



Global Service Sector Trends

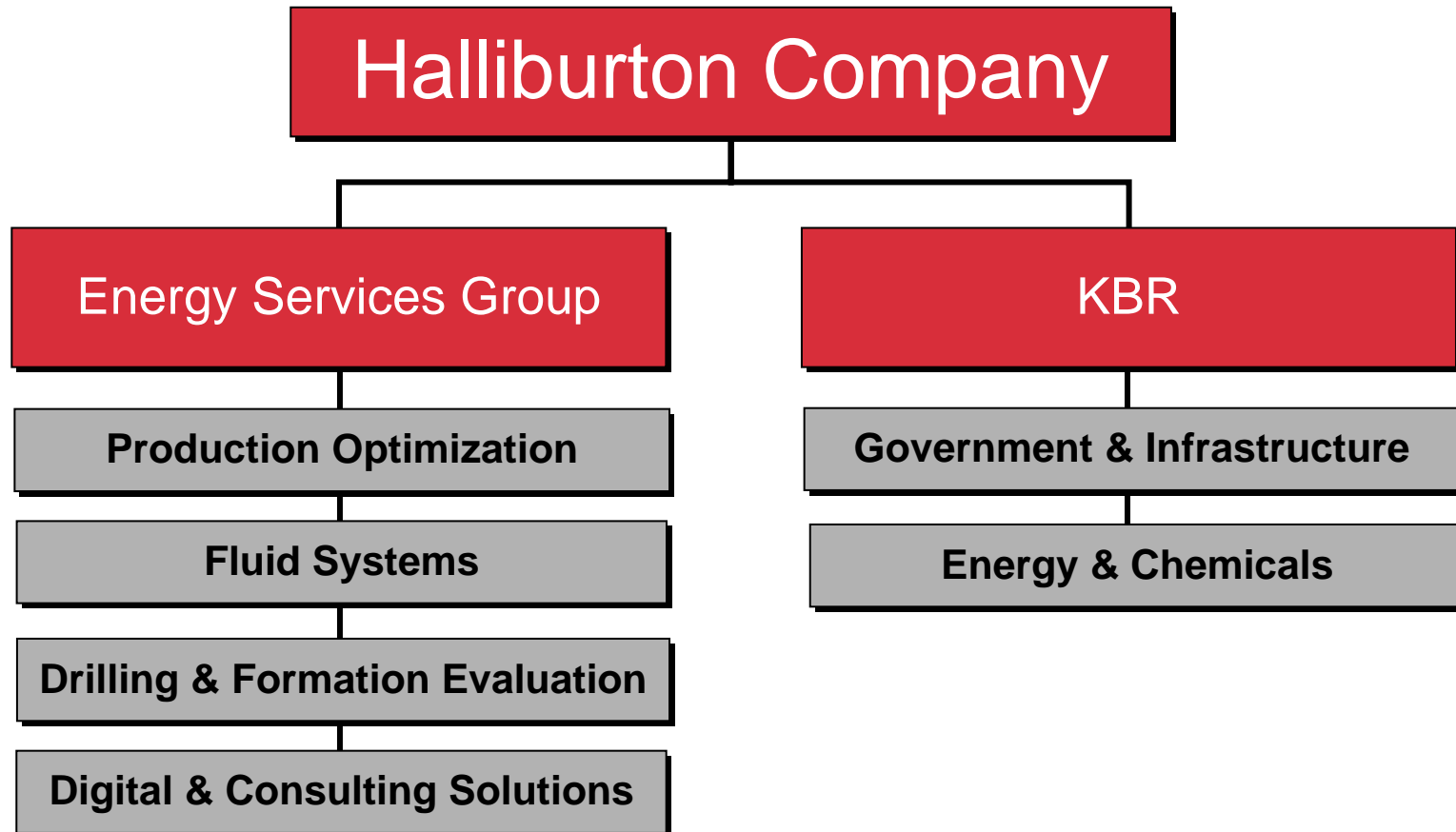
Jerry Logan
Vice President
Strategy & Portfolio
Energy Services Group
Halliburton

Presentation to the Energy Summit 2005
LSU Center for Energy Studies
October 19-20, 2005

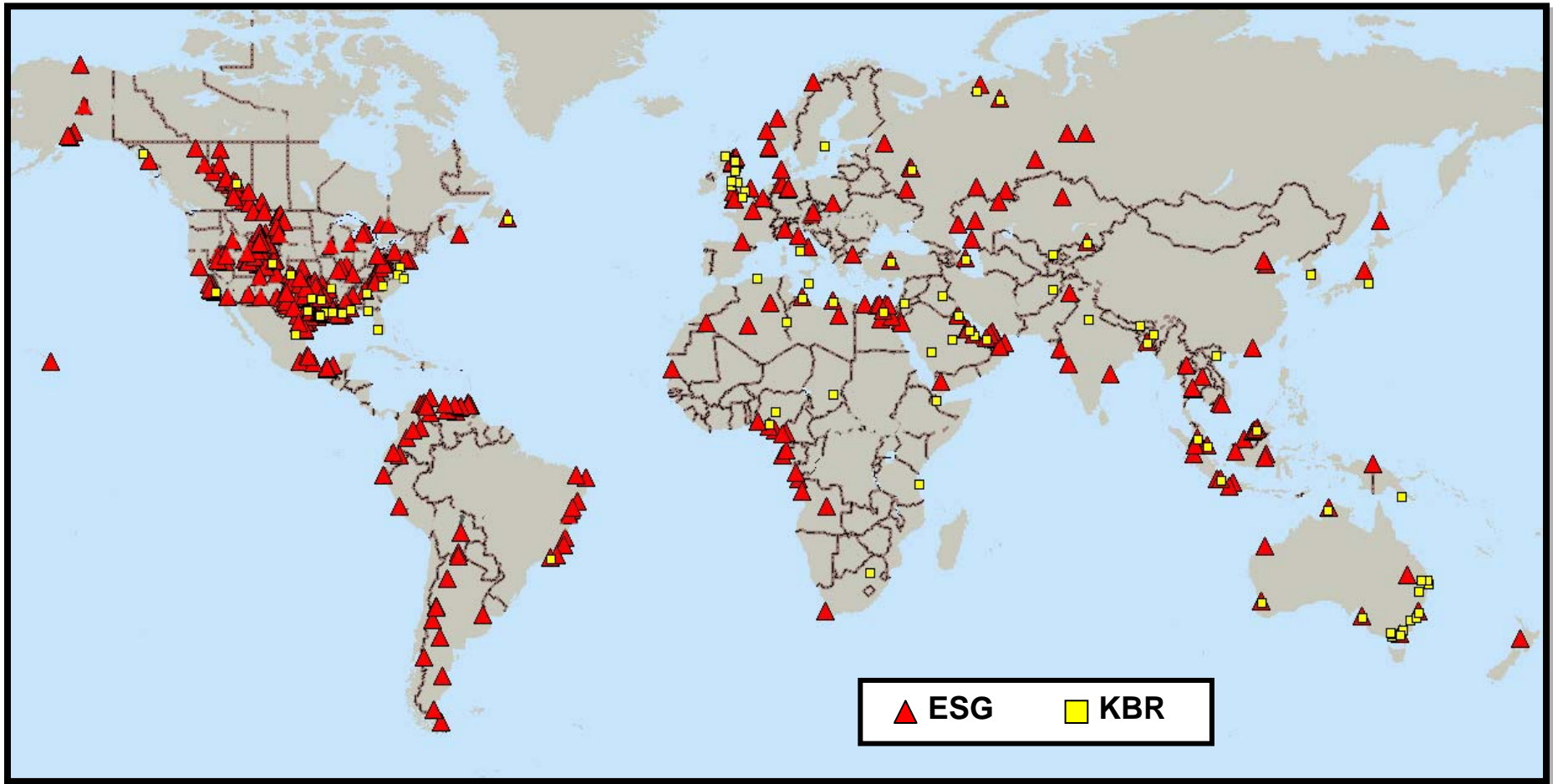
HALLIBURTON

Today's Outline

- **Overview of Halliburton**
 - Product service lines
 - Worldwide locations and importance of Louisiana
- **General Oilfield Service Trends and Their Implications for the State of Louisiana**
 - What are the fastest growing segments?
 - Where is the growth expected to take place, geographically?
 - What types of resources will be developed?
 - What types of wells will be drilled in the future?
 - What are the new technologies and who will be developing them?
 - Who (people) will be doing all of this?
- **Conclusions**



Halliburton's Geographic Coverage



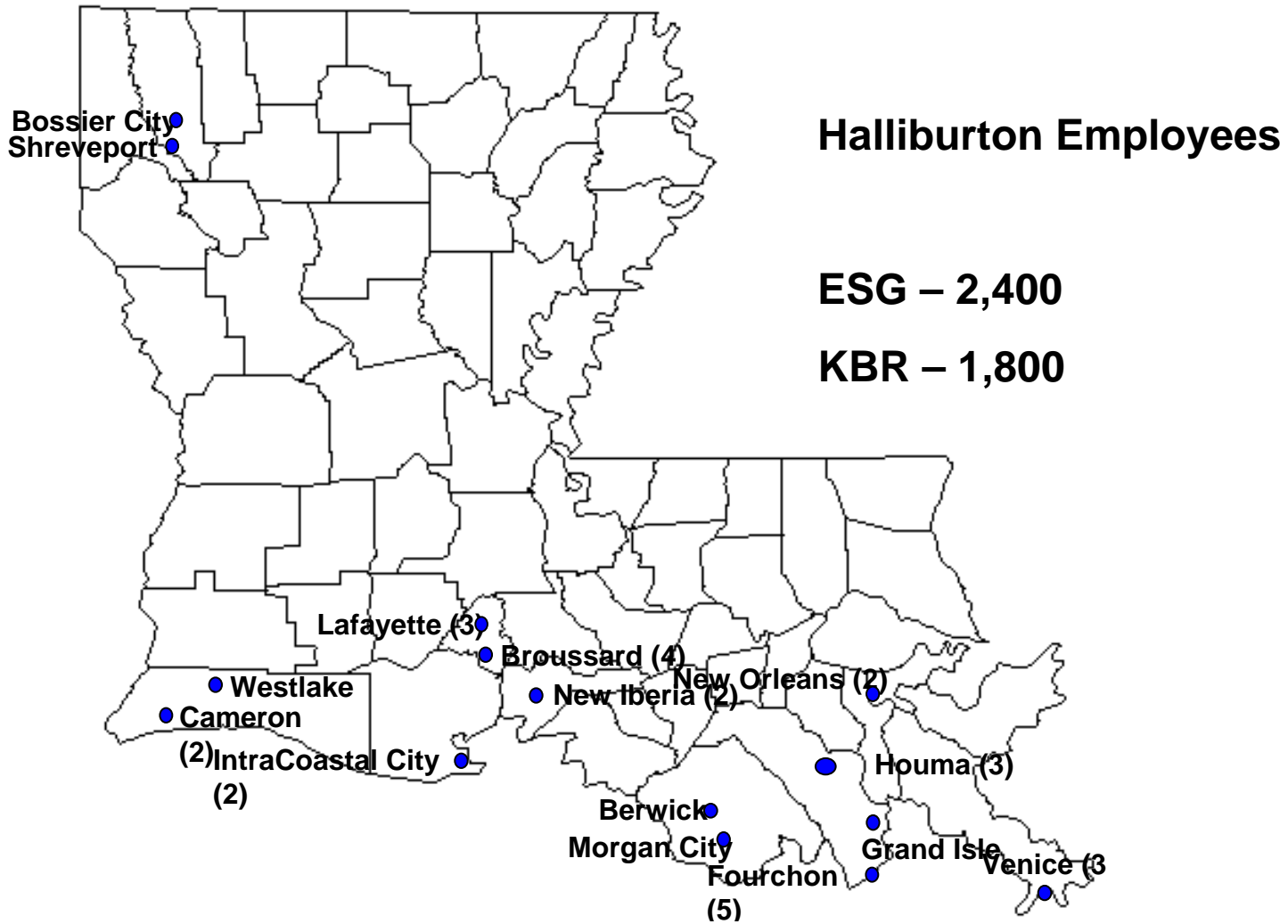
● ~ 100 Countries

● ~ 100,000 Employees

● 2004 Revenue: \$20.5 Billion

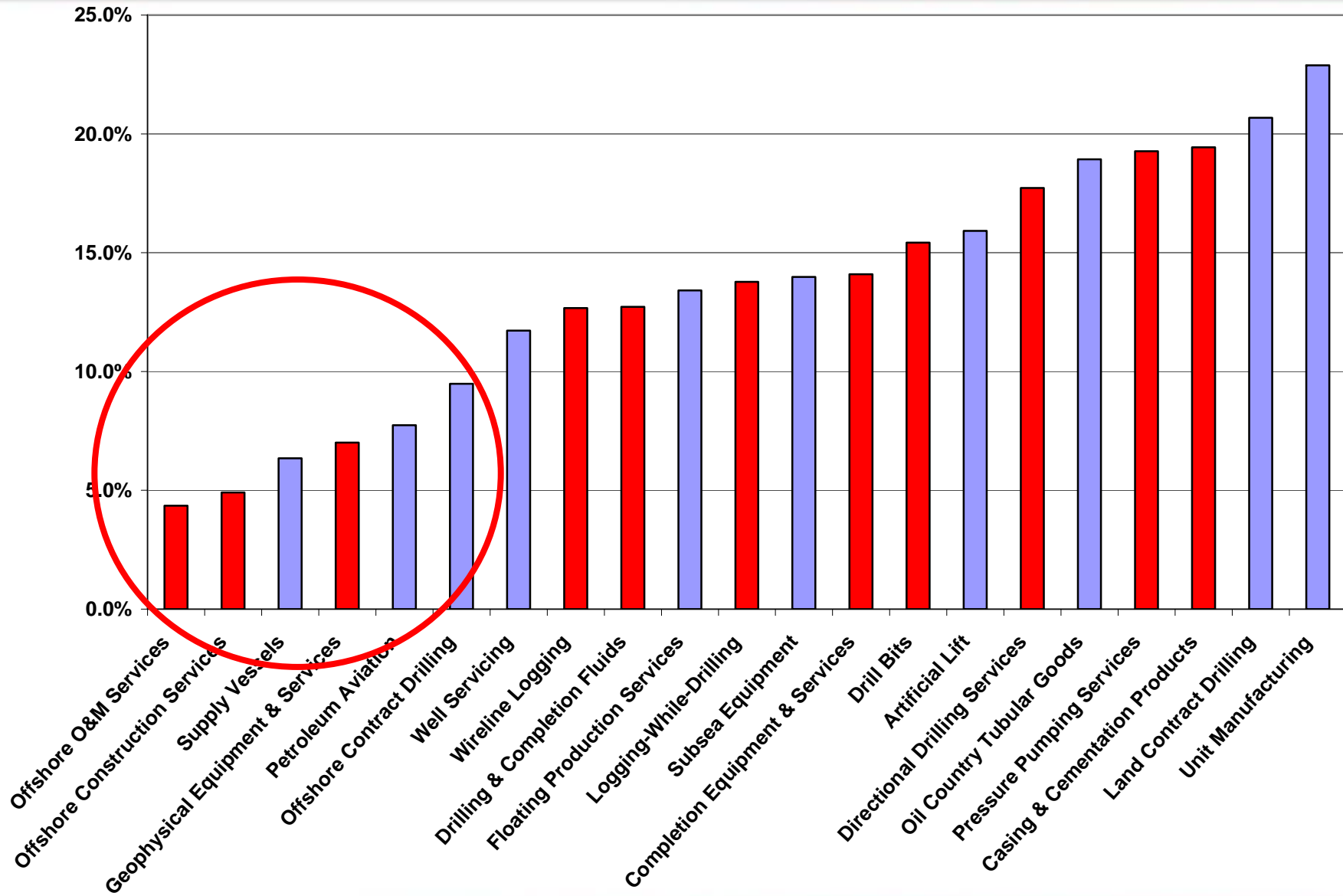
Louisiana and the GOM Remain Key to Halliburton

Major Facility Locations



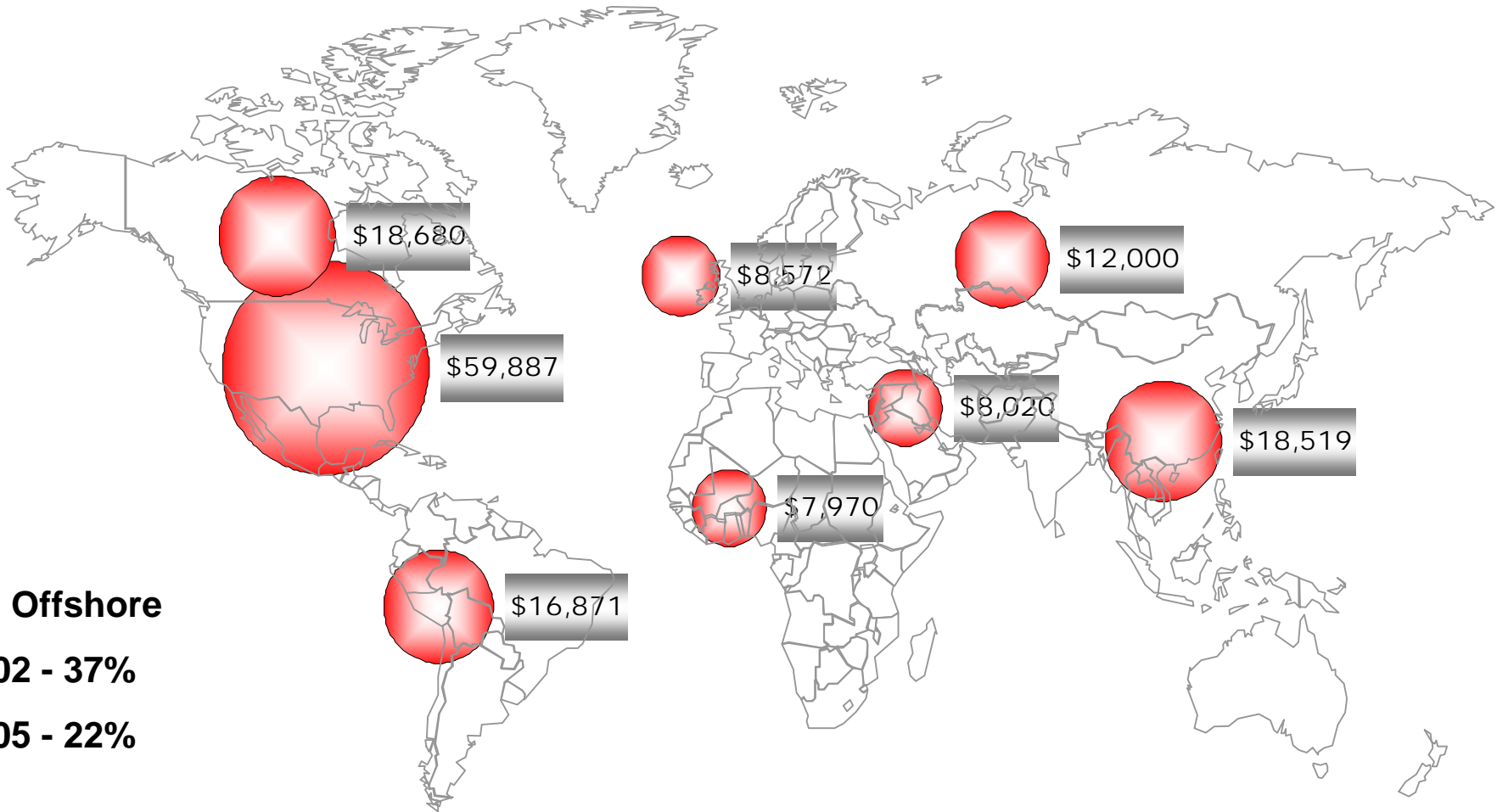
Offshore Services – Slowest Growth Rates

Oilfield Service Market CAGRs (1999-2005) – Spears & Associates



Drilling and Completion Spend (US Millions) - 2005

Spears & Associates Drilling and Production Outlook – Sept 2005



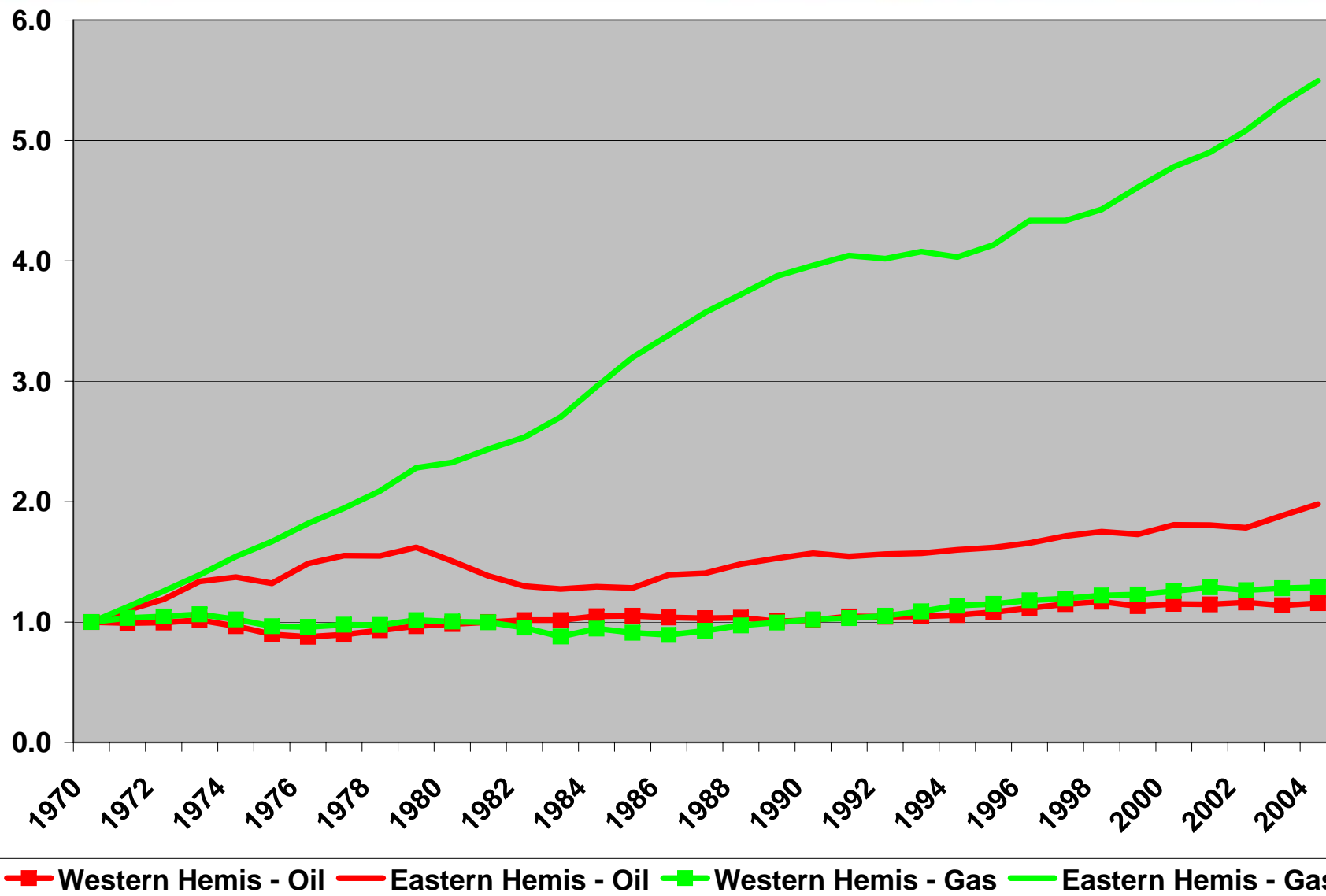
US Offshore

2002 - 37%

2005 - 22%

Expect Spend to Shift Gradually to the Eastern Hemisphere

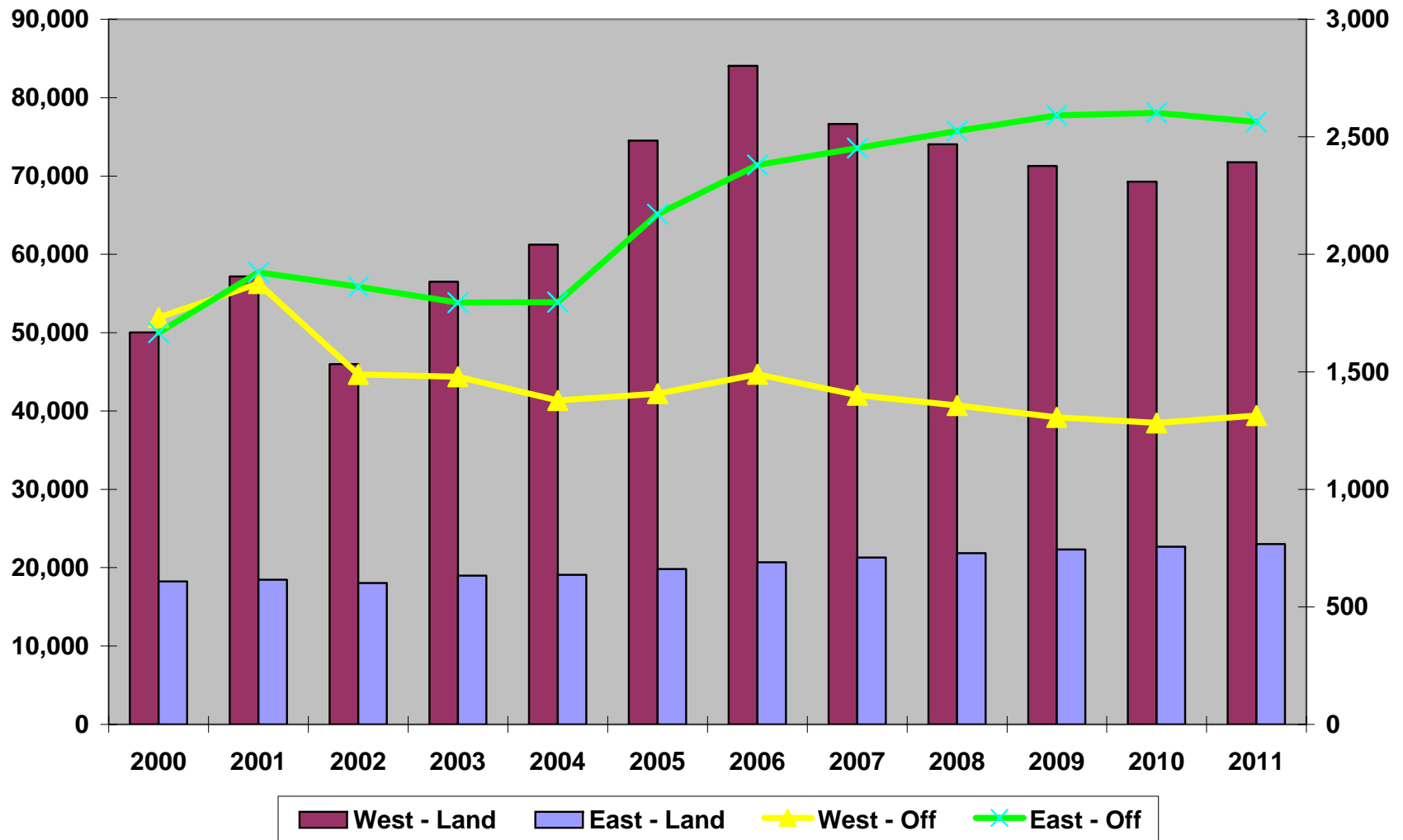
Oil and Gas Production Indexed to 1970 - Spears' Sept 2005 Drilling and Production Outlook



Well Count Expected to Increase in the Eastern Hemisphere

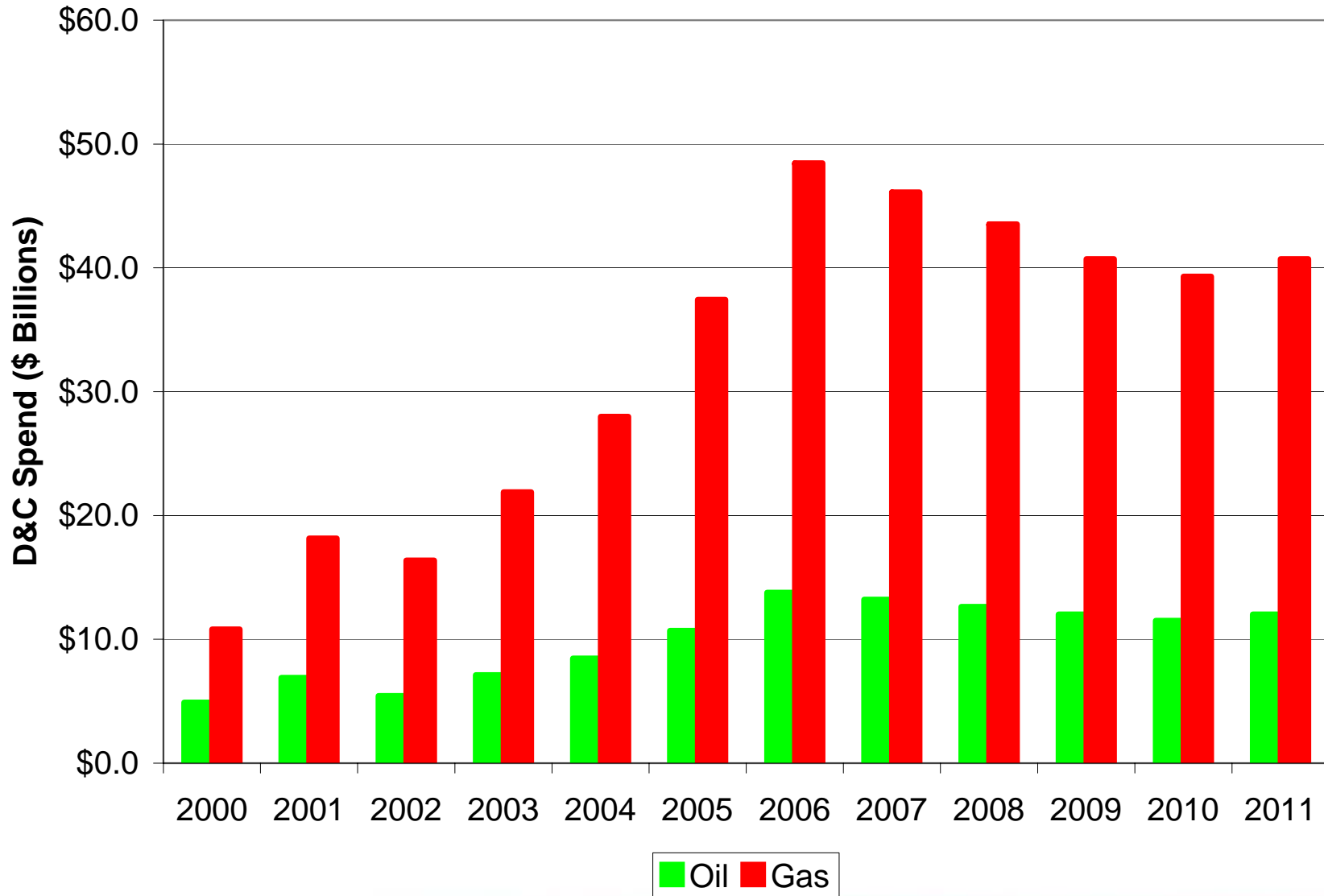
Spears' Sept 2005 Drilling and Production Outlook

Wells Drilled (Land - Left Axis) (Offshore - Right Axis)

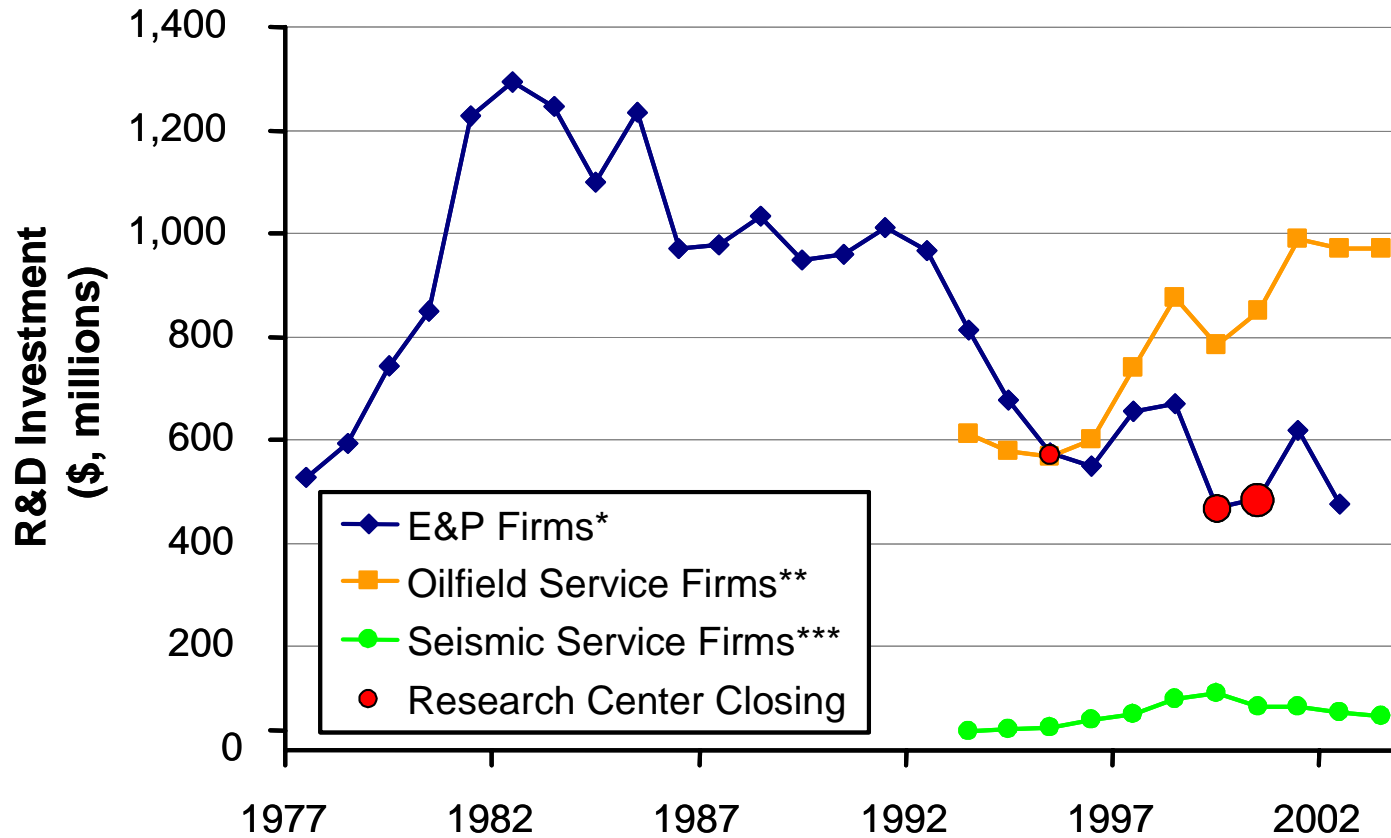


US Drilling and Completion Spending

Spears' Sept 2005 Drilling and Production Outlook



R&D Investment Continues to Shift to Oilfield Services



* US E&P firms and the US R&D investments of international E&P firms; source Department of Energy, EIA, CERA analysis.

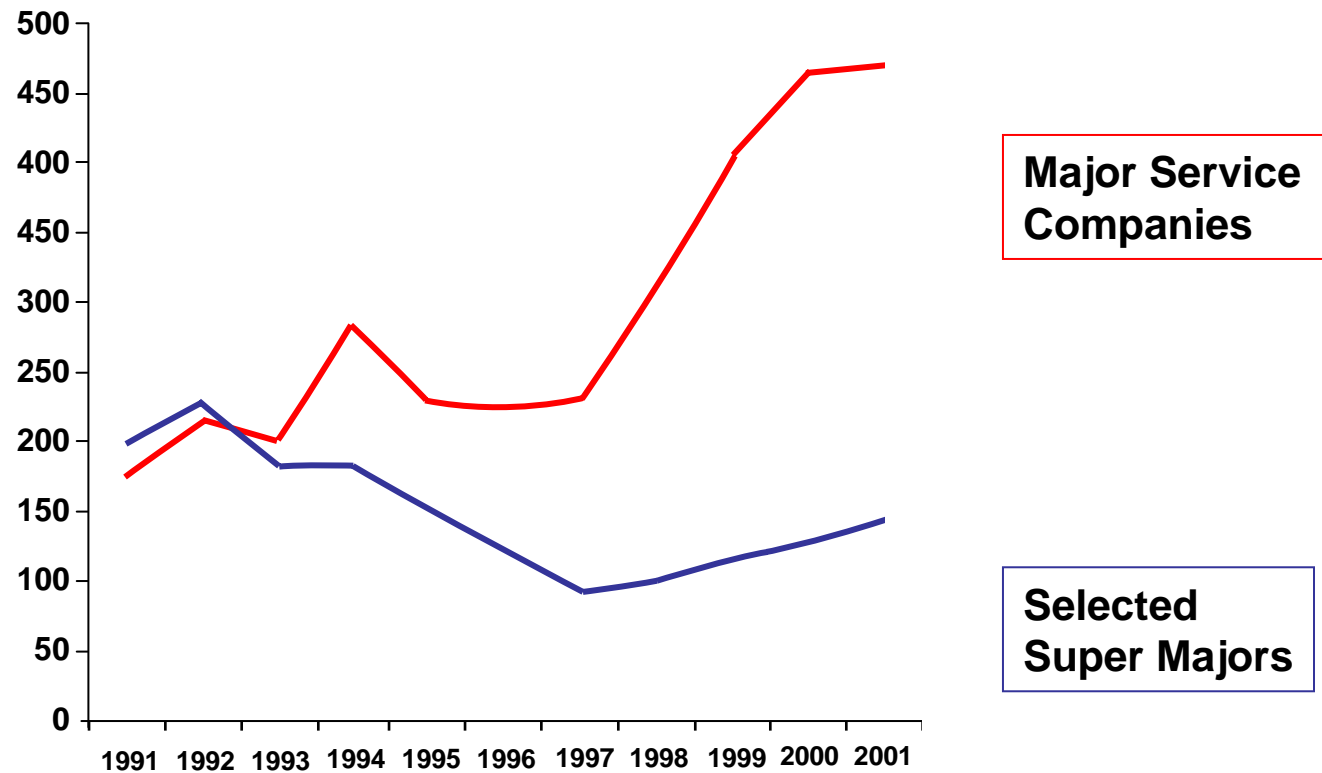
** Traditional Oil Field Service companies (Baker Hughes, Halliburton, Schlumberger, Smith, Weatherford) annual reports, CERA analysis.

*** Seismic Service Companies (CGG, Input/Output, OYO Geospace, PGS, Veritas) annual reports, CERA analysis.

Source: Cambridge Energy Research Associates.

Upstream Patent Awards

Top 3 Super Majors vs. Service Companies

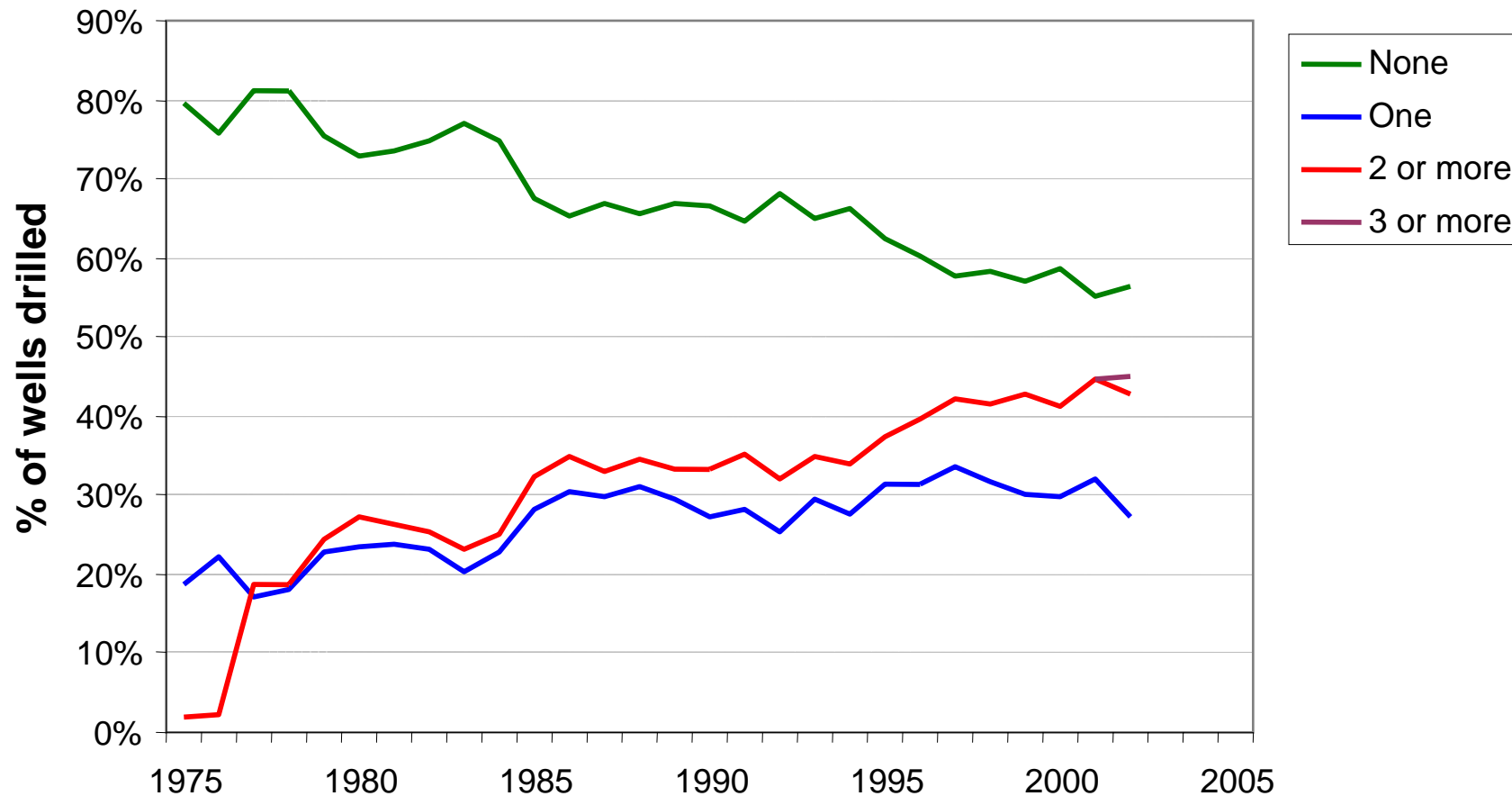


Source: Derwent WPI, Global patent search on Upstream code H01 published patents (1991-2001)

Well Complexity – Trending Up

Complex Wells - GOM

Complexity parameters:
 >15,000 ft, and/or
 >300 ft water depth, and/or
 >45 deg avg deviation

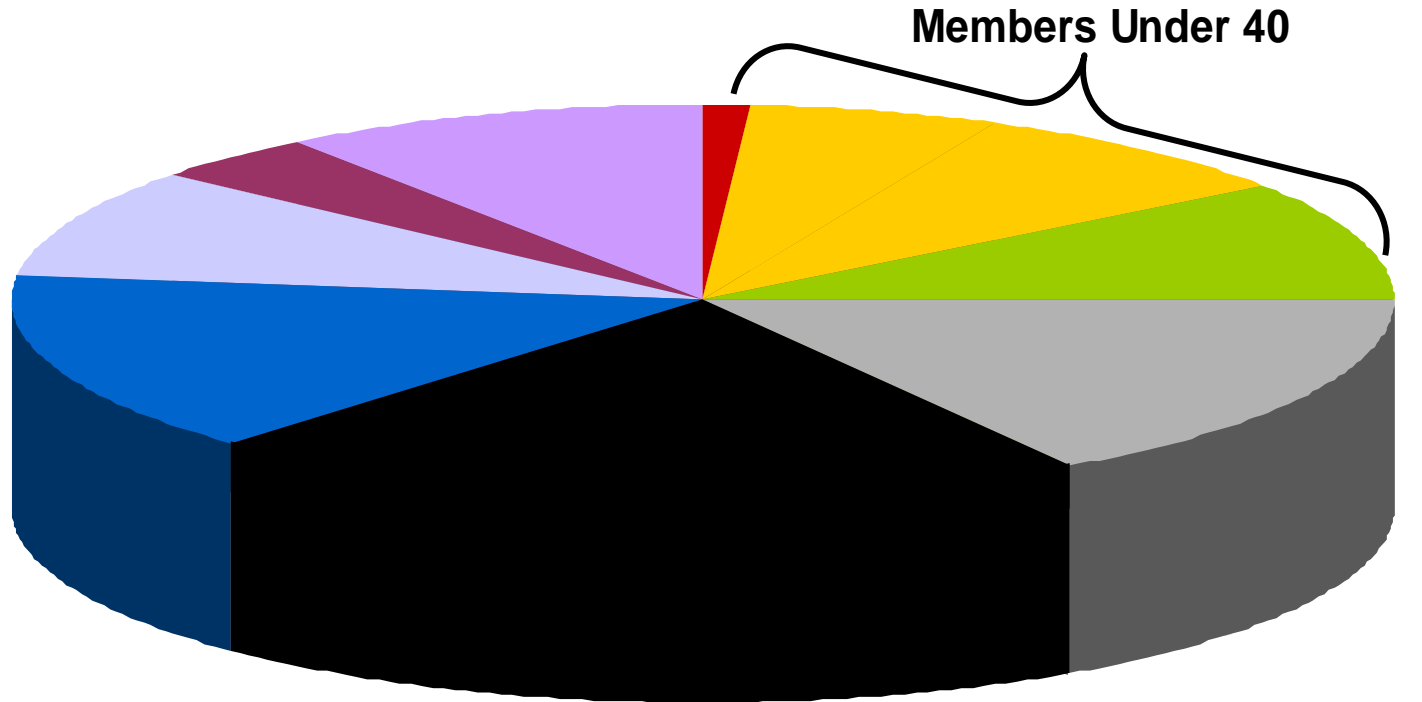


Source: MMS

Technology Trends and Challenges

- **Geoscience Interpretation and Reservoir Modeling**
- **Advanced Drilling Methods**
- **Advanced Completion Techniques**
- **HT-HP Applications for Ultra-Deep Shelf**
- **Real-Time Drilling and Production Applications**
- **Ultra-Deep Water Applications**
- **Increasing distance for Remote Tie-backs**
- **High Performance Environmentally Advanced Fluids**
- **Advanced Testing Applications for Reserve Assurance**
- **Development of Unconventional Resources**
- **Mature Field Exploitation Advancements**

Majority of SPE Member are Over 40: Many Opportunities for Younger Engineers

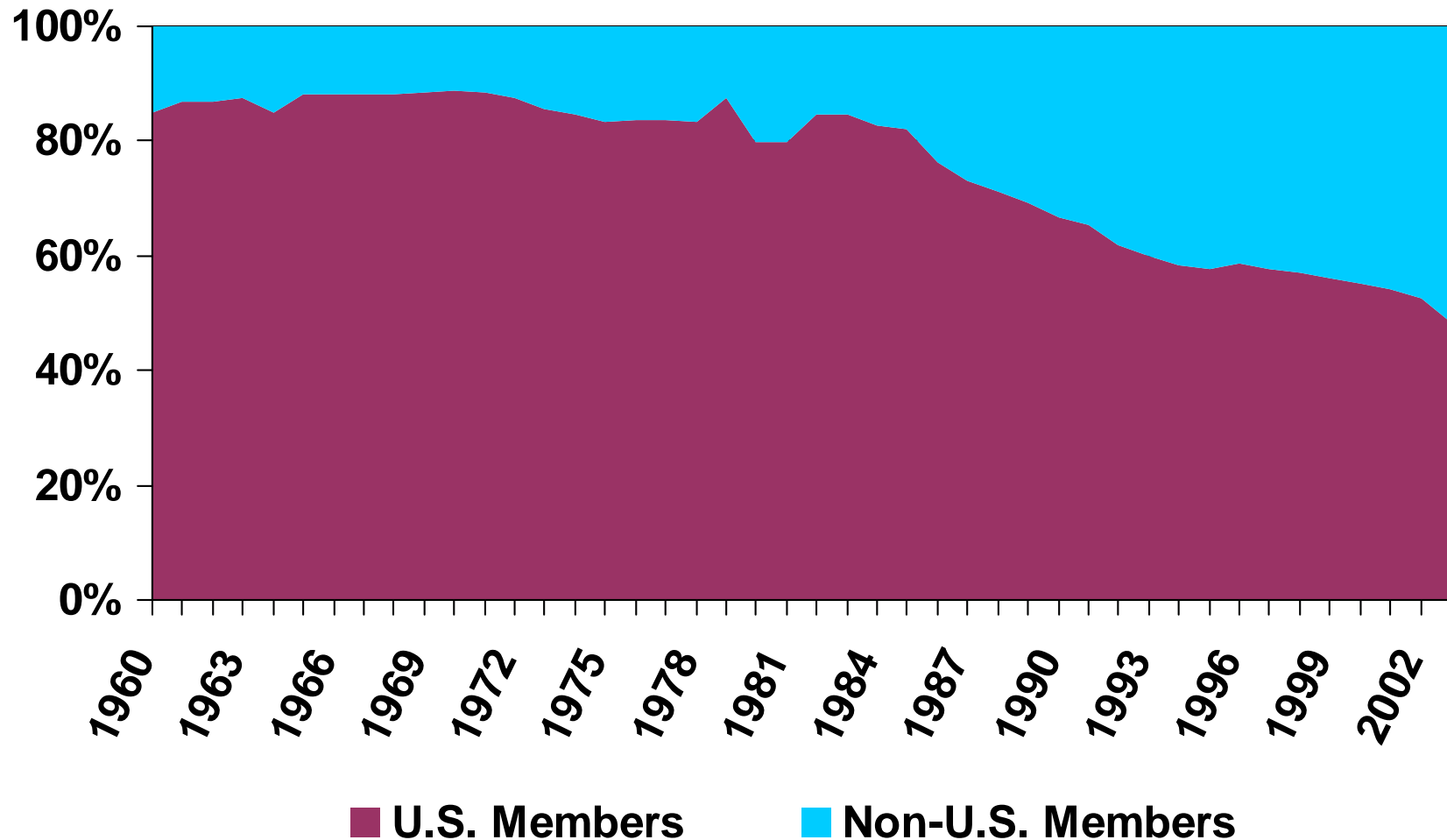


Age:

- 20-24
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49
- 50-54
- 55-59
- 60-64
- 65+

Source: SPE

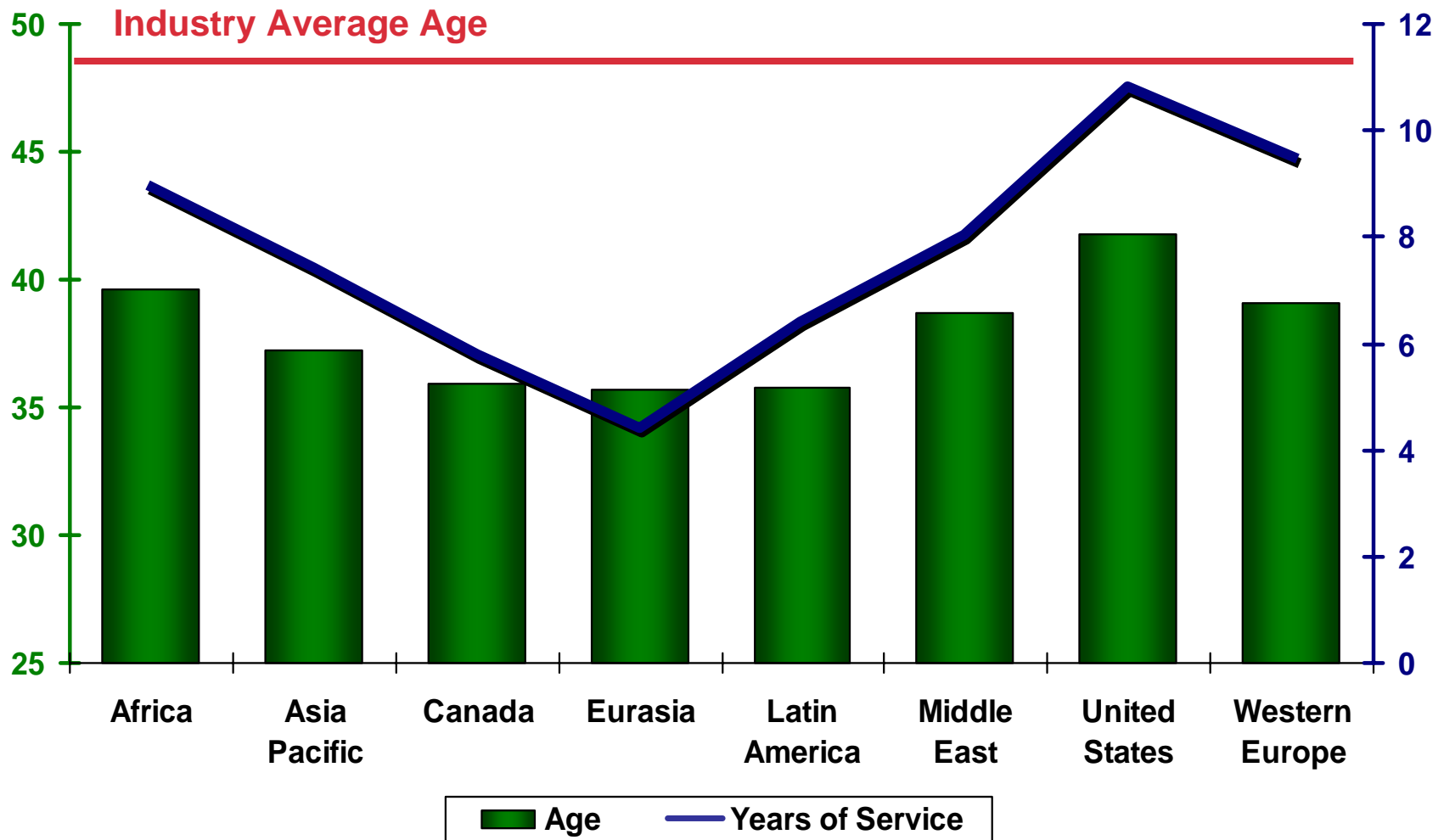
SPE Non-US Membership Continues to Grow



Source: SPE

Halliburton Employee Profile by Region

Age/Service by Region



Questions for the Eastern Gulf of Mexico



Source: MMS

Will the Eastern Gulf be opened for access?

Where will the operations be staged from?

Conclusions

- **Louisiana will be**
 - **An important oil and gas production area for the US but on a declining basis on land**
 - **An important geographic area for Halliburton**
 - **A staging ground for new technology worldwide especially for offshore operations**
 - **A vital source of personnel and offshore expertise**