

COMPLETION DAY

Community colleges are a critical resource for a growing number of New Yorkers and a key component of the state's economic competitiveness. But they are taken for granted by policymakers and continue to face enormous challenges in graduating students.



This report was written by Tom Hilliard and Tina Spaic, and edited by David Giles and Jonathan Bowles. Design by Ahmad Dowla. The assistance of David Shaffer, Senior Fellow at the Rockefeller Institute, who reviewed a draft of the report, was greatly appreciated. However, he is not responsible for the report's conclusions.

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COMPLETION DAY

As New York State transitions from a manufacturing economy to a knowledge economy, few institutions are playing a more important role than the state's 35 community colleges.

With more than 328,000 students enrolled statewide, community colleges are boosting New York's economic competitiveness by upgrading the skills of a large chunk of the state's workforce.¹ They are enabling displaced workers to acquire skills in occupations that are growing, and helping businesses across the state meet their evolving workforce needs—from photonics in Rochester to nanotech in Albany. Perhaps most importantly, community colleges have become the state's key opportunity institutions. At a time when a high school diploma is no longer sufficient to obtain a decent paying job in most industries but the cost of getting a college education has skyrocketed, the state's community colleges offer the most accessible path for tens of thousands of low- and moderate- income New Yorkers to obtain a post-secondary credential.

Due in large part to their importance as vocational resources in a quickly changing economy, student enrollment has been growing faster at two-year institutions than at four-year institutions in New York. Over the last decade, enrollment at State University of New York (SUNY) and City University of New York (CUNY) community colleges increased by 28 percent, compared to 13 percent at SUNY and CUNY four-year institutions and 12 percent at all four-year colleges and universities in the state.

However, the state's community colleges have only just begun to deliver on their potential and face enormous challenges in the years ahead. Far too few students who enroll at community colleges in New York end up graduating or moving on to a four-year institution. Statewide, only 35 percent of full-time students who enroll in community college courses obtain an associate or bachelor's degree after six years. And in New York City, where a much higher percentage of students qualify as low-income, the six-year graduation rate is just 29 percent. While some schools do better than others at graduating students, every community college in the state has a six-year graduation rate below 50 percent.

Community college students fail to graduate for a number of reasons. Although more New Yorkers are choosing to enroll in community colleges, many are unprepared for college level work. Fifty percent of students across the state—and 79 percent in New York City—need remedial work before they can begin on a more specialized career track. Moreover, even as enrollment has increased, state funding has declined by 29 percent over the last decade, leading to higher tuition costs and a larger financial burden for many students of moderate means.

Raising community college graduation rates will be an enormous challenge for both academic leaders and state policymakers, but doing so is clearly worth the investment. As we demonstrate in this report, higher graduation rates would not only provide growing industries with the workers they need to remain competitive, it would dramatically increase the earning potential of thousands of New Yorkers, leading to both increased regional GDP and government revenue. We estimate that increasing graduation rates by just 10 percentage points would provide a \$150 million one-year boost to the state economy; a \$41 million increase in the annual incomes of those who graduate; a \$32 million increase in economic activity as those higher earning graduates spend more on goods and services; and \$44 million in taxpayer investments going toward graduates rather than dropouts.

Over the next decade, the combined value of raising community college graduation rates from 35 percent to 45 percent would be \$1.5 billion, over two decades \$3 billion, and over three decades \$4.5 billion.

This report details the increasing importance of community colleges to New York State's economy and documents why raising graduation rates at the state's community colleges by even a small amount would result in significant benefits to the state's employers, young adults and the working poor. A follow-up to our 2011 *Mobility Makers* study, which focused on the importance of improving the graduation rate at the six community colleges in New York City, this report details graduation rates for all 35 community colleges statewide and focuses mainly on SUNY community colleges across the state. Funded by the Working Poor Families Project—a national initiative supported by the Annie E. Casey, Ford, Joyce and Kresge Foundations, which partners with nonprofit organizations to strengthen economic conditions and state policies affecting working families—the report is based on extensive data analysis and more than two dozen interviews with community college leaders, education experts and employers from nearly every region around the state.

Low graduation rates have been a chronic affliction of community colleges in New York and nationwide, stemming in part from their open access mission to accept all students regardless of test scores or high school GPA. But as the economy continues to put a premium on postsecondary credentials, even for traditionally low-tier positions, the lack of progress in raising those rates is posing larger and larger problems. The jobs that community college graduates fill are not only projected to grow significantly in the coming decade; they are in industries that are pivotal to the state's economic future, including advanced manufacturing, technology, health care, and high-end services such as finance and law.

Many of the employment experts we spoke to during our research for this report told us that postsecondary credentials are becoming increasingly important for the vast majority of middle skill jobs. "The number of our employees who have at least an associate's degree has grown over the past decade" says Chris Sansone, the production manager at the Keller Technology Corporation, a high-tech manufacturer in Buffalo. "Depending

on the job, I expect there will be a two-year degree minimum in the next five years or so."

Employers also value occupational certificates and industry certifications which respond directly to employer demand. Erie Community College in Buffalo developed a one-year certification program in Computer Numeric Control (CNC) to support employer needs in the region's growing advanced manufacturing sector. According to Sansone, all of Keller Technology's precision machinists are now required to go through the program.

"The jobs filled by community college students are very important [for our local economy]," says Mark Peterson, president and CEO of Greater Rochester Enterprise, a business group. "At least 50 percent of the new jobs in Rochester will require some type of degree beyond high school."

Community colleges prepare residents for higher skilled jobs in the knowledge economy in a variety of ways. They offer two-year degrees and certificates in specific career skills, ranging from nursing to welding; serve as a workforce development resource by providing customized training courses for local industry; offer a low-cost starting point for people who plan to move on to a four-year college; and offer programs in high school equivalency, adult literacy and English as a second language. Community colleges are critical for working adults who need to upgrade or retool their skills. The rapid spread of technology and outsourcing has resulted in the dislocation of millions of adults across the state, and community colleges train these dislocated adults for new occupations in growing industries.

More than any other educational provider, community colleges serve the needs of their regional economies and have proven themselves adept at responding to changing economic conditions with new professional degree and certification programs. For example, Monroe Community College is the only two-year institution in the nation that offers a degree in optical systems technology and regularly places its graduates at local firms, including Xerox, Bausch and Lomb, Corning and Kodak. More recently, Hudson Valley Community College in Troy built a high-tech

outpost near the new GlobalFoundries semiconductor plant in order to prepare students for the anticipated 1,400 new jobs there.

Outside of New York City, where it is harder to attract talent from other regions of the country or globe, preparing local residents for higher-skilled jobs in local industries could mean the difference between economic revival and continued decline. Businesses need to have a competitive workforce if they are going to be competitive themselves, and economic research has shown that more education can lead to an exponential rise in productivity, since the person who has acquired the extra learning and skills is not the only one who benefits—their co-workers and collaborators do as well.²

“If you look at the numbers,” says Randall Wolken, president of The Manufacturers Association of Central New York (MACNY), “people just do better when they have been certified in skills, and employers feel more comfortable hiring them, even if it is at the basic skill level and they have to stack on additional skills.”

Their increase in earning power is also significant. According to the New York State Department of Labor, an individual who earns an associate degree will make an average of 18 percent more per year than someone with a high school diploma. Moreover, a significant number of community college students go on to earn a bachelor’s degree, and these individuals earn an average of 73 percent more than those with a high school diploma.³ Full-time workers with only a high school diploma could increase their median salary by \$3,540 annually if they attend college but don’t earn a degree and by \$6,100 annually if they earn an associate degree. An adult who attends college but does not complete is therefore giving up nearly \$3,000 a year in additional income. These figures are actually significantly un-

derstated since they don’t take into account pay raise patterns or other incidental benefits such as increased job satisfaction and improved health.

CUNY and SUNY community colleges are already meeting many local employment needs, but with hundreds of thousands of New Yorkers in low-wage jobs, at the same time that many employers are complaining about their inability to find suitably skilled job applicants, the need to graduate more community college students is obvious. Our analysis finds that of the 42,000 students who enrolled at community colleges statewide in 2002, only 15,000 graduated six years later with a degree, 26 percent with an associate degree and 9 percent with a bachelor’s degree. Five percent were still enrolled, and the other 60 percent had either dropped out or transferred out of the system where their outcomes could not be tracked.

Outcomes at SUNY community colleges were substantially better than at CUNY. The average graduation rate at SUNY institutions was 37 percent, compared to 29 percent at CUNY. The two systems were fairly similar in connecting students to four-year colleges where they could earn bachelor’s degrees, but SUNY was about 30 percent more effective in graduating students with associate degrees.

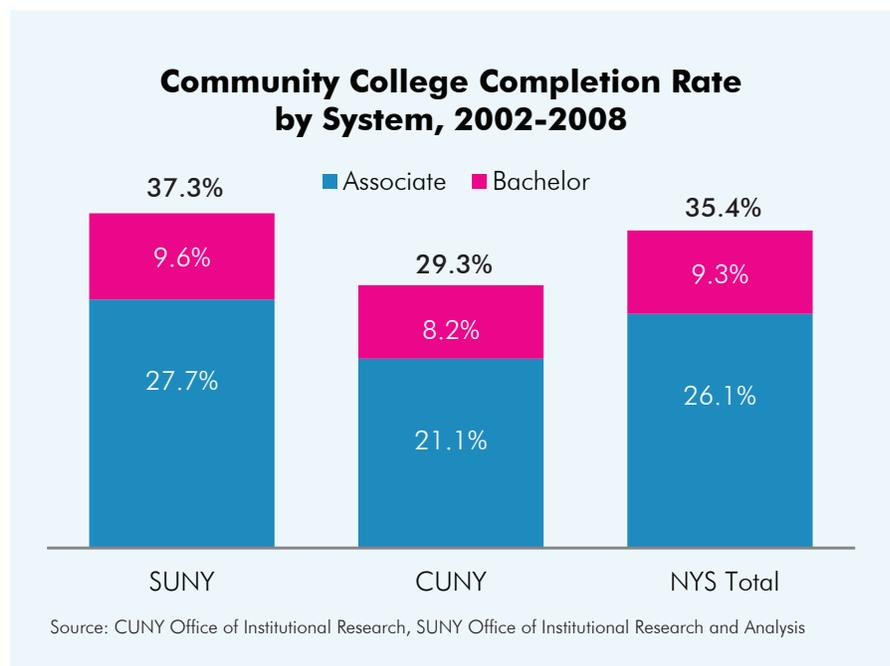


Table 1: Community Colleges with the Highest and Lowest Graduation Rates

	Avg Grad Rate	Avg Pop	Avg Low-Income	Avg Minority	Avg Remedial	Avg Adult
Top 5 schools by graduation rate	45%	722	38%	19%	52%	33%
Bottom 5 schools by graduation rate	24%	1,248	54%	80%	65%	39%

Source: CUNY Office of Institutional Research, SUNY Office of Institutional Research and Analysis, New York State Education Department Office of Research and Information Systems, IPEDS

Individually, the top and bottom performing schools seemed to diverge in a number of important ways. The top five community colleges in the cohort—Jefferson, Niagara County, Finger Lakes, Jamestown and Cayuga—had an average graduation rate of 45 percent, while the bottom five—Borough of Manhattan, Westchester, Bronx, Sullivan and Hostos—had an average rate of just 24 percent. As Table 1 shows, the top performing schools had smaller student bodies on average and were all located in upstate regions, while the bottom performing schools were larger and were all located in downstate areas. To a striking degree, demographics and income level were both strong predictors of graduation success. The 2002 cohort at the top five schools consisted of 38 percent low-income students and 19 percent minority students. The bottom five schools had 54 percent low-income students and 80 percent minority students.

Statewide, the student bodies of the top performing schools tended to be overwhelmingly white, reflecting the demographics of their communities, and better off economically than those in lower-performing schools (though the vast majority of students even at these schools come from moderate income families). For example, the top five schools all had fewer than 30 percent minority students while the bottom five schools all had more than 50 percent. Out of 20 schools with above average graduation rates, none had a student body with more than a third minority students, and only five out of 20 had low-income student populations that were even close to 50 percent, namely Jamestown, Fulton-Montgomery,

Herkimer, Mohawk Valley and Tompkins Cortland.

Colleges with low graduation rates were more likely to have a large share of entering freshmen placed into remedial courses. Interestingly, however, the reverse is not necessarily true: colleges with high graduation rates had an average share of remedial students, not a low share. In addition, colleges with higher graduation rates had a smaller share of adult students (defined here as ages 25-49), who are more likely to have work and family obligations than recent high school graduates.

Nationally, several other large states do a much better job of moving community college students toward graduation than New York. According to Complete College America, 39 percent of students at community colleges in New York either graduate with an associate degree or transfer to a four-year institution for a bachelor’s within three years of matriculating, compared to 52 percent of students in Florida, 50 percent in Wisconsin, and 48 percent in Illinois. Washington and Minnesota also do much better by this metric.⁴

In addition to the economic costs, high dropout rates exact a large toll on the public purse. Considering both operating aid and student tuition assistance, we estimate that each community college dropout in New York costs the municipal, state and federal governments over \$10,400. Overall, the dropouts in the 2002 cohort cost \$260 million in taxpayer subsidies.

Thus, increasing the number of community college graduates even by just a little bit would provide significant material benefits to employers, individuals, local economies, and taxpayers.

Increasing the NYS community college graduation rate by 10% would provide

+\$150M

annual boost to the state economy

+\$41M

increase in the annual incomes of those who graduate

+\$32M

increase in economic activity

+\$44M

in taxpayer investments going toward graduates rather than dropouts

On the basis of the 2002 cohort, we calculate that the value of increasing graduation rates in New York State from 35 to 45 percent would result in:

- \$29 million more in increased annual earnings.
- \$23 million more in economic activity.
- \$6 million more in federal and state income tax receipts.
- \$44 million in tax payer contributions in the form of base operating aid, Pell and TAP Grants going towards community college graduates rather than dropouts.
- 4,205 more skilled and educated employees with credentials to fill local employer needs.

However, while the need to increase graduation rates at community colleges across the state is clear, there is no silver bullet. The causes of dropout are diverse, and strategies to keep students on track to graduation must not come at the cost of weakening academic rigor or compromising the open access mission. In addition, strategies to address student dropout must accommodate the autonomy of community colleges in the SUNY system. Unlike CUNY, SUNY's twenty-nine community colleges are self-governed, and their presidents are appointed by local boards. SUNY is trying to create a more cohesive system for all of its institutions, but institutional autonomy will continue to be highly valued and defended.

Despite the diversity, community colleges across the state also face common drivers for dropout, even in very different communities. The lack of basic literacy and numeracy and preparation in Science, Technology, Engineering and Math (STEM) disciplines among entering students are

major concerns across the state, but so are rising tuition costs and social issues. Many community college students are the first members of their family to attend college and are easily confused by its unfamiliar culture. Others struggle to balance the demands of work and family with their classes and study, and many older students need to brush up on subjects that have gathered dust since high school graduation.

Boosting student success at New York's community colleges will not be simple or easy. But it can be done. We know this because it is happening in other states. Crucially, however, change will require New York State government to take ownership of the issue. The first step New York State needs to take is simply to acknowledge the problem, and forthrightly commit to solving it. The Governor, Legislature, and Board of Regents should publicly identify community college completion as a top state priority. This will send the message to agency managers, employers and leaders at SUNY and CUNY that they should step forward and take action.

Next, Governor Cuomo and the Board of Regents should develop institutional capacity to assist community colleges in boosting success in every phase of their students' college experience: from pre-collegiate preparation to graduation and first employment. New York benefits from having public institutions that are accountable to their local elected officials. But those institutions need to be accountable as well to the expressed priorities of state leaders.

Finally, New York needs to build new capacity for raising community college completion rates. It can accomplish this in several ways:

- A competitive grant program for community colleges to try evidence-based innovations around student success, learning from established programs like Achieving the Dream and Pathways to Completion;

- A web-based student success dashboard similar to that recently launched by the California Community Colleges system, which provides not only overall completion rates, but also completion rates for low-income, remedial, older and minority students;

- A Student Success Center, similar to foundation-funded institutes in Michigan and Arkansas, that builds the evidence base on what completion strategies work, disseminates that evidence to policymakers and frontline providers, and convenes faculty and administrators for professional development around student success, open access and academic rigor.

- Expansion of the Tuition Assistance Program to support low-income students who are now partially or fully excluded, including DREAMers, part-time students, foster youth and single adults.

Without a doubt, policymakers are starting to understand the important role that community colleges play across the state, and the economic toll of low-graduation rates has been specifically acknowledged by Governor Cuomo and other political leaders. In the 2013-14 budget, the Governor and Legislature agreed to create the Next Generation Job Linkage Program Incentive Fund, which will disburse \$5 million to community colleges “based on measures of student success.” Earlier this year, Governor Cuomo also announced a plan to establish 10 new schools around the state modeled on Brooklyn’s Pathways in Technology Early College High School (P-TECH), an innovative partnership with IBM where students stay for six years and leave with an associate degree and hands-on experience in the working world.

Still, far too little has been done to tackle this enormous problem. Remarkably, while enrollment has climbed dramatically over the last decade, state funding has actually dropped. From the 2001-02 academic year to the 2011-12 academic year, state funding per student, in inflation-adjusted terms, dropped by 29 percent. Community colleges were forced to raise tuition by almost \$1,500, a burden for which modest increases in need-based financial aid only partially compensated. The end result is a poorer community college system in which the largest funder is no longer the state, but the students themselves.

This is an enormous lost opportunity for New York. The future of the state’s economy rests on its skilled workforce, and that workforce is now being forged in the state’s 35 community colleges.

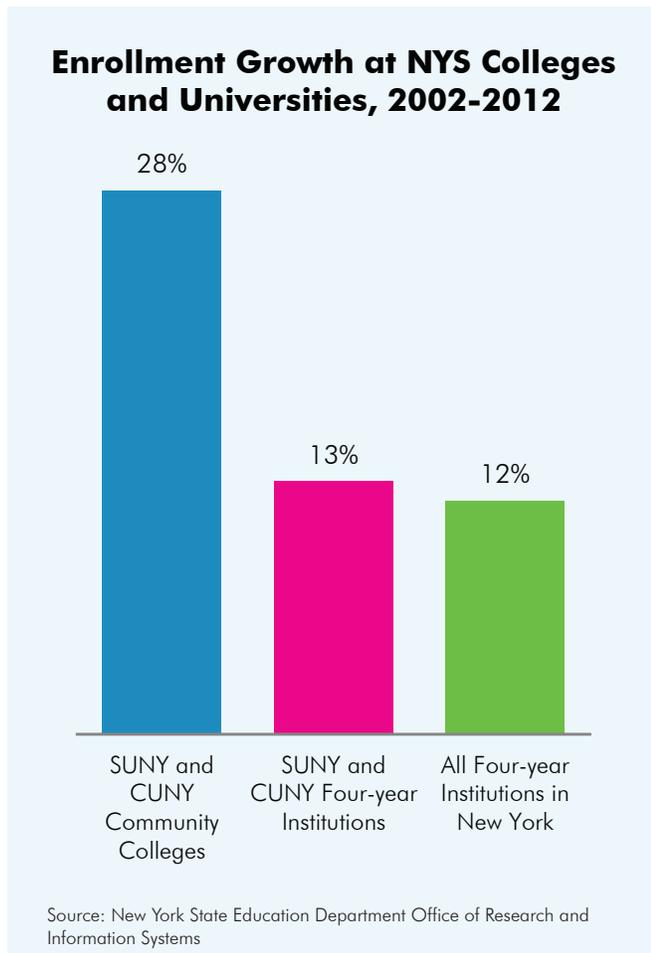


Table 2: 6-year Graduation Rates for New York State's 35 Community Colleges

College	Cohort Entered Fall 2002	All Degrees	Associate Degrees	Bachelor's Degree
Community Colleges	42,045	14,902	10,990	3,912
Jefferson (SUNY)	592	46%	29%	17%
Niagara County (SUNY)	913	45%	33%	13%
Finger Lakes (SUNY)	790	44%	34%	10%
Jamestown (SUNY)	779	44%	29%	15%
Cayuga County (SUNY)	536	43%	34%	10%
Columbia-Greene (SUNY)	215	43%	34%	8%
Broome (SUNY)	1,330	42%	25%	17%
Fulton-Montgomery (SUNY)	427	42%	30%	13%
Monroe (SUNY)	2,733	42%	31%	11%
North Country (SUNY)	272	41%	32%	9%
Herkimer County (SUNY)	819	40%	30%	10%
Adirondack (SUNY)	662	39%	28%	11%
Clinton (SUNY)	336	39%	26%	12%
Hudson Valley (SUNY)	2,364	39%	29%	10%
Kingsborough (CUNY)	1,776	39%	28%	10%
Erie (SUNY)	2,140	38%	27%	11%
Mohawk Valley (SUNY)	1,320	37%	25%	13%
Nassau (SUNY)	4,042	37%	30%	7%
Dutchess (SUNY)	940	36%	26%	10%
Genesee (SUNY)	595	36%	25%	10%
Corning (SUNY)	645	35%	29%	7%
Tompkins Cortland (SUNY)	584	35%	24%	11%
Onondaga (SUNY)	963	34%	24%	11%
Rockland (SUNY)	1,069	34%	25%	9%
Schenectady County (SUNY)	403	34%	29%	5%
Suffolk County (SUNY)	3,385	34%	27%	6%
Ulster County (SUNY)	443	33%	21%	12%
Queensborough (CUNY)	1,833	30%	19%	11%
LaGuardia (CUNY)	1,902	29%	21%	8%
Orange County (SUNY)	995	28%	21%	7%
Borough of Manhattan (CUNY)	2,775	27%	20%	7%
Westchester (SUNY)	1,493	27%	22%	4%
Bronx (CUNY)	976	24%	18%	5%
Sullivan County (SUNY)	428	23%	18%	6%
Hostos (CUNY)	570	21%	18%	3%
All Community Colleges	100%	35%	26%	9%

Source: SUNY Office of Institutional Research and Analysis, CUNY Office of Institutional Research. The table tracks the outcomes of students who enrolled in 2002 through 2008.

FILLING IN THE SKILLS GAP

Community colleges across the state are responding to regional employment needs and supporting economic growth

Rapid advances in technology and globalization have transformed the face of business in America. The share of Americans employed as machine operators, for example, fell by more than half over the past three decades, according to the Federal Reserve.⁵ Employers increasingly need either low-skilled employees who will work for little money in low-quality jobs, or higher-skilled employees who bring postsecondary education and credentials to the workplace. According to calculations by the Bureau of Labor Statistics, 17 out of the 30 jobs projected to grow the fastest between 2010 and 2020 will require some type of postsecondary degree, and the vast majority of the jobs that won't require extra education and training are guaranteed to be in low-paying service industries with little opportunity for advancement.

Nearly all of the employers we spoke to for this report agreed that a vast majority of new, decent paying jobs in New York State will require postsecondary training. Many formerly low-education positions have already started to do so. In Buffalo, Keller Technologies requires that all of its precision machinists gain CNC certification

“It doesn't matter what you want to do, you have to have the basic technological skill base that comes with a college education.”

at Erie Community College, and at Lourdes Hospital in Binghamton patient manager positions now routinely require a higher degree. “A patient manager manages the practices,” says HR director Mary Hughs, “all of the HR stuff, the finances, the hiring and firing... At one point they did not need a degree, but now it is a requirement.”

In many of the state's fastest growing industries, technology literacy has become a fundamental requirement. For example, as doctors and hospitals across the state rush to convert paper-based patient records into electronic ones so as to avoid lower reimbursement rates through Medicare and Medicaid starting in 2014, IT support personnel are in high demand. The electronic health records will need to be managed, providing long-term job security to these middle-skill professionals. Secretaries and patient care associates are learning how to use new technologies and software to manage patient scheduling and low-level clinical procedures.

“This is a huge industry now in health care,” says Cindy Levernois, senior director of Workforce at the Healthcare Association of New York State. “Many of these jobs require specialized training and they didn't exist 10 or 20 years ago.”

Beyond health care, computer skills play a big role in many clerical positions in the financial and legal services industries, construction, and manufacturing. In many upstate regions, what remains after many of the great factories have shuttered or downsized are smaller companies specializing in fields like nanotechnology, chemical or electronics manufacturing, optics and biotechnology. Even traditional manufacturing functions now routinely require postsecondary training. Where a hundred workers once shaped and smoothed pipes on lathes, now one worker operates computerized robots to accomplish the same tasks.

**Full-time workers with only a high school diploma
could increase their annual median salary by**

+\$3,540

**if they attend college
but don't get a degree**

+\$6,100

**if they earn an
Associate Degree**

+\$24,600

**if they earn a
Bachelor's Degree**

**Of the 42,000 students who enrolled at community colleges statewide
in 2002, only 15,000 graduated six years later with a degree**

26%

**graduated with an
Associate Degree**

9%

**graduated with a
Bachelor's Degree**

5%

were still enrolled

60%

**dropped out or
transferred and
could not be tracked**

"No one can afford today to be a technological idiot," says William Richards, president of Orange County Community College in the mid-Hudson region. "It doesn't matter what you want to do, you have to have the basic technological skill base that comes with a college education."

As the state's regional economies continue to change in dramatic new ways, community colleges have proved to be remarkably nimble in responding to industry needs. Highly specialized training programs in a wide variety of advanced manufacturing fields are now routinely offered at community colleges across the state, including optics at Monroe in Rochester, wireless and information technology at Suffolk, and nanotech at Hudson Valley Community College in the capital region. Several colleges, including La Guardia in New York City, have developed programs in health IT. And Broome Community College has recently started offering training courses in hydraulic fracturing in anticipation of an employment boom in that industry, similar to what has happened in nearby Pennsylvania.

Nevertheless, employers continue to struggle to fill open positions, many at the middle skill level. In the manufacturing sector, despite years of employment shrinkage, there are over

140,000 open positions.⁶ Employers worry about insufficient math and technical skills and a lack of interest in entering the field. Randall Wolken, president of MACNY, says that the deficiencies of STEM education in the K-12 system is a big impediment to the community college system's ability to turn out more qualified applicants. "Young people are not taking enough math or science," he says. "Or they aren't geared up or don't even know about careers in advanced manufacturing. We need to be getting the young people in middle school and high school talking about opportunities in nanotechnology or advanced manufacturing, because there are some really cool things going on, but the young people have no knowledge of them."

This problem will only worsen in the coming years as many older workers begin to retire. "We have a pretty large tooling, machining and precision manufacturing sector here still," says Kent Gardner, chief economist at the Rochester-based Center for Governmental Research, "and a lot of the tooling machine guys are wringing their hands about the number of retirements anticipated. I know a lot of them feel like they need a better pipeline of students and where better to do that than through community colleges?"

LOW RISK/HIGH REWARD

Even relatively modest investments in community colleges can reap enormous economic benefits

Community colleges provide career opportunities at low cost to students and minimal expense to state and local government. They provide the primary route out of poverty for disadvantaged New Yorkers, as well as powerful retooling assistance for laid-off workers in need of new skill sets.

For the 2012-13 academic year, in-state tuition and fees for SUNY community colleges averaged \$4,367, compared with \$7,099 at SUNY four-year colleges and universities, \$19,142 at proprietary colleges, and \$34,536 at New York's private four-year institutions of higher learning.⁷ The relatively low tuition and open access model central to community colleges removes many of the usual barriers that nontraditional learners face. Students termed nontraditional have characteristics very different from recent high school graduates. They do not attend college right after high school, work full-time, are financially independent, have dependents, or lack a high school diploma or equivalent. With relatively small investments in community colleges, state and local governments reap high returns in the form of higher wages, decreased levels of unemployment, higher rates of spending in the local economy, decreased levels of public assistance, and increased tax revenues.

Community colleges help students earn associate degrees and certificates, transfer to four-year institutions to earn their bachelor's degrees, and for those that did not graduate high school, obtain a high school equivalency. They also allow students looking to brush up on their skills or learn English as a second language the opportunity to do so with non-credit courses.

Earning a college degree is the most effective investment of time and money the average low-income New Yorker will ever make, whether a recent high school graduate or a working adult. There are just under 600,000 low-income families in New York State, and 322,000 of them –about 54

percent – are families in which no parent has a postsecondary education. Education is the most powerful anti-poverty strategy.⁸

Each level of educational attainment boosts earning potential. For example, the median salary of a full-time worker over 25 years of age in New York State in 2011 with a high school diploma is \$172 more per week than a full-time working individual over the age of 25 that did not earn a high school diploma. A full-time, full-salary individual with some college but no degree earned a median salary of \$68 more a week in 2011, while an individual with an associate degree earned \$117 more, and an individual with a bachelor's degree earned \$473 more per week than someone with a high school diploma.

Compared to someone with a high school diploma, the associate degree earner will see an increase in income of approximately \$250,000 over the course of a working lifetime⁹, equal to just over \$6,000 a year. Though significant, this figure understates the full value of higher education by omitting benefits that are more difficult to quantify, including increased job satisfaction, improved health status, and lower rates of incarceration.

With greater earnings come greater levels of spending and tax contributions. Over the course of an average career, each adult who obtains an associate degree earns a median salary of nearly \$6,100 more a year than someone with a high school diploma. This person will contribute \$851 more to the federal government in the form of income tax revenues, \$417 more to the state government in state income taxes, and will stimulate the local economy by more than \$9,000 annually.

The income advantage enjoyed by college graduates derives in part from their employment advantage. Briefly put, college graduates are much more likely to be employed at any given time. The economic recovery has primarily ben-

efited college graduates, the only group of Americans that has added jobs since the onset of the Great Recession in September 2008.¹⁰ In 2012, the unemployment rate for adults with a high school diploma was 8.3 percent; for adults with an associate degree, 6.2 percent; and for adults with a bachelor's degree, 4.5 percent – just over half the unemployment rate of high school graduates.¹¹

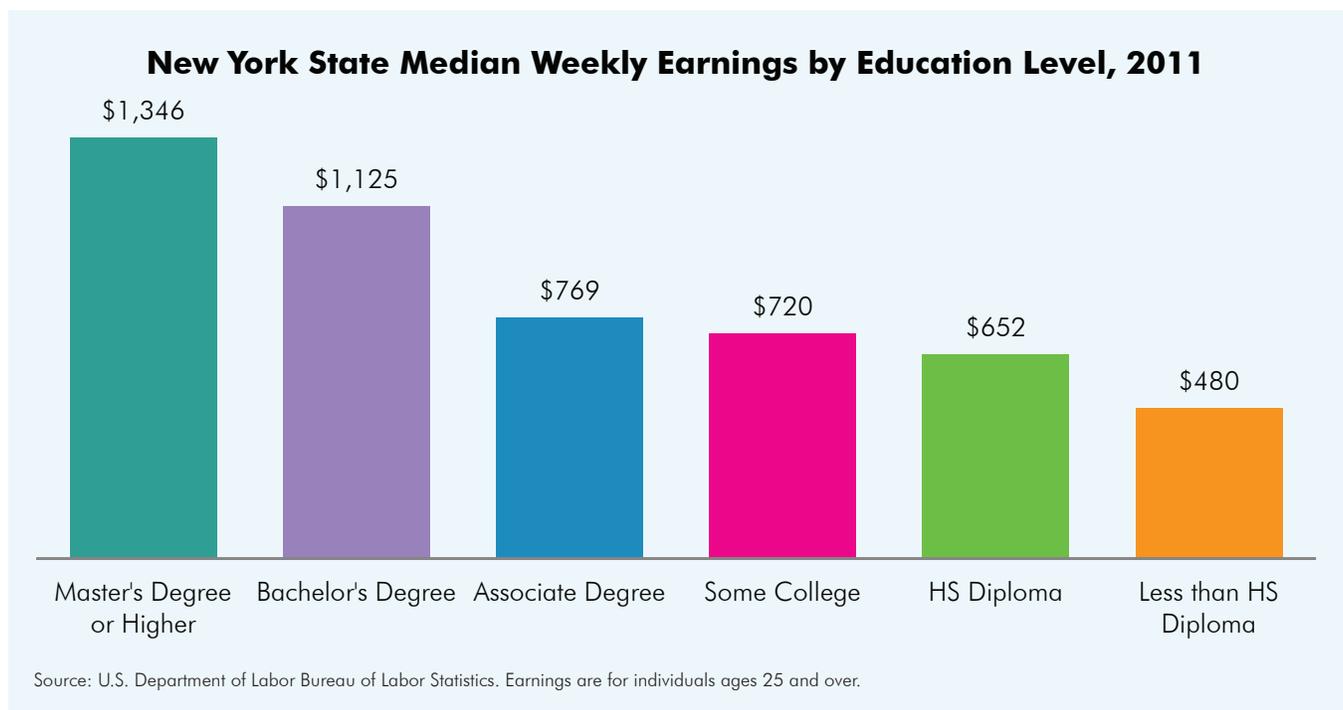
Higher levels of education also result in lower rates of participation in public assistance programs. According to data from the Census Bureau and calculations by CollegeBoard.org in 2009, the share of people receiving Medicaid assistance, free and reduced price lunch programs, and food stamps, decrease with each additional level of educational attainment. For example, nearly 20 percent of high school dropouts received food stamps in 2009, compared to 8 percent of high school graduates, 6 percent of adults with some college, and fewer than 5 percent of those with associate or bachelor's degrees.

Non-monetary benefits are also associated with increased levels of education. College-educated adults as well as their children are less likely to be obese, reducing the rate of obesity-related diseases and saving in healthcare costs.¹² Educated adults are also less likely to smoke. During the

decade from 1998 to 2008, the smoking rate declined from 14 percent to 9 percent among adults with at least a bachelor's degree, while the rate for high school graduates declined from 29 percent to 27 percent.¹³

The benefits of higher educational attainment levels also transfer to the children of college graduates. One study found that among parents whose highest degree was a bachelor's degree, 68 percent read to their children daily compared to 57 percent of parents with an associate degree, 47 percent of parents with some college but no degree, 41 percent of high school graduates, and 26 percent of parents who did not complete high school.¹⁴

Between increases in tax revenues and decreases in government expenditures, such as unemployment benefits and incarceration, the taxpayer benefit over a lifetime for having a student complete postsecondary education compared to high school ranges from \$24,000 to \$51,000 (in 2002 dollars), depending on race and gender.¹⁵ A study conducted by Economic Modeling Specialist International (EMSI) in 2007 calculated that the return on investment for state and local governments from providing funds to community colleges averaged 16.1 percent nationally.¹⁶



SYSTEM FAILURE

Low graduation rates aren't just an economic drain but a loss of human capital and an inefficient use of public resources

The basic reality that a majority of community college students in New York fail to graduate may seem like a mere data point. But for thousands of New Yorkers each year, failing to graduate with a postsecondary degree or professional certificate has real consequences. Not only do these former students waste money and time on a credential they never receive, they lose out on the extra security and satisfaction that comes with higher paying jobs. Moreover, dropouts use up public resources without furthering the public interest, and they frequently confront student loan bills without the added income that was supposed to cover their repayments.

Of the 42,045 students who enrolled full-time in a SUNY or CUNY community college in fall 2002, 27,143 failed to graduate within six years, nearly 60 percent. We calculated the income lost to each of these non-graduates by subtracting the median income of New York State residents ages 25-29 who have some college but no degree (\$22,455) from the median income of residents with an associate degree (\$24,510). The median income lost to each student that failed to graduate was about \$2,055 in 2011. Multiplying this number by the total number of students from the 2002 cohort that failed to graduate in six years shows a total cost to this cohort of roughly \$56 million in income loss in just one year.

Yet even this enormous sum understates the actual impact on earnings. One out of four students who graduated did so after transferring to a four-year college and earning a bachelor's degree. These graduates earned a median annual salary of \$44,509 (in 2011 dollars), \$24,089 more than the median annual salary for someone that attended college but did not earn a degree. If the same proportion among those who did not earn a degree held, the lost earnings are actually much higher – approximately \$7,315 per student. As a

result, we calculate the total loss of income annually at \$198 million.

The additional money these students could have earned had they completed their programs rather than dropping out would have gone right back into the economy in the form of increased spending. Money spent in the local economy cascades through the web of retail stores, service providers and suppliers that energizes local economies. Based on statewide data compiled by SUNY's Rockefeller Institute of Government, each additional dollar earned through a college degree leads to another \$1.50 in economic activity. This includes everything from rent, groceries, and utilities to travel, clothing, and doctor's visits. Thus the average degree earner contributes \$10,972 more per year in economic activity than the average college dropout. As a result, we calculated that the total loss in economic activity for one year is about \$297 million.

As enrollment rose in community colleges across the state over the past decade, so did the aggregate cost of low graduation rates. Enrollment by first-time full-time freshmen in SUNY and CUNY community colleges climbed 38 percent between 2002 and 2012, from approximately 42,000 to 58,000.¹⁷ If the 2012 entering class experiences the same pattern of dropout that the class of 2002 did, we could expect to see 34,600 students failing to obtain a degree by 2018, resulting in an income loss of \$275 million and a loss of economic activity in the vicinity of \$412 million.

Raising the six-year graduation rate of the community college entering class of fall 2011 by 10 percentage points would ensure that 5,800 more students graduate, adding \$42 million in direct earnings in just one year, leading to economic activity estimated at more than \$62 million.

Higher graduation rates not only lead to higher income and economic activity, but provide a

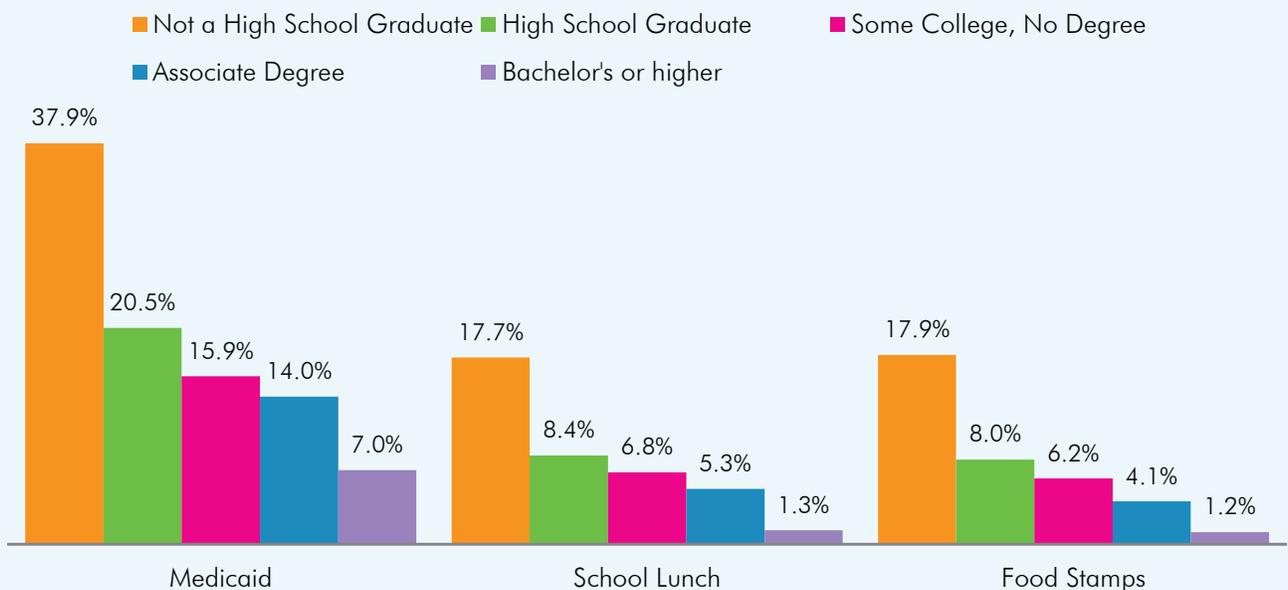
public benefit through increased state and federal tax revenues as well. The average student who drops out earns \$7,515 less per year. In 2012, that student costs the state \$474 in annual tax revenues and the federal government \$1,101.

For the fall 2002 cohort, the total tax liability for those who failed to graduate within six years with at least an associate degree is estimated at \$42.7 million for a single year. And if graduation rates do not improve for the class that enrolled in fall 2012, the lost tax revenues will add up to nearly \$59 million annually, including almost \$18 million in lost revenue just to the state. These estimates do not take property or sales taxes into account, thereby understating state revenue losses and ignoring the revenue loss to local governments.

Community colleges are public institutions that get much of their revenue from state and federal governments. Public funding will be spent regardless of whether students drop out or stay until graduation, but it is spent much more effectively if students reach graduation and earn a market-valued degree.

We calculated the public costs imposed by college dropouts on the taxpaying public by analyzing the four main public inputs for New York's community college population: base operating aid from the state government; matching aid from local sponsors of community colleges and chargebacks for students living outside sponsor counties; need-based aid from the state Tuition Assistance Program (TAP); and federal Pell Grants. We assumed that the majority of dropouts occurred within the first year, with gradually declining dropout rates in years 2 through 6. We therefore calculated that state and local operating aid per dropout averaged \$5,859, and state and federal aid losses averaged \$4,560. In one academic year, taxpayers contributed \$10,399 to the education of each of the 25,000 students who eventually dropped out: more than \$163 million in all. If we can raise graduation rates by just 10 percentage points for the incoming class of 2012, we can redirect over \$60 million in public funding to degree earners rather than those who fail to earn a degree.

Public Assistance Program Participation by Education Level, 2008



Source: College Board based on U.S. Census Bureau data. Graph shows percentage of individuals ages 25 and older living in households that benefited from public assistance programs.

HIGH HURDLES TO SUCCESS

Among community college students obstacles to graduation are plentiful and diverse

In our interviews with administrators and educators across the state, several important obstacles to graduation came up again and again. As we explain in more detail below, these include low levels of college preparedness, outside commitments to family and work and trouble finding social and peer supports.

Weak Preparation and Remediation Infrastructure

Community colleges pride themselves on taking all applicants. But many students never even reach a credit-bearing course. Upon application, prospective students take an entry exam to determine their college readiness. Those who fall short of full college readiness are assigned to remedial courses in reading, writing or math, or some combination of the three. The courses have multiple levels, so that a student who falls far below college readiness in math, for example, may be expected to take two or even three remedial courses before ever taking an entry-level math course for which they receive credit toward a degree.

Needing even a single remedial course cuts a student's chances of surviving to a second year from 84 percent to 64 percent.

Not surprisingly, students who test into developmental education at a community college are less likely to graduate. According to the New York State Education Department, needing even a single remedial course cuts a student's likelihood of surviving to a second year from 84 percent to 64 percent. If that student requires three or more remedial courses, the chance of starting the sophomore year falls to 52 percent. Furthermore, studies have shown that students at the same proficiency level are less likely to pass college-level courses if they are placed into developmental education, suggesting that in some cases, remedial courses can hurt student success.¹⁸ Yet remedial course-taking is widespread. In 2007, 44 percent of first-time students took at least one remedial class.¹⁹

Community colleges must take the lead in ensuring that students successfully transition to college-level work. But the obstacles are too large for institutions to succeed on their own. Community colleges cannot make up for instruction at the K-12 level that is weak or misaligned with college readiness standards. Furthermore, many students enter college from the working world with a rich store of life experience but rusty classroom skills and inadequate digital literacy. Research on developmental education over the last few years has revealed an underperforming system that is just as likely to act as a sorting mechanism to push out underprepared students as it is to prepare them for a college degree.²⁰

High Cost

Though community colleges are relatively affordable compared with 4-year or private 2-year institutions, students attending them often struggle with the cost. New York State supports the community college sector primarily through two subsidies, operating aid and need-based finan-

cial aid. Operating aid is the annual funding the state provides to institutions for each full-time equivalent student (counties match this aid with their own payments). Need-based financial aid is provided to students on a sliding scale based on income. The Tuition Assistance Program (TAP) is the state’s main financial aid source, providing up to the cost of tuition for six semesters in community college.

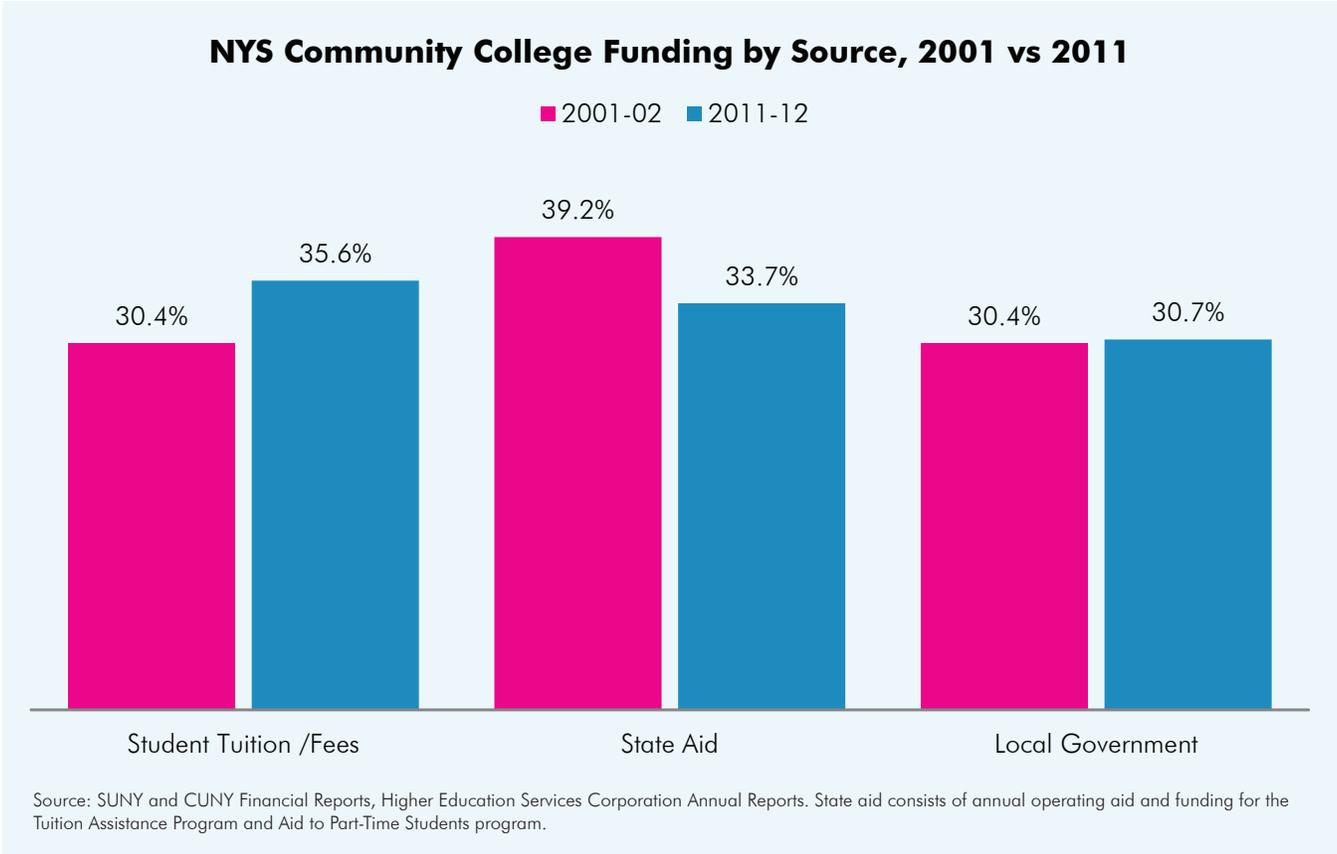
As operating aid from New York State tightens year after year, the colleges are forced to patch their bottom lines by raising tuition and fees on students. Between 2001 and 2011, community colleges raised in-state tuition and fees from \$2,623 to \$4,100—adjusted for inflation, a 23 percent hike in costs. The share of total operating costs at community colleges paid by students rose during that time as well, from 30 percent to 36 percent. Students now pay the largest share of the costs, followed by the state (34 percent, counting TAP and the Aid to Part-Time Students Program) and county governments (31 percent).

Percentage of Community College students requiring remedial work

50%
of New York State students

79%
of New York City students

The burden on students will grow still greater over time because of agreements between state policymakers and higher education leaders. In 2011, the state negotiated a new funding compact with SUNY and CUNY (the so-called “rational tuition policy”) that authorized them to raise community college tuition by \$300 annually for the next five years.²¹ Inevitably, some prospective students will see their access to higher education cut off, especially undocumented students, part-



Community College Graduation Rate

NYS Community
Colleges

35%

SUNY Community
Colleges

37%

CUNY Community
Colleges

29%

time students, single adults and foster youth, all of whom fall between the cracks of eligibility for state financial aid.

Access to federal Pell Grants is at risk as well. The amount students receive in Pell Grants as a percentage of the total cost of attending a post-secondary institution has declined over the past two decades, leaving students to pay more out of pocket or take out loans.²² Congress has eliminated access to Pell Grants in the summer semester, one of the most valuable innovations of the Obama Administration, and reduced the number of semesters of eligibility. According to the most recent available numbers, 39 percent of SUNY and CUNY students received aid in the form of a Pell Grant in the 2010-11 academic year, with an average amount of \$3,967. Thirty-five percent of SUNY and CUNY students received aid in the form of a TAP Grant in the 2010-11 academic year with an average amount of \$2,280.²³

It is also becoming harder to receive financial aid. Less aid is available to part-time students, who comprise more than 40 percent of all community college students, and the requirements in place for students to keep the aid they already receive are becoming less lenient. “Financial aid requirements have changed and there are more restrictions on TAP and Pell Grants requiring more from students to get aid,” says Carl Haynes, president of Tompkins Cortland Community College. “It used to be that a student could repeat a course maybe three times and still get financial aid and they can’t do that now. After two semesters now if a student isn’t performing after one semester they are on suspension and after two semesters they are out of here. Where are the second chances for the students that make a mistake?”

Outside Commitments

Students enter community colleges for all sorts of reasons. Some have been out of school for a number of years, obtained an alternative diploma, or are not ready to take on college level work. Many have work

and family commitments that prevent them from devoting themselves full-time to their studies. As a result, many enroll part-time or resort to part-time enrollment after a full course load proved too hard to juggle. All of these factors dramatically increase a student’s chance of dropping out before graduation.

Navigating the System

Many community college students are the first in their family to go to college and many are also non-traditional students—students who did not go to college directly from high school, have dependents, attend part-time, work full-time while enrolled, or do not rely on their parents for financial support.

Forty-two percent of community college students were the first in their family to attend college as of fall 2009, compared to 30 percent of students across all post-secondary institutions.²⁴ Often students who are the first in their family to attend college have trouble navigating the college system. They may lack outside support or role models to develop a study schedule or choose a program of study. Taking too long to declare a major or program of study has been determined a leading cause of dropout. Students may enroll in classes that don’t fulfill the right requirements, waste time and money, and get blindsided by emergencies that force them out of school.

Others may experience trouble simply because of their schedules. Many work when financial counselors or administrative services are open and so are forced to figure out what classes to take or how best to take advantage of federal aid on their own.

Table 3: Enrollment by Race, Residency and Income Status, Fall 2010

Institution	Minority	White, Non-Hispanic	Nonresident Alien	Low-income*	Full-Time	Part-Time
All Community Colleges	37%	63%	2%	39%	57%	43%
Adirondack (SUNY)	7%	93%	0%	33%	57%	43%
Borough of Manhattan (CUNY)	88%	12%	7%	60%	59%	41%
Bronx (CUNY)	97%	3%	4%	71%	56%	44%
Broome (SUNY)	32%	68%	2%	33%	71%	29%
Cayuga County (SUNY)	29%	71%	0%	38%	54%	46%
Clinton (SUNY)	22%	78%	1%	36%	58%	42%
Columbia-Greene (SUNY)	16%	84%	0%	38%	50%	50%
Corning (SUNY)	24%	76%	0%	35%	47%	53%
Dutchess (SUNY)	35%	65%	1%	20%	49%	51%
Erie (SUNY)	29%	71%	1%	41%	66%	34%
Finger Lakes (SUNY)	21%	79%	0%	37%	56%	44%
Fulton-Montgomery (SUNY)	25%	75%	4%	45%	64%	36%
Genesee (SUNY)	22%	78%	1%	40%	50%	50%
Herkimer County (SUNY)	26%	74%	2%	46%	67%	33%
Hostos (CUNY)	96%	4%	7%	63%	65%	35%
Hudson Valley (SUNY)	23%	77%	0%	26%	56%	44%
Jamestown (SUNY)	12%	88%	0%	49%	54%	46%
Jefferson (SUNY)	19%	81%	0%	40%	59%	41%
Kingsborough (CUNY)	65%	35%	3%	42%	57%	43%
LaGuardia (CUNY)	86%	14%	12%	42%	58%	42%
Mohawk Valley (SUNY)	21%	79%	1%	46%	64%	36%
Monroe (SUNY)	33%	67%	1%	42%	62%	38%
Nassau (SUNY)	54%	46%	2%	28%	63%	37%
Niagara County (SUNY)	17%	83%	0%	36%	61%	39%
North Country (SUNY)	8%	92%	1%	31%	46%	54%
Onondaga (SUNY)	27%	73%	0%	29%	53%	47%
Orange County (SUNY)	37%	63%	0%	21%	50%	50%
Queensborough (CUNY)	78%	22%	7%	42%	57%	43%
Rockland (SUNY)	58%	42%	1%	27%	59%	41%
Schenectady County (SUNY)	22%	78%	0%	32%	39%	61%
Suffolk County (SUNY)	37%	63%	1%	28%	56%	44%
Sullivan County (SUNY)	50%	50%	0%	49%	67%	33%
Tompkins Cortland (SUNY)	18%	82%	2%	47%	52%	48%
Ulster County (SUNY)	16%	84%	1%	25%	45%	55%
Westchester (SUNY)	56%	44%	1%	31%	54%	46%

Source: IPEDS.

* Percent of Pell grant recipients used as a proxy for low-income status.

GETTING FROM HERE TO THERE

Raising graduation rates won't be easy, but there are also a number of promising strategies for boosting student success

Responsibility for student success at community colleges is threefold. College students themselves are personally responsible for their success as individuals. Community college faculty and administrators are responsible for establishing systems that maximize the likelihood of student success at their institutions. Finally, state and local elected officials are responsible for providing the support that enables community college leaders to strengthen student success, and for holding them accountable to achieve that goal.

The problems described in this report are not confined to a few underprepared or unmotivated students, nor to a handful of underperforming colleges. Every single community college in New York State has a six-year graduation rate below 50 percent. So it is essential to examine what common factors hold community colleges back, what steps they are taking to jump those hurdles and where opportunities lie to systematically boost student success throughout the state.

One obstacle that New York's community college sector faces is declining state support. Community colleges are funded through three primary sources: state operating aid, local government aid (from county governments and New York

City), and student tuition and fees. In 2001, combined funding for community college students was approximately \$8,640 per student. By 2011, total funding had grown to \$10,070 per student. Adjusted for inflation, this modest increase turns out to be an 8 percent drop.²⁵

More troubling, however, is the decline in direct state funding. Over the past decade, state operating aid per student fell by 29 percent, adjusted for inflation, and local government funding fell by 7 percent. As a result, community colleges were forced to send the bill to students. Revenue from tuition and fees not covered by state financial aid rose by 7 percent. The end result is a community college sector substantially poorer than it was in 2001, and more dependent on its own students than either state or local government funding. Furthermore, the State Legislature approved a "rational tuition" plan in 2011 that effectively ratifies this trend. The balance of costs will increasingly shift toward students unless New York State changes course. This year's budget raised operating aid by 7 percent, or \$30 million, which is certainly an improvement but still not enough to make up for the last ten years of cuts.²⁶

Community college leaders in the SUNY and CUNY systems see the imperative of strengthening graduation rates, but they bring different assets and face different obstacles to achieving their goals.

CUNY officials have prioritized student success for at least a decade, and they are getting results. In 2007, it launched CUNY ASAP (Accelerated Study in Associate Programs), an initiative that employs multiple interventions to support at-risk community college students, including block-scheduled classes for the first year, a seminar which covers such topics as goal-setting and academic planning, comprehensive advisement,

State operating aid
per student fell by 29
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government funding
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tutoring, career services, a tuition waiver that covers fees, free MetroCards, and free use of textbooks. ASAP boosted student persistence during the second semester by 10 percent, according to MDRC, an organization that served as an outside evaluator. “ASAP’s early effects are larger than the effects of most of the community college programs MDRC has studied previously,” reported MDRC’s evaluators.²⁷

CUNY is making headway with other programs as well. In 2012, it opened The New Community College at CUNY (since renamed the Stella and Charles Guttman Community College), a new two-year institution which features several curricular innovations designed to promote high completion and transfer rates. In addition, CUNY START represents a promising strategy to improve remediation outcomes, and Graduate-NYC is building the crucial high school-to-college alignment that will enable future CUNY freshmen to arrive more prepared.

SUNY’s system-wide graduation rate of 37 percent compares favorably with CUNY’s 29 percent graduation rate. However, most community colleges in the SUNY system serve a less disadvantaged student population. SUNY is a latecomer to prioritizing student success at community colleges. Prior to the arrival of Chancellor Nancy Zimpher in 2009, virtually nothing happened at a system-wide level. Chancellor Zimpher has driven SUNY to make up for lost time, but its efforts are at a more formative stage than those of the CUNY system.

SUNY is a much more decentralized system than CUNY, imposing sharp limits on the ability of system leaders to drive change across multiple institutions. SUNY’s community college presidents are chosen by county-appointed boards, and much of their funding derives from local county government as well. The community colleges are widely dispersed across the state, responding to local labor markets and community needs that are difficult for any central system head to keep track of. As a result, SUNY community college presidents do not look to system leaders for guidance. In this environment, any system-wide strategy to

Funding Sources	2001-02	2011-12	Change
Student Tuition/Fees	\$3,336	\$3,584	7%
State Operating Aid	\$3,482	\$2,487	-29%
State TAP/APTS	\$818	\$910	11%
Local Government	\$3,336	\$3,093	-7%
Total Funding	\$10,972	\$10,074	-8%

Sources: SUNY and CUNY Financial Reports, Higher Education Services Corporation Annual Reports. Note: Funding is calculated by dividing the total amount of funding from each source by the number of full time equivalent students in each year. 2001-02 funding was rendered in 2011 dollars using the Consumer Price Index.

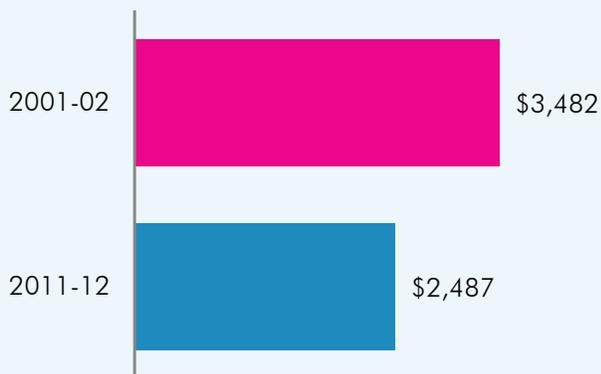
improve student success will gain little traction without buy-in from institutional leaders.

Chancellor Zimpher has set out to change this arrangement by championing “systemness,” a term which she describes as “the coordination of multiple components that, when working together, create a network of activity that is more powerful than any action of individual parts on their own.”²⁸ She urges SUNY institutions to collaborate to achieve common goals. This concept could have significant implications for the student success agenda at SUNY community colleges if it gains wide acceptance.

One example of the competing pressures that affect the completion agenda is the SUNY Task Force on Remediation, a blue-ribbon commission chartered by Chancellor Zimpher in 2011 in response to a legislative mandate. The Task Force presented its report, “The SUNY Pathway to Success,” in November 2012.

The Task Force report documents the difficulty faced by students placed in developmental education, noting the importance of strengthening preparation for college as early as middle school, moving away from sole reliance on placement tests such as Accuplacer to determine college readiness, and trying out innovative models that have been tried and tested in other states,

Per-Student State Operating Aid for NYS Community Colleges



Sources: SUNY and CUNY Financial Reports, Higher Education Services Corporation Annual Reports. Note: Funding is calculated by dividing the total amount of funding from each source by the number of full time equivalent students in each year. 2001-02 funding was rendered in 2011 dollars using the Consumer Price Index.

such as I-BEST in Washington State, the Accelerated Learning Program in Baltimore, and the California Acceleration Project.

The report's recommendations, however, are notably tentative, avoiding any proposals to change developmental education at SUNY's 30 community colleges. Rather, the report recommends steps that high schools should take to better prepare students, endorses expansion of K-16 collaborative models such as early college high schools and summer bridge programs, and suggests the establishment of a standing "Development and Implementation Team" to propose further recommendations. In addition, the report provides no data on the success of developmental education students at SUNY community colleges, and has little to say about the needs of non-traditional students who gain little from early college high schools and other K-16 innovations.

The report of the Task Force on Remediation sends a clear message: the SUNY system will tread carefully in areas that may infringe on the autonomy of community colleges and their local sponsors.

Other SUNY Network Initiatives

Despite the limitations of overseeing a network of locally governed community colleges, the

SUNY administration has taken a few steps at the systems level. These steps mainly involve aligning community colleges more effectively with the K-12 system, strengthening distance learning, and calling attention to the importance of student completion.

SUNY Learning Network/SUNY OPEN

SUNY has expanded its efforts to meet students' hectic scheduling needs by offering a more comprehensive non-traditional course structure. The SUNY Learning Network is a robust and easy to use portal displaying online degree programs and individual courses that are available across the state. In the coming years, SUNY has plans to expand their distance learning program even more and to rename it SUNY OPEN. The enhanced program will allow students to virtually network with their peers and professors and will include an expanded YouTube channel and a newly created presence on iTunes U.

Smart Scholars ECHS Program

An early college high school provides students an opportunity to earn college credit or even an associate degree in a high-demand field. The structure is a classic example of thinking outside the usual boxes of high school and college. At-risk youth are far more likely to stay in school and get a college degree, because they do not have to leave and apply somewhere else. The best known early college high school is the Pathways in Technology (P-TECH) high school in Brooklyn, a collaborative effort between the city Department of Education, IBM and SUNY. P-TECH has achieved such impressive early success that President Obama cited it in his 2013 State of the Union address as a promising practice. Governor Andrew Cuomo has announced support for a collaboration with IBM and the SUNY/CUNY networks to establish ten early college high schools around the state.

Cradle to Career Networks

SUNY is establishing regional education networks across the state called Cradle to Career Networks to bring together partners in helping children succeed from birth through their ca-

reers. The partners include leaders of pre-kindergarten, public school systems, higher education business, community organizations and government leaders. Chancellor Zimpher helped launch the first Cradle to Career Network in Cincinnati during her tenure as President of the University of Cincinnati. According to SUNY, partnerships have launched in Albany, Astoria/Queens, Clinton County, Harlem and Rochester.

SUNY WORKS

SUNY is pushing to expand cooperative education programs in all of their institutions. These programs are comprised of partnerships between local employers and institutions of higher education that integrate academic coursework with structured work experience in a student's field of study. Nine SUNY community colleges have established cooperative education programs, although enrollment is still modest.

Completion Day

All of the SUNY community colleges participated in celebrating Completion Day on October 2nd, a day to call attention to the importance of completing a college degree. Governor Cuomo issued an official proclamation, and most colleges in the SUNY system carried out special activities to highlight the importance of staying in school to graduation.

Each campus held its own activities, ranging from completion pledges to time management or test taking seminars. "We wanted to draw more attention to the value of completing to students," says President McCoy of Jefferson Community College. Since each individual student will ultimately make the decision they think is best for them, driving the message of completion home to students is of great value. Aside from completion day, many campuses are hammering the completion message any way they can. "We have started to emphasize more the importance of completion for the nation, not just for the individual, that they are also doing one for Uncle Sam if they complete," remarks Kevin Drumm, president of Broome Community College in the Southern Tier.

Table 5: SUNY Student Success Initiatives

Programs for enrolled college students	Number of colleges
Learning communities	8
Supplemental instruction	10
Contextualized instruction	19
Academic support centers	30
Technology enhancements	15
Other	17

Source: *The SUNY Pathway to Success: The Report of the SUNY Commission on Remediation*, November 2012

Campus Initiatives

A number of individual community colleges are seeking to boost their graduation rate with innovative practices. The SUNY Task Force on Remediation notes that certain key innovations are widely used at SUNY community colleges, especially contextualized instruction (19 colleges) and technology enhancements (15). See Table 5.

Yet community college leaders are not necessarily satisfied with the effectiveness of their institutional interventions. "There are a lot of those kinds of things that we are doing, but frankly not a lot of that stuff is moving the dial on completion and retention," says President Haynes. "I can measure it in single digit numbers. We are coming up with fresh ideas and integrating those ideas, and I think things would be worse if we were not doing them. But what frustrates me is that I am just not seeing any big leaps here, or anywhere else really for that matter."

What President Haynes underlines is the personal commitment that many community college leaders feel to helping more students graduate and succeed in their careers, alongside a candid admission of inadequacy. Given the dramatic cuts in community college funding over time, and the difficulty in identifying and scaling up effective interventions in student success, "moving the dial" is difficult for any community college administration on its own.

Nonetheless, it is critically important to identify and propagate the innovations being undertaken at individual community colleges, because ultimately student success will be strengthened one college at a time.

Advising, Tutoring, Orientation programs

We spoke with officials at several SUNY community colleges that have implemented robust advising or orientation programs to curb dropout. Tutoring is a major focus, as are follow-up and early warning programs that alert students by phone if they miss too many days in a row.

Remediation programs

Studies sponsored by the Community College Research Center show that students who take placement exams and test just short of the threshold of college readiness, and who are therefore placed into remedial courses, are much less likely to graduate with a college degree. Several SUNY community colleges have responded to these findings by reworking their developmental education programs. Carole McCoy is president of Jefferson Community College, a small college near the Canadian border that has the highest graduation rate in New York State. "Sometimes students that are at a very low level might need two remedial classes in math and two in English," says President McCoy. "That is four courses they need to take that will not provide them with credit towards their degree, so we look at opportunities for these students to test out of remedial classes or to go to tutoring rather than repeat a remedial course if they don't pass it the first time."

Increasing Scholarships

Because student finances are a major cause of dropout, several campuses have increased scholarship funds in order to help more students pay for their studies. Anne Kress, president of Monroe Community College in the Finger Lakes Region, says, "We recognize that if even the most motivated students can't get to campus because they don't have access to a bus or their car breaks down, that is not going to be helpful." Drew Matonak, president of Hudson Valley Community College in the Capital Region, adds, "There are a lot of students

who don't meet TAP or Pell requirements, yet at the same time they have demands on them that make it difficult for them to pursue their education, so we have taken a portion of our operating budget and have moved in it to a scholarship for those students."

Industry-Education Partnerships

SUNY has implemented advisory councils for each career-tracked program in which local employer's partner with schools to discuss their job openings and needs. These partnerships work to align the curriculum with employer needs. Students get to see firsthand what employment at a particular company might entail. The closer students are to what that their future careers will look like, the more likely they will be to complete a degree in order to fulfill their occupational goals.

Some community colleges have taken advisory committees to the next level. Located in the heart of the Capital Region, students at Hudson Valley Community College (HVCC) have several high-tech jobs options to choose from in semiconductor manufacturing, green energy, and nanotechnology. To train students for the skills they need in these fields, Hudson Valley created the Training and Education Center for Semiconductor Manufacturing and Alternative and Renewable Technologies (TEC-SMART). The Center features over a dozen state-of-the-art classrooms and laboratories to train students in semiconductor manufacturing and green technologies, including photovoltaic, home energy efficiency, geothermal, alternative fuels and wind energy.

HVCC's semiconductor program is geared specifically toward meeting the needs of GlobalFoundries, which expects to hire 1,400 employees by the time it begins full production in 2013. The school opened a TEC-SMART building less than a mile from GlobalFoundries' computer chip factory in Malta that features a mock cleanroom used to simulate the environment and tools of the actual GlobalFoundries plant, which is still under construction. President Obama recognized HVCC in 2009 by speaking at the campus and taking the opportunity to praise HVCC's innovative partnership with GlobalFoundries.

RECOMMENDATIONS

The road to turning around community college completion in New York State starts in Albany, not at SUNY or CUNY. The state's elected leaders must make the decision that graduating only one out of every three community college students in New York State is unacceptable, and that they will take action to boost student success—including holding the community colleges themselves accountable. Otherwise little will change. The reasons for making this choice are clear: increasing numbers of disadvantaged and dislocated adults will lose access to the middle class in the absence of middle-skill educational opportunities, and employers will increasingly need access to applicants with middle-skill training.

All states struggle with the basic structural features of the community college sector: the students who arrive with inadequate reading, writing, math and critical thinking skills, the tight budgets that make academic advising difficult and full-time instruction increasingly rare, the disconnection between certificate and degree-level programs, the reluctance of four-year colleges to accept credits earned at the community college level, and several other looming obstacles common to the community college sector as a whole.

But other states are surmounting these obstacles by focusing resources and attention on promising strategies: competitive grants, performance funding, statewide articulation and transfer agreements, completion dashboards, sectoral career pathways, and blending developmental and gateway courses, among other things.

New York, however, will have trouble emulating these more innovative states because it lacks policymaking capacity. Having divided the state's community colleges into two regional systems, the state lacks the capacity to develop statewide strategies to strengthen student success, academic rigor and broader access at all of the state's commu-

nity colleges. Both systems jealously guard their prerogatives and support; legislators from New York City care mostly about CUNY, while those outside the city are entirely focused on SUNY. Innovations rarely cross the New York City border in either direction. When SUNY developed a system for transferring community college credits to their four-year colleges and universities, no one even suggested applying it to CUNY so that college students could transfer credits from, say, Kingsborough Community College to SUNY-Stony Brook. When CUNY developed the ASAP model for supporting student success in multiple ways simultaneously, no SUNY community colleges expressed interest in adopting it. As a result, evidence-based strategies must be tested, advanced and scaled separately for each system, and sometimes by individual institutions, as if SUNY and CUNY were the names of two states instead of two aggregations of higher education institutions.

The SUNY/CUNY split and the local autonomy of SUNY community colleges increase the urgency of a strong state oversight agency. But that oversight is split as well. The Governor proposes the budget for public higher education, but governance rests in the State Education Department's Office of Higher Education, which reports to the Board of Regents, an independent body whose members are appointed by the State Legislature. The Board of Regents view their role as overseeing all higher education institutions in New York State, public and private, equally. Since the private institutions have no real responsibility to the state (and arguably should not), the Regents' oversight is limited primarily to approving new courses of study. Every five years the Regents are required to prepare a strategic plan for higher education in New York State. Tellingly, SUNY and CUNY prepare their own strategic plans and submit them to the Regents for approval.

As a result, the Governor and State Legislature provide what little input and guidance they can muster using Executive Chamber and committee staff of the Assembly and Senate, three small and overworked groups often working at cross-purposes. The starting point for real reform is developing the capacity for statewide elected leaders, especially the Governor, to develop policy priorities for the community college system and start working to bring them into alignment with those priorities.

The following are steps that both the state government and colleges can take to dramatically improve community college completion rates.

Publicly identify community college completion as a top state priority

The Governor and Board of Regents should jointly declare that boosting community college completion is a state policy priority. Such a statement would send a clear message to all the relevant stakeholders. Community college leaders would understand not only what is expected of them, but that the door is open to propose creative strategies and seek funding to support them. Business and trade association leaders would have an opening to describe their needs for skilled employees and the vital role community colleges play.

Expand financial support for state community colleges

Community colleges in New York, as in other states, operate on a shoestring compared to four-year colleges and universities. Full-time faculty have heavier workloads; more teaching is done by part-time adjuncts (who cost less but provide less support to students); and staffing for key support positions like academic, financial aid and career services advisors usually fall well below student need. It is therefore all the more alarming that New York State slashed per-student funding to its community college system by almost one-third between 2001 and 2011. While the most recent legislative session restored some of that funding, the gap between the current level and that from 2001 is still quite large. In the absence of substan-

tial funding increases, the state's community colleges will be forced to raise tuition. Indeed, this is already happening: the State Legislature has authorized SUNY and CUNY to raise tuition by \$300 annually for the next three years. Such tuition increases will harm both access and completion rates. A better course would be to maintain the current level of tuition, raise state operating aid by 10 percent in each of the next three years, and tie that funding increase to state performance goals, such as course completion.

Standardize county sponsor support and governance

The state should require a minimum threshold of local sponsor support, which currently ranges from a high of 41 percent (Sullivan) to 9 percent (Schenectady). The state should also consider overhauling governance of the community colleges. At present, only the host county appoints board members, even though the majority of students may come from outside that county. The state should seek strategies that will spread governance outside the host county and encourage institutions to be more responsive to systemwide initiatives, particularly around student success.

Fund pilot programs to explore innovative strategies and build the evidence base for more effective student success reform at community colleges throughout the state

The state should develop a competitive grant fund to support promising strategies to improve student success and build stronger employer relationships at community colleges. Some impressive evidence-based interventions have been tested, but have yet to be implemented at scale in New York State. SUNY especially lags behind in this area. Competitive grant programs have proven effective throughout the country in stimulating evidence-based innovation. Achieving the Dream, for example, sponsored 19 community colleges in Michigan to develop evidence-based strategies for improving student success, leading to widespread support for statewide efforts to boost college completion.²⁹ Using the lessons learned from these programs, notably the importance of data

collection, continuous improvement, and a rigorous system of external evaluation, New York State could vault to the cutting edge of student success nationwide. It could also create a critical mass of support among administrators, faculty and students themselves to raise graduation rates and connect students to productive careers.

Develop capacity for statewide policy formation

Governor Cuomo, the State Legislature, and the Board of Regents should explore options for developing a statewide entity that would set goals and oversee accountability for achieving them.

Support working learners

New York State has focused commendably on the needs of recent high school graduates. Yet the economy increasingly demands that adults return to postsecondary education to retool their skill sets and meet the evolving requirements of employers. The majority of students in New York State, as in the United States, are non-traditional in some sense – older, supporting children, working at least part-time, or shouldering some family obligations. New York should meet the needs of working learners by reshaping its support of public higher education. One example of the mismatch is the Tuition Assistance Program (TAP), New York’s need-based financial aid system. TAP provides up to \$5,000 annually for recent high school graduates, but only \$3,105 for adults. Furthermore, adults must work to support themselves, yet the income they receive from their work reduces their TAP funding. An adult who works full-time would be well-advised to study part-time. Yet that adult cannot receive TAP funding unless they have enrolled full-time for at least one year, a catch-22 that has prevented most of the state’s 140,000 part-time college students from receiving TAP benefits. New York is long overdue to overhaul TAP to meet the needs of working learners. In addition, policymakers should review other aspects of state policy to better meet the needs of adults seeking postsecondary credentials.

Accelerate development of the longitudinal student unit records database

The most powerful tool in designing effective interventions in other states is the student unit record database, which enables agencies to track students from high school into college, from one college to another, and from higher education into the workforce. New York State is developing its own student unit record database, but progress has been painfully slow. The state needs to accelerate development of its database and utilize it to create a “student success dashboard” that shows how each college in the state is doing in strengthening its graduation rate. Such a system can also track student success along the way to graduation. If New York State takes the additional step of connecting the student unit record database to the state’s employee database maintained through the Unemployment Insurance program, policymakers can find out how many graduates get jobs within six months and at what salaries. Other states, including Washington State, Virginia and Florida, have already incorporated this information into their policymaking arsenal.

Make community college graduation rates public information

The power of public information is almost always underestimated. Using the student longitudinal student unit record database now under development, New York State should develop a web-based student success dashboard similar to that recently created by the California Community Colleges system, which provides not only overall completion rates, but also completion rates for low-income, remedial, older and minority students.

Collaborate to establish a Center for Student Success

What New York needs, more than a specific student success reform, is to develop a culture of student success. In short, all stakeholders in postsecondary education need to be invested in seeing students graduate to enter a rewarding career, especially college faculty, administrators and policymakers. Centers for student success, supported by the Kresge Foundation and other philanthropic funders, represent an emerging strategy

for accomplish this. A center for student success can convene communities of interest around key topics related to student success, build the evidence base on what works, and disseminate that evidence to frontline providers and policymakers who can use it. In a decentralized system like SUNY's, a center for student success can serve as a neutral forum where individual colleges can participate without feeling coerced into toeing a party line. SUNY and CUNY should collaborate with state policymakers to plan and launch a Center for Student Success similar to those already operating in Michigan and Arkansas.

Support reform of the federal Pell Grant system

Pell Grants are the most important support for access and completion of low-income and disadvantaged community college students. Under the Obama administration, the value of Pell Grants has increased for the first time in many years. Surprisingly, however, some key innovations have fallen by the wayside. Most notably, the Obama administration initially permitted TAP benefits during the summer semester, enabling adults to continue in college year-round and graduate more rapidly. Once students actually began to use "Summer Pell," however, federal policymakers decided it was too expensive and abolished it. Summer Pell should not be a victim of its own success. New York should advocate with Congress and the Obama Administration to reinstate Summer Pell, so that future adult learners can accelerate their progress toward a college degree. Furthermore, the Pell Grant Program is critically important to New York's college attainment, and strengthening it should be a top priority of New York policymakers.

Community college boards of trustees should resolve to strengthen student success as a top priority of their management

It may seem obvious that getting more students to graduation is a top priority of any higher education institution. But community colleges have multiple missions, some of which are in tension with focusing on student success. Moreover, it is always tempting to blame students for not be-

ing serious or prepared, or the state for not adequately supporting the institution. But colleges that prioritize student success and take responsibility for their students can achieve amazing breakthroughs. Valencia College in Florida, Community College of Baltimore County in Maryland and several others have shown impressive results, and other community colleges can achieve those results as well.

SUNY should build structures to shift students into high-demand programs of study as soon as possible

Studies of innovative community colleges have found a common theme: they provide structured pathways for new students, limiting their choices and offering a clear route to graduation in a high-demand field.³⁰ In order to reduce time to graduation and minimize the accumulation of unnecessary credits, SUNY should set policies that encourage or mandate early declaration of major or program area.

1. As of fall 2012, there were 328,010 students in the community colleges, 187,087 full-time and 140,923 part-time.
2. Edward Glaeser, *Triumph of the City*, Penguin Press, New York, 2011, p.28.
3. These estimates are based data from the New York State Department of Labor on the median weekly earnings of full-time, full-wage and salary workers aged 25 and over in the year 2011.
4. Complete College America's three-year data does not measure students who graduate with a bachelor's, just students who graduate with an associate degree or transfer. Students who transfer may not go on to graduate with a bachelor's even after six years.
5. Jason Abel and Richard Deitz, *Job Polarization and Rising Inequality in the Nation and the New York/Northern New Jersey Region*, Federal Reserve Bank of New York, 2012.
6. Moore, Kathleen. "Immelt, leaders: Jobs available." Center for Economic Growth (CEG) - New York's Capital Region and Tech Valley. <http://www.ceg.org/news/immelt-leaders-jobs-available/> (accessed August 23, 2012).
7. New York State Education Department, Office of Research and Information Systems. Website accessed April 12, 2013.
8. 2011 American Community Survey microdata, as compiled by the Working Poor Families Project.
9. This figure was calculated by assuming the individual is 25 years of age and worked until she was 65.
10. Matthew O'Brien, "The College Grad Recovery Continues," *The Atlantic Monthly*, April 2013. Data compiled from the U.S. Bureau of Labor Statistics.
11. "Education Pays," U.S. Bureau of Labor Statistics website, accessed May 8, 2013. http://www.bls.gov/emp/ep_chart_001.htm
12. Baum, Sandy, Jennifer Ma, and Kathleen Payea. "Education Pays 2010: The Benefits of Higher Education for Individuals and Society." CollegeBoard.org http://trends.collegeboard.org/downloads/Education_Pays_2010.pdf (accessed June 20, 2012).
13. Ibid.
14. Ibid.
15. Mullin, Christopher M. "A Sound Investment: The Community College Dividend." <http://www.aacc.nche.edu>. www.aacc.nche.edu/Publications/Briefs/Documents/2011-01PBL_Investment.pdf (accessed June 20, 2012).
16. Ibid.
17. Data from New York State Education Department Office of Research and Institutional Development. Note that Fashion Institute of Technology was excluded from calculations.
18. Katherine Hughes, Nikki Edgecombe and Myra Snell, *Developmental Education: How and Why We Must Change It*, Presentation to Innovations 2011 conference, Community College Research Center, 2011.
19. A New Standard for Proficiency: College Readiness, New York Board of regents 2009. http://usny.nysed.gov/A_New_Proficiency_Public_Version07_22.pdf
20. Researchers at the Community College Research Center have cast an especially skeptical eye on the existing system of developmental education. See Thomas Bailey, *Rethinking Developmental Education in Community College* (CCRC Working Paper No. 42), Columbia University, Teachers College, Community College Research Center, 2012; and Nikki Edgecombe, *Accelerating the Academic Achievement of Students Referred to Developmental Education* (CCRC Working Paper No. 30), Columbia University, Teachers College, Community College Research Center, 2011.
21. See the "NY-SUNY 2020 Challenge Grant Program Act," S.5585/A.8519. <http://m.nysenate.gov/legislation/bill/s5855-2011>
22. <http://www2.ed.gov/about/bdscomm/list/acsfa/nts-writtentestimony.pdf>
23. Pell information was derived from IPEDS and TAP information was derived from the HESC New York Higher Education Services Corporation 2010-11 Annual Report.
24. Landers, Gary. "First-generation college students stay the course." USATODAY.com. http://www.usatoday.com/news/education/2010-03-30-FirstGen-Dorm30_ST_N.htm (accessed August 23, 2012).
25. Student enrollment is calculated by full-time equivalents as reported by the New York State Education Department, Office of Research and Information Services. Inflation is calculated according to the Consumer Price Index. Funding by payor is derived from annual budget reports by the City University of New York and the State University of New York.
26. *Report on the Enacted State Fiscal Year 2013-14 Executive Budget*, New York State Senate, 2013.
27. Susan Scrivener, Michael Weiss, and Colleen Sommo, *What Can a Multifaceted Program Do for Community College Students?*, MDRC, June 2012.
28. Nancy Zimpher, "2012 State of the University Address," transcript, January 9, 2012.
29. Tom Hilliard, *Autonomy and Innovation: Systemic Change in a Decentralized State, Jobs For the Future*, October 2012.
30. Lara Couturier, *Cornerstones of Completion: State Policy Support for Accelerated Structured Pathways to College Credentials and Transfer*, Jobs For the Future, 2012.



Center for an Urban Future

120 Wall Street, Floor 20

New York, NY 10005

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