Racial and Ethnic Differences in the Consumption of Disability Insurance Beneficiaries

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Abstract

Recent research has shown that consumption provides useful information about the well-being of households. In this paper, I compile Consumer Expenditure Survey (CE Survey) data from 2010 to 2019 in order to examine the consumption patterns of households with Social Security Disability Insurance (DI) beneficiaries that differ in terms of their race or ethnicity. I compare the groups in terms of a wide variety of outcomes, including post-tax income, total expenditure, and expenditure on food, health care and housing. There are important differences based on the race and ethnicity of households. Black and Hispanic households with DI beneficiaries have consistently lower levels of income than White households with DI beneficiaries. Furthermore, the racial gaps are more persistent in terms of expenditure than for income. Any evidence of progressive DI replacement rates or other elements protecting lower-income Black and Hispanic households in terms of income disappears using household expenditure. The total average expenditure of Black DI Households is approximately 30 percent lower than of White DI Households, whereas it is 18 percent lower when using post-tax income. Hispanic DI Households do slightly better than Black DI Households on this measure, although they have average expenditure that is around 25 percent lower than White DI Households (instead of 18 percent lower in terms of post-tax income). There is also evidence of an increasing divergence in the expenditure of DI and Non-DI households for all racial groups between 2010 and 2019. Further investigation into the nature and reasons for this divergence is warranted.

Keywords: Disability insurance, Social Security, race, ethnicity, consumption, living standards.

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1. Introduction

Social Security Disability Insurance (DI) is a vital part of the social safety net, insuring 179 million Americans against economic hardship associated with work-limiting disabilities. The Social Security Administration (SSA) regularly provides information on the payments going to DI beneficiaries. In December 2021, primary DI beneficiaries received an average monthly payment of $1,358 (SSA, 2022). These payments have increased over time, based on cost-of-living increases and changes in average wages (Autor and Duggan, 2003; Muller, 2008).

However, payments provide relatively crude information about someone's well-being. Especially when people have different sources of income and different demands on their time, we want to know how much they are spending and information about their living situation. DI payments may not translate into the same levels of consumption as someone receiving equivalent levels of wage income. One reason is that healthcare expenditures may be different, either higher because of beneficiaries' disabilities or lower because of their Medicare eligibility. Another reason is that the economic resources available to DI beneficiaries, through their own savings and the income and wealth of other household members, may be different to other households. Yet another reason is that disabled individuals have more non-work time and may shop differently (Aguiar and Hurst, 2005; Meyer and Mok, 2013).

Moore and Ziebarth (2014) use the Consumer Expenditure Survey (or "CE Survey") to compare the income and expenditure of households with DI beneficiaries to households with workers. They determine what restrictions and adjustments are necessary to identify DI beneficiaries. After focusing on households with adults aged under 60 years, whose reported DI income is close to official SSA estimates, they show that the income of households with DI beneficiaries is lower than that of households with wage earners. There are also differences in expenditures, although the gaps are smaller and more consistent over time than the gap in income. The gaps are even smaller when it comes to spending on food and housing. They also consider other measures of spending and other economic characteristics, reinforcing previous research that has emphasized that household spending patterns and differences can be different to those using household income (e.g., Meyer and Sullivan, 2008, 2023; Attanasio and Pistaferri. 2016).

In this paper, I extend the analysis to look at the relative income and expenditure of households with DI beneficiaries with different racial composition or ethnicity. There are

important reasons to consider differences by race or ethnicity. Black workers have lower earnings than White workers (Bayer and Charles, 2018; Joshi, Walters, Noelke, and Acevedo-Garcia. 2022). A similar gap is also present between the earnings and incomes of Hispanic and Non-Hispanic White workers (e.g., Mora and Dávila, 2018; Joshi, Walters, Noelke, and Acevedo-Garcia, 2022). There are also large differences in disability rates by race and ethnicity; for example, Black individuals have higher disability rates than White individuals (Ross and Holmes 2017). There are also longstanding concerns that these differences interact with Social Security rules to create racial and ethnic differences in the payments and economic security provided to beneficiaries (Hendley and Bilimoria 1999).

In this paper, I present information on households receiving DI payments using CE Survey data from 2010 to 2019. I focus on households with adults aged under 60 years, and compare the income and expenditure of households receiving DI income to similarly aged households with wage earnings but no DI income. Each type of household is divided into three main groups based on the race and ethnicity of household members: White households are ones where all members are White and not Hispanic; Black households are ones where all members are Black and not Hispanic; and Hispanic households are ones where both the head of household (the "reference person") and spouse (or second adult) are of Hispanic ethnicity (ethnicity is recorded slightly differently to race in the CE Survey). There is a fourth racial/ethnic group that consists of all other households. The characteristics of this fourth group are hard to interpret and are not focused on in the analysis, which is also the case for households that have neither DI income or wage earnings.

I compare the groups in terms of a wide variety of outcomes, including post-tax income, total expenditure, and expenditure on food, health care and housing. While working households do better than DI households in terms of their post-tax income, these differences narrow for many types of expenditure. For important categories like spending on food and housing, the differences are even smaller than for total expenditure.

There are important differences based on the race and ethnicity of households. Black and Hispanic households with DI beneficiaries have consistently lower levels of income than White households with DI beneficiaries. Much of this seems to come from the overall lower levels of income and expenditure of Black and Hispanic households relative to White ones, irrespective of whether they receive DI income. Given that lower earnings translate into lower DI payments, it

is not surprising that racial differences in the labor market translate into racial differences in the income and expenditures across DI beneficiaries of different races and ethnicities.

One interesting feature of considering expenditure in addition to income is that the racial gaps are more persistent in terms of expenditure. On average, White DI Households have 68 percent of the total expenditure of White Non-DI Households, while the equivalent statistics for Black and Hispanic households are 67 and 71 percent, respectively. However, the greater consistency in relative outcomes primarily comes from White DI Households doing better in comparison to White Non-DI Households than when using post-tax income. Any evidence of progressive DI replacement rates or other elements protecting lower-income households disappears using household expenditure. Therefore, the total average expenditure of Black DI Households is approximately 30 percent lower than of White DI Households, whereas it is 18 percent lower when using post-tax income. Hispanic DI Households do slightly better than Black DI Households, although they have average expenditure that is around 25 percent lower than White DI Households (instead of 18 percent lower in terms of post-tax income).

Another interesting feature of comparing DI households by race/ethnicity using consumption data is that the data clearly shows an increasing divergence in the expenditure of DI and Non-DI households for all racial groups between 2010 and 2019. For some categories, like food expenditure, Black and Hispanic households with DI beneficiaries spent less in absolute terms in 2015 than in 2010. Further investigation into the reasons for this divergence would be an important next step.

We examine a number of alternate outcomes, including whether they own their own home, the number of rooms in their house, the number of vehicles they own, and whether they have central air conditioning. The differences by race/ethnicity and by DI status show up in these measures as well, with DI-beneficiary households doing worse than other households, and White households with DI beneficiaries generally doing better than Hispanic and then Black households with DI beneficiaries.

This paper is an important step in understanding the consumption of disability beneficiaries. Our results complement recent research by Moore and Ziebarth (2014), Meyer and Mok (2019), and Autor, Maestas and Woodbury (2020), all of who examine the wellbeing of disabled workers. Many of the patterns in this paper raise questions that deserve much more exploration, such as the reasons why progressivity in DI payments does not seem to close the gap

between racial/ethnic groups with lower and higher earnings histories, and why there are growing gaps in the spending and income of households with DI beneficiaries compared to working households of the same race or ethnicity.

2. Background on the CE Survey

The Consumer Expenditure Survey ("CE Survey") is a household survey conducted by the Bureau of Labor Statistics designed to collect information on family income and expenditures, assets and liabilities, as well as family members' demographic and economic characteristics. It is a rotating panel, where information on respondent households is collected over a 12-month period.

The survey design and data collection has been broadly similar since 1980, with the information collected changing slightly over time. Information on specific incomes sources, including Social Security income, has been collected since 1984. The sample is redesigned every ten years, with the most recent redesign occurring in 2020.

The CE Survey is designed to be representative of the US non-institutionalized civilian population. Each quarter, about 7,000 interviews are conducted. In April 2003, the survey mode changed from Paper and Pencil to Computer Assisted Personal Interviews (Bureau of Labor Statistics (BLS), 2014). The main unit of observation is the "Consumer Unit (CU)," which essentially consists of a household with elements of joint decision making when it comes to expenditures. "CU" and "household" are used interchangeably throughout the paper.

The CE Survey consists of two main surveys: (i) the Interview Survey and (ii) the Diary Survey. For the Interview Survey, every CU is interviewed five times, or every three months over a 12-month period. Income and employment information is collected in the second and fifth interviews, while expenditure information is surveyed from the second to the fifth interview. The expenditure information collected in the Interview Survey focuses on larger expenditures such as expenditures for rent, automobiles, or major durable goods (BLS, 2014). The main purpose of the Diary Survey component, by contrast, is to focus on smaller expenditures that cannot easily be recalled over longer time periods, such as detailed food, tobacco, and prescription drug expenditures. It is carried out in a diary form over two consecutive periods of one week each and is conducted once for each household.

Since the main purpose of this paper is not to exploit the panel structure of the CEX but

to provide accurate measures of specific population subgroups and their relative income and expenditures, I conduct the following first sample selections. First, I focus on the data from the 2010 to 2019 period; given the redesign in 2020, this provides a large and consistent sample of recent respondents. I focus on the Interview Survey, as it contains information on income, expenditure, and housing information at the CU level. Bee, Meyer and Sullivan (2015) find that the reporting of consumer expenditures in the Interview Survey matches national account information fairly closely, while that is not the case for the Diary Survey. The large expenditures measured in the Interview Survey are also the most important ones when it comes to evaluating the well-being of different households. Second, the analysis uses information from the second interview only. Only the second and fifth IS interview collect income *and* expenditure information simultaneously. Focusing on the second interview minimizes the issue of sample attrition.

2.1 The Measurement of DI Income in the CE Survey

Prior research suggests that DI is reasonably well recorded in the CE Survey. Meyer, Mok and Sullivan (2009) compare the reporting of government transfers for ten of the major transfer programs in five major nationally-representative household surveys, including the CE Survey. They first compare annual dollars of Social Security income reported in the CE Survey through 2006 to administrative sources. They find that between 88 and 93 percent of dollars are reported between 1986 and 1999. The fraction is lower and more volatile from 2000 to 2006, varying between 75 and 89 percent. They estimate that the average annual reporting rates for DI income – separate from Retirement and Survivors Insurance income – are similar, although there is more year-to-year variability in the estimated coverage.

Moore and Ziebarth (2014) examine the reporting of DI income in the CE Survey in more detail. Every member of a CU is asked about whether they are receiving Social Security income, but they are not asked specifically about whether it is from DI or from the Retirement and Survivors Insurance program. Moore and Ziebarth (2014) show that age restrictions can remove nearly all individuals not receiving Social Security for DI, allowing the identification of DI beneficiaries. They restrict the CE Survey sample to one where the head of household and spouse (where present) are aged between 18 and 59 years, and remove full-time students receiving Social Security at age 18 and 19. After doing this and comparing the CE Survey estimates to

SSA administrative data, they estimate that more than 97 percent of respondents receiving Social Security income would be receiving it through the DI program. Moreover, they show that the level and trends for DI income and DI beneficiaries aged 18-59 in the CE Survey data closely match SSA administrative data between 1986 and 2011.

On that basis, the CE Survey does appear to provide information about working-age Social Security beneficiaries that is broadly consistent with official sources. I follow Moore and Ziebarth (2014) in choosing sample restrictions that allow me to use households where their Social Security income is highly likely to be coming from the DI program.

2.2 The Measurement of Race and Ethnicity in the CE Survey

The CE Survey includes questions on race and ethnicity in the Interview Survey. Every person in the CU is asked about their race, which is recorded in the member files. Six categories are used over the 2010-2019 period: White; Black; Native American; Asian; Pacific Islander and Multi-race. The member files also record the Hispanic status of the reference person and the spouse (or second person) in the CU.

Previous research has found the race and ethnicity variables in the CE Survey to be reliable (Charles, Hurst and Roussanov 2009; Ryabov, 2016). Given that a CU is defined as a household that makes joint spending decisions, race and ethnicity coding is based on all of the available information about the race and ethnic composition in the CU (rather than just of the reference person). I define Non-Hispanic White households as households where all members are White and no Hispanic ethnicity is reported; Non-Hispanic Black households as households where all members are Black and no Hispanic ethnicity is reported; Hispanic households where both the reference and second person report Hispanic ethnicity; and Other Race households, which comprises households with members of mixed races/ethnicities or members of other races.

3. Dataset Construction: Categorizing Households and Creating Variables of Interest

I restrict the sample to households where the head and spouse (if present) are aged 18-59 years, as that is the age range over which we can consistently identify households receiving DI income. I also focus on the second interview, which includes information on income and expenditures. After these restrictions, there are 40,265 households with 96,868 members in the CU Survey data over the 2010-2019 period. There are between 3,176 and 4,878 households each

year.

I use the final household survey weights throughout the analysis, which creates statistics that should be representative of the US non-institutionalized civilian population for this age group.

3.1 Defining Households based on Income

I define "DI Households" as those that received Social Security income in the previous 12 months. The main comparison group of "Non-DI Households" consists of households where any of the members are working and earning income (but receive no Social Security income). This is an appropriate comparison group, as DI provides insurance to workers with sufficient Social-Security-covered earnings. All remaining households – which do not receive Social Security income or have earnings – are rarely used in the analysis.

These definitions result in 4.1 percent of sample households classified as DI Households and 89.8 percent of households classified as Non-DI Households, leaving 6.1 percent of households in neither category. There are between 145 and 199 DI Households each year, and 1,659 DI Households in total.

3.2 Defining Households based on Race and Ethnicity

I then define race and ethnicity using the member files. "White Households" are households where all members are White and no Hispanic ethnicity is reported. "Black Households" are households where all members are Black and no Hispanic ethnicity is reported. "Hispanic Households" are households where both the reference and second person (where present) report Hispanic ethnicity. "Other Race Households" are households with members of mixed races/ethnicities, or non-Hispanic members of other races. Throughout the analysis, for simplicity, these are referred to as "racial" groups even though they are defined by both the racial and ethnic characteristics of households.

Using these definitions, 63.1 percent of households are defined as White, 12.4 percent as Black, 16.4 percent as Hispanic, and 8.1 percent as Other Race. Most households with any member of a particular race or ethnicity actually have all household members of the same race or ethnicity (based on the available information). For households with any Non-Hispanic Whites, only 8.5 percent are shifted to the Other Race category as a result of another member having a different race or ethnicity. For households with any Black members, 10.3 percent are shifted to

the Other Race category, while 20.1 percent of households with any Hispanic members are shifted to the Other Race category. Therefore, the restrictions related to consistent race and ethnicity definitions within households do not have a large impact on the number of households in each category.

3.3 Defining Households based on both Income and Race/Ethnicity

These separate definitions around income sources and race/ethnicity result in nine categories of households. The six main categories, with labels that will be used as shorthand for them, are: (1) White DI Households, of which there are 1,012 households; (2) White Non-DI Households, of which there are 21,592 households; (3) Black DI Households, of which there are 294 households; (4) Black Non-DI Households, of which there are 3,865 households; (5) Hispanic DI Households, of which there are 160 households; and (6) Hispanic Non-DI Households, of which there are 5,533 households. There are also: (7) Other Race DI Households with DI Income, of which there are 160 households; (8) Other Race Non-DI Households, of which there are 5,118 households; and (9) the remaining households of any race or ethnicity without DI income or earnings, of which there are 2,531 households.

The main categories allow two types of comparisons based on DI income. One is race-specific comparisons between DI and Non-DI households. Another is race-based comparisons across DI households. There are sufficient numbers of households within each category to make these comparisons, although the number of Black and Hispanic households receiving DI income do make comparisons over time quite noisy.

3.4 Defining Income and Expenditure Measures

For each household, I use an aggregate measure of income. In the second quarter interview, every CU member is asked detailed income questions. The BLS takes these individual measures and aggregates them to the CU level, creating a variable for *Total Income after Taxes*. This variable is used as a measure of household income.

The CE Survey mainly measures consumption through expenditures. As mentioned, several categories of regular and irregular, smaller and bigger expenditures are collected in the CU-level family files. When appropriate, the BLS adds smaller individual expenditures over all CU members and includes them in the family files.

The main expenditure category is *Total Expenditures*. *Total Expenditures* is the sum of 14 different expenditure subcategories. I also examine the following subcategories*: (i) Food Expenditures*; *(ii) Health Care Expenditures; (iii) Housing Expenditures;* and *(iv) Transportation Expenditures*. *Health Care Expenditures* consist of health insurance premiums as well as out-of-pocket spending for medical services, prescription drugs, and medical supplies. This is especially relevant given the high health care needs of disabled workers. *Housing Expenditures* includes the four expenditure subcategories: "shelter," "utilities," "household operations," and "house furnishing and equipment." *Transportation expenditures* include net outlays for new and used vehicles; gas and motor oil; vehicle finance charges and costs for insurance; maintenance and repairs; expenditures for rentals, leases, and licenses; and spending on public transportation. For each category, I use expenditure for the last quarter, although I annualize it by multiplying by four to make the values more comparable to the income measure.

In addition to expenditures, CUs are asked about their living situation, including the size of their house and the number of vehicles they own. I add variables that are consistently measured and informative about the living standards experienced by the household. These are used and analyzed later in the paper.

3.5 Summary Statistics

Table 1 shows the descriptive statistics for the 2010-2019 CE Survey sample based on the nine household types defined in Section 3.3. The average age for the reference person in the DI Households is around 45 to 49 years for all of the different race groups, which is older than the averages for the Non-DI Household types of around 39 to 41 years. These differences in average ages are not surprising, given that the likelihood of disabilities that limit work increase with age. There are also consistent DI/Non-DI differences in terms of educational attainment, with the reference person from DI households more likely to have not completed high school or college than Non-DI Households. Marriage rates are also lower for the reference person in DI Households than in Non-DI Households. The race-based differences align with well-known socioeconomic disparities in terms of outcomes like educational attainment and marriage rates, with White Households of both DI and Non-DI types having higher educational attainment and marriage rates than the equivalent types of Black and Hispanic households.

In terms of household characteristics, the DI households consistently have slightly

smaller households and are less likely to have children aged under 18 years than the Non-DI households. They are also more likely to be living in non-metropolitan areas than Non-DI households, although the differences on this measure are less pronounced for the Black and Hispanic households than for the White and Other Race households.

The importance of these differences will be considered later in the paper. This will be done by conditioning on them and seeing what degree they explain race-specific differences across DI and Non-DI households.

4. The Income and Expenditure of DI and Working Households by Race/Ethnicity

The income and expenditure habits of households with DI beneficiaries are now documented relative to other households with workers. For each outcome, I provide three different types of results. The first is information in a table on the averages, quartiles and inter-quartile ranges for each household type. This is done by combining all of the 2010-2019 data. The second is a figure that show race-specific averages for DI households that are broken into two-year periods (i.e., 2010/11, 2012/13, 2014/15, 2016/17, and 2018/19). The third is a figure showing, in six panels, the separate average and median values for DI Households and Non-DI Households for the three race groups using the same set of two-year periods (White, Black and Hispanic). Together, these exhibits provide information on differences in the outcomes of households receiving DI benefits by their race/ethnicity, as well as some insight into the recent trends in these outcomes.

4.1 Post-tax Income

Post-tax income is the first outcome considered. The top panel of Table 2 shows the averages, quartiles and inter-quartile ranges for this outcome. White DI Households have a mean annual post-tax income of $37,502, which is around half of the average for White Non-DI Households. This is consistent with other literature that workers who receive DI have worse economic outcomes than other workers (e.g., Autor, Maestas and Woodbury, 2020; Meyer and Mok, 2019). It is interesting to note that the median annual post-tax income of White DI Households ($23,885) is only 40 percent as large as the median for White Non-DI Households.

This indicates that, in relative terms, the large income values of DI Households increase their average more than do the large income values of Non-DI Households.[1]

We can take this as a baseline comparison, given that White Households account for the majority of all DI Households as well as all Non-DI Households. Table 2 shows the same post-tax income statistics for Black households. Black DI Households have a lower average annual post-tax income than White DI households by around $6,800, which is 18 percent of the average post-tax income of White DI Households. Black DI Households also have a lower annual post-tax income than Black Non-DI households. However, the relative gap between DI and Non-DI households is smaller for Black households than for White households: Black DI Households have mean and median values that are 65 and 50 percent of Black Non-DI Households (compared to equivalent mean and median comparisons of 50 and 40 percent for White households). The lower absolute incomes of Black households receiving DI income therefore comes from both poor economic outcomes for households with disabled workers and a general gap in the earnings and incomes of Black workers relative to their White counterparts, which has been documented elsewhere (e.g., Bayer and Charles, 2018; Joshi, Walters, Noelke, and Acevedo-Garcia. 2022). The progressivity of DI replacement rates, which provides a higher fraction of past earnings to DI beneficiaries with relatively low levels of earnings, at best slightly modifies the relative size of what one might call the "disability penalty."

Similar comparisons can be made for Hispanic households, using information from Table 2. Hispanic DI Households have almost the same average post-tax income as Black DI Households, which is 18 percent lower than White DI Households. The average post-tax income of Hispanic Non-DI Households is also similar to Black Non-DI Households (both around $48,000 per annum), which means that the relative comparisons are the same for Hispanic DI Households as described for Black DI Households. Again, long-standing gaps between the income of Hispanic and Non-Hispanic White households are fairly well understood (e.g., Mora and Dávila, 2018; Joshi, Walters, Noelke, and Acevedo-Garcia, 2022). One difference across Black and Hispanic households with DI beneficiaries is that the income of the Hispanic DI Households is less skewed, leading to a post-tax income value at the 25th percentile that is around

[1] However, the relative differences in the lower-quartile values are more similar to the mean values than this: White DI Households have a lower-quartile income value that is 47 percent of White Non-DI Households.

29 percent higher than for Black DI Households, and values at the median and 75th percentile that are around 20 percent higher than for Black DI Households.

We also consider the time trends for DI and Non-DI Households by race in Figures 1 and 2. Figure 1 shows the average post-tax income in two-year periods for the White, Black and Hispanic DI households (i.e., the households with DI beneficiaries). White DI Households have the highest average income for all of the periods except in 2016/17, where the average incomes of Hispanic DI Households are only slightly higher. The relative ranking of Black and Hispanic DI Households varies across the periods, likely reflecting the small sample sizes for these groups.

The patterns are clearer in Figure 2, where the DI Households are compared to Non-DI Households of the same race in terms of the mean and median post-tax income using averages and median values for two years of CE Survey data at a time. DI Households consistently have lower levels of post-tax income than Non-DI Households, which is consistent with the evidence presented in Table 2. What is revealed here, however, is an increasing divergence in the post-tax income of DI and Non-DI households. Except for the mean income of Black households, all of the other comparisons suggest that – within each racial group – the relative gap in the incomes of Non-DI and DI households is larger in 2018/19 than in 2010/11. For example, over this period, the median incomes of DI relative to Non-DI households go from around 45 to 35 percent for White Households; around 65 to 50 percent for Black households; and around 75 to 50 percent for Hispanic Households. Small samples mean some caution is needed in interpreting these changes, but it points to something that can be assessed further in terms of expenditure measures. We now consider these other measures.

4.2 Total Annualized Expenditure

As discussed in the introduction, expenditure patterns do not necessarily match income patterns. However, the value of the CE Survey is that these can be considered for the same sample of households. Similar information to that presented for post-tax income is now presented for total expenditure in the middle panel of Table 2 and in Figures 3 and 4. I will primarily focus on results where expenditure patterns provide different or new insights relative to the patterns for post-tax income that have already been discussed.

Total annualized expenditure in the CE Survey does not necessarily represent all spending made by a household (Fernández-Villaverde and Krueger, 2007). Therefore, it is difficult to directly compare the income and expenditure results in levels. Rather, it is useful to consider the relative differences by DI status and race. In those terms, there are some differences between these results and those for post-tax income. The gaps between DI and Non-DI households are smaller and more consistent across the racial groups. On average, White DI Households have 68 percent of the total expenditure of White Non-DI Households, while the equivalent statistics for Black and Hispanic households are 67 and 71 percent, respectively. The gaps in median values are also smaller for expenditure than for income, although DI households still fare slightly worse using median and quartile measures of total expenditure than using averages.

However, the greater consistency in relative outcomes primarily comes from White DI Households doing better in comparison to White Non-DI Households than before. Any evidence of progressive DI replacement rates or other elements protecting lower-income households disappears here, and therefore the total average expenditure of Black DI Households is approximately 30 percent lower than of White DI Households (instead of 18 percent lower). Hispanic DI Households now do slightly better than Black DI Households, although they have average expenditure that is around 25 percent lower than White DI Households (instead of 18 percent lower). The median and quartile values suggest that total expenditure is less skewed for Black and Hispanic DI households than for White DI households.

Figures 3 and 4 also provide new information about the trends in the relative outcomes of households of different races receiving DI income. Figure 3 clearly shows that White DI Households have the highest average expenditure for all of the periods, with Black and Hispanic DI households having broadly similar levels of total expenditure to each other. Figure 4 shows the comparison of DI Households to Non-DI Households of the same race in terms of the mean and median total expenditure for two years at a time. This clearly shows an increasing divergence in the expenditure of DI and Non-DI households for all racial groups, especially in terms of median values. In particular, the median expenditure of Black and Hispanic DI households decreased between 2010/11 and the 2014/15 periods, and was flat for White DI Households. Over the same period, the median total expenditure went up for all of the groups of

Non-DI Households. This suggests that DI households did not do well between 2010 and 2015, both in absolute terms and relative to households with workers who did not receive DI income.

4.3 Other Types of Expenditure

Particular types of expenditure may be more relevant to judging well-being than other expenditure categories. One is food expenditure, which is important for understanding the day-to-day well-being of households. Results for this outcome, which is again reported in annual terms, are reported in the bottom panel of Table 2 and in Figures 5 and 6.

Both the race-specific DI/Non-DI differences and the race differences across DI households are more compressed for food expenditures, which is important as food insecurity has profound impacts on wellbeing (Gundersen and Zilliak, 2015). Within each racial group, the food expenditure of DI households is around 75 percent of Non-DI households. The spending is also more similar across race groups. The average food expenditure of Black DI Households is approximately 23 percent lower than of White DI Households. Hispanic DI Households now do even better than Black DI Households, with an average expenditure that is around 10 percent lower than White DI Households. The comparisons using the median values for food expenditure are similar to those based on the averages. In terms of the time trends, the patterns are less clear around a consistent divergence between DI and Non-DI households, although most of the figures do point to DI households doing relatively worse over time than Non-DI households.

We consider annualized healthcare expenditure in the top panel of Table 3, and in Figures 7 and 8. There are large and interesting differences in the spending in this category. White DI Households spend around half of White Non-DI Households, while Black and Hispanic DI households spend either the same or more than Black and Hispanic Non-DI Households. These differences seem to reflect racial differences in health spending across Non-DI households, which is consistent with Black and Hispanic households having fewer workplace benefits, including employer-sponsored health insurance (Kristal, Cohen, and Navot, 2020). There is also a large increase in the average spending by Non-DI households over time, with more mixed time trends for DI households.

Breakdowns of the housing and transportation expenditure categories are also provided in Table 4 and Figure 9. The DI households consistently spend less on these categories than their respective Non-DI households, with DI households generally having average spending that is

around 25-33 percent lower than Non-DI households for both of these types of expenditure. However, there are no meaningful differences in the cross-race differences within the set of DI households for either housing or transportation expenditures.

5. The Role of Household Characteristics in Explaining Expenditure Differences

In this section, I examine some of the same total expenditure patterns by DI status and the race/ethnicity of households after conditioning on characteristics that may influence the economic characteristics of households. I focus on several types of heterogeneity: household size; whether or not the head of household (the reference person) is married; whether or not children under 18 years are present in the household; whether or not the household members own the home; whether or not household members own a vehicle; and whether the household residing in a metropolitan or non-metropolitan location.

In Table 4, the average and median annual expenditure patterns are presented for the different household types based on these characteristics. The overall differences by race and DI status are nearly always present in these subgroups. Relative to households with workers but no DI income, households of the same racial composition with DI income tend to do relatively better in larger households (with three or more members) than in smaller households (with one or two members); when minor children are present; and when they own a vehicle. The relative differences are not substantially different based on the other household characteristics.

In terms of the differences between White DI Households and Black DI Households, the gaps are greatest for larger households, married households, non-home-owning households, and households living in metropolitan areas. Marriage and household size does not seem to have the same degree of protection for Black DI Households than White DI Households, perhaps because earnings or employment are lower for non-beneficiaries. In terms of the differences between White DI Households and Hispanic DI Households, the largest gaps are for married households and where no vehicle is owned, which again suggests that support from other, non-DI-beneficiary household members is more limited in Hispanic than in White households.

6. Other Measure of Well-being

So far, I have focused on income and different types of expenditure. However, the differences in households' characteristics and the prices available to them mean that similar

amounts of expenditure may result in different levels of consumption. For that reason, I use additional information from the CE Survey to further examine the living standards of different types of households.

Home ownership and the number of rooms – including the number of bedrooms and bathrooms – key characteristics when it comes to understanding the living circumstances of different households. In Table 5, I report the averages in each household type for these, along with the number of vehicles, the fraction of households without any vehicles, and whether the home has air conditioning. These tell a similar story in terms of the differences across DI and Non-DI households, and by the racial/ethnic composition of the household. For rarer, and thus presumably more extreme measures of economic disadvantage, like not owning any vehicles or not having air conditioning, the racial and DI-related gaps are even larger. For example, 39 percent of Black DI Households do not own a vehicle, compared to 21 percent of Black Non-DI Households and 18 percent of White DI Households. There are also large gaps in this outcome for Hispanic households; 33 percent of Hispanic DI Households do not own a vehicle, compared to 14 percent of Hispanic Non-DI Households.

7. Conclusion

There are three main conclusions from this paper. First, Black and Hispanic households with DI beneficiaries have consistently lower levels of income than White households with DI beneficiaries. Much of this seems to come from the overall lower levels of income and expenditure of Black and Hispanic households relative to White ones, irrespective of whether they receive DI income.

Second, the racial gaps are more persistent in terms of expenditure. The total average expenditure of Black DI Households is approximately 30 percent lower than of White DI Households, whereas it is 18 percent lower when using post-tax income. Hispanic DI Households do slightly better than Black DI Households, although they have average expenditure that is around 25 percent lower than White DI Households (instead of 18 percent lower in terms of post-tax income).

Third, the data clearly shows an increasing divergence in the expenditure of DI and Non-DI households for all racial groups between 2010 and 2019. For some categories, like food expenditure, Black and Hispanic households with DI beneficiaries spent less in absolute terms in

2015 than in 2010. Further investigation into the reasons for this divergence would be an important next step.

10. References

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Figure 1 Average Post-Tax Income of Households with SSDI Income by Race

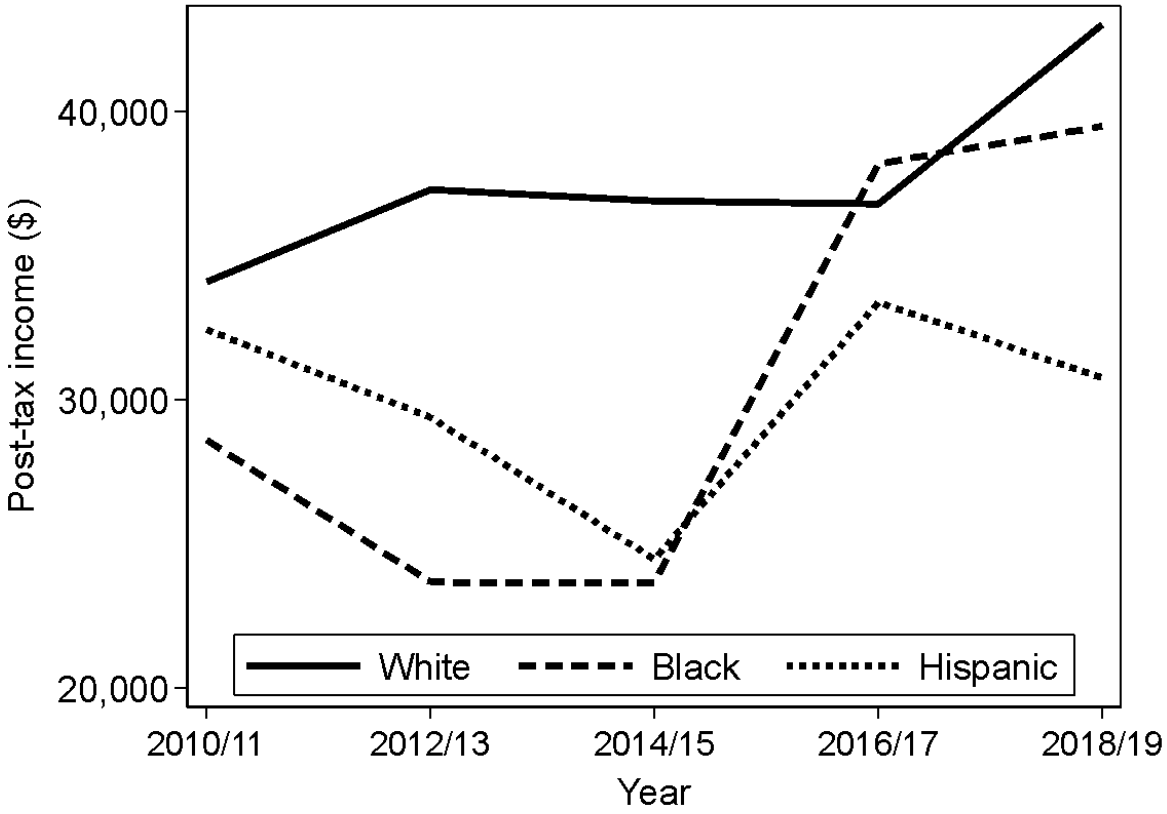
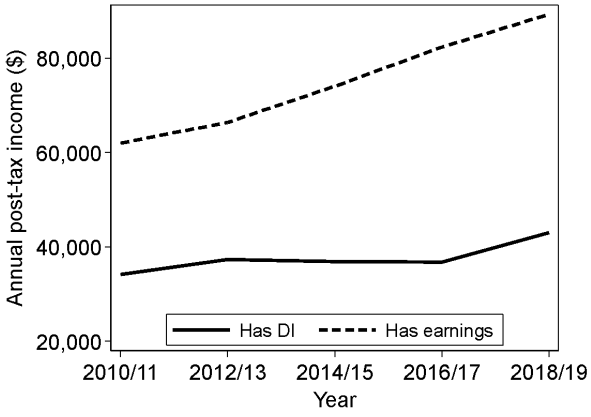
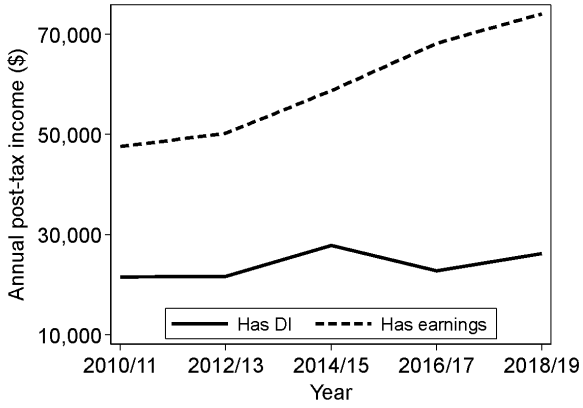


Figure 2 Post-Tax Income of Households by Race,
Comparing Households with DI Income to Households with Earnings

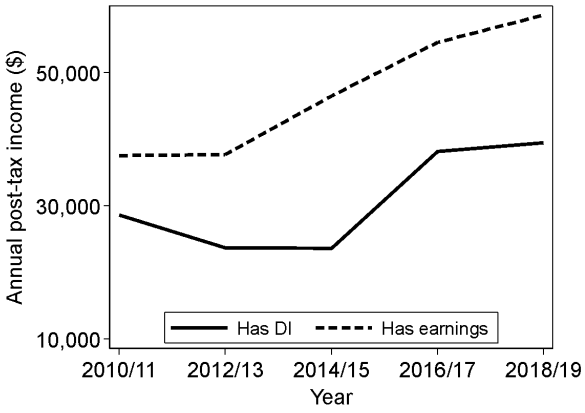
A: White households – averages



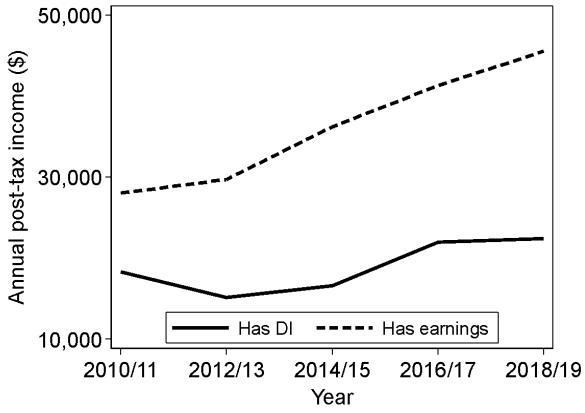
B: White households – medians



C: Black households – averages



D: Black households – medians



E: Hispanic households – averages

F: Hispanic households – medians

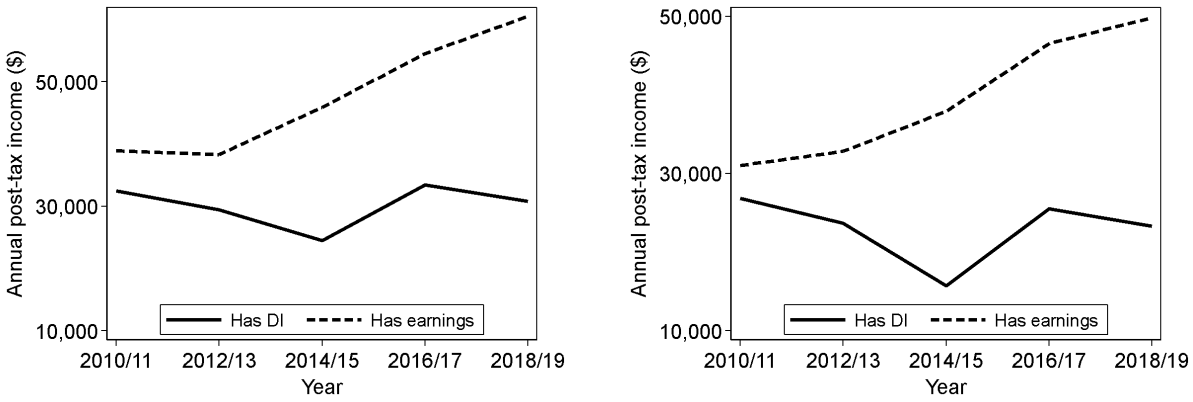


Figure 3 Total Expenditure of Households with SSDI Income, by Race

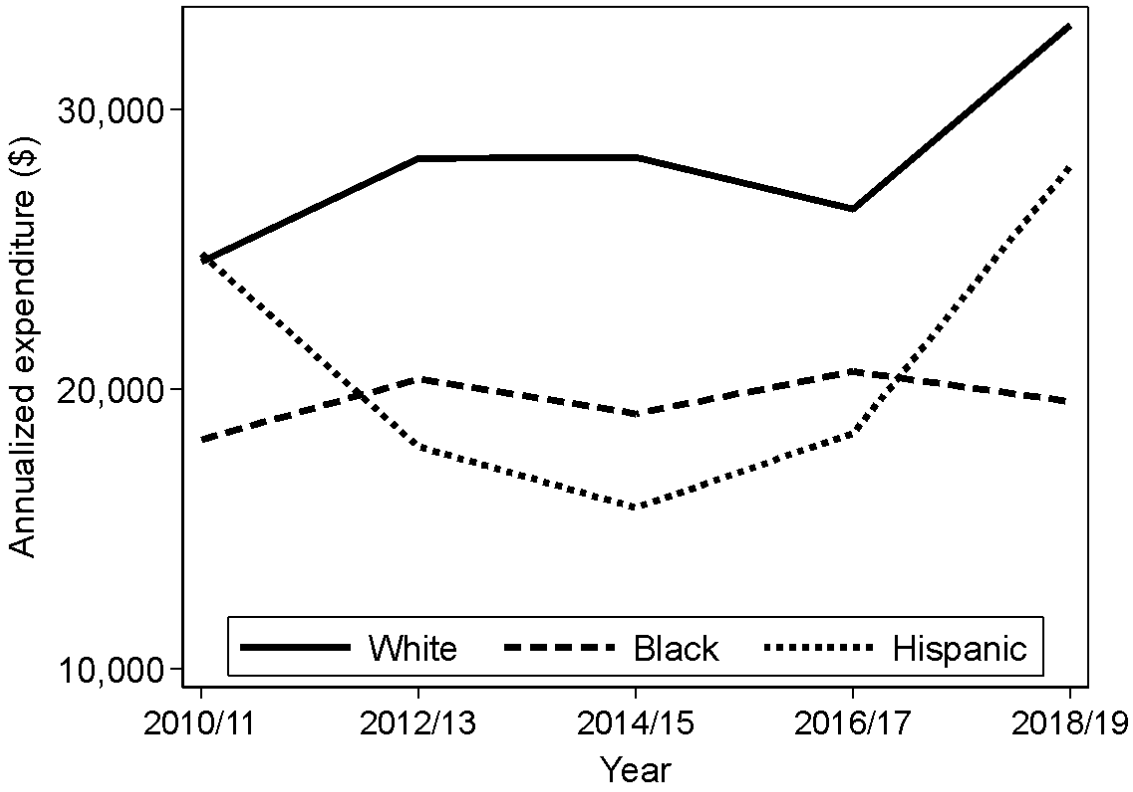
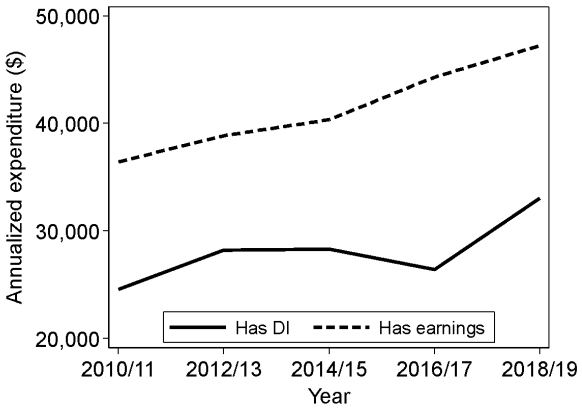
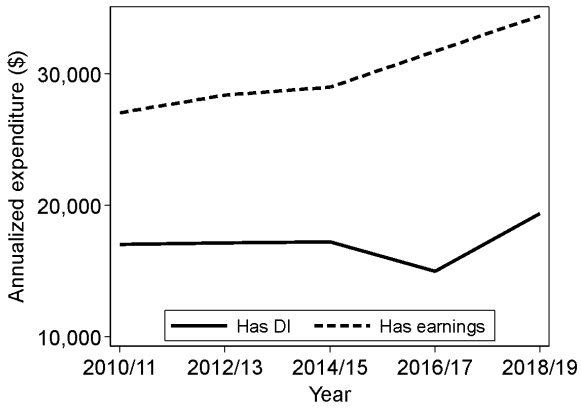


Figure 4 Total Expenditure of Households by Race,
Comparing Households with SSDI Income to Households with Earnings

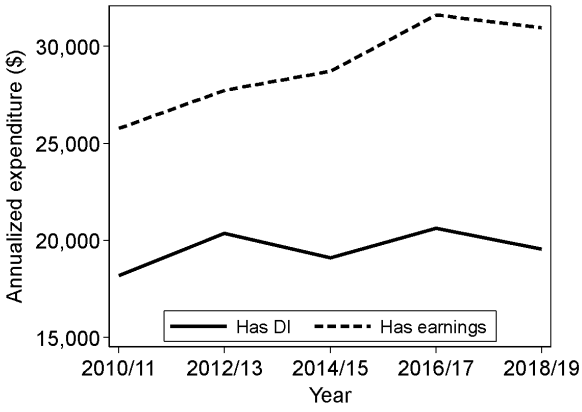
A: White households – averages



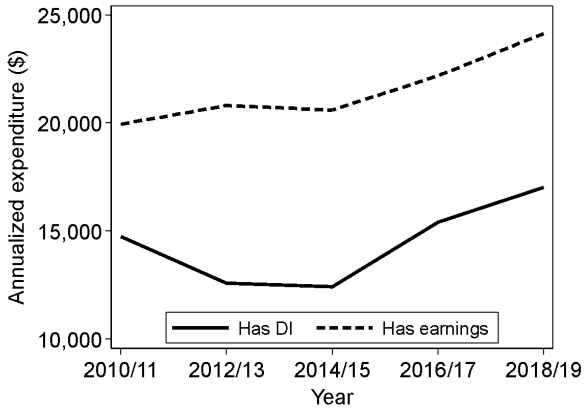
B: White households – medians



C: Black households – averages



D: Black households – medians



E: Hispanic households – averages

F: Hispanic households – medians

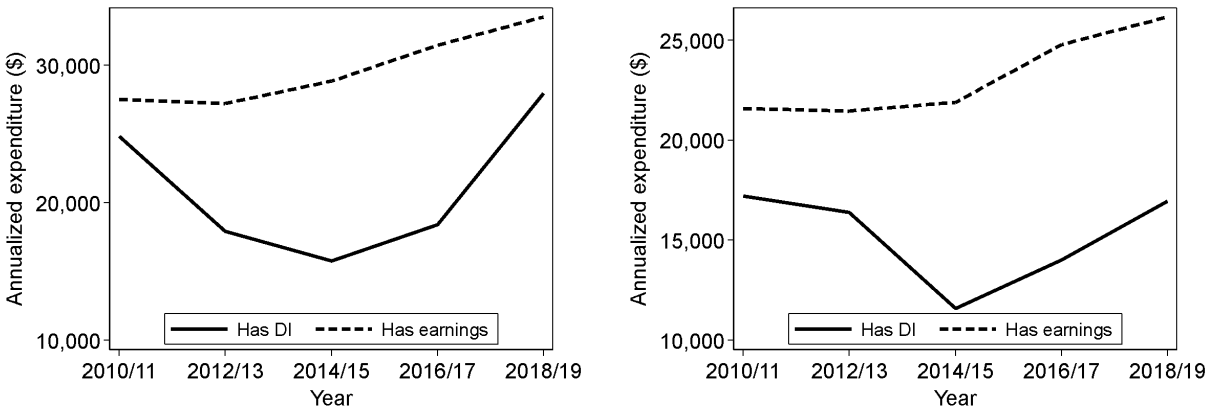


Figure 5 Food Expenditure of Households with SSDI Income, by Race

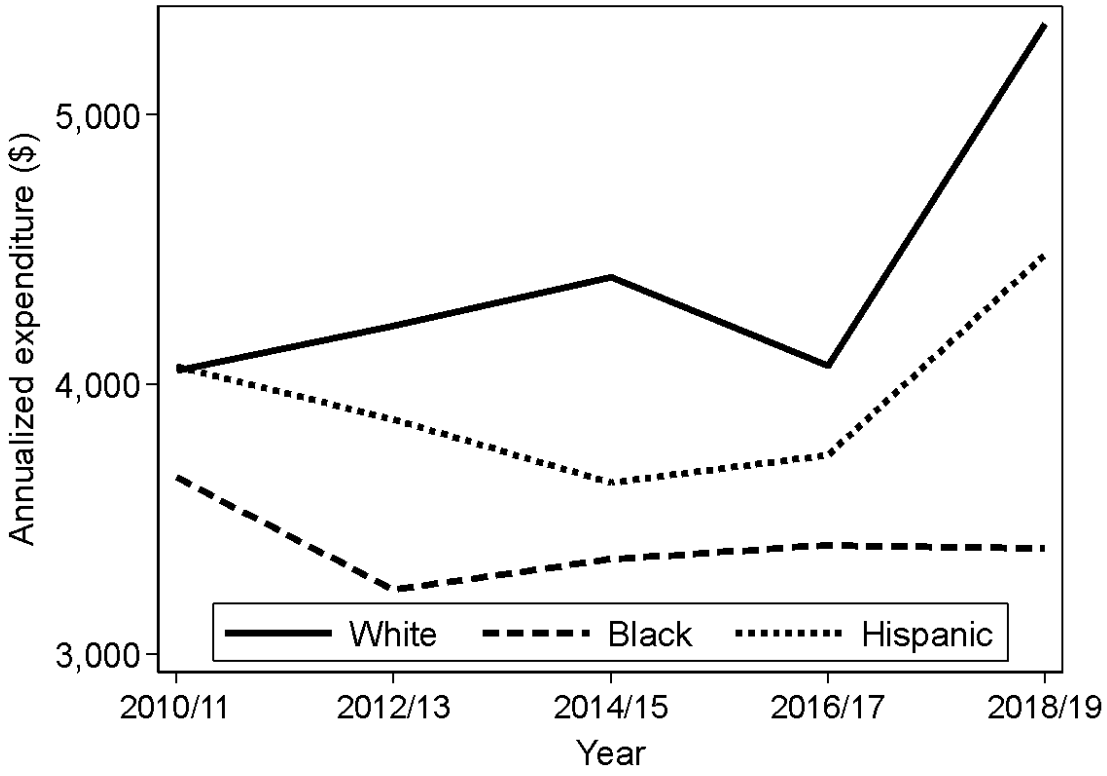
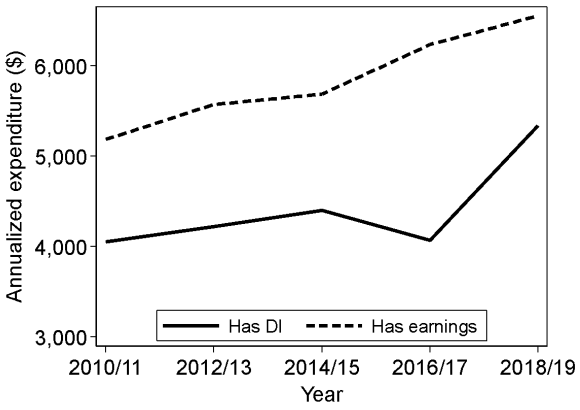
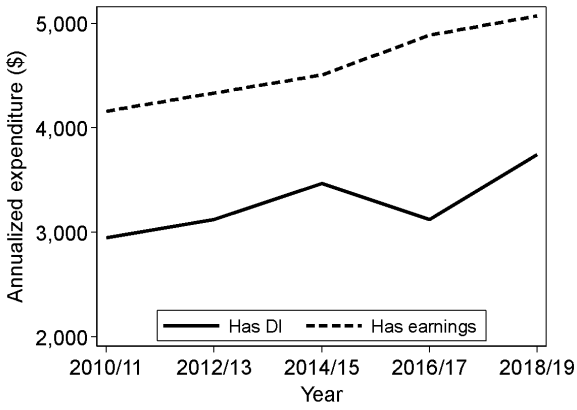


Figure 6 Food Expenditure of Households by Race,
Comparing Households with SSDI Income to Households with Earnings

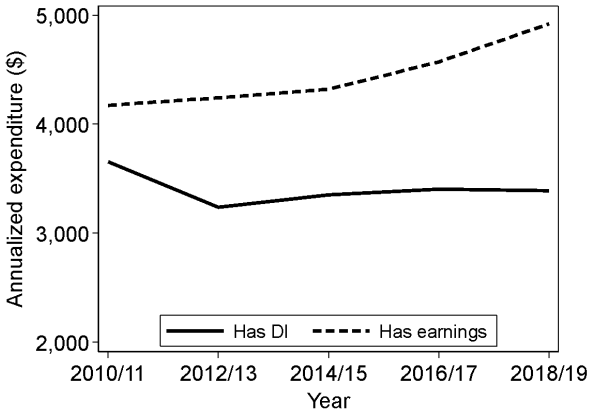
A: White households – averages



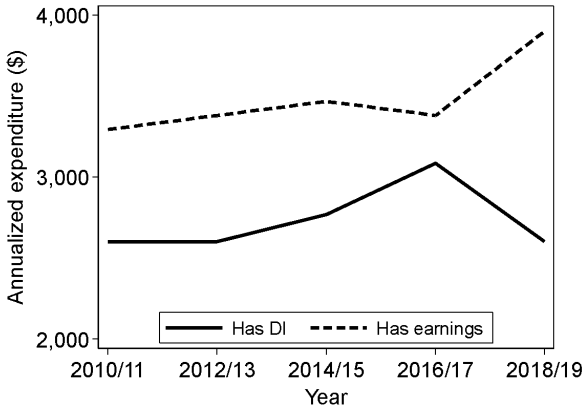
B: White households – medians



C: Black households – averages



D: Black households – medians



E: Hispanic households – averages

F: Hispanic households – medians

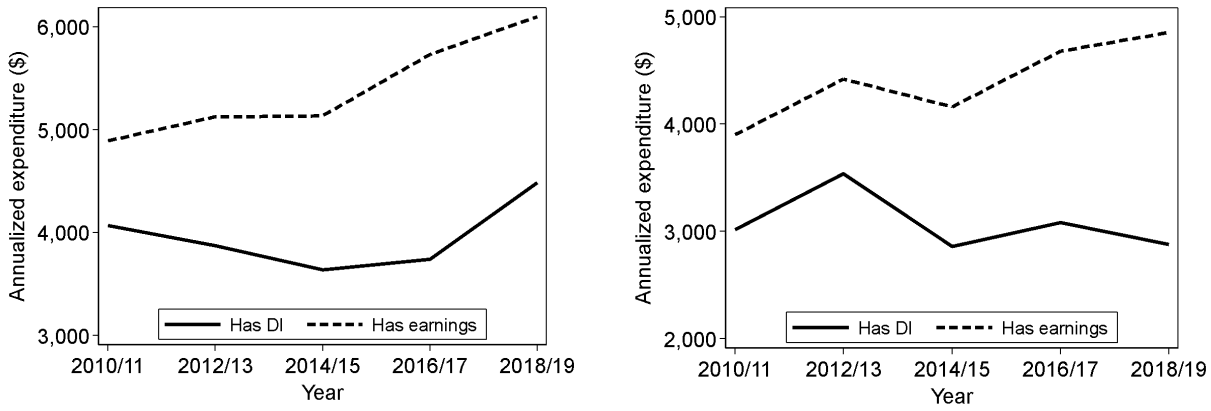


Figure 7 Health Expenditure of Households with SSDI Income, by Race

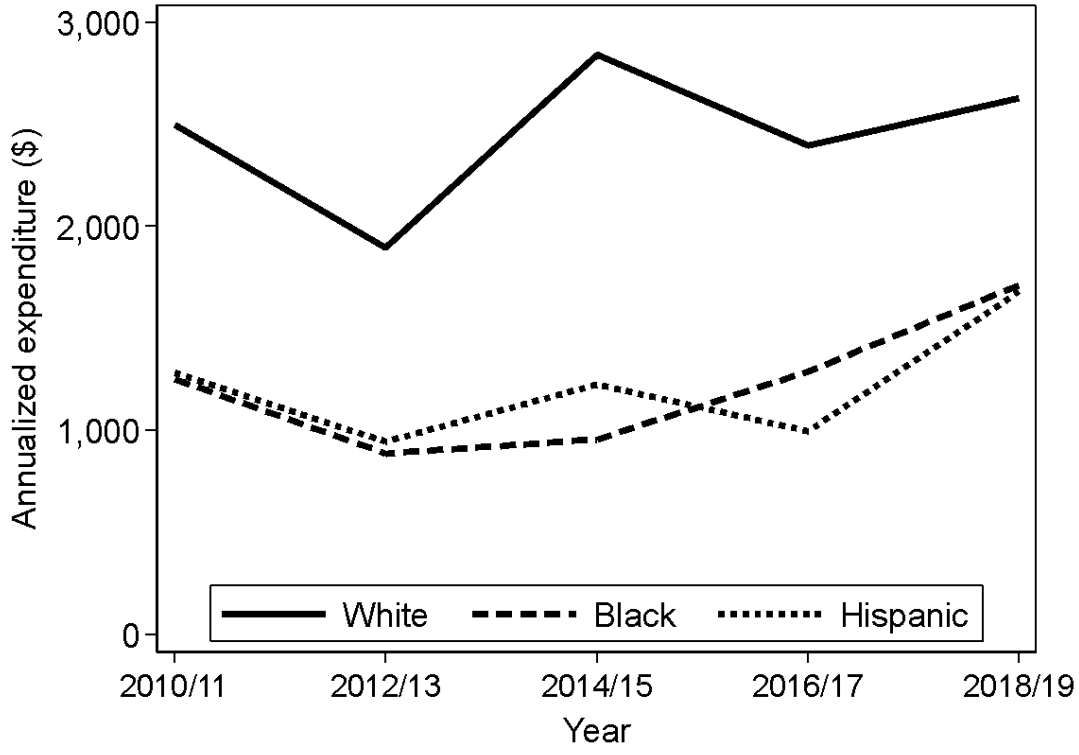
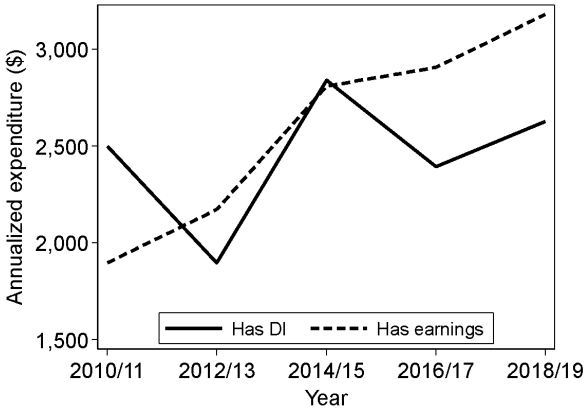
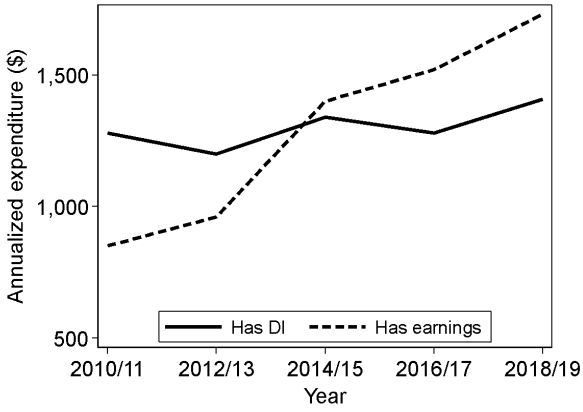


Figure 8 Food Expenditure of Households by Race,
Comparing Households with SSDI Income to Households with Earnings

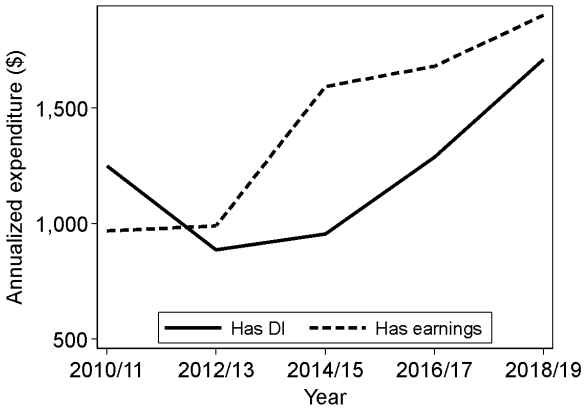
A: White households – averages



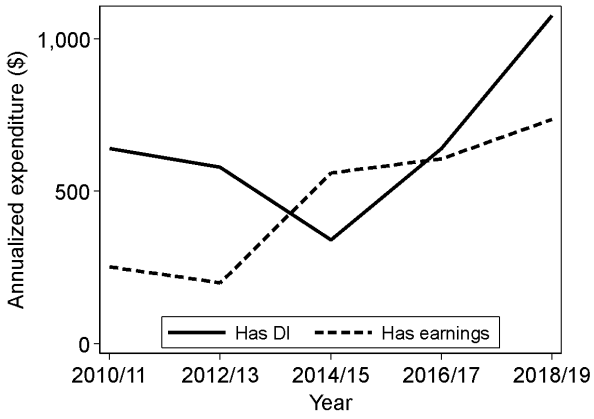
B: White households – medians



C: Black households – averages



D: Black households – medians



E: Hispanic households – averages

F: Hispanic households – medians

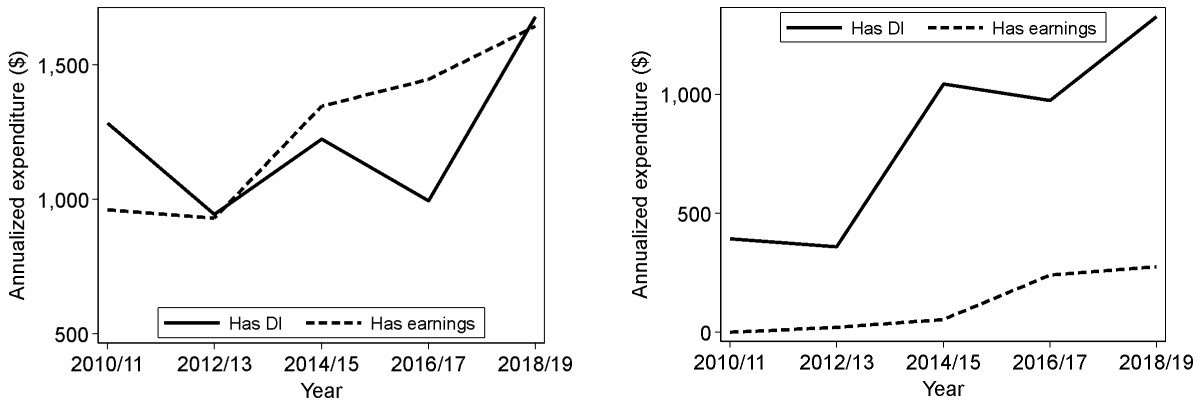
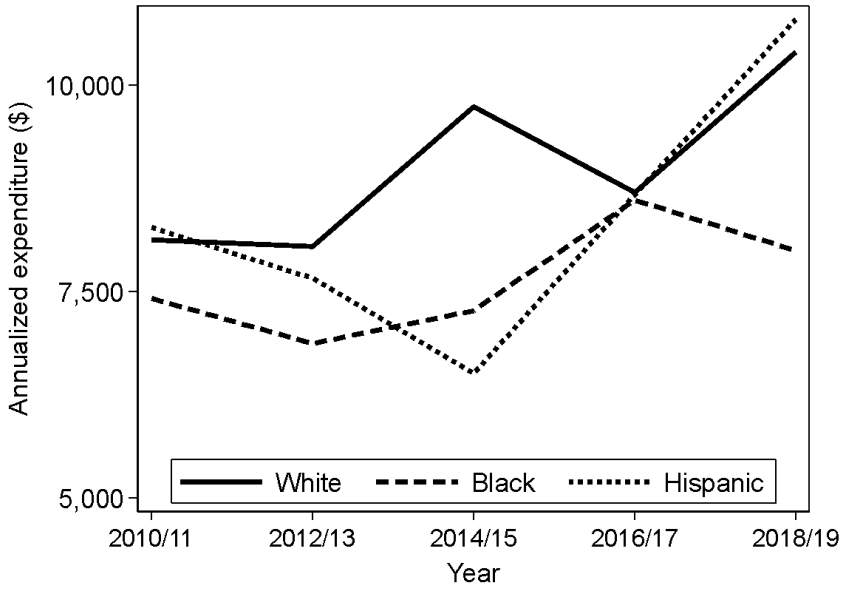


Figure 9 Other Expenditure of Households with SSDI Income, by Race

A: Housing Expenditure



B: Transport Expenditure

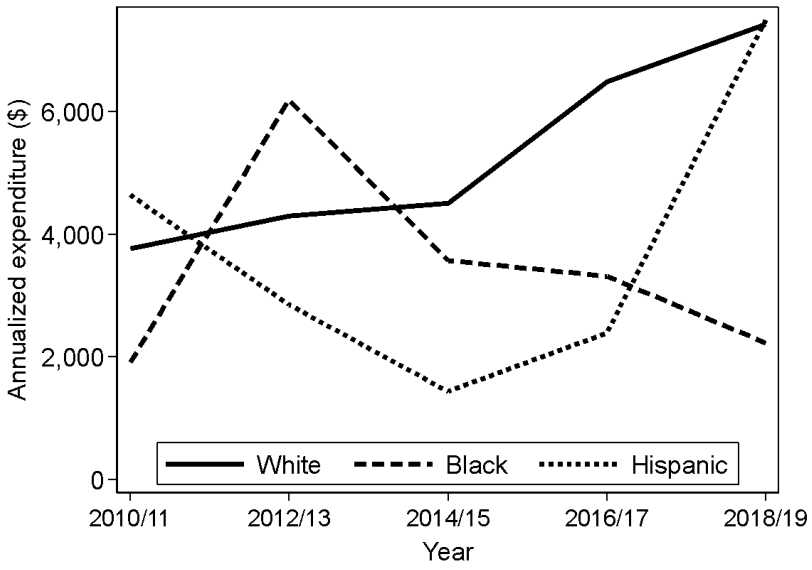

Annualized expenditure ($)
6,000
4,000
2,000
0
White
Black
Hispanic
2010/11
2012/13
2014/15
2016/17
2018/19
Year

Table 1 Characteristics of Households by Race and Whether has DI Income or Earnings

	Non-Hispanic White		Non-Hispanic Black		Hispanic		Other/mixed race		Households without DI or earnings
	Has DI income	Others with earnings	Has DI income	Others with earnings	Has DI income	Others with earnings	Has DI income	Others with earnings	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reference person characteristics									
Age	48.6	40.9	48.0	40.1	46.1	38.6	45.4	38.9	40.4
	(0.279)	(0.076)	(0.538)	(0.175)	(0.806)	(0.138)	(0.822)	(0.146)	(0.27)
Male	0.460	0.511	0.377	0.374	0.343	0.462	0.437	0.538	0.426
	(0.016)	(0.003)	(0.028)	(0.008)	(0.038)	(0.007)	(0.039)	(0.007)	(0.01)
HS dropout	0.174	0.046	0.222	0.072	0.443	0.313	0.223	0.052	0.184
	(0.012)	(0.001)	(0.024)	(0.004)	(0.039)	(0.006)	(0.033)	(0.003)	(0.008)
HS grad or some college	0.704	0.535	0.683	0.655	0.454	0.519	0.598	0.460	0.653
	(0.014)	(0.003)	(0.027)	(0.008)	(0.039)	(0.007)	(0.039)	(0.007)	(0.009)
College graduate	0.119	0.419	0.095	0.271	0.074	0.159	0.168	0.485	0.159
	(0.010)	(0.003)	(0.017)	(0.007)	(0.021)	(0.005)	(0.030)	(0.007)	(0.007)
Married	0.394	0.553	0.254	0.323	0.341	0.557	0.417	0.647	0.145
	(0.015)	(0.003)	(0.025)	(0.008)	(0.038)	(0.007)	(0.039)	(0.007)	(0.007)
Household characteristics									
Family size	2.49	2.65	2.45	2.69	3.08	3.48	3.44	3.15	1.90
	(0.046)	(0.010)	(0.087)	(0.026)	(0.133)	(0.024)	(0.148)	(0.021)	(0.026)
Children <18 years present	0.303	0.411	0.314	0.465	0.495	0.604	0.442	0.52	0.273
	(0.014)	(0.003)	(0.027)	(0.008)	(0.040)	(0.007)	(0.039)	(0.007)	(0.009)
Lives in non-metro area	0.276	0.138	0.075	0.067	0.084	0.064	0.148	0.050	0.159
	(0.014)	(0.002)	(0.015)	(0.004)	(0.022)	(0.003)	(0.028)	(0.003)	(0.007)
Observations	1,012	21,592	294	3,865	160	5,533	160	5,118	2,531

Notes: Means are provided that are weighted using the final survey weights. Standard errors of the means are provided in brackets.

Table 2 Income and Expenditure Statistics by Race and Whether has DI Income or Earnings

Group	Obs.	Mean	SE of mean	Lower quartile	Median	Upper quartile	Inter-qu art. range	DI relative to earnings household, same race: Mean	Lower quartile	Median	Uppe quartil
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Post-tax income											
White: DI	1,012	37,502	1,278	14,116	23,885	50,033	35,917	50%	47%	40%	50
White: Earnings	21,568	74,373	473	30,098	59,791	99,673	69,575				
Black: DI	294	30,673	2,030	11,505	18,576	35,115	23,610	65%	64%	50%	55
Black: Earnings	3,859	47,528	769	17,925	37,381	63,759	45,834				
Hispanic: DI	160	30,608	1,785	13,680	24,026	42,168	28,488	64%	59%	60%	66
Hispanic: Earnings	5,519	48,080	555	23,000	40,084	63,797	40,797				
Other: DI	160	46,376	2,874	18,516	34,700	66,640	48,124	56%	52%	52%	61
Other: Earnings	5,109	82,702	1,015	35,652	66,816	108,796	73,144				
Total expenditure											
White: DI	1,012	27,988	1,296	9,427	17,423	31,076	21,649	68%	56%	58%	60
White: Earnings	21,592	41,278	283	16,934	29,804	51,372	34,438				
Black: DI	294	19,553	1,078	8,857	13,971	24,931	16,073	67%	71%	64%	68
Black: Earnings	3,865	29,092	454	12,559	21,679	36,545	23,986				
Hispanic: DI	160	21,058	1,693	8,523	15,039	23,531	15,009	71%	63%	66%	62
Hispanic: Earnings	5,533	29,860	345	13,559	22,901	37,665	24,106				
Other: DI	160	27,334	2,108	11,621	17,481	33,820	22,199	61%	61%	52%	61
Other: Earnings	5,118	44,963	607	19,174	33,367	55,495	36,321				
Food expenditure											
White: DI	1,012	4,393	121	1,733	3,293	5,720	3,987	75%	67%	72%	76
White: Earnings	21,592	5,829	33	2,600	4,580	7,540	4,940				
Black: DI	294	3,415	159	1,560	2,704	4,507	2,947	76%	75%	78%	76
Black: Earnings	3,865	4,465	58	2,080	3,467	5,893	3,813				
Hispanic: DI	160	3,957	255	1,733	3,051	5,021	3,288	73%	66%	69%	70
Hispanic: Earnings	5,533	5,427	53	2,615	4,420	7,224	4,609				
Other: DI	160	4,853	318	2,253	3,833	6,240	3,987	75%	76%	76%	75
Other: Earnings	5,118	6,431	78	2,947	5,013	8,320	5,373				

Notes: Statistics are provided that are weighted using the final survey weights.

Table 3 Expenditure Statistics by Race and Whether has DI Income or Earnings

Group	Obs.	Mean	SE of mean	Lower quartile	Median	Upper quartile	Inter-qu art. range	DI relative to earnings household, same race			
								Mean	Lower quartile	Median	Upper quartile
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Health expenditure ($)											
White: DI	294	1,209	104	-	640	1,611	1,611	50%		50%	55%
White: Earnings	1,012	2,440	114	420	1,280	2,947	2,527				
Black: DI	21,592	2,568	29	133	1,243	3,228	3,095	177%		270%	180%
Black: Earnings	3,865	1,447	42	-	460	1,792	1,792				
Hispanic: DI	160	1,195	124	-	800	1,498	1,498	94%		714%	104%
Hispanic: Earnings	5,533	1,278	37	-	112	1,440	1,440				
Other: DI	160	2,165	311	112	1,002	2,559	2,447	179%		157%	152%
Other: Earnings	294	1,209	104	-	640	1,611	1,611				
Housing expenditure ($)											
White: DI	1,012	8,958	308	3,216	6,104	10,740	7,524	69%	61%	64%	65%
White: Earnings	21,592	13,007	91	5,311	9,508	16,413	11,103				
Black: DI	294	7,657	341	3,656	5,757	10,184	6,528	74%	79%	70%	76%
Black: Earnings	3,865	10,338	143	4,636	8,177	13,416	8,780				
Hispanic: DI	160	8,413	610	3,639	6,127	9,840	6,201	78%	75%	72%	70%
Hispanic: Earnings	5,533	10,728	114	4,824	8,520	14,104	9,280				
Other: DI	160	10,254	898	3,852	7,268	11,524	7,672	66%	59%	62%	59%
Other: Earnings	5,118	15,443	205	6,536	11,640	19,404	12,868				
Transportation expenditure ($)											
White: DI	1,012	5,261	458	600	1,776	4,504	3,904	73%	44%	59%	75%
White: Earnings	21,592	7,217	132	1,360	3,000	5,976	4,616				
Black: DI	294	3,392	641	160	904	3,068	2,908	66%	18%	38%	64%
Black: Earnings	3,865	5,147	225	880	2,376	4,800	3,920				
Hispanic: DI	160	3,754	964	240	1,344	3,512	3,272	67%	21%	52%	68%
Hispanic: Earnings	5,533	5,583	187	1,140	2,608	5,144	4,004				
Other: DI	160	3,984	420	933	2,184	4,696	3,763	54%	64%	67%	72%
Other: Earnings	5,118	7,332	251	1,452	3,245	6,507	5,055				

Notes: Statistics are provided that are weighted using the final survey weights.

Table 4 Total Expenditure Statistics by Household Characteristics, Race and DI/Earnings Income

	Obs.	Mean	DI / Earn ratio	Ratio to White	SE of mean	Median	DI / Earn ratio	Obs.	Mean	DI / Earn ratio		SE of mean	Median	DI / Earn ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Households with one or two people							Households with three or more people						
White: DI	637	21,446	64%		1,107	13,824	57%	375	38,422	76%		2,826	26,156	69%
White: Earnings	11,636	33,599			325	24,432		9,956	50,453			468	38,018	
Black: DI	184	15,904	65%	74%	1,106	11,130	60%	110	25,073	73%	65%	2,067	20,905	80%
Black: Earnings	2,152	24,587		73%	527	18,678		1,713	34,257		68%	756	26,125	
Hispanic: DI	68	14,274	58%	67%	2,071	9,996	54%	92	26,082	81%	68%	2,393	20,058	79%
Hispanic: Earnings	1,799	24,729		74%	531	18,676		3,734	32,362		64%	438	25,344	
Other: DI	64	24,828	67%	116%	3,415	14,546	53%	96	28,896	58%	75%	2,682	18,564	50%
Other: Earnings	1,937	37,064		110%	819	27,406		3,181	49,993		99%	830	37,180	
	Married households							Other households						
White: DI	387	37,796	74%		2,770	26,115	68%	625	21,608	74%		1,113	13,467	62%
White: Earnings	11,922	51,039			437	38,639		9,670	29,179			287	21,561	
Black: DI	67	28,899	73%	76%	3,307	23,705	76%	227	16,367	68%	76%	868	12,400	66%
Black: Earnings	1,195	39,483		77%	1,067	31,253		2,670	24,143		83%	412	18,812	
Hispanic: DI	54	22,207	66%	59%	2,362	17,389	66%	106	20,463	82%	95%	2,263	14,584	75%
Hispanic: Earnings	3,059	33,737		66%	510	26,407		2,474	24,977		86%	425	19,396	
Other: DI	69	29,746	58%	79%	3,717	20,406	52%	91	25,611	78%	119%	2,434	16,987	69%
Other: Earnings	3,320	51,493		101%	833	38,975		1,798	32,994		113%	704	24,736	
	Children <18 years present							No children <18 years						
White: DI	294	34,602	71%		1,986	26,276	72%	718	25,109	69%		1,631	14,866	57%
White: Earnings	9,015	48,570			471	36,590		12,577	36,185			344	26,015	

Black: DI	91	25,016	77%	72%	2,629	19,252	80%	203	17,048	65%	68%	973	12,340	63%
Black: Earnings	1,744	32,317		67%	726	24,112		2,121	26,286		73%	564	19,712	
Hispanic: DI	80	27,338	87%	79%	2,749	20,089	82%	80	14,895	54%	59%	1,745	11,312	54%
Hispanic: Earnings	3,381	31,497		65%	446	24,451		2,152	27,366		76%	540	20,869	
Other: DI	70	29,717	60%	86%	3,398	17,881	48%	90	25,443	64%	101%	2,656	16,396	56%
Other: Earnings	2,712	49,488		102%	892	37,000		2,406	40,060		111%	801	29,502	

Notes: Statistics are provided that are weighted using the final survey weights.

Table 4 Total Expenditure Statistics by Household Characteristics, Race and DI/Earnings Income (continued)

	Obs.	Mean	DI / Earn ratio	Ratio to White	SE of mean	Median	DI / Earn ratio	Obs.	Mean	DI / Earn ratio	Ratio to White	SE of mean	Median	DI / Earn ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Owns home						Does not own home			
White: DI	577	33,897	71%		2,104	20,896	59%	435	19,625	69%		925	13,892	67%
White: Earnings	14,126	47,928			388	35,697		7,466	28,324			308	20,870	
Black: DI	80	26,771	73%	79%	2,590	22,932	86%	214	16,616	68%	85%	1,046	11,967	63%
Black: Earnings	1,447	36,523		76%	933	26,748		2,418	24,535		87%	436	19,050	
Hispanic: DI	58	26,346	74%	78%	3,337	19,103	70%	102	18,114	71%	92%	1,813	13,800	68%
Hispanic: Earnings	2,244	35,633		74%	644	27,165		3,289	25,614		90%	357	20,392	
Other: DI	69	37,275	70%	110%	4,052	25,332	64%	91	19,276	55%	98%	1,597	14,726	54%
Other: Earnings	2,789	53,301		111%	939	39,480		2,329	34,856		123%	655	27,069	

	Owns a vehicle							Does not own a vehicle						
White: DI	818	31,091	73%		1,527	20,111	65%	194	13,362	47%		1,556	8,815	47%
White: Earnings	19,685	42,553			299	31,009		1,907	28,143			807	18,621	
Black: DI	171	24,080	76%	77%	1,652	18,253	77%	123	12,592	64%	94%	756	10,584	69%
Black: Earnings	3,026	31,622		74%	549	23,583		839	19,532		69%	543	15,304	
Hispanic: DI	107	25,789	82%	83%	2,349	18,784	77%	53	11,434	57%	86%	1,023	10,416	61%
Hispanic: Earnings	4,716	31,457		74%	389	24,306		817	20,138		72%	525	17,086	
Other: DI	136	29,985	64%	96%	2,395	20,406	59%	24	12,659	40%	95%	1,838	10,941	46%
Other: Earnings	4,565	46,626		110%	655	34,680		553	31,773		113%	1,421	23,826	
	Lives in metropolitan area							Lives in non-metropolitan area						
White: DI	764	30,230	71%		1,666	18,255	59%	248	22,118	69%		1,495	14,048	60%
White: Earnings	18,690	42,735			314	31,084		2,902	32,212			587	23,500	
Black: DI	272	19,854	67%	66%	1,152	13,997	63%	22	15,866	73%	72%	2,034	12,590	84%
Black: Earnings	3,585	29,618		69%	474	22,176		280	21,728		67%	1,512	15,015	
Hispanic: DI	144	21,354	71%	71%	1,837	15,039	65%	16	17,842	73%	81%	3,160	13,168	68%
Hispanic: Earnings	5,151	30,239		71%	362	23,098		382	24,303		75%	1,033	19,336	
Other: DI	139	28,549	63%	94%	2,353	18,020	54%	21	20,362	56%	92%	4,000	15,123	59%
Other: Earnings	4,903	45,423		106%	627	33,630		2,406	40,060		124%	801	29,502	

Notes: Statistics are provided that are weighted using the final survey weights.

Table 5 Economic Household Characteristics by Race and Whether has DI Income or Earnings

		Non-Hispanic White		Non-Hispanic Black		Hispanic		Other/mixed race		Households without DI or earnings
		Has DI income	Others with earnings	Has DI income	Others with earnings	Has DI income	Others with earnings	Has DI income	Others with earnings	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Owns home	Mean	0.586	0.661	0.289	0.380	0.358	0.424	0.448	0.548	0.298
	Std. err.	(0.015)	(0.003)	(0.026)	(0.008)	(0.038)	(0.007)	(0.039)	(0.007)	(0.009)
	Obs.	1,012	21,592	294	3,865	160	5,533	160	5,118	2,531
Home: number of rooms	Mean	5.55	6.26	5.11	5.37	4.85	5.05	5.89	5.78	4.87
	Std. err.	(0.061)	(0.016)	(0.125)	(0.033)	(0.135)	(0.024)	(0.148)	(0.031)	(0.049)
	Obs.	1,009	21,282	293	3,811	159	5,508	160	5,081	2,406
Home: number of bedrooms	Mean	2.66	2.95	2.45	2.62	2.52	2.59	2.92	2.87	2.39
	Std. err.	(0.033)	(0.007)	(0.067)	(0.017)	(0.083)	(0.014)	(0.081)	(0.016)	(0.037)
	Obs.	1,009	21,301	293	3,811	159	5,511	160	5,084	2,407
Home: number of bathrooms	Mean	1.51	1.78	1.34	1.53	1.42	1.53	1.54	1.78	1.41
	Std. err.	(0.021)	(0.005)	(0.036)	(0.011)	(0.049)	(0.008)	(0.05)	(0.011)	(0.013)
	Obs.	1,010	21,302	293	3,809	159	5,512	160	5,084	2,408
Has central air conditioning	Mean	0.437	0.554	0.341	0.393	0.309	0.381	0.410	0.466	0.279
	Std. err.	(0.016)	(0.003)	(0.028)	(0.008)	(0.037)	(0.007)	(0.039)	(0.007)	(0.009)
	Obs.	1,012	21,592	294	3,865	160	5,533	160	5,118	2,531
Does not own vehicle	Mean	0.175	0.089	0.394	0.209	0.330	0.141	0.153	0.112	0.450
	Std. err.	(0.012)	(0.002)	(0.029)	(0.007)	(0.037)	(0.005)	(0.029)	(0.004)	(0.01)
	Obs.	1,012	21,592	294	3,865	160	5,533	160	5,118	2,531
No. of vehicles	Mean	1.82	2.14	1.10	1.32	1.13	1.61	2.05	1.91	0.820
	Std. err.	(0.051)	(0.011)	(0.073)	(0.018)	(0.083)	(0.015)	(0.171)	(0.019)	(0.02)
	Obs.	1,012	21,592	294	3,865	160	5,533	160	5,118	2,531

Notes: Means are provided that are weighted using the final survey weights. Standard errors of the means are provided in brackets.