

Alternative Public Spending: Effects on Job Creation

A new study by economists at the University of Massachusetts-Amherst evaluates the relative effects on job creation from investing an equivalent amount of federal money in

- 1) private consumption (through tax cuts)
- 2) the military and
- 3) several alternative civilian public programs.

Key finding:

- 1) Each billion dollars of tax revenue allocated to tax cuts for personal consumption generates approximately 10,800 jobs.
- 2) Investing the same amount in the military creates 8,500 jobs.
- 3) Investing it in health care yields 12,900 jobs; in education, 17,700 jobs; in mass transit, 19,800 jobs; and in construction for home weatherization and infrastructure, 12,800 jobs.

The Bottom Line: Public dollars invested in health care, education, mass transit, or construction for home weatherization and infrastructure create more jobs than investing an equivalent amount in either the military or personal consumption.

Twice as many jobs are created by equivalent spending on education and mass transit as on the military.

**Table 1.
Overall Employment Effects of Spending \$1 Billion for
Alternative Spending Targets in U.S. Economy, 2005**

Spending Targets	(1) # of Jobs Created	(2) # of Jobs Relative to Defense Spending	(3) Average Wages and Benefits per Worker	(4) Average Wages and Benefits relative to Defense	(5) Total Wages and Benefits from Employment <i>in millions</i>	(6) Total Wages and Benefits relative to Defense
1. Defense	8,555	---	\$65,986	---	\$564.5	---
2. Tax cuts for Personal Consumption	10,779	+26.2%	\$46,819	-29.1%	\$504.6	- 10.7%
3. Health Care	12,883	+50.2%	\$56,668	-14.2%	\$730.1	+29.3%
4. Education	17,687	+106.7%	\$74,024	+12.2%	\$1,309.3	+131.9%
5. Mass Transit	19,795	+131.4%	\$44,462	-32.6%	\$880.1	+55.9%
6. Construction for home weatherization/ infrastructure	12,804	+49.7%	\$51,812	-21.5%	\$693.7	+22.9%

Sources: U.S. Department of Commerce Bureau of Economic Analysis, U.S. Department of Labor Bureau of Labor Standards, U.S. Census Bureau

Why this study now?

Federal policy in the current century has emphasized tax cuts and military increases over other federal investments. Military spending has risen at an average rate of 10% per year from FY2000-2006, while the overall U.S. economy grew at an average annual rate of 2.7%. According to the Center on Budget and Policy Priorities, of the \$2.3 trillion that has been added to the federal deficit since 2001, about half is attributable to tax cuts, and a third to increases in security spending; one sixth comes from domestic spending increases.

Job creation is obviously only one factor that should steer federal decision-making over budget allocations. It is only one measure of whether the current priorities are correct. But it is an important factor, and one that needs to be based on the most current, empirically solid information. In the case of defense allocations, spending that is hard to justify on security grounds is frequently promoted for its job-creation potential. This study should provide some useful qualification to that conventional wisdom.

It shows that, according to the most up-to-date analysis of the data, **while military spending clearly creates jobs, many other forms of public spending create more.**

How the study was done

The basic tool for estimating the net overall employment effects of alternative government spending priorities in the U.S. is the input-output model of the U.S. economy, produced every five years and updated annually by the Department of Commerce. To enable the input-output model to address specific questions on the quantity of jobs created, the classification of these jobs by category, and the compensation levels associated with them, the authors then incorporated data from the Department's Bureau of Economic Analysis, the Bureau of Labor Statistics and the Census Bureau.

The numbers for each spending category incorporate three kinds of job-creating effects:

- *Direct effects*: the jobs created by producing, for example, warplanes or schools
- *Indirect effects*: the jobs associated with industries that supply intermediate goods for building a warplane, school, or any other direct spending target. These would include the steel, glass, tire, and electronic industries for building a warplane; and concrete, glass, and trucking industries for building a school.
- *Induced effects*: the expansion of employment that results when people who are paid to build a warplane or school spend the money they have earned on other products in the economy.

Why the differences in the numbers? What kinds of jobs?

Jobs generated by military spending tend to pay relatively well, which is part of the reason why fewer jobs are created per dollar of expenditure than through alternative spending targets. However, the study shows that spending on education, on average, generates more than twice the number of jobs as military spending as well as higher-paying jobs. Spending on health care, mass transit, and home weatherization/infrastructure creates jobs at a lower average level of pay than military spending. But these three spending targets do create a substantially higher number of jobs than military spending, with an overall level of pay, combining all workers' paychecks and benefits, higher than the military.

Moreover, a substantial majority of the jobs generated through a health care, mass transit or construction spending expansion will pay more than \$32,000 per year, the study's rough threshold for a minimally decent income level. The majority of jobs pay between \$32,000 - \$64,000, a rough middle-income pay range. Health care, mass transit, home weatherization, and infrastructure repair are all also high priority areas for social spending. Education as a spending target will generate a higher average increase in compensation than defense, in addition to creating more jobs.

More spending in these areas could be combined with improving the average level of pay, while still creating more jobs per dollar of expenditure than the military. A rising demand for construction workers to work on home weatherization projects, for example, is likely to produce rising wages in that industry.

**Table 3.
Percentage of Low- and High-Paying Jobs in Activities Linked to Spending Targets**

	Pct. of new employment	Pct. below \$20K/year	Pct. below \$32K/year	Pct. Between \$32K and \$64K/year	Pct above \$80K/year
Defense					
Federal Government	44.1	5.3	28.0	61.3	4.7
Professional/Business Services	20.4	4.5	22.9	62.2	14.6
Manufacturing	14.5	4.0	7.3	85.8	5.8
Personal Consumption Expenditures					
Retail Trade	12.9	40.0	70.6	27.3	1.4
Food Services	8.9	68.1	95.3	4.3	0.3
Hospitals and Nursing Care	8.2	15.3	46.3	43.2	4.8
Education					
Educational Services	82.1	11.7	31.8	59.1	1.2
Health Care					
Hospitals/Nursing Care/Ambulatory Care	72.5	15.3	46.3	43.2	4.3
Professional/Business Services	7.0	4.5	22.9	62.2	4.8
Mass Transit					
Transportation	76.4	5.8	36.5	60.2	1.0
Professional/Business Services	10.6	4.5	22.9	62.2	4.8
Weatherization and Infrastructure Repair					
Construction	66.8	8.6	26.9	60.1	1.8
Professional/Business Services	9.6	4.5	22.9	62.2	4.8

Sources: U.S. Department of Commerce Bureau of Economic Analysis, U.S. Department of Labor Bureau of Labor Standards, U.S. Census Bureau

Increased personal consumption resulting from tax cuts is the only alternative spending target examined that is inferior to military spending along two dimensions—both the average pay and the total amount of compensation per \$1 billion in expenditures are lower.

The study is:

“The U.S. Employment Effects of Military and Domestic Spending Priorities”

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The complete study, further explaining this methodology, is available at <http://www.ips-dc.org/reports/071001-jobcreation.pdf>

The authors are at work on a reliable database showing the employment effects of investments in renewable energy. Expected completion: Spring 2008.

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