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ALTERED STATES

How the federal government can ease the states' fiscal crisis

by Max B. Sawicky

The recession may have ended, but the fiscal difficulties facing state and local governments persist. Balanced-budget laws are compelling these governments to take actions—tax increases and spending cuts—that are a drag on national economic growth. The federal government can and should take steps to alleviate this problem by providing temporary, general assistance to state and local governments. This assistance could take the form of formula-based aid aimed at fighting job losses in the states and localities hit hardest by the recession.

The economy grew in real terms at an annualized rate of 4% in the third quarter of 2002, due to strong advances in consumer spending, exports, investment in equipment and software, and government spending. Investment in non-residential structures and imports were the main negative factors. Although state and local government spending grew overall in 2002, it had decreased in real terms during the second quarter. Throughout the year it lagged behind federal spending.

According to the most recent survey from the National Governors Association and the National Association of State Budget Officers (2002), the average increase in state government spending from general funds is projected to be 1.3% both in 2002 and in 2003. In contrast, Medicaid—the costliest item for states—grew 13.2% during fiscal year 2002. With overall spending rising only slightly, Medicaid inevitably crowded out other state priorities. Beside cutting services, 23 states raised taxes. Taken altogether, their tax hikes totaled more than $8 billion. State aid to local governments was also reduced, adding to the likelihood of service cuts and tax increases at the local level.

The options for creating state aid formulas

This paper proposes some options for formulas and reports their implications for each state. (See Sawicky 2001 for a rationale for using formula-based general assistance.) The advantage of using a formula to determine allocations is that the intent of the program is made transparent and hence conducive to informed debate. For this purpose, the formula must be simple and uncluttered.

Because any aid program that fails to provide for local needs will face much rougher going politically, Congress could stipulate that some percentage of each state's allocation be devoted to local governments (the details of a program's local components are beyond the scope of this paper).

An effective state aid program should have two aims: to fight the uneven regional impact of recession, and to preclude fiscal behavior by state and local governments—spending cuts and tax increases—that detracts from the national recovery.

The most basic element of such a formula is a measure of state need, and the simplest such measure is resident population. Because state residents living in poverty tend to impose higher costs on government, population measures could also be adjusted to reflect variation in different states' poverty rates. (More sophisticated measures are possible—see Rafuse 1990—but, again, are beyond the scope of this paper.)

A poverty adjustment can be made by adding the number of individuals living in poverty in each state to that state's population figure. This is equivalent to counting every person in poverty twice. For instance, if a state's population is one million and the poverty rate is 10%, the formula counts the 100,000 in poverty twice, adjusting the population to 1,100,000.

To channel greater aid to states suffering most from recession, the formula should take unemployment into account. Although slower growth of a state's "gross state product" (GSP – its share of the nation's gross domestic product, or GDP) indicates the extent to which it is in recession, unemployment is the preferable measure to use. The GSP level, in and of itself, or compared to that of some other state, says nothing about how the business cycle is affecting a state. The only point of reference for whether GSP is below par at any particular point in time is the preceding trend of GSP. Another reason that unemployment is the preferable measure is the fact that during a recovery, GSP usually begins to grow before unemployment falls. A good formula should ensure that the higher a state's unemployment, the more aid it receives, regardless of whether its GSP has or has not begun to recover.

A third element that should be included in a formula is the combined fiscal capacity of the governments, both state and local, that are serving a given state. Fiscal capacity reflects the relative per capita revenue-raising capacity of governments, given the extent of taxable activity in the state. The measure of state capacity employed here is "Total Taxable Resources" (TTR). The TTR concept was developed by Sawicky (1985) at the U.S. Treasury Department, was further elaborated (Sawicky 1986), and now is in use in two federal grant programs: the Community Mental Health Service and Substance Abuse Prevention and Treatment block grants. TTR is preferred over other measures because it provides completely comprehensive coverage of taxable income in a state.

Taking the measure calculated thus far and dividing it by the TTR index has the effect of crediting a state with more (or fewer) residents, and thus greater (or lesser) aid, depending on whether the state has, respectively, below-average (or above-average) revenue-raising capacity.

The basic formula is as follows:

(State population + state population in poverty) x (index of state unemployment rate) / (index of fiscal capacity) = state's "adjusted population"

Thus, for a state that has 1,000,000 residents, 100,000 of whom live below the poverty line, we begin adjusting the population figure by counting twice those who are in poverty, yielding 1,100,000. Then, supposing the state's unemployment rate is twice the national average, we double the figure to 2,200,000. Next, supposing its fiscal capacity is 10% higher than the national average, we divide 2,200,000 by 1.1. The result, 2,000,000, is the state's "adjusted population." (In this example, the above-average fiscal capacity exactly offsets the above-average poverty rate.) The same is done for each state, and all the results are totaled, yielding the country's overall "adjusted population." Now, the state described here is accorded a share of the aid grant equal to the share that its "adjusted population" represents out of the country's total "adjusted population."[1]

It is clear that to an important extent, poverty and unemployment tend to move together. However, they are not the same. Many persons remain in poverty for an extended period, whereas unemployment is more closely associated with the business cycle. In the same vein, fiscal capacity is correlated with poverty and unemployment, except it moves in the opposite direction. When unemployment goes up, fiscal capacity is likely to decrease. Once again, the movements are not perfectly correlated.

Our approach is similar to what is done in state school finance formulas to take account of the added expense of educating students with special needs. In the same vein, states use a local jurisdiction's taxable property as a proxy for fiscal capacity because the property tax dominates local school funding. Our fiscal capacity measure reflects the diverse revenue-raising devices employed by state governments.

A controversial matter pertains to the consideration of the size of an area's government(s). Some would argue that a larger public sector means a state has greater need for aid. The variable typically resorted to is "tax effort." It could be defined as the total revenues of state and local governments in a state as a share of that state's fiscal capacity. It is likely that the larger a public sector, the greater the harmful effects of tax hikes and spending cuts to the national economy. Others would argue that a grant should not be biased according to a state's preference for public services.

Whereas fiscal capacity is not dependent on tax or expenditure decisions made by governments, and is neutral with respect to state policy, "tax effort" is deliberately biased towards states with relatively high government spending.

This is analogous to dividing the tax amount that an individual pays by the individual's income, to indicate the individual's tax burden in terms of percentage of income. Taxpayers choose their tax burden in the sense that they elect officials who set that burden, hence the collective tax burden can be thought of as the "tax effort" being exerted by the state's residents. Providing more aid to a state that is exerting greater "tax effort" in effect gives the state credit for "trying harder" to finance its own public services. Another way of seeing this is that a higher tax effort means the state has less "room" to raise taxes further, and hence has a greater need for federal aid.

Note that neither variable reflects the budget problems a state may be experiencing. This is important because aid should not be conditioned on imprudent fiscal behavior. An unavoidable problem in this context is that some fiscal difficulty is the result not of bad fiscal practice but rather of unforeseeable events.

Our tax effort variable is based on total state and local, own-source revenues. This includes non-tax revenues, such as fees and charges, but it excludes federal grants-in-aid to state and local governments.

The basic data elements are shown in **Table 1**. The most recent year of TTR data available from the Treasury Department is 1999. Resources permitting, the Treasury could provide more up-to-date numbers. The poverty and

TABLE 1
Data elements for formula-based state aid

	Population 2001	Persons in poverty 2001	Unemployment rate index 2001	TTR 1999	Tax effort index 1998
U.S. TOTAL	284,796,887	33,298,848	100.0	100.0	100.0
Alabama	4,464,356	709,833	111.1	76.5	103.4
Alaska	634,892	53,966	132.0	116.4	213.0
Arizona	5,307,331	774,870	98.5	88.1	87.9
Arkansas	2,692,090	479,192	106.9	74.3	94.5
California	34,501,130	4,347,142	111.1	106.9	109.2
Colorado	4,417,714	384,341	77.5	109.9	93.4
Connecticut	3,425,074	250,030	69.2	142.7	77.7
Delaware	796,165	53,343	73.4	133.6	87.8
District of Columbia*	571,822	104,072	136.2	100.0	138.2
Florida	16,396,515	2,082,357	100.6	93.1	92.5
Georgia	8,383,915	1,081,525	83.8	99.8	88.2
Hawaii	1,224,398	139,581	96.4	97.9	103.4
Idaho	1,321,006	151,916	104.8	80.8	105.1
Illinois	12,482,301	1,260,712	113.2	107.5	89.3
Indiana	6,114,745	519,753	92.2	90.1	85.7
Iowa	2,923,179	216,315	69.2	88.0	94.9
Kansas	2,694,641	272,159	90.1	93.0	93.8
Kentucky	4,065,556	512,260	115.3	83.1	104.6
Louisiana	4,465,430	723,400	125.7	83.9	100.2
Maine	1,286,670	132,527	83.8	81.3	113.9
Maryland	5,375,156	387,011	85.9	110.5	85.5
Massachusetts	6,379,304	567,758	77.5	125.5	84.9
Michigan	9,990,817	939,137	111.1	89.7	114.3
Minnesota	4,972,294	367,950	77.5	105.5	111.8
Mississippi	2,858,029	551,600	115.3	68.8	114.5
Missouri	5,629,707	546,082	98.5	91.9	86.3
Montana	904,433	120,290	96.4	71.3	115.0
Nebraska	1,713,235	161,044	65.0	94.0	105.4
Nevada	2,106,074	149,531	111.1	115.5	78.7
New Hampshire	1,259,181	81,847	73.4	119.6	67.9
New Jersey	8,484,431	687,239	88.0	127.2	86.7
New Mexico	1,829,146	329,246	100.6	84.6	118.3
New York	19,011,378	2,699,616	102.7	121.6	118.0
North Carolina	8,186,268	1,023,284	115.3	96.1	91.5
North Dakota	634,448	87,554	58.7	79.9	112.0
Ohio	11,373,541	1,194,222	90.1	93.3	111.3
Oklahoma	3,460,097	522,475	79.6	75.5	102.0
Oregon	3,472,867	409,798	132.0	98.2	118.9
Pennsylvania	12,287,150	1,179,566	98.5	95.1	99.4
Rhode Island	1,058,920	101,656	98.5	102.5	98.9
South Carolina	4,063,011	613,515	113.2	80.7	100.6
South Dakota	756,600	63,554	69.2	89.0	86.5
Tennessee	5,740,021	809,343	94.3	87.4	93.6
Texas	21,325,018	3,177,428	102.7	95.9	87.1
Utah	2,269,789	238,328	92.2	83.2	117.4
Vermont	613,090	59,470	75.4	87.5	99.7
Virginia	7,187,734	575,019	73.4	106.7	88.4
Washington	5,987,973	640,713	134.1	107.6	109.0
West Virginia	1,801,916	295,514	102.7	69.6	112.1
Wisconsin	5,401,906	426,751	96.4	93.1	129.5
Wyoming	494,423	43,015	81.7	112.5	188.4

Note: Fiscal capacity (TTR) for the District of Columbia is arbitrarily set to zero. The District's TTR index requires special modification to reflect its constraints on taxing authority. These modifications are beyond the scope of this paper.

Sources: http://www.bls.gov/lau/lauastrk01.htm; http://eire.census.gov/popest/data/states/populartables/table01.php; http://www.census.gov/govs/www/estimate00.html

unemployment rates are for 2001. The most recent tax effort data available is for 1998; these data also could be updated. For small states, these data are less reliable, but they could be improved.

The population figures given are drawn from the reports for 2001 of the Bureau of the Census. It is preferable to use these historic figures, rather than uncertain projections for the coming year when the grant's funds are to be provided. Given that the other measures being used are already depending on projections, it is best to use collceted data for population.

Table 2 shows the results of employing variations on this formula for an aid program of $50 billion. The first two columns ('A' and 'B') show the results of using a formula limited to population, unemployment, and fiscal capacity. Columns 'C' and 'D' factor in the poverty rate, as shown above. Columns 'E' and 'F' show the results of using tax effort instead of poverty. And finally, columns 'G' and 'H' include both poverty and tax effort. Omitting poverty makes aid more sensitive to the business cycle and less affected by long-standing, chronic economic distress.

Political concerns and possible solutions

Differences in per capita aid will likely be a source of political dispute; but it is easy to reduce these differences without revising the formula. One simply designates some portion of the total funds to an equal per capita distribution and the remainder to the formula. This reduces the variance of the overall state per-capita allocations. It does not change the ranking by state. Revision of the formula component would probably entail more time and dispute and, in the end, formula complexity and non-transparency. All of these factors would militate against the likelihood of agreement, as well as the effectiveness of aid. Setting aside an amount for equal per-capita distribution facilitates political acceptance of the program.

The timeliness of the 2000 Census data makes possible an effective local formula. But determining the right mix of recipient governments is a daunting task. There are over 87,000 local governments in the U.S. of every variety, some highly active and others limited to few functions. Some sort of variation on the local formula used in the revenue sharing program would be necessary. A simpler way to solve this problem is as follows: dedicate a fixed share of state aid to local governments in each state, and permit state legislatures and governors to determine the distribution of this aid.

However, local public officials may be uncomfortable with such discretion afforded to state government officials. Alternatively, a county-based formula could be employed to determine the geographic distribution of aid within a state. For counties that lie within city boundaries, all county aid could automatically go to the city government. For other counties, the state legislature could assign aid to whichever governments in the counties had the greatest service responsibilities. Still another option is to devise a complete list of grantee governments, following the example of the old revenue sharing program.

The premium on a counter-cyclical program is timeliness and good targeting. Simple, focused formula allocations are necessary. They are made possible by simplicity in the formula and in the rules for distributing aid. Complicated formulas tend to bog down into extended political debate, and the inclusion of additional "dueling" variables tends to push allocations to equal per-capita results and poorer targeting.

Of course, other formula options are possible. There is no single, "scientific" way to construct a formula. But note that formulas based on advanced economic theory tend to fare badly in policy implementation. The hope is that this these formula options may provide some clear and practical guidance for a successful program.

TABLE 2
Formula options and results

Total aid (billions):	$50							
Options:	A	B	C	D	E	F	G	H
			Poverty		Tax effort		Poverty & tax effort	
	Total	Per capita	Total	Per capita	Total	Per capita	Total	Per capita
U.S. Average	50,000,000,000	175.56	50,000,000,000	175.56	50,000,000,000	175.56	50,000,000,000	175.56
Alabama	1,111,510,788	248.97	1,149,694,671	257.53	892,875,141	200.00	1,178,065,371	263.88
Alaska	123,575,924	194.64	119,660,002	188.47	310,923,123	489.73	252,576,215	397.83
Arizona	1,018,041,269	191.82	1,041,202,978	196.18	800,242,753	150.78	907,013,912	170.90
Arkansas	663,952,273	246.63	698,019,495	259.29	473,342,612	175.83	653,452,815	242.73
California	6,146,488,072	178.15	6,176,619,298	179.03	7,283,599,093	211.11	6,680,646,728	193.64
Colorado	534,856,464	121.07	518,862,391	117.45	557,289,135	126.15	480,357,170	108.73
Connecticut	284,789,754	83.15	272,715,287	79.62	320,624,077	93.61	210,064,442	61.33
Delaware	74,975,427	94.17	71,395,160	89.67	89,268,742	112.12	62,105,189	78.01
District of Columbia*	133,614,482	233.66	140,947,186	246.49	187,399,932	327.72	192,966,736	337.46
Florida	3,039,484,296	185.37	3,057,097,009	186.45	2,655,863,407	161.98	2,801,257,267	170.84
Georgia	1,208,355,973	144.13	1,217,514,761	145.22	1,079,186,583	128.72	1,063,885,142	126.90
Hawaii	206,816,568	168.91	205,615,532	167.93	212,475,824	173.53	210,627,865	172.03
Idaho	293,936,195	222.51	292,491,558	221.42	253,194,719	191.67	304,455,632	230.47
Illinois	2,254,444,252	180.61	2,215,196,313	177.47	2,196,381,563	175.96	1,960,028,685	157.02
Indiana	1,073,068,830	175.49	1,039,065,005	169.93	841,490,809	137.62	882,453,636	144.32
Iowa	393,905,202	134.75	377,556,019	129.16	334,005,291	114.26	354,973,737	121.43
Kansas	448,030,741	166.27	440,230,910	163.37	396,743,959	147.23	409,309,962	151.90
Kentucky	967,546,003	237.99	972,289,093	239.15	853,665,736	209.98	1,007,932,517	247.92
Louisiana	1,147,584,432	256.99	1,190,080,054	266.51	979,530,446	219.36	1,181,436,567	264.57
Maine	227,487,792	176.80	223,933,469	174.04	213,821,851	166.18	252,624,087	196.34
Maryland	716,659,639	133.33	685,635,241	127.56	687,192,765	127.85	580,533,932	108.00
Massachusetts	676,218,464	106.00	657,204,162	103.02	731,182,300	114.62	552,817,498	86.66
Michigan	2,121,365,992	212.33	2,071,182,294	207.31	2,208,664,181	221.07	2,345,859,341	234.80
Minnesota	627,070,019	126.11	601,043,242	120.88	750,534,308	150.94	665,807,331	133.90
Mississippi	821,465,305	287.42	874,611,270	306.02	656,894,732	229.84	992,458,502	347.25
Missouri	1,035,470,842	183.93	1,013,747,747	180.07	833,072,301	147.98	866,681,996	153.95
Montana	209,785,230	231.95	212,124,201	234.54	174,586,970	193.03	241,712,241	267.25
Nebraska	203,212,054	118.61	198,404,806	115.81	204,337,497	119.27	207,277,639	120.99
Nevada	347,426,506	164.96	332,076,253	157.68	320,603,442	152.23	258,992,587	122.97
New Hampshire	132,420,394	105.16	125,860,625	99.95	109,140,707	86.68	84,635,248	67.21
New Jersey	1,006,896,940	118.68	971,395,563	114.49	1,127,769,997	132.92	834,786,598	98.39
New Mexico	373,126,341	203.99	392,937,355	214.82	378,974,725	207.19	460,547,875	251.78
New York	2,754,488,786	144.89	2,807,323,834	147.67	4,011,235,323	210.99	3,282,402,280	172.65
North Carolina	1,684,757,764	205.80	1,691,513,193	206.63	1,503,123,693	183.62	1,533,388,814	187.31
North Dakota	79,887,264	125.92	81,134,434	127.88	72,574,511	114.39	90,004,888	141.86
Ohio	1,885,053,295	165.74	1,858,965,422	163.45	1,987,010,803	174.70	2,050,870,394	180.32
Oklahoma	626,306,422	181.01	643,350,420	185.93	489,360,336	141.43	650,182,555	187.91
Oregon	801,278,606	230.73	799,485,794	230.21	949,078,559	273.28	941,705,358	271.16
Pennsylvania	2,184,044,259	177.75	2,136,276,138	173.86	2,094,554,380	170.47	2,103,927,840	171.23
Rhode Island	174,502,727	164.79	170,686,106	161.19	179,577,120	169.59	167,231,849	157.93
South Carolina	977,444,431	240.57	1,004,044,128	247.12	804,984,730	198.13	1,000,298,261	246.20
South Dakota	100,825,500	133.26	97,540,520	128.92	78,778,261	104.12	83,568,385	110.45
Tennessee	1,062,006,661	185.02	1,081,429,681	188.40	882,207,182	153.69	1,002,937,127	174.73
Texas	3,918,361,096	183.74	4,017,999,560	188.42	3,320,413,958	155.71	3,466,949,040	162.58
Utah	431,671,688	190.18	425,697,642	187.55	427,665,870	188.42	494,992,368	218.08
Vermont	90,651,865	147.86	88,750,084	144.76	80,264,588	130.92	87,638,885	142.95
Virginia	847,815,574	117.95	817,166,484	113.69	811,855,918	112.95	716,077,940	99.62
Washington	1,280,377,869	213.82	1,264,943,653	211.25	1,524,423,343	254.58	1,366,305,422	228.17
West Virginia	456,254,383	253.21	473,964,081	263.03	361,233,485	200.47	526,542,751	292.21
Wisconsin	959,056,536	177.54	923,530,100	170.96	1,174,212,829	217.37	1,185,015,006	219.37
Wyoming	61,632,810	124.66	59,789,774	120.93	132,566,389	268.12	111,616,370	225.75

Notes: All formula options include population, unemployment, and fiscal capacity. Because of the District of Columbia's special relationship with the federal government, results for it would need further adjustment.

Endnote

1. By this calculation,unemployment has a larger effect than poverty, in terms of upwardly adjusting the population figure. This is intentional. The focus is to combat recession, not to aid states in chronic economic distress. The latter objective would be better served with a different formula.

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