

## 1 Update on Attanasio and Davis (1996)

Cutler and Katz (1991,1992), Slesnick (1994) and Attanasio and Davis (1996) looked at different dimensions of inequality in consumption. These papers all used the CEX (in an era in which the measurement error issues were less known than they are today). Slesnick (1994) found that the increase in inequality in consumption were much more modest than those in income and stressed some of the reasons to look at consumption rather than income. Cutler and Katz (1991), on the other hand, found that “changes in the distribution of consumption parallel changes in the distribution of income”. Similarly, in their *Brookings Papers on Economic Activity* essay Cutler and Katz (1992) observe:

“From our examination of household consumption data, we find first that the distribution of consumption is substantially more equal than the distribution of income. This finding is consistent with evidence from earlier household budget studies presented by Milton Friedman in his work on the permanent-income hypothesis. Our data show that the lowest quintile of the consumption distribution receives about 15 percent more resources than does the lowest quintile of the income distribution. Second, however, we find that recent trends in the distribution of consumption closely mirror those in the distribution of income. Consumption inequality increased along with income inequality in the 1980s, particularly for the non-elderly.”

The evidence presented by Attanasio and Davis (1996) is consistent with that in Cutler and Katz (1991, 1992). Unlike other authors, Attanasio and Davis (1996) focused on the relationship between relative wages and relative consumption across different groups in the US population, where groups are defined on the basis of the year of birth of the household head and on their educational achievement. They find that long run relative movements in wages across these groups are mirrored in relative movements in consumption. In other words, groups that have experienced long run increases in average wages that are greater than the average also experienced greater increases in consumption. Therefore, increases in the differences in wages across groups is reflected by similar increases in differences in consumption. Most of this evidence is driven by the increases in the return to education, both in terms of remuneration and consumption. Such evidence constitutes, according to Attanasio and Davis “a spectacular failure of full risk sharing”.

We have updated Attanasio and Davis (1996) evidence using data on consumption and wages from 1980 to 2012. In the first three columns of Table 1, we report the coefficient of a regression of changes in average group consumption (over one, five and eight years) on changes in average group wages. These regressions also includes year dummies, so that the coefficients we report identify the relationship between relative movements in (group) wages and (group) consumption. In the final column, we report the coefficient of a regression of group average (log) consumption on group average (log) wages, including in the

regression both year and group dummies. One could argue that this coefficients capture the changes in consumption to very long run movements in average wages. The measure of consumption we use includes non-durable and services as measured in the Interview component of the CEX. Wages are defined as male hourly earnings. We use data both from the CEX and the Current Population Survey (CPS). Averages wages in the CPS are used as instruments for average wages in the CEX. Groups are defined by 10-year birth cohorts and four education groups (high school dropouts, high school graduates, some college, and college graduates).

The results are remarkably similar to those reported in Attanasio and Davis (1996). In particular, when we consider one-year changes, the variability of which is probably dominated by temporary fluctuations in wages that can be insured, we do not find a significant relationship between relative changes in wages and consumption. However, when considering longer horizon (5 and 8 years), or the level regression, where instead persistent wage factors are more likely to be at play, the relationship is strongly significant.

**Table 1: Attanasio and Davis, 1980-2012**

Dep. var.:	$\Delta_\tau \log c_t^g$ $\tau = 1$	$\Delta_\tau \log c_t^g$ $\tau = 5$	$\Delta_\tau \log c_t^g$ $\tau = 8$	$\log c_t^g$ -
$\Delta_\tau \log w_t^g$	0.098 (0.433)	0.571*** (0.096)	0.455*** (0.066)	-
$\log w_t^g$	-	-	-	0.555*** (0.060)
$N$	628	532	460	652

These results show that permanent (or slow moving) wage shocks across groups are reflected into consumption, indicating that these shocks are not absorbed or insured across different groups. As the focus is on inequalities across groups and, in particular, across skill groups, this evidence is particularly salient about the impact that technology innovation or more generally increases in the return to education have on well-being inequality. These results are also informative about the tools available to individuals to smooth shocks and also about the nature of certain shocks. Finally, they are consistent with the view that wages inequality is reflected in some important dimensions into consumption inequality and therefore is likely to have implications for inequality in welfare and well-being.