Money Matters: Consumption Volatility Across the Income Distribution

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The measurement of economic security in the United States has historically focused on income, while the secular and policy discourse prioritizes income-adequacy to meet family needs. Concerns over income-adequacy center on the capacity of families to predictably consume minimally acceptable levels of basic needs—food, clothing, shelter, utilities, and other essential goods—and the social and economic mobility consequences of low consumption (e.g., Duncan et al. 2011; Hardy et al. 2019; Hoynes, et al. 2016). In spite of the fact that both income and consumption help in characterizing the economic situation of families (Johnson 2004; Ziliak 2006, 2015), there is relatively little contemporary evidence on the level and volatility of consumption across income and socioeconomic status.

Consumption-based measures of well-being may be better aligned with economic models and forecasts, given that well-being within canonical models of economic behavior depend upon consumption, not income. Nonetheless, income maintains its status as the primary measure of well-being due to its widespread availability in surveys and administrative data; researchers very often admit income measures as an implied proxy for consumption. In recent years, the Census Bureau addressed these concerns by basing its threshold for a Supplemental Poverty Measure on contemporaneous food, clothing, shelter, and utilities expenditures (Citro and Michael, 1995; Fox, 2019).

Alternative approaches to poverty measurement and economic well-being rely directly upon consumption data (Meyer and Sullivan, 2012 and 2017; Fisher, Johnson, Marchand, Smeeding, and Torrey, 2009), and several consumption-based definitions of family resources produce lower poverty than income-based measures—suggesting that consumption among many low-income families exceeds their income. Federal statistical agencies in the United States continue to evaluate producing a consumption-based poverty measure (Interagency Technical Working Group, 2021). A longer line of consumption inequality research finds that consumption inequality is lower than income inequality, but with mixed findings on whether consumption inequality increased with income inequality (Cutler and Katz, 1991; Heathcote, Perri, and Violante, 2010; Fisher, Johnson, and Smeeding, 2015) or failed to keep up with the growth in income inequality (Blundell, Pistaferri, and Preston, 2008; Krueger and Perri, 2006; Meyer and Sullivan, 2013). A more recent literature has attempted to understand whether consumption volatility increased along with income and earnings volatility (Davis and Kahn, 2008; Gorbachev, 2011; Dogra and Gorbachev, 2015).

To broaden our understanding of how consumption and income intersect, we examine both the level and volatility of consumption across the income and socio-economic distribution, and across several categories of consumption central to the daily lives of families, including food and clothing. To do this, we use the Consumer Expenditures (CE) Survey from 1984 to 2014, incorporating the imputed income data for the CE developed in Fisher, Johnson, and Smeeding (2015). This series imputes the components of income reported as received but where a dollar value was not provided. Unlike other surveys, the CE left this income value as missing before 2004. The Fisher et al. (2015) imputation creates a consistent measure of household income, allowing for respondents to be more accurately placed within income deciles.

We find a clear socioeconomic and demographic gradient: lower consumption levels and higher consumption volatility occur among families with lower income, less education, as well as for Black families. This is the case for all consumption categories except alcohol spending, and our findings are generally robust to the volatility measure. Among the categories we track, food and clothing exhibit especially high levels of consumption volatility for low-income households.

Using this richer information on income, we contribute to a literature examining both the level and volatility of consumption in research using the short panel, within-year feature of the CE survey design. Up to this point, the CE has generally lacked consistent information on the income characteristics of sample respondents, while the design of longer panel data sets with rich information on income, such as the Panel Study of Income Dynamics (PSID), do not facilitate within-year volatility measurement, nor do they allow for a broader range of consumption categories over which to examine differences by income. Moreover, the inclusion of additional consumption categories in the PSID coincided with its transition into a biennial survey, making the study of consumption volatility even more precarious, as volatility is measured biennially as well.

We also add to the literature by introducing a broader categorical range, including but not limited to food expenditures; this addition augments PSID-based studies that have focused on food (Gorbachev 2011; Dogra and Gorbachev, 2015). We look necessities, including one durable, apparel (clothing), as well as luxuries. Volatility of a necessity such as food is expected to be lower than other consumption categories, and volatility of food may be different across the income distribution and socio-demographic characteristics.

Ultimately, our within-year examination of consumption fluctuations reveals stark gaps in consumption volatility among lower income families, families with less educated heads, as well as Black families. Peaks and valleys in consumption for categories such as food, especially for families with limited liquidity, has negative implications for well-being. This is especially true given the current design of tax and transfer programs in the U.S., which have increasingly eschewed cash for in-kind benefits; the largest cash transfer to poor Americans occurs via refundable tax credits, received once via lump-sum in February through April. If made permanent, recently federally enacted child allowance provisions could provide helpful liquidity to smooth consumption of necessities on a periodic basis, such as food, that have been linked to improved socioeconomic outcomes. While the once-per-year earned income tax credit (EITC) provides important assistance, in any given year many low-income families experience income fluctuations, irregular scheduling, and job changes (Schneider and Harknett 2017, 2019; Ziliak et al. 2011) that interrupt stable consumption.