**Online Appendix**

**Spend it, save it, or transfer it?**

Yanan Zhang 1 and Alessandra Guariglia2

1 Oxford Institute of Population Ageing, University of Oxford, 66 Banbury Road, Oxford, OX2 6PR, United Kingdom.

E-mail: [yanan.zhang@ageing.ox.ac.uk](mailto:yanan.zhang@ageing.ox.ac.uk). ORCID:  [0000-0003-3836-4232](https://orcid.org/0000-0003-3836-4232)

2 Corresponding author. Department of Economics, University of Birmingham, University House, Edgbaston, Birmingham B15 2TY, United Kingdom.

E-mail: [a.guariglia@bham.ac.uk](mailto:a.guariglia@bham.ac.uk). ORCID: 0000-0001-5417-2615

**Appendix A. Definitions of all variables**

Table A1 presents definitions of all variables used in our models.

**Appendix B. Descriptive statistics**

Table A2 displays descriptive statistics for different categories of consumer expenditure, namely home expenditure, food, durables, medical (out-of-pocket), recreation, clothing, education and others.[[1]](#footnote-1) The table shows that expenditure on food is the largest consumption category, covering 53.76 percent of the total consumption. Medical (out-of-pocket) expenditure is the second largest category, which accounts for around 13.44 percent of the aggregate expenditure. The third largest consumption component is home expenditures, with a share of 11.86 percent.

Table A3 shows how consumption changes for households with leavers between 2011 and 2013. We observe a significant increase in food consumption, and recreation, along with a slight and insignificant decrease in annual total consumption over those years. The average annual food consumption (inflation adjusted) increased by around 1,886 yuan between the two years. During the periods between the civil war and the reform and opening-up of the Chinese economy, the majority of Chinese residents were living in poverty and barely able to meet their basic needs. Following the rapid growth of the economy, residents’ income has been increasing steadily, and, as a result, food consumption has also been rising gradually. At the same time, people have been improving the quality of their food, which largely increased the expenditure on food (Gu *et al.,* 2015). This rise in food expenditure over time may compensate the decline following the departure of household members. Furthermore, parents whose children or grandchildren moved out have more time to enjoy themselves and, consequently, spend a greater amount of money on recreation. Table A3 also shows that household home, clothing, and especially education expenditures significantly decline as a result of the decreased household size. It is common for children to move out of their parents’ houses to somewhere near their workplace as soon as they finish education and find a job, which can explain the significant decline in education expenditure.

Table A4 provides means and standard deviations of other variables used in our models for the two waves of the CHARLS pooled together. We observe that the average household size in our sample is 3.4, with a maximum household size of 13, and 37.47 percent of households are from urban areas. In addition, the average age of the main respondents in our sample is 61.34 and 78.75 percent of them are married. We use the attainment of primary education as an education indicator, because the average education level of the main respondents in our sample is low. Only 51.30 percent of main respondents completed primary school.[[2]](#footnote-2) Finally, 89.02 percent of respondents own their house.

**Appendix C. Ensuring that our results are not affected by attrition**

Attrition can introduce bias into longitudinal studies because the individuals who remain in the study may be systematically different from those who drop out. We acknowledge that attrition and non-response are inherent challenges in panel data like the CHARLS. There is in fact a possibility that older adults may be more likely to drop out from the survey if their offspring, who assisted with questionnaires, moved out of the family home. Yet, our analysis employs a two-wave panel dataset, where the departure of a household member can only be observed in the second wave. As such, we are unable to test the association between household attrition and the probability of a member leaving the household using our data.

We therefore verify whether our baseline results are robust to employing a weighted fixed-effects estimator to adjust for potential sample selection bias. Weighting is a common technique used in survey analyses to adjust for various forms of bias and to ensure the sample is representative of the population (Fitzgerald et al., 1998). In the context of longitudinal studies, weights can be used to adjust for attrition, which happens when participants drop out of the sample over time. Attrition weights are typically calculated by modelling the probability of remaining in the study, given a set of observed characteristics. This is often done using a logistic regression with "staying in the study" as the outcome and various demographic, socioeconomic, and health characteristics as predictors. Once these probabilities are calculated, the inverse of the probability is used as the weight. That is, individuals who were less likely to stay in the study (based on their characteristics) are given higher weights, while those who were more likely to stay are given lower weights. By applying these weights in the analysis, the sample used in estimation is made more representative of the original sample, reducing the bias introduced by attrition. Thus, the estimates derived from the weighted data are more likely to reflect the true values of the population.

The longitudinal weights which we use are provided within the CHARLS. They are based on the baseline weights adjusted for non-response biases. Specifically, an inverse probability weighting factor is constructed from a Logit regression of whether a respondent participates in the 2013 wave conditional on the participation in the 2011 wave.

The results obtained using the weighted fixed-effects model are presented in Table A5. The dependent variables in columns 1-3 are the logarithms of total household consumption, non-durable consumption, and non-education consumption, respectively. The dependent variables in columns 4 to 6 are the logarithms of total, non-durable and non-education adult-equivalent consumption. We can see that the results are broadly consistent with our main findings, which suggests that our baseline results were not driven by attrition. Only one difference is observed: in column 6, the coefficient associated with the leavers aged 17 to 24 is now positive and marginally significant. Coupled with the negative coefficient on the same variable in column 3, this suggests that when we focus on non-education consumption, the remaining household members only save part of the resources freed-up by the leaver and consume the rest. This can be explained considering that the 17-24 age group comprises both people who just finished their education and people who are now financially independent and have secure jobs. The former would induce the remaining household members to save the resourced freed up by their departure so as to smooth consumption. The latter can be seen as an “insurance” by their parents, who would then consume the freed-up resources. The mix of these two effects determines whether the freed-up resources are saved or consumed. In Table A5, the “insurance” effect exerts a stronger weight than in Table 5 in the paper.

Next, Banks et al. (2010) argue that using a balanced panel ensures that different trajectories observed between groups are not due to differential attrition. Similarly, Gröger and Zylberberg (2016) estimate their model both on the balanced and unbalanced panel. They see the fact that the two sets of estimates are very similar as evidence that their results are not driven by attrition. It is noteworthy that given that our data only spans two waves, the estimates generated using the fixed-effects estimator do not differ between a balanced and an unbalanced panel. This is because the fixed-effects estimator demeans all variables, causing single-wave participants to be dropped due to the resulting zero variance (i.e., x - mean(x) = 0). In Table A6, we present estimates of our baseline model carried out on a balanced panel. This balanced sample accounts for 10,112 observations across 5,056 households[[3]](#footnote-3). We can say that the coefficient estimates are identical in Table A6 and Table 5 in the paper. Nevertheless, due to differences in sample sizes, the standard errors and the constant differ slightly. Hence, the fact that our estimated based on the unbalanced panel are identical to those based on the balanced panel can be seen as a further confirmation that our baseline results are not driven by attrition.

**Appendix D. Ensuring that our results are robust to restricting the sample to leavers who moved out of the household**

Table A7 shows that our results are robust to dropping members of the younger generation who passed away or left the household for reasons other than moving out.

**Appendix E. Looking at other consumption categories**

So far, our results focused on the determinants of total, non-durable, and non-education consumption. One may wonder whether the results also hold for specific consumption categories. However, as durable and education consumption are respectively characterized by 61.05 percent and 72.39 percent zero values we are not able to estimate their determinants using a fixed-effects linear estimator. A Tobit estimator should be used in this case, but fixed effects cannot be accounted for due to the incidental parameter problem.

In Table A8, we therefore verify whether our results are robust to focusing on two other consumption aggregates, namely out-of-pocket medical expenditures and “other” expenditure, which either have few or no zero values. The former represents an important share (13.44 percent) of the total consumption of the respondents in our dataset, is essential expenditure, and closely depends on household composition. The latter is a miscellaneous category which includes diverse items such as local transportation; fees for matrons, housekeepers and servants; taxes and fees turned over to the government; donations and so on. We can see that our main results hold for these two sub-categories of consumption, with one exception: neither total nor per capita out-of-pocket medical expenditure are affected by movers aged 25 to 30. This can be explained bearing in mind that respondents in this age group are generally healthy and thus only free up a small amount of resources.

**References not included in the paper**

Banks, J., C. O’Dea, and Z. Oldfield (2010). Cognitive function, numeracy and retirement saving trajectories. *Economic Journal*, 120 (548), F381–F410.

Fitzgerald, J., P. Gottschalk and P. R. Moffit (1998). An analysis of sample attrition in panel data: the Michigan panel study of income dynamics. National Bureau of Economic Research Technical Working Paper No. 0220.

Gröger, A. and Y. Zylberberg (2016). Internal labor migration as a shock coping strategy: evidence from a typhoon. *American Economic Journal: Applied Economics*, 8 (2), 123-53.

Gu, B., Ju, X., Chang, J., Ge, Y. and P. M. Vitousek (2015). Integrated reactive nitrogen budgets and future trends in China. *Proceedings of the National Academy of Sciences*, 112, 8792-8797.

Table A1. Variable definitions

|  |  |
| --- | --- |
| **Variables** | **Definition** |
| **Total consumption** | Aggregate consumption of all categories. |
| **Non-durable consumption** | Aggregate consumption of all categories except for durables. |
| **Non-education consumption** | Aggregate consumption of all categories except for education. |
| **Non-medical consumption** | Aggregate consumption of all categories except for medical. |
| **Age** | Age of respondent. |
| **Male** | Gender of respondent. |
| **Primary ed.** | Dummy variable equal to 1 if the respondent attained primary education, and zero otherwise. |
| **Married** | Dummy variable equal to one if the respondent is married, and zero otherwise. |
| **Widowed** | Dummy variable equal to one if the respondent is widowed, and zero otherwise. |
| **Urban** | Dummy equal to 1 if the respondent lives in an urban area, and zero otherwise. |
| **Wealth** | Logarithm of total household financial wealth. |
| **Income** | Logarithm of total household income. Household income includes the salary, pension, benefits, remittance payment and remittances of all household members. |
| **Home ownership** | Dummy variable equal to 1 if the respondent owns a house, and zero otherwise. |
| **Good health** | Dummy variable equal to one if the respondent is in good health, and zero otherwise. |
| **Fair health** | Dummy variable equal to one if the respondent is in fair health, and zero otherwise. |
| **Remittances to members of younger generations** | Logarithm of household remittances to non-resident members of the younger generation. These encompass both monetary (e.g., support with living expenses, support in paying bills and so on) and in-kind support (e.g., providing food, clothes, vegetables and so on). |
| **YoungDemo2011** | Total number of members of the younger generation in 2011. |
| **YoungMove** | Total number of members of the younger generation who moved out during the period 2011 – 2013. |
| **Household size** | Total number of household members. |
| **No. of non-offspring members** | Total number of household members excluding the members of the younger generation in 2011. |
| **YoungMove0\_16** | Total number of members of the younger generation aged between 0 and 16 who moved out of the household between 2011 and 2013. |
| **YoungMove17\_24** | Total number of members of the younger generation aged between 17 and 24 who moved out of the household between 2011 and 2013. |
| **YoungMove25\_30** | Total number of members of the younger generation aged between 25 and 30 who moved out of the household between 2011 and 2013. |
| **YoungMove31+** | Total number of members of the younger generation aged 31 and over who moved out of the household between 2011 and 2013. |

Table A2. Consumption in the two waves of the CHARLS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Absolute** | |  | **Relative share** | |  | **Logarithm** | |  |
| **Variables** | **Mean (Yuan)** | **S.D.** |  | **Mean.** | **S.D.** |  | **Mean.** | **S.D.** | **Obs.** |
|  |  |  |  |  |  |  |  |  |  |
| **Home expenditure** | 2481.60 | 2266.65 | 0.1186 | 0.0010 | 7.38 | 1.03 | 11,245 |
| **Food** | 11086.60 | 10330.47 |  | 0.5376 | 0.0029 |  | 8.89 | 1.01 | 10,885 |
| **Durables** | 1228.84 | 4112.89 |  | 0.0618 | 0.0020 |  | 2.72 | 3.59 | 11,475 |
| **Medical (out-of-pocket)** | 2738.46 | 4976.56 |  | 0.1344 | 0.0022 |  | 6.09 | 2.89 | 11,396 |
| **Recreation** | 644.79 | 1216.05 |  | 0.0315 | 0.0005 |  | 5.02 | 2.36 | 11,527 |
| **Clothing** | 812.90 | 1094.15 |  | 0.0404 | 0.0005 |  | 4.99 | 2.84 | 10,721 |
| **Education** | 1118.06 | 3175.53 |  | 0.0553 | 0.0015 |  | 1.94 | 3.40 | 11,299 |
| **Others** | 422.82 | 1031.66 |  | 0.0206 | 0.0005 |  | 2.77 | 3.16 | 11,498 |
|  |  |  |  |  |  |  |  |  |  |
| **Total consumption** | 21819.38 | 21119.54 |  |  |  |  | 9.58 | 0.99 | 11,640 |
| **Non-durable consumption** | 20290.05 | 19036.28 |  |  |  |  | 9.52 | 0 .98 | 11,475 |
| **Non-education consumption** | 20540.42 | 20211.87 |  |  |  |  | 9.52 | 0.98 | 11,299 |
| **Non-medical consumption** | 18116.88 | 17159.81 |  |  |  |  | 9.39 | 1.06 | 11580 |

*Note:* The sample includes households who participated in both the 2011 and 2013 waves of the survey, provided age information for every household member, and had heads aged 45 and above in both waves. Means of all variables are expressed in RMB. All consumption aggregates are converted into real terms using the province-level Consumer Price Index (CPI) obtained from the China Statistical Yearbook with 2011 as the base year. See Table 2 in the paper for definitions of the consumption categories.

*Source:* Authors’ calculations based on the CHARLS and the China Statistical Yearbook.

Table A3. Consumption in the two waves of the CHARLS for households with leavers

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2011** | | |  | **2013** | | |  | **Difference** | | |
| **Variables** | **Obs.** | **Mean** | **Relative share** |  | **Obs.** | **Mean** | **Relative share** |  | **Obs.** | **Mean** | **S.E.** |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Home expenditure** | 1,411 | 2,633 | 0.1267 |  | 1,173 | 2,445 | 0.1148 |  | 1154 | -131.38\*\* | 2246.35 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Food** | 1,379 | 10,172 | 0.4979 |  | 1,122 | 11,802 | 0.5548 |  | 1079 | 1886.19\*\*\* | 11756.45 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Durables** | 1,416 | 1,306 | 0.0672 |  | 1,202 | 1,423 | 0.0718 |  | 1180 | 58.06 | 6153.00 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Medical (out-of-pocket)** | 1,402 | 2,859 | 0.1368 |  | 1,193 | 2,664 | 0.1292 |  | 1163 | -66.92 | 6396.08 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Recreation** | 1,427 | 551.2 | 0.0273 |  | 1,206 | 675.2 | 0.0338 |  | 1192 | 110.30\*\*\* | 1330.24 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Clothing** | 1,321 | 1,022 | 0.0506 |  | 1,122 | 721.9 | 0.0343 |  | 1035 | -313.35\*\*\* | 1289.71 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Education** | 1,399 | 1,422 | 0.0711 |  | 1,185 | 894.9 | 0.0417 |  | 1153 | -517.42\*\*\* | 3454.11 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Others** | 1,415 | 473.1 | 0.0223 |  | 1,201 | 412.3 | 0.0194 |  | 1182 | -64.84\* | 1320.87 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Total consumption** | 1,439 | 22,340 |  |  | 1,215 | 22,274 |  |  | 1210 | -32.19 | 23684.81 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Non-durable consumption** | 1,416 | 20,546 |  |  | 1,202 | 20,764 |  |  | 1,180 | 205.75 | 21362.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Non-education consumption** | 1,399 | 20,637 |  |  | 1,185 | 21,220 |  |  | 1063 | -255.26 | 22286.63 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Non-medical consumption** | 1,435 | 18,224 |  |  | 1,212 | 19,032 |  |  | 1,063 | 677.63 | 19010.62 |

*Note:* The sample includes households who participated in both the 2011 and 2013 waves of the survey, provided age information for every household member, and had heads aged 45 and above in both 2011 and 2013. Means of all variables are expressed in RMB. All consumption aggregates are converted into real terms using the province-level Consumer Price Index (CPI) obtained from the China Statistical Yearbook with 2011 as the base year. See Table 2 in the paper for definitions of the consumption categories. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% levels, respectively.

*Source:* Authors’ calculations based on the CHARLS and the China Statistical Yearbook

**Table A4.** Household characteristics

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **VARIABLES** | **Obs.** | | **Mean** | **St. Dev.** | **Min.** | **Max.** |
| **Household head characteristics** | | | | | | |
| Age | 11,640 | | 61.3392 | 9.8302 | 45 | 100 |
| Male | 11,640 | | 0.4677 | 0.4990 | 0 | 1 |
| Female (**Ref**.) | 11,640 | | 0.5323 | 0.4990 | 0 | 1 |
| Primary education | 11,640 | | 0.5130 | 0.4999 | 0 | 1 |
| Married | 11,640 | | 0.7875 | 0.4091 | 0 | 1 |
| Widowed | 11,640 | | 0.1789 | 0.3833 | 0 | 1 |
| Single/divorced (**Ref**.) | 11,640 | | 0.0337 | 0.1804 | 0 | 1 |
| Good health | 11,640 | | 0.2965 | 0.4567 | 0 | 1 |
| Fair health | 11,640 | | 0.6224 | 0.4848 | 0 | 1 |
| Poor health (**Ref**.) | 11,640 | | 0.0811 | 0.2730 | 0 | 1 |
| Urban | 11,640 | | 0.3747 | 0.4841 | 0 | 1 |
|  |  | |  |  |  |  |
| **Financial status** | | | | | | |
| Income (logarithm) | 11,640 | | 9.7246 | 1.5921 | 0 | 12.7002 |
| Income (Yuan) | 11,640 | | 34,345 | 37442 | 0 | 327,800 |
| Wealth (logarithm) | 11,640 | | 6.1479 | 3.3184 | 0 | 12.3458 |
| Wealth (Yuan) | 11,640 | | 9,850 | 25,862 | 0 | 230,000 |
| Home ownership | 11,640 | | 0.8902 | 0.3126 | 0 | 1 |
|  |  | |  |  |  |  |
| **Household outward remittances (2013)** | | | | | | |
| Remittances to younger generations (logarithm) | 4,783 | 2.7632 | | 3.4842 | 0 | 10.2922 |
| Remittances to younger generations (Yuan) | 4,783 | 1019 | | 2910 | 0 | 28331 |
|  |  | |  |  |  |  |
| **Household demography** | | | | | | |
| Household size | 11,640 | | 3.3936 | 1.7515 | 1 | 13 |
| YoungMove | 11,640 | | 0.1753 | 0.6608 | 0 | 9 |
| No. of non-offspring members | 11,640 | | 1.8465 | 0.5497 | 1 | 10 |
| YoungMove0-16 | 11,640 | | 0.0364 | 0.2393 | 0 | 5 |
| YoungMove17-24 | 11,640 | | 0.0347 | 0.2085 | 0 | 3 |
| YoungMove25-30 | 11,640 | | 0.0463 | 0.2559 | 0 | 4 |
| YoungMove31+ | 11,640 | | 0.0578 | 0.3230 | 0 | 4 |

*Note:* The sample includes households who participated in both the 2011 and 2013 waves of the survey, provided age information for every household member, and had heads aged 45 and above in both the 2011 and 2013 waves. Income, wealth and remittances are converted into real terms using the province-level Consumer Price Index (CPI) obtained from the China Statistical Yearbook with 2011 as the base year. See Table A1 for definitions of all variables.

*Source:* Authors’ calculations based on the CHARLS and the China Statistical Yearbook.

**Table A5.** Young leavers and household consumption differentiating leavers by age; weighted regression

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
|  | **Total consumption** | **Non-durables consumption** | **Non-education consumption** | **Total consumption**  **EQS** | **Non-durables consumption**  **EQS** | **Non-education consumption EQS** |
|  |  |  |  |  |  |  |
| **Age** | -0.0300 | -0.0286 | -0.0342 | -0.0266 | -0.0251 | -0.0308 |
|  | (0.0292) | (0.0308) | (0.0243) | (0.0275) | (0.0291) | (0.0227) |
| **Married** | 0.462\*\*\* | 0.440\*\*\* | 0.450\*\*\* | 0.443\*\*\* | 0.421\*\*\* | 0.430\*\*\* |
|  | (0.143) | (0.139) | (0.148) | (0.144) | (0.140) | (0.148) |
| **Widowed** | 0.452\*\*\* | 0.363\*\*\* | 0.469\*\*\* | 0.522\*\*\* | 0.432\*\*\* | 0.540\*\*\* |
|  | (0.154) | (0.139) | (0.155) | (0.155) | (0.141) | (0.156) |
| **Income** | 0.0409\*\*\* | 0.0353\*\*\* | 0.0422\*\*\* | 0.0382\*\*\* | 0.0326\*\*\* | 0.0394\*\*\* |
|  | (0.00926) | (0.00928) | (0.00926) | (0.00927) | (0.00931) | (0.00928) |
| **Wealth** | 0.0156\*\*\* | 0.0147\*\*\* | 0.0180\*\*\* | 0.0160\*\*\* | 0.0153\*\*\* | 0.0184\*\*\* |
|  | (0.00477) | (0.00469) | (0.00453) | (0.00476) | (0.00467) | (0.00452) |
| **Home ownership** | 0.00421 | 0.0228 | 0.0145 | -0.00761 | 0.0108 | 0.00276 |
|  | (0.0506) | (0.0522) | (0.0508) | (0.0510) | (0.0523) | (0.0512) |
| **Good health** | 0.0663 | 0.0909 | 0.0675 | 0.0637 | 0.0876 | 0.0650 |
|  | (0.0563) | (0.0573) | (0.0549) | (0.0561) | (0.0571) | (0.0548) |
| **Fair health** | 0.0113 | 0.0323 | 0.000565 | 0.0122 | 0.0326 | 0.00158 |
|  | (0.0470) | (0.0479) | (0.0453) | (0.0466) | (0.0475) | (0.0450) |
| **YoungMove0\_16** | -0.206\*\*\* | -0.236\*\*\* | -0.183\*\*\* | 0.0273 | -0.00190 | 0.0499 |
|  | (0.0588) | (0.0638) | (0.0575) | (0.0606) | (0.0655) | (0.0591) |
| **YoungMove17\_24** | -0.189\*\*\* | -0.219\*\*\* | -0.144\*\*\* | 0.0486 | 0.0177 | 0.0939\* |
|  | (0.0578) | (0.0562) | (0.0536) | (0.0577) | (0.0557) | (0.0539) |
| **YoungMove25\_30** | -0.0743 | -0.0636 | -0.0541 | 0.155\*\*\* | 0.165\*\*\* | 0.175\*\*\* |
|  | (0.0452) | (0.0474) | (0.0424) | (0.0456) | (0.0478) | (0.0429) |
| **YoungMove31+** | -0.0493 | -0.0203 | -0.0460 | 0.184\*\*\* | 0.213\*\*\* | 0.187\*\*\* |
|  | (0.0415) | (0.0415) | (0.0412) | (0.0432) | (0.0434) | (0.0429) |
| **No. of non-offspring** | 0.111\* | 0.121\*\* | 0.119\*\* | -0.124\*\* | -0.115\* | -0.116\* |
| **Members** | (0.0610) | (0.0607) | (0.0599) | (0.0631) | (0.0638) | (0.0626) |
| **Constant** | 10.27\*\*\* | 10.18\*\*\* | 10.41\*\*\* | 9.677\*\*\* | 9.580\*\*\* | 9.816\*\*\* |
|  | (1.780) | (1.877) | (1.495) | (1.680) | (1.777) | (1.392) |
|  |  |  |  |  |  |  |
| **Obs.** | 11,639 | 11,474 | 11,603 | 11,639 | 11,474 | 11,603 |
| **Number of households** | 6,583 | 6,556 | 6,575 | 6,583 | 6,556 | 6,575 |

*Note:* All models are estimated using a weighted fixed-effects estimator. See Table A1 for definitions of all variables. The dependent variables in columns 1-3 are the logarithms of total, non-durable, and non-education household consumption, respectively. The dependent variables in columns 4-6 are the logarithms of adult-equivalent total, non-durable, and non-education consumption, respectively, which are calculated by dividing consumption by the equivalence scale (*n0.8*). Year dummies and the interactions between provincial and year dummies are included in all models, but their estimates are not reported for brevity. Robust standard errors are in parentheses. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% levels, respectively.

**Table A6.** Young leavers and household consumption differentiating leavers by age; balanced panel

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
|  | **Total consumption** | **Non-durables consumption** | **Non-education consumption** | **Total consumption**  **EQS** | **Non-durables consumption**  **EQS** | **Non-education consumption EQS** |
|  |  |  |  |  |  |  |
| **Age** | 0.00524 | 0.00841 | 0.00296 | 0.00576 | 0.00896 | 0.00343 |
|  | (0.0205) | (0.0210) | (0.0201) | (0.0205) | (0.0210) | (0.0202) |
| **Married** | 0.622\*\*\* | 0.606\*\*\* | 0.619\*\*\* | 0.605\*\*\* | 0.590\*\*\* | 0.601\*\*\* |
|  | (0.143) | (0.141) | (0.142) | (0.143) | (0.141) | (0.142) |
| **Widowed** | 0.535\*\*\* | 0.454\*\*\* | 0.552\*\*\* | 0.608\*\*\* | 0.526\*\*\* | 0.626\*\*\* |
|  | (0.148) | (0.146) | (0.147) | (0.149) | (0.146) | (0.148) |
| **Income** | 0.0442\*\*\* | 0.0393\*\*\* | 0.0444\*\*\* | 0.0417\*\*\* | 0.0367\*\*\* | 0.0418\*\*\* |
|  | (0.00854) | (0.00844) | (0.00848) | (0.00855) | (0.00846) | (0.00850) |
| **Wealth** | 0.0176\*\*\* | 0.0152\*\*\* | 0.0206\*\*\* | 0.0178\*\*\* | 0.0155\*\*\* | 0.0209\*\*\* |
|  | (0.00401) | (0.00401) | (0.00401) | (0.00400) | (0.00399) | (0.00400) |
| **Home ownership** | 0.0657 | 0.0898\* | 0.0731\* | 0.0578 | 0.0816\* | 0.0651 |
|  | (0.0445) | (0.0474) | (0.0443) | (0.0445) | (0.0470) | (0.0444) |
| **Good health** | 0.0697 | 0.0958\*\* | 0.0638 | 0.0672 | 0.0923\*\* | 0.0613 |
|  | (0.0465) | (0.0469) | (0.0464) | (0.0465) | (0.0470) | (0.0465) |
| **Fair health** | 0.00546 | 0.0307 | -0.00697 | 0.00524 | 0.0300 | -0.00722 |
|  | (0.0372) | (0.0370) | (0.0374) | (0.0373) | (0.0371) | (0.0375) |
| **YoungMove0\_16** | -0.216\*\*\* | -0.260\*\*\* | -0.192\*\*\* | 0.00786 | -0.0359 | 0.0314 |
|  | (0.0542) | (0.0616) | (0.0537) | (0.0524) | (0.0597) | (0.0520) |
| **YoungMove17\_24** | -0.212\*\*\* | -0.242\*\*\* | -0.163\*\*\* | 0.0272 | -0.00346 | 0.0761 |
|  | (0.0538) | (0.0523) | (0.0504) | (0.0530) | (0.0513) | (0.0502) |
| **YoungMove25\_30** | -0.0374 | -0.0259 | -0.0332 | 0.190\*\*\* | 0.201\*\*\* | 0.194\*\*\* |
|  | (0.0363) | (0.0379) | (0.0359) | (0.0364) | (0.0381) | (0.0362) |
| **YoungMove31+** | -0.0579 | -0.0136 | -0.0570 | 0.177\*\*\* | 0.221\*\*\* | 0.178\*\*\* |
|  | (0.0368) | (0.0371) | (0.0367) | (0.0371) | (0.0376) | (0.0372) |
| **No. of non-offspring** | 0.0689 | 0.0941 | 0.0857 | -0.173\*\* | -0.147\*\* | -0.155\*\* |
| **Members** | (0.0594) | (0.0605) | (0.0587) | (0.0691) | (0.0703) | (0.0683) |
| **Constant** | 7.858\*\*\* | 7.601\*\*\* | 7.872\*\*\* | 7.440\*\*\* | 7.184\*\*\* | 7.455\*\*\* |
|  | (1.247) | (1.281) | (1.229) | (1.249) | (1.282) | (1.233) |
|  |  |  |  |  |  |  |
| **Obs.** | 10,112 | 9,836 | 10,056 | 10,112 | 9,836 | 10,056 |
| **Number of households** | 5,056 | 4,918 | 5,028 | 5,056 | 4,918 | 5,028 |

*Note:* All models are estimated using a fixed-effects estimator. See Table A1 for definitions of all variables. The dependent variables in columns 1-3 are the logarithms of total, non-durable, and non-education household consumption, respectively. The dependent variables in columns 4-6 are the logarithms of adult-equivalent total, non-durable, and non-education consumption, respectively, which are calculated by dividing consumption by the equivalence scale (*n0.8*). Year dummies and the interactions between provincial and year dummies are included in all models, but their estimates are not reported for brevity. Robust standard errors are in parentheses. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% levels, respectively.

**Table A7.** Young leavers and household consumption differentiating leavers by age; dropping leavers who passed away or left for “other” reasons

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
|  | **Total consumption** | **Non-durables consumption** | **Non-education consumption** | **Total consumption**  **EQS** | **Non-durables consumption**  **EQS** | **Non-education consumption EQS** |
|  |  |  |  |  |  |  |
| **Age** | 0.0073 | 0.0107 | 0.0040 | 0.0068 | 0.0103 | 0.0035 |
|  | (0.0215) | (0.0222) | (0.0212) | (0.0216) | (0.0222) | (0.0213) |
| **Married** | 0.6264\*\*\* | 0.6050\*\*\* | 0.6194\*\*\* | 0.6105\*\*\* | 0.5900\*\*\* | 0.6036\*\*\* |
|  | (0.1475) | (0.1439) | (0.1459) | (0.1488) | (0.1454) | (0.1474) |
| **Widowed** | 0.5759\*\*\* | 0.5064\*\*\* | 0.5982\*\*\* | 0.6435\*\*\* | 0.5729\*\*\* | 0.6666\*\*\* |
|  | (0.1554) | (0.1509) | (0.1538) | (0.1577) | (0.1532) | (0.1560) |
| **Income** | 0.0414\*\*\* | 0.0370\*\*\* | 0.0426\*\*\* | 0.0400\*\*\* | 0.0356\*\*\* | 0.0412\*\*\* |
|  | (0.0088) | (0.0086) | (0.0087) | (0.0088) | (0.0086) | (0.0087) |
| **Wealth** | 0.0175\*\*\* | 0.0154\*\*\* | 0.0201\*\*\* | 0.0175\*\*\* | 0.0154\*\*\* | 0.0200\*\*\* |
|  | (0.0041) | (0.0041) | (0.0041) | (0.0041) | (0.0041) | (0.0041) |
| **Home ownership** | 0.0519 | 0.0758 | 0.0637 | 0.0490 | 0.0724 | 0.0607 |
|  | (0.0458) | (0.0489) | (0.0455) | (0.0459) | (0.0486) | (0.0457) |
| **Good health** | 0.0766 | 0.1072\*\* | 0.0686 | 0.0796 | 0.1095\*\* | 0.0717 |
|  | (0.0490) | (0.0494) | (0.0490) | (0.0490) | (0.0493) | (0.0490) |
| **Fair health** | 0.0134 | 0.0420 | -0.0003 | 0.0155 | 0.0436 | 0.0020 |
|  | (0.0391) | (0.0386) | (0.0393) | (0.0391) | (0.0387) | (0.0394) |
| **YoungMove0\_16** | -0.1804\*\*\* | -0.2378\*\*\* | -0.1556\*\* | 0.0254 | -0.0303 | 0.0500 |
|  | (0.0617) | (0.0729) | (0.0608) | (0.0608) | (0.0716) | (0.0600) |
| **YoungMove17\_24** | -0.2079\*\*\* | -0.2441\*\*\* | -0.1296\* | 0.0441 | 0.0062 | 0.1220\* |
|  | (0.0720) | (0.0690) | (0.0686) | (0.0723) | (0.0693) | (0.0692) |
| **YoungMove25\_30** | -0.0457 | -0.0405 | -0.0397 | 0.1826\*\*\* | 0.1880\*\*\* | 0.1886\*\*\* |
|  | (0.0465) | (0.0489) | (0.0460) | (0.0472) | (0.0497) | (0.0470) |
| **YoungMove31+** | -0.0675 | -0.0110 | -0.0690 | 0.1726\*\*\* | 0.2285\*\*\* | 0.1710\*\*\* |
|  | (0.0463) | (0.0474) | (0.0459) | (0.0475) | (0.0486) | (0.0473) |
| **No. of non-offspring** | 0.1279 | 0.1767\* | 0.1567\* | -0.1507 | -0.1013 | -0.1218 |
| **Members** | (0.0911) | (0.0908) | (0.0864) | (0.1132) | (0.1126) | (0.1072) |
| **Constant** | 7.6411\*\*\* | 7.3198\*\*\* | 7.6839\*\*\* | 7.3535\*\*\* | 7.0331\*\*\* | 7.4012\*\*\* |
|  | (1.3253) | (1.3626) | (1.3053) | (1.3332) | (1.3696) | (1.3135) |
|  |  |  |  |  |  |  |
| **Obs.** | 10,795 | 10,640 | 10,762 | 10,795 | 10,640 | 10,762 |
| **Number of households** | 6,101 | 6,076 | 6,094 | 6,101 | 6,076 | 6,094 |

*Note:* All models are estimated using a fixed-effects estimator. See Table A1 for definitions of all variables. The dependent variables in columns 1-3 are the logarithms of total, non-durable, and non-education household consumption, respectively. The dependent variables in columns 4-6 are the logarithms of adult-equivalent total, non-durable, and non-education consumption, respectively, which are calculated by dividing consumption by the equivalence scale (*n0.8*). Year dummies and the interactions between provincial and year dummies are included in all models, but their estimates are not reported for brevity. Robust standard errors are in parentheses. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% levels, respectively.

**Table A8.** Young leavers and household consumption differentiating leavers by age; different consumption aggregates

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
|  | **Non-durable** | **Medical** | **Other** | **Non-durable**  **EQS** | **Medical**  **EQS** | **Other**  **EQS** |
|  |  |  |  |  |  |  |
| **Age** | 0.0084 | 0.0552 | 0.0069 | 0.0090 | 0.0460 | 0.0071 |
|  | (0.0210) | (0.0534) | (0.0218) | (0.0210) | (0.0488) | (0.0220) |
| **Married** | 0.6061\*\*\* | -0.0625 | 0.5351\*\*\* | 0.5900\*\*\* | -0.0324 | 0.5182\*\*\* |
|  | (0.1408) | (0.4936) | (0.1407) | (0.1412) | (0.4542) | (0.1419) |
| **Widowed** | 0.4542\*\*\* | -0.7335 | 0.4910\*\*\* | 0.5256\*\*\* | -0.6609 | 0.5646\*\*\* |
|  | (0.1456) | (0.4846) | (0.1434) | (0.1462) | (0.4572) | (0.1441) |
| **Income** | 0.0393\*\*\* | 0.1159\*\*\* | 0.0314\*\*\* | 0.0367\*\*\* | 0.1040\*\*\* | 0.0286\*\*\* |
|  | (0.0084) | (0.0308) | (0.0087) | (0.0085) | (0.0277) | (0.0087) |
| **Wealth** | 0.0152\*\*\* | 0.0446\*\*\* | 0.0186\*\*\* | 0.0155\*\*\* | 0.0414\*\*\* | 0.0189\*\*\* |
|  | (0.0040) | (0.0145) | (0.0040) | (0.0040) | (0.0131) | (0.0039) |
| **Home ownership** | 0.0898\* | -0.0333 | 0.0461 | 0.0816\* | -0.0181 | 0.0388 |
|  | (0.0473) | (0.1558) | (0.0446) | (0.0470) | (0.1449) | (0.0447) |
| **Good health** | 0.0958\*\* | 0.6657\*\*\* | 0.0519 | 0.0923\*\* | 0.6313\*\*\* | 0.0480 |
|  | (0.0469) | (0.1815) | (0.0453) | (0.0469) | (0.1651) | (0.0454) |
| **Fair health** | 0.0307 | 0.2574\* | 0.0335 | 0.0300 | 0.2395\* | 0.0323 |
|  | (0.0370) | (0.1557) | (0.0359) | (0.0371) | (0.1408) | (0.0360) |
| **YoungMove0\_16** | -0.2604\*\*\* | -0.3495\* | -0.2210\*\*\* | -0.0359 | -0.1560 | 0.0059 |
|  | (0.0616) | (0.1916) | (0.0594) | (0.0597) | (0.1712) | (0.0575) |
| **YoungMove17\_24** | -0.2419\*\*\* | -0.3885\*\* | -0.1797\*\*\* | -0.0035 | -0.1370 | 0.0598 |
|  | (0.0522) | (0.1808) | (0.0495) | (0.0512) | (0.1633) | (0.0491) |
| **YoungMove25\_30** | -0.0259 | -0.1611 | -0.0082 | 0.2013\*\*\* | 0.0557 | 0.2210\*\*\* |
|  | (0.0379) | (0.1396) | (0.0377) | (0.0381) | (0.1266) | (0.0381) |
| **YoungMove31+** | -0.0136 | 0.1146 | -0.0452 | 0.2210\*\*\* | 0.2909\*\* | 0.1873\*\*\* |
|  | (0.0371) | (0.1314) | (0.0385) | (0.0376) | (0.1170) | (0.0390) |
| **No. of non-offspring** | 0.0941 | 0.0226 | 0.0566 | -0.1470\*\* | -0.1967 | -0.1853\*\* |
| **Members** | (0.0605) | (0.2059) | (0.0759) | (0.0702) | (0.1893) | (0.0909) |
| **Constant** | 7.6102\*\*\* | 1.2765 | 7.6187\*\*\* | 7.1886\*\*\* | 1.5816 | 7.2161\*\*\* |
|  | (1.2867) | (3.3014) | (1.3363) | (1.2884) | (3.0214) | (1.3464) |
|  |  |  |  |  |  |  |
| **Obs.** | 11,475 | 11,396 | 11,488 | 11,475 | 11,396 | 11,488 |
| **Number of households** | 6,557 | 6,545 | 6,547 | 6,557 | 6,545 | 6,547 |

*Note:* All models are estimated using a fixed-effects estimator. See Table A1 for definitions of all variables. The dependent variables in columns 1-3 are the logarithms of non-durable, medical, and other consumption, respectively. The dependent variables in columns 4-6 are the logarithms of adult-equivalent non-durable, medical, and other consumption, respectively, which are calculated by dividing consumption by the equivalence scale (*n0.8*). Year dummies and the interactions between provincial and year dummies are included in all models, but their estimates are not reported for brevity. Robust standard errors are in parentheses. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% levels, respectively.

1. The elements in each category are described in Table 2 in the paper. It is also noteworthy that all consumption categories are reported at the household level. [↑](#footnote-ref-1)
2. The remaining respondents are either illiterate or have started primary school without completing it. [↑](#footnote-ref-2)
3. Our sample contains households who participated in both the 2011 and the 2013 waves of the CHARLS. Yet, missing values in some variables used in our analysis resulted in an unbalanced sample, encompassing 11,640 observations for 6,584 households (for the specifications relating to total consumption). [↑](#footnote-ref-3)