

WHAT KINDS OF FEDERAL SPENDING CREATE THE MOST GOOD JOBS?

EVEN WHEN MOST ECONOMIC INDICATORS POINT TO A RECOVERY, JOB GROWTH IS LAGGING STUBBORNLY BEHIND. So this question needs to be front and center in the minds of Members of Congress.

And in some ways, it has been. Between 2001 and 2008, U.S. military spending increased, in real terms, by nearly 75%. During the 2009 budget debate, the case for sustaining this trajectory

turned as much on the claims (often inflated) about the **jobs** this money would support as the **security** it would provide.

The jobs base created by the highest levels of military spending since World War II is indeed large, and widely dispersed in nearly every state. **The question is whether more jobs could be created by the same amount of money invested in other ways.**

Economists at the University of Massachusetts answered that question in 2007. Their main finding:

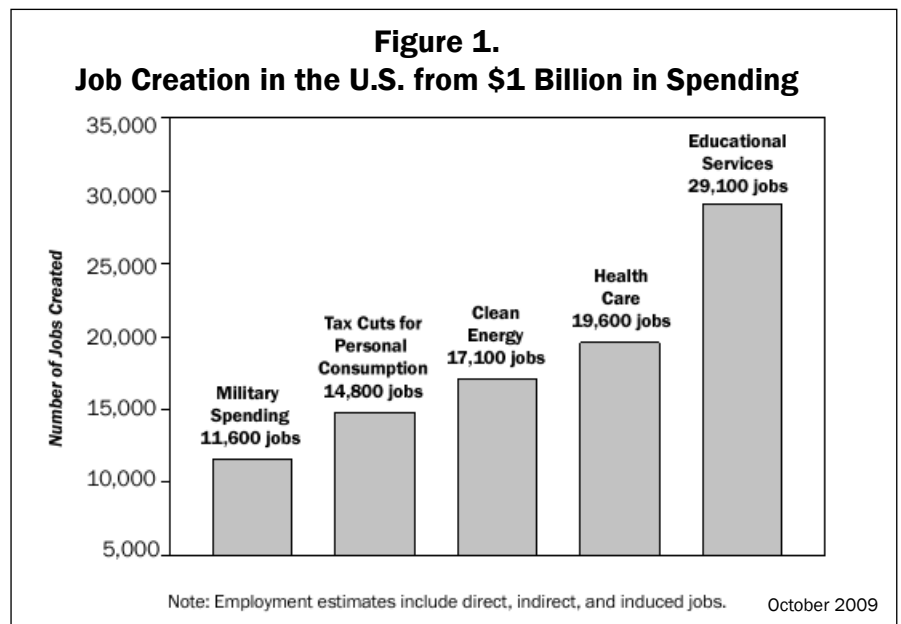
A billion dollars spent on a variety of domestic priorities – mass transit, home weatherization, education and health care – would each produce more jobs than the same amount spent on the military.

In 2009, the economists expanded their findings with:

- **updated data** from the Commerce Department, Bureau of Labor Statistics and other sources;
- new methodology allowing job creation to be estimated for the category of **clean energy investments**; and
- new analysis of the **relative levels of compensation** in each job category.

This new research is summarized here; it confirms the initial study's main finding.

Spending \$1 billion on personal consumption, clean energy, health care, and education will each create significantly more jobs within the U.S. economy than would the same \$1 billion spent on the military.



THE COMPONENTS OF JOB CREATION

Job creation results from a combination of three effects, explained here with examples from military and education spending:

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

WHY MILITARY SPENDING CREATES FEWER JOBS THAN ALTERNATIVES (CLEAN ENERGY, HEALTH CARE, EDUCATION)

THE DIFFERENCE RESULTS FROM A COMBINATION OF THREE FACTORS, illustrated by contrasting military with education spending:

1. **Labor Intensity.** When proportionally more money is spent on hiring people, as opposed to spending on machinery, buildings, energy, land, and other inputs, then spending this given amount of overall funds will create more jobs. The average labor intensity of the education-related industries — i.e. number of jobs created per dollar of spending, as opposed to the amount spent on machinery, buildings, energy, land and other inputs — is higher than the labor intensity of military-related industries.
2. **Domestic content.** The overall level of spending within the U.S. economy — as opposed to spending on imports or activities in other countries — is higher for education than the military. For example, we roughly estimate that U.S. military personnel spend only 43 percent of their income on domestic goods and services (including import purchases in this calculation) while the U.S. civilian population, on average, spends 78 percent of income on domestic products.
3. **Compensation per worker.** The average pay for the industries associated with education (including direct, indirect, and induced effects) is lower than the average pay for the military-related industries; therefore, spending a given amount of money on education will create more jobs than spending the same amount on the military.

Table 1.
Employment Creation through Spending \$1 Billion
in Various Sectors of the U.S. Economy

	(1) Direct Jobs	(2) Indirect Jobs	(3) Direct + Indirect Jobs (=columns 1+2)	(4) Induced Jobs	(5) Total Job Creation (=columns 3+4)	(6) Total Job Creation Relative to Defense Spending
Military	7,100	1,800	8,900	2,700	11,600	---
Tax Cuts for Personal Consumption	6,900	3,700	10,600	4,200	14,800	+27.6
Clean Energy	7,500	4,700	12,200	4,900	17,100	+47.4
Health Care	10,400	3,600	14,000	5,600	19,600	+69.0
Education	16,900	3,900	20,800	8,300	29,100	+150.9

October 2009

The first two columns of Table 1 report direct and indirect job creation estimates for each of our five spending categories: military spending, household consumption, clean energy, health care, and educational services. We then summarize these direct and indirect effects in column 3. Column 4 then reports

our estimates for induced job creation for each of the spending categories. Column 5 then adds together direct, indirect, and induced job creation. Finally, in column 6, we present the overall job creation figures for each spending category relative to military spending.

MILITARY SPENDING CREATES FEWER JOBS WITH DECENT PAY

JOBS CREATED BY MILITARY SPENDING DO PROVIDE RELATIVELY HIGH AVERAGE WAGES AND BENEFITS relative to these other spending areas. Nevertheless, spending on clean energy, health care, and education creates more jobs paying within a mid-range —

between \$32,000 - \$64,000 per year, as well as jobs paying over \$64,000 — than an equivalent amount of military spending. Even spending on personal/household consumption (as a result of tax cuts) generates more jobs than spending on the military.

Table 2.
Average Wages, Benefits and Total Compensation for Various Sectors of the U.S. Economy

	(1) Average Wages	(2) Average Wages Relative to Military	(3) Average Benefits	(4) Average Total Compensation (=columns 1+3)	(5) Average Total Compensation Relative to Military
Military	\$50,388	---	\$28,736	\$79,124	---
Tax Cuts for Personal Consumption	\$39,627	-21.4%	\$13,068	\$52,695	-33.4%
Clean Energy	\$46,600	-7.5%	\$21,397	\$67,997	-14.1%
Health Care	\$40,494	-19.7%	\$14,590	\$55,084	-30.4%
Education	\$45,160	-10.4%	\$15,148	\$60,308	-23.8%

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Differential levels of compensation explain some of the differences in the numbers of jobs created.

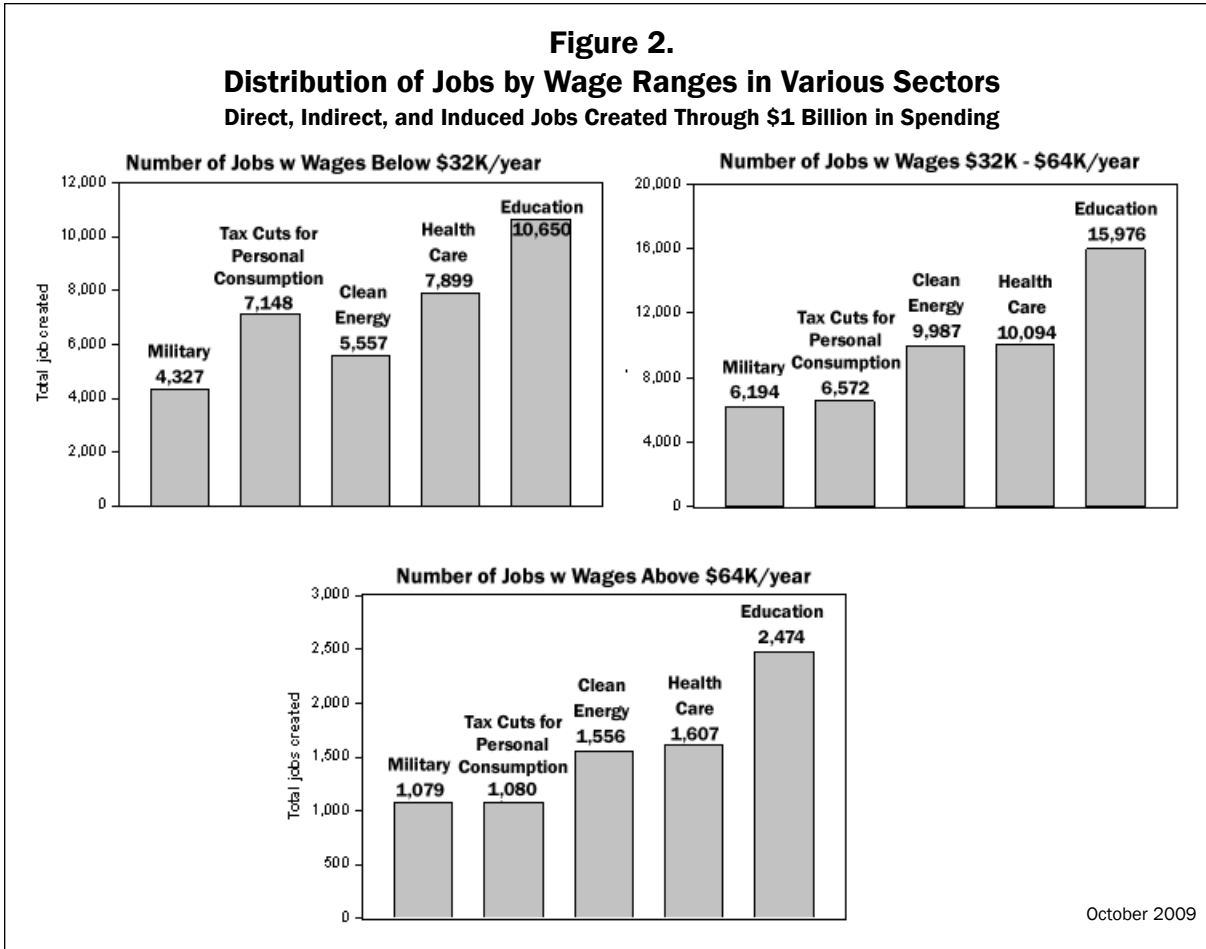
These differentials widen substantially when we then factor in benefits provided within each sector. The figures in column 3 of Table 2 show that **the benefits provided to military workers are greater than those provided, on average, in the other sectors.** Military sector benefits average nearly \$29,000, with the next highest being clean energy at about \$21,400. Thus **the main factor driving the higher overall compensation figure for the**

military is benefits, not wages. Military personnel receive generally excellent health coverage through government-run programs. This level of government-based support for military personnel stands in sharp contrast to the much poorer coverage provided in other sectors of the U.S. economy.

If health care reform manages to provide broadly-shared benefits for all sectors of the economy, these wage disparities could be drastically diminished.

WEIGHING RELATIVE BENEFITS OF ALTERNATIVE FORMS OF JOB CREATION

Here is the overall distribution of wage levels for jobs in the alternative sectors evaluated:



Thus, despite the large differences in benefits for employees in the military sector, spending on clean energy, health care, and education all create a much larger number of jobs that pay wages greater than \$32,000 per year. Spending in these sectors generates a much larger number of mid-range jobs, paying between \$32,000 - \$64,000, as well as high-paying jobs that pay over \$64,000.

By addressing social needs in the areas of clean energy, health care and education, we would also create many more job opportunities overall as well as a substantially larger number of good jobs.

The complete study is titled **“The U.S. Employment Effects of Military and Domestic Spending Priorities: An Updated Analysis”** (www.wand.org/jobs.pdf)

It was commissioned by the Institute for Policy Studies and Women’s Action for New Directions, and published by the Institute for Policy Studies.

It was co-authored by Robert Pollin and Heidi Garrett-Peltier, Department of Economics and Political Economy Research Institute (PERI), University of Massachusetts-Amherst.

It includes a detailed explanation of methodology and sources.

AVAILABLE FOR DISCUSSION OF THESE FINDINGS

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