Supplement to:
Irwin, Véronique. 2020. "Selective Enrollment Public Schools and District-Level (Ine)Quality of Achievement from Third to Eighth Grade." Sociological Science 7: 100-127.

## Appendix A: Key Words for Web Scrape

Keywords for web scrape with Python's BeautifulSoup:

```
Academy
academies
admission
application
apply
attractor program
attractor school
AVID}\mp@subsup{}{}{i
choice
charter
criteria
early college
enroll
entrance exam
entrance test
exam
GATE
gifted
high ability
lottery
magnet
optional program
optional school
register
registration
specialty program
specialty school
specialized program
specialized school
test }\mp@subsup{}{}{\mathrm{ ii}
transportation
```

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## Appendix B - Average Achievement with Grade Cohort Standardized (GCS) Scale

Table B1. Replication of Tables 3 and 4 using Grade Cohort Standardized (GCS) Scale

| SEP Scope Definition | binary | binary | grade count | enrollment \% |
| :---: | :---: | :---: | :---: | :---: |
| District controls | x | x | X | X |
| Future-SEP |  | X | x | x |
| Panel 1: Pooled ( $N=1570$ ) | (B1) | (B2) | (B3) | (B4) |
| SEP District DiD | $\begin{aligned} & -0.428^{* * *} \\ & (0.096) \end{aligned}$ | $\begin{aligned} & -0.430^{* * *} \\ & (0.096) \end{aligned}$ | $\begin{aligned} & -0.120^{* * *} \\ & (0.031) \end{aligned}$ | $\begin{aligned} & -0.077 * * * \\ & (0.018) \end{aligned}$ |
| SEP District (3rd grade difference) | $\begin{aligned} & 0.174^{*} \\ & (0.069) \end{aligned}$ | $\begin{aligned} & 0.169 * \\ & (0.069) \end{aligned}$ | $\begin{aligned} & 0.053 * \\ & (0.023) \end{aligned}$ | $\begin{aligned} & 0.036^{*} \\ & (0.014) \end{aligned}$ |
| 8th Grade (ref, $3^{\text {rd }}$ Grade) | $\begin{aligned} & 4.622^{* * *} \\ & (0.027) \end{aligned}$ | $\begin{aligned} & 4.624^{* * *} \\ & (0.027) \end{aligned}$ | $\begin{aligned} & 4.621^{* * *} \\ & (0.027) \end{aligned}$ | $\begin{aligned} & 4.619 * * * \\ & (0.027) \end{aligned}$ |
| Future-SEP DiD |  | $\begin{aligned} & -0.069 \\ & (0.080) \end{aligned}$ | $\begin{aligned} & -0.066 \\ & (0.080) \end{aligned}$ | $\begin{aligned} & -0.066 \\ & (0.080) \end{aligned}$ |
| Constant | $\begin{aligned} & 2.258 * * * \\ & (0.087) \end{aligned}$ | $\begin{aligned} & 2.259 * * * \\ & (0.048) \end{aligned}$ | $\begin{aligned} & -0.283^{* * *} \\ & (0.028) \end{aligned}$ | $\begin{aligned} & -0.285^{* * *} \\ & (0.029) \end{aligned}$ |
| R -squared | 0.956 | 0.782 | 0.788 | 0.788 |
| Panel 2: White ( $\mathrm{N}=1488$ ) | (B5) | (B6) | (B7) | (B8) |
| SEP District DiD | $\begin{aligned} & -0.345^{* *} \\ & (0.120) \end{aligned}$ | $\begin{aligned} & -0.343^{* *} \\ & (0.120) \end{aligned}$ | $\begin{aligned} & -0.106 * \\ & (0.045) \end{aligned}$ | $\begin{aligned} & -0.062^{*} \\ & (0.024) \end{aligned}$ |
| Panel 3: Asian ( $\mathrm{N}=1078$ ) | (B9) | (B10) | (B11) | (B12) |
| SEP District DiD | $\begin{aligned} & -0.187 \\ & (0.146) \end{aligned}$ | $\begin{aligned} & -0.186 \\ & (0.147) \end{aligned}$ | $\begin{aligned} & -0.038 \\ & (0.046) \end{aligned}$ | $\begin{aligned} & -0.018 \\ & (0.027) \end{aligned}$ |
| Panel 4: Black ( $\mathrm{N}=1250$ ) | (B13) | (B14) | (B15) | (B16) |
| SEP District DiD | $\begin{aligned} & -0.351 * * \\ & (0.112) \end{aligned}$ | $\begin{aligned} & -0.355^{* *} \\ & (0.112) \end{aligned}$ | $\begin{aligned} & -0.090^{* *} \\ & (0.032) \end{aligned}$ | $\begin{aligned} & -0.045^{* *} \\ & (0.017) \end{aligned}$ |
| Panel 5: Latinx ( $N=1478$ ) | (B17) | (B18) | (B19) | (B20) |
| SEP District DiD | $\begin{aligned} & -0.391^{* * *} \\ & (0.080) \end{aligned}$ | $\begin{aligned} & -0.392^{* * *} \\ & (0.080) \end{aligned}$ | $\begin{aligned} & -0.114^{* * *} \\ & (0.027) \end{aligned}$ | $\begin{aligned} & -0.065^{* * *} \\ & (0.016) \end{aligned}$ |

Huber-White heteroscedasticity-robust clustered standard errors in parentheses
$+\mathrm{p}<.1, * \mathrm{p}<.05,{ }^{* *} \mathrm{p}<.01, * * * \mathrm{p}<.001$

## Appendix C - Mediation

Table C1. Testing Potential Mediators

|  | Pooled | White | Asian | Black | Latinx |
| :---: | :---: | :---: | :---: | :---: | :---: |
| District Controls | x | x | x | x | x |
| Future SEP | x | X | x | x | x |
| Panel 1: Replication of Results | (3) | (3-W) | (3-A) | (3-B) | (3-L) |
| SEP District DiD | $\begin{aligned} & -0.085 * * \\ & (0.028) \end{aligned}$ | $\begin{aligned} & -0.091 * * \\ & (0.034) \end{aligned}$ | $\begin{aligned} & -0.033 \\ & (0.041) \end{aligned}$ | $\begin{aligned} & -0.087^{*} \\ & (0.036) \end{aligned}$ | $\begin{aligned} & -0.110^{* * *} \\ & (0.026) \end{aligned}$ |
| Panel 2: 7th Grade Algebra | (C1) | (C2) | (C3) | (C4) | (C5) |
| SEP District DiD | $\begin{aligned} & -0.082^{*} * \\ & (0.028) \end{aligned}$ | $\begin{aligned} & -0.089 * * \\ & (0.034) \end{aligned}$ | $\begin{aligned} & -0.027 \\ & (0.042) \end{aligned}$ | $\begin{aligned} & -0.085^{*} \\ & (0.036) \end{aligned}$ | $\begin{aligned} & -0.106^{* * *} \\ & (0.027) \end{aligned}$ |
| District-wide Algebra Exposure ${ }^{1}$ (effect in grade 3) | $\begin{aligned} & -0.007 \\ & (0.017) \end{aligned}$ | $\begin{aligned} & -0.007 \\ & (0.019) \end{aligned}$ | $\begin{aligned} & 0.051 \\ & (0.039) \end{aligned}$ | $\begin{aligned} & -0.031 \\ & (0.023) \end{aligned}$ | $\begin{aligned} & -0.048^{*} \\ & (0.020) \end{aligned}$ |
| District-wide Algebra Exposure (effect in grade 8) | $\begin{aligned} & 0.027 \\ & (0.019) \end{aligned}$ | $\begin{aligned} & 0.047^{*} \\ & (0.021) \end{aligned}$ | $\begin{aligned} & 0.116^{* *} \\ & (0.044) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.025) \end{aligned}$ | $\begin{aligned} & -0.010 \\ & (0.020) \end{aligned}$ |
| Panel 3: Free-Lunch Exposure | (C6) | (C7) | (C8) | (C9) | (C10) |
| SEP District DiD | $\begin{aligned} & -0.074 * * \\ & (0.028) \end{aligned}$ | $\begin{aligned} & -0.086^{* *} \\ & (0.033) \end{aligned}$ | $\begin{aligned} & -0.018 \\ & (0.043) \end{aligned}$ | $\begin{aligned} & -0.082^{*} \\ & (0.038) \end{aligned}$ | $\begin{aligned} & -0.090^{* * *} \\ & (0.026) \end{aligned}$ |
| District-wide Algebra Exposure (effect in grade 3) | $\begin{aligned} & 0.006 \\ & (0.017) \end{aligned}$ | $\begin{aligned} & -0.019 \\ & (0.018) \end{aligned}$ | $\begin{aligned} & 0.062 \\ & (0.039) \end{aligned}$ | $\begin{aligned} & -0.017 \\ & (0.022) \end{aligned}$ | $\begin{aligned} & -0.035+ \\ & (0.019) \end{aligned}$ |
| District-wide Algebra Exposure (effect in grade 8) | $\begin{aligned} & 0.027 \\ & (0.018) \end{aligned}$ | $\begin{aligned} & 0.037+ \\ & (0.020) \end{aligned}$ | $\begin{aligned} & 0.119^{* *} \\ & (0.044) \end{aligned}$ | $\begin{aligned} & -0.005 \\ & (0.024) \end{aligned}$ | $\begin{aligned} & -0.011 \\ & (0.020) \end{aligned}$ |
| Exposure to FL peers ${ }^{2}$ | $\begin{aligned} & -0.642^{* * *} \\ & (0.151) \end{aligned}$ | $\begin{aligned} & -1.106 * * * \\ & (0.156) \end{aligned}$ | $\begin{aligned} & -0.496 \\ & (0.364) \end{aligned}$ | $\begin{aligned} & -1.042^{* * *} \\ & (0.130) \end{aligned}$ | $\begin{aligned} & -0.966^{* * *} \\ & (0.133) \end{aligned}$ |
| Observations | 1570 | 1488 | 1078 | 1250 | 1478 |

Huber-White heteroscedasticity-robust clustered standard errors in parentheses
$+\mathrm{p}<.1, \quad$ * $\mathrm{p}<.05,{ }^{* *} \mathrm{p}<.01,{ }^{* * *} \mathrm{p}<.001$
Notes:
${ }^{1}$ This is an indicator of distribution of and access to advanced coursework, which is likely to be a direct target of SEP school policy interventions. Math placement is the only advanced coursework for which data is available prior to high school from the CRDC. It is also relevant to focus on advanced coursework in math, because these models specifically test the association between SEP schools and district-level math achievement
${ }^{2}$ I also test exposure to Free Lunch eligible peers as an indicator of between-school segregation by SES, which research shows is associated with achievement, and is more consequential for outcomes than racial segregation (Owens, Reardon, and Jencks 2016; Rumberger and Palardy 2005).

## References for Supplement

Owens, A., S. F. Reardon, and C. Jencks. 2016. "Income Segregation between Schools and School Districts." American Educational Research Journal 53(4):1159-97

Rumberger, Russell W., and Gregory J. Palardy. 2005. "Does Segregation Still Matter? The Impact of Student Composition on Academic Achievement in High School." Teachers College Record 107(9):1999-2045.


[^0]:    ${ }^{i}$ All website text was imported and searched as lower case characters, so in actuality I searched for avid and gate; I present these as upper case in the list for clarity.
    ${ }^{\text {ii }}$ For 'test', I included a space prior to the word (' test') to avoid catching words ending in 'test', i.e., contest, latest, protest, etc. I did this for AVID (' avid') and GATE (' gate') as well, to avoid catching the name 'David' in directories, and to avoid words ending in 'gate', i.e., aggregate, mitigate, obligate, propagate, etc.

