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Analyzing the Gender Pay Gap at the University of Nevada, Las Vegas

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Examining the Gender Pay Gaps at The University of Nevada, Las Vegas & The University of Nevada, Reno

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ECON 495 | Dr. Djeto Assane
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INTRODUCTION

- Despite numerous anti-discrimination laws, women continue to make less than their male counterparts
- On average, women make 80 cents for every dollar a man makes (AAUW, 2018)
- Gender pay gap causes issues with mental health, job satisfaction, and morale (Rabovsky & Lee, 2017)
- Gender pay gap studies often fall under two perspectives-
 - Human capital perspective – salary is based off of factors such as education and experience
 - Structural perspective – salary is based off of societal factors
- Pay gap is persistent in many different fields, including academia
- Studies have consistently shown that female professors make less than their male colleagues (Barbezat & Toutkoushian, 2002 ; Clerly, 2012; Hart, 2014)
- Previous research has looked at-
 - Differences by institution
 - Disciplinary differences
 - Female representation in top administrative roles

RESEARCH QUESTIONS

- Are there gender wage gaps at UNLV and UNR?
- Is there a connection between female representation in top administrative roles and gender wage gaps when comparing UNLV to UNR?

HYPOTHESES

- Hypothesis 1: Even when department is controlled for, the gender wage gap will still be present.
- Hypothesis 2: The wage gap between male and female professors is smaller for universities with a top female administrator

METHODOLOGY

- Participants from UNLV: $N=310$ (29% Female – 71% Male)
 - Variables controlled for: department, rank, salary, duration at university, administrative roles, gender, and race- 32% faculty of color, 68% White
- Participants from UNR: $N=307$ (36% Female- 64% Male)
 - Variables controlled for: department, rank, salary, administrative roles, and gender
- Ordinary least squares regression
 - Coefficient for male variable $\neq 0$, then a gender pay gap was found

RESULTS

Table 1: UNLV regression

SALARY	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
MALE	2835.682	6694.977	0.42	0.673	-10901.4 16172.76
ANTH	-21942.06	11383.63	-1.93	0.058	-44619.41 735.3011
ENG	-12559.14	9828.79	-1.28	0.205	-32139.09 7020.817
HIST	1657.297	6711.295	0.25	0.806	-11712.29 15826.88
INTERDCSP	-2941.311	13809.45	-0.21	0.832	-30451.15 24568.53
PHIL	0	(omitted)			
PSC	-3237.764	12149.72	-0.27	0.791	-27441.25 20965.72
PSY	0	(omitted)			
SOC	5809.327	7097.681	0.82	0.416	-8329.979 19948.63
LANG	-9884.526	9168.181	-1.08	0.284	-28148.48 8379.428
CHEM	0	(omitted)			
GEO	10256.59	16066.73	0.64	0.525	-21749.96 42263.15
LIFESCENCE	-20541.41	17529.48	-1.17	0.245	-55461.94 14379.11
MATH	-16996.99	15453.77	-1.10	0.275	-47782.49 13788.51
PHYS	-5704.346	17295.33	-0.33	0.742	-40158.42 28749.73
MGT	-9875.062	15954.01	-0.62	0.538	-41657.09 21906.96
FIN	18993.75	17460.99	1.09	0.280	-15790.32 53777.83
ACC	43290.64	15813.11	2.74	0.008	11789.31 74791.98
MKT	14844.79	23314.89	0.64	0.526	-31600.85 61290.43
Professor	57234.64	9939.322	5.76	0.000	37434.49 77034.78
AssociateProf	32826.12	7935.533	4.14	0.000	17017.73 48634.52
DURATIONMONTH	-14.80153	33.16426	-0.45	0.657	-80.86812 51.26506
LIBERAL	-42493.14	11258.09	-3.77	0.000	-64920.39 -20065.88
SCIENCE	-14661.96	19024.88	-0.77	0.443	-52561.48 23237.55
ADMIN	2675.085	9471.259	0.28	0.778	-16192.63 21542.8
_cons	106976.3	11664.49	9.17	0.000	83739.44 130213.2

- Marginally significant gap of \$2,835.68 found at the University of Nevada, Las Vegas
- Adding a race variable did not make results more significant; gap has narrowed (race was controlled for at UNLV but not at UNR)

Table 2: UNR regression

SALARY	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
ANTH	1003.366	5563.9	0.18	0.857	-9948.682 11955.41
ENG	-2814.35	6993.101	-0.4	0.688	-16579.65 10950.95
HIST	-5325.86	5924.285	-0.9	0.369	-16987.29 6335.573
INTERDCS	13704.82	9823.804	1.4	0.164	-5632.474 33042.11
PSC	12703.67	9920.874	1.28	0.201	-6824.697 32232.04
PSY	22459.77	6482.858	3.46	0.001	9698.839 35220.71
SOC	16957.08	8550.815	1.98	0.048	125.5523 33788.6
LANG	138.8667	7235.002	0.02	0.985	-14102.6 14380.33
CHEM	15107.93	8153.139	1.85	0.065	-940.8014 31156.67
LIFESCIENCE	15711.26	10310.31	1.52	0.129	-4583.681 36006.2
MATH	-201.9698	8189.809	-0.02	0.98	-16522.89 15918.95
PHYS	12241.83	10379.04	1.18	0.239	-8188.388 32672.05
GEONG	28676.51	7793.241	3.68	0	13336.2 44016.81
MGT	16852.78	11153.35	1.51	0.132	-5101.605 38807.17
FIN	25158.31	9564.516	2.63	0.009	6331.4 43985.21
ACC	43927.67	16350.15	2.69	0.008	11743.84 76111.5
MKT	35264.52	9098.214	3.88	0	17355.49 53173.56
IS	22524.7	15805.89	1.43	0.155	-8587.799 53637.19
PROFESSOR	52462.4	4343.95	12.08	0	43911.72 61013.08
ASSOCIATE PROF	20879.99	3210.579	6.5	0	14560.25 27199.74
MALE	8167.35	3612.646	2.26	0.025	1056.175 15273.53
LIBERAL	-30491.03	8395.536	-3.63	0	-47016.9 -13965.16
SCI	-26963.68	9878.415	-2.73	0.007	-46408.47 -7518.889
ADMIN	10330.52	5502.818	1.88	0.062	-501.2885 21162.33
_cons	87002.25	7695.856	11.31	0	71853.63 102150.9
R square	0.5496				
n	307				

- Statistically significant pay gap of \$8,167.35 found at the University of Nevada, Reno.
- We see a drastically bigger pay gap at UNR compared to UNLV. Why is that?
 - Female representation?

DISCUSSION

- Implications-
 - Issues with productivity and morale
 - Give female faculty a platform to express concerns
- Limitations-
 - Salary data not found for 48 of UNLV and UNR staff.
 - Duration and race variable for UNR staff was not obtained
 - Sample Size was small
- Future direction for research-
 - Increase sample size to get a better variation
 - Review salary data for more than one year
 - Look at pay gaps for new hires

*References available upon request

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