

## University of Oregon

### Analyses of 2018 Total Salary Differences by Gender and by Race/Ethnicity

#### Executive Summary

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- Using the 1/1/2018 data provided by the University of Oregon (UO), BRG designed models to measure *similarly situated* demographic group differences in pay.
  - The demographic group comparisons include:
    - Female/Male
    - African-American/White
    - Asian/White
    - Hispanic/White
  
- The primary conclusions from the pay equity studies are that the analyses *fail to reveal a general, university-wide pattern of paying any one of these demographic focal groups (females, African-Americans, Asians and Hispanics) less than their male or White comparators*.
  - On average, across the University, comparable females and males are compensated at similar rates and African-Americans, Asians and Hispanics are paid at rates similar to the amounts that their White comparators receive.
  - Therefore, the data reveal pay relationships that are consistent with the outcomes of a compensation-setting process that is neutral with respect to gender and to race/ethnicity.<sup>1</sup>
  
- The analyses include 758 professors. Among these, 301 are female, 17 are African-American, 87 are Asian and 47 are Hispanic.<sup>2</sup>
  - Professors excluded from the analyses include tenured instructors, retired/retiring professors and administrators other than department heads. The race/ethnicity analyses exclude 18 professors of unknown race.

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<sup>1</sup> As described below, the model yields a statistically significant Asian/White Assistant Professor total salary disparity. Additional research indicate that this disparity is explained by factors for which the model does not account.

<sup>2</sup> The data set also includes four American Indians/Alaskan Natives and 16 who are of Two or More Races.

- Pay is defined as Total Salary which includes:
  - 1/1/2018 base salary;
  - Endowed chair compensation;
  - Recurring faculty excellence & teaching awards;
  - Department head stipends; and
  - “Other” payments.
  
- Multiple regression analysis is used to execute the analyses.
  - Multiple regression analysis is a statistical tool that allows the analyst to:
    - measure the disparity between the demographic groups’ (e.g., females’ and males’) average total salaries after “*filtering out*” differences that are attributable to legitimate factors that influence pay; and
    - determine whether any remaining disparity is *statistically significant*.
      - Generally, pay disparities that are equal to or greater than the absolute value of 1.96 (approximately two) standard deviations are considered statistically significant.<sup>3</sup>
      - Statistically significant differences are not likely to have occurred by chance in a pay-setting process that is neutral with respect to demographic group status.
        - A statistically significant difference simply means that demographic group status is related to pay. However, it is ***not necessarily reflective of discrimination*** against a particular demographic group. The disparity may be attributable, in whole or in part, to group differences in other factors that legitimately influence pay and for which the analysis has not accounted (or measured with error).
      - The absence of *group* differences in *average* compensation does not necessarily mean that all members of a demographic group

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<sup>3</sup> When the sample size is large, 1.96 or more standard deviations is associated with a probability of 5% or less. Such outcomes are considered “rare” or “unusual.”

have salaries that are in-line with the outcome of a neutral pay-setting process.

- For example, when the statistical analysis indicates that, on average, women are paid the same as their male counterparts, some particular men or women may have salaries that are substantially higher or lower than would be expected, given the amounts paid to similar colleagues.
- Analyses were conducted using the dollar value of total salary and the natural log of total salary (lnSalary). The results of the dollar total salary analyses are reported here, as the outcomes and conclusions from the lnSalary model are generally statistically similar.
- The explanatory variables (factors) for which the model controls, in addition to the demographic group indicators, include:
- Current academic rank
  - College/division/department
  - Honors college status
  - Department head status (and course release)
  - Tenure status
  - UO years in each academic rank
  - Potential years of previous experience (years between hire year and highest degree year)
  - Highest level of education
  - Distinguished professorship/endowed chair status
  - Recurring teaching award status
- The total salary analyses described herein include variables that are used to account for the fact that the impact that a factor has on pay may vary from one college to another.<sup>4</sup>
  - This model explains more than 90% of the variation in professors' total salaries.<sup>5</sup> This statistic indicates that the variables included in the model are strong predictors of a faculty member's pay.

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<sup>4</sup> The explanatory variables in the model are interacted with college.

<sup>5</sup> This statistic is known as Adjusted R Squared.

- *University-wide* analyses were conducted, as well as analyses *by rank* and *by college*.<sup>6</sup>
- **Female/Male Total Salary Relationships** (457 males, 301 females). The model indicates that comparable female and male faculty are paid at similar rates.<sup>7</sup> The data fail to reveal any evidence that females were paid less than their male counterparts. Therefore, the female/male total salary relationships measured by the model are consistent with the gender-neutral outcomes.
  - On average, across the institution, similarly situated female and male faculty were compensated at similar rates.
    - The model indicates that women had total salaries that were approximately \$400 less than men – a statistically insignificant difference (-0.32 standard deviations).
  - The data reveal that, at each rank, similarly situated female and male professors were compensated at statistically comparable rates.
  - The data also show that the female/male outcomes vary by college and that no college has a negative statistically significant female/male total salary difference.
- **African-American/White Total Salary Relationships** (17 African-Americans, 569 Whites). The analyses indicate that comparable African-American and White faculty received similar total salaries. The data fail to reveal any pattern of paying African-Americans statistically less than their White counterparts. Therefore, the African-American/White total salary relationships measured by the model are consistent with the race/ethnic-neutral outcome.
  - On average, across the institution, similarly situated African-American and White professors were compensated at comparable rates.

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<sup>6</sup> For the purpose of these analyses, the data for nine colleges are examined. These colleges are: CAS Humanities; CAS Natural Sciences; CAS Social Sciences; Business; Design; Education; Journalism & Communications; Law and Music & Dance.

<sup>7</sup> The terms “similarly situated,” “similar” and “comparable” professors, as well as “counterparts,” are defined within the context of the model. For example, “similarly situated,” “similar” and “comparable” female and male professors are those who are alike in terms of the specific factors for which the model accounts.

- The data show that, on average, African-Americans were paid approximately \$3.0k more than their White counterparts, a statistically insignificant difference at 0.69 standard deviations.
  - The data reveal that, at each rank, African-Americans had total salaries that were statistically similar to the amounts that comparable Whites received.
  - The model indicates that, in none of the colleges, African-Americans were paid significantly less than similar Whites.<sup>8</sup>
- **Asian/White Total Salary Relationships** (569 Whites, 87 Asians) – Generally, the data indicate that similar Asian and White professors were paid at statistically comparable rates. The one potential exception (Assistant Professors - described below) appears to be explained by Asian/White differences in factors for which the model does not account. Accordingly, the model fails to produce any evidence of a general pattern of paying Asians less than their White counterparts.
- On average, across the institution, similarly situated Asian and White faculty were compensated at statistically similar rates. The data reveal that, on average, the Asian total salary was approximately \$2.1k less than the amount paid to their White colleagues. As this difference is not statistically significant (-1.20 standard deviations), this result is consistent with the race/ethnic-neutral outcome.
  - The analysis that measures the Asian/White total salary difference by rank indicates that, among Associate and Full professors, Asians and Whites were paid at similar rates. Among Assistant professors, the data indicate that, on average, Asians were paid approximately \$6.4k less than similar Whites. This shortfall in Asian pay barely crosses the threshold for statistical significance (-2.04 standard deviations).
    - According to additional research that the University conducted, the significance of the Asian/White Assistant Professor disparity appears to be explained by factors for which the model does not account.

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<sup>8</sup> In CAS Social Sciences, the model indicates that, on average, African-Americans were paid significantly more (\$18.2k) than similar Whites. This positive difference barely crosses the threshold for statistical significance (-1.98 standard deviations). The lnSalary model reveals that African-Americans in this college were paid approximately 13.5% more than their White counterparts. Although this difference is approaching statistical significance (1.93 standard deviations), it is consistent with the outcome of a race/ethnic-neutral pay-setting process.

- The Asian/White total salary differences vary by college. The data indicate that, across all ranks, in every college, the Asian/White pay difference is not statistically significant and is, therefore, consistent with the race/ethnic-neutral outcome.
- **Hispanic/White Total Salary Relationships** (569 Whites, 47 Hispanics) – The data indicate that comparable Hispanic and White faculty had statistically similar total salaries. As the model does not reveal any pattern of paying Hispanics less than their White counterparts, these outcomes are consistent with the race/ethnic-neutral model.
  - On average, across the institution, Hispanics had total salaries that were approximately \$1.2k higher than the amounts that similar Whites received. Given that this difference is not statistically significant (0.48 standard deviations), this result is consistent with the race/ethnic-neutral outcome.
  - The data show that, at each rank, similarly situated Hispanic and White faculty were compensated at statistically comparable rates. As these differences are not statistically significant, these results are consistent with the outcome of the race/ethnic-neutral model.
  - The data also show that the Hispanic/White total salary differences vary by college. As none of these differences are statistically significant, the model indicates that, in every college, the pay rates of Hispanics and Whites are consistent with the race/ethnic-neutral model.

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**Analyses of 2018 "Total Salary" Differences  
by Gender and by Race/Ethnicity**

**Mary Dunn Baker, Ph.D.**

**May 2019**



## Purpose of Total Salary Analyses

- Measure the differences between the pay rates of *similarly situated* demographic group members
- Demographic group comparisons:
  - Female/Male (301/457)
  - Minority sub-groups/Whites
    - Asian (87/569)
    - African-American or Black (17/569)
    - Hispanic (47/569)

Note: The race/ethnicity of 18 professors is not known.

The database includes four American Indians/Alaskan Natives and 16 professors of Two or More Races. The results of the AI/AN analyses are not reported because of the small number of observations. The results of the Two or More Races analyses are not reported because the multiple races of these professors are unknown.



# Professors Included and Excluded From Total Salary Regression Analyses

- Included:
  - 758 Assistant, Associate and Full Professors
    - 301 Females
    - 457 Males
    - 87 Asians
    - 17 African-Americans
    - 47 Hispanics
    - 569 Whites
- Excluded:
  - Tenured instructors
  - Retired/retiring professors
  - Administrators other than Department Heads
  - Professors of unknown race/ethnicity (analyses by minority status)

## Definition of 2018 "Total Salary"

- 01/01/2018 Base Salary
- Endowed Chair
- Recurring Faculty Excellence & Teaching Awards
- Administrative
- Other
- "Department Head"\* Stipends

\* "Department Head" includes Area Director, Area Head, Associate Department Head, Department Chair, Department Head, Director, Head of School and Program Co-Director.

## Statistical Analyses Compare *Average* 2018 Total Salaries Paid to Demographic *Groups*

- For example, the salary analyses compare the average amounts paid to all women to the average amounts paid to all men.
- The absence of group differences in average compensation does not necessarily mean that all members of a demographic group have salaries that are in-line with the outcome of a neutral pay-setting process.
  - For instance, when the statistical analysis indicates that, on average, women are paid the same as their male counterparts, some particular women and/or some particular men may have salaries that are substantially higher or lower than would be expected, given the amounts paid to similar colleagues.
  - The "unusual" salaries paid to these particular professors should be investigated to determine whether such disparities are warranted.

## Primary Conclusions

- The analyses fail to reveal any general pattern of paying any of the demographic focal groups (females, African-Americans, Asians and Hispanics) less than their male or White counterparts.
- Therefore, the data reveal pay relationships that are consistent with the outcomes of a compensation-setting process that is neutral with respect to gender and to race/ethnicity.

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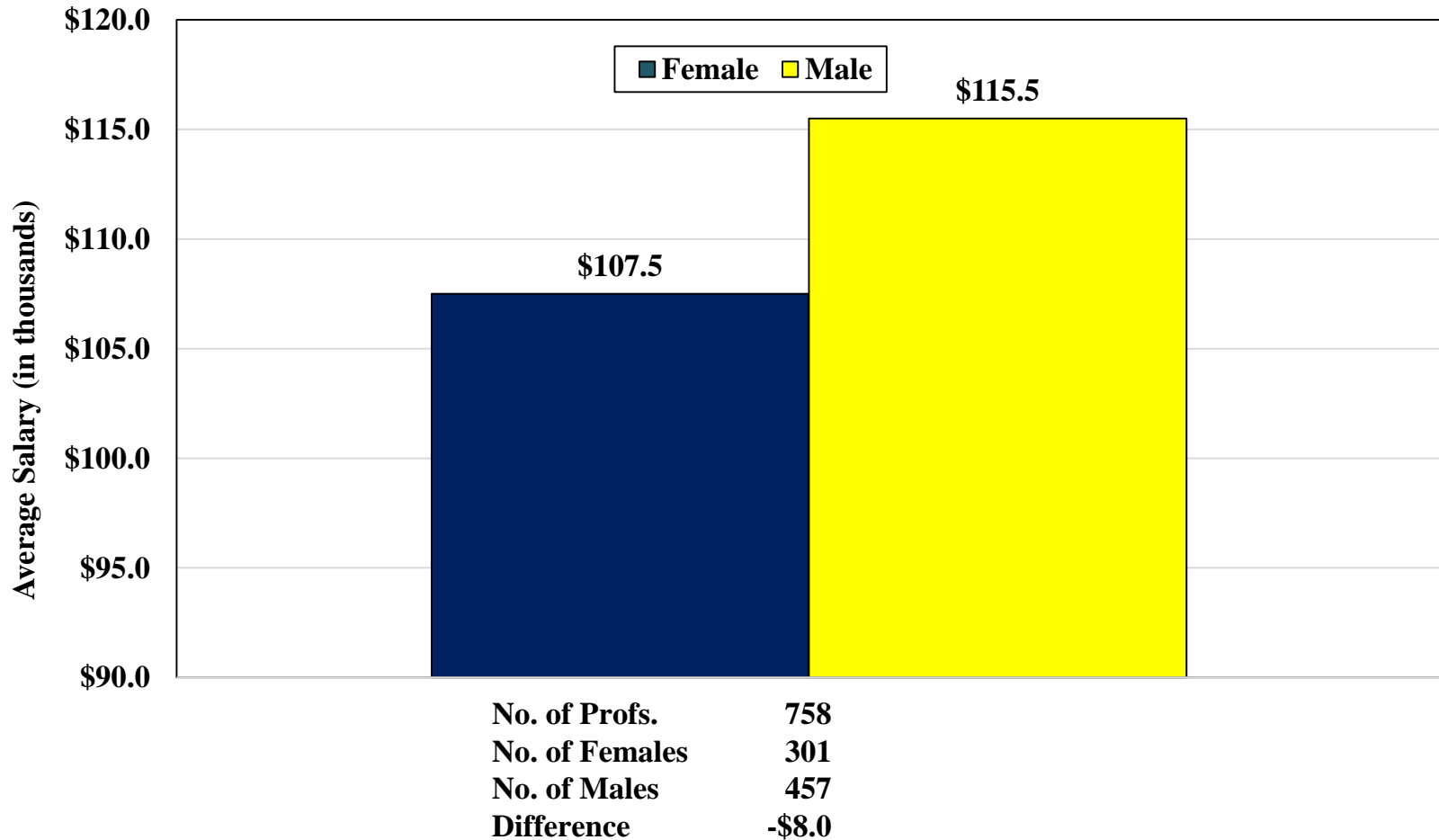
# **Analyses of Total Salaries by Gender**

## Female/Male “Raw” Average Total Salary Differences

- As shown below, when gender is the only factor considered, on average, women have a lower “raw” average salary than men.
- This difference is meaningful, if and only if, female and male professors are similar in terms of legitimate factors that influence pay.
- As illustrated herein, these female and male professors are substantially different with regard to pay-determining characteristics.
- Accordingly, the female/male “raw” average total salary differences do not provide any information that is useful in the assessment/evaluation of pay equity issues.

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# Average "Raw" Total Salaries by Gender



**This "raw" disparity does *not* consider gender differences in any factor that impacts pay, such as academic rank and discipline.**

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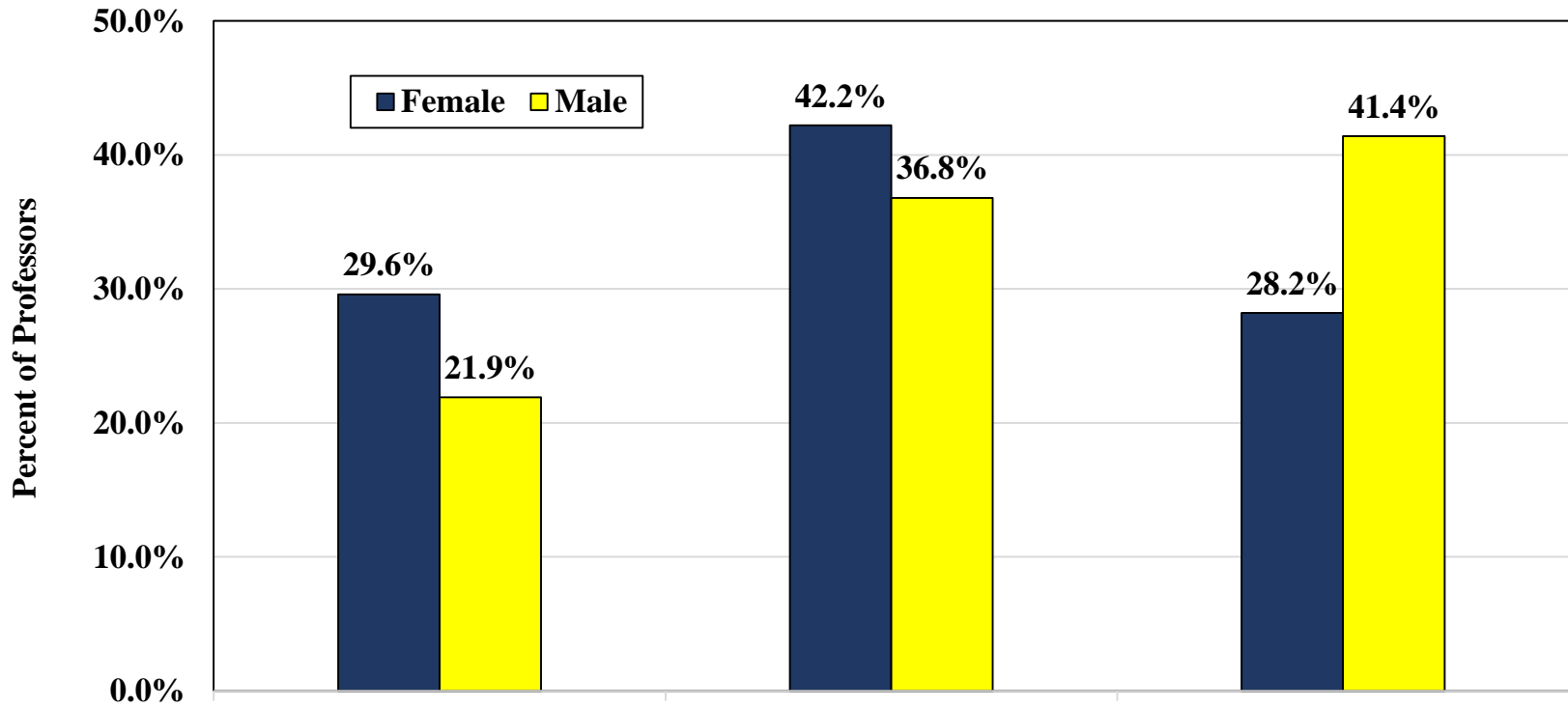
### Examples of Gender Differences in Pay-Influencing Factors

- Academic rank
- College/academic discipline
- Tenure status
- Highest level of education
- Endowed chair status
- Years of UO work experience
- Approximated years of previous work experience



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## Distributions of Professors Across Academic Ranks by Gender



	Assistant	Associate	Full
<b>No. of Profs.</b>	<b>189</b>	<b>295</b>	<b>274</b>
<b>No. of Females</b>	<b>89</b>	<b>127</b>	<b>85</b>
<b>No. of Males</b>	<b>100</b>	<b>168</b>	<b>189</b>

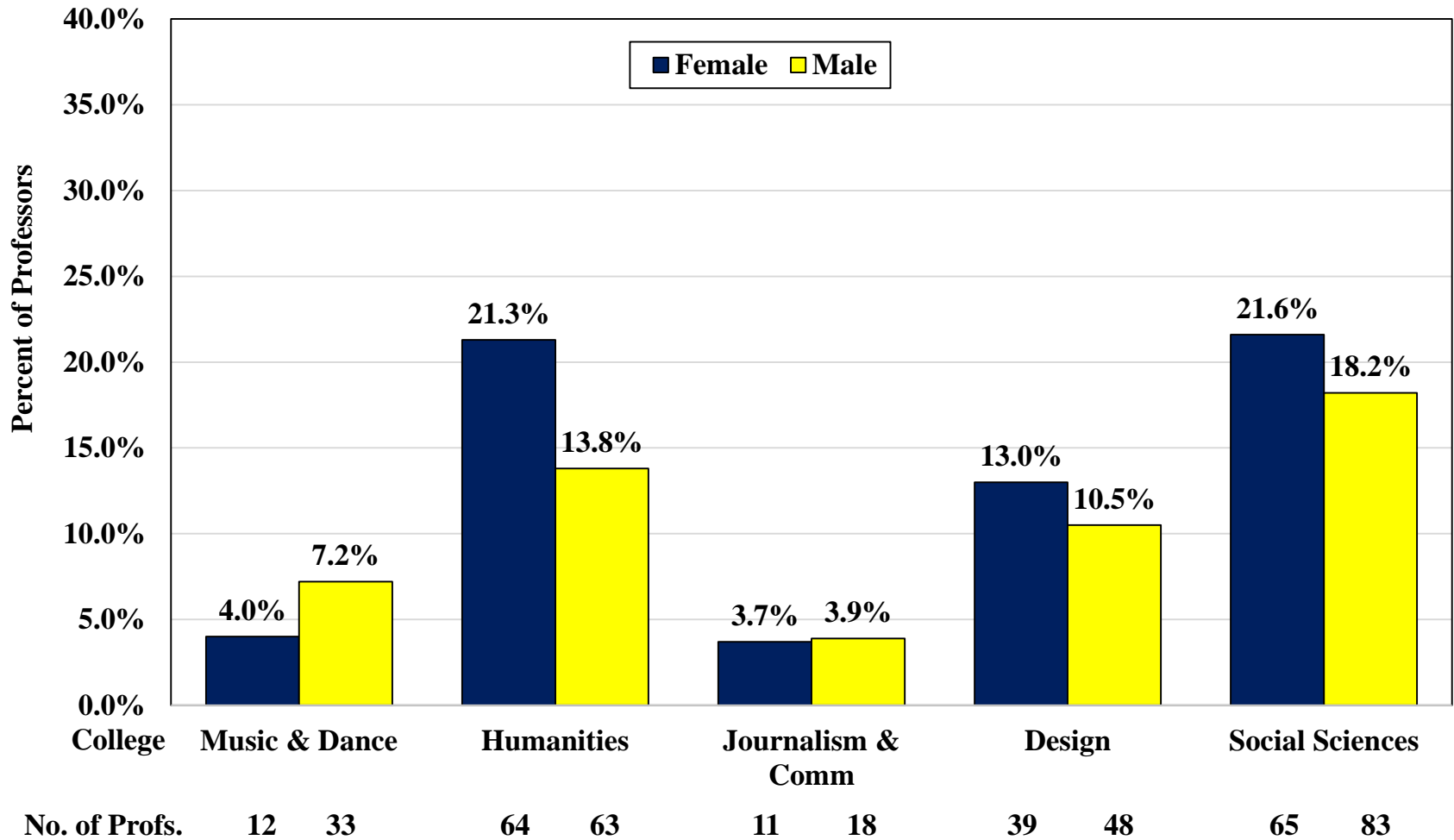
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UO Colleges	"Analysis" Colleges
Art & Sciences	Humanities
	Social Sciences
	Natural Sciences
Music & Dance	Music & Dance
Journalism & Comm	Journalism & Comm
Design	Design
Education	Education
Law	Law
Business	Business
Honors	Assigned to College/Div/Dept With Relevant Discipline

See pages 58-60 for the departments that are in each college.

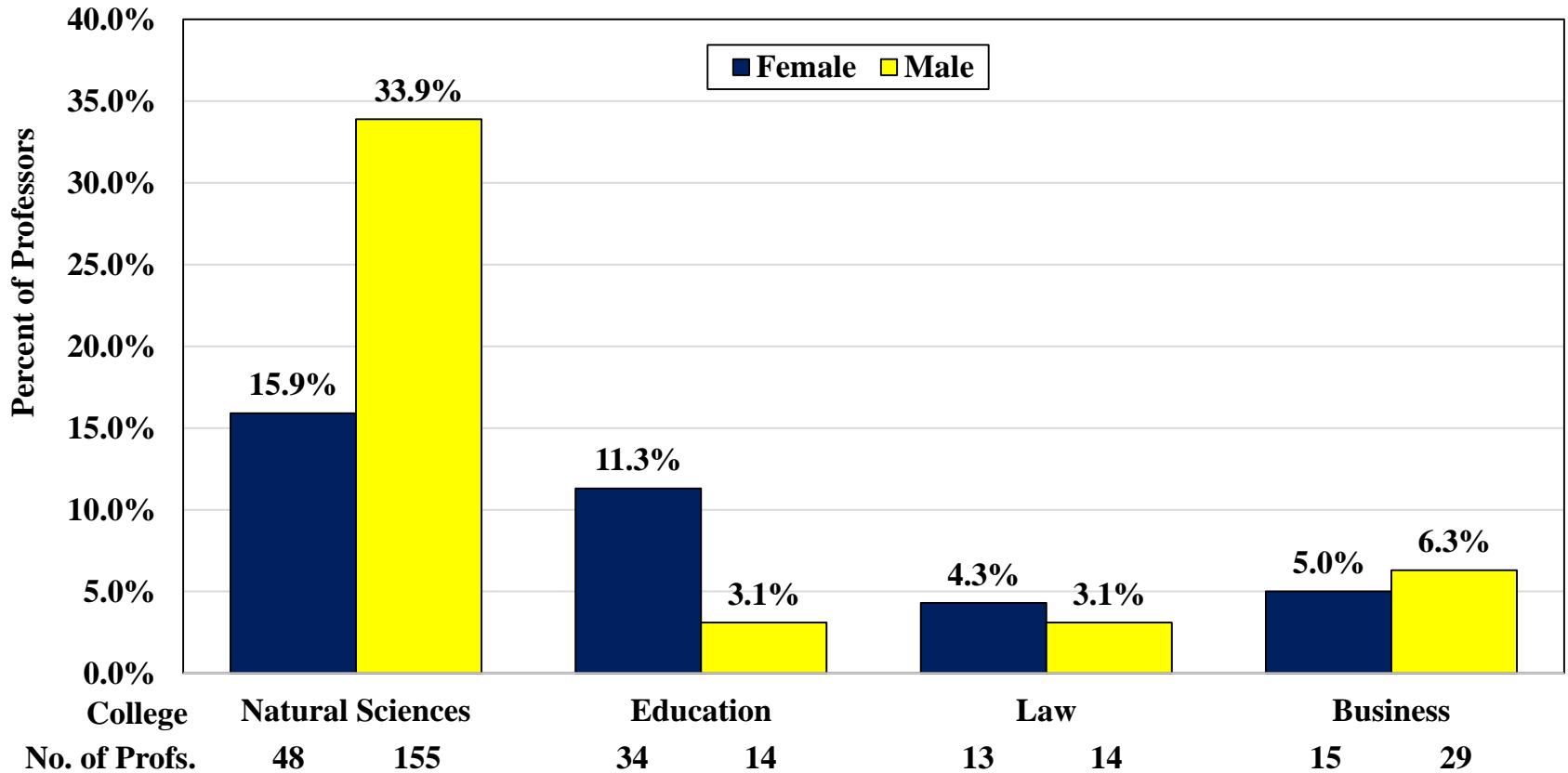
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## Distributions of Professors Across Colleges by Gender



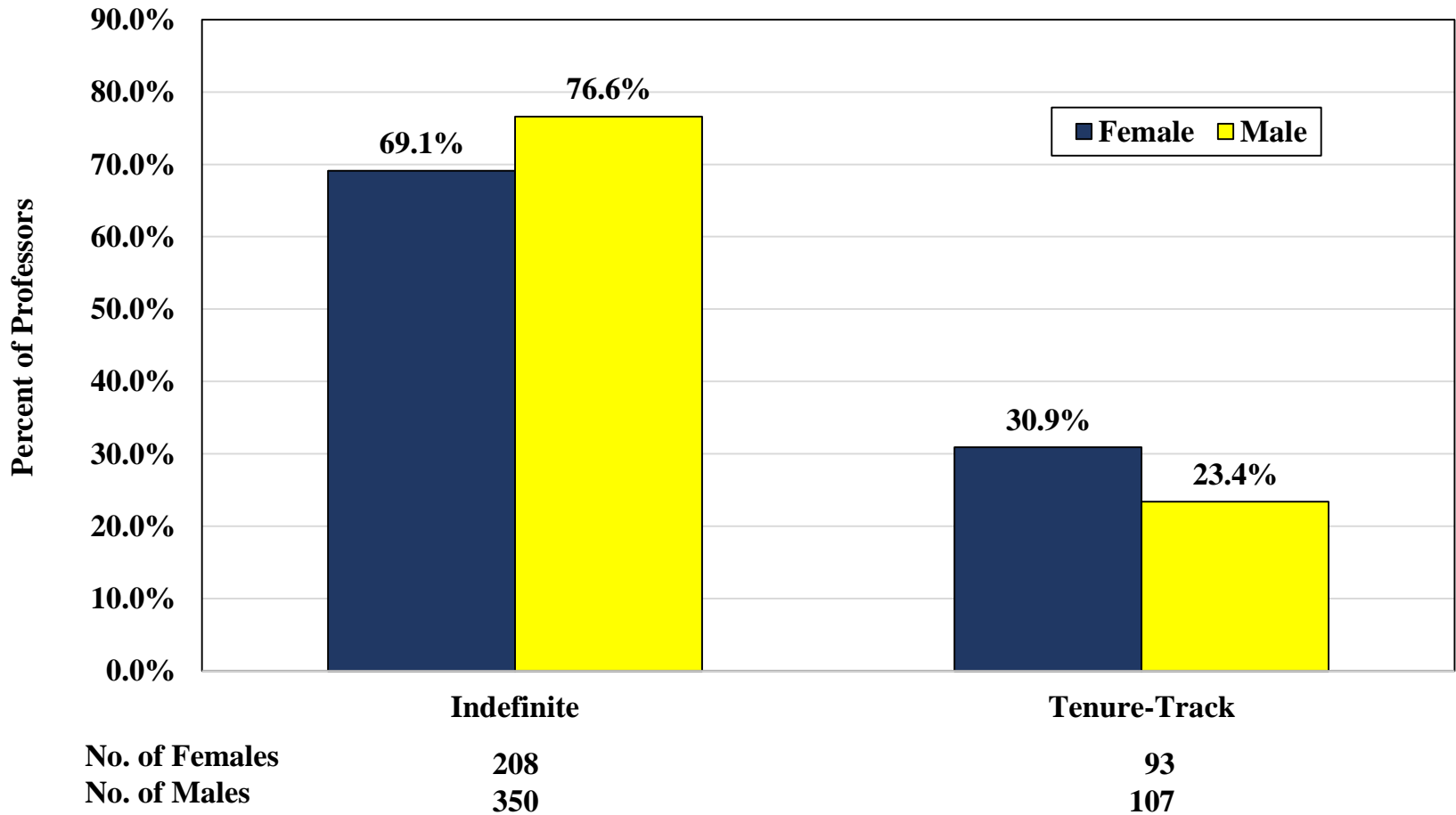
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## Distributions of Professors Across Colleges by Gender (cont')



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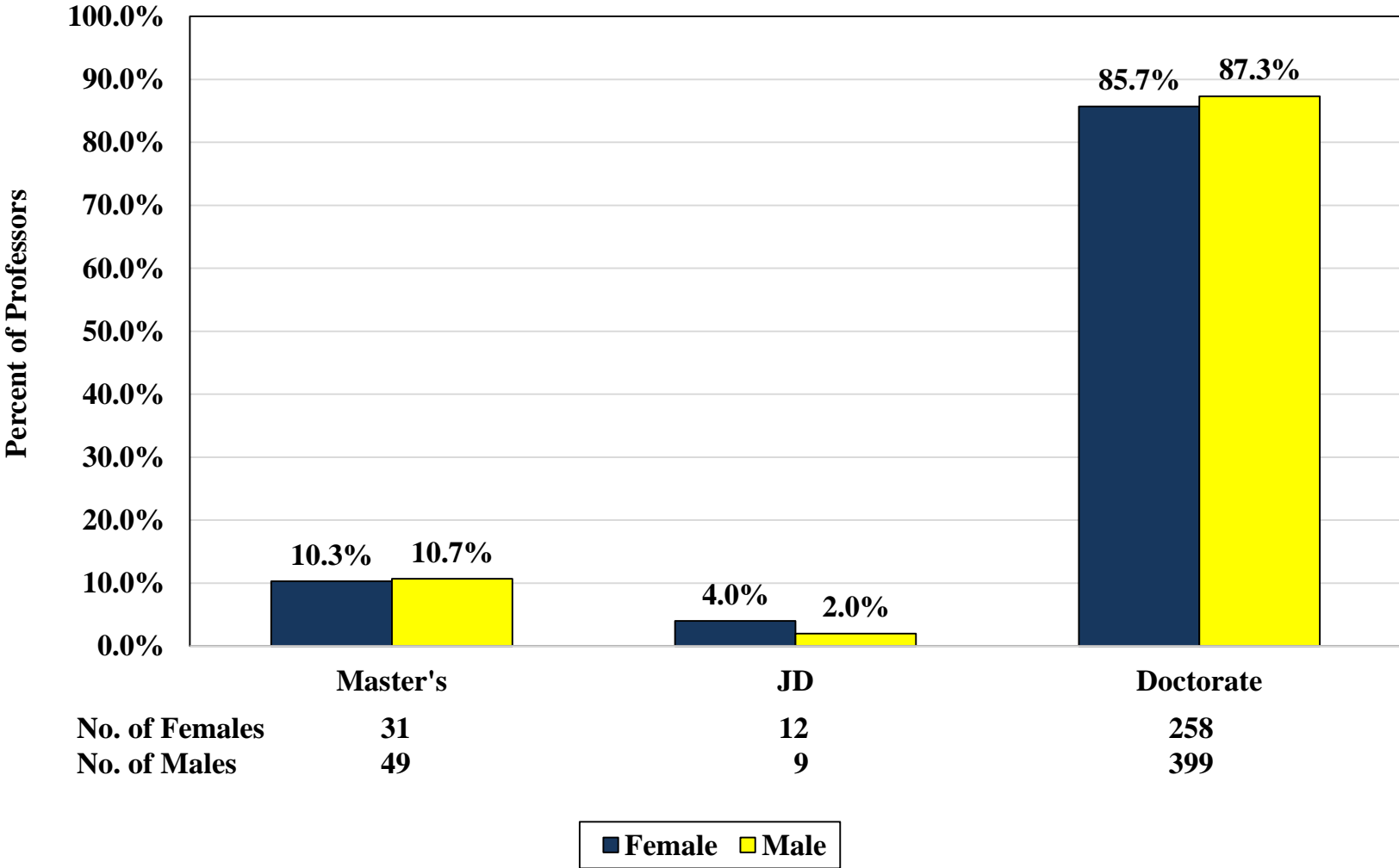
## Gender Distributions of Professors Across Tenure Status Categories



All Assistants, ten Associates and one Full Professor are Tenure-Track.

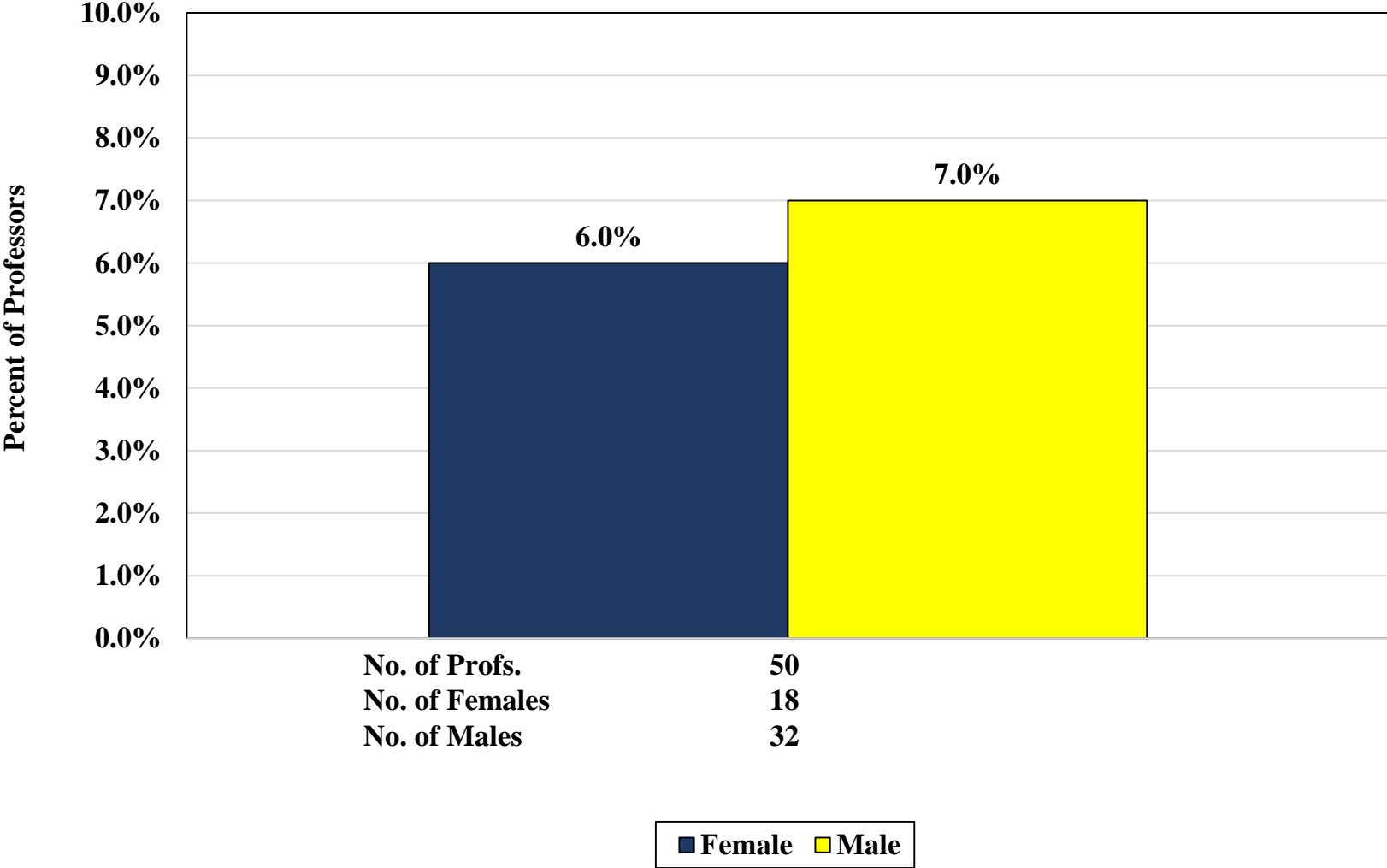
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## Gender Distributions of Professors Across Highest Level of Education Categories



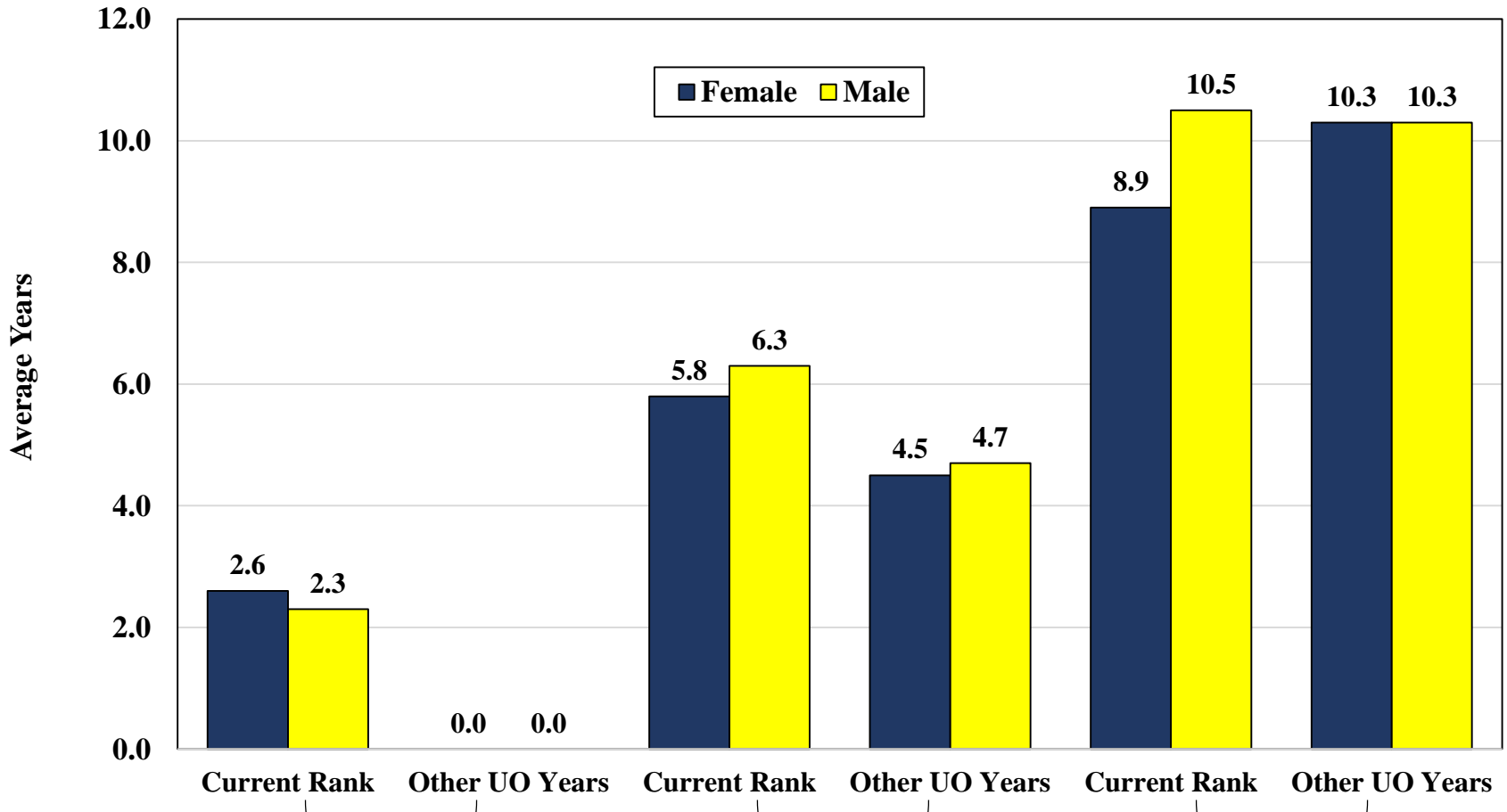
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## Gender Distributions of Professors by Endowed Chair Status



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## Average Years in Current Rank and Other Years of UO Service by Current Rank

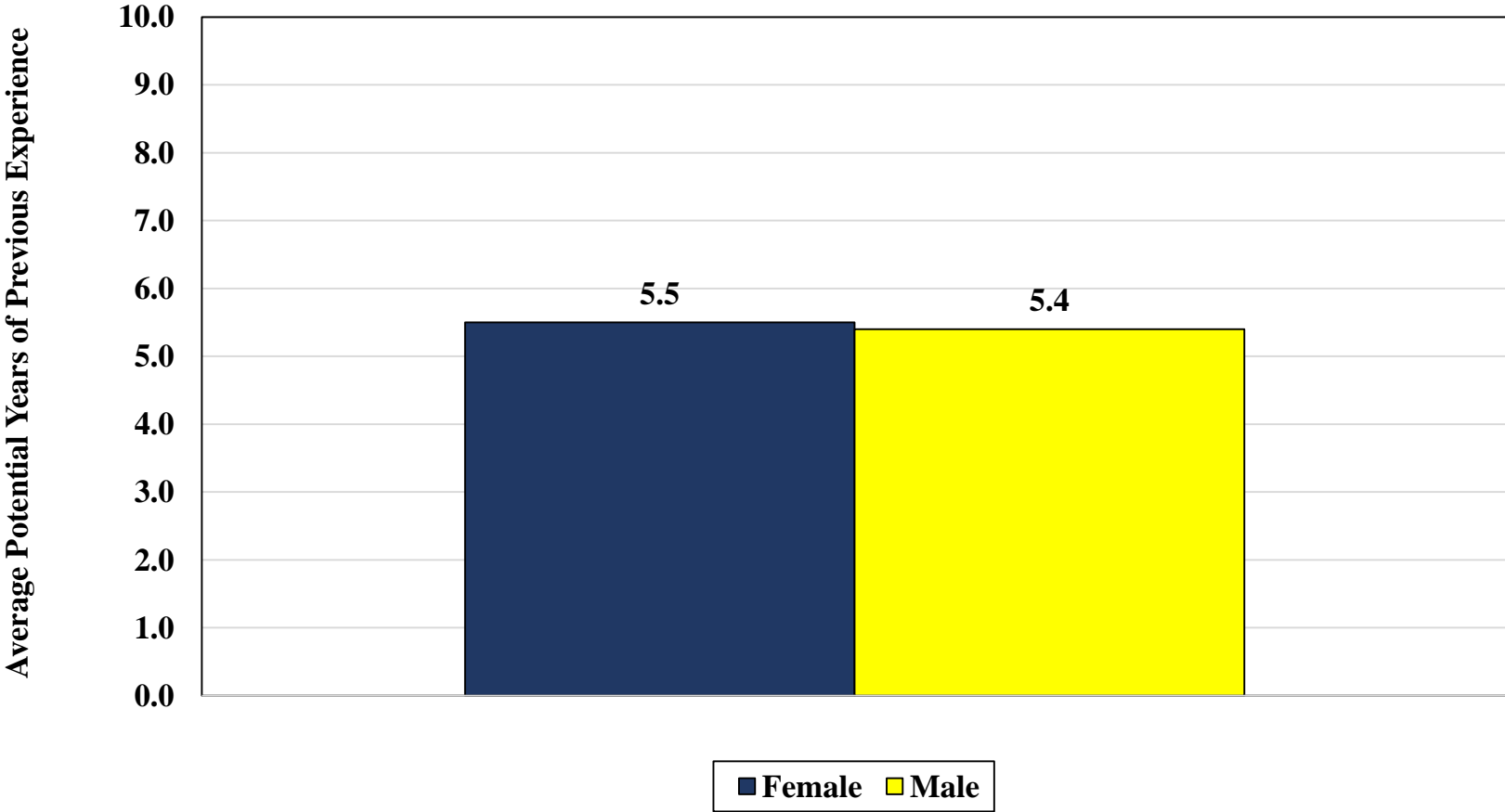


	Assistant	Associate	Full
<b>Total No. of Profs.</b>	189	295	274
<b>No. Females</b>	89	127	85
<b>No. Males</b>	100	168	189



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## Average Years of Potential Previous Work Experience (Difference Between First UO Academic Appointment and Highest Degree Years)



# Statistical Method - Multiple Regression Analysis

- A statistical tool that allows the analyst to:
  - measure the disparity between the demographic groups' (e.g., females' and males') average total salaries after "*filtering out*" differences that are attributable to other legitimate factors that impact pay.
  - determine whether any remaining disparity is statistically significant.

# Statistically Significant Pay Disparities

- Generally, pay disparities that are equal to or greater than the absolute value of approximately two (technically, 1.96) standard deviations (or that have a probability of chance occurrence of 5% or less) are considered *statistically* significant.
  - Not likely to have occurred by chance in a pay-setting process that is neutral with respect to demographic group status

# Interpretation of Statistically Significant Pay Differences

- Demographic group status is a factor that influences pay (i.e., discrimination);  
  
and/or
- The disparity is attributable, in whole or in part, to gender differences in factors that legitimately impact pay and for which the analysis has not accounted or measured with error.

# Consider Practical Significance

- Pay disparities that are “large,” as a practical matter, *even if not* statistically significant should be investigated.
  - This is particularly important when the number of professors is small. When the number of observations is small, the analysis may not detect a statistically significant pay difference.

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# Explanatory Variables Included in the Total Salary Model

- Explanatory variables included in the model:
  - Demographic group status (e.g., female or not)
  - Current academic rank
  - UO years in each academic rank (Assistant, Associate and Full)
  - Distinguished professorship/endowed chair status
  - Recurring teaching award status
  - Potential years of previous work experience
  - College/division/department
  - Honors College
  - Tenure status
  - Highest level of education
  - Department Head status and course release
- The model also accounts for the variation across colleges in the impact that these factors have on pay.
- The explanatory power of the model (Adjusted R Squared) is greater than 90%.

# Estimated Total Salary Disparities Between Demographic Groups

- Measures of Salary Difference:
  - Dollar difference (linear)
  - Percentage difference (lnSalary or log linear)
- Structure of Analyses:
  - University-wide
  - By academic rank
  - By-college
  - With and without “outliers”

# University-wide Salary Regression Model

## Female/Male

- Female/male average dollar salary difference = ~-\$400
  - Number of standard deviations = -0.32
- Female/male average percentage (lnSalary) salary difference = 0.0%
  - Number of standard deviations = 0.04



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# Female/Male 2018 Total Salary Differences by College

College	<u>Dollar Salary Model</u>		<u>lnSalary Model</u>		No. of Profs/Female Profs
	Female/Male Salary Difference (in 1,000s)	Number of Standard Deviations	Female/Male lnSalary Difference	Number of Standard Deviations	
CAS Humanities	\$0.0	0.00	0.1%	0.04	127/64
CAS Natural Sciences	\$0.5	0.21	0.1%	0.04	203/48
CAS Social Sciences	-\$0.3	-0.11	0.6%	0.34	148/65
Business	-\$2.9	-0.60	-1.7%	-0.45	44/15
Design	\$1.8	0.57	1.8%	0.73	87/39
Education	-\$2.6	-0.41	-0.2%	-0.05	48/34
Journalism/Comm	-\$9.8	-1.48	-7.7%	-1.51	29/11
Law	-\$2.9	-0.51	-0.5%	-0.12	27/13
Music/Dance	-\$0.3	-0.07	-0.4%	-0.11	45/12

\*Statistically significant.

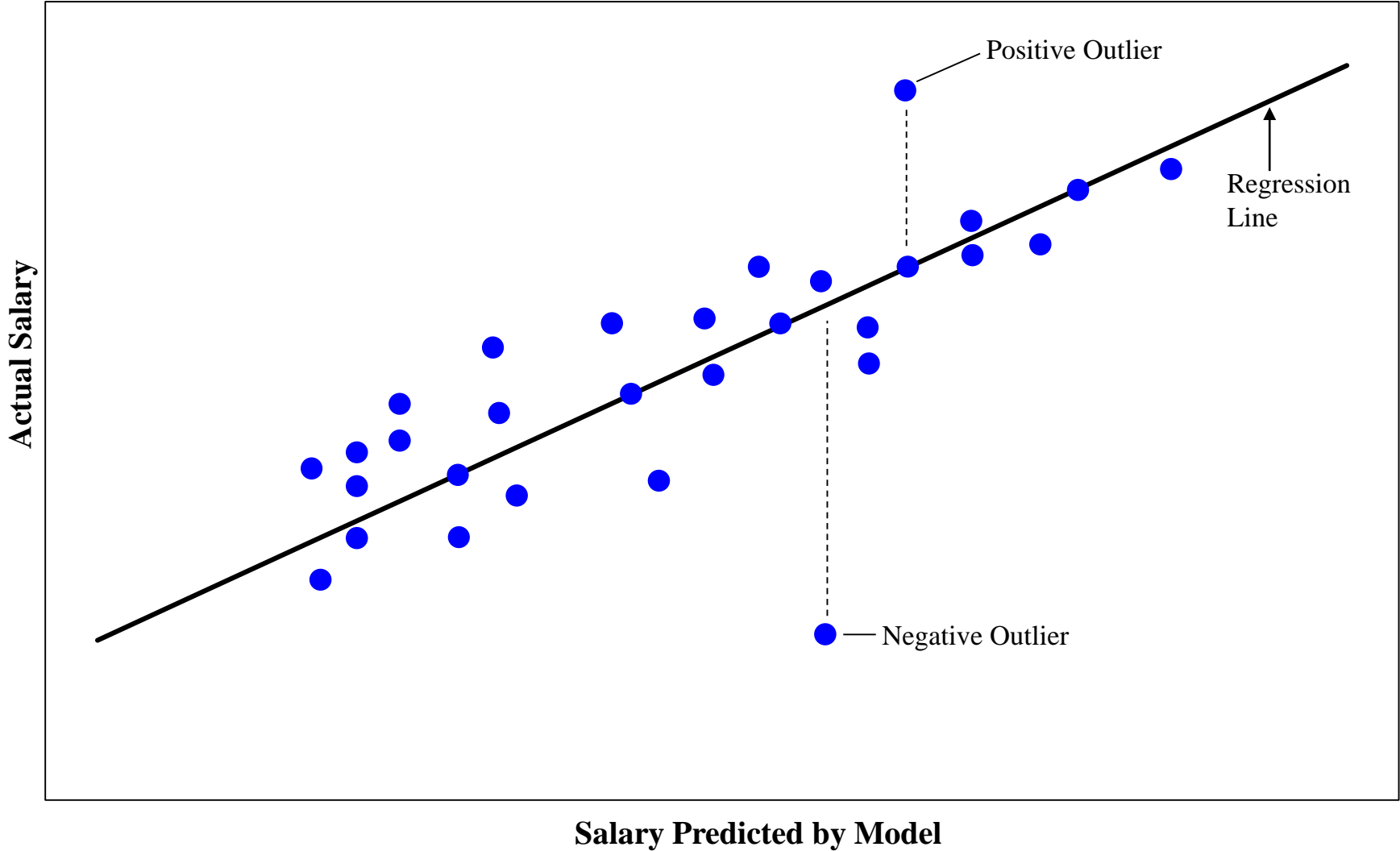
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# Female/Male 2018 Total Salary Differences by Current Rank

Current Rank	<u>Dollar Salary Model</u>		<u>lnSalary Model</u>		No. of Profs/Female Profs
	Female/Male Salary Difference (in 1,000s)	Number of Standard Deviations	Female/Male lnSalary Difference	Number of Standard Deviations	
Assistant	\$0.4	0.21	0.5%	0.30	189/89
Associate	-\$1.0	-0.58	-0.5%	-0.38	295/127
Full	-\$0.2	-0.12	0.3%	0.22	274/85

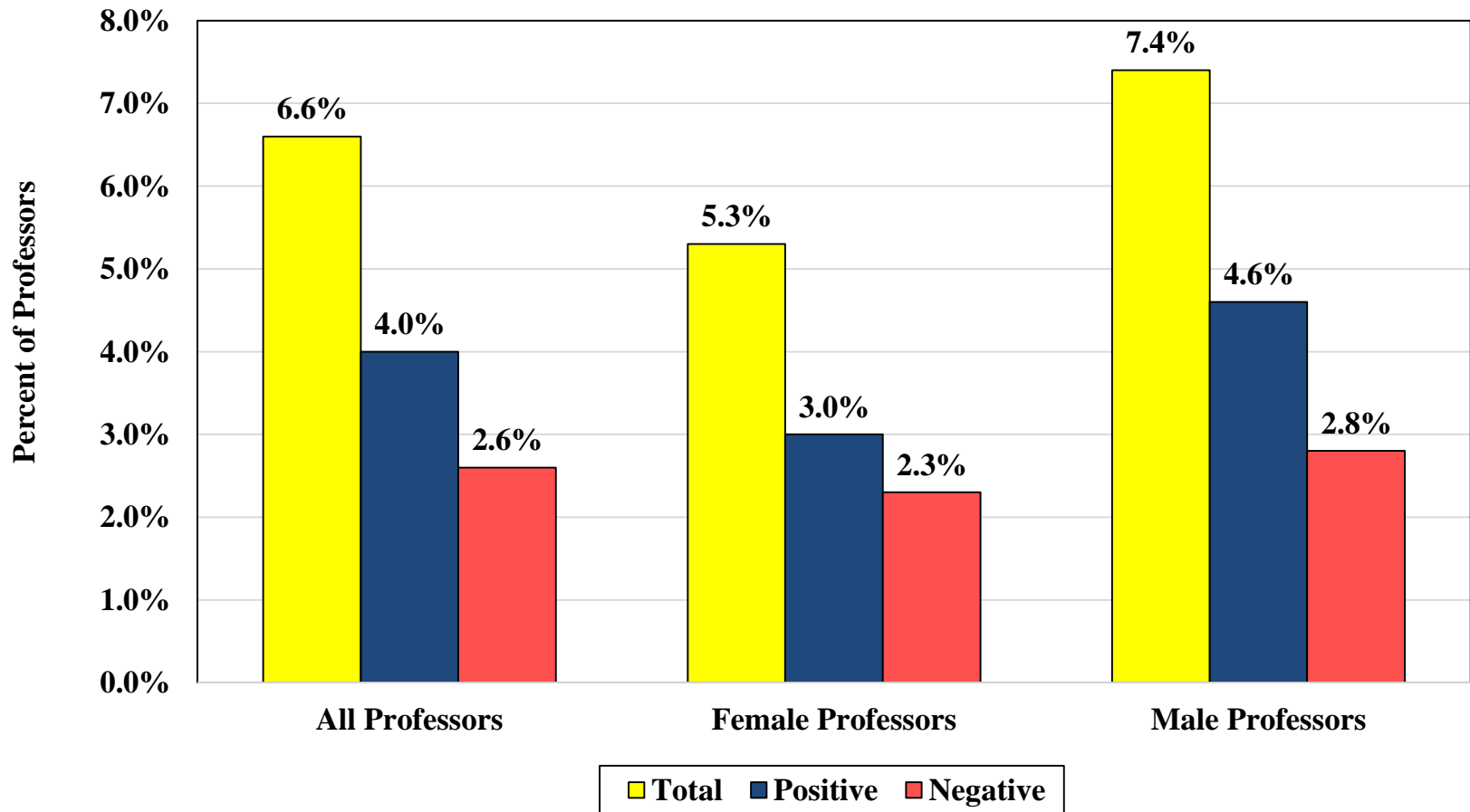
\*Statistically significant.

# Total Salaries of a Few Outliers May Have a Substantial Impact on Analysis Outcomes



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## Percentage of Professors Who Are Statistical Outliers\* Dollar Salary Model Across All Colleges Female/Male



\*Statistical Outliers are professors whose actual salaries differ from the amount that the model predicts by the absolute value of 1.96 or more standard deviations.

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### Number of Statistical Outliers – Total, Positive and Negative\* Dollar Salary Model Female/Male

	Total Number of Outliers	Total Positive Outliers	Total Negative Outliers	Female Positive Outliers	Female Negative Outliers	Male Positive Outliers	Male Negative Outliers
<i>Across Colleges</i>	50	30	20	9	7	21	13
CAS Humanities	4	4	0	1	0	3	0
CAS Natural Sciences	20	11	9	2	1	9	8
CAS Social Sciences	14	8	6	4	3	4	3
Design	4	3	1	1	0	2	1
Education	1	1	0	0	0	1	0
Journalism/Comm	3	1	2	0	2	1	0
Law	4	2	2	1	1	1	1

\*A statistical outlier is a professor with a predicted total salary that differs from the actual amount by the absolute value of 1.96 or more standard deviations.

Note: Music & Dance and Business have no statistical outliers.

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## Female/Male 2018 Total Salary Differences With and Without Outliers Dollar Salary Model

	<u>Including Outliers</u>			<u>Excluding Outliers</u>		
	Female/Male Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Profs/Female Profs	Female/Male Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Profs/Female Profs
<i>Across Colleges</i>	<b>-\$0.4</b>	<b>-0.32</b>	<b>758/301</b>	<b>\$0.2</b>	<b>0.32</b>	<b>708/285</b>
<i>By Rank</i>						
<b>Assistant</b>	<b>\$0.4</b>	<b>0.21</b>	<b>189/89</b>	<b>\$0.2</b>	<b>0.12</b>	<b>189/89</b>
<b>Associate</b>	<b>-\$1.0</b>	<b>-0.58</b>	<b>295/127</b>	<b>-\$0.8</b>	<b>-0.67</b>	<b>283/120</b>
<b>Full</b>	<b>-\$0.2</b>	<b>-0.12</b>	<b>274/85</b>	<b>\$1.8</b>	<b>1.28</b>	<b>236/76</b>
<i>By College</i>						
<b>CAS Humanities</b>	<b>\$0.0</b>	<b>0.0</b>	<b>127/64</b>	<b>\$0.7</b>	<b>0.46</b>	<b>123/63</b>
<b>CAS Natural Sciences</b>	<b>\$0.5</b>	<b>0.21</b>	<b>203/48</b>	<b>\$0.0</b>	<b>-0.01</b>	<b>183/45</b>
<b>CAS Social Sciences</b>	<b>-\$0.3</b>	<b>-0.11</b>	<b>148/65</b>	<b>\$0.1</b>	<b>0.07</b>	<b>134/58</b>
<b>Business</b>	<b>-\$2.9</b>	<b>-0.60</b>	<b>44/15</b>	<b>-\$2.9</b>	<b>-0.92</b>	<b>44/15</b>
<b>Design</b>	<b>\$1.8</b>	<b>0.57</b>	<b>87/39</b>	<b>\$1.3</b>	<b>0.63</b>	<b>83/38</b>
<b>Education</b>	<b>-\$2.6</b>	<b>-0.41</b>	<b>48/34</b>	<b>-\$2.0</b>	<b>-0.49</b>	<b>47/34</b>
<b>Journalism/Comm</b>	<b>-\$9.8</b>	<b>-1.48</b>	<b>29/11</b>	<b>\$3.7</b>	<b>0.74</b>	<b>26/9</b>
<b>Law</b>	<b>-\$2.9</b>	<b>-0.51</b>	<b>27/13</b>	<b>\$2.2</b>	<b>0.43</b>	<b>23/11</b>
<b>Music/Dance</b>	<b>-\$0.3</b>	<b>-0.07</b>	<b>45/12</b>	<b>-\$0.3</b>	<b>-0.10</b>	<b>45/12</b>

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## Female/Male 2018 Total Salary Differences With and Without Outliers InSalary Model

	<u>Including Outliers</u>			<u>Excluding Outliers</u>		
	Female/Male InSalary Difference	Number of Standard Deviations	No. of Profs/Female Profs	Female/Male InSalary Difference	Number of Standard Deviations	No. of Profs/Female Profs
<i>Across Colleges</i>	<b>0.0%</b>	<b>0.04</b>	<b>758/301</b>	<b>0.6%</b>	<b>0.90</b>	<b>715/290</b>
<i>By Rank</i>						
Assistant	<b>0.5%</b>	<b>0.30</b>	<b>189/89</b>	<b>0.6%</b>	<b>0.51</b>	<b>188/89</b>
Associate	<b>-0.5%</b>	<b>-0.38</b>	<b>295/127</b>	<b>-0.6%</b>	<b>-0.57</b>	<b>282/121</b>
Full	<b>0.3%</b>	<b>0.22</b>	<b>274/85</b>	<b>2.1%</b>	<b>1.83</b>	<b>245/80</b>
<i>By College</i>						
CAS Humanities	<b>0.1%</b>	<b>0.04</b>	<b>127/64</b>	<b>0.7%</b>	<b>0.51</b>	<b>124/63</b>
CAS Natural Sciences	<b>0.1%</b>	<b>0.04</b>	<b>203/48</b>	<b>0.1%</b>	<b>0.07</b>	<b>189/46</b>
CAS Social Sciences	<b>0.6%</b>	<b>0.34</b>	<b>148/65</b>	<b>0.5%</b>	<b>0.38</b>	<b>132/60</b>
Business	<b>-1.7%</b>	<b>-0.45</b>	<b>44/15</b>	<b>-1.7%</b>	<b>-0.62</b>	<b>44/15</b>
Design	<b>1.8%</b>	<b>0.73</b>	<b>87/39</b>	<b>1.3%</b>	<b>0.71</b>	<b>83/38</b>
Education	<b>-0.2%</b>	<b>-0.05</b>	<b>48/34</b>	<b>0.1%</b>	<b>0.02</b>	<b>47/34</b>
Journalism/Comm	<b>-7.7%</b>	<b>-1.51</b>	<b>29/11</b>	<b>3.9%</b>	<b>0.90</b>	<b>26/9</b>
Law	<b>-0.5%</b>	<b>-0.12</b>	<b>27/13</b>	<b>3.3%</b>	<b>1.00</b>	<b>26/13</b>
Music/Dance	<b>-0.4%</b>	<b>-0.11</b>	<b>45/12</b>	<b>0.1%</b>	<b>0.05</b>	<b>44/12</b>

# **Analyses of Total Salaries by Race/Ethnicity**



## University of Oregon

### Number of Professors by Known Race/Ethnic Group

Race/Ethnic Group	Including “Department Heads”	Excluding “Department Heads”
Asian	87 (11.8%)	82 (12.7%)
African-American	17 (2.3%)	15 (2.3%)
Hispanic	47 (6.4%)	40 (6.2%)
White	569 (76.9%)	490 (75.7%)

Note: The race of 18 professors is unknown – 2.4% professors including "Department Heads" and 2.7% of professors excluding "Department Heads."

The results of analyses for American Indian/Alaskan Natives are not reported because the Number of observations is small.

The results for Two or More Races are not reported because the multiple races of these Professors are not known.

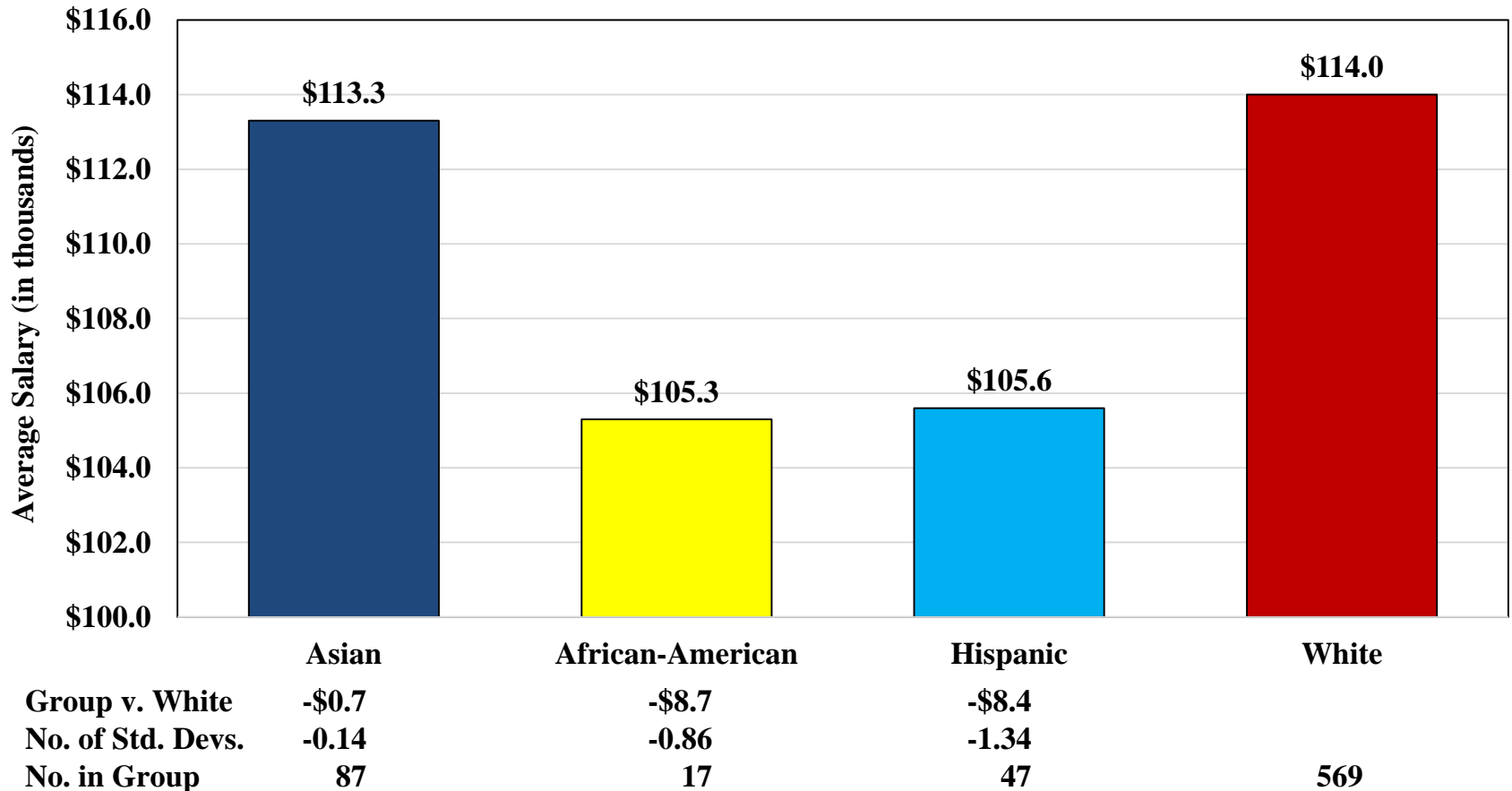
## University of Oregon

# Minority/White “Raw” Average Total Salary Differences

- As shown below, when race/ethnicity is the only factor considered, on average, African-Americans, Asians and Hispanics have a lower “raw” average total salary than Whites.
- As with the gender analyses, these differences are meaningful, if and only if, minority group members and Whites are similar in terms of legitimate factors that impact pay.
- As illustrated herein, these minority and white professors are not similar in important pay-determining respects.
- Accordingly, the race/ethnic “raw” average total salary disparities do not provide any information that can be reliably used to assess fair pay issues.

# University of Oregon

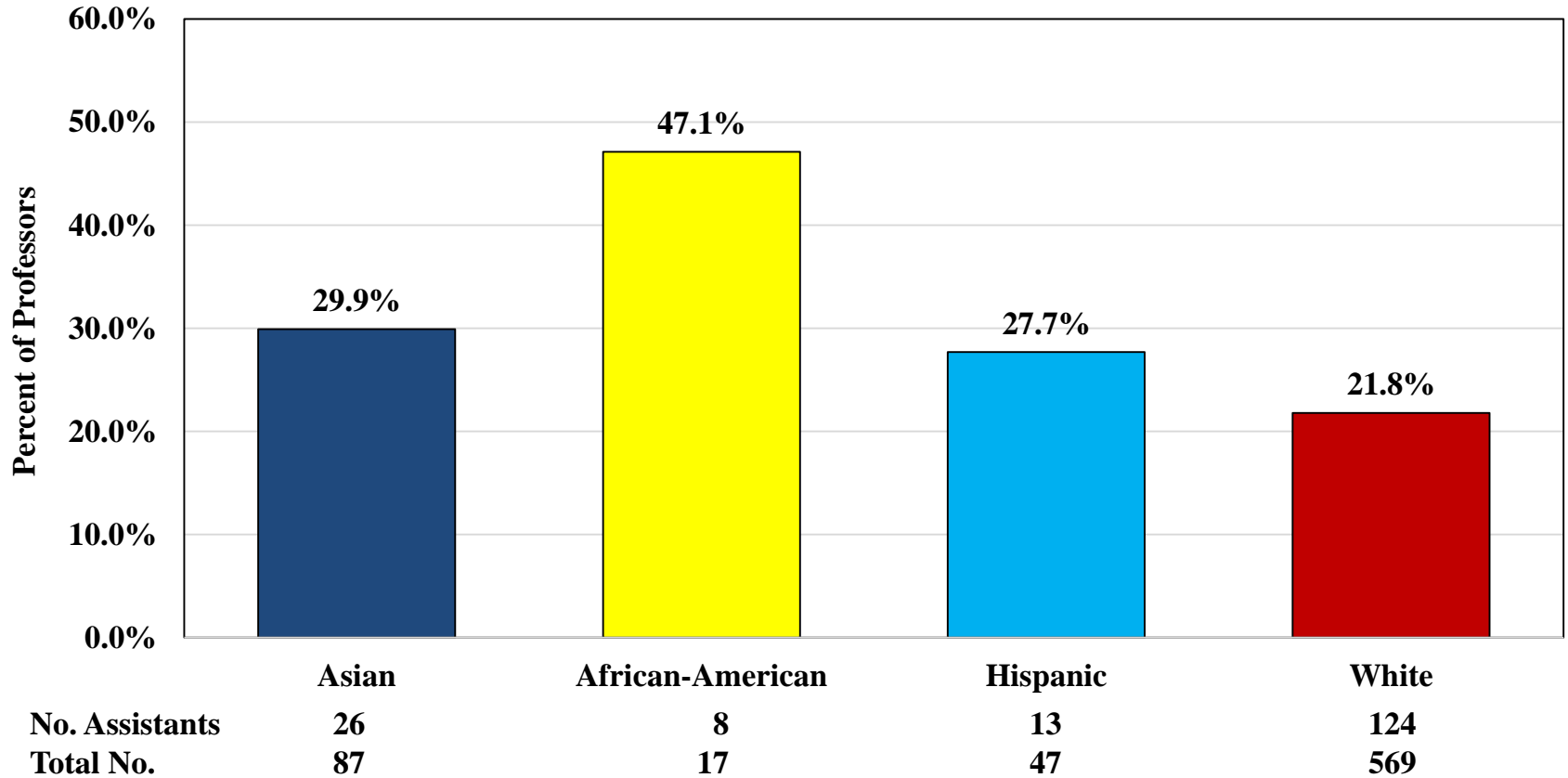
## Average "Raw" Total Salaries by Race/Ethnicity



**These "raw" disparities do *not* consider racial/ethnic differences in any factor that impacts pay, such as academic rank and discipline.**

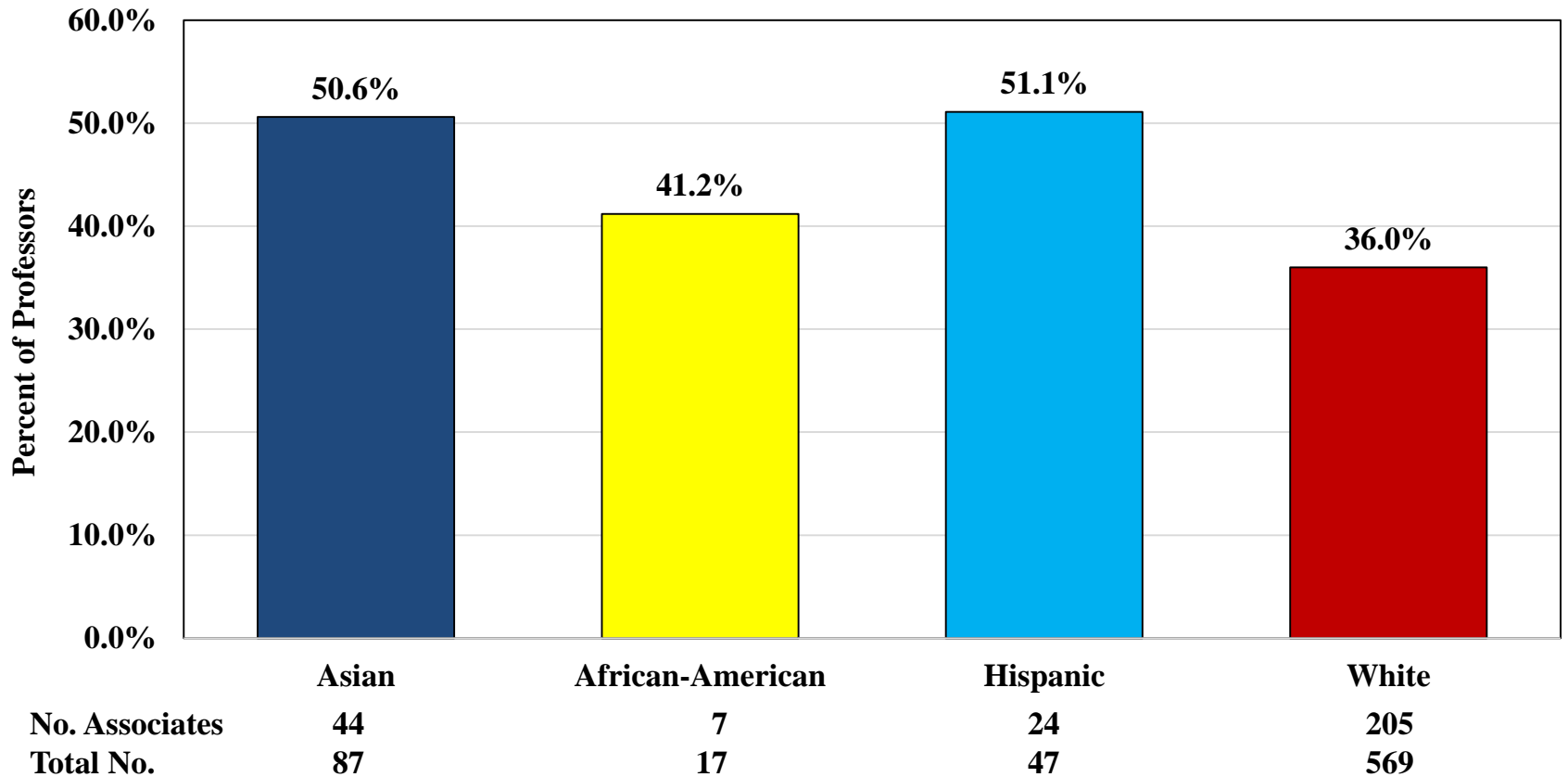
# University of Oregon

## Distributions of Professors Across Academic Ranks by Race/Ethnicity Assistant Professors



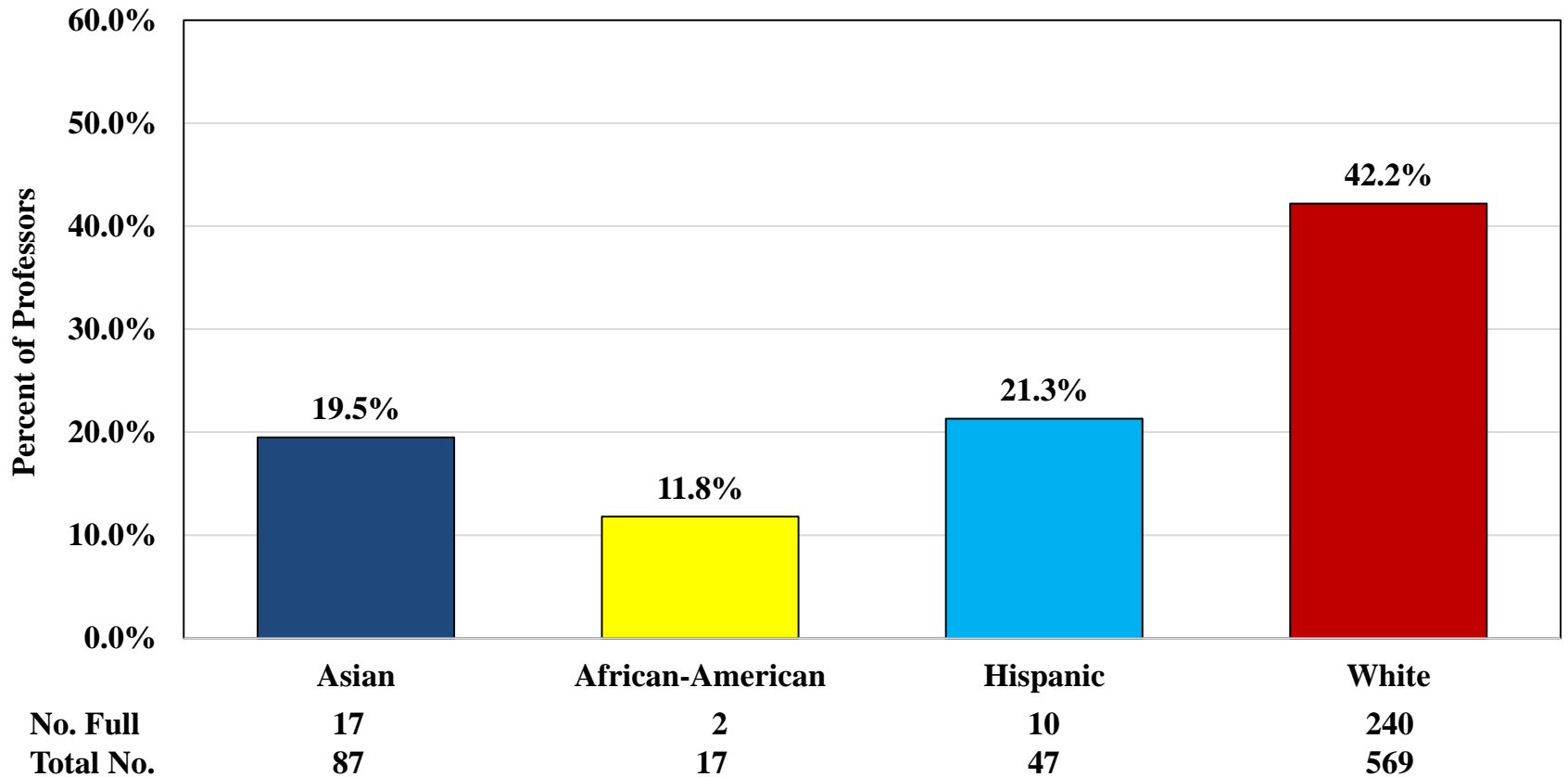
# University of Oregon

## Distributions of Professors Across Academic Ranks by Race/Ethnicity Associate Professors



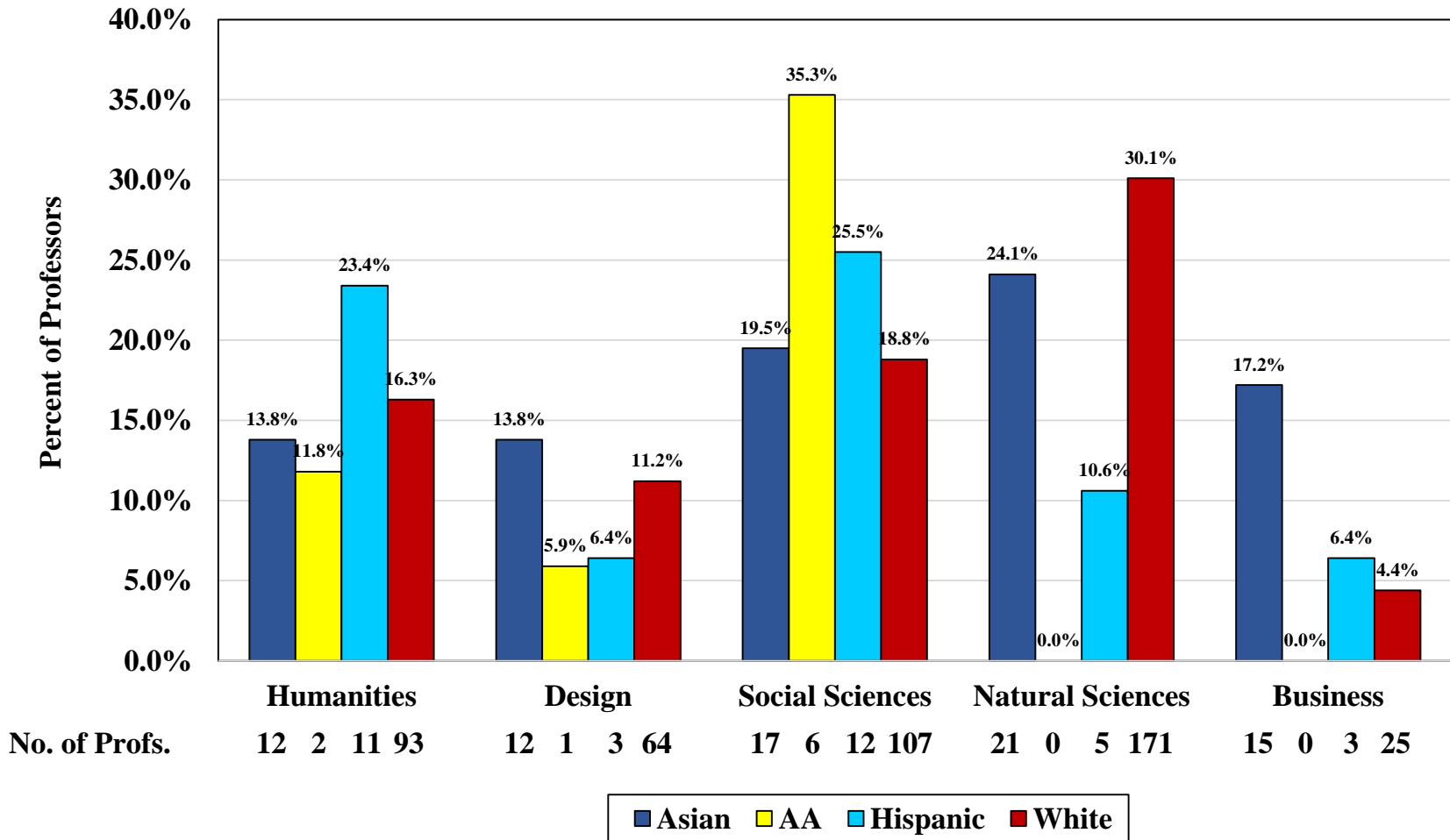
# University of Oregon

## Distributions of Professors Across Academic Ranks by Race/Ethnicity Full Professors



# University of Oregon

## Distributions of Professors Across Select Colleges by Race/Ethnicity



# University-wide Salary Regression Model by Race/Ethnicity

- Asian/White:
  - Average dollar salary difference =  $\sim$ -\$2.1k (-1.20 standard deviations)
  - Average percentage (lnSalary) difference =  $\sim$ -2.0% (-1.50 standard deviations)
- African-American/White:
  - Average dollar salary difference =  $\sim$ \$3.0k (0.69 standard deviations)
  - Average percentage (lnSalary) difference =  $\sim$ 2.4% (0.71 standard deviations)
- Hispanic/White:
  - Average dollar salary difference =  $\sim$ \$1.2k (0.48 standard deviations)
  - Average percentage (lnSalary) difference =  $\sim$ 1.0% (0.54 standard deviations)



## University of Oregon

### Race/Ethnic Group 2018 Total Salary Differences by College Asian/White

College	Dollar Salary Difference (in 1,000s)	Number of Standard Deviations	lnSalary Difference	Number of Standard Deviations	Number of Asians	Total Number
CAS Humanities	-\$3.8	-0.83	-4.1%	-1.16	12	105
CAS Natural Sciences	-\$2.9	-0.95	-2.4%	-1.02	21	192
CAS Social Sciences	\$2.4	0.60	1.4%	0.47	17	124
Business	-\$6.1	-0.80	-3.0%	-0.51	15	40
Design	-\$5.7	-1.26	-5.9%	-1.70	12	76
Education	---	---	---	---	1	37
Journalism & Comm	---	---	---	---	3	23
Law	---	---	---	---	2	22
Music & Dance	---	---	---	---	4	37

\*Statistically significant.

## University of Oregon

### Race/Ethnic Group 2018 Total Salary Differences by Current Rank Asian/White

Current Rank	Dollar Salary Difference (in 1,000s)	Number of Standard Deviations	lnSalary Difference	Number of Standard Deviations	Number of Asians	Total Number
Assistant**	-\$6.4	-2.04*	-4.8%	-1.99*	26	150
Associate	-\$1.8	-0.70	-2.3%	-1.18	44	249
Full	\$2.7	0.76	2.0%	0.73	17	257

\*Statistically significant.

\*\*According to additional research conducted by UO, this significant difference appears to be explained by factors for which the model does not account.

## University of Oregon

### Race/Ethnic Group 2018 Total Salary Differences by College African-American/White

College	Dollar Salary Difference (in 1,000s)	Number of Standard Deviations	InSalary Difference	Number of Standard Deviations	Number of African-Americans	Total Number
CAS Humanities	---	---	---	---	2	95
CAS Natural Sciences	---	---	---	---	0	171
CAS Social Sciences	\$18.2	1.98*	13.5%	1.93	6	113
Business	---	---	---	---	0	25
Design	---	---	---	---	1	65
Education	---	---	---	---	1	37
Journalism & Comm	---	---	---	---	3	23
Law	---	---	---	---	2	22
Music & Dance	---	---	---	---	2	35

\*Statistically significant.

## University of Oregon

### Race/Ethnic Group 2018 Total Salary Differences by Current Rank African-American/White

Current Rank	Dollar Salary Difference (in 1,000s)	Number of Standard Deviations	lnSalary Difference	Number of Standard Deviations	Number of African-Americans	Total Number
Assistant	-\$0.5	-0.07	-1.7%	-0.38	8	132
Associate	\$13.1	1.65	11.6%	1.93	7	212
Full	---	---	---	---	2	242

\*Statistically significant.

# University of Oregon

## Race/Ethnic Group 2018 Total Salary Differences by College Hispanic/White

College	Dollar Salary Difference (in 1,000s)	Number of Standard Deviations	InSalary Difference	Number of Standard Deviations	Number of Hispanics	Total Number
CAS Humanities	-\$3.2	-0.63	-1.5%	-0.39	11	104
CAS Natural Sciences	-\$4.3	-0.71	-4.2%	-0.91	5	176
CAS Social Sciences	\$4.5	0.90	3.8%	0.99	12	119
Business	---	---	---	---	3	28
Design	---	---	---	---	3	67
Education	\$10.1	1.52	6.0%	1.20	7	43
Journalism & Comm	---	---	---	---	2	22
Law	---	---	---	---	0	20
Music & Dance	---	---	---	---	4	37

\*Statistically significant.

## University of Oregon

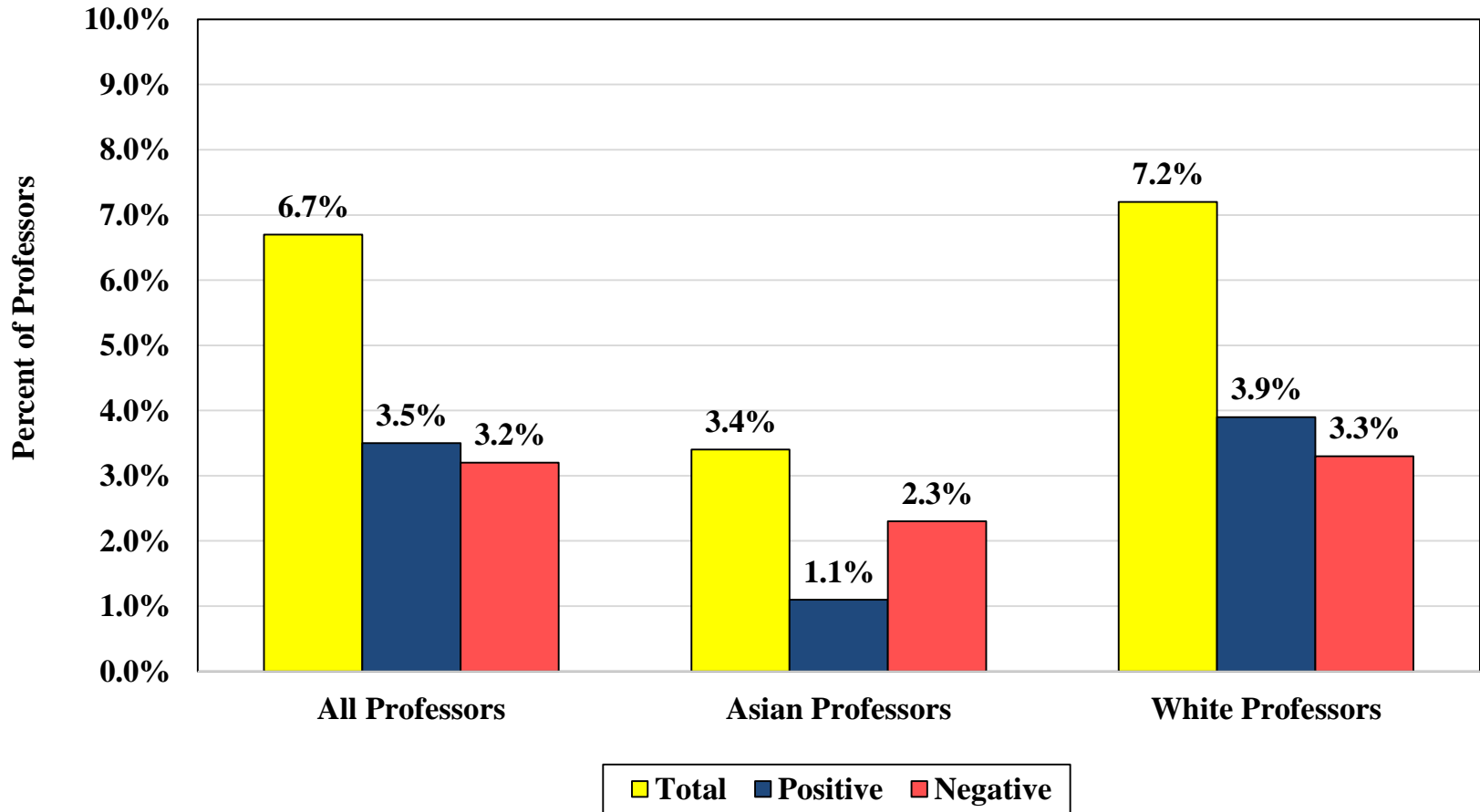
### Race/Ethnic Group 2018 Total Salary Differences by Current Rank Hispanic/White

Current Rank	Dollar Salary Difference (in 1,000s)	Number of Standard Deviations	lnSalary Difference	Number of Standard Deviations	Number of Hispanics	Total Number
Assistant	-\$0.2	-0.05	-0.9%	-0.29	13	137
Associate	-\$0.4	-0.13	0.5%	0.18	24	229
Full	\$9.8	1.61	7.3%	1.59	10	250

\*Statistically significant.

# University of Oregon

## Percentage of Professors Who Are Statistical Outliers\* Dollar Salary Model Across All Colleges Asian/White



\*Statistical Outliers are professors whose actual salaries differ from the amount that the model predicts by the absolute value of 1.96 or more standard deviations.

## University of Oregon

### Number of Statistical Outliers – Total, Positive and Negative\* Dollar Salary Model Asian/White

	Total Number of Outliers	Total Positive Outliers	Total Negative Outliers	Asian Positive Outliers	Asian Negative Outliers	White Positive Outliers	White Negative Outliers
<i>Across Colleges</i>	44	23	21	1	2	22	19
CAS Humanities	3	3	0	0	0	3	0
CAS Natural Sciences	20	11	9	0	1	11	8
CAS Social Sciences	14	6	8	1	1	5	7
Design	1	1	0	0	0	1	0
Journalism/Comm	3	1	2	0	0	1	2
Law	3	1	2	0	0	1	2

\*A statistical outlier is a professor with a predicted total salary that differs from the actual amount by the absolute value of 1.96 or more standard deviations.

Note: Business, Education and Music & Dance have no statistical outliers.



# University of Oregon

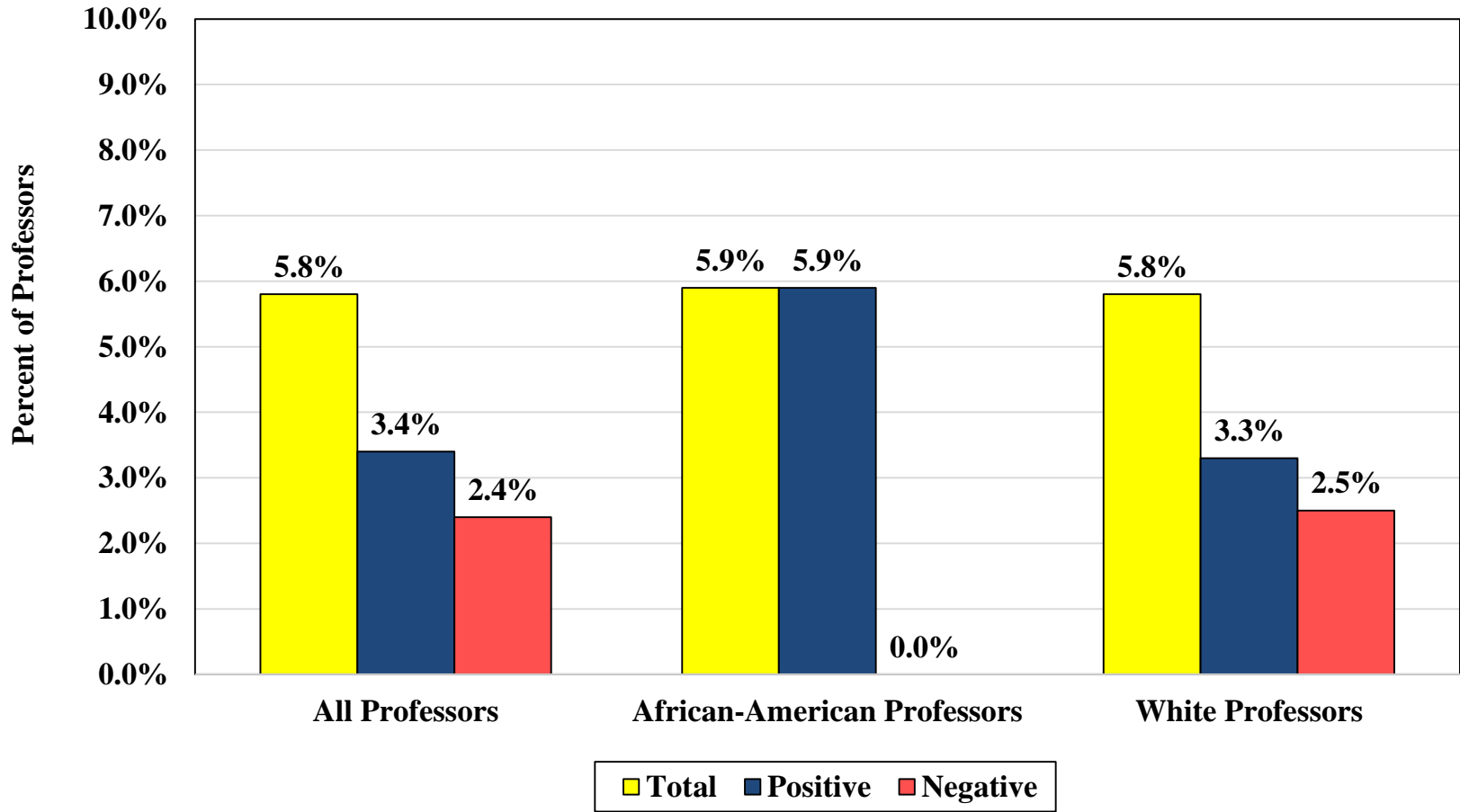
## Race/Ethnic 2018 Total Salary Differences With and Without Outliers Dollar Salary Model Asian/White

	<u>Including Outliers</u>			<u>Excluding Outliers</u>		
	Asian/White Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Profs/Asian Profs	Asian/White Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Profs/Asian Profs
<i>Across Colleges</i>	-\$2.1	-1.20	656/87	-\$0.9	-0.75	612/84
<i>By Rank</i>						
Assistant	-\$6.4	-2.04*	150/26	-\$4.0	-1.89	149/25
Associate	-\$1.8	-0.70	249/44	-\$1.8	-1.07	242/43
Full	\$2.7	0.76	259/17	\$5.4	2.19*	221/16
<i>By College</i>						
CAS Humanities	-\$3.8	-0.83	105/12	-\$3.8	-1.18	102/12
CAS Natural Sciences	-\$2.9	-0.95	192/21	-\$1.0	-0.47	172/20
CAS Social Sciences	\$2.4	0.60	124/17	\$1.4	0.54	110/15
Business	-\$6.1	-0.80	40/15	-\$6.1	-1.23	40/15
Design	-\$5.7	-1.26	76/12	-\$4.8	-1.62	75/12
Education	---	---	37/1	---	---	37/1
Journalism/Comm	---	---	23/3	---	---	20/3
Law	---	---	22/2	---	---	19/2
Music/Dance	---	---	37/4	---	---	37/4

\*Statistically significant.

# University of Oregon

## Percentage of Professors Who Are Statistical Outliers\* Dollar Salary Model Across All Colleges African-American/White



\*Statistical Outliers are professors whose actual salaries differ from the amount that the model predicts by the absolute value of 1.96 or more standard deviations.

# University of Oregon

## Number of Statistical Outliers – Total, Positive and Negative\* Dollar Salary Model African-American/White

	Total Number of Outliers	Total Positive Outliers	Total Negative Outliers	African-American Positive Outliers	African-American Negative Outliers	White Positive Outliers	White Negative Outliers
Across Colleges	34	20	14	1	0	19	14
CAS Humanities	2	2	0	0	0	2	0
CAS Natural Sciences	14	8	6	0	0	8	6
CAS Social Sciences	12	7	5	1	0	6	5
Design	1	1	0	0	0	1	0
Journalism/Comm	2	1	1	0	0	1	1
Law	3	1	2	0	0	1	2

\*A statistical outlier is a professor with a predicted total salary that differs from the actual amount by the absolute value of 1.96 or more standard deviations.

Note: Business, Education and Music & Dance have no statistical outliers.

# University of Oregon

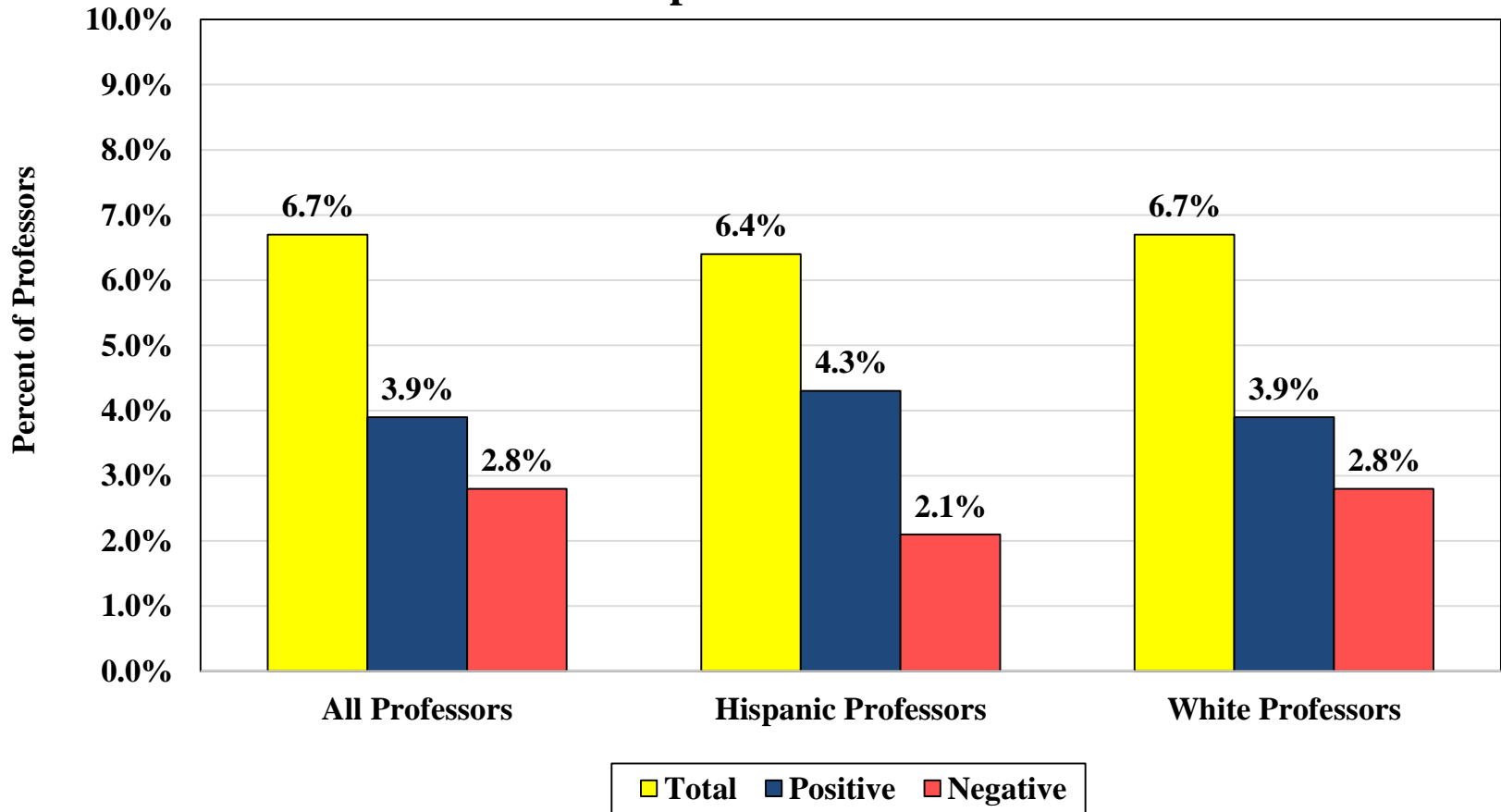
## Race/Ethnic 2018 Total Salary Differences With and Without Outliers Dollar Salary Model African-American/White

	<u>Including Outliers</u>			<u>Excluding Outliers</u>		
	AA/White Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Profs/AA Profs	AA/White Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Profs/AA Profs
<i>Across Colleges</i>	\$3.0	0.69	586/17	-\$2.8	-0.92	552/16
<i>By Rank</i>						
Assistant	-\$0.5	-0.07	132/8	-\$1.7	-0.42	132/8
Associate	\$13.1	1.65	212/7	-\$2.6	-0.41	207/6
Full	---	---	242/2	---	---	213/2
<i>By College</i>						
CAS Humanities	---	---	95/2	---	---	93/2
CAS Natural Sciences	---	---	171/0	---	---	157/0
CAS Social Sciences	\$18.2	1.98*	113/6	-\$10.6	-1.34	101/5
Business	---	---	25/0	---	---	25/0
Design	---	---	65/1	---	---	64/1
Education	---	---	37/1	---	---	37/1
Journalism/Comm	---	---	23/3	---	---	21/3
Law	---	---	22/2	---	---	19/2
Music/Dance	---	---	35/2	---	---	35/2

\*Statistically significant.

# University of Oregon

## Percentage of Professors Who Are Statistical Outliers\* Dollar Salary Model Across All Colleges Hispanic/White



\*Statistical Outliers are professors whose actual salaries differ from the amount that the model predicts by the absolute value of 1.96 or more standard deviations.

# University of Oregon

## Number of Statistical Outliers – Total, Positive and Negative\* Dollar Salary Model Hispanic/White

	Total Number of Outliers	Total Positive Outliers	Total Negative Outliers	Hispanic Positive Outliers	Hispanic Negative Outliers	White Positive Outliers	White Negative Outliers
<i>Across Colleges</i>	41	24	17	2	1	22	16
Business	1	0	1	0	1	0	0
CAS Humanities	2	2	0	0	0	2	0
CAS Natural Sciences	17	10	7	0	0	10	7
CAS Social Sciences	10	5	5	0	0	5	5
Design	4	3	1	1	0	2	1
Education	1	1	0	1	0	0	0
Journalism/Comm	3	2	1	0	0	2	1
Law	3	1	2	0	0	1	2

\*A statistical outlier is a professor with a predicted total salary that differs from the actual amount by the absolute value of 1.96 or more standard deviations.

Note: Music & Dance has no statistical outliers.

# University of Oregon

## Race/Ethnic 2018 Total Salary Differences With and Without Outliers Dollar Salary Model Hispanic/White

	<u>Including Outliers</u>			<u>Excluding Outliers</u>		
	Hispanic/White Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Prof/Hispanic Prof	Hispanic/White Salary Difference (in 1,000s)	Number of Standard Deviations	No. of Prof/Hispanic Prof
<i>Across Colleges</i>	\$1.2	0.48	616/47	\$0.7	0.40	575/44
<i>By Rank</i>						
Assistant	-\$0.2	-0.05	137/13	\$1.1	0.41	137/13
Associate	-\$0.4	-0.13	229/24	-\$0.9	-0.38	220/23
Full	\$9.8	1.61	250/10	\$5.3	1.24	218/8
<i>By College</i>						
CAS Humanities	-\$3.2	-0.63	104/11	-\$1.0	-0.31	102/11
CAS Natural Sciences	-\$4.3	-0.71	176/5	-\$3.7	-0.94	159/5
CAS Social Sciences	\$4.5	0.90	119/12	\$6.3	1.97*	109/12
Business	---	---	28/3	---	---	27/2
Design	---	---	67/3	---	---	63/2
Education	\$10.1	1.52	43/7	-\$1.9	-0.42	42/6
Journalism/Comm	---	---	22/2	---	---	19/2
Law	---	---	20/0	---	---	17/0
Music/Dance	---	---	37/4	---	---	37/4

\*Statistically significant.

# University of Oregon

## Colleges and Divisions/Departments

College	Division/Department	No. of Profs.
Business	Accounting	9
Business	Finance	10
Business	Management	8
Business	Marketing	9
Business	Operations and Business Analytics	8
<b>Business</b>	<b>Total</b>	<b>44</b>
CAS Humanities	CinemaStudiesPgm	7
CAS Humanities	Classics	5
CAS Humanities	CompLitProgramOperations	7
CAS Humanities	CreativeWritingOperations	6
CAS Humanities	EastAsianLanguageLiterature	10
CAS Humanities	English	32
CAS Humanities	GermanandScandinavian	8
CAS Humanities	LinguisticsOperations	10
CAS Humanities	PhilosophyOperations	11
CAS Humanities	ReligiousStudiesOperations	7
CAS Humanities	RomanceLanguages	18
CAS Humanities	TheatreArts	6
<b>CAS Humanities</b>	<b>Total</b>	<b>127</b>



# University of Oregon

## Colleges and Divisions/Departments

College	Division/Department	No. of Profs.
CAS Natural Sciences	Biology	39
CAS Natural Sciences	CISComputer&InformationSci	15
CAS Natural Sciences	Chemistry	25
CAS Natural Sciences	EarthSciencesOperations	22
CAS Natural Sciences	HumanPhysiologyHPHY	15
CAS Natural Sciences	MathematicsOperations	30
CAS Natural Sciences	Physics	29
CAS Natural Sciences	Psychology	28
<b>CAS Natural Sciences</b>	<b>Total</b>	<b>203</b>
CAS Social Sciences	AnthropologyOperations	16
CAS Social Sciences	Economics	23
CAS Social Sciences	EnvironmentalStdsOperations	6
CAS Social Sciences	EthnicStudiesOperations	9
CAS Social Sciences	GeographyOperations	13
CAS Social Sciences	HistoryOperations	32
CAS Social Sciences	Int'lStudiesOperations	6
CAS Social Sciences	PoliticalScienceOperations	20
CAS Social Sciences	SociologyOperations	18
CAS Social Sciences	Women'sStudiesOperations	5
<b>CAS Social Sciences</b>	<b>Total</b>	<b>148</b>

## University of Oregon

# Colleges and Divisions/Departments

College	Division/Department	No. of Profs.
Design	Department of the History of Art and Architecture	10
Design	School of Architecture & Environment	36
Design	School of Art & Design	27
Design	School of Planning, Public Policy and Management	14
<b>College of Design</b>	<b>Total</b>	<b>87</b>
Education	Counseling Psychology & Human Services	13
Education	Education Studies	10
Education	Methodology, Policy & Leadership	7
Education	Special Education & Clinical Sciences	18
<b>Education, College of</b>	<b>Total</b>	<b>48</b>
Journalism & Communicatn	Journalism & Communicatn	29
<b>Journalism &amp; Communicatn</b>	<b>Total</b>	<b>29</b>
Law	Law	27
<b>Law</b>	<b>Total</b>	<b>27</b>
Music and Dance	Dance	6
Music and Dance	Music	39
<b>Music and Dance</b>	<b>Total</b>	<b>45</b>
<b>Total</b>	<b>Total</b>	<b>758</b>