The Cross-National Equivalent Files 1970-2009
BHPS – SOEP – HILDA - KLIPS - PSID – RLMS-HSE – SHP – SLID

Jointly prepared by:

Dean R. Lillard (Cornell University and DIW Berlin)

Rebekka Christopoulou (Cornell University)

Jan Goebel (DIW Berlin)

Simon Freidin (University of Melbourne, Melbourne Australia)

Ahmed Jaber (Cornell University)

Oliver Lipps (Swiss Foundation for Research in the Social Sciences, Lausanne Switzerland)

Jim Vajionis (Statistics Canada)

KLIPS Team (Korea Labor Institute)

PREFACE

This is the code book for the Cross-National Equivalent File 1970-2009. In the table below we list the countries that participate in CNEF, the name of each survey that generates the data, and the years those data represent.

Country	Survey name	Acronym	Years
UK	British Household Panel Study	BHPS	1991-2008
Germany	Socio-Economic Panel	SOEP	1984-2009
Australia	Household, Income and Labour Dynamics in Australia Survey	HILDA	2001-2009
Korea	Korea Labor Income Panel Study	KLIPS	1998-2008
US	Panel Study of Income Dynamics	PSID	1970-2007*
Russian Federation	Russia Longitudinal Monitoring Survey	RLMS-HSE	1995-2007
Switzerland	Swiss Household Panel	SHP	1999-2009
Canada	Survey of Labour and Income Dynamics	SLID	1992-2009**

*Starting in 1997 the PSID collects data in odd years. Data available for 1999, 2001, 2003, 2005, 2007.

**Data for SLID are for the reference year of the survey (one year prior to survey year)

Web Sites for the Original Datasets

BHPS - British Household Panel Study distributed by the Data Archive in Essex, UK, administered and run by the Institute for Social and Economic Research (ISER) at the University of Essex: http://www.iser.essex.ac.uk/centres-and-surveys

SOEP - German Socio-Economic Panel at the German Institute of Economic Research (DIW Berlin)
English User Version: http://www.human.cornell.edu/PAM/Research/Centers-Programs/German-Panel/
German User Version: http://www.diw.de/en/soep

HILDA - Household, Income and Labour Dynamics in Australia:
http://www.melbourneinstitute.com/hilda/

KLIPS – Korea Labor Income Panel Study: http://www.kli.re.kr/kli_ehome/main/main.jsp

PSID - Panel Study of Income Dynamics: http://psidonline.isr.umich.edu/

RLMS - Russia Longitudinal Monitoring Survey-Higher School of Economics:
www.cpc.unc.edu/projects/rlms-hse

SHP – Swiss Household Panel: http://www.swisspanel.ch/?lang=en

SLID - Labour and Income Dynamics: http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=75F0011XIE&lang=eng

Note that the data for Canada (SLID) are not on the DVD. Registered CNEF users may analyze the SLID-CNEF files through special arrangement with Statistics Canada. Please contact CNEF staff by e-mail at CNEF@cornell.edu for further details. Please also note that the Canadian SLID data refer to the year in which the data were generated not the year in which the survey was done. Statistics Canada documentation uses that reference year.

This year we add data from our newest CNEF member - the Russian Federation. Ahmed Jaber at Cornell University produced the RLMS-HSE-CNEF files with the aid and cooperation of Zlata Dorofeeva of Demoscope in Moscow, Russia and Phil Bardsley at the University of North Carolina. The RLMS-CNEF project involves collaboration between Cornell University, the Higher School of Economics, ZAO "Demoscope," and the Institute of Sociology RAS in Moscow, Russian Federation and the Carolina Population Center of the University of North Carolina at Chapel Hill. Researchers at all of those institutions helped make it possible to produce and distribute the RLMS-CNEF possible. The project is funded by US National Institutes of Aging grant (1 R01 AG030379-01A2) titled "Cross-National Patterns and Predictors of Life-Cycle Smoking Behavior.

Please examine the RLMS-CNEF data carefully. These are a 'beta' version that will change as users (and we) discover errors and we improve and update the algorithms. For example, we know that records are not linked properly across waves for 15 respondents. Those id numbers are listed in the RLMS-HSE-CNEF codebook. We rely on the careful attention of researchers like you to discover and help us correct errors.

To use BHPS, SOEP, HILDA, KLIPS, and SHP-CNEF data you need to sign a contract with the data provider of each country. To use the RLMS-HSE-CNEF data you must register on the CNEF website. The PSID -CNEF data are public use. You can download them from our website at any time. To access the other files there is a four-step process.

1. Apply to each country's data provider for permission. Instructions are accessible at: http://www.human.cornell.edu/PAM/Research/Centers-Programs/German-Panel/soep_and_cnef_faq.cfm
2. Once approved, send us e-mail and order the data.
3. We will send you an invoice for $125 (US) for first-time users.
4. Once we receive your contract and payment, we will mail you the discs.

We wish you success using the CNEF data in your research.

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1. Variable Availability

A cell is marked if data are available in at least one year. Consult country-specific codebooks to determine specific years that data are available.

Label	Variable	BHPS	SOEP	HILDA	KLIPS	PSID	RLMS	SHP	SLID
Demographics:									
Age of Individual	D11101_	B	G	H	K	P	R	CH	S
Gender of Individual	D11102LL	B	G	H	K	P	R	CH	S
Marital Status of Individual	D11104_	B	G	H	K	P	R	CH	S
Relationship to Household Head	D11105_	B	G	H	K	P		CH	S
Number of Persons in Household	D11106_	B	G	H	K	P	R	CH	S
Number of Children in Household	D11107_	B	G	H	K	P	R	CH	S
Education With Respect to High School	D11108_		G	H	K	P	R	CH	S
Number of Years of Education	D11109_		G	H	K	P	R	CH	S
Race of Individual	D11112LL	B				P	R		S
Employment:									
Annual Work Hours of Individual	E11101_	B	G	H	K	P	R	CH	S
Employment Status of Individual	E11102_	B	G	H	K	P	R	CH	S
Employment Level of Individual	E11103_	B	G	H	K	P	R	CH	S
Primary Activity of Individual	E11104_	B	G		K	P		CH	S
Occupation of Individual	E11105_	B	G	H	K	P		CH	S
1 Digit Industry Code of Individual	E11106_	B	G	H	K	P	R	CH	S
2 Digit Industry Code of Individual	E11107_	B	G	H	K	P		CH	S
Impute Annual Work Hours of Individual	E11201_	B						CH	S
Equivalence scale inputs:									
Number HH members age 0-14	H11101_	B	G	H	K	P	R	CH	S
Number HH members age 15-18	H11102_	B	G	H	K	P	R	CH	S
Number HH members age 0-1	H11103_	B	G	H	K	P	R	CH	S
Number HH members age 2-4	H11104_	B	G	H	K	P	R	CH	S
Number HH members age 5-7	H11105_	B	G	H	K	P	R	CH	S
Number HH members age 8-10	H11106_	B	G	H	K	P	R	CH	S
Number HH members age 11-12	H11107_	B	G	H	K	P	R	CH	S
Number HH members age 13-15	H11108_	B	G	H	K	P	R	CH	S
Number HH members age 16-18	H11109_	B	G	H	K	P	R	CH	S
Number HH members age 19+ or 16-18 and indep.	H11110_	B	G	H	K	P	R	CH	S
Indicator - Wife/spouse in HH	H11112_	B	G	H	K	P		CH	S

Label	Variable	BHPS	SOEP	HILDA	KLIPS	PSID	RLMS	SHP	SLID
Yearly Income:									
Household Pre-Government Income	I11101_	B	G	H	K	P		CH	S
Household Post-Government Income	I11102_	B	G	H	K	P	R	CH	S
Household Labor Income	I11103_	B	G	H	K	P	R	CH	S
Household Asset Income	I11104_	B	G	H	K	P	R	CH	S
Household Imputed Rental Value	I11105_	B	G	H		P		CH	S
Household Private Transfers	I11106_	B	G	H	K	P	R	CH	S
Household Public Transfers	I11107_	B	G	H	K	P	R	CH	S
Household Social Security Pensions	I11108_	B	G		K	P	R	CH	S
Total Household Taxes	I11109_	B	G	H	K	P		CH	S
Individual Labor Earnings	I11110_	B	G	H	K	P	R	CH	S
Household Federal Taxes	I11111_		G			P			S
Household Social Security Taxes	I11112_	B	G			P		CH	S
Household Post-Government Income (TAXSIM)						P			
Total Household Taxes (TAXSIM)						P			
Household State Taxes (TAXSIM)						P			
Household Federal Taxes (TAXSIM)						P			
Household Private Retirement Income	I11117_	B	G	H	K	P			S
Household Windfall Income	I11118_	B	G	H	K	P	R	CH	S
Impute Household Pre-Government Income	I11201_	B	G	H	K			CH	S
Impute Household Post-Government Income	I11202_	B	G	H	K			CH	S
Impute Household Labor	I11203_	B	G	H	K			CH	S
Impute Household Asset Income	I11204_	B	G	H	K			CH	S
Impute Household Imputed Rental Value	I11205_	B	G						S
Impute Household Private Transfers	I11206_	B	G	H	K			CH	S
Impute Household Public Transfers	I11207_	B	G		K			CH	S
Impute Household Social Security Pensions	I11208_	B	G		K			CH	S
Impute Total Household Taxes	I11209_		G	H				CH	S
Impute Individual Labor Earnings	I11210_	B	G	H				CH	S
Impute Private Retirement Income	I11217_	B	G	H					S
Location:									
Area of Residence*	L11101_	B	G			P		CH	S
Region of Residence	L11102_	B	G	H			R	CH	S

Label	Variable	BHPS	SOEP	HILDA	KLIPS	PSID	RLMS	SHP	SLID
Medical/health:									
Whether spent night in hospital in last year	M11101_	B	G			P	R	CH	
Number of nights (days) spent in hospital	M11102_	B	G			P	R	CH	
Whether had accident in past year that required hospital	M11103_	B	G					CH	
Frequency of sports or exercise	M11104_	B	G			P		CH	
Have had stroke	M11105_	B	G			P	R		
Have or had high blood pressure/hypertension	M11106_	B	G			P	R		
Have or had diabetes	M11107_	B	G			P	R		
Have or had cancer	M11108_	B	G			P			
Have or had psychiatric problems	M11109_	B	G			P			
Have or had arthritis	M11110_	B				P			
Have or had angina or heart condition	M11111_	B	G			P	R		
Have or had asthma or breathing difficulties	M11112_	B				P	R		
Have trouble climbing stairs	M11113_	B	G			P	R		
Have trouble with bath	M11114_	B				P	R		
Have trouble dressing	M11115_	B	G			P	R		
Have trouble getting out of bed	M11116_	B	G			P	R		
Have trouble shopping	M11117_		G			P	R		
Have trouble walking	M11118_	B				P	R		
Have trouble doing housework	M11119_	B	G			P			
Have trouble bending, lifting, stooping	M11120_	B				P	R		
Health limits vigorous physical activities	M11121_	B				P			S
Height (in meters)	M11122_		G		K	P	R	CH	
Weight (in kilos)	M11123_		G		K	P	R	CH	
Disability Status of Individual	M11124_	B	G	H		P	R		S
Subjective Satisfaction with Health	M11125_	B	G	H				CH	
Self-Rated Health Status	M11126_	B	G	H	K	P	R	CH	S
Number of Times Visited Dr. in Past Year	M11127_		G				R	CH	
Psychological:									
Satisfaction With Life Today	P11101_	B	G	H	K		R	CH	

Label	Variable	BHPS	SOEP	HILDA	KLIPS	PSID	RLMS	SHP	SLID
Weights:									
Cross-sectional Weight - Respondent Individuals	W11101_	B	G	H	K	P	R	CH	S
Household Weight	W11102_	B	G	H	K	P	R	CH	S
Longitudinal Weight - Respondent Individuals	W11103_	B	G	H	K	P		CH	S
Population Factor for W11101$$	W11104_	B	G			P		CH	S
Individual Weight - Immigrant Sample	W11105_		G					CH	S
Cross-sectional Weight - Enumerated Individuals	W11107_	B		H					S
Longitudinal Weight - Enumerated Individuals	W11108_	B		H					S
Population Factor for W11103$$	W11109_	B				P			S
Population Factor for W11107$$	W11110_	B							S
Population Factor for W11108$$	W11111_	B							S
Identifiers:									
Unique Person Number	X11101LL	B	G	H	K	P	R	CH	S
Household Identification Number	X11102_	B	G	H	K	P	R	CH	S
Individual in Household at Survey	X11103_	B	G	H		P			S
Oversample Identifier	X11104LL	B	G			P		CH	S
Person in Household Interviewed	X11105_	B	G	H				CH	S

2. **Sample codebook page**

Each country's documentation generally lists the following information for each variable:

This codebook includes four components: a list of comparable variables, a description of how they were created, the algorithm used to create each variable from the original panel data, and descriptive statistics. Users who exclusively use the Cross-National Equivalent Data File are encouraged to check the algorithm used to construct the CNEF data. I describe how each variable was created in the section labeled AMethod.@ Researchers who wish to link the equivalent data to the original survey data will find the original variable names in the algorithm attached to the descriptive statistics. This algorithm indicates how original variables are used to construct the data in each year. An example of the codebook and its code is given below:

Comparable Variables		SOEP	
Variable Name	I11110_1984 - I11110_2008		*Name of Variable in the Equivalent Data File*
Variable Label	Labor Earnings of Individual		
Survey/Created	C		*Survey Variable (S); Created Variable (C)*
Reliability	1		*Degree of cross-national comparability* *Completely comparable (1) - Not comparable (4)*
Unit of Observation	I		*Individual (I); Household (H); Year (Y)*
			Description of Variable Content

Description This variable represents the labor earnings of each individual in the household.

Method	*Description of Variable Creation*

Labor earnings include wages and salary from all employment including training, primary and secondary jobs, and self-employment, plus income from bonuses, overtime, and profit-sharing.

Specifically labor earnings is the sum of income from primary job, secondary job, self-employment, 13th month pay, 14th month pay, Christmas bonus pay, holiday bonus pay, miscellaneous bonus pay, and profit-sharing income.

This variable is in current year Deutschmarks.

Format: Not formatted.   *Variable Format in the Equivalent Data File*

Algorithm

1984   algorithm: I11110_1984 = grs0101 + grs0201 + grs0301 + ap3902 + ap3904 + ap3906 + ap3908 + ap3910

…

Frequencies or means are then presented.

3. **Equivalence Weight Algorithms**

Often cross-national researchers interested in household income will adjust levels of income to account for differences in the size and composition of household members. Below we provide below common formulas that researchers use to compute equivalence weights to adjust measures of household income the age and sex distribution of household members. We provide algorithms (with the CNEF variable names) for:

Name of Equivalence Weight Algorithm
  Detailed Official U.S. Equivalence Weight
  General Official U.S. Equivalence Weight
  Official German Equivalence Weight
  ELES Equivalence Weight
  OECD Equivalence Weight
  McClements Equivalence Weight
  Other Equivalence Weights

Equivalence Weight Algorithms

The following algorithms allow users to take Equivalent file variables and construct equivalence weights commonly used in various countries. To obtain equivalent household income, divide the equivalence scale weight into the household income variable.

Equivalence scale:**Detailed Official U.S. Equivalence Weight** (referred below as W11110XX)

Unit of Observation   H

Description   Detailed official household equivalence weight based upon the United States census poverty
thresholds. This scale assigns equivalence weights by household size and household composition.

Method

The weight is computed based upon the household composition, including number of household members and number of children within SOEP households. Census poverty thresholds are taken from the U.S. Department of Commerce, Bureau of the Census (1991). Poverty in the United States, 1990, Current Population Reports, Series P60, No. 175, Washington, D.C. (August).

First define the household composition for the particular year:
```
 if D11107XX=0 then do;
   HHCOMPXX=D11106XX ;
   if HHCOMPXX gt 9 then HHCOMPXX = 9 ;
 end;

 if D11107XX gt 0 then do;
  */adult/kids/*;
  if (D11106XX - D11107XX - 1) = 0 then HHCOMPXX = 10 + D11106XX ;
  if HHCOMPXX gt 19 then HHCOMPXX = 19 ;
  */2 adults/kids/*;
  else if (D11106XX - D11107XX - 2) = 0 then HHCOMPXX = 20 + D11106XX ;
  if HHCOMPXX gt 29 then HHCOMPXX = 29 ;
  */3 adults/kids/*;
  else if (D11106XX - D11107XX - 3) = 0 then HHCOMPXX = 30 + D11106XX ;
  if HHCOMPXX gt 39 then HHCOMPXX = 39 ;
  */4 adults/kids/*;
```

```
     else if (D11106XX - D11107XX - 4) = 0 then HHCOMPXX = 40 + D11106XX ;
     if HHCOMPXX gt 49 then HHCOMPXX = 49 ;
     */5 adults/kids/*;
     else if (D11106XX - D11107XX - 5) = 0 then HHCOMPXX = 50 + D11106XX ;
     if HHCOMPXX gt 59 then HHCOMPXX = 59 ;
     */6 adults/kids/*;
     else if (D11106XX - D11107XX - 6) = 0 then HHCOMPXX = 60 + D11106XX ;
     if HHCOMPXX gt 69 then HHCOMPXX = 69 ;
     */7 adults/kids/*;
     else if (D11106XX - D11107XX - 7) = 0 then HHCOMPXX = 70 + D11106XX ;
     if HHCOMPXX gt 79 then HHCOMPXX = 79 ;
     */8 adults/kids/*;
     else if (D11106XX - D11107XX - 8) = 0 then HHCOMPXX = 80 + D11106XX ;
     if HHCOMPXX gt 89 then HHCOMPXX = 89 ;
     end;
```

Next use constructed household composition to assign US equivalence weight.

```
     if HHCOMPXX = 1 then W11110XX = 1 ;
     else if HHCOMPXX = 2 then W11110XX = 1.287 ;
     else if HHCOMPXX = 3 then W11110XX = 1.503 ;
     else if HHCOMPXX = 4 then W11110XX = 1.983 ;
     else if HHCOMPXX = 5 then W11110XX = 2.391 ;
     else if HHCOMPXX = 6 then W11110XX = 2.778 ;
     else if HHCOMPXX = 7 then W11110XX = 3.164 ;
     else if HHCOMPXX = 8 then W11110XX = 3.539 ;
     else if HHCOMPXX = 9 then W11110XX = 4.257 ;
     else if HHCOMPXX = 12 then W11110XX = 1.324 ;
     else if HHCOMPXX = 13 then W11110XX = 1.549 ;
     else if HHCOMPXX = 14 then W11110XX = 1.956 ;
     else if HHCOMPXX = 15 then W11110XX = 2.259 ;
     else if HHCOMPXX = 16 then W11110XX = 2.520 ;
     else if HHCOMPXX = 17 then W11110XX = 2.763 ;
     else if HHCOMPXX = 18 then W11110XX = 3.136 ;
     else if HHCOMPXX = 19 then W11110XX = 3.719 ;
     else if HHCOMPXX = 23 then W11110XX = 1.547 ;
     else if HHCOMPXX = 24 then W11110XX = 1.949 ;
     else if HHCOMPXX = 25 then W11110XX = 2.294 ;
     else if HHCOMPXX = 26 then W11110XX = 2.568 ;
     else if HHCOMPXX = 27 then W11110XX = 2.877 ;
     else if HHCOMPXX = 28 then W11110XX = 3.163 ;
     else if HHCOMPXX = 29 then W11110XX = 3.865 ;
     else if HHCOMPXX = 34 then W11110XX = 2.015 ;
     else if HHCOMPXX = 35 then W11110XX = 2.351 ;
     else if HHCOMPXX = 36 then W11110XX = 2.649 ;
     else if HHCOMPXX = 37 then W11110XX = 2.980 ;
     else if HHCOMPXX = 38 then W11110XX = 3.268 ;
     else if HHCOMPXX = 39 then W11110XX = 3.889 ;
     else if HHCOMPXX = 45 then W11110XX = 2.426 ;
     else if HHCOMPXX = 46 then W11110XX = 2.704 ;
     else if HHCOMPXX = 47 then W11110XX = 3.068 ;
     else if HHCOMPXX = 48 then W11110XX = 3.370 ;
     else if HHCOMPXX = 49 then W11110XX = 3.986 ;
     else if HHCOMPXX = 56 then W11110XX = 2.761 ;
     else if HHCOMPXX = 57 then W11110XX = 3.116 ;
     else if HHCOMPXX = 58 then W11110XX = 3.449 ;
     else if HHCOMPXX = 59 then W11110XX = 4.094 ;
     else if HHCOMPXX = 67 then W11110XX = 3.213 ;
```

```
else if HHCOMPXX = 68 then W11110XX = 3.506 ;
else if HHCOMPXX = 69 then W11110XX = 4.173 ;
else if HHCOMPXX = 78 then W11110XX = 3.570 ;
else if HHCOMPXX = 79 then W11110XX = 4.221 ;
else if HHCOMPXX = 89 then W11110XX = 4.278 ;

if W11110XX eq . then W11110XX = 1;

end;
else W11110XX=.S;
end;
```

Equivalence scale: **General Official U.S. Equivalence Weight** (referred to below as
W11111XX)

Unit of Observation   H

Description   General official U.S. equivalence scale based upon the United States poverty thresholds. This
scale is a more general version of the scale described above (W11110XX). It is based on household size
but not household composition.

Method

The weight is computed based upon the number of household members within a SOEP household.

    if W11110XX=1 then W11111XX=1.00
    else if W11110XX=2 then W11111XX=1.28
    else if W11110XX=3 then W11111XX=1.57
    else if W11110XX=4 then W11111XX=2.01
    else if W11110XX=5 then W11111XX=2.38
    else if W11110XX ge 6 then W 11111XX=2.68

Equivalence scale: **Official German Equivalence Weight** (referred to below as W11112XX)

Unit of Observation   H

Description   Official household equivalence weight based upon the German public welfare law
(BSHG) which sets forth the guidelines for determining a person's "basic needs."

Method

Germany has no official poverty lines or equivalence scales. The weight is computed based upon the
BSHG ("§ 22 BSHG as well as accompanying statutes) rules governing the level of benefits for different
types of families. The benefits for dependents living in a welfare beneficiary's household are determined
by a "progressive reduction" method.

W11112XX=1.00 *for household head;
        + (sum(H11103XX, H11104XX, H11105XX))*.50*(H11112XX) *children 0-7 in 2 parent
hh;
        + (sum(H11103XX, H11104XX, H11105XX))*.55*(1-H11112XX) *children 0-7 in lone
parent hh;
        + (sum(H11101XX, -H11103XX, -H11104XX, -H11105XX))*.65 *children 8-14;
        + (H11102XX)*.90 *children 15-18;
        + (sum(D11106XX, -1, -H11101XX, -H11102XX))*.90; *adults 19+ minus one for
household head;

Equivalence scale: **ELES Equivalence Weight** (referred to below as W11113XX)

Unit of Observation   H

Description   Household equivalence weight developed by Merz et al. (1993).

Method

The equivalence scale estimation that produces these weights is based on the United States Consumer Expenditure Survey. These scales were developed by Merz, Gardner, Smeeding, Faik and Johnson (1993). While the Merz et al. (1993) approach results in different scales for the U.S. and Germany, the scales are based on a consistent method, with adjustments for differences in scale economies determined by actual consumption patterns.

    if W11110XX=1 then W11113XX=1.00
    else if W11110XX=2 then W11113XX=1.49
    else if W11110XX=3 then W11113XX=1.81
    else if W11110XX=4 then W11113XX=1.99
    else if W11110XX=5 then W11113XX=2.01
    else if W11110XX ge 6 then W11113XX=2.00

Equivalence scale: **OECD Equivalence Weights** (referred to below as W11114XX) (XX=84-06)

Unit of Observation   H

Description   Scale used by Organization for Economic Cooperation and Development (1982)

Method   Sets a single adult to be 1.0, each additional adult to be 0.7, and each child to be 0.5.

    W11114XX=(1.0+0.7*(D11106XX-D11107XX-1)+.5*D11107XX);

An alternative measure modifies the weight attached to children to differentiate children under 15 from children age 15-18. The reference for this is Aldi, et al. (1994).

    W11114XX=(1.0+0.5*(D11106XX-H11101XX-1)+0.3*H11101XX);

Equivalence scale: **McClements Equivalence Weight** (referred to below as W11115XX)
(XX=84-06)

Unit of Observation   H

Description   Household equivalence weight based upon the McClement's scale, as used in publications such as "Households Below Average Income" (UK Department of Social Security, 1992). It is based on "Before Housing Costs."

Method   The weight is based on the age distribution in the household. Youth age 16-18 are identified as independent or dependent and assigned different weights accordingly. See the algorithm in volume I of the codebook for H11110XX (XX=84-06).

if 1<=H11110XX<3 then W11115XX=H11111XX*.61+H11112XX*.39+(1-H11112XX)*.42;
if H11110XX>=3 then
    W11115XX=H11111XX*.61+H11112XX*.39+(1-H11112XX)*.42+.46+(H11110-H11111XX-H11112XX-1)*.36;

    W11115XX=W11115XX
        +H11103XX*.09
        +H11104XX*.18
        +H11105XX*.21
        +H11106XX*.23
        +H11107XX*.25
        +H11108XX*.27
        +H11109XX*.36;

Other Equivalence scales

Unit of Observation   H

Description   Household equivalence weight based upon a single international scale.

Method   The weight is based upon a scale developed in Buhmann et al. (1988). The scale is characterized by the
following equation: $EI = D/S^{e}$

Where equivalent income (El) equals total disposable household income (D) divided by household size (S) raised to the power (e). The parameter (e) represents the elasticity of the scale rate with respect to household size. Recent international studies on income inequality and poverty sponsored by the OECD (e.g., Forster 1990; Atkinson et al. 1994), and the Statistical Office of the European Commission (Hagenaars et al. 1994) and the Ruggles (1990) study of the United States use this type of exponential equivalence scale. We adopt a value of a equal to .5, which is most commonly used in international comparisons.

a. **Square root of household size**: W11116XX=SQRT(D11106XX);

Method   The method of Betson and Michael (1993) selects parameters that minimize the sum of squared deviations of the observed proportional cost of children from the fitted (estimated) proportional costs of children. Their fitted parameters using their estimates are:

b. **Betson and Michael (1993)** W11117XX=((D11106XX-D11107XX)+0.7*D11107XX))^0.762;

4. **Macro-level Variables for all countries**:

A time-series of consumer prices for each country is presented below. Sources for each country's CPI:

Country	Source
Australia	Australian Bureau of Statistics www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6401.0Sep%202006?OpenDocument, Data run on financial year
Canada	Statistics Canada. Table 326-0021 Consumer Price Index (CPI)
Germany	DESTATIS 2010, Preise. Verbraucherpreisindex und Index der Einzelhandelspreise. Lange Reihe ab 1948 bis 2009. Basisjahr 2006
Korea	Korea Statistics Office
Russian Federation	Organization for Economic Cooperation and Development http://stats.oecd.org/index.aspx?querytype=view&queryname=221
Switzerland	Organization for Economic Cooperation and Development http://stats.oecd.org/index.aspx
UK	Office for National Statistics www.ons.gov.uk
US	Bureau of Labor Statistics, All Urban Consumers-(CPI-U) series, U.S. city averages for all items (1982-1984=100)

	4a. Consumer Price Index								
Year	UK	W. Germany	E. Germany	Australia	Korea	US	Russia	Switzerland	Canada
1970	---	---	---	---	---	38.8	---		20.3
1971	---	---	---	---	---	40.5	---		20.9
1972	---	---	---	---	---	41.8	---	39.6	21.9
1973	---	---	---	---	---	44.4	---	43.1	23.6
1974	---	---	---	---	---	49.3	---	47.3	26.2
1975	---	---	---	---	---	53.8	---	50.5	29.0
1976	---	---	---	---	---	56.9	---	51.4	31.1
1977	---	---	---	---	---	60.6	---	52.0	33.6
1978	---	---	---	---	---	65.2	---	52.6	36.6
1979	---	---	---	---	---	72.6	---	54.5	40.0
1980	---	---	---	---	---	82.4	---	56.7	44.0
1981	---	---	---	---	---	90.9	---	60.3	49.5
1982	---	---	---	---	---	96.5	---	63.7	54.9
1983	---	---	---	---	---	99.6	---	65.6	58.1
1984	---	66.8	---	---	---	103.9	---	67.6	60.6
1985	---	68.5	---	---	---	107.6	---	69.9	63.0
1986	---	69.9	---	---	---	109.6	---	70.4	65.6
1987	---	69.8	---	---	---	113.6	---	71.4	68.5
1988	63.5	69.9	---	---	---	118.3	---	72.7	71.2
1989	66.8	70.8	---	---	---	124.0	---	75.0	74.8
1990	71.5	72.8	---	---	---	130.7	---	79.1	78.4
1991	76.8	74.7	57.0	---	---	136.2	---	83.7	82.8
1992	80.1	77.5	65.8	---	---	140.3	0.1	87.1	84.0
1993	82.1	80.6	74.6	---	---	144.5	0.8	90.0	85.6
1994	83.8	83.4	82.5	---	---	148.2	3.5	90.8	85.7
1995	86.0	85.7	85.4	---	---	152.4	10.3	92.4	87.6
1996	88.1	87.1	87.1	---	---	156.9	15.2	93.1	88.9
1997	89.7	88.2	88.8	---	---	160.5	17.5	93.6	90.4
1998	91.1	89.9	90.8	---	82.3	163.0	22.3	93.6	91.3
1999	92.3	90.7	91.7	---	83.0	166.6	41.4	94.4	92.9
2000	93.1	91.3	92.1	100.0	84.9	172.2	50	95.9	95.4
2001	94.2	92.7		102.9	88.3	177.1	60.8	96.8	97.8
2002	95.4	94.5		106.0	90.8	179.9	70.4	97.4	100.0
2003	96.7	95.9		108.5	93.9	184.0	80	98.1	102.8
2004	98.0	96.9		111.2	97.3	188.9	88.7	98.8	104.7
2005	100.0	98.5		114.7	100.0	195.3	100	100.0	107.0
2006	102.3	100.0		118.1	102.2	201.6	109.7	101.1	109.1
2007	104.7	101.6		122.1	104.8	207.3	119.6	101.8	111.5
2008	108.5	103.9		125.9	109.7	215.3	136.4	104.3	114.1
2009	110.8	106.6		129.9		214.5	152.3	103.8	114.4

	4b. Median Pre-Government Household Income (Y11103LL)							
Year	BHPS	SOEP	HILDA	KLIPS	PSID	RLMS	SHP	SLID
1970	---	---	---	---	4683	---	---	---
1971	---	---	---	---	4918	---	---	---
1972	---	---	---	---	5295	---	---	---
1973	---	---	---	---	5670	---	---	---
1974	---	---	---	---	6351	---	---	---
1975	---	---	---	---	6750	---	---	---
1976	---	---	---	---	7155	---	---	---
1977	---	---	---	---	8000	---	---	---
1978	---	---	---	---	8750	---	---	---
1979	---	---	---	---	9839	---	---	---
1980	---	---	---	---	10538	---	---	---
1981	---	---	---	---	11500	---	---	---
1982	---	---	---	---	12247	---	---	---
1983	---	---	---	---	12640	---	---	---
1984	---	12245	---	---	13478	---	---	---
1985	---	12360	---	---	14744	---	---	---
1986	---	12881	---	---	15415	---	---	---
1987	---	13426	---	---	16000	---	---	---
1988	---	13886	---	---	16935	---	---	---
1989	---	14671	---	---	17574	---	---	---
1990	---	12050	---	---	18524	---	---	---
1991	11469	12724	---	---	18755	---	---	---
1992	12159	14953	---	---	19450	---	---	---
1993	12089	16157	---	---	20915	---	---	31996
1994	12690	16803	---	---	20569	---	---	31803
1995	13517	16723	---	---	21212	n.a.	---	33229
1996	14220	17349	---	---	22168	n.a.	---	32673
1997	14110	17662	---	---	24561	---	---	33340
1998	14559	17670	---	---	---	n.a.	---	34830
1999	14636	18406	---	N/A	23067	---	---	37178
2000	15234	19306	---	N/A	---	n.a.	102189	39257
2001	15521	19189	27771	N/A	29451	n.a.	103890	40326
2002	16999	18516	27973	N/A	---	n.a.	102457	41309
2003	17654	18957	30000	2169	28980	n.a.	102597	42125
2004	17961	19024	32100	2312	---	n.a.	97772	43346
2005	18697	18778	33523	2410	30011	n.a.	100000	45000
2006	18647	18853	35750	2545	---	n.a.	100752	46764
2007	19633	19489	39200	2659	30563	n.a.	103426	48892
2008	---	20085	41942	2876	---	---	105400	50970
2009	---	20380	43000	---	---	---	106040	
Currency	Pounds	Euro	Dollars (AU)	Won	Dollars (US)	Rubles	Franc (Swiss)	Dollars (CA)

Year	**4c. Median Post-Government Household Income (Y11103LL)**
Year	**BHPS**	**SOEP**	**HILDA**	**KLIPS**	**PSID**	**RLMS**	**SHP**	**SLID**
1970	---	---	---	---	4083	---	---	---
1971	---	---	---	---	4419	---	---	---
1972	---	---	---	---	4715	---	---	---
1973	---	---	---	---	5132	---	---	---
1974	---	---	---	---	5605	---	---	---
1975	---	---	---	---	6071	---	---	---
1976	---	---	---	---	6444	---	---	---
1977	---	---	---	---	7178	---	---	---
1978	---	---	---	---	7770	---	---	---
1979	---	---	---	---	8333	---	---	---
1980	---	---	---	---	8961	---	---	---
1981	---	---	---	---	9530	---	---	---
1982	---	---	---	---	10258	---	---	---
1983	---	---	---	---	10930	---	---	---
1984	---	10221	---	---	11697	---	---	---
1985	---	10809	---	---	12514	---	---	---
1986	---	11129	---	---	13211	---	---	---
1987	---	11610	---	---	13766	---	---	---
1988	---	11926	---	---	14961	---	---	---
1989	---	12495	---	---	15593	---	---	---
1990	---	11425	---	---	16468	---	---	---
1991	11216	12083	---	---	16800	---	---	---
1992	12114	13387	---	---	17321	---	---	---
1993	12603	14414	---	---	18597	---	---	32781
1994	12909	14847	---	---	18034	---	---	32297
1995	13675	14949	---	---	18802	84100	---	33772
1996	14273	15259	---	---	19524	972754	---	33448
1997	14451	15707	---	---	22010	---	---	33879
1998	15295	15824	---	---	---	1480	---	35069
1999	15605	16317	---	1440	20560	---	---	37129
2000	16415	17068	---	1610	---	3192	77083	38579
2001	17046	17343	26085	1760	25029	4613	78433	40763
2002	18499	17399	26550	2000	---	6000	79162	41840
2003	19426	18025	27971	2160	25852	7410	79447	42723
2004	20169	18256	29850	2300	---	9181	81394	43921
2005	21016	18420	31628	2400	27287	11620	84093	45900
2006	21677	18297	33914	2516	---	13200	82723	47642
2007	25162	18579	36920	2640	27578	17887	83839	50020
2008	---	19112	40085	2900	---	---	87630	51997
2009	---	19296	43493	---	---	---	87959	
Currency	**Pounds**	**Euro**	**Dollars (AU)**	**Won**	**Dollars (US)**	**Rubles**	**Franc (Swiss)**	**Dollars (CA)**

5. Purchasing Power Parity Time-Series for Former East Germany

These data provide the value of the Purchasing Power Parity Index between states in former East Germany and states in former West Germany

Year	PPP Index
1992	129.1
1993	114.6
1994	107.9
1995	106.9
1996	106.4
1997	105.6
1998	105.3
1999	105
2000*	100

*From the year 2000 and in all subsequent years the PPP index=100.

Source: Created by SOEP staff member Peter Krause (krause@diw.de).