

Greetings CIUS Board Members and friends! This is our 8th edition of the CIUS E-newsletter. CIUS recently had a Board meeting which characterized the complex disciplinary mix that must be in place as we implement infrastructure investments in the coming decades.

Our Kaplan Grant will address institutional change and finance, made possible by new information-rich technologies. While that grant focuses on new modes of transportation, and new ways to finance transportation, lessons on how institutions cope and change will result. Forcing the issue in 2002 are the national, state and local budget crunches. Can public institutions designed to build infrastructure capacity change how that infrastructure operates? Can public institutions that are organized to issue debt also reorganize to raise capital through TIFs, real estate arbitrage or true private investments.?

The technology that makes electronic instant toll collection possible, and posts that money to specific accounts, by its nature makes it attractive to a number of cash-starved agencies. Institutions must begin this modernization exercise by crafting well structured objectives for their investments - public business plans of a type, and win the "shareholders" of this business, i.e. the public, to support these initiatives. Ironically, the people use modern technology in all aspects of its private life. In fact, their quality of life now depends upon these technologies. Will they push their public institutions to modernize in a similar fashion? CIUS will continue to work on projects to help answer these complex problems.

We wish you all the best for the holiday seasons!!!

Robert E. Paaswell, Director, CUNY Institute for Urban Systems

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Introducing the CIUS Fellows Programs. A fundamental philosophy of CIUS is that the changes necessary to bring about a new generation of infrastructure will require professionals and lay persons with new approaches to design and implementation of programs and projects. While the late 1900s were about enlarging infrastructure supply, hopefully to reduce average cost of use, the 2000s are about building infrastructure to meet quality of life, improved environments, equity and global needs. A number of CIUS associates and friends, together with members of the NYU Institute for Civil Infrastructure Systems have spent significant time clarifying modes to bring this change about. One conclusion that The CIUS Director concludes that educators and practitioners must be the same people. While this sounds difficult, it will only be through the tests of practice, and the constant negotiations that go on in project implementation, that the classroom instructor can transfer the "how to's" of



Tony Hiss is an independent author, lecturer, and consultant on restoring America's cities and landscapes. Mr. Hiss became a staff writer at

The New Yorker Magazine in 1963, and since 1994 has been a Visiting Scholar at New York University, first at the Taub Urban Research Center, and now at the Robert F. Wagner Graduate School of Public Service. He is the author of twelve books, most recently "The State of the H2O Region - 2002" (with Christopher Meier) and "The View from Alger's Window: A Son's Memoir" (a *New York Times* Notable Book).

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Al Appleton, is currently a Senior Fellow at the Regional Plan Association (RPA) in New York City. His work concentrates on developing new and

more effective public policies that integrate infrastructure and environmental investment, and regional needs with local concerns. Mr. Appleton also serves as RPA's expert on public finance and is currently directing its project on obtaining funding for the multi-billion investments in new transportation the Tri-state Region needs.

Prior to joining RPA, Mr. Appleton served as Commissioner of the New York City Department of Environmental Protection and Director of the New York City Water and Sewer system.

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Harry Schwartz is an independent urban planning consultant on economic development, housing, social and health services, and neighborhood planning.

In addition to his current work with CIUS, (see next page) among his current and recent projects are: a study of how social and health services can enable people to remain in their homes and communities as they age; organizing a planning and development coalition in the Northeast neighborhood of Kansas City, KS; and preparing a housing strategy for the Dutch Town neighborhood of St Louis.

Prior to his present practice, Mr. Schwartz founded and headed an economic development corporation involved with worker training and education, business assistance and real estate in New York City's garment industry; and was a partner in a planning consultancy involved in a abroad range of projects and studies on affordable housing, land use regulations, community planning, and economic development.

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Tony Hiss and Dr. Anthony Perl Project Description:

CIUS Fellow Tony Hiss is collaborating with CIUS Board member, Dr. Anthony Perl (please see page 5) on a new project: Transportation Quality Index, or TQI.

Introducing TQI—and its Moment:

This most vital dimension of transportation—the “travel experience,” the compilation of experiential and ergonomic factors, the full spectrum of everything that happens to (and within) people whenever they are in motion—has always been the first to shrink or be curtailed when things go wrong, under the too-easy assumption that it is “elusive” or “un-measurable.” As a result, many of the forces that affect how and when people travel—or even whether they travel at all—remain unavailable to new thinking, and a wealth of deeply rooted human needs and desires are left to slip inside the door as they can.

Mr. Hiss and Dr. Perl propose tackling both these crises simultaneously by creating, for the first time, a publicly available—and widely distributed—**Transportation Quality Index, or TQI.** TQI will be a certified, easy-to-understand metrics system that will provide quality-rating information and indicators that will both help travelers choose between trip options, and will point travel providers toward popular new services to develop and manage in the generation ahead. As distributed to professionals, the media, and the public, TQI will be instantly easy to scan and take in, and could look something like the “numbers system” in a Zagat’s restaurant guide, or the “5-star system” used by hotels. The Web will become a major access point for TQI’s icons and indicators.

After a rigorous review of existing transportation literature and performance measures, and a meticulous survey of the quality indicators that have already become standard practice in other sectors, such as hospitality, information systems, and communication, they will develop and test potential TQI indicators marked by clarity and transparency; ease and efficiency of collection; and potential for “uptake” in transportation planning and policy development. A **prototype set of TQI indicators** will be available a year after the project begins.

Al Appleton Project Description:

Transportation Innovation in New York

The Kaplan Fund and CIUS are supporting a project cutting to the heart of Institutional Capability and Financial Innovation in the next generation of sorely needed infrastructure. Mr. Appleton and CIUS Director Robert E. Paaswell PhD are jointly conducting this study that examines:

- 1. Bus Rapid Transit or What is Sometimes Called a Surface Subway;**
- 2. Value Pricing of Road Space as both a Traffic Management and a Transportation Funding Source.**

This project is being pursued in strategic partnership with the Regional Plan Association’s Transportation Financing project.

Mr. Appleton is also developing two important white papers concerning New York’s next infrastructure concerns -energy and water supply.



Energy and New York In the early 1990s, New York City carried out the country’s most successful water conservation program, reducing water consumption permanently by nearly 20% and avoiding billions of dollars in capital costs. Had this program not been carried out, the present drought would have left city’s reservoirs 25 percentage points lower in volume and what has been a mild drought would have been major infrastructure crisis. On paper, everything available to achieve similar results in the area of local and regional energy use exists. But though there have been notable individual achievements in energy conservation there has been a lack of systemic success. The reasons are institutional, partially a more complex energy industry, but mostly the lack of any entity, public or private, that had the same institutional incentives and resources to pursue a strategic policy of water conservation in the way New York City did. This current project will yield a concept paper on the institutional problems of energy management and spark a discussion on the institutional changes necessary to obtain for New York the full potential of energy conservation.

Urban Water Management - A Third Way There is currently raging in developing countries there is a current bitter struggle between those who advocate privatizing the delivery of water services and those who oppose it. Advocates, who include the World Bank and IMF, argue that water privatization is necessary to raise the quality of water management and obtain the capital necessary to modernize developing country water systems. Opponents argue that that water is a human right that should not be turned into a commodity and that water privatization is being imposed by the north on the south as part of an agenda of globalization that is seen as increasingly predatory. The need is to find a Third Way, one that can obtain the technical and financial advantages of privatization without its often predatory pricing and political implications, and one that can respond to the local environmental and social agendas involved in water management without succumbing to well meaning but technically incompetent, financially irresponsible politicized populism. It presents many of the issues that CIUS Director, Dr. Paaswell has stated he wishes to pursue starting, with the need for new models of infrastructure delivery.

Harry Schwartz Project Description

2020 Vision: Smart Growth for the New York Metropolitan Region at the Start of the 21ST Century

For over a year **CIUS** and the **Citizens Union Foundation** have been jointly conducting preliminary studies towards creating a comprehensive, planning handbook for the Metropolitan New York/Tri-State area, based on principles of “smart growth”. **CIUS Fellow Harry Schwartz** has been indispensable to this task bringing to the project a wealth of knowledge regarding transportation, urban and community development, open space preservation, regional planning, as well as previous best practices and model legislation, incentives and budget-priority setting. models.





CIUS pursues opportunities for collaboration both within CUNY and with other institutions, in order to bring greater resources to bear on projects and to broaden the scope of our educational programs.



CIUS is proud to be collaborating with the City College Architectural Center/ CCAC (WWW.CCNY.CUNY/CCAC) on a number of projects.

- 1) Having worked together to assist City College (CCNY) co-host one of the Municipal Art Societies' **Imagine New York** workshops for Northern Manhattan, CCAC and CIUS are building on ties formed with community organizations to collaborate on neighborhood based physical improvement and economic revitalization efforts.
- 2) CCAC and CIUS are currently working on design and planning efforts as part of an economic revitalization initiative for the East 138th Street commercial corridor in the Bronx. This work is being facilitated by **South Bronx Overall Economic Development Corporation (SOBRO)** community revitalization division. For information on SOBRO please go to: <http://www.sobro.org/>
- 3) CCAC and CIUS have joined with the **SUNY** network to support an initiative of **New York State's Quality Communities Task Force** (<http://www.state.ny.us/Itgovdoc/cover.html>), assisting cities and towns with visioning and planning for the revitalization of their downtown centers. This objective follows from recommendations of the "**Quality Communities Task Force**", *a collective effort of several state agencies to "find smart innovative solutions to strengthen our economy, enhance the livability of our communities and improve the quality of our environment."* While many of the other participating institutions will be focusing on reviving upstate communities, CUNY'S involvement will focus on revitalization efforts within the New York City Metropolitan Region.

CUNY Institute for Urban Systems / :Steven L. Newman Real Estate Institute Breakfasts

Infrastructure and Real Estate: Partners in New York's Future

This collaboration between CIUS and Baruch College's Steven L. Newman Real Estate Institute (<http://www.baruch.cuny.edu/realestate/>) is a new annual series of public events and applied planning and research on the relationships between real estate industry concerns, government land use policy and planning, and a broad array of infrastructure issues. During the fall of 2002 the first two in a series of breakfast conferences were held and were a great success! The remaining events are scheduled to be held at the William & Anita Newman Conference Center, 151 East 25th Street, 7th floor (between Lexington and Third Avenues). However, as interest often exceeds capacity, please contact the Newman Institute at (212) 802-5940 for location updates.

The schedule for the remaining dates in the breakfast conference series co-sponsored by the Baruch College Stephen L. Newman Real Estate Institute and CIUS is as follows :

Friday, January 24, 2003

Water, an aging system, what will it cost to renew, how sure is our supply, what is our locational advantage?

Friday, February 21, 2003

Moving West. Do we really need new rail? Extending the number 7 line options, costs and benefits

Friday, April 25, 2003

Moving East. Why Second Avenue first? Building the Second Avenue Subway Line. Options, Costs and Benefits

Friday, May 30, 2003

NY/NJ Transportation Linkages. Is the New West Side really New Jersey's East Coast?

Dr. Richard Hanley, the founding editor of the Journal of Urban Technology, is a professor of English at New York City Technical College of the City University of New York. One of the original board members of the CUNY Institute for Urban Systems (CIUS), Dr. Hanley has been addressing one of CIUS' core missions, curriculum development. He is currently developing a proposal for a cross-disciplinary, cross-campus degree program in community development technology.



Proposal for a CUNY Baccalaureate Degree in Community Development and Technology

Before the current recession and before 9/11, cities were coming back. Among the many factors contributing to that revival—especially within distressed or formerly distressed urban areas—was the work done by community development practitioners and the coincidental proliferation of technological innovations.

Whether the recession is a short or long one and whether the pace of urban revival continues or slows dramatically, if cities are not to fall backward into poverty and despair, the successes in community development must continue, and employing technological innovations must be a key to those efforts. Whether cities find themselves in a recession or in a flourishing economy, they will need to fight to continue to make improvements in affordable housing, economic development, and environmental conditions. And a community development workforce trained to understand the social, economic, and technical tools available to communities to accomplish these tasks will be critical.



Given its mission, the CUNY Institute of Urban Systems (CIUS) is institutionally positioned to contribute to this effort by spearheading a collaboration among actors both within and outside of the university to develop a unique program designed to prepare students for careers in the field of community development. The program's uniqueness will reside in its focus on technology's role in the social and economic development of urban communities. Students in this multi-disciplinary curriculum will take courses in various branches of CUNY. CIUS will help design the curriculum and then serve as the research center and internship coordinator for the program.



While housing construction and renovation had been the mainstays of community development organizations in the past, in the future the field will expand to include economic development, community organizing through the use of new technologies, workforce development, participatory planning, Brownfields remediation, and other environmental activities such as environmental monitoring and reporting. Any program designed to prepare students for careers in community development will now have to take these changes

into account and include a significant technology component. It is the technology component that makes this proposed program unique and that makes CIUS the appropriate locus for its development.

The curriculum will be based on a solid liberal arts foundation and will make use of programs and facilities at numerous CUNY branches. The curriculum will be designed in conjunction with representatives of several branches of CUNY and with outside institutions that have expressed an interest in cooperating.

All students working towards the CUNY baccalaureate in community development and technology would be placed in a one-semester, full-time internship. The internship program (as well as the program's research agenda) will be coordinated by the CUNY Institute of Urban Systems. In addition to preparing students for careers in community development, the program will also be designed to articulate with graduate programs.



Our research tells us that the field (or "industry" as some now call it) of community development is one whose growth, while perhaps slowed by the recession, will continue. We also hold that the field will become more and more technology dependent and that students with aspirations in this field would be best served by an education grounded in the critical thinking offered by a liberal arts program that is reinforced with an understanding of the benefits of wisely applying technologies to the problems of cities.





CIUS Board member Dr. Anthony Perl has recently been named as the new director of the **CUNY Aviation Institute**, a joint project of York College and CIUS. Last year, while on sabbatical from the University of Calgary, Dr. Perl was a Visiting Scholar at CIUS. During this time he released **Rethinking Rail Passenger Policy in the 21st Century (University Press of Kentucky, 2002.)** Dr. Perl's expertise on transportation matters is routinely sought by the media and in April, 2002, he was invited to testify before Congress both as an academic analyst of Amtrak's political struggles and on ways in which governments can innovate and improve on transportation planning, operations and finance.



The City University of New York's Aviation Institute at York College was recently created with sponsorship from Port Authority of New York and New Jersey. CIUS is providing technical assistance to their new Aviation Institute. The Aviation Institute's mission is to develop the academics skills, specialized training, and work-study opportunities that prepare students for entry into professional careers in the aviation industry. The Institute will also provide advance study coursework and continuing education to support career development for the aviation industry in Southeast Queens and throughout New York City.

The Aviation Institute will add value to New York's aviation sector by supplying a critical ingredient for any successful business strategy in today's challenging environment: "Know how."



Education

The Aviation Institute can help aviation businesses tap into a talented pool of promising and motivated City University of New York graduates. The Aviation Institute's new courses will develop key skills by enabling students to learn about the important issues and challenges facing today's aviation industry. The Institute will also develop aviation content to be incorporated into York College's existing courses in business, information technology, and other subjects.

Professional Development

The Aviation Institute's Professional Development Program will offer topical seminars and custom designed training causes to meet the needs of New York's aviation businesses. We can deliver top-flight faculty from our network of academic experts within the City University of New York—home to the region's university Transportation Center, and from leading consultants and aviation professionals associated with the Institute. Aviation Institute staff will provide a no-cost corporate skills consultation that matches our professional development resources to the specific needs of an individual business. in business and government while stimulating their students.

Hub of Expertise

The Aviation Institute will be a place where intellectual leaders in air transportation find a stimulating and productive environment to work on problems and share their latest findings—from best practices in security to innovative management techniques to leading edge technology. York's Aviation Institute is committed to building a hub within the global network of aviation expertise that benefits its partners.

WORK OF CIUS BOARD MEMBERS



James Cohen Ph.D : *CIUS Board Member, Professor James Cohen, of John Jay College's Dept. of Economics and Public Administration, has prepared a report for CIUS on "Innovative Uses of Credit for Financing Infrastructure"* Professor Cohen starts with the premise that the New York region must build new infrastructure. to mitigate increasing congestion in its transportation network, arguing that both public and private credit are needed to accomplish this objective. He relies on an analysis of historical developments in infrastructure finance, starting with government investment in toll roads and canals in the 19th Century, which are reinvented through New Deal credit programs in housing and agriculture. Those New Deal programs then provide the institutional precedents for contemporary initiatives such as the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA), state infrastructure banks (including a nascent bank in N.Y. state) and tax increment financing initiatives (including initiatives floated by the Bloomberg Administration). Cohen notes that public initiatives ultimately rely on support from the private sector, which is a primary source of loans to government for capital projects. With appropriate synergy between government and the private sector, involving tax exemptions, public authorities and loan guarantees, Cohen maintains that the outlook for funding major infrastructure improvements is much brighter than on the operating side of the budget equation, where cuts, not improvements, are the likely order of business for the near future.



CIUS Board Chair Victor Goldsmith, Ph.D is the Director of the CUNY-wide Center For Applied Studies of the Environment of the City University of New York, and Professor in the Dept. of Geography at Hunter College. He has recently served as Acting Dean of Research at Hunter for two years, Coordinator of Incubator Development, and has also served on two New York State Governor's Coastal Erosion Task Forces, the NY/NJ Harbor Oil Spill Oversight Advisory Panel (co-chaired by the commissioners of NY and NJ), and the NY State Task Force on Petroleum Spill Emergency Environmental Protection Plans.



For the second year in a row, Professor Goldsmith and Professor Charles Strozier of John Jay College of Criminal Justice will co-convene a special conference on security sponsored by: FEMA (Federal Emergency Management Agency) **"Homeland Security after 911: Urban Hazard II."** to be held: John Jay College of Criminal Justice of City University of New York **On: January 23rd and 24th 2003.**

For more information please contact Professor Goldsmith at 212.772.5450 or e-mail him at vfg@hunter.cuny.edu



CIUS Board Member Martin Hanlon Ph.D is an Associate Professor in the Department of Urban Studies at Queens College of the City University of New York, where he teaches public management, public policy, and urban transportation policy. Dr. Hanlon is the director of the M.A. in Social Sciences program and graduate advisor for the M.A. in Urban Affairs program at Queens College. He is a former chair of the Urban Studies department and currently serves on the board of the Business and Liberal Arts program.



Project Title: Highway Demolition and Neighborhood Renewal: Creating Community through Freeway Demolition. The construction of urban freeways under the interstate highway program had a devastating impact on cities throughout the United States. Upwards of one million people were displaced

by highway construction, many of whom were low income residents of minority communities. A new research project directed by CIUS board member, Dr. Martin D. Hanlon of the Urban Studies department of Queens College, will examine efforts by urban communities to heal the wounds of urban freeway construction. Some community groups have called for the demolition of underutilized freeways and replacing them with needed parkland. Others have called for replacing blight-inducing elevated freeways with tunneled segments, or covering depressed freeways with landscaped decks. The research project will provide the first systematic analysis of this important trend in neighborhood revitalization.



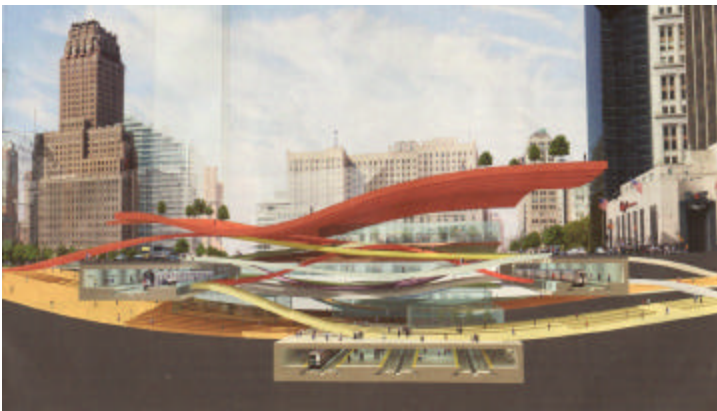
Michael Sorkin (Green Lecture Series, Director CCNY/SAUDLA Urban Design Program)

The Green City Lectures bring a range of voices to City College to address questions of the nature, design, and implementation of sustainable practices in city making. The series is informed by the notion of the urban **ecological footprint**, the idea that a city must be measured not simply in terms of conventional political or density boundaries but by its impact on the larger global environment that it requires for its food, oxygen, and water supplies and for the take-up of its carbon dioxide and wastes. The lectures themselves seek to provide a broad perspective on the technical, conceptual, formal, economic, cultural, and political bases for creating an urbanism in harmony with the planet as well to review current best practices in green urban design. For more information on dates and times please go to <http://www.cuny.cuny.edu/architecture/archprog/intropage.htm> Participating speakers include: **Jeff Miles** , **Tim Beatley**, **Jean Gardner**, **Margie Ruddick**, **David Eisenberg**, **Hillary Brown**, **Michael Rios**, **Robert E Paaswell** .



CIUS INTERN PROGRAMS

CIUS had the opportunity to have a number of the new **CUNY Honors College** students as interns during Summer 2002. These students, competitively selected into a specially designed intense program of study are resident across the CUNY system. Ours came from CCNY, Baruch and Queens College. The student's project consisted of working preparation for a new CCNY Architecture-Civil Engineering Course (now taking place this fall) that is designed to be a studio examining rebuilding of infrastructure in lower Manhattan. The students were asked to assemble a digital photographic record of the site to be studied, and to locate and map all subway entrances in that region. They were also assigned readings dealing with urban design and development issues, including Jane Jacobs', *The Death and Life of Great American Cities*, Edmund Bacon's *Design of Cities*, and works by William H. Whyte. They also assisted CIUS and its sister Center UTRC in working on a number of ongoing research projects. A number of the students remain part-time during the current academic year, adding great skills and much energy to the work of the Institute.



Special Interns working with CIUS this year



SOANYA AHMAD

A second year student at the City College School of Architecture, Soanya has a particular interest in sustainability, and her work at CIUS has exposed her to groups concerned with rehabilitating and upgrading existing infrastructure systems, within the framework of "smart growth."

Soanya is also a member of the CUNY Honors College Program which has allowed her to expand her learning environment beyond the classroom in a unique multi disciplined inter college exchange. This in turn has broadened the wealth of experience she brings to her work at CIUS. Soanya was recently featured in the CCNY Alumni magazine.



YASKIRA PAULINO

An engineering and economics student at City College, Yaskira joined us this semester. She is the former NYC&L sub-Region Rep representative for the Society of Hispanic Professional Engineers.

She is also the Formal Treasurer of the Latin American Engineering Students Association where she has served several times as Chairperson for the High School Student Leadership Conference that is hosted every year by the organization at the City College of New York. Her particular interest in Economics complements CIUS's exploration of new financing methods for public works in the next generation of infrastructure systems.

CUNY Institute for Urban Systems (CIUS)



THREE CORNERSTONES OF CIUS

TECHNOLOGY: A host of new communications technologies will create more centralized control and more real-time information to be used by infrastructure managers and users.

INSTITUTIONS: CIUS is examining the role of Institution to design, operate and manage 21st Century infrastructure.

FINANCE: Modernization and capital expansion demanded by new technologies and institutional change will call for new methods of financing, which itself will impact infrastructure institutions

The CUNY Institute for Urban Systems (CIUS) has as its primary goal the shaping of these forces and their impacts, while simultaneously providing leadership through policy advisement and practice.

CUNY is a natural home for the Institute. The Institute's Board of Directors is composed of distinguished faculty from a number of CUNY campuses. With strong schools of engineering and architecture, and noted programs in urban planning, law and management, CIUS is linking academe and business to provide solutions to the problems of aging infrastructure.



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Purpose of the CUNY Institute for Urban Systems (CIUS)

To shape the next generation of infrastructure investment and its impacts, while simultaneously providing leadership through policy advisement and practice. This goal is accomplished through special programs related To: Research and Education

RESEARCH: CIUS is researching current investment in infrastructure and how it is affected by new technology, institutional change and innovative financing. Under the guidance of distinguished faculty, CUNY graduate and undergraduate students conduct research and participate in the work of the Institute, which enriches their academic experience, preparing them for careers in urban planning, transportation management, infrastructure financing and other related fields.

EDUCATION/TRAINING: In addition to research, an integral CIUS objective is to provide education and training for new infrastructure professionals. This objective will be achieved in two ways:

- 1) **Academic programs** to prepare students, from certificate programs to four-year degree programs, and
- 2) **Infrastructure training** through professional development programs to aid employers train or retrain both management and labor..