

Faculty Matter: Selected Research on Connections between Faculty-Student Interaction and Student Success

“A large body of research suggests that the best way to involve students in learning and in college life is to maximize the amount of personal contact between faculty members and students” (Astin, 1985, p. 162).

“Student-faculty interaction matters most to learning when it encourages students to devote greater effort to other purposeful activities during college” (Kuh, 2003, p .29).

Background

The nature of the American academic workforce has fundamentally shifted over the past several decades. Whereas full-time tenured and tenure-track faculty were once the norm, the professoriate is now comprised of mostly non-tenure-track faculty. In 1969, tenured and tenure-track positions made up approximately 78.3% of the faculty and non-tenure-track positions comprised about 21.7% (Schuster & Finkelstein, 2006). Forty years later, in 2009 these proportions had nearly flipped; tenured and tenure-track faculty had declined to 33.5% and 66.5% of faculty were ineligible for tenure (AFT Higher Education Data Center, 2009). Of the non-tenure-track positions, 18.8% were full-time and 47.7% were part-time.

Changes in the composition of the American professoriate toward a mostly contingent workforce are raising important questions about the nature of non-tenure-track faculty work and connections between their working conditions and student learning outcomes. Non-tenure-track faculty, particularly part-time faculty members, face a number of challenges and obstacles in the workplace that constrain their abilities to provide a high quality educational experience and facilitate optimal student learning.¹ Recent research suggests the rising numbers of part-time faculty, their working conditions, and the lack of support they receive from their institutions are having an adverse impact on various measures of student success.² Examples include diminished graduation and retention rates, decreased likelihood of transfer from two- to four-year institutions, lower grade point averages, and greater difficulty with major selection and persistence; these outcomes were often disproportionately experienced by students who were beginning their postsecondary education, including those in developmental or remedial courses.

Considering the Results of Limited Opportunities for Faculty-Student Interaction

The diminished student outcomes described above stem from the cumulative impact of a wide range of working conditions, many of which substantially limit opportunities for faculty-student interaction and accessibility to students outside of scheduled class time. Yet, a substantial body of research conducted over more than 30 years demonstrates the important role of faculty-student interaction in promoting student success, particularly among those students who are in the most need of support. The findings of these studies are not always discussed in relation to the changing nature and composition of the professoriate. However, it is important for leaders of colleges

¹ For more complete summaries of non-tenure-track faculty working conditions and the challenges they pose for teaching and learning, see *The Imperative for Change, Selected Research on Connections between Non-Tenure-Track Faculty and Student Learning*, and other resources from The Delphi Project online at <http://resources.thechangingfaculty.org>

² For additional details on these individual studies, see Benjamin, 2003; Bettinger & Long, 2010; Eagan & Jaeger, 2008; Ehrenberg & Zhang, 2004; Gross & Goldhaber, 2009; Harrington & Schibik, 2001; Jaeger & Eagan, 2009; and Jacoby, 2006 or download *Selected Research on Connections between Non-Tenure-Track Faculty and Student Learning* from the URL listed above.

and universities and higher education organizations to consider how non-tenure-track faculty working conditions might be affecting student outcomes and undermining other efforts and initiatives that are designed to improve teaching, learning, and college completion.

Some examples of how faculty-student interaction is limited by policies and practices include:

In-Class Interaction:

- **Last minute hiring:** In many cases, faculty are recruited and hired to teach at the very last minute, leaving them little time to prepare for the term ahead. This practice limits time faculty members could spend planning for instruction that is engaging and makes use of high-impact teaching strategies.
- **A lack of access to orientations and professional development:** Various studies have noted that non-tenure-track faculty, both part-time and full-time, are often excluded from orientation programs and workshops that are made available to other faculty and staff to provide important human resources information, training for work roles, and a review of policies. The absence of a proper orientation is one of several factors that represents a lack of investment in the training and development of non-tenure-track faculty. From the moment they are first hired and often continuing throughout their employment, these individuals also do not have access to professional development programming, mentoring, or funding for training and conferences where they can further develop their skills and learn about new pedagogies and strategies. Some campuses are beginning to recognize the importance of providing these opportunities for all faculty. For example, institutions are increasingly creating planned programs for developing and improving teaching effectiveness, which is the primary role of non-tenure-track faculty.

Out-of-Class Interaction:

- **A lack of office space and pay for office hours:** Part-time faculty members often do not have access to private office space where they can meet with their students to discuss matters related to assignments and course material, academic performance, give recommendations or advice, and provide other guidance for students in need of extra help. They are also typically only paid for their time spent in the classroom and might be less accessible for office hours as a result. We often hear from part-time faculty members that when they do set aside time to meet with students, they have to do so in coffee shops or other places that might make it difficult to talk about academic and personal matters. These conditions place limits on how these faculty members can help to provide support to their students outside the classroom.
- **Limited access to email and other communication:** Sometimes, part-time faculty members are not provided institutional email accounts and are not included in campus or departmental directories, making it more difficult for students to contact them for information or advice. Even when they do have access to accounts, some faculty members have reported that their access is often suspended between terms, so they are not able to communicate with students about upcoming courses or provide advice to former students seeking guidance.
- **Not being invited or encouraged to participate in the life of the campus:** Besides not always being involved in faculty meetings or shared governance on their campuses, part-time faculty members are often not included in other types of activities that are a part of the life of the campus. They may not be invited or encouraged to attend events on campus such as student orientations, celebrations, arts and cultural events, and other activities where they would have opportunities to interact with students and their colleagues.

On the next page, you will find a summary of some of the main themes from the literature on faculty-student interactions. The bibliography that follows includes summaries of a sample of selected studies that describe the importance of faculty-student interactions for facilitating positive student outcomes.

The summaries below have been compiled from a variety of sources, which are designated by endnotes placed at the end of each citation. Please see the endnotes on page 10 for citations for the source of each summary.

Main Themes from Faculty-Student Interaction Research

Importance for Overall Student Development, Educational Aspirations, & Persistence

Research on faculty-student interactions suggests a wide range of positive outcomes and benefits for students' overall development in college and persistence. For example, interactions were found to foster students' aspirations to pursue higher degrees (Arredondo, 1995), engagement and social integration that encouraged persistence (Braxton, Bray, & Berger, 2000; Johnson, 1997; Lundquist, Spalding, & Landrum, 2003; Wang & Grimes, 2001), and positive motivation and self-concept (Chickering & Gamson, 1987; Cokley, 2000). In fact, Kuh and Hu (2001) noted that the frequency of faculty-student interactions had a significant and positive influence on the amount of time students spent engaging in other educational activities. Faculty-student interaction also has a significant role in determining the success of students in their first year of college (Pascarella & Terenzini, 1978).

Relationship to Outcomes for Diverse and At-Risk Student Populations

Although interactions and relationships with faculty members are strong predictors of learning among nearly all groups of students, they have been found to be strongest for students of color (Lundberg & Schreiner, 2004). Studies have specifically examined the effects of interactions for Latina/o and African American students found that students who perceived their professors to be accessible and supportive as a result of their interactions reported higher levels of academic achievement (Allen, 1992; Anaya & Cole, 2001). Additionally, engagement was observed to have a more pronounced positive influence for students with lower SAT scores.

The value of interactions inside and outside the classroom

Students' positive interactions with faculty members inside and outside of the classroom foster the development of skills such as how to think about and solve problems they experience in their academic and personal lives (Dallimore-Norquist, 1994; Kuh, Kinzine, Schuh, Whitt, & Associates, 2005). Pascarella (1980) noted that interactions, particularly informal contact outside the classroom, influenced outcomes such as achievement, persistence, and educational and career aspirations. He also concluded that informal interactions helped to improve interpersonal skills, clarify values, and promote critical thinking and problem solving abilities. Similarly, Kuh and Hu (2001) suggested faculty could enhance the quality of teaching and learning by using opportunities to engage students in discussions outside the classroom to help them to connect what they were learning in the classroom to their day-to-day life.

Other scholars have recommended specific ways that educators can improve the frequency and quality of their interaction with students.

Selected Publications on Faculty-Student Interaction and Student Learning and Success

Allen, W. R. (1992). The color of success: African-American college student outcomes at predominantly White and historically Black public colleges and universities. *Harvard Educational Review*, 62(1), 26-44.

Allen's findings suggest that positive interactions and relationships with faculty members are an important factor in promoting high student achievement and social involvement on campus among African American students.

Anaya, G., & Cole, D. G. (2001). Latina/o student achievement: Exploring the influence of student-faculty interactions on college grades. *Journal of College Student Development*, 42(1), 611-622. ⁷

Anaya and Cole found that faculty-student informal interactions were positively related to latina and latino student academic achievement. This study also found that the higher a students' reported level of academic achievement, the more students perceived professors as accessible and supportive.

Arredondo, M. (1995). Faculty-Student Interaction: Uncovering the Types of Interactions That Raise Undergraduate Degree Aspirations. ASHE Annual Meeting. ⁵

This research focused on the types of faculty-student interactions that raise students' degree aspirations using data from the CIRP Freshman Survey. Results support previous findings that faculty-student involvement is important in predicting higher degree aspirations. Although there was evidence that interaction with faculty preceded students' change in degree aspirations, the direction of effect cannot be known for certain. Results revealed that the following variables were important predictors of higher degree aspirations: spending more hours with faculty, working on a professor's research project, becoming a guest in a professor's home, and being satisfied with the opportunity to talk to professors and the contact with faculty and administration.

Braxton, J.M., Bray, N.J., & Berger, J.B. (2000). Faculty teaching skills and their influence on the college student departure process. *Journal of College Student Development*, 41, 215-227. ⁴

This research builds on the interactionist theory of student departure of Tinto. The authors in this study examined the perceptions of faculty teaching skills as a precursor to student persistence. The sample consisted of 696 first-time, first-year students. Findings indicated that students who perceived the faculty to be well prepared and organized had greater levels of social integration. This had subsequent positive influence on institutional commitment and on intent to reenroll. This study indicates that more attention needs to be given to what happens inside the classroom. Furthermore, institutions need to examine the relationship between in-class and out-of-class experiences. The authors acknowledge that this study is limited due to the use of only a single and highly selective university.

Carini, R. M., Kuh, G. D., & Klein, S. P. (2006). Student Engagement and Student Learning: Testing the Linkages. *Research in Higher Education*, 47(1), 1-32. ⁵

The purpose of this research was to attempt to link results from the NSSE to student performance indicators, such as SAT scores, GPA, and a series of newly developed cognitive and performance tests. In general, although many of the observed relationships between measures of engagement and performance indicators were reported to be statistically significant, the magnitude of the effects was small. As an additional finding, however, when students with the highest and lowest SAT scores were examined separately, stronger positive relationships were observed between engagement and performance measures for lower ability students as compared with higher ability students. The authors conclude that low ability students may receive the greatest payoffs from engagement, particularly in the areas of quality of relationships, a supportive campus climate, integration of diversity into coursework, student-faculty interaction concerning coursework, and reading and writing.

Chickering, A. W., & Gamson, Z. F. (1987). Seven Principles for Good Practice in Undergraduate Education. *AAHE Bulletin*. ^{5,7}

The authors articulate seven principles that they believe contribute to good practice in undergraduate education that promote high levels of learning and personal development. These include (1) encouraging contact between students and faculty; (2) developing reciprocity and cooperation among students; (3) encouraging active learning; (4) giving prompt feedback; (5) emphasizing time on task; (6) communicating high expectations; and (7) respecting diverse talents and ways of learning. One of these principles, encouraging contact between students and faculty, is a key factor in student motivation and involvement. All of these principles can at some level relate to the important relationship between faculty members and their students. They have been incorporated into many educational theories and applications including those related to student engagement.

Cokley, K. (2000). Perceived faculty encouragement and its influence on college students. *Journal of College Student Development*, 41, 350-354. ⁴

Cokley examines the academic self-concept and the academic motivation of students and explores those factors in relation to interactions with faculty members. As Cokley argues, little research exists that has explored these variables and their possible relationships with faculty-student interactions. Cokley administered the Academic Motivation Scale (AMS) and the Academic Self-Concept Scale (ASCS) to 131 undergraduate students enrolled in psychology courses. The sample was not a random sample. Results from this preliminary study indicate that students who had positive perceptions of faculty encouragement reported higher scores on the self-concept and motivation scales than those students who had negative perceptions. The results of this study are limited and more research is warranted.

Dallimore-Nordquist, E. (1994). *Implications of student-faculty interaction: The role of communication in student retention efforts*. Unpublished master thesis, University of Utah. ⁷

Dallimore-Nordquist (1994) found that in general faculty-student interaction was important in student success. She interviewed students to gain a better perspective on the quality of such interactions. The quality measures that emerged included: being accessible; being willing to help; being approachable;

creating a safe and comfortable class environment; being a friend; being flexible; being a good instructor; providing feedback; and, showing interest in student success. In-class and out-of-class interaction with faculty was perceived similarly by students.

Jaasma, M.A. & Koper, R.J. (2002). Out-of-class communication between female and male students and faculty: The relationship to student perceptions of instructor immediacy. *Women's Studies in Communication, 25(1)*, 119-137. ¹

Research indicates that the positive benefits of informal student-faculty interaction, that is, student academic success, faculty evaluations, and student retention, may differ for female and male students. To add to the scant research of out-of-class communication (OCC), this study investigates the relationship between OCC and instructor immediacy. Participants, 302 students, completed instruments measuring verbal and nonverbal immediacy and aspects of OCC. Results indicate that female instructors were rated higher in verbal and nonverbal immediacy in a variety of contexts.

Johnson, J. (1997). Commuter college students: What factors determine who will persist and who will drop out? *College Student Journal, 31(3)*, 323-333 ³

Using multivariate statistical procedures, the study presented in this article investigated what factors distinguished between students who persisted and those who dropped out of a university that serves mainly commuter students. The sample for this longitudinal study was followed for six years. The students were surveyed a number of times during the six years and data were obtained from the University's Integrated Student Information System. Data were analyzed to determine membership of students in one of two groups: Dropout group or Retained group. Faculty- and staff-student interaction and connection was found to be the most important characteristics distinguishing the retained from the dropout students.

Kuh, G. D., & Hu, S. (2001). The effects of student-faculty interaction in the 1990's. *The Review of Higher Education, 24(3)*, 309-332. ⁷

Reported that the overall frequency of faculty-student contact had a significant positive influence on the amount of time students spent on other educationally purposeful activities. They noted four conclusions: there is very little contact between students and faculty outside of the classroom; the most frequent type of faculty-student interaction is general; there are no gender differences in faculty-student contact; and, there were some differences among racial background. In relation to the frequency of faculty-student out-of-classroom interaction, the authors noted that interaction increased as students moved through their collegiate years. Although interaction seems to be infrequent generally, students with stronger pre-entering academic preparation are more likely to have out-of-class contact with faculty. The more students interact with faculty, the better they also perceived university relations. Kuh and Hu state, "however, the results of this study show positive net effects of student-faculty interaction on the amount of effort students devoted to other educationally purposeful activities and positive gross effects on all types of gain measures" (p. 326). The authors suggested that faculty could enhance the collegiate experience by interacting with students outside of the classroom and as much as possible steering such conversations toward matters that help students see their in-class learning impacting their day-today, out-of-class life.

Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J. & Associates. (2005). *Student success in college: Creating conditions that matter*. San Francisco, CA: Jossey-Bass. ⁷

Examined 20 institutions that had higher than predicted scores on the NSSE. The project, Documenting Effective Educational Practice (DEEP), and its findings were documented in the book, which established that faculty-student out-of-classroom interaction is important. The authors stated: ‘Students learn firsthand how to think about and solve practical problems by interacting with faculty inside and outside of classrooms. As a result, teachers become role models, mentors, and guides for lifelong learning’ (p. 207).

The DEEP study looked at successful ways of achieving such interaction. Some highlights include arranging physical space to promote faculty-student interaction, encouraging faculty members to be highly visible outside of the classroom, and promoting student-faculty engagement in campus committees. Such involvement was found to have several educational benefits, including academic achievement and student engagement in educationally purposeful activities. Participation in undergraduate research was also seen as a good practice; one which students considered a highlight to their collegiate experience.

Kuh, G.D., & Vesper, N. (1997). A comparison of student experiences with good practices in undergraduate education between 1990 and 1994. *The Review of Higher Education*, 21(1), 43-61.

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Good practices in undergraduate education consist of faculty and student behaviors associated with desired outcomes from attending college. This study compares the experiences of two groups of lower-division undergraduates with good practices at baccalaureate institutions and doctoral-granting universities between 1990 and 1994. During this period, the frequency of student-faculty interaction increased at baccalaureate institutions. However, at doctoral-granting universities faculty-student interaction and active learning decreased.

Lee, W. Y. (1999). Striving toward effective retention: The effect of race on mentoring African American students. *Peabody Journal of Education*, 74(2), 27-43.

Lee’s study concluded that faculty mentoring can assist African American students in adjusting to the university’s culture and preparing for the prevailing culture of their chosen career. The study indicated that the race of the faculty mentor was not as important in a faculty-minority-student mentoring relationship as the quality of the interaction. Students expected a faculty mentor to help them to gain insights to the dominant culture to help them succeed both in attaining their degree and securing employment in their career field.

Lundberg, C.A., & Schreiner, L.A. (2004). Quality and frequency of faculty-student interaction as predictors of learning: An analysis by student race/ethnicity. *Journal of College Student Development*, 45(5), 549-565. ¹

A study examined interactions between faculty members and students and their links to learning by student race/ethnicity. Participants were 4,501 undergraduate students of seven racial/ethnic groups

who completed the College Student Experiences Questionnaire in the period 1998-2001. Results reveal that relationships with faculty members were stronger predictors of learning for all groups than student background characteristics but were strongest for students of color. Implications for practice are outlined.

Lundquist, C., Spalding, R.J., & Landrum, R.E. (2003). College student's thoughts about leaving the university: The impact of faculty attitudes and behaviors. *College Student Retention Research, Theory & Practice*, 4(2), 123-133. ¹

College students at a large Western university (N=729) were surveyed about 19 potential faculty attitude and behavior items and the items' relative impact on students' thoughts about leaving the university. Three issues have a significant impact on predicting student thoughts about leaving the university: faculty members being supportive of student needs, returning telephone calls and e-mails in a timely fashion, and being approachable. The magnitude of the impact of these items on student retention varies as a function of gender and year in school. Faculty members need to be aware of the impact their attitudes and behaviors have in students' decisions to leave the university.

Pascarella, E. T. (1980). *Student-faculty informal contact and college outcomes. Review of Educational Research*, 50(4), 545-595. ⁷

Pascarella reviewed existing research on student-faculty informal out-of-class interaction. He concluded that even when pre-enrollment student characteristics were controlled, a significant positive association existed between the extent and quality of student-faculty informal contact and the following outcomes: academic achievement; educational aspirations; attitudes toward college; intellectual and 13 personal development; and, persistence from the first to second year of college. Pascarella also concluded that not all types of contacts were equally positive. Through research he found that the most influential out-of-classroom interaction extends what happens in the classroom to a student's life outside of the classroom. The qualitative aspects of such contact seem also to have an impact on future contacts. Pascarella noted "Indeed, it may well be that the quality and personal satisfaction derived from initial informal contacts determine, to a considerable extent, the subsequent amount of informal contact a student will seek with faculty" (p. 565). Even while controlling for pre-entering characteristics, frequent faculty-student contact may help a student become more interested in career exploration, which in turn lead the student to initiate more out-of-class contact with faculty.

Pascarella concluded that informal contact between faculty and students does aid in the holistic education of students because it helps students improve interpersonal skills, clarify personal values, and promote critical thinking and problem solving skills.

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students*. San Francisco: Jossey-Bass. ⁷

In Pascarella and Terenzini's analysis of 30 years of empirical studies, the researchers found considerable evidence to suggest that when faculty-student interaction extends beyond the classroom, the impact of faculty members as role models for students is increased. In their review, they concluded that student and faculty contact outside of the classroom, even after controlling for other factors, does positively affect student persistence, degree completion, career choice and

educational aspirations. They also concluded that in many ways the frequency of faculty-student out-of-classroom interaction may not be as important as the type of interaction. In terms of cognitive and intellectual growth, faculty and student interaction does make a difference, especially the types of interaction that reinforce the intellectual pursuit of knowledge outside of the classroom. In addition, they found that increased interaction between faculty and students serves to strengthen the bonds students have with their institution, thereby increasing the likelihood of social integration and persistence.

Pascarella, E. T., & Terenzini, P. T. (1978). Student-faculty informal relationships and freshman year educational outcomes. *Journal of Educational Research*, 71(4), 183-189. ⁷

In this article, the authors highlighted results of their investigation on the effects of faculty-student interaction on the outcomes of students' first year in college. Researchers found that the impact of faculty-student interaction was significant even after controlling for 14 pre-college characteristics. This research also highlighted that some types of faculty-student out-of-classroom interaction have more of a positive impact on student academic achievement than others, as defined by GPA, at the end of their freshman year. Faculty-student interaction that focuses on intellectual or course-related issues had the highest impact on academic achievement and self-perceived intellectual development.

Sax, L. J., Bryant, A. N., & Harper, C. E. (2005). The differential effects of student-faculty interaction on college outcomes of women and men. *Journal of College Student Development*, 46(6), 642-657.

Although the findings suggest female students have more frequent and more positive interactions with their faculty than do men, students' interactions with and perceptions of their faculty had a number of similar effects for male and female students. Associations that were significant for both men and women, including scholarly self-confidence, leadership ability, degree aspirations, and retention, generally echo the results of prior research. Still, differences were found with regard to how gender-based patterns relate to outcomes pertaining to political engagement/social activism, gender roles, and physical/psychological well-being.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition, second edition*. Chicago: The University of Chicago Press. ¹

The author synthesizes far-ranging research on student attrition and on actions institutions can and should take to reduce it. The key to effective retention, Tinto demonstrates, is in a strong commitment to quality education and the building of a strong sense of inclusive educational and social community on campus. This completely revised and expanded edition incorporates the explosion of recent research and policy reports on why students leave higher education. Incorporating data only now available, Tinto applies his theory of student departure to the experiences of minority, adult, and graduate students, and to the situation facing commuting institutions and two-year colleges. He has revised his theory as well, giving new emphasis to the central importance of the classroom experience and to the role of multiple college communities.

Umbach, P. D., & Wawrzynski, M. R. (2005). Faculty do matter: The role of college faculty in student learning and engagement. *Research in Higher Education*, 46(2), 153-184. ⁷

Looked at the broad impact of faculty-student interaction on student success by using data gathered with the National Survey of Student Engagement (NSSE). Students on campuses where faculty frequently interacted with students out-of-the-classroom reported higher levels of engagement and learning. Faculty and student out-of-classroom interactions were also enhanced by faculty members engaging in active and collaborative learning activities. For seniors in the study, course related faculty-student interactions had a positive impact on the three measures of environmental support: supportive interpersonally; supportive for learning; and, satisfied with the environment. Overall, however, out-of-class interactions appeared not to have as strong of an effect as in-class interactions. Additionally, the authors did note that faculty can make a difference by how much emphasis they place on co-curricular activities that enhance student learning. The level of importance given to co-curricular involvements had positive outcomes related to academic challenge, student-faculty interaction and active and collaborative learning. In relation to out-of-class interactions, smaller institutions had more interaction, and faculty at rural institutions engaged students more frequently in such interaction.

Wang, H., & Grimes, J.W. (2001). A systematic approach to assessing retention programs: Identifying critical points for meaningful interventions and validating outcomes assessment. *College Student Retention Research, Theory & Practice*, 2(1), 59-68. ¹

A systematic approach to assessing retention programs focuses on student success and continual improvement in retention. The approach is a dynamic and ongoing practice built into the daily work of the faculty, staff, and other college personnel and is based on the theoretical framework for comprehensive retention research (Levitz & Noel, 1985). The framework has been extensively used in retention research (Congos & Schoeps, 1997; Molnar, 1996). Three major components of retention research have been identified: determining dropout predictors, identifying critical points, and validating outcomes assessment of retention endeavors. This article describes the research approach that yielded data used in designing and implementing meaningful interventions for freshmen to enable them to attain their academic and personal goals. The research was also used in reports provided for local and state educators, legislators, the general public, and others interested in the value of investing in higher education.

Sources for Annotations

¹ **Annotated summary retrieved from the Community College Survey of Student Engagement.**

Community College Survey of Student Engagement. (n.d.). *Annotated bibliography*. Austin, TX: Community College Survey of Student Engagement.

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³ **Annotated summary retrieved from Arkansas Tech University Office of Institutional Research and Assessment.**

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⁴ **Annotated summary retrieved from Indiana Project on Retention.**

McKinney, J., & Reynolds, P. (n.d.). *Annotated bibliography*. Bloomington, IN: Indiana Project on Retention.

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⁵ **Annotated summary retrieved from the Higher Education Quality Council of Ontario.**

CCI Research Inc. (2009) Measures of Student Engagement Literature Review: Annotated Bibliography. Toronto: Higher Education Quality Council of Ontario.

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⁶ **Annotated summary retrieved from Tufts University Center for the Enhancement of Learning and Teaching.**

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⁷ **Annotated summary retrieved from Texas A&M University.**

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The Delphi Project on the Changing Faculty and Student Success

For more information please visit <http://www.thechangingfaculty.org>

Project Description

The nature of the American academic workforce has fundamentally shifted over the past several decades. Whereas full-time tenured and tenure-track faculty were once the norm, more than two-thirds of the professoriate in non-profit postsecondary education is now comprised of non-tenure-track faculty. New hires across all institutional types are now largely contingent and this number will continue to grow unless trends change. The purpose of this project is to examine and develop solutions to change the nature of the professoriate, the causes of the rise of non-tenure-track faculty, and the impact of this change on the teaching and learning environment.

Research Team and Partner Organizations

Adrianna Kezar, Ph.D.

Principal Investigator

Daniel Maxey, M.Ed.

Co-Investigator

In partnership with the Association of American College and Universities

AAC&U is the leading national association concerned with the quality, vitality, and public standing of undergraduate liberal education. Its members are committed to extending the advantages of a liberal education to all students, regardless of academic specialization or intended career. Founded in 1915, AAC&U now comprises more than 1,250 member institutions – including accredited public and private colleges, community colleges, and universities of every type and size.

About the Pullias Center for Higher Education

The Pullias Center for Higher Education is an interdisciplinary research unit led by Director, William G. Tierney, and Associate Director, Adrianna Kezar. The Center was established to engage the postsecondary-education community actively, and to serve as an important intellectual center within the Rossier School of Education; it draws significant support and commitment from the administration. The Center's mission is to improve urban higher education, strengthen school-university relationships, and to focus on international higher education, emphasizing Latin America and the Pacific Rim. Working on fulfilling that mission are the Center's faculty, research assistants, and staff.

This research project is funded through generous support from The Spencer Foundation, The Teagle Foundation, and the Carnegie Corporation of New York.

The Spencer Foundation was established in 1962 by Lyle M. Spencer. The Foundation is committed to investigating ways in which education, broadly conceived, can be improved around the world. From the first, the Foundation has been dedicated to the belief that research is necessary to the improvement in education. The Foundation is thus committed to supporting high-quality investigation of education through its research programs and to strengthening and renewing the educational research community through its fellowship and training programs and related activities.

The Teagle Foundation intends to be an influential national voice and a catalyst for change in higher education to improve undergraduate student learning in the arts and sciences. The Foundation provides leadership by mobilizing the intellectual and financial resources that are necessary if today's students are to have access to a challenging and transformative liberal education. The benefits of such learning last for a lifetime and are best achieved when colleges set clear goals for liberal learning and systematically evaluate progress toward them. In carrying out its work, the Foundation is committed to disseminating its findings widely, believing that the knowledge generated by our grantees—rather than the funding that enabled their work—is at the heart of our philanthropy.

The Carnegie Corporation of New York, founded by Andrew Carnegie, was envisioned as a foundation that would “promote the advancement and diffusion of knowledge and understanding.” In keeping with this mandate, our work incorporates an affirmation of our historic role as an education foundation but also honors Andrew Carnegie's passion for international peace and the health of our democracy. Mr. Carnegie dedicated his foundation to the goal of doing “real and permanent good in this world” and deemed that its efforts should create “ladders on which the aspiring can rise.” In our current-day grantmaking we continue to carry out this mission through programs and initiatives that address today's problems by drawing on the best ideas and cutting-edge strategies that draw strength from deep knowledge and scholarship. History guides us and the present informs us, but our work looks always toward the future.