

Trend Happy-Life-Years in Nations 1946-2010

How long and happy people live

Table 1

Trend HLY expressed in number of years gained

Nation	Gain in happy life years ¹	
	1946-2010	1973-2010
Belgium	-	+3.4
Denmark	-	+ 8.0
EU9*		+ 8.2
France	-	+ 10.0
Germany (W)*	-	+ 5.8
Greece*		+0.2
UK (Great Britain)	-	+ 7.6
Ireland	-	+ 7.7
Italy	-	+ 10.5
Japan	+ 11.3	+ 6.6
Luxembourg	-	+ 10.4
Netherlands	-	+ 6.5

Portugal *		-1.7
Spain *		+ 5.8
USA	+ 7.2	+ 6.1

Data: Table 2, Trend line in Graphs

* Greece since 1981, Portugal and Spain since 1985, EU9 and West Germany until 2009

Table 2
Trend HLY expressed in average annual increase

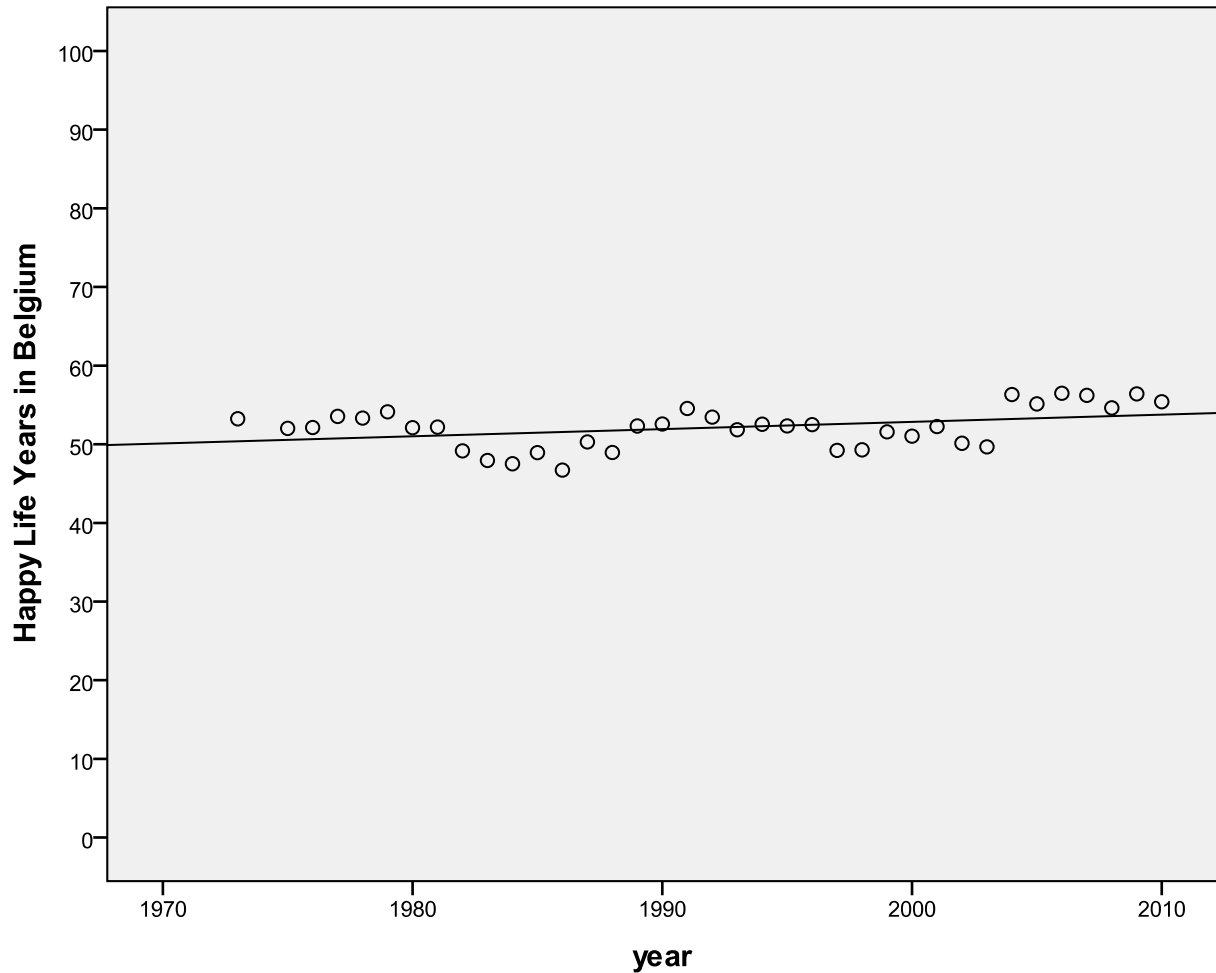
Nation	Period ^{5, 6}	Average annual increase (B) ⁴					
		Happiness ³		Life expectancy ²		HLY ¹	
		B	CI 95	B	CI 95	B	CI 95
Belgium	1973-2010	-0.009	-.019 +.001	+0.23	+0.23; +0.24	+0.091	-.16; +0.17
Denmark	1973-2010	+0.015	+0.011 +.018	+0.14	+0.13; +0.16	+0.217	+0.20; +0.25
EU9	1973-2009	+0.009	+0.005 +.012	+0.24	+0.23; +0.24	+0.227	+0.20; +0.25
France	1973-2010	+0.015	+0.009 +.021	+0.25	+0.24; +0.25	+0.271	+0.23; +0.31
Germany (W)	1973-2009	+0.000	-.007 +.007	+0.25	+0.24; +0.26	+0.167	+0.11; +0.22
Greece	1981-2010	-.010	-.023 +.004	+0.15	+0.14; +0.16	+0.007	-.10; +0.11
UK	1973-2010	+0.007	+0.003 +.011	+0.22	+0.21; +0.22	+0.206	+0.17; +0.24
Ireland	1973-2010	+0.005	-.004 +.013	+0.24	+0.23; +0.26	+0.209	+0.15; +0.28
Italy	1973-2010	+0.017	+0.009 +.025	+0.27	+0.26; +0.27	+0.285	+0.22; +0.35
Japan	1958-2007	+0.007	-.002 +.012	+0.31	+0.29; +0.32	+0.240	+0.20; +0.28
	1973-2007	+0.006	-.003 +.014	+0.25	+0.24; +0.26	+0.195	+0.13; +0.27
Luxembourg	1973-2010	+0.011	+0.006 +.015	+0.28	+0.27, +0.29	+0.281	+0.24; +0.32

Netherlands	1973-2010	+0.007	-.002 +.012	+0.16	+0.15; +0.17	+0.177	+0.14; +0.22
Portugal	1985-2010	-.026	-.039 - .013	+0.26	+0.24; +0.27	-0.064	-0.16; +0.03
Spain	1985-2010	+0.011	-.002 +.024	+0.22	+0.20; +0.23	+0.224	+0.12; +0.33
USA	1946-2008	+0.003	-.001 +.007	+0.18	+0.18; +0.19	+0.160	+0.13; +0.19
	1973-2008	+0.009	+0.002 +.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

Belgium



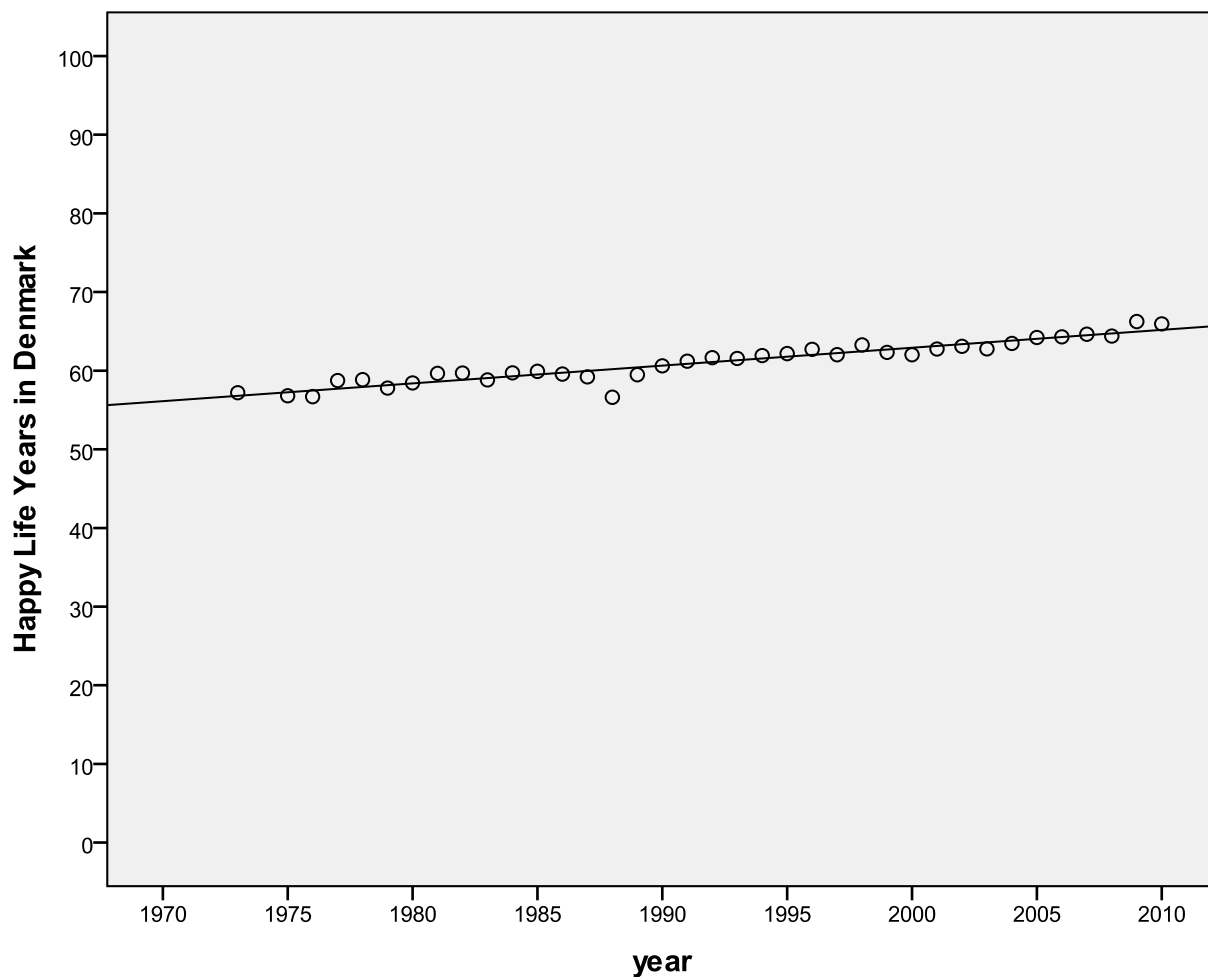
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Belgium](#)

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_be_2010

Denmark



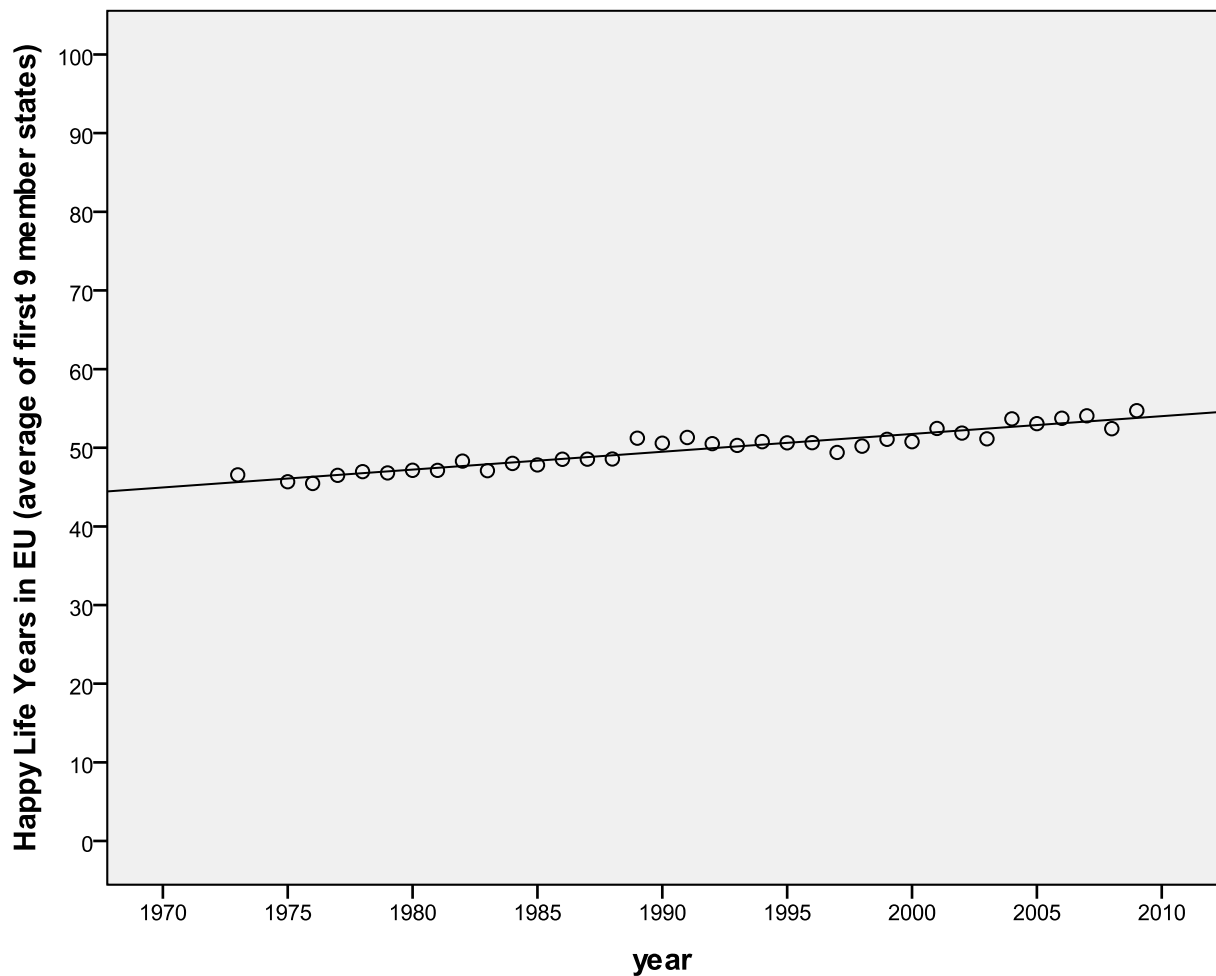
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Denmark](#)

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_dk_2010

EU9



HLY based on 1) life expectancy at birth and 2) average response to survey question on life satisfaction

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](https://www.eurostat.ec.europa.eu/ViewMain.aspx?lang=en)

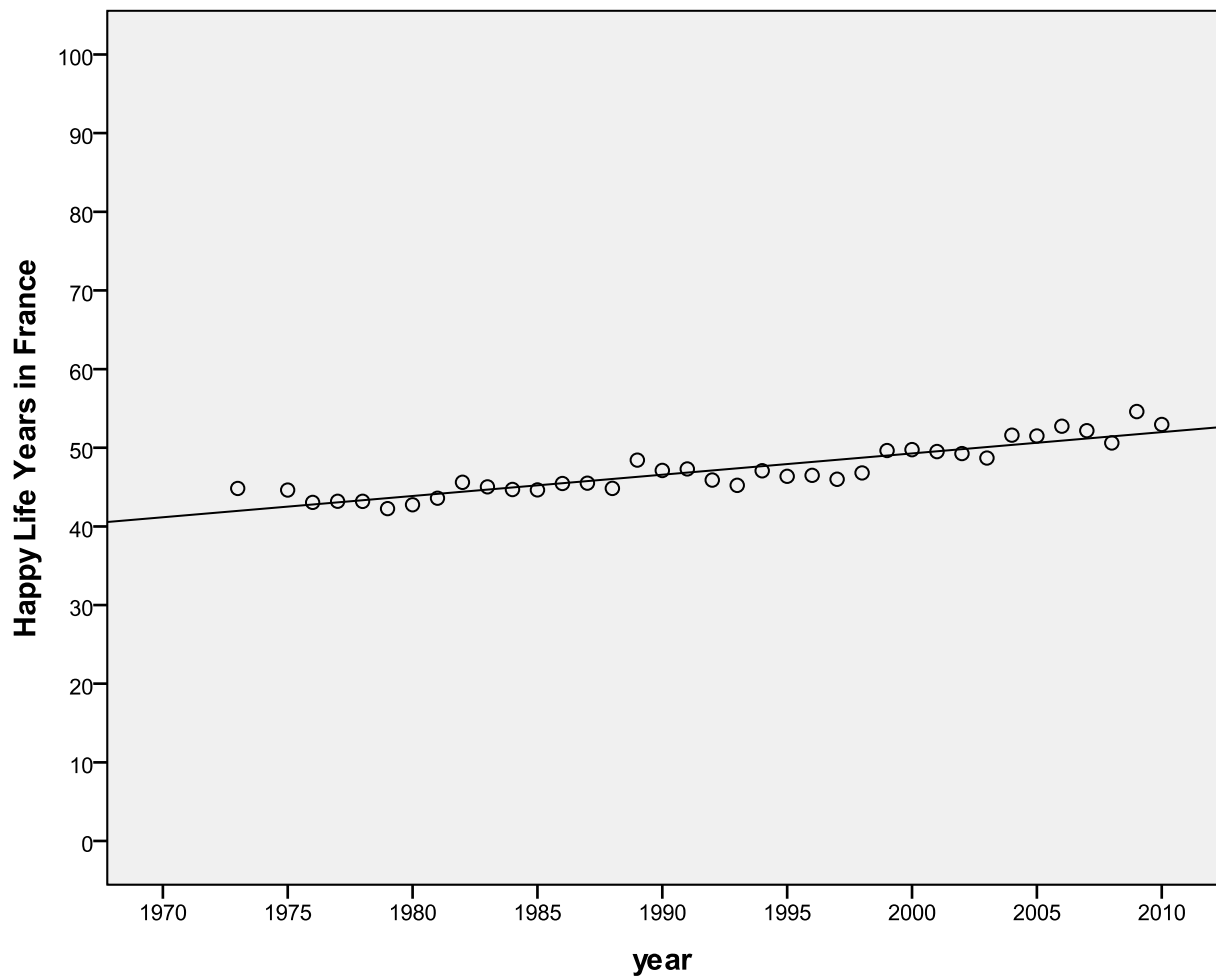
Variable code in data file 'Trends in nations': hly_eu9_2010

Weighted average of first 9 member states of the European Union 1973-2009

The population weights are about as follows (1995):

Belgium	0.037
France	0.215
(West)Germany	0.234
Ireland	0.015
Italy	0.207
Luxembourg	0.002
Netherlands	0.058
Denmark	0.019
United Kingdom	0.212

France



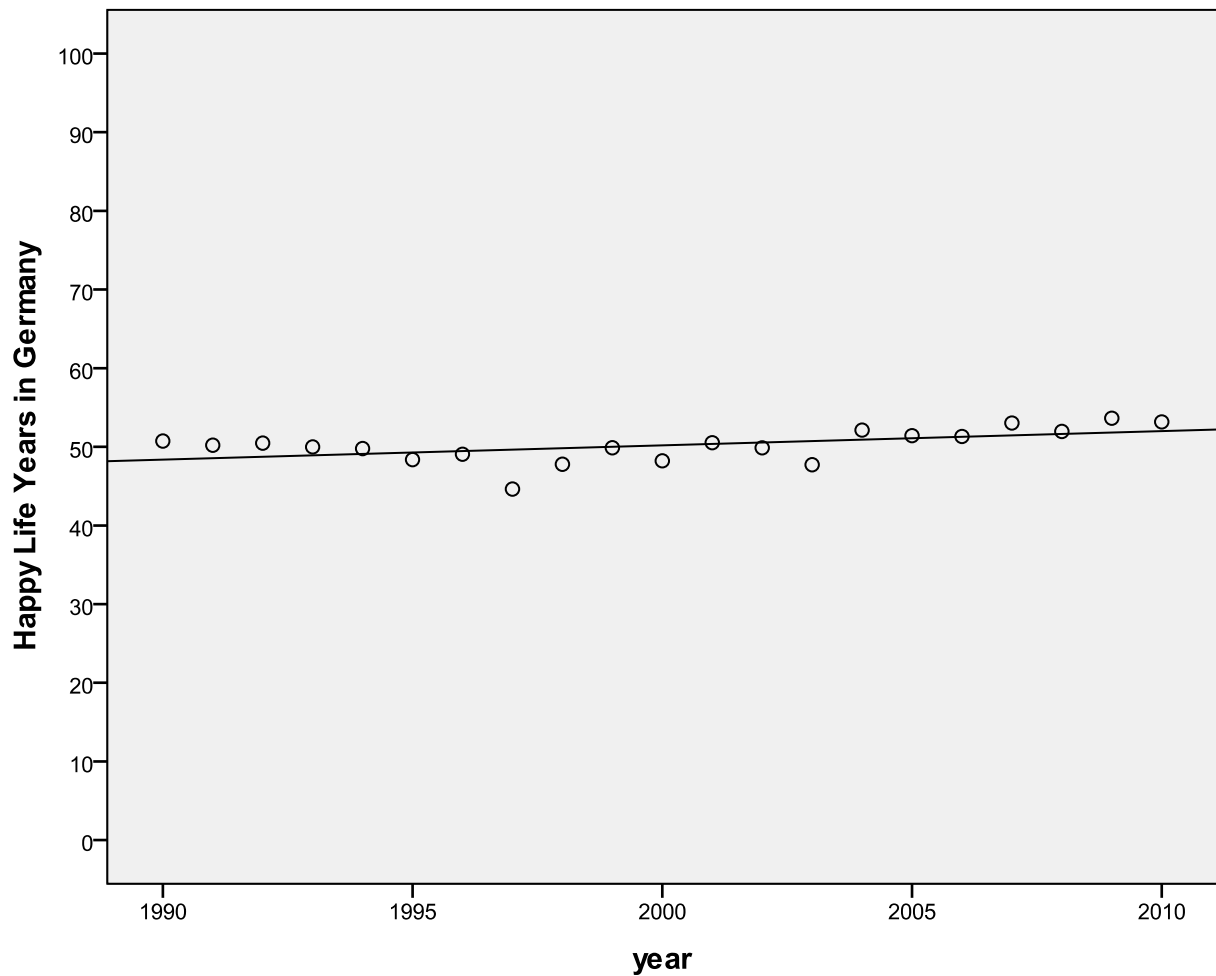
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report France](#)

Question code in in collection 'Measures of Happiness' [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_fr_2010

Germany: Reunited after 1990



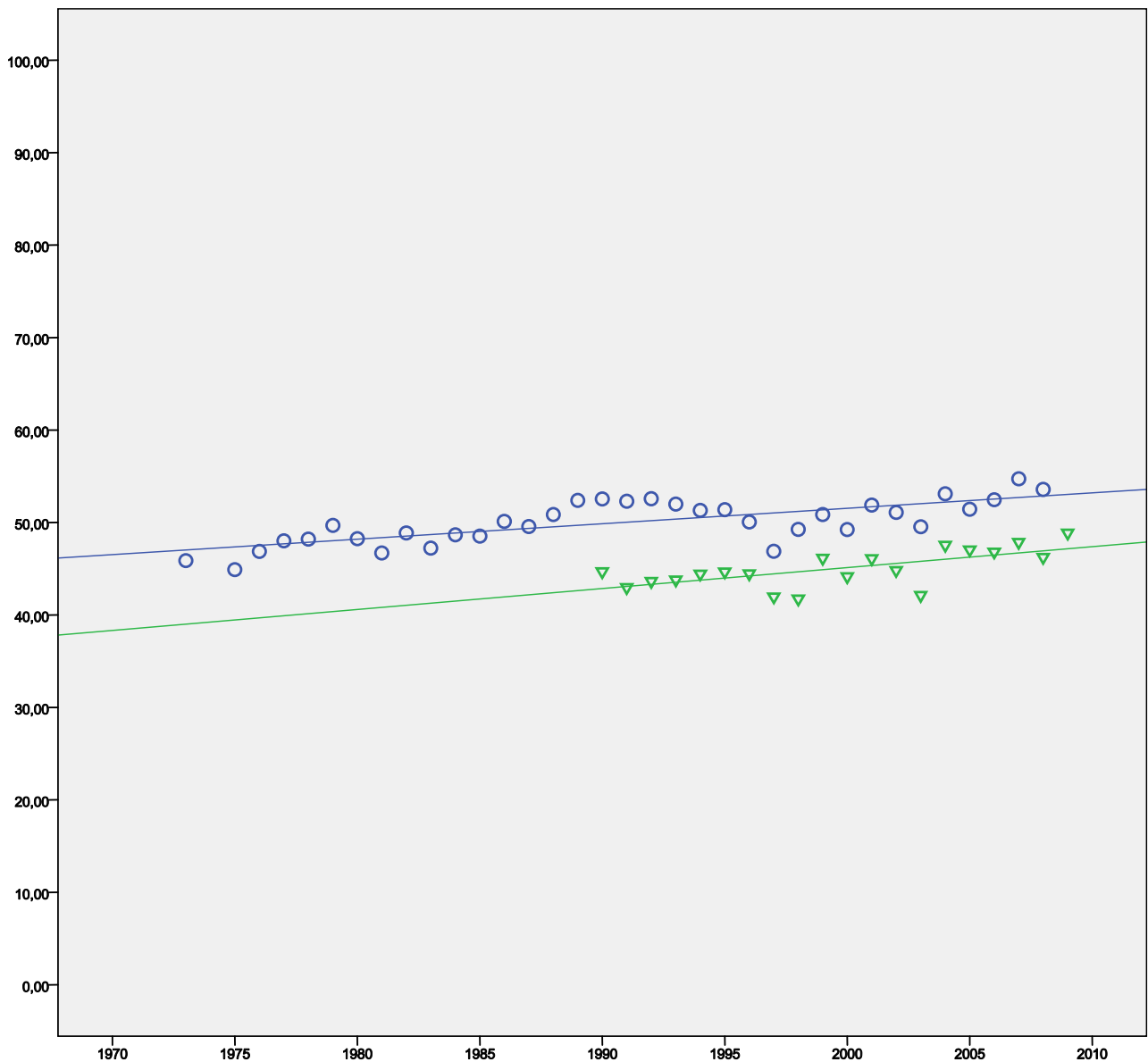
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Germany](#)

Question code in collection 'Measures of happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_de_2010

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

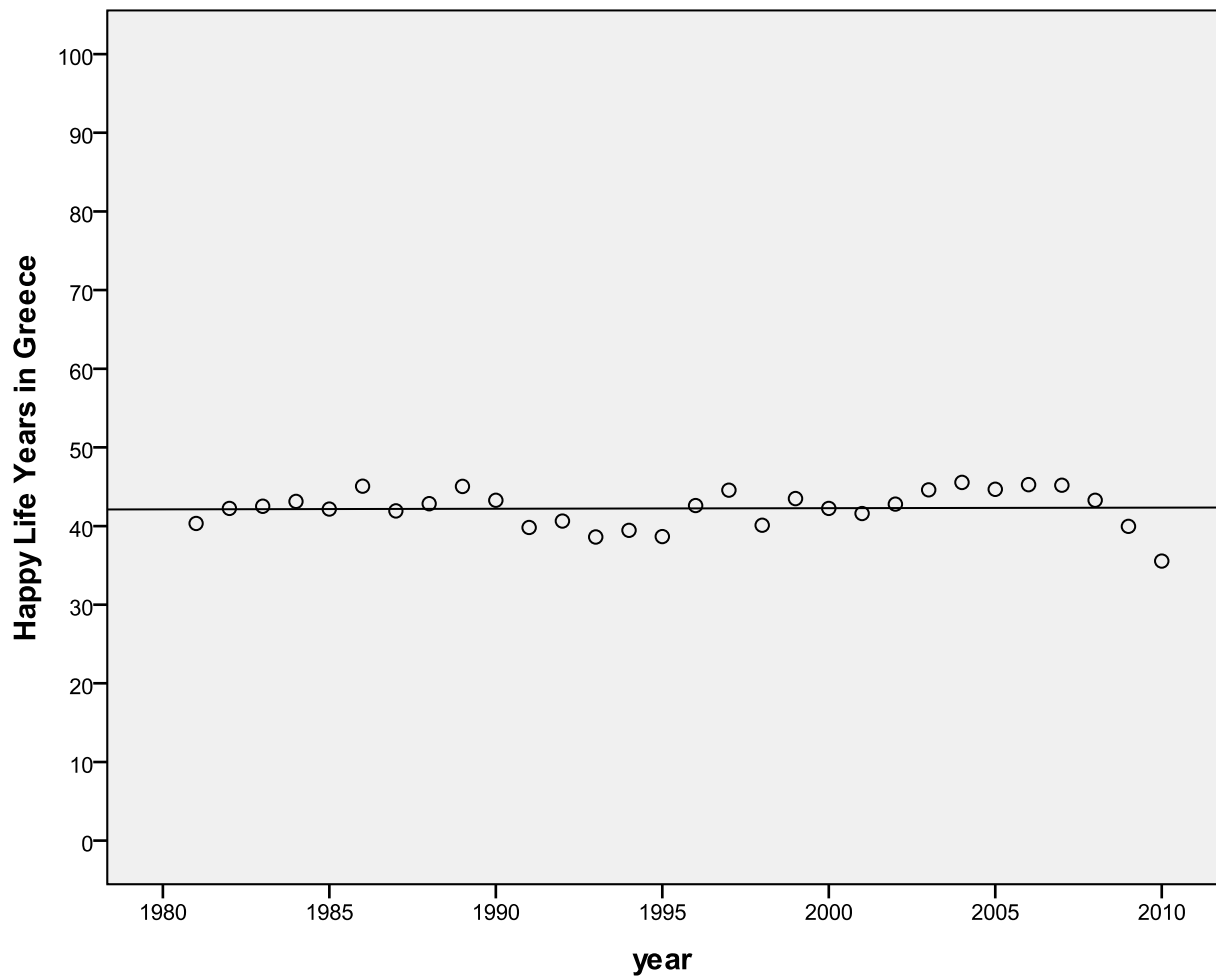


HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](https://data.worldbank.org/indicator/O-SLL/u/sq/v/4/b).

Variable code in data file 'Trends in nations': hly_dew_2010 and hly_dee_2010

Greece



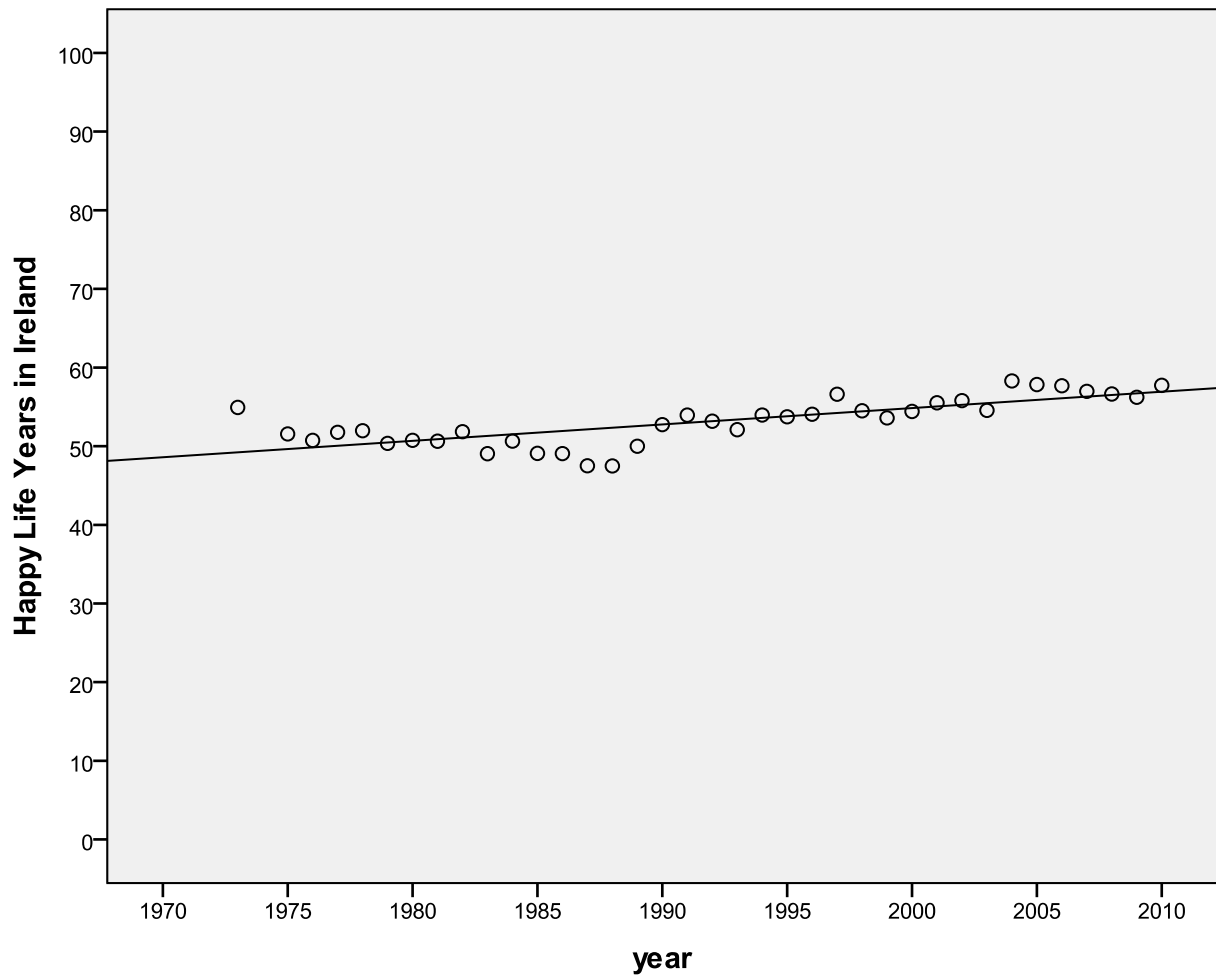
HLY based on; 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Greece](#)

Question code in collection 'Measures of happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_gr_2010

Ireland



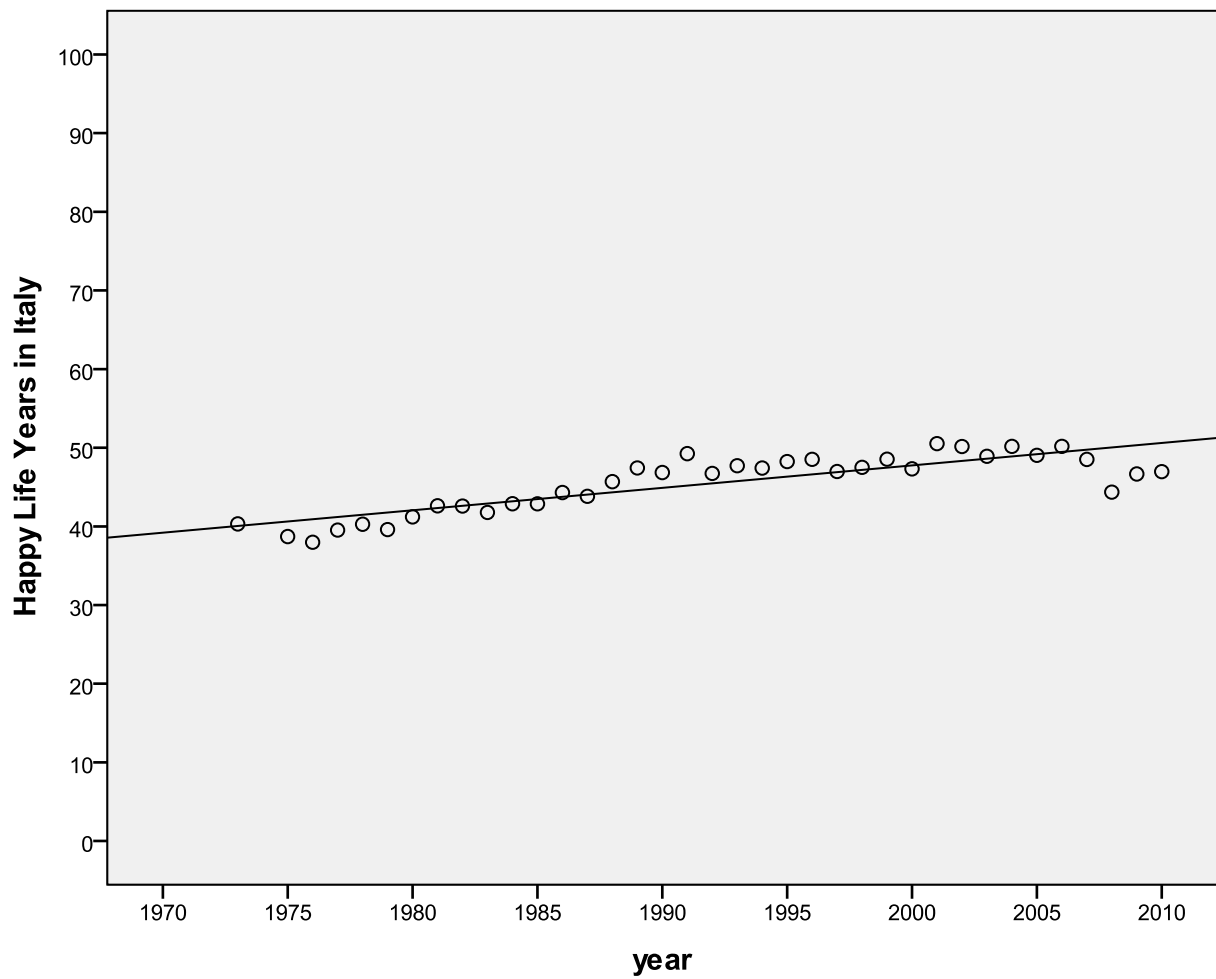
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Ireland](#)

Question code in collection 'Measures of happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_ie_2010

Italy



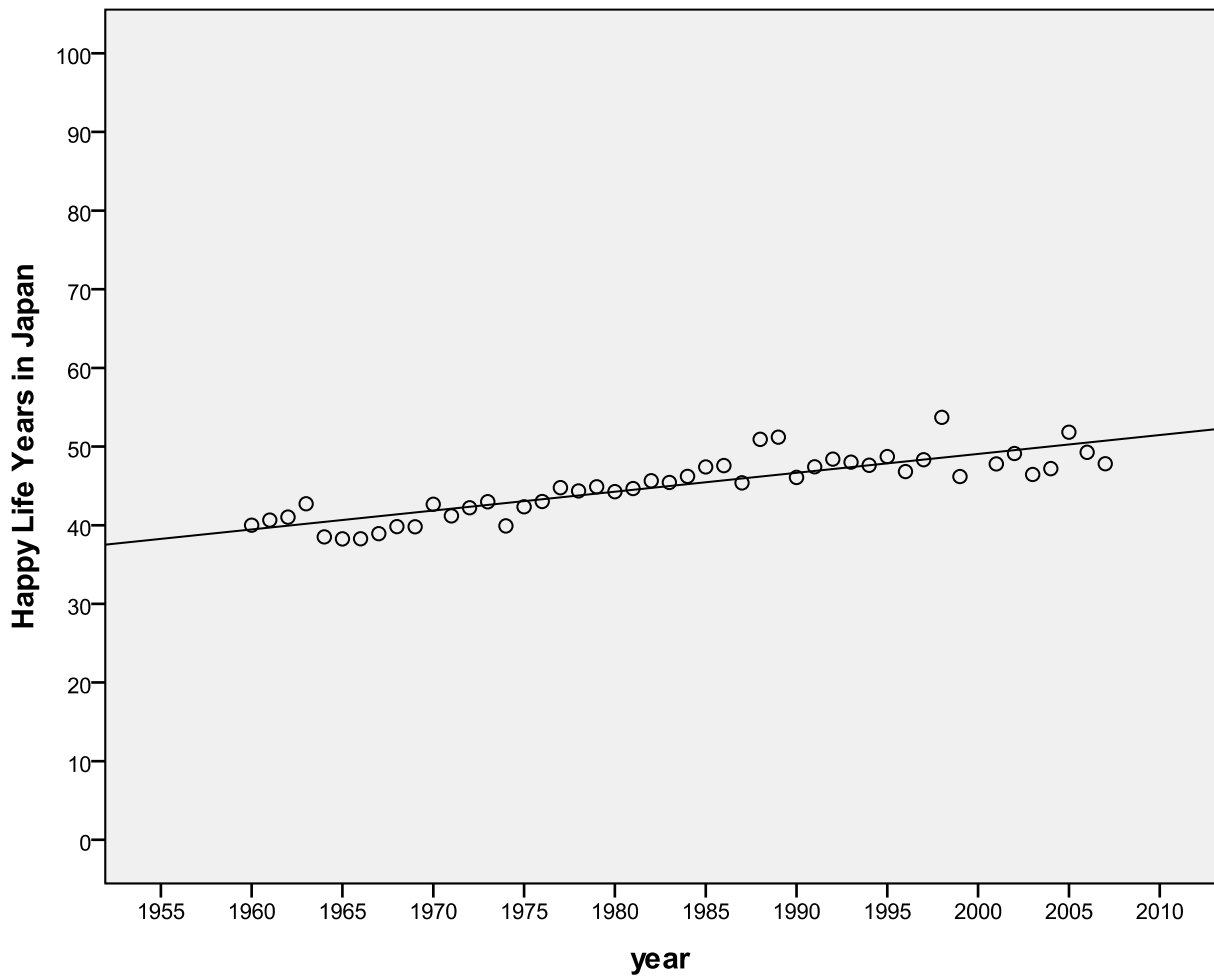
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Italy](#)

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_it_2010

Japan



HLY based on: 1) life expectancy at birth and 2) average response to survey questions on life satisfaction.

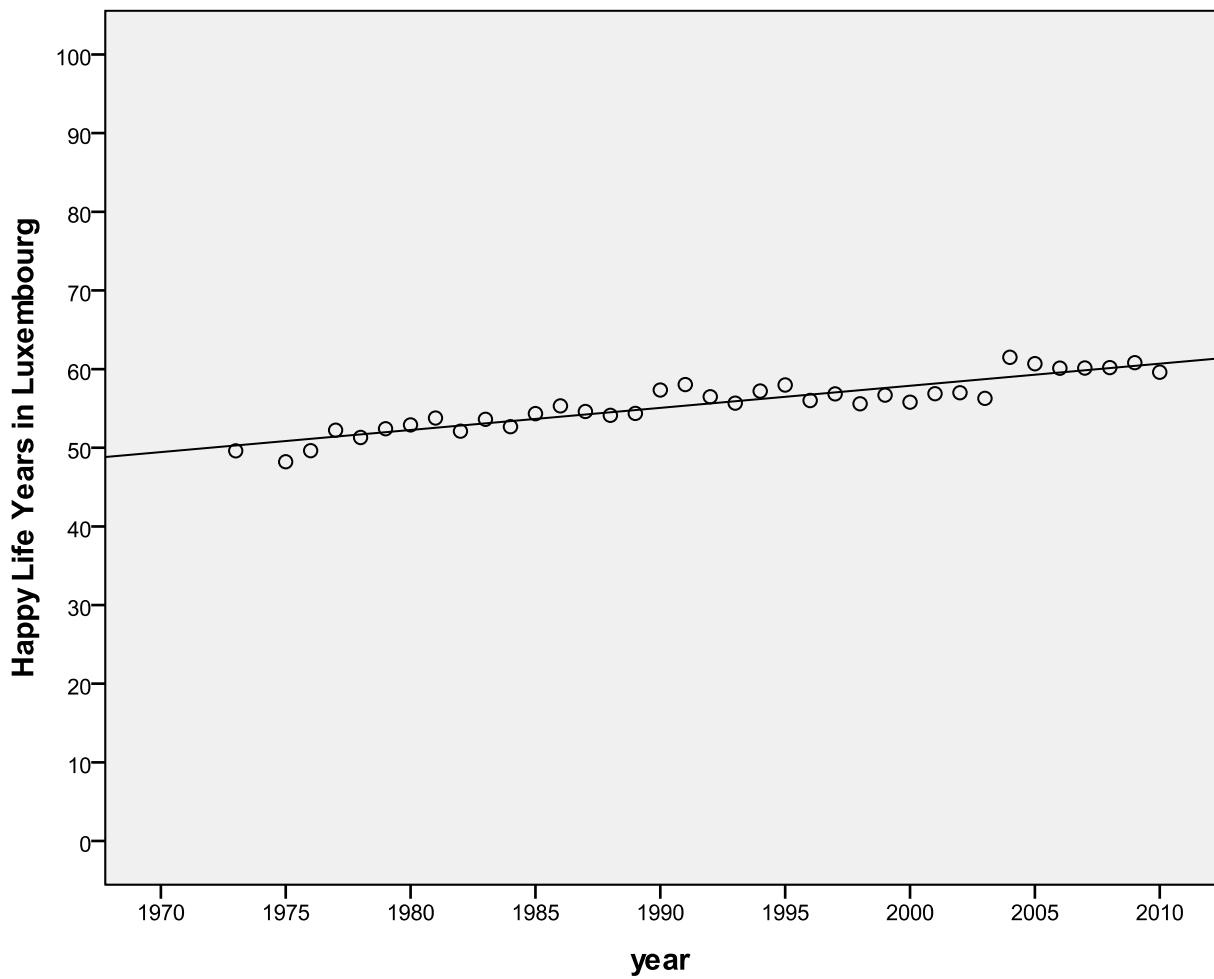
Data on happiness taken from [Nation report Japan](#)

Question codes in collection 'Measures of Happiness': O-SLL/u/sq/v/4..

variants [a](#), [e](#), [O-SLW/c/sq/v/4/e](#), [O-SLu/c/sq/v/4/f](#), [O-SLu/u/sq/v/4/e](#), [O-SLu/g/sq/v/5/e](#), O-SLW/c/sq/v/5 .. variants [fc](#), [k](#), [l](#), [r](#) and [O-SLW/u/sq/v/5/h](#).

Variable code in data file 'Trends in nations': hly_jp_2010

Luxembourg



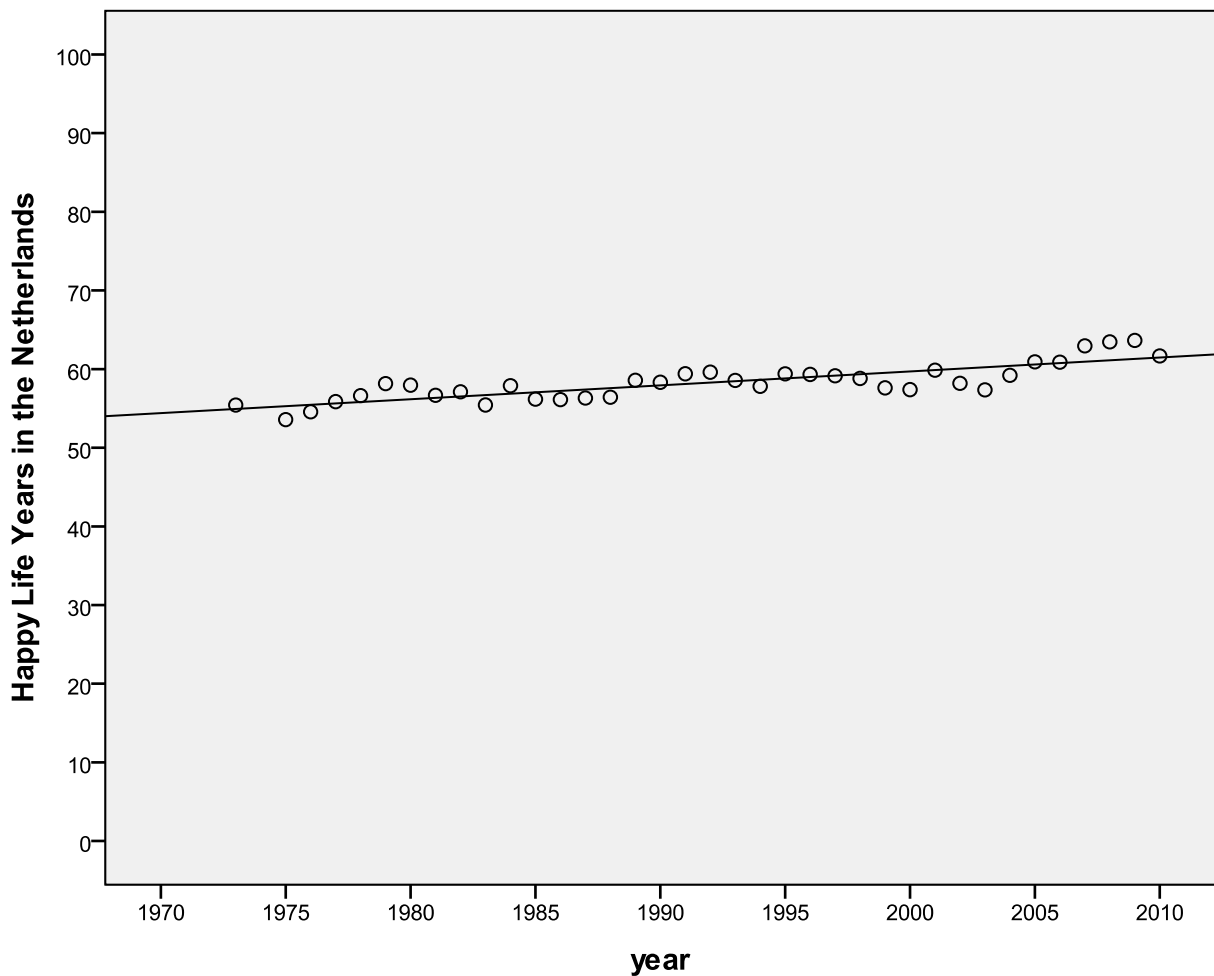
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Luxembourg](#)

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_lu_2010

Netherlands



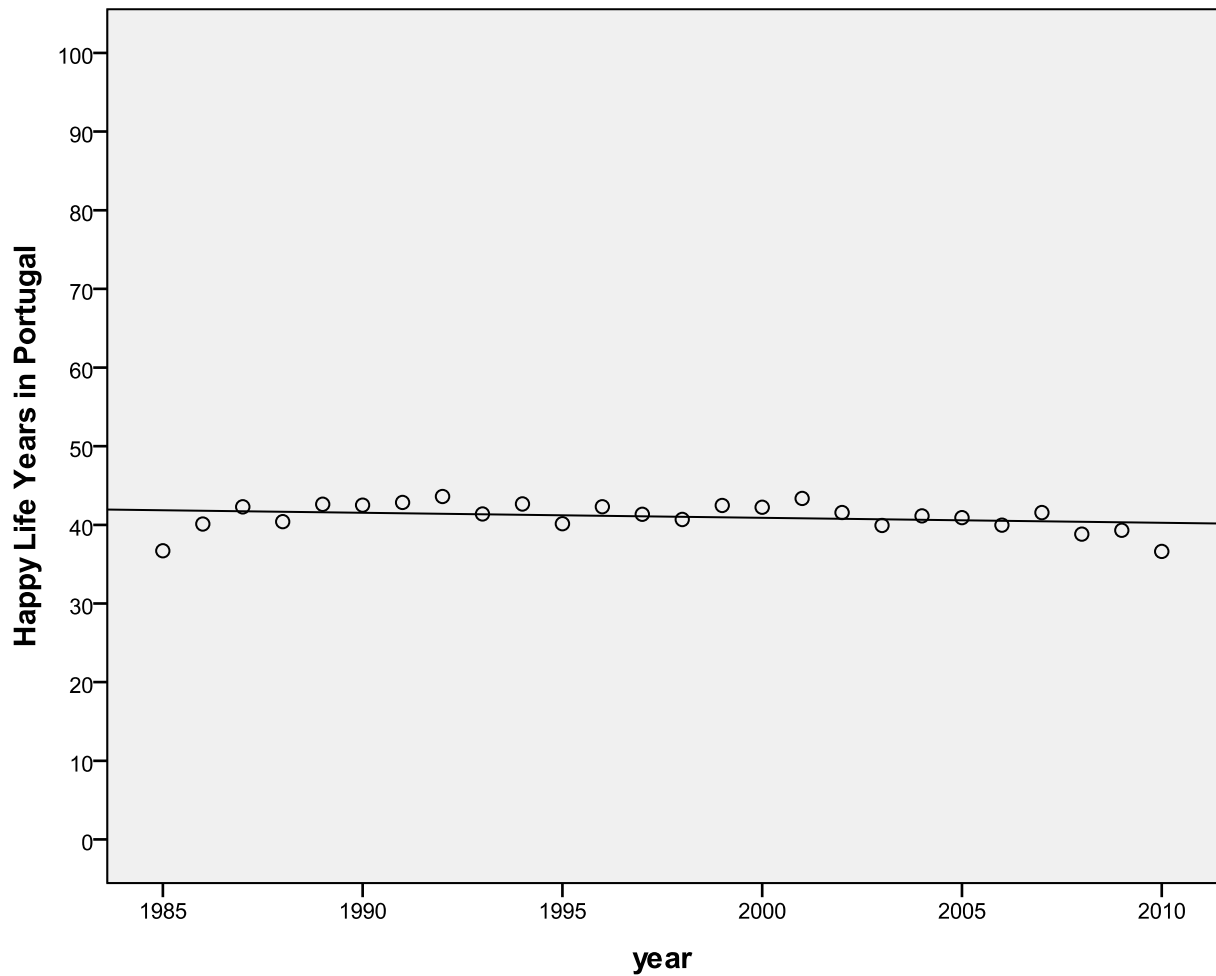
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Netherlands](#)

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in Nations': hly_nl_2010

Portugal



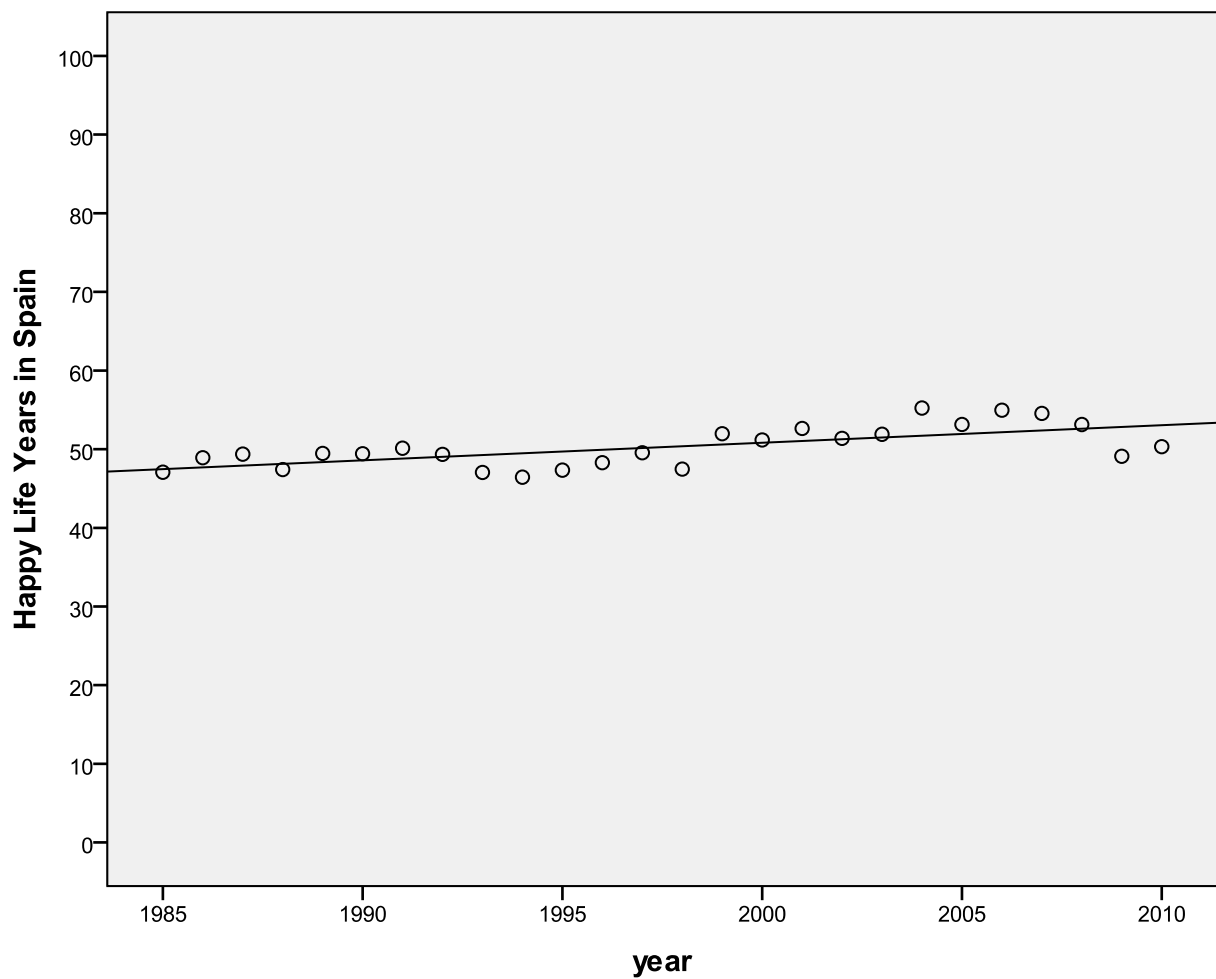
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Portugal](#)

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_pt_2010

Spain



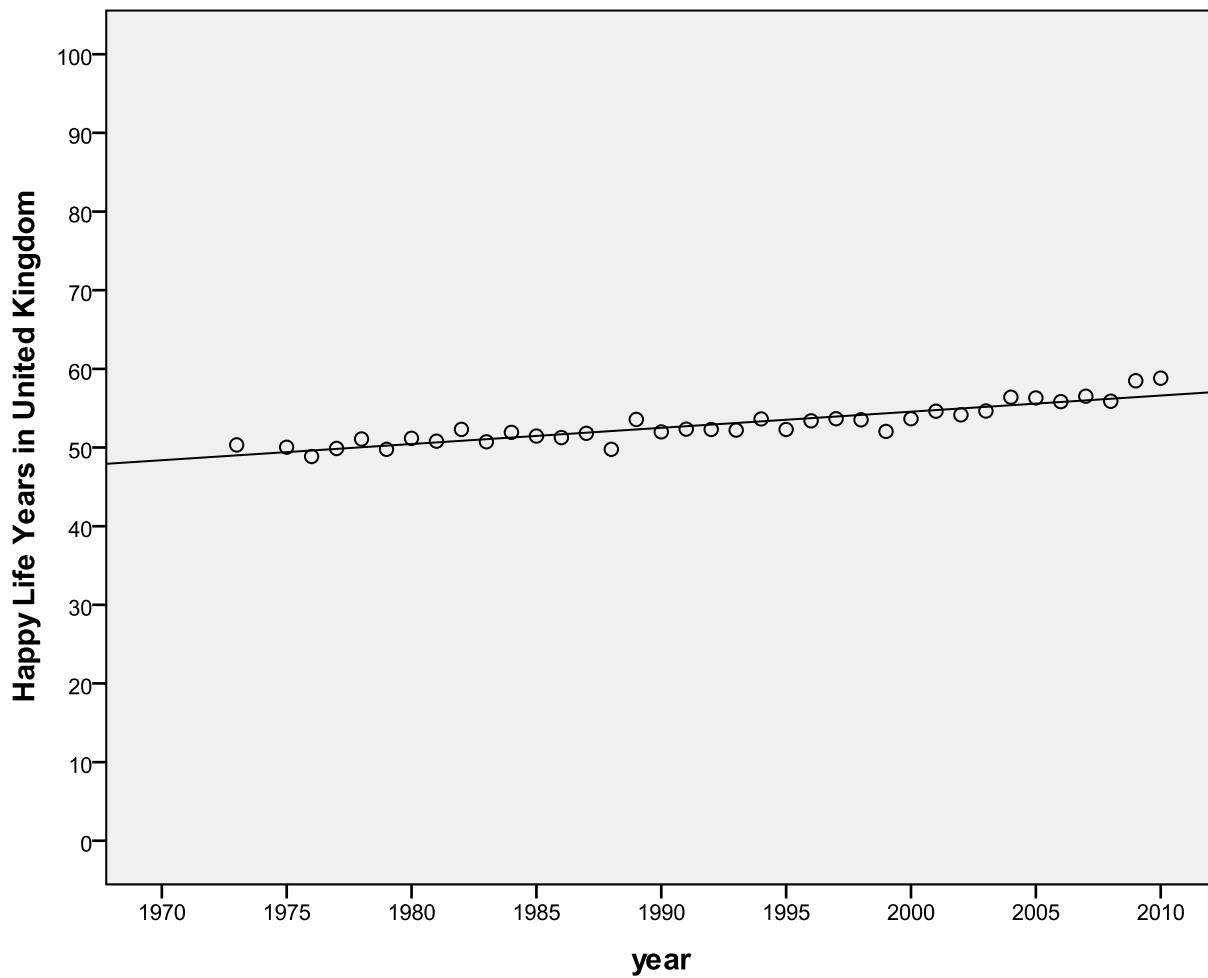
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from [Nation report Spain](#)

Question code in collection 'Measures of Happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_sp_2010

UK (Great Britain)



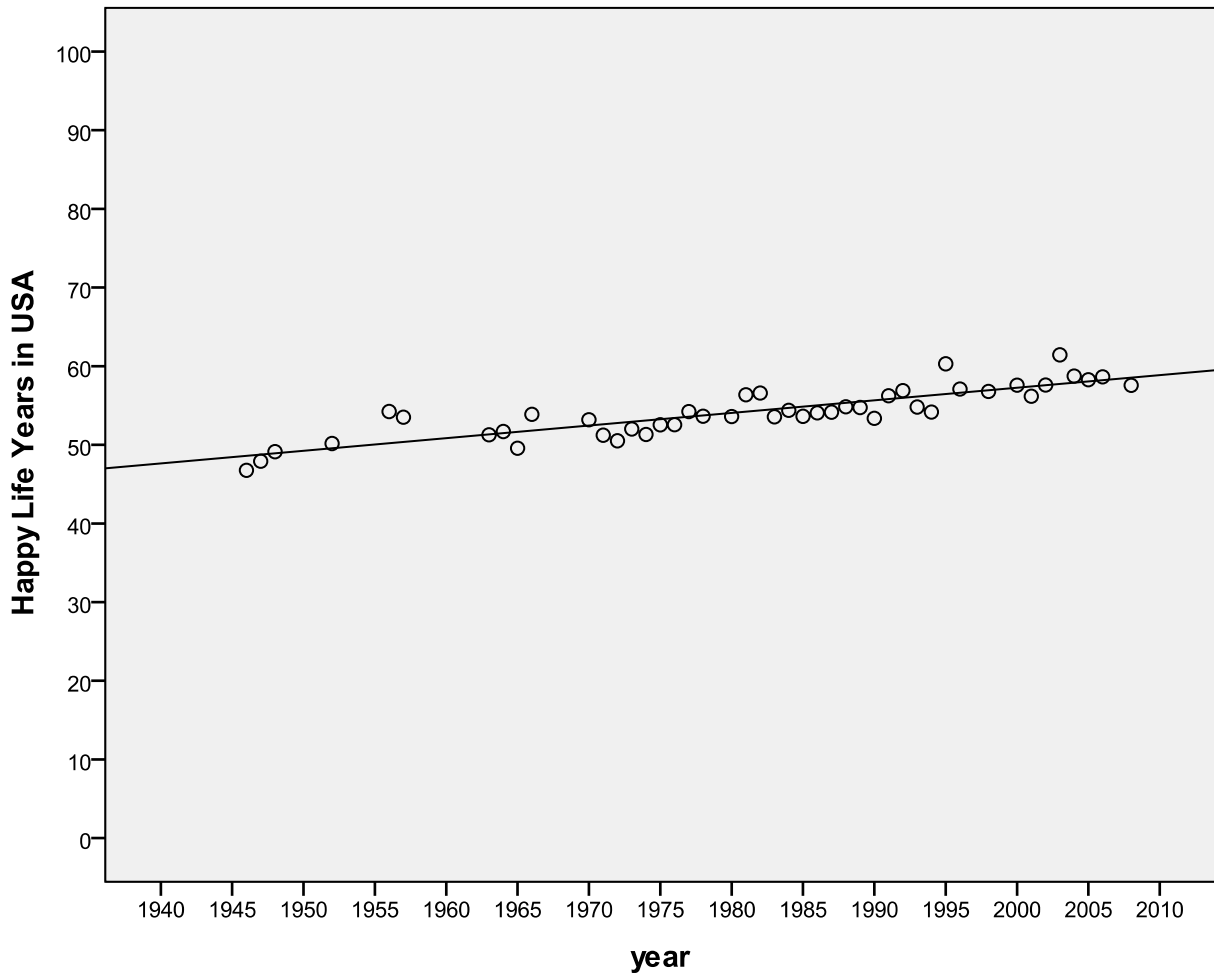
HLY based on: 1) life expectancy at birth and 2) average response to survey question on life satisfaction.

Data on happiness taken from Nation report [United Kingdom](#)

Question code in collection 'Measures of happiness': [O-SLL/u/sq/v/4/b](#)

Variable code in data file 'Trends in nations': hly_uk_2010

USA



HLY based on: 1) life expectancy at birth and 2) average response to survey questions on happiness.

Data on happiness taken from [Nation report USA](#)

Question code in collection 'Measures of happiness': [O-HL/c/sq/v/3/aa](#) and O-HL/g/sq/v/3/ variants [a](#), [d](#), [f](#), [g](#), [l](#), [O-HL/c/sq/v/4/f](#), [O-HL/g/sq/v/4/b](#) and [O-HL/u/sq/v/4/a](#) and [aa](#)

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' ([C-BW/c/sq/l/11/a](#))

Variable code in data file 'Trends in nations': hly_us_2010

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
Taken from the following sources:

	Human Mortality Database	EuroStat	Human Development Report
Belgium	1970-2009		2010
Germany (reunited)	1990-2009		2010
East Germany	1956-2009		
West Germany	1956-2009		2010
Denmark	1946-2009		2010
EU9	1973-2009		
France	1946-2009		2010
Greece	1961-2009		2010
Ireland	1950-2009		2010
Italy	1946-2008		2010
Japan	1947-2009		2010
Luxembourg	1960-2009		2010
The Netherlands	1946-2008	2009	2010
Portugal	1946-2009		2010
Spain	1946-2006	2007-2009	2010
United Kingdom	1946-2009		2010
United States	1946-2007	2008	2009, 2010

- 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](#).

- These questions are described in more detail in the collection 'Measures of Happiness' of this World Database of Happiness. The question codes mentioned below each of the graphs link to that information
 - Original scores on these questions were transformed linearly to a comparable 0-10 scale, using methods explained in '[How the data are homogenized](#)', chapter 7 of the introductory text to this collection 'Happiness in Nations'.
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 tenth 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, Erasmus University Rotterdam, The Netherlands. Internet address:

http://www.worlddatabaseofhappiness.eur.nl/hap_nat/findingreports/Archive/TrendReport_HappyLifeYears_1946-2010.pdf

Earlier trend reports

- http://worlddatabaseofhappiness.eur.nl/hap_nat/findingreports/Archive/TrendReport_HappyLifeYears_1946-2002.pdf
- http://worlddatabaseofhappiness.eur.nl/hap_nat/findingreports/Archive/TrendReport_HappyLifeYears_1946-2003.pdf
- http://worlddatabaseofhappiness.eur.nl/hap_nat/findingreports/Archive/TrendReport_HappyLifeYears_1946-2008.pdf

Back to start page of [World Database of Happiness](#), Distributional findings on [Happiness in Nations](#)