Federal budget cuts:
Bureaucrats trim the meat, not the fat:
Comment

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1. Introduction

In a recent article in this journal, David N. Laband (1983) examines President Reagan's success at decreasing the size and scope of the federal Leviathon. Based on proposed cuts in Federal budgets and employment, the argument is made that, in an environment of falling budget allocations, agencies decrease spending proportionately more than employment. Laband (1983) concludes that '... a strategy of cutting output before personnel is entirely appropriate for the utility-maximizing agency head' (p. 311).

The purpose of this comment is to argue that Laband's analysis is incomplete for three reasons. First, the differences between proposed and actual changes in budget and employment levels are so great so as to seriously question the empirical results of Laband. Second, Laband's empirical analysis is based on nominal changes in budget levels when changes in real, or inflation-adjusted, budget levels are more appropriate for comparisons with employment changes. Third, the overall change in budget and employment levels of agencies should be placed in the context of their relative importance to the total federal budget. To examine Laband's hypothesis, I use changes in actual budget and employment levels for the most recent available period: 1982–83.

2. Comparison of proposed vs. actual changes

Table 1 displays both the proposed changes in budget and employment levels as used by Laband (1983) and the actual changes.[1] The actual changes are inflation-adjusted at a rate of 3.5% which is approximately the average for 1983. Due to proposed, but unsuccessful, elimination of the Departments of Education and Energy previous budget forecasts were not available in the projections used by Laband. I have included the Department of Defense-Military to the table since it represented 25% of the total budget in 1983. Due to data problems I have excluded the International Communication Agency and the Panama Canal Commission from the table. Nonetheless, the agencies in my sample represent 98% of budget outlays in FY 1983.[2]

A comparison of the signs on the proposed *vs.* actual budget figures show that they differ in 8 out of 19 cases. For the case of employment changes they differ in 5 of 19 cases. Based on partial correlation coefficients, there is no systematic relation between proposed and actual budgetary changes. Clearly, budget projections are not a reliable guide to actual decisions in this case. This result is not unexpected and is a consequence of many possible

Table 1. Budget and employment figures: % Δ 1982–83*

	Budget		Employment	
Agency	Proposed	Actual	Proposed	Actual
Agriculture	−18.2%	23.60%	−5.1%	−1.86%
Commerce	−16.9	−9.74	−11.2	0.86
Defense:				
Civil	−14.3	−4.92	−5.0	−0.93
Military		8.20		0.69
Education		−0.25		−4.95
Energy		6.30		−5.22
HHS	−4.4	5.28	−4.2	0.12
HUD	−94.5	1.97	−3.4	−5.68
Interior	6.1	10.36	−4.0	0.32
Justice	2.8	5.75	−1.1	3.36
Labor	−7.6	19.90	−3.1	−1.13
State	5.4	−0.06	1.3	1.02
Transportation	−30.2	−0.23	3.0	2.34
Treasury	13.6	9.97	0.7	2.31
EPA	−3.1	−18.30	−13.9	−4.95
NASA	11.3	6.61	−2.2	−0.82
VA	3.6	−0.002	0.4	0.71
GSA	10.5	−46.8	−4.0	−5.89
NRC	3.0	12.5	0.0	−1.87
OPM	6.5	2.8	−7.8	−6.59
SBA	−33.6	−26.8	−6.7	−2.51
TVA	3.3	−48.2	−2.6	−13.54
Mean	−8.25	−2.28	−3.63	−2.01

* Blanks appear for those agencies not included in Laband (1983). Nominal refers to noninflation-adjusted magnitudes while real is constant-dollar.

factors. These factors may include: problems with forecasting future inflation, changes in the direction of government policies which reallocate funds and employment between agencies, unexpected emergencies, and the possibility that the Administration consciously prefers to underestimate future spending levels.

Only 10 of the 22 agencies witnessed cuts in their real budget levels. Only six of these agencies witnessed falling employment levels. Even though the mean percentage change of both budget and employment levels for this sample is negative, a one-tailed t-test of the null hypothesis of equality between these means cannot be rejected at any conventional level of significance. Therefore, it follows that the sample does not support Laband's hypothesis since the difference between the two sample means is not significant.

3. A weighted-average approach

In order to assess President Reagan's overall success at decreasing the size of the federal Leviathon, it is necessary to measure overall growth in real budget and employment levels. The analysis above is difficult to assess since it weighs the contribution of all agencies equally. For example, it may be difficult to argue that the budget change of −48.2% in the case of TVA is important when one considers that it represents a mere 0.1% of the U.S. budget. However, the budget rise of 5.28% in the case of HHS is unquestionably important since it represents approximately 34% of the U.S. budget. Moreover, the largest agency, in terms of budgetary level to witness a fall in real budget level is VA (3.05% of U.S. budget); however, its percentage change is only −0.002%.

Table 2 displays the budget and employments of each agency as a percentage of their totals for the U.S. in 1983 and each agency's change in real budget and employment over 1982–83. Weighted averages for budget and employment changes are computed which allows us to measure the relative contribution of each agency toward overall changes.

A weighted average of budgetary changes may be calculated as follows.

$$B_t = \Sigma b_{it} \qquad i = 1, 2, \ldots, n \tag{1}$$

where B_t = total budget in period t

b_{it} = budget allocation of the ith agency in period t

$$\frac{(B_{t+1} - B_t)}{B_t} = \Sigma \frac{(b_{it}}{(B_t} \frac{(b_{it+1} - b_{it}))}{(\quad b_{it} \quad))} \tag{2}$$

$$100 \cdot \frac{(B_{t+1} - B_t)}{(\quad B_t \quad)} = \Sigma \frac{(100 \ . \ s_{it}}{(} \frac{(b_{it+1} - b_{it}))}{(\quad b_{it} \quad))} \tag{3}$$

Table 2. Agency contributions to the change in real budget and employment figures: 1983–83

Agency	Budget			Employment		
	% Total	% Δ	Contribution to total	% Total	% Δ	Contribution to total
Agriculture	5.70	23.60	1.34	5.45	−1.86	0.101
Commerce	.24	−9.74	−0.02	1.62	0.86	0.014
Defense:						
Civil	0.36	−4.92	−0.02	1.54	−0.93	−0.014
Military	25.20	8.20	2.07	48.86	0.69	0.337
Education	1.79	−0.25	−0.004	0.27	−4.95	−0.013
Energy	1.03	6.30	0.065	0.84	−5.22	−0.044
HHS	33.73	5.28	1.78	7.03	0.12	0.008
HUD	1.88	1.97	0.037	0.68	−5.68	−0.039
Interior	0.55	10.36	0.057	3.64	0.32	0.012
Justice	3.48	5.75	0.200	2.76	3.36	0.093
Labor	4.70	19.9	0.94	0.94	−1.13	−0.011
State	0.28	−0.06	−0.0002	1.18	1.02	0.012
Transportation	2.53	−0.23	−0.006	3.06	2.34	0.072
Treasury	14.37	1.97	0.28	5.88	2.31	0.136
EPA	5.29	−18.30	−0.10	0.54	−4.95	−0.027
NASA	0.82	6.61	0.05	1.10	−0.82	−0.009
VA	3.05	−0.002	−0.0001	10.76	0.71	0.076
GSA	0.02	−48.80	−0.01	1.41	−5.89	−0.083
NRC	0.06	12.50	0.008	0.17	−1.87	−0.003
OPM	2.62	2.80	0.073	0.28	−6.59	−0.018
SBA	0.06	−26.80	−0.016	0.21	−2.51	−0.005
TVA	0.10	−48.20	−0.049	1.77	−13.54	−0.240
Sum*	1.00		6.683	1.00		0.153

* May not be exact due to rounding error.

$$\text{where } \Sigma s_{it} = \sum \frac{b_{it}}{B_t} = 1$$

The LHS of (3) is the annual percent change in t' e total budget between two arbitrarily chosen years while each term on the RHS is each agency's contribution to that change. Therefore (3) is a weighted average and is a product of each agency's importance, or weight (s_{it}), in terms of the total budget and its relative change $\frac{(b_{it+1} - b_{it})}{(\quad b_{it} \quad)}$ over the period. A similar computation is made for employment changes.

The relative contributions of each agency toward total budgetary and employment changes are displayed in columns (3) and (6) of Table 2. Summing each contribution yields the overall change in real budget and employment of the U.S. government. The overall changes in real budget and employment levels are 6.68% and 0.15%, respectively. One cannot test the validity of Labad's hypothesis since his hypothesis rests on the assumption that the U.S. government is undergoing a falling budget. As can be derived from Table 2, the 10 agencies which witnessed a real budget cut only accounted for 6% of the total U.S. budget in 1983.

4. Conclusion

After substituting actual and real changes for proposed and nominal changes in budgetary and employment levels, it is clear that the size and scope of the federal Leviathon had not been reduced over 1982–83. It is also clear that the agencies which witnessed real budget cuts over this period were of minor importance in terms of the total U.S. budget. Future research on why only small agencies receive real budget cuts will provide us with a better understanding of the budgetary process.

There exists a strong distinction to be made between intended (proposed) and actual changes in government activity over time. On the one hand, research in the public choice area must recognize this distinction before deriving public policy implications from empirical data. On the other hand, research on how these differences between proposed and actual changes come about and their effect on voting patterns remains a useful issue in the public choice literature.

NOTES

1. Actual budget figures for FY'82 are obtained from *Budget of the United States Government – Fiscal Year 1982* and for FY'83 from *Final Monthly Treasury Statement of the Receipts and Outlays of the United States Government* (September 30, 1983). Employment figures for FY'82 and FY'83 are from *Budget of the United States Government* – Fiscal Years 1984 and 1985.
2. This is net of undistributed offsetting receipts.

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