



Discussion: Alternative Approaches to Measuring the Quality of Life

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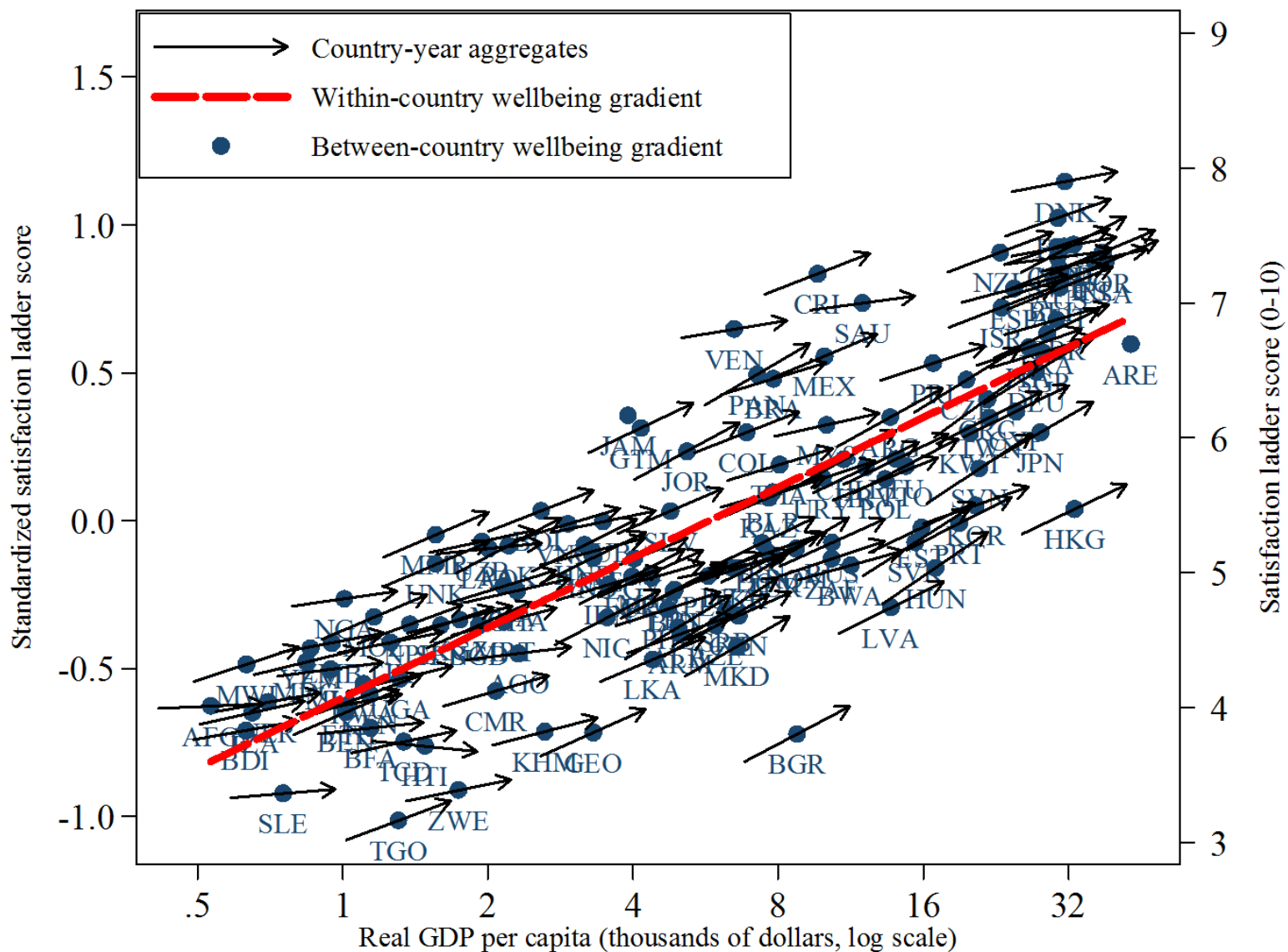
Assessing Quality of Life

1. Important question: how do we measure whether a society is improving living standards for its citizens?
2. Our best indicator: income
3. What else?
 1. Revealed Preference
 2. Subjective assessments of quality of life
 3. Attitudinal measures

Life Evaluation

- ❑ The subjective measure most studied by economists
- ❑ What we know?
 - ▶ Highly correlated ~80 percent
 - ▶ Richer people have greater life satisfaction than poorer people between within a country, richer countries have people with greater average life satisfaction, and on average economic development leads to increases in life satisfaction

A tight fit both between and across countries





United States: Within Country Comparison

“Taken all together, how would you say things are these days?”

Family income	Very happy	Pretty happy	Not too happy
<\$12,500 (bottom 10%)	21%	53%	26%
\$12,500-\$49,999	25%	61%	13%
\$50,000-\$149,999	40%	54%	6%
≥\$150,000 (top 10%)	53%	45%	2%

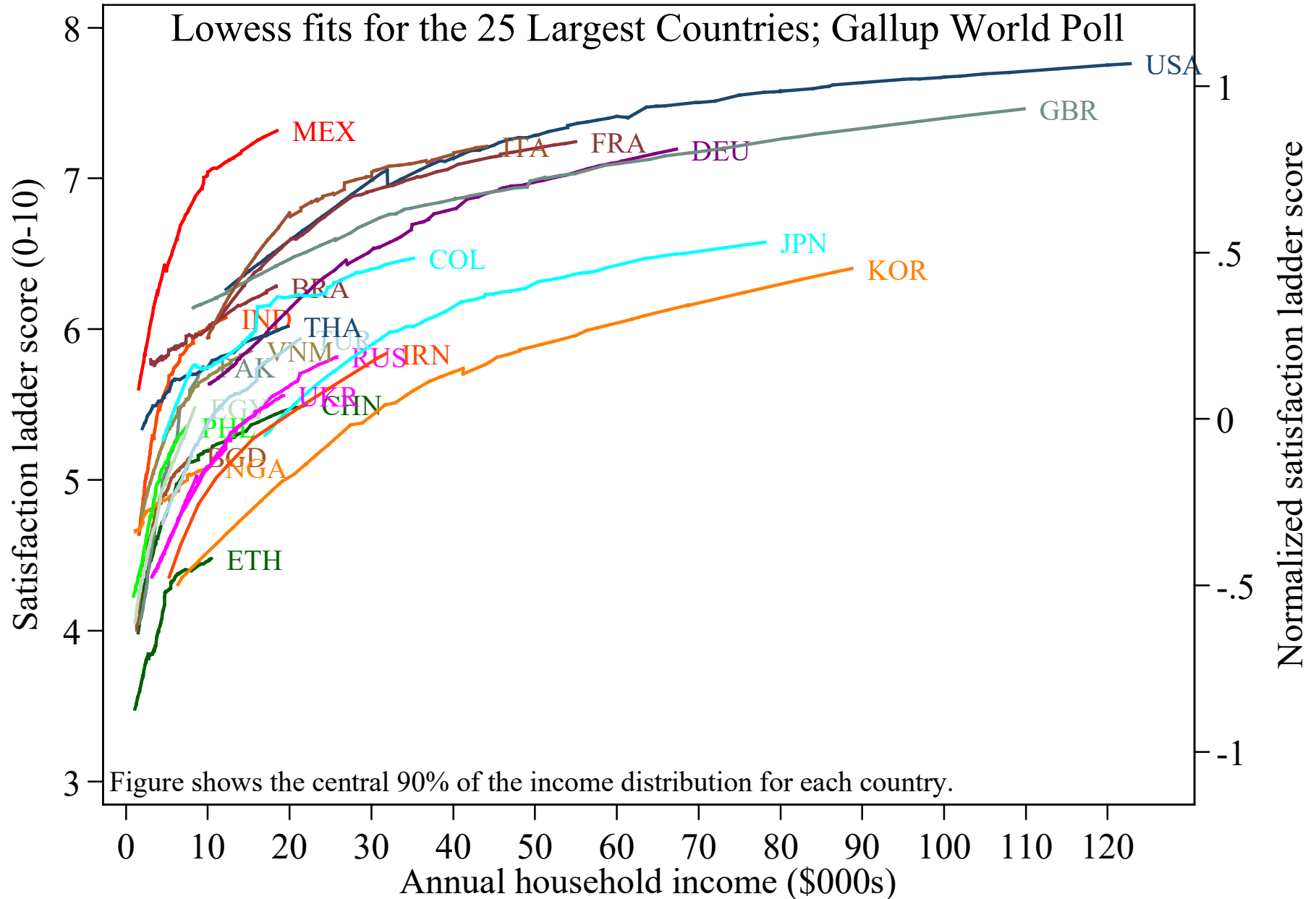
Source: U.S. General Social Survey

“When we plot average happiness versus income for clusters of people in a given country at a given time, we see that rich people are in fact much happier than poor people. It’s actually an astonishingly large difference. There’s no one single change you can imagine that would make your life improve on the happiness scale as much as to move from the bottom 5 percent on the income scale to the top 5 percent.”

- Robert Frank (2005)

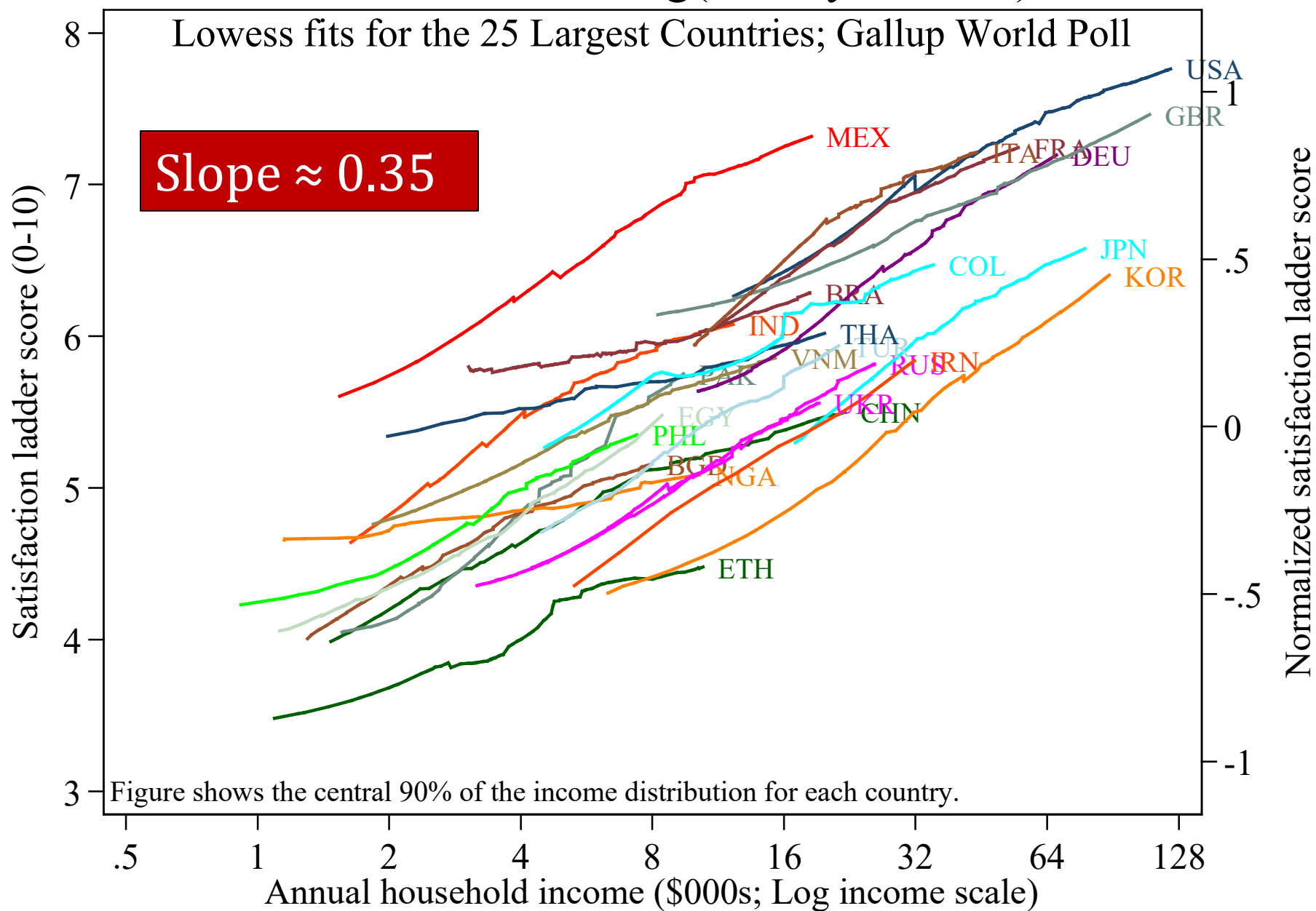


Satisfaction and Family Income

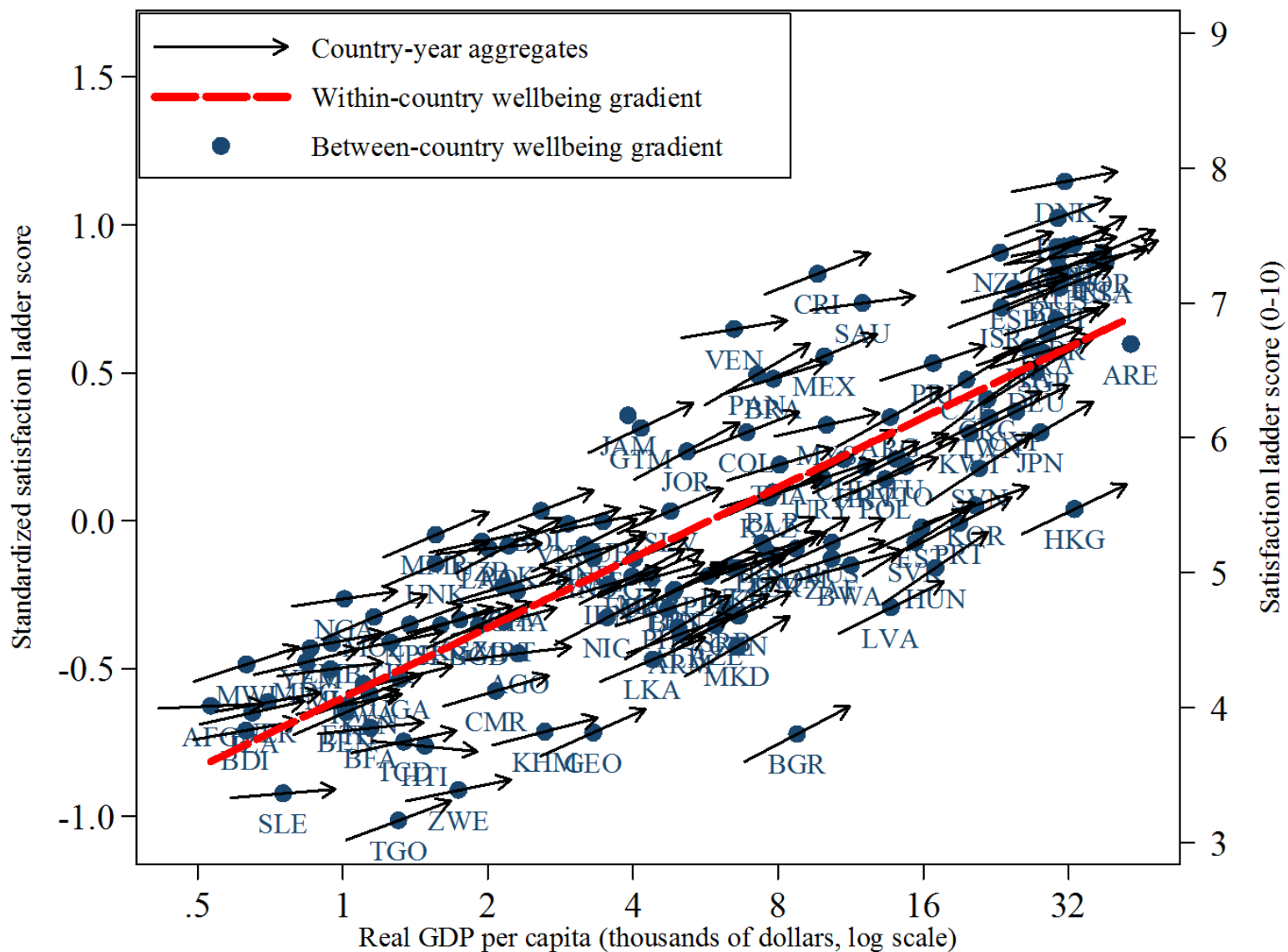




Satisfaction and Log(Family Income)



A tight fit both between and across countries





Revealed Preference

- ❑ We can measure quality of life by looking at people's choices
 - ❑ If a city has a high quality of life people will pay more to live there
 - ❑ Willingness to pay is a function of preferences and income
 - ❑ Those with lower incomes live in lower quality of life areas because "quality of life" is a normal good and people buy more of it with more income
 - ❑ On the margin: The marginal person should be indifferent between paying a lot to get high quality of life "amenities" and paying less and getting fewer amenities.
 - ❑ In other words, conditional on income, people aren't necessarily better off living in higher quality of life areas
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Revealed Preference Meets Subjective Well-Being

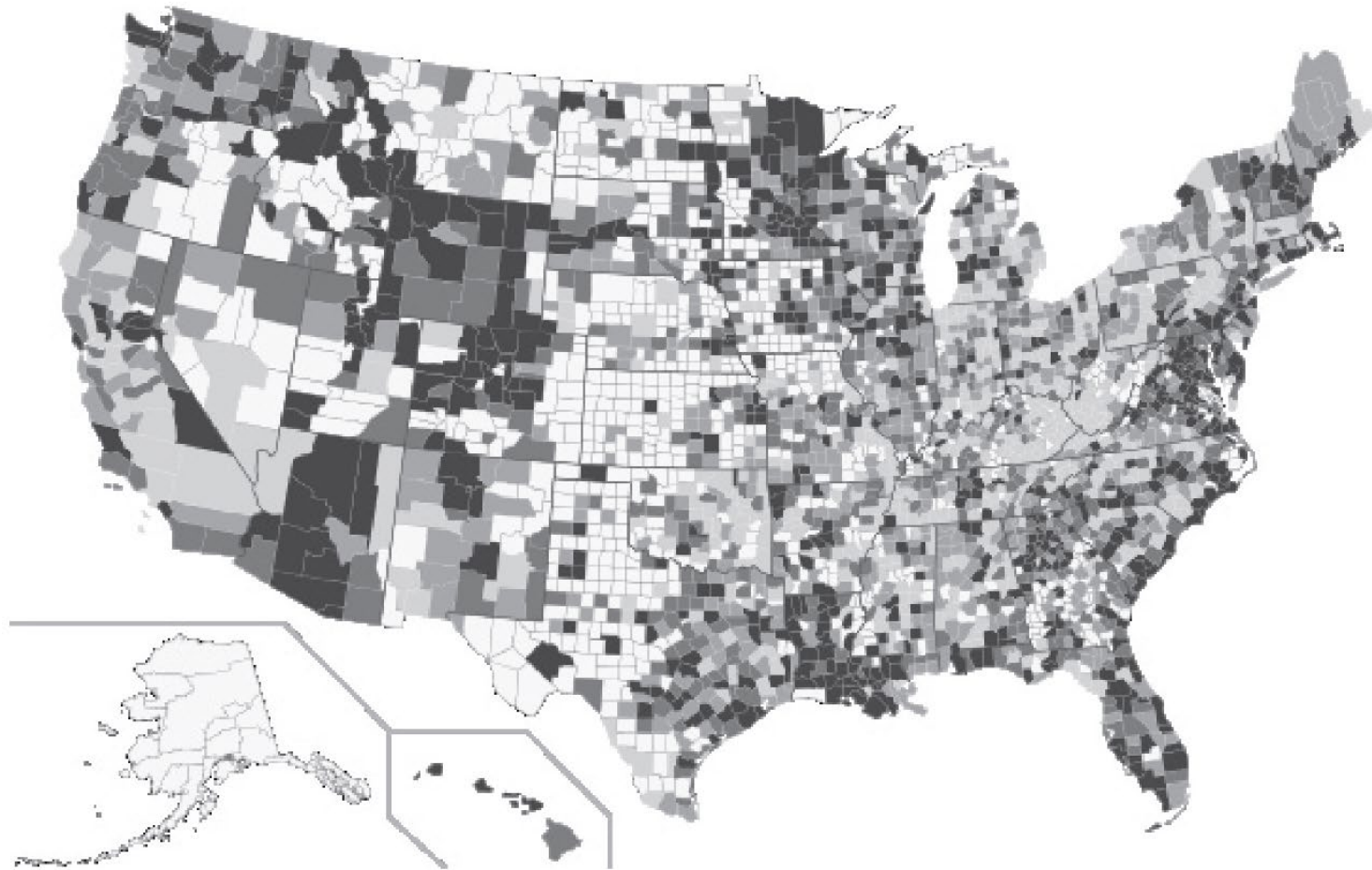


Figure 8.3. County-level life satisfaction across the United States. White means no data available; other shades of gray reflect the satisfaction quartile of the county, with darker colors reflecting higher satisfaction.

Source: Lucas, R. E., Cheung, F., & Lawless, N. M. (2014). Investigating the subjective well-being of United States regions. In P. J. Rentfrow (Ed.), *Geographical psychology: Exploring the interaction of environment and behavior* (pp. 161-177). Washington, DC, US: American Psychological Association.

Quality of Life Measures

- ❑ Life satisfaction is going to be driven by income and not quality of life measures, conditional income
- ❑ But what if some of the assumptions are violated? Like people aren't mobile? Or don't know what amenities are offered? Or have had their preferences themselves shaped by the communities in which they were raised?
- ❑ When we see a community with low housing prices we know either that there aren't a lot of amenities or that the people living in it are low-income. But how does this information help us better understand disparities across America?

Subjective Well-Being

1. It can be hard to disentangle the relationship between well-being and GDP from other measures of living standards because GDP is so correlated with other things
2. But some important things in life are highly correlated with GDP...some less so

Digging into Subjective Well-Being

OECD recommends four categories of questions on subjective well-being

1. Life evaluation.
2. Affect.
3. Eudaimonic well-being.
4. Domain evaluation.

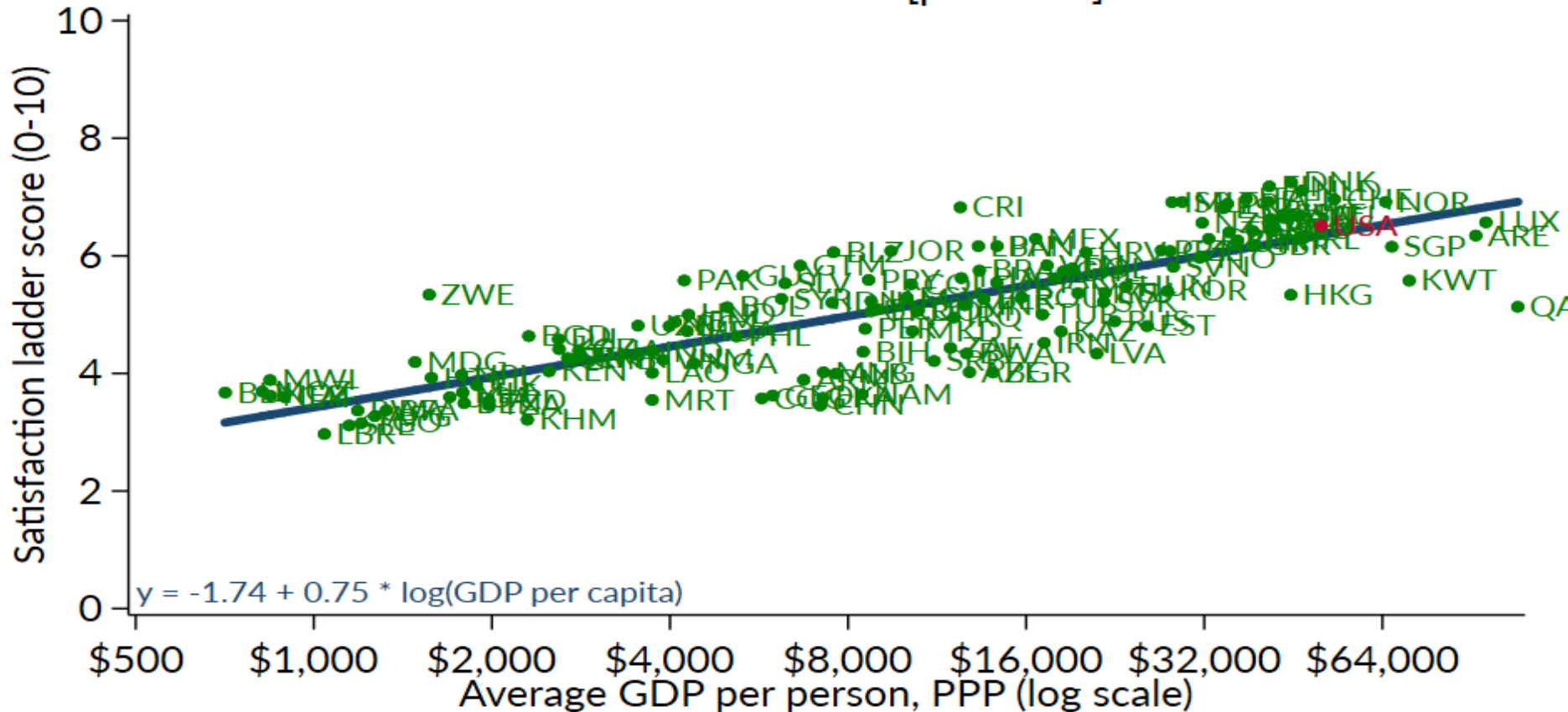
Reference: OECD Guidelines on Measuring Subjective Well-being. Organisation for Economic Co-operation and Development (OECD). Paris: [OECD Publishing](#); 2013 Mar 20.

Hedonism versus eudaimonism

- ❑ Psychologists describe two distinct concepts of well-being that they describe revolving around distinct philosophies
- ❑ Hedonism (associated with Kahneman) is the idea that well-being consists of pleasure or happiness
- ❑ Eudaimonism (associated with Waterman) is the idea that well-being is the actualization of human potentials
- ❑ Assessments of economic development and well-being have primarily focused on measures of well-being associated with hedonism

The past is very similar

Life Satisfaction 5 years ago
Correlation: 0.79 [p=0.000]

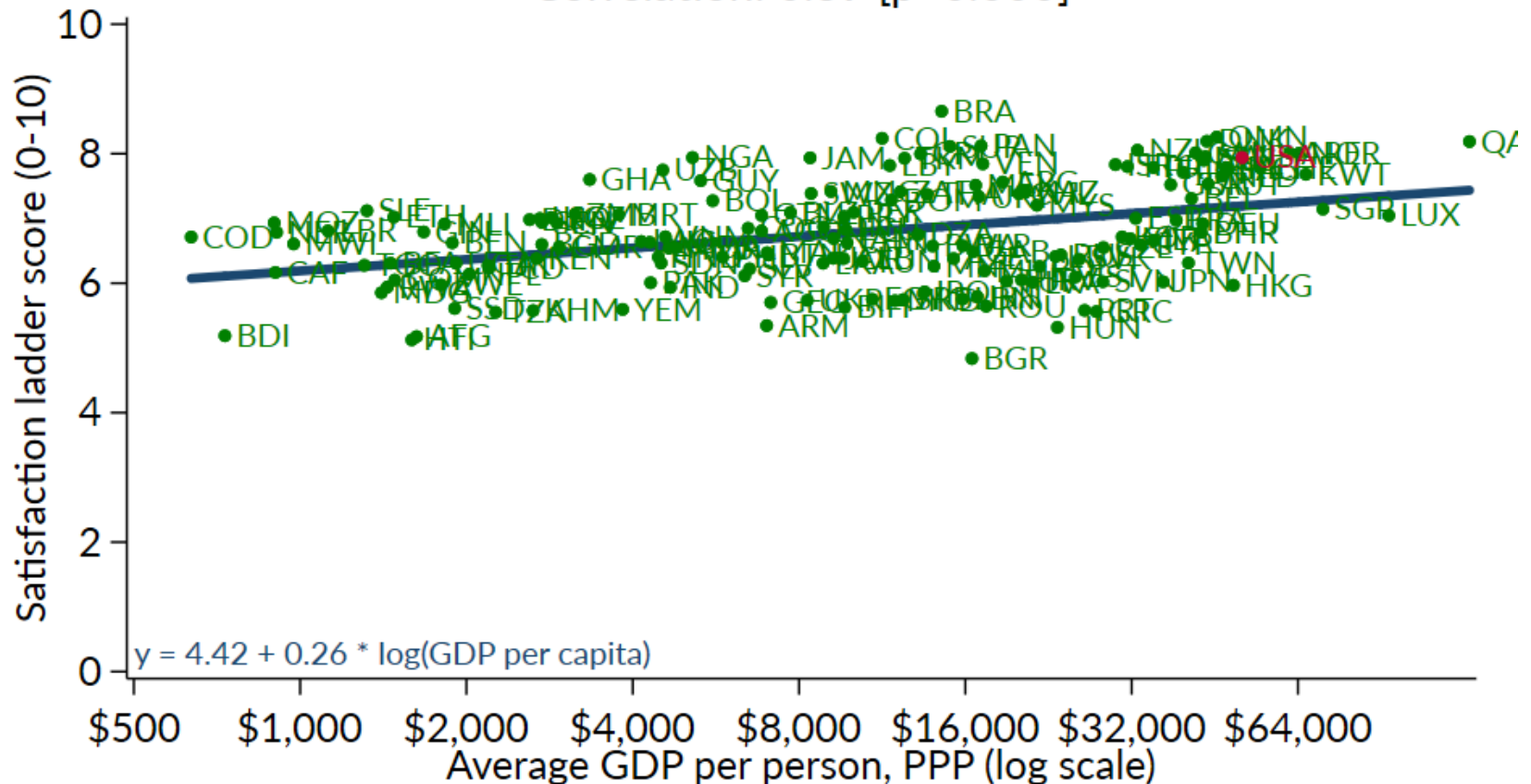


Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time.

Gallup World Poll, 2006-2008, n=347926 in 137 countries

People are optimistic

Expected Life Satisfaction in 5 years Correlation: 0.39 [p=0.000]



Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time.

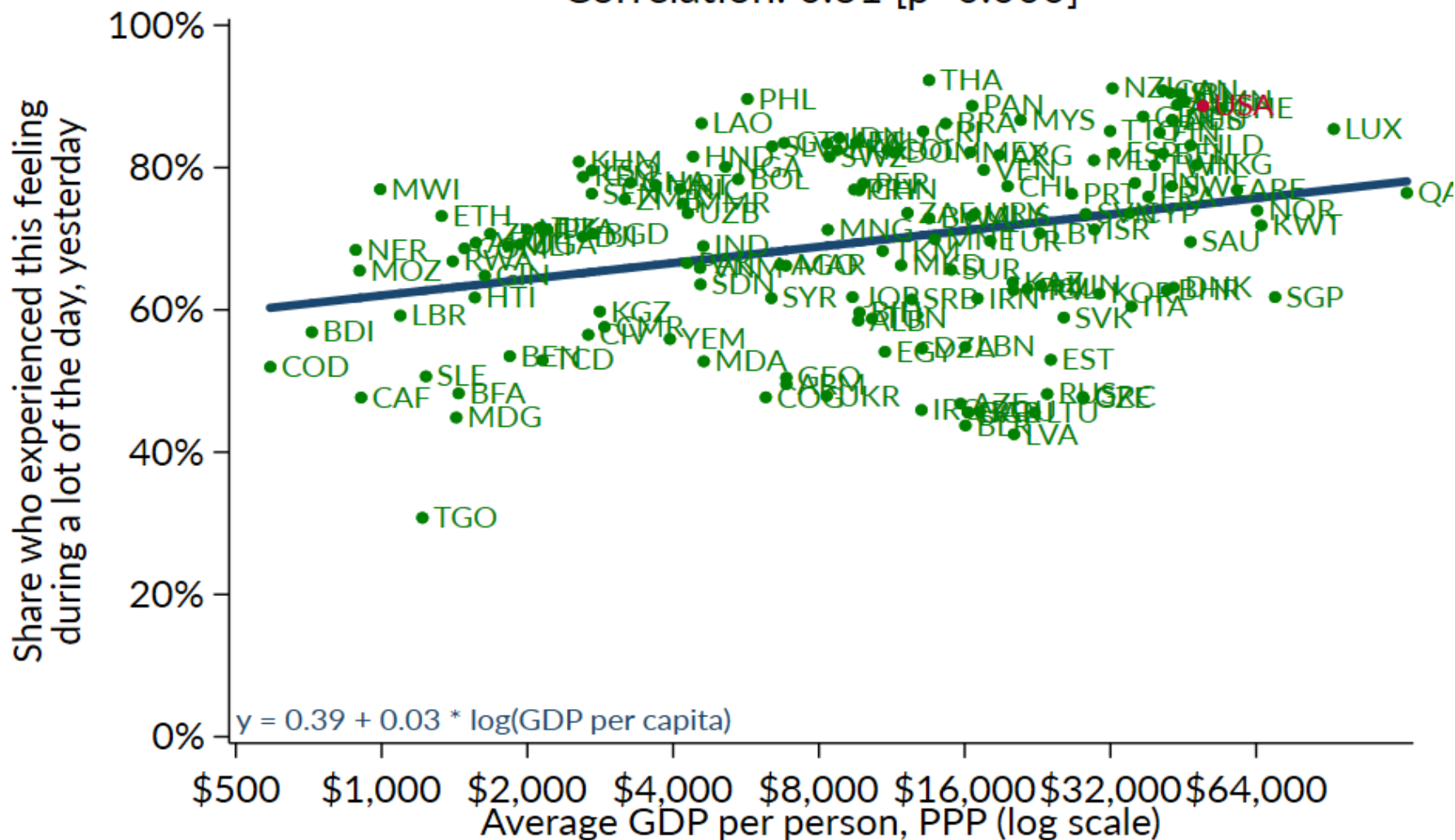
Gallup World Poll, 2006-2015, n=1371751 in 159 countries

Positive Affect

- ☐ Enjoyment
- ☐ Happiness
- ☐ Calm
- ☐ Smiling

Happiness

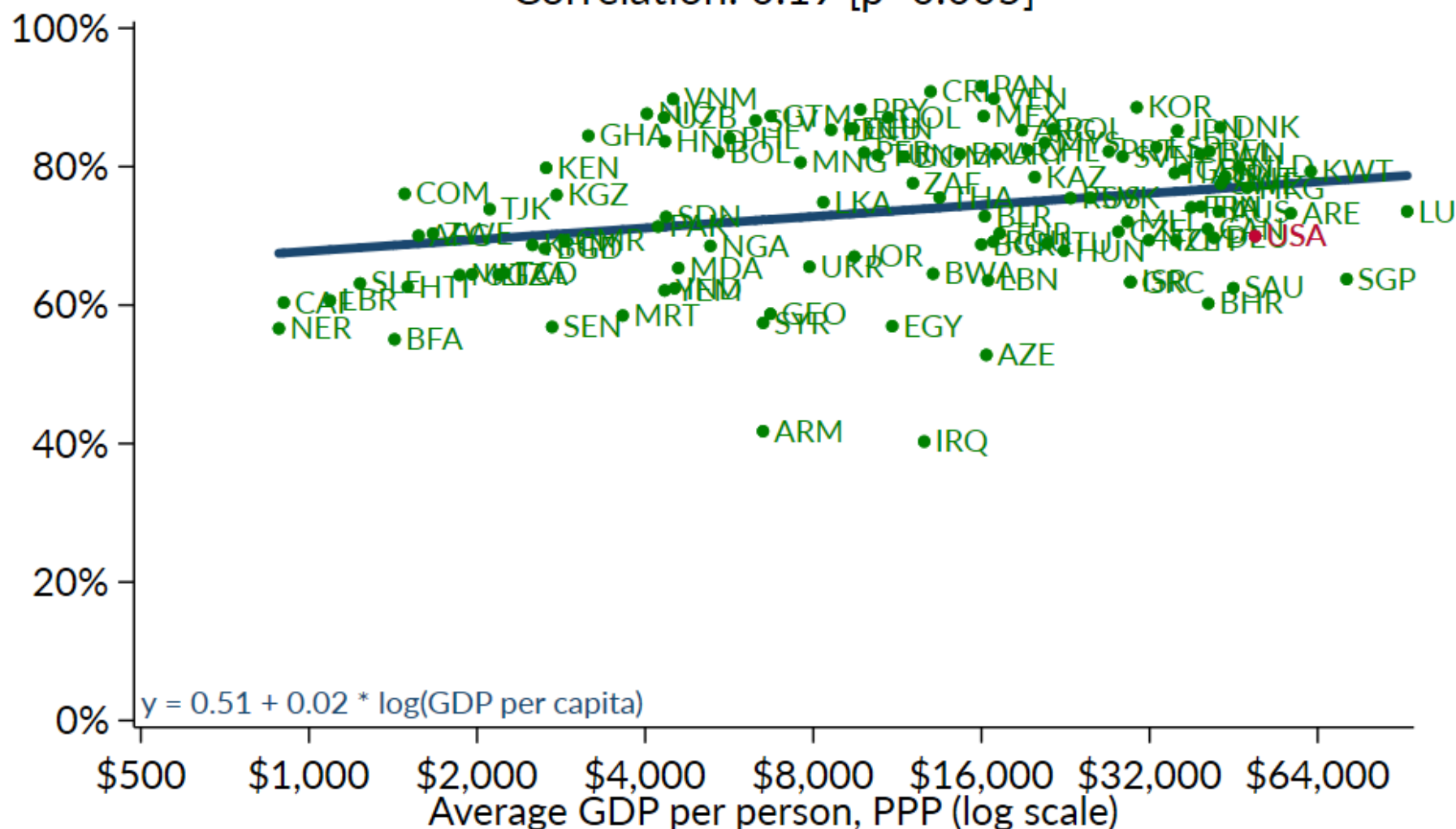
Correlation: 0.31 [p=0.000]



Gallup World Poll, 2008-2012, n=785385 in 153 countries

Did you feel calm all day yesterday?

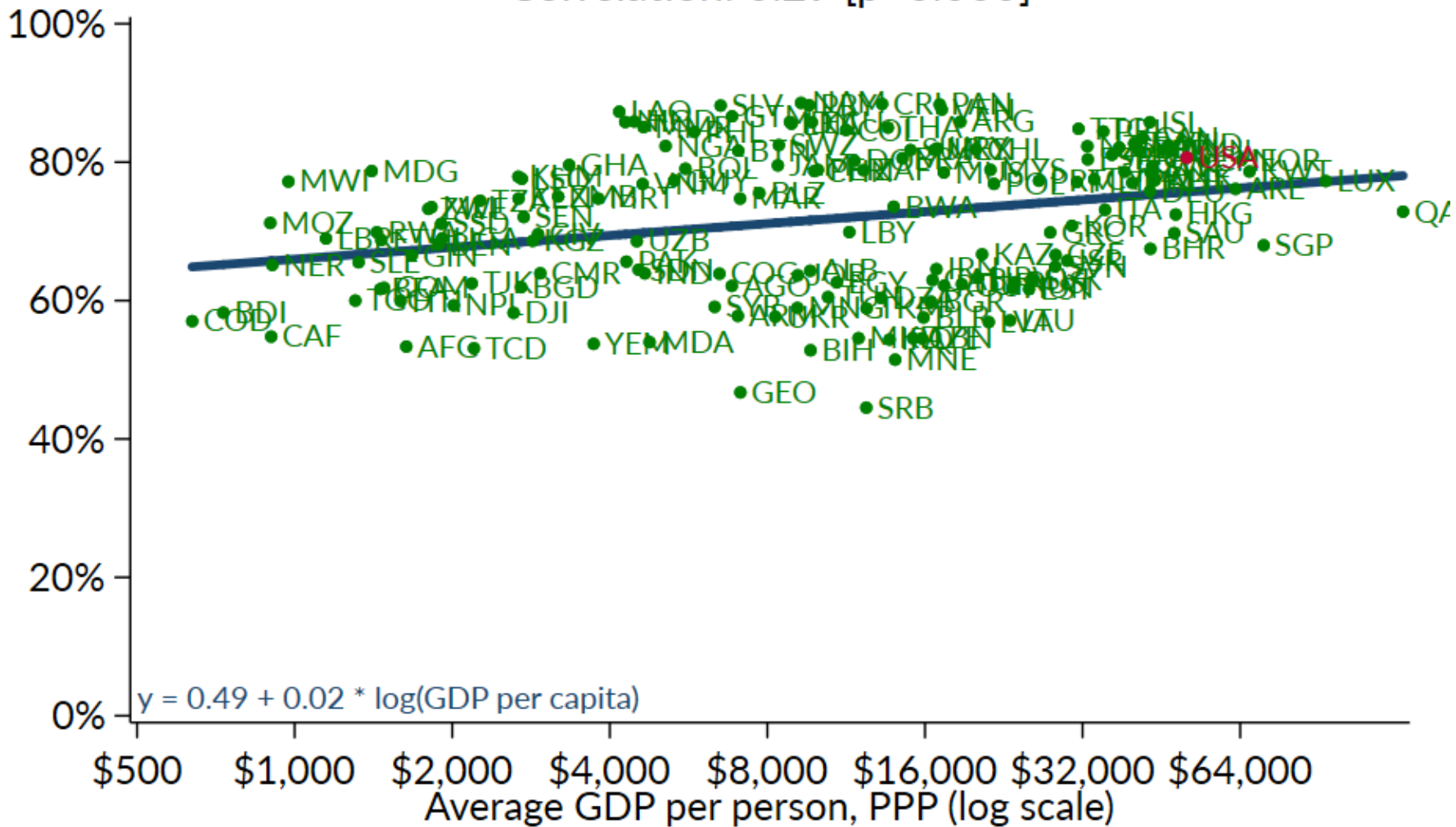
Correlation: 0.19 [p=0.005]



Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.
Gallup World Poll, 2010-2010, n=118499 in 110 countries

Did you smile or laugh a lot yesterday?

Correlation: 0.29 [p=0.000]

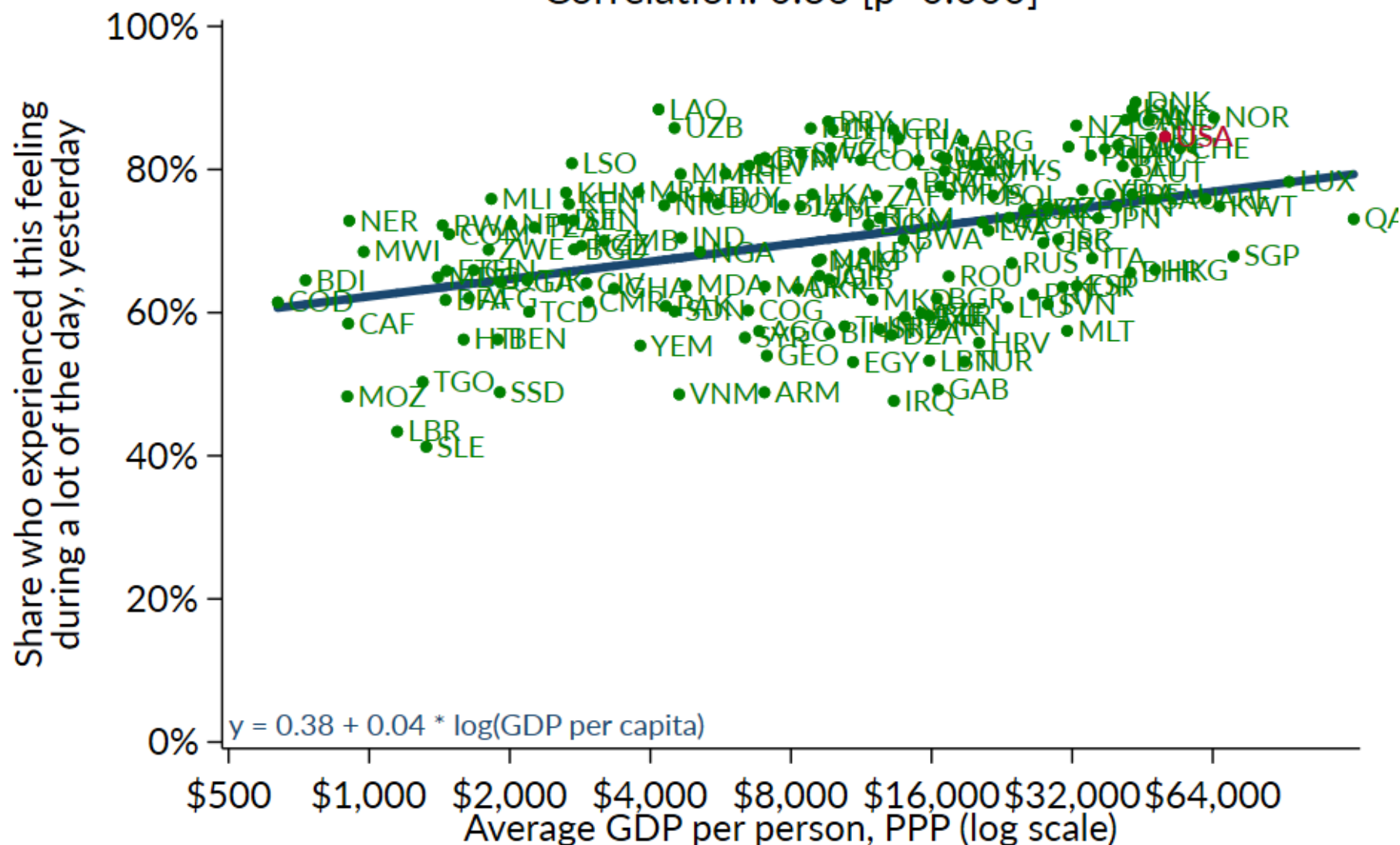


Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.

Gallup World Poll, 2006-2015, n=1395511 in 159 countries

Enjoyment

Correlation: 0.36 [p=0.000]



Gallup World Poll, 2006-2015, n=1434398 in 158 countries

In Sum

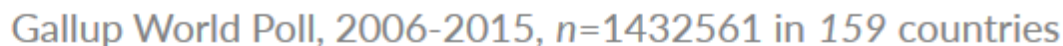
- ❑ Hedonism—or as most people call it happiness—is strongly related to income across countries (and within countries)
- ❑ Richer countries have people who are more satisfied with their life, are happier, experience more enjoyment, and are calmer

Negative Affect

- ☐ Pain
- ☐ Depression
- ☐ Fear
- ☐ Anger
- ☐ Sadness
- ☐ Stress
- ☐ Worry

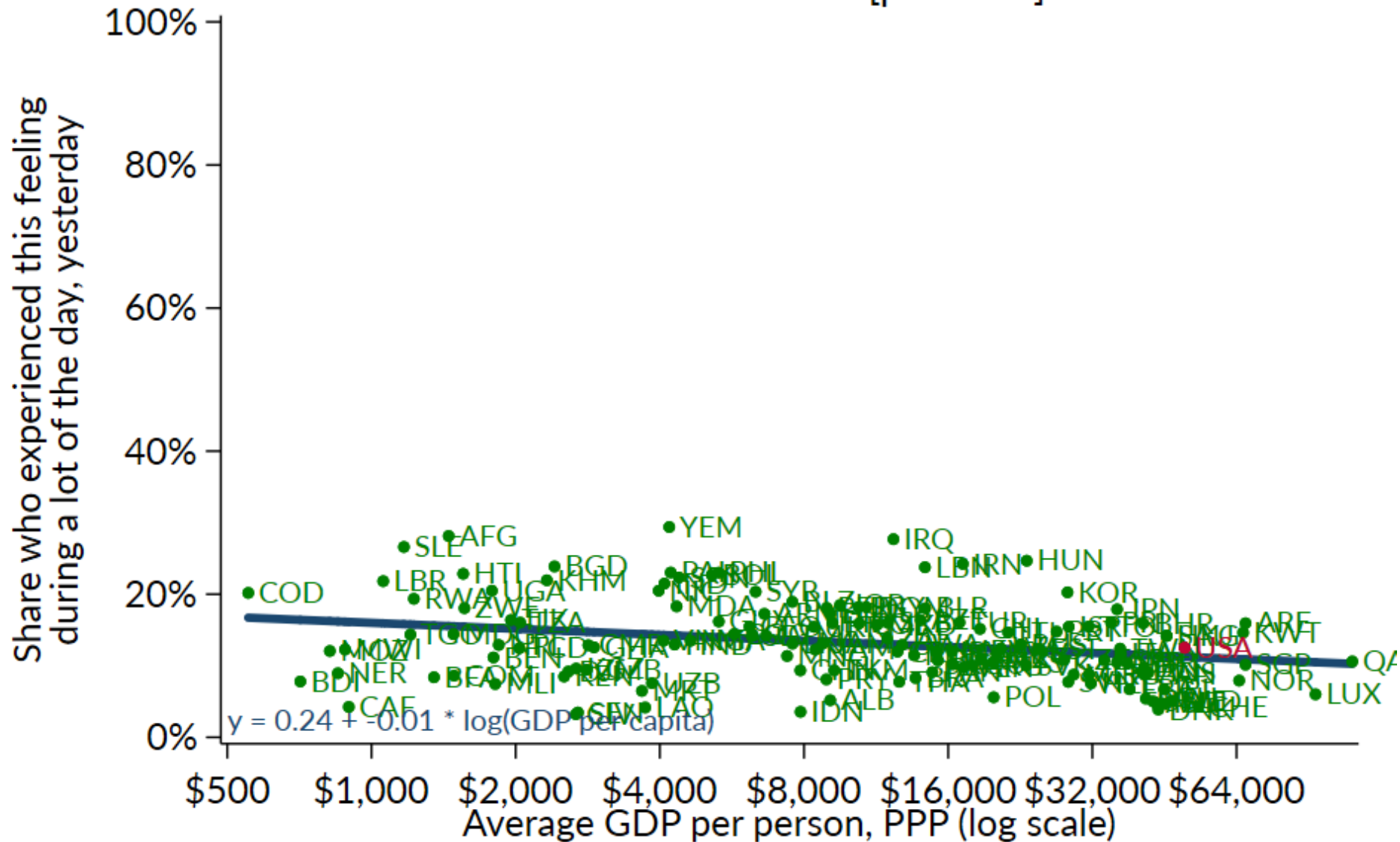
Correlation: -0.25 [p=0.000]

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Depression

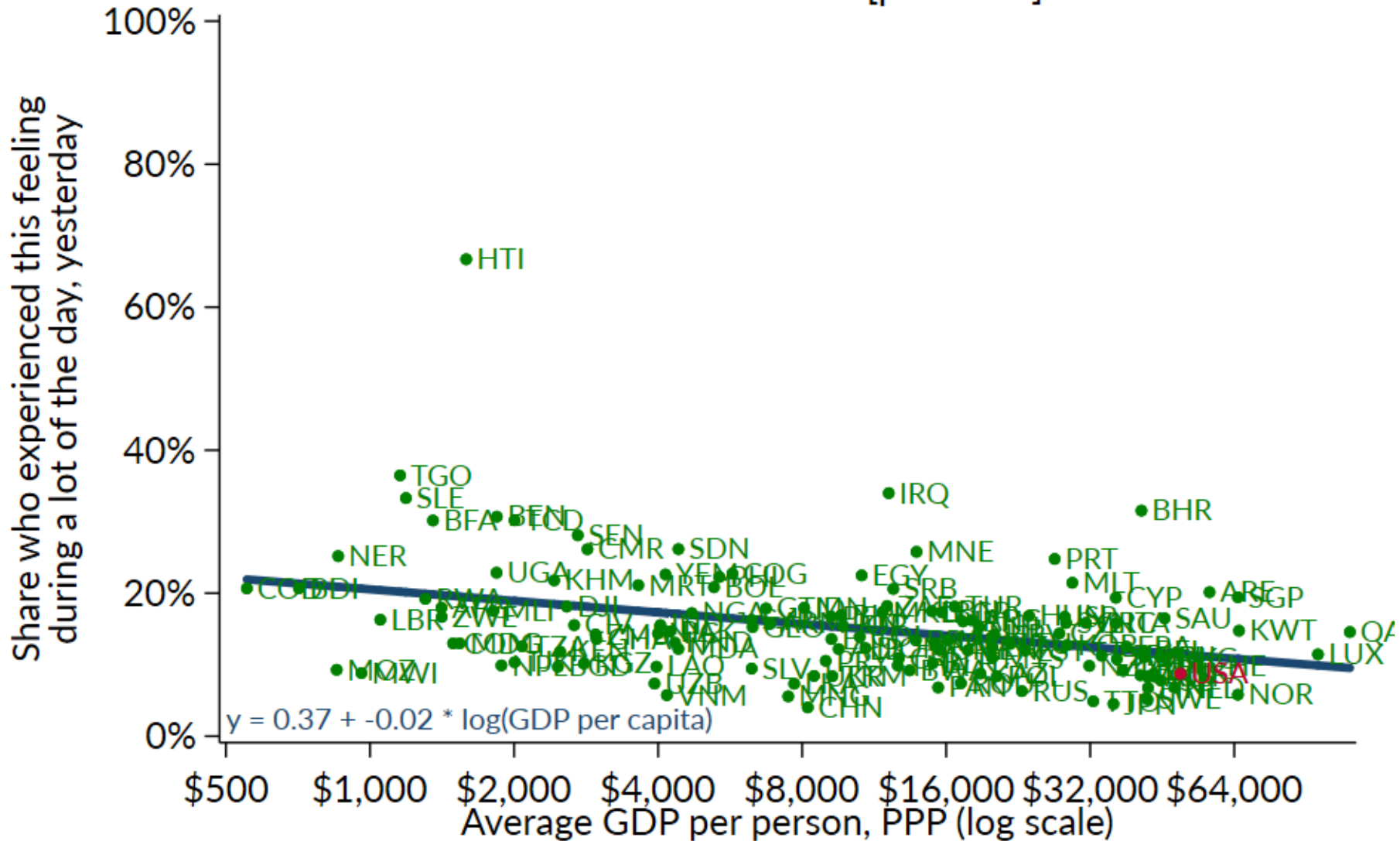
Correlation: -0.25 [p=0.001]



Gallup World Poll, 2006-2011, $n=590843$ in 143 countries

Fear

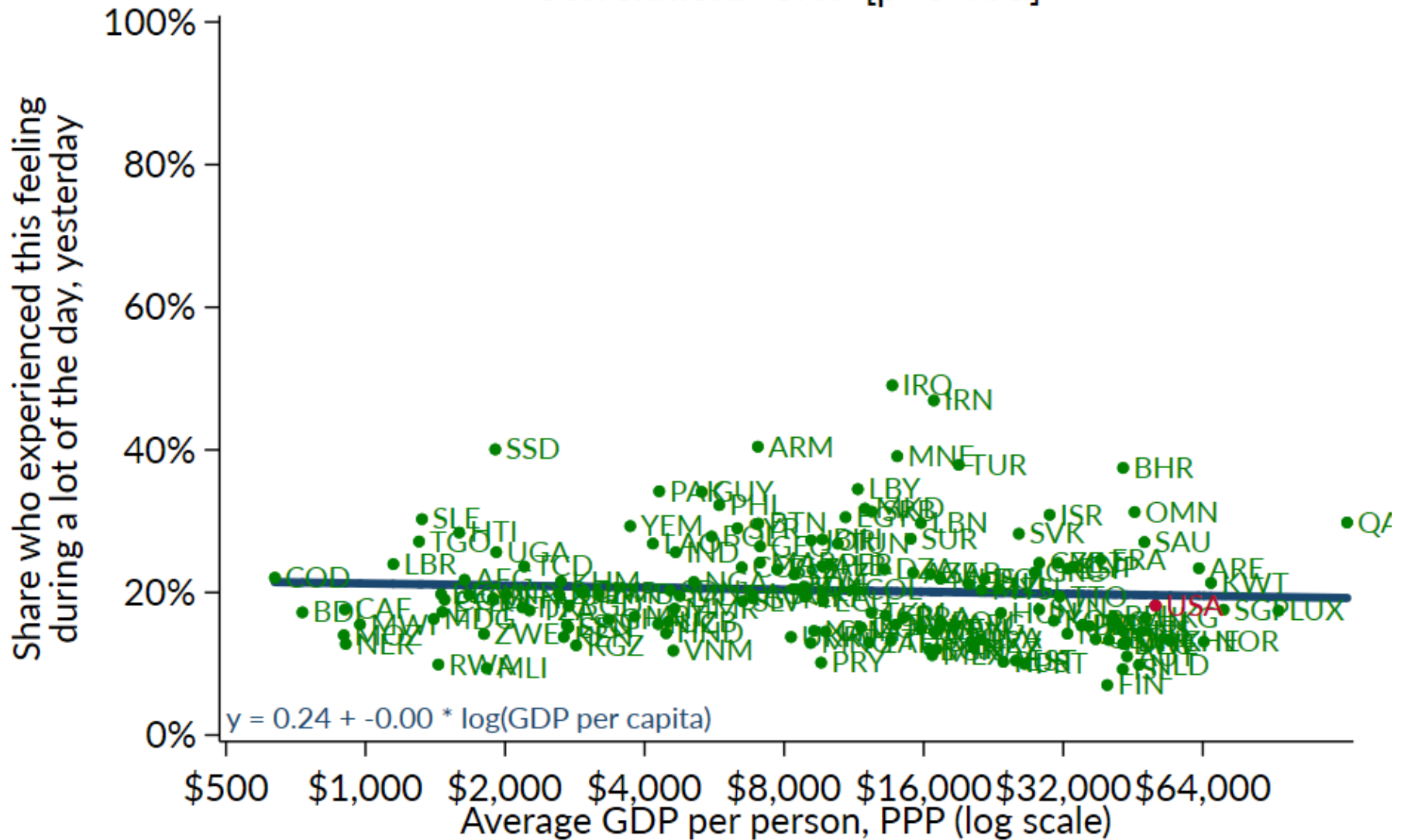
Correlation: -0.32 [p=0.000]



Gallup World Poll, 2006-2011, $n=248067$ in 136 countries

Anger

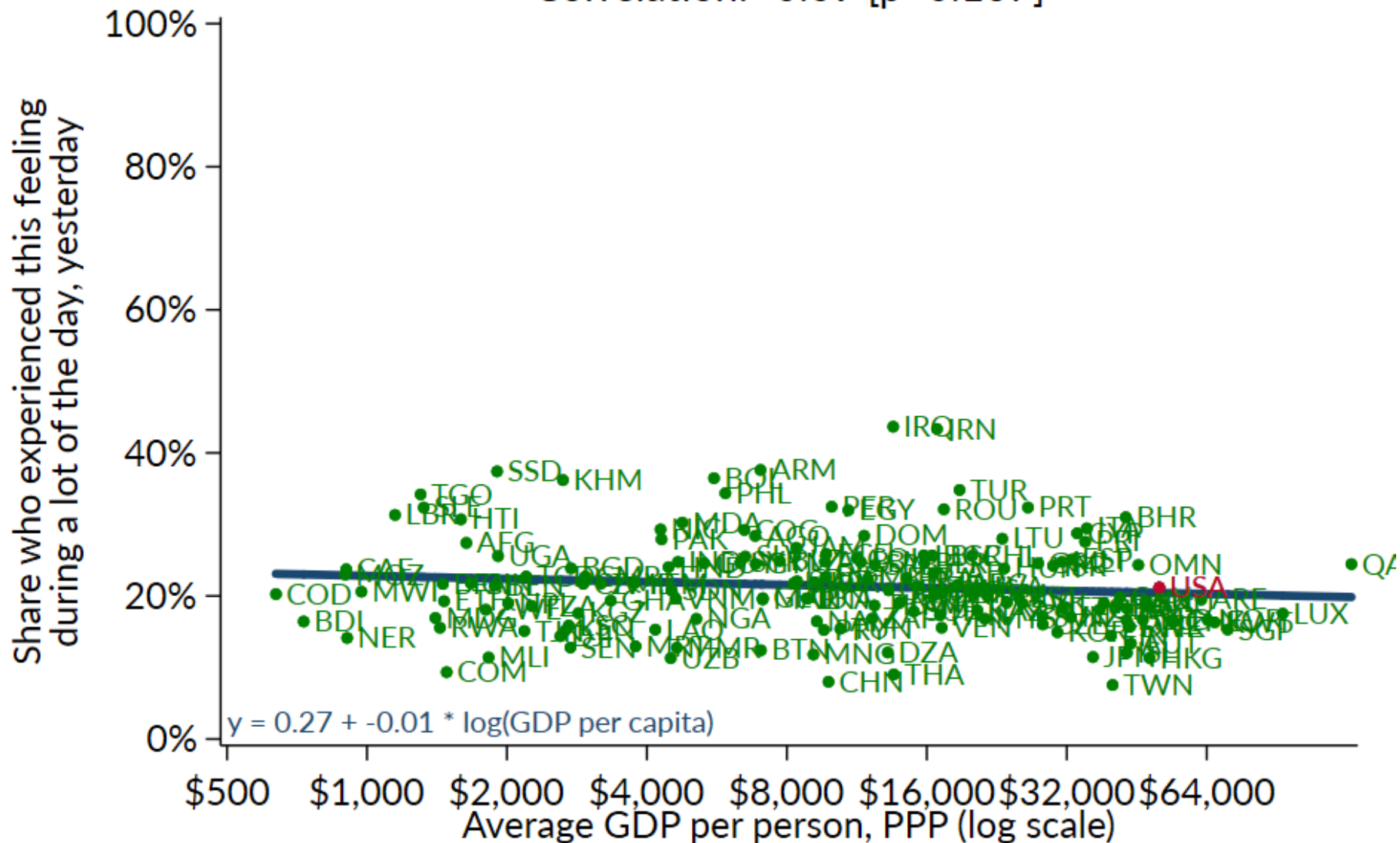
Correlation: -0.07 [p=0.405]



Gallup World Poll, 2006-2015, n=1413664 in 159 countries

Sadness

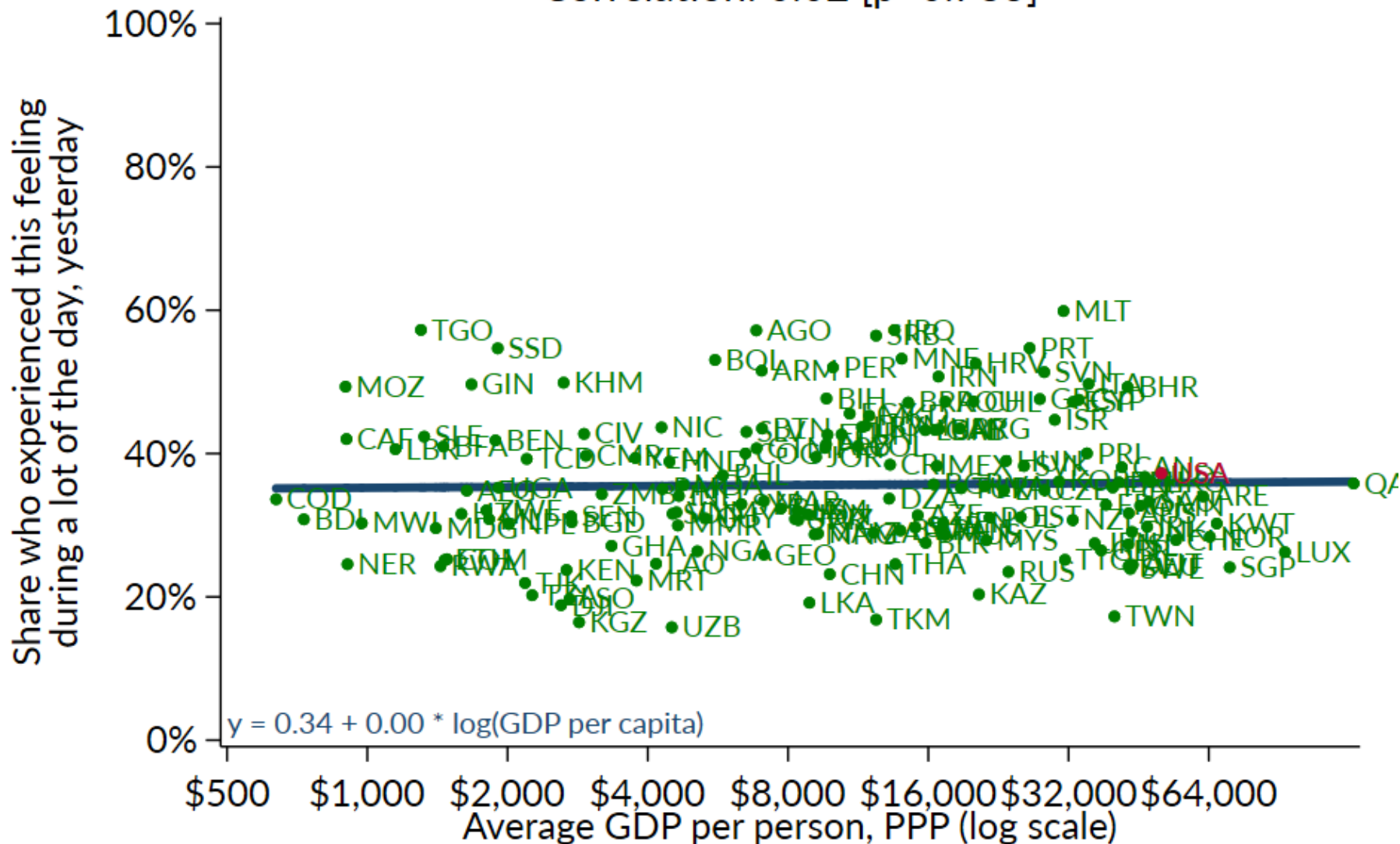
Correlation: -0.09 [p=0.167]



Gallup World Poll, 2006-2015, n=1428625 in 159 countries

Worry

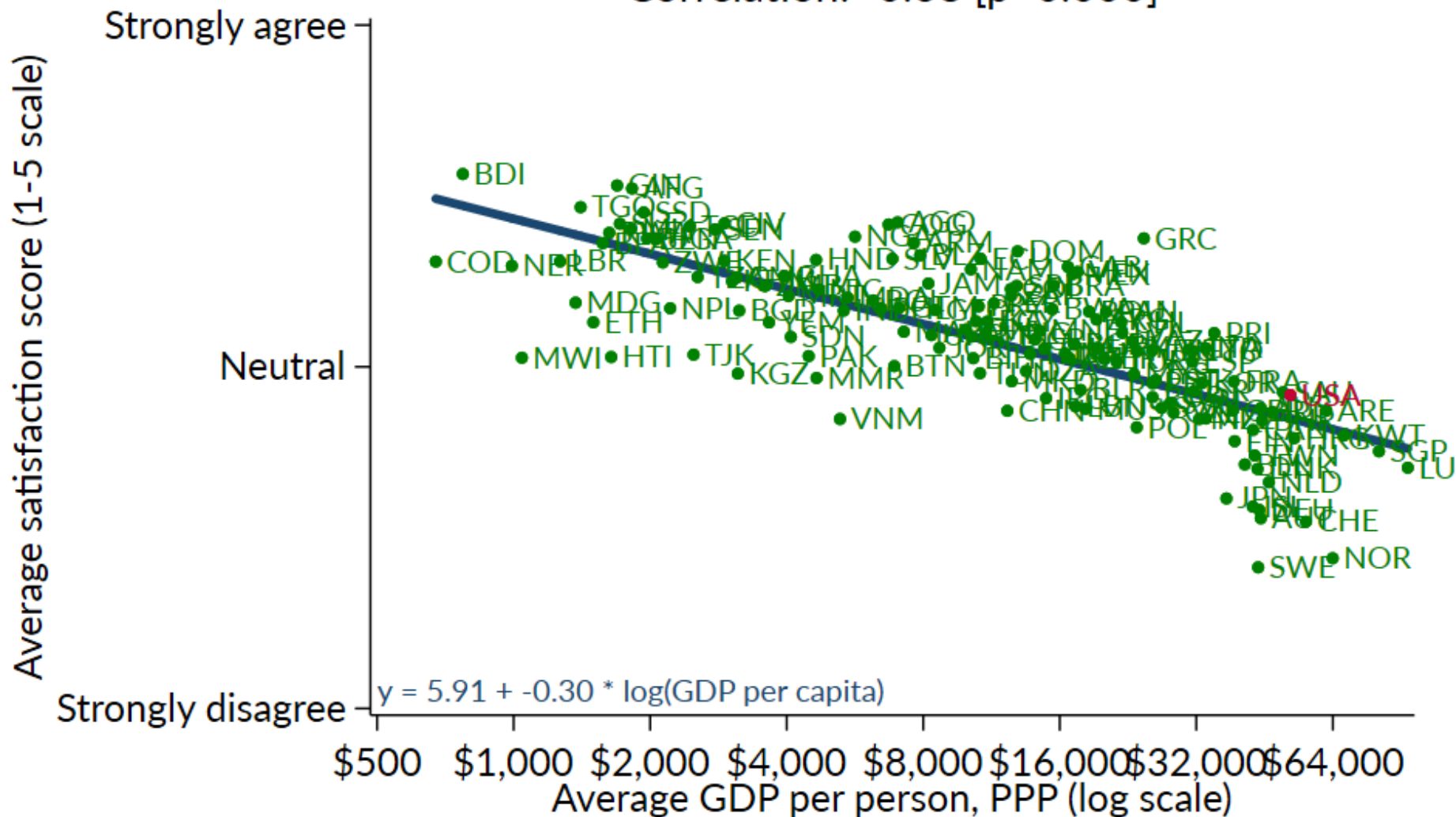
Correlation: 0.02 [p=0.783]



Gallup World Poll, 2006-2015, $n=1431497$ in 159 countries

Worried About Money

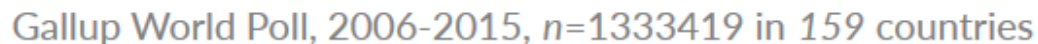
Correlation: -0.68 [p=0.000]



Thinking about your life in general, please rate your level of agreement with each of the following using a 5-point scale.

Gallup World Poll, 2013-2014, n=279055 in 145 countries

Correlation: 0.34 [p=0.000]



Negative affect

- ❑ Many measures of negative affect—anger, sadness, worry—are uncorrelated with GDP per capita
- ❑ Stress is a measure of negative affect that rises as countries get richer
- ❑ A specific form of worry—worrying about money—is strongly negatively related to GDP per capita
- ❑ Both depression and fear fall with GDP per capita, but both have clear potential relationships with GDP per capita
 - ▶ Depression is a treatable illness
 - ▶ Fear may be driven by violence, which is negatively associated with GDP per capita

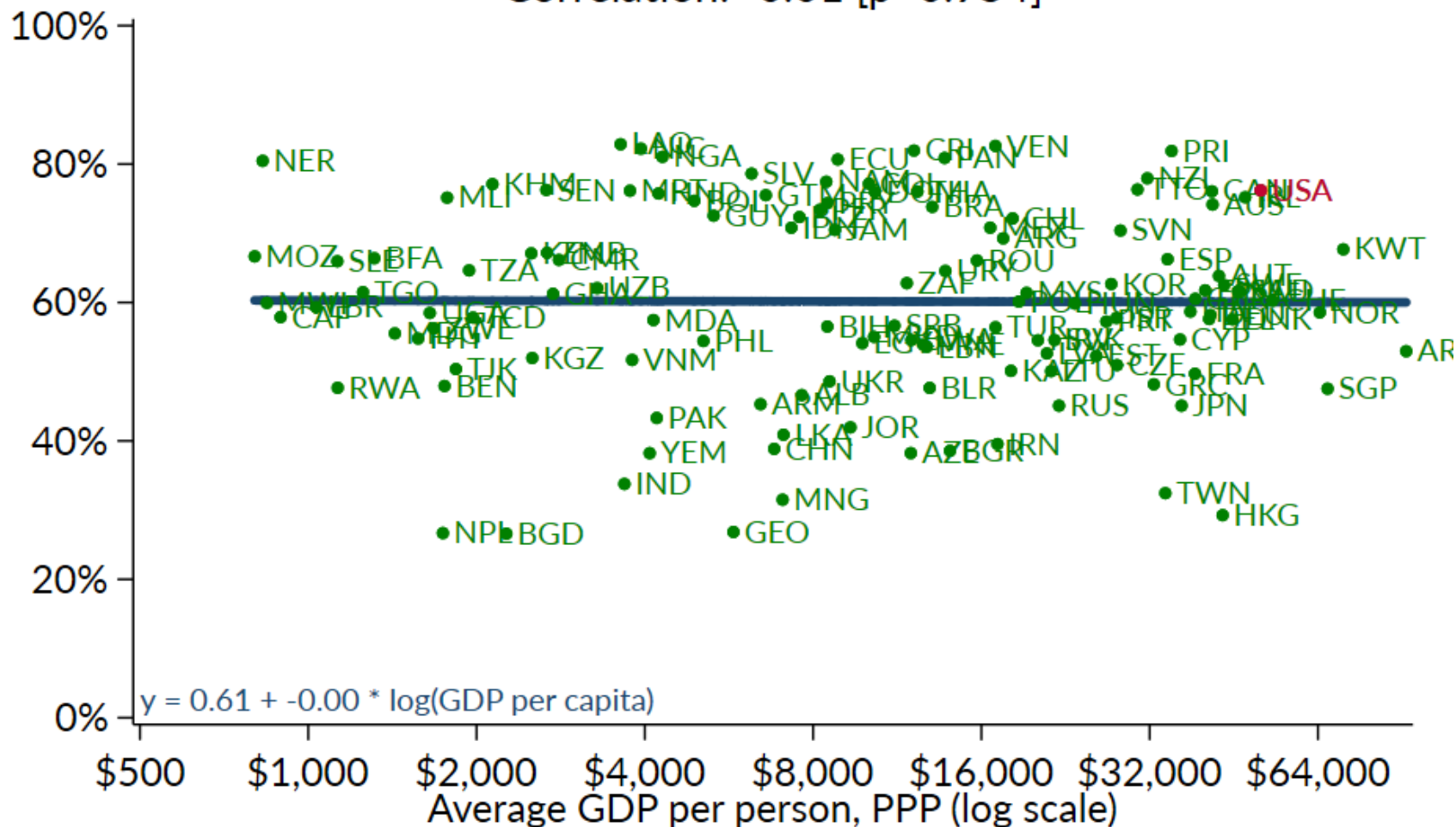
Eudaimonic well-being

Actualization of human potential

- ❑ Meaning
- ❑ Learning
- ❑ Control

Were you proud of something you did yesterday?

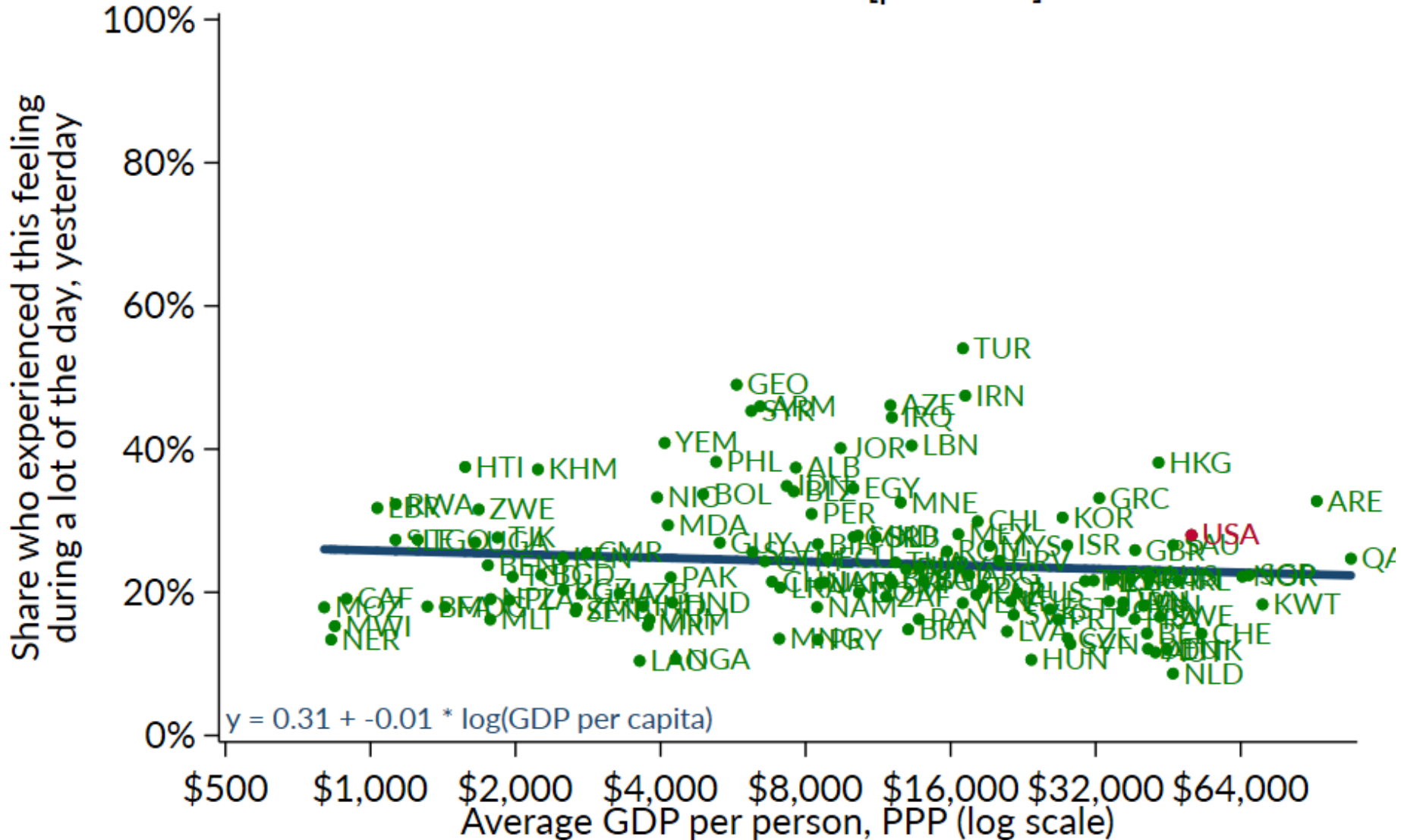
Correlation: -0.01 [p=0.954]



Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.
Gallup World Poll, 2006-2008, n=220638 in 127 countries

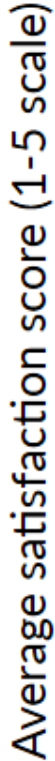
Boredom

Correlation: -0.04 [p=0.258]



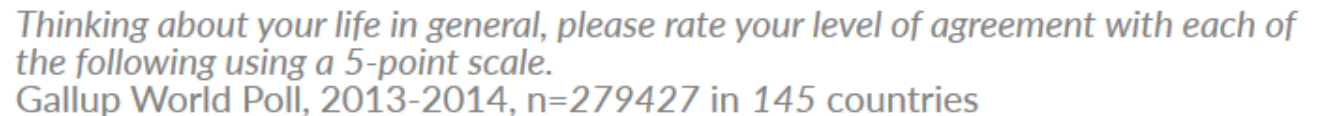
Gallup World Poll, 2006-2008, $n=237069$ in 130 countries

Correlation: 0.27 [p=0.000]



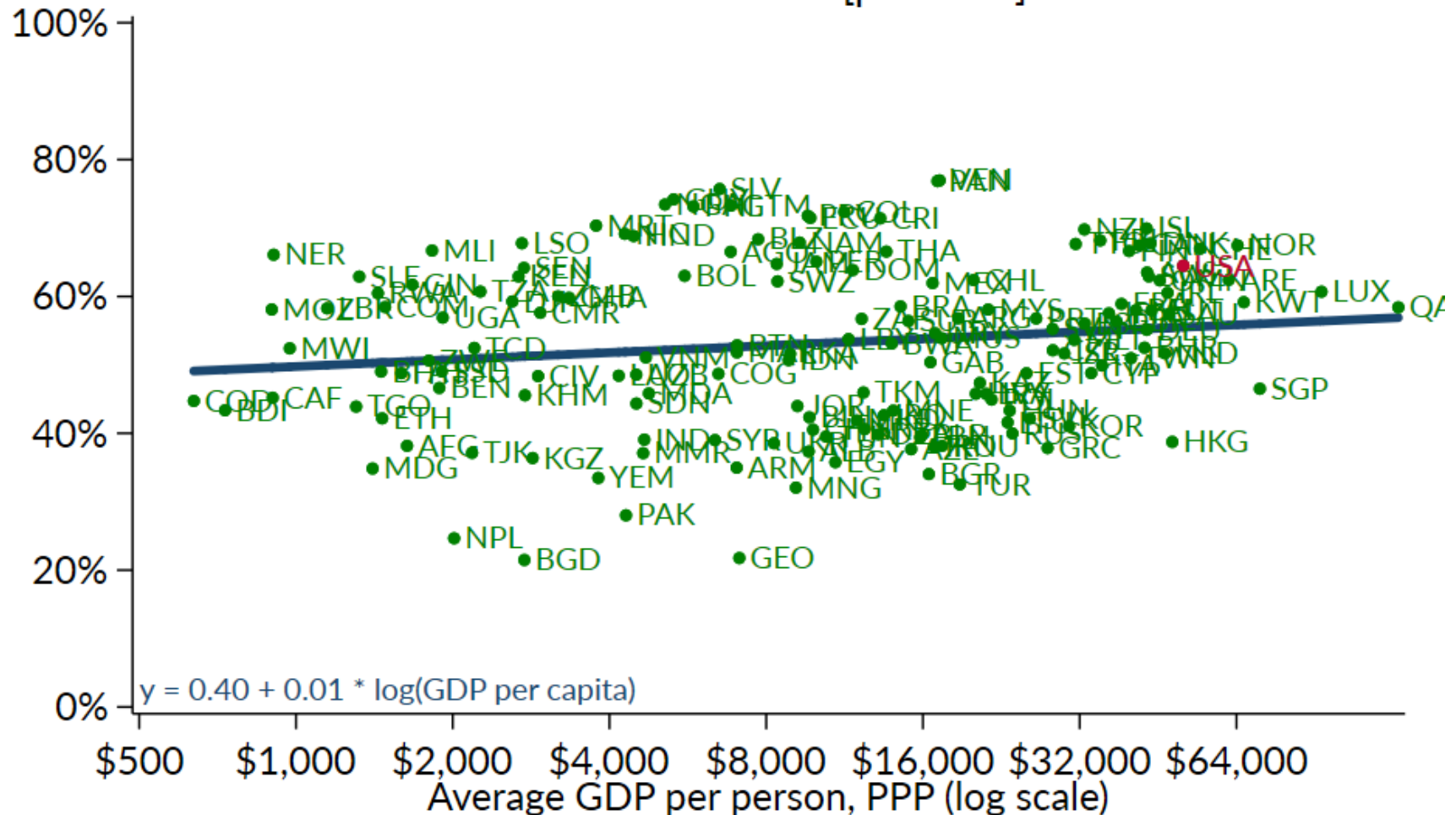
Gallup World Poll, 2013-2014, n=278447 in 145 countries

Correlation: 0.27 [p=0.000]



Did you learn or do something interesting yesterday?

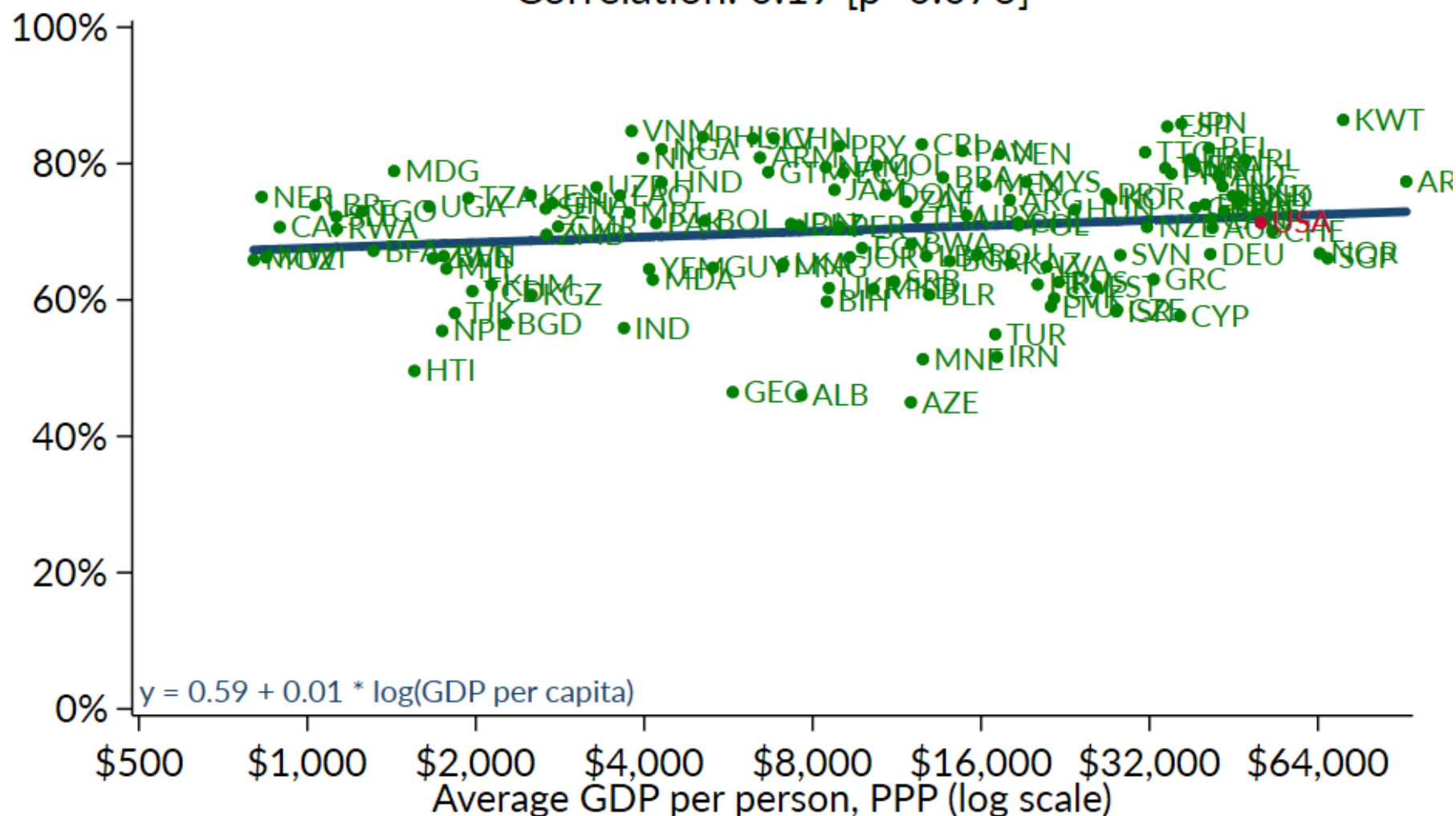
Correlation: 0.17 [p=0.069]



Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.
Gallup World Poll, 2006-2015, n=1425531 in 159 countries

Were you able to choose how you spent your time all day?

Correlation: 0.19 [p=0.076]



Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.

Gallup World Poll, 2006-2010, n=281050 in 127 countries

Summary of Subjective Well-Being

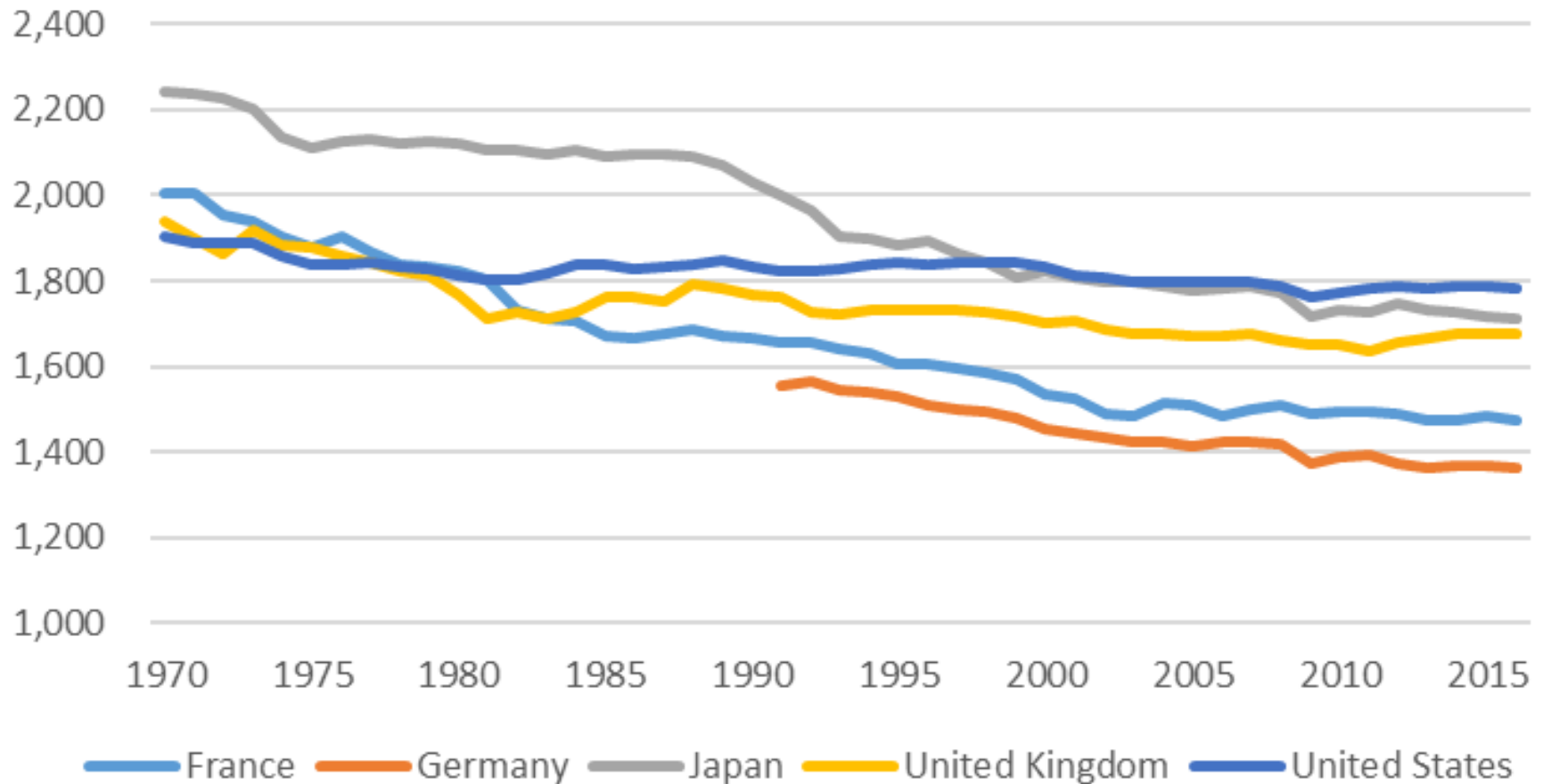
- ❑ Much clearer relationship between well-being and income across countries when one focuses on hedonic measures of well-being
- ❑ A much less clear relationship between well-being and income across countries when one focuses on eudaimonic measures
 - ▶ Is this because these measures do a worse job at capturing a consistent concept across countries
 - ▶ Or is it because the ways to improve eudaimonic well-being are less related to the resources to which one has access

Income/GDP isn't everything, but it's pretty good...

- ❑ GDP is correlated with high-levels of subjective well-being
- ❑ But it doesn't have to lead to higher subjective well-being
- ❑ Instant increase to GDP: no vacation for anyone this year
- ❑ Not an instant increase in well-being!
- ❑ GDP is a proxy variable
 - ▶ What are we trying to measure?
 - ▶ ***Our budget constraint***, not where we choose to be on it
 - ▶ If we choose leisure we aren't producing stuff but we are producing well-being
 - ▶ Measurement problems: if we choose to care for a family member rather than hiring someone GDP goes down even though total work doesn't change

Work Has Declined

Annual Hours Worked



Conclusion

- ❑ Income inequality tells us a lot about the disparities across the United States
- ❑ If we want successful alternative measures, it's useful to look at what is not correlated with income
- ❑ Is it declining work or wage stagnation that is causing the divisions.
- ❑ Recent NYT opinion piece digs into a town in Arkansas where the residents want fewer government services. They question the value of a library, wonder if its fair if they don't use it. This article describes changing *preferences*, a place economists are often loath to go.