BREAKOUT SESSION

Anticipating Demand and Tracking Supply

- **A discussion on how to develop a long-range program for gathering demand information, tracking the supply of students before graduation and regularly providing a forecast.**

Breakout Session Members

Session Hosts: Mr. Michael Pilot, Mr. Alan Dunham

- **Doug Braddock**
- **Carrie Kendrick**
- **Ann Lee**
- **Dave Markham**
- **Elaine McCusker**
- **James Kinlaw**
- **Mary Martin**
- **Brad Wiggins**
- **Nicholas Terrell**

- **Ernest McDuffie**
- **Roger Moncarz**
- **Vin O'Neill**
- **John Schroeder**
- **Steven Wix**
- **Kathyrn Tobey**
- **Steve Wix**
- **Martha Cogdell**

- **What are the main challenges to developing a long-range program for gathering demand information?**

- **How regularly should data be collected and by whom?**

- **What are the form and timing for a formal forecast?**

- **Are there policy limitations to creating such a forecast?**
    - Is legislation required or desired?
    - By what avenue should legislation, if required, be pursued?

- **Macro level data are good for the current state of national workforce. However, specificity for National Security needs is lacking for both demand and supply of US citizens. There is a need for consistent feedback between unmet workforce demands and sources of supply for both industry and government. In addition, labor demand analysis lacks integration and sufficient correlation with projected government budgets, technology needs, and global competition.**

Key Challenges and Barriers

- **Challenges with a broad impact**
  - Metrics to assess status and guide management to adapt to changes
  - Perishable (time sensitive) specific information
  - Micro level data
  - Specificity in labor categories by US citizenship
  - Surveys/data collection
    - Timing
    - Impact on respondents
- **Supply**
  - Weak data
    - New graduates field of study vs actual job
    - New graduates field of study for AA and BS
    - Timely accessibility
  - Forecasting (relatively static processes)
- **Demand**
  - Rapidly changing technology impact on occupations
    - Likely to change faster than sources of supply
  - Weak data
  - Forecasting (relatively dynamic processes)

- **Feedback, Matching and Oversight**
    - Competition for skilled labor
    - Technology impacts on academia throughput
    - Industry shortages to academia and other supply sources
    - Integrated human capital investment planning
    - Integrated sharing of human capital/labor market information

Recommended Actions

RECOMMENDED ACTION	RECOMMENDED ACTION ORGANIZATION	RECOMMENDED RESULT
METRICS. Identify tiered metrics associated with S&E promotional activities, curriculum progress, and career planning and decisions at all levels of education, training, and work. Determine data and information gaps and recommend integration and/or additional collection.	**DOD, DOEd, BLS, NSF, DOE**	**Process feedback & control**
DEMAND. Routinely collect dynamic specific National Security industry data on unfilled requisitions, make data readily accessible in useful form at the subdiscipline levels, track trends. Institutionalize workforce forecasting into standard planning & budgeting processes, incorporating impacts of budgets, technology needs, and global competition.	**Industry,DOD, DOE, IC, BLS, professional societies**	**Current knowledge and trends of specific needs. Improved data quality.**
SUPPLY. Develop National Security S&E supply estimates at the discipline and subdiscipline level from all sources, make data readily available. Incorporate global supply of S&E specialists.	**DOD, NCES, IC, NSF, DOE, DOEd, Universities**	**Current estimates of specific resources available currently and trends. Improved data quality.**
FEEDBACK & INTEGRATION. Integrate data and information on supply, demand, curriculum, career planning, training, education, internships, incubators, etc to provide a common access point. Facilitate strategic and daily planning at the subdiscipline level across all National Security activities. Integrate into National Security planning processes.	**DOD, DOE, industry, universities, professional societies, NSF, IC**	**Focus on problem areas and successful efforts to efficiently allocate resources, adapting to trends.**