# Johns Hopkins University Bloomberg School of Public Health 

# Report on Johns Hopkins University School of Medicine Faculty Salary Analysis, Fiscal Year 2006 

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## Executive Summary

## Overview

The results in this report are part of the on-going efforts at the School of Medicine to achieve faculty salary equity, and constitute the third year in which salary differences have been analyzed. In terms of Full-Time Equivalent (FTE) salary, women earned 3\% less than men in FY 2006. This difference represents approximately $0.5 \%$ increase from the FY 2005 analyses. Of the 11 departmental groupings analyzed, five have smaller differences in salary between female and male faculty than the overall differences.

## Methods

Statistics were gathered for 1483 faculty on gender and rank distributions school-wide and within departments, and mean years in rank by degree and gender were tabulated. FTE and Total Salary (including bonuses) were tabulated by degree, rank and gender. These results are shown in Tables 1-7.

There were 9 large department ${ }^{1}$ analyzed. In addition, Basic Science ${ }^{2}$ consisted of Art as Applied to Medicine, Biological Chemistry, Biomedical Engineering, Biophysics, Cell Biology, Comparative Medicine, Functional Anatomy, History of Medicine, Molecular \& Comparative Pathobiology, Molecular Biology and Genetics, Neuroscience, Pharmacology, and Physiology. Surgery, Otolaryngology (including Dentistry and Oral Surgery), Orthopedic surgery, Neurosurgery and Urology were combined to form the Surgery group. Dermatology, Emergency Medicine, Genetic Medicine, OB/GYN, and Physical Medicine/Rehabilitation were collected into an "Other" category because they had fewer than 20 male or female faculty.

This year's analysis of salary differences between genders used the same models that were developed in the FY 2004 and 2005 analyses (see Appendix: Model Specifications). We calculated the percent difference for women relative to men (with negative differences indicating that women earned less) for the School of Medicine overall, as well as within ranks, within degrees (MD and non-MD ${ }^{3}$ ), within rank by years-in-rank ${ }^{4}$, and within departments. Our models adjusted for department, department-specific rank, degree, and years in rank. Modeling the log salary allowed us to calculate the percentage difference between genders, and also protects against a few large salaries having high influence on the regression results.

## Results

The distribution of gender school-wide is about $70 \%$ men and $30 \%$ women. Pediatrics and OB/GYN have a faculty consisting of more than $50 \%$ women. Women in Genetic Medicine and Psychiatry comprise $45 \%$ to $50 \%$ of those faculties. Of the larger departments with 75 or more faculty, Basic Science, Neurology, Medicine, Ophthalmology, Pathology, Radiology, Oncology and Anesthesiology have faculties consisting of 20-40\% women faculty. The Surgery group has the smallest female to male ratio, with $12 \%$ of the faculty who are women.

Women earned on average 3\% less than men (FTE salary) school-wide in FY 2006. This is an increase in the salary difference of about $0.5 \%$ from FY 2005. Six departments, Basic Science,

[^0]Pediatrics, Psychiatry, Surgery, and Radiology as well as the departments collected under the "Other" category had differences that were less than the overall average. The Surgery group (excluding Neurosurgery) had average salary differences that were positive and favored women. There were five departments in which the salary differences changed from FY 2005 towards smaller salary differences between female and male faculty (Ophthalmology, Pediatrics, Psychiatry, Surgery, Radiology, and Other).

When Total Salary is considered (FTE salary plus bonuses) women earned $8 \%$ less than men. Basic Science, Ophthalmology, Pediatrics and Radiology changed towards lower salary differences in FY 2006 in total salary relative to FY 2005. In Basic Sciences there was about 1\% greater average salary for women compared to men.

Figure 1 Percent Difference FTE Salary, FY '04, '05 and '06


Note: This plot is meant to be viewed in landscape orientation.

Figure 2 Percent Difference TOTAL ${ }^{5}$ Salary, FY '04, '05 and '06


Note: This plot is meant to be viewed in landscape orientation.

[^1]Tables of Descriptive Statistics
Table 1: Department by Gender

|  | Counts (\%) |  |  |
| :--- | :---: | :---: | :---: |
| Department | Male | Female | Total |
| Basic Science | $74(74)$ | $26(26)$ | 100 |
| OB/GYN* | $14(33)$ | $28(67)$ | 42 |
| Neurology | $54(73)$ | $20(27)$ | 74 |
| Medicine | $233(67)$ | $116(33)$ | 349 |
| Ophthalmology | $49(67)$ | $24(33)$ | 73 |
| Pathology | $62(69)$ | $28(31)$ | 90 |
| Pediatrics | $50(49)$ | $53(51)$ | 103 |
| Psychiatry | $61(55)$ | $49(45)$ | 110 |
| Surgery | $156(88)$ | $22(12)$ | 178 |
| Radiology | $64(76)$ | $20(24)$ | 84 |
| Oncology | $79(72)$ | $30(28)$ | 109 |
| Anesthesiology | $66(73)$ | $25(27)$ | 91 |
| Art Applied to Medicine | $2(67)$ | $1(33)$ | 3 |
| History of Medicine | $3(60)$ | $2(40)$ | 5 |
| Dermatology | $12(67)$ | $6(33)$ | 18 |
| Physical Medicine/Rehab | $8(67)$ | $4(33)$ | 12 |
| Emergency Medicine | $19(83)$ | $4(17)$ | 23 |
| Genetic Medicine | $11(55)$ | $9(45)$ | 20 |
| Total | $1017(69)$ | $467(31)$ | 1484 |
|  |  |  |  |

Table 2: Department by Rank

|  | Counts (\%) |  |  |  |
| :--- | :---: | :--- | :--- | :--- |
| Department | Prof | Assoc <br> Prof | Assist <br> Prof | Total |
| Basic Science | $57(57)$ | $22(22)$ | $21(21)$ | 100 |
| OB/GYN | $6(14)$ | $9(21)$ | $27(64)$ | 42 |
| Neurology | $19(26)$ | $22(30)$ | $33(45)$ | 74 |
| Medicine | $87(25)$ | $94(27)$ | $168(48)$ | 349 |
| Ophthalmology | $25(34)$ | $10(14)$ | $38(52)$ | 73 |
| Pathology | $29(32)$ | $31(34)$ | $30(33)$ | 90 |
| Pediatrics | $26(25)$ | $29(28)$ | $48(47)$ | 103 |
| Psychiatry | $20(18)$ | $29(26)$ | $61(55)$ | 110 |
| Surgery | $42(24)$ | $45(25)$ | $91(51)$ | 178 |
| Radiology | $19(23)$ | $28(33)$ | $37(44)$ | 84 |
| Oncology | $36(33)$ | $27(25)$ | $46(42)$ | 109 |
| Anesthesiology | $8(9)$ | $22(24)$ | $61(67)$ | 91 |
| Art Applied to Medicine | $0(0)$ | $1(33)$ | $2(67)$ | 3 |
| History of Medicine | $2(40)$ | $2(40)$ | $1(20)$ | 5 |
| Dermatology | $4(22)$ | $6(33)$ | $8(44)$ | 18 |
| Physical Medicine/Rehab | $1(8)$ | $4(33)$ | $7(58)$ | 12 |
| Emergency Medicine | $1(4)$ | $4(17)$ | $18(78)$ | 23 |
| Genetic Medicine | $4(20)$ | $5(25)$ | $11(55)$ | 20 |
| Total | $386(26)$ | $390(26)$ | $708(48)$ | 1484 |
|  |  |  |  |  |

Table 3: Gender by Rank

|  | Counts (\%) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Gender | Prof | Assoc <br> Prof | Assist <br> Prof | Total |
| Male | $311(31)$ | $282(28)$ | $424(42)$ | 1017 |
| Female | $75(16)$ | $108(23)$ | $284(61)$ | 467 |
| Total | $386(26)$ | $390(26)$ | $708(48)$ | 1484 |

Table 4: Years in Rank, Degree by Rank by Gender

|  |  | Mean (sd) [Range] |  |
| :--- | :--- | :--- | :--- |
| Degree | Rank | Male | Female |
| Non-MD | Prof | 8.8 (6.9) $[0.1,31.0]$ | $6.4(5.4)[1.2,21.3]$ |
|  | Assoc Prof | $6.0(5.3)[0.3,23.7]$ | $5.9(4.4)[0.7,20.6]$ |
|  | Assist Prof | $3.5(2.9)[0.4,21.8]$ | $4.3(3.2)[0.1,14.1]$ |
| MD | Prof | $9.3(7.4)[0.1,37.0]$ | $5.8(5.3)[0.1,27.5]$ |
|  | Assoc Prof | $6.3(5.9)[0.1,32.0]$ | $5.3(4.9)[0.2,30.0]$ |
|  | Assist Prof | $4.6(4.0)[0.1,29.0]$ | $5.0(3.8)[0.2,26.5]$ |

Table 5: FTE Salary (\$1000s), Degree by Rank by Gender

|  |  | Mean (sd) [Range], in \$1000s |  |
| :--- | :--- | :--- | :--- |
| Degree | Rank | Male | Female |
| Non-MD | Prof | 151.5 (34.7) [96.9, 309.0] | 140.9 (19.7) [83.0, 173.1] |
|  | Assoc Prof | 107.2 (21.3) [68.6, 211.2] | 100.5 (19.4) [78.6, 180.2] |
|  | Assist Prof | 83.4 (25.4) [51.5, 238.9] | 74.6 (9.8) [44.1, 99.3] |
| MD | Prof | 206.2 (43.3) [66.2, 350.0] | 182.2 (34.1) [74.4, 253.4] |
|  | Assoc Prof | 177.3 (42.7) [73.7, 291.3] | 158.2 (35.8) [98.0, 277.2] |
|  | Assist Prof | 143.4 (45.0) [48.7, 250.0] | 133.4 (36.9) [61.8, 250.0] |

Table 6: TOTAL Salary (\$1000s), Degree by Rank by Gender

|  |  | Mean (sd) [Range], in \$1000s |  |
| :--- | :--- | :---: | :---: |
| Degree | Rank | Male | Female |
| Non-MD | Prof | 151.9 (36.8) [96.9, 306.8] | 140.5 (23.7) [83.0, 188.1] |
|  | Assoc Prof | 109.3 (27.0) [52.5, 241.2] | 98.0 (24.9) [23.6, 180.3] |
|  | Assist Prof | 84.0 (28.3) [29.2, 266.8] | 73.3 (13.2) [35.9, 113.3] |
| MD | Prof | 229.4 (95.6) [60.0, 800.0] | $185.2(45.4)$ [82.4, 275.0] |
|  | Assoc Prof | 201.9 (82.5) [29.7, 585.0] | $167.0(48.6)[96.0,353.2]$ |
|  | Assist Prof | 160.5 (78.7) [11.0, 757.9] | $137.6(54.0)[30.0,347.8]$ |

Table 7: Faculty Receiving Bonuses (FY 2006) by Rank

|  | Count (\% within Group) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Group | Prof | Assoc Prof | Assist Prof | Total |
| Female | $34(16)$ | $55(26)$ | $123(58)$ | 212 |
| Male | $162(29)$ | $168(30)$ | $226(41)$ | 556 |
| All | $196(26)$ | $223(29)$ | $349(45)$ | 768 |

## Tables of Analysis Results

Table 8: Overall Percent Differences in FTE Salary (FY 2006).*

|  | \% Difference (95\% CI) <br> Negative = Women Earn Less Than Men |  |
| :--- | :---: | :---: |
|  | FTE Salary | FTE Salary** |
| Overall | $-3.2(-5.6,-0.8)$ | $-2.5(-4.8,-0.2)$ |
| Professor | $-3.2(-8.5,2.2)$ | $-2.7(-7.8,2.5)$ |
| Associate Professor | $-4.2(-8.9,0.5)$ | $-3.2(-7.8,1.4)$ |
| Assistant Professor | $-3.0(-6.2,0.2)$ | $-2.4(-5.4,0.7)$ |
| MD degree | $-2.3(-5.1,0.6)$ | $-1.6(-4.4,1.3)$ |
| Non-MD degree | $-1.9(-6.4,2.6)$ | $-0.6(-5.0,3.7)$ |
| Professor (New) | $-4.2(-13.1,4.7)$ | $-2.9(-11.6,5.8)$ |
| Professor (Mid) | $1.1(-7.2,9.4)$ | $2.0(-6.0,10.0)$ |
| Professor (Long) | $-15.7(-28.6,-2.9)$ | $-18.6(-31.3,-5.9)$ |
| Assoc Prof (New) | $-4.3(-12.1,3.4)$ | $-4.3(-12.0,3.4)$ |
| Assoc Prof (Mid) | $-1.8(-10.3,6.7)$ | $-0.9(-9.1,7.2)$ |
| Assoc Prof (Long) | $-6.5(-15.1,2.1)$ | $-4.4(-12.9,4.1)$ |
| Assist Prof (New) | $-8.0(-14.0,-2.0)$ | $-4.8(-10.7,1.1)$ |
| Assist Prof (Mid) | $3.1(-2.2,8.3)$ | $2.0(-3.2,7.1)$ |
| Assist Prof (Long) | $-5.9(-11.6,-0.3)$ | $-5.5(-11.0,0.1)$ |

* From regression of log salary allowing for an overall gender difference, a rank-specific gender difference, a degree-specific gender difference, a years-in-rank and rank-specific gender difference. Models adjust for department, department-specific rank, degree, and years in rank (as a smooth function with 2 degrees of freedom).
**Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

Table 9: Overall Percent Differences in TOTAL Salary (FY 2006).*

|  | \% Difference (95\% CI) <br>  <br>   <br>  Tegative = Women Earn Less Than Men Salary |  |
| :--- | :---: | :---: |
| TOTAL Salary** |  |  |
| Overall | $-8.0(-11.7,-4.3)$ | $-7.5(-11.2,-3.8)$ |
| Professor | $-6.9(-15.2,1.3)$ | $-6.0(-14.2,2.1)$ |
| Associate Professor | $-8.9(-16.2,-1.7)$ | $-8.6(-15.9,-1.4)$ |
| Assistant Professor | $-7.9(-12.8,-3.0)$ | $-7.4(-12.3,-2.5)$ |
| MD degree | $-8.1(-12.5,-3.6)$ | $-7.6(-12.0,-3.2)$ |
| Non-MD degree | $-3.4(-10.3,3.5)$ | $-2.4(-9.1,4.4)$ |
| Professor (New) | $-5.0(-18.8,8.9)$ | $-3.3(-17.0,10.3)$ |
| Professor (Mid) | $-4.8(-17.7,8.2)$ | $-3.1(-15.7,9.5)$ |
| Professor (Long) | $-21.1(-41.1,-1.0)$ | $-24.3(-44.5,-4.1)$ |
| Assoc Prof (New) | $-3.3(-15.3,8.7)$ | $-4.4(-16.6,7.8)$ |
| Assoc Prof (Mid) | $-7.2(-20.4,5.9)$ | $-5.6(-18.5,7.3)$ |
| Assoc Prof (Long) | $-14.5(-27.9,-1.1)$ | $-13.3(-26.7,0.1)$ |
| Assist Prof (New) | $-11.6(-20.8,-2.3)$ | $-6.7(-16.0,2.7)$ |
| Assist Prof (Mid) | $-2.6(-10.7,5.6)$ | $-4.5(-12.5,3.6)$ |
| Assist Prof (Long) | $-10.3(-19.0,-1.6)$ | $-10.7(-19.4,-1.9)$ |

[^2]Table 10: Departmental Percent Differences in FTE Salary and in TOTAL Salary (FY 2006).*

|  | \% Difference (95\% CI) <br>  <br> Negative = Women Earn Less Than Men |  |
| :--- | :---: | :---: |
| Department | FTE Salary | TOTAL Salary |
| Overall | $-3.2(-5.6,-0.8)$ | $-8.0(-11.7,-4.3)$ |
| Overall** | $-2.5(-4.8,-0.2)$ | $-7.5(-11.2,-3.8)$ |
| Basic Science | $-0.8(-9.9,8.2)$ | $1.1(-13.2,15.3)$ |
| Neurology | $-5.4(-16.1,5.3)$ | $-6.1(-23.0,10.7)$ |
| Medicine | $-4.5(-9.3,0.2)$ | $-9.2(-16.6,-1.8)$ |
| Medicine** | $-1.5(-6.6,3.5)$ | $-6.7(-14.8,1.5)$ |
| Ophthalmology | $-6.0(-16.4,4.5)$ | $-6.3(-22.8,10.2)$ |
| Pathology | $-5.3(-14.8,4.1)$ | $-10.1(-25.0,4.8)$ |
| Pediatrics+ | $-0.8(-9.9,8.4)$ | $-4.1(-18.6,10.3)$ |
| Psychiatry | $-0.2(-8.3,8.0)$ | $-6.1(-18.8,6.7)$ |
| Surgery | $0.9(-8.4,10.3)$ | $-13.4(-28.1,1.3)$ |
| Surgery** | $-0.2(-9.4,9.1)$ | $-16.9(-31.8,-2.1)$ |
| Radiology | $-0.5(-11.0,10.0)$ | $-9.1(-25.7,7.5)$ |
| Oncology | $-5.7(-14.6,3.2)$ | $-9.3(-23.3,4.7)$ |
| Anesthesiology | $-5.4(-15.5,4.6)$ | $-8.8(-24.6,7.1)$ |
| Other | $-2.7(-10.4,5.0)$ | $-10.4(-22.6,1.7)$ |

* From regression of log salary adjusting for department-specific rank, degree, and years in rank (as a smooth function with 2 degrees of freedom).
**Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.
+Estimated gender difference also includes adjustment for rank-specific effect of the percentile from AAAP survey of Pediatric salaries.

Table 11: Departmental Actual Differences (\$1000s) in FTE Salary and in TOTAL Salary (FY 2006).*

|  | \$1000s Difference (95\% CI) <br> Negative = Women Earn Less Than Men |  |
| :--- | :---: | :---: |
| Department | FTE Salary | TOTAL Salary |
| Overall | $-6.1(-9.1,-3.1)$ | $-16.3(-21.8,-10.7)$ |
| Overall** | $-5.0(-8.0,-2.1)$ | $-15.6(-21.2,-10.0)$ |
| Basic Science | $-0.9(-10.8,8.9)$ | $0.4(-9.8,10.6)$ |
| Neurology | $-7.7(-19.1,3.8)$ | $-8.9(-23.0,5.1)$ |
| Medicine | $-8.2(-13.7,-2.7)$ | $-13.2(-20.7,-5.6)$ |
| Medicine** | $-3.3(-8.3,1.6)$ | $-7.5(-14.8,-0.2)$ |
| Ophthalmology | $-12.8(-26.9,1.4)$ | $-21.5(-55.1,12.1)$ |
| Pathology | $-6.5(-16.5,3.5)$ | $-16.0(-31.4,-0.5)$ |
| Pediatrics+ | $-1.7(-8.7,5.3)$ | $-4.8(-15.5,5.9)$ |
| Psychiatry | $-2.1(-8.0,3.8)$ | $-8.3(-15.3,-1.2)$ |
| Surgery | $-2.7(-14.5,9.2)$ | $-39.9(-70.5,-9.4)$ |
| Surgery** | $-5.3(-16.7,6.1)$ | $-50.3(-77.4,-23.3)$ |
| Radiology | $-7.2(-19.0,4.6)$ | $-36.5(-63.2,-9.9)$ |
| Oncology | $-6.5(-20.8,7.8)$ | $-11.6(-33.1,10.0)$ |
| Anesthesiology | $-10.0(-25.6,5.7)$ | $-27.2(-54.3,-0.1)$ |
| Other | $-5.2(-18.3,8.0)$ | $-22.7(-53.6,8.1)$ |

* From regression of actual salary adjusting for department-specific rank, degree, and years in rank (as a smooth function with 2 degrees of freedom) with robust variance estimates.
**Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.
+Estimated gender difference also includes adjustment for rank-specific effect of the percentile from AAAP survey of Pediatric salaries.

Table 12: Percent Differences FTE Salary for FY 2004, 2005, and 2006.

|  | \% Difference (95\% CI) <br> Negative = Women Earn Less Than Men |  |  |
| :--- | :---: | :---: | :---: |
| Department | 2004 |  | $\mathbf{2 0 0 5}$ |
| 2006 <br> from Table 10 |  |  |  |
| Overall | $-3.6(-6.2,-1.0)$ | $-2.6(-5.0,-0.2)$ | $-3.2(-5.6,-0.8)$ |
| Basic Science | $-2.5(-12.3,7.3)$ | $0.3(-9.7,10.3)$ | $-0.8(-9.9,8.2)$ |
| Neurology | $-2.6(-14.0,8.8)$ | $-4.6(-15.8,6.6)$ | $-5.4(-16.1,5.3)$ |
| Medicine | $-3.3(-8.5,1.9)$ | $-3.5(-8.5,1.5)$ | $-4.5(-9.3,0.2)$ |
| Medicine** | $-1.6(-7.4,4.2)$ | $-1.1(-6.7,4.5)$ | $-1.5(-6.6,3.5)$ |
| Ophthalmology | $-7.1(-17.3,3.1)$ | $-8.9(-19.1,1.3)$ | $-6.0(-16.4,4.5)$ |
| Pathology | $-1.3(-11.5,8.9)$ | $0.4(-9.6,10.4)$ | $-5.3(-14.8,4.1)$ |
| Pediatrics+ | - | $-1.3(-10.5,7.9)$ | $-0.8(-9.9,8.4)$ |
| Psychiatry | $0.4(-8.0,8.8)$ | $-1.0(-9.4,7.4)$ | $-0.2(-8.3,8.0)$ |
| Surgery | $0.7(-9.1,10.5)$ | $-0.3(-9.3,8.7)$ | $0.9(-8.4,10.3)$ |
| Radiology | $-2.4(-13.2,8.4)$ | $-3.9(-14.9,7.1)$ | $-0.5(-11.0,10.0)$ |
| Oncology | $-3.0(-12.6,6.6)$ | $-4.9(-14.3,4.5)$ | $-5.7(-14.6,3.2)$ |
| Anesthesiology | $-9.8(-21.0,1.4)$ | $-3.3(-14.1,7.5)$ | $-5.4(-15.5,4.6)$ |
| Other | $-6.9(-14.5,0.7)$ | $-1.0(-9.0,7.0)$ | $-2.7(-10.4,5.0)$ |

**Estimated gender differences after removing the Cardiology and GI specialties from Medicine.
+Estimated gender difference also includes adjustment for rank-specific effect of the percentile from AAAP survey of Pediatric salaries. FY 2004 results did not include this adjustment and is not presented.

Table 13: Percent Differences TOTAL Salary for FY 2004, 2005, and 2006.

|  | \% Difference (95\% CI) <br> Negative = Women Earn Less Than Men |  |  |
| :--- | :---: | :---: | :---: |
| Department | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 2006 <br> from Table 10 |
| Overall | $-6.1(-9.1,-3.1)$ | $-5.7(-9.1,-2.3)$ | $-8.0(-11.7,-4.3)$ |
| Basic Science | $-3.5(-15.5,8.5)$ | $-1.7(-16.1,12.7)$ | $1.1(-13.2,15.3)$ |
| Neurology | $-5.1(-18.9,8.7)$ | $-2.1(-18.1,13.9)$ | $-6.1(-23.0,10.7)$ |
| Medicine | $-5.0(-11.4,1.4)$ | $-5.5(-12.7,1.7)$ | $-9.2(-16.6,-1.8)$ |
| Medicine** | $-2.8(-10.0,4.4)$ | $-2.7(-10.7,5.3)$ | $-6.7(-14.8,1.5)$ |
| Ophthalmology | $-6.9(-19.3,5.5)$ | $-8.2(-22.8,6.4)$ | $-6.3(-22.8,10.2)$ |
| Pathology | $-5.2(-17.6,7.2)$ | $-3.6(-17.8,10.6)$ | $-10.1(-25.0,4.8)$ |
| Pediatrics+ | - | $-4.3(-17.3,8.7)$ | $-4.1(-18.6,10.3)$ |
| Psychiatry | $0.9(-10.3,12.1)$ | $-4.9(-16.7,6.9)$ | $-6.1(-18.8,6.7)$ |
| Surgery | $-7.3(-19.1,4.5)$ | $-12.4(-25.2,0.4)$ | $-13.4(-28.1,1.3)$ |
| Radiology | $-10.4(-23.6,2.8)$ | $-14.3(-29.9,1.3)$ | $-9.1(-25.7,7.5)$ |
| Oncology | $-2.8(-14.6,9.0)$ | $-1.8(-15.2,11.6)$ | $-9.3(-23.3,4.7)$ |
| Anesthesiology | $-14.0(-27.6,-0.4)$ | $-4.7(-20.1,10.7)$ | $-8.8(-24.6,7.1)$ |
| Other | $-12.5(-21.9,-3.1)$ | $-4.1(-15.5,7.3)$ | $-10.4(-22.6,1.7)$ |

**Estimated gender differences after removing the Cardiology and GI specialties from Medicine.
+Estimated gender difference also includes adjustment for rank-specific effect of the percentile from AAAP survey of Pediatric salaries. FY 2004 results did not include this adjustment and is not presented.

## Appendix

## Model Specifications

For Tables 8, 9, 10, 12 and 13 log salary was modeled. For Table 11 and appendix Table E and F, actual salary was modeled with robust variance estimates.

The models for Table 8 and 9, and appendix Table E and F estimated:

- an overall gender difference with adjustments for department group and department groupspecific rank, degree and year-in-rank,
- rank specific gender differences with adjustments for department group and department groupspecific degree and year-in-rank,
- degree specific gender differences with adjustments for department group and department group-specific rank and year-in-rank
- year-in-rank by rank specific gender differences with adjustments for department group and department group-specific degree effects.
The models for Table 10, 11, 12 and 13 estimated a separate gender difference for each department group adjusting for department group-specific rank, degree and years in rank.


## Appendix Table A: Department by Degree

|  | Counts (\%) |  |  |
| :--- | :---: | :---: | :---: |
| Department | Non-MD | MD | Total |
| Basic Science | $89(89)$ | $11(11)$ | 100 |
| OB/GYN | $7(17)$ | $35(83)$ | 42 |
| Neurology | $15(20)$ | $59(80)$ | 74 |
| Medicine | $54(15)$ | $295(85)$ | 349 |
| Ophthalmology | $22(30)$ | $51(70)$ | 73 |
| Pathology | $22(24)$ | $68(76)$ | 90 |
| Pediatrics | $11(11)$ | $92(89)$ | 103 |
| Psychiatry | $46(42)$ | $64(58)$ | 110 |
| Surgery | $33(19)$ | $145(81)$ | 178 |
| Radiology | $29(35)$ | $55(65)$ | 84 |
| Oncology | $29(27)$ | $80(73)$ | 109 |
| Anesthesiology | $6(7)$ | $85(93)$ | 91 |
| Art Applied to Medicine | $3(100)$ | $0(0)$ | 3 |
| History of Medicine | $5(100)$ | $0(0)$ | 5 |
| Dermatology | $5(28)$ | $13(72)$ | 18 |
| Physical Medicine/Rehab | $6(50)$ | $6(50)$ | 12 |
| Emergency Medicine | $3(13)$ | $20(87)$ | 23 |
| Genetic Medicine | $8(40)$ | $12(60)$ | 20 |
| Total | $393(26)$ | $1091(74)$ | 1484 |
|  |  |  |  |

## Appendix Table B: Degree by Rank

|  | Counts (\%) |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Degree | Prof | Assoc <br> Prof | Assist <br> Prof | Total |
| Non-MD | $116(30)$ | $108(27)$ | $169(43)$ | 393 |
| MD | $270(25)$ | $282(26)$ | $539(49)$ | 1091 |
| Total | $386(26)$ | $390(26)$ | $708(48)$ | 1484 |

Appendix Table C: Faculty Receiving Bonuses (FY2006) by Department by Rank and Gender within Rank

|  | Count |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Department | $\underset{\text { Prof }}{\text { All }}$ | Female Prof |  | Female <br> Assoc <br> Prof |  | Female Assist Prof |
| Basic Science | 5 | 1 | 2 | 0 | 0 | 0 |
| OB/GYN | 4 | 2 | 4 | 2 | 9 | 7 |
| Neurology | 11 | 4 | 12 | 4 | 20 | 5 |
| Medicine | 55 | 10 | 55 | 10 | 72 | 34 |
| Ophthalmology | 16 | 2 | 7 | 3 | 17 | 6 |
| Pathology | 28 | 3 | 30 | 12 | 28 | 11 |
| Pediatrics | 6 | 4 | 7 | 4 | 11 | 6 |
| Psychiatry | 3 | 1 | 3 | 0 | 14 | 6 |
| Surgery | 32 | 1 | 36 | 4 | 55 | 11 |
| Radiology | 18 | 3 | 24 | 7 | 27 | 10 |
| Oncology | 7 | 3 | 12 | 3 | 15 | 2 |
| Anesthesiology | 7 | 0 | 21 | 4 | 59 | 20 |
| Art Applied to Medicine | 0 | 0 | 0 | 0 | 1 | 0 |
| Dermatology | 1 | 0 | 2 | 0 | 3 | 2 |
| Physical Medicine/Rehab | 0 | 0 | 3 | 0 | 4 | 2 |
| Emergency Medicine | 1 | 0 | 4 | 1 | 13 | 1 |
| Genetic Medicine | 2 | 0 | 1 | 1 | 1 | 0 |
| Total | 196 | 34 | 223 | 55 | 349 | 123 |

Appendix Table D: Value of Bonuses (\$1000s), Degree by Rank by Gender

|  |  | Mean (sd) [Range] in \$1000s |  |
| :--- | :--- | :---: | :---: |
| Degree | Rank | Male | Female |
| Non-MD | Prof | $3.3(6.4)[0.0,25.0]$ | $2.4(6.0)[0.0,20.0]$ |
|  | Assoc Prof | $3.9(10.5)[0.0,66.1]$ | $1.5(2.9)[0.0,10.0]$ |
|  | Assist Prof | $1.2(3.4)[0.0,27.9]$ | $0.8(3.2)[0.0,24.8]$ |
| MD | Prof | $26.5(65.4)[0.0,450.0]$ | $9.3(14.9)[0.0,67.7]$ |
|  | Assoc Prof | $29.2(49.8)[0.0,350.0]$ | $12.1(18.0)[0.0,76.0]$ |
|  | Assist Prof | $21.3(42.5)[0.0,507.2]$ | $10.7(20.8)[0.0,127.0]$ |

## Appendix Table E: Overall Actual Differences in FTE Salary (FY 2006).*

|  | \$1000s Difference (95\% CI) <br> Negative = Women Earn Less Than Men |  |
| :--- | :---: | :---: |
|  | FTE Salary | FTE Salary** |
| Overall | $-6.1(-9.1,-3.1)$ | $-5.0(-8.0,-2.1)$ |
| Professor | $-12.3(-19.3,-5.2)$ | $-11.1(-18.2,-4.0)$ |
| Associate Professor | $-7.7(-13.5,-1.8)$ | $-5.7(-11.5,-0.0)$ |
| Assistant Professor | $-4.0(-8.0,0.0)$ | $-3.2(-7.1,0.7)$ |
| MD degree | $-6.8(-10.5,-3.0)$ | $-5.6(-9.4,-1.9)$ |
| Non-MD degree | $1.4(-4.0,6.7)$ | $2.7(-2.7,8.1)$ |
| Professor (New) | $-11.5(-22.6,-0.3)$ | $-9.7(-20.9,1.5)$ |
| Professor (Mid) | $-6.6(-14.9,1.7)$ | $-4.3(-12.8,4.1)$ |
| Professor (Long) | $-31.6(-58.8,-4.4)$ | $-36.6(-63.8,-9.4)$ |
| Assoc Prof (New) | $-4.9(-16.2,6.4)$ | $-4.5(-15.7,6.7)$ |
| Assoc Prof (Mid) | $-5.6(-13.1,2.0)$ | $-4.1(-12.2,3.9)$ |
| Assoc Prof (Long) | $-12.2(-22.4,-2.0)$ | $-7.7(-18.0,2.6)$ |
| Assist Prof (New) | $-6.9(-13.7,-0.1)$ | $-3.1(-9.9,3.7)$ |
| Assist Prof (Mid) | $1.9(-4.6,8.4)$ | $1.1(-5.0,7.3)$ |
| Assist Prof (Long) | $-8.5(-16.0,-1.0)$ | $-8.0(-15.2,-0.7)$ |

* From regression of actual salary allowing for an overall gender difference, a rank-specific gender difference, a degree-specific gender difference, a years-in-rank and rank-specific gender difference with robust variance estimates. Models adjust for department, department-specific rank, degree, and years in rank (as a smooth function with 2 degrees of freedom).
**Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.


## Appendix Table F: Overall Actual Differences in TOTAL Salary (FY 2006).*

|  | \$1000s Difference (95\% CI) <br> Negative = Women Earn Less Than Men |  |
| :--- | :---: | :---: |
|  | TOTAL Salary | TOTAL Salary** |
| Overall | $-16.3(-21.8,-10.7)$ | $-15.6(-21.2,-10.0)$ |
| Professor | $-23.8(-36.5,-11.1)$ | $-21.2(-33.9,-8.5)$ |
| Associate Professor | $-20.5(-30.8,-10.2)$ | $-18.5(-28.9,-8.1)$ |
| Assistant Professor | $-12.0(-19.5,-4.4)$ | $-12.3(-19.9,-4.7)$ |
| MD degree | $-20.7(-27.9,-13.5)$ | $-20.1(-27.4,-12.8)$ |
| Non-MD degree | $4.1(-3.3,11.5)$ | $5.0(-2.5,12.4)$ |
| Professor (New) | $-14.2(-29.5,1.1)$ | $-11.9(-27.1,3.4)$ |
| Professor (Mid) | $-24.9(-44.9,-5.0)$ | $-19.6(-39.2,0.0)$ |
| Professor (Long) | $-47.8(-84.3,-11.3)$ | $-55.1(-91.0,-19.2)$ |
| Assoc Prof (New) | $-9.1(-27.3,9.1)$ | $-10.2(-29.0,8.6)$ |
| Assoc Prof (Mid) | $-21.9(-37.5,-6.4)$ | $-17.1(-31.7,-2.6)$ |
| Assoc Prof (Long) | $-24.7(-42.2,-7.2)$ | $-20.6(-38.6,-2.7)$ |
| Assist Prof (New) | $-8.3(-20.1,3.5)$ | $-3.4(-15.4,8.6)$ |
| Assist Prof (Mid) | $-8.5(-21.5,4.5)$ | $-11.4(-24.5,1.6)$ |
| Assist Prof (Long) | $-18.7(-30.9,-6.6)$ | $-19.6(-31.9,-7.2)$ |

* From regression of actual salary allowing for an overall gender difference, a rank-specific gender difference, a degree-specific gender difference, a years-in-rank and rank-specific gender difference with robust variance estimates. Models adjust for department, department-specific rank, degree, and years in rank (as a smooth function with 2 degrees of freedom).
**Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.


[^0]:    ${ }^{1}$ We calculated differences for Medicine and Surgery after excluding their higher earning specialties. For Pediatrics we also included an adjustment for the rank-specific effect of the percentile for AAAP survey of Pediatric Salaries
    ${ }^{2}$ For FY 2006, Art as Applied to Medicine and History of Medicine were moved to Basic Science.
    ${ }^{3}$ An MD is defined to be someone who has at least one of the following degrees: MD, DMD, MBBCh, MBBS, MBChB
    ${ }^{4}$ New: Professors ( $\leq 4$ ), Assoc. Prof. ( $\leq 3$ ), Assist. Prof. ( $\leq 2$ ); Mid: Professors (4-10), Assoc. Prof. (3-7), Assist. Prof. (2-5); Long: Professors (>10), Assoc. Prof. (>7), Assist. Prof. (>5)

[^1]:    ${ }^{5}$ includes bonuses

[^2]:    * From regression of log salary allowing for an overall gender difference, a rank-specific gender difference, a degree-specific gender difference, a years-in-rank and rank-specific gender difference. Models adjust for department, department-specific rank, degree, and years in rank (as a smooth function with 2 degrees of freedom).
    **Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

