Racism and Corruption: Cross-Sectional Case of the US

Alejandro Mesa Osorio[*]   Catalina Gómez Toro[†]

May 15, 2017

Abstract

Using cross-section Google search data implemented by Stephens-Davidowitz (2014) to capture racial hate in every single state of the United States, we found a positive and significant relationship between racism and corruption in the three branches of government, specially the Judicial branch. Since the termination of the Civil War, states that used to perform slavery as an economic activity started to discriminate the African-American minority and harm their fundamental rights through sentences in local courts. Additionally, 1% increase in the estimated racial hate decreases the probability to stay in the lowest levels of perceived corruption and increases the chances up to 2% to pass to a "very Common" level of corruption.

Resumen

Usando datos de búsqueda de Google de corte transversal implementado por Stephens-Davidowitz (2014) para capturar el odio racial en cada estado de los Estados Unidos, encontramos una relación positiva y significativa entre racismo y corrupción en las tres ramas de poder gubernamental, especialmente en la rama judicial. Desde la terminación de la guerra civil norteamericana, los estados que permitían la esclavitud como actividad económica comenzaron a discriminar a la minoría Afroamericana y violar sus derechos fundamentales por medio de sentencias en las cortes locales. Adicionalmente, un 1 % de incremento en el odio racial estimado disminuye la probabilidad de permanecer en los niveles menores de corrupción percibida e incrementa las posibilidades hasta de un 2 % de pasar a un alto nivel de corrupción.

[*]Escuela de Economía y Finanzas. Universidad EAFIT. e-mail:amesaos@eafit.edu.co

[†]Universidad EAFIT. e-mail:cgomezt1@eafit.edu.co

1. Introduction

In 1865, the reunification of the North American nation began, and so, the predominance of the northern states' ideas in the US constitution. However, those forced institutional changes in the southern states only prevailed until the moment when the Union forces made their presence in that region to enforce the new laws. When the troops withdrew in the 1870's, the south returned to its old-established ideas by forbidding the vote for people of colour and denying their civil rights obtained after the termination of the civil war (Naidu, 2012). Additionally, the retro activation of the former southern non-formal institutions impeded the peaceful racial coexistence in the region and, through organizations such as the Ku Klux Klan and the Order of White Knights, the white and Protestant population infused hatred to the minorities in those places, especially to the African and African-American citizens.

The educational system in the South could neither follow the same path of unification of the rest of the country. Segregated schools, a product of racial hate in secessionist states, provided poorer education for black people compared to the white ones, which impeded the African-American habitants good and well-paid jobs (Margo, 1990). Therefore, a black minority had no influence on political, social and economic decisions in the southern states.

Nowadays, the consequences of these non-formal institutions, established during the period of segregation, are implicitly evident, particularly in the Southern states what were part of the confederate coalition in the civil war. Recent newspaper reports of police brutality against the black population and consequent protests against the impunity of those crimes suppose descriptive evidence of the prevalence of racism in the United States. And, hence, continues to contribute to the increase of corruption levels across the country.

By way of example, that supports the previous supposition, is the murder of Michael Brown, an African-American of 18 years' old, who was unarmed in the moment he was shot in 2014 by a white police officer called Darren Wilson in St Louis, Missouri. Later that year, the St. Louis County Grand Jury decided not to indict the police officer, which

caused a great number of pacific and violent protests in several states of the country.

According to the previous context of racism in the United States, it is feasible to suppose that some of the acts and determinations in the executive, legislative and especially judicial branch have been historically focused on benefit white population and, accordingly, allows the predominance of the segregationist institutions, particularly in the South. If this socially problematic situation remains, it is possible to conjecture that states with higher levels of racial hate, that leads to corruption, which can be one of the consequences of "extractive" institutions, may not be able to achieve the same economic development as their less corrupt and more institutional inclusive peers (Acemoglu & Robinson, 2008; Mauro, 1995; Treisman, 2000). Moreover, inequality and poverty levels are higher in more corrupt territories (Gupta, Davoodi & Alonso-Therme, 2001).

The present research attempts to prove the positive relationship between racial hate and corruption in the United States, particularly in the judicial branch, even after ending the civil war and after the abolition of segregation laws in the past century (Jetter, Mesa-Osorio, 2016). It also seeks to clarify, with quantitative validation, the channels whereby this correlation exist. There is descriptive and historical literature which allows concluding that the government's branch where the effect of racial intolerance on corruption perception is more noticeable, is the judicial branch; since is the closest government branch to the civilians, and is the branch that most easily can infringe the rights of the people.

This paper is organized as follows. Initially, the next section summarizes the previous research and evidence on the matter. Then, section 3 describes the cross-section data by state. Section 4 defines the econometric methodology. Section 5 interpret and analyze the result of the estimations. Finally, section 6 presents the concluding remarks of this research.

2. Literature Review

Corruption has been a main economic and social problem which began to be widely studied since the end of last century with the research of Paolo Mauro in 1995. Based on subjective indices of bureaucracy and efficiency of the judicial system, the study proved the inverse relationship between corruption and the level of investment in countries (Mauro, 1995), which also would produce lower economic growth in the long term (Mauro 1995; Tanzi, 1998; Treisman, 2000; Mo, 2001).

Other studies concluded that countries that high corruption in a country leads to increase the level of inequality and corruption (Gupta et al., 2001; Justesen & Bjornskov, 2014). Besides, territories with greater protestant tradition, advanced economies and higher trade openness experience lower levels of corruption (Treisman, 2000).

Different approaches, focused on testing the causes of corruption in the United States, have concluded that less educated states, with greater ethnic division and smaller income level, are more susceptible to suffer higher levels of corruption (Glaeser, 2006). Effective separation of governance of political plurality in every state government is, as well, related to low levels of corruption (Alt & Lassen, 2008). More recent studies have found that the distance between the state capitals and the most populated areas is responsible for the different levels of corruption in each state (Campante & Do, 2014).

Emphasizing in acts of racial discrimination that are related to cases of corruption, several works have revealed how this relation is represented in judicial sentences. Alesina & La Ferrara (2014) found that local courts are more severe in cases where someone part of a minority is accused. In addition, they concluded that the effect of racial prejudice is driven exclusively by the southern states. In cases where there are no African Americans on the jury, black defendants were sentenced 81% of the time, while white defendants were sentenced only 66% of the time. Nevertheless, when there was at least one African American representative on the jury, black defendants were sentenced 71% of the time, while the sentences to white defendants increased to 73% of the time (Anwar, Bayer &

Hjalmarsso, 2012).

Such sentences disparities can be also explained by prosecutor's initial accusation and the use of minimum mandatory sentences. Rehavi & Starr (2014) discovered that in federal sentences, African American defendant received sentences 10% longer that White defendant because the prosecutors used the minimum mandatory sentences 1.75 times more in black defendants than White ones. Those previous studies, although they are interesting and revealing, does not provide the national problem and real implications across the entire country.

3.   Data Description

The focus of this research is to prove, either, the actual relationship between an approximation of racial hate or racism, from the white majority to the African American minority by state in the United States, and the level of state corruption perception from that country. We follow a dataset similar to the one used by Jetter & Mesa-Osorio (2016).

To capture a very ambiguous term such as racial hate, we are going to employ data collected from Seth Stephens-Davidowitz (2014) of weighted Google search among the 2004-2007 period, that reflects socially sensitive behaviors like racial intolerance of individuals against other races. The Google searches used to express this behavior are those that include the word "nigger(s)". This word is, according to Hosea Easton (1837), "an opprobrious term, employed to impose contempt upon (blacks) as an inferior race" (as cited in Kennedy, 2008). The derived index produces a maximum value of 100, which identifies the highest degree of racial hate.

Taking this variable as a proxy of racial hate has several advantages against approximations based on surveys. During the sample period, over the 70% of the American population had access to the internet and, besides, more than 50% of online search in that time were done through Google. (as cited in Stephens-Davidowitz, 2014). Moreover, data taken from web search engines are less prone to be skewed by social censorship. Like internet searches are mostly individuals, is easier to state an opinion, even if those are socially wrong (as cited

in Stephen-Davidowitz, 2014).

Also, Rae, Newheiser & Olson (2015) took 890.000 answers across the country of the "Racial Implicit Association Test", a test created by Project Implicit which detects automatic preferences to a race (European American or African American). The authors validated their results with the one taken from Stephens-Davidowitz (2014). Both approximations had a positive correlation of 78% with a p-value < 0.001 among Whites who answered the test and 50% of correlation among Blacks who answered the test (Rae, Newheiser & Olson, 2015).

To measure the level of corruption by state, this research used a subjective index based on surveys responded by research journalists in each state (excluding Louisiana that did not get answers) created by "The Safra Center for Ethics at Harvard University" (Dincer & Johnston, 2015). The index includes values from 1 to 4 of legal and illegal corruption in the executive, legislative and judicial branch; with corruption increasing with higher numbers.

Legal corruption is defined as:

> "The political gains in the form of campaign contributions or endorsements by a
> government official, in exchange for providing specific benefits to private individ-
> uals or groups, be it by explicit or implicit understanding"

> (Dincer & Johnston, 2015)

Similarly, the definition of illegal corruption is:

> "The private gains in the form of cash or gifts by a government official, in exchange
> for providing specific benefits to private individuals or groups"

> (Dincer & Johnston, 2015)

By distinguishing the level of legal and illegal corruption perception in the branches of government, this measure collects larger information than other general subjective indices.

(e.g., Boylan & Long, 2003).

The control variables by state included in the following estimations incorporates some of the conventional corruption determinants, such as: demographic components (population, races proportion and regions[1]), economic components (GDP per capita and Gini index), cultural components (protestants and church attendance) and educational components (estimated IQ level). Summary statistics of each variable, including sources and description, are displayed in Table 1.

4. Methodology

With the purpose of measuring and checking the relation among racial hate and corruption, we construct, according to Jetter & Mesa-Osorio (2016) the following cross sectional OLS analysis for state i:

$$Corruption = \alpha_0 + \alpha_i(Racial\ hate) + x_i^{'}\alpha_2 + \mu_i \qquad (1)$$

Where $x_i^{'}$ incorporates the controlled variables described in the previous section.

Taking into account that the dependent variable is a multinomial index, whose options reflects the perception of corruption of the government branches in each state, the OLS estimation analysis, although provides the right direction of the effect, the magnitude is wrong because OLS estimation takes as equivalent the difference between the values of corruption perception. The fact that the index takes values from one to five, with five as the highest level of corruption perception, and, therefore ,4 represents lower corruption than 5, adds useful information that is not possible to take advantage of with OLS or Ordinal Multinomial Models (Wooldridge, 2010).

For that reason, we are going to estimate an ordered probit model, which is a specific case of probabilistic choice models. In accordance with Greene (2002) and Wooldridge (2010),

---

[1]Region dummies are binary indications for the four U.S. regions (Northeast, South, West, and Midwest as reference category) as stated by the U.S. Census Bureau.

Table 1: Summary statistics for each of the 49 States (excluding Louisiana). The variable Protestants also lacks information for Alaska and Hawaii

Variable	Mean.	(Std. Dev)	Min.	Max.	Source	Data Description (Year)
Legal corruption judicial branch	1.74	(0.80)	1	4	Dincer & Johnston (2015)	1: 1: Not at all common, 2: Slightly common, 3: Moderately common, 4: Very Common, 5: Extremely common (2014). It is possible to have decimal values because surveys are averaged by state.
Illegal corruption judicial branch	1.38	(0.48)	1	2.5	Dincer & Johnston (2015)	As above
Average corruption judicial branch	1.56	(0.60)	1	3	Dincer & Johnston (2015)	As above
Average corruption executive branch	2.59	(0.80)	1	4.5	Dincer & Johnston (2015)	Average of legal and illegal corruption scores in executive branch (2014)
Average corruption legislative branch	3.01	(0.96)	1	4.5	Dincer & Johnston (2015)	Average of legal and illegal corruption scores in legislative branch (2014)
Racial hate	0.61	(0.14)	0.30	1	Stephen-Davidowitz (2014)	Proxy of racial hate based on Google search using the n-word. 0: no racial hate, 1:high racial hate (2004-2007)
Black	0.10	(0.09)	0	0.37	U.S. Census Bureau	% African-American (2006)
White not hispanic	0.	(0.12)	0.28	0.97	U.S. Census Bureau	% White not hispanic (2006)
Asian	0.03	(0.06)	0.01	0.4	U.S. Census Bureau	% Asian (2006)
GDP/cap	36,344	(6,451)	24,062	59,288	Bureau of Economic Analysis	Real $\frac{GDP}{cap}$ (2006)
Population size	5.99	(6.67)	0.52	36.02	U.S. Census Bureau	Population in millions (2006)
IQ test	100.44	(2.63)	94.2	104.3	McDaniel (2006)	Estimated IQ level using NAEP test in public schools (2006)
Church attendance	0.41	(0.09)	0.24	0.60	Gallup (2010)	% of respondents attending church at least once a week (2008)
Protestants	0.52	(0.14)	0.12	0.76	Gallup (2004)	% Protestants (2004)

8

an ordered probit model is derived from a latent variable y^* where:

$$y^* = \beta_0 + \beta_1 x_1 + \ldots + \beta_k x_k + \epsilon \tag{2}$$

$$y^* = x'\beta + \epsilon \tag{3}$$

Assuming that $\epsilon \sim N(0,1)$ and the observed variable y with $J+1$ ordered answers ($j = 0, 1, \ldots J$) has the following relationship:

$$
\begin{aligned}
y &= 0 \quad \text{if} \quad y^* \leqslant 0, \\
y &= 1 \quad \text{if} \quad 0 < y^* \leqslant \mu_1, \\
y &= 1 \quad \text{if} \quad \mu_1 < y^* \leqslant \mu_2, \\
&\;\;\vdots \\
y &= J \quad \text{if} \quad \mu_1 < y^* \leqslant \mu_2,
\end{aligned}
\tag{4}
$$

Where $\mu_1, \ldots, \mu_J$ are the threshold parameters of the latent variable y^* which delimits the levels of corruption in every government branch.

Noting that, the probabilities that $y = i$ when ($i = 0, 1, \ldots J$), according to Wooldridge (2010), are:

$$P(y = 0 \mid x') = P(y^* \leqslant \mu_1 \mid x') = P(x'\beta + \epsilon \leqslant \mu_1 \mid x') = \Phi(\mu_1 - x'\beta) \tag{5}$$

$$P(y = 1 \mid x') = P(y^* \leqslant \mu_2 \mid x') = P(x'\beta + \epsilon \leqslant \mu_2 \mid x') = \Phi(\mu_2 - x'\beta) \tag{6}$$

$$\vdots$$

$$P(y = J - 1 \mid x') = P(y^* \leqslant \mu_{J-1} \mid x') = P(x'\beta + \epsilon \leqslant \mu_{J-1} \mid x') = \Phi(\mu_{J-1} - x'\beta) \tag{7}$$

$$P(y = J \mid x') = P(y^* \leqslant \mu_J \mid x') = 1 - \Phi(\mu_{J-1} - x'\beta) \tag{8}$$

Where $\Phi(.)$ is the standard normal distribution function.

Both parameters μ_i and β_i are estimated by maximum likelihood. The log-likelihood function for each state is:

$$
\begin{aligned}
\ell_i(\mu, \beta) = \\
&1[y_i = 0]\log[\Phi(\mu_1 - x_i^{'}\beta)] \\
&+1[y_i = 1]\log[\Phi(\mu_2 - x_i^{'}\beta) - \Phi(\mu_1 - x_i^{'}\beta)] \\
&+... + 1[y_i = J]\log[1 - \Phi(\mu_J - x_i^{'}\beta)]
\end{aligned}
\tag{9}
$$

Even though the estimated $\widetilde{\beta}$ are going to clarify the effect direction in some cases[2](Greene, 2002), the purpose of this methodology is to decode and analyze the partial effects to changes in the independent variables, which are given by:

$$
\frac{\partial P(y_k = 0 \mid x^{'})}{\partial x_i} = -\beta_i \Phi(\mu_1 - x^{'}\beta)
\tag{10}
$$

$$
\frac{\partial P(y_k = j \mid x^{'})}{\partial x_i} = \beta_i[\Phi(\mu_{j-1} - x^{'}\beta) - \Phi(\mu_j - x^{'}\beta], \quad para \quad j = 1, 2, ...J-1
\tag{11}
$$

$$
\frac{\partial P(y_k = J \mid x^{'})}{\partial x_i} = \beta_i \Phi(\mu_J - x^{'}\beta)
\tag{12}
$$

.

This estimated partial effects give us the probability's variation of the observation i of changing from one category of the dependent variable (y_t) to another.

5.   Results and Analysis

Table 2 displays the findings of OLS estimations, including some of the general determinants of corruption as controls, which predicts corruption in the 3 branches of government. Columns 1 to 3 assess legal corruption in the judicial branch, whereas columns 4 to 6 estimates illegal corruption in the judicial branch. Column 7 present the result of

---

[2]For $P(y_k = 0 \mid x^{'})$ and $P(y_k = 0 \mid x^{'})$, the estimated $\widetilde{\beta}$ contains rightful information of the effect direction, in the inverse way for the first case and in the direct way in the second one.

Table 2: Results from OLS robust estimations for 49 states (excluding Louisiana) and 47 states (excluding Louisiana, Alaska and Hawaii).

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Legal Judicial Corruption			Illegal Judicial Corruption			avg. Judicial Corruption	Avg. Executive Corruption	Avg. Legislative Corruption
Racial Hate	3.875*** (1.41)	2.270* (1.21)	2.621** (1.22)	1.906*** (0.49)	0.971* (0.49)	1.483*** (0.44)	2.053*** (0.07)	3.249** (1.53)	3.860** (1.64)
% Black Race	0.382 (1.57)	-0.097 (1.49)	-0.976 (1.85)	-1.100 (1.07)	-1.380 (1.07)	-2.911*** (1.01)	-1.941 (1.27)	-2.688 (2.03)	0.380 (2.67)
% White not Hispanic Race	-1.163 (1.14)	1.466 (1.25)	-0.142 (1.35)	-1.008 (0.73)	0.542 (0.96)	-1.140 (0.84)	-0.641 (0.94)	-5.043** (1.98)	-2.973 (2.10)
Estimated IQ Level		-0.225*** (0.07)	-0.225*** (0.07)		-0.131*** (0.04)	-0.123*** (0.03)	-0.174*** (0.04)	0.143* (0.08)	0.016 (0.14)
% Protestant			-0.009 (1.26)			1.220* (0.61)	0.605 (0.80)	-1.350 (1.33)	-1.309 (1.33)
Church Attendance			-0.123 (1.75)			2.182*** (0.80)	1.029 (1.13)	4.207** (1.91)	2.170 (1.81)
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Economic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	49	49	47	49	49	47	47	47	47
Adjusted R^2	0.329	0.415	0.438	0.358	0.436	0.562	0.555	0.287	0.411

Notes: White robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Demographic controls includes Ln(Population) and U.S. regions dummies. Economic controls includes Ln(GDP/capita) and Gini index.

deriving an average of legal and illegal corruption in the same branch. Finally, columns 8 and 9 displays the estimates in average corruption in the executive and legislative branch respectively. The estimations start with racial hate (our variable of interest) including demographic and economic controls. Then, we include a set of educational and cultural controls as well.

Through all estimations, racial hate appears to be a positive predictor of corruption, with the estimated coefficient being statistically significant at least at 10% level in all the regressions and statistically significant at 1% level in the illegal and average corruption in the judicial branch when all controls are included. This findings partially validates the assumption that are described in the introduction and literature review. The state and local judicial courts benefits, without an apparent reason rather than their intolerance against the black population, the white habitants or harm the African-American minority.

In terms of magnitude, one standard deviation of racial hate (0.14), or an increase of 0.14 index level of racial hate, is associated with an increase of 0.36 and 0.20 index points

in the legal and illegal corruption in the judicial branch respectively. When examined the average judicial corruption, one standard deviation increase in racial hate represents an increase of 0.28 index points approximately. Moreover, even if the statistical significance of racial hate in columns 8 and 9 drops to 5%, the magnitude of the effect is bigger. A standard deviation increase in racial hate is equivalent to an increase of 0.45 and 0.53 index points of corruption in the executive and legislative branch.

Finally, it is important to consider the highly significant and negative relationship among IQ level and corruption in the three branches. Just analyzing the column 7 of table 2, an increase of 1 point in the estimated IQ level of a state, decrease in average 0.225 index points of the average corruption in the judicial branch, partially validating the findings of Glaeser (2006).

Although this results are important to validate the relationship between racial hate and corruption, OLS estimations does not capture whole the information that an ordered index has (see Section 4). To mitigate this issue, we estimated an ordered probit which is one case of multinomial ordered model.

Through this probabilistic model, we aim to find the probability's variation of changing from one category of corruption perception to another (supposing that the base or initial category is "Not at all Common"), given an increase of 1% in the independent variable, which in this case is Racial Hate. As it was stated in methodology, in an ordered probit model the coefficients of the estimation cannot be fully interpretable. Nevertheless the estimation results are tabulated in the Appendix as Table 6.

To use this methodological approach, the corruption perception in the three branches needed to transform, because this variables have not integer values in all the observations.

Table 3: Marginal effects for average corruption perception in the Judicial branch.

Corruption Perception:	(1) Not at all Common	(2) Slightly Common	(3) Moderately Common
Racial Hate	-2.605***	2.024**	0.582*
	(1.01)	(0.94)	(0.34)
Demographic Controls	Yes	Yes	Yes
Economic Controls	Yes	Yes	Yes
Educational Control	Yes	Yes	Yes
Cultural Controls	Yes	Yes	Yes
N	47	47	47

Notes: Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Demographic controls includes Ln(Population), U.S. regions dummies, % Black race and & White not Hispanic race. Economic controls includes Ln(GDP/capita) and Gini index. Educational control include estimated IQ level. Cultural controls includes % Protestants and church attendance.

The general index was modified following the incoming rule:

$$
\begin{aligned}
New\ Corruption\ Index &= 1 \quad if \quad Old\ Corruption\ Index \quad < 1.5, \\
New\ Corruption\ Index &= 2 \quad if \quad \leqslant 1.5 \quad Old\ Corruption\ Index \quad < 2.5, \\
New\ Corruption\ Index &= 3 \quad if \quad \leqslant 2.5 \quad Old\ Corruption\ Index \quad < 3.5, \quad (13) \\
New\ Corruption\ Index &= 4 \quad if \quad \leqslant 3.5 \quad Old\ Corruption\ Index \quad < 4.5, \\
New\ Corruption\ Index &= 5 \quad if \quad \leqslant 4.5 \quad Old\ Corruption\ Index \quad < 5,
\end{aligned}
$$

Also, as this variable is the main determinant of this study, the table only includes its partial effects. However, we include the same demographic, economic, educational and cultural controls included in the OLS estimation (see Table 2) to obtain consistency among all the estimation approximations. Finally, the three models presented below comply with the assumption of constancy of effects across the different categories. In other words, through a

likelihood-ratio test, the coefficients of the models are equal across categories (Wolfe, 1997).

Table 3 presents the results of partial effects for the average corruption perception in the Judicial branch. Knowing that Racial Hate takes values form 0 to 1 and the dependent variable has a range of values from 1 to 3, an increase of 1% on Racial Hate (or an 0.01 points index) decrease, with a statistical significance of 99%, the probability of a state i to stay in the same category of lowest level of corruption possible in 2.605%. Instead, the probability to pass from the base category to "Slightly Common" and "Moderately Common" increases 2.024% and 0.582% respectively. This findings are highly consistent with the results from the OLS estimation, which states that a higher value of racial Hate is related with a higher value of corruption perception.

Table 4: Marginal effects for average corruption perception in the Executive branch.

Corruption Perception:	(1) Not at all Common	(2) Slightly Common	(3) Moderately Common	(4) Very Common	(5) Extremely Common
Racial Hate	-0.290 (0.26)	-2.765*** (1.01)	1.565* (0.86)	1.477** (0.59)	0.012 (0.025)
Demographic Controls	Yes	Yes	Yes	Yes	Yes
Economic Controls	Yes	Yes	Yes	Yes	Yes
Educational Control	Yes	Yes	Yes	Yes	Yes
Cultural Controls	Yes	Yes	Yes	Yes	Yes
N	47	47	47	47	47

Notes: Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Demographic controls includes Ln(Population), U.S. regions dummies, % Black race and & White not Hispanic race. Economic controls includes Ln(GDP/capita) and Gini index. Educational control include estimated IQ level. Cultural controls includes % Protestants and church attendance.

Tables 4 and 5, which consider the partial effects of Racial Hate on the average perception of corruption in the Executive and Legislative branch respectively, have similar interpretation as Table 3. With both indices ranging from 1 to 5 in the corruption perception, an increase of 1% in the Racial Hate level in a state i decreases its probability to stay in the lowest level of corruption perception, and also to move from a "Not at all

14

Table 5: Marginal effects for average corruption perception in the Legislative branch.

Corruption Perception:	(1) Not at all Common	(2) Slightly Common	(3) Moderately Common	(4) Very Common	(5) Extremely Common
Racial Hate	-0.056	-1.699**	-0.490	1.965**	0.289
	(0.07)	(1.73)	(0.47)	(0.79)	(0.23)
Demographic Controls	Yes	Yes	Yes	Yes	Yes
Economic Controls	Yes	Yes	Yes	Yes	Yes
Educational Control	Yes	Yes	Yes	Yes	Yes
Cultural Controls	Yes	Yes	Yes	Yes	Yes
N	47	47	47	47	47

Notes: Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Demographic controls includes Ln(Population), U.S. regions dummies, % Black race and & White not Hispanic race. Economic controls includes Ln(GDP/capita) and Gini index. Educational control include estimated IQ level. Cultural controls includes % Protestants and church attendance.

Common" corruption level to "Slightly Common" level. But it increases the probability of the state to pass from category 1 to a "Moderately" corruption perception or higher.

In the executive branch (see Table 4), with a statically significance of 99%, the probability of moving towards the second level of corruption decreases in a 2.765% due to an increase of 0.01 points in Racial Hate; and, with lower levels of statistical significance, increment the probability to move to levels 3 and 4 of corruption perceptions by an 1.565% and 1.477% respectively. Although the probability to move from the lowest to the highest level of average corruption in the Executive branch is positive, is very close to zero and non-significant due to this level has only one observation.

Lastly, the analysis for the average corruption in the Legislative branch presents similar results to the previous approach with the Executive Branch. The difference lies in that both magnitude and significance lose some relevance in most of the five categories, except from the probability to pass from the lowest level possible of corruption to the second highest. This partial effect is equally significant and approximately 1.3 times bigger than the one shown in Table 4.

6.   Concluding Remarks

Historically, the United State has suffered several social problems due to intolerance between races, even though efforts made by the Federal Government to unify its habitants. Starting with the Civil War and by reason of segregation processes imposed by southern governments, several non-formal institutions, such as Ku Klux Klan, were founded. This organizations preached and generated hate against African-Americans, causing inequality in the education system and the labor market, among others. Nowadays, this disparity created by those non-formal institutions and implemented by many formal institutions, is still relevant when finding a reason to fundamental rights violation towards the black minority across the nation.

Through econometric approximations, including OLS and ordered probit estimations, we corroborated the hypothesis stated at the beginning of this document, which is the prevalence of inequality and rights violation because of racial intolerance from the white majority against black minority. Controlling for general and cultural empirical determinants of corruption, the estimations found a positive and statistically significance relationship between, what we called, racial hate and the perceived corruption levels by state in the three branches of government (Judicial, Executive and Legislative). Moreover, small increases of racial intolerance against the black minority increases the probability of a hike in the perceived corruption up to two categories in the Judicial branch (which index has only three categories) and up to three categories in the Executive and Legislative branch in a range of 5 categories.

Despite the inability to analyze the potential damage that can cause racism in the corruption of the judicial branch in each state, because there is no high perceived corruption, the fact that the probability to move from the lowest to the highest level of perceived corruption available is positive and significant, statistically and economically; is worrying to the American society.

However, an index based on Google search that include the word "nigger(s)" by state

can include skewed data due the usage level of the n-word among regions. E. j: Southern states have used this vocabulary to describe contemptuously the Black population since the XIX century, while Western and Midwestern states' vocabulary partially included the n-word more recently. For that reason, Future research should add a better approximation to racial hate that allows to estimate less skewed results. Also, it would be of great importance to corroborate the causal effect of this relationship to possibly devise policy advices that contribute to weaken effectively racism in the country.

7. Bibliography

Acemoglu, D., & Robinson, J. A. (2008). Persistence of Power, Elites and Institutions. *American Economic Review*, 98(1): 267-293.

Alesina, A., & La Ferrara, E. (2014). A Test of Racial Bias in Capital Sentencing. *American Economic Review*, 105(11): 3397–3433.

Alt, J., & Lassen, D. (2008). Political and Judicial Checks on Corruption: Evidence from American State Governments. *Economics & Politics*, 20(1): 33-61.

Anwar, S., Bayer, P., & Hjalmarsson, R. (2012). The Impact of Jury Race in Criminal Trials. *The Quarterly Journal of Economics*, 127(2): 1017-1055.

Boylan, R., & Long, C. (2003). Measuring Public Corruption in the American States: A Survey of State House Reporters. *State Politics & Policy Quarterly*, 3(5): 420-438.

Campante, F., & Do, Q.-A. (2014). Isolated Capital Cities, Accountability, and Corruption: Evidence from US States. *American Economic Review*, 104(8): 2456-2481.

Dincer, O., & Johnston, M. (2015). Measuring Illegal and Legal Corruption in American States: Some Results from the Edmond J. Safra Center for Ethics Corruption in America Survey. *Working Paper*. Retrieved from: http://ethics.harvard.edu/blog/measuring-illegal-and-legal-corruption-american-states-some-results-safra.

Easton, H. (1837). *A treatise on the Intellectual Character and Civil and Political Condition of the Colored People of the United States; and the Prejudice Exercised Towards Them.* Boston, Massachusetts.

Gallup. (June 22, 2004). Tracking Religious Affiliation, State by State. Retrieved from: http://www.gallup.com/poll/12091/tracking-religious-affiliation-state-state.aspx

Gallup. (February 17, 2010). Mississippians Go to Church the Most; Vermonters, Least. Retrieved from: http://www.gallup.com/poll/125999/ mississippians-go-church-most-vermonters-least.aspx

Glaeser, E., & Saks, R. (2006). Corruption in America. *Journal of Public Economics*, 90(6): 1053– 1072.

Greene, W. H. (2002). *Econometric Analysis*. New Jersey: Pearson Education, 5th edition.

Gupta, S., Davoodi, H., & Alonso-Terme, R. (2002). Does Corruption Affect Income Inequality and Poverty?. *Economics of Governance*, 3(1): 23-45.

Jetter, M; Mesa-Osorio, A, (2016). Racism and Corruption in the U.S. *Working Paper. Universidad EAFIT.*

Justesen, M. K., & Bjørnskov, C. (2014). Exploiting the Poor: Bureaucratic Corruption and Poverty in Africa. *World Development*, 58: 106-115.

Kennedy, R. (2008). *Nigger: The Strange Career of a Troublesome World*. Vintage Books.

Margo, R. A. (1990). *Race and Schooling in the South, 1880-1950: An Economic History*. Chicago: University of Chicago Press.

Mauro, P. (1995). Corruption and Growth. *The Quarterly Journal of Economics*, 110(3): 681-712.

McDaniel, M, A. (2006). Estimating State IQ: Measurement Challenges and Preliminary Correlates. *Intelligence*, 34(6): 607-619.

Mo, P. H. (2001). Corruption and Economic Growth. *Journal of Comparative Economics*, 29(1): 66-79.

Naidu, S. (2012). Suffrage, Schooling, and Sorting in the Post-bellum U.S. South. *NBER Working Paper No 18129*.

Rae, J. R., Newheiser, A. K., & Olson, K. R. (2015). Exposure to Racial Outgroups and Implicit Race Bias in the United States. *Social Psychological and Personality Science*, 6(5):535-543.

Rehavi, M. M., & Starr, S. B. (2014). Racial Disparity in Federal Criminal Sentences. *Journal of Political Economy*, 122(6): 1320-1354.

Stephens-Davidowitz, S. (2014). The Cost of Racial Animus on a Black Candidate: Evidence Using Google Search Data. *Journal of Public Economics*, 118: 26-40.

Tanzi, V. (1998). Corruption Around the World; Causes, Consequences, Scope and Cures. *IMF Staff Papers*, No 4: 559-594.

Treisman, D. (2000). The causes of corruption: a cross-national study. *Journal of Public Economics*, 76(3): 399-457.

Wolfe, R (1997). Omodel: Stata Modules to Perform Tests on Ordered Probit and Ordered Logit Models. *Statistical Software Components. Boston College.*.

Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data.* Cambridge: The MIT Press.

8. Appendix

Table 6: Ordered Probit estimation coefficients.

Dependent Variables:	(1) Average Judicial Corruption	(2) Average Executive Corruption	(3) Average Legislative Corruption
Racial Hate	6.797*** (2.69)	8.747*** (2.63)	5.969*** (2.28)
% Black Race	-0.396 (3.54)	-7.668*** (2.78)	1.533 (3.32)
% White not Hispanic Race	-2.073 (2.61)	-12.906*** (2.80)	-1.792 (2.73)
Estimated IQ Level	-0.294** (0.12)	0.373*** (0.13)	-0.070 (0.14)
% Protestant	-0.355 (2.64)	-2.282 (2.11)	-2.302 (1.95)
Church Attendance	3.314 (3.07)	8.305*** (2.45)	3.445** (1.88)
Demographic controls	Yes	Yes	Yes
Economic Controls	Yes	Yes	Yes
N	47	47	47
Pseudo R^2	0.396	0.270	0.254

Notes: Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Demographic controls includes Ln(Population) and U.S. regions dummies. Economic controls includes Ln(GDP/capita) and Gini index.