Affirming the Racial Divide?
The Political Consequences of Affirmative Action in Brazil

Laura Pérez Cervera
Queen Mary University of London

August 28, 2023
Motivation

- Race-targeted affirmative action policies widely used to redress historical inequalities across racial groups, but particularly divisive
  - e.g. banned in some US states, riots in India over special tribal status

- Redistribution across racial groups $\to \uparrow$ racial identity $\to \uparrow$ racial tensions

- I focus on **Racial Voting**: explanatory role of race in voting decisions
  - $\uparrow$ political representation of the targeted (Chattopadhyay and Duflo, 2004; Pande, 2003)

  - inefficient allocation of public resources and $\downarrow$ candidate competence (Burgess et al., 2015; Banerjee and Pande, 2007)

Research Question: Does racial affirmative action foster racial voting, by making race a salient dimension of policy-making?
Motivation

- Race-targeted affirmative action policies widely used to redress historical inequalities across racial groups, but particularly divisive
  - e.g. banned in some US states, riots in India over special tribal status
- Redistribution across racial groups → ↑ racial identity → ↑ racial tensions

I focus on **Racial Voting**: explanatory role of race in voting decisions
  - ↑ political representation of the targeted (*Chattopadhyay and Duflo, 2004*; *Pande, 2003*)
  - inefficient allocation of public resources and ↓ candidate competence (*Burgess et al., 2015*; Banerjee and Pande, 2007)

**Research Question:** Does racial affirmative action foster racial voting, by making race a salient dimension of policy-making?
This Paper

- I study the **first nationwide racial affirmative action policy in Brazil**: the Law of Quotas (2012)
  - reservation of 50% of vacancies in federal universities to a combination of public high-school, low-income, and non-white students

- Diff-in-Diff setting with differential **local exposure to the policy**, leveraging on pre-policy enrolment across municipalities

- **Education**: enrolment in federal universities, 2010-2018

- **Racial voting**: municipality and ballot box results from federal elections, voters’ demographics, and predicted candidates’ race, 2006-2018
  - Do voters increase preferences for same-race candidates?
  - Do they trade-off other policy dimensions (economic, competence)?
This Paper

- I study the **first nationwide racial affirmative action policy in Brazil**: the Law of Quotas (2012)
  - reservation of 50% of vacancies in federal universities to a combination of public high-school, low-income, and non-white students

- Diff-in-Diff setting with differential **local exposure to the policy**, leveraging on pre-policy enrolment across municipalities

- **Education**: enrolment in federal universities, 2010-2018

- **Racial voting**: municipality and ballot box results from federal elections, voters’ demographics, and predicted candidates’ race, 2006-2018
  - Do voters increase preferences for same-race candidates?
  - Do they trade-off other policy dimensions (economic, competence)?
I study the first nationwide racial affirmative action policy in Brazil: the Law of Quotas (2012)
- reservation of 50% of vacancies in federal universities to a combination of public high-school, low-income, and non-white students

Diff-in-Diff setting with differential local exposure to the policy, leveraging on pre-policy enrolment across municipalities

Education: enrolment in federal universities, 2010-2018

Racial voting: municipality and ballot box results from federal elections, voters’ demographics, and predicted candidates’ race, 2006-2018
- Do voters increase preferences for same-race candidates?
- Do they trade-off other policy dimensions (economic, competence)?
This Paper

- I study the **first nationwide racial affirmative action policy in Brazil**: the **Law of Quotas (2012)**
  - reservation of 50% of vacancies in federal universities to a combination of public high-school, low-income, and non-white students

- **Diff-in-Diff setting with differential local exposure to the policy**, leveraging on pre-policy enrolment across municipalities

- **Education**: enrolment in federal universities, 2010-2018

- **Racial voting**: municipality and ballot box results from federal elections, voters' demographics, and predicted candidates' race, 2006-2018
  - Do voters increase preferences for same-race candidates?
  - Do they trade-off other policy dimensions (economic, competence)?
This Paper

I study the **first nationwide racial affirmative action policy in Brazil**: the **Law of Quotas (2012)**

- reservation of 50% of vacancies in federal universities to a combination of public high-school, low-income, and non-white students

**Diff-in-Diff setting with differential local exposure to the policy**, leveraging on pre-policy enrolment across municipalities

**Education**: enrolment in federal universities, 2010-2018

**Racial voting**: municipality and ballot box results from federal elections, voters’ demographics, and predicted candidates’ race, 2006-2018

- Do voters increase preferences for same-race candidates?
- Do they trade-off other policy dimensions (economic, competence)?
Racial Inequalities in Brazil & Attempts to Solve Them

- Largest recipient of enslaved Africans during Atlantic Slave Trade era
- Centuries of racial mixing and European migration → “racial democracy”
- Today: 51% non-white (mixed-race, Black, and Indigenous), 48% Whites and 1% Asian, but
  - pronounced racial disparities (Paixão, 2008)
  - few government initiatives that explicitly tackled them
- Affirmative action policies implemented in some universities from 2003, but confined to few individual initiatives
- In 2012 the government (PT) unified the system of quotas in public tertiary education with the **Law of Quotas**
The Law of Quotas

- Approved in August 2012 and implemented in the 2013 academic year

- For each program in federal universities:
  - Reservation of 50% of vacancies to public high-school, low-income, and/or non-white students
  - Percentage of racial quotas based on the racial composition of the university’s state
  - Universities could introduce the quotas progressively until 2016

- To benefit from the quota, students had to directly apply to a program through a reserved seat (lower admission cut-offs)

- Recurrent complaints of fraudulent behavior of White students → “Comissões de Heteroidentificação” from 2015

- Polarizing policy in the Brazilian Congress
Main Datasets

Education

- **Census of Higher Education Microdata**, 2010-2018: universe of students enrolled in tertiary education + program information (individual-level)

- **Implementation of Quotas**, 2010-2018, from Mello (2022) and the centralized application platform, SISU

Politics

- **Electoral data** at municipality and ballot box level (~ 350 voters) from TSE, 2006-2018

- **Electorate demographics** from Census 2010 at the census tract level

- **Race of candidates**: classified according to phenotypical traits using ballot box pictures + Multi-label image classification AutoML model
Local Exposure to Racial Quotas

- Predicted share of racial quotas allocated to each municipality, according to the pre-policy enrolment of students across universities

- Formally:

\[
q_{mt} = \sum_u \left( \frac{s_{mu}}{s_u} \times \frac{Q_{ut}}{pop_{18-24}^m} \right)
\]

where

- \( s_{mu} \) = students from \( m \) enrolled in federal university \( u \) in 2010
- \( s_u \) = students enrolled in \( u \) in 2010
- \( Q_{ut} \) = advertised vacancies reserved to non-whites in \( u \) in year \( t \)
- \( pop_{18-24}^m \) = population in \( m \) from 18 to 24 y.o. in 2010
Regression Model

- Municipality-level analysis over the period 2010-2018/2006-2018
- Estimating equation:

\[ y_{mt} = \beta q_{mt} + X'_m \gamma_t + \alpha_m + \alpha_{st} + \varepsilon_{mt} \]

where

- \( y_{mt} \) = educational/political outcome in municipality \( m \) in year \( t \)
- \( q_{mt} \) = exposure to racial quotas in \( m \) at \( t \)
- \( X_m \) = municipality controls at baseline
- \( \alpha_m \) and \( \alpha_{st} \) are municipality and state × year FE, respectively
- \( \varepsilon_{mt} \) = error term

- **Identification assumption**: pre-policy enrolment patterns across federal universities are exogenous to changes in the outcome of interest
A.1 Enrolment in Federal Universities

\[ \Delta q_{mt} = 0.003 \rightarrow \Delta \text{Enrolment in NW Munic.} = 27\% \text{ wrt baseline} \]

<table>
<thead>
<tr>
<th>Dep. var.: Enrolment rate</th>
<th>All (1)</th>
<th>White (2)</th>
<th>Non-white (3)</th>
<th>W/ Racial Quota (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to NW Quotas</td>
<td>-0.0500* (0.0299)</td>
<td>-0.0797*** (0.0259)</td>
<td>2.2471 (1.6107)</td>
<td>1.9853 (1.5187)</td>
</tr>
<tr>
<td>x Above Median Share NW Pop.</td>
<td>0.0854*** (0.0278)</td>
<td>0.4856 (2.1892)</td>
<td>1.4505 (2.1891)</td>
<td>1.1232 (0.6932)</td>
</tr>
</tbody>
</table>

Avg Dep var
- Municipalities: .001 4,965 4,965 4,965 4,965 4,965 4,965 4,965 4,965
- Observations: 44,685 44,685 44,685 44,685 44,685 44,685 44,685 44,685

The dependent variable is enrolment to any federal university, defined as number of students that enrolled in a federal university over the size of the population aged 18 to 24 in 2010. All regressions are weighted by population aged 18 to 24 in municipalities in 2010. Robust standard errors clustered by microrregions are reported in parenthesis. Significance levels: *** \( p < 0.01 \), ** \( p < 0.05 \), * \( p < 0.1 \).
B.1 Preferences for Same-Race Candidates

\[ \Delta q_{mt} = 0.003 \rightarrow \Delta \text{Vote Black Candidate} = 0.0168 \rightarrow \uparrow 20\% \text{ wrt baseline} \]

The dependent variable is the vote share to candidates by their race, as predicted by the AutoML model. Vote share is defined as votes to candidates divided by total votes. All regressions are weighted by the number of eligible voters. Robust standard errors clustered by microregions are reported in parenthesis. Significance levels: *** \( p < 0.01 \), ** \( p < 0.05 \), * \( p < 0.1 \).

<table>
<thead>
<tr>
<th>Dep var: Share of votes</th>
<th>Non-white</th>
<th>Mixed-Race</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Exposure to NW Quotas</td>
<td>0.0341</td>
<td>0.9909</td>
<td>-0.1405</td>
</tr>
<tr>
<td></td>
<td>(3.3619)</td>
<td>(3.5807)</td>
<td>(2.4579)</td>
</tr>
<tr>
<td>× ( \mathbb{1}{\text{Non-white Pop. &gt; Median}} )</td>
<td>-2.5976</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.5371)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>× ( \mathbb{1}{\text{Mixed-Race Pop. &gt; Median}} )</td>
<td></td>
<td>0.7662</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.6793)</td>
<td></td>
</tr>
<tr>
<td>× ( \mathbb{1}{\text{Black Pop. &gt; Median}} )</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Avg Dep var | .222 | .222 | .131 | .131 | .091 | .091 |
| Municipalities | 4,965 | 4,965 | 4,965 | 4,965 | 4,965 | 4,965 |
| Observations | 19,860 | 19,860 | 19,860 | 19,860 | 19,860 | 19,860 |
## B.2 Preferences for Same-Race Candidates, by Ideology

The dependent variable is the vote share to candidates by their race, as predicted by the AutoML model. Parties are classified along the left-right spectrum according to Zucco and Power (2021). Vote share is defined as votes to candidates divided by total votes. All regressions are weighted by the number of eligible voters. Robust standard errors clustered by microrregions are reported in parenthesis. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

| Dep var: Share of votes | Mixed-Race | | | | Black | | | |
|-------------------------|------------|------------|------------|----------|------------|------------|----------|----------|----------|----------|----------|----------|----------|
|                         | Left (1)   | Center (2) | Right (3)  | PT (4)    | Left (5)  | Center (6) | Right (7) | PT (8)   |
| Exposure to Non-white Quotas | 0.7068 (2.0572) | 0.3703 (1.0263) | -1.4263 (1.4223) | 0.0061 (1.7108) | -1.2166 (0.9508) | 1.6261* (0.9717) | -2.3655*** (0.8668) | -1.8502** (0.8365) |
| $\times$ $1\{\text{Mixed-Race Pop.} > \text{Median}\}$ | 2.1907 (1.8055) | -1.4466* (0.8413) | 0.1237 (0.8491) | 0.3533 (0.9677) | 1.8435** (0.7694) | -0.7553 (0.6013) | 1.9297*** (0.6085) | 1.6148** (0.6639) |
| $\times$ $1\{\text{Black Pop.} > \text{Median}\}$ | | | | | | | | |
| Avg Dep var | .04 | .042 | .026 | .026 | .024 | .011 | .029 | .014 |
| Municipalities | 4,965 | 4,965 | 4,965 | 4,965 | 4,965 | 4,965 | 4,965 | 4,965 |
| Observations | 19,860 | 19,860 | 19,860 | 19,860 | 19,860 | 19,860 | 19,860 | 19,860 |
B.3 Ideological Shift across Racial Groups

Stance quotas

Laura Pérez Cervera (QMUL)
Candidate competence measured as having tertiary education

<table>
<thead>
<tr>
<th>Dep. var.: Share of votes</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to NW Quotas</td>
<td>-0.5098</td>
<td>-0.1770</td>
</tr>
<tr>
<td></td>
<td>(2.7342)</td>
<td>(2.9028)</td>
</tr>
<tr>
<td>× 1{Non-white Pop. &gt; Median}</td>
<td></td>
<td>-0.9428</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.1104)</td>
</tr>
</tbody>
</table>

| Avg Dep Var                               | .746    | .746    |
| Municipalities                             | 5,492   | 5,492   |
| Observations                               | 21,968  | 21,968  |

The dependent variable is the vote share to candidates reporting having tertiary education in TSE. Vote share is defined as votes to candidates divided by total votes. All regressions are weighted by the number of eligible voters. Robust standard errors clustered by microrregions are reported in parenthesis. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. 
Robustness Tests

- Pre-trends • education • politics

- Confounding educational policies • SISU

- Ideological shift, controlling for income • go

- Determinants of LoQ implementation • go
Conclusion

- This paper proposes a trade-off of racial affirmative action:
  \[\text{accelerating the representation of minorities vs } \uparrow \text{ racial divisions}\]

- I study an unintended political consequence of race-targeting affirmative action: whether it fosters racial voting

- Setting: racial quotas implemented in Brazilian federal universities under the Law of Quotas in 2012

- I document that the expansion of racial quotas
  - increased preferences for same-race candidates, and
  - fostered an ideological realignment across racial groups in federal elections

- Next steps: ballot-level analysis, continue exploring trade-offs
THANK YOU!

Contact info:
laura.perezcervera@qmul.ac.uk
lauraperezcervera.weebly.com
@lauraperezcerv
Racial composition of PE: 68% non-white
Law of Quotas - Federal University of Pernambuco (UFPE)

- Racial composition of PE: 68% non-white

Diagram:
- All seats (100)
  - Public School (50)
  - Open (50)
Racial composition of PE: 68% non-white
Law of Quotas - Federal University of Pernambuco (UFPE)

- Racial composition of PE: 68% non-white
LoQ - Federal University of Santa Catarina (UFSC)

- Racial composition of SC: 20% non-white

![Diagram of seat allocation]

All seats (100)

Public School (50)

Low-Income (25)

- Non-white (5)
- Open (20)

Open (50)

Open (25)

- Non-white (5)
- Open (20)
Law of Quotas Implementation

![Graph showing the share of vacancies with quotas from 2010 to 2018 for Public HS (All) and Public HS & Non-White. The graph shows an increase in the share of vacancies with quotas over the years.]
Law of Quotas, by type

![Graph showing the share of vacancies with quotas by type from 2010 to 2018. The graph compares four categories: Public HS only, Public HS & Non-White only, Public HS, Low-Income & Non-White, and Public HS & Low-income only. The data shows an increase in the share of vacancies with quotas over the years, with the categories showing different trends and patterns.]
Full Implementation of Racial Quotas
Enrolments under the Law of Quotas
Targeted Individuals in Federal Universities

![Graph showing the share of students by race and education level from 2010 to 2015. The graph compares non-white students and public high school (Public HS) non-white students. The share of non-white students increases over the years, while the share of public high school non-white students also increases but at a slower rate.]

Laura Pérez Cervera (QMUL)
Average Vacancies in Federal Universities

![Graph showing average vacancies in Federal Universities from 2010 to 2018. The graph indicates a steady increase from 2010 to 2014, reaching a peak in 2014, and then a decline till 2018.]

Number of ENEM Takers

![Graph showing the number of ENEM takers from 2010 to 2018 for different racial and ethnic groups: White, Black, Mixed-race, Asian, and Indigenous. The graph indicates a decline in the share of White students and a slight increase in the share of Mixed-race students.]

Laura Pérez Cervera
Affirming the Divide?
August 28, 2023
Racial Tribunals in Federal Universities

- Any student self-identifying as non-white is eligible for a racial quota
- Recurrent complains of fraudulent behavior of the (non-eligible) white students benefiting from these quotas
  - 4,000 complains between 2013 and 2020
- This lead to the creation of “Comissões de Heteroidentificação” from 2015
  - Panel of experts would determine if the student complied with the phenotipical traits of a non-white individual
Racial Classification of Candidates

- **Multi-label image classification AutoML model** developed in Google’s Vertex AI platform
  - Output: \( \Pr(\text{White}) \) and \( \Pr(\text{Black}) \)
  - Training sample: 3,000 candidates images from 2014 ballot pictures and self-reported race from TSE (stratified sampling)
  - Discretize \( \Pr(\text{White}) \) into White, Black, and Mixed-race categories

(a) black = 0.879  
(b) white = 0.679  
(c) white = 0.815
Probability of each Racial Category
Evaluation of Model

(a) Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average precision (PR AUC)</td>
<td>0.914</td>
<td>0 - 1</td>
</tr>
<tr>
<td>Precision</td>
<td>0.867</td>
<td>0 - 1</td>
</tr>
<tr>
<td>Recall</td>
<td>0.867</td>
<td>0 - 1</td>
</tr>
<tr>
<td>Log loss</td>
<td>0.343</td>
<td>0 - ∞</td>
</tr>
</tbody>
</table>

Confidence threshold is 0.5.

(b) Precision-Recall
Summary $Q_{mt}$

<table>
<thead>
<tr>
<th>Exposure to NW Quotas</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.002</td>
<td>0.004</td>
<td>0</td>
<td>0.123</td>
</tr>
</tbody>
</table>

[Graph showing the local exposure to LoQ from 2010 to 2018]
## Intensive vs Extensive Margin

<table>
<thead>
<tr>
<th></th>
<th>Extensive Margin</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q&lt;sub&gt;mt&lt;/sub&gt;=0</td>
<td>0.000</td>
<td>0.002</td>
<td>0.002</td>
<td>0.000</td>
<td></td>
<td>0.000</td>
<td>0.004</td>
<td>0.003</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q&lt;sub&gt;mt&lt;/sub&gt; &gt; 0</td>
<td>1.286</td>
<td>5.387</td>
<td>4.102</td>
<td>0.000</td>
<td>5.568</td>
<td>5.207</td>
<td>-0.361</td>
<td>0.030</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of Women</td>
<td>0.480</td>
<td>0.511</td>
<td>0.030</td>
<td>0.000</td>
<td>0.510</td>
<td>0.511</td>
<td>0.002</td>
<td>0.090</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share non-whites</td>
<td>0.812</td>
<td>0.510</td>
<td>-0.302</td>
<td>0.000</td>
<td>0.516</td>
<td>0.503</td>
<td>-0.013</td>
<td>0.096</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Racial fractionalization</td>
<td>0.289</td>
<td>0.424</td>
<td>0.135</td>
<td>0.000</td>
<td>0.427</td>
<td>0.421</td>
<td>-0.006</td>
<td>0.110</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literacy Rate</td>
<td>0.776</td>
<td>0.891</td>
<td>0.115</td>
<td>0.000</td>
<td>0.889</td>
<td>0.892</td>
<td>0.003</td>
<td>0.326</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of Population 18-24</td>
<td>0.134</td>
<td>0.125</td>
<td>-0.009</td>
<td>0.000</td>
<td>0.126</td>
<td>0.124</td>
<td>-0.002</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly Median Nominal Income</td>
<td>355.824</td>
<td>424.654</td>
<td>68.831</td>
<td>0.002</td>
<td>416.586</td>
<td>432.539</td>
<td>15.953</td>
<td>0.055</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Schools</td>
<td>91.176</td>
<td>710.715</td>
<td>619.539</td>
<td>0.000</td>
<td>601.496</td>
<td>819.941</td>
<td>218.446</td>
<td>0.335</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of Public HS students</td>
<td>0.987</td>
<td>0.826</td>
<td>-0.160</td>
<td>0.000</td>
<td>0.832</td>
<td>0.821</td>
<td>-0.011</td>
<td>0.108</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-School Enrolment</td>
<td>3.476</td>
<td>4.921</td>
<td>1.445</td>
<td>0.000</td>
<td>4.846</td>
<td>4.996</td>
<td>0.150</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average ENEM Grade (std.)</td>
<td>-0.722</td>
<td>0.003</td>
<td>0.725</td>
<td>0.000</td>
<td>-0.021</td>
<td>0.027</td>
<td>0.047</td>
<td>0.004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolment in Federal Universities</td>
<td>0.000</td>
<td>0.007</td>
<td>0.007</td>
<td>0.000</td>
<td>0.004</td>
<td>0.010</td>
<td>0.006</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Average Exposure to Racial Quotas, 2013-2018
Pre-trends Main Educational Outcomes

(a) Enrolment in Federal Universities

(b) Enrolment through Racial Quotas

(c) Share of Whites taking ENEM

(d) Share of Non-whites taking ENEM
Pre-trends Main Political Outcomes

(a) Preference for Non-White Cand

(b) Preference for Black Cand

(c) Ideological Shift

(d) Candidate Competence
In 2010, adoption of centralized admission system in public universities, SISU

<table>
<thead>
<tr>
<th>Exposure to Non-white Quotas</th>
<th>All</th>
<th>White</th>
<th>Non-white</th>
<th>W/ Racial Quota</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Exposure to Non-white Quotas</td>
<td>-0.0351</td>
<td>-0.0687**</td>
<td>3.7677***</td>
<td>4.4251***</td>
</tr>
<tr>
<td></td>
<td>(0.0368)</td>
<td>(0.0350)</td>
<td>(1.0985)</td>
<td>(1.0322)</td>
</tr>
<tr>
<td>x Above Median Share NW Population</td>
<td>0.0807***</td>
<td>-1.5766</td>
<td>-0.4329</td>
<td>0.8020</td>
</tr>
<tr>
<td></td>
<td>(0.0307)</td>
<td>(1.6015)</td>
<td>(1.8609)</td>
<td>(0.8281)</td>
</tr>
<tr>
<td>SISU Expansion</td>
<td>0.0130</td>
<td>0.0099</td>
<td>-0.5059</td>
<td>-0.4455</td>
</tr>
<tr>
<td></td>
<td>(0.0155)</td>
<td>(0.0155)</td>
<td>(0.7574)</td>
<td>(0.7603)</td>
</tr>
<tr>
<td>Exposure to Non-white Quotas x SISU Expansion</td>
<td>-0.3725</td>
<td>-0.2096</td>
<td>-61.5302***</td>
<td>-64.7119***</td>
</tr>
<tr>
<td></td>
<td>(0.2787)</td>
<td>(0.3081)</td>
<td>(11.9654)</td>
<td>(11.2356)</td>
</tr>
<tr>
<td>Avg Dep var</td>
<td>.001</td>
<td>.0101</td>
<td>.026</td>
<td>.026</td>
</tr>
<tr>
<td>Municipalities</td>
<td>5,492</td>
<td>5,492</td>
<td>5,492</td>
<td>5,492</td>
</tr>
</tbody>
</table>
# Ideological Shift, controlling for Income

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Center</th>
<th>Right</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Exposure to Non-white Quotas</td>
<td>5.9259</td>
<td>-5.1354</td>
<td>-4.2519</td>
<td>4.3674</td>
</tr>
<tr>
<td>× Above Median Share NW Population</td>
<td>5.6279**</td>
<td>-4.3854</td>
<td>0.9864</td>
<td>2.2995</td>
</tr>
<tr>
<td></td>
<td>(2.6798)</td>
<td>(2.9972)</td>
<td>(2.0683)</td>
<td>(1.6982)</td>
</tr>
<tr>
<td>× Income</td>
<td>-1.1406</td>
<td>0.3118</td>
<td>1.5586*</td>
<td>0.4268</td>
</tr>
<tr>
<td></td>
<td>(0.8200)</td>
<td>(0.9165)</td>
<td>(0.9447)</td>
<td>(1.1346)</td>
</tr>
<tr>
<td>Avg Dep Var</td>
<td>.295</td>
<td>.295</td>
<td>.298</td>
<td>.298</td>
</tr>
<tr>
<td>Municipalities</td>
<td>5,492</td>
<td>5,492</td>
<td>5,492</td>
<td>5,492</td>
</tr>
<tr>
<td>Observations</td>
<td>21,968</td>
<td>21,968</td>
<td>21,968</td>
<td>21,968</td>
</tr>
</tbody>
</table>
Determinants of Implementation of Racial Quotas
Stance towards Racial Quotas across Parties

- “Do you agree or disagree? Public universities should have racial quotas for Afrodescendants”
Stance towards Low-Income Quotas across Parties

“Do you agree or disagree? Public universities should have quotas for low-income students”
References I


