

Appendix A: Data and data collection

Czech Republic

In 2005, a sample of dwellings was selected using a stratified two-stage design:

- Stratification of the Census Enumerations Units (CEUs-small geographical units) by region (NUTS4) and number of residents.
- At the first stage, selection of CEUs with probability proportional to the number of dwellings.
- At the second stage, simple random selection of dwellings within each CEU.

All the households and the individuals living in the selected dwellings were then eligible for interview.

- Number of household interviews completed and accepted for database: 4,351
- Number of personal interviews completed: 8,628

Estonia

The 2004 Estonian EU-SILC sample had been selected according to the following sampling procedure:

- Stratification by county level: "big" counties, "small" counties and the Hiiu County, which forms a separate stratum as the smallest county in terms of population size.
- Systematic selection of persons aged 14 and over in each stratum.
- All the households the selected persons belong to had been then interviewed.

The 2004 sample had been divided into four rotation groups according to the standard rotational design.

However, in 2005, in order to ensure minimum sizes, all the groups were kept, which means that all the individuals selected in 2004 were re-contacted in 2005. In addition, a new sample of persons was selected according to the same procedure as the 2004 one.

- Number of household interviews completed and accepted for database: 4,169
- Number of personal interviews completed: 9,643

Hungary

The 2005 EU-SILC sample in Hungary was selected by a stratified two-stage sampling design in a part of the population and by stratified one-stage design in the other part. The final sampling units are the dwellings and, in each of them, every household is observed.

Localities were stratified by General Election Districts and size (in terms of number of dwellings). In the first part, one locality was selected with probability proportional to the number of dwellings. Within each selected locality, a systematic selection of dwellings was done. As for the other part of the population, a systematic selection of dwellings was done in each stratum.

- Number of household interviews completed and accepted for database: 6,927
- Number of personal interviews completed: 14,791

Latvia

The Latvian EU-SILC sample was selected in 2005 according to a stratified two-stage design:

- Stratification based on degree of urbanisation: Riga (the capital city), the six largest towns, other towns and rural areas.
- At the first stage, Census areas had been selected in each stratum with probability proportional to the number of households.
- At the second stage, a simple random sample of addresses was selected within each area.

All the households and the individuals living in the selected addresses were contacted.

- Number of household interviews completed and accepted for database: 3,843

- Number of personal interviews completed: 7,913

Lithuania

The Lithuanian EU-SILC sample was selected in 2005 according to the following design:

- Stratification based on degree of urbanisation: the 5 largest cities, other cities and rural area.
- A simple random sample of non-institutional persons aged 16 and over was selected from the Population Register.

Finally, all the households the selected persons belong to were then interviewed.

- Number of household interviews completed and accepted for database: 4,441
- Number of personal interviews completed: 9,929

Poland

The Polish EU-SILC sample was selected in 2005 according to a stratified two-stage design:

- Stratification based on NUTS2 region and degree of urbanisation.
- At the first stage, Census areas were selected with probability proportional to the number of dwellings.
- At the second stage, a simple random sample of dwellings was selected.

All the households and the individuals living in the selected dwellings were eligible for contact.

- Number of household interviews completed and accepted for database: 16,263
- Number of personal interviews completed: 37,671

Slovakia

In 2005, a stratified simple random sample of dwellings was selected. Stratification was based on geographical criteria (NUTS3 region) and degree of urbanisation. All the households and the individuals living in the selected dwellings were contacted.

- Number of household interviews completed and accepted for database: 5,147
- Number of personal interviews completed: 12,879

Slovenia

The sample for the Slovenian EU-SILC 2005 was selected according to a stratified two-stage design. First, Enumeration areas were systematically selected in each stratum as Primary Sampling Units (PSU). At the second stage, 7 persons aged 16 and over were selected within the PSUs. The strata were defined according to the size of the settlement and its proportion of agricultural households. Finally, all the households the selected persons belong to were eligible for contact.

- Number of household interviews completed and accepted for database: 8,287
- Number of personal interviews completed: 23,862

Appendix B.1: The variables in the first binominal logistic regression

	N	Share in %
Household size in categories		
1	9063	20.1
2	12525	27.8
3	9169	20.4
4	8719	19.4
5	3423	7.6
6 or more	2116	4.7
Marital status		
Never married	5917	13.1
Married	27086	60.2
Widowed	7354	16.3
Separated/Divorced	4658	10.3
Activity status		
Employed	23862	53.0
Unemployed	2122	4.7
Retired	16480	36.6
Inactive	2551	5.7
Number of children		
0	25897	57.5
1	4792	10.6
2	5238	11.6
3 or more	1902	4.2
1 or more (special cases)	7186	16.0
Country of birth		
Country of residence	42097	93.5
Other country	2918	6.5
Urbanization degree (a)		
Densely populated	14661	37.3
Intermediately populated	6109	15.5
Thinly populated	18532	47.2
Valid	45015	
Missing	38	
Total	45053	

Notes: (a) Slovenia excluded

Appendix B.2: The variables in the logistic regressions with the specific household types

	N	Share in %
Household type		
Single male	2221	5.0
Single female	2372	5.3
Single parent with child(ren)	1919	4.3
Couple w/o children	5850	13.1
Couple with 1-2 child(ren)	10031	22.4
Couple with 3+ children	1902	4.3
Elderly couple	5522	12.3
Single male elderly	943	2.1
Single female elderly	3517	7.9
Other w/o children	5189	11.6
Other with child(ren)	5259	11.8
Country of birth		
Country of residence	41818	93.5
Other country	2907	6.5
Activity status		
Employed	23679	52.9
Unemployed	2111	4.7
Retired	16407	36.7
Inactive	2528	5.7
Urbanization degree (a)		
Densely populated	14527	37.2
Intermediately populated	6073	15.6
Thinly populated	18411	47.2
Valid	44725	
Missing	328	
Total	45053	

Notes: (a) Slovenia excluded

Appendix C: The variables of the multidimensional well-being index

	N	Min.	Max.	Mean	Std. Dev.	Description
HHIncome	45053	-10705	95330	4075	3492	Equivalised disposable income
ArrRent	45018	1	3	2.79	0.459	Arrears on mortgage or rent payments in last 12 months
ArrUtility	43832	1	2	1.86	0.350	Arrears on utility bills in last 12 months
ArrLoan	45037	1	3	2.69	0.536	Arrears on loan payments in last 12 months
Unexpected	44864	1	2	1.57	0.495	Capacity to face unexpected financial Expenses
PovertyInd	45053	0	1	0.16	0.368	Poverty Indicator (< 60% of median income)
WorkContract	34399	1	2	1.10	0.294	Type of contract
Phone	45046	1	3	1.11	0.402	Do you have a telephone (including mobile phone)?
TV	45051	1	3	1.05	0.272	Do you have a colour TV?
Computer	45027	1	3	1.97	0.884	Do you have a computer?
WashMach	45049	1	3	1.10	0.388	Do you have a washing machine?
WashingF	45053	1	2	1.11	0.313	Bath or shower in dwelling
Toilet	45053	1	2	1.11	0.314	Indoor flushing toilet for sole use of household
ProbLight	45045	1	2	1.91	0.285	Problems with the dwelling: too dark. not enough light
ProbWater	45048	1	2	1.70	0.458	Leaking roof, damp walls/floors/foundation, or rot in window frames or floor
Utility	45045	1	2	1.20	0.399	Ability to keep home adequately warm
Edulevel	45053	0	5	2.94	1.224	Highest education level attained
EcoStatus	45016	1	9	3.00	2.168	Self-defined current economic status
Activity	45053	1	4	1.95	1.059	Activity Status
Holiday	45053	1	2	1.62	0.485	Capacity to afford paying for one week annual holiday away from home
Car	45053	1	3	1.69	0.824	Do you have a car?
HealthGen	45053	1	5	2.78	0.980	General health
HealthChron	45053	1	2	1.60	0.490	Suffer from any a chronic (long-standing) illness or condition
HealthLimit	45053	1	3	2.59	0.662	Limitation in activities because of health problems
HealthUnmet	45043	1	2	1.84	0.364	Unmet need for medical examination or treatment
UnmetReason1	45027	0	8	0.52	1.514	Main reason for unmet need for medical examination or treatment
Dentist	45044	1	2	1.89	0.310	Unmet need for dental examination or treatment
UnmetReason2	45036	0	8	0.32	1.172	Main reason for unmet need for dental examination or treatment
BurHouse	45053	1	3	1.79	0.656	Financial burden of the total housing cost
BurLoan	45053	1	4	3.42	1.036	Financial burden of the repayment of debts from hire purchases or loans
EndsMeet	45053	1	6	2.81	1.117	Ability to make ends meet
ProbNoise	45024	1	2	1.81	0.394	Noise from neighbours or from the street
ProbEnv	45020	1	2	1.83	0.373	Pollution, grime or other environmental problems
ProbCrime	45021	1	2	1.87	0.334	Crime violence or vandalism in the area

Appendix D: The categories of the variables in the multidimensional well-being index

Cat.	Description	Cat.	Description
1	< 20th percentile	1	Very bad health
2	20th-40th percentile	2	Bad health
3	40th-60th percentile	3	Fair health
4	60th-80th percentile	4	Good health
5	>80th percentile	5	Very good health
1	Arrears on three types of payment	1	Strongly limited by health problems
2	Arrears on two types of payment	2	Limited by health problems
3	Arrears on one type of payment	3	No chronic problems, but limited
4	No arrears on payment	4	Health problems, but not limited
5	No arrears, and no rent or loan costs	5	No health problems
1	Poor, temporary job, cannot cope with shocks	1	Unmet need for health treatment and dentist
2	Two types of financial vulnerability	2	Only unmet need for health treatment
3	One type of vulnerability, and no self-employment	3	Only unmet need for dentist (not available)
4	One type of vulnerability, but self-employment	4	Only unmet need for dentist (other reason)
5	No financial vulnerability	5	No unmet need for health services
1	0 durable goods in household	1	Heavy burden of housing and loan costs
2	1 durable good in household	2	Heavy burden of housing or loan costs
3	2 durable goods in household	3	Somewhat a burden of housing and loan costs
4	3 durable goods in household	4	Somewhat a burden of housing or loan costs
5	4 durable goods in household	5	No housing burden, no loan
1	No toilet or bathroom	1	Very difficult to make ends meet
2	Only toilet or bathroom	2	Difficult to make ends meet
3	-	3	Somewhat difficult to make ends meet
4	-	4	Fairly easy to make ends meet
5	Both toilet and bathroom	5	(Very) easy to make ends meet
1	Water, light and utility problems	1	Problems with crime, pollution and noise
2	Two types of problems with housing	2	Two types of problems in living environment
3	Only a problem to keep the home warm	3	Only problems with crime
4	Some housing, but no utility problems	4	Problem in living environment, but no crime
5	No housing problems	5	No problems in living environment
1	< Secondary education		
2	Lower secondary education		
3	Higher secondary education		
4	Post-secondary education		
5	Tertiary Education		
1	Unemployed		
2	Inactive, and self-defined unemployed		
3	Other inactive		
4	Retired		
5	Employed		
1	Cannot afford holiday, nor car		
2	No holiday and no car/ just cannot afford car		
3	Cannot go on holiday, but has car		
4	Can go on holiday, but has no car		
5	Can go on holiday and has car		

Appendix E1: Binominal logistic regression with Slovenia

	40% poverty line				20% poverty line			
	Poor		Deprived		Poor		Deprived	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Household Size	0.877	0.000	0.940	0.000	0.902	0.000	0.948	0.000
Never married	0.869	0.001	0.692	0.000	0.885	0.012	0.682	0.000
Married	0.724	0.000	0.574	0.000	0.667	0.000	0.471	0.000
Widowed	1.064	0.124	1.133	0.002	1.027	0.582	0.975	0.569
Separated/Divorced	0 (b)	-	0 (b)	-	0 (b)	-	0 (b)	-
Employed	0.385	0.000	0.221	0.000	0.342	0.000	0.234	0.000
Unemployed	1.777	0.000	2.168	0.000	2.109	0.000	2.513	0.000
Retired	0.602	0.000	0.815	0.000	0.447	0.000	0.897	0.028
Inactive	0 (b)	-	0 (b)	-	0 (b)	-	0 (b)	-
No dependent children	0.497	0.000	0.794	0.000	0.513	0.000	0.758	0.000
1 child	0.587	0.000	0.674	0.000	0.621	0.000	0.626	0.000
2 children	0.789	0.000	0.639	0.000	0.824	0.000	0.620	0.000
3+ children	2.293	0.000	1.508	0.000	2.437	0.000	1.543	0.000
1+ children (special cases)	0 (b)	-	0 (b)	-	0 (b)	-	0 (b)	-
Born in same country	0.882	0.002	0.860	0.000	0.856	0.001	0.907	0.037
Born in another country	0 (b)	-	0 (b)	-	0 (b)	-	0 (b)	-

Notes: Variable on urbanization degree excluded, (b) reference category

Appendix E2: Model description of the binominal logistic regression

Dependent variable	N	df	-2LL	R2
Poor with 40% poverty line	45015	12	58020.107	0.079
Poor with 40% deprivation line	45015	12	53436.083	0.211
Poor with 20% poverty line	45015	12	42041.229	0.092
Poor with 20% deprivation line	45015	12	41682.081	0.189

Appendix F1: Multinomial regression socio-demographic groups (40% poverty lines)

Category	State					
	2		3		4	
	EXP(B)	Sig.	EXP(B)	Sig.	EXP(B)	Sig.
Single male	0.923	0.322	0.956	0.648	1.692	0.000
Single female	0.986	0.855	1.057	0.539	1.534	0.000
Single parent with child(ren)	1.232	0.016	1.028	0.800	2.404	0.000
Couple w/o children	0.374	0.000	0.677	0.000	0.498	0.000
Couple with 1-2 child(ren)	0.788	0.000	0.557	0.000	0.692	0.000
Couple with 3+ children	1.811	0.000	0.768	0.037	2.138	0.000
Elderly couple	0.621	0.000	1.024	0.722	0.638	0.000
Single male elderly	0.732	0.022	0.792	0.043	0.923	0.392
Single female elderly	0.903	0.295	1.530	0.000	2.088	0.000
Other w/o children	0.355	0.000	0.864	0.033	0.484	0.000
Other with child(ren)	0 (b)	-	0 (b)	-	0 (b)	-
Born in country of residence	0.822	0.005	0.959	0.545	0.670	0.000
Born in another country	0 (b)	-	0 (b)	-	0 (b)	-
Employed	0.457	0.000	0.247	0.000	0.128	0.000
Unemployed	0.963	0.778	1.787	0.000	2.567	0.000
Retired	0.428	0.000	1.089	0.318	0.529	0.000
Inactive	0 (b)	-	0 (b)	-	0 (b)	-
Densely populated	0.500	0.000	0.955	0.218	0.422	0.000
Intermediately populated	0.671	0.000	1.067	0.175	0.479	0.000
Thinly populated	0 (b)	-	0 (b)	-	0 (b)	-

Notes: Slovenia excluded, (b) reference category

Appendix F2: Multinomial regression socio-demographic groups (20% poverty lines)

Category	State					
	2		3		4	
	EXP(B)	Sig.	EXP(B)	Sig.	EXP(B)	Sig.
Single male	1.423	0.000	1.136	0.203	2.544	0.000
Single female	1.188	0.043	1.313	0.001	1.480	0.000
Single parent with child(ren)	1.932	0.000	1.706	0.000	3.105	0.000
Couple w/o children	0.534	0.000	0.713	0.000	0.641	0.000
Couple with 1-2 child(ren)	0.998	0.974	0.649	0.000	0.761	0.000
Couple with 3+ children	2.406	0.000	1.009	0.942	2.501	0.000
Elderly couple	0.502	0.000	0.937	0.331	0.425	0.000
Single male elderly	0.715	0.030	0.850	0.131	0.952	0.659
Single female elderly	1.089	0.367	1.734	0.000	1.552	0.000
Other w/o children	0.435	0.000	0.827	0.009	0.548	0.000
Other with child(ren)	0 (b)	-	0 (b)	-	0 (b)	-
Born in country of residence	0.790	0.001	0.961	0.551	0.691	0.000
Born in other country	0 (b)	-	0 (b)	-	0 (b)	-
Employed	0.350	0.000	0.230	0.000	0.134	0.000
Unemployed	1.205	0.069	1.844	0.000	3.288	0.000
Retired	0.333	0.000	1.168	0.041	0.553	0.000
Inactive	0 (b)	-	0 (b)	-	0 (b)	-
Densely populated	0.481	0.000	0.823	0.000	0.420	0.000
Intermediately populated	0.468	0.000	0.844	0.000	0.323	0.000
Thinly populated	0 (b)	-	0 (b)	-	0 (b)	-

Notes: Slovenia excluded, (b) reference category

Appendix F3: Model description of the multinomial logistic regressions

Dependent variable	N	df	-2LL (intercept)	-2LL (final)	R2
Poverty state with 40% the poverty lines	39011	48	13763.985	3234.803	0.257
Poverty state with 20% the poverty lines	39011	48	12057.970	3218.495	0.233

Appendix G: Unconditional random-effects model for tests for random effects (table 4.19)

	Estimate	Sig.
Intercept	3.779	0.000
Intercept	3.205	0.000
GDP per head	2.49E-05	0.000
Share of manufacturing	3.818	0.000

Appendix H: Estimates of household level fixed effects of the random-coefficient model

	Estimate	Sig.
Intercept	3.518	0.000
Single male	-0.093	0.131
Single female	-0.080	0.192
Single parent child(ren)	-0.166	0.007
Couple w/o children	0.104	0.087
Couple with 1-2 child(ren)	0.083	0.144
Couple with 3+ children	-0.096	0.121
Elderly couple	0.066	0.282
Single male elderly	-0.009	0.888
Single female elderly	-0.159	0.009
Other w/o children	0.070	0.249
Other with child(ren)	0 (b)	-
Employed	0.458	0.000
Unemployed	-0.307	0.000
Retired	0.044	0.404
Inactive	0 (b)	-
Model statistics	-2RLL	AIC
	77793.26	78067.26

Notes: (b) reference category

Appendix I: Estimates for the household level and regional level fixed effects in the complete multilevel model including regional variables

	Estimate	Sig.
Intercept	3.197	0.000
Single male	-0.093	0.124
Single female	-0.080	0.184
Single parent child(ren)	-0.167	0.006
Couple w/o children	0.104	0.082
Couple with 1-2 child(ren)	0.083	0.137
Couple with 3+ children	-0.096	0.114
Elderly couple	0.066	0.273
Single male elderly	-0.009	0.889
Single female elderly	-0.159	0.008
Other w/o children	0.070	0.240
Other with child(ren)	0 (b)	-
Employed	0.446	0.000
Unemployed	-0.284	0.000
Retired	0.018	0.442
Inactive	0 (b)	-
Share of manufacturing in employment	3.384	0.018
Model statistics	-2RLL	AIC
	83344.15	83618.15

Notes: Slovenia excluded, (b) reference category

Appendix J: Estimates for the fixed and random effects of the final multilevel model including unemployment rate

	Estimate	Sig.
Intercept	3.056	0.000
Single	-0.173	0.000
3+ children or single parent	-0.162	0.000
Elderly	-0.226	0.000
Female head	-0.040	0.009
Single*Elderly	0.043	0.044
Elderly*Female head	-0.123	0.000
Unemployed	-0.590	0.000
Urbanization degree	0.057	0.000
Share of manufacturing in employment	4.761	0.000
GDP per capita	2.2E-05	0.000
Unemployment rate 15 years and older	0.012	0.003
Model Statistics	-2RLL	AIC
	56060.84	56074.84

	Intercept Region	Old Region	Urban2 Region
Intercept Region	0.00975	6.5E-05	-0.00338
Old Region	6.5E-05	0.00308	-0.00111
Urban2 Region	-0.00338	-0.00111	0.00184