Socioeconomic Mobility into the Elite Professional Class:

The Role of Social, Cultural, and Human Capital

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May 21st, 2019

How the Upper Middle Class Is Really Doing

Is it more similar to the top 1 percent or the working class?

By David Leonhardt
Opinion Columnist

Feb. 24, 2019

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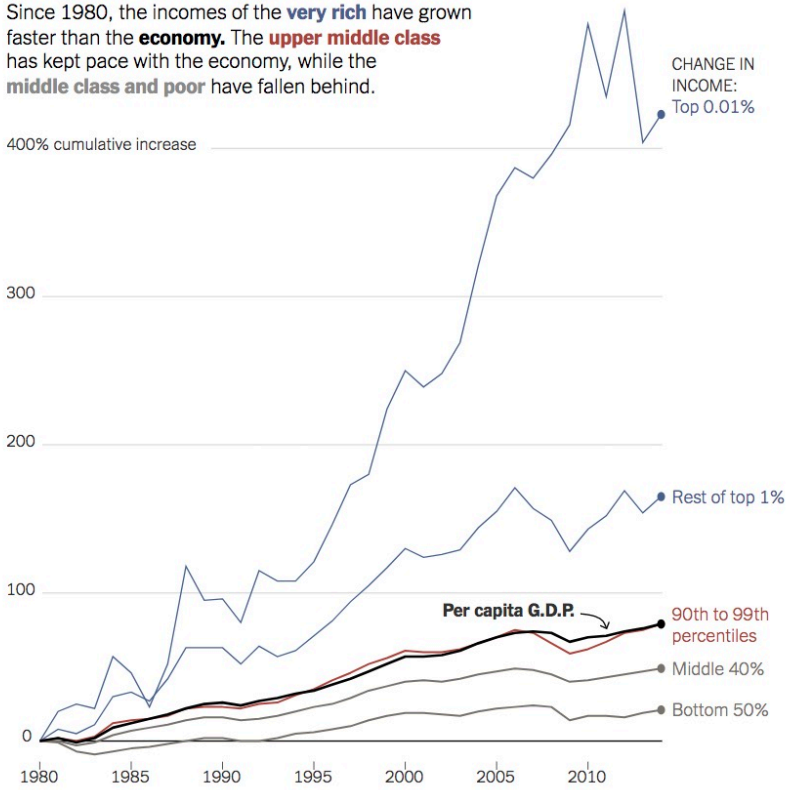
Since 1980, the incomes of the **very rich** have grown faster than the **economy.** The **upper middle class** has kept pace with the economy, while the **middle class and poor** have fallen behind.



Note: Incomes are after taxes and include government transfers. • Sources: Thomas Piketty, Emmanuel Saez and Gabriel Zucman (incomes); Bureau of Economic Analysis (G.D.P.) • By The New York Times

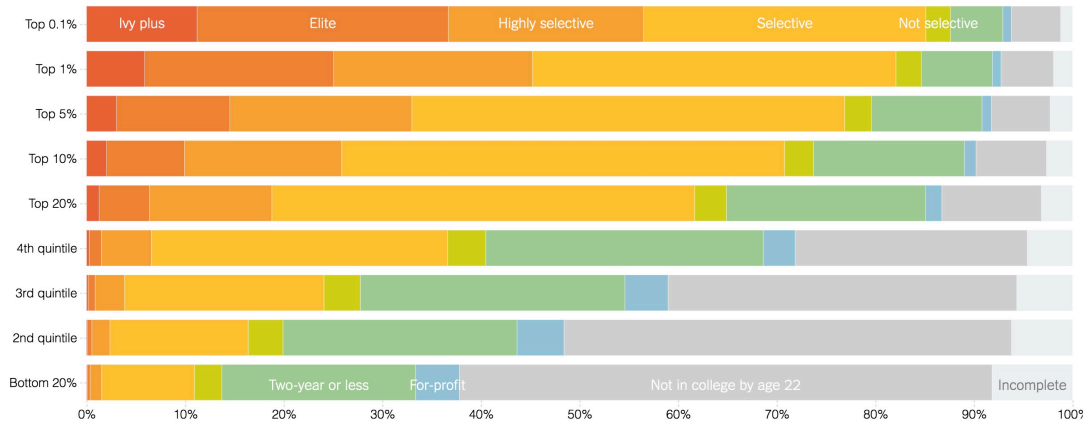
The meritocratic class has mastered the old trick of consolidating wealth and passing privilege along at the expense of other people's children.

The 9.9 Percent Is the New American Aristocracy

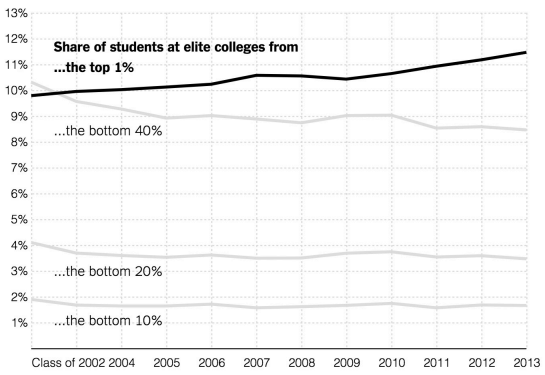
The class divide is already toxic, and is fast becoming unbridgeable. You're probably part of the problem.

Where today's 25-year-olds went to college, grouped by their parents' income

About four in 10 students from the top 0.1 percent attend an Ivy League or elite university, roughly equivalent to the share of students from poor families who attend any two- or four-year college.



Access to top colleges has not changed much



At "elite" colleges, roughly 80 of the most selective colleges in the United States, as measured by a 2009 index created by Barron's.

Table 1. Typical Entry-Level Compensation by Field and Degree

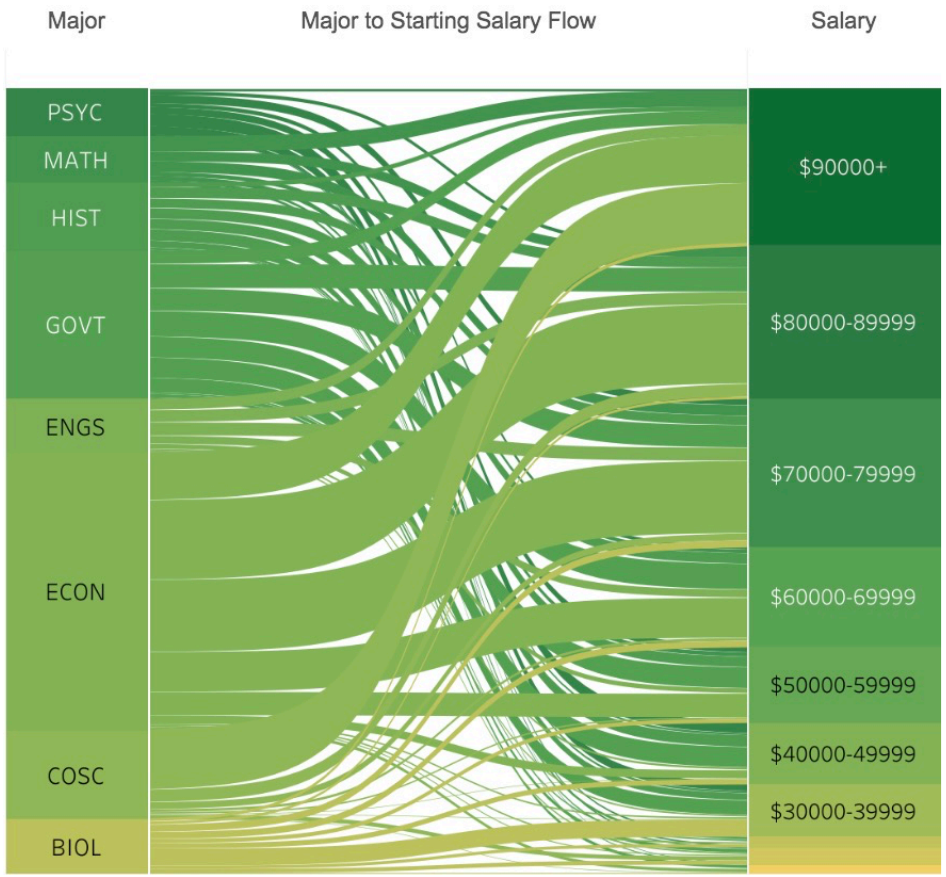
	First Year Total Annual Compensation[a]
Law Firm	
JD	$175–330K[b]
Investment Bank	
BA	$70–150K
MBA/JD/PhD	$150–350K
Consulting Firm	
BA	$70–100K
MBA/JD/PhD	$135–200K

Sources: Management Consulted (2012); National Association of Legal Professionals (2011); Wall Street Oasis (2012)

[a]Starting salaries are standardized by firm and do not vary by a candidate's alma mater, grades, or prior work experience. These figures include base salary, annual performance bonus, and signing bonuses; they exclude relocation expense bonuses, which vary by firm.

[b]Only one law firm matches employees' base salary in bonus; most firms are closer to the lower end of this range.

Dartmouth College Top 8 Majors: Starting Salaries



Dartmouth Cap and Gown Survey (c/o 2016-18)

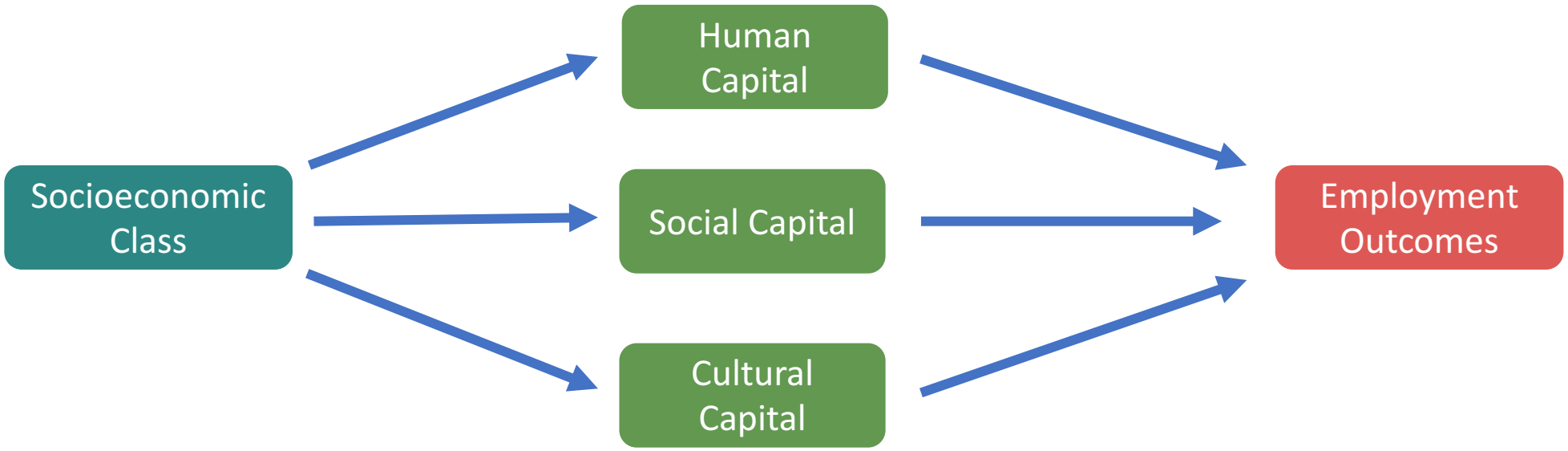
Research Question & Results Roadmap

RQ 1: What kinds of disparities by socioeconomic class exist in selective employment outcomes from elite higher education institutions?

RQ 2: What role does social, cultural, and human capital play in selective employment outcomes? Do these forms of capital explain class differences in achievement?

RQ 3: Does the role of social, cultural, and human capital differ within the finance, consulting, and technology industries?

Existing Literature: Social Reproductive Theory (Bourdieu)



Existing Literature

Social Capital:

- Social capital theory that captures structural and functional aspects (Coleman 2000)
- Previous studies capture partial effects of social capital on hiring outcomes (Goddard 2003; Pager and Shepherd 2008).

Cultural Capital:

- High status groups construct cultural employment requirements to monopolize opportunities
  - Exclusion of people who lack in-group culture is legitimized and normalized (Collins 1971)
  - Rewarding high brow culture forces minorities and working class students into competing with only dominant cultural capital (Tzanakis 2011; Bourdieu and Passeron 1977)

Existing Literature

Socioeconomic Mobility despite Social Reproductive Theory:

- Non-elite students can gain social capital and acquire the cultural habits by socialization into the mainstream elite culture to achieve upward mobility (Coleman 2000; Walpole 2003; Horvat 2001)

Empirical Studies: Culture serves as a vehicle for labor market sorting

- Significant relationship on educational attainment, capturing only 20% of variation (DiMaggio 1982)
- Elite Professional Services use culture fit
  - Assessed by leisure activities, shared experiences, and self-presentation as the most important quality (e.g. the "airplane test") (Rivera 2015).
- Experimental study with resumes using high-brow culture (e.g. sailing versus track and field)
  - Found 16.25% interview rate as compared to 1.28% for lower class resume (Rivera and Tilcsik 2016)

Contributions

1. Replication of lack of mobility (Haveman and Smeeding 2006)
2. Empirical assessment of all three forms of capital simultaneously
   - Human, social, cultural capital (Bourdieu)
   - Replication of the role of cultural capital (Rivera and Tilcsik 2016)
   - Replication of the role of social capital (Granovetter 1973)
   - Parental industry extends work on parent education as social or cultural capital (Jaeger and Holm 2003; Kalmijn and Kraaykamp's 1996)
3. Inclusion of technology industry as elite industries
   - Elite professional services are established (Rivera) and new entrant, technology industry was identified but not studied

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RQ 3: Does the role of social, cultural, and human capital differ within the finance, consulting, and technology industries?

Hypothesis 1:

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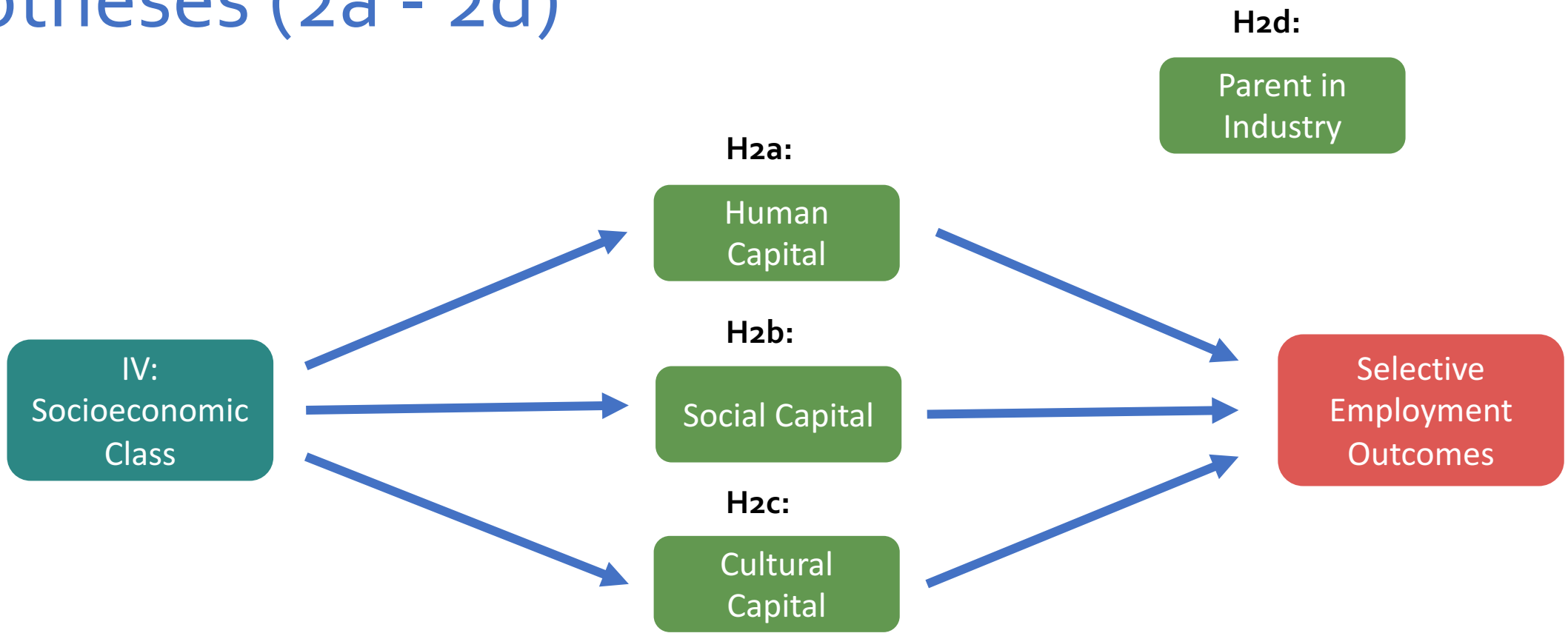
- **H2d:** Transferred parent capital within an industry predicts a higher likelihood of employment in the same industry.

RQ 3: Does the role of social, cultural, and human capital differ within the finance, consulting, and technology industries?

Hypotheses (2a - 2d)



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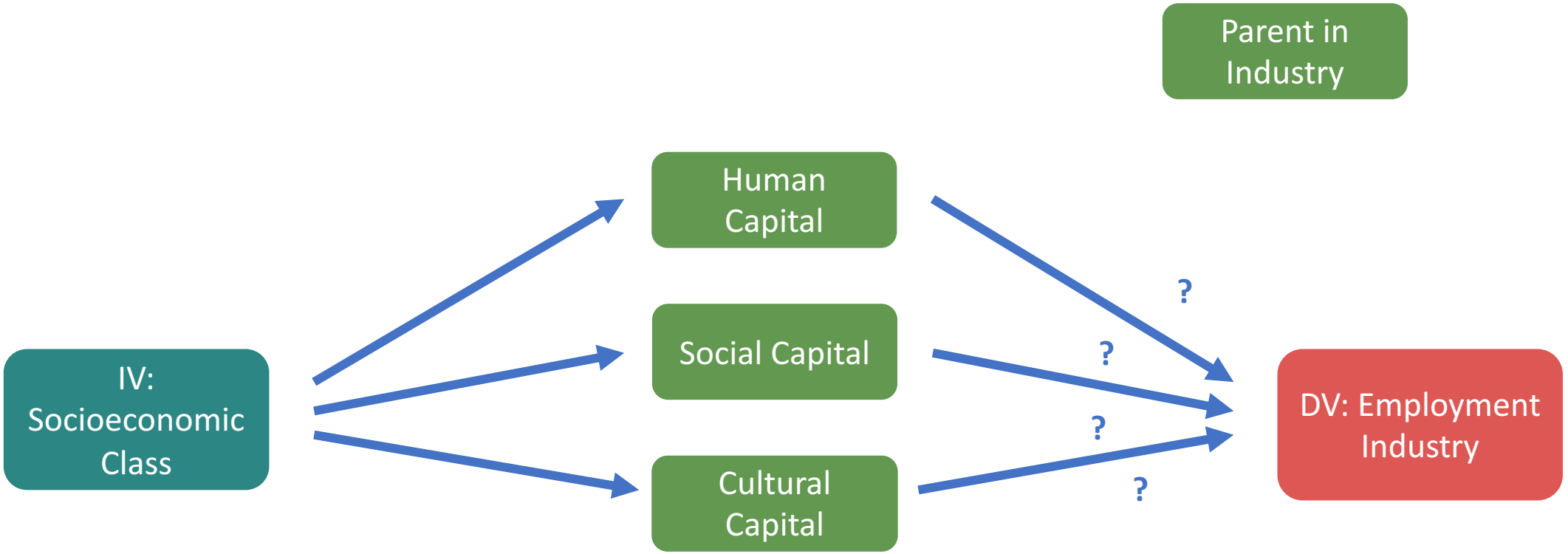
Research Question 1



Data & Methods

Data Collection

- Respondent recruitment via e-mail
  - Recruitment e-mails sent to members of class on Feb. 10th, Feb. 26th, & Apr. 2nd 2019
  - Obtained e-mails for 950 of ~1115 total members in class of 2019
  - Compensation: $10 Amazon gift card delivered via e-mail
- Survey fielded via Qualtrics platform
  - 69 questions, median time ~10.5 min.
  - N = 463 / 950 (50% response rate)
  - N = 395 / 463 (85% completion rate)

Table 1: Key Independent Variable

SES	Pct.	Definition
Low SES	22.28 %	Family income <$75k or 1st generation college student
Mid SES	55.44 %	Family income $76 - $349k and at least 1 college-educated parent
High SES	22.28 %	Family income >$350k

Table 2: Dependent Variable 1

Dependent Variable 1	Proportion
Selectivity	(N = 338)
Selective Employment	22.19 %
Non-Selective Employment	25.74 %
Unemployment	52.07 %

Table 3: Dependent Variable 2

Dependent Variable 2	Proportion
Employment Industry	(N = 338)
Finance	12.72 %
Consulting	24.56 %
Technology	15.68 %
Other	31.68 %
Unemployed	15.36 %

Table 4: Independent Variables

IV	Definition
Cumulative GPA	Cumulative grade point average; cut-offs determined using honors
Matching Parent Industry	Entering into the same elite industry as 1 parent, or not entering into elite industry and having no parents in no elite industries
Social Capital Index 1	Potential and actualized help used in pre-professional search
Social Capital Index 2	Pre-college network and tendency to ask for help
Cultural Capital Index 1	Greek house affiliation
Cultural Capital Index 2	High-brow hobbies

Methodology:
Social Capital Indices

IV	Question	Index 1	Index 2
Before College Internship Help	"Before starting college, how many people did you know that you could ask for help in finding or securing an internship or job?"	17.67%	79.10%
After College Internship Help	"By your junior fall, how many people did you know that you could ask for help in finding or securing an internship or job?"	6.74%	0.05%
Family Help Utilized	"What was the relationship of the person or people who helped you [insert help] in your search for off-term or post-graduate plans?" Sum of selections: Parents, family friends, or siblings	4.54%	0.13%
Institutional Help Utilized	"What was the relationship of the person or people who helped you [insert help] in your search for off-term or post-graduate plans?" Sum of selections: Faculty, upperclassmen, college peers	61.50%	19.80%
Professional Leverage Used	"Did you receive any of the following forms of assistance…?" Response: Resume edits, referrals, recommendations, references, interview practice, or obtaining specialized information	6.51%	0.92%
Number of Mentors	"How many people have helped guide you in a meaningful or significant way in your personal, college, and pre-professional life?"	3.03%	0.02%

Table 4: Independent Variables

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Social Capital Index 2	Pre-college network and tendency to ask for help
Cultural Capital Index 1	Greek house affiliation
Cultural Capital Index 2	High-brow hobbies

Methodology: Cultural Capital Indices

IV	Question	Index 1	Index 2
Greek Affiliation	"Were you ever affiliated with a Greek organization, and if so, with which house(s)?"	91.67%	4.94%
Private School	"Which of the following best describes the high school(s) you attended?" Selection: Private School or Boarding School	7.39%	0.11%
Highbrow Sports	"Are you a varsity athlete, and if so on which team?" "Do you play a club sport, and if so on which team?"	0.24%	37.22%
Study Abroad	"Did you study abroad during your time at Dartmouth?"	0.24%	0.93%
Highbrow Hobby	"Describe the extracurricular activities you have meaningfully participated in as well as your level of involvement."	0.43$	56.30%

Combinations of Résumé Items That Together Signal Social Class

Developed for a résumé audit method-based study on who gets interviews at top law firms.

	HIGHER-CLASS COMBO	LOWER-CLASS COMBO
Last name	Cabot	Clark
Undergraduate athletic award	University athletic award	University award for outstanding athletes on financial aid
Undergraduate extracurricular activity (2008 to 2011)	Peer mentor for first-year students	Peer mentor for first-generation college students
Undergraduate extracurricular activity (2007 to 2011)	Sailing team	Track and field (relay team)
Personal interests	Sailing, polo, classical music	Track and field, pick-up soccer, country music

SOURCE "CLASS ADVANTAGE, COMMITMENT PENALTY," BY LAUREN RIVERA AND ANDRÁS TILCSIK, *AMERICAN SOCIOLOGICAL REVIEW*, DECEMBER 2016

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Methodology:
Principle Component Analysis

- A feature extraction method used to capture a latent variable (e.g. social capital)
- Assesses variation across several variables
- Top 2 dimensions capturing >60% of variance used

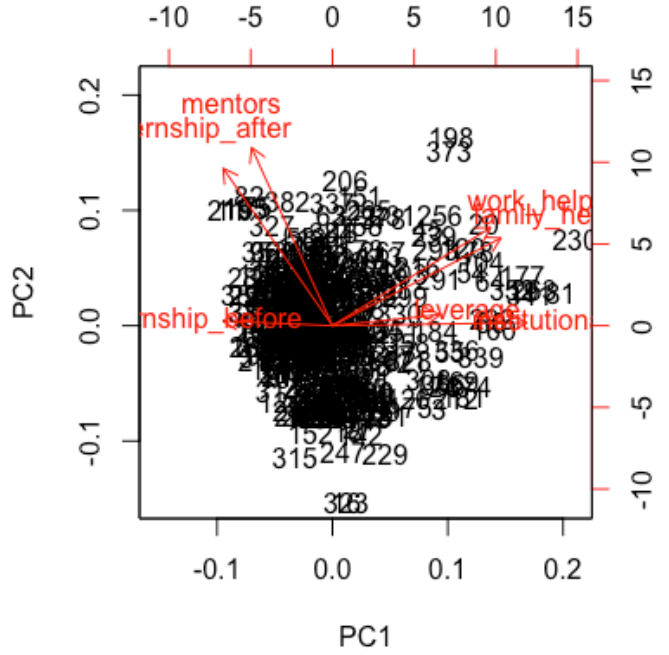

Table 12: Principle Component Analysis Dimensions: Social Capital Variables

	Eigenvalue	Variance Percent	Cumulative Variance Percent
Dimension 1	7.26	38.57	38.57
Dimension 2	4.72	25.07	63.65

Table 13: Principle Component Analysis Dimensions: Cultural Capital Variables

	Eigenvalue	Variance Percent.	Cumulative Variance Percent
Dimension 1	1.51	47.90	47.90
Dimension 2	0.61	19.35	67.26

Analytical Strategies: Logistic Regression

- Ordinal Logistic Regression
  - DV: Selectivity of employment
    - Ordinal categorical dependent variable
  - Interpreted using Odds Ratio
- Multinomial Logistic Regression
  - DV: Employment Industry
    - Nominal categorical dependent variable
  - Interpreted using Risk Ratio

Results

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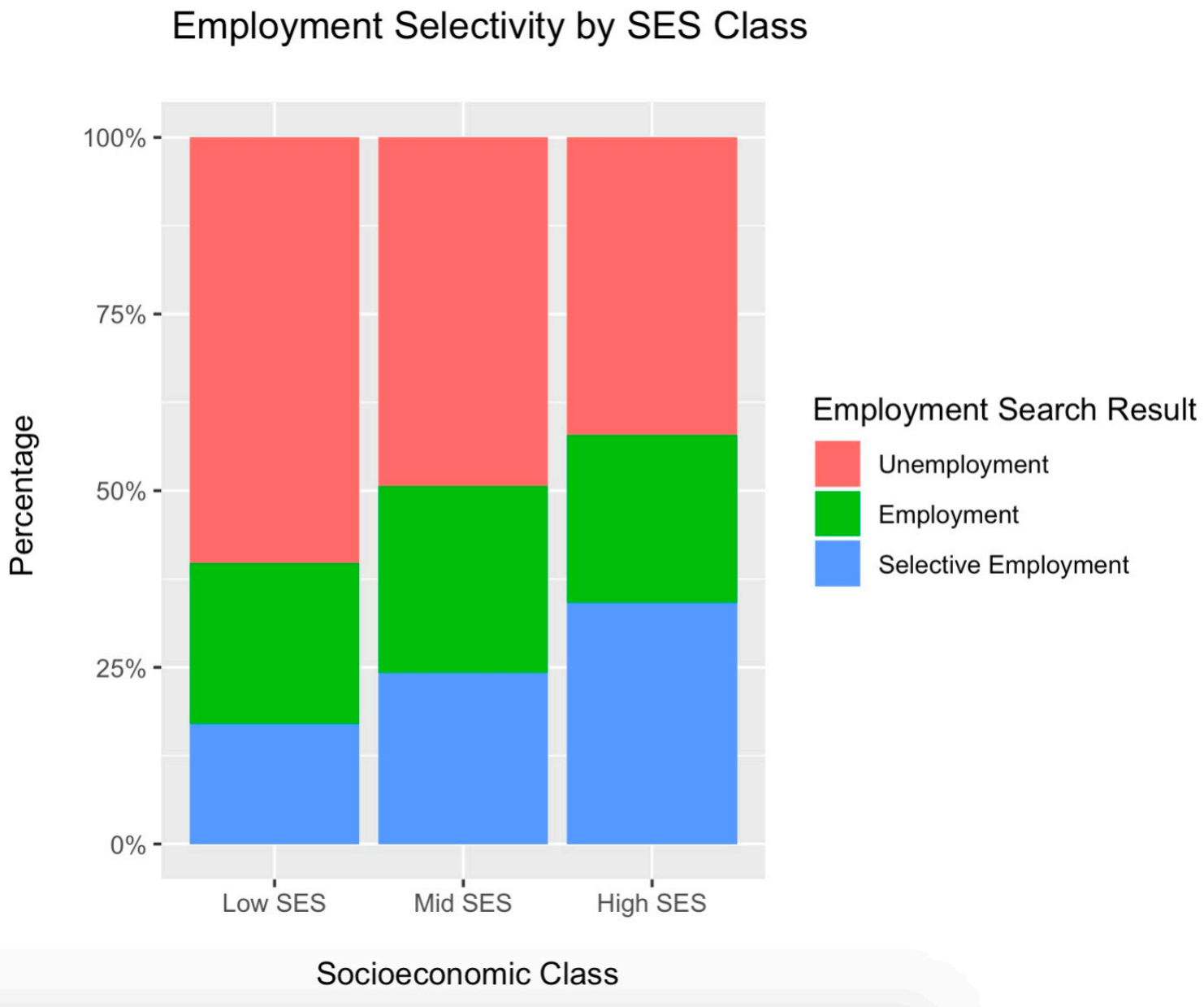
RQ 3: Does the role of social, cultural, and human capital differ within the finance, consulting, and technology industries?

Descriptive Findings:

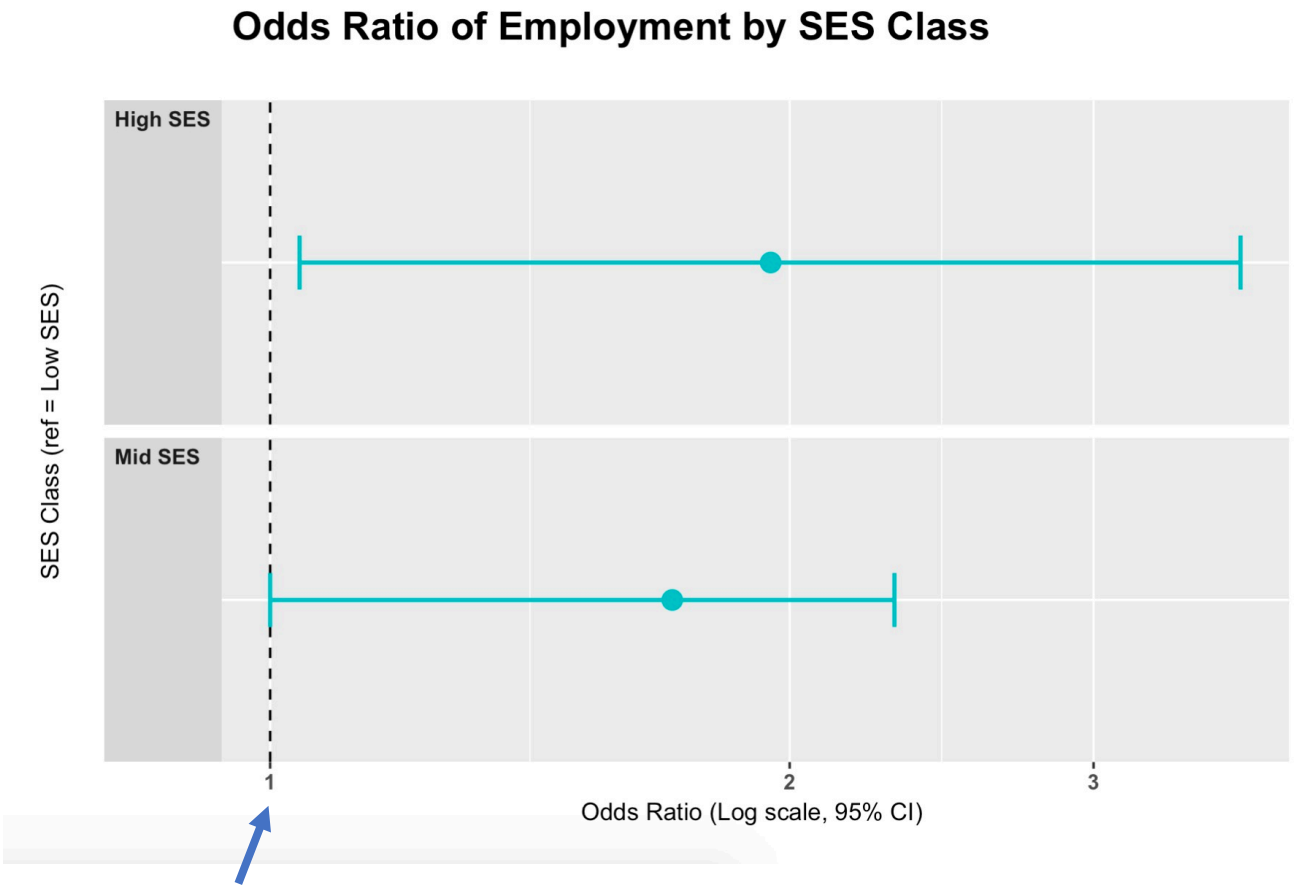
Students of lower socioeconomic status are less likely to be employed and selectively employed.

Are these differences significant?



Finding 1:

Consistent with H1, students from higher socioeconomic backgrounds achieve selective employment at higher rates.



Baseline (odds ratio = 1) indicates no difference in odds from referent group (low SES students).

Model Process: Iterating through capital IV that could explain existing differences in model 1

Table 7: Odds Ratio of Selective Employment

	Model 1		Model 2		Model 3	
SES Class (ref = Low)						
Mid SES	1.71*	(1.98)	1.31	(0.93)	1.41	(1.19)
High SES	1.95*	(2.09)	1.38	(0.89)	1.49	(1.14)
Female			0.89	(-0.56)	0.88	(-0.58)
Race (ref = White)						
Asian			1.18	(0.69)	1.33	(1.15)
Other			0.60	(2.33)	0.49	(-2.08)
Cumulative GPA			1.18*	(2.33)		
Cultural Capital Index 1					1.17	(1.39)
Cultural Capital Index 2					1.04	(0.35)
Observations	338		333		333	

z statistics in parentheses, risk ratios used as coefficient

Selectivity outcome coded as an ordinal variable of Undecided, Employed, Selective Employment

$^{+}\ p < 0.10$, $^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$

Table 8: Odds Ratio of Selective Employment

	Model 4		Model 5		Model 6	
Socioeconomic Class						
Mid SES	1.35	(1.05)	1.33	(1.00)	1.03	(0.10)
High SES	1.35	(0.83)	1.36	(0.87)	0.89	(0.30)
Female	0.92	(-0.40)	0.90	(-0.50)		(-0.00)
Race (ref = White)						
Asian	1.17	(0.64)	1.30	(1.08)	1.00	(0.81)
Other	0.52^{+}	(-1.86)	0.52^{+}	(-1.90)	0.78	(-0.68)
Cumulative GPA					1.25**	(2.96)
Social Capital Index 1	1.39**	(3.04)			1.38**	(2.90)
Social Capital Index 2	0.80*	(-2.02)			0.78*	(-2.14)
Cultural Capital Index 1					1.16	(1.26)
Cultural Capital Index 2					1.08	(0.72)
Parent in Industry			2.15***	(3.29)	1.85**	(2.58)
Observations	332		333		332	

z statistics in parentheses

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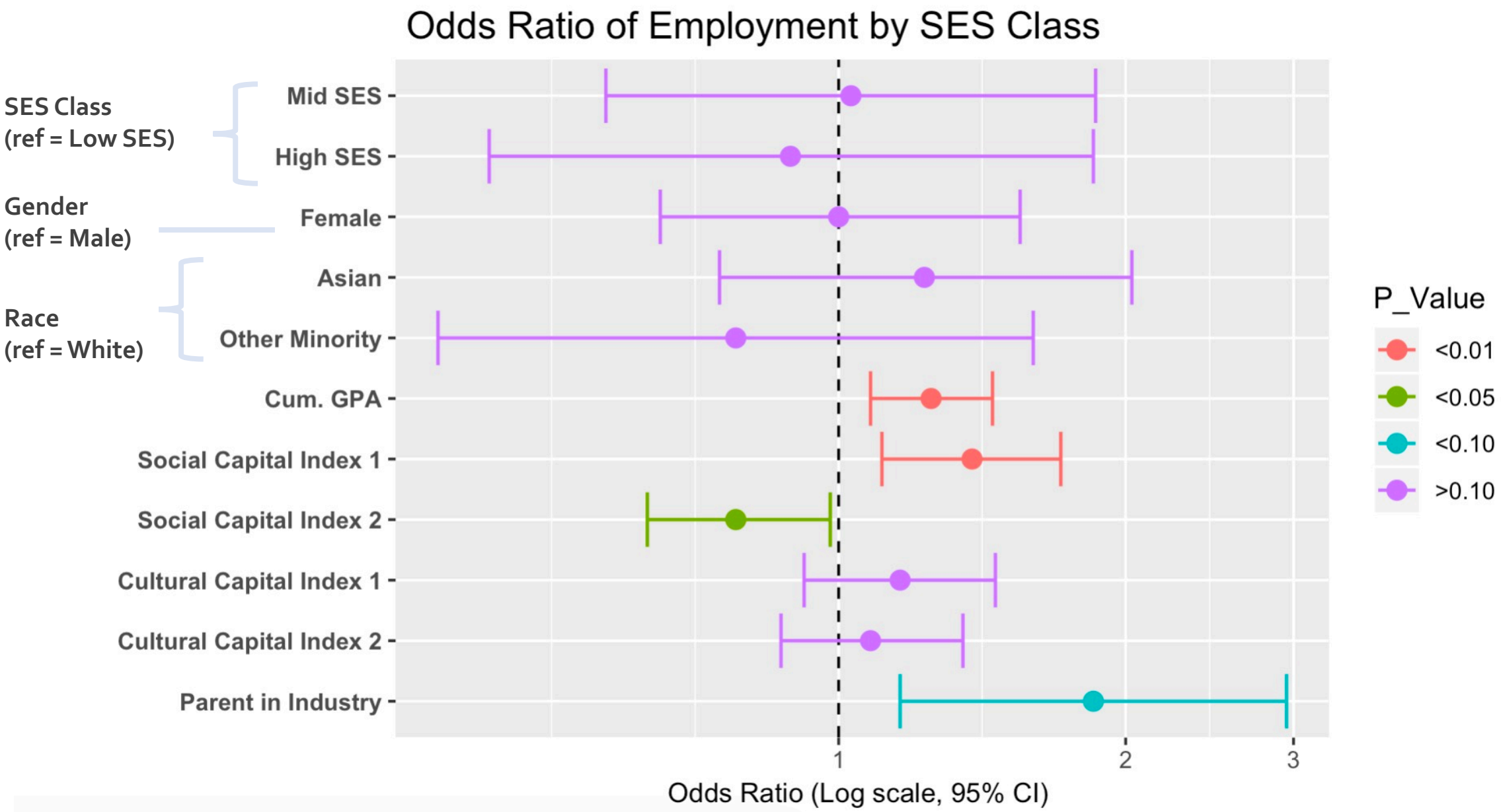
Odds Ratio of Employment by SES Class
SES Class
(ref = Low SES)
Gender
(ref = Male)
Race
(ref = White)
Mid SES
High SES
Female
Asian
Other Minority
Cum. GPA
Social Capital Index 1
Social Capital Index 2
Cultural Capital Index 1
Cultural Capital Index 2
Parent in Industry
1
2
3
Odds Ratio (Log scale, 95% CI)
P_Value
<0.01
<0.05
<0.10
>0.10

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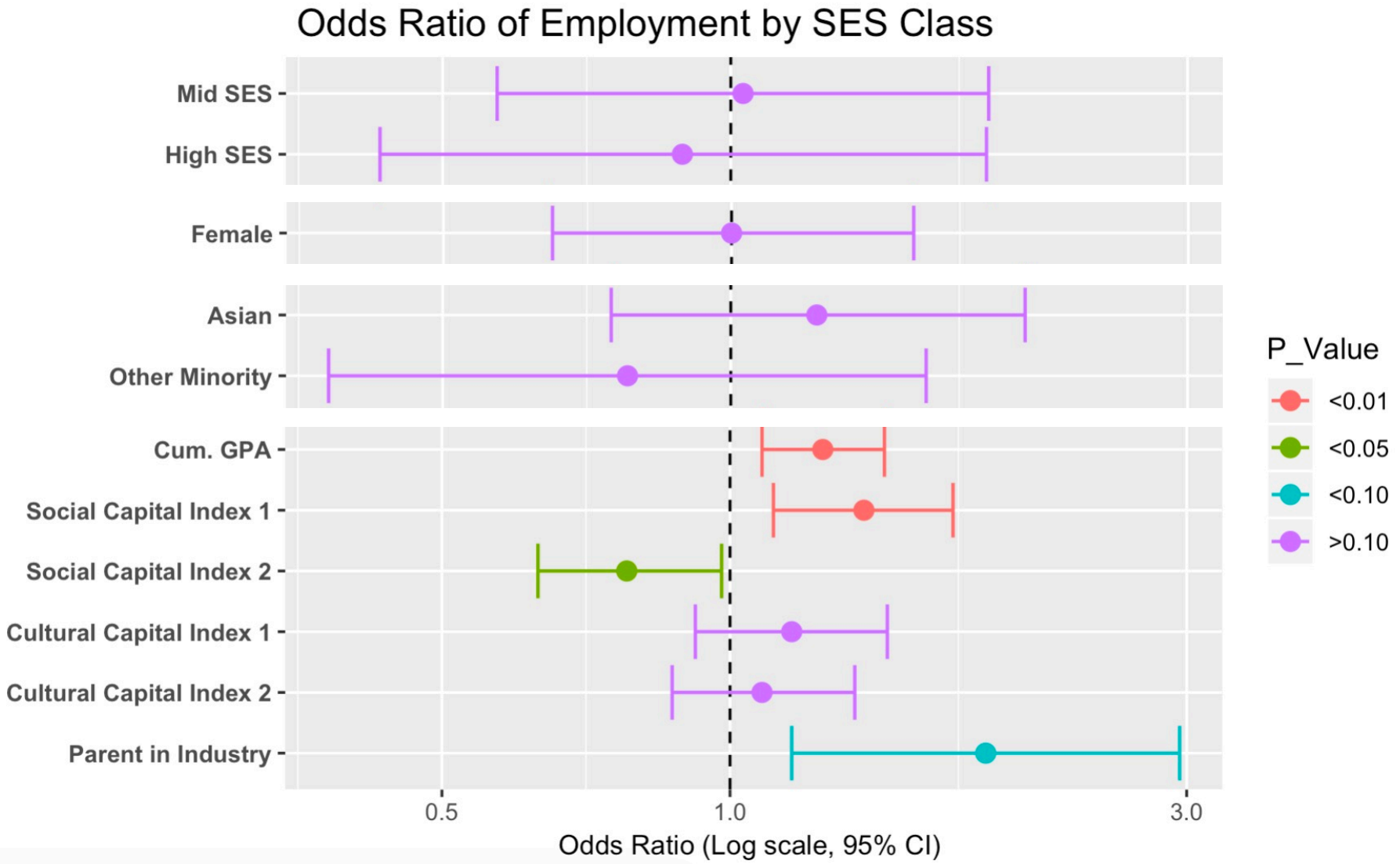
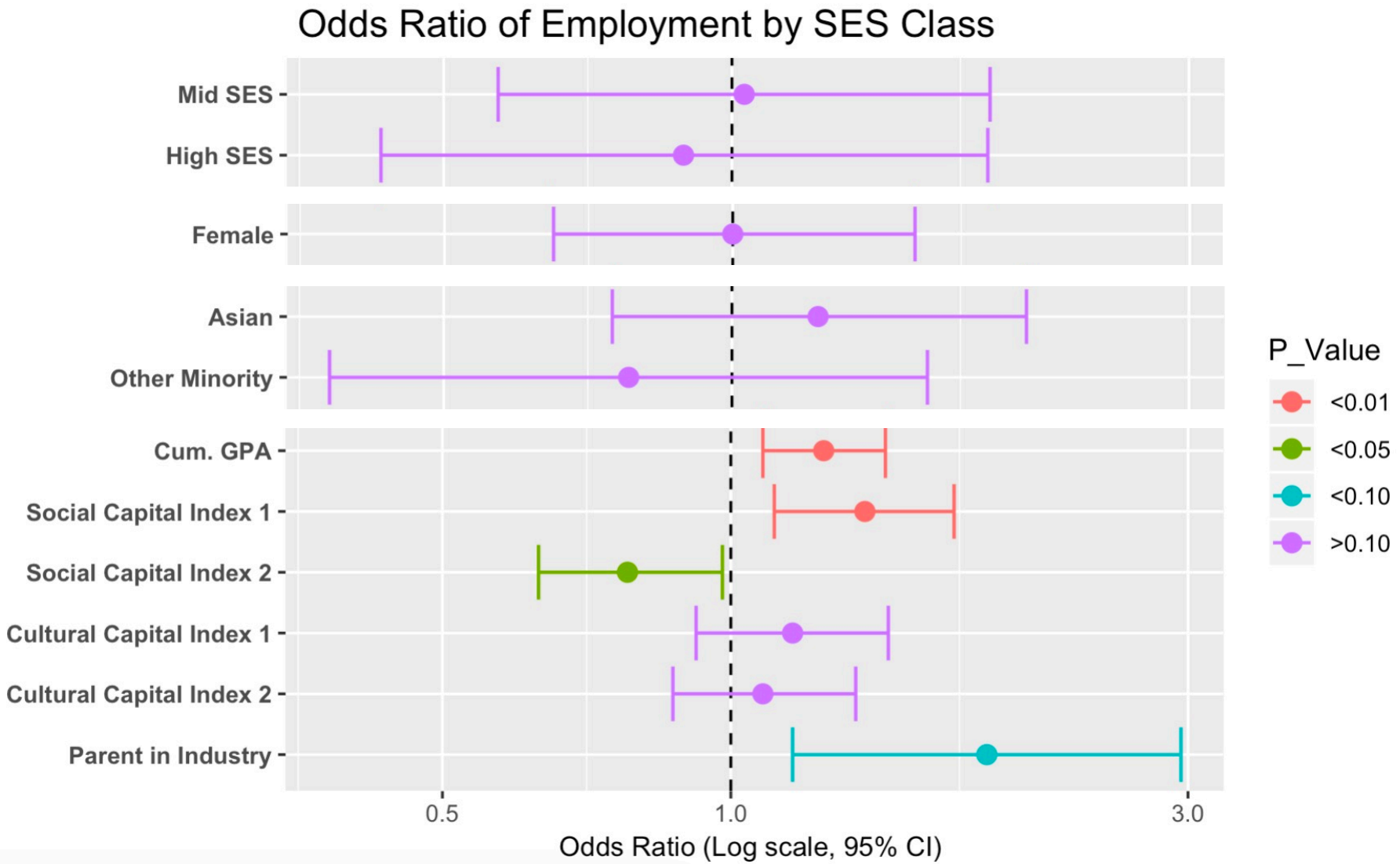
Finding 2a:

Consistent with H2a, human capital explains the effect of SES class on obtaining employment. Specifically, higher human capital predicts a 1.18 times higher odds of obtaining selective employment.



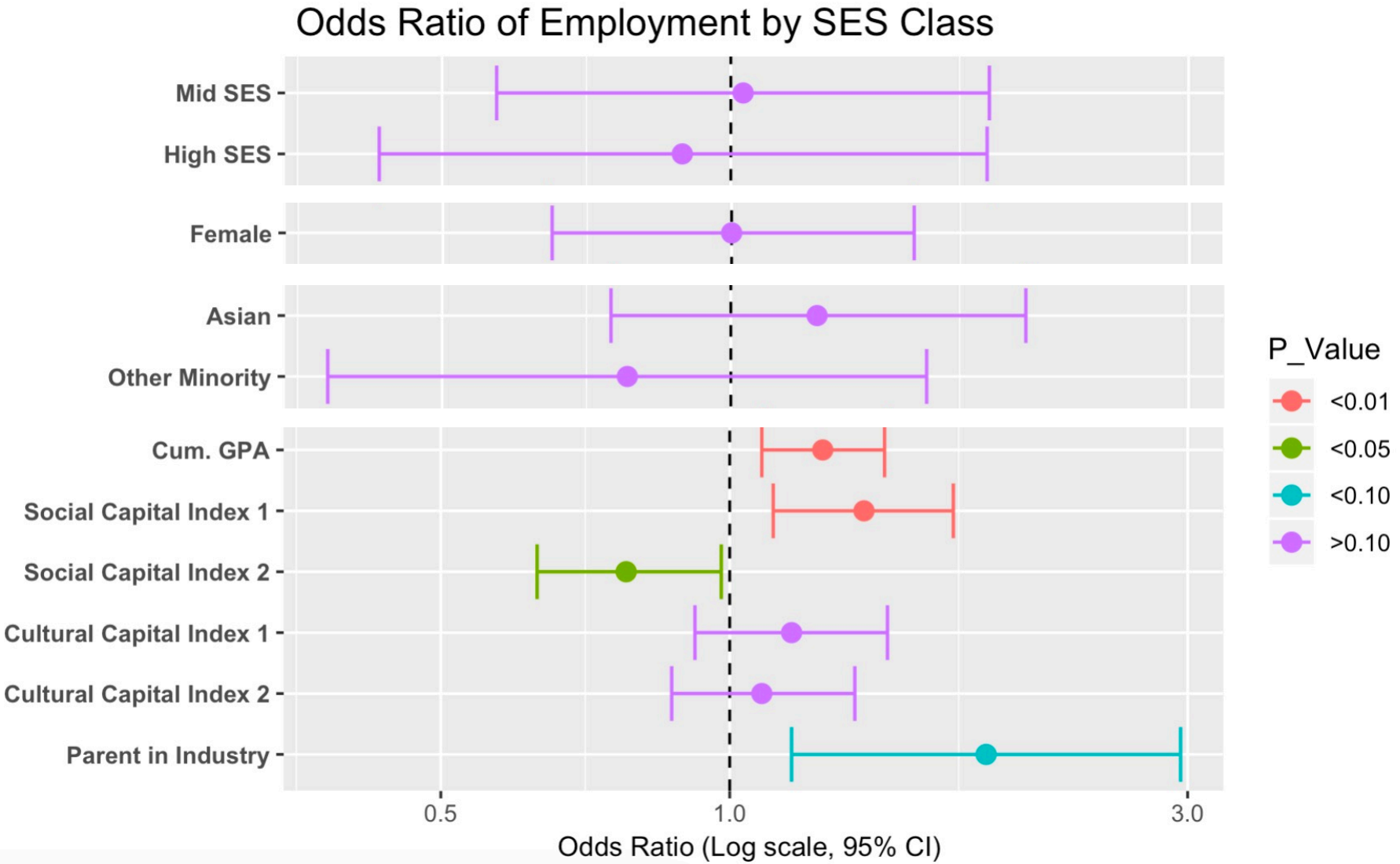
Finding 2b:

Consistent with H2b, social capital explains the effect on SES class on obtaining employment. Specifically, higher social capital leveraged for professional gains (index 1) predicts a 1.39 higher odds of obtaining selective employment.



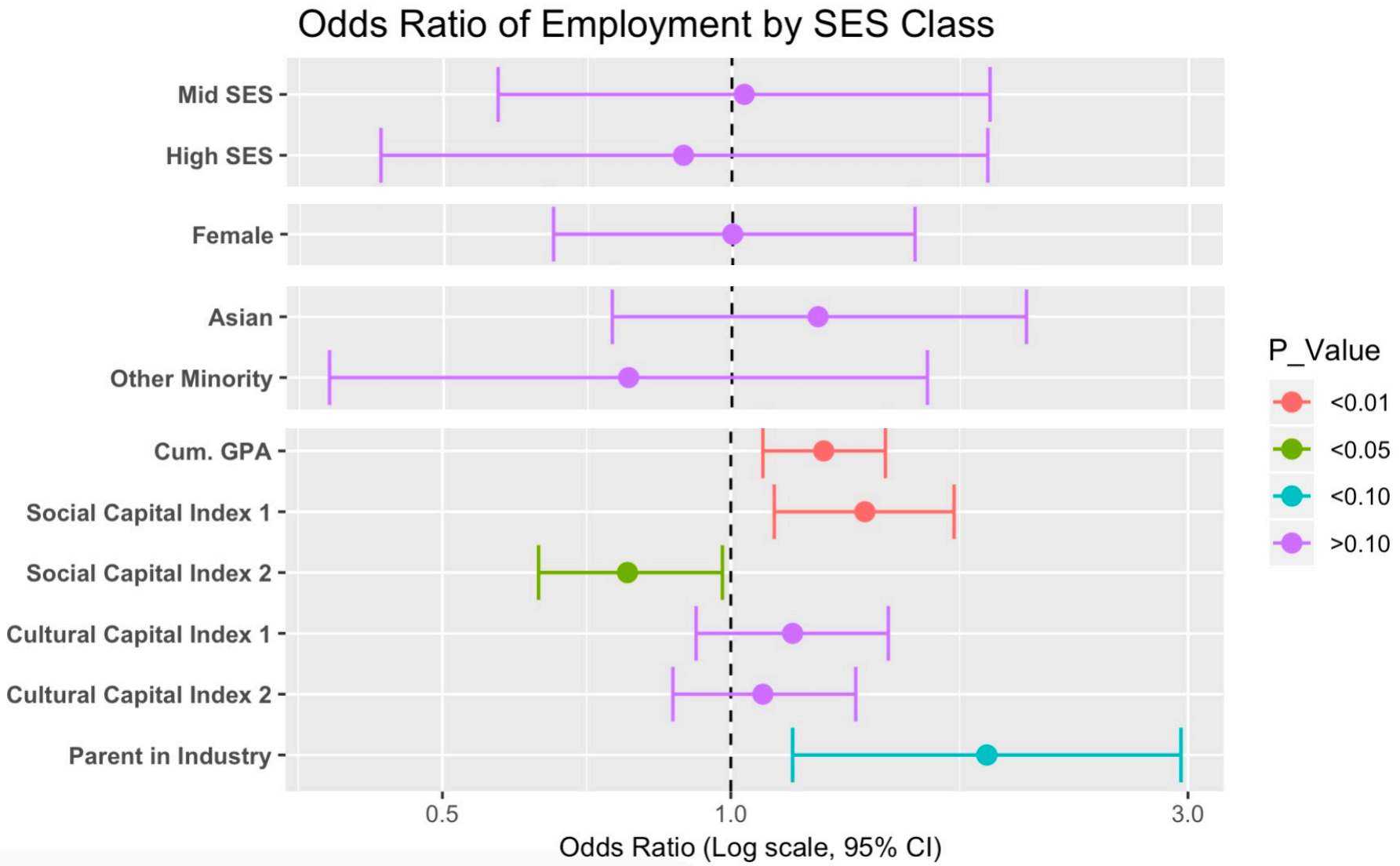
Finding 2c:

Inconclusive on H2c, we can neither accept nor reject the null hypothesis that higher cultural capital, specifically Greek affiliation (index 1) or high-brow hobbies (index 2), predicts a higher likelihood of obtaining selective employment.



Finding 2d:

Consistent with H2d, inherited parent capital predicts a 2.15 times higher odds of obtaining employment within the same industry.



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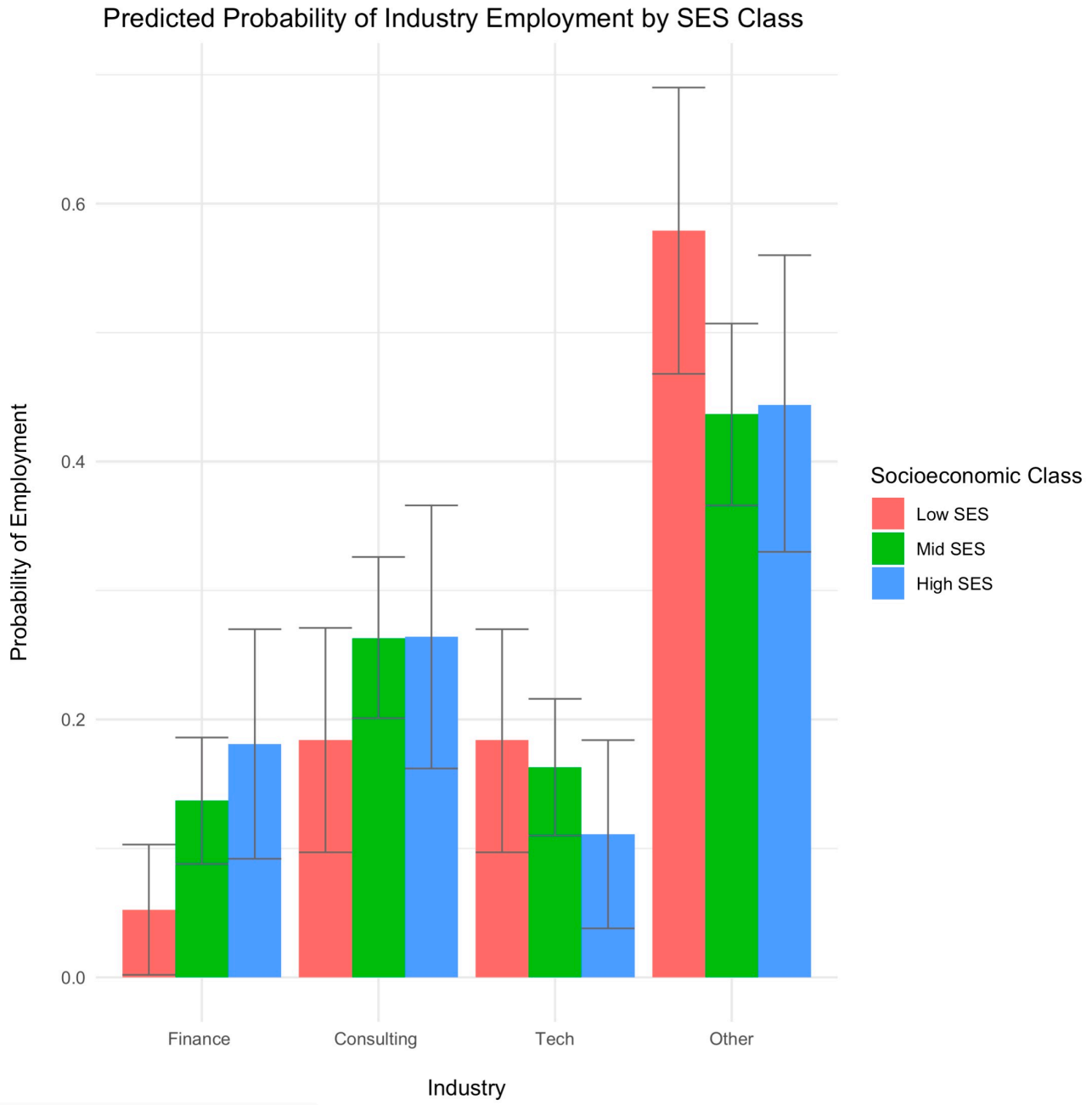
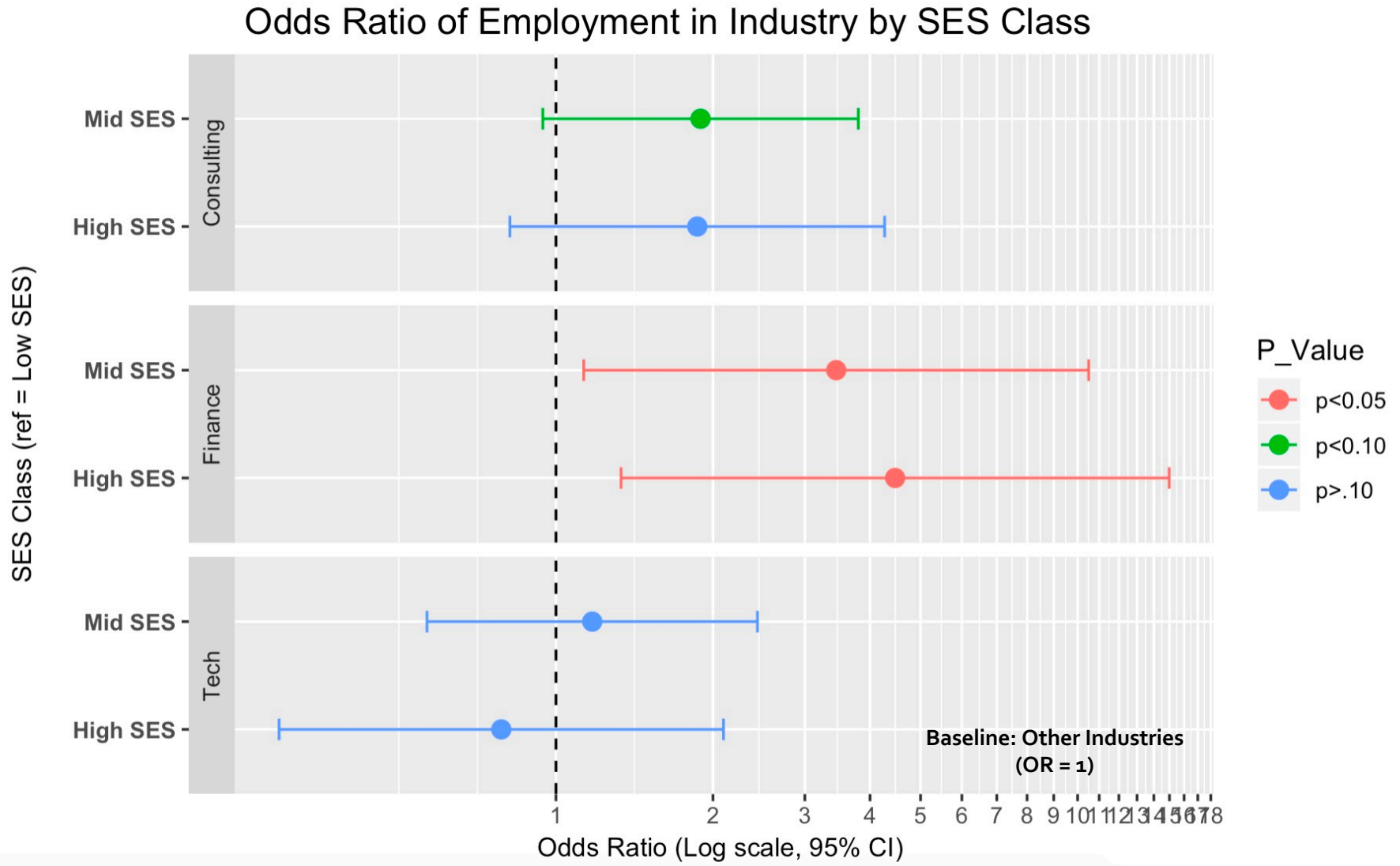
Descriptive Finding:

The probability of entering finance and consulting firms increases for students of higher SES backgrounds. The opposite trend occurs for students entering technology.

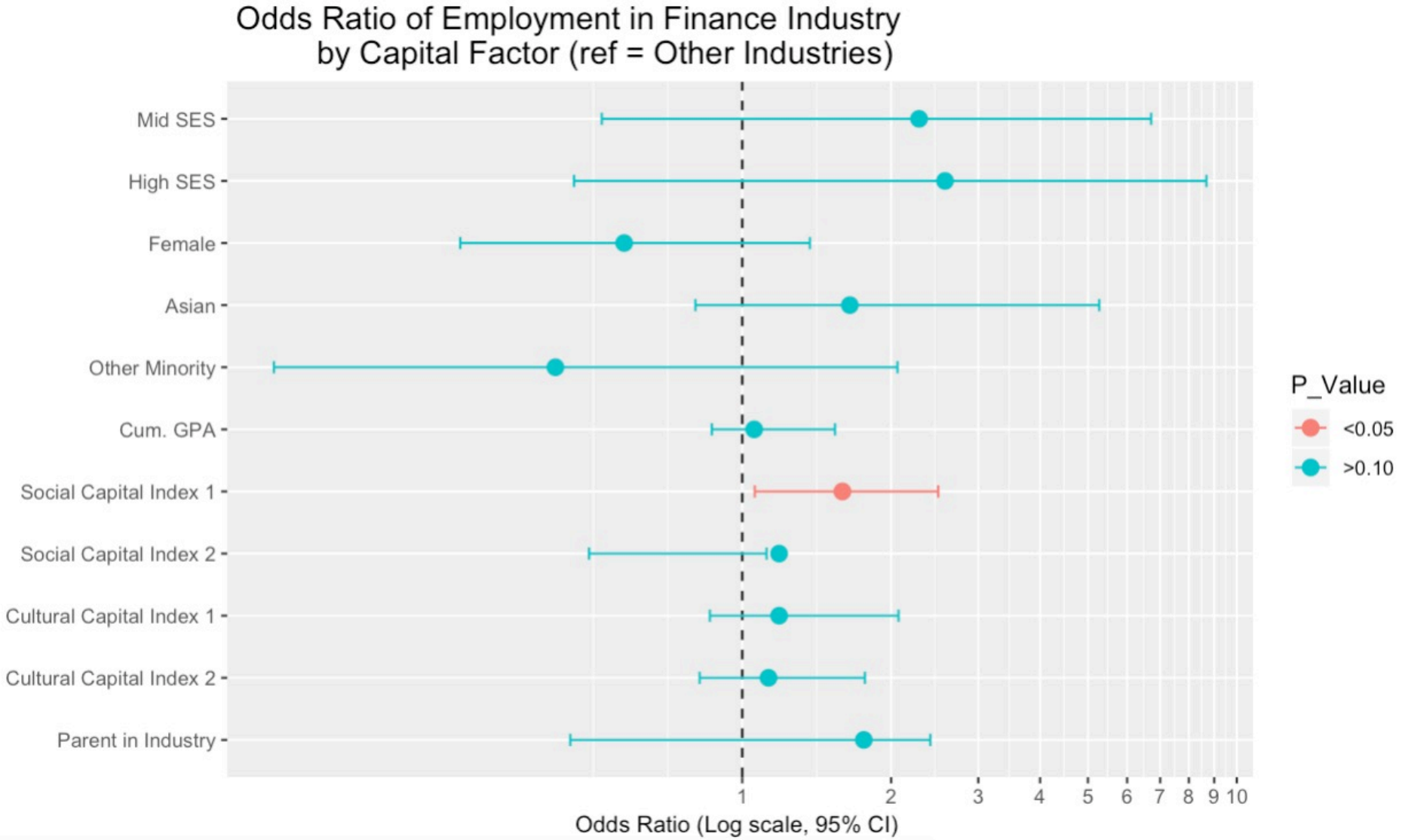


Finding 3a (Research Question 1):

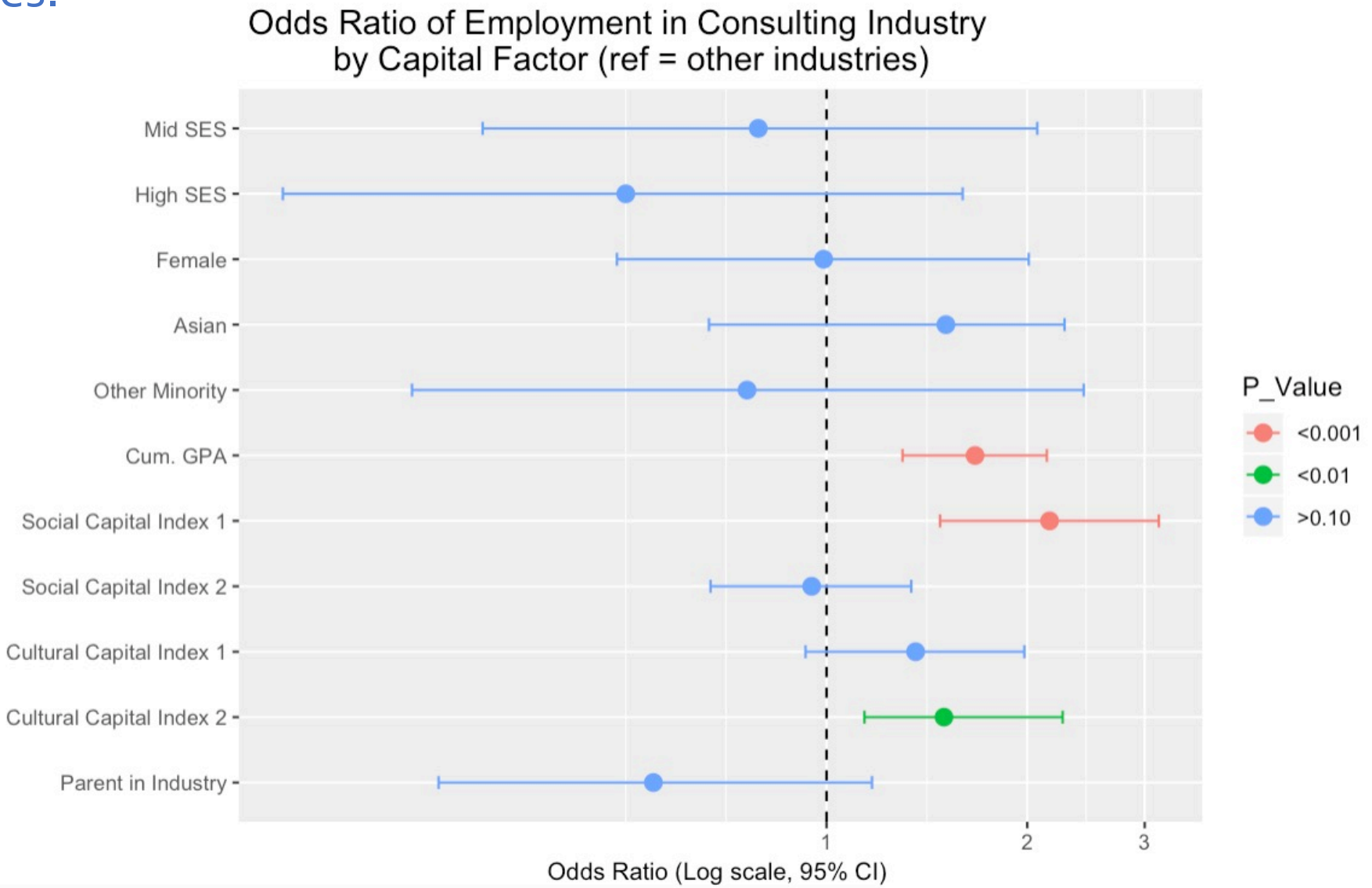
Students of higher socioeconomic backgrounds have a higher likelihood of entering the finance industry than "other" industries.



Finding 3a: An increase in social capital, specifically professional connections and help leveraged, results in a higher odds of employment in the finance industry compared to other industries.



Finding 3b: An increase in cumulative GPA, social capital used for professional help, and highbrow interests results in a higher likelihood working in the consulting industry over other industries.



Finding 3c: Having a parent in STEM results in a 5.92 times higher odds of a student working in technology than other industries. The effect of highbrow hobbies also increases the odds of employment in tech by 1.55 times over other industries.

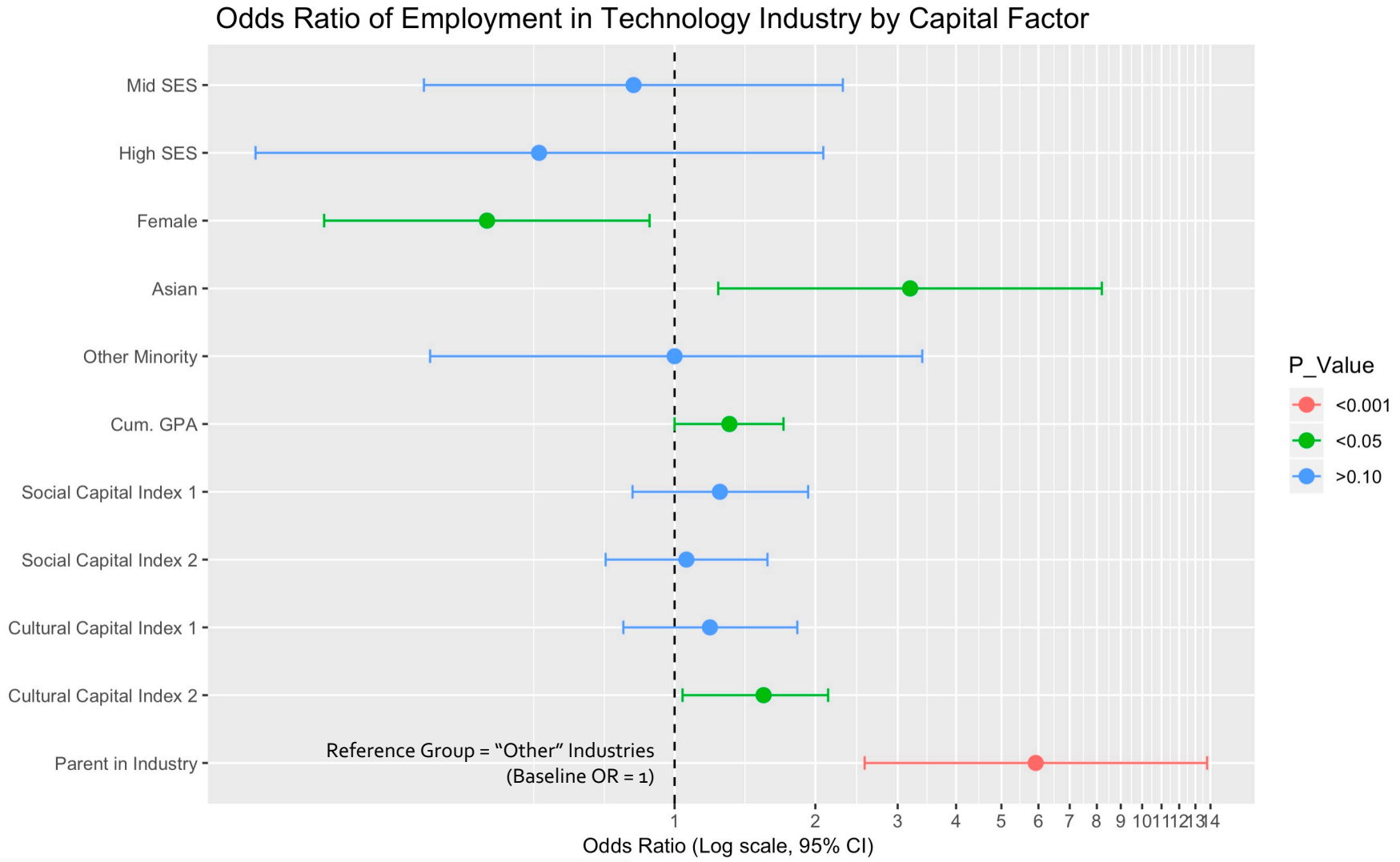


Table 7: Between Industries Comparison (Odds Ratios)

	Finance	Consulting	Tech
Human Capital: GPA		1.67***	1.31*
Social Capital Index 1	1.62*	2.16***	
Social Capital Index 1			
Cultural Capital Index 1			
Cultural Capital Index 2		1.60**	1.55*
Parent in Industry			5.92***

Limitations

- Social desirability bias of answers
- Non-response bias
  - Especially among underprivileged and extremely privileged student demographics
- Missing data on employment
  - Imputation was not used
- Time frame of study resulted in one-time cross-sectional data as opposed to repeated cross sectional data or panel data

Conclusions

- Students from lower SES backgrounds are less likely to achieve selective employment than students from middle and high SES background.
- Found evidence for forms of capital that predict higher likelihood of obtaining EPS employment
  - Social capital: confirmed past findings (Granovetter)
  - Cultural capital: confirmed Rivera's findings in EPS; expanded findings to technology industry
  - Human capital: found in consulting & technology
  - Parent capital: confirmed in consulting & technology
- Different forms of capital matter for various industries that contradict the current literature
  - Cultural capital and having a parent in the industry in technology industry significantly increased likelihood

Implications & Future Research

- Implications
  - Confirms that social capital in terms of how many people you know does not matter, it's how much you are able to mobilize (Granovetter; Coleman)
  - Non-academic resources focused on first generation and low income students in elite higher education institutions are critical
  - Recruiting diversity programs may be ineffectual if they hold talent to the same standards
- Future Research
  - Do these findings generalize to other elite private universities or public schools?
  - How does human capital, as measured by cumulative GPA, interact with "employable" majors and how do these disparities in major choice relate to SES class and pre-college coursework?

Thank You

Questions or Comments?

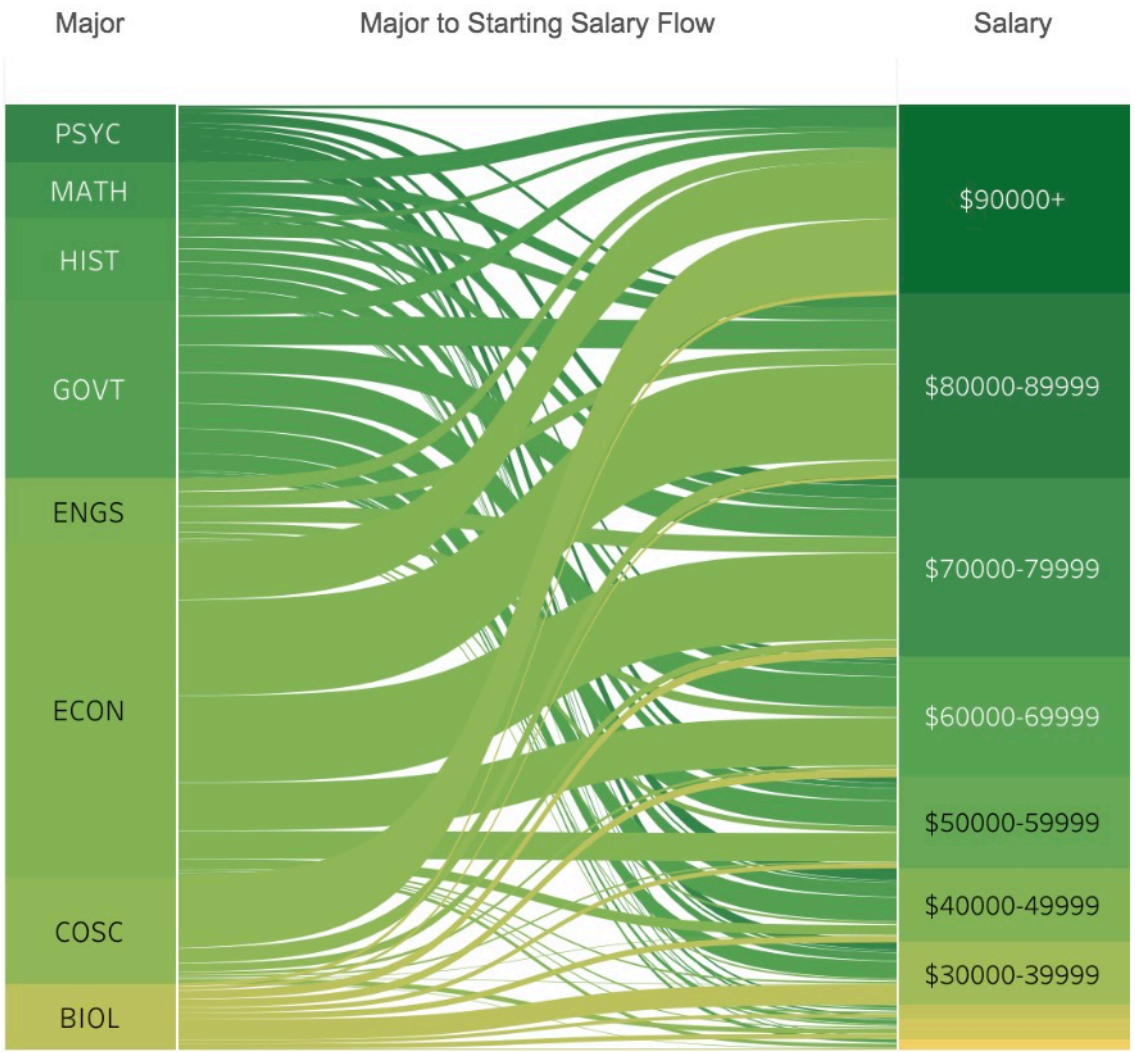
Abbreviated Acknowledgements:
Thank you to the Stamps Family Foundation and Kaminsky Family Fund for their generous funding.
Thanks to Professor Zhao & Professor Ferwerda for all their help throughout this year.
Thanks friends and professors for coming to my presentation!

Appendix

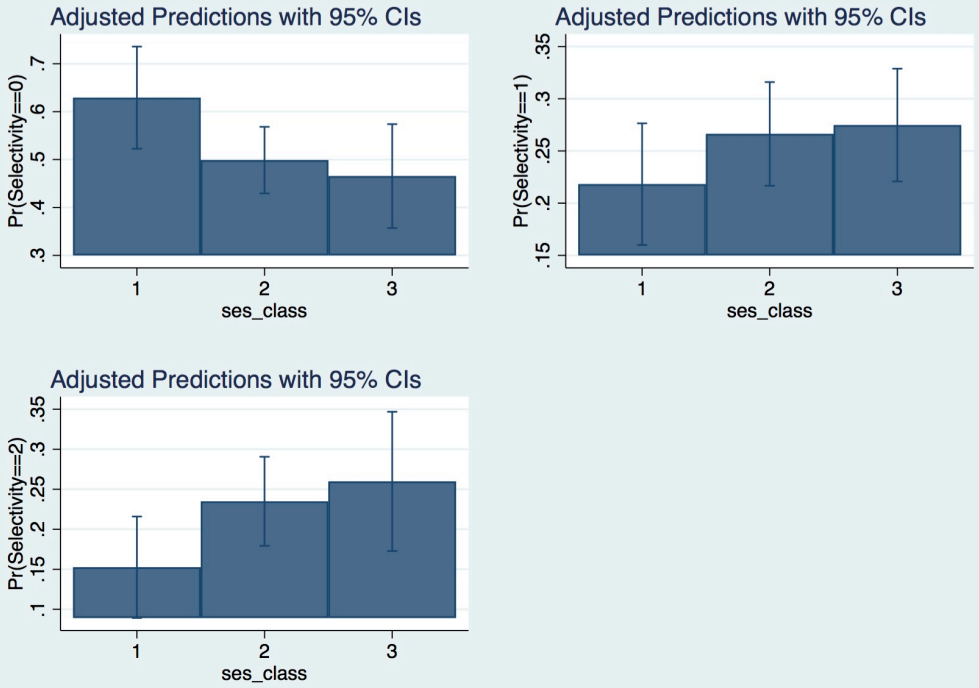
Data Collection

- Sample population is one cohort of Dartmouth seniors (class of 2019)
- Why Dartmouth College?
  - Major exit rates into the target industries of study: finance, consulting, and technology
  - Recruiting with prestigious companies and starting salaries in the top 10 percentile of income
  - At 38 colleges in America, including five in the Ivy League, including Dartmouth College, more students came from the top 1 percent (20% of students) of income than from the entire bottom 60 percent (Upshot).

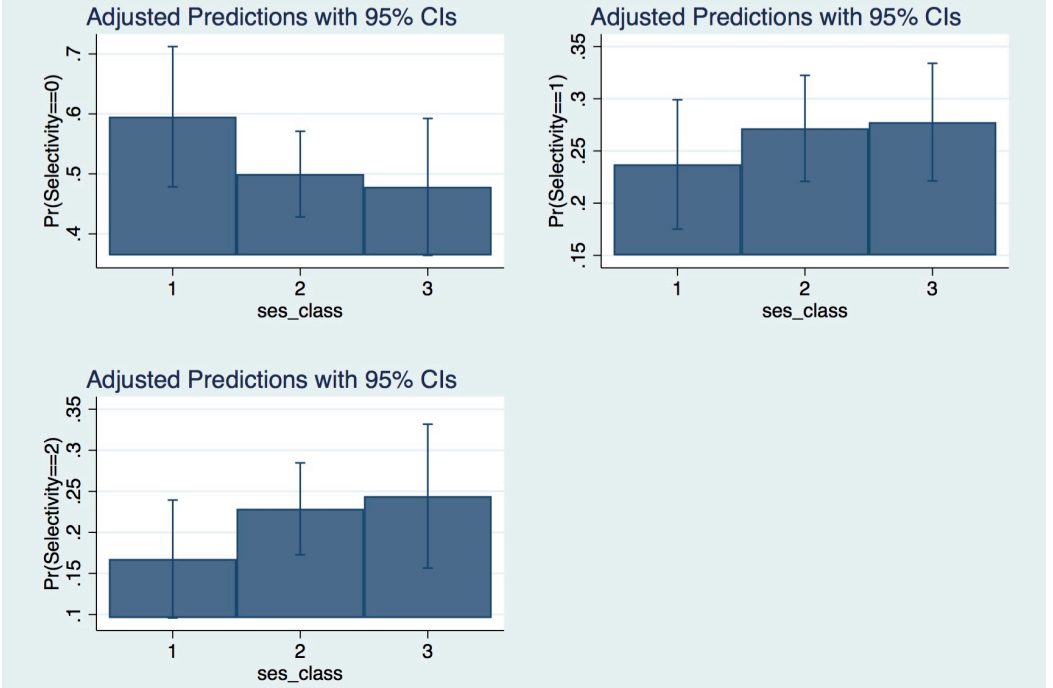
Dartmouth Cap and Gown Survey (c/o 2016-18)



Mediation Effects

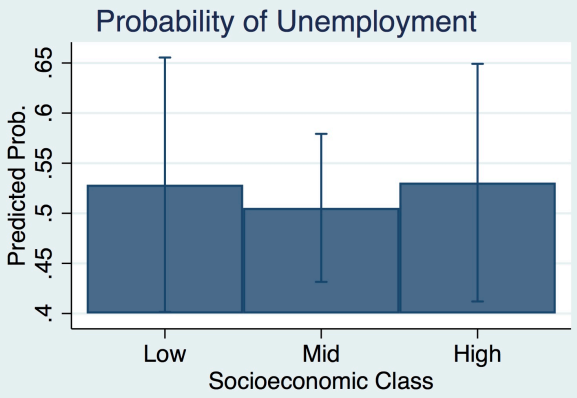


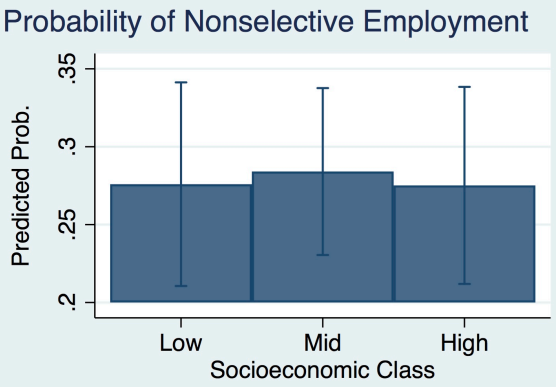
- Predicted probabilities by class

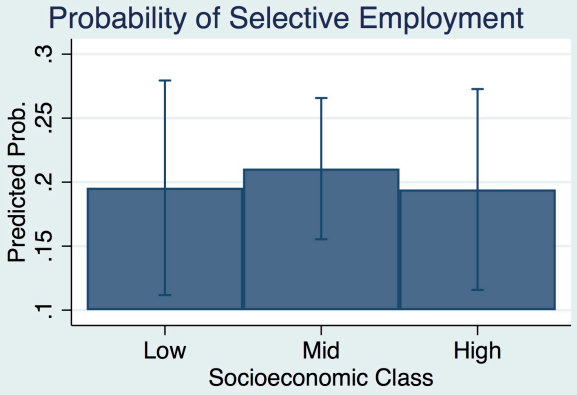


- Predicted probabilities with gender and race controls only

Mediation Effects







- Predicted probability after all IV capitals are very similar to each other per class

```
. regress selectivity i.ses_class
```

Source	SS	df	MS	Number of obs	=	338
				F(2, 335)	=	2.33
Model	3.03075958	2	1.51537979	Prob > F	=	0.0988
Residual	217.788767	335	.650115723	R-squared	=	0.0137
				Adj R-squared	=	0.0078
Total	220.819527	337	.655250821	Root MSE	=	.8063

selectivity	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ses_class						
2	.201575	.1090923	1.85	0.066	-.0130172	.4161672
3	.262053	.1317147	1.99	0.047	.0029609	.5211451
_cons	.5324675	.0918861	5.79	0.000	.351721	.713214

```
. regress selectivity i.ses_class female i.cat_race
```

Source	SS	df	MS	Number of obs	=	333
				F(5, 327)	=	2.37
Model	7.62978362	5	1.52595672	Prob > F	=	0.0394
Residual	210.694541	327	.644325813	R-squared	=	0.0349
				Adj R-squared	=	0.0202
Total	218.324324	332	.657603387	Root MSE	=	.8027

selectivity	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ses_class						
2	.1427816	.1156534	1.23	0.218	-.0847369	.3703002
3	.187777	.143637	1.31	0.192	-.0947922	.4703462
female	-.0515192	.0902059	-0.57	0.568	-.2289764	.125938
cat_race						
Asian	.0973205	.1034446	0.94	0.348	-.1061805	.3008214
Jnderrep. Minority	-.2485217	.1325622	-1.87	0.062	-.5093041	.0122607
_cons	.6354943	.1282515	4.96	0.000	.3831922	.8877964

```
. regress selectivity i.ses_class female i.cat_race cum_gpa
```

Source	SS	df	MS		
Model	11.9127279	6	1.98545465	Number of obs	= 332
Residual	205.903537	325	.633549345	F(6, 325)	= 3.13
				Prob > F	= 0.0053
Total	217.816265	331	.658055181	R-squared	= 0.0547
				Adj R-squared	= 0.0372
				Root MSE	= .79596

selectivity	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ses_class						
2	.0915578	.1166494	0.78	0.433	-.1379254	.3210411
3	.115441	.1450404	0.80	0.427	-.1698955	.4007775
female	-.0426931	.0897857	-0.48	0.635	-.2193276	.1339414
cat_race						
Asian	.0792968	.1028259	0.77	0.441	-.1229916	.2815852
Underrep. Minority	-.1388413	.1388043	-1.00	0.318	-.4119097	.134227
cum_gpa	.0735197	.0286303	2.57	0.011	.0171957	.1298437
_cons	.1868448	.2183382	0.86	0.393	-.2426897	.6163793

```
. regress selectivity i.ses_class female i.cat_race social_cap_pca_1 social_cap_pca_2
```

Source	SS	df	MS		
Model	16.3665332	7	2.33807618	Number of obs	= 333
Residual	201.957791	325	.621408588	F(7, 325)	= 3.76
				Prob > F	= 0.0006
Total	218.324324	332	.657603387	R-squared	= 0.0750
				Adj R-squared	= 0.0550
				Root MSE	= .78829

selectivity	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ses_class						
2	.0875157	.1146085	0.76	0.446	-.1379525	.312984
3	.0999678	.1440008	0.69	0.488	-.1833236	.3832592
female	-.026691	.0888924	-0.30	0.764	-.2015682	.1481863
cat_race						
Asian	.0788772	.1019389	0.77	0.440	-.1216662	.2794205
Underrep. Minority	-.20684	.1307114	-1.58	0.115	-.4639873	.0503073
social_cap_pca_1	.1394573	.0441448	3.16	0.002	.0526117	.2263029
social_cap_pca_2	-.0856858	.0432342	-1.98	0.048	-.17074	-.0006316
_cons	.6644937	.1263303	5.26	0.000	.4159653	.9130221

```
. regress selectivity i.ses_class female i.cat_race cultural_cap_pca_b1 cultural_cap_pca
> b2
```

Source	SS	df	MS		
Model	8.5873888	7	1.22676983	Number of obs	333
Residual	209.736936	325	.645344417	F(7, 325)	1.90
				Prob > F	0.0687
Total	218.324324	332	.657603387	R-squared	0.0393
				Adj R-squared	0.0186
				Root MSE	.80333

selectivity	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ses_class						
2	.1263508	.1166989	1.08	0.280	-.1032299	.3559315
3	.1606039	.1454717	1.10	0.270	-.1255811	.4467889
female	-.0427638	.090565	-0.47	0.637	-.2209313	.1354038
cat_race						
Asian	.120986	.1054917	1.15	0.252	-.0865467	.3285187
Underrep. Minority	-.2362413	.133154	-1.77	0.077	-.4981938	.0257113
cultural_cap_pca_b1	.0567856	.0466703	1.22	0.225	-.0350285	.1485997
cultural_cap_pca_b2	-.0028113	.0433695	-0.06	0.948	-.0881317	.0825091
_cons	.6329727	.1283782	4.93	0.000	.3804156	.8855298

```
. regress selectivity i.ses_class female i.cat_race matching_parent
```

Source	SS	df	MS		
Model	16.3118117	6	2.71863528	Number of obs	333
Residual	202.012513	326	.619670284	F(6, 326)	4.39
				Prob > F	0.0003
Total	218.324324	332	.657603387	R-squared	0.0747
				Adj R-squared	0.0577
				Root MSE	.78719

selectivity	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ses_class						
2	.1218123	.1135573	1.07	0.284	-.1015852	.3452099
3	.1751134	.1409027	1.24	0.215	-.1020798	.4523066
female	-.0499884	.0884641	-0.57	0.572	-.224021	.1240443
cat_race						
Asian	.1432323	.102185	1.40	0.162	-.0577929	.3442575
Underrep. Minority	-.2309246	.1300862	-1.78	0.077	-.4868389	.0249897
matching_parent	.3451253	.0922033	3.74	0.000	.1637367	.5265139
_cons	.5151316	.1298192	3.97	0.000	.2597424	.7705208

Ordinal logistic regression assumptions
Multinomial logistic regression assumptions

- Check multi-collinearity between the variables
- Full likelihood ratio test comparing the fitted location model to a model with varying location parameters

Results Roadmap

Hypothesis 1:

- **Finding 1:** Inequality exists by SES Class in terms of selectivity

Hypothesis 2a – 2d:

- **Finding 2:** X Forms of Capital mediate this
- **Finding 3:**
- **Robustness Check:** Gender & Race
- **Robustness Check:** Internships

Research Question:

- **Finding 4:** Which forms of capital matter by elite profession industry
- **Finding 5:** More meritocratic within elite professions?

EPS versus Technology Comparison: Significant differences in parent in industry, social capital , race, and gender.

job_type_new	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
1						
ses_class						
2	-.3810088	.4150324	-0.92	0.359	-1.194457	.4324397
3	-.1739676	.5033721	-0.35	0.730	-1.160559	.8126236
female	.2572456	.3162065	0.81	0.416	-.3625077	.8769989
nonwhite	-.1559211	.3234283	-0.48	0.630	-.789829	.4779868
cum_gpa	-.3267026	.0985067	-3.32	0.001	-.5197723	-.133633
matching_parent	.2214929	.3216773	0.69	0.491	-.4089829	.8519688
social_cap_index	-.3798734	.1000576	-3.80	0.000	-.5759827	-.183764
_cons	2.795006	.7873687	3.55	0.000	1.251792	4.338221
2	(base outcome)					
3						
ses_class						
2	-.3354316	.4852854	-0.69	0.489	-1.286574	.6157102
3	-.5796271	.6458688	-0.90	0.369	-1.845507	.6862524
female	-.7999339	.3743008	-2.14	0.033	-1.53355	-.0663177
nonwhite	.6583476	.3906976	1.69	0.092	-.1074056	1.424101
cum_gpa	-.0641475	.1095597	-0.59	0.558	-.2788806	.1505857
matching_parent	2.058905	.3975621	5.18	0.000	1.279698	2.838113
social_cap_index	-.3084844	.1069241	-2.89	0.004	-.5180518	-.098917
_cons	-.3045381	.9116054	-0.33	0.738	-2.091252	1.482176

Demographics

SES Class	Pct.	Definition
Low SES	22.28 %	Family income <$75k or 1st generation college student
Mid SES	55.44 %	Family income $76 - $349k and at least 1 college-educated parent
High SES	22.28 %	Family income >$350k

Race	Cohort (N=1115)	Sample (N= 389)
White	50 %	49.9 %
Black	8 %	4.9 %
Latinx	7 %	6.9 %
Asian	19 %	32.7 %
Native	4 %	3.9 %
Pacific Islander	N/A	1.8 %

Education	Cohort (N=1115)	Sample (N= 389)
First Gen	14 %	7.59 %

Income	Cohort (N=1115)	Sample (N= 389)
< $35k		9.1 %
$35k - $74k		12.2 %
$75 k - $99k		8.8 %
$100k -$149k		16.8%
$150k - $199k		15.0 %
$200k - $349k		15.3 %
$350k - $629k		10.4 %
$630k +		12.4 %

Methodology: Independent Variables

Variables	N	Mean	SD	Min & Max / Definition
Cumulative GPA	392	6.54	1.72	10 = 3.92+; 9: 3.87 – 3.91; 8: 3.82 – 3.86; 7: 3.68 – 3.81; 6: 3.40 – 3.67; 5: 3.20 – 3.39; 4: 3.00 – 3.19; 3: 2.50 – 2.99; 2: 2.00 – 2.49; 1: <2.00
Matching Parent Industry	395	0.29	0.45	1 = Matching industry with at least 1 parent; 0 = Not Matching
Social Capital Index 1	395	0.00	1.00	Min: - 1.50 Max: 3.88
Social Capital Index 2	395	0.00	1.00	Min: - 3.17 Max: 2.56
Cultural Capital Index 1	394	0.00	1.00	Min: -1.40 Max: 2.73
Cultural Capital Index 2	394	0.00	1.00	Min: -2.06 Max: 1.34

Methodology: Social Capital Indices

Table 3: Social Capital Methodology

	EIG1	EIG2	Qualitative Definitions
After College: Internship Help	6.74	0.05	Number of people respondent could ask for help in finding an internship or job from after college.
Before College: Internship Help	17.67	79.10	Number of people respondent could ask for help in finding an internship or job from before the start of college
Family Help Utilized	4.54	0.13	Count of number of times participant asked parents, family friends, or siblings for help in obtaining professional leverage*
Institutional Help Utilized	61.50	19.80	Count of number of times participant asked faculty, upperclassmen, or college peers for help in obtaining professional leverage*
Leverage	6.51	0.92	Count of forms of professional leverage used
Number of Mentors	3.03	0.02	Count of number of meaningful mentors

*Professional leverage refers to help acquired in resume edits, referrals, recommendations, references, interview practice, or obtaining specialized information.

Table 12: Principle Component Analysis Dimensions: Social Capital Variables

	Eigenvalue	Variance Percent	Cumulative Variance Percent
Dimension 1	7.26	38.57	38.57
Dimension 2	4.72	25.07	63.65

Social Capital Index 1:

- Help leveraged in search for professional opportunities

Social Capital Index 2:

- Pre-college professional network connections and tendency to ask for help

Methodology: Cultural Capital Indices

Table 4: Cultural Capital Methodology

	EIG1	EIG2	Qualitative Definitions
Greek	91.67	4.94	2 = Affiliated in high-status house, 1 = Affiliated, 0 = Not affiliated
Private School	7.39	0.11	1 = Private high school, 0 = Public or other high school
Bougie Sports	0.24	37.22	2 = Highbrow sports team, 1 = Sports team, 0 = No sports
Study Abroad	0.24	0.93	1 = Studied abroad, 0 = Did not study abroad
Bougie Hobbies	0.43	56.80	2 = Highbrow leisure activity, 1 = Leisure activity, 0 = No leisure activities

Table 13: Principle Component Analysis Dimensions: Cultural Capital Variables

	Eigenvalue	Variance Percent.	Cumulative Variance Percent
Dimension 1	1.51	47.90	47.90
Dimension 2	0.61	19.35	67.26

Cultural Capital Indices Created:

Cultural Capital 1: Greek House Affiliation

- High-status house determined by qualitative coding of a house's professional networks and selectivity

Cultural Capital 2: High-brow Interests

- Captures high-brow or bougie interests that might appear on a resume in the "interests" line

Table 10: Odds Ratio of Employment by Industry

	Model 7		Model 8		Model 9		Model 10	
Other Industries (ref.)								
Finance Industry								
SES (ref = Low)								
Mid SES	3.45*	(2.18)	2.87+	(1.78)	2.92+	(1.79)	2.47	(1.44)
High SES	4.47*	(2.43)	3.99*	(2.09)	4.10*	(2.11)	3.50+	(1.78)
Female			0.53+	(-1.73)	0.53+	(-1.75)	0.54	(-1.57)
Race (ref = White)								
Asian			1.53	(1.07)	1.54	(1.07)	2.11	(1.64)
Other			0.40	(-1.35)	0.38	(-1.38)	0.45	(-1.15)
Cumulative GPA					0.97	(-0.26)		
Parent in Industry							1.18	(0.41)
Constant	0.09***	(-4.59)	0.15**	(-3.12)	0.18+	(-1.83)	0.26*	(-2.01)
Consulting Industry								
SES Class (ref = Low)								
Mid SES	1.89+	(1.80)	1.52	(1.11)	1.27	(0.62)	1.31	(0.62)
High SES	1.87	(1.48)	1.46	(0.83)	1.14	(0.28)	1.27	(0.47)
Female			0.79	(-0.82)	0.82	(-0.68)	0.83	(-0.57)
Race (ref = White)								
Asian			1.33	(0.91)	1.28	(0.76)	1.77	(1.51)
Other			0.37*	(-2.11)	0.56	(-1.16)	0.42+	(-1.70)
Cumulative GPA					1.31 **	(2.95)		
Parent in Industry							0.74	(-0.90)
Constant	0.32***	(-3.73)	0.47+	(-1.84)	0.08***	(-3.41)	0.98	(-0.04)
Tech Industry								
SES Class (ref = Low)								
Mid SES	1.17	(0.43)	1.24	(0.53)	1.17	(0.37)	1.08	(0.15)
High SES	0.79	(-0.48)	0.92	(-0.15)	0.85	(-0.29)	0.86	(-0.24)
Female			0.42**	(-2.64)	0.42**	(-2.61)	0.36**	(-2.62)
Race (ref = Low)								
Asian			1.85+	(1.65)	1.83	(1.61)	3.40**	(2.68)
Other			0.67	(-0.78)	0.76	(-0.52)	0.73	(-0.54)
Cumulative GPA					1.08	(0.75)		
Parent in Industry							6.41***	(4.42)
Constant	0.32***	(-3.73)	0.42+	(-1.95)	0.26+	(-1.70)	0.27*	(-2.24)
Observations	338		335		335		260	

z statistics in parentheses

Observations include those who reported their post-graduate plans as employed or undecided.

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 11: Odds Ratio of Employment by Industry

	Model 11		Model 12		Model 13	
Other Industries						
Finance Industry						
SES Class (ref = Low SES)						
Mid SES	2.70^{+}	(1.67)	2.46	(1.50)	1.87	(0.96)
High SES	3.50^{+}	(1.88)	2.95	(1.60)	1.99	(0.92)
Female	0.56	(-1.57)	0.58	(-1.50)	0.61	(-1.21)
Race (ref = White)						
Asian	1.69	(1.27)	1.44	(0.88)	2.06	(1.51)
Other	0.40	(-1.34)	0.39	(-1.37)	0.48	(-0.98)
Cumulative GPA					1.15	(0.99)
Social Capital Index 1			1.62**	(2.62)	1.62*	(2.25)
Social Capital Index 2			0.67*	(-2.12)	0.74	(-1.43)
Cultural Capital Index 1	1.29	(1.37)			1.33	(1.28)
Cultural Capital Index 2	1.15	(0.78)			1.20	(0.95)
Parent in Industry					1.04	(0.09)
Constant	0.14**	(-3.14)	0.16**	(-2.95)	0.13^{+}	(-1.90)
Consulting Industry						
SES Class (ref. = Low SES)						
Mid SES	1.55	(1.13)	1.27	(0.60)	0.79	(-0.47)
High SES	1.41	(0.74)	0.96	(-0.08)	0.50	(-1.17)
Female	0.79	(-0.81)	0.88	(-0.45)	0.99	(-0.04)
Race (ref. = White)						
Asian	1.33	(0.89)	1.22	(0.62)	1.51	(0.99)
Other	0.35*	(-2.18)	0.37*	(-1.99)	0.76	(-0.46)
Cumulative GPA					1.67***	(4.00)
Social Capital Index 1			1.90***	(4.30)	2.16***	(4.01)
Social Capital Index 2			0.88	(-0.90)	0.95	(-0.30)
Cultural Capital Index 1	1.09	(0.61)			1.35	(1.58)
Cultural Capital Index 2	1.29^{+}	(1.82)			1.60**	(2.69)
Parent in Industry					0.55	(-1.55)
Constant	0.47^{+}	(-1.82)	0.53	(-1.52)	0.05**	(-3.14)
Tech Industry						
SES Class (ref. = Low)						
Mid SES	1.25	(0.53)	1.15	(0.34)	0.82	(-0.38)
High SES	0.86	(-0.27)	0.77	(-0.46)	0.51	(-0.93)
Female	0.42*	(-2.55)	0.43*	(-2.51)	0.40*	(-2.26)
Race (ref. = White)						
Asian	1.82	(1.54)	1.81	(1.57)	3.19*	(2.41)
Other	0.59	(-1.01)	0.69	(-0.72)	1.01	(0.01)
Cumulative GPA					1.31*	(1.97)
Social Capital Index 1			1.35^{+}	(1.67)	1.25	(1.02)
Social Capital Index 2			0.96	(-0.26)	1.06	(0.29)
Cultural Capital Index 1	1.13	(0.70)			1.19	(0.81)
Cultural Capital Index 2	1.45*	(2.22)			1.55*	(2.17)
Parent in Industry					5.92***	(4.14)
Constant	0.42^{+}	(-1.93)	0.46^{+}	(-1.71)	0.06**	(-2.78)
Observations	335		335		260	

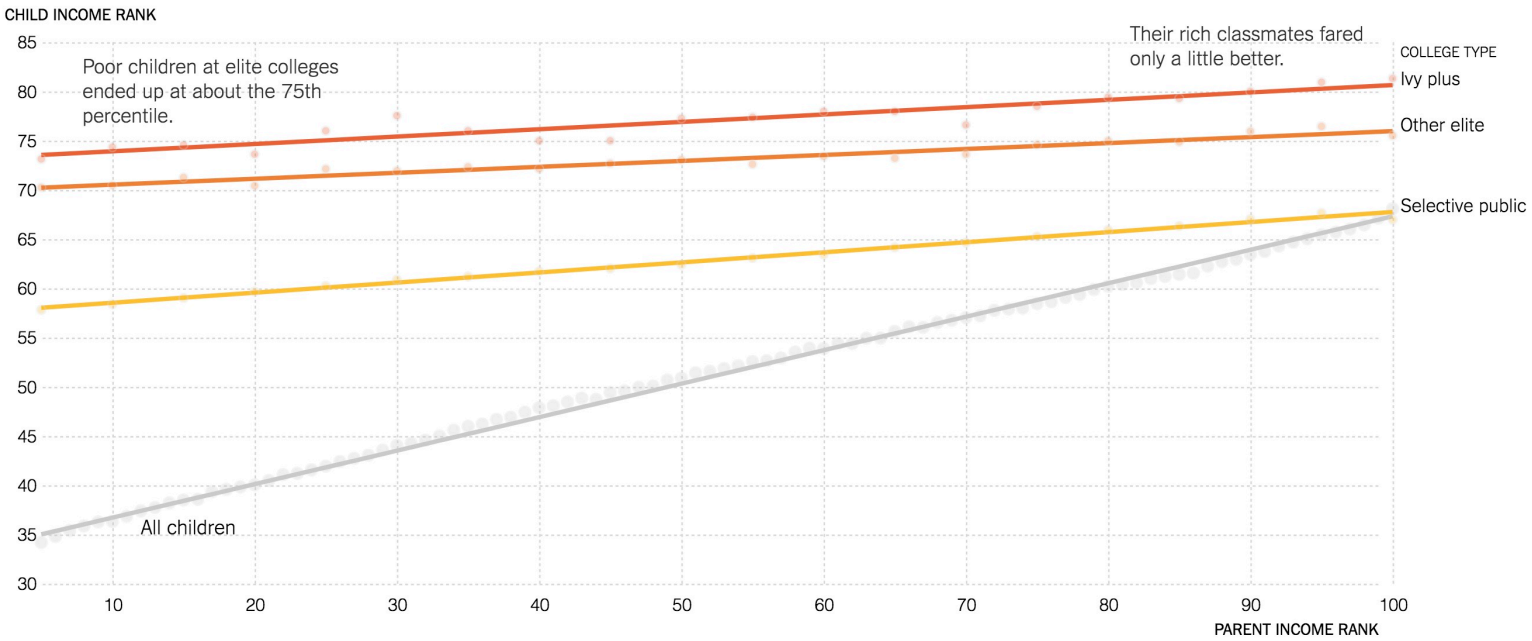
z statistics in parentheses

Observations include those who reported their post-graduate plans as employed or undecided.

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Findings on wealth concentration and mobility in universities

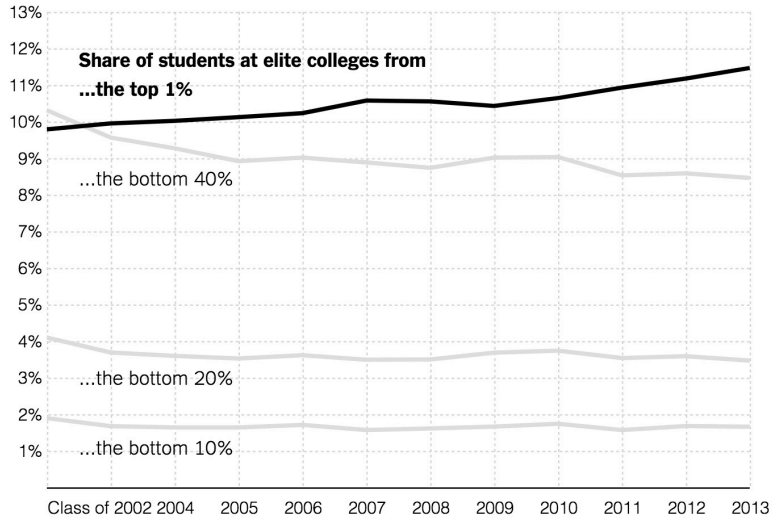
Poor students who attend top colleges do about as well as their rich classmates



Data here comes from the 1980-82 cohort, roughly the college classes of 2002-4. By this stage in life, income ranks are relatively stable.

The Upshot:

Access to top colleges has not changed much



At "elite" colleges, roughly 80 of the most selective colleges in the United States, as measured by a 2009 index created by Barron's.

38 colleges had more students from the top 1 percent than the bottom 60 percent

STUDENTS FROM ...	THE TOP 1% ($630K+)	BOTTOM 60% (<$65K)
1. Washington University in St. Louis	21.7%	6.1%
2. Colorado College	24.2	10.5
3. Washington and Lee University	19.1	8.4
4. Colby College	20.4	11.1
5. Trinity College (Conn.)	26.2	14.3
6. Bucknell University	20.4	12.2
7. Colgate University	22.6	13.6
8. Kenyon College	19.8	12.2
9. Middlebury College	22.8	14.2
10. Tufts University	18.6	11.8
16. Dartmouth College	**20.7**	**14.4**

Robustness: Race & Class (Controls)

```
. ologit selectivity i.ses_class female i.cat_race, or

Iteration 0:   log likelihood = -342.54137
Iteration 1:   log likelihood = -335.70234
Iteration 2:   log likelihood = -335.67035
Iteration 3:   log likelihood = -335.67035

Ordered logistic regression                     Number of obs     =        333
                                                LR chi2(5)        =      13.74
                                                Prob > chi2       =     0.0173
Log likelihood = -335.67035                     Pseudo R2         =     0.0201
```

selectivity	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ses_class						
2	1.472952	.4233741	1.35	0.178	.8385433	2.587328
3	1.604306	.5623641	1.35	0.178	.8070717	3.189058
female	.8642482	.1852962	-0.68	0.496	.567727	1.315641
cat_race						
Asian	1.239201	.2999548	0.89	0.376	.7710884	1.991496
Underrep. Minority	.4796841	.1645529	-2.14	0.032	.2448813	.9396262
/cut1	.2368211	.31549			-.381528	.8551701
/cut2	1.453845	.3259093			.8150747	2.092616

Income Percentile by Age

Age	*Average Income*	*Median*	*25th Percentile*	*75th Percentile*	*99th Percentile*
18	$8,641.52	$4,693.00	$1,002.00	$11,200.00	$60,288.00
19	$13,690.02	$10,000.00	$3,900.00	$18,500.00	$71,802.00
20	$16,955.07	$12,000.00	$5,000.00	$21,755.00	$76,014.00
21	$18,506.18	$15,000.00	$6,700.00	$26,000.00	$76,020.00
22	$22,879.61	$19,003.00	$9,000.00	$30,000.00	$100,000.00
23	$27,323.43	$21,800.00	$11,000.00	$34,884.00	$123,009.00
24	$30,383.13	$25,000.00	$13,400.00	$38,000.00	$122,620.00
25	$37,474.51	$30,000.00	$18,020.00	$46,200.00	$157,999.00

Methodology: Social Capital Indices

Table 3: Social Capital Methodology

	EIG1	EIG2	Qualitative Definitions
After College: Internship Help	6.74	0.05	Number of people respondent could ask for help in finding an internship or job from after college.
Before College: Internship Help	17.67	79.10	Number of people respondent could ask for help in finding an internship or job from before the start of college
Family Help Utilized	4.54	0.13	Count of number of times participant asked parents, family friends, or siblings for help in obtaining professional leverage*
Institutional Help Utilized	61.50	19.80	Count of number of times participant asked faculty, upperclassmen, or college peers for help in obtaining professional leverage*
Leverage	6.51	0.92	Count of forms of professional leverage used
Number of Mentors	3.03	0.02	Count of number of meaningful mentors

*Professional leverage refers to help acquired in resume edits, referrals, recommendations, references, interview practice, or obtaining specialized information.

Social Capital Index 1:

- Help leveraged in search for professional opportunities

Social Capital Index 2:

- Pre-college professional network connections and tendency to ask for help

Methodology: Cultural Capital Indices

Table 4: Cultural Capital Methodology

	EIG1	EIG2	Qualitative Definitions
Greek	91.67	4.94	2 = Affiliated in high-status house, 1 = Affiliated, 0 = Not affiliated
Private School	7.39	0.11	1 = Private high school, 0 = Public or other high school
Bougie Sports	0.24	37.22	2 = Highbrow sports team, 1 = Sports team, 0 = No sports
Study Abroad	0.24	0.93	1 = Studied abroad, 0 = Did not study abroad
Bougie Hobbies	0.43	56.80	2 = Highbrow leisure activity, 1 = Leisure activity, 0 = No leisure activities

Cultural Capital Index 1:
Greek House Affiliation

- High-status house determined by qualitative coding of a house's professional networks and selectivity

Cultural Capital Index 2:
High-brow Interests

- Captures high-brow or bougie interests that might appear on a resume in the "interests" line