# 2021 Report on Johns Hopkins University School of Medicine Faculty Salary Analysis, Fiscal Year 2020 

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## 1 Executive Summary

These faculty salary analyses have been done every year since 2005. This report used the salaries as of June 30, 2020 for the full time faculty ranks of Assistant Professor through Professor. However, all deans, department and institute directors and faculty who were previously in these leadership positions are excluded from the study. The salary and other data are obtained from the SOM Office of Faculty Information that uses the data in the JHU SAP system (for 2005-2017 reports). Since the SAP system does not contain the part A salary, the salary data for 2017 and beyond is obtained from the SOM Finance Office who has faculty salary data that includes part A, A+B and $\mathrm{A}+\mathrm{B}+\mathrm{C}$.The rank, years at rank, and gender were validated by Office of Faculty Information.

In 2017 the SOM developed departmental faculty compensation plans and the Compensation Committee developed the common nomenclature for all departments to use: base salary (Part A), supplemental salary (Part B) and incentive salary (Part C). The base salary (A) reflects faculty rank and is subject to the Gold Book guarantees; supplemental salary (B) is for administrative, educational or clinical roles in the department; and incentive salary (C) for achieving goals set by the department. The base (A) salary is guaranteed in the Gold Book and can only be reduced $20 \%$ per year with the agreement of the faculty member or in the absence of faculty approval, by approval of the Advisory Board of the Medical Faculty.The supplemental salary $(\mathrm{A}+\mathrm{B})$ is used as the basis for determining faculty benefits. All SOM clinical department compensation plans utilize the base, supplemental and incentive component $(\mathrm{A}+\mathrm{B}+\mathrm{C})$. However, the Basic Science departments utilize only the base and supplemental components $(\mathrm{A}+\mathrm{B})$. The department compensation plans use the salary nomenclature as base, supplemental and incentive components, however, since historically these faculty salary analyses have used $\mathrm{A}+\mathrm{B}+\mathrm{C}$ salary nomenclature it will be continued to be used in these analyses. Thus, it is important that faculty be aware of the individual department compensation plans and how they are individually compensated for their work. The 2021 Report on the Johns Hopkins School of Medicine Faculty Salary Analysis found that base salary (A) of women faculty were $0.4 \%$ less than the salaries of otherwise similar male faculty in FY 2020,and $1.3 \%$ less for base + supplemental salary $(A+B)$ and $1.8 \%$ less for total salary $(A+B+C)$.

Two points should be noted about the report and the faculty salary data. First, potential for salary differences due to individual faculty choice is high. Faculty may choose to and be given the opportunity to engage in activities that have the potential to impact their supplemental (B) and incentive (C) salary. For example, faculty may choose to take incremental call, see additional patients, or take on administrative duties to increase their salary. Depending on the individual departmental compensation plan this could translate into additional supplemental (B) or incentive (C) salary.Thus, some component of the differences in salary $(A+B)$ and salary $(A+B+C)$ by gender may represent differences due to choice. It is the expectation that base salary (A) would not reflect individual choice but be uniformly determined by the department compensation plans.

Department directors receive their faculty data from this study to review. The expectation of the Dean is that any significant salary inequities identified in a department will be addressed with strategies to correct the disparities. Department directors are expected to discuss inequities with the Vice Dean for Faculty and the Chief Financial Officer of the School of Medicine. It is anticipated that the information obtained from the annual salary analysis will help to inform and refine the individual departmental compensation plans. Further, it is strongly recommended that department directors review this report and their departmental compensation plan annually with their faculty.

## 2 Background

The results in this report represent the annual faculty salary analyses at the School of Medicine since 2005 as part of efforts to assess gender equity in salary, and constitutes the 17th year in which salary data have been analyzed. As directed by the Dean, department directors' efforts are focused on achieving faculty salary equity for all faculty.

## 3 Methods

For 2082 faculty members, statistics were gathered on gender and rank distributions, both schoolwide and within departments, and mean years in rank by degree and gender were tabulated. Base, supplement, and incentive salary $(A+B+C)$ were tabulated by degree, rank and gender. These results are shown in Tables 1-8.

There were 9 large groups of departments analyzed. ${ }^{1}$ In addition, Basic Science was considered a group consisting of Art as Applied to Medicine, History of Medicine, Biological Chemistry, Biomedical Engineering, Biophysics, Cell Biology, Functional Anatomy, Molecular \& Comparative Pathobiology, Molecular Biology and Genetics, Neuroscience, Pharmacology, and Physiology. The de-

[^0]partments of Surgery, Otolaryngology (including Dentistry and Oral Surgery), Orthopedic Surgery, Plastic Surgery, and Urology were combined to form the Surgery group. Neurosurgery is historically a high-pay specialty and has fewer female faculty members. Due to the small number, it was classified as Surgery before 2019. As of 2019, Neurosurgery was treated as a separate deparment. Genetic Medicine was previously classified based on the primary appointment of the faculty member, but is treated as a separate department as of 2019. Lastly Dermatology, Emergency Medicine,OB/GYN, Radiation Oncology, and Physical Medicine and Rehabilitation were collected into an "Other" category. This resulted in the formation of 14 groups for the analysis. In the results reported for years prior to 2009, note that Art as Applied to Medicine and History of Medicine were included in the "Other" category, however, since then these departments have been included within the Basic Science group. Also note that in the results reported for years prior to 2011 Radiation Oncology was included in the "Oncology" category, however, since then it has been included in the "Other" group. Several additional figures have been added for clarity (Figures 1, 2 and 5) as well as Table 2.

This year's analysis of salary differences between genders used the same models that were developed in the FY 2004-2019 analyses (see Appendix: Model Specifications). We calculated the percent difference for women relative to men (with negative differences indicating that the salaries of women were lower) for the School of Medicine overall, as well as within ranks, within degrees (MD and non- $\mathrm{MD}^{2}$ ), within rank by years-in-rank ${ }^{3}$, and within departments. Our models adjusted for the available administrative data: 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 or a few small salaries having inordinate influence on the regression results. Of the 2082 faculty members, none of the faculty was removed as a potentially influential outlier.

The confidence intervals given in this report represent the influence of the inherent uncertainty on our estimates of the parameters of the systematic part of the models. From a frequentist perspective, they are a range of plausible estimates of gender differences in salary that might be expected in many hypothetical repetitions of this year's experience. Equivalently, from a Bayesian perspective, they represent our uncertainty about the systematic parts of the underlying salary process after we have quantified the systematic patterns in the data in any given year.

The SOM faculty fluctuates from year to year as individual members enter and leave Johns Hopkins. In addition, salaries are set partly by systematic assessments, consistently applied over people and time, and partly by accomplishments, skills, and attitudes that cannot be captured by measurements and therefore introduce uncertainty to our understanding of the systematic parts. The variations due to changing membership and unmeasured influences are represented by the stochastic part of the regression model.

[^1]The confidence intervals should not be interpreted as a measure of the statistical significance in salary differences by gender as would be the case for an analysis based on a representative sample of SOM faculty. The estimated differences in SOM faculty salary by gender reported here represent this year's faculty experience given our understanding of the systematic assessments (our model for salary).

## 4 Results

The distribution of faculty gender, school-wide, was 1206 men ( $58 \%$ ) and 876 women ( $42 \%$ ). Of the 20 departments(see Methods \& Table 1 for grouped departments), there are 7 in which women made up more than half the faculty, these being OB/Gyn ( $80 \%$ ), Pediatrics ( $65 \%$ ), Psychiatry ( $52 \%$ ), History of Medicine (71\%), Dermatology (62\%), Physical Medicine and Rehabilitation (66\%), and Genetic Medicine (57\%); there was also a relatively high percentage representation of women in Pathology (44\%).

Of the remaining large departments (the 8 having more than 70 faculty), women comprised 26 - $44 \%$ of the faculty: in descending order of representation, Anesthesiology ( $44 \%$ ), Neurology $(42 \%)$, Medicine ( $42 \%$ ), Radiology ( $42 \%$ ), Ophthalmology ( $39 \%$ ), Oncology ( $30 \%$ ), and Basic Science (29\%). The lowest representation of women was in the Surgery Group (26\%).

After adjustment for the available administrative descriptors (such as rank, and years at rank), women's salary A on average were $0.4 \%$ less than men's salary A school-wide in FY 2020.

A further analysis, which excluded faculty in Neurosurgery, showed that women's salary A were $0.4 \%$ less than men's salary A school-wide in FY 2020. After excluding faculty in Anesthesiology, women's salary A were $0.2 \%$ more than men's salary A. This further analysis was done because there are few women in these relatively highly paid specialties.

In terms of salary $(A+B)$, this new report revealed that the salaries of women faculty were $1.3 \%$ less than men in FY 2020. After excluding faculty in Neurosurgery, women faculty were compensated $1.3 \%$ less than men in FY 2020. After excluding faculty in Anesthesiology, women faculty were compensated $0.8 \%$ less than men in FY 2020. In FY 2019, the salaries of women faculty were $1.9 \%$ less than men, and the salary difference between genders has varied from $-4.6 \%$ to $-1.9 \%$ over the last five years.

The JHSOM has been analyzing faculty salary data since 2004 as part of an effort to assess gender equity in salary. When the report was initiated in 2005 , the salaries of women faculty were $3.6 \%$ less than men. While this number has been fluctuating over time, the salaries of women faculty have been consistently less than men. Between FY 2015 to FY 2020 the gap between the salaries of women and men faculty ranged from $1.3 \%$ to $2.6 \%$. FY 2010 experienced a drop in the gap, but it expanded in 2011 to $4.6 \%$. Since then the gap has been decreasing gradually, and FY 2015 has witnessed a large improvement. This report demonstrates that the salaries of women faculty were $1.3 \%$ less than men in FY 2020.

## 5 Summary

There are several limitations identified which could explain the findings noted in this salary survey. First, although we control for department, there may exist sub-specialties within departments that are compensated differently and are comprised of men and women in different proportions. For example, if women are more highly represented in lower-paying sub-specialties within departments, this could result in a downward bias in the estimate of gender difference in compensation. The department of Neurosurgery is procedurally oriented, has higher financial incomes and has a higher percentage of male representation. Therefore, additional analysis without this department was performed; however, there are other subspecialties that could be excluded or otherwise controlled for as well.

In addition, although all deans, department and institute directors and faculty who were previously in these leadership positions were excluded from the data provided for analysis, the data may still include faculty with other levels or forms of leadership that are not recorded in the data. Differences between genders in representation in such positions could also account for some of the estimated difference in compensation between men and women.

Another limitation of this report is that the data on years at current rank, which is controlled for in this analysis, encompass only time at Hopkins, and not time from previous employment at other universities. If time at current rank including time spent with previous employers is the relevant consideration in salary determinations rather than time at current rank at Hopkins, this could lead to some inaccuracies in the analysis results, depending on how well time at current rank at Hopkins serves as a surrogate for time at current rank anywhere.

Despite the limitations of the data available for this study and the diversity of faculty throughout the SOM, women faculty across the entire SOM receive lower salaries ( $0.4 \%$ ) than their male counterparts in FY2020. Note that this figure represents an overall average across the SOM. Department-specific reports accompany this executive summary with department-specific results.

In conclusion, it is critical that the SOM continues to analyze these faculty salary data in a transparent fashion which is readily made available to the faculty. Faculty awareness of how they are compensated is critical to salary equity and fairness. We would encourage all faculty members to familiarize themselves with their departmental compensation plans and to discuss their individual compensation at their mandatory annual faculty review (for assistant and associate professors). As noted above, these data will continue to be shared with individual departmental directors for review on an annual basis. Department directors are expected to address any significant salary disparities identified in their department, and are expected to explain them to provide a justification for the difference or a plan to remedy salary inequities to the Vice Dean for Faculty and the School of Medicine Chief Financial Officer.

## 6 Future Directions

The SOM will continue to analyze the faculty salary data on an annual basis. We used to exclude the Cardiology and GI from tables $9-13$ because historically this higher paying specialty groups were predominantly male. However, over the years there has been an increasing number of women faculty in these areas. Thus we stopped to exclude Cardiology and GI faculty starting from FY19.Neurosurgery continues to be male dominated, and are treated as seperate department as of 2019. In the future we will continue to monitor gender imbalance in these specialties.

The School of Medicine Compensation Committee is working with all the departments to develop transparent and equitable salary compensation plans. Once the plans are approved by the Compensation Committee they will be made available to all faculty in their departments. In addition, all the Departmental Compensation Plans will be posted on the Office of Faculty secure website with the Annual Faculty Salary Analyses. It is strongly recommended that the faculty understand their department compensation plans and use them to discuss their individual salary compensation at their annual review.


Figure 1: \% Differences* in Salary A (+/-95\% CI) for 2020 ( $\mathrm{n}=2082$ )

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Figure 2: \% Differences* in Salary (A+B) (+/-95\% CI) 2013-2020 ( $\mathrm{n}=2082$ )

[^3]

Figure 3: \% Differences* in Salary (A+B+C) (+/-95\% CI) 2013-2020 (n=2082)

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Figure 4: Differences* (in \$1000s) in Salary A (+/-95\% CI) for $2020(\mathrm{n}=2082)$

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Figure 5: Differences* (in \$1000s) in Salary (A+B) (+/-95\% CI) 2013-2020 (n=2082)

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Figure 6: Differences* (in \$1000s) in Salary (A+B+C) (+/-95\% CI) 2013-2020 (n=2082)

[^7]
## 7 Tables of Descriptive Statistics

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

| Department | Male | Female | Total |
| ---: | :---: | :---: | :---: |
| Basic Science | $87(71)$ | $35(29)$ | 122 |
| OB/GYN | $12(20)$ | $48(80)$ | 60 |
| Neurology | $74(58)$ | $53(42)$ | 127 |
| Medicine | $289(58)$ | $213(42)$ | 502 |
| Ophthalmology | $59(61)$ | $37(39)$ | 96 |
| Pathology | $53(56)$ | $42(44)$ | 95 |
| Pediatrics | $45(35)$ | $82(65)$ | 127 |
| Psychiatry | $59(48)$ | $64(52)$ | 123 |
| Surgery | $176(74)$ | $61(26)$ | 237 |
| Radiology | $64(58)$ | $46(42)$ | 110 |
| Oncology | $78(70)$ | $34(30)$ | 112 |
| Anesthesiology | $89(56)$ | $71(44)$ | 160 |
| Art Applied to Medicine | $11(73)$ | $4(27)$ | 15 |
| History of Medicine | $5(29)$ | $12(71)$ | 17 |
| Dermatology | $9(38)$ | $15(62)$ | 24 |
| Physical Medicine/Rehab | $10(34)$ | $19(66)$ | 29 |
| Emergency Medicine | $28(68)$ | $13(32)$ | 41 |
| Radiation Oncology | $17(63)$ | $10(37)$ | 27 |
| Genetic Medicine | $10(43)$ | $13(57)$ | 23 |
| Neurosurgery | $31(89)$ | $4(11)$ | 35 |
| Total | $1206(58)$ | $876(42)$ | 2082 |



Figure 7: Number of faculty members by Department and Gender

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

| Department | Prof M | Prof F | Assoc Prof M | Assoc Prof F | Assist Prof M | Assist Prof F | Total |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basic Science | $35(29)$ | $14(11)$ | $28(23)$ | $10(8)$ | $24(20)$ | $11(9)$ | 122 |
| OB/GYN | $5(8)$ | $5(8)$ | $2(3)$ | $7(12)$ | $5(8)$ | $36(60)$ | 60 |
| Neurology | $33(26)$ | $8(6)$ | $14(11)$ | $13(10)$ | $27(21)$ | $32(25)$ | 127 |
| Medicine | $92(18)$ | $34(7)$ | $81(16)$ | $53(11)$ | $116(23)$ | $126(25)$ | 502 |
| Ophthalmology | $22(23)$ | $6(6)$ | $13(14)$ | $7(7)$ | $24(25)$ | $24(25)$ | 96 |
| Pathology | $27(28)$ | $10(11)$ | $14(15)$ | $18(19)$ | $12(13)$ | $14(15)$ | 95 |
| Pediatrics | $12(9)$ | $9(7)$ | $16(13)$ | $19(15)$ | $17(13)$ | $54(43)$ | 127 |
| Psychiatry | $19(15)$ | $7(6)$ | $17(14)$ | $23(19)$ | $23(19)$ | $34(28)$ | 123 |
| Surgery | $54(23)$ | $11(5)$ | $42(18)$ | $11(5)$ | $80(34)$ | $39(16)$ | 237 |
| Radiology | $24(22)$ | $9(8)$ | $21(19)$ | $12(11)$ | $19(17)$ | $25(23)$ | 110 |
| Oncology | $30(27)$ | $4(4)$ | $26(23)$ | $16(14)$ | $22(20)$ | $14(12)$ | 112 |
| Anesthesiology | $13(8)$ | $3(2)$ | $23(14)$ | $15(9)$ | $53(33)$ | $53(33)$ | 160 |
| Medicine | $4(27)$ | $0(0)$ | $3(20)$ | $3(20)$ | $4(27)$ | $1(7)$ | 15 |
| Art Applied to Med | 120 | $12(6)$ | $6(35)$ | 17 |  |  |  |
| History of Medicine | $2(12)$ | $5(29)$ | $2(12)$ | $1(6)$ | $12(6)$ | $7(29)$ | $12(50)$ |
| Dermatology | $1(4)$ | $1(4)$ | $1(4)$ | $2(8)$ | 24 |  |  |
| Physical Medicine/Rehab | $1(3)$ | $0(0)$ | $4(14)$ | $1(3)$ | $5(17)$ | $18(62)$ | 29 |
| Emergency Medicine | $3(7)$ | $0(0)$ | $9(22)$ | $3(7)$ | $16(39)$ | $10(24)$ | 41 |
| Radiation Oncology | $2(7)$ | $1(4)$ | $9(33)$ | $3(11)$ | $6(22)$ | $6(22)$ | 27 |
| Genetic Medicine | $6(26)$ | $4(17)$ | $3(13)$ | $3(13)$ | $1(4)$ | $6(26)$ | 23 |
| Neurosurgery | $16(46)$ | $1(3)$ | $5(14)$ | $2(6)$ | $10(29)$ | $1(3)$ | 35 |
| Total | $401(19)$ | $132(6)$ | $333(16)$ | $222(11)$ | $472(23)$ | $522(25)$ | 2082 |

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

|  | Male | Female | Total |
| ---: | :---: | :---: | :---: |
| Prof | $401(33)$ | $132(15)$ | $533(26)$ |
| Assoc Prof | $333(28)$ | $222(25)$ | $555(27)$ |
| Assist Prof | $472(39)$ | $522(60)$ | $994(48)$ |
| Total | 1206 | 876 | 2082 |

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

|  | Non-MD <br>  Mean $\pm \mathrm{SD}$ |  |  | Median $\pm \mathrm{MAD}$ | n | Mean $\pm \mathrm{SD}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Median $\pm$ MAD | n |  |  |  |  |  |
| Prof M | $10.4 \pm 8.94$ | $8 \pm 8.65$ | 109 | $11.29 \pm 8.88$ | $9.08 \pm 9.2$ | 292 |
| Prof F | $7.97 \pm 6.77$ | $5.42 \pm 5.07$ | 43 | $6.93 \pm 6.03$ | $5.08 \pm 5.56$ | 89 |
| Asso Prof M | $5.43 \pm 5.47$ | $3.71 \pm 3.15$ | 90 | $6.81 \pm 6.57$ | $4.58 \pm 4.2$ | 243 |
| Asso Prof F | $4.96 \pm 4.65$ | $3.42 \pm 3.09$ | 65 | $5.02 \pm 4.12$ | $4.25 \pm 3.46$ | 157 |
| Asst Prof M | $4.23 \pm 3.59$ | $3 \pm 2.84$ | 109 | $5.45 \pm 5.41$ | $3.92 \pm 3.09$ | 363 |
| Asst Prof F | $4.85 \pm 3.51$ | $4 \pm 3.09$ | 107 | $4.89 \pm 4.31$ | $3.92 \pm 2.97$ | 415 |

Table 5: Salary A in $\$ 1000$ s (unadjusted), Degree by Rank by Gender

|  | Non-MD |  |  | MD |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean $\pm$ SD | Median $\pm$ MAD | n | Mean $\pm$ SD | Median $\pm$ MAD | n |
| Prof M | $184 \pm 36.8$ | $180 \pm 30.2$ | 109 | $230.2 \pm 61.1$ | $236.3 \pm 47.9$ | 292 |
| Prof F | $177 \pm 36$ | $178.6 \pm 27.7$ | 43 | $223.8 \pm 52.4$ | $225 \pm 48.2$ | 89 |
| Asso Prof M | $133.1 \pm 31.2$ | $131.5 \pm 19.9$ | 90 | $191 \pm 52.2$ | $192.1 \pm 49.6$ | 243 |
| Asso Prof F | $130.1 \pm 20.8$ | $129.4 \pm 18.4$ | 65 | $188.7 \pm 50.8$ | $185.8 \pm 36.3$ | 157 |
| Asst Prof M | $108.2 \pm 29.8$ | $102.5 \pm 17.5$ | 109 | $161 \pm 53.8$ | $160.6 \pm 51$ | 363 |
| Asst Prof F | $98.4 \pm 15.3$ | $94 \pm 9.7$ | 107 | $165.5 \pm 51$ | $160 \pm 43.7$ | 415 |

Table 6: $\operatorname{Salary}(\mathrm{A}+\mathrm{B})$ in $\$ 1000$ s (unadjusted), Degree by Rank by Gender

|  | Non-MD <br> Mean $\pm \mathrm{SD}$ |  |  | MD <br> Median $\pm \mathrm{MAD}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| n | Mean $\pm \mathrm{SD}$ | Median $\pm$ MAD | n |  |  |  |
| Prof M | $198.8 \pm 45.8$ | $192.6 \pm 44.5$ | 109 | $269.5 \pm 72.7$ | $256 \pm 51.7$ | 292 |
| Prof F | $188.6 \pm 36.7$ | $180.4 \pm 31.1$ | 43 | $261.6 \pm 68.6$ | $247.6 \pm 51.2$ | 89 |
| Asso Prof M | $142.1 \pm 33.8$ | $136.3 \pm 20.9$ | 90 | $223.4 \pm 65.1$ | $213.8 \pm 52.9$ | 243 |
| Asso Prof F | $136 \pm 24.5$ | $132.2 \pm 23.5$ | 65 | $215.8 \pm 58$ | $205.9 \pm 45$ | 157 |
| Asst Prof M | $111.8 \pm 32.7$ | $103.9 \pm 18.3$ | 109 | $195.2 \pm 63.3$ | $187 \pm 51.7$ | 363 |
| Asst Prof F | $101.9 \pm 19.3$ | $96.4 \pm 11.4$ | 107 | $185.1 \pm 53.7$ | $176 \pm 47.5$ | 415 |

Table 7: Salary + Bonus $(A+B+C)$ in $\$ 1000$ s (unadjusted), Degree by Rank by Gender

|  | Non-MD <br> Mean $\pm \mathrm{SD}$ |  |  | MD <br> Median $\pm \mathrm{MAD}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| n | Mean $\pm \mathrm{SD}$ | Median $\pm$ MAD | n |  |  |  |
| Prof M | $198.8 \pm 45.8$ | $192.6 \pm 44.5$ | 109 | $271.8 \pm 73.8$ | $260.4 \pm 52.8$ | 292 |
| Prof F | $188.6 \pm 36.7$ | $180.4 \pm 31.1$ | 43 | $262.7 \pm 68.9$ | $247.6 \pm 50.9$ | 89 |
| Asso Prof M | $142.6 \pm 33.9$ | $136.6 \pm 21.6$ | 90 | $226.7 \pm 67.5$ | $217 \pm 55.4$ | 243 |
| Asso Prof F | $136.4 \pm 24.6$ | $134.3 \pm 22.8$ | 65 | $217.5 \pm 58.4$ | $209 \pm 47.2$ | 157 |
| Asst Prof M | $111.8 \pm 32.7$ | $103.9 \pm 18.3$ | 109 | $198.8 \pm 63.9$ | $188.6 \pm 53.1$ | 363 |
| Asst Prof F | $102 \pm 19.3$ | $96.4 \pm 11.9$ | 107 | $187.1 \pm 54.2$ | $178.7 \pm 48.5$ | 415 |

Table 8: Faculty Receving Bonuses, by Gender and Rank

|  | Count (\%) | Total |
| ---: | :---: | :---: |
| Prof M | $61(15.2)$ | 401 |
| Prof F | $16(12.1)$ | 132 |
| Assoc Prof M | $92(27.6)$ | 333 |
| Assoc Prof F | $49(22.1)$ | 222 |
| Assist Prof M | $177(37.5)$ | 472 |
| Assist Prof F | $151(28.9)$ | 522 |

## 8 Tables of Analysis Results

Table 9: Overall Percent Differences (95\% CI) in Salary A (FY 2020 ), negative=women earn less than men.

|  | N | Salary A | Salary A $^{a}$ | Salary A $^{b}$ |
| ---: | :---: | :---: | :---: | :---: |
| Overall | 2082 | $-0.4(-2.5,1.8)$ | $-0.4(-2.5,1.8)$ | $0.2(-2.0,2.5)$ |
| Professor | 533 | $-1.7(-6.2,3.1)$ | $-1.7(-6.3,3.0)$ | $-1.8(-6.4,3.0)$ |
| Associate Professor | 555 | $-0.5(-4.5,3.6)$ | $-0.3(-4.3,3.8)$ | $-0.4(-4.5,3.9)$ |
| Assistant Professor | 994 | $0.3(-2.6,3.4)$ | $0.3(-2.6,3.4)$ | $1.6(-1.6,4.8)$ |
| MD degree | 1559 | $1.6(-1.1,4.3)$ | $1.7(-0.9,4.4)$ | $2.5(-0.3,5.4)$ |
| Non-MD degree | 523 | $-3.6(-7.8,0.8)$ | $-4.0(-8.2,0.4)$ | $-3.6(-7.9,0.9)$ |
| Professor (New) $^{c}$ | 158 | $-2.6(-10.0,5.5)$ | $-2.3(-9.8,5.9)$ | $-3.2(-10.8,5.0)$ |
| Professor (Mid) ${ }^{c}$ | 156 | $4.2(-4.0,13.0)$ | $4.0(-4.2,13.0)$ | $3.9(-4.3,12.9)$ |
| Professor (Long) $^{c}$ | 219 | $-7.2(-14.8,1.0)$ | $-7.6(-15.1,0.5)$ | $-7.3(-14.8,1.0)$ |
| Assoc Prof (New) $^{c}$ | 202 | $-0.1(-6.6,6.8)$ | $-0.3(-6.7,6.6)$ | $-0.4(-7.1,6.7)$ |
| Assoc Prof (Mid) ${ }^{c}$ | 198 | $1.4(-5.2,8.4)$ | $2.6(-4.1,9.7)$ | $1.2(-5.5,8.3)$ |
| Assoc Prof (Long) ${ }^{c}$ | 155 | $-3.9(-11.2,4.0)$ | $-4.4(-11.6,3.4)$ | $-3.0(-10.8,5.4)$ |
| Assist Prof (New) $^{c}$ | 301 | $-2.5(-7.6,2.9)$ | $-2.2(-7.3,3.2)$ | $-1.7(-7.1,4.1)$ |
| Assist Prof (Mid) $^{c}$ | 362 | $-1.3(-6.1,3.7)$ | $-1.6(-6.4,3.4)$ | $0.4(-4.7,5.8)$ |
| Assist Prof (Long) $^{c}$ | 331 | $3.8(-1.4,9.2)$ | $4.0(-1.2,9.4)$ | $5.1(-0.5,11.0)$ |

[^8]Table 10: Overall Percent Differences (95\% CI) in Salary (A+B) (FY 2020 ), negative=women earn less than men.

|  | N | Salary(A+B) | Salary(A+B) ${ }^{a}$ | Salary(A+B) ${ }^{b}$ |
| ---: | :---: | :---: | :---: | :---: |
| Overall | 2082 | $-1.3(-3.4,0.8)$ | $-1.3(-3.3,0.8)$ | $-0.8(-2.9,1.4)$ |
| Professor | 533 | $-0.9(-5.4,3.8)$ | $-0.6(-5.1,4.0)$ | $-1.0(-5.5,3.6)$ |
| Associate Professor | 555 | $0.4(-3.5,4.5)$ | $0.5(-3.4,4.6)$ | $-0.1(-4.0,4.1)$ |
| Assistant Professor | 994 | $-2.5(-5.3,0.4)$ | $-2.5(-5.3,0.4)$ | $-1.3(-4.3,1.7)$ |
| MD degree | 1559 | $0.0(-2.5,2.5)$ | $0.2(-2.3,2.7)$ | $0.6(-2.0,3.3)$ |
| Non-MD degree | 523 | $-5.5(-9.5,-1.4)$ | $-5.9(-9.8,-1.8)$ | $-5.4(-9.4,-1.2)$ |
| Professor (New) $^{c}$ | 158 | $-4.1(-11.3,3.7)$ | $-3.5(-10.7,4.4)$ | $-4.2(-11.5,3.7)$ |
| Professor (Mid) $^{c}$ | 156 | $7.3(-0.9,16.3)$ | $7.8(-0.6,16.8)$ | $6.7(-1.4,15.6)$ |
| Professor (Long) $^{c}$ | 219 | $-3.7(-11.4,4.7)$ | $-4.0(-11.6,4.3)$ | $-3.9(-11.5,4.4)$ |
| Assoc Prof (New) $^{c}$ | 202 | $-1.8(-8.0,4.9)$ | $-2.1(-8.3,4.4)$ | $-2.4(-8.7,4.4)$ |
| Assoc Prof (Mid) ${ }^{c}$ | 198 | $0.2(-6.2,7.0)$ | $1.3(-5.1,8.2)$ | $-0.8(-7.1,6.0)$ |
| Assoc Prof (Long) $^{c}$ | 155 | $2.6(-5.0,10.8)$ | $2.1(-5.4,10.2)$ | $3.6(-4.4,12.3)$ |
| Assist Prof (New) $^{c}$ | 301 | $-1.6(-6.6,3.8)$ | $-1.2(-6.3,4.1)$ | $0.0(-5.3,5.6)$ |
| Assist Prof (Mid) $^{c}$ | 362 | $-4.4(-8.9,0.4)$ | $-4.9(-9.4,-0.2)$ | $-2.6(-7.4,2.5)$ |
| Assist Prof (Long) ${ }^{c}$ | 331 | $-2.6(-7.4,2.4)$ | $-2.3(-7.1,2.7)$ | $-2.4(-7.4,2.9)$ |

[^9]Table 11: Overall Percent Differences ( $95 \%$ CI) in Salary (A+B+C) (FY 2020 ), negative=women earn less than men.

|  | N | Salary (A+B+C) | Salary (A+B+C) ${ }^{a}$ | Salary (A+B+C) ${ }^{\text {b }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Overall | 2082 | -1.8 (-3.8, 0.3) | -1.7 (-3.8, 0.3) | -1.3 (-3.4, 0.9) |
| Professor | 533 | -1.2 (-5.6, 3.5) | -0.9 (-5.3, 3.7) | -1.3 (-5.8, 3.3) |
| Associate Professor | 555 | $0.1(-3.8,4.1)$ | $0.2(-3.7,4.2)$ | -0.4 (-4.3, 3.7) |
| Assistant Professor | 994 | -3.1 (-5.8, -0.2) | -3.1 (-5.8, -0.3) | -2.0 (-4.9, 1.0) |
| MD degree | 1559 | -0.7 (-3.1, 1.9) | -0.4 (-2.9, 2.1) | 0.0 (-2.6, 2.6) |
| Non-MD degree | 523 | -5.5 (-9.4, -1.3) | -5.9 (-9.8, -1.8) | -5.4 (-9.3, -1.2) |
| Professor (New) ${ }^{\text {c }}$ | 158 | -4.0 (-11.2, 3.7) | -3.3 (-10.5, 4.4) | -4.1 (-11.4, 3.7) |
| Professor (Mid) ${ }^{\text {c }}$ | 156 | $6.8(-1.4,15.6)$ | $7.2(-1.1,16.1)$ | $6.2(-1.9,14.9)$ |
| Professor (Long) ${ }^{\text {c }}$ | 219 | -3.9 (-11.6, 4.3) | -4.2 (-11.7, 4.0) | -4.1 (-11.7, 4.0) |
| Assoc Prof (New) ${ }^{c}$ | 202 | -2.2 (-8.3, 4.4) | -2.5 (-8.6, 3.9) | -2.7 (-9.0, 4.0) |
| Assoc Prof (Mid) ${ }^{\text {c }}$ | 198 | -0.4 (-6.7, 6.3) | 0.7 (-5.6, 7.5) | -1.3 (-7.6, 5.4) |
| Assoc Prof (Long) ${ }^{\text {c }}$ | 155 | 2.8 (-4.8, 11.0) | $2.2(-5.2,10.3)$ | 3.8 (-4.2, 12.5) |
| Assist Prof (New) ${ }^{\text {c }}$ | 301 | -2.2 (-7.2, 3.0) | -1.9 (-6.9, 3.3) | -0.6 (-5.9, 4.9) |
| Assist Prof (Mid) ${ }^{\text {c }}$ | 362 | -4.9 (-9.3, -0.2) | -5.4 (-9.8, -0.8) | -3.2 (-8.0, 1.8) |
| Assist Prof (Long) ${ }^{\text {c }}$ | 331 | -3.2 (-7.9, 1.8) | -2.9 (-7.6, 2.0) | -3.1 (-8.0, 2.2) |

[^10]Table 12: Overall Departmental Percent Differences (95\% CI) in Salary A, Salary(A+B) \& Salary (A+B+C) (FY 2020 ), negative=women earn less than men.

| Department | N | Salary A | Salary(A+B) | Salary+Bonus(A+B+C) |
| ---: | :---: | :---: | :---: | :---: |
| Overall $^{2}$ | 2082 | $-0.4(-2.5,1.8)$ | $-1.3(-3.4,0.8)$ | $-1.8(-3.8,0.3)$ |
| Overall $^{a}$ | 2047 | $-0.4(-2.5,1.8)$ | $-1.3(-3.3,0.8)$ | $-1.7(-3.8,0.3)$ |
| Overall $^{b}$ | 1922 | $0.2(-2.0,2.5)$ | $-0.8(-2.9,1.4)$ | $-1.3(-3.4,0.9)$ |
| Overall $^{c}$ | 2021 | $-0.2(-2.4,2.0)$ | $-1.0(-3.1,1.2)$ | $-1.5(-3.6,0.7)$ |
| Basic Science $^{2}$ | 132 | $-8.4(-16.1,0.1)$ | $-8.3(-15.9,0.0)$ | $-8.5(-16.0,-0.3)$ |
| Basic Science $^{c}$ | 93 | $-6.7(-15.8,3.4)$ | $-2.9(-12.2,7.3)$ | $-3.2(-12.4,7.0)$ |
| Neurology | 127 | $2.9(-5.7,12.4)$ | $-2.1(-10.2,6.6)$ | $-2.3(-10.3,6.4)$ |
| Medicine | 502 | $-1.2(-5.3,3.1)$ | $-0.4(-4.4,3.9)$ | $-1.0(-5.0,3.2)$ |
| Ophthalmology $^{2} 96$ | $2.3(-7.6,13.2)$ | $1.1(-8.5,11.7)$ | $1.2(-8.4,11.7)$ |  |
| Pathology | 95 | $-2.5(-11.7,7.7)$ | $-2.7(-11.7,7.3)$ | $-2.7(-11.7,7.2)$ |
| Pediatrics | 127 | $0.3(-8.5,9.8)$ | $-0.9(-9.3,8.4)$ | $-0.9(-9.3,8.3)$ |
| Psychiatry | 123 | $0.2(-8.2,9.3)$ | $0.4(-7.8,9.4)$ | $0.9(-7.3,9.9)$ |
| Surgery | 237 | $-2.9(-9.4,4.1)$ | $-0.5(-7.0,6.5)$ | $-1.4(-7.8,5.5)$ |
| Neurosurgery | 35 | $1.2(-21.6,30.6)$ | $-5.4(-26.3,21.4)$ | $-5.6(-26.4,20.9)$ |
| Radiology | 110 | $2.1(-7.2,12.2)$ | $1.6(-7.4,11.5)$ | $1.6(-7.3,11.5)$ |
| Oncology | 134 | $2.0(-6.4,11.2)$ | $1.3(-6.8,10.2)$ | $1.4(-6.7,10.3)$ |
| Anesthesiology | 160 | $-6.4(-13.1,0.8)$ | $-6.6(-13.1,0.4)$ | $-6.8(-13.2,0.2)$ |
| Other | 181 | $10.2(2.6,18.4)$ | $0.0(-6.8,7.2)$ | $-2.1(-8.7,4.9)$ |
| Genetic Medicine | 23 | $4.1(-17.3,30.9)$ | $5.3(-15.9,31.7)$ | $5.3(-15.8,31.5)$ |

${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
${ }^{c}$ Estimated gender differences after removing the Art as applied to medicine, History of Medicine, Biomedical Engineering, Functional Anatomy from Basic Science.

Table 13: Overall Departmental Differences(\$) in Salary A, Salary (A + B) \& Salary (A + B + C) (FY 2020 ), negative=women earn less than men.

| Department | N | Salary A | Salary(A+B) | Salary+Bonus(A+B+C) |
| ---: | :---: | :---: | :---: | :---: |
| Overall $^{2}$ | 2082 | $-844(-4534,2846)$ | $-2681(-6814,1452)$ | $-3612(-7742,518)$ |
| Overall $^{a}$ | 2047 | $-866(-4561,2829)$ | $-2548(-6691,1595)$ | $-3476(-7613,661)$ |
| Overall $^{b}$ | 1922 | $412(-3397,4221)$ | $-1521(-5687,2646)$ | $-2490(-6655,1676)$ |
| Overall $^{c}$ | 2021 | $-581(-4357,3195)$ | $-2116(-6339,2107)$ | $-3095(-7315,1125)$ |
| Basic Science $^{2}$ | 132 | $-13330(-23007,-3654)$ | $-15178(-25923,-4433)$ | $-15465(-26218,-4712)$ |
| Basic Science $^{c}$ | 93 | $-11509(-22009,-1009)$ | $-7042(-17498,3413)$ | $-7395(-17866,3076)$ |
| Neurology | 127 | $4592(-7411,16594)$ | $-1248(-12899,10403)$ | $-1729(-13309,9851)$ |
| Medicine | 502 | $-4372(-10837,2094)$ | $-3623(-11613,4366)$ | $-4433(-12417,3551)$ |
| Ophthalmology $^{\text {Pathology }}$ | 96 | $1879(-8725,12484)$ | $476(-11532,12484)$ | $531(-11511,12573)$ |
| Pediatrics | 127 | $-4129(-12721,4463)$ | $-4709(-14844,5427)$ | $-4738(-14874,5398)$ |
| Psychiatry | 123 | $-815(-8211,6581)$ | $-233(-9237,87718)$ | $-4797(-18164,8569)$ |
| Surgery | 237 | $-292(-18307,17723)$ | $1442(-19651,22534)$ | $-1175(-22506,20155)$ |
| Neurosurgery | 35 | $2168(-52019,56355)$ | $-20927(-75603,33749)$ | $-22274(-80089,35541)$ |
| Radiology | 110 | $6377(-6623,19378)$ | $5051(-9380,19482)$ | $5101(-9393,19595)$ |
| Oncology | 134 | $964(-6875,8802)$ | $-246(-11126,10633)$ | $-25(-10974,10924)$ |
| Anesthesiology | 160 | $-14277(-28318,-237)$ | $-15093(-33706,3520)$ | $-15619(-34157,2919)$ |
| Other | 181 | $20903(1150,40656)$ | $8028(-8409,24465)$ | $3420(-12567,19408)$ |
| Genetic Medicine | 23 | $5470(-17035,27975)$ | $6713(-23229,36654)$ | $6713(-23229,36654)$ |

${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
${ }^{c}$ Estimated gender differences after removing the Art as applied to medicine, History of Medicine, Biomedical Engineering, Functional Anatomy from Basic Science.


Table 15: Percent Differences $(95 \%$ CI) Salary $(\mathrm{A}+\mathrm{B})$ for FY 2015-2020. *Surgery before FY19 includes both Surgery and Neurosurgery.

| Department | 2005 | 2015 | 2016 | 2017 | 2018 | 2019 | 20 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall | $-2.6(-5.0,-0.2)$ | $-1.9(-4.1,0.3)$ | $-1.9(-4.1,0.3)$ | $-2.1(-4.3,0.1)$ | $-2.6(-4.7,-0.4)$ | $-1.9(-4.0,0.3)$ | $-1.3(-3.4,0.8)$ |
| Basic Science | $0.3(-9.7,10.3)$ | $0.0(-7.9,8.6)$ | $-3.1(-11.3,5.9)$ | $-5.4(-13.4,3.4)$ | $-3.6(-11.8,5.3)$ | $-6.8(-14.7,1.9)$ | $-8.3(-15.9,0.0)$ |
| Neurology | $-4.6(-15.8,6.6)$ | $-5.0(-14.5,5.5)$ | $-5.7(-14.8,4.4)$ | $-5.7(-14.6,4.1)$ | $-5.6(-14.2,3.9)$ | $-3.3(-11.5,5.7)$ | $-2.1(-10.2,6.6)$ |
| Medicine | $-3.5(-8.5,1.5)$ | $-1.2(-5.4,3.2)$ | $-1.0(-5.2,3.4)$ | $-1.5(-5.6,2.9)$ | $-2.8(-6.9,1.5)$ | $0.4(-3.9,4.8)$ | $-0.4(-4.4,3.9)$ |
| Ophthalmology | $-8.9(-19.1,1.3)$ | $-4.5(-14.0,6.1)$ | $-4.3(-13.7,6.1)$ | $-1.1(-10.4,9.1)$ | $-2.2(-11.7,8.4)$ | $-0.3(-9.4,9.8)$ | $1.1(-8.5,11.7)$ |
| Pathology | $0.4(-9.6,10.4)$ | $-3.7(-12.6,6.2)$ | $-3.6(-13.1,6.9)$ | $1.5(-8.2,12.3)$ | $-1.1(-10.3,9.1)$ | $-0.8(-9.9,9.1)$ | $-2.7(-11.7,7.3)$ |
| Pediatrics | $-1.3(-10.5,7.9)$ | $1.1(-6.4,9.3)$ | $6.8(-2.2,16.5)$ | $3.4(-5.6,13.1)$ | $-0.4(-8.7,8.7)$ | $-1.9(-10.5,7.6)$ | $-0.9(-9.3,8.4)$ |
| Psychiatry | $-1.0(-9.4,7.4)$ | $3.1(-5.3,12.2)$ | $2.0(-6.4,11.1)$ | $0.1(-8.4,9.4)$ | $2.4(-6.5,12.0)$ | $0.5(-7.9,9.7)$ | $0.4(-7.8,9.4)$ |
| Surgery | $-0.3(-9.3,8.7)$ | $-5.9(-12.3,1.0)$ | $-3.7(-10.1,3.3)$ | $-2.9(-9.4,4.0)$ | $-5.0(-11.2,1.6)$ | $-4.5(-10.8,2.2)$ | $-0.5(-7.0,6.5)$ |
| Neurosurgery | - | - | - | - | - | $-7.8(-28.0,18.1)$ | $-5.4(-26.3,21.4)$ |
| Radiology | $-3.9(-14.9,7.1)$ | $3.2(-5.8,13.1)$ | $-0.1(-8.5,8.9)$ | $-1.5(-9.5,7.2)$ | $-3.0(-11.0,5.8)$ | $0.2(-8.4,9.6)$ | $1.6(-7.4,11.5)$ |
| Oncology | $-4.9(-14.3,4.5)$ | $1.8(-7.3,11.8)$ | $-0.7(-9.8,9.4)$ | $-0.3(-9.1,9.3)$ | $1.6(-7.1,11.2)$ | $-0.8(-9.1,8.2)$ | $1.3(-6.8,10.2)$ |
| Anesthesiology | $-3.3(-14.1,7.5)$ | $-12.5(-19.6,-4.7)$ | $-11.8(-19.0,-3.9)$ | $-10.4(-17.4,-2.8)$ | $-11.7(-18.4,-4.3)$ | $-9.0(-15.6,-1.9)$ | $-6.6(-13.1,0.4)$ |
| Other | $-1.0(-9.0,7.0)$ | $-0.6(-7.8,7.2)$ | $-0.2(-7.4,7.5)$ | $-0.6(-7.7,7.1)$ | $4.1(-3.4,12.2)$ | $1.3(-5.9,9.1)$ | $0.0(-6.8,7.2)$ |
| Genetic Medicine | - | - | - |  | - | - | $0.0(-19.3,23.8)$ |

Table 16: Percent Differences (95\% CI) Salary $(\mathrm{A}+\mathrm{B}+\mathrm{C})$ for FY 2015-2020. *Surgery before FY19 includes both Surgery and Neuro-
surgery.

| Department | 2005 | 2015 | 2016 | 2017 | 2019 | 2020 |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall | $-5.7(-9.1,-2.3)$ | $-6.8(-9.6,-4.0)$ | $-6.2(-8.9,-3.4)$ | $-6.5(-9.1,-3.8)$ | $-6.1(-8.7,-3.5)$ | $-2.4(-4.5,-0.3)$ | $-1.8(-3.8,0.3)$ |
| Basic Science | $-1.7(-16.1,12.7)$ | $0.0(-10.4,11.7)$ | $-3.8(-14.3,7.9)$ | $-7.0(-16.9,4.0)$ | $-3.6(-13.6,7.7)$ | $-7.0(-14.9,1.6)$ | $-8.5(-16.0,-0.3)$ |
| Neurology | $-2.1(-18.1,13.9)$ | $-12.1(-23.6,1.1)$ | $-6.2(-17.7,7.0)$ | $-5.8(-16.9,6.8)$ | $-5.7(-16.3,6.3)$ | $-3.3(-11.5,5.6)$ | $-2.3(-10.3,6.4)$ |
| Medicine | $-5.5(-12.7,1.7)$ | $-9.0(-14.1,-3.5)$ | $-8.3(-13.3,-3.0)$ | $-7.9(-12.8,-2.7)$ | $-6.7(-11.6,-1.5)$ | $-0.6(-4.8,3.7)$ | $-1.0(-5.0,3.2)$ |
| Ophthalmology | $-8.2(-22.8,6.4)$ | $-2.9(-15.6,11.7)$ | $2.9(-10.0,17.7)$ | $1.8(-10.2,15.3)$ | $-2.9(-14.6,10.3)$ | $-0.1(-9.2,10.0)$ | $1.2(-8.4,11.7)$ |
| Pathology | $-3.6(-17.8,10.6)$ | $-2.0(-13.9,11.5)$ | $-1.4(-13.8,12.8)$ | $2.6(-9.7,16.6)$ | $-0.5(-12.0,12.5)$ | $-0.9(-9.9,9.0)$ | $-2.7(-11.7,7.2)$ |
| Pediatrics | $-4.3(-17.3,8.7)$ | $-0.1(-9.9,10.7)$ | $5.6(-5.7,18.4)$ | $0.4(-10.5,12.6)$ | $-1.9(-12.1,9.4)$ | $-2.3(-10.9,7.1)$ | $-0.9(-9.3,8.3)$ |
| Psychiatry | $-4.9(-16.7,6.9)$ | $2.4(-8.5,14.6)$ | $1.2(-9.5,13.0)$ | $-0.7(-11.3,11.1)$ | $2.3(-8.6,14.5)$ | $0.8(-7.6,10.0)$ | $0.9(-7.3,9.9)$ |
| Surgery | $-12.4(-25.2,0.4)$ | $-22.2(-29.2,-14.5)$ | $-21.5(-28.2,-14.1)$ | $-20.0(-26.7,-12.7)$ | $-15.8(-22.6,-8.4)$ | $-5.3(-11.6,1.3)$ | $-1.4(-7.8,5.5)$ |
| Neurosurgery | - | - | - | - | $-8.7(-28.6,16.8)$ | $-5.6(-26.4,20.9)$ |  |
| Radiology | $-14.3(-29.9,1.3)$ | $1.6(-10.0,14.8)$ | $-3.8(-14.1,7.8)$ | $-3.6(-13.5,7.4)$ | $-2.4(-12.5,8.7)$ | $0.0(-8.5,9.3)$ | $1.6(-7.3,11.5)$ |
| Oncology | $-1.8(-15.2,11.6)$ | $1.6(-10.3,15.1)$ | $1.2(-10.7,14.7)$ | $4.3(-7.3,17.3)$ | $3.1(-7.9,15.3)$ | $-0.8(-9.1,8.2)$ | $1.4(-6.7,10.3)$ |
| Anesthesiology | $-4.7(-20.1,10.7)$ | $-12.3(-21.6,-1.8)$ | $-8.5(-18.1,2.2)$ | $-9.0(-17.9,1.0)$ | $-13.0(-21.2,-3.9)$ | $-9.0(-15.5,-1.9)$ | $-6.8(-13.2,0.2)$ |
| Other | $-4.1(-15.5,7.3)$ | $-8.5(-17.2,1.2)$ | $-7.4(-16.0,2.1)$ | $-9.2(-17.4,-0.2)$ | $-9.5(-17.6,-0.6)$ | $-0.8(-7.8,6.7)$ | $-2.1(-8.7,4.9)$ |
| Genetic Medicine | - | - | - | - | $-1.3(-20.3,22.2)$ | $5.3(-15.8,31.5)$ |  |

## 9 Appendix

## Model Specifications

For Tables $9,10,11,12,14,15$ and $16 \log$ salary was modeled, as detailed below. For Table 13 and appendix Table 21, 22 and 23, actual salary was modeled with robust variance estimates.

The models for Tables 9-11 and appendix Tables 21-23 adjust for department, rank separately within each department, degree, and year-in-rank, and estimate:

1) an overall gender difference,
2) gender differences separately for each rank,
3) gender differences separately for each degree type,
4) gender differences separately for each rank/year-in-rank combination.

The models for Table 12, 13, 14, 15 and 16 estimate a separate gender difference for each department, adjusting for department-specific rank, degree, and years-in-rank.

Table 17: Department By Degree, Counts (\%)

| Department | Non-MD | MD | Total |
| ---: | :---: | :---: | :---: |
| Basic Science | $116(95)$ | $6(5)$ | 122 |
| OB/GYN | $3(5)$ | $57(95)$ | 60 |
| Neurology | $29(23)$ | $98(77)$ | 127 |
| Medicine | $63(13)$ | $439(87)$ | 502 |
| Ophthalmology | $29(30)$ | $67(70)$ | 96 |
| Pathology | $26(27)$ | $69(73)$ | 95 |
| Pediatrics | $15(12)$ | $112(88)$ | 127 |
| Psychiatry | $51(41)$ | $72(59)$ | 123 |
| Surgery | $43(18)$ | $194(82)$ | 237 |
| Radiology | $43(39)$ | $67(61)$ | 110 |
| Oncology | $31(28)$ | $81(72)$ | 112 |
| Anesthesiology | $17(11)$ | $143(89)$ | 160 |
| Art Applied to Medicine | $7(47)$ | $8(53)$ | 15 |
| History of Medicine | $8(47)$ | $9(53)$ | 17 |
| Dermatology | $1(4)$ | $23(96)$ | 24 |
| Physical Medicine/Rehab | $13(45)$ | $16(55)$ | 29 |
| Emergency Medicine | $4(10)$ | $37(90)$ | 41 |
| Radiation Oncology | $9(33)$ | $18(67)$ | 27 |
| Genetic Medicine | $9(39)$ | $14(61)$ | 23 |
| Neurosurgery | $6(17)$ | $29(83)$ | 35 |
| Total | $523(25)$ | $1559(75)$ | 2082 |

Table 18: Degree By Rank, Counts (Row \%) (Col \%)

| Degree | Prof | Assoc Prof | Assist Prof | Total |
| ---: | :---: | :---: | :---: | :---: |
| Non-MD | $152(29)(29)$ | $155(30)(28)$ | $216(41)(22)$ | $523(25)$ |
| MD | $381(24)(71)$ | $400(26)(72)$ | $778(50)(78)$ | $1559(75)$ |
| Total | $533(26)$ | $555(27)$ | $994(48)$ | 2082 |

Table 19: Faculty Receiving Bonuses By Department and Rank, showing numbers [\%] of faculty members receiving bonuses, and of those the number (\%) who are women.

| Department | Prof-All | Prof-F | Assoc-All | Assoc-F | Assist-All | Assist-F |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| Basic Science | $1[2]$ | 0 | $3[8]$ | 0 | $1[3]$ | 0 |
| OB/GYN | $2[20]$ | $1[20](50)$ | $5[56]$ | $4[57](80)$ | $9[22]$ | $6[17](67)$ |
| Neurology | $5[12]$ | $1[12](20)$ | $7[26]$ | $5[38](71)$ | $9[15]$ | $5[16](56)$ |
| Medicine | $14[11]$ | $3[9](21)$ | $25[19]$ | $9[17](36)$ | $77[32]$ | $33[26](43)$ |
| Ophthalmology | 0 | 0 | $2[10]$ | $1[14](50)$ | $4[8]$ | $2[8](50)$ |
| Pathology | 0 | 0 | $1[3]$ | 0 | $3[12]$ | $1[7](33)$ |
| Pediatrics | $1[5]$ | $1[11](100)$ | $2[6]$ | $1[5](50)$ | $5[7]$ | $2[4](40)$ |
| Psychiatry | $1[4]$ | $1[14](100)$ | $4[10]$ | $2[9](50)$ | $13[23]$ | $10[29](77)$ |
| Surgery | $11[17]$ | $1[9](9)$ | $22[42]$ | $3[27](14)$ | $44[37]$ | $13[33](30)$ |
| Radiology | $3[9]$ | $1[11](33)$ | $2[6]$ | 0 | $7[16]$ | $4[16](57)$ |
| Oncology | $8[24]$ | $1[25](12)$ | $22[52]$ | $10[62](45)$ | $26[72]$ | $11[79](42)$ |
| Anesthesiology | $11[69]$ | $2[67](18)$ | $29[76]$ | $9[60](31)$ | $91[86]$ | $48[91](53)$ |
| Medicine | $1[25]$ | 0 | $2[33]$ | $1[33](50)$ | $2[40]$ | $1[100](50)$ |
| Art Applied to Med | 10 | $6[86]$ | $5[83](83)$ |  |  |  |
| History of Medicine | $2[29]$ | $2[40](100)$ | $1[33]$ | 0 | 0 | 0 |
| Dermatology | $1[50]$ | $1[100](100)$ | $1[33]$ | $1[50](100)$ | 0 | $1[4]$ |
| Physical Medicine/Rehab | 0 | 0 | 0 | 0 | 0 |  |
| Emergency Medicine | $3[100]$ | 0 | $9[75]$ | $3[100](33)$ | $25[96]$ | $9[90](36)$ |
| Radiation Oncology | 0 | 0 | 0 | 0 | 0 | 0 |
| Genetic Medicine | 0 | 0 | 0 | 0 | 0 | 0 |
| Neurosurgery | $13[76]$ | $1[100](8)$ | $4[57]$ | 0 | $5[45]$ | $1[100](20)$ |
| Total | $77[14]$ | $16[12](21)$ | $141[25]$ | $49[22](35)$ | $328[33]$ | $151[29](46)$ |

Table 20: Value of Bonuses(\$), Degree by Rank by Gender-25,50,75th percentiles

| Male | Rank | 25 th | 50 th | 75 th |
| ---: | :---: | :---: | :---: | :---: |
| Non-MD | Prof | 417 | 908 | 1400 |
|  | Assoc Prof | 668 | 5334 | 20500 |
|  | Assist Prof | 209 | 250 | 1476 |
| MD | Prof | 2917 | 8861 | 14432 |
|  | Assoc Prof | 2008 | 4567 | 11182 |
|  | Assist Prof | 2008 | 4567 | 11182 |
| Female | Rank | 25 th | 50 th | 75 th |
| Non-MD | Prof |  |  |  |
|  | Assoc Prof | 4942 | 9050 | 14525 |
|  | Assist Prof | 463 | 666 | 3716 |
| MD | Prof | 750 | 3114 | 7039 |
|  | Assoc Prof | 1667 | 2238 | 4508 |
|  | Assist Prof | 1667 | 2238 | 4508 |

Table 21: Overall Differences $\$(95 \%$ CI) in Salary A (FY 2020 ), negative=women earn less than men.

|  | N | Salary A | Salary A $^{a}$ | Salary A $^{b}$ |
| ---: | :---: | :---: | :---: | :---: |
| Overall | 2082 | $-844(-4534,2846)$ | $-866(-4561,2829)$ | $412(-3397,4221)$ |
| Professor | 533 | $-4253(-12113,3606)$ | $-4343(-12277,3592)$ | $-4430(-12440,3579)$ |
| Associate Professor | 555 | $-536(-7382,6311)$ | $-214(-6997,6569)$ | $-471(-7521,6579)$ |
| Assistant Professor | 994 | $207(-4937,5350)$ | $230(-4891,5352)$ | $2848(-2498,8193)$ |
| MD degree | 1559 | $940(-3722,5602)$ | $1263(-3397,5924)$ | $2648(-2224,7519)$ |
| Non-MD degree | 523 | $-2406(-8800,3988)$ | $-3278(-9628,3072)$ | $-2327(-8857,4203)$ |
| Professor (New) $^{c}$ | 158 | $-7401(-21865,7063)$ | $-6503(-21183,8177)$ | $-8857(-23870,6157)$ |
| Professor (Mid) $^{c}$ | 156 | $7148(-6774,21070)$ | $6743(-7506,20993)$ | $7387(-6651,21425)$ |
| Professor (Long) $^{c}$ | 219 | $-13629(-26702,-555)$ | $-14486(-27556,-1416)$ | $-13817(-26953,-681)$ |
| Assoc Prof (New) $^{c}$ | 202 | $145(-10121,10412)$ | $-217(-10391,9957)$ | $-437(-11052,10178)$ |
| Assoc Prof (Mid) ${ }^{c}$ | 198 | $3621(-7815,15057)$ | $5958(-5380,17296)$ | $3033(-8501,14567)$ |
| Assoc Prof (Long) $^{c}$ | 155 | $-9686(-23240,3868)$ | $-10719(-24184,2746)$ | $-8095(-22273,6083)$ |
| Assist Prof (New) $^{c}$ | 301 | $-5998(-15363,3366)$ | $-5462(-14839,3916)$ | $-4028(-13828,5772)$ |
| Assist Prof (Mid) $^{c}$ | 362 | $-3093(-11353,5167)$ | $-3732(-11873,4409)$ | $586(-7932,9104)$ |
| Assist Prof (Long) ${ }^{c}$ | 331 | $7155(-1464,15774)$ | $7591(-1030,16212)$ | $9390(712,18067)$ |

[^11]Table 22: Overall Differences $\$(95 \%$ CI) in Salary (A +B) (FY 2020 ), negative=women earn less than men.

|  | N | Salary (A+B) | Salary (A+B) ${ }^{a}$ | Salary (A+B) ${ }^{b}$ |
| ---: | :---: | :---: | :---: | :---: |
| Overall | 2082 | $-2681(-6814,1452)$ | $-2548(-6691,1595)$ | $-1521(-5687,2646)$ |
| Professor | 533 | $-4523(-15412,6366)$ | $-3639(-14587,7309)$ | $-4453(-15459,6553)$ |
| Associate Professor | 555 | $653(-7161,8467)$ | $792(-6912,8496)$ | $-975(-8630,6681)$ |
| Assistant Professor | 994 | $-4379(-9790,1033)$ | $-4238(-9606,1129)$ | $-1391(-6895,4113)$ |
| MD degree | 1559 | $-2342(-7607,2924)$ | $-1799(-7068,3469)$ | $-1056(-6422,4309)$ |
| Non-MD degree | 523 | $-4536(-11608,2535)$ | $-5484(-12509,1540)$ | $-4116(-11351,3119)$ |
| Professor (New) $^{c}$ | 158 | $-9286(-31548,12977)$ | $-6841(-28969,15288)$ | $-8315(-31167,14536)$ |
| Professor (Mid) $^{c}$ | 156 | $10135(-7692,27961)$ | $10805(-7494,29104)$ | $9277(-8730,27284)$ |
| Professor (Long) $^{c}$ | 219 | $-11686(-26422,3050)$ | $-12199(-26887,2488)$ | $-12398(-27198,2402)$ |
| Assoc Prof (New) $^{c}$ | 202 | $-3656(-16859,9546)$ | $-4638(-17755,8478)$ | $-6226(-18136,5685)$ |
| Assoc Prof (Mid) $^{c}$ | 198 | $-42(-12972,12888)$ | $2074(-10725,14874)$ | $-2674(-15612,10264)$ |
| Assoc Prof (Long) $^{c}$ | 155 | $3956(-11173,19086)$ | $2796(-12224,17816)$ | $5997(-9674,21667)$ |
| Assist Prof (New) $^{c}$ | 301 | $-2240(-12096,7616)$ | $-1700(-11581,8181)$ | $2217(-7533,11967)$ |
| Assist Prof (Mid) ${ }^{c}$ | 362 | $-8943(-17550,-337)$ | $-10102(-18587,-1618)$ | $-5166(-14141,3809)$ |
| Assist Prof (Long) ${ }^{c}$ | 331 | $-4248(-14008,5512)$ | $-3305(-12944,6335)$ | $-3456(-13468,6555)$ |

[^12]Table 23: Overall Differences $\$(95 \%$ CI) in Salary $(A+B+C)$ (FY 2020 ), negative=women earn less than men.

|  | N | Salary (A+B+C) | Salary (A+B+C) ${ }^{a}$ | Salary (A+B+C) ${ }^{b}$ |
| ---: | :---: | :---: | :---: | :---: |
| Overall | 2082 | $-3612(-7742,518)$ | $-3476(-7613,661)$ | $-2490(-6655,1676)$ |
| Professor | 533 | $-5250(-16080,5580)$ | $-4271(-15155,6613)$ | $-5233(-16181,5716)$ |
| Associate Professor | 555 | $-276(-8196,7644)$ | $-130(-7917,7658)$ | $-1897(-9685,5892)$ |
| Assistant Professor | 994 | $-5360(-10766,45)$ | $-5267(-10626,92)$ | $-2437(-7937,3063)$ |
| MD degree | 1559 | $-3645(-8913,1623)$ | $-3086(-8353,2182)$ | $-2439(-7813,2934)$ |
| Non-MD degree | 523 | $-4407(-11582,2768)$ | $-5389(-12507,1729)$ | $-3993(-11333,3346)$ |
| Professor (New) $^{c}$ | 158 | $-9384(-31498,12730)$ | $-6794(-28759,15171)$ | $-8495(-31193,14204)$ |
| Professor (Mid) ${ }^{c}$ | 156 | $9138(-8595,26871)$ | $9707(-8487,27901)$ | $8224(-9678,26125)$ |
| Professor (Long) $^{c}$ | 219 | $-12369(-27275,2538)$ | $-12589(-27409,2231)$ | $-13088(-28060,1884)$ |
| Assoc Prof (New) $^{c}$ | 202 | $-5077(-18525,8371)$ | $-6163(-19507,7181)$ | $-7726(-20000,4547)$ |
| Assoc Prof (Mid) ${ }^{c}$ | 198 | $-1440(-14498,11618)$ | $787(-12094,13668)$ | $-3996(-17065,9072)$ |
| Assoc Prof (Long) $^{c}$ | 155 | $4463(-10927,19853)$ | $3213(-12044,18470)$ | $6616(-9351,22584)$ |
| Assist Prof (New) $^{c}$ | 301 | $-3213(-13158,6732)$ | $-2697(-12670,7276)$ | $1380(-8497,11257)$ |
| Assist Prof (Mid) ${ }^{c}$ | 362 | $-9907(-18484,-1331)$ | $-11247(-19664,-2830)$ | $-6347(-15309,2614)$ |
| Assist Prof (Long) ${ }^{c}$ | 331 | $-5245(-14905,4415)$ | $-4327(-13872,5219)$ | $-4556(-14421,5309)$ |

[^13]
[^0]:    ${ }^{1}$ We separately calculated differences after excluding a. the higher earning specialties that historically included fewer women in Neurosurgery ( 35 excluded); b. Anesthesiology faculty ( 160 excluded);c. Art as Applied to Medicine, History of Medicine, Biomedical Engineering, Functional Anatomy from Basic Science ( 39 excluded). For Pediatrics, we included an adjustment for the rank-specific effect of the percentile for AAAP survey of Pediatric Salaries. There are 14 Pediatric faculty members were dropped due to missing AAAP information.

[^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)

[^2]:    *"\% Difference" is calculated as $100 \% \times$ (Female Average Salary - Male Average Salary)/Male Average Salary

[^3]:    *"\% Difference" is calculated as $100 \% \times$ (Female Average Salary - Male Average Salary)/Male Average Salary

[^4]:    *"\% Difference" is calculated as $100 \% \times$ (Female Average Salary - Male Average Salary)/Male Average Salary

[^5]:    *"Difference" is calculated as (Female Average Salary - Male Average Salary)

[^6]:    *"Difference" is calculated as (Female Average Salary - Male Average Salary)

[^7]:    *'"Difference" is calculated as (Female Average Salary - Male Average Salary)

[^8]:    ${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
    ${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
    ${ }^{c}$ 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. ( $>5$ )

[^9]:    ${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
    ${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
    ${ }^{c}$ 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. $(>5)$

[^10]:    ${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
    ${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
    ${ }^{c}$ 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. $(>5)$

[^11]:    ${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
    ${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
    ${ }^{c}$ 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)

[^12]:    ${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
    ${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
    ${ }^{c}$ 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)

[^13]:    ${ }^{a}$ Estimated gender differences after removing Neurosurgery specialty.
    ${ }^{b}$ Estimated gender differences after removing the faculty from Anesthesiology department
    ${ }^{c}$ 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. ( $>5$ )

