

UNIVERSITY OF MANNHEIM

MASTER'S THESIS

**The Impact of Transitory Income
Shocks on Labor Supply Decisions:
A Machine Learning Approach**

Supplementary Appendix

*A thesis submitted in fulfillment of the requirements
for the degree of Master of Science*

at the

Chair of Quantitative Macroeconomics
Department of Economics

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Supplementary Appendix

In this supplementary appendix, I provide additional graphical illustrations of my estimations. I present Pearson and Spearman correlation matrices for the estimation features. Further, since I only show median absolute responses as partial dependence plots in the appendix of the main thesis file , I supplement these plots with median percentage and median marginal responses.

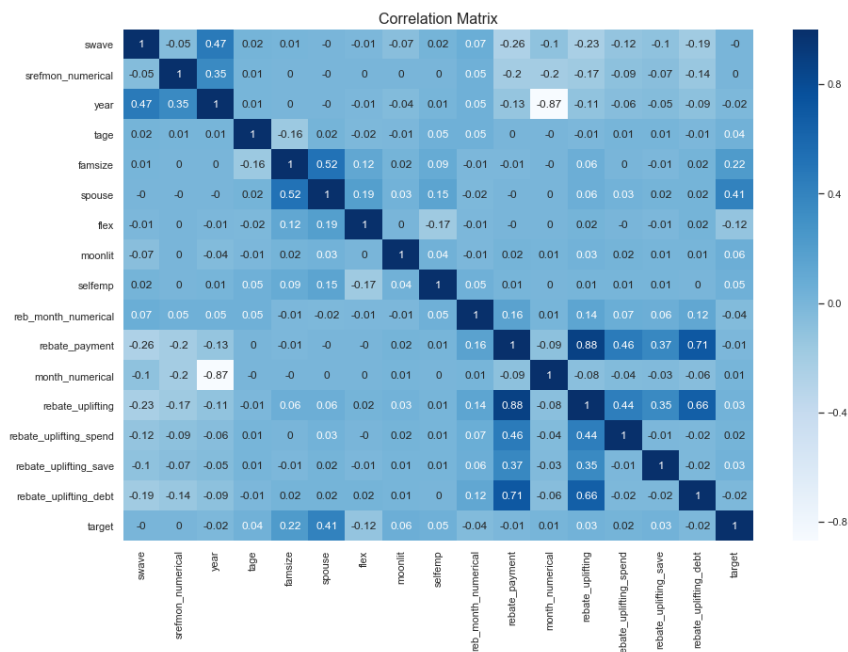


FIGURE 1: Pearson Correlation Matrix

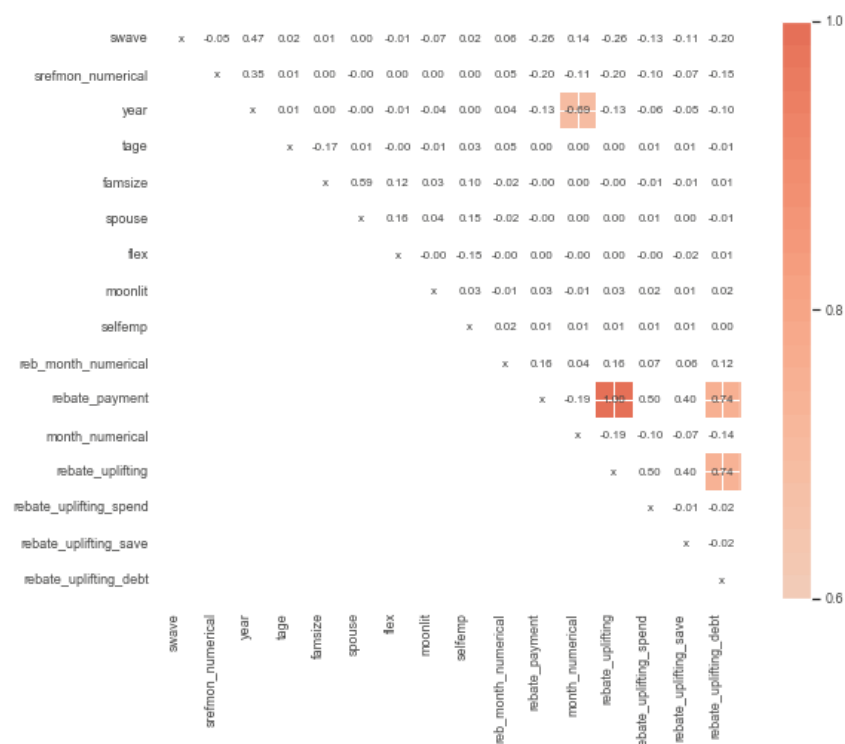


FIGURE 2: Spearman Correlation Matrix

Note: Correlations are transformed into ranks and then measured again. In comparison to the Pearson correlation, the Spearman correlation measures monotonic relationships between features rather than linear relationships.

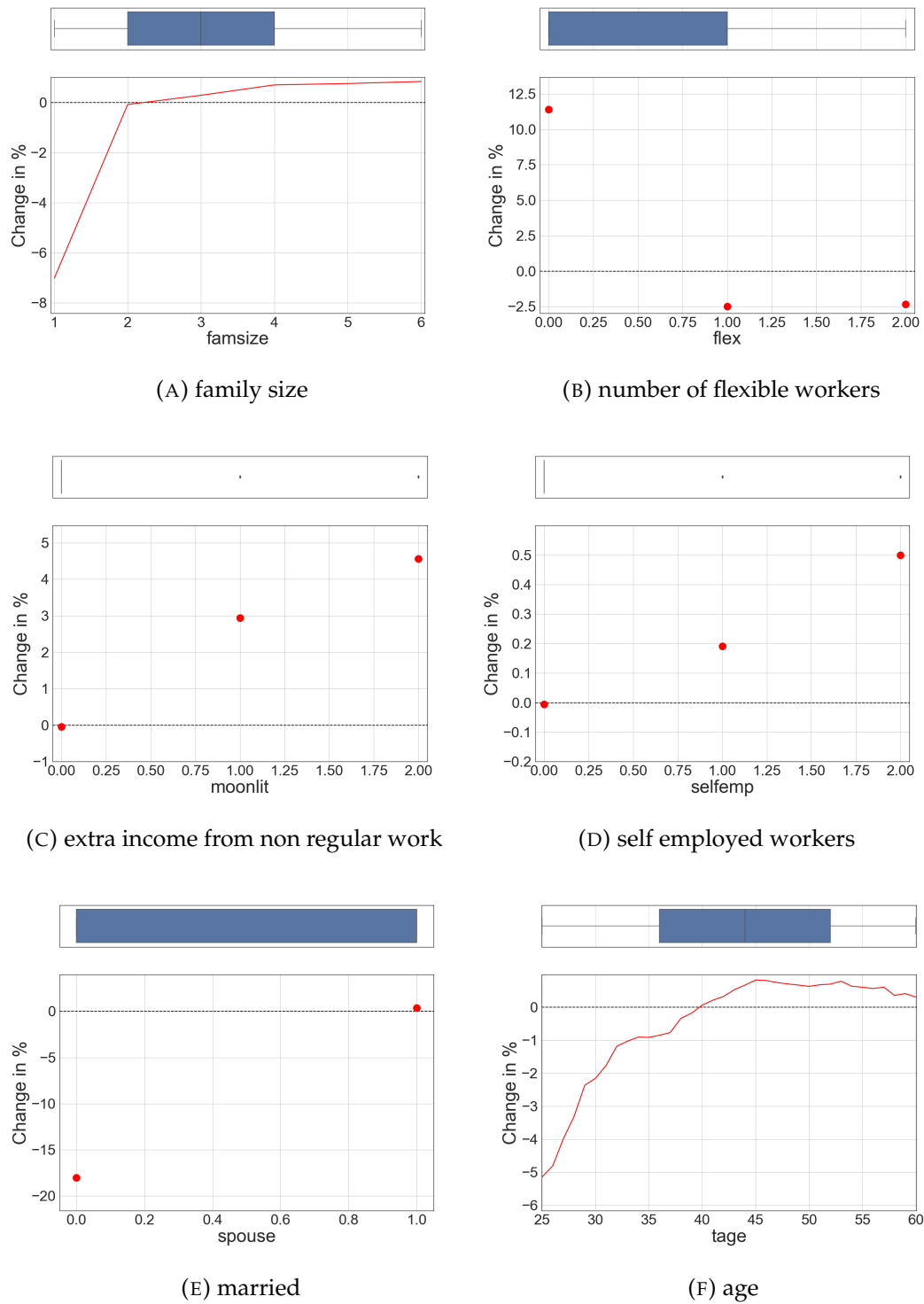


FIGURE 3: Median Percentage Labor Income Responses in Rebate Months and Months After

Note: Results are based on 87,522 estimations from 11,487 households in rebate months and months after. Changes are measured as percentage points of the reported labor income. The shown boxplots illustrate the distributions of the features in rebate months and months after.

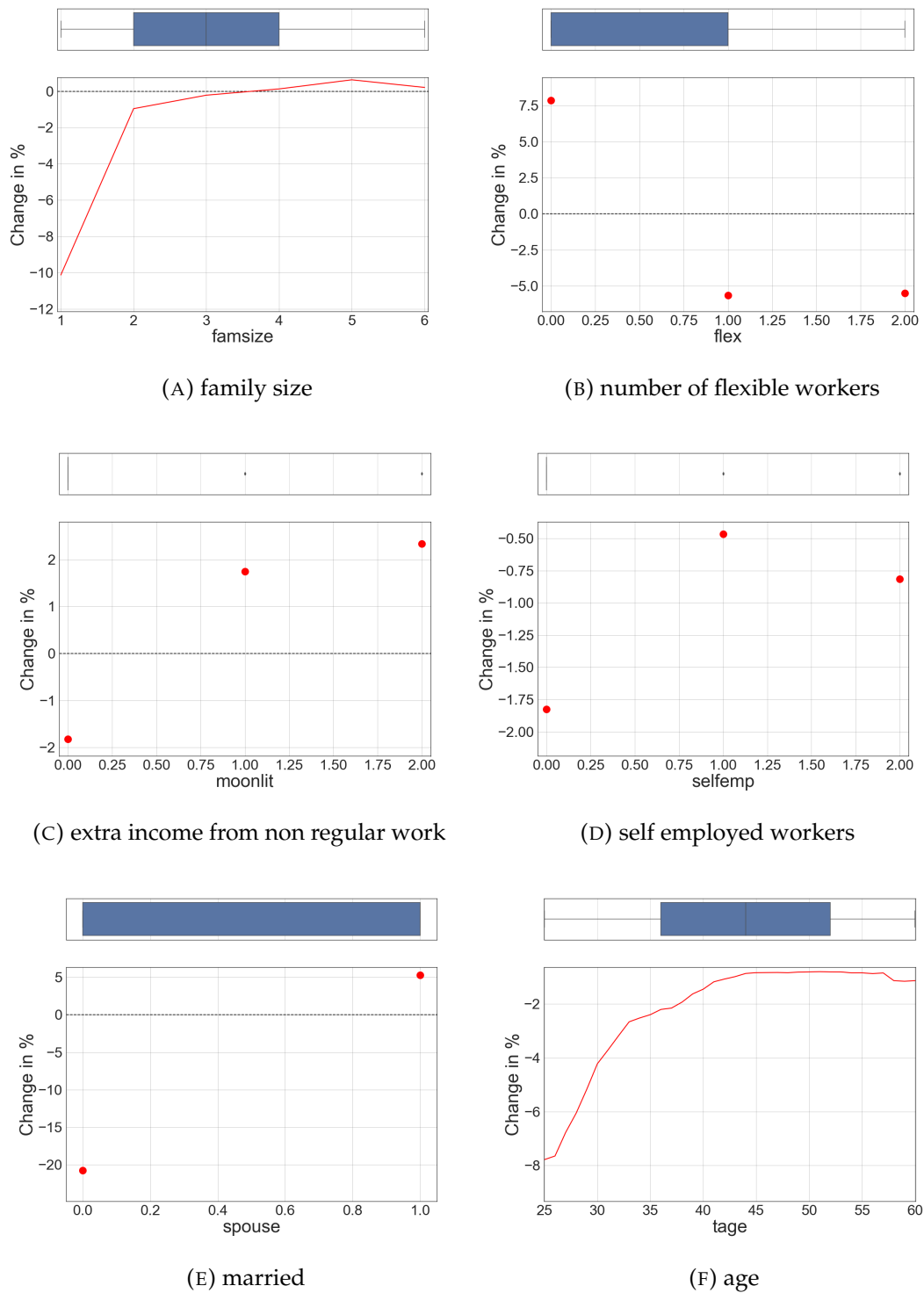


FIGURE 4: Median Percentage Labor Income Responses in Rebate Months

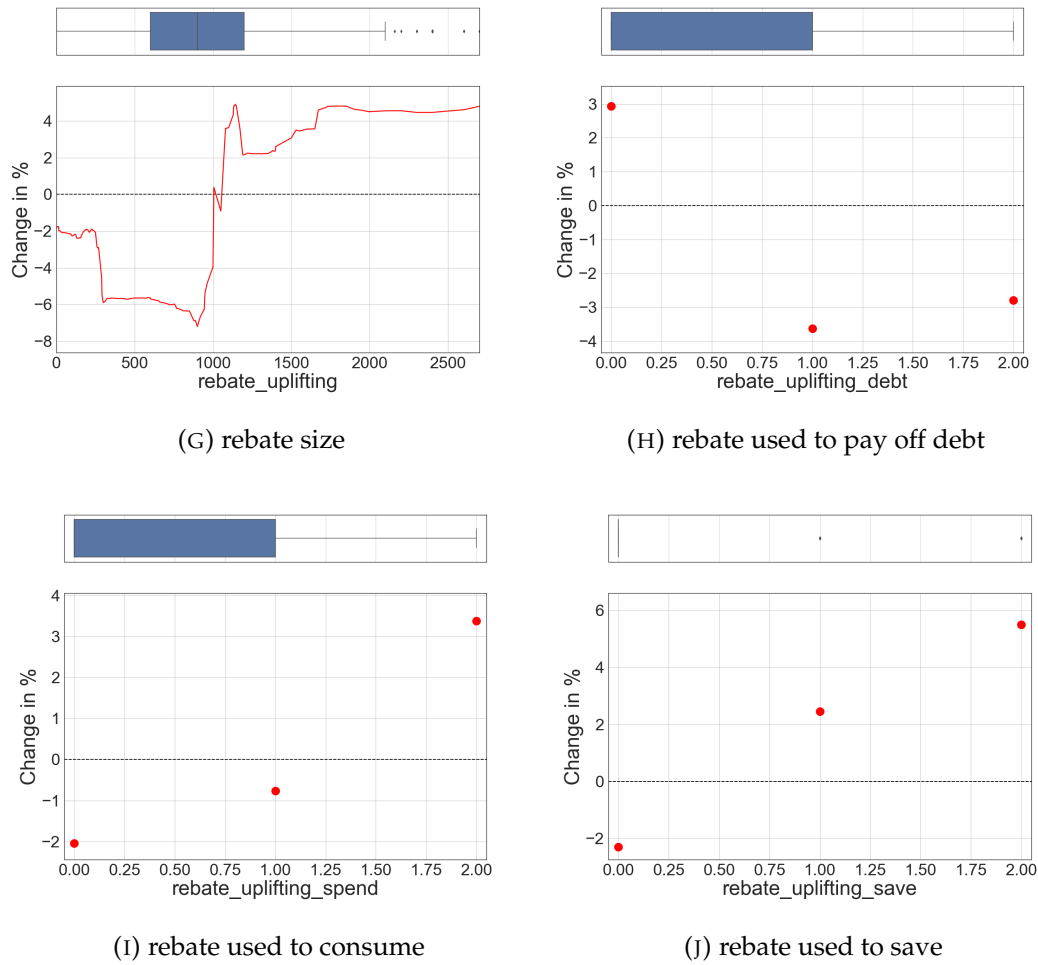


FIGURE 4: Median Percentage Labor Income Responses in Rebate Months (cont.)

Note: Results are based on 5,574 estimations from 5,574 households in rebate months. Changes are measured as percentage points of the reported labor income. For rebate months, I include partial dependence plots for features describing rebate characteristics, such as the rebate size and the reported use of the rebate payment. The shown boxplots illustrate the distributions of the features in rebate months.

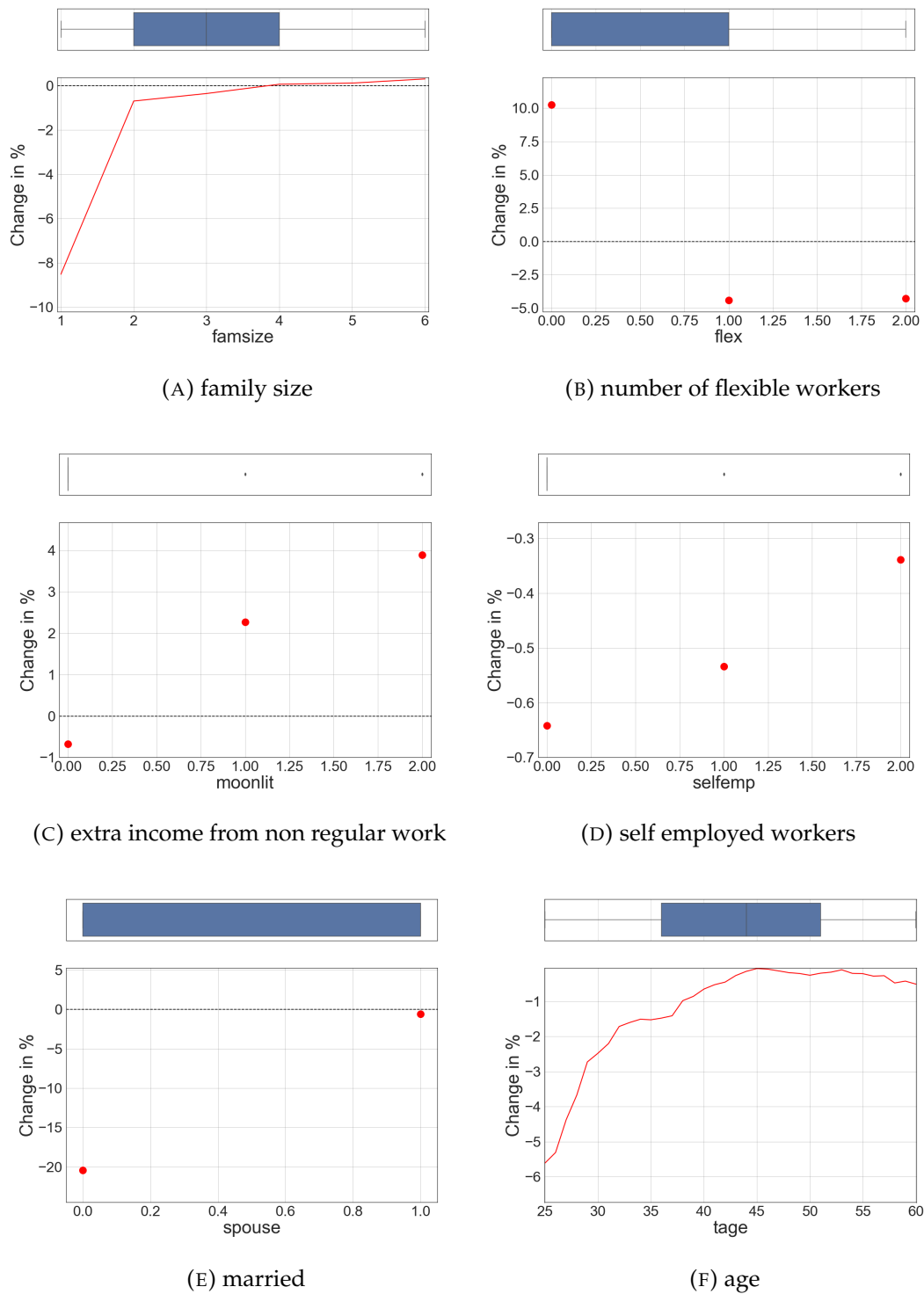


FIGURE 5: Median Percentage Labor Income Responses in Lagged Months

Note: Results are based on 18,415 estimations from 10,202 households in the first two months following rebate payments. Changes are measured as percentage points of the reported labor income. The shown boxplots illustrate the distributions of the features in the first two months following rebate payments.

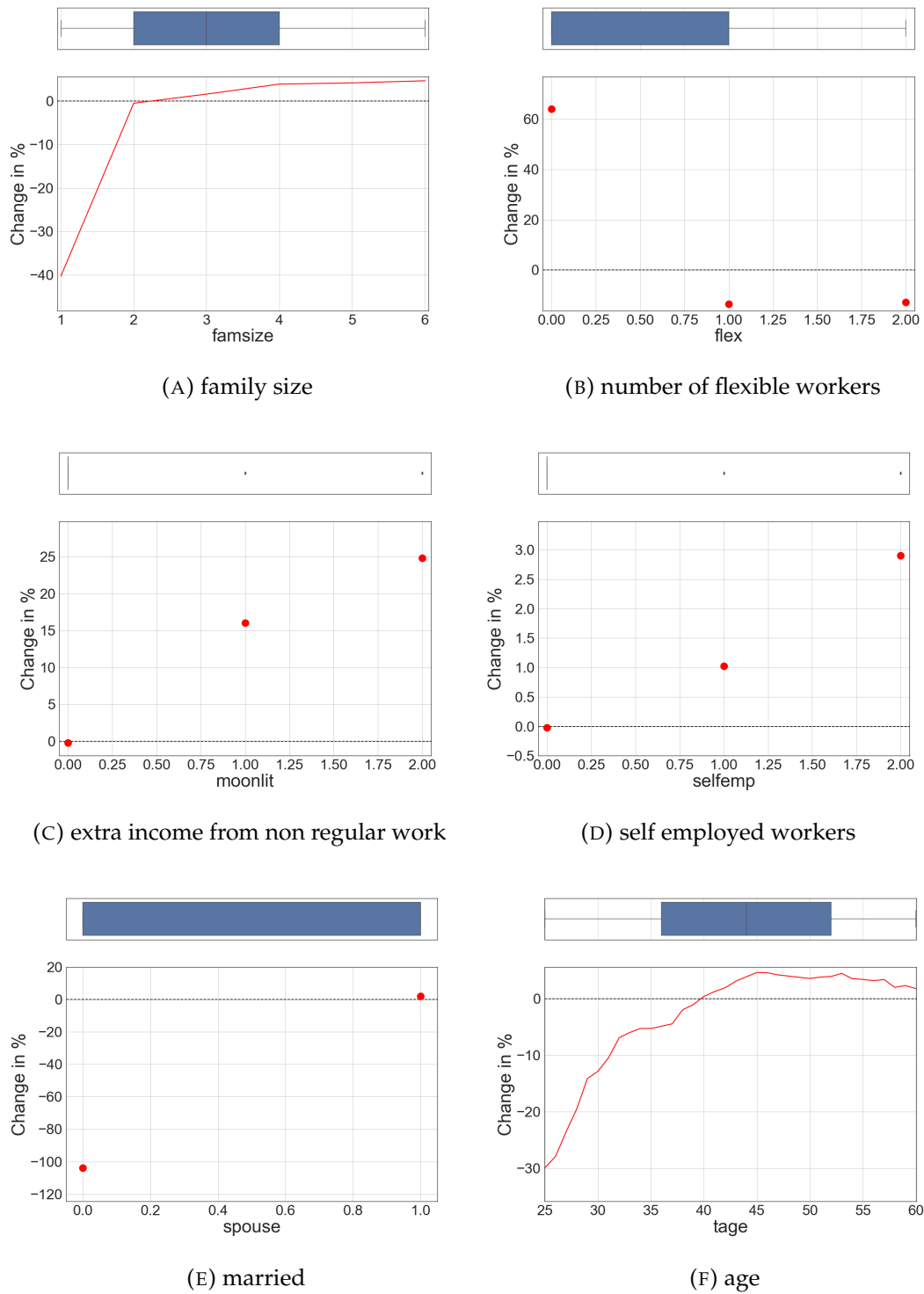


FIGURE 6: Median Marginal Labor Income Responses in Rebate Months and Months After

Note: Results are based on 87,522 estimations from 11,487 households in rebate months and months after. Changes are measured as percentage points of the reported rebate size. The shown boxplots illustrate the distributions of the features in rebate months and months after.

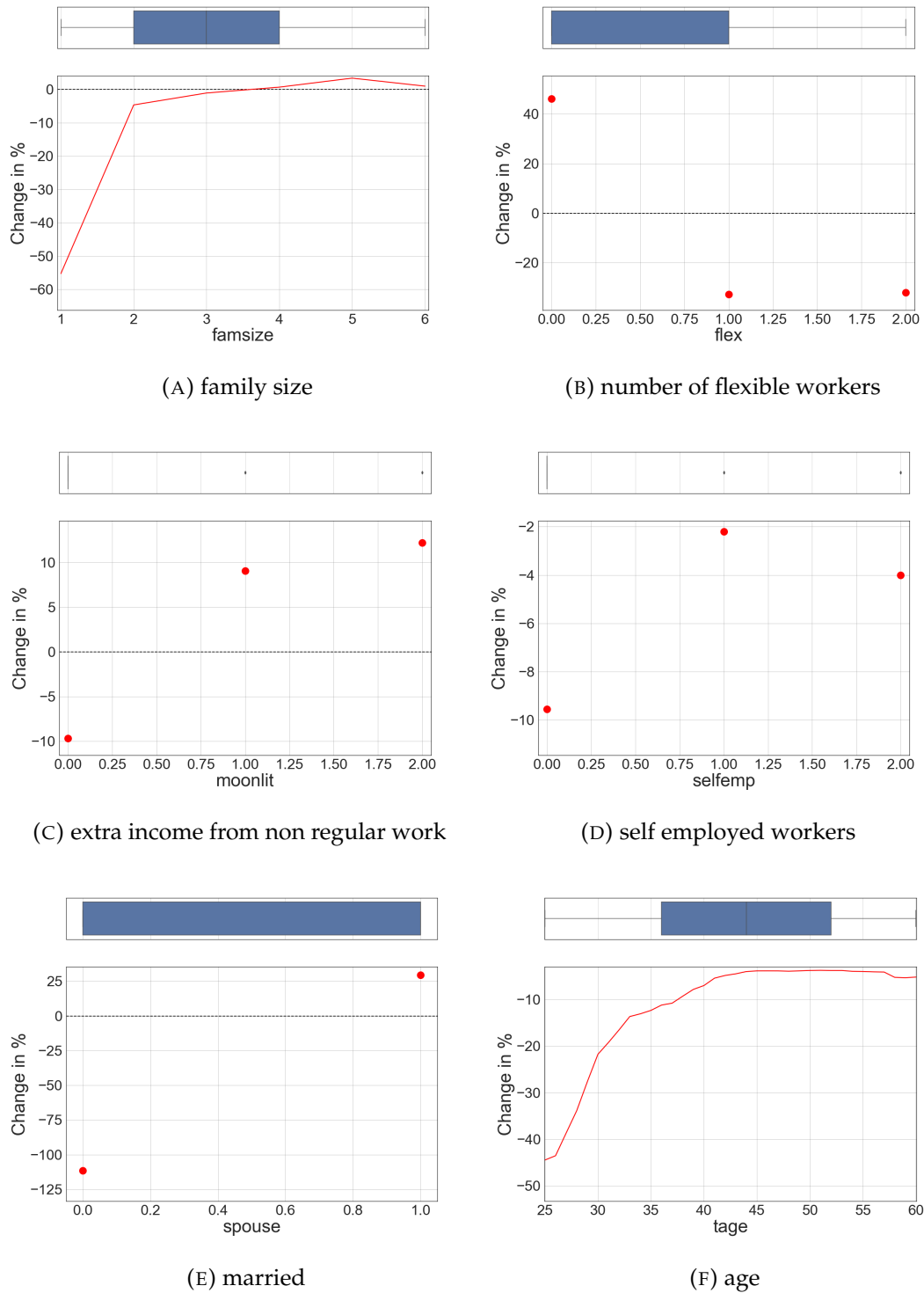


FIGURE 7: Median Marginal Labor Income Responses in Rebate Months

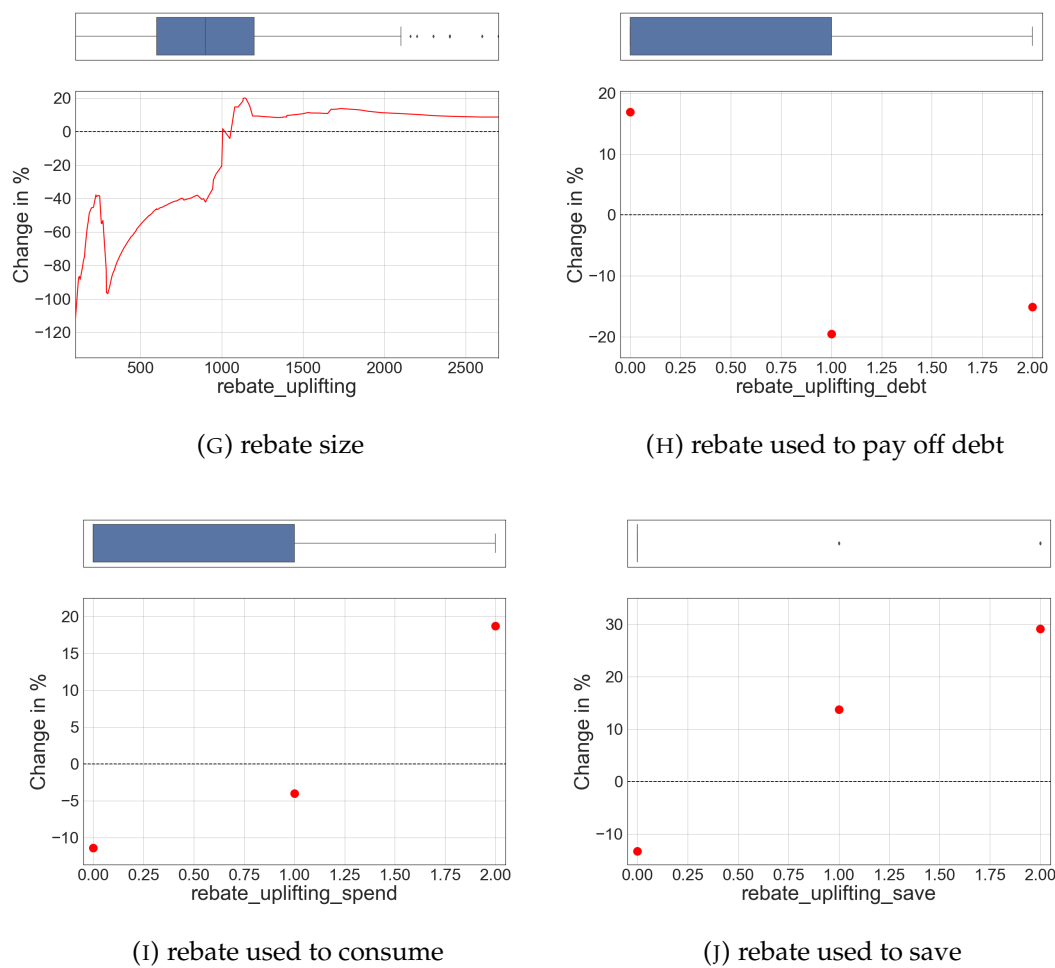


FIGURE 7: Median Marginal Labor Income Responses in Rebate Months (cont.)

Note: Results are based on 5,574 estimations from 5,574 households in rebate months. Changes are measured as percentage points of the reported rebate size. For rebate months, I include partial dependence plots for features describing rebate characteristics, such as the rebate size and the reported use of the rebate payment. The shown boxplots illustrate the distributions of the features in rebate months.

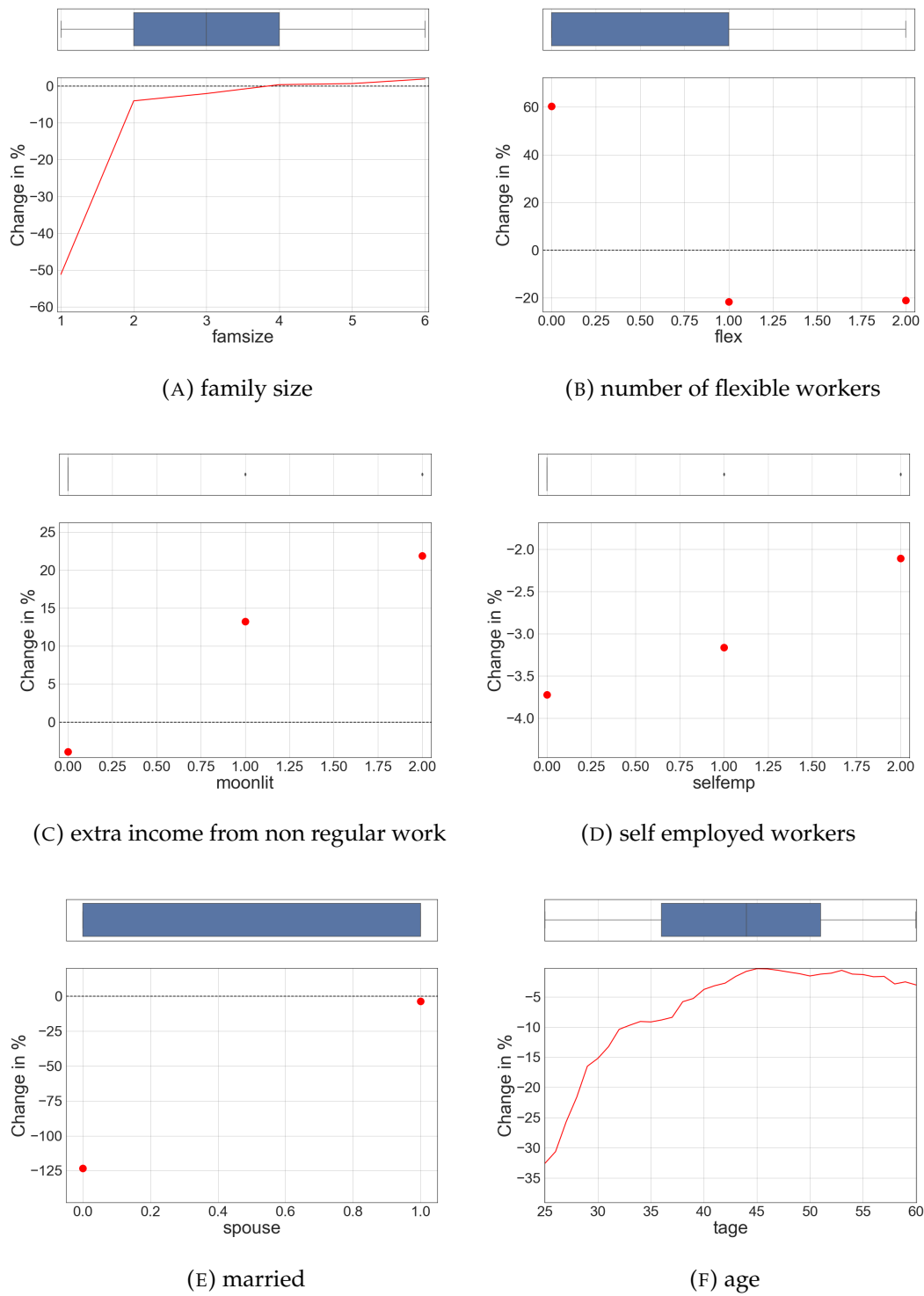


FIGURE 8: Median Marginal Labor Income Responses in Lagged Months

Note: Results are based on 18,415 estimations from 10,202 households in the first two months following rebate payments. Changes are measured as percentage points of the reported rebate size. The shown boxplots illustrate the distributions of the features in the first two months following rebate payments.