



**To: The Honorable Mary Ann Handley, Senate Chair  
The Honorable Roberta Willis, House Chair  
The Honorable Anthony Musto, Senate Vice Chair  
The Honorable Juan Candelaria, House Vice Chair  
The Honorable Dan Debicella, Senate Ranking Member  
The Honorable Pamela Sawyer, House Ranking Member  
Members of the Higher Education & Employment Advancement Committee**

**From: Marc S. Herzog, Chancellor  
Connecticut Community Colleges**

**Re: College Remediation Informational Forum**

**Date: January 28, 2010**

**Connecticut Community Colleges  
Developmental Education: Overview**

First, I want to express my appreciation to the Chairs of the Committee for giving us the opportunity to focus on the important issues related to developmental education and our efforts to enhance student success throughout our system through our work with Achieving the Dream, with the Gates Foundation Developmental Education Initiative, and through our ongoing work to ensure that students coming to a community college find an opportunity for success as well as for access.

**Program Review and Investigations Committee**

Similarly, I very much appreciate the work of the Program Review and Investigations Committee for the attention paid to developmental education in its report on the Alignment of Postsecondary Education and Employment. In particular, the preliminary report presented in October 2009, helped to bring needed attention to “the preparedness of Connecticut low-income students for postsecondary education” and the growing need for remediation among students throughout Connecticut higher education. The concluding sentence of the preliminary report also indicates that “higher education is increasingly being asked to provide non-academic support services to students, particularly within the community college system. ... [suggesting] that students... have more social service needs because they are often older, part-time, commuters, and have additional work and family responsibilities.” In addition to these obstacles, I would emphasize a lack of adequate academic preparation, delayed entry to college, socioeconomic disadvantages, lack of college and career information, all of which create roadblocks to student success.

Using excerpts and statistics from an earlier report on Connecticut’s talent pipeline from the Office of Workforce Competitiveness, the PRI report indicates that “with the exception of Washington DC, Connecticut’s 2007 scores on the National Assessment of Educational Progress show the widest gap between higher- and lower-income students in the entire country.” A 2006

report from the Nellie Mae Education Foundation, *New England 2020: A Forecast of Educational Attainment and its Implications for the Workforce of New England States* reinforces the impact of this achievement gap for particular student populations. “Discrepancies in achievement between low-income and higher income students, between minority students and white students in performance” present daunting problems for the New England states based on the demographic projections contained in the report.

### **New England 2020 – the Achievement Gap in Connecticut**

*“It is estimated that the increase in young minority workers in Connecticut and other southern New England states will account for almost 40 percent of all ... workers by 2012, and 50% of all young workers by 2020. ... The economic impact of the achievement gap has the potential to affect Connecticut more seriously than its neighboring states since only in Connecticut has white out-migration exceeded minority in-migration.*

*And while the region’s African American adults have seen positive increases in achievement from 1990 to 2000, with the number of African American adults participating in college up 5.6% and the number of degree holders up 1.2%, these numbers have increased more slowly than the numbers for whites, up 7.3% and 4.7% respectively. The result has widened the achievement gap. The threat of a widened achievement gap was especially serious for the region’s Hispanic population in the 1990s. ... Only 40% of the Hispanic population that began college completed it with a four-year degree as compared to 56% of the white population. 58% of the Hispanic population in the New England region completes high school in comparison to 86% of the white population.*

*Lower levels of educational achievement for the region’s minority population, coupled with a widening of the gulf between white and minority rates of success, implies that we are wasting some of the region’s most valuable demographic resources and undermining the quality of our workforce. This is evident in the mismatch between sources of demographic growth and sources of educational achievement within the region.”*

*The populations that are growing are not achieving the gains in educational attainment needed to ensure a competitive workforce for Connecticut’s future.*

*New England 2020: The Nellie Mae Education Foundation 2006*

### **The Connecticut Community Colleges: Ensuring Access and Success**

Since their founding more than 45 years ago, Connecticut’s Community Colleges have become the primary point of entry to higher education in Connecticut for students seeking affordable, convenient access to the opportunities offered by higher education including the knowledge and skills required by Connecticut’s businesses and industries as well as the college-level skills required for further education and economic self-sufficiency. The Connecticut Community Colleges now serve over two-thirds of the minority undergraduates enrolled in Connecticut’s public colleges and universities. This number has been consistent over the last decade, while the percentage of minority students attending the colleges has grown by 30% between 1998 and 2008. In addition, the community colleges serve the vast majority of the Pell grant recipients at the state’s public institutions.

Through low tuition and financial aid, we have consistently provided and expanded access to higher education for low income students. Approximately 43% of all students attending Connecticut Community Colleges received financial aid this past fall semester. Financial Aid applications continue to increase on an annual basis. Thus far in 2009-2010, the CCC Banner Financial Aid System has processed 53,480 applications. This represents a 19% increase over 2008-2009, a 67% increase over 2004-2005, and a 158% increase over 2000-2001. The majority of aid comes largely through Federal grants, college scholarships, and a 15% set-aside of tuition dollars. The typical financial aid recipient at a community college is a woman, a single head of a household of 2.4, with an income of slightly above \$25,000.

However, the traditional community college commitment to access and to meeting student needs, is being challenged by the dramatic growth in enrollments (30% growth in headcount – 1998-2008) and the increase in the number of younger, full-time students (104% growth in Full-time Students 1998-2008) studying at community colleges in recent years, and the education requirements of the Information Age that require us to prepare students to be successful at college-level work, earning a credential, or in meeting the expectations of Connecticut's businesses and industries and a highly competitive job market, as well as the academic requirements for transfer and continued educational attainment.

### **Student Assessment**

Our students come to us with the hope of improving their skills, their career opportunities, and the quality of their lives, but they also often come with disadvantages that can limit their potential for success. Only by addressing the myriad obstacles that face students when they enter a community college, including educational deficits and socioeconomic disadvantages, can the colleges effect positive change in the lives of the students they serve, improve graduation rates, and meet the needs of the State of Connecticut for an educated workforce.

As students matriculate at a community college they are required to take a placement examination to evaluate their level of preparation and to ensure that they are placed in an appropriate math or English course. The test instrument used throughout the system is the Accuplacer test of the College Board, with other measures such as SAT scores, high school courses and GPA included in consideration for placement. Our Board of Trustees has mandated on-going research on the use of these assessment tools for effectiveness in predicting student success.

### **College Readiness**

Studies of Accuplacer scores on the national level reveal that as many as 60 to 70 percent of entering students taking the test across the nation as well as in Connecticut are underprepared to succeed in college-level Math or English, the building blocks of college curricula. During any given semester, an average of 25 percent of community college enrollments are in developmental education courses, outside of degree requirements but essential to successful program completion.

Community college data reported to the General Assembly by the Department of Higher Education annually in Higher Education Counts: Achieving Results, shows enrollments in

developmental math ranging from 16 percent to 20 percent between 2000 and 2007 with pass rates ranging from 47% to 51% in the same period. We have established a goal for 2011 within these performance measures of increasing the pass rate to 60 percent.

### **Student Success Initiatives**

To reach this goal and to enhance our efforts to serve the growing number of students who are unprepared to succeed in college-level courses and therefore unable to complete degrees or certificates, the Connecticut Community Colleges have over the years undertaken many efforts to meet and understand the needs of these students. Most recent is our participation in the national student success initiative Achieving the Dream, a grant-funded effort to expand opportunities for academic and career attainment for targeted student populations, specifically low income students, students of color, first generation college goers, and other groups traditionally underserved in higher education.

In 2005, Capital Community College, Housatonic Community College, and Norwalk Community College, three of Connecticut's twelve community colleges, were selected to be participants in this national initiative sponsored by the Lumina Foundation and its funding partner the Nellie Mae Education Foundation. The college system as a whole received a policy planning grant to review and recommend state policies that would advance student success for all students.

Each college received grants for program planning and development to improve access to college level-courses and academic success. Specific academic and student support interventions have been developed and tested throughout the course of the initiative since 2005 to help more students achieve their goals as indicated by benchmarks such as:

- Successfully completing the courses with a C or higher
- Advancing from remedial to credit-bearing courses
- Enrolling in and successfully completing gatekeeper courses
- Re-enrolling from one semester to the next
- Earning degrees or certificates.

### **Tracking Outcomes to Measure Success**

Student outcomes by demographic group have been tracked and now form the basis of institutional priorities and strategies for improving institutional and student performance. Promising practices and new instructional approaches emerging from the initiative are being introduced, replicated and brought to scale throughout the Connecticut Community Colleges as the result of the policy planning grant that has fostered a culture of inquiry, enhanced data collection and accountability, and encouraged student access, retention, degree completion and success.

As new instructional methodologies and strategies are tested at Achieving the Dream colleges, the most promising practices in developmental education are introduced at other system colleges. Several of these promising practices are mentioned and endorsed in the PRI report including early testing and remediation, accelerated, technology-assisted instruction, and contextualized courses.

### **Promising Practices Promote Student Success – Placement Standards**

As recently as 2007, the system moved to establish common placement standards based on Accuplacer results that are consistent throughout the 12-colleges. A 2006-07 validity study by the Community College Research Center at Columbia University of scores, developmental placement, transitions and performance in college-level courses revealed inconsistencies in data collection and placement practices among the colleges. While Board policy mandates the use of placement testing for students entering degree programs, variations existed among the colleges in terms of populations served, levels of developmental education provided, and scores for determining placement in developmental courses.

Academic leaders and faculty from throughout the system, in collaboration with the faculty-driven Center for Teaching, recommended implementation of consistent standards, common cut scores, for all system colleges to address this major obstacle to assessing and improving student success throughout the system. The study itself, information on the alignment of education and 21st century workforce skills, and faculty recommendations for a unified approach to placement in developmental programs, along with legislation supporting common course numbering and consistent placement standards among the two-year and four-year units of Connecticut higher education, led to the common standard and significant improvements in articulation among the units through guaranteed admissions and articulation agreements.

The common placement standard for developmental courses has been implemented at all 12 community colleges. An integral part of moving towards this common standard and policy implementation is a commitment to additional research that will evaluate the impact of changes in the required placement scores on college operations and finances, enrollments in developmental Math and English courses, and outcomes in developmental education.

### **Developmental Education Initiative**

Student success in developmental education was one of four areas identified at the starting point of the Achieving the Dream initiative in Connecticut, at both the college and system levels, as having the greatest potential to realize the initiative's goal to improve outcomes for academically and economically disadvantaged students. The Community Colleges began to explore data on student outcomes, including developmental education outcomes, within the earliest days of their planning projects.

As a result of the work on Developmental Education, in July 2009, two of the Achieving the Dream colleges, Norwalk and Housatonic, and the college system also received grant awards through MDC, on behalf of the Gates and Lumina Foundations, to sustain and expand the progress realized through the innovative practices resulting from Achieving the Dream, particularly in the area of developmental education. The Connecticut system is one of five states in the nation to receive a three-year grant to accelerate similar innovative programs throughout the system of community colleges.

### **Student Data and Developmental Education**

Expansion of data collection and reporting has led to the development of new measures of academic achievement by the Achieving the Dream data project. Additional studies specifically on developmental education reveal that “the amount of developmental education (credit hours,

FTE, registrations, sections, and headcount enrollment) generated by the Connecticut Community College System has increased substantially over the past five years. Significant changes have occurred especially during the last two years that are likely a result of the changes in the system's College Level English and Math placement policies.

Most of the increase, however, is a result of the significant gains in enrollment experienced during the same time period. The proportion of system and college FTE attributed to developmental education has remained fairly constant over the last five years, even with the noticeable bump up occurring in the fall of 2008 that carried over to the fall of 2009.

**Developmental Education: % of Total Community College System (CCC) FTE**

	F05	F06	F07	F08	F09
CCC	14.3%	14.4%	14.1%	15.4%	15.1%

Proportions are consistent over time, but this does not take away from the fact that developmental education accounts for 15.1% of the FTE and 14% of the registrations generated by the system in the fall of 2009; serving 14,683 students.

The data tells us that faculty and staff in the Connecticut Community College System do a lot of work in the area of developmental education. Twenty-six percent of the students enrolled in the system this fall are enrolled in some sequence developmental education. These 14,683 students are "at risk"; underprepared for college work. The number of students underprepared is actually much higher noting that this assessment focuses on enrollment and not placement. "... The challenge of providing adequate and effective supports that facilitate student success is a struggle, especially given the current fiscal climate." \*

\*The entire report "Trends in Developmental Education Enrollments, December 2007, from our Office of Research, Planning and Assessment is attached for your information.

There has been a 9 percent increase in the number of Developmental English credit hours and FTE generated in one year (Fall 2008 to Fall 2009) and a 41 percent increase over the past five years. There has been an 8 percent increase in the number of Developmental Math credit hours and FTE generated in one year and a 26% increase over the last five years. Twenty-six percent of the students enrolled in the system this fall are enrolled in some sequence of developmental education.

**Scaling Academic and Service Innovations**

The work of Connecticut's Community Colleges and the funding support from the Gates and Lumina Foundations for the Developmental Education Initiative are important steps towards a solution that will replicate innovative learning strategies to meet the needs of students. The grant funding will foster the further development and expansion of the most promising practices that are showing positive results in improving student success including:

- Computer-based, self paced instruction

- Open Entry / Open Exit math fresher courses
- Accelerated Developmental Education
- Embedded, expert tutors
- Intensive advising and academic planning
- Integration of reading and writing courses to develop critical thinking skills
- Learning Communities and paired courses
- Additional faculty recitations
- Early assessment testing at partner High Schools
- Ongoing research on developmental outcomes and college-level success

The PRI report recommends the adoption of several of these academic and support strategies already in place at community colleges for adoption to improve success and completion rates as well as to compensate for the growing demand for support services among students entering college

### **Opportunities for Improvement**

Reports from the four U.S. DOL Grant projects received by our system between 2005 and 2009, all of which involve many of the academic and service interventions discussed above reflect the importance of these support services. Federal funding has increased the availability of tutors and the use of expert, embedded tutors, provided academic advising and individualized planning, and increased use of student assessment and instructional technology. The effectiveness of these interventions is demonstrated in improvements realized in student retention, completion, graduation and earning power. CT DOL data on wage increases for one cohort of nursing and allied health graduates from the first US DOL grant show a 114 percent increase in earnings within 6 months of program completion.

The PRI report categorizes the Community College graduation rate improvement plan, submitted to this committee in 2008 which advocates for ratcheting up support services through the addition of full-time faculty and staff to provide student services, as “costly.” The report recommends what it describes as “no cost/low cost” strategies including an “early warning system” for students encountering academic difficulties. Unfortunately, being aware that a student needs additional services is not the same as being able to provide those services. Our colleges often use early warning systems, but having this information without addressing the problem is meaningless. In the previous 5-year faculty plan submitted to this committee, we noted that our goal of reaching a 65 percent full-time to part-time faculty ratio falls further behind in each consecutive year, despite our best efforts and those of this committee to support our needs by adding full-time faculty and support personnel as funding permits.

In the same report, it was noted that the average student to counselor ratio at community colleges is approximately 1 counselor for 822 students. Enrollment has grown and outstripped our ability to meet the demand for services in each of the last ten years – a trend that appears likely to continue for the immediate future. With 10 percent more students this fall and approximately 10 percent fewer dollars to serve those students, another troubling gap becomes apparent with the growing need for developmental education adding another dimension to the calculus.

### **Testing Promising Practices: Academic and Student Support Services**

Many of the other strategies recommended in PRI's report are already in place at the Achieving the Dream colleges and many of the other sister colleges as college priorities and restricted resources allow. The recommended use of more "fine grained" assessment of deficiencies and specific strategies to address these deficiencies is underway at all of our colleges as demonstrated by our involvement in Achieving the Dream and the studies of student success and developmental enrollments discussed above. More sophisticated student assessment is also a primary focus of our work with the Developmental Education Initiative.

In several sections of the report, Key Train, a technology-based tutorial, is noted favorably as a potential means for accelerating or reducing the need for developmental education. Key Train is currently available at all 12 colleges, with funding from the Department of Labor grants. Other technology-based tutorial programs are also widely available for pre- and post-assessment support.

Similarly, other recommendations included in the PRI report such as modularized instruction, (laddering credentials and degrees), paired and hybrid courses that link developmental courses with academic content courses have been part of each of the four U.S. DOL grants for community-based job training in nursing and allied health, manufacturing and alternative energy providing models for replication that will sustain and expand successful practices into other curriculum areas at all our colleges.

Recommendations to strengthen high school graduation requirements, passage of the reform legislation, along with our High School Partnership Program and ongoing work with all Connecticut's high schools to align curricula will help significantly in reducing remediation by preparing more students to succeed at college-level studies.

### **Prioritizing Student Success**

There is no magic formula to solve the college readiness problem or to ensure student success. It takes hard work and resources to discover and test best practices in teaching, to analyze the data on what works and for which students and, in the words of Undersecretary of Education Martha Kanter, to "do more of what works." It is important to note that much of the most innovative work done on student success and developmental education has been made possible by Federal or private grant funding. And while the PRI report indicates that "Federal initiatives may come to fruition promoting attendance at Community Colleges," even if approved, new funding from the Federal government will not eliminate the financial problems faced by public higher education in the long term and Federal funding cannot be used to supplant other state support.

Only fundamental changes to the State's priorities and its allocation of funding to support those priorities can rectify underfunding of the educational services essential to ensuring long term prosperity for Connecticut and its citizens. An article in *The New England Journal of Higher Education*, Summer 2009, reports that "state governments need to meet their responsibilities... state support for higher education has been falling for the past 25 years.... The National Conference of State Legislatures chastised its own members for treating higher education as the 'balance wheel' of state budgets, receiving whatever is left after other priorities..." T. Hartle, Sr. VP, the American Council on Education, "Ambitious Goal," *New England Journal of Higher Education*, Summer 2009.

## **A Blueprint for Prosperity**

As part of the Blueprint for American Prosperity, a multi-year initiative to “help build human capital, narrow disparities by race and income, and grow a more robust and diverse American middle class, the Metropolitan Policy Program of the Brookings Institute issued a report in May 2009, called *Transforming America’s Community Colleges: A Federal Policy Proposal to Expand Opportunity and Promote Economic Prosperity*. The report advocates for the establishment of a national agenda “to transform our community colleges into engines of opportunity and prosperity by targeting new investments to those colleges that succeed in helping their students succeed.” The Brookings report indicates that community colleges receive “less than one-third the level of direct federal government support as do public four-year colleges” causing them to depend disproportionately upon state and local governments.”

The report also cites a study by the National Center for Higher Education Management Systems in 2007 to suggest the “positive relationship between the availability of resources per student and degree attainment. When an increase in enrollment creates a “crowding” of students vying for scarce college resources, rates of degree completion decline. This is precisely the situation faced by ... community colleges, which have seen increases in student demand unmatched by increases in public subsidies.”

The report describes Achieving the Dream as an “ambitious initiative,” with transformative impact when “coupled with capacity-building efforts” – i.e., “significant new resources.” p.19 The report recommends doubling the Federal investment in community colleges allocated to campus infrastructure, technology, recruiting and developing expert faculty– all dedicated to improving student success with rigorous measurement, including a real-time data system for tracking individual student outcomes ... throughout the education system and into the labor market.”

President Obama’s American Graduation Initiative includes many of these recommendations in a numerous grant-funded initiatives, and we believe Connecticut is well positioned because of our success in winning four U.S. DOL Community Based Job Training grants along with the current involvement of our community colleges in student success initiatives such as Achieving the Dream and the Developmental Education Initiative, and in other collaborative grants through the American Recovery and Reinvestment Act in alliance with the Connecticut Education and Training Commission, the Energy Sector Partnership, the Office for Workforce Competitiveness and the Departments of Social Services and Economic and Community Development, and the Connecticut Business and Industry Association.

In an economy that is knowledge based, where human capital is the key resource for economic development, and where individual growth and earning power advance in relation to educational attainment, community colleges can serve as a resource for Connecticut offering opportunity as never before. But they, in turn need resources to assess student needs, develop and deliver programs and services to meet those needs, to innovate and bring promising practices that support student success to scale.