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Did the Poor Adapt to Their Circumstances? Evidence from Long-run Russian Panel Data

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Abstract

Very few studies currently exist on poverty adaptation to subjective well-being. We offer analysis on poverty adaptation for Russia, a middle-income country in transition, using panel data for 2001-2017. We found no poverty adaption for life satisfaction and subjective wealth, with longer poverty spells being associated with more dissatisfaction. Similar results hold for other outcomes including satisfaction with own economic conditions, work contract, job, pay, and career, and for poverty defined using either absolute or relative thresholds. Some evidence indicates that while those living in rural areas or born outside of Russia have similar levels of poverty adaptation for life satisfaction, they may adapt less regarding subjective wealth. There is also some evidence that women may be less adaptive than men, particularly for longer poverty duration.

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1. Introduction

If poor individuals adapt their subjective well-being to poverty, it has much policy relevance. Indeed, if this is true, once people fall into poverty, they may become content with their undesirable welfare status over time. They may consequently lose incentives to escape poverty and would be trapped in chronic poverty. As such, more resources should perhaps be shifted toward social protection programs that protect vulnerable households against the life-changing fall into poverty, from longer-term programs that invest in human capital such as building schools or that address structural issues such as improving infrastructure.

Yet, little evidence exists over poverty adaptation, most likely due to the lack of panel survey data. Clark *et al.* (2016) offers the first study that rigorously shows life satisfaction to fall with the incidence and intensity of poverty among Germans, and individuals do not adapt to living in poverty. This contrasts with established findings in the happiness literature that individuals generally adapt to their higher incomes (Di Tella *et al.* 2010, Vendrik 2013, Galiani *et al.* 2018). A recent study also finds limited adaptation for life satisfaction and no adaptation for financial satisfaction using Swiss Household Panel Data (Luo 2018). Mixed evidence exists on adaptation to other outcomes. For instance, in a recent review of the happiness literature, Clark (2018) observes that people may adapt to certain life events (including marriage, children, divorce and widowhood), but not others (including unemployment).

We make several new contributions to the nascent literature on poverty adaptation. First, we offer analysis using long-run panel data for the past two decades from Russia, a transition economy. Since richer countries like Germany can differ from lower-income countries like Russia in many aspects, there is no *a priori* evidence that household poverty adaptation behaviors in the former similarly hold for the latter. As such, to our knowledge, we offer the first study on poverty adaptation in a middle-income country context. Second, we examine poverty that is defined with both absolute and relative income thresholds. Finally, beyond overall life satisfaction, we also analyze other outcomes such as subjective wealth,[1] and satisfaction with other important domains of one's life including own economic conditions, work contract, job, pay, and career. These outcomes have not been examined in the existing (sparse) literature on poverty adaptation.

We found no poverty adaption for life satisfaction and subjective wealth for Russians, with longer poverty spells being associated with more dissatisfaction. This also holds for other outcomes, including satisfaction with one's overall economic conditions, work contract, job, pay, and career, and for poverty defined using absolute or relative thresholds. Some evidence indicates that while those living in rural areas or born outside of Russia have similar levels of poverty adaptation for life satisfaction, they may adapt less regarding subjective wealth. There is some evidence that women may be less adaptive than men, particularly for longer poverty duration.

This paper consists of four sections. We discuss the data and our empirical strategy in the next section, before offering the estimation results in Section III. We finally conclude in Section IV.

[1] This question asks respondents to imagine where they currently stand on a nine-step ladder where the poorest stand on the first (lowest) step and the richest stand on the ninth (highest) step.

2. Data and Empirical Strategy

We analyze long-run individual panel data from the Russian Longitudinal Monitoring Survey (RLMS), which is currently managed by the Carolina Population Center, University of North Carolina, and Russia's National Research University Higher School of Economics. The ongoing panel survey started in 1994 and has been implemented every year since then, except for a break in 1997 and 1999. The survey also underwent a major sample replenishment in 2000, which resulted in a higher non-response rate in this year (Gerry and Papadopoulos 2015, Kozyreva et al. 2016). Consequently, we restrict our analysis to the period 2001-2017 to ensure that the data are comparable over time and data quality is consistent (but we also offer a robustness check using all the years available). The RLMS collects nationally representative data on subjective well-being and various topics including household demographics, income and consumption, and occupation characteristics. The sample size consists of around 38,000 panel individuals between 2001 and 2017, which have been replenished several times due to panel attrition over time. Hardly any middle-income countries can offer such long-running and nationally representative panel data as the RLMS.

We employ the following linear model with individual fixed effects

$$y_{it} = \beta' P_{it} + \gamma' X_{it} + \eta_i + \tau_t + \varepsilon_{it} \quad (1)$$

where y_{it} represents individual *i*'s subjective well-being outcomes in year *t*, and P_{it} is a vector of poverty measures indicating poverty duration (i.e., how long an individual has lived in poverty). Our coefficients of interest are β, which, if statistically significant and do not reduce in size as the duration in poverty grows, indicate no adaptation.

Furthermore, to measure the general correlation between poverty and subjective well-being, we also offer estimates where P_{it} includes the headcount poverty rate (i.e., poverty incidence) and the poverty gap (i.e., poverty intensity). X_{it} includes the control variables, including employment, age groups, education achievement, marital status, number of children, and regional dummy variables; η_i and τ_t are respectively the individual fixed effects and year dummy variables. Equation (1) is the standard model used in the happiness literature (e.g., Ferrer-i-Carbonell and Frijters 2004) and is the same as that in Clark *et al.* (2016).

Since our estimation sample includes individuals who are 16 years old or older, some of them are still attending school, which makes the education variables time-varying. We also reran estimates after dropping the education variables and obtain qualitatively similar results (results available on request). Life satisfaction is measured on a scale from 1 to 5, and subjective wealth from 1 to 9, with higher scores indicating more satisfaction or more subjective wealth. Satisfaction with one's economic conditions, work contract, job, pay, and career is also measured on a scale from 1 to 5.

Russia's absolute poverty line is calculated as the required monthly income for an individual to purchase a subsistence basket of food and non-food items that meets food and non-food monthly requirements. This basket varies by individuals' age and reflects differences in regional living standards. For example, in 2015 this poverty line is 9,701 rubles per capita at the country level ($US 159 per capita) yielding a poverty rate of 13.3 percent (Federal State Statistic Service 2017). The exchange rate is US$1 for 61 rubles in 2015 (World Bank 2019). The median nominal per capita income is 14,167 rubles ($US 232 per capita) in 2015, which yields a relative poverty line

that is equal to 60% of the median per capita income of 8,500 rubles per capita ($US 139 per capita).

Table I offers the summary statistics of the estimation sample for the period under consideration (2001- 2017), which indicate that individuals have an average life satisfaction score of 3.1 and an average subjective wealth score of 3.9. The headcount poverty rate hovers around 27 percent. The majority of individuals (80 percent) completed secondary education or higher, and they are employed in almost two-thirds (61 percent) of all the observed years. More than half (58 percent) of the sample are women, and around two-thirds (68 percent) of the sample live in urban areas (i.e., larger towns or cities).

Table I. Descriptive Statistics, RLMS 2001-2017

Variables	Life satisfaction		Subjective wealth	
	Mean	***Std_dev***	**Mean**	***Std_dev***
Dependent variable	3.112	*1.114*	3.930	*1.444*
Poor	0.268	*0.443*	0.267	*0.442*
Poverty gap	0.090	*0.194*	0.090	*0.194*
Individual characteristics				
Employed	0.607	*0.488*	0.610	*0.488*
Unemployed/out of labour force	0.393	*0.488*	0.390	*0.488*
Age 16–20	0.079	*0.269*	0.077	*0.267*
Age 21–30	0.194	*0.395*	0.194	*0.395*
Age 31–40	0.185	*0.388*	0.185	*0.388*
Age 41–50	0.165	*0.371*	0.165	*0.371*
Age 51–60	0.155	*0.362*	0.155	*0.362*
Age 61–70	0.115	*0.319*	0.115	*0.319*
Age 71–80	0.082	*0.275*	0.082	*0.275*
Age 80+	0.032	*0.176*	0.031	*0.174*
Female	0.579	*0.494*	0.579	*0.494*
Education				
Incomplete secondary	0.206	*0.404*	0.203	*0.402*
Complete secondary	0.322	*0.467*	0.323	*0.467*
Secondary+vocational	0.248	*0.432*	0.249	*0.433*
University and higher	0.222	*0.415*	0.224	*0.417*
Single	0.171	*0.377*	0.170	*0.375*
Married	0.621	*0.485*	0.623	*0.485*
Divorced/widowed/separated	0.207	*0.405*	0.207	*0.405*
Number of children	0.575	*0.826*	0.576	*0.825*
Regional characteristics				
Moscow/Saint-Petersburg	0.116	*0.320*	0.116	*0.321*
City	0.301	*0.459*	0.303	*0.460*
Town	0.263	*0.440*	0.264	*0.441*
Small town	0.064	*0.245*	0.063	*0.243*
Rural	0.257	*0.437*	0.254	*0.435*
Number of observations	*215 443*		*212 593*	
Number of individuals	*38 696*		*38 483*	

Note: Means and standard deviations are obtained with pooled unweighted data. The summary statistics under "Life satisfaction" and "Subjective wealth" are for each for these estimation samples respectively.

3. Estimation Results

Table II. Life satisfaction/subjective wealth and poverty incidence and intensity, fixed-effects regressions, RLMS 2001-2017

Variables	Life satisfaction			Subjective wealth		
	Whole sample	Men	Women	Whole sample	Men	Women
Poor	-0.079***	-0.066***	-0.086***	-0.111***	-0.098***	-0.117***
	(0.01)	*(0.01)*	*(0.01)*	*(0.01)*	*(0.02)*	*(0.01)*
Poverty gap	-0.345***	-0.359***	-0.330***	-0.286***	-0.308***	-0.265***
	(0.02)	*(0.03)*	*(0.03)*	*(0.03)*	*(0.04)*	*(0.04)*
Individual Characteristics						
Unemployed/out of labour force	-0.204***	-0.290***	-0.150***	-0.198***	-0.288***	-0.141***
	(0.01)	*(0.01)*	*(0.01)*	*(0.01)*	*(0.01)*	*(0.01)*
Age 16–20	0.305***	0.307***	0.280***	0.336***	0.277***	0.377***
	(0.02)	*(0.04)*	*(0.03)*	*(0.03)*	*(0.05)*	*(0.04)*
Age 21–30	0.030*	-0.023	0.054**	0.136***	0.049	0.194***
	(0.02)	*(0.03)*	*(0.02)*	*(0.02)*	*(0.03)*	*(0.03)*
Age 31–40	-0.017	-0.042**	-0.003	0.060***	0.017	0.088***
	(0.01)	*(0.02)*	*(0.01)*	*(0.02)*	*(0.02)*	*(0.02)*
Age 51–60	0.064***	0.047***	0.079***	-0.019	-0.043**	-0.002
	(0.01)	*(0.02)*	*(0.01)*	*(0.01)*	*(0.02)*	*(0.02)*
Age 61–70	0.142***	0.184***	0.125***	0.033	0.077**	0.017
	(0.02)	*(0.03)*	*(0.02)*	*(0.02)*	*(0.03)*	*(0.02)*
Age 71–80	0.138***	0.157***	0.124***	0.060**	0.128***	0.033
	(0.02)	*(0.03)*	*(0.02)*	*(0.02)*	*(0.04)*	*(0.03)*
Age 80+	0.155***	0.207***	0.120***	0.313***	0.320***	0.303***
	(0.02)	*(0.05)*	*(0.03)*	*(0.03)*	*(0.06)*	*(0.04)*
Education						
Complete secondary	-0.044***	-0.040***	-0.052***	-0.004	-0.007	-0.003
	(0.01)	*(0.01)*	*(0.01)*	*(0.01)*	*(0.02)*	*(0.02)*
Secondary+vocational	-0.073***	-0.072***	-0.076***	-0.036**	-0.040	-0.033
	(0.01)	*(0.02)*	*(0.02)*	*(0.02)*	*(0.03)*	*(0.02)*
University and higher	-0.091***	-0.091***	-0.103***	0.007	0.027	-0.004
	(0.02)	*(0.03)*	*(0.02)*	*(0.02)*	*(0.04)*	*(0.03)*
Single	-0.165***	-0.138***	-0.186***	-0.028	0.001	-0.046**
	(0.01)	*(0.02)*	*(0.02)*	*(0.02)*	*(0.03)*	*(0.02)*
Divorced/widowed/separated	-0.260***	-0.311***	-0.249***	-0.182***	-0.161***	-0.190***
	(0.01)	*(0.02)*	*(0.01)*	*(0.01)*	*(0.03)*	*(0.02)*
Number of children	0.014**	0.016**	0.009	0.019**	0.015	0.021**
	(0.01)	*(0.01)*	*(0.01)*	*(0.01)*	*(0.01)*	*(0.01)*
Constant	2.949***	3.409***	2.832***	4.032***	3.925***	3.773***
	(0.05)	*(0.09)*	*(0.05)*	*(0.08)*	*(0.11)*	*(0.08)*
Mean of dependent variable	3.11	3.18	3.06	3.93	4.01	3.87
(Standard deviation)	*(1.11)*	*(1.11)*	*(1.12)*	*(1.44)*	*(1.45)*	*(1.44)*
R2	0.032	0.032	0.034	0.019	0.021	0.018
Number of observations	215 443	90 784	124 659	212 593	89 403	123 190
Number of individuals	38 696	17 284	21 412	38 483	17 177	21 306

Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. Regional and time dummy variables are included but not showed. Incomes are expressed in December prices of the 2011 year by using the annual (December to December) CPI for each of 32 regions (oblasts). We deflate the (absolute) poverty line with annual (December to December) CPI for each of 32 regions. Estimation results for poverty are based on real total household income per capita. Estimation sample is restricted to individuals 16 years old or older.

Estimation results, provided in Table II, show that both poverty incidence and intensity are statistically significant and are negatively correlated with life satisfaction and subjective wealth. Controlling for other factors, a poor person would be 0.079 points less satisfied (column 1) and 0.011 points feeling less rich (column 4) than a non-poor person. For comparison, completing a university education degree or higher is negatively and statistically significantly associated with life satisfaction and has a somewhat similar magnitude of association; but this relationship doesn't generally hold for subjective wealth.

Furthermore, a poor person with an income half of the poverty line (i.e., the poverty gap variable equal to 0.5) would be 0.252 points (=0.079+ 0.345*0.5) less satisfied than the same person when not poor (Table II, first column). These impacts are smaller than those in Clark et al. (2016), but hold for both men and women. Similar results apply for subjective wealth, where the same poor person with an income half of the poverty line is 0.254 points feeling less rich than his/ her non-poor peer (Table II, fourth column).[2]

The estimates for poverty adaptation in Table II show a contemporaneous relationship only, and do not tell whether the duration of stay in poverty is negatively correlated with subjective welfare. We further examine this relationship in Table III. Following Clark *et al.* (2016), we restrict the estimation sample to those we can observe when they first entered poverty while in the panel (such that we know how long they have been poor). For the currently poor, we dissect their poverty status into four variables: whether they entered poverty within the past year, one to two years ago, and so on, up to three or more years ago. Poverty adaptation implies that individuals' subjective wellbeing has a weaker relationship with their poverty status over time. Yet, estimates (column 1) suggest no poverty adaptation, with the estimated coefficients on the poverty duration variables hovering around -0.2 or -0.3. Formal statistical tests show that the estimated coefficient on poverty duration of less than one year are not statistically significantly different at a 95% confidence level from those on poverty duration of greater than one year. Estimates are generally qualitatively similar for subjective wealth, although the estimated coefficient on poverty duration of over 3 years is not statistically significant (column 4).

Since the majority of the Russian population lives in urban areas (Table I), it can be useful to examine whether there is any difference in poverty adaption between urban residents and rural residents. We thus disaggregate the estimation samples and provide estimations separately by urban and rural areas. Estimation results shown in Table III suggest that poverty adaptation does not differ much between urban and rural areas in terms of life satisfaction, but is certainly weaker for rural areas in terms of subjective wealth (Table III, last column).

Does one's ethnicity or birthplace affect poverty adaptation in any way? Unfortunately, the RLMS does not collect data on respondents' ethnicity, but it collects data on whether a respondent was born in any country outside of Russia. Since 2001, more than 80% of respondents in the RLMS report each year that they were born in the Russian Federation. While those who were born outside

[2] Multicolinearity among some variables can be an issue with the regressions in Table 2 if, say, the poor are more likely to be less educated and therefore poor. To check on this concern, we implement variance inflation factors (VIF) tests for all the control variables. The VIF tests (available upon request) range from 1.27 (for the dummy variable indicating whether the individual is divorced/widowed/separated) to 2.58 (for the variable poverty gap). These test values are far less than the rule-of-thumb value of 10 given for harmful collinearity by Kennedy (2008).

of Russia have similar levels of poverty adaptation for life satisfaction, they do not adapt as well regarding subjective wealth (Table IV, last column).

Individuals that stay in shorter poverty spells may not adapt and be different from those who stay in longer spells. To examine this hypothesis, we show estimates when restricting the estimation samples to those who stayed in poverty for two years or more, three years or more, and four years or more (Table V, other columns). Estimates similarly suggest no poverty adaptation for both life satisfaction and subjective wealth, although the estimated coefficients are somewhat more negative. This suggests that longer poverty spells are associated with more dissatisfaction. Estimation results are qualitatively similar when we standardize both life satisfaction and subjective wealth and place them on the same scale (Appendix A, Table A.1). Another robustness check where we re-estimate Table V using data for all the available years from 1994 onwards also provide similar results (Appendix A, Table A.2).

Recent evidence suggests that Russia has witnessed more income growth for the poor during the past two decades (Dang et al. forthcoming). As such, a related issue is whether individuals that came into and out of poverty may adapt differently from those that were in poverty only once. Presumably, the former group of individuals may adapt better given their previous experience. Estimates, shown in Appendix A, Table A.3, however, suggest that there is no difference between these groups.

A question then arises. Would the estimates in Table V change if we take into account major life events such as unemployment, retirement, loss of a partner, bad health, disability, and changes in household size? We plot in Figure 1 the differences in life satisfaction and subjective wealth for individuals that are affected by any of these events against those that are not. This figure indicates that the former has on average 0.13 points lower in terms of life satisfaction, but the gap seems to slightly narrow over time. The difference in terms of subjective wealth is smaller and also narrows more clearly over time. We provide a further breakdown for each of these events in Figures 1.1 and 1.2 in Appendix A, which suggest that disability is the strongest life satisfaction-reducing and subjective wealth-reducing event.

We extend the analysis in Table II to other outcomes including satisfaction with one's overall economic conditions, work contract, job, pay, and career. Estimates shown in Table VI offer consistent evidence for the negative relationship between poverty and these outcomes.

We then graphically show in Figure 2 estimates on poverty adaption, which point to no adaptation to pay and some adaption to one's overall economic conditions and job around year three or more in poverty. Estimates for work contracts and career are, however, not statistically significant.

Table III. Adaptation to poverty by urban/rural areas, fixed-effects regressions, RLMS 2001-2017

Variables	Life satisfaction			Subjective wealth		
	All	Urban	Rural	All	Urban	Rural
Less than 1 year in poverty	-0.178***	-0.180***	-0.181***	-0.143***	-0.098***	-0.257***
	(0.02)	*(0.02)*	*(0.03)*	*(0.03)*	*(0.03)*	*(0.05)*
1-2 years in poverty	-0.201***	-0.195***	-0.219***	-0.184***	-0.069	-0.410***
	(0.03)	*(0.04)*	*(0.06)*	*(0.05)*	*(0.06)*	*(0.08)*
2-3 years in poverty	-0.255***	-0.220***	-0.331***	-0.210***	-0.034	-0.542***
	(0.05)	*(0.06)*	*(0.08)*	*(0.07)*	*(0.08)*	*(0.11)*
Over 3 years in poverty	-0.155**	-0.138*	-0.215**	0.063	0.163	-0.168
	(0.06)	*(0.08)*	*(0.10)*	*(0.08)*	*(0.11)*	*(0.14)*
Mean of dependent variable	3.06	3.03	3.12	3.91	3.83	4.14
(*Standard deviation*)	*(1.14)*	*(1.14)*	*(1.16)*	*(1.47)*	*(1.43)*	*(1.54)*
R2	0.023	0.021	0.037	0.026	0.027	0.041
Number of observations	17,902	12,432	5,470	17,656	12,336	5,320
Number of individuals	4,860	3,401	1,461	4,848	3,400	1,450

Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. All regressions include all control variables in Table II. Poverty spells are constructed at an annual basis, since income is collected once a year (but has a monthly basis). "Urban" category includes Moscow, Saint Petersburg, big cities (oblastnoy center), semi-urban areas (towns). "Rural" category includes semi-rural (small towns) and rural areas.

Table IV. Adaptation to poverty by birthplace, fixed-effects regressions, RLMS 2001-2017

Variables	Life satisfaction		Subjective wealth	
	Born in Russian Federation	Born in other country	Born in Russian Federation	Born in other country
Less than 1 year in poverty	-0.181***	-0.269***	-0.173***	-0.245***
	(0.03)	*(0.07)*	*(0.04)*	*(0.09)*
1-2 years in poverty	-0.211***	-0.305**	-0.119	-0.383**
	(0.06)	*(0.12)*	*(0.08)*	*(0.16)*
2-3 years in poverty	-0.153*	-0.305*	-0.160	-0.206
	(0.08)	*(0.16)*	*(0.11)*	*(0.24)*
Over 3 years in poverty	-0.106	-0.278	0.162	0.088
	(0.11)	*(0.22)*	*(0.13)*	*(0.29)*
Mean of dependent variable	2.92	2.97	3.79	3.89
(*Standard deviation*)	*(1.16)*	*(1.14)*	*(1.45)*	*(1.39)*

R2	0.025	0.087	0.027	0.070
Number of observations	6,018	1,117	5,962	1,109
Number of individuals	1,961	375	1,953	374

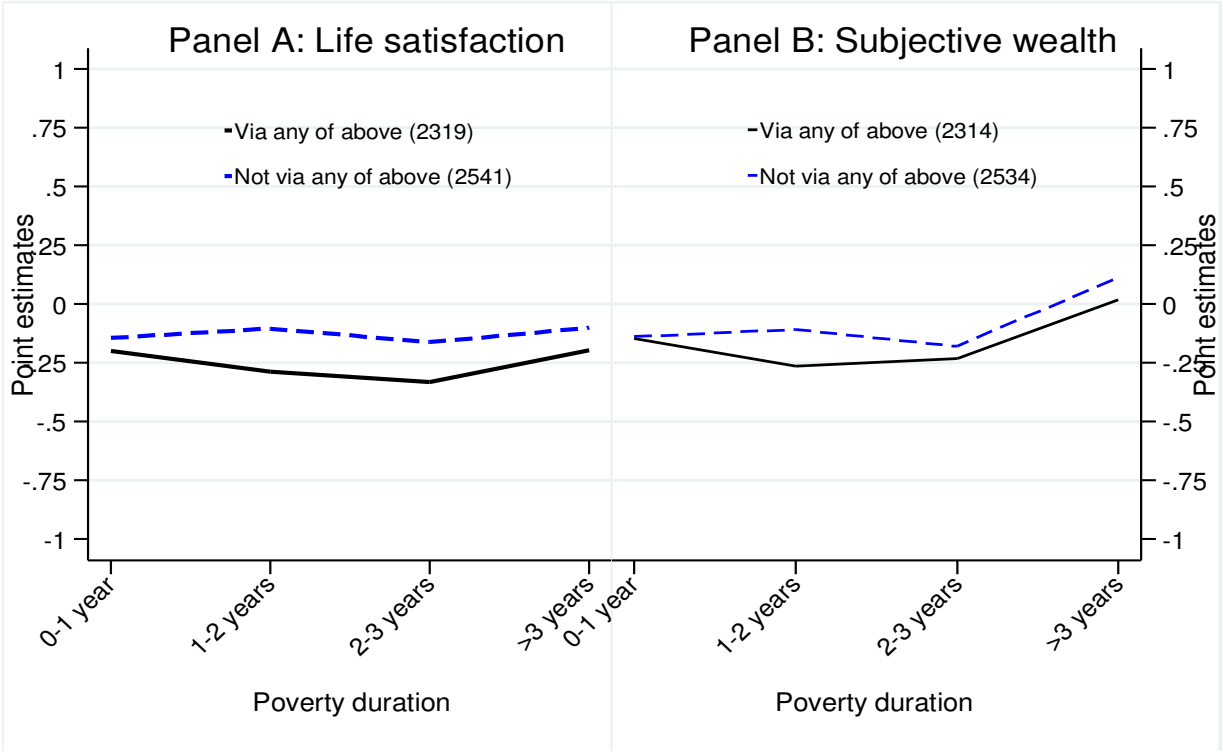
Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. All regressions include all control variables in Table II. Poverty spells are constructed at an annual basis, since income is collected once a year (but has a monthly basis).

Table V. Adaptation to poverty and duration of the poverty spell, fixed-effects regressions, RLMS 2001-2017

Variables	**Life satisfaction**				**Subjective wealth**			
	All	**Spells of over 2 years only**	**Spells of over 3 years only**	**Spells of over 4 years only**	**All**	**Spells of over 2 years only**	**Spells of over 3 years only**	**Spells of over 4 years only**
Less than 1 year in poverty	-0.178***	-0.303***	-0.371***	-0.239*	-0.143***	-0.434***	-0.406***	-0.529***
	(0.02)	*(0.06)*	*(0.09)*	*(0.12)*	*(0.03)*	*(0.09)*	*(0.12)*	*(0.15)*
1-2 years in poverty	-0.201***	-0.294***	-0.409***	-0.446***	-0.184***	-0.472***	-0.451***	-0.575***
	(0.03)	*(0.08)*	*(0.11)*	*(0.14)*	*(0.05)*	*(0.10)*	*(0.14)*	*(0.17)*
2-3 years in poverty	-0.255***	-0.373***	-0.467***	-0.385**	-0.210***	-0.496***	-0.560***	-0.604***
	(0.05)	*(0.09)*	*(0.12)*	*(0.16)*	*(0.07)*	*(0.12)*	*(0.16)*	*(0.20)*
Over 3 years in poverty	-0.155**	-0.351***	-0.607***	-0.546***	0.063	-0.294*	-0.402**	-0.582**
	(0.06)	*(0.13)*	*(0.16)*	*(0.19)*	*(0.08)*	*(0.15)*	*(0.19)*	*(0.23)*
Mean of dependent variable	3.06	2.79	2.70	2.65	3.91	3.67	3.66	3.65
(*Standard deviation*)	*(1.14)*	*(1.17)*	*(1.16)*	*(1.18)*	*(1.47)*	*(1.50)*	*(1.50)*	*(1.52)*
R2	0.023	0.031	0.039	0.066	0.026	0.046	0.039	0.058
Number of observations	17 902	3 488	1 875	1 156	17 656	3 442	1 857	1 144
Number of individuals	4 860	611	283	154	4 848	611	283	154

Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. All regressions include all control variables in Table II. Poverty spells are constructed at an annual basis, since income is collected once a year (but has a monthly basis). Column 1 shows the overall adaptation estimates using the whole sample. Column 2 then drops information on all completed poverty spells of two years or less. Columns 3 and 4 drop information on poverty spells of 3 years or less and 4 years or less respectively.

Figure 1. Adaptation to poverty, by events causing poverty, RLMS 2001-2017



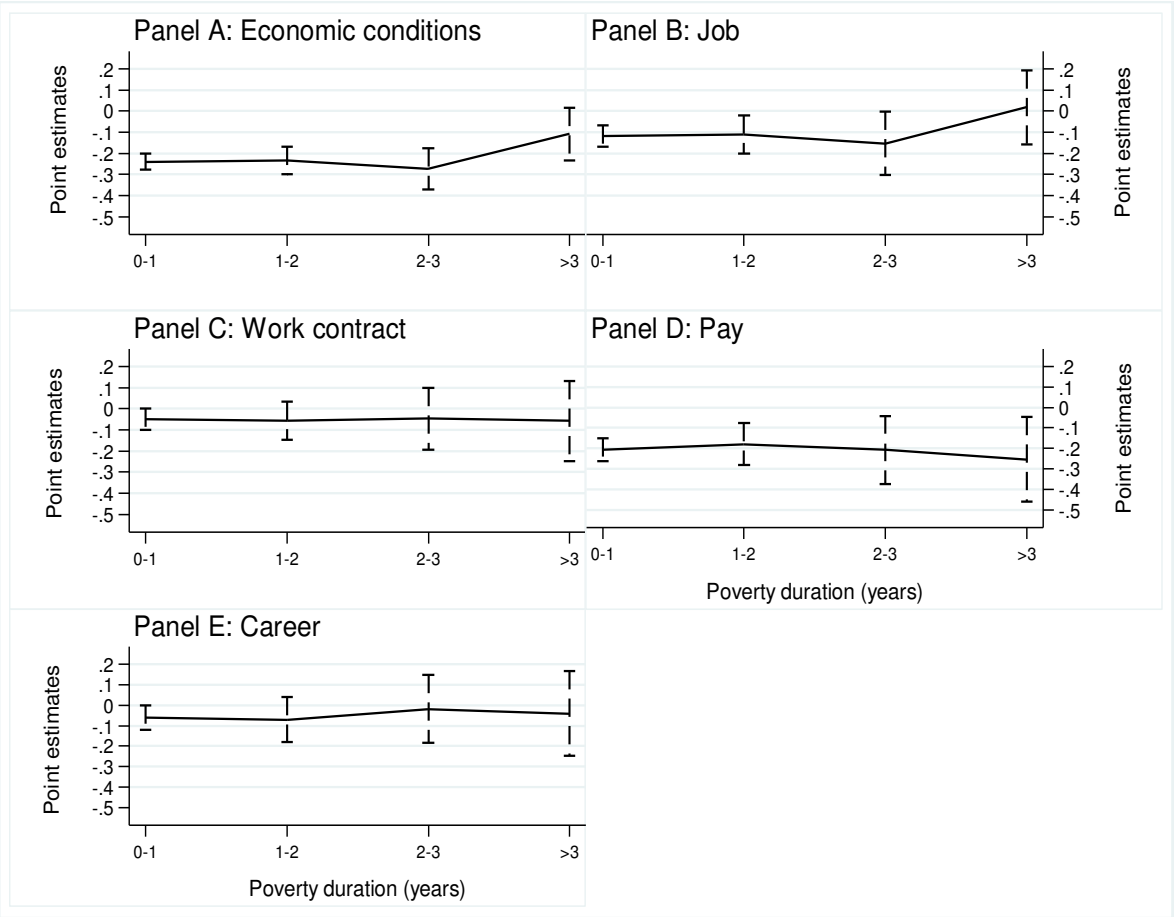
Note: The numbers in parentheses refer to the number of individuals (i.e. poverty entries)

Table VI. Satisfaction with other dimensions of life and poverty incidence and intensity, fixed-effects regression, RLMS 2001-2017

Variables	Satisfaction with				
	Economic conditions	**Job**	**Work contract**	**Pay**	**Career**
Below poverty line (d0)	-0.174***	-0.047***	-0.037***	-0.157***	-0.071***
	(0.01)	*(0.01)*	*(0.01)*	*(0.01)*	*(0.01)*
Relative poverty gap (d1)	-0.272***	-0.259***	-0.175***	-0.204***	-0.202***
	(0.02)	*(0.03)*	*(0.03)*	*(0.03)*	*(0.04)*
Mean of dependent variable	2.37	3.54	3.46	2.74	3.07
(*Standard deviation*)	*(1.13)*	*(1.01)*	*(1.06)*	*(1.20)*	*(1.19)*
R2	0.035	0.029	0.032	0.033	0.025
Number of observations	215 214	116 121	115 920	115 589	110 091
Number of individuals	38 678	25 248	25 234	25 222	24 799

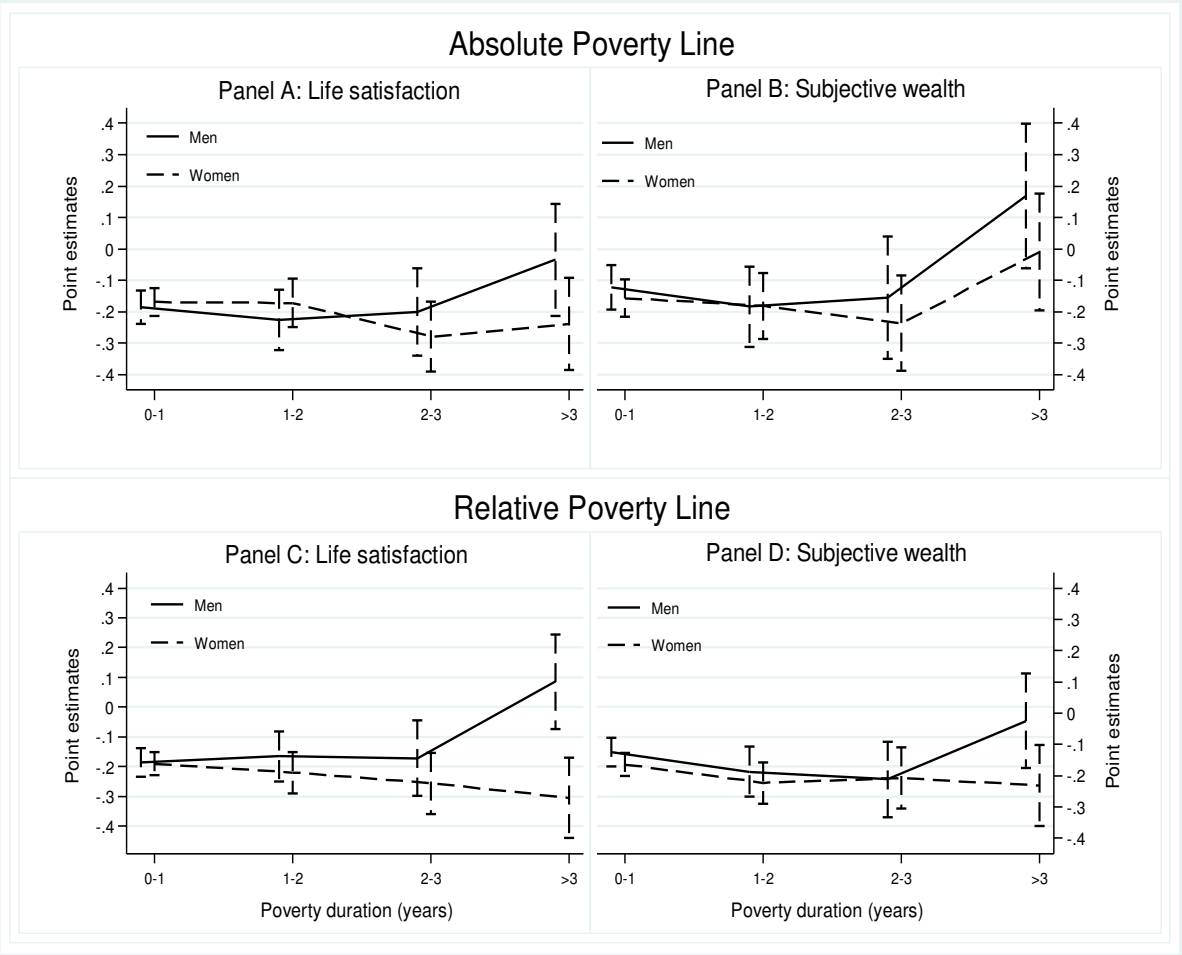
Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. All regressions include all control variables in Table II. Data on satisfaction with economic conditions and satisfaction with job, work contract, pay and career are available respectively from 2000 and 2002 for employed individuals.

Figure 2. Satisfaction with other dimensions of life and duration of the poverty spell, RLMS 2001-2017



Our previous results use the national absolute poverty line, but estimation results also hold when we switch to using a relative poverty line, which is set at 60 percent of the median per capita household income. Figure 3 plots the estimated coefficients for men against those for women for different duration lengths in poverty, using both the absolute poverty line (Panels A and B) and the relative poverty line (Panels C and D). Men and women have similar levels of adapation for life satisfaction when we use the absolute poverty lines (Panels A and B) and and subjective wealth when we use the relative poverty lines (Panel D). Yet, life satisfaction appears to diverge over time for men and women for the relative poverty line. Indeed, after three years or more in relative poverty, the estimated coefficients for women become more negative and statistically significantly different from those for men (Panel C). Figure 3 thus suggests that women may be less adaptive than men, particularly for longer poverty duration.

Figure 3. Differences in poverty adaptation between men and women, RLMS 2001-2017



Note: The relative poverty line was set at 60% of the country-level median per capita household income for each year and deflated with annual (December to December) regional CPIs.

4. Conclusion

We offer the first study on life satisfaction adaptation to poverty using panel data from Russia, a middle-income transition country. Our findings on no adaptation are consistent with existing results for Germany, a high-income country, in Clark *et al.* (2016). Furthermore, our findings are robust to absolute and relative poverty, and further supported by richer analysis of other subjective well-being outcomes including own subjective wealth, satisfaction with economic conditions, work contract, job, pay, and career. We also find some evidence that those living in rural areas or born outside of Russia have similar levels of poverty adaptation for life satisfaction, but they may adapt less regarding subjective wealth. Furthermore, women may be less adaptive than men, particularly for longer poverty duration.

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Appendix A. Additional Tables and Figures

Table A.1. Adaptation to poverty and duration of the poverty spell, fixed-effects regressions with standardized dependent variables, RLMS 2001-2017

Variables	Life satisfaction				Subjective wealth			
	All	**Spells of over 2 years only**	**Spells of over 3 years only**	**Spells of over 4 years only**	**All**	**Spells of over 2 years only**	**Spells of over 3 years only**	**Spells of over 4 years only**
Less than 1 year in poverty	-0.154***	-0.262***	-0.320***	-0.207*	-0.097***	-0.293***	-0.274***	-0.358***
	(0.02)	*(0.05)*	*(0.08)*	*(0.11)*	*(0.02)*	*(0.06)*	*(0.08)*	*(0.10)*
1-2 years in poverty	-0.174***	-0.254***	-0.354***	-0.385***	-0.124***	-0.319***	-0.305***	-0.388***
	(0.03)	*(0.07)*	*(0.09)*	*(0.12)*	*(0.03)*	*(0.07)*	*(0.09)*	*(0.12)*
2-3 years in poverty	-0.220***	-0.322***	-0.404***	-0.332**	-0.142***	-0.335***	-0.378***	-0.408***
	(0.04)	*(0.08)*	*(0.10)*	*(0.13)*	*(0.05)*	*(0.08)*	*(0.11)*	*(0.13)*
Over 3 years in poverty	-0.134**	-0.303***	-0.524***	-0.472***	0.043	-0.199*	-0.272**	-0.393**
	(0.05)	*(0.11)*	*(0.14)*	*(0.17)*	*(0.06)*	*(0.10)*	*(0.13)*	*(0.16)*
R2	0.023	0.031	0.039	0.066	0.026	0.046	0.039	0.058
Number of observations	17 902	3 488	1 875	1 156	17 656	3 442	1 857	1 144
Number of individuals	4 860	611	283	154	4 848	611	283	154

Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. All regressions include all of the other controls in Table 2. All dependent variables are standardized.

Table A.2. Adaptation to poverty and duration of the poverty spell, fixed-effects regressions, RLMS 1994-2017

Variables	Life satisfaction				Subjective wealth			
	All	**Spells of over 2 years only**	**Spells of over 3 years only**	**Spells of over 4 years only**	**All**	**Spells of over 2 years only**	**Spells of over 3 years only**	**Spells of over 4 years only**
Less than 1 year in poverty	-0.186***	-0.239***	-0.233***	-0.255***	-0.160***	-0.363***	-0.385***	-0.434***
	(0.02)	*(0.04)*	*(0.06)*	*(0.08)*	*(0.02)*	*(0.06)*	*(0.09)*	*(0.12)*
1-2 years in poverty	-0.221***	-0.293***	-0.354***	-0.400***	-0.202***	-0.397***	-0.449***	-0.490***
	(0.03)	*(0.05)*	*(0.07)*	*(0.09)*	*(0.04)*	*(0.07)*	*(0.10)*	*(0.13)*
2-3 years in poverty	-0.255***	-0.358***	-0.416***	-0.412***	-0.091	-0.333***	-0.338***	-0.434***
	(0.04)	*(0.06)*	*(0.08)*	*(0.10)*	*(0.06)*	*(0.09)*	*(0.11)*	*(0.14)*
Over 3 years in poverty	-0.237***	-0.373***	-0.491***	-0.499***	-0.057	-0.412***	-0.458***	-0.558***
	(0.05)	*(0.09)*	*(0.10)*	*(0.12)*	*(0.07)*	*(0.12)*	*(0.13)*	*(0.16)*
Mean of dependent variable	2.77	2.49	2.40	2.33	3.71	3.46	3.42	3.36
(*Standard deviation*)	*(1.18)*	*(1.13)*	*(1.09)*	*(1.08)*	*(1.48)*	*(1.49)*	*(1.48)*	*(1.51)*
R2	0.035	0.051	0.057	0.067	0.032	0.046	0.045	0.045
Number of observations	24 440	6 611	4 426	3 133	24 127	6 534	4 377	3 092
Number of individuals	6 654	1 063	616	386	6 640	1 063	616	386

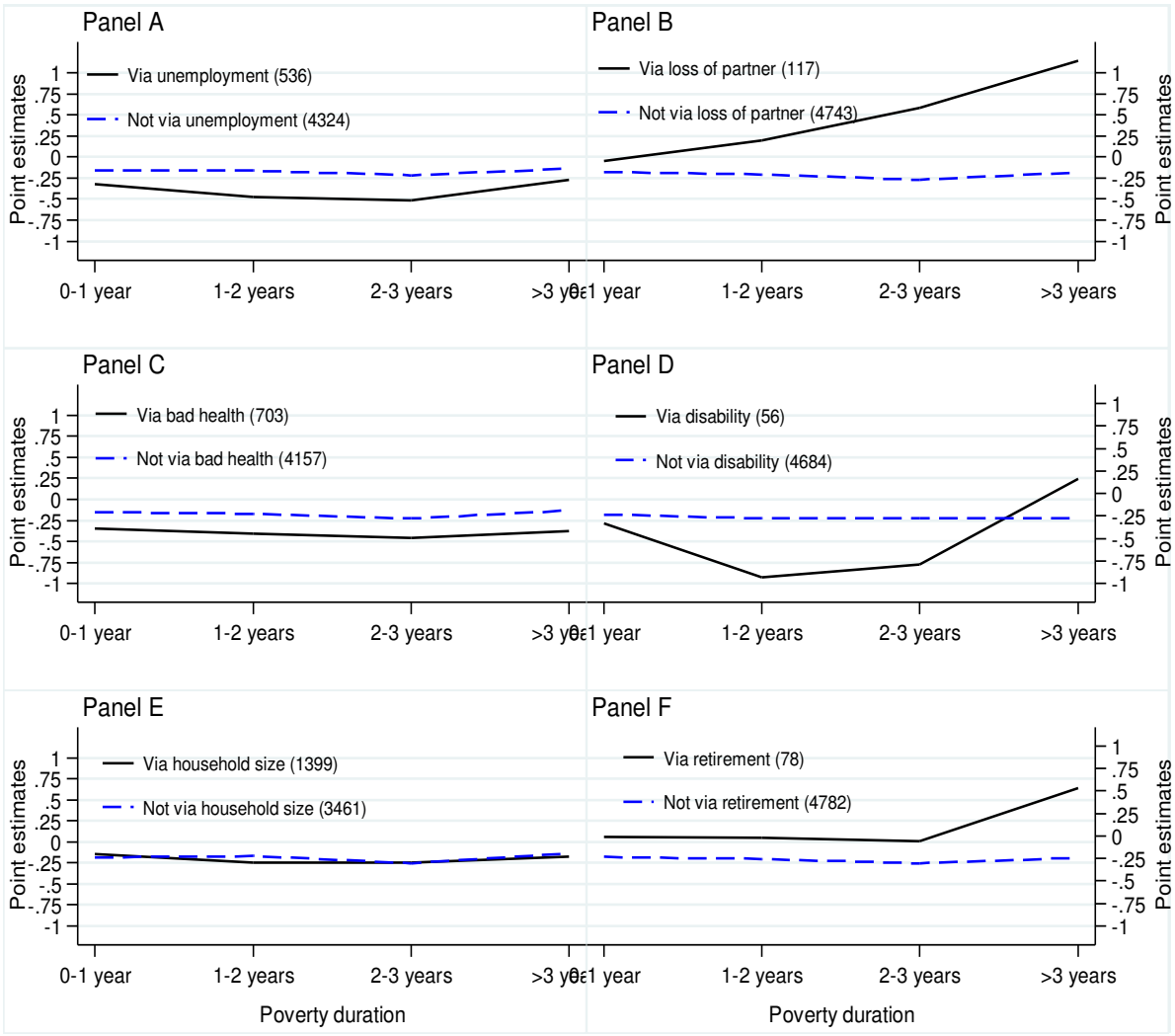
Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. All regressions include all control variables in Table 2. Poverty spells are constructed at an annual basis, since income is collected once a year (but has a monthly basis). Column 1 shows the overall adaptation estimates using the whole sample. Column 2 then drops information on all completed poverty spells of two years or less. Columns 3 and 4 drop information on poverty spells of 3 years or less and 4 years or less respectively.

Table A.3. Adaptation to poverty and multiple entrance to poverty, RLMS 2001-2017, fixed effect regressions

	Life satisfaction		Subjective wealth	
	Multiple entrance	**Once**	**Multiple entrance**	**Once**
Less than 1 year in poverty	-0.135***	-0.184***	-0.207***	-0.120***
	(0.04)	*(0.02)*	*(0.06)*	*(0.03)*
1-2 years in poverty	-0.217***	-0.198***	-0.190*	-0.167***
	(0.07)	*(0.04)*	*(0.1)*	*(0.05)*
2-3 years in poverty	-0.212**	-0.248***	-0.297**	-0.141*
	(0.11)	*(0.05)*	*(0.14)*	*(0.08)*
Over 3 years in poverty	-0.222	-0.098	0.229	0.068
	(0.14)	*(0.07)*	*(0.18)*	*(0.09)*
R2	0.027	0.026	0.034	0.027
Number of observations	3,808	13,887	3,777	13,672
Number of individuals	1,062	3,764	1,060	3,754

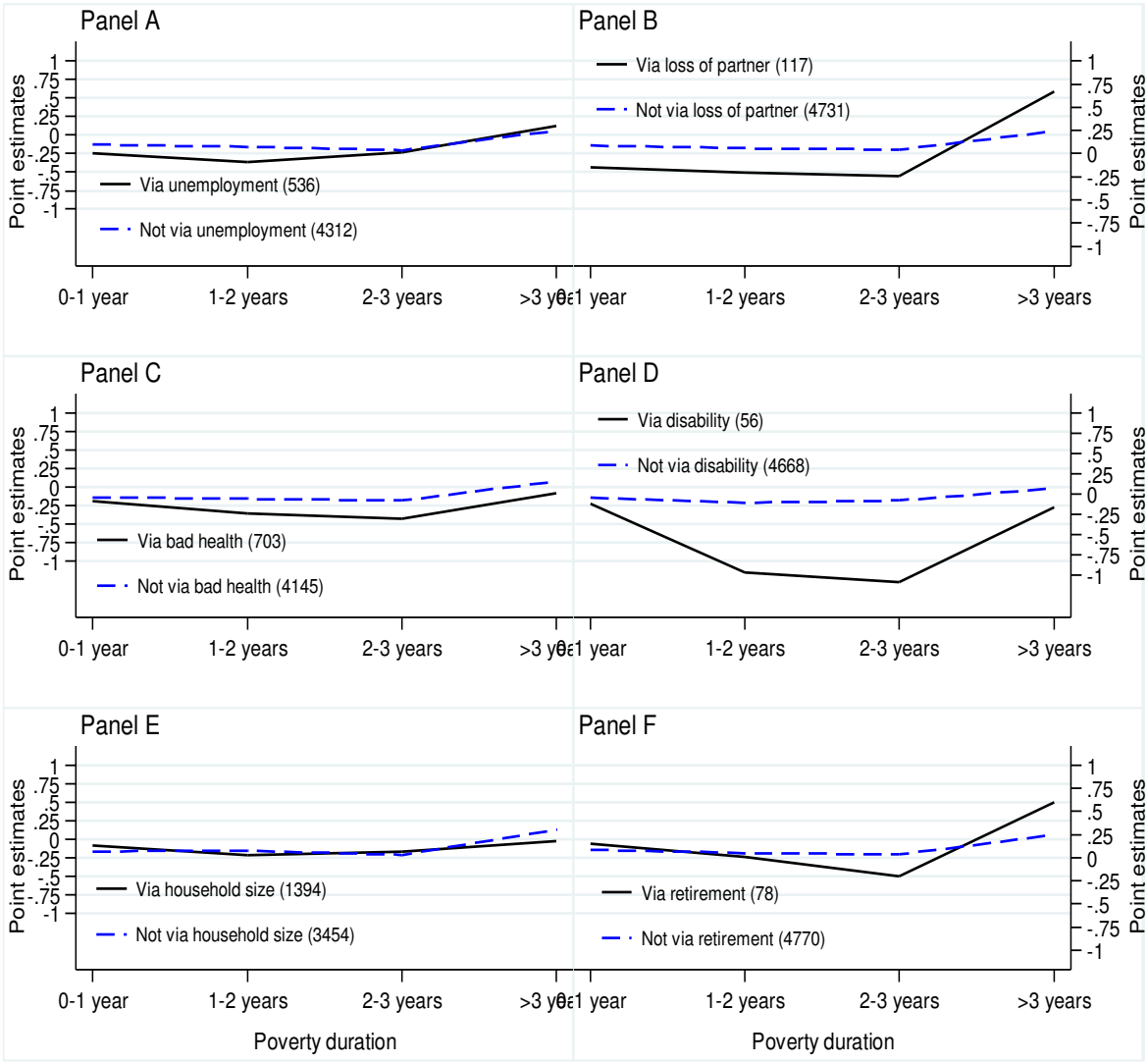
Note: *** p<0.01, ** p<0.05, * p<0.1 Robust standard errors clustered at household-year level are in parentheses. All regressions include all control variables in Table 2. Poverty spells are constructed at an annual basis, since income is collected once a year (but has a monthly basis).

Figure A.1. Adaptation to poverty, by events causing poverty, RLMS 2001-2017 (dependent variable - life satisfaction)



Note: The numbers in parentheses refer to the number of individuals (i.e. poverty entries). Information on respondent`s disability status is available since 2003

Figure A.2. Adaptation to poverty, by events causing poverty, RLMS 2001-2017 (dependent variable - subjective wealth)



Note: The numbers in parentheses refer to the number of individuals (i.e. poverty entries). Information on respondent`s disability status is available since 2003