Final Report of the Salary Equity Analysis Working Groups
December 5, 2022

Executive Summary

In response to the report by Charles River Associates on salary inequity by gender, the University Senate, AAUP, and the university administration charged a Salary Equity Task Force to address the issues of salary inequity by gender and race/ethnicity with a greater scope, depth, and faculty input that would propose remedies for existing inequities and help avoid future inequities.

The study was divided into five working groups:

- Data Analysis – charged with checking for systemic bias on the macro level
- Dual Career – charged with analyzing the impact of partner hires or failed hires on recruitment and retention
- Merit – charged with gathering information on how representative departments distribute merit and the effects of those methods on salary equity.
- Retention – charged with analyzing who leaves and why and what incentivizes remaining
- Tenure and Promotion – charged with gathering information on tenure and promotion to associate professor and on promotion to full professor, including length of time from tenure to full professor status;

Throughout the 2020-2021 academic year, this steering committee and working groups evaluated existing institutional data, conducted benchmarking, solicited data from stakeholders via survey or aggregation of other sources, assessed data needs for future analysis, and reviewed relevant policy and governance. In the 2021-2022 academic year, the steering committee and working groups finalized their reports inclusive of the data analysis and supplemental survey evidence. The working group reports to follow summarize the working group's work, address challenges or constraints on the process, and include recommendations for executive leadership's consideration.

Steering Committee Membership

Lloyd Blanchard, Co-Chair of the Data Analysis Working Group; Interim Vice President for Finance and Chief Financial Officer
Michael Bradford, Co-Chair of the Tenure and Promotion Working Group; Vice Provost for Faculty, Staff, and Student Development
Sarah Croucher, Co-Chair of the Retention Working Group; Assistant Vice Provost for Academic Affairs
Maria Luz Fernandez, Co-Chair of the Retention Working Group; Professor, Nutritional Sciences
Preston Green, Co-Chair of the Merit Working Group; Professor, Educational Leadership
Oskar Harmon, Co-Chair of the Data Analysis Working Group; Associate Professor, Economics
Amy Howell, Chair of the Dual Career Working Group; Professor, Chemistry
Carol Polifroni, Co-Chair of the Tenure and Promotion Working Group; Professor, Nursing
Lyle Scruggs, Co-Chair of the Merit Working Group; Professor, Political Science

Table of Contents

Data Analysis Working Group
December 5, 2022

Purpose and Background
Working Group Charge
The Data Analysis Working Group was charged with providing consistent evaluation of collected data for this study, utilizing mutually agreed upon experts to check for systemic bias on the macro level.

Working Group Membership
Carol Atkinson-Palombo, Professor, Geography
Marcy Balunas, Associate Professor, Pharmaceutical Science
Lloyd Blanchard, Co-Chair and Interim Vice President for Finance and Chief Financial Officer
Katharine Capshaw, Associate Dean and Professor, English
Sarah Croucher, Assistant Vice Provost for Academic Affairs
Amy Gorin, Vice Provost for Health Sciences
Oskar Harmon, Co-Chair and Associate Professor, Economics
Chun Ock, Professor, Nutritional Sciences
Lyle Scruggs, Professor, Political Science

Summary of Work
Per the chairs of the Data Analysis Working Group, the committee did not conduct additional analysis from the time the interim report was issued, as it served as a basis for other working group's reports. Therefore, the interim report from the Data Analysis Working Group as of July 9, 2021 has been appended to this final report.

Appendices
1. Interim Report of the Data Analysis Working Group as of July 9, 2021.

Data Analysis
Members: Carol Atkinson-Palombo; Marcy Balunas; Lloyd Blanchard, co-chair; Katharine Capshaw; Sarah Croucher; Amy Gorin; Oskar Harmon, co-chair; Chun Ock; Lyle Scruggs

This interim report presents data on differences in average salary by gender and other factors thought to be associated with these differences. These factors include the gender distribution of faculty across the three ranks of assistant, associate, and full professor, and their years of service at the university. The data are for full-time tenured and tenure track faculty for the academic year 2003-2004 through 2020-21 in nine UConn colleges/schools—CLAS, Nursing, Pharmacy, Business, Engineering, Neag, Fine Arts, Social Work, and CAHNR.

The data generally show that female faculty were paid $15,923 (13% of average female salary) less than male faculty on average in 2020, and have a disproportional under-representation in schools/colleges and in the three ranks of professorship. The average differences vary greatly among the college/schools, and among departments. In a few cases, the average female salary is greater than their average male counterpart, and while this may result from outliers in the data, we did not remove such outliers for this initial analysis.

We first show the average faculty salary trend at the university level for the past 18 years in Figure 1, which shows a relatively constant salary gap across this time.[1] In 2003, average female faculty salary was 84% of average male faculty salary; in 2020, it was 89%. Over this time, female salary growth averaged 3.0% per year, while male salaries grew an average of 2.7%.

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[1] The salary data in this report are 9-month equivalent salaries. Most tenured and tenure track faculty have 9-month contracts, but some have 10-, 11-, and 12-month contracts. Dividing each salary by its associated term and multiplying by 9 turns all salaries into 9-month equivalent salaries.
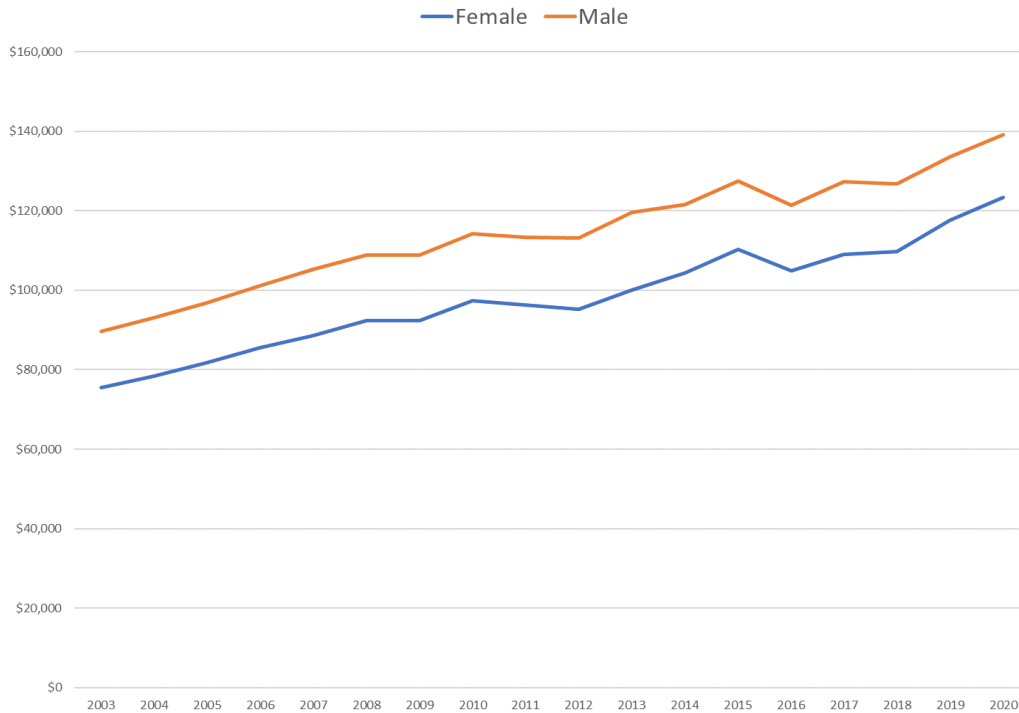
Figure 1. 18-year trend in average salaries for male and female full-time tenured and tenure track faculty

The steady salary gap depicted in Figure 1 masks variation in the pattern of salary growth. There are a handful of years when salaries for males grew faster than females, and vice versa. Table 1 shows that average male salary growth outpaced females' by more than a half percent in 2007, 2011, 2012, 2013 and 2017, while average female salary growth outpaced males' by more than a half percent in 2008, 2010, 2014, 2015, 2018, 2019 and 2020.[2]

Table 1. Salary growth rates by gender across time

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Female	3.7%	4.5%	4.6%	3.4%	4.3%	-0.1%	5.6%	-1.3%	-1.1%	5.1%	4.3%	5.6%	-4.9%	3.9%	0.7%	7.2%	0.048
Male	3.7%	4.1%	4.3%	4.2%	3.3%	0.0%	5.1%	-0.8%	-0.1%	5.6%	1.7%	4.8%	-4.7%	4.8%	-0.3%	5.4%	0.042
Female - Male	0.0%	0.4%	0.3%	-0.8%	1.0%	0.0%	0.6%	-0.5%	-0.9%	-0.5%	2.6%	0.8%	-0.2%	-0.9%	1.0%	1.8%	0.7%

A proper analysis of salary differences by gender would start with the raw differences shown in Figure 1, and then determine the extent to which various factors are associated with the differences observed. Different disciplines have their own practices, so we investigated gender salary differences by school/college and department. Years of service is another potential factor, and we controlled for this as well. If salary gaps remain after controlling for these factors, one might conclude that it is due to gender and gender-correlated practices.

These and other factors that are associated with salary differences by gender must be assessed for their interaction with gender, as seemingly appropriate factors may in fact be "gendered" (i.e., the result of a process

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[2] These changes reflect changes in salaries, and gender and rank distributions.
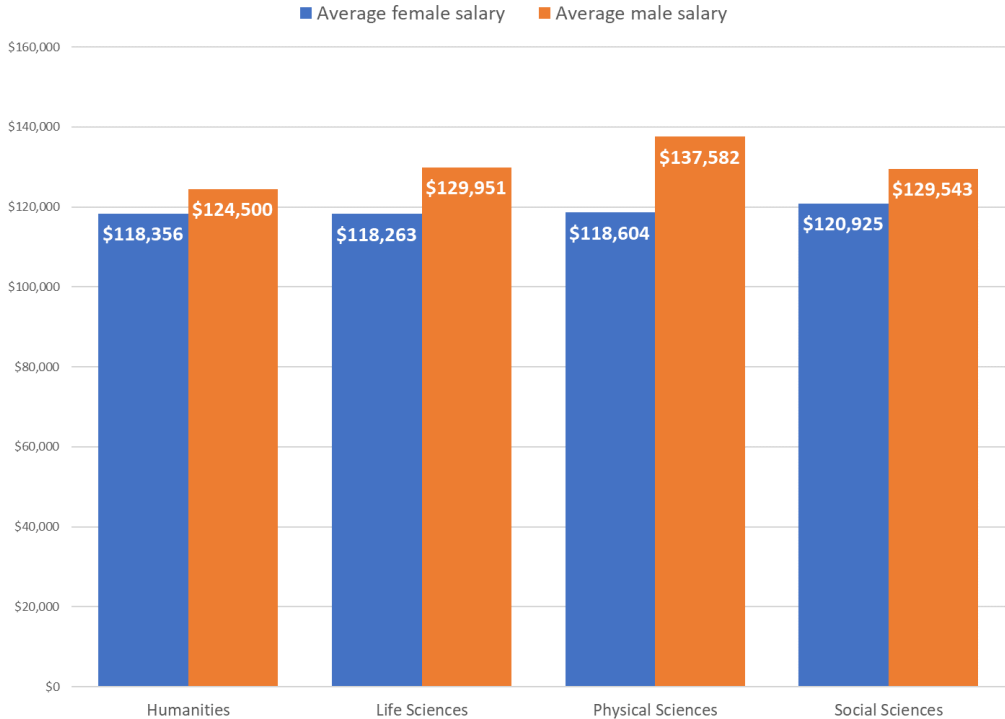
with differential gender treatment). For example, there is no agreed upon definition of "productivity" for university faculty. Metrics such as number of publications or grants can be examined, but they fall short of accounting for different disciplinary practices and the disproportionate service, mentoring, and teaching burdens that often fall to women, which might impact the rates of publications or grant applications. These types of more hidden activities are not weighted as strongly in merit, promotion, or retention offers, further compounding salary differences over time. Thus, we have not included these potentially gendered factors in our analyses here.

Even the purported market-based salary differences by discipline may be suspect. For example, one common argument says that business faculty salaries are higher on average in some departments because they need to be competitive with industry to attract folks to universities. However, this is likely true of many disciplines. Biologists, Computer Scientists, Economists, Pharmacists, and Psychologists, to name a few, also face lucrative industry opportunities, but faculty salaries in these disciplines may not necessarily reflect such market-based alternatives.

The remainder of this report presents three sets of gender-based information for each CLAS division and every department: differences in average salary, distribution of faculty by rank, and differences in years of service. At the end of this report, we present preliminary evidence showing how additional controls impact gender salary differences using regression and decomposition methods, and discuss the need for further research on the question of gender pay equity.

Differences in Average Salary
First, we show data summarizing average salaries for the CLAS faculty. Figure 2 reports average 2020 salaries by CLAS division, and shows that male faculty earn between $6,145 (Humanities) and $18,979 (Physical Sciences) more than their female counterparts, on average.[3]

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[3] The associated departments for each division are listed in Table 3.

Figure 2. Average salaries by gender and CLAS division

Table 2 breaks the CLAS division average 2020 salaries down further by rank.[4] The average salary gap for assistant professors ranges from a $2,442 female advantage in Life Sciences to a $2,234 male advantage in Physical Sciences. For associate professors, the salary gaps range from $740 female advantage (Life Sciences) to a $5,440 male advantage (Humanities). For full professors, the average male advantage ranges from $6,158 (Social Sciences) to $10,215 (Humanities). Female salary disadvantage appears to grow with rank.

Table 2. Average salary by gender, rank, and CLAS division

	Assistant Professors			Associate Professors			Professors		
	Average female salary	Average male salary	Average salary gap	Average female salary	Average male salary	Average salary gap	Average female salary	Average male salary	Average salary gap
Humanities	$82,031	$82,836	($805)	$98,148	$103,588	($5,440)	$137,724	$147,940	($10,215)
Life Sciences	$95,188	$92,746	$2,442	$103,321	$102,582	$740	$135,462	$151,023	($15,561)
Physical Sciences	$95,271	$97,506	($2,234)	$107,466	$111,732	($4,266)	$152,061	$160,399	($8,339)
Social Sciences	$92,971	$91,203	$1,767	$104,568	$107,707	($3,139)	$154,162	$160,319	($6,158)

Table 3 presents the average 2020 salaries by gender and rank and the salary gaps by CLAS department. As with Table 2, this table shows more female salary disadvantage at the associate and full professor ranks than at the assistant ranks. Seven of the 23 CLAS departments listed have average salary gaps disadvantaging females at the assistant professor level, 13 departments at the associate professor level, and 15 departments at the full professor level.[5]

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[4] Through the report, negative salary gaps in red reflect average male advantage, while positive salary gaps reflect average female advantage.

[5] Salary differences reported by rank and department in Tables 3 and 4 do not account for the various additional assignments and designations that effect one's salary. Future analyses should control for those who are also directors, associate deans, department heads, and distinguished professors.

Table 3. Average salaries and salary gaps by gender, rank, and CLAS department

CLAS Division/Dept. Year = 2020 ($)	Assistant Professors			Associate Professors			Professors		
	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap
Humanities									
English	85,520	75,000	10,520	93,659	90,458	3,201	127,194	130,971	(3,776)
History	81,337	86,241	(4,904)	109,538	115,116	(5,578)	151,058	154,863	(3,805)
Journalism	84,041	-	-	97,499	104,601	(7,102)	211,239	113,779	97,460
LCL	-	82,953	-	90,060	96,241	(6,181)	121,473	130,530	(9,058)
Linguistics		83,627	-	107,606	120,119	(12,513)	182,172	140,539	41,633
Philosophy	80,000	-	-	130,016	107,017	22,999	165,821	189,706	(23,885)
Life Sciences									
EEB	96,837	94,433	2,404	-	94,462	-	136,819	140,946	(4,127)
MCB	89,957	92,501	(2,544)	107,009	102,900	4,109	181,287	142,036	39,251
PNB	105,590	97,270	8,320	-	104,970	-	137,897	148,869	(10,972)
Psychology	93,170	91,914	1,257	99,727	99,904	(177)	138,998	167,572	(28,574)
SLHS	94,010	87,001	7,009	106,860	117,627	(10,767)	95,701	140,185	(44,485)
Physical Sciences									
Chemistry	89,326	86,847	2,479	106,303	113,762	(7,459)	161,758	180,647	(18,890)
Geosciences	91,255	92,060	(805)	104,560	106,683	(2,123)	-	127,347	-
Marine Science	87,453	-	-	100,717	101,339	(621)	151,386	146,063	5,322
Mathematics	101,953	100,309	1,644	-	111,215	-	127,459	162,484	(35,025)
Physics	101,881	99,292	2,588	112,147	115,613	(3,466)	227,974	151,133	76,841
Statistics	104,250	106,652	(2,402)	112,451	116,872	(4,421)	154,285	172,282	(17,997)
Social Sciences									
Anthropology	82,000	-	-	106,285	99,396	6,888	132,949	138,171	(5,222)
Communication	110,079	92,000	18,079	102,373	89,930	12,444	142,470	147,268	(4,798)
Economics	116,716	124,905	(8,189)	134,423	129,590	4,833	158,926	198,092	(39,166)
Geography	-	80,779	-	105,445	98,010	7,435	133,812	195,570	(61,759)
HDFS	94,999	103,783	(8,784)	98,135	-	-	161,925	157,970	3,954
Political Science	83,583	88,697	(5,115)	97,383	94,491	2,892	140,637	137,664	2,973
Public Policy	91,845	-	-	106,221	125,354	(19,133)	240,288	181,107	59,181
Sociology	80,076	75,000	5,076	98,536	110,610	(12,074)	167,022	135,811	31,210

Table 4 shows the average salaries by gender and the salary gap by department for the rest of the university. A similar pattern as CLAS departments emerges here in that we observe more female salary disadvantage at the associate and full professor ranks than at the assistant ranks. Of the 25 departments and two schools listed, seven show average salary gaps disadvantaging female assistant professors, 11 departments each at the associate and full professor levels.

Table 4. Average salaries and salary gaps by gender, rank, and non-CLAS departments

Year = 2020 ($)	Assistant Professors			Associate Professors			Professors		
	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap
Business									
Accounting	226,793	225,376	1,417	238,463	250,141	(11,678)	-	281,984	-
Finance	224,279	213,304	10,975	-	197,755	-	336,915	243,290	93,625
Management	160,000	168,726	(8,726)	154,151	192,490	(38,339)	-	265,671	-
Marketing	193,003	195,123	(2,120)	166,405	152,233	14,172	258,823	240,314	18,509
OIM	183,478	181,097	2,380	244,567	177,293	67,274	233,705	246,726	(13,021)
CAHNR									
Agricultural Economics	108,675	121,235	(12,560)	103,924	127,071	(23,147)	196,378	188,611	7,767
Allied Health	94,450	89,275	5,175	128,696	116,441	12,255	158,021	182,724	(24,703)
Animal Science	-	89,987	-	105,713	101,049	4,664	123,223	210,000	(86,778)
Kinesiology	97,959	88,113	9,845	114,020	124,936	(10,916)	156,621	156,535	86
Natural Resources	92,455	86,725	5,730	110,149	98,741	11,409	-	137,578	-
Nutritional Science	87,155	85,760	1,395	-	92,557	-	146,480	-	-
Pathobiology	119,870	91,303	28,567	-	101,950	-	-	159,042	-
Plant Science	85,316	-	-	97,420	108,004	(10,584)	98,554	151,544	(52,990)
Engineering									
Biomedical	99,841	114,194	(14,353)	-	119,890	-	-	243,669	-
Civil *(2019 data)*	95,476	90,434	5,042	101,128	108,656	(7,528)	145,445	163,293	(17,848)
Computer Science	112,713	112,012	701	121,198	119,458	1,740	169,524	182,400	(12,877)
Electrical	104,586	100,343	4,243	109,728	116,975	(7,246)	152,451	177,299	(24,848)
Mechanical	110,739	101,742	8,996	-	116,831	-	-	189,301	-
Fine Arts									
Art	74,557	73,759	798	108,675	100,525	8,150	139,611	145,692	(6,080)
Dramatic Arts	72,364	70,060	2,304	79,837	83,412	(3,576)	-	153,116	-
Music	79,978	84,336	(4,358)	106,359	95,976	10,383	160,230	137,677	22,553
Neag Education									
Education Leadership	83,926	85,814	(1,888)	103,314	104,394	(1,081)	159,792	162,961	(3,169)
Educational Psychology	-	86,645	-	107,410		107,410	155,275	236,107	(80,832)
Nursing	106,798	-	-	122,959	155,085	(32,126)	173,169	-	-
Pharmacy									
Pharmacy Practice	122,423	-	-	131,002	149,323	(18,321)	229,093	173,093	56,000
Pharmacy Science	93,650	102,642	(8,992)	126,393	114,179	12,214	199,434	160,760	38,674
Social Work	92,531	91,381	1,150	116,301	-	-	135,947	185,114	(49,167)

Differences in the Distribution of Faculty by Gender

Figure 3 shows the gender distribution among CLAS divisions, with the largest gender disproportion being in the Physical Science division (females – males = -56%), followed by the Life Sciences division (-12%). By comparison, the Humanities (-8%) and Social Science (-4%) divisions display even distributions.

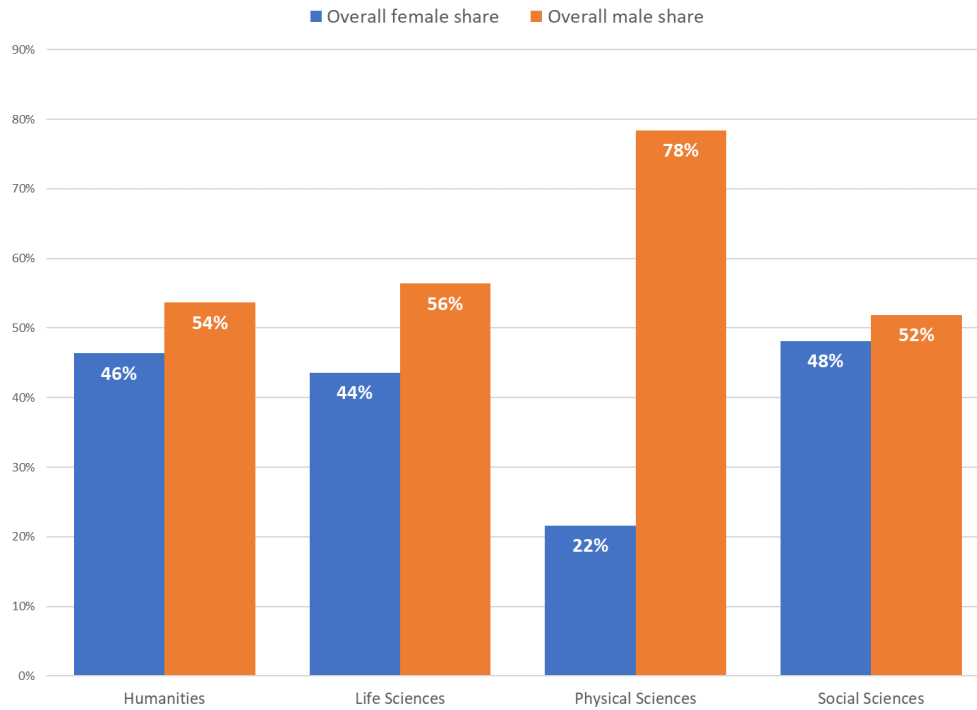*Figure 3. Gender distribution by CLAS division*

Figure 4 reports the gender distribution in CLAS divisions by rank, showing that the gender disproportions we observe at the CLAS divisional level in Figure 3 are repeated at each rank in. the gender disproportion grows with rank in the Physical Sciences. In 2020, females were the majority among assistant professors in the Humanities, Life Sciences, and Social Sciences.

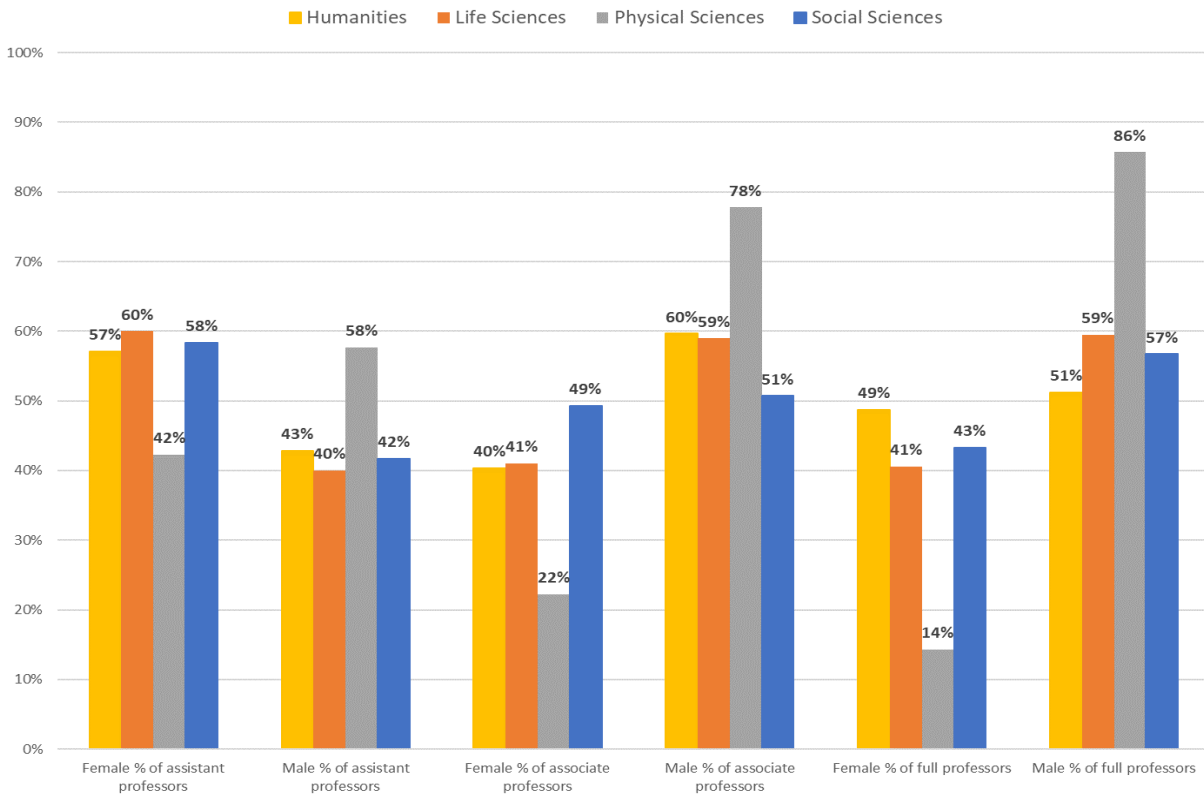*Figure 4. Gender distribution by rank and CLAS division*

Table 5 shows the gender distribution by CLAS department, and Table 6 shows the same for the remaining departments at the university. To examine the association between departmental gender distributions and salary pay gaps, we measure the correlation between department female percentage (from Tables 5 and 6) and the department salary gap (from Tables 3 and 4).[6] A positive correlation suggests that smaller female percentages in departments are associated with larger pay gaps disadvantaging females. For CLAS departments, we find small negative correlations for assistant professors (-.12), associate professors (-.14), and full professors (-.24).

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[6] We use the Pearson's correlation coefficient, which measures the extent to which two variables vary together. The larger the coefficient value (in absolute terms), the more the variables vary together. Negative correlation coefficients mean that as one variable displays larger values, the other tends to display smaller values.

Table 5. Distribution of gender by rank and CLAS department

CLAS Division/Dept.	Assistant Professors		Associate Professors		Professors	
	Female %	Male %	Female %	Male %	Female %	Male %
Humanities						
English	50	50	60	40	63	38
History	71	29	27	73	50	50
Journalism	100	0	50	50	33	67
LCL	0	100	33	67	64	36
Linguistics	0	100	31	69	20	80
Philosophy	100	0	25	75	40	60
Life Sciences						
EEB	50	50	0	100	37	63
MCB	60	40	27	73	14	86
PNB	67	33	0	100	33	67
Psychology	60	40	50	50	50	50
SHLS	67	33	83	17	80	20
Physical Sciences						
Chemistry	40	60	13	88	14	86
Geosciences	67	33	33	67	0	100
Marine Science	100	0	50	50	20	80
Mathematics	40	60	0	100	20	80
Physics	25	75	29	71	6	94
Statistics	33	67	50	50	17	83
Social Sciences						
Anthropology	100	0	33	67	50	50
Communication	50	50	60	40	33	67
Economics	67	33	29	71	11	89
Geography	0	100	67	33	50	50
HDFS	75	25	100	0	70	30
Political Science	33	67	23	77	50	50
Public Policy	100	0	50	50	20	80
Sociology	75	25	57	43	46	54

Table 6 shows the distribution of gender by rank for the non-CLAS departments. When we measure the correlation between female percentage and salary gaps for these departments, we find modest positive correlations for assistant professors (.37) and associate professors (.42), and a modest negative correlation for full professors (-.39). Thus, we find some evidence of a connection between department female percentage and salary gaps at the lower ranks, suggesting that larger salary gaps are associated with male-dominated non-CLAS fields.

Table 6. Distribution of gender by rank and non-CLAS department

	Assistant Professors		Associate Professors		Professors	
	Female %	Male %	Female %	Male %	Female %	Male %
Business						
Accounting	50	50	40	60	0	100
Finance	20	80	0	100	13	88
Management	33	67	67	33	0	100
Marketing	50	50	40	60	20	80
OIM	25	75	14	86	33	67
CAHNR						
Agricultural Economics	50	50	20	80	25	75
Allied Health	50	50	80	20	40	60
Animal Science	0	100	44	56	67	33
Kinesiology	33	67	75	25	33	67
Natural Resources	40	60	50	50	0	100
Nutritional Science	33	67	0	100	100	0
Pathobiology	50	50	0	100	0	100
Plant Science	100	0	29	71	14	86
Engineering						
Biomedical	50	50	0	100	0	100
Civil	67	33	11	89	33	67
Computer Science	40	60	16	84	20	80
Electrical	0	100	8	92	0	100
Mechanical	22	78	0	100	0	100
Fine Arts						
Art	67	33	60	40	71	29
Dramatic Arts	60	40	33	67	0	100
Music	50	50	33	67	14	86
Neag Education	0	0	0	0	0	0
Educational Psychology	67	33	68	32	44	56
Education Leadership	0	100	100	0	40	60
Nursing	100	0	67	33	100	0
Pharmacy						
Pharmacy Practice	100	0	20	80	25	75
Pharmacy Science	33	67	50	50	33	67
Social Work	63	38	100	0	33	67

Differences in Years of Service

Gender salary differences may also result from differences in years of service (YOS) at UConn. Table 7 reports average years served at UConn and average gender differences for each CLAS department. To examine the association with salary gaps, we measure the correlation between the average gender differences in YOS and the associated salary gaps in Table 3. A positive correlation suggests that greater male experience at UConn is associated with larger salary gaps favoring males. We find a strong positive correlation for assistant professors (.63), small positive correlation for full professors (.21), and small negative correlation for associates (-.12).

Table 7. Average years at UConn by gender, rank, and CLAS department

CLAS Division/Dept.	Assistant Professors			Associate Professors			Full Professors		
	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS
Humanities									
English	3.0	0	3.0	17.9	13.4	4.5	18.9	25.8	(6.9)
History	4.2	3.5	0.7	18.0	17.8	0.2	19.5	15.3	4.2
Journalism	2.0			9.0	3.0	6.0	37.0	7.0	30.0
LCL		4.5		14.0	13.1	0.9	20.2	20.5	(0.3)
Linguistics		1.0		8.0	11.5	(3.5)	17.0	20.0	(3.0)
Philosophy	0			3.0	12.7	(9.7)	4.5	15.1	(10.6)
Life Sciences									
EEB	5.0	4.5	0.5		7.0		23.6	20.9	2.7
MCB	2.3	4.5	(2.2)	16.3	13.8	2.6	23.5	22.9	0.6
PNB	4.0	0.0	4.0		10.6		20.0	22.0	16.3
Psychology	2.7	5.0	(2.3)	13.6	15.4	(1.8)	17.9	20.6	(2.7)
SLHS	6.0	8.0	(2.0)	12.0	9.0	3.0	12.3	23.0	16.3
Physical Sciences									
Chemistry	4.5	2.7	1.8	8.0	13.9	(5.9)	20.0	21.8	(1.8)
Geosciences	3.0	3.0	0.0	28.0	8.5	19.5		26.3	
Marine Science	2.5			15.7	9.3	6.3	15.5	22.9	(7.4)
Mathematics	4.5	3.0	1.5		16.5		14.3	11.4	2.9
Physics	2.5	2.7	(0.2)	9.5	10.6	(1.1)	6.0	22.4	(16.4)
Statistics	1.0	3.0	(2.0)	7.3	13.3	(6.0)	32.5	22.8	9.7
Social Sciences									
Anthropology	0.0			8.7	13.2	(4.5)	25.3	15.3	10.0
Communication	4.0	0.0	4.0	10.5	17.8	(7.3)	18.0	24.5	(6.5)
Economics	2.0	4.0	(2.0)	9.8	14.9	(5.2)	19.0	28.3	(9.3)
Geography		0.5		11.0	14.0	(3.0)	12.0	19.5	(7.5)
HDFS	2.7	4.0	(1.3)	10.5			7.7	19.7	(12.0)
Political Science	4.0	2.5	1.5	19.3	11.6	7.7	11.9	17.9	(6.0)
Public Policy	0.5			9.5	20.0	(10.5)	20.0	12.0	8.0
Sociology	4.0	0	4.0	12.3	12.7	(0.4)	21.0	18.7	2.3

Table 8 reports average years at service at UConn and average gender differences for the remaining departments at the university. To examine the connection with salary gaps, we measure the correlation between these gender differences in YOS and the associated salary gaps in Table 4. We find a moderate position correlation for assistant professors (.32), no correlation for associate professors, and a small negative correlation for full professors (-.11). Thus, we find some evidence of a connection between gender differences in service and salary gaps, suggesting that in some cases male advantage in years of service at UConn are associated with larger salary gaps.

Table 8. Average years at UConn by gender, rank, and non-CLAS department

	Assistant Professors			Associate Professors			Full Professors		
	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS
Business									
Accounting	2.5	3.0	(0.5)	14.5	12.0	2.5		33.0	
Finance	2.0	2.6	(0.6)		10.0		1.0	23.0	(22.0)
Management	0.0	1.0	(1.0)	16.0	7.0	9.0		13.7	
Marketing	3.0	1.0	2.0	7.5	18.7	(11.2)	33.0	16.5	16.5
OIM	2.5	1.5	1.0	15.0	20.2	(5.2)	15.0	20.0	(5.0)
CAHNR									
Agricultural Economics	0.0	2.0		5.0	12.0	(7.0)	1.0	26.3	(25.3)
Allied Health	1.0	1.0	0.0	6.5	33.0	(26.5)	14.5	16.7	(2.2)
Animal Science		1.5		11.8	19.6	(7.9)	23.5	30.0	(6.5)
Kinesiology	0.5	1.3	(0.8)	11.0	18.0	(7.0)	22.0	17.0	5.0
Natural Resources	6.5	1.7	4.8	6.5	16.0	(9.5)		25.3	
Nutritional Science	1.0	3.0	(2.0)		7.0		18.5		
Pathobiology	2.0	2.0	0.0		8.3			22.4	
Plant Science	1.0			8.5	18.0	(9.5)	15.0	27.2	(12.2)
Engineering									
Biomedical	5.0	4.5	0.5		6.0			6.0	
Civil	4.0	5.0	(1.0)	6.0	9.1	(3.1)	14.0	24.0	(10.0)
Computer Science	2.5	1.8	0.7	18.0	10.4	7.6	12.5	21.9	(9.4)
Electrical		2.5		13.0	12.6	0.4	0.4		
Mechanical	3.5	2.1	1.4		8.7			21.2	
Fine Arts									
Art	1.0	1.0	0.0	19.8	19.5	0.3	24.2	19.0	5.2
Dramatic Arts	4.3	2.5	1.8	10.0	10.5	(0.5)		20.8	
Music	1.0	1.0	0.0	12.5	12.3	0.3	30.0	21.7	8.3
Neag Education									
Educational Psychology	1.0	2.5	(1.5)	10.9	14.5	(3.6)	17.8	16.6	1.2
Education Leadership		2.0	(2.0)	8.0		8.0	17.0	15.7	1.3

Nursing Pharmacy	3.7			13.7	15.0	(1.3)	14.8		
Pharmacy Practice	3.0			13.0	10.3	13.0	14.0	20.3	
Pharmacy Science	1.0	2.5	(1.5)	16.8	14.5	2.3	29.7	14.2	15.5
Social Work	2.8	1.3	1.5	16.3			43.0	20.0	23.0

Preliminary Regression Findings

In this section, we apply a method used in a gender pay equity study at Ohio State University on our data (from years 2003 to 2020).[7] Table 9 reports results from OLS regressions on the natural log of salaries.[8] First, these results show that the gender gap (measured by the gender coefficient) decreases from about 13% when only controlling for year fixed effects to about 2% when various factors are added, including department fixed effects. Second, the share of females in a department appears to have a relatively strong effect on salaries, with a larger female share being associated with lower salaries on average.[9] Fourth, years of service at UConn appears to have small effects on salaries, with a "longevity bonus" detected.[10]

Table 9. Estimated coefficients from OLS regression on the natural log of salaries (2003 to 2020)

*** denotes $p < .01$,** denotes $p < .05$, and * denotes $p < .10$	1. Base model	2. Add race/ethnicity	3. Add female % of faculty	4. Add years of service	5. Add faculty rank	6. Add Department
Gender gap	-.129***	-.128***	-.076***	-.038***	-.015***	-.018***
Black		-.060***	-.056***	-.051***	-.011*	-.011
Latinx		-.045***	-.037***	-.023**	-.0002	-.007
Asian		.025***	-.026***	.025***	.042***	-.019***
Native		-.041	-.076**	-.053	-.090***	-.109***
Non-specify		-.057***	-.084***	.058**	.021*	-.006
Female % in department			-.387***	-.359***	-.324***	-
Years of service				.014***	.008***	-.008***

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[7] Chen, Joyce J, and Daniel Crown. 2019. "The Gender Pay Gap in Academia: Evidence from The Ohio State University." *American Journal of Agricultural Economics,* 101(5): pp. 1337-1352. The results reported here are consistent with this study and another OLS analysis (of 2018 through 2020 data only) conducted by a member of the sub-committee finding estimated pay gaps of 11.2% (with no controls) fall to 1.6% (with full controls).

[8] Taking the natural log of the dependent variable allows the interpretation of estimated coefficients to be percentage changes in the dependent variable for every unit change in the independent variable.

[9] That the department fixed effects in model 6 eliminated all the gender share effects estimated in models 3 through 5 suggests that the apparent gender trend is specific to certain departments rather than a general phenomenon. This is consistent with the broad variation in salary gaps found in Tables 3 and 4.

[10] By estimating a significantly positive coefficient for the squared years of service variable (following Chen and Crown, 2019), we observe additional salary advantage at the highest levels of years of service.

Years of service squared				-.00002	.0002***	.0002***
Associate professor					.167***	.167***
Professor					.497***	.513***
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Department fixed effects	No	No	No	No	No	Yes
Observations	12,024	12,024	12,024	12,024	12,024	11,986
R-squared	18.1%	18.5%	22.2%	35.4%	58.1%	77.1%

Adding rank to the model produces expected effects, with associate professors earning about 17% more than assistant professors (the omitted group), and full professors earning about 50% more.

Adding race/ethnicity to the model does not change the gender gap, but adding the department female percentage proves to have the largest downward effect on average salary gap, reducing it by nearly 5 percentage points. In other words, departments with more female faculty are correlated with lower average salaries. Adding the years of service variable to the model reduces the salary gap further in half, by 4 percentage points. Adding faculty rank and department reduces the estimated gap further a percentage point each, leaving an estimated 2% gap. However, to the extent that these additional controls are gendered, this reduction in the salary gap is less a meaningful reduction than a partitioning of the salary gap among potentially gendered variables.

Preliminary Decomposition Findings
Table 10 reports the results from applying the Oaxaca-Blinder decomposition technique, which is commonly used for salary equity analyses. This procedure decomposes the gender gap into differences in pay related to differences in observed factors for females and males in the model (explained) and differences in pay for females and males with the same factors (unexplained). The results report that 10.3 percentage points of the 13% gender gap can be explained by the factors in the model, while 1.8 percentage points of the gap cannot be explained (i.e., attributed to differences in pay for equal endowments of the factors).[11] This means that differences in endowments of our observed factors account for 84% of the estimated gender gap, and 16% of the gap remains unexplained, and potentially attributed to gender bias.

Table 10. Estimated coefficients from Oaxaca-Blinder decomposition of gender gap

	Explained	**Unexplained**
Total	**0.103**	**0.018**
Black	0.000007	0.0009*
Latinx	0.000005	-0.002**
Asian	-0.0007***	-0.006***
Native	-0.0002*	0.0002***

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[11] We apply the decomposition to the specification in Table 9, model 6. The results reported here are consistent with another decomposition analysis (of 2018 through 2020 data only) conducted by a member of the sub-committee finding an average pay gap of 11%, with 9.4 percentage points explained by the model (with full controls including departments), leaving 1.6 percentage points of the gap unexplained.

Years of service	-0.025***	0.079***
Years of service squared	0.030***	-0.060***
Associate Professor	-0.005***	0.008***
Professor	0.068***	0.004
Departments	.045***	.067***

In Table 10, one can see that the factors most associated with gender pay gaps are full professors, departments, and years of service. Moreover, the factors that are most associated with the unexplained portion of the gap are years of service and department. The decomposition shows that for years of service, the gap is reduced by 2.5 percentage points because of more females with longer service than males, but increased by 7.9 percentage points because of differences in pay among females and males with equal amounts of service. In other words, the gender differences in years of service "explains" a smaller amount of salary differences than the differential treatment of females and males with the same years of service (i.e., "unexplained" salary differences).

Conclusion
Gender salary differences are likely the result of several factors, some we can measure, and others we can't measure. When we report raw differences in salaries by CLAS division and school/college, and divide by the average female salary, we get the results presented in Table 11, which show female salary disadvantages average -9.1% among assistant professors, -4.4% for associate professors, and -10.9% for full professors. However, these mask a broad range of gaps across disciplines; we also find average female salaries higher than average male salaries in some departments.

Table 11. Average salary gap as share of female average salary by rank and CLAS division/school/college

	Assistant Professor	Associate Professor	Full Professor
Average gap	**-9.1%**	**-4.4%**	**-10.9%**
CLAS Humanities	-1.0%	-5.5%	-7.4%
CLAS Life & Behavioral Sciences	2.6%	0.7%	-11.5%
CLAS Physical Science	-2.3%	-4.0%	-5.5%
CLAS Social Science	1.9%	-3.0%	-4.0%
Business	2.5%	1.9%	9.2%
CAHNR	6.0%	3.3%	-11.3%
Engineering	-0.5%	-3.6%	-8.6%
Fine Arts	1.5%	-5.4%	-14.1%
Neag Education	-0.8%	6.6%	2.5%
Nursing	-2.6%	-	-13.2%
Pharmacy	-	-26.1%	-
Social Work	5.0%	-3.5%	20.3%

Additional research is required to address a range of issues, starting with accounting for faculty outliers (e.g., those who have been in administrative positions and returned to the faculty with these supplements) who may exacerbate or mask gender pay differences. This research should identify factors we do not capture in this report that are likely related to salary differences by gender, and carefully examine the factors we did capture to provide assurance that they themselves are not gendered. This work must also account for the policies and

processes that lead to gendered factors. In other words, the analyst must be careful not to "explain away" salary differences using gender-correlated explanatory variables. Careful analysis should not only control for the appropriate variables, but also for the policies and processes that generate these variables. It is likely that many variables one might select are gendered in some way.

For example, it would be fruitful to examine the ways in which departmental compensation practices differentially consider the value of years of service. The decomposition results suggest that perceptions of the value of years of service may be an important mechanism through which gender pay differences are created. That is, thinking that the years of service of a female faculty is less relevant than that of a male faculty—despite having served the same amount of years—is a gender-correlated process that creates differential salary outcomes.[12]

Also, further analyses should consider whether different success rates of promotion to full professor and years of service spent for promotion between female and male faculty are correlated with gender pay gaps by department. Other factors include, but are not limited to:

- Timing of tenure: Newly tenured faculty may make more than previously tenured faculty.
- Compression: New assistant professors may make more than some tenured faculty in the same department.
- PTR: How are various factors weighted in merit reviews, promotion, and retention offers, and how do these contribute to salary inequity?
- Outside information: Low salaries may reflect outside information not captured in administrative databases, since Deans and Department Heads do not regularly normalize salaries at initial hire or against a competitive offer.

Finally, these and future research findings should be reconciled with what we value as a university in terms of fairness, contributions, standards and expectations. If standards and expectations differ by department, and these standards and expectations are not expressed clearly and followed consistently, salary differences will continue to be idiosyncratic and influenced by historical practices and unconscious (if not conscious) bias.

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[12] An example is a decision maker considering the same number of years of service between female and male faculty differentially because this decision maker devalues (consciously or subconsciously) the time female faculty spend raising children. Such thinking relies on poor assumptions that negatively impact female faculty.

Dual Career Working Group
October 25, 2022

Purpose and Background

The overall charge to the Salary Equity Task Force was to evaluate faculty salary inequity at UConn, with working groups tasked within their scope to conduct a root cause analysis of any such inequity and to recommend best practices informed by their work for the provost's consideration.

Working Group Charge:

To analyze the impact of partner accommodations on recruitment and retention.

Working Group Membership

Amy Howell, Chair and Professor, Chemistry
Jasna Jankovic, Assistant Professor, Materials Science and Engineering
Jeff Ladewig, Associate Professor, Political Science
Natalie Shook, Professor and Director, Nursing
Scott Harding, Associate Professor and Director, Social Work
Tracy Rittenhouse, Associate Professor, Natural Resources and the Environment

Problem Statement

While anecdotal evidence suggests that UConn has had some success in attracting dual career couples, there are also many shared stories of unsuccessful or suboptimal partner hires. What is universally recognized is that the University has not systematically tracked or defined "successful" partner hires. With this lack of process, it is not surprising that information on requested partner accommodations that were not successful, even when the hires were, is even harder to find. Moreover, data where hires were unsuccessful mainly because of a lack of partner accommodation is almost non-existent. Thus, the Dual Career Working Group had two major challenges to overcome in order to analyze the impact of partner accommodations on salaries, recruitment, and retention: 1) The identification of an appropriate cohort and 2) the development of a survey tool(s) that would help us accurately understand the landscape for dual career hires.

Summary of Work

Data Collection and analysis

Our data came from three sources: 1) A Qualtrics survey sent to AAUP members in the Fall of 2021; 2) The Department Heads survey; and 3) AAUP salary data base.

We have used the data to extract two types of information and to lay a foundation for our recommendations: 1) The impact of dual career hires on salary and 2) The impact on individuals and UCONN of successful and unsuccessful dual career hires. It is important to acknowledge that there is a critical lack of accurate record keeping for dual career hires.

1) Impact on salary for dual career hires:

Key Findings
- Available UConn employment data is woefully inadequate for easy and reliable analyses of even simple employment questions.
- There is a wide gap in reported Dual Career requests and accommodations between Department Heads and of AAUP members themselves.
    - Department Heads report that partner accommodations are rarely requested and usually granted. AAUP members report that partner accommodations are often requested and only sometimes granted.
- Individuals seeking, but not granted, partner accommodations are often paid less than other faculty of commensurate rank.
- Individuals granted partner accommodations often earn more than other faculty of commensurate rank.
- Individuals hired as the primary employee often earn more than those hired in a partner accommodation.

Datasets and Key Descriptions

Head Survey (See Appendix 1)
- The Department Heads reported:
    - 1,339 faculty hires in the past 10 years.
        - 1,302 primary faculty hires.
        - 37 partner faculty hires were reported.
    - Of the primary hires, 59 (4.5%) requested partner accommodations.
    - There were 52 (88%) partner accommodations (faculty or non-faculty) reported.

AAUP Faculty Survey (See Appendix 2)
- Invitees and respondents:
    - The survey was sent to 1,960 AAUP members.
    - The survey was started by 1,164 individuals.
    - Of the 929 AAUP respondents answering the necessary questions, more than a third (36.3%) reported seeking a partner accommodation at UConn.
    - Removing the respondents who were themselves the partner accommodated, the data suggest that about 45% of requests by primary hires were accommodated (faculty or non-faculty).

AAUP Salary Data (See Appendix 3)
- Provided by the AAUP:
    - The dataset has 32,389 AAUP member/year entries.
    - Covers the academic years starting in 2003 through 2021.
    - For the academic year beginning in 2021, there are 1,913 AAUP members.
    - From 2003-2021, there are 4,290 unique AAUP members.
    - The dataset, however, had some missing employee numbers and names. These entries were dropped, and all remaining entries were recoded with consistent values across years, members, and positions.

AAUP Salary and Survey Dataset (See Appendix 4)
- The AAUP Salary and the AAUP Faculty Survey were merged using last and first names provided in the former and deconstructed from email addresses in the latter.

AAUP Salary and Survey plus Department Head Survey (See Appendix 5)
- The AAUP Salary and Survey Dataset was merged with the Department Head Survey using employee ID numbers.
  - Data from similar variables across the datasets were used to create new variables, replacing missing values and simplifying the coding.
  - This dataset should provide, to our knowledge, the most comprehensive examination of partner accommodations —among other possibilities — at UConn.
    - 6,193 AAUP member/years observations were matched.
    - 2,010 unique observations for the academic year starting in 2021.
    - This leaves about 20,000 AAUP member/years observations "Unknown" for many key variables.
- Among other analyses, a simple OLS regression was performed, estimating the effects of institutional positions, descriptive variables, and dual career variables on salary.
  - These data indicate that the salaries of those that have requested, but not received, a partner accommodation tend to be less than those that have not.
  - These data indicate that those that have been awarded a partner accommodation, however, have higher salaries.
  - These data indicate that individuals who were the primary hires have higher salaries than those who were partner hires.

Conclusions
- Despite, but not dismissing, the limitations of the datasets, the regressions perform as expected and explain more than half of the salary variance.
- It should be no surprise that advancing professionally is strongly correlated with advances in one's salary.
- These data consistently indicate that females may be paid less than others.
- These data mostly indicate that those who are racially White are paid less than others.
- These results are consistent with many individuals in a dual career relationship experiencing difficult professional circumstances.
- These data indicate that the salaries of those that have requested, but not received, a partner accommodation tend to be less than those that have not.
- These data indicate that those that have been awarded a partner accommodation, however, consistently have higher salaries.
- These data indicate that individuals who were the primary hires have higher salaries than those who were partner hires.

*2) impact on individuals and UConn of successful and unsuccessful dual career hires (See Appendix 6):*

- Overall, faculty members think that dual career relationships are only "somewhat" accommodated at UConn, and there is considerable variability in satisfaction with accommodations received.

How satisfied were you with UConn's accommodation of your dual career relationship?
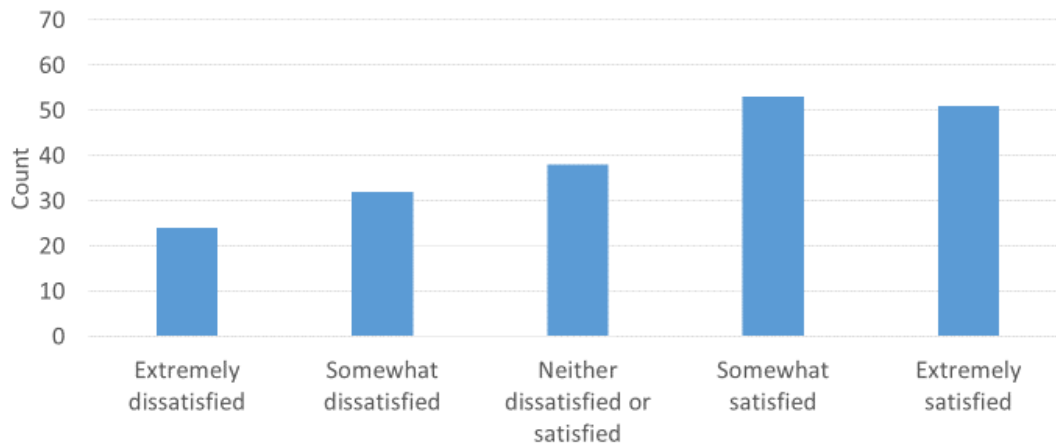

- Faculty in dual career relationships think that dual career faculty face salary disadvantages at UConn, particularly spouses/partners in dual career relationships.
- Dual career faculty whose spouse/partner was not accommodated at UConn were significantly more likely to have considered leaving UConn than faculty whose spouse/partner was accommodated.

Have you considered leaving UConn because of your dual career relationship?
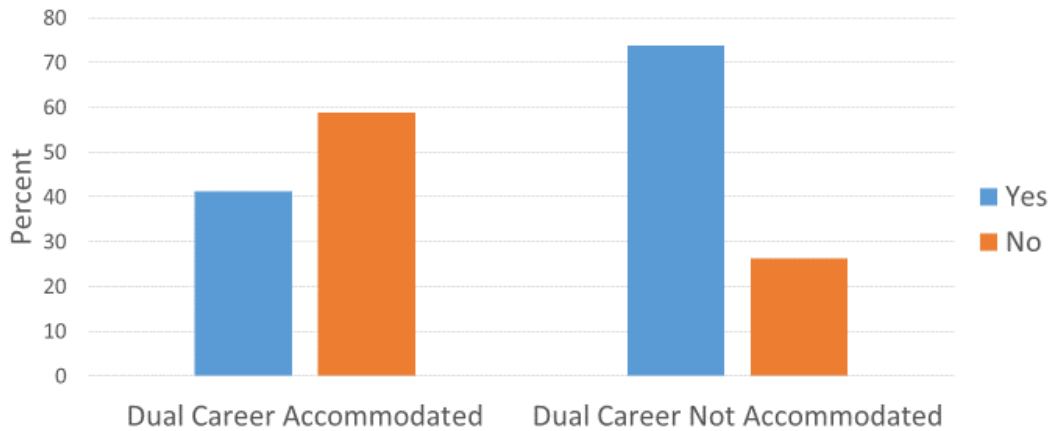
- Women faculty who did not receive spouse/partner accommodations (82%) were more likely to consider leaving UConn than men faculty who did not receive spouse/partner accommodations (70%).
- Dual career faculty who did not receive a spousal/partner accommodation reported that their UConn career has been negatively affected by their spouse/partner not being hired by UConn.

How has your UConn career been affected by your spouse/partner not being hired by UConn?
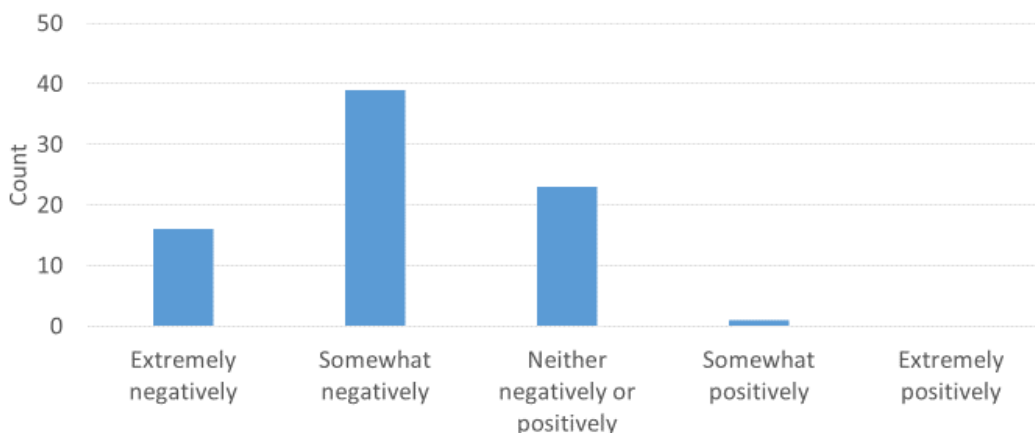
- The primary themes that emerged from open-ended questions on what UConn is and is not doing well to accommodate dual career relationships are:
  - There are many examples of both good and suboptimal experiences.
  - Lack of transparency and effective communication about the process, or even the possibility, of a dual career hire was mentioned frequently.
  - Lack of a centralized process that can be readily located on the UConn website is a major drawback.
  - Follow-through is lacking on partner hires into positions different than requested.

Peer and Aspirant Benchmarking

Peer and aspirant university web sites (n = 16) were searched for readily accessible information on dual career hiring policies [1]. This mirrored Leslie Shor's (University of Connecticut, Chemical & Biomolecular Engineering) 2019 investigation of peers and aspirants and their policies related to dual career/spousal hiring practices. There appears to be minor change since then in the available information about any relevant policies at these institutions (See Appendix 7). While these institutions all have some form of dual career policy:

- These policies are not well publicized.
- Many universities lack staff and/or a dedicated coordinator to facilitate dual career hires.
- None of these universities guarantee employment for partners/spouses of faculty hires.
- Many universities only attempt to assist partners/spouses who are viewed as qualified for faculty positions (versus other types of university employment).
- Many universities use a 1/3 funding split for spousal hires between the Provost's Office, the home department of the faculty hire, and the home department of the spousal hire. This strategy was highlighted in a 2004 book (Wolf-Wendel et al. 2004).
- Many universities limit partner/spousal hires to a two- or three-year (initial) non-tenure track contract.

Other institutions with notable dual career policies that came up in our research include:

- University of Michigan: https://www.provost.umich.edu/programs/dual_career/
- U Rochester (there is an Upstate New York Consortium): https://www.rochester.edu/diversity/faculty-staff/dual-career-support/
- University of Pittsburgh: University of Pittsburgh Office of the Provost Dual Career Recruitment and Retention Program

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[1] Peer institutions reviewed were Indiana University, Michigan State, Purdue, University of Delaware, University of Georgia, University of Kansas, University of Kentucky, University of Utah. Aspirant institutions reviewed were Ohio State, Penn State, University of California, Davis, University of Florida, University of Illinois, Urbana-Champaign, University of Maryland, University of Texas, Austin, University of Wisconsin.

The most complete report addressing dual career couples in academia was "Dual-Career Hiring for Faculty Diversity: Insights from Diverse Academic Couples" by Daniel J. Blake (2020). An earlier book, "The Two-Body Problem: Dual-Career-Couple Hiring Practices in Higher Education," by Wolf-Wendel et al. (2004), is also noteworthy.

Key points from the Blake report include:

A 2000 survey of 360 out of 617 public and private universities across the United States resulted in the following conclusions:

- 24% of all schools had a dual career hiring policy.
- a higher percentage (45%) of research universities had a dual career hiring policy due to better financial resources.
- The main approaches in addressing dual-career hiring are: (1) Help the partner to find work outside the university; (2) Create or find an administrative position at the university; (3) Hire the partner in a role of adjunct, part-time or nontenure-track position (the most common solution); (4) Create a shared position; and (5) Hire the partners in a tenure-track position.

Blake (2020) recommends the following actions to university administration in order improve the dual career hiring practices:

- Implement transparent dual career hiring policies that include faculty colleagues in vetting processes.
- Engage in open dialogue about the implications of employing a couple within an academic unit.
- Inform applicants that a dual career hiring policy is in place.
- Consider having a designated administrator who manages dual-career hiring.
- Treat faculty partners as separate scholars.
- Be mindful that couples are in the same family unit.
- Ensure that all faculty at your institution are aware of family friendly policies and enact these policies in an equitable fashion.
- Don't assume couples are immobile, be proactive in their retention.
- Consider offering a one-year leave to couples who have decided to transition to another institution.

Recommendations

Based on the data gathered and research done, the Dual Career Working Group of the Salary Equity Task Force recommends the following:

1. Create Dual-Career formal policies that are readily accessible and transparent. Features could include:
   - Advertise that UConn has a partner hire policy in job postings.
   - Use the process in recruitment and retention.
   - Develop a process for promoting top non-tenure track faculty members into tenure track faculty positions.
2. Institutionalize a framework to implement policies and monitor their effectiveness:

- Collect systematic and complete data on dual career couples.
- Conclusions at the end of page 3 (and repeated at the end of Appendices 1-5) should be revisited and confirmed or refuted, followed by appropriate action.
- Assign administrative responsibilities for such tasks.

Data Analyses

Key Findings

- Available UConn employment data is woefully inadequate for easy analysis of even simple employment questions.
- There is a wide gap in dual career impressions between Department Heads and of AAUP members themselves.
  - The former report that partner accommodations are rarely requested and usually granted. The latter report that partner accommodations are often requested and only sometimes granted.
- Individuals seeking partner accommodations are often paid less.
- Individuals granted partner accommodations often earn more.
- Individuals hired as the primary employee often earn more than those hired in a partner accommodation.

Recommendation(s)

Once the u collects more systematic and widespread data, the conclusions at the end of Appendices 1-5 should be revisited and confirmed or refuted, followed by appropriate action.

Datasets and Key Descriptions

Head Survey (See Appendix 1)

- The Department Heads reported:
  - 1,339 faculty hires in the past 10 years.
    - 1,302 primary faculty hires.
    - 37 partner faculty hires.
    - There are 87 faculty in 53 accommodated partner relationships.
  - Of the primary hires, 59 (4.5%) reportedly requested partner accommodations.
  - There were 52 reported partner accommodations.
    - Of the 59 reported partner accommodation requests, 48 (81%) of them were accommodated.
    - In addition, there were 4 reported partner hires that were not reportedly requested.

AAUP Faculty Survey (See Appendix 2)

- Invitees and respondents:
  - The survey was sent to 1,960 AAUP members.
  - The survey was started by 1,164 individuals.
  - Of the 929 AAUP respondents answering, more than a third (36.3%) reported seeking a partner accommodation at UConn.
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  - o Data from similar variables across the datasets were used to created new variables, replacing missing values and simplifying the coding.
  - o This dataset should provide, to our knowledge, the most comprehensive examination of partner accommodations —among other possibilities — at UConn.
    - ▪ 6,193 AAUP member/years observations were matched.
    - ▪ 2,010 unique observations for the academic year starting in 2021.
    - ▪ Yet, this leaves about 20,000 AAUP member/years observations "Unknown" for many key variables.
- Among other analyses, a simple OLS regression was performed, estimating the effects of institutional positions, descriptive variables, and dual career variables on salary.
  - o These data consistently indicate that the salaries of those that have requested a partner accommodation tend to be less than those that have not.
    - ▪ This could be that individuals in dual career relationship are often in difficult professional situations, particularly at a more rural university like UConn.
  - o These data consistently indicate that those that have been awarded a partner accommodation, however, consistently have higher salaries.
    - ▪ This could be that the individuals that have had this difficult situation accommodated are in a better position to be more professionally productive.
  - o These data indicate that individuals who were the primary hires have higher salaries than those who were partner hires.

Appendix 1: Head Survey

The Partner Equity Subcommittee received the spreadsheet which asked the Department Heads to list all newly hired faculty in past 10 years and answer a few questions on requests and status of partner hires. The dataset was, first, recoded to create common categories and responses among the entries.

Note: A number of the entries contained missing or insufficient information. The statistics below represent our best estimates. Because of missing, unmatched, incomplete data, however, not all of the numbers sum perfectly. For example:
- Some primary hires that have occurred prior to 10 years ago could have newer partner hires that are reported.
- Some partners cannot be distinguished as a primary and a partner hire.
- Some partner hires were not faculty, thus not separately listed in the dataset.
- Some Department Heads indicated that a primary hire had requested a partner hire at the time of hire *and* afterwards. Without more information, some double counting is occurring.

Summary Statistics
- 1,339 new faculty primary and partner hires in the past 10 years.
    - 1,302 primary hires
    - 37 partner hires
- Of all hires: 51.5% were males, 48.5% were females.
    - Of primary hires: 51.5% were males, and 48.5 were females.
    - Of partner hires: 51.4 were males, and 48.7 were females.
- Of all hires: 43.2% were white alone, 37.9% were not white alone, and 18.9% were unknown.
    - Of primary hires: 43.1 % were white alone, 38.0% were not white alone, and 18.9% were unknown.
    - Of partner hires: 48.7 % were white alone, 32.4% were not white alone, and 18.9% were unknown.
- Of all hires: 51.8% were non-tenure-track, 41.4% were tenure-track, and 6.8% were tenured.
    - Of primary hires: 51.5% were non-tenure-track, 41.9% were tenure-track, and 6.7% were tenured.
    - Of partner hires: 64.9% were non-tenure-track, 24.3% were tenure-track, and 10.8% were tenured.
- Of all identified primary hires: 3.2% requested a partner hire at the time they were hired (8.0% were "unknown").
    - There were 41 primary hires that reportedly requested a partner hire at the time that they were hired.
    - 33 of them (79%) were accommodated, 7 were not accommodated, and 1 accommodation status is unknown.
    - In addition, it is reported that 9 primary hires did not request a partner hire but received one anyway.
- Of all identified primary hires: 1.9% requested a partner hire after they were hired (26.3% were "unknown").

- o There were 25 primary hires that reportedly requested a partner hire after the time that they were hired.
- o 17 of them (68%) were accommodated, 7 were not accommodated, and 1 accommodation status is unknown.
- o In addition, it is reported that 5 primary hires did not request a partner hire but received one anyway.
- In sum:
  - o Of the 1339 faculty hires in the past 10 years, there are 87 UConn faculty in 53 accommodated partner relationships.
  - o Of the 1302 primary hires, there were 59 (4.5%) that reportedly requested a partner accommodation at some point.
  - o There were 52 reported partner accommodations.
    - ▪ Of the 59 reported requests, 48 (81%) of them were accommodated.
    - ▪ In addition, there were 4 reported partner hires that were not reportedly requested.

Appendix 2: AAUP Faculty Survey

The Partner Equity Subcommittee conducted a survey asking various questions about dual hires at UConn. The survey was sent to the AAUP email list of individuals with full time positions. We recognize that the response for the survey may be skewed toward those with a vested interested in dual hires.

- Invitees and respondents:
    - The survey was sent to 1,960 individuals.
    - The survey was started by 1,164 individuals.
    - The survey was finished by 815 individuals (though, that does mean that all of the questions were answered).

- All respondents were asked: "At any point during your hiring process or employment at UConn, have you had a spouse/partner that was or sought to be employed at UConn too?"
    - 929 individuals responded.
    - 592 (66.7%) individuals said "no".
    - 337 (36.3%) individuals said "yes".

- All respondents answering "yes" were asked: "Did UConn accommodate your dual career relationship (i.e., were both you and your spouse/partner employed at UConn)?"
    - 313 individuals responded.
    - 105 (33.6%) individuals said "no".
    - 208 (66.5%) individuals said "yes".

- All respondents answering "yes" were asked: "Were you the primary hire or the spousal/partner accommodation?"
    - 192 individuals responded.
    - 126 (65.6%) individuals said "primary hire".
    - 66 (34.3%) individuals said "spousal/partner accommodation".

- In sum:
    - Of the 929 AAUP respondents, more than a third (36.3%) reported seeking a partner accommodation at UConn.
    - Removing the respondents who were themselves the partner accommodated, the results suggest that about 45% of requests by primary hires were accommodated.

5

Appendix 3: AAUP Salary Data

The Partner Equity Subcommittee received the AAUP salary data.

- The dataset has:
    - 32,389 AAUP member/year entries.
    - The years covered are from the academic year beginning in 2003 through the academic year beginning in 2021.
    - For the academic year beginning in 2021, there are 1,913 AAUP members.
    - From 2003-2021, there are 4,290 unique AAUP members.

- The dataset, however, had some missing employee numbers and names. These entries were dropped, and all remaining entries were recoded with consistent values across years, members, and positions. The recoded dataset has:
    - 32,342 AAUP member/year entries.
    - The years covered are from the academic year beginning in 2003 through the academic year beginning in 2021.
    - For the academic year beginning in 2021, there are 1,913 AAUP members.
    - From 2003-2021, there are 4,257 unique AAUP members.

Appendix 4: AAUP Salary and Survey

The AAUP Salary and the AAUP Survey dataset were merged. The process matched names in the AAUP Salary names and the AAUP member's names derived from the AAUP Survey email addresses. In most cases the process was successful, in a couple hundred cases the process was coded by hand. There were, however, a number of entries that could not be matched. Some had to be dropped, others were added with limited data. In addition, anyone associated exclusively with Athletics was removed. This dataset should help to balance any skew from the faculty survey.

- The recoded dataset has:
    - 30,943 AAUP member/year entries.
    - The years covered are from the academic year beginning in 2003 through the academic year beginning in 2021.
    - For the academic year beginning in 2021, there are 2,010 AAUP members.
    - From 2003-2021, there are 4,164 unique AAUP members.
    - Of the 30,943 AAUP member/year entries, 20,434 of them were for full-time tenure/tenure-track faculty.

Appendix 5: AAUP Salary and Survey plus Department Head Survey

The recoded AAUP Salary and Survey dataset was merged with the Department Head Survey. The employee numbers were used to match the entries. The addition of the Department Head survey should help to verify the survey data and add to it. In this way, this dataset should provide, to our knowledge, the most comprehension examination of partner accommodations at UConn.

- The merge on employee numbers produced a range of outcomes:
  - Entries only in the AAUP Salary and Survey dataset: 24,817 faculty/years.
    - This is expected and includes non-faculty AAUP members and faculty not hired in the past 10 years.
  - Entries only in the Department Head dataset: 70 faculty.
    - 39 of these are faculty from the School of Law, whose are generally not part of the AAUP. These entries are deleted from the dataset.
    - The remaining 31 entries were individually investigated:
      - 4 were in a Dean's Office. (Deleted)
      - 1 tenure-track faculty, hired in 2014, could not be found on the Department websites or in the UConn Directory. Nonetheless, the individual could also not be identified in the AAUP dataset. (Deleted)
      - 23 were non-tenure track appointments (e.g., Adjunct, APRI, Visiting). All could not be found on the Department websites or in the UConn Directory. Nonetheless, the individuals could also not be identified in the AAUP dataset. (Deleted)
      - 2 are currently non-tenure track appointments (e.g., Adjunct, APRI, Visiting). Nonetheless, the individuals could also not be identified in the AAUP dataset. (Deleted)
      - 1 is currently a non-tenure track appointments (e.g., Adjunct, APRI, Visiting). The individual, however, could be identified in the AAUP dataset. (Retained)
  - Entries matched: 6,192 faculty/years.

- The relevant variables from the AAUP faculty and the Department Head surveys were merged and compared. All faculty/years in which no data exists from either survey are coded as "Unknown".

- Requests for Partner Accommodations (All Respondents in 2021)

Table A5.1: Requests for Partner Accommodation (All Respondents in 2021)		Department Head Survey			
		Unknown	No	Yes	Total
Faculty Survey	Unknown	773	334	20	1,127
	No	406	159	0	565
	Yes	191	93	34	318
	Total	1,370	586	54	2,010

- o The Department Head survey identified 54 (2.7%) individuals that had requested a partner accommodation.
  - ▪ Of these, 34 had also answered the faculty survey and indicated that they did request a partner accommodation.
  - ▪ Of these, 20 had not answered the faculty survey – thus were "Unknown" to just the faculty survey results.
  - ▪ In positive confirmation, the Department Head survey and the faculty survey did not disagree on anyone who responded that they did not seek a partner accommodation.
- o The faculty survey, however, identified 318 individuals that had requested a partner accommodation.
  - ▪ Of these, only 34 (10.1%) were identified in the Department Head survey.
    - ● Part of this is simply lack of institutional knowledge and/or miscoding of the data.
  - ▪ Of these, 191 were "Unknown" to the Department Heads.
    - ● Part of this may be faculty hired prior to 10 years, who are still at UConn in 2021.
  - ▪ In a troubling contradiction, 93 (29.2%) individuals said that they sought a partner accommodation, but the Department Head specifically said that they did not.
- o The faculty and Department Head surveys matched on "no" partner accommodation requested for 159 individuals.
- o The largest categories, however, involved the "unknown" – those that did not answer the question on the faculty survey and/or were not included in the Department Head lists.
  - ▪ 773 (38.5%) individual's status is unknown according to both surveys.

- Grants of Partner Accommodations (All Respondents in 2021)

Table A5.2: Combined Requested and Granted Partner Accommodation (Primary Hires in 2021)					
		Granted			
		Unknown	No	Yes	Total
Requested	Unknown	107	0	1	108
	No	260	309	1	570
	Yes	8	56	96	160
	Total	375	365	98	838

- All of the responses from the Department Head and the AAUP Faculty surveys were combined to try to identify anyone who requested a partner accommodation. The surveys were also used to identify just the primary hires.
  - In 2021, 838 were identified.
  - 730 were identified as making a partner accommodation request or not.
  - Of these, 160 (21.9%) were identified as requesting a partner accommodation.
  - Of those requesting an accommodation, 96 (60%) were identified as being accommodated.
  - Of the 838 primary hires, 108 individuals' request status is unknown.
  - Of the 838 primary hires, 375 individuals' accommodation status is unknown.

- Partner Hires by Demographics and Position
  - In 2021, 81 individuals were identified as a partner hire.
    - Gender
      - 39 (48.2%) are female.
      - 35 (43.2%) are male.
      - 7 (8.6%) are other.
    - Race
      - 40 (49.4%)are white alone.
      - 23 (28.4%) are not white alone.
      - 18 (22.2%) are unknown.
    - Position

Table 5.3: Partner Hire Position and Rank (2021)					
	Assistant	Associate	Full	General	Total
Instructor	18	4	0	9	31
Professor	14	15	15	0	44
Researcher	1	0	5	0	6
Total	33	19	20	9	81

- 44 (54%) held the position of Professor.
  - The distribution among rank was almost evenly split.
- 31 (38.3%) held the position of Instructor.
  - 18 (58.1%) are at the rank of Assistant.
  - 4 (12.9%) are the rank of Associate.
  - 9 (29.0%) are classified as "General" – a catch-all category.
- 6 (7.4%) held the position of Researcher.

- The Salary Effects of being in a Dual Hire Position
  - Salary analyses are difficult. There are many variables that can affect the salary distribution at the University. In addition, as has been noted, these survey and salary data are incomplete and, at times, contradictory.
    - As such, any results should be interpreted as suggestive, not definitive.
  - Variables
    - There are two Dependent Variables for Salary.
      - The first, used only in Model (1), is the actual 9-month salary for each individual per year – as found in the AAUP Salary dataset.
      - The second, used in the rest of the Models, is the same salary data but standardized — group by School/College and year.
        - This allows for more accurate comparisons among Schools/College in which salaries ranges may systematically vary.
          - For instance, in 2021, the mean salary in the School of Business was $173,395 and in the School of Social Work it was $79,949.
        - This also allows for more accurate comparisons over time.
      - Because of the standardization, however, coefficients should not be used to determine the actual dollar amounts of salary effects.
    - There are 9 common-sense Independent Variables
      - Position
        - Coded in order of their mean salaries: Researcher (1), Instructor (2), and Professor (3).
      - Rank
        - Coded in order of their mean salaries: General (0), Assistant (1), Associate (2), and Full (3).
      - Administrator
        - Coded in order of their mean salaries: Not in the Administration (0), In the Administration (1).
      - White Alone
        - The University has a number of race and ethnicity codes. These are reduced to a simple dichotomous variable: Not White Alone (0), and White Alone (1).
      - Female
        - The University has three codes for gender. These are reduced to a simple dichotomous variable: Not Female (0), and Female (1).
      - Accommodation Requested
        - The AAUP Faculty Survey and the Department Head survey responses are combined to create the broadest coverage of partner accommodation requests.
        - Coded as No (0) and Yes (1). The "Unknowns" are dropped from the regression.
      - Accommodation Granted
        - The AAUP Faculty Survey and the Department Head survey responses are combined to create the broadest coverage of partner accommodation grants.

- o Coded as No (0) and Yes (1). The "Unknowns" are dropped from the regression.
  - ● Primary Hire
    - o The AAUP Faculty Survey and the Department Head survey responses are combined to create the broadest coverage of partner accommodation grants and which individual was the primary hire and which was the partner hire.
    - o Coded as Partner (0) and Primary (1). The "Unknowns" are dropped from the regression.

- o Results

	(1)	(2)	(3)	(4)	(5)
	Salary	Salary (std)	Salary (std)	Salary (std)	Salary (std)
Position	20,093.756***	0.460***	0.538***	0.680***	0.682***
	(273.501)	(0.006)	(0.011)	(0.013)	(0.013)
Rank	18,134.456***	0.510***	0.531***	0.562***	0.555***
	(202.737)	(0.005)	(0.007)	(0.008)	(0.009)
Administrator	22,911.474***	0.553***	0.371***	0.321***	0.352***
	(673.786)	(0.016)	(0.022)	(0.030)	(0.034)
White Alone	-5,906.259***	0.112***	-0.095***	-0.149***	-0.136***
	(354.379)	(0.008)	(0.012)	(0.016)	(0.019)
Female	-5,850.078***	-0.082***	-0.038***	-0.051***	-0.066***
	(350.510)	(0.008)	(0.011)	(0.014)	(0.015)
Accomodation Requested			-0.064***	-0.094***	-0.044
			(0.012)	(0.021)	(0.029)
Accommodation Granted				0.179***	0.121***
				(0.020)	(0.031)
Primary Hire					0.054**
					(0.026)
Constant	14,031.877***	-2.172***	-2.379***	-2.887***	-2.932***
	(729.799)	(0.017)	(0.029)	(0.036)	(0.044)
Observations	30,351	30,344	10,530	5,644	4,850
R-squared	0.473	0.533	0.548	0.635	0.636

Table 5.4: Salary Effects of Partner Rquests and Accommodations

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- o Interpretations
  - ▪ The R-squares of all five models vary from .47 to .64. This implies that about half to nearly two-thirds of all of the salary variance is explained by these simple models.

- Models (1) and (2) are the baseline models. The first actual salary data as the dependent variable. The second has the standardized (by School/College and Year) salary data as the dependent variable.
    - The coefficients for Position, Rank, and Administrator perform as expected and are all statistically significant — the higher each the value for each, the higher the individual's salary. These results hold across the remaining models as well.
    - The coefficients for individuals identifying as White — and no other race or ethnicity — show conflicting results. The coefficient is statistically significant in both models, but negative in (1) and positive in (2). One interpretation may be that White alone individuals used to have higher salaries, but now and with higher salaries overall, that difference has reversed. In the remaining models, the coefficient for White Alone is statistically significant and negatively correlated with salary.
    - The coefficients for individuals identifying as Female is statistically significant and negatively correlated with salary across all five models.
- Models (3), (4), and (5) cumulatively add each of the three partner accommodation variables.
    - Model (3) adds the variable for requesting a partner accommodation or not.
        - The "Unknowns" are dropped, thus the number of observations falls considerably.
        - Among these individuals, the coefficient for those that sought a partner accommodation is statistically significant and negatively correlated with salary.
        - This result is found in Model (4) but not in Model (5).
    - Model (4) adds the variable for the status of the partner accommodation request.
        - The "Unknowns" are again dropped, thus halving the number of observations again.
        - Among these individuals, the coefficient for those that were granted a partner accommodation or not is statistically significant and positively correlated with salary.
        - This result is found in Model (5) as well.
    - Model (5) adds the variable for the status of whether the individual was a primary hire or not.
        - The "Unknowns" are dropped, lowering the number of observations again.
        - Among these individuals, the coefficient for primary hires is statistically significant and positively correlated with salary.

- Conclusions
    - Despite, but not dismissing, the limitations of the datasets, the regressions perform generally as expected and explain, generally, more than half of the salary variance.
    - It should be no surprise that advancing professionally is strongly correlated with advances in one's salary.
    - These data consistently indicate that females may be paid less than others.

- These data mostly indicate that those who are racially White are paid less than others.
- Individuals in dual career relationship are often in difficult professional situations, particularly at a more rural university like UConn.
- These data consistently indicate that the salaries of those that have requested a partner accommodation tend to be less than those that have not.
    - This could be that individuals in dual career relationship are often in difficult professional situations, particularly at a more rural university like UConn.
- These data consistently indicate that those that have been awarded a partner accommodation, however, consistently have higher salaries.
    - This could be that the individuals that have had this difficult situation accommodated are in a better position to be more professionally productive.
- These data indicate that individuals who were the primary hires have higher salaries than those who were partner hires.

Appendix 6
Dual Career Survey

Administered December 14, 2021 to January 31, 2022 to all full-time and adjunct UConn faculty

Close-ended Questions of Interest

All faculty asked

- Do you think that dual careers are generally accommodated at UConn?
  - (Always to Not at all)
- Do you think that faculty in dual career relationships at UConn face salary disadvantages compared to other faculty members?
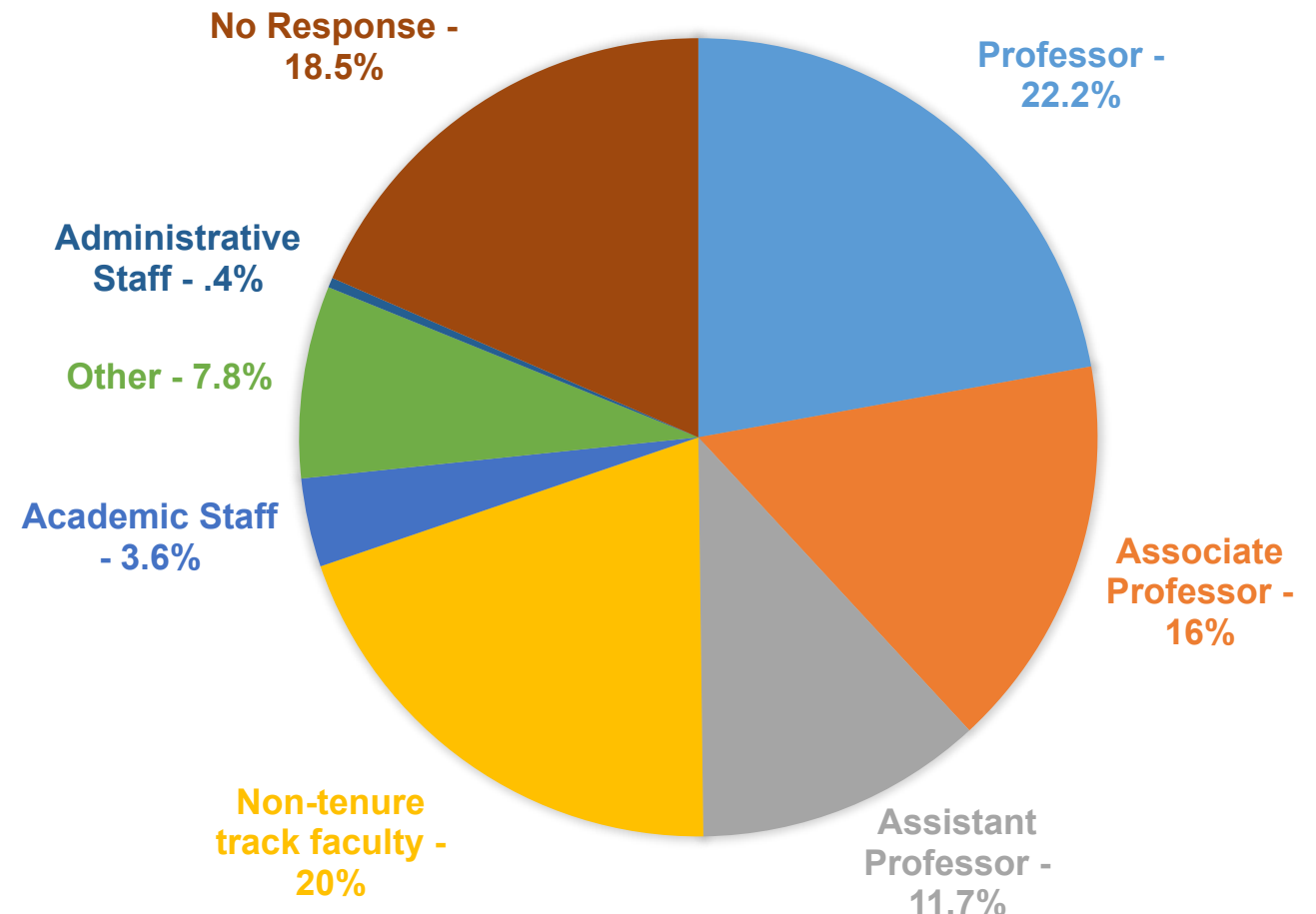 - (Definitely not to Definitely yes)

Dual career faculty asked

- How, if at all, do you think that your salary has been affected by your dual career relationship?
  - (Considerably underpaid to Considerably overpaid)
- How, if at all, do you think that your rank/position has been affected by your dual career relationship?
  - (Significantly increased to Significantly decreased)
- How satisfied were you with UConn's accommodation of your dual career relationship?
  - (Extremely dissatisfied to Extremely satisfied)
- How, if at all, do you think that your UConn career has been affected by your dual career relationship?
  - (Extremely hindered my performance to Extremely enhanced my performance)
- Have you considered leaving UConn because of your dual career relationship?
  - (Yes or No)
- How has your UConn career been affected by your spouse/partner not being hired at UConn?
  - (Extremely negatively to Extremely positively)
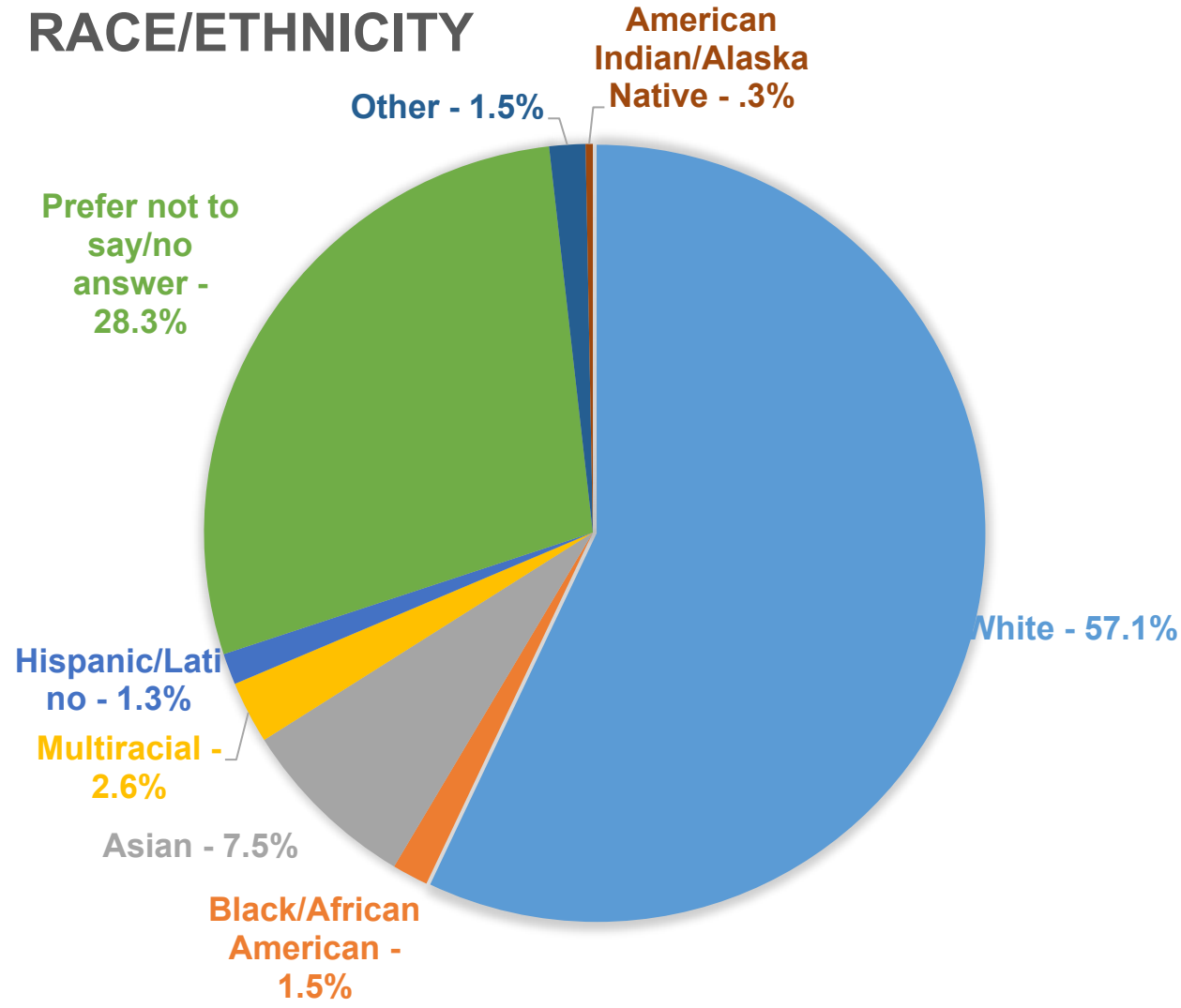
Respondent Descriptives

Respondents

- N = 952 (37.19% response rate)

- Dual Career Status
  - Did not indicate (n = 45)
  - Not dual career (n = 586)
  - Dual career (n = 321)
    - Not accommodated (n = 98)
    - Accommodated (n = 199)
      - Primary (n = 122)
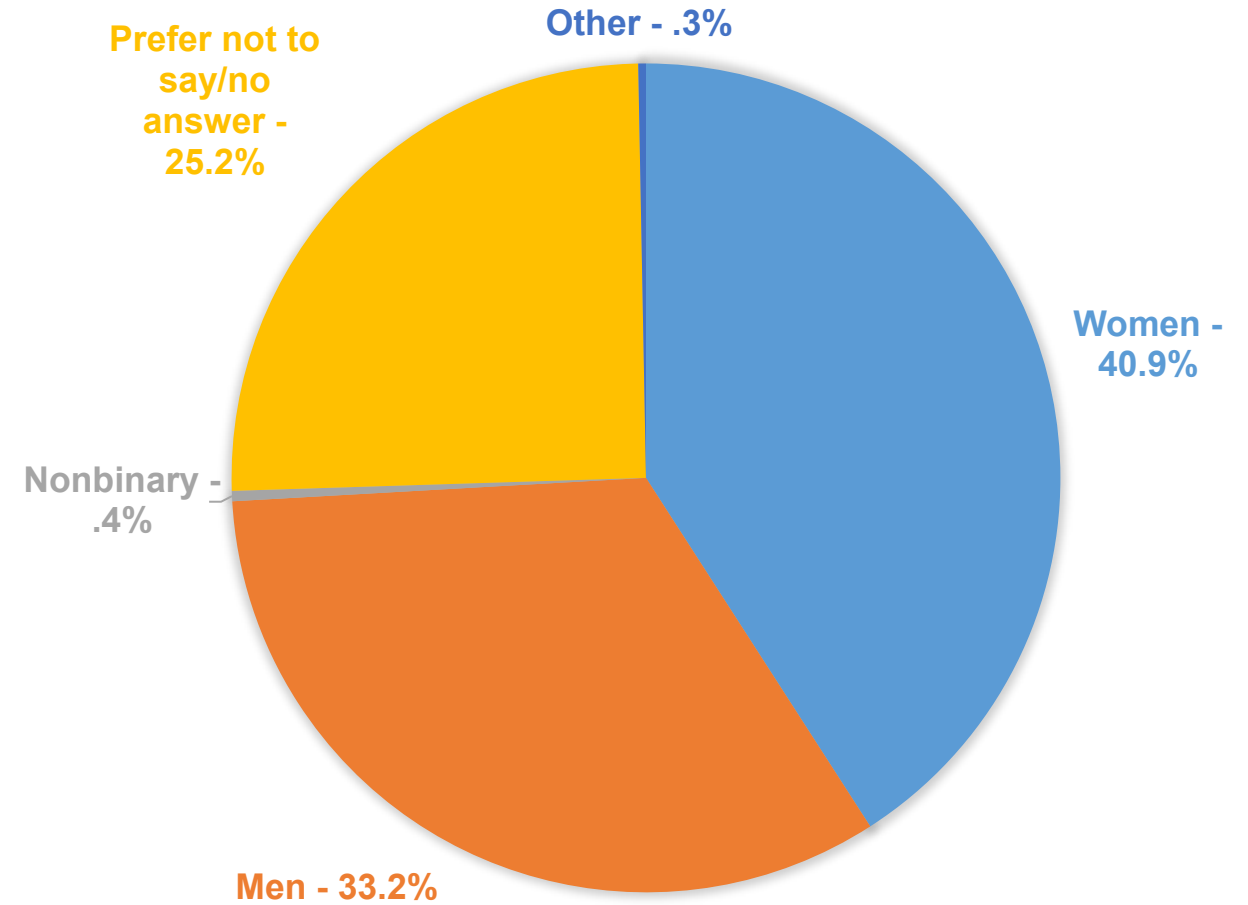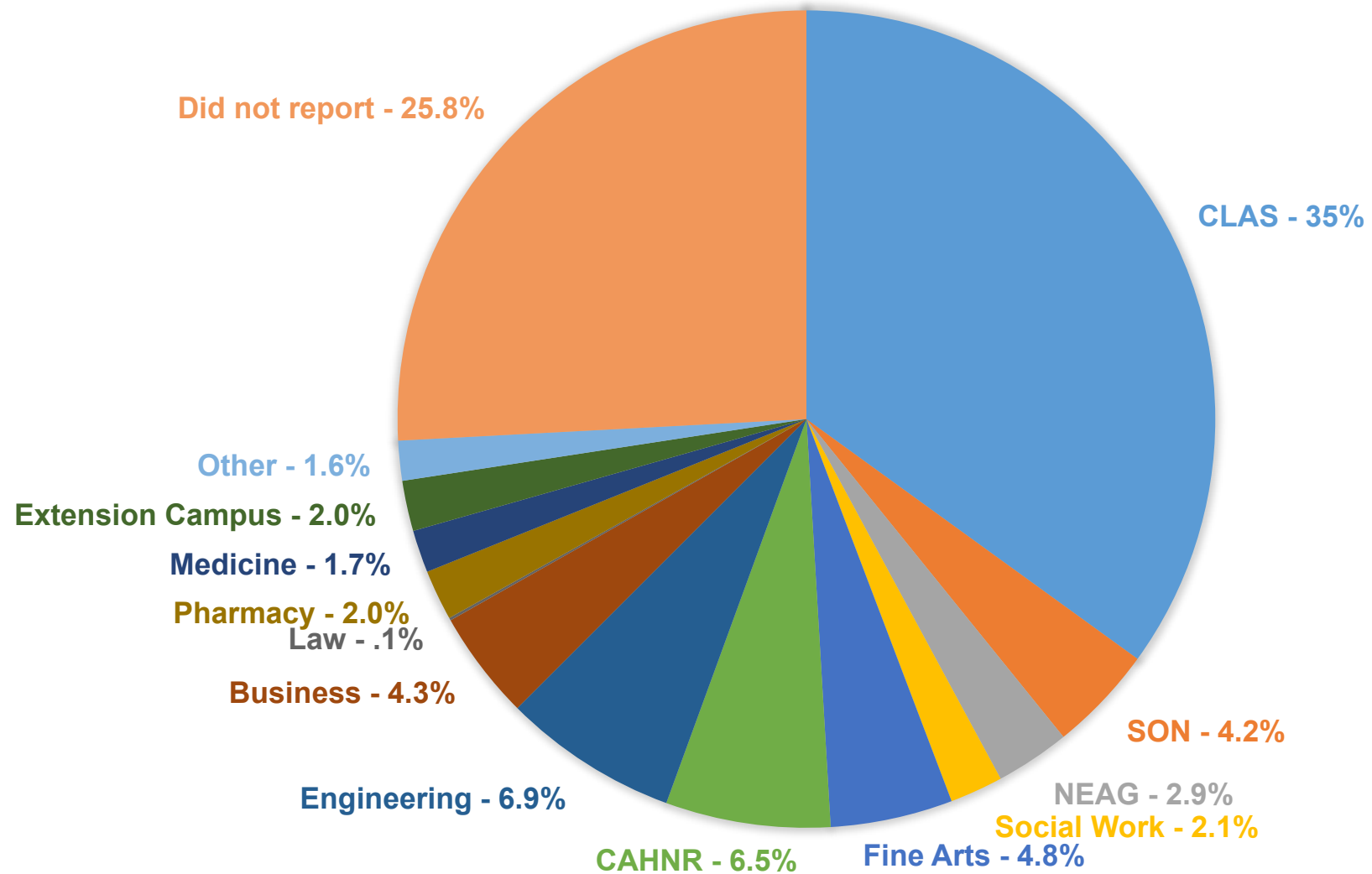   - Spouse (n = 62)

CURRENT POSITION OR RANK

- No Response - 18.5%
- Professor - 22.2%
- Administrative Staff - .4%
- Associate Professor - 16%
- Other - 7.8%
- Academic Staff - 3.6%
- Assistant Professor - 11.7%
- Non-tenure track faculty - 20%

Demographics

RACE/ETHNICITY

- American Indian/Alaska Native - .3%
- Other - 1.5%
- Prefer not to say/no answer - 28.3%
- Hispanic/Latino - 1.3%
- Multiracial - 2.6%
- Asian - 7.5%
- Black/African American - 1.5%
- White - 57.1%

GENDER

- Other - .3%
- Prefer not to say/no answer - 25.2%
- Women - 40.9%
- Nonbinary - .4%
- Men - 33.2%

College/School

Respondents by College/School

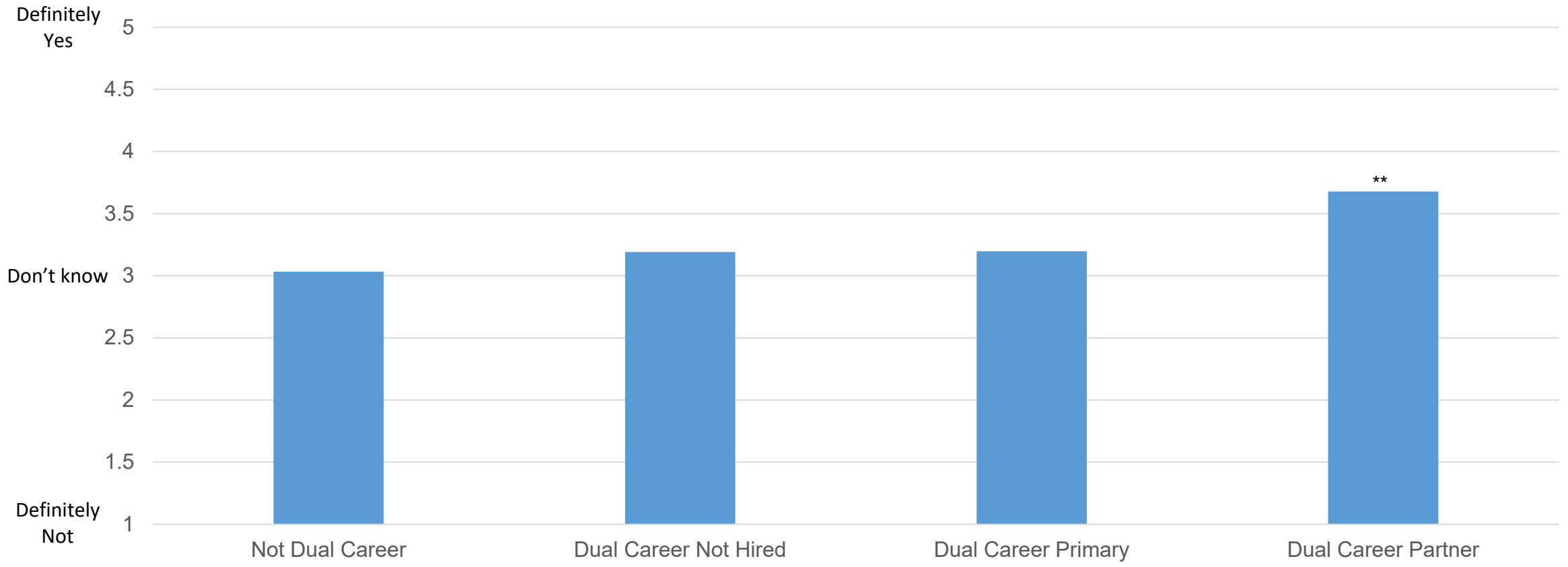|	Not Dual Career (61.6%)	Dual Career (33.7%)	Accommodated (67%)
CLAS (N = 333)	184 (55.3%)	144 (43.2%)	101 (74.8%)*
Engineering (N = 66)	49 (74.2%)	16 (24.2%)	8 (53.3%)*
CAHNR (N = 62)	40 (64.5%)	19 (30.6%)	12 (63.2%)
Fine Arts (N = 46)	27 (58.7%)	18 (39.1%)	11 (73.3%)*
Business (N = 41)	32 (78%)	8 (19.5%)	4 (66.7%)*
SON (N = 40)	37 (92.5%)	3 (7.5%)	2 (66.7%)
NEAG (N = 28)	20 (71.4%)	8 (28.6%)	4 (50%)
Social Work (N = 20)	17 (85%)	3 (15%)	2 (66.7%)
Pharmacy (N = 19)	14 (73.7%)	5 (26.3%)	3 (60%)
Medicine (N = 16)	15 (93.8%)	1 (6.3%)	--
Law (N = 1)	1 (100%)	0	--
Extension (N = 19)	18 (94.7%)	1 (5.3%)	1 (100%)
Other (N = 15)	12 (80%)	3 (20%)	2 (66.7%)
Did not report (N = 212)	120 (48.8%)	92 (37.4%)	49 (58.3%)*

Questions presented to all faculty

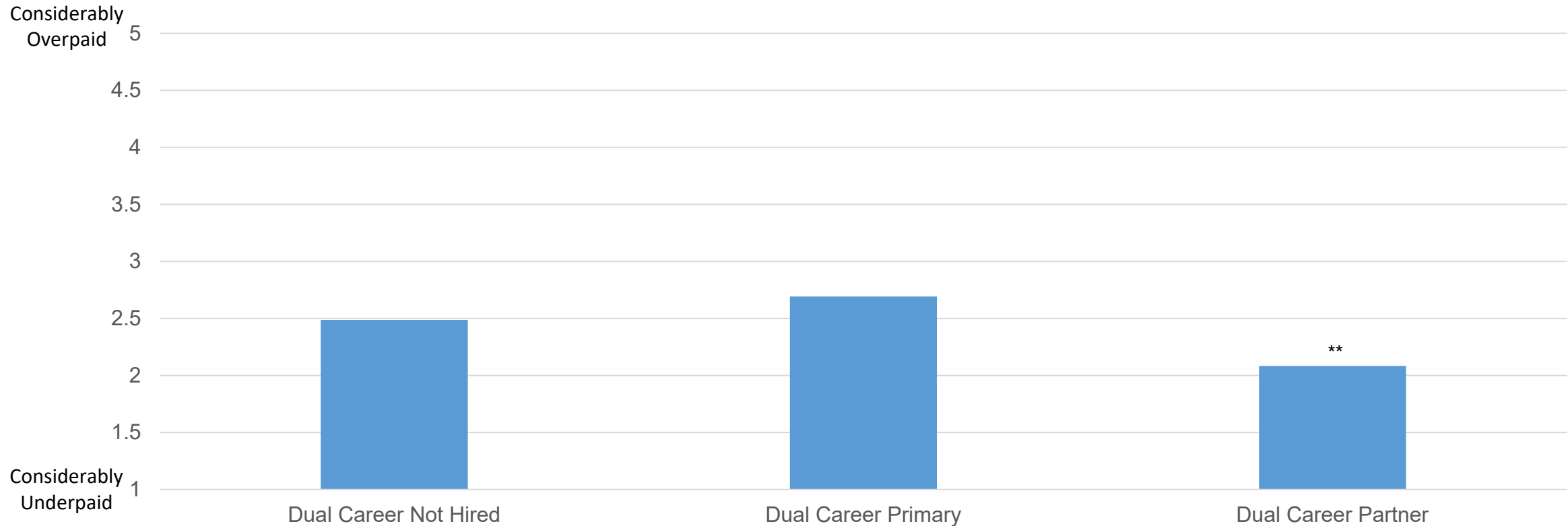# Do you think that dual careers are generally accommodated at UConn?
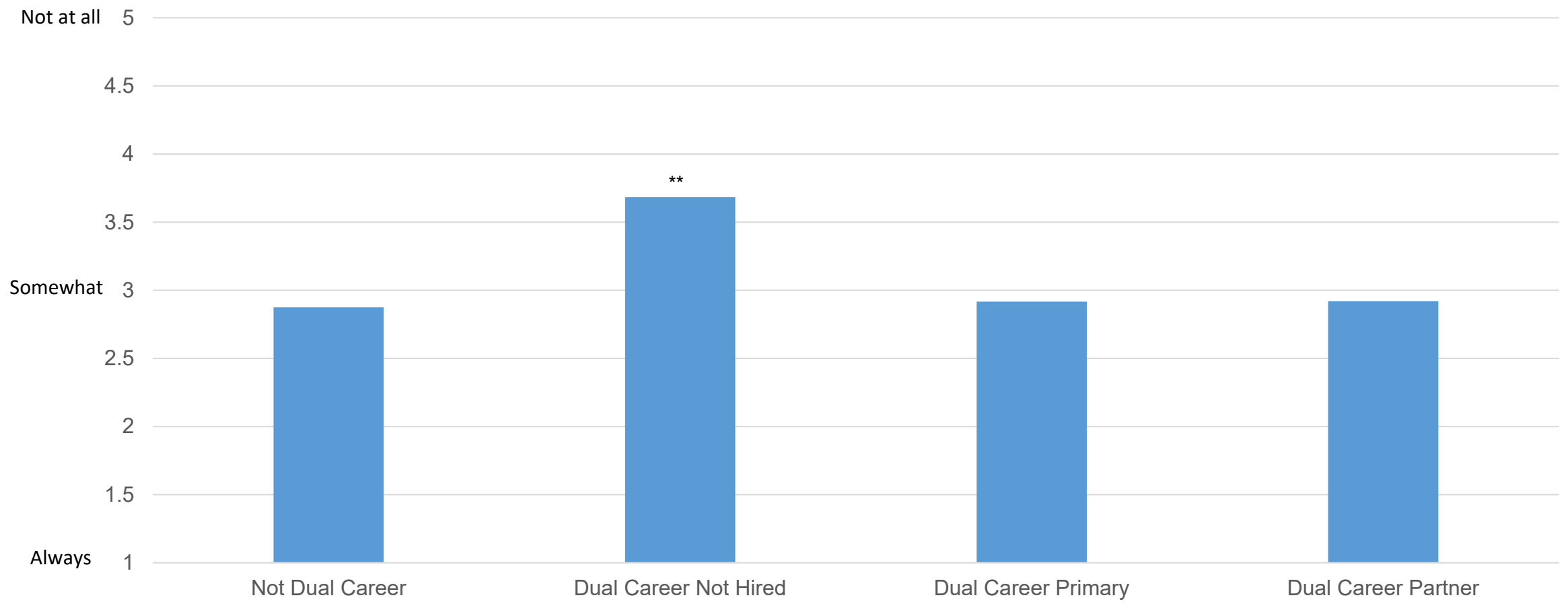
Dual Career Questions

How, if at all, do you think that your salary has been affected by your dual career relationship?

All three groups are significantly below the midpoint (i.e., perceive that they are underpaid because of their dual career relationship). Faculty who were spousal/partner accommodation perceive that they are underpaid to a greater extent than the other two dual career groups.
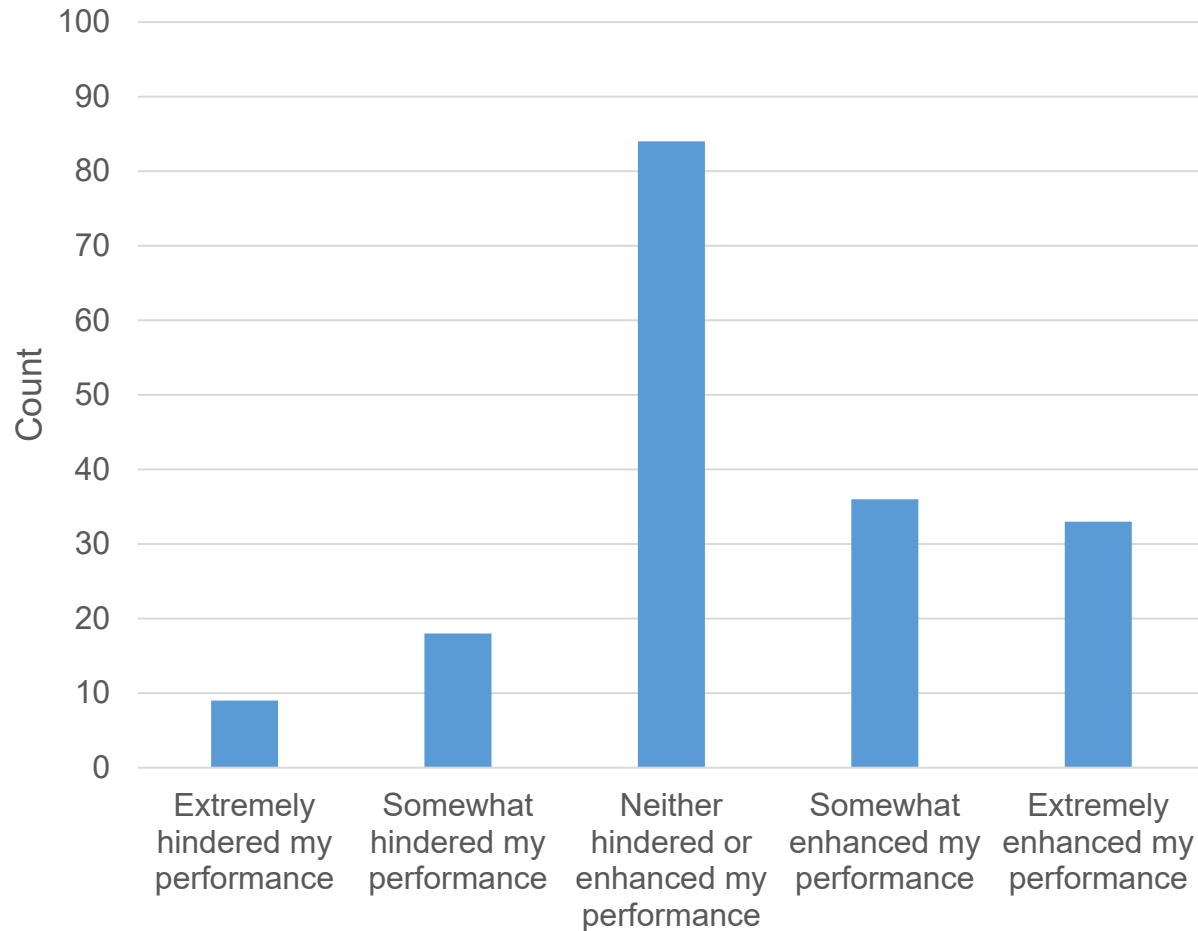
How, if at all, do you think that your rank/position has been affected by your dual career relationship?
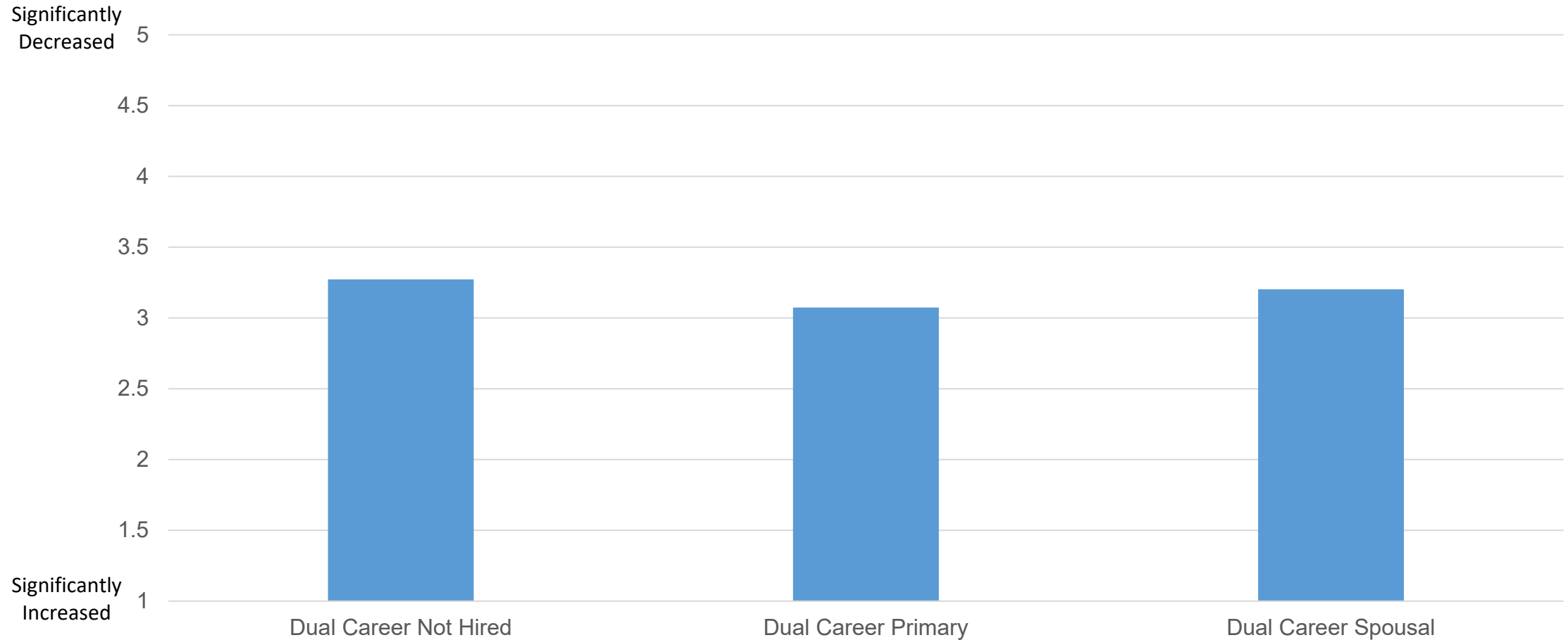
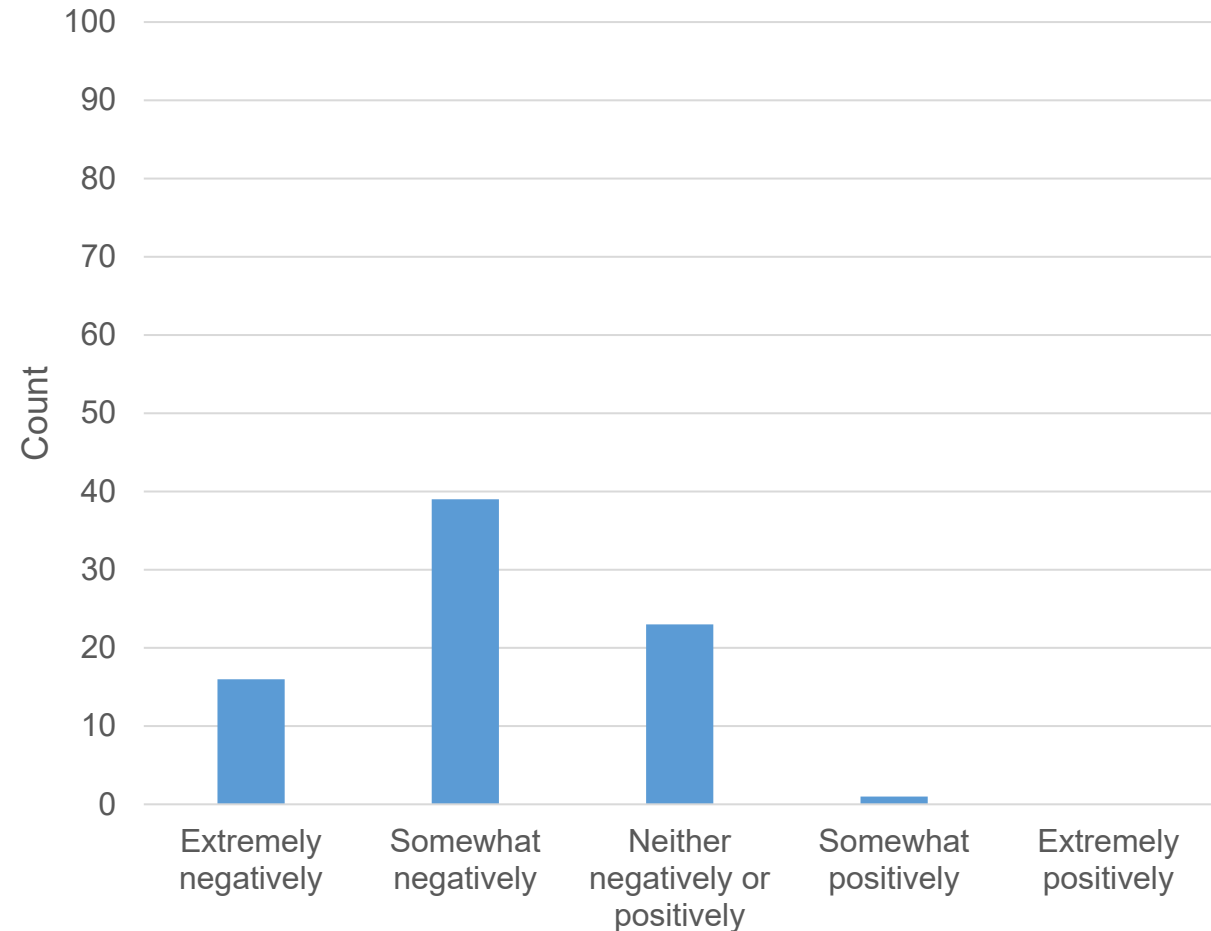All three groups are significantly above the midpoint (i.e., perceive that their rank/position is lower because of their dual career relationship).

Perceived Effect on UConn Career: Accommodated vs. Not Accommodated

Have you considered leaving UConn because of your dual career relationship?
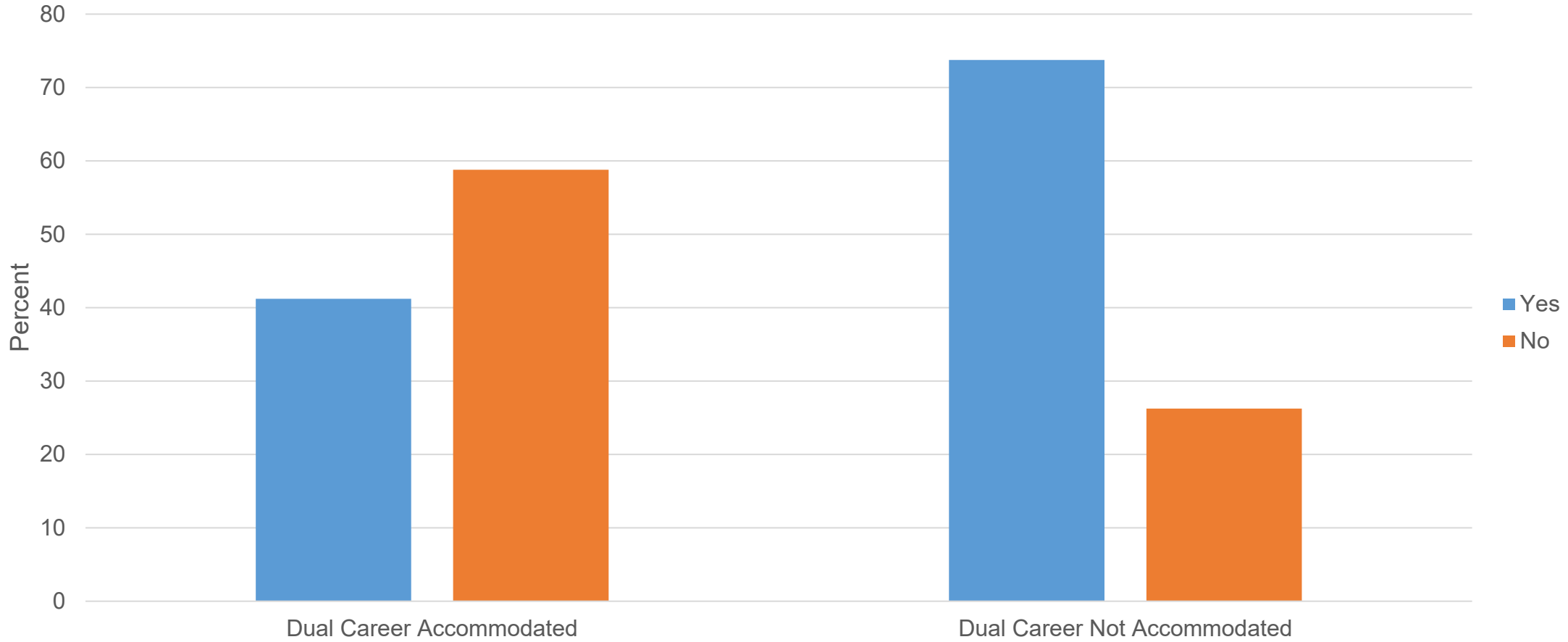
Dual career faculty who did not receive a spouse/partner accommodation were more likely to consider leaving UConn.

Position sought by spouse/partner

NOT ACCOMMODATED (N=84)

Other 14%
Prof 3%
Associate Prof 1%
Assistant Prof 24%
Admin Staff 30%
Academic staff 8%
Non-tenure track 20%

ACCOMMODATED (N=110)
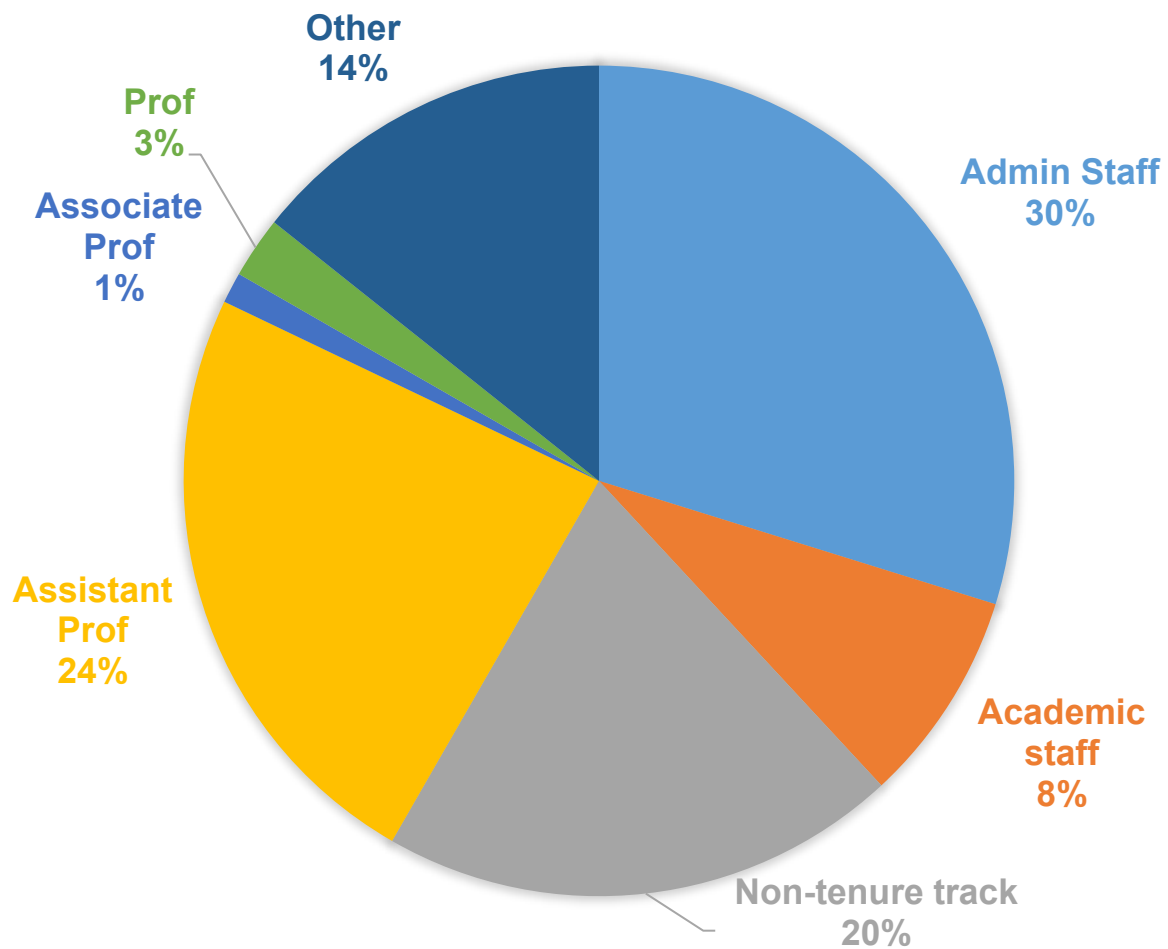
Admin Staff 8%
Academic Staff 5%
Other 17%
Prof 5%
Associate Prof 6%
Assistant Prof 19%
Non-tenure track 40%
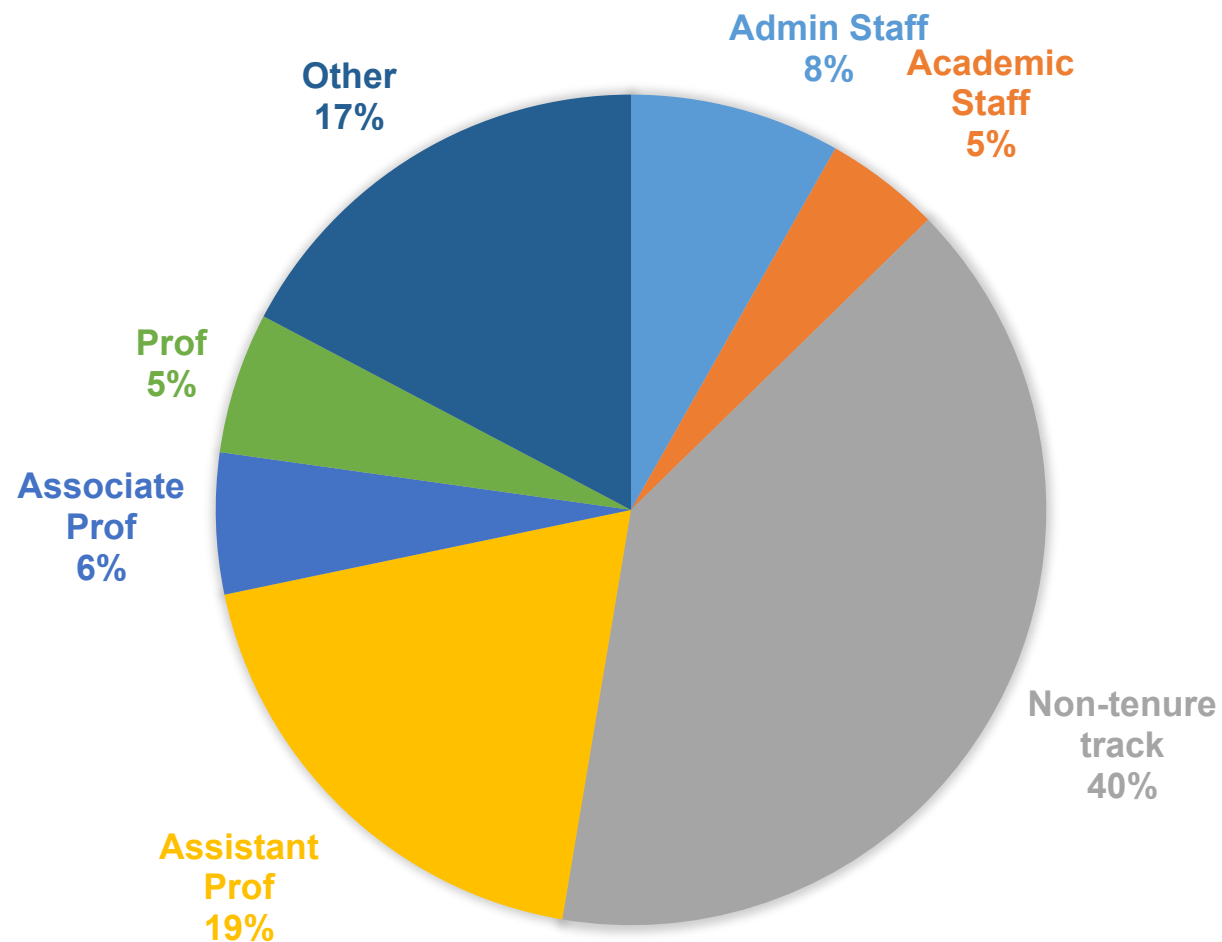
Dual Career Accommodated

How satisfied were you with UConn's accommodation of your dual career relationship?
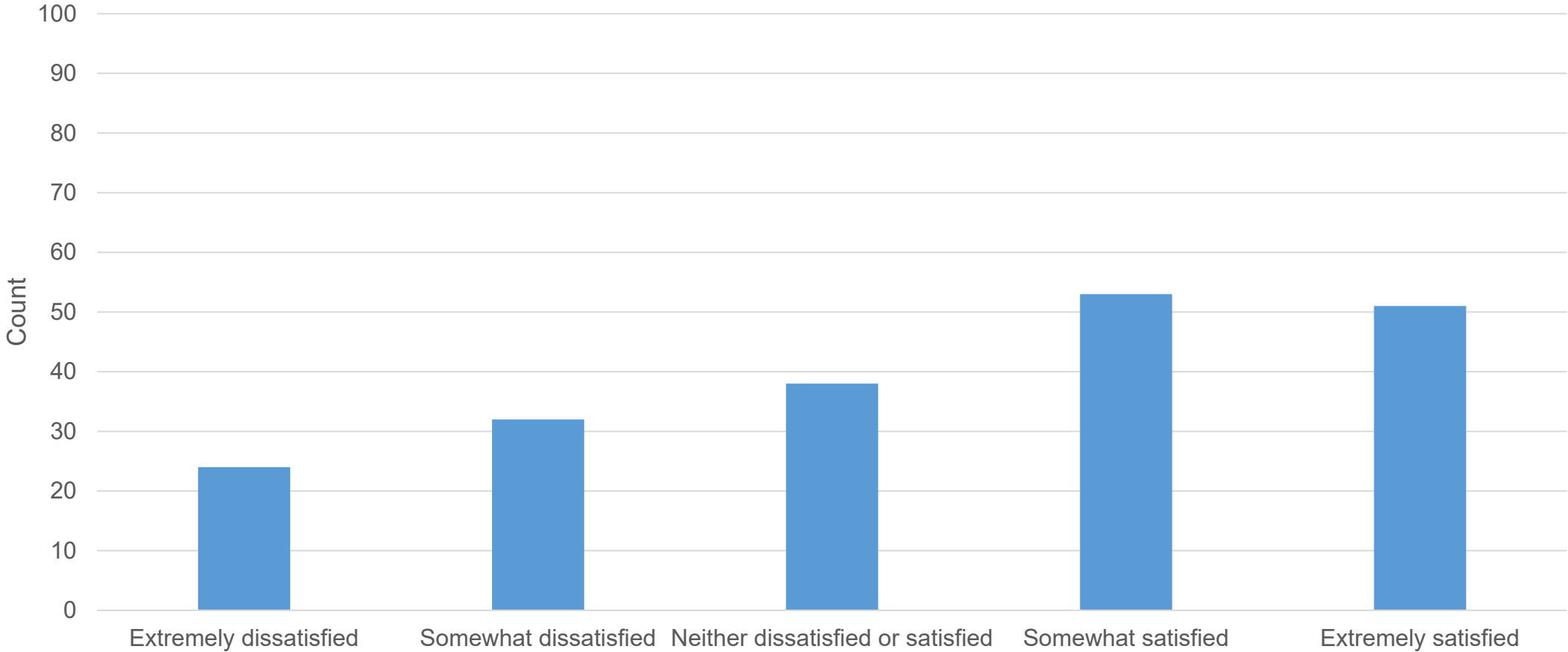
Dual Career Not Accommodated

What was the reason(s) that your spouse/partner was not hired by UConn?

- 65 – UConn did not offer a position

- 2 – UConn's offer was not appealing

- 3 – UConn's offer was not competitive

- 11 – Better offer from another institution or organization

- 21 – Other
  - 2 – discrimination
  - 2 – could not get an interview
  - 4 – no support or response from UConn in making accommodation
  - 1 – UConn was too slow in providing offer
  - 1 – UConn only gave verbal offer
  - 2 – limited time contract (e.g., one year)

Has your spouse/partner found commensurate employment?
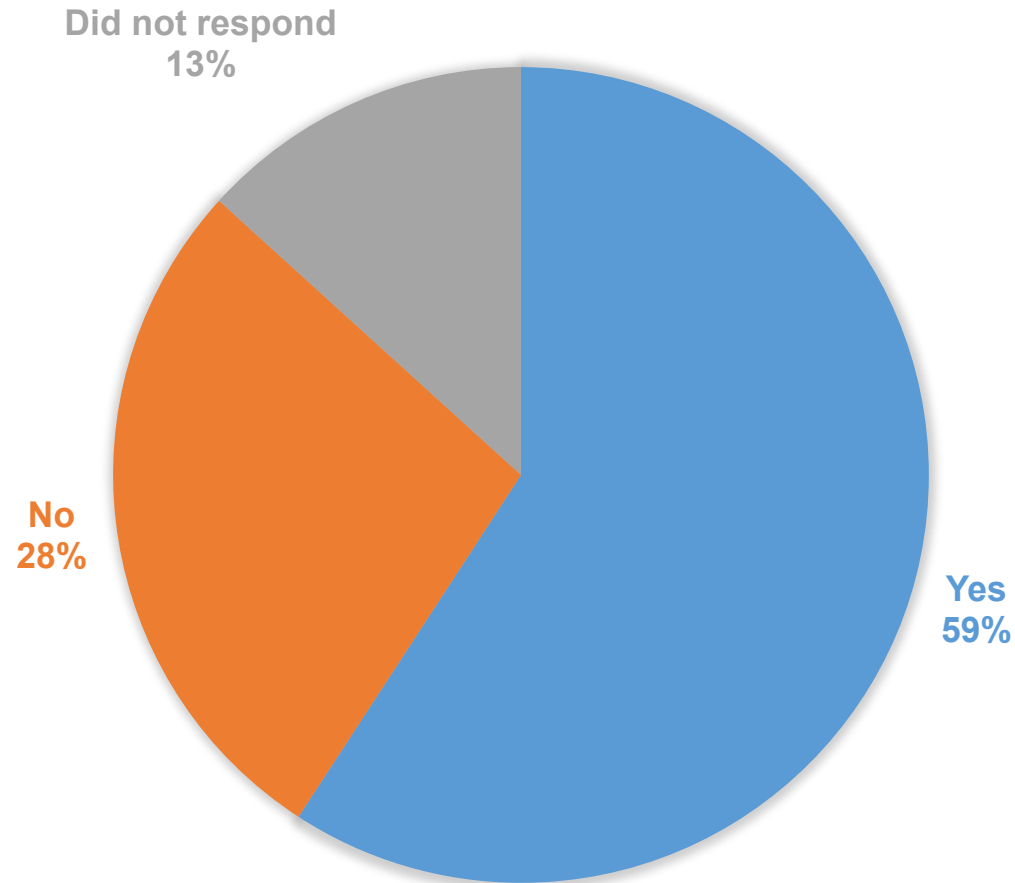
Analyses by Gender

Respondents – Gender

	Not Dual Career (61.6%)	Dual Career – Primary (12.8%)	Dual Career - Spouse (6.5%)	Dual Career – Not Accommodated (10.3%)
Woman (n = 389)	260 (66.8%)	45 (11.6%)	30 (7.7%)	36 (9.3%)
Man (n = 316)	201 (63.6%)	47 (14.9%)	23 (7.3%)	30 (9.5%)
Nonbinary (n = 4)	2 (50%)	1 (25%)	--	1 (25%)
Other (n = 3)	3 (100%)	--	--	--
Prefer not to answer (n = 63)	38 (60.3%)	8 (12.7%)	--	12 (19%)
Missing (n = 177)	82 (46.3%)	21 (11.9%)	9 (5.1%)	19 (10.7%)

Have you considered leaving UConn because of your dual career relationship?
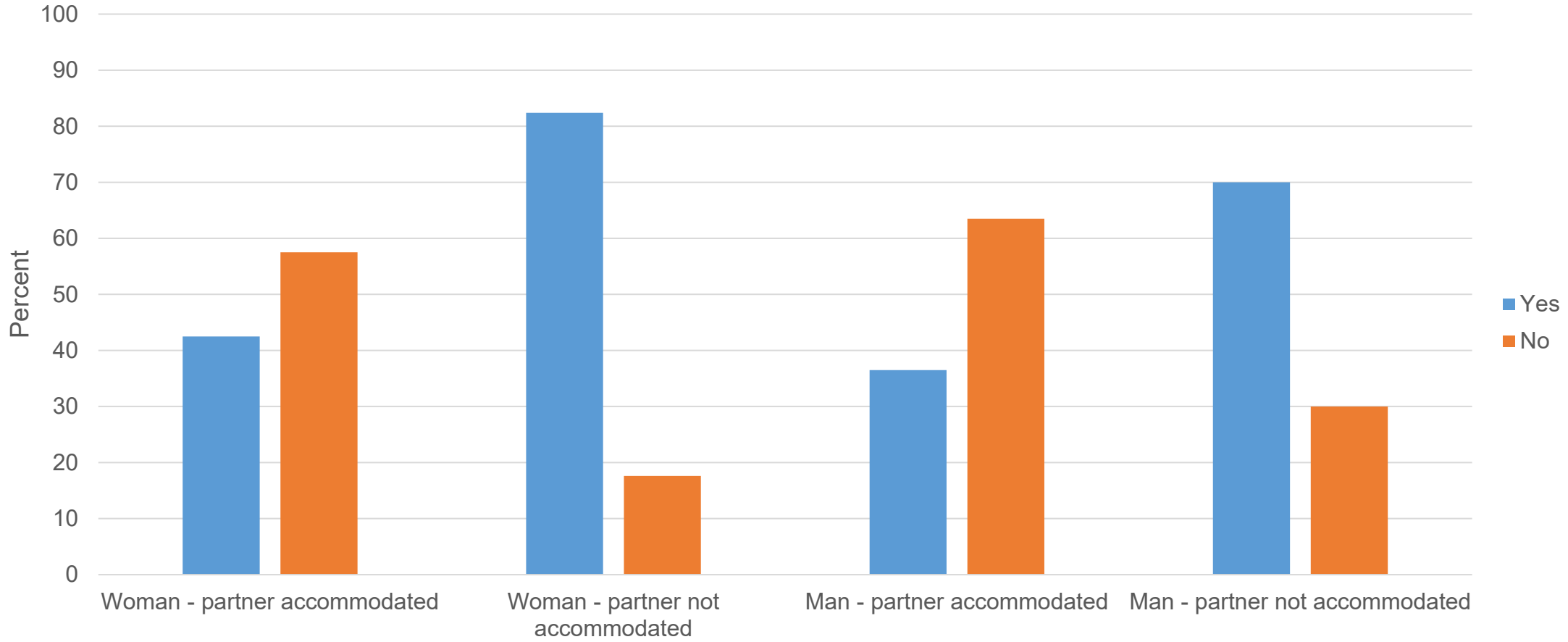
Open-ended Questions Asked of All Faculty

What could UConn do better to accommodate dual careers?

- Be transparent

- Develop a well defined, centralized process with key personnel overseeing and funds to support

- Have a process for helping with job location for partners not seeking UConn employment

- Develop communication/evaluation process for partner hires made into short term positions that were not what was sought

What does UConn do well to accommodate dual careers?

Process is viewed as positive when attainment of desired type of position for both partners is achieved

USWR Ranking	score (# "yes")	Category	Any mention	Clear Process?	Dual Career Program?	Dedicated coordinator(s)?	Declared cost share?	Notes
64	1	UConn	Yes	No	No	No	No	Hiring the spouse of a faculty candidates permitted under certain circumstances. Please contact OIE and the Provost's Office to discuss the proposed spousal hire.

	USWR Ranking	score (# "yes")	Category	Any mention	Clear Process?	Dual Career Program?	Dedicated coordinator(s)?	Declared cost share?	Notes	Updated
Peer Institution Group	84	1	Michigan State	Yes	No	No	No	No	"MSU will facilitate contingent hiring as an exception to the regular posting requirements, as these positions are not considered employment openings. In other words, were it not for the recruited individual, the position of the accompanying spouse/partner would not exist. Similarly, we will apply this policy to the hiring of non-spousal/partner recruitment contingent academic staff (i.e., research faculty and postdocs from the lab of a recruited individual)."	July, 2020
	79	1	Indiana	Yes	No	No	No	No	"The University endeavors to accommodate spousal and partner placement and has made resources available for this purpose. In applicable instances involving the recruitment and retention of faculty members, unit heads are encouraged to consult their dean's office to learn more about the campus's dual-career procedures for securing employment for spouses and partners."	Sept, 2015
	130	3	Kansas	Yes	Yes (CLAS)	No	Yes (CLAS)	No	"With two-career couples becoming the norm rather than the exception in academia, we are willing, indeed eager, to investigate possibilities for domestic partner accommodations when such accommodations will increase our number of quality faculty and staff. Our success in these efforts depend principally on availability of financing within the academic, research or service units involved and the compatibility of need within the potential home unit with the credentials of any prospective hire." Note separate policy for CLAS.	April, 2001
	91	3	Delaware	Yes	Yes	Yes	No	No	Offers an HR sevice to ID university employment. "We recognize that recruiting, retaining and promoting an excellent, diverse faculty may involve supporting working couples to find meaningful employment at UD or in the surrounding community. To that end, we offer assistance to the spouses and partners of faculty who are moving to the University of Delaware. Although we cannot guarantee employment at UD or elsewhere, we will make every effort to help spouses and partners find employment."	???
	132	4	Kentucky	Yes	Yes	Yes	Yes	No	"Relocating while trying to conduct a job search can be a challenge. UK's Dual Ca-reer Partner service connects incoming faculty members' spouses/partners with employment and relocation professionals to assist in this transition."	2020
	104	4	Utah	Yes	Yes	Yes	Yes	No	"We make every effort to assist accompanying partners of new faculty and staff who are seeking employment...; Assistance is not necessarily a guarantee or a promise of employment."	???

USWR Ranking	score (# "yes")	Category	Any mention	Clear Process?	Dual Career Program?	Dedicated coordinator(s)?	Declared cost share?	Notes	Updated
57	4	Purdue	Yes	Yes	Yes	Yes	No	Services include resume critiquing, interviewing skills, job search guidance & networking. "Concierge Program" available in Engineering.	???
50	4	Georgia	Yes	Yes	Yes	Yes	No	University of Georgia Dual Career Assistance Program (DCAP). Services include resume/cover letter review, interviewing skills, job search guidance & networking. Primary, secondary, and provost share in spouse payment for 1 year or until a job offer.	???
Average	**90.875**	**3**							

USWR Ranking	score (# "yes")	Category	Any mention	Clear Process?	Dual Career Program?	Dedicated coordinator(s)?	Declared cost share?	Notes	Updated
39	2	UC Davis	Yes	No	Yes	No	No	Provide career coaching, resume review, interview tools, coordination of informational/networking meetings.	???
54	4	Ohio State	Yes	Yes	Yes	Yes	No	Newly created in 2022, the Office of Dual Careers and Faculty Relocation provides "comprehensive service offerings in support of new and prospective faculty." The Office of Academic Affairs established a hiring fund to help support dual career academic appointments (unclear if this still exists).	Early 2022
34	4	U. Florida	Yes	Yes	Yes	No	Yes	"The Dual Career Academic Hire process applies to the partner or spouse of a University of Florida tenure-track hire. The partner or spouse must also be qualified for a faculty position at UF." Funding support (1/3 split) "is typically for 2 full academic or calendar years and generally does not exceed 3 full academic or calendar years."	2017
64	5	Maryland	Yes	Yes	Yes	No	Yes	Typically only applies when both family members "require tenured or tenure-track appointments" or a "short-term, professional track appointment" for a following spouse. Couples must be married. One-third funding split.	Feb. 2019
48	5	Illinois (U-C)	Yes	Yes	Yes	Yes	Yes	Have a Dual Careet Liasion. "Under certain circumstances, the Dual Career Academic Couples Program can facilitate the placement of tenure-system faculty partners in positions on campus and, in some cases, provide financial support for the position. While the program is focused on the recruitment and retention of tenure-system faculty, the campus may provide dual career support for senior-level administrative positions." One-third funding split.	Sept. 2020
48	5	Texas (Austin)	Yes	Yes	Yes	Yes	Yes	"The Provost's Office Dual Career Program is intended to support the recruitment of tenured and tenure-track faculty by assisting their partners in finding meaningful employment. This program is run through both the Provost's Office and Texas Career Services, depending on whether or not the partner is looking for academic (i.e., faculty or postdoctoral researcher) or non-academic employment." Largely funded by Provost.	2021

Peer-aspirant Group

| 46 | 5 | Wisconsin (Madison) | Yes | Yes | Yes | No | No | "In order to recruit or retain a tenured or tenure-track faculty member, the Office of the Provost may provide funds to help hire a spouse or partner into a renewable faculty, academic staff, or university staff position at UW–Madison. The amount of assistance available is determined on a case-by-case basis. Typically, a three-year funding plan is agreed upon with all departments involved contributing. Priority will be given to dual-career hires that contribute to faculty diversity, when hiring a spouse or partner will help hire or retain a faculty member from a historically underrepresented group." | |
| | | Penn State | Yes | | | | | "Penn State is currently reviewing the Dual Career Program." | |

Merit Working Group
July 18, 2022

Purpose and Background
Working Group Charge
To gather information on how representative departments distribute merit and the effects of those methods on salary equity.

Working Group Membership
Christopher Clark, Professor, History
Pamela Diggle, Department Head and Professor, Ecology and Evolutionary Biology
Phoebe Godfrey, Associate Professor In-Residence, Sociology
Preston Green, Co-Chair and Professor, Educational Leadership
Willajeanne McLean, Professor, Law
Anita Morzillo, Associate Professor, Natural Resources and the Environment
Lyle Scruggs, Co-Chair and Professor, Political Science
Sarah Woulfin, Associate Professor, Educational Leadership

Problem Statement
Merit pay, i.e., salary increases based on regular merit evaluations, have been a regular feature of compensation and collective bargaining contracts at the University. Collective salary agreements are minimum terms contracts with funding for merit awards typically comprise around 40% of the raises paid to the university faculty in a typical year that raises are paid. Thus, most faculty receive most of their raises in "cost of living" increases, which have historically been paid to all faculty (with extremely few exceptions) in fixed percentage and equal flat increments stipulated in collective bargaining contracts. This fact is important to bear in mind when evaluating the impact of the merit award process in *overall* pay equity.

General salary increases use a specific rule applied to all employees, while merit criteria vary considerably by academic unit. While the purpose of merit procedures is to permit variable outcomes, it is important that the merit procedures allocate awards in ways that can be understood by those to which they are applied, applied in a non-arbitrary manner, and produce outcomes that are consistent with achieving fairness and the university's long-term academic and public mission.

Concern about salary equity and merit policies has recently been heightened by the growing irregularity of annual salary increases. In the ten years from 2012 and 2021, salary increases were awarded to faculty in six years: 2013, 2014, 2015, 2019, 2020, 2021 (retroactively). There were no mandatory or merit salary increases paid in the other four years: 2012, 2016, 2017, and 2018. This situation has added to the need to maintain sound processes for awarding merit.

Summary of Work
The working group collected information from all department heads via survey. The university collective bargaining contract requires that all units awarding merit have written criteria for awarding merit-based salary increases. Our analysis is based on assessments of those responses and the historical salary dataset.

The working group collected information from a questionnaire sent to all academic units at the university requesting information about their merit process and concerns about impacts of merit process on salary equity. The appendix provides a list of the units that responded to the survey.

The salary analysis is based on statistical analysis of the historical faculty salary information collected over the period from 2005-2021 from salary and administrative information provided by the university to UConn AAUP bargaining unit just after the start of each academic year. The appendix provides the full set of regression estimates conducted.

Departmental Survey

This section is a summary of responses received to each question. Our recommendations with respect to each question follow a summary of our findings

Question #1:
What are the procedures for informing faculty about the criteria and rubrics that your department uses to award merit?

Departmental responses indicated that departments follow required procedures for regularly informing unit members about the unit's merit policies and criteria.

Recommendations based on question #1
Units should continue to ensure that all faculty who are evaluated are appraised ahead of time about the criteria of merit evaluation to which they are to be subjected.

Question #2:
Does evaluating merit over two or more years create disadvantages based on gender or race/ethnicity?

Many, but not all, departments indicated that, when merit is intermittently awarded (e.g., in 2015 and 2019, but not in 2016,2017 or 2018) they allocated merit based on some sort of "average" merit performance for all years of service. There were concerns that multi-year evaluations hurt newly hired faculty (who may be more likely to be members of traditionally underrepresented groups). There were also concerns about the equity implications of omitting meritorious performance from salary considerations based on unfortunate timing, or of discouraging meritorious performance in non-merit years.

An assortment of responses from department heads follows:
- "We evaluate merit at the department level every year, even when the University does not award merit. If we need to make up for missed years, we calculate an average score across all of the relevant years. This does not lead to disadvantages specifically based on gender or race/ethnicity."
- "Insofar as delayed merit awards or years without merit tend to affect junior faculty disproportionately, yes, because there is greater gender and racial diversity among our junior faculty. But specifically, because of calculating awards over two years, no. When we did that last it was actually helpful in rectifying some prior inequities."
- "[A]n argument can be made that evaluating merit over multiple years discriminates based on gender, especially for those who have children in the household…Since social and structural

factors disproportionately and unfairly place child-care burdens on women averaging merit points across multiple years can be relatedly problematic. [Our merit policy] wouldn't functionally account for someone who took FMLA leave for a semester."

Recommendations based on question #2
The university should consider uniform policy recommendations for merit evaluations over multiple years when there are situations in which merit is not annually awarded.

Departments should establish explicit policies, consistent with more general university policies, when applicable, regarding how they plan to handle meritorious performance in years in which there is no merit pay. A goal of such policies should be to encourage faculty excellence without regard to the schedule of salary increases.

Departments and units using multiple-year merit evaluations examine the impact of averaging multiple-year evaluations of merit on gender. If they find problems caused by leave or additional at-home responsibilities, they should consider other options. For example, they might grant merit based on the level of activity when the faculty were not on approved leave. They might also consider giving faculty who were on parental or caregiver leave during the merit cycle the choice between multiple-year (before leave) or the past calendar year.

Question #3:
Do you feel that any aspect of your merit criteria or methodology could disadvantage faculty on the basis of their gender or race/ethnicity? What data do you use to identify possible inequities or to ensure that none exist? Do you make cases to your Dean for equity adjustments in salary where inequities become apparent? To what extent is this process successful in rectifying inequities?

Most participants answered that the merit criteria of their department did not create gender or racial/ethnic disparities in their awards. Of the 44 unit responses to this question, 36 answered that there was no problem. Most participants provided little to no elaboration for this belief. Six participants defended their conclusion by explaining that their merit policies do not overly rely on merit.

An assortment of responses from department heads follows:
- Faculty who have considerable responsibilities outside of work may not have the opportunity to be exceptionally productive at work. Put another way, those without considerable responsibility outside of work who choose to use their time to be exceptionally productive at work can be rewarded with higher than average extra merit pay.
- There is general consensus that we have enjoyed a relatively bias-free process since that point. Awarding graduated points for all sorts of activities--in scholarship, teaching, and service--ensures that no single activity is valued to the exclusion (or undervaluing) of others.
- [W]e identified the four domains of work as outlined by UConn: scholarship, teaching, service, and outreach/engagement. We evaluate each domain equally. We do not prioritize one domain (e.g., scholarship) as more meritorious. As a faculty, we elevated all domains of work as worthy of merit, and sought to develop a process where faculty must exceed expectations in 3 of 4 domains and meet expectations in the other domain in order to receive the highest level of merit. We felt that these expectations and the process to evaluate for merit would address possible inequities (e.g., BIPOC female faculty who engage in more service work relative to white male colleagues).

- Our merit rubric includes diverse categories including teaching, mentoring, research and service, and these generally carry equal weight, except for teaching faculty who only have weights associated with teaching and service. I therefore believe that we have an equitable system.

However, eight participants found that their merit system's outsized emphasis on research could lead to gender and racial inequities. According to one department, its reliance on research and productivity could negatively impact women because "their greater role in childcare limits the time they are able to devote to research." Another department observed that its emphasis on research could create gender and racial/ethnic biases because "these groups often take on heavier service and teaching loads and may thus produce less." Although one department claimed that its merit criteria were "fairly egalitarian," the department was working with the dean's office to reward DEI service, "given that it tends to be difficult, emotionally draining, and more commonly taken up by female and BIPOC faculty. Another department responded that its research weighting, which favors quantity over quality, could disadvantage "women who tend, in the sciences, to publish fewer but 'meatier' papers." This statement is consistent with the concern that female faculty could be evaluated differently for their work.

Recommendations based on question #3
Departments should closely examine their merit criteria to determine whether their merit criteria create gender and racial/ethnic disparities. They should not only consider their weighting of research in relation to service and teaching, but they should examine whether they are evaluating research in ways that create gender and racial/ethnic discrepancies. Insofar as the allocation of responsibilities in units are being distributed in ways that produce inequity, unit should consider actions to ensure an equitable distribution of responsibilities and rewards.

<u>**Question #4**</u>
Have you adjusted your merit criteria because of the pandemic?

Only about 10-15% of units (of just over 60 responding units) suggested that they changed their criteria or evaluations to reflect the disruptions of the pandemic. Of those who mentioned adjustments, only one explicitly indicated specific attention to gender inequities related to child care during the pandemic. Two or three indicated that they gave additional credit for added teaching burdens related to shifting instructional modalities.

A handful of departments indicated that they allowed faculty to include statements relating their specific challenges due to the pandemic. However, none commented on whether or how these statements affected merit awards.

Several responses indicated that units do not conduct merit reviews when there is not merit money to award. (This raises questions about whether and how performance in these years is considered in years in which there is merit pay.)

Recommendations based on question #4
Consistent with recommendations related to question #2 (above), the university should consider developing guidelines to deal with meritorious performance inclusive of periods in which there is not an annual merit pool. Failing to do so could inequities based on (un)fortunate "timing" of performance. For example, faculty with equivalent meritorious performance over two years may receive very different merit awards based simply on the timing of their performance and the timing of merit pay.

We considered responses to question 5 and question 6 together because the responses suggested that they were inherently linked.

Are your merit criteria and recommendations similar or different for different categories of faculty (e.g. APIR, tenure track, clinical, extension)? If yours is a multidisciplinary unit, do similar or different criteria apply to faculty in different disciplines?

Do your merit criteria account for differences in rank?

Most departments use different criteria or weights for merit awards based on appointment types (e.g., tenure track faculty, APiR/teaching faculty, and research only faculty). Within those categories (e.g. tenure track, in-residence, etc.), most departments indicated that they use the same merit criteria. However, some departments did suggest that they use different criteria for different ranks of tenured faculty, and at least one department indicated that they split the tenure-track merit pool by rank. (They did not indicate how the pool was split: e.g., equally, or proportional to salaries that comprise the pool.)

A few departments reported that service expectations were higher for tenured/senior faculty than for more junior colleagues.

Answers to our merit survey questions suggest some ambiguity about how differing expectations or job duties implicate merit evaluations. At least one unit explicitly noted that a publication for an APiR with no research expectations would "count more" than one for someone with 50% research expectation. The responses from most units are less clear about with respect to how their different job expectations and merit relate to each other. For example, if an APiR, assistant professor, and a full professor all co-author three publications and sit on the same university committee, would each receive the same "merit credit" for each item? Or would the senior faculty member get less (or more) credit for the committee appointment given a higher service "obligation"? Would a junior faculty member less service "obligations" receive more credit for publications… or for doing a service commitment that is above expectations? Would the APiR get any credit (or "extraordinary credit") for the research output given that research is not part of their job expectations?

A related issue with respect to the relationship between expected duties and performance is how what is a fixed pool of merit resources (at least at the department level) is considered. If the three faculty members in the above example are judged "equally meritorious," would this correspond to equal dollar amounts for each? If so, a senior faculty member earning twice the salary of a junior faculty member (or three times an APiR salary!) would need two (or three) times the "productivity" (however defined) to achieve the same percentage salary increase.

Recommendations related to questions 5 and 6

The university should encourage departments to consider how differential job expectations and duties intersect with the process for determining meritorious performance and how that performance is rewarded.

Statistical analysis of salary data

Note: In the statistical analysis, we only examine differences based on gender. This is because the non-reporting rate for this question (which is optional) is high (>20%). It is plausible that non-reporting status is correlated with not being in a underrepresented minority group, and would impart an unknown estimation bias in any analyses that ignore the true status of individuals not reporting their race/ethnicity.

We compiled the percentage merit increase for each bargaining unit member employee for each year of data available for 2005-2021. This is defined as the salary increase in the merit, additional merit, and special provost award categories. (Special provost awards are merit awards from the provost portion of the annual merit pool; they are distinct from awards from the Provost Fund) The advantage of using the percentage merit increase is a) it focuses only on the merit portion of raises (since cost of living components of raises are not directly affected by the merit process), and b) this allows better comparisons across years, because it controls for annual differences in base salaries.

We first looked at the simple average differences in merit awards pooled over all years in which merit was awarded (2005-8,2010,2013-15, and 2019-20).

First, the likelihood of getting any merit award (i.e., non-zero) was slightly higher for women than for men (87.3% versus 85.2%, p<.01, n=15,397; and the average merit award in these years was slightly higher for women than men (diff=0.1%, p<.012, n=15,395). These differences do suggest that women receive measurably higher merit awards on average than men do, Substantively, however the difference is very small. For example, in 2020 the average merit award was about $1988. 0.1% of $1988 is less than two dollars.

Second, we controlled for the effect of salary level on merit increases to determine if there is any gender difference in merit awards among male and female faculty with similar salaries. This result suggests that holding constant salary level, women receive merit increases that are slightly higher than men, and to about the same extent (0.13%, p<.001).

Third, we looked separately at the tenured and tenure track faculty and the non-tenured faculty as a group. In each subgroup, we control for rank (e.g., assistant, associate, and full among the tenure track faculty and position and rank among the non-tenure track faculty). We also controlled for prior pay level. This analysis indicates that women received higher average awards in both subgroups. Among tenured/tenure-track faculty, women received the average merit pay that was 0.21% higher than men (p<.0005); among non-tenure track faculty, the different was about 0.15% (p<.02).

Finally, since we were concerned that merit pay practices in the distant past, rather than more recent ones, might have produced the higher average awards for women, we restricted the analysis to the last two years in which merit was awarded (2019 and 2020). This result raised the estimate for female in the model, suggested that, among tenured/tenure-track faculty and controlling for old salary level, and rank, the average merit award was about 0.32% higher for women than for men. Among other faculty, the difference in 2019-20 was 0.2% (p<.05).

We repeated this last set of estimates to examine their robustness in several ways. First, we dropped the covariates besides gender. This produced a slightly higher estimate for female (+0.37% p<.001). Second, we ran the analysis using median regression (qreg in Stata) to confirm that our estimated gender differences are not due to a few extreme values. These results produce identical estimates: the average merit award was estimated to be about 0.31% higher for women than men. (The full median regression model estimated on the non-tenure track faculty produced suggests no differences by gender.

Recommendations based on statistical analysis

These statistical results suggest that, on average, women have received higher merit awards than men over the last several years. However, while the results estimate clear differences, the size of these differences is small: only around $5-6 difference the average merit award of around $2000. As such, the small size of the differences suggests that they are tolerable.

To be clear, these results do not consider any information about individual differences in the particular criteria for assessing merit: research productivity, service, etc. This makes it impossible for us to evaluate claims about whether these gender differences in merit awards are justified by systematic performance differentials. They would indicate that, if there is a concern that criteria for merit are biased significantly in favor activities that either men or women are more likely to take up or be assigned, the merit award outcomes do not suggest much.

Peer and Aspirant Benchmarking
Units develop their own merit evaluation procedures and must re-approve them regularly by majority vote in faculty meetings. While at one level, this open process of developing merit criteria is appropriate given what is certainly a diversity of criteria across many academic units serving differing combinations of functions at the university. On another, the extremely decentralized method of establishing and implementing merit criteria is hard to evaluate comparatively. While there appears to be a general consensus that "research" was weighted more heavily than teaching or service for most (tenure track) faculty, none of the responses that we received from departments indicated explicitly how merit policies were developed: e.g., via benchmarking across university units or among comparable departments at peer institutions. There was also no indication that units asked for or received guidance or feedback about merit policies.

Appendices

A1: Units responding

Accounting	Pathobiology and Vet Science	History	Psychology	Electrical & Computer Engr
Finance	Africana Studies	Human Development	Public Policy	Materials Science
Management	Anthropology	Journalism	Sociology	Mechanical Engr
Marketing	Asian & Asian Amer. Studies	Linguistics	Speech Language and Hearing	Law
Operations & Info Management	Chemistry	Lit Culture and Language	Statistics	Nursing
Agricultural and Resource Econ	Communication	Marine Science	Women, Gender and Sexuality	Pharmacy Practice
Allied Health Science	Ecology	Math	Curriculum and Instruction	Pharmacy Science
Animal Science	Economics	Molecular and Cellular Bio	Educational Leadership	Art and Art History
Extension	El Instituto	Philosophy	Educational Psychology	Digital Media
Kinesiology	English	Physics	Biomedical Engr	Music
Natural Resources & Environ.	Geography	Physiology and Neurobiology	Civil and Environmental Engr	Social Work
Nutritional Sciences	Geoscience	Political Science	Computer Science Engr	

Table A2: Likelihood of getting any merit award (all merit years)

Male	Female	diff.	p-value	n
85.1%	87.3%	2.2%	0.00	15397

Table A3

	All merit years: 2005,2006,2007,2008,2010, 2013,2014,2015,2019,2020				only 2019 & 2020					
	OLS regression with robust s.e.'s								median regression	
	all	all	tenured/ tenure-track	non-tenure-track*	tenured/ tenure-track	non-tenure-track	tenured/ tenure-track	non-tenure-track	tenured/ tenure-track	non-tenure-track
Female	0.1 **	0.13 ** *	0.21 ** *	0.15 ** *	0.32 ** *	0.21 *	0.37 ** *	0.27 **	0.31 ** *	
prior salary (log)		0.18 ** *	0.03	-0.0044 ** *	-0.5 ** *	-0.16			-0.28 *	
associate prof rank			0.10		0.28 *	+			0.2 *	n.a
full prof rank			0.05		0.1	+			0.1	
constant	2.27 ** *	0.19	2.01	6.4 ** *	7.72 ** *	2.75	2.000 ** *	1.7 ** *	4.8 **	
	15397	15397	10188	4931	2132	1260	2132	1260	2132	

* p<.05; ** p<.01; *** p<.001

+ there are dozens of rank categories estimated, and not reported for reasons of space

Retention Study Working Group
June 17, 2022

Purpose and Background
Working Group Charge
The retention group was charged with analyzing which faculty leave and why, and what might incentivize faculty to stay at UConn.

Working Group Membership
Alfredo Angeles-Boza, Associate Professor, Chemistry
Robert Bird, Professor, Marketing
Sarah Croucher, Co-Chair and Assistant Vice Provost for Academic Affairs
Manisha Desai, Department Head and Professor, Sociology
Maria-Luz Fernandez, Co-Chair and Professor, Nutritional Sciences
Lisa Holle, Clinical Professor, Pharmacy Practice
Letty Naigles, Professor, Psychological Sciences

Problem Statement
There is a widespread narrative at the University that we could do better at retaining faculty. However, we lack information on which faculty are leaving, and why. Providing more data on which faculty leave the University and on best practices related to the retention of faculty will allow for improvements in our ability to retain strong faculty members who contribute to the excellence of our university.

Although gathering historic data can be difficult, we sought to provide some clear data on which faculty leave the University. Data on faculty leavers and interviews with department heads and faculty who were retained at the University can all contribute to a better understanding of how we can improve faculty retention.

Summary of Work
Interviews & Best Practice Findings
The Retention Group gathered qualitative data in the first year of our work to compile effective strategies for retaining faculty. This data consisted of interviews with department heads and deans, with each committee member interviewing multiple individuals. These interviews included internal UConn colleagues and external contacts.

These interviews identified several key issues and strategies related to retention. Through the course of this qualitative work, it was clear that department heads are crucial in relation to retention. If department heads are not proactive in relation to the retention of faculty, it is unlikely that the University will be able to retain a faculty member, particularly once they have an offer at another institution. The key issue that our group wanted to emphasize was the need for this work to be proactive and to occur prior to faculty applying for positions at other institutions. Once faculty are unhappy and begin to apply elsewhere, retention becomes less likely.

1. Department heads need to be aware when there is salary compression or salary reversion in faculty. If faculty are unhappy about what they perceive to be inequalities in pay, it may be an issue that causes faculty apply for positions elsewhere. Department heads should be utilizing merit increases or working with their dean and the provost to address salary compression problems, particularly in relation to talented faculty who they wish to retain.
2. It is important that merit pay systems in departments are transparent. When this is not the case, it can be another reason that faculty may feel unhappy and begin to apply for other positions.

3. Faculty members need to know that they are valuable members of their department and the University. Department heads can support these feelings by providing small packages for laboratory resources, graduate students, *etc.*, or by nominating faculty for awards. These types of actions will be constrained by resources available to the department head, but faculty who feel valued are less likely to apply elsewhere for positions. This type of support may well have better results in relation to retention than trying to match salary offers once faculty have another offer in hand.
4. Preemptive retention strategies need to be tailored to the career stage of individual faculty members. For junior faculty, partner hires were often a key issue in retention. For associate professors, support for promotion to full was key. At the level of full professor support for graduate student funding, named awards (even if small), and other support such as endowed chair positions were all suggested as effective strategies.
5. Department heads should be proactive by ensuring that they are talking with faculty on at least an annual basis to understand how they might be able to help them or support any needs that they have in relation to their research or other aspects of their work.
6. Formal mentoring programs are also a crucial strategy. They help keep junior faculty engaged and ensure that faculty are treated equally.

In these interviews, several department heads and deans noted the contradiction between retention and equity. They raised the issue that proactive retention strategies may exacerbate inequities.

Quantitative Retention Data

Data was gathered from schools and colleges across the University that looked at faculty who left the University in the last 10 years and sought to understand whether faculty were leaving because they were not receiving competitive pay offers. Overall, analysis of this data was difficult. There were many "unknown" answers, and it was difficult to ascertain which faculty left despite a desire to retain them at UConn, and which faculty departed without such an interest. Therefore, the data presented below should not be taken as providing clear analysis on retention at the University. Data from the COACHE Retention & Exit survey will provide clearer material for analysis in the future.

Data is provided only for tenured and tenure track faculty only. As practices related to retention of non-tenure track faculty vary according to disciplines, it was not possible to provide analysis of retention practices for these faculty in any useful way.

Retention Offers

One of the clearest findings is that retention offers are often not made to faculty when they are departing. Without analyzing all individual cases, it is impossible to fully understand what lies behind this finding. However, where notes were provided, it was clear that in some cases a retention offer was not made because it was known that the faculty member was definitely leaving. *E.g.*, the faculty member had already indicated that their job offer elsewhere was, "too good to turn down no matter what UConn could offer"

Was a retention offer made?	Count	Percentage
Yes	24	16%
No	107	71%
Unknown	19	13%

Table 1: Retention offers to tenure track and tenured faculty leavers

Where offers were made, it was indicated that these included a range of elements. Pay was one component, including summer salary, but partner hires were also part of retention packages.

Demographics of faculty who leave UConn
The data gathered also provides some preliminary figures on the identities of faculty who leave the University. The table and chart below show that less than 50% of tenured and tenure track faculty who leave the University are White US residents.[1] This study did not compare the proportion of faculty leavers with that of the overall faculty population. However, we do know that the numbers and proportion of minoritized faculty at the University has remained stagnant over the last ten years, despite recruitment efforts. This fact alone shows that retention of minoritized faculty is an issue. However, the data provided in this report, other than general best practice recommendations, can do little to shed further light on the issue. However, future analysis of the COACHE Faculty Retention & Exit survey should pay careful attention to this issue.
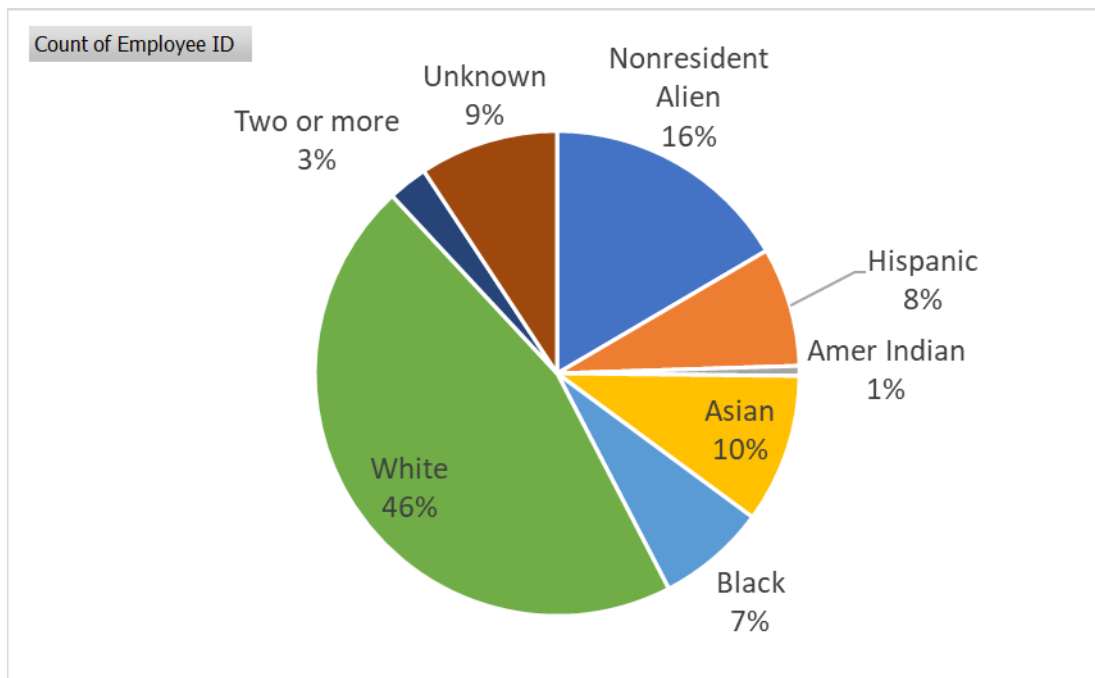
Chart 1: Tenure track and tenured faculty leavers shown by ethnicity

Data also shows that more male faculty leave the University than female faculty.[2] Of the tenured and tenure track faculty who left the University, 56% were men compared to 44% who were women. The population size makes it difficult to draw firm conclusions, but this gender gap seems to reverse in relation to minoritized faculty. Going forward, data should be analyzed to understand whether the demographics of faculty leavers are proportional to the demographics of the faculty overall, or if they are indicative of issues related to specific groups.

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[1] Data is provided according to IPEDs reporting categories.
[2] Data provided only binary male/female categories

A narrative exists that men may be more likely to move institutions than women. This may relate to the fact that they are less likely to be constrained by personal factors, that they may have more confidence in seeking other opportunities, or that structural factors support greater productivity for men than women allowing them greater career mobility. The 12-percentage point gap in the gender of faculty leaving the University suggests that gendered differences may be important. But it is not possible to make any definitive conclusions as to what lies behind this gap.

Row Labels	1. Nonresident Alien	2. Hispanic	4. Asian	5. Black	7. White	9. Unknown	Grand Total
F	10	7	6	6	29	8	67
M	15	5	9	5	40	6	84
Grand Total	25	12	15	11	69	14	151

Table 2: Tenure track and tenured faculty leavers shown by ethnicity and gender (cells with <5 are not shown in the breakdown but are included in the total).

Recommendations

Formal strategies for improving faculty retention at UConn should wait until COACHE Faculty Retention & Exit survey findings are available and can be analyzed fully. A separate working group will be established in the next academic year to analyze and disseminate the results of this survey. This future group should also utilize the findings of this current retention working group.

One change that we think should be implemented is the creation of a best practice guide to support retention efforts at UConn. When looking at other institutions and conducting the interviews for this study, members of our group particularly liked the extensive guide provided by Columbia University. Specific training could also be provided to department heads to ensure that they have the knowledge and tools to implement proactive strategies related to faculty retention.

Data on retention also continues to be an issue. Gathering historic data on retention is complicated and relies on institutional memory. One recommendation of our group is that during faculty offboarding, information should be gathered that could help improve retention practices going forward, and that could also help us learn whether faculty are leaving for personal reasons (*e.g.*, they have family in the location they are moving to) or for other issues that could be within our control.

Appendix

A. *Selected Sections from the Retention Study Working Group Interim Report – Submitted July 9, 2021*

Executive Summary

Steering Committee Members: Lloyd Blanchard, Michael Bradford, Sarah Croucher, Maria-Luz Fernandez, Preston Green, Oskar Harmon, Amy Howell, Carol Polifroni, Lyle Scruggs

In response to the report by Charles River Associates on salary inequity by gender, the University Senate, AAUP, and the university administration charged a Salary Equity Task Force to address the issues of salary inequity by gender and race/ethnicity with a greater scope, depth, and faculty input that would propose remedies for existing inequities and help avoid future inequities.

The study was divided into five working groups:
- Data Analysis – charged with checking for systemic bias on the macro level

- Dual Career – charged with analyzing the impact of partner hires or failed hires on recruitment and retention
- Merit – charged with gathering information on how representative departments distribute merit and the effects of those methods on salary equity.
- Retention – charged with analyzing who leaves and why and what incentivizes remaining
- Tenure and Promotion – charged with gathering information on tenure and promotion to associate professor and on promotion to full professor, including length of time from tenure to full professor status;

Throughout the 2020-2021 academic year, this steering committee and working groups have evaluated existing institutional data, conducted benchmarking, solicited data from stakeholders via survey or aggregation of other sources, assessed data needs for future analysis, and reviewed relevant policy and governance. The interim working group reports to follow summarize the status of the working group's work, address challenges or constraints on the process thus far, and include any preliminary recommendations based on available information.

Retention
Members: Alfredo Angeles-Boza; Robert Bird; Sarah Croucher, co-chair; Manisha Desai; Maria-Luz Fernandez, co-chair; Lisa Holle; Letty Naigles

The Working Group on Faculty Retention met mostly once a month in the Fall of 2020 and Spring of 2021. We wanted to understand what works and what does not work in terms of retention. One of the strategies that we employed to answer those questions was the use of qualitative data by interviewing department heads/deans to find out what worked and did not work for them in terms of retention of valuable faculty. Each committee member interviewed at least six individuals, both internal and external. A summary of our findings is below.

Our interviewees spoke about the importance of understanding why faculty wanted to leave. If the reason was to follow a spouse, to move close to family or an administrative position in another University, then retention offers would not work.

Our interviewees also provided information on the strategies that have worked:
1. Be aware when there is salary compression or salary reversion in faculty. If these issues are solved in a timely manner, faculty do not feel the need to look somewhere else. This can be taken care of either by merit or by specific requests to Deans/Provost to fix the salary compression problem.
2. Merit pay systems need to be transparent.
3. Make sure to inform the faculty member that he/she is a valuable member of the department and to the University by nominating them for an award or by providing small packages for laboratory resources or support of graduate students. This kind of input could have better results than trying to match an offer with money.
4. Retention offers should reflect the career stage of the faculty. For junior faculty spousal hire was a prominent issue in retention. At Associate level support for promotion and at Full support for graduate funding, named awards however small, in addition to other support such as endowed positions were also effective.
5. Being proactive by regularly asking faculty every year how they can help or what they need.
6. Formal mentoring programs keep junior faculty engaged and help ensure faculty are treated equally.

It is also important to mention that many interviewees noted the contradiction between retention and equity as the former can exacerbate the latter.

Going forward, our working group has the following plans:
- Examining specific data from department heads on retention and presenting a summary of this.
- Producing best practices guidelines based on internal and external retention practices using information gathered from our interviews.

Tenure and Promotion Study Working Group
June 7, 2022

Purpose and Background

Working Group Charge

A Tenure and promotion study to gather information on tenure and promotion to associate professor and on promotion to full professor, including length of time from tenure to full professor status.

Working Group Membership

Michael Bradford, Co-Chair and Vice Provost for Faculty, Staff, and Student Development
Robin Coulter, Department Head and Professor, Marketing
Heather Elliott-Famularo, Department Head and Professor, Digital Media and Design
Jennifer Pascal, Associate Professor In-Residence, Chemical and Biomolecular Engineering
Carol Polifroni, Co-Chair and Professor, Nursing
David Yalof, Department Head and Professor, Political Science

Summary of Work

The Tenure and Promotion Working Group met regularly throughout Academic Year 20-21. The subgroup developed a list of questions, solicited anecdotal input from department heads at UConn, and conducted a review of peer and aspirant best practices to evaluate promotion and tenure for tenure track and clinical, in-residence, and extension track faculty.

Recommendations

The Tenure and Promotion Working Group puts forth the following recommendations for consideration:

1. Conduct exit interviews with all individuals. Data from exit interviews should be added to a centralized database addressing equity: gender, rank, appointment status (tenured, tenure rank, or CIRE), and ethnicity.

One of the issues encountered by our working Group, and by many of the other Salary Equity Working Groups, was the lack of data and heavy reliance on anecdotal evidence and memory. At times, recent transitions to new department heads made even anecdotal information impossible to gather. Exit interviews are one way to gather data on why faculty, who could be separating from the University for a number of reasons and points along the tenure and promotion process that center gender of minoritized inequitable treatment, have decided to leave the university. Not addressing these **roadblocks** (some of which are directly spoken to in the COACHE Survey) directly affects faculty ability to perform at their highest level and progress through **tenure** and **promotion** to Associate and eventually Full Professor. Exit Interviews will offer survey questions focused on three areas and also offer the faculty to speak one-on-one with the Vice Provost for Faculty, Staff, and Student Development. The surveys and interviews will be held in the Office of the Provost and OIE. The three types of departing faculty are:

- Faculty Member Leaving due to Retirement
- Faculty Member Leaving due to Tenure Denial or Being Advised Out
- Faculty Member Leaving for Other Position or Reasons

Exit Interviews for non-retirement separations will provide direct information on how the faculty member experienced the process of tenure and promotion to associate and full professor. We benchmarked Exit Interview processes at a number of our peer institutions and settled on Penn State's model. Our process was edited within our working and externally with Dr. Milagros Castillo-Montoya, who was the ODI Senior Fellow at the time.

2. Faculty appointment letters for tenure track faculty should include two specific dates: (1) "no sooner than_____" a candidate may apply for promotion and/or tenure and (2) "no later than _____" a candidate may apply for promotion and/or tenure.
3. With a submitted tenure application, whether it be at the "no sooner than" date or the "no later than" date, candidate signs a statement acknowledging this is their only opportunity to apply. They cannot reapply, regardless of the outcome (I.e. even if they choose to withdraw the application).
4. Criteria for an early review are the exact same as the criteria for review at the "no later than" date.

The Working Group's recommendations that center of PTR language in employment contracts, question of "early tenure, and UConn's so-called "up or out" policy are functionally based on a desire for clarity in the process. Many of the Department Heads in the Working Group recounted situations where the guidance shifted or changed concerning if and when "early tenure" packages could be pulled from consideration, and if possible, whether the faculty member could reapply for "early tenure" and/or tenure and promotion based on the traditional tenure clock. Clarity at each step of the process directly speaks to the fairness and equity applied to each PTR case.

5. Recommend the establishment of a university-wide PTR committee to proactively make recommendations on PTR to the Provost one very application PRIOR to Provost review and replace the current Faculty Review Board. This committee would be charged to:
    a. Create and disseminate procedures.
    b. Utilize By-Laws statement, "there must be evidence of strong performance in both scholarship and teaching and superior achievement in at least one of these" (UConn ByLaws Article XIV D1);
    c. Review all applications for tenure and/or promotion.
    d. Make recommendations to the Provost Review Committee on each application.

A University wide PTR Committee, made up of appointed members of the faculty who serve specified terms, would serve as a review process between the schools and colleges and the Office of the Provost. The intention of this body is to provide a more nuanced and informed review of PTR packages, providing these insights to the Office of the Provost. This type of committee would be especially important to the promotion from Associate to Full Professor where the criteria are not always as clear as the promotion from Assistant to Associate Professor.

By contrast, many fewer resources are available that offer clarity on the path toward becoming a full professor. In fact, recent responses to [one of my tweets](#) on this issue suggest that public resources on how to become a full professor are hard to come by. That poses a distinct challenge for all midcareer scholars, but especially for black and Latinx scholars, who currently make up an [estimated 7 percent](#) of full professors on college campuses.
[Guidance for how to move from associate to full professor (opinion) (insidehighered.com)](#)

The Working Group benchmarked this practice across a number of our peer and aspirant colleges and universities. Institutions like Berkeley, UCSD, UC Irvine, University of Florida, University of Illinois Urbana-Champaign, University of Kansas, and the University of Delaware all have such committees as part of their Promotion and Tenure process.

From the University of Florida:

At the university level, the Academic Personnel Board (APB) serves in a fact-finding and consultative role to the President (or designee) on all nominations received from the Deans and Directors. The Academic Personnel Board will review the candidates' nomination packets and report to the Provost on the strengths and weaknesses of the records. If there are questions about a nomination packet, the questions will be entered into the OPT system and all parties notified via email. Responses to APB inquiries must be uploaded into the OPT system.

[Campus Level PTR.docx (sharepoint.com)](sharepoint.com)

Appendices

1. Interim Report of the Salary Equity Analysis Working Groups

Executive Summary
Steering Committee Members: Lloyd Blanchard, Michael Bradford, Sarah Croucher, Maria-Luz Fernandez, Preston Green, Oskar Harmon, Amy Howell, Carol Polifroni, Lyle Scruggs

In response to the report by Charles River Associates on salary inequity by gender, the University Senate, AAUP, and the university administration charged a Salary Equity Task Force to address the issues of salary inequity by gender and race/ethnicity with a greater scope, depth, and faculty input that would propose remedies for existing inequities and help avoid future inequities.

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Throughout the 2020-2021 academic year, this steering committee and working groups have evaluated existing institutional data, conducted benchmarking, solicited data from stakeholders via survey or aggregation of other sources, assessed data needs for future analysis, and reviewed relevant policy and governance. The interim working group reports to follow summarize the status of the working group's work, address challenges or constraints on the process thus far, and include any preliminary recommendations based on available information.

Dual Career
Members: Scott Harding; Amy Howell, chair; Jasna Jankovic; Jeff Ladewig; Tracy Rittenhouse; Natalie Shook

Summary of Process
Our initial charge included looking both at salary equity in the framework of our working group and thinking about how what we learn can be used to improve processes at UConn. Our first focus was on identifying what kinds of information/data we would need to achieve both of these goals. We recognized that dual career hires are complex processes that involve negotiations and personnel that are not captured in the databases that Office of Institutional Research and Effectiveness (OIRE) has access to. Ultimately, after conversations among the group and with Lloyd Blanchard and the Data Analysis Working Group, we recognized that, while OIRE could extract information on individual salaries at hire, Department Heads/Former Department Heads would be the single source most likely to have the broadest information on individuals and processes. Moreover, the group recognized that, if we are going to have recommendations for the charge to improve processes, it will ultimately be critical to identify a strategy for consulting dual careers individuals (which would only be possible with the information from Department Heads). In addition, considering the numbers involved each year and in order for the evaluation to be meaningful, we felt that having information from a 10-year window was crucial.

Data Collection Efforts
The group developed a questionnaire for Department Heads. However, in conversations with Lloyd we realized that it would be best to have only one set of questions for Department Heads that came from all of the working

groups. Initially the Retention group was the only other group that developed questions, and thus our two groups combined our questions into one excel file with multiple excel sheets. Lloyd and Amy Howell informed Department Heads at the Provost's Department Heads meeting on December 2 that they would soon be receiving a questionnaire related to the work of the Faculty Salary Equity Task Force and that this was an important "ask"!

After that meeting, Lloyd decided to go back to the other working groups to be sure that they did not anticipate needing information from Department Heads. This delayed the questionnaire going out. Lloyd also recognized (rightly) that the survey would be much easier for Department Heads if they were provided names (based on all hires for individual years). This addition further delayed distribution. The questionnaire has not yet, to our knowledge, gone out.

Preliminary Recommendations
Our group can make no recommendations without results from the Department Head surveys. Our group did not meet between December and May (although we communicated regularly as we tried to encourage the process!) because there is nothing more we can do without the information from the questionnaire.

Constraints and Further Analysis Needed
See above

Merit
Members: Christopher Clark; Pamela Diggle; Phoebe Godfrey; Preston Green, co-chair; Willajeanne McLean; Anita Morzillo, Lyle Scruggs, co-chair; Sarah Woulfin

On February 18, the salary equity working group met to develop questions for the survey that would later be distributed to deans and department chairs. In the committee's view, it was necessary to gather data surrounding the practices of the various departments before formulating suggestions for improvement. These are the following questions that the group developed for the survey:

1. What are the procedures for informing faculty about the criteria and rubrics that your department uses to award merit?
2. Does evaluating merit over two or more years create disadvantages based on gender or race/ethnicity?
3. Do you feel that any aspect of your merit criteria or methodology could disadvantage faculty on the basis of their gender or race/ethnicity? What data do you use to identify possible inequities or to ensure that none exist? Do you make cases to your Dean for equity adjustments in salary where inequities become apparent? To what extent is this process successful in rectifying inequities?
4. Have you adjusted your merit criteria because of the pandemic?
5. Are your merit criteria and recommendations similar or different for different categories of faculty (e.g. APIR, tenure track, clinical, extension)? If yours is a multidisciplinary unit, do similar or different criteria apply to faculty in different disciplines? Do your merit criteria account for differences in rank?
6. Do your merit criteria give equal or differential weight to scholarly, teaching, and service contributions?
7. How do you determine merit for faculty who work in more than one area of the university because of position split (extension, department, or clinical), and thus may have the ability to double dip?

Retention
Members: Alfredo Angeles-Boza; Robert Bird; Sarah Croucher, co-chair; Manisha Desai; Maria-Luz Fernandez, co-chair; Lisa Holle; Letty Naigles

The Working Group on Faculty Retention met mostly once a month in the Fall of 2020 and Spring of 2021. We wanted to understand what works and what does not work in terms of retention. One of the strategies that we employed to answer those questions was the use of qualitative data by interviewing department heads/deans to find out what worked and did not work for them in terms of retention of valuable faculty. Each committee member interviewed at least 6 individuals, both internal and external. A summary of our findings is below.

Our interviewees spoke about the importance of understanding why faculty wanted to leave. If the reason was to follow a spouse, to move close to family or an administrative position in another University, then retention offers would not work.

Our interviewees also provided information on the strategies that have worked:
1. Be aware when there is salary compression or salary reversion in faculty. If these issues are solved in a timely manner, faculty do not feel the need to look somewhere else. This can be taken care of either by merit or by specific requests to Deans/Provost to fix the salary compression problem.
2. Merit pay systems need to be transparent.
3. Make sure to inform the faculty member that he/she is a valuable member of the department and to the University by nominating them for an award or by providing small packages for laboratory resources or support of graduate students. This kind of input could have better results than trying to match an offer with money.
4. Retention offers should reflect the career stage of the faculty. For junior faculty spousal hire was an important issue in retention. At Associate level support for promotion and at Full support for grad funding, named awards however small, in addition to other support such as endowed positions were also effective.
5. Being proactive by regularly asking faculty every year how they can help or what they need.
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It is also important to mention that many interviewees noted the contradiction between retention and equity as the former can exacerbate the latter.

Going forward, our working group has the following plans:
- Examining specific data from department heads on retention and presenting a summary of this.
- Producing best practices guidelines based on internal and external retention practices using information gathered from our interviews.

Tenure and Promotion
Members: Michael Bradford, co-chair; Robin Coulter, Heather Elliott-Famularo, Jennifer Pascal, Carol Polifroni, co-chair; David Yalof.

Process
The sub-committee has met regularly throughout the Fall and Spring in Academic Year 20-21. We created a list of questions for which the answers would guide some of our work.
We agreed that the focus of the sub-committee would be faculty in the tenure tracks as well as the faculty in clinical, in residence or extension tracks (CIRE).

Preliminary Recommendations
1. Create an elected, University-wide PTR Committee which will serve as the Provost level of review. This is in lieu of the current ad hoc group compiled by the Provost each cycle.

2. Establish a robust exit interview process which starts with a request to participate in an exit interview and provides constituents options of how to participate. Minimally, questions should address:
   a. 9-month salary at new position
   b. research and professional support AND for what length of time
   c. course load and for what duration
   d. new title (promotion, tenured and conditions)
   e. culture in current UConn environment
   f. spousal role and salary
   g. Was counteroffer requested or provided by UConn?

We believe the Office of the Provost is the best place for the exit interview process to occur, including the collection and processing of obtained data. A process needs to be established which is initiated as soon as the faculty member indicates their intent to resign.

3. Hire letters for those in the tenure track need to include the words "apply for tenure no later than xyz date."
4. Continue to research gender and race inequities when more data are available.
5. Merit funds should not be used to address inequity. It is not the contractual purpose and needs to be totally dedicated to meritorious activities.
6. A separate, annual equity fund should be supported and transparently administered through Office of the Provost.

Guiding Questions
UConn and Implicit Bias
1. What policies should be put in place at UConn to address implicit bias? as related to hiring/annual evaluations/PTR?

At Hire:
2. For the past X years, what are gender/race/ethnicity/religious characteristics of new hires at each rank of tenure-track/tenured (T/T) positions and at each rank of CIRE positions? Have the % of each characteristic changed over time?
3. For spousal/partner hires, what are the respective ranks of spousal/partner hires (both T/T; both CIRE; one TT/one CIRE)? What are the demographics of spousal hires?

PTR; Mentorship
4. What mentorship practices/policies do departments/schools and colleges/the university have in place to assist T/T and CIRE faculty as related to reappointment/tenure and promotion? Do mentorship practices and policies in place for faculty of all gender/race/ethnicity/religious characteristics?

PTR Process:
For questions 5-8, for the past ten years, for faculty: a) promoted to Associate Professor with tenure, b), promoted to Professor, and c) CIRE faculty promoted through the ranks.

5. What are gender/race/ethnicity/religious characteristics of each of the above? Has the % of each characteristic changed over time?
6. For each of the above characteristics -on average, how many years was the faculty in the previous rank before being promoted? Do these vary according to gender/race/ethnicity/religion?

7. For each of the above characteristics - on average, what percentage of faculty applied for "early promotion"? Do these vary according to gender/race/ethnicity/religion?
8. On average, how many years were identified as "stop the clock" years? Do these vary according to gender/race/ethnicity/religion?

Negative PTR Decision
9. What percent of UConn faculty who leave a T/T or CIRE position leave the university? Does this vary by role/rank/gender/race/ethnicity/religion?
10. What percent of UConn faculty who leave a T/T position take a CIRE position at UConn? Does this vary by role/rank/gender/race/ethnicity/religion?

DEI as related to PTR Evaluative Committees and Appointments
11. Regarding the Faculty Review Board, the Committee of Three, and BOT distinguished professors, how is DEI considered in the appointments/election and guiding policies of each?

PTR – COVID-19
12. Were work from home policies advantageous or disadvantages to T/T and CIRE faculty at each rank based on gender/race/ethnicity/religion

Data Analysis

Members: Carol Atkinson-Palombo; Marcy Balunas; Lloyd Blanchard, co-chair; Katharine Capshaw; Sarah Croucher; Amy Gorin; Oskar Harmon, co-chair; Chun Ock; Lyle Scruggs

This interim report presents data on differences in average salary by gender and other factors thought to be associated with these differences. These factors include the gender distribution of faculty across the three ranks of assistant, associate, and full professor, and their years of service at the university. The data are for full-time tenured and tenure track faculty for the academic year 2003-2004 through 2020-21 in nine UConn colleges/schools—CLAS, Nursing, Pharmacy, Business, Engineering, Neag, Fine Arts, Social Work, and CAHNR.

The data generally show that female faculty were paid $15,923 (13% of average female salary) less than male faculty on average in 2020, and have a disproportional under-representation in schools/colleges and in the three ranks of professorship. The average differences vary greatly among the college/schools, and among departments. In a few cases, the average female salary is greater than their average male counterpart, and while this may result from outliers in the data, we did not remove such outliers for this initial analysis.

We first show the average faculty salary trend at the university level for the past 18 years in Figure 1, which shows a relatively constant salary gap across this time.[1] In 2003, average female faculty salary was 84% of average male faculty salary; in 2020, it was 89%. Over this time, female salary growth averaged 3.0% per year, while male salaries grew an average of 2.7%.

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[1] The salary data in this report are 9-month equivalent salaries. Most tenured and tenure track faculty have 9-month contracts, but some have 10-, 11-, and 12-month contracts. Dividing each salary by its associated term and multiplying by 9 turns all salaries into 9-month equivalent salaries.

Figure 1. 18-year trend in average salaries for male and female full-time tenured and tenure track faculty

The steady salary gap depicted in Figure 1 masks variation in the pattern of salary growth. There are a handful of years when salaries for males grew faster than females, and vice versa. Table 1 shows that average male salary growth outpaced females' by more than a half percent in 2007, 2011, 2012, 2013 and 2017, while average female salary growth outpaced males' by more than a half percent in 2008, 2010, 2014, 2015, 2018, 2019 and 2020.[2]

Table 1. Salary growth rates by gender across time

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Female	3.7%	4.5%	4.6%	3.4%	4.3%	-0.1%	5.6%	-1.3%	-1.1%	5.1%	4.3%	5.6%	-4.9%	3.9%	0.7%	7.2%	0.048
Male	3.7%	4.1%	4.3%	4.2%	3.3%	0.0%	5.1%	-0.8%	-0.1%	5.6%	1.7%	4.8%	-4.7%	4.8%	-0.3%	5.4%	0.042
Female - Male	0.0%	0.4%	0.3%	-0.8%	1.0%	0.0%	0.6%	-0.5%	-0.9%	-0.5%	2.6%	0.8%	-0.2%	-0.9%	1.0%	1.8%	0.7%

A proper analysis of salary differences by gender would start with the raw differences shown in Figure 1, and then determine the extent to which various factors are associated with the differences observed. Different disciplines have their own practices, so we investigated gender salary differences by school/college and department. Years of service is another potential factor, and we controlled for this as well. If salary gaps remain after controlling for these factors, one might conclude that it is due to gender and gender-correlated practices.

These and other factors that are associated with salary differences by gender must be assessed for their interaction with gender, as seemingly appropriate factors may in fact be "gendered" (i.e., the result of a process

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[2] These changes reflect changes in salaries, and gender and rank distributions.

with differential gender treatment). For example, there is no agreed upon definition of "productivity" for university faculty. Metrics such as number of publications or grants can be examined, but they fall short of accounting for different disciplinary practices and the disproportionate service, mentoring, and teaching burdens that often fall to women, which might impact the rates of publications or grant applications. These types of more hidden activities are not weighted as strongly in merit, promotion, or retention offers, further compounding salary differences over time. Thus, we have not included these potentially gendered factors in our analyses here.

Even the purported market-based salary differences by discipline may be suspect. For example, one common argument says that business faculty salaries are higher on average in some departments because they need to be competitive with industry to attract folks to universities. However, this is likely true of many disciplines. Biologists, Computer Scientists, Economists, Pharmacists, and Psychologists, to name a few, also face lucrative industry opportunities, but faculty salaries in these disciplines may not necessarily reflect such market-based alternatives.

The remainder of this report presents three sets of gender-based information for each CLAS division and every department: differences in average salary, distribution of faculty by rank, and differences in years of service. At the end of this report, we present preliminary evidence showing how additional controls impact gender salary differences using regression and decomposition methods, and discuss the need for further research on the question of gender pay equity.

Differences in Average Salary
First, we show data summarizing average salaries for the CLAS faculty. Figure 2 reports average 2020 salaries by CLAS division, and shows that male faculty earn between $6,145 (Humanities) and $18,979 (Physical Sciences) more than their female counterparts, on average.[3]

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[3] The associated departments for each division are listed in Table 3.

Table 2 breaks the CLAS division average 2020 salaries down further by rank.[4] The average salary gap for assistant professors ranges from a $2,442 female advantage in Life Sciences to a $2,234 male advantage in Physical Sciences. For associate professors, the salary gaps range from $740 female advantage (Life Sciences) to a $5,440 male advantage (Humanities). For full professors, the average male advantage ranges from $6,158 (Social Sciences) to $10,215 (Humanities). Female salary disadvantage appears to grow with rank.

Table 2. Average salary by gender, rank, and CLAS division

	Assistant Professors			Associate Professors			Professors		
	Average female salary	Average male salary	Average salary gap	Average female salary	Average male salary	Average salary gap	Average female salary	Average male salary	Average salary gap
Humanities	$82,031	$82,836	($805)	$98,148	$103,588	($5,440)	$137,724	$147,940	($10,215)
Life Sciences	$95,188	$92,746	$2,442	$103,321	$102,582	$740	$135,462	$151,023	($15,561)
Physical Sciences	$95,271	$97,506	($2,234)	$107,466	$111,732	($4,266)	$152,061	$160,399	($8,339)
Social Sciences	$92,971	$91,203	$1,767	$104,568	$107,707	($3,139)	$154,162	$160,319	($6,158)

Table 3 presents the average 2020 salaries by gender and rank and the salary gaps by CLAS department. As with Table 2, this table shows more female salary disadvantage at the associate and full professor ranks than at the assistant ranks. Seven of the 23 CLAS departments listed have average salary gaps disadvantaging females at the assistant professor level, 13 departments at the associate professor level, and 15 departments at the full professor level.[5]

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[4] Through the report, negative salary gaps in red reflect average male advantage, while positive salary gaps reflect average female advantage.

[5] Salary differences reported by rank and department in Tables 3 and 4 do not account for the various additional assignments and designations that effect one's salary. Future analyses should control for those who are also directors, associate deans, department heads, and distinguished professors.

Table 3. Average salaries and salary gaps by gender, rank, and CLAS department

CLAS Division/Dept. Year = 2020 ($)	Assistant Professors			Associate Professors			Professors		
	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap
Humanities									
English	85,520	75,000	10,520	93,659	90,458	3,201	127,194	130,971	(3,776)
History	81,337	86,241	(4,904)	109,538	115,116	(5,578)	151,058	154,863	(3,805)
Journalism	84,041	-	-	97,499	104,601	(7,102)	211,239	113,779	97,460
LCL	-	82,953	-	90,060	96,241	(6,181)	121,473	130,530	(9,058)
Linguistics		83,627	-	107,606	120,119	(12,513)	182,172	140,539	41,633
Philosophy	80,000	-	-	130,016	107,017	22,999	165,821	189,706	(23,885)
Life Sciences									
EEB	96,837	94,433	2,404	-	94,462	-	136,819	140,946	(4,127)
MCB	89,957	92,501	(2,544)	107,009	102,900	4,109	181,287	142,036	39,251
PNB	105,590	97,270	8,320	-	104,970	-	137,897	148,869	(10,972)
Psychology	93,170	91,914	1,257	99,727	99,904	(177)	138,998	167,572	(28,574)
SLHS	94,010	87,001	7,009	106,860	117,627	(10,767)	95,701	140,185	(44,485)
Physical Sciences									
Chemistry	89,326	86,847	2,479	106,303	113,762	(7,459)	161,758	180,647	(18,890)
Geosciences	91,255	92,060	(805)	104,560	106,683	(2,123)	-	127,347	-
Marine Science	87,453	-	-	100,717	101,339	(621)	151,386	146,063	5,322
Mathematics	101,953	100,309	1,644	-	111,215	-	127,459	162,484	(35,025)
Physics	101,881	99,292	2,588	112,147	115,613	(3,466)	227,974	151,133	76,841
Statistics	104,250	106,652	(2,402)	112,451	116,872	(4,421)	154,285	172,282	(17,997)
Social Sciences									
Anthropology	82,000	-	-	106,285	99,396	6,888	132,949	138,171	(5,222)
Communication	110,079	92,000	18,079	102,373	89,930	12,444	142,470	147,268	(4,798)
Economics	116,716	124,905	(8,189)	134,423	129,590	4,833	158,926	198,092	(39,166)
Geography	-	80,779	-	105,445	98,010	7,435	133,812	195,570	(61,759)
HDFS	94,999	103,783	(8,784)	98,135	-	-	161,925	157,970	3,954
Political Science	83,583	88,697	(5,115)	97,383	94,491	2,892	140,637	137,664	2,973
Public Policy	91,845	-	-	106,221	125,354	(19,133)	240,288	181,107	59,181
Sociology	80,076	75,000	5,076	98,536	110,610	(12,074)	167,022	135,811	31,210

Table 4 shows the average salaries by gender and the salary gap by department for the rest of the university. A similar pattern as CLAS departments emerges here in that we observe more female salary disadvantage at the associate and full professor ranks than at the assistant ranks. Of the 25 departments and two schools listed, seven show average salary gaps disadvantaging female assistant professors, 11 departments each at the associate and full professor levels.

Table 4. Average salaries and salary gaps by gender, rank, and non-CLAS departments

Year = 2020 ($)	Assistant Professors			Associate Professors			Professors		
	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap	Female average salary	Male average salary	Average salary gap
Business									
Accounting	226,793	225,376	1,417	238,463	250,141	(11,678)	-	281,984	-
Finance	224,279	213,304	10,975	-	197,755	-	336,915	243,290	93,625
Management	160,000	168,726	(8,726)	154,151	192,490	(38,339)	-	265,671	-
Marketing	193,003	195,123	(2,120)	166,405	152,233	14,172	258,823	240,314	18,509
OIM	183,478	181,097	2,380	244,567	177,293	67,274	233,705	246,726	(13,021)
CAHNR									
Agricultural Economics	108,675	121,235	(12,560)	103,924	127,071	(23,147)	196,378	188,611	7,767
Allied Health	94,450	89,275	5,175	128,696	116,441	12,255	158,021	182,724	(24,703)
Animal Science	-	89,987	-	105,713	101,049	4,664	123,223	210,000	(86,778)
Kinesiology	97,959	88,113	9,845	114,020	124,936	(10,916)	156,621	156,535	86
Natural Resources	92,455	86,725	5,730	110,149	98,741	11,409	-	137,578	-
Nutritional Science	87,155	85,760	1,395	-	92,557	-	146,480	-	-
Pathobiology	119,870	91,303	28,567	-	101,950	-	-	159,042	-
Plant Science	85,316	-	-	97,420	108,004	(10,584)	98,554	151,544	(52,990)
Engineering									
Biomedical	99,841	114,194	(14,353)	-	119,890	-	-	243,669	-
Civil *(2019 data)*	95,476	90,434	5,042	101,128	108,656	(7,528)	145,445	163,293	(17,848)
Computer Science	112,713	112,012	701	121,198	119,458	1,740	169,524	182,400	(12,877)
Electrical	104,586	100,343	4,243	109,728	116,975	(7,246)	152,451	177,299	(24,848)
Mechanical	110,739	101,742	8,996	-	116,831	-	-	189,301	-
Fine Arts									
Art	74,557	73,759	798	108,675	100,525	8,150	139,611	145,692	(6,080)
Dramatic Arts	72,364	70,060	2,304	79,837	83,412	(3,576)	-	153,116	-
Music	79,978	84,336	(4,358)	106,359	95,976	10,383	160,230	137,677	22,553
Neag Education									
Education Leadership	83,926	85,814	(1,888)	103,314	104,394	(1,081)	159,792	162,961	(3,169)
Educational Psychology	-	86,645	-	107,410		107,410	155,275	236,107	(80,832)
Nursing	106,798	-	-	122,959	155,085	(32,126)	173,169	-	-
Pharmacy									
Pharmacy Practice	122,423	-	-	131,002	149,323	(18,321)	229,093	173,093	56,000
Pharmacy Science	93,650	102,642	(8,992)	126,393	114,179	12,214	199,434	160,760	38,674
Social Work	92,531	91,381	1,150	116,301	-	-	135,947	185,114	(49,167)

Differences in the Distribution of Faculty by Gender

Figure 3 shows the gender distribution among CLAS divisions, with the largest gender disproportion being in the Physical Science division (females – males = -56%), followed by the Life Sciences division (-12%). By comparison, the Humanities (-8%) and Social Science (-4%) divisions display even distributions.

Figure 3. Gender distribution by CLAS division

Figure 4 reports the gender distribution in CLAS divisions by rank, showing that the gender disproportions we observe at the CLAS divisional level in Figure 3 are repeated at each rank in. the gender disproportion grows with rank in the Physical Sciences. In 2020, females were the majority among assistant professors in the Humanities, Life Sciences, and Social Sciences.

Figure 4. Gender distribution by rank and CLAS division

Table 5 shows the gender distribution by CLAS department, and Table 6 shows the same for the remaining departments at the university. To examine the association between departmental gender distributions and salary pay gaps, we measure the correlation between department female percentage (from Tables 5 and 6) and the department salary gap (from Tables 3 and 4).[6] A positive correlation suggests that smaller female percentages in departments are associated with larger pay gaps disadvantaging females. For CLAS departments, we find small negative correlations for assistant professors (-.12), associate professors (-.14), and full professors (-.24).

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[6] We use the Pearson's correlation coefficient, which measures the extent to which two variables vary together. The larger the coefficient value (in absolute terms), the more the variables vary together. Negative correlation coefficients mean that as one variable displays larger values, the other tends to display smaller values.

Table 5. Distribution of gender by rank and CLAS department

CLAS Division/Dept.	Assistant Professors		Associate Professors		Professors	
	Female %	Male %	Female %	Male %	Female %	Male %
Humanities						
English	50	50	60	40	63	38
History	71	29	27	73	50	50
Journalism	100	0	50	50	33	67
LCL	0	100	33	67	64	36
Linguistics	0	100	31	69	20	80
Philosophy	100	0	25	75	40	60
Life Sciences						
EEB	50	50	0	100	37	63
MCB	60	40	27	73	14	86
PNB	67	33	0	100	33	67
Psychology	60	40	50	50	50	50
SHLS	67	33	83	17	80	20
Physical Sciences						
Chemistry	40	60	13	88	14	86
Geosciences	67	33	33	67	0	100
Marine Science	100	0	50	50	20	80
Mathematics	40	60	0	100	20	80
Physics	25	75	29	71	6	94
Statistics	33	67	50	50	17	83
Social Sciences						
Anthropology	100	0	33	67	50	50
Communication	50	50	60	40	33	67
Economics	67	33	29	71	11	89
Geography	0	100	67	33	50	50
HDFS	75	25	100	0	70	30
Political Science	33	67	23	77	50	50
Public Policy	100	0	50	50	20	80
Sociology	75	25	57	43	46	54

Table 6 shows the distribution of gender by rank for the non-CLAS departments. When we measure the correlation between female percentage and salary gaps for these departments, we find modest positive correlations for assistant professors (.37) and associate professors (.42), and a modest negative correlation for full professors (-.39). Thus, we find some evidence of a connection between department female percentage and salary gaps at the lower ranks, suggesting that larger salary gaps are associated with male-dominated non-CLAS fields.

Table 6. Distribution of gender by rank and non-CLAS department

	Assistant Professors		Associate Professors		Professors	
	Female %	Male %	Female %	Male %	Female %	Male %
Business						
Accounting	50	50	40	60	0	100
Finance	20	80	0	100	13	88
Management	33	67	67	33	0	100
Marketing	50	50	40	60	20	80
OIM	25	75	14	86	33	67
CAHNR						
Agricultural Economics	50	50	20	80	25	75
Allied Health	50	50	80	20	40	60
Animal Science	0	100	44	56	67	33
Kinesiology	33	67	75	25	33	67
Natural Resources	40	60	50	50	0	100
Nutritional Science	33	67	0	100	100	0
Pathobiology	50	50	0	100	0	100
Plant Science	100	0	29	71	14	86
Engineering						
Biomedical	50	50	0	100	0	100
Civil	67	33	11	89	33	67
Computer Science	40	60	16	84	20	80
Electrical	0	100	8	92	0	100
Mechanical	22	78	0	100	0	100
Fine Arts						
Art	67	33	60	40	71	29
Dramatic Arts	60	40	33	67	0	100
Music	50	50	33	67	14	86
Neag Education	0	0	0	0	0	0
Educational Psychology	67	33	68	32	44	56
Education Leadership	0	100	100	0	40	60
Nursing	100	0	67	33	100	0
Pharmacy						
Pharmacy Practice	100	0	20	80	25	75
Pharmacy Science	33	67	50	50	33	67
Social Work	63	38	100	0	33	67

Differences in Years of Service

Gender salary differences may also result from differences in years of service (YOS) at UConn. Table 7 reports average years served at UConn and average gender differences for each CLAS department. To examine the association with salary gaps, we measure the correlation between the average gender differences in YOS and the associated salary gaps in Table 3. A positive correlation suggests that greater male experience at UConn is associated with larger salary gaps favoring males. We find a strong positive correlation for assistant professors (.63), small positive correlation for full professors (.21), and small negative correlation for associates (-.12).

Table 7. Average years at UConn by gender, rank, and CLAS department

CLAS Division/Dept.	Assistant Professors			Associate Professors			Full Professors		
	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS
Humanities									
English	3.0	0	3.0	17.9	13.4	4.5	18.9	25.8	(6.9)
History	4.2	3.5	0.7	18.0	17.8	0.2	19.5	15.3	4.2
Journalism	2.0			9.0	3.0	6.0	37.0	7.0	30.0
LCL		4.5		14.0	13.1	0.9	20.2	20.5	(0.3)
Linguistics		1.0		8.0	11.5	(3.5)	17.0	20.0	(3.0)
Philosophy	0			3.0	12.7	(9.7)	4.5	15.1	(10.6)
Life Sciences									
EEB	5.0	4.5	0.5		7.0		23.6	20.9	2.7
MCB	2.3	4.5	(2.2)	16.3	13.8	2.6	23.5	22.9	0.6
PNB	4.0	0.0	4.0		10.6		20.0	22.0	16.3
Psychology	2.7	5.0	(2.3)	13.6	15.4	(1.8)	17.9	20.6	(2.7)
SLHS	6.0	8.0	(2.0)	12.0	9.0	3.0	12.3	23.0	16.3
Physical Sciences									
Chemistry	4.5	2.7	1.8	8.0	13.9	(5.9)	20.0	21.8	(1.8)
Geosciences	3.0	3.0	0.0	28.0	8.5	19.5		26.3	
Marine Science	2.5			15.7	9.3	6.3	15.5	22.9	(7.4)
Mathematics	4.5	3.0	1.5		16.5		14.3	11.4	2.9
Physics	2.5	2.7	(0.2)	9.5	10.6	(1.1)	6.0	22.4	(16.4)
Statistics	1.0	3.0	(2.0)	7.3	13.3	(6.0)	32.5	22.8	9.7
Social Sciences									
Anthropology	0.0			8.7	13.2	(4.5)	25.3	15.3	10.0
Communication	4.0	0.0	4.0	10.5	17.8	(7.3)	18.0	24.5	(6.5)
Economics	2.0	4.0	(2.0)	9.8	14.9	(5.2)	19.0	28.3	(9.3)
Geography		0.5		11.0	14.0	(3.0)	12.0	19.5	(7.5)
HDFS	2.7	4.0	(1.3)	10.5			7.7	19.7	(12.0)
Political Science	4.0	2.5	1.5	19.3	11.6	7.7	11.9	17.9	(6.0)
Public Policy	0.5			9.5	20.0	(10.5)	20.0	12.0	8.0
Sociology	4.0	0	4.0	12.3	12.7	(0.4)	21.0	18.7	2.3

Table 8 reports average years at service at UConn and average gender differences for the remaining departments at the university. To examine the connection with salary gaps, we measure the correlation between these gender differences in YOS and the associated salary gaps in Table 4. We find a moderate position correlation for assistant professors (.32), no correlation for associate professors, and a small negative correlation for full professors (-.11). Thus, we find some evidence of a connection between gender differences in service and salary gaps, suggesting that in some cases male advantage in years of service at UConn are associated with larger salary gaps.

Table 8. Average years at UConn by gender, rank, and non-CLAS department

	Assistant Professors			Associate Professors			Full Professors		
	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS	Average female YOS	Average Male YOS	Difference in YOS
Business									
Accounting	2.5	3.0	(0.5)	14.5	12.0	2.5		33.0	
Finance	2.0	2.6	(0.6)		10.0		1.0	23.0	(22.0)
Management	0.0	1.0	(1.0)	16.0	7.0	9.0		13.7	
Marketing	3.0	1.0	2.0	7.5	18.7	(11.2)	33.0	16.5	16.5
OIM	2.5	1.5	1.0	15.0	20.2	(5.2)	15.0	20.0	(5.0)
CAHNR									
Agricultural Economics	0.0	2.0		5.0	12.0	(7.0)	1.0	26.3	(25.3)
Allied Health	1.0	1.0	0.0	6.5	33.0	(26.5)	14.5	16.7	(2.2)
Animal Science		1.5		11.8	19.6	(7.9)	23.5	30.0	(6.5)
Kinesiology	0.5	1.3	(0.8)	11.0	18.0	(7.0)	22.0	17.0	5.0
Natural Resources	6.5	1.7	4.8	6.5	16.0	(9.5)		25.3	
Nutritional Science	1.0	3.0	(2.0)		7.0		18.5		
Pathobiology	2.0	2.0	0.0		8.3			22.4	
Plant Science	1.0			8.5	18.0	(9.5)	15.0	27.2	(12.2)
Engineering									
Biomedical	5.0	4.5	0.5		6.0			6.0	
Civil	4.0	5.0	(1.0)	6.0	9.1	(3.1)	14.0	24.0	(10.0)
Computer Science	2.5	1.8	0.7	18.0	10.4	7.6	12.5	21.9	(9.4)
Electrical		2.5		13.0	12.6	0.4	0.4		
Mechanical	3.5	2.1	1.4		8.7			21.2	
Fine Arts									
Art	1.0	1.0	0.0	19.8	19.5	0.3	24.2	19.0	5.2
Dramatic Arts	4.3	2.5	1.8	10.0	10.5	(0.5)		20.8	
Music	1.0	1.0	0.0	12.5	12.3	0.3	30.0	21.7	8.3
Neag Education									
Educational Psychology	1.0	2.5	(1.5)	10.9	14.5	(3.6)	17.8	16.6	1.2
Education Leadership		2.0	(2.0)	8.0		8.0	17.0	15.7	1.3

Nursing	3.7			13.7	15.0	(1.3)	14.8		
Pharmacy									
Pharmacy Practice	3.0			13.0	10.3	13.0	14.0	20.3	
Pharmacy Science	1.0	2.5	(1.5)	16.8	14.5	2.3	29.7	14.2	15.5
Social Work	2.8	1.3	1.5	16.3			43.0	20.0	23.0

Preliminary Regression Findings

In this section, we apply a method used in a gender pay equity study at Ohio State University on our data (from years 2003 to 2020).[7] Table 9 reports results from OLS regressions on the natural log of salaries.[8] First, these results show that the gender gap (measured by the gender coefficient) decreases from about 13% when only controlling for year fixed effects to about 2% when various factors are added, including department fixed effects. Second, the share of females in a department appears to have a relatively strong effect on salaries, with a larger female share being associated with lower salaries on average.[9] Fourth, years of service at UConn appears to have small effects on salaries, with a "longevity bonus" detected.[10]

Table 9. Estimated coefficients from OLS regression on the natural log of salaries (2003 to 2020)

*** denotes p < .01,** denotes p < .05, and * denotes p < .10	1. Base model	2. Add race/ethnicity	3. Add female % of faculty	4. Add years of service	5. Add faculty rank	6. Add Department
Gender gap	-.129***	-.128***	-.076***	-.038***	-.015***	-.018***
Black		-.060***	-.056***	-.051***	-.011*	-.011
Latinx		-.045***	-.037***	-.023**	-.0002	-.007
Asian		.025***	-.026***	.025***	.042***	-.019***
Native		-.041	-.076**	-.053	-.090***	-.109***
Non-specify		-.057***	-.084***	.058**	.021*	-.006
Female % in department			-.387***	-.359***	-.324***	-
Years of service				.014***	.008***	-.008***

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[7] Chen, Joyce J, and Daniel Crown. 2019. "The Gender Pay Gap in Academia: Evidence from The Ohio State University." *American Journal of Agricultural Economics,* 101(5): pp. 1337-1352. The results reported here are consistent with this study and another OLS analysis (of 2018 through 2020 data only) conducted by a member of the sub-committee finding estimated pay gaps of 11.2% (with no controls) fall to 1.6% (with full controls).

[8] Taking the natural log of the dependent variable allows the interpretation of estimated coefficients to be percentage changes in the dependent variable for every unit change in the independent variable.

[9] That the department fixed effects in model 6 eliminated all the gender share effects estimated in models 3 through 5 suggests that the apparent gender trend is specific to certain departments rather than a general phenomenon. This is consistent with the broad variation in salary gaps found in Tables 3 and 4.

[10] By estimating a significantly positive coefficient for the squared years of service variable (following Chen and Crown, 2019), we observe additional salary advantage at the highest levels of years of service.

Years of service squared				-.00002	.0002***	.0002***
Associate professor					.167***	.167***
Professor					.497***	.513***
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Department fixed effects	No	No	No	No	No	Yes
Observations	12,024	12,024	12,024	12,024	12,024	11,986
R-squared	18.1%	18.5%	22.2%	35.4%	58.1%	77.1%

Adding rank to the model produces expected effects, with associate professors earning about 17% more than assistant professors (the omitted group), and full professors earning about 50% more.

Adding race/ethnicity to the model does not change the gender gap, but adding the department female percentage proves to have the largest downward effect on average salary gap, reducing it by nearly 5 percentage points. In other words, departments with more female faculty are correlated with lower average salaries. Adding the years of service variable to the model reduces the salary gap further in half, by 4 percentage points. Adding faculty rank and department reduces the estimated gap further a percentage point each, leaving an estimated 2% gap. However, to the extent that these additional controls are gendered, this reduction in the salary gap is less a meaningful reduction than a partitioning of the salary gap among potentially gendered variables.

Preliminary Decomposition Findings
Table 10 reports the results from applying the Oaxaca-Blinder decomposition technique, which is commonly used for salary equity analyses. This procedure decomposes the gender gap into differences in pay related to differences in observed factors for females and males in the model (explained) and differences in pay for females and males with the same factors (unexplained). The results report that 10.3 percentage points of the 13% gender gap can be explained by the factors in the model, while 1.8 percentage points of the gap cannot be explained (i.e., attributed to differences in pay for equal endowments of the factors).[11] This means that differences in endowments of our observed factors account for 84% of the estimated gender gap, and 16% of the gap remains unexplained, and potentially attributed to gender bias.

Table 10. Estimated coefficients from Oaxaca-Blinder decomposition of gender gap

	Explained	**Unexplained**
Total	**0.103**	**0.018**
Black	0.000007	0.0009*
Latinx	0.000005	-0.002**
Asian	-0.0007***	-0.006***
Native	-0.0002*	0.0002***

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[11] We apply the decomposition to the specification in Table 9, model 6. The results reported here are consistent with another decomposition analysis (of 2018 through 2020 data only) conducted by a member of the sub-committee finding an average pay gap of 11%, with 9.4 percentage points explained by the model (with full controls including departments), leaving 1.6 percentage points of the gap unexplained.

Years of service	-0.025***	0.079***
Years of service squared	0.030***	-0.060***
Associate Professor	-0.005***	0.008***
Professor	0.068***	0.004
Departments	.045***	.067***

In Table 10, one can see that the factors most associated with gender pay gaps are full professors, departments, and years of service. Moreover, the factors that are most associated with the unexplained portion of the gap are years of service and department. The decomposition shows that for years of service, the gap is reduced by 2.5 percentage points because of more females with longer service than males, but increased by 7.9 percentage points because of differences in pay among females and males with equal amounts of service. In other words, the gender differences in years of service "explains" a smaller amount of salary differences than the differential treatment of females and males with the same years of service (i.e., "unexplained" salary differences).

Conclusion

Gender salary differences are likely the result of several factors, some we can measure, and others we can't measure. When we report raw differences in salaries by CLAS division and school/college, and divide by the average female salary, we get the results presented in Table 11, which show female salary disadvantages average -9.1% among assistant professors, -4.4% for associate professors, and -10.9% for full professors. However, these mask a broad range of gaps across disciplines; we also find average female salaries higher than average male salaries in some departments.

Table 11. Average salary gap as share of female average salary by rank and CLAS division/school/college

	Assistant Professor	Associate Professor	Full Professor
Average gap	**-9.1%**	**-4.4%**	**-10.9%**
CLAS Humanities	-1.0%	-5.5%	-7.4%
CLAS Life & Behavioral Sciences	2.6%	0.7%	-11.5%
CLAS Physical Science	-2.3%	-4.0%	-5.5%
CLAS Social Science	1.9%	-3.0%	-4.0%
Business	2.5%	1.9%	9.2%
CAHNR	6.0%	3.3%	-11.3%
Engineering	-0.5%	-3.6%	-8.6%
Fine Arts	1.5%	-5.4%	-14.1%
Neag Education	-0.8%	6.6%	2.5%
Nursing	-2.6%	-	-13.2%
Pharmacy	-	-26.1%	-
Social Work	5.0%	-3.5%	20.3%

Additional research is required to address a range of issues, starting with accounting for faculty outliers (e.g., those who have been in administrative positions and returned to the faculty with these supplements) who may exacerbate or mask gender pay differences. This research should identify factors we do not capture in this report that are likely related to salary differences by gender, and carefully examine the factors we did capture to provide assurance that they themselves are not gendered. This work must also account for the policies and

processes that lead to gendered factors. In other words, the analyst must be careful not to "explain away" salary differences using gender-correlated explanatory variables. Careful analysis should not only control for the appropriate variables, but also for the policies and processes that generate these variables. It is likely that many variables one might select are gendered in some way.

For example, it would be fruitful to examine the ways in which departmental compensation practices differentially consider the value of years of service. The decomposition results suggest that perceptions of the value of years of service may be an important mechanism through which gender pay differences are created. That is, thinking that the years of service of a female faculty is less relevant than that of a male faculty—despite having served the same amount of years—is a gender-correlated process that creates differential salary outcomes.[12]

Also, further analyses should consider whether different success rates of promotion to full professor and years of service spent for promotion between female and male faculty are correlated with gender pay gaps by department. Other factors include, but are not limited to:

- Timing of tenure: Newly tenured faculty may make more than previously tenured faculty.
- Compression: New assistant professors may make more than some tenured faculty in the same department.
- PTR: How are various factors weighted in merit reviews, promotion, and retention offers, and how do these contribute to salary inequity?
- Outside information: Low salaries may reflect outside information not captured in administrative databases, since Deans and Department Heads do not regularly normalize salaries at initial hire or against a competitive offer.

Finally, these and future research findings should be reconciled with what we value as a university in terms of fairness, contributions, standards and expectations. If standards and expectations differ by department, and these standards and expectations are not expressed clearly and followed consistently, salary differences will continue to be idiosyncratic and influenced by historical practices and unconscious (if not conscious) bias.

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[12] An example is a decision maker considering the same number of years of service between female and male faculty differentially because this decision maker devalues (consciously or subconsciously) the time female faculty spend raising children. Such thinking relies on poor assumptions that negatively impact female faculty.