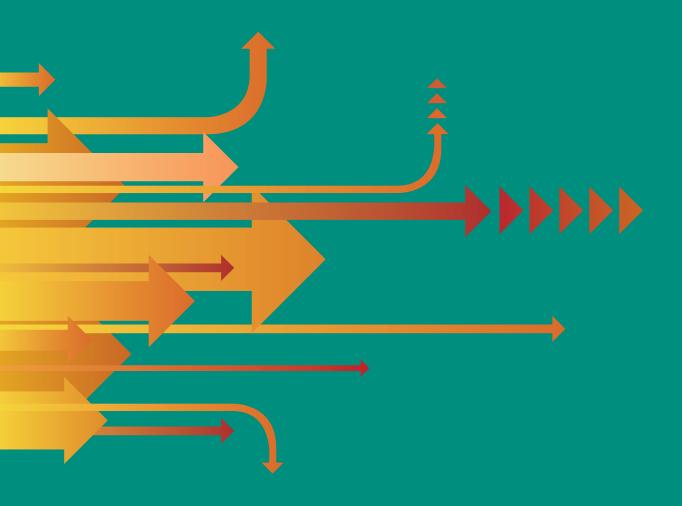
The Road Ahead: A Look at Trends in the Educational Attainment of Community College Students

Christopher M. Mullin



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I appreciate the input I received on earlier versions of the manuscript. I take responsibility for the final product, however; any errors are my own.

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EXECUTIVE SUMMARY

Over the past few years, as the nation has attempted to emerge from a recession, people are increasingly turning to education as a means to return to work in an economy that demands new skills and a larger number of knowledge-based workers. The demand for more education has resulted in increased enrollments in postsecondary institutions, especially in community colleges, which have experienced substantial increases in enrollment since fall 2007.

The demand felt on college campuses aligns with projections indicating a strong need for a more educated workforce. In response to the demands of students, as well as of business and industry, community colleges are rebalancing institutional missions and practices to focus more directly on ensuring student success.

This brief presents data on educational attainment at community colleges, with an eye to what the data portend. One extremely positive conclusion can be reached: Educational attainment for all key populations is increasing at community colleges. The investments made in a community college education, by individuals and by society as a whole, are paying off.

Over the past 20 years, the percent increase in credentials awarded has been double the percent increase in enrollment. These findings are even more pronounced for students of color. Consistent with other research, actual rates of transfer for students are much higher than commonly reported as well.

These gains are the result of students, schools, families, and communities working in concert. They are also the result of innumerable partnerships and initiatives in which community colleges have been or continue to be engaged. Much more work has yet to be done by these stakeholders and their supporting partners, but the path to increasing student success is not untraveled.

The Road Ahead: A Look at Trends in the Educational Attainment of Community College Students

Introduction

Our rapidly changing world requires that we be prepared to adapt to an ever-changing economy. Workers must have an education that differs from that of a generation before by relying more on applying information to new situations than on the repetition of routine tasks. According to Wagner (2011), the jobs of the future may require workers to add new skills to existing jobs, create new specialties, and solve problems. In many cases, additional postsecondary education will be required. Carnevale, Smith, and Strohl (2010) estimated that by 2018 the United States will need to fill 46.8 million job openings, 30 million of which will require some form of postsecondary education. Their analysis continues by noting that, at current levels of production, the supply of workers with postsecondary credentials will fall short by 7.7 million.

Given these projections and the United States' relative global position in terms of the educational attainment level of its citizens, policymakers have focused on America's need for a more educated workforce. Among other factors, there is a realization that the demographics of the nation's population is changing. Johnson and Lichter (2010) estimated that non-White babies will constitute the majority of births in the next few years, and by mid-century people of color will be the majority of the

population. These populations historically have had the lowest levels of educational success. Simply put, increased educational attainment of all racial and ethnic groups is paramount to meeting the educational demands inherent in the new world economy.

This brief presents data on educational attainment at community colleges, with an eye to what the data portend. One extremely positive conclusion can be reached: Educational attainment for all key populations is increasing at community colleges. The investments made in a community college education, by individuals and by society as a whole, are paying off.

While the documented success is notable, community colleges remain committed to increasing student success. The American Association of Community Colleges (AACC), the Association of Community College Trustees, the Center for Community College Student Engagement, the League for Innovation in the Community College, the National Institute for Staff and Organizational Development, and Phi Theta Kappa Honor Society (2010) formally committed in 2010 to take action to increase the number of certificates and degrees awarded by community colleges 50% by 2020. The purpose of this brief is to help readers better understand what the community college movement has attained in

terms of student success, how that movement is currently performing, and what to look for in terms of continued improvement.

The Objectives Students Seek

The reasons students enroll in community college depend on the objectives they seek, whether it is earning a credential, transferring to another institution, or completing a course (Mullin, 2010b). This section examines each of these objectives.

Earning a Credential

In 2009–2010, students attending community colleges earned more than 1 million credentials, defined here as degrees and certificates. Sixty percent of these credentials were associate or bachelor's degrees, and the other 40% were certificates in programs that were less than 1 year (short term), 1 to 2 years (moderate term), or 2 to 4 years (long term) in duration.

Figure 1 illustrates the increases in the number of credentials awarded by community colleges over the past 20 years. The number of total credentials earned at community colleges increased 127% between 1989–1990 and 2009–2010, while enrollment increased 65%, making for average yearly increases of 6.3% and 3.25%, respectively.¹

These data illustrate that student success at community colleges is not

entirely new. This is especially true for students of color. When data for completions and enrollment are disaggregated by race and ethnicity, they show that credential attainment has increased most for students of color when compared to their White counterparts. Over the past 20 years, the data indicate

- 90% increase in earned credentials and a 17% increase in enrollment by White students,
- 283% increase in earned credentials and a 137% increase in enrollment by Black students,
- 440% increase in earned credentials and a 226% increase in enrollment by Hispanic students,

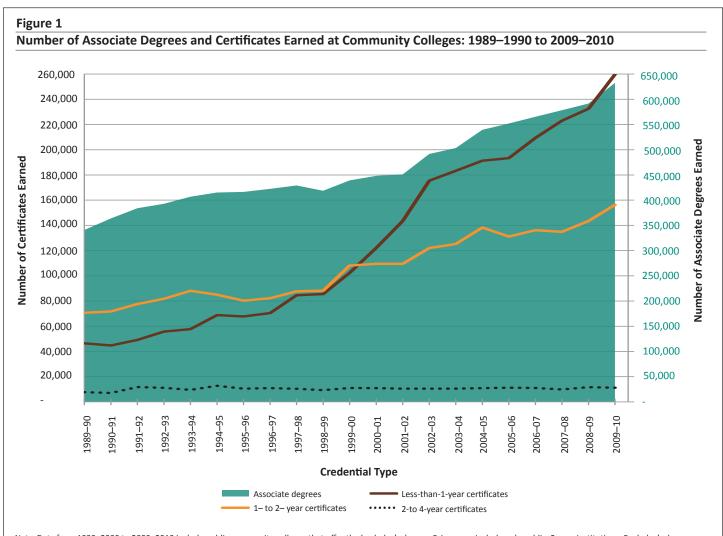
- 253% increase in earned credentials and a 131% increase in enrollment by Asian/Pacific Islander students, and
- 242% increase in earned credentials and a 85% increase in enrollment by American Indian/ Alaska Native students.

However, while these data do suggest that progress in closing attainments gaps for students of color who attend community colleges is under way, a fact to be proud of, they also make clear that the gaps have not been closed. (See the appendix for more data on degrees and certificates earned, by race/ethnicity).

Associate Degrees

In 2009–2010, more than 630,000 associate degrees were earned at community colleges. More than 40% of these awards were in liberal arts and sciences or humanities. These data are the latest data point in what has been 20 years of growth in degree attainment—an 86% increase between 1989–1990 and 2009–2010—after a decade of virtually no growth in the 1980s (Snyder & Dillow, 2011, Table 279).

As with the total number of earned credentials, the increase in associate degree attainment was much greater for non-Whites. Specifically, when completions are disaggregated by



Note. Data from 1999–2000 to 2009–2010 include public community colleges that offer the bachelor's degree. Prior years include only public, 2-year institutions. Bachelor's degrees are not included in the graph because they are a relatively new opportunity provided by community colleges.

race and ethnicity, the data over this period show

- 52% increase in earned degrees by White students,
- 204% increase in earned degrees by Black students,
- 383% increase in earned degrees by Hispanic students,
- 230% increase in earned degrees by Asian/Pacific Islander students, and
- 182% increase in earned degrees by American Indian/Alaska Native students.

Furthermore, Hauptman (2011) found that between 1970 and 2005 associate degrees were the fastest-growing type of degree awarded, growing at twice the rate of bachelor's degrees, a fact often not realized. One reason for this may be that classifying educational attainment as the highest level achieved masks initial success in college provided by community colleges.

Bachelor's Degrees

As locally oriented institutions, community colleges provide educational programs needed by place-bound students and local business and industry. One way that community colleges meet these needs is through partnerships with 4-year universities or by assuming responsibility to provide 4-year education that meets a particular need.

In terms of the former, university centers commonly offer localized access to the bachelor's degree by housing university extension campuses on or near a community college. For example, at the University Center of Lake County, Illinois, 19 colleges offer bachelor's and graduate programs. Some community colleges

also have responded to the needs of their communities by offering programs leading to a bachelor's degree. In 2009–2010, community colleges awarded 8,466 bachelor's degrees, most commonly in the field of business and management.

Certificates

Community college students earned more than 425,000 certificates in 2009–2010. Certificates tend to be workforce specific, but they can serve as the entry point to further education along a career pathway or program of study—much like the bachelor's and the associate degree.

Data indicate that the demand for these certificates is strong. Over the past 20 years, there has been a 242% increase in the number of certificates awarded at community colleges. As with the total number of earned credentials, the increase in certificate attainment was much greater for non-Whites. Specifically, when completions are disaggregated by race and ethnicity, the data suggest

- 203% increase in earned certificates by White students,
- 416% increase in earned certificates by Black students,
- 575% increase in earned certificates by Hispanic students,
- 308% increase in earned certificates by Asian/Pacific Islander students, and
- 361% increase in earned certificates by American Indian/ Alaska Native students.

As illustrated in Figure 1, the greatest increase in certificates occurred for those less than 1 year in duration, a 459% increase over the past 20

years. The number of moderate-term certificates (1 to 2 years) also increased substantially, from 70,714 in 1989–1990 to 156,310 in 2009–2010—a 121% increase. Both short-term and moderate-term certificates were primarily awarded in the fields of health professions, business and management, and mechanic and repair tech. The number of long-term certificates (2 to 4 years) earned each year has held fairly constant for the past 18 years, with health professions the most common field of study.

Because very different types of certificates are classified as simply "some college" in major data sets, and because certificates are earned by students with varying amounts of other postsecondary credentials, the economic value of certificates is hard to quantify. However, earnings distributions do show that 23% of workers with "some college" earn more than workers with bachelor's degrees when earnings distributions are accounted for rather than comparing aggregated median or mean earnings (Carnevale, Rose, & Cheah, 2011).

Certificate programs can provide students a more affordable option than degrees. This is especially true for short-term certificates, which help to limit the risk associated with higher education to students and society, since they result in higher rates of completion for students with "time and economic pressures" (Bosworth, 2010, p. 3). This reality has been recognized by for-profit higher education and helps to explain why the completion rate at 2-year for-profit colleges is relatively high compared to that at community colleges—the former award extremely high percentages of certificates in comparison to community colleges (Miller, 2010; Mullin, 2010a).

Transferring to Another Institution

Although the mission of the community college has expanded to meet local education and training needs, originally community colleges were founded primarily to provide a localized path to the bachelor's degree. Many students enroll in community colleges to take courses for credits that they hope to transfer to another institution. This includes students who start at a community college with the goal of being admitted to another institution and students primarily enrolled in a 4-year institution who are expediting their experience by concurrently enrolling or taking courses during the summer.

The acceptance of community college transfer credits by 4-year colleges is critical to student success. Doyle (2006) found that when all of a student's credits transferred to a 4-year institution, 82% of students completed a bachelor's degree within 6 years, compared to 42% completing when only some credits transferred.² With respect to students attending community colleges to start or to expedite their educational experience, over half of bachelor's degree recipients attend community colleges (NCES, 2010).

Student Right-to-Know (SRK) transfer rate data provided by institutions to the Integrated Postsecondary Education Data System (IPEDS) indicate that, for the 2003 cohort, 15.7% of students transferred to another institution within 3 years of starting at a community college. According to the Beginning Postsecondary Student Longitudinal Study (BPS) of the National Center for Education Statistics (2011a), the transfer rate for students starting college in 2003 was nearly twice as high (29.9%) as the IPEDS figure.

The BPS rate increased to 50% after 6 years. Increased transfer rates occurred for students of all races and ethnicities, as illustrated in Table

1. This is all to say that, due to the vagaries of the Student Right-to-Know reporting framework and the undue emphasis it has received,

Table 1
Transfer Rates at Public 2-year Colleges, by Race/Ethnicity

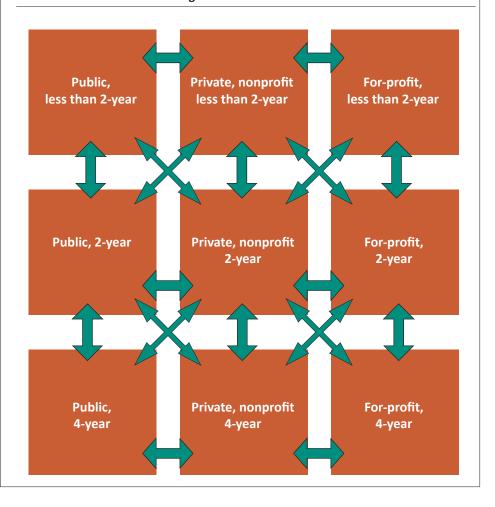
	Transfer Rates by Race/Ethnicity						
Duration of Observed Time in College Within Which Transfer Occurred	Black	Hispanic	Asian/ Pacific Islander	American Indian/Alaska Native	White	Total	
Student Right-to-Know Transfer Rate: 2003 cohort							
3 years	13.0%	13.8%	21.2%	11.5%	16.4%	15.7%	
Beginning Postsecondary Students Longitudinal Study (BPS): 04/09							
3 years	19.9%	24.2%	37.2%	_	33.6%	29.9%	
6 years	44.3%	44.3%	64.5%	_	52.7%	50.6%	

Source: NCES (2011a, 2011c)

Note. For comparison purposes, data for "Race/ethnicity unknown" and "Nonresident alien" were omitted for Student Right-to-Know transfer rates, and "Other" and "More than one race" were omitted from BPS. These values are included in the total rates. For BPS categories, "Asian/Pacific Islander" was constructed by merging the classifications of "Asian" and "Native Hawaiian/Other Pacific Islander." Empty cells indicate that estimates were not available.

Figure 2

Data Paths Across Sectors of Higher Education Needed to Track Student Transfer



community colleges are performing at a level much greater than generally reported or understood.

There are a number of reasons for the discrepancy in data, some of which follow. The \$500 million invested in state longitudinal data systems by the federal government has yet to provide the linkages and feedback loops needed for community colleges to effortlessly track the outcomes of their students across all nine sectors of higher education (see Figure 2). Furthermore, community colleges have to verify transfers if they want to receive "credit" for one (Bailey, Jenkins, & Leinbach, 2005), and if a student earns a credential before transferring they are not allowed to count as a transfer in SRK reporting. Underreporting also may be due to the fact that accessing student-level data may be dependent on data structures, policies, and practices (Medwick, 2009). In some cases, verifying transfer can require a fair amount of effort for the half of all community colleges that have just one full-time equivalent institutional researcher or fewer (Morest & Jenkins, 2007), whose time generally is consumed with federal, state, accrediting, and related reporting obligations. Finally, the substantial increase in completion rates after 6 years suggests that "normal time" is an arbitrary construct that may not readily apply to community college students—who, even if they first enroll full-time, may not remain enrolled full-time. Research shows that 84% of community college students work (NCES, 2011b), and many others have dependents (Baime & Mullin, 2011). Both of these situations likely impact the amount of time it takes students to meet their educational objectives.

Completing a Course

Absent longitudinal data systems that track a student's prior educational attainment, occupational status, and coursespecific information to determine the applicability of the course to current labor market needs, it is difficult to determine the relative impact of course completion on students' postcollege experiences. However, we have learned that many students enroll in community colleges to refine a skill in order to keep their current job or advance in it, to maintain a professional license, to get a job, or for related reasons. This perspective is supported by the fact that one in four community college students in 2007–2008 had previously earned some type of postsecondary credential (NCES, 2011b).

At Montgomery College in Maryland, for example, 42% of students in Collins Jones fall 2011 classes in the biotech program already have a bachelor's, master's, or doctoral degree and are returning to acquire the skills needed to work in science labs (Collins Jones, personal communication, September 14, 2011). Many of these types of jobs are prevalent in that part of Maryland, given the biotech corridor surrounding the National Institutes of Health.

Opportunities in Action

Despite these successes, more needs to be, and can be, done by community colleges to foster completion. The following sections outline a few of the activities under way at community colleges as they place a greater emphasis on completion.

Engaging Students

One step community colleges can take to increase completion is to

make sure that students understand up front the benefits of completion, as well as how to find a program that is best suited to them. Phi Theta Kappa Honor Society's Community College Completion Corps (C4) provides one example (http://www. cccompletioncorps.org/). C4 is a student-led initiative to raise college completion to a level of importance within colleges and communities. Colleges also are streamlining student choices to assist those students in making course selections that follow a specific pathway and more directly lead to a successful outcome. For example, the Virginia Community College System has developed a virtual avatar called "Ginny" to assist students in making informed choices (www.vawizard.org).

It is well known that developmental education, especially in math, is a gatekeeper to postsecondary success for large numbers of students. Community colleges are focusing on individualizing instruction, often using technology, to change the success trajectory of students entering remedial math courses. Chattanooga State Community College, for example, has used an emporium model—where weekly modules are offered in computer labs focused on completing assignments. The modules include videos, as well as help on note taking, homework, and guizzes, and have resulted in a 29% increase in the number of students passing a developmental math course (Squires, 2009).

Furthermore, student surveys, such as the Community College Survey of Student Engagement (www.ccsse. org), aid colleges in identifying areas of sound institutional practice while highlighting programs and services that should be examined to further improve student success.

Leveraging Knowledge

The advances made by community colleges in the area of completion are not held as intellectual property. Rather, the spirit of collaboration enables community colleges to share, and thereby leverage, the knowledge they are acquiring. The MentorLinks program, supported by the National Science Foundation and managed by AACC, gives community colleges the opportunity to start up needed programs in science, technology, engineering, and mathematics (STEM) fields with the assistance of an experienced mentor (www.aacc.nche. edu/mentorlinks). Additionally, the League for Innovation in the Community College and the National Institute for the Study of Transfer Students convene annual conferences to advance student success in STEM fields.

Partnerships with business and industry also are enhancing the ability of community colleges to respond to the demands of employers by identifying the types of workers that industries need and producing them in a collaborative effort, as exemplified by the AACC Trades in Focus initiative

supported by W.W. Grainger, Inc. (www. aacc.nche.edu/skilledtrades). There are far too many partnerships to list; some were highlighted by McKenney and Uhalde (2009) and others exist as Advanced Technological Education programs funded by the National Science Foundation.

The National Institute for Staff and Organizational Development is focused on developing the skills of community college faculty, staff, and administrators to foster student success (www.nisod. org/completion). Innovation and models of success are shared at annual conventions and meetings of all 29 affiliate councils of AACC (www.aacc. nche.edu/About/Pages/affiliatecouncil. aspx) and other annual events such as the Community College Futures Assembly (http://futures.education. ufl.edu/), the Workforce Development Institute (www.aacc.nche.edu/wdi), and the Achieving the Dream Strategy Institute (www.achievingthedream.org).

Making Informed Decisions

As society moves to a knowledgebased economy, community colleges are increasingly relying on data to inform institutional decisions. Building a culture of evidence within institutions is the primary focus of Achieving the Dream, now 160 colleges strong. By all reckonings, Achieving the Dream has had a transformative effect on many community college campuses. The Association of Community College Trustees, through the Governance Institute for Student Success (www. governance-institute.org), is working to empower trustees with the tools needed to promote student success on their campuses.

Moving Forward

Those advocating for completion have run into challenges (see AACC, 2011), especially for men of color, students needing remediation, and low-income students. However, the data presented in this brief clearly demonstrate that educational gains are being made. These gains are the result of students, schools, families, and communities working in concert. Much more work has yet to be done by these stakeholders and their supporting partners, but the path to increasing student success is not untraveled.

Notes and References

Notes

References

American Association of Community Colleges. (2009, October 19). *AACC statement on community colleges and baccalaureate attainment.*Washington, DC: Author. Available from http://www.aacc.nche.edu/About/Positions/Pages/ps10192009.aspx

American Association of Community Colleges. (2011, August). Report on the 21st-Century Initiative Listening Tour. Washington, DC: Author.

American Association of Community Colleges, the Association of Community College Trustees, the Center for Community College Student Engagement, the League for Innovation in the Community College, the National Institute for Staff and Organizational Development, and Phi Theta Kappa. (2010, April). *Democracy's colleges: Call to action*. Washington, DC: American Association of Community Colleges.

Bailey, T., Jenkins, D., & Leinbach, T. (2005, September). *Graduation rates, student goals, and measuring community college effectiveness* (CCRC Brief No. 28). New York: Teachers College Columbia University, Community College Research Center.

Baime, D. S., & Mullin, C. M. (2011, July). *Promoting educational opportunity: The Pell Grant program at community colleges* (Policy Brief 2011-03PBL). Washington, DC: American Association of Community Colleges.

Bosworth, B. (2010, December). *Certificates count: An analysis of sub-baccalaureate certificates*. Washington, DC: Complete College America.

Carnevale, A. P., Rose, S., & Cheah, B. (2011, August). *The college payoff: Education, occupation, and lifetime earnings*. Washington, DC: Georgetown University, Center on Education and the Workforce.

Carnevale, A. P., Smith, N., & Strohl, J. (2010, June). *Help wanted: Projections of jobs and education requirements through 2018*. Washington, DC: Georgetown University, Center on Education and the Workforce.

Doyle, W. R. (2006, May/June). Community college transfer and college graduation: Whose choices matter most? Change, 56-58.

Hagedorn, L. S., Cabrera, A. F., & Prather, G. (2010). The community college transfer calculator: Identifying the course-taking patterns that predict transfer. *Journal of College Student Retention*, 12(1), 105–130.

Hagedorn, L. S., Cypers, S., & Lester, J. (2008). Looking in the rearview mirror: A retrospective look at the factors affecting transfer for urban community college students. *Community College Journal of Research and Practice 32*(9), 643–664.

Hagedorn, L. S., Herrera, S. W., DuBray, D., & Buchanan, D. (2010). Math and science success and nonsuccess: Journeys within the community college. *Journal of Women and Minorities in Science and Engineering*, 16(1), 31–50.

Hagedorn, L. S., & Lester, J. (2006). Hispanic community college students and the transfer game: Strikes, misses, and grand experiences. *Community College Journal of Research and Practice* 30(10), 827–853.

Hagedorn, L. S., Moon, H. S., Cypers, S., Maxwell, W. E., & Lester, J. (2006). Transfer between community colleges and 4-year colleges: The all-American game. *Community College Journal of Research and Practice* 30(3), 223–242.

Handel, S. J. (2011). *Improving student transfer from community colleges to four-year institutions: The perspective of leaders from baccalaureate-granting institutions.* Washington, DC: College Board.

Hauptman, A. M. (2011, February 15). *Increasing higher education attainment in the United States: Challenges and opportunities*. Paper presented at the American Enterprise Institute conference, Washington, DC.

¹Enrollment values reflect fall enrollment. Values for the fall 1989 were missing and therefore estimated as the average of values for 1988 and 1990 (Snyder & Hoffman, 1992, Table 193).

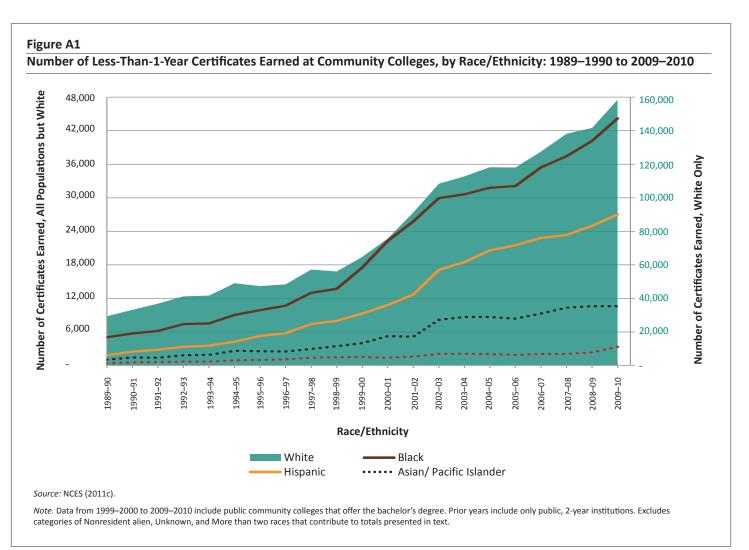
² Other factors are important to consider with respect to attainment of the bachelor's degree for students who transfer; see, for example, AACC (2009) and Handel (2011). For a discussion of transfer-related issues for community college students see Hagedorn, Cabrera, and Prather (2010); Hagedorn, Cypers, and Lester (2008); Hagedorn, Herrera, DuBray, and Buchanan (2010); Hagedorn and Lester (2006); and Hagedorn, Moon, Cypers, Maxwell, and Lester (2006).

- Johnson, K. M., & Lichter, D. T. (2010, March). Growing diversity among America's children and youth: Spatial and temporal dimensions. *Population and Development Review, 36*(1), 151–176.
- McKenney, J., & Uhalde, R. (Eds.). (2009). Sustaining partnerships for regional economic growth: A compendium of promising practices and tools. Washington, DC: American Association of Community Colleges and National Center for Education and the Economy.
- Medwick, A. J. (2009, August). *Transfer-out reporting on the IPEDS Graduation Rate Survey: A first look at trends and methods* (An AIR/ NCES Data Policy Fellowship Report). Tallahassee, FL: Association for Institutional Research and U.S. Department of Education, Institute for Education Sciences, National Center for Education Statistics.
- Miller, B. (2010, October 7). The truth about cc vs. for-profit graduation rates [Blog post]. Available from http://www.quickanded.com/.
- Morest, V. S., & Jenkins, D. (2007, April). *Institutional research and the culture of evidence at community colleges* (Report No. 1 in the Culture of Evidence Series). New York: Teachers College, Columbia University, Community College Research Center.
- Mullin, C. M. (2010a). *Just how similar? Community colleges and the for-profit sector* (Policy Brief 2010-04PBL). Washington, DC: American Association of Community Colleges.
- Mullin, C. M. (2010b). *Rebalancing the mission: The community college completion challenge* (Policy Brief 2010-02PBL). Washington, DC: American Association of Community Colleges.
- National Center for Education Statistics. (2010). 2001 Baccalaureate and Beyond Longitudinal Study (B&B:2000/01) [Data file]. Washington, DC: U.S. Department of Education, Institute for Education Sciences.
- National Center for Education Statistics. (2011a). 2003-04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09) [Data file]. Washington, DC: U.S. Department of Education, Institute for Education Sciences. Available from http://nces.ed.gov/datalab/powerstats/default.aspx.
- National Center for Education Statistics. (2011b). 2007–08 National Postsecondary Student Aid Study (NPSAS: 08) [Data file]. Washington, DC: U.S. Department of Education, Institute for Education Sciences. Available from http://nces.ed.gov/surveys/npsas/.
- National Center for Education Statistics. (2011c). IPEDS *data center* [Data file]. Washington, DC: U.S. Department of Education, Institute for Education Sciences. Available from http://nces.ed.gov/ipeds/datacenter/.
- Snyder, T. D., & Dillow, S. A. (2011, April). *Digest of education statistics: 2010* (NCES 2011-015). Washington, DC: U.S. Department of Education, Institute for Education Sciences, National Center for Education Statistics.
- Snyder, T. D., & Hoffman, C. M. (1992, October). *Digest of education statistics: 1992*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.
- Squires, J. (2009, June). Tennessee Board of Regents: Developmental Studies Redesign initiative, Cleveland State Community College. Saratoga Springs, NY: The National Center for Academic Transformation. Available from http://www.thencat.org/States/TN/Abstracts/CSCC%20 Algebra Abstract.htm#FinalRpt.
- Wagner, C. G. (2011, January-February). 70 jobs for 2030: Emerging careers and how to create them. The Futurist, 30-33.

Short-Term Certificates

The number of short-term certificates earned at community colleges has increased 459% between 1989–1990 and 2009–2010. When completions are disaggregated by race and ethnicity, the patterns indicate

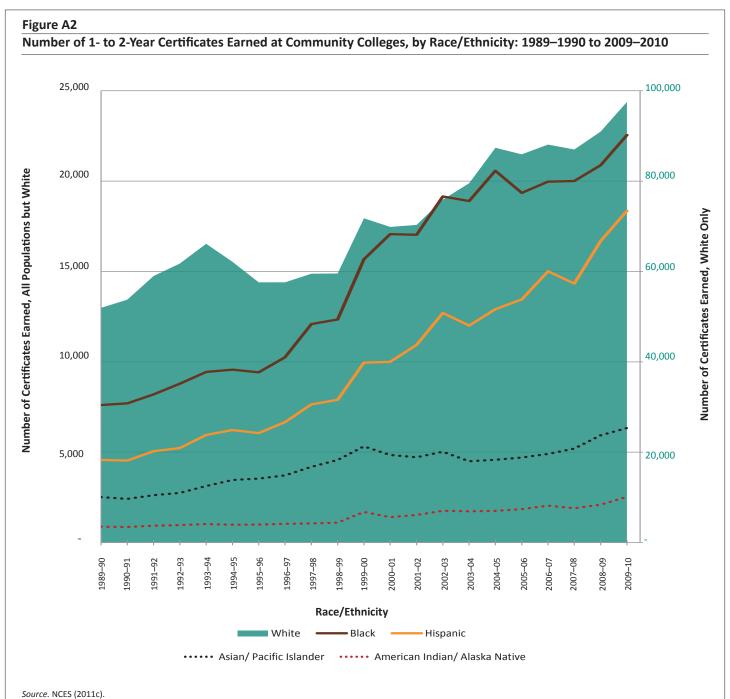
- 440% increase in earned certificates by White students,
- 776% increase in earned certificates by Black students,
- 1,338% increase in earned certificates by Hispanic students,
- 947% increase in earned certificates by Asian/Pacific Islander students, and
- 757% increase in earned certificates by American Indian/Alaska Native students.



Moderate-term Certificates

The number of moderate-term certificates earned at community colleges has increased 121% between 1989–1990 and 2009–2010. When completions are disaggregated by race and ethnicity, the patterns indicate

- 88% increase in earned certificates by White students,
- 197% increase in earned certificates by Black students,
- 302% increase in earned certificates by Hispanic students,
- 152% increase in earned certificates by Asian/Pacific Islander students, and
- 190% increase in earned certificates by American Indian/Alaska Native students.



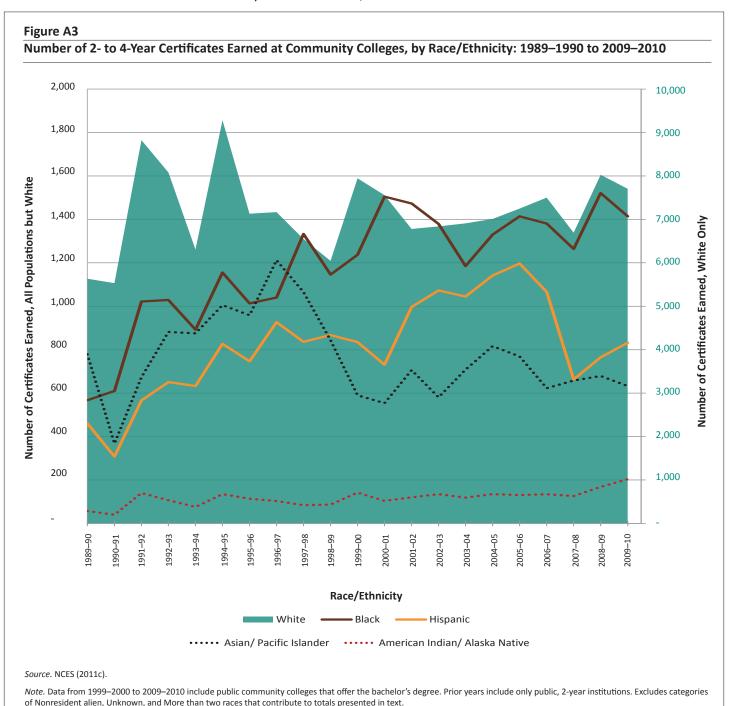
Note. Data from 1999–2000 to 2009–2010 include public community colleges that offer the bachelor's degree. Prior years include only public, 2-year institutions. Excludes categories

of Nonresident alien, Unknown, and More than two races that contribute to totals presented in text.

Long-term Certificates

The number of long-term certificates earned at community colleges has increased 45% between 1989–1990 and 2009–2010. When completions are disaggregated by race and ethnicity, the patterns indicate

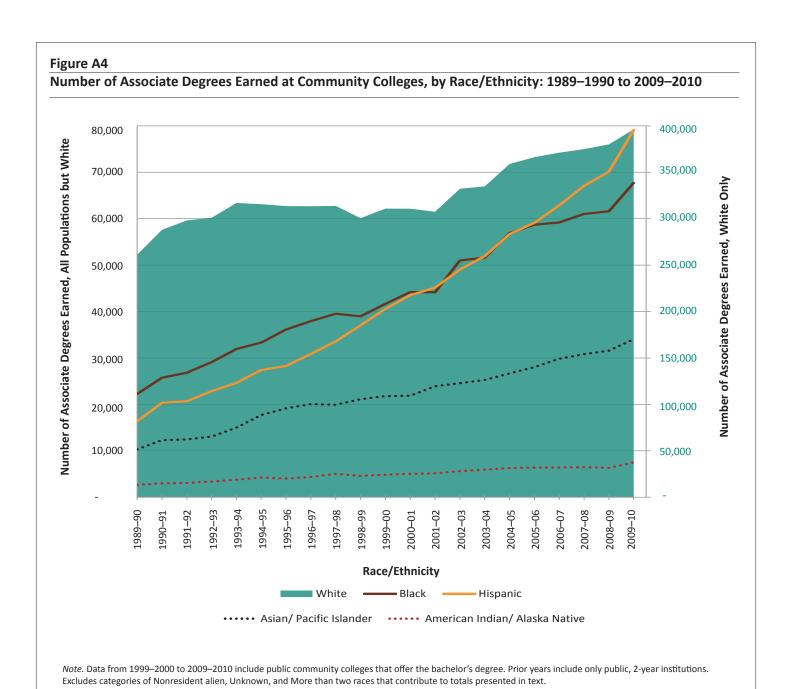
- 37% increase in earned certificates by White students,
- 149% increase in earned certificates by Black students,
- 80% increase in earned certificates by Hispanic students,
- 19% decrease in earned certificates by Asian/Pacific Islander students, and
- 258% increase in earned certificates by American Indian/Alaska Native students.



Associate Degrees

The number of associate degrees earned at community colleges has increased 86% between 1989–1990 and 2009–2010. When completions are disaggregated by race and ethnicity, the patterns indicate

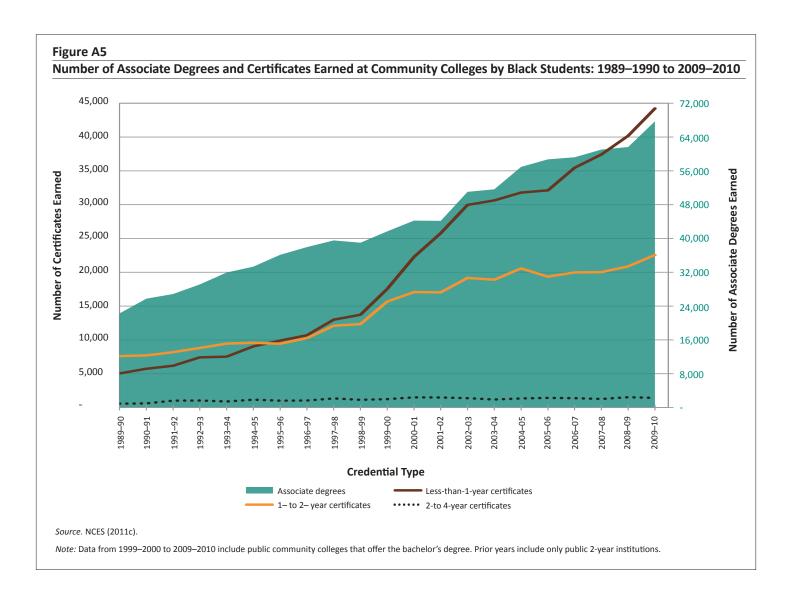
- 52% increase in earned degrees by White students,
- 204% increase in earned degrees by Black students,
- 383% increase in earned degrees by Hispanic students,
- 230% increase in earned degrees by Asian/Pacific Islander students, and
- 182% increase in earned degrees by American Indian/Alaska Native students.



Credentials Earned by Black Students at Community Colleges

While enrollment of Black students increased 137% between 1989–1990 and 2009–2010, the number of credentials earned at community colleges increased 283%. When disaggregated by credential type, the patterns for Black students indicate

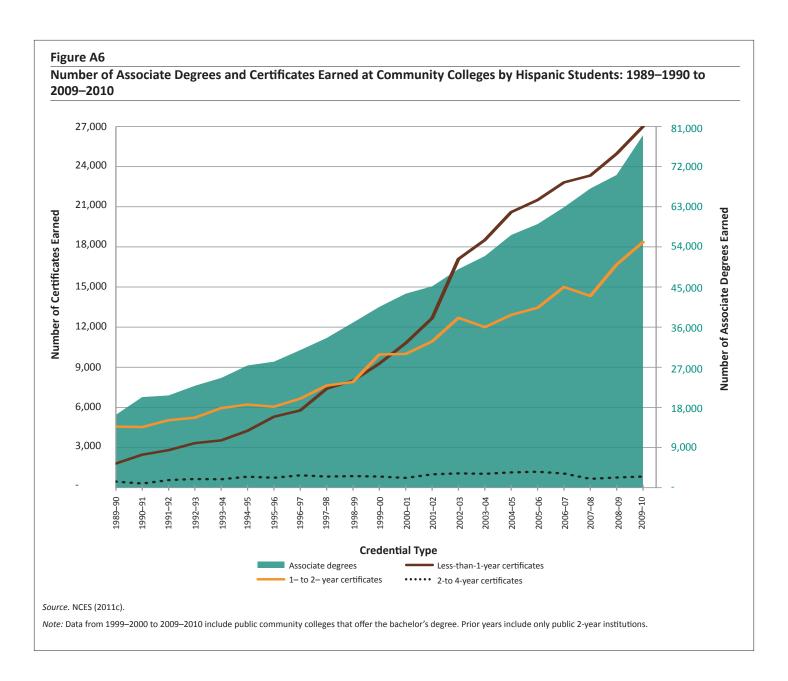
- 204% increase in associate degrees earned,
- 776% increase in short-term certificates earned,
- 197% increase in moderate-term certificates earned, and
- 149% increase in long-term certificates earned.



Credentials Earned by Hispanic Students at Community Colleges

While enrollment of Hispanic students increased 226% between 1989–1990 and 2009–2010, the number of credentials earned at community colleges increased 440%. When disaggregated by credential type, the patterns for Hispanic students indicate

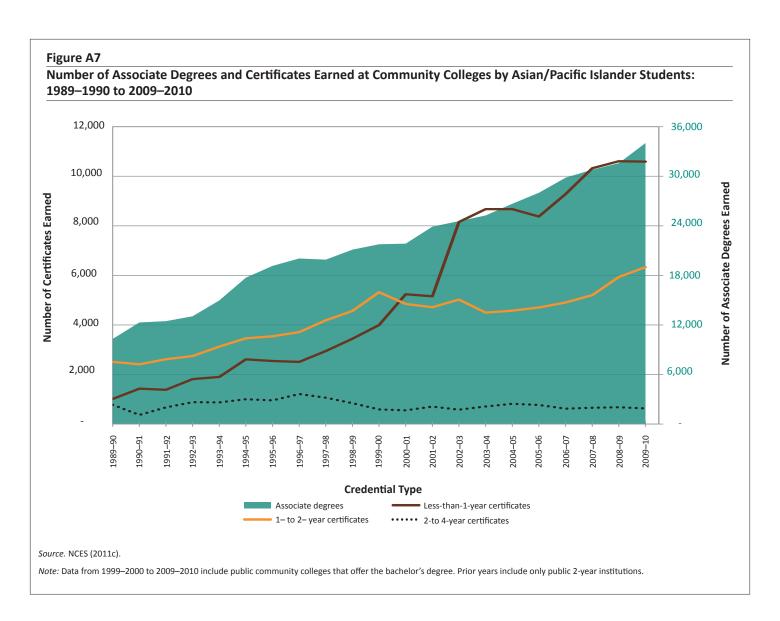
- 383% increase in associate degrees earned,
- 1,338% increase in short-term certificates earned,
- 302% increase in moderate-term certificates earned, and
- 80% increase in long-term certificates earned.



Credentials Earned by Asian/Pacific Islander Students at Community Colleges

While enrollment of Asian/Pacific Islander students increased 131% between 1989–1990 and 2009–2010, the number of credentials earned at community colleges increased 253%. When disaggregated by credential type, the patterns for Asian/Pacific Islander students indicate

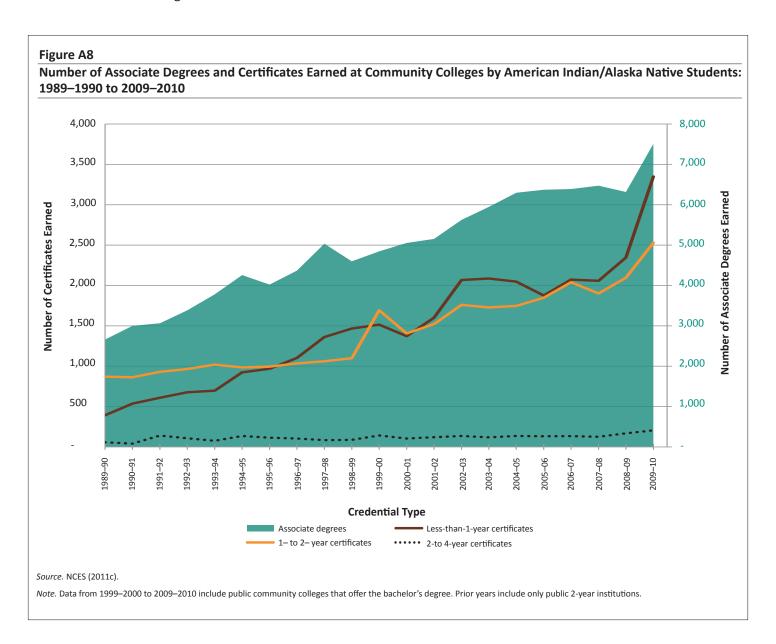
- 230% increase in associate degrees earned,
- 947% increase in short-term certificates earned,
- 152% increase in moderate-term certificates earned, and
- 19% decrease in long-term certificates earned.



Credentials Earned by American Indian/Alaska Native Students at Community Colleges

While enrollment of American Indian/Alaska Native students increased 85% between 1989–1990 and 2009–2010, the number of credentials earned at community colleges increased 242%. When disaggregated by credential type, the patterns for American Indian/Alaska Native students indicate

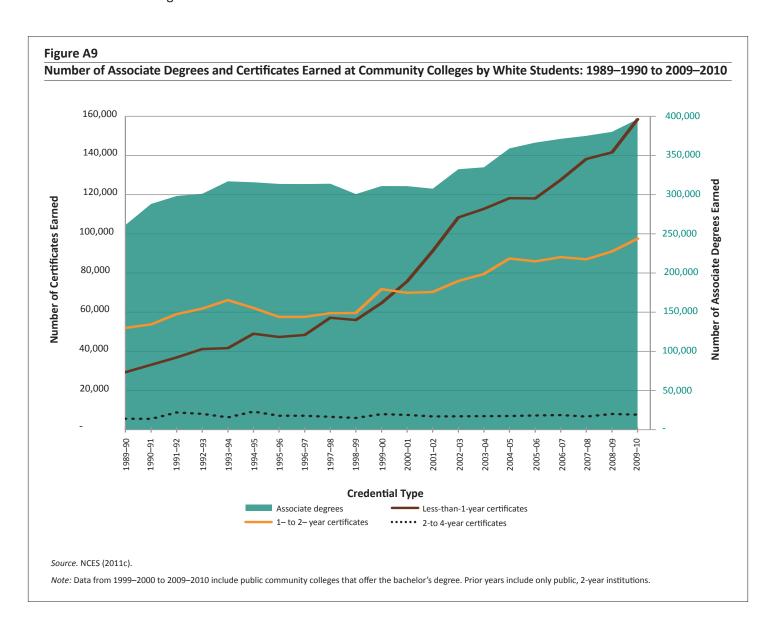
- 182% increase in associate degrees earned,
- 757% increase in short-term certificates earned,
- 190% increase in moderate-term certificates earned, and
- 258% increase in long-term certificates earned.



Credentials Earned by White Students at Community Colleges

While enrollment of White students increased 17% between 1989–1990 and 2009–2010, the number of credentials earned at community colleges increased 90%. When disaggregated by credential type, the patterns for White students indicate

- 52% increase in associate degrees earned,
- 440% increase in short-term certificates earned,
- 88% increase in moderate-term certificates earned, and
- 37% increase in long-term certificates earned.





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