**Appendix**

**Additional Results**

**Table A1** Summary Statistics from the Thai Expenditure Survey (SES)

|  |  |  |
| --- | --- | --- |
| **Variable** | **Mean** | **SD** |
| Total household income | 29,218.5 | 67,885.7 |
| Total household expenditure | 21,491.5 | 21,168.1 |
| Work-related expenses | 5,325.1 | 5,862.9 |
| Clothes, shoes and personal services | 1,165.3 | 1,909.6 |
| Transportation and communication | 2,905.1 | 3,128.2 |
| Food-away-from-home | 1,254.8 | 2,300.6 |
| Food at home | 6,152.4 | 3,280.1 |
| Non-durable entertainment | 2,458.9 | 5,193.6 |
| Other expenses | 7,555.1 | 13,894.6 |
| Household income per capita | 10,549.2 | 21,005.6 |
| Household expenditure per capita | 7,759.8 | 7,702.7 |
| Proportion of male heads aged 60 and over | 0.443 | 0.497 |
| Proportion of retired male heads | 0.260 | 0.439 |
| Household head's age | 58.920 | 5.789 |
| Married household head | 0.868 | 0.339 |
| Household head's years of education | 6.939 | 4.431 |
| Head completes primary | 0.683 | 0.465 |
| Head completes lower secondary | 0.112 | 0.316 |
| Head completes upper secondary | 0.087 | 0.282 |
| Head completes diploma | 0.026 | 0.158 |
| Head completes college | 0.092 | 0.289 |
| Household size | 3.150 | 1.582 |
| Household members aged 15 and below | 0.486 | 0.800 |
| Municipal | 0.565 | 0.496 |
| Bangkok | 0.049 | 0.216 |
| Central | 0.236 | 0.424 |
| North | 0.274 | 0.446 |
| Northeast | 0.305 | 0.460 |
| South | 0.136 | 0.343 |
| N | 51,518 | |

***Notes*:** Own computations using data from the SES surveys of Thailand for households with male head aged 50-70, conducted between 2013 and 2019. All reported income and consumption expenditures are expressed in constant 2019 Thai baht.

**Table A2** Summary Statistics from the Thai Time Use Survey (TUS)

|  |  |  |
| --- | --- | --- |
| **Variable** | **Mean** | **SD** |
| Male | 0.444 | 0.497 |
| Age | 58.567 | 5.729 |
| Aged 60 and over | 0.422 | 0.494 |
| Proportion of retired individuals | 0.317 | 0.465 |
| Years of education | 5.933 | 4.535 |
| Married | 0.740 | 0.438 |
| Household head | 0.595 | 0.491 |
| Household head's spouse | 0.320 | 0.467 |
| Household members aged 6 and over | 2.746 | 1.388 |
| Time spent on food management (mins/day) | 94.587 | 52.056 |
| Time spent on cleaning (mins/day) | 61.604 | 47.003 |
| Time spent on maintenance and small repairs (mins/day) | 73.237 | 49.204 |
| Time spent on shopping (mins/day) | 41.122 | 30.555 |
| Municipal | 0.563 | 0.496 |
| Bangkok | 0.040 | 0.195 |
| Central | 0.287 | 0.452 |
| North | 0.260 | 0.439 |
| Northeast | 0.271 | 0.445 |
| South | 0.142 | 0.349 |
| N | 23,432 | |

***Note*:** Own computations using data from the 2015 TUS surveys of Thailand for individuals aged 50- 70.

**Table A3** Fuzzy RDD Estimates for Changes in Income and Expenditures, Male Heads Aged 55-65

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Income** | **Total exp.** | **Work-related** | **Food at home** | **Entertainment** | **Other exp.** |
| Mean income and consumption | 31,642 | 22,784 | 5,760 | 6,247 | 2,760 | 8,028 |
| for age 55-59 (baht/month) |  |  |  |  |  |  |
| Retired (age 60 and over as an IV) | -0.330\*\*\* | -0.169\*\*\* | -0.237\*\*\* | -0.049 | -1.314\*\*\* | 0.007 |
|  | (0.102) | (0.035) | (0.084) | (0.069) | (0.188) | (0.161) |
| Household head’s age | 0.064\*\*\* | 0.003\*\*\* | -0.046\*\*\* | 0.115\*\* | -0.097\*\*\* | 0.021 |
|  | (0.012) | (0.001) | (0.013) | (0.044) | (0.034) | (0.080) |
| Household head’s age squared | -0.0005\*\*\* | -0.0001\*\*\* | -0.0005\*\*\* | -0.0009\*\* | 0.001\*\*\* | -0.0001 |
|  | (0.0002) | (0.00003) | (0.0002) | (0.0004) | (0.0004) | (0.0007) |
| Constant | 7.685\*\*\* | 9.338\*\*\* | 9.342\*\*\* | 4.413\*\*\* | 10.498\*\*\* | 7.961\*\*\* |
|  | (1.919) | (0.610) | (1.441) | (1.352) | (3.027) | (2.383) |
| R-squared | 0.36 | 0.86 | 0.69 | 0.36 | 0.29 | 0.42 |
| N | 28,755 | 28,755 | 28,755 | 28,755 | 28,755 | 28,755 |

***Notes:*** \*\* significant at the 0.05 level and \*\*\* significant at the 0.01 level. The dependent variables are monthly household income and expenditure in logarithm adjusted to 2019 prices. Other covariates not shown are education and marital status of the head of household, household size, number of children (aged 15 and below), and a set of dummy variables to indicate household socioeconomic status, income classes, administrative areas, regions, provinces, and survey years. Robust-standard errors are in parentheses.

**Table A4** Fuzzy RDD Estimates for Changes in Income and Expenditures, Male Heads Aged 57-63

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Income** | **Total exp.** | **Work-related** | **Food at home** | **Entertainment** | **Other exp.** |
| Mean income and consumption | 31,791 | 22,597 | 5,679 | 6,269 | 2,668 | 7,981 |
| for age 57-59 (baht/month) |  |  |  |  |  |  |
| Retired (age 60 and over as an IV) | -0.267\*\* | -0.146\*\*\* | -0.195\* | 0.027 | -1.337\*\*\* | 0.046 |
|  | (1.303) | (0.045) | (0.107) | (0.085) | (0.248) | (0.205) |
| Household head’s age | -0.069\*\*\* | -0.024\*\*\* | -0.017\*\*\* | 0.073\*\*\* | -0.095\*\*\* | 0.049\* |
|  | (0.023) | (0.006) | (0.002) | (0.013) | (0.027) | (0.027) |
| Household head’s age squared | 0.0006\*\* | 0.0002\*\* | 0.0014 | -0.0006\*\*\* | 0.0002\*\*\* | -0.0040\* |
|  | (0.0003) | (0.0001) | (0.0012) | (0.0002) | (0.0001) | (0.0022) |
| Constant | 11.432\* | 10.160\*\*\* | 13.111\*\*\* | 5.661 | 10.988 | -6.052\*\*\* |
|  | (6.579) | (1.924) | (4.582) | (3.971) | (9.839) | (3.036) |
| R-squared | 0.35 | 0.87 | 0.69 | 0.38 | 0.28 | 0.42 |
| N | 18,147 | 18,147 | 18,147 | 18,147 | 18,147 | 18,147 |

***Notes:*** \* significant at the 0.10 level, \*\* significant at the 0.05 level and \*\*\* significant at the 0.01 level. The dependent variables are monthly household income and expenditure in logarithm adjusted to 2019 prices. Other covariates not shown are education and marital status of the head of household, household size, number of children (aged 15 and below), and a set of dummy variables to indicate household socioeconomic status, income classes, administrative areas, regions, provinces, and survey years. Robust-standard errors are in parentheses.

**Table A5** Fuzzy RDD Estimates on Home Production, Individuals Aged 55-65

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Food mgmt.** | **Cleaning** | **Maintenance** | **Shopping** |
| Average time spent on home production | 95.626 | 62.377 | 73.371 | 41.521 |
| for age 55-59 (mins/day) |  |  |  |  |
| Retired (age 60 and over as an IV) | 22.696\*\*\* | 22.153\*\*\* | 24.404\* | 17.621 |
|  | (4.677) | (4.558) | (13.015) | (13.956) |
| Constant | -125.84 | 148.21 | 36.213 | -36.713 |
|  | (230.63) | (259.22) | (83.944) | (92.019) |
| R-squared | 0.08 | 0.06 | 0.09 | 0.06 |
| N | 12,998 | 12,998 | 12,998 | 12,998 |

***Notes*:** \* significant at the 0.10 level and \*\*\* significant at the 0.01 level. The dependent variable is daily time spent (in minutes) on home production. Age and age squared are excluded from the outcome regression due to insignificant coefficients. Other explanatory variables not shown include years of education, a set of dummy variables for marital status, relation to the household head, administrative areas, regions, provinces, and survey months and years. Robust standard errors are in parentheses

**Table A6** Fuzzy RDD Estimates on Home Production, Individuals Aged 57-63

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Food mgmt.** | **Cleaning** | **Maintenance** | **Shopping** |
| Average time spent on home production | 95.587 | 62.310 | 73.640 | 41.439 |
| for age 57-59 (mins/day) |  |  |  |  |
| Retired (age 60 and over as an IV) | 19.354\*\*\* | 15.745\*\* | 21.018\*\* | 14.857 |
|  | (7.012) | (7.209) | (10.438) | (10.910) |
| Constant | -50.310 | -179.64 | -126.76 | -115.28 |
|  | (76.234) | (182.34) | (101.67) | (103.29) |
| R-squared | 0.06 | 0.07 | 0.07 | 0.06 |
| N | 8,522 | 8,522 | 8,522 | 8,522 |

***Notes*:** \*\* significant at the 0.05 level and \*\*\* significant at the 0.01 level. The dependent variable is daily time spent (in minutes) on home production. Age and age squared are excluded from the outcome regression due to insignificant coefficients. Other explanatory variables not shown include years of education, a set of dummy variables for marital status, relation to the household head, administrative areas, regions, provinces, and survey months and years. Robust standard errors are in parentheses.