TIAA-CREF institute

RESEARCH DIALOGUE

Issue no. 108

JUNE 2013

FACULTY CAREERS IN RAPID TRANSITION: THE SALIENCE OF THE REDISTRIBUTION OF FACULTY APPOINTMENTS

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INTRODUCTION

The academic profession is in flux. Yes, so what? That's not exactly news. The academic profession–that is, the faculty–has *always* been in flux. One might suggest, tongue in cheek, that these changes have been ceaseless since 1636, when Harvard began to take form. Surely, change is the only constant. But the rate of change, now and in recent years, is particularly palpable. Over the past several decades the consequences have amounted to a sweeping metamorphosis of the academic profession, yielding what we have posited to be a veritable "new model"–a new paradigm with profound implications for academic careers , as indicated in our earlier "Advancing Higher Education."

Several years ago the authors sought to identify the most prominent sources and indicia of change and to describe the extent to which these changes have substantially transformed faculty and the very nature of academic careers. We identified many dimensions of significant change, emphasizing especially the dramatic realignment in the distribution of academic appointments. That research (supported in part by the TIAA-CREF Institute) culminated in the 2006 publication of *The American Faculty: The Restructuring of Academic Work and Careers* (Johns Hopkins University Press). We sought to establish how the faculty and their careers were being reshaped in fundamental ways, spanning who they are (especially their demographic characteristics) and the emerging new realities of their work, as well as the more diverse trajectories–the varied pathways–of their careers.

Our most salient finding was the sharp rise of "off track", contingent faculty appointments which we documented in considerable detail. This phenomenon took the form, most auspiciously, of the rapid escalation of full-time but non-tenurable faculty, as well as the extraordinary growth of part-time (adjunct) faculty. Further, we sought to identify the many important ways in which this "reconfigured" faculty was linked to changes in the on-the-job mix of work activities and how the shifting priorities among research, teaching, and service activities were resulting in an "unbundling" of faculty roles.

This is inevitably but a very brief reference to the scope and detail of our nearly six-hundred page examination of academic life and the highly consequential developments then underway. The questions this Research Dialogue attempts to answer, at least initially, are these: Have trends identified in *The American Faculty* continued apace or even accelerated? And, what are the implications for the future of the academic profession? This part of our inquiry subsumes the issue of the profession's relative attractiveness to career choosers, among other high-end professions. That is, given the unfolding developments in academe, is there evidence to suggest that the upper end of the talent pool of highly able, youth who possess the mobility to choose among post-baccalaureate career paths–e.g., opting among law vs. medicine vs. academics–is now less likely to opt for preparation for an academic career? Inherent also in the assessment of the new model of American higher education and its faculty, though not addressed herein, is the yet larger question of what are the implications of this purported new model for America's intellectual, scientific leadership among the world's most developed nations.

These past explorations provide a point of departure for this discussion. For this Research Dialogue, we have chosen to probe in detail several dimensions of the core issue of the redistribution of types of faculty appointments. We maintain that this has pivotal implications for the faculty and their work–and thus for the future role and effectiveness of post-secondary education. It is this basic importance that underlies our reporting now. First, we explore and update trends in faculty appointment types as we pose the question: Has the academic career trajectory been fundamentally altered? Next, we examine the question of whether the job itself - -the components of academic work - -has been further transformed.

We are all aware that the work environment and work activities for presumably all professional pursuits, including medicine and law, have been altered irreversibly by such mega-forces as technology and globalization. Academia is one such dramatic example. But now we investigate more closely one salient aspect of the academic profession: the changing types of academic appointments and what the resulting "faculty makeover" portends. Our premise is that these more nuanced details, extending beyond gross generalizations, are essential for assessing the threats confronting post-secondary education.

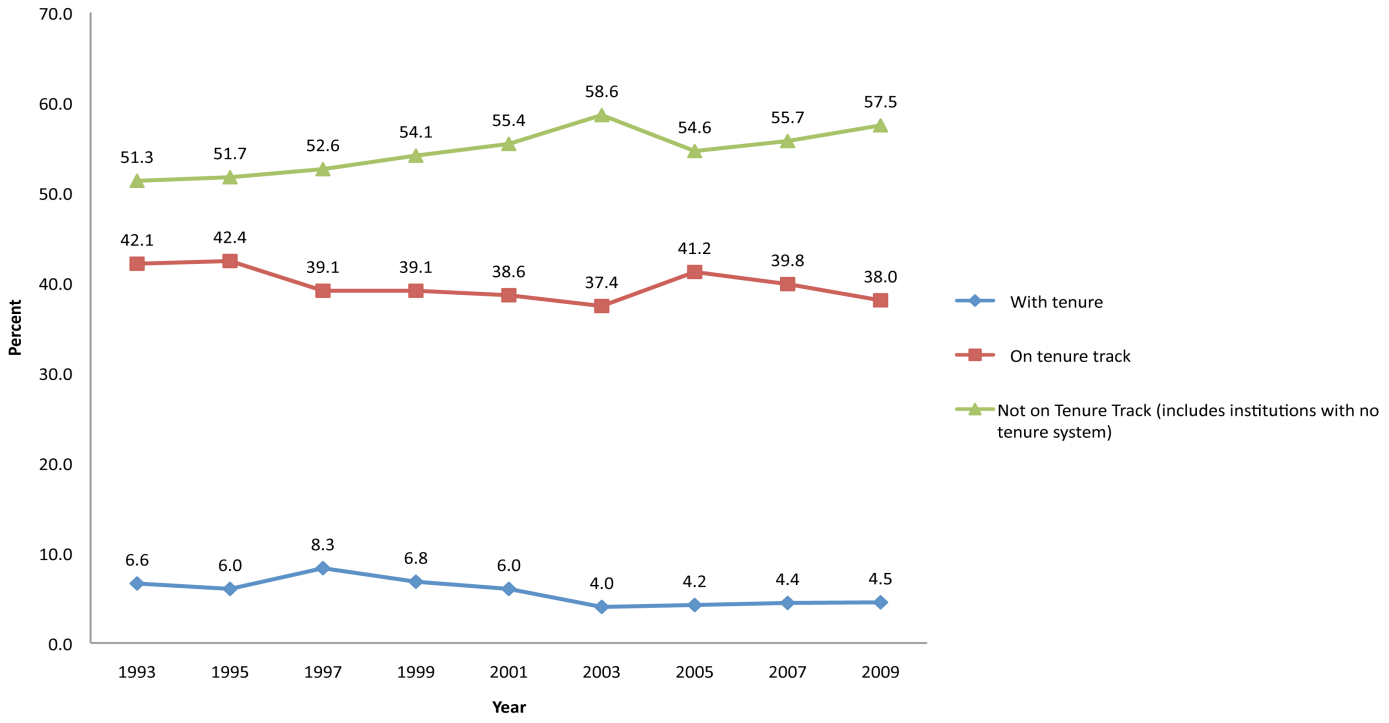
FURTHER TRENDING IN ACADEMIC APPOINTMENTS: AN EXTENSION OF THE TRADITIONAL CAREER LADDER OR A NEW LADDER?

Arguably, an accurate description of how types of faculty appointments are distributed, especially new appointments, provides the most revealing prism through which the work of the academy can be viewed. Perhaps surprisingly, reliable, current data depicting this basic characteristic are elusive. This results in conjecture and interpretation of limited data rather than dispositive conclusions. Notwithstanding those limitations, here is what we are now able to say.

The starting point is to update the phenomenon of continuing trends in the redistribution of full-time appointments. Figure 1 displays the basic data for new, full-time faculty hires from 1993 through 2009 (the most recent date for which reliable data are available). Over this decade-and-a-half span, changes in the composition of the full-time faculty have been significant, although the rate of change may be moderating. Viewing the first of three major categories of first-time appointments, it is striking that the proportion of appointments *off* the tenure track has exceeded fifty percent for each of the eight snapshots taken at two-year intervals. In all, in 1993 the proportion was just above half (51.3 percent), climbing almost steadily to 57.5 percent in 2009. (The percentage had peaked in 2003 at 58.6 percent but, nevertheless, has averaged in excess of 56 percent throughout the past decade [2001-2009]).

Correspondingly, the two types of *on*-track appointments have trended downward. For first-time on-track appointees, the percentage decreased from 42.1 to 38.0 percent while, for those exceptional few receiving tenure with their initial appointment, the percentage slipped from 6.6 to 4.5 percent. Combining these two tenure/tenure track appointments, the total of 48.7 percent declined to 42.5 percent by 2009–becoming the smallest aggregate percentage of on-trackers. Given current economic challenges and the commonly perceived need for institutional flexibility, there is little reason to suggest that this lowest aggregate proportion for tenure/tenure track first-time appointments has yet declined to its lowest level. The "faculty makeover" appears to be alive and well.

FIGURE 1: APPOINTMENT STATUS OF FULL-TIME FACULTY NEW HIRES, 1993-2009. DATA FROM U.S. DEPARTMENT OF EDUCATION, 1998A, 1998B, 2000, 2001A, 2003, 2005, 2007, 2009



What to make of these startling changes? When in 2004-05 we first uncovered the abrupt explosion of "contingent" appointments nationally among "new faculty hires", we asked ourselves what this trend might mean. To what extent were these new appointments merely serving as "placeholders" for new hires until tenure-track vacancies materialized (essentially, a more advanced form of the traditional post-doc)? That is to say, were these appointments in effect a means to extend the traditional tenure track ladder while further drawing distinctions among the added rungs? Or, was this evident profusion of non-traditional appointments actually coming to define an "alternative," and inherently less stable, career track–one that would contribute to increasing stratification of the academic workforce from a sharply differentiated entry point status? At that time, we were able to look to the 1999 National Study of Postsecondary Faculty (NS0PF99) whose restricted data file had not become available until 2003-04 and included information on *up to two* previous academic jobs held by those current faculty respondents. Beyond the current job, the data base included two critical pieces of information on both the immediately preceding job and on the first job itself: employment status (i.e., whether full time or part time) and appointment type (tenured or tenure-eligible vs. non-tenure-eligible). The availability of those two data points allowed us to address a basic question about then current faculty: To what extent did either their employment status or type of appointment change over successive jobs? To the extent that it did, we were in a position to chart the "probabilities" of changing either employment status or appointment type over as many as two job changes. In any case, we would be able to identify "tracks" among faculty and explore the demographic characteristics of, and permeability among, the various tracks.

What we found was that then current *part-time* faculty tended to have begun their career in a part-time appointment–although that linkage varied by several variables: degree level, institutional type, and academic field. For instance, doctorate holders, especially those who were active in research and publication, were considerably more likely to make the transition to a full-time appointment (85 percent vs. 62 percent of all faculty). That was especially evident in the liberal arts (and the humanities in particular)[1] and at four-year institutions. Master's-prepared part-timers, on the other hand, tended to remain part time over several job changes. Among the then current *full-time* faculty, the vast majority (8 of 10) had pursued exclusively full-time careers; moreover, among that majority most had remained within the track defined by their initial appointment type. That is, those who started off *on* the tenure track moved into *other* tenure-track or tenured jobs, while those who began *off* the tenure track in fixed contract appointments tended to remain in those types of appointments over successive job moves.

This lack of permeability across tracks was most notable among those then current off-track appointees: 72 percent of them had *only* off-track experience while a mere 4 percent had any previous full-time tenure-track experience. There was somewhat more permeability evident in the career trajectories of then current tenured or tenure-track faculty–about three-fifths of whom had had only previous tenure track experience.[2] We concluded that the highly defined, customary academic career track that had emerged in the post-World War II period (that is, the six-year probationary period followed by an "up or out" decision in the seventh year, next followed by subsequent promotion from associate to full professor) was bifurcating into relatively independent full-time and part-time tracks. Furthermore, among those full-time appointees, still further bifurcation was evident among on-track and off-track appointees–including for the first time in memory a significant (and growing) contingent of contract appointment "lifers."

When the NSOP2004 restricted data file finally became available in 2007-08, we seized upon the new data as an opportunity to test whether the emerging bifurcation and stratification of career tracks defined by employment status and appointment type that we had uncovered in the 1999 data was still visible five years later. Had it been a fluke–a temporary aberration? Perhaps it merely reflected an initial response to a relatively new phenomenon of that decade? (After all, it was only in the 1990s that these new full-time contract appointments had become modal.) We sought to determine: Had the trend continued with equal strength? Was it accelerating? Attenuating?

1 The trend among humanities doctorates was corroborated by Ehrenberg et al. (2010) in their Mellon Foundation-sponsored study of cohorts of humanities doctorates in the 1980s and 1990s.

2 This included faculty in the humanities who had had previous part-time or full-time off track appointments.

In seeking to test the initial trend with the then fresh data, we faced one significant data-related challenge. In the 2004 NCES survey, NCES had dropped one of the key data points; the faculty survey asked respondents only about their employment status and appointment type on their first job and the current job. This allowed us to examine only *one* job change (rather than up to two) and thus artificially truncated the update of our original analysis. We forged ahead, nonetheless, and replicated our analysis–table for table–with the 2003 data.[3] What did we find?

In the first place, we found that in 2003 about 10 percent *more* faculty reported that their current job was their first job: nearly half–48 percent–of part-timers (compared to 40 percent in 1998) and 44 percent of full-timers (compared to only 34 percent five years earlier). This suggests, as shown in Table 1, that over a mere five-year period, faculty mobility had decreased significantly. When we examined all part-time faculty in NSOPF 2004 who reported a previous job (n= 196,788), as shown in Table 2, essentially three of four (74.5 percent) reported that the previous job was part time as opposed to full time. In the 1999 NSOPF (n=85,880), the comparable figure was 76.6 percent–a barely perceptible difference. Among those part timers who held the doctorate, that proportion dropped to 58.7 percent compared to 61.9 percent in 1999–again virtually the same. Among part timers holding the Master's degree, the corresponding figures were 83.2 percent (2004) and 82.8 percent (1999), respectively. That sharp difference of Master's degree holders compared to doctorate holders –in both 1998 and 2003–suggests that for Masters degree holders, part-time status continues to strictly circumscribe a career track , while among doctorate holders, it is much more likely to allow a move to full-time[4].

Table 3 provides data on previous jobs of current *full-time* faculty in 1998 and 2003 and shows that among the approximately 300,000 full-time faculty in 2003 reporting a previous job, two-thirds (66.0 percent) reported that previous job to be full time, rising to about three-fourths (74.5 percent) among doctorate holders. The corresponding percentages in 1998 were 80.4 percent and 85 percent, respectively. This suggests an increase in "permeability" or ability to move from part-time to full-time appointments by 2003 in the neighborhood of 10 to 14 percent. It is not, however, clear how the truncation of data points in 2003 might be contributing to such differences, if at all, between 1998 and 2003.

Table 4 compares the characteristics of those faculty with one previous job who *moved* from part time to full time with those who *remained* part time in both 1998 and 2003. The data suggest that the basic profile of "movers" has remained remarkably durable: they are overwhelmingly those who hold doctorates and who have published, especially at four-year institutions.

When we examine mobility among full-time faculty who report one previous job both in 1998 and 2003 (Table 5), we find that by 2003, about equal proportions reported (1) previous part-time experience, (2) previous full-time, off-track experience, and (3) previous full-time, on-track experience overall (approximately one-third, one-third, one-third). This essentially equal distribution reflects something of a departure from the 1998 pattern where about 40 percent each reported full-time on-track and full-time off-track experience, but only 20 percent reported part-time experience. This suggests that part-time experience may be becoming more common overall among full-time faculty.

When we focus only on tenured or tenure-track faculty (Table 5), we find that in 2003 about 40 percent reported a previous full-time, tenured or tenure–eligible job, and about 30 percent each reported full-time, off- track and part-time experience. This newer allocation represents something of a departure from the pattern existing only five years earlier, wherein about half (48.2 percent) reported only tenure track experience, about 35 percent indicated off-track, full-time experience, and only 16.6 percent (one-sixth) reported part-time experience. Among those who were currently in full-time off-track appointments in 2003, nearly half (48.6 percent) had part-time experience compared to just one-third (34.8 percent) with previous off-track experience and 15.7 percent with full-time on-track experience. In 1998, the corresponding figures were 32 percent having had part-time experience, 57 percent with full-time, off-track experience and merely 11 percent with on-track experience. Clearly, the boundaries between part-time and full-time positions are becoming ever more permeable, while part-time jobs are increasingly a route primarily to off-track *full*-time positions.

3 The 2004 National Study of Postsecondary Faculty was in the field in the Fall, 2003. Thus, strictly speaking, the data are 2003 data.

4 NSOPF does not allow us to identify the precise timing of the doctorate, i.e., whether it preceded or followed either the initial or current appointment.

We next asked: Who are the "off-track" faculty who made the big leap into tenure-track or tenured appointments? The data in Table 6 suggest a remarkably durable portrait of the "movers" in both 1998 and 2003: they tend disproportionately to be doctorate holders who are actively publishing; they also tend to be disproportionately men and academics in the liberal arts fields in four-year institutions. Thus, it now appears that full-time off-track appointments may represent a relatively independent academic career track for women, for non-doctorate holders and for non-publishing scholars. In contrast, the full-time, non-tenure track status appears increasingly to comprise an additional rung in the ladder (which not infrequently may progress from part-time to off-track to on-track) for men who hold doctorates in the traditional liberal arts fields. This development, we submit, is highly consequential as we shall explain.

THE SAME JOB BY A NEW NAME OR A NEW, REDEFINED JOB?

Beyond any changes to the structure, i.e., the pathways, of academic careers, we wanted to understand whether, and to what extent, this profusion of contingent appointments was associated with changes in the *content* of the job itself. Was the role played by contingent appointees different from the traditional *integrated* role combining teaching, research and service that was formerly–and normally–played by those holding tenure track or tenured appointments?

We found in our initial analyses of the 1999 National Study of Postsecondary Faculty that faculty on contingent appointments differed not only in the duration of their contracts, but that they differed substantively in their specialization of function. That is, in their work role, *contingent* appointees tended to *focus* or *specialize* in just one of the traditional triumvirate of faculty functions in the post-World War II American university–i.e., either teaching (most often the focus), research (commonly fueled by federal grants), or service (often directing new academic programs, frequently programs with an off-campus or distance learning component). We now asked: Over the ensuing decade have these work role changes observable in 1999 continued? Expanded? Attenuated? With the availability of NSOPF04, we were able to compare traditional and contingent appointees at two points in time: 1998 and 2003. We were able to examine specifically (a) the mean total of weekly hours worked; (b) the allocation of effort across the core functions of teaching research, and administration; and (c) selected teaching and research activities, including contact with students and publications.

Table 7 shows that the differences in total weekly work hours between tenured/tenurable and contingent appointees that we observed across principal activities in 1998 not only persisted in 2003, but increased slightly[5]. Non-tenure track faculty whose principal activity was teaching reported working a total of about four less hours weekly by 2003. For non-tenure track appointees whose principal activity was research, the difference was about five hours less per week. And for non-tenure-track faculty whose principal activity was administration, about two or three less hours were worked weekly than by their tenured or tenure-track counterparts in 2003. This amounts to a slightly greater gap than in 1998 for those faculty reporting principal activities as research or administration. Gender seems to have little discernible effect in either year. Clearly, then, contingent appointees–whatever their principal activity–tend to be working 5 to 10 percent fewer hours than their tenured or tenure-eligible counterparts.

Table 8 examines the allocation of effort among the core functions (i.e., teaching, research, and administration)[6], comparing contingent (i.e., non-tenure track) and tenured/tenurable appointees in both 1998 and 2003. In 1998, contingent appointees whose principal activity was *teaching* reported about six percent more time in teaching (between two-thirds and three-quarters of their overall time was devoted to teaching compared to tenure-eligible/tenured faculty), but about half the time in research (five vs. ten percent for females and seven vs. fourteen percent for males). Contingent appointees in 1998 reported spending somewhat less time in administration (although that difference was limited primarily to women faculty).

5 The National Study of Postsecondary Faculty asks respondents to identify the principal activity in which they are expected to engage as either "teaching," "research", or "administration." This typically correlates with actual activity patterns, but is by no means entirely co-terminus with such activity patterns.

6 Administration is defined as internal campus service through committee membership and other governance activity.

Among those whose principal activity was *research*, contingent appointees allocated ten percent *less* time to teaching but fifteen percent *more* time to research. Research claimed at least half the time of both groups, however, and slightly less time to administration–less even than contingent appointees whose principal activity was teaching. Among those whose principal activity was *administration*, nearly half of their work time is devoted to administration and about one-quarter to one-third to teaching. Contingent appointees spent slightly less time in both teaching (except for women) and research than tenurable appointees.

To what extent did these differences persist in 2003? While the NSOPF04 survey did not provide detail on work activities beyond the core activities of teaching and research, we can determine whether differences persisted in these two critical areas. First, for those faculty whose principal activity was *teaching*, the data suggest that contingent appointees spend about ten percent more time in teaching than tenurable/tenured appointees but about half the time on research–a gap of almost precisely the same magnitude as was shown in 1998 (although the absolute allocation of time to teaching seems to have increased about five percent and to research about–2-3 percent). Second, for those faculty whose principal activity is *research*, the gap between contingent and tenurable appointees in time allocation to both teaching and research persists at about the same level of magnitude–although there is a slight uptick in absolute percent of effort devoted to both activities. Third, among faculty whose principal activity is *administration*, the time devoted to both teaching and research increases by between 5-10 percent–although we are not able to determine any changes in the actual time spent in administration.

In all, these data suggest that the differences in work effort attributable to type of appointment–beyond the faculty's self-reported principal activity–that we discerned in 1998 persisted in 2003 (although, as noted, changes in the NSOPF survey instrument itself complicated direct comparisons of each type of work activity). The data in Table 9 compare term and tenurable appointees on a number of teaching- and research-related variables in 1998 and 2003. In 1998, term appointees whose principal activity was *teaching* were 10 percent more likely to be teaching undergraduates only and 15 percent more likely to report no informal out-of-class contact with students (especially high for women). The term appointees were 20 percent more likely to report no publications over the past two years and, moreover, five percent less likely to report extramurally funded research as were the tenured/tenurable faculty (half as likely among men). By 2003, the gap between term and tenurable appointees in informal student contact had increased to nearly 20 percent across the board, while the gap in publication and funded research had persisted at about the same level.

Turning to those faculty whose principal activity was *research*, term appointees were much more likely to report no informal contact with students outside class: approximately half vs. only one-third of tenurable faculty. Virtually none of these term appointees reported "no publications," although nearly one-sixth of term-appointed women did so. While the vast majority reported funded research, men on term appointments were as likely to report funded research as their tenurable colleagues; meanwhile, women on term appointments were about 10 percent less likely to do so than their tenure-track counterparts. By 2003, the gap between term and tenurable faculty in informal student contact remained, and term faculty–both male and female–were about 10 percent less likely to report external funding and were only slightly more likely to report no publications than their tenured or tenurable counterparts.

Among those whose principal activity was *administration*, term faculty in 1998 were about ten percent more likely to report no informal contact with students outside class than were tenurable faculty. Moreover, they were two to three times more likely than tenurable faculty to report no publications over the previous two years (fully half of term appointees versus only one-sixth to one-fourth of tenurable faculty). By 2003, the gap in informal student contact had attenuated for men, but not for women. However, the gap in publication rate persisted.

These updated results appear to confirm the persistence of the increasing role specialization of faculty that we uncovered earlier that by 2003 had been further advanced by the wave of "new" appointments. While it may not be quite clear how to interpret percentage differences on the order of 10-20 percent between types of appointees, we sought to take another tack in contextualizing and underlining the impact of appointment type on work role activities. In 1987, the late Burton R. Clark proposed an elegantly parsimonious sociology of the American academic profession: academic work life in the

U.S., he argued, was "nested" in a matrix defined, on the one hand, by the type of institution in which a faculty member worked and, on the other, by the academic discipline or field in which s/he received their doctoral training. Each cell in this matrix defined a slightly different variation on the academic work role. Put another way, the faculty work components in each cell of the matrix was largely predictable based on only those two factors. The work role variables to which Clark was referring included prominently the balance between teaching and research (in terms of actual time and effort allocation). The variables included also the type of research undertaken (e.g., basic vs. applied), the form and quantity of publications produced (e.g., research notes, journal articles vs. books, sole vs. multiple authorships), the work venue (e.g., laboratory, office, library, home office), and so on. The notion was simple enough: individual academic fields provided distinctive and enduring educational socialization experiences during doctoral training that were "carried over" into the subsequent career; and these practices/values were re-enforced and/or modified at the margins by the expectations and organizational structures of the institutional settings in which faculty members pursued their work. From a comparative perspective, this second order *institution level, in-service* socialization component was what distinguished the American system from other national systems that were typically characterized by a more basic uniformity in work settings. That is, in practically all other national settings, to put it bluntly, a university is a university is a university.

From the moment of its initial articulation, this "matrix conceptualization" of the academic profession gained wide currency as a cogent macro-level lens through which to understand U.S. faculty work activities and behavior. One additional means to assess the cogency of *appointment type* as an arbiter of work role, then, would be to employ multivariate analysis to estimate its contribution to the variance in work activities *relative to* institutional type and academic field. The NSOPF04 survey allows us to do just that. Specifically, we sought to employ the technique of logistic regression to estimate the *independent* effect of appointment type–relative to institutional type and academic field. We then added the gender variable as another more recent determinant of variation in work role. Unlike the R squared statistics of normal linear regression which signifies the proportion of variance in the dependent variable uniquely attributable to a focal predictor, logistic regression yields an "odds ratio" for each predictor variable signifying the increase or decrease in the probability of being assigned to one or another category of an outcome variable usually dichotomized at the median or mean into low and high categories.

Table 10 below presents the results of the logistic regression for a set of predictor variables including the "prime 4" specified above (institutional type, academic field or discipline, type of appointment and gender) on four work role related outcome variables: (1)time allocation to teaching, (2) time allocation to research (3)time allocation to all work activities, and (4) number of publications. The Exp B or odds ratio values underscore the determinative power of institutional type across three of the four dimensions of the work role. Thus, for example, a faculty member at a research university is about five times more likely than a counterpart at another four-year institution to be above the median in weekly hours allocated to research, about four times more likely to be above the median in publications, and about half as likely to be above the median in weekly hours allocated to teaching. Contrariwise, research university faculty show no significant difference from other four-year institution faculty in total weekly work hours. The determinative power of both academic field and gender are confirmed–albeit much less powerfully than institutional type–with scientists 1.5 times more likely than non-scientists to be in the "high" subgroup on research hours and publications than non-scientists and men 1.3 times more likely than women to be in the "high" subgroup on research hours and on publications. (Interestingly, among all outcome variables, discipline has the largest effect on total weekly work hours: scientists work longer hours than humanists).

The "Big Story" revealed by Table 10 for our purposes is the emergence of *type of appointment* as a powerful predictor of work role behaviors: surpassing academic field and gender as second only to institutional type as an arbiter of academic work. The table shows that a career ladder faculty member (tenured or tenure-track) was three times more likely than a contract faculty member to be above the median in weekly research hours and total work hours and more than twice as likely as a contract faculty member to be above the median in publications. This suggests that by 2004, appointment status had developed very quickly as a fourth pillar (in addition to institutional type, academic field, and gender) for defining the

dimensions–the complexion–of academic work.[7] While the potency of the appointment type variable has been intuitive (the logic of the role variation by appointment type is plain), our analysis provides a compelling empirical basis for substantiating the far-reaching, even transformative, effects of appointment types.

DISCUSSION AND CONCLUSIONS

This update of our earlier analyses suggests that the "new" appointment types indeed appear to be permanently ensconced in American higher education. The data show that beyond a scant few data point aberrations, an inexorable, consistent trend is manifest: contingent full-time appointments are the *modal* type of appointment for new full-time hires at four–year colleges and universities and have been so for the past two decades. They are reshaping the academic profession in highly consequential ways. Moreover, the available evidence suggests that both concomitants of the "new "appointments that we discerned in the earlier years have persisted. We can say now that contingent appointments tend to form a largely separate and alternative career track to the traditional, full-time tenure-track position. At the same time, part-time appointments are increasingly becoming an initial rung on the academic career ladder as institutions increasingly seek evidence of teaching effectiveness in their new hires. The increasing specialization of academic work is evident in the large contingent of faculty engaged almost exclusively in teaching (with *no* research responsibilities). Another, smaller subgroup of faculty engaged in research with minimal teaching responsibilities has emerged. Still further, a small subgroup of "quasi-administrative" faculty positions (bearing limited teaching and research responsibilities) continues.

The results of our analyses suggest several layers of conclusions. Most generally, at the macro level, they suggest that institutional type and academic field remain powerful arbiters shaping how faculty members go about their work. Moreover, our analyses suggest that even as Professor Clark wrote, gender had already emerged as a nearly co-equal third axis shaping academic work–within both institutional and disciplinary settings.

By 2003, however, while institutional type, academic field and gender persist as determinants of the mix of academic work, the available evidence suggests that type of appointment had emerged–and very quickly–as a major shaper of the academic work role, second only to institutional type. This is the single most dramatic and far reaching conclusion of this analysis. Clearly, in the past 15 years new types of *full*-time appointments, which were just emerging in the 1990s, have become major factors in the academic workplace–not only as a function of their rapidly growing numbers, but in terms of the powerful definition, or redefinition, that they give to the academic work role. This finding obtains across institutional and disciplinary settings and even within the boundaries of gender socialization. We were able also to identify some more nuanced variations. Thus, while appointment type has emerged convincingly as a powerful determinant of the academic work mix, the available evidence suggests some subtle shifts in the interaction among the four prime determinants of the complexion of academic work. There is some evidence that gender differences are being attenuated by the salient power of institutional type (the elimination of many gender differences, especially in publication behavior, at research universities) and appointment type (males and female work patterns differ less among contract appointees than among tenure-track appointees).

Taken together, the findings suggest that we are witnessing a re-shaping and increasing differentiation of academic careers and work. If a quarter century ago, Professor Clark could explain half the variance in a professor's work life based on only two bits of information (institutional type and academic field), we can say now with some degree of confidence that he would need to add at least two additional variables to more fully account for potent changes in academic work, namely gender and appointment type. And perhaps most significantly, the newly emergent arbiter of academic work–appointment type–virtually assures yet increasing specialization in the work role. This current reality, with no sign of abating in the foreseeable future, is rendering longstanding questions of teaching and research "balance" increasingly moot (or rather increasingly irrelevant) as considerations of balance apply only tangentially to an ever larger segment of the U.S. faculty. We have truly entered a different world.

7 That power has been confirmed in a parallel analysis employing 2007-08 data from the Changing Academic Profession Survey, a 15- year reprise of the 1992 Carnegie Foundation for the Advancement of Teaching's International Survey of the Academic Profession (Altbach, 1996)

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TABLE 1: BASIC MOBILITY RATE OF FACULTY, BY EMPLOYMENT STATUS AND HIGHEST DEGREE, 2003 (PERCENT)

NUMBER OF JOBS	ALL FACULTY		DOCTORATE OR 1ST PROFESSIONAL DEGREE		MASTER'S OR LESS	
	PART-TIME	FULL-TIME	PART-TIME	FULL-TIME	PART-TIME	FULL-TIME
N =	378,281	531,119	95,290	367,106	282,991	164,013
One (current job is 1st)	48.0	43.5	31.9	40.9	53.4	49.3
More than one job (current job + 1)	52.0	56.5	68.1	59.1	46.6	50.7

Source: NSOPF 2004

TABLE 2: EMPLOYMENT STATUS AT FIRST ACADEMIC JOBS FOR CURRENT PART-TIME FACULTY, BY HIGHEST DEGREE, 1998 AND 2003

	ALL FACULTY				DOCTORATE OR 1ST PROFESSIONAL DEGREE				MASTER'S OR LESS			
	1998		2003		1998		2003		1998		2003	
	N	%	N	%	N	%	N	%	N	%	N	%
All Part-Time Faculty	317,210	100	378,281	100	82,780	100	95,290	100	234,430	100	282,991	100
No Previous Job	128,150	40.4	181,493	48.0	21,057	25.4	30,403	31.9	106,680	45.5	151,090	53.4
Part-time faculty with 1 previous job(s)	85,880	27.1	196,788	52.0	21,523	26.0	64,887	68.1	64,770	27.6	131,901	46.6
1st job part-time	65,784	20.7	146,816	38.8	12,813	15.5	37,300	39.1	52,982	22.6	109,516	38.7
1st job full-time	20,096	6.3	49,972	13.2	8,710	10.5	27,587	29.0	11,788	5.0	22,385	7.9
Part-time faculty with 2 previous jobs	103,180	32.5	-	-	40,200	48.6	-	-	62,980	26.9	-	-

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004

TABLE 3: MOVEMENT BETWEEN FULL-TIME AND PART-TIME BY CURRENT FULL-TIME FACULTY WITH ONE OR MORE PREVIOUS JOBS, 1998 AND 2003

	ALL FACULTY				DOCTORATE OR 1ST PROFESSIONAL DEGREE				MASTER'S OR LESS			
	1998		2003		1998		2003		1998		2003	
	N	%	N	%	N	%	N	%	N	%	N	%
All Faculty	479,610	100.0	531,119	100	321,540	100.0	367,106	100	158,070	100.0	164,013	100
No Previous Job	161,659	33.7	231,054	43.5	95,861	29.8	150,158	40.9	65,754	41.6	80,895	49.3
Full-time faculty with 1 previous job(s)	143,460	29.9	300,066	56.5	100,790	31.3	216,948	59.1	42,700	27.0	83,118	50.7
1st job part-time	28,698	6.0	102,201	19.2	15,640	4.9	55,069	15.0	13,024	8.2	47,132	28.7
1st job full-time	114,762	23.9	197,865	37.3	85,150	26.5	161,879	44.1	29,677	18.8	35,986	21.9
Full-time faculty with 2 previous jobs	174,491	36.4	-	-	124,889	38.8	-	-	49,616	31.4	-	-

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004

TABLE 4: CHARACTERISTICS OF FACULTY MOVING FROM PART-TIME TO FULL-TIME VS. THOSE STAYING PART-TIME, 1998 AND 2003

	MOVERS											
	ALL FACULTY				DOCTORATE OR 1ST PROFESSIONAL DEGREE				MASTER'S OR LESS			
	1998		2003		1998		2003		1998		2003	
	N	%	N	%	N	%	N	%	N	%	N	%
All Faculty	59,520	100	142,167	100	34,789	100	67,951	100	24,740	100	74,216	100
Institutional Type*												
Univ and other 4 yr	39,586	66.5	82,767	58.2	27,936	80.3	53,575	78.8	11,650	47.1	29,193	39.3
2 yr colleges	14,932	25.1	50,331	35.4	4,194	12.1	9,117	13.4	10,724	43.3	41,214	55.5
Program Area												
Liberal Arts and Sci**	38,199	64.2	85,250	60.0	23,710	68.2	42,756	62.9	14,494	58.6	42,494	57.3
Humanities	14,414	24.2	28,835	20.3	9,462	27.2	15,826	23.3	4,927	19.9	13,009	17.5
Nat Sci	10,793	18.1	23,915	16.8	6,550	18.8	10,740	15.8	4,242	17.1	13,175	17.8
Professions	14,104	23.7	36,388	25.6	6,885	19.8	20,345	29.9	7,219	29.2	16,043	21.6
Gender												
Female	28,379	47.7	72,971	51.3	15,398	44.2	39,193	57.7	13,000	52.5	33,779	45.5
Male	31,141	52.3	69,195	48.7	19,391	55.7	28,758	42.3	11,740	47.5	40,437	54.5
Race/ethnicity												
Asian	2,267	3.8	7,211	5.1	1,466	4.2	4,073	6.0	805	3.3	3,139	4.2
Other nonwhite	5,231	8.8	17,038	12.0	3,206	9.2	7,639	11.2	2,032	8.2	9,399	12.7
White	52,022	87.4	117,917	82.9	30,117	86.6	56,240	82.8	21,903	88.5	61,678	83.1
No publications in past 2 yrs	23,379	39.3	63,093	44.4	8,897	25.6	16,068	23.6	14,496	58.6	47,025	63.4
Doctorate or 1st professional degree	34,780	58.4	67,951	47.8	34,789	100	67,951	100.0	0	0	0	0.0

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004
*Excludes "Other"
**Social Sciences has been excluded for this analysis

TABLE 4 (CONTINUED): CHARACTERISTICS OF FACULTY MOVING FROM PART-TIME TO FULL-TIME VS. THOSE STAYING PART-TIME, 1998 AND 2003

	STAYERS											
	ALL FACULTY				DOCTORATE OR 1ST PROFESSIONAL DEGREE				MASTER'S OR LESS			
	1998		2003		1998		2003		1998		2003	
	N	%	N	%	N	%	N	%	N	%	N	%
All Faculty	142,170	100	294,715	100	38,570	100	59,873	100	103,610	100	234,842	100
Institutional Type*												
Univ and other 4 yr	70,936	49.9	137,035	46.5	25,960	67.3	38,944	65.0	45,863	44.3	98,091	41.8
2 yr colleges	57,136	40.2	141,185	47.9	7,778	20.2	16,785	28.0	49,340	47.6	124,400	53.0
Program Area												
Liberal Arts and Sci**	90,831	63.9	160,561	54.5	23,012	59.7	31,049	51.9	31,049	30.0	129,512	55.1
Humanities	33,742	23.7	47,521	16.1	780	2.0	8,613	14.4	38,908	37.6	38,908	16.6
Nat Sci	23,955	16.8	51,432	17.5	7,708	20.0	10,698	17.9	40,734	39.3	40,734	17.3
Professions	31,681	22.3	84,679	28.7	9,619	24.9	17,155	28.7	67,524	65.2	17,155	20.3
Gender												
Female	65,251	45.9	155,843	52.9	11,361	29.5	36,611	61.1	53,836	52.0	119,231	50.8
Male	76,919	54.1	138,873	47.1	27,209	70.5	23,262	38.9	49,774	48.0	115,611	49.2
Race/ethnicity												
Asian	4,125	2.9	10,221	3.5	1,604	4.2	2,793	4.7	2,476	2.4	7,428	3.2
Other nonwhite	13,693	9.6	31,219	10.6	2,790	7.2	5,815	9.7	10,966	10.6	25,404	10.8
White	124,352	87.5	253,276	85.9	34,176	88.6	51,265	85.6	90,168	87.0	202,011	86.0
No publications in past 2 yrs	88,518	62.3	193,442	65.6	17,681	45.8	29,717	49.6	70,944	68.5	163,725	69.7
Doctorate or 1st professional degree	38,570	27.1	59,873	20.3	38,570	100	59,873	100.0	0	0	0	0.0

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004
*Excludes "Other"
**Social Sciences has been excluded for this analysis

TABLE 5: JOB MOBILITY PATTERNS OF CURRENT FULL-TIME FACULTY, BY APPOINTMENT STATUS, 1998 AND 2003

	CURRENT APPOINTMENT STATUS											
	ALL FACULTY				TENURED OR TENURE TRACK				NON-TENURE TRACK			
	1998		2003		1998		2003		1998		2003	
	N	%	N	%	N	%	N	%	N	%	N	%
All Faculty	479,523	100	531,119	100	368,523	100	401,421	100	111,000	100	129,698	100
No Previous Job	161,700	33.7	231,054	43.5	118,526	32.2	171,487	42.7	43,174	38.9	59,567	45.9
One Previous Job	143,353	29.9	300,066	56.5	114,608	31.1	229,934	57.3	28,745	25.9	70,132	54.1
PT	28,560	6.0	102,201	19.2	18,987	5.2	67,890	16.9	9,573	8.6	34,311	26.5
FT on-track	58,399	12.2	100,850	19.0	55,661	15.1	89,622	22.3	2,738	2.5	11,228	8.7
FT off-track	56,394	11.8	97,015	18.3	39,960	10.8	72,422	18.0	16,434	14.8	24,593	19.0
Two Previous Jobs	174,470	36.4	-	-	135,389	36.7	-	-	39,081	35.2	-	-

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004

TABLE 6: CHARACTERISTICS OF FACULTY MOVING FROM OFF TENURE TRACK TO ON TENURE TRACK VS. THOSE STAYING OFF TENURE TRACK, 1998 AND 2003

	MOVERS											
	ALL FACULTY				DOCTORATE OR 1ST PROFESSIONAL DEGREE				MASTER'S OR LESS			
	1998		2003		1998		2003		1998		2003	
	N	%	N	%	N	%	N	%	N	%	N	%
All Faculty	111,540	100	72,422	100	84,800	100	61,618	100	26,740	100	10,804	100
Institutional Type*												
Univ and other 4 yr	85,222	76.4	62,030	85.7	72,859	85.9	56,502	91.7	12,347	46.2	5,528	51.2
2 yr colleges	19,200	17.2	7,665	10.6	6,084	8.2	2,729	4.4	13,147	49.3	4,936	45.7
Program Area												
Liberal Arts and Sci**	71,396	64.0	48,448	66.9	55,435	65.4	42,413	68.8	5,931	59.6	6,035	55.9
Humanities	21,314	19.1	14,184	19.6	16,690	19.7	13,219	21.5	4,628	17.3	965	8.9
Nat Sci	28,900	25.9	20,187	27.9	24,051	28.4	17,980	29.2	4,839	18.3	2,207	20.4
Professions	26,287	23.6	16,264	22.5	19,319	21.6	13,206	21.4	6,959	26.0	3,058	28.3
Gender												
Female	39,570	35.5	22,912	31.6	27,080	31.9	17,949	29.1	12,491	46.7	4,963	45.9
Male	71,970	64.5	49,510	68.4	57,720	68.1	43,669	70.9	14,250	53.3	5,841	54.1
Race/ethnicity												
Asian	6,356	5.7	6,274	8.7	5,462	6.4	5,719	9.3	1,205	4.5	555	5.1
Other nonwhite	9,543	8.6	5,848	8.1	7,248	8.5	4,486	7.3	2,646	9.9	1,372	12.7
White	95,641	85.7	60,300	83.3	72,090	85.0	51,413	83.4	22,889	85.6	8,877	82.3
No publications in past 2 yrs	29,436	26.4	15,247	21.1	14,416	17.0	8,604	14.0	15,050	56.3	6,643	61.5
Doctorate or 1st professional degree	84,800	76.0	61,610	85.1	84,800	100	61,610	100.0	0	0	0	0.0

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004
*Excludes "Other"
**Social Sciences has been excluded for this analysis

TABLE 6 (CONTINUED): CHARACTERISTICS OF FACULTY MOVING FROM OFF TENURE TRACK TO ON TENURE TRACK VS. THOSE STAYING OFF TENURE TRACK, 1998 AND 2003

	STAYERS											
	ALL FACULTY				DOCTORATE OR 1ST PROFESSIONAL DEGREE				MASTER'S OR LESS			
	1998		2003		1998		2003		1998		2003	
	N	%	N	%	N	%	N	%	N	%	N	%
All Faculty	61,590	100	24,593	100	25,850	100	12,672	100	35,720	100	11,921	100
Institutional Type*												
Univ and other 4 yr	39,082	63.5	17,104	69.5	19,860	76.8	10,152	80.1	19,195	53.7	6,952	58.3
2 yr colleges	15,108	24.5	5,858	23.8	3,229	12.5	1,462	11.5	11,878	33.3	4,396	36.9
Program Area												
Liberal Arts and Sci**	31,739	51.5	12,663	51.5	16,570	64.1	7,985	63.0	15,160	42.4	4,678	39.2
Humanities	11,736	19.1	4,265	17.3	5,091	19.7	2,288	18.1	6,635	18.6	1,977	16.6
Nat Sci	11,827	19.2	4,865	19.8	7,375	28.5	4,060	32.0	4,444	12.4	805	6.8
Professions	20,513	47.9	8,167	33.2	6,289	24.3	3,377	26.6	14,185	39.7	4,790	40.2
Gender												
Female	29,617	48.1	10,460	42.5	10,539	40.8	4,275	33.7	19,078	53.4	6,185	51.9
Male	31,973	51.9	14,133	57.5	15,311	59.2	8,397	66.3	16,642	46.6	5,736	48.1
Race/ethnicity												
Asian	1,787	2.9	1,467	6.0	972	3.8	1,173	9.3	810	2.3	301	2.4
Other nonwhite	6,036	9.8	2,794	11.4	2,357	9.1	1,174	9.3	3,699	10.4	1,630	13.6
White	53,767	87.3	20,332	82.7	22,521	87.2	10,325	81.7	31,211	87.4	9,990	83.7
No publications in past 2 yrs	29,522	47.9	10,832	44.0	7,620	29.5	3,549	28.0	21,919	61.4	7,283	61.1
Doctorate or 1st professional degree	25,850	42.0	12,672	51.5	25,850	100	12,672	100.0	0	0	0	0.0

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004
*Excludes "Other"
**Social Sciences has been excluded for this analysis

TABLE 7: MEAN WEEKLY HOURS WORKED BY FULL-TIME FACULTY, BY APPOINTMENT STATUS, PRINCIPAL ACTIVITY AND GENDER, 1998 AND 2003

		PRINCIPAL ACTIVITY					
		TEACHING		RESEARCH		ADMIN.	
		1998	2003	1998	2003	1998	2003
All Faculty	N=	379,556	408,367	55,629	70,579	44,425	52,174
Tenured/Tenure-Track		45.3	44.5	51.6	51.4	50.0	48.8
Tenured		44.6	44.2	50.9	50.8	49.7	48.8
Tenure Track		46.4	45.1	52.5	52.6	52.3	48.5
Non-Tenure Track		41.2	41.2	47.8	46.3	47.8	46.7
Female	N=	136,344	161,400	12,793	17,173	15,119	19,924
Tenured/Tenure-Track		45.0	44.3	50.2	51.5	48.6	47.6
Tenured		44.2	43.7	49.9	49.8	48.7	47.1
Tenure Track		46.4	45.4	50.6	53.2	48.3	50.7
Non-Tenure Track		41.3	41.5	47.2	46.7	47.0	47.0
Male	N=	243,212	246,967	42,836	53,406	29,306	32,250
Tenured/Tenure-Track		45.5	44.6	52.0	51.4	50.6	49.4
Tenured		45.2	44.5	51.3	51.0	50.3	49.6
Tenure Track		46.4	44.9	53.9	52.3	54.3	46.4
Non-Tenure Track		41.1	40.8	48.1	46.1	48.7	46.4

Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004

TABLE 8: ALLOCATION OF EFFORT BY FULL-TIME FACULTY, BY APPOINTMENT STATUS, PRINCIPAL ACTIVITY AND GENDER, 1998 AND 2003 (PERCENT)

	PRINCIPAL ACTIVITY											
	TEACHING				RESEARCH				ADMIN.			
	1998		2003		1998		2003		1998		2003	
	TT*	NTT**	TT	NTT	TT	NTT	TT	NTT	TT	NTT	TT	NTT
All Faculty												
N=	322,312	54,244	305,937	62,869	47,158	7,372	57,767	12,052	35,676	7,928	37,716	9,581
Teaching	66.6	72.7	71.3	79.2	33.3	21.8	36.5	24.2	29.5	30.6	36.3	38.3
Research	13.2	6.9	14.8	8.3	47.1	62.1	50.3	67.1	11.2	10.6	13.7	6.9
Admin.	9.3	7.6	-	-	9.4	6.8	-	-	48.1	48.5	-	-
Female												
N=	107,975	28,370	110,396	33,250	10,375	2,418	12,709	4,207	10,774	4,345	12,789	5,018
Teaching	68.5	74.3	73.2	80.2	*34.9*	*24.8*	35.8	22.4	31.2	33.7	38.1	40.8
Research	10.2	5.9	12.7	7.3	*47.0*	*64.5*	51.0	67.6	9.7	6.8	12.4	7.6
Admin.	10.3	6.4	-	-	*8.8*	*5.4*	-	-	47.2	42.0	-	-
Male												
N=	214,338	25,874	195,541	29,619	36,783	4,954	45,058	7,845	24,902	3,583	24,927	4,563
Teaching	65.6	71.0	69.4	78.2	*32.8*	*20.4*	37.2	26.0	28.8	26.8	34.5	35.9
Research	14.1	7.4	16.8	9.4	*47.1*	*60.9*	49.7	66.6	11.6	7.0	15.0	6.3
Admin.	8.9	9.1	-	-	*9.6*	*8.4*	-	-	48.5	56.4	-	-

Source for 1998: NSOPF 1999

Source for 2003: NSOPF 2004

*includes tenured faculty and faculty on tenure-track

**excludes institutions with no tenure system

TABLE 9: SELECTED WORK ACTIVITIES OF FULL-TIME FACULTY, BY APPOINTMENT STATUS, PRINCIPAL ACTIVITY AND GENDER, 1998 AND 2003 (PERCENT)

		PRINCIPAL ACTIVITY											
		TEACHING				RESEARCH				ADMIN.			
		1998		2003		1998		2003		1998		2003	
WORK ACTIVITIES		TT**	NTT***	TT	NTT	TT	NTT	TT	NTT	TT	NTT	TT	NTT
All Faculty	N=	322,312	54,244	305,937	62,869	47,158	7,372	57,767	12,052	35,676	7,928	37,716	9,581
Teaching Undergraduates Only*		53.0	63.2	4.4	11.9	4.9	17.6	0.1	0.5	29.7	56.5	0.8	1.6
No Publications during career		17.9	38.9	13.5	31.5	0.4	5.0	1.1	2.1	9.1	32.5	6.3	28.4
No Publications during past 2 years		31.8	51.0	31.0	50.0	1.6	7.4	3.7	7.8	20.5	49.4	20.9	47.4
Have funded research		27.1	22.7	29.9	14.7	85.8	83.7	72.9	64.6	38.8	33.3	37.1	19.5
No informal contact hours with students		29.3	44.8	26.6	45.2	32.7	47.7	34.0	53.1	27.5	38.2	29.4	38.8
Female	N=	107,975	28,370	110,396	33,250	10,375	2,418	12,709	4,207	10,774	4,345	12,789	5,018
Teaching Undergraduates Only*		59.8	62.4	4.7	10.6	7.3	22.0	0.0	0.5	38.6	54.9	1.1	0.7
No Publications during career		23.4	40.4	17.2	34.8	1.2	8.0	2.2	2.6	17.2	35.0	7.8	31.8
No Publications during past 2 years		35.8	53.3	35.0	53.3	2.3	15.4	7.7	9.0	26.4	49.6	22.4	55.3
Have funded research		18.3	29.1	28.0	13.3	84.2	74.6	72.2	65.1	28.5	42.7	32.6	24.7
No informal contact hours with students		29.4	47.5	26.7	43.9	31.7	49.0	34.1	54.8	28.1	37.8	28.5	32.6
Male	N=	214,338	25,874	195,541	29,619	36,783	4,954	45,058	7,845	24,902	3,583	24,927	4,563
Teaching Undergraduates Only*		49.5	64.1	4.2	13.3	4.2	15.4	0.1	0.6	25.8	58.5	0.6	2.7
No Publications during career		15.2	37.3	11.4	27.7	0.2	3.5	0.8	1.9	5.6	29.5	5.5	24.7
No Publications during past 2 years		29.8	48.5	28.7	46.2	1.4	3.5	2.6	7.2	17.9	49.1	20.2	38.8
Have funded research		31.6	15.6	30.9	16.2	86.3	88.1	73.1	64.3	43.3	21.8	39.4	13.8
No informal contact hours with students		29.3	41.8	26.6	46.6	33	47.1	34.0	52.2	27.3	38.7	29.8	45.7

* For 2003 (NSOPF 04), the data was derived by reporting faculty members within the specified group that reported spending 100% of their time teaching undergraduates.
Source for 1998: NSOPF 1999
Source for 2003: NSOPF 2004
**includes tenured faculty and faculty on tenure-track
***excludes institutions with no tenure system

TABLE 10: PREDICTORS OF TIME ALLOCATION AND PUBLICATIONS: ALL U.S. FACULTY, 2003

	TEACH HOURS		RESEARCH HRS		TOTAL WK HRS		RECENT PUB	
PREDICTORS**	**SIG.**	**EXP(B)**	**SIG.**	**EXP(B)**	**SIG.**	**EXP(B)**	**SIG.**	**EXP(B)**
Institutional type: Res Univ	.000***	0.545	.000***	5.725	.883	1.003	.000***	4.065
Discipline: Life & Med Sci	.000***	0.687	.000***	0.664	.000***	2.133	.000***	0.903
Discipline: Physical Sciences	.000***	1.438	.000***	1.226	.000***	2.016	.000***	1.068
Discipline: Humanities	.000***	1.583	.000***	1.378	.876	1.005	.000***	1.388
Appt type: Tenure/Tenure Track	.000***	1.702	.000***	3.166	.000***	3.182	.000***	2.330
Career age: New Entrants	.011*	1.078	.000***	1.264	.000***	1.121	.000***	0.915
Gender: Male	.000***	1.110	.000***	1.369	.000***	0.688	.000***	1.302

Source: NSOPF '04

*** p<.001, ** p<.01, * p<.05

****predictors coded as follows: (Variable name: value selected) where value selected represents the higher coded value in the corresponding variable set