Statistical Discrimination and the Race-Size Effect

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Abstract—In this paper, I build on past models of statistical discrimination to incorporate the role of race in determining the size of the firm for which an individual works. The model predicts a relationship in two parts. On average blacks will work for larger firms because of (1) the ability of larger firms to more accurately determine the productivity of potential employees and (2) the ability of larger firms to benefit from risk pooling in hiring a set of employees with large variance in individual productivities. Using the results of a multi-city individual-level survey, I perform a series of regressions whose results suggest that we cannot reject this statistical model for blacks. I find that blacks on average do in fact work for larger firms. This effect, however, is not significant for Hispanics, Asians, and Native Americans. The empirical findings for the relationship between blacks and firm size, though statistically significant, are still weak and merit further investigation.

1 Introduction

Traditionally, studies seeking to identify discrimination in the workforce have considered only wages and the number of certain demographics employed. Perhaps these two metrics have been popular because of their abundance and their intuitive role as signs of discrimination, but they are certainly not the only variables that can signal discrimination.

In this paper, I show through a statistical model given certain precedented assumptions that discrimination may manifest itself in other ways, namely, in the size of the firm for which an individual works. This relation between race and firm size has not been addressed perhaps because significant results from the traditional indicators have precluded this investigation. Empirical analysis, however, shows that in fact blacks work for larger firms, on average, than whites do. Though the effect does not seem to hold for other racial demographics, it is nonetheless a novel form of viewing statistical discrimination and suggests an expansion of our customary metrics so that we may form a more complete idea of discrimination aside from just wages and number employed.

Previous literature has addressed both questions of firm size and race, but prior work exploring their direct relation is lacking. Studies have shown there to be a negative correlation between firm size and wages. Moore (1911) discovered a large gap in wages due to firm size. A 1989 study by Brown and Medoff addressed six theories to explain the wage-size differential that they categorized into neoclassical and institutional arguments. In the same vein, Groshen (1991) and Troske (1994) found that the relation between firm size and wage is significant, offering a variety of possible explanations. Oi and Idson (1999) provided a detailed report on many of these explanations.

Knott (2005) considered, among other things, firm size and the incentives to respond adversely to the Civil Rights Act of 1991, finding that larger firms on average responded more adversely by reversing the trend of hiring employees in the demographics that are protected under the Act.

However, there is no direct treatment of the effect of racial demographic on firm size. While Knott's study is in the context of the Civil Rights Act of 1991 and explores resulting trends in minority hiring, the static relation between race and firm size is not explicitly considered.

In this paper, I argue that black employees on average work for larger firms than white employees do. However, even when controlling for relevant variables, there appears to be no statistically significant positive relationship between the Hispanic, Asian, and Native American indicator variables and firm size. In the next section, I describe two statistical models of discrimination that can account for the relationship between race and firm size. In Section 3, I briefly describe the survey and data set used in this study, which is followed by an empirical analysis in the form of several regressions corresponding to different combinations of explanatory and control variables. I conclude in Section 4.

2 Statistical Models for Race and Firm Size

Below, I present two models of statistical discrimination that I then test empirically in Section 3. The first of these models is based on Phelps' (1972) model of statistical discrimination regarding test scores as a noisy estimate of potential employees' productivity. The second model regards risk pooling and relies on the ability of larger firms to better tolerate an employee body with a larger variance in individual productivity.

2.1 Test Score Variance

Aigner and Cain (1977) summarize Phelp's model of statistical discrimination where "employers base their [hiring and wage] decisions on some indicator of skill, y, (such as a performance test) that measures the true skill [productivity] level, q." We consider the equation

$$y_i = q_i + u_i,$$

where y_i is the test score of some individual i, q_i is his true productivity, and u_i is the zero-mean error term. Under the assumption that $(q_i, u_i)_{\forall i}$ are i.i.d. normal random variables, we can solve for the least mean square error estimate of q given y, denoted by $\hat{q}$. This is

$$\hat{q} = \mathbb{E}\left[q|y\right] = (1-\gamma)\mathbb{E}\left[q\right] + \gamma y,$$

where

$$\gamma = \frac{\mathrm{Var}\left(q\right)}{\mathrm{Var}\left(q\right) + \mathrm{Var}\left(u\right)}.$$

Now, let us define the logical variable B_i to be true when i is black and false when i is white. Let us also define W_i to be the complement of B_i, true when i is white and false when i is black. We assume now that[1]

$$\mathbb{E}\left[q|W\right] > \mathbb{E}\left[q|B\right]. \tag{1}$$

This alone, however, is not reason enough for discrimination. If firms had perfect information, they would hire blacks and whites with high productivity levels alike regardless of the conditional expectations of productivity.

Now, we consider that smaller firms are less able to obtain precise information about their potential employees. Let us define the logical variable L_j to be true when firm j is large and false when firm j is small. For small firms, we define S_j to be the complement of L_j. Specifically, we argue here that

$$\mathrm{Var}\left(u|S\right) > \mathrm{Var}\left(u|L\right). \tag{2}$$

There are several reasons for this assumption. A smaller firm is less likely to have the resources, for example, to conduct thorough tests or interviews of its potential employees. Smaller firms are also less likely to have the financial or administrative ability to obtain additional background information about their candidates. Whereas some large firms hire third parties to obtain legal records and perform resume verification, a smaller firm may not be able to do so because of tighter budgets or lack of access to cheaper bulk rates.

[1] Phelps (1972) essentially suggests the same assumption: he models the lower conditional expectation of blacks' productivity by adding a negative corrective term to the conditional expectation of whites' productivity.

Along with the assumptions in inequalities 1 and 2, we assume, furthermore, that $\mathbb{E}[q|R] = \mathbb{E}[q|R, L] = \mathbb{E}[q|R, S]$ for $R = \{W, B\}$. That is, the race-conditional expectation of productivity is independent of firm size for a potential employee. In other words, this roughly signifies that small and large firms see a candidate pool with the same average productivities for a particular race.

For now, we will consider that

$$\mathrm{Var}(q) = \mathrm{Var}(q|W) = \mathrm{Var}(q|B), \tag{3}$$

but we will relax this assumption in the next subsection as we consider another source of statistical discrimination. A direct consequence of inequality 2 is that the loading factor on the mean productivity is greater for smaller firms than for larger firms. For the same observed test score $y > \mathbb{E}[q|W] > \mathbb{E}[q|B]$, the estimated productivities determined by the large and small firms for a potential white employee and black employee are

$$\mathbb{E}[q|W, L] = (1-\gamma_L)\mathbb{E}[q|W] + \gamma_L y, \quad \gamma_L = \frac{\mathrm{Var}(q)}{\mathrm{Var}(q) + \mathrm{Var}(u|L)}, \tag{4}$$

$$\mathbb{E}[q|B, L] = (1-\gamma_L)\mathbb{E}[q|B] + \gamma_L y, \tag{5}$$

$$\mathbb{E}[q|W, S] = (1-\gamma_S)\mathbb{E}[q|W] + \gamma_S y, \quad \gamma_S = \frac{\mathrm{Var}(q)}{\mathrm{Var}(q) + \mathrm{Var}(u|S)}, \tag{6}$$

$$\mathbb{E}[q|B, S] = (1-\gamma_S)\mathbb{E}[q|B] + \gamma_S y. \tag{7}$$

The estimated productivity gaps, $\Gamma_L := \mathbb{E}[q|W, L] - \mathbb{E}[q|B, L]$ and $\Gamma_S := \mathbb{E}[q|W, S] - \mathbb{E}[q|B, S]$ are

$$\Gamma_L = (1-\gamma_L)\left(\mathbb{E}[q|W] - \mathbb{E}[q|B]\right), \tag{8}$$

$$\Gamma_S = (1-\gamma_S)\left(\mathbb{E}[q|W] - \mathbb{E}[q|B]\right). \tag{9}$$

Due to inequality 2, $\gamma_S < \gamma_L$ and therefore $\Gamma_S > \Gamma_L$. The estimated productivity gap is larger for smaller firms. Consequently, we should expect to find a positive relationship between the black indicator variable B_i and the size of the firm for which the employee i works.

2.2 Risk Pooling

Until now, we have assumed that the populations of blacks and whites, though differing in mean productivity, have the same variance. We now relax the assumption in equation 3 and allow for

$$\mathrm{Var}(q|B) > \mathrm{Var}(q|W). \tag{10}$$

This consideration is made in Aigner and Cain, who argue, using Parkin's (1970) model, that an employer's utility is monotonically decreasing in the variance of the productivity of its employees. Though Aigner and Cain argue that the assumption in inequality 2 is reason enough to expect statistical discrimination, I pose yet another argument founded on the concept of risk pooling, specifically that larger firms are better able to tolerate an employee body with a larger variance in individual productivity than are smaller firms.

To demonstrate this most clearly, let us consider a set L of N employees, the first fraction $\theta_L \in [0, 1]$ of which is black and the latter fraction $1 - \theta_L$ of which is white, with independent random productivities $q_i^R \sim \mathcal{N}\left(\mathbb{E}[q_i|R], \sigma_R^2\right)$. Consider also a smaller set S of $M < N$ employees, the first fraction $\theta_S \in [0, 1]$ of which is black and the latter fraction $1 - \theta_S$ of which is white, with independent random productivities $q_i^R \sim \mathcal{N}\left(\mathbb{E}[q_i|R], \sigma_R^2\right)$. Assuming as in inequality 10 that $\sigma_B^2 > \sigma_W^2$, we can determine the variance of the mean productivities m_L and m_S of each group:

$$\mathrm{Var}\,(m_L) = \mathrm{Var}\left(\frac{1}{N}\left(\sum_{i=1}^{\theta_S N} q_i^B + \sum_{i=\theta_S N+1}^{N} q_i^W\right)\right) = \frac{1}{N}\left(\theta_S \sigma_B^2 + (1-\theta_S)\sigma_W^2\right), \quad (11)$$

$$\mathrm{Var}\,(m_S) = \mathrm{Var}\left(\frac{1}{M}\left(\sum_{i=1}^{\theta_L M} q_i^B + \sum_{i=\theta_L M+1}^{M} q_i^W\right)\right) = \frac{1}{M}\left(\theta_L \sigma_B^2 + (1-\theta_L)\sigma_W^2\right). \quad (12)$$

In order for the mean productivities of the two groups of employees to be equal, we must have

$$\frac{N}{M} = \frac{\theta_L \sigma_B^2 + (1-\theta_L)\sigma_W^2}{\theta_S \sigma_B^2 + (1-\theta_S)\sigma_W^2} > 1 \qquad \Rightarrow \qquad \theta_L > \theta_S$$

This suggests that in order to attain the same level of productivity variance between these two groups of different sizes, the smaller group must have a smaller proportion of blacks and, consequently, a larger proportion of whites. This suggests that larger firms are less averse to hiring demographics with higher productivity variance.

In the next section, I consider a multi-city cross-sectional survey (1992-1994) of urban inequality over a large population of individuals living in Atlanta, Boston, Detroit, and Los Angeles. In the section following this one, I will analyze the survey results in a series of regressions to corroborate the theoretical arguments above.

3 Empirical Analysis of Survey Data

3.1 Survey

Bobo, *et. al.*, conducted the *Multi-City Study of Urban Inequality, 1992-1994: [Atlanta, Boston, Detroit, and Los Angeles]*, which was intended to illuminate "how changing labor market dynamics, racial attitudes and stereotypes, and racial residential segregation act singly and in concert to foster contemporary urban inequality." The study consists of two parts: a survey of individuals and a survey of employers. Here, I will consider the individual-level survey that was conducted through a series of interviews. This individual-level data set provides a wealth of control variables such as education and income that would be absent in an employer-level study.

As part of the survey, individuals were asked about their employment status and about their employer. Specifically, individuals were asked to report the number of workers at their current or most recent place of employment, which we take here to be a measure of the firm size. Additional information includes race, hourly wage, years of education, fluency in English, number of different employers in the past five years, job industry, citizenship and immigration information, and more.

3.2 Description

Each observation in this cross-sectional data set is an individual. There are a total of 8,916 observations, but after cleaning the data to eliminate missing or otherwise unusable observations, there are 4,256 surviving points. The variables most relevant to this analysis, however, are summarized in Table 1. The ranges of the variables suggest that there are no serious outliers after unusable observations have been removed. The variables marked with "(I)" are binary indicator variables that assume a value of either zero or unity.

The construction of the variables in Table 1 is largely self-evident except for the case of the spoken English ability variable, which is an integer score between 0 and 4 indicating the individual's level of fluency in spoken English. The scores correspond to the following responses to the question "How well can you speak English?": not at all, 0; a little, 1; just fair, 2; well, 3; very well, 4. Individuals who marked English as the sole language spoken in their household were classified under a special category in the survey, but for the purposes of the analysis in this paper, they are logically assigned a score of 4.

The determination of legality is also a variable whose construction is worth noting. An individual is determined illegal if he indicates that he is not a citizen and does not have a green card. Selection bias is probably not an issue for this particular variable, as there are no individuals who refused to answer the question of citizenship and only a total of eight who refused to answer the question of green card possession.

The reduction in the number of usable observations is mostly due to the number of retired or currently unemployed people who were surveyed. These individuals are naturally excluded from the data set since there is no observation of firm size. Missing or refused data is otherwise small, suggesting that selection bias due to missing data is not likely to be a problem in this sample. However, one should note that the omission of individuals who are unemployed and actively looking for employment may result in some selection bias if there is a relationship between an individual's level of friction in the labor market and firm size. Results in the next subsection suggest that there might be such a relationship as captured in the number of previous jobs an individual has had in the previous five years.

One potential cause for concern, however, is that the number of employees (firm size) variable, the dependent variable in the regressions, saturates at 9,995 employees. Thus, any sample point exceeding 9,995 is rounded down to this number. Though this clearly exerts downward bias on the sample mean of this variable, it is not clear in which direction it is likely to bias estimates of the coefficients. This bias is largely based on unobservable correlations of the independent variables with the true firm size statistics that exceed 9,995 employees. Additional bias may arise from misrepresented or rounded figures, as these numbers are estimates reported by the individual and are not official numbers obtained from the firms. This causes bias insofar as there is reason to believe that individuals of particular demographics will systematically over- or understate the firm size.

3.3 Analysis

The regressions in Table 2 are of the form

$$Y_i = \alpha + \boldsymbol{\beta}^{\mathrm{T}}\mathbf{X}_i + \boldsymbol{\gamma}^{\mathrm{T}}\mathbf{Z}_i + \epsilon_i,$$

where i indexes an individual, Y_i is the number of employees at the firm where the individual works (which we refer to as firm size), $\mathbf{X}_i$ is a vector of race indicator variables, $\mathbf{Z}_i$ is a vector of control variables, β and γ are vectors of regression coefficients, α is the intercept, and ϵ_i is the error term.

The minority indicator variable presented in column (1) takes a value of zero for a white individual and a value of unity for an individual who is black, Hispanic, Asian, or Native American. Column (2) presents a more detailed regression where the minority variables are treated separately. From this preliminary observation, it appears that only the black indicator variable has a coefficient that is statistically significant and positive, while the Hispanic and Asian coefficients are statistically significant and negative and the Native American coefficient is not statistically different from zero. This suggests that among the minority variables, the black indicator accounts for a large portion of the positive coefficient in column (1).

A potential explanation for a negative coefficient on the Hispanic variable may concern the presence of illegal immigrants. It is possible, for example, that a nontrivial portion of the interviewed Hispanic population does not have the legal right to work in the United States. We would expect that these individuals would only be able to find work at smaller institutions that more easily exceed the purview of the law. Indeed, column (3) shows that the coefficient on the illegal indicator variable is in fact statistically significant and negative, consistent with this view. However, when we control for illegality and its interaction with race in column (4), the coefficients on Hispanic and Asian remain significant and negative. Furthermore, none of the coefficients on the interaction terms are statistically significant.

The analysis above, however, is incomplete as we do not account for a number of variables that are correlated with the error term ϵ_i and cause bias in the estimates of the $\boldsymbol{\beta}$ coefficients. In columns (5) through (8), we control for a number of these key variables.

Notable among these is years of education, introduced in column (5). Though there is a statistically significant coefficient on this variable, the coefficient on the black indicator variable remains still significant and positive. The coefficient on the Hispanic variable is not statistically significant, suggesting that years of schooling can account for the disparity in firm size in this case. The coefficient on the Asian variable is still significant and negative.

The inclusion of log earnings in columns (6) through (10) is motivated by the wage-size gap referenced earlier in Section 1. It should be noted that in this particular data set and consistent with the wealth of literature on the wage-size effect, this coefficient is highly statistically significant with a t-statistic of 10.92.[2]

Furthermore, the absence of English language ability is so far absent in (5). Spoken English language ability, however, is probably correlated with the error term as better speakers are more likely to find employment in larger firms where frequent communication with many colleagues is arguably more important. In (7), we note a statistically significant positive coefficient on this variable as expected. However, when we control for industry fixed effects, city, and unionization, the coefficient is no longer significant, suggesting that the variation in firm size can be explained with partly by the latter variables.

Additionally, we control for the number of employers that an individual has had in the past five years. We would expect for the coefficient on this variable to be negative as individuals with more volatile employment histories are less likely to work for larger, more stable firms. Consequently, this term is likely to be correlated with the error term, causing bias in the $\boldsymbol{\beta}$ estimates. Indeed, the coefficient on this new variable is negative and statistically significant in columns (7)–(10).

In (7) and (8), we control for these additional variables discussed above that may be correlated with the error term in (5): years of education, log earnings, spoken English ability, and number of past employers. Even with these variables included, the coefficient on the black indicator variable is significant and positive, while the coefficients on the Asian and Hispanic indicator variables are no longer significantly different from zero. In (8), we control for the dummy variables of the cities and for the fixed effects of the worker's industry. The latter is to target bias that may arise from a tendency of particular demographics to work in, say, the agricultural industry whose firms are systematically smaller. Even with these variables included in the regression, the black coefficient is significant and positive, though the magnitude of the black coefficient decreases by about ten percent from (7) to (8), suggesting that at least some of the race-size effect can be explained by blacks working in industries with larger firms.

Finally, we consider whether the individuals are unionized or belong to a collective bargaining organization. One may consider that blacks, for example, are more likely to be in a union or collective bargaining organization, which is more prevalent in larger firms. Indeed, in (9), where we control for the union binary variable, we notice that the magnitude of the coefficient on black falls again, suggesting that unionization, like industry, can account for at least part of the race-size effect.

According to the results in (9), on average blacks work for firms that have a significant 155.80 more employees than the firms for which whites work when controlling for a number of variables. As noted earlier, due to limitations of the data set, it is possible that this figure is an over- or underestimate. For firms employing more than 9,995 individuals, the response to the survey is encoded as 9,995, suggesting that the true distribution of firm sizes extends into larger numbers where the interplay of race with firm size is unobserved here. To account for this censored data, we present a tobit regression in (10) where the right-censored bound of 9,995 is considered. The magnitude of the black coefficient is nearly unchanged in (10), and it remains significant.

These findings suggest that we cannot reject the statistical model present in Section 2 for blacks. That the relationship is statistically insignificant for Asians, Hispanics, and Native Americans might suggest that the assumptions regarding the relative expected productivities of these demographics do not align with those in the previous section.

One may suggest reason for alarm in considering the relatively low adjusted R-squared values of the

[2] One notable phenomenon regarding the interaction of race, firm size, and wages reminds us that positive correlation is not transitive, a property explored extensively in Langford (2001). For the following consideration, let B represent the black indicator variable, $\ln w$ represent log earnings, and S represent firm size. Considering that $\operatorname{Corr}(B, S) > 0$ and $\operatorname{Corr}(S, \ln w) > 0$, we might expect that $\operatorname{Corr}(B, \ln w) > 0$, contrary to the well known result that $\operatorname{Corr}(B, \ln w)$ is actually negative.

regressions in Table 2, which are slightly below 5% at the highest. However, we note that these values simply indicate that the predictive power of the model is low, which we should expect since race is not nearly as important of a determinant of firm size as a number of other variables that are unavailable in this survey, such as position, major field of study, etc. The fact remains that the coefficient on the black indicator variable is always positive and statistically significant at the 99% confidence level in the OLS regressions. The degree to which race determines firm size, though, is relatively small.

4 Conclusion

While previous work has addressed the relationship between race and wage or amount of labor employed in light of statistical models of discrimination, this is the first consideration of the relationship between race and firm size building on these past statistical models.

We have found that the relationship between race and firm size is statistically significant even when controlling for a number of other explanatory variables whose omission will result in bias. These findings suggest that we cannot reject the two-pronged model of statistical discrimination and firm size presented in Section 2 for the case of blacks. Considering that the productivity distribution of blacks has a lower mean and larger variance than that of whites and that the black test score error term has a larger variance than that of whites, all of which are suggested in either Phelps or Aigner and Cain, we would expect to see the results found in Table 2 with respect to race and firm size.

The findings suggest that although the effect is statistically significant, it is likely to have weak predictive power. Consequently, policy aimed to reduce statistical discrimination may be ill-informed to target this firm size effect.

While the data set used in this study is intended to broadly illuminate issues of race and discrimination, the findings in this paper motivate further study of the race-size effect using an individual-level data set that more precisely addresses variables relating to firm size. Further studies may also seek regression models with higher explanatory power to determine more accurately the magnitude of the race-size effect.

An experiment fostering a panel data set could be used to eliminate fixed effects of individuals over time to form a more precise understanding of the effect of race on firm size. Though a significant number of variables are controlled for in this analysis, there are likely to be more fundamental and unobservable characteristics that drive firm size that are highly correlated with race; these factors might involve upbringing and general culture or mentality. Broadly, one must determine whether these unobserved factors should be treated as components of race or whether they should really be thought of as sources of omitted variable bias obscuring the true race-size relation. This consideration is more than simply an econometric one, for it calls into question the more general meaning of race in these analyses.

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Summary Statistics

Variable	No. obs.	Mean	Std. Dev.	Min	Max
No. employees	5069	434.35	1393.44	1	9995
Minority (I)	5069	0.4662	0.4989	0	1
Black (I)	5069	0.3194	0.4662	0	1
Hispanic (I)	5069	0.2496	0.4328	0	1
Asian (I)	5069	0.1399	0.3469	0	1
Native American (I)	5069	0.0069	0.0828	0	1
Illegal (I)	5062	0.0508	0.2196	0	1
Years of education	5059	12.82	3.19	0	17
Log earnings ($/hr)	4337	2.26	0.5945	0.7270	5.26
Spoken English ability	5052	3.33	1.13	0	4
No. employers past 5 years	5034	2.21	2.28	0	30
Union (I)	4422	0.1958	0.3969	0	1
(I) Binary indicator variable					

Table 1: Summary statistics for independent and dependent variables

Number of Employees (Firm Size)

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS	(8) OLS	(9) OLS	(10) Tobit
Minority (I)	126.78**									
	(3.32)									
Black (I)		128.25**		125.73**	149.71**		197.40**	178.09**	155.80**	155.53*
		(2.63)		(2.56)	(3.05)		(3.57)	(3.34)	(2.66)	(2.53)
Hispanic (I)		-224.00**		-193.42**	-111.57		27.00	-0.3620	-38.45	-56.36
		(-4.31)		(-3.54)	(-1.92)		(0.38)	(-0.01)	(-0.50)	(-0.70)
Asian (I)		-176.64**		-167.23**	-179.21**		-54.71	-6.31	5.22	-13.07
		(-2.81)		(-2.60)	(-2.85)		(-0.65)	(-0.08)	(0.06)	(-0.13)
Native		32.84								
,letterpaperAmerican (I)		(0.14)								
Illegal (I)			-383.89**	-102.81						
			(-4.31)	(-0.45)						
Black×Illegal (I)				-290.94						
				(-0.46)						
Hispanic×Illegal (I)				35.05						
				(0.10)						
Asian×Illegal (I)				8.89						
				(0.02)						
Years of					30.01**		-2.03	-0.1985	0.5482	-4.05
,letterpapereducation					(4.32)		(-0.23)	(-0.02)	(0.06)	(-0.42)
Log earnings ($/hr)						369.87**	337.54**	157.22**	208.11**	417.30**
						(10.29)	(8.05)	(3.71)	(4.04)	(8.15)
Spoken English							62.95*	27.68	23.43	55.63
,letterpaperability (0-4 scale)							(2.18)	(0.97)	(0.73)	(1.72)
No. employers							-37.92**	-21.70*	-24.16*	-40.25**
,letterpaperpast 5 years							(-4.10)	(-2.44)	(-2.27)	(-3.62)
Union (I)									139.34*	234.14**
									(2.21)	(3.77)
Atlanta (I)								8.04	22.96	-49.36
								(0.13)	(0.35)	(-0.72)
Boston (I)								145.19**	149.09**	116.43*
								(2.75)	(2.57)	(2.01)
Industry fixed effects	No	No	No	No	No	No	No	Yes	Yes	No
Adj. R^2	0.0018	0.0096	0.0035	0.0104	0.0132	0.0236	0.0345	0.0354	0.0485	0.0030
No. obs.	5079	5069	5062	5062	5059	4337	4288	4256	3815	3843

* Significantly different from zero at the 95% confidence level
** Significantly different from zero at the 99% confidence level
t-statistics are in parentheses
(I) Binary indicator variable

Table 2: Regression of firm size on race and control variables