Appendix to:
Household consumption responses to labor market transitions

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This appendix contains supplementary materials to Gardeazabal and Polo-Muro "Household consumption responses to labor market transitions".

A The database

As commented in the main text, all treatments analyzed in this paper are imposed on household members, while the outcomes are measured at the household level. Therefore, we aggregate individual member covariate values to obtain a household aggregate. For instance, we aggregate the educational attainment of individual household members, a categorical variable, into a household aggregate indicating the number of household members whose educational attainment corresponds to each category. Similarly, other household covariates include the number of women in the household, the number of foreign household members, and the number of household members in each age interval. Table A1 and reports covariate descriptive statistics for the longitudinal sample of households interviewed in 2015 and 2016, with covariates measured in 2015.

B Propensity score estimation

Tables A2 to A4 report propensity score estimates corresponding to treatments all four treatments T10, T21, T01 and T12 for the three different specifications (consumption per household, per adult equivalent and budget shares). Propensity scores are estimated using a weighted logistic regression, using survey weights. Had the sample of households been a random sample from the population, there would be no need to use weighting. However, as the EPF is a stratified random sample, using survey weights is recommended, e.g. Ridgeway et al. (2015). Notice that, after estimation of the propensity score, before estimation of the outcome equation, we disregard all untreated (treated) observations whose estimated propensity score is below (above) the minimum (maximum) value of the estimated propensity scores for the treated (untreated). The number of observations discharged in each case can be obtained subtracting the sample sizes reported in Table 3 of the main text and those reported in the last rows of the propensity score tables.

C Diagnostics

Table A5 describes the degree of covariate balance of the raw data and the weighted data for the sample used to assess the effects of treatments T01, T12, T10 and T21 using the propensity score specifications corresponding to the case when pre-treatment values of per household outcomes are included.

We assess covariate overlap using the Normalized Mean Differences (NMD) and Variance Ratio (VR) between treated and control groups. Despite data are observational, covariate balance is not terribly bad for the raw data, with only a few covariates exhibiting a NMD larger than the ± 0.25 value, often used as a yardstick. Weighting the sample according to the IPW scheme reduces the normalized mean difference considerably. Similarly, the variance ratio for the raw data deviates from the value of 1, and is much closer to 1 in the weighted sample. When the covariate imbalance observed in the raw data is corrected using the specifications of the propensity score that include pre-treatment values of the outcomes measured in per adult equivalent terms or as budget shares, covariate balance is very similar (these results are available upon request).

D Robustness checks and extensions

A robustness check uses a doubly robust estimation procedure, extending the outcome equation to include covariates. Table A6 shows that using the doubly robust procedure does not change the results obtained for the baseline case fundamentally.

In addition, the heterogeneity analysis by gender corresponding to treatments T21 and T12 is reported in Table A7. This table shows significantly different responses of budget shares on "Food and beverages" by gender.

References

Ridgeway, G., S. A. Kovalchik, B. A. Griffin, and M. U. Kabeto (2015). Propensity score analysis with survey weighted data. *Journal of Causal Inference 3*(2), 237–249.

Table A1: Descriptive Statistics: Covariates

Covariate	# observations	Mean	S.D.	Min	Max
House size (m^2)	9,055	104.5714	46.6785	35	300
Owns second house	9,286	0.1539	0.3609	0	1
Urban residential area	9,288	0.8120	0.3907	0	1
Housing tenure regime					
Owner, no mortgage	9,288	0.5174	0.4997	0	1
Owner, mortgage	9,288	0.3106	0.4628	0	1
Rental	9,288	0.1083	0.3108	0	1
Capped rental	9,288	0.0085	0.0918	0	1
Semi-free loaned house	9,288	0.0282	0.1656	0	1
Loaned house	9,288	0.0269	0.1618	0	1
Population (town of residence)					
100,000 or more	9,288	0.3721	0.4834	0	1
50,000 to 100,000	9,288	0.1188	0.3235	0	1
20,000 to 50,000	9,288	0.1544	0.3613	0	1
10,000 to 20,000	9,288	0.0946	0.2927	0	1
less than 10,000	9,288	0.2601	0.4387	0	1
Population density (town of residence)					
High	9,288	0.4703	0.4991	0	1
Medium	9,288	0.2319	0.4221	0	1
Low	9,288	0.2978	0..4573	0	1
Source of income indicators					
Labor income	9,248	0.6542	0.4757	0	1
Pension income	9,248	0.4128	0.4924	0	1
Unemployment benefits	9,247	0.0971	0.2961	0	1
Capital income	9,247	0.0785	0.2690	0	1

Table A1: Descriptive Statistics: Covariates (continued)

Covariate	# observations	Mean	S.D.	Min	Max
Number of household members					
Total number	9,288	2.7176	1.2528	1	16
Alien residents	9,288	0.1478	0.6739	0	8
Females	9,288	1.3914	0.8204	0	8
Domestic workers	9,288	0.0018	0.0427	0	1
Number of household members by age					
0-4	9,288	0.1205	0.3779	0	3
5-15	9,288	0.3397	0.6806	0	6
16-24	9,288	0.2707	0.5821	0	6
25-34	9,288	0.2575	0.5469	0	4
35-64	9,288	1.2613	0.8395	0	4
65-79	9,288	0.3428	0.6499	0	3
80 or more	9,288	0.1251	0.3847	0	3
Number of household members by educational attainment					
Primary or less	9,288	0.4214	0.7489	0	5
Lower Secondary	9,288	0.7399	0.9084	0	6
Upper Secondary	9,288	0.4739	0.7324	0	5
Tertiary	9,288	0.6219	0.8243	0	5
Number of household members by labor market status					
Active	9,288	1.3337	0.9706	0	7
Income earners	9,288	1.6286	0.7393	0	6
Main breadwinner covariates					
Age	9,288	55.2896	14.7476	17	85
Female	9,288	0.3084	0.4618	0	1
Foreign	9,288	0.0448	0.2069	0	1
Unemployed	9,288	0.0801	0.2715	0	1
Inactive	9,288	0.3495	0.4768	0	1

Note: Unemployment benefits includes other subsidies. Covariate descriptive statistics of the households participating in the 2015 and 2016 waves. Covariates are measured in 2015.

Table A2: Propensity score estimates: per-household consumption

	(1) T10	(2) T21	(3) T01	(4) T12
Pre-treatment outcome levels				
Food & beverages	-0.0181*	-0.0188	-0.0192**	0.0086
	(0.0094)	(0.0224)	(0.0090)	(0.0191)
Tobacco & alcohol	-0.0066	-0.0085	0.0786***	0.0399
	(0.0221)	(0.0498)	(0.0157)	(0.0401)
Apparel	0.0076	-0.0297	-0.0306***	-0.0497
	(0.0124)	(0.0416)	(0.0102)	(0.0357)
Housing	0.0284***	0.0187	-0.0026	-0.0127
	(0.0106)	(0.0336)	(0.0076)	(0.0204)
Furniture	0.0035	0.0251	-0.0123	0.0107
	(0.0137)	(0.0528)	(0.0103)	(0.0312)
Health	-0.0122	-0.0268	0.0091	-0.0075
	(0.0107)	(0.0310)	(0.0086)	(0.0180)
Transportation	0.0077*	0.0176	-0.0096***	-0.0323***
	(0.0045)	(0.0145)	(0.0033)	(0.0113)
Communications	0.1464***	0.2293**	0.0460	-0.0685
	(0.0452)	(0.1075)	(0.0402)	(0.1025)
Leisure and culture	0.0141	0.0585	-0.0123	-0.0691**
	(0.0100)	(0.0397)	(0.0095)	(0.0318)
Education	0.0419*	-0.0564	0.0085	-0.0389
	(0.0230)	(0.0779)	(0.0190)	(0.0700)
Hotels & Restaurants	0.0205**	0.0231	-0.0157**	-0.0189
	(0.0082)	(0.0255)	(0.0066)	(0.0174)
Miscellaneous	0.0133**	-0.0730***	-0.0187*	0.0205
	(0.0066)	(0.0280)	(0.0100)	(0.0212)
Income	-0.0010	0.0234***	-0.0261***	-0.0154*
	(0.0029)	(0.0090)	(0.0032)	(0.0079)
Household covariates				
House size (m^2)	-0.0016**	0.0011	-0.0015**	-0.0001
	(0.0007)	(0.0018)	(0.0006)	(0.0015)
Owns second house	-0.2051**	0.0424	-0.0474	-0.2192
	(0.1006)	(0.2859)	(0.0787)	(0.2124)
Urban residential area	-0.0875	-0.1292	-0.0471	-0.0945
	(0.0788)	(0.1631)	(0.0708)	(0.1600)

Table A2: Propensity score estimates: per-household consumption (continued)

	(1) T10	(2) T21	(3) T01	(4) T12
House tenure regime (Ref: Owner, no mortgage)				
Owner, mortgage	0.0936	0.2598*	-0.0436	-0.1409
	(0.0586)	(0.1352)	(0.0531)	(0.1211)
Rental	0.0779	0.0907	0.1760**	0.1348
	(0.0877)	(0.1913)	(0.0850)	(0.1813)
Capped rental	0.1279	-0.4049	0.0867	0.0755
	(0.2259)	(0.3882)	(0.2281)	(0.3876)
Semi-free loaned house	-0.1315	0.4286	-0.0377	0.3014
	(0.1331)	(0.2942)	(0.1387)	(0.2330)
Loaned house	0.1619	-1.0939***	0.1556	-0.0024
	(0.1303)	(0.3484)	(0.1310)	(0.2991)
Population of town of residency (Ref: more than 100,000)				
50,000 to 100,000	0.0787	0.1756	0.1067	0.1474
	(0.0851)	(0.2115)	(0.0773)	(0.1795)
20,000 to 50,000	0.1705*	0.0309	0.1944**	-0.0992
	(0.1018)	(0.2619)	(0.0834)	(0.2212)
10,000 to 20,000	0.1955*	0.0036	0.1726*	0.1882
	(0.1157)	(0.2845)	(0.0990)	(0.2458)
less than 10,000	0.2030*	0.0282	0.0675	0.2899
	(0.1204)	(0.2941)	(0.1046)	(0.2561)
Population density of town of residency (Ref: High)				
Medium	-0.0493	0.0717	-0.1267*	-0.0117
	(0.0924)	(0.2405)	(0.0764)	(0.1956)
Low	-0.0595	0.0541	-0.1626*	-0.1740
	(0.1091)	(0.2730)	(0.0954)	(0.2316)
Number of household members				
Total Number	-0.1392**	-0.1052	0.0193	-0.0761
	(0.0591)	(0.1371)	(0.0526)	(0.1131)
Females	0.0242	0.0274	-0.0104	-0.0891
	(0.0388)	(0.0834)	(0.0352)	(0.0783)
Alien residents	-0.1450**	-0.1541	0.0016	0.1059
	(0.0620)	(0.0966)	(0.0554)	(0.1007)
Domestic workers	1.3351		-1.9912**	
	(2.1497)		(0.8984)	
Active	0.0367	-0.4180*	0.9930***	0.7187***
	(0.0842)	(0.2332)	(0.0620)	(0.1581)
Income earners	0.0193	-0.0254	0.0537	0.0930
	(0.0542)	(0.1035)	(0.0488)	(0.1216)

Table A2: Propensity score estimates: per-household consumption (continued)

	(1)	(2)	(3)	(4)
	T10	T21	T01	T12
Number of household members by age (Ref: 0-4)				
5-15	0.0932	0.1260	0.0122	0.1147
	(0.0617)	(0.1498)	(0.0551)	(0.1217)
16-24	0.2066***	0.1676	0.0389	0.4459***
	(0.0736)	(0.1764)	(0.0674)	(0.1430)
25-34	0.3842***	0.3949**	0.1273	0.3806**
	(0.0889)	(0.1969)	(0.0792)	(0.1740)
35-64	0.2075**	0.2358	-0.0530	0.1172
	(0.0862)	(0.1862)	(0.0789)	(0.1727)
65-79	0.4255***	0.5212**	-0.0622	0.1604
	(0.0969)	(0.2468)	(0.0914)	(0.2278)
80 or more	0.2406*	-0.0633	-0.1699	-0.0310
	(0.1253)	(0.3398)	(0.1119)	(0.3079)
Number of household members by educational attainment (Ref: Primary or less)				
Lower Secondary	-0.0097	0.0474	-0.0381	-0.1823***
	(0.0393)	(0.0700)	(0.0360)	(0.0679)
Upper Secondary	0.0414	-0.0555	-0.1573***	-0.3895***
	(0.0447)	(0.0930)	(0.0421)	(0.0870)
Tertiary	0.1440***	0.0465	-0.1917***	-0.3482***
	(0.0460)	(0.1006)	(0.0442)	(0.0949)
Source of income indicators				
Labor income	0.0279	-0.2208	-0.4152*	-1.0636***
	(0.1078)	(0.2774)	(0.2146)	(0.3902)
Pension income	-0.2030*	-0.1209	0.2292**	0.1910
	(0.1083)	(0.2499)	(0.0971)	(0.2617)
Unemployment benefits	0.1090*	0.1997	0.8603***	0.1773
	(0.0647)	(0.1479)	(0.1848)	(0.1435)
Capital income	-0.0059	-0.6128*	-0.1424	-0.1349
	(0.1072)	(0.3139)	(0.0991)	(0.2908)
Main breadwinner covariates				
Age	-0.0291***	-0.0142**	-0.0035	-0.0007
	(0.0033)	(0.0070)	(0.0031)	(0.0074)
Female	0.1385***	0.1905	-0.0717	-0.4247***
	(0.0530)	(0.1301)	(0.0528)	(0.1210)
Foreign	0.5664***	0.7714**	0.2031	0.0826
	(0.1835)	(0.3599)	(0.1764)	(0.3466)
Unemployed	0.4643***	-0.1512		0.2036
	(0.0822)	(0.2477)		(0.1564)
Inactive	0.4452***	-0.7551**	0.7398***	0.4760*
	(0.1305)	(0.3553)	(0.1064)	(0.2859)
Number of observations	13,945	2,265	49,975	6,833

Table A3: Propensity score estimates: per adult equivalent consumption

	(1)	(2)	(3)	(4)
	T10	T21	T01	T12
Pre-treatment outcome levels				
Food & beverages	-0.0368**	-0.0418	-0.0430***	0.0028
	(0.0181)	(0.0481)	(0.0166)	(0.0421)
Tobacco & alcohol	-0.0080	-0.0066	0.1448***	0.0748
	(0.0406)	(0.1058)	(0.0284)	(0.0811)
Apparel	0.0164	-0.0600	-0.0557***	-0.1133
	(0.0241)	(0.0897)	(0.0189)	(0.0757)
Housing	0.0481***	-0.0079	-0.0278**	-0.0104
	(0.0171)	(0.0601)	(0.0133)	(0.0428)
Furniture	-0.0022	0.0412	-0.0216	0.0233
	(0.0249)	(0.1053)	(0.0187)	(0.0605)
Health	-0.0230	-0.0344	0.0218	-0.0179
	(0.0197)	(0.0642)	(0.0153)	(0.0321)
Transportation	0.0130	0.0367	-0.0152**	-0.0708***
	(0.0087)	(0.0326)	(0.0062)	(0.0221)
Communications	0.2689***	0.5733**	0.0417	-0.0760
	(0.0844)	(0.2357)	(0.0756)	(0.2229)
Leisure and culture	0.0278	0.1005	-0.0271	-0.1492**
	(0.0191)	(0.0811)	(0.0174)	(0.0691)
Education	0.0976*	-0.1373	0.0245	-0.0443
	(0.0502)	(0.1776)	(0.0402)	(0.1496)
Hotels & Restaurants	0.0370**	0.0542	-0.0281**	-0.0339
	(0.0159)	(0.0555)	(0.0124)	(0.0371)
Miscellaneous	0.0182	-0.1395**	-0.0393*	0.0396
	(0.0119)	(0.0554)	(0.0207)	(0.0440)
income	0.0001	0.0233***	-0.0253***	-0.0156**
	(0.0029)	(0.0087)	(0.0031)	(0.0079)
Household covariates				
House size (m^2)	-0.0014**	0.0019	-0.0010	-0.0004
	(0.0007)	(0.0017)	(0.0006)	(0.0015)
Owns second house	-0.1790*	0.1755	0.0302	-0.2751
	(0.0932)	(0.2688)	(0.0762)	(0.2116)
Urban residential area	-0.0865	-0.1204	-0.0459	-0.0996
	(0.0787)	(0.1629)	(0.0707)	(0.1601)

Table A3: Propensity score estimates: per adult equivalent consumption (continued)

	(1) T10	(2) T21	(3) T01	(4) T12
House tenure regime (Ref: Owner, no mortgage)				
Owner, mortgage	0.0911	0.2568*	-0.0414	-0.1382
	(0.0585)	(0.1354)	(0.0530)	(0.1209)
Rental	0.0786	0.0739	0.1547*	0.1384
	(0.0880)	(0.1917)	(0.0852)	(0.1821)
Capped rental	0.1395	-0.4790	0.0204	0.1030
	(0.2274)	(0.3849)	(0.2290)	(0.3875)
Semi-free loaned house	-0.1386	0.4395	-0.0369	0.3095
	(0.1332)	(0.2959)	(0.1387)	(0.2334)
Loaned house	0.1753	-1.0916***	0.1376	0.0014
	(0.1304)	(0.3492)	(0.1309)	(0.2989)
Population of town of residency (Ref: more than 100,000)				
50,000 to 100,000	0.0807	0.1852	0.1072	0.1497
	(0.0851)	(0.2123)	(0.0773)	(0.1797)
20,000 to 50,000	0.1698*	0.0271	0.1926**	-0.0971
	(0.1019)	(0.2622)	(0.0835)	(0.2217)
10,000 to 20,000	0.1987*	0.0004	0.1643*	0.2018
	(0.1159)	(0.2847)	(0.0989)	(0.2460)
less than 10,000	0.1997*	0.0207	0.0583	0.3046
	(0.1207)	(0.2939)	(0.1045)	(0.2566)
Population density of town of residency (Ref: High)				
Medium	-0.0467	0.0599	-0.1364*	-0.0118
	(0.0925)	(0.2407)	(0.0764)	(0.1956)
Low	-0.0537	0.0328	-0.1775*	-0.1692
	(0.1093)	(0.2735)	(0.0957)	(0.2321)
Number of household members				
Total number	-0.0748	-0.0919	-0.0393	-0.1184
	(0.0599)	(0.1402)	(0.0533)	(0.1159)
Females	0.0235	0.0240	-0.0093	-0.0854
	(0.0386)	(0.0832)	(0.0351)	(0.0781)
Alien residents	-0.1589***	-0.1571	0.0182	0.1038
	(0.0605)	(0.0972)	(0.0553)	(0.1014)
Domestic workers	1.3241		-2.0246**	
	(1.9151)		(0.8998)	
Active	0.0429	-0.4049*	0.9856***	0.7045***
	(0.0833)	(0.2319)	(0.0616)	(0.1571)
Income earners	0.0190	-0.0241	0.0503	0.0907
	(0.0540)	(0.1027)	(0.0485)	(0.1210)

Table A3: Propensity score estimates: per adult equivalent consumption (continued)

	(1) T10	(2) T21	(3) T01	(4) T12
Number of household members by age (Ref: 0-4)				
5-15	0.0930	0.1305	0.0080	0.1144
	(0.0615)	(0.1498)	(0.0550)	(0.1215)
16-24	0.2365***	0.1675	0.0094	0.4227***
	(0.0736)	(0.1772)	(0.0672)	(0.1426)
25-34	0.4086***	0.3918**	0.0998	0.3654**
	(0.0886)	(0.1977)	(0.0791)	(0.1740)
35-64	0.2324***	0.2336	-0.0803	0.1019
	(0.0857)	(0.1861)	(0.0791)	(0.1718)
65-79	0.4468***	0.5168**	-0.0876	0.1487
	(0.0968)	(0.2455)	(0.0918)	(0.2266)
80 or more	0.2623**	-0.0610	-0.1986*	-0.0351
	(0.1248)	(0.3392)	(0.1124)	(0.3058)
Number of household members by educational attainment (Ref: Primary or less)				
Lower Secondary	-0.0043	0.0499	-0.0366	-0.1861***
	(0.0393)	(0.0701)	(0.0358)	(0.0677)
Upper Secondary	0.0512	-0.0490	-0.1563***	-0.3994***
	(0.0444)	(0.0925)	(0.0418)	(0.0865)
Tertiary	0.1510***	0.0513	-0.1880***	-0.3550***
	(0.0457)	(0.0995)	(0.0440)	(0.0941)
Source of income indicators				
Labor income	0.0271	-0.2399	-0.4034*	-1.0700***
	(0.1074)	(0.2780)	(0.2147)	(0.3890)
Pension income	-0.1960*	-0.1283	0.2276**	0.1930
	(0.1080)	(0.2464)	(0.0970)	(0.2628)
Unemployment benefits	0.1039	0.2023	0.8584***	0.1824
	(0.0646)	(0.1474)	(0.1852)	(0.1433)
Capital income	-0.0105	-0.6014*	-0.1335	-0.1335
	(0.1074)	(0.3149)	(0.0990)	(0.2909)
Main breadwinner covariates				
Age	-0.0286***	-0.0139**	-0.0035	-0.0009
	(0.0033)	(0.0070)	(0.0032)	(0.0074)
Female	0.1395***	0.1859	-0.0669	-0.4343***
	(0.0530)	(0.1304)	(0.0528)	(0.1207)
Foreign	0.6003***	0.7891**	0.1692	0.0858
	(0.1817)	(0.3631)	(0.1763)	(0.3488)
Unemployed	0.4580***	-0.1612		0.1988
	(0.0823)	(0.2473)		(0.1565)
Inactive	0.4412***	-0.7564**	0.7324***	0.4836*
	(0.1303)	(0.3537)	(0.1066)	(0.2863)
Number of observations	13,945	2,265	49,975	6,833

Table A4: Propensity score estimates: budget shares

	(1)	(2)	(3)	(4)
	T10	T21	T01	T12
Pre-treatment outcome levels (Ref: Miscellaneous				
Food & beverages	-0.0112**	-0.0057	0.0074	0.0048
	(0.0053)	(0.0123)	(0.0055)	(0.0129)
Tobacco & alcohol	-0.0061	0.0041	0.0434***	0.0113
	(0.0070)	(0.0152)	(0.0066)	(0.0150)
Apparel	0.0015	-0.0008	0.0037	-0.0243
	(0.0067)	(0.0160)	(0.0064)	(0.0169)
Housing	-0.0040	-0.0002	0.0190***	0.0003
	(0.0048)	(0.0116)	(0.0050)	(0.0121)
Furniture	0.0010	0.0202	0.0066	-0.0051
	(0.0070)	(0.0177)	(0.0063)	(0.0178)
Health	-0.0038	-0.0060	0.0163***	-0.0058
	(0.0062)	(0.0153)	(0.0063)	(0.0144)
Transportation	0.0024	0.0096	0.0099**	-0.0150
	(0.0048)	(0.0119)	(0.0048)	(0.0120)
Communications	0.0234**	0.0362	0.0328***	-0.0200
	(0.0116)	(0.0237)	(0.0116)	(0.0278)
Leisure and culture	0.0068	0.0048	0.0052	-0.0341**
	(0.0061)	(0.0159)	(0.0060)	(0.0173)
Education	0.0156	-0.0073	0.0137	-0.0123
	(0.0099)	(0.0273)	(0.0096)	(0.0254)
Hotels & Restaurants	0.0077	0.0142	0.0058	-0.0098
	(0.0054)	(0.0136)	(0.0053)	(0.0130)
income	0.0025	0.0232***	-0.0266***	-0.0168**
	(0.0027)	(0.0085)	(0.0030)	(0.0077)
Household covariates				
House size (m^2)	-0.0000	0.0017	-0.0023***	-0.0012
	(0.0006)	(0.0015)	(0.0006)	(0.0014)
Owns second house	0.0146	0.2169	-0.1729**	-0.3841**
	(0.0796)	(0.2132)	(0.0708)	(0.1867)
Urban residential area	-0.0808	-0.1036	-0.0524	-0.0802
	(0.0788)	(0.1622)	(0.0708)	(0.1608)

Table A4: Propensity score estimates: budget shares (continued)

	(1) T10	(2) T21	(3) T01	(4) T12
House tenure regime (Ref: Owner, no mortgage)				
Owner, mortgage	0.0869	0.2648*	-0.0438	-0.1377
	(0.0585)	(0.1353)	(0.0531)	(0.1206)
Rental	0.0393	0.0797	0.1825**	0.1753
	(0.0878)	(0.1861)	(0.0856)	(0.1814)
Capped rental	-0.0256	-0.4947	0.1819	0.1528
	(0.2361)	(0.4046)	(0.2299)	(0.3873)
Semi-free loaned house	-0.1337	0.4542	-0.0570	0.2778
	(0.1326)	(0.2950)	(0.1394)	(0.2319)
Loaned house	0.1484	-1.0605***	0.1578	-0.0062
	(0.1310)	(0.3505)	(0.1313)	(0.2950)
Population of town of residency (Ref: more than 100,000)				
50,000 to 100,000	0.0877	0.1909	0.1047	0.1511
	(0.0851)	(0.2113)	(0.0772)	(0.1783)
20,000 to 50,000	0.1662	-0.0009	0.2009**	-0.0985
	(0.1014)	(0.2627)	(0.0835)	(0.2225)
10,000 to 20,000	0.1843	-0.0256	0.1841*	0.2026
	(0.1157)	(0.2845)	(0.0991)	(0.2459)
less than 10,000	0.1780	0.0092	0.0792	0.3297
	(0.1204)	(0.2937)	(0.1046)	(0.2571)
Population density of town of residency (Ref: High)				
Medium	-0.0645	0.0877	-0.1131	-0.0044
	(0.0919)	(0.2404)	(0.0762)	(0.1959)
Low	-0.0922	0.0429	-0.1393	-0.1503
	(0.1087)	(0.2734)	(0.0954)	(0.2314)
Number of household members				
Total Number	-0.1150*	-0.1097	0.0277	-0.0838
	(0.0591)	(0.1362)	(0.0528)	(0.1144)
Females	0.0246	0.0220	-0.0054	-0.0854
	(0.0387)	(0.0831)	(0.0352)	(0.0791)
Alien residents	-0.1515**	-0.1571	0.0042	0.1045
	(0.0611)	(0.0973)	(0.0555)	(0.1027)
Domestic workers	1.4263		-1.9339**	
	(2.0839)		(0.9002)	
Active	0.0357	-0.4093*	0.9915***	0.6959***
	(0.0832)	(0.2280)	(0.0617)	(0.1574)
Income earners	0.0174	-0.0378	0.0544	0.0944
	(0.0537)	(0.1024)	(0.0486)	(0.1216)

Table A4: Propensity score estimates: budget shares (continued)

	(1) T10	(2) T21	(3) T01	(4) T12
Number of household members by age (Ref: 0-4)				
5-15	0.0844	0.1612	0.0075	0.1119
	(0.0618)	(0.1477)	(0.0552)	(0.1230)
16-24	0.1980***	0.1736	0.0286	0.4377***
	(0.0736)	(0.1755)	(0.0671)	(0.1429)
25-34	0.3685***	0.3894**	0.1250	0.3836**
	(0.0884)	(0.1956)	(0.0792)	(0.1754)
35-64	0.1968**	0.2271	-0.0576	0.1079
	(0.0858)	(0.1854)	(0.0791)	(0.1734)
65-79	0.4041***	0.4992**	-0.0607	0.1640
	(0.0964)	(0.2437)	(0.0914)	(0.2271)
80 or more	0.2157*	-0.0582	-0.1763	-0.0320
	(0.1243)	(0.3383)	(0.1118)	(0.3074)
Number of household members by educational attainment (Ref: Primary or less)				
Lower Secondary	-0.0071	0.0584	-0.0393	-0.1813***
	(0.0395)	(0.0703)	(0.0361)	(0.0679)
Upper Secondary	0.0495	-0.0512	-0.1592***	-0.3981***
	(0.0445)	(0.0919)	(0.0420)	(0.0865)
Tertiary	0.1522***	0.0665	-0.1921***	-0.3498***
	(0.0458)	(0.0977)	(0.0445)	(0.0947)
Source of income indicators				
Labor income	-0.0085	-0.2348	-0.4012*	-1.0297***
	(0.1078)	(0.2786)	(0.2151)	(0.3933)
Pension income	-0.1881*	-0.1353	0.2233**	0.1754
	(0.1075)	(0.2461)	(0.0969)	(0.2645)
Unemployment benefits	0.0925	0.1951	0.8528***	0.1846
	(0.0644)	(0.1477)	(0.1850)	(0.1437)
Capital income	0.0004	-0.5775*	-0.1442	-0.1194
	(0.1072)	(0.3135)	(0.0993)	(0.2893)
Main breadwinner covariates				
Age	-0.0272***	-0.0132*	-0.0044	-0.0024
	(0.0033)	(0.0070)	(0.0032)	(0.0074)
Female	0.1487***	0.1926	-0.0686	-0.4372***
	(0.0532)	(0.1303)	(0.0528)	(0.1217)
Foreign	0.6023***	0.8042**	0.1861	0.0790
	(0.1832)	(0.3645)	(0.1758)	(0.3504)
Unemployed	0.4748***	-0.1451		0.1941
	(0.0822)	(0.2481)		(0.1570)
Inactive	0.4099***	-0.7082**	0.7585***	0.4881*
	(0.1302)	(0.3531)	(0.1060)	(0.2888)
Number of observations	13,945	2,265	49,975	6,833

Table A5: Covariate balance

	Raw data				IPW data			
	T01		T12		T01		T12	
Covariate	NMD	VR	NMD	VR	NMD	VR	NMD	VR
Pre-treatment expenditure by category								
Food and beverages	-0.07	0.96	-0.01	0.99	-0.01	1.29	-0.01	0.93
Tobacco and alcohol	0.13	1.05	0.18	1.24	-0.03	0.49	-0.01	0.90
Apparel	-0.16	0.61	-0.16	0.66	-0.01	0.93	-0.01	1.02
Housing	-0.25	0.64	-0.25	0.71	0.00	1.01	0.01	0.92
Furniture	-0.17	0.53	-0.09	0.80	0.00	1.07	0.01	1.03
Health	-0.05	0.89	-0.10	0.32	0.00	1.13	0.00	0.66
Transportation	-0.09	0.69	-0.10	0.78	-0.01	0.94	-0.01	0.96
Communications	-0.03	1.00	-0.15	1.20	0.00	0.96	-0.01	0.95
Leisure and culture	-0.16	0.79	-0.22	0.71	0.00	1.19	0.00	1.03
Education	-0.17	0.52	-0.23	0.35	0.01	1.24	0.02	0.92
Hotels & Restaurants	-0.16	0.72	-0.09	0.89	-0.01	1.05	-0.01	1.00
Miscellaneous	-0.14	0.60	-0.05	2.09	0.00	1.22	0.00	1.84
Household characteristics								
Total income (EUR)	-0.26	0.73	-0.14	1.14	-0.02	1.28	-0.01	1.21
House size (m^2)	-0.16	0.76	-0.07	0.95	0.00	1.04	-0.01	1.06
Owns second house	-0.11	0.79	-0.12	0.71	0.00	1.00	0.01	1.02
Urban residential area	-0.04	1.08	-0.08	1.13	0.01	0.99	0.01	0.99
Housing tenure regime								
Owner, no mortgage	-0.07	0.97	-0.02	0.99	0.00	1.00	-0.03	0.98
Owner, mortgage	-0.04	0.99	-0.15	0.94	0.01	1.00	0.02	1.01
Rental	0.16	1.5	0.15	1.34	-0.01	0.99	0.00	1.00
Capped rental	0.03	1.42	0.05	1.55	0.00	1.01	0.01	1.07
Semi-free loaned house	0.00	0.97	0.07	1.40	0.00	1.01	0.00	1.02
Loaned house	0.03	1.23	0.04	1.24	-0.01	0.96	-0.01	0.96
Population size/density town of residence								
100,000 or more	-0.06	0.97	-0.08	0.94	0.01	1.00	0.01	1.01
50,000 to 100,000	0.00	0.99	0.03	1.06	0.00	1.01	0.00	1.00
20,000 to 50,000	0.07	1.13	-0.03	0.95	0.00	1.00	0.01	1.01
10,000 to 20,000	0.01	1.04	0.04	1.09	-0.01	0.98	0.00	1.00
less than 10,000	0.00	1.00	0.06	1.07	0.00	0.99	-0.02	0.98
High population density	-0.05	0.99	-0.09	0.97	0.01	1.00	0.01	1.00
Medium population density	0.00	1.00	0.01	1.01	0.00	1.00	0.01	1.01
Low population density	0.05	1.05	0.09	1.08	-0.01	0.99	-0.02	0.99

Table A5: Covariate balance (continued)

	Raw data				IPW data			
	T01		T12		T01		T12	
Covariate	NMD	VR	NMD	VR	NMD	VR	NMD	VR
Number of household members								
Total number	0.08	0.89	0.13	1.21	-0.03	0.86	-0.05	0.76
Females	0.04	0.95	0.06	1.17	-0.02	0.93	-0.04	0.90
Alien residents	0.15	2.02	0.09	1.37	-0.02	0.89	0.00	0.92
Domestic workers	-0.06	0.14	.	.	0.00	1.04	.	.
Active	0.34	1.21	0.30	1.83	-0.06	0.68	-0.05	0.71
Income earners	0.24	1.13	0.24	1.28	-0.05	0.73	-0.03	0.86
Number of household members by age								
0-4	0.03	1.04	-0.06	0.89	0.00	1.05	0.00	0.92
5-15	-0.09	0.86	-0.07	0.89	0.01	1.01	0.00	0.93
16-24	0.05	1.00	0.19	1.33	-0.03	0.87	-0.02	0.94
25-34	0.28	1.44	0.18	1.21	-0.02	0.96	-0.02	1.00
35-64	-0.10	1.19	-0.10	1.18	-0.01	0.97	-0.02	0.96
65-79	0.01	1.02	0.10	1.42	0.00	1.00	-0.02	0.84
80 or more	-0.05	0.71	0.01	1.04	0.00	0.88	-0.01	0.97
Number of household members by educational attainment								
Primary or less	0.16	1.34	0.38	1.78	-0.02	0.87	-0.04	0.81
Lower Secondary	0.25	1.22	0.24	1.13	-0.03	0.87	-0.03	0.88
Upper Secondary	0.00	1.04	-0.17	0.92	0.00	1.01	0.01	1.08
Tertiary	-0.24	0.91	-0.28	0.89	0.01	1.02	0.01	1.10
Type of income indicators								
Labor income	-0.08	2.60	-0.17	4.43	0.00	1.02	0.02	0.90
Pension income	0.02	1.03	0.12	1.26	-0.01	0.99	-0.02	0.96
Unemployment benefits	0.11	3.67	0.08	1.04	0.00	1.00	0.00	1.00
Capital income	-0.13	0.61	-0.09	0.66	0.00	0.99	0.00	0.99
Main bread winner characteristics								
Age	-0.06	1.18	0.07	1.34	-0.01	1.00	-0.02	1.06
Female	-0.05	0.95	-0.07	0.93	0.00	1.00	0.00	1.00
Foreign	0.14	1.78	0.07	1.27	-0.01	0.97	0.01	1.02
Unemployed	.	.	0.21	1.65	.	.	0.00	1.00
Inactive	0.09	1.23	0.15	1.61	-0.01	0.98	-0.05	0.90

Table A5: Covariate balance (continued)

	Raw data				IPW data			
	T10		T21		T10		T21	
Covariate	NMD	VR	NMD	VR	NMD	VR	NMD	VR
Pre-treatment expenditure by category								
Food and beverages	0.03	0.95	0.05	0.8	-0.01	0.99	-0.05	0.77
Tobacco and alcohol	0.01	1.05	0.01	0.81	0.00	0.99	-0.04	0.76
Apparel	0.11	1.22	0.06	0.79	-0.01	1.05	-0.07	0.63
Housing	0.10	1.05	0.09	0.86	-0.03	0.59	-0.14	0.32
Furniture	0.12	1.33	0.10	1.09	-0.02	0.79	-0.06	0.70
Health	0.01	0.82	-0.04	0.56	-0.01	0.92	-0.02	0.89
Transportation	0.16	1.50	0.15	1.18	-0.03	0.88	0.03	0.91
Communications	0.18	1.26	0.20	0.99	-0.03	0.92	-0.04	0.87
Leisure and culture	0.16	1.12	0.13	1.04	-0.01	0.66	-0.02	0.95
Education	0.10	1.57	0.00	1.05	-0.01	0.99	0.03	1.35
Hotels & Restaurants	0.19	1.31	0.15	1.51	-0.02	0.74	-0.10	0.61
Miscellaneous	0.12	2.33	0.05	0.45	0.00	1.93	-0.03	0.41
Household characteristics								
Total income (EUR)	0.15	1.20	0.15	1.26	0.00	1.04	-0.14	0.30
House size (m^2)	0.02	1.06	0.10	1.31	-0.02	1.01	-0.03	0.94
Owns second house	-0.04	0.91	0.01	1.05	0.00	1.00	0.01	1.05
Urban residential area	0.00	1.01	-0.02	1.02	0.01	0.97	0.00	1.00
Housing tenure regime								
Owner, no mortgage	-0.16	0.95	-0.08	0.97	0.00	1.00	-0.03	0.98
Owner, mortgage	0.14	1.08	0.18	1.15	0.00	1.00	0.04	1.03
Rental	0.05	1.12	-0.02	0.97	0.00	1.00	0.00	1.00
Capped rental	-0.05	0.66	-0.13	0.47	0.00	0.98	0.00	1.00
Semi-free loaned house	-0.02	0.90	0.04	1.22	0.00	0.98	-0.01	0.95
Loaned house	0.02	1.09	-0.14	0.46	0.01	1.04	0.00	1.00
Population size/density town of residence								
100,000 or more	-0.02	0.99	-0.05	0.97	0.01	1.00	-0.03	0.98
50,000 to 100,000	-0.03	0.94	-0.05	0.91	0.00	1.01	-0.01	0.97
20,000 to 50,000	0.01	1.03	0.01	1.02	0.00	0.99	0.02	1.04
10,000 to 20,000	0.00	1.00	0.04	1.09	-0.01	0.98	0.01	1.03
less than 10,000	0.03	1.04	0.05	1.06	0.00	1.00	0.01	1.02
High population density	-0.01	1.00	-0.10	0.97	0.01	1.00	-0.04	0.99
Medium population density	0.01	1.01	0.04	1.05	-0.01	0.99	0.03	1.04
Low population density	0.00	1.00	0.06	1.05	-0.01	0.99	0.01	1.01

Table A5: Covariate balance (continued)

	Raw data				IPW data			
	T10		T21		T10		T21	
Covariate	NMD	VR	NMD	VR	NMD	VR	NMD	VR
Number of household members								
Total number	0.1	0.94	-0.01	0.83	-0.02	0.96	-0.04	0.92
Females	0.08	0.96	0.01	1.00	-0.02	0.99	0.00	1.08
Alien residents	0.04	1.20	-0.04	0.77	-0.01	0.98	0.03	1.07
Domestic workers	0.00	1.14	.	.	-0.02	0.40	.	.
Active	0.18	1.02	-0.01	1.00	-0.01	1.03	-0.01	1.10
Income earners	0.09	1.03	0.07	0.91	-0.01	1.00	-0.02	0.78
Number of household members by age								
0-4	0.09	1.17	-0.03	0.84	-0.01	0.98	-0.01	0.99
5-15	0.05	1.07	0.07	1.05	-0.01	0.99	0.01	1.00
16-24	0.05	1.15	-0.04	1.02	0.00	1.05	0.02	1.11
25-34	0.23	1.34	0.11	1.1	-0.02	0.96	-0.01	0.99
35-64	-0.10	1.19	-0.09	0.98	0.01	0.96	-0.02	0.96
65-79	-0.11	0.75	-0.06	0.83	-0.01	0.91	-0.09	0.65
80 or more	-0.12	0.63	-0.08	0.59	-0.01	0.99	-0.01	0.87
Number of household members by educational attainment								
Primary or less	-0.11	0.88	-0.17	0.79	-0.02	0.96	0.01	1.00
Lower Secondary	-0.06	1.01	-0.03	0.91	0.00	1.00	0.00	0.95
Upper Secondary	0.06	1.08	0.09	1.06	0.00	1.03	-0.03	0.97
Tertiary	0.16	1.17	0.11	1.17	0.01	1.01	-0.04	0.93
Type of income indicators								
Labor income	0.20	0.86	0.00	1.00	-0.01	1.01	-0.02	0.98
Pension income	-0.18	0.82	-0.12	0.83	0.00	1.00	-0.06	0.90
Unemployment benefits	0.10	1.04	0.21	0.92	0.00	1.00	0.02	0.99
Capital income	0.00	1.00	-0.03	0.84	0.00	1.01	0.02	1.14
Main bread winner characteristics								
Age	-0.32	0.89	-0.23	0.89	0.01	1.01	-0.04	0.88
Female	0.01	1.01	-0.02	0.98	0.01	1.00	0.01	1.01
Foreign	0.06	1.25	0.01	1.02	0.00	0.99	0.02	1.04
Unemployed	0.04	1.05	0.10	0.93	0.00	1.00	0.03	0.98
Inactive	-0.20	0.74	-017	0.69	0.00	1.00	-0.06	0.86

Note: The normalized mean difference and variance ratio statistics are $\frac{\bar{x}_1-\bar{x}_0}{\sqrt{(s_1^2+s_0^2)/2}}$ and $\frac{s_1^2}{s_0^2}$, where $\bar{x}_j$ and s_j^2, $j=0,1$, stand for the sample average and variance of the treated $(j=1)$ and untreated $(j=0)$ respectively.

Table A6: Doubly robust estimates

	(1)	(2)	(3)	(4)	(5)	(6)
	Expenditure per household		Expenditure per adult equivalent		Budget shares	
Outcomes	T01	T12	T01	T12	T01	T12
Food and beverages	-226.51***	-429.80***	-120.62***	-214.79***	0.66***	0.15
	(54.80)	(118.52)	(28.63)	(52.95)	(0.15)	(0.38)
Tobacco and alcohol	4.74	-41.16	-4.4	-19.66	0.20**	-0.05
	(23.34)	(50.03)	(13.09)	(24.59)	(0.08)	(0.21)
Apparel	-305.77***	-338.56***	-184.79***	-188.68***	-0.52***	-0.80***
	(58.94)	(79.05)	(30.67)	(35.19)	(0.12)	(0.22)
Housing	-75.28	-161.92*	-22.81	-61.29	2.19***	3.18***
	(74.41)	(97.96)	(50.79)	(49.51)	(0.23)	(0.55)
Furniture	-340.77***	-107.08	-185.82***	-74.43**	-0.50***	-0.28
	(40.98)	(69.54)	(23.05)	(30.22)	(0.09)	(0.19)
Health	-159.16***	140.38	-99.76***	90.89	-0.17	0.31
	(55.10)	(173.87)	(33.11)	(105.12)	(0.11)	(0.33)
Transportation	-306.59**	-448.00*	-179.93**	-233.04*	-0.09	-0.34
	(153.41)	(249.43)	(82.35)	(124.09)	(0.26)	(0.54)
Communications	-24.75**	-38.75	-14.36**	-20.29	0.21***	0.33**
	(11.69)	(27.33)	(6.38)	(14.10)	(0.04)	(0.13)
Leisure and culture	-212.46***	-179.48*	-114.31***	-121.22***	-0.15	-0.37
	(56.96)	(106.01)	(34.23)	(45.97)	(0.13)	(0.25)
Education	-22.28	36.1	-10.05	2.32	0.01	0.06
	(36.40)	(63.40)	(16.63)	(25.41)	(0.07)	(0.16)
Hotels & Restaurants	-790.11***	-588.53***	-448.22***	-350.84***	-1.57***	-1.89***
	(68.77)	(161.01)	(41.67)	(67.99)	(0.16)	(0.33)
Miscellaneous	-321.71***	-402.19***	-186.62***	-196.94***	-0.28**	-0.29
	(60.43)	(79.05)	(33.62)	(40.10)	(0.11)	(0.24)
Total expenditure	-2,780.64***	-2,558.99***	-1,571.69***	-1,387.96***		
	(238.15)	(502.99)	(127.61)	(229.96)		
Income	-7,793.54***	-6,534.74***	-4,494.51***	-3,254.52***		
	(246.20)	(304.99)	(243.03)	(150.49)		
MPC	0.3568***	0.3916***	0.3497***	0.4265***		
	(0.0300)	(0.0753)	(0.0318)	(0.0717)		
Observations	49,967	6,688	49,970	6,674	49,970	6,786
Treated	4,099	728	4,100	728	4,100	728
Untreated	45,868	5,960	45,870	5,946	45,870	6,058

ATET estimates on expenditure per household, expenditure per adult equivalent, total expenditure and income are in 2016 euros. In estimating the outcome equation, we disregard all untreated (treated) observations whose estimated propensity score is below (above) the minimum (maximum) value of the estimated propensity scores for the treated (untreated). Robust standard errors within parentheses. One, two and three asterisks denote significance at ten, five and one percent respectively.

Table A7: Budget shares response by gender (couples sample)

	T21			T12		
	men	women	diff	men	women	diff
Food and beverages	0.693	-1.341*	2.034**	-0.544	1.448**	-1.992**
	(0.789)	(0.783)	(0.931)	(0.642)	(0.684)	(0.849)
Tobacco and alcohol	0.347	0.097	0.250	-0.021	-0.160	0.139
	(0.291)	(0.375)	(0.427)	(0.296)	(0.328)	(0.412)
Apparel	0.556	0.547	0.009	-0.885**	-0.490	-0.395
	(0.440)	(0.573)	(0.591)	(0.399)	(0.449)	(0.562)
Housing	-3.897***	-2.020**	-1.877	3.899***	2.680***	1.219
	(1.050)	(0.921)	(1.161)	(0.741)	(0.920)	(1.108)
Furniture	-0.348	0.013	-0.361	-0.295	-0.487	0.192
	(0.355)	(0.434)	(0.453)	(0.471)	(0.303)	(0.533)
Health	-0.043	0.089	0.131	-0.283	0.521	-0.804)
	(0.356)	(0.444)	(0.474)	(0.424)	(0.654)	(0.737)
Transportation	1.702	0.054	1.648	-0.069	-0.544	0.475
	(1.119)	(1.252)	(1.292)	(0.913)	(0.991)	(1.264)
Communications	0.106	0.181	-0.075	-0.052	-0.235	0.184
	(0.222)	(0.214)	(0.227)	(0.192)	(0.239)	(0.287)
Leisure and culture	0.500	0.503	-0.003	-0.095	-0.828	0.732
	(0.446)	(0.520)	(0.552)	(0.442)	(0.615)	(0.722)
Education	0.164	0.286	-0.122	-0.022	-0.268	0.246
	(0.252)	(0.190)	(0.284)	(0.149)	(0.174)	(0.222)
Hotels & Restaurants	0.768	1.588**	-0.820	-1.612***	-1.816***	0.204
	(0.574)	(0.663)	(0.763)	(0.511)	(0.620)	(0.738)
Miscellaneous	-0.550	0.003	-0.553	-0.022	0.179	-0.201
	(0.366)	(0.452)	(0.470)	(0.507)	(0.583)	(0.736)
Observations		1,671			5,670	
Treated men		379			342	
Treated women		249			229	
Untreated		1,044			5,099	