
Annotated Bibliography of Transfer Student Literature
July 2010

Purpose of Review

Lumina Foundation for Education launched the Minority-Serving Institutions (MSI) – Models of Success program to promote college completion among underserved and underrepresented populations. The MSI-Models of Success program provides support to MSIs and other organizations to dramatically increase college completion, especially among first-generation, low-income, and traditionally underrepresented minority students. There are five major objectives associated with this initiative:

1. To improve the capacity of MSIs to collect, analyze, and use data to inform decisions that will promote student success.
2. To create a collective voice for policy advocacy on behalf of MSIs.
3. To strengthen policy and practice to improve developmental education.
4. To increase MSIs' commitment to transparency and effectiveness in improving student learning outcomes.
5. To increase the postsecondary completion of traditionally underserved students, especially men of color.

The University of Texas at El Paso (UTEP) is leading a collaborative project to identify the institutional structures at minority-serving institutions that foster student success and increase the effectiveness of transfer programs across the state. As one component of this project, UTEP will model transfer-student success at a four-year institution in collaboration with El Paso Community College (EPCC). To develop an appropriate framework for this model of transfer-student success, it is important first to develop an understanding of the relevant literature in the field. While not a comprehensive review of all literature in this area, this annotated bibliography provides a summary of theoretical and empirical work related to transfer-student success.

Organization of Review

Each article summary includes the *Citation* according to the American Psychological Association (APA) 6th Edition publication manual. The primary *Research Questions* for the study are listed. One purpose of our review is to note the different types of qualitative and quantitative models that have been used to study transfer student success, therefore the *Research Design* used by the study is noted. The major *Findings* are reported along with *Implications for Policy and Practice* identified by the original researchers.

Citation (note: only information pertinent to transfer students is included)

Adelman, C. (2004). *Principal indicators of student academic histories in postsecondary education, 1972-2000*. Washington, DC: U.S. Department of Education, Institute of Education Sciences.

Research Questions

What aspects of sustained community college experience yield a bachelor's degree when the student moves to a four-year environment?

What is it about early transfer from a community college to a four-year school that diminishes a student's chances of earning a bachelor's degree?

Research Design

The report assessed data from three longitudinal studies from the National Center for Education Statistics to provide a descriptive account of student outcomes: The National Longitudinal Study of the High School Class of 1972 (NLS: 72), The High School and Beyond Longitudinal Study of 1980 Sophomores (HS&B/So: 80-92), and The National Education Longitudinal Study of 1988 (NELS: 88/2000).

Findings

Students who initially enrolled at two-year institutions and earned more than 10 credits at that institution had transfer rates around 30% for each of the three cohorts (36%, 27%, and 28% for the 1992, 1982, and 1972 cohorts respectively). Baccalaureate degree attainment for the transfer populations was 72% for the 11- and 12-year histories of the classes of 1972 and 1982 and 62% for the 8.5-year history of the class of 1992.

Implications for Policy and Practice

The author concluded that, for students who spent sufficient time at the two-year institution prior to transfer, following a path from the two-year institution to the four-year institution can effectively lead to a baccalaureate degree.

Citation

Adelman, C. (2005). *Moving into town—and moving on: The community college in the lives of traditional-age students*. Washington, DC: U.S. Department of Education.

Research Question

What are the portraits as traditional-age community college students?

Research Design

Portraits of traditional-age community college students are created using data from the National Center for Education Statistics. After creating the portraits, logistic regression was used to analyze “markers of attainment” including transfer and earning a terminal associate degree.

Findings

The portraits revealed six distinct traditional-age populations served by community colleges: (1) persistent group oriented toward transfer and baccalaureate degree attainment, (2) a persistent group oriented toward attaining intermediate occupational credentials, (3) a group with weaker academic preparation that struggle and stop-out, (4) a group that withdraws shortly after entry to the community college, (5) a group taking additional coursework at the community college but that are primarily based at a four-year institution, and (6) a group of reverse transfers.

The logistic regression model examining transfer indicated that transfer to a four-year institution is facilitated by: credits in college-level math in the first year, credits during summer terms (proxy for intense persistence), continuous enrollment, and avoidance of no-penalty course withdrawals and repeats. Demographic factors were not significant predictors of transfer.

The logistic model examining attainment of the associate degree found that continuous enrollment, college-level math, and avoidance of no penalty withdrawals and repeats were again significant factors. Holding a campus job during the first two years and earning a higher ratio of occupational credits were also significant predictors.

Implications for Policy and Practice

The author indicated that the creating portraits of traditional-age students at the community college can help researchers develop important empirical questions to explore about this growing group of students served by two-year institutions.

Citation

Alfonso, M. (2006). The impact of community college attendance on baccalaureate attainment. *Research in Higher Education, 47*(8), 873-903. doi: 10.1007/s11162-006-9019-2

Research Question

What is the impact of community college attendance on baccalaureate attainment, as compared to four-year college attendance?

Research Design

The study used a structural equation modeling approach to estimate the effect of two-year college attendance on baccalaureate attainment. The data for this study were obtained from three major sources: the national Education Longitudinal Study (NELS), the U. S. Department of Education's Office of Institutional Research and Improvement, and the U.S. Department of Labor's Bureau of Labor Statistics.

Findings

Findings suggested that students who initially enroll in two-year colleges are less likely than their four-year counterparts to complete the baccalaureate degree. This attainment gap persisted even after controlling for non-traditional enrollment pathways, educational expectations, and self-selection.

Implications for Policy and Practice

Two-year and four-year institutions need to work together to develop institutional and articulation practices to reduce the attainment gap and improve the baccalaureate attainment rates for the increasing number of students who enter high education through the two-year institution and plan to attain a baccalaureate degree.

Citation

Alfonso, M., Bailey, T. R., & Scott, M. (2005). The educational outcomes of sub-baccalaureate students: Evidence from the 1990s. *Economics of Education Review, 24*, 197-212.
doi:10.1016/j.econedurev.2004.02.003

Research Question

What are the educational outcomes of students in certificate and associate programs, such as occupational sub-baccalaureate students?

Research Design

This study used logistic regression as the empirical approach due to the dichotomous dependent variable, completion of a degree objective. Data for this study were obtained from two, Beginning Postsecondary Student Longitudinal Studies (BPS89 and BPS96).

Findings

Findings suggested that occupational students are less likely to complete their associate's degree when compared to academic students. Although this gap was partially explained by differences in student characteristics and degree expectations, the attainment gap persisted even after controlling for these factors.

Implications for Policy and Practice

The authors concluded that community colleges need to determine and implement the optimal approach for providing direct occupational preparation with an orientation toward academic education within the institutional structure.

Citation

Anderson, G. M., Sun, J. C., & Alfonso, M. (2006). Effectiveness of statewide articulation agreements on the probability of transfer: A preliminary policy analysis. *The Review of Higher Education, 29*(3), 261-291. doi: 10.1353/rhe.2006.0001

Research Question

Does the existence of statewide articulation agreements increase the probability of vertical transfers from two-year to four-year colleges?

Research Design

A logistic regression analysis was used. The dependent variable was the dichotomous indicator signifying whether a student did or did not transfer within the period covered by the survey. Data were obtained from the Beginning Postsecondary Student Longitudinal Study of 1989-1994 (BPS89), conducted by the National Center of Education Statistics (NCES).

Findings

Results indicated that students in states with state-mandated articulation agreements did not experience an increased probability of transferring, even after controlling for demographic, educational, SES, and enrollment characteristics. Results were surprising given that policymakers argue that statewide articulation agreements should ease the transfer process.

Implications for Policy and Practice

The authors suggested that students who plan to earn a baccalaureate degree would benefit most from following the traditional path toward graduation. The authors noted that, because financial aid was an important predictor of transfer, including financial aid packages in articulation agreements may increase transfer rates. Finally, the authors noted that the data used in their study were collected when articulation agreements were still relatively new; future analyses may find that articulation rates enhance transfer, given sufficient time.

Citation

Bailey, T., Jenkins, D., & Leinbach, T. (2005). Graduation rates, student goals, and measuring community college effectiveness. *Community College Research Center Brief* (Number 28). Retrieved from <http://ccrc.tc.columbia.edu/Research.asp>

Research Questions

How accurate are the Student Right-to-Know graduation and transfer rate estimates?

Are there any concerns with these assessments of student success?

Research Design

The study compared the Student Right-to-Know (SRK) graduation and transfer rates for community college students to other national datasets from the U.S. Department of Education.

Findings

While SRK graduation rates could be replicated, the authors found that the SRK rates most likely under report student success. The authors found that the SRK transfer rate estimates were too inaccurate to provide any meaningful information. The authors also found that student background characteristics, such as family income, and student educational goals were important mediating factors to consider when estimating graduation and transfer rates.

Implications for Policy and Practice

The authors suggested that institutions should not be punished for low graduation rates, since there may be questions about the accuracy of the data and other important factors influence these rates. Still, the authors stressed that institutions should not become complacent about these types of assessments. Institutions, researchers, and policy makers need to work together to determine how to distinguish “successful” institutions and to improve the effectiveness of all institutions.

Citation

Bailey, T., Jenkins, D., & Leinbach, T. (2007). The effect of student goals on community college performance measures. *Community College Research Center Brief* (Number 33). Retrieved from <http://ccrc.tc.columbia.edu/Research.asp>

Research Question

To what extent do community college students' reasons for enrolling, educational goals, and expectations influence student outcomes?

Research Design

Longitudinal survey and interview techniques were used to collect data. Analyses were conducted using multivariate regression techniques. Data were obtained from the U.S. Department of Education BPS:96/01 survey.

Findings

The majority of students responded that they had enrolled in higher education to obtain a degree or certificate or to transfer to a baccalaureate institution (57%); 40% responded that they wanted job skills or personal enrichment. Six years after enrollment, 30% of the students who enrolled for "job skills" had attained a certificate or degree, or had transferred to a four-year institution. Of the students who initially sought a degree or to transfer, 40% had completed some degree or certificate and almost half of those 40% had received a BA.

Controlling for personal characteristics, students with more ambitious goals were more likely to graduate. Gaps in student attainment were noted, even after controlling for reason for enrollment. African American students and students from lower SES backgrounds were less likely than Caucasian students and students from higher SES backgrounds to complete a degree. Students from lower SES backgrounds were also found to have lower expectations.

Implications for Policy and Practice

The authors pointed out that graduation rates for community colleges do not capture information about student reasons for enrollment and student characteristics, such as SES background, that may influence aspirations and ability to pursue a degree. Still, student aspirations were found to be fluid, so institutions should work to assess student goals and raise aspirations for students who may come from disadvantaged backgrounds.

Citation

Bailey, T., Leinbach, T., & Jenkins, D. (2005). Is student success labeled institutional failure? Student goals and graduation rates in the accountability debate at community colleges. *Community College Research Center Working Paper* (Number 1). Retrieved from <http://ccrc.tc.columbia.edu/Research.asp>

Research Questions

What impact do students' reasons for enrollment and educational expectations have on student outcomes and on the performance of the institution?

How should outcomes be assessed and interpreted?

Do these assessments reflect the effectiveness of policies, programs, and practices that community colleges should improve upon?

Research Design

This study examined national datasets to examine the influence of students' reasons for enrollment and educational goals and expectations upon student outcomes.

Findings

Analyses found that traditional metrics, such as graduation rates, should be used cautiously as assessments of institutional success. Descriptive and multivariate analyses showed that, controlling for personal characteristics, students who had more ambitious goals were more likely to graduate, transfer, and persist. Still, even when considering only student who plan to achieve a degree or certificate or transfer, fewer than 50% of these students achieved those goals within six years.

Large attainment gaps were observed that could not be explained by differences in reasons for enrollment or educational expectations. African American and Hispanic students had graduation rates that lagged significantly behind those observed for Caucasian students. Students expectations also changed over time, influenced to some degree by their education.

Implications for Policy and Practice

The authors concluded that, while student goals are important factors in success, their intentions and expectations are dynamic. Thus, using goals when assessing institutional success factors such as graduation rates, should not excuse institutions from striving for continuous improvement and working to reduce attainment gaps between groups.

Citation

Bensimon, E. M., & Dowd, A. (2009). Dimensions of the transfer choice gap: Experiences of Latina and Latino students who navigated transfer pathways. *Harvard Educational Review, 79*(4), 632-658. Retrieved from <http://www.hepg.org/her/abstract/754>

Research Questions

What are Latina and Latino students' experiences in navigating transfer pathways?

What are their lived experiences of transfer (both successful and unsuccessful) to selective institutions?

What factors contribute to a transfer choice gap among Latino students?

Research Design

Ethnographic methods – secondary analysis of interview with a sample of five students who were eligible to transfer to highly selective institutions – were used in this study.

Findings

Results were presented using narrative analysis. In-depth interviews were conducted with five students to explore pathways to transferring to a four-year institution. These interviews indicated an absence of faculty members, counselors, and others within the college to act as "institutional agents" in the students' lives. These students' stories illustrate the importance of having someone provide assistance and encouragement to the students.

Implications for Policy and Practice

The major finding gleaned from the student interviews indicated that potential transfer students would benefit from "transfer agents" on campus to encourage them and help them know what questions they need to ask.

Citation

Berger J. B., & Malaney, G. D. (2003). Assessing the transition of transfer students from community colleges to a university. *NASPA Journal* 40 (4), 1-23.

Research Question

How do pre-transfer and post-transfer experiences and preparation influence the adjustment of community college transfer students to life on a four year university?

Research Design

The authors surveyed 372 community college transfer students attending a public four-year university.

Findings

The survey found that patterns of academic and social involvement shift as students move from a two-year college setting to a four-year college setting. The likelihood of success depended strongly on how the students prepared prior to their transfer to the four-year university.

Implications for Policy and Practice

The author suggested that universities have the responsibility to provide information to community college personnel and students about expectations and requirements leads to a successful transition to a four-year university. Community colleges must also provide adequate academic preparation and make sure that that faculty is always available to help students interested in transferring.

Citation (note: only information pertinent to transfer students is included)

Berkner, L., He, S., & Cataldi, E. (2002). *Descriptive summary of 1995-96 beginning postsecondary students: Six years later*. (NCES 2003-151). National Center for Education Statistics. Washington, DC: U.S. Department of Education. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003151>

Research Question

What are the enrollment, persistence, and degree attainment trends for students who began postsecondary education for the first time in the 1995-1996 academic year?

Research Design

Descriptive data were explored based on the 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS: 96/01) from the National Center for Education Statistics.

Findings

The largest proportion (46%) of the 1995-1996 beginning student cohort initially enrolled at public, two-year institutions. During the first year of enrollment at the two-year institution, 50% of these students stated that they intended to attain an associate's degrees, and another 25% stated that they planned to transfer to a four-year institution and complete a bachelor's degree. Of the students who initially enrolled at a two-year institution, 42% transferred during the six years under consideration. Of the students who initially enrolled at a two-year institution and stated that they planned to complete an associate's or a bachelor's degree, 23% completed and associate's degree and 13% completed a bachelor's degree (including 5% who attained both) during the six years under consideration. Among the student who transferred to a four-year institution, 36% attained a bachelor's degree.

Implications for Policy and Practice

Results indicated that differences in baccalaureate degree attainment for students who initially enrolled at two-year institutions and students who initially enrolled at four-year institutions reflect differences in degree goals, academic preparation, enrollment patterns, and demographic characteristics.

Citation

Bers, T. H., & Smith, K. E. (1991). Persistence of community college students: The influence of student intent and academic and social integration. *Research in Higher Education*, 32(5), 539-558. Retrieved from <http://www.jstor.org/stable/40196066?origin=JSTOR-pdf>

Research Questions

Can the persistence of community college students be predicted by social and academic integration (two variables identified as important predictors of persistence in traditional college students), and/or by students' educational objectives and their intent to persist?

Can an instrument designed to operationalize the concept of academic and social integration developed with traditional students at four-year institutions apply to students at two-year institutions?

Research Design

Set-wise discriminant analysis and classification analyses were used. Data were collected from students at a midsize suburban community college in the Midwest.

Findings

Results showed that student characteristics, objectives, and subjective experiences were important factors affecting persistence. Students who were employed more hours were less likely to persist. Students taking courses with the intention of attaining a degree or transferring to a four-year institution were more likely to persist than students taking courses for job-related purposes. Overall, students' educational objectives, intent to reenroll, precollege characteristics, and employment status explained persistence better than academic or social integration.

Implications for Policy and Practice

Because community colleges serve a wide range of students, the researchers suggested that multiple definitions of success may be necessary for community college students. "Success" may differ depending on the students' intentions. Students who plan on attaining a four-year degree are successful if they transfer and persist at a four-year institution. Students who take classes for job-related purposes may attain the training needed after one or two classes and may not need to persist longer.

Citation

Best, G. A., & Gehring, D. D. (1993). The academic performance of community college transfer students at a major state university in Kentucky. *Community College Review, 21(2)*, 32-41.

Research Questions

Are students who have completed the associate's degree (or equivalent transfer hours) better prepared to cope with the academic environment of the four-year institutions than students who transferred earlier?

Research Design

Analyses included t-tests and chi-square statistics. Two groups of transfer students based on the number of transfer credits were compared to a random sample of native students.

Findings

Students who transferred after completing the associate's degree of the equivalent number of transfer hours had GPAs and dismissal rates similar to a comparable set of native students. However, native students had significantly higher graduation rates than this group of transfer students. Students who transferred earlier (prior to completing 60 transfer hours) did not perform as well as transfer students with 60 or more transfer hours.

Implications for Policy and Practice

The authors suggested that students who initially enroll at a two-year institution should be encouraged to complete two full years (60 transfer hours) prior to transfer. Although advanced transfer students appeared to be prepared to cope with academic work at the four-year institution, these transfer students had lower graduation rates than native students, and the authors suggested that transfer students need to be prepared for the environmental conditions (institutional methods, expectations of students, advising) at the four-year institution.

Citation

Birnbaum, R. (1970). Why community college transfer students succeed in 4-year colleges: The filter hypothesis. *The Journal of Educational Research*, 63(6), 247-249. Retrieved from <http://www.jstor.org/stable/27535979?origin=JSTOR-pdf>

Research Question

Does the community college transfer program act as a filter through which potentially successful baccalaureate candidates with relatively poor high school achievement can pass, rather than as a program which strengthens marginal students through counseling and remediation?

Research Design

An analysis of covariance (ANCOVA) was performed comparing two groups of students across grades and admission scores after three years.

Findings

Both groups shared a common regression line, suggesting that differences in the achievement for both groups were due to differences in high-school admission scores. Therefore the filter hypothesis was supported.

Implications on Policy and Practice

These data provided preliminary support for the filter hypothesis; however the author suggested that further research was necessary before a final judgment could be made. The author also suggested that these findings point to the need for a universal standard of grading in higher education.

Citation

Bradburn, E. M., Hurst, D. G., & Peng, S. (2001). *Community college transfer rates to 4-year institutions using alternative definitions of transfer*. (NCES 2001-197). Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov>

Research Questions

What is the relationship of different definitions of “transfer student” to student background characteristics?

How does the transfer rate differ across different definitions of “transfer student”?

Research Design

Comparisons of the transfer rate by different approaches to specifying the transfer population were explored by holding the numerator constant and using increasingly restrictive definitions of the denominator. Data from the National Center for Education Statistics (NCES) 1990 Beginning Postsecondary Students Longitudinal Study (BPS: 1990/1994) were used.

Findings

Overall, 72% of community college students anticipated earning a baccalaureate degree or higher. Across increasingly restrictive definitions of transfer, the transfer rate increased for more restrictive definitions. When examining all beginning community college students, the transfer rate to four-year institutions was 25%. When examining beginning community college students pursuing academic majors and taking courses toward a bachelor’s degree, the transfer rate to four-year institutions was 52%.

Implications for Policy and Practice

The definition of “transfer” used in a research project may vary depending on the specific research question. The fullest picture can be provided by using multiple indicators.

Citation

Bragg, D. D. (2001). Community college access, mission, and outcomes: Considering intriguing intersections and outcomes. *Peabody Journal of Education*, 76(1), 93-116. Retrieved from <http://www.jstor.org/stable/1493007?origin=JSTOR-pdf>

Research Questions

What does the literature say about community college access, mission, and outcomes?

What are the intersections between these constructs?

Research Design

This article reviewed the literature related to community college access, mission, and outcomes and explored the intersections between those constructs. No new analyses were conducted.

Findings

The author summarized modern-day community colleges and the diverse population served. Further, the article reviewed the literature on the changing mission of community colleges and how this relates to student access and outcomes.

Implications for Policy and Practice

The author concluded that meeting the changing needs and goals of the students should be the major priority for community colleges, even if this means changing how outcomes are conceptualized and assessed.

Citation

Carlan, P. E., & Byxbe, F. R. (2000). Community colleges under the microscope: An analysis of performance predictors for native and transfer students. *Community College Review*, 28(2), 27-42. doi: 10.1177/009155210002800202

Research Questions

Are native students better prepared for upper-division coursework than transfer students from two-year institutions?

Do native students have higher grades in upper-division coursework than transfer students from two-year institutions?

Research Design

Regression analyses were used to examine upper-division GPAs. Stratified random-sampling techniques were used to collect data from native and transfer students over a three-year period.

Findings

Upper-division GPAs for native and transfer students did not differ significantly after controlling for related variables. For both native and transfer students, lower-division GPA and major were significant predictors of upper-division GPA. Race was a significant predictor for native, but not for transfer, students. In the transfer-student model, gender, associate degree attainment, full-time enrollment, transfer credit hours, majoring in the arts, and ACT composite score did not predict upper-division GPA; however transfer students in science and business disciplines did not perform as well as native students.

Implications for Policy and Practice

The authors concluded that two-year institutions should not be criticized for nurturing students because this approach may have helped students transfer and achieve upper-division status. The authors noted that, overall, transfer students from two-year institutions seemed to be well-prepared for upper-division coursework at the four-year institution; however, students in certain disciplines (business and science) may need additional attention.

Citation

Ceja, M., & Perez, P. P. (2010). Building a Latina/o student transfer culture: Best practices and outcomes in transfer to universities. *Journal of Hispanic Higher Education, 9(1)*, 6-21. doi: 10.1177/1538192709350073

Research Question

Why do fewer Latina/o students than Caucasian or Asian students transfer to four-year institutions from their respective two-year institutions?

Research Design

Based on previous research, the authors generated a demographic of overview of Latina/o students, highlighting student attendance, persistence, and transfer rates. Then, using theoretical models, the others examined promising practices, outreach initiatives, and an exemplary transfer program model used to facilitate Latina/o student transfer.

Findings

The authors found that when students were given the opportunity to attend orientation or success courses, they had higher rates of degree completion than counterparts who did not participate in such courses. The results showed a 24% completion rate for participants compared to a 17% completion rate for non-participants.

Implications for Policy and Practice

The authors suggested that institutional structures, policies, and partnerships need to be in place in order for there to be improvement in graduation rates for the Latina/o community. Further, the authors recommended working to improve academic skills, creating outreach programs, and promoting involvement by university faculty and staff that reflect the Latina/o population.

Citation

Cheslock, J. J. (2005). Differences between public and private Institutions of higher education in the enrollment of transfer students. *Economics of Education Review*, 24, 263-274.
doi:10.1016/j.econedurev.2004.06.002

Research Question

What are the differences between private and public institutions in transfer student enrollment?

Research Design

Regression analysis was used.

Findings

Relative to public institutions, at private institutions a smaller percentage of incoming students were transfer students. Transfer rates fell as a student moved from less-selective to more-selective institutions. The association between the share of transfer students and the attrition rates was stronger for private institutions than for public institutions.

Implications for Policy and Practice

The author suggested that future work should investigate how the demographic characteristic of transfer students differed across institutions of different selectivity.

Citation

Crisp, G., & Nora, A. (2009). Hispanic student success: Factors influencing the persistence and transfer decisions of Latino community college students enrolled in developmental education. *Research in Higher Education, 51*(2), 175-194. doi: 10.1007/s11162-009-9151-x

Research Questions

For the Hispanic community college student who intends to transfer to a four-year institution, what factors lead to the probability of the student being successful in his/her second and third years of college?

Also, how do the variables responsible for a student's success vary among developmental and non-developmental students?

Research Design

A logistic regression was used to test the hypothesized framework of the existing dataset, drawn from a national sample of Hispanic students.

Findings

There were three major findings. First, a common set of factors used previous in the literature seemed to influence different measures of success in the current study. Second, environmental factors affected both developmental and non-developmental students. Finally, although a common set of factors influenced success for both developmental and non-developmental students, these factors appeared to be more influential early on for developmental students.

Implications for Policy and Practice

The study provided empirically and theoretically-based evidence about the variables that influence the success of Latina/o community college students. These results demonstrated that the variables used previously in the literature were worthwhile to explore in more depth for this student population to inform policy and intervention efforts targeted at Latina/o students.

Citation

Dowd, A. C., & Melguizo, T. (2008). Socioeconomic stratification of community college transfer access in the 1980s and 1990s: Evidence from HS&B and NELS. *The Review of Higher Education, 31(4)*, 377-400.

Research Question

What changes have occurred in the socioeconomic composition of community college transfer students between the late 1980s and early 1990s?

Research Design

Data were obtained from two national longitudinal data sets from the national Center for Education Statistics (NCES): the High School and Beyond Sophomore Sample (HS&B/So) and the National Educational Longitudinal Study (NELS).

Trends were examined using design-adjusted chi-square tests of independence and tests of differences in means.

Findings

The results provided no evidence of a “middle-class takeover” of the community college transfer function during the period of time under consideration. More affluent students, whose parents had higher incomes and higher levels of educational attainment, were actually enrolling in the community college more so than middle-class students. The authors noted that transfer access was not improving for poor students, who were still underrepresented in transfer cohorts.

Implications for Policy and Practice

The authors recommended further study to investigate transfer access trends across socioeconomic groups.

Citation

Felts, K., & Townsend, B. K. (2009, May). *Transfer student success: The role of initial college choice*. Paper presented at the Annual Forum of the Association for Institutional Research, Atlanta, GA. Retrieved from <http://ir.missouri.edu/reports-presentations.html>

Research Question

Do students who transferred from community college and students who transferred from another four-year institution differ in baccalaureate degree attainment at the study institution?

Research Design

A two-group path analysis was used to analyze the direct and indirect effects of transfer GPA, number of hours transferred, completion of college algebra prior to transfer, completion of freshman English prior to transfer, and first-semester GPA at the study institution upon persistence to baccalaureate degree attainment.

Findings

Transfer GPA, hours transferred, completion of college algebra, completion of freshmen English, and first-semester GPA after transfer had a positive effect on baccalaureate degree attainment for community college transfer students. Only first-semester GPA after transfer and number of hours transferred had a positive effect on baccalaureate degree attainment for transfer students from four-year institutions. Consistent with the “transfer shock” literature, there was a significant drop in average first-semester GPA in the semester following transfer.

Implications for Policy and Practice

The findings indicated that the factors that influence the success of transfer students are similar to those that affect initial college choice. The authors suggested that these factors could be targeted when assisting transfer students at the receiving institution.

Citation

Freeman, M. L. (2007, June). *Gender, geography, transfer, and baccalaureate degree attainment*. Paper presented at the Annual Forum of the Association for Institutional Research, Kansas City, MO. Retrieved from <http://www.airweb.org/page.asp?page=1289>

Research Question

How do individual characteristics such as urban location of high school and first institution attended, age, gender, and risk factor index influence transfer and baccalaureate completion?

Research Design

Data were obtained from the National Center for Education Statistics 1996/01 Postsecondary Students Longitudinal Study (BPS: 96/01). Descriptive and multivariate analysis techniques were used. Logistic regression was used to assess baccalaureate degree attainment.

Findings

Women and nontraditional-aged students were more likely than men and traditional-aged students to begin their education at two-year institutions. Only a very small percentage of students who began at the two-year institution transferred to a four-year institution (12%). Women and traditional-aged students who enrolled at the four-year institution were more likely than men and nontraditional-aged students to complete the baccalaureate degree.

Implications for Policy and Practice

The author recommended that more research focus on risk factors and student outcomes rather than institutional retention to develop a more full understanding student success.

Citation

Garcia Falconetti, A. M. (2009). 2+2 statewide articulation policy, student persistence, and success in Florida universities. *Community College Journal of Research and Practice*, 33, 238-255. doi: 10.1080/10668920802591109

Research Questions

Is there a difference in the academic success and persistence of community college transfer students and native students who are seeking baccalaureate degrees in Florida's State University System?

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 institution?

Is there a difference in the academic success and persistence of native students who are seeking baccalaureate degrees at each of the selected institutions?

Research Design

Descriptive discriminant analysis techniques were used to answer the research questions. Cohen's d statistic and Chi-square tests of independence were also examined.

Findings

Secondary data were used to track community college and native student enrollment and degree completion between 2001 and 2006.

Community college transfer students depart at higher rates than native students. Native students graduate at higher rates than community college transfer students. Community college transfer students received relatively few cumulative semester hours in excess of 120% and took few lower division courses prior to graduation.

Implications for Policy and Practice

The authors contended that Florida's legislature, policymakers, and institutional leaders must continue to monitor and strengthen statewide articulation agreements. The authors also suggested that policy makers should explore types of incentives that could be used to encourage students to finish on time.

Citation

Glass, J. C., & Harrington, A. R. (2002). Academic performance of community college transfer students and “native” students at a large university. *Community College Journal of Research and Practice*, 26, 415-430. doi: 10.1080/02776770290041774

Research Questions

Are there significant differences between the community college transfer students’ academic performance (mean GPA) before transfer and the native students’ academic performance (mean GPA) at the end of the sophomore year?

Do transfer students’ mean GPAs fall at the end of the first semester after transfer?

Do native students’ mean GPAs fall after the first semester in their major?

Are there significant differences in the retention rates of transfer students and native students?

Are there significant differences in the graduation rates of the transfer students and the native students?

Research Design

Analysis of variance (ANOVA) and t-tests were used to compare transfer and native students across different dependent variables, including GPA, retention, and graduation.

Findings

GPAs at the beginning of the junior year did not differ significantly. Transfer students had slightly lower GPAs, compared to native students, at the end of the first semester of upper-division coursework. However, transfer students quickly recovered from this “transfer shock” and had equivalent or even better GPAs than native students at the time of graduation. Transfer students had higher retention rates than native students. It could not be determined if transfer or native students had higher graduation rates.

Implications for Policy and Practice

The authors suggested surveying students who departed during the junior year to see what factors contributed to their departure. The authors also suggested that more work be conducted to make graduation rate comparisons.

Citation

Gross, B., & Goldhaber, D. (2009). *Community college transfer and articulation policies*. Seattle: University of Washington Bothell.

Research Questions

Do different types of transfer and articulation policies have different effects on transfer?

Do different types of transfer and articulation policies have a differential impact on lower income and minority students?

What policies facilitate the transfer process?

Research Design

Cross-sectional data were examined to look at the states' established curriculum articulation and transfer agreements and students' use of the transfer pathway. Mathematical models were developed to explore these relationships. Data were obtained from four sources: (1) the National Educational Longitudinal Study 1988-2000 data (NELS88/2000); (2) the NELS 2000 follow-up; (3) the 1999 Survey of State Transfer and Articulation Policies conducted by Ignash and Townsend; and (4) the 1992 Integrated Postsecondary Education Data System (IPEDS).

Findings

The authors found that articulation policies did not improve transfer rates for most community college students. Student background characteristics were a much more powerful predictor of transfer. Articulation policies did appear to have a positive effect for Hispanic students, who were more likely to transfer in states with policies in place.

Implications for Policy and Practice

The authors suggested that more research was necessary to explore whether transfer and articulation policies correspond with important gains for post-secondary students, such as transfer rate and degree completion of transfer students.

Citation

Hills, J. R. (1965). Transfer shock – The academic performance of the junior college transfer. *The Journal of Experimental Education, 33(3)*, 201-215.

Research Questions

Do transfer students perform better than native students as a result of their community college experience (e.g., including gradual transition, orientation toward teaching)?

Do transfer students perform poorer at the four-year institution than they performed at the two-year institution?

Research Design

The study examined the findings of 46 studies relevant to transfer shock.

Findings

Of the 46 datasets examined, 44 showed evidence of transfer shock. Recovery from transfer shock could be assessed in 38 datasets, and 34 of those 38 showed evidence of recovery. Thirty-three datasets allowed for a comparison of transfer and native student performance; native students performed better in 22 datasets, transfer students performed better in 4 datasets, and transfer and native students performed equally well in 7 datasets.

Implications for Policy and Practice

The author offered recommendations for counselors, pointing out that transfer students should expect to see a drop in grades following transfer and have a lower likelihood of graduation than native students.

Citation

Hilmer, M. J. (1997). Does community college attendance provide a strategic path to a higher quality education? *Economics of Education Review*, 16(1), 59-68.

Research Question

Does the quality of the four-year institution of choice differ for students who attend community college first and students who attend four-year institutions directly?

Research Design

An econometric model was used to examine the quality of preferred university under each of the two educational paths. The data were obtained from the High School and Beyond (HSB) survey conducted by the National Center for Education Research.

Findings

The results indicated that students choose higher quality universities following community college attendance. The largest quality increases were observed for students who came from poorer backgrounds, who were less academically prepared, or who performed poorly in high school.

Implications for Policy and Practice

The findings demonstrated that community college attendance did not negatively affect transfer students. Further, community college attendance was a positive pathway for students from disadvantaged backgrounds and allowed them to attend higher quality four-year institutions than they may have otherwise.

Citation

Hirose, S. M. (1994). Calculating student transfer rates: The transfer assembly project. *Community College Review*, 22(1), 62-71.

Research Question

What is the transfer rate of students from community colleges to senior institutions?

Research Design

Using data from a national sample, a national average transfer rate was calculated. The Center for the Study of Community Colleges (CSCC) collected data from a national sample between 1989 and 1994. By April 1994, transfer information on over 40% of the nation's community college student enrollment was obtained.

Findings

Examining the data obtained, the CSCC determined that the national transfer rate has consistently hovered around 22% to 23% over years under consideration. The data from across the nation consistently revealed that approximately 50% of community college students completed at least 12 SCH after initial enrollment; approximately 25% of those students eventually transferred to a four-year institution.

Most states with comprehensive community college systems had transfer rates similar to the 22% national rate, with an overall range from 13% to 46%. The state with the transfer rate at the low end of the continuum was made up of community colleges that are mainly vocational and technical institutions. The state falling at the high end of the continuum was made up of two-year centers that are branch campuses of the university. Within-state differences in transfer rates tended to be larger than between-state differences.

Implications for Policy and Practice

The project developed a consistent way to estimate community colleges transfer rates so that community colleges could be proactive in collecting the data and presenting their rates, rather than responding to rates calculated by those not familiar with the community college.

Citation

Ishitani, T. T. (2008). How do transfers survive after “transfer shock”? A longitudinal study of transfer student departure at a four-year institution. *Research in Higher Education, 49*, 403-419. doi: 10.1007/s11162-008-9091-x

Research Questions

Considering the longitudinal nature of student departure, when exactly are freshman transfer students at the highest risk of departure?

Given the time-varying nature of semester GPAs at a senior institution, does the impact of the GPA consistent affect persistence behavior for transfer students over time?

Research Design

The study employed event history modeling to longitudinally study the departure behaviors of transfer students.

Findings

Results indicated that sophomore and junior transfer students were less likely to depart during the first semester at the four-year institution than freshman transfer students. Higher semester GPA was associated with higher persistence rates, after controlling for explanatory variables. Native students were retained at higher rates than freshman transfer students.

Implications for Policy and Practice

According to the author, results such as those found in the current study can be used to create awareness of the risk characteristics for transfer students. Institutional personnel can use risk profile information to improve educational practices.

Citation

Koker, M., & Hendel, D. D. (2003). Predicting graduation rates for three groups of new advanced-standing cohorts. *Community College Journal of Research and Practice, 27*, 131-146. doi: 10.1080/10668920390128771

Research Question

What is the impact of demographic variables, high school and pre-transfer college academic characteristics, transfer student cohort, and post-transfer college academic characteristics on baccalaureate degree attainment?

Research Design

The study design was longitudinal and logistic regression was used to identify significant predictors of graduation status. Participants were 1,327 transfer students from two- and four-year institutions who matriculated to the study institution during 1994-1995.

Findings

Results indicated that transfer students from the four-year cohort were more likely to graduate than transfer students from the two-year institution. Ethnicity, first-term credits completed, last term GPA, and last-term credits completed were significant predictors of graduation. Transfer cohort (two-year or four-year), entry credits, last-term credits completed, and entry GPA were also significant predictors of degree efficiency.

Implications for Policy and Practice

The results indicated that background characteristics of transfer students are useful in identifying students at risk for departure.

Citation

Kodama, C. M. (2002). Marginality of transfer commuter students. *NASPA Journal*, 39(3), 233-250.

Research Questions

Are there differences in feelings of marginality between transfer and native commuter students?

What student characteristics, demographic or situational, are related to this sense of marginality?

Research Design

Surveys were mailed to a random sample of 1,000 commuter students, including 500 native and 500 transfer students. Analysis of variance (ANOVA) and multiple regression techniques were used to examine differences in feelings of marginality and characteristics that were associated with those feelings.

Findings

There were no significant differences between transfer and native students in self-reported feelings of marginality. Overall, gender, employment status, and race/ethnicity were significant predictors of feelings of marginality such that women, employed students, and Asian American students were more likely to express feelings of marginality.

Implications for Policy and Practice

The author contended that methods for studying college-student experiences need to become more refined as student populations become more complex.

Citation

Kozeracki, C. (2001). Studying transfer students: Designs and methodological challenges. *New Directions for Community Colleges, 114*, 61-75. doi: 10.1002/cc.21

Research Questions

Who is conducting research?

What methods are being used to gather information?

What types of data are being collected on transfer students?

Research Design

The study used a descriptive report examining the literature on transfer students from ERIC and journal articles.

Findings

Much of the work on transfer students has been conducted by institutional researchers at community colleges, statewide reports, university-based institutional researchers and faculty, graduate students, and the federal government. Many studies use quantitative analysis strategies, although there are several qualitative studies.

Implications for Policy and Practice

The author stressed the importance of making use of data by linking research and action.

Citation (note: only information pertinent to transfer students is included)

Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). What matters to student success: A review of the literature. *ASHE Higher Education Report*. San Francisco: Jossey-Bass. Retrieved from https://nces.ed.gov/npec/pdf/Kuh_Team_Report.pdf

Research Questions

What are the major studies that represent the best work in the area?

What are the major conclusions from these studies?

What key questions remain unanswered?

What are the most promising interventions prior to college (such as middle school, high school, bridge programs) and during college (such as safety nets, early warning systems, intrusive advising, required courses, and effective pedagogical approaches)?

Where is more research needed and about which groups of students do we especially need to know more?

How does the work in this area inform a theory about student success?

Research Design

The literature synthesized the relevant literature to examine student success.

Findings

The literature review highlighted the diverse goals of students attending two-year institutions. When considering the likelihood of transfer, the review found that first-generation and low SES students have a lower likelihood of transfer than their counterparts, faculty encouragement on-campus employment promotes transfer, and institutional barriers may discourage students from transferring. The review found that transfer rates vary depending on how they are calculated. Students transferred to a four-year institution from a two-year institution were less likely than native students to interact with faculty and to participate in educationally enriching activities.

Implications for Policy and Practice

The authors noted that transfer rates could be higher if state systems emphasized the transfer mission of two-year institutions.

Citation

Lanaan, F. S. (2001). Transfer student adjustment. *New Directions for Community College*, 114, 5-13.

Research Question

What does the existing literature tell us about transfer student adjustment?

Research Design

The chapter reviewed existing literature to highlight key findings about transfer student adjustment.

Findings

Concerning transfer student grades following transfer to the four-year institution, the literature has shown conflicting findings ranging from a drop in GPA after transfer (“transfer shock”) to an increase in GPA after transfer (“transfer ecstasy”). Comparisons of native and transfer students focusing on grades, persistence, and graduation rates often found that native students perform better than transfer students on most outcome assessments. Predictive models to examine transfer student success have been developed based on models of student persistence developed for first-time native students. Researchers have noted that transfer student performance needs to be tracked over time to determine what variables would be effective in predicting long-term academic success.

Implications for Policy and Practice

The author noted that a growing number of students in four-year institutions began at community colleges, therefore researchers must work to understand the extent to which prior experiences influence transfer student success at four-year institutions.

Citation

Lang, D. W. (2009). Articulation, transfer, and student choice in a binary post-secondary system. *Higher Education, 57*, 355-371. doi: 10.1007/s10734-008-9151-3

Research Question

What is the intersection of system articulation, transfer, and the choices that secondary students make when they apply to college and university?

Research Design

Longitudinal survey and qualitative interview techniques were used. Data were obtained from longitudinal surveys conducted in Ontario in the late 1980s and surveys and interviews conducted with students, parents, and guidance counselors in six secondary schools beginning in 2004.

Findings

Results indicated that articulation was not a concern for students. The intention to transfer did not appear to be a significant factor in initial choice of institution, but rather developed after initial enrollment. Students focused on choosing programs over choosing institutions.

Implications for Policy and Practice

The author suggested that focusing on articulation may not improve the transfer rate. Rather, students might benefit more from creating conditions that encourage institutions to collaborate in the “planning and delivery of programs that can be usefully articulated.”

Citation

Lee, V. E., & Frank, K. A. (1990). Students' characteristics that facilitate the transfer from two-year to four-year colleges. *Sociology of Education*, 63(3), 178-193. Retrieved from <http://www.jstor.org/stable/2112836?origin=JSTOR-pdf>

Research Question

Do social and academic background factors have an impact on the probability of transfer to a four-year college?

Research Design

A longitudinal analysis was used to track 2,500 students who enrolled at a community college after high school graduation in 1980. Path analysis was used to examine the direct and indirect effects of social and academic background factors on transferring to a four-year institution.

Findings

Academic behaviors in the community college had a strong, direct effect on transfer. Academic performance in high school was also related to the likelihood of transfer. Family background (e.g., SES) and high school factors had indirect effects upon the likelihood of transfer.

Implications for Policy and Practice

The community college is often promoted as a second chance for socially and academically disadvantaged students; however, this study suggested that these students are less likely than students from more "traditional" student backgrounds to transfer to the four-year institution after initial enrollment in the community college. The authors stressed the importance of encouraging students from disadvantaged background who initially enroll at the community college to transfer to the four-year institution.

Citation

Lee, V. E., Mackie-Lewis, C., & Marks, H. M. (1993). Persistence to baccalaureate degree for students who transfer from community college. *American Journal of Education, 102*(1), 80-114. Retrieved from <http://www.jstor.org/stable/1085696>

Research Question

Is there a difference in the probability of attaining a baccalaureate degree for students who enrolled in community college after high school graduation and subsequently transferred to a four-year college?

Research Design

A longitudinal analysis was used to track student cohorts from high school graduation in 1980 to outcomes in 1986. Group mean differences were tested with t-tests and logistic regression was used to study outcomes.

Findings

For both groups (transfer and native students), the proportion of students from the cohort that completed the baccalaureate degree in the time under consideration was identical – 69%. More students in the native sample expressed a desire to attend graduate school than in the transfer sample, although a high proportion of each sample did so, 76% and 70% respectively. Native students also had slightly higher GPAs and expressed greater satisfaction with the college from which they graduated.

Implications for Policy and Practice

The study found no differences in persistence to baccalaureate degree attainment for native and transfer students. The authors stressed that the results indicate that the major disadvantage of attending community college appears to take place prior to transfer, in that many students who initially express a desire to transfer never actually do so.

Citation

Leigh, D. E., & Grill, A. M. (2003). Do community colleges really divert students from earning bachelor's degrees? *Economics of Education Review*, 22, 23-30. doi:10.1016/S0272-7757(01)00057-7

Research Question

Do community colleges really divert students from earning bachelor's degrees?

Research Design

A longitudinal study was performed using data from the National Longitudinal Survey of Youth (NLSY).

Findings

The years of desired schooling influenced the track chosen by community college students for postsecondary education (transfer/terminal program). Estimates of diversion were reduced after controlling for years of desired education. For students expressing a desire to attain a baccalaureate degree, attending community college increased overall educational attainment.

Implications for Policy and Practice

Based on the current findings, the authors concluded that policy makers should not be too influenced by diversion effect arguments when considering the role of community colleges in higher education.

Citation

McCormick, A. C. (2003). Swirling and double-dipping: New patterns of student attendance and their implications for higher education. *New Directions for Higher Education*, 121, 13-24. doi: 10.1002/he.98

Research Questions

What are the educational implications caused by a student's transfer between institutions?

How can we develop ways to enhance educational coherence?

Research Design

A longitudinal study was conducted to understand how the transfer to multiple institutions affected a student's ability to finish their degree. Variables such as High School graduation cohorts, new entrants into post-secondary education, and GPA comparisons were taken into consideration.

Findings

The author noted that attendance of more than one institution is not equivalent to a transfer (permanently leaving one institution to attend another). Students who attended other institutions but did not transfer averaged higher first-year grades than those of students who transferred.

Implications for Policy and Practice

The author suggested that both students and the faculty should pay more attention to how students cope with changing institutions. The author suggested that faculty work with students to help them focus on academic planning and use their educational goals as a framework for this educational planning.

Citation

Melguizo, T., Hagedorn, L. S., & Cypers, S. (2008). Remedial/developmental education and the cost of community college transfer: A Los Angeles county sample. *The Review of Higher Education, 31(4)*, 401-431.

Research Questions

What were the actual monetary costs of transferring with different remediation needs?

What were the actual costs in terms of time of transferring for individuals with different remediation needs?

Research Design

The stratified sample was recruited from 5,011 students enrolled in nine community colleges in the Los Angeles district. The final sample included 411 students who participated in the initial survey and successfully transferred to the four-year institution.

Regression analysis was used to explore the association between the total cost of pre-transfer education and the levels of remediation needs.

Findings

Community colleges cost less than the four-year institution in terms of tuition and fees. However, the study found that attending a community college costs a substantial amount of time for students who take remedial/developmental and/or nontransferable courses. Students with the greatest need end up spending the greatest amount of time and money to succeed. Students averaged five years of attendance at the community college prior to transfer and spent 60% of their time taking courses that did not transfer to the four-year institution.

Implications for Policy and Practice

The authors suggested that their findings on the true cost of attendance had important implications for the community college's mission of supply access and equity. The authors encouraged colleges to reexamine the transfer procedures and instructional methods to determine why students are not successful within a more acceptable time period.

Citation

Mullen, R., & Eimers, M. T. (2001, October). *Understanding transfer success revisited: Transfer students – Who are they and how successful are they?* Paper presented at the meeting of Mid-America Association for Institutional Research, Earth City, MO.

Research Questions

What characteristics help explain a transfer student's likelihood of graduating?

Are transfer students more likely to graduate than first-time freshmen, when controlling for ability?

Research Design

Logistic regression was used to determine which student characteristics predicted a transfer student's likelihood of graduation. Student characteristics included discipline, initial institution, associate's degree completion, transfer campus, gender, age, ethnicity, transfer GPA, and transfer hours.

Findings

Findings indicated that transfer GPA and campus (residential) were positively associated with graduation and being a minority student was negatively associated with graduation. After controlling for GPA and credit hours, first-time freshman (native students) were more likely to graduate than transfer students.

Implications for Policy and Practice

According to the authors, implications of the current study included the need to focus on the assimilation of transfer student, especially transfer student from under-represented minority groups. The authors suggested the possibility of developing orientation programs that specifically target transfer students.

Citation

Nora, A., & Rendon, L. I. (1990). Determinants of predisposition to transfer among community college students: A structural model. *Research in Higher Education, 31(3)*, 235-255.
Retrieved from <http://www.springerlink.com/content/ml5u5m1363171402/>

Research Questions

How well does a model of student transfer behavior and attitudes based on Tinto's theoretical framework fit the community college student sample?

What are the direct and indirect effects of student background factors on students' initial commitments, social integration, and academic integration?

Research Design

Using structural equation modeling techniques, this study examined the structural relationships among five constructs: (1) student background factors, (2) initial commitments, (3) social integration, (4) academic integration, and (5) predisposition to transfer. Survey techniques were used to gather data.

Findings

The findings indicated that students were interested in transferring and attached high importance to the process. Students with higher commitment to the institution and to their educational goals, students with higher levels of academic and social integration, and students whose parents had higher educational levels had higher levels of predisposition to transfer. Ethnicity had no relation to predisposition to transfer.

Implications for Policy and Practice

Although ethnicity was not a factor in the current model, the author suggested that the effects of the multidimensional factors may be felt more by Hispanic students who have not been socialized to recognize or to take advantage of opportunities. The authors recommended stronger student/faculty interaction and policies to promote high expectations.

Citation

Ornelas, A., & Solorzano, D. G. (2004). Transfer conditions of Latina/o community college students: A single institution case study. *Community College Journal of Research and Practice, 28*, 233-248. doi: 10.1080=10668920490256417

Research Questions

What are the resources for academic motivation and potential barriers that inform the transfer function and process for Latina/o community college students?

What are the essential elements required for instituting a community college transfer culture?

Research Design

A case-study design was used, including in-depth interview and focus groups with 191 Latina/o students, 17 counselors, 12 faculty members, and 6 administrators.

Findings

Findings revealed similar themes among the perceptions of students, counselors, faculty members, and administrators. All groups agreed that the most significant barrier to the transfer process for Latina/o students was balancing multiple roles and responsibilities outside of college while attending to their academic roles as students. Additionally, all groups agreed that many Latina/o students were academically underprepared. College personnel noted that students often become discouraged from pursuing transfer once they learn about the need to take additional prerequisite courses.

Implications for Policy and Practice

The authors suggested that examining multiple perspectives can provide more in depth information about the challenges Latina/o students face during the transfer process. The authors offered specific recommendations for administration, counselors, faculty, and students.

Citation

Peter, K., Cataldi, E., & Carroll, C. D. (2005). *The road less traveled? Students who enroll in multiple institutions*. (NCES 2005-157). Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov>

Research Questions

To what extent do undergraduate students attend multiple institutions?

What is the association between multiple institution attendance and persistence, attainment, and time to degree?

Research Design

Survey data from the 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01) and the 2000/01 Baccalaureate and Beyond Longitudinal Study (B&B:2000/01) were used. Differences in student enrollment patterns were examined using t-tests and two-way analysis of variance (ANOVA). Interrelationship factors were studied with a multivariable analysis.

Findings

The majority of degree recipients attended more than one institution during their undergraduate education. Attendance patterns differed by institution of initial enrollment. Students who initially enrolled at two-year institutions were more likely than students who initially enrolled at four-year institutions to attend more than one institution or to transfer; however, there were no differences in the likelihood of coenrollment. Multiple institution attendance was negatively related to degree completion within six year, indicating that it slowed progress toward baccalaureate degree.

Implications for Policy and Practice

The authors concluded that attending more than one postsecondary institution on the path toward attaining a baccalaureate degree has become a fairly common practice. More research is necessary to understand this pathway.

Citation

Phlegar, A. G., Andrew, L. D., & McLaughlin, G. W. (1981). Explaining the academic performance of community college students who transfer to a senior institution. *Research in Higher Education, 15*(2), 99-108.

Research Question

Can we develop a means to help students and college personnel acquire a clearer understanding of the implications of individual students selecting specific alternatives both within the community college and within the senior college environment?

Research Design

Linear regression equations and a branching algorithm were used to predict GPA at the senior institution using personal, environmental, demographic, and pre-transfer academic measures. The sample included 361 students who had transferred to a state university from one of 23 state-supported community colleges.

Findings

Community college GPA was the best single predictor of senior institution GPA. Curriculum taken at the senior institution was also important. The authors suggested that prior confusion in the literature may have resulted from the types of analyses employed. That is, student success at the four-year institution could not be explained by simplistic models, but rather required an analysis of the interaction of course selection and performance at the community college with the curriculum selected at the senior institution.

Implications for Policy and Practice

The authors found that it was important to examine the curriculum and requirements completed prior to transfer. The authors suggested that, as in modeling native student success, more work is necessary to examine the factors that explain transfer student success.

Citation

Pincus, F., & Archer, E. (1989). *Bridges to opportunity: Are community colleges meeting the transfer needs of minority students*. New York: Academy for Educational Development and College Entrance Examination Board.

Research Questions

What can be done to improve the transfer process?

What are the percentages of transfer?

Research Design

Evaluation of 24 institutions and 535 transfer students using data collected from the Academy for Educational Development and the College Board.

Findings

This book focused on ways to improve transfer efficiency and starts with nine recommendations to enhance the transfer function of community colleges. The authors reported transfer rates between 15 and 25% for all students and between 20 and 30% for students who initially expressed a desire to transfer. However, only 10 to 15% of transfer students received a bachelor's degree; this increased slightly, to 20 to 25% for students who initially expressed a desire to receive a degree.

Implications for Policy and Practice

The authors stressed the importance of social integration for student success. The book also included a chapter outlining a framework for institutions to develop transfer activities.

Citation

Porter, P. R., (May, 1999). *Assessing transfer and native student performance at four-year institutions*. Paper presented at the meeting of the Association of Institutional Research, Seattle, WA.

Research Questions

Do transfer students perform poorly in comparison with native students?

Are students who enter college by transferring from other institutions less qualified?

Research Design

A multivariate analysis was carried out in order to compare the difference between transfer and native students. The four samples included: new natives, new transfers, returning natives, and returning transfers.

Findings

The author concluded that transfer students performed worse than native students on four academic outcomes: one-year retention, one-year graduation, cumulative grade point average, and academic dismissals.

Implications for Policy and Practice

The author concluded that transfer students appear to be less motivated or less academically prepared than native students. The findings suggested that institutions need to increase their efforts with transfer students to ensure that they are academically prepared and motivated to finish their degrees.

Citation

Rendon, L. (1995). *Facilitating retention and transfer for first generation students in community college*. Paper presented at the New Mexico Institute Rural Community College Initiative. Espanola, NM.

Research Question

What factors affect retention and transfer for first generation students at community colleges?

Research Design

Report on the literature on community college student retention and transfer.

Findings

Two critical phases affected retention. First, students needed to successfully transition to college. Second, students needed to make connections in college. Retention barriers included student-related barriers (low SES, poor academic preparation, poorly defined goals), institution-related barriers (detached faculty, raising tuition costs), and cultural barrier (divided loyalties).

Implications for Policy and Practice

The author concluded that community colleges need to work to create the conditions for optimal learning for all students and focusing on ways to help remove barriers for students.

Citation

Roksa, J. (2006). Does the vocational focus of community colleges hinder students' educational attainment? *The Review of Higher Education, 29(4)*, 499-526.
doi: 10.1353/rhe.2006.0038

Research Question

Does a community colleges vocational focus affect a students' likelihood of earning an associated degree or transferring to a four year university and earning a bachelor's degree while controlling for characteristics of students and state environments.

Research Design

A logistic regression model was implemented in order to address the research question. Three outcomes were examined: (a) the likelihood of earning an associate degree compared to earning only certificates; (b) the likelihood of transferring to a four year institution; and (c) the likelihood of completing a bachelor's degree once you have transferred to a four-year university.

Findings

Students attending a vocationally-focused community college did not have lower education attainment. The associate degrees granted in the vocational field did not have negative effects on any of the outcomes examined.

Implications for Policy and Practice

The author suggested that states develop articulation and transfer policies to coordinate their higher education system and to facilitate the transfer of students between institutions and to ease the flow of students through higher education. The author also suggested providing incentives to community colleges to put more focus on academic training.

Citation

Roksa, J., & Calcagno, J. C. (2008). Making the transition to four-year institutions: Academic preparation and transfer. *Community College Research Center Working Paper* (Number 13). Retrieved from <http://ccrc.tc.columbia.edu/Research.asp>

Research Questions

To what extent do academically unprepared students transfer to four-year institutions?

Can positive experiences in community colleges diminish the role of inadequate academic preparation?

Research Design

Event history modeling techniques were used to estimate single risk discrete-time hazard models. Data from 37,623 first-time, degree-seeking community college students in the state of Florida were tracked for 15 terms to examine the likelihood of transfer to a four-year institution. Independent variables included academic preparation and intermediate outcomes.

Findings

Results indicated that many students who enter the community college academically unprepared eventually transfer successfully to a four-year institution. Further, the successful completion of intermediate outcomes, including passing college-level math and writing and earning an associate degree, enhanced the likelihood of transfer. Still, the negative effects of poor academic preparation prior to enrollment at the community college were not fully mitigated; these students continued to perform at lower levels than their more-prepared counterparts.

Implications for Policy and Practice

The authors stressed the need for a holistic view of education. Community colleges provided a vital path toward the baccalaureate degree; however, certain factors that influence the likelihood of transfer, such as academic preparation, precede entry to the community college. The authors also suggested that timing variables should be considered carefully in future studies.

Citation

Sandy, J., Gonzalez, A., & Hilmer, M.J. (2005). Alternative paths to college completion: Effect of attending a 2-year school on the probability of completing a 4-year degree. *Economics of Education Review*, 25, 463-471. doi:10.1016/j.econedurev.2005.05.003

Research Question

Compared with students who initially enter a four-year institution, are students who transfer from community colleges significantly less likely to complete a four-year college degree?

Research Design

Data were collected from the early 1970s to the mid 1990s using the National Longitudinal Survey (NLS). A logit function was implemented to examine students' probability of completing four-year degrees based on initial institution of enrollment. Marginal effects were also examined.

Findings

The data indicated that there has been a decline in degree completion at the four-year institution for transfer students. The probability of a student finishing a degree after transferring from a two-year college in 1972 was 0.754 compared to 0.373 in 1994.

Implications on Policy and Practice

The authors suggested that their findings highlight the need for research examining the "match" between students and institution, especially for transfer students.

Citation

Schmidtke, K., & Eimers, M. T. (2004, May). *Source and destination: Transfer success at a multi-campus university system*. Paper presented at the Annual Forum of the Association for Institutional Research, Boston, MA.

Research Questions

Are transfer students more likely to graduate if they enter from a two-year, four-year, or system institution, when controlling for ability and credit hours?

What characteristics help explain a transfer student's likelihood of graduating based on whether they transfer from a two-year, four-year, or system institution?

Are transfer students more likely to graduate if they transfer to an urban or residential campus, when controlling for ability and credit hours?

What characteristics help explain a transfer student's likelihood of graduating, based on whether the student transferred to an urban or residential campus?

Research Design

Logistic regression was used to predict transfer students' likelihood of success, defined as graduation within six years. The sample included 17,226 full-time, degree-seeking transfer students who entered the institution within a six-year period.

Findings

Transfer GPA, transfer hours, being female, residential campus, and system campus were positively associated with graduating within six years. Being a minority student and transferring to an urban campus were negatively associated with graduation. For students who transferred from a two-year institution, the graduation rate was higher for students who first obtained an associate's degree prior to transfer.

Implications for Policy and Practice

According to the authors, the findings supported the need for open articulation agreements between institutions. The authors recommended that future research use qualitative methods to examine the types of obstacles that transfer students perceive during the transfer process.

Citation

Surette, B. J. (2001). Transfer from two-year to four-year college: An analysis of gender differences. *Economics of Education Review*, 20, 151-163. Retrieved from http://www.elsevier.com/wps/find/journaldescription.cws_home/743/description#description

Research Question

Does gender influence the decision to transfer?

Research Design

This study used univariate probits to describe college attendance decisions and the decision of students enrolled at two-year institutions to transfer to four-year institutions. Data were obtained from the National Longitudinal Survey of Youth (NLSY).

Findings

Women were less likely than men to transfer to a four-year institution, and women who did transfer to a four-year institution were less likely than men to earn a baccalaureate degree. Marital status, the presence of children, and gender differences in occupational preferences did not explain the gap in transfer rates.

Implications for Policy and Practice

The author noted that the transfer preferences of men and women could not be explained by any of the variables under consideration. Future research is necessary to examine the apparent gender differences in college-type choice and transfer decision.

Citation

Townsend, B. (1995). Community college transfer students: A case study of survival. *Review of Higher Education, 18*(2), 175-193.

Research Questions

What are the obstacles to transfer?

What are the obstacles for the retention of community college students that have transferred to the university?

How do community college students perceive the transfer and academic experience?

Research Design

Case study methods examining 44 fulltime students at an urban university were used. This included qualitative analyses of interview and survey information.

Findings

Students reported receiving more help from staff at the four-year institution than from the community college in the transfer process. Overall, students believed that they had to work through the transfer process on their own, but most students saw the process as relatively “easy.”

Students found the academic environment at the four-year institution to be more difficult than at the community college. Students also reported not feeling prepared for the four-year institution.

Students who departed from the four-year institution due to academic difficulties reported that these difficulties were not due to differences between the two-year and the four-year institutions.

Implications for Policy and Practice

The author indicated that the study provided insight on students’ experiences with the transfer process and on the factors that may affect retention. The author suggested that two-year and four-year institutions should work together to facilitate the transfer process.

Citation

Townsend, B. (2002). Transfer rates: A problematic criterion for measuring the community college. *New Directions for Community Colleges*, 117, 13-23.

Research Questions

What is problematic about concerns regarding transfer rates?

What are the implications for institutional leaders, policymakers, and researchers?

Research Design

The chapter highlighted difficulties in calculating transfer rates.

Findings

The literature has noted a trend of declining transfer rates. The author stressed that, although the decline is viewed as problematic, no level of acceptable transfer rate has been established. The author demonstrated that transfer rates vary greatly based on the definition of transfer student and what figures are included in the numerator and the denominator of the transfer rate estimate.

Implications for Policy and Practice

The author provided a number of implications for institutional leaders, policymakers, and researchers. The author suggested that institutional leaders help the general public and policy makers recognize that community colleges provide a pathway to the baccalaureate degree. Policy makers must improve tracking of community college transfers and keep definition of transfer in mind while tracking students. Institutional researchers can use these tracking systems to determine which students have transferred, when they transferred, and to what institutions they transferred.

Citation

Townsend, B., & Wilson, K. B. (2006). "A hand hold for a little bit": Factors facilitating the success of community college transfer students to a large research university. *Journal of College Student Development, 47*(4), 439-456.

Research Question

What are current community college transfer students' perceptions about institutional factors that influenced their fit within the receiving institution, including the transfer process, orientation to the university, and social and academic experiences there as compared to those in the community college?

Research Design

The study used qualitative data analysis techniques and interviews with 19 students to collect data.

Findings

Overall, students who were interviewed expressed satisfaction with advising and formal orientation programs at the four-year institution. The majority of the students reported that they did not receive assistance from the community college in the transfer process, although only four students explicitly asked for assistance. Students felt like the transition and establishing "fit" at the four-year institution may have been easier if they had "a hand hold for a little bit."

Implications for Policy and Practice

The authors offered suggestions for future research and for practitioners. First, the authors suggested that future research examine students' efforts to integrate socially and academically both before and after transfer. Then, the authors noted that administrators and professors should work to orient students to the new institution and the large class environment.

Citation

Velez, W., & Javalgi, R. G. (1987). Two-year college to four-year college: The likelihood of transfer. *American Journal of Education*, *96*(1), 87-94. Retrieved from <http://www.jstor.org/stable/1085178?origin=JSTOR-pdf>

Research Question

How do institutional integration, background, academic processes, and psychosocial variables affect the probability of transfer among a subsample of two-year college students?

Research Design

Logistic regression was used to determine the likelihood of transfer from a two-year to a four-year institution. Data were obtained from the National Longitudinal Study (NLS) and included 1,407 students from the high school class of 1972.

Findings

Gender, race/ethnicity, high school track, religion, and SES were significantly associated with transfer probabilities. Holding a work-study job and living on campus increased the odds of transferring to the four-year institution.

Implications for Policy and Practice

The author recommended that all students become immersed in all aspects of the college environment. Encouraging students to become more involved with the university there seemed to have a positive effect on performance and transfer rates.

Citation

Volkwein, F., King, M., & Terenzini, P. (1986). Student-faculty relationships and intellectual growth among transfer students. *The Journal of Higher Education*, 57(4), 413-430. Retrieved from <http://www.istor.org/stable/1980995?origin=JSTOR-pdf>

Research Question

What is the relationship between transfer students' interactions with faculty and their intellectual growth?

Research Design

Longitudinal data were collected for students who entered SUNY Albany University in 1980. Student-faculty relationship was examined using the *Frequency of Transfer Student Informal Contact* with faculty outside the classroom and the *Quality of Student Informal Contact*.

Findings

Results showed that faculty-student contact was positively related to intellectual growth for transfer students. Specifically, the quality of contact was associated with intellectual growth, but the frequency of contact was not. Student background characteristics and prior college variables were not significantly associated with intellectual growth.

Implications for Policy and Practice

The authors highlighted the need to develop a better understanding of student-faculty interactions for first-year and transfer students.

Citation

Wang, X. (2008). Baccalaureate attainment and college persistence of community college transfer students at four-year institutions. *Research in Higher Education*. Advance online publication. doi: 10.1007/s11162-009-9133-z

Research Questions

How are precollege characteristics, experiences while matriculating at college and environmental factors related to the probability of attaining a bachelor's degree for community college students who successfully transferred to four-year institutions?

How well do these characteristics predict persistence?

Research Design

Binomial logistic regression models were used to predict persistence and baccalaureate degree attainment. Data were collected from the National Education Longitudinal Study of 1988 (NELS: 88) and the Postsecondary Education Transcript Study (PETS). 786 students who graduated high school in 1992 and attended community college after high school were included in the sample.

Findings

The likelihood of completing the bachelor's degree was associated with gender, SES, high school curriculum track, aspirations, remediation in math, college involvement, and community college GPA. Persistence was associated with perceived locus of control and community college GPA.

Implications for Policy and Practice

The author suggested that policy makers and school leaders should implement programs that would ease the transition of students who have transferred from community colleges (e.g., orientation programs and/or information systems) because desirable student outcomes may be achieved by improving student learning and academic performance early on. The author also stressed the need to promote positive motivational beliefs among students.

Citation

Wirth, R. M., & Padilla, R. V. (2008). College student success: A qualitative modeling approach. *Community College Journal of Research and Practice*, 32, 688-711.
doi: 10.1080/1066892070138942

Research Questions

What barriers to success do students experience in the selected community college?

What is the knowledge base and action repertoire that enables successful students to overcome the barriers?

Research Design

The qualitative approach was based on Padilla's (2004) theoretical framework for modeling student success.

Focus group methods were used to collect data from 22 participants across four student focus groups.

Findings

Institutional barriers related to learning, coursework, student support, and personal and financial issues were the most frequently cited barriers to success. Students frequently noted financial barriers and parking issues. Students recognized the value of their education and the need for a proactive attitude to be successful.

Implications for Policy and Practice

The authors highlighted the usefulness of using qualitative methods to develop a deeper understanding of the barriers facing diverse groups of students at individual institutions. The authors also noted that these types of analyses can be "powerful tools to develop a student-centered campus and to promote student success."

Citation

Yang, P. (2005, May). *A detour to success? Effect of four-year college transfer on degree completion*. Paper presented at the Annual Forum of Association for Institutional Research, San Diego, California.

Research Questions

Is there a difference in duration of undergraduate enrollment between college transfer students and non-transfer students?

Is there a difference of probability to obtain a bachelor's degree or degree of any kind for non-transfer students and upward, horizontal, and downward transfer students?

What are the determinants of the different types of college transfer?

What is the impact of the different type of transfer on length of undergraduate enrollment spell and degree completion?

Research Design

This study included t-tests, OLS models, and probit and logit regression techniques to study transfer pathways.

Findings

Race, SES, SAT/ACT scores, college TPS, major, and selectivity of initial institution of enrollment influence the decision to transfer. Transfer was related to graduation indirectly through prolonged enrollment. GPA, SAT/ACT scores, and selectivity of graduation institution were also associated with ultimate degree attainment.

Implications for Policy and Practice

The author viewed the transfer pathway as a “detour” rather than a “dead end” in pursuing a baccalaureate degree. Students who struggle academically or do not have a good “match” with one institution may be more successful elsewhere.

Citation

Zamani, E. M. (2001). Institutional responses to barriers to the transfer process. *New Directions for Community College, 114*, 15-24.

Research Questions

What barriers are associated with the transfer process?

How can institutions respond to these barriers?

Research Design

The chapter reviewed the literature on institutional barriers to transfer. No new study was examined.

Findings

The literature reviewed in this chapter indicated that only small percentages of community college students achieve associate's degrees, transfer to four-year institutions, and/or persist to the bachelor's degree. The chapter reviewed innovative programs and policies that were effective in reviving the transfer function within community colleges.

Implications for Policy and Practice

The author stressed that two-year and four-year institutions must work together to be responsive to transfer student needs. Based on the successes of innovative programs reviewed in the chapter, the author suggested establishing cooperative admissions agreements, extending outreach activities, clarifying articulation agreements, and hosting transfer informational sessions.

Citation

Zhu, L. (2005). Transfer students' persistence and contribution to college graduation rate: A case of four-year public institution. Retrieved from <http://www.eric.ed.gov/PDFS/ED491042.pdf>

Research Questions

Who are the transfer students?

What are the differences between transfers from two-year colleges and four-year institutions?

What factors impact transfer students' degree attainment?

Research Design

The characteristics of transfer students were examined with descriptive methods and statistical comparisons. Data on 906 students from a fall 2002 transfer cohort were examined.

Findings

Descriptive analysis showed that students in the transfer cohort were more likely to be female and Caucasian. There was no significant difference in the average transferable credit hour and transfer GPA between students who transferred from two-year institutions and students who transferred from four-year institutions. The number of transferred hours was a significant factor in receiving a bachelor's degree. Two-year college transfer with a prior degree (e.g., AA) appeared to be more likely to stay on track to achieve the bachelor's degree as well.

Implications for Policy and Practice

The author recommended incorporating alumni survey data when studying transfer students to compare outcomes for native and transfer graduates following baccalaureate degree completion.