Is the value of a college degree equivalent for all?

2018 California Association for Institutional Research Conference

Anaheim, CA

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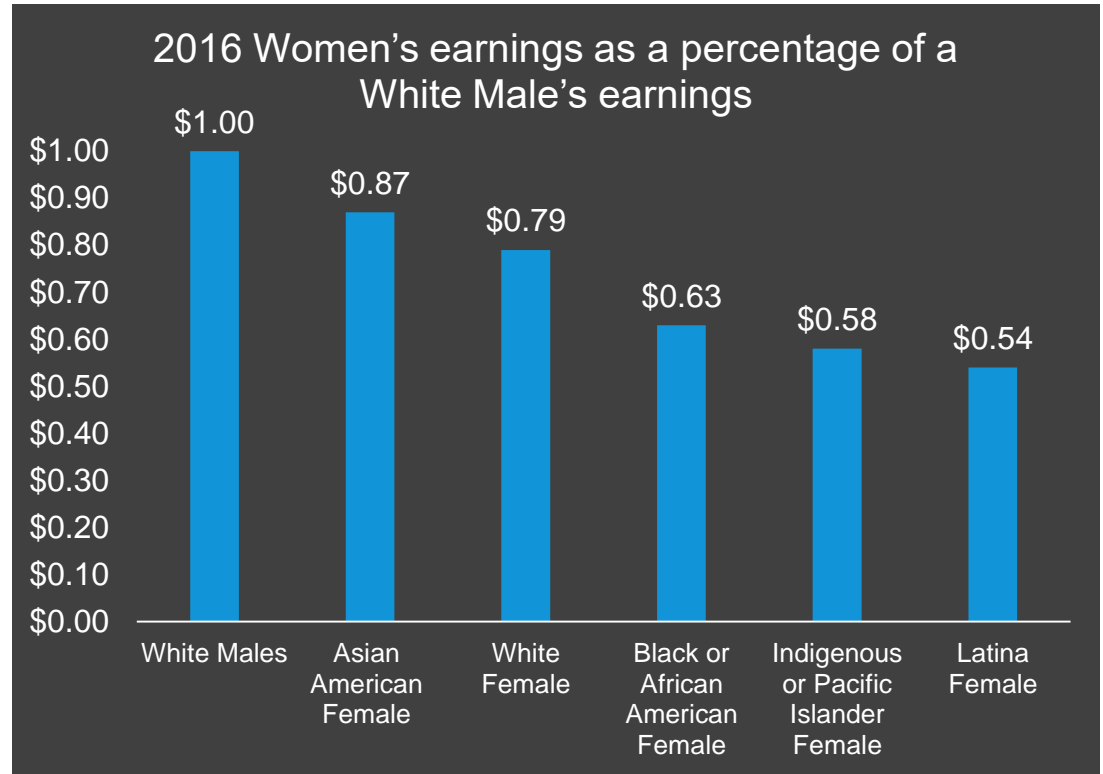
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Agenda

- Gender – Race Wage Gap in the United States

- Research Questions for College Graduates

- Data Sources

- Early Career Earnings and Academic Achievement (GPA)

- Mid Career Earnings and Graduate Degrees

- Discussion

Gender Wage Gap

- In 1975 the average pay gap between Men and Women was 43 percent (57 cents on the dollar)

- As of 2016 the pay gap has narrowed to about 19 percent (81 cents on the dollar).

- Carnevale, Smith & Gluish (2018), Women Can't Win. Georgetown University Center on Education

Gender – Race Wage Gap

2016 Women's earnings as a percentage of a White Male's earnings

White Males: $1.00
Asian American Female: $0.87
White Female: $0.79
Black or African American Female: $0.63
Indigenous or Pacific Islander Female: $0.58
Latina Female: $0.54

-AAUW (2017) The Simple Truth about the Gender Pay Gap

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Research Questions

1) How do undergraduate major and industry of work relate to earnings?

2) Are gender and academic achievement (GPA) associated with early career earnings?

3) Can the race-gender gap be explained by graduate degree completions? Are there differences in the effects of race and gender by industry?

Data Sources

- UC Graduating Classes of 1999 to 2014

- Annualized wages from California Employment Development Department

- Student Data: Race, Gender, Campus Attended, Major, GPA at Graduation, Graduate Degrees Earned (NSC)

- North American Industry Classification Schedule (NAICS) codes for industry of work

Limitations:

- Does not include alumni working outside California

- Does not include self-employed, federal, or military workers.

- No information about occupation.

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Research Question #1

- How do undergraduate major and industry of work relate to earnings?

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# Average Earnings by UG Major and Industry: Both undergraduate major and industry of work affect alumni earnings

Average earnings by UG Discipline

UG Degree Discipline	Years Post Degree 2	5
Engineering & Comp Sci	66,088	92,919
Business	57,807	75,341
Physical Sciences	48,590	65,654
Other Majors	41,490	68,775
Public Health	38,008	56,525
Public Admin	36,966	59,946
Life Sciences	37,899	54,219
Interdisciplinary	35,559	54,720
Social Sciences	34,696	51,257
Education	33,156	47,150
Arts & Humanities	32,289	38,185

Average earnings by Industry of work

Industry of Work	Years Post Degree 2	5	10
Internet & Computer Sys..	72,825	97,939	146,965
Legal Services	40,798	82,652	123,317
Manufacturing	61,812	78,045	108,859
Finance & Insurance	59,832	75,622	106,109
Public Administration	57,193	82,263	105,663
Health Care	35,895	60,277	104,858
Business Services	53,486	71,273	101,150
Engineering Services	54,476	71,410	99,743
Perf Arts, Ent & Media	46,169	63,840	92,760
Retail & Wholesale Trade	38,871	59,287	91,615
Higher Education	38,592	50,862	68,517
Other Industries	36,922	51,859	73,458
K-12 Education	26,431	42,911	54,486
Social Assistance	30,164	38,268	46,943

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Includes undergraduate degree earners from the graduating classes of 1999 to 2014

Major and Industry of Work by Gender: Female UC alumni are less likely to major in Computer Science and more likely to major in Social Sciences and Arts & Humanities than male alumni

Percentage of Degree Earners by Gender
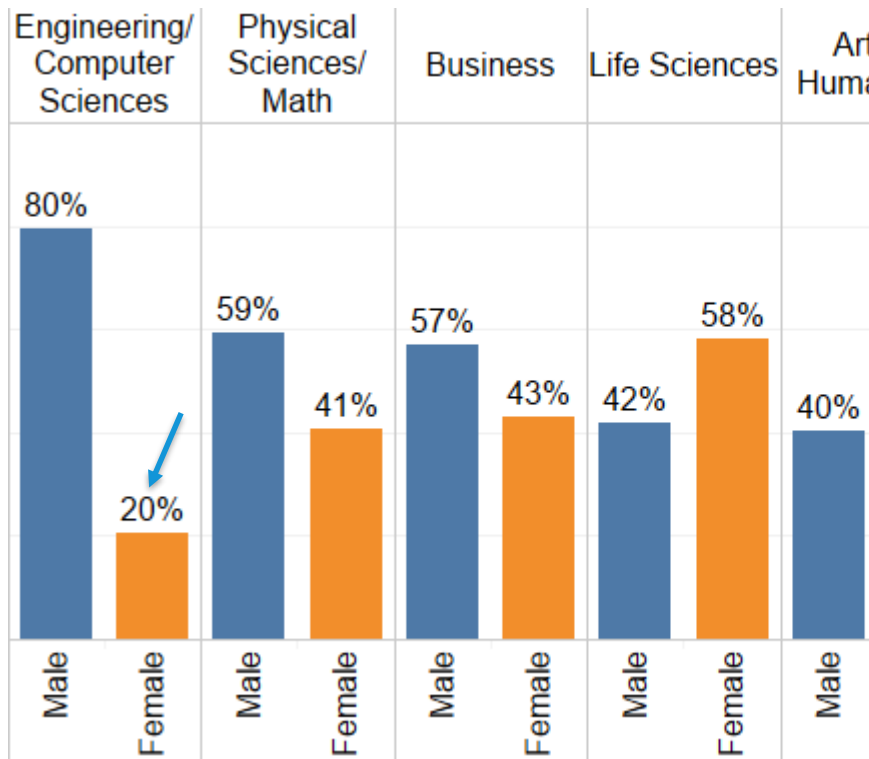
Percentage of UC Alumni in Industry of Work by Gender

Industry of Work	Gender	
	Female	Male
Retail & Wholesale Trade	10%	11%
Manufacturing	6%	11%
Finance & Insurance	7%	9%
K-12 Education	10%	4%
Business Services	7%	7%
Internet & Computer Syst..	4%	8%
Health Care	8%	4%
Higher Education	6%	4%
Perf Arts, Ent & Media	4%	5%
Public Administration	5%	5%
Engineering Services	3%	5%
Legal Services	4%	3%
Social Assistance	3%	1%

Female UC alumni are also less likely to work in Internet and Computer Systems and more likely to work in K-12 Education than male alumni

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Includes undergraduate degree earners from the graduating classes of 1999 to 2014. Industry of work is as of five years after graduation.

Majors by Race: Social Sciences are a popular major for all UC degree earners, Latinx and African American UC Alumni are less likely to have majored in Engineering & Computer Science

Includes undergraduate degree earners from the graduating classes of 1999 to 2014
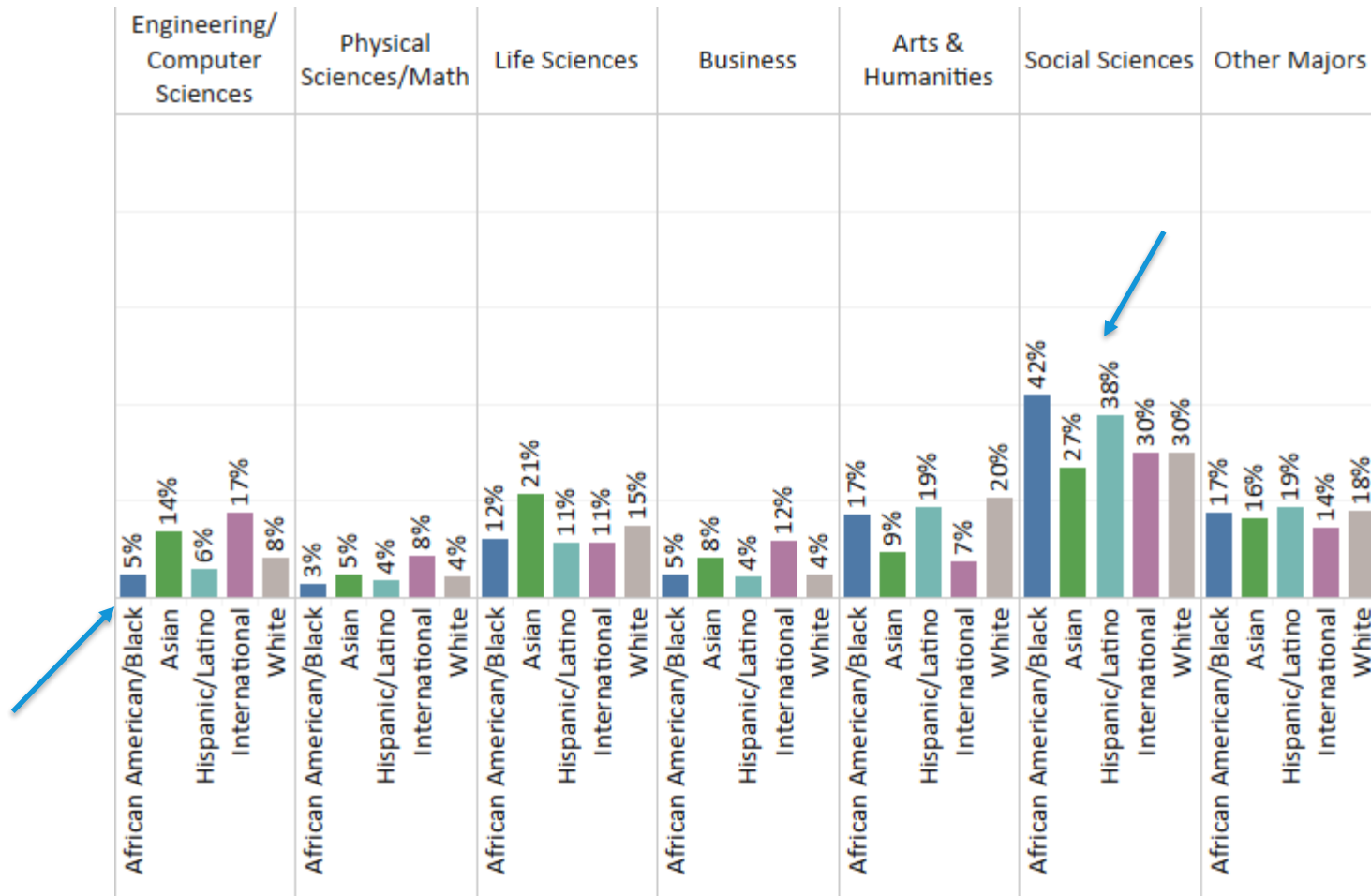
Industry by Race: UC URG alumni are less likely to work in Internet & Computer systems and Business and more likely to work in K-12 education than Non-URG alumni

Percentage of UC Alumni in Industry of Work by URG Status

Industry of Work	Non-URG	URG
Retail & Wholesale Trade	11%	9%
K-12 Education	6%	12%
Finance & Insurance	8%	7%
Manufacturing	9%	5%
Health Care	6%	7%
Business Services	8%	5%
Public Administration	4%	8%
Higher Education	5%	6%
Internet & Computer Sys..	7%	3%
Perf Arts, Ent & Media	5%	4%
Engineering Services	5%	3%
Legal Services	3%	3%
Social Assistance	2%	5%
Grand Total	100%	100%

URG = Underrepresented Groups; Includes African American, Latinx and Native American

Non-URG=White, Asian-American and International

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Includes undergraduate degree earners from the graduating classes of 1999 to 2014. Industry of work is as of five years after graduation. Excludes Domestic Unknowns

Differences in Earnings by Gender: At ten years after graduation, UC female alumni tend to earn less than male alumni in most industries, regardless of undergraduate major

Males earn more than females
Females earn more than males

Differences between median earnings of male and female UC alumni

Industry of Employment	Social Sciences (25%)	Arts & Humanities (16%)	Engineering & Comp Sci (16%)	Life Sciences (14%)	Business (10%)	Other Majors (9%)	Interdiscip. (5%)	Physical Sciences (4%)
			UC Undergraduate Degree Discipline					
Retail & Wholesale Trade (12%)	$ 4,827	$ 4,438	$ 7,494	$ 5,127	$ 6,647	$ 3,881	$ 7,485	$ 13,385
Business & Finance (11%)	$ 10,400	$ 4,122	$ 11,727	$ 7,528	$ 14,864	$ 5,603	$ 9,130	$ 7,931
Manufacturing (10%)	$ 4,755	$ 4,172	$ 3,515	$ 2,963	$ 5,112	$ 9,302	$ 6,051	$ 8,841
Health Care (9%)	$ 4,825	$ 393	$ 4,975	$ 6,181	$ 6,499	$ (8,565)	$ 6,223	$ 6,253
Internet & Computer Systems (8%)	$ 8,201	$ 9,262	$ 10,459	$ 12,110	$ 4,642	$ (3,605)	$ 10,440	$ 20,061
Public Administration (8%)	$ 17,046	$ 21,206	$ 5,265	$ 7,714	$ 16,979	$ 19,299	$ 8,927	$ 4,518
K-12 Education (7%)	$ 2,782	$ 154	$ 23,726	$ 1,336	$ (613)	$ (5,355)	$ 540	$ 5,369
Perf Arts, Ent & Media (7%)	$ 8,919	$ 7,852	$ 19,622	$ 17,093	$ 869	$ 9,737	$ 4,191	$ 31,498
Higher Education (6%)	$ 2,931	$ 5,043	$ 11,809	$ 2,679	$ 7,268	$ 6,682	$ 7,682	$ 1,874
Engineering Services (5%)	$ 4,555	$ 11,529	$ 10,227	$ 3,529	$ 9,209	$ 8,600	$ 4,134	$ 7,389
Legal Services (3%)	$ 15,483	$ 8,767			$ (3,947)	$ 4,661	$ (8,920)	
Social Assistance (2%)	$ 458	$ (731)		$ (1,156)				

(%) Indicates percentages of female alumni working in industry or graduating with major.

Post-graduate earnings at 10 years after graduation, graduating classes of 1999 to 2006. Bachelor's degree recipients only.

Differences in Earnings by URG Status: At ten years after graduation, UC URG tend to earn less than Non-URG, alumni in most industries, regardless of undergraduate major

■ Non-URG earn more than URG
■ URG earn more than Non-URG

Differences between median earnings of URG and Non-URG UC alumni

Industry of Employment	UC Undergraduate Degree Discipline							
	Social Sciences (46%)	Arts & Humanities (22%)	Life Sciences (9%)	Engineering & Comp Sci (6%)	Other Majors (6%)	Business (5%)	Interdiscip. (3%)	Physical Sciences (3%)
K-12 Education (16%)	$ 1,203	$ (1,002)	$ (4,711)		$ (1,723)	$ (9,879)	$ (1,162)	$ 5,002
Public Administration (11%)	$ (15,474)	$ (10,350)	$ 3,434	$ 1,440	$ 1,685	$ (737)	$ (10,030)	$ (13,300)
Health Care (9%)	$ (13,513)	$ (6,005)	$ (12,685)		$ 55	$ (9,755)	$ (6,674)	
Business & Finance (9%)		$ (7,080)	$ (7,501)	$ 720	$ (2,978)	$ (12,521)	$ (6,930)	$ (18,661)
Higher Education (8%)	$ (4,324)	$ (1,972)	$ 72		$ (2,070)	$ (13,035)	$ (2,161)	$ (9,276)
Retail & Wholesale Trade (6%)	$ (11,700)	$ (7,315)	$ 109	$ (10,245)	$ (6,833)	$ (7,052)	$ (4,561)	$ (8,680)
Manufacturing (5%)	$ (6,607)	$ (10,998)	$ (3,845)	$ (6,033)	$ (18,009)	$ (8,851)		$ (1,477)
Legal Services (4%)	$ (17,935)	$ (11,061)			$ (17,491)			
Social Assistance (4%)	$ 1,435	$ 7,803		$ (15,280)				
Perf Arts, Ent & Media (3%)	$ (11,553)	$ (2,485)		$ (21,561)	$ (12,711)	$ (5,687)	$ (22,045)	
Engineering Services (3%)	$ (5,696)	$ (6,439)	$ (7,745)	$ 2,253				$ (1,009)
Internet & Computer Systems (3%)	$ (16,267)	$ (17,463)		$ (17,144)	$ (28,350)	$ (4,650)	$ (8,641)	

(%) Indicates percentages of URG alumni working in industry or graduating with major.

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Post-graduate earnings at 10 years after graduation, graduating classes of 1999 to 2006. Bachelor's degree recipients only.

Research Question #2

Do gender and academic achievement (GPA) affect early career earnings?

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Mean Income by GPA
Two Years after Graduation by Gender

Average Income Across GPAs
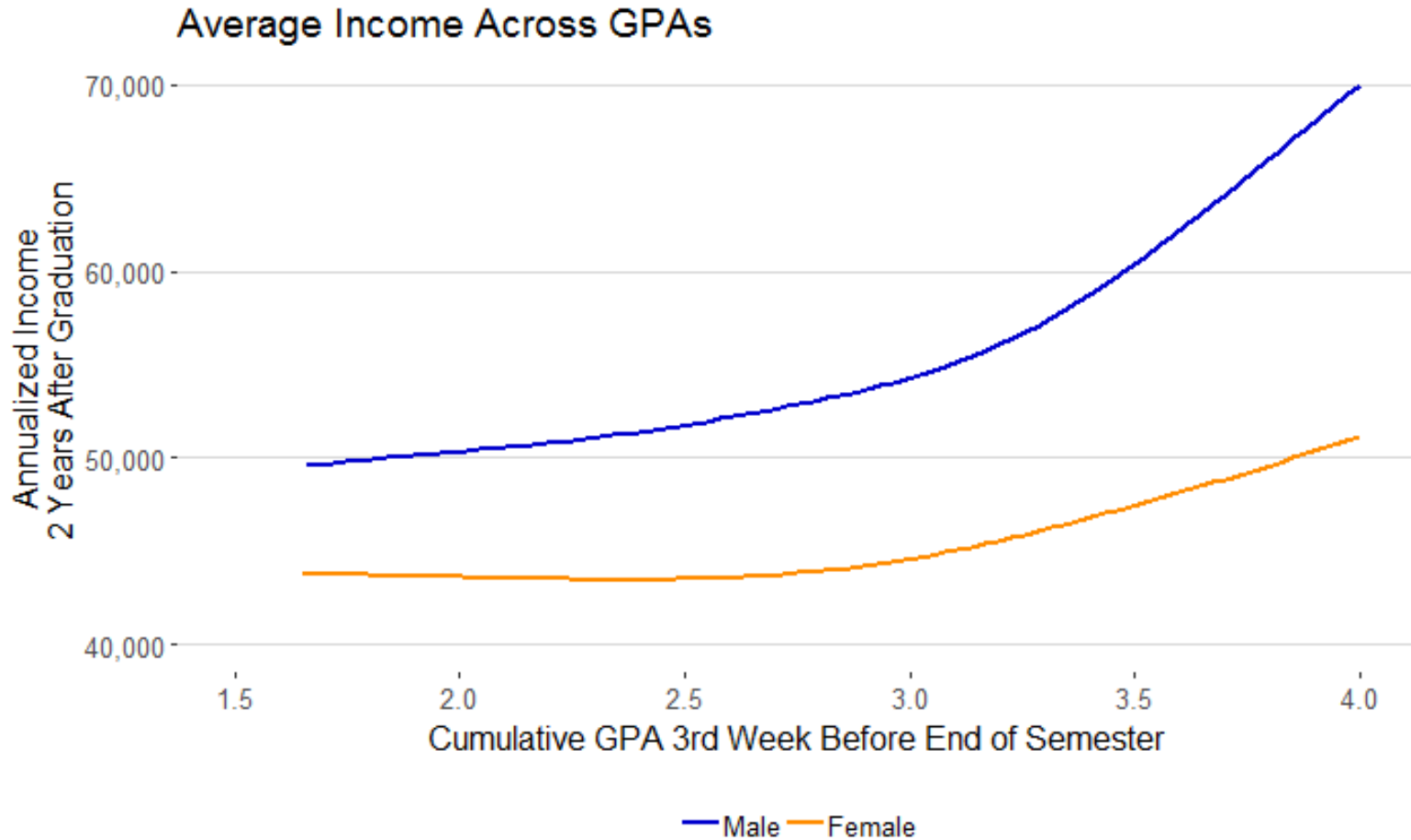
Mean income by **Gender** and **Major Category** with income distribution – 2 years after grad

Mean and Distribution of Income by Major Category
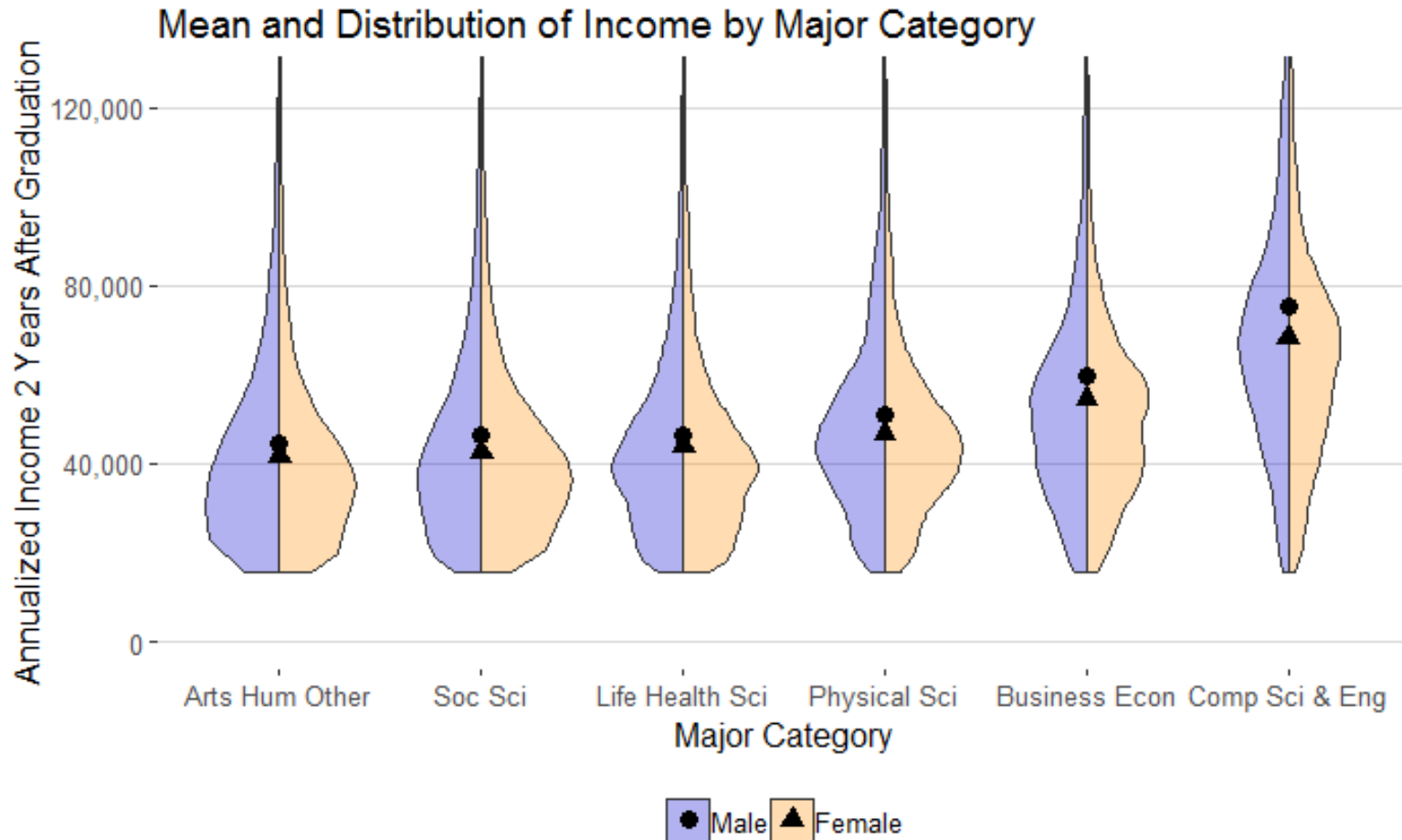
Mean income by **Gender** and **Industry** with income distribution – 2 years after grad

Mean and Distribution of Income by Major Category
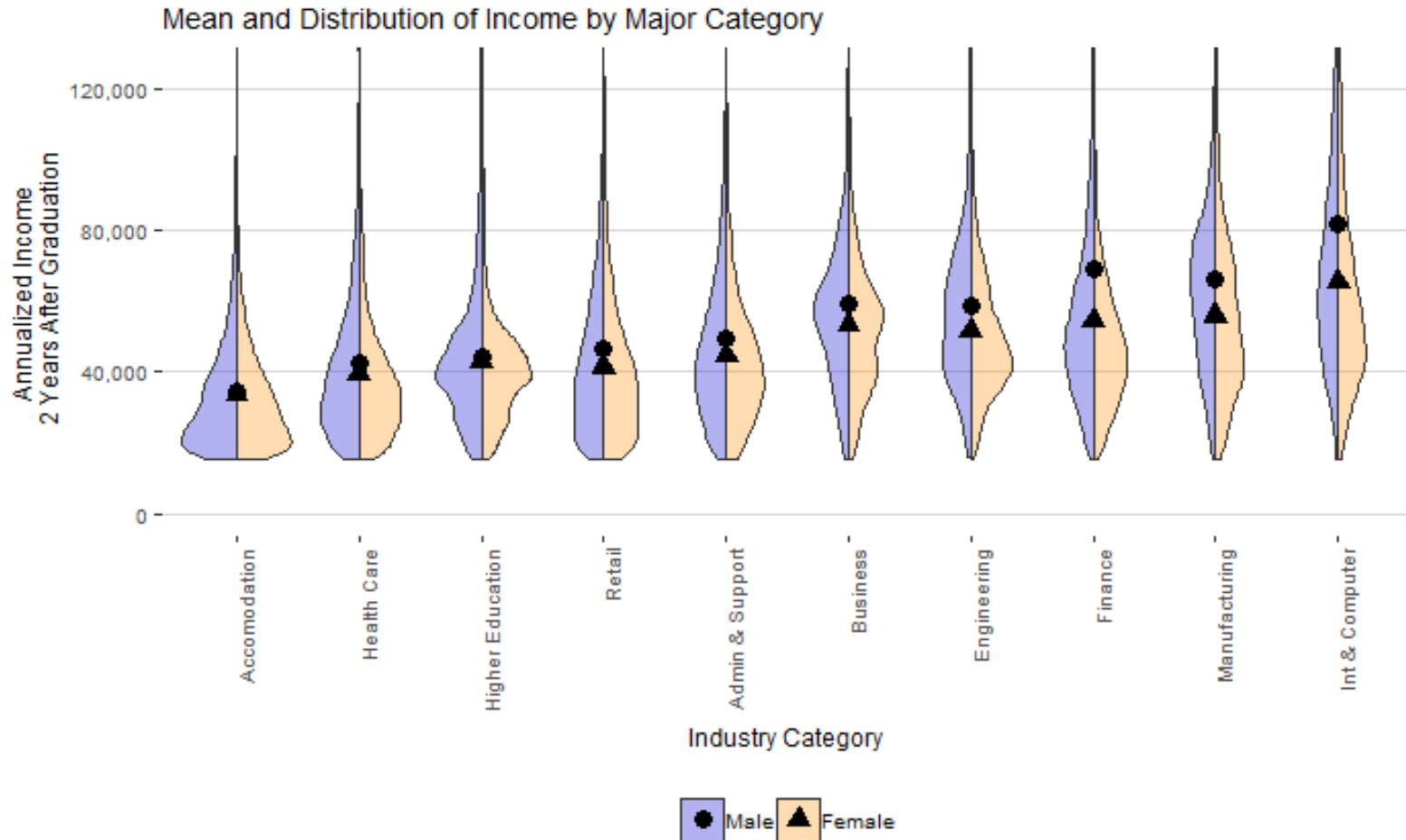
Differences in Income between **Major Category** and **Industry**

ANOVA – ln(inc) ~ major category

	Deg of Freedom	F stat	P-val
Major Category	5	6653	.000
Residual	201527		

Intraclass Correlation = .142

ANOVA – ln(inc) ~ Industry

	Deg of Freedom	F stat	P-val
Industry	28	1435	.000
Residual	201504		

Intraclass Correlation = .166

Model:
Multivariable Linear Regression

Gender, GPA, and industry

$$\ln(income_i) = \beta_{j0} + \beta_1(GENDER_i) + \beta_2(GPA_i) + \beta_3(INDUSTRY_i) +$$

$$\beta_4(GENDER_i * GPA_i) + \beta_5(INDUSTRY_i * GPA_i) + \beta_6(GENDER_i * INDUSTRY_i)$$

$$+ \beta_7(GENDER_i * GPA_i * INDUSTRY_i) + \boldsymbol{\beta_i X} + \epsilon_{ji}$$
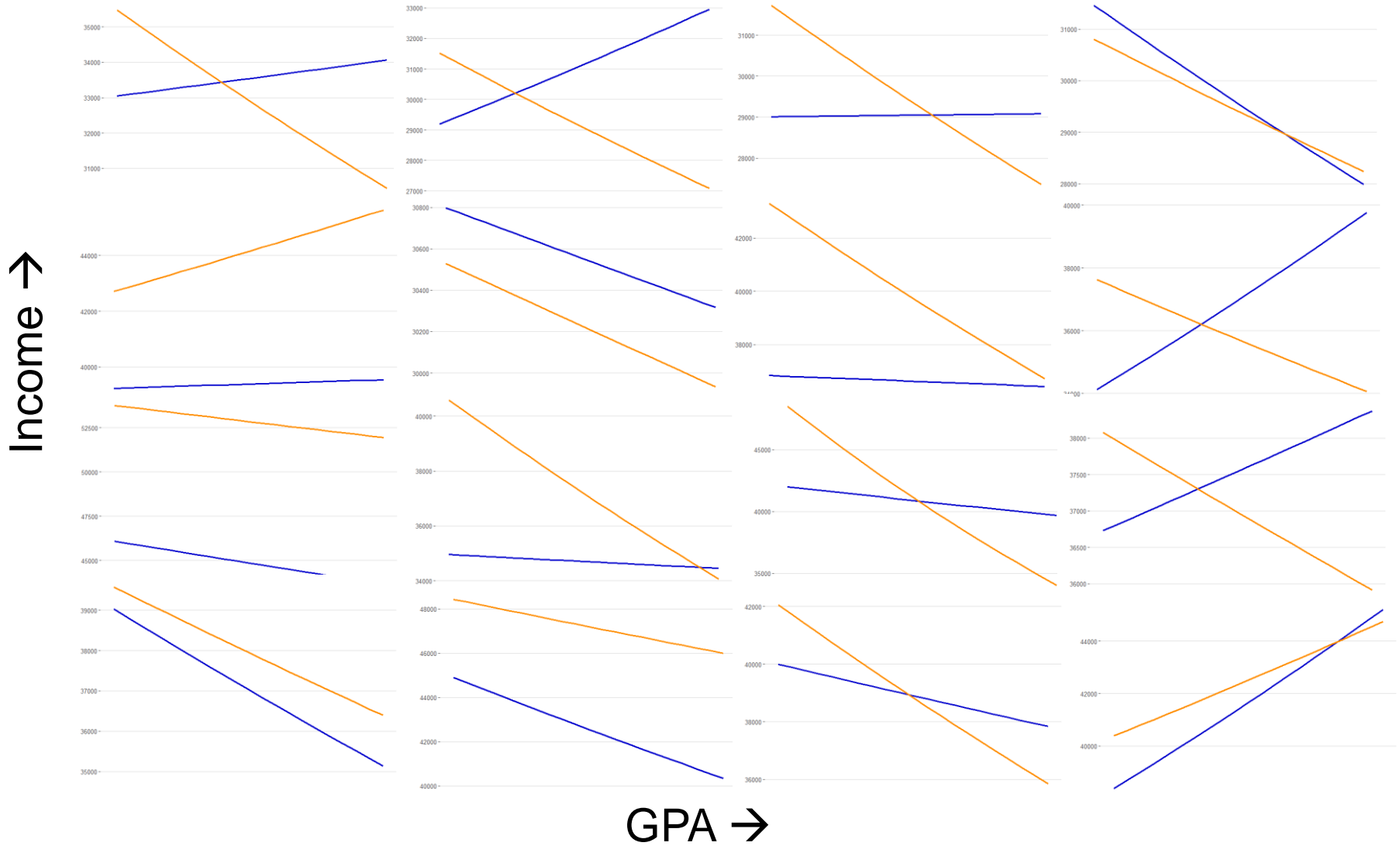
Interactions

Campus, earnings year

Clustered SEs

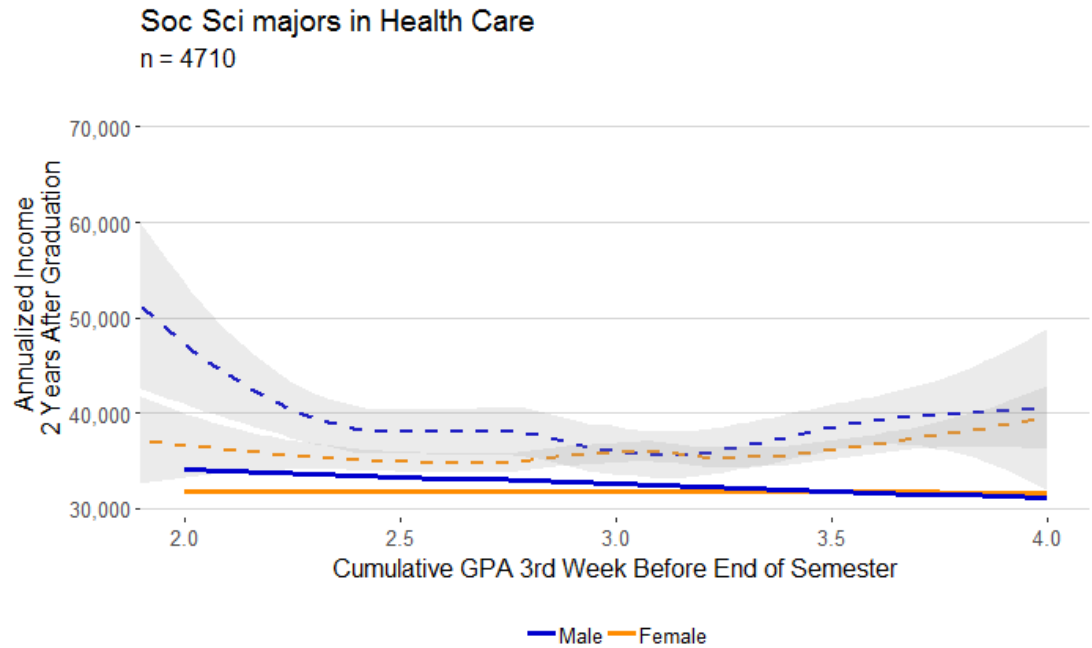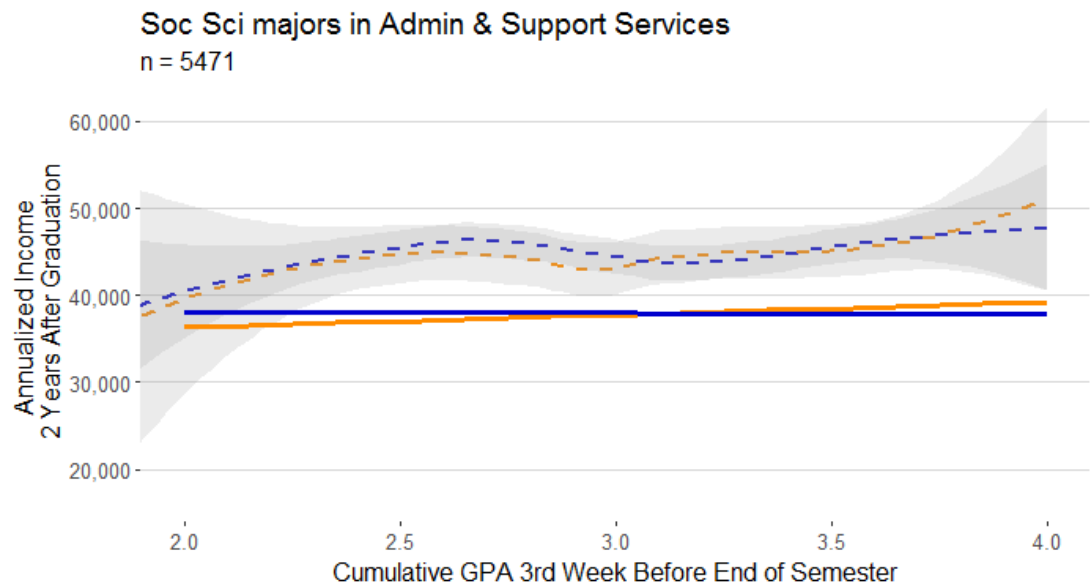| Life Health Science	Physical Sciences	Computer Science & Engineering	Business & Economics	Social Sciences	Arts, Humanities, Other
Pharmacy, Nursing, Public Health, Other Life Sciences, Biology, Agriculture	Physics, Other Physical Sciences, Chemistry, Architecture	Mathematics, Computer Science, Engineering	Business, Economics	Public Administration, Geography, Legal Studies, Anthropology, History, Communications, Sociology, Political Science, Psychology, Other Social Science	Education, Other Humanities, Philosophy, Foreign Language, English/Literature, Arts, Other

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Takeaways:

- **Business Services**, **Internet Services**, and **Finance & Insurance** had mostly significant GPA and GPA-by-gender coefficients

- Most other industry-by-gender-by-major slopes had insignificant coefficients

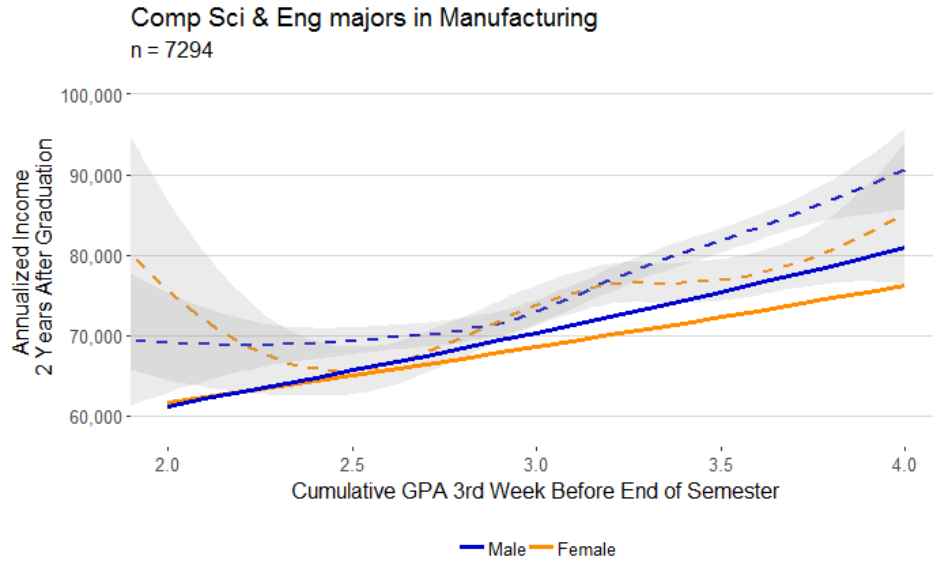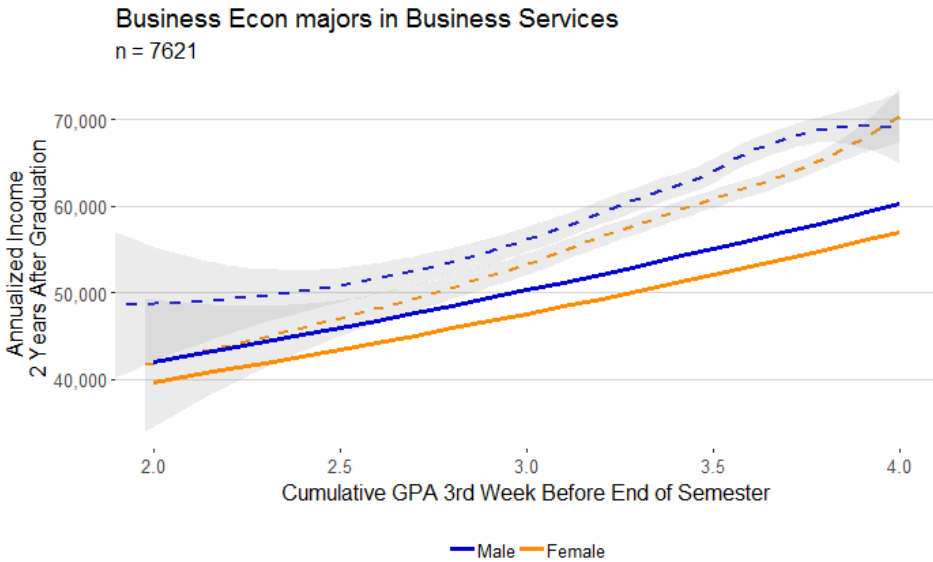| Major Category	Overall		Business Services		Finance & Insurance		Internet Systems	
	GPA	GPA-Gender	GPA	GPA-Gender	GPA	GPA-Gender	GPA	GPA-Gender
Business Econ	-0.077#	0.092	0.257***	0.199	0.477***	-0.148*	0.196***	-0.051
	(0.04)	(0.06)	(0.043)	(0.192)	(0.045)	(0.069)	(0.049)	(0.076)
Physical Sci	-0.076	0.136	0.084	0.329	0.361*	-0.462#	0.304*	-0.003
	(0.092)	(0.139)	(0.114)	(0.504)	(0.182)	(0.252)	(0.14)	(0.212)
Life Health Sci	-0.074#	0.075	0.113*	0.004	0.363***	-0.268**	0.171*	-0.09
	(0.039)	(0.052)	(0.055)	(0.222)	(0.073)	(0.09)	(0.068)	(0.102)
Social Sci	-0.043#	-0.015	0.152***	-0.09	0.18***	-0.08*	0.067#	0.09#
	(-0.043)	(0.028)	(0.034)	(0.132)	(0.033)	(0.04)	(0.037)	(0.048)
Comp Sci & Eng	0.09	0.009	-0.001	-0.381	0.181*	-0.053	0.186**	0.043
	(0.066)	(0.137)	(0.069)	(0.421)	(0.076)	(0.15)	(0.068)	(0.144)
Arts Hum Other	-0.01	0.002	0.081#	0.026	0.146**	-0.073	0.094*	0.012
	(0.026)	(0.034)	(0.042)	(0.173)	(0.048)	(0.059)	(0.045)	(0.059)

Different Relationships in Different Industry

Income →

GPA →

GPA Matters	X
GPA Matters by Gender	X

Soc Sci majors in Admin & Support Services
n = 5471

Soc Sci majors in Health Care
n = 4710

— Male — Female
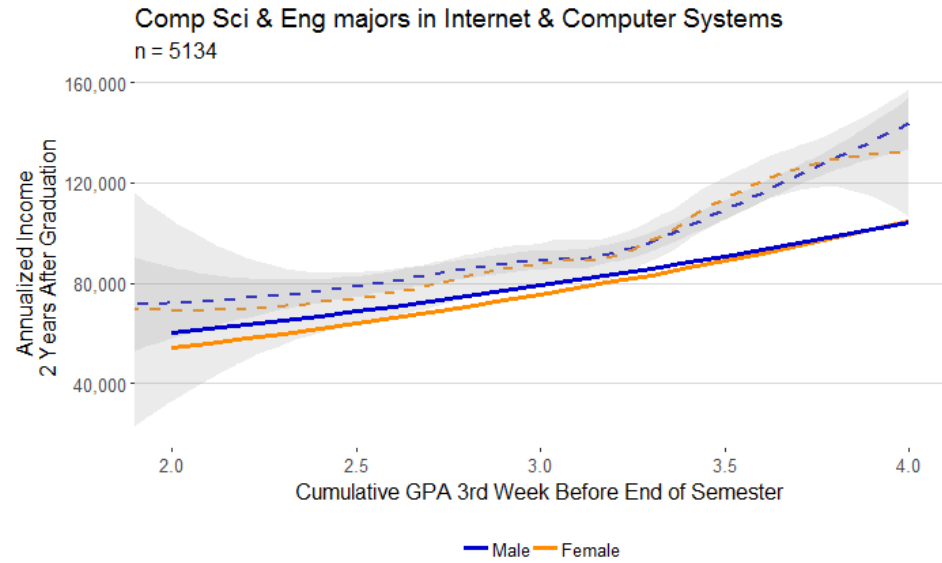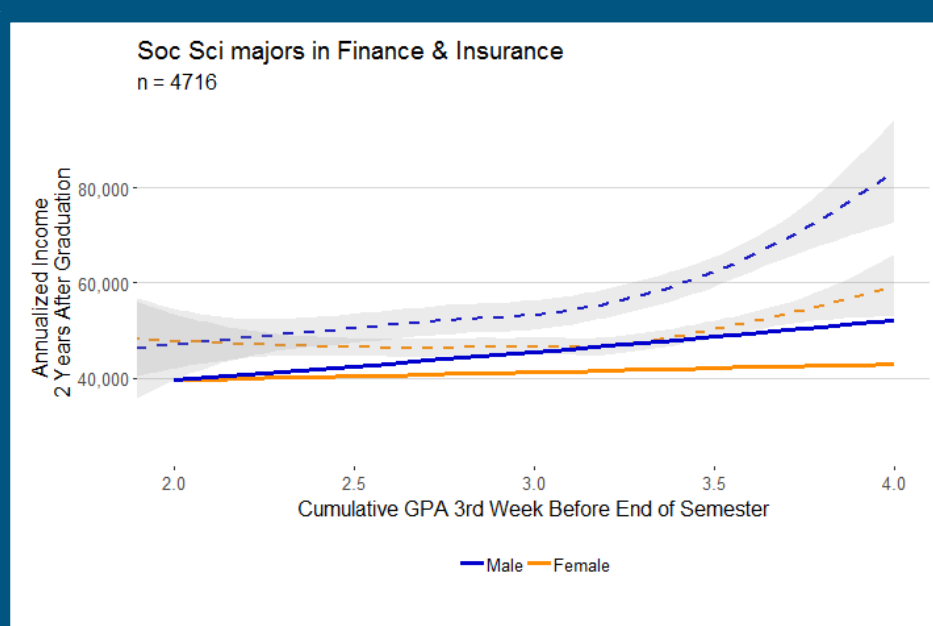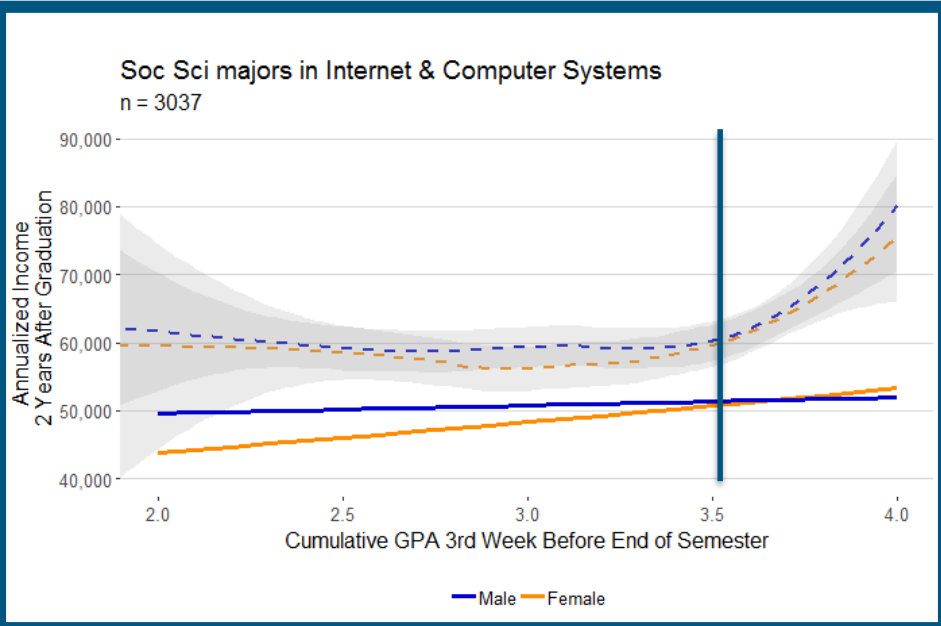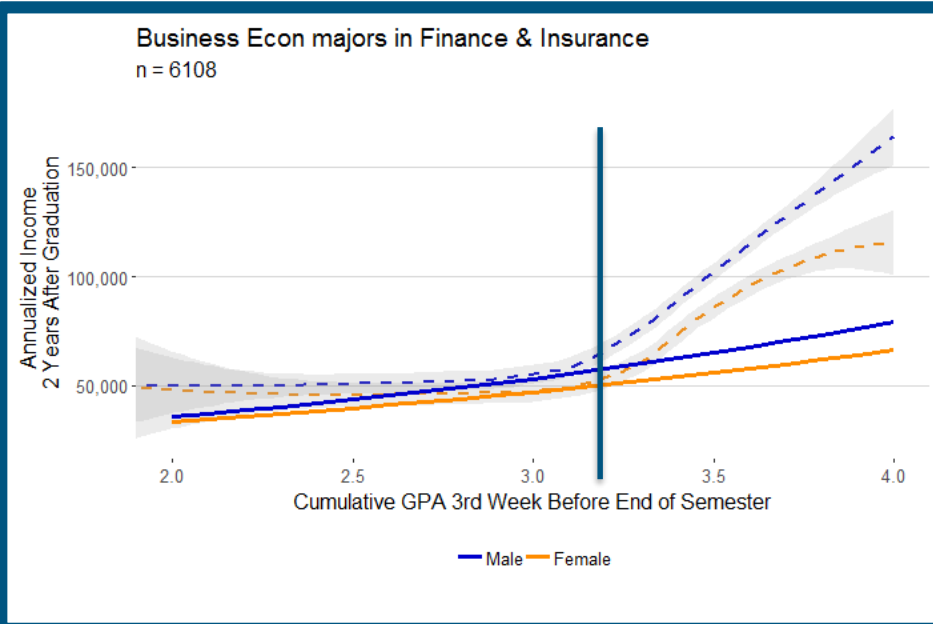
The Research Question 2 Takeaways:

- Large and statistically significant differences in income across majors and industries

- **Business Services**, **Finance & Insurance** and **Internet & Computer Systems** have the largest returns to GPA in terms of income.

- Non-linear relationships that occur around 3.0 GPA may play a key roll in income in some industries.

Research Question #3

Can the race-gender gap be explained by graduate degree completions? Are there differences in the effects of race and gender by industry?

Earnings by Gender and Graduate Degree Completion: At ten years after graduation, female UC alumni with graduate degrees earn as much as male UC alumni that complete a bachelors degrees only

Post-graduate earnings at 10 years after graduation, graduating classes of 1999 to 2006
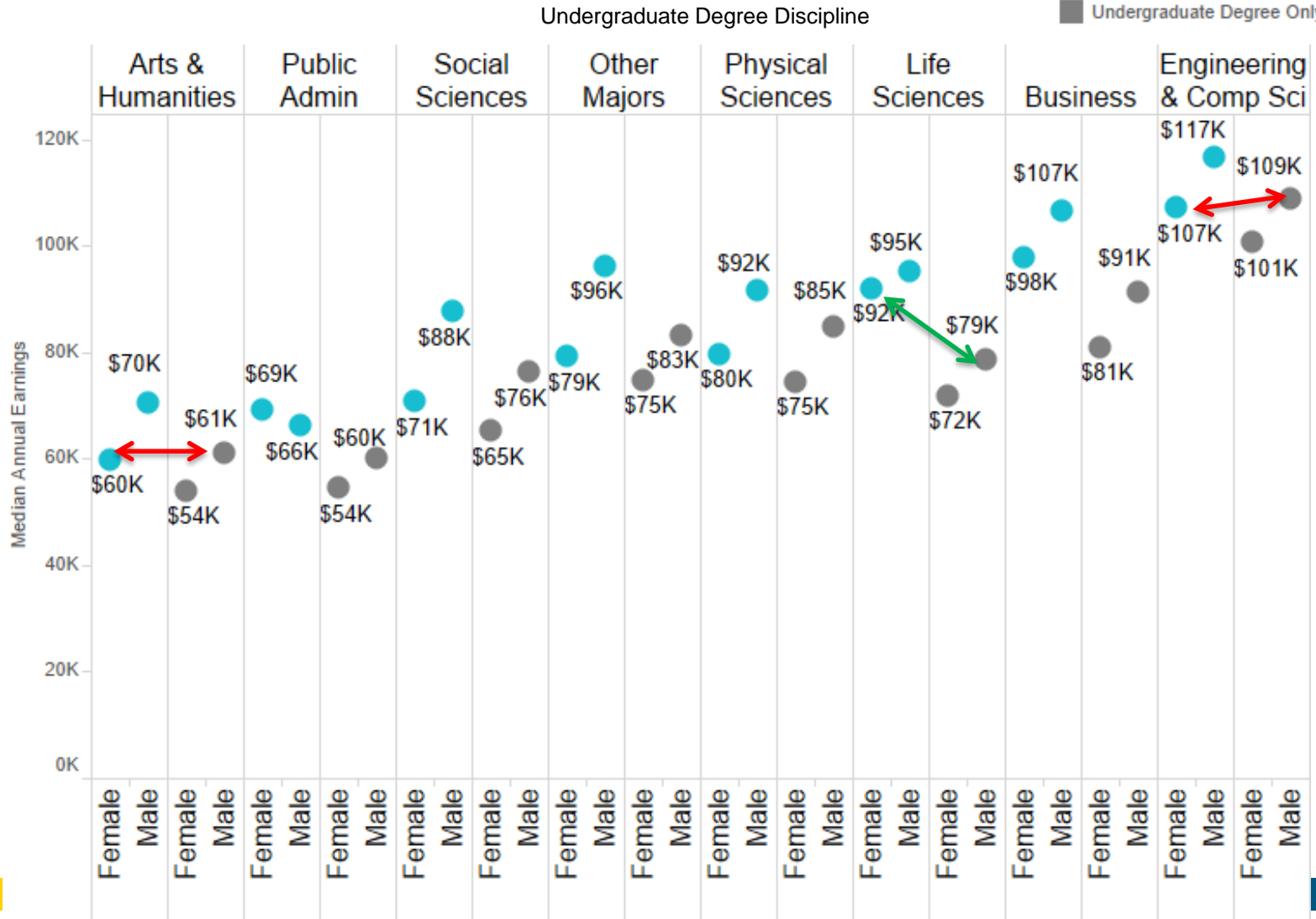
Earnings by Graduate Degree Type, Gender and Industry: Difference in earnings persist between male and female UC alumni

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Post-graduate earnings at 15 years after graduation, graduating classes of 1999 to 2006

Earnings by Graduate Degree Type, URG and Industry: Difference in earnings persist between URG and Non-URG UC alumni

Industry of Employment

Legend: Non-URG, URG

Graduate Degree Type	Engineering Services		Finance & Insurance		Health Care		Higher Education		Legal Services		Public Administration	
	Non-URG	URG	Non-URG	URG	Non-URG	URG	Non-URG	URG	Non-URG	URG	Non-URG	URG
Academic Masters	$119K	$106K	$115K	$94K	$93K	$86K	$69K	$74K			$109K	$107K
Doctoral	$127K				$104K		$73K	$87K	$137K		$110K	
Health Science Prof.			$143K		$125K	$111K	$106K				$132K	
JD Law			$140K		$111K		$82K		$149K	$119K	$127K	$141K
MBA Business	$136K		$127K	$120K	$119K		$96K				$126K	
MD Medicine					$256K	$244K	$192K				$239K	

Post-graduate earnings at 15 years after graduation, graduating classes of 1999 to 2006

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Hierarchical Linear Modeling (HLM)

Level 2: Effects of Gender and URG, adjusted for Industry

| Internet & Computer Systems ($146K) | Finance & Insurance ($104K) | Health Care ($104K) | Higher Education ($68K) | K-12 Education ($54K) |

Male, non-URG. Computer science, no graduate degree

Female, non-URG. Engineering, no graduate degree

Female, non-URG. Life sciences, has graduate degree

Male, non-URG. Computer science, has graduate degree

Female, non-URG. Arts & Hum, no graduate degree

Female, non-URG, Computer science, no graduate degree

Male, URG, Biology, has graduate degree

Male, URG, Business, no graduate degree

Female, non-URG, Social sciences, has graduate degree

Male, URG, Physical Sciences, has graduate degree

Female, URG, Social Sciences, no graduate degree

Female, non-URG, Computer science, no graduate degree

Female, URG, Social Science, has graduate degree

Female, non-URG, Social Sciences, no graduate degree

Female, URG, Social Science, has graduate degree

Level 1:Effects of Gender, URG status, Major, Graduate Degree Completion and Campus

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Model 1: Gender effects
Hierarchical Linear Model (HLM)

Level 2:

Overall mean intercept *adjusted for gender*

Overall mean intercept *adjusted for gender*

$$B_{0j} = \gamma_{00} + \gamma_{01}(Gender)_j + U_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11}(Gender)_j + U_{1j}$$

Intercept for the jth industry

Coefficient associated with being female relative to industry j intercept

Slope for the jth industry

Coefficient associated with being female relative to industry j slope

Level 1:

Earnings for alumni i in industry j who is *male, social science major* from *Campus H without a graduate degree*

Random error associated with alumni i in industry j

$$ln(earnings)_{ij} = \beta_{0j} + \beta_{1j}(Gender)_{ij} + \beta_{2j}(Major)_{ij} + \beta_{3j}(Campus)_{ij} + \beta_{4j}(Has\ GraduateDegree)_{ij} + \varepsilon_{ij}$$

Log of earnings for alumni i in industry j

Coefficient associated with being female for industry j

Fixed effects of major campus and graduate degree

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Model 2: Gender and URG effects
Hierarchical Linear Model (HLM)

Level 2:

$$B_{0j} = \gamma_{00} + \gamma_{01}(Gender)_j + \gamma_{02}(URG)_j + U_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11}(Gender)_j + U_{1j}$$

$$\beta_{2j} = \gamma_{20} + \gamma_{12}(URG)_j + U_{2j}$$

Level 1:

$$ln(earnings)_{ij} = \beta_{0j} + \beta_{1j}(Gender)_{ij} + \beta_{2j}(URG)_{ij} + \beta_{3j}(Campus)_{ij} + \beta_{4j}(Has\ GraduateDegree)_{ij} + \beta_{4j}(Has\ GraduateDegree)_{ij} + \beta_{5j}(Major)_{ij} + \varepsilon_{ij}$$

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Results: Earnings at 10 years and 15 years after graduation
Hierarchical Linear Model (HLM)

Bold indicates estimates are significant at α=.05

	Ten Years After Graduation				Fifteen Years After Graduation			
	Model 1		Model 2		Model 1		Model 2	
	Estimate	Interpretation	Estimate	Interpretation	Estimate	Interpretation	Estimate	Interpretation
Intercept	**11.089** $	65,447	**11.10** $	66,416	**11.29** $	80,234	**11.30** $	81,064
FEMALE	**-0.09**	-8%	**-0.08**	-8%	**-0.14**	-13%	**-0.14**	-13%
URG			**-0.06**	-6%			**-0.05**	-5%
Arts Hum Other	**-0.05**	-5%	**-0.05**	-5%	**-0.10**	**-6%**	**-0.06**	-6%
Business Econ	**0.17**	18%	**0.16**	17%	**0.23**	**18%**	**0.17**	18%
Comp Sci & Eng	**0.24**	28%	**0.23**	26%	**0.31**	**22%**	**0.21**	23%
Life Health Sci	**0.12**	13%	**0.12**	12%	**0.17**	**17%**	**0.16**	17%
Physical Scienc	**0.06**	6%	**0.06**	6%	**0.09**	**5%**	**0.05**	5%
Soc Sci	0.00	0%	0.00	0%	0.00	0%	**0.00**	0%
HAS_GRAD_DEGREE	**0.12**	13%	**0.12**	13%	**0.15**	**14%**	**0.15**	16%
	ICC =.20				ICC = .13			
Pseudo-R2	25%		26%			21%		22%

Campus used as a control in the model
Model 1 Intercept is for a *male, social science major* from *Campus H without a graduate degree*
Model 2 Intercept is for a *male, non-URG, social science major* from *Campus H without a graduate degree*

In high paying industries female and URG alumni earn significantly less than male or non-URG alumni, in lower paying industries they earn more

Intercept and slope estimates by Industry, for UC alumni 10 years after graduation

Female and URG earn less on average in Finance & Insurance

Female and URG employees earn more on average in K-12 Education

Industry of Work	Intercept	FEMALE	URG
Accomodation & Recreation	**-0.45**	**0.08**	**0.09**
Admin & Support Services	**-0.01**	**-0.05**	**-0.06**
Business Services	0.15	-0.01	-0.01
Engineering Services	0.03	0.00	0.02
Finance & Insurance	**0.19**	**-0.08**	**-0.05**
Health Care	**0.15**	**-0.04**	**-0.07**
Higher Education	**-0.24**	**0.06**	0.04
Internet & Computer Systems	0.35	0.00	-0.04
K-12 Education	**-0.42**	**0.06**	**0.12**
Legal Services	**0.34**	-0.04	**-0.12**
Manufacturing	0.14	0.00	-0.01
Other Services (except Public Administra	-0.20	0.01	0.06
Performing Arts, Entertainment & Media	**0.11**	**-0.05**	-0.03
Public Administration	0.21	0.02	0.02
Retail & Wholesale Trade	0.03	0.01	-0.03
Social Assistance	-0.41	0.04	0.08

Bold indicates estimates are significant at $\alpha=.05$

Significantly different from fixed effects of:

FEMALE	**-0.08**	-8%
URG	**-0.06**	-6%

Positive relationship
Negative relationship

- Completing a graduate degree increases earnings

- UC female alumni may have to earn a graduate degree to earn as much as male alumni who do not

- Females earn **8-14% less** in mid-career earnings, and URG earn **5-6% less** in mid-career earnings, controlling for major, industry, campus and graduate degree completion.

- **Stronger effect** of gender and URG status in **Finance, Legal Services** and **Health Care** industries

- **Lessened effects** of gender and URG status in **K-12 Education** and **Accommodation and Recreation** industries

Conclusion: Research Questions

1) How do undergraduate major and industry of work relate to earnings?

	Highest Paid	Lowest Paid
Major	Computer Science & Engineering	Social Sciences, Arts & Humanities
Industry	Internet & Computer Sys.	K-12 Education, Social Assistance

UC female and URG alumni are less likely to major in computer science or engineering and twice as likely to work in K-12 Education than males and non-URG alumni.

UC female and URG alumni are half as likely to work in the Internet & Computer Systems industry.

Conclusion: Research Questions

2) Do gender and academic achievement (GPA) affect early career earnings?

- **Business Services**, **Finance & Insurance** and **Internet & Computer Systems** have the largest returns to GPA in terms of income.

- Non-linear relationships that occur around 3.0 GPA may play a key roll in income in some industries.

Conclusion: Research Questions

3) Can the race-gender gap be explained by graduate degree completions? Are there differences in the effects of race and gender by industry?

Gender and race effects are significant, after controlling for major, campus, industry and grad degree completions.

Differential effects of race and gender are present in the finance, legal, health care, accommodation and K-12 education industries

Other factors to consider

- Bertrand, Goldin & Katz (2009) Found that female MBA graduates were less likely to:

  - Take finance classes

  - work longer hours and

  - more likely to have interruptions in their careers (such as childbearing duties) may impact earning potential and opportunities for promotions.

- Goldin(2014) suggests that the labor market

  - "disproportionately rewards individuals for long hours "at particular times

  - Flexible time opportunities might help: technology, science and health field have adopted flex time

  - Corporate, financial and legal worlds" have not

- Ellen Kullman (former CEO of DuPont) suggests:

  - Women need longer to prove themselves in a job than men, "We were promoting women every 30 to 36 months into same kind of jobs as we were promoting men every 18 to 24 months."

  - Recommends bias training for employers as a way to remedy inequalities in promotion opportunities.

College leaders can increase transparency using data

Industry efforts to close the gender wage gap

- Salesforce CEO Marc Benioff invested $3 million to close the wage gap between males and females (women's salaries needed to be increased by 10% to achieve parity with men)

- Nike also corrected a longstanding gender pay gap, by dismissing several top executives and increase in pay to 10% of their workforce.

Policy efforts to close the gender wage gap

- In 2017, Governor Jerry Brown enacted AB168, a bill that "prohibits an employer from relying on the salary history information of an applicant for employment as a factor in determining whether to offer an applicant employment or what salary to offer an applicant."

- Senate Bill 826 requires corporate boards to have at least one woman on the board by the end of 2019, by mid 2021, companies need to have at least two women on boards of five members and at least three women on larger boards.

Efforts from many groups are necessary to close the gender-race wage gap
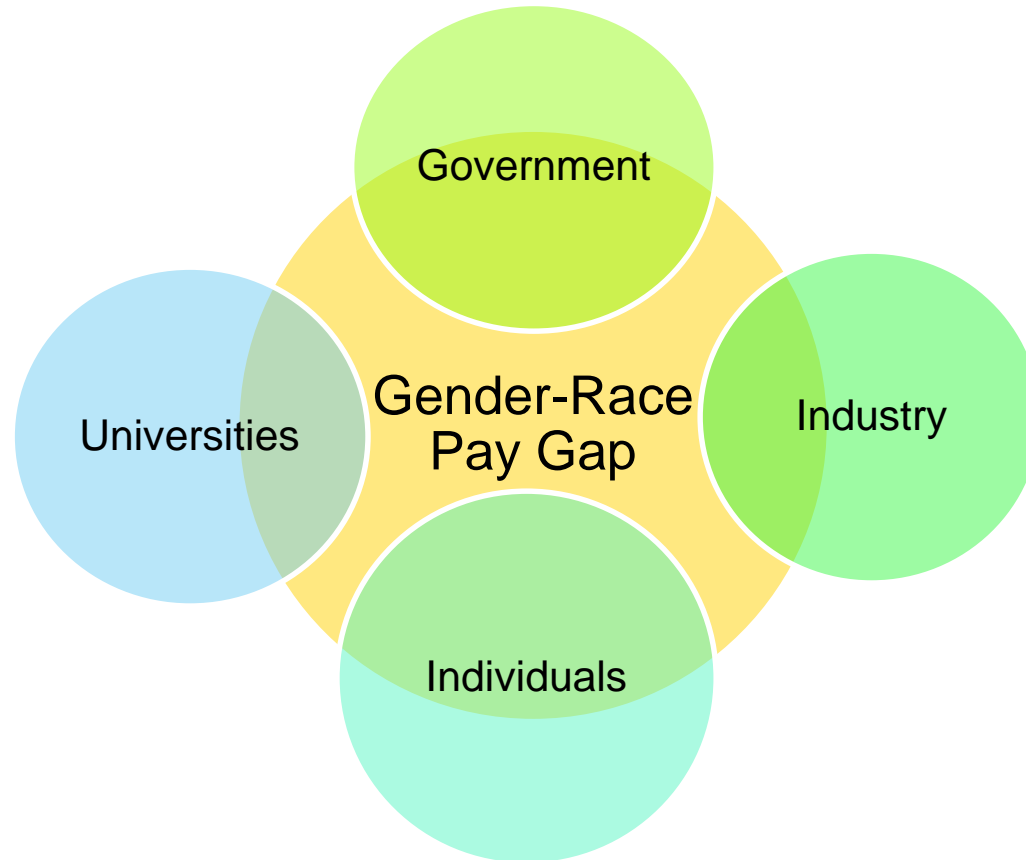
Discussion

- What can universities do, how can data like this be used to help students or work with employers?

- Other questions?

Appendix

The wage gap exists between men and women in similar occupations

	Women Employed	Men's Earnings	Women's Earnings	Pay Ratio	Collective Gap for Women in Occupation
Financial managers	554,104	$100,575	$65,237	65%	$19,581,000,000
Physicians and surgeons	274,511	$243,072	$171,880	71%	$19,543,000,000
Accountants and auditors	1,014,827	$77,320	$60,280	78%	$17,293,000,000
Supervisors of retail sales workers	1,177,835	$47,774	$35,217	74%	$14,790,000,000
Registered nurses	2,092,489	$71,590	$65,612	92%	$12,509,000,000
Marketing and sales managers	383,998	$100,288	$71,066	71%	$11,221,000,000
Lawyers	320,159	$140,270	$106,837	76%	$10,704,000,000
Chief executives	266,890	$148,867	$111,236	75%	$10,043,000,000
Medical & health services managers	456,984	$87,451	$67,129	77%	$9,287,000,000
Education administrators	500,325	$83,383	$64,989	78%	$9,203,000,000

Source: U.S. Census Bureau, 2017 American Community Survey

-AAUW (2018) The Simple Truth about the Gender Pay Gap