

Supplementary/Online Materials

A Validation and Extension of State-Level Public Policy Mood: 1956 to 2020

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Section 1 Question Wording

The following questions were used to generate our state-level measures of policy mood. After each question, we list the survey house, the number of times the question was asked, and the range of years when the question was asked. All questions are from the Roper Center for Public Opinion Research at Cornell University or Gallup Analytics.

1. Some people say that the federal government in Washington should give financial help to build new public schools, especially in the poorer states. Others say that this will mean higher taxes for everyone and that states and local communities should build their own schools. How do you yourself feel—do you favor or oppose federal aid to help build new public schools? (Gallup; 5, 1956-1961)
2. A new plan has been suggested for dealing with the problem of farm surpluses—it's called the Soil Bank plan. Under this plan the government would pay farmers a yearly rental for each acre of land taken out of production. Does this sound like a good idea or a poor one? (Gallup; 2, 1955-1956)
3. Around election time people talk about different things that our government in Washington is doing or should be doing. Now I would like to talk to you about some of the things that our government might do. Of course, different things are important to different people, so we don't expect everyone to have an opinion about all of these. I would like you to look at this card as I read each question and tell me how you feel about the question. If you don't have an opinion, just tell me that; if you do have an opinion, choose one of the other answers. 'The government ought to help people get doctors and hospital care at low cost.' (ANES; 5, 1956-1968)
4. Do you consider the amount of federal income tax you have to pay as too high, about right, or too low? (Gallup; 40, 1956-2020)
5. Do you regard the income tax which you will have to pay this year as fair? (Gallup; 19, 2001-2020)
6. Some people feel that the government in Washington should see to it that every person has a job and a good standard of living. Others think the government should just let each person get ahead on his/their own. And, of course, some other people have opinions somewhere in between. Where would you place yourself on this scale, or haven't you thought much about this? (ANES; 6, 1956-1968, 2002)
7. There is much discussion as to the amount of money the government in Washington should spend for national defense and military purposes. How do you feel about this? Do you think we are spending too little, about the right amount, or too much? (Gallup, Time, NBC, CBS, PIPA; 45, 1969-2003)
8. Some people believe that our armed forces are already powerful enough and that we should spend less money for defense. Others feel that military spending should at least continue at the present level. How do you feel - should military spending be cut, or should it continue at least at the present level? (ANES; 13, 1980-2016)

9. Some people are afraid the government in Washington is getting too powerful for the good of the country and the individual person. Others feel that the government in Washington is not getting too strong (1964,1966,1970: has not gotten too strong for the good of the country). 1964-1972: Have you been interested enough in this to favor one side over the other? 1976-1992: Do you have an opinion on this or not? ALL YEARS: (IF YES:) What is your feeling? Do you think the government is too powerful or do you think the government is not getting too strong? (ANES; 12, 1964-2000)
10. In your opinion, which is more often to blame if a person is poor—lack of effort on their own part or circumstances beyond their control? (Gallup, NBC, PEW; 8, 1964-2018)
11. In your opinion, which of the following do you think will be the biggest threat to the country in the future—big business, big labor, or big government? (Gallup; 14, 1966-2013)
12. Do you think it is the responsibility of the federal government to make sure all Americans have health care coverage, or is that not the responsibility of the federal government? (Gallup; 20, 2001-2020)
13. Next, we'd like to know how you feel about the state of the nation in each of the following areas. For each one, please say whether you are – very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied. If you don't have enough information about a particular subject to rate it, just say so. The nation's efforts to deal with poverty and homelessness. (Gallup; 17 2001-2020)
14. It has been suggested that no strike be permitted to go on strike for more than 21 days. If after 21 the union and the employer cannot reach an agreement, a government-appointed committee would decide the issue and both be compelled to accept the terms. Would you favor or oppose this idea? (Gallup; 3, 1967-168)

We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount-

15. The military, armaments and defense (GSS, 31, 1973-2018; Roper, 10, 1975-1987)
16. Halting the rising crime rate (GSS, 31, 1973-2018; Roper, 9, 1975-1986)
17. Improving the nation's education system (GSS, 31, 1973-2018; Roper, 9, 1975-1986)
18. Solving the problems of the big cities (GSS, 31, 1973-2018; Roper, 9, 1975-1986)
19. Welfare (GSS, 31, 1973-2018; Roper, 9, 1975-1986)
20. Dealing with drug addiction (GSS, 31, 1973-2018; Roper, 9, 1975-1986)
21. Improving the conditions of Blacks (GSS, 31, 1973-2010)

22. Some people think that the government in Washington should do everything possible to improve the standard of living for all poor Americans, they are at point 1 on this card. Other people think it is not the government's responsibility, and that each person should take care of himself, they are at point 5. Where would you place yourself on this scale or haven't you made up your mind on this? (GSS; 23, 1975-2018)
23. Some people think the government in Washington is trying to do too many things that should be left to individuals and private businesses. Others disagree and think the government should do more to solve our country's problems. Which of those two views is closer to your own? (ABC, Time, Gallup, GSS; 64, 1975-2020)
24. In general, do you think there is too much, too little, or about the right amount of government regulation of business and industry? (Gallup; 20, 2001-2020)
25. Would you, personally, like to see labor unions in the United States have—more influence than they have today, the same amount as today, or less influence than they have today? (Gallup; 16, 2001-2020)
26. (I'm going to name some different kinds of taxes you may have to pay, and for each type would you tell me whether the taxes you have to pay are excessively high, somewhat high, about right, or extremely low.)... Social Security taxes (Roper; 4, 1978-1986)
27. Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. (GSS; 24, 1978-2018)
28. Some people think the government should provide fewer services, even in areas such as health and education, in order to reduce spending. (2004: Suppose these people are at one end of a scale, at point 1.) Other people feel that it is important for the government to provide many more services even if it means an increase in spending. (2004: Suppose these people are at the other end, at point 7. And of course, some other people have opinions somewhere in between, at points 2,3,4,5, or 6.) Where would you place yourself on this scale, or haven't you thought much about this? (7-POINT SCALE SHOWN TO R) (ANES; 14, 1982-2016)

We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount -

29. Highways and bridges (GSS; 22, 1984-2018)
30. Education (GSS; 22, 1984-2018)
31. Law enforcement (GSS; 22, 1984-2018)

32. Assistance to big cities (GSS; 22, 1984-2018)
33. Assistance to the poor (GSS; 22, 1984-2018)
34. Assistance to blacks (GSS; 22, 1984-2018)
35. Drug rehabilitation (GSS; 22, 1984-2018)

If you had a say in making up the federal budget this year, for which (1986 AND LATER: of the following) programs would you like to see spending increased and for which would you like to see spending decreased:

36. Should federal spending on dealing with crime be increased, decreased or kept about the same? (ANES; 10, 1984-2016)
37. Should federal spending on Assistance to Blacks be increased, decreased or kept about the same? (ANES; 7, 1984-2002)
38. Should federal spending on Child Care be increased, decreased or kept about the same? (ANES; 11, 1984-2016)
39. Should federal spending on food stamps be increased, decreased or kept about the same? (ANES; 8, 1984-2000)
40. Should federal spending on social security be increased, decreased or kept about the same? (ANES; 13, 1984-2016)
41. Should federal spending on childcare be increased, decreased or kept about the same? (ANES; 11, 1988-2016)
42. Should federal spending on Public Schools be increased, decreased or kept about the same? (ANES; 12, 1984-2016)
43. Should federal spending on Poor/Poor People programs be increased, decreased or kept about the same? (ANES; 8, 1992-2016)
44. Should federal spending on welfare programs be increased, decreased or kept about the same? (ANES; 9, 1992-2016)
45. Should federal spending on science and technology (1992, 2004) be increased, decreased or kept about the same? (ANES; 5, 1992-2016)
46. Should federal spending on foreign aid be increased, decreased or kept about the same? (ANES; 6, 1990-2008)

Section 2 Data

Table A-1 presents the analytic sample size, number of survey questions, and number of surveys used each year.

Table A-1: Survey Data Information by Year

Year	Total N	# of Questions	# of Surveys	Year	Total N	# of Questions	# of Surveys
1956	5,312	4	3	1989	3,653	17	3
1957	4,245	3	3	1990	7,481	23	6
1958	1,185	1	1	1991	4,379	13	3
1959	1,375	1	1	1992	1,2248	18	8
1960	5,839	4	3	1993	7,608	18	7
1961	2,707	2	1	1994	10,356	24	7
1962	6,725	3	3	1995	2,766	3	3
1963	3,952	1	1	1996	6,461	23	4
1964	3,001	4	2	1997	3,728	3	3
1965	6,662	2	2	1998	8,709	17	6
1966	6,894	3	3	1999	6,422	6	6
1967	6,006	2	2	2000	6,462	25	4
1968	5,498	6	4	2001	5,775	10	6
1969	4,320	4	3	2002	13,498	31	11
1970	1,415	1	1	2003	9,110	14	10
1971	2,723	2	2	2004	9,824	31	8
1972	2,264	2	2	2005	5,637	10	6
1973	4,301	10	3	2006	8,723	22	8
1974	2,872	8	2	2007	9,665	12	8
1975	3,450	15	2	2008	10,886	32	9
1976	4,434	9	3	2009	7,189	11	7
1977	2,865	8	2	2010	10,199	21	8
1978	9,155	18	6	2011	6,732	10	7
1979	5,644	9	4	2012	16,180	31	10
1980	6,879	13	5	2013	8,049	11	7
1981	4,385	3	3	2014	8,771	22	8
1982	6,507	16	4	2015	8,894	12	8
1983	7,833	19	5	2016	13,353	31	9
1984	7,026	27	4	2017	5,795	10	6
1985	7,768	17	5	2018	8,431	22	8
1986	1,0888	27	7	2019	5,272	10	6
1987	7,176	13	3	2020	4,830	10	6
1988	8,163	23	5				
				Totals	430,632	837	319

Section 3 Full Results for Figure 2

Figure 2 in the text reported the estimated over-time relationship between three measures of state opinion and the presidential vote (percent Democrat out of the two party vote share). Table A-2 reports the full regression results this figure is based on. As described in the text, to facilitate comparison, the period of analysis is 1956 to 2008 and opinion measures have been scaled to a mean of zero and a standard deviation of one.

Table A-2: The estimated relationship between our new measure, the Enns & Koch measure, the Caughey and Warshaw measure, and presidential vote, 1956 to 2008

	Presidential Vote		
	(1)	(2)	(3)
Presidential Vote _{t-1}	0.13*	0.11*	0.12*
	(0.04)	(0.04)	(0.04)
New Mood Measure	1.52*		
	(0.34)		
Enns & Koch Policy Mood		1.44*	
		(0.31)	
Caughey & Warshaw			1.34*
			(0.41)
Constant	41.62*	42.53*	42.10*
	(1.84)	(1.84)	(1.85)
N	648	648	648

* = p<0.05. The state opinion measures were standardized to a mean of 0 and standard deviation of 1. Models include state fixed effects.

Section 4 Analysis Using Caughey and Warshaw's State Policy

The text includes analyses that show that our updated measure of state policy mood corresponds with state presidential vote in over-time and cross-sectional analyses. Caughey and Warshaw's estimate of state economic policy offers another potential validation test.¹⁸

A Levin-Lin-Chu tests rejects the null hypothesis that all series contain a unit root (Adjusted t-statistic = -5.117; p=0.000). However, a Hadri LM (2000) test rejects the null hypothesis that all panels are stationary (z statistic = 45.808; p=0.000). These tests indicate for some states, between 1956 and 2020, Caughey and Warshaw's measure of state economic policy is a stationary time series and in other states, the series contain a unit root. To ensure these different time series properties do not influence our results, we analyze the relationship between state opinion and state policy using both a lagged dependent variable model (which

¹⁸The Caughey and Warshaw data are available from: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/K3QWZW>.

is appropriate with stationary time series) and a first difference model (which is appropriate with series that contain a unit root). The results in Table A-3 are similar across model specifications and offer evidence that the three measures of state opinion correspond with state policy outcomes.

Table A-3: The estimated relationship between our new measure, the Enns & Koch measure, the Caughey and Warshaw measure, and economic policy liberalism, 1956 to 2010

	LDV			First Difference		
	(1)	(2)	(3)	(4)	(5)	(6)
Policy Liberalism _{t-1}	0.991*	0.991*	0.988*			
	(0.003)	(0.003)	(0.003)			
New Mood Measure	0.009*			0.007*		
	(0.003)			(0.003)		
Enns & Koch Policy Mood		0.006*			0.005 [†]	
		(0.003)			(0.003)	
Caughey & Warshaw			0.012*			0.009*
			(0.003)			(0.003)
Constant	0.001	0.001	0.001	0.001	0.000	0.001
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
N	2,692	2,692	2,692	2,692	2,692	2,692

* = $p < 0.05$, [†] = $p < 0.1$. All opinion measures were standardized to a mean of 0 and standard deviation of 1.

Section 5 Comparison of the Enns & Koch Measures and Our New Measures of State Policy Mood

Our measure of state policy mood builds on the Enns and Koch approach, but as we detailed in the main text, differs in terms of questions included, additional data utilized, and in the specification of the MRP model. The over-time validation tests using state presidential vote and state economic policy suggest the two measures behave in similar ways, but the cross-sectional properties and the over-time comparison with Stimson’s national mood suggest the new measure has more desirable properties. In this section, we further evaluate potential differences between the two measures by evaluating the over-time relationships between the Enns and Koch measure and our measure for each state. We expect a positive correlation, but given the differences in the measures, we do not expect a perfect correlation.

To get a sense of how strong a correlation we might expect, we first consider four versions of Stimson’s national policy mood series generated at four different points in time. The four series were all generated by Stimson, but differ in when they were released and the years included. The four series are Stimson’s 2018 release (1952-2018), his 2007 release (1952-2004), and versions of the series used in McGuire & Stimson (2004) (1952-1996) and Ura & Socker

(2011a) (1956-2006).¹⁹

Figure A-1 plots the four series. As expected, they all move roughly in tandem. These similarities show that conclusions about the whether the U.S. public’s mood is moving in a liberal or conservative direction will be nearly identical regardless of which measure of mood is considered. But some differences do emerge, particularly during the mid-1960s and starting in the 1990s. While different measures of Stimson’s policy mood all clearly tell the same general story, statistical models using series from different years might yield different results. Of course, the fact that the measure changes over time as contemporary (and sometimes historical) data become available and as new—theoretically based—measurement decisions are made, is a benefit of the measure. Failing to update a measure when improvements are possible would be counter productive.

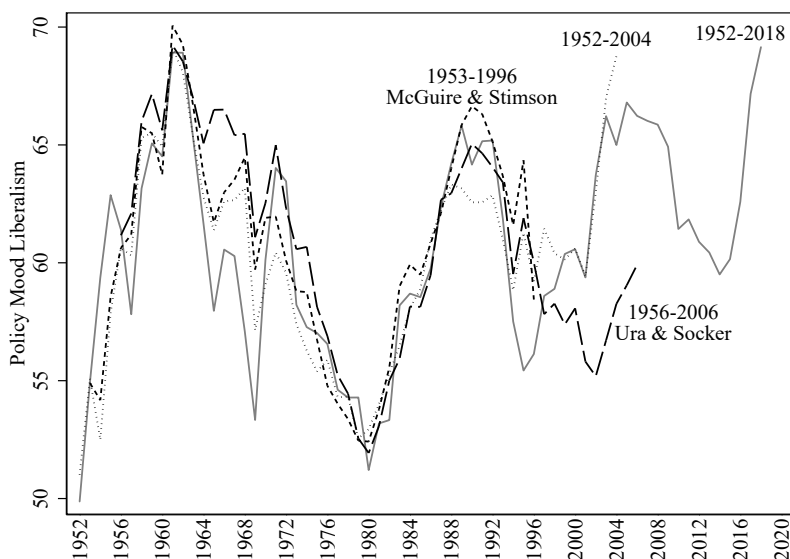


Figure A-1: Comparison of Four Different Versions of Stimson’s Policy Mood

To quantify these patterns, Table A-4 reports the bivariate correlations between the 2018 estimates and the other three estimates. The correlations between different versions of Stimson’s mood range from 0.61 to 0.85, which suggests that differences due to changes in data availability could lead our measures to relate to the Enns and Koch measures in this range. The additional data and measurement changes we employ would be expected to reduce the over-time similarities even further.

¹⁹The data can be accessed from McGuire & Stimson (2007), Stimson (2007), Ura & Socker (2011b), and <https://stimson.web.unc.edu/data/>.

Table A-4: The bivariate correlation between three previous versions of Stimson’s Policy Mood and Stimson’s 2018 estimates

Ura & Socker (1956–2006)	0.61
McGuire & Stimson (1953–1996)	0.83
Stimson (1952–2004)	0.85

All four versions were generated by Stimson, but they were released at different times and used in different analyses.

Figure A-2 presents the over-time correlations for each state. The measures in all but two states are positively correlated. The average correlation across all states is just above $r=0.5$, slightly below the range of the correlations of Stimson’s four measures of national mood analyzed above. These results are about as we’d expect, considering the changes we made to the new measure and the differences in various versions of Stimson’s measure in A-1.

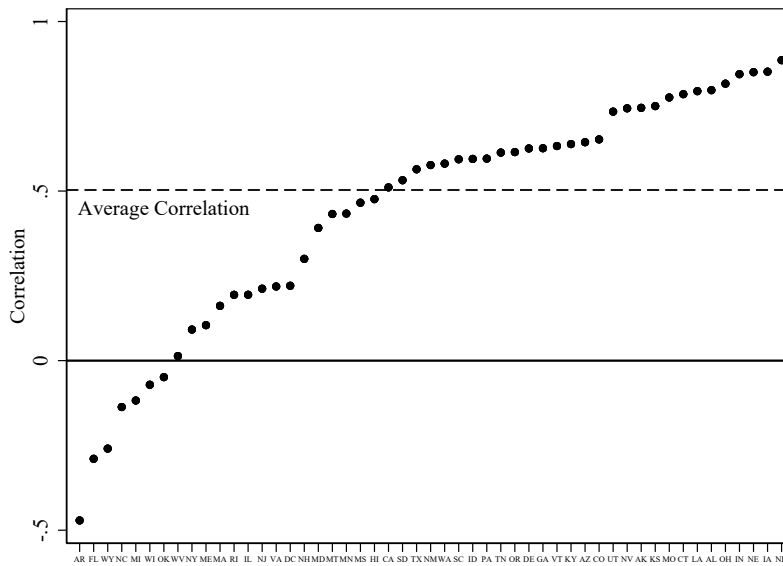


Figure A-2: The over-time correlation for each state between the Enns and Koch measure and our new measure of state policy mood

To get a more nuanced sense of these patterns, Figure A-3 plots the Enns and Koch measure and our new measure for each state. Consistent with the correlations in Figure A-2, for most states the two series track closely. However, in a few states, such as Oklahoma and Wyoming, clear differences emerge (particularly in the early years) and in other states, such as Arkansas and West Virginia, notable differences emerge in the later years. These patterns reinforce our assessment that despite building on Enns and Koch’s methods, our updated measures are indeed new measures of the public’s policy mood in each state.

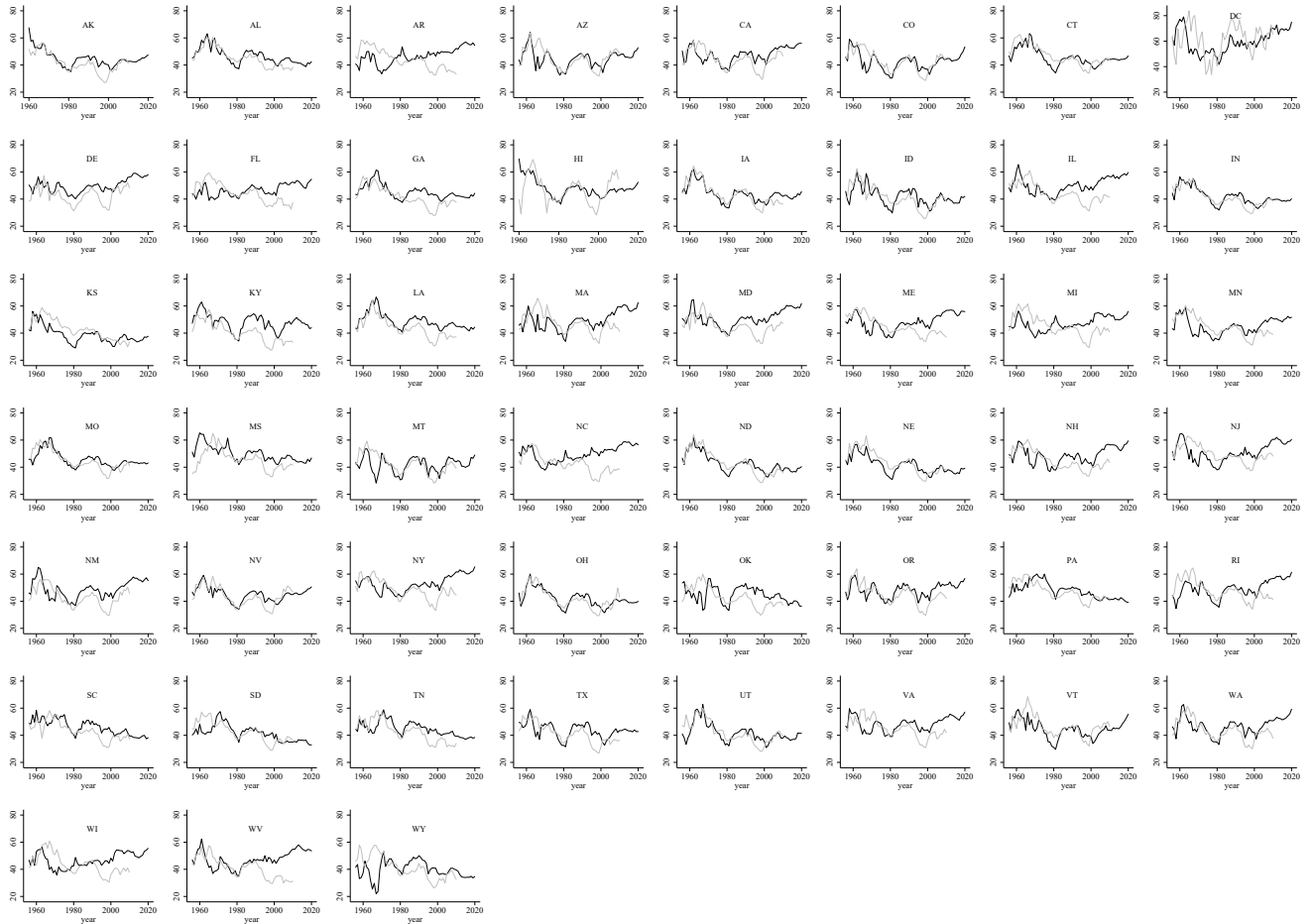


Figure A-3: The over-time relationship for each state between the Enns and Koch measure (gray) and our new measure of state policy mood (black)