EVALUATING THE
NSW EMPLOYMENT PROGRAM

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CONTENT

OVERVIEW

These data were collected as part of a field experiment where participants were randomly assigned to NSW program participation (n = 185) or exclusion (n = 260). The data available to us include demographic information, employment status, and income for 3 years out of a 5-year span (at the start and end of the program).
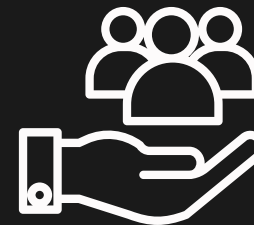
The goal of the program was for participants to increase their earnings.

Did the program Increase earnings for participants?

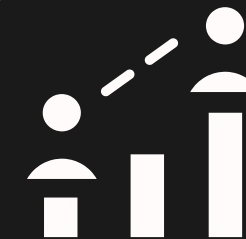**linear regression predictive modeling**

QUESTION N°1

Was there an even demographic distribution in those who participated versus those who didn't?

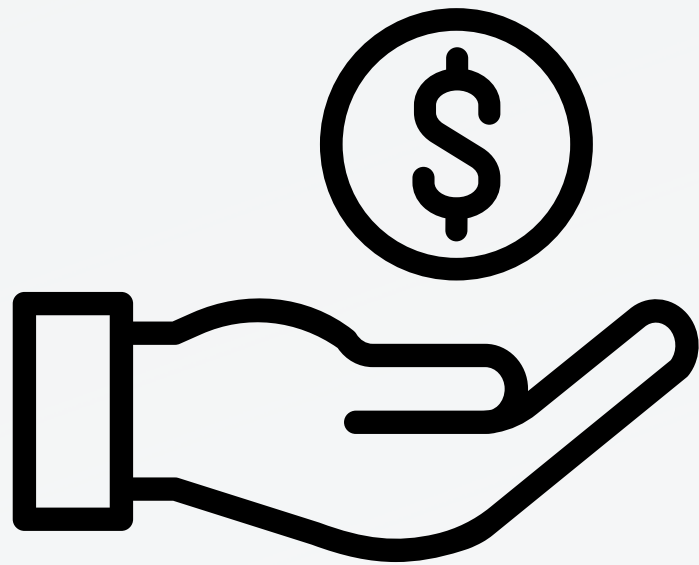**data visualization propensity score matching**

QUESTION N°2

What other features could explain differences in income other than program participation?

multivariate analysis

QUESTION N°3

EXECUTIVE SUMMARY

The NSW program **increased participants' income by $1822.20** on average, and the program can be **expected to increase salaries by at least $500 and at most $3000.**
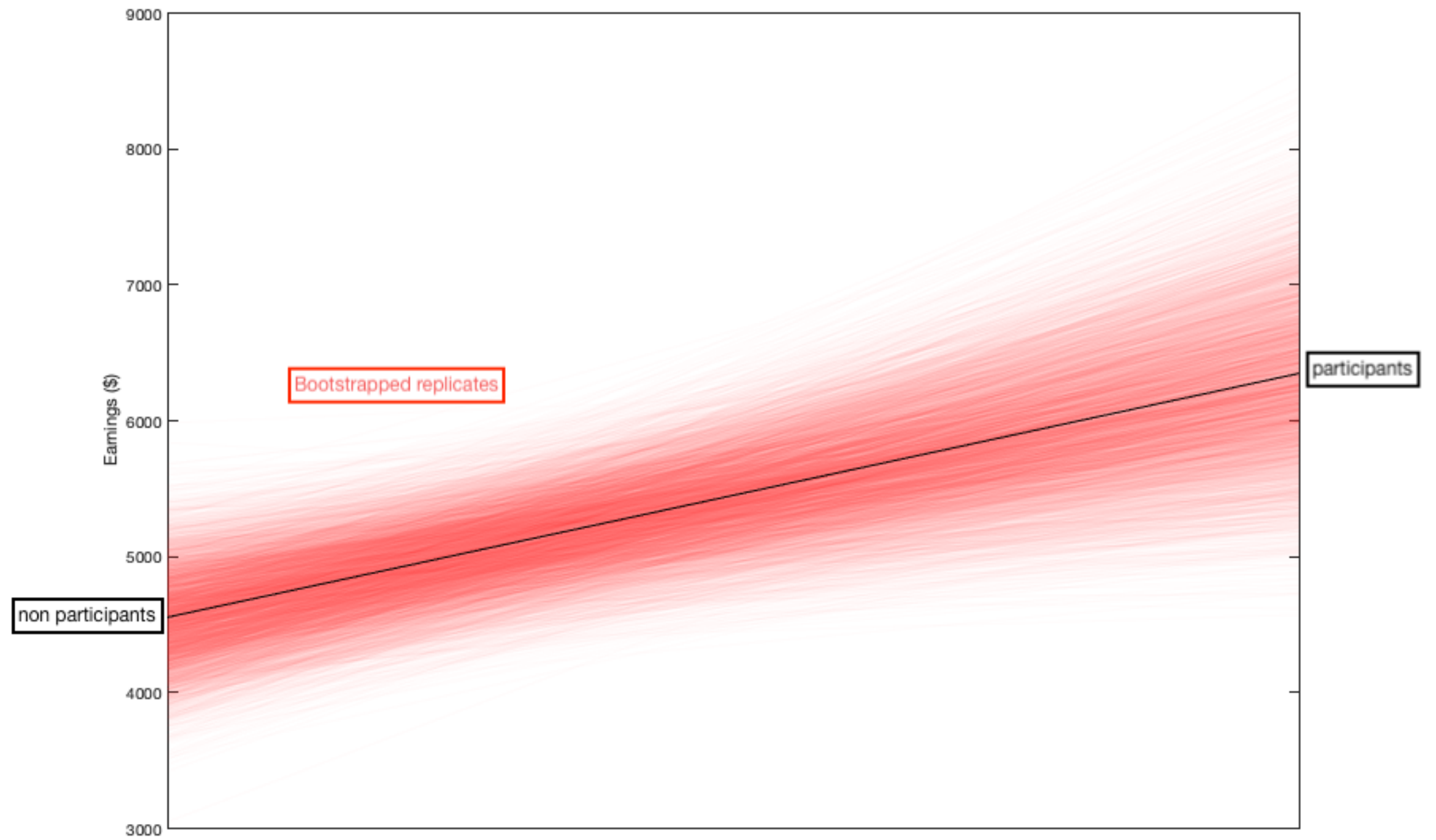
At the end of the program, differences in earnings other than NSW participation could also be attributed to **educational attainment and racial inequity**.

LINEAR REGRESSION
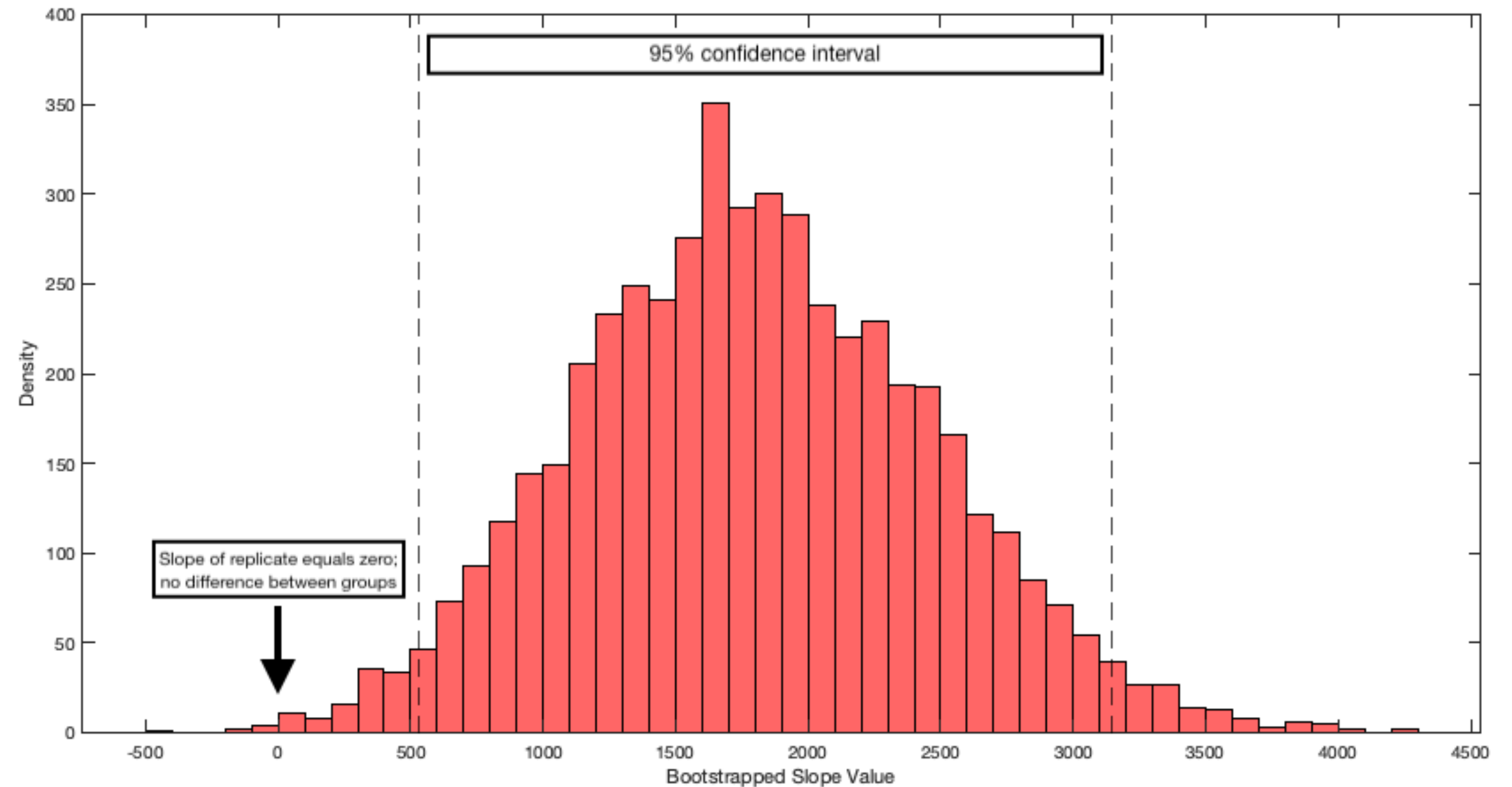
THE NSW PROGRAM INCREASED EARNINGS FOR PARTICIPANTS

- A **linear regression** showed that participants had $1794.30 more in earnings than non participants on average at the time that the program ended.
- **Bootstrapping** 5000 replicates allows us to predict the difference in earnings in a population of 2,225,000 individuals.
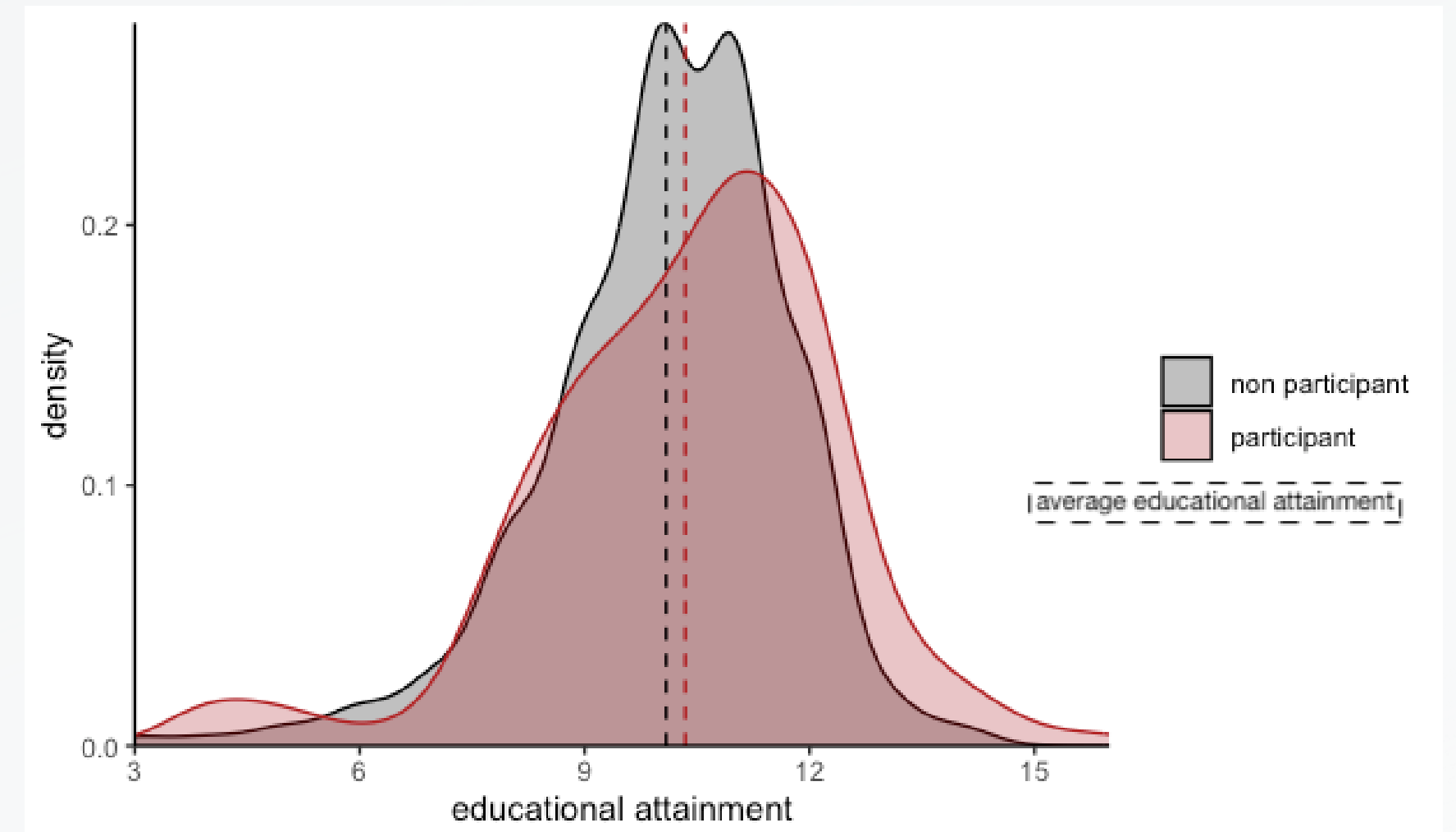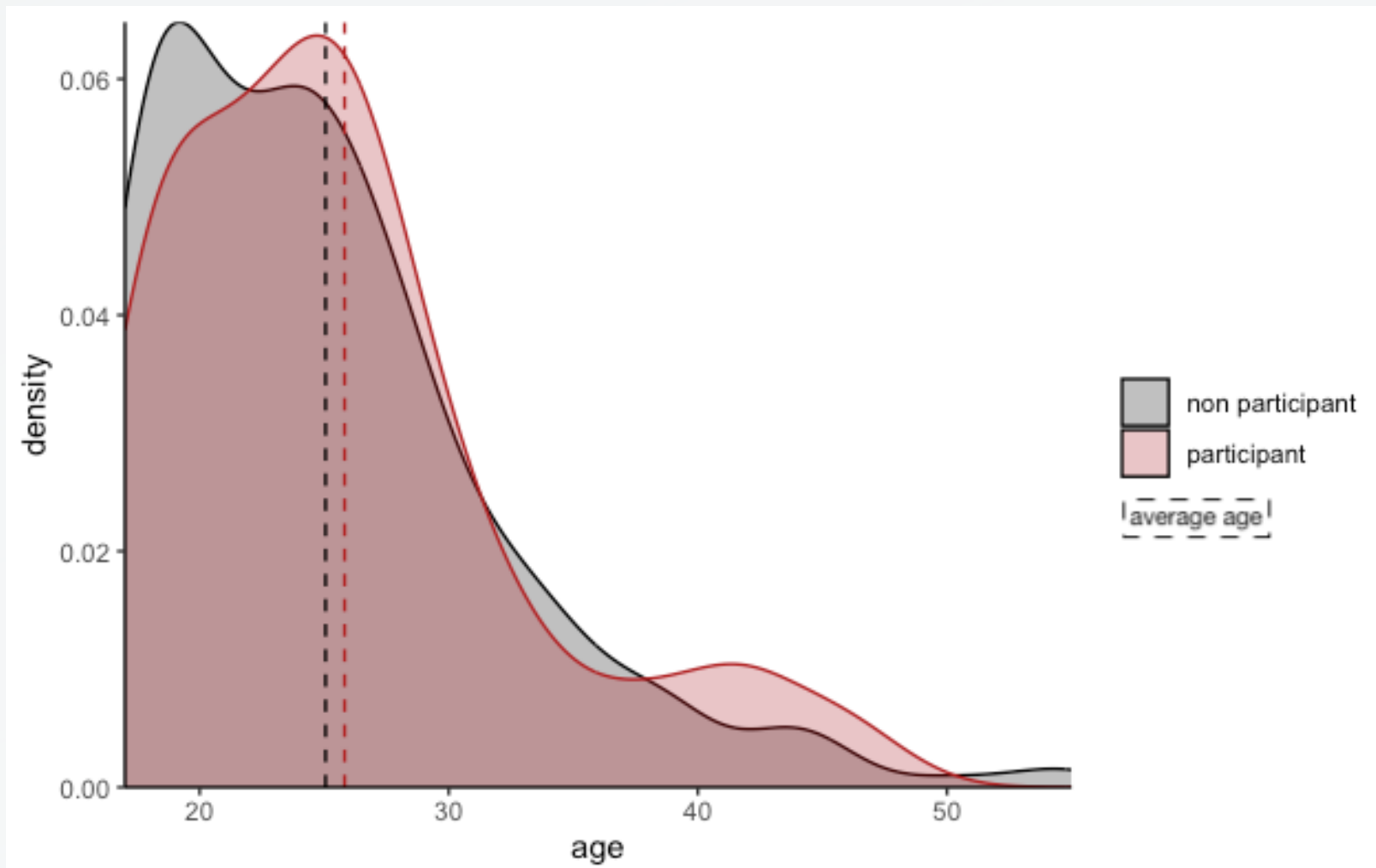
PREDICTIVE MODELING

- **Bootstrapping** yields that, 95% of the time, NSW participants will make about $500 to $3000 more than non participants.
- Also, we can expect NSW participants and non participants to earn the same amount less than 2.5% of the time.
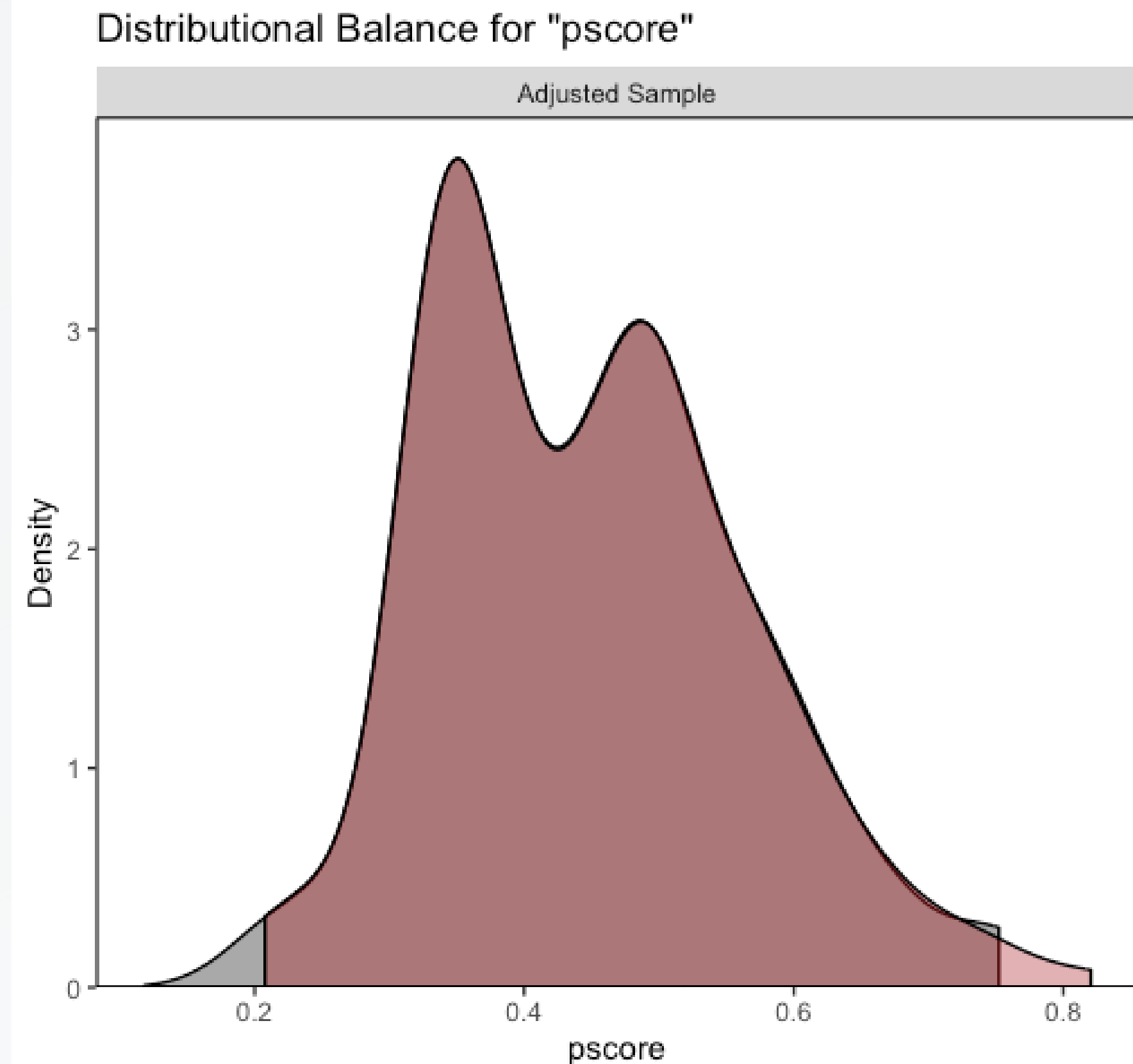
DATA VISUALIZATION

THERE ARE SIMILARITIES BUT ALSO SOME NOTABLE DIFFERENCES ACROSS PARTICIPANTS AND NON PARTICIPANTS

PROPENSITY SCORE MATCHING

- After **propensity score matching**, the difference in earnings between participants and non participants is $1822.20 at the time that the program ended.
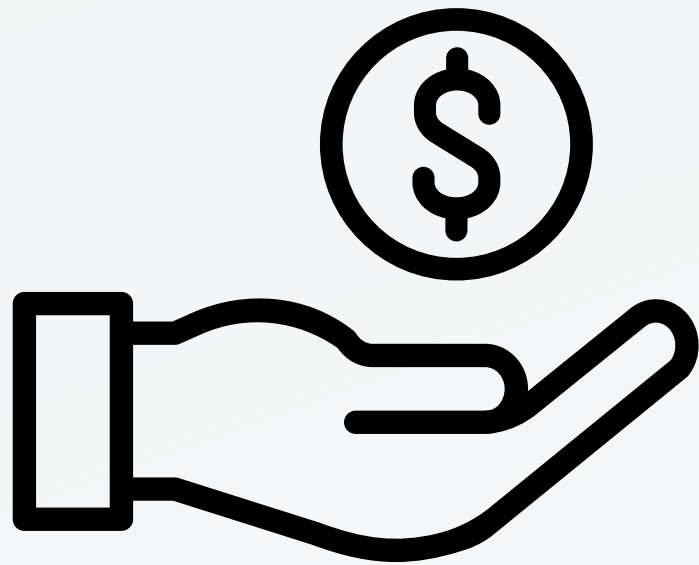- Propensity score matching was well balanced except at the extreme ends of propensity scores.

Distributional Balance for "pscore"

MULTIVARIATE ANALYSIS

- A **multivariate linear analysis** showed that each year of educational attainment increased income by $396.80 on average.
- Also, Black individuals received $2097.40 less in income on average than all other racial groups.
- Age, Hispanic identity, marital status, degree attainment, and previous unemployment did not impact earnings at the end of the program.

RECOMMENDATIONS

The NSW program makes a positive impact on earnings and should be considered for expansion with some additional focused efforts.

DEI initiatives should be incorporated Into the program, specifically focused on Black participants and participants who were without access to higher levels of education.