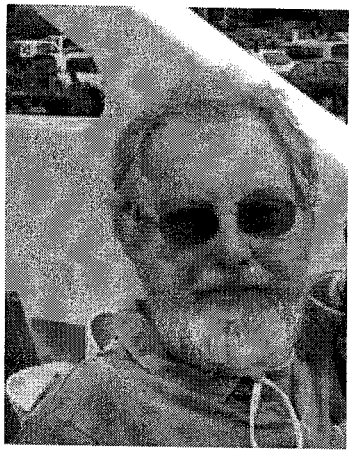
Profile



Dr. Peter Hugill

Professor

Ph.D. Syracuse University, 1977

Research

Dr. Hugill's primary interest is in the historical relationship between people and their environment as mediated through technology. This finds particular expression in his books on the role of transportation systems and telecommunications in the World-System. This work has strong implications for geopolitical models. He also has an ongoing interest in the role played by agricultural commodities in defining world trade flows, industrial development, and consumer markets. Dr. Hugill's primary research region and the area in which he most commonly directs theses and dissertations is Anglo-America and its relationships to Europe as mediated through the above forces. Of late he has been increasingly interested in the transformation from British to American hegemony in the World-System. He has subsidiary interests in the use of the landscape for communicating social status and manipulating social conduct; the landscape as gesture and as the product of social action.

Selected Publications

- Hugill, P. (forthcoming) Historical Geographies of Trade, Transport and Communications. In Rob Kitchin & Nigel Thrift, eds., *The International Encyclopedia of Human Geography*. Elsevier.
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Senate Committee on Higher Education re Faculty Workload:

Faculty Workloads are extremely complex, in particular in Tier 1 Research Universities. My experience with them comes from 32 years of teaching at Texas A&M University (TAMU). I have supervised, served on, and continue to serve on a large number of Ph.D. and MS Committees around the University. I have served as Head of my Department (Geography), Senior Undergraduate Advisor, and Graduate Director. Since 2003 I have chaired the Promotion and Tenure Committee for the Department of Geography. This conducts detailed annual evaluations of Instructors, Assistant Professors, and Associate Professors for the Department Head. I have also, since 1999, held an appointment in the Bush School at TAMU, teaching part of my load in the International Affairs Program.

I have considerable experience with other Departments in my own College (Geosciences) from service on the College Promotion and Tenure Committee and around the University through service on Appeals and Grievance Committees, many of which have dealt with workload.

In elected academic offices I have served six years on the Faculty Senate, as Chair of the Academic Affairs Committee, Secretary, and Deputy Speaker. I have been President of the Texas A&M University Chapter of the American Association of University Professors (AAUP) since 2003. I was elected President of the Texas State Conference of AAUP in 2008 and re-elected this Spring. I also became President-Elect of the Texas Association of College Teachers (TACT) this Spring. My contact with other faculty around the State through AAUP and TACT has given me a very real sense of the huge variation in faculty workload ranging from that in teaching intensive Community Colleges through private, For-Profit institutions, private Liberal Arts institutions, four-year institutions, to research intensive Tier 1 Universities.

My testimony today refers primarily to Tier 1 Universities, using data from my own institution but I note that much of what I have to say applies to other universities around the state where research is highly valued, such as Texas Tech, the University of Houston, the University of Texas at Dallas and the like.

I want to outline four measures of workload that are important:

(1) It seems easy to measure faculty workload by using Classroom Teaching Credit (CTC). CTCs measure one part of faculty workload, but only one part, and for some faculty only a minor part. It is an attractive measure since it clearly represents the expenditure of the state to fund

higher education. The rules for CTCs include crediting classroom undergraduate courses at the number of course credits, graduate courses (which are much more demanding of time) at 1.5 times the course credits, supervision of laboratory sections at 0.67 times the course credits, and the like. For TAMU the complexity of this problem is recognized in University Rule 12.03.99.M1 and the accompanying Faculty Workload Policy Statement by which the Board and the Administration instructs Department Heads how to assign Equivalent Teaching Credit (ETC). I attach Table 1 as a more complete description of how TAMU measures CTCs and ETCs to produce Total Teaching Credits (TTCs). At TAMU workload is distributed fairly evenly by faculty rank, with Full Professors actually teaching a slightly larger share of their portion of the undergraduate teaching load in large classes (defined by *U.S. News and World Report* as 50 and up) than other ranks (Tables 2, 3).

Some ETCs are assigned as multipliers for large classes (80 and above by TAMU's internal definition), many for teaching duties that are outside the formal classroom, such as reading classes and supervision of MS and Ph.D. students. Such supervision, experience tells me, is very demanding of a faculty member's time. CTCs and ETCs are combined to give Total Teaching Credit (TTC). On this measure, for example, at TAMU in the Fall of 2009, only eight faculty were not in compliance. Very few faculty have any release from TTC production. In Fall 2009 158 faculty out of a total of 3133 were listed as not teaching regular courses (Table 4). Of those nearly 80% were on development leave, were temporarily assigned major administrative duties, were new faculty entitled to a lower teaching load in their first semester to get their careers established, or had taught a full load in a single semester, a technique faculty use to free up more time for research, especially when it involves substantial travel.

I would suggest to the Committee that the use of TTCs as determined by Boards and Administrations to adjust to local conditions is a reasonable way to measure teaching workload.

(2) In universities with strong research programs its is very necessary to measure workload via the amount of research dollars generated. Grants from major national research funding agencies such as NSF are highly competitive, very much sought after, and, alongside teaching and publication, paid a great deal of attention to in annual evaluations of faculty. Grants from major companies that are science and technology driven are also highly sought after. Most grants are for several years, have extension clauses and the like, and while the University can provide overall data, trying to assign an annual value per faculty member is difficult. Faculty who generate a substantial amount of research dollars reduce their formal teaching load by "buying themselves out" of some part of their classroom teaching. Such dollars pay the very substantial costs of running research laboratories and programs, attendance at scientific meetings, and publication (most scientific journals now have very substantial page charges that have to be paid for with grant money). Most importantly, such dollars fund the graduate students who are the primary labor source in research, so that a faculty member with a "reduced" teaching load of formal classes will almost always be supervising a substantial number of graduate students. This is recognized in the ETC measures, but the number of research dollars a faculty member contributes is not. From a business perspective, such activity should be charged against the income side of the ledger rather than the expenditure side.

As business and industry become more and more knowledge intensive the activities of the research universities contribute more and more to the economic development of our state and nation, improving the performance of our strong suite of old industries to keep jobs here in Texas

as well as helping develop important new industries and the new jobs they provide. Many faculty in the research universities stand on the shoulders of those who have gone before and work to improve long-established industries. Far better control of pests—the cheap and effective boll-weevil eradication program developed initially at TAMU—and more efficient ways of handling harvested cotton—the module builders developed at Texas Tech—helps keep Texas cotton agriculture well able to compete with that of China. Since World War Two something like half the productivity gains in America, which provides new jobs, have come from basic research, most of it done within the major research universities. The work done by Texas's research universities has radically improved our ability to recover oil from known reservoirs and, despite the recent highly publicized problems of BP, to do so with remarkable safety in difficult environments.

I would suggest that there are two ways this faculty research workload can be reasonably measured in the short term, although its true measure of success must lie primarily within the realm of the long-term economic development of our state and nation. One would be by the number of research dollars generated on a five year running average, although this really needs to be done on a University wide scale. A second would be to analyze the number of Ph.D. students supported on such grants and not paid on state monies.

(3) Other important parts of our workload in major research universities cannot be assigned such dollar values, but are important to our state and nation. For example, my own work might seem esoteric, in that I analyze the sequence of transitions that have occurred in global power over the last 500 years. For the last such transition, examining why Britain declined, why America rose and, perhaps most importantly, why the challenge from Germany failed, allows me to construct a more complex model of such transitions than the simpler models generated in the 1970s and 80s. Such a model cannot be fully predictive in the way a formal scientific model must be, but it can be a powerful aid to policy makers dealing with, for example, the rise of China. My experience in the Bush School tells me that our best policy makers, President George Herbert Walker Bush and Robert Gates to name but two, have been able to use the lessons of history to manage our foreign affairs well. It is impossible to "measure" the impact of my sort of work in the here and now, but in the long run the judgment of history is that it has a very serious impact.

Within the University we measure this workload routinely through our annual evaluation of faculty research output. The most significant part of this output is in published form, in books and research articles in the peer-reviewed journals. We have several ways of evaluating these. Books from University presses that go through the peer-review process are valued more highly than those from trade presses, and we are increasingly able to measure citation rates for such materials because so much material is now on-line. We have always measured citation rates for scholarly articles as a rough measure of how influential the work of a colleague is among their peers—rough because individuals may on occasion be cited as poor examples. We also look at journals by their ratings within a discipline—all scholarly disciplines have "flagship" journals, publication in which is difficult to achieve because of rejections rates of 70% and up—and the overall "impact factor" of a given journal, which measures the extent to which they influence scholarship as a whole. Although teaching, research, and service are central to such annual evaluations we measure many other things for which we believe it is important to be accountable to the people of the State, notably in the areas of diversity and internationalization.

Much research done in research universities looks to the average person as esoteric, and it often takes a great deal of time to come to fruition. For example, Maxwell's mathematical equations were published in the 1860s but remained unproven until the work of Heinrich Hertz in the late 1880s. Even then they were understood by perhaps 4 or 5 mathematicians and engineers on the planet and not even taught in American universities until after 1900. Yet they are the basis of modern electronics: the early 1900s saw an explosive growth of radio telecommunications; the 1920s of radio entertainment; the World War Two period of radar; the 1940s of television; the 1950s of computers etcetera. Without Maxwell we would not have what we think of as the modern world.

Because I have the major responsibility for evaluating faculty in my Department I have looked at many attempts to quantify such scholarly output. It might seem easy, as one former Dean put it, to "count pages and dollars"! But when we evaluate faculty workload at the Departmental level we are less interested in volume of output than quality and impact, and we measure that by rate of publication in flagship journals, journal impact factors, citation rates and the like. Even then, I know we cannot evaluate the work done by such geniuses as Maxwell, who has a generation ahead of his time. I cannot suggest to the Committee any simple way to measure this across Departments, but I note that within the university we take such measures very seriously, report them in detail annually to Department Heads who use them to help determine merit raises, and use them to inform tenure recommendations.

(4) Finally I would like to mention national surveys of output that are useful if one is comparing output at the University level. Most of us are familiar with the sorts of useful survey done by *U.S. News and World Report*, but such surveys do not speak to research output, just to the value offered by Universities to undergraduate students. The surveys done by Academic Analytics index scholarly productivity on the basis of published papers, books, and research dollars at the nation's Ph.D. granting institutions, a useful ranking of scholarly work done, as it were. Academic Analytics allows one to break out the top-ten performing Departments and thus Universities. In 2007, for example, out of 375 universities, TAMU had 14 top-ten performing Departments—my own among them—the University of Texas at Austin had 28, and one of our main peer institutions, the University of California at Los Angeles, had 41. Among premier private institutions, Rice University had 6 such Departments and Harvard had 44. Similar analyses exist at the international level.

Although I recognize the value of such rankings, they need to be used with care and over a period of time, not least because they tend to "count pages and dollars." A single year's ranking is informative, but rankings can change rapidly as highly productive faculty move often. In some regions—such as the European Union—faculty are actively head-hunted to improve the overall research profile of a given university, thus its level of state funding. Research university faculty necessarily operate in an international marketplace and foreign born faculty and international moves are common. This is made worse by the fact that English is the common language of academia.

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& Bush School International Affairs Program
President, Texas Conference AAUP
President, TAMU Chapter AAUP
President-Elect, Texas Association of College Teachers

TABLE 1 Texas A&M University Workload Credits for Faculty

Classroom Teaching Credits (CTC)

Lecture/Seminar UG courses = credits awarded for course
Lecture/Seminar Grad courses = 1.5x credits awarded for course
Laboratory/Private lessons UG or Grad course - 0.67x credits awarded for the course
Independent Study UG or Grad= sum of all these SCHs/3 but no more than 6 credits/semester
Practicum/student teaching= sum number of these students/2 but no more than 9 credits/semester

Equivalent Teaching Credits (ETC)

Master Students Chaired=2 credits if 2-4 students, and 3 credits if more than 4
Doctoral Students Chaired=1 credit for each student but no more than 6 credits
Member of graduate committees=1 credit for more than 4 master student, 1 for 2-4 doctoral students, and 2 if more than 4 doctoral students
Large lectures can be multiplied by 1.5 (at A&M typically 40 for Grad and 80 for UG) but not more than 3 credits/semester
New curricular or pedagogy development can have up to 3 credits
New faculty up to 3 credits/semester for up to 3 years
Faculty approved study leave can be awarded up to 9 credits
Student advisor for the department can be awarded up to 3 credits depending on number of students
Research can be awarded up to 6 credits
Major University Assignment up to 3 credits
Each department has a restricted total administrative credits per semester depending on faculty FTEs.

Table 2: Organized Courses Taught by Faculty Rank by Section Size*

Texas A&M University

Fall 2009

	Undergraduate Sections*				Graduate Sections*				All Sections*			
	Less Than 19	20-50	Over 50	Total	Less Than 19	20-50	Over 50	Total	Less Than 19	20-50	Over 50	Total
Lecture	**518**	**1,783**	**913**	**3,214**	**782**	**314**	**28**	**1,124**	**1,300**	**2,097**	**941**	**4,338**
Professor	127	332	209	668	298	156	8	462	425	488	217	1,130
Assoc. Professor	98	228	134	460	206	52	5	263	304	280	139	723
Asst. Professor	85	235	136	456	165	52	5	222	250	287	141	678
Other	184	753	381	1,318	113	54	10	177	297	807	391	1,495
GATs - Lecture	24	235	53	312	-	-	-	-	24	235	53	312
Laboratory	**792**	**1,208**	**210**	**2,210**	**134**	**17**	**-**	**151**	**926**	**1,225**	**210**	**2,361**
Professor	183	122	13	318	44	8	-	52	227	130	13	370
Assoc. Professor	122	75	28	225	29	3	-	32	151	78	28	257
Asst. Professor	103	58	10	171	32	4	-	36	135	62	10	207
Other	166	376	77	619	26	2	-	28	192	378	77	647
GATs - Lab	218	577	82	877	3	-	-	3	221	577	82	880
Seminar	**190**	**68**	**4**	**262**	**97**	**17**	**6**	**120**	**287**	**85**	**10**	**382**
Professor	39	9	2	50	44	11	5	60	83	20	7	110
Assoc. Professor	34	5	-	39	27	4	-	31	61	9	-	70
Asst. Professor	20	1	1	22	22	2	-	24	42	3	1	46
Other	94	36	1	131	4	-	1	5	98	36	2	136
GATs - Other	3	17	-	20	-	-	-	-	3	17	-	20
Grand Total	**1,500**	**3,059**	**1,127**	**5,686**	**1,013**	**348**	**34**	**1,395**	**2,513**	**3,407**	**1,161**	**7,081**

**NOTES:*

Cross-listed sections and sections that meet together are combined together

*Team-taught courses taught by faculty members of **different** ranks are counted in **each** rank (duplicated)*

KINE19x courses are excluded

Military Science courses are included

Prepared by OISP/dai, , S:\Dennis\Reports\Ad Hoc\2010\Small, Large Sections by Faculty Rank\Small, Large Sections by Faculty Rank.xlsx

Talble 3: Undergraduate Courses Taught by Faculty Rank by Section Size*

Texas A&M University

Fall 2009

	Undergraduate Sections*				% Undergraduate Sections							
	Less Than 19	20-50	Over 50	Total	% Less Than 19	% 20-50	% Over 50	Total				
Lecture	**518**	**1,783**	**913**	**3,214**								
Professor	127	332	209	668	19	50	31	100				
Assoc. Professor	98	228	134	460	21	50	29	100				
Asst. Professor	85	235	136	456	19	51	30	100				
Other	184	753	381	1,318	14	57	29	100				
GATs - Lecture	24	235	53	312	8	75	17	100				

**NOTES:*

Cross-listed sections and sections that meet together are combined together

*Team-taught courses taught by faculty members of **different** ranks are counted in **each** rank (duplicated)*

KINE19x courses are excluded

Military Science courses are included

Prepared by OISP/dai, , S:\Dennis\Reports\Ad Hoc\2010\Small, Large Sections by Faculty Rank\Small, Large Sections by Faculty Rank.xlsx

Table 4: TAMU Faculty not Teaching Regular Courses

Fall 2008	
Faculty listed as not teaching regular courses—Total	127
Faculty Development Leave	13
Administrators/Staff/Faculty with administrative duties	34
Faculty teaching (Veterinary Medicine / Bush Long Distance / Regular)	11
Course Release for New Faculty (Lab set up / New course preps)	18
Buy out from Grants and Fellowships (includes LWP and Internships)	22
Medical Leave	8
Teaching overload / or part-time faculty (all teaching in one semester)	20
Attrition (termination—retirement)	1
Spring 2009	
Faculty listed as not teaching regular courses—Total	167
Faculty Development Leave	17
Full Time Administrators/Staff/Faculty with administrative duties	39
Faculty teaching (Veterinary Medicine / Bush Long Distance / Regular)	27
Course Release for New Faculty (Lab set up / New course preps)	15
Buy out from Grants and Fellowships (includes LWP and Internships)	23
Medical Leave	7
Teaching overload / or part-time faculty (all teaching in one semester)	36
Attrition (termination—retirement)	3
Fall 2009	
Faculty listed as not teaching regular courses—Total	158
Faculty Development Leave	19
Full Time Administrators/Staff/Faculty with administrative duties	42
Faculty teaching (Veterinary Medicine / Bush Long Distance / Regular)	16
Course Release for New Faculty (Lab set up / New course preps)	24
Buy out from Grants and Fellowships (includes LWP and Internships)	4
Research Professional Leaves for Assistant Professors (CLA)	6
Medical Leave	5
Teaching overload / or part-time faculty (all teaching in one semester)	39
Attrition (termination—retirement)	3