Search Costs Field Experiment

2025-06-10

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1 Summary Statistics

1.1 Overall Summary Statistics

1.1.1 Seminar Speaker Demographics

Table 1: Overall Seminar Statistics

Statistic	Value
Number of seminars	1655
Number of unique departments	528
Total speakers across all seminars	23193
Mean speakers per seminar	14.01
SD speakers per seminar	9.90
Min speakers in a seminar	1
Max speakers in a seminar	76

Table 2: Seminar Speaker Demographics (Across All Seminars)

Demographic Group	Mean %	SD %	Mean Count	SD Count	Pct. Any
URM	7.42	11.10	1.00	1.28	54.1
Black	2.23	5.95	0.32	0.68	23.3
Hispanic	5.17	9.51	0.68	1.01	42.7
Female	16.97	16.17	2.40	2.47	76.1

Note: N = 1655 seminars. Percentages calculated among speakers with demographic data available. 'Pct. Any' indicates the percentage of seminars that have at least one speaker from that demographic group.

1.1.2 Department Faculty Demographics

Table 3: Department Faculty Demographics

Statistic	Mean	SD
Total faculty per department	34.0	18.1
% URM faculty	4.09	4.40
% Women faculty	20.40	7.58

Note: N = 528 unique departments. Department faculty demographics based on 2024 coding.

1.2 Summary Statistics by Discipline

1.2.1 Seminar Speaker Demographics by Discipline

Table 4: Seminar Statistics by Discipline

Discipline	N Seminars	N Depts	Mean Speakers	SD Speakers
Chemistry	270	122	14.5	10.9
Computer Science	142	82	13.2	10.3
Mathematics	812	134	13.3	9.1
Mechanical Engineering	81	65	13.0	10.2
Physics	350	125	15.8	10.4

Table 5: Seminar Speaker Demographics by Discipline: URM

Discipline	N Seminars	Mean %	SD %	Mean Count	Pct. Has Any
Chemistry	270	8.92	10.51	1.27	64.4
Computer Science	142	4.48	8.21	0.54	36.6
Mathematics	812	7.02	10.67	0.93	50.0
Mechanical Engineering	81	8.20	9.17	1.12	61.7
Physics	350	8.21	13.45	1.12	60.9

Note: Statistics are for seminar speakers. 'Pct. Has Any' indicates percentage of seminars with at least one URM speaker.

Table 6: Seminar Speaker Demographics by Discipline: Other Groups

	Black		Hispanic		Female	
Discipline	Mean %	Pct. Any	Mean %	Pct. Any	Mean %	Pct. Any
Chemistry	4.23	39.6	4.58	45.6	23.70	86.7
Computer Science	1.55	17.6	2.93	24.6	19.23	78.2
Mathematics	1.79	19.5	5.22	40.6	14.01	70.8
Mechanical Engineering	2.95	28.4	5.25	46.9	19.83	76.5
Physics	1.82	20.9	6.39	51.7	17.05	79.4

Note: Statistics are for seminar speakers. 'Pct. Any' indicates percentage of seminars with at least one speaker from that group.

1.2.2 Department Faculty Demographics by Discipline

Table 7: Department Faculty Demographics by Discipline

		Faculty Size		% URM Faculty		% Women Faculty	
Discipline	N Depts	Mean	SD	Mean	SD	Mean	SD
Chemistry	122	28.6	11.9	4.76	4.47	24.40	7.18
Computer Science	82	43.5	25.0	2.79	3.27	20.12	7.28
Mathematics	134	33.9	16.2	3.63	3.54	19.82	7.67
Mechanical Engineering	65	36.4	19.1	5.57	5.48	19.70	7.61
Physics	125	32.0	16.4	4.03	4.90	17.64	6.52

Note: Department faculty demographics based on 2024 coding.

1.3 Summary Statistics by Semester

Table 8: Summary Statistics by Semester

		URM		Black		Hispanic	
Semester (N)	Mean %	Mean Count	Pct. Any	Mean %	Pct. Any	Mean %	Pct. Any
Fall (1448)	7.08	0.53	36.3	1.73	11.7	5.33	28.9
Spring (1389)	7.51	0.64	41.7	2.68	18.4	4.81	29.6

		Female		Total Speakers	
Semester	Mean %	Mean Count	Pct. Any	Mean	SD
Fall	16.16	1.27	62.0	7.75	5.50
Spring	17.71	1.53	65.0	8.62	6.86

2 Main Effects Analysis

2.1 Main Question 1: URM Speaker Representation

Table 9: Main Question 1: Effect on URM Speaker Representation

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	0.773	0.721	0.101	0.076	0.021	0.013
	(0.523)	(0.515)	(0.066)	(0.064)	(0.025)	(0.023)
Constant	7.902^{***}	3.183	1.102^{***}	0.163	0.573^{***}	0.197^{+}
	(1.636)	(2.097)	(0.168)	(0.272)	(0.072)	(0.115)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.011	0.017	0.030	0.039	0.028	0.042

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

2.2 Main Questions 2a-2c: Effects on Speaker Counts

Table 10: Main Questions 2a-2c: Effects on Speaker Counts

	% Count (1)	% Count (2)	Count Count (3)	Count Count (4)	Any Count (5)	Any Count (6)
Treatment	-0.508	-0.468	0.101	0.076	-0.609	-0.544
	(0.546)	(0.545)	(0.066)	(0.064)	(0.519)	(0.520)
Constant	17.111***	13.874***	1.102***	0.163	16.009***	13.712***
	(1.257)	(2.406)	(0.168)	(0.272)	(1.175)	(2.252)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.032	0.055	0.030	0.039	0.031	0.056

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

2.3 Seemingly Unrelated Regression (SUR) Analysis

Table 11: SUR Analysis: Testing Substitution Between URM and Non-URM Speakers

Outcome	Coefficient	SE
URM Speakers	0.1006	(0.0630)
Non-URM Speakers	-0.6088	(0.4599)
Sum of Effects	-0.5081	—
Wald Test: H0: Treatment effect on URM + Treatment effect on Non-URM = 0		

Note: SUR estimation with simple controls allows for correlation between equation errors. The Wald test examines whether the treatment effect represents a pure substitution (increasing URM speakers while decreasing non-URM speakers by the same amount).

3 Demographic Subgroup Analysis

3.1 Black Speakers

Table 12: Effect on Black Speakers

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	0.676*	0.660*	0.084*	0.083*	0.056*	0.055*
	(0.308)	(0.294)	(0.039)	(0.038)	(0.023)	(0.023)
Constant	2.714***	0.929	0.428***	0.103	0.287***	0.051
	(0.791)	(1.301)	(0.103)	(0.167)	(0.061)	(0.104)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.026	0.031	0.048	0.056	0.036	0.044

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

3.2 Hispanic Speakers

Table 13: Effect on Hispanic Speakers

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	0.111	0.067	0.017	-0.009	-0.017	-0.029
	(0.455)	(0.469)	(0.049)	(0.048)	(0.025)	(0.025)
Constant	4.976***	2.037	0.648***	0.023	0.429***	0.141
	(1.496)	(1.865)	(0.138)	(0.209)	(0.074)	(0.106)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.006	0.006	0.015	0.022	0.020	0.026

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

3.3 Female Speakers

Table 14: Effect on Female Speakers

	% Female (1)	% Female (2)	Count Female (3)	Count Female (4)	Any Female (5)	Any Female (6)
Treatment	0.341	-0.126	-0.061	-0.122	0.005	0.001
	(0.836)	(0.830)	(0.128)	(0.128)	(0.022)	(0.022)
Constant	22.012***	13.852***	3.650***	2.285***	0.872***	0.691***
	(2.105)	(4.017)	(0.339)	(0.592)	(0.061)	(0.100)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.051	0.059	0.083	0.098	0.016	0.026

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

3.4 URM Female

Table 15: Effect on URM Female Speakers

	% URM Female	% URM Female	Count URM Female	Count URM Female	Any URM Female	Any URM Female
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.024	-0.040	0.021	0.014	0.014	0.008
	(0.172)	(0.183)	(0.019)	(0.019)	(0.017)	(0.017)
Constant	1.802**	-0.051	0.206***	-0.002	0.175***	-0.014
	(0.604)	(0.582)	(0.060)	(0.091)	(0.049)	(0.078)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.014	0.019	0.040	0.049	0.040	0.048

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

3.5 Black Female

Table 16: Effect on Black Female Speakers

	% Black Female	% Black Female	Count Black Female	Count Black Female	Any Black Female	Any Black Female
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.145*	0.155*	0.012	0.013	0.014+	0.015+
	(0.069)	(0.072)	(0.009)	(0.009)	(0.008)	(0.008)
Constant	0.484**	0.068	0.056*	0.003	0.044*	0.003
	(0.152)	(0.271)	(0.024)	(0.042)	(0.020)	(0.036)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.032	0.035	0.024	0.029	0.020	0.025

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

3.6 Black Male

Table 17: Effect on Black Male Speakers

	% Black Male	% Black Male	Count Black Male	Count Black Male	Any Black Male	Any Black Male
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.531*	0.506*	0.072*	0.071*	0.059**	0.058**
	(0.264)	(0.248)	(0.034)	(0.033)	(0.022)	(0.022)
Constant	2.229**	0.860	0.363***	0.097	0.278***	0.035
	(0.709)	(1.165)	(0.092)	(0.142)	(0.060)	(0.102)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.018	0.022	0.040	0.047	0.035	0.043

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

3.7 Hispanic Female

Table 18: Effect on Hispanic Female Speakers

	% Hispanic Female (1)	% Hispanic Female (2)	Count Hispanic Female (3)	Count Hispanic Female (4)	Any Hispanic Female (5)	Any Hispanic Female (6)
Treatment	-0.125	-0.202	0.006	-0.000	0.003	-0.003
	(0.161)	(0.175)	(0.013)	(0.013)	(0.012)	(0.012)
Constant	1.293*	-0.163	0.061	-0.063	0.055	-0.066
	(0.588)	(0.486)	(0.044)	(0.066)	(0.034)	(0.057)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.002	0.004	0.009	0.016	0.008	0.015

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

3.8 Hispanic Male

Table 19: Effect on Hispanic Male Speakers

	% Hispanic Male (1)	% Hispanic Male (2)	Count Hispanic Male (3)	Count Hispanic Male (4)	Any Hispanic Male (5)	Any Hispanic Male (6)
Treatment	0.236	0.269	0.010	-0.009	-0.018	-0.029
	(0.387)	(0.397)	(0.044)	(0.043)	(0.025)	(0.025)
Constant	3.683**	2.199	0.581***	0.084	0.425***	0.156
	(1.314)	(1.634)	(0.116)	(0.178)	(0.074)	(0.106)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.008	0.007	0.014	0.021	0.020	0.026

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

4 Discipline Subgroup Analysis

4.0.1 Chemistry (N=270)

Table 20: Chemistry : Effect on URM Speaker Representation

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	0.516	-0.291	-0.101	-0.174	0.027	0.005
	(1.173)	(1.162)	(0.165)	(0.165)	(0.052)	(0.057)
Constant	5.938*	-2.041	0.894*	-0.763	0.197	-0.304
	(2.653)	(5.789)	(0.408)	(0.779)	(0.130)	(0.266)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	270	270	270	270	270	270
Adjusted R^2	-0.025	-0.021	0.101	0.107	0.111	0.119

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 21: Chemistry : Effect on Black Speaker Representation

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	0.740	0.399	0.021	0.024	0.090	0.062
	(1.057)	(0.848)	(0.121)	(0.100)	(0.065)	(0.059)
Constant	2.261	-8.839*	0.314	-1.603**	0.120	-0.963**
	(2.566)	(3.921)	(0.246)	(0.535)	(0.155)	(0.295)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	270	270	270	270	270	270
Adjusted R^2	-0.033	-0.013	0.045	0.084	0.045	0.098

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 22: Chemistry : Effect on Hispanic Speaker Representation

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	-0.158	-0.649	-0.135	-0.219+	-0.101	-0.142*
	(0.974)	(0.985)	(0.116)	(0.125)	(0.063)	(0.063)
Constant	2.845	4.591	0.548	0.580	0.223	0.246
	(1.778)	(4.882)	(0.359)	(0.546)	(0.161)	(0.303)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	270	270	270	270	270	270
Adjusted R^2	-0.025	-0.022	0.047	0.075	0.037	0.061

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

4.0.2 Mathematics (N=812)

Table 23: Mathematics : Effect on URM Speaker Representation

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	1.080	1.330^{+}	0.183^{+}	0.183^{+}	0.026	0.017
	(0.727)	(0.793)	(0.093)	(0.101)	(0.034)	(0.032)
Constant	5.667***	4.366	0.786***	-0.028	0.484***	0.143
	(1.385)	(4.164)	(0.129)	(0.514)	(0.067)	(0.186)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	812	812	812	812	812	812
Adjusted R^2	0.002	0.000	0.002	0.001	-0.009	0.001

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 24: Mathematics : Effect on Black Speaker Representation

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	0.229	0.513	0.080	0.116*	0.022	0.032
	(0.392)	(0.428)	(0.049)	(0.054)	(0.029)	(0.027)
Constant	0.908^{+}	1.732	0.191**	0.326	0.166**	0.045
	(0.532)	(2.406)	(0.072)	(0.262)	(0.051)	(0.150)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	812	812	812	812	812	812
Adjusted R^2	0.012	0.020	0.011	0.023	0.006	0.019

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 25: Mathematics : Effect on Hispanic Speaker Representation

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	0.869	0.821	0.107	0.067	0.029	0.011
	(0.627)	(0.676)	(0.071)	(0.068)	(0.033)	(0.035)
Constant	4.683***	2.482	0.577***	-0.390	0.384***	0.117
	(1.262)	(3.194)	(0.106)	(0.376)	(0.073)	(0.184)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	812	812	812	812	812	812
Adjusted R^2	-0.004	-0.003	-0.000	0.004	-0.002	-0.000

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

4.0.3 Physics (N=350)

Table 26: Physics : Effect on URM Speaker Representation

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	0.227	0.131	0.150	0.126	-0.005	-0.004
	(1.191)	(1.161)	(0.131)	(0.130)	(0.059)	(0.051)
Constant	13.463***	6.977	1.248***	1.542	0.408***	0.871
	(2.401)	(13.865)	(0.170)	(1.447)	(0.074)	(0.555)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	350	350	350	350	350	350
Adjusted R^2	0.004	-0.003	0.003	0.010	0.002	0.032

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 27: Physics : Effect on Black Speaker Representation

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	1.479*	1.604**	0.174*	0.182**	0.123*	0.128*
	(0.603)	(0.613)	(0.068)	(0.069)	(0.048)	(0.050)
Constant	-0.216	-0.091	0.031	0.229	0.001	0.017
	(0.409)	(4.601)	(0.082)	(0.649)	(0.052)	(0.443)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	350	350	350	350	350	350
Adjusted R^2	0.002	-0.002	0.020	0.009	0.012	0.015

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 28: Physics : Effect on Hispanic Speaker Representation

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	-1.251	-1.473	-0.024	-0.056	-0.067	-0.069
	(1.177)	(1.180)	(0.114)	(0.116)	(0.064)	(0.059)
Constant	13.679***	7.068	1.217***	1.313	0.436***	0.780
	(2.400)	(12.765)	(0.153)	(1.192)	(0.081)	(0.574)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	350	350	350	350	350	350
Adjusted R^2	-0.000	-0.007	-0.008	0.011	-0.003	0.011

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

4.0.4 Computer Science (N=142)

Table 29: Computer Science : Effect on URM Speaker Representation

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	2.148	2.645	0.073	0.063	0.110	0.109
	(1.370)	(1.775)	(0.162)	(0.212)	(0.091)	(0.094)
Constant	7.104***	16.416	1.378***	4.200**	0.882***	2.540***
	(1.952)	(13.370)	(0.329)	(1.453)	(0.186)	(0.674)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	142	142	142	142	142	142
Adjusted R^2	0.031	0.076	0.067	0.058	0.081	0.100

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 30: Computer Science : Effect on Black Speaker Representation

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	0.203	-0.178	-0.057	-0.065	-0.018	-0.042
	(0.698)	(0.713)	(0.064)	(0.072)	(0.055)	(0.067)
Constant	4.152**	3.617	0.703***	2.104*	0.603***	1.437*
	(1.454)	(9.859)	(0.207)	(0.917)	(0.155)	(0.696)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	142	142	142	142	142	142
Adjusted R^2	-0.041	-0.076	0.042	0.027	0.051	0.026

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 31: Computer Science : Effect on Hispanic Speaker Representation

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	1.945	2.823	0.131	0.128	0.136	0.156^{+}
	(1.458)	(1.754)	(0.145)	(0.182)	(0.096)	(0.089)
Constant	2.952	12.798	0.675^{*}	2.097^{+}	0.589^{**}	2.245^{**}
	(2.209)	(11.268)	(0.305)	(1.089)	(0.224)	(0.704)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	142	142	142	142	142	142
Adjusted R^2	0.039	0.101	0.029	0.018	0.066	0.088

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

4.0.5 Mechanical Engineering (N=81)

Table 32: Mechanical Engineering : Effect on URM Speaker Representation

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	3.859^{+}	2.959	0.665^{*}	0.731^{+}	0.113	0.107
	(2.026)	(2.002)	(0.300)	(0.370)	(0.116)	(0.130)
Constant	17.140^{**}	0.793	2.618^{**}	1.814	0.792^{**}	0.316
	(5.984)	(11.347)	(0.963)	(2.267)	(0.279)	(0.597)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	81	81	81	81	81	81
Adjusted R^2	0.039	0.055	0.033	0.133	-0.002	-0.009

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 33: Mechanical Engineering : Effect on Black Speaker Representation

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	3.942^{***}	2.942^{**}	0.646^{***}	0.551^{*}	0.346^{***}	0.310^{**}
	(0.999)	(0.937)	(0.185)	(0.210)	(0.090)	(0.097)
Constant	8.540^{**}	6.694	0.966^{***}	0.498	0.818^{***}	0.679
	(2.526)	(5.016)	(0.149)	(1.711)	(0.174)	(0.466)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	81	81	81	81	81	81
Adjusted R^2	0.153	0.170	0.129	0.185	0.157	0.196

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 34: Mechanical Engineering : Effect on Hispanic Speaker Representation

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	-0.083	0.017	0.019	0.181	-0.034	0.006
	(1.897)	(1.900)	(0.227)	(0.244)	(0.122)	(0.132)
Constant	8.600^{+}	-5.901	1.652^{+}	1.316	0.585^{*}	0.036
	(4.526)	(11.026)	(0.926)	(1.569)	(0.291)	(0.645)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	81	81	81	81	81	81
Adjusted R^2	-0.053	-0.041	0.025	0.067	-0.015	0.001

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

4.1 Testing for Significant Moderation Across Disciplines

F-test for Treatment × Discipline Interactions (Black Speakers): F-statistic: 3.608 p-value: 0.0062 Degrees of freedom: 4

The treatment effect on Black speaker representation varies significantly across disciplines ($p < 0.05$). This indicates that the diversity intervention has heterogeneous effects depending on the academic field.

F-test for Treatment × Discipline Interactions (URM Speakers): F-statistic: 0.649 p-value: 0.6276 Degrees of freedom: 4

\textbf{F-test for Treatment × Discipline Interactions (% Black Speakers):} F-statistic: 2.431 p-value: 0.0458 Degrees of freedom: 4

F-test for Treatment × Discipline Interactions (Total Black Speakers): F-statistic: 4.13 p-value: 0.0025 Degrees of freedom: 4

Individual Interaction Effects (Black Speakers): Estimate Std. Error t value Pr(>|t|) treatment:disc_mathematics -0.0584 0.0605 -0.9662 0.3341 treatment:disc_physics 0.0222 0.0685 0.3244 0.7457 treatment:disc_computer_science -0.1074 0.0879 -1.2225 0.2217 treatment:disc_mechanical_engineering 0.2797 0.1059 2.6419 0.0083

5 Semester-Specific Analysis

5.1 Fall Semester

Call: lm(formula = as.formula(formula_str), data = data_complete)

Residuals: Min 1Q Median 3Q Max -12.605 -7.477 -4.980 3.554 95.007

Coefficients: Estimate Std. Error t value Pr(>|t|)
(Intercept) 6.35696 2.14015 2.970 0.00302 **treatment 0.94922 0.72180 1.315 0.18870**
bin__0__1 1.48922 1.89568 0.786 0.43224
bin__1__3 1.14316 1.82433 0.627 0.53101
bin__3__5 2.00801 1.74786 1.149 0.25081
bin__5__7 -0.03272 1.74150 -0.019 0.98501
bin__7__11 2.18899 1.68911 1.296 0.19520
bin__11__17 -1.42973 1.67659 -0.853 0.39393
disc__mathematics 0.05245 1.19124 0.044 0.96489
disc__physics 0.34638 1.21922 0.284 0.77637
disc__computer__science -4.91430 1.54564 -3.179 0.00151 disc__mechanical__engineering -2.70485 1.89142 -1.430 0.15292
batch__1 0.87044 1.66325 0.523 0.60082
batch__2 1.38845 1.96032 0.708 0.47889
batch__3 -2.13347 1.55207 -1.375 0.16947
batch__4 2.76342 1.55058 1.782 0.07493 . batch__5 0.89058 1.51030 0.590 0.55551
batch__6 -0.14252 1.51698 -0.094 0.92516
batch__7 -1.22984 1.50242 -0.819 0.41317
batch__8 0.61867 1.60368 0.386 0.69972
batch__9 -2.64601 1.53713 -1.721 0.08539 . — Signif. codes: 0 ‘***’ ***0.001*** ‘**’ *0.01* ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 13.5 on 1427 degrees of freedom Multiple R-squared: 0.03113, Adjusted R-squared: 0.01755 F-statistic: 2.292 on 20 and 1427 DF, p-value: 0.000971

Table 35: Fall: Effect on URM Speakers

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	0.949	0.859	0.078^{+}	0.049	0.033	0.020
	(0.695)	(0.687)	(0.046)	(0.044)	(0.025)	(0.025)
Constant	6.357^{**}	-2.483	0.538^{***}	-0.283	0.366^{***}	-0.058
	(2.449)	(3.059)	(0.145)	(0.212)	(0.070)	(0.111)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,448	1,448	1,448	1,448	1,448	1,448
Adjusted R^2	0.018	0.026	0.024	0.040	0.023	0.035

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 36: Fall: Effect on Black Speakers

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	0.494	0.456	0.053^{*}	0.050^{*}	0.043^{**}	0.042^{*}
	(0.333)	(0.334)	(0.021)	(0.021)	(0.017)	(0.017)
Constant	2.863^{**}	-1.651	0.224^{***}	-0.075	0.172^{***}	-0.067
	(0.987)	(1.434)	(0.061)	(0.097)	(0.046)	(0.080)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,448	1,448	1,448	1,448	1,448	1,448
Adjusted R^2	0.023	0.037	0.033	0.046	0.028	0.041

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 37: Fall: Effect on Hispanic Speakers

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	0.437	0.371	0.024	-0.003	0.009	-0.006
	(0.635)	(0.657)	(0.038)	(0.038)	(0.024)	(0.025)
Constant	3.351	-1.075	0.301^{*}	-0.231	0.236^{**}	-0.066
	(2.358)	(2.931)	(0.134)	(0.188)	(0.073)	(0.109)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,448	1,448	1,448	1,448	1,448	1,448
Adjusted R^2	0.011	0.010	0.020	0.030	0.022	0.028

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

5.2 Spring Semester

Table 38: Spring: Effect on URM Speakers

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	0.783	0.878	0.027	0.030	-0.007	-0.007
	(0.744)	(0.777)	(0.055)	(0.056)	(0.029)	(0.028)
Constant	7.449^{***}	6.781^{*}	0.886^{***}	0.761^{**}	0.509^{***}	0.378^{**}
	(1.709)	(2.884)	(0.140)	(0.240)	(0.075)	(0.121)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,389	1,389	1,389	1,389	1,389	1,389
Adjusted R^2	0.006	0.006	0.024	0.022	0.025	0.028

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 39: Spring: Effect on Black Speakers

	% Black (1)	% Black (2)	Count Black (3)	Count Black (4)	Any Black (5)	Any Black (6)
Treatment	0.822^{+}	0.820^{+}	0.038	0.040	0.028	0.030
	(0.460)	(0.440)	(0.035)	(0.034)	(0.023)	(0.023)
Constant	1.802^{+}	1.456	0.315^{***}	0.301^{*}	0.230^{***}	0.174^{+}
	(1.023)	(1.712)	(0.088)	(0.147)	(0.059)	(0.100)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,389	1,389	1,389	1,389	1,389	1,389
Adjusted R^2	0.010	0.010	0.032	0.034	0.023	0.022

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 40: Spring: Effect on Hispanic Speakers

	% Hispanic (1)	% Hispanic (2)	Count Hispanic (3)	Count Hispanic (4)	Any Hispanic (5)	Any Hispanic (6)
Treatment	-0.018	0.072	-0.010	-0.011	-0.030	-0.031
	(0.628)	(0.675)	(0.040)	(0.040)	(0.026)	(0.027)
Constant	5.424^{***}	5.097^{*}	0.553^{***}	0.438^{**}	0.389^{***}	0.296^{**}
	(1.403)	(2.466)	(0.097)	(0.169)	(0.071)	(0.103)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,389	1,389	1,389	1,389	1,389	1,389
Adjusted R^2	-0.004	-0.003	0.008	0.010	0.014	0.017

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

6 Heterogeneity Analysis

6.1 Moderation by Department Ranking

Table 41: Effect by Department Rank

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	0.729	0.710	0.101	0.068	0.022	0.011
	(0.515)	(0.512)	(0.065)	(0.063)	(0.025)	(0.023)
Constant	9.084***	4.778*	1.059***	0.220	0.515***	0.185+
	(1.636)	(1.962)	(0.178)	(0.249)	(0.079)	(0.109)
Dept Ranking (centered)	0.015	0.029*	-0.003*	-0.001	-0.002**	-0.001
	(0.013)	(0.013)	(0.001)	(0.001)	(0.001)	(0.001)
Treatment × Dept Ranking (centered)	0.008	0.007	0.005*	0.005**	0.001	0.001+
	(0.016)	(0.016)	(0.002)	(0.002)	(0.001)	(0.001)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.013	0.017	0.034	0.044	0.031	0.043

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

6.2 Moderation by Total Faculty Size

Table 42: Effect by Faculty Size

	% URM (1)	% URM (2)	Count URM (3)	Count URM (4)	Any URM (5)	Any URM (6)
Treatment	0.958^{+}	0.744	0.080	0.072	0.012	0.014
	(0.531)	(0.511)	(0.068)	(0.064)	(0.025)	(0.024)
Constant	7.792^{***}	2.224	1.087^{***}	0.191	0.551^{***}	0.185^{+}
	(1.568)	(2.043)	(0.177)	(0.279)	(0.071)	(0.111)
Total Faculty (centered)	-0.039	-0.032	0.003	0.002	0.001	-0.001
	(0.026)	(0.026)	(0.003)	(0.003)	(0.001)	(0.001)
Treatment × Total Faculty (centered)	0.030	0.016	-0.001	-0.003	0.001	0.000
	(0.029)	(0.028)	(0.003)	(0.003)	(0.001)	(0.001)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.012	0.017	0.030	0.039	0.029	0.041

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

6.3 Moderation by URM Faculty in Peer Departments

Table 43: Effect by Peer URM Faculty

	% URM	% URM	Count URM	Count URM	Any URM	Any URM
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.779	0.696	0.105	0.073	0.022	0.013
	(0.519)	(0.516)	(0.064)	(0.064)	(0.025)	(0.023)
Constant	7.738***	6.936***	1.054***	0.760***	0.552***	0.409***
	(1.569)	(1.811)	(0.162)	(0.220)	(0.069)	(0.098)
Peer URM Faculty (centered)	0.072	0.145**	0.017**	0.021***	0.007**	0.007**
	(0.053)	(0.054)	(0.005)	(0.006)	(0.002)	(0.002)
Treatment × Peer URM Faculty (centered)	-0.064	-0.054	-0.004	-0.006	-0.001	-0.001
	(0.072)	(0.071)	(0.008)	(0.008)	(0.003)	(0.003)
Controls	Simple	Extended	Simple	Extended	Simple	Extended
N	1,655	1,655	1,655	1,655	1,655	1,655
Adjusted R^2	0.011	0.017	0.037	0.039	0.037	0.041

Clustered standard errors at department level in parentheses.
$^{+}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

6.4 Exploratory Analysis: Seniority Moderation

6.4.1 Analysis 1: Does speaker seniority moderate the treatment effect?

7 Exploratory Analysis: Seniority Moderation

7.1 Distribution of Years Since PhD

Seniority Data Coverage:

- Total seminars with seniority data: 1626 (98.2% of total)
- Number of departments: 522
- Mean of seminar-level mean years since PhD: 15.7 (SD = 7.5)
- Median of seminar-level mean years since PhD: 15.1
- Range of seminar means: 1.0 to 59.0 years
- IQR of seminar means: 10.5 to 20.0 years

7.2 Continuous Moderation Analysis

We test whether the average seniority of speakers in a seminar moderates the treatment effect on Black speaker representation.

Note: Seniority is measured as the mean years since PhD for speakers in each seminar.

7.2.1 Outcome: Percentage Black Speakers

Table 44: Seniority Moderation Analysis: Percentage Black Speakers

	(1) Main Effects	(2) Interaction	(3) With Controls
Treatment	0.8064*	0.8236*	0.8952**
	(0.3340)	(0.3429)	(0.3272)
Years Since PhD (centered)	-0.0161	-0.0045	-0.0043
	(0.0187)	(0.0228)	(0.0227)
Treatment × Years Since PhD		-0.0260	-0.0323
		(0.0385)	(0.0386)
Observations	1626	1626	1626
R-squared	0.005	0.005	0.017
Controls	No	No	Yes

Note: Clustered standard errors at department level in parentheses. Years since PhD is the mean years since PhD for speakers in each seminar, centered at the median. Controls include department ranking, total faculty, and fraction URM faculty. Significance: + p<0.1; * p<0.05; ** p<0.01; *** p<0.001.

7.2.2 Outcome: Any Black Speakers

Table 45: Seniority Moderation Analysis: Any Black Speakers

	(1) Main Effects	(2) Interaction	(3) With Controls
Treatment	0.0644**	0.0621**	0.0700**
	(0.0239)	(0.0240)	(0.0237)
Years Since PhD (centered)	0.0001	-0.0015	-0.0015
	(0.0013)	(0.0016)	(0.0016)
Treatment × Years Since PhD		0.0036	0.0032
		(0.0027)	(0.0026)
Observations	1626	1626	1626
R-squared	0.006	0.007	0.015
Controls	No	No	Yes

Note: Clustered standard errors at department level in parentheses. Years since PhD is the mean years since PhD for speakers in each seminar, centered at the median. Controls include department ranking, total faculty, and fraction URM faculty. Significance: + p<0.1; * p<0.05; ** p<0.01; *** p<0.001.

7.3 Subgroup Analysis: Seminars with Senior vs Junior Speakers

Median Split Groups:

- Seminars with junior speakers (n=813): Mean = 10.0 years, Range = 1.0-15.1 years
- Seminars with senior speakers (n=813): Mean = 21.5 years, Range = 15.1-59.0 years

7.3.1 Outcome: Percentage Black Speakers

Table 46: Subgroup Analysis by Seniority: Percentage Black Speakers

	Seminars with Junior Speakers		Seminars with Senior Speakers	
	(1) Simple	(2) With Controls	(3) Simple	(4) With Controls
Treatment	1.0086*	1.1326*	0.5771	0.6213
	(0.4807)	(0.4807)	(0.4163)	(0.4000)
Observations	813	813	813	813
R-squared	0.006	0.023	0.003	0.010
Controls	No	Yes	No	Yes

Note: Clustered standard errors at department level in parentheses. Junior/Senior split at median of seminar-level mean years since PhD. Controls include department ranking, total faculty, and fraction URM faculty. Significance: + p<0.1; * p<0.05; ** p<0.01; *** p<0.001.

Test for Difference Between Groups:

Difference in treatment effect (Senior - Junior): -0.4315 (SE = 0.6025), p = 0.4739

7.3.2 Outcome: Any Black Speakers

Table 47: Subgroup Analysis by Seniority: Any Black Speakers

	Seminars with Junior Speakers		Seminars with Senior Speakers	
	(1)	(2)	(3)	(4)
	Simple	With Controls	Simple	With Controls
Treatment	0.0344	0.0451	0.0916**	0.0943**
	(0.0303)	(0.0306)	(0.0341)	(0.0340)
Observations	813	813	813	813
R-squared	0.002	0.007	0.011	0.021
Controls	No	Yes	No	Yes

Note: Clustered standard errors at department level in parentheses. Junior/Senior split at median of seminar-level mean years since PhD. Controls include department ranking, total faculty, and fraction URM faculty. Significance: + p<0.1; * p<0.05; ** p<0.01; *** p<0.001.

Test for Difference Between Groups:

Difference in treatment effect (Senior - Junior): 0.0571 (SE = 0.0437), p = 0.1914

8 Summary of All Significant Results

Table 48: All Significant Results ($p < 0.1$) from All Analyses (Excluding Constant Term)

Analysis	Outcome	Variable	Model	Coef.	SE	t-stat	p-value	Sig.
Discipline Analysis								
Chemistry	Any Hispanic	Treatment	Extended	-0.1418	0.0630	-2.250	0.0253	*
Chemistry	Count Hispanic	Treatment	Extended	-0.2186	0.1246	-1.755	0.0805	+
Computer Science	Any Hispanic	Treatment	Extended	0.1556	0.0892	1.745	0.0836	+
Mathematics	% URM	Treatment	Extended	1.3298	0.7933	1.676	0.0941	+
Mathematics	Count Black	Treatment	Extended	0.1164	0.0542	2.146	0.0322	*
Mathematics	Count URM	Treatment	Simple	0.1828	0.0935	1.956	0.0508	+
Mechanical Engineering	% Black	Treatment	Simple	3.9420	0.9989	3.946	0.0002	***
Mechanical Engineering	% URM	Treatment	Simple	3.8590	2.0259	1.905	0.0613	+
Mechanical Engineering	Any Black	Treatment	Simple	0.3462	0.0898	3.855	0.0003	***
Mechanical Engineering	Count Black	Treatment	Simple	0.6458	0.1853	3.486	0.0009	***
Mechanical Engineering	Count URM	Treatment	Simple	0.6652	0.2998	2.219	0.0301	*
Physics	% Black	Treatment	Extended	1.6042	0.6127	2.618	0.0093	**
Physics	Any Black	Treatment	Simple	0.1228	0.0479	2.561	0.0109	*
Physics	Count Black	Treatment	Extended	0.1820	0.0692	2.629	0.0090	**
Identity Analysis								
Demographic Subgroup	% Black	Treatment	Extended	0.6604	0.2936	2.249	0.0246	*
Demographic Subgroup	% Black Female	Treatment	Extended	0.1546	0.0720	2.146	0.0320	*
Demographic Subgroup	% Black Male	Treatment	Extended	0.5058	0.2483	2.037	0.0418	*
Demographic Subgroup	Any Black	Treatment	Simple	0.0558	0.0227	2.457	0.0141	*
Demographic Subgroup	Any Black Female	Treatment	Extended	0.0149	0.0081	1.837	0.0663	+
Demographic Subgroup	Any Black Male	Treatment	Simple	0.0590	0.0225	2.625	0.0087	**
Demographic Subgroup	Count Black	Treatment	Extended	0.0826	0.0377	2.192	0.0285	*
Demographic Subgroup	Count Black Male	Treatment	Extended	0.0710	0.0326	2.176	0.0297	*
Moderation Analysis								
Department Rank	Any URM	Treatment × Dept Ranking	Extended	0.0012	0.0006	1.796	0.0727	+
Department Rank	Count URM	Treatment × Dept Ranking	Extended	0.0050	0.0018	2.809	0.0050	**
Faculty Size	% URM	Treatment	Simple	0.9579	0.5308	1.805	0.0713	+
Semester Analysis								
Fall Semester	Any Black	Treatment	Simple	0.0434	0.0167	2.603	0.0093	**
Fall Semester	Count Black	Treatment	Simple	0.0531	0.0209	2.541	0.0112	*
Fall Semester	Count URM	Treatment	Simple	0.0780	0.0456	1.711	0.0873	+
Spring Semester	% Black	Treatment	Extended	0.8204	0.4401	1.864	0.0625	+

Note: Significance levels: + p<0.1; * p<0.05; ** p<0.01; *** p<0.001. SE = Clustered standard errors at department level. Constant terms are excluded from this summary.