

**Middlesex 3 Coalition Annual Meeting**  
**Current and Future Workforce Development Needs**

Good morning and thank for this opportunity to speak at your annual meeting and to address Current and Future Workforce Development Needs

Some might think it is hard following a great educational leader like Chancellor Moloney talking about a world-renowned research university like UML.

Personally, I feel lucky to be able to ride in the slipstream they create for MCC. They raise the profile of higher education in Lowell and that helps the city and it helps MCC. So I am happy to draft right behind because, just like in NASCAR, we go faster in this partnership than going alone.

To address today's topic, I am going to examine

- What MCC does to train our existing workforce, and ....
- What MCC is doing to educate and train the workforce of the 21<sup>st</sup> century.

**Four Types of Workforce Development at MCC**

- The Non-Credit side of the House--Corporate Training Division
  - a. We all know the great job Judy Burke and her team doin training existing workers.
  - b. This team has educated and trained thousands of employees at hundreds of businesses, industries, and municipalities throughout Middlesex County.
  - c. They offer cost-effective, customized training directly on-site for an employer.
  - d. They work with employers to write and implement Massachusetts Workforce Training Fund grants of up to \$250,000 to pay for training to improve employee skills
  - e. This is important work and necessary to address evolving skills and to keep our workforce current and well trained
  - f. Companies here today who have partnered with MCC on workforce training include....
    - i. Enterprise Bank
    - ii. Jupiter Networks
    - iii. The City of Lowell

- iv. Lowell General Hospital
- v. Lahey Health
- vi. Lantheus Medical Imaging
- vii. E-Ink
- viii. Macom
- ix. The Mitre Corporation

Now over to the credit side of the house where students' complete certificates or degrees that prepare them for careers or to **transfer** to colleges and universities to complete bachelor's degrees.

- Let's start with traditional areas like Health Care where a two-year degree will facilitate entry into a good career.
  - a. There is a growing need for well-trained health care professionals and a need for community colleges to produce highly skilled
    - i. Nurses
    - ii. Medical Assistants
    - iii. Medical Lab technicians
    - iv. Sonography and radiography technicians
    - v. Dental Hygienists
    - vi. Dental Technicians
  - b. Great programs that lead to good jobs
  - c. But, these are costly programs that run at significant deficits which means each graduate costs us much more than **they** or the **state** contribute
  - d. Additional two-year career programs include programs like
    - i. Criminal Justice and Paralegal
- Another role we play is to be the gateway to higher education for many low income, first generation students, and those not sure if college is for them, or not sure what direction they want to go in. Also, this includes students who know **exactly** where they want to go and have figured out that you can go anywhere from MCC, you can just get there a lot cheaper starting with us.
- The majority of our students come to MCC planning to transfer and get at **least** a bachelor's degree.

- a. For each of these students, we have a set of common outcomes based around communication, quantitative skills, critical thinking skills, and social responsibility.
- b. And we are increasingly offering entrepreneurship courses and infusing entrepreneurship concepts into many courses
- c. 25% of students earning Bachelor's degrees in the Commonwealth are community colleges transfer students
  - i. These students, at very high rates, **stay** in the Commonwealth and will be the backbone of our workforce for a generation

Now let's get to the kind of workforce we need to support a 21<sup>st</sup> century high tech economy in the Commonwealth of MA. UML and our other superb public universities play a **key** role in this sector, but so does MCC.

### **Vocational and Technical Education for a High-Tech Economy**

These programs at MCC teach mid-level skills that **directly** support our growing high tech economy. I will give you two examples of 21<sup>st</sup> century vocational programs at MCC

#### **1. Biotechnology**

- a. These are your lab workers for the growing pharmaceutical industry
- b. MA has third largest biopharma sector in the US after CA and NJ and we want to support growth in this sector
  - i. It is often stated that every PhD in the pharmaceutical industry needs 5 lab techs
  - ii. That's what we produce
- c. No easy program
  - i. You take several semesters of biology including microbiology
  - ii. Then several semesters of chemistry
  - iii. Then, because biology and chemistry are not hard enough alone you get to take Biochemistry
  - iv. And also stuff like immunology
- d. 100% placement rate—every graduate gets a job
- e. But all plan to get additional degrees
- f. All plan to move up the career ladder in this dynamic sector

- g. One of our program graduates, Bob Kenyon, runs manufacturing for Biogen, and he will be our graduation speaker this year.
2. **Cybersecurity** is another 21<sup>st</sup> century vocational program at MCC
  - a. 2-year program gets you ready for industry certification
  - b. Jobs start at around \$60k
  - c. Require significant math and programming skills
  - d. Even take courses like Ethical Hacking
  - e. Also require the ability to work in teams and have good communication skills
  - f. Every week we hear about major hacks. Does anyone think that the demand for front line cybersecurity technicians will decrease?
3. These vocational programs **also** require some costly labs and equipment
  - a. MCC recently invested several hundred thousand dollars in new cybersecurity labs on Middle Street and hired a new faculty member
  - b. We choose this location to better connect with the great computer science programs at UML
  - c. The Biotechnology program has been on a bit of a funding rollercoaster the last three years.
    - i. First, we were awarded a \$3m Mass Life Sciences grant to rebuild our labs
    - ii. Then we got an additional \$24m from the 2008 Higher Education Bond to build a new Biotech building
    - iii. Then it all went away when it was decided to prioritize mass transit investments
    - iv. But, just last week, in the Governor's Five Year Capital Investment Plan we got our \$3m Mass Life Sciences Grant back.
  - d. We hope we can continue to grow these programs so we can build the workforce that is needed in these critical sectors.

### **Call to Action**

- Building the workforce of today and tomorrow is something we **all** have a stake in.
- We cannot do this alone and we could use your support
- First, some things that are just better taught on the job

- Many areas, like nursing have rigorous clinical experiences but we could use these types of experiences for a broader range of students
- Internships are a great way to help build the workforce and it is a great opportunity to get some work done by eager students and check out future employees
- We also have Advisory Committees for each program that help us keep these programs current and up to date
- Companies like MITRE have helped us develop our cybersecurity curriculum
- Also, we need you to advocate for public higher education to make sure we have the funding ***we need*** to produce the workforce ***you need***.

Thank You!