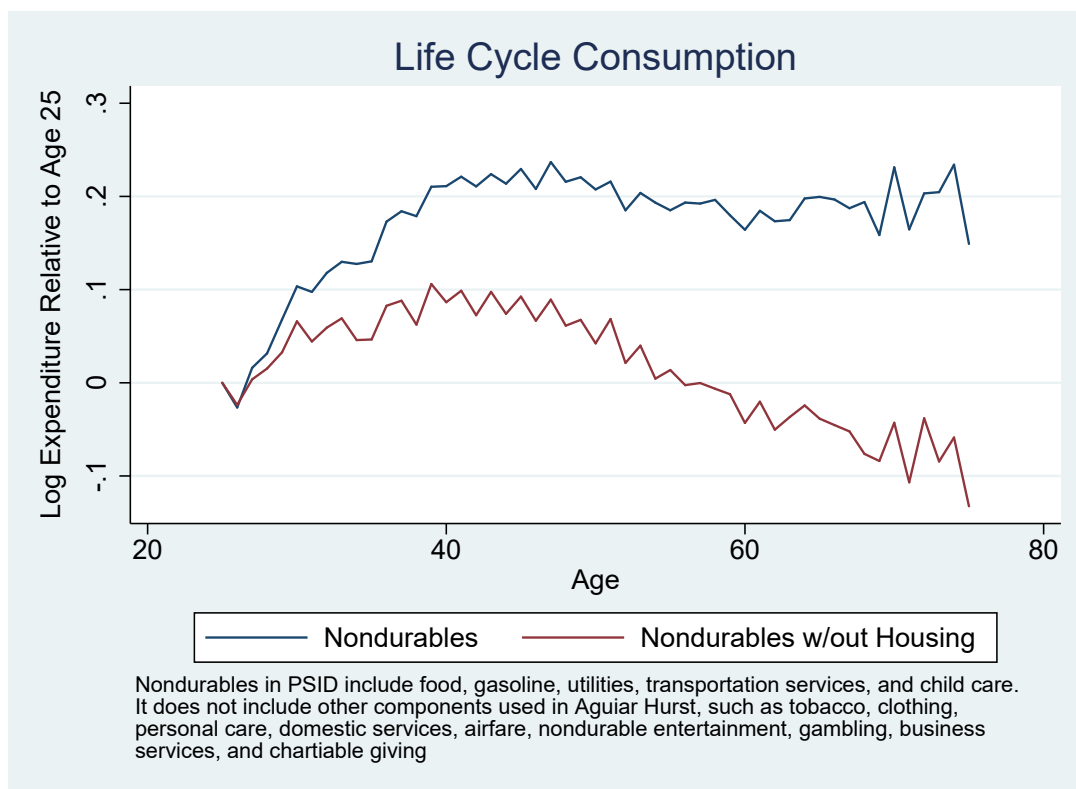


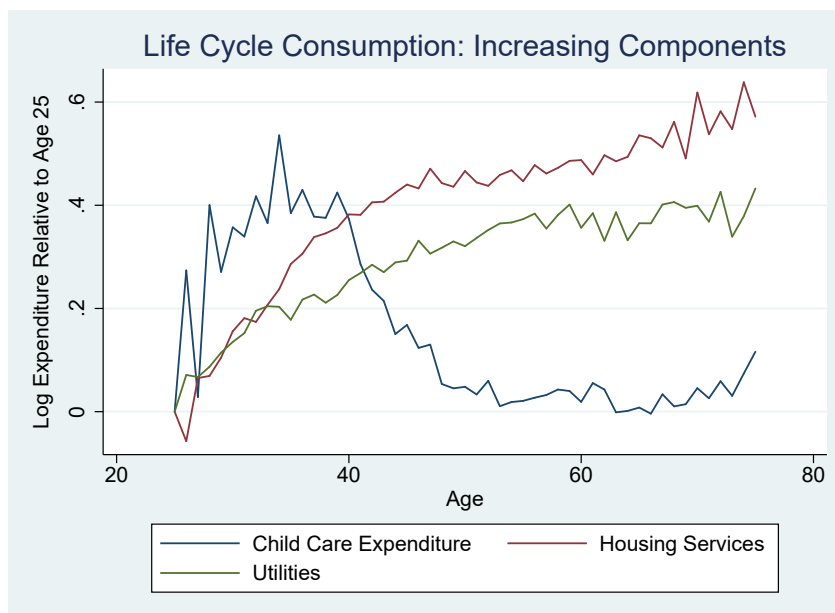
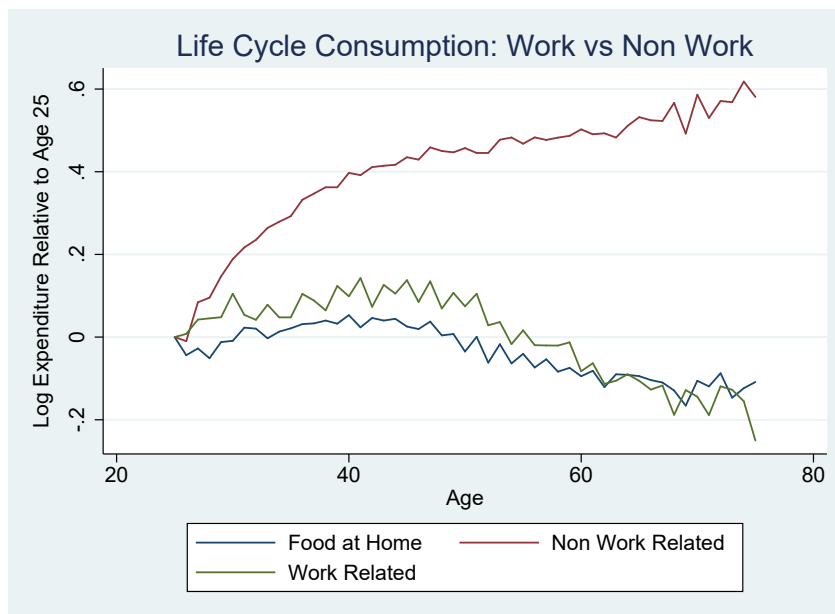
Household spending, leisure and well-being in retirement

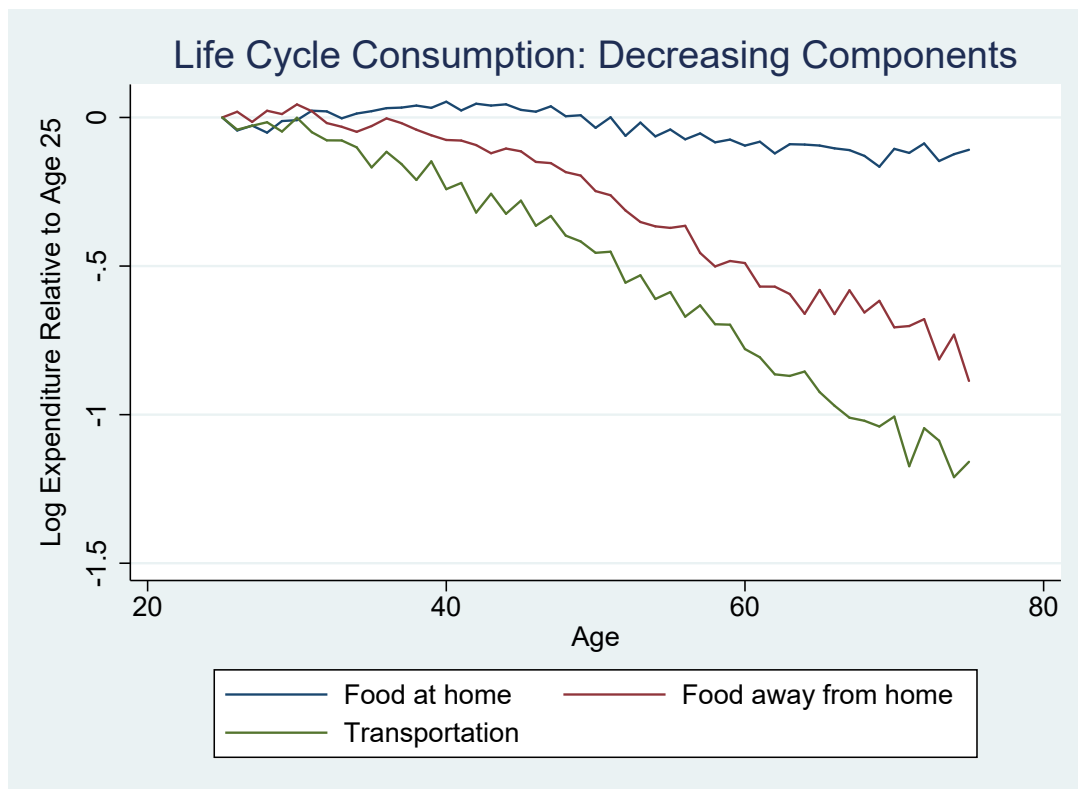
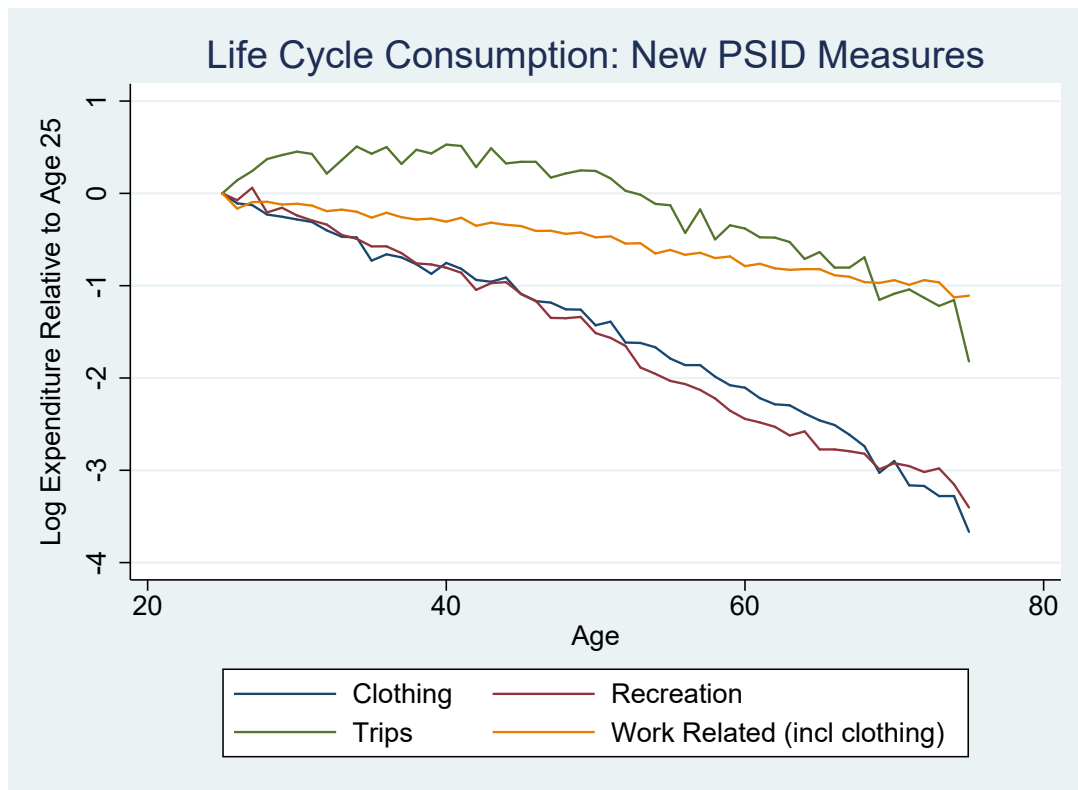
A big area of controversy in economics is how households adjust their consumption and leisure decisions as they approach and enter into retirement. Previous research has documented significant drops in households' spending at retirement, which potentially indicates that they have under-saved in preparation for old age and therefore suffer a fall in living standards. However, other papers have suggested that, as the opportunity cost of leisure falls at retirement, households optimally switch leisure for consumption and therefore falls in spending do not reflect drops in living standards. This project aims to document the extent to which these changes in spending and time use differ across different types of households, and ultimately, to understand what drives these difference.

1 Life Cycle Consumption Dynamics (APC)



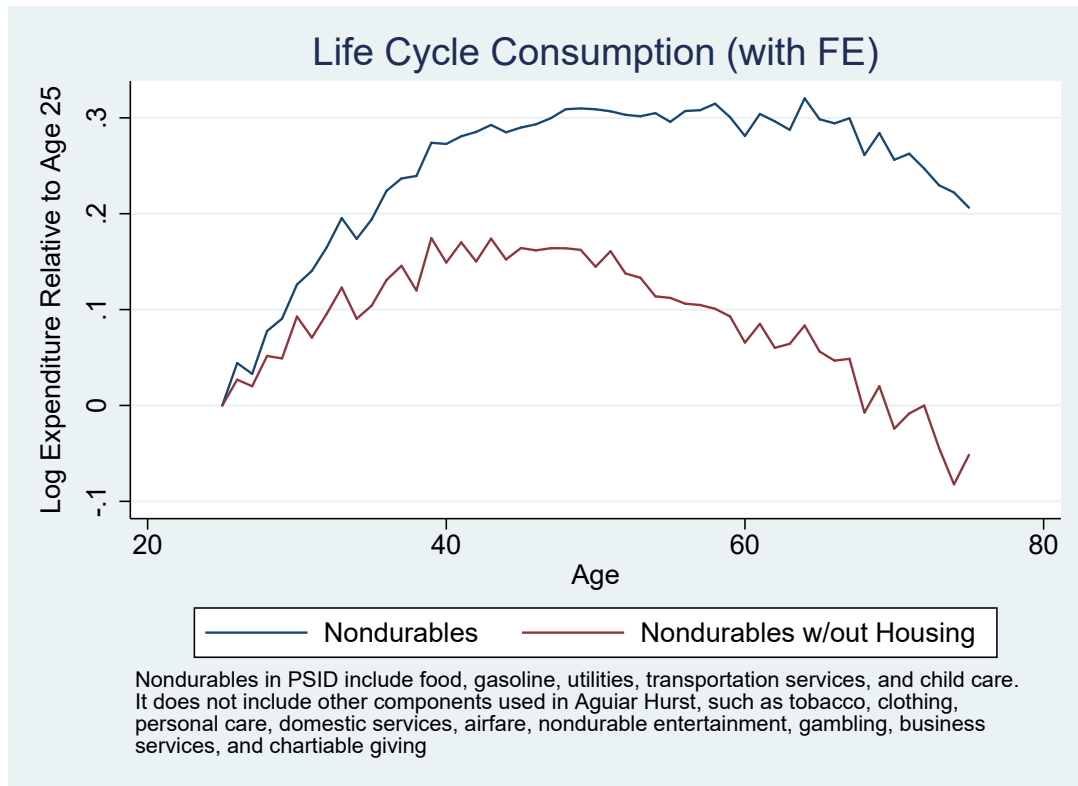
We replicate the method of Aguiar and Hurst (2013) to compute consumption dynamics over the life cycle. We use the Panel Study of Income Dynamics, whereas they use the CEX. These authors study the hump-shaped profile of nondurable expenditures and ask why nondurable expenditure declines during the second half of the life cycle, as seen in the red line of the first figure. The authors find that much of the decline is attributable to a decline in work related expenditures. This can be seen in the green line of the second figure.

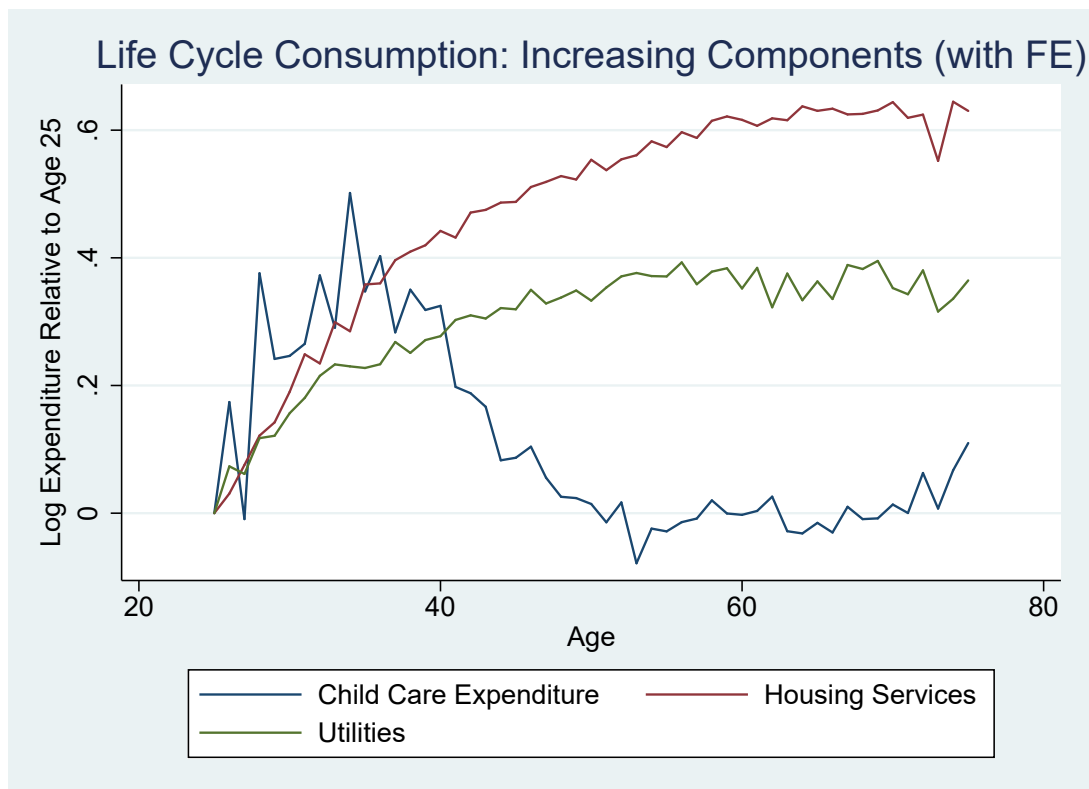
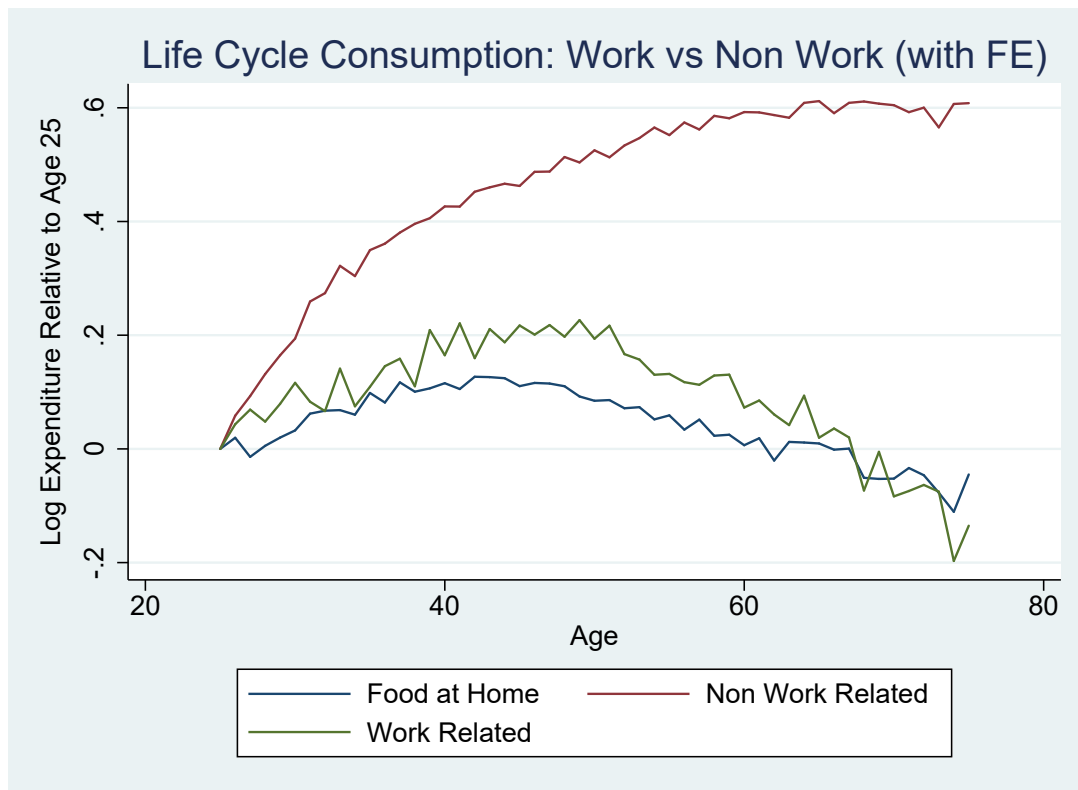


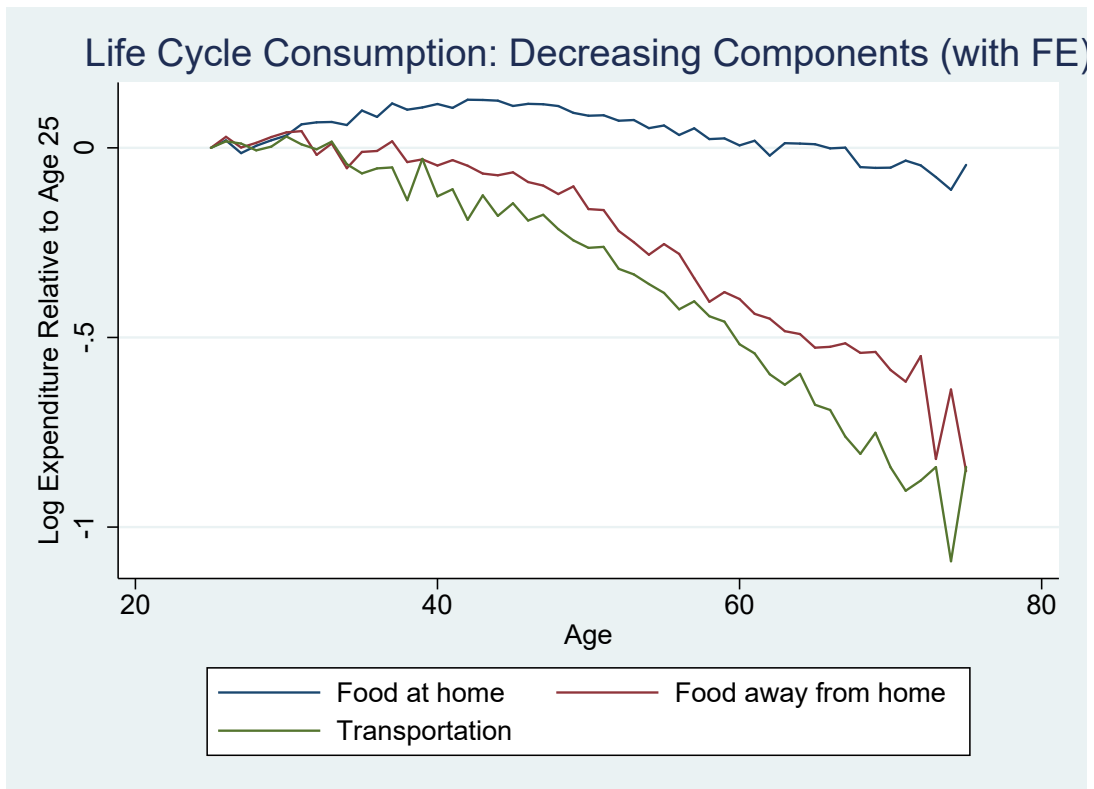
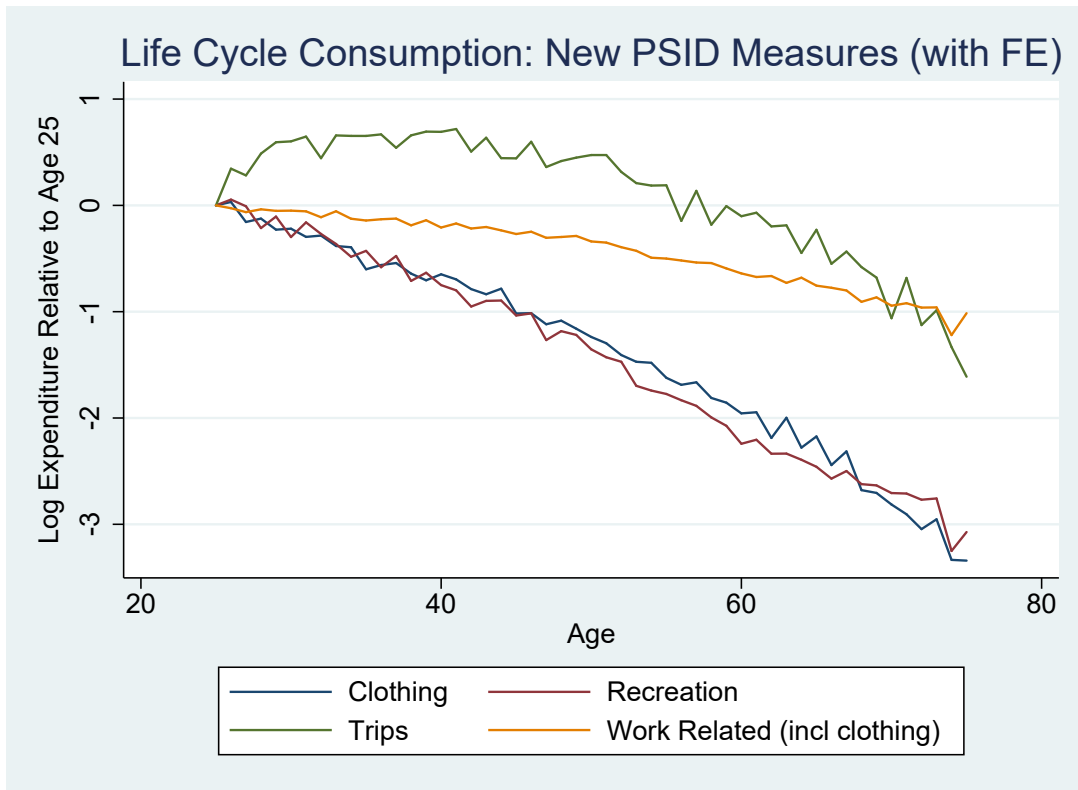


2 Life Cycle Consumption Dynamics (with HH FE)

We extend the above analysis to take advantage of the longitudinal nature of the PSID. We add a household fixed effect to the age-period-cohort regression and take out the cohort effect.



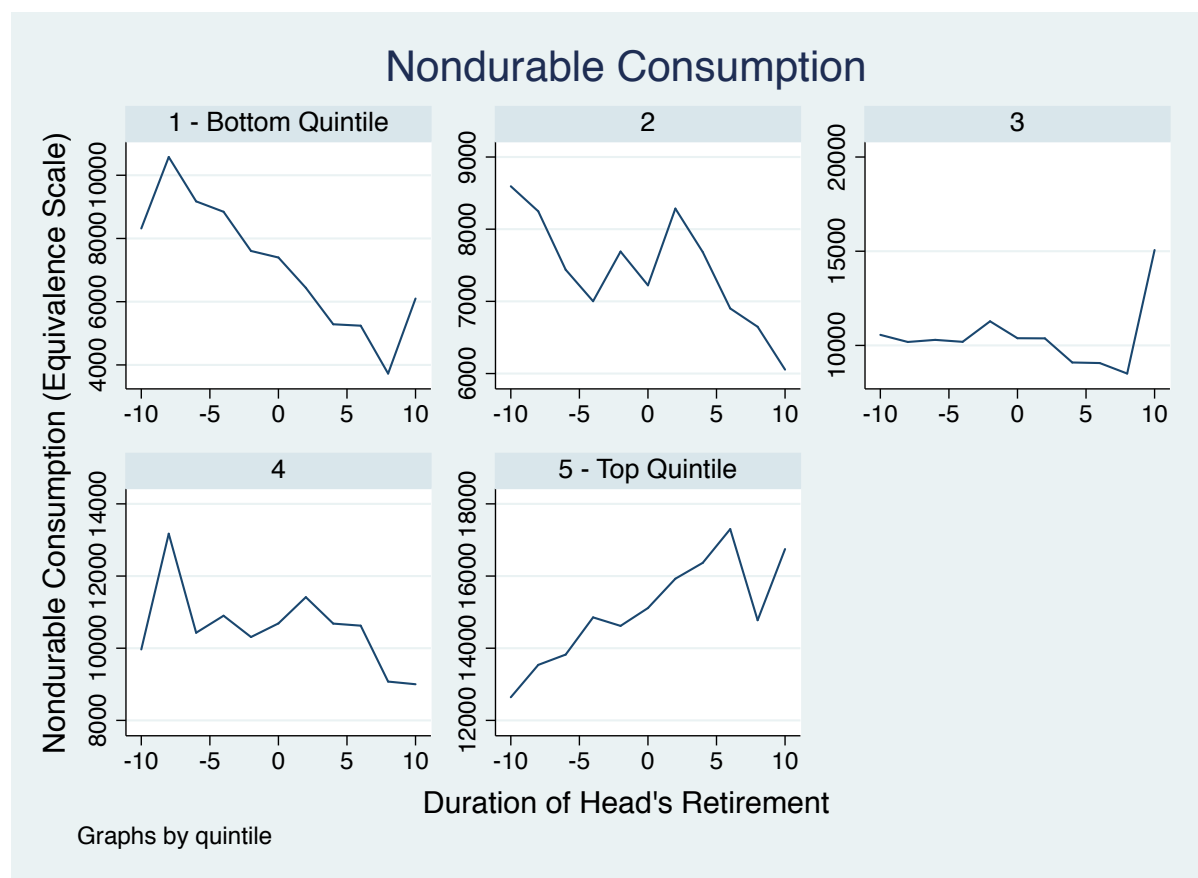




3 Consumption around Retirement

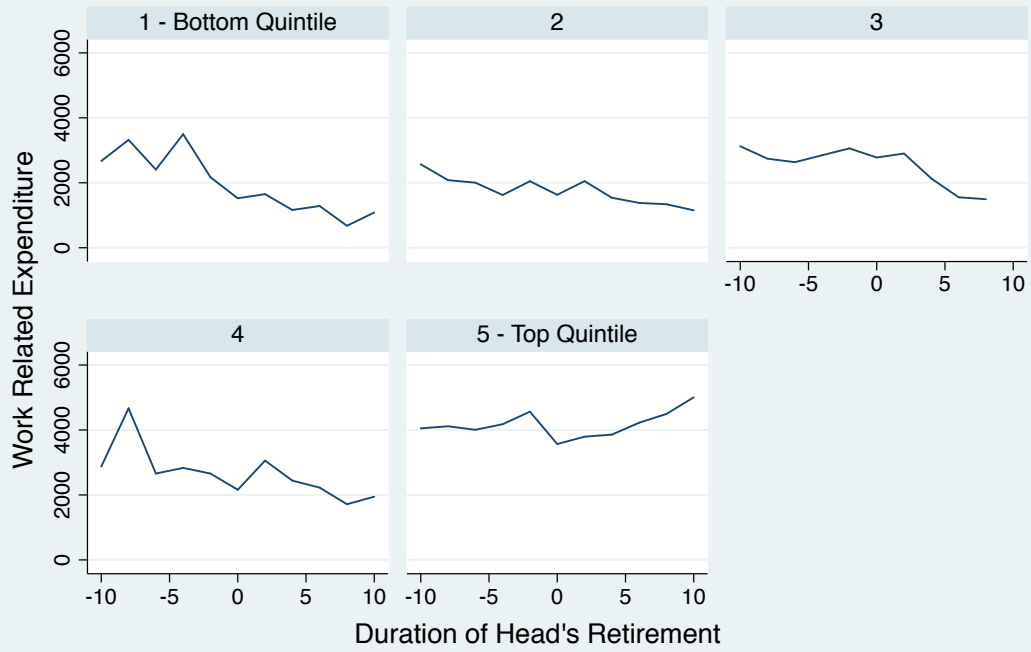
To explore the impact of retirement, we compute mean consumption based on the retirement duration of the head of household (where the head retires at time zero). We explore the heterogeneous impact of retirement by quintiles based on social security income.

While nondurable consumption (scaled for family size) declines for most of the population, we actually observe an increase in consumption for those in the top quintile. Similar behavior is apparent for the category of work related expenditure (in this case, gasoline/transportation/food away from home) where a decline is observed for the bottom four quintiles, but not the top quintile. Much of this can be attributed to food away from home, which declines for the bottom four quintiles, but not the top quintile. Finally, when we look at expenditure on trips/vacations, we observe a similarly large increase for households in the top quintile.

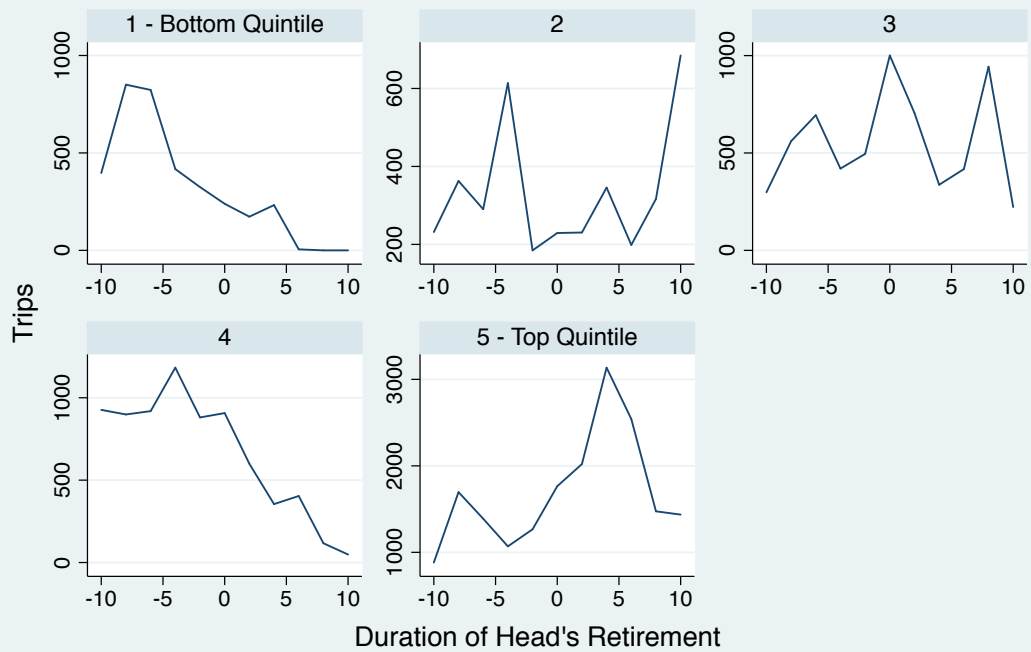


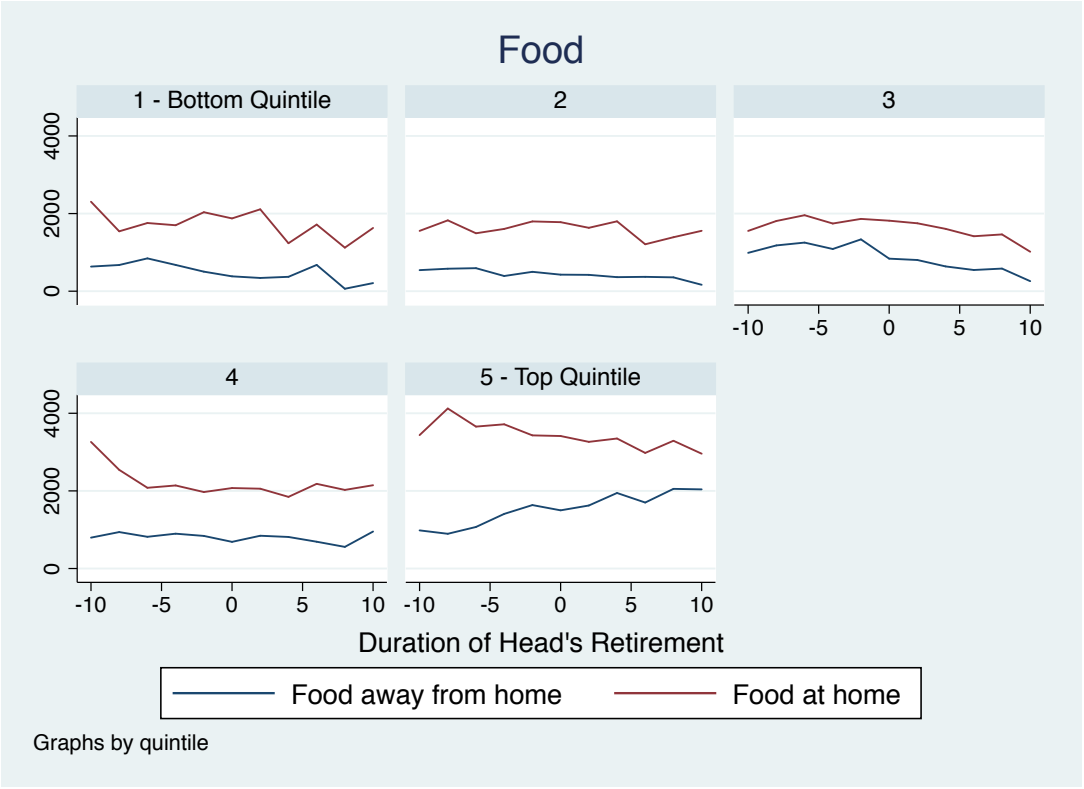
Of course, these are just simple averages for now. The next step will be to integrate this analysis with the method of Aguiar and Hurst. Then we can look at the impact of retirement on consumption while controlling for age, period, cohort, marital status, and family size effects. This will hopefully allow us to get a better picture of the heterogeneous impact of retirement.

Work Related Expenditure



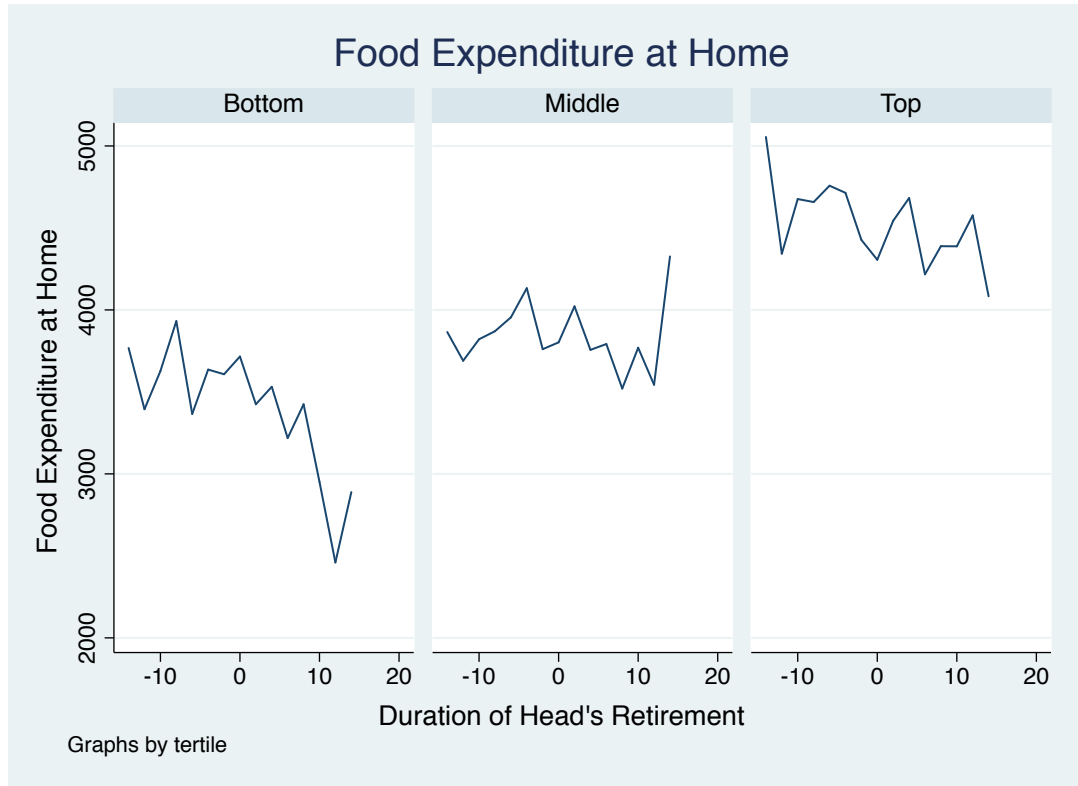
Vacations/Trips Expenditure





4 Consumption around Retirement by Tertile Pre-2005

To further explore the impact of retirement, we compute the mean consumption based on tertile for different nondurable categories.



5 Imputed Expenditure versus Sum of Categorical

Figure 5.1: For categories before 2005

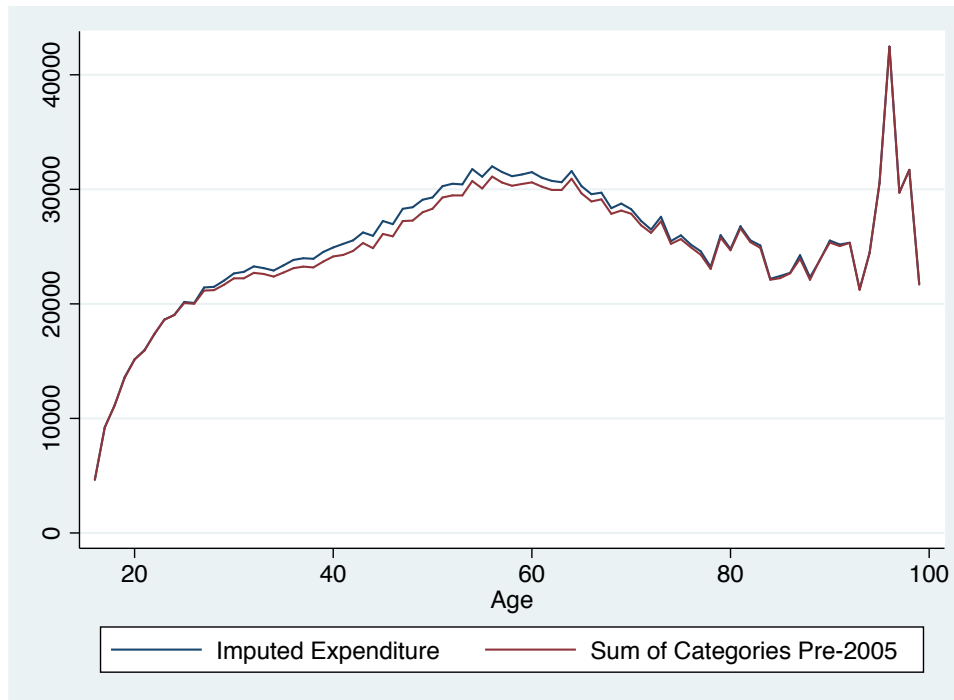
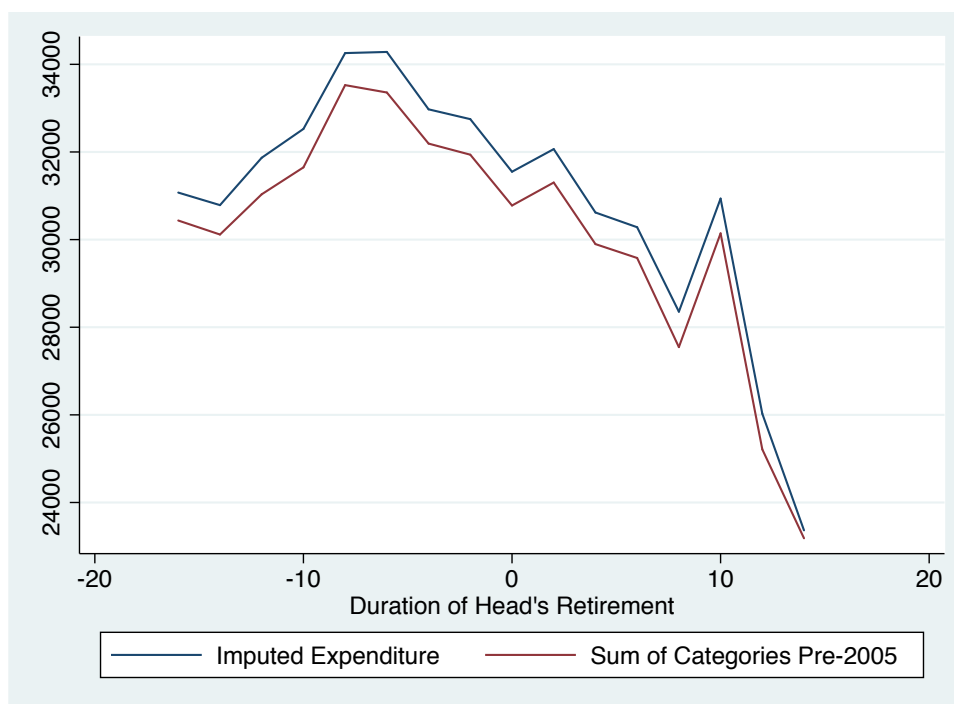


Figure 5.2: For categories before 2005



6 Sum of Categorical Expenditure

Figure 6.1: For categories before 2005

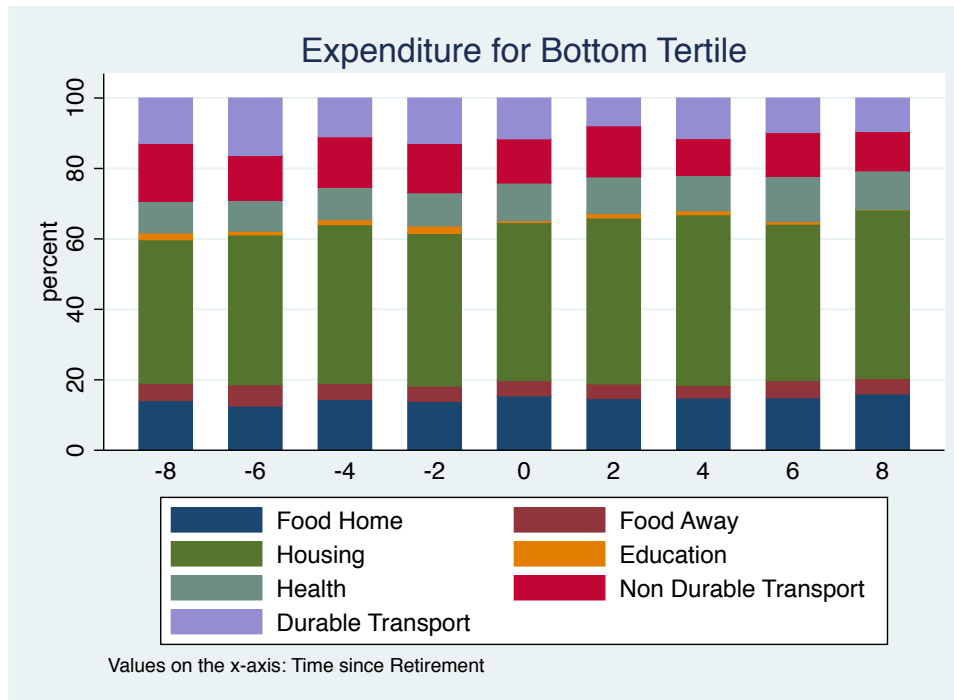


Figure 6.2: For categories before 2005

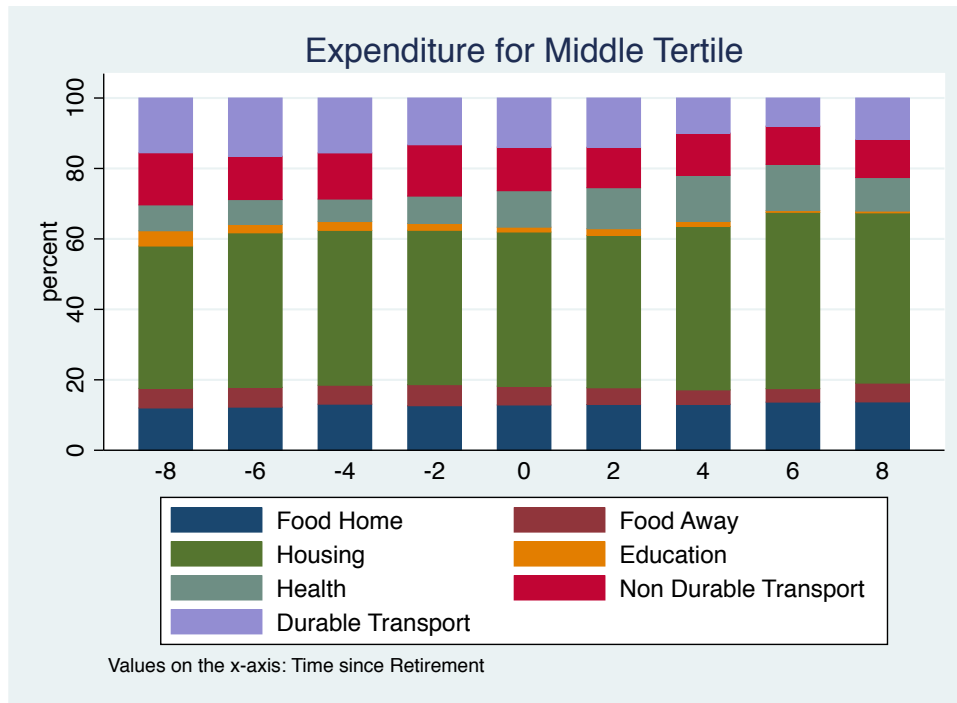
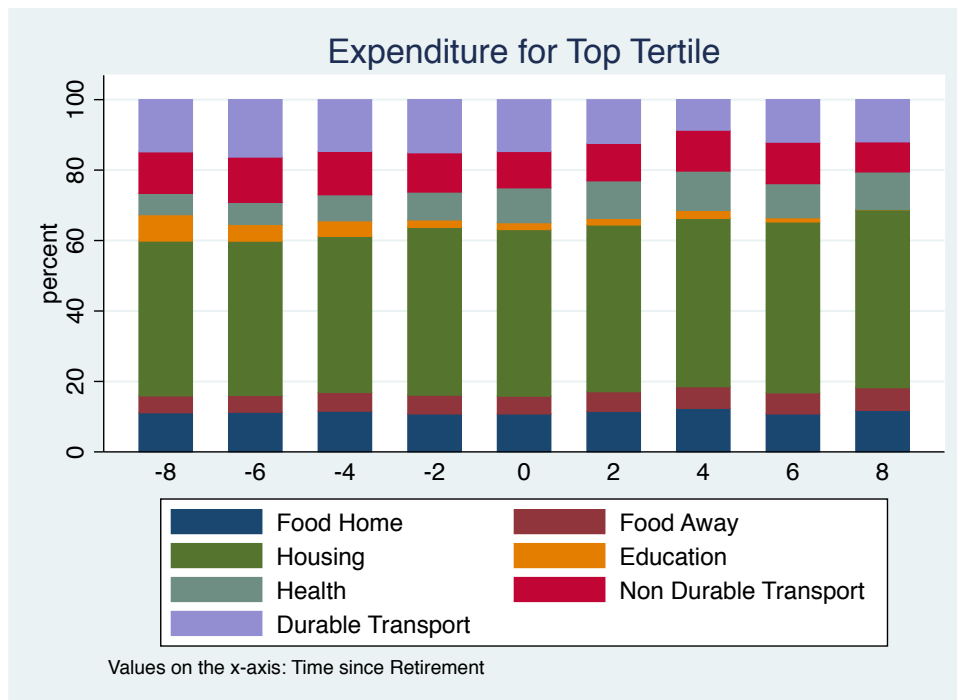


Figure 6.3: For categories before 2005



7 Bar Graphs for Categorical Expenditure

Figure 7.1: 1 - Ignoring the spouse

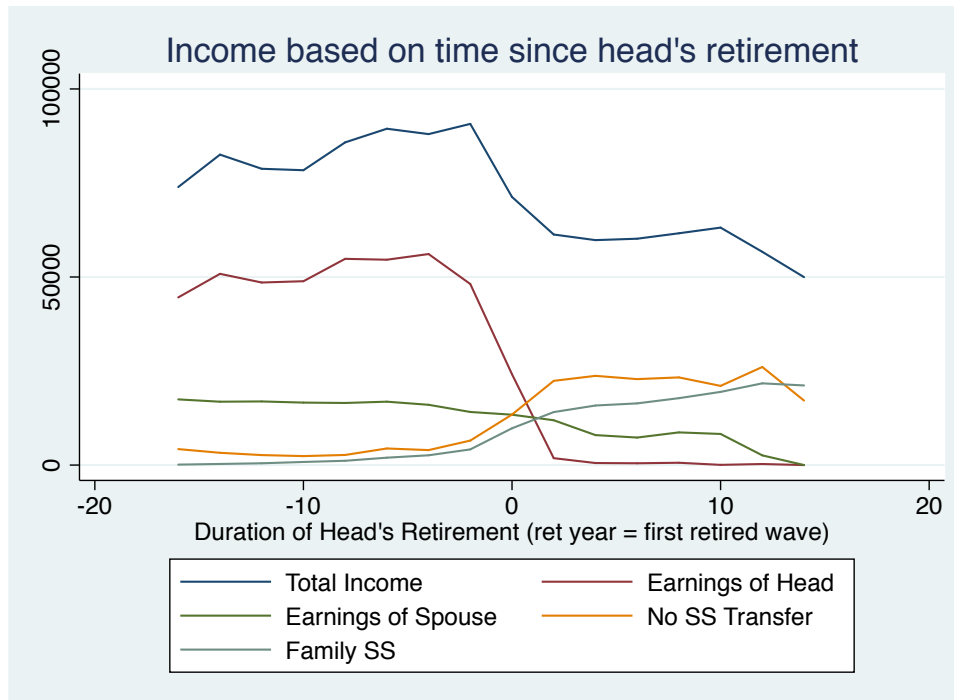


Figure 7.2: 2 - Spouse never works

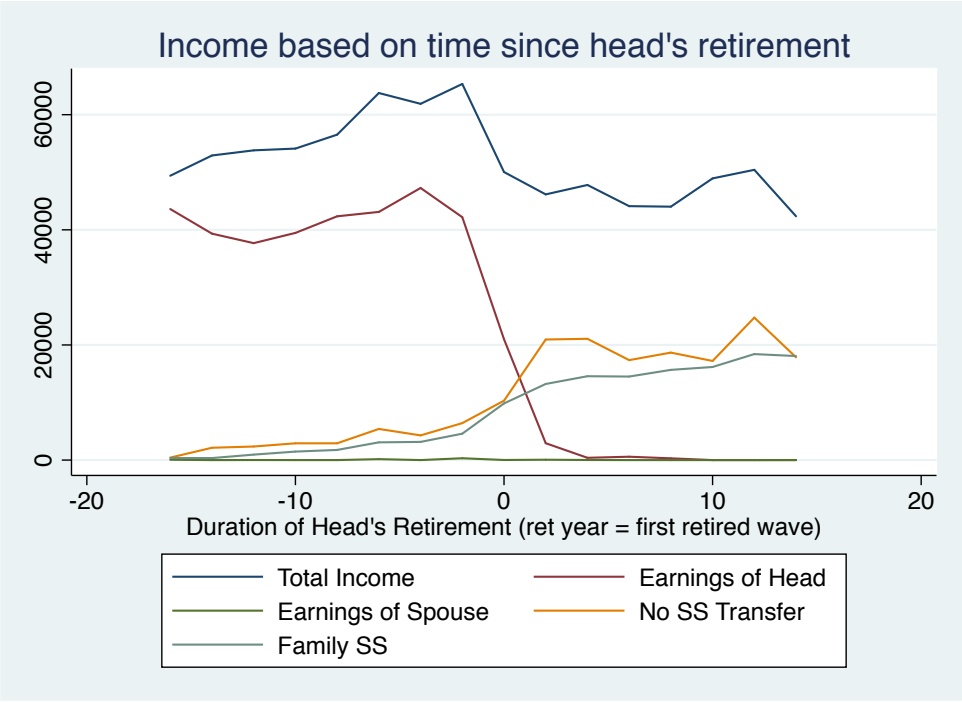


Figure 7.3: 3 - Spouse always works

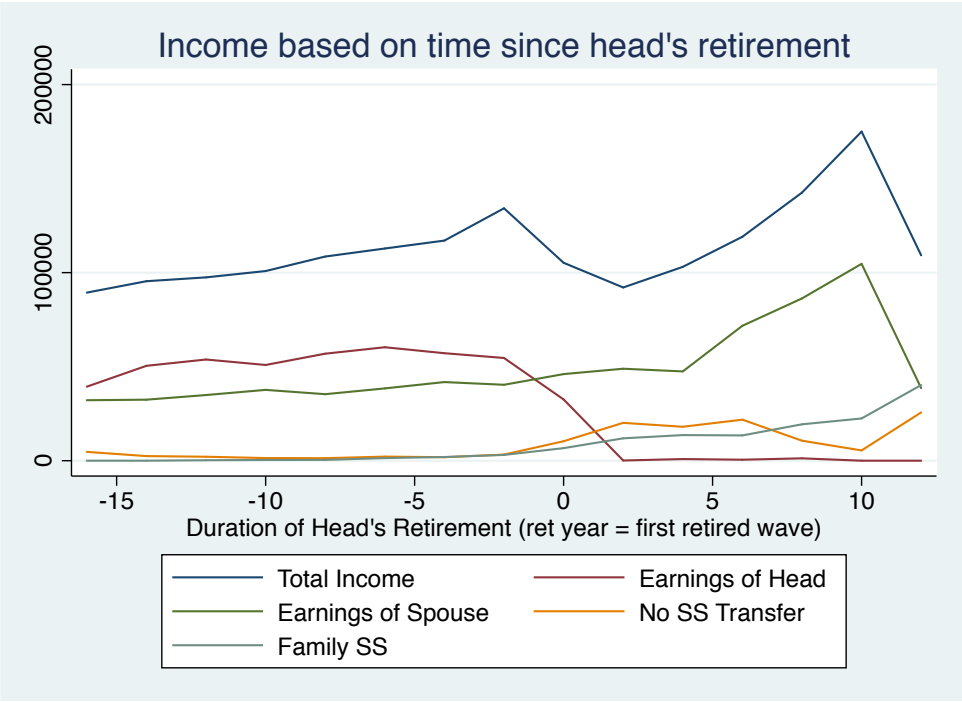


Figure 7.4: 4 - Spouse has same retirement transition +/- wave

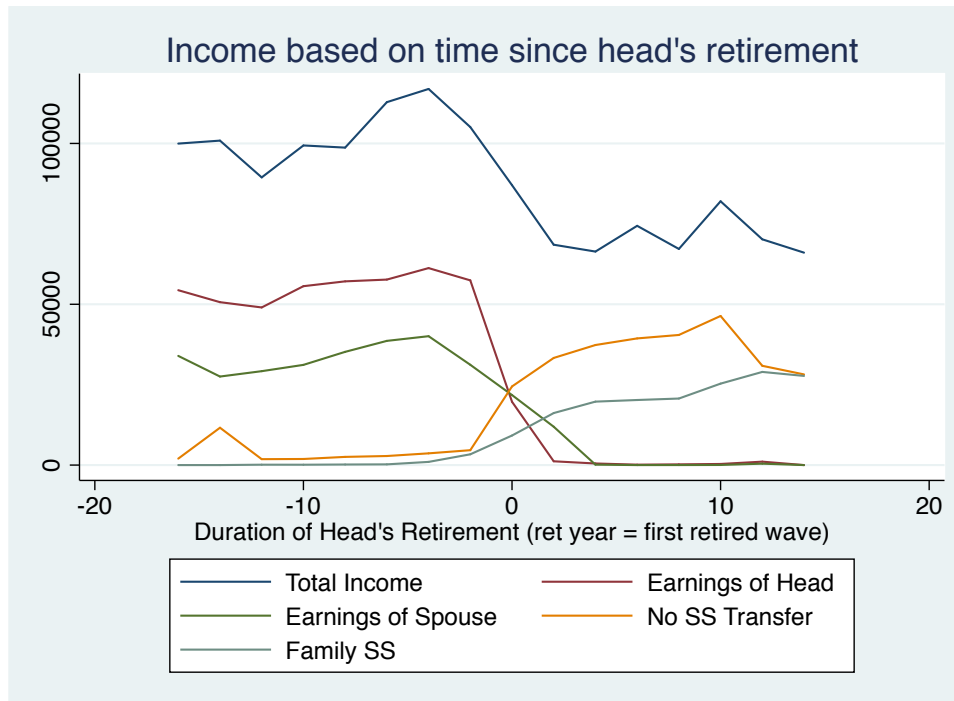


Figure 7.5: 5 - Spouse has a different retirement transition

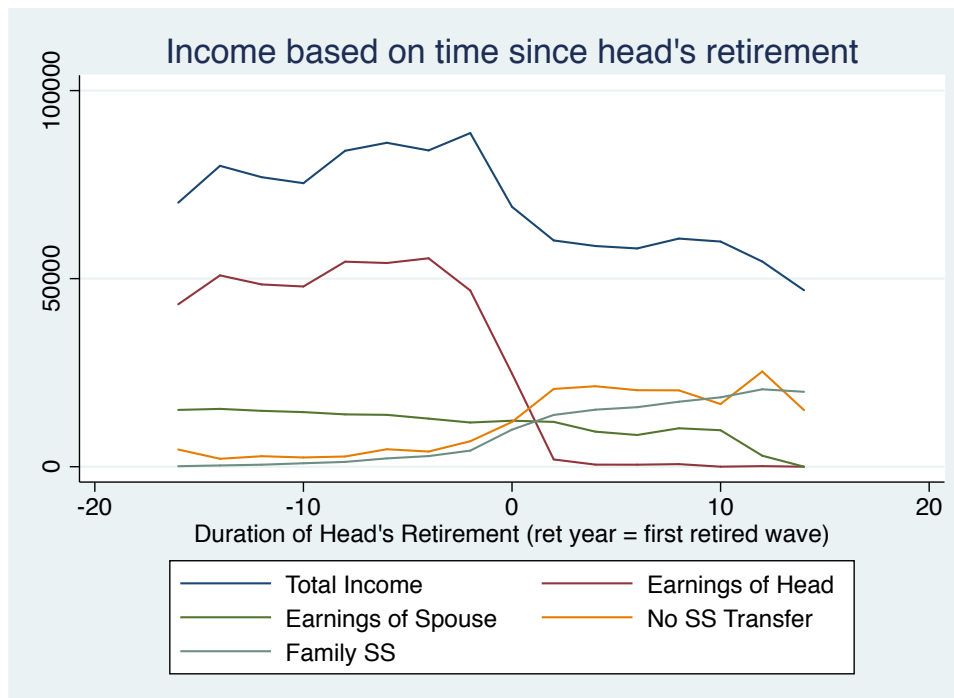


Figure 7.6: 6 - Spouse retired after the head

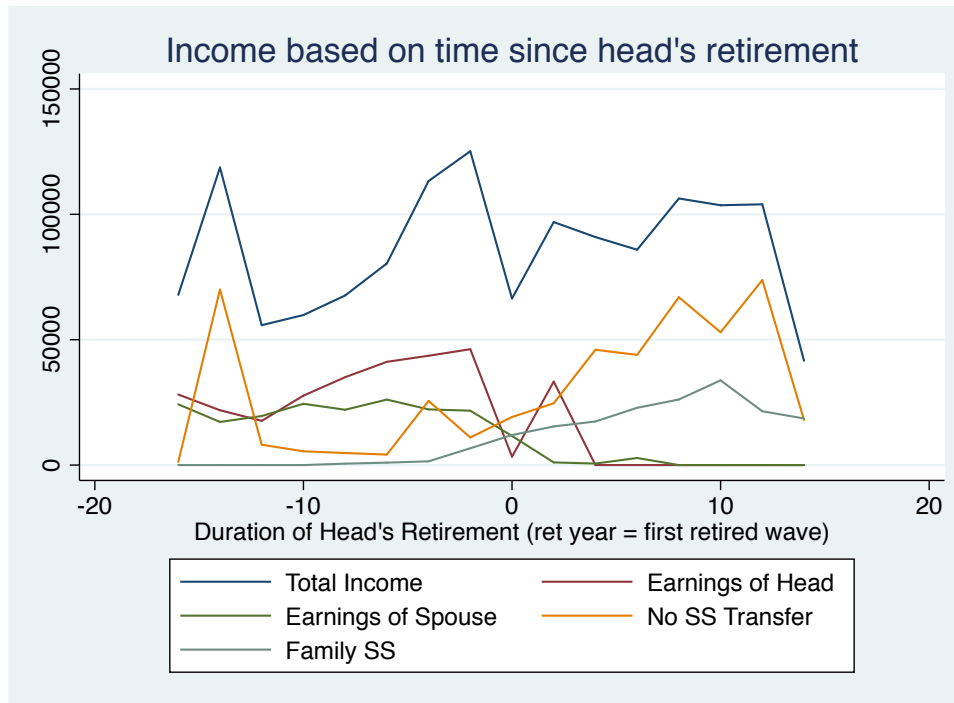


Figure 7.7: 7 - Spouse retired before the head

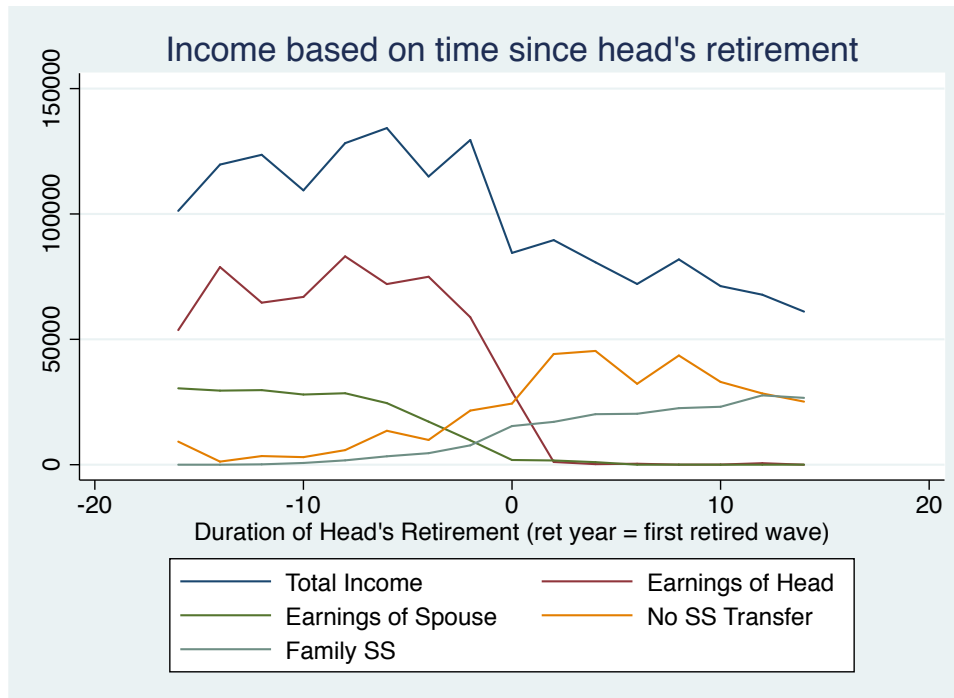
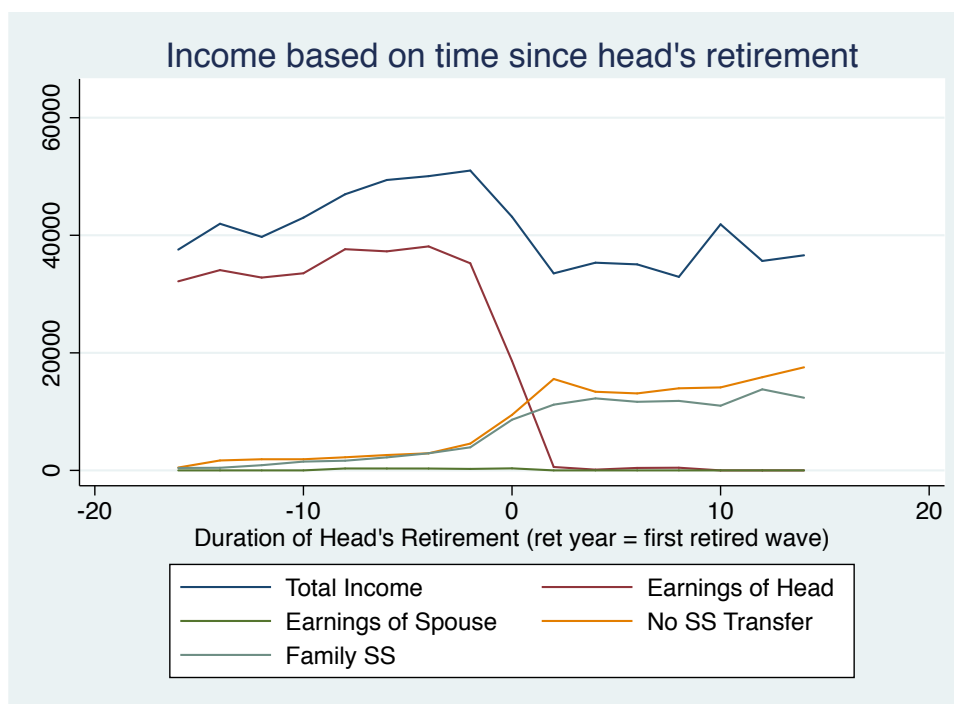


Figure 7.8: 8 - Head of the household is single



8 Total Nondurable expenditure (without Health Exp-Unsmoothed) vs Sum of coefficients from categorical Expenditure

Figure 8.1: 1-Ignoring the Spouse- Total Nondurable expenditure

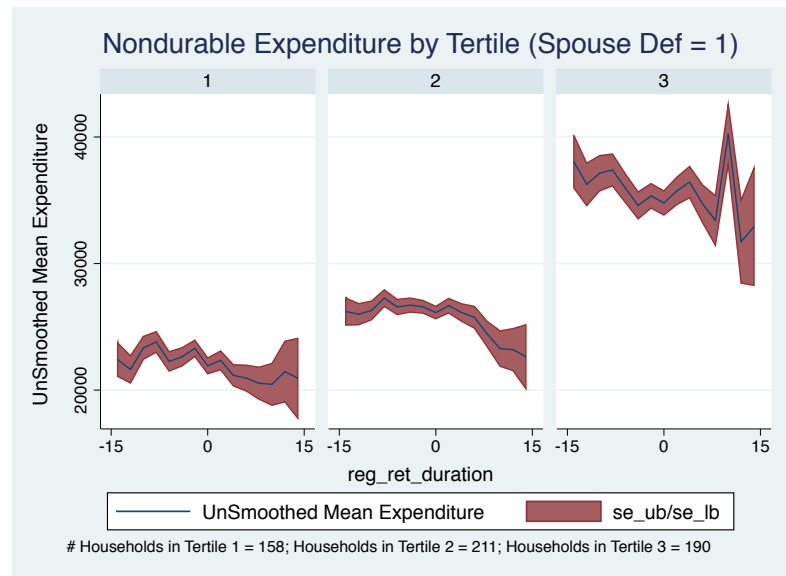


Figure 8.2: 1 - Ignoring the Spouse - Sum of Categorical expenditure

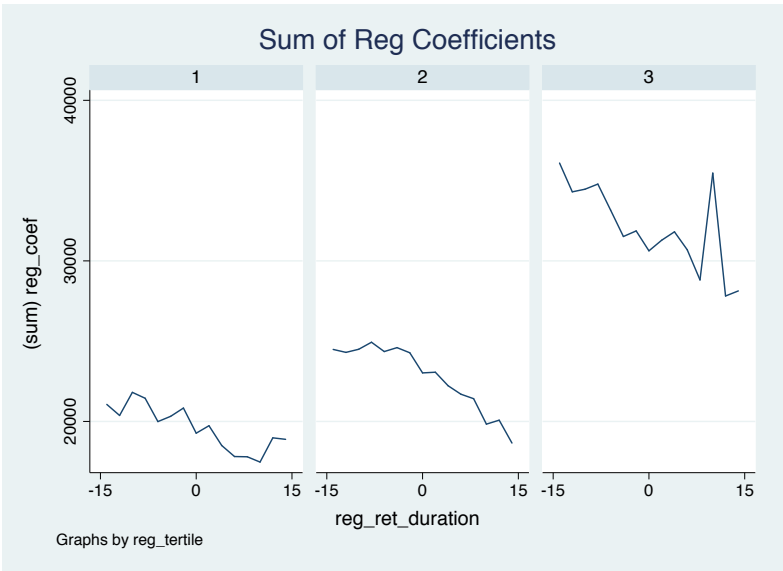


Figure 8.3: 2-Spouse Never Works- Total Nondurable expenditure

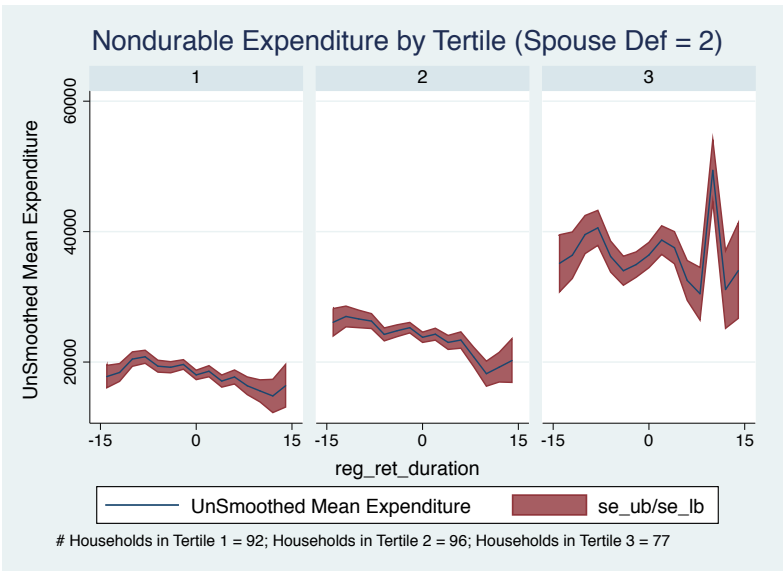


Figure 8.4: 2 - Spouse Never Works - Sum of Categorical expenditure

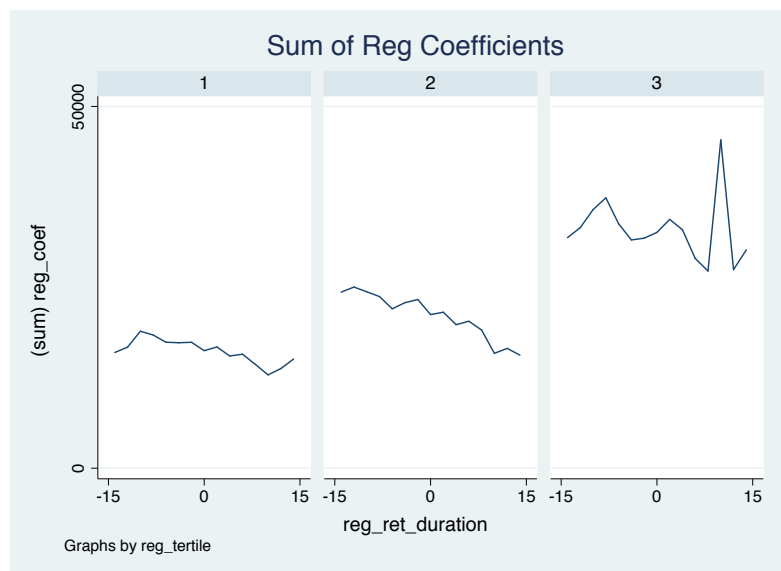


Figure 8.5: 3-Spouse Always Works- Total Nondurable expenditure

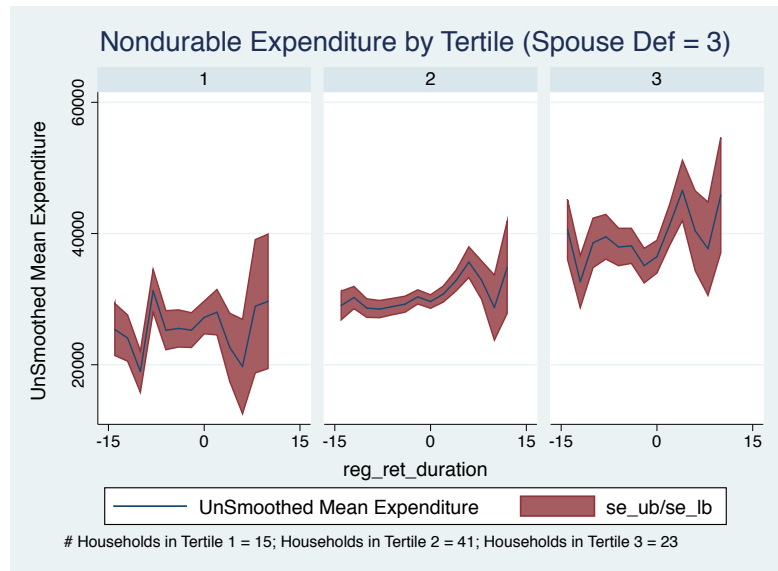
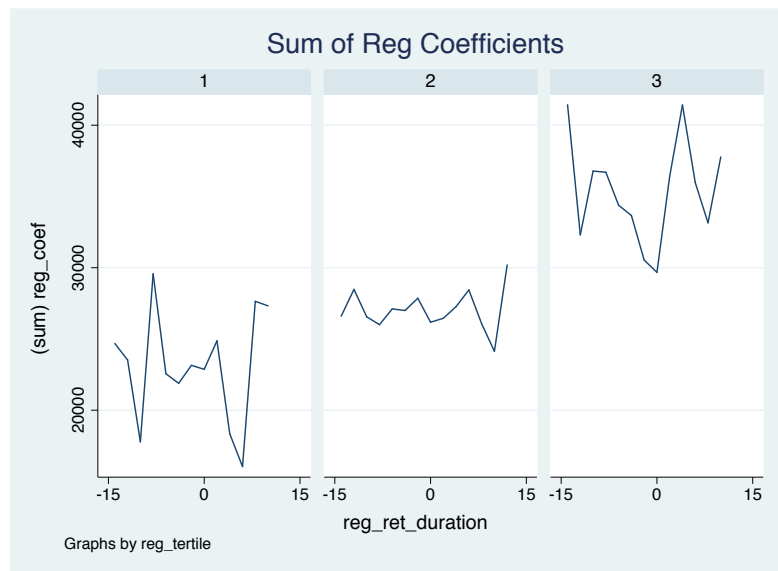
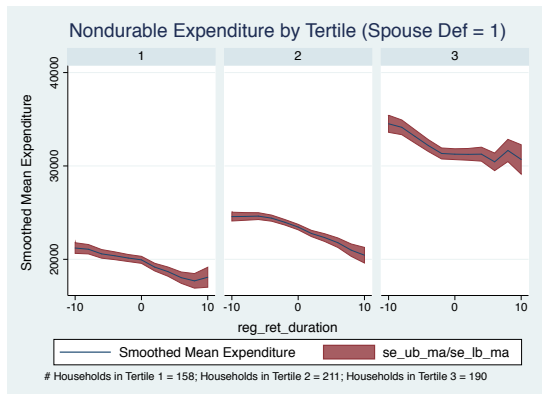
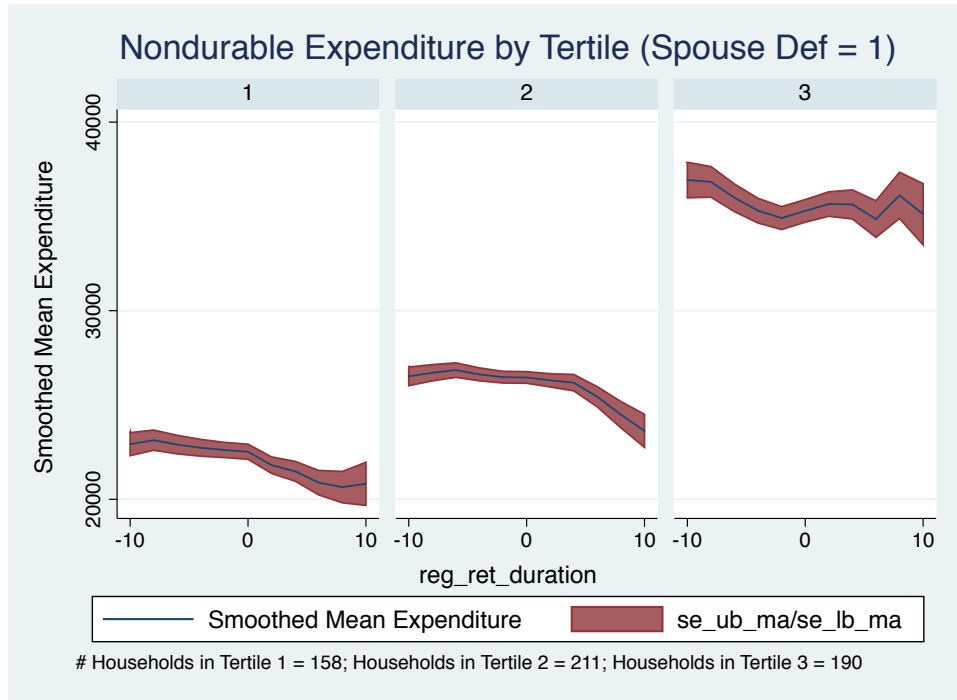


Figure 8.6: 3 - Spouse Always Works - Sum of Categorical expenditure

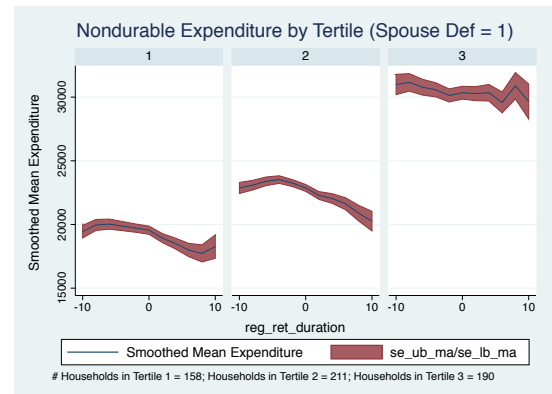


9 Expenditure based on tertiles for spouse retirement(smoothed)

(a) 1 - Ignoring the Spouse

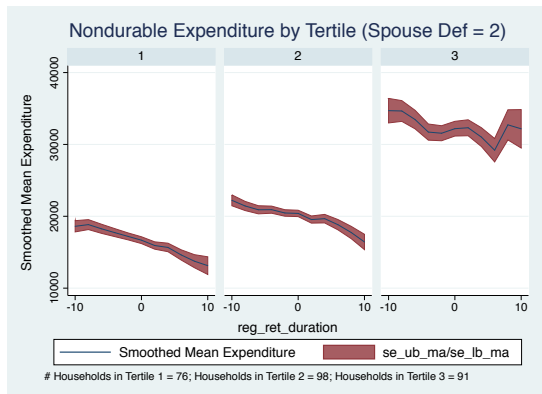
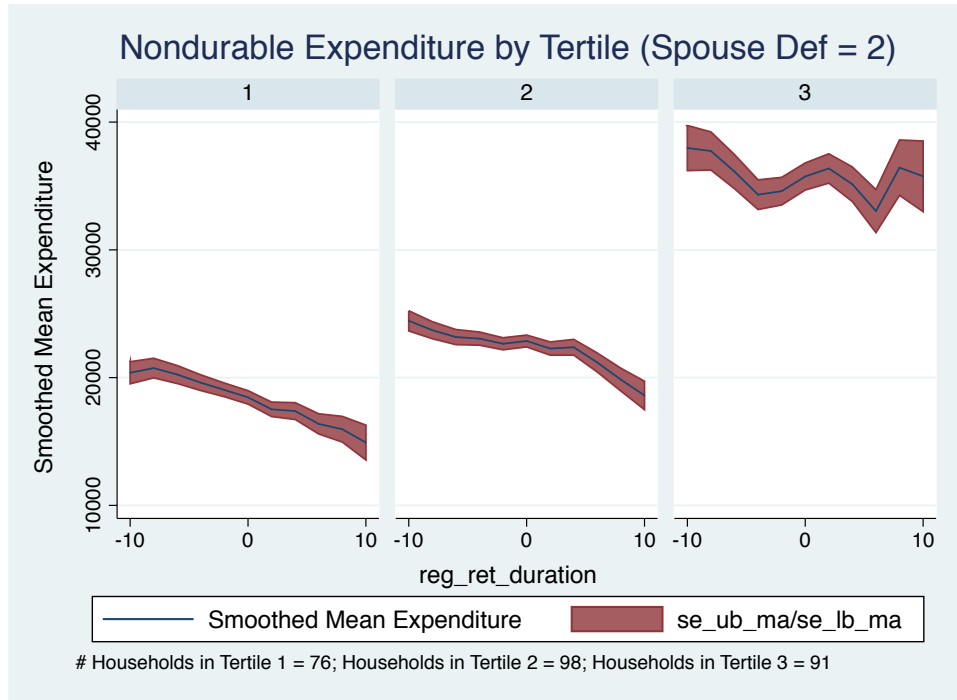


(b) Nondurables w/o health exp

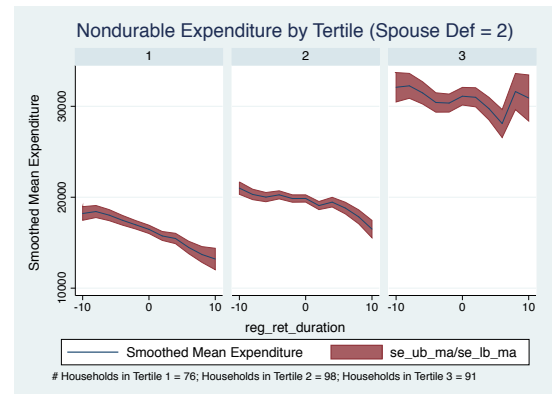


(c) Nondurables w/o health and educ exp

(a) 2 - Spouse always works

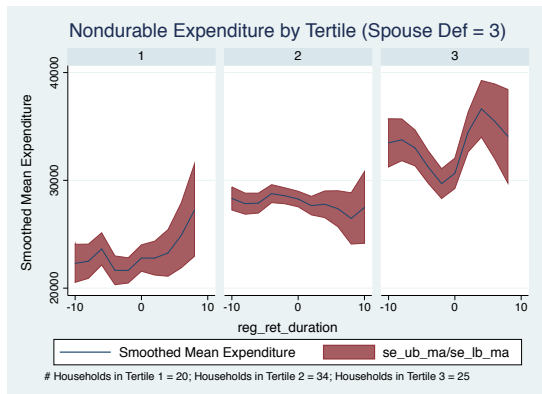
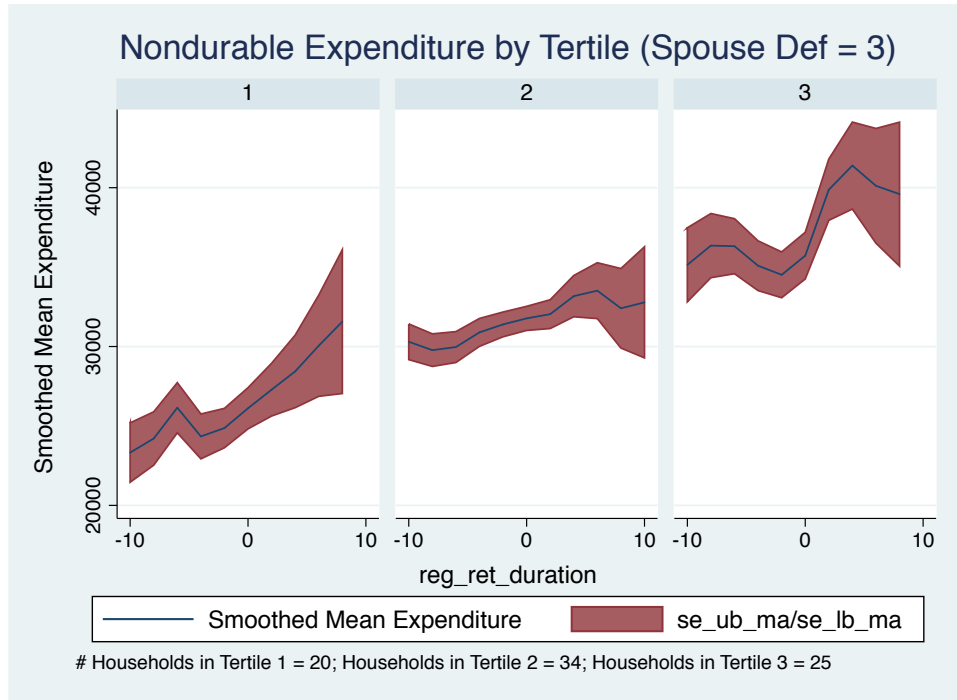


(b) Nondurables w/o health exp

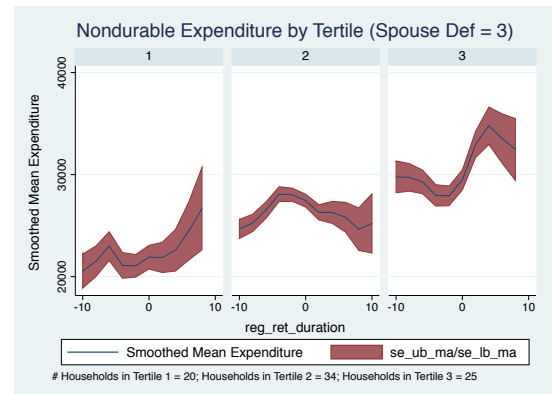


(c) Nondurables w/o health and educ exp

(a) 3 - Spouse never works

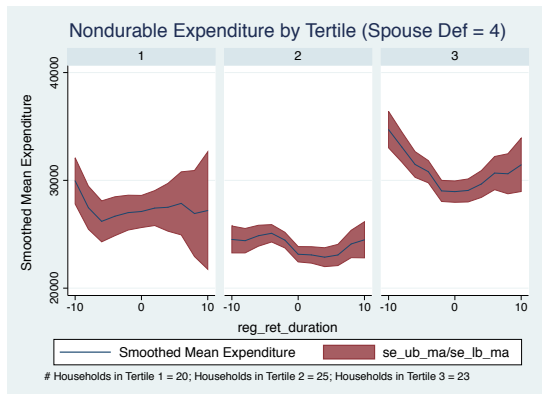
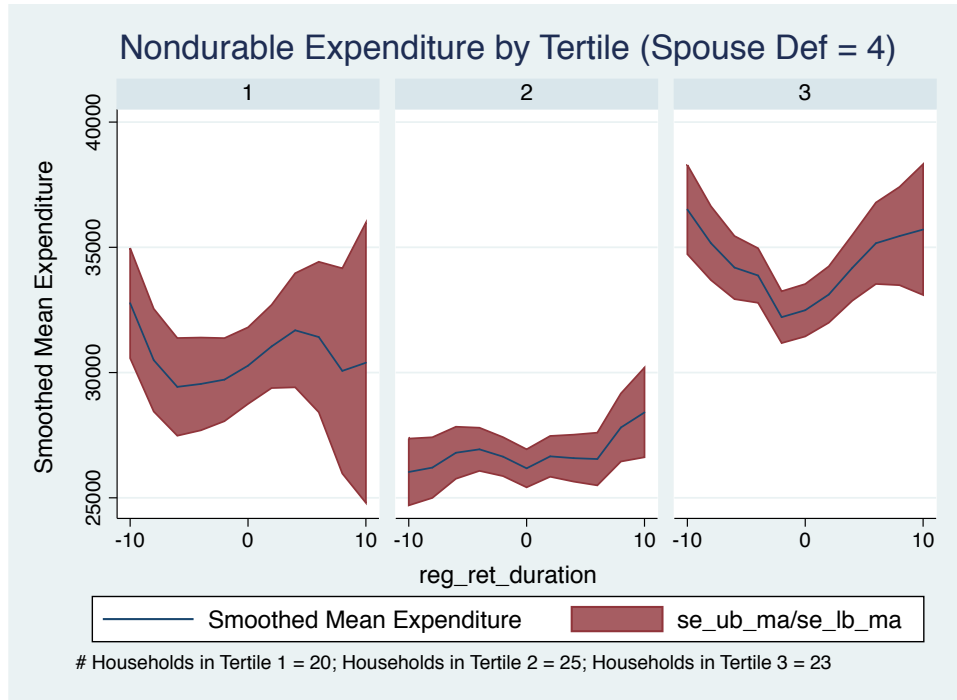


(b) Nondurables w/o health exp

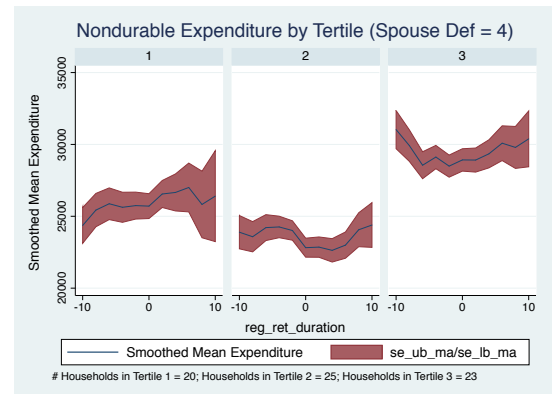


(c) Nondurables w/o health and educ exp

(a) 4 - Spouse has same retirement transition +/- wave

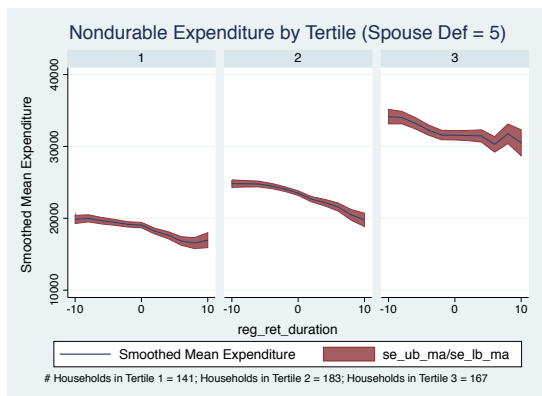
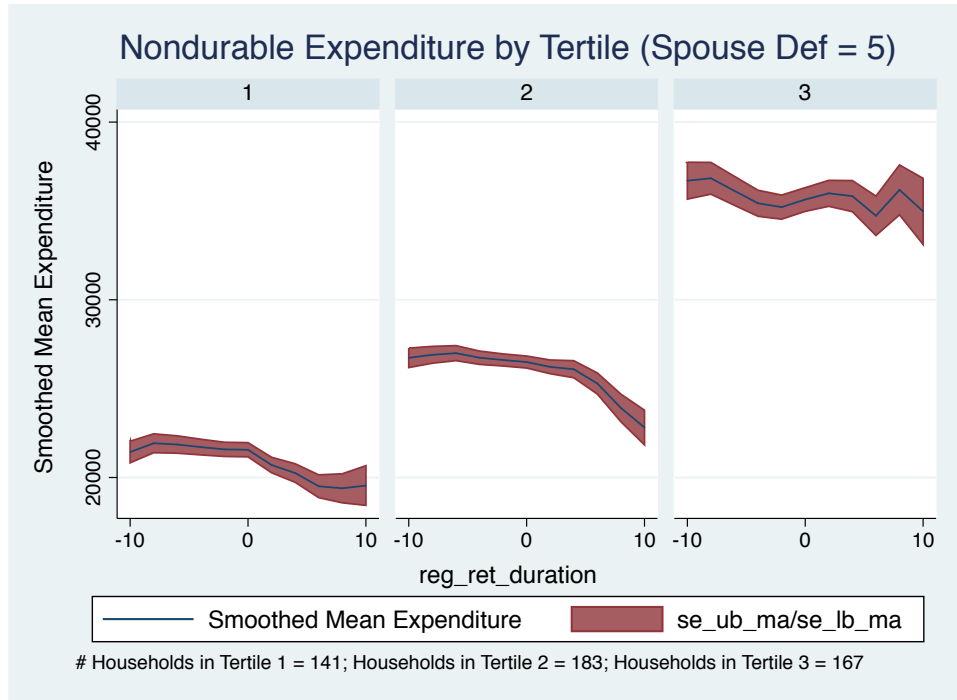


(b) Nondurables w/o health exp

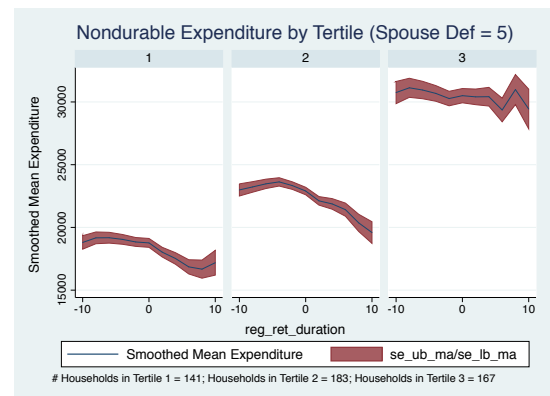


(c) Nondurables w/o health and educ exp

(a) 5 - Spouse has a different retirement transition

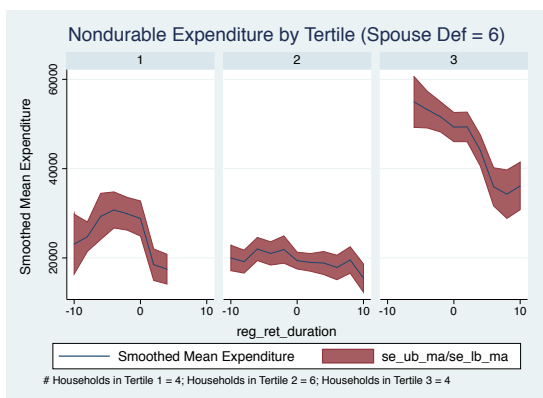
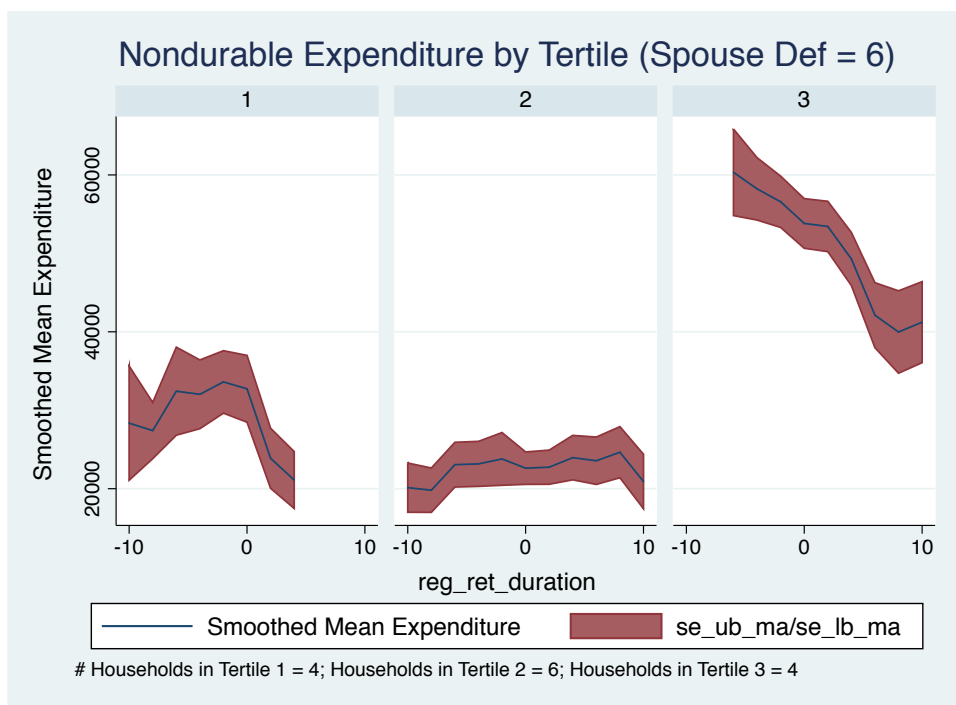


(b) Nondurables w/o health exp

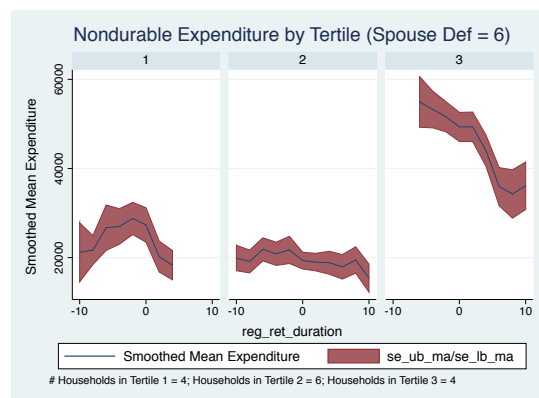


(c) Nondurables w/o health and educ exp

(a) 6 - Spouse retired after the head

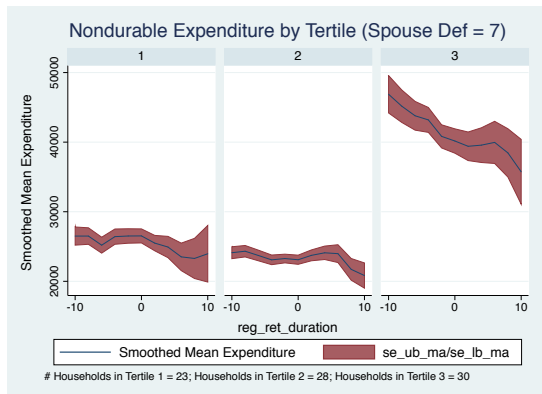
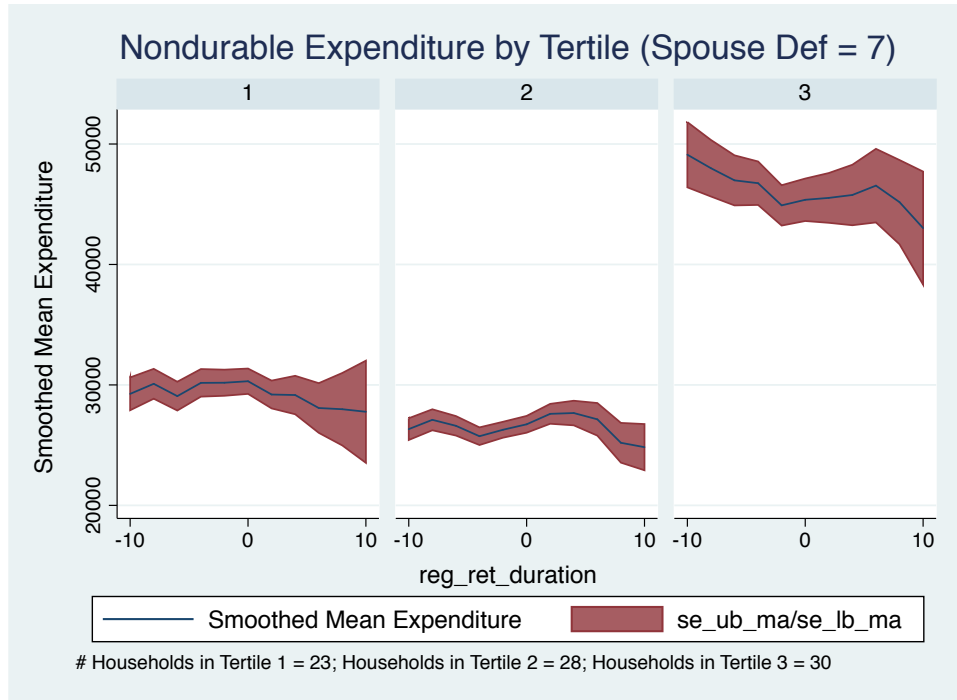


(b) Nondurables w/o health exp

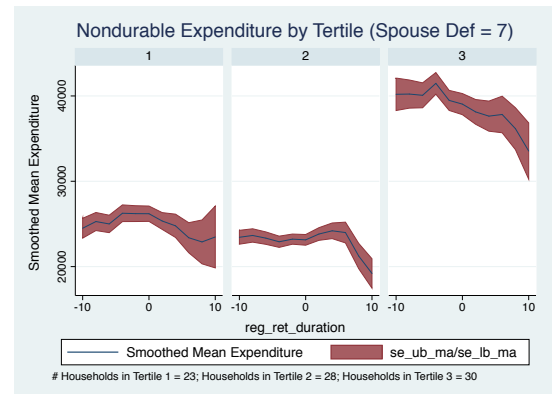


(c) Nondurables w/o health and educ exp

(a) 7 - Spouse retired before the head

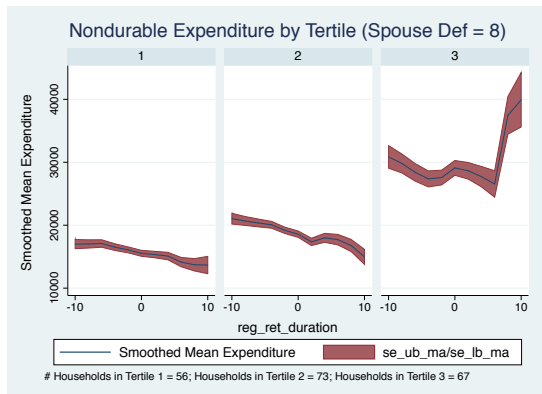
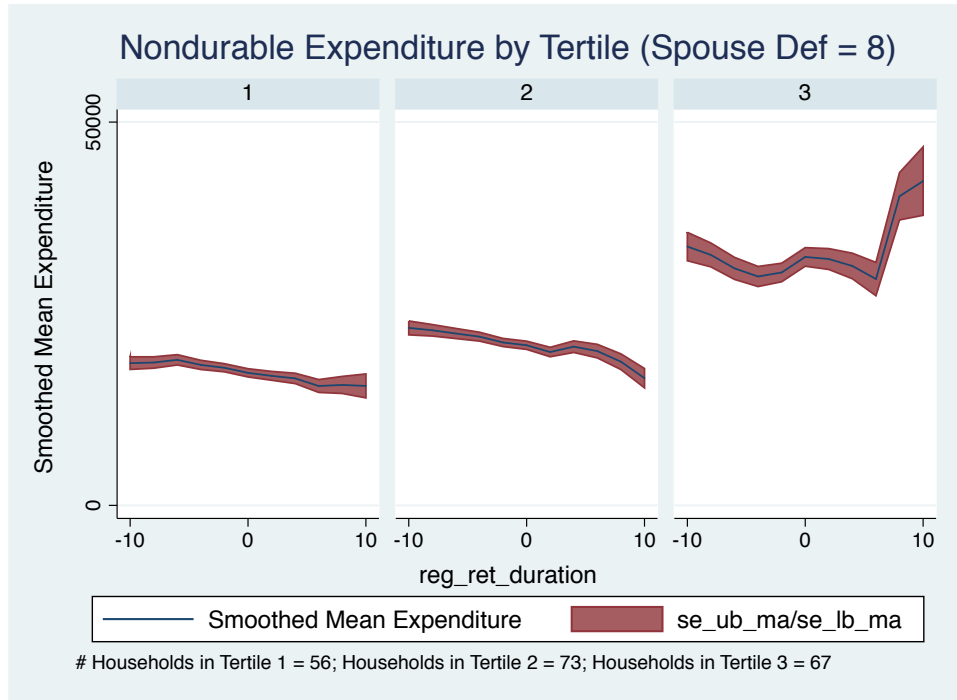


(b) Nondurables w/o health exp

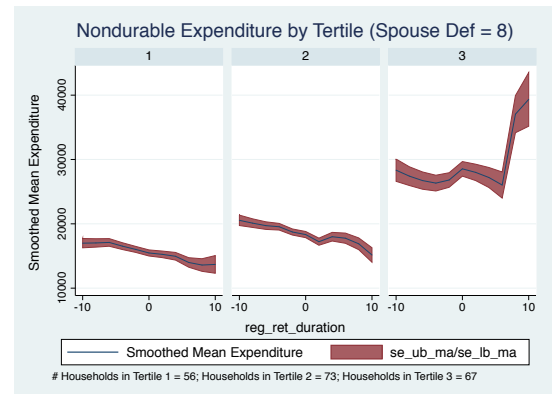


(c) Nondurables w/o health and educ exp

(a) 8 - Head of the family is single



(b) Nondurables w/o health exp



(c) Nondurables w/o health and educ exp

10 Categorical Expenditure Based on Spouse Definition

10.1 1- Ignoring the Spouse

Figure 10.1: Food Expenditure at Home

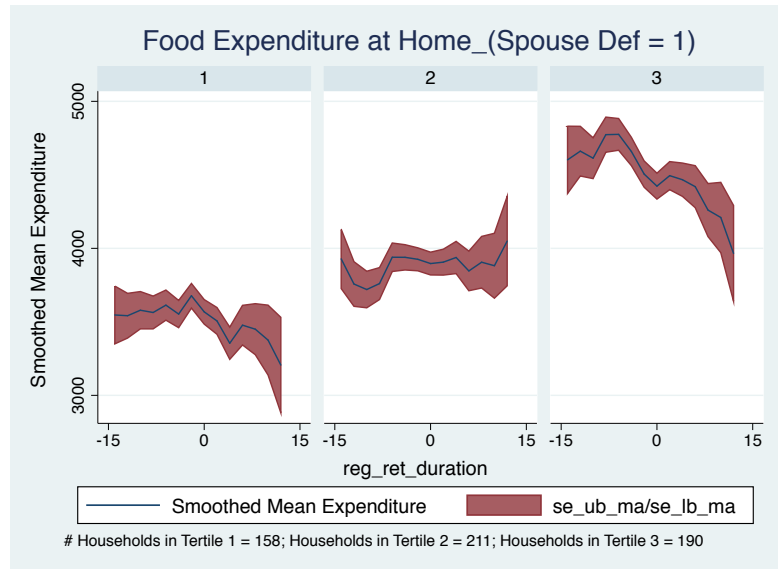


Figure 10.2: Food Expenditure Away from Home

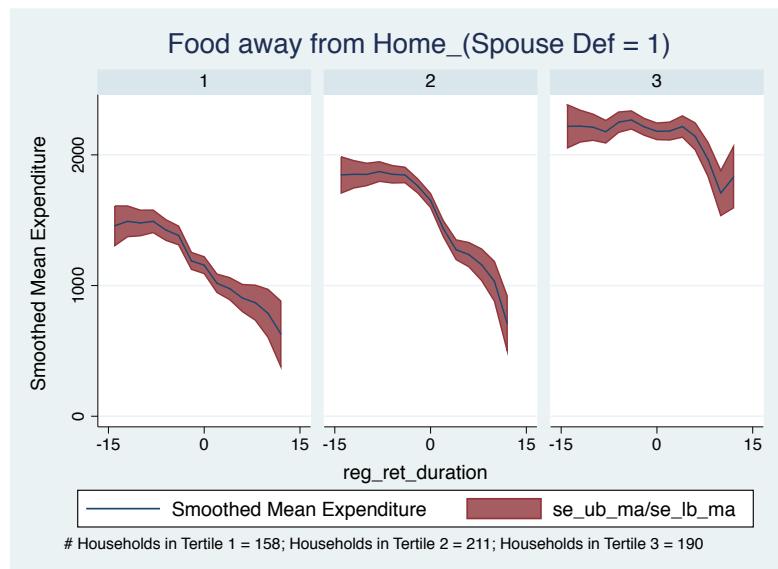


Figure 10.3: Expenditure on Housing

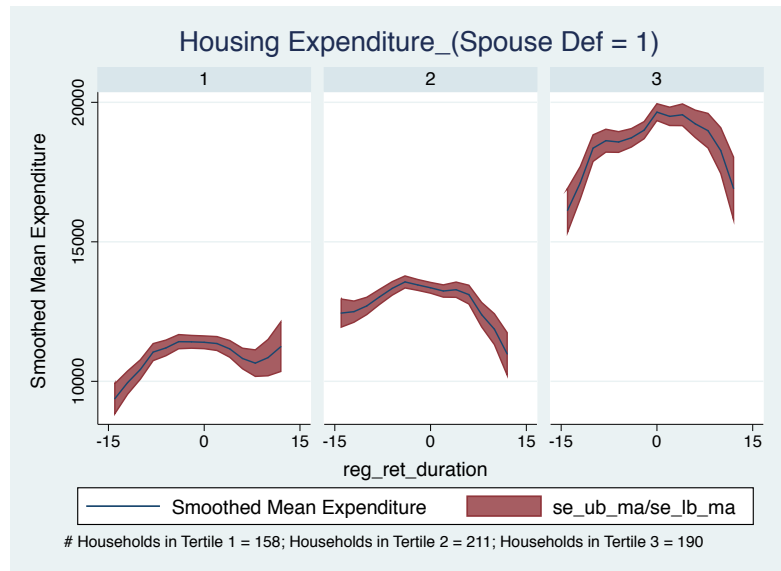


Figure 10.4: Expenditure on Education

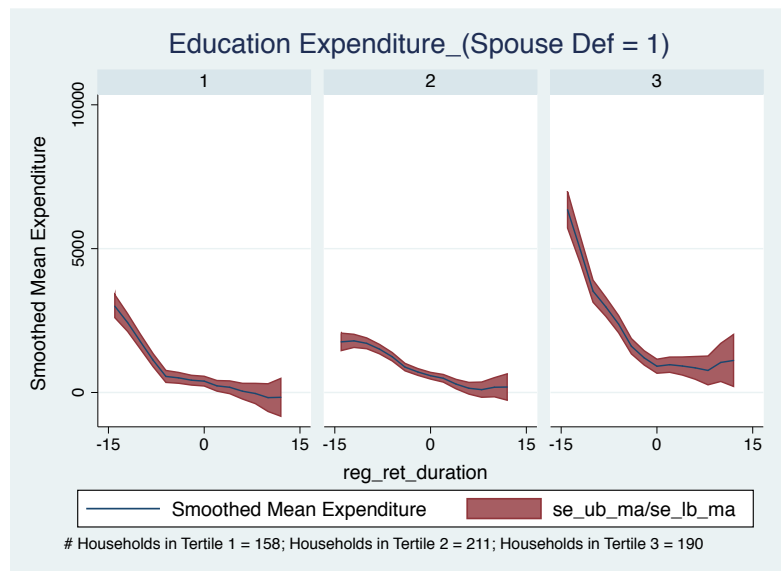


Figure 10.5: Expenditure on Health

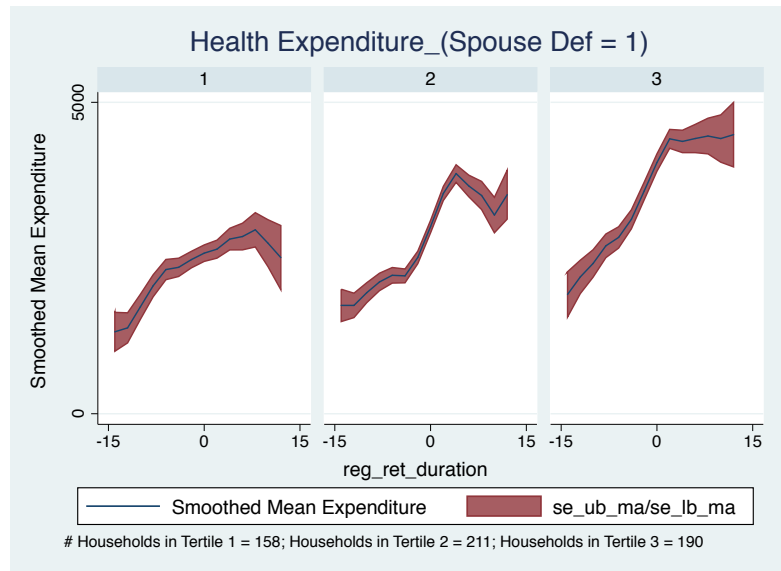


Figure 10.6: Expenditure on Nondurable Transport

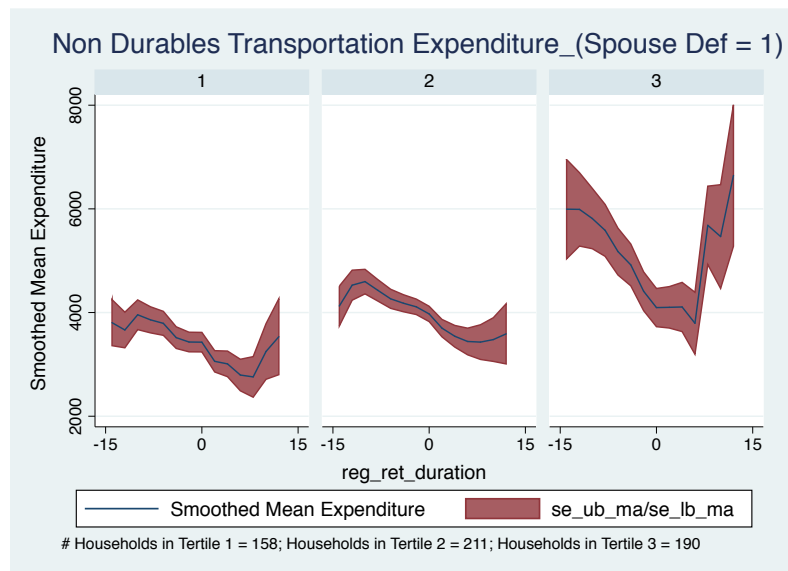


Figure 10.7: Expenditure on total clothing (post 2005)

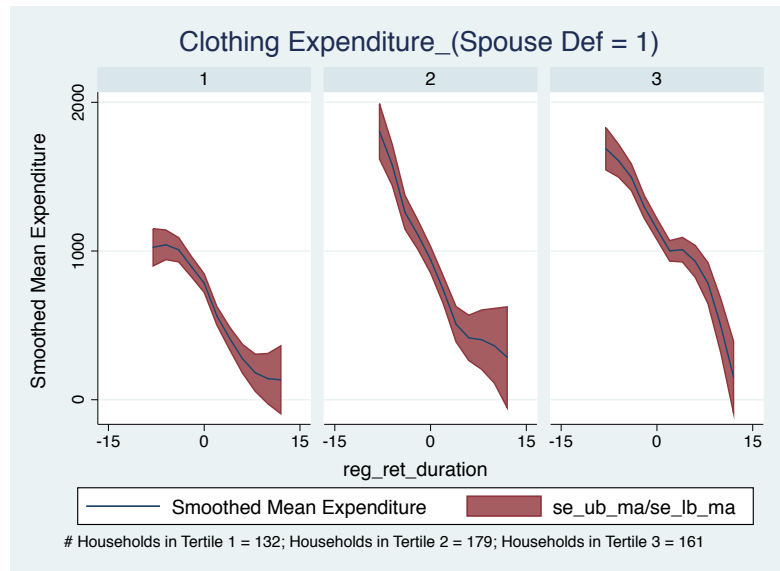
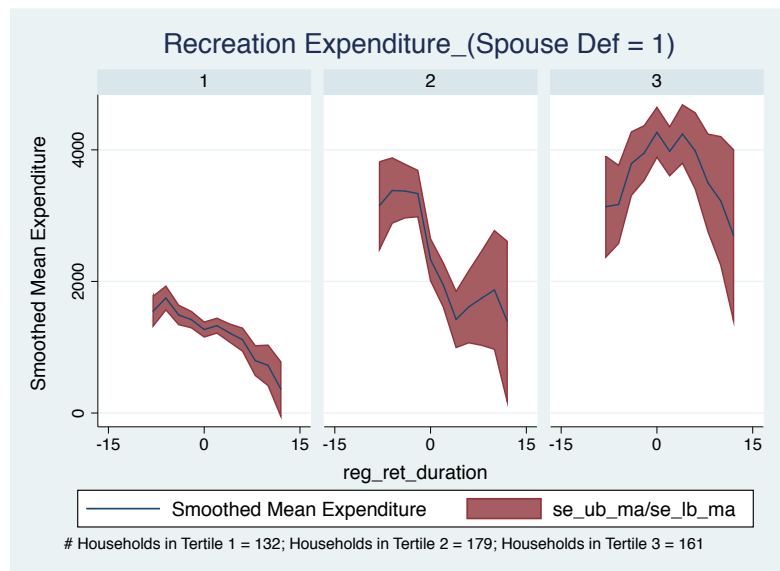


Figure 10.8: Expenditure on total recreation (post 2005)



10.2 2- Spouse Never Works

Figure 10.9: Food Expenditure at Home

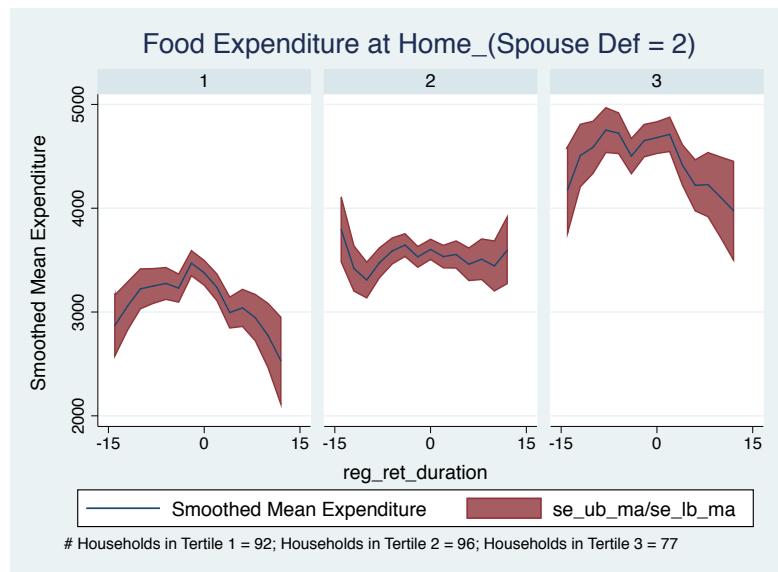


Figure 10.10: Food Expenditure Away from Home

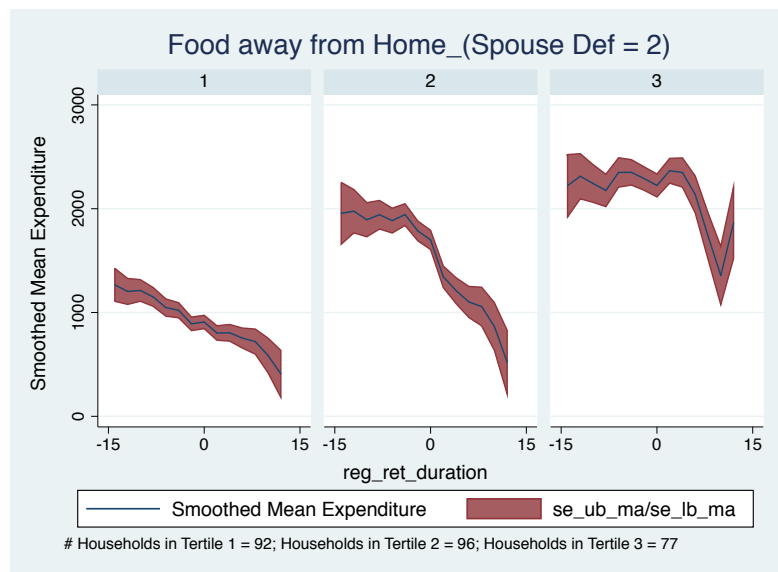


Figure 10.11: Expenditure on Housing

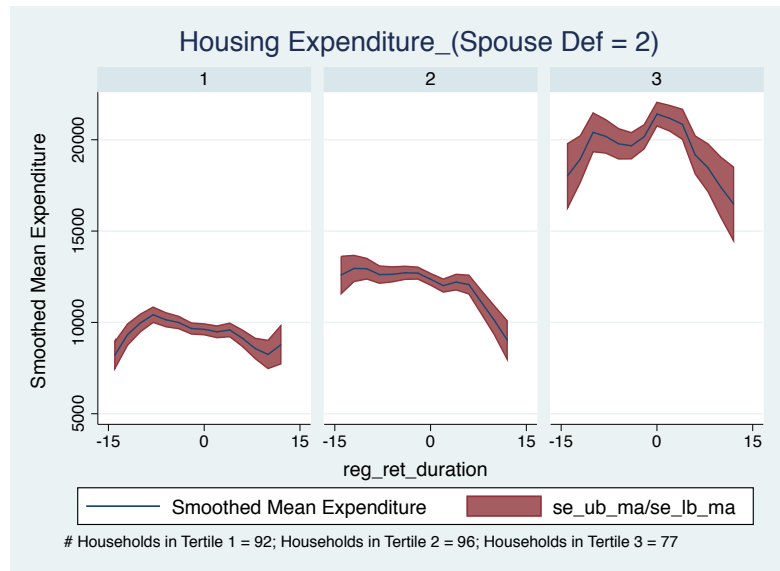


Figure 10.12: Expenditure on Education

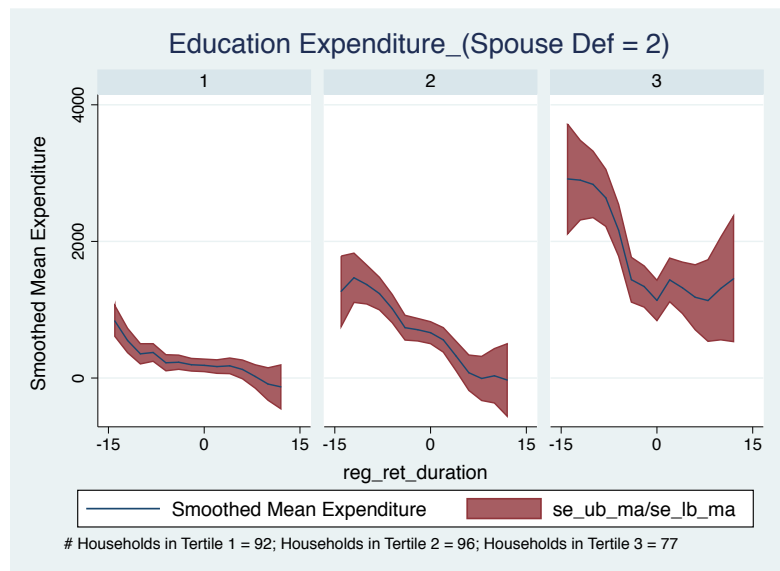


Figure 10.13: Expenditure on Health

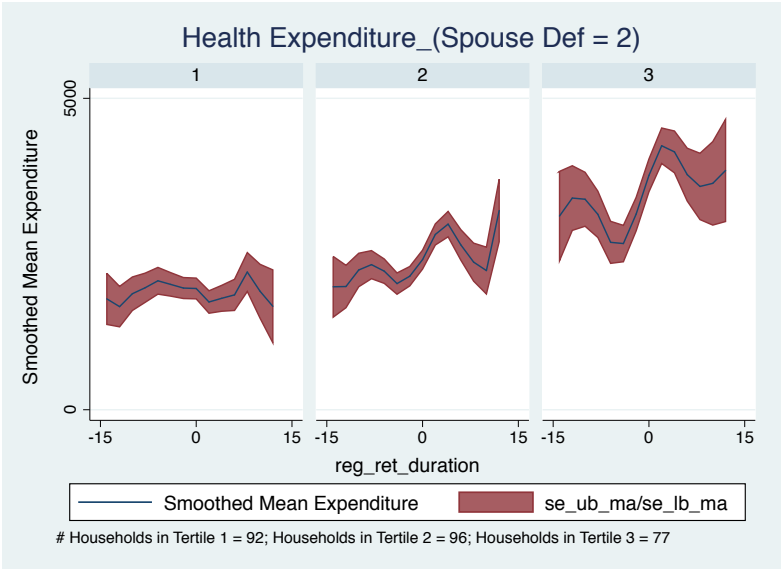


Figure 10.14: Expenditure on Nondurable Transport

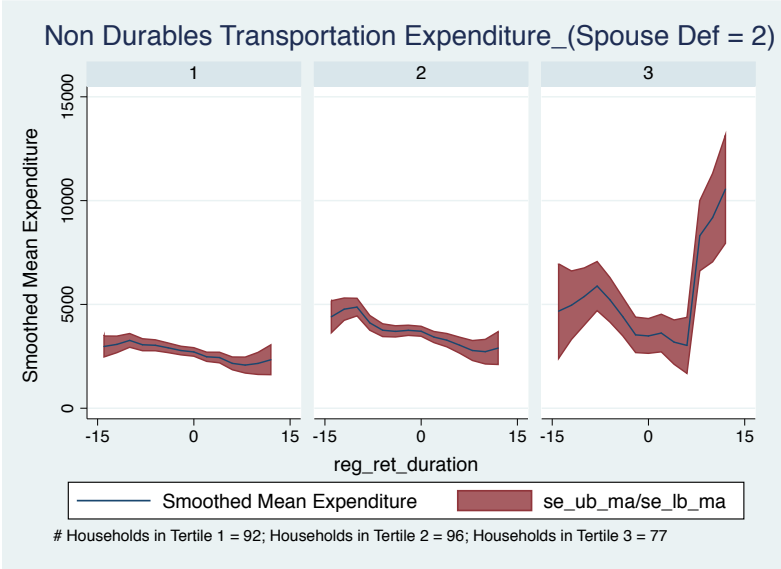


Figure 10.15: Expenditure on total clothing (post 2005)

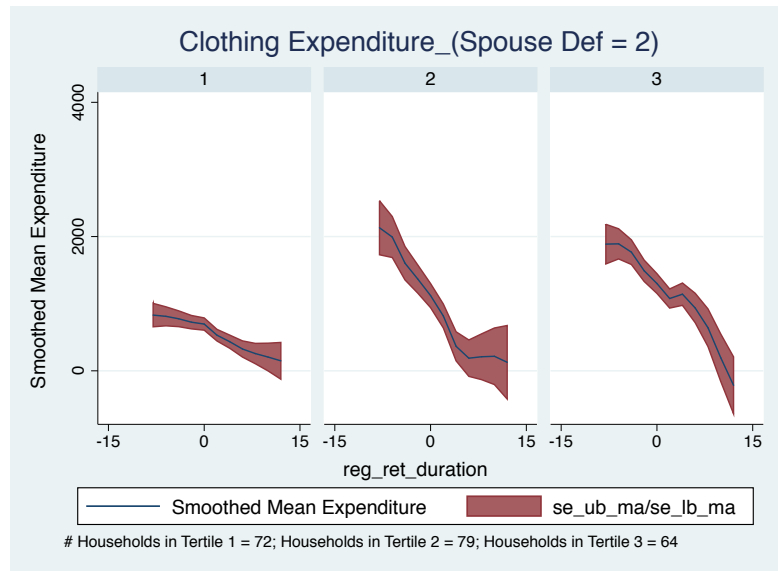
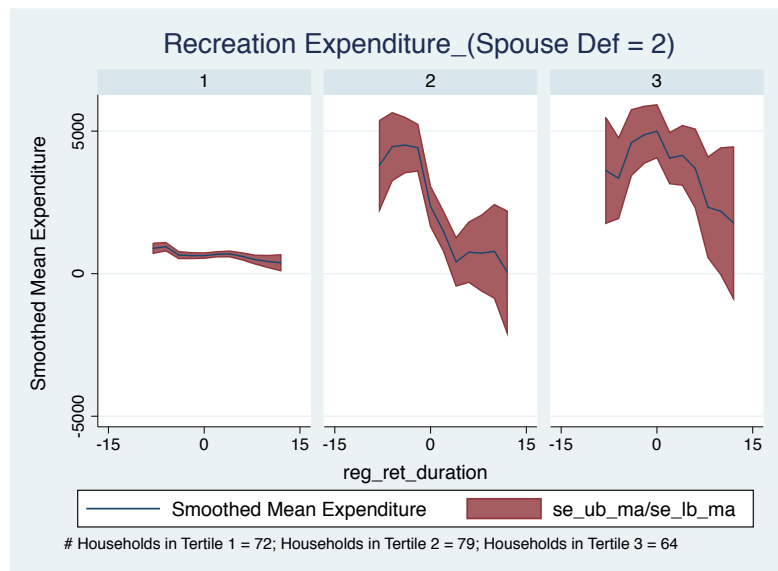


Figure 10.16: Expenditure on total recreation (post 2005)



10.3 3- Spouse always works

Figure 10.17: Food Expenditure at Home

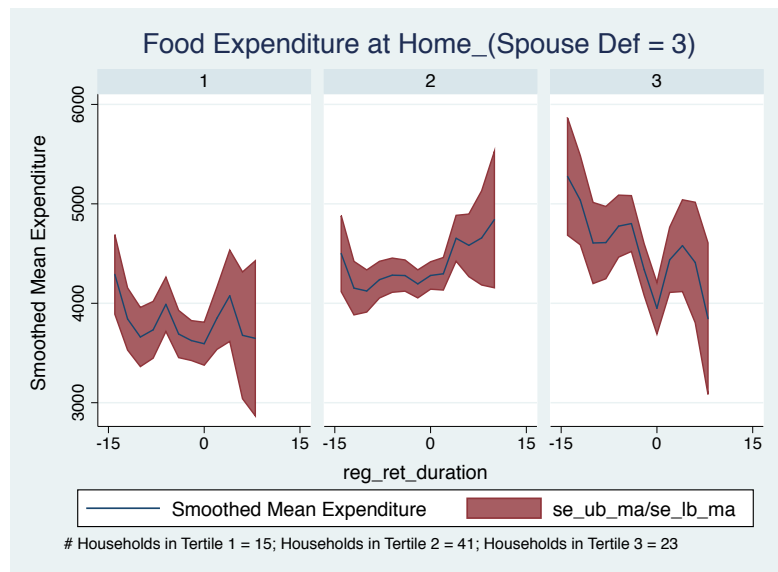


Figure 10.18: Food Expenditure Away from Home

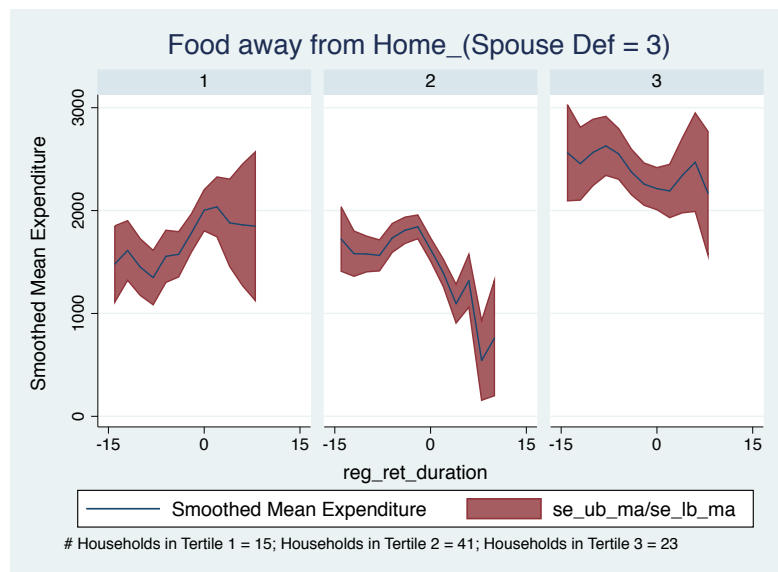


Figure 10.19: Expenditure on Housing

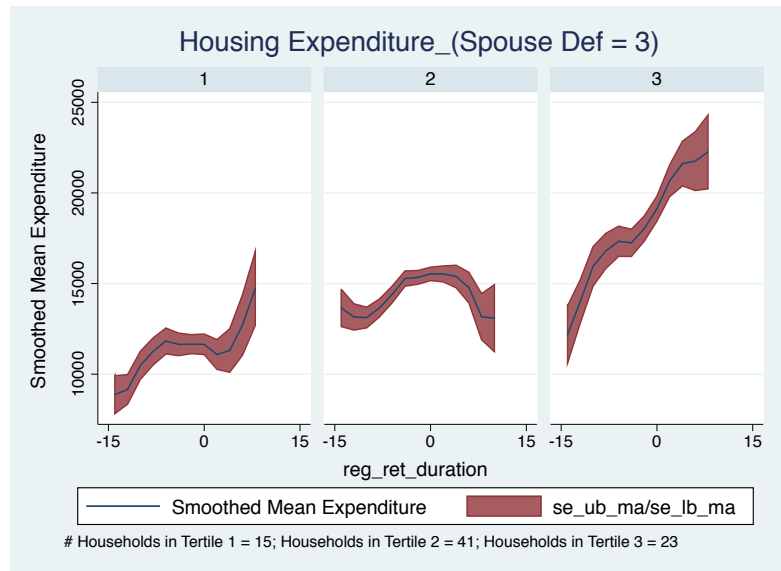


Figure 10.20: Expenditure on Education

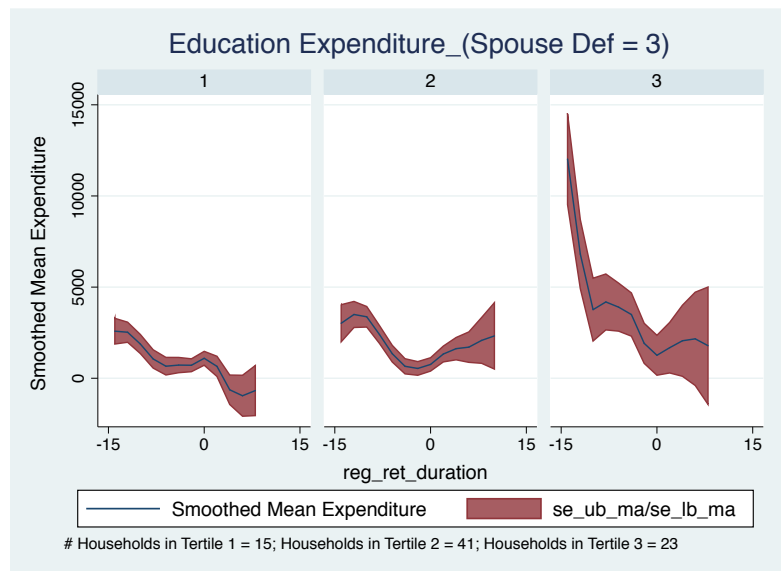


Figure 10.21: Expenditure on Health

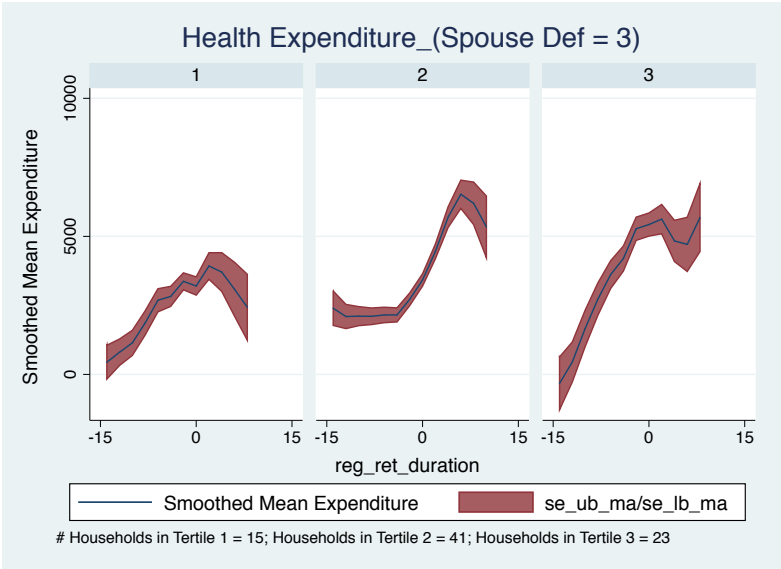


Figure 10.22: Expenditure on Nondurable Transport

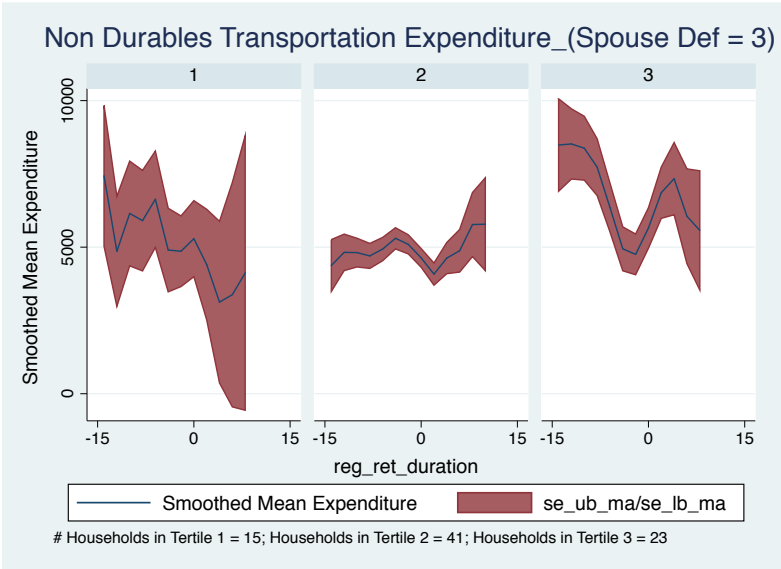


Figure 10.23: Expenditure on total clothing (post 2005)

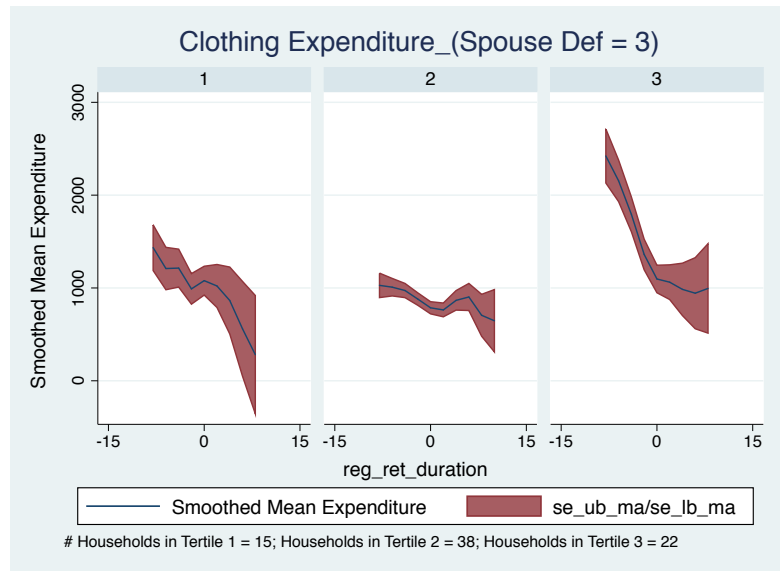
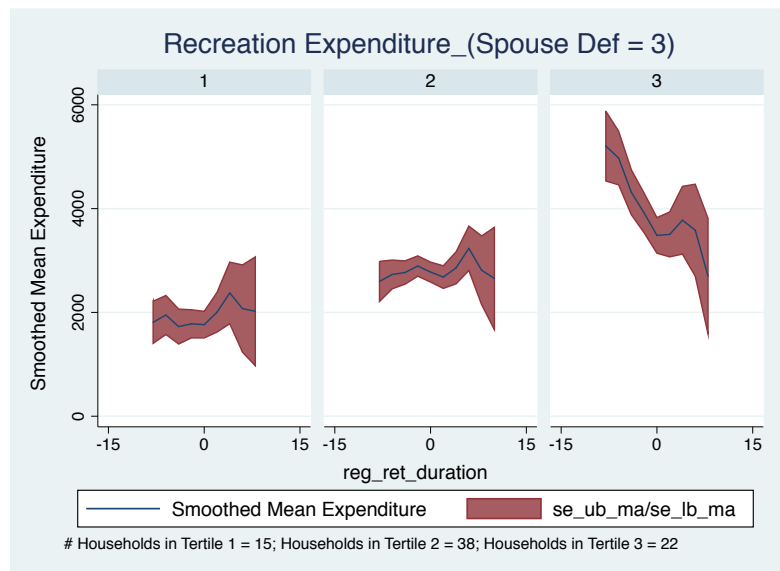


Figure 10.24: Expenditure on total recreation (post 2005)



10.4 4-Spouse has same retirement transition +/- wave

Figure 10.25: Food Expenditure at Home

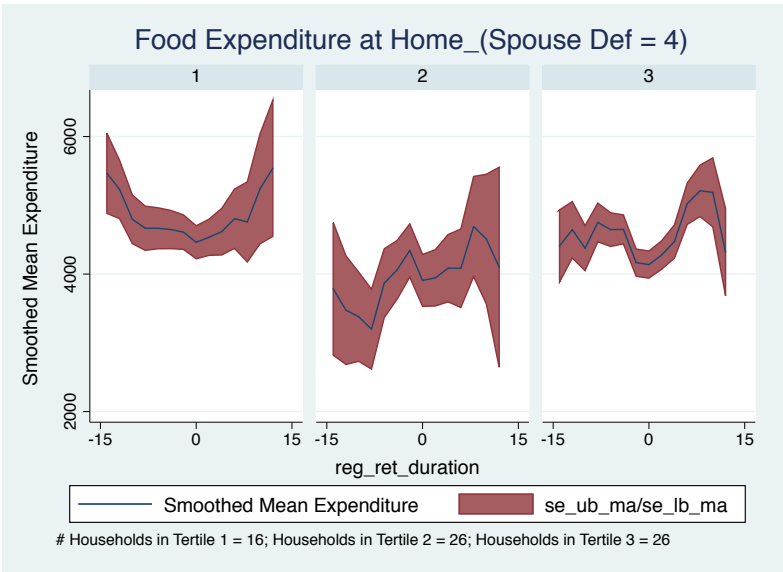


Figure 10.26: Food Expenditure Away from Home

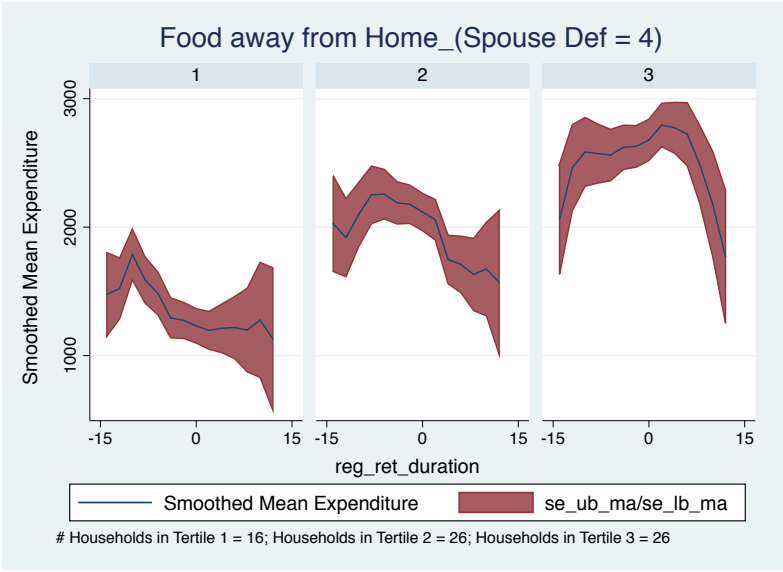


Figure 10.27: Expenditure on Housing

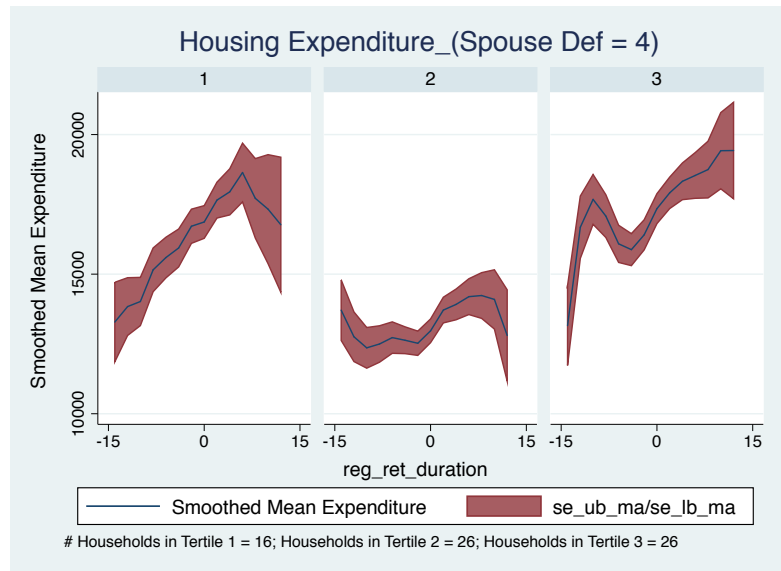


Figure 10.28: Expenditure on Education

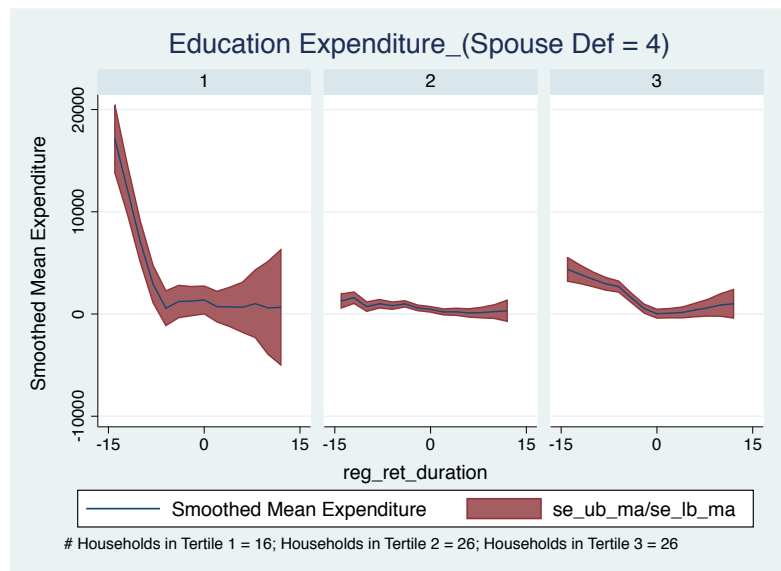


Figure 10.29: Expenditure on Health

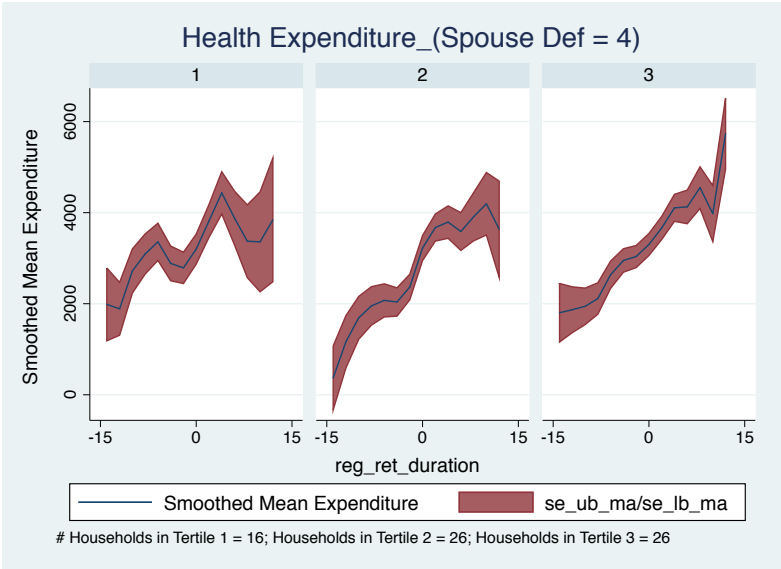


Figure 10.30: Expenditure on Nondurable Transport

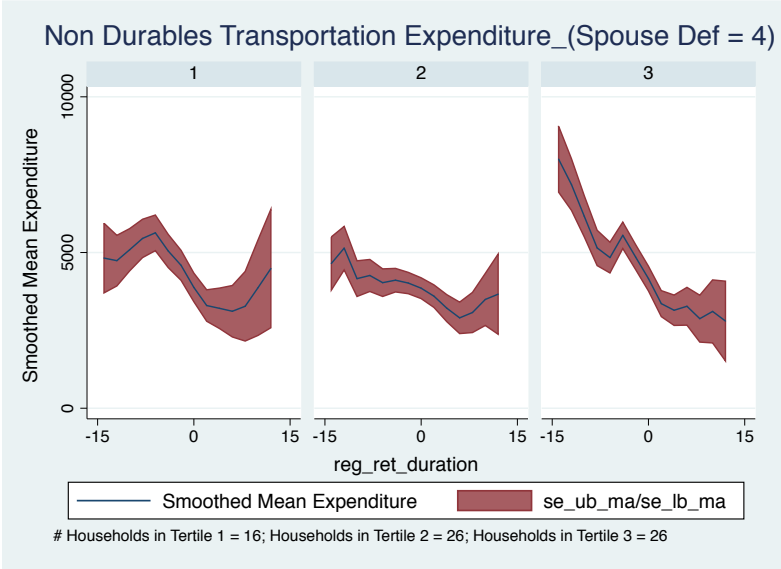


Figure 10.31: Expenditure on total clothing (post 2005)

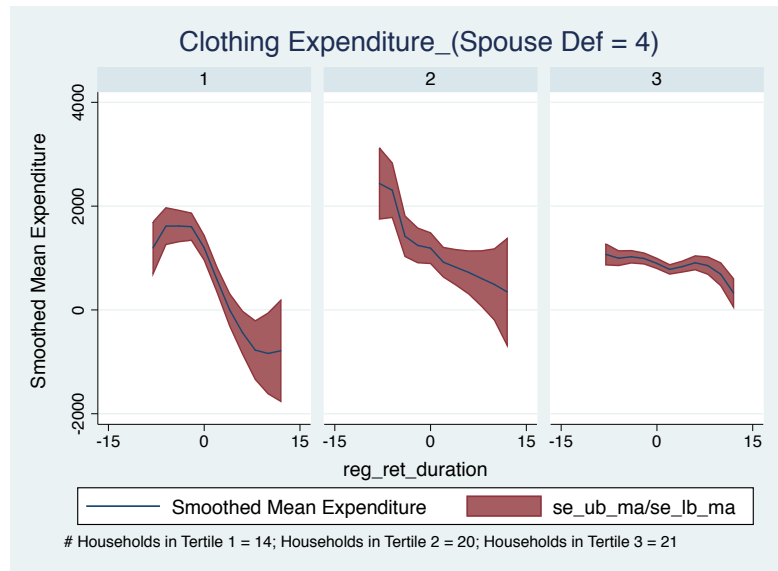
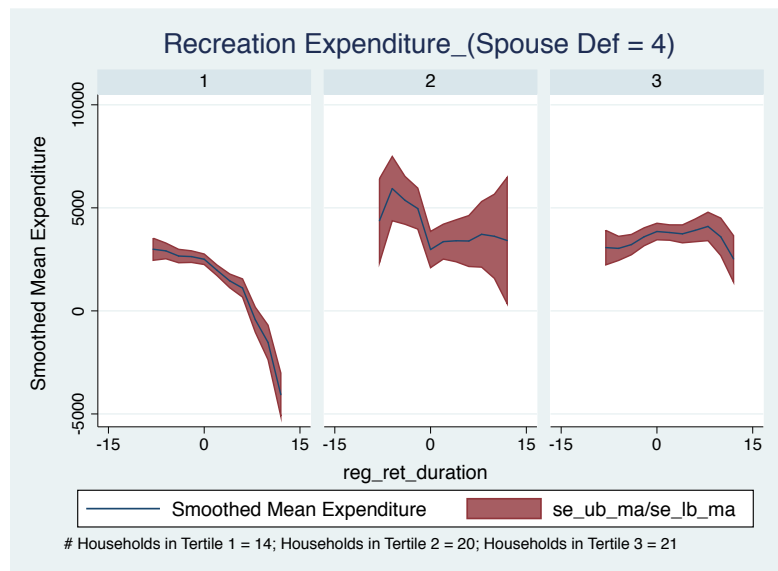


Figure 10.32: Expenditure on total recreation (post 2005)



10.5 5-Spouse has different retirement transition

Figure 10.33: Food Expenditure at Home

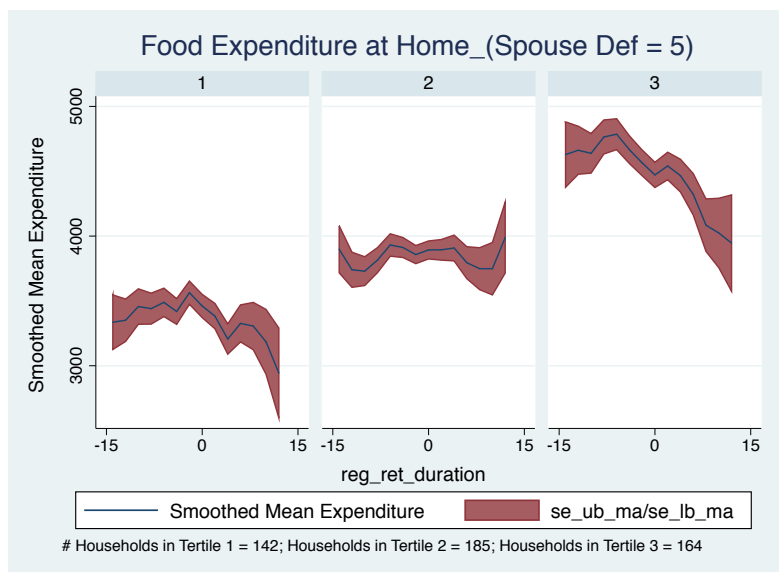


Figure 10.34: Food Expenditure Away from Home

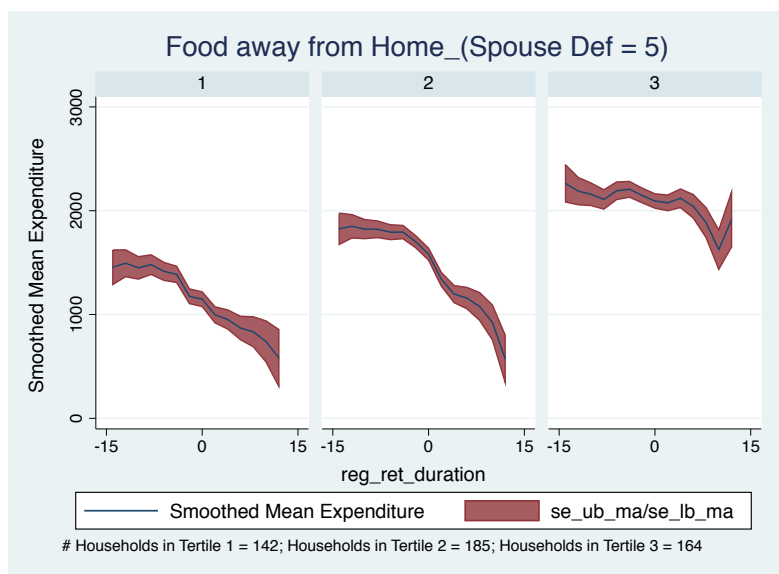


Figure 10.35: Expenditure on Housing

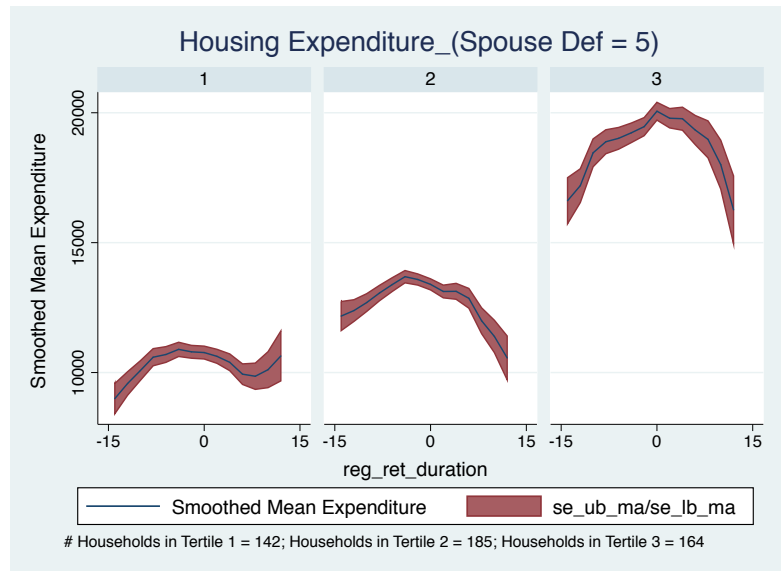


Figure 10.36: Expenditure on Education

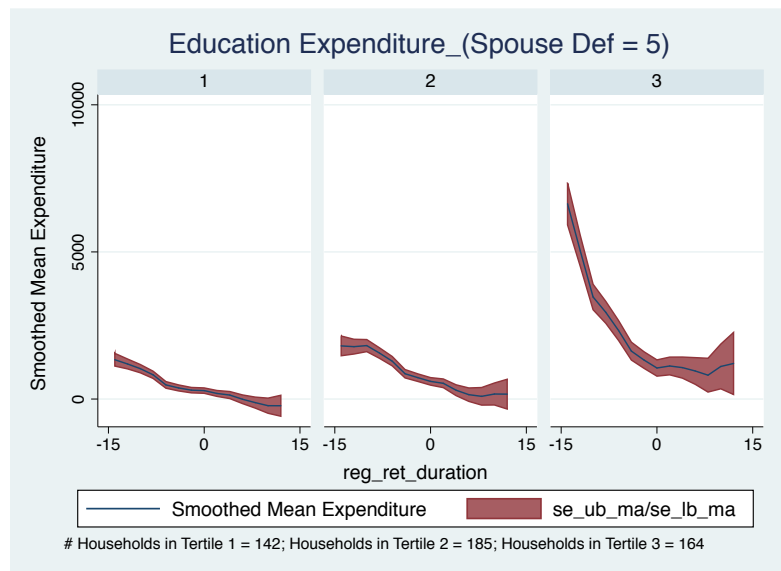


Figure 10.37: Expenditure on Health

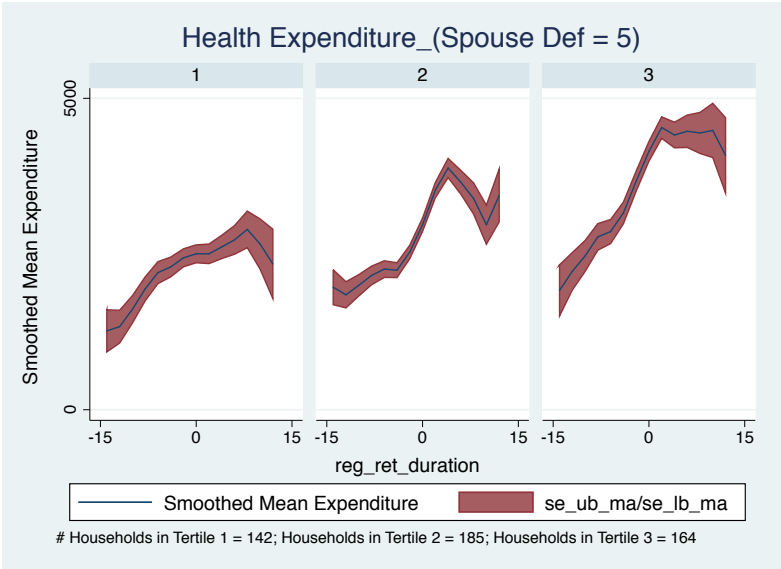


Figure 10.38: Expenditure on Nondurable Transport

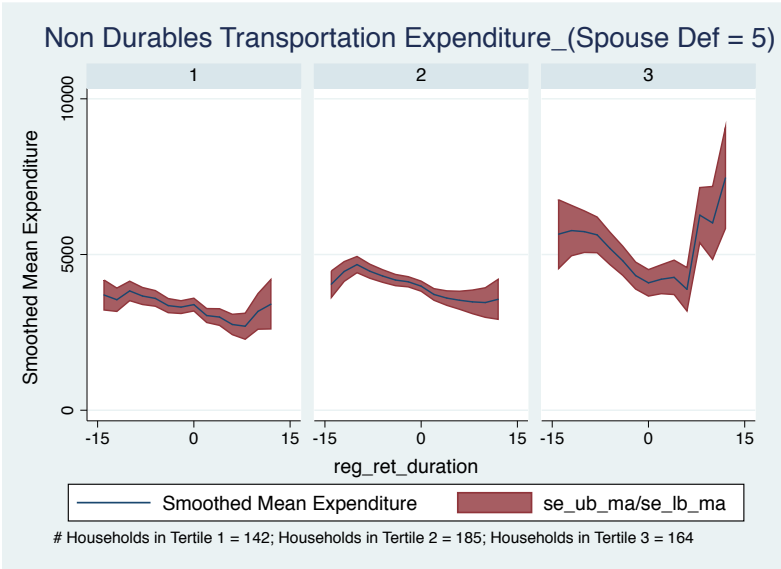


Figure 10.39: Expenditure on total clothing (post 2005)

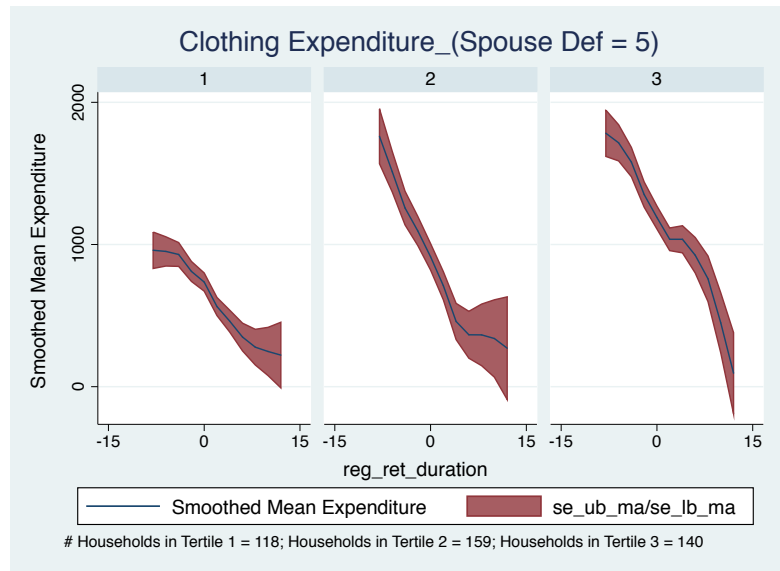
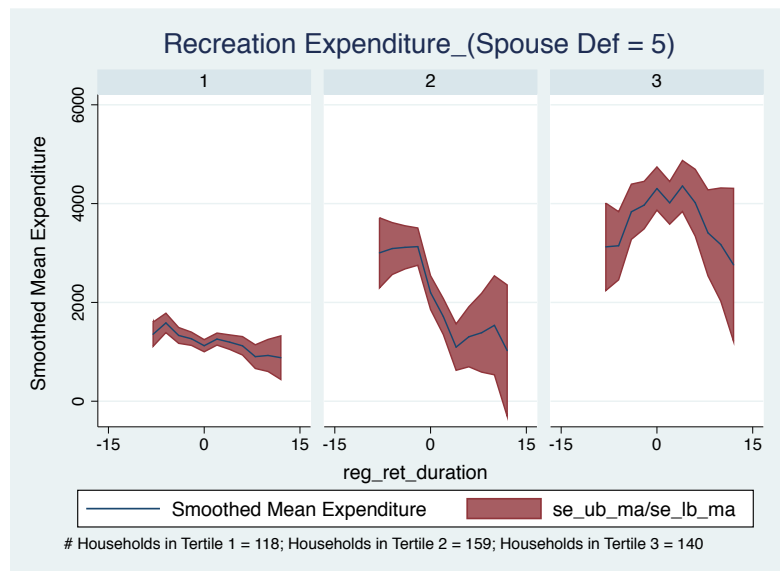


Figure 10.40: Expenditure on total recreation (post 2005)



10.6 6-Spouse retires after the head

Figure 10.41: Food Expenditure at Home

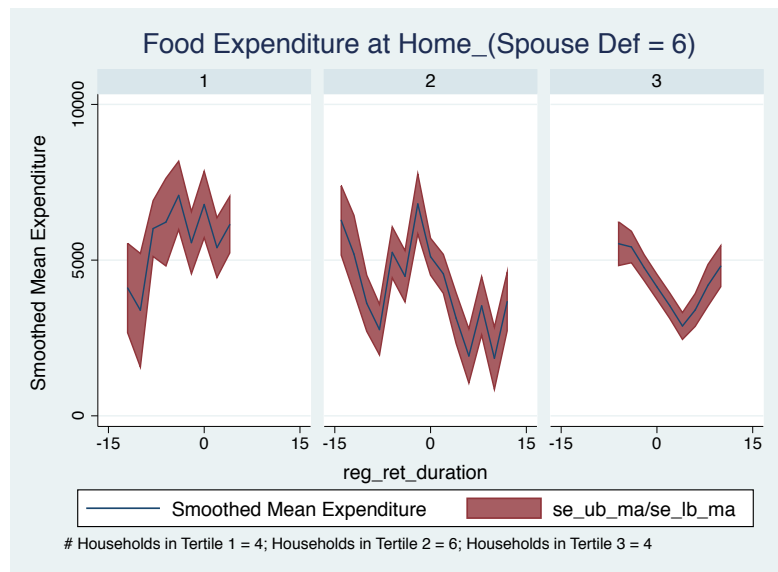


Figure 10.42: Food Expenditure Away from Home

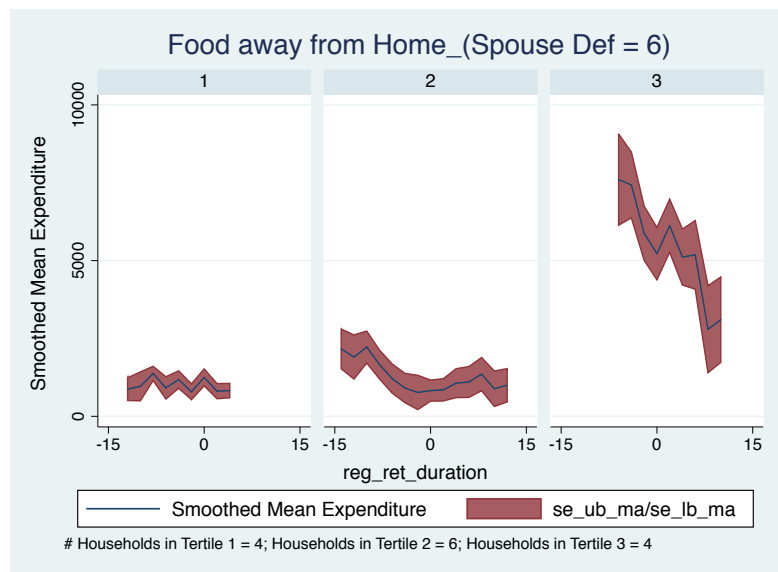


Figure 10.43: Expenditure on Housing

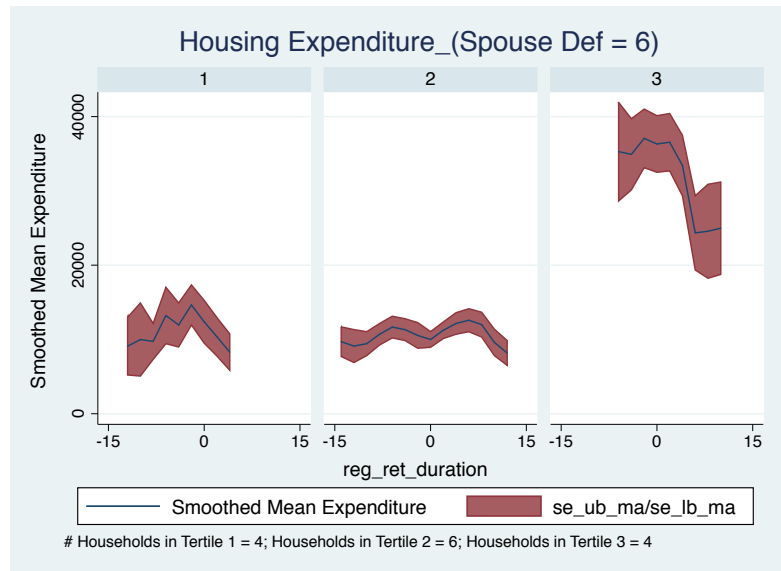


Figure 10.44: Expenditure on Education

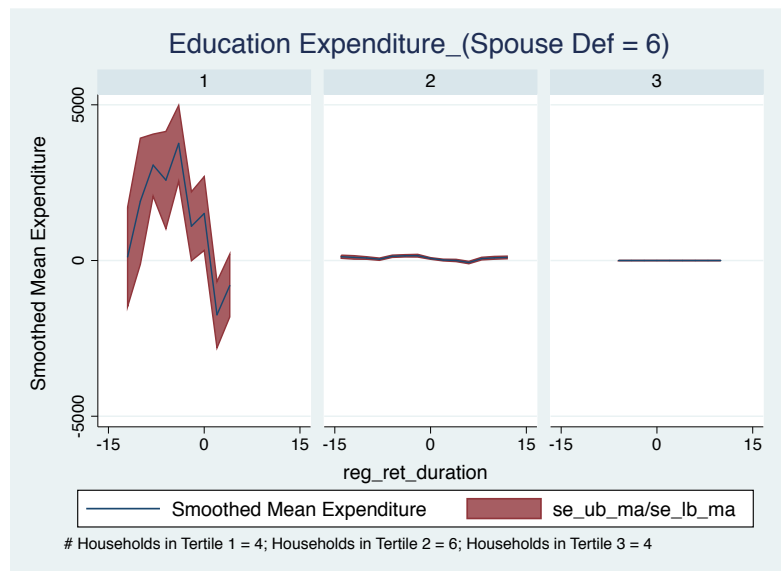


Figure 10.45: Expenditure on Health

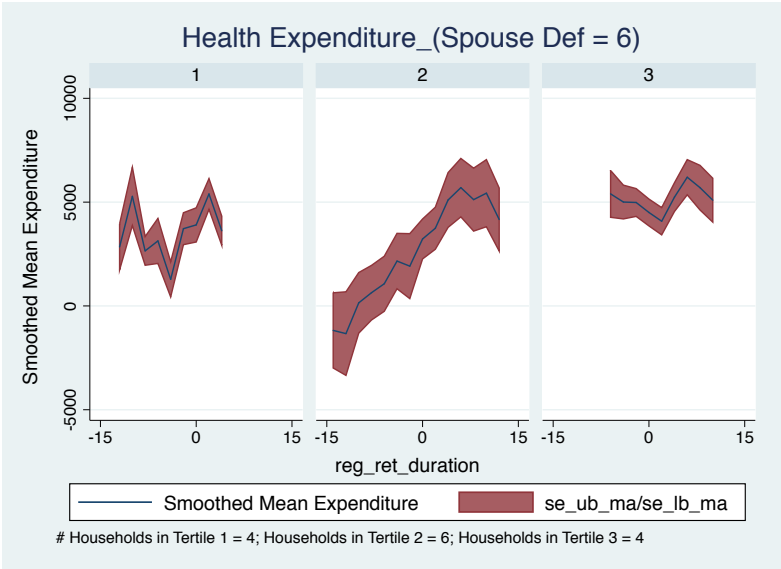


Figure 10.46: Expenditure on Nondurable Transport

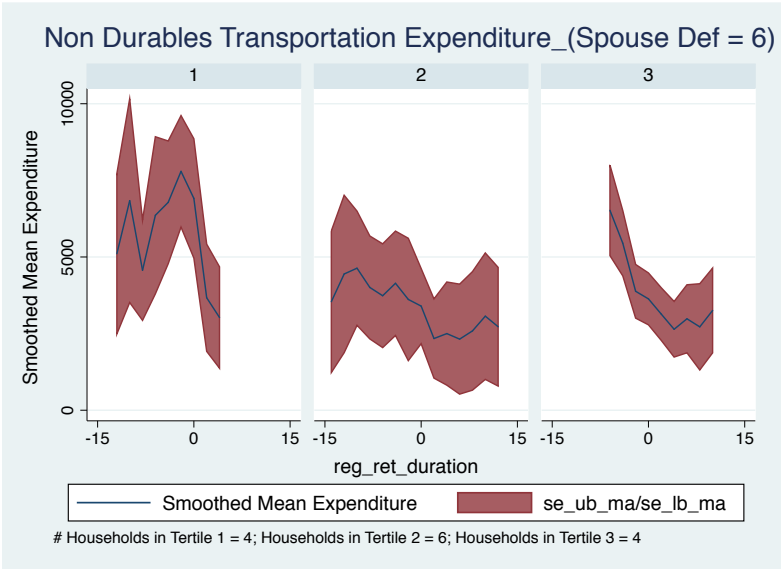


Figure 10.47: Expenditure on total clothing (post 2005)

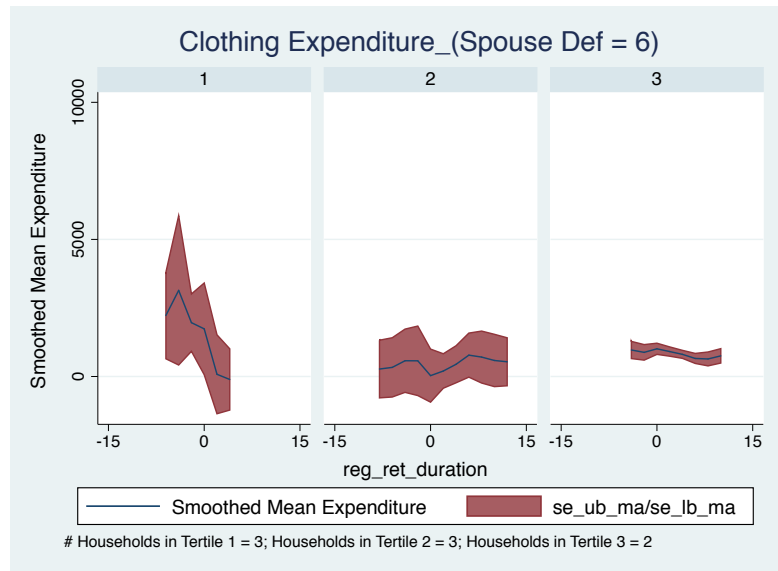
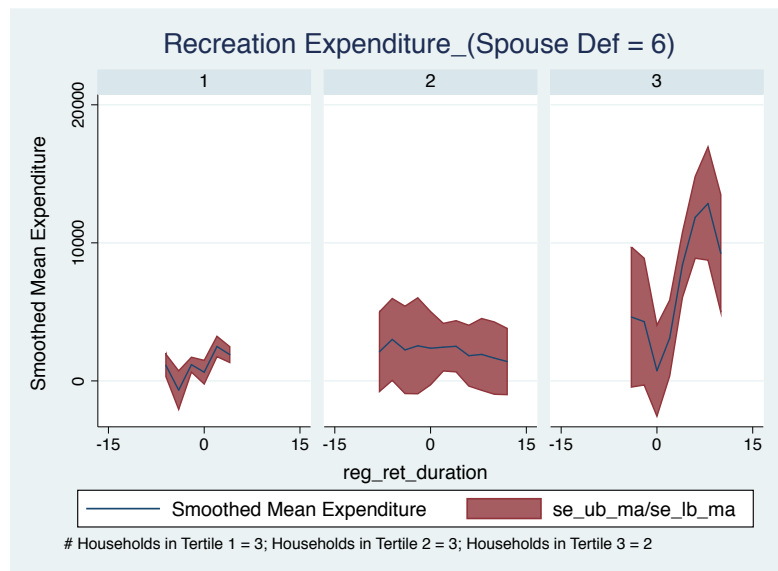


Figure 10.48: Expenditure on total recreation (post 2005)



10.7 7 - Spouse retires before the head

Figure 10.49: Food Expenditure at Home

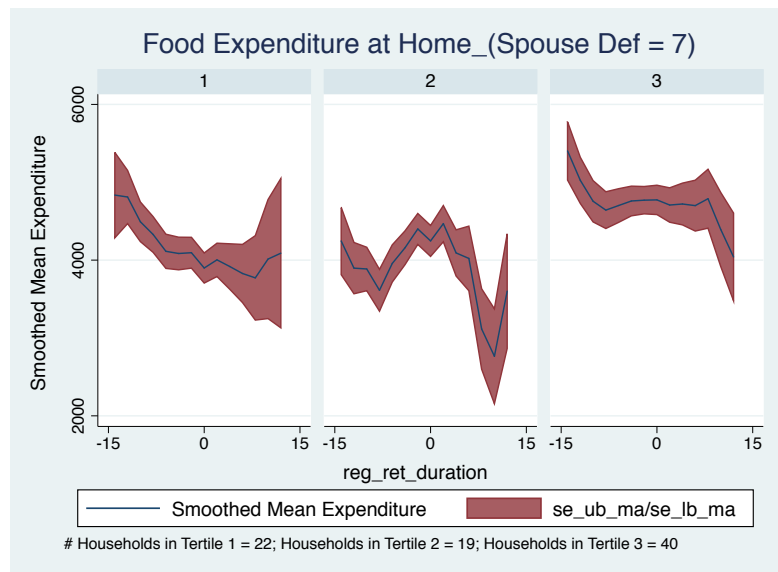


Figure 10.50: Food Expenditure Away from Home

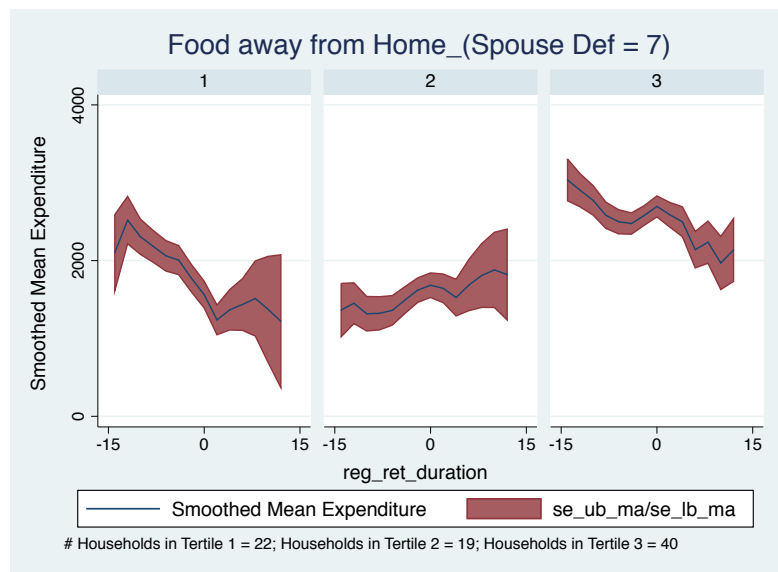


Figure 10.51: Expenditure on Housing

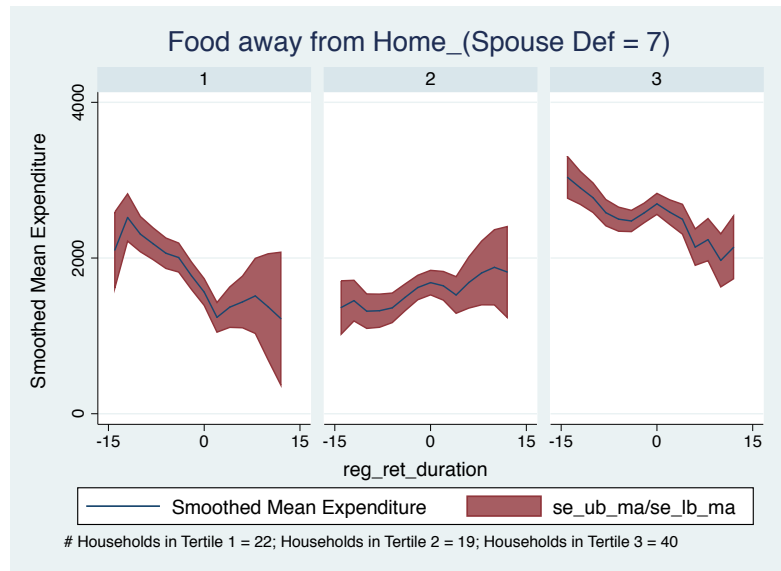


Figure 10.52: Expenditure on Education

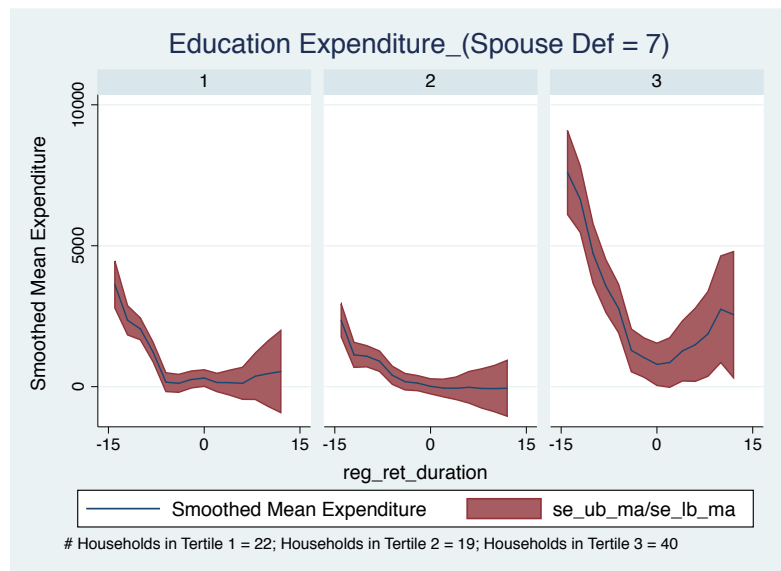


Figure 10.53: Expenditure on Health

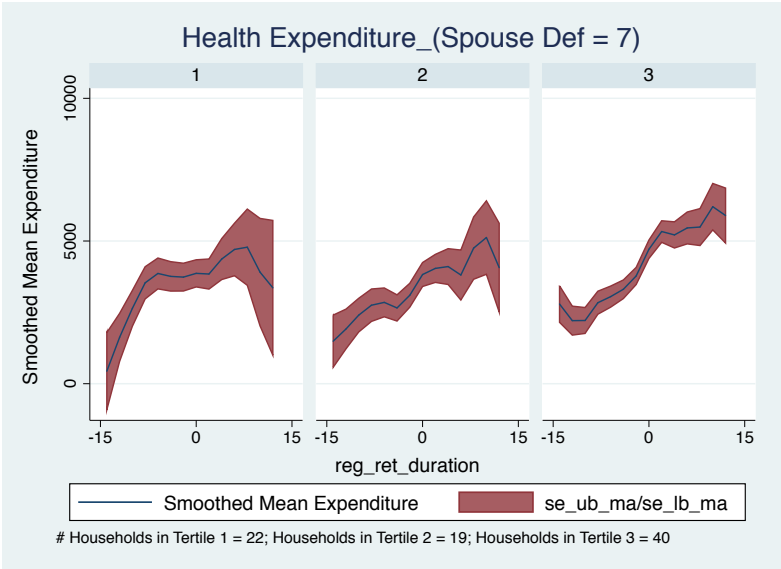


Figure 10.54: Expenditure on Nondurable Transport

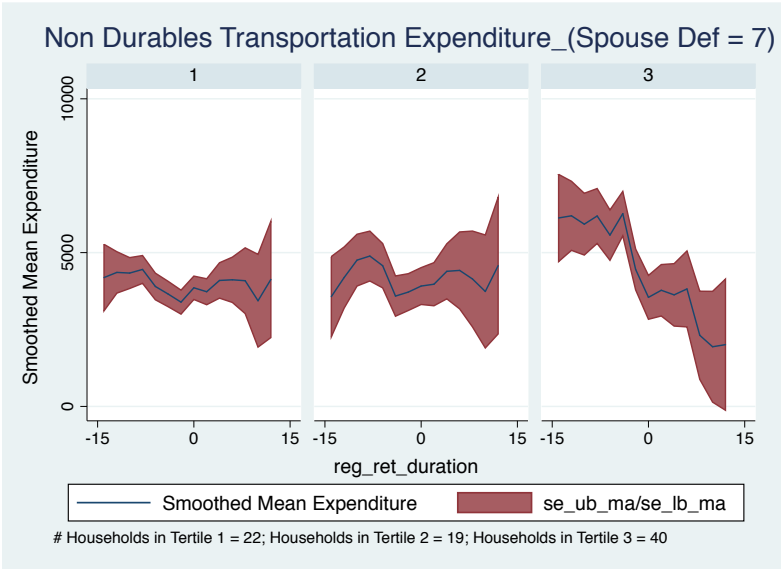


Figure 10.55: Expenditure on total clothing (post 2005)

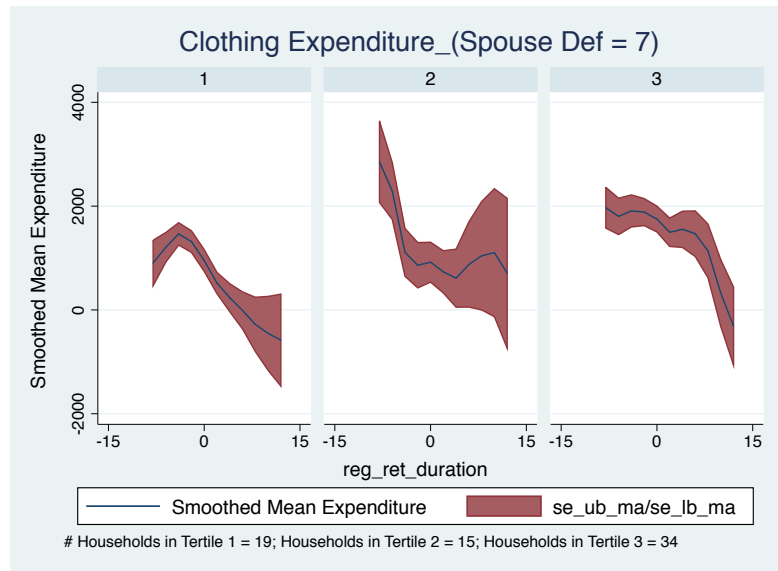
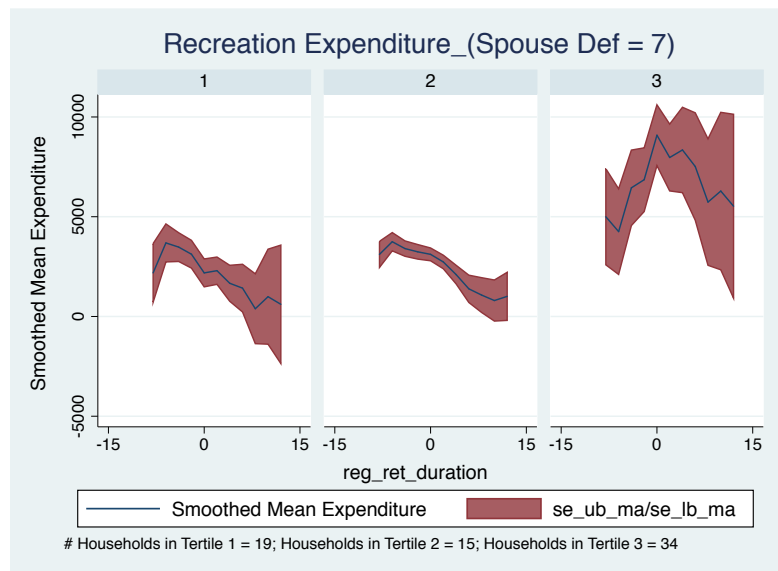


Figure 10.56: Expenditure on total recreation (post 2005)



10.8 8 - Head of the family is single

Figure 10.57: Food Expenditure at Home

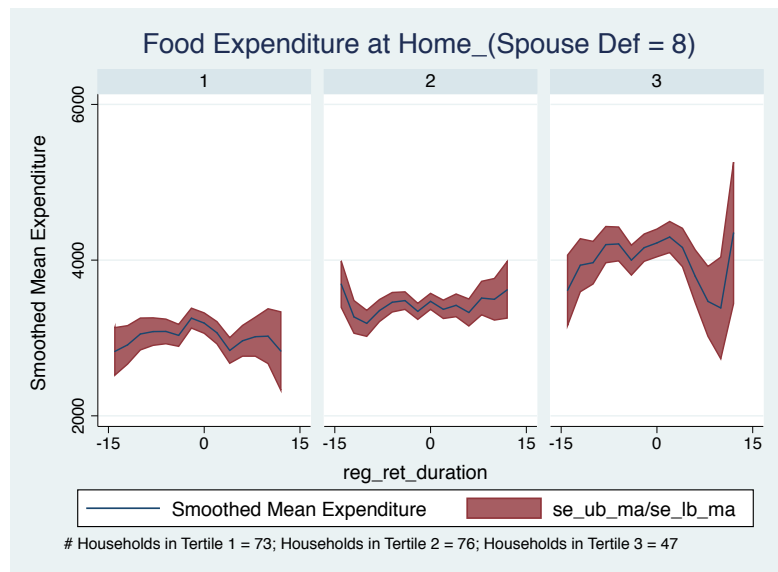


Figure 10.58: Food Expenditure Away from Home

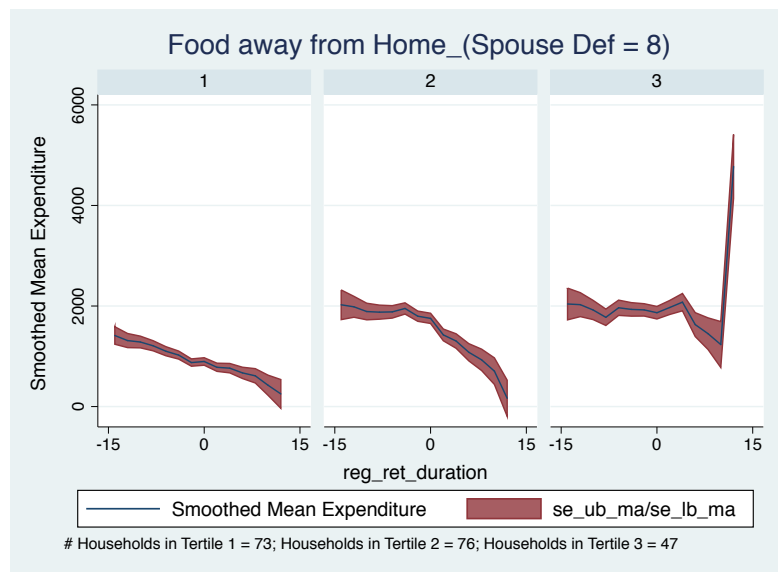


Figure 10.59: Expenditure on Housing

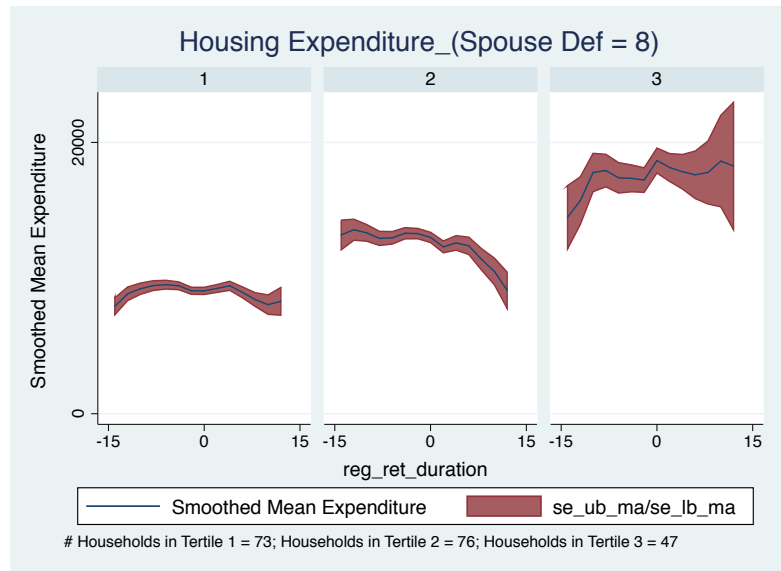


Figure 10.60: Expenditure on Education

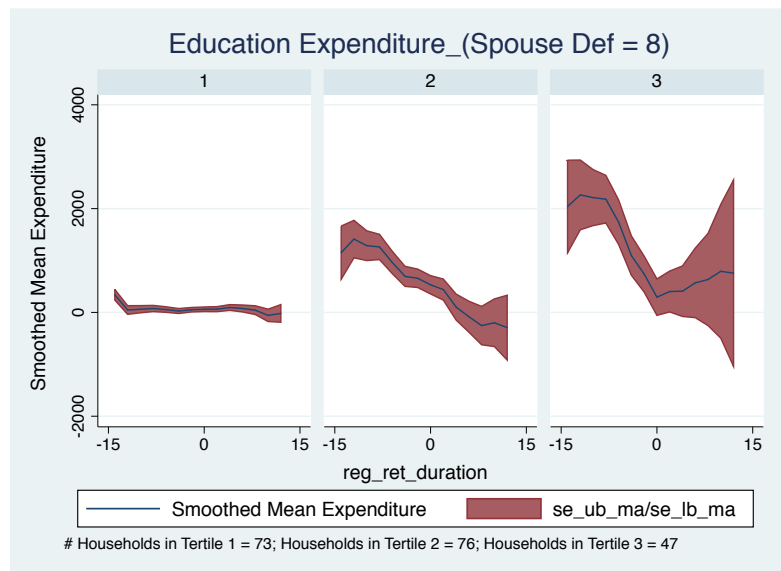


Figure 10.61: Expenditure on Health

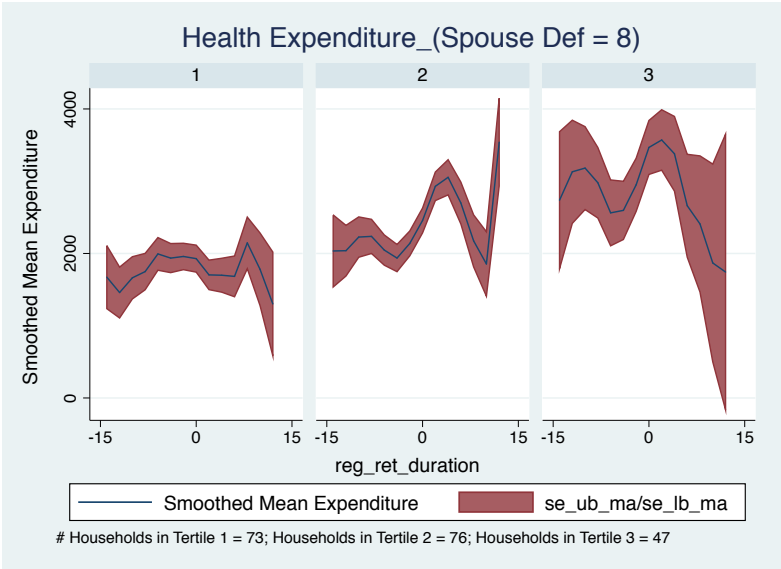


Figure 10.62: Expenditure on Nondurable Transport

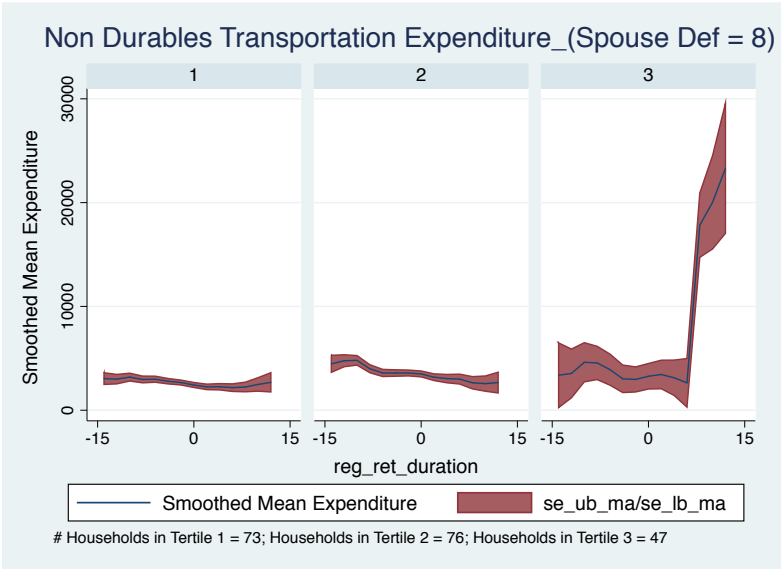


Figure 10.63: Expenditure on total clothing (post 2005)

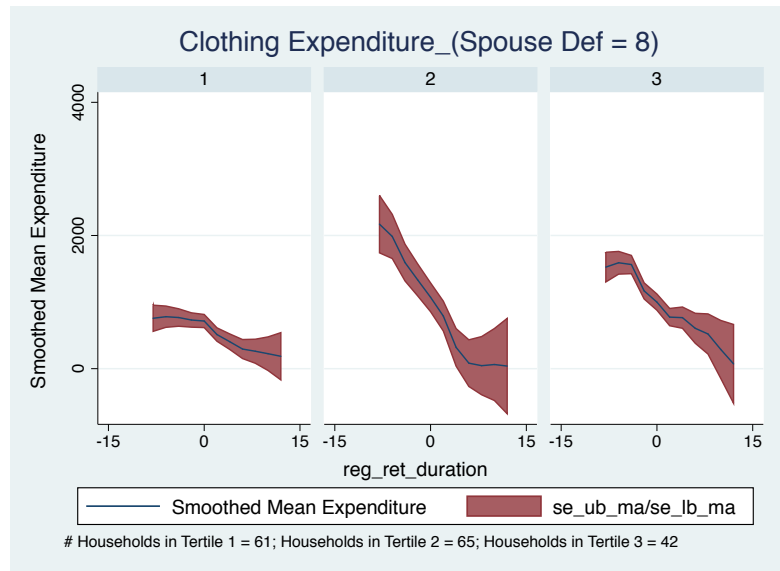
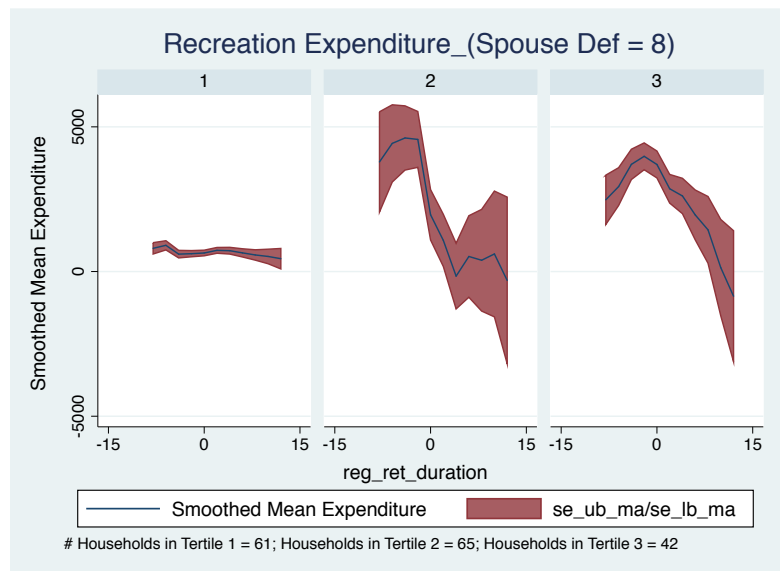


Figure 10.64: Expenditure on total recreation (post 2005)



11 Imputed Earnings based on Social Security

Figure 11.1: Imputed Earnings based on Social Security

