



## Privatizing Military Production

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The end of the Cold War and subsequent reduction in the size of the military raised many questions about how the Army makes or buys its war materiel. It has a large industrial base, parts of which it owns and operates solely and parts of which are run by civilian contractors. Examples include ammunition plants and arsenals that make heavy ordnance such as gun tubes. The base is large compared with current or anticipated needs and thus underused. Furthermore, much of the equipment is aging and inefficient. Finally, industrial production falls outside the Army's inherently governmental function.

Most Western nations with modern armies rely entirely on the private sector to meet their needs for military equipment and ammunition. Indeed, two-thirds of the United States Army's ammunition dollars already go to completely commercial plants. Thus, the question arises: Should privatization play a larger role in the Army's procurement processes? Research carried out in two of the RAND Corporation's federally funded research and development centers, RAND Arroyo Center and RAND National Defense Research Institute, investigated this issue, and the results of the research appear in two publications: *Rethinking Governance of the Army's Arsenals and Ammunition Plants* and *Lessons from the North: Canada's Privatization of Military Ammunition Production*.

### Governing the Arsenals and Ammunition Plants

In their investigation of the Army's arsenals and ammunition plants, RAND researchers began by formulating a strategic vision and gaining the Army's agreement with that vision. They then considered options for achieving the vision, ultimately focusing on four:

- Privatize facilities.
- Create a federal government corporation.<sup>1</sup>
- Consolidate facilities and declare unneeded plants excess.

### Key findings

- Privatizing Army ammunition plants and turning the arsenals into a federal government corporation could save the Army money, foster innovation and efficiency, and enable senior leaders to focus on their priority functions.
- Potential cost savings range from \$525 million to \$1 billion in the short term, and from \$900 million to over \$3 billion over the long term.
- Risk associated with privatization and creating a federal government corporation is low.
- Canadian experience in privatizing ammunition plants is relevant and supports argument for privatizing U.S. plants.

- Invest in new facilities on multifunction installations.

In the end, RAND researchers recommended a mixed strategy. For the ammunition plants, they proposed that the Army attempt to privatize 10 of the 11 plants that contractors operate.<sup>2</sup> (The Army does not own the real estate of the 11th contractor-

<sup>1</sup> Federal government corporations operate at the boundary between the public and private sectors and have characteristics of both. They are relatively common; Congress has created about one a year since World War II. Examples include the Tennessee Valley Authority and the U.S. Enrichment Corporation.

<sup>2</sup> The legislation authorizing a 2005 round of Base Realignment and Closures (BRACs) precluded the closure of any Department of Defense installation outside of BRAC until April 2006 (10 USC 2909). The provision excludes installations, such as the ten contractor-operated ammunition plants, that employ fewer than 300 Department of Defense civilians. Hence, the recommended privatization could be accomplished either as part of a BRAC or outside it.

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operated plant, so it was excluded from the recommendation.) They also recommended that the Army retain the three government-operated plants. For the two arsenals, they suggested that the Army create a federal government corporation (FGC) either as an end in itself or as a step toward privatization.<sup>3</sup> This approach would allow the arsenals to continue to meet the Army's needs while using commercial work to absorb their considerable excess capacity.

### **What Does the Government Get?**

This mixed strategy promises a number of benefits. First, it could free senior Army leaders from carrying out tasks for which they have no particular expertise and put those tasks into the hands of those who do. Second, it could open the arsenals and ammunition plants to market forces, which should foster innovation and efficiency. Third, it promises to save the Army money. Over the short term (through fiscal year (FY) 2009), the researchers estimated savings ranging from \$525 million to over \$1 billion. Long-term savings estimates (through FY 2022) range from \$900 million to \$3.3 billion.<sup>4</sup> Savings result from different sources: lower ammunition costs due to more efficient production and more competition, revenue from the sale of the plants, and commercial work in the arsenals so that the workforce is fully occupied, which should bring its costs closer to those of private industry.

### **What About Risk?**

These proposals imply major change for how the Army does business, and major change embodies uncertainty and thus risk. For example, estimates about the revenues from the sale of the ammunition plants and future ammunition prices may turn out to be wrong. RAND researchers judge the risk as modest. Congress oversees the organization that would sell the ammunition plants, the General Services Administration (GSA), and if the GSA could not get reasonable offers for the plants, Congress would not approve them. Any sale could carry the contracts to produce ammunition for at least five years. If competition during divestiture did not result in lower ammunition prices, the Army could always retain the plants and, perhaps, consolidate them later.<sup>5</sup>

The risk in making the arsenals an FGC is similarly small. If the FGC cannot achieve estimated efficiencies, even getting part way there saves the Army money. Likewise, if it cannot attract as much commercial business as envisioned, even some work leaves the Army financially better off.

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<sup>3</sup> Full privatization could be indefinitely delayed should some overriding reason for continuance under federal control be recognized. Creation of an FGC does not equate to what is normally thought of as a base closure. Thus, it is not clear whether Congress would consider such an action as precluded by the 2005 BRAC authorization.

<sup>4</sup> The low end of the savings range reflects conservative assumptions about the future ammunition market, savings associated with enhanced competition, and other costs. The high end made more optimistic assumptions about these variables.

<sup>5</sup> Researchers regard consolidation as an option that is inferior to privatization. It is likely to have large up-front costs for relocating production lines from closing facilities, and the Army is unlikely to realize any revenue from the sale of excess plants that cannot be sold as going concerns. Further, consolidation inevitably entails the transfer of jobs from one geographic area to another. The proposed strategy avoids these drawbacks.

RAND researchers rate as similarly low the risk that the United States will be unable to make enough ammunition during or after future emergencies. As currently configured, the Army's industrial base cannot respond efficiently to such emergencies. In a more privatized industrial base, the degree of manufacturing responsiveness required can be assessed and contracted for on a periodic and routine basis.

As for the argument made by some that insurance, particularly in the current environment of heightened threats of terrorism, might be unavailable or prohibitively expensive, the Army is self-insured now, and it could simply agree to indemnify the purchasers without being any worse off than at present.

### **What About Costs?**

Implementing the recommended strategy will incur costs, but most of these have been factored into the economic analysis that generated the savings. A cost that does not change with privatization is the one associated with environmental cleanup. Under RAND's proposal, the properties would transfer as "excess to ownership but not excess to need"—a procedure that fixes the future use of the plants as one of a like purpose and, therefore, limits the necessary environmental remediation. Using this authority as well as another provision called "early transfer authority" means that the Army, which retains the environmental liability, may continue environmental cleanup at the programmed rate, thereby avoiding any budgetary or programmatic increases.

### **The Canadian Experience**

Canada turned its ammunition production over to private providers over a period of several years. Today, that production base consists of modern, efficient production facilities that earn most of their revenues from sales to other countries, while still providing the Canadian military with its needed munitions. This result suggests that the Canadian experience might offer useful lessons for the United States.

### **Canada Is Not the United States—but Does It Matter?**

Canada differs from the United States along many dimensions. The Canadian military is about one-twentieth the size of that of the United States and, NATO membership notwithstanding, it focuses on domestic defense. Political differences are equally large.

Some would argue that these very substantial differences render the Canadian example moot. RAND analysis suggests otherwise. While the U.S. ammunition base is much larger than that of Canada, in reality it employs a relatively small number of government workers, who operate only 3 of 14 ammunition plants. Government employment at the other plants is small, generally consisting of a handful of government employees who administer contracts and attend to safety and command and control matters. While the privatization process might be more complicated politically, procedures used in Canada could also work in the United States. Furthermore, some of the same issues addressed in the Canadian privatization effort would have to be dealt with in the United States, e.g., employees with vested government benefits and environmental liabilities.

### **Insights from the Canadian Experience**

*The Canadian government is satisfied with the results of the privatization.* Privatization of Canada's ammunition industry has had positive economic results, and thus the Canadian government has no interest in returning the plants to government ownership. Despite a sharp drop in government ammunition purchases, employment and production at all three plants that produce ammunition have increased since privatization, and the plants' global market share has increased dramatically. At the same time, plant productivity has improved, lowering prices to the government.

*The smaller relative scale of the Canadian privatization does not invalidate the Canadian experience for the United States.* The positive outcomes the Canadians report—higher employment and lower prices—resulted from the incentives owners had after privatization to expand their business base, not from the relatively small size of the base. In fact, the larger U.S. government procurement could provide even greater opportunities for efficiencies and savings than are possible in the relatively modest Canadian ammunition budget.

*Competition, buyers, and contract types matter.* The company that bought the ammunition plants enjoys a near-monopoly in providing munitions to the Canadian government, but it must also compete in often protectionist international markets. As a result, the Canadian government benefits from the increased productivity and efficiency that occur as a result of competitive pressures. The size of the U.S. market and the number of U.S. manufacturers would likely result in competition even for government contracts after privatization of U.S. plants. When the Canadian government decided to privatize its ammunition production, it invited only a few highly qualified firms to bid. It was more interested in ensuring reliable, responsible manufacturing than it was in generating the highest possible proceeds. A similar approach might serve the United States as well in any future privatization. Finally, the Canadian government

discovered that its traditional cost-plus contracts lacked incentives for improved productivity. When government purchases declined and the firm decided that it needed to grow its international business to survive, the government agreed to new contract types that provided incentives for the firm to become more efficient and productive.

*Bankruptcy is not necessarily a crisis.* Despite the failure of the firm that owned one of the ammunition plants, government requirements were met. Oftentimes, too, bankruptcy means only financial reorganization from which a stronger firm emerges. Hence, fear of bankruptcy should not deter privatization. Virtually the entire U.S. industrial base is already privatized, including 70 firms that receive about two-thirds of U.S. ammunition dollars.

*Gradual privatization has advantages.* The sequential privatization followed by the Canadian government enabled it to learn from each prior experience and provided long-term lessons. Most important, because of its experience with privatization, the government restricted its solicitation to only a handful of stable, reliable, experienced Canadian firms. Further, the early experience mitigated any residual anxiety of privatization and aided the political process.

*Providing for affected employees is essential.* In the 1986 privatization, the government worked closely with the commercial firms taking over the ammunition production to ensure that employees would not suffer financially from privatization.

### **Conclusions**

The process of moving a large segment of the Army's industrial base into the private sector represents major change. However, the benefits can be substantial, and, as the Canadian experience illustrates, such a change will not jeopardize the Army's ability to meet the nation's security needs. ■

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This research brief describes work done for RAND Arroyo Center and RAND National Defense Research Institute documented in *Rethinking Governance of the Army's Arsenal and Ammunition Plants*, by W. Michael Hix, Ellen M. Pint, John Bondanella, Bruce Held, Michael Hynes, David Johnson, Art Pregler, Mike Stollenwerk, and Jerry Sollinger, MR-1651-A (available at <http://www.rand.org/publications/MR/MR1651/>), 2003, 352 pp., \$30, ISBN: 0-8330-3322-0; and in *Lessons from the North: Canada's Privatization of Military Ammunition Production*, by W. Michael Hix, Bruce Held, and Ellen M. Pint, MG-169-OSD (available at <http://www.rand.org/publications/MG/MG169/>), 2004, 128 pp., \$20, ISBN: 0-8330-3634-3. MR-1651 and MG-169 are also available from RAND Distribution Services (phone: 310.451.7002; toll free: 877.584.8642; or email: [order@rand.org](mailto:order@rand.org)). The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

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