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# Income inequality probably has had little or no effect on subjective well-being



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## ARTICLE INFO

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Kelley and Evans' paper is a careful and thorough investigation of the impact of income inequality on subjective well-being. They conclude that income inequality has had little or no effect on subjective well-being in the world's rich nations and a positive effect in developing countries. I have two worries.

First, their inference is based on comparing across countries at a particular point in time. Even with the large number of individual-level measures Kelley and Evans include in order to control for compositional differences, this kind of analysis is vulnerable to bias due to unmeasured country differences (Kenworthy, 2016b). Suppose income inequality reduces happiness, but high-inequality countries such as the United States have other characteristics, such as culture or weather, that improve happiness relative to low-inequality nations such as Denmark. An analysis such as Kelley and Evans' may mistakenly conclude that income inequality's effect is nil, or perhaps even positive.

Second, the income inequality data they use, which come from household surveys, mainly capture inequality within the bottom 99 percent of the population. High incomes are topcoded, so the surveys tend to miss inequality between the top 1 percent and the bottom 99 percent, which has increased much more in recent decades than inequality within the bottom 99 percent (Kenworthy, 2016a).

Fig. 1 helps to address these concerns. It shows four difference-in-difference plots for sixteen rich democratic nations. The vertical axis in each chart has a measure of change over time in subjective well-being, happiness in the top two charts (not happy at all, not very happy, quite happy, or very happy) and life satisfaction in the bottom two (0–10 scale). On the horizontal axis in each chart is change in income inequality — on the left, income inequality within the bottom 99 percent, similar to what Kelley and Evans use; on the right, inequality between the top 1 percent and the bottom 99 percent, measured as the top 1 percent's share of (pretax) income.

The lines are linear regression lines. "Asl" is Australia. Absolute (not percentage) change over 1979–2007, or the nearest years with available data. Bottom 99% income Gini: Gini coefficient for posttransfer-posttax household income. Data source: Standardized World Income Inequality Database. Top 1% income share: pretax income excluding capital gains. Data source: World Wealth and Income Database. Happiness: Average response. 1 = not happy at all, 2 = not very happy, 3 = rather happy, 4 = very happy. Question: "Taking all things together, would you say you are ...." Data source: World Values Survey. Life satisfaction: Average response. Scale from 0 to 10. Question: "All things considered, how satisfied are you with your life as a whole these days?"

The patterns in these charts are consistent with Kelley and Evans' conclusion that income inequality neither reduces nor increases subjective well-being to any appreciable degree. The only potential exception is the lower-right chart, which shows change in life satisfaction by change in the top 1%'s income share. Here we see a negative association, but it is weak, and it doesn't take us very far in understanding the cross-country differences in subjective well-being (the  $r$ -squared is 0.06). Controlling for change in GDP per capita increases the estimated magnitude of the negative relationship, but not by much (Kenworthy, 2016b).

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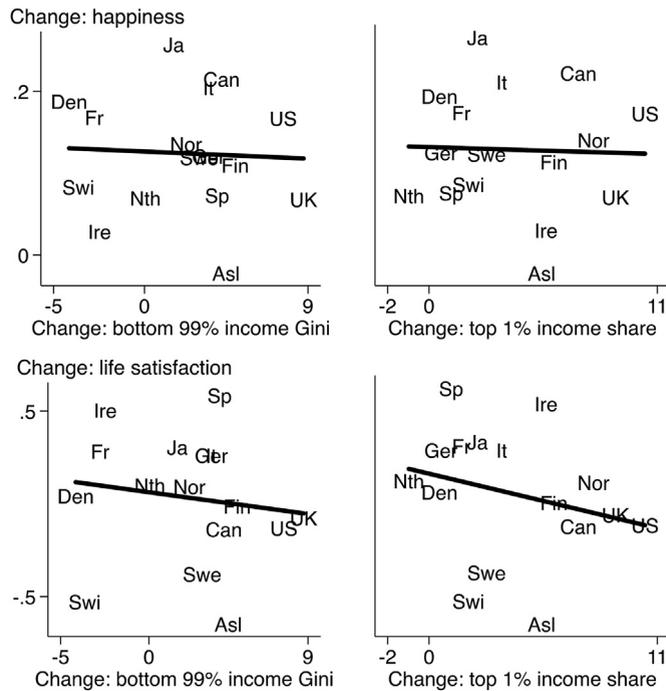


Fig. 1. Change in subjective well-being by change in income inequality, 16 rich countries, 1979 to 2007.

I'm inclined to conclude that Kelley and Evans are correct that there has been no noteworthy impact of income inequality on subjective well-being in affluent countries.<sup>1</sup>

What about in developing nations? Here too Kelley and Evans' inference is drawn from the correlation between levels of income inequality and levels of subjective well-being. Another recent study, with data for about 150 countries and using a similar analytical strategy, concludes that income inequality is either negatively correlated with subjective well-being or not correlated at all, depending on the model specification (Goff et al., 2016). That study combines rich nations with developing ones, rather than separating these two groups, but the number of countries included is so large that the impact of the affluent ones is likely to be swamped by that of the developing ones. I don't know why their analyses yield results that differ so starkly from those of Kelley and Evans.

I would be more persuaded by a difference-in-difference design. In appendix table 5.7 to their paper, Kelley and Evans report findings from an analysis in which they include an earlier-year level of subjective well-being as a control variable, which goes part of the way. The findings don't change. But they use all change periods for which there are available data,

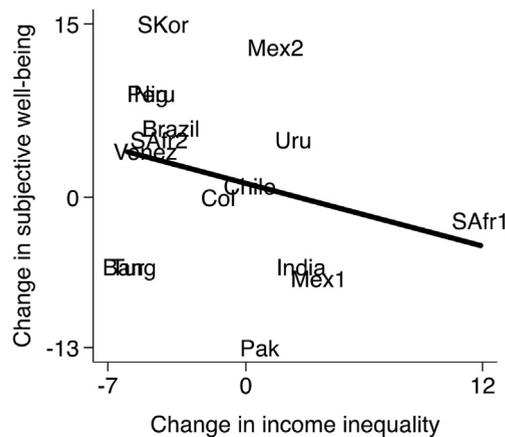


Fig. 2. Change in subjective well-being by change in income inequality, 1980s–1990s or 1990s–2000s.

<sup>1</sup> The United States might be an exception (Kenworthy, 2015).

many of which are quite short. I doubt we get much useful information by studying change over periods of just three or five or seven years. Most changes in income inequality over periods this brief are driven by the business cycle. Also, most citizens won't notice changes in inequality over such short stretches. Examining change over a much longer period — ideally several decades — is more likely to give us the kind of information we want (Kenworthy, 2016b).

Fig. 2 uses data Kelley and Evans provide in table 7.1 of their paper for change over one decade. Data for more than one point in time are available for only fourteen nations, in most instances for change between the 1990s and the 2000s. The difference-in-difference approach doesn't reveal the positive correlation so prominent in Kelley and Evans' analyses. Instead there is essentially no association.

Income inequality: Gini coefficient. Subjective well-being: happiness or life satisfaction. Mexico and South Africa are included twice, as data are available for change over both decades. Data source: Kelley and Evans, 2016, table 7.1.

We need much more information. But my reading of the evidence we have for developing nations leans toward a conclusion similar to that for the rich countries: no noteworthy effect of income inequality on subjective well-being.

## References

- Goff, Leonard, Helliwell, John F., Mayraz, Guy, 2016. The Welfare Costs of Well-being Inequality. Working Paper 21900. National Bureau of Economic Research.
- Kelley, Jonathan, Evans, M.D.R., 2016. Societal income inequality and individual subjective well-being: results from 68 societies and over 200,000 individuals, 1981–2008. *Soc. Sci. Res.*
- Kenworthy, Lane, 2015. Happiness. *Good Soc.* [wp.me/P8wob-2fG](http://wp.me/P8wob-2fG).
- Kenworthy, Lane, 2016a. Is income inequality harmful? *Good Soc.* [wp.me/P8wob-2fW](http://wp.me/P8wob-2fW).
- Kenworthy, Lane, 2016b. Income inequality. *Good Soc.* [wp.me/P8wob-2fS](http://wp.me/P8wob-2fS).