Equality of happiness in nations: Trend 1946-2003

Equality of happiness[1,3] measured by standard-deviations[2, 4]

Rise/decline

**Expressed in regression coefficient[5] Standard Deviation of Happiness - Year**

SD got significantly smaller (Meaning more equality)		SD did not change significantly		SD increased significantly (Meaning less equality)	
Spain 1986-2002	-.033	Germany 1990-2002	+.003	East-Germany 1990-2002	+.010
Greece 1981-2002	-.022	West Germany 1973-2002	-.002		
Italy 1973-2002	-.013	Portugal 1986-2002	-.004		
Japan 1958-2003	-.013				
Ireland 1980-2002	-.010				
Luxembourg 1973-2002	-.006				
United States 1946-1998	-.006				
Great Britain 1973-2002	-.005				
Belgium 1973-2002	-.005				
France 1973-2002	-.004				
Denmark 1973-2002	-.004				
Netherlands 1973-2002	-.003				

The number of nations where the dispersion of happiness declined is significantly greater than the number of nations in which dispersion increased (binomial test, $p < .004$).
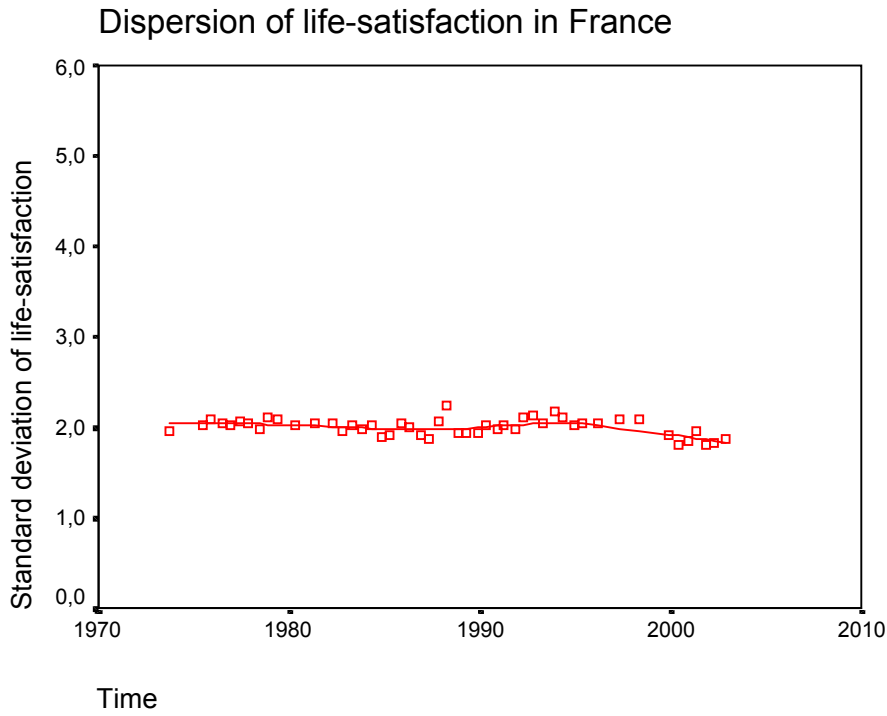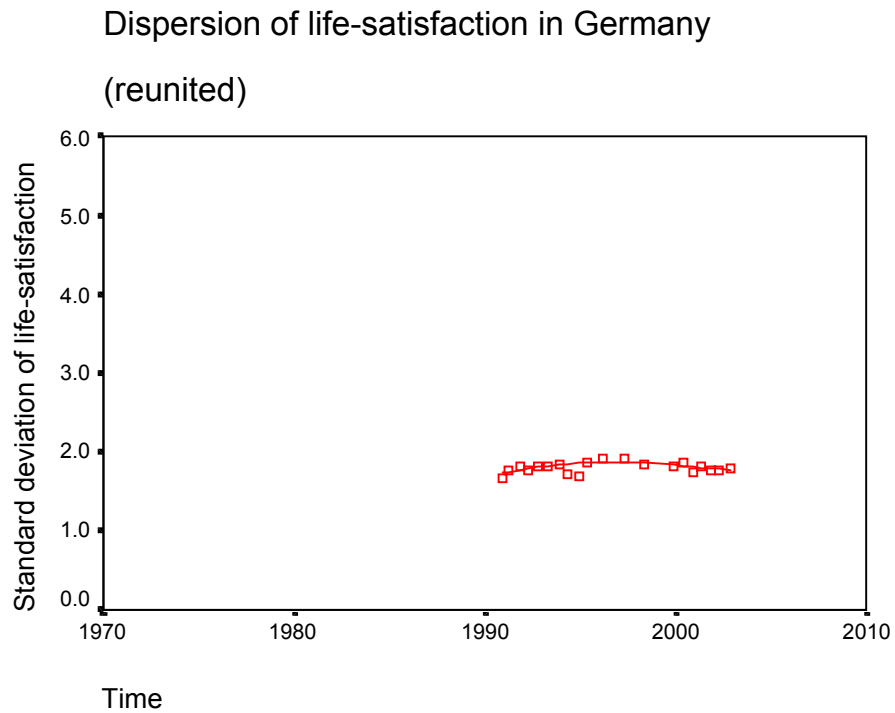
Case plots: Alphabetic

Dispersion of life-satisfaction in Belgium
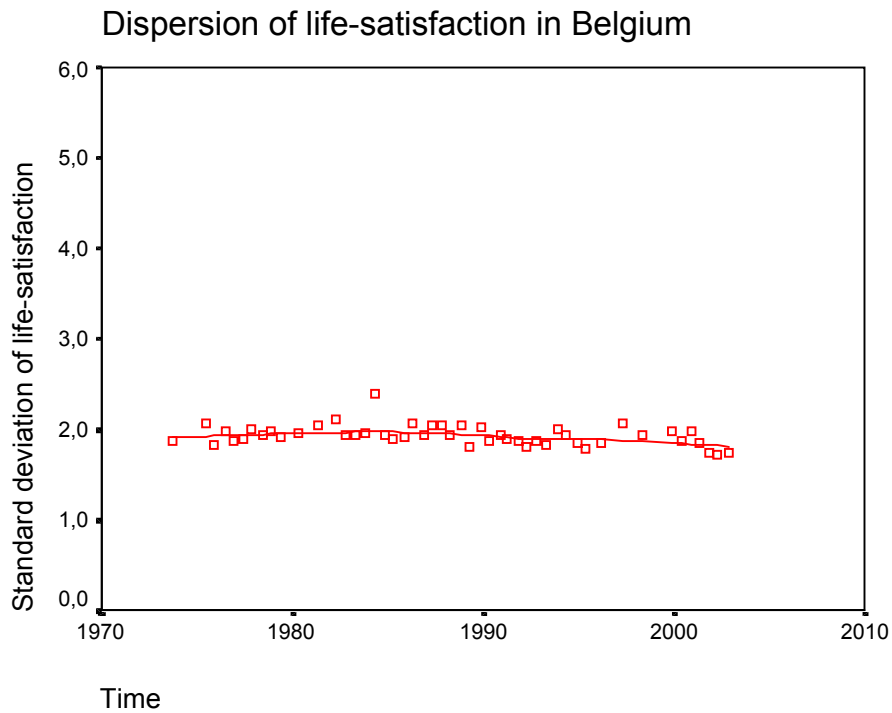
The linear regression coefficient in Belgium is: -.005. 95 % confidence interval: [-.009,-.001]

Dispersion of life-satisfaction in Denmark
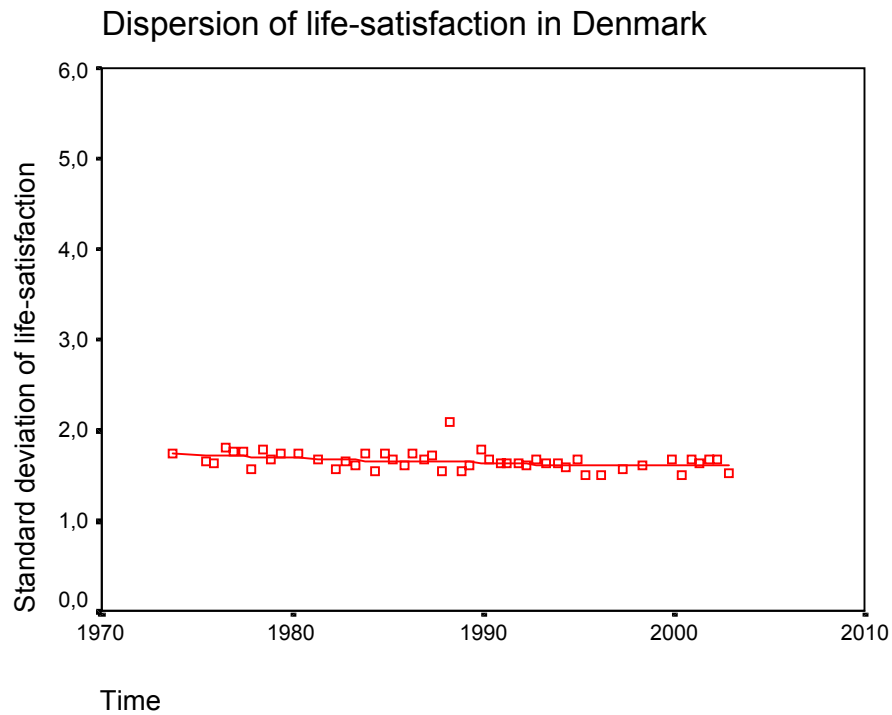
The linear regression coefficient in Denmark is: -.004. 95 % confidence interval: [-.008,-.001]

Dispersion of life-satisfaction in France

Time

The linear regression coefficient in France is: -.004. 95 % confidence interval: [-.007,-.001]

Dispersion of life-satisfaction in Germany

(reunited)

Time

The linear regression coefficient in reunited Germany is: +.003. 95 % confidence interval: [-.004,+.011]

Dispersion of life-satisfaction in

East and West Germany (separately)

The linear regression coefficient in East Germany is: +.010. 95 % confidence interval: [+.003,+.017]
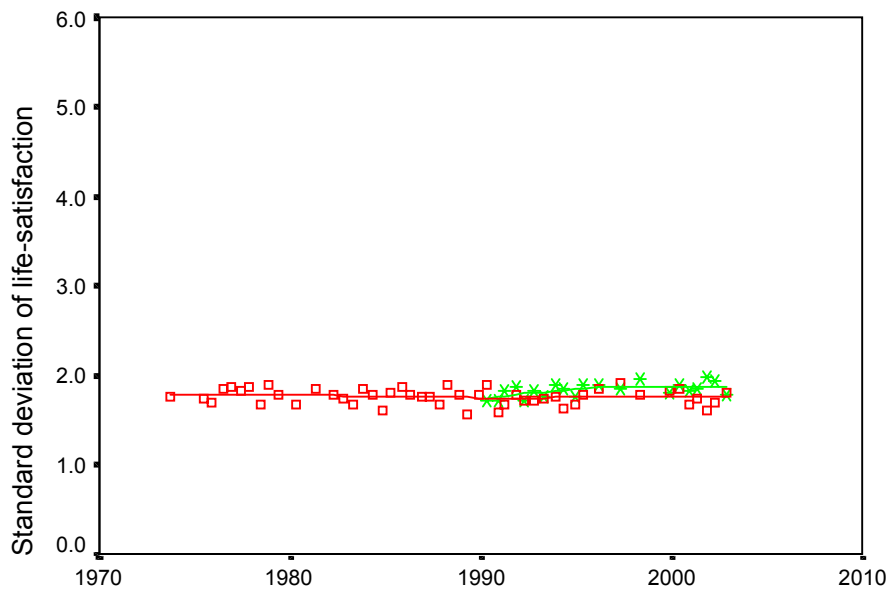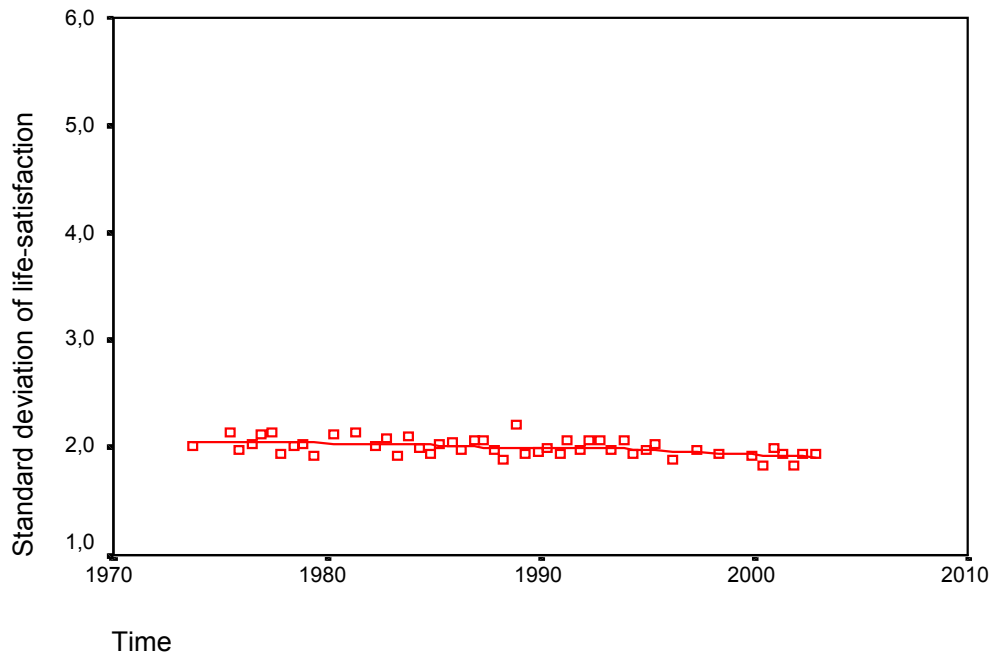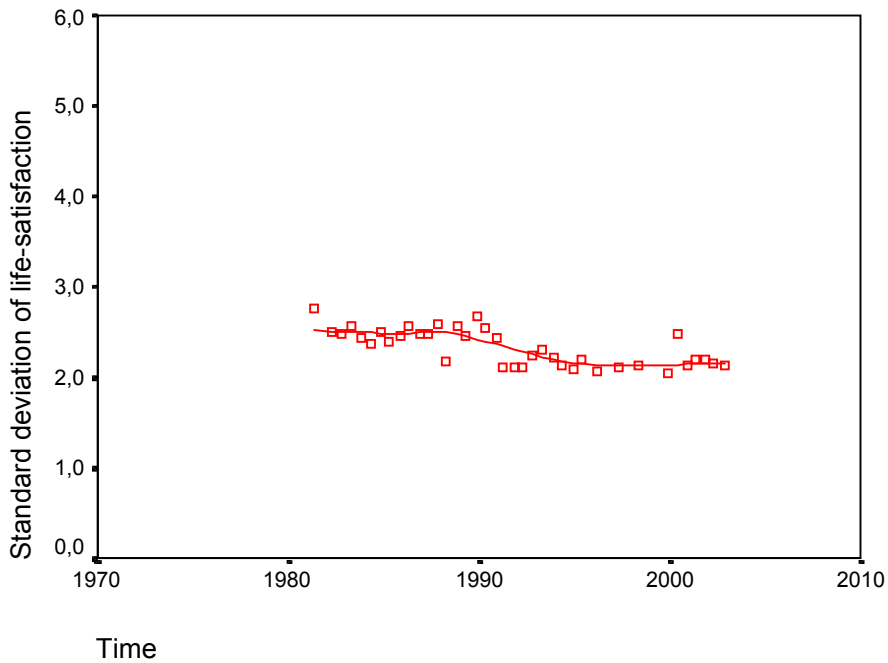The linear regression coefficient in West Germany is: -.002. 95 % confidence interval: [-.005,+.002]
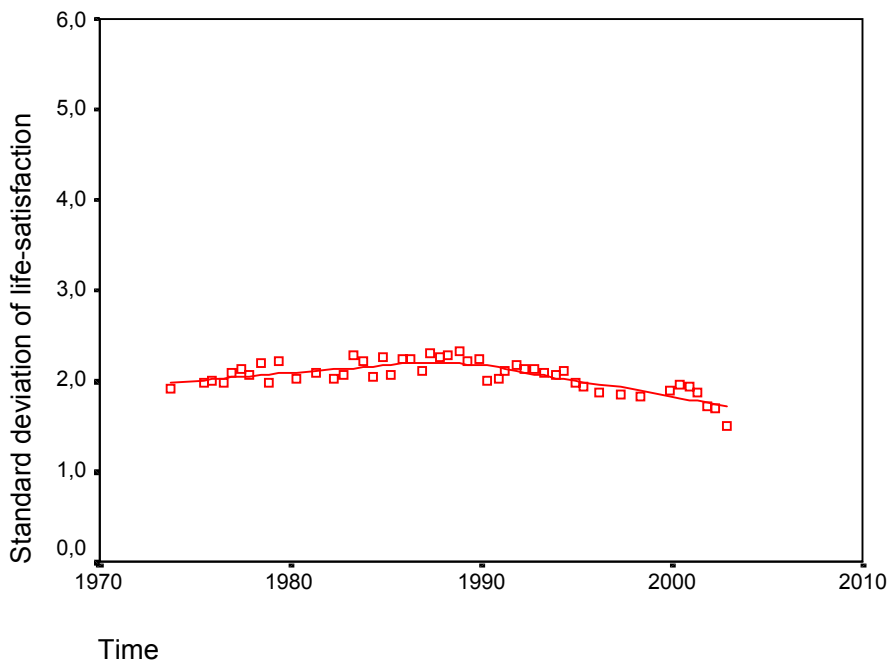
Dispersion of life-satisfaction in Great Britain

Time

The linear regression coefficient in Great Britain is: -.005. 95 % confidence interval: [-.007,-.002]
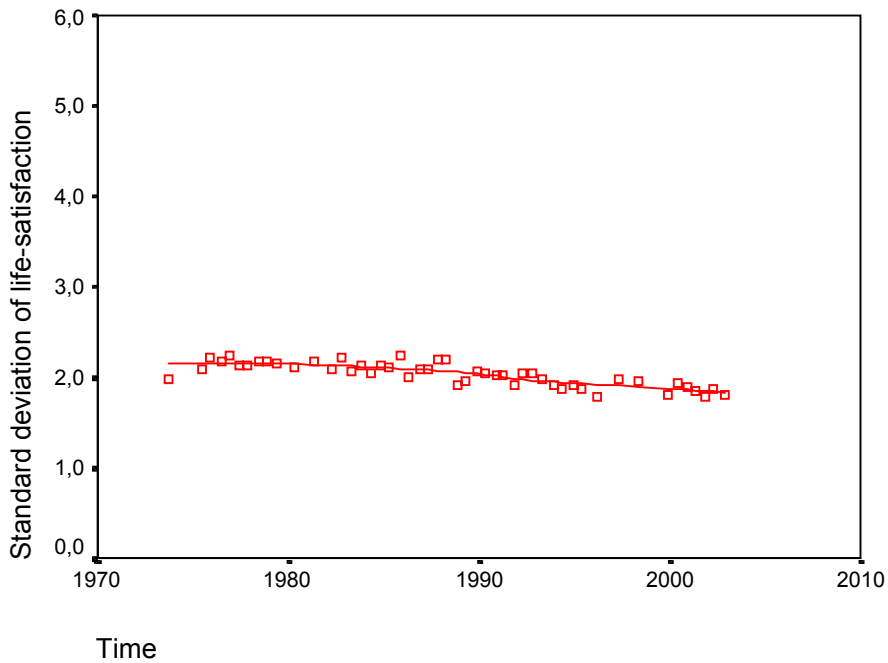
Dispersion of life-satisfaction in Greece

The linear regression coefficient in Greece is: -.022. 95 % confidence interval: [-.030,-.015]

Dispersion of life-satisfaction in Ireland

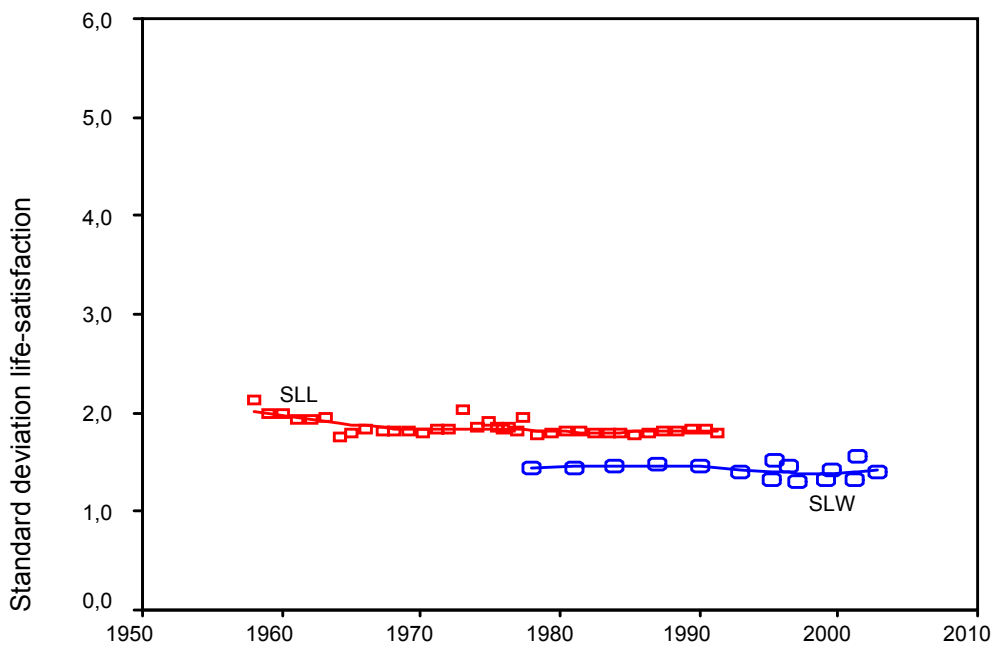
The linear regression coefficient in Ireland is: -.010. 95 % confidence interval: [-.015, -.004]

Dispersion of life-satisfaction in Italy

The linear regression coefficient in Italy is: -.013. 95 % confidence interval: [-.015,-.010]

Dispersion of life-satisfaction in Japan

The linear regression coefficient on item O-SLL/u/sq/v/4 1958-1991 is: -.005; CI95 [-.007, -.002]
The linear regression coefficient on item O-SLW/u/sq/4/51978-2003 is: -.003; CI95 [-.008, +.003]
The linear regression coefficient for the combined items 1958-2003 is: -.013; CI95 [-.016, -.010]

Dispersion of life-satisfaction in Luxembourg

The linear regression coefficient in Luxembourg is: -.006. 95 % confidence interval: [-.011,-.001]

Dispersion of life-satisfaction in The Netherlands
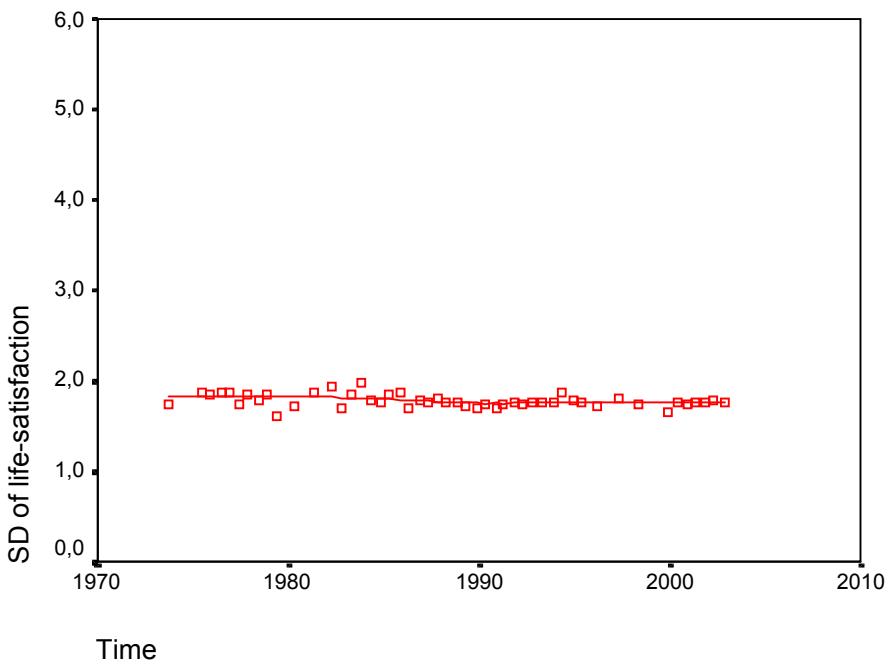
The linear regression coefficient in The Netherlands is: -.003. 95 % confidence interval: [-.005,-.000]

Dispersion of life-satisfaction in Portugal

The linear regression coefficient in Portugal is: -.004. 95 % confidence interval: [-.012,+.004]
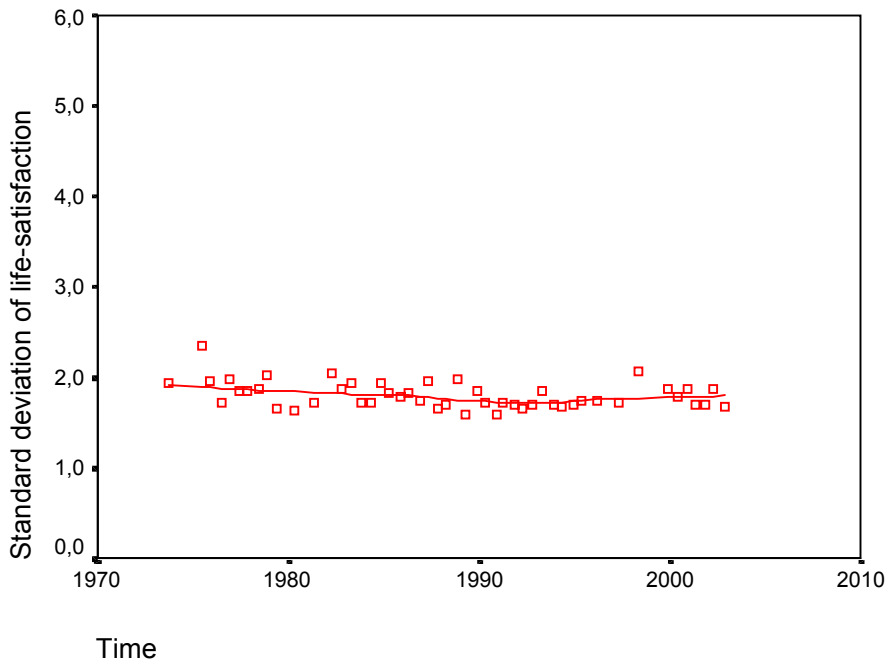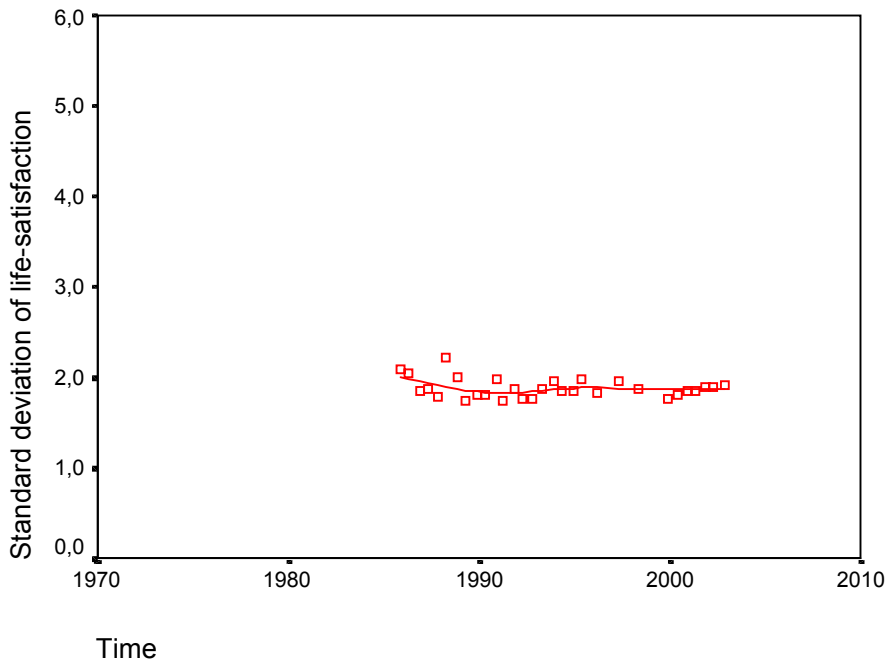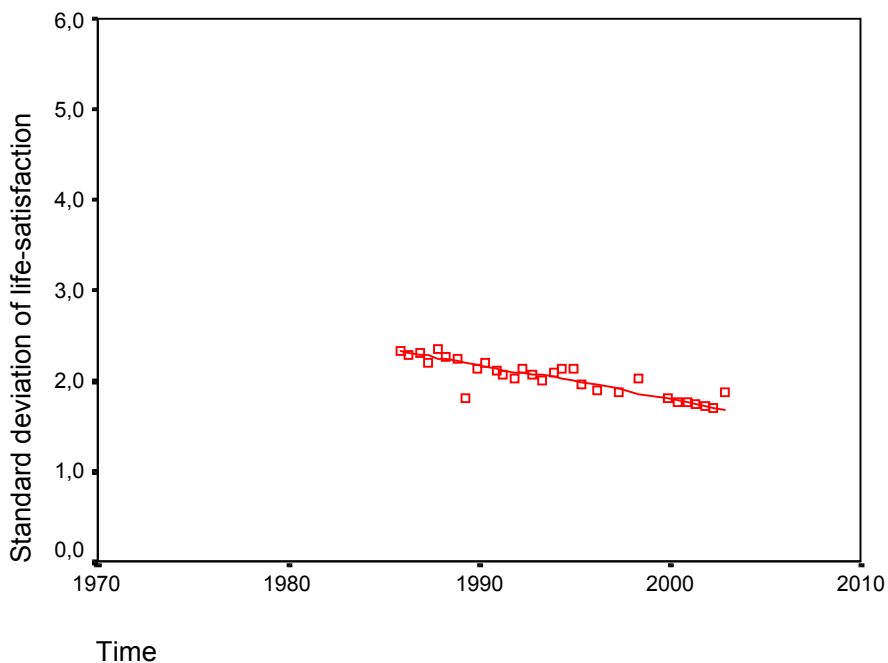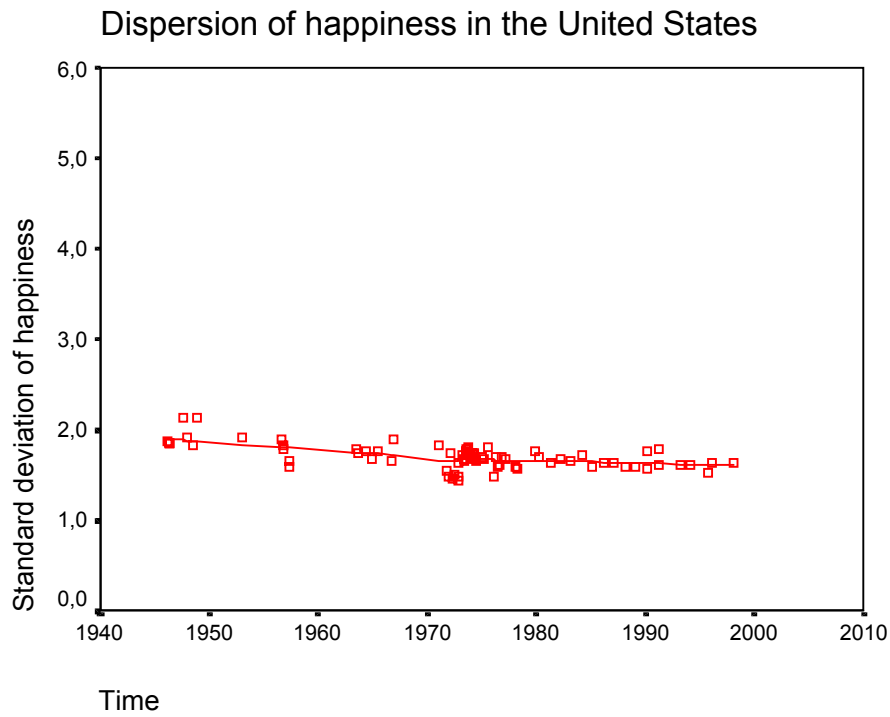
Dispersion of life-satisfaction in Spain

The linear regression coefficient in Spain is: -.033. 95 % confidence interval: [-.040,-.026]

Dispersion of happiness in the United States

The linear regression coefficient in the USA is -.006. 95 % confidence interval: [-.008,-.004]

Technical details

1. Happiness assessed by means of surveys in general public samples. This list is based on responses to identical questions on happiness over time.

2. In this ranking the focus is not on the *level* of happiness in the country, but on *inequality* in happiness among citizens.
   - Inequality in happiness can be measured by the dispersion of responses to survey-questions. The degree of dispersion can be expressed statistically in the standard deviation.
   - This method is explained in more detail in; R. Veenhoven, Return of inequality in modern society? Trend in dispersion of life-satisfaction in EU-nations 1973-2001' Paper presented at the International Conference of Sociology, Brisbane 2002. An earlier version of this paper was published in German in Glatzer, W., Habich, R. & Mayer, K-U. (Eds.) Sozialer Wandel und gesellschaftliche Dauerbeobachtung, Festschrift für Wolfgang Zapf, Leske + Budrich, Opladen, Germany, 2002, pp. 273-294

3. The trend lines in this report are based on slightly different questions:

   - In the EU-nations, happiness was assessed by a single item on life-satisfaction:
     "How satisfied are you with the life you lead?
o Very satisfied	(4)
o Fairly satisfied	(3)
o Not very satisfied	(2)
o Not at all satisfied	(1)

     This question is categorized as type 121B, subtype O-SLu/u/sq/v/4/b.

   - In Japan a similar question on life-satisfaction was used:
     "On the whole, are you.. with the life you lead?"
o Fully satisfied	(4)
o Not fully, but to some extend satisfied	(3)
o As yet unsatisfied	(2)
o Very dissatisfied	(1)

     This question is categorized as O-SLL/u/sq/v/4/c. Two slightly different variant have been used: in 1958-63 version a, and since 1987 version b. The precise wording of these variants can be found in the item bank.

     From 1978 on, the following question has also been used in Japan
     Overall, how satisfied are you with your present life?
o Very satisfied	(5)
o Fairly satisfied	(4)
o Neither satisfied nor dissatisfied	(3)
o Fairly dissatisfied	(2)
o Very dissatisfied	(1)

     This question is categorized as O-SLW/u/sq/v/5 and has also been used in slightly different variants (a, g. k, l). The precise wording of which can be found in the item bank.

- In the USA the question asked about happiness:
  "Taken all together, how would you say things are these days?
  Would you say you are….:
    - Very happy   (3)
    - Pretty happy   (2)
    - Not too happy   (1)

  This question is categorized as type 111A, subtype O-HL/c/sq/v/3/aa.

- The original scores on these questions were transformed linearly to a comparable 0-10 point scale.

- Section 4/3 of the introductory text provides more detail about the classification of queries and transformation of scores.

4. The highest possible standard deviation on this scale is 5.77, when one half of the population is very happy and the other half unhappy, with on scores in between. The lowest possible score is 0, when all are equally happy (either happy or unhappy).

5. The regression-coefficient stands for the size of the angle of the linear regression line through the dots (averages) in the time charts. A positive coefficient denotes a rise in inequality in happiness, and a negative coefficient a decline. A regression-coefficient of -.01 means 0.01 points decrease of inequality in happiness per year. A one-point rise of happiness would take hundred years at this pace of change.

   Continuation of the trend in the US would mean that SD drops from about 1.64 in 1998 to 1.33 in 2050.

Cite as:
Veenhoven, R., *Equality of happiness in nations: Trend 1946-2003*, World Database of Happiness, Trend Report 2004/3 Internet: www.eur.nl/fsw/research/happiness

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