

The Growth of Protestantism in Brazil and its Impact on Male Earnings, 1970-2000



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QUAL É O PROBLEMA?

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*Has the increase in Protestantism in Brazil
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What is the role of race?

BACKGROUND

- Spread of Pentecostalism in Brazil
- Traditional Pentecostals vs. “Neo-Pentecostals”
- Pentecostalism & behavior change in Brazil
- Religiosity of Brazilian Pentecostals

BACKGROUND

Table 1. Percent Protestant of the Male Labor Force (15–64 years of age) by Year, 1970–2000.

Region	Total Population	Total Protestant	Percent Protestant
1970	25,760,600	1,195,292	4.64
1980	32,613,947	1,764,415	5.41
1991	43,434,546	2,944,862	6.78
2000	53,177,953	5,796,397	10.90

Source: 1970–2000 Brazilian Censuses.

BACKGROUND

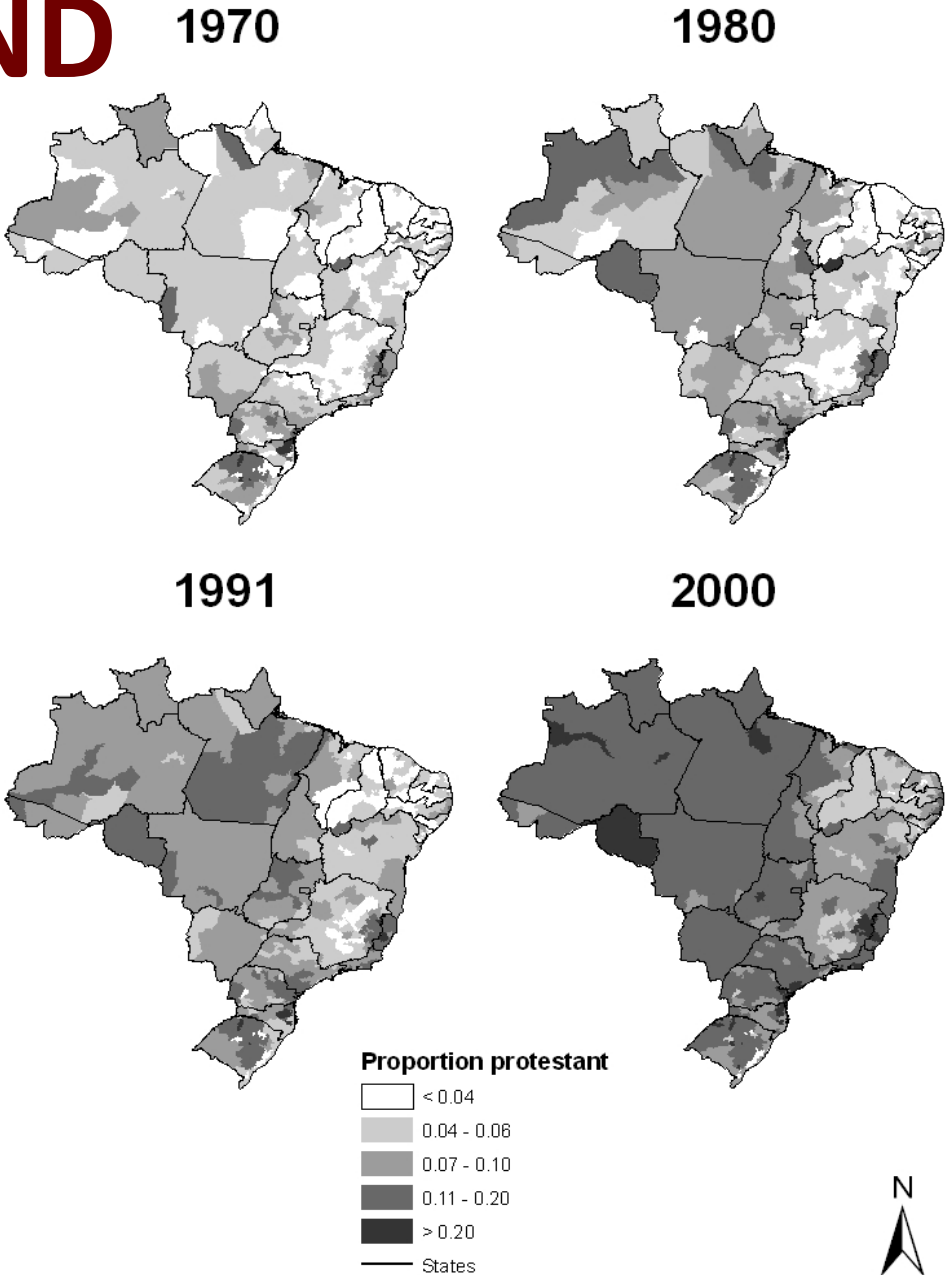
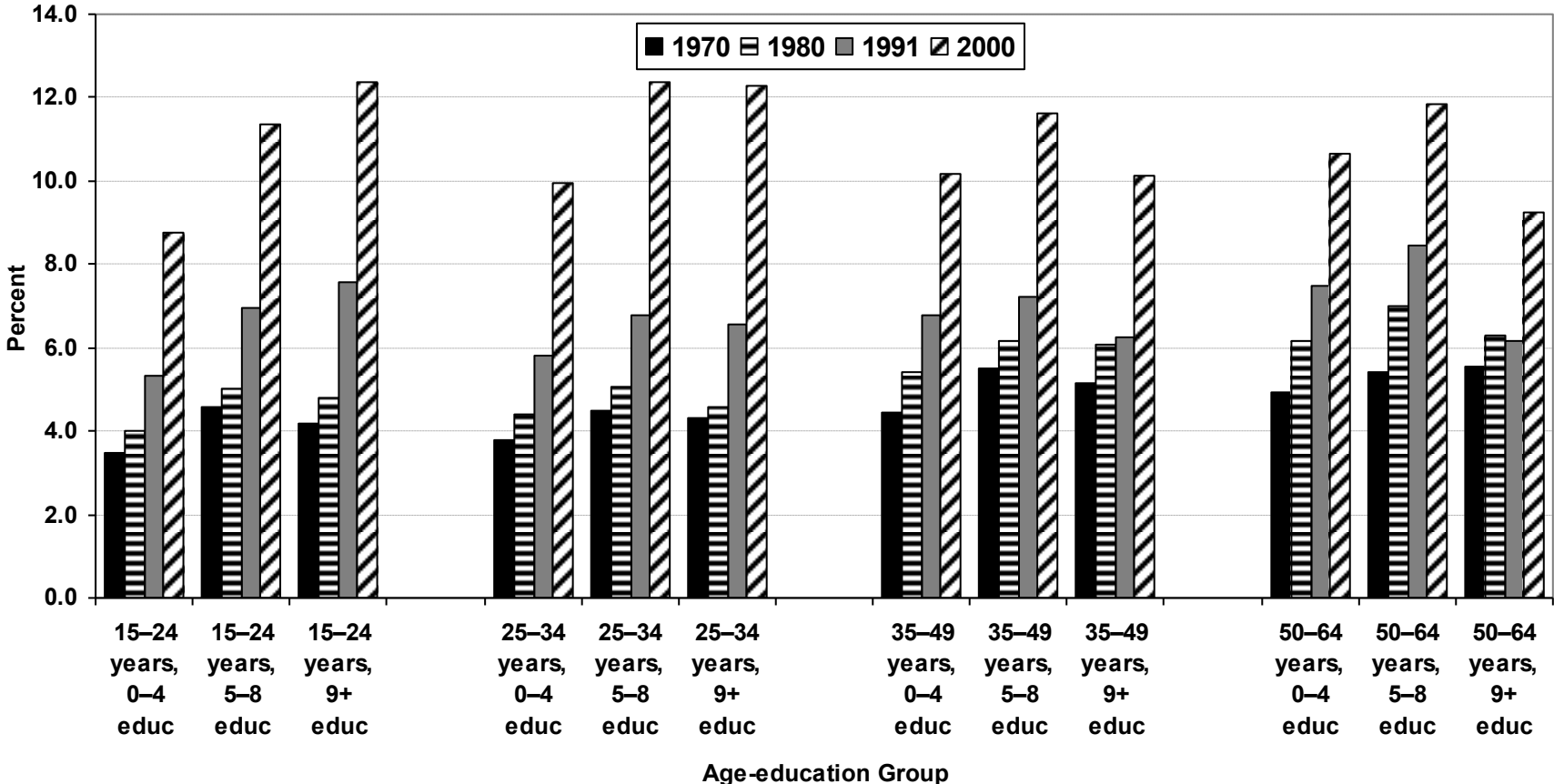


Figure 1. Percent Protestants of the Male Labor Force (15–64 years of age) by Year and Micro-Region, 1970-

BACKGROUND

Figure 2. Percent Protestant of the Male Labor Force (15–64 years of age) by Year and Age-Education Group, 1970–2000.



Source: 1970–2000 Brazilian Censuses.

BACKGROUND

Table 2. Percent of Male Population (15–64 years of age) by Year and Age-Education Group, 1970–2000.

Age-education Group	1970	1980	1991	2000
15–24 years; 0–4 years of schooling	28.19	20.59	14.61	9.04
15–24 years; 5–8 years of schooling	5.38	10.53	12.09	12.46
15–24 years; 9+ years of schooling	2.74	5.87	5.97	10.24
25–34 years; 0–4 years of schooling	19.71	16.39	12.41	8.82
25–34 years; 5–8 years of schooling	1.98	3.90	6.82	7.63
25–34 years; 9+ years of schooling	2.00	4.77	7.40	8.12
35–49 years; 0–4 years of schooling	22.66	19.02	17.11	13.32
35–49 years; 5–8 years of schooling	1.62	2.39	3.67	6.73
35–49 years; 9+ years of schooling	1.59	2.84	5.54	8.46
50–64 years; 0–4 years of schooling	12.84	11.72	11.49	10.36
50–64 years; 5–8 years of schooling	0.65	0.94	1.16	1.99
50–64 years; 9+ years of schooling	0.62	1.05	1.72	2.84
Total	25,760,600	32,613,947	43,434,546	53,177,953

Source: 1970–2000 Brazilian Censuses.

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42%

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POSSIBLE IMPACTS OF PENTECOSTALISM ON EARNINGS

- Diminished use of alcohol & drugs
- Religion associated with greater health & longer life expectancies
- Securing & holding better-paying job
- Mitigate racism's psychological costs for Brazilians of color
- Increased commitment to wives & children
- Route by which to escape violence

DATA & METHODS

Data from the Brazilian Census, 1970-2000

- Age, race, education, monthly earnings, residence, religion

Municipalities aggregated into Microregions

- 502 comparable areas across the 5 censuses

Nominal wage corrected for inflation

- Analyze earnings rather than employment

Analysis limited to men

REGRESSION ANALYSIS

Model #1: Identify any influence that religion might have on changes in earnings in a group through time or in particular regions

Model #2: Estimate the effect of race as well as how its effect interacts with religion

RESULTS

Global Mean

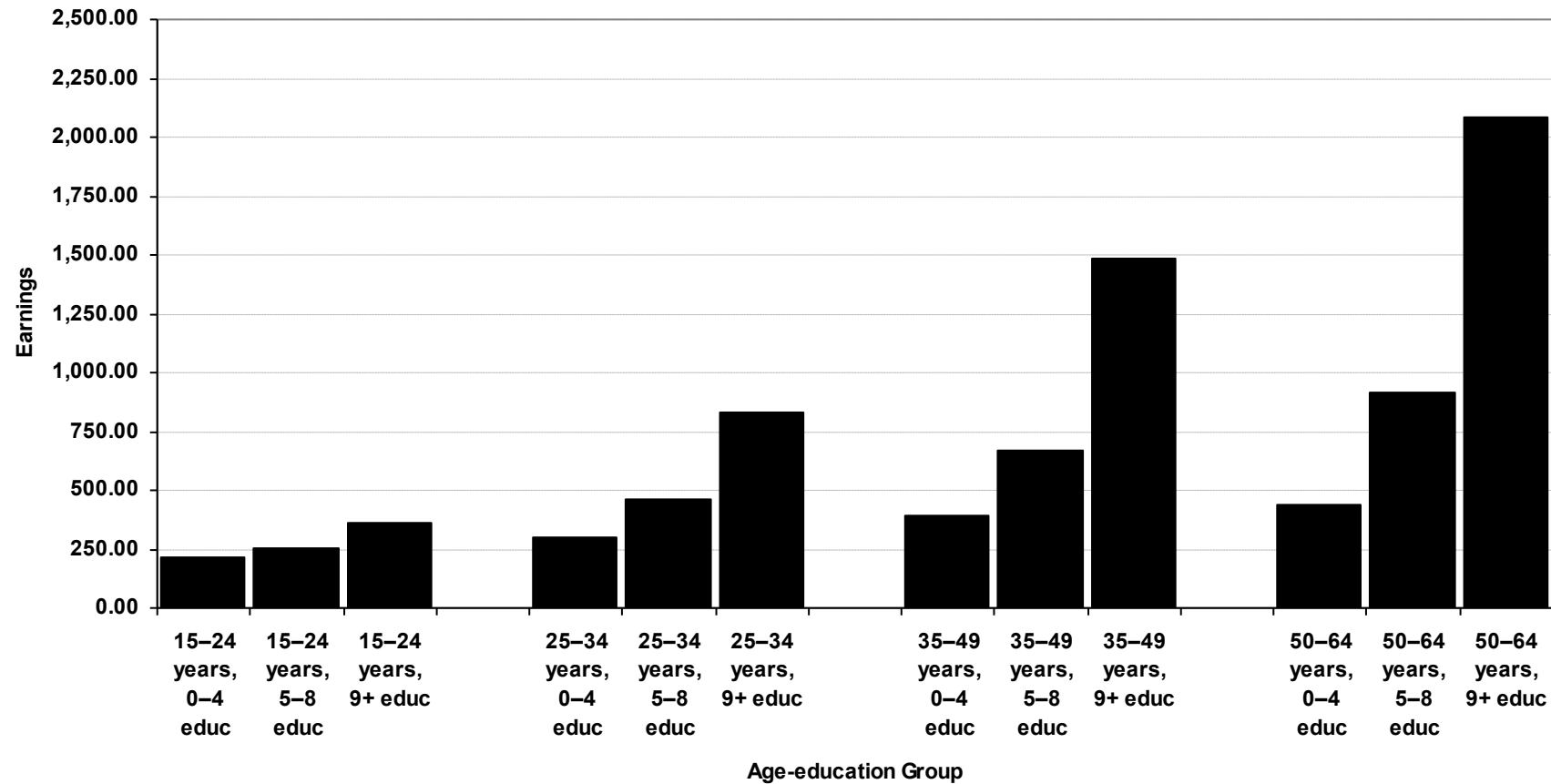


Figure 3. Mean Real Monthly Earnings of Male Population (15–64 years of age) by Age-Education Group, and Relative Earnings to the 5–8 Education Group for Micro-Regions on the 10th and 90th Percentiles of Protestants, 2000+.

RESULTS

10th Percentile of Protestants

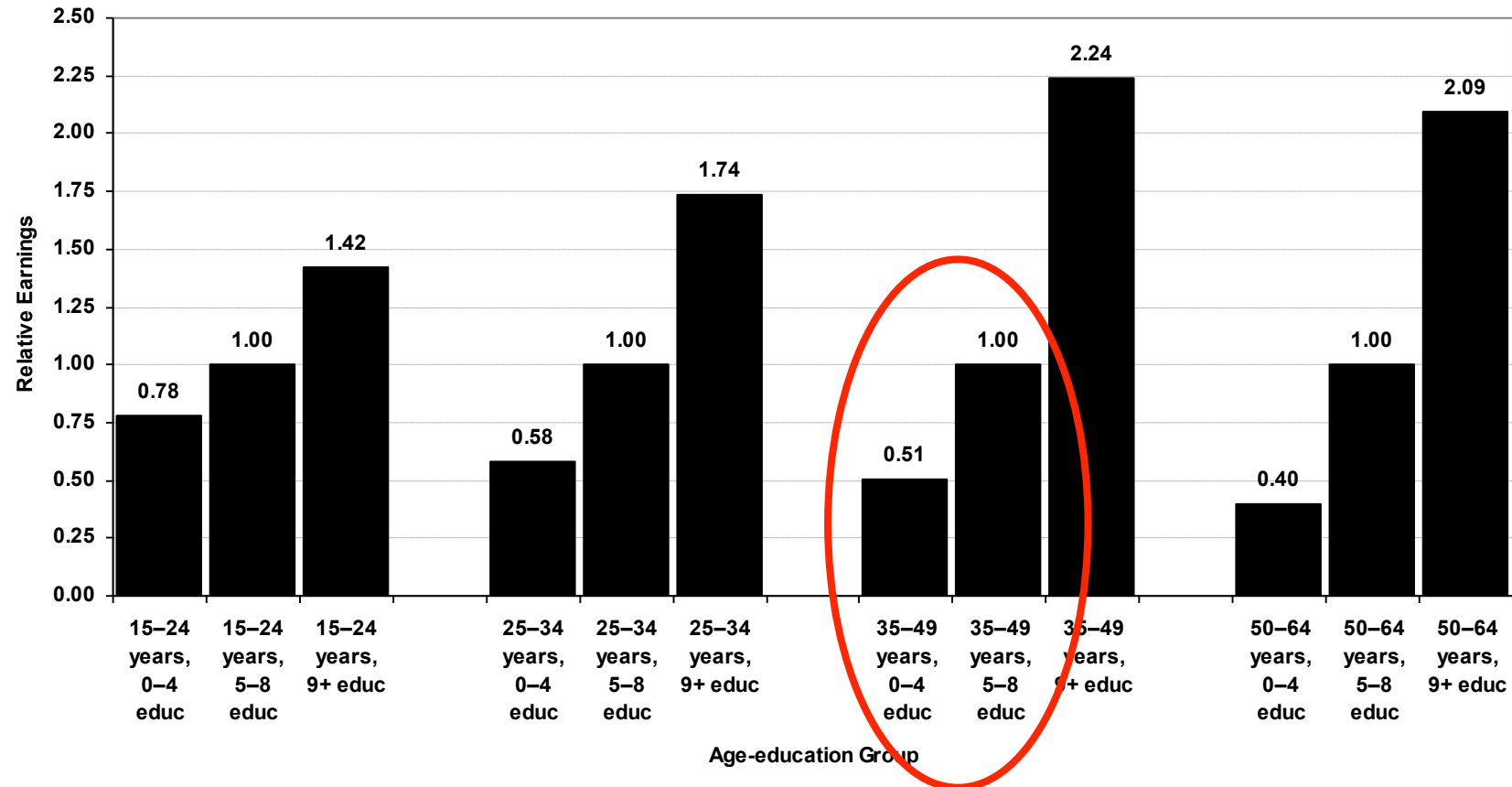


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90th Percentile of Protestants

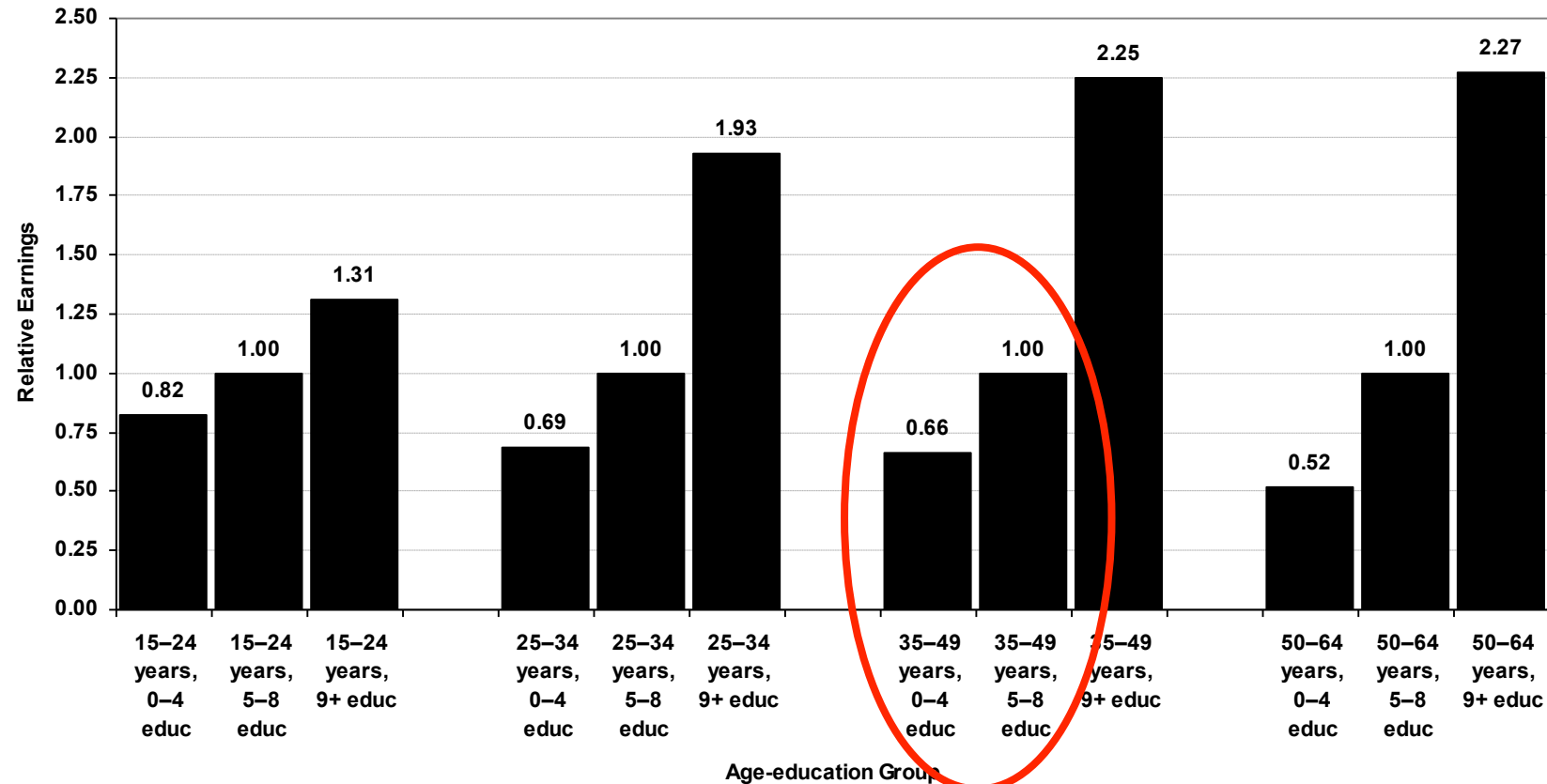


Figure 3. Mean Real Monthly Earnings of Male Population (15–64 years of age) by Age-Education Group, and Relative Earnings to the 5–8 Education Group for Micro-Regions on the 10th and 90th Percentiles of Protestants, 2000+.

RESULTS

Proportion of Protestants	Coefficients ⁺⁺
Ages 15–24 years; 0–4 years of schooling	0.663*** (0.1131)
Ages 15–24 years; 5–8 years of schooling	0.304** (0.1053)
Ages 15–24 years; 9+ years of schooling	0.202* (0.0906)
Ages 25–34 years; 0–4 years of schooling	0.609*** (0.1029)
Ages 25–34 years; 5–8 years of schooling	0.080 (0.0991)
Ages 25–34 years; 9+ years of schooling	0.223* (0.0977)
Ages 35–49 years; 0–4 years of schooling	0.694*** (0.0987)
Ages 35–49 years; 5–8 years of schooling	-0.027 (0.1026)
Ages 35–49 years; 9+ years of schooling	0.207* (0.1047)
Ages 50–64 years; 0–4 years of schooling	0.484*** (0.0896)
Ages 50–64 years; 5–8 years of schooling	-0.286** (0.1075)
Ages 50–64 years; 9+ years of schooling	0.122 (0.1255)

Table 3. Area and Time Fixed-Effects Estimates of Equation With Age-education Group Indicators, Proportion of Protestants, and Age-education Group Indicators Interacted with Year and Region, 1970–2000. Dependent Variable is log(Monthly Earnings)⁺.

RESULTS

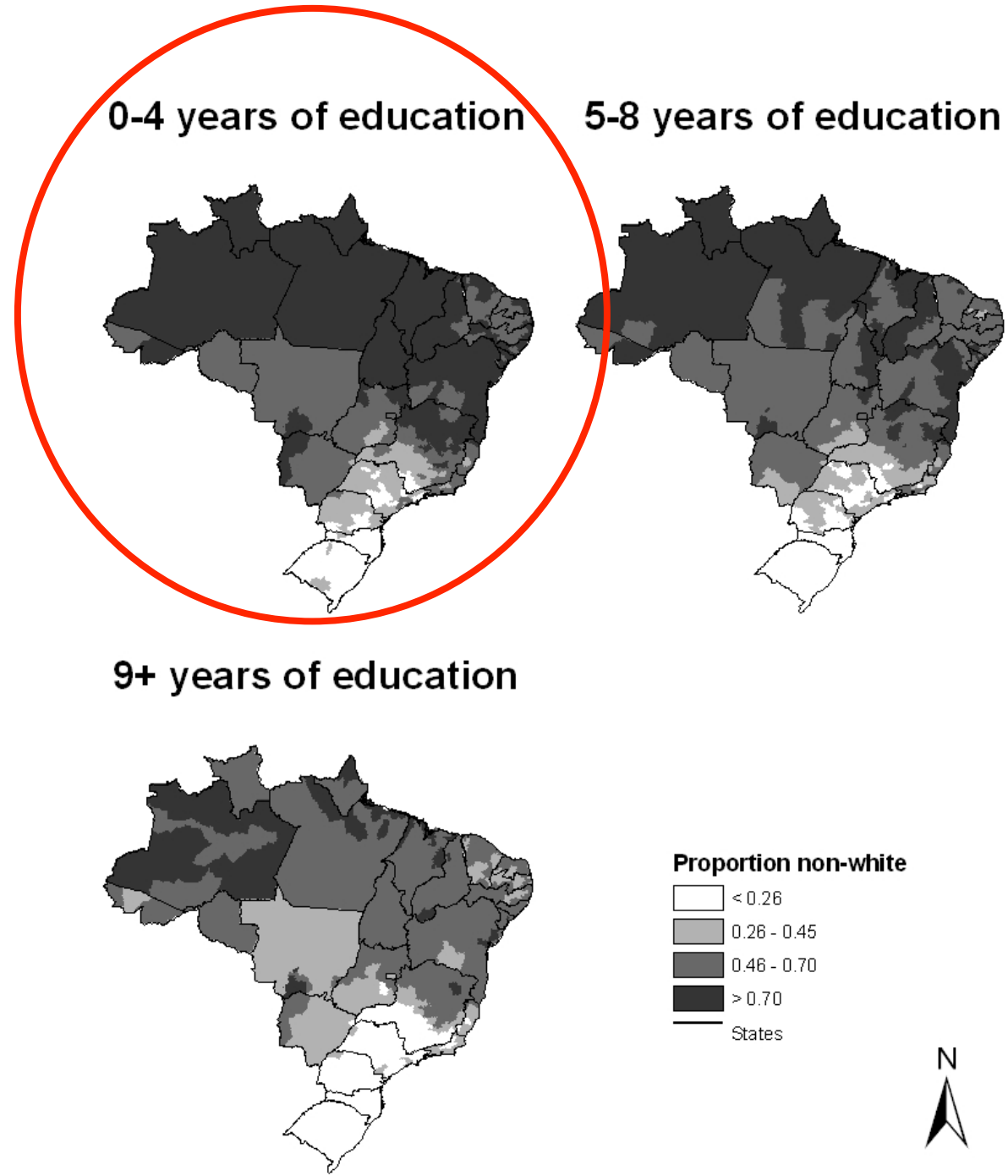


Figure 4. Proportion of Non-Whites of the Male Labor Force (15–64 years of age) by Education Group and Micro-Region, 2000.

RESULTS

Coefficients⁺⁺	Proportion Protestant	Proportion of Non-Whites	Protestant *Non-White
Ages 15–24 years; 0–4 years of schooling	–0.035 (0.2492)	–0.787*** (0.0581)	0.918 (0.4784)
Ages 25–34 years; 0–4 years of schooling	–0.003 (0.2174)	–0.879*** (0.0575)	1.041* (0.4369)
Ages 35–49 years; 0–4 years of schooling	–0.011 (0.1986)	–0.950*** (0.0583)	1.463** (0.4230)
Ages 50–64 years; 0–4 years of schooling	–0.158 (0.1757)	–0.967*** (0.0565)	1.528*** (0.3765)

Table 4. Area and Time Fixed-Effects Estimates of Equation With Age-education Group Indicators, Proportion of Protestants, Proportion of Non-Whites, Age-education Group Indicators Interacted with Year and Region, and Proportion of Protestants Interacted with Proportion of Non-Whites, 1980–2000. Dependent Variable is log(Monthly Earnings)⁺.

RESULTS

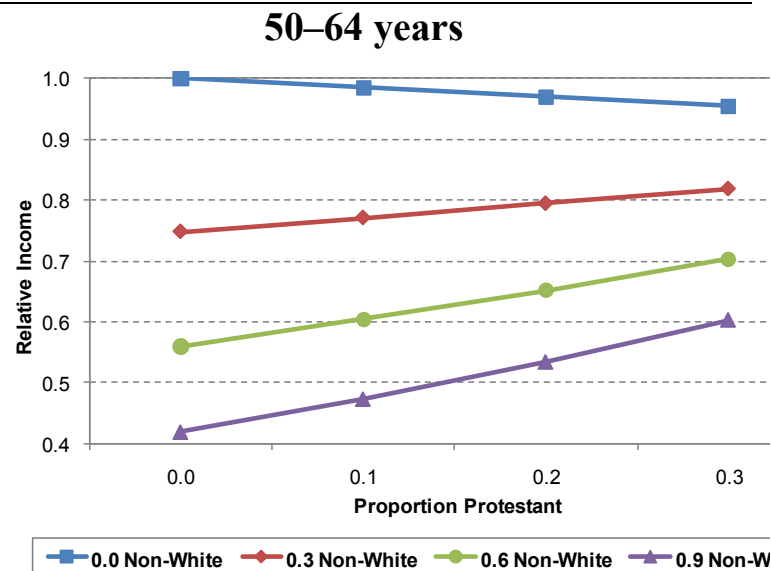
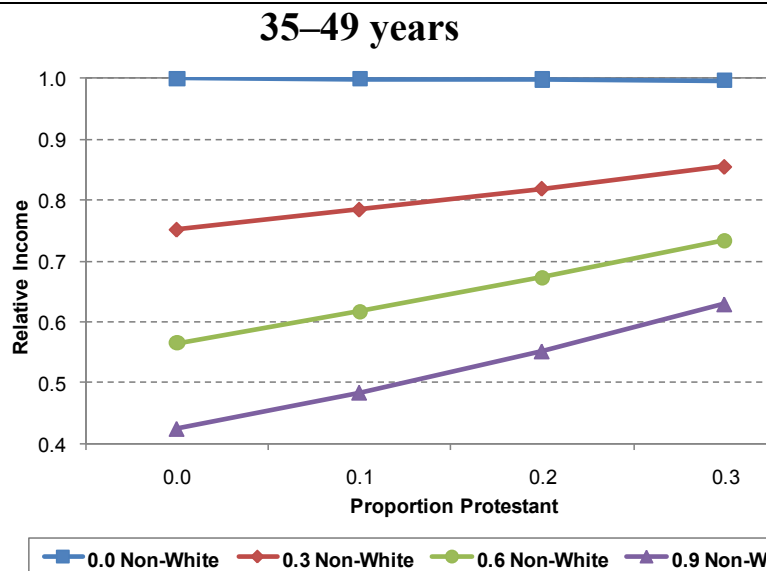
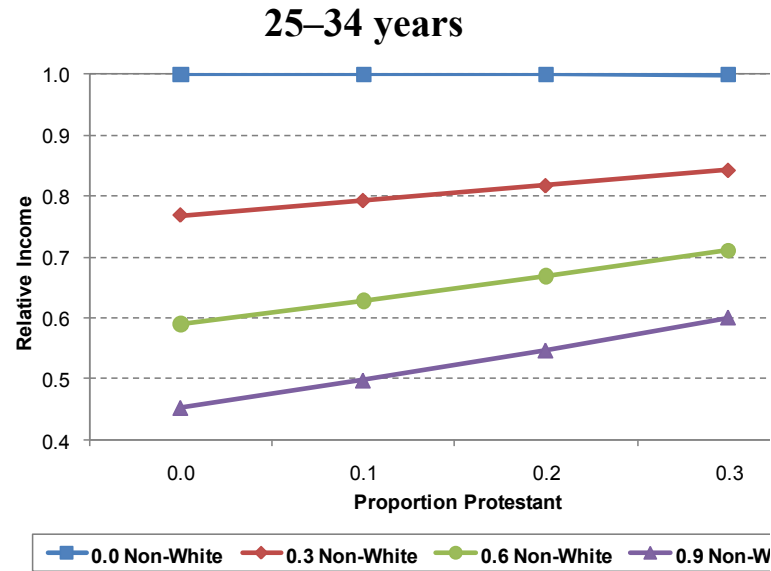
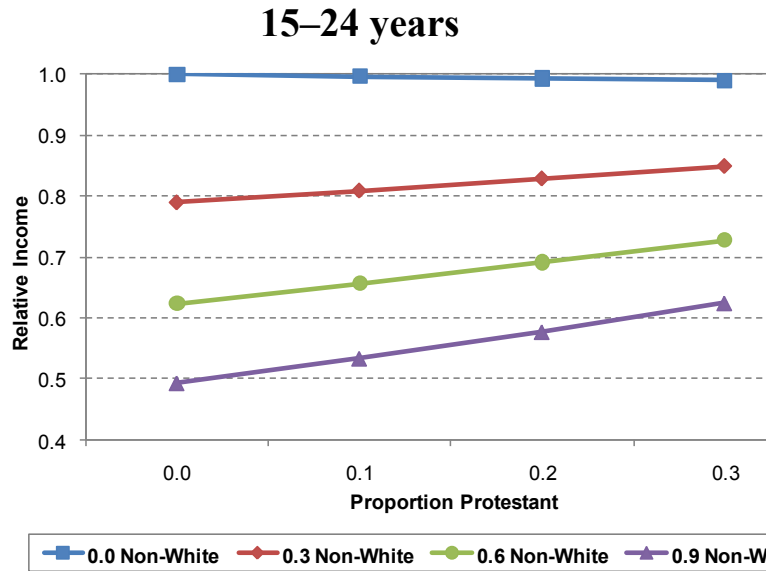


Figure 5. Predicted Relative Earnings of Males with 0-4 Years of Schooling for Various Proportions Non-White and Proportions Protestant in Each Age Group, Brazil, 1980–2000.

FINDINGS & DISCUSSION

Strong & significant association between proportion Protestant and male earnings in Brazil

- *Strongest among those with lowest level of education*
- *Mostly concentrated among less educated men of color*

POTENTIAL MECHANISMS?

- Diminished racial discrimination in job market for Pentecostals
- New Pentecostal social networks
- Diminished vulnerability to crime
- Diminished white racism within congregations

LIMITATIONS

- Diversity of Pentecostal denominations is missing
- Census data does not capture behavior
- Not a longitudinal study—following groups not individuals

FUTURE RESEARCH

- Role of religion in mitigating racial inequality and racism in Brazil
- Future effect of religion on economic outcomes in Brazil
- Extend to other settings where much of labor force has low education and racism/discrimination persist
- Can/will Catholic Church “compete” for religious affiliation of the poor by taking a stand on civil rights and discrimination?

**Muito
Obrigado!**