

UW-MADISON FACULTY RETIREMENT PATTERNS AND PROJECTIONS

If faculty members were generally hired in their early 30s and retired in their mid 60s – if they spent their careers at UW-Madison and retired after 30-35 years of service – approximately 33% of the faculty would turnover every 10 years, assuming even distribution along the career path. If retiring faculty members are replaced with young, early career faculty members then this renewal cycle is stable from year to year. We periodically examine the age distribution of faculty and their retirement patterns and make predictions for near-future retirements in order to evaluate the stability of the renewal cycle.

There are both costs and benefits to faculty retirements. Retirements of higher salary faculty members can result in significant salary savings but these savings might be offset in part by high recruitment and startup costs for new faculty. The loss of retiring faculty members' expertise and wisdom might be balanced by the opportunity to explore new academic directions. Understanding faculty turnover patterns, including those related to retirements, contribute to the development of meaningful staffing plans.

In the late 1990s there was a growing concern, both nationally and locally, about the “graying of the faculty”. Anxiety about the aging of the faculty led to predictions of mass retirements. In 1997, Margaret Harrigan (Academic Planning and Analysis) conducted a study of UW-Madison faculty retirements over the previous ten years and projected future retirements. In her report, which set both the methodology for future retirement projections and the baseline for comparison of future analyses, she predicted only modest increases in faculty retirements over the next 10 years. An update to the 1997 UW-Madison faculty retirement analysis was prepared in 2003 using the same methodology. That update resulted in essentially the same conclusions and predicted future retirements that did not deviate much from past retirement patterns. Now, four years has passed and we are again analyzing faculty retirement patterns and making new projections.

SUMMARY OF FINDINGS

1. Compared to ten years ago (1996), and especially to twenty years ago (1976), the average age of faculty members has increased. An increasing proportion of faculty members are over age 50. Between 1996 and 2006, the number of faculty over age 65 increased by 55% (from 104 to 161) and the average age of faculty increased by 0.7 years.
2. In this study, the faculty retirement rate is defined as the proportion of faculty age 55 and over whose faculty appointments ended in a particular year. Between 1990 and 2006, an average of 10% of faculty age 55 and over retired each year.
3. Since 2002, faculty members have been retiring at an average rate of 9%, slightly lower than the historical average of 10%. Faculty have also been retiring at lower rates than predicted in a similar analysis prepared in 2003.
4. Since 2002, the proportion of faculty who are 70 or older at retirement has increased -- from 8% of retirees in the 1998-02 period to 15% in the 2002-2006 period. Also since 2002, the proportion of faculty retirees in the 60-64 age group has increased. This increase was offset partially by decreases in the proportion of retirees in the 55-59 age group.
5. The current age distribution of the faculty differs among UW-Madison's schools and colleges. Overall, 33% of faculty members are age 55 and over. The proportion of faculty age 55 and over ranges from 75% in the Division of Continuing Studies to 26% in the School of Business (excluding units with fewer than 10 faculty members).
6. Slight increases in the number of faculty retirements are predicted in the next ten years compared to the past decade. These increases result from the fact that the faculty overall is older than in the past and because older faculty generally retire at higher rates than younger faculty. Because of differences in the age distribution of faculty between schools and colleges, future retirements will impact schools and colleges differently. Overall, 34% of UW-Madison faculty members are predicted to retire in the next 10 years with ranges from 60% of current faculty in the School of Nursing to 28% in the School of Pharmacy and in the College of Engineering.
7. Are faculty retiring at older ages because they were hired at older ages and are therefore older when they reach enough years of service to retire with full benefits? A comparison of retirees in 1996 and 2006 shows that faculty who retired in 2006 had more years of service at retirement than those retiring in 1996 despite being hired at similar ages. This suggests that other factors influenced the retirement decisions for these faculty members.

FACULTY RETIREMENT TRENDS

This report is based on an analysis of UW-Madison faculty from October 1990 through October 2006. For the purposes of this report, retirement is defined as all faculty age 55 and over whose faculty appointments ended during the period of time described. Specific methodological details are given in the "Methodology" section at the end of this report. Chart 1 and Table 1 show the number and proportion of UW-Madison faculty, age 55 and over, who retired in each year between 1990 and 2006. A total of 1,141 faculty members retired in this time period for an overall retirement rate of 10%. The annual retirement rates during this time period fluctuated between a high of 15% in 1995-96 and a low of 8%, most recently in 2003-04. During these years, an annual average of 6% of faculty age 55-64 retired and, on average, 27% of faculty, age 65 and over, retired.

Chart 1
Number of UW-Madison Faculty Retirements by Year of Retirement



Note: Early retirement incentives were available for a short time in 1989-90. In 1994-95, a post-retirement plan was implemented to allow retired faculty to teach part-time for a few years after retirement.

Table 1
Number of UW-Madison Faculty Retirements by Year of Retirement and Age Group

	Total Retirees Age 55 and Over			Retirees 55-64		Retirees 65 & Over	
	#	Mean Age	% Retiring	#	% Retiring	#	% Retiring
1990-91	76	64.6	11	36	6	40	41
1991-92	54	64.4	8	31	5	23	25
1992-93	57	63.6	8	30	5	27	27
1993-94	80	64.5	11	43	7	37	32
1994-95	92	63.5	13	57	10	35	33
1995-96	102	63.7	15	56	10	46	42
1996-97	72	63.6	11	39	7	33	32
1997-98	79	63.0	12	45	8	34	33
1998-99	65	62.3	10	46	8	19	18
1999-00	66	63.2	10	35	6	31	26
2000-01	70	62.9	10	42	7	28	23
2001-02	76	63.0	11	41	7	35	28
2002-03	61	63.0	9	29	5	32	23
2003-04	56	64.4	8	33	6	23	16
2004-05	68	63.2	9	38	7	30	19
2005-06	67	64.4	9	37	6	30	18
Total/Avg.	1,141	63.6	10	638	6	503	27

Note: The "Total" row is a weighted average. The "% retiring" is the proportion of all faculty in the age group who retired in that year.

AGE DISTRIBUTION OF RETIRING FACULTY MEMBERS

Chart 2 and Table 2 show the distribution of faculty by age at retirement, grouping into four year periods. In each of the first three periods (1990-2002) there was a general trend of faculty retiring at younger ages than in the past and a decrease in the proportion of faculty who were over age 70 at retirement compared to previous time periods. However, in the most recent four-year period (2002-2006), that trend has changed. Since 2002, an increasing proportion of faculty members are in the 60-64 and 70+ age groups at retirement. A decreasing proportion of faculty members are in the 55-59 age group.

Chart 2
Distribution of UW-Madison Faculty by Age at Retirement

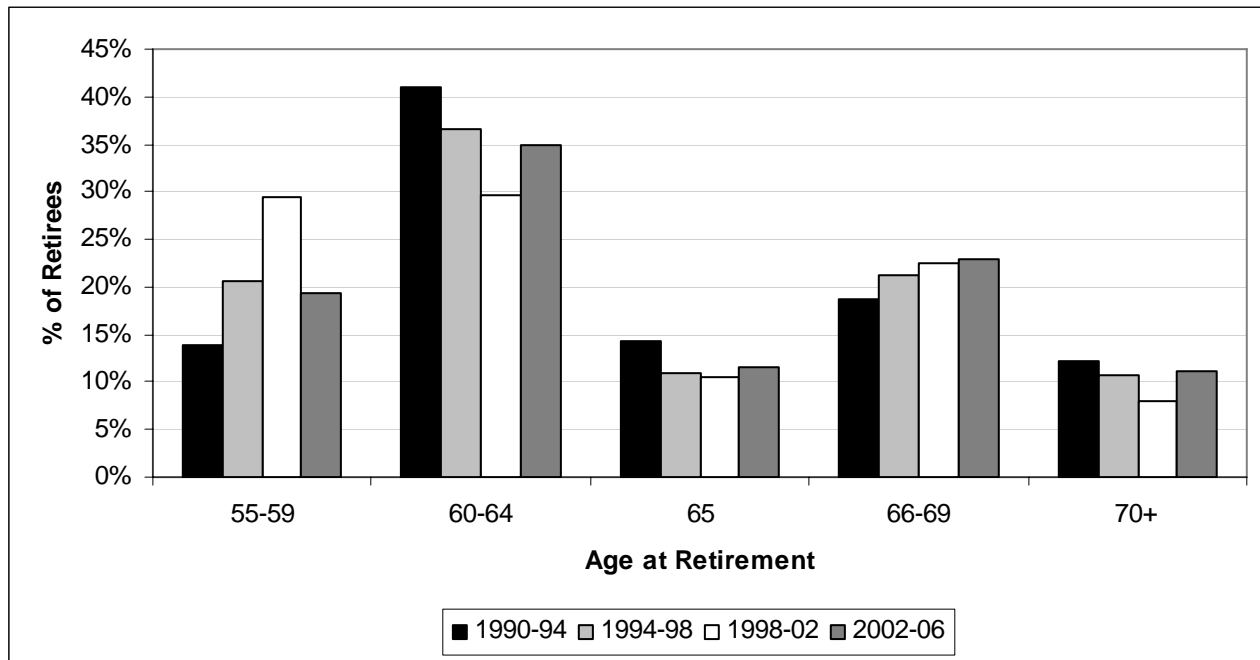


Table 2
Distribution of UW-Madison Faculty by Age at Retirement

Age At Retirement	1990-94		1994-98		1998-02		2002-06		Total	
	#	%	#	%	#	%	#	%	#	%
55-59	29	11	71	21	81	29	49	19	251	20
60-64	111	42	126	37	82	30	88	35	443	36
65	44	16	38	11	29	11	29	12	147	12
66-69	50	19	73	21	62	22	58	23	260	21
70 and Over	33	12	37	11	22	8	28	11	131	11
Total	267	100	345	100	276	100	252	100	1,232	100

AGE DISTRIBUTION OF ALL FACULTY MEMBERS

Chart 3 and Table 3 show the distribution of faculty by age in 1976, 1996 and 2006. Since 1976 there has been decrease in the proportion of faculty members who are in the 49 and under age groups and an increase in the proportion of faculty in the 50 and older age groups. Although the most dramatic changes occurred between 1976 and 1996, since 1996, the age distribution has continued to shift towards older faculty. The one exception is the 30-34 year old age group which saw an increase of 24 faculty members between 1996 and 2006. All other under 49 age groups saw decreases in the proportion of faculty in that group and all 50 and over age groups saw increases. Between 1976 and 1996, the average age of faculty increased by 3.8 years. Since 1996, the average age of faculty has increased by 0.7 years to 49.7.

Chart 3
Distribution of UW-Madison Faculty by Age
October 1976, 1996 and 2006

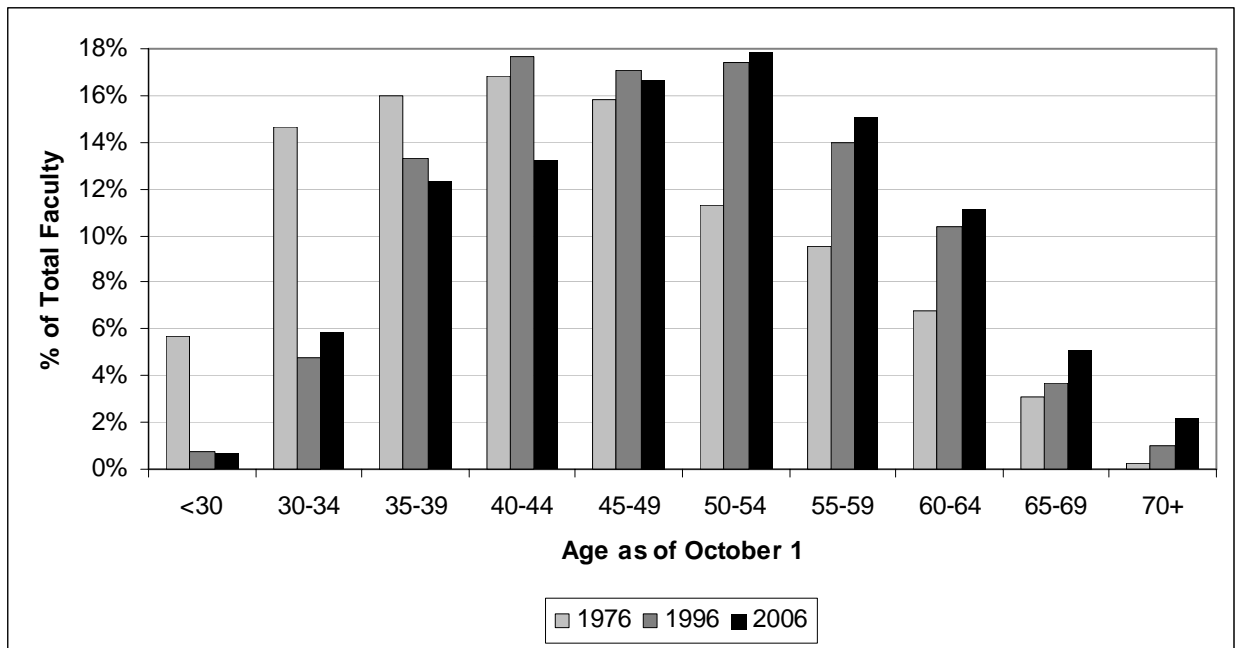


Table 3
Distribution of UW-Madison Faculty by Age
October 1976, 1996 and 2006

	1976		1996		2006		Change 76-06		Change 96-06	
	#	%	#	%	#	%	#	%	#	%
Under 30	133	6	16	1	15	1	-118	-89	-1	-6
30-34	343	15	105	5	129	6	-214	-62	24	23
35-39	375	16	294	13	272	12	-103	-27	-22	-7
40-44	395	17	391	18	292	13	-103	-26	-99	-25
45-49	371	16	378	17	368	17	-3	-1	-10	-3
50-54	265	11	384	17	393	18	128	48	9	2
55-59	223	10	308	14	333	15	110	49	25	8
60-64	159	7	229	10	245	11	86	54	16	7
65-69	73	3	82	4	113	5	40	55	31	38
70 and Over	5	0	22	1	48	2	43	860	26	118
Total	2,342		2,209		2,208		-134	-6	-1	0
Mean Age	45.0		48.8		49.7		+3.8		+0.7	

AGE DISTRIBUTION BY SCHOOL/COLLEGE

Table 4 shows the number and proportion of faculty age 55 and older by school/college. These figures show that the distribution of faculty by age is not even among the schools/colleges. In 2006, 33% of the overall faculty members were 55 or older. Higher proportions (37% or more age 55 and older) of older faculty are found in the Nelson Institute, Law School, School of Nursing, School of Veterinary Medicine and Division of Continuing Studies. Higher proportions of younger faculty (less than 30% age 55 and older) are found in the School of Business, College of Engineering and School of Pharmacy. Near average amounts of older faculty (30%-36%) are found in the College of Agriculture and Life Sciences, School of Education, School of Human Ecology, College of Letters and Science and School of Medicine and Public Health.

In 2006, 7% of faculty members were age 65 or older. The Nelson Institute, Law School, and Division of Continuing Studies all have at least 10% of faculty age 65 and older AND more than one faculty member in this category.

Appendix 1 shows the number and proportion of faculty members age 55 and older and age 65 and older by department. That list is sorted in descending order by the proportion age 55 and older.

Table 4
Older Faculty by School/College
October 2006

		Total	Age 55 and Older		Age 65 and Older	
		#	#	%	#	%
A07	College of Agriculture and Life Sciences	311	111	36	17	5
A12	School of Business	76	20	26	2	3
A17	School of Education	147	48	33	7	5
A19	College of Engineering	181	48	27	12	7
A27	School of Human Ecology	36	13	36	1	3
A40	Nelson Institute for Environmental Studies	7	3	43	2	29
A45	Law School	40	16	40	6	15
A48	College of Letters and Science	892	279	31	70	8
A49	General Library	1	1	100	1	100
A52	State Laboratory of Hygiene	2	2	100	0	0
A53	School of Medicine and Public Health	401	146	36	35	9
A54	School of Nursing	20	12	60	1	2
A55	Psychiatric Institute	1	1	100	0	0
A56	School of Pharmacy	29	8	28	2	7
A87	School of Veterinary Medicine	52	22	42	3	6
A93	Division of Continuing Studies	12	9	75	2	17
University Total		2,208	739	33	161	7

PREDICTIONS OF FUTURE FACULTY RETIREMENTS

Table 5 shows predicted faculty retirements for the next ten years. These are “predictions” based on past retirement patterns, the age of current faculty members, and random selection. See the methodology section for specific details on how the projections are calculated.

This retirement prediction model projects that there will be 760 faculty retirements over the next 10 years. This represents 34% of the faculty in 2006. Retirement predictions range from a low of 28% in the School of Pharmacy and the College of Engineering to 50% and over in the School of Nursing, School of Veterinary Medicine and the Division of Continuing Studies.

Table 5
Predicted Faculty Retirements by School/College
2007-2017

		Current Faculty (Oct. 2006)	Predicted Retirements	Retirements as % of Current Faculty
A07	College of Agriculture and Life Sciences	311	111	36
A12	School of Business	76	24	32
A17	School of Education	147	48	33
A19	College of Engineering	181	51	28
A27	School of Human Ecology	36	14	39
A40	Nelson Institute for Environmental Studies	7	3	43
A45	Law School	40	15	38
A48	College of Letters and Science	892	288	32
A49	General Library	1	1	100
A52	State Laboratory of Hygiene	2	1	50
A53	Medical School	401	152	38
A54	School of Nursing	20	12	60
A55	Psychiatric Institute	1	0	0
A56	School of Pharmacy	29	8	28
A87	School of Veterinary Medicine	52	26	50
A93	Division of Continuing Studies	12	6	58
	University Total	2,208	760	34

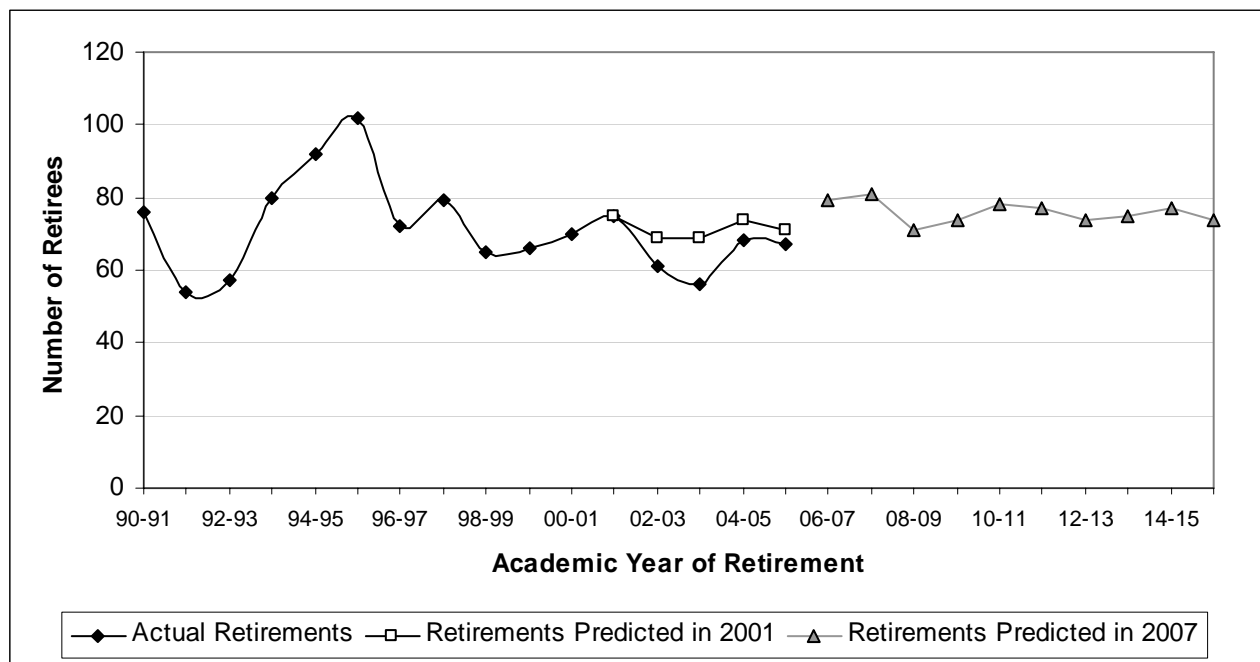
INTERPRETATION AND CONCLUSIONS

Chart 4 shows actual retirements for 1990 through 2006, predicted retirements through 2016 and a comparison of actual retirements to the number predicted in the 2001 report on faculty retirements.

There is some evidence of instability in the faculty retirement/renewal cycle. This report shows that there has been a change both in retirement behavior AND in the age distribution of the faculty. Over the past four years, faculty have postponed retirement, retiring at lower rates than predicted and at lower rates than the previous ten years. At the same time, the faculty who do retire are older than in the past.

Because the retirement projections are based on the most recent past retirement behavior and because that rate has decreased, we might expect the projections of faculty retirements to show future decreases. However, the projections predict slight increases; exactly the opposite of what might seem intuitive. The reason for this is because decreases in the overall rate of retirements in past years have increased the age of the remaining faculty. Older faculty generally retire at higher rates than younger faculty; therefore, there will be more older faculty available to retire in future years.

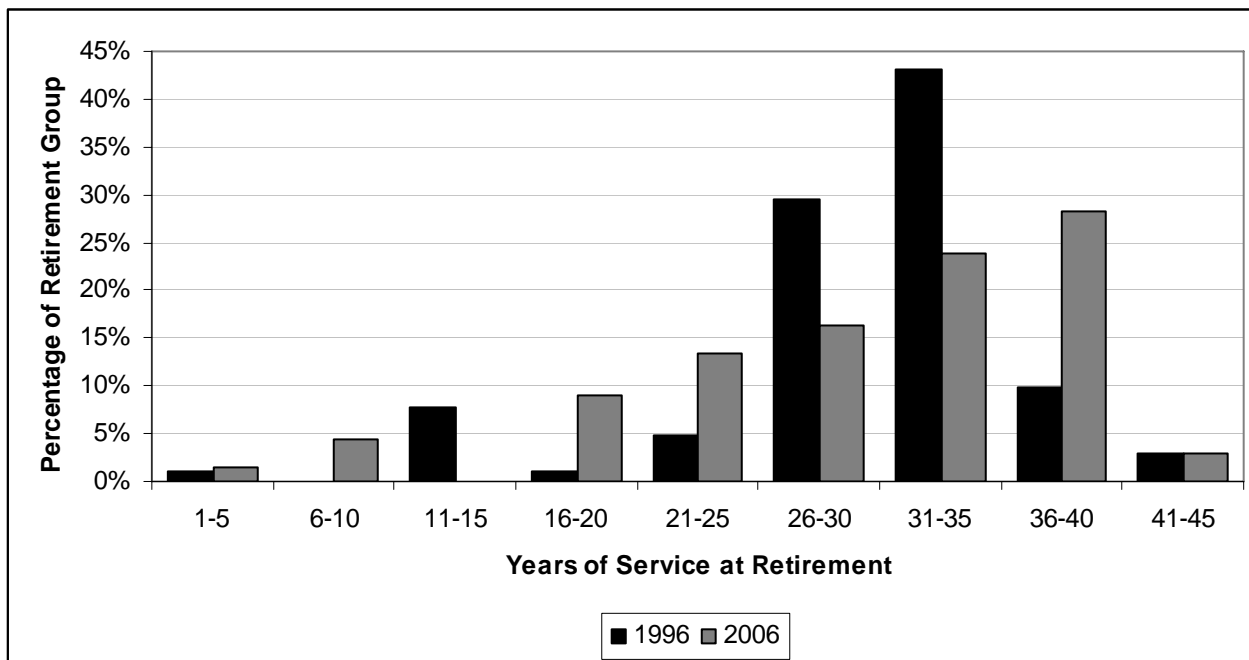
Chart 4
Actual and Predicted Retirements by Year of Retirement



One hypothesis about why faculty are retiring later is that they were hired when they were older and do not yet have the 30 years of service in the WI State Retirement System (for full retirement benefits). To test this hypothesis, I compared the 102 retiring faculty in 1996 to the 67 retiring faculty in 2006 to see if there were differences in their ages and years of service at retirement. Both groups of retirees were hired at similar ages (median of 33 years old for both groups).

The key difference between the 1996 retirees and the 2006 retirees seems to be their years of service at retirement. Chart 5 shows that the modal years of service at retirement for the 1996 retirees was 31-35 years. For 2006 retirees, the modal years of service had shifted to 36-40 years. This suggests that the trend towards later retirements is driven by a different factor than hiring at older ages. There may be economic, academic or social reasons for these trends that are not evident from this type of analysis.

Chart 5
Distribution of Years of Service at Retirement
Retiring Faculty in 1996 and 2006



Note: Retirements are defined as faculty, age 55 and over, who left for any reason. Years of service is the difference between the start date of the faculty appointment to the end date of that same appointment (converted to years).

Appendix 1
Older Faculty by Department (as of October 1, 2006)
Sorted by Percent 55 and Older

UDDS	Department Name	Total	Age 55 and Over		Age 65 and Over	
		#	#	%	#	%
A4825	Chicano Studies	1	1	100	0	0
A5303	Education Research and Development	1	1	100	0	0
A0738	Food Microbiology and Toxicology	2	2	100	0	0
A4983	General Library System	1	1	100	1	100
A5650	Pharmacy Outreach	2	2	100	0	0
A5510	Psychiatric Institute	1	1	100	0	0
A5200	State Laboratory of Hygiene	2	2	100	0	0
A9381	Liberal Studies and the Arts	7	6	86	1	14
A4819	Comparative Literature	4	3	75	1	25
A4837	Hebrew and Semitic Studies	4	3	75	1	25
A4808	Afro-American Studies	8	5	63	0	0
A5450	Nursing	20	12	60	1	5
A1995	Engineering Professional Development	5	3	60	0	0
A9388	Professional Development and Applied Studies	5	3	60	1	20
A8731	Pathobiological Sciences	17	10	59	1	6
A5351	Neurology	9	5	56	0	0
A0764	Forest Ecology and Management	13	7	54	1	8
A0730	Biochemistry	33	17	52	6	18
A0736	Entomology	14	7	50	1	7
A5385	Population Health Sciences	22	11	50	5	23
A4880	Slavic Languages	8	4	50	1	13
A4896	Women's Studies	4	2	50	0	0
A5359	Oncology	17	8	47	1	6
A4884	Languages and Cultures of Asia	11	5	45	2	18
A4806	African Languages and Literature	9	4	44	1	11
A0722	Biological Systems Engineering	16	7	44	2	13
A4835	German	16	7	44	2	13
A4883	Sociology	39	17	44	2	5
A4039	Gaylord Nelson Institute for Environmental Studies	7	3	43	2	29
A5306	Anatomy	21	9	43	3	14
A1723	Education Leadership and Policy Analysis	14	6	43	1	7
A4852	Linguistics	7	3	43	0	0
A0766	Landscape Architecture	7	3	43	1	14
A5360	Ophthalmology and Visual Science	14	6	43	1	7
A5363	Pathology	19	8	42	1	5
A5381	Physiology	19	8	42	1	5
A1720	Curriculum and Instruction	36	15	42	2	6
A5347	Medical Microbiology	12	5	42	1	8
A5361	Orthopedics and Rehabilitation	12	5	42	1	8
A4860	School of Music	48	20	42	4	8
A5397	Surgery	29	12	41	4	14
A0728	Bacteriology	22	9	41	0	0
A0742	Genetics	15	6	40	2	13
A4510	Law School	40	16	40	6	15
A4851	Library and Information Studies	10	4	40	0	0
A5389	Psychiatry	15	6	40	2	13
A4890	Statistics	18	7	39	3	17
A4809	Art History	13	5	38	3	23
A4854	Mathematics	52	20	38	12	23
A0754	Soil Science	21	8	38	1	5

**Appendix 1
Older Faculty by Department (continued)**

UDDS	Department Name	Total	Age 55 and Over		Age 65 and Over	
		#	#	%	#	%
A4824	English	50	19	38	4	8
A5331	Medical History and Bioethics	8	3	38	1	13
A5333	Human Oncology	8	3	38	1	13
A0769	Wildlife Ecology	8	3	38	0	0
A5367	Pediatrics	24	9	38	2	8
A5393	Radiology	16	6	38	2	13
A4892	Theater and Drama	16	6	38	0	0
A4865	Philosophy	19	7	37	4	21
A1727	Educational Policy Studies	11	4	36	1	9
A2710	School of Human Ecology	36	13	36	1	3
A8741	Comparative Biosciences	14	5	36	0	0
A1975	Materials Science and Engineering	14	5	36	2	14
A5348	Medical Physics	17	6	35	2	12
A4807	Anthropology	23	8	35	2	9
A4867	Physics	52	18	35	8	15
A4815	Chemistry	41	14	34	9	22
A5309	Anesthesiology	6	2	33	0	0
A0727	Animal Science	15	5	33	0	0
A1950	Industrial Engineering	15	5	33	0	0
A8721	Medical Sciences	12	4	33	2	17
A5372	Pharmacology	12	4	33	2	17
A8751	Surgical Sciences	9	3	33	0	0
A4826	French and Italian	22	7	32	1	5
A5342	Medicine	62	20	32	5	8
A4838	History	48	15	31	4	8
A1962	Mechanical Engineering	32	10	31	3	9
A1710	Art	26	8	31	2	8
A4818	Communicative Disorders	13	4	31	0	0
A4872	Political Science	36	11	31	1	3
A0720	Agriculture and Applied Economics	23	7	30	1	4
A0743	Horticulture	23	7	30	0	0
A0746	Nutritional Sciences	10	3	30	0	0
A0748	Plant Pathology	17	5	29	0	0
A5320	Family Medicine	7	2	29	0	0
A0740	Food Science	14	4	29	1	7
A1925	Electrical and Computer Engineering	43	12	28	3	7
A1730	Educational Psychology	18	5	28	0	0
A1778	Rehabilitation Psychology and Special Education	11	3	27	1	9
A0726	Agronomy	19	5	26	0	0
A4829	Geography	19	5	26	0	0
A1220	School of Business	76	20	26	2	3
A4897	Zoology	23	6	26	2	9
A4874	Psychology	31	8	26	1	3
A0724	Life Sciences Communication	8	2	25	1	13
A4894	Urban and Regional Planning	4	1	25	0	0

**Appendix 1
Older Faculty by Department (continued)**

UDDS	Department Name	Total	Age 55 and Over		Age 65 and Over	
		#	#	%	#	%
A1915	Civil and Environmental Engineering	25	6	24	1	4
A1980	Engineering Physics	21	5	24	2	10
A4831	Botany	17	4	24	0	0
A1760	Kinesiology/Dance	22	5	23	0	0
A4849	Journalism and Mass Communication	13	3	23	0	0
A1760	Counseling Psychology	9	2	22	0	0
A5610	Pharmacy	27	6	22	2	7
A4857	Atmospheric and Oceanic Sciences	15	3	20	1	7
A5377	Biomolecular Chemistry	10	2	20	0	0
A4814	Communication Arts	20	4	20	1	5
A4844	La Follette School of Public Affairs	10	2	20	0	0
A0768	Urban and Regional Planning	5	1	20	0	0
A4832	Geology and Geophysics	21	4	19	0	0
A4821	East Asian Languages and Literature	11	2	18	0	0
A4811	Astronomy	12	2	17	0	0
A4820	Computer Sciences	36	6	17	0	0
A5343	Dermatology	6	1	17	0	0
A5328	Obstetrics and Gynecology	12	2	17	0	0
A0752	Rural Sociology	12	2	17	0	0
A4878	Scandinavian Studies	6	1	17	0	0
A4817	Classics	7	1	14	0	0
A4839	History of Science	7	1	14	0	0
A5357	Neurological Surgery	8	1	13	0	0
A4882	Social Work	16	2	13	0	0
A4885	Spanish and Portuguese	25	3	12	0	0
A1942	Biomedical Engineering	9	1	11	0	0
A5312	Biostatistics and Medical Informatics	9	1	11	0	0
A0734	Dairy Science	13	1	8	0	0
A4822	Economics	27	2	7	0	0
A1912	Chemical Engineering	17	1	6	0	0
A5325	Genetics	6	0	0	0	0
A0715	Program on Agricultural Tech. Studies	1	0	0	0	0

METHODOLOGY

1. The source of the data used in this analysis is IADS, UW-Madison's Human Resources (appointment) data system. Specifically, the data view UW_ALL_APTS_SEN was used.
2. Retirement is defined as faculty age 55 and older whose faculty appointments ended during the period of October 1st to September 30th of the period of time described. Age 55 is used in this (and previous) reports because it is usually the youngest age that a faculty member can retire under the State of Wisconsin retirement system. For the purposes of this report, the term "retirement" is used to mean "left employment at UW-Madison" rather than "drew on retirement benefits" or "stopped working forever". Faculty in the latter two categories are not discernable from UW-Madison data systems.
3. Age is calculated as of October 1st.
4. Faculty members are counted in their "major appointment" department and in the school/college where that department is housed. The "major appointment" department is responsible for coordinating the faculty member's payroll, appointment and other administrative issues. This is often, but not always, the same department as the faculty member's "tenure home". The "major appointment" department is used because faculty have only one major appointment department whereas faculty can have more than one tenure home and appointments in multiple departments.
5. Retirements are predicted in the following manner:
 - a) The historic retirement rate is calculated for each faculty age group 55 and older. For this report, we used the retirement rate over the most recent 10 year period.
 - b) Next, faculty members with appointments as of October 1, 2006 are assigned a random number.
 - c) Then the historic retirement rate is applied to current faculty in that age group to determine the predicted retirements of faculty in that age group for that year. Faculty members are randomly selected to "retire" based on the lowest random number assignments in that age group.
 - d) For example, the retirement rate over the past 10 years for 65 year old faculty members is 24.5%. In October 2006, there were 32 faculty members who were age 65. The retirement rate, applied to the current number of faculty (0.245×32) results in the prediction that 8 (7.8 rounded up) of the current faculty age who are 65 years old will retire in 2007. The specific 8 faculty members who are predicted to retire are the 8 with the lowest randomly assigned numbers in that age group. The same methodology is then applied to faculty in all the other age groups that year.
 - e) This same methodology is then applied to faculty in subsequent years, taking into account the fact that they will be a year older and that a different retirement rate will apply to them in subsequent years. For example, of the 32 faculty members who were 65 years old in 2006 and didn't retire in 2007, 24 of them are still actively employed. Because these 24 will be 66 years old in 2008 and the retirement rate of 66 year olds is 20.6%, 5 more are predicted to retire in 2008.

These retirement predictions are based on three assumptions:

- a) Retirements are random. In other words, we assume that 60 year old Chemists retire at the same rate as 60 year old Political Scientists and 57 year old women retire at the same rate as 57 year old men.
- b) New faculty hires during the 10 year projected period will either not enter into the retirement age group (i.e. will be under age 45 at the time they are hired) or not leave within 10 years of being hired. Faculty appointment data shows that about 4% of new faculty members in the past 5 years are over age 55 and that about 13% are between the ages of 45 and 54 at the time of hire.
- c) Past trends have not been unduly influenced by inducements to change normal patterns of retirement behavior. Also, predictions are made assuming that such incentives will not be available in future years.