

NVRC Workforce Task Force

Business Community “Listening Session”

January 24, 2014

Main themes:

Education:

- Virginia is a leader in STEM demand and STEM production
 - #1 state in “employment in high-technology establishments as a percentage of total employment”¹
 - Top quartile (one of top 8 states) in “science and engineering degrees as a percentage of higher education degrees conferred”²
- Still have challenges and can do more
 - Tech industries are faced with looming large retirement numbers, temporarily stalled due to economic uncertainty, but expected to cause a workforce supply deficit damaging to the economy
 - Voluntary attrition among young professional is too high in some sectors³

Businesses seek NVRC’s involvement to:

- Recalibrate culture: reorient Parents/Students to a “*K-thru-Career*” approach that promotes consideration of careers throughout secondary education.
- Reorient NoVA’s culture from “everyone goes to college” to everyone will be ready for post-secondary education and training,” promoting a greater variety of higher education options and employer-supported, post-secondary training. Demonstrate that employers seek skills that match employers’ needs, and that businesses are willing to work with graduates.
- Aggressively establish pathways with multiple points of entry and exit as part of the education experience and the workforce experience; link degree programs with professional certifications aligned with available jobs, and emphasize enhanced technical training/certifications for existing workers.
- Support a reduced focus on passing tests and instead promote thinking and problem-solving; consider lessons from PISA test, where questions are more thinking based and focused on application of knowledge in business.
- Now more obvious than ever: STEM curricula needs to be better communicated sooner → at the elementary school level and continued into high school curriculum silos.
- A major overhaul is needed of our current educational approach in order to better educate and connect students with workplace skills:
 - Give school boards flexibility to waive Carnegie units (142 hours currently – herding or “time stamping” students) so students can move forward at a faster pace if they know the information;

¹ National Science Foundation (2012) Science and Engineering Indicators, 2012.

<http://www.nsf.gov/statistics/seind12/c8/c8s6o54.htm>

² National Science Foundation (2012). Science and Engineering Indicators, Higher Education.

<http://www.nsf.gov/statistics/seind12/c8/c8s2o19.htm>

³ Aviation Week 2013 Workforce Study

http://www.aviationweek.com/Portals/aweek/pdf/AWST_2013_WorkforceIssue.pdf

- Challenge the metrics of accreditation agencies: provide school boards with flexibility, accountability and clearly defined responsibilities (currently, accreditation agencies stifle creativity/innovation/flexibility);
- Replace teaching-to-the-test strategies with project-based and problem-based learning approaches;
- Encourage schools to create pilot programs within school-choice options, enable school districts and schools to establish their own metrics of accountability, move away from fear of making mistakes, and allow parents and students to self-select for participation in pilot programs;
- Help school leaders by giving them: Authority, Accountability, Responsibility, and Incentivization for *real* progress – real progress meaning percent passing skills-and-knowledge test, earning technical/professional certifications, and preparation for technical jobs or advanced education or training;
- Emphasize the T and E in STEM, recognizing that Technology and Engineering combine principles of Science and Math in real-world problems and experiences; and
- Provide regional collaboration to address under-represented populations in STEM, and engage these students at the elementary school level.

Collaborative Engagement:

- Build connections for schools and businesses through advisory committees in technical and professional courses in middle and high schools, internships, mentorships and job shadowing.
- Establish a regional model that unites key sectors, enhances stakeholder collaboration, and establishes strategic partnerships.
- Recruit a wide variety of regional leaders who can be committed to the cause and be willing to engage in education policy.
- Recommendation: the region, perhaps through the NVRC, provide the neutral forum for *all* NoVA workforce stakeholders *and* use a neutral facilitator/convenor (someone who has no agenda in the region – it was opined that even NVRC’s Commissioners have interests, for example as on local bodies providing funding to public schools).

Immigration:

- Encourage businesses to actively engage in K-20 as part of their corporate strategy recognizing benefits later in hiring and retention.
- Explore how NoVA benefits from H1B (scientists, programmers, engineers), and engage our elected federal representatives to back H1B visa reform, and
- Alternatively, emphasize education and training programs that engage NoVA students in jobs currently filled by H1B visa holders, or jobs that are currently unfilled because of national security concerns.

Colleges:

- Concentrate on helping students to be *focused* (vs. four years, no job and lots of debt);
- Enable graduates to be *work ready* at graduation;
- Promote internships and mentoring in close cooperation with the business community;
- Change the established university culture from an “*Academic-Excellence Business*” to the “*Workforce-Preparation Business.*”

Retraining:

- Engage employers in promoting internal training for employees if a company is retooling or reorganizing;
- Promote multi-stakeholder cooperation among industry, employees, unions and higher education;
- Establish career pathways with well-thought and clearly defined entry and exit points (certificates, classifications, apprenticeships, etc) to provide an effective bridge from one job to the next;
- Emphasize that retraining does not guarantee a similar job or the same pay – but establishes competency, relevance and continued employment.

Preserve Dynamic Economic Environment:

- Vigilantly guard Virginia's healthy business environment
 - Low taxes & lean regulatory environment (continue to run "*lean and mean*")
 - Highly skilled workforce
 - Quality of life to include affordable workforce housing
 - Focus
 - mid-skill workers
 - small-mid size companies.
- Focus efforts in Northern Virginia on where help is most needed in our region's economy:
 - mid-skill workers
 - small-mid size companies.

Workforce Training:

- Funding models have led to a variety of individual programs throughout Northern Virginia, either disconnected or without coordination among regional workforce programs

Participants:

Mike Daniels – Chairman LMI, VA State Chamber Blueprint leader for Workforce and Education

Michael Ferraro – Pres/CEO Training Solutions, Inc, representing NVTC

Matt Kellam – Human Resources Dom/VA Power, various workforce efforts around the Commonwealth

Ed Swallow – VP Business Development Northrop Grumman, and Chair NDIA STEM Workforce Division

Jim Egenrieder – Chair of Arlington Chamber of Commerce Education and Workforce Committee

Co-chair of NVTC Education and Workforce Committee

Task Force Members (present):

Penny Gross – meeting Chair

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Staff:

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