

Selected Research on Connections between Non-Tenure-Track Faculty and Student Learning (*Updated May 2020*)

Student learning is one of the central missions of higher education. Existing research on the connections between non-tenure-track faculty working conditions and student learning show that working conditions shape the ways that faculty do their work, which in turn affects student experiences. It is thus essential for higher education stakeholders to understand the implications of the research on non-tenure-track faculty working conditions and student learning and to continue such research.

Working conditions vary across academia and even within single institutions. Many faculty—particularly part-timers—are not permitted to contribute to curriculum planning and design (which prevents them from leveraging their particular expertise and generally alienates them from the curriculum), are often hired within days of the start of the semester (which impedes planning and preparation), are not provided office space for office hours and other work (which wastes their time, consumes their resources, and causes distraction), and do not receive support from administrative staff or resources to support instruction (which also wastes their time and consumes their resources). In addition to the problematic conditions above, part-timers often must deal with inequitable compensation, no job insecurity, the denial of healthcare benefits and retirement plans, exclusion from meaningful participation in governance and professional development, and a lack of respect from many tenured faculty and administrators.

The cumulative impact of negative working conditions impedes individual instructors' ability to interact with students and apply their many talents, creativity, and varied knowledge to maximum effect in the classroom. While many prior studies and reports have been used to justify universities putting resources towards generating a positive working environment for tenured and tenure-track faculty, the same rationale has not always applied to the non-tenure-track faculty, the fastest-growing segment of the faculty on our campuses. We have begun to see more research focusing on non-tenure-track faculty working conditions and their impact on student learning, and colleges and universities should hasten to put these insights into action.

On the next page, you will find a list of five effects on student outcomes that have been tied to negative working conditions for non-tenure-track faculty. The bibliography that follows on page 4 includes summaries of research on nontenure-track faculty and student outcomes, followed by a list of citations for other selected publications and reports that detail the growing numbers of non-tenure-faculty and their working conditions more specifically. It is important to acknowledge that findings do not implicate non-tenure-track faculty as being responsible, individually or as a group, for negative student outcomes. Rather, the summarized research shows that non-tenure-track faculty, whose primary responsibility is to teach undergraduate students, are largely committed to teaching, student learning, and enhancing the classroom experience.

The summaries below have been compiled through a combination of our own research and annotations prepared by the American Federation of Teachers Faculty and College Excellence campaign. We focused on peer-reviewed studies with the largest samples and strongest methodologies; these studies suggest a relationship between non-tenure-track faculty working conditions and student outcomes.

Eight Example Effects of Overreliance on Non-Tenure-Track Faculty on Student Outcomes

Increased reliance on non-tenure-track faculty, particularly part-timers, has been found to be negatively associated with retention and graduation rates. Ehrenberg and Zhang (2004) and Jaeger and Eagan **Diminished** 1 (2009) found that graduation rates declined as proportions of non-**Graduation and** tenure-track faculty increased. Increases in part-timers have an even **Retention Rates** greater negative impact on graduation rates, as well as retention (Jacoby, 2006). Harrington and Schibik (2001) tied lower retention to reliance on these faculty. Gross and Goldhaber (2009) found that students at two-year colleges that had more full-time, tenured faculty were more likely to transfer to **Decreased** four-year institutions. They found a 4% increase in transfers to four-**Transfer from** year institutions per 10% increase in the proportion of tenured faculty. Two- to Four-Eagan and Jaeger (2008) also found increased proportions of part-time **Year Institutions** faculty were correlated with lower transfer rates. About 80% of twoyear faculty are NTT faculty. In a study of college freshmen, Harrington and Schibik (2001) found that increased exposure to part-time faculty was significantly associated with lower second-semester retention rates, lower GPAs, and fewer attempted credit hours. Bettinger and Long (2010) found early exposure had a negative association with students' major selection. Ran and Sanders (2019, 2020) found that community college **Negative** students who took developmental and gateway English and math **Outcomes** courses with part-time faculty tended to have better grades than **Associated with** students who took the same courses with full-time faculty, yet were **Early Exposure** less likely to enroll in and pass the next course in the developmental to Part-Time sequence. Ran and Xu (2017, 2018) came to similar findings when comparing short-term non-tenure-track faculty hired on short-term **Faculty** contracts, non-tenure-track faculty hired on long-term contracts, and tenured and tenure-track faculty. Xu (2019) reached similar findings when comparing student outcomes for part-time contingent faculty compared to full-time contingent faculty. In sum, these studies suggest that contingent faculty working conditions impact their instruction and ability to advise students in ways that can hurt student performance in the long run. Most studies highlight the substantial association between diminished interaction and diminished student outcomes. Contact time and interactions between traditional faculty and students has been shown Reduced Facultyto foster student success, suggesting that faculty whose working Student conditions impede their ability to spend time interacting with students Interaction and will in turn be less able to support the success of their students **Inaccessibility of** (Benjamin, 2003). Research suggests that the inaccessibility of part-**Part-Time** time faculty to students due of time pressures, lack of office space, and **Faculty** holding jobs at multiple locations has a negative effect on student outcomes (CCSSE, 2009; Eagan & Jaeger, 2008; Jacoby, 2006, Umbach, 2007). Poor compensation and working conditions are impediments to maximizing the potential for these faculty to contribute to improved student learning outcomes.

5	Part-Time Faculty Can Have a More Pronounced Negative Effect than Full-Time Faculty	Unlike part-time faculty, full-time NTT faculty practices often parallel those of tenured and tenure-track faculty (Baldwin and Wawrzynski, 2011). Most studies focusing on the differences in effects find that more negative outcomes are tied to part-timers' limited time for faculty-student interaction, limited access to instructional resources, staff, and development opportunities, as well as a lack of participation in contributing to the design of courses and curriculum (Eagan & Jaeger, 2008; Harrington and Schibik, 2001; Jacoby 2006; Mueller, Mandernach, & Sanderson, 2013; Ran and Xu, 2017, 2018; Umbach, 2007).
6	Increased Faculty Contingency is Associated with Decreased Academic Rigor and Grade Inflation	Studies that analyzed the associations between faculty type and student outcomes found that students who took courses with nontenure-track faculty were more likely to receive higher grades in those courses, yet were less likely to enroll in subsequent courses in the same field and ended up receiving lower grades in subsequent courses in the same field or sequence (Johnson, 2011; Kezim, Pariseau, & Quinn, 2005; Ran & Sanders, 2019, 2020; Ran & Xu, 2017, 2018; Xu, 2019). The authors theorized that faculty facing more contingent working conditions may be more likely to inflate student grades to make their own rehiring more likely and may be less able to best advise students enrolled in their courses due to lack of institutional support.
7	Increased Faculty Contingency is Associated with Fewer Impactful Practices	Studies looking at the association between faculty status and instructional practices found that contingent faculty were less likely to engage in impactful instructional practices such as inviting guest lecturers, assigning group work, or engaging in active and collaborative learning, and were less able to find time to prepare for instruction or engage in instructional planning (Schuetz, 2002; Umbach, 2007; Kuh, Laird & Umbach, 2004). These studies taken together suggest that the working conditions of contingent faculty, lack of job security, and the tenuous relationship between contingent faculty and their employing colleges interfere with their ability to challenge students and engage in the most impactful instructional practices.
8	Faculty Working Conditions Beyond Title and Classification Shape how they are Able to Teach and Engage Students, Which in Turn Shapes Student Experiences	The biggest takeaway from the studies summarized above is that faculty working conditions shape student learning conditions. The majority of studies have shown associations between contingent faculty and negative student outcomes and reduced faculty-student interaction likely because the majority of institutions employing contingent faculty are doing so in an unsupportive way (Benjamin, 2002, 2003; Bettinger & Long, 2004; Curtis & Jacobe, 2006; Ran & Sanders, 2019, 2020; Umbach, 2007; 2008; Umback & Wawrzynsky, 2005; Xu, 2019). Complicating the picture, Jaeger and Eagan (2010) found that institutions that provided adequate support for contingent faculty saw a positive association between student outcomes and taking courses with contingent faculty. Figlio, Schapiro, & Soter (2015) came to similar findings in their comparison of non-tenure-track faculty and tenured-tenure-track faculty. Authors of both studies argue that faculty working conditions play a significant role in shaping instruction and student outcomes, and that faculty title is not enough to predict student outcomes.

Individual Studies Summarized

Baldwin, R. G. & Wawrzynski, M. R. (2011). Contingent faculty as teachers: What we know; What we need to know. *American Behavioral Scientist*, 55(11), 1485-1509. https://doi.org/10.1177%2F0002764211409194

Baldwin and Wawrzynski utilized data from the 2004 National Study of Postsecondary Faculty, as well as Holland's academic environments model, to determine if full- and part-time non-tenure-track and "permanent" tenured and tenure-eligible faculty differ in their use of subject-centered and learning-centered teaching strategies. Holland's academic environments model was also used to examine the subject-centered and learning-centered teaching practices of permanent and contingent faculty within broad academic areas. Findings indicate that the teaching practices of part-time contingent faculty differ in important ways from their other faculty colleagues. In contrast, the teaching practices of full-time contingent faculty more closely parallel those of their tenured and tenure-eligible colleagues. Based on these findings, implications for policy, practice, and additional research on this growing segment of the U.S. professoriate are included.

Benjamin, E. (2002). How over-reliance upon contingent appointments diminishes faculty involvement in student learning. *Peer Review*, 5(1): 4-10.

Benjamin reviewed several reports on the effects of NTT faculty on student outcomes, addressing issues such as fewer contact hours with students outside of classes, availability for office hours, and their assignment to lower-division courses. He discovered that younger NTT faculty with practical professional experience may provide benefit to students in vocational or more hands-on disciplines, but that NTT faculty in those disciplines had declined. Benjamin drew distinctions between cost-saving and cost-efficiency, arguing that evidence suggests student experience is sacrificed by rising proportions of NTT faculty in the academic workforce.

Benjamin, E. (2003). Exploring the role of contingent instructional staff in undergraduate learning [Special issue]. New Directions for Higher Education, 123. (Includes chapters authored by Jack H. Schuster, Robert Townsend, Maureen Murphy Nutting, Karen Thompson, John G. Cross and Edie N. Goldenberg, Gary W. Reichard, and Sandra E. Elman.)

This New Directions in Higher Education volume addresses connections between two perspectives on undergraduate instruction in higher education, one that finds institutions have failed to fulfill its primary mission to support undergraduate instruction and another that believes institutions do not support and respect for undergraduate instructors, particularly in terms of hiring, contracts and responsibilities, and working conditions. Several chapters make assertions that the increasing dependence on non-tenure-track faculty appointments endangers undergraduate student learning, but also has serious implication for the future of the academic workforce.

The various chapters examine different perspectives on the effects of reliance on non-tenure-track faculty, working conditions, and the nature of collegiality among these faculty and the administration and tenure-line faculty. Benjamin closed the volume with a thorough reappraisal of the above issues – generally and as presented by the volume's contributing authors, calling to question the qualifications of non-tenure-track faculty, as well as other often-contested findings from prior studies. He noted that while there is a general lack of research drawing explicit

connections between over-reliance on non-tenure-track faculty and student learning outcomes, there is a substantial body of literature that suggests that student involvement in learning with faculty is a significant factor in determining student outcomes. In concluding, Benjamin found that while there is limited evidence that increased reliance on non-tenure-track appointments is substantially damaging to undergraduate learning, there is sufficient evidence to demonstrate a need for research to examine the effectiveness of these faculty and an explicit examination of the outcomes related to limited student-faculty interaction.

Bettinger, E., & Long, B.T. (2004). Do college instructors matter? The effects of adjuncts and graduate assistants on students' interests and success (Working Paper No. 10370). National Bureau of Economic Research. https://doi.org/10.3386/w10370

Bettinger and Long review findings from a study of 25,000 first-time freshmen at 12 public, four-year institutions in Ohio, assessing the effect of instruction provided by NTT faculty and graduate employees on student academic behavior, choice of major, and student success in subsequent courses. Although the authors did not find clear evidence that NTT faculty had a significant adverse effect on students' future success, they conclude that students who took courses taught by traditional full-time tenured faculty were, in fact, more likely to enroll in subsequent classes or choose to major in the corresponding subject area. Bettinger and Long also found that younger NTT faculty produced more distinct negative effects, as did those in the sciences and humanities. In contrast, they found that NTT faculty in technical and professional fields, including business and architecture, had a somewhat positive effect on student outcomes.

Bettinger, E. & Long, B. T. (2010). Does cheaper mean better? The impact of using adjunct instructors on student outcomes. *The Review of Economics and Statistics*, 92(3), 598-613.

Bettinger and Long assess the impact of NTT faculty on student interest and course performance as compared to full-time faculty. The analysis largely suggests that the impact of alternative instructors varies by discipline. Taking a class from an adjunct often has a small, but positive effect on the number of subsequent courses that a student takes in a given subject and may increase the likelihood that a student majors in the subject. The analysis suggests that adjunct instructors are especially effective in fields that are more directly tied to a specific profession, like education and engineering, although they also had relative positive effects in the sciences. Early exposure to NTT faculty in more academic fields had a negative effect on choice of major, but overall the authors suggest there is insufficient evidence to support prior claims of distinctly negative effects.

The authors clarify that their findings may not fully account for all of the potential costs and benefits associated with adjunct faculty and recommend further research to identify and determine the impact of other possible effects such as high turnover rates and distribution of departmental tasks.

Community College Survey of Student Engagement. (2009). Making connections: Dimensions of student engagement. Austin, TX: Community College Survey of Student Engagement. https://www.ccsse.org/publications/national_report_2009/CCSSE09_nationalreport.pdf

The Community College Survey of Student Engagement report discussed the importance of engaging students in campus learning communities, which has been found to improve the likelihood of student success. *Making Connections* documented strategies community colleges

are using to ensure connections between students and their peers, teachers, and the broader campus community. They specifically address challenges part-time employment posed for establishing such connections, noting that a majority of faculty at community colleges are often employed part-time. The report found that more than 40% of part-time faculty spent zero hours per week advising students, despite student needs for advising and faculty-student interaction. The report concluded there is a need for professional development for part-time faculty as well as other opportunities for student engagement such as office hours and advising, including that these additional duties should be compensated.

Curtis, J. W. & Jacobe, M. (2006). *Consequences: An increasingly contingent faculty*. AAUP Contingent Faculty Index 2006. American Association of University Professors.

Curtis and Jacobe provide qualitative and quantitative perspectives on the increasing use of contingent faculty. They suggest connections between the structural aspects of non-tenure-track employment and student learning outcomes, primarily as affected by a lack of professional support, impediments to student-faculty interaction, and constraints related to a lack of protections for academic freedom.

Eagan, M.K. & Jaeger, A.J. (2008). Effects of exposure to part-time faculty on community college transfer. *Research in Higher Education*, *50*, 168-188. https://doi.org/10.1007/s11162-008-9113-8

Eagan and Jaeger utilized student transcripts, faculty employment, and institutional data from the California community college system to track student cohorts over a five-year period. They examined the impact of increased reliance on part-time faculty at the community colleges and concluded that there is a strong correlation between students' exposure to part-time faculty through instruction and the likelihood that students would not transfer to four-year institutions. Eagan and Jaeger note the availability of part-time faculty for student interaction and stress the need for community colleges to address this issue, as well as satisfaction among part-time faculty and outreach to part-time students, who comprise 60% of the potential transfer population.

Ehrenberg, R.L. & Zhang, L. (2004). *Do tenured and non-tenure track faculty matter?* (Working Paper No. 10695). National Bureau of Economic Research.

Ehrenberg and Zhang utilized time series data for several two- and four-year institutions from 1988 to 1997 to examine the effects of increased proportions of part-time and full-time non-tenure-track faculty on five- and six-year graduation rates. The authors found that as proportions of full-time non-tenured and part-time faculty increased, graduation rates decreased. Slightly greater decreases were found in situations where greater numbers of part-time faculty than full-time non-tenure-track were hired. The authors also found these effects to be greater at public institutions.

Contrary to the notion that non-tenure-track faculty permit tenured faculty to focus on often lucrative research projects, Ehrenberg and Zhang found that higher proportions of NTT faculty are in fact not associated with greater external research volume for full-time tenure-track faculty. They also conclude that while the cost savings related to employing larger proportions of faculty through non-tenure-track positions may be attractive to institutions, data indicate that students do not reap similar benefits.

Figlio, D. N., Schapiro, M. O., & Soter, K. B. (2015). Are tenure track professors better teachers? *The Review of Economics and Statistics*, 97(4), 715–724. https://doi.org/10.1162/REST_a_00529

This quantitative study was conducted on data from first-year students entering Northwestern University from 2001 to 2008. The study compared student outcomes, student likelihood to enroll in subsequent courses in the same subject, and student performance in subsequent courses for courses initially taught by full-time contingent faculty and tenured/tenure-track faculty. The study found that students who took courses with full-time contingent faculty performed better, were more likely to enroll in subsequent courses in the same subject area and performed better in subsequent courses than students who took courses with tenured/tenure-track faculty. The authors theorized that the working conditions of contingent faculty at Northwestern university (e.g., long-term contracts, professional development support, a focus on teaching rather than a focus on conducting research) may have facilitated their ability to add value for those first-year students compared to tenured/tenure-track faculty. This study illustrates that contextual dimensions of contingent faculty life play a significant role in shaping how teaching interactions play out and how student performance is shaped by working with different types of faculty.

Gross, B. & Goldhaber, D. (2009). Community college transfer and articulation policies: Looking beneath the surface (Working Paper No. 2009_1). Center on Reinventing Public Education, University of Washington, Bothell.

https://www.crpe.org/sites/default/files/wp crpe1R cc2 apr09 0.pdf

Gross and Goldhaber found a strong correlation between institutions that employ more full-time, tenured faculty and students who transfer from two-year to four-year institutions. The authors' research suggested that for every 10% increase in the proportion of tenured faculty at a two-year college, the likelihood of a student transferring to a four-year college increased by 4%.

Harrington, C., & Schibik, T. (2001). Caveat Emptor: Is there a Relationship Between Part-Time Faculty

Utilization and Student Learning Retention? Association for Institutional Research Files On
Line, 91. https://eric.ed.gov/?id=ED512352

Harrington and Schibik studied 7,174 first-time, full-time freshmen at a Midwestern comprehensive institution between 1997 and 2001, finding that increased exposure to part-time faculty was significantly associated with lower second-semester retention rates. The authors also found that students who had the most exposed to part-time faculty had the lowest GPAs and attempted fewer credits. Harrington and Schibik urged colleges and universities to exercise caution in their use of part-time faculty, particularly how and where they are used, noting that potential implications for more vulnerable, lower-achieving first-year students.

Jacoby, D. (2006). The effects of part-time faculty employment on community college graduation rates." *Journal of Higher Education*, 77(6), 1081-1103.

Jacoby discovered that increases in the proportion of part-time faculty at community colleges had a strong and highly significant negative effect on graduation rates. In his examination of student-to-faculty ratios, he found that while better ratios resulted in better graduation outcomes overall, the success of students who took smaller classes with part-time faculty was comparable to success of students in larger classes taught by full-time tenure-track faculty. These findings suggest that high student-to-faculty ratios did not compensate for the negative effects of part-time instructors on graduation outcomes.

Jacoby sought to explain that decreased student interactions are a substantial negative outcome related to high proportions of part-time faculty. He connected a lack of resources such as private offices, mailboxes, and telephones to diminished incentives and capacity to support students outside of the classroom, which he hypothesizes are likely causes of the observed decreases in graduation rates.

Jaeger, A.J. & Eagan, M.K. (2009). Unintended consequences: Examining the effect of part-time faculty members on associate's degree completion. *Community College Review*, *36*(3), 167-194. https://doi.org/10.1177/0091552108327070

Eagan and Jaeger utilized student transcripts, faculty employment, and institutional data from the California community college system to identify and examine possible involuntary effects on student drop-out rates as a result of hiring part-time faculty at community colleges. The study suggests that exposure to part-time faculty members had a modest, but negative effect on students' chances of completion. They conclude that high degrees of exposure to part-time instructors in the community colleges, where these faculty teach approximately half of the courses, resulted in at least a 5% decrease in the likelihood that students would graduate with an associate's degree when compared to students who took courses with full-time faculty only. Eagan and Jaeger suggest that administrators and policy makers have the ability to remedy these effects by improving conditions for part-time faculty and improving the accessibility of faculty to students and greater engagement in the classroom.

Jaeger, A. J. & Eagan, M. K. (2010). Examining retention and contingent faculty use in a state system of public higher education. *Educational Policy* 20(10), 1-31.

https://doi.org/10.1177/0895904810361723

In a study of six public, four-year institutions in a state public higher education system, Eagan and Jaeger discovered that increased exposure to non-tenure-track faculty in students' first year of college negatively affected retention to their second year. They also contributed to existing understanding of the connections between how institutions invest in instructional staff and student success, disaggregating instructional staff data into full-time non-tenure-track and part-time faculty, as well as graduate assistants. They also examined the effects of non-tenure-track faculty on student outcomes different institutions, including doctoral extensive, doctoral intensive, masters, and baccalaureate four-year institutions.

They found that the use of part-time faculty at doctoral intensive institutions generated positive effects with regard to student retention. Jaeger and Eagan uncovered a system of support and development for contingent faculty, which included part-time faculty participation in new faculty orientations and targeted attention to address common challenges that part-time faculty face such as large class sizes, a lack of knowledge of campus academic support services and resources for students. The authors findings suggest that more purposeful integration of contingent faculty into the life and operations of the institution promises to contribute to improving student success.

Kezim, B., Pariseau, S. E., & Quinn, F. (2005). Is grade inflation related to faculty status? *Journal of Education for Business*, 80(6), 358-363.

This quantitative study was conducted on longitudinal data from business students at a small private undergraduate college in the northeastern United States. They found that contingent

faculty status was associated with higher grades assigned. This contributes further evidence to suggest that the precarious nature of contingent faculty employment leads contingent faculty to be more likely to inflate grades to increase their likelihood of being re-hired after the completion of their short-term contracts.

Mueller, B., Mandernach, B. J., & Sanderson, K. (2013). Adjunct versus Full-Time Faculty: Comparison of Student Outcomes in the Online Classroom. *Journal of Online Teaching and Learning*, *9*(3), 341-352. https://jolt.merlot.org/vol9no3/mueller_0913.htm

This quantitative study was conducted using archival data for one online course offered in multiple sections across one academic year at a four-year university. The study compared student performance in sections taught by part-time contingent faculty with student performance in sections taught by full-time faculty. The study found that students in sections taught by full-time faculty had higher grades and reported higher levels of satisfaction compared to students in sections taught by part-time faculty, and theorized that it is likely that the working conditions of part-time faculty influenced their work and thereby negatively shaped student experiences and outcomes.

- Ran, F. X., & Sanders, J. (2019). Early Academic Outcomes for Students of Part-Time Faculty at Community Colleges: How and Why Does Instructors'; Employment Status Influence Student Success? Community College Research Center.

 https://ccrc.tc.columbia.edu/publications/early-outcomes-students-part-time-faculty.html
 (Subsequently published as "Instruction Quality or Working Condition?" below.)
- Ran, F. X., & Sanders, J. (2020). Instruction Quality or Working Condition? The Effects of Part-Time Faculty on Student Academic Outcomes in Community College Introductory Courses. *AERA Open*, 6(1), 2332858420901495. https://doi.org/10.1177/2332858420901495

This quantitative study examined data from six community colleges and compared the effects of part-time and full-time faculty on various student outcomes. The study found that community college students who took developmental and gateway English and math courses with part-time faculty tended to have better grades than students who took the same courses with full-time faculty. Yet students who took those courses with part-time faculty were less likely to enroll in and pass the next course in the developmental sequence. The authors theorized that this may be due to part-time faculty facing more challenges associated with working conditions (e.g., teaching only night courses and lacking access to physical resources on campus) and institutional knowledge that interfered with their ability to advise students compared to full-time faculty. The study points to the need for more research on the connections between contingent faculty working conditions and other contextual factors to better understand the mechanisms that support faculty instructional success.

Ran, F. X., & Xu, D. (2019). Does contractual form matter? The impact of different types of non-tenure track faculty on college students' academic outcomes. *Journal of Human Resources*, *54*(4), 1081-1120. https://doi.org/10.3368/jhr.54.4.0117.8505R

This quantitative study used data from students entering an anonymous state college system between 2005 and 2010, as well as instructors in that system. The study found that taking a course with non-tenure-track faculty was associated with higher grades assigned for that course, but was negatively associated with subsequent enrollment in courses in the same field. Further, taking a course with non-tenure-track faculty was associated with receiving lower grades in

subsequent courses. Within non-tenure-track faculty, these associations were stronger for those hired on a shorter-term basis compared to those hired on a longer-term basis. This study further supports the theory that the contingent nature of faculty employment encourages faculty to assign easier work and to inflate grades.

Schuetz, P. (2002, Summer). Instructional practices of part-time and full-time faculty. *New Directions* for Community Colleges, 118, 39-46. https://doi.org/10.1002/cc.62

This quantitative study examined data from 1,486 faculty in a survey about instructional practices. The study found part-time faculty were less likely than full-time faculty to utilize a wide range of impactful instructional practices in the classroom including guest lecturers, multimedia components, laboratory experiments, computers, group activities, teamwork assignments and projects. Part-time faculty were also less likely to have engaged in course preparation, revised a syllabus or teaching objective for a course over the past 3 years, or to have engaged in lesson planning on their most recent working day. Part-time faculty were also found to be less engaged with their colleagues or institution. These results suggest that the working conditions of part-time faculty make it much more difficult for them to engage in impactful instructional practices.

Umbach, P. (2007). How effective are they? Exploring the impact of contingent faculty on undergraduate education. *The Review of Higher Education, 30*(2), 91-123. https://doi.org/10.1353/rhe.2006.0080

Umbach studied the relationship between the use of non-tenure-track faculty, particularly parttime faculty, and effects on undergraduate education, focusing on three questions. First, to what degree do contingent faculty engage students? Second, what effect does the proportion of contingent faculty on a campus have on the frequency that faculty engage in good practices? And finally, does the effect of having a contingent appointment vary between institutions?

Umbach's findings indicated that non-tenure-track faculty, particularly part-time, do not have the same availability of time and access to resources to support their work as tenured and tenure-track faculty. Non- tenure-track faculty typically have less time to interact with students, fewer opportunities to learn and use active and collaborative learning techniques, and less time to prepare for class instruction. He identified poor compensation and working conditions, as well as the marginalization of part-time faculty, as impediments to maximizing the potential for these faculty to contribute to improved student learning outcomes. Umbach advocated for administrations to provide necessary support to allow non-tenure-track faculty to succeed in the classroom, particularly if institutions will continue to rely on them for undergraduate instruction.

Umbach, P. (2008, November). The effects of part-time faculty appointments on instructional techniques and commitment to teaching. [Paper presentation]. Association for the Study of Higher Education, 33rd Annual Meeting, Jacksonville, FL.

Umbach utilized the 2001 HERI Faculty Survey, which has a sample of 20,616 faculty members and is comprised of 16% part-time appointments, to review faculty members' active learning techniques, civic engagement, and the inclusion of diversity in instruction. He also examined the relationship between full- and part-time appointment, instructional practices, and commitment to teaching. Umbach's research on commitment to teaching found that part-time faculty spent

much less time preparing for class instruction and advising students than did full-time faculty. The findings varied by institution type. Part-time faculty at private colleges spent less time preparing than part-time faculty at public schools; part time faculty at minority-serving institutions spent more time preparing than did part-time faculty at predominately white institutions. Umbach concludes that administrators should be more reasonable in expectations of part-time faculty and that institutions should provide these faculty with adequate support and evaluation to foster improved faculty effectiveness.

Umbach, P. & Wawrzynsky, M. (2005). Faculty do matter: The role of college faculty in student learning and engagement. *Research in Higher Education*, 46(2), 153-184. https://doi.org/10.1007/s11162-004-1598-1

Using two national data sets – the National Survey of Student Engagement (NSSE) and a second, similar study on the behaviors and attitudes of faculty – Umbach and Wawrzynsky explored the relationship between faculty practices and student engagement. The authors found that faculty do matter, specifically pointing to the effect of faculty behaviors and attitudes on student learning and engagement and the central role of faculty in student learning. Umbach and Wawrzynsky called for institutions to find ways to support faculty to enable their use of active and collaborative learning techniques for improved student engagement and success. They also noted that the most successful environments for faculty to contribute most effectively to these ends include job security and academic freedom.

Xu, D. (2019). Academic performance in community colleges: The influences of part-time and full-time instructors. *American Educational Research Journal*, *56*(2), 368–406. https://doi.org/10.3102/0002831218796131

This quantitative study compared part-time and full-time contingent faculty influences on student outcomes. The study found that students who took courses with part-time contingent faculty tended to perform better in initial courses than those who took courses with full-time faculty. However, students who took courses with part-time contingent faculty were less likely to subsequently enroll in another course in the same field. Additionally, those who did were less likely to complete subsequent courses and tended to have lower grades in those courses. This study, like many others, suggests that contingent faculty working conditions have a profound impact of the performance of students who enroll in their courses.