

Education and Workforce Work Group Brief

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Survey Assets and Programs

- Develop a capabilities database that includes:
 - Universities
 - Colleges, community colleges
 - Vocational entities
 - Training organizations
 - Innovative K-12 programs
- Consider a broad range of necessary disciplines:
 - Engineering
 - Business/economics
 - Psychology/sociology/ethics
 - Legal/regulatory/IP
 - Cybersecurity
 - Technician training
 - Pilot training

Assess Gaps/Needs from Companies

- Large vs. small company needs
 - Categorize the specific hurdles to entry or cost challenges facing companies in this market, or trying to break into it
 - Generate a list of possible tools the state could employ to make VA a more/most desirable state for conducting unmanned vehicle work
- Domain-specific needs:
 - Unmanned vehicle markets for air, land, and maritime are relatively capital-intensive and high-tech
 - These markets encompass the full range of skill sets needed for success, including R&D, design, manufacturing, and testing

Assess Gaps/Needs from Companies (cont.)

- Workforce gaps by region (NoVA, SoVA, Hampton Roads, SW)
 - VA already does much to attract and retain businesses
 - Assessing the tools and tactics that have already been used in other similar (or different) market segments/industries would be ideal
 - Given the number of companies located in VA that already participate in this market, or could participate, great care should be taken to focus on retaining assets while attracting opportunities
 - Focusing on the list of strengths and natural opportunities that Virginia offers is important, including:
 - Proximity to Washington, D.C.
 - Proximity to and/or home to a number of military headquarters
 - Proximity to vast bodies of water
 - Significant amounts of open land
 - Diverse manufacturing capabilities
 - Figuring out how to best advertise these strengths and advantages to organizations outside of the state and how to best make companies already in the state aware of unique programs will be part of the challenge for this effort

Novel Ways to Bring Educational Institutions Together

- Develop innovative university programs that focus on industry needs (e.g., highly skilled STEM students), as well as manufacturing skills, cybersecurity, and mechatronics:
 - Majors
 - Dual majors
 - Minors
 - Certificates
 - Could run the gamut from vehicle design to software applications to marketing specialties
- Reaching K-12 with innovative programs
- Cooperation across state colleges and universities to reciprocally recognize credits in specially tailored degree fields
 - Community college program development
 - Community college-to-university pathways

Innovative Ways to Bring Universities and Companies Together

- Build upon the fact that Virginia already fosters a robust link between its universities/community colleges and businesses within and outside of the state
- Develop internships/partnerships between universities and corporations:
 - Maybe as part of incentive package
 - Example: Offer Virginia airports as the base of operations for commercial UAS interests and deliver virtual access to state educational assets
- Development of hubs that include certificates or continuing education; examples:
 - Innovation Park
 - VT Corporate Research Center
 - UVA/VT Center in Falls Church
 - GMU
 - Danville Community College
- Consider being somewhat exclusive with respect to certain rights, privileges, accesses, and permits (unless businesses and/or universities have demonstrated relationships with their respective counterparts)

Obtaining the Data We Need

- Capabilities database – Secretary Jackson’s office
- Gaps analysis – Survey of commissioners plus targeted outreach to companies inside and outside of Virginia
- Novel approaches – Subcommittee with input from all commissioners
- Incentive programs - ?