



Analysis of Modeling & Simulation

HAMPTON ROADS REGION

REPORT SUMMARY
The ASTA Group, LLC • November 2014

This study was prepared under contract with the Commonwealth of Virginia, with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the Commonwealth of Virginia and does not necessarily reflect the views of the Office of Economic Adjustment or the Department of Defense.

Hampton Roads Regional Overview



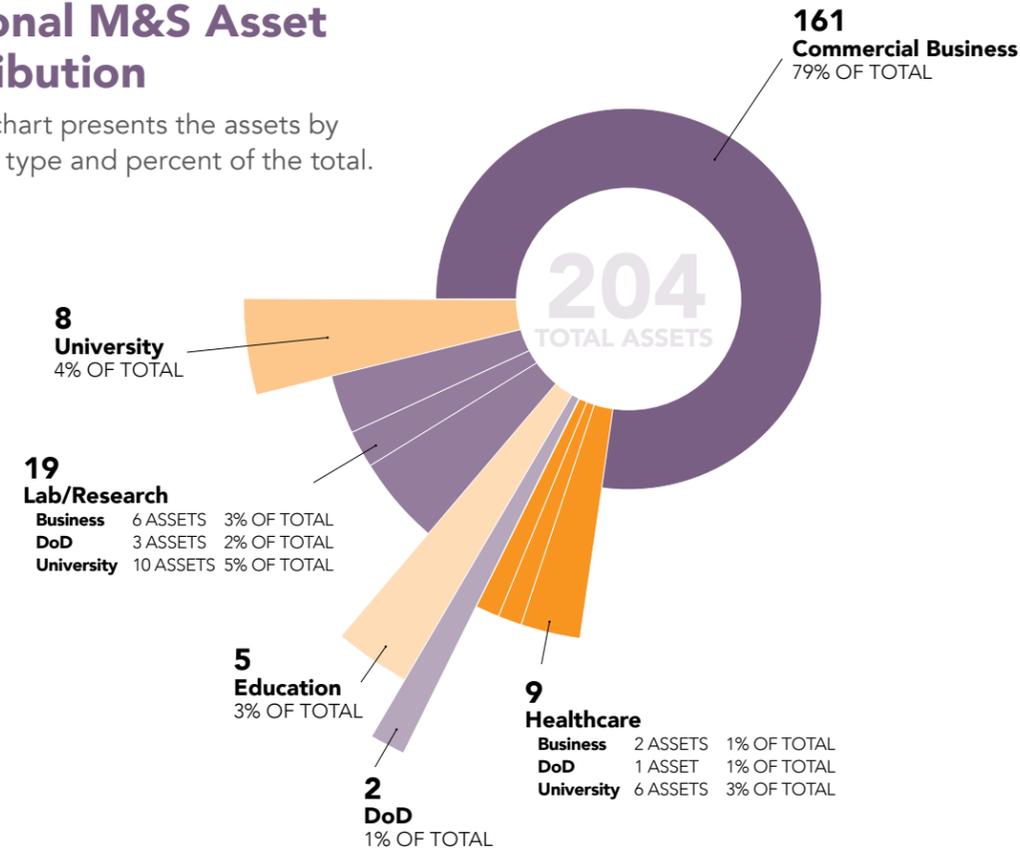
The Hampton Roads region is nationally recognized as a hub for M&S. Two primary needs were identified for growth. The first is venture capital—although money is available, investments are not being directed to M&S development. The second is stronger leadership to coordinate M&S networking and advocate for M&S growth.

Asset Summary

Hampton Roads has a high density of diverse M&S assets. Of the 204 assets identified for this region, a majority of those are categorized as commercial businesses.

Regional M&S Asset Distribution

The pie chart presents the assets by category type and percent of the total.



Regional Employment in M&S

It is estimated that approximately 13% of the Hampton Roads region's total employment is employed in M&S related sectors. Between 0.66% and 0.96% of the Hampton Roads region total employment is M&S specific.

Among the M&S industry sectors, *Computer Systems Design Services* represents the greatest proportion of M&S employment, followed by *Custom Computer Programming Services*; *Scientific Research & Development Services*; *Ship Building & Repairing and Management*, *Scientific & Technical Consulting Services*.

Economic Impact

The M&S contribution to the Hampton Roads GRP is estimated at \$16.7-\$23.9 billion. The total economic impact of M&S on the regional economy is estimated at \$29.9-\$41.9 billion.

Growth projections for M&S industry sectors within the Hampton Roads region range from 15% to 20% through 2020. Analyses project that the region will add between 1,166 and 1,690 new M&S specific jobs from 2011-2020.

Market

Hampton Roads M&S strength is built on defense customers. Market diversification will require seed capital, locating commercial sources of funding, obtaining small business funding, and addressing the risk-aversion of banks to make loans. Stakeholders have the impression that banks lack an understanding of the M&S market, which limits their willingness to loan to small businesses.

Several product areas were identified as ripe for commercialization, including tools for aerospace, healthcare, defense, education, energy and life sciences. Finding new customers is an issue, however, due to the lack of understanding regarding the use, applications and potential power of M&S to increase efficiency, decrease costs and standardize processes.

M&S Workforce

Government M&S assets report difficulties competing with business to retain experienced M&S personnel. Study participants report that specialists in GIS, 3-D modeling and programming languages are difficult to recruit and retain. Transportation was consistently cited as a regional factor negatively impacting employee recruitment and retention.

M&S Networking and Collaboration

M&S networking is robust in this region. Study participants call for leadership to spearhead M&S growth. The decline in meetings and community events presents a problem in terms of supporting sustained interest in M&S. Regional study participants feel that strong leadership is necessary to coalesce the M&S effort and promote a common vision that will receive favorable political attention and unify Virginia's diverse M&S community.

Solutions

Stakeholders see the potential of establishing an internationally recognized M&S corridor of excellence along the eastern seaboard similar to North Carolina's Research Triangle and California's Silicon Valley. To grow a skilled workforce, companies recruit interns from academic institutions across the country, not just the Commonwealth, and work with government organizations to fund internships in advanced specialty areas.

Stakeholders suggest tax credits to reward business collaboration for new products or extend M&S into new markets to diversify the marketplace.



Office of the Secretary of Technology
Office of the Secretary of Veterans and Defense Affairs
Commonwealth of Virginia
P.O. Box 1475
Richmond, VA 23218
804-786-2211



223 West Gregory Street
Pensacola, FL 32502
1-850-912-6793
theastagroup.com



1040 University Boulevard
Suite 100
Portsmouth, VA 23703
757-391-9200
mymic.net



2214 Rock Hill Road
Herndon, Virginia 20170
703-689-3000



Report Description

This report provides regional highlights of a 2013 study undertaken to assess the state of Modeling and Simulation (M&S) within Virginia, analyze its economic impact, and identify projected growth areas. The study produced an inventory of Commonwealth M&S assets, a survey of M&S business regionally, economic analyses of the M&S sector and workforce, and a meta-analysis of previous studies. Focus group interviews were held in each Commonwealth region to provide insight and information about M&S. Participating stakeholders represented academia, government and industry. Impact Analysis for Planning (IMPLAN®) and United States Bureau of Labor Statistics data were used for the economic and workforce analyses. The full report can be found online at the following websites:

ModSim Connected: modsimconnected.com

Secretary of Technology: technology.virginia.gov

