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Math 448, Tao He

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Math 448: Project Progress Report I

**Introduction/Objective**

There have been studies and small test-runs of names having an impact on your life, especially concerning the job aspect. The objective of this project is inference. This is because I wish to explore the relationship between the names and other resume factors, such as job experience and ethnicity, and if they have impacted the possibility of a call back.

**Descritpion of Data**

The dataset, “Are Emily and Greg More Employable Than Lakisha and Jamal?”, being used in this project was found in Vincent Arel-Bundock’s Github projects under Rdatasets. The data was sourced from Stock and Watson’s book *Introduction to Econometrics,* 2nd edition (2007). However, the original source is under the Working Papers section of the National Bureau of Economic Research’s website. It is titled as *Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination* by Bertrand and Mullainathan.

Bertrand and Mullainathan conducted a randomized, controlled experiment to measure racial discrimination in the job market. They have sent 4,870 fictitious resumes to employment advertisements in Chicago and Boston in 2001. Each resume was randomly assigned a name that was either a Caucasian sounding such as Allison or an African-sounding name such as Tyrone. Once sent, Bertrand and Mullainathan waited to see which ones generated a phone call from the employer.

Within the dataset, there are 4,870 rows and 27 columns.

*The title of the dataset is “Are Emily and Greg More Employable Than Lakisha and Jamal?” from Vincent Arel-Bundock’s Github projects, which it had taken from Stock and Watson (2007). This dataset was from a randomized, controlled experiment conducted by Bertrand and Mullainathan (2004). It is 4870 by 27, and out of 27 variables, 2 are numerical. Those 2 are: Jobs and Experience. The categorical variables are: Name, Gender, Ethnicity, Quality, Call, City, Honors, Volunteer, Military, Holes, School, Email, Computer, Special, College, Minimum, Equal, Wanted, Requirements, Reqexp, Reqcomm, Reqeduc, Reqcomp, Reqorg, and Industry. The 4870 rows are of fictitious applicants, who applied to employment advertisements in Chicago and Boston in 2001.*

**Explanation of Variables**

The following table contains a brief description of variables of the data set. The descriptions are taken from the DOC provided by Vincent Arel-Bundock’s Github projects.

|  |  |
| --- | --- |
| Variable | Description |
| Name | Applicant’s first name |
| Gender | Applicant’s gender |
| Ethnicity | Applicant’s ethnicity (i.e., Caucasian vs African-American sounding) |
| Quality | Quality of the resume |
| Call | Was the applicant called back? |
| City | Boston or Chicago |
| Jobs | Number of jobs listed on the resume |
| Experience | Number of years of work experience on the resume |
| Honors | Did the resume mention some honors? |
| Volunteer | Did the resume mention some volunteering experience? |
| Military | Does the applicant have military experience? |
| Holes | Does the resume have some employment holes? |
| School | Does the resume mention some work experience while at school? |
| Email | Was the e-mail address on the applicant’s resume? |
| Computer | Does the resume mention some computer skills? |
| Special | Does the resume mention some special skills? |
| College | Does the applicant have a college degree or more? |
| Minimum | Minimum requirement of the employer |
| Equal | Is the employer EOE (Equal Opportunity Employment)? |
| Wanted | Type of position wanted by employer |
| Requirements | Does the ad mention some requirement for the job? |
| Reqexp | Does the ad mention some experience requirement? |
| Reqcomm | Does the ad mention some communication skills requirement? |
| Reqeduc | Does the ad mention some educational requirement? |
| Reqcomp | Does the ad mention some computer skills requirement? |
| Reqorg | Does the ad mention some organizational skills requirement? |
| Industry | Type of employer industry |

**Data Entry**

**Summary Results**

**Data Visualization/Observations**

**Code**

**Source**

Bertrand, M. and Mullainathan, S. (2004). Are Emily and Greg More Employable Than Lakisha

and Jamal? A Field Experiment on Labor Market Discrimination. *American Economic*

*Review*, **94**, 991–1013.

Bertrand, M. and Mullainathan, S. (2003). *Are Emily and Greg More Employable than Lakisha*

*and Jamal? A Field Experiment on Labor Market Discrimination* (Working Paper No.

9873). National Bureau of Economic Research. http://www.nber.org/papers/w9873

Stock, J.H. and Watson, M.W. (2007). *Introduction to Econometrics*, 2nd ed. Boston: Addison

Wesley.