

# Course Handout: The Defense Industrial Base

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## Overview:

The Defense Industrial Base (DIB) is the network of private companies, government labs, research institutions, and investors that develop and sustain U.S. defense capabilities. This course examines its structure, key players, innovation pathways, and how Congress interacts with the sector to drive modernization.

## Key Takeaways:

- The DIB is essential for U.S. military readiness and technological advantage.
- It includes primes, subcontractors, startups, research labs, and strategic investors.
- Congress shapes the DIB through funding, policy, and oversight.

## Major Players:

- **Prime Contractors:** Lockheed, Boeing, Raytheon, Northrop Grumman, General Dynamics
- **Small Businesses & Startups:** Provide agility and niche innovations
- **Research Institutions:** Army Research Lab, Office of Naval Research, Air Force Research Lab, FFRDCs, UARCs
- **Investors:** Office of Strategic Capital (OSC), In-Q-Tel

## Innovation Pathways:

- **Traditional Acquisition:** Federal Acquisition Regulation (FAR)
- **OTAs:** Other Transaction Authorities for flexible, rapid contracting
- **SBIR/STTR:** Small business innovation and tech transfer programs
- **Service Hubs:** AFWERX, NavalX, Army Applications Lab
- **OSC:** Links private capital to defense-critical technologies
- **In-Q-Tel:** Invests in commercial tech with national security applications

## The Innovation Pipeline:

1. Tech scouting
2. Prototyping
3. Testing & evaluation
4. Transition to programs of record. The “valley of death” between prototype and funding

## Congressional Role:

- Authorizes and appropriates funding for defense programs
- Conducts oversight through NDAA, appropriations bills, and hearings
- Supports innovation initiatives and supply chain security measures

## Current Challenges:

- Slow acquisition timelines
- Cybersecurity risks in supply chains
- Workforce shortages
- Supply chain fragility in critical materials
- Global competition (China’s civil-military fusion)