

State Differences in Subjective Well-Being: A Comment on Oswald and Wu

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Oswald and Wu (2009) find that after controlling for relevant individual factors, people in different states experience different levels of subjective well-being. Residents of affluent and densely populated states such as New York, New Jersey, and California are less satisfied than people living in other states. Their explanation of this pattern is that a larger population and greater economic activity brings costs such as congestion, long commutes, and pollution: in effect, people pay for greater economic rewards by enduring a lower quality of life.

In principle, there are many questions that could be used to gauge subjective well-being. Oswald and Wu use responses to "In general, how satisfied are you with your life: very satisfied, satisfied, dissatisfied, or very dissatisfied?" This question is part of the Behavioral Risk Factors Surveillance System, an annual survey that includes several hundred thousand respondents each year. The very large sample makes it possible to obtain precise estimates even for states with small populations. This note reports on state differences in two other measures of subjective well-being from the same survey. The first is how many days out of the past thirty the respondent felt "sad, blue, or depressed," and the second is the number of days felt "worried, tense, or anxious." These questions are included in optional modules rather than the core survey, so data are available for only thirty-one states. In states for which data are available, however, the large size of the BRFSS sample means that estimates are quite precise.

Table 1 shows state scores on the alternative measures of well-being, after controlling for the same individual characteristics considered by Oswald and Wu: age, sex, education, income, ethnicity, marital status, and employment status. Because stress and depression are undesirable, lower scores are better. Differences between the scores for different states represent differences in days

felt stressed or depressed: for example, people living in Louisiana report about 1.6 fewer days felt depressed than comparable people living in Kentucky ($-.906 - .719 = -1.625$). The correlation between state scores on depression and anxiety is strong but not perfect (0.778).

On the individual level, there is a strong correlation among the variable: people who are less satisfied with their lives report more days felt depressed and anxious. The geographical patterns, however are quite different. State-level satisfaction scores have a correlation of only $-.27$ with depression and $-.31$ with anxiety. That is, there is only a weak tendency for the more satisfied states to be less depressed or anxious. For example, Oswald and Wu (2009) find that Tennessee ranks fourth in satisfaction, but Table 1 shows that it is third highest in depression and fourth highest in anxiety. Moreover, there is no tendency for affluent and densely populated states to rank high in anxiety and depression—New York, New Jersey, Connecticut, and California are all in the middle range. Figure 1 compares state scores on satisfaction and the sum of anxiety and depression.

This analysis agrees with Oswald and Wu's (2009) in the larger sense of finding that place makes a difference: the same kinds of people living in different places experience substantially different levels of well-being. However, the specific pattern of state differences in well-being is quite different when different measures are used. One possible explanation for this difference is that there may be distinctive patterns of positive and negative feelings, and that satisfaction represents the net balance of positives and negatives. Another is that differences in satisfaction may reflect differences in aspirations: people in states such as New York and California may set higher goals for themselves, so that they are less easily satisfied with their condition. In any case, the difference in the rankings shows that conclusions about regional differences in well-being depend on the measure used. The practical implication is that surveys of subjective well-being should use multiple measures.

References

Oswald, Andrew J. and Stephen Wu. "Objective Confirmation of Subjective Measures of Human Well-Being: Evidence from the USA." *Science Express*, 17 December.

Table 1
State Scores on Depression and Anxiety

	Depressed	Anxious
Louisiana	-0.433	-0.906
Hawaii	-0.245	-0.965
North Dakota	-0.381	-0.370
Alaska	-0.073	-0.525
Iowa	-0.147	-0.288
Arizona	-0.109	-0.256
North Carolina	-0.115	-0.077
Nebraska	-0.068	-0.103
Wisconsin	-0.196	0.064
Minnesota	0.161	-0.243
Rhode Island	0.119	-0.176
Maryland	0.126	-0.177
Delaware	0.160	-0.190
New York	0.041	-0.064
South Carolina	-0.006	0.043
New Mexico	0.069	0.195
Kansas	0.092	0.176
Massachusetts	0.162	0.135
Virginia	0.229	0.080
Missouri	0.117	0.267
Oregon	0.231	0.175
California	0.169	0.267
Arkansas	-0.046	0.523
Georgia	0.167	0.316
New Jersey	0.355	0.135
Connecticut	0.185	0.318
Ohio	0.221	0.336
District of Columbia	0.260	0.515
Indiana	0.272	0.558
Oklahoma	0.434	0.645
Tennessee	0.560	0.588
Alabama	0.612	0.862
Kentucky	1.035	0.719

Figure 1

