

Good Morning Representative Christiana and members of the House Education Committee. Thank you for inviting me to make comments at the public hearing on higher education readiness for career success.

I am Nancy Dickson, Vice President of Community Relations and Development for the Community College of Beaver County.

I understand that your interest here today is to gain insight into the effectiveness of institutions of higher education on preparing Pennsylvania students for the new workforce needs. You have heard some excellent testimony from my distinguished colleagues who are here today.

From the statewide perspective offered by the Pennsylvania Commission for Community Colleges that networks all 14 community colleges, I want to share some basics.

- More than 87,950 students were enrolled in credit career programs leading to a degree, certificate or diploma in 2012-2013.
- Greater than 19,180 incumbent workers were trained at the community colleges through the WEDNet PA program during that same time
- Over 1120 companies contracted with the community colleges in Fiscal 2012-13 to train 30,205 employees representing a total employer investment of \$13.3 million dollars.

Now, there is no need to go into the capital needs of community colleges in great detail but I would like to mention, for the record, that in a recent study by the architectural firm Stantec that more than \$726 million in capital is needed at PA community colleges with over 58% of that directly tied to instruction.

- Nearly \$296 million is needed to update academic programs at existing locations
- And an additional \$127 million is needed to EXPAND academic programs into new service areas.

That is a broad picture. Let me offer you a snapshot of what we are experiencing at the Community College of Beaver County and perhaps help you get your mind around what readiness means. CCBC is one of the smallest of the 14 Community Colleges in PA yet we are less than two miles from an industrial corridor of major companies, like AES, BASF and NOVA Chemical, that require a very skilled workforce. That corridor is also the proposed site of the Shell cracker facility. It would be an understatement to say we are keenly aware of the need of a skilled workforce with this happening at our front door.

Let me breakdown that \$296 million dollars of updates needed for an academic programs. Public officials at all levels and business and industry representatives are asking community colleges and others to get students ready for the new workforce which requires some sophisticated equipment plus professional instructors with high levels of experience with that equipment and a new way of approaching credentialing. The points to consider:

Point one

- A Qualified pool of professional trainers from industry to the classrooms.

CCBC partnered with the other PA Community Colleges for the first round of the Trade Adjustment Assistance Community College and Career Training (TAACCT) grant. Our portion of the \$20 million dollar grant awarded to PA allowed us to introduce and equip our Industrial Maintenance program that now includes welding, wastewater treatment operator and mechanical technician plus CLD training. The approximate \$450,000 that we received basically allowed the purchase of one room of equipment and instructor costs. Could we have started that program without the grant? No. Can we grow the program without additional funding? No. Is there an increase in demand for these skilled workers? Yes

Our instructor for this grant program came from industry with over 20 years of industrial maintenance experience. He was making well over \$100,000 annually. We could not afford to pay that much for his services but because he was retired and because of his passion for the industry, his willingness to teach from his knowledge, we were able to offer him the opportunity part-time. That skill base of knowledge is not in academia...it is in industry but the salary difference makes it impossible for a community college to hire those types of instructors. However, an opportunity might well exist for the creation of a resource pool of retired industry professionals willing to work with higher education on developing these training/ instructor positions at community colleges.

Point 2 –

- Consider effective cost sharing of equipment acquisition.

Our one room of equipment costs over \$250,000. The room is modeled after an actual process in a treatment plant. Instructor adaptations make it useful for training for entry level at other plants and industries. Now, with industry involvement, we learned what upgrades are needed to expand the training but the cost is prohibitive. Even the maintenance is costly. This is not your ordinary Lowe's pipes and valves. One meter gage alone is \$1800.

CCBC is in the award stage of a National Science Foundation grant for \$200,000 to develop a Process Technician Program. We partnered with four community colleges in Houston, TX to adapt the course model and program. In order to learn how the program was delivered, our team went to visit the community colleges, tour their facilities and visit with their industry partners. On our visit to Community College of the Midlands, we saw a training room the size of CCBC's Athletic and Event Center. All the equipment inside was provided by a major industry partner. The equipment we found out came from their "bone" field or equipment that had been replaced or upgraded at the plant. In another outside area, Industry engineers helped assemble an exact replica of the treatment plant. Retired employees were instructors. The partnership allows College of the Midlands to offer a process technician two-year training program both at a certificate, diploma or advance to a degree program. Graduates moved to jobs at the area chemical industries. The demand for the graduates was more than could be filled. It is a symbiotic relationship...yes, the State of Texas is also involved in support funding of the community college and the revenue generated does allow for growth and sustainment. The point is the sophisticated equipment for the program comes from a partnership with local industry. Here is another resource connection that could assist in developing new educational solutions. The benefits are two-

fold. Maintenance of that equipment is just as important as getting the equipment and it creates another level of training.

We also saw in Houston that the Dean or head of the Process Technician training program at The College of the Midlands and the other colleges we visited were once in industry. The need to have technical faculty is only one step, the need for division chairs and department deans to lead the programs is equally important. Industry must now be at the program development stages to create the course material.

Point three:

- the new approach to credentialing - Stackable Credentials

The success of our program under the TAACCT grant is encouraging. In our current program, of the 24 students in the welding class, 24 completed and moved to jobs. 26 started in the Industrial Maintenance Technician class and only 11 completed. In the CLD class of 26, 19 completed. The Wastewater Treatment Operator class is at 11 individuals and is on-going. Our industry partners have told us that the ideal candidate is a “jack-of-all-trades” able to move from one place to another. For example, a certified welder could take additional courses and become certified mechanical technician. Those certification or credits earned would “stack” and eventually become an Associate degree transferable to a four-year institution for a bachelor’s degree. The creation of pathways allows a worker to advance through education while advancing in the workforce. As the need for welders diminishes, the worker would move to another area. CCBC is currently engaged in this stackable credentialing concept. The key to these pathways requires business and industry to be right at the table as the course models and programs are created. Advanced degree institution need to partner as well.

At CCBC our Workforce Training programs that are designed for employers require us to develop with a company a training format that includes highly skilled instructors. We pull our instructors from top Fortune 500 companies and that is a costly endeavor. However, the company that is utilizing CCBC as their training resource expects a high level of delivery and it is our job to deliver at a quality and a cost that is beneficial for both parties. These workforce training programs are cost savings for the industry and many are provided funding through WedNet. However, we cannot continue to pay companies to train or retrain their employees. They are getting a savings by having the training outsourced through the community colleges. The value to the company, community college and the worker is a win-win for all involved. Companies know this and can expect to pay for that training. The need is there and we have the delivery system in place. So, the State may need to support and encourage use of workforce training at local levels...it is just good business. **It may just be a matter of changing or incorporating language that sends a better message and not more money...better use of the money and not just to one agency for distribution.** Community colleges are collectively asking for an increase in the Community College line item. Our point has been that the money is being used effectively and we need more of it. If you are referring to a separate line item in DCED, it may be best to specify it so there is no confusion.

Just looking at numbers is not enough. There is much more needed than a single training program. Our business and industry partners are seeking a skill-trained worker but also with soft skills like critical thinking, communication, time management, personal hygiene to name a few and ,of course, drug and alcohol free. Development of those soft skills is a culture shift that can be accomplished through multi levels of partnerships throughout middle school and high school with business, K-12 education and Higher Education.

This year, we had access to data demonstrating the number of Beaver County high school students who had filed applications for federal financial aid. While this number will not show all recent graduates who enrolled in college, it provides us with a strong indicator of intent and financial need. As of June, slightly over 900 of the more than 1800 graduates of the Class of 2013 applied for financial aid, and as of fall 2013 approximately 25% of those applicants enrolled with CCBC. As we looked closely at the data, at least 20% of the graduates from each high school applying for financial aid enrolled with CCBC last fall. Based on the analysis of this data, one in four graduates of a public high school in Beaver County in 2013 enrolled at CCBC last fall.

We are experiencing an overwhelming need for remedial education in order for potential students to take college level courses at CCBC. With an open door acceptance policy, we do see students who are not likely to be able to enter college elsewhere but are hopeful to get into a program that can give them an opportunity to get a job, enhance their skills or transfer to a four-year school. We are now becoming a first choice for parents who see the rising cost of education being at least manageable with two years of college completed at CCBC for their children. Students are also more logical about going into huge financial debt in a four year school electing a two- year transfer. Companies are seeing the value of a two-year associate program for their entry level workers and the value of specialized certificate programs for their workforce. The community college is an intrical part of the whole workforce readiness picture.

The partnerships with Job Training, the Southwest Investment Board and the new sharing opportunities with the CTC all underscore the need for wider and stronger collaboration and a breaking down of the silos that separate that exchange of facilities and personnel.

We are partnering with the Allegheny Conference on the next round of the TAACCT grant plus other areas higher education institutions because business and industry need to be part of all development as we move to the workforce readiness model.

My final point is

- The need for Career Pathways from middle and high school with STEM emphasis.

Part of our NSF grant is the development of career pathway awareness programs that will target high schools to start. Linkage of career opportunities that are available with science, technology, engineering and math basics is now more important than ever. Also important is the encouragement of young women to embrace the STEM programs. At a recent STEM conference in Pittsburgh, I networked with companies, organizations and school districts advancing STEM in the classrooms. While impressive, the

David Lawrence Convention Center was not packed and not every area of our region was represented. There are excellent models being developed that demonstrate career pathways and focus on STEM. Pockets of business and industry partnerships with education are happening but not enough.

Our efforts can not only be in the classroom. Perhaps we need as a State, as Higher Education leaders and industry to closely partner to re-educate parents about STEM opportunities throughout Pennsylvania. We must make this an on-going effort to go beyond the Science Fair Award that feels good and sits on the shelf. As a group we need to show science as the happening lifestyle, make technology a household career move and not just another device, show engineering as cool and demystify math. That is a culture change.

At CCBC and other community colleges we are putting these programs on the drawing board now because we are in a position to make a huge impact on the Marcellus Shale and/or other companies coming into our community. Putting these programs into place comes with a price tag for the classroom equipment and training labs. Our State needs to put some skin in the game at different levels. There are other states doing exactly that to get industries into their states. Industries need a trained workforce...it is that simple.

So in conclusion...

Are Pennsylvania's institutions of higher learning effectively preparing Pennsylvania students for the new workforce needs? We may be just insane.

Albert Einstein described insanity as "doing the same thing over and over and expecting different results. " Perhaps we need to change the State, educational and business paradigm. Perhaps the question that needs to be asked is...

Are partnerships with Pennsylvania's institutions of higher learning being encouraged and supported to effectively engage with business and industry and utilize State funds collaboratively to prepare the Pennsylvania students for the new workforce need s? We are doing that at CCBC and we are responding to the needs of our Business and Industry partners. It comes at a cost and a reallocation of resources. Pennsylvania may also need to make that decision and commitment.

Thank you.