# SUPPLEMENTARY APPENDIX 

## For

Still No Effect of Resources, Even in the New Gilded Age?

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Table S1 (for Comparison with Table 1). Racial Composition of ELS High Schools, Reported for the Common Core of Data, by ELS Respondents' Self-Identified Race-Ethnicity and Immigrant Generational Status

|  | Percent White | Percent Black | Percent Hispanic | N |
| :---: | :---: | :---: | :---: | :---: |
| 1. Mexican, Mexican American, or Chicano, $1^{\text {st }}$ generation | 32.5\% | 11.2\% | 50.0\% | 108 |
| 2. Mexican, Mexican American, or Chicano, $1.5^{\text {th }}$ generation | 27.7\% | 12.3\% | 53.4\% | 75 |
| 3. Mexican, Mexican American, or Chicano, $2^{\text {nd }}$ generation | 28.6\% | 8.3\% | 58.0\% | 232 |
| 4. Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | 44.2\% | 6.8\% | 43.5\% | 314 |
| 5. Puerto Rican, Cuban, or Dominican, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 22.6\% | 22.5\% | 51.5\% | 36 |
| 6. Puerto Rican, Cuban, or Dominican, $2^{\text {nd }}$ generation | 33.4\% | 23.0\% | 37.9\% | 58 |
| 7. South and Central American, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 37.9\% | 19.1\% | 36.4\% | 70 |
| 8. South and Central American, $2^{\text {nd }}$ generation | 33.4\% | 20.0\% | 38.6\% | 40 |
| 9. Hispanic ethnicity of any type, Generational status missing but Spanish is the student's native language | 29.8\% | 10.6\% | 54.0\% | 49 |
| 10. Hispanic ethnicity of any type, Generational status missing but Spanish is not the student's native language | 40.2\% | 14.5\% | 36.6\% | 68 |
| 11. Hispanic ethnicity other than Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | 56.4\% | 20.4\% | 18.3\% | 109 |
| 12. Asian or NHOPI non-Hispanic, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 49.2\% | 15.9\% | 17.5\% | 348 |
| 13. Asian or NHOPI non-Hispanic, $2^{\text {nd }}$ generation or Generational status missing but English is not the student's native language |  | 14.3\% | 7.9\% | 466 |
| 14. Asian or NHOPI non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 63.4\% | 9.8\% | 9.8\% | 172 |
| 15. Black or African American non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}, 2^{\text {nd }}$ generation, or Generational status missing but English is not the student's native language | 38.9\% | 37.6\% | 17.4\% | 104 |
| 16. Black or African American non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 38.4\% | 48.1\% | 9.7\% | 1112 |
| 17. American Indian or Alaskan Native nonHispanic, All generations | 73.4\% | 7.5\% | 6.1\% | 156 |
| 18. White non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}$, or $2^{\text {nd }}$ generation or Generational status missing but English is not the student's native language | 71.0\% | 12.2\% | 9.2\% | 178 |
| 19. White non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 81.0\% | 9.2\% | 6.2\% | 4,298 |
| 20. Missing race, all generations | 54.8\% | 24.7\% | 15.1\% | 44 |

Source: ELS 2002-2012 and Common Core of Data, 2001-2004.
Notes: Data are weighted by the panel weight constructed by the data distributors (f2pnlwt) that adjusts for base-year nonparticipation and subsequent attrition, multiplied by an adjustment weight that we created to account for missing data on educational attainment.

Table S2 (for Comparison with Table 3). Staffing and Funding Profile by Race-Ethnicity and Immigrant Generational Status

|  | Pupil-to- <br> Teacher Ratio | Percent of Teachers MA or Above | Percent of Total Funding from Federal Sources | Percent Free or Reduced-Price Lunch | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Mexican, Mexican American, or Chicano, $1^{\text {st }}$ generation | 19.7 | 39.7\% | 9.2\% | 44.1\% | 108 |
| 2. Mexican, Mexican American, or Chicano, $1.5^{\text {th }}$ generation | 21.5 | 33.4\% | 9.5\% | 43.0\% | 75 |
| 3. Mexican, Mexican American, or Chicano, $2^{\text {nd }}$ generation | 20.9 | 33.7\% | 9.3\% | 47.2\% | 232 |
| 4. Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | 18.5 | 36.7\% | 9.2\% | 38.0\% | 314 |
| 5. Puerto Rican, Cuban, or Dominican, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 19.0 | 51.0\% | 9.2\% | 54.3\% | 36 |
| 6. Puerto Rican, Cuban, or Dominican, $2^{\text {nd }}$ generation | 17.3 | 61.2\% | 7.9\% | 41.6\% | 56 |
| 7. South and Central American, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 18.7 | 46.1\% | 8.3\% | 37.8\% | 68 |
| 8. South and Central American, $2^{\text {nd }}$ generation | 19.1 | 45.4\% | 7.9\% | 41.5\% | 40 |
| 9. Hispanic ethnicity of any type, Generational status missing but Spanish is the student's native language | 20.4 | 36.0\% | 8.6\% | 44.5\% | 49 |
| 10. Hispanic ethnicity of any type, Generational status missing but Spanish is not the student's native language | 17.8 | 45.2\% | 8.5\% | 41.1\% | 67 |
| 11. Hispanic ethnicity other than Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | 17.9 | 51.1\% | 7.3\% | 30.9\% | 108 |
| 12. Asian or NHOPI non-Hispanic, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 18.7 | 49.9\% | 7.3\% | 30.7\% | 348 |
| 13. Asian or NHOPI non-Hispanic, $2^{\text {nd }}$ generation or Generational status missing but | 18.8 |  |  |  | 5 |
| 14. Asian or NHOPI non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 17.0 | 47.6\% | 6.9\% | 26.4\% | 171 |
| 15. Black or African American non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}, 2^{\text {nd }}$ generation, or Generational status missing but English is not the student's native language | 17.5 | 50.9\% | 7.6\% | 34.7\% | 104 |
| 16. Black or African American non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 16.7 | 46.7\% | 10.5\% | 42.1\% | 1112 |
| 17. American Indian or Alaskan Native nonHispanic, All generations | 16.7 | 40.0\% | 11.2\% | 27.8\% | 156 |
| 18. White non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}$, or $2^{\text {nd }}$ generation or Generational status missing but English is not the student's native language | 17.4 | 49.5\% | 5.8\% | 21.2\% | 177 |
| 19. White non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 16.3 | 47.5\% | 6.7\% | 22.2\% | 4297 |
| 20. Missing race, all generations | 17.4 | 50.5\% | 8.1\% | 32.0\% | 44 |

## Source: ELS 2002-2012 and Common Core of Data, 2001-2004.

Notes: Data are weighted by the panel weight constructed by the data distributors (f2pnlwt) that adjusts for base-year nonparticipation and subsequent attrition, multiplied by an adjustment weight that we created to account for missing data on educational attainment.

Table S3 (for Comparison with Table 4). Factor-Scored Scales of Poor Conditions and Maintenance of Facilities by RaceEthnicity and Immigrant Generational Status

|  | Classrooms | Hallways | Bathrooms | Outside School Area | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Mexican, Mexican American, or Chicano, $1^{\text {st }}$ generation | 0.03 | 0.24 | 0.05 | 0.45 | 87 |
| 2. Mexican, Mexican American, or Chicano, $1.5^{\text {th }}$ generation | 0.29 | 0.65 | 0.39 | 0.17 | 60 |
| 3. Mexican, Mexican American, or Chicano, $2^{\text {nd }}$ generation | 0.22 | 0.29 | 0.27 | 0.21 | 179 |
| 4. Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | 0.05 | 0.04 | -0.11 | -0.02 | 252 |
| 5. Puerto Rican, Cuban, or Dominican, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 1.62 | 0.38 | 1.21 | 0.18 | 27 |
| 6. Puerto Rican, Cuban, or Dominican, $2^{\text {nd }}$ generation | 0.19 | 0.52 | 0.16 | 0.75 | 38 |
| 7. South and Central American, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 0.11 | 0.02 | 0.31 | 0.32 | 55 |
| 8. South and Central American, $2^{\text {nd }}$ generation | 0.27 | 0.39 | 0.48 | 0.83 | 32 |
| 9. Hispanic ethnicity of any type, Generational status missing but Spanish is the student's native language | 0.63 | 0.60 | 0.71 | 0.85 | 38 |
| 10. Hispanic ethnicity of any type, Generational status missing but Spanish is not the student's native language | 0.11 | 0.15 | 0.22 | 0.16 | 56 |
| 11. Hispanic ethnicity other than Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | -0.02 | 0.23 | 0.14 | 0.39 | 85 |
| 12. Asian or NHOPI non-Hispanic, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 0.14 | 0.11 | 0.18 | 0.28 | 280 |
| 13. Asian or NHOPI non-Hispanic, $2^{\text {nd }}$ generation or Generational status missing but English is not the student's native language | 0.09 | -0.07 | 0.03 | 0.01 | 378 |
| 14. Asian or NHOPI non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 0.03 | -0.03 | 0.07 | -0.13 | 154 |
| 15. Black or African American non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}, 2^{\text {nd }}$ generation, or Generational status missing but English is not the student's native language | 0.27 | 0.09 | 0.44 | 0.31 | 80 |
| 16. Black or African American non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 0.21 | 0.20 | 0.35 | 0.41 | 892 |
| 17. American Indian or Alaskan Native nonHispanic, All generations | -0.17 | -0.01 | -0.12 | -0.14 | 128 |
| 18. White non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}$, or $2^{\text {nd }}$ generation or Generational status missing but English is not the student's native language | -0.15 | -0.24 | 0.06 | -0.14 | 126 |
| 19. White non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | -0.11 | -0.11 | -0.16 | -0.18 | 3346 |
| 20. Missing race, all generations | -0.15 | -0.18 | 0.25 | -0.08 | 40 |

Source: ELS 2002-2012 and Common Core of Data, 2001-2004.
Notes: Data are weighted by the panel weight constructed by the data distributors (f2pnlwt) that adjusts for base-year nonparticipation and subsequent attrition, multiplied by an adjustment weight that we created to account for missing data on educational attainment.

Table S4 (for Comparison with Table 5). Per-Pupil Expenditures by Race-Ethnicity and Immigrant Generational Status

|  | Per Pupil Total Expenditures | Per Pupil CostAdjusted Total Expenditures | Per Pupil Total Expenditures | Per Pupil CostAdjusted Total Expenditures | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Mexican, Mexican American, or Chicano, $1^{\text {st }}$ generation | 8,665 | 8,529 | 4,313 | 4,249 | 108 |
| 2. Mexican, Mexican American, or Chicano, $1.5^{\text {th }}$ generation | 8,393 | 8,493 | 4,261 | 4,302 | 75 |
| 3. Mexican, Mexican American, or Chicano, $2^{\text {nd }}$ generation | 8,489 | 8,490 | 4,326 | 4,336 | 232 |
| 4. Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | 8,348 | 8,548 | 4,145 | 4,263 | 314 |
| 5. Puerto Rican, Cuban, or Dominican, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 11,160 | 10,815 | 6,343 | 6,150 | 36 |
| 6. Puerto Rican, Cuban, or Dominican, $2^{\text {nd }}$ generation | 11,749 | 11,295 | 6,714 | 6,448 | 58 |
| 7. South and Central American, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 10,008 | 9,248 | 5,212 | 4,810 | 70 |
| 8. South and Central American, $2^{\text {nd }}$ generation | 10,167 | 9,441 | 5,553 | 5,155 | 40 |
| 9. Hispanic ethnicity of any type, Generational status missing but Spanish is the student's native language | 9,451 | 9,151 | 4,783 | 4,639 | 49 |
| 10. Hispanic ethnicity of any type, Generational status missing but Spanish is not the student's native language | 9,522 | 9,198 | 4,880 | 4,725 | 68 |
| 11. Hispanic ethnicity other than Mexican, Mexican American, or Chicano, $3^{\text {rd }}+$ generation | 10,241 | 9,772 | 5,403 | 5,161 | 109 |
| 12. Asian or NHOPI non-Hispanic, $1^{\text {st }}$ or $1.5^{\text {th }}$ generation | 10,042 | 9,575 | 5,307 | 5,067 | 348 |
| 13. Asian or NHOPI non-Hispanic, $2^{\text {nd }}$ generation or Generational status missing but English is not the student's native language |  |  | 57 | 757 | 466 |
| 14. Asian or NHOPI non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 9,850 | 9,547 | 5,063 | 4,923 | 172 |
| 15. Black or African American non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}, 2^{\text {nd }}$ generation, or Generational status missing but English is not the student's native language | 10,793 | 10,061 | 5,676 | 5,302 | 104 |
| 16. Black or African American non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 9,152 | 8,976 | 4,770 | 4,682 | 1112 |
| 17. American Indian or Alaskan Native nonHispanic, All generations | 8,951 | 9,173 | 4,559 | 4,688 | 156 |
| 18. White non-Hispanic, $1^{\text {st }}, 1.5^{\text {th }}$, or $2^{\text {nd }}$ generation or Generational status missing but English is not the student's native language | 9,955 | 9,538 | 5,335 | 5,118 | 178 |
| 19. White non-Hispanic, $3^{\text {rd }}+$ generation or Generational status missing but English is the student's native language | 9,014 | 9,138 | 4,679 | 4,753 | 4,298 |
| 20. Missing race, all generations | 9,250 | 8,979 | 4,694 | 4,570 | 44 |

Table S5 (for Comparison with Table 6). Proportion of Variance Explained, Adjusted R-Squared, for Separate Naive Linear Regression and Linear Probability Models

|  | Reading Test <br> in 2002 <br> $\left(10^{\text {th }}\right.$ Grade $)$ | Math Test <br> in 2002 <br> $\left(10^{\text {th }}\right.$ Grade $)$ | Math Test <br> in 2004 <br> (typically <br> $12^{\text {th }}$ Grade $)$ | On-Time <br> High School <br> Graduation in <br> 2004 | Any Post- <br> Secondary <br> Education by <br> 2012 | Bachelor's <br> Degree by <br> 2012 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

Source: ELS 2002-2012 and Common Core of Data, 2001-2004.
Notes: Data are weighted by the panel weight constructed by the data distributors (f2pnlwt) that adjusts for base-year nonparticipation and subsequent attrition, multiplied by an adjustment weight that we created to account for missing data on educational attainment. Models for on-time high school graduation, any postsecondary education, and bachelor's degrees are linear probability models. Proportion of variance explained is estimated as adjusted R-squared values. Most models are estimated for 8,037 students, but others were estimated for subsets of this full sample because of missing data on the predictor variables: percent free and reduced price lunch $(8,026)$, teaching corps $(6,898)$, learning "hindered by" $(6,555)$, and scales for poor conditions $(6,163)$.

Table S6 (for Comparison with Tables 7 and 8). Metric Coefficients for Expenditure Variables for Separate Between-School Models of $10^{\text {th }}$ Grade Reading Test Scores, With and Without Adjustments for Family Background, Region, and Urbanicity

|  | Unadjusted |  | With Adjustments for Family Background, Region, and Urbanicity |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Coefficient (Std. Err.) | R-Squared | Coefficient (Std. Err.) | R-Squared |
| Full Sample, 559 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{gathered} 0.18 \\ (0.11) \end{gathered}$ | 0.008 | $\begin{gathered} -0.08 \\ (0.10) \end{gathered}$ | 0.535 |
| Total expenditures, per pupil and cost-adjusted | $\begin{gathered} 0.18 \\ (0.12) \end{gathered}$ | 0.006 | $\begin{gathered} 0.02 \\ (0.11) \end{gathered}$ | 0.534 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.24 \\ (0.20) \end{gathered}$ | 0.004 | $\begin{gathered} -0.27 \\ (0.19) \end{gathered}$ | 0.536 |
| Instructional expenditures, per pupil and costadjusted | $\begin{gathered} 0.20 \\ (0.21) \end{gathered}$ | 0.002 | $\begin{gathered} 0.02 \\ (0.19) \end{gathered}$ | 0.534 |
| Salaries for instructional staff, per pupil | $\begin{gathered} 0.61 \\ (0.31) \end{gathered}$ | 0.011 | $\begin{gathered} -0.30 \\ (0.27) \end{gathered}$ | 0.535 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{gathered} 0.58 \\ (0.31) \end{gathered}$ | 0.008 | $\begin{gathered} 0.08 \\ (0.27) \end{gathered}$ | 0.534 |
| Restricted Sample, 518 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{gathered} 0.18 \\ (0.11) \end{gathered}$ | 0.007 | $\begin{aligned} & -0.08 \\ & (0.11) \end{aligned}$ | 0.544 |
| Total expenditures, per pupil and cost-adjusted | $\begin{gathered} 0.18 \\ (0.12) \end{gathered}$ | 0.005 | $\begin{gathered} 0.01 \\ (0.12) \end{gathered}$ | 0.543 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.19 \\ (0.21) \end{gathered}$ | 0.002 | $\begin{aligned} & -0.28 \\ & (0.20) \end{aligned}$ | 0.545 |
| Instructional expenditures, per pupil and costadjusted | $\begin{gathered} 0.15 \\ (0.22) \end{gathered}$ | 0.001 | $\begin{gathered} -0.02 \\ (0.21) \end{gathered}$ | 0.543 |
| Salaries for instructional staff, per pupil | $\begin{gathered} 0.58 \\ (0.33) \end{gathered}$ | 0.009 | $\begin{aligned} & -0.32 \\ & (0.28) \end{aligned}$ | 0.544 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{array}{r} 0.56 \\ (0.35) \\ \hline \end{array}$ | 0.007 | $\begin{gathered} 0.07 \\ (0.29) \\ \hline \end{gathered}$ | 0.543 |

## Source: See Table 1.

Notes: Expenditure variables are entered in thousands of dollars. Data are weighted by the school mean of the individual-level weight (i.e., the panel weight constructed by the data distributors, f2pnlwt, multiplied by an adjustment weight that we created to account for missing data on educational attainment) multiplied by the within-school sample sizes in order to generate the precision weighting that is typical of multilevel models.

Table S7 (for Comparison with Tables 7 and 8). Metric Coefficients for Expenditure Variables for Separate Between-School Models of $12^{\text {th }}$ Grade Math Test Scores, With and Without Adjustments for Family Background, Region, and Urbanicity

|  | Unadjusted |  | With Adjustments for Family Background, Region, and Urbanicity |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Coefficient (Std. Err.) | R-Squared | Coefficient (Std. Err.) | R-Squared |
| Full Sample, 559 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{gathered} 0.32 \\ (0.16) \end{gathered}$ | 0.010 | $\begin{aligned} & -0.12 \\ & (0.13) \end{aligned}$ | 0.592 |
| Total expenditures, per pupil and cost-adjusted | $\begin{gathered} 0.25 \\ (0.17) \end{gathered}$ | 0.005 | $\begin{array}{r} 0.03 \\ (0.16) \end{array}$ | 0.592 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.52 \\ (0.31) \end{gathered}$ | 0.008 | $\begin{aligned} & -0.11 \\ & (0.26) \end{aligned}$ | 0.592 |
| Instructional expenditures, per pupil and costadjusted | $\begin{gathered} 0.38 \\ (0.30) \end{gathered}$ | 0.004 | $\begin{gathered} 0.25 \\ (0.30) \end{gathered}$ | 0.592 |
| Salaries for instructional staff, per pupil | $\begin{array}{r} 1.14 \\ (0.47) \end{array}$ | 0.018 | $\begin{gathered} -0.09 \\ (0.35) \end{gathered}$ | 0.592 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{gathered} 0.95 \\ (0.46) \end{gathered}$ | 0.010 | $\begin{gathered} 0.44 \\ (0.38) \end{gathered}$ | 0.593 |
| Restricted Sample, 518 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{gathered} 0.29 \\ (0.17) \end{gathered}$ | 0.008 | $\begin{gathered} -0.15 \\ (0.13) \end{gathered}$ | 0.602 |
| Total expenditures, per pupil and cost-adjusted | $\begin{gathered} 0.22 \\ (0.18) \end{gathered}$ | 0.003 | $\begin{gathered} -0.02 \\ (0.16) \end{gathered}$ | 0.601 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.46 \\ (0.33) \end{gathered}$ | 0.006 | $\begin{gathered} -0.16 \\ (0.28) \end{gathered}$ | 0.601 |
| Instructional expenditures, per pupil and costadjusted | $\begin{array}{r} 0.31 \\ (0.33) \end{array}$ | 0.002 | $\begin{gathered} 0.21 \\ (0.32) \end{gathered}$ | 0.602 |
| Salaries for instructional staff, per pupil | $\begin{gathered} 1.10 \\ (0.51) \end{gathered}$ | 0.015 | $\begin{gathered} -0.20 \\ (0.37) \end{gathered}$ | 0.601 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{gathered} 0.91 \\ (0.52) \\ \hline \end{gathered}$ | 0.008 | $\begin{gathered} 0.37 \\ (0.42) \\ \hline \end{gathered}$ | 0.602 |

Source: See Table 1.
Notes: See Table S7.

Table S8 (for Comparison with Tables 7 and 8). Metric Coefficients for Expenditure Variables for Separate Between-School Models of On-Time High School Graduation, With and Without Adjustments for Family Background, Region, and Urbanicity

|  | Unadjusted |  | With Adjustments for Family Background, Region, and Urbanicity |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Coefficient (Std. Err.) | R-Squared | Coefficient (Std. Err.) | R-Squared |
| Full Sample, 559 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{gathered} 0.01 \\ (0.003) \end{gathered}$ | 0.012 | $\begin{aligned} & <0.01 \\ & (0.002) \end{aligned}$ | 0.258 |
| Total expenditures, per pupil and cost-adjusted | $\begin{gathered} 0.01 \\ (0.003) \end{gathered}$ | 0.008 | $\begin{aligned} & <0.01 \\ & (0.003) \end{aligned}$ | 0. 259 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.01 \\ (0.006) \end{gathered}$ | 0.006 | $\begin{gathered} 0.01 \\ (0.005) \end{gathered}$ | 0. 257 |
| Instructional expenditures, per pupil and costadjusted | $\begin{gathered} 0.01 \\ (0.007) \end{gathered}$ | 0.003 | $\begin{gathered} 0.01 \\ (0.006) \end{gathered}$ | 0. 258 |
| Salaries for instructional staff, per pupil | $\begin{gathered} 0.02 \\ (0.008) \end{gathered}$ | 0.011 | $\begin{gathered} 0.01 \\ (0.008) \end{gathered}$ | 0. 257 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{gathered} 0.01 \\ (0.010) \end{gathered}$ | 0.007 | $\begin{gathered} 0.01 \\ (0.008) \end{gathered}$ | 0. 257 |
| Restricted Sample, 518 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{aligned} & <0.01 \\ & (0.003) \end{aligned}$ | 0.008 | $\begin{aligned} & <0.01 \\ & (0.002) \end{aligned}$ | 0.252 |
| Total expenditures, per pupil and cost-adjusted | $\begin{aligned} & <0.01 \\ & (0.003) \end{aligned}$ | 0.005 | $\begin{aligned} & <0.01 \\ & (0.003) \end{aligned}$ | 0. 253 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.01 \\ (0.006) \end{gathered}$ | 0.003 | $\begin{aligned} & <0.01 \\ & (0.006) \end{aligned}$ | 0. 252 |
| Instructional expenditures, per pupil and costadjusted | $\begin{aligned} & <0.01 \\ & (0.007) \end{aligned}$ | 0.001 | $\begin{aligned} & <0.01 \\ & (0.006) \end{aligned}$ | 0. 252 |
| Salaries for instructional staff, per pupil | $\begin{gathered} 0.01 \\ (0.009) \end{gathered}$ | 0.006 | $\begin{aligned} & <0.01 \\ & (0.008) \end{aligned}$ | 0. 251 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{gathered} 0.01 \\ (0.011) \\ \hline \end{gathered}$ | 0.003 | $\begin{aligned} & <0.01 \\ & (0.009) \end{aligned}$ | 0. 252 |

Source: See Table 1.
Notes: See Table 7.

Table S9 (for Comparison with Tables 7 and 8). Metric Coefficients for Expenditure Variables for Separate Between-School Models of Any Post-Secondary Education, With and Without Adjustments for Family Background, Region, and Urbanicity

|  | Unadjusted |  | With Adjustments for Family Background, Region, and Urbanicity |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Coefficient (Std. Err.) | R-Squared | Coefficient (Std. Err.) | R-Squared |
| Full Sample, 559 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{gathered} 0.01 \\ (0.002) \end{gathered}$ | 0.045 | $\begin{gathered} 0.01 \\ (0.002) \end{gathered}$ | 0.317 |
| Total expenditures, per pupil and cost-adjusted | $\begin{gathered} 0.01 \\ (0.002) \end{gathered}$ | 0.020 | $\begin{gathered} 0.01 \\ (0.003) \end{gathered}$ | 0.313 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.02 \\ (0.004) \end{gathered}$ | 0.035 | $\begin{gathered} 0.02 \\ (0.005) \end{gathered}$ | 0.315 |
| Instructional expenditures, per pupil and costadjusted | $\begin{gathered} 0.01 \\ (0.005) \end{gathered}$ | 0.013 | $\begin{gathered} 0.01 \\ (0.005) \end{gathered}$ | 0.310 |
| Salaries for instructional staff, per pupil | $\begin{gathered} 0.03 \\ (0.006) \end{gathered}$ | 0.042 | $\begin{gathered} 0.02 \\ (0.008) \end{gathered}$ | 0.314 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{gathered} 0.02 \\ (0.007) \end{gathered}$ | 0.016 | $\begin{gathered} 0.01 \\ (0.008) \end{gathered}$ | 0.309 |
| Restricted Sample, 518 Schools |  |  |  |  |
| Total expenditures, per pupil | $\begin{gathered} 0.01 \\ (0.002) \end{gathered}$ | 0.049 | $\begin{gathered} 0.01 \\ (0.002) \end{gathered}$ | 0.329 |
| Total expenditures, per pupil and cost-adjusted | $\begin{gathered} 0.01 \\ (0.003) \end{gathered}$ | 0.020 | $\begin{gathered} 0.01 \\ (0.003) \end{gathered}$ | 0.323 |
| Instructional expenditures, per pupil | $\begin{gathered} 0.02 \\ (0.004) \end{gathered}$ | 0.037 | $\begin{gathered} 0.02 \\ (0.006) \end{gathered}$ | 0.328 |
| Instructional expenditures, per pupil and costadjusted | $\begin{gathered} 0.01 \\ (0.005) \end{gathered}$ | 0.012 | $\begin{gathered} 0.01 \\ (0.006) \end{gathered}$ | 0.321 |
| Salaries for instructional staff, per pupil | $\begin{gathered} 0.03 \\ (0.007) \end{gathered}$ | 0.045 | $\begin{gathered} 0.02 \\ (0.008) \end{gathered}$ | 0.325 |
| Salaries for instructional staff, per pupil and cost-adjusted | $\begin{gathered} 0.02 \\ (0.008) \end{gathered}$ | 0.015 | $\begin{gathered} 0.02 \\ (0.009) \\ \hline \end{gathered}$ | 0.319 |

Source: See Table 1.
Notes: See Table 7.


Figure S1. Average Annual Wage/Salary Per Job in the County, Attached to and Displayed for Hypothetical ELS High Schools Based on Their County Locations

Source: Bureau of Economic Analysis, Regional Economic Accounts, Table CA34, 2002, matched to high schools sampled proportional to size from the 2001-02 Common Core of Data School Universe File.


Figure S2. Tenth Grade Reading Test Scores by Per-Pupil Salaries for Instructional Staff, With and Without Cost Adjustment
Source: ELS 2002 and Common Core of Data, 2001-2004.


Individual Test Scores by Individual Socioeconomic Status


School Mean Test Scores by School Mean Socioeconomic Status


Individual Test Scores by Socioeconomic Status, Plotted as Individual Deviations from School Means
Figure S3. Three Depictions of the Relationship Between Tenth Grade Reading Test Scores and Socioeconomic Status Source: ELS 2002 and Common Core of Data, 2001-2004.


Figure S4. Twelfth Grade Math Test Scores by Per-Pupil Salaries for Instructional Staff, With and Without Cost Adjustment Source: ELS 2004 and Common Core of Data, 2001-2004.


Individual Test Scores by Individual Socioeconomic Status


School Mean Test Scores by School Mean Socioeconomic Status


Individual Test Scores by Socioeconomic Status, Plotted as Individual Deviations from School Means
Figure S5. Three Depictions of the Relationship Between Twelfth Grade Math Test Scores and Socioeconomic Status Source: ELS 2004 and Common Core of Data, 2001-2004.


Figure S6. On-Time High School Graduation by Per-Pupil Salaries for Instructional Staff, With and Without Cost Adjustment
Source: ELS, 2002-2006, and Common Core of Data, 2001-2004.


High School Graduation by Individual Socioeconomic Status


School High School Graduation Rate by School Mean Socioeconomic Status


Figure S7. Three Depictions of the Relationship Between On-Time High School Graduation and Socioeconomic Status Source: ELS, 2002-2006, and Common Core of Data, 2001-2004.


Figure S8. Any Post-Secondary Education by Per-Pupil Salaries for Instructional Staff, With and Without Cost Adjustment Source: ELS 2012 and Common Core of Data, 2001-2004.


Post-Secondary Attendance by Individual Socioeconomic Status


School Post-Secondary Attendance Rate by School Mean Socioeconomic Status


Figure S9. Three Depictions of the Relationship Between Any Post-Secondary Education and Socioeconomic Status Source: ELS 2012 and Common Core of Data, 2001-2004.


Figure S10. Bachelor's Degree Attainment by Per-Pupil Salaries for Instructional Staff, With and Without Cost Adjustment Source: ELS 2012 and Common Core of Data, 2001-2004.



School Bachelor's Degree Attainment Rate by School Mean Socioeconomic Status


Figure S11. Three Depictions of the Relationship Between Bachelor's Degree Attainment and Socioeconomic Status Source: ELS 2012 and Common Core of Data, 2001-2004.

