

Trend Happy-Life-Years in Nations 1946-2015

How long and happy people live

Table 1

Trend HLY expressed in number of years gained

Nation	Gain in happy life years ¹	
	1958-2013	1973-2015
Austria*	-	+ 1.3
Belgium	-	+ 4.6
Denmark	-	+ 10.0
EU9*		+ 9.1
Finland*		+ 8.4
France	-	+ 11.3
Germany (W)*	-	+ 5.8
Greece*		- 5.3
Britain (Great)	-	+ 9.5
Ireland	-	+ 8.3
Italy	-	+ 7.9
Japan	+ 10.1	+ 6.9

Luxemburg	-	+ 10.2
Netherlands	-	+ 7.6
Portugal*		-3.9
Spain*		+ 3.6
Sweden		+ 6.7
USA*	+ 7.2	+ 6.1

Data: Table 2, Trend line in Graphs

* Greece since 1981, Portugal and Spain since 1985, USA and West Germany until 2009, Austria, Finland and Sweden since 1995

Table 2
Trend HLY expressed in average annual increase

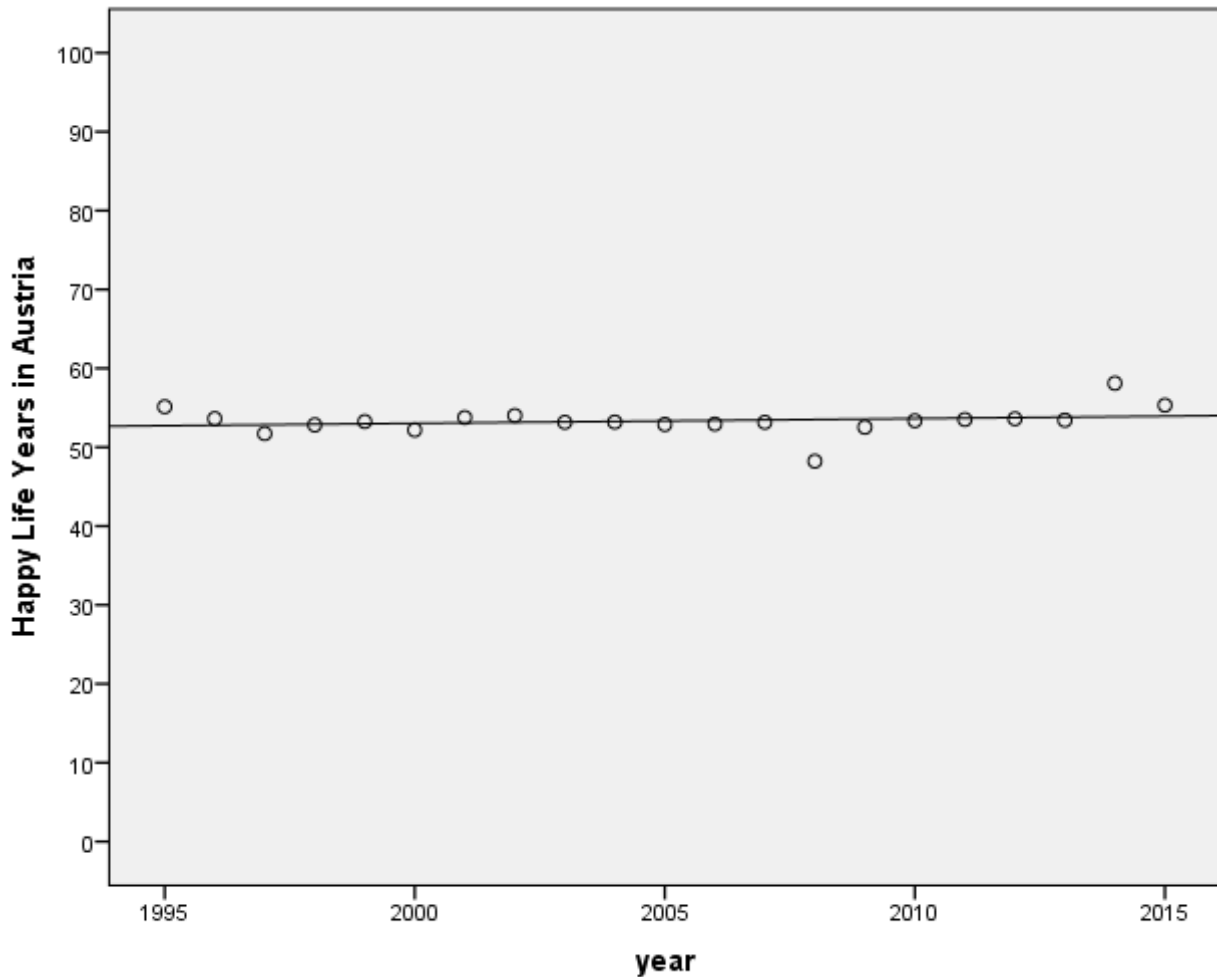
Nation	Period ^{5, 6}	Average annual increase (B) ⁴					
		Happiness ³		Life expectancy ²		HLY ¹	
		B	CI 95	B	CI 95	B	CI 95
Austria	1995-2015	-.012	-.03;+.01	+.23	+.21;+.25	+.060	-.07;+.19
Belgium	1973-2015	-.005	-.014;+.003	+.22	+.21; +.23	+.109	+.05;+.17
Denmark	1973-2015	+.015	+.012;+.018	+.13	+.13; +.14	+.239	+.22;+.27
EU9	1973-2015	+.009	+.006;+.012	+.22	+.22; +.23	+.216	+.19;+.24
Finland	1995-2015	+.014	+.005;+.022	+.26	+.24;+.27	+.40	+.31;+.50
France	1973-2015	+.016	+.012;+.021	+.25	+.24; +.25	+.270	+.24;+.30
Germany (W)	1973-2009	+.000	-.007;+.007	+.23	+.22; +.23	+.167	+.11;+.22
Greece	1981-2015	-.031	-.045;-.017	+.17	+.16; +.17	-.152	-.27; -.04
Great Britain	1973-2015	+.011	+.007;+.014	+.18	+.17; +.18	+.225	+.20;+.25
Ireland	1973-2015	+.002	-.005;+.009	+.21	+.21;+.23	+.198	+.14;+.25
Italy	1973-2015	+.006	+.002;+.014	+.27	+.26; +.28	+.187	+.12;+.25
Japan	1958-2013	+.004	.000;+.008	+.35	+.33; +.39	+.184	+.16;+.21
Luxembourg	1973-2015	+.008	+.003;+.012	+.25	+.24, +.26	+.244	+.21;+.28

Netherlands	1973-2015	+0.008	+0.004;+0.012	+0.15	+0.14; +0.15	+0.181	+0.15;+0.21
Portugal	1985-2015	-0.035	-.048; -.023	+0.33	+0.31; +0.34	-0.125	-.22; -.03
Spain	1985-2015	-.003	-.015;+0.009	+0.30	+0.28; +0.32	+0.117	+0.03;+0.21
Sweden	1995-2015	+0.023	+0.015;+0.031	+0.18	+0.17;+0.18	+0.32	+0.25;+0.39
USA	1946-2008	+0.003	-.001;+0.007	+0.18	+0.18; +,19	+0.160	+0.13;+0.19
	1973-2008	+0.009	+0.002;+0.016	+0.17	+0.16; +0.18	+0.191	+0.14;+0.24

B = linear regression coefficient; CI 95 = 95% confidence interval, **Bold**: $p < .05$ (two-sided)

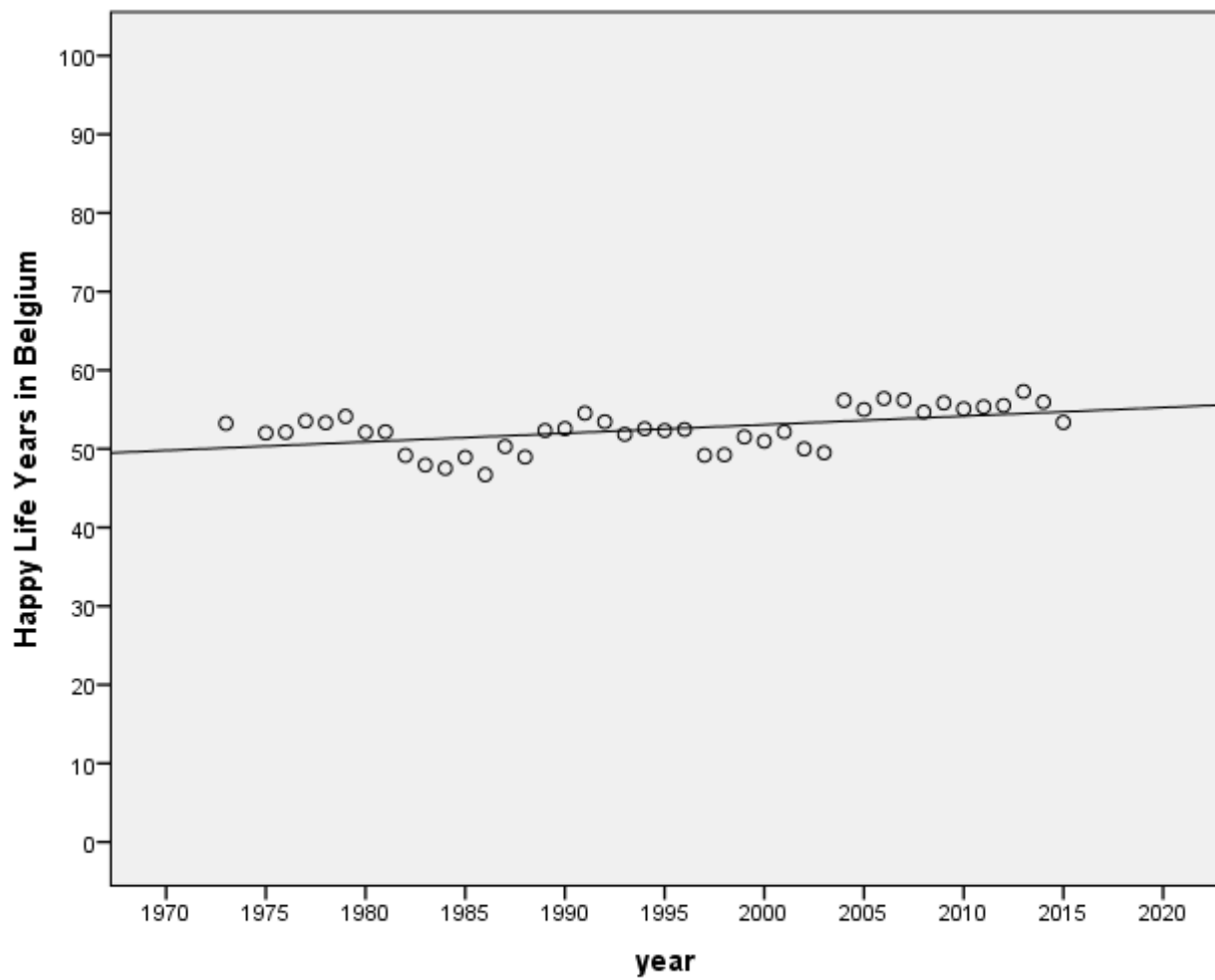
Graphs

Austria



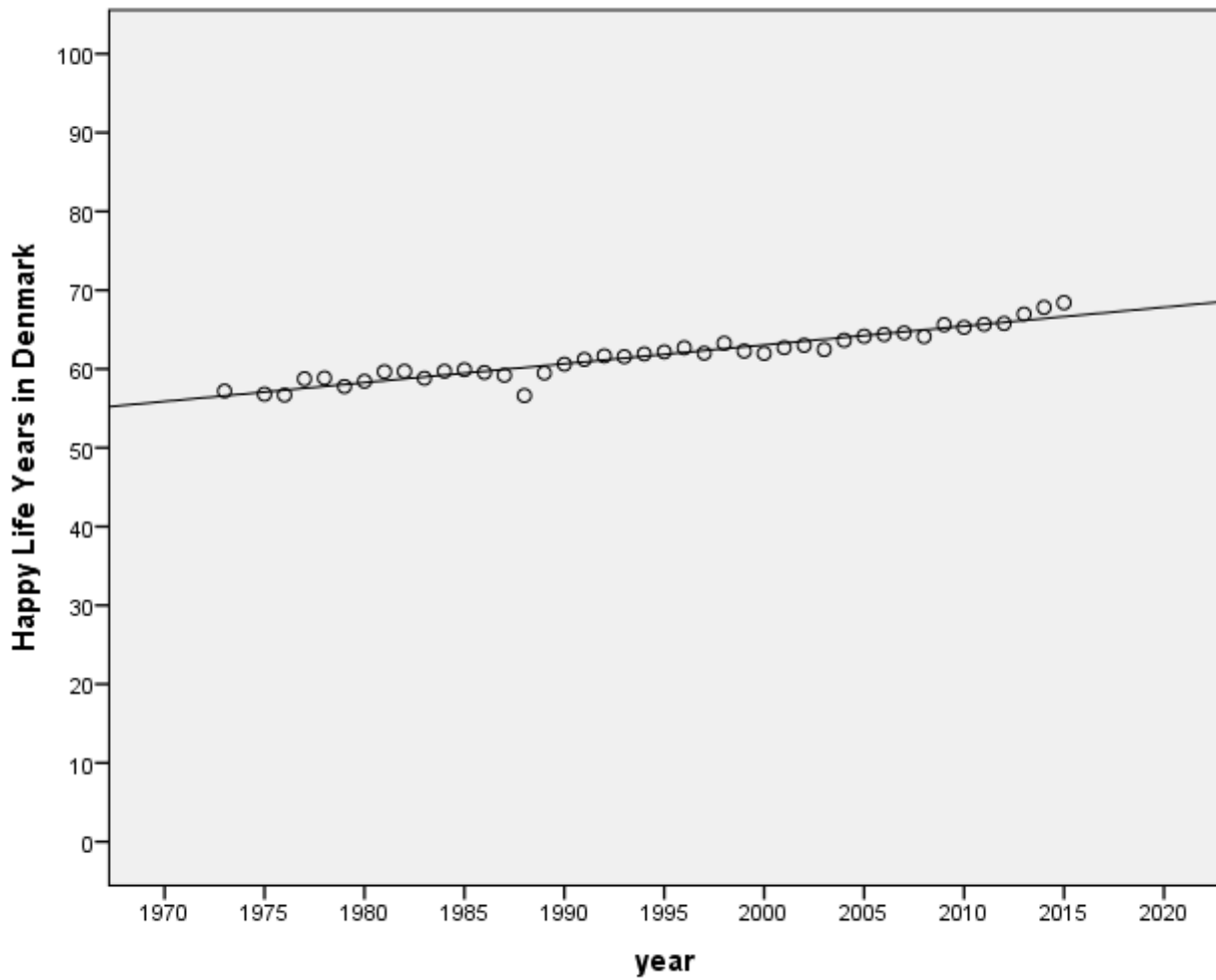
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_at

Belgium



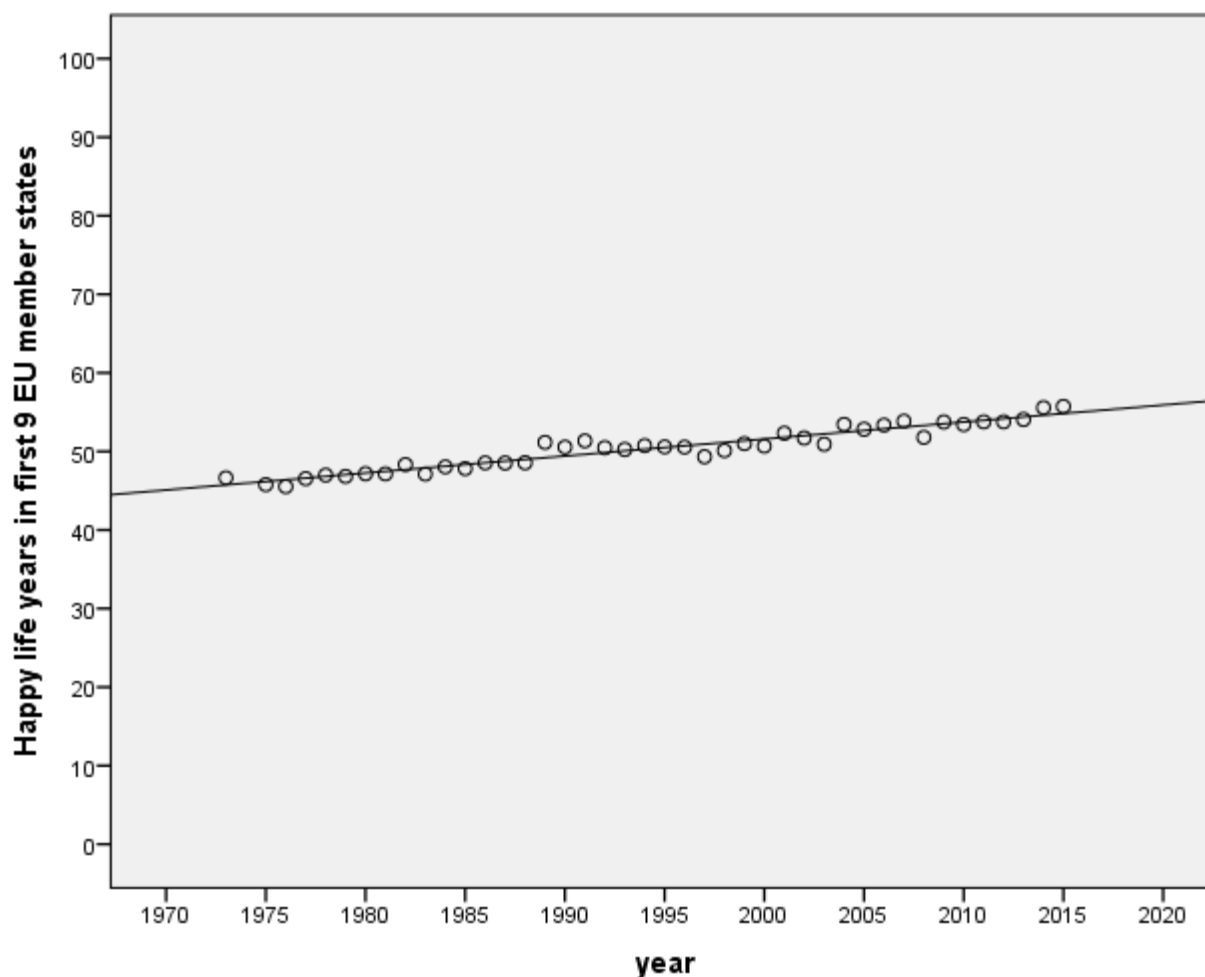
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_be

Denmark



Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_dk

EU9



Based on life expectancy at birth and average response to survey question on life satisfaction

Question code in item bank: O-SLL/u/sq/v/4/b.

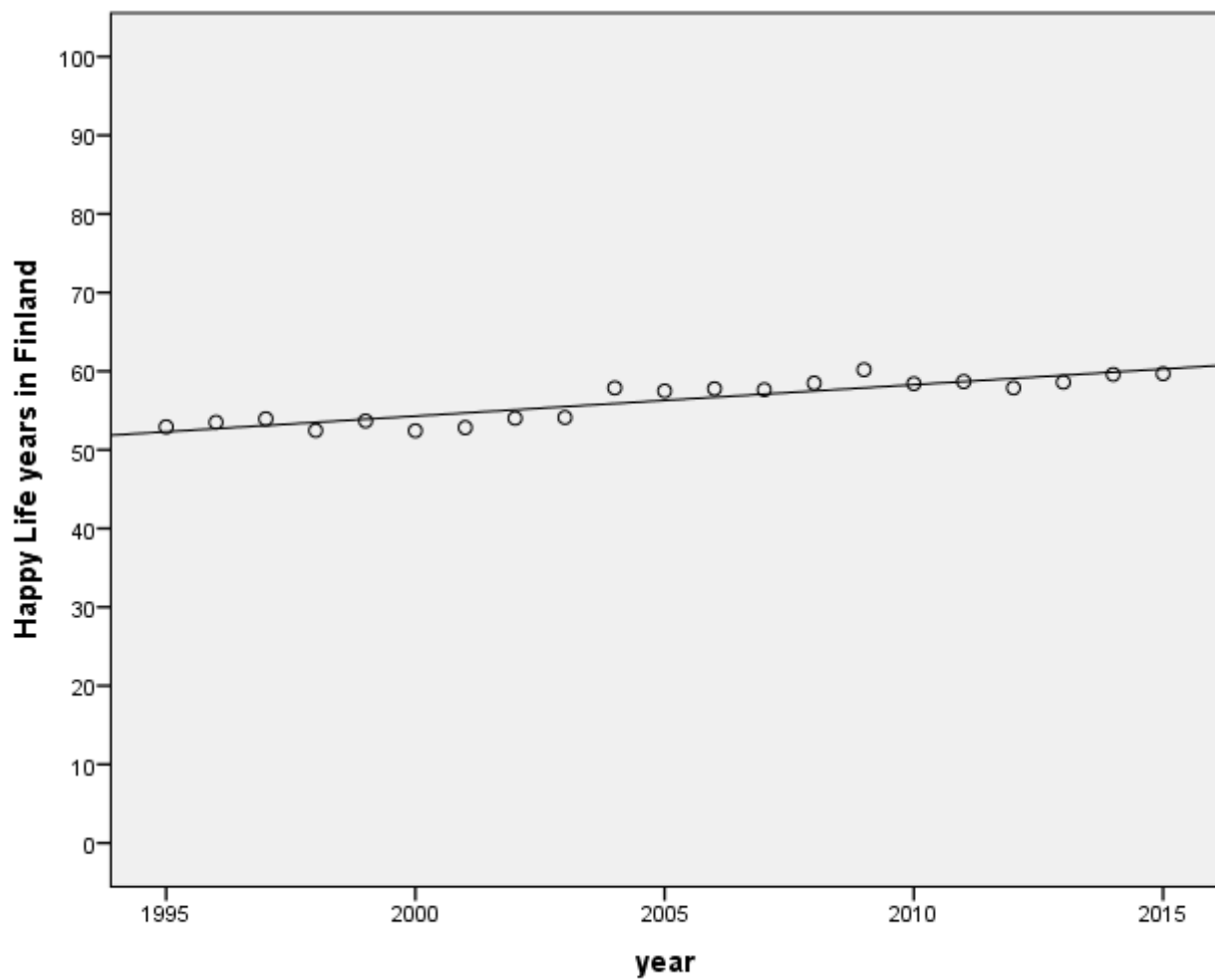
Variable code in data file 'Trends in nations': hly_eu9

Weighted average of first 9 member states of the European Union 1973-2015

The population weights are about as follows (2015):

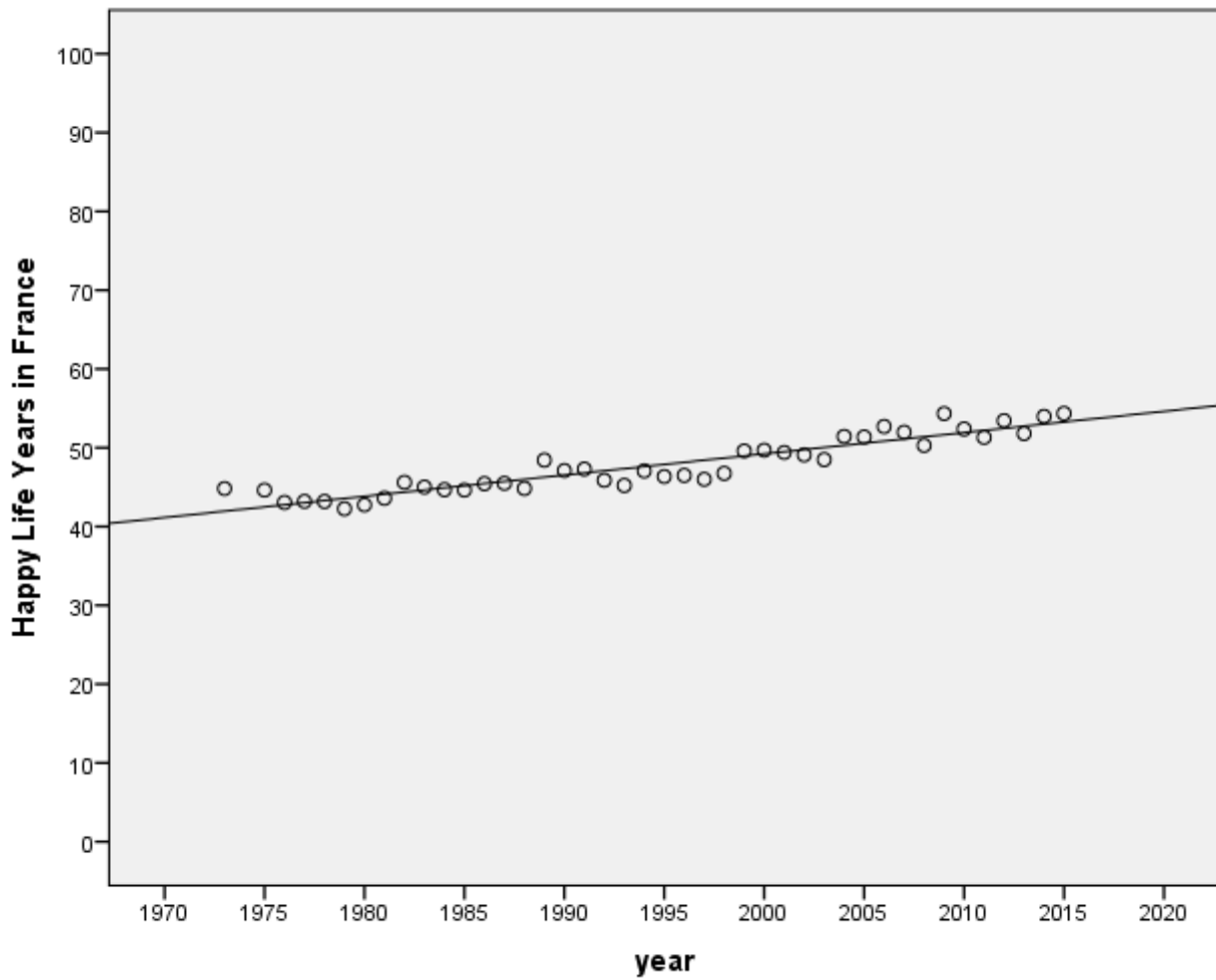
Belgium	0.036
France	0.213
(West)Germany	0.260
Ireland	0.015
Italy	0.195
Luxembourg	0.002
Netherlands	0.054
Denmark	0.018
United Kingdom	0.208

Finland



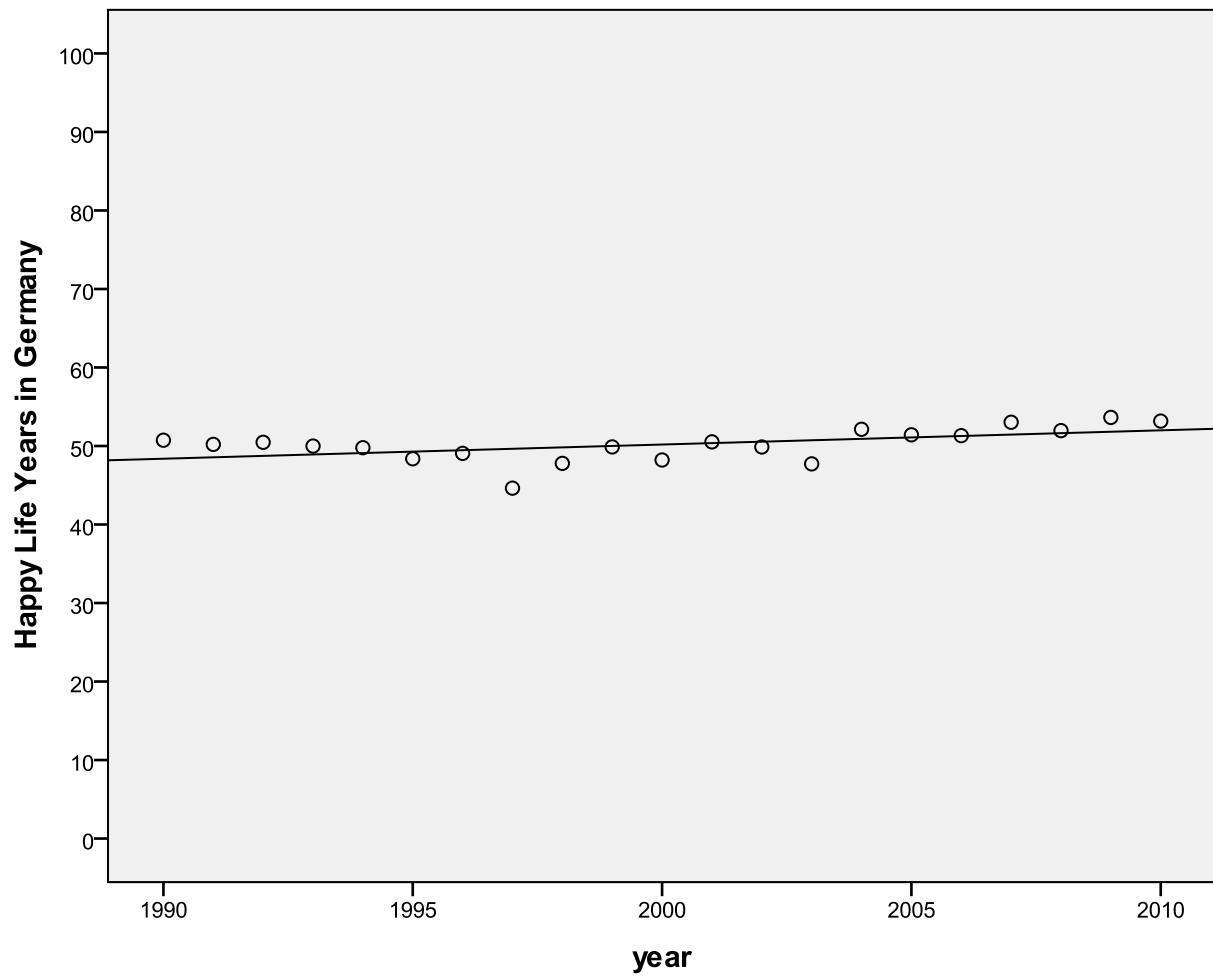
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Variable code in data file 'Trends in nations': hly_fi

France



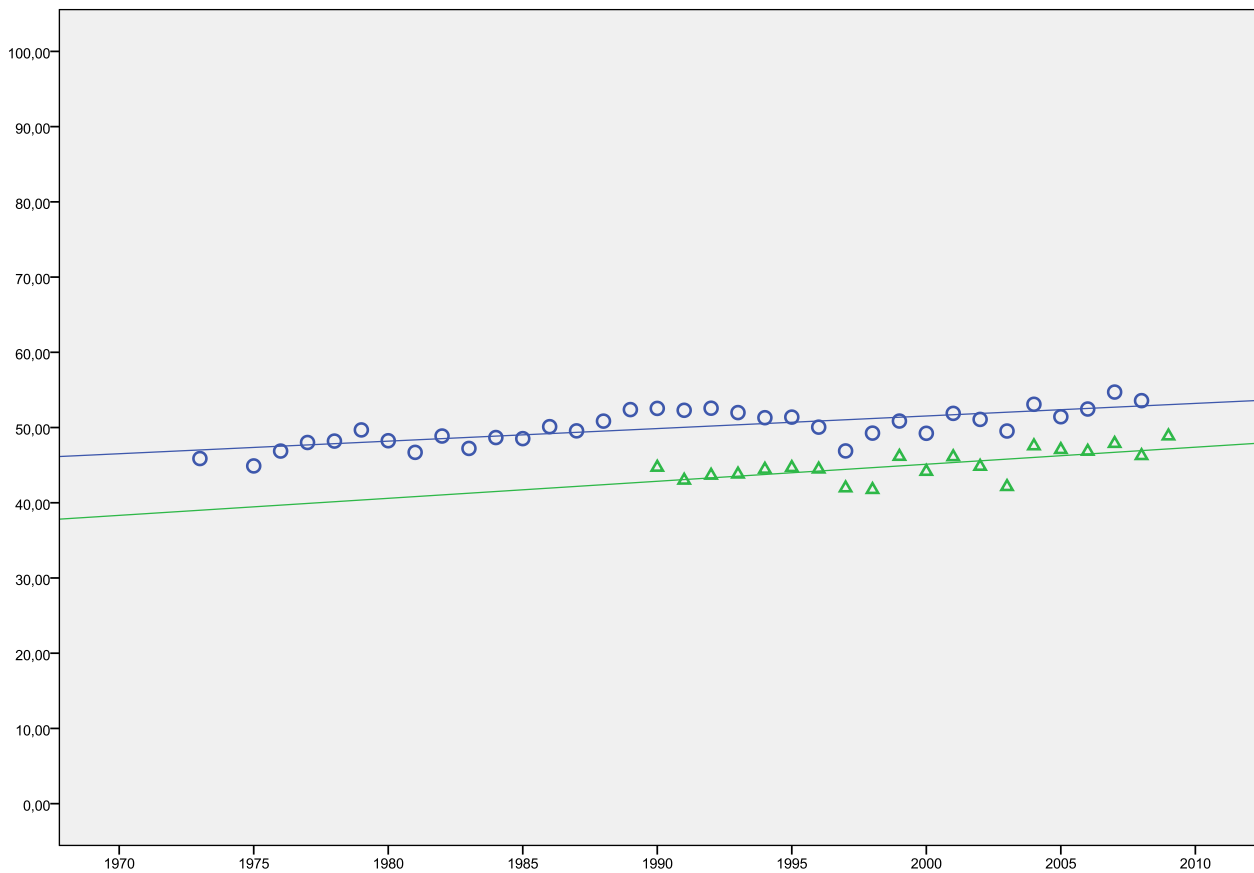
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_fr

Germany : Reunited after 1990



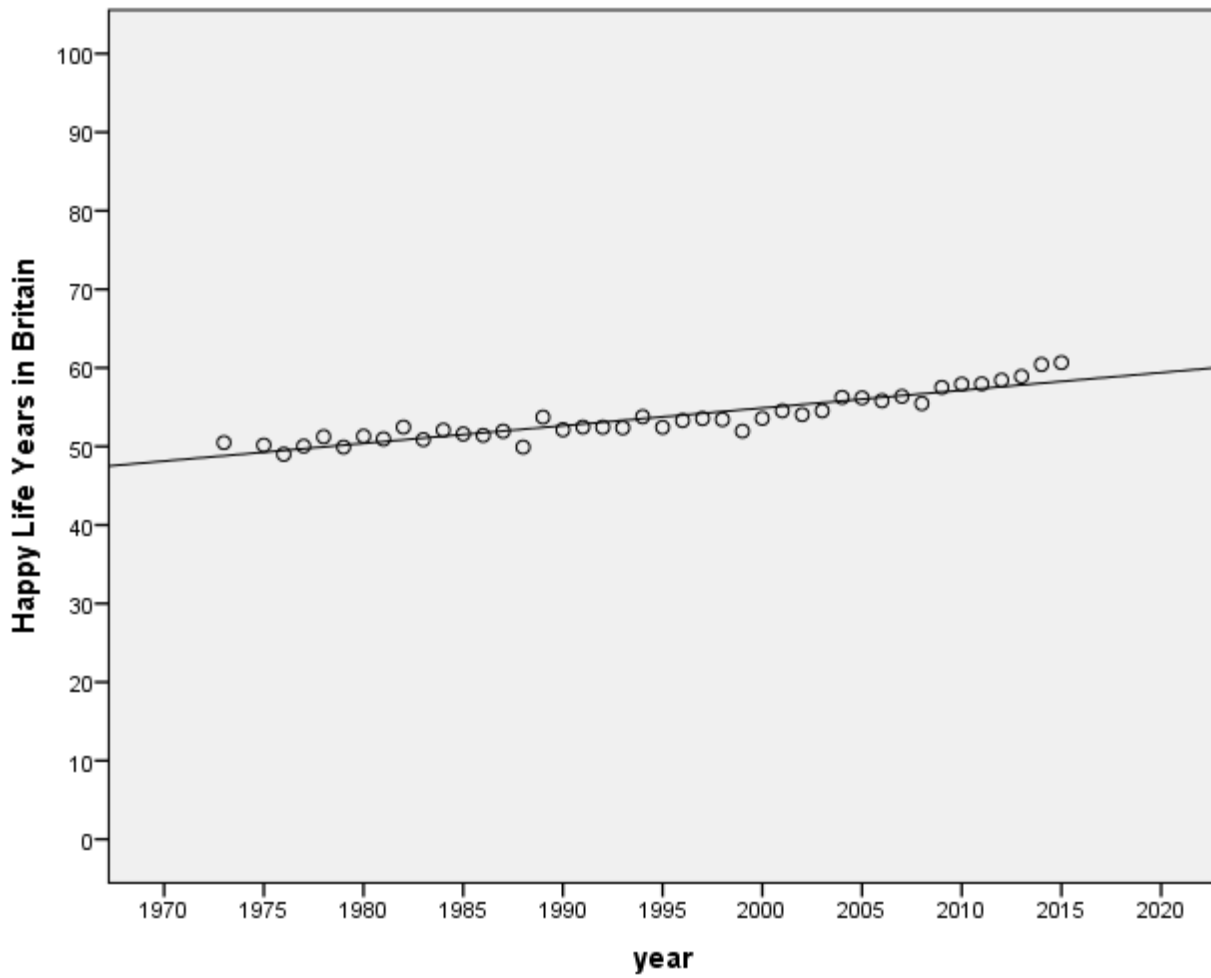
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_de

Germany: Former East (triangles) and West (circles)



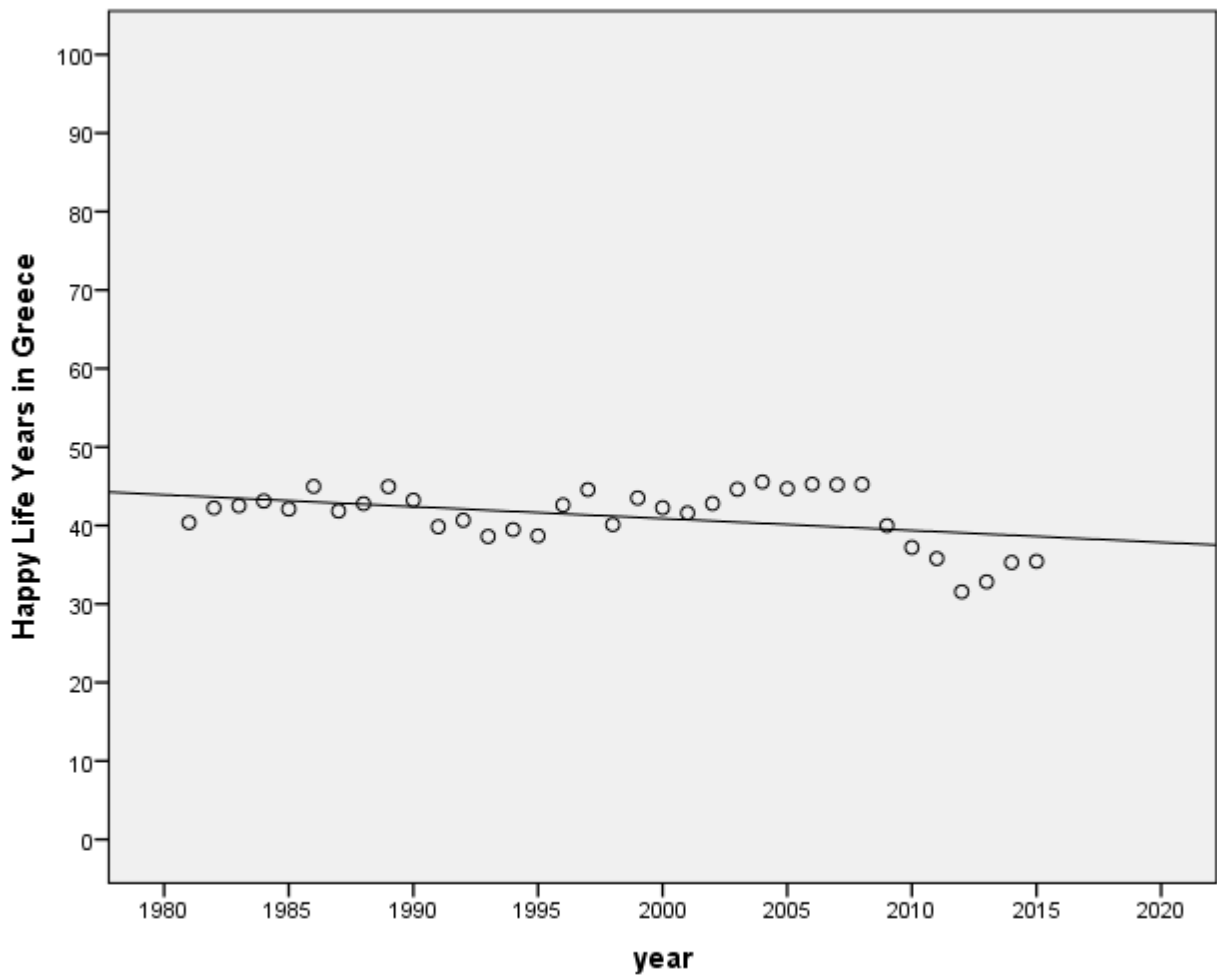
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_dew and hly_dee

Great Britain



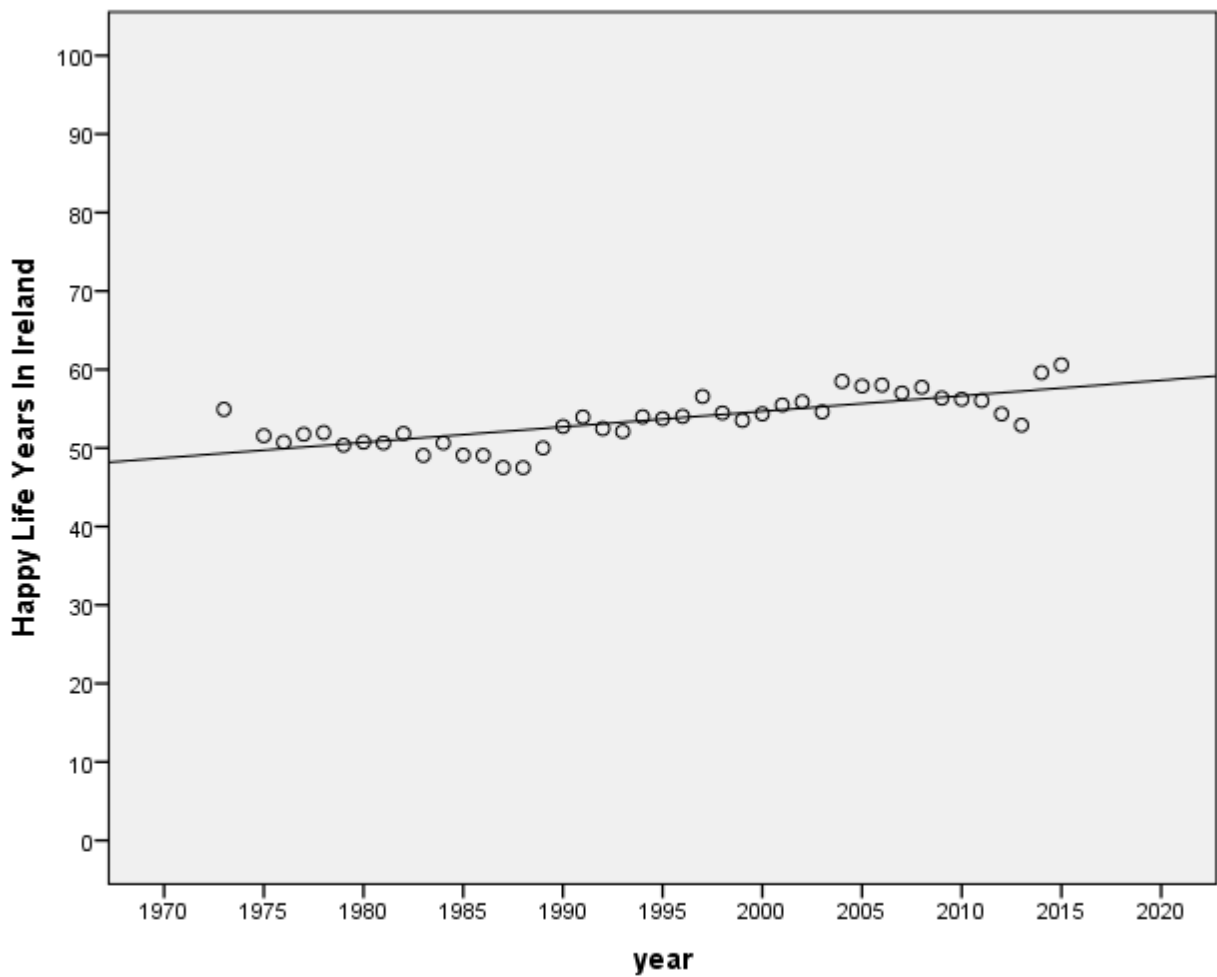
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_uk

Greece



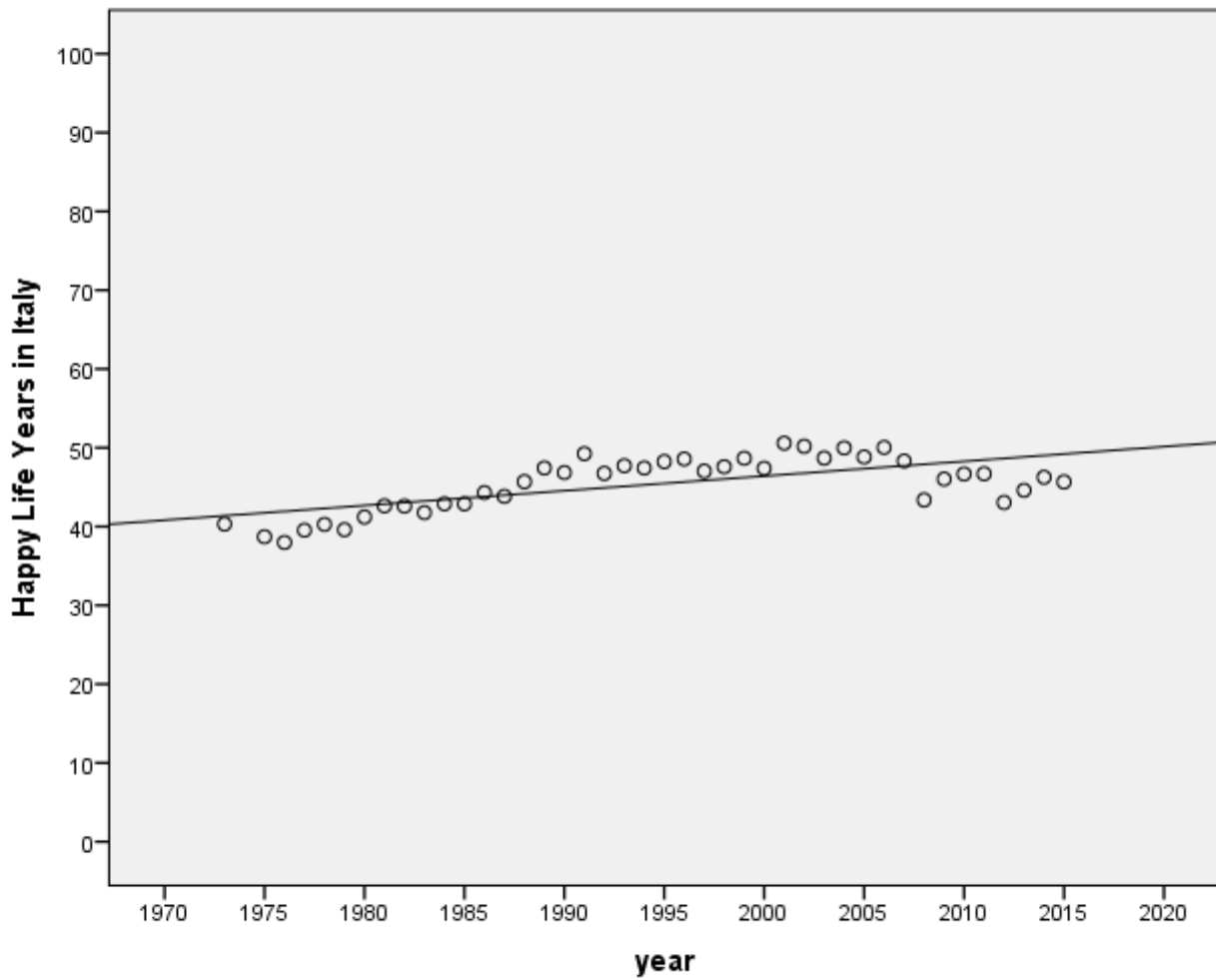
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_gr

Ireland



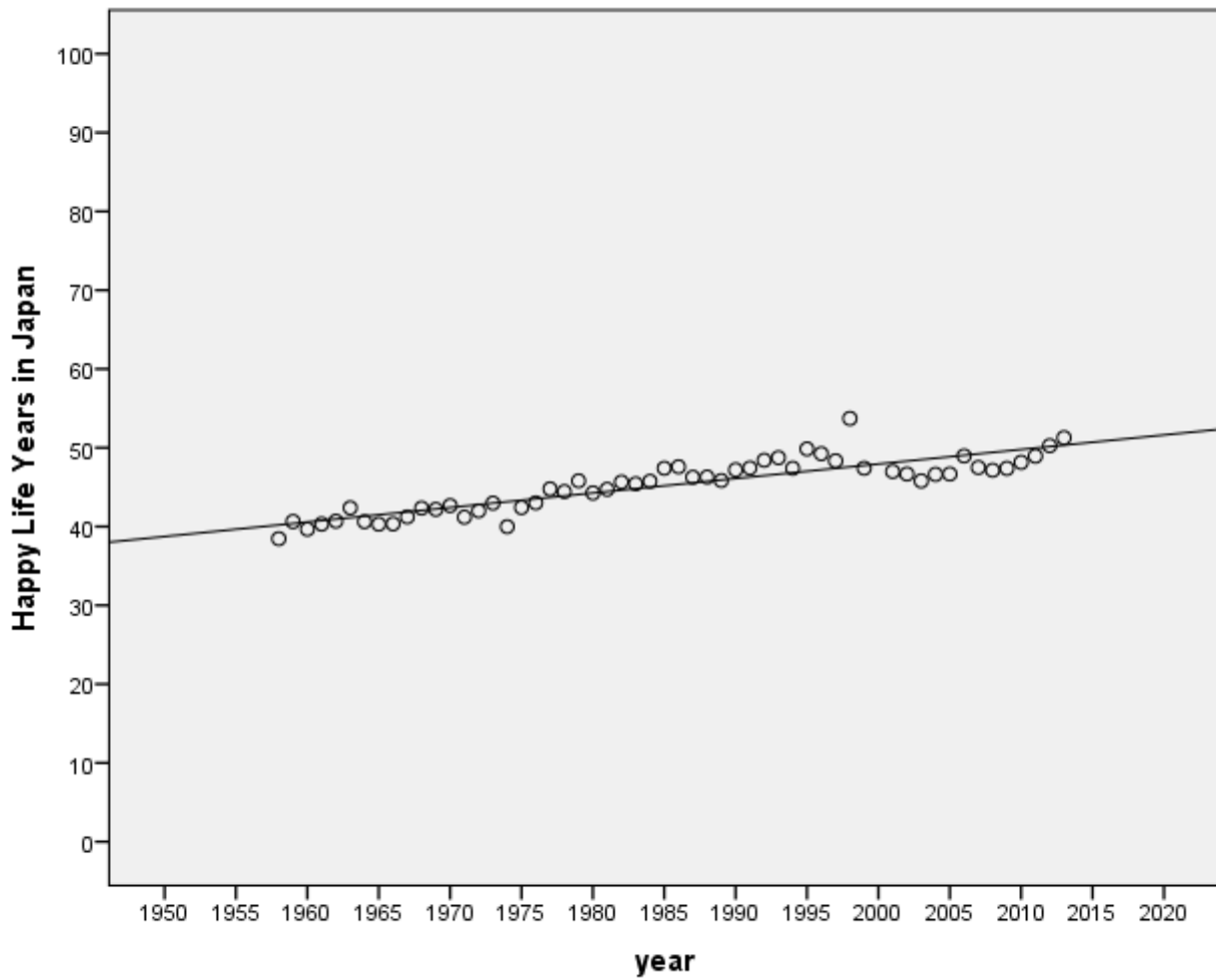
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_ie

Italy



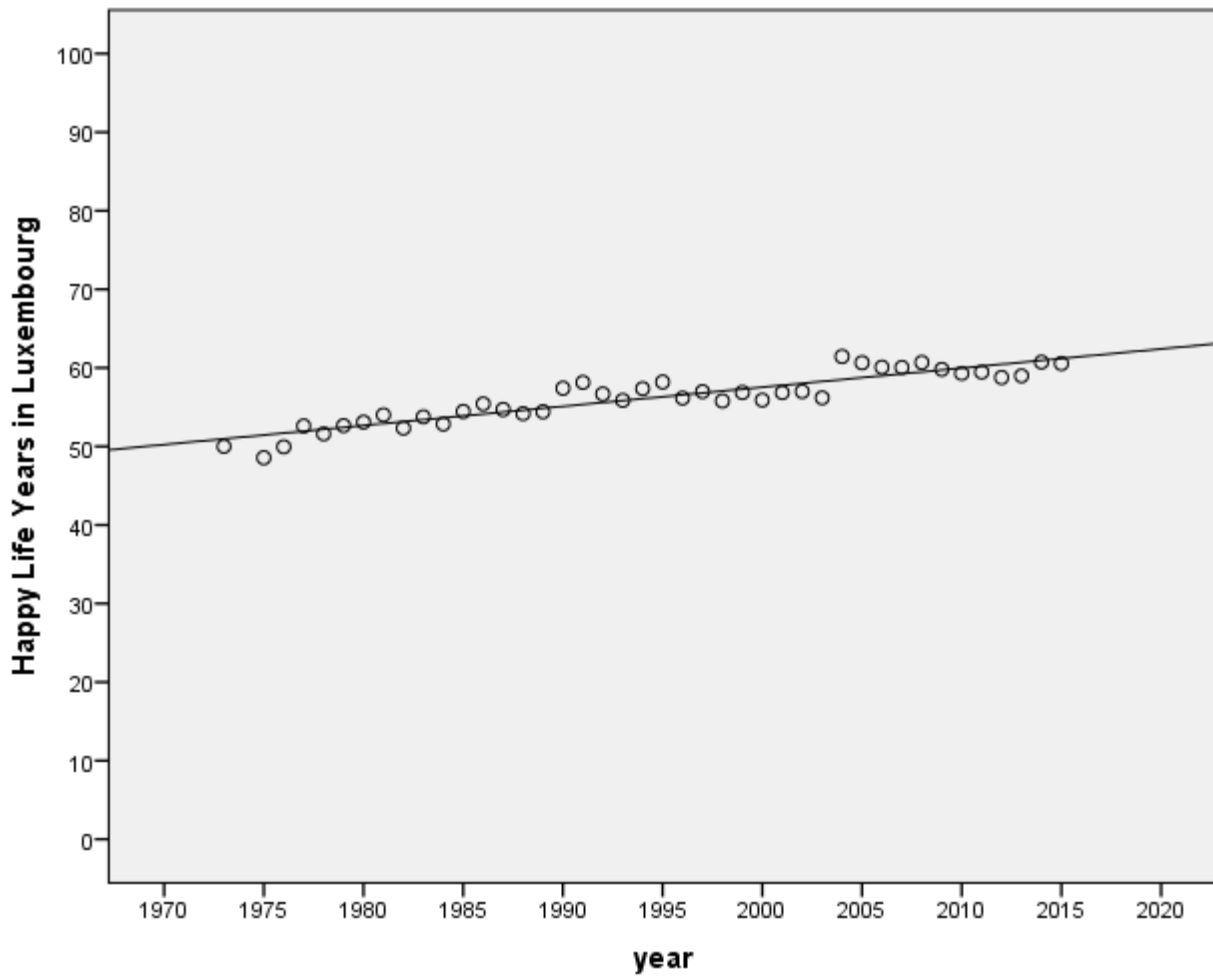
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_it

Japan



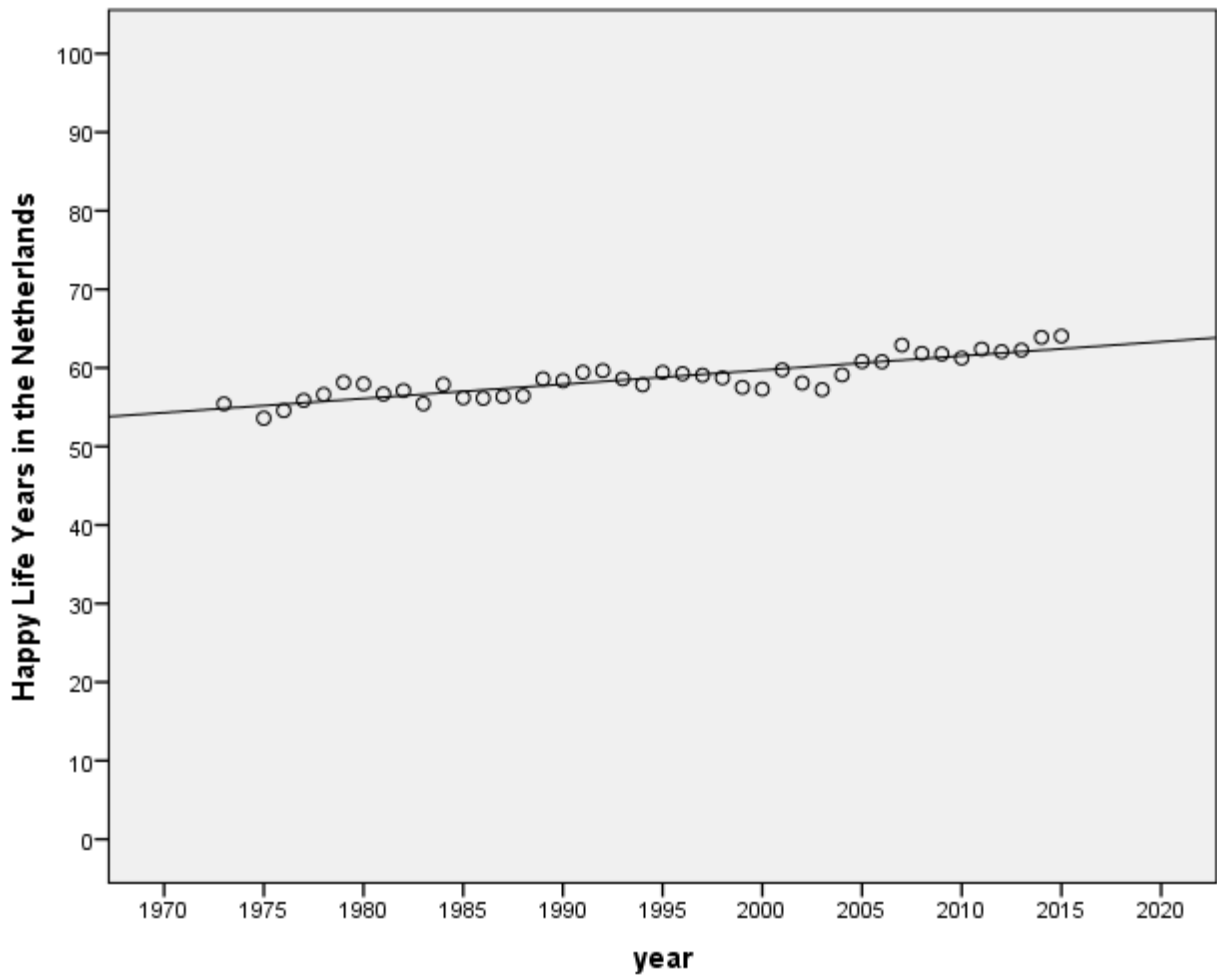
Based on life expectancy at birth and average response to survey questions on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4 variants a, e, f; O-SLW/c/sq/v/4/e and O-SWL/u/sq/v/5 variants a,g,k,l,r.
Variable code in data file 'Trends in nations': hly_jp1

Luxemburg



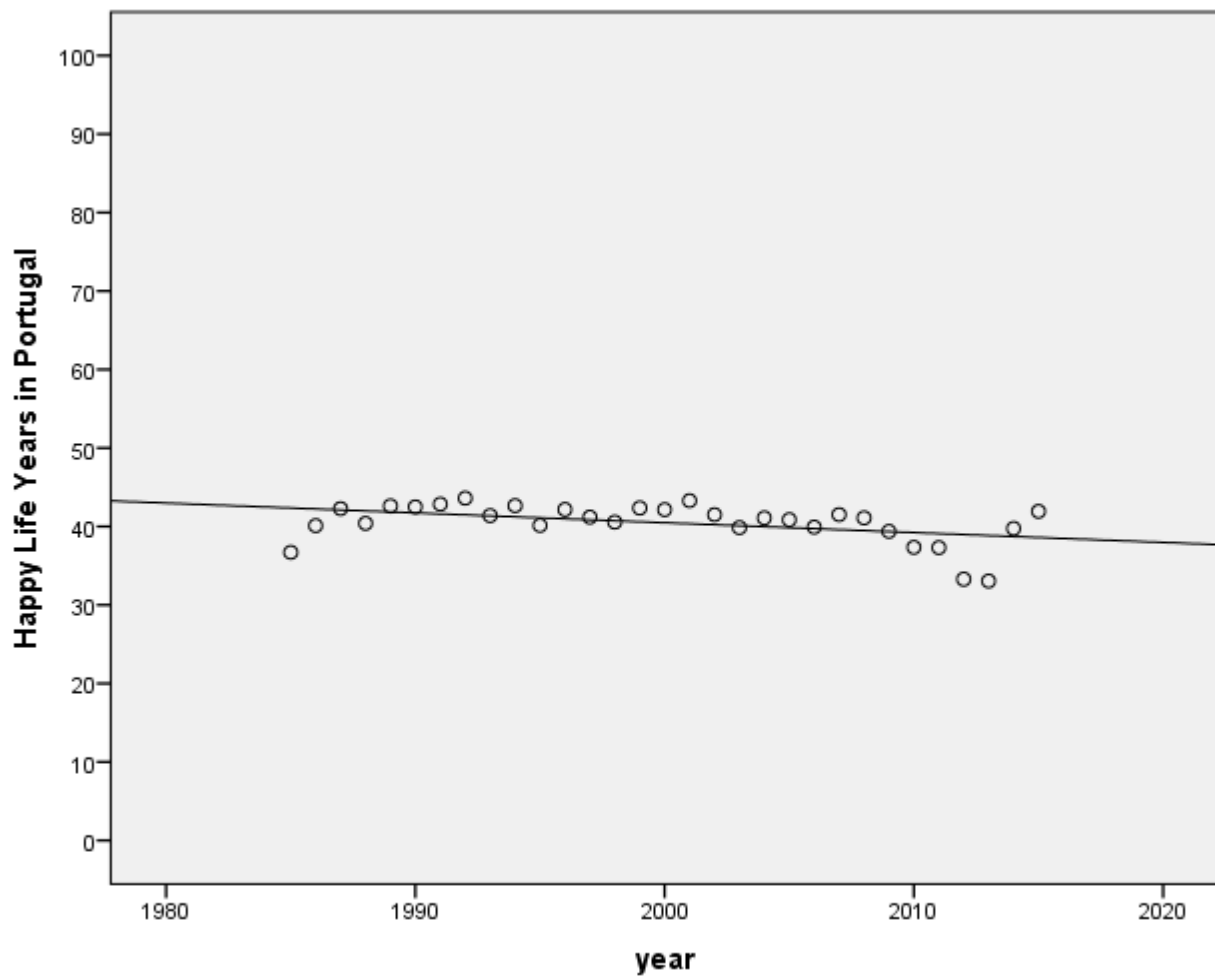
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_lu

Netherlands



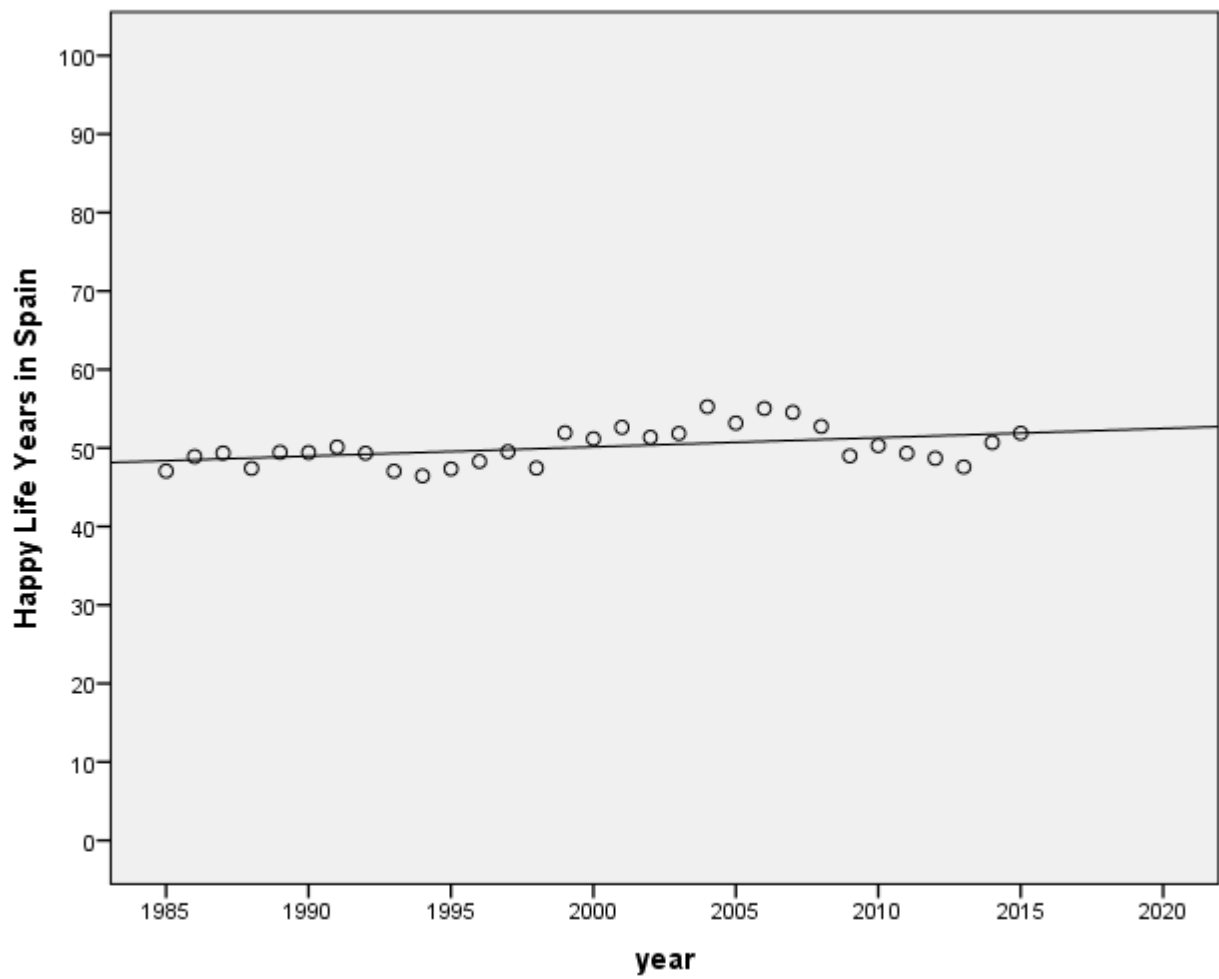
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_nl

Portugal



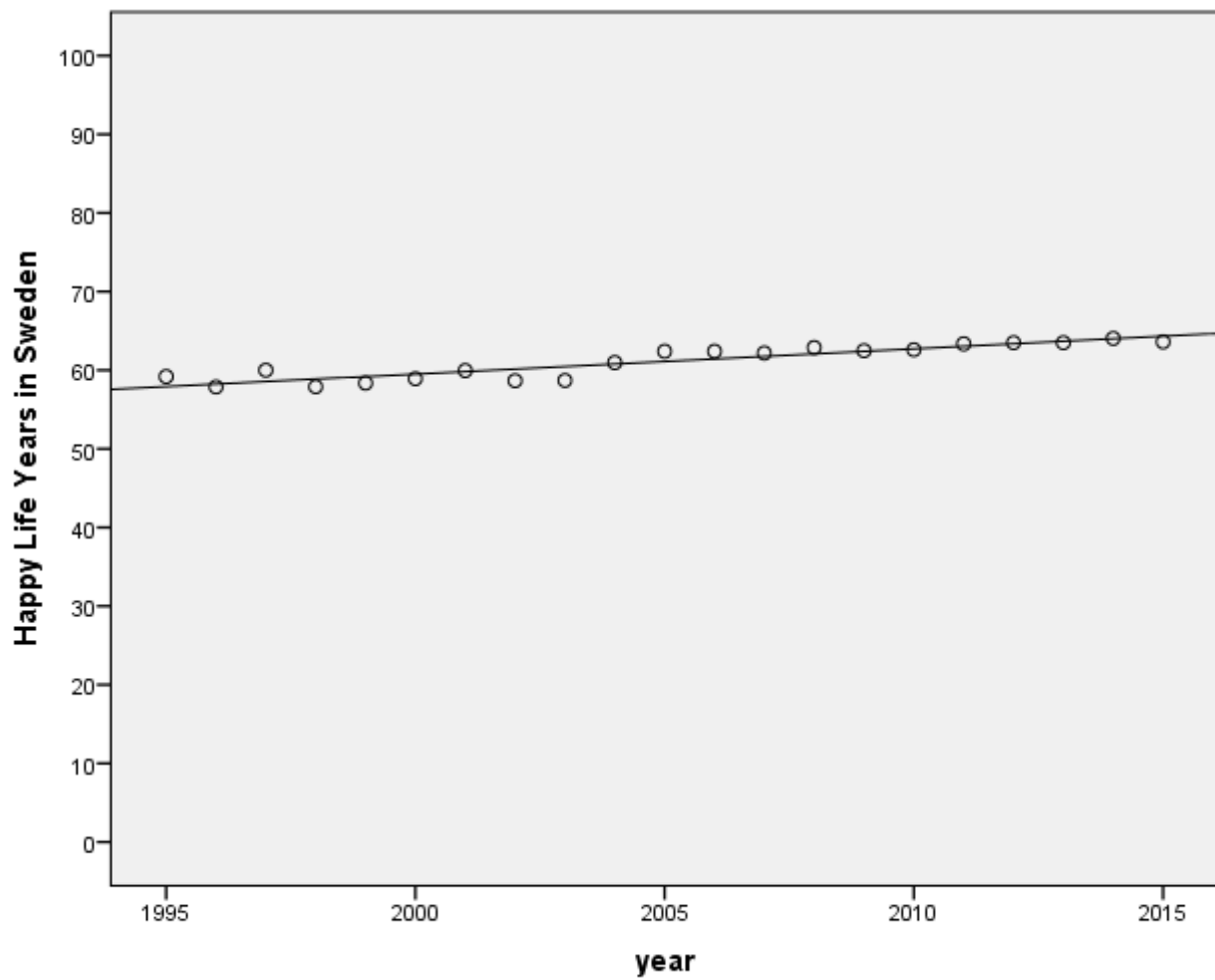
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Variable code in data file 'Trends in nations': hly_pt

Spain



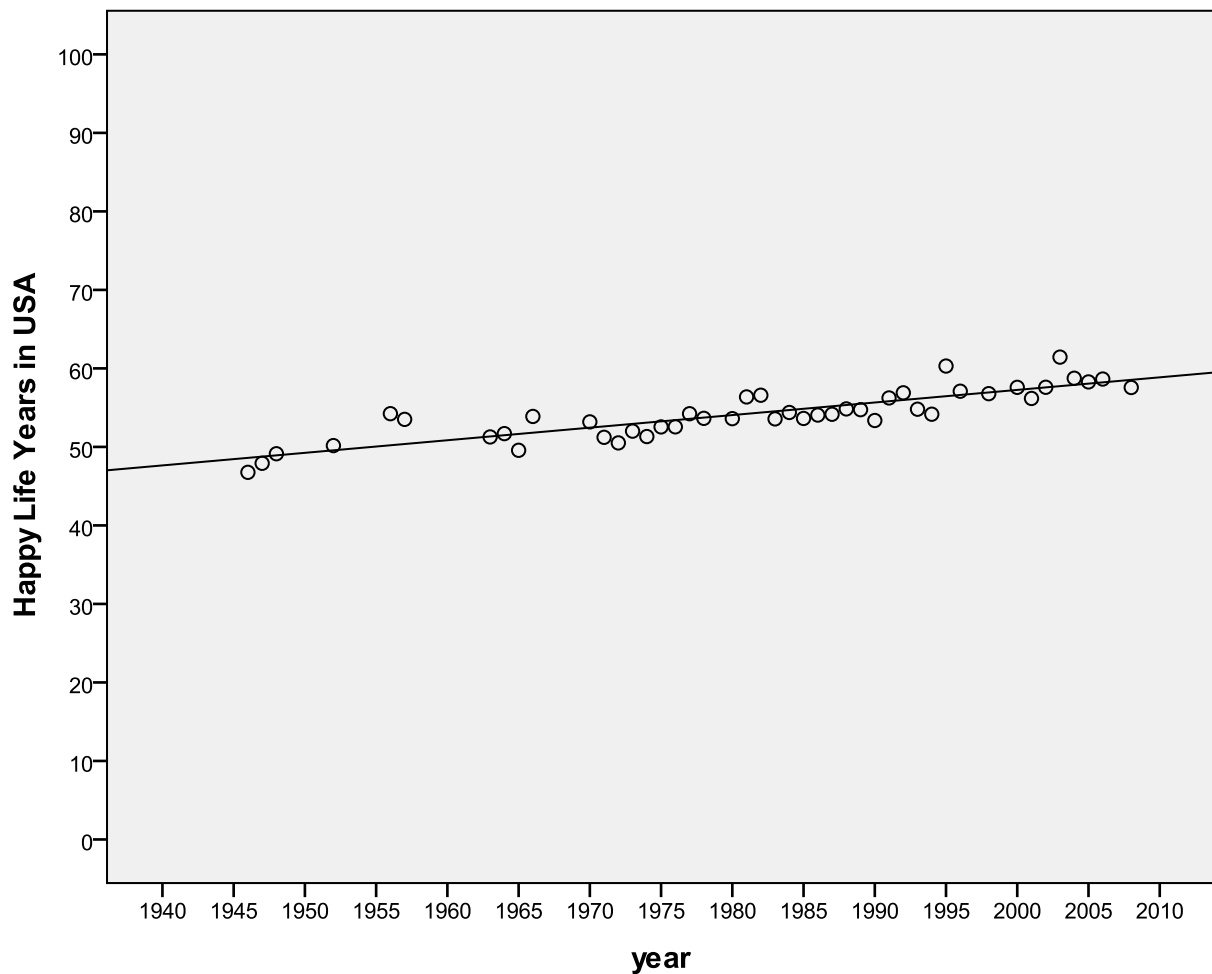
Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_sp

Sweden



Based on life expectancy at birth and average response to survey question on life satisfaction. Question code in item bank: O-SLL/u/sq/v/4/b.
Variable code in data file 'Trends in nations': hly_se

USA



Based on life expectancy at birth and average response to survey questions on happiness. Question code in item bank: O-HL/c/sq/v/3/aa and O-HL/g/sq/v/3/ variants a, d, g, l, f, O-HL/g/sq/v/4 Version a,aa,b,f. Steeper trends (over shorter periods) are obtained with the use of a question on life-satisfaction (O-SLP/g/sq/2/b) and a questions on the rating of life between 'best and worst possible' (O-BW/c/sq/l/11/a)

Variable code in data file 'Trends in nations': hly_us

Technical details

- 'Happy Life Years' (HLY) is an estimate of how long and happy the average citizen will live in that nation in this era.
 - Computation: 0-1 average enjoyment of life multiplied by expected average length of life
 - Also referred to as: "Happy Life-Expectancy" shortened as HLE or "Happiness Adjusted Life-Years" shortened as "HALY's (Analogous to Disability Adjusted Life Years, or "DALY's).
 - This variable is described in more detail in Veenhoven, R. [Happy Life Expectancy. A comprehensive indicator of quality of life in nations](#), in: Social Indicators Research, 1996, vol.39, pp. 1-58,. Further argumentation of theoretical significance of this measure can be found in Veenhoven, R. [The four qualities of life: Ordering concepts and measures of the good life](#), in Journal of Happiness Studies, 2000, vol. 1, pp. 1-39
 - This measure scored highest in a scholarly review of indicators of quality of life in nations. See: Hagerty, M., et. al. 'Quality of Life indexes for national policy: Review and agenda for research', Social Indicators Research, 2001, vol. 55, pp. 1-96.
- Life expectancy is estimated on the basis of civil registrations of birth and death. Source: Human Mortality Database: <http://www.mortality.org>, Human Development Reports: <http://hdrstats.undp.org/en/indicators/69206.html> and the World Health Organization WHO <http://apps.who.int/gho/data/view.main.SDG2016LEXv?lang=en>

	Human Mortality Database	Human Development Report	who
Austria	1947-2014		2015
Belgium	1970-2015		
Germany Reunited	1990-2013		2014-2015
East Germany	1956-2013		
West Germany	1956-2013		
Denmark	1946-2014		2015
EU9	1973-2015		
Finland	1878-2015		
France	1946-2014		2015
Greece	1961-2013		2014-2015
Ireland	1950-2014		2015
Italy	1946-2012	2013-2014	2015
Japan	1947-2014		2015
Luxembourg	1960-2014	2013-2014	2015
The Netherlands	1946-2012	2013-2014	2015
Portugal	1946-2012	2013-2014	2015
Spain	1946-2014		2015
Sweden	1751-2014		2015

United Kingdom	1946-2013		2014-2015
United States	1946-2014	2013-2014	2015

3. Happiness assessed by means of surveys in general public samples. The trends presented here are based on standard surveys that used the same question over the years. The precise questions are reported in the technical remarks to Trend Report Average Happiness_1946_2015
http://worlddatabaseofhappiness.eur.nl/hap_nat/findingreports/TrendReport_AverageHappiness.pdf

- The original scores on these questions were transformed linearly to a comparable 0-10 scale.
- Section 4/3 of the introductory text provides more detail about the classification of items and transformation of scores.

4. The variables used here are also described in the codebook of the data file 'Trend in nations', variable [Happy Life Years](#)

5. The average annual change is expressed in a regression coefficient (B) that stands for the size of the slope of the linear regression line through the dots (averages) in the time charts. A positive coefficient denotes a rise in years lived happily and a negative coefficient a decline. A regression-coefficient of +.10 means a gain of one tens per year, so one full happy life-year every ten years.

6. The observed regression coefficient is based on a sample of assessments of happiness during this era and the coefficient in this sample may differ from the 'true' coefficient. The confidence interval gives an estimated range in which this true coefficient is likely to be included with 95% probability.

7. This report limits to time series of at least 20 years.

8. The data are recorded in the SPSS file [Trends in Nations](#), which is available on request.

Cite as:

Veenhoven, R.,
Trend Happy-Life-Years in Nations 1946-2010: How long and happy people live World Database of Happiness, Trend Report Happy Life Years 2015,
 Internet address: <http://www.worlddatabaseofhappiness.eur.nl>

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