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# Public Private Partnerships \*

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Public-Private Partnerships Powering Entrepreneurs and Innovators

Woodrow Wilson International Center for Scholars

Washington, DC

November 1, 2013

*\* Some of this material here comes from Dr. Gansler's research at the University of Maryland's Center for Public Policy and Private Enterprise; and research from his book, "Democracy's Arsenal: Creating a 21<sup>st</sup> Century Defense Industry" (MIT Press, June 2011)*

*\*\* Dr. Gansler served as Under Secretary of Defense (Acquisition, Technology and Logistics) from 1997 – 2001*



# Outline

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- Challenges facing the public sector
- Structural choices to meet the challenges.
- Public – Private Partnerships
  - Various Types
  - When Appropriate
  - Potential Benefits

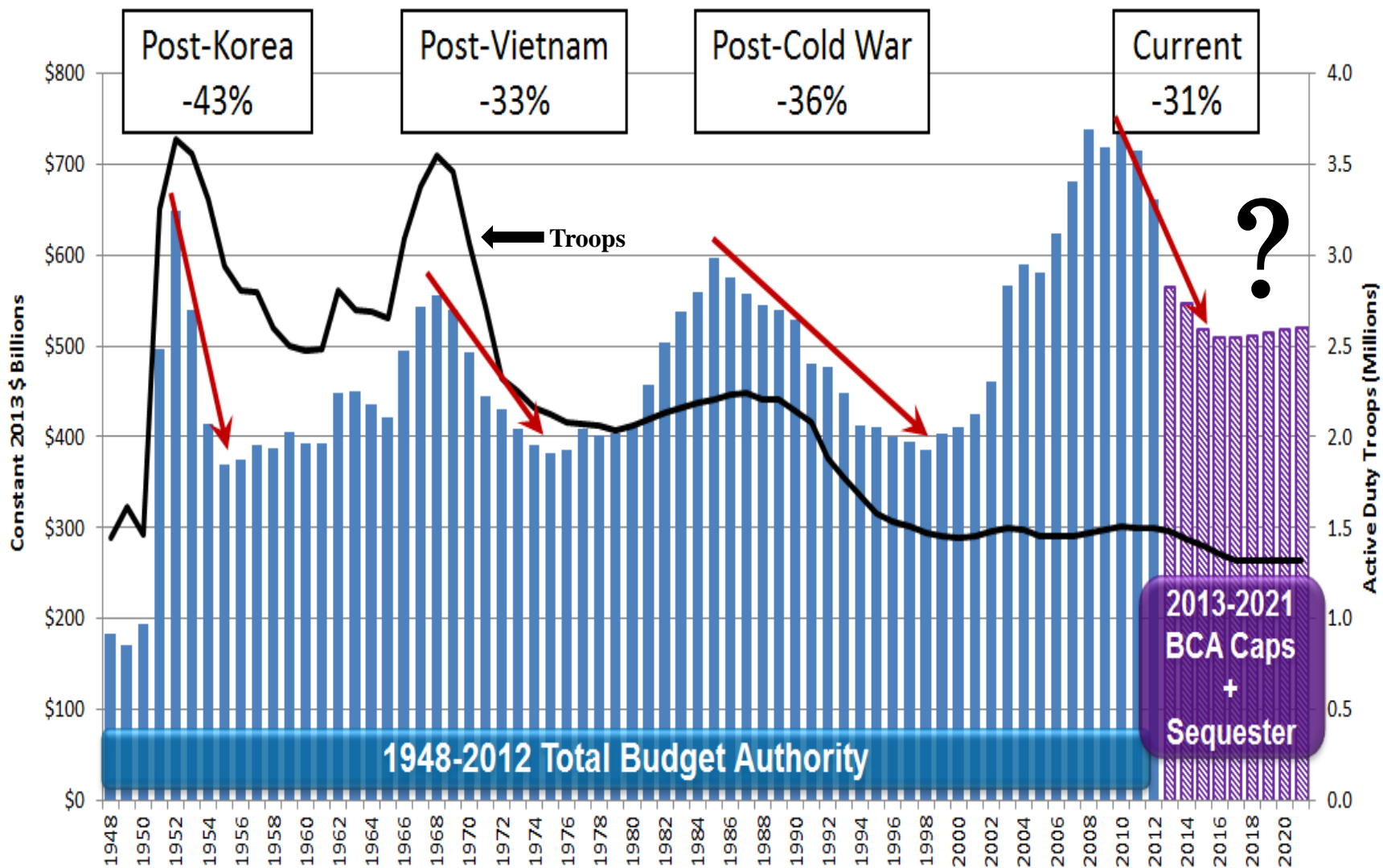
**Details and Examples to be provided for each of the above.**



# The Challenges Facing the Public Sector

- Shrinking Appropriations: Financial Crisis, and lack of Leadership from Legislative or Executive Branches – with adverse trends in costs, debt, demographics, research, etc.
- Unstable/Insecure World Environment: pirates; terrorists; cyber “attacks”; chemical/bio/nuclear; IEDs; regional instabilities (that draw us in); widespread proliferation; “loose nukes;” pandemics; natural disasters; struggles for scarce resources (energy, water, raw materials); violent religious extremism; and, on up to the threat of nuclear Armageddon -- with much uncertainty as to “what’s next.”
- “Crisis” in Government Workforce: Undervaluing, aging, inexperience (esp. re. management/leadership).

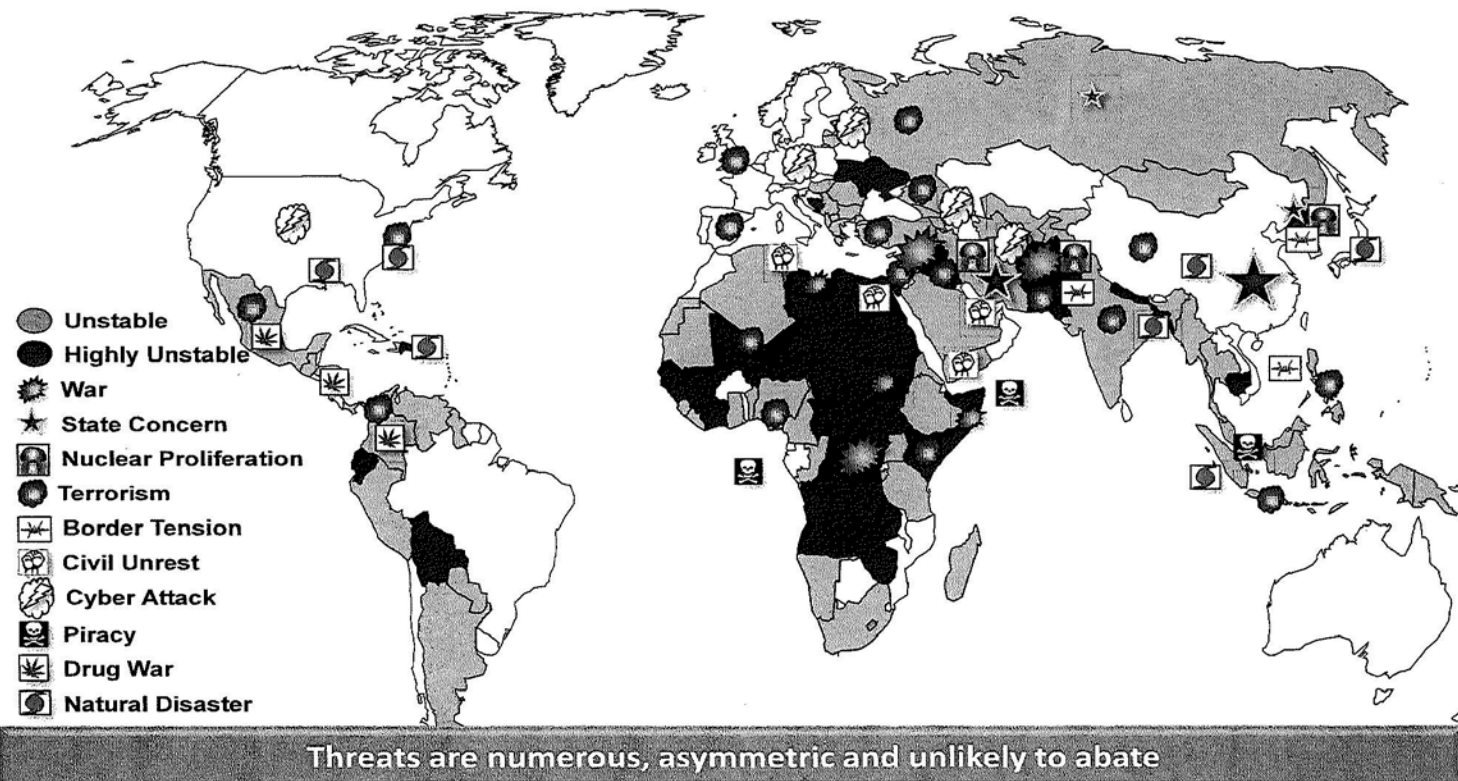
# Example: Shrinking and Uncertain Defense Budgets



[Source: Center for Strategic and International Studies (CSIS)].

# The State of Global Security\*

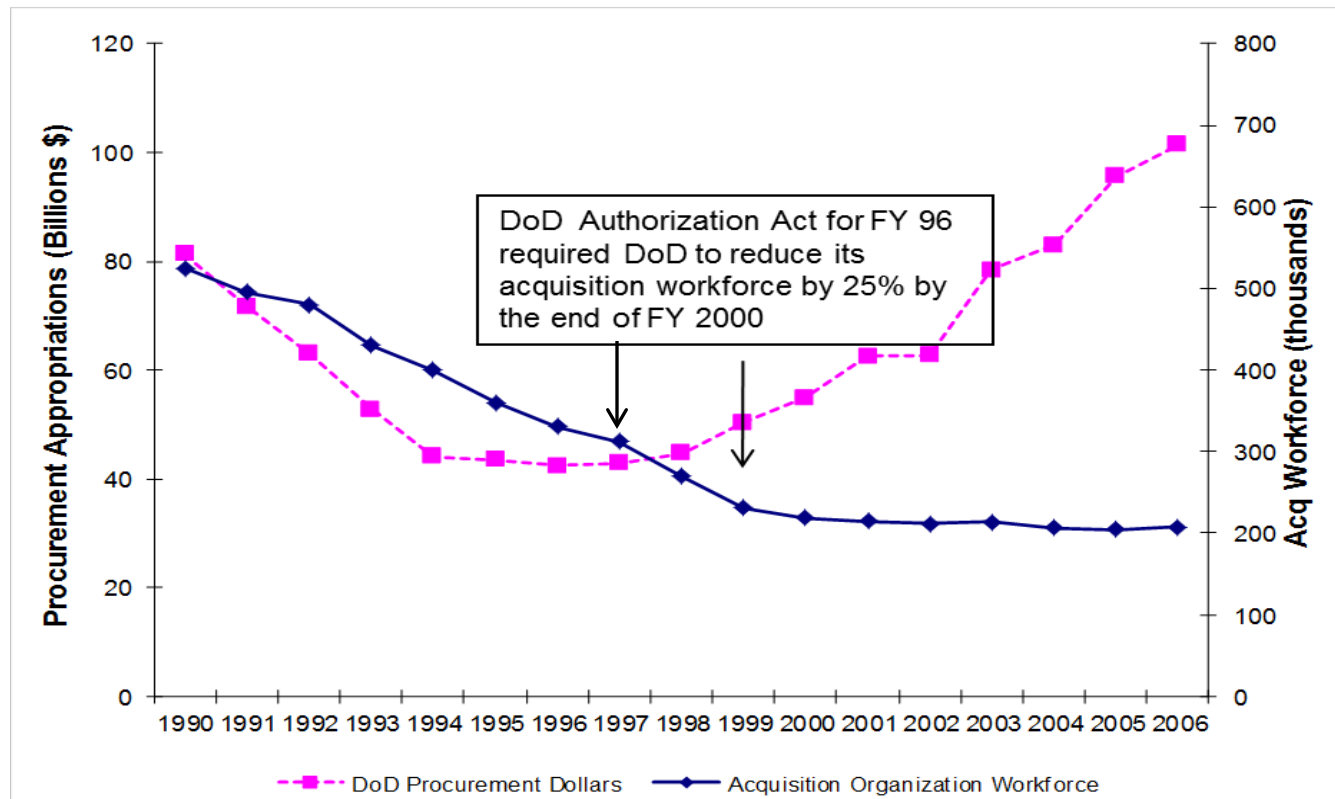
## The State of Global Security



\* Source: Exelis Analysis

# An Example of the “Crisis” in the Public Sector Workforce: DoD Acquisition Workforce Has been greatly Undervalued:

Quantity and Quality of Adequate “Smart Buyers” are required!



Source of workforce data: DoD IG Report D-2000-088 Feb 29, 2000 & DoD IG Report D-2006-073 April 17, 2006

Source of budget data: Annual Defense Reports, available at [http://www.dod.mil/execsec/adr\\_intro.html](http://www.dod.mil/execsec/adr_intro.html). Procurement supplementals for FY2005 and FY2006 not yet reflected in Annual Defense Reports were obtained from Congressional Research Service Reports. (Defense Science Board, 2008)



# Acquisition Workforce – Across the Federal Government – Is a Critical Concern\*

- ➔ Aging workforce (across the entire government) - previously had few younger hires – so, as wave of retirement occurs, few experienced people to step into the critical positions.
- ➔ DOD, especially, has an acquisition workforce problem (for inherently-governmental jobs):
  - Greatly reduced senior officers and SESs
    - In 1990, the Army had 5 General Officers with Contracts background; in 2007 had 0.
    - In 1995, the Air Force had 40 General Officers in Acquisition; in 2007 only 24; and 87 SESs down to 49.
    - DCMA (25,000 down to 10,000; 4 General Officers to 0).
- ➔ Recent government hires mostly at “intern” level (over 50% of federal government acquisition workforce have less than 5 years experience)
- ➔ Need more people in government who understand industry.
- ➔ Congress, the GAO, and OMB have all recently acknowledged workforce needs (but “closing the government” was a disincentive).

**\* To address this need, the UMD has established a Master’s Degree Specialization in Acquisition, and for the last decade has had a Research Center operating in this area.**



# Structural Choices to Meet the Challenges

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- “Insourcing”
- “Privatization”/”Outsourcing”
- Public /Private Competitions
- Public Private Partnerships

**In general (in many areas) the role of the government is changing - - from “the doer” to the “manager of the doers”.**





# **Cost Comparison Studies of “Insourcing”**

## **➔ CBO: “Logistics Support for Deployed Military Forces,” October, 2005**

“Over a 20 year period, using army military units would cost roughly 90% more than using contractors”

And “Contractors can be hired and terminated as needed”

## **➔ GAO: “Warfighter Support: A Cost Comparison of Using State Department Employees vs. Contractors for Security Services in Iraq,” March 4, 2010**

“Using State Department employees to provide state security for the Embassy in Bagdad would cost approximately \$858 million for 1 year; vs. \$78M charged by contractor” (10 times more for State Department employees).



## **In Spite of the independent analysis and the empirical data, and In response to Presidential and Secretary Defense insourcing Directives:**

- ➔ Proposed insourcing of Air Force Maintenance work\*:
  - C-17 airframe structure (from Boeing)
  - F-117 engine (from Pratt & Whitney)
  - Joint Strike Fighter (from Lockheed-Martin)
  - KC – X Tanker (from Boeing)
  - “others under discussion” (e.g., F-22s and UAVs)
- ➔ Air Force stated they “expect savings” (of 40%)
- ➔ Clearly, this work is not inherently-governmental (except the management and/or oversight of it)

*\* Aviation Week & Space Technology, February 1, 2010*



# Competitive “Outsourcing” for Services—NASA and NSA Desktop Services (success stories)

- ➔ The Government’s approach had been to use government employees to maintain desktop assets
  - No way to track costs, no standardization, not tracking service quality
- ➔ NASA’s Outsourcing Desktop Initiative (ODIN) and NSA’s program (Ground Breaker) transferred the responsibility for providing and managing the vast majority of their desktop, server, and intra-Center communication assets to the private sector.
- ➔ Goals
  - Cut desktop computing costs
  - Increase service quality
  - Achieve interoperability and standardization
  - Focus government IT employees on core mission
- ➔ Performance (by winning contractor)
  - Exceeded required service levels e.g. for NASA:
    - Service Delivery 98%
    - Availability 98%
    - Customer Satisfaction – ranges from 90-95%
  - Hardware/software were standardized at each center
  - Interoperability and security were much improved
- ➔ Cost— from no adequate way to allocate IT costs to firm fixed price; e.g. for NSA:
  - Over 3,500 users
  - 4 to 1 Network Collapse (unclassified)
  - 5 to 1 Network Collapse (classified)
  - **Estimated cost savings 40%**

# Privatization/“Outsourcing”

- Should be considered for non- inherently governmental work.
  - But the U.K. is now considering it for the management of its overall acquisition functions (R & D, Production, and Support) - - including the inherently-government jobs.
- In the interest of “fairness” (to government workers currently doing the work) and since they may be more knowledgeable about the work.
  - Public/ private competitions (for non-inherently-government work currently done by government workers) is a very good option.



# **Competitive Sourcing/(public/private competition via OMB circular A-76)**

- ➡ Work is not inherently governmental
- ➡ Work can be performed by the private sector
- ➡ Allows for public sector to compete with private sector for work
- ➡ Benefits:
  - Government very often wins (but benefits realized no matter who wins)
  - Better performance at lower cost (even when public sector wins)
  - Forcing factor (incentive) for “learning” with the existing process
  - Creates competition in environments that are not normally exposed to market forces

**The issue is not public vs. private; it is competition vs. monopoly**



# Results of Public/Private Competitions (A-76) Cost Comparisons: 1978 – 1994\*

	Competitions Completed		Average Annual Savings (\$M)		Percent Savings
Army	510		\$470		27%
Air Force	733		\$560		36%
Marine Corps	39		\$23		34%
Navy	806		\$411		30%
Defense Agencies	50		\$13		28%
Total	2,138		\$1,478		31%

*\*Defense Reform Initiative Report,  
Nov. 1997*



# DoD “Competitive Sourcing” (A-76) Demonstrated Results 1994 – 2003\*\*\*

Winning Bidder	Number of Competitions Won	Civilian Positions Competed (Excluding Direct Conversions)	MEO FTEs* (Excluding Direct Conversions)	% Decrease from Civilian Authorizations to Government MEO FTEs
In-House	525 (44%)	41,793	23,253	44%
Contractor	667 (56%)	23,364	16,848	28%**
Total	1,192	65,157	40,101	38%***

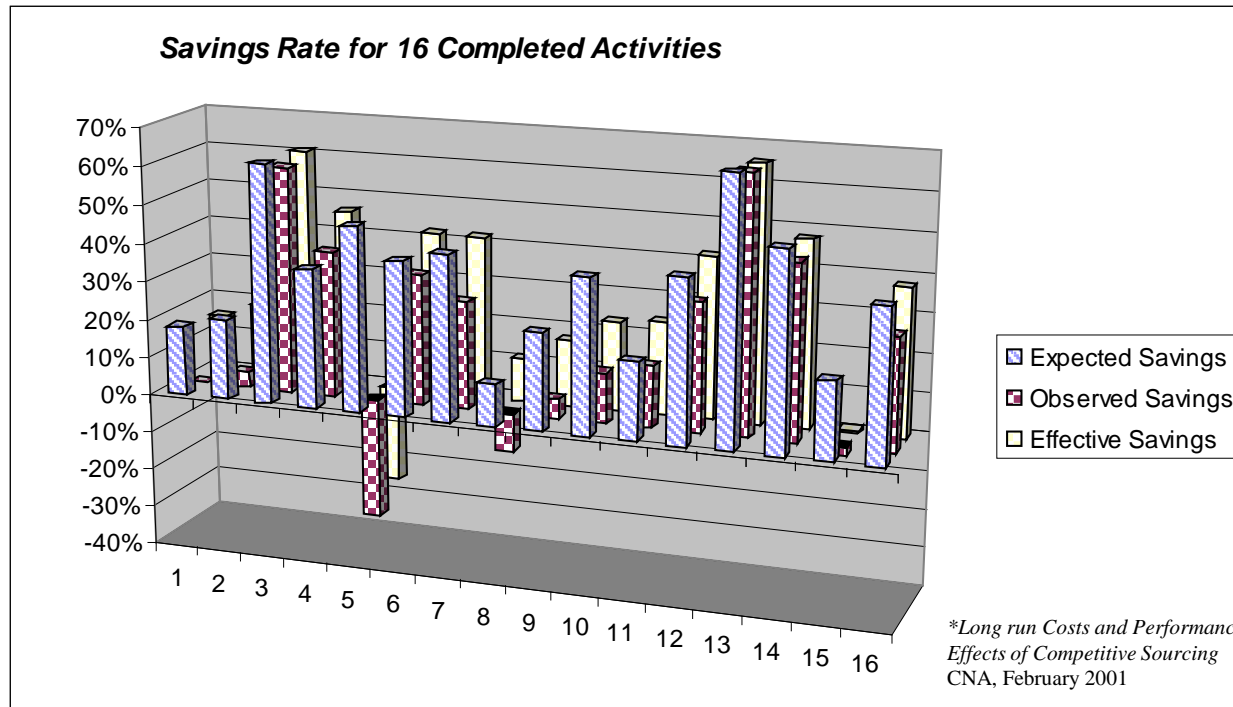
**\*MEO= Most Efficient Organization (as proposed by government workers)**

**\*\* Even for the competitions won by the contractor, the MEOs proposed decreases of 28% in the FTE headcount**

**\*\*\* No matter who won, the involuntary terminations of government workers (RIFs) averaged only 5% <sup>1)</sup>**

1) *Competitive Sourcing: What Happens to Federal Employees?* Jacques S. Gansler and William Lucyshyn, October 2004

# Competitive Sourcing Long-term Demonstrated Results\*



## Weighted Averages

- ➔ Expected Savings (as bid by winner – government or private) **35%**
- ➔ Observed Savings (realized results, including scope & quantity changes) **24%**
- ➔ Effective Savings (realized results on same scope & quantity) **34%**



# Competitively-awarded Performance-Based Logistics— Availability and Response Time Comparisons

## Material Availability\*

Navy Program	Pre-PBL	Post-PBL
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F-14 LANTIRN



73%

90%

H-60 Avionics



71%

85%

F/A-18 Stores Mgmt System



65%

98%



Tires

81%

98%



65%

90%

## Logistics Response Time\*\*

Pre-PBL	Post-PBL
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56.9 Days

5 Days

52.7 Days

8 Days

42.6 Days

2 Days CONUS  
7 Days OCONUS

28.9 Days

2 Days CONUS  
4 Days OCONUS

35 Days

6.5 Days

Note: “Pre-PBL” is sole-source government and “Post-PBL is competitively awarded either to private sector or to a public/private partnership (e.g. the APU)

\*Klevan, Paul, NAVICP, UID Program Manager Workshop Briefing, 5 May 2005

\*Kratz, Lou, OSD, Status Report, NDIA Logistics Conference Briefing, 2 Mar 2004



# Public vs. Private Competition for Services: Performance Improvements 1<sup>st</sup> – Then Cost Savings

Competitive Sourcing of Public Transportation—Transportation authorities award contracts to the lowest responsible and responsive provider—public or private.

City	Year	Performance Improvement
Denver	88-95	Service levels increased 26%
San Diego	79-96	Service levels increased 47%
Indianapolis	94-96	Service levels increased 38%
Las Vegas	93-94	Service levels increased 243%
Los Angeles	80-96	Service reliability increased 300%, complaints reduced by 75%

**Cost savings have ranged from 20% to 60% compared to the costs of non-competitive services that were replaced**

Ref. Emanuel S. Savan "Privatization and Public – Private Partnership", New York; Chatham House, 2000

# Competitive Sourcing 2004 IRS Results

	Number of FTEs Competed	Winner	FTEs Proposed	Reduction*
Area Distribution Centers	400	MEO	160	60%
Campus Center Operations and Support	278	MEO	60	78%

**The Government Employee MEO Won Both Competitions  
With Dramatic Proposed Savings**

- Since then (due to the government union pressure) Congress “outlawed” all future federal Public-Private Competitions!

\*The source selection results were released in Aug 2004



# **For Non-Inherently-Governmental Work, a Public Private Partnership Should be Considered**

- ➔ An ideal “partnership” takes advantage of the experience of government and the competitive benefits and skills of industry.
- ➔ Forms of government-industry partnerships:
  - partnerships between government labs and University researchers
  - partnerships between government workforce and industry, in many “service” areas (e.g. government depots)
  - competition between different government-industry partnership teams

**This combination allows the nation to benefit from the best of government and industry – while also gaining the direct or indirect benefits of market forces (in performance and costs)**



# **Some Forms of Public Private Partnerships**

- Infrastructure (e.g. toll roads; facilities; etc.) [example: I-95 Travel Plazas]
- Research (e.g. University and/or Small Business and Gov. Labs) [example: Maryland Proof of Concept Alliance]
- Project Management, through support (Industry and Government) [example: Auxiliary Power Unit]
- Supply chain Partnership (Industry and Government) [example: C130 propeller assembly]

**Examples covered below**



# Infrastructure Example:[Two I-95 Travel Plazas]\*

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- A revenue-sharing plan
- Maryland awarded a two year project to rebuild “Maryland House” and “Chesapeake House” to a public private partnership (with Areas USA)
- State will retain ownership and oversight
- Areas USA will put up the \$56 million required, and will operate and maintain plazas through 2047
- State estimates it will receive more than \$400 million in revenue over the life of the contract

\*Source: The Baltimore Sun: January 23, 2012; Candus Thomson



# Maryland Proof of Concept Alliance (MCPA)

- A three year, public private partnership between the University of Maryland and the Army Research Laboratory
  - Congress funded through DoD budgets, to University of Maryland (via ARL)
  - University Professors submitted proposals (over 20 per year) to UMD (P.M.)
  - UMD (P.M.) and ARL (P.M.) selected 7 per year - - based on potential Commerciality (Sales and Small Business Start-Ups) and DoD application needs (a total of 21 projects)
  - In many cases, ARL Research Facilities were utilized by UMD Professor & Graduate Students working with ARL-selected P.I.
  - Recognizing both the Commerciality and Army “1<sup>st</sup> buyer potentials”, V.C.s. then put in millions - - thus stimulating entrepreneurial start-up companies.

**A “success story” of a Research Public Private Partnership**

# MPCA Example -- FlexEl

## ➡ Results directly related to project:

- Electrolyte formulation that led to high capacity primary cell, and alternative electrolyte formulation for secondary cell with lower capacity
- Optimization of separator material for different applications
- Understanding of underlying chemical mechanisms, with potential for future technical breakthroughs
- Proof of low-cost manufacturability using proprietary cathode coating process
- Recipient of V.C. funding



*New power supply concept with broad market potential, such as in the lining of military/first responder jackets*



***“Perhaps the greatest indication of the success of our technology transfer is our relationship with a Fortune 100 commercialization partner. Our company has grown from zero full-time staff at the time of grant application, to 7 full-time employees today. Our plans are to grow to 16 full-time employees by the end of this year.”***

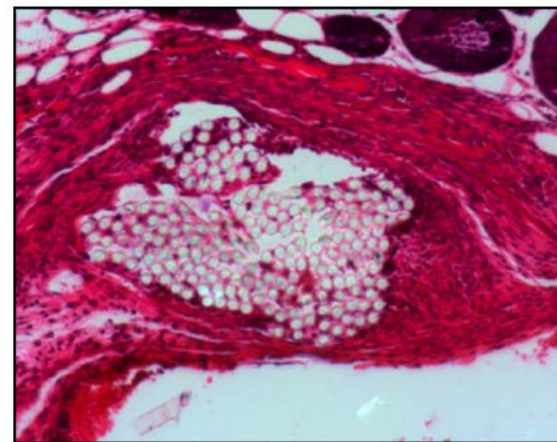
***2011 Project Final Report***



# MPCA Example -- GLIKNIK

GLIKNIK  
TRULY NOVEL THERAPIES

- ➔ Gliknik has developed a series of novel, soluble therapeutic recombinant proteins which have demonstrated profound activity in animal models of autoimmune and inflammatory disease.
- ➔ This project aims to utilize the activity of these compounds when fixed on implanted devices to reduce inflammation and fibrosis associated with implantation.



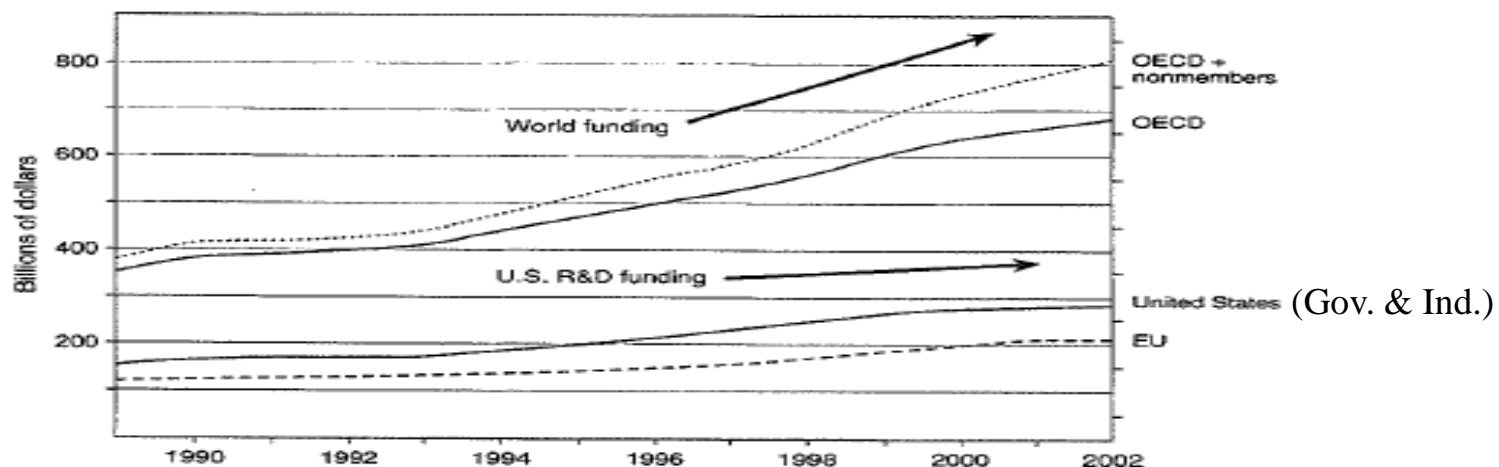
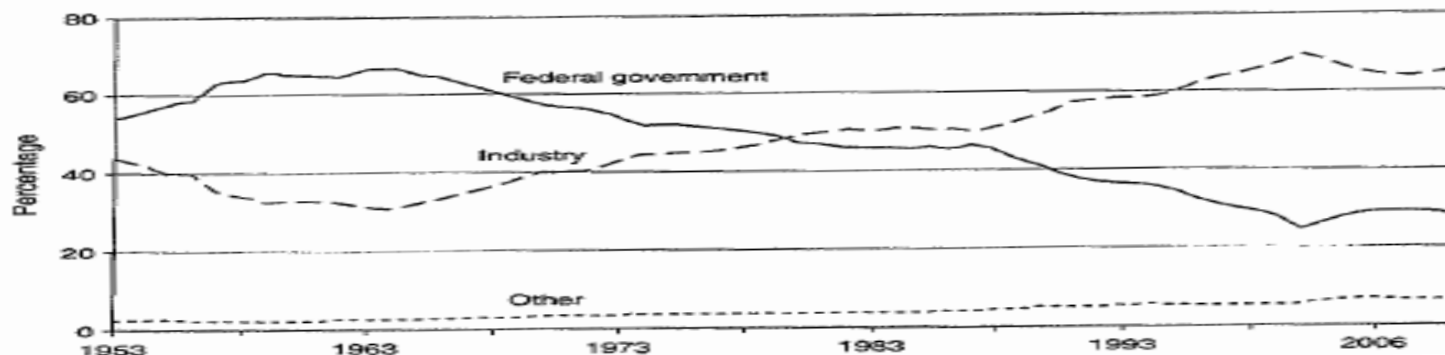
## Drug-coated suture :

- Minimal inflammation
- No cellular hypertrophy
- No collagen deposition

As a result of MPCA funding, GLIKNIK has raised \$2 M in additional equity capital.



# Research Funding Trends\*(critical for Economic competitiveness and security “technological leadership”)\*



\*Sources: Top Fig.: David Mowery “Military R&D and Innovation” (University of California Press, 2007); Lower Fig.: National Science Foundation, S&E Indicators 2006; OECD, Main S&T Indicators database, Nov. 2004



# Army Seeks to Expand Public-Private Partnerships (Headline: Federal Times, Oct. 28, 2013)

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- Housing
- Utilities
- Dining halls
- Energy generation
- Education
- Etc.

**All stimulated by the “National Defense Authorization Act of 2013”  
(providing “broad latitude to prioritize services that are not  
inherently governmental”)**



# Public Private Partnership in Project Management, through Support\*

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- Auxiliary Power Unit for Navy Aircraft
- Joint partnership between Honeywell and Naval Aviation Depot, Cherry Point
- Material Availability improved from 65% to 90%
- Logistics Response time improved from 35 days to 6.5 days
- Cost savings (per DoD I.G. Report D 2000-180) was \$13.98 million over 10 years



# **Supply Chain Public Private Partnership Example: Virtual Prime Vendor C-130 Propeller Assembly\***

- Partnership between Defense Logistics Agency (DLA) and Hamilton Sundstrand
- Inventory reduced 98%
- 97.8% of orders shipped within 2 days of order placed
- The “Virtual Prime Vendor” form of public private partnership has proven to be a very successful model

**\*“Implementing Alternative Sourcing Strategies: Four Case Studies”, Center for Public Policy and Private Enterprise, School of Public Policy, UMD, October 2004**



# Characteristics of Successful Partnerships

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- ➔ Long-term commitment
- ➔ Shared vision & objectives
- ➔ Right metrics and incentives
- ➔ Early Acquisition Org. involvement
- ➔ Senior-level support
- ➔ Sound business case
- ➔ Mutual trust & shared risks
- ➔ Flexibility to change scopes
- ➔ Balanced workload
- ➔ Independent review and oversight
- ➔ Enforce Partnership decisions
- ➔ Full coordination with all stakeholders
- ➔ Clearly documented partnerships agreement

**\*“Improving Readiness with Public Private Partnership”, Center for Public Policy and Private Enterprise, University of Md.; August 22, 2006**



# **This is A Critical Period - - With Great Uncertainties**

- ➔ In both economic and security considerations.
- ➔ Not just at the Federal Level - - but also at the State and Local levels (even in security: e.g. Boston Marathon Bombing, and Washington Navy Yard Shooting).
- ➔ **The Challenge is to get more mission capabilities with reduced resources (including greater performance and flexibility)**
- ➔ **“Smart Buyers” are a key requirement**
- ➔ **Public Private Partnerships offer the best of both public and private sectors - - and allow the introduction of market forces (with the incentives of competition) for all non-inherently-governmental work**