Biostatistics Center<br>Johns Hopkins University<br>Bloomberg School of Public Health<br>Report on Johns Hopkins University<br>School of Medicine Faculty Salary Analysis, Fiscal Year 2008

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## 1 Overview

The results in this report are part of the on-going efforts at the School of Medicine to achieve gender equity in salary, and constitute the fifth year in which salary differences have been analyzed. In terms of Full-Time Equivalent (FTE) salary, women earned 3.5\% less than men in FY 2008.

## 2 Methods

Statistics were gathered for 1568 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 departments ${ }^{1}$ analysed. In addition, Basic Science consisted of Biological Chemistry, Biomedical Engineering, Biophysics, Cell Biology, Functional Anatomy, Molecular \& Comparative Pathobiology, Molecular Biology and Genetics, Neuroscience, Pharmacology, and Physiology. Surgery, Otolaryngology (including Dentistry and Oral Surgery), Orthopaedic surgery, Neurosurgery and Urology were combined to form the Surgery group. Art as Applied to Medicine, History of Medicine, Dermatology, Emergency Medicine, Genetic Medicine, OB/GYN, and Physical Medicine/Rehabilitation were collected into an "Other" category, and Radiation Oncology was included in Oncology because they had fewer than 20 male or female faculty.

[^0]This year's analysis of salary differences between genders used the same models that were developed in the FY 2004-2007 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 ${ }^{2}$ ), within rank by years-in-rank ${ }^{3}$, and within departments. Our models adjusted for the administrative data available: 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.

## 3 Results

The distribution of gender school-wide is about 1053 men and 515 women. Pediatrics and OB/GYN have a faculty consisting of more than $52 \%$ women. Women in Genetic Medicine and Psychiatry comprise $41 \%$ to $48 \%$ 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 $24 \%-34 \%$ women faculty. Surgery has the smallest female to male ratio, with $15 \%$ of the faculty who are women. After adjusment for the available administrative descriptors, women's FTE salaries on average were found to be $3.5 \%$ less than men's FTE salaries school-wide in FY 2008.

[^1]

Figure 1: \% Differences in FTE Salary 2004-2008 ( $\mathrm{n}=1568$ )


Figure 2: \% Differences in Total Salary 2004-2008 ( $\mathrm{n}=1568$ )

## 4 Tables of Descriptive Statistics

Table 1: Department By Gender, Counts (\%)

| Department | Male | Female | Total |
| ---: | :---: | :---: | ---: |
| Basic Science | $81(73)$ | $30(27)$ | 111 |
| OB/GYN | $13(28)$ | $33(72)$ | 46 |
| Neurology | $56(72)$ | $22(28)$ | 78 |
| Medicine | $256(66)$ | $129(34)$ | 385 |
| Opthalmology | $45(68)$ | $21(32)$ | 66 |
| Pathology | $57(66)$ | $30(34)$ | 87 |
| Pediatrics | $55(48)$ | $59(52)$ | 114 |
| Psychiatry | $58(52)$ | $53(48)$ | 111 |
| Surgery | $164(85)$ | $28(15)$ | 192 |
| Radiology | $68(76)$ | $21(24)$ | 89 |
| Oncology | $63(71)$ | $26(29)$ | 89 |
| Anesthesiology | $78(73)$ | $29(27)$ | 107 |
| Art Applied to Medicine | $3(60)$ | $2(40)$ | 5 |
| History of Medicine | $4(57)$ | $3(43)$ | 7 |
| Dermatology | $5(42)$ | $7(58)$ | 12 |
| Physical Medicine/Rehab | $7(54)$ | $6(46)$ | 13 |
| Emergency Medicine | $20(74)$ | $7(26)$ | 27 |
| Genetic Medicine | $10(59)$ | $7(41)$ | 17 |
| Radiation Oncology | $10(83)$ | $2(17)$ | 12 |
| Total | $1053(67)$ | $515(33)$ | 1568 |

Table 2: Department By Rank, Counts (\%)

| Department | Prof | Assoc Prof | Assist Prof | Total |
| ---: | :---: | :---: | :---: | ---: |
| Basic Science | $59(53)$ | $19(17)$ | $33(30)$ | 111 |
| OB/GYN | $8(17)$ | $9(20)$ | $29(63)$ | 46 |
| Neurology | $22(28)$ | $25(32)$ | $31(40)$ | 78 |
| Medicine | $96(25)$ | $106(28)$ | $183(48)$ | 385 |
| Opthalmology | $20(30)$ | $13(20)$ | $33(50)$ | 66 |
| Pathology | $33(38)$ | $31(36)$ | $23(26)$ | 87 |
| Pediatrics | $25(22)$ | $25(22)$ | $64(56)$ | 114 |
| Psychiatry | $21(19)$ | $31(28)$ | $59(53)$ | 111 |
| Surgery | $41(21)$ | $47(24)$ | $104(54)$ | 192 |
| Radiology | $25(28)$ | $26(29)$ | $38(43)$ | 89 |
| Oncology | $34(38)$ | $24(27)$ | $31(35)$ | 89 |
| Anesthesiology | $9(8)$ | $26(24)$ | $72(67)$ | 107 |
| Art Applied to Medicine | $0(0)$ | $3(60)$ | $2(40)$ | 5 |
| History of Medicine | $3(43)$ | $2(29)$ | $2(29)$ | 7 |
| Dermatology | $3(25)$ | $4(33)$ | $5(42)$ | 12 |
| Physical Medicine/Rehab | $1(8)$ | $3(23)$ | $9(69)$ | 13 |
| Emergency Medicine | $0(0)$ | $5(19)$ | $22(81)$ | 27 |
| Genetic Medicine | $5(29)$ | $7(41)$ | $5(29)$ | 17 |
| Radiation Oncology | $3(25)$ | $4(33)$ | $5(42)$ | 12 |
| Total | $408(26)$ | $410(26)$ | $750(48)$ | 1568 |

Table 3: Gender By Rank, Counts (Row \%) (Col \%)

| Gender | Prof | Assoc Prof | Assist Prof | Total |
| ---: | :---: | :---: | :---: | ---: |
| Male | $322(31)(79)$ | $293(28)(71)$ | $438(42)(58)$ | $1053(67)$ |
| Female | $86(17)(21)$ | $117(23)(29)$ | $312(61)(42)$ | $515(33)$ |
| Total | $408(26)$ | $410(26)$ | $750(48)$ | 1568 |

Table 4: Years in Rank, Degree by Rank by Gender, Mean (SD) [Range]

| Degree | Rank | Male | Female |
| ---: | ---: | :---: | :---: |
| Non-MD | Prof | $9.9(7.2)[0.4,33.0]$ | $7.4(6.0)[0.1,23.3]$ |
|  | Assoc Prof | $6.4(5.2)[0.1,25.7]$ | $6.8(5.2)[0.2,22.6]$ |
|  | Assist Prof | $3.8(3.3)[0.1,23.8]$ | $4.1(3.5)[0.1,16.1]$ |
| MD | Prof | $9.8(7.7)[0.1,39.0]$ | $5.8(5.3)[0.2,29.5]$ |
|  | Assoc Prof | $6.2(5.9)[0.1,34.0]$ | $5.3(5.5)[0.1,32.0]$ |
|  | Assist Prof | $5.0(4.4)[0.2,31.0]$ | $5.0(4.6)[0.1,32.0]$ |

Table 5: FTE Salary in $\$ 1000$ s, Degree by Rank by Gender, Mean (SD) [Range]

| Degree | Rank | Male | Female |
| ---: | ---: | :---: | :---: |
| Non-MD | Prof | $164.0(37.7)[86.0,323.9]$ | $147.3(23.9)[95.0,191.6]$ |
|  | Assoc Prof | $114.0(23.4)[74.2,222.9]$ | $108.8(43.1)[57.4,320.0]$ |
|  | Assist Prof | $88.2(27.7)[23.5,250.9]$ | $85.1(21.2)[56.0,227.6]$ |
| MD | Prof | $220.0(45.2)[52.9,354.8]$ | $193.3(38.6)[59.5,270.0]$ |
|  | Assoc Prof | $185.4(46.6)[78.0,315.0]$ | $168.3(43.2)[102.5,292.7]$ |
|  | Assist Prof | $156.1(48.6)[56.0,262.7]$ | $142.1(40.1)[64.7,310.0]$ |

Table 6: Total Salary in $\$ 1000$ s, Degree by Rank by Gender, Mean (SD) [Range]

| Degree | Rank | Male | Female |
| ---: | ---: | :---: | :---: |
| Non-MD | Prof | $167.9(39.0)[86.0,323.9]$ | $149.6(25.5)[95.0,197.5]$ |
|  | Assoc Prof | $116.7(25.4)[74.2,222.9]$ | $110.5(43.1)[59.8,320.0]$ |
|  | Assist Prof | $91.0(31.1)[23.5,300.7]$ | $86.5(24.2)[56.6,255.0]$ |
| MD | Prof | $256.9(112.4)[52.9,974.6]$ | $207.9(52.3)[59.5,335.6]$ |
|  | Assoc Prof | $219.1(91.2)[78.0,685.3]$ | $187.7(72.8)[103.9,475.7]$ |
|  | Assist Prof | $184.4(85.9)[56.0,524.0]$ | $154.3(52.6)[64.7,360.0]$ |

Table 7: Faculty Receving Bonuses, Gender By Rank, Counts (Row \%) (Col \%)

| Group | Prof | Assoc Prof | Assist Prof | Total |
| ---: | :---: | :---: | :---: | ---: |
| Male | $211(32)(84)$ | $194(29)(76)$ | $255(39)(61)$ | $660(71)$ |
| Female | $40(15)(16)$ | $62(23)(24)$ | $164(62)(39)$ | $266(29)$ |
| All | $251(27)$ | $256(28)$ | $419(45)$ | 926 |

## 5 Tables of Analysis Results

Table 8: Overall Percent Differences (95\% CI) in FTE Salary (FY2008), negative $=$ women earn less than men. ${ }^{*}$ Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

|  | FTE Salary | FTE Salary* |
| ---: | :---: | :---: |
| Overall | $-3.5(-6.0,-1.1)$ | $-2.7(-5.1,-0.3)$ |
| Professor | $-4.1(-9.4,1.3)$ | $-3.8(-9.0,1.4)$ |
| Associate Professor | $-5.0(-9.7,-0.3)$ | $-3.7(-8.3,0.9)$ |
| Assistant Professor | $-2.3(-5.6,1.0)$ | $-1.6(-4.8,1.6)$ |
| MD degree | $-3.3(-6.3,-0.3)$ | $-2.3(-5.2,0.6)$ |
| Non-MD degree | $-0.4(-5.0,4.2)$ | $0.4(-4.0,4.9)$ |
| Professor (New) | $-6.0(-15.2,3.3)$ | $-5.5(-14.7,3.7)$ |
| Professor (Mid) | $-4.6(-13.1,4.0)$ | $-3.5(-11.7,4.8)$ |
| Professor (Long) | $-9.0(-21.3,3.4)$ | $-11.9(-24.2,0.3)$ |
| Assoc Prof (New) | $-3.8(-12.1,4.4)$ | $-1.7(-9.7,6.4)$ |
| Assoc Prof (Mid) | $-3.4(-11.9,5.1)$ | $-3.6(-12.1,4.9)$ |
| Assoc Prof (Long) | $-8.3(-17.0,0.5)$ | $-7.2(-15.8,1.4)$ |
| Assist Prof (New) | $0.5(-5.8,6.8)$ | $3.1(-3.2,9.4)$ |
| Assist Prof (Mid) | $-3.5(-9.1,2.2)$ | $-2.5(-8.1,3.1)$ |
| Assist Prof (Long) | $-3.9(-9.6,1.8)$ | $-4.6(-10.2,1.0)$ |

Table 9: Overall Percent Differences (95\% CI) in TOTAL Salary (FY2008), negative=women earn less than men. *Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

|  | TOTAL Salary | TOTAL Salary* |
| ---: | :---: | :---: |
| Overall | $-5.7(-8.8,-2.6)$ | $-4.5(-7.4,-1.5)$ |
| Professor | $-5.7(-12.5,1.0)$ | $-5.1(-11.6,1.4)$ |
| Associate Professor | $-7.7(-13.7,-1.8)$ | $-5.8(-11.6,-0.0)$ |
| Assistant Professor | $-4.2(-8.4,-0.1)$ | $-3.2(-7.3,0.8)$ |
| MD degree | $-6.4(-10.2,-2.6)$ | $-4.9(-8.6,-1.2)$ |
| Non-MD degree | $1.2(-4.6,7.1)$ | $2.3(-3.4,7.9)$ |
| Professor (New) | $-7.9(-19.4,3.7)$ | $-7.3(-18.6,4.0)$ |
| Professor (Mid) | $-7.8(-18.5,2.8)$ | $-5.8(-15.9,4.3)$ |
| Professor (Long) | $-10.1(-25.6,5.4)$ | $-13.6(-28.7,1.5)$ |
| Assoc Prof (New) | $-7.7(-18.0,2.7)$ | $-5.2(-15.1,4.7)$ |
| Assoc Prof (Mid) | $-3.5(-14.1,7.1)$ | $-2.5(-12.9,8.0)$ |
| Assoc Prof (Long) | $-11.5(-22.4,-0.6)$ | $-9.8(-20.4,0.7)$ |
| Assist Prof (New) | $0.2(-7.7, ~ 8.1)$ | $4.0(-3.8,11.7)$ |
| Assist Prof (Mid) | $-5.8(-12.9,1.3)$ | $-4.6(-11.4,2.3)$ |
| Assist Prof (Long) | $-6.3(-13.4,0.8)$ | $-7.2(-14.0,-0.3)$ |

Table 10: Overall Departmental Percent Differences (95\% CI) in FTE Salary (FY2008), negative=women earn less than men. *Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

| Department | FTE Salary | TOTAL Salary |
| ---: | :---: | :---: |
| Overall | $-3.5(-6.0,-1.1)$ | $-5.7(-8.8,-2.6)$ |
| Overall* | $-2.7(-5.1,-0.3)$ | $-4.5(-7.4,-1.5)$ |
| Basic Science | $-2.8(-12.1,6.5)$ | $-3.9(-15.7,7.9)$ |
| Neurology | $-4.5(-15.4,6.4)$ | $-3.8(-17.6,10.0)$ |
| Medicine | $-5.6(-10.3,-0.9)$ | $-8.1(-14.0,-2.1)$ |
| Medicine* | $-2.6(-7.7,2.4)$ | $-3.6(-10.0,2.8)$ |
| Opthalmology | $-0.1(-12.1,11.9)$ | $8.5(-6.7,23.7)$ |
| Pathology | $-8.0(-17.8,1.8)$ | $-10.3(-22.8,2.1)$ |
| Pediatrics | $1.3(-8.8,11.4)$ | $2.5(-10.3,15.3)$ |
| Psychiatry | $-2.8(-11.7,6.2)$ | $-3.1(-14.4,8.2)$ |
| Surgery | $-0.3(-9.1,8.5)$ | $-14.6(-25.7,-3.5)$ |
| Surgery* | $0.2(-8.4,8.8)$ | $-14.5(-25.3,-3.7)$ |
| Radiology | $2.4(-8.5,13.3)$ | $-1.6(-15.5,12.2)$ |
| Oncology | $-9.2(-18.9,0.5)$ | $-9.2(-21.5,3.1)$ |
| Anesthesiology | $-7.8(-17.4,1.9)$ | $-6.9(-19.2,5.3)$ |
| Other | $1.3(-6.5,9.1)$ | $-2.4(-12.3,7.5)$ |

Table 11: Overall Departmental $\$ 1000$ s Differences ( $95 \%$ CI) in FTE Salary (FY2008), negative=women earn less than men. *Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

| Department | FTE Salary | TOTAL Salary |
| ---: | :---: | :---: |
| Overall | $-7.0(-10.4,-3.7)$ | $-13.9(-19.2,-8.7)$ |
| Overall | $-5.6(-9.0,-2.3)$ | $-11.5(-16.6,-6.3)$ |
| Basic Science | $-4.1(-13.6,5.4)$ | $-5.3(-14.9,4.3)$ |
| Neurology | $-8.1(-16.1,-0.2)$ | $-7.6(-16.3,1.1)$ |
| Medicine | $-10.9(-16.6,-5.1)$ | $-17.1(-24.7,-9.5)$ |
| Medicine $^{*}$ | $-5.9(-10.8,-1.0)$ | $-8.6(-14.9,-2.3)$ |
| Opthalmology $^{2}$ | $-5.8(-19.8,8.2)$ | $5.0(-28.1,38.1)$ |
| Pathology | $-11.5(-22.9,-0.2)$ | $-16.3(-36.1,3.5)$ |
| Pediatrics | $-0.2(-15.6,15.1)$ | $1.6(-17.5,20.8)$ |
| Psychiatry | $-4.0(-11.1,3.2)$ | $-4.4(-11.7,2.9)$ |
| Surgery | $-2.9(-16.5,10.7)$ | $-48.1(-77.2,-19.0)$ |
| Surgery* | $-2.2(-16.2,11.9)$ | $-46.8(-71.8,-21.7)$ |
| Radiology | $0.2(-10.5,11.0)$ | $-15.7(-38.9,7.5)$ |
| Oncology | $-15.3(-30.7,0.0)$ | $-14.5(-43.5,14.6)$ |
| Anesthesiology | $-15.8(-34.1,2.4)$ | $-20.7(-44.6,3.2)$ |
| Other | $2.1(-11.9,16.0)$ | $-5.0(-22.5,12.6)$ |

Table 12: Percent Differences (95\% CI) FTE Salary for FY 2004-2008. *Estimated gender differences after removing the Cardiology and GI specialties from Medicine.

| Department | 2004 | 2005 | 2006 | 2007 | 2008 |
| ---: | :---: | :---: | :---: | :---: | :---: |
| Overall | $-3.6(-6.2,-1.0)$ | $-2.6(-5.0,-0.2)$ | $-3.2(-5.5,-0.9)$ | $-4.0(-6.3,-1.6)$ | $-3.5(-6.0,-1.1)$ |
| Basic Science | $-2.5(-12.3,7.3)$ | $0.3(-9.7,10.3)$ | $-0.8(-9.7,8.1)$ | $-1.0(-9.9,8.0)$ | $-2.8(-12.1,6.5)$ |
| Neurology | $-2.6(-14.0,8.8)$ | $-4.6(-15.8,6.6)$ | $-5.4(-15.8,5.1)$ | $-7.7(-18.2,2.8)$ | $-4.5(-15.4,6.4)$ |
| Medicine | $-3.3(-8.5,1.9)$ | $-3.5(-8.5,1.5)$ | $-4.6(-9.2,0.1)$ | $-4.7(-9.2,-0.2)$ | $-5.6(-10.3,-0.9)$ |
| Medicine* | $-1.6(-7.4,4.2)$ | $-1.1(-6.7,4.5)$ | $-1.5(-6.5,3.4)$ | $-1.6(-6.5,3.2)$ | $-2.6(-7.7,2.4)$ |
| Opthalmology | $-7.1(-17.3,3.1)$ | $-8.9(-19.1,1.3)$ | $-6.0(-16.2,4.3)$ | $-5.8(-16.5,4.8)$ | $-0.1(-12.1,11.9)$ |
| Pathology | $-1.3(-11.5,8.9)$ | $0.4(-9.6,10.4)$ | $-5.3(-14.6,4.0)$ | $-6.3(-15.5,2.8)$ | $-8.0(-17.8,1.8)$ |
| Pediatrics | - | $-1.3(-10.5,7.9)$ | $-0.8(-9.7,8.2)$ | $-0.5(-9.5,8.5)$ | $1.3(-8.8,11.4)$ |
| Psychiatry | $0.4(-8.0,8.8)$ | $-1.0(-9.4,7.4)$ | $-0.2(-8.1,7.8)$ | $0.4(-7.4,8.3)$ | $-2.8(-11.7,6.2)$ |
| Surgery | $0.7(-9.1,10.5)$ | $-0.3(-9.3,8.7)$ | $0.9(-8.2,10.1)$ | $-2.2(-11.2,6.8)$ | $-0.3(-9.1,8.5)$ |
| Radiology | $-2.4(-13.2,8.4)$ | $-3.9(-14.9,7.1)$ | $-0.5(-10.8,9.8)$ | $0.2(-10.4,10.8)$ | $2.4(-8.5,13.3)$ |
| Oncology | $-3.0(-12.6,6.6)$ | $-4.9(-14.3,4.5)$ | $-5.7(-14.4,3.1)$ | $-9.3(-18.6,-0.1)$ | $-9.2(-18.9,0.5)$ |
| Anesthesiology | $-9.8(-21.0,1.4)$ | $-3.3(-14.1,7.5)$ | $-5.4(-15.3,4.4)$ | $-7.1(-16.8,2.5)$ | $-7.8(-17.4,1.9)$ |
| Other | $-6.9(-14.5,0.7)$ | $-1.0(-9.0,7.0)$ | $-2.7(-10.3,4.9)$ | $-3.3(-10.8,4.2)$ | $1.3(-6.5,9.1)$ |

Table 13: Percent Differences (95\% CI) TOTAL Salary for FY 2004-2008. *Estimated gender differences after removing the Cardiology and GI specialties from Medicine.

| Department | 2004 | 2005 | 2006 | 2007 | 2008 |
| ---: | :---: | :---: | :---: | :---: | :---: |
| Overall | $-6.1(-9.1,-3.1)$ | $-5.7(-9.1,-2.3)$ | $-8.0(-11.7,-4.4)$ | $-6.0(-8.9,-3.1)$ | $-5.7(-8.8,-2.6)$ |
| Basic Science | $-3.5(-15.5,8.5)$ | $-1.7(-16.1,12.7)$ | $1.1(-13.0,15.1)$ | $-2.0(-13.4,9.3)$ | $-3.9(-15.7,7.9)$ |
| Neurology | $-5.1(-18.9,8.7)$ | $-2.1(-18.1,13.9)$ | $-6.2(-22.7,10.4)$ | $-9.2(-22.6,4.1)$ | $-3.8(-17.6,10.0)$ |
| Medicine | $-5.0(-11.4,1.4)$ | $-5.5(-12.7,1.7)$ | $-9.2(-16.5,-2.0)$ | $-6.3(-12.0,-0.6)$ | $-8.1(-14.0,-2.1)$ |
| Medicine* | $-2.8(-10.0,4.4)$ | $-2.7(-10.7,5.3)$ | $-6.7(-14.6,1.3)$ | $-2.1(-8.2,4.0)$ | $-3.6(-10.0,2.8)$ |
| Opthalmology | $-6.9(-19.3,5.5)$ | $-8.2(-22.8,6.4)$ | $-6.3(-22.4,9.9)$ | $-6.0(-19.5,7.5)$ | $8.5(-6.7,23.7)$ |
| Pathology | $-5.2(-17.6,7.2)$ | $-3.6(-17.8,10.6)$ | $-10.1(-24.7,4.5)$ | $-7.9(-19.5,3.7)$ | $-10.3(-22.8,2.1)$ |
| Pediatrics | - | $-4.3(-17.3,8.7)$ | $-4.1(-18.3,10.0)$ | $0.3(-11.1,11.7)$ | $2.5(-10.3,15.3)$ |
| Psychiatry | $0.9(-10.3,12.1)$ | $-4.9(-16.7,6.9)$ | $-6.1(-18.6,6.5)$ | $-0.1(-10.1,9.9)$ | $-3.1(-14.4,8.2)$ |
| Surgery | $-7.3(-19.1,4.5)$ | $-12.4(-25.2,0.4)$ | $-13.4(-27.8,1.0)$ | $-11.8(-23.3,-0.4)$ | $-14.6(-25.7,-3.5)$ |
| Radiology | $-10.4(-23.6,2.8)$ | $-14.3(-29.9,1.3)$ | $-9.1(-25.4,7.2)$ | $-4.4(-17.9,9.1)$ | $-1.6(-15.5,12.2)$ |
| Oncology | $-2.8(-14.6,9.0)$ | $-1.8(-15.2,11.6)$ | $-9.3(-23.1,4.4)$ | $-9.1(-20.8,2.7)$ | $-9.2(-21.5,3.1)$ |
| Anesthesiology | $-14.0(-27.6,-0.4)$ | $-4.7(-20.1,10.7)$ | $-8.8(-24.3,6.7)$ | $-5.7(-18.0,6.6)$ | $-6.9(-19.2,5.3)$ |
| Other | $-12.5(-21.9,-3.1)$ | $-4.1(-15.5,7.3)$ | $-10.4(-22.3,1.4)$ | $-9.0(-18.5,0.5)$ | $-2.4(-12.3,7.5)$ |

## 6 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:

1) an overall gender difference with adjustments for department group and department group-specific rank, degree and year-in-rank,
2) rank specific gender differences with adjustments for department group and department group-specific degree and year-in-rank,
3) degree specific gender differences with adjustments for department group and department group-specific rank and year-in-rank
4) 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.

Table 14: Department By Degree, Counts (\%)

| Department | Non-MD | MD | Total |
| ---: | :---: | :---: | ---: |
| Basic Science | $100(90)$ | $11(10)$ | 111 |
| OB/GYN | $8(17)$ | $38(83)$ | 46 |
| Neurology | $17(22)$ | $61(78)$ | 78 |
| Medicine | $57(15)$ | $328(85)$ | 385 |
| Opthalmology | $21(32)$ | $45(68)$ | 66 |
| Pathology | $24(28)$ | $63(72)$ | 87 |
| Pediatrics | $16(14)$ | $98(86)$ | 114 |
| Psychiatry | $44(40)$ | $67(60)$ | 111 |
| Surgery | $34(18)$ | $158(82)$ | 192 |
| Radiology | $34(38)$ | $55(62)$ | 89 |
| Oncology | $25(28)$ | $64(72)$ | 89 |
| Anesthesiology | $9(8)$ | $98(92)$ | 107 |
| Art Applied to Medicine | $4(80)$ | $1(20)$ | 5 |
| History of Medicine | $7(100)$ | $0(0)$ | 7 |
| Dermatology | $3(25)$ | $9(75)$ | 12 |
| Physical Medicine/Rehab | $9(69)$ | $4(31)$ | 13 |
| Emergency Medicine | $3(11)$ | $24(89)$ | 27 |
| Genetic Medicine | $6(35)$ | $11(65)$ | 17 |
| Radiation Oncology | $3(25)$ | $9(75)$ | 12 |
| Total | $424(27)$ | $1144(73)$ | 1568 |

Table 15: Degree By Rank, Counts (Row \%) (Col \%)

| Degree | Prof | Assoc Prof | Assist Prof | Total |
| ---: | :---: | :---: | :---: | ---: |
| Non-MD | $129(30)(32)$ | $108(25)(26)$ | $187(44)(25)$ | $424(27)$ |
| MD | $279(24)(68)$ | $302(26)(74)$ | $563(49)(75)$ | $1144(73)$ |
| Total | $408(26)$ | $410(26)$ | $750(48)$ | 1568 |

Table 16: Faculty Receiving Bonuses By Department and Rank showing counts of men and women receiving bonuses, and counts of women and percentage within rank receiving bonuses.

| Department | Prof-All | Prof-F | Assoc-All | Assoc-F | Assist-All | Assist-F |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| Basic Science | 9 | $0(0 \%)$ | 1 | $0(0 \%)$ | 3 | $0(0 \%)$ |
| OB/GYN | 4 | $2(50 \%)$ | 4 | $2(50 \%)$ | 14 | $12(86 \%)$ |
| Neurology | 21 | $5(24 \%)$ | 24 | $6(25 \%)$ | 22 | $7(32 \%)$ |
| Medicine | 53 | $7(13 \%)$ | 60 | $12(20 \%)$ | 95 | $43(45 \%)$ |
| Opthalmology | 12 | $1(8 \%)$ | 9 | $5(56 \%)$ | 17 | $8(47 \%)$ |
| Pathology | 33 | $7(21 \%)$ | 31 | $12(39 \%)$ | 20 | $9(45 \%)$ |
| Pediatrics | 13 | $6(46 \%)$ | 6 | $4(67 \%)$ | 34 | $21(62 \%)$ |
| Psychiatry | 5 | $0(0 \%)$ | 2 | $0(0 \%)$ | 11 | $7(64 \%)$ |
| Surgery | 32 | $0(0 \%)$ | 41 | $4(10 \%)$ | 72 | $11(15 \%)$ |
| Radiology | 23 | $4(17 \%)$ | 22 | $6(27 \%)$ | 23 | $9(39 \%)$ |
| Oncology | 32 | $7(22 \%)$ | 20 | $4(20 \%)$ | 11 | $5(45 \%)$ |
| Anesthesiology | 9 | $0(0 \%)$ | 26 | $5(19 \%)$ | 71 | $24(34 \%)$ |
| Art Applied to Medicine | 0 | 0 | 0 | 0 | 0 | 0 |
| History of Medicine | 0 | 0 | 0 | 0 | 0 | 0 |
| Dermatology | 2 | $0(0 \%)$ | 0 | 0 | 3 | $3(100 \%)$ |
| Physical Medicine/Rehab | 1 | $1(100 \%)$ | 3 | $0(0 \%)$ | 3 | $1(33 \%)$ |
| Emergency Medicine | 0 | 0 | 5 | $1(20 \%)$ | 17 | $4(24 \%)$ |
| Genetic Medicine | 1 | $0(0 \%)$ | 0 | 0 | 0 | 0 |
| Radiation Oncology | 1 | $0(0 \%)$ | 2 | $1(50 \%)$ | 3 | $0(0 \%)$ |
| Total | 251 | $40(16 \%)$ | 256 | $62(24 \%)$ | 419 | $164(39 \%)$ |

Table 17: Value of Bonuses in $\$ 1000$ s, Degree by Rank by Gender, Mean (SD) [Range]

| Degree | Rank | Male | Female |
| ---: | ---: | :---: | :---: |
| Non-MD | Prof | $9.1(8.7)[0.2,25.0]$ | $7.9(6.6)[0.9,20.0]$ |
|  | Assoc Prof | $8.4(12.8)[0.7,62.2]$ | $6.1(4.1)[1.1,12.2]$ |
|  | Assist Prof | $8.3(9.7)[0.6,49.8]$ | $5.7(7.6)[1.2,28.0]$ |
| MD | Prof | $50.0(93.1)[0.2,629.6]$ | $23.4(32.4)[0.2,130.3]$ |
|  | Assoc Prof | $43.5(63.3)[0.1,427.3]$ | $30.2(47.3)[0.3,217.7]$ |
|  | Assist Prof | $42.8(52.2)[0.2,281.0]$ | $19.6(21.9)[0.1,97.0]$ |

Table 18: Overall $\$ 1000$ s Differences ( $95 \%$ CI) in FTE Salary (FY2008), negative=women earn less than men. *Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

|  | FTE Salary | FTE Salary* |
| ---: | :---: | :---: |
| Overall | $-7.0(-10.4,-3.7)$ | $-5.6(-9.0,-2.3)$ |
| Professor | $-14.1(-21.3,-6.9)$ | $-13.3(-20.5,-6.1)$ |
| Associate Professor | $-7.6(-14.8,-0.5)$ | $-5.5(-12.9,1.8)$ |
| Assistant Professor | $-3.7(-8.2,0.8)$ | $-2.4(-6.8,1.9)$ |
| MD degree | $-8.3(-12.5,-4.2)$ | $-6.6(-10.8,-2.5)$ |
| Non-MD degree | $2.8(-3.5,9.2)$ | $4.1(-2.5,10.7)$ |
| Professor (New) | $-14.8(-25.6,-4.0)$ | $-13.2(-24.5,-1.8)$ |
| Professor (Mid) | $-16.7(-27.4,-6.0)$ | $-13.7(-24.5,-3.0)$ |
| Professor (Long) | $-20.0(-48.3,8.4)$ | $-26.5(-54.4,1.3)$ |
| Assoc Prof (New) | $-4.5(-18.3,9.3)$ | $-1.1(-14.8,12.6)$ |
| Assoc Prof (Mid) | $-5.6(-18.6,7.4)$ | $-6.1(-19.7,7.5)$ |
| Assoc Prof (Long) | $-14.5(-25.0,-4.1)$ | $-12.2(-23.2,-1.3)$ |
| Assist Prof (New) | $-0.9(-8.7,6.8)$ | $2.8(-4.3,9.9)$ |
| Assist Prof (Mid) | $-2.5(-10.3,5.4)$ | $-1.2(-9.0,6.6)$ |
| Assist Prof (Long) | $-8.0(-15.6,-0.3)$ | $-8.3(-15.6,-1.1)$ |

Table 19: Overall \$1000s Differences ( $95 \%$ CI) in Total Salary (FY2008), negative=women earn less than men. *Estimated gender differences after removing the Cardiology and GI specialties from Medicine, and removing Neurosurgery specialty from Surgery.

|  | Total Salary | Total Salary* |
| ---: | :---: | :---: |
| Overall | $-13.9(-19.2,-8.7)$ | $-11.5(-16.6,-6.3)$ |
| Professor | $-23.0(-35.1,-10.9)$ | $-20.6(-32.5,-8.6)$ |
| Associate Professor | $-15.2(-26.8,-3.7)$ | $-11.2(-22.2,-0.3)$ |
| Assistant Professor | $-8.6(-15.7,-1.4)$ | $-7.4(-14.2,-0.5)$ |
| MD degree | $-19.0(-25.8,-12.2)$ | $-15.8(-22.5,-9.1)$ |
| Non-MD degree | $10.3(2.0,18.7)$ | $11.4(3.0,19.8)$ |
| Professor (New) | $-21.9(-40.7,-3.2)$ | $-20.1(-39.7,-0.6)$ |
| Professor (Mid) | $-35.2(-56.3,-14.1)$ | $-27.6(-47.7,-7.5)$ |
| Professor (Long) | $-28.0(-62.2,6.3)$ | $-37.1(-70.9,-3.3)$ |
| Assoc Prof (New) | $-14.0(-34.6,6.5)$ | $-9.5(-26.7,7.6)$ |
| Assoc Prof (Mid) | $-7.7(-29.8,14.5)$ | $-4.1(-27.0,18.9)$ |
| Assoc Prof (Long) | $-24.4(-40.7,-8.0)$ | $-20.6(-37.2,-4.1)$ |
| Assist Prof (New) | $-0.5(-12.9,11.9)$ | $5.7(-4.8,16.1)$ |
| Assist Prof (Mid) | $-6.7(-18.8,5.3)$ | $-5.4(-17.1,6.2)$ |
| Assist Prof (Long) | $-17.3(-29.7,-4.9)$ | $-18.6(-30.8,-6.4)$ |


[^0]:    ${ }^{1}$ We calculated differences for Medicine and Surgery after excluding their higher earning specialties. For Pediatrics, we included an adjustment for the rank-specific effect of the percentile for AAAP survey of Pediatric Salaries.

[^1]:    ${ }^{2} \mathrm{An}$ MD is defined to be someone who has at least one of the following degrees: MD, DMD, MBBCH, MBBS, MBChB
    ${ }^{3}$ New: Professors ( $\leq 4$ years), 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. ( $>5$ )

