

FACULTY WORKLOAD AND PRODUCTIVITY IN THE 1990s: PRELIMINARY FINDINGS

by Henry L. Allen

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The debate over the definition and measurement of the workload, productivity, and priorities of American faculty members is not an arcane discussion of instruments and indicators; the outcome affects the future of the academic profession. Critics wish to change the image of professors from trusted, respected professionals dedicated to the pursuit and dissemination of knowledge to members of a self-centered elite who neglect undergraduate teaching to pursue their research interests.¹ Changed working conditions, they presume, will follow a changed image.

Critics support this caricature by offering anecdotes rather than rigorous empirical evidence.² Many policymakers, concerned about the fate of higher education during fiscal deprivation, cope with demands for the assessment of faculty workload and productivity under the unproven assumption that each behavioral component of these concepts can be quantified. These analysts quickly discern the imprecision of existing definitions of this concept³ and the confusion about the meaning of the adopted measures.⁴

Scholars, however, *have* attempted to shed empirical light on the workload and productivity debate; the evidence provided in this chapter negates assertions of widespread faculty irresponsibility. The predominant configuration of faculty work, controlling for institutional mission or type, changed little during the early 1990s: Almost all workload and productivity indicators showed increases or at least remained the same. Most faculty members devote 50 percent or more of their 52-hour workweeks to teaching-related tasks; they have responded to budgetary cutbacks by working harder and teaching more. Faculty members are more accountable and productive than ever; they do not prey upon undergraduate "victims." Neither the public nor policymakers should succumb to manufactured hysteria about faculty workload and productivity.

This article adds to our knowledge of workload and productivity by drawing upon the most extensive national surveys yet completed. We begin with a profile of the faculty sample and the population it represents. Next comes a synopsis of preliminary tabulations from the 1993 National Study of Postsecondary Faculty (NSOPF-93), conducted by the National Center on Education Statistics (NCES), part of the U.S. Department of Education.⁵ Our analysis—

TABLE 1

PERCENTAGE DISTRIBUTION OF FACULTY AND INSTRUCTIONAL STAFF, BY EMPLOYMENT STATUS, TYPE AND CONTROL OF INSTITUTION, RANK, RACE/ETHNICITY, AND GENDER, FALL, 1992

	Number	Percent	Full-time Percent	Part-time Percent
All institutions ¹	885,796	100	67.1	32.9
By type and control				
Public research	148,027	100	87.4	12.6
Private research	55,755	100	75.4	24.6
Public doctoral ²	77,721	100	81.0	19.0
Private doctoral ²	44,124	100	68.0	32.0
Public comprehensive	137,922	100	75.1	24.9
Private Comprehensive	64,966	100	59.2	40.8
Private liberal arts	60,074	100	68.9	31.1
Public two-year	253,711	100	46.6	53.4
Other ³	43,495	100	64.1	35.9
By academic rank				
Not applicable	27,179	100	72.2	27.8
Full professor	201,707	100	87.9	12.1
Associate professor	153,340	100	88.7	11.3
Assistant professor	157,818	100	87.0	13.0
Instructor	246,103	100	32.6	67.4
Lecturer	46,083	100	27.8	72.2
Other ranks	53,566	100	57.2	42.8
By race/ethnicity				
American Indian/Alaskan Native	4,577	100	61.2	38.8
Asian/Pacific Islander	42,831	100	77.1	22.9
Black non-Hispanic	42,908	100	68.8	31.2
Hispanic	24,520	100	62.1	37.9
White non-Hispanic	770,961	100	66.6	33.4
By gender				
Female	327,264	100	59.5	40.5
Male	558,532	100	71.4	28.6

¹ All accredited, nonproprietary U.S. postsecondary institutions that grant a two-year (A.A.) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education.

² Includes institutions classified by the Carnegie Foundation as specialized medical schools.

³ Public liberal arts, private two-year, and religious and other specialized institutions, except medical.

NOTE: Details may not add to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

conducted primarily at the aggregate level—is based on traditional measures,⁶ including the impact of employment status, institutional type, academic rank, tenure status, and academic discipline upon faculty workload and productivity.⁷

Next we compare our results with results obtained from the 1988 National Survey of Postsecondary Faculty (NSOPF-88), another NCES survey. This crude comparison—the instruments, respondents, and sampling frames for each survey were distinct—points to only modest variations in measures of faculty workload and productivity between 1987 and 1992.⁸ Last, the chapter considers the implications of the findings.

EMPIRICAL FINDINGS: NSOPF-93

In the last decade, NCES, with the cooperation of the National Endowment for the Humanities and the National Science Foundation, commissioned two national surveys to develop an empirical database on faculty. NSOPF-88 studied over 11,000 faculty members, 480 colleges and universities, and over 3,000 department chairs. NSOPF-93 increased the sample size to 974 institutions and to 31,354 faculty members.⁹ NSOPF-88 was limited to faculty involved in instruction, but NSOPF-93 defined “faculty” to include instructors without faculty status, administrators, researchers, faculty on leave, and faculty with temporary appointments.¹⁰

A Demographic Portrait: A Profession of Teachers

NSOPF-93 reveals five key demographic characteristics (Table 1). First, one-third of faculty and instructional staff are appointed part-time. Second, the higher academic ranks are more likely to be employed full-time; the lower ranks part-time. Third, the public sector dominates academic employment. Fourth, Asian and Black faculty members are slightly more likely to be employed full-time than whites. Last, women are more likely than men to be employed part-time.

The public sector employs approximately 61 percent of faculty and instructional staff (539,660 of 885,796). Community colleges employ almost 254,000 faculty; research universities and comprehensive institutions employ 148,000 and 138,000, respectively. Trends that

affect faculty members in public institutions therefore significantly affect all of the academic profession and higher education—the debates over workload and productivity and over the faculty role in undergraduate teaching are most salient in these institutions.¹¹

NSOPF-93 confirms a key conclusion of prior research on faculty workload and productivity: *Institutional type defines the parameters and dynamics of a faculty career.* The organizational context exerts the primary influence upon the outcomes produced by faculty work.¹² Research universities, for example, employ a higher percentage of full-time faculty than other types of institutions. Some 87 percent and 75 percent of public and independent research faculty, respectively, have full-time appointments (Table 1). At the other extreme, part-timers—one-third of the faculty universe—are concentrated in community colleges, where only 47 percent of the faculty and staff are employed full-time. Part-timers are more than five times as likely to be located at the lower academic ranks. That most part-time faculty members see teaching as their principal activity comes as no surprise, given the high proportion of part-time faculty located at teaching institutions (Table 3). The growth of the cadre of part-time faculty, for whom marginalization is virtually inescapable, suggests a looming “crisis of professionalism” involving the quality of education.

NSOPF-93 also reaffirms two decades of studies showing that most faculty members are teaching professionals by preference and practice.¹³ Except for faculty at research universities, faculty do not spend more time in research than teaching (Tables 2 and 3). Nearly 90 percent of all faculty and instructional staff taught during the period covered by the survey, and about 65 percent of full-time and 83 percent of part-time faculty and instructional staff engaged in teaching and related tasks as their principal responsibility (Tables 2 and 3). Only 12 percent of the remaining one-third of full-time faculty spend most of their time in research, and nearly the same percentage report administration or service as their prime activity. Even faculty at research universities, according to preliminary NSOPF-93 findings and other studies, spend a large proportion of their time in teaching-related tasks.¹⁴ Most professors are devoted to teaching, independ-

TABLE 2

PERCENTAGE DISTRIBUTION OF FULL-TIME FACULTY AND INSTRUCTIONAL STAFF, BY PRINCIPAL ACTIVITY, TYPE AND CONTROL OF INSTITUTION, RANK, RACE/ETHNICITY, AND GENDER, FALL, 1992

	Number	Percent	Teaching Percent	Research Percent	Administration Percent	Other Percent ¹
All institutions ²	593,941	100	65.7	11.5	11.5	11.3
By type and control						
Public research	129,375	100	46.9	27.0	11.9	14.2
Private research	42,036	100	37.1	36.9	7.8	18.2
Public doctoral ³	62,991	100	53.4	17.0	12.6	17.1
Private doctoral ³	29,990	100	54.9	9.6	15.0	20.5
Public comprehensive	103,588	100	80.0	2.2	11.4	6.4
Private Comprehensive	38,479	100	81.6	0.9	11.1	6.3
Private liberal arts	41,412	100	79.1	0.6	13.2	7.1
Public two-year	118,194	100	81.0	0.3	10.0	8.7
Other ⁴	27,876	100	75.7	3.3	14.1	7.0
By academic rank						
Not applicable	19,623	100	71.3	3.6	18.4	6.7
Full professor	177,356	100	65.7	12.1	15.1	7.1
Associate professor	136,039	100	67.0	12.3	9.5	11.2
Assistant professor	137,237	100	66.9	13.5	5.7	13.8
Instructor	80,239	100	78.1	2.1	6.7	13.1
Lecturer	12,812	100	75.4	3.7	9.8	11.1
Other ranks	30,635	100	14.6	27.7	34.7	22.9
By race/ethnicity						
American Indian/Alaskan Native	2,800	100	74.6	8.4	9.6	7.5
Asian/Pacific Islander	33,011	100	58.9	23.0	5.1	13.0
Black non-Hispanic	29,526	100	67.0	4.2	16.0	12.8
Hispanic	15,237	100	63.5	9.1	10.1	17.3
White non-Hispanic	513,368	100	66.1	11.2	11.7	11.0
By gender						
Female	194,883	100	67.9	7.0	11.8	13.4
Male	399,058	100	64.6	13.7	11.4	10.3

¹ Includes technical activities, clinical service, community/public service, etc.

² All accredited, nonproprietary U.S. postsecondary institutions that grant a two-year (A.A.) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education.

³ Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴ Public liberal arts, private two-year, and religious and other specialized institutions, except medical.

NOTE: Details may not add to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

ent of employment status, rank, or institution, beyond the research universities.

Almost 102,000 full-time and 43,000 part-time instructors (rounded figures) teach in the natural sciences; combined with the humanities, social and health sciences, they account for more than half of all instructional faculty and staff. To no one's surprise, white professors predominate—87 percent of the respondents; 59 percent are white males. Blacks and Asians make up 5 percent, each, of all sampled faculty; Hispanics, 3 percent; American Indian or Native Alaskan, another 1 percent. White and minority females represent 28 percent and 5 percent of the sample, respectively. Minority inroads vary by disciplines scrutinized, and females are disproportionately employed as part-time faculty.¹⁵

FACULTY WORKLOAD: THE WORKWEEK

The debate over faculty workload and productivity has occurred without a clear conceptualization of these concepts.¹⁶ This section therefore offers a rough distinction.¹⁷ Faculty *workload* refers to how much a faculty member has to do—the total set of activities in the formal and *informal* job descriptions of a professor. Many social and organizational factors affect this workload, including institutional and department size and composition. Workload is commonly measured by the total amount of time per week faculty members devote to teaching, research, administration, and public service. Faculty *productivity* is an estimate of the efficiency and effectiveness of a faculty member in achieving expected professional standards.

Table 4 provides data on faculty workload expressed as a proportion of the workweek.¹⁸ The top of this table, showing the mean number of hours faculty spend working at their tasks per week, reveals that faculty routinely continue to work over 50 hours per week; our estimate of 52 hours shows no change from NSOPF-88, and no variation between professors in the public and independent sectors.

Public and independent research university faculty maintain their slight lead in the number of hours worked: 56 hours vs. 54 and 52 hours per week respectively for doctoral (public and independent) and comprehensive (public and independent) university faculty. Liberal arts professors also labor 52 hours per

week. Faculty at undergraduate teaching institutions—notably the community colleges—have shorter workweeks, a statistic that further ratifies the pattern identified by NSOPF-88. It may be that greater academic prestige and a research orientation result in a somewhat longer workweek.

Research university average *more* time at their institutions than other faculty at other institutions, and are therefore presumably the most available to students, colleagues, and administrators alike. Perhaps the more productive faculty do more to fulfill their professional duties than normally required—rather than allowing research to detract from student contact as critics surmise.¹⁹ Save at community colleges, most faculty spend more than 40 hours per week at their employing institutions.

Faculty members, like other professionals, greatly exceed the standard 40 hours workweek and work hard for their compensation. The statistics do not support the popular image of inactivity.

Faculty Productivity

Faculty productivity designates how well faculty members accomplish their professional responsibilities (outputs; the social artifacts produced) per unit of resources invested (resources, conditions, and opportunities). The concept is usually *understated*. Confined to crude quantitative measures associated with teaching or research, productivity rarely encompasses the *multiple* indicators of the *multiple* activities engaged in by faculty, and rarely includes a qualitative component. The scientific productivity of faculty at research or doctoral universities, for example, may be measured by the quality as well as the quantity of publications, grantsmanship, and research output. Worse, faculty productivity is typically *mismeasured*: (1) by the time a faculty member allocates to teaching and research duties; (2) by the number of classes a faculty member teaches, or (3) by the number of students the faculty member contacts in and out of class.²⁰ These indicators actually measure faculty *priorities* rather than productivity.

The bottom of Table 4 gives the percentage of time per week faculty devote to each professional task. Public and independent institutions, with a few exceptions, display similar patterns. There is a monotonic increase in the

TABLE 3

**PERCENTAGE DISTRIBUTION OF PART-TIME FACULTY AND INSTRUCTIONAL STAFF, BY PRINCIPAL ACTIVITY,
TYPE AND CONTROL OF INSTITUTION, RANK, RACE/ETHNICITY, AND GENDER, FALL, 1992**

	Number	Percent	Teaching Percent	Research Percent	Administration Percent	Other Percent ¹
All institutions ²	291,855	100	83.2	2.1	1.5	13.2
By type and control						
Public research	18,652	100	71.4	10.7	3.4	14.4
Private research	13,719	100	61.9	7.9	3.4	26.8
Public doctoral ³	14,730	100	74.8	5.2	2.3	17.8
Private doctoral ³	14,134	100	66.3	3.7	0.8	29.3
Public comprehensive	34,334	100	86.8	2.5	0.7	10.0
Private Comprehensive	26,487	100	92.1	0.2	1.9	5.8
Private liberal arts	18,662	100	90.0	0.2	2.5	7.3
Public two-year	135,518	100	85.3	0.5	1.1	13.2
Other ⁴	15,619	100	90.3	1.2	1.7	6.8
By academic rank						
Not applicable	7,556	100	82.0	0.1	3.5	14.4
Full professor	24,351	100	81.6	5.3	2.2	10.9
Associate professor	17,301	100	72.0	3.7	3.2	21.1
Assistant professor	20,581	100	68.9	4.6	2.8	23.7
Instructor	165,864	100	87.9	0.5	0.6	11.0
Lecturer	33,271	100	89.3	1.2	0.5	8.9
Other ranks	22,931	100	63.9	8.6	6.2	21.3
By race/ethnicity						
American Indian/Alaskan Native	1,777	100	82.0	1.6	--	16.4
Asian/Pacific Islander	9,820	100	76.9	6.5	1.6	15.0
Black non-Hispanic	13,382	100	77.2	0.2	4.2	18.3
Hispanic	9,283	100	80.5	0.9	0.7	17.9
White non-Hispanic	257,592	100	83.9	2.1	1.4	12.6
By gender						
Female	132,381	100	81.4	1.3	1.6	15.7
Male	159,474	100	84.7	2.7	1.5	11.1

¹ Includes technical activities, clinical service, community/public service, etc.

² All accredited, nonproprietary U.S. postsecondary institutions that grant a two-year (A.A.) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education.

³ Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴ Public liberal arts, private two-year, and religious and other specialized institutions, except medical.

NOTE: Details may not add to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

TABLE 4

MEAN HOURS WORKED AND PERCENTAGE OF TIME SPENT ON ACTIVITIES BY FULL-TIME, REGULAR FACULTY, BY TYPE AND CONTROL OF INSTITUTION, FALL, 1987, 1992

Control and type of institution	Mean hours spent per week							
	Total worked		At institution		Other paid		Unpaid service	
	1987	1992	1987	1992	1987	1992	1987	1992
All institutions*	53	N/A	46	N/A	4	N/A	3	N/A
Public								
Research	57	56	52	48	3	2	2	6
Doctoral	55	54	49	45	3	2	2	6
Comprehensive	52	52	46	41	3	3	3	8
Two-year	47	46	40	36	4	3	3	8
Independent								
Research	56	56	50	47	4	3	2	6
Doctoral	53	54	46	45	5	3	2	6
Comprehensive	51	52	44	41	4	3	3	8
Liberal Arts	52	52	47	42	3	3	2	7
Other	50	49	43	39	5	3	2	7

Control and type of institution	Percent of time spent per week											
	Teaching		Research		Admin-istration		Community service**		Other work**		Professional development	
	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992
All institutions*	56	N/A	16	N/A	13	N/A	4	N/A	7	N/A	5	N/A
Public												
Research	43	36	29	33	14	15	3	9	7	2	4	4
Doctoral	47	43	22	23	14	15	3	11	9	2	5	4
Comprehensive	62	57	11	14	13	14	4	6	5	3	4	5
Two-year	71	66	3	5	10	13	5	6	5	3	5	6
Independent												
Research	40	30	30	39	14	13	2	11	11	3	4	4
Doctoral	39	41	27	22	13	18	2	13	14	2	4	5
Comprehensive	62	58	9	11	14	16	5	6	6	3	4	5
Liberal Arts	65	59	8	12	14	17	5	5	4	2	4	5
Other	69	58	9	11	15	16	5	6	7	3	6	5

* Do not have weights for finding mean values for All institutions.

** It is unclear if 1992 Data for Community service and Other work correctly correspond to 1987 data.
 —1992 community service data corresponds here to question #37f—service/other non-teaching activities
 —1992 other work data corresponds to question #37e—outside consulting or freelance work.

percent of time devoted to teaching as we move from research-oriented to teaching-oriented institutions. Across all institutions, faculty average more than 50 percent of their time in teaching-oriented activities, and less than 20 percent of their time in research. In most institutions, faculty allocate much more than twice their time to teaching than to research; even at research universities faculty members do not spend twice as much time on research as on teaching. Community college faculty spend two-thirds of their time in teaching, and only 5 percent in research.

Public research university faculty are much more balanced in their use of time—36 percent in teaching, 33 percent in research. Independent research university faculty favor research over teaching, 39 percent to 30 percent. Compared to the 1988 survey, doctoral faculty at independent universities actually increased their teaching time and decreased the percentage of time they allocated to research. Faculty members devote at least 13 percent of their time to administrative matters in all institutional categories, and 15 percent or less of their time to public service. The hours devoted to teaching thus remain correlated with institutional type or mission (Table 4)

Tenured faculty do not abandon their classroom duties to their nontenured colleagues. Tenured, tenure-track, and nontenured (that is, nontenure track) faculty spend approximately the same amount of time teaching: 44 percent, 45 percent, and 47 percent respectively. Tenure-track faculty actually average slightly more time in research than tenured faculty: 27 percent and 25 percent commitments, respectively. Nontenured faculty devote less than 14 percent of their time to research. Nor do full professors abandon classroom duties to junior colleagues. Full, associate, and assistant professors spend approximately 42 percent, 44 percent, and 43 percent of their time in teaching-related tasks, respectively.

Among the disciplines, humanities faculty spend the largest percentage of their time in teaching (64 percent), followed by faculty in education (57 percent), and fine arts (54 percent). Then follow: business, engineering, natural and social science faculty (46 percent); health science faculty (39 percent); and faculty in agriculture and home economics (34 percent). Across all institutions and disciplines,

therefore, there is no evidence that faculty neglect teaching.

Faculty productivity, a composite measure of the multiple responsibilities incurred by faculty members, is often confounded with instructional productivity—tasks related to classroom teaching. Despite this confounding, Table 5 reveals patterns of increased classroom hours and student contact hours across all types of institutions and program areas. Re-

TABLE 5

MEAN NUMBER OF CLASSROOM HOURS AND STUDENT CONTACT HOURS, FULL-TIME REGULAR FACULTY, BY TYPE AND CONTROL OF INSTITUTION, AND BY PROGRAM AREA IN FOUR-YEAR INSTITUTIONS, FALL, 1987, 1992

Control and type of institution	Classroom hours		Student contact hours*	
	1987	1992	1987	1992
All institutions	9.8	N/A	302	N/A
Public				
Research	6.6	7.1	259	282
Doctoral	8.0	9.8	285	346
Comprehensive	10.5	11.0	319	338
Two-year	15.2	16.4	427	458
Independent				
Research	5.9	6.9	229	237
Doctoral	6.9	7.9	201	270
Comprehensive	10.9	11.4	276	298
Liberal Arts	10.6	10.6	237	235
Other	9.5	12.6	329	344
Program area				
All program areas	8.5	N/A	270	N/A
Agriculture/home eco.	7.4	10.8	211	306
Business	8.6	11.0	310	317
Education	9	10.2	231	277
Engineering	8.3	9.5	259	243
Fine arts	11.4	12.3	267	270
Health sciences	7.3	12.1	251	424
Humanities	9.3	10.9	242	297
Natural sciences	8.0	10.0	325	366
Social sciences	8.1	9.5	305	357
Other fields	9.2	13.3	252	337

* Do not have 1992 data for All institutions or All program areas.

search university faculty, as expected, average the fewest classroom hours and student contact hours; community college faculty average the most. Public and independent research faculty spend about seven hours in the classroom; community college faculty average slightly over 16 hours in class. Faculty members at comprehensive universities resemble their liberal arts colleagues by devoting about 11 hours to instruction. Faculty at public doctoral universities spend about two hours more time in class than their counterparts at independent doctoral institutions.

The expected pattern emerges when student contact hours are observed (Table 5). Research university faculty have fewest student contact hours; community college instructors have the most student contact hours by far. Doctoral and comprehensive faculty fall between these extremes. Table 5 shows an unexpected increase in student contact hours among faculty at public doctoral institutions. In another surprise, faculty members at comprehensive, independent universities manage more student contact hours than colleagues at liberal arts institutions. Faculty at independent research, doctoral, and comprehensive universities are increasing their involvement with students.

Table 5, bottom, identifies faculty involvement with students by academic discipline. Outside the residual category, faculty in the fine arts and health sciences disciplines average about 12 classroom hours. Business, agricultural and home economic studies, and humanities faculty follow with approximately 11 classroom hours. Engineering and social science faculty spend the fewest hours in class. Health science faculty have the most student contact hours by far, followed by the natural sciences and the social sciences. Engineering faculty show the fewest student contact hours.

Preliminary results (not shown) indicate that tenured faculty have not abrogated their teaching duties: they (along with tenure-track faculty) teach more courses than nontenured faculty across all institutions. NSOPF-93 also probed the number of classes taught and the number of courses taught for credit during fall 1992. Full-time faculty members, as expected, show a mean of more than two courses per semester; part-time faculty show means of two courses (regular part-timers) or less.

Nor have senior faculty delegated their

courses to junior colleagues. Assistant, associate, and full professors all average slightly more than two courses each per semester. Research and doctoral faculty teach fewer courses than faculty at other types of institutions; community college faculty average more courses. Courseloads for faculty at independent doctoral universities more closely resemble their research university counterparts.

Faculty productivity also encompasses the record of publications. NSOPF-93 reveals, not unexpectedly, that institutional type differentiates publication activity (Table 6). Examining the number of publications provides little evidence that professors employed outside of research universities are abandoning their teaching duties for research. Faculty members outside research or doctoral institutions published one article or less during the two years prior to the survey period; the pattern of authoring book chapters or book reviews was not appreciably greater. Faculty at research universities averaged about four refereed articles; doctoral faculty averaged slightly above two articles in the same two-year period.

Pressures for publishing have not altered the primacy of the teaching mission. Professors at research and doctoral universities allocate more effort to publishing than counterparts at other institutions. Faculty at liberal arts colleges publish little, and the average at comprehensive universities is only one refereed article every two years. The increased hours faculty devote to research (Table 4), these findings suggest, may be spent trying to keep abreast of developments in their fields, not necessarily with publishing more articles. American academics, by and large, locate themselves at institutions that ratify their predisposition to teaching. The research and publication imperative predominates only at research universities.

NSOPF-93 data (not shown) also show that part-timers published few refereed articles in the prior two years; in contrast, full-time regular and temporary faculty averaged more than two articles. Tenured faculty published more than three refereed articles during those two years; tenure-track faculty averaged almost three articles; untenured faculty showed almost no publishing activity. Full professors averaged three or more refereed articles per two years, associate professors published two or more articles, and assistant professors aver-

TABLE 6

MEAN NUMBER OF PUBLICATIONS BY FULL-TIME REGULAR FACULTY DURING THE LAST TWO YEARS, AND DURING CAREER, BY TYPE OF PUBLICATION AND BY TYPE OF INSTITUTION, FALL, 1987, 1992

Control and type of institution		Referred articles		Books, chapters		Book reviews		Other reports		Presentations	
		1987	1992	1987	1992	1987	1992	1987	1992	1987	1992
All institutions*	two-year	2.0	N/A	0.6	N/A	0.6	N/A	1.5	N/A	4.3	N/A
	career	12.4	N/A	2.6	N/A	3.4	N/A	7.9	N/A	28.4	N/A
Public											
Research	two-year	4.0	3.5	1.2	1.0	0.7	0.5	2.4	2.5	5.8	6.0
	career	24.9	25.0	4.8	4.2	4.8	3.9	13.0	17.3	38.1	41.3
Doctoral	two-year	2.7	2.4	0.8	0.7	0.9	0.5	1.7	1.7	5.1	5.5
	career	17.1	16.1	2.9	2.9	4.0	2.8	9.0	10.8	34.2	38.3
Comprehensive	two-year	1.0	1.0	0.4	0.4	0.5	0.4	1.6	1.4	4.5	4.3
	career	6.2	5.7	1.6	1.6	3.1	2.4	7.2	8.2	31.1	32.1
Liberal arts	two-year	0.2	0.2	0.2	0.1	0.3	0.1	0.7	0.6	2.4	1.8
	career	1.0	1.0	0.8	0.5	1.4	0.9	3.4	3.7	13.8	12.0
Independent											
Research	two-year	4.1	3.9	1.4	1.1	0.8	0.6	1.5	2.2	4.0	6.1
	career	26.8	26.5	5.4	4.8	5.7	4.0	9.8	12.8	30.2	37.2
Doctoral	two-year	3.6	2.3	0.9	0.9	0.8	0.4	1.1	1.2	5.1	4.7
	career	28.8	13.7	3.6	3.2	4.8	3.2	8.4	8.0	28.7	31.9
Comprehensive	two-year	1.0	0.8	0.4	0.4	0.5	0.4	1.6	1.1	3.9	3.7
	career	5.5	4.7	1.2	1.3	2.6	2.1	8.8	6.8	28.7	24.8
Liberal arts	two-year	0.6	0.7	0.3	0.4	0.4	0.4	0.9	0.9	3.2	3.1
	career	3.1	4.0	1.4	1.4	2.5	3.4	4.7	5.4	20.1	24.7
Other	two-year	0.9	0.6	0.6	0.4	0.7	0.4	1.5	1.2	5.5	4.1
	career	5.1	4.4	2.5	1.3	4.4	3.0	6.7	6.8	41.1	31.3

* Do not have 1992 data for All institutions.

aged two articles. Senior, tenured, full-time faculty members are thus the most productive respondents. Across all institutions, suggests preliminary evidence, males publish more than females and Asian-Americans outpublish other ethnic groups.²¹

Faculty in the natural sciences and in engineering are the most prolific publishers, averaging nearly three refereed articles in the prior two years. Faculty in the health sciences, agriculture, and economics approximate a mean of three articles during the two-year period; social science faculty completed almost two articles; business faculty averaged one article. Publishing was almost negligible in the other disciplines. The vast majority of faculty, these rates show, have no proclivity to abandon teaching.

Those who bash college and university faculty for the educational problems of our society can only marshal rhetoric and ideology to their side. Charges of anti-intellectualism, consumerism, politicization, and cultural mediocrity are especially in vogue. But, to summarize, NSOPF-93 shows no evidence of declining faculty productivity—measured by the number of hours faculty work per week or the time allocated to teaching. Faculty members work extremely hard—due mainly to intrinsic motivations rather than external incentives or popular appeal—and most are actually more productive in this era of scarce resources.

Faculty members continue to direct their efforts toward teaching, research, administration, and public service; variance in proclivities remains a direct function of institutional

mission and type. Colleges and universities continue to pursue different missions and allocate different priorities to research and undergraduate, graduate, and professional education. Faculty and administrators, by controlling the type of faculty hired in the academic marketplace, ratify these missions and priorities.

Workload and Productivity Trends: 1987-1992

It is difficult to compare NSOPF-88 and NSOPF-93 because the surveys were taken at different time intervals, involved distinct sampling and weighting procedures, and were subject to other experimental disparities that restrict valid inferences. The following tentative inferences are therefore suggested only for heuristic purposes.

Faculty in the early 1990s worked about as hard as they did five years earlier—nearly 52 hours per week on average (Table 4). Little, if any, change occurred in the mean number of hours faculty worked across the types of institutions.²² But the data suggest a slight reduction in the number of hours faculty in the 1990s spend on campus. The two findings, taken together, suggest a norm of long workweeks, increased time devoted to community service, and perhaps attainment of a ceiling on the mean number of working hours.

Changes in research activity were small, save for the four and nine percent increases at public and independent research universities, respectively, between 1987 and 1992. Time devoted to research elsewhere increased by three percent or less; faculty at independent doctoral universities actually spent *5 percent less time* in research in 1992 than in 1987.

The percentage of time devoted to teaching-related activities declined for faculty in the public sector (5 to 7 percent range); changes in the independent sector ranged from a 10 percent decline for research university faculty, to a 2 percent increase for doctoral university faculty. But some of the lost teaching time went to increases in hours spent in administration (1 to 5 percent increases in all institutions except independent research universities) and, probably, in community service.²³ Faculty outside of research and doctoral institutions showed modest increases in the percentage of time devoted to research, typically in the 2 to 4 percent range; doctoral university faculty showed a 5 percent decline.

Faculty members increased their actual classroom and student contact hours since NSOPF-88 (Table 5). Research and doctoral university faculty members showed the greatest increases in classroom hours. The large increase in student contact hours shown by doctoral university faculty is consistent with the findings reported above.

If faculty sacrifice undergraduate teaching for research, one might expect to see supporting evidence in the number of publications. Table 6 shows relative stability in the publication patterns of faculty between the surveys. Most faculty—research and doctoral university faculty are the exceptions—show no major corpus of research or publishing activity, measured by refereed articles and books. Faculty members at research universities show *declines* in the number of published books and articles between the two-year periods prior to each survey. American professors continue to teach, teach, teach.

CONCLUSION

Neither faculty irresponsibility nor changes in workload and productivity explain the problems confronting higher education. Faculty at U.S. colleges and universities, now as always, are mainly devoted to undergraduate education. Over 90 percent of all institutions of higher education feature teaching as their dominant mission; publication activity is negligible at these institutions. Even at research universities, faculty devote almost as much time to teaching tasks as to research. Lost in the “faculty workload and productivity” debate is discussion of how to enrich the quality as well as quantity of faculty activities.

The debate over faculty productivity is problematic for several reasons.²⁴ First, critics often assume that faculty productivity is a divisible, individualized output. But productivity cannot be construed devoid of social and organizational contexts. Factory workers manipulate invariant materials when producing a commodity—the results are not dependent on the responses or cooperation of these materials. Not so with the social commodities of teaching, research, and service. The motivation and participation of actors—often at variance with faculty desires for productivity—affect the outcomes of these activities.

Faculty members usually reject most productivity measures as static, deterministic, and as presuming a nonexistent standard of uniformity. Qualitative distinctions are neglected, they add, and quantifiable variables show only gross distinctions. Lost is the complex set of formal and informal relationships between teaching and research that occurs in academic departments and in classrooms.²⁵

Faculty productivity—a multifaceted composite of teaching, research, administration, public service, professional development, and consulting—is popularly confused with instructional productivity—the combination of time spent in teaching, student contact hours, and hours worked per week. Critics berate faculty by contrasting research and instructional productivity, a contrast that understates the full dimensions of faculty productivity. Faculty members are productive and seek to enhance their own productivity; at stake is who ultimately defines, prescribes, and measures its components.

The academy and the corporate sector are not isomorphic; they have their distinct work structures. Professionalization—a bulwark against the commodification of expertise and the hegemony of markets—insures that quality reigns over profits.²⁶ Professionals, including faculty, subscribe to disinterestedness, pursue their craft out of intrinsic motivations, and deemphasize material gain. The market analogy should not dominate or circumscribe inquiry about educational phenomena.²⁷

Faculty workload and productivity are affected by interinstitutional mobility,²⁸ intrinsic motivation, institutional incentives, and external stimuli. Many vehement critics are former administrators or marginal academics who, failing to excel at the multiple roles that comprise a faculty career, are now employed in research institutes and other organizations devoid of responsibility for undergraduate teaching. Pontification substitutes for the complexities and perils of academic life; the way of the obscurant is championed.²⁹

Organizational change is hard enough for colleges and universities; systemic change is even more difficult.³⁰ But higher education can be improved. The focus on faculty workload and productivity substitutes for the proactive tackling of major fiscal and policy problems, including the increased stratification of higher education that accompanied the policy shift

from public sector investment in human capital to market-based allocations.³¹ It is much easier for “stakeholders” to blame than to facilitate progress and prosperity. Foundations and their sponsored agents are better organized to promote their agendas and ideologies than are faculty who, located in their institutions and disciplines, lack a united voice.

Higher education, faced with an extended campus and political leadership vacuum, moves towards trendy managerial panaceas. Those who seek to restructure faculty should have their own productivity evaluated and then devise ways of enhancing it.³² Administrative workload and productivity per capita, given the rising administrative costs in higher education, must be examined along with *all* components of faculty workload and productivity.³³

Perhaps a new generation of leaders will emerge from faculty and staff ranks—a generation that will not acquiesce to oligarchic interests or cultural mediocrity under the guise of popular sovereignty.³⁴ In any case, cooperation, not polemics, will reinvigorate American higher education.

REFERENCES

¹ Menand, 1995.

² Oakley, 1991.

³ Reliance on the typical measures of workload and productivity understates the complications in the faculty role. Obviously, crude measures, such as the distribution of time devoted to teaching, research, administration, and public service rarely capture the qualitative aspects of faculty work. No “static” or cross-sectional measurement of courseloads or contact hours can ascertain how well faculty do their jobs within a social context involving numerous interpersonal and organizational interactions. Nor do most analysts control for the social or organizational factors influencing individual faculty. Accurate and valid measurement requires more than assigning numbers to specified phenomena.

⁴ Yunker, 1984. For instance, is it mathematically feasible to assume *a priori* that the productivity patterns of faculty within departments or institutions can or should manifest the same trajectory or curve? The divergent “gestation periods” necessary for faculty in different settings to innovate in their many roles challenges the use of static, discrete measures.

⁵ The results reported here are preliminary, since the full NSOPF-93 data set was not available. Nor could we verify the validity, reliability, accuracy, and precision of the data set with appropriate statistical checks. The inferences related to derived measures are based on approximations or estimated findings; inferences based upon more sophisticated statistical tests follow in future papers.

⁶ Multivariate results on gender, ethnic, and age disparities are reserved for future papers.

⁷ This article features descriptive findings, especially univariate distributions, due to the technicalities and complications of the data analysis.

⁸ Future papers will consider preliminary findings from multiple regression analyses to ascertain the reasons for the observed patterns,

⁹ Zimble, 1994. The NSOPF-93 universe was 885,796. The surveyors utilized complicated weighting and sampling procedures to select a two-stage stratified cluster probability sample that accurately represented the overall population.

¹⁰ The National Opinion Research Center (NORC) conducted this survey through mailed questionnaires, and followed-up with telephone interviews. The unweighted response rate was 86.6 percent for faculty respondents and 90.6 percent for institutions. NORC oversampled minority and women faculty and faculty from selected humanities disciplines. Institutions were sampled probabilistically from strata constructed from the most recent Carnegie classification. Generalizations apply, without distinction, primarily to those faculty and instructional staff selected for the study.

¹¹ Allen 1994, 1995.

¹² *Ibid.*

¹³ Fulton and Trow, 1974.

¹⁴ Fairweather and Rhoads, 1995. Only three percent of surveyed full-timers lacked faculty status.

¹⁵ Future studies will systematically examine workload and productivity differences between these groups from the NSOPF-93 database.

¹⁶ Moreover, no theory substantiating this conceptualization has been advanced.

¹⁷ Allen, 1994, 1995.

¹⁸ These numbers tell nothing about the intensity of effort or quality of performance given certain inputs.

¹⁹ Oakley, 1991.

²⁰ Fairweather and Rhoads, 1995 exposed the confounding and faulty inferences that occur when "instructional productivity" is mistaken for "faculty productivity" and vice versa.

²¹ Relevant statistical controls and appropriate tests have not yet verified these observations.

²² Observed variations may be a statistical artifact, given the differences in sampling frames and other techniques. No significance tests have yet been conducted on these differences.

²³ See note to Table 4.

²⁴ Massy and Wilger, 1995.

²⁵ Volkwein and Carbone, 1994.

²⁶ Menand, 1995.

²⁷ Rosenberg, 1992.

²⁸ Burke, 1995.

²⁹ Menand, 1995.

³⁰ Simsek and Louis, 1994.

³¹ McPherson and Schapiro, 1995.

³² Bok, 1993.

³³ Rhoades, 1995.

³⁴ Menand 1995; Pratt 1994.

REFERENCES

- Allen, H.L., "Workload and Productivity in an Accountability Era," *NEA Almanac of Higher Education* (Washington, D.C.: National Education Association, 1994), 25-38.
- , "Workload and Productivity: Case Studies," *NEA Almanac of Higher Education* (Washington, D.C.: National Education Association, 1995), 21-32.
- Bok, D., *The Cost of Talent* (New York: Free Press, 1993).
- Burke, D., "Plus ca Change: An Academic Workforce in Transition," *Change* 81 (1) (1995), 7-11.
- Fairweather, J. and Rhoades, R.A.. (1995). "Teaching and the Faculty Role: Enhancing the Commitment to Instruction in American Colleges and Universities," *Educational Evaluation and Policy Analysis* 17 (2) (1995), 179-194.
- Fulton, O. and Trow, M., "Research Activity in American Higher Education," *Sociology of Education* 47 (1974), 29-73.
- Kaplan, A., *The Conduct of Inquiry* (New York: Harper and Row, 1979).
- Kyburg, H., *Philosophy of Science: A Formal Approach* (New York: Macmillan, 1968).
- Massy, W.F. and Wilger, A.K., "Improving Productivity: What Faculty Think About It And It's [sic] Effect on Quality," *Change* 27 (4) (1995), 11-20.

- McPherson, M. and Schapiro, M., "Future Needs for Postsecondary Education," *Change* 27 (4) (1995), 26-32.
- Menand, L., "The Trashing of Professionalism," *Academe* 81 (3) (1995), 16-19.
- Oakley, F., "Against Nostalgia: Reflections on Our Present Discontents in Higher Education," *National Humanities Center Newsletter* 12 (2) (1991), 1-14.
- Pratt, L., "A New Face for the Profession," *Academe* 80 (5) (1994), 38-41.
- Rhoades, G., "Rising Administrative Costs in Instructional Units," *Thought and Action* 11 (1) (1995), 7-24.
- Rosenberg, A., *Economics: Mathematical Politics or Science of Diminishing Returns?* (Chicago, Ill.: University of Chicago, 1992).
- Simsek, H. and Louis, K.S., "Organizational Change as Paradigm Shift," *Journal of Higher Education* 65 (6) (1994), 670-695.
- Volkwein, J.F. and Carbone, D., "The Impact of Departmental Research and Teaching Climates on Undergraduate Growth and Satisfaction," *Journal of Higher Education* 65 (2) (1994), 147-167.
- West, M., "Women Faculty: Frozen in Time," *Academe* 81 (4), 26-29.
- Yuker, H.E., *Faculty Workload: Research, Theory, and Interpretation* (Washington, D.C.: Association for the Study of Higher Education, 1984).
- Zimble, L., *Faculty and Instructional Staff: Who Are They and What Do They Do?* (Washington, D.C.: National Center for Education Statistics, 1994).

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