Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination

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Motivation

- Every measure of economic success reveals significant racial inequality in the U.S. labor marke

- Compared to Whites, African-Americans are twice as likely to be unemployed and earn nearly 25 percent less when they are employed

- Data limitations make it difficult to empirically test these views. Since researchers possess far less data than employers do, White and African-American workers that appear similar to researchers may look very different to employer.

Main Questions

- When faced with observably similar African-American and White applicants, do they favor the White one?

- Do African-Americans Receive Different Returns to Resume Quality?

Results

- Applicants with White names need to send about 10 resumes to get one callback whereas applicants with African-Americ names need to send about 15 resumes. This 50-percent gap in callback is statistically significant.

- Whites with higher-quality resumes receive nearly 30-percent more callbacks than Whites with lower-quality resume. On the other hand, having a higher-quality resume having a smaller effect for African-Americans.

Results

- living in a wealthier (or more educated or Whiter) neighborhood increases callback rates. But, interestingly, African-Americans are not helped more than Whites by living in a "better" neighborhood

- The racial gap has measured in different industries does not appear correlated to Census-based measures of the racial gap in wages.

Experimental Design

Creating a Bank of Resume

- The first step of the experimental design is to generate templates for the resumes to be sent.

- Begin with resumes posted on two job search web sites and classify the resumes into tow groups

- To minimize similarity to actual job seekers they use resumes from Boston job seekers to form templates for the resumes to be sent out in Chicago and vise versa

Experimental Design

Identities of Fictitious Applicants

- The next step is to generate identities for the fictitious job applicants

- Use name frequency data calculated from birth certificates of all babies born in Massachusetts between 1974 and 1979.

- Distinctive names are those that have the highest ratio of frequency in one racial group to frequency in the other racial group.

Experimental Design

Responding to Ads

- The experiment was carried out between 2001 and January 2002 in Boston and between July 2001 and May 2002 in Chicago.

- Eliminate any ad where applicants were asked to call or appear in person

- For each ad, they use the bank of resumse to sample four resumes (two high-quality and two low-quality) that fit the job description and requirements as closely as posible.

Measuring Responses

- Measure whether a given resume elicits a callback or e-mail back for an interview.

- Any attempt by employers to contact applicants via postal mail cannot be measured in the experiment.

Weaknesses of the Experiment

- Experiment are not able to translate the results into gaps in hiring rates or gaps in earnings.

- The resumes do not directly report race but instead suggest race through personal name.

- Newspaper ads represent only one channel for job search.

Is There a Racial Gap in Callback?

	Percent callback for White names	Percent callback for African-American names	Ratio	Percent difference (p-value)
Sample:				
All sent resumes	9.65 [2,435]	6.45 [2,435]	1.50	3.20 (0.0000)
Chicago	8.06 [1,352]	5.40 [1,352]	1.49	2.66 (0.0057)
Boston	11.63 [1,083]	7.76 [1,083]	1.50	4.05 (0.0023)
Females	9.89 [1,860]	6.63 [1,886]	1.49	3.26 (0.0003)
Females in administrative jobs	10.46 [1,358]	6.55 [1,359]	1.60	3.91 (0.0003)
Females in sales jobs	8.37 [502]	6.83 [527]	1.22	1.54 (0.3523)
Males	8.87 [575]	5.83 [549]	1.52	3.04 (0.0513)

Notes: The table reports, for the entire sample and different subsamples of sent resumes, the callback rates for applicants with a White-sounding name (column 1) an an African-American-sounding name (column 2), as well as the ratio (column 3) and difference (column 4) of these callback rates. In brackets in each cell is the number of resumes sent in that cell. Column 4 also reports the p-value for a test of proportion testing the null hypothesis that the callback rates are equal across racial groups.

Is There a Racial Gap in Callback?

Equal Treatment:	No Callback	1W + 1B	2W + 2B
88.13 percent	83.37	3.48	1.28
[1,166]	[1,103]	[46]	[17]
Whites Favored (WF):	1W + 0B	2W + 0B	2W + 1B
8.39 percent	5.59	1.44	1.36
[111]	[74]	[19]	[18]
African-Americans Favored (BF):	1B + 0W	2B + 0W	2B + 1W
3.48 percent	2.49	0.45	0.53
[46]	[33]	[6]	[7]
Ho: WF = BF			
$p = 0.0000$			

Do African-Americans Receive Different Returns to Resume Quality?

		Panel A: Subjective Measure of Quality (Percent Callback)		
	Low	High	Ratio	Difference (*p*-value)
White names	8.50	10.79	1.27	2.29
	[1,212]	[1,223]		(0.0557)
African-American names	6.19	6.70	1.08	0.51
	[1,212]	[1,223]		(0.6084)

		Panel B: Predicted Measure of Quality (Percent Callback)		
	Low	High	Ratio	Difference (*p*- value)
White names	7.18	13.60	1.89	6.42
	[822]	[816]		(0.0000)
African-American names	5.37	8.60	1.60	3.23
	[819]	[814]		(0.0104)

Applicants' Address

Dependent Variable: Callback Dummy

Zip code characteristic:	Fraction Whites		Fraction college or more		Log(per capital income)	
Zip code characteristic	0.020	0.020	0.054	0.053	0.018	0.014
	(0.012)	(0.016)	(0.022)	(0.031)	(0.007)	(0.010)
Zip code characteristic*	—	−0.000	—	−0.002	—	0.008
African-American name		(0.024)		(0.048)		(0.015)
African-American name	—	−0.031	—	−0.031	—	−0.112
		(0.015)		(0.013)		(0.152)

Notes: Each column gives the results of a probit regression where the dependent variable is the callback dummy. Reported in the table is the estimated marginal change in probability. Also included in columns 1, 3, and 5 is a city dummy; also included in columns 2, 4, and 6 is a city dummy and a city dummy interacted with a race dummy. Standard errors are corrected for clustering of the observations at the employment-ad level.

Job and Emnployer Chaeracatersisteics

Job requirement:	Sample mean (standard deviation)	Marginal effect on callbacks for African-American names
Any requirement? (Y = 1)	0.79	0.023
	(0.41)	(0.015)
Experience? (Y = 1)	0.44	0.011
	(0.49)	(0.013)
Computer skills? (Y = 1)	0.44	0.000
	(0.50)	(0.013)
Communication skills? (Y = 1)	0.12	−0.000
	(0.33)	(0.015)
Organization skills? (Y = 1)	0.07	0.028
	(0.26)	(0.029)
Education? (Y = 1)	0.11	−0.031
	(0.31)	(0.017)
Total number of requirements	1.18	0.002
	(0.93)	(0.006)

Job and Emnployer Chaeracatersisteics

Employer characteristic:	Sample mean (standard deviation)	Marginal effect on callbacks for African-American names
Equal opportunity employer? (Y = 1)	0.29	−0.013
	(0.45)	(0.012)
Federal contractor? (Y = 1)	0.11	−0.035
(N = 3,102)	(0.32)	(0.016)
Log(employment)	5.74	−0.001
(N = 1,690)	(1.74)	(0.005)
Ownership status:		
(N = 2,878)		
Privately held	0.74	0.011
		(0.019)
Publicly traded	0.15	−0.025
		(0.015)
Not-for-profit	0.11	0.025
		(0.042)
Fraction African-Americans in employer's zip code	0.08	0.117
(N = 1,918)	(0.15)	(0.062)

Apparent Drawbacks

- What if firms have some hiring rules rather than race discrimination? (like base rate population)

-What if names also signal other personal trait? (like social background)

Callback Rate and Mother's Education by First Name

	White female			African-American female	
Name	Percent callback	Mother education	Name	Percent callback	Mother education
Emily	7.9	96.6	Aisha	2.2	77.2
Anne	8.3	93.1	Keisha	3.8	68.8
Jill	8.4	92.3	Tamika	5.5	61.5
Allison	9.5	95.7	Lakisha	5.5	55.6
Laurie	9.7	93.4	Tanisha	5.8	64.0
Sarah	9.8	97.9	Latoya	8.4	55.5
Meredith	10.2	81.8	Kenya	8.7	70.2
Carrie	13.1	80.7	Latonya	9.1	31.3
Kristen	13.1	93.4	Ebony	9.6	65.6
Average		91.7	Average		61.0
Overall		83.9	Overall		70.2
Correlation	−0.318	($p = 0.404$)	Correlation	−0.383	($p = 0.309$)

Callback Rate and Mother's Education by First Name

	White male			African-American male	
Name	Percent callback	Mother education	Name	Percent callback	Mother education
Todd	5.9	87.7	Rasheed	3.0	77.3
Neil	6.6	85.7	Tremayne	4.3	—
Geoffrey	6.8	96.0	Kareem	4.7	67.4
Brett	6.8	93.9	Darnell	4.8	66.1
Brendan	7.7	96.7	Tyrone	5.3	64.0
Greg	7.8	88.3	Hakim	5.5	73.7
Matthew	9.0	93.1	Jamal	6.6	73.9
Jay	13.4	85.4	Leroy	9.4	53.3
Brad	15.9	90.5	Jermaine	9.6	57.5
Average		91.7	Average		66.7
Overall		83.5	Overall		68.9
Correlation	−0.0251	($p = 0.949$)	Correlation	−0.595	($p = 0.120$)

Special Thanks for Your Attendance