

DECONSTRUCTING LIFECYCLE EXPENDITURE

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It is well documented that household expenditures over the lifecycle increase through middle age and then decline sharply thereafter. Household consumption tends to rise from ages 25 to 45 and to fall between ages 45 and 70. This is true for purchases of durable goods, like automobiles and appliances, as well as nondurable goods like food; it also holds after accounting for household size. This finding is somewhat at odds with the life-cycle model, which posits that households should seek to smooth consumption—to acquire and maintain a given standard of living—over the lifecycle. From this perspective, the observed drop in spending heading toward older ages does not make sense. In the Research Brief, we summarize our recent efforts to try to provide some insight into what may be going on. We propose that it is critical to consider how people spend their time, how this relates to spending decisions, and, importantly, how this relationship changes over the life course.

BACKGROUND

This project is third in a series re-visiting consumption expenditures in light of time allocation. In Aguiar and Hurst (2005), we use food diaries to document that declines in food expenditure at retirement do not necessarily imply food consumption declines. In Aguiar and Hurst (2007), we document that shopping intensity for food, and therefore price paid for equivalent grocery items, varies systematically over the lifecycle. Both studies focused exclusively on food expenditures. However, by focusing on food, a relatively small component of nondurable expenditures, our previous work left open the question of whether, and to what extent, these insights were relevant for other types of expenditure and to what extent they were important for explaining the spending profile described above. This work, among other goals, aims to resolve these outstanding questions.

FINDINGS

Using data from the Consumer Expenditure Survey, we decompose nondurable expenditures into more detailed consumption categories. In doing so, we show that there is a tremendous amount of variation across the lifecycle profiles of individual consumption categories.

The entire decline in nondurable expenditure late in the lifecycle is driven by three categories – food, nondurable transportation, and clothing/personal care. Expenditures on these categories are positively correlated with market work. Food is amenable to home production while transportation and clothing are inputs into market work. The remaining categories of nondurable expenditures, constituting roughly half of total nondurable expenditures, do not decline over the back half of the lifecycle. These categories include entertainment, housing services, charitable giving, and utilities. Moreover, expenditures on several of these categories, most notably entertainment, increase over the latter half of the lifecycle.

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- We show that entertainment expenditures and time allocated to entertainment are positively correlated over the lifecycle, suggesting complementarity between time and goods.
- Conversely, food expenditures and time allocated to food preparation are negatively correlated, suggesting substitutability between time and goods.

The model suggests that entertainment expenditures should be relatively stable between ages 43 and 60. Specifically, the model predicts declines in expenditure of 3 percent between age 43 and 51 and an additional 3 percent between age 52 and 60. The data imply respective changes of +3 and -3 percent. The model matches the divergence of food and entertainment expenditures in the latter half of the lifecycle quite well.

The model is less successful in explaining the first half of the lifecycle. In particular, the model predicts that entertainment expenditure should increase by 1 percent between age 25 and 33 and be unchanged between age 34 and 42. In the data, the respective changes are increases of 47 and 35 percent. One way to interpret this failure is through the data on time allocation. The model suggests that agents should delay time spent on entertainment until the complementary expenditure is high, that is delay entertainment time until middle age. The time freed up should instead be allocated to home production, where the margin of substitution between time and goods is high. This is not the pattern observed in the data.

Relative to their 30s and 40s (and to expenditure on entertainment), people in their 20s allocate an abundance of time to entertainment. It is possible that the low level of expenditure while young may be due to liquidity constraints and/or precautionary savings. However, these forces cannot explain why the young allocate so much time to entertainment rather than food production – there is no equivalent constraint on time allocation. This allocation of time may instead reflect the high returns to building social capital for the young and the low returns to home production before the accumulation of a stock of home durables.

CONCLUSION

This paper documents that the hump in lifecycle expenditures on nondurables masks informative variation across individual expenditure categories. In particular, we highlight that food declines relative to entertainment (and several other categories) in the second half of the lifecycle. The qualitative pattern is consistent with a model in which time and good are substitutes for food, but complements in entertainment. Quantitatively, the model closely matches the joint allocation of expenditures and time on food and entertainment in the latter half of the lifecycle. Going forward, any explanation of the lifecycle profile of expenditures needs to match the fact that food expenditures (a necessity) falls during the back half of the lifecycle while expenditure on entertainment (a luxury) rises during the back half of the lifecycle.

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