

Addressing the Graduation Dilemma in Technical and Community Colleges

by

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Abstract

Integral to the current economic recession is an irresolute unemployment rate that disproportionately impacts unskilled and ill-prepared workers in need of the training that is being offered in technical and community colleges. These institutions have experienced record enrollment growth as students seek training and education necessary to pursue skilled careers in high demand occupations. A major challenge for these colleges is that the vast majority of students who are admitted to two-year degree programs do not graduate in a three-year period. School attrition research suggests that full time students who fail to complete associate's degrees in three years are not likely to graduate at any time. Organization and systems theories are suggested that will help administrators to identify critical obstacles at the individual and institutional levels and initiate sustained approaches to resolving them.

Introduction

There are nearly 1,200 public technical and community colleges in the United States serving over 12.4-million students annually. These institutions have great appeal because of their open access, basic literacy offerings, articulation agreements with four-year institutions, and opportunities for acquiring training in occupations with high employment demand (AACC, 2011). The U. S. Bureau of Labor Statistics (2011) predicts that for the next decade the fastest growing occupations will continue to be those requiring certification or associate degrees offered

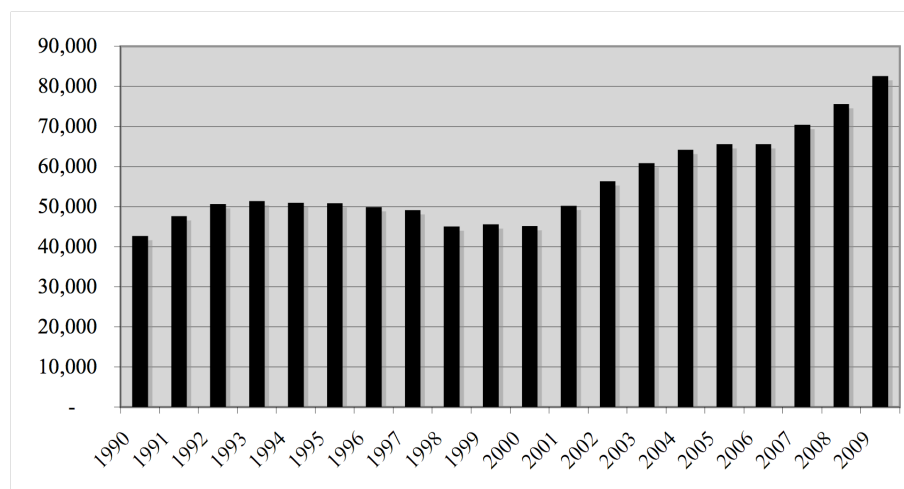
in two-year institutions.

The current imbalance between employment supply and demand has resulted in a significant increase in technical and community college enrollment that is outpacing student growth in traditional four-year institutions (Fry, 2009 and 2010). Enrollment in American community colleges increased in eight of the past ten years and accounts for 44 percent of all U.S. undergraduates (Adams, 2011; IPEDS, 2011). These expansions are related to the overall growth in the U. S. population, shifts in occupational projections, and the economic recession that has caused thousands of unemployed and underemployed workers to return to school to jump-start their careers. The recent employment problem in America is not that there are fewer jobs than workers, but there is a dearth of qualified workers available to filled skilled positions (Roubini, 2007; Siegel, 2008). The June 2011 unemployment rate of 9.2 percent represented 14.1 million Americans who were actively seeking jobs (Bureau of Labor Statistics, 2011). However in May 2011, professional and business services hired the largest number of workers of any industry (861,000) and still had one of the highest number of job openings remaining (580,000) by the end of the month. Further, education and health services had the largest number of job vacancies in May at 590,000. Yet only 483,000 new employees were actually hired (Bureau of Labor Statistics, 2011). These unclaimed positions are due to the need for more highly skilled workers. On Feb. 17, 2009, the U. S. Congress passed the American Recovery and Reinvestment Act (Public Law 111-5). A significant part of the legislation allocates billions of dollars in grants for community colleges to participate more directly in workforce preparation. The enrollment growth in technical and community colleges is in direct response to these needs and opportunities.

Two-year College Enrollment Growth in Georgia

The growth of two-year colleges is particularly evident in the state of Georgia where the statewide population increased by more than 50% between 1990 and 2010 (U.S. Census, 2011). Between 1990 and 2000, enrollment in Georgia's nine public community colleges remained virtually unchanged, moving from 42.7 thousand to 45.5 thousand, an increase of less than 1%. However, between 2000 and 2009, enrollment in these same institutions grew by 83% - from 45.5 thousand to 82.5 thousand students (NCES, 2011). Table 1 illustrates the unparalleled enrollment increases in Georgia's community colleges during the first decade of the millennium.

Table 1. Enrollment Changes in Georgia's Public Community Colleges (1990-2009)

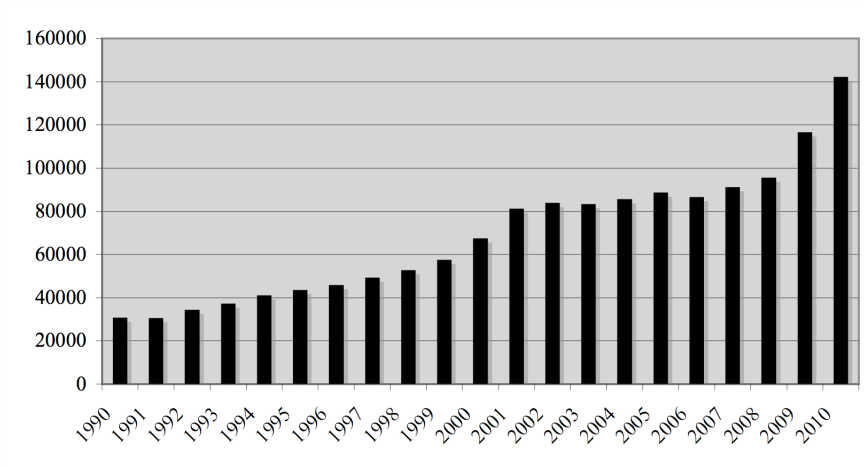


(Data extracted from NCES IPEDS, 2011)

The technical college explosion is also evident in Georgia. In the fall of 2010 there was an unprecedented 22 percent, one-year enrollment increase at the 26 institutions comprising the Technical College System of Georgia (TSG, 2011). Prior to this, the enrollment increase of 19% that occurred in 2009 was recognized as record breaking. Table 2 provides a visual

representation of the 20-year enrollment changes in Georgia’s technical colleges.

Table 2. Enrollment Changes in Georgia’s Public Technical Colleges (1990-2010)



(Data extracted from NCES IPEDS, 2011)

There are many explanations for why Georgia students are choosing to attend technical and community colleges in record numbers. A major motivating factor is the economic recession that has workers reexamining career paths. A second reason is the increasing demand that employers have for specialty trained workers. An additional explanation in Georgia is the dual enrollment agreement between state’s 350 public high schools and the 26 public technical colleges. Dual enrollment is a joint arrangement between the Georgia Department of Education (DOE), the Technical College System of Georgia (TCSG), and the HOPE scholarship program that permits high school juniors and seniors to take courses at a TCSG using HOPE scholarship funds to pay for tuition. Students receive simultaneous credits that apply toward high school graduation and technical college credits (TCSG, 2011).

Low Completion Rates

In the midst of record enrollment growth, a lingering problem continues to challenge Georgia's public two-year colleges. The vast majority of students who are admitted to these schools do not receive degrees in a three-year period. Further, dropout research suggests that if students do not complete associates degrees in three years, they are not likely to graduate at any time. While two-year institutions celebrate remarkable growth in enrollment, the sluggish retention and graduation rates are serious issues which must be addressed (Collins, 2009; Sakura-Lemessy et al, 2009; Gantt, 2010).

The postsecondary years are challenging for large numbers of students, as evidenced by low completion rates in many institutions. Data from the Georgia Governor's Office of Student Achievement verify a three-year graduation rate of only 28.5% among students matriculating in two-year associate degree/diploma programs at the state's technical colleges in 2009 (GAOSA, 2011). None of the state's 26 technical colleges had a 3-year graduation rate that was at or above 50%. Table 3 shows there have been little changes in Georgia's technical college graduation rates over the last five years (NCES, 2011).

Table 3. Three-Year Graduation Rates in Georgia Technical Colleges (2002 - 2009)

	Beginning Cohort	Graduated in 3-years	Graduation Rate
2006-2009	19,306	5,495	28.5
2005-2008	18,570	4,909	26.4
2004-2007	20,033	5,748	28.7
2003-2006	20,721	5,752	27.8
2002-2005	21,319	5,946	27.9

(Data extracted from NCES IPEDS, 2011)

Of the 6,412 first time students who entered Georgia’s eight public community colleges in the fall of 2007, only 636 graduated in the spring of 2010. This represents a graduation rate of 10.26% (GA Board of Regents, 2011). Table 4 further documents the low graduation trend using data from the Alliance for Excellent Education (2011) that reports Georgia’s postsecondary completion rates in four-year and two-year institutions and compares them to national figures.

Table 4. Georgia’s College Graduation Rates Compared to National Averages

Georgia Four-Year Institutions*	National Average*	Georgia Two-Year Institutions**	National Average**
47%	56%	27%	31%

(Data Source: Alliance for Excellent Education, 2011)

*Graduation within six years of entrance (cohort from 2003-2008)

**Graduation within three years of entrance (cohort from 2005-2008)

Student Persistence

By design, technical and community colleges have open admissions policies that provide an opportunity to a vast number of deserving students who, otherwise, might not be admitted to colleges with more stringent admissions criteria. Once admitted, many of these students struggle to perform basic college-level work and are required to take remedial courses. Nationally, approximately 28% of two-year and four-year college students require corrective assistance in reading, mathematics, and/or writing. However, when those numbers are disaggregated by type of institution, remediation required at two-year colleges is more than twice the number at four-year colleges (NCES, 2003; Community College Week, 2008). It is conservatively estimated that more than 43% of all first year technical college students will be required to enroll in a remedial class (Strong American Schools, 2008). The problem appears to be more challenging in Georgia’s two-year community colleges where 56.6 percent of first-time freshmen required

learning support in 2007 (Ga. Board of Regents, 2008).

Table 5 provides a chart of each of the nine two-year Georgia community colleges, the number of students who were required to enroll in learning support courses, and the percentage of all freshmen who were enrolled in those courses. The percentage of Georgia public community college freshmen who were required to take Learning Support courses in the fall of 2007 ranged from a low of 28% to a high of 72.2% for a statewide average of 56.6%.

Table 5. Georgia Community College Freshmen Enrolled in Learning Support (Fall 2007)

Institution	Total 1st Time Freshmen	Freshmen Requiring LS	
		No.	%
A	320	231	72.2
B	482	180	37.3
C	587	209	35.6
D	1041	610	58.6
R	746	399	53.5
F	1197	609	50.9
G	3405	2189	64.3
H	620	372	60.0
I	200	56	28.0
Total	8598	4855	56.6

(Data extracted from University System of Georgia, 2008)

Research Findings

Research abounds explaining postsecondary student retention with recommendations for addressing sluggish graduation rates. For more than twenty-five years, theorists such as Alexander Astin (1997, 2007); Vincent Tinto (1998, 2010); Ernest Pascarella (1979, 2010); Patrick Terenzini (1979, 2010) and others have explored the root causes of student disengagement, retention, and dropout patterns at the postsecondary level. The research of these

scholars represents a blueprint for how to reverse the college attrition problems in America.

Tinto's seminal theory of retention (1993) focuses on three fundamental reasons for student departure: (a) academic difficulties, (b) trouble clarifying educational and occupational goals, and (3) inability to integrate into the institution's cultural, intellectual and social reality. His recommendations in "Model of Institutional Departure" and more recently in "Moving from Theory to Action" suggest ways to vigorously address each of these issues (Tinto and Puser, 2006). Similarly, Astin's work stresses the need for college classrooms to reflect student-centered andragogy that keeps the adult learner involved (1984, 2009). More recent studies have extended and confirmed earlier themes such as high school articulation agreements (Ferdermam, 2007), increased student engagement (Schmidtke, 2009), and course integration with real world scenarios (Barnett, Miller, & Polito, 2009). A recently completed case study conducted at an open-admissions college with a very high graduation rate found three important characteristics were present: (a) encouragement from leaders and faculty, (b) strong peer relationships, and (c) academic and social support networks (Williams, 2011). Further, the study found strong and interactive community ties to the institution were present.

Institutional Integrity

Technical and community colleges celebrate a phenomenal growth in enrollment, but must enact programs that will allow equal celebration marking graduation parity. The ethical question becomes the extent to which technical and community colleges can continue to admit large numbers of students who fail to graduate. Recognizing that a large proportion of new students will require intense remediation, new paradigms for *Learning Support* and *Developmental Studies* program must be developed that insure adult mastery of basic skills

within a prescribed period of time. These programs cannot be an extension of high school curricular and instructional styles. Rather, technical and community college students should be taught in classes that incorporate adult learning styles and are supported by proven theories of andragogy (Martin, 2011; Pollio and MacGowan, 2010).

While these and other studies have consistently documented policies and procedures that reduce attrition and increase completion, it is difficult to find colleges, particularly two-year institutions that have instituted these or other models to increase graduation rates. In 1998, Tinto asked,

What would our colleges and universities look like if we took seriously the research on student persistence? What reforms in organization and pedagogy would we pursue if we used the findings on the impacts on college on students' persistence as a guide for our thinking? (p. 5)

Social Systems Paradigm

An organization should be viewed as an integral component of a bigger unit. In order to survive, the organization is expected to have healthy relationships with all elements of the larger organism. The most obvious analogy is the human body that consists of numerous interdependent systems that rely on each other for maximum functioning. Systems theorists suggest that healthy organizations consist of three major processes: (a) internal functions, (b) relationships between the organization and its immediate environment, and (3) the influence of the organization on the larger system in which it exists (Stern & Barley, 1996; Solo, 2000; Flam & Carson, 2008). As an organizational system, technical and community colleges will benefit from planning their existence and survival through these three aforementioned views. The alternative is an isolationist existence in which the institution's singular focus is on internal functions, with little or no relationships with the immediate environment and no influence on the

larger system in which it exists.

Technical and community college enrollments have grown exponentially at a rate that is challenging for administrators to manage. Added to this are state budget crises that have taken a toll on higher education funding, resulting in freezes in faculty hiring, reductions in course offerings, increased class sizes, and larger student/teacher ratios. Several studies have shown the negative influence of large class sizes on student learning (Chapman & Ludlow, 2010; Beard & Kuhn, 2008; Borland Howsen, & Trawick, 2005). These outcomes are particularly acute for first year (Cuseo, 2007) and high-risk (Berenson & Carter, 1992) students who benefit from smaller levels of interaction.

A correlation coefficient was calculated between enrollment in Georgia's technical colleges and graduation rates. A second correlation was calculated between student-teacher ratio and graduation rates. Table 6 documents the findings of these calculations that show inverse correlations for each.

Table 6. Correlations between Enrollment, Student/Teacher Ratio and Graduation Rates

	R
Enrollment/ Graduation Rate	-0.645*
Student-Teacher Ratio/Graduation Rate	-0.414*

p < 0.01

The correlations revealed inverse relationships that were significant at $p < 0.01$. As enrollment in Georgia's technical colleges increases, graduation rates decrease. Similarly as student-teacher ration increases, graduation rates decrease. A combined examination of these phenomena suggests that the problem is not that there are too many students (larger enrollment),

but fewer faculty that results in larger class sizes and greater student-teacher ratios. Student engagement is negatively impacted by larger class sizes.

Recommendations

There are several steps that technical and community college might consider addressing to improve retention and graduation rates.

1. Have designated staff and/or faculty to meet with students early and regularly in their first year to discuss academic and career plans.
2. Monitor the progress of individual students and know early when they are experiencing difficulties or becoming disengaged.
3. Conduct campus level research to determine why students leave prior to completing a certificate or degree program.
4. Establish opportunities for students to become involved in campus organizations, institutional governance, and decision-making.
5. Find ways for the institution to be visible in and positively impact the larger community.

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