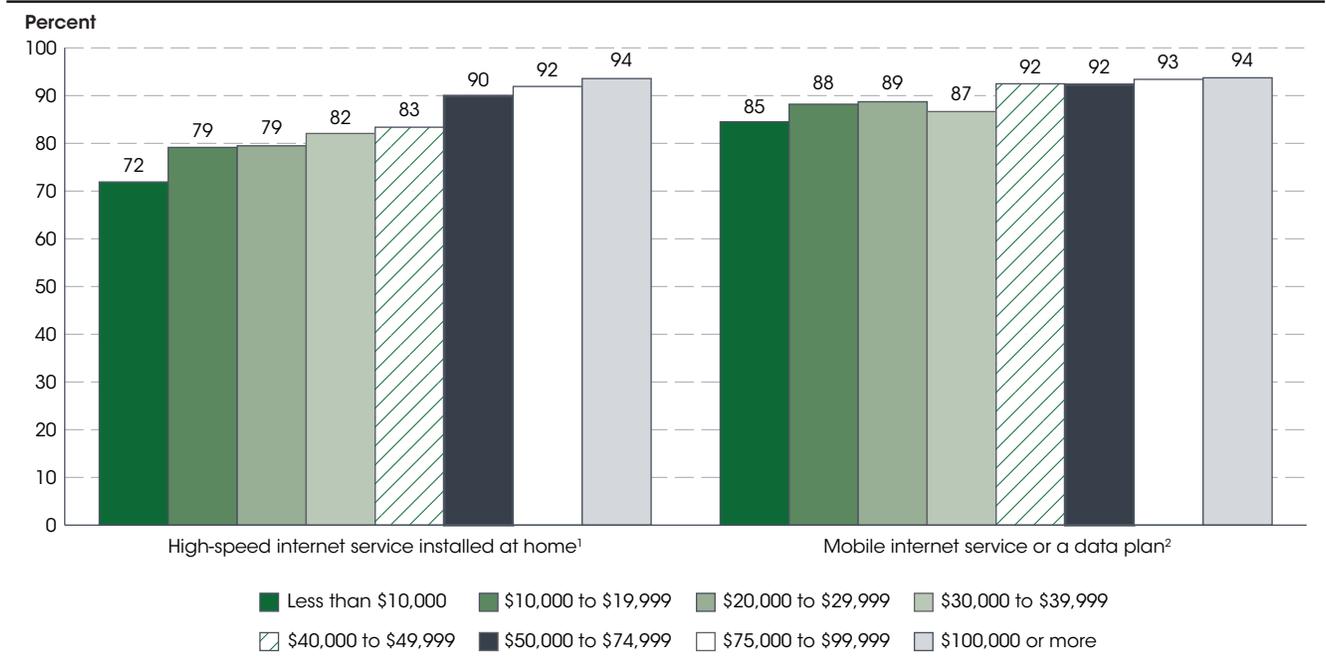
NOTE: Includes only persons who use the Internet from home. The different types of internet access may sum to more than 100 percent because a single home internet user can have more than one type of access (e.g., high-speed internet service plus a mobile phone data plan). Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons in the military and persons living in institutions (e.g., prisons or nursing facilities). Data for 2010 were collected in the October supplement to the Current Population Survey (CPS), while data for 2017 were collected in the November supplement. The November supplement consists solely of questions about computer and internet use. The October supplement focuses on school enrollment, but also included questions about computer and internet use in 2010. Measurable differences in estimates across years could reflect actual changes in the population; however, differences could also reflect seasonal variations in data collection or differences between the content of the October and November supplements. Therefore, caution should be used when making year-to-year comparisons. Although rounded numbers are displayed, the figures are based on unrounded data.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October 2010 and November 2017. See *Digest of Education Statistics 2018*, table 702.35.

Children have different types of internet access at home. In 2017, the two most common means of internet access for children ages 3 to 18 who used the Internet at home were a mobile internet service or a data plan, including a data plan for a cellular phone, smartphone, tablet, laptop, or other device (92 percent), and a high-speed internet service installed at home, including cable, DSL, and fiber-optic service (88 percent).<sup>3</sup> Other means of internet access were satellite internet service (5 percent), dial-up

service (1 percent), or some other service<sup>4</sup> (1 percent). The percentage of children who accessed the Internet at home via a mobile internet service or a data plan was higher in 2017 (92 percent) than in 2010 (9 percent), while the percentages of children who accessed the Internet through a high-speed internet service installed at home in 2010 and in 2017 were not measurably different from each other (89 vs. 88 percent).

**Figure 3. Of home internet users ages 3 to 18, percentage who used selected means of internet access, by family income: 2017**



<sup>1</sup> Includes cable, DSL, or fiber-optic service.

<sup>2</sup> Includes data plan for a cellular phone, smartphone, tablet, laptop, or other device.

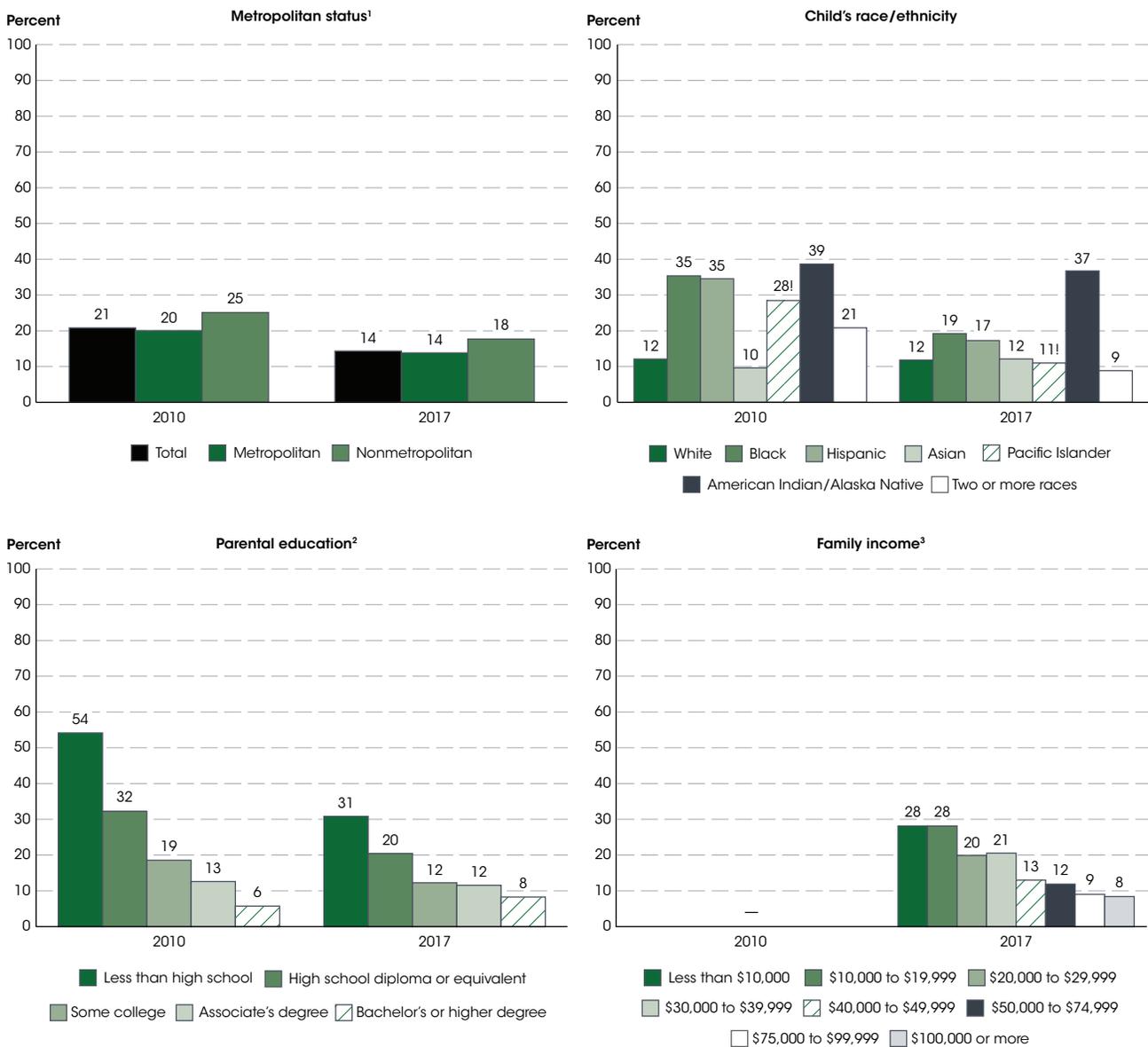
NOTE: Includes only persons who use the Internet from home. The different types of internet access may sum to more than 100 percent because a single home internet user can have more than one type of access (e.g., high-speed internet service plus a mobile phone data plan). Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons in the military and persons living in institutions (e.g., prisons or nursing facilities). Family income is in current dollars. Although rounded numbers are displayed, the figures are based on unrounded data.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), November 2017. See *Digest of Education Statistics 2018*, table 702.35.

In 2017, the percentage of children ages 3 to 18 using the Internet at home who accessed it through a high-speed internet service installed at home varied by child and family characteristics. The percentage of children using the Internet at home who accessed it through a high-speed internet service installed at home was generally higher for children whose parents had attained higher levels of education and for children in families with higher incomes. For example, the percentage was 94 percent for children with family incomes of \$100,000 or more, 92 percent for those with family incomes of \$75,000 to \$99,999, and 90 percent for those with family incomes of \$50,000 to \$74,999, compared with percentages ranging from 72 percent to 83 percent for those with family income levels of less than \$50,000. In addition, the percentage was highest for children whose parents had a bachelor’s or higher degree (93 percent) and lowest for those whose parents had not completed high school (73 percent).

Fewer differences by child and family characteristics were observed in the percentages of children who accessed the Internet at home via a mobile internet service or a data plan in 2017. For example, the percentages of those accessing the Internet at home through a mobile internet service or through a data plan were not measurably different between children with family incomes of \$100,000 or more (94 percent) and those with family incomes of \$50,000 to \$74,999 and of \$40,000 to \$49,999 (92 percent each), while the percentage of children accessing the Internet at home through a high-speed internet service was higher for children with family incomes of \$100,000 or more (94 percent) than for those with family incomes of \$50,000 to \$74,999 (90 percent) and of \$40,000 to \$49,999 (83 percent).

**Figure 4. Percentage of children ages 3 to 18 with no internet access at home, by selected child and family characteristics: 2010 and 2017**



— Not available.

<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

<sup>1</sup> Metropolitan area refers to metropolitan statistical areas, which contain at least one urbanized area with a population of 50,000 or more. Nonmetropolitan area refers to areas that are outside of metropolitan statistical areas. Persons living in areas whose metropolitan status was not identified are excluded from this analysis. In 2010 and 2017, less than 1 percent of persons lived in an area with nonidentified metropolitan status.

<sup>2</sup> Highest education level of any parent residing with the child (including an adoptive or stepparent). Includes only children who resided with at least one of their parents. High school completion includes those persons who graduated from high school with a diploma as well as those who completed high school through equivalency programs, such as a GED program.

<sup>3</sup> In current dollars.

NOTE: Race categories exclude persons of Hispanic ethnicity. Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons in the military and persons living in institutions (e.g., prisons or nursing facilities). Data for 2017 were collected in the November supplement to the Current Population Survey (CPS), while data for 2010 were collected in the October supplement. The November supplement consists solely of questions about computer and internet use. The October supplement focuses on school enrollment, although it also included questions about computer and internet use. Measurable differences in estimates across years could reflect actual changes in the population; however, differences could also reflect seasonal variations in data collection or differences between the content of the November and October supplements. Therefore, caution should be used when making year-to-year comparisons. Although rounded numbers are displayed, the figures are based on unrounded data.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October 2010 and November 2017. See *Digest of Education Statistics 2018*, table 702.40.

In 2017, the percentage of children ages 3 to 18 with no internet access at home was higher for children in nonmetropolitan areas (18 percent) than for children in metropolitan areas (14 percent). In addition, the percentage of children who had no internet access at home was lower in 2017 than in 2010 (14 vs. 21 percent), a pattern that was observed for both children in metropolitan areas and children in nonmetropolitan areas.<sup>5</sup>

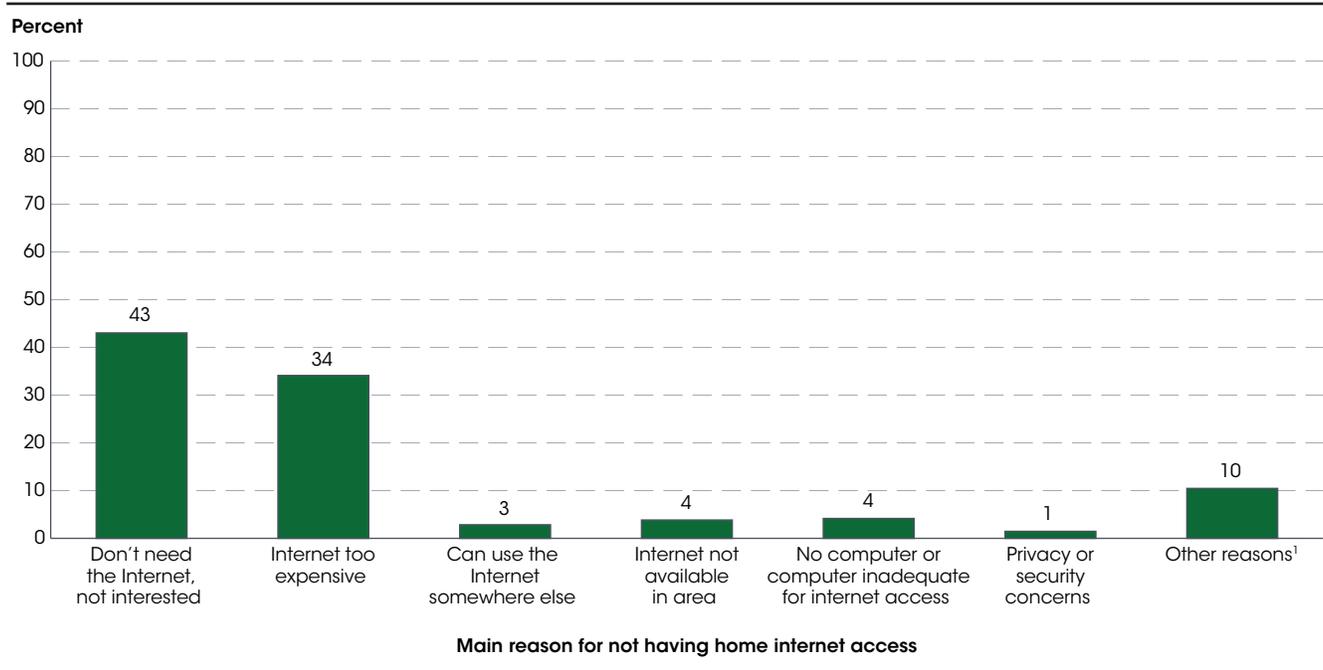
In 2017, the percentage of children ages 3 to 18 with no internet access at home was higher for American Indian/Alaska Native children (37 percent) than for children of any other racial/ethnic groups. The percentages were also higher for Black children (19 percent) and Hispanic children (17 percent) than for Asian and White children (both at 12 percent), and children of Two or more races (9 percent). The percentage of children with no internet access at home was lower in 2017 than in 2010 for Black children (19 vs. 35 percent), Hispanic children (17 vs. 35 percent), and children of Two or more races (9 vs. 21 percent), but it did not measurably differ between 2010 and 2017 for children of other racial/ethnic groups. As a result, the White-Black and White-Hispanic gaps for children with no internet access was smaller in 2017 than in 2010. The White-Black gap was 7 percentage points in 2017, compared with 23 percentage points in 2010; and the White-Hispanic gap was 5 percentage points in 2017, compared with 22 percentage points in 2010.

In general, the percentage of children ages 3 to 18 with no internet access at home was higher for children whose parents had lower levels of educational attainment in

2017. For instance, the percentage of children ages 3 to 18 with no internet access at home was highest for children whose parents had not completed high school (31 percent) and lowest for children whose parents had attained a bachelor's or higher degree (8 percent). The percentage of children with no internet access at home was lower in 2017 than in 2010 for those whose parents had not completed high school (31 vs. 54 percent), those whose parents had completed high school (20 vs. 32 percent), and those whose parents had some college education (12 vs. 19 percent). In contrast, among children whose parents had attained a bachelor's or higher degree, the percentage with no home internet access was higher in 2017 than in 2010 (8 vs. 6 percent). Consequently, the gap in home internet access between those whose parents had attained a bachelor's or higher degree and those whose parents had not completed high school was smaller in 2017 (23 percentage points) than in 2010 (48 percentage points). Additionally, the gap in home internet access between children whose parents had a bachelor's or higher degree and those whose parents had completed only high school was smaller in 2017 (12 percentage points) than in 2010 (27 percentage points).

The percentage of children ages 3 to 18 with no internet access at home was also generally higher for children with lower family income levels. In 2017, about 28 percent of children with family incomes of less than \$20,000 had no internet access at home, compared with 8 percent of children with family incomes of \$100,000 or more. Comparable time series data on no internet access at home by family income was unavailable.

**Figure 5. Percentage distribution of children ages 3 to 18 with no internet access at home, by main reason for not having access: 2017**

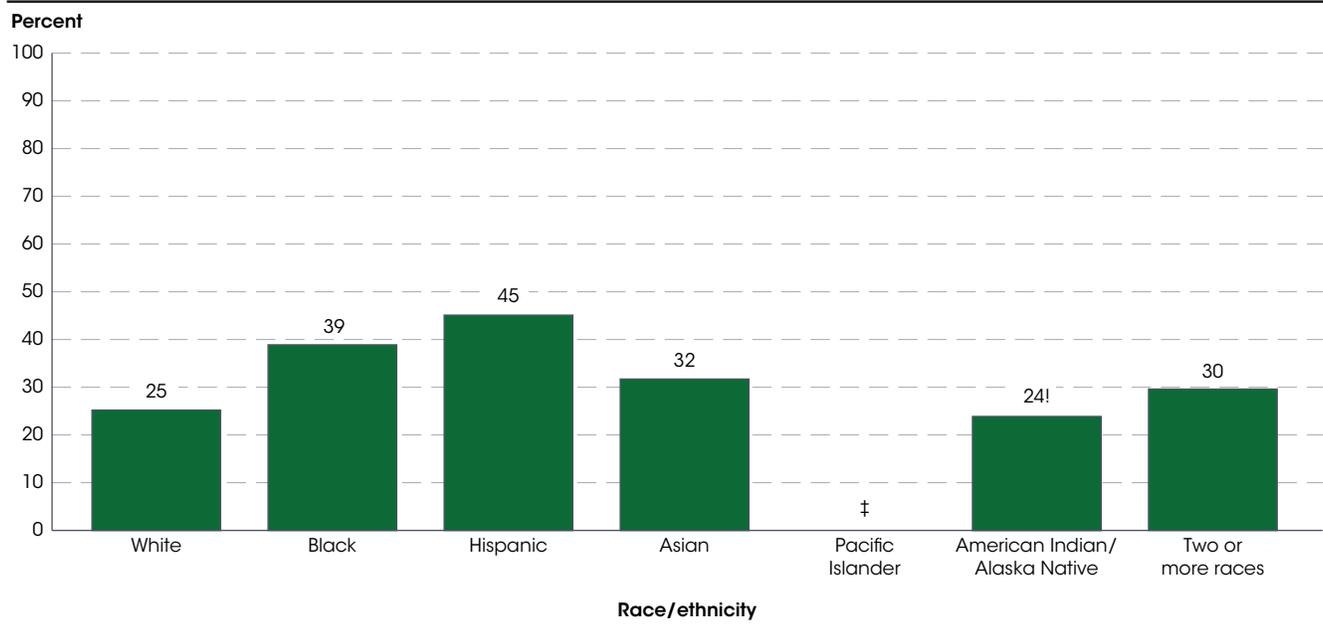


<sup>1</sup> Respondents could specify “other” reasons. Examples of other reasons were not provided to respondents.  
 NOTE: Includes only children living in homes with no internet access. Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons in the military and persons living in institutions (e.g., prisons or nursing facilities). The survey respondent usually is the person who either owns or rents the housing unit. Detail may not sum to totals because of rounding. Although rounded numbers are displayed, the figures are based on unrounded data.  
 SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), November 2017. See *Digest of Education Statistics 2018*, table 702.40.

In 2017, the two most commonly cited main reasons that children ages 3 to 18 did not have home internet access were that the family did not need it or was not interested in having it (43 percent) and that it was too expensive (34 percent). Other main reasons cited for not having home internet access included the following: the home

either had no computer or had a computer inadequate for internet use (4 percent), internet service was not available in the area (4 percent), the Internet could be used somewhere else (3 percent), and the existence of privacy or security concerns (1 percent).<sup>6</sup>

**Figure 6. Percentage of children ages 3 to 18 with no internet access at home whose main reason for not having home internet access was that it was too expensive, by race/ethnicity: 2017**



! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

‡ Reporting standards not met. Either there are too few cases for a reliable estimate or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Race categories exclude persons of Hispanic ethnicity. Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons in the military and persons living in institutions (e.g., prisons or nursing facilities).

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), November 2017. See *Digest of Education Statistics 2018*, table 702.40.

In 2017, the percentage of children ages 3 to 18 whose main barrier to home internet access was that it was too expensive was higher for Hispanic children (45 percent) than for children of Two or more races (30 percent), White children (25 percent), and American Indian/Alaska Native children (24 percent). The percentage was also higher for Black children (39 percent) than for White children. In addition, the percentage of children whose main barrier to home internet access was that it was too expensive was higher for children whose parents had not completed high school (46 percent) and for those whose parents had completed high school only (39 percent)

than for children whose parents had attained a bachelor’s or higher degree (25 percent). Similarly, the percentage of children whose main barrier to home internet access was that it was too expensive was higher for children with family income levels of less than \$40,000 than for children with family income levels of \$50,000 or more. The percentage of children ages 3 to 18 whose main barrier to home internet access was that it was not available in their area was higher for American Indian/Alaska Native children (30 percent) than for White children (5 percent), Black children (3 percent), and Hispanic children (1 percent).<sup>7</sup>

**Endnotes:**

<sup>1</sup> Data come from the Current Population Survey (CPS), a household survey. The survey respondent usually is the person who either owns or rents the housing unit. Data for 2017 were collected in the November supplement to the CPS, while data for 2010 were collected in the October supplement. Measurable differences in estimates across years could reflect actual changes in the population; however, differences could also reflect seasonal variations in data collection or differences between the content of the November and October supplements. Therefore, caution should be used when making year-to-year comparisons.

<sup>2</sup> High school completion includes those who graduated from high school with a diploma as well as those who completed high school through equivalency programs, such as a GED program.

<sup>3</sup> The different types of internet access may sum to more than 100 percent because a single home internet user can have more than one type of access (e.g., high-speed internet service plus a mobile phone data plan).

<sup>4</sup> Respondents were asked whether they accessed the Internet at home using "some other service." Examples of other services were not provided to respondents.

<sup>5</sup> The percentage of children with no internet access and the percentage who used the Internet at home do not sum to 100 percent, because there are some children who do not use the Internet at home, even though they have access to the Internet at home.

<sup>6</sup> Comparisons to 2010 regarding the main reason for not having access were not made, because of differences in the question wording and the exclusion of privacy or security concerns as a response option in the 2010 survey.

<sup>7</sup> Estimates of the percentage of children ages 3 to 18 whose main barrier to home internet access was that it was not available in their area were not included for Asian children, Pacific Islander children, and children of Two or more races because reporting standards were not met.

**Reference tables:** *Digest of Education Statistics 2018*, tables 702.15, 702.35, and 702.40

**Related indicators and resources:** *Student Access to Digital Learning Resources Outside of the Classroom*; *Technology and Engineering Literacy* [web-only]

**Glossary:** Associate's degree; Bachelor's degree; College; Educational attainment (Current Population Survey); Gap; High school completer; Racial/ethnic group