
2+2 STATEWIDE ARTICULATION POLICY, STUDENT PERSISTENCE, AND SUCCESS IN FLORIDA UNIVERSITIES

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The reported study in this paper examined the continuing viability of Florida's 2+2 articulation agreement by comparing academic success and persistence among Florida public community college graduates ($n = 1,738$) and native ($n = 874$) juniors at three universities. Discriminant analysis yielded statistically significant differences. Transfer students graduated with fewer lower level courses in upper division and fewer cumulative credit hours than native students. Discriminant analysis did not yield appreciable differences in the final grade point averages of student graduates, indicating that community college transfer students performed just as well academically as native students. Chi-square tests of independence indicated that a greater percentage of transfers dropped out prior to graduation. These findings support the conclusion that community college transfers are academically competitive, but they may benefit from retention services and programs that engender student engagement.

Providing community college students with access to four-year universities requires coordination at the state, local, and institutional levels. Intra-institutional collaborations between community colleges and four-year universities via 2+2 articulation practices decrease attrition rates during student transfer to four-year universities (Ignash & Townsend, 2000; Just & Adams, 1997; Wellman, 2002). “Articulation and transfer are enhanced considerably when programs

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are closely coupled” (Cohen & Brawer, 2003, p. 329). The present study investigated the ongoing effectiveness of the 2+2 concept and its accompanying articulation process in a state that has relied heavily upon the governance of its postsecondary system to provide access to higher education.

Florida’s 2+2 system with its statewide articulation agreement and its strong community college system has been effective in promoting access to higher education. A reorganization of the state system in 2001 raised questions about its long-term viability, including the statewide trend of community colleges becoming four-year institutions. The 2001 abolition of Florida’s Board of Regents and State Board of Community Colleges was designed to make the governance of higher education more responsive to local and state needs. This move may have adversely affected Florida’s 2+2 system under which the community college graduate is assured that a two-year degree from a public community college will articulate fully with the State University System’s (SUS) junior-level programs of study. The following are three major problems associated with poor articulation: (a) failure of students to complete all prescribed lower division prerequisites prior to transfer, (b) transferring of students to a public university with deficiencies in the state-mandated foreign language requirements, and (c) inadequate understanding of the common prerequisites of the state’s higher education common course numbering system by transfer students and the receiving institution (Office of Program Policy Analysis and Government Accountability [OPPAGA] Report No. 02-05, 2002). When these problems occur, students are inevitably forced to take additional courses and, in most cases, extend the time required to graduate.

Florida’s commitment to a “seamless system of K–20 education” may strengthen the 2+2 arrangement, or it may seriously undermine its effectiveness, pending the policy’s evolution. As the state universities become more competitive and selective, coordination between the State Board of Education (SBE) and the Board of Governors (BOG) is the sole factor facilitating the success of statewide articulation. It is critical, at this point in history, to examine the effectiveness of the 2+2 system to assure that Florida’s postsecondary system continues to provide the community college student equal access to the baccalaureate.

The research questions for the present study were:

1. Is there a difference in the academic success and persistence of community college transfer students and native (First-Time-In-College [FTIC]) students who are seeking baccalaureate degrees in Florida’s State University System?

2. Is there a difference in the academic success and persistence of community college transfer students who are seeking baccalaureate degrees at each of the selected institutions?
3. Is there a difference in the academic success and persistence of native (FTIC) students who are seeking baccalaureate degrees at each of the selected institutions?

THEORETICAL FRAMEWORK: ACCESS TO HIGHER EDUCATION

The economic stakes of the 21st century are high. Businesses rely heavily on innovation and the generation of products and services that are less expensive and are produced more expediently than those of their rivals. Today's American economy calls for workers who need "at least two years of critical thinking skills beyond the typical high school curriculum—technical skills, thinking skills, on-the-job learning skills" (Reich, 2002, p. 74). As technological skills are stressed, and a higher level of education is demanded by employers, individuals with limited education will find difficulty securing employment that supports their basic needs (Freeman, 2007).

The most effective way to increase the wages of citizens is to "equip Americans with their own prosperity" by broadening access to higher education (Reich, 2002, p. 74). In 2005, the American Council on Education reported that a four-year graduate earned 61% more annually than a high school graduate. The increased earnings for the two-year counterpart dropped to 25% (Dicroce, 2005). Each year of education or job training after high school increased the average income from 6% to 12%. The results of the U.S. Census Bureau's Annual Current Population Survey revealed that the income gap, prior to the turn of the 21st century, between the top and bottom 10% of earners had not been as expansive since the 1920s (Reich, 2002). Disparities in wealth and level of education or job training are widening and access to higher education is narrowing.

The increasing competition among institutions of higher education has prompted a rush toward selectivity. As colleges and universities become more selective, cumulative grade point average and standardized academic test scores for admittance are raised. Concomitantly, while higher education is at a premium in the United States, a shrinking percentage of state expenditures are allocated for colleges and universities (Anderson, Sun, & Alfonso, 2006). Many states continue to decrease the annual appropriations of public colleges

and universities, significantly reducing budgets and authorizing annual tuition increases to make up the difference (Reich, 2002). The solution to this inequity is to broaden access to higher education.

PUBLIC COMMUNITY COLLEGES

The growth of public community colleges in the United States is inextricably linked to a national commitment to democratizing higher education. Public community colleges anchored their reputation as institutions dedicated to equalizing opportunities for all American citizens as opposed to a particular segment of the population (Anderson, Alfonso, & Sun, 2006; Cohen & Brawer, 2003; Kintzer, 1999; Roueche, Baker, III, OmahaBoy, & Mullins, 1987; West, 1993). Recognized for their affordability, geographic proximity, and open-door admission policies, public community colleges offer an accessible route to specialized job training and baccalaureate degree completion (Dicroce, 2005; Dougherty, 2001; Kintzer & Wattenbarger, 1985; McClenney, 2004; West, 1993). Community colleges are considered hybrid institutions of educational opportunity, reflective of their respective states, and based on a historical-theoretical framework that identifies their character (Dougherty, 2001). The rise in the statewide articulation agreements in the United States characterizes the need to develop transfer relationships between community colleges and universities as a means for improving educational systems and providing university access to community college students (Robertson & Frier, 1996).

THE 2+2 CONCEPT IN THE UNITED STATES

Articulation agreements are the state, local, and institutional policies and principles that align the exit requirements of a community college with the receiving four-year institution and its programs of study (Ignash & Townsend, 2000, 2001). Institutional articulation agreements, or institution-to-institution agreements, serve as binding agreements between community colleges and universities and address admission criteria and student rights and responsibilities. Program articulation agreements outline the specific requirements to be completed at the two-year college to ensure the transfer of coursework to the university (Just & Adams, 1997). Whether statewide, institutional, or academic program articulation, 2+2 agreements assure a more affordable and seamless route to baccalaureate degree

completion. Wellman (2002) has described the 2+2 concept as one of the most important state policies of higher education, fundamental to the success or failure of many dimensions of higher education including access, equity, affordability, and degree productivity.

FLORIDA'S POSTSECONDARY SYSTEM

The enactment of the Florida Reorganization Act of 2000 defined the new governance model as a seamless system from kindergarten to postgraduate school. Effective July 1, 2001, the Board of Regents and the State Board of Community Colleges were abolished. The responsibilities of the boards were transferred to the Florida Department of Education and the Articulation Coordinating Committee (ACC) was transferred to the Florida Department of Education (OPPAGA Report No. 02-05, 2002). Florida's Board of Governors currently oversees the SUS and coordinates with each university's board of trustees to establish university policies. Essentially, the governor-appointed boards of trustees replaced the Boards of Regents and were provided with significant responsibilities: hiring and dismissing university presidents, creating and eliminating academic degree programs, and submitting university budgets to the SUS Board of Governors (Selingo, 2001).

Prior to June 12, 2008, Florida's Community College System was comprised of 28 community colleges (Florida Community College System, 1998). Governor Charlie Crist, on June 12 signed Senate Bill 1716, which established the Florida College System (Florida Senate Bill 1716, 2008). Senate Bill 1716 enacted a State College Pilot Project, charging nine of Florida's two-year and four-year degree granting colleges with piloting the transition to a state colleges. The pilot colleges include Chipola College, Daytona State College, Edison State College, Indian River State College, Miami Dade College, Northwest Florida State College, Polk College, Santa Fe College, and St. Petersburg College. An 11-member task force, appointed by and including the Commissioner of Education, will recommend a process for the transition to state colleges, including a funding model for baccalaureates. Senate Bill 1716 states that the Florida College System Task Force will submit a report with recommended criteria for implementing the Florida College System as a permanent part of the state higher education system for legislative action during the 2009 regular session of the legislature. The Task Force will be dissolved on June 30, 2010 (Florida Senate Bill 1716, 2008). The

recent approval of the Florida College System enhances the criticality to evaluate the continuing viability of Florida's 2+2 policy.

STATEWIDE ARTICULATION AGREEMENT AND COORDINATING COMMITTEE

The purpose of Florida's statewide articulation agreement is to facilitate the efficient and effective transfer of students and to provide students with the opportunity to attain their educational objectives as quickly as their circumstances permit (Florida Statute Section 1007.01, 2004). Florida's 2+2 policy defines the earning of a baccalaureate as the successful completion of 60 credit hours at a community college and the remaining courses at a university. While the expected time to degree completion accrues to 120 credit hours, universities may request permission of their Boards of Trustees to create programs in excess of 120 hours.

The SBE approves statewide articulation agreements. The ACC examines statewide articulation data, provides recommendations, and establishes groups of university and community college school district representatives to facilitate articulation in subject areas (Florida State Board of Education, 2006; OPPAGA Report No. 02-05, 2002). Although the ACC works with the Department of Education's Office of Articulation to direct and preserve Florida's statewide articulation agreement, the void of an overarching governing body presents the need for collaboration between the BOG and the SBE. The only link between these two boards is the intent and agreement to facilitate articulation and seamless integration of Florida's education system (Florida State Board of Education, administrative rule 6A-10.024, 2006).

THE SEAMLESS SYSTEM

While highlighting many collaborative programs of the K–20 system (e.g., 2+2 policies, statewide articulation agreement, common course number system, common prerequisites, Bright Futures scholarships), the Pappas Report, a Florida BOG consultant report, coined the system as “seamless in name only” (Florida Board of Governors, 2007, p. 9). Concerns of Pappas consultants were the need to resolve challenges related to the system's governance and the need to align curriculum and performance standards between K–12 and higher education (Florida Board of Governors, 2007). Pappas consultants referred to the tension between the BOG and the SBE regarding

the authority to grant baccalaureate degrees as an example of challenges faced by state governance. Florida's "...governance swamp...increases the tension between universities and community colleges at a time when both should be working together fervently to increase access" (Florida Board of Governors, 2007, p. 10). The governance changes of the SUS to a BOG and institutional Boards of Trustees has delayed the development of the SUS (Florida Board of Governors, 2007). However, with the guidance of the BOG, the SUS continues to effectively serve the needs of students during this time of radical change and transition.

SETTING

The State University System (SUS) of Florida consists of 11 institutions. For the purposes of this study, three regional comprehensive SUS institutions in Florida were selected because of their original status as upper level institutions designed specifically to serve

Table 1. Institutional profiles

Facts	FAU	UNF	UWF
Year of establishment	1964	1972	1967
Founding year total enrollment	867	2,000	1,318
Legislative authorization for lower division	1983	1983	1983
Charter class	1984	1984	1983
Total enrollment	25,657	16,091	9,655
Full time	13,415	10,647	5,850
Part time	12,242	5,444	2,395
Total undergraduate enrollment	19,920	13,547	8,254
Total graduate enrollment	3,476	1,612	1,250
Total degree programs	140	76	66
Total undergraduate degree programs	62	52	51
Total graduate degree programs	78	27	28
Number of campuses	7	1	3
CC partner campuses	3	0	2
Baccalaureates per CC partnerships	58	0	2
Faculty to student ratio	1:19	1:22	1:20
Total personnel	3,566	1,815	1,521
Total faculty	1,020	540	387
Undergraduate cost per credit hour			
Florida resident	\$114.23	\$110.39	\$111.75
Non-Florida resident	\$549.69	\$527.27	\$499.82
Student fees per credit hour	\$28.75	\$29.60	\$28.24

Note. Data were accurate as of the Fall 2006 semester. Tuition and fees are established annually by Florida's legislature, Florida's board of education, and university boards of trustees.

community college graduates and other junior level transfer students: Florida Atlantic University (FAU), the University of North Florida (UNF), and the University of West Florida (UWF). The institutions were also selected as a result of similarities in institutional profiles (Table 1).

QUANTITATIVE RESEARCH DESIGN

Descriptive discriminant analysis was the statistical technique selected to answer the three research questions. Discriminant analysis predicted differences in the academic success and persistence of the total sample ($n=2,612$) of community college transfer and native (FTIC) student graduates and dropouts. Chi-square tests of independence were conducted to examine the percentages of community college transfer and native (FTIC) students that graduated and dropped out from the three selected institutions.

Data Access

Existing secondary data tracking community college and native (FTIC) student enrollment and degree completion were obtained between the years of 2001 and 2006 from FAU, UNF, and UWF. The research data set was drawn from the records of all entering community college transfer students who held the Associate in Arts (A. A.) degree at matriculation and all junior year (60+ credit hours) native (FTIC) students enrolled for the designated years at each of the three institutions. The source of data for this study was information contained in the Student Data Course File of the SUS.

Operational Variables

The operational variables were selected based on previous empirical results, value to community college and university personnel, and the relevance of the data found in the State University System's data files to the significance of the study. The State University System Dictionary (Florida State University System, 2006) was examined to assure that the variables were consistent with the terminology developed and defined by the SUS. Community college transfer students and native (FTIC) students were divided into two subgroups of students: graduates and dropouts.

The variables selected for the subgroups of student graduates and dropouts differed by one variable: number of breaks in continuous enrollment. The six selected factors that represented academic success

and persistence for community college and native (FTIC) student graduates were the following: (a) number of breaks in continuous enrollment, (b) changes in major, (c) cumulative semesters hours completed, (d) final grade point average, (e) number of 1000 and 2000 level hours completed, and (f) total semesters enrolled. The five operational variables selected for dropouts were the following: (a) changes in major, (b) cumulative semesters hours completed, (c) final grade point average, (d) number of 1000 and 2000 level hours completed, and (e) total semesters enrolled.

Student Sample

The participants for this study were A. A. degree transfers from Florida's public community colleges and native (FTIC) juniors (60+ credit hours) from FAU, UNF, and UWF ($n = 2,612$). For each of the three quantitative research questions, the research sample was stratified into two subgroups: graduates and dropouts. The total sample of community college transfer and native (FTIC) students for the first research question ($n = 2,612$) included 1,823 graduates ($n = 1,823$) and 644 dropouts ($n = 644$). The total sample of community college transfer students ($n = 1,631$) examined for the second research question consisted of 1,151 graduates ($n = 1,151$) and 480 dropouts ($n = 480$). The total sample of native (FTIC) students for the third research questions was divided into the subsamples of 672 student graduates ($n = 672$) and 164 student dropouts ($n = 164$).

Data Analysis

The primary statistical technique selected to analyze the quantitative research questions was descriptive discriminant analysis. Separate discriminant analyses were run for the subsamples of graduates and dropouts. Discriminant analysis evaluated differences in the transfer and native (FTIC) student sample's academic success and persistence using the discriminating, or operational, variables. The difference questions proposed and analyzed using discriminant analysis were the following:

1. Is there a statistically significant ($p = .05$) difference in the academic success and persistence of community college transfer students and native (FTIC) students who are seeking baccalaureate degrees in Florida's State University System?

2. Is there a statistically significant ($p=.05$) difference in the academic success and persistence of community college transfer students who are seeking baccalaureate degrees at each of the selected institutions?
3. Is there a statistically significant ($p=.05$) difference in the academic success and persistence of native (FTIC) students who are seeking baccalaureate degrees at each of the selected institutions?

Cohen's d statistics were calculated for the subgroups of student graduates ($n=1,823$) and dropouts ($n=644$) of each quantitative research question to examine the strength of the relationship among variables. Chi-square tests of independence were conducted for the subgroups to examine the relationships of graduates and dropouts to the total sample ($n=2,612$).

RESEARCH QUESTION 1

Discriminant Analysis

Discriminant analysis for the subsamples of community college transfer and native (FTIC) student graduates and dropouts yielded statistically significant ($p < .001$) and meaningful first discriminant functions [graduates (Wilks' lambda = .856, χ^2 ($df=6$, $n=1,823$) = 282.6; dropouts (Wilks' lambda = .863, χ^2 ($df=5$, $n=644$) = 94.0)]. The primary factors associated with the academic success and persistence of student graduates and dropouts for the present study were the number of 1000- and 2000-level hours completed [graduates (structure coefficient = .739); dropouts (structure coefficient = .644)] and cumulative semester hours completed [graduates (structure coefficient = .504); dropouts (structure coefficient = .617)]. The strength of the two primary contributing factors was confirmed by Cohen's d statistics [graduates ($d = -.72$, $d = -.30$), dropouts ($d = -.67$, $d = -.47$). On average, native (FTIC) graduates ($n=672$) completed twice as many 1000- and 2000-level hours ($M=12.13$, $SD=11.21$) as upper division students than community college transfer graduates ($M=6.07$, $SD=8.6$). Further, community college transfer students ($n=1,151$) graduated with less cumulative semester hours ($M=133.98$, $SD=18.79$) than native (FTIC) students, who graduated with an average of 8.38 additional semester hours ($M=142.36$, $SD=20.55$). Community college transfer students also dropped out of their academic degree programs with fewer cumulative semester hours and fewer 1000- and

2000-level hours indicating that FAU, UNF, and UWF retain native (FTIC) students for longer periods of time than transfers of the same cohort.

The completion of lower division prerequisite requirements and additional cumulative credit hours at the university by community college transfer students has been a subject of interest to policy makers (OPPAGA Report No. 02-05, 2002). Ideally, students of 2+2 programs of Florida who graduate with an A. A. degree would only need to complete 60 academic credit hours at the four-year institution. The community college transfer students of the present study completed 13.98 cumulative credit hours in excess of 120. One indicator of compliance with statewide articulation of particular interest to the state legislature is the number of 1000- and 2000-level hours completed by community college transfer students after transfer to the four-year institution. OPPAGA (2002) evaluated the effectiveness of Florida's articulation system by assessing the progress of community college students who transferred to state universities between 1997 and 1999 (OPPAGA Report No. 02-05, 2002). Of the 6,485 A. A. students who transferred, 57% completed lower division courses after entering the SUS. Over a three-year period, the excess lower division courses cost the state \$13.8 million and students \$8.7 million, respectively (OPPAGA Report No. 02-05, 2002).

Interestingly, discriminant analysis for the first research question yielded no appreciable differences in the final grade point averages (structure coefficient = $-.138$) of student graduates indicating that transfer students performed just as well academically as native (FTIC) students. The remaining factors selected for student graduates [breaks in continuous enrollment (structure coefficient = $-.194$), changes in major (structure coefficient = $.101$), total semesters enrolled (structure coefficient = $-.146$), and final grade point average (structure coefficient = $-.138$)] did not contribute appreciably to statistically significant differences in academic success and persistence between the two groups. These findings contradict those of Cohen and Brawer (1982) who found that when compared to native (FTIC) students, the grade point averages of transfers were lower.

Chi-Square Analyses for Student Dropouts and Graduates

The results of the chi-square test of independence for the variables of student graduates and student classification yielded statistically significant results, $\chi^2(1, n = 1,823) = 31.36, p < .001$, indicating that 77% of the students who entered as native (FTIC) graduated compared to 63% of community college graduates who entered as juniors

with A. A. degrees. The results of chi-square analysis for the variables of student dropout and student classification were also statistically significant, $\chi^2(1, n = 644) = 24.54, p < .001$, indicating that a greater percentage of community college transfer students dropped out of FAU, UNF, and UWF than native (FTIC) students. Of the subsample of student dropouts ($n = 644$), 75% were community college transfer students and 26% were native (FTIC) students. While the ratio of community college transfer students to native (FTIC) students in the research sample was two-to-one, the ratio for the cohort of students who dropped out was three-to-one. The community college transfer students who dropped out of their academic degree programs represented 28% within their student type, and native (FTIC) students represented 19%.

The findings of the chi-square analyses conducted for student graduates and dropouts correspond with the literature about baccalaureate attainment rates and stressors associated with student transfer. The overall findings of the chi-square analyses are congruent with the results of Cohen and Brawer (1982) who reported that community college transfer students dropped out at higher rates than native (FTIC) students. These findings underscore the need to better understand why community college transfer students are less likely to complete the baccalaureate. Much of the literature about student transfer describes the psychological, environmental, and climatic adjustments experienced by students (Baldwin, 1994; Cejda & Kaylor, 1997; Cejda, Kaylor, & Rewey, 1998; Graham & Hughes, 1994; Laanan, 2002; Minear, 1998; Santos, 2000).

RESEARCH QUESTION 2

Discriminant Analysis

Discriminant analysis for the subsample of community college transfer student graduates ($n = 1,151$) and dropouts ($n = 480$) yielded statistically significant and meaningful first discriminant functions [graduates (Wilks' Lambda = .844, $\chi^2(df = 12, n = 1,151) = 141.36$; dropouts (Wilks' Lambda = .840, $\chi^2(df = 10, n = 480) = 82.94$)]. The primary factors that contributed to the academic success and persistence of community college transfer student graduates and dropouts were cumulative semester hours [graduates (structure coefficient = .772); dropouts (structure coefficient = -.528)] and final grade point average [graduates (structure coefficient = .372); dropouts (structure coefficient = .346)]. The factors yielding no significant differences in

the success and persistence of student graduates were breaks in continuous enrollment (structure coefficient = .145), changes in major (structure coefficient = .002), number of 1000- and 2000-level hours completed (structure coefficient = $-.057$), and total semesters enrolled (structure coefficient = $-.002$). Cohen's d statistics confirmed disparities in mean differences of the independent variables, indicating that UNF was most different from FAU and UWF. UNF's transfer students both graduated and dropped out with fewer semester hours, indicating less persistence than transfer students from other institutions.

Given the limitations of the study, these results may speak more to the effectiveness of feeder institutions than differences inherent on each of the three campuses. Complications with the transferability of course credit by the feeder community colleges of FAU and UWF that offer baccalaureates may be another explanation for the additional semester hours completed by community college transfers. Among the subsample of community college transfer student drop-outs, the mean final grade point average was notably higher for students from UNF ($M = 2.83$). Again, this contradicts the literature of Cohen and Brawer (1982) who reported that the final grade point averages of community college transfers were lower than those of native (FTIC) students.

RESEARCH QUESTION 3

Discriminant Analysis

The findings for the discriminant analysis conducted for the subsamples of native (FTIC) graduates yielded a statistically significant ($p < .001$) and meaningful first discriminant function (Wilks' Lambda = .843, χ^2 ($df = 12, n = 672$) = 114.18). UWF graduates were most distinct from the graduates of FAU and UNF. The following factors best explained the academic success and persistence of native (FTIC) student graduates: (a) number of 1000- and 2000-level courses completed (structure coefficient = .846), (b) total semesters enrolled (structure coefficient = .697), (c) cumulative credit hours completed (structure coefficient = .571), and (d) changes in major (structure coefficient = .503). The two factors that did not appreciably account for differences in the academic success and persistence of native (FTIC) graduates were breaks in continuous enrollment (structure coefficient = .203) and final grade point average (structure coefficient = .085). The number of 1000- and 2000-level courses

completed by native (FTIC) students ranged from 9 courses (UNF) to 12 (FAU) to 20 courses (UWF). The native (FTIC) students across UNF, FAU, and UWF graduated with increasingly high numbers of semester hours. Students from UWF graduated with an average of 153.49 semester hours, the highest number; students from FAU graduated with 140.93; and UNF graduated with 139.81, the fewest. This contradicts OPPAGA's 2006 report that students from UWF graduated with fewer percentages of excess hours (OPPAGA Report No. 06-58, 2006).

The findings for the discriminant analysis conducted for native (FTIC) dropouts yielded a statistically significant ($p = .002$) and meaningful first discriminant function (Wilks' Lambda = .837, χ^2 ($df = 10, n = 164$) = 28.28). UWF dropouts were most distinct from the dropouts of FAU and UNF with respect to the number of 1000- and 2000-level courses completed (structure coefficient = $-.746$) and final grade point average (structure coefficient = $.627$). The factors that did not appreciably account for differences in the academic success and persistence of native (FTIC) students who dropped out of their academic degree programs were changes in major (structure coefficient = $-.052$), cumulative credit hours completed (structure coefficient = $-.196$), and total semesters enrolled (structure coefficient = $-.198$). Native (FTIC) students from UWF dropped out of their academic degree programs with the highest number of 1000- and 2000-level courses and cumulative semester hours. These data indicate that UWF retains native (FTIC) students for longer periods of time than FAU and UNF. UWF also enrolls more native (FTIC) students in lower-division coursework.

IMPLICATIONS FOR POLICY AND PRACTICE

Florida's legislature, policymakers, and institutional leaders should continue to monitor and strengthen the existing statewide articulation agreement. Florida's 2+2 process is working well and is a viable and affordable means for student transfer from public community colleges to public universities. The findings of this study indicate that community college transfer students are graduating from baccalaureate programs with relatively few cumulative semester hours in excess of 120% and few lower division courses. Concomitantly, native (FTIC) students graduated with greater numbers of cumulative semester hours and lower division courses than community college transfer students. The legislature has expressed concern about the completion of semester hours in excess of 115% and 120% of

baccalaureate programs and the subsequent costs to students and the state (OPPAGA Report No. 05-30, 2005; OPPAGA Report No. 06-58, 2006).

Examining the effects of excess hours on student tuition and state costs was not a primary purpose of this study. The current approach has been to increase tuition payments for students who complete hours in excess of degree requirements. It is recommended that policymakers explore ways of providing incentives, such as tuition rebates, to students who finish on time. Such recommendations would provide incentives to community college students who earn their degrees in the most cost effective manner.

The findings of this study indicate that community college transfer students drop out at higher rates than native (FTIC) students, who graduate at higher rates than community college transfers. As described by McClenney (2005), community college transfer students are less apt to become involved on college campuses due to complexities related to their diverse profiles. Student service personnel should make a special case to recruit community college transfer students in their activities and to consider the diverse needs of transfer students in program and service planning.

CONCLUSIONS

This study is the first to specifically examine the 2+2 system at state universities where the baccalaureate was not previously accessible to community college students. While the public community colleges, state colleges, and universities are thriving—and the 2+2 system in Florida continues to fulfill its mission—the future collaboration that is the keystone to successful articulation is less clear. Increased competition among the state universities along with shifts in institutional foci present the potential of altering the missions of these institutions to primarily focus on the FTIC and graduate education. Community colleges across the state continue to evolve beyond their two-year degree missions, and state colleges are reinventing the role of community colleges in order to respond to the workforce demands of their communities. Given these realities, it is of utmost importance for the legislature, BOG, and SBE to continue to monitor the effectiveness of the statewide articulation agreement.

For decades, the state of Florida has successfully harnessed the strengths of two effective and powerful postsecondary systems. But in the recent decade, the pressures of population growth and increasing costs of higher education have caused these two forces to strain

under the yoke. The state is at a crossroads with respect to the postsecondary educational enterprise. The questions that must be answered by policy makers and practitioners are underscored by the findings of this study. How can universities balance the need for a highly qualified competitive freshman class that is needed to build institutional stature and limit access to high-cost professional programs without sacrificing the important contributions transfer students make to the campus ethos? How will the state continue to respond to the increasing demand for the baccalaureate that is being placed upon community colleges because of growing limited access to the state universities? How will the quickly evolving Florida College System impact institutional 2+2 collaborative arrangements?

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