

Online Appendix

University Differences in the Graduation of Minorities in STEM Fields: Evidence from California

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Table A-1: Classification of Majors at UC Campuses

A Appendix

Science (STEM)	Humanities		Social Science
Aerospace Engineering	American Culture	Naval Architect & Marine En	Anthropology
Biochemistry	Architecture	Nursing	Anthropology-Zoology
Biology	Asian Studies	Performance	Business Administration
Bio-psychology & Cognitive	Creative Writing - Lit	Philosophy	Economics
Cellular & Molecular Biol	Dance	Resid College Lower Div.	Environ Policy & Behavior
Chemical Engineering	Education - Secondary	Spanish	History
Chemistry	Elementary Education	Sport Management & Comm	Organizational Studies
Civil Engineering	English	Theatre	Political Science
Computer Science	Film & Video Studies	Undertermined	Resource Ecology & Managemnt
Electrical Engineering	French		Sociology
Engineering: First Year	General Studies		Women's Studies
General Biology	German		
Industrial & Operations Eng	Graphic Design		
Materials Science & Engin	History of Art		
Mathematics	Individualized Concentrnt		
Mechanical Engineering	Industrial Design		
Microbiology	Japanese		
Movement Science	L S & A Undeclared		
Nuc Eng & Radiol Sciences	Linguistics		
Pharmacy	Music Education		
Statistics	Music Theatre		

Table A-2a: Unadjusted Shares of Minority Students Graduating in 4 Years with Science or Non-Science Majors, by Campus, S Quartile, and Initial Major (%)[†]

Prep. Score (S) Quartile	Initial Major	Final Major	Top 4 UC Campuses				Bottom 4 UC Campuses				All Campuses
			Berkeley	UCLA	San Diego	Davis	Irvine	Santa Barbara	Santa Cruz	Riverside	
Q1	Science	Science	0.0**	0.0**	2.7	1.7**	3.1	4.9**	5.3**	5.2**	3.3
	Science	Any	10.6	7.0**	16.2	7.9**	11.2	15.5**	20.5**	15.6**	13.0
	Non-Science	Any	23.3**	17.3**	20.8**	16.8**	25.3**	26.0**	38.0**	28.2**	25.0
Q2	Science	Science	1.3**	3.7**	9.2	2.6**	8.3*	11.7**	18.6**	13.3**	6.9
	Science	Any	27.7	12.1**	19.9	14.0**	18.5	22.1	28.8*	32.7**	19.5
	Non-Science	Any	32.5**	28.6**	33.1	24.4**	35.8	35.2*	48.4**	38.0*	32.5
Q3	Science	Science	11.8**	8.3**	17.8	10.3**	15.5	20.0	10.7	29.8**	13.1
	Science	Any	25.1**	16.6**	36.7	19.9**	28.9	40.0**	39.3	42.6**	26.1
	Non-Science	Any	39.2	39.9	46.1	37.1	41.1	40.2	42.5	51.4	40.6
Q4	Science	Science	29.9	20.6**	29.3	29.7	23.1	47.6*	41.7	33.3	28.2
	Science	Any	40.2**	35.7**	39.7*	36.5**	38.5	61.9**	58.3	77.8**	40.4
	Non-Science	Any	53.8	52.0	59.2	57.5	57.1	44.4	78.1**	57.1	55.2

[†] The stars on the estimates in this table indicate the significance of a t-test of the equality of the estimated share of a particular higher-ranked (lower-ranked) UC campus with the average share of bottom four (top four) UC campuses, where the bottom four are UC Irvine, UC Santa Barbara, UC Santa Cruz, and UC Riverside and the top four are UC Berkeley, UCLA, UC San Diego, and UC Davis. For example, the share in the cell Q1-science-science-UC Berkeley (UC Irvine) is compared with the corresponding average share at the bottom (top) four institutions.

* and ** indicate significance at 10% and 5% level, respectively.

Table A-2b: Unadjusted Shares of Non-Minority Students Graduating in 4 Years with Science or Non-Science Majors, by Campus, preparation score, and Initial Major (%)[†]

Prep. Score (<i>S</i>) Quartile	Initial Major	Final Major	Top 4 UC Campuses				Bottom 4 UC Campuses				All Campuses
			Berkeley	UCLA	San Diego	Davis	Irvine	Santa Barbara	Santa Cruz	Riverside	
Q1	Science	Science	0.0**	0.0**	5.3	4.3**	7.0*	7.8**	10.2**	7.6**	7.2
	Science	Any	13.3	0.0**	19.7	14.2**	18.1	20.6**	30.2**	21.4**	20.3
	Non-Science	Any	29.0*	20.1**	26.3*	23.0**	28.4**	38.8**	42.6**	33.9**	33.5
Q2	Science	Science	12.5	9.1*	18.7**	10.9**	12.0	14.3	14.7	15.3	13.3
	Science	Any	26.0	18.8**	32.9**	24.4**	24.2	31.4**	34.2**	28.9	27.5
	Non-Science	Any	41.5	37.6**	46.8	40.1**	36.0**	46.6**	49.1**	42.2	42.8
Q3	Science	Science	24.9	17.6**	24.8	18.0**	20.2	22.3	18.9	36.7**	21.6
	Science	Any	42.7*	31.5**	39.8	31.5**	30.2**	40.9**	43.9**	48.0**	36.2
	Non-Science	Any	50.4	49.7	53.5**	43.1**	39.4**	53.4**	49.2	46.3	48.7
Q4	Science	Science	44.1**	30.8**	42.6**	33.6	37.5	30.6**	32.6	39.5	38.3
	Science	Any	59.0	46.3**	55.6	47.0**	54.3	52.0	59.8	69.3**	53.9
	Non-Science	Any	61.0	61.9*	59.6	55.8	49.8**	65.2*	55.4*	64.3	60.5

[†] The stars on the estimates in this table indicate the significance of a t-test of the equality of the share of a particular higher-ranked (lower-ranked) UC campus with the average shares of bottom four (top four) UC campuses, where the bottom four are UC Irvine, UC Santa Barbara, UC Santa Cruz, and UC Riverside and the top four are UC Berkeley, UCLA, UC San Diego, and UC Davis. For example, the share in the cell Q1-science-science-UC Berkeley (UC Irvine) is compared with the corresponding average share at the bottom (top) four institutions.

* and ** indicate significance at 10% and 5% level, respectively.

Table A-3a: Unadjusted Shares of Minority Students Graduating in 5 Years with Science or Non-Science Majors, by Campus, S Quartile, and Initial Major (%)[†]

Prep Score (S) Quartile	Initial Major	Final Major	Top 4 UC Campuses				Bottom 4 UC Campuses				All Campuses
			Berkeley	UCLA	San Diego	Davis	Santa Barbara	Santa Cruz	Riverside		
Q1	Science	Science	7.1**	10.9	9.5	10.5	12.1	15.8**	12.6	11.8	12.0
	Science	Any	50.6	39.5**	47.3	37.2**	49.6**	50.7**	43.7	50.9**	46.3
	Non-Science	Any	61.5	56.5	62.4	51.5**	62.3*	58.2	60.9	57.8	58.4
Q2	Science	Science	10.7**	20.8	29.1	17.1**	24.4	27.3*	28.8	23.5	22.0
	Science	Any	64.8	56.5	59.7	49.2**	64.9*	53.9	57.6	63.3	58.2
	Non-Science	Any	67.0	66.9	64.1	59.6**	69.4	65.3	70.3	68.3	66.3
Q3	Science	Science	26.2**	30.6	34.3	34.2	36.1	43.6*	17.9*	38.3	32.1
	Science	Any	64.2	63.1*	70.4	65.8	71.1	80.0**	67.9	57.4	66.4
	Non-Science	Any	73.8	79.2**	77.0*	75.9	71.4	68.8*	65.8*	74.3	75.4
Q4	Science	Science	53.7	50.0	56.9	50.0	46.2	61.9	41.7	44.4	52.0
	Science	Any	77.4	79.4	81.0	64.9*	80.8	81.0	66.7	88.9	76.7
	Non-Science	Any	83.5	84.5	77.6	80.0	85.7	85.2	84.4	85.7	83.2

[†] The stars on the estimates in this table indicate the significance of a t-test of the equality of the estimated share of a particular higher-ranked (lower-ranked) UC campus with the average share of bottom four (top four) UC campuses, where the bottom four are UC Irvine, UC Santa Barbara, UC Santa Cruz, and UC Riverside and the top four are UC Berkeley, UCLA, UC San Diego, and UC Davis. For example, the share 7.1% (12.1%) in Q1-science-science-UC Berkeley (UC Irvine) is compared with the corresponding average share at the bottom (top) four institutions.

* and ** indicate significance at 10% and 5% level, respectively.

Table A-3b: Unadjusted Shares of Non-Minority Students Graduating in 5 Years with Science or Non-Science Majors, by Campus, preparation score, and Initial Major (%)[†]

Prep. Score (<i>S</i>) Quartile	Initial Major	Final Major	Top 4 UC Campuses				Bottom 4 UC Campuses				All Campuses
			Berkeley	UCLA	San Diego	Davis	Irvine	Santa Barbara	Santa Cruz	Riverside	
Q1	Science	Science	20.0	16.0	18.4	22.4	18.7	22.5	21.1	19.8	20.5
	Science	Any	46.7	52.0	46.1	54.8	50.9	56.1	57.9	50.5	53.1
	Non-Science	Any	60.3	57.3*	68.8	66.0	64.8	67.1*	64.1	59.5*	64.0
Q2	Science	Science	24.0	31.5	39.2**	33.3**	30.0**	28.7**	27.5**	29.1**	30.9
	Science	Any	70.8*	64.8	70.7**	70.8**	64.0**	64.3**	60.0**	56.2**	65.2
	Non-Science	Any	82.0**	76.8**	79.0**	77.9**	70.9**	74.2**	70.8**	64.6**	73.8
Q3	Science	Science	43.0	46.2**	46.2**	43.5**	39.5**	37.7**	30.0**	52.3**	43.3
	Science	Any	79.9**	77.2**	75.3**	73.5**	67.7**	72.1*	66.4**	69.7**	73.6
	Non-Science	Any	81.7**	84.6**	82.5**	79.7**	72.1**	78.7**	68.9**	71.8**	79.1
Q4	Science	Science	61.3**	53.5**	62.7**	58.5**	52.4**	48.0**	42.4**	47.1**	57.7
	Science	Any	87.6**	83.9**	84.2**	82.6	81.6*	77.3**	79.5	82.4	84.6
	Non-Science	Any	88.8**	89.0**	86.5**	85.3**	85.1	84.8*	74.3**	80.4**	87.3

[†] The stars on the estimates in this table indicate the significance of a t-test of the equality of the share of a particular higher-ranked (lower-ranked) UC campus with the average shares of bottom four (top four) UC campuses, where the bottom four are UC Irvine, UC Santa Barbara, UC Santa Cruz, and UC Riverside and the top four are UC Berkeley, UCLA, UC San Diego, and UC Davis. For example, the share in the cell Q1-science-science-UC Berkeley (UC Irvine) is compared with the corresponding average share at the bottom (top) four institutions.

* and ** indicate significance at 10% and 5% level, respectively.

Table A-4: Logit Coefficients for Admissions by UC campus[†]

	Berkeley	UCLA	San Diego	Davis	Irvine	Santa Barbara	Santa Cruz	Riverside
Minority	3.547** (0.040)	3.334** (0.039)	2.503** (0.048)	3.065** (0.059)	1.337** (0.046)	1.967** (0.049)	1.283** (0.060)	0.915** (0.054)
Minority \times Science	-1.391** (0.060)	-0.551** (0.057)	-0.172** (0.071)	0.425** (0.098)	-0.088 (0.075)	-0.318** (0.093)	0.098 (0.112)	-0.290** (0.104)
Preparation Score	2.340** (0.019)	3.029** (0.022)	3.637** (0.028)	3.078** (0.029)	2.685** (0.026)	3.596** (0.034)	2.383** (0.033)	2.173** (0.032)
Minority Non-science Advantage in Prep Score Units	1.516	1.101	0.688	0.996	0.498	0.547	0.538	0.421
Minority Science Advantage in Prep Score Units	0.921	0.919	0.641	1.134	0.465	0.458	0.579	0.288

[†] Separate logits were estimated for each campus where the outcome was whether or not the student was admitted and the sample was the set of students who applied to that particular campus. Additional controls included were (i) initial science major, (ii) dummy variables for each parental income category, and (iii) dummy variables for each parental education category. Preparation score is in standard deviation units. Minority non-science advantage is calculated by dividing the coefficient on minority by the coefficient on the preparation score. Minority science advantage is calculated by summing the coefficient on minority and minority times initial science major and dividing by the coefficient on preparation score. Standard errors in parentheses. * and ** indicate significance at 10% and 5% level, respectively.

Table A-5: Attendance decisions of minority students admitted to different pairs of UC campuses for pre-Prop 209 period[†]

	Berkeley	UCLA	San Diego	Davis	Irvine	Santa Barbara	Santa Cruz	Riverside
Non-Minority								
Berkeley	-	72%	84%	88%	89%	89%	90%	84%
UCLA	6118	-	78%	81%	88%	89%	90%	83%
San Diego	4335	5886	-	65%	75%	75%	78%	80%
Davis	3551	2843	4303	-	66%	64%	73%	79%
Irvine	1770	3896	3945	2619	-	62%	72%	81%
Santa Barbara	1483	2380	3489	4103	3698	-	62%	69%
Santa Cruz	1128	727	1472	2614	1083	3740	-	50%
Riverside	639	1364	1627	1123	3502	1571	727	-
Minority								
Berkeley	-	53%	77%	82%	82%	86%	88%	83%
UCLA	1739	-	76%	80%	81%	88%	90%	83%
San Diego	821	1170	-	53%	65%	63%	71%	67%
Davis	941	706	459	-	54%	55%	65%	63%
Irvine	412	1151	426	355	-	50%	58%	64%
Santa Barbara	723	1051	618	644	563	-	65%	62%
Santa Cruz	587	384	285	466	210	747	-	45%
Riverside	231	578	234	235	543	454	239	-

[†] For Row A, Column B, value of cell is: Above diagonal: If admitted to Campus A and B, percentage of students attending campus A, conditional on attending campus A or B. Below diagonal: Number in race-period group admitted to Campus A and B and attended Campus A or B. (A student admitted to more than two campuses will appear in this count multiple times)

Table A-6a: Nested Logit Coefficients: Dale-Krueger Controls 5-Year Graduation Criteria

	Coef.	Std. Err.	Coef. × URM	Std. Err.
Science Index				
Admitted × Berkeley	0.649**	0.175	0.011	0.247
Admitted × UCLA	0.703**	0.165	-0.147	0.240
Admitted × San Diego	0.563**	0.152	0.049	0.285
Admitted × Davis	0.350	0.228	0.566	0.810
Admitted × Irvine	0.471**	0.231	1.706**	0.711
Admitted × Santa Barbara	0.089	0.265	1.429*	0.800
Admitted × Santa Cruz	0.891	0.854	2.822	2.140
Admitted × Riverside	1.471*	0.870	0.866	2.011
Applied × Berkeley	0.052	0.083	-0.171	0.213
Applied × UCLA	-0.111	0.090	-0.130	0.220
Applied × San Diego	0.198*	0.111	-0.252	0.265
Applied × Davis	0.374*	0.208	-1.232	0.805
Applied × Irvine	-0.498**	0.232	-1.095	0.691
Applied × Santa Barbara	0.102	0.275	-1.440*	0.799
Applied × Santa Cruz	-1.026	0.854	-2.308	2.128
Applied × Riverside	-1.416	0.869	-0.402	2.001
Admitted Top × Rej. Mid.	-0.464*	0.277	0.458	0.732
Admitted Top × Rej. Low	-0.124	0.133	-0.592**	0.285
Applied Top × Rej. Mid.	-0.293	0.239	1.251	0.781
Applied Top × Rej. Low	0.582	0.607	1.571	1.578
Applied Mid × Rej. Mid	0.294	0.937	0.057	1.736
Non-Science Index				
Admitted × Berkeley	0.480**	0.164	0.052	0.212
Admitted × UCLA	0.549**	0.161	-0.129	0.202
Admitted × San Diego	0.493**	0.144	0.241	0.235
Admitted × Davis	0.383*	0.201	-0.426	0.547
Admitted × Irvine	0.303	0.207	0.832*	0.488
Admitted × Santa Barbara	-0.200	0.220	0.769	0.523
Admitted × Santa Cruz	0.878	0.741	1.843	1.415
Admitted × Riverside	1.138	0.762	1.446	1.358
Applied × Berkeley	-0.060	0.077	-0.155	0.181
Applied × UCLA	0.089	0.085	-0.213	0.185
Applied × San Diego	0.271**	0.101	-0.447**	0.214
Applied × Davis	0.185	0.180	-0.282	0.538
Applied × Irvine	-0.433**	0.208	-0.219	0.462
Applied × Santa Barbara	0.630**	0.233	-0.878*	0.523
Applied × Santa Cruz	-0.926	0.742	-1.231	1.394
Applied × Riverside	-1.169	0.762	-0.816	1.343
Admitted Top × Rej. Mid.	-0.198	0.250	0.292	0.538
Admitted Top × Rej. Low	-0.139	0.125	-0.501**	0.245
Applied Top × Rej. Mid.	-0.439**	0.210	0.634	0.538
Applied Top × Rej. Low	0.565	0.525	1.255	1.072
Applied Mid × Rej. Mid	-0.101	0.813	0.068	1.284

* and ** indicate significance at 10% and 5% level, respectively.

Table A-6b: Nested Logit Coefficients: Remaining Academic Index Coeff. (AI_{ij}) and Intercept for 5-Year Graduation Rates

	Science	Non-Science
<i>Academic Index Coefficients</i>		
ln(Par. Income)	0.395** (0.087)	0.463** (0.084)
ln(Par. Income Missing)	4.004** (0.903)	4.766** (0.869)
ln(Par. Income Capped)	-0.056 (0.095)	-0.074 (0.089)
Par. Educ: Some College	-0.164* (0.099)	-0.038 (0.091)
Par. Educ: 4 Year Grad	0.223** (0.110)	0.369** (0.104)
Par. Educ: Post Grad	0.637** (0.149)	0.684** (0.142)
<i>Overall Intercept of the Campus Specific Intercepts</i>		
Intercept	-13.983** (1.469)	-5.143** (1.159)

* and ** indicate significance at 10% and 5% level, respectively.

Table A-6c: Nested Logit: Switching Cost Coefficients 5-year Graduation Criteria

<i>Coefficients Switching Cost:</i>	
STEM Intercept	1.567** (0.431)
Non STEM Intercept	1.740** (0.338)
STEM \times AI_{im}	-0.061** (0.026)
Non STEM \times AI_{ih}	0.001 (0.030)
ln(Par. Income)	0.067** (0.022)
ln(Par. Income Missing)	0.766** (0.231)
ln(Par. Income Capped)	0.042 (0.036)
Par. Educ: Some College	0.055 (0.043)
Par. Educ: 4 Year Grad	0.072* (0.040)
Par. Educ: Post Grad	0.024 (0.040)
URM	-0.055 (0.046)
Asian	-0.138** (0.029)
UCLA	-0.385** (0.062)
San Diego	0.014 (0.041)
Davis	-0.183** (0.042)
Irvine	-0.313** (0.044)
Santa Barbara	-0.210** (0.051)
Santa Cruz	0.060 (0.055)
Riverside	-0.294** (0.065)

* and ** indicate significance at 10% and 5% level, respectively.

Table A-7: Nested Logit Coefficients for Choice of Final Major based on 4-year Graduation Criteria

	Science	Non-Science		Science	Non-Science
Panel A: <i>Net Returns Function:</i>					
Campus-Specific Intercept	Coefficients (ϕ_{1jk}):		Campus-Specific Slope	Coefficients (ϕ_{2jk}):	
UCLA	-0.362 (0.935)	-1.972** (0.381)	UCLA \times AI_{ij}	0.005 (0.059)	0.334** (0.081)
San Diego	3.69** (0.821)	-0.214 (0.356)	San Diego \times AI_{ij}	-0.203** (0.048)	0.011 (0.071)
Davis	2.991** (0.816)	-0.361 (0.323)	Davis \times AI_{ij}	-0.203** (0.048)	-0.050 (0.065)
Irvine	3.064** (0.856)	0.089 (0.339)	Irvine \times AI_{ij}	-0.192** (0.051)	-0.078 (0.072)
Santa Barbara	5.366** (0.832)	0.458 (0.327)	Santa Barbara \times AI_{ij}	-0.326** (0.047)	-0.069 (0.064)
Santa Cruz	8.406** (0.923)	2.109** (0.432)	Santa Cruz \times AI_{ij}	-0.537** (0.048)	-0.409** (0.066)
Riverside	5.727** (0.866)	0.904** (0.367)	Riverside \times AI_{ij}	-0.325** (0.048)	-0.158** (0.077)
Panel B: <i>Academic Preparation Function (AI_{ij}):</i>					
HS GPA	2.114** (0.154)	1.020** (0.111)			
SAT Math	9.469** (0.559)	-1.01** (0.231)			
SAT Verbal	0.009** (0.340)	2.417** (0.271)			
URM	-1.136** (0.218)	-0.851** (0.128)			
Asian	0.048 (0.053)	-0.275** (0.041)			
<i>Nesting parameter</i>					
ρ			0.407** (0.083)		
Log-Likelihood			-54,670		

All campus dummies are measured relative to UC Berkeley (the omitted category). The coefficients on ϕ_{1jk} and ϕ_{2jk} for UC Berkeley are normalized to zero and one, respectively.

* and ** indicate significance at 10% and 5% level, respectively.

Table A-8a: Nested Logit Coefficients: Dale-Krueger Controls 4-year Graduation Criteria

	Coef.	Std. Err.	Coef. × URM	Std. Err.
Science Index				
Admitted × Berkeley	0.440**	0.088	0.305	0.258
Admitted × UCLA	0.357**	0.082	0.438	0.276
Admitted × San Diego	0.187*	0.095	-0.101	0.329
Admitted × Davis	0.139	0.204	-0.419	0.923
Admitted × Irvine	0.651**	0.221	1.126	0.849
Admitted × Santa Barbara	0.144	0.278	0.909	1.031
Admitted × Santa Cruz	0.431	0.887	19.267	53.033
Admitted × Riverside	0.382	0.878	7.633	35.189
Applied × Berkeley	-0.096	0.059	-0.317	0.242
Applied × UCLA	-0.205**	0.067	-0.543**	0.266
Applied × San Diego	-0.159*	0.087	0.264	0.315
Applied × Davis	0.059	0.200	0.386	0.919
Applied × Irvine	-0.724**	0.221	-0.699	0.844
Applied × Santa Barbara	-0.267	0.277	-0.746	1.027
Applied × Santa Cruz	-0.729	0.888	-19.059	53.033
Applied × Riverside	-0.443	0.878	-7.267	35.188
Admitted Top × Rej. Mid.	-0.503**	0.236	1.305	0.967
Admitted Top × Rej. Low	0.076	0.094	-0.364	0.276
Applied Top × Rej. Mid.	0.155	0.225	-0.025	0.988
Applied Top × Rej. Low	0.249	0.655	-1.025	1.788
Applied Mid × Rej. Mid	-0.222	0.936	9.900	35.182
Non-Science Index				
Admitted × Berkeley	0.093	0.061	0.117	0.121
Admitted × UCLA	0.181**	0.063	0.160	0.117
Admitted × San Diego	0.100*	0.057	0.076	0.138
Admitted × Davis	0.039	0.103	0.327	0.373
Admitted × Irvine	0.091	0.112	1.002**	0.336
Admitted × Santa Barbara	-0.124	0.124	1.022**	0.375
Admitted × Santa Cruz	0.882*	0.470	-0.095	0.930
Admitted × Riverside	0.365	0.467	-0.375	0.912
Applied × Berkeley	-0.095**	0.038	-0.064	0.106
Applied × UCLA	0.051	0.043	-0.240**	0.112
Applied × San Diego	-0.014	0.048	0.011	0.126
Applied × Davis	0.009	0.098	-0.351	0.369
Applied × Irvine	-0.262**	0.113	-0.738**	0.327
Applied × Santa Barbara	0.321**	0.125	-0.998**	0.372
Applied × Santa Cruz	-1.033**	0.473	0.436	0.927
Applied × Riverside	-0.515	0.467	0.699	0.911
Admitted Top × Rej. Mid.	-0.075	0.140	0.642*	0.376
Admitted Top × Rej. Low	0.005	0.060	-0.242*	0.132
Applied Top × Rej. Mid.	-0.208*	0.114	0.303	0.368
Applied Top × Rej. Low	0.350	0.324	0.166	0.736
Applied Mid × Rej. Mid	-0.175	0.504	-0.680	0.836

* and ** indicate significance at 10% and 5% level, respectively.

Table A-8b: Nested Logit Coefficients: Remaining Academic Index Coeff. (AI_{ij}) and Intercept for 4-Year Graduation Rates

	Science	Non-Science
<i>Academic Index Coefficients</i>		
ln(Par. Income)	0.202** (0.044)	0.296** (0.035)
ln(Par. Income Missing)	2.314** (0.474)	3.287** (0.384)
ln(Par. Income Capped)	0.028 (0.061)	-0.006 (0.042)
Par. Educ: Some College	-0.111 (0.077)	0.035 (0.051)
Par. Educ: 4 Year Grad	0.026 (0.072)	0.132** (0.049)
Par. Educ: Post Grad	0.225** (0.074)	0.239** (0.053)
<i>Overall Intercept of the Campus Specific Intercepts</i>		
Intercept	-16.005** (0.998)	-4.743** (0.570)

* and ** indicate significance at 10% and 5% level, respectively.

Table A-8c: Nested Logit: Switching Cost Coefficients 4-year Graduation Criteria

<i>Coefficients Switching Cost:</i>	
STEM Intercept	1.910** (0.422)
Non STEM Intercept	1.912** (0.258)
STEM \times AI_{ij}	-0.056** (0.028)
Non STEM \times AI_{ij}	-0.050 (0.045)
ln(Par. Income)	0.090** (0.032)
ln(Par. Income Missing)	0.993** (0.339)
ln(Par. Income Capped)	0.036 (0.049)
Par. Educ: Some College	-0.040 (0.063)
Par. Educ: 4 Year Grad	-0.039 (0.058)
Par. Educ: Post Grad	-0.070 (0.057)
URM	0.022 (0.069)
Asian	-0.090** (0.040)
UCLA	-0.636** (0.050)
San Diego	0.034 (0.057)
Davis	-0.211** (0.056)
Irvine	-0.295** (0.061)
Santa Barbara	-0.110 (0.071)
Santa Cruz	0.095 (0.074)
Riverside	-0.315** (0.084)

* and ** indicate significance at 10% and 5% level, respectively.

Table A-9: Estimated Percentages of Minority Students who would have Higher Graduation Probabilities if they had been at a Different (Counterfactual) UC Campus (%)

Campus Enrolled at:	Counterfactual Campus:							
	UC Berkeley	UCLA	San Diego	San Davis	Irvine	Santa Barbara	Santa Cruz	Riverside
<i>Graduating with Science Major, Conditional on Initial Major = Science:</i>								
Berkeley	–	100	100	100	91	100	72	94
UCLA	0	–	100	100	74	99	70	90
San Diego	0	0	–	0	0	42	29	31
Davis	0	0	100	–	41	96	72	85
Irvine	1	14	100	63	–	100	83	100
Santa Barbara	0	0	23	2	0	–	67	44
Santa Cruz	2	6	20	8	6	25	–	21
Riverside	0	1	30	5	0	51	69	–
<i>Graduating with Any Major, Conditional on Initial Major = Science:</i>								
Berkeley	–	0	39	34	29	44	33	28
UCLA	100	–	94	94	70	77	57	55
San Diego	77	8	–	44	30	50	36	26
Davis	44	0	65	–	60	78	66	59
Irvine	52	15	48	48	–	99	63	46
Santa Barbara	25	6	15	16	0	–	67	40
Santa Cruz	18	10	16	16	14	24	–	6
Riverside	41	17	37	38	42	62	93	–
<i>Graduating with Any Major, Conditional on Initial Major = Non-Science:</i>								
Berkeley	–	0	0	0	11	37	23	14
UCLA	100	–	49	48	57	74	48	38
San Diego	100	59	–	9	67	91	40	24
Davis	100	21	97	–	90	98	77	67
Irvine	89	25	13	12	–	100	52	21
Santa Barbara	37	8	2	2	0	–	7	1
Santa Cruz	58	20	20	19	35	93	–	0
Riverside	72	29	33	33	64	100	100	–

Results based on criteria of graduating in 5 years or less. Calculated using the model estimates to get predicted graduation probabilities at both the actual and counterfactual campuses. Entries show the share students who would have higher graduation probabilities at the counterfactual campus.

Table A-10: Estimated Proportions of Non-Minority Students who would have Higher Graduation Probabilities if they had been at a Different (Counterfactual) UC Campus (%)

Campus Enrolled at:	Counterfactual Campus:							
	UC Berkeley	UCLA	San Diego	San Davis	Irvine	Santa Barbara	Santa Cruz	Riverside
<i>Graduating with Science Major, Conditional on Initial Major = Science:</i>								
Berkeley	—	58	100	100	28	67	7	35
UCLA	28	—	100	100	37	81	10	51
San Diego	0	0	—	0	0	5	2	4
Davis	0	0	100	—	3	66	18	43
Irvine	12	43	100	92	—	100	49	91
Santa Barbara	0	1	58	9	0	—	22	20
Santa Cruz	11	21	58	34	25	64	—	57
Riverside	12	21	72	35	9	89	39	—
<i>Graduating with Any Major, Conditional on Initial Major = Science:</i>								
Berkeley	—	0	4	2	1	2	1	1
UCLA	100	—	36	33	7	10	4	4
San Diego	93	54	—	45	2	6	3	2
Davis	89	36	66	—	8	20	10	7
Irvine	75	40	82	78	—	95	31	22
Santa Barbara	64	41	55	56	14	—	23	4
Santa Cruz	54	37	50	50	47	62	—	26
Riverside	59	43	60	58	60	83	61	—
<i>Graduating with Any Major, Conditional on Initial Major = Non-Science:</i>								
Berkeley	—	0	0	0	0	2	1	0
UCLA	100	—	7	7	8	13	5	3
San Diego	100	92	—	61	10	37	4	2
Davis	100	82	65	—	33	65	13	7
Irvine	97	46	40	38	—	100	26	6
Santa Barbara	85	44	17	17	0	—	1	0
Santa Cruz	94	60	59	59	80	100	—	2
Riverside	84	43	50	49	78	100	97	—

Results based on criteria of graduating in 5 years or less. Calculated using the model estimates to get predicted graduation probabilities at both the actual and counterfactual campuses. Entries show the share students who would have higher graduation probabilities at the counterfactual campus.

Table A-11: Counterfactual Change in Graduation Probabilities of Non-Minority Students with Science or Non-Science Majors Using Minority Assignment Rules to the UC Campuses (Percentage Points)

Prep. Score (<i>S</i>) Quartile	Initial Major	Final Major	Base Model	No Dale- Krueger Controls	Dale- Krueger × Parent College Educated	Altern. Major Defn.	Campus Intercepts & Slopes × Race
Overall	Science	Science	-1.10**	-0.47*	-1.03**	-1.29**	-0.95**
	Science	Any	-0.08	1.04**	-0.07	0.04	-0.15
	Non-Science	Any	0.35	1.45**	0.36	0.38	0.19
Q1	Science	Science	-1.89**	-1.20**	-1.80**	-2.08**	-1.95**
	Science	Any	-1.20**	0.58	-1.19**	-0.98**	-1.21**
	Non-Science	Any	-0.46	1.08**	-0.49	-0.54	-0.57
Q2	Science	Science	-1.70**	-0.81**	-1.58**	-1.90**	-1.72**
	Science	Any	-0.30	1.40**	-0.28	-0.12	-0.44
	Non-Science	Any	0.39	1.79**	0.39	0.39	0.18
Q3	Science	Science	-1.23**	-0.38	-1.14**	-1.38**	-1.09**
	Science	Any	0.21	1.37**	0.22	0.32	0.11
	Non-Science	Any	0.72**	1.73**	0.74**	0.77**	0.53
Q4	Science	Science	-0.46	-0.18	-0.43	-0.69**	-0.13
	Science	Any	0.08	0.65**	0.08	0.11	0.06
	Non-Science	Any	0.32**	0.93**	0.34**	0.40**	0.20

* and ** denote that the change is statistically significant at 10% or 5% level, respectively.