Measuring Advancement of Economy and Society: Economic Growth and Well-being

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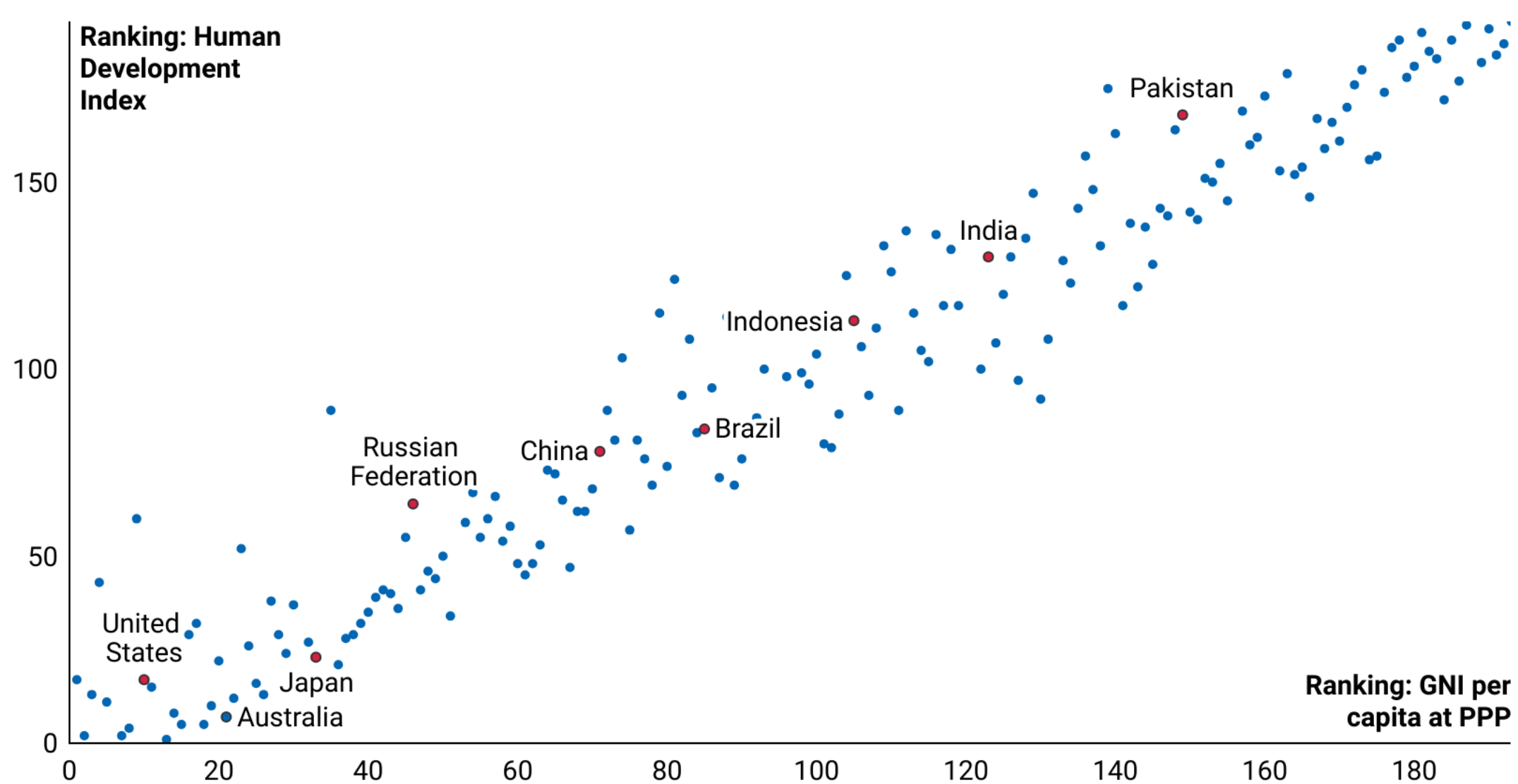ESRI International Conference, Tokyo – July 31, 2025

Four claims

1. Alternative indicators of wellbeing are fun to think about
    ...but rarely change policy advice

2. Real GDP per capita is closely related to subjective well-being

3. The world is getting happier
    ...at the same rate you might expect given that it is growing

4. "Objective" data are somewhat subjective
    ...and "subjective" data may be no less objective

▶

"Holistic" measures yield similar cross-national rankings to real GDP per capita

Correlation = 0.967

Ranking: Human Development Index

Ranking: GNI per capita at PPP

Pakistan

India

Indonesia

Brazil

Russian Federation
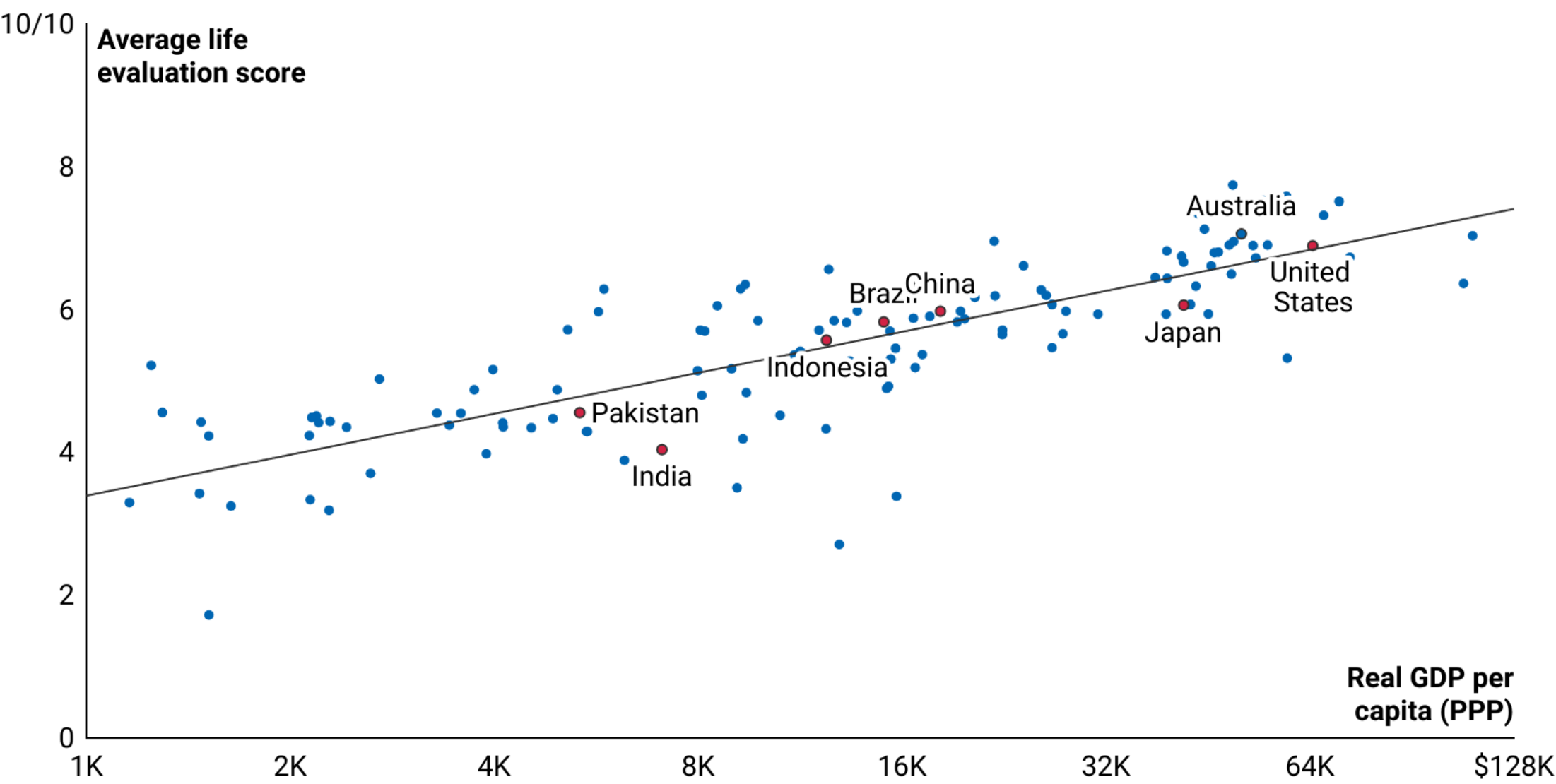
China

United States

Japan

Australia

The Human Development Index (HDI) is a geometric mean of three sub-indices: 1. Health (measured by life expectancy at birth); 2. Education (years of schooling for adults aged 25+, and expected years of schooling for kids entering school); and 3. Gross national income per capita at PPP.

Chart: @JustinWolfers • Source: UNDP *Human Development Reports*

▶ 3

Subjective well-being scores are closely correlated with GDP per capita

Correlation = 0.81

10/10

Average life evaluation score

Australia

China

Brazil

United States

Japan

Indonesia

Pakistan

India

Real GDP per capita (PPP)

8

6

4

2

0

1K   2K   4K   8K   16K   32K   64K $128K

Latest three-year average shown for both variables

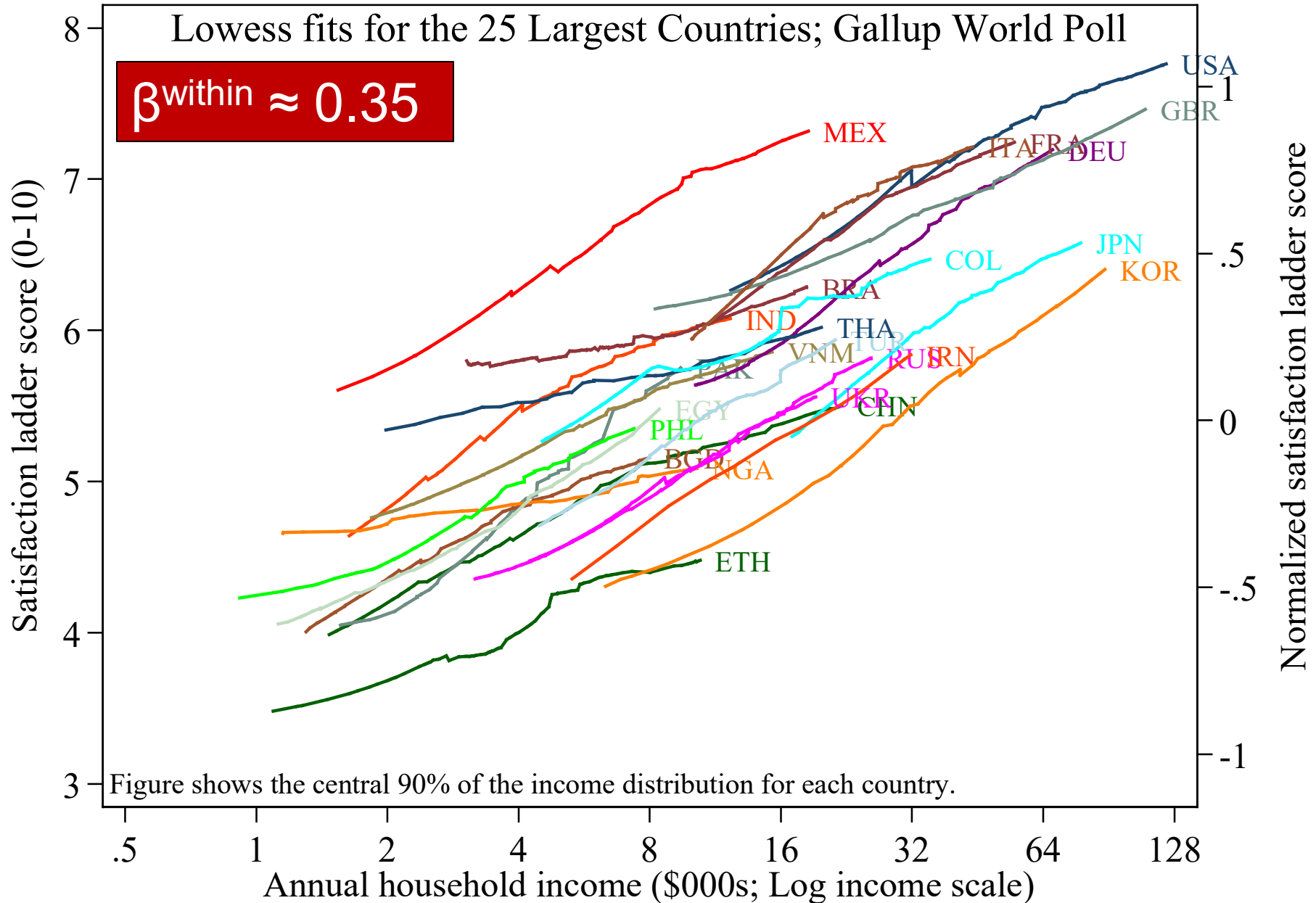Chart: @JustinWolfers • Source: World Happiness Report and World Development Indicators
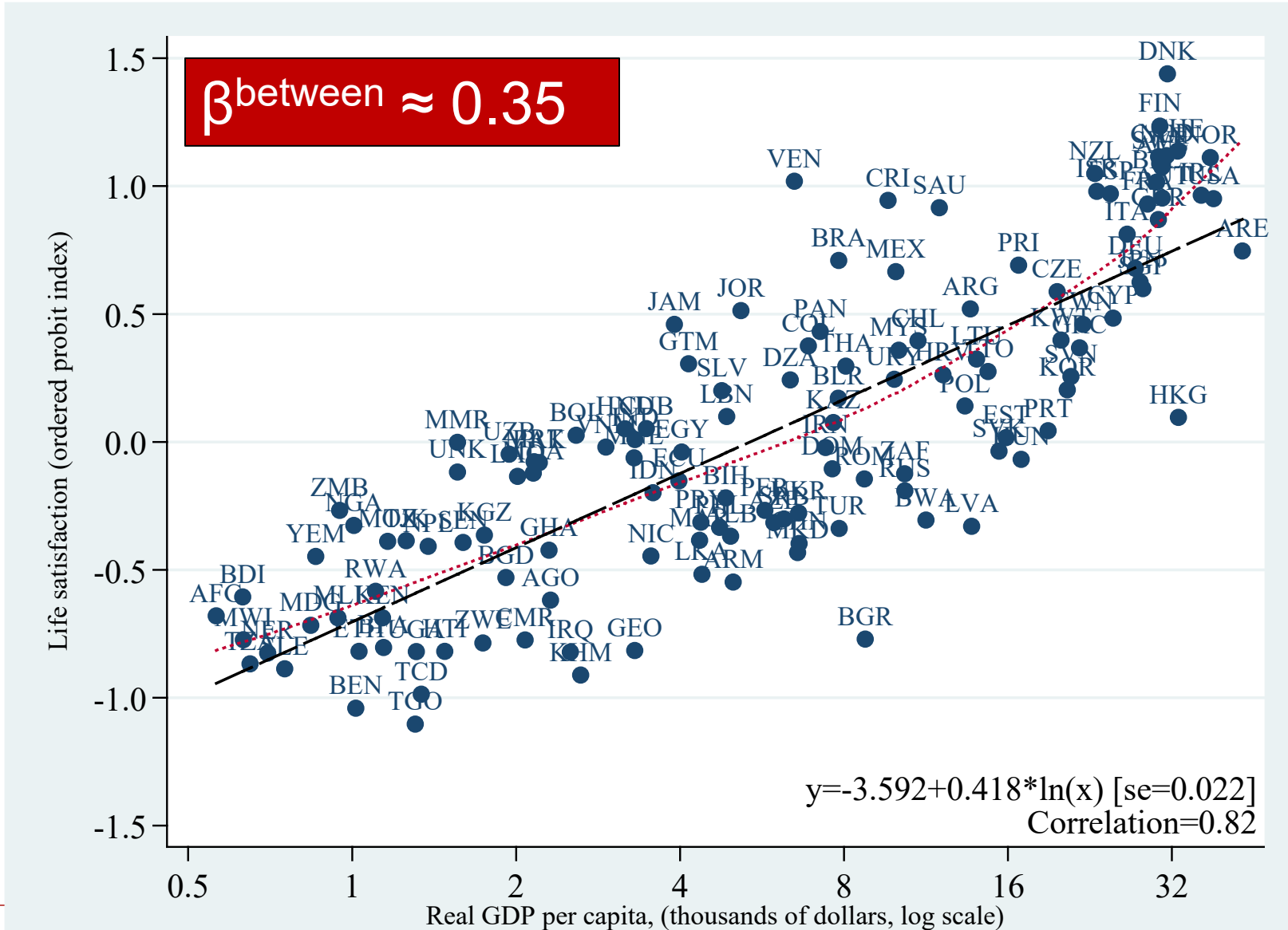
4

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Satisfaction and Log(Family Income)

Lowess fits for the 25 Largest Countries; Gallup World Poll

$\beta^{within} \approx 0.35$

Figure shows the central 90% of the income distribution for each country.

Between Countries: Richer Countries are Happier

$\beta^{between} \approx 0.35$

y=-3.592+0.418*ln(x) [se=0.022]
Correlation=0.82

Life satisfaction (ordered probit index)

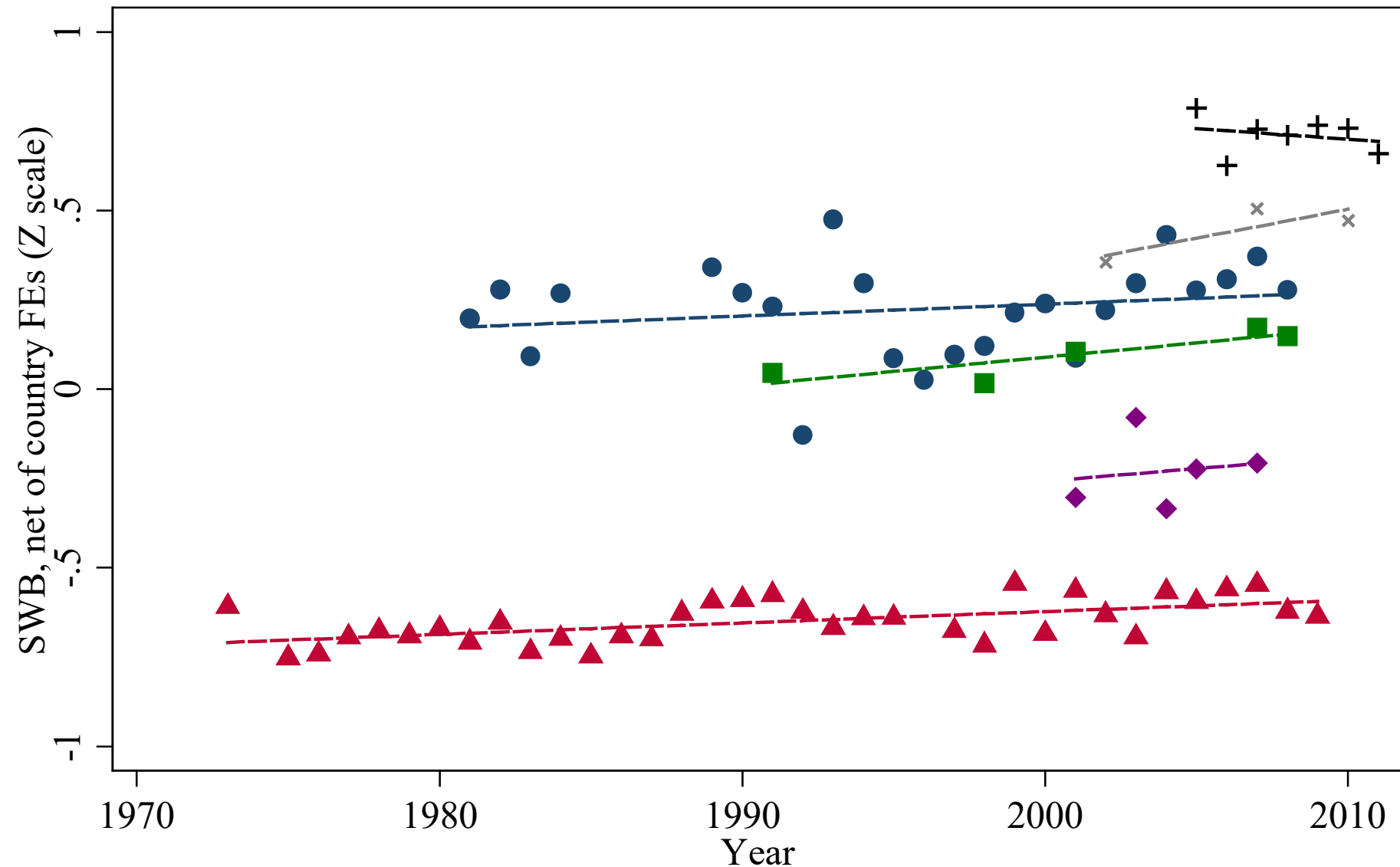Real GDP per capita, (thousands of dollars, log scale)

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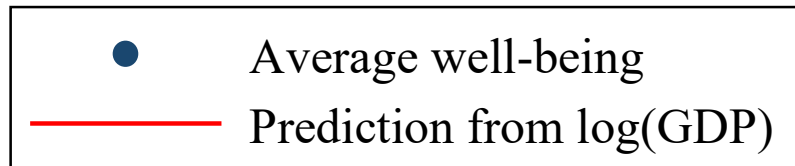   ...and "subjective" data may be no less objective

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Life satisfaction has increased over time

asdf

"Average well-being" is year fixed effects from:
$$Wellbeing_{ct} = Year_t + Country_c + Survey_s$$
Prediction from log(GDP) is 0.35 * year fixed effects from:
$$Log(GDP)_{ct} = Year_t + Country_c + Survey_s$$

Legend:
- Average well-being
- Prediction from log(GDP)

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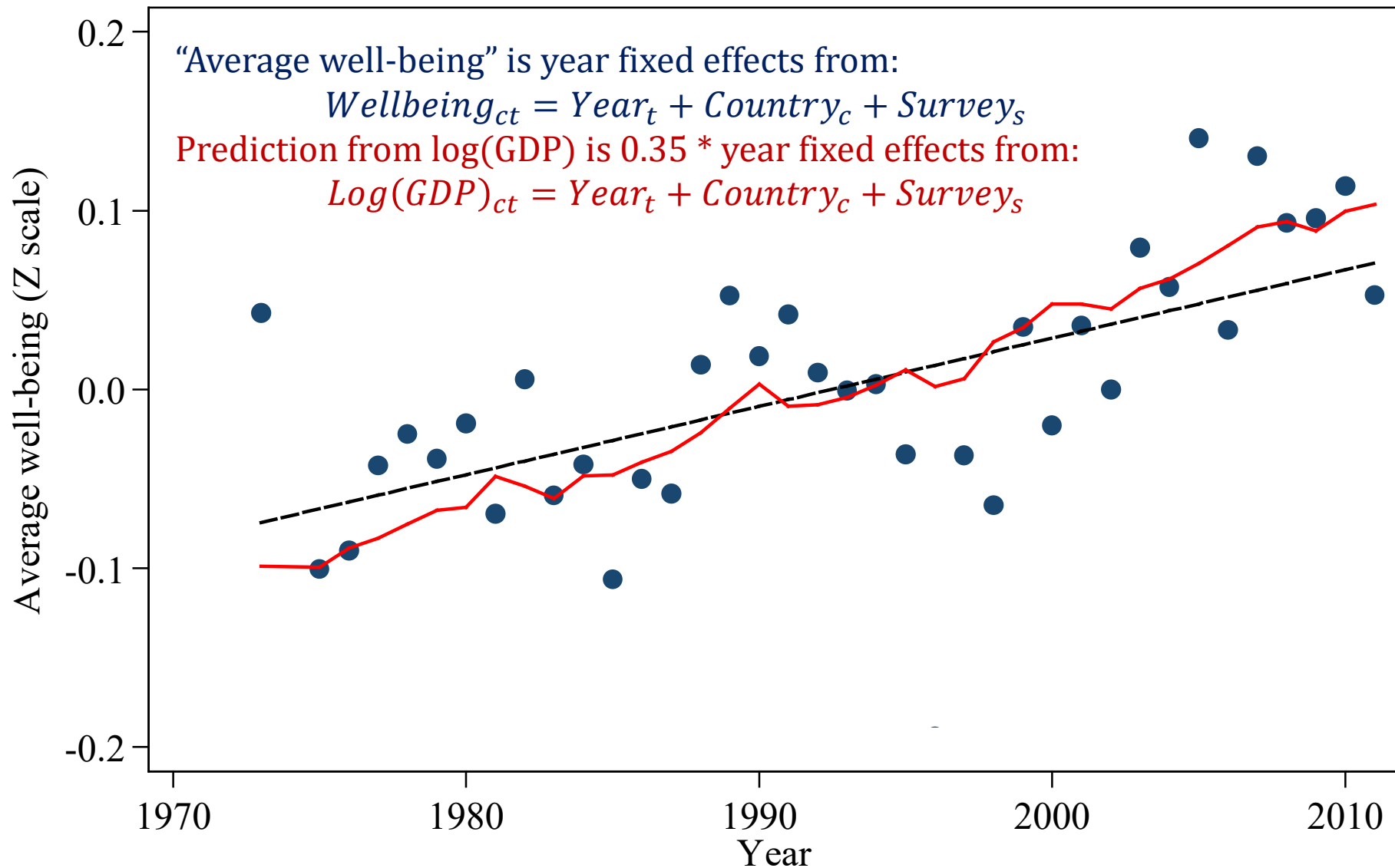   ...and "subjective" data may be no less objective
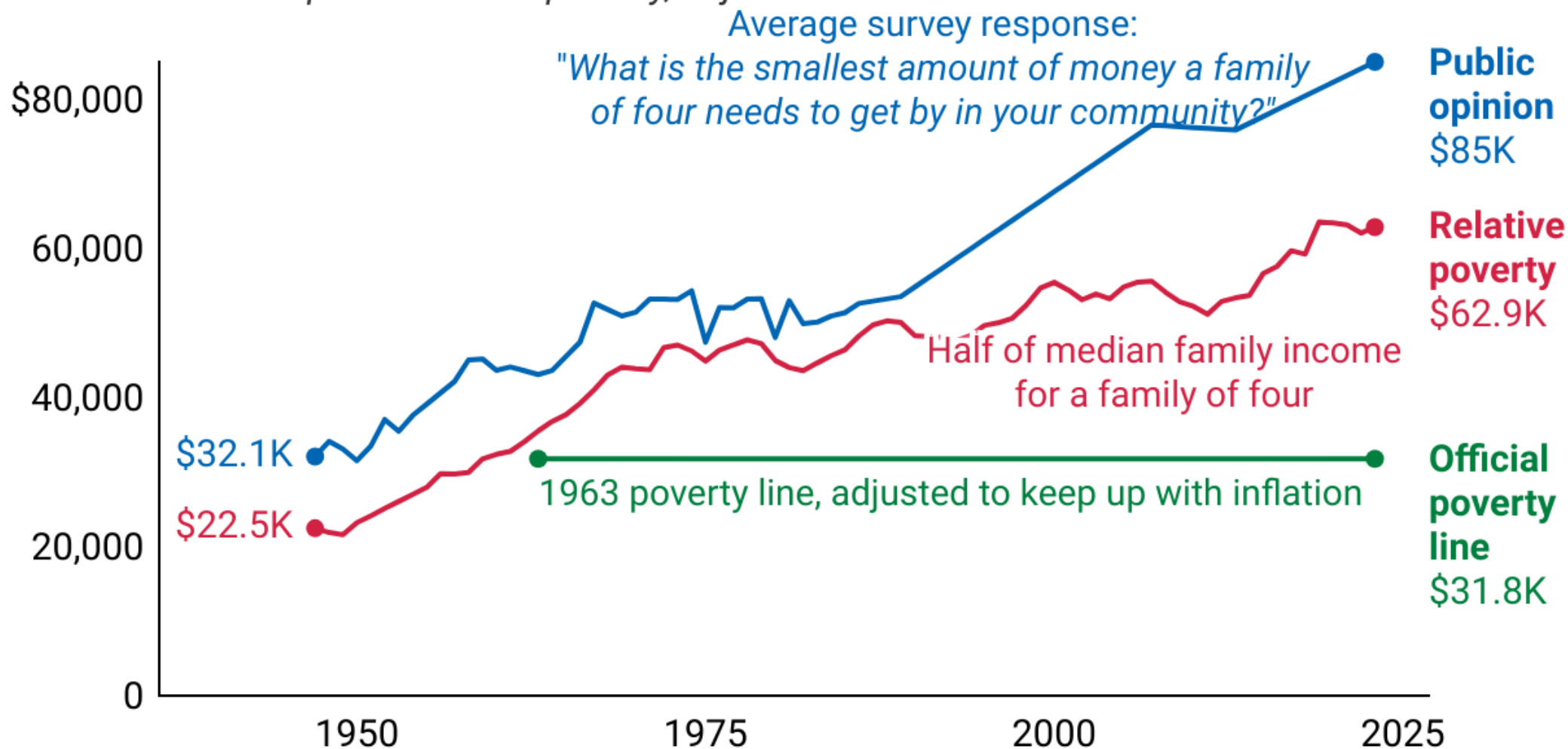
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Subjective
versus
Objective
measures

Are these objective measures?
Or are they subjective?

- ☐ Unemployment rate
  - ▸ What does it mean to actively search for work?
  - ▸ Are students working?
- ☐ Income
  - ▸ Which resources to include?
- ☐ Real GDP
  - ▸ How to compare people whose consumption baskets barely overlap?
- ☐ Poverty rate
  - ▸ What does it mean to be "in poverty"?

Different approaches to measuring poverty yield different poverty lines

Annual income required to avoid poverty, adjusted for inflation

Average survey response:
"What is the smallest amount of money a family of four needs to get by in your community?"

Public opinion $85K

Relative poverty $62.9K

Half of median family income for a family of four

$32.1K

$22.5K

1963 poverty line, adjusted to keep up with inflation

Official poverty line $31.8K

$80,000

60,000

40,000

20,000

0

1950   1975   2000   2025

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