Potential Uses of DEPPS as an Analytical Tool for Policy Makers

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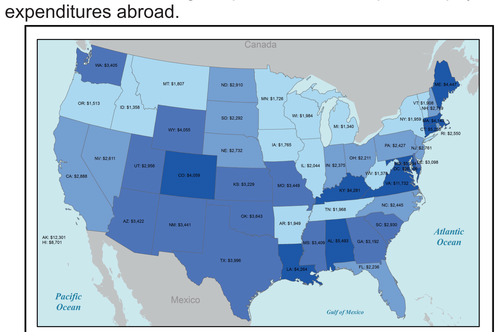
Defense Spending and the U.S. Economy

- Economic impacts of defense spending have significant implications for fiscal policy and the defense industrial base.
- Defense spending as a share of U.S. GDP is not large by historical standards, but it does represent about 20% of federal outlays.
- Defense expenditures generate widespread economic growth across industries and regions, and they support a highly-skilled labor force across various occupations.
- The Defense Employment and Purchases Projections System (DEPPS) was developed to identify the economic effects of changes in the level and composition of defense spending.

- The DEPPS data and modeling work rests on published federal projections for defense spending. The defense budget is published annually in the Green Book (National Defense Budget Estimates for FY 2013).
  The defense budget reflects the most recent President's Budget and planned Future Years' Defense Program (FYDP) budget. (This fall the publication spans 2011–2017).
- Budget projections are provided in 3 standard categories:
  - Budget authority (BA) – funds appropriated to DoD by Congress.
  - Total obligational authority (TOA) – value of a direct Defense program for a fiscal year. (Several technical differences exist between BA and TOA).
  - Outlays – also known as expenditures or disbursements, generally representing cash payments.

RDEPPS

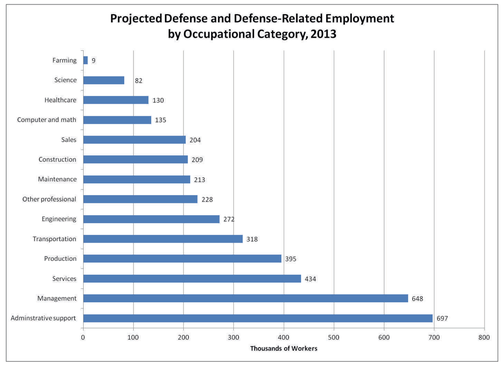
- RDEPPS determines the geographic distribution of the effects of planned defense expenditures.
  - Provides projections for 110 industries in inflation-adjusted dollars
  - Provides economic detail for for 50 states and DC
  - Accounts for direct spending, indirect spending from purchases, and indirect spending from pay
  - Does not include foreign impacts, such as imports or pay or other expenditures abroad.



Total Defense Expenditures Per Capita, 2013

LDEPPS

- LDEPPS tracks defense-related employment for both DoD direct-hire and direct and indirect purchases.
  - Is based on projections of defense-related production implied by the Future Years' Defense Plan (FYDP)
  - Provides detail for 67 industries and 100 occupations
  - Is focused especially on science and engineering, and on technical production occupations.



DEPPS Models and Components

The Defense Employment and Purchases Projections System (DEPPS) has three major components:

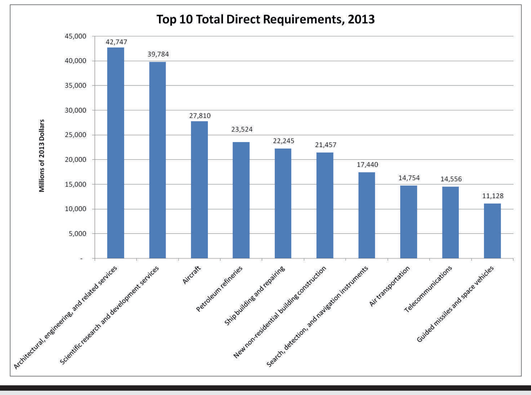
- RDEPPS: A state-level (regional) model that determines the effect of defense expenditures by major procurement category on each state, at an aggregate level of 110 industries (a smaller set of industries than in the more detailed IDEPPS national model).
- IDEPPS: A detailed interindustry model that forecasts defense industry demands by 360 industries, broken out by major appropriation and procurement categories for the top ten industries.
- LDEPPS: A skilled labor model that summarizes the requirements for various occupational classifications of employment in each industry. The occupational matrix used in LDEPPS features 101 occupational categories.

Several Inforum models feed DEPPS:

- LIFT, which stands for Long-term Interindustry Forecasting Tool, is a 97-sector input-output model embedded in a macroeconomic model. LIFT establishes the macroeconomic environment as well as industry controls.
- ILIAD, or the Interindustry Long-run Integrated and Dynamic model, uses the macroeconomic forecasts and the industry controls from LIFT to further divide the economy into 360 industries.
- STEMS is the Inforum State Employment Modeling System.

IDEPPS

- IDEPPS determine defense-related production to supply goods and services implied by the FYDP.
  - Provides projections for 360 industries in inflation-adjusted dollars
  - Reflect planned outlays, for military programs only
  - Accounts for direct spending, indirect spending, and imports
  - Integration with LIFT and Iliad models allow analysis of defense spending in the context of the overall economy.



DEPPS Applications

- Economic impact multiplier analysis
  - Multipliers are calculated as the ratio by which one economic variable increases in response to another economic variable
  - Several alternative spending scenarios. Example: Jobs impact of additional aircraft procurement spending

- Impacts of base closures on state economies
  - RDEPPS is used with data from the Atlas/Data Abstract for the U.S. and Selected Areas

- Projecting cost deflators for major spending categories
  - National Defense Budget Estimates (the Green Book) projects cost deflators for major categories of spending
  - Cost projections are used for four "commodities": Military pay, Civilian pay, Fuel, and Other

- Analysis of import dependence and bottlenecks

- Projections of defense energy requirements
  - Energy costs are increasing substantially relative to other goods and services, resulting in Congressional mandates to reduce DoD energy consumption
  - DEPPS is used with the Inforum LIFT model to evaluate effects of Congressional mandates on energy consumption

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