Student-Faculty Interaction Benchmark

Borglum, K., & Kubala, T. (2000). Academic and social integration of community college students: A case study. *Community College Journal of Research and Practice, 24*(7), 567-576.

Cejda, B. D, & Hoover, R. E. (2010). Strategies for faculty-student engagement: How community college faculty engage Latino students. *Community College Review, 29*(1), 35-57.

Corso, J., & Devine, J. (2013). Student technology mentors: A community college success story. *Community College Enterprise, 19*(2), 9-21.

Duggan, M. H., & Williams, M. R. (2010). Community college student success courses: The student perspective. *Community College Journal of Research and Practice, 35*(1-2), 121-134. doi: 10.1080/10668926.2011.525185

Hagedorn, L. S., Maxwell, W., Rodriguez, P., Hocevar, D., & Fillpot, J. (2010). Peer and student-faculty relations in community colleges. *Community College Journal of Research and Practice, 24*(7), 587-598. doi: 10.1080/10668920050139730

Jaafar, R., Toce, A., & Polnariev, B. A. (2016). A multidimensional approach to overcoming challenges in leading community college math tutoring success. *Community College Journal of Research and Practice, 40*(6), 534-549. doi: 10.1080/10668926.2015.102140

Lundberg, C. A. (2014). Peers and faculty as predictors of learning for community college students. *Community College Review, 42*(2), 79-98. doi: 10.1177/0091552113517931

Myers, B., Starobin, S. S., Chen, Y. A., Baul, T., & Kollasch, A. (2015). Predicting community college student's intention to transfer and major in STEM: Does student engagement matter?. *Community College Journal of Research and Practice, 39*(4), 344-354. doi: 10.1080/10668926.2014.981896

Nakajima, N. A., Dembo, M. H., & Mossler, R. (2012). Student persistence in community colleges. *Community College Journal of Research and Practice, 36*(8), 591-613. doi: 10.1080/10668920903054931

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Strayhorn, T. L., & Johnson, R. M. (2014). Black female community college students' satisfaction: A national regression analysis. *Community College Journal of Research and Practice, 38*(6), 534-550. doi: 10.1080/10668926.2013.866060

Swigart, T. E., & Murrell, P. H. (2001). Factors influencing estimates of gains made among African-American and Caucasian community college students. *Community College Journal of Research and Practice, 25*(4), 297-312. doi: 10.1080/106689201750122406

Thompson, M. D. (2001). Informal student-faculty interaction: its relationship to educational gains in science and mathematics among community college students. *Community College Review, 29*(1), 35-57. Doi: 10.1177/009155210102900103

Tovar, E. (2015). The role of faculty, counselors, and support programs on Latino/a community college students' success and intent to persist. *Community College Review, 43*(1), 46-71. doi: 10.1177/0091552114553788

Walker, T., Pearson, F., & Murrell, P. (2010). Quality of effort and career preparation differences between African American and White community college students. *Community College Journal of Research and Practice, 34*(9), 738-754. doi: 10.1080/10668920902917450

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Citation: Borglum, K. & Kubala, T. (2000). Academic and social integration of community college students: A case study. *Community College Journal of Research and Practice, 24*(7), 567-576. doi: 10.1080/10668920050139712

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 462

Population subgroup focus: N/A

Number of Institutions: 1 institution with 3 campuses

Survey: Valencia Community College's Enrolled Student Satisfaction Survey

Intervention: No

Transcript: No

Longitudinal: No

How were participating students selected: Cluster sample: a list of second-semester degree-seeking students

Randomized trial: N/A

Quasi-experimental study: Yes

Statistical method: Frequency distribution, ANOVAs

Outcome measures: Withdraw rates, academic and social integration, and academic skills (as measured by the computerized placement tests

Controlling for other variables: No

Statistics included: Significance, percentages

Qualitative Study: N/A

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

The authors of this study discuss methods in which Tinto's model of retention may be applied at two-year institutions. The authors correlated students' performance on Computer Placement Tests (CPT) with withdraw rates "to determine the association between background skill levels

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and withdrawal patterns. No correlation was found between academic and social integration and withdrawal rates. However, findings did show that the poorer the CPT [Algebra] performance, the more likely students were to withdraw from courses" (p. 567).

Hypotheses/Research Questions:

1. Are students who feel academically integrated more likely to succeed in courses than students who do not feel academically integrated?
2. Are students who feel socially integrated more likely to succeed in courses than students who do not feel socially integrated?
3. Are there differences in the academic skills of students who are successfully retained in courses?

Results:

- "Students' work schedules conflicted somewhat with their academic life. For example, 43% responded that there was some conflict between work and school…More than one half indicated that family responsibilities created very little conflict with school" (p. 572).
- "Sixty-seven percent [of students] indicated that their high school experience had prepared them well or at least adequately for community college" (p. 572).
- "Most students, 81%, reported attending the community college so they could prepare to transfer. A majority of students, 64%, indicated that they spent between 1 hour and 10 hours per week studying for their courses" (P. 572).
- Forty-eight percent of students "reported spending between 1 to 4 hours on campus, and 33% spent no additional time on campus and were on campus only during their scheduled class times" (p. 572-573).
- "Despite their awareness of them, more than one half of students had no involvement with campus activities or student organizations. Half of the students indicated that they would not like to spend more time on campus. Reasons given for not spending more time on campus were work or lack of interest" (p. 573).
- "Students seemed to be pleased with the instruction they were receiving: Almost 67% indicated that they were satisfied with the quality of instruction. Additionally, 57% indicated that they were satisfied with the availability of instructors. As for instructor attitude 84% reported being satisfied or very satisfied with the attitude of their instructors toward them. More than one half of the students reported having met with their instructors to discuss course-related material. Over one third met with faculty to discuss a problem, while more than one third met with faculty members to socialize informally" (p. 573).
- "Students reported mixed feelings about the services offered to them…more than one half had no opinion about the tutoring services offered" (p. 573).
- As for the social aspects of college, "54% of study respondents indicated that they did not care to engage in campus activities. In addition, 50% also indicated that they did not want to spend more time on campus…Forty-three percent were satisfied with the college's cultural programs, whereas 46% had no opinion" (p. 575).

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- “Survey results revealed that there was no correlation between academic or social integration and withdrawal rates. This could be due to the fact that second-semester students were surveyed” (p. 575).
- “Other findings indicated that the background skills with which students entered the community college had a significant relationship with the number of withdrawals” (p. 576).
- “Students with higher mean scores on the CPTA had no withdrawals, whereas many students with lower mean CPTA scores had one or more withdrawals (W, WF, WP). This seemed to indicate that the higher a student scored on the CPTA, the less likely he or she was to withdraw from courses. The total number of withdrawals also revealed that students who had lower mean scores on the CPTA, CPTI, or CPTW were also more likely to withdraw” (p. 576).
- “There also was a correlation of .521 between academic integration and social integration. This means that students who felt academically integrated also felt socially integrated as well” (p. 573).

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Citation: Cejda, B. D, & Hoover, R. E. (2010). Strategies for faculty-student engagement: How community college faculty engage Latino students. *Community College Review, 29*(1), 35-57.

Source Type: Peer-reviewed journal

Type of Research: Qualitative

Mixed Methods Study: N/A

Quantitative Study: N/A

Qualitative Study: Yes

N: 41 faculty members

Population subgroup focus: Latino students

Number of institutions: 3 community colleges

Grounded theory, case study, ethnography: Case study

Focus group or one-on-one interviews: 41 individual interviews

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"Student-faculty engagement has been identified as the best predictor of Latino student persistence. This study explores the strategies that community college faculty employ to engage Latino students. Findings indicate that knowledge, appreciation, and sensitivity to Hispanic cultures and an understanding of the preferred learning styles of Latino students are important considerations to establishing classroom environments that engage Latino students and, thus, facilitate their retention and academic success" (p. 135). "Virtually all of the faculty we spoke with share the perception that new faculty hires need to be aware of the nature of the community college, the students that attend the institution, and Hispanic culture" (p. 149).

Hypotheses/Research Questions:

4. What strategies do community college faculty use to engage Latino students in the classroom and thus facilitate their academic success?
5. Do community college faculty use the same strategies as 4-year faculty to create classroom environments that promote student engagement?

Results:

- "The community college faculty we interviewed stressed that 'culture matters,' and pointed to knowledge, appreciation, and sensitivity to Hispanic culture as the key component to successfully engaging Latino students" (p. 143).
- "A second cultural aspect that emerged from the transcripts was that of community—helpfulness, cooperation, and collaboration. Faculty participants explained that they

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often found Latino students would turn to each other for help rather than approach the instructor…A number of faculty members at [Rural Community College] and [Suburban Community College], areas with higher numbers of immigrant Latino families, spoke of the importance of earning the trust of Latino students as a prerequisite before students would take the step of asking for assistance" (p. 142-143).

- "The faculty we interviewed described Latino students as social learners…The faculty have observed that Latino students prefer to sit together in class and to work in small groups rather than as individuals…If they have a class assignment that requires them to interact with individuals or organizations, they prefer to do so in two or threes rather than by themselves. In short, Latino students have demonstrated a preference for cooperation and collaboration rather than individualism and competition" (p. 144).
- "Latino students have appreciated a high level of formative feedback and appreciate receiving feedback in a manner that is constructive and encouraging. The manner in which they receive feedback is also important, as a number of faculty have had Latino students explain that they prefer not to receive individual feedback from a professor in front of their classmates. In terms of summative evaluation, Latino students have valued professors who find reasons to recognize the accomplishments of the class as a whole. Even small celebrations are reported as highly effective motivational tools" (p. 144).
- "Latino students show a greater interest in learning when they are able to connect the class materials to their personal experiences. A number of faculty indicated that they used journals as a way to encourage students to relate course material to their personal lives. Journaling activities have been well received by Latino students and sharing information from their journals with each other serves as a mechanism to encourage active participation in the class" (p. 144).
- "When discussing higher-order cognitive processing, faculty stressed the preference of Latino students to active approaches to learning…The interviewees were quick to point out that while Latino students, in general, do not respond well to competition, they have thrived in classes where active learning techniques are followed by active evaluation strategies" (p. 145).
- "The faculty also observed that Latino students prefer application in a 'real world' setting. A number of faculty incorporate simulations, a capstone assignment, or field trips so that students can either demonstrate or view the application of the classroom to work or life situations" (p. 145).
- "In order to engage students in the classroom, some community college faculty have developed a student-faculty relationship to overcome the fact that some Latinos are wary of authority…Others spoke of engaging the student outside of the classroom in casual conversation or developing relationships by attending social or cultural activities and then extending that relationship into the classroom and academic matters. Latino students have responded positively to personal attention and, once a relationship is developed, value one-on-one time with faculty" (p. 146).
- "The faculty we spoke with…[stressed] that creating a learning community facilitates the academic success of all students. How have the individuals we interviewed created such environments? They have been patient, used humor, and let the students know that mistakes were okay. As many community college students have a low level of self-

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esteem, they have worked to build their confidence through frequent feedback and encouragement" (p. 146).

- "Creating a supportive learning community does not mean that faculty must lower standards or expectations. Rather, many of the faculty related that they have initiated learning communities through frank discussions that emphasize standards and expectations…In terms of Latino students, a number of faculty members emphasized the importance of being flexible with time in order to create learning communities…Interviews also indicated that faculty provide opportunities for students to interact with each other at the beginning, during, or at the end of the class session. These individuals indicate that such practice provides for the Latino cultural aspect of turning to each other for help, but also provides the opportunity for a group to ask the faculty member a question" (p. 147).
- "Faculty also expressed a great deal of attention to creating learning communities that focus on success. They have been careful to not call on Latino students in class if they have perceived that doing so makes them uncomfortable. They have been nonconfrontational in evaluating student work, focusing on suggestions for improvement rather than elaborating on shortcomings. If language is a problem, they have utilized interpreters. Several reported exhaustively searching for texts and other learning resources in the native language of the student and allowing them to speak or write in their primary language. Many have incorporated peer tutoring or study groups to provide supplementary instruction" (p. 147).
- "Community college faculty who have facilitated the academic success of Latino students point to the importance of gaining some knowledge and sensitivity to Hispanic cultures. Some faculty sponsored student clubs or organizations or attended and celebrated Hispanic events with the students. Many encouraged students to share their culture in classroom assignments and discussion. When warranted, they stressed cultural relevance to the course content. Recognizing that Latinos value the community rather than the individual, a significant number of faculty have also incorporated community issues or focus on matters of social justice to apply abstract theory and classroom learning to practical real-life and work applications" (p. 148).
- "Community college faculty who were identified as facilitating the academic success of Latino students reported that they do not do anything 'different,' specifically for Latino students. They have, however, recognized that students enrolled in their classes will have a variety of cultural experiences and learning style preferences" (p. 150).
- "Although faculty leadership is important, faculty working alone will not be able to sustain an ongoing professional development agenda. Community colleges that have an interest in student engagement and success need to develop a culture of caring and support on their campus. It is important for the administration to work with faculty to develop a series of structured professional development seminars that help faculty and student affairs professionals better understand the cultures of historically underrepresented students and how culture impacts preferred learning styles" (p. 149).

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Citation: Corso, J., & Devine, J. (2013). Student technology mentors: A community college success story. *Community College Enterprise, 19*(2), 9-21.

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Qualitative Study:

N: Not reported

Population subgroup focus: N/A

Number of institutions: 1

Survey: Researcher-designed survey

Intervention: N/A

Transcript: No

Longitudinal: No

How were participating students selected: Survey participants were also participants in the Student Technology Mentor program

Randomized trial: N/A

Quasi-experimental study: N/A

Statistical method: Survey

Outcome measures: Instructional support for faculty, staff, and students; technology skills; student work experience and internship opportunities

Controlling for other variables: N/A

Statistics included: Percentages

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

The LaGuardia Community College Student Technology Mentor (STM) program demonstrates how a college's own students can become resources for the technology development of faculty, the improvement of teaching tools, and the expansion of library services. The program also illustrates how the Student Technology Mentors themselves benefit from campus employment, interaction with teaching faculty, and the community of peers that the service creates. These benefits are manifested in comparatively higher retention and graduation rates for those in the program as compared with other students of equal qualifications" (p. 9).

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Hypotheses/Research Questions:

- This study reviews the establishment and achievements of the Student Technology Mentor program, an initiative of LaGuardia Community College's Center for Teaching and Learning created in 2000.

Results:

- "A survey of LaGuardia librarians conducted by the STM program in 2010 indicates that STMs are highly valued and serve a need in the library classes. They help offset student apprehension of database searches and save time for the librarian/instructor and for students when the need arises to help a student or troubleshoot a technical program" (p. 15).
- "In [a] survey of the STMs, 93.5% of those responding indicated that they had learned about other cultures through their working relationships with fellow STMs, other students, and faculty, with 74% indicating that group discussions about their culture had helped them to learn more about each other. Among those surveyed, there was unanimous agreement that the STM program had provided them with a sense of community and helped them to become comfortable working collaboratively with others" (p. 16).
- "Faculty were asked on a 2011 survey to rate STM technology skills: 75% of faculty responding rated STM skills as 'excellent,' while another 17.5% rated their skill levels as 'very good.' Commenting on STM classroom instructional support, faculty indicated the quality of service as 'excellent' and student interaction as 'positive and supportive' and 'very helpful and accommodating'" (p. 17).
- "Students in the STM program graduated at a 16% higher rate; had comparable GPAs upon graduation; and transferred to senior colleges at a rate of 6.5% higher than the general college population" (p. 17).
- "The [STM] program has helped [participants]: build technology skills and skills for lifelong learning; improve interpersonal and communication skills; build self-confidence; connect with a community of learners, students in other majors, and college faculty and staff; develop new perceptions of faculty and forge new relationships with faculty; work on campus; learn to respect and interact with diverse cultures; and, maintain academic success" (p. 18-19).

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Citation: Duggan, M. H., & Williams, M. R. (2010). Community college student success courses: The student perspective. *Community College Journal of Research and Practice, 35*(1-2), 121-134. doi: 10.1080/10668926.2011.525185

Source Type: Peer-reviewed journal

Type of Research: Qualitative

Mixed Methods Study: N/A

Qualitative Study: Yes

N: 60

Population subgroup focus: N/A

Number of institutions: 10

Grounded theory, Case study, Ethnography: Case study

Focus group or one-on-one interviews: One-on-one interviews

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"This study explores student success courses from the student perspective to answer three questions: What topics do students find the most useful? What teaching methods do the students find most helpful? How can these courses be customized to better serve the students? The purpose of this study is to interview students from a number of community colleges, exploring these topics from the student perspective with the goal of orientation course enhancement. Although students reported the skills and information provided in these orientations [sic] classes to be useful, the usefulness of specific topics varied according to the precollege preparation of each student. The authors offer suggestions for creating specialized orientation programs and courses to fit the needs of the diverse community college population" (p. 121).

Hypotheses/Research Questions:

1. What topics do students find the most useful?
2. What teaching methods do the students find most helpful?
3. How can these courses be customized to better serve the students?

Results:

- "Initial memories of [students'] orientation/student success course varied greatly. Most students referred to the course as a 'great experience,' remembering 'fun activities like setting goals and where I see myself in five years,' reporting they 'learned a lot about the campus' and received 'good tips on studying.' One student voiced it was 'daunting to me to be in any college. The course was somewhat calming, but at times it made me more

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intimidated.' Another student stated, 'Others needed the course more than I did. I'm not sure it was worthwhile for me, but I learned one credit for very little work'" (p. 124-125).

- "Several students reported the course provided opportunities to meet faculty in their chosen field along with other students in their program. Some of the information provided was 'common sense' for freshmen, including how to dress for job interviews and help with writing papers, obtaining tutoring for math, and learning how to use technology, referred to as 'real world' skills" (p. 125).
- "A few students reported career research being the most useful part of the course. Another cited the online career/majors assessment because it 'showed you the many options out there, ones that I didn't even know about'" (p. 125).
- "Overall, students reported their orientation course having well prepared them for college. The course 'gave [them] an idea of how to approach certain tasks such as research and which teachers and professionals could assist [them] in answering' their questions…A few students, however, voiced some negatives regarding the course, calling it a 'waste of time and money' as they were already prepared for college" (p. 126).
- "Students reported most often using the information about colleges clubs and organizations; balancing between home, work, and school; blackboard training; time management; and organizational skills…Academic skills were the next most popular with students using study skills, note-taking, and test-taking skills…Increased engagement with the institution was also cited as students reported becoming more involved in student organizations and clubs" (p. 126).
- "Students learned to balance their academics with family, work, and social life. Few made academic adjustments, citing time management as being a key component" (p. 127).
- "While many students were pleased with the topics covered in the course, others offered suggestions of additional items for inclusion. Most students reported receiving information on employability skills, job search, resume writing, and job choice; students not receiving such information wanted it included. One student wanted to know how to use college experience to obtain a job or a better job. Another student asked for additional information on transfer" (p. 128).

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Citation: Hagedorn, L. S., Maxwell, W., Rodriguez, P., Hocevar, D., & Fillpot, J. (2000). Peer and student-faculty relations in community colleges. *Community College Journal of Research and Practice, 24*(7), 587-598. doi: 10.1080/10668920050139730

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 1,359 students for the first survey; 744 students for the second survey. Ultimately, 179 male students and 269 female students; total n=448

Population subgroup focus: N/A

Number of Institutions: 1

Survey: No specific survey name; it was a classroom survey that asked demographic questions and questions about educational attitudes. Another survey instrument was administered later in the semester; this survey measured social integration variables.

Intervention: No

Transcript: No

Longitudinal: No

How were participating students selected: Surveys were "administered to 1359 students enrolled in a variety of general education courses" (p. 591)

Randomized trial: No

Quasi-experimental study: Yes

Statistical method: MANCOVA/ANCOVA and Discriminant Function

Outcome measures: student-student relationships, student-faculty relationships, and participation in activities and student organizations

Controlling for other variables: Age, parent education, financial burden of college, full-time status, academic habits (reverse coded), have job, intend to transfer, number of dependent children

Statistics included: MANCOVA, "Corrected" mean, standard deviation, *F*, eta-squared, standardized discriminant function coefficients, chi-square, *p*-values, Eigenvalues

Qualitative Study: N/A

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Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

This study seeks to identify differences between male and female community college students in relation to their peer and student-faculty relationships. The results from the study were derived after using a two-phase analysis. The authors applied a MANCOVA in the first phase of the study in order to determine if there were differences between male and females across multiple factors. The second phase involved applying a descriptive discriminant analysis in order to determine how and in which factors males and females differ the most.

Hypotheses/Research Questions:

1. Do the peer relationships of community college students differ by gender?
2. Do the faculty-student relationships of community college students differ by gender?

Results:

- A two-phase analysis was used. "In the first phase, [the researchers] identified the significant factors on which male and female participants differed and applied a MANCOVA to test for differences between male and female participants across multiple factors while controlling for background and other variables. In the second phase, we applied a descriptive discriminant analysis to answer the following questions: Where or how do males and females most differ" (p. 592)?
- "Two somewhat conflicting interpretations may be suggested for [the] findings. Our first interpretation, based on the low means and variabilities in the data, is that the students at the community college in this study were rarely involved in social relations outside of the classroom, regardless [of] gender. Our second possible interpretation suggests that researchers have used the wrong measures in their studies of social involvement in community colleges" (p. 595).

Phase One:

- "The simple univariate frequency distributions revealed a pattern of generally low rates of contact with faculty members outside of the classroom for most of the students in the study. With so little variance in most of these measures, there was little possibility of gender differences" (p. 592-593).
- Among male and female students surveyed, about 20% of students shared and discussed their personal concerns with an instructor.
- Concerning discussions of career matters and informal socialization with instructors, at least 80% of students had not discussed either topic with an instructor. The authors note "that any differences between male and female students were muted by an environment in which student-faculty contact is perceived to be quite low" (p. 593). However, 85% of students surveyed, including both males and females, noted that they believed their instructors to be good teachers.
- Compared with male students, five percent more of females noted that they found it easy to "have close relations with faculty" and were, also, "satisfied with student-faculty

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relations" (p. 593). The authors also note that, compared with male students, 9% more of females "discussed career matters with faculty members at least occasionally" (p. 593).

- "Significant differences were found in the univariate ANCOVAs for six of the variables. Male students reported participating more often in college activities. Female students, on the other hand, reported having less difficulty meeting and making friends than male students, and they studied more often with other students. As the student-faculty interaction variables, female students more often discussed their career plans with faculty members, found it easier to develop close relations with faculty members, and reported higher levels of satisfaction with student-faculty relations" (p. 593-594).

Phase Two:

- The effect sizes from Phase 1 that indicate that while there were statistically significant gender differences, there were small. The authors posit that this sample of community college students "displayed a pattern of greater involvement by female students in informal relations while male students were more involved in formal social relations" (p. 594).
- The authors did not find any appreciable coefficients related to off-campus social roles between students and faculty. The authors note that other variables concerning off-campus roles "[suggest] that male students were more likely than female students to have a job and to be from families in which the parents had middle or higher levels of education, whereas female students were slightly more likely to be living with dependent children and to have higher scores on an index of motivation for academic performance in their courses" (p. 594-595).
- "One discriminant function was extracted. The resulting Eigenvalue was .181, the canonical correlation was .392 and 67.6% of the sample was correctly classified. Gender differences accounted for 15.3% of the variability of the scores of the discriminant function" (p. 594).

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Citation: Jaafar, R., Toce, A., & Polnariev, B. A. (2016). A multidimensional approach to overcoming challenges in leading community college math tutoring success. *Community College Journal of Research and Practice, 40*(6), 534-549. doi: 10.1080/10668926.2015.1021406

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: For Fall 2013: 600 students; for Fall 2014: 1,238 students

Population subgroup focus: N/A

Number of Institutions: 1

Survey: N/A

Intervention: N/A

Transcript: N/A

Longitudinal: Yes (tracked students in math outcomes to their next semester)

How were participating students selected: Sample was selected from total number of students who visited the Mathematics Learning Center for tutoring. No details provided about how the students were selected for inclusion in the analyses.

Randomized trial: N/A

Quasi-experimental study: Yes

Statistical method: Weighted cell matching using cumulative GPA and earned credits to match "treatment" and "control" students.

Outcome measures: Percent passing math course with a grade of B or better or a grade of C or better. Grades were checked for the semester following the tutoring experience. Comparison group was selected from students taking particular math courses that same semester.

Controlling for other variables: N/A

Statistics included: Mean, standard deviation, percentages

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

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"The United States lags behind many countries in mathematics proficiency. Quite often, students after graduating from high school are not prepared to enter college and are required to take remedial courses before taking credit-bearing math courses. This is particularly true at two-year institutions such as LaGuardia Community College, which provides the opportunity for students from a diverse background to attend college and earn a degree. Our college has created numerous initiatives to support the least prepared students. Our Mathematics Learning Center offers support for courses ranging from remedial mathematics through calculus and differential equations. In recent semesters, the mathematics department decided to dedicate a select group of faculty members to identify new ways of improving services at the center. In this paper, we argue for the need to give faculty a central role in assessing and devising appropriate policies for running a tutoring center. We discuss several challenges and solutions that would provide a multidimensional approach to students' education experience at a public two-year urban college" (p. 534).

Hypotheses/Research Questions:

- None listed

Results:

- Students' results for fall 2013: "In the majority of courses, a higher percentage of students achieved a grade of B or higher (or C or higher) compared with the overall percentage for all students enrolled in a particular course. We tracked the cohort of students…and we found that 45% of them took a mathematics course the following semester. Out of those, 26.4% took a remedial mathematics course (25% enrolled in Remedial 2 and 1.4% repeated Remedial 1)" (p. 540).
- Fall 2013: "Over a third of students in each case achieved a grade of B or higher. Over 50% in college level courses pass with a grade of C or higher. Students' grades are in line with the percentage of students passing gateway mathematics courses with C or better (such as college algebra, statistics and precalculus). The passing rates in the second remedial course are also at par with the college-wide passing rates. Survey results stated earlier show that a majority of our students (65%) would 'come back to MLC to seek tutoring.' Moving forward, we plan to send surveys at the end of every semester to both students and tutors to identify issues and challenges" (p. 541).
- Students' results for fall 2014: "Data collected using [the Student Engagement Management System] indicated that a total of 1,238 students made 2,919 visits to the MLC during fall 2014. The number of visits per student varied from one to 18. Of the 1,238, 29% came three or more times. Forty-four percent of students came for help in either remedial mathematics or statistics" (p. 541).
- "MLC visitors had an average grade in their math courses 33% higher than students in a control group. The control group was selected such that each student in the MLC visiting group was matched against students in his or her course section within the same initial cumulative grade point average (GPA) range and within the same range of earned credits. This difference was statistically significant. No attempt was made to design an experiment that isolated the effects of the MLC visit alone by randomly selecting students. The beneficial measured effect should be considered a joint product of the

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students' motivation and the benefit of visiting the lab for tutoring. Nevertheless, the method did remove many of the nonvisit effects by matching students on cumulative GPA and credits earned levels (freshmen were matched only against freshmen, for example). By matching students within sections, effects of different courses, levels, and faculty were also controlled. That is, students visiting the math lab had a higher course grade than students within the same course section with the same faculty member, having about the same previous GPA, and about the same number of earned credits" (p. 541).

- "Out of the 1,238 students, we had a treatment group of 599 and a control group of 1,843 when matched by section. For that case, there is 33% grade improvement for the MLC visitors. Even when matched by course only, students who visited the MLC have an average grade 19% higher than the students in the control group. Furthermore, a higher percentage of students who attended the MLC during fall 2014 achieved a grade of B or higher, and a small percentage obtained a grade of F when matched against a similar control group. Almost no visitors withdrew from their classes" (p. 541-542).

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Citation: Lundberg, C. A. (2014). Peers and faculty as predictors of learning for community college students. *Community College Review, 42*(2), 79-98. doi: 10.1177/0091552113517931

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 239

Population subgroup focus: N/A

Number of Institutions: 12

Survey: Community College Student Experiences Questionnaire (CCSEQ)

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: "Participants were members of nominated organizations who were present at a meeting when the survey was administered" (p. 86).

Randomized trial: N/A

Quasi-experimental study: N/A

Statistical method: Multiple linear regression

Outcome measures: General education, intellectual skills, science and technology, personal development, and career preparation

Controlling for other variables: N/A

Statistics included: *b*, *p*, R^2, *F*

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"This study tested the extent to which student interaction with faculty, student peer teaching situations, student organization involvement, and discussion with diverse others contributed to self-reported learning for students involved in an ethnic-specific or multicultural student organization. The Community College Student Experiences Questionnaire (CCSEQ) was used to collect data from 239 students who were involved in an ethnic-specific or multicultural student organization at 1 of 12 different community colleges. Self-reported learning was reported in the

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following domains: general education, intellectual skills, science and technology, personal development, and career preparation. For each of the five learning outcomes, frequent interaction with faculty was the strongest predictor in the model. Engagement with peers contributed to most outcomes, but not as strongly as student-faculty interaction. Thus, the study extend the contribution of faculty interaction to the arena outside the classroom and suggests further research about the ways student-faculty interaction benefits students at the community college level" (p. 79).

Hypotheses/Research Questions:

- "The current study tested the extent to which faculty interaction, peer teaching, student organization involvement, and discussion with diverse others contributed to self-reported learning for students involved in at least one ethnic-specific or multicultural student organization" (p. 80).

Results:

- "For each of the five learning outcomes, frequent interaction with faculty was the strongest predictor in the model. It predicted gains in general education (*b*=.249, *p*<.001), intellectual skills (*b*=.299, *p*<.001), science and technology (*b*=.343, *p*<.001), personal development (*b*=.332, *p*<.001), and career preparation (*b*=.362, *p*<.001)" (p. 88).
- "The three variables measuring engagement with peers were weaker predictors than frequent interaction with faculty, but each contributed to most outcomes. Peer teaching contributed positively to gains in science and technology (*b*=.259, *p*<.001), intellectual skills (*b*=.127, *p*<.05). Frequency of participation in a student organization contributed positively to gains in personal development (*b*=.191, *p*<.01), intellectual skills (*b*=.178, *p*<.01), career preparation (*b*=.142, *p*<.05), and general education (*b*=.127, *p*<.05). Discussing ideas with diverse others contributed only to gains in general education (*b*=.228, *p*<.01). Interacting with diverse acquaintance contributed substantially to gains in general education (*b*=.228, *p*<.01), but not to the other outcomes" (p. 88).
- "The only student background characteristic that made a significant contribution to learning was non-native English speaker, which made a positive contribution to gains in science and technology (*b*=.227, *p*<.001) and contributed to 5% to the total variance explained by the model. Students' perception that administrative staff were helpful contributed to gains in general education (*b*=.173, *p*<.01) and intellectual skills (*b*=.126, *p*<.05). Perceptions that instructors were approachable, helpful, and supportive contributed to gains in career preparation (*b*=.182, *p*<.01). Each of these institutional characteristics contributed to gains in career preparation (*b*=.182, *p*<.01). Each of these institutional characteristics contributed 7% or less to the total variance explained by the model" (p. 88).
- "In summary, the measures of engagement contributed the most to the variance, ranging from 30% (for general education) to 18% (for personal development). Student and institutional characteristics contributed much less to the variance (from 0% for personal development to 6% for general education)" (p. 88).

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Citation: Myers, B., Starobin, S. S., Chen, Y. A., Baul, T., & Kollasch, A. (2015). Predicting community college student's intention to transfer and major in STEM: Does student engagement matter? *Community College Journal of Research and Practice, 39*(4), 344-354. doi: 10.1080/10668926.2014.981896

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 5140

Population subgroup focus: N/A

Number of Institutions: 15

Survey: STEM Student Success Literacy Survey

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: The researchers "excluded students who were in remedial courses, late start/late enroll courses, noncredit courses, high school dual-enrollment courses, freshman seminar courses, lower-level ESL (English as a second language) courses, independent study courses, individual instruction courses (example: piano lessons), and distance education courses" (p. 346).

Randomized trial: N/A

Quasi-experimental study: N/A

Statistical method: Binary logistic regression analysis

Outcome measures: Transfer engagement, faculty engagement on coursework, faculty staff encouragement or assistance, and peer engagement

Controlling for other variables: N/A

Statistics included: Exploratory factor analysis, Cronbach's alpha, confirmatory factor analysis, full information maximum likelihood estimation imputation, goodness-of-fit index, Bentler's comparative fit index, root mean square error of approximation, alpha reliability coefficient, -2 Log Likelihood, and Hosmer & Lemeshow test

Implementation Studies: N/A

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Summary of Study and Findings/Conclusions:

"This study examined the influence of community college students' engagement on their intention to transfer and major in a STEM (science, technology, engineering, and math) field. The STEM Student Success Literacy Survey was used to collect data among all 15 community colleges in Iowa. The authors developed a measurement model for community college student engagement and used the model to predict students' intention to transfer and major in STEM fields. The engagement measurement model consisted of four constructs: peer engagement, transfer engagement, faculty/staff encouragement/assistance, and faculty engagement on coursework. To predict the students' intention, the logistic regression analysis was employed. The results suggest that students' demographic and background characteristics contributed to predict their STEM aspirations. The study was concluded by implications for policy, practice, and future research" (p. 344).

Hypotheses/Research Questions:

1. How can student engagement constructs be measured?
2. To what extent do student demographics and student engagement levels predict students' intention to major in STEM fields through transfer?

Results:

- "The descriptive results exhibit a number of similarities between two groups of students: all students who responded to the survey and a subset of students who indicated their STEM aspiration. For example, the majority of students in both groups were female, between 18 and 24 years of age and White/Caucasian" (p. 347).
- "Four engagement constructs emerged by EFA [exploratory factor analysis] and were confirmed by CFA: transfer engagement, faculty engagement on coursework, faculty/staff encouragement/assistance, and peer engagement. According to the EFA results, the four constructs consisted of three to six variables with factor loadings between .500 and .844. The constructs produced alpha reliability coefficients between *a*=.691 and *a*=.834. The four engagement constructs were then entered into a confirmatory factor analysis" (p. 347).
- "For the logistic regression, 34 independent variables were entered into the binary logistic regression analysis in five blocks. Nine variables that produced statistically significant results at the $p \leq .05$ level were retained in the final model as predictors of students' intention to transfer and major in a STEM field. The results of the chi-square analysis, -2 Log Likelihood, and Hosmer & Lemeshow test indicated that the model is statistically significantly reliable in distinguishing between students with STEM aspirations and those students without STEM aspirations" (p. 349).
- "The variable Level of Science Completed ($p < .001$) indicated that students who completed more science are 1.75 times more likely to have STEM aspirations than students who completed few science courses. Students who indicated that they had completed more math courses ($p < .001$) are 1.56 times more likely than students who completed few math courses to have STEM aspirations. The variable Native Language ($p < .005$) revealed that students whose native language is not English are more likely to

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have STEM aspirations than students who indicated that English is their native language. The variable Age ($p < .005$) indicated that older students are 1.28 times more likely than younger students to possess STEM aspirations. Students who indicated that their gender ($p < .001$) is male are more likely than female students to respond that they have STEM aspirations. The variable Concern for Finances ($p < .05$) indicated that students who are more concerned with financing their education are 1.12 times more likely to have STEM aspirations than those students who have few concerns for financing their education. Students who indicated that they work very few hours per week ($p < .01$) are more likely to have STEM aspirations than students who frequently work at a job for pay. The variable Highest Desired Degree ($p < .001$) revealed that students who would like to complete a higher degree are…1.22 times more likely than students who do not intend to complete a higher degree to have STEM aspirations. Students who indicated that they have transfer intentions ($p = .001$) are 4.31 times more likely to have STEM aspirations than those students who do not intend to transfer" (p. 349-350).

- "The results of the logistic regression analysis for STEM aspirations confirmed what previous literature suggested: that male students, whose native language is not English, who excel in science and math, and have high degree aspirations are more likely to have STEM aspirations" (p. 350).

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Citation: Nakajima, N. A., Dembo, M. H., & Mossler, R. (2012). Student persistence in community colleges. *Community College Journal of Research and Practice, 36*(8), 591-613. doi: 10.1080/10668920903054931

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 427

Population subgroup focus: N/A

Number of Institutions: 1

Survey: Institutional Integration Sale (IIS), College Self-Efficacy Inventory (CSEI), and the Career Decision Scale (CDS)

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: Random selection

Randomized trial: N/A

Quasi-experimental study: N/A

Statistical method: Cronbach's alpha, intercorrelations, multivariate analysis

Outcome measures: Student retention

Controlling for other variables: Not mentioned

Statistics included: Differential concurrent, predictive validity, r, p value, t value, X^2, mean, standard deviation

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"The current study extends the research on student persistence in community colleges by investigating factors likely to influence a student's decision to drop out or stay in school. Specifically, this study examined demographic, financial, academic, academic integration, and psychosocial variables and their relationship to student persistence. A sample of 427 community college students completed a 63-item survey assessing psychosocial variables (i.e., self-

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efficacy and goals) the academic integration variable (i.e., student-faculty interaction), and a number of background variables (i.e., demographic, financial, and academic). In addition, student retention was measured through college enrollment the following semester. Results of the study revealed that age, work hours, and financial aid influenced student persistence, but the effects diminished once multiple variables were entered into the analysis. Among all the variables, cumulative GPA was the strongest predicting variable for student persistence. Students who had higher cumulative GPAs were twice as likely to stay in college. In addition to cumulative GPA, both enrollment units and English proficiency were predicting factors. However, contrary to expectations, none of the academic integration or psychosocial variables was predictors of student persistence. Nonetheless, the study also revealed that almost all of the variables interrelate with one another. Both goals and self-efficacy were significantly correlated with cumulative GPA, which, in turn, predicted student persistence. Faculty-student interaction was also significantly correlated with enrollment units, which, in turn, predicted student persistence. Therefore, the results indicated the importance of investigating multiple factors in the effort to solve the problem of student persistence in community college" (p. 591).

Hypotheses/Research Questions:

1. What background variables, financial variables, and academic variables influence students' persistence in community college education?
2. Do academic integration and psychosocial variables influence student persistence?

Results:

- "Among the background variables, simple independent t-tests revealed that age and high school graduation year influenced student persistence in community college students. Students who persisted were younger (M=24.12, SD=8.198) compared to those who did not persist (M=26.23, SD=8.480); t(370)=2.127; and p=.046. In addition, students who graduated from high school in 2004 or earlier (28.7%), students who passed the GED test (33.3%), and students who never graduated from high school (28.6%), had the most nonpersisting rate compared to the students who graduated in 2005 or later, X^2=(5, N=381)=17.129, p=.004" (p. 601).
- "Among financial variables, receipt of financial aid, off-campus work hours, and total work hours influenced student persistence. Eighty-five percent of students who received financial aid persisted compared to 73% of those who did not receive any financial aid, X^2=(2, N=375)=10.525, p=.003. In addition, those who worked more hours did not persist (M=27.43, SD=17.936) compared to the persisters, who worked fewer hours off campus (M=19.41, SD=17.467); t(371)=3.689; and p<.001. Therefore, the more hours students worked off-campus, the less likely they were going to persist" (p. 602).
- "Among academic variables, those who attempted more number of units (M=34.82), SD=26.977) persisted compared to the nonpersisters, who attempted fewer units (M=26.72, SD=29.899); t(366)=-2.246; and p=.025. Similarly, those who completed a higher number of units (M=3.36, SD=26.977) persisted compared to the nonpersisters, who completed fewer units (M=25.15; SD=29.900); t(366)=-2.218; and p=.027. Furthermore, those who were enrolled in more units during the semester (M=10.18, SD=4.502) persisted compared to the nonpersisters, who were enrolled in less (M=7.31,

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SD=3.941); t(366)=-5.025; and p=.001. Persisters also had higher cumulative GPA (M=2.69, SD=.900) compared to the nonpersisters (M=2.31, SD=1.164); t(365)=-2.559; and p=.012. Lastly, students who did not persist indicated lack of English proficiency (M=4.24, SD=1.224) compared to students who persisted (M=4.52, SD=.822); t(379) 2.455; and p=.015" (p. 602).

- "Does academic integration and psychosocial variables influence student persistence? Simple univariate analysis of the data revealed that only faculty concern influenced student persistence in community college education. Students who persisted had slightly higher score of faculty concern (M=3.55, SD=.710) compared to the nonpersisting students (M=3.36, SD=.782); t(379)=-2.168; and p=.031. None of the other variables were found to be significantly associated with student persistence" (p. 602).
- "The findings from this study show that cumulative GPA was the strongest predictor of student persistence, and its effect did not diminish when other variables were entered into the model. The results clearly showed that students were twice as likely to persist when their cumulative GPA increased by one standard deviation" (p. 603).
- "The number of units enrolled was also a significant predictor of student persistence in this study. Results from this study showed that 70.8% of the students who did not persist were enrolled in the college part-time compared to 29.2% of dropouts who were enrolled full-time (X^x=13.685, df=1, and p<.001)" (p. 603).
- "English proficiency was another predicting element of student retention in this study, and the effect did not disappear when logistic regression analysis was conducted…For all other background variables, age, high school graduation year, work hours, and financial aid had direct influence on student persistence when measured by themselves; but the effect disappeared once other variables were entered" (p. 604).
- "In addition, work hours were directly related to student persistence. Students who did not persist in their college education worked significantly more hours compared to students who persisted" (p. 604).
- "Contrary to previous research, there was no direct relationship between faculty interaction and student persistence. This means that students in this sample who had increased faculty interaction did not persist in their college education more than those who did not have interactions. On the other hand, faculty concern was a significant predictor of student persistence in this study. Students who felt that faculty members genuinely cared about them were more likely to persist in their college education compared to students who did not feel that way" (p. 605).
- "Contrary to predictions and prior research studies, the psychosocial variables did not present direct association with student persistence for this study. In this study, students who had career goals did not necessarily persist in their college education compared to students who did not have goals. Similarly, students who had higher levels of self-efficacy did not necessarily persist compared to those students who had low levels of self-efficacy" (p. 606).

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Citation: O'Gara, L., Karp, M. M., & Hughes, K. L. (2009). Student success courses in the community college: An exploratory study of student perspectives. *Community College Review, 36*(3), 195-218. doi: 10.1177/0091552108327186

Source Type: Peer-reviewed journal

Type of Research: Qualitative

Mixed Methods Study: N/A

Qualitative Study: Yes

N: 44

Population subgroup focus: N/A

Number of institutions: 2

Grounded theory, Case study, Ethnography: Case study

Focus group or one-on-one interviews: One-on-one interviews

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"This study examines student success courses in two urban community colleges. Through analysis of student interview data, we find that such courses are an essential resource for students, in large part because the various benefits reinforce one another and magnify their influence. These benefits include learning about the college, classes, and study skills. In addition, students build important relationships with professors and peers" (p. 195).

Hypotheses/Research Questions:

"This base of quantitative work provides a promise picture of the influence these courses may have on student persistence and credential attainment. More quantitative work is necessary to establish a causal relationship between participation in student success courses and positive student outcomes. Yet what is lack as well is a qualitative exploration of these courses as seen through the eyes of the students themselves. Such explorations can help us understand how the particular course content lends itself to student support. The present study begins to build this qualitative body of knowledge. We sought to examine the institutional and personal factors that contribute to or hinder students' persistence in the community college. The student success course was initially just one of one of many areas explored in student interviews; however, it soon became apparent that the course was very important in influencing behaviors associated with persistence. Thus our findings on the student success course are emergent and inductive; additional research is needed" (p. 197-198).

Results:

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- “It became clear that the students generally found the [Student Success] course to be beneficial in a variety of ways: They gained information about the college, developed skills and techniques that could help them in their academic endeavors, and created important relationships. In addition, these benefits reinforced one another to bring about behaviors that supported persistence” (p. 204).
- “Students reported that the student success course was a convenient, one-stop location for receiving a variety of necessary information in a coherent way; this was in contrast to how they reported information was otherwise made available. Community colleges provide a wealth of information to students on wide-ranging topics including graduation requirements, course schedules, available support services, and student events and clubs. This information is made available through a variety of sources including advisors, professors, and printed materials such as fliers and course catalogs. Students reported, however, that many of these information sources were not well coordinated and were often difficult to access…Students who did find useful information described how they would encounter these information sources randomly, for example, from a flyer posted on a bulletin board or through an impromptu run-in with a professor or peer. This meant that they often did not get the information they needed in ways that were useful to them or at appropriate time in their educational trajectories. They did not appear to have a consistent and reliable source of information” (p. 204).
- Students in [the] sample reported that the student success course provided them with information about the services available at the college such as personal counseling, college advising, tutoring, transfer advising, and student activities. This course was an important avenue through which students became knowledgeable the resources available at the college. Students who did not take the college success course reported receiving information about college services through random interactions with professors, peers, and general college advisors. These interactions gave students some information about the resources available at the college, yet students did not receive a full picture of the services available. In addition, not all students experienced these interactions and were thus left without an understanding of the resources offered at the college” (p. 205).
- “Why was the student success course more effective in presenting this type of information than other sources? First, the course enabled students to engage in small and large group discussions and complete assignments that focused on institutional services…Second, class visits from various college representatives provided information to students…Finally, the student success course included guided tours to the various support services offices on campus…As a result of these activities, our analysis indicated that students who participated in the student success course generally knew more about available services and had more accurate information about these services than did the students who had nor enrolled in the class” (p. 205).
- “Students also found that information about course selection and graduation requirements gained through the student success course was more useful than the information gained through other avenues such as college advisors. Course advising for four-year students at the two colleges in our sample usually consisted of a short meeting with a college advisor prior to course registration. Students meet with whichever

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counselor was available, and if they had follow-up questions, they usually met with a different counselor. Students often reported feeling rushed during these meetings and said that the meetings rarely focused on long-term goals or planning. In addition, some students reported receiving contradictory or inaccurate information during this process" (p. 206).

- "The student success course appears to remedy some of the confusion students felt when using the general college advisors. Students in our sample reported receiving information and guidance regarding program planning and course selection in their student success course. This occurred through individual meetings with the college success professors, class presentations from general college advisors, and projects" (p. 206).
- "Students in [the] sample also reported that the college success course helped them develop time management and study skills they needed to be successful. This is critical in light of the fact that community college students often have many other commitments beside their studies such as taking care of family members or working full time" (p. 207).
- "Course activities helped students learn about and practice effective academic habits. During one course observation, for example, students were completing presentations on note-taking techniques. This helped the student presenters practice such techniques while teaching their peers about this useful skill. In another student presentation, students discussed good study habits, highlighting examples of how to study effectively, such as by forming study groups" (p. 208).
- "Several students described how the student success course helped them forge relationships with their peers and professors. These relationships are hypothesized to be particularly important, because they can help students integrate into the social and academic fabric of the school, thereby encouraging them to persist to a degree (Tinto, 1993). It is often difficult for community college students to forge such relationships because of the myriad demands on their time. Students reported that their student success course helped them form relationships with professors and peers that they would not otherwise have created, thereby increasing their integration into the college" (p. 208).
- "In order to benefit from support services, students need to actually use them, not just know about them. This means that students need to know how to access a service and feel comfortable doing so. The student success course encourages both of these things, thereby helping students take advantage of services in a way that just learning about them, or just feeling comfortable on campus, would not. Tutoring is a prime example of this. At both colleges, it was a widely publicized support service, and most students learned about it from a variety of sources. However, students in our sample who took the student success course were much more likely to actually attend tutoring sessions than students who did not. Fifty-eight percent of students in our sample who took the student success course made use of tutoring, whereas 23% of students who did not take the course did so. Given the small size of our sample and the exploratory nature of the study, we cannot assume there is a causal relationship. But it is important to remember that students usually enrolled in student success courses because they were required to do so, not because they were more motivated or more conscientious than students who

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did not enroll. Thus the correlation may indicate that the course encourages use of tutoring services" (p. 210).

- "As we have noted, many students felt that general course advising was poor but that they received good course information in their student success courses. In addition, students created relationships with the professors of their student success courses. For many students, this relationship extended beyond their time in the student success course, turning into a long-term source of quality course advising. The structure of the student success course encouraged interactions between students and professors, thus students felt that their student success professors knew them and their goals well. This enabled the student success professors to give student individualized advice on courses, which was greatly appreciated. Because students had a relationship with and trusted their professors, they often sought them out after the class ended, opting to meet with the student success professor rather than a college advisor when selecting courses for future semesters" (p. 211-212).
- "As previously discussed, it appears that the student success course facilitated students' relationships with their peers and professors. That seems to have contributed to students' overall feelings of integration into the social and academic fabric of the college. These two benefits reinforced each other and enabled students to access important information networks in the college. Through their feeling of assimilation, students felt comfortable making contact with even more people such as classmates, staff members, and faculty members, which increased the amount of information they were able to access" (p. 212).

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Citation: Pope, M. L. (2002). Community college mentoring: Minority student perception. *Community College Review, 30*(3), 31-45. doi: 10.1177/009155210203000303

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 375

Population subgroup focus: Students of African American, Asian, Hispanic, and Native-American descent

Number of Institutions: 15

Survey: Self-designed survey

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: "The researcher selected the public two-year institutions randomly from the 2000 Carnegie Foundation classification of higher education institutions…After the institutions were selected, the names and addresses of the chief student affairs officers, defined typically as vice president or dean of student services, of each of these institutions were located on each institution's Web site. They were asked to respond to (1) whether their institution would be willing to participate in the study; (2) whether they were willing to participate and who would be responsible for the distribution of the study to 25 students of color; and (3) when would be the most opportune time for the institution to participate in the study" (p. 34).

Randomized trial: N/A

Quasi-experimental study: N/A

Statistical method: ANOVA, chi-square analysis, multiple comparisons analysis

Outcome measures: Availability of the types of mentoring

Controlling for other variables: Race

Statistics included: Degrees of freedom, sum of squares, mean square, frequency, significance

Implementation Studies: N/A

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Summary of Study and Findings/Conclusions:

"The present investigation proposes that multiple levels of mentoring provide both formal and informal methods of mentoring for minority students…This present study will analyze the perceptions of minority students regarding this notion of multiple levels of mentoring on their community college campuses" (p. 33).

Hypotheses/Research Questions:

1. What aspects of mentoring are important to minority students?
2. What are minority students' perceptions of whether their current institution provides these multiple levels of mentoring?
3. Is there a relationship between the perceptions of importance and the availability of these multiple levels of mentoring by minority students?
4. Is there a difference in minority students' perceptions, based upon race, of whether their current institution provides multiple levels of mentoring?

Results:

- "Based on the results, students of color felt that multiple types of mentoring are important for minority students attending community colleges. The respondents were positive overall in their perceptions of the mentoring statements, with at least 70% of the respondents stating that each type of mentoring was important in all except one of the statements. The statement, which received the least number of affirmative responses, 172 (68.8%), was focused on whether the student thought that his or her individual participation in mentoring was important" (p. 35).
- "Additionally, most of the responses to the importance of mentoring based on individual ethnic groups were rated affirmatively by at least 70% of the respondents, with the exception of four overall instances. Only 8 (66.7%) students of Asian descent rated the statement related to their peers serving as mentors to them as being important. Similarly, only 18 (64.3%) Hispanics and 120 (69.0%) African Americans responded affirmatively to this statement. Asian-American students also rated the statement related to staff members mentoring students relatively low with only one half of the respondents responding positively" (p. 35).
- "The overall mean for all students participating in the study yielded means that ranged from the low of 3.22 (SD=1.23), the statement related to the individual student mentoring other students [I mentor other students], to the high of 4.10 (SD=.88), the statement related to the importance of mentoring to student success at the institution [Mentoring is important for success at this institution]" (p. 37).
- "Among groups, there were marginal means also, with the lowest rated by Asian respondents for the statement related to the respondent mentoring other students (M=2.00; SD=1.21), and the highest rated by Asian respondents for the statement related to the importance of mentoring for student success (M=4.167; SD=.94). The researcher aggregated the means for each of the statements by race, and the overall perception of the availability of mentoring programs for Asian students was lower than the four other groups" (p. 38).

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- “Research question number three, which related to whether a relationship existed between the perceptions of importance and availability of these multiple levels of mentoring by minority students, was answered by performing a chi-square analysis of the responses; both related to the students’ perceptions of importance and the availability of the programs at their institutions. The results of this analysis indicated that there was an association between these two variables for each of the statements except one—faculty serve as mentors for all students. Thus, the students perceived that the services they deemed important were services that were available on their campuses, with the exception of faculty mentoring students” (p. 38).
- “To answer research question number four, which focused on whether there was a difference in minority students’ perceptions, based upon race of their current institution’s provision of multiple levels of mentoring, a one-way ANOVA was performed using race as the independent variables; the responses related to the availability of the types of mentoring as the dependent variable. Results indicated that there were significant differences in four of the statements regarding mentoring. A multiple comparisons analysis was utilized to determine where those differences existed within the race variables. Hispanic respondents had a significantly lower agreement than did African-American, Native-American, and multiethnic students with the perceived availability of persons of color at their institution that they would consider as potential mentors. Similarly, Asian respondents had a significantly lower agreement level than did African-American and Native-American students regarding the availability of peer mentors to assist them. Also, Asian students had a significantly lower level of agreement than did African-American students with the statement regarding involvement of staff at their institution in the mentoring process. Finally, Asian students had a significantly lower level of agreement than did African-American and Native-American students regarding their individual participation in mentoring fellow students” (p. 38-39).
- “The respondents in this study rated each type of mentoring relatively high, with a significant majority of the students providing positive responses regarding each type of mentoring. Each type was found in some form or combination of mentoring types in a variety of programs, activities, and environmental factors that the research has shown are important in mentoring relationships” (p. 41).

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Citation: Sandoval-Lucero, E., Maes, J. B., Klingsmith, L. (2014). African American and Latina(o) community college students' social capital and student success. *College Student Journal, 48*(3), 522-533.

Source Type: Peer-reviewed journal

Type of Research: Qualitative

Qualitative Study:

N: 22

Population subgroup focus: African American and Latina(o) students

Number of institutions: 1

Grounded theory, case study, ethnography: Grounded theory

Focus group or one-on-one interviews: Focus groups

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"These community college students spoke to three major themes that contributed to their success as students. Those themes were: (1) relationships with faculty, (2) family support and (3) campus engagement and support." "Using a framework of social and cultural capital, this study examined successful African American and Latina/o community college students. Based on focus group interviews with twenty two African American and Latina/o undergraduates at an urban community college, the authors reveal how social and cultural capital gained from students' relationships and interactions with friends, family, faculty members, student affairs staff and college support services impacted their successful college outcomes. In general, students identified social capital resources in the form of faculty relationships, supportive family, and campus engagement as sources of support for their college success" (p. 522).

Hypotheses/Research Questions:

1. What cultural resources do community college students bring to the college experience that can positively impact their college success and do these resources influence their overall retention within a higher educational environment?

Results:

- "Overwhelmingly participants spoke about their instructors as being instrumental to their success in college. What was unique was that all focus group participants made some mention of their instructors as critical to their success. The number one theme echoed by all students related to the accessibility of their instructors…Instructors were described as willing to provide additional tutoring support, or be accessible over email during their office hours. This access made a big difference in the success of [the] focus group

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participants. Another comment echoed by many students was that their instructors were motivating. Many stated that their instructors didn't assume it was the student's job alone to succeed in class…From simply making themselves available, to taking time to help keep students motivated, to bringing their career expertise into the classroom, the quality of faculty was critical in the success of both [the] part-time and full-time focus group participants" (p. 528-529).

- "Family also played a critical role in the success of the student participants…Family members were willing to take on more of the financial and household responsibilities in order to support the academic success of their loved one…Family members also provided moral support and encouragement for schoolwork" (p. 528-529).
- "It seems for [the students in the study] regardless of whether they attend full-time or part-time, feeling connected to the campus was a factor in their college success. The ways in which students connected to the campus varied from obtaining work study jobs, to feeling connected in class, to having helpful staff members assist in their academic processes, and joining clubs and organizations" (p. 529).
- Aspirational capital: "Our student participants experienced significant personal and professional barriers while attending college. However, many had signs of significant aspirational capital which helped them persevere through their programs, even when many were the first in their family to do so. As a result, many of them had high aspirations to not only be employed, but also be in an upper management position, or in occupations with high levels of responsibility" (p. 530).
- Familial capital: "Many student participants had solid ties with their immediate and extended families while attending college. Many described the power of receiving encouragement and support from family members which sustained them through their academic programs. The support they received in turn allowed the students to view themselves as role models to their younger family members which inevitably enhanced their overall family legacy in higher education" (p. 530).
- Social capital: "Many student participants noted how they gained social capital as they benefitted from the real world expertise as well as the access given to them by their faculty members, many of whom were adjunct faculty members. The student participants also stated how their overall campus environment embraced a sense of inclusiveness, regardless of whether the students were enrolled as full or part time" (p. 531).
- Navigational capital: "Many of the student participants who had attempted to enroll in college at one time but were unsuccessful are now enrolled once again in higher education. Many have gained a new sense of navigational capital where they now have the skills to maneuver themselves through the sometimes intimidating college system. Many of these student participants now feel comfortable attempting to earn their degrees in a place they can successfully navigate" (p. 531).
- "This study also demonstrated that contrary to popular belief, diverse families support their children's college aspirations, and students feel an obligation to meet those family expectations about college completion. In fact, it is that family engagement that is a source of support and strength as diverse students navigate the college experience" (p. 531).

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Citation: Settle, J. S. (2011). Variables that encourage students to persist in community colleges. *Community College Journal of Research and Practice, 35*(4), 281-300. doi: 10.1080/10668920701831621

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 310

Population subgroup focus: N/A

Number of Institutions: Unknown—data is from the Beginning Postsecondary Students Longitudinal Study

Survey: Beginning Postsecondary Students Longitudinal Study

Intervention: N/A

Transcript: N/A

Longitudinal: Yes

How were participating students selected: From the Beginning Postsecondary Students Longitudinal Study

Randomized trial: N/A

Quasi-experimental study: N/A

Statistical method: Logistic regression analysis, Nagelkerke R^2, chi-square, degrees of freedom, correct prediction

Outcome measures: Year-to-year persistence

Controlling for other variables: N/A

Statistics included: Delta-*p*, Beta coefficient, significance level, *p*-value

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"Estimating the persistence of first-time students from the first year to the second year of college is a growing social and financial concern. Studying how socioeconomic status affects year-to-year persistence may help to identify and assist those students who have socioeconomic profiles most likely to indicate challenges to year-to-year persistence. This study used data from

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the Beginning Postsecondary Students Longitudinal Study (BPS: 96/98), a nationally representative survey, to provide additional information about the patterns of educational attainment and persistence for a subset of more than 51,000 students included in the NPSAS:96 survey. The study used all students enrolled as first-time beginning students at two-year institutions. The purpose of the study was to develop and test a theoretical framework for describing the persistence of students at two-year institutions. The preliminary model included 39 literature-based variables grouped into seven factors: background, high school, college-entry, financial, social integration, academic integration, and college performance. The data were tested using descriptive statistics and logistic regression to determine the predictive value of the models for the students. Social capital variables, particularly student integration to the collegiate environment, were strongly associated with persistence of students. Contact between students and faculty outside of the classroom environment is critical to persistence" (p. 281).

Hypotheses/Research Questions:

1. How does socioeconomic status, including social-capital variables, positively or negatively influence the year-to-year persistence of first-generation college students compared to continuing-generation students?
2. What effect does socioeconomic status suggest for persistence of students?
3. How do background, high school, college-entry, financial, social integration, academic integration, and college performance factors affect year-to-year persistence for first-generation students?
4. What implications do these findings have for future federal and institutional policy decisions for first-generation and continuing-generation students?

Results:

- "A total of 183 first-generation students from the total two-year sample of 310 students were considered. Of the sample, 183 persisted to the next year, or 60%...The model correctly predicted 92.7% of all first-generation students who persisted. The model predicted 54.35% of first-generation students who did not persist. The overall predictive percentage for the model was 83.06% for all persistence decisions" (p. 291).
- "All students who persisted had friends attending the same institution and had social contact with faculty members outside of the classroom. Both of these variables were associated with year-to-year persistence at a 1.000 or 'perfect' association. In addition to the two constant association variables, several other variables were strongly associated with persistence to the second year. Students who were older than 21 years of age were much more likely to persist. Other significant variables included coming from a family of two or three additional family members, having at least one other family member in college, attending full-time, not delaying entry into postsecondary education, satisfaction with the cost of the college, having financial aid, and living on-campus. Students who persisted also indicated satisfaction with their intellectual development and the college's prestige. Students who had some level of dissatisfaction with the instructor's ability to teach and did not participate in fine arts activities were associated with persistence. Finally, grade point average was significantly associated with persistence; students who had 'A' and 'B' level grades were more likely to persist" (p. 295).

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- For first-generation students: “Every student who persisted had friends attending the same institutional and had social contact with faculty members outside of the classroom. Both of these variables were associated with year-to-year persistence at a 1.000 or perfect association. In addition, all first-generation students who persisted were also over the age of 21. Several other variables were strongly associated with persistence. Nine of the 30 significant variables were associated with persistence with a $p = \leq .25$, or 25%. First-generation students who persisted were associated with attendance at a school within 150 miles of their home, living on campus, having an e-mail account, being satisfied with the campus climate and their intellectual development, going places with friends, having a lower SAT score, and earning ‘B’ and ‘C’ grades” (p. 296).
- For continuing-generation students: “Continuing-generation students who persisted were likely to be male, from either a very small family of only two persons or a large family of more than four persons, from a nonrigorous high school curriculum located in rural areas, not on any financial aid, dissatisfied with the instructor’s ability to teach, not participating in fine arts activities, did not meet with advisor about academic plans, and did not talk with faculty outside of class” (p. 296-297).

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Citation: Strayhorn, T. L., & Johnson, R. M. (2014). Black female community college students' satisfaction: A national regression analysis. *Community College Journal of Research and Practice, 38*(6), 534-550. doi: 10.1080/10668926.2013.866060

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 315

Population subgroup focus: Black females

Number of Institutions: Not mentioned

Survey: Community College Student Experiences Questionnaire (CCSEQ)

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: Sample was selected from the CCSEQ; the researchers only included "individuals who were currently enrolled in associate's of arts or associate's of science degree programs at accredited, degree-granting two-year community colleges that offered grades to computer grade point averages" (p. 539)

Randomized trial: N/A

Quasi-experimental study: Yes

Statistical method: Descriptive statistics, correlation analyses, and hierarchical linear regression tests

Outcome measures: Black women college students' satisfaction with their community college experience—"posited as a function of community college students' background traits, perceptions, and commitments. Satisfaction is also the extent to which students are frequently and meaningfully engaged in educationally purposeful activities that have been deemed good practices or important socializing activities that positively influence students' subjective evaluation of their college experience" (p. 538).

Controlling for other variables: Background traits such as age (in years), native language, and external commitments (job and family commitments)

Statistics included: Frequencies, means, standard deviations, p values, R^2, B

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Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"Data from the Community College Student Experiences Questionnaire were analyzed for a sample of 315 Black women attending community colleges. Specifically, we conducted multivariate analyses to assess the relationship between background traits, commitments, engagement, academic performance, and satisfaction for Black women at community colleges. Descriptive results provide a profile of Black women who attend community colleges in terms of age, native language, units taken, and grades. Hierarchical linear regression results suggest that our statistical model accounted for 22% of the variance in satisfaction. Significant predictors of Black women's satisfaction at community colleges include age, effect of family on school work, and social engagement with faculty. Grades may also be significantly related to Black women's satisfaction, although the relationship was reduced to nonsignificance over successive models. Implications for future policy, practice, and research are highlighted" (p. 534).

Hypotheses/Research Questions:

1. What is the relationship between Black women's background traits, expectations, engagement, academic performance, and satisfaction with college for those attending two-year community colleges?
2. Which of these factors are the strongest predictors of Black women's satisfaction with their community college experience?

Results:

- "First, results demonstrate that there is a relationship between Black women's background traits, expectations, engagement, performance, and satisfaction with community colleges. This is in consonance with the study's theoretical framework. Recall that the statistical model accounted for just under a quarter (22%) of the variance in Black women's satisfaction at community colleges. And while this lends partial support to the hypotheses embedded in our theoretical model—for instance, the background traits like age are significantly related to Black women's satisfaction at community colleges—results also raise questions about the applicability of traditional satisfaction models to community college students. Explaining 22% of the variance in satisfaction leaves 78% of the variance in satisfaction unexplained by the model" (p. 545).
- "Results from this secondary analysis of CCSEQ data suggest that age is the strongest predictor of Black women's satisfaction with their community college experience. It has a greater influence on her satisfaction than other factors like number of credits taken, social engagement with campus life, or her intentions to transfer to a four-year institution…Older students [in the study] tended to be more satisfied than their younger counterparts" (p. 545).
- "Black women's social engagement with community college faculty members was positively associated with her satisfaction with college. That is, Black women in our sample who engaged faculty socially in frequent and meaningful ways tended to be more satisfied with their collegiate experience than their peers who did not engage faculty often, if at all. We also learned that Black women's engagement with faculty

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members at community colleges exerted the second largest influence on satisfaction, based on partial correlation results" (p. 545-546).

- "Black women in our sample who reported that their family responsibilities greatly affect their schoolwork tended to be less satisfied with college than their counterparts with no family or whose families have little effect on school" (p. 546).
- "Grades significantly predict satisfaction with college among Black women at two-year community colleges…Students' academic readiness and performance in school is related to their overall evaluation of the community college experience—indeed, community college satisfaction may be a function of how confident one feels about her ability to perform well and accomplish such tasks" (p. 546).

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Citation: Swigart, T. E., & Murrell, P. H. (2001). Factors influencing estimates of gains made among African-American and Caucasian community college students. *Community College Journal of Research and Practice, 25*(4), 297-312. doi: 10.1080/106689201750122406

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 552

Population subgroup focus: African-American and Caucasian students

Number of Institutions: Not mentioned—students were selected from the national CCSEQ database

Survey: Community College Student Experiences Questionnaire (CCSEQ)

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: Random sample

Randomized trial: N/A

Quasi-experimental study: Yes

Statistical method: ANOVAs, Tukey-Kramer tests

Outcome measures: Student perceptions of academic, social, and personal growth and development

Controlling for other variables: Age, gender, and enrollment status

Statistics included: *F* test, *p* test, mean, standard deviation, R^2, beta

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"This study examined whether African-American and Caucasian students attending a two-year college differed in the relationship between the quality of their efforts exerted toward important educational objectives and their perceptions of growth and development in academic and nonacademic domains. The results suggest that the relationship between student effort and self-reported gains are not the same for African-American and Caucasian students. When

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background variables were statistically controlled for, quality of effort yielded several common and unique influences on estimates of gains made for each group. African-American students reported greater gains, which were explained by more involvement toward the completion of important educational objectives. These findings are discussed in light of Pace's theory and past research on students attending two- and four-year institutions" (p. 297).

Hypotheses/Research Questions:

1. Are African-American and Caucasian community college students similar in terms of levels of quality of effort?
2. Is the relationship between quality of effort and self-reported gains the same for African-American and Caucasian community college students?

Results:

- "The ANOVAs for quality of effort in student acquaintances and self-reported gains were highly significant ($p < .0001$). The ANOVAs for library, faculty, writing, and computers also were significant ($p<.001$). The ANOVA for coursework was significant at $p<.01$" (p. 302).
- "Tukey-Kramer statistics suggested differences among involvement and gains. As for quality of effort, African-American students were more involved in coursework, library use, faculty member interaction, student interaction, and use of computer technology. Regarding self-reported gains, African-American students reported more gains than did Caucasian students" (p. 302-303).
- "Of primary interest was determining the influence of quality of effort on estimates of gains while controlling for student characteristics and a college program variable. Therefore, the first step was to enter a block of background variables (i.e., age, gender, and enrollment status) and examine the percentage of variance explained (R^2) in each group. When considered together, background variables did not explain a significant amount of variance in gains for African-American students. The results were different for Caucasian students…background variables explained about 13% of variance in gains for Caucasian students…Although age was not important (the *t* test for its beta was not significant), examining the direction of the standardized beta suggests that self-reported gains were higher for Caucasian students if they were enrolled full time but lower if they were women" (p. 304).
- "When age, gender, and enrollment status were controlled, about 52% of self-reported African-American students' gains was explained by greater involvement in coursework, library use, faculty member interactions, writing, and computer use. A different picture emerged for the Caucasian students. The influence of gender on gains disappeared once quality of effort was included in the analyses. Also of interest is that the influence of enrollment status on gains became less importance once quality of effort was taken into consideration. Thus, for Caucasian students, the important influences on gains were enrollment status, faculty member interactions, student acquaintances, science, writing, and computer use. As a group, these variables explained 52% of the variance in gains for Caucasian students" (p. 304, 306).

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- "That the influence of background variables on self-reported gains was minimal compared with how involved students were in the learning process is consistent with Pace's (1984) theory. What students bring to college is not as important as how much they do while in college for influencing learning and growth. As for ethnicity, the findings of this study are consistent with earlier research using the [College Student Experiences Questionnaire] that suggested that the relationships between student involvement and self-reported gains are different for African-American and Caucasian students" (p. 306).
- "The between-group mean comparisons presented [in the article] suggest that the Caucasian students in this sample were older and enrolled in more credit hours when they completed the CCSEQ than their African-American counterparts. The African-American students in this sample were exerting more effort toward activities related to coursework, library use, faculty member and student interaction, writing, and use of computer technology. African-American students also reported significantly higher levels of gains in social, personal, and academic growth than did the Caucasian students…Although quality of effort exerted by both groups of students yielded a number of common and unique influences on gains, the analyses suggested that increased involvement in coursework and library use by African-American students exerted an important influence on their self-reported gains. The extra effort in these activities by the African-American students clearly paid off in terms of their self-reported gains. Interestingly, the extra effort exerted by the African-American students toward making student acquaintances did not explain variance in gains. One possibility is that many of these African-American students might have been commuter students, who tend to have fewer opportunities to interact with other students outside of class" (p. 306-307).
- "The regression analyses also suggested that African-American and Caucasian students were similar in that increased involvement in faculty member interactions, writing, and use of computers explained a significant amount of variance in self-reported gains. For Caucasian students, increased involvement in writing activities and computer use were more important in explaining gains than for their African-American counterparts. Thus, for both groups of students, what mattered most was their involvement in activities such as talking one-on-one with their instructors about course progress, preparing rough drafts of term papers, and asking fellow students to proofread them" (p. 307).
- "Regarding technology, it was important for both groups of students that they used computers, E-mail, and World Wide Web instructional materials" (p. 307).
- "Immediately apparent for the African-American group is the dominant role that involvement in coursework played in explaining gains. This means that what mattered most for African-American students in terms of gains was the degree to which they were actively involved and participating in activities such as class discussions or summarizing major points and information from their readings and notes. Although not as important as their involvement in coursework, African-American students indicated that their use of the library had an effect on what they got out of college. Thus, they benefitted from using the library to read, study, or prepare bibliographies for term papers" (p. 307-308).
- "Enrollment status, student acquaintances, and science activities had a unique influence on gains for Caucasian students. Caucasian students classified as full time reported making greater gains than part-time students. Caucasian students reported more gains if

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they were making more effort toward initiating contact with students who were different in some regard…Taking advantage of science activities was also beneficial for Caucasian students" (p. 308).

- "Involvement in activities related to art, music, and theater and vocational preparation did not explain gains variance in this sample" (p. 308).

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Citation: Thompson, M. D. (2001). Informal student-faculty interaction: Its relationship to educational gains in science and mathematics among community college students. *Community College Review, 29*(1), 35-57. doi: 10.1177/009155210102900103

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 5276

Population subgroup focus: N/A

Number of Institutions: 56

Survey: Community College Student Experiences Questionnaire

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: Random sample

Randomized trial: N/A

Quasi-experimental study: Yes

Statistical method: Path analytic model, ordinary least squares procedures

Outcome measures: Quality of effort in science and science and math educational gains

Controlling for other variables: The amount of time working at a job, the effect of family on schoolwork, the effect of a job on schoolwork, and gender

Statistics included: Mean, standard deviation, regression coefficients (standard and unstandard)

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"The present study contributes to the above research on gender, informal student-faculty interaction, and the effect on students in science- and mathematics-based courses. Furthermore, it examines the assertions of the reviewed research that focuses on the importance and influence informal student-faculty interaction has on the patterns of growth and development in science and mathematics for students" (p. 38).

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Hypotheses/Research Questions:

- "The present study contributes to…literature on gender, informal student-faculty interaction, and the effect on students in science- and mathematics-based courses. Furthermore, it examines the assertions of the reviewed research that focuses on the importance and influence informal student-faculty interaction has on the patterns of growth and development in science and mathematics for students" (p. 38).
- "The direct effects of the job, family, and timework variables on the science and mathematics gains variable [are] assumed to be zero" (p. 44).

Results:

- "The direct effects of the job, family, and timework variables on the science and mathematics gains variable, which were assumed to be zero, are in accordance with the path model. The gender variable had a significant negative direct effect on the science and mathematics gains variable. This indicates that women reported lower perceived educational gains in science and mathematics than men (controlling for other variables in the model)" (p. 44).
- The family and timework variables have a significant direct effect on informal student-faculty interaction, while the job and gender variables have a nonsignificant positive direct effect. The timework and gender variables have a significant negative direct effect on students' quality of effort in science courses. This indicates that the more time students spend at work, the less effort they exert in their science courses and that women report lower levels in the quality of effort exerted in science. On the other hand, the job variable has a significant positive direct effect on students' quality of effort in science" (p. 44).
- "The indirect effects for the job and gender variables on science and mathematics gains are nominal; yet both are statistically significant due to the large sample size ($p < .001$). The indirect effect of the family variable on science and mathematics gains is not statistically significant. The time students spend at work, however, has a significant negative indirect effect. Thus, the more time students spend at work, the less time they have to interact with faculty and exert effort in science courses, and in consequence, perceive lesser educational gains in science and mathematics" (p. 45).
- "Reports of students' indicating the extent to which their job interferes with schoolwork has virtually no effect, direct or indirect. It is the amount of hours spent at work, rather than the job itself, that interferes with their interactions with faculty, their quality of effort in science courses, and educational gains in science and mathematics" (p. 45).
- "Women have reported lower levels of informal interaction, course effort, and educational gains in science and mathematics than have men" (p. 45).
- "The direct influence of the informal student-faculty interaction variable on students' science and mathematical gains is significant. The positive direct effect of informal student-faculty interaction indicates that community college students who have higher perceived levels of informal interaction with faculty in settings outside the classroom directly enhance their perceived educational gains in science and mathematics" (p. 45).

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- “The results of the present study are also consistent with the hypothesized model on the informal student-faculty interaction variable directly influencing the quality of effort community college students exert in science courses. Those students who have higher levels of informal interaction with faculty report higher levels of effort in science courses. The informal student-faculty interaction variable also has a significant positive indirect effect on the science and mathematical educational gains” (p. 45).
- “The direct effect of the quality of effort in science courses variable on science and mathematics educational gains is significant and positive. Those community college students who exerted higher levels of effort in their science courses perceived greater educational gains in science and mathematics. Thus, from examining the direct effects of the six variables in the model on students’ perceived educational gains in science and mathematics, the dominant direct effect comes from the quality of effort in science courses variable” (p. 46).
- “Informal student-faculty interaction has the greatest total influence of any variable. This is the result of having significant direct and indirect effects on the science and mathematics educational gains variable. The significant total effect of the quality of effort in science courses variable is the result of direct influence only” (p. 46).
- “The direct negative influence of ‘gender’ for students’ perceived quality of effort in science and educational gains in science and mathematics also supports the evidence that men and women differ in the acquisition of science and mathematics knowledge” (p. 46).
- “Another finding in the…study revealed that the amount of time students spend at work is inversely related to their reported levels of informal student-faculty interaction and their effort exerted in science courses. However, the effect of students having a job has a positive association with their quality of effort in science courses. This evidence indicates that it is not necessarily detrimental for students to work while pursuing a science- and mathematics-based education or courses therein. The actual amount of time spent at the job negatively affects the available amount of time students may interact with faculty outside the classroom. This negatively affects the quality of effort they exert while in class. Although rather small in effect, the influence of family on the informal interaction variable is positive. This indicates that any family responsibilities of the students are not inversely related to their interactions with faculty” (p. 47).
- “The total effects on the science and mathematics educational gains variable indicate that informal student-faculty interaction has the greatest overall effect in the hypothesized causal model” (p. 47).
- “The present study reveals that the women in this sample have lower levels of effort in science courses, as well as lower perceived educational gains in science and mathematics” (p. 47).
- “No significant difference is noted between men and women on the informal student-faculty interaction variable. Despite similar patterns of informal interaction with faculty outside the classroom for both men and women, the disparity between the two remained. This disparity may be a reflection of the quality and not the amount of interaction between women and faculty members” (p. 48).

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Citation: Tovar, E. (2015). The role of faculty, counselors, and support programs on Latino/a community college students' success and intent to persist. *Community College Review, 43*(1), 46-71. doi: 10.1177/0091552114553788

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 397

Population subgroup focus: Latino/a students

Number of Institutions: 1

Survey: College Mattering Inventory (Tovar, 2009)

Intervention: N/A

Transcript: No

Longitudinal: N/A

How were participating students selected: Participants were selected from "a database of students participating in a larger research project assessing the construct validity of the College Mattering Inventory" (p. 53).

Randomized trial: N/A

Quasi-experimental study: Yes

Statistical method: Hierarchical ordinary least squares regression analyses

Outcome measures: Success as measured by cumulative GPA and intent to persist to degree completion

Controlling for other variables: "Controlling for the effects of pre-college student characteristics, transition-to-college experiences, and academic and social factors" (p. 62)

Statistics included: Variance inflation factor, mean, standard deviation, Beta, probability value, standard error, *t*, R squared, F-test, and *p*

Qualitative Study: N/A

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

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"This study examines how interactions with institutional agents (faculty and academic counselors) and select student support programs influence success (i.e., grade point average) and intentions to persist to degree completion for Latino/a community college students. Using social capital theory and college impact models, the study controls for the effects of select pre-college student characteristics, transition-to-college experiences, and academic and social factors. Findings indicate that interactions (quantity and type) with institutional agents exercise a small, but significant effect on Latino/a students' success. Similarly, participation in an academically rigorous program and a counseling-intensive support program influences students' success and intention to persist. Implications for practice are addressed" (p. 46).

Hypotheses/Research Questions:

1. How do institutional agents (instructors and counselors) and student support programs influence Latino/a community college students' success (i.e., GPA)?
2. How do institutional agents (instructors and counselors) and student support programs influence Latino/a community college students' intent to persist to degree completion?

Results:

- An "overwhelming majority (96.6%) [of students] noted spending several hours per week on family responsibilities. Nearly three quarters also indicated they held a paid job…Most students reported discussing academic issues with both instructors and counselors (83.5% and 93.2%, respectively), in comparison to career-related (30.9% and 60.5%) and personal issues (22.8% and 17.3%). Curiously, students were more likely to discuss personal issues with instructors than counselors" (p. 58).
- "Results indicated that age and students' citizenship status were significant predictors in Block 1, pre-college student characteristics. This block accounted for 5% of the variance. Neither gender nor students' college generation status was a significant predictor. Among the transition-to-college variables composing Block 2 (accounting for 11% of the variance), the number of hours students spent on family responsibilities per week and reporting they had experienced a challenging transition to college were found to be negative predictors of GPA. The largest predictor was students' reporting that they experienced academic difficulties while in college, followed by enrollment intensity" (p. 60).
- "The last block, interactions with institutional agents and student support programs, accounted for 6% of the variance in the model. The highest predictor was the frequency with which students met with instructors outside of class since starting college. Interestingly, the number of times students met with counselors was not a significant predictor of GPA. While discussing career-related issues was the next highest predictor in the mode, it is particularly important to note that these discussions had opposite effects on GPA when students met with instructors and counselors. As noted in the model, discussing career-related issues during meetings with instructors positively impacted GPA; however, not discussing career issues with counselors had a negative effect on GPA. Last, participation in the Scholars Program was also a positive predictor of GPA. Discussions pertaining to academic or personal issues and participation in other

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support programs, including [Extended Opportunity Programs and Services (EOPS)]and the Latino/a Center, did not exercise any significant effect on GPA" (p. 60).

- "After controlling for the effects of pre-college student characteristics, transition-to-college experiences, and academic and social factors, this study found a small but significant impact of support programs and institutional agents' interactions with Latino/a community college students' success and intention to persist to degree completion. With respect to GPA, it was found that students' interactions with instructional faculty outside of class had a small but significant impact on GPA, but did not influence their intention to persist. Generally speaking, the higher the number of times a student met with faculty members outside of class, the higher the GPA they achieved" (p. 62).
- "This study found that discussing or failing to discuss career-related issues with students by instructors and counselors, respectively, significantly predicted students' GPA. Whereas discussing career issues with students by instructors had a compensatory effect on GPA, a failure to do so by counselors had a negative effect. Additionally, participating in select college support services characterized by greater interactions with counselors, in particular, positively influenced Latino/a students' GPA via their involvement in the Scholars Program and increased intention to persist when participating in the EOPS" (p. 63).
- "Having significant family responsibilities, experiencing a challenging transition to college, and encountering academic difficulties had a deleterious impact on Latino/a students' grades; albeit enrolling in a higher number of units positively predicted GPA. Having supportive family and friends, receiving transition assistance from the institution, spending adequate time studying, and committing to the pursuit of a major or degree exercised a powerful influence on intention to persist to degree completion" (p. 63).

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Citation: Walker, T., Pearson, F., & Murrell, P. (2010). Quality of effort and career preparation differences between African American and White community college students. *Community College Journal of Research and Practice, 34*(9), 738-754. doi: 10.1080/10668920902917450

Source Type: Peer-reviewed journal

Type of Research: Quantitative

Mixed Methods Study: N/A

Quantitative Study:

N: 1000 (500 White students and 500 African American students)

Population subgroup focus: White students and African American students

Number of Institutions: 40

Survey: Community College Student Experiences Questionnaire

Intervention: N/A

Transcript: N/A

Longitudinal: N/A

How were participating students selected: Random sample of students from the Community College Student Experiences Questionnaire database

Randomized trial: N/A

Quasi-experimental study: Yes

Statistical method: ANOVA, ordinary least squares regression procedure, propensity score matching

Outcome measures: Acquired knowledge and skills applicable to a specific type of job, gained information about career opportunities, and developed clear career goals

Controlling for other variables:

Statistics included: Cronbach's alpha, *R*, *R* square, adjusted *R* square, standard error of the estimate, sum of squares, *df*, mean square, frequency, significance, *t*, collinearity, *B*, standard error total, Beta VIF

Implementation Studies: N/A

Summary of Study and Findings/Conclusions:

"This study examined data from a random sample of 500 White students and 500 African American students who have taken the Community College Student Experiences Questionnaire

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to determine which factors in the environment impact their career preparation. The results showed that interaction with faculty had the strongest impact on career preparation for all students. Counseling services were significant for African American students. The African American students indicated that they put more effort into student-faculty interactions and peer interactions than White students, and they reported greater gains in career preparation" (p. 738).

Hypotheses/Research Questions:

1. Do African American and White community college students report significantly different levels of quality of effort in the areas of informal student-faculty interactions, peer interactions, counseling activities, work experience, and perceived gains in career preparation?
2. Are there significant differences in the relationships of the constructs of career preparation, informal student-faculty interaction, peer interaction, counseling activities, and work experience between African American and White students?

Results:

- "The analysis of variance for career preparation by ethnicity yielded a statistically significant result (F=7.805, df=1, p<.01). In this analysis, the African American students indicated a higher level of career preparation compared to the White students. Although this evidence of significance suggests that there are indeed differences between African American and White students, the effect size for the group difference was relatively small (.18)" (p. 745).
- "The analysis of variance for Informal Student-faculty Interactions was also significant (F=6.539, df=1, p<.05). In this analysis, African American student indicated a higher level of interaction with faculty compared to White students" (p. 745).
- "The analysis of variance for Peer Interactions also showed a statistically significant difference (F=16.428, df=1, p<.001). African American students reported a higher level of interaction with peers of different backgrounds compared to White students" (p. 745).
- "The analysis of variance for Counseling was also significant (F=12.536, df=1, p<.000). An examination of the means shows the African American students used counseling services more than White students" (P. 745).
- "In [the multiple regression analysis for African American students], the dependent variable of career preparation was regressed on the independent variables of informal student-faculty interaction, student acquaintances, counseling, and effect of job on schoolwork. The results showed the independent variables accounted for 24% of explained variance in the dependent variable of career preparation (F=38.792, df=4, p<.001). When examining the coefficients, informal student-faculty interaction and counseling were the constructs that yielded significant results in the regression model. This suggests that for African American community college students, informal student-faculty interaction and interaction with counselors and advisors substantially affected their perception of growth in career development" (p. 746).
- "When examining the coefficients, informal student-faculty interaction was the only construct that was statistically significant in the regression model. This suggests that just

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as for African American students, White students perceived their interactions with faculty had an effect on their career development" (p. 748).

- "When the data were analyzed to determine which factors contributed most to their career preparation, both groups of students indicated that student-faculty interactions had the most significant impact. This is consistent with previous research on the effect of student-faculty interaction on academic and nonacademic experiences. Evidently, the students in this study sought out faculty outside the classroom to find out their expectations for student performance, discuss current events, and discuss career or educational plans. African American students put more effort into cultivating these relationships than White students, possibly because they are less comfortable with the expectations in the environment and have fewer peers who can help them negotiate the system" (p. 749).
- "Counseling was also a significant factor in career preparation for African American students, but not for White students. They apparently talk to counselors or advisors about their choice of courses, major or career; plans to transfer to a four-year college or university; and vocational interests, abilities, and ambitions. One might expect African American students to resist counseling because of past experiences, but the items in this section of the CCSEQ focus on career preparation and academic advising rather than personal counseling, which may make a difference" (p. 749).
- "In addition to counseling, the African American students put more effort into building relationships with their faculty and peers than their White counterparts…The greatest difference between the groups was in peer interaction" (p. 750).
- "African American students also reported greater gains in career preparation than their White counterparts. More specifically, they indicated they acquired more knowledge and skills related to specific jobs, obtained more information about career opportunities, and developed clearer career goals…This data should be interpreted cautiously, however, because the CCSEQ measures gains, rather than outcomes; so we have no way of knowing whether they gained enough to overcome many of the barriers they perceive in the environment. The fact that White students reported less progress in career preparation might be of concern, as well" (p. 750).

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