

# WUSM Faculty Pay Equity Study 2018 (FY'16 data)

Diana L. Gray, M.D.  
Associate Dean for Faculty Affairs  
Co-Project Manager  
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# Past Faculty Pay Equity Studies - WUSM

- 1990
- 1995
- 2002: data 1999
- 2004: data 2003
- 2010: data 2006-08
- All demonstrated lower compensation for women as compared to men although various conclusions were reached as to significance of the differences
- Race & ethnic differences were considered starting in 2004 study: no significant differences

# Key Project Steps & Study Methodology

- Central admin discussions began - late 2014
- Pilot comp analysis using Adult Cardiology Division -2015
- Consulting firms solicited – late 2016
- Willis Towers Watson (WTW) selected & contract finalized – spring 2017
- Central Finance Office built central data base for FY2014-16
- Study used compensation data from FY 2016
- Consulting Work Group and School Steering Committee formed – see next slide
- Leadership of both groups
  - Mary Corcoran
  - Diana Gray
  - Rick Stanton

## **Steering Committee for Gender Pay Equity Study**

**first meeting fall of 2017 – provided feedback and endorsed proposal for study**

### Administrators

Diana Gray – Project Manager

David Perlmutter

Rick Stanton

Mary Corcoran – Project Manager

Jenny Lodge

### Dept Heads

Vicky Fraser

Tim Eberlein

Alex Evers

Dave Holtzman

Chuck Zorumski

Dave Piston

Todd Margolis

### Program Director

Gammon Earhart – Program Director, Physical Therapy

### Faculty Members

Gender Equity Committee – Dayna Early MD & Tammy Hershey

Arghavan Salles, MD, PhD (Surgery)

Amber Salter, PhD

AWN leadership – Tammy Hershey

ECFC – Paul Bridgman, Dayna Early

Faculty Diversity Committee – Will Ross & Chair – Yumi Turmelle

### Office of General Counsel

John Powers

Joe Sklansky

# Key Project Steps & Study Methodology - continued

- First draft report from WTW
  - Data problems & idiosyncrasies identified and reconciled eg:
    - VA faculty, FTE <10%, Partial year hires & departures, instructors
- 2008 methodology reconstructed
- Analysis comparing 2016 & 2008 methods
- Additional data provided by WTW – June 2018

**Variables Selected** for a well specified regression model to evaluate equity in compensation

- Should include faculty attributes commonly used to establish salaries
- Available in Central Database
- For faculty salary equity studies:
  - Educational attainment
  - Experience
  - Discipline or specialty
  - Academic rank
  - Merit
  - Productivity
- Centrally available variables have been significantly enhanced in recent years

**Independent (predictor) Variables tested for inclusion in the model included:**

- AAMC Sub-specialty
- Division
- Department
- Age
- Highest Degree
- Rank
- Admin Role
- Years since highest degree
- Years at WU
- Years in Rank
- Years Pre Faculty at WU
- Tenure
- FTE
- PI
- Track
- Collections
- AAMC Market
- RVU
- Awards New Money
- Patents
- Agreements
- Invention disclosures
- Number of Publications and Citations
- H Index
- M and V Values
- First, Sole and Last Authors
- Awarded Proposals
- Submitted Proposals
- Direct and Indirect Expenses
- Mandatory and Voluntary Cost Share
- Research MTDC
- Wet Lab
- Other Occupied Space
- Total Occupied Space
- Clinician RVU and Clinician Collections
- Non-clinician Other Performance Metrics

# Results

## Faculty Data: all employed faculty $\geq 0.5$ FTE at rank of $\geq$ Assistant Professor

Total	Male	Female
1,630	1,060	570
	65%	35%

Ethnicity	Faculty	Percent
American Indian/AK Native	2	0.1%
Asian	290	17.8%
Black or African American	40	2.5%
Hispanic/Latino	38	2.3%
Nat Hawaiian/Pacific Island	3	0.2%
Two or More Races	6	0.4%
Caucasian	1,251	76.7%
Total	1,630	100.0%



## DEFINITIONS:

Please note that on the following slides and the subsequent analysis:

**'Base Pay'** means 'X' and 'Y' compensation

**'Total Compensation'** includes 'Base Pay' as well as 'Z' and any other compensation paid to faculty

The **'unadjusted'** and **'actual'** data indicate pay and compensation means, differences and/or other salary data for which all the variables that should legitimately determine compensation (ie. subspecialty, rank, productivity and experience metrics) have not yet been considered.

The term **"adjusted"** to modify salary data and differences indicates that all such appropriate compensation variables in the multivariate regression model have been utilized to account for differences in market forces, productivity and experience that should be taken into account in any valid pay equity study.

The term **'unpredicted variation'** reflects the nonstandard variations between gender and/or ethnicity that are not explained by the legitimate compensation criteria reflected in the multivariate regression analysis.

# Multivariate Logistic Regression Results

- For **Annual Salary** results: the variables in the regression equation accounted for 83% of the variation ( $R^2 = 0.83$ )
- For **Total Compensation**: the variables accounted for 84% of the variation ( $R^2 = 0.84$ )
- Unexplained pay gap for women compared to men = - 2.87%
- Unexplained pay gap for Asian compared to white = 0.95%
- Unexplained pay gap for URiM compared to white = - 1.7%

## BASIC FINDINGS for 2016 data set

Willis Towers Watson does NOT do an analysis where the independent variable is gender or ethnicity. They believe that these are not measures that should be used to determine compensation and that to do so would be contrary to Generally Accepted Industry Practice.

The firm analyzed the variables that contribute to compensation, and examined the variation between actual and predicted results. The report describes the variations/differences by gender and ethnicity.

In the WTW slides, WTW presents those variations and concludes that the presented variations are within the predicted range.

The Working Group has examined the variation between actual and predicted compensation for the differing genders and ethnicities and identifies what it is classifying as the variation unexplained by specific variables contributing to compensation:

### **The Gender/Ethnicity gap:**

<b><u>Unpredicted Variation</u></b>	<b><u>Base Pay</u></b>	<b><u>Total Cash Comp</u></b>
<b>Male/Female</b>	<b>1.48%</b>	<b>2.87%</b>
<b>White/Asian</b>	<b>1.03%</b>	<b>0.95%</b>
<b>White to Underrepresented</b>	<b>0.67%</b>	<b>1.66%</b>

# Predictive Variables – statistically significant

## Experience

- Highest Degree
- Rank
- Tenure
- Years Pre Faculty at WU
- Admin Role
- Part-time employment

## Market Forces

- AAMC medical or scientific field
- Department/Division
- Faculty Track

## Performance metrics

- RVU
- Collections
- Awards New Money
- Invention disclosures
- M and V Values
- Last Authors
- Awarded Proposals
- Submitted Proposals
- Mandatory Cost Share
- Total Occupied Space

## Decomposition of Actual Mean Difference in Base Pay and Total Cash

Starting from the variation described earlier that Female Annual Salary, after accounting for measurable variables is 1.5% below Male on Base Pay; and 2.9% below on Total Cash compensation, the major measurable elements from the model that describe the differences include:

### For Average Pay:

- |   |                       |
|---|-----------------------|
| • Rank and Tenure                       | 42% of the difference |
| • Department/Division/AAMC subspecialty | 24% of the difference |
| • Administrative role                   | 13% of the difference |
| • Performance metrics                   | 23% of the difference |

### For Total Cash Compensation

- |   |                       |
|---|-----------------------|
| • Rank and Tenure                       | 37% of the difference |
| • Department/Division/AAMC subspecialty | 23% of the difference |
| • Administrative role                   | 9% of the difference  |
| • Performance metrics                   | 28% of the difference |

*Other less significant elements contributing to or reducing the gap include Highest Degree, Part Time, Non- Clinician Track and Experience.*

## Actual Mean Compensation

### Actual Mean

	<u>2016</u>		<u>2008</u>	
	<u>Total Comp</u>	<u>Gap</u>	<u>Total Comp</u>	<u>Gap</u>
<u>Male</u>	<u>228,914</u>		<u>223,269</u>	
Assistant	181,944		179,168	
Associate	209,445		211,923	
Professor	274,692		275,457	
Chief	364,077			
<u>Female</u>	<u>179,692</u>	<b>27.4%</b>	<u>159,672</u>	39.8%
Assistant	166,332	9.4%	141,137	26.9%
Associate	174,165	20.3%	174,867	21.2%
Professor	222,907	23.2%	198,981	38.4%
Chief	302,389	20.4%		
<u>White</u>	<u>217,547</u>		<u>209,264</u>	
URM	205,391	5.9%	210,587	<b>-0.6%</b>
Asian	183,172	18.8%	182,247	14.8%

**PLEASE NOTE  
DEFINITIONS  
ON SLIDE 6**

## BASIC FINDINGS for 2016 Data Set

The study also identified the unadjusted differences in mean annual salary and total cash compensation:

<u>Differences in Actual Means</u>	<u>Base Pay</u>	<u>Total Cash</u>
Male/Female	21.69%	<b>27.39%</b>
White/Asian	6.00%	5.59%
White to Underrepresented	14.77%	15.80%

### **Context: Total Compensation Gap by Gender after Applying a Payment Model**

<u>Unpredicted Variation Male/Female</u>	<u>Differences in Actual Means</u>
• 1990 WUSM study 5.72%	32.6%
• 2000 WUSMstudy 4.17%	
• 2003 WUSMstudy 3.00%	39.8%
• 2008 WUSMstudy 4.00%	
• 2016 JAMA study* 8.70%	27.3%
• <b>2016 WUSM study 2.87%</b>	<b>27.4%</b>

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**Faculty Total Paid Compensation Per Month: All forms** \*Data from HRMS  
**Average Compensation per headcount faculty**

**Calculated monthly: 12 month rolling averages**

	Jun-13	Jun-14	Jun-15	Jun-16	Jun-17	Jun-18
Male	238,587	243,210	241,011	248,852	260,623	269,473
Female	166,992	173,055	175,554	182,335	191,848	204,427
Male/Female	<b>42.9%</b>	<b>40.5%</b>	<b>37.3%</b>	<b>36.5%</b>	<b>35.8%</b>	<b>31.8%</b>

**Yr/Yr Increases**

Male	1.9%	-0.9%	3.3%	4.7%	3.4%
Female	3.6%	1.4%	3.9%	5.2%	6.6%

Percentage increases from June 2013 thru September 2019

	All Faculty	Female Faculty	Male Faculty
Headcount	25.5%	45.1%	16.5%
Compensation	14.1%	22.1%	13.2%
Average annual Compensation <>	3.0%	4.3%	2.8%



## Annual Faculty Compensation Reviews

Since FY 2012, the Dean's Office has comprehensively reviewed each department's proposed annual salary increases every spring

Data reviewed includes:

- Department
- Division
- Subspecialty
- Rank
- Track
- Degree
- Hire Date
- Years in Rank
- Gender
- Prior WUSM and VA pay
- Prior Bonuses
- Proposed Increase

Mid Year Increases for promotions, retention, market or equity are individually reviewed and approved by the Dean's Office.

All bonus payments are reviewed and approved by the Dean's Office for consistency with departmental compensation plans or extraordinary justifications.

## Discussion

- Women & URM continue to lag Caucasian men in all sectors of the labor market
- Gender pay gap constant over past 15 years
  - 2017 – women/men = 82% (Pew Research Center)
- Much of the differential can be explained by measurable factors: educational attainment, occupational segregation & work experience
- Care-giving responsibilities also contribute for women (4/10 mothers having taken time away from work) Vs many fewer men
- Gender discrimination continues to play some role
  - contribution difficult to define

Physician salary differences by sex in 24 US public medical schools.  
 N = 10,241 (35% women)

	Men	Women	P Value
Mean sal	257,957 (SD=137,202)	206,641 (SD=88,238)	<.001
Assistant Prof	2516 (37.6%)	1963 (55.3%)	<.001
Associate Prof	1633 (24.4%)	869 (24.5%)	.93
Full Prof	2543 (38.0%)	717 (20.2%)	<.001

**Age** – men significantly older at upper ranks

**Subspeciality** – significantly more men in higher paying specialties

Women significantly younger at lower ranks

Significantly more women in many lower paying specialties

<b>Publications</b> –	26.1	13.5	<.001
first or last author	17.1	8.6	<.001
<b>&gt;1 NIH grant</b>	16.1%	11.6%	<.001
<b>Medicare payments</b>	\$52,320	\$38,409	<.001

# Conclusions

- Findings of the current study are c/w most of WUSM's past faculty pay equity studies:
  - Compensation for women < men
  - MV logistic regression reveals modest differences overall and improvement since study of 2010
  - Differences in comp between women & men explained in large part by variables in the study
  - URiM groups compared to majority -> minor differences (some + & some -)
- Also c/w results from other medical schools
  - JAMA Int Med 2016 – slide #19 in handout
- Many potential confounders for such a study
- No attempt to explain rationale behind differences, only to find if differences exist
- All legitimate predictors of comp can never be included
- Improved central data bases compared to past studies

## Communication Plan

Pay Equity Steering Committee – December 12, 2018

Executive Faculty – 1.2.19

Key findings to Academic Women's Network (AWN) – 1.25.19

Final report posted on OFA website publically viewable - 3.11.19

Executive Committee Faculty Council – 3.12.19

Faculty Senate Council – 3.26.19

AWN Board – 3.29.19

AWN Spring Dinner – 5.14.19

Other groups as requested

## Next Steps

- Review departmental & individual residual differences with each dept/program chief
- Dean will continue addressing compensation equity with department and program chiefs to:
  - Correct or justify outliers
  - Develop & execute plans to eliminate unexplained variations around gender, race/ethnicity
- Update study with FY'18 data
  - Rerun regression with and without some of the variables that may be more biased or without merit in compensation setting
- Update study at the end of each academic year
  - Expectation that “unexplained” variations will not persist