



TECHSOURCE[®]
A Science & Engineering Consultancy

Critical Skills Retention

TechSource provides critical skills throughout the Nuclear Weapons Enterprise (Enterprise). Two decades ago the Chiles Commission Report stated that the Enterprise was facing potential shortages in critical, technical expertise. Since that time, in spite of on-going efforts to maintain a consistent and adequate flow of new talent, the availability of required expertise (i.e. technical depth and experience) has reached a tipping point. This ever-increasing chasm between required and available expertise is one of the most important challenges facing the Enterprise today.

A Tipping Point in Expertise

The end of the Cold War necessitated a substantial decline in the areas of nuclear design, testing, and production. This system-wide pull-back led to a diminished demand within the Enterprise for qualified nuclear weapons scientists and engineers.

The nation's once readily-available access, within the Enterprise, to subject matter experts (SMEs) with experience in nuclear weapons systems has declined significantly. The result is those tasked with ensuring the surety, safety, and functionality of the weapons stockpile and operations of associated infrastructure do not have the right personnel while the Enterprise goes through recapitalization and expanding requirements.

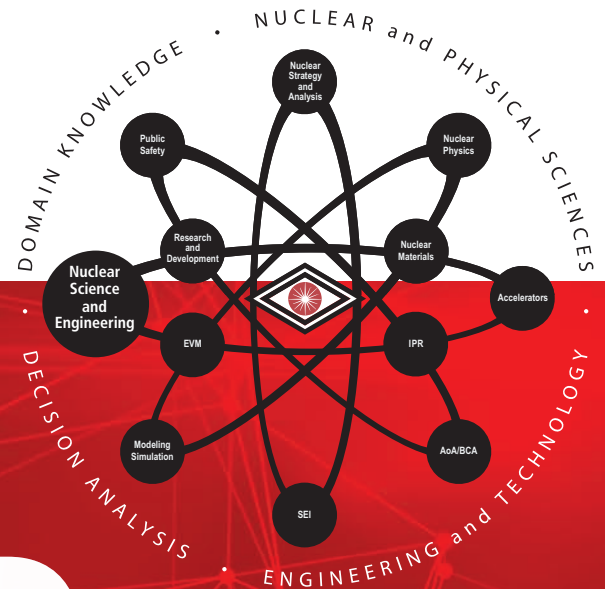
However, the scarcity of SMEs is not limited to nuclear weapons systems experts: a critical skills gap exists across the Enterprise in nuclear weapons and national laboratory legacy systems and facilities. The existing gap is further exacerbated by many of the remaining senior-level scientists, engineers, and technicians reaching retirement within the next few years.

In addition, many of the 1999 Chiles Report conclusions have been realized: an aging workforce, the lack of knowledge transfer and diminished interest in the nuclear field. In addition, a time-intensive clearance process has led to reduced technical agility throughout the Enterprise. This predicament has created an exigent need for critical skills retention and knowledge transfer.

DOE should institute a small, select Nuclear Weapons Workers Reserve from those with key skills who have left the nuclear weapons program, to maintain the ability to increase experienced staff rapidly, when and if required. We also recommend greater use of retirees to assist in training new personnel.

(Chiles Commission Report)

Significant resources have been committed to attracting new talent, to making staffing transitions easier through knowledge transfer, and to extensive training designed to prepare mid- and entry-level staff to progress toward senior roles and responsibilities. But recruiting and training take time, leaving gaps in critical skills or lapses in knowledge that affect organizations' overall performance.



The Nuclear Weapons Enterprise Is Unique and so Is TechSource

Founded on the premise that expertise should not be finite, and experience should be valued, TechSource has made it its mission to capture the knowledge gained from decades of hand-on experience exiting U.S. governmental agencies, national laboratories, and universities.

Through our seasoned experts, we offer a broad and deep pool of expertise to seamlessly bridge any gaps in your organization's in-house capabilities, ensuring the availability of specialized skills and knowledge vital to mission achievement in areas such as:

- Strategic Weapons Systems
- Nuclear Sciences, Engineering, and Technology
- Special Nuclear Materials Science, Management, and Disposition
- Integrated Planning: Policy to Test Bench
- Knowledge & Skills Capture and Transfer
- Succession Planning
- Decision Analysis
- Technology Development and Maturation
- Space Applications
- Program/Project Standup, Initiation, and Rescue
- Necessary and Sufficient Limits
- ISSM
- Conduct of Operations

TechSource focuses on critical skills retention and has been providing the Enterprise with valuable, rare expertise for over two decades. Our SMEs are uniquely prepared to fill critical gaps and help sustain organizations' success. The depth of their test bench to policy experience and the breadth of their on-demand knowledge have made our SMEs a trusted resource for our clients. Each engagement provides a matchless opportunity for mentoring and knowledge sharing.

Expanding Today's Capabilities to Meet Tomorrow's Goals

At the time of the Chiles Commission Report, 45- to 65-year-old workers accounted for between one-third and one-half of the workforce at five of eight nuclear weapons science facilities: Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Nevada Test Site, Kansas City Plant, and Y-12 (Oak Ridge National Laboratory). As this senior generation has subsequently retired, a dearth of new workers to sustain the Enterprise has resulted.

This is where TechSource's commitment to capturing and transferring knowledge can pay dividends in your organization. Since 1998, TechSource has been securing senior scientists and engineers against the inevitable difficulty of replenishing the critical skills and knowledge necessary to care for the current stockpile and to develop and create new weapons.

Our experts' extensive experience is derived from hands-on work with particle-accelerator design and operation, nuclear power plants, nuclear materials technologies, nuclear and industrial facilities, national laboratory projects, enterprise-wide and operational-level information technology programs, or systems integration.

Our Bench

Our over 500 on-demand experts possess decades of experience in scientific, engineering, technical, and management disciplines associated with the entire nuclear material life cycle, such as: basic nuclear research, materials research,

We're the Go-To Experts for Experts

Science & Engineering Expertise

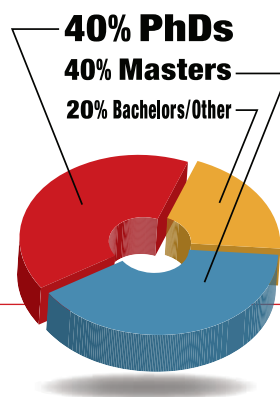
TechSource is a leading high-technology science and engineering small business offering recognized expertise in nuclear and physical sciences, engineering and technology, domain knowledge, and decision analysis.

Unparalleled Expertise

TechSource's talented and innovative 500-plus cohort is composed of experts, most with 35 years or more of hands-on experience.

Complex Management Solutions

TechSource offers policy to test bench technical and management services in coordination with point-of-interest expertise to organizations responsible



facility design and operations, weapons, material disposition, and systems and operations analysis.

TechSource experts are making profound contributions through the direct transfer of their decades of hands-on experience to those tasked with ensuring the nation's security for generations to come.

Contact

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for developing, implementing, operating, and managing high-technology programs nationwide.

The World's Smartest Organizations Use TechSource

For over 20 years, TechSource has successfully supported a diverse and expanding client base, including U.S. federal agencies, the national laboratories, the Navajo Nation, universities, and commercial entities focused on solving some of the most complex issues facing the United States today.

Recognized Qualified Expert

TechSource is recognized as an independent, qualified expert whose advice and products uniquely and effectively bridge technical and programmatic requirements.

"The Enterprise is experiencing the challenges of accessing and retaining critical skills, knowledge, and abilities. Constantly evolving national and global political environments alone make determining a stable set of requirements challenging. Thanks to decades of immersion in their fields, TechSource experts are adept at identifying, capturing, and transferring the very necessary but vanishing critical skills."
(V. Brian D'Andrea, TechSource CEO)



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