

# Office of Institutional Research



## A FACULTY IN TRANSITION: A 30-YEAR STUDY OF THE JMU FACULTY

November 2016



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## Executive Summary

The Office of Institutional Research has collected and reported electronic data on faculty since 1986. The purpose of this study of instructional faculty is to explore the ways the JMU faculty have changed since 1986 and provide useful information to the university community. As a result of these analyses, several important trends are noteworthy.

- ❑ The number of full-time faculty has grown at a higher rate than increases in students. The percentage of faculty with tenure increased from 66 percent in 1986-87 to 72 percent in 1991-92, declined to 45 percent in 2005-06, but has increased to 57 percent in 2015-16. The college with the highest percent of tenured faculty is Visual and Performing Arts. Since 1986-87 the number of FTE students per full-time faculty decreased by two percentage points. The number of full-time faculty has grown at a faster rate than increases in students.

The number of full-time faculty has grown at a faster rate than increases in students.
- ❑ The percentage of faculty holding a terminal degree increased from 70 percent in 1986 to 75 percent in 2015, but is down from the high of 85 percent in 1997. The percentage of female faculty with a terminal degree increased from 51 percent in 1986 to 70 percent in 2015.
- ❑ Thirty-one percent of the fall 2015 faculty had worked at JMU five years or less. This percentage has changed little since 1990 when it was 32 percent. The median years (middle) of JMU experience declined from 11 in 1990 to 10 in 2015. Faculty with 26 or more years of experience increased from six percent in 1990 to eight percent in 2015. Sixty-one percent (N=611) of JMU faculty began their employment during the Rose presidency (1998 to 2012), 22 percent (N=220) during the Carrier years, 17 percent since President Alger became president, and four were hired during the Miller presidency (first year 1965).

Sixty-one percent of new tenure-track assistant professors were awarded tenure within seven years. This percentage has varied little over the last 20 years.
- ❑ Sixty-one percent of new tenure-track assistant professors were awarded tenure within seven years. This percentage has varied little over the last 20 years. Ninety-four percent of those who earned tenure were employed 10 years after joining the faculty.
- ❑ Annual percentage changes in the average JMU faculty salary since 1986-87 ranged from 10.1 percent in 1989-90 to -1.8 percent in 1992-93. Annual percentage changes in total compensation (salary + fringe benefits) ranged

In 2015-16 benefits accounted for 40.1 percent of total compensation, up from 25.1 percent in 1986-87. This is due to higher medical costs and VRS contributions.

from 10.8 percent in 1989-90 to -4.0 percent <sup>1</sup>in 1991-92. In 2015-16, total compensation increased by 6.9 percent. In 2015-16 benefits accounted for 40.1 percent of total compensation, up from 25.1 percent in 1986-87. This primarily reflects increasing medical costs borne by the Commonwealth and additional funds to ensure the long-term viability of the Virginia Retirement System.

- ❑ The five-year percentage retention rate of new non-tenure track faculty has increased in recent years to the 60s while the retention rate of faculty that were either tenure-track or tenured upon first employment at JMU has remained steady at approximately 80 percent.
- ❑ The most recent student-to-faculty ratio, 16.2:1, remains among the lowest in the last 20 years, down from 19.2:1 in 1997. The percentage of total Fall 2015 credit hours taught by full-time faculty was approximately 79 percent. This percentage has changed very little since Fall 1991.
- ❑ The retention of new faculty appears to be related to the type of position into which they were hired (tenured/tenure track vs non-tenure track). The percentage of new tenure-track faculty that were still employed at JMU four years after initial employment was 73 percent for the Fall 2000 faculty and 89 percent for the Fall 2011 new faculty. New non-tenure track faculty retention after four years decreased from 51 percent in Fall 2001 to 42 percent in Fall 2011.
- ❑ Since 1991-92 JMU's proportion of full-time faculty who are female increased from 38 percent to 47 percent. The proportion of faculty who are female is likely to continue to increase because the number of women enrolled in higher education is higher than men. The national proportion of female faculty is now 48 percent.
- ❑ While full-time faculty teach the vast majority of credit hours, full-time faculty are less likely than in 1996 to teach lower division (100- and 200-level) sections.
- ❑ Since 1986 the average full-time faculty salary increased by 133 percent (\$33,225 to \$77,398 while total compensation (salary + benefits) increased by 161 percent (\$41,564 to \$108,471).
- ❑ Benefits as a percentage of total compensation have increased by 15 percentage points to 40.1 percent since 1986-87. This percentage increase since 2013-14 is due to the institutions being required to contribute additional funds to ensure the long-term viability of the Virginia Retirement System.

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<sup>1</sup> Negative changes are due to zero increases from the Commonwealth and the retirement of long-term faculty in the same year that were replaced by junior faculty, not that the Commonwealth required salary decreases from faculty.



# A Faculty in Transition

## Introduction

James Madison University is a very dynamic institution that has experienced significant changes in many areas in the past 27 years. The on-campus headcount increased from 9,757 in 1986 to 20,343 in 2015. Majors were added or expanded as needed. Additional faculty have been hired to meet enrollment demands for the new or expanded majors.

The Office of Institutional Research (OIR) is responsible for collecting and reporting data on JMU's faculty to the Commonwealth of Virginia (e.g., SCHEV) and the federal government (e.g., IPEDS) along with organizations such as the American Association of University Professors (AAUP) and the College and University Professional Association (CUPA). In 1986, OIR created an electronic database of faculty to facilitate the analyses of faculty data and respond faster to various internal and external constituencies. Demographic changes occur slowly at JMU, so it is important to review long-term demographic data to discover meaningful change. This database continues to be an invaluable warehouse of information about faculty and enables an exploration of long-term changes in the faculty.

Institutional Research biennially reviews the changes in JMU's faculty to shed light on trends that may affect policy and help senior administrators to better understand the needs of JMU's faculty. This is the 13<sup>th</sup> report in this series and covers the period from fall 1986 to fall 2015

## *Research Questions*

While there are many questions that could be asked about the changes in JMU's faculty, three primary research questions are addressed in this study.

1. How have faculty demographics (percent tenured, percent with terminal degree, race/ethnicity, gender, etc.) changed since 1986? How closely do these trends mirror the changes that have occurred nationally?
2. How well have faculty salaries and compensation kept pace with inflation? How closely do these trends mirror the changes that have occurred nationally?
3. How are faculty resources allocated for instruction?

## Methodology

The Office of Institutional Research has reported salary statistics to the Commonwealth of Virginia (SCHEV), the federal government (IPEDS), and selected outside organizations (AAUP, CUPA) since the early 1970s. Since 1986, these data have been stored in electronic databases maintained by OIR. This 30-year collection of official JMU data is an invaluable resource for analyzing the changes in JMU's faculty and uncovering meaningful trends. The data are electronically stored in Microsoft Access® tables. Standard queries and reports are developed in Access® and Tableau® to analyze these data for this report.

Where possible data were taken directly from tables in OIR's Statistical Summaries. One of the original objectives for creating this report was to bring together in one document data already published by the university in various places.

While it is recognized that many librarians are considered to be faculty and can obtain tenure, standard definitions of faculty for national data collections do not include them in the definition of instructional faculty. Therefore, librarians are not included in this study.

## Results

### *Demographics*

Changes occur, but often cannot be identified and understood unless one considers several years of data. Many important changes in the demographics of JMU's instructional faculty have occurred since 1986. This section displays tables and graphs that highlight these changes. Tables 1 and 2 display information about the number of faculty and tenure status. Tables 3 and 4 display information about the number of faculty who possess terminal degrees.

*Table 1*

*Full-Time Instructional Faculty by Tenure Status and Per FTE Student<sup>2</sup>*

Year	Faculty Total	Tenured Assistant Professor	Tenured Associate Professor	Tenured Professor	Tenured Total	Percent Tenured	Percent Non-Tenure Track	Regular Session FTES	FTE Students Per Full-Time Faculty
1986-87	450	36	127	134	297	66%	13%	9,297	20.7
1991-92	477	28	130	184	342	72%	9%	10,620	22.3
1992-93	492	26	127	182	335	68%	13%	10,720	21.8
1993-94	508	24	141	183	348	69%	13%	10,711	21.1
1996-97	559	16	145	212	373	67%	19%	12,119	21.7
2000-01	675	6	133	203	342	51%	27%	13,823	17.5
2001-02	685	7	128	210	345	50%	26%	14,094	17.5
2002-03	704	7	123	220	350	50%	26%	14,458	17.4
2003-04	721	6	131	212	349	48%	26%	14,732	17.3
2004-05	749	5	141	216	362	48%	24%	14,857	16.8
2005-06	795	3	122	231	356	45%	24%	15,462	16.6
2006-07	831	3	162	244	409	49%	23%	15,868	16.2
2007-08	854	4	170	248	422	49%	24%	16,114	16.4
2008-09	897	4	181	254	439	49%	24%	16,794	16.0
2009-10	906	3	192	261	456	50%	21%	16,897	16.0
2010-11	906	3	201	259	460	51%	21%	17,209	19.0
2011-12	924	2	210	269	481	52%	22%	17,394	18.8
2012-13	940	1	206	262	469	50%	23%	17,591	18.7
2013-14	960	2	234	276	512	53%	22%	17,821	18.6
2014-15	993	2	211	294	507	51%	22%	18,289	18.4
2015-16	1002	1	260	307	568	57%	23%	18,642	18.6
Change	552	-35	133	173	271	-9%	10%	9,345	(2.06)
Pct Chg	123%	-97%	105%	129%	91%			101%	

Table 1 shows that the number of faculty more than doubled between 1986 and 2015, actually outpacing enrollment growth during the same period. The number of full-time equivalent students (FTES) increased by 101 percent and the number of full-time faculty per FTE student decreased by

<sup>2</sup> Source: Statistical Summary Table 4-1



2.0 percentage points. The fall 2015 student-to-faculty ratio was 16.2 to 1. The percentage of faculty with tenure varied somewhat during these 30 years. It increased from 66 percent in 1986 to 72 percent in 1991. By fall 2005, the percentage of tenured faculty had steadily declined to 45. In 2015, the percentage of tenured faculty had increased to 57 percent. The percentage of full-time non-tenure track positions increased from a low of nine percent in 2001-02 to a high of 26 percent in 2002-03. In 2015-16 the percentage declined to 23 percent. As shown in Table 2, the percent of tenured faculty varies by college from 43 percent in Education to a high of 65 percent in Visual and Performing Arts.

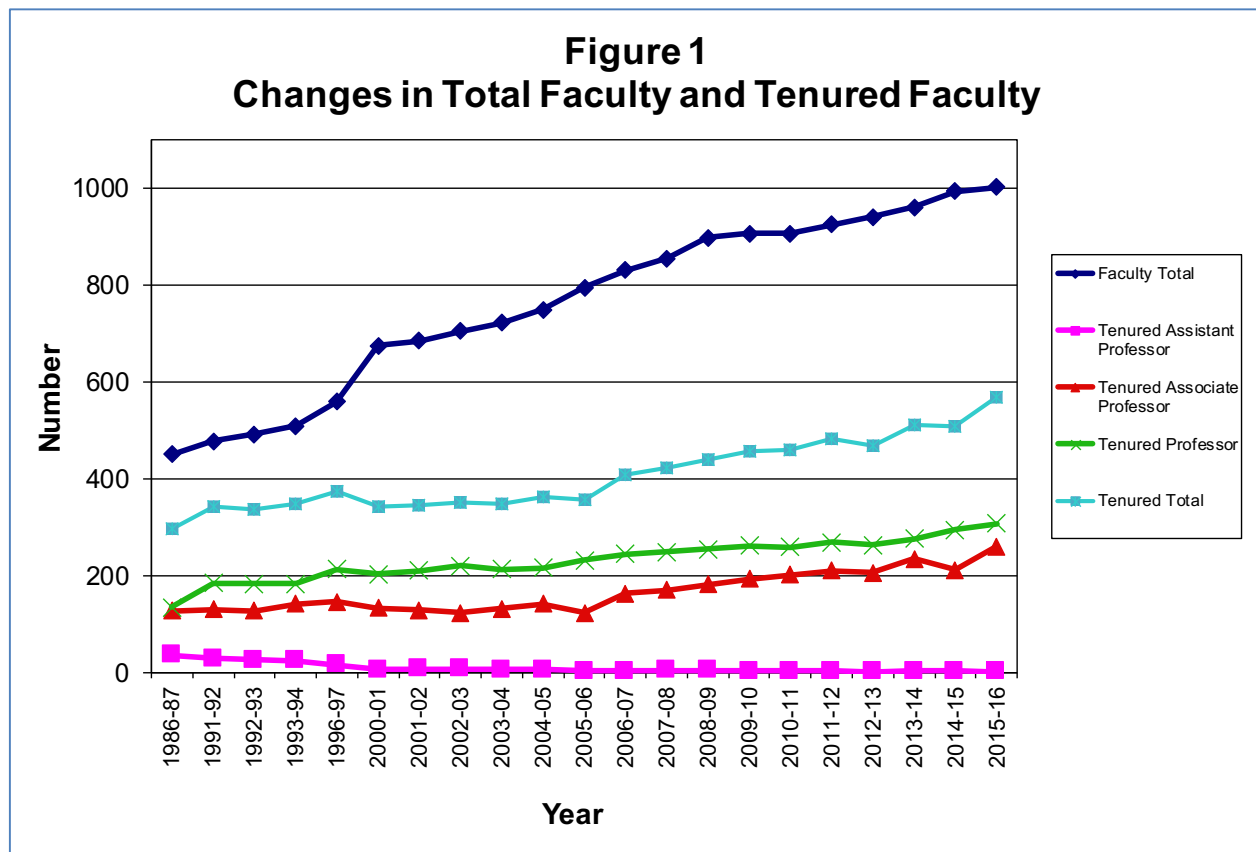




Table 2

*Number of Full-Time Instructional Faculty and Tenure Status by College, Fall 2015<sup>3</sup>*

College	Number Tenured By Rank					Percent Tenured
	Number Faculty	Assistant Professor	Associate Professor	Professor	Total	
Arts & Letters	262	0	80	64	144	55%
Business	141	1	30	46	77	55%
Education	57	0	19	10	29	51%
Health and Behavioral Studies	161	0	35	54	89	55%
Integrated Science & Engineering	81	0	18	31	49	60%
Science & Mathematics	161	0	40	52	92	57%
Visual & Performing Arts	93	0	30	38	68	73%
University Studies	31	0	6	8	14	45%
Other	15	0	2	4	6	45%
Total	1002	1	260	307	568	57%

Table 3

*Number and Percentage of Faculty Holding Terminal Degree<sup>4</sup>*

Year	Number of Faculty		Number with Terminal Degree		Percentage Terminal Degree		Percent Total
	Male	Female	Male	Female	Male	Female	Total
1986-87	331	119	256	61	77%	51%	70%
1987-88	332	119	256	63	77%	53%	71%
1988-89	337	133	265	72	79%	54%	72%
1989-90	333	138	268	76	80%	55%	73%
1990-91	330	142	272	80	82%	56%	75%
1991-92	335	142	282	93	84%	65%	79%
1992-93	342	150	285	105	83%	70%	79%
1993-94	348	160	295	116	85%	73%	81%
1994-95	349	171	299	120	86%	70%	81%
1995-96	354	174	305	131	86%	75%	83%
1996-97	369	190	312	137	85%	72%	80%
1997-98	378	203	330	165	87%	81%	85%
1998-99	394	223	341	178	87%	80%	84%
1999-00	402	238	350	179	87%	75%	83%

<sup>3</sup> Source: Statistical Summary Table 4-1

<sup>4</sup> Source: Statistical Summary Table 4-2

*Table 3(Continued)*

Number and Percentage of Faculty Holding Terminal Degree

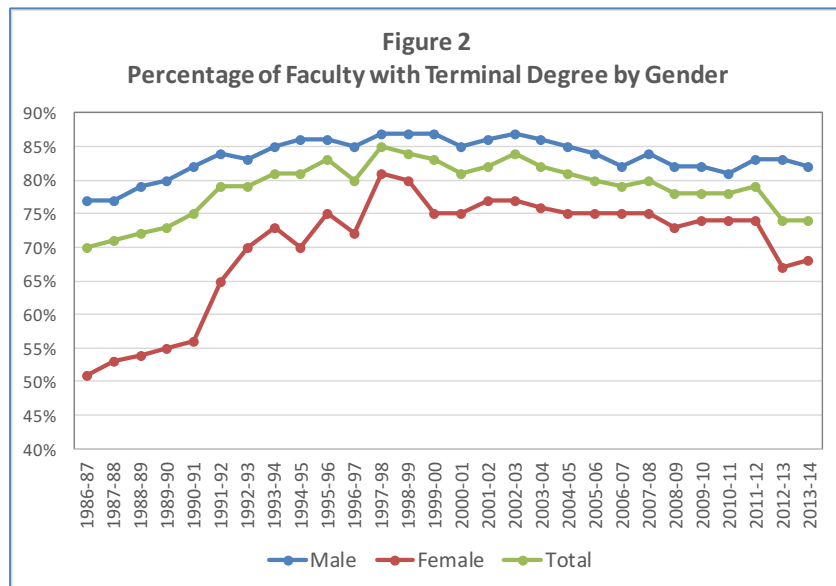
Year	Number of Faculty		Number with Terminal Degree		Percentage Terminal Degree		Percent Total
	Male	Female	Male	Female	Male	Female	Total
2000-01	422	253	359	189	85%	75%	81%
2001-02	426	259	366	199	86%	77%	82%
2002-03	436	268	381	207	87%	77%	84%
2003-04	438	283	376	215	86%	76%	82%
2004-05	444	305	379	229	85%	75%	81%
2005-06	465	330	391	246	84%	75%	80%
2006-07	472	359	389	268	82%	75%	79%
2007-08	479	375	400	282	84%	75%	80%
2008-09	488	409	400	300	82%	73%	78%
2009-10	494	412	407	303	82%	74%	78%
2010-11	496	410	402	305	81%	74%	78%
2011-12	501	423	416	312	83%	74%	79%
2012-13	484	446	396	298	83%	67%	74%
2013-14	499	461	395	314	82%	68%	74%
2014-15	514	479	405	331	79%	69%	74%
2015-16	527	475	421	334	80%	70%	75%
Change	196	356	165	273	3%	19%	5%

The percentage of faculty with a terminal degree increased by four percentage points between 1986 and 2015. The major change in the faculty has been the dramatic increase in female faculty.

Since 1986:

- ❑ Female faculty increased by 299 percent while male faculty increased by 59 percent.
- ❑ Females with a terminal degree increased by 448 percent while males increased by 64 percent.
- ❑ The percentage of females with a terminal degree increased by 19 percentage points (51 percent to 70 percent) while males increased by three percentage points, reducing the gap between males and females holding terminal degrees from 26 to 10 percentage points.

Figure 2 displays the percentage changes by year as was described above.



*Table 4*

*Number and Percentage of Faculty Holding Terminal Degree by College, Fall 2015<sup>5</sup>*

College	Number of Faculty		Faculty with Terminal Degree		Percentage Holding Terminal Degree		Percentage Holding Terminal Degree
	Male	Female	Male	Female	Male	Female	
Arts & Letters	140	122	119	86	85%	70%	78%
Business	97	44	68	25	70%	57%	66%
Education	15	42	12	33	80%	79%	79%
The Graduate School	1	0	1	0	100%	0%	100%
Health & Behavioral Studies	45	116	39	81	87%	70%	75%
Integrated Science & Engineering	59	22	53	20	90%	91%	90%
Science & Mathematics	97	64	88	55	91%	86%	89%
Visual & Performing Arts	55	38	28	17	51%	45%	48%
University Studies	12	19	10	13	83%	68%	74%
Academic & Administrative	6	8	3	4	50%	50%	50%
Grand Total	527	475	421	334	80%	70%	75%

The percentage of faculty holding terminal degrees increased from 70 percent in 1986 to 75 percent in 2015. The year with the highest percentage of terminal-degreed instructional faculty was 1997 (85

<sup>5</sup> Source: Statistical Summary Table 4-2

percent). The percentage with a terminal degree has been trending downward since the early 2000s. The percentage of faculty holding a terminal degree ranges from 90 percent in Integrated Science & Engineering to 48 percent in Visual and Performing Arts.

Tables 5 and 6 display instructional faculty by gender and ethnic distributions. Beginning with 2010, race and ethnicity data were collected according to the new federal categories, making comparisons with previous years problematic. Table 5 displays gender distributions since 1986. Table 7 displays the changes in the number of 10- and 12-month faculty. Tables 8, 9, and 10 display information about years of employment and age of the faculty.

*Table 5*

*Gender and Ethnic Origin, Instructional Faculty<sup>6</sup>*

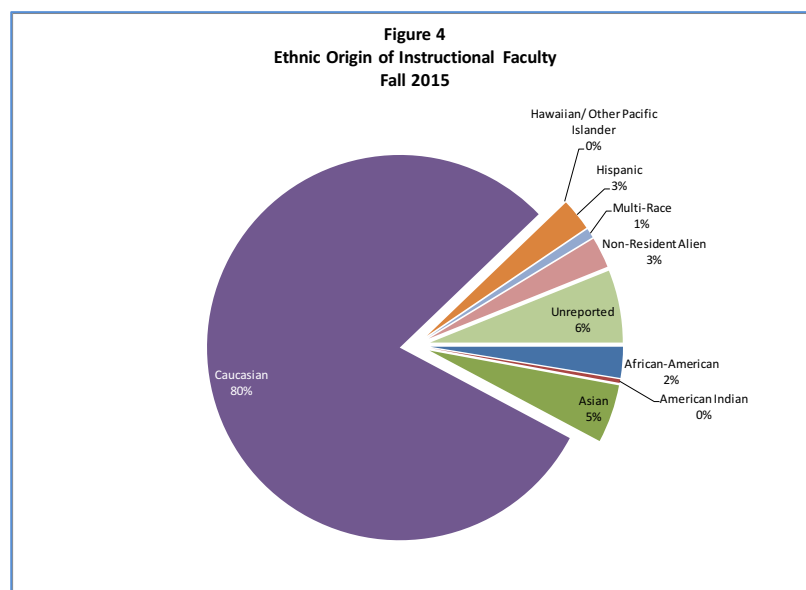
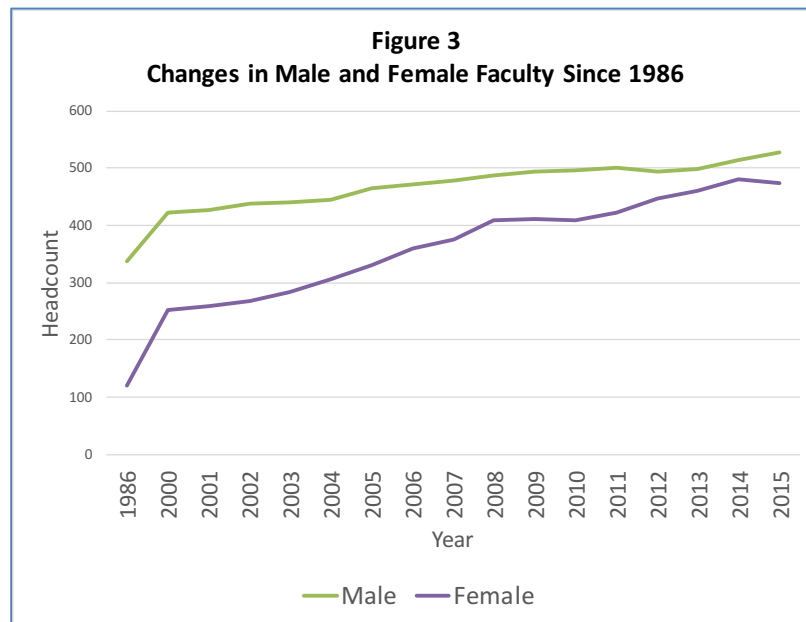
Fall	Faculty Total	Male	Female	Percent Female	African-American	American Indian	Asian	Caucasian	Hawaiian/ Other Pacific Islander	Hispanic	Multi-Race	Non-Resident Alien	Unreported
1986	457	337	120	26%								NA	
2000	675	422	253	38%								NA	
2001	685	426	259	38%								NA	
2002	707	439	268	38%								NA	
2003	723	440	283	39%								24	
2004	749	444	305	41%								26	
2005	796	465	331	42%								32	
2006	831	472	359	43%								28	
2007	854	479	375	44%								29	
2008	897	488	409	46%								27	
2009	906	494	412	46%								27	
2010	906	496	410	45%	24	1	31	762	0	15	2	24	47
2011	924	501	423	46%	25	1	34	769	0	16	2	25	52
2012	940	494	446	47%	21	1	39	776	0	18	3	25	57
2013	960	499	461	48%	23	1	45	782	0	21	7	23	58
2014	994	514	480	48%	27	3	47	794	0	26	7	30	60
2015	1002	527	475	47%	26	3	49	802	0	27	8	26	61

The most obvious change since 1986 is in the dramatic increase in number and percentage of female faculty. Since 1986 male faculty increased by 190 (56%), but female faculty increased by 295% from 120 to 475. Female faculty in 2015 represented 47% of all faculty, up from 26% in 1986.

<sup>6</sup> Source: Statistical Summary Table 4-6

Note: The federal race/ethnicity categories changed beginning with 2010, so the data prior to 2010 are not presented.

Caucasian faculty represent 88% of all faculty who are citizens or resident aliens and who reported their race/ethnicity (federal definition).



*Table 6*  
*Gender and Ethnic Origin, Instructional Faculty, Fall 2015<sup>7</sup>*

College	Faculty Total	Male	Female	African American	American Indian	Asian	White	Hispanic	Multi-Race	Unknown or Unreported	Non-Resident Alien	Percent Multicultural * **
Arts & Letters	262	140 (53%)	122 (47%)	4	1	10	199	10	6	23	9	13%
Business	141	97 (69%)	44 (31%)	7		9	109	3	1	5	7	16%
Education	57	15 (26%)	42 (74%)	1		2	46	6	0	2		16%
Health & Behavioral Studies	161	45 (28%)	116 (72%)	2	2	5	136	2	0	12	2	7%
Integrated Science & Engineering	80	59 (74%)	21 (26%)	5		4	65	1	0	2	3	13%
Science & Mathematics	160	97 (61%)	63 (39%)	3		15	131	2	1	6	2	14%
Visual & Performing Arts	93	55 (59%)	38 (41%)	3	0	3	75	3	0	8	1	11%
University Studies	30	12 (40%)	18 (60%)	0	0	0	27	0	0	2	0	0%
Other	18	7 (39%)	11 (61%)	1	0	1	14	0	0	2	0	13%
Grand Total	1,002	527 (53%)	475 (47%)	26	3	49	802	27	8	62	25	12%
* Federal Definition (African American + American Indian + Asian + Hispanic + Multi-Race) divided by (African American + American Indian + Asian + White + Hispanic + Multi-Race) Does not include Non-Resident Aliens or Unknown/Unreported.												

\*\* It should be noted that 15 Non-Resident Aliens reported themselves in one of the non-white categories, but cannot be considered multicultural by federal definitions.

In 1987, the number of months in which department heads were contractually employed increased from 10 to 12 months to compensate them for increased duties associated with a management position, especially academic department heads. As shown in Table 7, seven percent of all instructional faculty were employed 12 months in 1987. By 2015, this had increased to 10 percent. Between 1987 and 2015, the percentage of faculty on 10-month contracts doubled while 12-month faculty more than tripled. The reasons for the increase in 12-month faculty are varied. Some additional 12-month faculty are needed to help manage the complexity of some larger departments or to enhance educational support services such as the Center for Faculty Innovation, University Advising, and University Programs. The proportion of full-time faculty employed for 12-months has changed little since 2005.

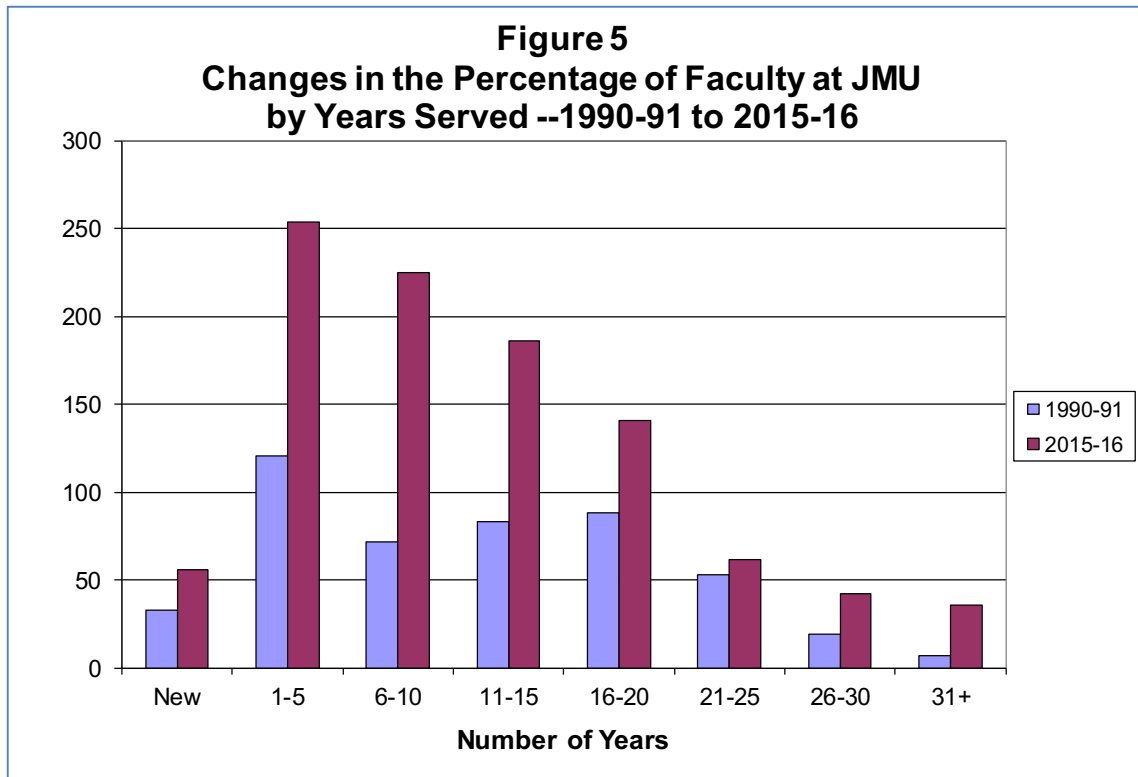
<sup>7</sup> Source: Historical Faculty Database

Table 7  
10- and 12-Month Instructional Faculty

Fall	10-Month					12-Month					Percent of Total
	Professor	Associate Professor	Assistant Professor	Instructor / Lecturer	Total	Professor	Associate Professor	Assistant Professor	Instructor / Lecturer	Total	
1986	137	149	126	38	450	0	1	0	2	3	1%
1987	123	142	119	40	424	18	10	1	4	33	7%
1988	132	137	130	39	438	26	7	2	4	39	8%
1989	138	137	117	41	433	28	10	3	2	43	9%
1990	150	140	110	35	435	27	11	2	1	41	9%
1991	156	134	114	37	441	31	7	1	2	41	9%
1992	151	130	132	42	455	32	5	2	2	41	8%
1993	160	145	128	37	470	27	6	3	2	38	7%
1994	172	146	129	31	478	30	8	1	3	42	8%
1995	183	150	129	27	489	28	7	2	2	39	7%
1996	186	163	136	35	520	27	8	2	2	39	7%
1997	184	173	153	39	549	26	4	2	0	32	6%
1998	180	184	178	46	588	23	3	3	0	29	5%
1999	183	174	188	51	596	30	4	10	0	44	7%
2000	180	177	218	56	631	28	6	9	1	44	7%
2001	185	180	206	67	638	32	4	10	1	47	7%
2002	194	173	218	67	652	34	8	10	0	52	7%
2003	184	181	224	74	663	37	8	11	2	58	8%
2004	178	185	232	85	680	42	6	17	4	69	9%
2005	197	179	237	103	716	45	12	14	8	79	10%
2006	206	186	239	110	741	47	16	15	12	90	11%
2007	205	190	253	107	755	48	16	14	11	89	11%
2008	213	202	266	116	797	52	19	11	18	100	11%
2009	214	207	279	103	803	55	19	13	16	103	11%
2010	216	210	270	112	808	51	22	11	14	98	11%
2011	227	217	269	117	830	51	19	11	13	94	10%
2012	215	235	271	121	842	55	19	10	14	98	10%
2013	225	240	268	124	857	58	20	15	10	103	11%
2014	236	253	275	128	892	60	18	12	12	102	10%
2015	252	265	256	126	899	60	17	13	13	103	10%
Change	115	116	130	88	449	60	16	13	11	100	9% <sup>8</sup>

<sup>8</sup> Source: Historical Faculty Database





In the last 15 years, an influx of new faculty resulted from many senior faculty retiring and an increase in new positions to accommodate enrollment growth. When compared with 1990-91, the profile of the faculty years in service at JMU has changed slightly. In 1990, 32 percent of the faculty had five years or less experience. The average number of years at JMU was 11.6 (median 11). In 2015, 31 percent had five years or less experience and the average years at JMU for all faculty was 11.4 (median=10). As shown in Table 8, the median age of the faculty has increased from 44 to 47. The proportion of faculty with at least 30 years of experience increased from two to four percent.

Table 8 displays the changes in the distribution of years of JMU experience for faculty between 1990 and 2015. In 1990, six percent of the faculty had 26 or more years of experience at JMU compared to eight percent in 2015. In fall 2015, the number of years employed ranged from 0 to 50<sup>9</sup>, while age ranged from 24 to 79. In 2015, the average age of newly hired faculty was 38 years.

The typical faculty member has slightly less JMU experience than 15 years ago, which is not surprising since JMU's undergraduate population has grown more than 80 percent since 1990. The median years at JMU for all faculty decreased from 11 in 1990 to 10 in 2015. The median age of the faculty (both new and continuing) increased from 44 years in 1990 to 47 in 2015. In 1990 the oldest faculty member was 72 compared to 79 in 2015. In 1990 the longest service for a faculty member was 32 years while it was 50 in 2015.

*Table 8*  
*Years Employed at JMU, Fall 1990 and Fall 2015<sup>10</sup>*

<b>Years Employed</b>	<b>1990-91</b>	<b>Percent of Total</b>	<b>2015-16</b>	<b>Percent of Total</b>
New	33	7%	56	6%
1-5	121	25%	254	25%
6-10	72	15%	225	22%
11-15	83	17%	186	19%
16-20	88	19%	141	14%
21-25	53	11%	62	6%
26-30	19	4%	42	4%
31+	7	2%	36	4%
Average Years	12		11	
Median Years	11		10	
Max Service Years	32		50	
Average Age	47		48	
Median Age	44		47	
Oldest	72		79	
Youngest	25		24	
Total	476		1,002	

<sup>9</sup> One faculty member began teaching at JMU in 1965.

<sup>10</sup> Source: Historical Faculty Database

Table 9 displays for fall 2015 the average and median years at JMU and average and median ages by college. The average and median ages vary only slightly between the colleges, excluding faculty not associated with a college, but who are categorized in this report as “Administration & Other.” The College of Education has the lowest median years of JMU service at eight.

*Table 9*

*Years Employed at JMU and Average Age by College, Fall 2015<sup>11</sup>*

Years Employed	Arts & Letters	Business	Education	Health and Behavioral Studies	Integrated Science & Engineering	Science and Mathematics	Visual & Performing Arts	University Studies	Administration & Other	Grand Total	Percent
New	14	11	2	5	5	10	4	4	1	56	6%
1-5	74	23	17	50	21	45	16	4	4	254	25%
6-10	62	30	22	34	15	31	22	3	6	225	22%
11-15	44	22	8	29	15	28	26	12	2	186	19%
16-20	36	22	5	23	17	21	12	2	3	141	14%
21-25	14	11	2	14	6	8	5	2		62	6%
26-30	10	13		4	1	8	3	2	1	42	4%
31+	8	9	1	2		9	5	1	1	36	4%
Avg. JMU Years	11	14	9	11	11	12	13	12	11	11	
Median JMU Years	9	12	8	9	10	10	12	13	8	10	
Max. JMU Years	44	40	39	45	27	50	47	32	34	50	
Avg. Age	47	51	49	49	49	48	50	47	42	48	
Median Age	45	53	49	49	49	46	50	46	37	47	
Max. Age	78	70	73	79	71	79	75	63	69	79	
Min. Age	24	27	31	27	29	26	29	30	29	24	
Headcount	262	141	57	161	80	160	93	30	18	1,002	

Table 10 displays historical information about the average number of years that faculty have been employed at JMU and their average age. The data show that there have been some changes in faculty experience since 1986. The average faculty member has been employed about 11 years. The average new faculty member is in his/her middle to upper 30s.

<sup>11</sup> Source: Historical Faculty Database

Table 10

*Average and Median Age, Years of Service: 1986-87 – 2015-16<sup>12</sup>*

Year	Faculty Total	Average JMU Years	Median JMU Years	Average Age	Median Age	Average Age of New Faculty
1986-87	459	10	10	44	44	38
1987-88	457	11	10	45	44	35
1988-89	477	11	10	45	45	37
1989-90	476	11	11	46	45	35
1990-91	476	12	11	47	44	40
1991-92	482	12	12	47	47	36
1992-93	495	11	10	46	46	38
1993-94	508	12	10	47	46	39
1994-95	520	12	10	47	47	38
1995-96	528	12	11	48	48	38
1996-97	559	12	10	48	48	39
1997-98	581	11	9	47	48	38
1998-99	617	10	7	47	47	39
1999-00	640	10	7	47	48	39
2000-01	675	10	6	47	48	38
2001-02	685	10	6	47	48	39
2002-03	704	10	6	48	48	37
2003-04	721	10	6	48	48	38
2004-05	749	10	7	47	48	38
2005-06	795	10	7	47	48	39
2006-07	831	10	8	47	48	38
2007-08	854	10	8	48	47	40
2008-09	897	10	8	48	48	38
2009-10	906	11	8	48	48	36
2010-11	906	10	9	48	48	39
2011-12	924	11	9	48	47	38
2012-13	940	11	9	48	47	37
2013-14	960	11	9	48	47	41
2014-15	994	11	9	48	47	37
2015-16	1002	11	10	48	47	38
Change	543	1.1	0	3.6	3	0

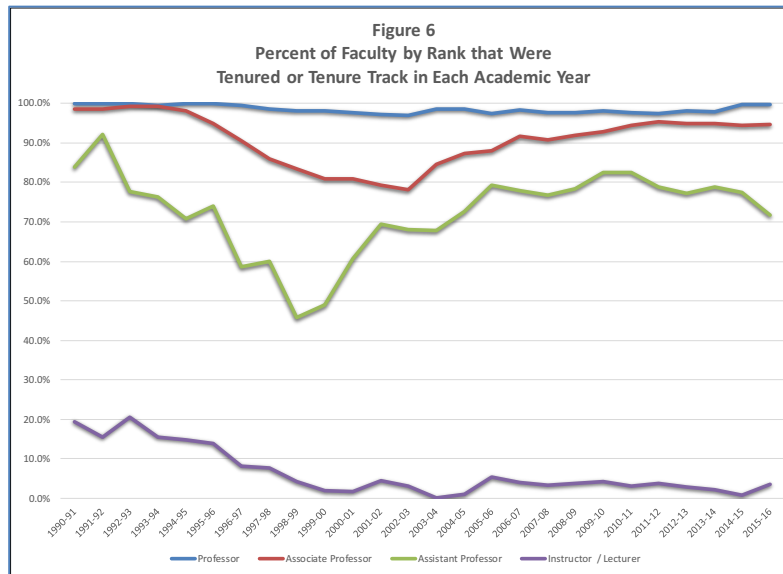
<sup>12</sup> Source: Historical Faculty Database

In the early 1990s JMU created the College of Integrated Science and Technology. CISAT was to have a unique curriculum, mission and faculty. Many faculty were recruited from businesses and industries where tenure was not possible. The senior JMU administration decided that many of these new faculty would be offered Revolving Term Appointments (RTA) instead of the opportunity to gain tenure. The RTA offered the University the flexibility to hire excellent faculty for whom tenure was not a major concern, but would have more discretion in hiring and adjusting to changing student major choices. In 1991-92 96 percent of full-time faculty were either tenured or tenure track. By 1999-2000 the percentage had decreased to 76 percent. By 2015-16 the percentage tenured or tenure track had rebounded to 89 percent.

*Table 11*

*Percent of Full-Time Instructional That Were Either Tenured or Tenure Track by Rank and Year*

Academic Year	Professor	Associate Professor	Assistant Professor	Instructor / Lecturer	Percent Prof, Assoc, and Asst Prof, Tenured or Tenure Track
1990-91	100.0%	98.7%	83.9%	19.4%	95.5%
1991-92	100.0%	98.6%	92.2%	15.4%	97.5%
1992-93	100.0%	99.3%	77.6%	20.5%	93.1%
1993-94	99.5%	99.3%	76.3%	15.4%	93.0%
1994-95	100.0%	98.1%	70.8%	14.7%	91.6%
1995-96	100.0%	94.9%	74.0%	13.8%	91.6%
1996-97	99.5%	90.6%	58.7%	8.1%	85.8%
1997-98	98.6%	85.9%	60.0%	7.7%	83.4%
1998-99	98.0%	83.4%	45.9%	4.3%	76.7%
1999-00	98.1%	80.9%	49.0%	2.0%	76.4%
2000-01	97.6%	80.9%	60.8%	1.8%	79.1%
2001-02	97.2%	79.3%	69.4%	4.4%	82.2%
2002-03	96.9%	78.1%	68.1%	3.0%	81.3%
2003-04	98.6%	84.7%	67.8%	0.0%	83.3%
2004-05	98.6%	87.4%	72.7%	1.1%	85.6%
2005-06	97.5%	88.0%	79.3%	5.4%	88.2%
2006-07	98.4%	91.6%	78.0%	4.1%	89.1%
2007-08	97.7%	90.8%	76.8%	3.4%	88.2%
2008-09	97.7%	91.9%	78.3%	3.7%	89.0%
2009-10	98.1%	92.9%	82.5%	4.2%	90.9%
2010-11	97.8%	94.4%	82.6%	3.2%	91.3%
2011-12	97.5%	95.3%	78.9%	3.8%	90.3%
2012-13	98.1%	94.9%	77.2%	3.0%	89.8%
2013-14	97.9%	95.0%	78.8%	2.2%	90.4%
2014-15	99.7%	94.5%	77.4%	0.7%	90.5%
2015-16	99.7%	94.7%	71.7%	3.6%	89.3%



Each year, JMU hires new faculty to replace faculty who retire or leave JMU, as well as to accommodate enrollment growth. A frequently asked question is what proportion of faculty who become assistant tenure-track professors earn tenure and continue to teach at JMU? How has this proportion changed over the years, if at all? Table 12 displays the number of new tenure-track assistant professors hired since 1991-92. These faculty members include those who were initially hired into an instructor position and later promoted into an assistant professor tenure-track position. Between 1990 and 2008, 61 percent of those hired into a tenure-track position had earned tenure. It appears that between the third and fifth years the highest percentage of tenure-track faculty leave JMU. Unfortunately, we do not have data to show why these faculty members leave. Once a faculty member has earned tenure, however, he/she tends to remain at JMU. Of the 258 faculty who earned tenure between 1990 and 2005, 194 (94 percent) were employed after ten years at JMU. Eighty-two percent were still employed after 15 years. A few faculty members (one to two annually) tend to leave JMU within a year or two after earning tenure.

The literature on the percentage of faculty that are initially hired into a tenure-track position and gain tenure is not large. One article we found in *Dynamic Ecology* referenced a study of the proportion of faculty hired into a tenure-track position and indicated that the proportion is close to 55 percent. The reason many individuals do not earn tenure at their initial institution was that they left to take another position at another institution.<sup>13</sup>

<sup>13</sup> Fox, Jeremy, "Don't worry (too much) about whether you'll get tenure, because you probably will," 2014, <https://dynamicecology.wordpress.com/2014/07/21/dont-worry-too-much-about-whether-youll-get-tenure-because-you-probably-will/>

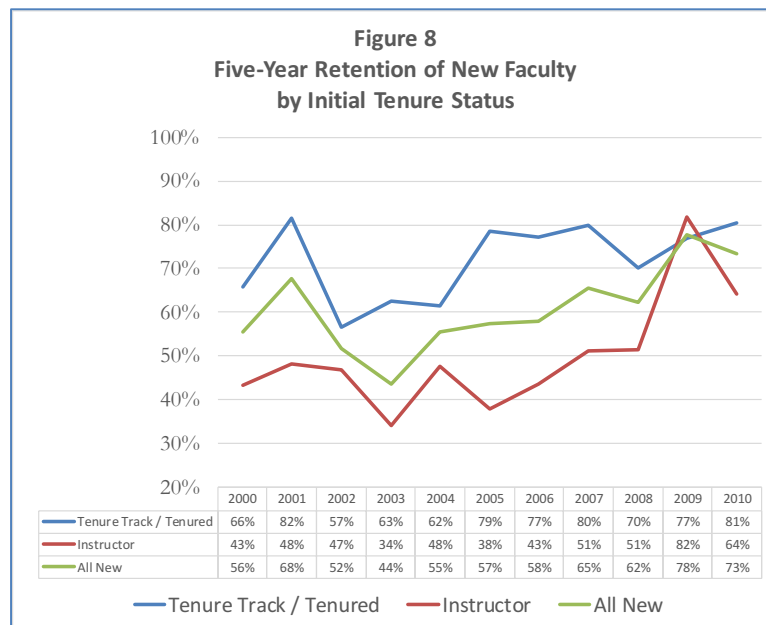
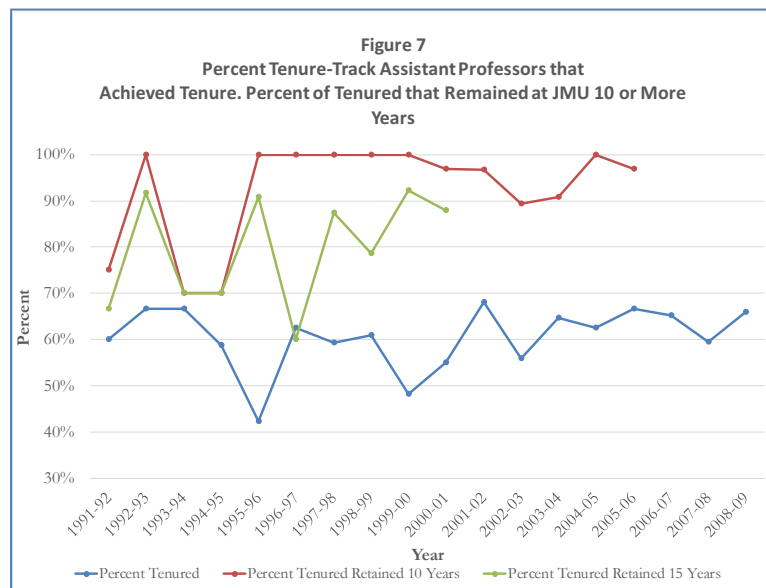
Another concern is the retention rates of new faculty, regardless of their rank. Qualified faculty are difficult to find in some disciplines and in some locations, and it is much better for the department and the institution if these faculty remain at JMU. However, it has been speculated that faculty are leaving JMU faster than in previous years. However, the opposite is true. Figure 8 on page 19 displays the five-year retention rates of new faculty since 2000-01. It appears that the five-year retention rate of all new non-tenure track faculty (64 percent for those that were hired in 2010), regardless of initial tenure status, has increased in recent years. The retention rate of new tenure track/tenured faculty is stable in the 71 to 81 percent range annually.

*Table 12*  
*Retention of New Tenure Track Assistant Professors<sup>14</sup>*

	Begin	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	Number Tenured	Percent Tenured	Number Retained 10 Years	Percent Retained 10 Years	Number Retained 15 Years	Percent 15 Years
Fall														
1991-92	20	18	18	15	12	13	12	10	12	60%	9	75%	8	67%
1992-93	18	17	15	13	13	12	12	12	12	67%	12	100%	11	92%
1993-94	15	15	13	12	14	12	10	8	10	67%	7	70%	7	70%
1994-95	17	17	14	12	11	11	10	10	10	59%	7	70%	7	70%
1995-96	26	24	23	18	14	13	12	10	11	42%	11	100%	10	91%
1996-97	8	7	7	7	7	5	5	5	5	63%	5	100%	3	60%
1997-98	27	22	18	18	17	16	16	16	16	59%	16	100%	14	88%
1998-99	23	22	22	18	16	16	15	15	14	61%	14	100%	11	79%
1999-00	27	26	21	18	17	14	13	13	13	48%	13	100%	12	92%
2000-01	60	53	48	41	41	38	34	34	33	55%	32	97%	29	88%
2001-02	44	41	38	34	34	33	32	29	30	68%	29	97%		
2002-03	34	34	31	27	23	22	22	19	19	56%	17	89%		
2003-04	34	32	32	28	27	26	25	24	22	65%	20	91%		
2004-05	56	51	49	45	40	38	38	35	35	63%	35	100%		
2005-06	48	47	45	40	39	37	35	35	32	67%	31	97%		
2006-07	46	45	42	41	39	35	33	32	30	65%				
2007-08	42	42	40	35	33	29	28	26	25	60%				
2008-09	50	48	44	43	40	38	34	33	33	66%				
2009-10	59	55	54	50	45	44	41		39	66%				
2010-11	36	34	34	32	31	31			12	33%				
2011-12	35	34	33	32	30				7	20%				
2012-13	43	42	39	36					2	5%				
2013-14	54	51	51						4	7%				
2014-15	48	44												
2015-16	24													
Percent Retained	894	94%	89%	80%	75%	70%	65%	62%		61%	258	94%	112	82%

<sup>14</sup> Source: Historical Faculty Database





One measure of faculty qualifications is the percentage holding a terminal degree in their field. Table 13 displays the number and percentage of new faculty with a terminal degree by rank. A significantly smaller proportion of faculty at the instructor rank has a terminal degree. Seventy-six percent of new assistant professors held a terminal degree when hired, while 92 percent of new professors and 93

percent of associate professors held the terminal degree. The overall percentage of new faculty with a terminal degree ranged from a low of 38 percent in 1991 to a high of 81 percent in 2003 and 2013.

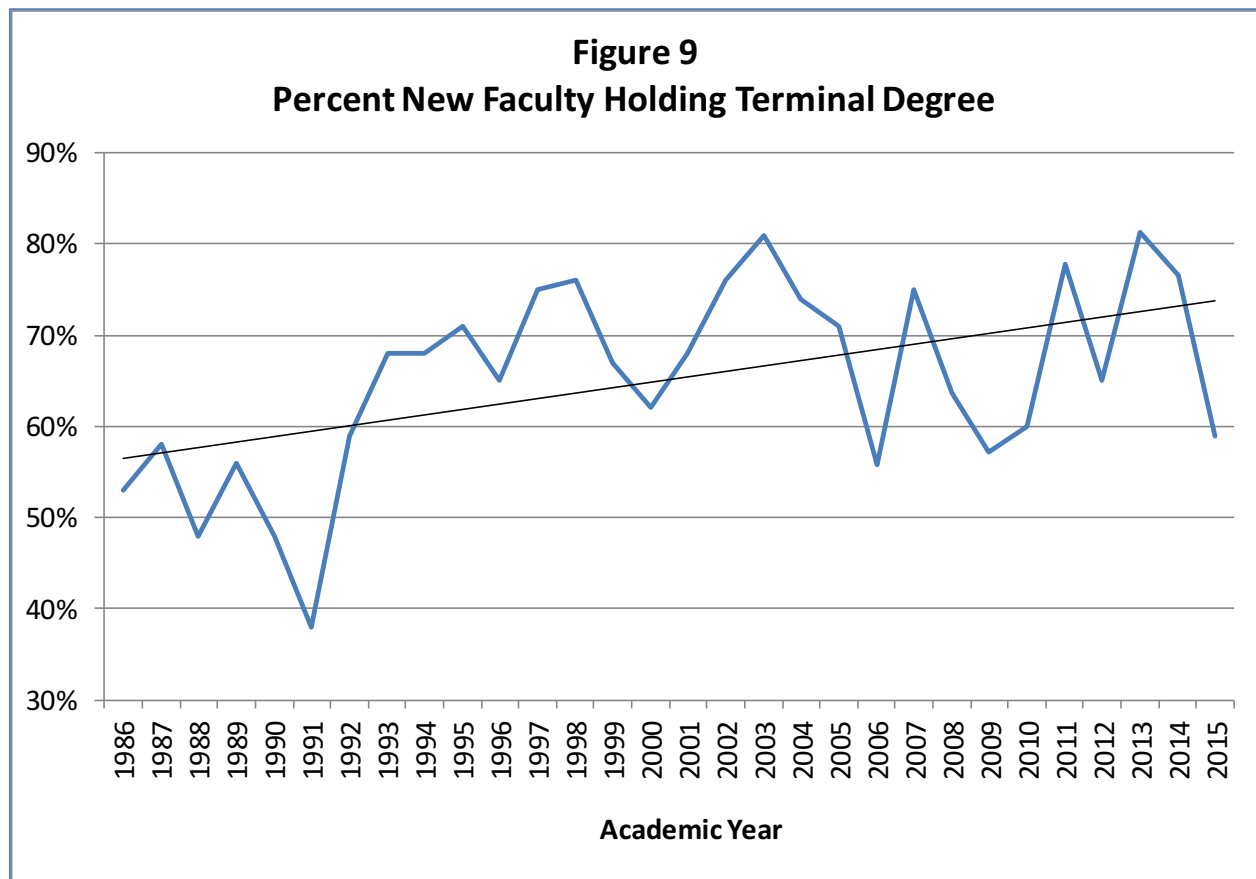
Table 13

*New Terminal Degreed Instructional Faculty<sup>15</sup>*

Fall	New Instructors	Percent Terminal	New Assistant Prof	Percent Terminal	New Associate Prof	Percent Terminal	New Professor	Percent Terminal	Total New Faculty	Percent Terminal
1986	18	6%	22	68%	7	100%	4	100%	51	53%
1987	10	0%	17	82%	3	100%	1	100%	31	58%
1988	17	0%	22	73%	5	80%	2	100%	46	48%
1989	10	0%	13	85%	2	100%	2	100%	27	56%
1990	9	0%	17	53%	3	100%	4	100%	33	48%
1991	17	6%	14	79%	1	0%	-	0%	32	38%
1992	23	17%	38	76%	3	100%	4	100%	68	59%
1993	10	10%	20	80%	7	100%	4	100%	41	68%
1994	8	25%	24	75%	3	100%	3	100%	38	68%
1995	16	19%	37	86%	6	100%	3	100%	62	71%
1996	15	20%	34	79%	10	90%	1	0%	60	65%
1997	13	23%	44	91%	12	83%	3	33%	72	75%
1998	13	23%	62	84%	10	90%	4	100%	89	76%
1999	6	0%	42	71%	7	86%	3	100%	58	67%
2000	10	10%	57	63%	13	92%	1	100%	81	62%
2001	12	27%	36	69%	11	100%	2	100%	61	68%
2002	7	29%	41	83%	1	100%	1	100%	50	76%
2003	9	44%	51	84%	2	100%	1	100%	63	81%
2004	17	35%	54	79%	5	100%	5	100%	81	74%
2005	14	7%	42	88%	-	0%	6	100%	62	71%
2006	16	0%	47	68%	5	100%	2	100%	70	56%
2007	12	33%	40	83%	7	100%	5	80%	64	75%
2008	11	27%	46	65%	5	100%	4	100%	66	64%
2009	5	0%	41	63%	-	0%	3	67%	49	57%
2010	10	0%	39	67%	3	100%	5	100%	57	60%
2011	4	0%	43	81%	5	100%	2	100%	54	78%
2012	12	25%	45	73%	4	75%	2	100%	63	65%
2013	12	42%	38	89%	8	100%	1	100%	59	81%
2014	9	22%	52	87%	1	100%	2	50%	64	77%
2015	15	20%	38	76%	-	0%	3	33%	56	59%
All Years	360	16%	1,116	77%	149	93%	83	89%	1,708	66%

<sup>15</sup> Source: Faculty Historical Database.

Figure 9 indicates that there has been a gradual increase in the percentage of new faculty holding the terminal degree since 1986. The dip in the percentage of new associate and full professors in 1991 holding the terminal degree was due to the fact that only one faculty member was hired, and this person did not have a terminal degree. The nine years in which no new instructors had a terminal degree is not surprising because a much smaller percentage of new instructors possess terminal degrees (15 percent). In most disciplines and at institutions like JMU a terminal degree is required to become tenure eligible and become assistant professors. Over the years many instructors, once their earned a terminal degree, became tenure-track and eventually earned tenure.



## Compensation

The tables and figures in this section focus on faculty compensation since 1986. Table 14 displays the average salary by rank by year as reported to the American Association of University Professors (AAUP). Table 14 displays the average salary of 9/10-month faculty. Table 15 displays total compensation (salary + benefits) since 1986. Table 16 shows the annual percentage increases for continuing faculty. When the average faculty salary for 2015-16 is adjusted to 1986 dollars one discovers that the average JMU faculty salary increased by \$2,014 (6.1 percent). The average salaries of associate professors rose by the smallest percentage of all ranks (0.4%).

*Table 14*  
*Average Salary by Rank Since 1986-87<sup>16</sup>*

Year	Professor	Associate Professor	Assistant Professor	Instructor	All Ranks	Percent Change
1986-87	39,389	33,818	29,341	21,555	33,225	--
1987-88	42,499	36,420	31,052	23,547	35,647	7.3%
1988-89	46,235	39,246	33,435	25,607	38,724	8.6%
1989-90	50,261	42,935	36,917	27,943	42,618	10.1%
1990-91	51,698	44,177	37,768	29,398	44,329	4.0%
1991-92	50,829	43,791	36,596	28,603	43,576	-1.7%
1992-93	50,958	43,650	35,296	29,113	42,800	-1.8%
1993-94	52,135	44,674	36,558	28,506	44,086	3.0%
1994-95	55,254	47,439	39,017	30,866	47,286	7.3%
1995-96	56,991	48,235	40,415	31,180	48,857	3.3%
1996-97	59,158	49,899	40,711	32,069	49,979	2.3%
1997-98	62,312	53,371	43,038	33,604	52,519	5.1%
1998-99	66,342	55,943	44,418	34,622	54,394	3.6%
1999-00	70,206	58,818	46,009	36,407	56,859	4.5%
2000-01	72,223	59,695	46,518	39,359	57,407	1.0%
2001-02	72,325	59,153	46,376	39,531	57,349	-0.1%
2002-03	71,690	58,312	46,620	39,601	57,077	-0.5%
2003-04	73,066	59,758	47,852	41,483	58,030	1.7%
2004-05	77,648	62,798	50,559	42,936	60,731	4.7%
2005-06	80,204	66,051	53,561	44,301	63,684	4.9%
2006-07	83,810	67,847	54,823	46,210	65,550	2.9%
2007-08	87,587	68,984	56,994	48,982	68,192	4.0%
2008-09	87,417	69,216	56,278	49,188	67,606	-0.9%
2009-10	87,731	67,790	57,646	49,758	68,073	0.7%
2010-11	86,841	66,941	58,357	50,003	67,787	-0.4%
2011-12	87,360	66,489	60,382	50,976	68,735	1.4%
2012-13	87,601	67,335	61,289	52,802	69,261	0.8%
2013-14	91,029	71,125	64,231	54,697	72,667	4.9%
2014-15	90,827	70,073	64,760	53,787	72,444	-0.3%
2015-16	97,547	74,537	67,479	57,169	77,398	6.8%
Change	58,158	40,719	38,138	35,614	44,173	
Percent Change	148%	120%	130%	165%	133%	
Adjusted to 1986	44,413	33,937	30,723	26,029	35,239	
Change from 1986	5,024	119	1,382	4,474	2,014	
Percent Change from 1986 Adjusted	12.8%	0.4%	4.7%	20.8%	6.1%	

<sup>16</sup> Source: AAUP Annual Survey and Statistical Summary

*Table 15*  
*Average Compensation by Rank*

Year	Professor	Associate Professor	Assistant Professor	Instructor	All Ranks	Percent Change	Benefits As Percent Of Salary
1986-87	49,019	42,281	36,874	27,428	41,564	--	25.1%
1987-88	52,772	45,464	38,999	29,924	44,525	7.10%	24.9%
1988-89	57,153	48,790	41,802	32,355	48,146	8.10%	24.3%
1989-90	62,410	53,820	46,581	35,746	53,358	10.80%	25.2%
1990-91	65,579	56,530	48,729	38,503	56,677	6.20%	27.9%
1991-92	63,107	54,723	45,909	36,747	54,418	-4.00%	24.9%
1992-93	62,784	54,367	44,698	37,443	53,359	-1.90%	24.7%
1993-94	64,594	55,995	46,615	37,108	55,291	3.60%	25.4%
1994-95	68,010	59,039	49,295	39,675	58,822	6.40%	24.4%
1995-96	70,286	60,351	49,902	39,982	60,974	3.70%	24.8%
1996-97	72,818	62,219	51,343	41,139	62,178	2.00%	24.4%
1997-98	77,058	66,706	54,563	43,357	65,641	5.60%	25.0%
1998-99	82,737	70,425	56,646	44,959	68,535	4.40%	26.0%
1999-00	88,083	74,515	59,096	47,557	72,113	5.20%	26.8%
2000-01	91,232	76,248	60,248	51,548	73,399	1.80%	27.9%
2001-02	91,288	75,730	60,337	51,985	73,447	0.70%	28.1%
2002-03	88,978	74,325	60,802	52,242	72,589	-1.70%	27.2%
2003-04	93,048	77,559	63,350	55,542	75,355	3.80%	29.9%
2004-05	99,966	82,550	67,825	58,452	79,907	6.00%	31.6%
2005-06	104,833	87,061	72,017	60,692	84,039	5.20%	32.0%
2006-07	110,440	90,992	75,117	64,592	88,185	4.90%	34.5%
2007-08	115,560	92,800	78,240	68,441	91,892	4.20%	34.8%
2008-09	115,359	93,066	77,347	68,715	91,160	-0.80%	34.8%
2009-10	114,768	90,589	78,401	68,878	90,988	-0.20%	33.7%
2010-11	113,880	89,781	79,219	69,284	90,757	-0.25%	33.9%
2011-12	114,789	87,073	79,663	69,339	90,671	-0.09%	31.9%
2012-13	113,071	88,872	81,674	71,270	91,143	0.52%	31.6%
2013-14	118,367	95,084	86,975	75,770	96,861	6.27%	33.3%
2014-15	123,412	98,062	91,159	77,911	100,803	4.07%	39.1%
2015-16	133,765	105,253	95,518	83,294	108,471	7.61%	40.1%
Change	84,746	62,972	58,644	55,866	66,907		
Percent Change	173%	149%	159%	204%	161%		
Adjusted to 1986	60,903	47,922	43,489	37,924	49,387		
Change from 1986	11,884	5,641	6,615	10,496	7,823		
Percent Change from 1986 Adjusted	24.2%	13.3%	17.9%	38.3%	18.8%		

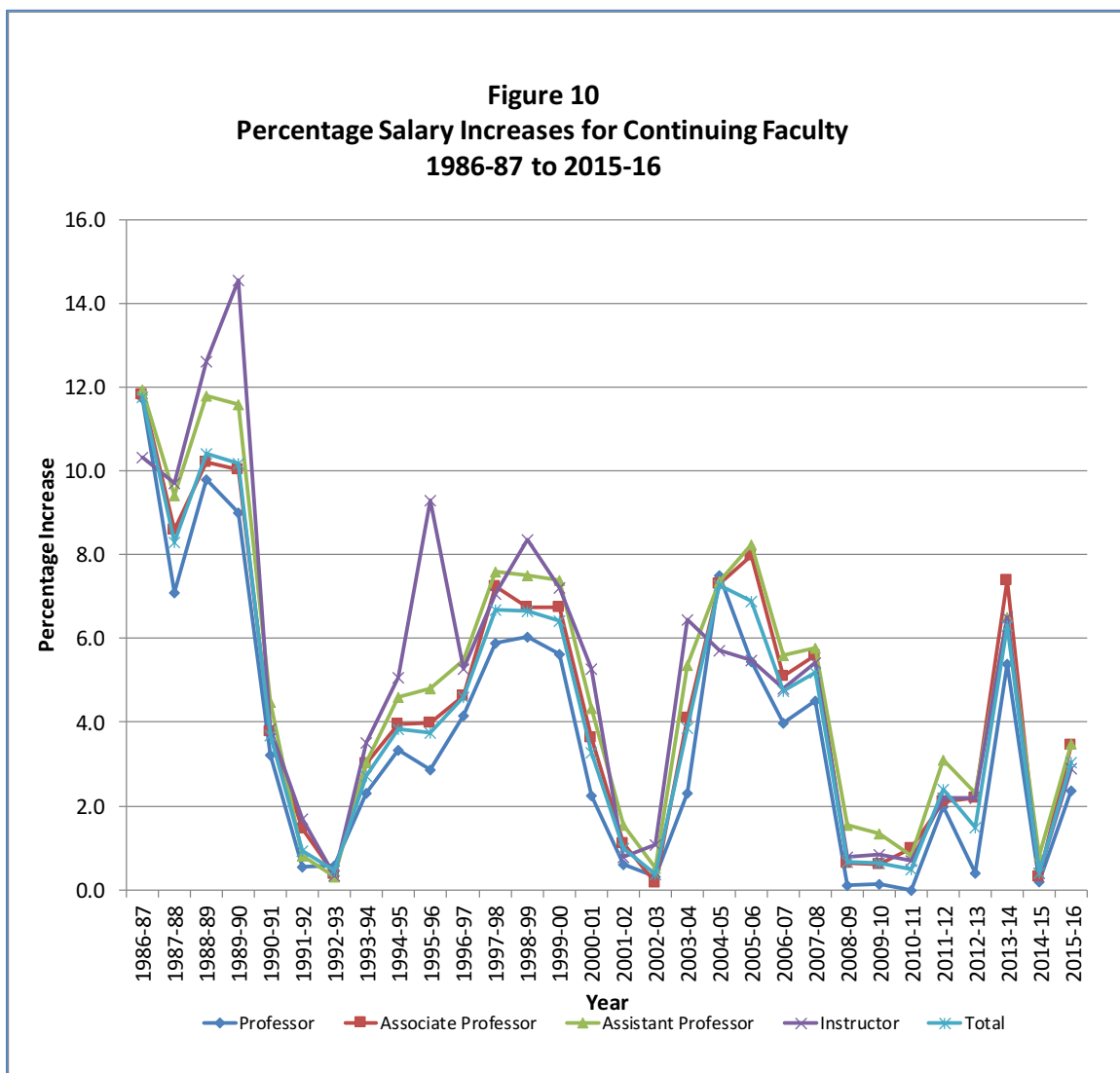
Continuing assistant professors had greater percentage salary increases than professors and associate professors in 26 of the last 30 years (Table 16). Although professors have the highest average salary and compensation, their overall percentage increases tend to be smaller than associate or assistant professors. Full professors are not eligible for salary increases associated with promotion to a new rank as are assistant and associate professors. Benefits as a percentage of total compensation have increased by 15 percentage points to 40.1 percent since 1986-87. This percentage increase since 2013-14 is due to the institutions being required to contribute additional funds to ensure the long-term viability of the Virginia Retirement System and additional healthcare costs.

*Table 16*  
*Percent Salary Increases for Continuing<sup>17</sup> Faculty*

Year	Professor	Associate Professor	Assistant Professor	Instructor	Total
1986-87	11.74	11.81	11.95	10.32	11.75
1987-88	7.10	8.60	9.40	9.70	8.30
1988-89	9.80	10.20	11.80	12.60	10.40
1989-90	9.01	10.02	11.59	14.54	10.18
1990-91	3.21	3.78	4.49	3.84	3.69
1991-92	0.54	1.47	0.81	1.69	0.94
1992-93	0.57	0.38	0.31	0.33	0.46
1993-94	2.30	3.00	3.03	3.52	2.72
1994-95	3.35	3.95	4.59	5.06	3.85
1995-96	2.88	3.98	4.80	9.28	3.76
1996-97	4.15	4.62	5.49	5.28	4.59
1997-98	5.89	7.23	7.59	7.06	6.69
1998-99	6.05	6.75	7.51	8.35	6.65
1999-00	5.63	6.73	7.38	7.21	6.43
2000-01	2.24	3.64	4.32	5.27	3.29
2001-02	0.60	1.11	1.55	0.79	0.99
2002-03	0.30	0.18	0.52	1.09	0.36
2003-04	2.31	4.10	5.35	6.44	3.87
2004-05	7.49	7.30	7.36	5.71	7.27
2005-06	5.44	7.97	8.25	5.48	6.88
2006-07	3.97	5.09	5.59	4.81	4.75
2007-08	4.52	5.61	5.76	5.41	5.20
2008-09	0.12	0.64	1.55	0.79	0.68
2009-10	0.15	0.61	1.33	0.84	0.65
2010-11	0.00	1.00	0.80	0.70	0.50
2011-12	2.00	2.10	3.10	2.20	2.40
2012-13	0.40	2.20	2.30	2.20	1.50
2013-14	5.40	7.40	6.50	6.50	6.30
2014-15	0.20	0.30	0.80	0.40	0.40
2015-16	2.36	3.44	3.49	2.89	3.04

<sup>17</sup> Continuing faculty were employed the previous year. Faculty who were promoted were analyzed as if they were still in the previous rank. Source and methodology: AAUP Annual Survey.

Across-the-board salary increases have been infrequent since 2008, except in 2013-14, due to budget shortfalls in the Commonwealth. However, some faculty received raises due to promotions (assistant to associate professor or associate professor to full professor) and/or equity adjustments. The data in Table 16 reflect these increases, using AAUP definitions, as well as increases authorized by the Commonwealth in the years in which they were granted. For example, an associate professor who was promoted to professor was analyzed as an associate professor with the new salary adjustment included. Figure 10 clearly shows the years in which faculty salary increases were minimal or non-existent during budget shortfalls in the Commonwealth. Although conditionally approved by the General Assembly in March 2016, no salary increases were given in 2016-17 due to a shortfall in tax revenues.





In 2016 JMU adopted a new faculty salary peer group. The purpose of the new peer group is to choose public institutions that are more “like” JMU than the peer group selected in cooperation with SCHEV in 2007. Many of the SCHEV peer institutions are private with significant endowments and are not dependent upon public funds from their state. Thus their average salaries tend to be much higher, more stable and out of reach for public institutions like JMU. Since 2001-02 the Commonwealth of Virginia has had three major revenue shortfalls that resulted in institutions receiving no funding for employee raises.

The Division of Academic Affairs in 2015 contracted with a private firm to develop a list of comparable public institutions from which a group of new peers could be selected. The new list appears below along with comparison data. It is interesting to note that 10 of the 13 institutions selected to be JMU’s faculty salary peers are on the SCHEV faculty salary list.

*Table 17*  
*Salary Data for New Faculty Peer Group, 2014-15<sup>18</sup>*

Institution Name	State	Total Headcount	6-Year Grad Rate	Student Faculty Ratio	Average Salary 2014-15
Clemson University	SC	21,857	82	16	\$ 91,431
SUNY at Binghamton	NY	16,695	81	20	\$ 82,809
West Chester University of Pennsylvania	PA	16,086	67	18	\$ 82,665
Rowan University	NJ	14,778	67	17	\$ 81,450
Miami University-Oxford	OH	18,620	79	17	\$ 78,093
Western Washington University	WA	15,060	72	19	\$ 75,375
College of Charleston	SC	11,456	67	15	\$ 73,638
University of Northern Iowa	IA	11,928	64	16	\$ 73,215
Grand Valley State University	MI	25,094	65	17	\$ 72,405
<b>James Madison University</b>	<b>VA</b>	<b>20,855</b>	<b>82</b>	<b>16</b>	<b>\$ 71,937</b>
Illinois State University	IL	20,615	72	19	\$ 71,658
University of North Carolina Wilmington	NC	14,570	71	17	\$ 70,470
Appalachian State University	NC	18,026	70	16	\$ 69,030
Towson University	MD	22,285	68	16	\$ 64,332
Average Salary, Excluding JMU					\$ 75,890

<sup>18</sup> Source: Federal Integrated Postsecondary Educational Data System. IPEDS data collection, most recent data.

### *Faculty Resources*

Table 18 displays the changes in faculty FTE (summer, fall, spring and total) since 1994-95. The full-time equivalent faculty (FTEF) grew by 103 percent. The FTEF for the fall and spring terms tend to be similar even though historically spring headcounts are approximately five percent lower than fall, primarily due to December graduation. Table 18 also displays the number of degrees conferred and the ratio of FTE faculty to total degrees conferred.

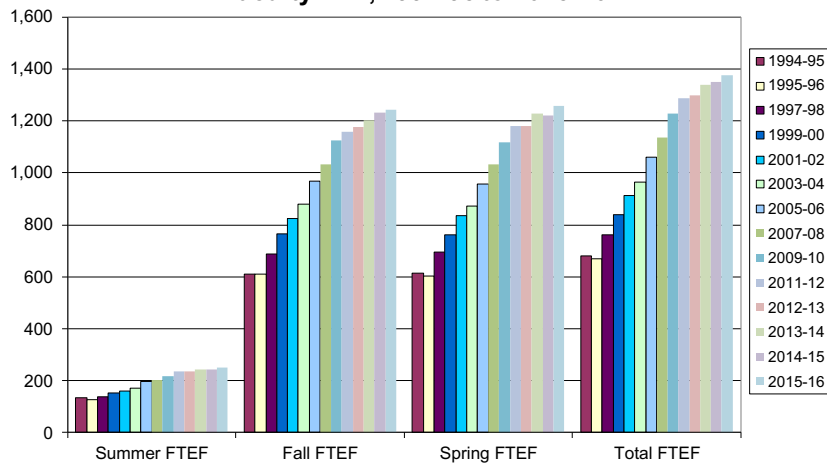
*Table 18*

*Faculty FTE (FT and PT) and Degrees Conferred, 1994-95 to 2015-16*

Academic Year	Summer FTEF	Fall FTEF	Spring FTEF	Total FTEF	Degrees Conferred	FTEF/ Degrees Ratio
1994-95	132.8	611.5	612.7	678.5	2,685	3.96
1995-96	126.8	609.3	601.2	668.7	2,666	3.99
1996-97	135.1	652.5	644.9	716.3	2,571	3.59
1997-98	137.8	687.2	694.8	759.9	2,738	3.60
1998-99	155.4	744.3	742.3	821.0	2,906	3.54
1999-00	152.5	764.6	763.0	840.1	3,472	4.13
2000-01	149.9	822.4	821.0	896.7	3,384	3.77
2001-02	161.9	824.3	836.3	911.3	3,435	3.77
2002-03	160.9	855.8	855.0	935.9	3,474	3.71
2003-04	172.9	880.3	871.9	962.6	3,685	3.83
2004-05	185.2	910.6	909.0	1,002.4	3,778	3.77
2005-06	197.3	968.6	957.2	1,061.6	4,027	3.79
2006-07	204.3	1,009.0	1,010.8	1,112.1	4,034	3.63
2007-08	204.6	1,033.7	1,033.8	1,136.1	4,143	3.65
2008-09	219.5	1,092.3	1,102.4	1,207.1	4,334	3.59
2009-10	215.9	1,123.8	1,117.5	1,228.6	4,411	3.59
2010-11	231.2	1,136.0	1,138.2	1,252.7	4,608	3.68
2011-12	237.3	1,159.3	1,179.8	1,288.2	4,908	3.81
2012-13	235.6	1,176.0	1,180.8	1,296.2	4,824	3.72
2013-14	243.1	1,203.9	1,226.6	1,336.8	4,886	3.66
2014-15	245.2	1,230.8	1,220.7	1,348.3	4,951	3.67
2015-16	250.2	1,243.4	1,259.0	1,376.3	5,347	3.88
Percent Change	88%	103%	105%	103%	99%	

Figure 12 on page 28 plots the ratio of FTE faculty to degrees conferred. The ratios have varied little over the years with the exception of years like 1999-00 and 2015-16 when the large “bubble” of freshmen four years earlier began to graduate.

**Figure 11**  
**Faculty FTE, 1994-95 to 2015-16**



**Figure 12**  
**Ratio of Degrees Conferred to the  
Number of FTE Faculty**

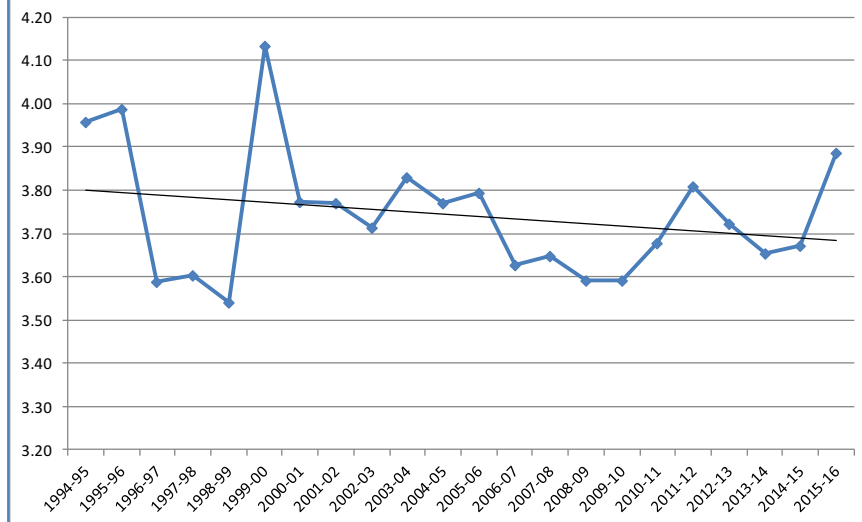


Table 19 displays four measures of faculty resources and use. Each measure is described and analyzed below.

- ❑ The “Student-To-Faculty Ratio” is calculated by dividing the full-time equivalent students in a fall term (15 credits per undergraduate and 12 per graduate student) by the full-time equivalent faculty (FTEF). Since 1991, the ratio has varied from 19.2 in 1997 to 16.0 in several years. In 2015-16 the ratio rose to 16.2.
- ❑ The “Total Student Credit Hours per Full-Time Equivalent Faculty” figures represent the total number of credit hours taught divided by the total FTE faculty. This number has ranged from 284.8 in 1997 to 236.4 in 2009. It was 237.4 in 2015.
- ❑ The “Percentage of Total Fall Credit Hours Taught by Full-Time Faculty” seeks to explore the distribution of total effort between full-time and part-time faculty. The percent ranged from 80.9 in 2004 to 77.1 in 1994. It was 77.4 percent in 2015. This ratio has changed little in the last 20+ years, indicating that JMU continues to value the interaction of students with full-time faculty.
- ❑ The “Percent of Lower Division Student Course Enrollments Taught by Full-Time Faculty” figures are calculated by section. Lower Division courses are courses at the 100- and 200-levels. Individualized instruction is not included. A section is defined as an organized course offered for credit and not a subsection such as a laboratory or discussion session. Sections also include mass sections. For example, a Biology 130 lecture is typically taught by one faculty member, but is listed in the schedule of classes as four sections to facilitate assigning students to labs. The section analysis combines the lab sections, counting them as one-lecture section. So, the same Biology 130 course has four subsections. The percentage of sections taught by full-time faculty ranged from 76.4 in 1998 to 63.0 in 2010. In 2015 the percentage was 68.7.

There have been some changes in how faculty resources have been employed since 1991. The student-to-faculty ratio is not an indicator of class size, but is a measure of the “typical” number of students he/she will work with in an instructional activity. The ratio has declined by 2.6 percentage points since 1991, a major accomplishment by the senior administration in securing and allocating additional funding to employ instructional faculty at an institution of JMU’s size and breadth of programs, especially during a time of significant budget problems. While full-time faculty teach the vast majority of credit hours, full-time faculty are less likely than in 1996 to teach lower division (100- and 200-level) sections.

*Table 19*

*Measures of Faculty Resources and Use: Fall 1991 to Fall 2015*

Fall	Student-to-Faculty Ratio	Total Student Credit Hours per Full-Time Equivalent Faculty	Percentage of Total Fall Credit Hours Taught by Full-Time Faculty	Percentage of Freshman and Sophomore Student Courses Taught by Full-Time Faculty	Regular Session (Fall + Spring) FTE Students
1991	18.9 : 1	281.2	78.5%	NA	10,620
1992	18.3 : 1	271.6	79.5%	NA	10,720
1993	18.2 : 1	270.2	77.7%	NA	10,711
1994	18.3 : 1	271.5	77.1%	NA	10,869
1995	18.8 : 1	279.0	79.6%	NA	11,087
1996	19.1 : 1	283.7	79.5%	75.9%	12,119
1997	19.2 : 1	284.8	78.2%	74.3%	12,877
1998	18.8 : 1	279.8	79.6%	76.4%	13,539
1999	18.3 : 1	272.0	79.8%	75.7%	13,697
2000	17.5 : 1	260.3	78.6%	73.7%	13,823
2001	17.5 : 1	263.3	80.1%	75.8%	14,094
2002	17.4 : 1	257.7	80.7%	71.0%	14,496
2003	17.3 : 1	258.3	79.9%	73.0%	14,732
2004	16.8 : 1	250.6	80.9%	64.3%	14,857
2005	16.6 : 1	247.1	80.0%	71.1%	15,462
2006	16.2 : 1	240.8	80.2%	70.7%	15,869
2007	16.4 : 1	242.7	79.8%	70.3%	16,115
2008	16.0 : 1	237.1	79.4%	68.7%	16,794
2009	16.0 : 1	236.4	78.3%	66.1%	17,077
2010	16.1 : 1	238.2	77.9%	63.0%	17,209
2011	16.1 : 1	238.3	77.9%	64.3%	17,481
2012	16.1 : 1	238.0	77.6%	64.1%	17,727
2013	16.0 : 1	237.4	77.4%	65.0%	17,823
2014	16.1 : 1	238.0	78.3%	67.0%	18,289
2015	16.2 : 1	239.7	79.1%	68.7%	18,596
Change	(2.7 : 1)	(41.50)	1.60%	-7.20%	7,976

## Trends

This study of instructional faculty was designed to explore the ways the JMU faculty have changed since 1986 and provide useful information to the university community.

There are several important trends developing nationally that reflect changes seen at JMU over the years. Below are a few of the most significant.

- There has been a national trend of declining proportion of faculty with tenure status. According to the National Center for Education Statistics, in 2011-12, 55.6 percent of faculty in public Master's level institutions, like JMU, had tenure. In 1993-94 the percentage was 61<sup>19</sup>. At JMU the percentage of tenured faculty was 69 percent in 1993-94. JMU's faculty tenure rate declined from a high of 72 percent in 1991-92 to 45 percent in 2005-06. It increased to 57 percent in 2015-16.
- Another important national trend is the increasing proportion of full-time faculty who are female. Since 1991-92 JMU's proportion of full-time faculty who are female increased from 38 percent to 47 percent. The proportion of faculty who are female is likely to increase because the number of women enrolled in higher education is higher than men.
- Salary and compensation trends have been quite variable in the last two decades. The annual percentage salary increases for JMU have been significantly more variable than the national peers. The Division of Academic Affairs adopted a new peer group of public institutions considered "like" JMU on many dimensions, including Mission, size, staffing and graduation rate. In 2014-15 JMU ranked 10<sup>th</sup> highest in average faculty salary out of 14 institutions. It is uncertain the direction faculty salaries will take in the next several years, but Virginia continues to have revenue issues that will affect employee compensation. For example, in 2016 the General Assembly allocated funds for a three percent faculty salary increase in 2016-17, but this did not occur due to reduced tax revenues in the Commonwealth.

OIR will continue to update this report at least biennially to provide an ongoing summary of changes in JMU's faculty. Questions about this study can be directed to the JMU Office of Institutional Research at (540) 568-7208 or [ask-oir@jmu.edu](mailto:ask-oir@jmu.edu). OIR occasionally receives requests to provide faculty resource use data by college and department. Questions about the relative distribution of resources and their use by department should be directed to the Office of the Provost and Senior Vice President for Academic Affairs.

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<sup>19</sup> Digest of Education Statistics, Table 305, 2012.