# 目 <br> OPPORTUNITY <br> $\begin{array}{lllllllll}I & N & S & T & I & T & U & T & E\end{array}$ <br> <br> Ppivot 

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## Unjust Legacy

# How Proposition 13 Has Contributed to 

 Intergenerational, Economic, and Racial Inequities in Schools and Communities
## APPENDICES

## Appendix A: State Property Tax Revenues and Rankings

| State | Population | No. Public School Students | State and Local Property Tax Revenue, 2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (Millions of Dollars) | Per Capita (Dollars) | Per Capita Rank | Per \$1,000 of Personal Income (Dollars) | Per \$1,000 of Personal Income Rank | Per Student (Dollars) | Per Student Rank |
| United States | 324,985,539 | 50,615,189 | 525,513 | 1,617 | - | 31 | - | 10,383 | - |
| Alabama | 4,874,486 | 744,930 | 2,838 | 582 | 51 | 14 | 51 | 3,810 | 51 |
| Alaska | 739,700 | 132,737 | 1,568 | 2,120 | 12 | 37 | 13 | 11,816 | 12 |
| Arizona | 7,044,008 | 1,123,137 | 7,747 | 1,100 | 35 | 26 | 34 | 6,898 | 35 |
| Arkansas | 3,001,345 | 493,447 | 2,218 | 739 | 49 | 18 | 49 | 4,494 | 49 |
| California | 39,358,497 | 6,309,138 | 63,306 | 1,608 | 20 | 27 | 31 | 10,034 | 25 |
| Colorado | 5,611,885 | 905,019 | 8,672 | 1,545 | 24 | 28 | 28 | 9,582 | 29 |
| Connecticut | 3,573,297 | 535,118 | 10,792 | 3,020 | 4 | 42 | 8 | 20,167 | 5 |
| Delaware | 956,823 | 136,264 | 883 | 923 | 44 | 18 | 47 | 6,482 | 38 |
| District of Columbia | 694,906 | 85,850 | 2,541 | 3,656 | 1 | 46 | 4 | 29,597 | 1 |
| Florida | 20,963,613 | 2,816,791 | 27,901 | 1,331 | 30 | 28 | 30 | 9,905 | 26 |
| Georgia | 10,410,330 | 1,764,346 | 12,143 | 1,166 | 34 | 26 | 32 | 6,883 | 36 |
| Hawaii | 1,424,393 | 181,550 | 1,760 | 1,235 | 32 | 23 | 39 | 9,693 | 28 |
| Idaho | 1,717,715 | 297,200 | 1,750 | 1,019 | 39 | 24 | 37 | 5,888 | 43 |
| Illinois | 12,778,828 | 2,026,718 | 28,625 | 2,240 | 9 | 42 | 9 | 14,124 | 10 |
| Indiana | 6,658,078 | 1,049,547 | 6,936 | 1,042 | 36 | 23 | 40 | 6,609 | 37 |
| Iowa | 3,141,550 | 509,831 | 5,132 | 1,634 | 18 | 34 | 16 | 10,066 | 24 |
| Kansas | 2,908,718 | 494,347 | 4,484 | 1,541 | 25 | 32 | 19 | 9,070 | 31 |
| Kentucky | 4,452,268 | 684,017 | 3,693 | 829 | 46 | 20 | 45 | 5,399 | 46 |
| Louisiana | 4,670,560 | 716,293 | 4,215 | 903 | 45 | 21 | 44 | 5,885 | 44 |
| Maine | 1,334,612 | 180,512 | 2,868 | 2,149 | 11 | 46 | 5 | 15,887 | 9 |
| Maryland | 6,023,868 | 886,221 | 9,524 | 1,581 | 23 | 26 | 33 | 10,747 | 19 |
| Massachusetts | 6,859,789 | 964,514 | 16,714 | 2,437 | 7 | 36 | 14 | 17,329 | 8 |
| Michigan | 9,973,114 | 1,528,666 | 14,070 | 1,411 | 29 | 30 | 22 | 9,204 | 30 |
| Minnesota | 5,566,230 | 875,021 | 8,902 | 1,599 | 21 | 29 | 24 | 10,173 | 21 |
| Mississippi | 2,988,510 | 483,150 | 3,034 | 1,015 | 40 | 28 | 29 | 6,279 | 42 |
| Missouri | 6,106,670 | 915,040 | 6,330 | 1,037 | 37 | 23 | 41 | 6,918 | 34 |
| Montana | 1,052,482 | 146,375 | 1,674 | 1,590 | 22 | 35 | 15 | 11,434 | 14 |
| Nebraska | 1,915,947 | 319,194 | 3,711 | 1,937 | 13 | 38 | 12 | 11,626 | 13 |
| Nevada | 2,969,905 | 473,744 | 3,007 | 1,013 | 41 | 22 | 43 | 6,348 | 40 |
| New Hampshire | 1,348,787 | 180,888 | 4,458 | 3,305 | 2 | 57 | 1 | 24,646 | 2 |


| State | Population | No. Public School Students | State and Local Property Tax Revenue, 2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (Millions of Dollars) | Per Capita (Dollars) | Per Capita Rank | Per \$1,000 of Personal Income (Dollars) | Per \$1,000 of Personal Income Rank | Per Student (Dollars) | Per Student Rank |
| New Jersey | 8,885,525 | 1,410,421 | 29,359 | 3,304 | 3 | 51 | 3 | 20,816 | 4 |
| New Mexico | 2,091,784 | 336,263 | 1,658 | 792 | 48 | 20 | 46 | 4,930 | 47 |
| New York | 19,589,572 | 2,729,776 | 56,853 | 2,902 | 5 | 44 | 7 | 20,827 | 3 |
| North Carolina | 10,268,233 | 1,550,062 | 10,005 | 974 | 42 | 22 | 42 | 6,454 | 39 |
| North Dakota | 754,942 | 109,706 | 1,249 | 1,655 | 16 | 31 | 20 | 11,386 | 15 |
| Ohio | 11,659,650 | 1,710,143 | 15,346 | 1,316 | 31 | 28 | 27 | 8,973 | 32 |
| Oklahoma | 3,931,316 | 693,903 | 2,881 | 733 | 50 | 17 | 50 | 4,152 | 50 |
| Oregon | 4,143,625 | 606,277 | 6,166 | 1,488 | 28 | 31 | 21 | 10,170 | 22 |
| Pennsylvania | 12,787,641 | 1,727,497 | 19,567 | 1,530 | 26 | 29 | 25 | 11,327 | 16 |
| Rhode Island | 1,055,673 | 142,150 | 2,543 | 2,409 | 8 | 46 | 6 | 17,890 | 7 |
| South Carolina | 5,021,268 | 771,250 | 6,032 | 1,201 | 33 | 29 | 26 | 7,821 | 33 |
| South Dakota | 872,868 | 136,302 | 1,415 | 1,621 | 19 | 33 | 18 | 10,383 | 20 |
| Tennessee | 6,708,799 | 1,001,562 | 5,409 | 806 | 47 | 18 | 48 | 5,401 | 45 |
| Texas | 28,295,273 | 5,360,849 | 53,019 | 1,874 | 14 | 39 | 10 | 9,890 | 27 |
| Utah | 3,101,042 | 659,801 | 3,209 | 1,035 | 38 | 23 | 38 | 4,863 | 48 |
| Vermont | 624,344 | 88,428 | 1,667 | 2,671 | 6 | 51 | 2 | 18,855 | 6 |
| Virginia | 8,463,587 | 1,287,026 | 13,955 | 1,649 | 17 | 30 | 23 | 10,843 | 18 |
| Washington | 7,423,362 | 1,101,711 | 11,122 | 1,498 | 27 | 26 | 35 | 10,095 | 23 |
| West Virginia | 1,817,004 | 273,855 | 1,722 | 948 | 43 | 25 | 36 | 6,288 | 41 |
| Wisconsin | 5,790,186 | 864,432 | 9,586 | 1,656 | 15 | 34 | 17 | 11,090 | 17 |
| Wyoming | 578,931 | 94,170 | 1,255 | 2,169 | 10 | 38 | 11 | 13,332 | 11 |

 state-2017, lincolninst.edu/research-data/data-toolkits/significant-features-property-tax/government-finance-data/summary-23. Number of students is public school enrollment in prekindergarten through grade eight for selected years, fall 1990 through fall 2029, retrieved from the National Center for Education Statistics, Digest of education statistics, Table 203.20, nces.ed.gov/programs/digest/d21/tables/dt21_203.20.asp?current=yes.

## Appendix B: Estimated Potential New Revenues per Average Daily Attendance (ADA) for California's 30 Largest School Districts

| Local Educational Agency | ADA, 2020-21 | Unduplicated Pupil <br> Percentage, 2020-21 (\%) ${ }^{\text {a }}$ | Estimate of Potential New Revenues Per ADA (Dollars) |
| :---: | :---: | :---: | :---: |
| Los Angeles Unified | 414,376 | 85 | 1,429 |
| San Diego Unified | 97,967 | 59 | 1,193 |
| Long Beach Unified | 68,167 | 68 | 1,198 |
| Fresno Unified | 66,931 | 89 | 1,318 |
| Elk Grove Unified | 60,862 | 55 | 1,090 |
| Corona-Norco Unified | 50,664 | 48 | 1,078 |
| San Francisco Unified | 50,265 | 59 | 1,199 |
| San Bernardino City Unified | 45,880 | 90 | 1,365 |
| Capistrano Unified | 44,723 | 27 | 1,045 |
| Santa Ana Unified | 43,795 | 88 | 1,314 |
| Clovis Unified | 41,560 | 49 | 1,078 |
| Garden Grove Unified | 40,700 | 76 | 1,241 |
| Kern High | 39,392 | 72 | 1,335 |
| Riverside Unified | 39,080 | 69 | 1,190 |
| Sacramento City Unified | 38,325 | 72 | 1,212 |
| San Juan Unified | 37,510 | 54 | 1,103 |
| Sweetwater Union High | 36,413 | 62 | 1,211 |
| Poway Unified | 35,368 | 22 | 1,029 |
| Irvine Unified | 35,088 | 32 | 1,042 |
| Fontana Unified | 34,711 | 86 | 1,307 |
| Fremont Unified | 34,011 | 27 | 1,040 |
| Oakland Unified | 33,912 | 76 | 1,271 |
| Stockton Unified | 33,019 | 82 | 1,290 |
| San Ramon Valley Unified | 30,964 | 10 | 1,003 |
| Moreno Valley Unified | 30,393 | 84 | 1,289 |
| Bakersfield City | 29,453 | 92 | 1,302 |
| Mt. Diablo Unified | 29,144 | 48 | 1,076 |
| Anaheim Union High | 28,841 | 76 | 1,297 |
| San Jose Unified | 27,642 | 46 | 1,203 |
| Visalia Unified | 27,036 | 69 | 1,187 |

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## Appendix C: Construction of Counterfactual Scenarios

As briefly described in the report, to compute counterfactual scenarios of effective property tax rates we proceeded as follows.

We first consulted field specialists to select the most comparable states in terms of fiscal policies and, in particular, property taxes. These states were New York, Illinois, Texas, Massachusetts, Florida, and Washington. Our baseline counterfactual analysis used the average ETRs at the national level and in the different counterfactual states. We used the National Historic Geographic Information System to compute the average ETR as the ratio between aggregate property taxes and aggregate home values. We then multiplied the aggregate home value by all counterfactual ETRs to obtain county-specific property taxes for each counterfactual scenario. Having both the self-reported property taxes paid by California homeowners and the counterfactual property taxes, we wanted to know how much more revenue the state of California could generate under different tax scenarios. We therefore computed for each county the difference between actual and counterfactual property taxes and then summed these differences across all California counties to obtain the total revenue gain for the state of California.

As a second analysis, we exploited county characteristics to refine the construction of counterfactuals. We computed counterfactual ETRs within specific groups of counties in counterfactual states. For each state (both counterfactuals and California), we divided counties based on the three categories of urbanization and their positions in the personal and household average income distribution-that is, we divided counties based on whether they belonged to the first, second, third, or fourth quartile of the average income distribution. For each counterfactual state, we then computed the group-specific ETRs. These are reported in Tables C-1 and C-2 with the share of counties in each urbanization category and the average incomes in each income quartile. As an example, in the state of Illinois, counties in the first personal income quartile (with an average income of around $\$ 28,000$ ) have an ETR of 1.4 percent.

Table C-1. Urbanization Characteristics of Counterfactual States and California

| Urbanization | Illinois |  | Texas |  | New York |  | Massachusetts |  | Florida |  | Washington |  | California |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% Share | ETR <br> (\%) | \% Share | ETR <br> (\%) | \% Share | ETR <br> (\%) | \% Share | ETR <br> (\%) | \% Share | ETR <br> (\%) | \% Share | ETR <br> (\%) | \% Share | ETR <br> (\%) |
| Large Metro Areas | 17.0 | 2.0 | 14.0 | 1.5 | 32.0 | 1.8 | 43.0 | 1.1 | 24.0 | 0.9 | 13.0 | 0.9 | 28.0 | 0.8 |
| Medium/Small Metro Areas | 22.0 | 1.9 | 18.0 | 1.4 | 29.0 | 2.1 | 36.0 | 1.3 | 42.0 | 0.8 | 41.0 | 0.9 | 36.0 | 0.8 |
| Micro/Noncore | 61.0 | 1.6 | 68.0 | 1.2 | 39.0 | 2.0 | 21.0 | 0.8 | 34.0 | 0.7 | 46.0 | 0.8 | 36.0 | 0.7 |

[^1]Table C-2. Personal Income Characteristics of Counterfactual States and California

| Personal | Illinois |  | Texas |  | New York |  | Massachusetts |  | Florida |  | Washington |  | California |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Avg. <br> (\$) | ETR <br> (\%) | Avg. <br> (\$) | $\begin{aligned} & \text { ETR } \\ & (\%) \end{aligned}$ | Avg. <br> (\$) | ETR <br> (\%) | Avg. <br> (\$) | ETR <br> (\%) | Avg. <br> (\$) | ETR <br> (\%) | Avg. <br> (\$) | ETR <br> (\%) | Avg. <br> (\$) | ETR <br> (\%) |
| First Quartile | 28,588 | 1.4 | 23,691 | 1.2 | 30,315 | 1.9 | 38,647 | 1.4 | 22,177 | 0.7 | 29,521 | 0.9 | 28,124 | 0.8 |
| Second Quartile | 32,148 | 1.7 | 29,375 | 1.3 | 33,152 | 2.1 | 44,577 | 1.1 | 27,754 | 0.7 | 33,151 | 0.8 | 33,841 | 0.7 |
| Third Quartile | 34,841 | 1.8 | 32,773 | 1.2 | 37,189 | 2.1 | 50,378 | 0.9 | 34,486 | 0.9 | 37,442 | 0.8 | 40,289 | 0.7 |
| Fourth Quartile | 42,243 | 2.0 | 40,171 | 1.3 | 50,623 | 1.7 | 62,677 | 0.8 | 43,051 | 0.8 | 45,792 | 0.9 | 57,081 | 0.7 |

Note. ETR = effective tax rate.

We then assigned ETRs to California counties based on their characteristics in terms of urbanization and income. Following the previous example, for the Illinois personal-income-adjusted counterfactual ETR, we assigned California counties in the first quartile of the California personal income distribution an ETR of 1.4 percent, compared to an actual ETR of 0.8 percent. We then multiplied the aggregate home value by the assigned ETR for each counterfactual state. We proceeded as previously described to compute the aggregate revenue gains under alternative scenarios. Table C-3 summarizes the average counterfactual property taxes per capita in reality and under different scenarios as well as the differences between actual and counterfactual property taxes.

Table C-3. Property Taxes for California Under Different ETR Scenarios

| CF State | California |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Property Tax (in Dollars Per Capita) |  |  |  |  |  |  |  |
|  | State <br> Avg. CF | Difference | UrbanizationAdjusted CF | Difference | Personal-IncomeAdjusted CF | Difference | Household-IncomeAdjusted CF | Difference |
| New York | 1,499 | 726 | 2,081 | 1,308 | 2,052 | 1,279 | 2,032 | 1,259 |
| Illinois | 2,069 | 1,296 | 1,953 | 1,180 | 1,896 | 1,123 | 1,900 | 1,127 |
| Texas | 1,815 | 1,042 | 1,436 | 663 | 1,322 | 549 | 1,332 | 559 |
| Massachusetts | 1,161 | 388 | 1,119 | 346 | 1,061 | 288 | 1,084 | 311 |
| Florida | 1,003 | 230 | 861 | 88 | 865 | 92 | 858 | 85 |
| Washington | 960 | 187 | 902 | 129 | 889 | 116 | 895 | 122 |

Note. CF = counterfactual. The average California home value was $\$ 487,026$, and the average property tax per capita was $\$ 773$.

## Further Analyses

In what follows, we first show graphically how property taxes that were computed in different ways and for different counterfactual states compare to one another as well as relative to actual property taxes paid in California counties. Figures C-1 through C-6 display the property taxes (in dollars per capita) in reality and under different counterfactual computations. Each plot represents a different counterfactual state as specified in the figure caption. California counties are ordered according to the actual property taxes paid (blue dots). Overall, the plots show that different measures of counterfactual ETRs provide similar, though varying, counterfactual property taxes. Moreover, counties with higher real property taxes are likely to pay higher property taxes under alternative scenarios (with higher ETRs).

To further investigate these dynamics, we computed the average difference between all counterfactual property taxes and actual property taxes, and we correlated this measure with county characteristics. Figures C-7 through C-12 show the scatterplot and the linear fit of the relationships between mean difference and county characteristics. In all figures, the y-axis reports values for the mean difference between actual and counterfactual property taxes, and the x -axis reports the values of county characteristics. Each blue dot represents a California county. It appears clear that larger differences are correlated with higher personal and household income, meaning that counties that would experience an increase in property taxes are also the richer ones. We find weak or nonexistent correlations between the mean difference measure and the shares of white households, family households (with children), and homeowners.

Figure C-1. Property Taxes in Reality and Counterfactual (CF) Computations for Washington


Figure C-2. Property Taxes in Reality and Counterfactual (CF) Computations for Texas


Figure C-3. Property Taxes in Reality and Counterfactual (CF) Computations for New York


Figure C-4. Property Taxes in Reality and Counterfactual (CF) Computations for Massachusetts


Figure C-5. Property Taxes in Reality and Counterfactual (CF) Computations for Illinois


Figure C-6. Property Taxes in Reality and Counterfactual (CF) Computations for Florida


Figure C-7. Scatterplot and Linear Fit of the Relationships Between Share of Family Households and the Mean Difference in Actual and Counterfactual Property Taxes Per Capita


Figure C-8. Scatterplot and Linear Fit of the Relationships Between Share of Population That Is White and the Mean Difference in Actual and Counterfactual Property Taxes Per Capita


Figure C-9. Scatterplot and Linear Fit of the Relationships Between Share of Highly Educated Households and the Mean Difference in Actual and Counterfactual Property Taxes Per Capita


Figure C-10. Scatterplot and Linear Fit of the Relationships Between Share of Householders That Are Homeowners and the Mean Difference in Actual and Counterfactual Property Taxes Per Capita


Figure C-11. Scatterplot and Linear Fit of the Relationships Between Annual Income and the Mean Difference in Actual and Counterfactual Property Taxes Per Capita


Figure C-12. Scatterplot and Linear Fit of the Relationships Between Average House Value and the Mean Difference in Actual and Counterfactual Property Taxes Per Capita



[^0]:    ${ }^{a}$ Percentage of students who are low income, English learners, or youth in foster care.

[^1]:    Note. ETR = effective tax rate.

