



Tradeoffs in the expenditure patterns of families with children

By Evan Hubener, Arcenis Rojas, and Neil Tseng

While raising children, families make decisions about how to allocate their budgets to child-related expenses. Some common expenditures that are directly related to children are expenditures on apparel, education, and childcare. Using data from the [Consumer Expenditure Surveys \(CE\) Public-Use Microdata](#) for the years 2012–16, this **Beyond the Numbers** article examines how income and demographics are related to spending and to the tradeoffs that families make when including apparel, education, and childcare in their budgets.

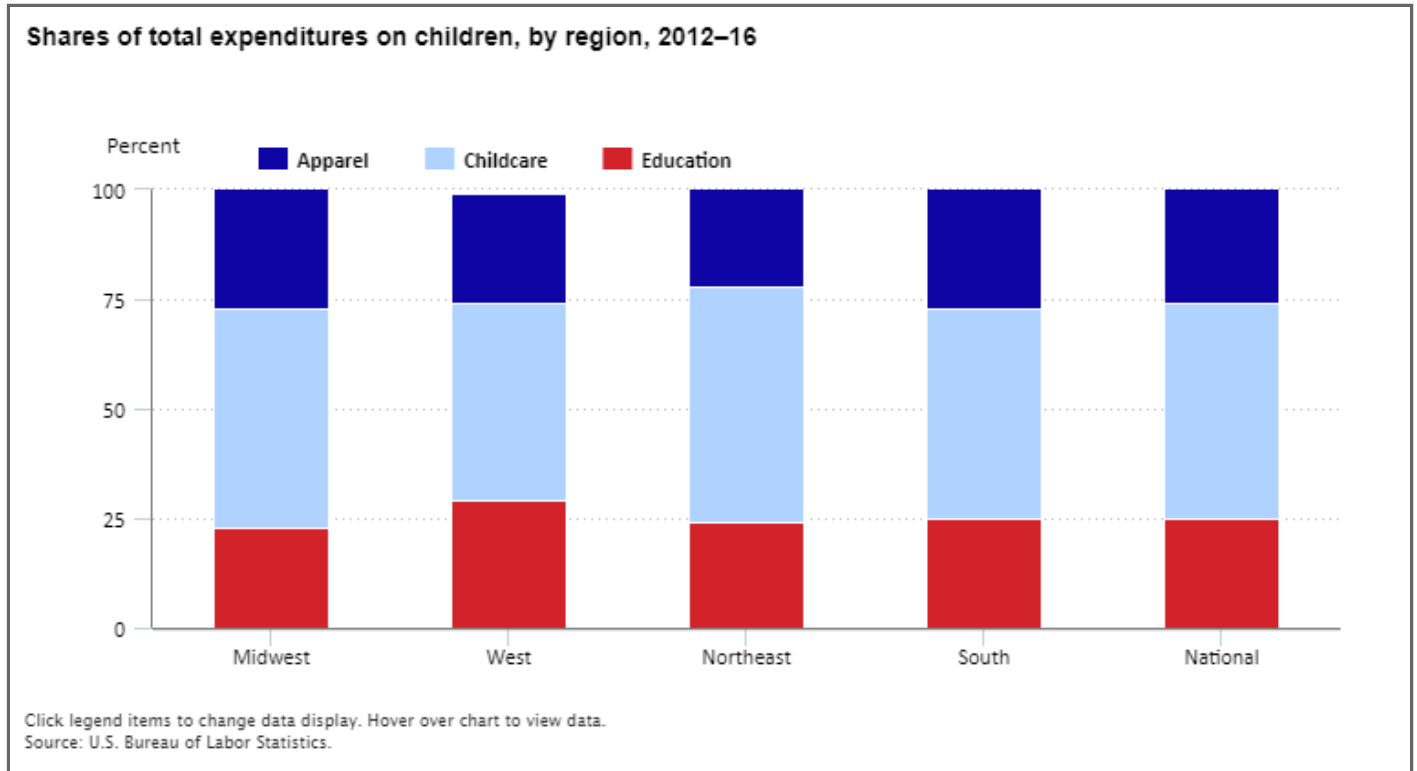
Notes on the analysis

While the categories of apparel, education, and childcare may appear to be self-defining, some items included in these categories may not be obvious. For example, apparel also includes costumes, uniforms, shoes, and accessories. Childcare includes babysitting, daycare, nurseries, and preschools, and education includes tuition, test preparation, tutoring, books, and supplies. In what follows, “expenditures” refers to the sum of expenditures for these three categories and “percent of expenditures” refers to the expenditure in each of the categories as a proportion of “expenditures.” Consumer units¹ (CUs) included in this analysis are those with at least one child in the household who is 17 years or younger, and as a result, the ages of the members of other CUs in the analysis are mostly similar. The education level is that of the reference person² (who is more likely to be a parent) and is not necessarily the highest level of education attained by a given member of a CU. Household size is excluded from the analysis because the analysis is limited to spending proportions, which would not change much with additional household members.

Expenditures by region

In comparing expenditures by geographic regions with national averages, expenditure allocations were found to be reasonably similar over the 2012–16 period. Childcare made up the largest share of the three categories examined, followed by apparel and education. At the national level, for these categories, childcare made up 49 percent of expenditures, apparel was 26 percent of expenditures, and education was 25 percent of expenditures. (See chart 1.) All three categories varied by region, with apparel having the narrowest range: between 23 percent of expenditures in the Northeast and 27 percent of expenditures in the Midwest and the South. Childcare, with the widest range, was between 45 percent of expenditures in the West and 54 percent of expenditures in the Northeast. Education expenditures ranged from 23 percent of expenditures in the Midwest to 29 percent of expenditures in the West.

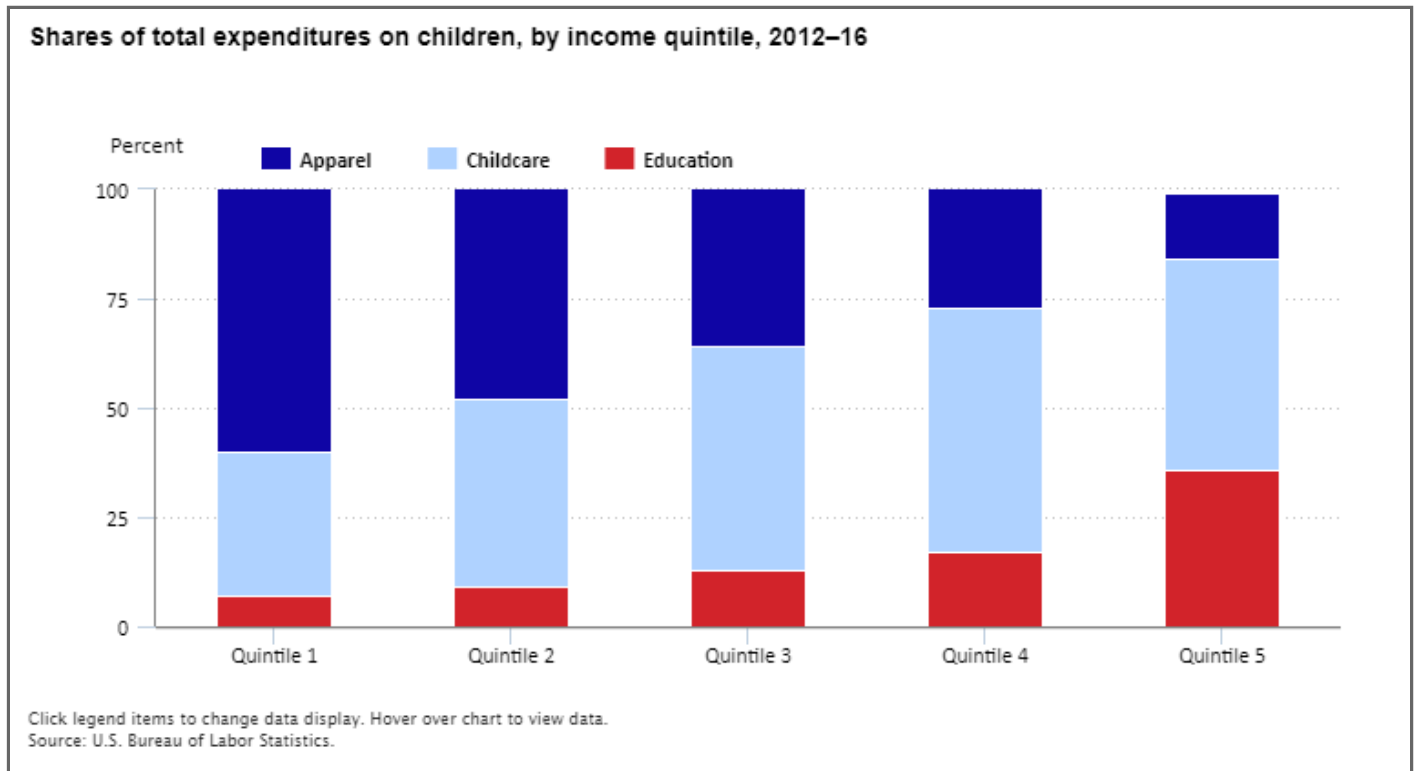
Chart 1



Expenditures by income

Differences in the proportions of expenditures become more striking when examining CUs by income quintile. (See chart 2.) As the income quintile rose, expenditure shares spent on education and, to a lesser extent, childcare increased, while the share spent on apparel decreased.

Chart 2



Education

Looking more closely at education expenses revealed that increases were modest for the lowest four quintiles; for example, the spread from the lowest (quintile 1) to the fourth quintile was 10 percentage points, from 7 percent to 17 percent. However, the percentage of the expenditure share increased from the fourth quintile to the fifth quintile by almost 20 percentage points, from 17 percent of expenditures to 36 percent of expenditures.

Part of the reason that education expenditures increased as a percentage of expenditure share is because CE data capture mostly what would be considered supplementary or discretionary education. For parents whose children attend public schools, education is paid for largely indirectly through taxes, and those in the lower income ranges are less able to provide supplementary education, including test preparation, private schooling, and tutoring. As income increased, the ability to supplement education also increased, and that spending was reflected in the education expenditure share.

Apparel

While varying widely, decreases in the shares for apparel expenditures were more linear than the increases in the shares for education spending. For the lowest quintile, apparel accounted for 61 percent of expenditures, whereas, for the highest quintile, apparel accounted for 15 percent of expenditures. The second, third, and fourth quintiles spent 48 percent, 36 percent, and 27 percent, respectively, on apparel.

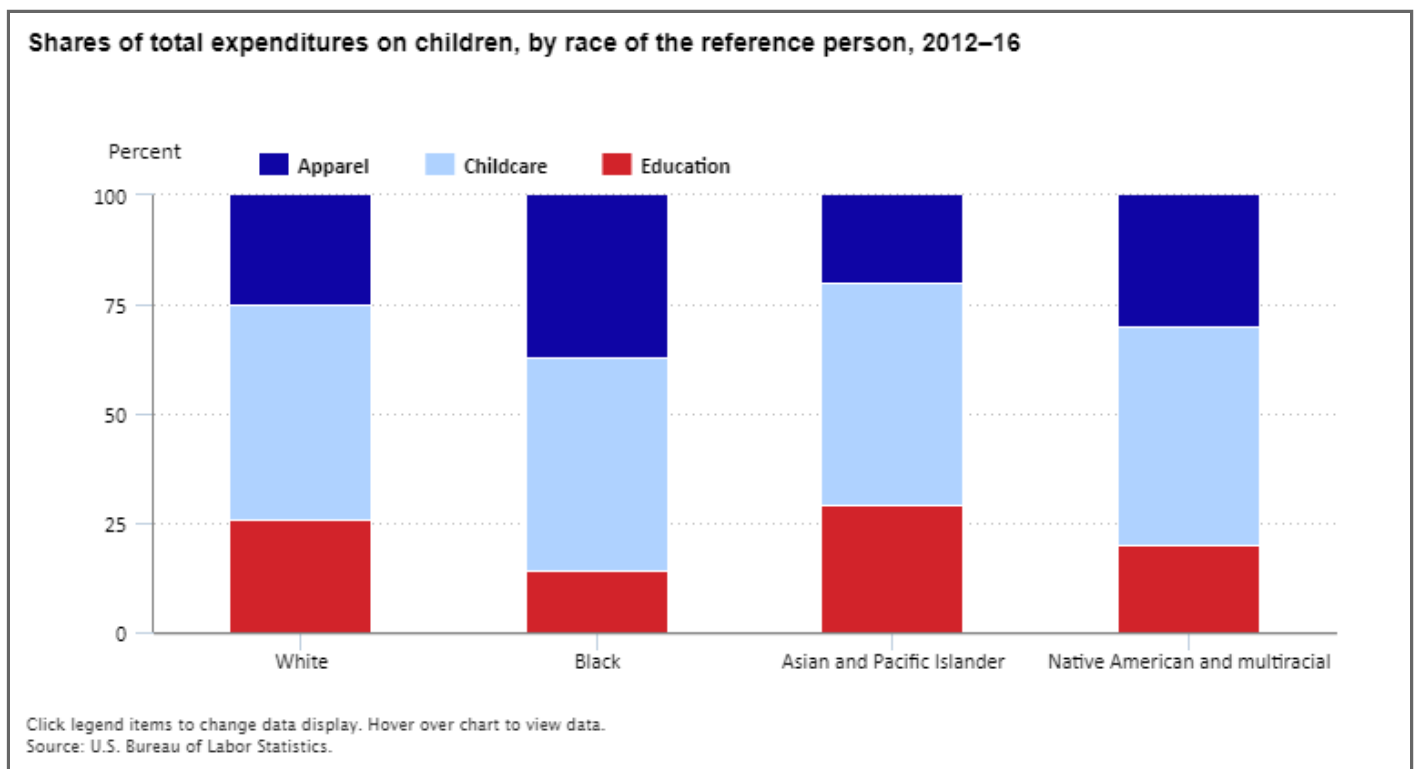
Childcare

Among the three categories of education, apparel, and childcare, the range in expenditure shares across the quintiles was smallest for childcare. The share increased from 33 percent for the first quintile to 51 percent for the third quintile and then rose to 56 percent for the fourth quintile, but dropped to 48 percent for the fifth quintile.

Expenditures by race of the reference person

Examining expenditure shares of CUs by the race of the reference person shows that education and apparel expenditures again were the most variable. (See chart 3.)

Chart 3



Education

Education expenditure shares ranged between 14 percent for Blacks and 29 percent for Asians and Pacific Islanders. Whites spent 26 percent of expenditures on education, and Native American and multiracial CUs spent 20 percent.

Apparel

Apparel expenditures ranged between 20 percent of expenditures for Asian and Pacific Islanders and 37 percent for Blacks, with Whites spending 25 percent and Native American and multiracial households spending 30 percent.

Childcare

Childcare expenditure shares did not vary much by race, with all four groups spending about half their expenditures on childcare.

Expenditures by quintiles of income and race of the reference person

Even when distinguishing CUs by race and by quintiles of income, differences in expenditure shares persist. (See charts 4–8.) Within the first quintile (chart 4), expenditure shares on apparel, childcare, and education were about the same for Blacks, Whites, and Native American and multiracial CUs; Asian and Pacific Islanders, who spent a larger share on childcare (52 percent, compared with 30–35 percent for the other groups) and a smaller share on apparel (41 percent, as opposed to 60–62 percent for the other groups) were the exception. Within the second quintile (chart 5), the range for apparel expenditures was the largest of the three expenditure categories, with Asian and Pacific Islanders at the low end, spending 38 percent of their expenditures on apparel, and Native American and multiracial CUs the highest, with 73 percent of their expenditures spent on apparel.

Chart 4

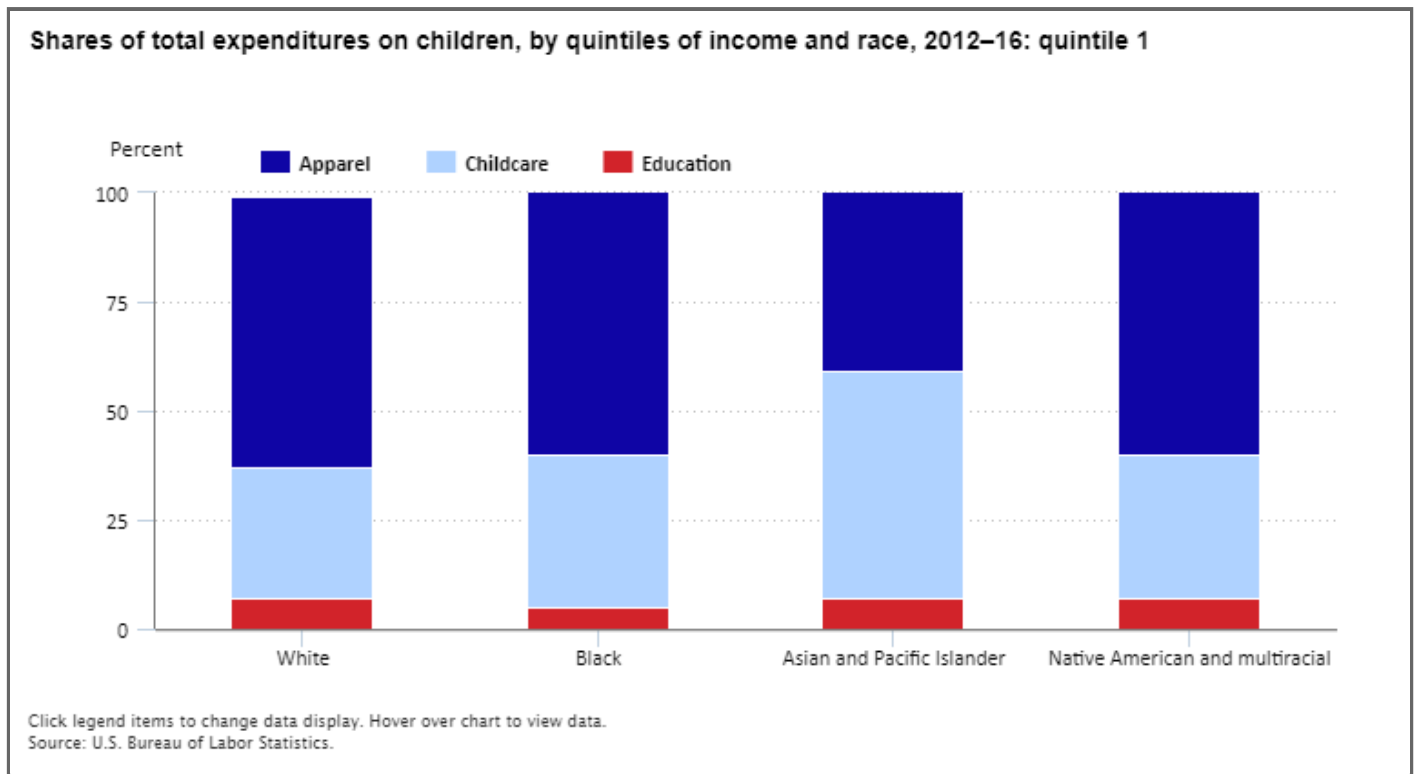


Chart 5

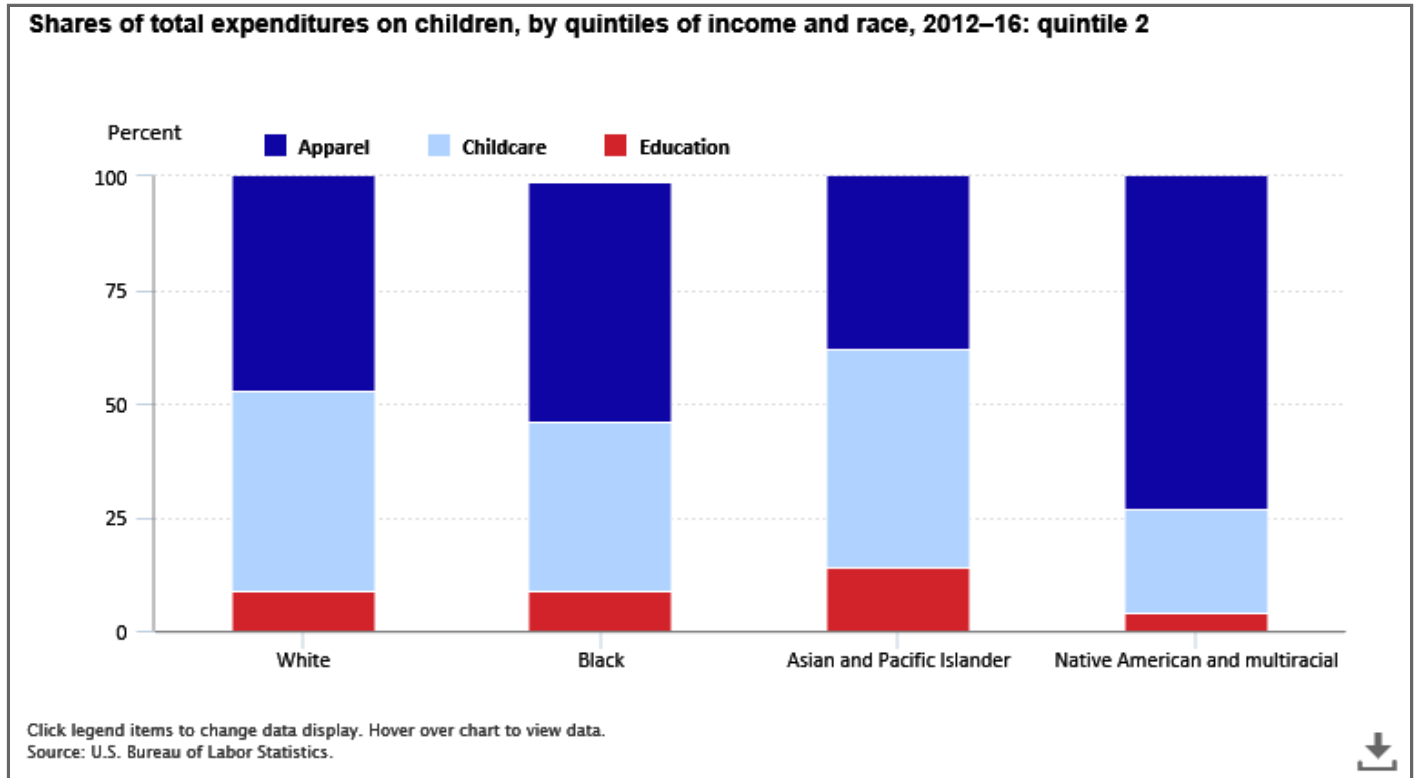


Chart 6

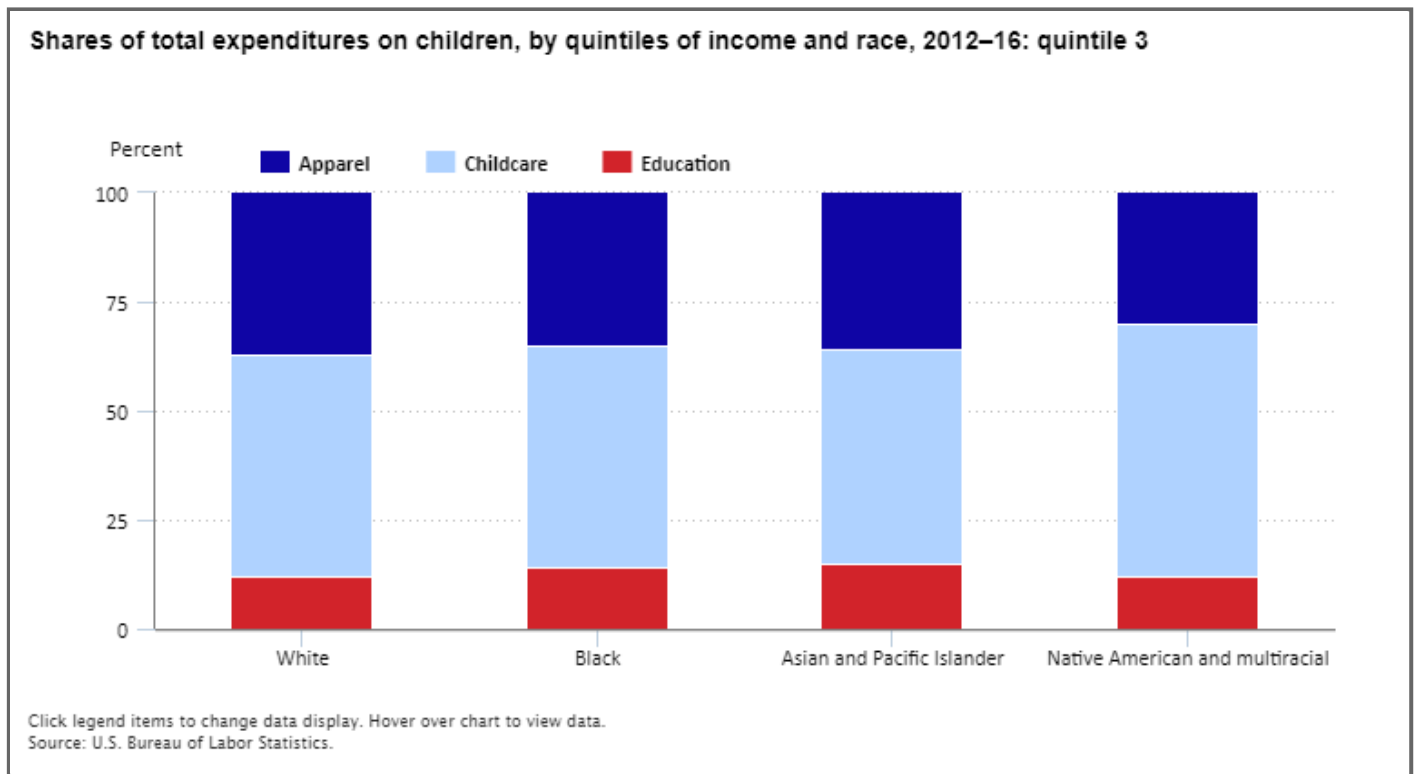
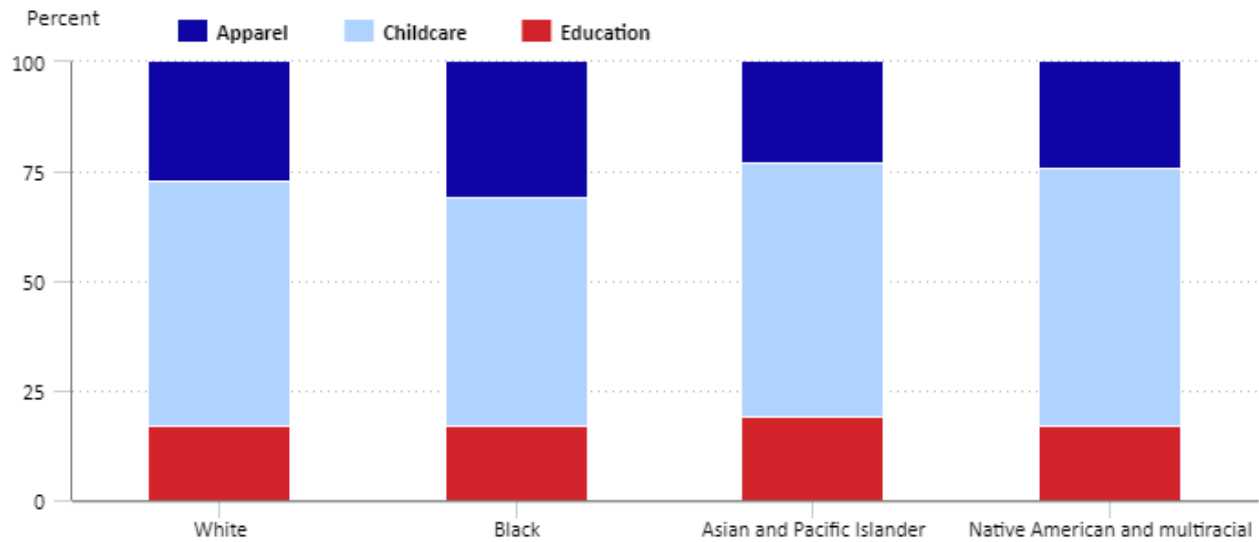


Chart 7

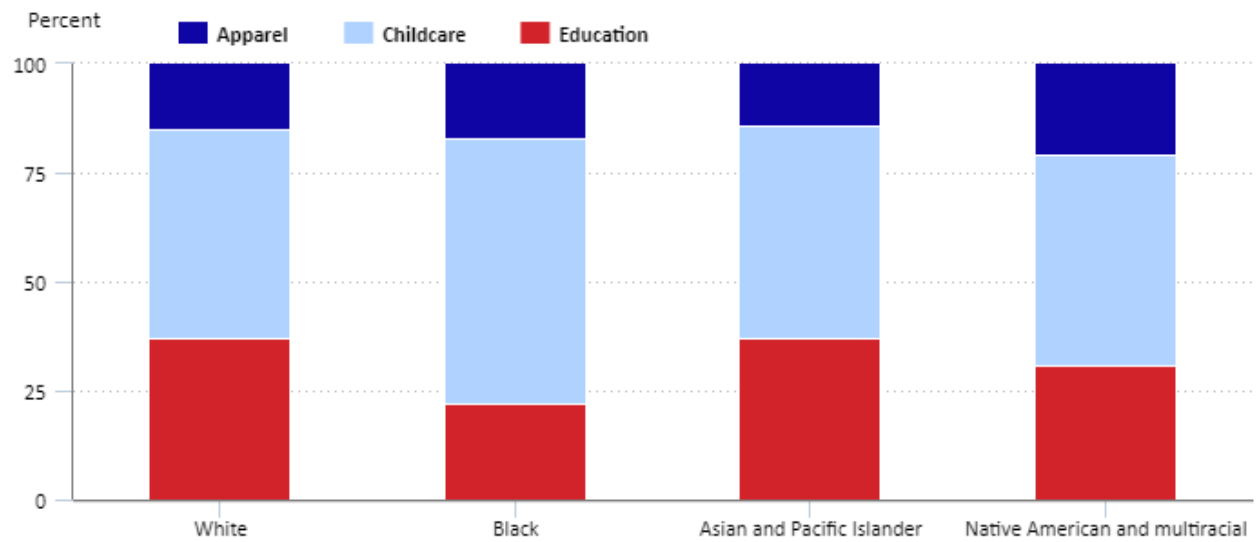
Shares of total expenditures on children, by quintiles of income and race, 2012–16: quintile 4



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Chart 8

Shares of total expenditures on children, by quintiles of income and race, 2012–16: quintile 5



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Within the third and fourth quintiles (charts 6 and 7), the range in expenditure shares among the three categories tightened, but in the fifth quintile (chart 8) the ranges were wider. For example, education ranged from 22 percent for Blacks to 37 percent for Asians and Whites, with Native American and multiracial CUs' expenditures at 31 percent.

Expenditures by education level of the reference person

The differences in the three categories of expenditures by the education level of the CU's reference person are similar to those by income, though less pronounced. (See chart 9.) The relationship between educational level and income is illustrated in chart 10. CUs with a bachelor's degree or higher made up 8 percent of the lowest quintile and 69 percent of the highest quintile; as income increased, a larger percentage of the quintile contained a reference person with at least some college.

Chart 9

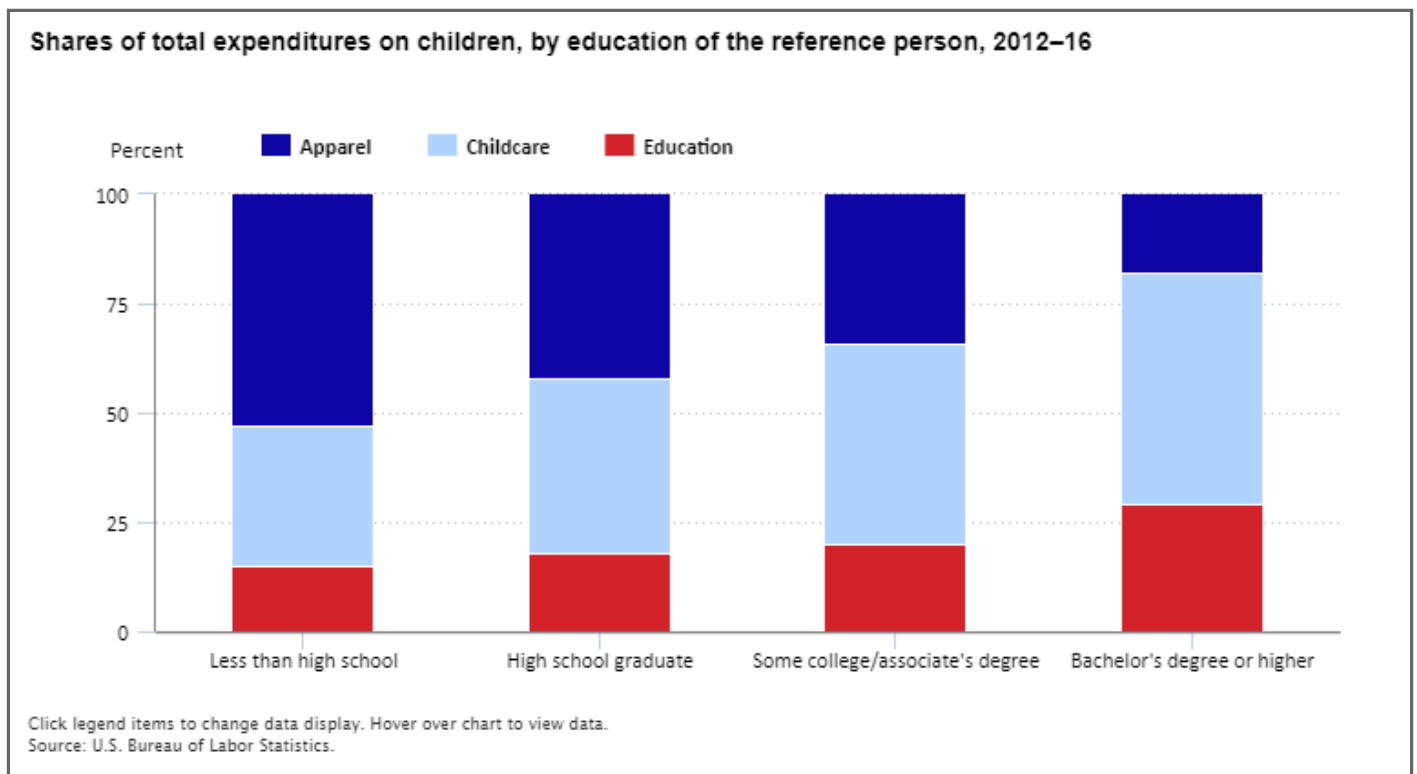
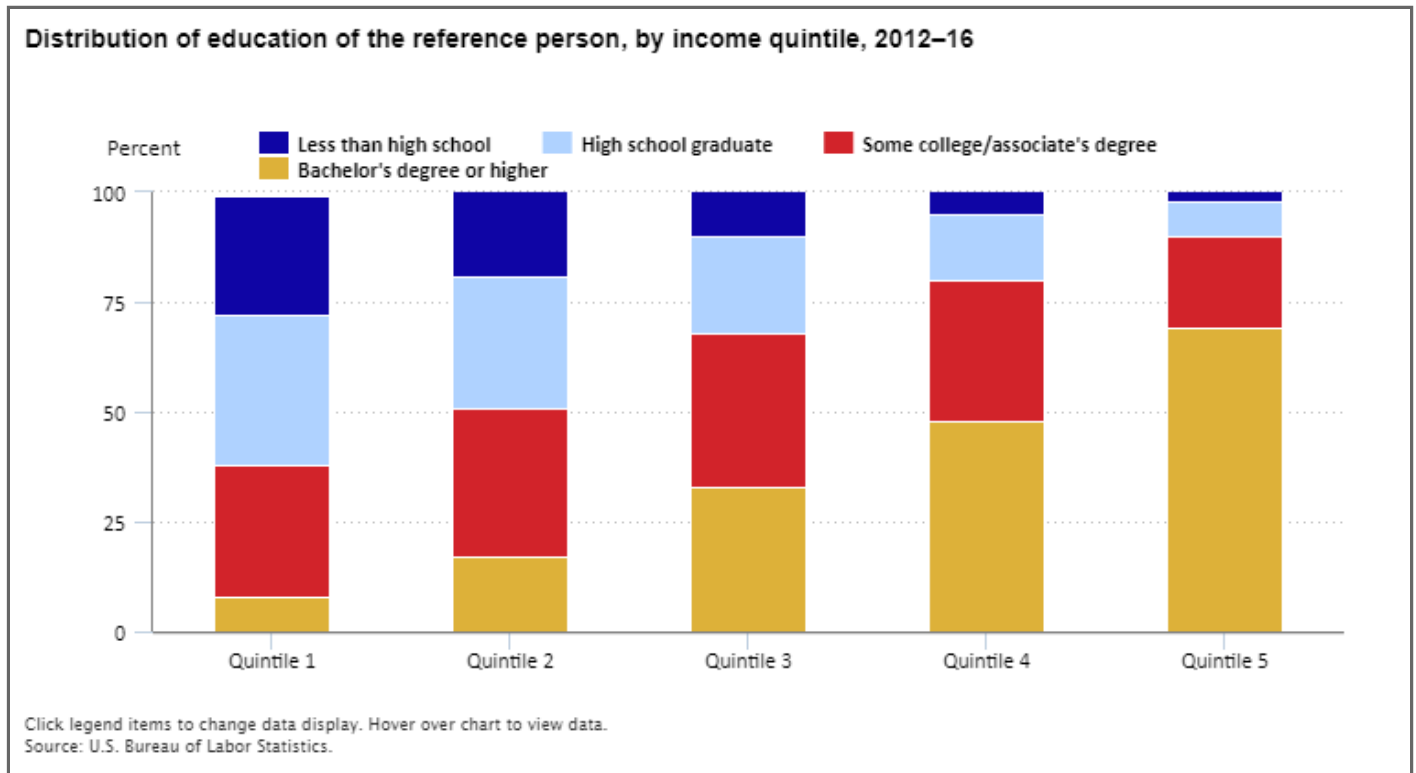


Chart 10



Education levels range from less than a high school degree to a bachelor’s degree or higher. As with expenses by income, apparel expenditures shrank, and education and childcare expenditures rose, as a portion of the expenditure share as the educational level increased. For CUs whose reference person had less than a high school degree, education made up 15 percent of expenditures, but this share rose to 29 percent for households with a bachelor’s degree or higher. (See chart 9.) Childcare expenditures increased from 32 percent of expenditures for those with less than a high school degree to 53 percent of expenditures for those with a bachelor’s degree or higher. As the education level of the reference person increased, expenditures on apparel shrank, from 53 percent of the expenditure share at the lowest level to 18 percent at the highest level.

Conclusions

Over the 2012–16 period, expenditure shares for education ranged most widely by household income (29 percentage points from the lowest to the highest quintile), then by the race of the reference person (a range of 15 percent), and then by the education level of the reference person (with a range of 14 percent); variability was smallest by region (with a range of 6 percent). Expenditure shares for apparel also ranged most widely by household income (by an even greater 46 percentage points from the lowest to the highest quintile) and then by education (with a range of 36 percentage points); race was associated with a smaller range (17 percentage points), and differences by region were smallest (with a range of 5 percentage points).

Expenditure shares for childcare ranged most widely by household income (with a range of 23 percentage points) and then by education (by 21 percentage points). Region (with a range of 9 percentage points) was associated with larger ranges in childcare expenditures than it was for education (ranging 6 percentage points) or apparel (ranging 4 percentage points). Childcare expenditures by race hardly varied. Although region and race were

associated with some variation in expenditure choices, overall, income and the education level of the reference person were associated with the largest differences in expenditures by families with children.

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NOTES

[1] A consumer unit consists of any of the following:

- a. All members of a particular household who are related by blood, marriage, adoption, or other legal arrangements.
- b. A person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel but who is financially independent.
- c. Two or more persons living together who use their incomes to make joint expenditure decisions. Financial independence is determined by spending behavior with regard to the three major expense categories: housing, food, and other living expenses. To be considered financially independent, the respondent must provide at least two of the three major expenditure categories, either entirely or in part.

[2] The reference person of the CU is the first member mentioned by the respondent when asked “What are the names of all the persons living or staying here? Start with the name of the person or one of the persons who owns or rents the home.” It is with respect to this person that the relationship of the other CU members is determined.

SUGGESTED CITATION

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