

The Impact of the METCO Voluntary School Desegregation Program

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May 2024

Motivation

- School segregation in the US has increased in the past 30 years
- Segregation is linked with wide disparities in access to advanced curricula, resources, and outcomes.
- To increase equity, access to opportunity, and integration, districts utilize school assignment and school choice policies.
- Most segregation stems from racial disparities between school districts, so within district policies can only reduce a small portion of the issue
- Since requiring intra-district school integration is not constitutional, voluntary integration programs are the main policy lever

METCO and Voluntary Desegregation

- A longstanding Massachusetts program that serves as a national model to the other integration programs
 - Metropolitan Council for Educational Opportunity (METCO)
- METCO buses students of color from Boston and Springfield, MA to 36 suburban districts
- State-funded program
- METCO strives to improve both the urban and suburban students' educational experiences by exposing them to peers from diverse backgrounds and cultures.

What is the impact of attending a relatively wealthy, higher performing suburban school for urban students of color?

Are students better off switching to high performing suburban schools?

- Access to
 - more advanced coursework
 - higher achieving peers
 - increased expectation of college-going
- Possible challenges
 - transportation costs
 - travel time
 - after school activities
 - parental involvement more difficult
 - increased discrimination or lower expectations
 - suspension, tracking, teacher expectations
 - social challenges
 - after-school socializing

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Comparing Similar Students

- Compare outcomes of students
 - who applied to METCO and got referred
 - to those that also applied but did not get referred
- That way differences in METCO vs. non-METCO outcomes cannot be attributed to differences in the characteristics of those who apply for the program
- Compare students with similar
 - parent educational achievement
 - government assistance receipt
 - race, ethnicity, and gender
 - language learner status
 - age of application to program

Results: K-12 Performance

Large gains in Math MCAS across all grades

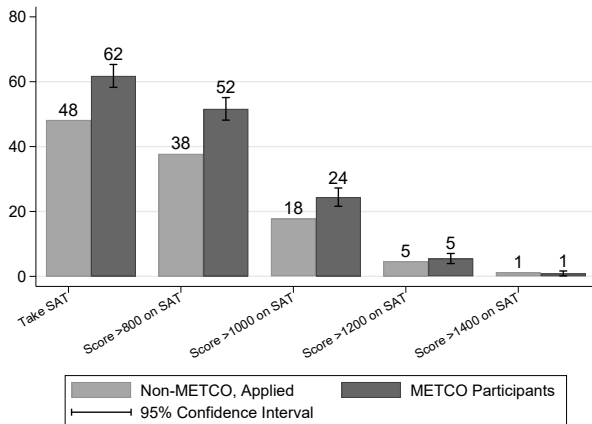
- METCO leads applicants to
 - score higher on MCAS Math in grades 3 - 8 & 10 compared to those that apply and don't get in
 - score over 30% closer to the state average for Math in their grade relative to those that don't get in
 - 50% closer for 10th grade
 - effects similar size to the lottery estimates of Boston charter schools' impact

- METCO leads applicants to
 - score higher on MCAS ELA in grades 3 - 8 compared to those that apply and don't get in
 - score over 50% closer to the state average for ELA in their grade relative to those that don't get in
 - over 2/3rd closer for 10th grade
 - effects similar size to the lottery estimates of Boston charter schools' impact

- Increased attendance
 - by about +3 days per year
 - despite longer distance and fewer transit options
- Decreased suspension rates
 - by 2-8 percentage points

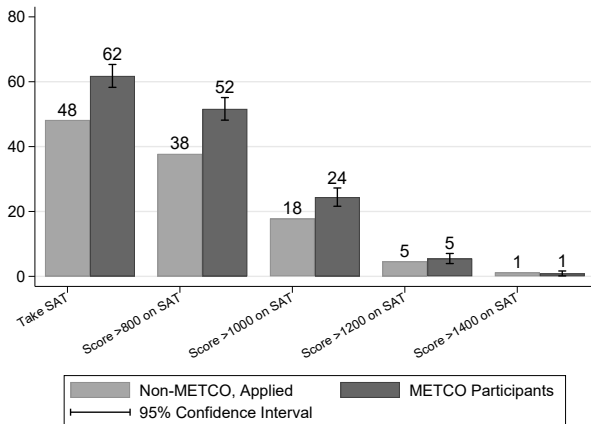
High School Completion & College Preparation

More likely to take SAT and score at least 1000



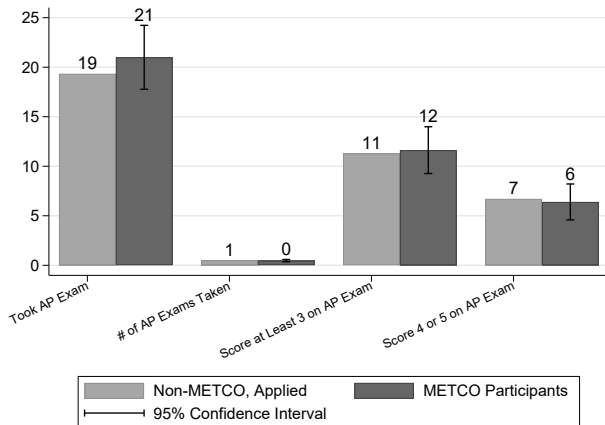
Students 14 percentage points (pp) more likely to take the SAT, 15 pp more likely to score >1000, and 7 pp more likely to score >1200. This figure plots the regressions results for METCO applicants who entered 1st grade in 2002-03 through 2011-12, adjusting for demographics and age at application. N=10K.

But not more likely to earn top SAT scores



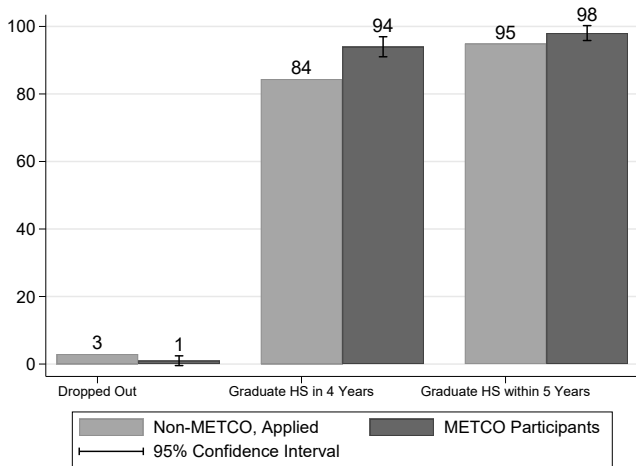
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No difference in AP taking or scores



This figure plots the regressions results for METCO applicants who entered 1st grade in 2002-03 through 2011-12,, adjusting for demographics and age at application. N=10K.

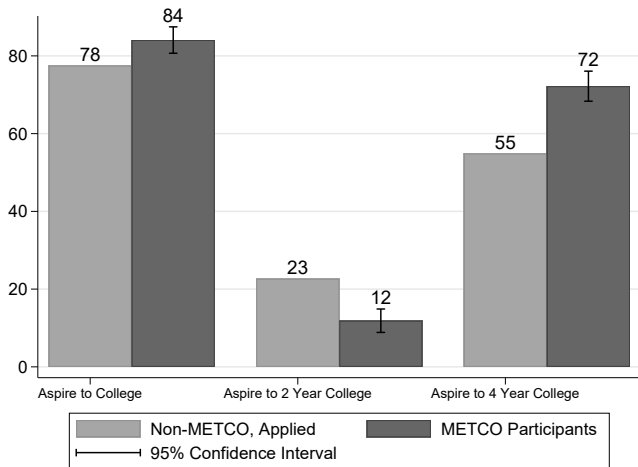
Dropout rate cut by 1/3rd, ↑ 4-yr graduation by 10 perc pts



This figure plots the regressions results for METCO applicants who entered 1st grade in in 2002-03 through 2010-11, adjusting for demographics and age at application. N=7K.

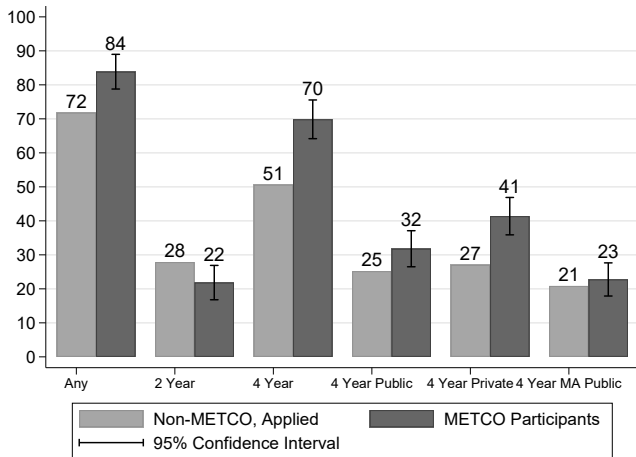
College Outcomes

Increased college aspirations, ↑ 17 perc pts for 4-year



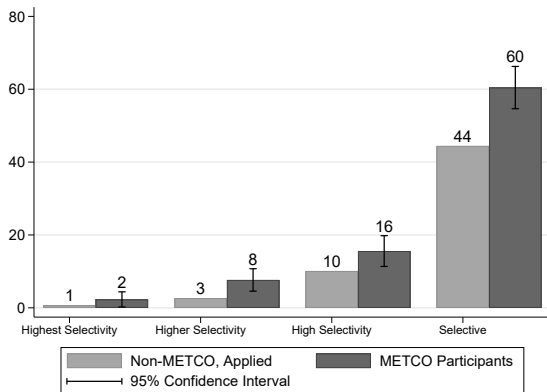
This figure plots the regressions results for METCO applicants who entered 1st grade in in 2002-03 through 2011-12, adjusting for demographics and age at application. From a state survey administered to 10th graders. N=8K.

Increased college going, ↑ 17 perc pts for 4-year



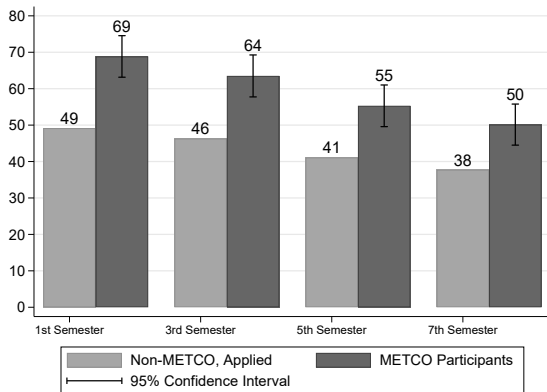
Enrollment within 18 months of projected high school graduation date. This figure plots the regressions results for METCO applicants who entered 1st grade in 2002-03 through 2004-05, adjusting for demographics and age at application. N=2.5K.

More likely to attend all but the most selective colleges



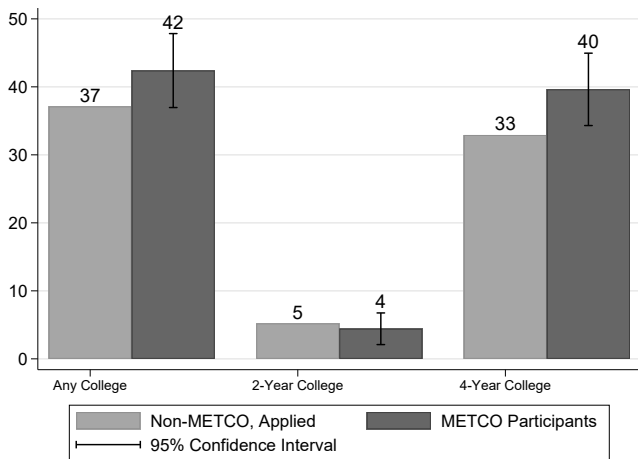
Enrollment within 18 months of projected high school graduation date. This figure plots the regressions results for METCO applicants who entered 1st grade in 2002-03 through 2004-05, adjusting for demographics and age at application. Competitiveness determined by Barron's College Rankings. N=3K.

Increased college persistence



This figure plots the on-time enrollment in college semesters regressions results for METCO applicants who entered 1st grade in 2002-03 through 2004-05, adjusting for demographics and age at application. On-time is defined as starting college within 6 months from the projected high school graduation date and progressing two semesters a year. N=3K.

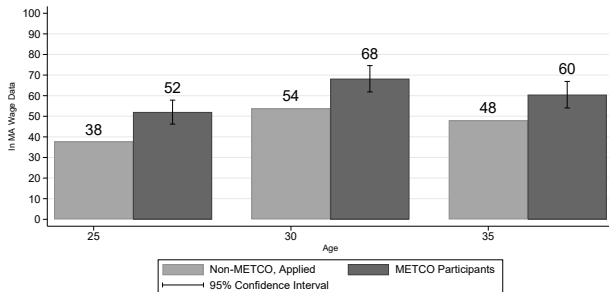
Increased 4-yr college graduation by 6 percentage pts



This figure plots the 6-year college graduation rate regression results for METCO applicants who entered 1st grade in 2002-03 through 2004-05, adjusting for demographics and age at application. N=3K.

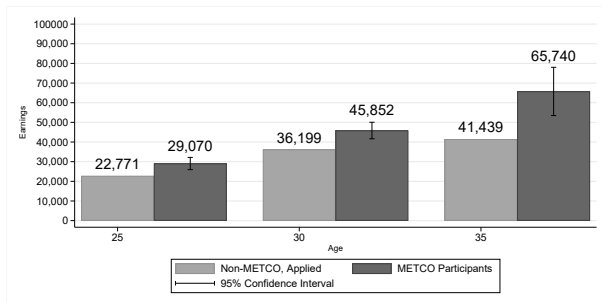
Employment and Earnings

Increased likelihood of employment in MA



This figure plots the regression results for employment at age 25, 30, and 35 for METCO applicants who entered 1st grade in 1990-91 through 1993-94, adjusting for demographics and age at application. N=3K. Government employees, self-employed, or out-of-Massachusetts earners have values of 0 since they do not appear in the wage data. Approximately 1/3rd of the sample never appears in the earnings data from age 19 - 35 meaning they never have a job that contributes to payroll tax in Massachusetts (e.g., employed out of state, by government, or by themselves). Restricting to those that appear in the earnings data shows an increased likelihood of employment at age 25, but similar rates of employment at 30 and 35.

Increased earnings



This figure plots the earnings at age 25, 30, and 35 regression results for METCO applicants who entered 1st grade in 1990-91 through 1993-94, adjusting for demographics and age at application. N=3K. Adjusted to 2019 dollars. People with zero earnings or government employees, self-employed, or out-of-Massachusetts earners are missing from this analyses. Alternative models that include these individuals with earnings equal to zero show similar patterns and effect sizes, but lower means.

What explains the findings?

How is School Experience Different?

- Potentially hinder academic outcomes
 - Attend schools with more AP class offerings
 - but no difference in AP course taking
 - Increased likelihood of tracking
 - Even though they are more likely to be in relatively lower performing classes, METCO students
 - have higher achieving peers: 0.43 standard deviations higher on Math and ELA exams
 - Fewer teachers of color
 - by 5-6 percentage points
- Potentially benefit student outcomes
 - Fewer novice teachers
 - by 4-5 percentage points
 - Smaller class sizes
 - by 2.5 students

Differences

Stronger effects for first-gen college students

- METCO shifts students from schools where about 1/2 of students enroll in a 4-year college
 - to schools where over 3/4th pursue a 4-year degree.
 - Shift in college expectations
- METCO has largest impact on students whose parents did not graduate college.
 - ↑ MCAS scores
 - ↑ 4-year college aspirations by 17 percentage points
 - ↑ 4-year college enrollment by 21 percentage points
 - ↑ colleges of all levels of selectivity
 - 7 percentage point ↑ in 4-year college graduation
- Effects for applicants with at least one college-educated parent are not as strong
 - For them, METCO doesn't lead to a large shift in peers' college-going rates
 - They had a relatively higher likelihood of going to college without METCO

- Effects are rarely statistically significantly different across the 33 suburban school districts

Impact on Suburban Students

- Opposition to school integration efforts cite concern that it will lower test scores, worsen behavior, and create more classroom disruption
- There's been increasing resistance to integration efforts (e.g., Howard County, Maryland, Montgomery, County, Maryland)
- More generally, parents' perception of school quality and reputation is highly influenced by the share of students of color (Wells, 2015; Ellen, 2000)
- These concerns, whether implicit or explicit, counteract integration efforts and worsen school segregation

- Compare the outcomes of students with METCO peers in their grades
 - to others without METCO peers who are in a slightly older or younger grade within the same school
- Estimates the impact of having any METCO participants in a grade cohort

Impact of METCO on suburban students

- Find no effect on
 - test scores,
 - suspensions, or
 - attendance
- Having METCO peers does not change the proportion of a student's classmates that are suspended
 - -> no indication that students experience more disruptions due to having METCO peers
- Findings are consistent across all suburban districts
- Effects are similar when grade cohorts have relatively more and relatively fewer METCO participants.
- -> No evidence of negative peer effects on suburban peers

Next steps

Next project looks at longer run social & civic impacts

- Next project uses applicants from 1966 - 2000s and their peers
- Social & family
 - Social integration in the schools using high school yearbook club and sports data
 - Likelihood of marrying or co-parenting with someone of a different race/ethnicity
 - Teen pregnancy, # of kids
 - Timing of marriage and kids
- Intergenerational & neighborhood choice
 - Where do they live as an adult? How diverse?
 - Where do they send their kids to school?
 - Moving to METCO suburb in adulthood?
- Civic
 - Registering to vote
 - party affiliation
 - voter participation
 - contributing to political campaigns of candidates of color

Areas for potential improvements

- **Course assignment process**
 - Can METCO students enroll in more advanced courses & APs?
- **Suspensions**
 - While METCO reduces the likelihood that students are suspended, students from Boston are more likely to be suspended than their suburban peers.
- **SAT Prep supports**
 - Additional support to help METCO students earn higher scores
- **College application support**
 - Could help students match with more selective schools which often provide more generous financial aid
- **College persistence support**
 - Help alumni navigate and persist in college to increase the college graduation rates

- Enrolling in high performing suburban schools generates large and lasting gains for METCO participants
 - Higher Math and English test scores
 - Reduced suspension
 - Increased attendance
 - Increased on-time high school graduation
 - Improved college aspirations, college going, and graduation
 - Increased earnings and likelihood of working in MA
- No evidence of effect of METCO on suburban peers' test scores or classroom behavior

Thank you!

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