

SOCIOECONOMIC DISPARITIES IN CONSUMER SPENDING PATTERNS DURING THE COVID-19 PANDEMIC

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ABSTRACT

This study examines income and spending patterns of demographic groups by race and age before and during the COVID-19 pandemic, using data from the 2019 and 2022 U.S. Bureau of Labor Statistics (BLS) Consumer Expenditure (CE) Interview and Diary surveys. The analysis focuses on single individuals' mean income and expenditures on 15 categories (such as alcoholic beverages, food at home, food away, health, housing, and transportation). Findings show that the younger generation (ages 36-45) experienced on average an increase in income from 2019 to 2022, with Whites experiencing a greater increase than Blacks, whereas the older generation (ages 66-75) saw a decrease in income, suggesting a rise in income inequality by age and race during the pandemic. Whites spent about the same amount on health services before and during the pandemic, whereas younger Blacks almost doubled their health expenses and older Blacks decreased them. Housing expenditures increased for the younger cohort and decreased for the older cohort, more pronouncedly for Blacks than Whites. These findings are valuable for businesses and policymakers, allowing them to tailor their business strategies and public policies to meet the specific needs of various demographic groups during economic downturns and public health crises.

INTRODUCTION AND RESEARCH QUESTION

The COVID-19 pandemic had a significant impact on the economy, resulting in high unemployment rates and business closures. The pandemic also brought changes to the cost of living and modified the prices of goods like gas, food, and healthcare, which led households across the nation to adjust their spending habits in order to cope with their financial limitations.

To investigate this issue further, this study examines nationally representative data from the 2019 and 2022 BLS Consumer Expenditure (CE) surveys. Specifically, the paper analyzes the purchasing behaviors of single-person households, filtered by age (36-45 and 66-75) and race (White and Black) before and during the pandemic. Overall, this research seeks to determine the extent of the differences in income and expenses among the groups examined and the changes brought about by the COVID-19 pandemic.

Studying changes in income and expenditures with demographic filters provides valuable insights into the income and unique spending patterns among different demographic groups and their decisions regarding essential expenses like housing and nourishment. This information is useful to better understand the financial consequences experienced by various population groups during the pandemic and can be utilized by businesses and government policymakers. By understanding the results, businesses can tailor their marketing strategies for greater efficiency, and policymakers can create targeted policies that address the specific needs of different population groups, leading to a more equitable and sustainable economic recovery.

LITERATURE REVIEW

Racial income disparity is a term that refers to the unequal distribution of income among different racial groups. This disparity can be seen in several areas, including wages, salaries, interest, dividends, rent, and profits. In the 2019 Federal Reserve Board's Survey of Consumer Finances, for example, White families had the highest median and mean family wealth levels at \$188,200 and \$983,400, respectively (Chang et al., 2020). In contrast, Black families' median and mean wealth was 7.8 and 6.9 times lower, at \$24,100 and \$142,500, respectively (Greig & Deadman, 2021).

The COVID-19 pandemic in early 2020 led to a sudden and significant negative economic impact, prompting strong policy responses. In the short term, the pandemic threatened to greatly increase income and wage inequality, as disadvantaged groups were disproportionately affected by job displacement. These groups were more likely to work in sectors such as retail, leisure, and hospitality, which either shut down or experienced significant reductions in demand (Piacenti et al., 2022). On the other hand, higher-income professionals were able to transition to telework, maintaining their incomes while cutting expenses (Piacentini et al., 2022). The median annual income for people aged 35-44 regardless of races or social status was \$86,200 in 2019 and \$85,900 in 2022, while for people aged 65-74 it was \$58,100 in 2019 and \$60,900 in 2022 (Aladangady, et al., 2023). During the same time period, there was a significant increase in income of 32 percent for the younger generation and 24% for the older generation (Aladangady et al., 2023).

During the period of mandatory COVID-19 home confinement, changes in consumer demands and in purchasing patterns were observed across households. The drastic reduction of gasoline expenses and the surge in home electricity consumption due to prolonged periods of home occupancy were prominent factors contributing to this shift (Sung & Monschauer, 2020). For example, during the pandemic, there was a general increase in the housing annual expenditures, going from a mean of \$20,679 in 2019 to \$24,298 in 2022 (Meyers, Paulin, Thiel, 2023). Expenditures on food at home and food away remained steady throughout 2019 at \$62 billion and \$64 billion monthly, but rapidly increased in 2020 and 2021, and by 2022 reached approximately \$105 billion and \$107 billion per month, respectively (Economic Research Service, 2024). All forms of transportation, including cars, public transport, buses, trains, and planes, both domestically and internationally, were heavily impacted. By the end of March 2020, global road transport activity was almost 50 percent below the 2019 average, and commercial flight activity was nearly 75 percent below the 2019 levels by mid-April 2020 (Sung & Monschauer, 2020).

There are expenditure differences by demographic factors as well. Over the past 40 years, households have consistently boosted their expenditures on health, housing, and education regardless of age. Nevertheless, substantial differences emerge in other categories. For instance, older generations tend to allocate more spending towards health services, while younger generations prioritize expenditures on education, transportation, and leisure (Nie & Gautman, 2020).

The economic crisis caused diverse shifts in the financial situation of various population groups. In 2021, 60 percent of Whites reported their financial situation was excellent or good, whereas 66 percent of Blacks reported their finances in fair or poor shape (Horowitz et al., 2021). The contrast among groups can be explained by differences in income, expenditure behaviors, and the financial reserves in terms of household savings. In a survey conducted in March 2020, 73 percent of Black respondents stated that they did not have enough emergency funds to cover three months of expenses, while 47 percent of White adults reported the same (Lopez et al., 2020). Additionally, most Black adults without financial reserves said they would not be able to cover their expenses for three months by borrowing money, using savings, or selling assets. The same survey showed that it was harder for Blacks than for Whites to pay monthly bills or can only make partial payments on some of them (Lopez et al., 2020).

DATA

This study uses data from the 2019 and 2022 U.S. Bureau of Labor Statistics (BLS) Consumer Expenditure (CE) Interview and Diary surveys (BLS, 2024b). The CE survey is nationally representative, and its two components, the Interview and Diary surveys, collect data on major or recurring purchases over a quarter and minor or frequent purchase over a two-week period in a given quarter, respectively. The surveys are intended to provide an accurate portrayal of the people and businesses throughout the entire country, reflecting the economic and social conditions in the United States. The data were collected at the

Consumer Unit (CU) level. A CU can consist of members of a household who are related by blood, marriage, adoption, or other legal arrangements; a person living alone and financially independent; or two or more persons who use their income to make joint expenditure decisions (BLS, 2024a). The year 2019 was selected as it was the most recent year before the COVID-19 pandemic, capturing pre-pandemic income and expenditure patterns. The year 2022 was the last full year of the pandemic, showing the impact of the crisis. Specifically, the study utilizes data from four datasets: from the 4th quarter of the Interview and Diary surveys, before and during the pandemic. The Interview datasets comprise approximately 4,700 observations and 820 variables, and the Diary 5,200 observations and 824 variables, including demographics (e.g., age, race, marital status, consumer unit composition), socio-economic status (e.g., income for the previous 12 months, level of education), and detailed information on the previous, and current quarter expenditures for a wide range of broad consumption categories. The income variable was determined based on the income earned from the fourth quarter of the previous year to the third quarter of the current year. The expenditure variables come from the previous quarter set of variables, so they are based on the third quarter of each year examined.

The analysis specifically looks at spending patterns for White and Black single-person CUs, in other words people without children, spouses, or dependents. In addition, the study focuses on two population groups: those aged 36-45, a younger generation, and those aged 66-75, generally retirees, as by the age of 65, 72% of Whites and 89% of Blacks are retired (Tretina, 2024). This study analyzes the average income and expenditures of individuals by race and age, both before and during the COVID-19 pandemic. Income is measured as income before tax received in the previous 12 months, as the sum of salary, retirement, compensations, pensions, and financial aid. Expenditures in 15 categories are studied, including alcoholic beverages, apparel, cash contributions, education, entertainment, food consumed at home, food consumed away from home, health services, housing, miscellaneous, personal care, personal insurance, reading, tobacco, and transportation (see Appendix Table A for more details on the composition of the expenditure categories). The expenses are evaluated both in terms of dollars and as a percentage of income.

METHODOLOGY

The first step in this study was downloading the Interview and Diary datasets, Dictionary and Codebook from the BLS website (BLS, 2024b). Once all four spreadsheets were gathered in the same workbook, the master dataset was simplified to keep only the 27 variables used for the study. Next, using Excel Formulas such as VLOOKUP, HLOOKUP, INDEX, and COLUMN, categorical variables were decoded to match the variable values with the respective labeling categories from the Codebook. For example, race was expressed as a whole number from 1 to 7, with 1 being White, 2 Black, 3 American Indian, 4 Asian, 5 Pacific Islander, 6 Multi-Race, and 7 Other.

In order to compare income from the previous twelve months and weekly and quarterly expenditures before and during the COVID-19 pandemic two steps were undertaken. First, the Consumer Price Index (CPI) was used to convert 2019 income and expenditure dollars into constant 2022 dollars (FRED, 2024) by multiplying 2019-dollar figures by the ratio of 2022 third-quarter CPI over 2019 third-quarter CPI. Second, expenditures were converted on an annual basis, multiplying the weekly expenditures by 52, and the quarterly expenditures by four. In the final step of the analysis, Pivot Tables were generated with the help of slicers, filtering the average income and expenditure by age, race, marital status, and number of children.

RESULTS AND DISCUSSION

The tables report the mean yearly income (Table 1) and expenditures (Table 2) before and during the COVID-19 pandemic, by age and race, and differences between income and expenditures over time within each age and race group and at the same point in time across age and race. Positive and negative changes in income are highlighted in green and red, respectively.

Table 1 shows that before the pandemic, younger White individuals had an average income of \$76,177, which increased to \$93,376 during the pandemic. In comparison, younger Blacks earned \$63,620

before and \$71,079 during the pandemic. Among the older cohort, before the pandemic Whites earned on average \$42,936, which decreased to \$41,296 during the pandemic, whereas Blacks earned \$30,540 before and \$23,674 during the pandemic.

Table 1. Average yearly income before and during the COVID-19 pandemic, by race and age

Age	White (W)			Black (B)			B-W Diff	
	2019	2022	Δ	2019	2022	Δ	2019	2022
36-45	\$76,177	\$93,376	\$17,199	\$63,620	\$71,079	\$7,459	-\$12,557	-\$22,297
66-75	\$42,936	\$41,296	-\$1,640	\$30,540	\$23,674	-\$6,865	-\$12,396	-\$17,621
Old-Young Diff	-\$33,241	-\$52,080		-\$33,080	-\$47,404			

Among Whites, the younger cohort experienced an increase in income of \$17,199 (22.6 percent) during the pandemic while the older generation experienced a decrease of \$1,640 (3.82 percent). Among Blacks, during the pandemic income increased by \$7,459 (11.7 percent) for the younger cohort, and decreased by \$6,865 (22.48 percent) for the older generation.

Comparing income across age group at the same point in time, we see that in 2019 for both races there was a similar difference in income between the younger and older cohorts, with younger people earning about \$33,000 more than older people (\$33,241 for Whites, and \$33,080 for Blacks). However, in 2022 the gap significantly increased, with the younger generation earning \$52,080 more than the older generation among Whites and \$47,404 more among Blacks.

During the pandemic, the income gap increased for both race and age groups. Specifically, between 2019 and 2022 the younger generation saw an increase in income across race, yet the Black-White income gap grew from \$12,557 to \$22,297. During the same time period, the older generation saw a decrease in income across race, yet the Black-White income gap still grew from \$12,396 to \$17,621. In other words, the younger Black group earned 83.5 percent of what the White group earned before the pandemic and 76.1 percent during the pandemic, whereas older Blacks earned 71.1 percent of their White counterparts' earnings before and 57.3 percent during the pandemic. As a result of the pandemic, the younger generation saw an increase in their income, the older generation became poorer, and the income inequality between old and young and Black and White increased.

Differences in income based on race can be attributed to various factors. These include diverse income streams beyond wages, such as investments, particularly relevant for older individuals who often rely on pensions and retirement plans rather than wages. Another contributing factor is differences in educational attainment and career opportunities across racial groups. Research shows that Black adults are less likely to pursue college preparatory coursework or complete a bachelor's degree than White adults (Walsemann et al., 2023). The differences in education and possibly professional opportunities may have resulted in better economic outcomes for White individuals, which became even more pronounced during the pandemic. After accounting for differences in education, opportunities, effort on the job, and abilities, any remaining income gap could be also due to discrimination.

The results about changes in income are consistent with findings of the Federal Reserve Board. Based on data from the Surveys of Consumer Finances, real mean family income in the United States increased on average by 15 percent between 2019 and 2022 (Aladangady et al., 2023). Income gains were seen across all income levels (some of the increase was due to the unexpected fiscal stimulus support), with the largest increases at the top of the income distribution, indicating some rise in income inequality (Aladangady et al., 2023).

Table 2 presents the results for mean annual spending on 15 consumption categories. The most interesting findings are discussed, and all results are available for convenience, both in dollar amounts (Table 2) and as a percentage of income (Appendix Table B).

D. RANGEL: DISPARITIES IN CONSUMER SPENDING DURING THE COVID-19 PANDEMIC

Table 2. Average annual expenditures before and during the COVID-19 pandemic, by race and age

	White (W)			Black (B)			Black-White Expense	
	2019	2022	Δ	2019	2022	Δ	2019	2022
	Housing							
36-45	\$13,084	\$13,635	\$552	\$10,411	\$12,278	\$1,867	-\$2,673	-\$1,357
66-75	\$12,290	\$11,411	-\$878	\$10,828	\$7,109	-\$3,719	-\$1,462	-\$4,303
Old-Young	-\$794	-\$2,224		\$417	-\$5,170			
	Food Away							
36-45	\$6,697	\$6,731	\$33	\$2,713	\$4,391	\$1,678	-\$3,985	-\$2,340
66-75	\$4,748	\$5,299	\$551	\$3,199	\$6,332	\$3,133	-\$1,549	\$1,033
Old-Young	-\$1,950	-\$1,432		\$486	\$1,941			
	Food Home							
36-45	\$3,361	\$2,976	-\$386	\$383	\$1,889	\$1,506	-\$2,978	-\$1,086
66-75	\$1,227	\$1,399	\$172	\$1,048	\$1,194	\$146	-\$179	-\$204
Old-Young	-\$2,134	-\$1,577		\$665	-\$695			
	Transportation							
36-45	\$8,828	\$5,040	-\$3,789	\$5,536	\$3,846	-\$1,690	-\$3,292	-\$1,193
66-75	\$3,253	\$5,525	\$2,272	\$2,729	\$2,341	-\$388	-\$524	-\$3,184
Old-Young	-\$5,575	\$486		-\$2,807	-\$1,505			
	Personal Insurance							
36-45	\$5,116	\$7,388	\$2,272	\$3,417	\$4,623	\$1,205	-\$1,699	-\$2,766
66-75	\$1,482	\$1,123	-\$359	\$1,406	\$451	-\$955	-\$76	-\$672
Old-Young	-\$3,634	-\$6,266		-\$2,011	-\$4,172			
	Health							
36-45	\$2,159	\$2,230	\$72	\$373	\$692	\$319	-\$1,785	-\$1,538
66-75	\$3,546	\$3,366	-\$179	\$2,576	\$1,940	-\$636	-\$969	-\$1,426
Old-Young	\$1,387	\$1,136		\$2,203	\$1,248			
	Entertainment							
36-45	\$1,960	\$1,569	-\$392	\$1,053	\$1,368	\$315	-\$907	-\$200
66-75	\$1,509	\$1,379	-\$130	\$874	\$646	-\$228	-\$635	-\$733
Old-Young	-\$451	-\$190		-\$179	-\$723			
	Cash Contributions							
36-45	\$683	\$971	\$288	\$863	\$694	-\$169	\$180	-\$277
66-75	\$876	\$1,263	\$387	\$645	\$963	\$318	-\$231	-\$300
Old-Young	\$193	\$292		-\$218	\$269			
	Alcoholic Beverages							
36-45	\$631	\$587	-\$44	\$754	\$122	-\$632	\$124	-\$465
66-75	\$310	\$269	-\$41	\$251	\$24	-\$227	-\$59	-\$244
Old-Young	-\$321	-\$318		-\$503	-\$98			
	Education							
36-45	\$411	\$6	-\$405	\$132	\$64	-\$68	-\$279	\$58
66-75	\$276	\$7	-\$269	\$20	\$0	-\$20	-\$256	-\$7
Old-Young	-\$135	\$1		-\$112	-\$64			

Apparel								
36-45	\$409	\$712	\$303	\$367	\$1,438	\$1,071	-\$42	\$726
66-75	\$312	\$412	\$100	\$210	\$401	\$192	-\$102	-\$10
Old-Young	-\$97	-\$300		-\$157	-\$1,037			
Tobacco								
36-45	\$380	\$295	-\$85	\$362	\$126	-\$236	-\$18	-\$169
66-75	\$182	\$252	\$70	\$87	\$112	\$25	-\$95	-\$140
Old-Young	-\$198	-\$42		-\$274	-\$14			
Miscellaneous								
36-45	\$242	\$201	-\$41	\$349	\$185	-\$163	\$107	-\$15
66-75	\$208	\$418	\$210	\$89	\$336	\$248	-\$120	-\$82
Old-Young	-\$33	\$217		-\$260	\$151			
Personal Care								
36-45	\$173	\$243	\$70	\$378	\$387	\$10	\$205	\$144
66-75	\$238	\$199	-\$39	\$88	\$243	\$155	-\$150	\$44
Old-Young	\$65	-\$44		-\$290	-\$144			
Reading								
36-45	\$27	\$32	\$5	\$0	\$0	\$0	-\$27	-\$32
66-75	\$84	\$58	-\$26	\$7	\$18	\$11	-\$77	-\$40
Old-Young	\$57	\$26		\$7	\$18			

As shown in Table 2 and Appendix Table B, housing was the biggest expenditure category. In 2019, spending on housing represented 17.2 percent (\$13,084) of the family income for younger Whites, 28.6 percent (\$12,290) for older Whites, 16.4 percent (\$10,411) for younger Blacks, and 35.5 percent (\$10,828) for older Blacks. In 2022, housing expenditures accounted for 14.6 percent (\$13,635) of the family income for younger Whites, 27.6 percent (\$11,411) for older Whites, 17.3 percent (\$12,278) for younger Blacks, and 30.0 percent (\$7,109) for older Blacks. Interestingly, as shown above, even though the older generation spends less money on housing than the younger one, they use a much higher percentage of their income on housing.

Among Black individuals, in 2019, the older cohort spent on average \$417 more on housing than the younger one, but by 2022, this difference was reversed as the older cohort spent \$5,170 less on housing than the younger cohort. Specifically, younger Blacks increased their housing expenditures by \$1,867, whereas older Blacks decreased their housing expenditures by \$3,719. Similar changes but of smaller magnitudes occurred among Whites. Furthermore, before the pandemic, among the younger cohort, Whites were spending on housing 25.7 percent more than Blacks but only 11 percent more during the pandemic. Similarly, among the older cohorts, Whites spent 13.5 percent more on housing in 2019 and 60.5 percent more in 2022. As a result, during the pandemic, the housing expenditure disparity seems to have decreased by race but increased by age.

As for health expenditures, in 2019, younger Whites spent \$2,159 on health services, older Whites spent \$3,546, younger Blacks \$373, and older Blacks \$2,576. As expected, older people spent more on health than younger ones. During the pandemic younger Whites increased their average expenditures on health by \$72, while older Whites decreased their health expenditures by \$179. In comparison, the changes were in the same direction, but much more pronounced among their Black counterparts. Younger Blacks nearly doubled their health expenses over the same time period, increasing spending by \$319. In contrast, the older Black cohort's expenditures decreased by \$636. The gap in health expenditures between Whites and Blacks diminished for the younger cohort, from \$1,785 in 2019 to \$1,538 in 2022, but the expenditure gap increased for the older cohort, from \$969 to \$1,426. In other words, younger Whites spent about 2-3 percent of their income on health expenditures, whereas younger Blacks spent about 1 percent; older individuals from both races spent consistently about 8 percent of their income on health services (see Appendix Table B).

D. RANGEL: DISPARITIES IN CONSUMER SPENDING DURING THE COVID-19 PANDEMIC

Several factors could have influenced the spending habits on health, including the rise in the cost of medical services and unpredictable costs, which likely made them less affordable for some individuals, leading to a decrease in spending on such services (Probasco, 2023). Additionally, the fear of contracting the coronavirus disease may have prevented people from seeking medical attention, resulting in reduced visits to hospitals, doctors, or pharmacies (Wolfgang, 2023).

Whites showed a decline in the expenditure on alcoholic beverages during the pandemic, as the younger generation went from \$631 to \$587 (a decrease of \$44), and the older group went from \$310 to \$269 (a decrease of \$41). Among Blacks, both age groups showed a big decline in alcohol expenditures in the time period, with the younger generation's expenditure decreasing from \$754 to \$122 (a difference of \$632), and the older generation's from \$251 to \$24 (a difference of \$227).

In terms of food, the expenditures on food away from home increased for every demographic group; however Blacks showed a bigger change than Whites. Younger Whites went from spending \$6,697 in 2019 to \$6,731 in 2022 on food away (an increase of \$33), and older Whites from \$4,748 to \$5,299 (an increase of \$551); meanwhile younger Blacks went from \$2,713 to \$4,391 (an increase of \$1,678) and older Blacks from \$3,199 to \$6,332 (an increase of \$3,133). Younger Whites was the only group that showed a decrease in food-at-home expenditures from \$3,361 before the pandemic to \$2,976 during the pandemic (a decrease of \$386); older Whites increased food-at-home expenditures by \$172, going from \$5,975 in 2019 to \$6,697 in 2022. Young Blacks had a relatively big difference in expenditures on food at home over the time period, going from \$383 to \$1,889 (an increase of \$1,506), while older Blacks went from \$1,048 to \$1,194 (an increase of \$146).

The older White cohort was the only group analyzed that increased their transportation expenditures, from \$3,253 before the pandemic to \$5,525 during the pandemic (a rise of \$2,272). Both Whites and Blacks from the younger generations saw a significant decrease in this category, going from \$8,828 to \$5,040 (a decrease of \$3,789), and from \$5,536 to \$3,846 (a decrease of \$1,690), respectively. The older Black cohort showed a smaller difference between time periods, \$2,729 and \$2,341 (a decrease of \$388). This general decrease is consistent with the reduction of transportation caused by the pandemic confinement.

CONCLUSION

The purpose of this paper was to explore how income and spending behaviors changed during the COVID-19 pandemic, providing insights into the economic impact for various demographic groups. One of the main findings is that the income gap between different racial and age groups has widened during the COVID-19 pandemic, a period of overall economic downturn. Across race groups, the older groups aged 66-75 experienced a decrease in income between 2019 and 2022, while the younger generation aged 36-45 saw an increase in income.

During the pandemic, younger generations increased their housing expenditures, whereas older generation spent less on housing. Older generations spent more on health services compared to younger generations, but the older Black cohort decreased their health spending, which was unexpected given the anticipated increase in health spending during the COVID-19 outbreak. Transportation expenditure showed a predictable decrease across age and race categories (except older Whites whose transportation spending increased during the pandemic). Expenditures on both food at home and food away increased during the pandemic (except younger Whites for food at home), showing a general change in the consumers' behavior. It is important to highlight the significance of conducting additional research to understand the underlying reasons behind spending patterns and income inequalities.

Examining consumer spending patterns before and during the pandemic can provide valuable insights into how consumer behavior changes during a public health crisis. This knowledge is important for a better understanding of the complex relationships between economic, social, and behavioral factors during disaster and recovery. These findings can be valuable for businesses to design business strategies in line with the changing consumer spending patterns. Governments can use this information to prioritize public policies and resources to assist older generations with housing expenses and provide

better health services for Black communities. This approach can help create a more equitable society with opportunities for all, regardless of race or age.

Appendix

Table A. Variable composition

Alcohol	Beer and ale, wine, whiskey, gin, vodka, rum, and other alcoholic beverages
Apparel	Apparel and services, including clothing for men, women, boys, girls, and children, footwear,, and other apparel products and services
Cash Contributions	Money given to people or organizations outside of a consumer unit
Education	School and educational institutions
Entertainment	Tv, radio, fees, admissions, equipment, services
Food Home	Cereal, bake products, beef, pork, poultry, seafood, eggs, milk products, other dairy, fresh fruit, fresh vegetables, processed fruit, processed vegetables, sweets, non-alcoholic beverages, oils
Food Away	Meals (breakfast and brunch, lunch, dinner and snacks and nonalcoholic beverages) including tips at fast food, take-out, delivery, concession stands, buffet and cafeteria, at full-service restaurants, and at vending machines and mobile vendors
Health	Health insurance, medical service, prescription drugs, medical supplies
Housing	Shelter, fuels, utilities, and public services, housekeeping, furnishing
Miscellaneous	Small transactions that usually do not fit any other specified accounts
Personal Care	Beauty and fitness
Personal Insurance	Life insurance, pension, social security
Reading	Newspaper, magazines, books
Tobacco	Tobacco and smoking supplies
Transportation	Vehicles purchased, gasoline, public transportation

Source: U.S. Bureau of Labor Statistics Consumer Expenditure (CE) Income and Diary Surveys (BLS. 2024a; Meyers, et al., 2023)

Table B. Average annual expenditures as a percentage of income before and during the COVID-19 pandemic, by race and age

	White (W)			Black (B)			Black-White Expense	
	2019	2022	Δ	2019	2022	Δ	2019	2022
	Housing							
36-45	17.2%	14.6%	-2.6%	16.4%	17.3%	0.9%	-0.8%	2.7%
66-75	28.6%	27.6%	-1.0%	35.5%	30.0%	-5.4%	6.8%	2.4%
Old-Young	11.4%	13.0%		19.1%	12.8%			
	Food Away							
36-45	8.8%	7.2%	-1.6%	4.3%	6.2%	1.9%	-4.5%	-1.0%
66-75	11.1%	12.8%	1.8%	10.5%	26.7%	16.3%	-0.6%	13.9%
Old-Young	2.3%	5.6%		6.2%	20.6%			
	Food Home							
36-45	4.4%	3.2%	-1.2%	0.6%	2.7%	2.1%	-3.8%	-0.5%
66-75	2.9%	3.4%	0.5%	3.4%	5.0%	1.6%	0.6%	1.7%
Old-Young	-1.6%	0.2%		2.8%	2.4%			
	Transportation							
36-45	11.6%	5.4%	-6.2%	8.7%	5.4%	-3.3%	-2.9%	0.0%
66-75	7.6%	13.4%	5.8%	8.9%	9.9%	1.0%	1.4%	-3.5%
Old-Young	-4.0%	8.0%		0.2%	4.5%			
	Personal Care							
36-45	0.2%	0.3%	0.0%	0.6%	0.5%	0.0%	0.4%	0.3%
66-75	0.6%	0.5%	-0.1%	0.3%	1.0%	0.7%	-0.3%	0.5%
Old-Young	0.3%	0.2%		-0.3%	0.5%			
	Health							
36-45	2.8%	2.4%	-0.4%	0.6%	1.0%	0.4%	-2.2%	-1.4%
66-75	8.3%	8.2%	-0.1%	8.4%	8.2%	-0.2%	0.2%	0.0%
Old-Young	5.4%	5.8%		7.8%	7.2%			
	Entertainment							
36-45	2.6%	1.7%	-0.9%	1.7%	1.9%	0.3%	-0.9%	0.2%
66-75	3.5%	3.3%	-0.2%	2.9%	2.7%	-0.1%	-0.7%	-0.6%
Old-Young	0.9%	1.7%		1.2%	0.8%			
	Cash Contributions							
36-45	0.9%	1.0%	0.1%	1.4%	1.0%	-0.4%	0.5%	-0.1%
66-75	2.0%	3.1%	1.0%	2.1%	4.1%	2.0%	0.1%	1.0%
Old-Young	1.1%	2.0%		0.8%	3.1%			
	Alcoholic Beverages							
36-45	0.8%	0.6%	-0.2%	1.2%	0.2%	-1.0%	0.4%	-0.5%
66-75	0.7%	0.7%	-0.1%	0.8%	0.1%	-0.7%	0.1%	-0.5%
Old-Young	-0.1%	0.0%		-0.4%	-0.1%			

D. RANGEL: DISPARITIES IN CONSUMER SPENDING DURING THE COVID-19 PANDEMIC

Education								
36-45	0.5%	0.0%	-0.5%	0.2%	0.1%	-0.1%	-0.3%	0.1%
66-75	0.6%	0.0%	-0.6%	0.1%	0.0%	-0.1%	-0.6%	0.0%
Old-Young	0.1%	0.0%		-0.1%	-0.1%			
Apparel								
36-45	0.5%	0.8%	0.2%	0.6%	2.0%	1.4%	0.0%	1.3%
66-75	0.7%	1.0%	0.3%	0.7%	1.7%	1.0%	0.0%	0.7%
Old-Young	0.2%	0.2%		0.1%	-0.3%			
Tobacco								
36-45	0.5%	0.3%	-0.2%	0.6%	0.2%	-0.4%	0.1%	-0.1%
66-75	0.4%	0.6%	0.2%	0.3%	0.5%	0.2%	-0.1%	-0.1%
Old-Young	-0.1%	0.3%		-0.3%	0.3%			
Miscellaneous								
36-45	0.3%	0.2%	-0.1%	0.5%	0.3%	-0.3%	0.2%	0.0%
66-75	0.5%	1.0%	0.5%	0.3%	1.4%	1.1%	-0.2%	0.4%
Old-Young	0.2%	0.8%		-0.3%	1.2%			
Personal Care								
36-45	0.2%	0.3%	0.0%	0.6%	0.5%	0.0%	0.4%	0.3%
66-75	0.6%	0.5%	-0.1%	0.3%	1.0%	0.7%	-0.3%	0.5%
Old-Young	0.3%	0.2%		-0.3%	0.5%			
Reading								
36-45	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
66-75	0.2%	0.1%	-0.1%	0.0%	0.1%	0.1%	-0.2%	-0.1%
Old-Young	0.2%	0.1%		0.0%	0.1%			

References

- Aladangady, Bricker, Chang, Goodman, Krimmel, Moore, Reber, Henriques Volz, Windle, (2023). *Changes in U.S. Family Finances from 2019 to 2022: Evidence from the Survey of Consumer Finances*. Washington: Board of Governors of the Federal Reserve System. October, <https://www.federalreserve.gov/publications/october-2023-changes-in-us-family-finances-from-2019-to-2022.htm>
- Bureau of Labor Statistics. (2024a). Consumer Expenditure Surveys: Glossary. <https://www.bls.gov/cex/csxgloss.htm>
- Bureau of Labor Statistics. (2024b). Consumer Expenditure Surveys: PUMD data files. https://www.bls.gov/cex/pumd_data.htm#csv
- Chang, A., Dettling, L., Bhutta, N, Hsu, J., (2020). Disparities in Wealth by Race and Ethnicity in the 2019 Survey of Consumer Finances. <https://www.federalreserve.gov/econres/notes/feds-notes/disparities-in-wealth-by-race-and-ethnicity-in-the-2019-survey-of-consumer-finances-20200928.html>
- Economic Research Service. (2024). Food and Consumers. U.S. Department of Agriculture. <https://www.ers.usda.gov/covid-19/food-and-consumers/#spending>
- FRED. (2024). Consumer Price Index for All Urban Consumers: All Items in U.S. City Average. <https://fred.stlouisfed.org/series/CPIAUCSL>
- Greig, F., & Deadman, E. (2021). Financial outcomes by race during COVID-19. JPMorgan Chase & Co. <https://www.jpmorganchase.com/institute/all-topics/financial-health-wealth-creation/financial-outcomes-by-race-during-COVID-19>
- Horowitz, J., Brown, A., & Minkin, R. (2021). A Year into the Pandemic, Long-Term Financial Impact Weighs Heavily on Many Americans. Pew Research Center. <https://www.pewresearch.org/social-trends/2021/03/05/a-year-into-the-pandemic-long-term-financial-impact-weighs-heavily-on-many-americans/>
- Lopez, M., Rainie, L., & Budiman, A. (2020). Financial and health impacts of COVID-19 vary widely by race and ethnicity. Pew Research Center. <https://www.pewresearch.org/short-reads/2020/05/05/financial-and-health-impacts-of-covid-19-vary-widely-by-race-and-ethnicity/>
- Meyers, S., Paulin, G., & Thiel, K. (2023) Consumer expenditures in 2022. Bureau of Labor Statistics Report 1107 from December 2023. <https://www.bls.gov/opub/reports/consumer-expenditures/2022/home.htm>
- Nie, J., & Gautam, A. (2020). Spending Patterns and Cost of Living for Younger versus Older Households. The Federal Reserve Bank of Kansas City Economic Review. <https://doi.org/10.18651/er/4q19niegautam>
- Piacentini, J., Frazis, H., Meyer, P., Schultz, M., & Sveikauskas, L. (2022). The Impact of COVID-19 on Labor Markets and Inequality. Bureau of Labor Statistics. <https://www.bls.gov/osmr/research-papers/2022/pdf/ec220060.pdf>
- Probasco, J. (2023) Why Do Healthcare Costs Keep Rising? Investopedia. <https://www.investopedia.com/insurance/why-do-healthcare-costs-keep-rising/>
- Sung, J., & Monschauer, Y. (2020). Changes in transport behaviour during the Covid-19 crisis. International Energy Agency. <https://www.iea.org/articles/changes-in-transport-behaviour-during-the-covid-19-crisis>
- Tretina, K. (2024). The Average Age of Retirement in The U.S. *Forbes*. <https://www.forbes.com/advisor/retirement/average-retirement-age>
- Walsemann, K. M., Fisk, C., Farina, M. P., Abbruzzi, E., & Ailshire, J. (2023). Race, gender, and cohort differences in the educational experiences of Black and White Americans. *Population Research and Policy Review*, 42(6). <https://doi.org/10.1007/s11113-023-09831>
- Wolfgang, U. (2023) Parents' Fears about Hospital Visits and Trait Anxiety in the COVID-19 Pandemic. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10137802>