



Public Policy Forum

Community Colleges and New York State's Workforce

June 27, 2007

Welcome and Opening Remarks

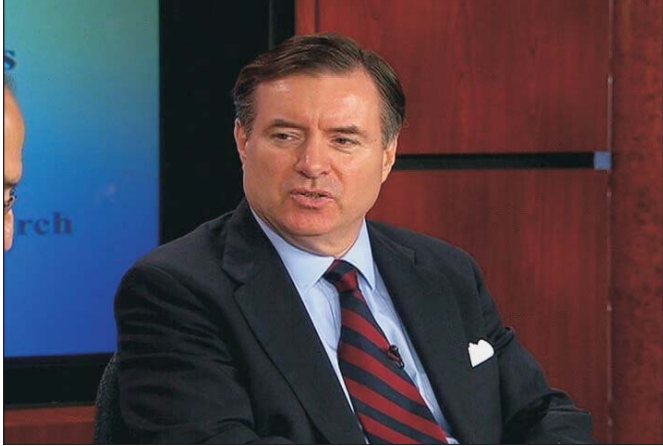
Richard P. Nathan:

We are honored and pleased to conduct this public forum to help people learn about the role of community colleges in the New York State economy and for the state's workforce.

The first speaker today is Dr. John Clark, who on May 31st of 2007 was named interim chancellor of the State University of New York. Dr. Clark has had a distinguished career. He spent 17 years as a Wall Street public finance and municipal bond expert, specializing in health and higher education. He joined the State University of New York four years ago, and in those four years has been actively involved in arranging for new leadership on SUNY campuses. He has been the leader and point person in arranging for and working to set up new presidencies. In fact, he did such a good job that now he has a very big assignment as the interim chancellor at an exciting time of challenge and change for the State University of New York. I am honored, John, to welcome you and turn to you for your remarks.

John B. Clark:

Thank you, Dick. I am Dr. John Clark, interim chancellor of the State University of New York. It's my great pleasure to welcome you to today's forum on New York's Community Colleges.



The forum is presented by the Rockefeller Institute of Government, the public policy research arm of the State University of New York. I'd like to thank the forum's participants: SUNY Trustee Edward Cox, who co-chairs the SUNY board committee on community colleges; Dennis Golladay, SUNY vice chancellor for community colleges and

past president of Cayuga Community College; Donald Katt, president of Ulster Community College; Phil White, Hudson Valley Community College's dean of the School of Business and Engineering and Industrial Technologies; Robert Brower, CEO of the Institute for the Application of Geospatial Technology of Cayuga Community College; our moderators, Dr. Richard Nathan and Robert Ward from the Rockefeller Institute; Steven Bruckman, executive vice chancellor of the California Community Colleges; Edward Reinfurt of the New York State Foundation for Science, Technology and Innovation; and Mario Musolino from the New York State Department of Labor.

Now let me provide a brief overview of the SUNY community colleges. There are 30 colleges located through our great state, and they play a critical role in the state's economy and educational system. They account for more than half of SUNY's overall enrollment of 418,000 students.

During the past five years, SUNY community colleges experienced a 20 percent rise in enrollment, or nearly 40,000 students; consequently, the demand for higher education at the community college level is at a peak. Not only is the number of high school graduates choosing community college continuing to increase, but so also is the number of working adults seeking to retool their schools for a second or a third career.

The year 2007 proved to be a hallmark in the history of SUNY community colleges as the one millionth degree was awarded and, this year, more than 32,000 SUNY community college students received degrees. Approximately 25 percent of SUNY's baccalaureate degree recipients each year get their educational start at one of SUNY's community colleges. The bottom line is that demand for a community college education is growing and SUNY's community colleges are ready to answer that call.

Today's moderators and panelists will be discussing a variety of issues, challenges, and potential areas of improvement that exist within the community college system in New York State, with a sharp focus on the role of community colleges in workforce development.

In today's forum, we'll hear from our experts in much greater detail on the critical importance of our community college in New York State's economy, as well as a very interesting comparative discussion of the role of California's community college system in economic and workforce development. I know you will find the discussions most informative and thank you very much.

Richard Nathan:

Thank you, Chancellor Clark. It is now my pleasure to introduce our next speaker. Edward Cox is a partner of the Manhattan law firm, Patterson, Belmont, Webb and Tyler. His bachelor's degree is from Princeton, where he was a student at the Woodrow Wilson School of Public and International Affairs. Ed received his law degree from Harvard Law School, and 12 years ago was appointed to the State University of New York Board of Trustees. He is a founding director, and formerly was the chairman of the Student Sponsor Partnership for inner city high school students. He currently serves as chairman of Parks, Recreation and Historic Preservation, and he's a member of the State Commission on Judicial Nomination for the state's highest court, the Court of Appeals. Ed is a distinguished public servant, a person I've come to know well and admire. I have to add it was Ed who encouraged us, because of his enthusiasm and great interest in today's subject, to hold this forum.

Introductory Statement: Community College in the State Economy

Edward Cox:

Thank you very much, Dick. In order to really introduce this program, we have to be frank about the basic problems that our state is facing in the economic arena, particularly upstate. We have extraordinary economic problems; it's not always been so.



We have a very good base of businessmen and skilled workers. When you think of Buffalo, you think of its reputation in the past as a center of commerce and manufacturing. When you think of the names of Xerox, Carrier, GE, or IBM, you associate them with Rochester, Syracuse, Schenectady, and the Hudson Valley. You realize that we have a great base

of businessmen and skilled workers who are ready to build a new economy, particularly for upstate New York.

To do that, though, we need very good workforce training. The community colleges of the State University of New York are extraordinary institutions. Our community colleges are unique American democratic institutions, which grew up as institutions that give equal access to higher education for students, and also for comprehensive community colleges, job training.

On the job training side, our community colleges are lifeboats for workers when our economy is in a downturn. We see that when the economy goes down, the enrollment in community colleges goes up. Our workforce has confidence in our community colleges, giving them the chance to recreate themselves, to find new jobs, or to improve their training for the jobs they are in.

Our community colleges are ideally suited to train the workforce of the future. They train students not just for a job, but for a lifetime of productive work in the new economy. Our community colleges give general skills as well as specific skills. And they are also ideal one-stop shopping places, as job centers if you will. They are major local institutions, which are supported both locally and by the state. As such, businesses come to them to find trained workers, and workers go to them for access to higher education and for individual job training.

Economic development organizations can look to them to attract businesses to their areas. Community colleges can create an attractive local cultural environment, through their general programs, for the upscale workers of high-tech companies. And because New York

is a high tax state, we need to have high-tech companies. And to attract high-tech investment, we need to attract, train, and keep a high-tech workforce.

The problem, though, is that of the \$1.2 billion that goes into workforce training in the state from federal funds and state funds, community colleges are on the sidelines. They are seen as just another vendor that's bidding to give their services, along with a lot of other smaller and less institutional organizations.

Other states, successful in creating high-tech industrial centers, have put their community colleges front and center in their job development and job training programs — states such as North Carolina, Arizona, and California. That's one of the purposes for this forum: to take a look at what other states have done, as well as look at the bright spots in some of our community colleges and where they have taken the initiative. For instance, Cayuga Community College has created a job center where businesses, workers, and economic development organizations can come together. Cayuga Community College also received federal funding to establish a Geospatial Institute, which we will hear more about later.

Onondaga Community College has its management institute, which is very effective in helping to improve the workforce in the Syracuse area. Hudson Valley — and you'll hear more about this later — has been very important in attracting and building the nanotechnology industry here in the Capital region.

So, that's the purpose of this public policy forum: to talk about our successes and see how we can spread them throughout the state; to look at how other states have succeeded in their workforce training programs through their community colleges; and to apply those lessons for the general benefit of New York.

I would like to add that tomorrow, Governor Spitzer is meeting with Governor Napolitano of Arizona. The sole purpose of their meeting is to discuss community colleges and how they can favorably impact the economy of their states. I think that it is historic to have our governor at this time as interested as he is in community colleges and what they can do for the economy of the state.

Richard Nathan:

This is a propitious time for all of us to have a role in providing a knowledge base for the things that both of you have talked about. Let me ask you, Chancellor Clark, to comment on the linkage of economic development policy and workforce development policy, which Ed Cox particularly stressed.

John B. Clark:

The one thing we can't forget is community colleges are educational institutions. I just came back from Ireland. I gave a lecture at the National University of Ireland, and the big discussion was the Celtic Tiger (Tiogar Ceilteach, the period of rapid economic growth in the Republic of Ireland that began in the 1990s and slowed in 2001, only to pick up again in 2003 and then slowed down again by 2006). The answer was very simple. The most educated workforce in the European Union is in Ireland, and I think there are two tremendous linkages that community colleges have. First is that critical link between K-12 and higher education. As we see from our numbers, an increasing number of high school students are accessing higher education through our community colleges. This is absolutely critical in trying to promote the governor's goal of the Empire State being the most educated workforce in the country and, indeed, in the world. I think the other critical linkage is between business and commerce and preparing our students for the future of the Empire State as a national leader in technology and the cutting edge for industry at the beginning of the 21st century. So, I think it's an exciting opportunity and community colleges are going to be our leaders.

Richard Nathan:

Ed, would you like to comment further on policy linkages and the need to work on this agenda?

Edward Cox:

I'd like to just pick up on what the chancellor said about community colleges and the importance of education in the international arena. Our community colleges are really the envy of the world. There's no other country in the world that has institutions like our community colleges. Several years ago, a group of presidents from our community colleges

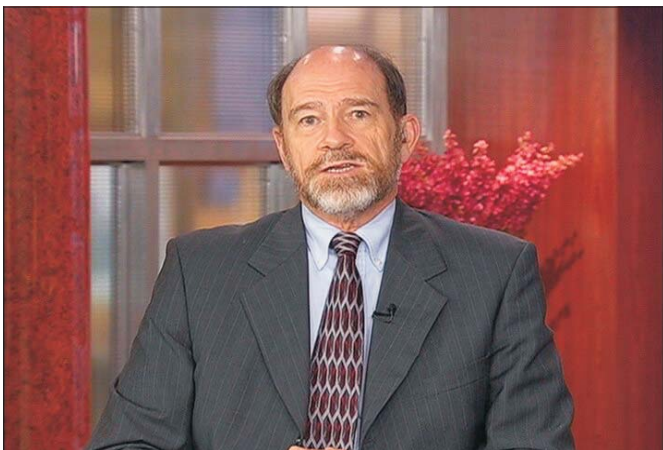
and I went to England, on a trip paid for by the prime minister, to work with their colleges of further education. We are so far ahead of them in having comprehensive community colleges that give access to higher education, that do workforce training, that work in job development to build industry in their local areas, and that are locally based institutions that are very responsive to the economic and cultural needs of their local communities. It's not that way in just about every other country. Our community colleges can give the comprehensive workforce training and access to higher education that the workers of the future will need in this state. But to be most effective our community colleges need to be put front and center in our state-administered workforce development programs.

Richard Nathan:

I was telling Chancellor Clark that about a decade ago, I chaired a panel at the National Academy of Science, and we wrote a report on preparing for the workplace. In that report, which came out in 1994, we said that the most important change in the institutions of higher education in the United States in the last 30 years was the growth of community colleges, and we cited the data. Nationally, enrollment in these institutions grew from 740,000 in 1963 to 4.9 million in 1990. Now, it's almost 12 million.

SUNY and Workforce Development

Dennis Golladay:



Good afternoon. I'm Dennis Golladay, vice chancellor of community colleges for the State University of New York. As you've already heard today, a vital aspect of the mission of community colleges is economic and workforce development. Today we are going to hear from the representatives of three different community colleges

within the State University of New York. These three colleges have approached workforce development in their localities from different and rather unique ways. Even though their

approaches are different, and they have differing programs responding to local needs, one common theme will emerge: the efficacy and flexibility of community colleges in meeting the needs of local businesses, industries, and regional economies.

I would like to introduce Dr. Donald Katt, who is president of Ulster County Community College. In the education business we call Don a long-termer, because he's been at Ulster County Community College since the 1960s. He joined the college in 1968 as the director of student activities. In 1975, he became responsible for the development and advancement programs, and in 1989 he became the chief academic officer. He served in the post of vice president of academic affairs from 1994 until 2000. In 2001, he was tapped to become the president. He is a graduate of SUNY College of Cortland, Indiana University, and the University at Albany.

Donald Katt:



Thank you, Dennis. Before I start talking about employer-specific training, I wanted to mention the meat of our curriculum at the community college is really a part of our contribution to the state of New York to prepare individuals for work. That includes vocational and technical programs, as well as transfer and liberal arts programs.

Just as examples, at SUNY Ulster we have nursing, environmental technology, police basic training, network administrator, and veterinary technology. They are all good examples of where we're training people to go immediately into the workforce. I include liberal arts and transfer programs as well. I mentioned the liberal arts, because time and time again employers tell us they want to hire people who can read, write, compute; those who have critical thinking skills and who can solve problems. And so the liberal arts programs that we offer in our credit arena are also very critical.

But let me turn my attention to employer-specific training. This is training that the college offers to employers either on their site, at the campus, or at extension sites. I want to

share with you a video clip of Frank Falatyn, president and CEO of FALA Technologies in Kingston. Frank won the New York State small business person of the year award in 2005. FALA Technologies is a small, high-tech semiconductor company that grew by manufacturing highly precise machine parts for IBM from 1950 to 1990, and advanced nanotechnology development with SEMATECH North and Albany Nanotech. They moved into nanotechnology and the commercialization of new technologies, including Class 1 mini-environments, and clean room templates. I'd like to show you that video now.

I'm Frank Falatyn, President, FALA Technologies, Inc. We are a technology company. We've been in the Hudson Valley for about 60 years and just like the Valley, we've seen a lot of transition. You know, Ulster County Community College has helped us through those. So, as we've gone about this transition of trying to get from a machine shop into a high-technology development company here in Ulster County, we had to train our employees. One of the challenges we faced a few years ago was our engineering department was really designing an old software system called, Auto Cad, that was two-dimensional.

Our customers and the industry have been requiring that we go to three-dimensional solid modeling. How does a small company like FALA Technologies do that? That's a big challenge trying to retrain your workforce to use a new type of very advanced computer modeling system. And it just so happened, Ulster County Community College approached us and said, "We want to put together a training program." A few of the companies in the area have been requesting that they get training in solid modeling. We said "Sure."

We didn't know what solid modeling system to pick and Ulster County Community College recommended we try SolidWorks. We tried it and came to find out many of our customers now use SolidWorks; it's become one of the industry standards. "So, not only did we get training from Ulster County Community College, but they actually helped us in selecting the software we should use to train our employees."

Technology companies today aren't going to be your IBMs and your Intels, they are going to be small companies like you see here at FALA Tech-

nologies. We have 60 people; we've been in business 60 years; we've grown up from a very small mom-and-pop startup; and we really want to have our technology workers grow with the industry.

So, when my people need to learn some new skill set, we go to the community colleges. What's nice is that it's not just Ulster County Community College helping us. We have a consortium of community colleges — Ulster County, Orange County, Dutchess County — working together to teach manufacturers and their workers new, advanced training courses, so that we can network and partner for a real regional economic cluster that we have been trying to develop here in the region.

When I think of Ulster County Community College, it's not just where I'll send my son when he finishes high school, but also it's really economic development for the entire county if not the region.

Ulster County Community College is the training place that we go to as manufacturers to get our workers trained. Many times the students from the universities or the high schools don't have the skills that we need, especially for the specific manufacturing that we want to do. So, what's nice about Ulster County Community College is that I can talk with the people there and we can set up specific programs tailored just for our company.

This type of assistance is replicated throughout New York State. Suffolk County Community College has helped Biodex Medical Systems, a company in Selden, New York, train employees in advanced manufacturing and mechatronics. Niagara County Community College has provided leadership development training for an area environmental testing firm over the past 20 months, training over 350 people in a broad array of supervisory and management topics.

Onondaga Community College in Syracuse has been working with Anheuser-Busch in Baldwinsville, where they are doing customized training in electrical and mechanical technologies. And Mohawk Valley Community College has helped Empire Aero by training FAA certified airframe and power plant mechanics.

SUNY Ulster, through the SUNY contract training program, has offered mechanical inspector certification training for Alcoa fastening systems, ISO-auditor certification, management training for a variety of companies, and sometimes the training is offered in Spanish. We have also offered health care training at area hospitals, including EKG and fetal monitoring, stroke management, cardiac care, billing, and coding.

Before I close, I'd like to say that I think the state needs to take a more active role in promoting our efforts with workforce development. Currently, the SUNY workforce contract training program is only at \$2 million. I believe the New York State Department of Labor should increase that tenfold. I think we should come up to the plate and be partners in continuing to make sure that New York state employees are the best trained in the world.

I think there is more that needs to be done. We have to take a look at the current "Advanced New York Business Grants" and see what some of the problems are, and why businesses aren't using that program. I truly believe that if Governor Spitzer is serious that he is going to be judged on the upstate economy in four years, this would be a giant step forward to work directly with community colleges to improve the economy of our state.

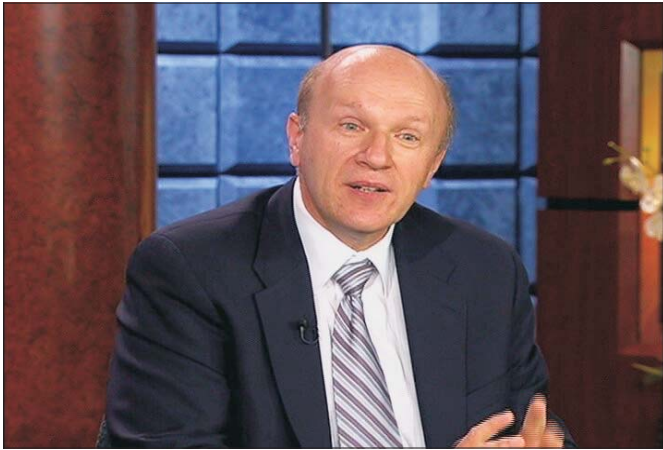
Dennis Golladay:

Thank you, Don. That was an excellent presentation. Our second panelist is Phil White, dean of the Schools of Business and Engineering and Industrial Technologies at Hudson Valley Community College, where he came in 1991, after a career in the private sector. He started as an adjunct faculty member and then became a full-time automotive instructor in 1995. He later served as coordinator of the college's telecommunications technology programs. Phil received his bachelor's degree in business administration and his master's degree in organizational management from the University of Phoenix. Welcome, Phil, and you're going to tell us about Hudson Valley's approach.

Phil White:

Thank you. We have a two-prong approach. The first is on the not-for-credit side, through the Workforce Development Institute (WFD), which is headed by Richard Bennett. Workforce Development can respond very quickly to the needs of the business community. It's not-for-credit, therefore there are different guidelines as far as developing programs. The advantage is that the college can go anywhere, within certain limits. The college can go

to the businesses, the businesses can come to the college, and the college can bring an expert in the industry together with the customer. As a result of collaboration between the customer and Workforce Development, the college is able to fulfill the customers need in a responsive fashion.



The college has several ongoing initiatives. One is a photovoltaic certification. Approximately 25 years ago, we went through an energy crisis. Photovoltaic became big. Everybody was installing solar panels, but the industry did not succeed. The reason was that there was not a trained workforce in place. There was no certification. No one was recognized as, “the type of person I should have installing the solar panel in my house.”

Currently, through the New York State Energy Research and Development Authority (NYSERDA) and various certification agencies, there is recognized training in place for technicians. Hudson Valley Community College is delivering training to the workforce, so when you hire somebody to install solar panels, you know that the person has training. This training is just one of our initiatives.

On the credit side, we have several initiatives occurring. The approval process requires more time, since the curriculum proposals need to be approved by the college’s local governance, SUNY, and the State Education Department (SED). The process assures that the curriculum has academic integrity and meets the curricular and programmatic guidelines set forth by the college, SUNY, and SED.

Since the process, by design, takes time to be approved, the college must think and plan ahead. The college must ask, “Where does the college want to be in a year or two? What type of curriculum does the college want to deliver?” That requires contact with the community. The college accomplishes that through its advisory boards. The advisory boards are tremendous links to industry and the community. After all, the mission of a community college is to fulfill the needs of the community.

Hudson Valley responds to the needs that are driven by our advisory boards, and develops curricula as a result of their feedback. One of the college's successful programs is the Semiconductor Manufacturing Technology program, or what you may know as nanotechnology. The college graduated its first class of five students. Interestingly enough, of the five, there were two young women, resulting in 40 percent of the graduating class being women in technology. The more women there are in technology, the better it is for everybody. There is a shortage of women in technology.

The semiconductor program was a result of administration, faculty, and industry looking ahead and responding to emerging industry needs. Thankfully, they were right and the college has a great program. Now, approximately 20 students are in the program. This is the third year and that's great in the sense that the college has managed to roll out a brand new program in emerging technology in Tech Valley.

These technology-rich programs are very expensive for the college, but the careers that are available to the student are extremely rewarding. If you look at any of the technology programs — semiconductor manufacturing technology, the photovoltaic or solar cell technology, the automotive programs, the nursing program, the manufacturing program — they are very costly. Typically, the college loses money on those programs, but we have the obligation to fulfill our mission statement by providing opportunities for the student and the community.

Thanks to the business and to the liberal arts sides of the house, the college is able to offset the cost of these programs. One thing the governor could do is help to offset the high cost of our high-demand programs. I know it's ongoing and that things are changing in those areas. These are just some examples of Hudson Valley Community College's approach to workforce development.

Dennis Golladay:

Thank you, Phil. I hope that what is coming through from this discussion so far is the different ways in which the colleges respond to local needs, and the rapidity, flexibility, and advocacy of that response. It's kind of a hallmark of our community colleges.

Our third panelist is not an educator. He is the executive director of the Institute for the Application of Geospatial Technology (IAGT) at Cayuga Community College in Auburn, New

York. It's a long name for an excellent organization. Bob Brower is the executive director and the CEO of the Institute. Bob has created it, led it through its phases, and developed it into the organization that it is today with over 40 employees. It is a unique institution. There is nothing like this Institute at any other community college campus in the nation.

Bob has had 30 years of experience in the public sector, serving as an environmental planner, as a director of planning and economic development, and as director of information management systems for Cayuga County. He has served four terms as one of the 15 members of the New York State Geographic Information Systems (GIS) coordinating body and is currently serving as a vice president of the New York State GIS Association. He received his baccalaureate degree in planning and public administration from the University of Buffalo.


Robert Brower:




Thank you, Dennis. I would like to start with a few comments about the nature of the geospatial industry and then offer comments on what I can see from the vantage point of a collaborator with a SUNY community college, without being directly representative of that college.

Community Colleges and the State Workforce

- Private 501(c)(3) not-for-profit located at Cayuga Community College in Auburn, NY
- Close relationship with NASA to apply their technology and data to the benefit of society



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The business of IAGT is structured as a 501©)3. We are a nonprofit corporation based on the campus of Cayuga Community College. We have a very close relationship with NASA as a funding source. It would probably be instructive to note that NASA has a range of programs, including some that are focused on the earth and are not outwardly directed to the universe. It is the earth science sections of NASA that we work with.

So, our work has to do with a part of NASA focused on better understanding how the earth sciences relate to one another. Where their mission is pure science, ours is applied science. We have the advantage of looking at NASA's data, looking at the technology they invent in the pursuit of pure science, and trying to make more practical applications out of those technologies and from those data in a more operational or real-world sense.


IAGT Mission Statement

The **Mission of IAGT** is to accelerate the application of geospatial information technologies (GIT) in government, education and commercial markets.



The graphic features a satellite icon at the top, with three blue triangles pointing downwards to the text ".gov .edu .com". Below this, there are three icons: a government building, a graduation cap, and a computer monitor. The entire graphic is set against a globe background.


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Our mission is to accelerate the application of geospatial technology in what we think of as three user communities: the commercial market (or the private sector), the education community, and governance in general. This mission is what brings us to the campus of Cayuga Community College. We do a combination of satellite imagery or remote sensing, image acquisition (brokering large-scale data purchases), and analyzing imagery. We work with computer mapping, three-dimensional visualization, education and training programs, and traditional mapping and cartography. There is a suite of services we can offer and that we employ at the Institute.


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Our training and workforce development requirements and activities are related in a very real sense to what could be described as a subset of the information economy; it's geospatial


information. It has, as a primary attribute, locational aspects and that's what separates geospatial information from other forms of information. We are operating within the information economy.

I'd like to spend the next few minutes describing a vision that ties together the geospatial industry, workforce development, and the role of community colleges in the sys-

Community Colleges and the State Workforce


- A vision that rests on:
 - Workforce Development as a part of economic development:
 - The private sector, government, the economic development community, and the education community as major players in economic development




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Community Colleges and the State Workforce


- A vision that:
 - educates and trains to the geospatial business sector
 - advances NYS by developing this highly skilled workforce
 - recognizes the training as part of the economic engine
 - facilitates retention and attraction as economic development strategies




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IAGT and Cayuga Community College (and the State Workforce)

- Cayuga Community College
- IAGT
- Cayuga Works Career Center
 - CC Employment and Training
 - NYSDOL
 - ARC
 - VESID



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tem. This vision includes the establishment of New York State as a national, perhaps international, training center for the geospatial industry. There is no reason at this point in time, with the interest of the governor and the involvement of the economic development community, that New York State couldn't enjoy that position. It's a big vision, but it's an industry that is poised to explode. It is growing exponentially now and we have an opportunity here in New York to be a major player in its development.

This vision also includes, in a very direct way, the involvement of the community colleges of the SUNY system as the gateway to that training center. This vision rests on an understanding of the linkage between workforce development and economic development, as was described and discussed earlier in this panel.

I'd like to reiterate, if I could, a very simple relationship. I'm not claiming to be an expert, but I've worked with experts in economic development between 1993 and 2000 during my stint as director of planning and economic development for Cayuga County. It was very clear that

there was a paradigm at play among government, the education community, the private sector, and the professional economic developers. Through that time period, more and more emphasis was given to the educational community as an important part of this partnership.

What has changed between 2000 and 2007, when my work at the Institute has occurred, is an even stronger recognition of the education community as a part of this formula. The reason the partnership is so important is that you can't attract or retain the industries in a community, a state, or a region if you don't have the workforce to feed the industry. It's that simple. When you think about economic development and the workforce being trained in an industry that is just starting to mature, a "chicken and egg" problem appears. If the workforce is there and the industries don't know about it, the workforce leaves. New York State could then find itself, if that were to occur, training people who will work in other parts of the country.

If the state is poised with the policies to complement the development of the workforce, then the workforce stays. That, I think, is the point to be made about the linkage between the education community and the workforce development. That's what we need to do in New York State. We have to define the policies to keep the workforce that is being trained, particularly in the emerging information industries, here in New York State and create the related jobs.

I think we have an enormous opportunity to do exactly that with the geospatial industry in upstate New York and throughout the rest of the state. We have a number of partners who are working exactly toward that end. Again, the partnership is critical, the opportunity is real. We have spent some time trying to champion this relationship.

This training in the community colleges has dual impacts. I think it is probably worth mentioning that in addition to fueling the economic development that results from a trained workforce in an emerging industry, it's also reasonable to acknowledge the training centers themselves. The schools themselves are part of the local economic development engine. The faculty and the support staff contribute to the economic vitality of the community in a very real way.

If we grow the training industry itself, we have an initial, primary economic impact that leads, in turn, to further economic advances.

As it has been mentioned before, we are co-located in a building designed to house the Institute, the Business and Industry Center (which is a creature of Cayuga Community College), as well as the Workforce Development Center, which was referred to earlier as the one-stop

shop. It's the place you go for additional training, the life preserver, if you will, that's thrown out of the lifeboat to help those who need retraining or to have that requirement started.

***IAGT and Cayuga Community College
(and the State Workforce)***

- Several Applications to federal DOL grant programs
- WIRED the most recent
- Keep looking, keep reviewing opportunities
- NYSGISA website
 - Business Development Workgroup
 - <http://www.nysgis.org>



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We filed for United States Department of Labor funds on a discretionary level when there was no program available on a competitive basis, so far unsuccessfully. We've done the same thing on a competitive basis.


Most recently, New York State forwarded two proposals, after a state-wide competition, to the United States Department of Labor under a program

called the Wired Grant. We were fortunate to make it to the last round and to be forwarded on behalf of New York State, along with a second project. We recently learned that this was not going to be funded, but we remain undiscouraged.

Community Colleges and the State Workforce

- A vision that includes:
 - New York State as a national training venue for the geospatial workforce
 - the NYS Community College Community as the gateway
 - Collaboration opportunities on the Cayuga Campus



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We think the vision is real and represents significant opportunity for this State, particularly for Upstate New York. I think the co-location of our activities on the campus of Cayuga Community College, perhaps gives us the opportunity to try some things sooner than others. We're anxious to share the lessons that we've learned as we move forward in the State and listen very carefully to our colleagues in

other parts of the SUNY system and within the leadership of SUNY to help us understand how we might contribute in greater ways to this effort.

I thank you for the opportunity to be a part of this forum today. It's something that I value highly.

Dennis Golladay:

Thank you, Bob. We've heard today from representatives of three community colleges, which are representative of what goes on at the 30 community colleges within the SUNY system.

One thing that may have occurred to you while these gentlemen were speaking about their respective colleges is that they are enthusiastic and are never short of words to talk about what their colleges are doing. One other thing is that they all mention partnerships. I'd like to have you all elaborate just a bit more on that, because you are creating partnerships with other colleges, with local businesses, and with governments. I think that's an important aspect. As Bob Brower said, "This is not something a college does on its own; it does it in cooperation and collaboration with others."

So, Don, I'd like to have you elucidate a little bit about partnerships.

Donald Katt:

As Mr. Falatyn mentions in the video clip, he works with three community colleges in the Hudson Valley. We try to work cooperatively, so we're not replicating what another community college might be doing.

We are also members of the Council of Industries and sit side by side with business owners to discuss the type of training they desire. We have an excellent associate dean in continuing and professional education, who used to work with AT&T Labs, and who has a good sense of what the business people are talking about and what their needs are.

If we don't have the expertise in our faculty, we will go out and find a consultant. We were just doing something with solar technology, and we brought a professor in from Maine. We had to turn employers away because we had over 30 people attending. That's the kind of thing that we can do: keep our ears open and act cooperatively with our local businesses and industries.

Dennis Golladay:

Phil, I know you have worked with industries that are coming into the area, as well as senior educational institutions with some of your technology programs.

Phil White:

If you think about semiconductor manufacturing or in nanotechnology, we've worked closely with CNSE [College of Nanoscale Science and Engineering] on that. We were using their facility this last year to house our lab. Our students needed the hands-on training, so we used their facility to do that. We partnered with several industries. We also have a Verizon program where Verizon sends their employees one day a week to participate in an associate's degree program that takes four years to complete.

We are continuing a three-year relationship with the Watervliet Arsenal to train machinists. We are talking to another major employer about training machinists for them also. We do training in the automotive departments for Chrysler and General Motors dealers where we partner with those industries. We also partner with Raytheon to deliver training. It's an ongoing effort and we're constantly testing the waters and staying in touch with the community. We're working closely with our advisory boards, so that we are on the cutting edge as far as responding to their needs. It's that collaborative effort between other schools, between the various faculty within our college, and the industry that exists within our community to enable us to fill their needs. It's collaboration, collaboration, collaboration; there is no other way of describing it.

Dennis Golladay:

Right, Phil. Bob, I know that at Cayuga you have an interesting partnership with the college itself in helping to establish a program in geographic information systems.

Robert Brower:

As you well know, we do have a wonderful partnership with the community college. It has allowed us to use our resources to help establish a new degree program at Cayuga Community College. So, there is a two-year, full degree GIS program, as opposed to a training or a competency certification.

Virtually everything we do requires collaboration and partnerships. As you recall, I mentioned three user groups, the education community, the private sector, and governance to which we target the geospatial technologies. In each case, there are partnerships at vari-

ous levels that allow us to exist. I've just mentioned probably the strongest and most basic in the education community.

It's also true that we're partnering during the summer of 2007 with some 50 teachers who will come to the campus of the community college from all over the United States. We will be teaching them how to use geospatial technology in the classroom.

On the governance level, our partnerships include the local sheriffs. We have deployed information technology in emergency response vehicles to better understand how to fit it into their workflow so that we can make our contribution to emergency response and homeland security.

We also do environmental work at an international level. We have a network established. An interface was constructed at the Institute for all eight countries in Central America, supported, guided, and developed by an international cabinet of the environmental ministers from each of the participating countries. That work is translated into Spanish, and is focused on the issues of environmental stewardship and recovery from natural disasters in that part of the world. It's true partnership at an international level. We wouldn't exist were it not for those kinds of opportunities.

Dennis Golladay:

Thank you, Bob. Another thing that I think emerged in our discussion today is the fact that these programs the colleges are implementing for businesses and for governments are very expensive. But they are also programs that are necessary to produce the training of educated workers for the sophisticated economy of the 21st century. Therefore, one point that we would like to make is that it should become a matter of state public policy to support the community colleges in their efforts to aid the economic development of the state and of its regions with a trained workforce that can handle these jobs.

Ed Cox mentioned that \$1.2 billion goes into workforce development through federal and state sources in New York. Community colleges get very little of this funding. What we would like to ask is that the state take a very conscious look at our community colleges, and recognize the value they have in economic development through workforce training. Thank you.

The Role of California's Community College System in Workforce and Economic Development

Richard Nathan:

Our next speaker is Steven Bruckman, and we are honored and delighted that he is with us. Steven Bruckman is the executive vice chancellor and general counsel for California's community colleges. He will tell us about the institutions he works with. We have a new commission on higher education in New York State, so his visit and his remarks are very timely.

Steven Bruckman:

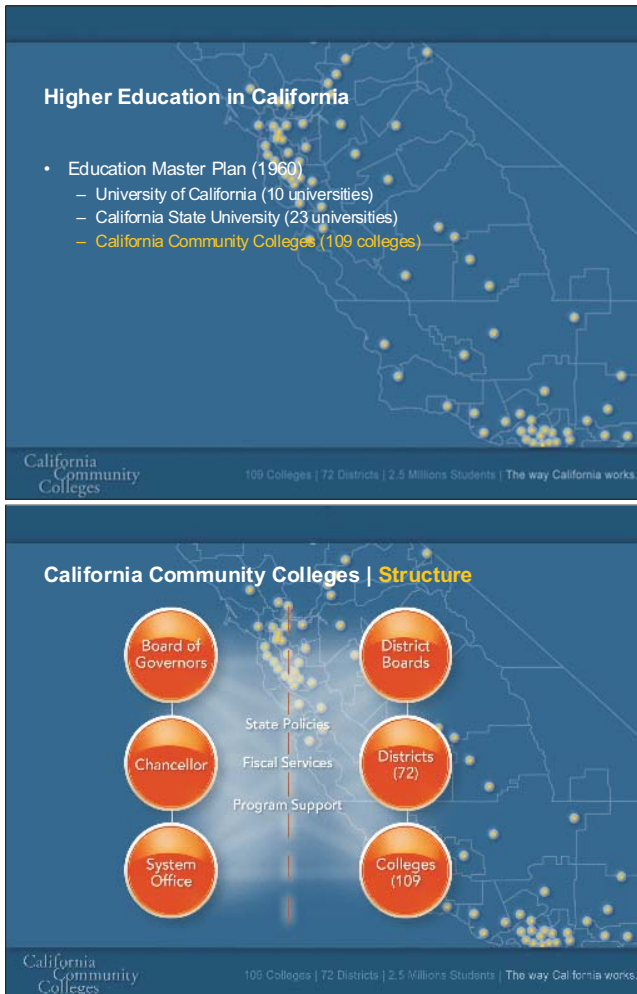
Thank you very much, I'm very honored to be here and I appreciate the opportunity.



I'm going to begin today with a brief overview of how the California community colleges fit into higher education in California, followed by a description of some major programs, some very current examples of hot topics in our economy, and finally a discussion of how our systemwide strategic plan supports all of those efforts.

Before I get into the substance I wanted to give the audience a sense of how California community colleges compared to New York's community college system. I understand you have 30 community colleges; we have 109 community colleges in California. You have an enrollment of approximately 208,000; we have 2.5 million students. Your budget is in the neighborhood of \$1.8 billion; ours is \$7 billion. Our tuition is a very different structure as well. Whereas it is approximately \$3,000 per year for a student to attend a community college in New York, it's approximately \$480 for a full-time student per year in California. So, we have a very different approach. We're big. Our size makes us significant and important.

The education master plan that was adopted in 1960 really set the course for California for the next half-century. We have three segments of higher education. The University of California has 10 universities and accepts the top 12 percent of our high school graduates. The California State University, with 23 campuses, accepts the top 25 percent of students. The California Community Colleges accept all the rest. That's why we have so many students in the community colleges.



Our structure is also unique. Unlike New York, where you have one State University of New York, we have the three segments. Each segment has its own board with board members appointed by the governor, and its own chief executive officer.

In addition, we have a bilateral governance structure for the community college system. We have the system office, headed by the Board of Governors and the chancellor, serving as one leg of the bilateral structure. We also have 72 local boards managing the 109 colleges. We have a number of single college districts and also multi-college districts, that's why we have 72 districts and 109 boards.


The statutory structure provides for maximum local control, which is greatly favored in California. It has been the strength of the California community college system that the local colleges and the local boards are in touch with their communities and with the employers. That's considered a major benefit of the local structure.

The system office also has important roles. Our mission statement provides that we energize the colleges through leadership advocacy and support. In particular, we have impor-

tant roles in the budget process. It is the role of the system office to lobby for funds for the system.

In addition, we have a regulatory role. Although the community colleges have a great deal of autonomy, there are a significant number of statewide regulations that we are responsible for enforcing.

And finally, we do provide leadership on critical issues and some of those are issues that will be presented in the course of this conversation.



California Community Colleges | Mission

- Academic and vocational instruction
- Remedial instruction
- Adult non-credit instruction/community service
- Economic growth and global competitiveness

California Community Colleges
109 Colleges | 72 Districts | 2.5 Millions Students | The way California works.

The mission of the California community colleges is spelled out in state law and in many ways it is similar to what you do here in New York. Academic and vocational instruction are some of the critical missions of the California community colleges, and that's both a transfer and a career preparation mission. Remedial instruction is increasingly becoming an important part of what we do, as too many students come to the community colleges

unprepared to do college-level work. Adult noncredit instruction and community service is a third function.



**California Community Colleges
Economic and Workforce Development Program**

- Establishes strategic business partnerships to stimulate
- Economic growth
- Services targeted to specific regional needs for high-growth,
- High-wage jobs
- Prepares students for careers
- Provides seed money to develop services
- Addresses regional economies through strategic initiative areas and regional delivery
- Provides basic skills and high-tech training for incumbent workers
- Delivers services directly to businesses

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The last one, economic growth and global competitiveness, was most recently added to our list of missions in 1996. The authorizing legislation said that our primary mission is to advance California's economic growth and global competitiveness through education, training, and services that contribute to continuous workforce development. There are several ways that the California community col-

leges go about doing that. Probably the most important is the economic and workforce development program. This program, set out in state law, provides that the California community colleges are really the premier statewide workforce economic development program operating today. Other statewide economic development programs existed in the past, but due to recessions, budget cuts, and other reasons, we are now the most comprehensive economic and workforce development program.

The program has a \$50 million budget annually. Service is targeted to specific regional needs for high-growth, high-wage jobs, preparing students for careers, and other items that I'll talk about in greater detail in a moment. That workforce development program is overseen by an advisory board of 34 members drawn from throughout the state — the public sector, private sector, higher education, and K-12 education — all working together.

Economic and Workforce Development Program
Types of projects

- **Strategic Initiative Centers**
long-term, multi-region
- **Industry-Driven Regional Collaboratives**
short-term, local control, specific to local area needs
- **Job Development Incentive Training**
short-term, specific to local needs, create opportunities for entry-level jobs for welfare aid recipients

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The next slide describes the types of programs and projects. The most important of these projects are our strategic initiative centers. We have 10 types and they are replicated around the state, so there are total of 100 sites. The next slide illustrates graphically how they are spread throughout the state and also the topic areas, the strategic initiatives, represented by the centers.

Economic and Workforce Development Program
Initiative centers throughout the state

100 centers representing ten strategic initiatives:

- Advanced Manufacturing
- Advanced Transportation
- Bio Technology
- Contract Education
- Environmental
- Health
- International Trade
- Multimedia
- Small Business Development
- Workplace Language



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The centers are intended to link business, education, and government to develop a support system to keep business and education on the leading edge. I'm going to provide examples of some of these initiatives.

One is our small business development centers, which we have throughout the state. The “Success Through Inventions Conference” is an

example of what these centers can do. It is recognized that invention and innovation drive the modern economy. And we can provide potential inventors with help in terms of how to go about inventing a new product. We brought in individuals from the patent office and academic leaders and provided guidance on exactly how someone brings an idea to market and makes it work.

In addition, we offer guidance on winning government contracts. It is in the interest of the state of California to have many small businesses competing for those contracts. We provide these businesses with information on how to compete for those contracts that allow them to develop and thrive, and also bring down the price of government contracts, benefiting all the state's taxpayers.

Another initiative is in applied competitive technology. One example of where the community colleges work with the economic development community is what we call "nanobiotechnology meet geographic information systems."

Just last year, many of you may have heard about the contamination in the spinach crop. We are working with the agricultural community through our initiative centers to develop programs that use nanotechnology, biotechnology, and geographic information systems to locate more quickly where contamination occurs and limit the damage.

Governor's Career Technical Education Initiative
Background

- Serious deterioration in vocational programs in high schools
- Decreased demand for unskilled labor
- Increased demand for employees with some college education

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A second program that we have statewide is the governor's program on career and technical education. The conditions that led to the development of this program are very similar to the conditions that exist here in New York, I'm sure. A serious deterioration and consequent decline of vocational programs at the high school level over the past 20 or 30 years led to the development of this program. There was a

time when vocational programs were considered deficient because they tracked students. There was a strong belief that students were tracked too early. In many cases, minority students were unfairly tracked into vocational programs. There was a reaction against that, and it led to the decline of vocational programs in our high schools. At the same time, we have

had a decreased demand for unskilled labor and increased demand for labor requiring greater levels of education. Faced with this situation, the governor initiated a career technical education initiative.

We have the benefit, with Governor Schwarzenegger, of having a pragmatic, economic growth-oriented governor leading our state. This is a governor who received career training in sales while he was growing up in Austria, and that's been beneficial to him throughout his life. When he became governor, he felt, "Why shouldn't other students have more career training?" Yes, of course, many students want to go to a four-year school and go the traditional BA route, but so many students will not. As I mentioned earlier, only a small number actually enroll in our four-year schools. Most of our students are in community colleges.

When the governor came to the United States, he also had the experience of attending a community college in California, and that's quite rare. Most governors do not have community college experience in their background. All of that led him to feel that a career technical education initiative was an important step for the state to meet its training needs.

Governor's Career Technical Education Initiative
Funding

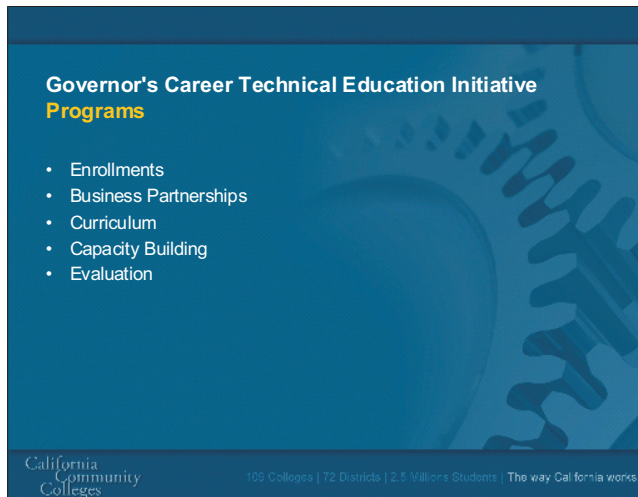
- Initially \$20 million per year for community colleges
- Increased to \$50 million
- Allocated to colleges through competitive proposals

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The program began a few years ago as a \$20 million project for the community colleges. It has increased over the last couple of years to a \$50 million program, and it's allocated to the colleges primarily through competitive proposals. The broad themes for the career technical education initiative are to increase the choices for students, to establish and sustain partnerships with business and industry, to

make sure there is up-to-date curriculum in our career and technical education programs, and to ensure that there is ongoing quality faculty, counselors, and staff to support these programs.

These themes are brought forward to the programs that we describe as enrollments, business partnerships, curriculum, capacity building, and evaluation. A few examples are necessary to help understand what is meant by these terms, which are really sort of vague in and of themselves.



Under enrollments, the biggest part of our career technical education initiative, we are introducing career technical institutes. These are five-year programs beginning in the ninth grade, in cooperation with the California Department of Education, as is the entire economic and career training education program. We have 56 grants statewide, ranging from \$50,000-\$100,000 per grant, and they

provide the opportunity for the development of these career technical education programs.

A second category is what we're calling career advancement academies. There are only three of these, in North, South, and Central California, respectively. These are larger grants, \$1.6 million grant per year. This is sort of a revolutionary approach. Recognizing that we have a tremendous dropout problem in California, we need to get those students into a program that will meet their needs. The career advancement academies are intended to bring these students into an intensive program. It might be a full-day program, for a period of months, that would prepare them to move on into college-level courses or into a career. So we're very excited about that. We have three of those and, as with many of these programs, we'll see which one works best and probably try to pull the best features from each one and replicate them.

We have workforce innovation partnerships, where additional money is going into our economic and workforce development program to build on our existing partnerships and our "two plus two programs." These are programs where two years of technical training in the high school are followed by two years of technical training in the college.

Another is what we are calling career technical education (CTE) sector programs. One challenge we had in the process of allocating this money by grants is that, of our 109 colleges, some were more adept at getting grants than others, leaving some colleges behind. So, a portion of the \$50 million now is going out by allocation, by full-time equivalent student. So, \$19 million will go that way. Every college will have some opportunity to advance its career technical education program, instead of just those who write superior grants.

The last of these programs that I want to highlight is the seventh and eighth grade career exploration program. We are trying to reach into the middle schools to help seventh and eighth graders understand that there are very exciting and important career programs available to them, and that they are not limited to going directly into a four-year college for a BA program. Each of these projects requires a partnership between a school district, a community college, and some local industry group. There are ten of those grants being developed across the state.

Skipping ahead to our curriculum programs, one innovative approach is what we are calling entrepreneur career pathways, recognizing that most people in California are employed in small business, which we want to encourage. Our economic workforce centers provide information to teach high school and community college students self-employment skills and tell them what they need to compete globally in today's economy. We also provide training to teachers in junior high and high school on how to integrate their subject matter into career technology programs.

We will have curriculum planning for emerging industries. We also want to make sure we have distance learning for rural areas, which have experienced great difficulties because they do not have the industry. Many of our rural areas have relied heavily on extracting industries like timber that are no longer available to them, and the job market is not what it should be. We need to develop those areas and not leave them behind.

The fourth of the five areas is capacity building. One of these programs provides for the linking of high school and community college faculty, and faculty and counselors with industry. We have 50 grants going out to 50 colleges in the state, \$28,000 per grant, to encourage the development of career technical education programs.

We also have a teacher preparation model, especially focused on the math and science teaching and training. Finally, we have an evaluation component to see which of the grants going out each year will be most effective and which are less effective, so we can replicate the most effective programs and discontinue those that are less effective.

After this quick overview of the two biggest programs that we have — the economic and workforce development program and the career technical education program — I'd like to turn to a few specific examples of hot industries, and how the California community colleges are participating. One is the logistics industry — the movement of products from one

place to another. It's a booming industry in California, in large part because of the impact of the economic growth of China. Most of the products the Chinese make cross the Pacific Ocean and land in California. There is an entire industry getting those products from the port to wherever they need to go next. This industry is very heavily concentrated in Southern California; Long Beach is the largest port in California at this point.

This created a need to develop a trained workforce, and a career path in the logistics industry, something that never existed before. It's not glamorous, but these are good paying jobs that are very attractive to the new immigrants and others coming into California.

California Transportation and Logistics Institute

- A new growth industry in southern California
 - Logistics Support
 - Transportation Services
 - Warehousing and Storage
 - Supply chain Management
- 12% of all new jobs created in southern California between today and 2030



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There are four categories of these jobs: transportation services, which is basically the movement of the bits from one place to another; logistics support, which involves a lot more of the planning; warehouse and storage; and supply chain management. The California Transportation Logistics Institute was developed to provide this very new and interesting career pathway. The Institute brings together all the sectors, branches, and units of government and industry in Southern California. Here is a chart that shows how this institute came together, involving employers, such as Federal Express, UPS, and Wal-Mart.



The development of the Institute required the cooperative effort of community and four year colleges, our economic workforce development

centers, and local economic development centers in cities and counties. With the great cooperative effort, we were able to obtain a \$1.4 million grant from the United States Department of Labor.

So, now the California Transportation Logistics Institute is off the ground. It just began this year, and we're very excited because it will fill a critical need in Southern California.

Richard Nathan:

Is that a two-year program?

Steven Bruckman:

Well, there are all sorts of programs. Some of these programs will be a matter of months to get trained.

Richard Nathan:

Are they all in community colleges or only some?

Steven Bruckman:

Some are in four-year colleges. There are career pathways that lead to the management of the logistics that go beyond the two-year college into a four-year business program or something to that effect.

Richard Nathan:

What is different in California from New York about the way federal aid flows? Does the Workforce Investment Act and the Perkins Act money go to the community college board, or does it go to the Labor Department, and then you have to work out your arrangements with the Labor Department? Is there a different structure fiscally?

Steven Bruckman:

There is a different structure. It is complex, although I think we are further on than the state of New York in this area. It is still extremely complicated and we have a great deal of difficulty in bringing these partners together.

Richard Nathan:

Which partners?

Steven Bruckman:

Partners like the workforce investment boards, the city and county economic development offices, and the local chambers of commerce. One of the beauties of the California Transportation Logistics Institute is that it does bring them all together, but it's an exceptional case. I'm not going to say that that is the norm in California.

Richard Nathan:

Dennis Golladay's panel talked about partnering. That was a theme. As I listen to you, I'm thinking what's different in California, if you have leverage, if you can bring partners in because you can support them. I'm hearing you say it's not that different in California, that you still have to deal with other players.

Steven Bruckman:

Absolutely, many of those other players have been there for quite a long time, and they have their entrenched interests. They want to maintain what they think is best for them and for the people they represent when we're talking about local workforce investment boards, and chambers of commerce, and community-based organizations that also receive some federal funds.

Richard Nathan:

What about incumbent training for the private sector? Are you happy with how you are doing? Are you winning or losing?

Steven Bruckman:

We receive a significant amount of the corporate training. We have a very active contract education program, a fee-for-service education program, where we go out to the industries, as I heard earlier today that you have in New York.

I think we're doing quite well. We would like to expand it further, but we've made great progress. It's all relatively new. As you know, 15 to 20 years ago this really didn't exist, but progress has been made. I don't think we're as far along as some states are, perhaps, but we're farther along than many.

Richard Nathan:

I've heard examples for attracting employers. Community colleges say, "Look, you need a certain kind of worker. We'll train workers just for what you need. We'll work closely with you." I'm hearing you say you do a lot of things like that.

Steven Bruckman:

Certainly, we do a tremendous amount like that.

Richard Nathan:

Even though a two-year college has a formal structure, as you start in September and finish in May a couple of years later. So, that kind of articulation is special.

Steven Bruckman:

Oh, all the time.

California Community Colleges
Stem Cell Applications

- City College of San Francisco's Biotech program was founded in 1991.
- Steady increase in the number of classes and students:
 - Target student population: Adult (credit & non-credit ESL students or returning students with AA or BA), underachieved students, displaced workers, and high school students.
- The program has successfully produced well-trained students and continues to place them in laboratory and manufacturing jobs throughout the Bay Area.

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Another growth industry is stem cell research. In November 2004, the state of California passed an initiative to create the California Institute for Regenerative Medicine and, at that same time, approved \$3 billion in funding for the program. The majority of that activity will happen at the high-end labs, Stanford University, the University of California, and California Polytechnic State University. What we learned over the years is that

all of these new industries always need technicians, and community colleges provide them. It happens that the City College of San Francisco is co-located with the California Institute for Regenerative Medicine. So, there is a lot of connection between the community colleges and stem cell research programs, and we're very excited about that.



The last example that I wanted to point to is what we are calling, “Going Green.” California is very interested in being on the cutting edge of environmentally friendly industries. The governor is also very supportive of this program. What we’ve done is combine four of our economic development initiatives — the advanced transportation technology and energy initiative, the applied competitive technologies initiative, small business development

centers, and environmental assistance centers — for this FourEnergy program.



Just to give you an idea of what this program is working on, an example is the production of biodiesel fuel from restaurant grease waste. That’s a project that was developed with one of our initiatives and a local school district.

Industry needs and training assessment to identify gaps refers to a University of California study suggesting that there is a real need for environmental industry in California. There are going to be jobs. But where are the jobs? Our environmental programs can look into that a little more deeply.

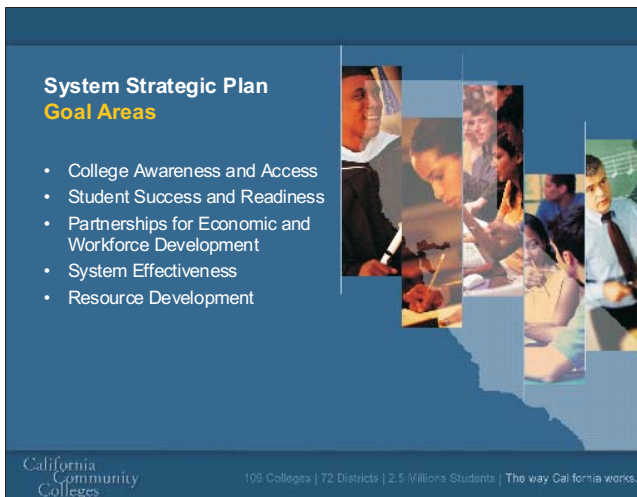
Sustainable business development curriculum for the creation, expansion, and retention of energy-related businesses is ongoing. We have the California compliance school for

environmental training that I mentioned earlier. And we are also involving high school students in energy conservation technology.



We're trying to remain on the cutting-edge in the green movement and elsewhere. One of the ways we do that is through close collaboration with the California Council on Science and Technology, the premier organization in California that looks at developments in science and technology and advises the government on these subjects. I have the opportunity to sit on that panel along with a group of very

distinguished scientists. Most of the time I'm not quite sure what they're talking about, because they are Nobel laureates and such. But when I have the opportunity, I say, "Don't forget, you are going to need technologists to operate these programs and the community colleges are where you will receive those technologists." They seem to be receptive to that message.



The last thing I want to talk about is our strategic plan. That gets to the question: "How do we pull all this together?"

Two years ago, for the first time, we adopted a system strategic plan, not for economic and workforce development, but for the system as a whole, and that was done at the system office.

The strategic plan has five major goal areas: college awareness and access, student success and readiness, partnerships for economic and workforce development, system effectiveness, and resource development.

The idea is that it would help to bring us together and help the system as a whole move forward, as opposed to individual colleges. Specific strategies are being adopted and I'm

System Strategic Plan
Partnerships for Economic and Workforce Development

- Ensure that Community College programs are aligned and coordinated with state and local economic and workforce development needs.
 - Fund and implement a business liaison program at ten community colleges so businesses have single regional point of entry.
 - Increase capability at 50 colleges and as a system for the delivery of customized fee based and contract education directed to the needs of small business and incumbent workers.

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going to focus now on the partnerships for economic and workforce development. Some of these are areas I've talked about already, because they overlap with the economic and workforce development program or they with the career technical education program.

One is to ensure that community college programs are aligned and coordinated with local economic and workforce development needs; that alignment is crucial. And how do we do that? One idea is to fund and implement a business liaison program at ten community colleges, so that businesses have a single regional point of entry.

One is to ensure that community college programs are aligned and coordinated with local economic and workforce development needs; that alignment is crucial.

System Strategic Plan
Partnerships for Economic and Workforce Development

- Create linkages between academic and career fields to provide clearly defined career pathways.
 - Establish demonstration projects in ten regions of California with clearly defined and effective bridge programs to create career pathways and ladders to enable Californians to combine work and education for a lifetime of achievement and advancement.
 - Establish three model regional Career Advancement Academy programs serving different areas of the state

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Another is to increase capability at 50 colleges and it's a system for delivery of customized, fee-based, and contract education that we talked about just a few minutes ago.

We want to create linkages between academic and career fields to provide clearly defined career pathways.

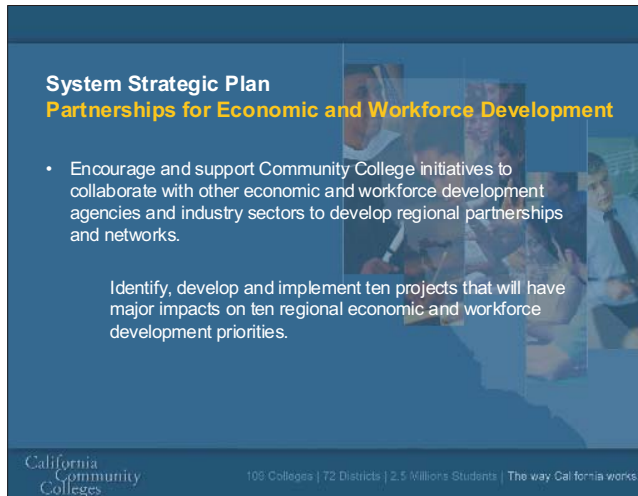
System Strategic Plan
Partnerships for Economic and Workforce Development

- Ensure high standards and academic rigor in the Community College programs while delivering timely, relevant and high quality offerings that meet the needs of business and industry
 - Implement a statewide uniform common course development and approval process with a goal of a 3 - 6 month cycle time.

California Community Colleges
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We want to ensure high standards and academic rigor in the community colleges, while delivering timely, relevant, and high-quality offerings that meet the needs of business and industry. One of our challenges is that industry wants training fast. They say, "We have people who need to be trained. We want them to be trained right away." But, they also want them

to get academic credit. Well, the colleges are a little bit reluctant to crank out a program quite so quickly when it is going to be an academic program. So we're trying to get our academic people, our faculty, together with industry to come up with a program where we can develop a curriculum in three to six months, instead of one, two, or three years, as in the past.



Finally, we want to support and encourage community college initiatives to collaborate with other economic and workforce development agencies and industry sectors to develop regional partnerships and networks. That again goes to the question you posed earlier, “How do the community colleges make this happen?”

That is an overview of what we do in the California community colleges, and how we try to support economic and workforce development. I hope I haven't gone over my time. I'd be happy to answer questions.

Richard Nathan:

This was very valuable. We are learning a lot that is special to this terrain, a lot of things that are interesting in what California does. We will benefit from comparative studies; in fact, we do many things like this. Many of our research projects include seeing how states learn from each other, how ideas are diffused. Your presentation was excellent in precisely these terms.

Panel Discussion

Robert Ward:

I'm Bob Ward, deputy director of the Rockefeller Institute. We've had a great discussion so far from the leadership of the higher education community here in New York State, with

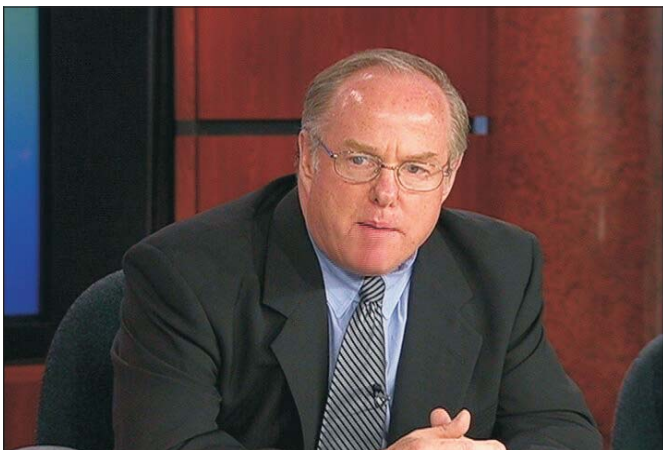
Chancellor Clark and Trustee Cox from the State University system. We've had fascinating discussions from some of the most innovative figures in community colleges around New York State, and we've heard also an important discussion of what is happening in California, and what New York might learn from across the country.

Our next panel features two leading figures from state agencies that play major roles in New York State's workforce development and economic development. We have with us Ed Reinfurt from the New York State Foundation for Science, Technology, and Innovation, and Mario Musolino, who is the executive deputy commissioner of the New York State Department of Labor.

Ed Reinfurt was recently nominated by Governor Spitzer to serve as executive director of the New York State Foundation for Science, Technology, and Innovation (NYSTAR). Previous to that, he served as vice president of the Business Council of New York State since 1980, and in that capacity he worked to develop the business community's innovation agenda stressing better science and math education, as well as state investments in research activities, in close collaboration with leading employers in New York, such as IBM, Corning, Eastman Kodak, Pfizer, and others.

So, we're going to ask Ed to start off this discussion from his perspective at NYSTAR.

Edward Reinfurt:



Thank you, Bob. And let me thank you for inviting NYSTAR to participate. As I listened to the previous speakers, I realize that there is a role for NYSTAR that we haven't articulated well enough. That's the relationship that we see and we want between NYSTAR and our community colleges. Now let me just back up and maybe build off of

what some of the previous speakers had to say.

First, I think if we were to ask people in New York, California, the Midwest, and across the country what they want most in their state, they would have the answer that we've heard today. They want high-tech, high-paying jobs. If we were to ask people in other countries what they want for their citizens, they would say better paying, more high-technology jobs. And that's not surprising.

We find ourselves in truly a global environment. We find ourselves competing from a basis that is new for many of us in many regions of the state. We have this desire to succeed. The question is: How are we going to succeed? We know what we want. How are we going to get there?

In New York, and in many other states, we have a strategy to which we've committed in part. It involves investing in certain technology areas with leaders in those fields. In New York, we see this manifested by such initiatives as the Centers for Excellence and STAR centers, where we've made a conscious effort to invest in certain technology fields where either New York has an economic base that remains strong or in areas where we have academic strengths that we think can contribute. Ideally, we like where there is an overlap.

One of the things we've talked about at NYSTAR is the importance of the "cascade of knowledge." It's not just enough to invest in our university centers. We must look at how the institutions at the highest levels, at the four-year levels, at the two-year levels, at the K-to-12, interact. How does that investment cascade down and benefit all?

I thought the representative from the California system said it best when he talked about technologists today versus yesterday's technicians. When we look at the role of the community colleges, we're talking about their role, particularly in the technology area and in that term, "technologist." And when we talk about the high-tech fields, I think, it's important to note that some of these are not the new high-tech fields. When we talk about the role of a nurse today in training, the ability to use sensing devices on the floors, is very different from the nurse of 20 years ago.

When we talk about the role of technologists in clean rooms, it's a very different role than we've seen before. And in almost every field, if we're talking about automobiles today, we're talking about automobile technologists. This is a pervasive change in our economy, but those skills are truly technology skills.

As we look at the strategies for how we are going to achieve what we want, which are the high-tech, high-paying jobs, we have to look at the role of all our institutions. That is something that NYSTAR is involved with. Also, it is an area where we think more could be done, in terms of developing strategic partnerships. We look forward to discussing this later on in the panel.

Robert Ward:

Very good. How we cascade that knowledge down through the rest of the K-12 educational system, through the entire workforce, that's a great concept.

Ed Reinfurt:

A lot of it is linkages and exposure. We talk about the cascade of knowledge, and we can talk about the grade school level and the importance of exposing more of our youth to sciences. How do you do that? Do you get them actively engaged in things like summer science camps, which can be run at many institutions? When you look at what we have invested in this state in our Centers of Excellence, and when you visit these campuses and talk to the professors and discuss the areas of technology that they are involved with, it is exciting.

It excites not just students, but teachers. Think about the average high school and the ability to spend time and help educate other educators. How do we make that a part of our structure, so that when we invest in our Centers of Excellence, we expect that there's an educational component that comes down to other levels, to the two-year levels, to the high school levels, and to the K-to-12 level? There's a lot that can be done.

We were talking the other day about the programs that NYSTAR administers. We have, for instance, a very competitive program for faculty recruitment and faculty enhancement. When you talk about competition between colleges and universities and between industries, there's also competition to attract the best faculty. How do you do that? Part of it involves being able to provide that leading faculty member with access to laboratories, or the ability to use a certain type of equipment that generally is expensive.

We've never opened up that grant process. I should say we have never had an application from a community college, a faculty member, in part because we haven't encouraged it

or marketed it as such. There's much that can be done. When you look at the new programs that community college presidents are bringing to their colleges, those are exciting areas. And whether you're talking the geospatial program at Cayuga College, or what's being done at Hudson Valley, or Onondaga, these are new programs by exciting professors we can help retain and attract to New York.

Robert Ward:

Wonderful. I can imagine that people at some of our community colleges already are thinking about applications they might be sending your way. We'll be happy to have that happen as a result of this discussion.

Mario Musolino, as I mentioned, is the executive deputy commissioner of the New York State Department of Labor. Before his appointment to the Labor Department in March of this year, he was executive director of the Troy Housing Authority. In that position, he was responsible for the operations of a municipal housing authority that provided direct housing or housing subsidies to approximately 5,000 individuals in the city of Troy.

Before that, he held a number of important positions in state government, including one particularly relevant to this discussion. He was deputy director of the New York State Job Training Partnership Council, and also executive director of the governor's School and Business Alliance Program, which at the time was the largest school/business partnership program in the nation.

We are very happy to have Mario Musolino today. Mario, we look forward to your comments.

Mario Musolino:

Thank you, Bob, for inviting us to be here today. I think it's actually a good sign that when putting together this forum, you thought to include STAR and the New York State Department of Labor in these discussions.

I'll start off talking about the workforce development system in the state, and how the new administration and Governor Spitzer view what changes we may see coming down the pike over the next couple of years in the workforce development system.



I think it's fair to say the governor certainly has recognized how important workforce development really is in the overall economic climate of the state, and how important it is toward economic development, particularly in upstate New York. I think folks know the governor has chosen to focus a lot of effort and time on upstate New York's economy.

The system is broad, it's diffuse, and in many ways it's excellent in New York. There are wonderful educational institutions, and excellent training providers around the state. I think most people who have an opinion would say that it's not contributing to the economy of the state as well as it could. It doesn't match up with the needs of the economy as well as it could.

So, we're looking at a couple of different broad areas. I think the first thing to do is try to bring some rationality to the overall economic workforce development in the state. Dennis Golladay talked about how diffuse the system is, and how widespread the funding is right now. That represents \$1.2 billion in funding; it's 28 funding streams and 11 different agencies where those funds are currently located. One of the issues that we need to start thinking about and dealing with is how we begin to think through a more rational planning process for all of those funding streams. There are certainly a lot of folks who think we need to consolidate and merge them. In a lot of cases that's hard to do because they are driven by federal regulations and by different federal agencies. But at least we should begin to take a serious look at how we rationally plan in a unified manner for all those various funding streams and programs.

Along with bringing rationality, I think there's another sort of subpart to that, which is bringing a little more focus to the workforce development system. There are a couple of ways to do that. First, through regional approaches, which makes a lot of sense when you think about the state of New York as various regional economies and various regional labor markets. The second part of that is a sectoral approach, where you think about focusing on the strengths of the various regions of the state and the areas of growth across the state. That

can be nanotechnology here in the Capital District, photonics around the Rochester area, or the tourism industry up in the North Country, and try to bring focus to the disparate programs that are out there now dealing with workforce development.

As part of that, you have to bring collaboration and, at the state level, identify the state agencies that need to be involved in these various initiatives. Certainly it's the economic development agencies, Empire State Development Corporation, Department of Labor, State Education Department, SUNY, etc. How do we bring those partners together to think through a more systemic approach to our workforce development, knowing that it's such a critical component of economic development?

Within that, of course, is the community college system, which, most folks believe, is an underutilized resource in the workforce development system around the state. The Department of Labor has some connections both directly and indirectly with the community college system around the state. Over the last few years, we've placed staff. We've used community colleges in eight locations around the state for our one-stop centers, so we have Department of Labor staff in some of those community colleges around the state.

I think most community colleges now sit on the local workforce investment boards, and the state is divided into 32 or 33 regions that make decisions about how to expend some of the workforce development funds in their regions.

There's also a statewide board, the State Workforce Investment Board, which oversees the entire workforce development systems, and there's a permanent seat for State University in it.

So, there are some institutional as well as financial connections, and some interesting statistical facts that may shed some light on what people are doing and not doing around the state.

Over the last five years, the Department of Labor has put out about \$70 million in Workforce Investment Act funds for incumbent worker training. That's money that goes to businesses to upgrade the skills of their existing workforce. Let me make a point here. The businesses choose the training providers that they will use with those funds.

Of the \$70 million, about \$8 million (11 percent) has gone out to community colleges around the state. The remaining 90 percent has gone to other providers around the state to train the incumbent workforce. This raises the question of why employers are choosing in that particular ratio. Why are employers choosing so much more training through vehicles other than the community colleges?

Robert Ward:

Do you want to offer any thoughts on that point?

Mario Musolino:

I think there probably are a couple of reasons. One, I believe, is probably the ability to have sort a rapid turnaround when employers are looking for very specific kinds of training. They might find other providers better suited to providing that training in a quick fashion. Training programs don't always line up with, say, semesters in community colleges. And not all community colleges may have the ability to move in and out of training in a rapid fashion.

In a lot of cases, and I don't want to overstate this statistic, employers are looking for very specialized training that might have to do with a piece of equipment they brought on or something like that. So, they are reaching out to somebody who has dealt with that particular piece of equipment or new process, etc.

Robert Ward:

And the \$70 million is one piece of a \$1.2 billion pie?

Mario Musolino:

Correct. The second reason why community colleges are not used for training as much is a customer choice issue. There's another area where Workforce Investment Act funds do go out for training to individuals. They are called "Individual Training Accounts." These are folks around the state who are deemed not really ready to enter into the workforce. Each separate workforce development area around the state decides on the specific rules for

individual training accounts. Some might say there's a cap of \$2,500 and some might say there's a cap of \$4,000, etc.

In 2002, there were almost 5,700 individual training accounts in the state. These are grants to individuals to go out and find the training that they want. About 15 percent of those went to community colleges, about one-third of those (32 percent) went to vocational and technical schools, and about 21 percent went to proprietary schools. So that raises the second question. Why do these job seekers use different training providers out there and use them in those proportions?

As with your last question, I think it's probably likely that job seekers are looking for training at that moment in time. They are looking for open enrollment, for someone who can provide them with the program today or tomorrow, or next week, not on a semester-based schedule. They also are looking for quicker turnaround, not for longer term training.

This is my last comment. There are three connections, I think, between the workforce development system and the community college system in the state. Two are, I would say, tactical, and one is strategic.

The first tactical one is: How and why do individuals pick community colleges as their vehicle for training? The second: How and why do businesses pick community colleges as their vehicle for training? The third is the strategic area: How do community colleges play a role in developing and forwarding the regional economies and the regional economic development strategies in the state? How are they in the mix at the beginning and throughout the development of these new areas of technology or these other new areas of job development around the state?

The issues around that, I think, are timing and responsiveness; the funding and financial systems, where we provide financial aid generally for full-time and not for part-time students; the length of courses of study; and the issue of credit-bearing versus noncredit bearing. I think those are all the areas we have to take a look at as we're thinking about the right role and the right fit for community colleges in the workforce development system around the state.

Robert Ward:

You mentioned the point of trying to bring rationality to a system where some of the indicators would tell us is not necessarily working in a rational way. And I'm thinking of an analogy to another system in state and local government that also has some federal involvement. That's the criminal justice system, where we have — just as we do in workforce development — a wide variety of state, local, and federal involvement, many different agencies, many different players, and many different laws and rules that apply. In that area, several governors in a row now have created a position of a director of Criminal Justice Services who kind of serves as an overall supervisor of all those efforts. We don't have that in regard to the workforce development system, but we have had, for instance, the Job Training and Partnership Council that you were very closely involved with and its successor, the State Workforce Investment Board. Have those efforts to bring rationality to the system paid off in any concrete ways that we can point to?

Mario Musolino:

Well, I think they have. That's a very interesting analogy you have with the criminal justice system, because in the criminal justice system people talk about appointing the director of Criminal Justice, who became the czar over all criminal justice agencies.

Robert Ward:

Well, we could argue whether that's had any effect too.

Mario Musolino:

I certainly think of the workforce development system as being diffuse and with multiple interests across the whole system. There has always been, I think, some tension in the system between the job training aspects of education and the academic aspects of education. Those were issues that played out in the 1980s and even in the 1990s, and folks are starting to see that there's much more connection between those.

So, trying to find a central point of focus for the system, using some of these board vehicles, like the Job Training Partnership Council or the State Workforce Investment Board

can pay dividends. I can give you a couple of concrete examples that I'm familiar with from my days with the Job Training Partnership Council.

I will point out that when the governor identified that body he said, "This is the body that I want to help organize and think through what changes we need in the job training system in the state." He asked us to look first at the state agency part. So, we developed a task force that brought in the various interests around the state. We had the Business Council, the AFL-CIO, training providers, educators, consumers, etc., and said to them, "Talk to us about what you've seen in the system in New York State." And we came out with a report that focused on ways to better consolidate the system and try to better align resources, which ended up moving us in a direction that now, coming into the system some dozen years later, I see actually bore some fruit. It was, I think, the first steps in developing a one-stop delivery system in the state. Those recommendations came in the late 1980s. We're seeing them bearing fruit now.

Robert Ward:

In some cases, very closely tied to community colleges.

Mario Musolino:

In some cases, very closely tied to community colleges, that's right.

The second case was a request to take a look at a report that was done by the National Center on Education and the Economy that was called, "America's Choice: High Skills or Low Wages," which talked about the United States' position compared to the rest of the world in worker training.

We again established a task force, a model that brought in the Regents and the state teachers union, as well as parents, teachers, and business leaders from around the state and looked at ways to reorganize and rethink the educational system in New York State. That has led to incremental changes, and in some changes we've seen development of workforce credentials. One of the recommendations by that particular taskforce back in the early 1990s talked about de-emphasizing the local diploma and focusing more on the Regent's diploma, which requires a higher level of skills and achievements.

So, in those cases, by bringing together folks with a clear mission, it did help to organize things a little better.

Robert Ward:

Ed, we know that businesses spend an awful lot of money, billions of dollars nationwide (perhaps even billions of dollars just in New York State) on internal training and staff development. Mario mentioned that the public job training pot is \$1.2 billion, which is probably surpassed — or at least equaled — in terms of companies spending their own money, and perhaps more of that could and should go to community colleges that might benefit employers. Are there things that some corporate and small business leaders don't know about community colleges that they should know?

Edward Reinfurt:

I'm sure there are. One of the keys that relate to community colleges, four-year colleges, and university centers that we need to talk about are linkages, synergies, and chemistry that exist within the business community. One of the things the business community has always liked about community colleges is that they've viewed them as the institutions of higher education that were the most responsive and the most flexible. That has been historically true and I think is true today.

Let's talk about how that can work to the benefit of businesses large and small. We'll use the example here in Albany with nanotech and what has been successfully done in developing the expertise that's needed for what I'll call (it's not the right term) the "clean room" technologist, those people that are in the white bunny outfits that are looking at the diagnostic equipment.

Now, let's look at the several parts of this. When the need for technologist was first identified, that early-on identification was key, just as it was key to investing in the high-tech equipment at the Center of Excellence so that we will make breakthroughs of wafer technology. It also was recognized that we would need a lot more clean room technologists, and there were no training or educational programs to develop this expertise. A whole group of community colleges came together and developed the curriculum.

I just returned from a session on Long Island at a life sciences summit, where you had 200 corporations, most of which were small, talking about what the needs were on the Island. The work that was done by our institutions in this area, and up and down the Hudson Valley will pay off for other parts of the state. So, continuing to be responsive and flexible, the historical strengths of the community colleges will be extremely important going forward.

Now Mario mentioned a couple of things I'd like to add to, and that is from a regional perspective. What do we consider our regional assets? How well are we working with our institutions and all the other elements, whether it's the Workforce Investment Board, our community or four years colleges, or the small business networks? How well are we really coming together to collaborate? I'm not sure you can teach collaboration, but you can recognize it and reward it.

In our program, NYSTAR is proud to have just let a request for proposal (RFP) for the regional partnership program that was put into statute two years ago by the Legislature. In our RFP, one of the criteria we asked for was: What linkages exist in your region with your educational institutions and what nature do they take? It's something that we want to evaluate. And so, we're building it into our system. That may be a very important step going forward, and we need to look at what exists and what doesn't exist.

But, at the end of the day, a lot of this comes down to people. The people who are leading our institutions, whether or not they are driving the linkages that exist, whether they are the ones that are meeting with the business community to say, "We need to be more responsive." The role of state agencies is to remove the obstacles we may have in our programs that were designed for the 1990s, the 1980s, the 1970s, or, God forbid, even the 1960s. And to say, "What can we do to make these programs work today and then for years ahead?" Remove obstacles, but put rewards in.

Small rewards can drive major program changes. We have a new program that was given to us this year by the governor and the Legislature, which we're just delighted with, because it's one of the first times that we have had a specific appropriation for work with community colleges. Now, in the big scheme of state government and the \$100 plus billion budget, \$2.1 million spread over three community colleges may not be a major new initiative. But we think it does represent a major new initiative and a chance to work with the people we consider some of the finest community college presidents, who have been

responsive, and who have been driving change in their areas, to see what we can develop. Then it becomes a model that we can take back next year to say, “You know, we can do more of this if given the resources.”

Robert Ward:

Ed, you mentioned rewarding performance. Let’s use that as a jumping off point for our final topic here. How do we measure whether we’re getting the performance we want? Are we measuring it? Can we do it? We have measures, certainly in one part of the workforce development system, if you want to look at it that way, our public schools. We’re measuring our kids and we’re measuring their teachers on how well they are doing, very publicly, with school report cards. We don’t do that, really, very much anywhere else in government. Is there more that we could and should be doing with specific regard to the \$1.2 billion that you mentioned that we’re putting into our workforce development every year?

Mario Musolino:

Well, I think there are a couple of issues that would revolve around. First, you would be surprised to find out there is more measurement that goes on than people expect. For the Workforce Investment Act programs, for example, we have specific benchmarks that we are required to meet by the federal government, which has to do with entered employment rates and with retention rates, meaning that you go back after three months and see if people are still employed in six months, etc.

So, there are some outcome measures. There are lots of process measures all the time. I think that in government we are always measuring the widgets — do we have more people that came through this year and is that better? Is that worse? Whatever that question is.

I think it’s very interesting, though, when you start to get to the question of quality measures, certainly from the workforce development and job training perspective, I won’t say it’s easy to place people in jobs, though often it is something that can be done relatively quickly.

It’s not so easy to place people in what I would refer to as good jobs that provide a living wage, an avenue for growth, the things that really support an emerging economy in a given region of the state. I would throw on the table that those are the kinds of issues that we

really need to start thinking through, because the \$1.2 billion figure that we all throw out for workforce development certainly sounds like a big number. It pales in comparison to the \$15-17 billion in state funds alone for the elementary and secondary education system, and then you add the local tax dollars.

But it makes sense for us to think about not just how many things we're getting for our investment, but also about their quality — what quality of jobs we're able to see at the end of that training program. One thing that I will say, and I've heard Governor Spitzer say a number of times, is it's important to understand what really has an effect on the things we're trying to have an effect on.

The governor has talked about wanting to be a data-driven administration. Often we speak in generalities and we maybe hang on to some of the conventional wisdom that we've heard before. But it helps us to go back and look at specific measures in trying to determine what outcomes you want to have. I think that's in the Worker's Compensation reform legislation enacted earlier this year. It was the first time anybody really dug into the data and saw where the high costs were and took some legislative steps to address them. I think most people will agree that this will improve the system overall. But it was about identifying the right measures, and looking at them, and then developing policies around those measures.

Edward Reinfurt:

I think it's important to be able to tell the public what's being accomplished with the dollars they have provided, and particularly for the programs that we're responsible for or involved with. In programs such as high technology, where there have been substantial new investments by the state, it's important to talk candidly about what has taken place, where we're succeeding, and where we need to make progress.

Governor Spitzer has talked about the need to have more to show the public from the investments we've made, and I think we're seeing those. Quite frankly, in programs that have only been five or six years in place, there is the need to make some changes even in those new programs. Being candid and up front about what needs to be done and what to measure is important.

I think one of the failures is that often in designing and approving new programs we don't talk about what we will judge as the outcomes or what we want upfront so that the

people who are running it know that's how they are going to be held accountable. And it's not fair to come back after the fact and try to paste onto old programs some of these performance measurements that people now would like to see.

Overall, when you talk about where we're going in the case of, say, technology, of how we are forging relationships that didn't exist, improving the faculty, the curriculum, enhancing the outcomes of student performance and time in the schools, there are ways that we can measure that. Those measures include the jobs they receive, the linkages that exist with companies in the state, those linkages that are new, those companies that come in many ways. But they have to be put forth in a context that the public can understand.

Robert Ward:

Very good. Thank you very much, Ed and Mario Musolino. We thank all of our speakers for being with us today and for their informative presentations and discussions.

We have learned a lot, I think, about not only the great work that's already being done in New York's 30 community colleges, but some things that we might be able to learn from others around the country and where our community college system may be headed in the future. We certainly hope that today's good discussion might provide some important insights into those plans and decisions going forward. The Rockefeller Institute will post a transcript of this forum on our website, which is: www.rockinst.org.

If you would like more information about New York State's community colleges, you can find it online at www.SUNY.edu. You can also find all the information you would like to have about the State University of New York's 64 campuses and other programs.

We thank you for joining us.