The *Working Poor Families Project* was established in 2002 with the assistance of the Annie E. Casey, Ford, Joyce, and C.S. Mott Foundations to address the increasing challenges faced by America’s working families. This national initiative annually examines the conditions of low-income working families and supports state nonprofit organizations dedicated to strengthening state policies that promote family economic advancement and success. To learn more, see www.workingpoorfamilies.org

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Thanks also to Brandon Roberts and Maggie Adair for their editorial contributions.
Policy and business leaders at the state and national levels from President Obama down are calling for increased numbers of college graduates to revive U.S. economic competitiveness. To reach that goal, postsecondary institutions must be ready to address the academic needs of traditional and non-traditional students alike.

Because of the educational deficits among many high school graduates and adult learners, basic skills classes in reading, writing, and math have become important pre-requisites for certificate and degree programs. However, preparing students for college-level courses requires a large measure of postsecondary resources and leaves students frustrated by the time it takes to get to their career-related studies. Many students drop out before completing their full developmental education course load, well before attaining a two- or four-year degree.

Connecticut, and every other state, must improve its success rate for developmental education delivery. By the very act of enrolling in developmental education courses at community colleges, students are showing motivation and commitment to learning—characteristics that are important for success in the workplace. For policymakers, the academic success of adult workers should elicit great concern as almost two-thirds of the 2020 workforce was already employed before the current recession. Investing in developmental education reforms will build the ranks of skilled and credentialed workers for Connecticut’s employers, which in turn will benefit the state’s economy.

Connecticut community colleges have begun innovation and reform of developmental education. Among the issues that need to be addressed are the lack of uniformity in course content and delivery among the 12 colleges; more robust data collect on student outcomes, particularly those groups of students most in need of developmental education; and continued reforms over time to ensure developmental education courses are meeting the needs of traditional and adult working students.

The importance of preparation for academic success can’t be underestimated, but developmental classes can take a big bite out of students’ limited time and money, especially that of older working students. As currently delivered, developmental coursework can add several semesters to students’ plans of study, reduce students’ long-term access to financial aid because of ongoing eligibility requirements that depend on academic progress, add to an already high dropout rate, and ultimately impede an increase in college graduates.

**Developmental Education at Connecticut Community Colleges** provides information on:

1. the importance of developmental education (D.E.) for a growing number of students, both traditional and adult workers;
2. the role community colleges play in delivering developmental education;
3. D.E. innovations Connecticut community colleges are undertaking; and
4. steps policymakers can take to support the colleges in their efforts to improve D.E. policy, course content, and delivery methods.
Developmental Education, What It Is and Why We Should Care

Developmental education includes college preparatory classes in basic math, reading, and writing. Student ability runs along a continuum; some test well above the cut score for developmental education while others test just below. Still others score nowhere near the cut. Students testing just below the cut often only need refresher classes to bring them up to college-level ability while those far below have not acquired the basic skills needed for college-level study. Interspersed along the continuum are students whose English proficiency limits their studies.

Just as advocates are calling for the reform of Pre-K-12 education, so are business leaders and policymakers calling for the revamping of postsecondary education, particularly developmental education. If a job-related certificate or a college education is necessary for workers to command a family-supporting wage, and if national leaders are calling for an increase in college graduates, core components of our education system must be made adequate to the task.

Glossary of Terms

- **Accuplacer**: The national placement test used by Connecticut community colleges to identify the knowledge and ability of newly entering students. Critics of the test say it is inadequate as a diagnostic or predictive tool.
- **Accelerated Learning, Open Entry/Open Exit, Self-Paced Instruction**: Flexible class delivery method that allows students non-traditional means by which they can acquire course material. Courses can be completed in a week, month or semester, depending on students’ academic ability and previous preparation. This method works for highly motivated students who want to control their learning schedule.
- **Chunking, Modules**: Methods by which semester classes are broken up into smaller units, allowing students to take classes at alternative times, in a series, and containing smaller segments of information. When all chunks/modules are completed, credits comparable to that of a full-semester class are awarded.
- **Contextualization**: Delivering basic skills training using materials in students’ field of interest.
- **Cut score**: Point or score on the Accuplacer or other entry test below which students need developmental education classes; students scoring above cut are ready to take college-level courses.
- **Integrated Course Delivery (I-BEST Model)**: Basic skills classes are combined with the content of college-level courses in career areas of interest to students. Classes are co-taught by one content and one remedial teacher. Research shows that this delivery method engages students more readily and results in greater numbers passing the course than delivery methods that keep developmental and college-level content separate.
- **Learning Communities**: Newly arriving community college students are assigned to a cohort with other new students. The intent of this model is to encourage an intellectual, emotional, and social connection among the group with students sharing knowledge, problem-solving skills, and, hopefully, academic success. Learning communities move through classes and semesters together.
- **Student Support Services**: Includes academic and non-academic counseling, assistance with financial aid applications, and motivational support to continue studies from developmental classes to college-level courses and on to an Associate’s Degree or work-related certificate.
**Developmental Education and the Academic Achievement Gap**

The state’s academic achievement gap, one of the greatest in the country with regard to race/ethnicity and income, does not disappear once students transfer to postsecondary education. Students of color and those from low-income families often are the cohorts of students who have not attained the educational foundation for college studies. Students needing developmental education require a host of academic supports to work their way through college curricula to obtain a degree or certificate.

The most difficult developmental education problem that faculty and administrators face is teaching basic skills to students who never acquired them in primary or secondary school. Educators struggle to adapt curricula to a growing number of enrollees with an elementary ability in English and math. To get to the root of this problem, administrators and policymakers must ask themselves a basic question: At what level of education should remedial skills in English and math be taught? Should a student be allowed to graduate from high school without them? If a student slips through the academic cracks and ends up graduating from high school underprepared, is college the most appropriate place for such instruction?

Many administrators and policymakers are focusing on delivering developmental education at the high school level, testing students in their junior or senior year to then provide college preparation before graduation. Attention to remediation at this point in time will improve student transitions between high school and college and could remedy the gap for students with minimal academic deficits. Of course, attention to the achievement gap should also be addressed at the preschool level to prevent major deficits from occurring early on.

Developmental testing and the delivery of interventions at the high school level is an important corrective action, but it ignores adult workers who comprise the majority of community college students. Adult students often have to develop basic skills in order to take college-level courses and obtain credentials that have value to employers. Efforts to improve developmental education to serve adults must be an important component of any improvement strategy. In addition, aligning adult education programs with community college credit-based career pathway programs offers the opportunity to reduce the number of adult entrants into community colleges who require developmental education assistance.
A Profile of Connecticut Community College Students

Community colleges are the gateway to higher education for many adult workers, particularly those recently laid off or who understand the importance of life-long learning for career advancement. The student population at Connecticut community colleges has grown dramatically over the past five years, driven in part by the acknowledged relationship of higher education to workforce requirements and economic self-sufficiency, the increasing costs of postsecondary public education, and the current recession. In fall semester 2010, the community college system enrolled 58,253 students (student headcount enrollment), an increase of 37 percent since 2001.

Between 2005 and 2009, there was a 25 percent increase in the unduplicated number of students taking at least one developmental education course at a Connecticut community college while there was a 26 percent increase in student enrollment over all. This extent of growth in the number of students enrolled in developmental education is illustrative of only a small percent of student need.

Adult Students

One population that is particularly sensitive to the content and delivery of developmental education at community colleges is the large percentage of adult working students, particularly those with low-income. While the number of young students enrolled at the community colleges has increased in the recent past, adult students, those over 21 years of age, made up over 50 percent of the student body in 2010.

Adult workers, who may not have entered a classroom for several decades, start college with personal, non-academic issues such as concerns about loss of pay caused by returning to school, a need for child care, and balancing work, school, and family commitments. Some also have to contend with the psychological impact of losing a job or foreclosure of their home.

Students of Color

While the Connecticut Department of Higher Education and public postsecondary institutions in the state have been attempting to improve access to college among the states under-represented populations, students of color disproportionately enroll in community colleges. In 2010, over two-thirds of minority
students enrolled at Connecticut public colleges and universities attended the state’s 12 community colleges. In 2009, slightly less than two-thirds of students of color attending community colleges were enrolled in four cities with large Black and Hispanic populations: Capital Community College (Hartford), Gateway Community College (New Haven), Housatonic Community College (Bridgeport), and Norwalk Community College.5

While supporting access to higher education by all populations, particularly at community colleges that maintain an open enrollment policy, the Connecticut Department of Higher Education and the community colleges themselves are concerned about the link between higher need for developmental education, higher dropout rates, and lower numbers of transfers and four-year degree completion among Black and Hispanic students.6 Activities to expand minority student enrollment across postsecondary institutions and to support student success and retention are being examined at all Connecticut colleges and universities.

CONNECTICUT COMMUNITY COLLEGES AND DEVELOPMENTAL EDUCATION

According to the Office of Planning, Research, and Assessment of the Connecticut Community Colleges, in fall semester 2002, 23 percent (10,284) of the total enrollment at all 12 community colleges took at least one developmental education class; 13 percent (5,871) took basic English skills; 16 percent (7,276) took basic math. Of these 10,284 students, 96 percent (9,873) had a high school diploma or GED, and 39 percent (4,011) were receiving financial aid.7

Nationally, less than 25 percent of community college students enrolled in developmental education complete a degree or certificate in eight years, compared to almost 40 percent of students who do not take developmental courses.8

According to the Connecticut Department of Higher Education, in 2007, slightly less than half of students who enroll in basic skills math classes at Connecticut community colleges passed the course, a decline of several percentage points since 2002.9 In response to the call for improved outcomes, the Connecticut community college administration and faculty have committed to increasing the pass rate for developmental coursework to 60 percent in 2011.10
Such a large percent of students in need of basic skills limits employers’ ability to hire personnel trained in technically advanced skills. Without skilled workers able to move into the labor force, existing business and industry in the state cannot thrive, and Connecticut will be unable to draw in new employers. As Governor Malloy and our state policymakers look to improve the state's economy over the long term, methods for advancing workforce education and training will undoubtedly be high on their list of necessary solutions.

Current Developmental Education Delivery

Connecticut’s community college system is governed by its Board of Trustees, the Community College Chancellor, and the Council of Presidents, representing each of the 12 schools.

Each community college, in turn, has authority for its overall curriculum and thus its developmental education component. The origins of this independent authority are historic in nature. Part of Connecticut’s community college institutional objective is to meet the needs of each college’s community. This includes the student population as well as local business and industry, which rely on local colleges to develop curricula to train its existing and future workforce.

Faculty and the academic dean of each college set the curriculum content, sequence, and instruction for the school’s developmental courses, and placement criteria for college-level courses. Some colleges have created a separate division for developmental education while others locate developmental English and math in their respective departments. Variations are also evident in the number of developmental classes available and the content of each. For example, some colleges have classes for developmental reading, developmental writing, or a combination of the two. Math classes are similarly variable.11

While diversity in design and delivery of this kind may be optimal to serve particular student populations and to spark innovation, lack of uniformity in content and placement criteria creates difficulties in evaluating the skill, knowledge, and outcomes of students system wide. It also presents challenges in attempting to promote and achieve system-wide accountability and improvements.

The majority of students needing developmental education also require student support services such as academic and career counseling, assistance with financial aid applications, and general college orientation. Differences exist in the availability and delivery of support services by college. One thing which does not
vary, however, is the fact that student support staff in each community college is heavily overburdened, with a counselor-to-student ratio across the system of approximately 1 to 822.12

Connecticut's Developmental Education Innovations

Connecticut community colleges are in the process of evaluating all aspects of developmental education—institutional and state policy requirements, course content, and delivery methods. The intent of such investigations is not to water down or reduce the quality and quantity of knowledge and information required of students. Rather, the goal of administrators, faculty, and funders is to keep students on the academic path to success in ways that are compatible with the demands of work, family, and life in general.

Among the important changes the colleges have made to date are the institution of a common test, the Accuplacer, to determine entering students’ need for developmental courses and a system-wide cut score, below which students are advised to take developmental classes.

Best Practice: Washington State's I-BEST Program

Washington State is noted for its aggressive work in revamping student success programs at the adult education and community college levels. The Integrated Basic Education and Skills Training (I-BEST) program pairs adult basic education or English as a Second Language instructors with faculty knowledgeable in career-related topics in one course, an example of contextualization at its finest. Evaluations show impressive differences in student success rates for I-BEST students compared to those who take traditional adult education courses. Recently, I-BEST has been expanded to include the linkage of developmental education and career-related courses. Particularly significant is the fact that the state legislature authorized a higher reimbursement rate for I-BEST classes.16

Best Practice: Learning Communities

Learning communities as an education model have been used in a number of settings since the early 1970s. A number of community colleges are using the Learning Communities model to support student success and retention, including Norwalk Community College and Gateway Community College in New Haven. The objectives of community college-based learning communities is not only to foster closer relationships among students, they also encourage personal connections between faculty and students, and thus create a deeper understand of course material.

MDRC, a national research organization, conducted Opening Doors, an evaluation project of programs and student outcomes at community colleges in a number of states. Students participating in Kingsborough Community College’s Learning Community were found to move more quickly through English required courses, pass more courses in general, and earn more credits in their first year at the college than students in a control group. Two years later, they were somewhat more likely to still be enrolled.17 A final report on the Opening Doors Demonstration will be released in 2011.
**Answering the Call for an Increased Allied Health Workforce**

Between 2005 and 2010, Connecticut community colleges received two Community-Based Job Training grants from the U.S. Department of Labor for nursing and allied health instruction. Both projects focused on targeted health career advising and partnership with local Workforce Investment Boards (WIBs). The joint funding allowed participating community colleges to create developmental education courses within the nursing and allied health tracks, including college-orientation sessions and tutoring services.13

A number of participating community colleges have noted significant improvements in student retention, success, and pass rates on licensure exams as a result of the grant-funded projects. Graduation rates for both allied health and nursing have exceeded expectations. Successes such as these illustrate that developmental education courses combined with a career focus can result in greater levels of student retention and success, but implementation is very costly.14

**Using Student Outcome Data for Innovation**

Connecticut community colleges have been involved with *Achieving the Dream (AtD)*, a national project funded by the Lumina Foundation, for over five years. *AtD* is dedicated to improving academic outcomes for students in U.S. community colleges, primarily focusing on the administration and delivery of courses and services to students needing developmental education. Three Connecticut colleges—Capital in Hartford, Housatonic in Bridgeport, and Norwalk—were chosen by the national project specifically to participate in initiatives to improve student success including achievement in developmental education.

Participation in *AtD* has allowed the three colleges and by extension all remaining nine to jump start their evaluation of student outcomes under existing developmental education courses, to redesign content and delivery, to shorten the remediation process where possible, and to replicate successful innovations where appropriate.

Faculty and staff at Capital, Housatonic and Norwalk collected extensive information and disaggregated student data and used this information to redesign and implement academic and service interventions. *AtD* funding also allowed for continual data collection on the new interventions and dissemination to other community colleges. As a result, practices that are producing positive student outcomes are being replicated at community colleges across the Connecticut system.15

Among the developmental education innovations that have been implemented at one or more of the community colleges are the following:

- First Year Experience courses,
- Accelerated learning opportunities,
- Learning communities,
- Open entry/open exit computer-based math courses that allow completion in one or two semesters without penalty,
- I-math, refresher math which yields higher placement scores than Accuplacer,
- Multi-level English and math courses which are being combined into a two-semester course to speed up completion,
- Expanded student support services to incorporate individualized educational plans and intensive advising which has been shown to increase student retention and success, and
- A Black and Latino male initiative that combines active learning techniques, supplemental instruction, and embedded advising and tutoring.

For more information on *Achieving the Dream* go to its website, http://www.achievingthedream.org.
Taking Innovations to Scale and System Wide

To expand upon the institutional and developmental education innovations piloted under AtD, the Bill and Melinda Gates Foundation established its Developmental Education Initiative (DEI) in 2009. Connecticut’s Housatonic and Norwalk Community Colleges were awarded grants along with Connecticut’s community college administration. For participating in the initiative, the Connecticut community college system is receiving $100,000 a year for three years, and each of the two colleges is receiving approximately $250,000 a year for three years.

With these funds Housatonic and Norwalk Community Colleges are continuing to evaluate the effectiveness of their innovations, trying new ideas, and taking changes that prove effective to scale. Simultaneously, work is being done at the administrative level to build stronger systems of data collection and analysis. Connecticut’s Chancellor’s Developmental Education Task Force has developed a detailed agenda and work plan to accomplish these goals. The national nonprofit organization, Jobs for the Future, is supporting the work of participating DEI states.

Funding is being made available by the Community College Chancellor to all 12 of the colleges to encourage further implementation of developmental education programs. Each college president is in the process of defining how those funds will be spent; plans are due in May. A small percentage of ongoing funding is being built into the budget for improvements to student outcomes and the development of performance measures using intermediate benchmarks in developmental education.

For more information on the Developmental Education Initiative, go to the project website: http://www.deionline.org/

Foundation support and funding such as that from Achieving the Dream and the Developmental Education Initiative are important not only for the attention they give to postsecondary practices needing reform but also for the financial and analytical support they provide administrators and educators as they investigate, evaluate, and implement the multiple levels of change that are required to increase student success, retention, and graduation rates.

Connecticut community colleges are only at the beginning of their efforts to create a 21st Century developmental education system. As these national programs wind down, how will the state’s community colleges continue their reform efforts? Policymakers must be aware that there is no silver bullet that fits developmental education across the board. Different strategies work for different students. As a result, the process of evaluation and program refinement must be ongoing.

CONCLUSION

Investing in Connecticut public colleges and universities to ensure we raise the education level of the state’s workforce will be no small task in the current economic downturn, but it is imperative if Connecticut is to restore its economy. Before the current recession, workforces of other nations were catching up to the education level of American workers. Economic analysts estimate that the education level of the U.S. workforce will fall far short of parity with other nations in a matter of decades. In addition, high-skilled jobs requiring a two- or four-year degree will make up almost half of all new jobs over the next decade.

Based largely on philanthropic support, Connecticut community colleges are digging deeply into possible reform of developmental education. Along with developing new diagnostic tools able to determine differences in student abilities—for instance the needs of older working students compared to new high school graduates—administrative, faculty, and task force planners understand that student success in the area of developmental education only comes when students’ academic circumstances are identified and course content and delivery methods are tailored to meet students’ needs. Additionally, innovations
must include a downstream effect, whereby high school and college content and student performance outcomes are aligned.

In an ideal world, the analytic and implementation work conducted under AtD and DEI would naturally roll out over the course of several years. With the current recession still dragging on and the state facing a staggering $3.7 billion deficit, it is unlikely that the funding needed to fully implement identified reforms across the community college system will be available in the near future. It is important, however, that policymakers support the community colleges’ continued innovation even in the face of budgetary limitation.

**IMPORTANT CONSIDERATIONS**

Systemic realignment of this magnitude will take effort and require the buy-in of Connecticut policy leaders and the Executive Branch. Discussions must begin with Governor Malloy’s staff and the Commissioner of Higher Education to ensure that budgetary decisions and higher education planning embrace the work of the Chancellor’s Task Force and the individual college efforts.

As the state community colleges bring together administrative and state priorities with the realities of their student population and Connecticut’s labor force, and as policymakers and the new administration work to balance the budget and plan for a revived economy, several issues must be considered.

1. Developmental education reform must occur on three levels. Each has an important role to play in creating innovation and bringing it to scale. The system’s administration must lead the reform effort with its own innovations and by holding each college accountable for improved student outcomes. Administrators and faculty of the individual colleges must acknowledge the transformation which is expected of their institution and elevate their work on behalf of their students. Policymakers must provide the colleges with the funding necessary to accomplish successful reform.

2. Is developmental education reform at the community colleges moving in the right direction? Connecticut’s community colleges have learned a great deal from national models (particularly I-BEST and Learning Communities) and participation in national projects. The answer to this question hinges largely on whether or not long-term success is achieved—that is, more students enrolled in developmental courses completing them satisfactorily, moving on to college-level studies, staying in school, obtaining a two-year degree or certificate, and where appropriating, transferring to a four-year college or university. Adult working students must be able to take their new-found skills into the labor force to benefit the state’s economy.

Concerted efforts must be made to monitor and report the progress of these reform efforts. Connecticut’s community college system must have the capacity to follow all developmental education participants, including part-time students, and to report developmental outcomes by a number of student characteristics such as age, gender, race/ethnicity, and income.

3. Is developmental education reform moving fast enough for Connecticut’s economic needs and those of its students? Connecticut has already fallen behind in terms of student outcomes—this is an historic fact that we must acknowledge and correct. Connecticut, as well as other states, can no longer afford to be complacent about student outcomes and appropriate practices at all levels of the education continuum. To maintain our competitive edge, policymakers and administrators must create and continue to refine a long-term vision that sees all students as successful and develops the policies, course content, and delivery methods to make that a reality.
Governor Malloy has proposed to consolidate the community colleges, Charter Oak State College, and the state university system under one Board of Regents. It is unclear why the University of Connecticut is not included in this proposed merger. If this change does occur, it is important that innovations in developmental education, particular to the needs of community college students, continue.

In this time of limited resources, policymakers will need to balance budgetary constraints with forethought on how to pull the state out of the recession and maintain Connecticut’s economic competitiveness. With the growing clamor for fiscal solutions, two things are certain. The state’s economy can’t be revived without an educated and skilled workforce, and family income can’t grow without a college education or career retooling.
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