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Executive Summary:

The TEI fails to adjust for emphasis of education in the home and properly control for prior student achievement in most of its metrics leading to bias in TEI teacher classification between neighborhood campuses and campuses where students apply or choose to enroll. As a consequence pay for performance is severely biased against neighborhood campuses.

A performance pay structure that inherently pays more to teachers who have been assigned students whose parents have a strong emphasis of education in the home or whose students have a past history of high academic achievement and the metrics used do not properly adjust for these differences is unconscionable. The results below do not mean many teachers in schools of student choice are not effective, nor does it mean many neighborhood campus teachers are ineffective. It just means the current TEI system metrics and algorithms are insensitive to the differences in these campuses and comparisons across these different campuses are biased and lead to false conclusions and dubious fixed pay distributions. In the discussion section a possible solution is articulated.

Data from the district and the analysis below show an extreme bias in the TEI classification process. Specifically, there is a substantial bias towards schools of “choice” where “choice” is defined as campuses where parents can select the school their child will attend. These campuses include magnets, academies, single sex campuses, district choice campuses and collegiate academies. This bias implies that emphasis of education in the home is not controlled with current TEI metrics and teachers of students with higher parental involvement are more likely to be rewarded. The current fixed performance pay distribution fed by these biased performance indicators favoring teachers of students with educationally active parents automatically means many teachers of students with educationally inactive parents could be falsely labeled as ineffective. Traditionally, less educationally active parents come from low economic neighborhood schools. This bias has been reported by the district since the inception of TEI but ignored. For the past three years the evaluation reports of the district have warned of this trend with statements similar to below.

Generally, the highest performing groups were teachers at majority white schools, teachers at magnet schools, and teachers who stayed in the district but moved out of TEI-coded positions.¹

2016-17 Evaluation of Teacher Excellence Initiative (TEI)
Mitch Barton, Ph.D. & Dianne Palladio, Ph.D. EA18-539-4

Furthermore, the data presented in the full TEI reports^{2,3,4} verifies the concerns. Table 11 of the most recent TEI program report shows that majority white campuses, choice campuses, collegiate

academies, and magnet campuses have the highest Summative Performance Scores, the highest student achievement scores and the highest percent teachers rated Proficient I or higher. Improvement Required (IR) campuses, ISN campuses, first year teachers, Compass teachers and Teach for America teachers had among the lowest TEI Summative Performance scores.

The highest student experience points, or student survey results, went to magnets, and ACE campuses but not majority white campuses, ISN campuses, IR campuses or collegiate academies. More research is needed but there seems to be interplay of cultural and academic influences. Culturally, Hispanic children usually have greater deference to adult authority while white students are more likely to speak their minds. Also, it is well known that higher achieving students experience more positive learning environments and subsequently rate their learning environment more positively. Low achieving students are often constrained to repetitive test preparation activities. All these confounding issues make the relationship of student experience to teacher effectiveness difficult to interpret. Instead, the district should look at individual cases. One positive anomaly in the data that the district should examine in more detail is the high student experience ratings of the ACE (Accelerating Campus Excellence) campuses compared to the Instructional Support Network (ISN) and Improvement Required (IR) campuses. ACE, ISN and IR campuses are some of the districts poorer neighborhoods.

Table 1.
2016-17 TEI Results by Teacher Demographic Group from District TEI evaluation report. ⁴

Table 11: 2016-17 TEI Results by Teacher Demographic Group

| Teacher Demographic Group | Summative Performance Evaluation Score | | Total Student Achievement Score | | Student Experience Points | | Evaluation Rating (% ≥Proficient I) | |
|------------------------------------|--|-------------|---------------------------------|-------------|---------------------------|------------|-------------------------------------|-------------|
| | n | Mean | n | Mean | n | Mean | n | % |
| Retention Status | | | | | | | | |
| Left District | 1,349 | 67.8 | 899 | 18.4 | 869 | 7.2 | 1,349 | 40.7 |
| Moved out of TEI-Coded Position | 149 | 82.0 | 99 | 22.3 | 99 | 8.9 | 149 | 74.5 |
| Still TEI-Coded Teacher | 8,329 | 77.3 | 5,293 | 21.2 | 5,094 | 8.2 | 8,329 | 63.6 |
| Magnet Campuses | 402 | 86.8 | 200 | 29.4 | 373 | 9.8 | 402 | 91.8 |
| IR Campuses | 899 | 70.0 | 623 | 17.6 | 632 | 7.6 | 899 | 38.9 |
| ACE Campuses | 252 | 79.8 | 183 | 20.3 | 157 | 9.3 | 252 | 73.4 |
| ISN Campuses | 645 | 68.6 | 446 | 17.3 | 354 | 7.3 | 645 | 37.2 |
| Post-Baccalaureate Degree | 2,603 | 77.8 | 1,547 | 21.0 | 1,577 | 7.8 | 2,603 | 64.3 |
| Teach for America | 242 | 68.5 | 230 | 18.9 | 213 | 8.1 | 242 | 38.8 |
| First-Year Teachers | 846 | 62.8 | 580 | 17.9 | 573 | 7.4 | 846 | 29.9 |
| Compass Teachers | 94 | 62.5 | 68 | 18.7 | 54 | 6.7 | 94 | 27.7 |
| Choice Campuses | 541 | 76.6 | 349 | 21.1 | 345 | 8.3 | 541 | 65.2 |
| Collegiate Academy Teachers | 35 | 76.7 | 29 | 18.2 | 35 | 7.2 | 35 | 57.1 |
| Majority African American Campuses | 1,363 | 72.3 | 795 | 17.1 | 753 | 7.4 | 1,363 | 45.9 |
| Majority Hispanic Campuses | 8,084 | 76.1 | 5,316 | 21.1 | 5,111 | 8.2 | 8,084 | 61.6 |
| Majority White Campuses | 148 | 90.7 | 96 | 32.6 | 80 | 7.6 | 148 | 100.0 |
| District Total | 9,827 | 76.1 | 6,291 | 20.8 | 6,062 | 8.1 | 5,956 | 60.6 |

Source: Scorecard and Schoolnet data files from Human Capital Management dated October 9, 2017; Student survey data file from Office of Institutional Research dated November 2, 2017; District personnel file dated April 30, 2017.

Note: ISN = Intensive Support Network. IR = Improvement Required. ACE = Accelerating Campus Excellence. Data for teachers who received a "No Rating" effectiveness level are not included. Total student achievement scores only included Category A/B teachers. Magnet schools only included teachers who taught at stand-alone magnet schools. Majority African American schools had a greater number of African American students than Hispanic and White students combined. Majority Hispanic schools had a greater number of Hispanic students than African American and White students combined. Majority White schools had a greater number of White students than African American and Hispanic students combined. Teachers could belong to more than one demographic group.

With a targeted distribution and a disproportionate number of Proficient II or higher teachers coming from “choice” campuses, there will be a leveling of salary range by years of experience.

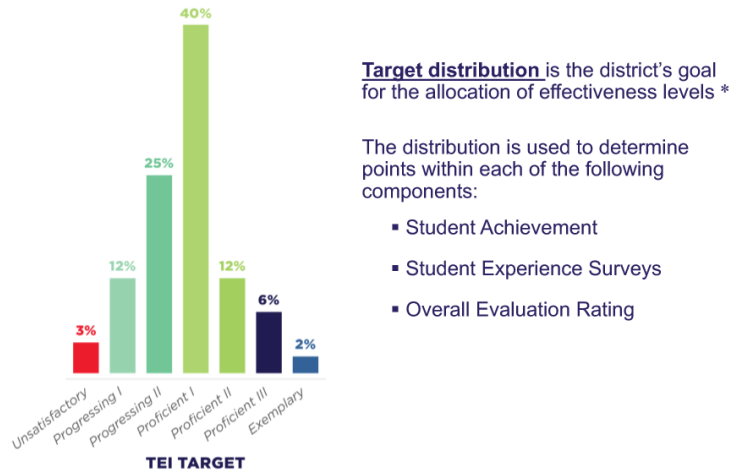


Figure 1. TEI Target distribution

The bubble chart of Figure 2 shows average full time teacher salaries by years in DISD, not total experience, where children choose to attend a choice: versus neighborhood campuses. The leveling effect on salaries from years 5 to 16 at neighborhood schools is obvious. The higher “choice” campus salaries are probably due in part to a grandfathering of salaries but also the TEI process is more likely to assign choice teachers to higher TEI performance categories as shown in Figure 3.

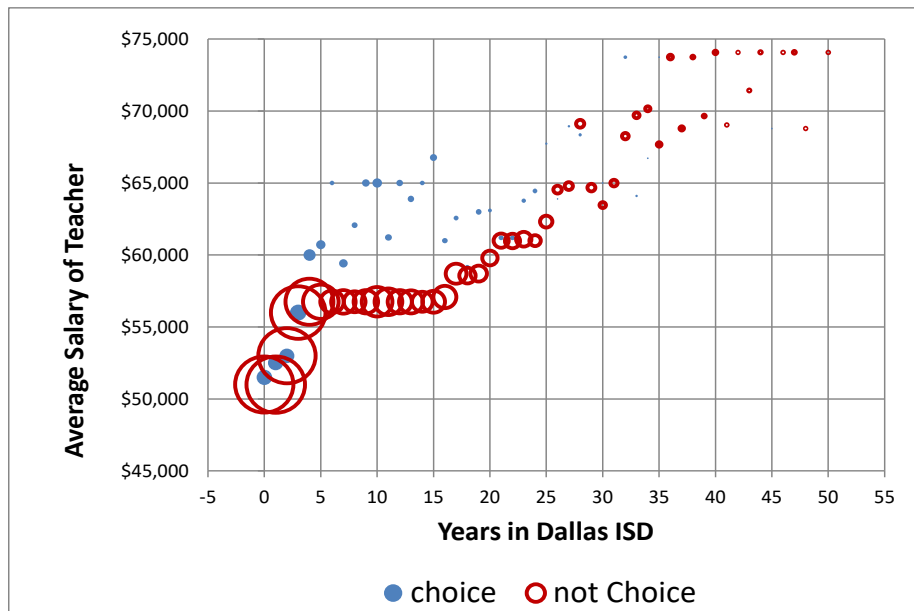


Figure 2. Average salary of full-time, non ROTC teachers by years in DISD and type of campus^a

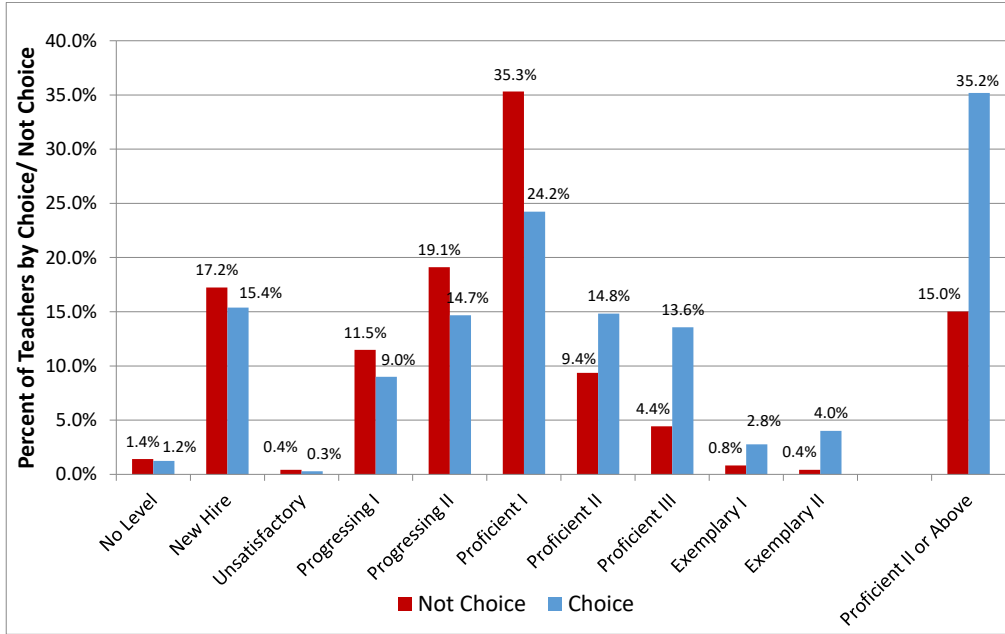


Figure 3 Percent of teachers within each TEI category by choice and non-choice or neighborhood campus. ^b

Currently, Table 2 shows that a teacher with 8 years of experience makes about the same as a teacher with 18 years of experience. The rationale of many performance pay advocates is that time teaching is no guarantee of effectiveness yet the campuses with the greatest achievement gains, ACE elementary and “choice” campuses as defined above have more teachers with 11+ years of experience than teachers with 5 or less years of experience. Only the ACE campus Blanton Elementary has more inexperienced than experienced teachers among the four ACE campuses. While experience is not a guarantee of effectiveness it may be a necessary component.

Table 2
Average salary of teachers by years in DISD, not years of experience. ^b

| Years in DISD | Avg. Salary | Number of Teachers | Years in DISD | Avg. Salary | Number of Teachers |
|---------------|-------------|--------------------|---------------|-------------|--------------------|
| 0 | \$52,288 | 1293 | 11 | \$59,704 | 296 |
| 1 | \$52,873 | 1301 | 12 | \$59,355 | 228 |
| 2 | \$54,028 | 1246 | 13 | \$60,306 | 219 |
| 3 | \$55,955 | 1159 | 14 | \$59,742 | 160 |
| 4 | \$57,149 | 867 | 15 | \$60,522 | 208 |
| 5 | \$58,241 | 480 | 16 | \$60,105 | 200 |
| 6 | \$58,837 | 198 | 17 | \$60,574 | 163 |
| 7 | \$59,242 | 233 | 18 | \$59,322 | 99 |
| 8 | \$59,617 | 176 | 19 | \$61,254 | 110 |
| 9 | \$59,365 | 233 | 20 | \$60,762 | 89 |
| 10 | \$59,786 | 360 | | | |

Table 3.
Inexperienced and Experienced K-8 teachers by year and school type ^c

| | | Teachers | |
|------------------------|------|----------------------------|--------------------------|
| Program | Year | Inexperienced 0-5 years | Experienced 11+ years |
| ACE elementary schools | 2013 | 32% | 51% |
| | 2014 | 43% | 44% |
| | 2015 | 63% | 27% |
| | 2016 | 38% | 37% |
| | 2017 | 34% | 41% |
| ACE middle schools | 2013 | 39% | 47% |
| | 2014 | 50% | 32% |
| | 2015 | 51% | 33% |
| | 2016 | 58% | 25% |
| | 2017 | 58% | 24% |
| ISN elementary schools | 2013 | 37% | 42% |
| | 2014 | 43% | 43% |
| | 2015 | 47% | 38% |
| | 2016 | 53% | 33% |
| | 2017 | 53% | 33% |
| ISN middle schools | 2013 | 44% | 39% |
| | 2014 | 39% | 40% |
| | 2015 | 45% | 36% |
| | 2016 | 52% | 32% |
| | 2017 | 53% | 35% |

| | | Teachers | |
|--|------|----------------------------|--------------------------|
| Program | Year | Inexperienced 0-5 years | Experienced 11+ years |
| other IR elementary schools | 2013 | 33% | 39% |
| | 2014 | 39% | 38% |
| | 2015 | 41% | 37% |
| | 2016 | 46% | 37% |
| | 2017 | 46% | 36% |
| otherr IR middle schools | 2013 | 45% | 35% |
| | 2014 | 45% | 36% |
| | 2015 | 48% | 34% |
| | 2016 | 49% | 33% |
| | 2017 | 50% | 34% |
| Special. i.e. vanguards, magnets, single sex schools | 2013 | 30% | 48% |
| | 2014 | 32% | 47% |
| | 2015 | 25% | 53% |
| | 2016 | 29% | 52% |
| | 2017 | 33% | 51% |
| other elementary Schools | 2013 | 34% | 41% |
| | 2014 | 38% | 38% |
| | 2015 | 39% | 40% |
| | 2016 | 43% | 38% |
| | 2017 | 44% | 38% |
| other middle schools | 2013 | 44% | 35% |
| | 2014 | 46% | 34% |
| | 2015 | 47% | 33% |
| | 2016 | 52% | 32% |
| | 2017 | 54% | 31% |

While only about 700 of the nearly 10,000 teachers are from campuses where students choose to attend, the difference in median pay is heavily biased towards campuses of choice and against neighborhood campuses especially middle schools.

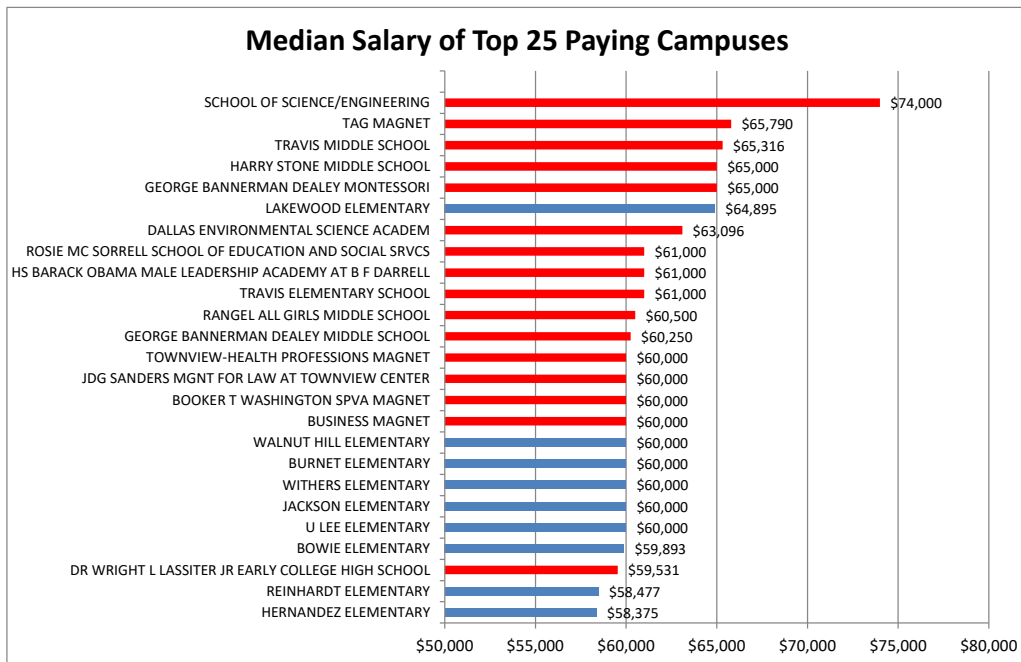


Figure 4. MedianSalary of the top 25 paying campuses in Dallas ISD, 2017-18. Student choice campuses are in red ^a

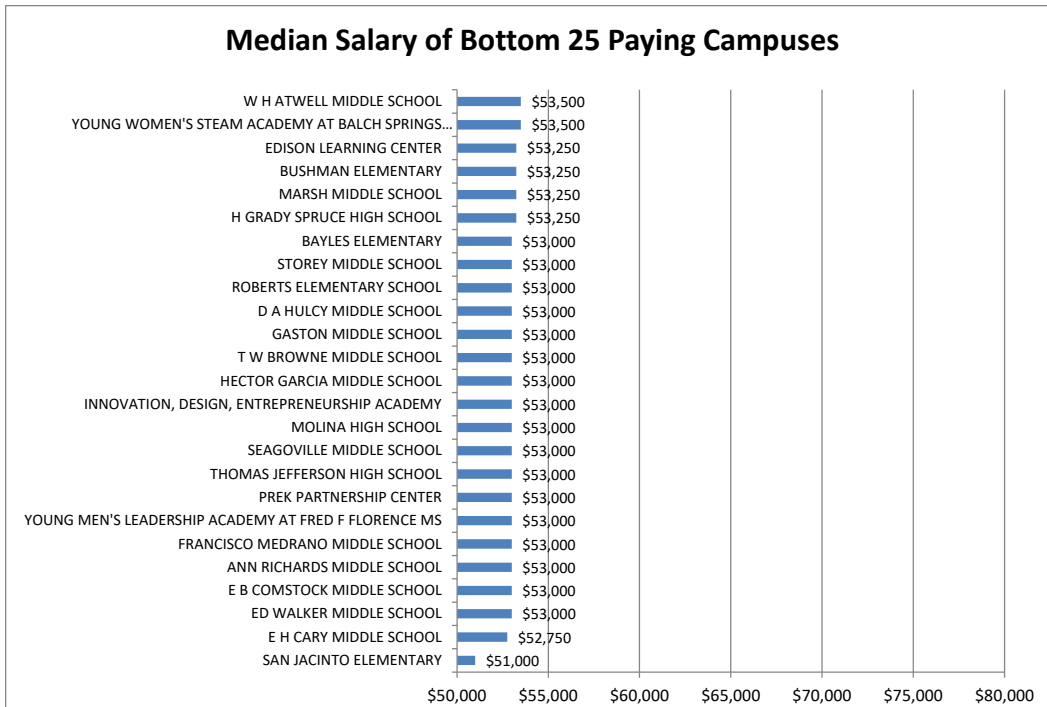


Figure 5. Median salary of the bottom 25 campuses in Dallas ISD, 2017-2018. ^a

Even the much touted Classroom Effectiveness Indices, CEI, show bias. The CEIs are a value-added model (VAM) where the residual or “effectiveness rating” at the student level is aggregated by teacher to produce the Classroom Effectiveness Index and aggregated at the school level to produce a School Effectiveness Index, SEI. In the past it was shown that the CEIs had little predictive validity from one year to the next for classifying teachers into more than three categories but in 2015 the formula was changed. A PIR request for CEI values over two recent years by masked teacher ID was recently denied but since the CEIs are mirrored in the SEI, a bias in SEI automatically implies a bias in CEI. The SEI values by campus are publically available and presented in Table 4. After sorting by SEI value for 2017, it is clear the SEIs, and by default the CEIs, are, and have been, biased towards campuses where children can select to attend and therefore biased against neighborhood campuses. Without getting into details, SEI/CEI metrics do not measure emphasis of education in the home and rely on surrogate measures of prior achievement and census block income.

Table 4.
 Longitudinal SEI values sorted by 2017 SEI value. ^d
 Top 61 SEI campuses 2017

| School | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------|------|------|------|------|------|------|------|
| 26 SCHOOL OF SCIENCE & ENGINEERING AT TOWNVIEW | 58.9 | 62.8 | 63.8 | 69.3 | 62.3 | 63.5 | 65.7 | 67.3 |
| 90 W.L. LASSITER, JR. EARLY COLLEGE HIGH SCHOOL | 48.9 | 53.6 | 49.4 | 58.8 | 55.7 | 58.7 | 58.7 | 66.3 |
| 43 T.W. BROWNE MIDDLE SCHOOL | 47.6 | 42.7 | 45.5 | 33.2 | 39.6 | 47.8 | 47.5 | 61.7 |
| 286 LEE A. MCSHAN, JR. ELEMENTARY SCHOOL | 47.0 | 51.4 | 53.6 | 53.9 | 50.6 | 53.7 | 57.6 | 61.1 |
| 39 SCHOOL FOR THE TALENTED & GIFTED AT TOWNVIEW | 60.6 | 60.6 | 57.5 | 59.0 | 60.2 | 57.1 | 61.4 | 61.0 |
| 352 YOUNG WOMEN'S STEAM ACADEMY AT BALCH SPRINGS MIDDLE | | | | 38.6 | 54.3 | 52.8 | 58.5 | 60.6 |
| 35 IRMA L. RANGEL YOUNG WOMENS LEADERSHIP SCHOOL (H) | 54.1 | 59.2 | 58.8 | 60.1 | 59.8 | 61.6 | 53.9 | 59.3 |
| 137 JULIUS DORSEY ELEMENTARY SCHOOL | 39.1 | 52.1 | 53.9 | 54.7 | 50.1 | 54.6 | 55.5 | 58.7 |
| 71 DALLAS ENVIRONMENTAL SCIENCE ACADEMY | 58.1 | 54.6 | 54.4 | 54.2 | 55.1 | 58.2 | 58.0 | 58.7 |
| 88 TRINIDAD GARZA EARLY COLLEGE HIGH SCHOOL | 45.7 | 56.2 | 52.5 | 60.3 | 58.8 | 56.4 | 57.8 | 58.6 |
| 224 WALNUT HILL ELEMENTARY SCHOOL | 53.6 | 50.1 | 48.7 | 52.5 | 59.0 | 54.1 | 53.7 | 58.6 |
| 263 J.P. STARKS ELEMENTARY SCHOOL | 62.2 | 47.4 | 55.2 | 51.7 | 50.0 | 56.7 | 51.9 | 57.7 |
| 172 JIMMIE TYLER BRASHEAR ELEMENTARY SCHOOL | 53.8 | 54.4 | 56.7 | 59.5 | 53.8 | 51.5 | 54.4 | 57.2 |
| 212 HARRY STONE MONTESSORI VANGUARD | 48.3 | 52.8 | 48.9 | 47.1 | 49.7 | 48.3 | 44.1 | 57.1 |
| 110 ANNIE WEBB BLANTON ELEMENTARY SCHOOL | 46.0 | 45.5 | 41.5 | 42.6 | 41.7 | 47.1 | 66.8 | 57.0 |
| 126 CENTRAL ELEMENTARY SCHOOL | 50.0 | 47.4 | 43.4 | 47.9 | 51.6 | 52.3 | 48.8 | 57.0 |
| 134 GEORGE B. DEALEY MONTESSORI VANGUARD | 48.8 | 52.6 | 51.1 | 51.5 | 53.7 | 57.9 | 52.1 | 57.0 |
| 360 STEAM MIDDLE SCHOOL AT D.A. HULCY | | | | | | | 59.1 | 56.9 |
| 287 CELESTINO MAURICIO SOTO, JR. ELEMENTARY SCHOOL | 46.2 | 50.3 | 50.9 | 53.0 | 43.4 | 51.6 | 51.0 | 56.9 |
| 381 BARACK OBAMA MALE LEADERSHIP ACADEMY (HIGH) | | | | 58.3 | 59.0 | 55.1 | 49.9 | 56.7 |
| 229 WINNETKA ELEMENTARY SCHOOL | 50.9 | 52.4 | 53.4 | 50.2 | 53.9 | 53.8 | 52.4 | 56.6 |
| 289 FELIX G. BOTELLO ELEMENTARY SCHOOL | 46.4 | 51.6 | 49.5 | 45.8 | 51.2 | 53.3 | 56.5 | 56.4 |
| 75 GEORGE B. DEALEY MONTESSORI ACADEMY | 58.1 | 53.5 | 60.4 | 57.5 | 57.2 | 57.7 | 55.7 | 56.3 |
| 34 BOOKER T. WASHINGTON HIGH SCHOOL FOR THE ARTS | 52.9 | 53.8 | 54.9 | 51.4 | 54.5 | 50.0 | 54.8 | 56.2 |
| 239 ARTURO SALAZAR ELEMENTARY SCHOOL | 46.9 | 41.4 | 48.2 | 47.1 | 56.7 | 56.1 | 55.0 | 56.1 |
| 171 LAKEWOOD ELEMENTARY SCHOOL | 48.4 | 45.8 | 48.4 | 55.9 | 57.3 | 60.0 | 53.3 | 56.1 |
| 356 IRMA L. RANGEL YOUNG WOMENS LEADERSHIP SCHOOL (M) | 63.1 | 62.4 | 63.6 | 58.4 | 56.0 | 54.9 | 54.4 | 56.1 |
| 359 ROSEMONT INTERNATIONAL LANGUAGE PREP | | | | | | 46.9 | 52.9 | 56.0 |
| 73 H.W. LONGFELLOW CAREER EXPLORATION ACADEMY | 60.7 | 58.1 | 58.1 | 50.9 | 53.5 | 55.2 | 52.8 | 55.9 |
| 210 LESLIE A. STEMMONS ELEMENTARY SCHOOL | 54.7 | 49.2 | 47.1 | 50.2 | 56.2 | 52.6 | 54.6 | 55.8 |
| 131 IGNACIO ZARAGOZA ELEMENTARY SCHOOL | 49.8 | 47.9 | 44.7 | 52.3 | 54.8 | 54.4 | 52.9 | 55.7 |
| 162 STONEWALL JACKSON ELEMENTARY SCHOOL | 47.5 | 51.3 | 51.8 | 51.7 | 55.4 | 55.7 | 53.5 | 55.6 |
| 193 JOHN J. PERSHING ELEMENTARY SCHOOL | 50.5 | 50.7 | 49.0 | 56.1 | 59.4 | 57.3 | 52.7 | 55.6 |
| 180 B.H. MACON ELEMENTARY SCHOOL | 55.2 | 47.6 | 47.3 | 53.1 | 47.8 | 53.6 | 47.3 | 55.5 |
| 129 S.S. CONNER ELEMENTARY SCHOOL | 44.0 | 43.3 | 53.4 | 51.9 | 48.0 | 48.0 | 45.7 | 55.3 |
| 49 W.E. GREINER MIDDLE SCHOOL | 56.8 | 55.0 | 54.7 | 60.0 | 61.3 | 55.5 | 56.7 | 55.1 |
| 68 RAUL QUINTANILLA, SR. MIDDLE SCHOOL | 46.9 | 45.4 | 48.7 | 46.2 | 53.1 | 59.3 | 54.8 | 54.7 |
| 33 SCHOOL OF BUSINESS & MANAGEMENT AT TOWNVIEW | 52.3 | 56.6 | 50.9 | 49.0 | 48.6 | 50.1 | 52.2 | 54.7 |
| 271 JULIAN T. SALDIVAR ELEMENTARY SCHOOL | 46.9 | 47.3 | 50.3 | 52.8 | 52.1 | 52.6 | 52.5 | 54.6 |
| 230 HARRY C. WITHERS ELEMENTARY SCHOOL | 49.1 | 51.8 | 47.7 | 55.9 | 53.0 | 56.2 | 52.3 | 54.6 |
| 168 OBADIAH KNIGHT ELEMENTARY SCHOOL | 52.4 | 51.8 | 51.3 | 50.4 | 55.8 | 49.8 | 54.2 | 54.5 |
| 66 HARRY STONE MONTESSORI ACADEMY | 53.6 | 50.9 | 53.7 | 50.3 | 49.6 | 54.6 | 52.7 | 54.3 |
| 136 L.O. DONALD ELEMENTARY SCHOOL | 44.9 | 43.1 | 49.6 | 42.5 | 50.8 | 52.0 | 57.6 | 54.1 |
| 186 ROGER Q. MILLS ELEMENTARY SCHOOL | 44.3 | 48.5 | 55.1 | 45.1 | 41.0 | 44.5 | 53.0 | 54.1 |
| 38 JUDGE BAREFOOT SANDERS MAGNET CENTER FOR PUBLIC SER | 55.6 | 57.8 | 56.7 | 50.7 | 49.3 | 53.5 | 52.2 | 54.0 |
| 76 HAROLD W. LANG, SR. MIDDLE SCHOOL | 49.8 | 55.1 | 48.9 | 46.5 | 48.9 | 45.4 | 48.9 | 54.0 |
| 144 TOM W. FIELD ELEMENTARY SCHOOL | 53.3 | 54.3 | 50.3 | 48.9 | 52.6 | 50.7 | 45.1 | 53.9 |
| 284 HIGHLAND MEADOWS ELEMENTARY SCHOOL | 48.7 | 45.4 | 50.3 | 44.8 | 53.5 | 51.1 | 49.3 | 53.6 |
| 36 SCHOOL OF HEALTH PROFESSIONS AT TOWNVIEW | 56.8 | 57.1 | 54.8 | 53.4 | 52.7 | 53.1 | 53.7 | 53.6 |
| 149 LENORE KIRK HALL ELEMENTARY SCHOOL | 51.4 | 41.3 | 47.5 | 49.1 | 52.6 | 46.6 | 52.0 | 53.3 |
| 124 GEORGE W. CARVER LEARNING CENTER1 | 42.6 | 51.3 | 39.9 | 39.4 | 42.9 | 34.6 | 35.5 | 53.3 |
| 118 W.W. BUSHMAN ELEMENTARY SCHOOL | 47.5 | 45.2 | 55.4 | 49.4 | 47.9 | 57.2 | 66.6 | 53.2 |
| 353 ANN RICHARDS MIDDLE SCHOOL | | | | 48.3 | 52.8 | 45.8 | 49.8 | 53.2 |
| 232 EDNA ROWE ELEMENTARY SCHOOL | 51.6 | 55.3 | 53.5 | 53.4 | 46.0 | 47.3 | 50.3 | 53.2 |
| 120 F.P. CAILLET ELEMENTARY SCHOOL | 50.9 | 54.3 | 57.8 | 48.5 | 56.5 | 54.2 | 51.3 | 53.1 |
| 85 KATHLYN J. GILLIAM COLLEGIATE ACADEMY | 59.6 | 48.2 | 46.6 | 58.0 | 53.0 | 53.2 | 51.3 | 53.0 |
| 195 PRESTON HOLLOW ELEMENTARY SCHOOL | 51.9 | 45.9 | 48.3 | 55.4 | 49.2 | 51.3 | 47.5 | 53.0 |
| 275 LOUISE WOLFF KAHN ELEMENTARY SCHOOL | 48.9 | 47.8 | 49.7 | 48.0 | 51.7 | 49.2 | 53.1 | 52.9 |
| 37 ROSIE M. COLLINS SORRELLS SCHOOL OF EDUCATION | 51.9 | 53.8 | 54.1 | 51.9 | 50.8 | 50.1 | 53.5 | 52.9 |
| 153 VICTOR H. HEXTER ELEMENTARY SCHOOL | 52.1 | 52.3 | 59.4 | 54.3 | 56.4 | 57.7 | 51.9 | 52.9 |
| 57 WILLIAM B. TRAVIS ACADEMY FOR TALENTED AND GIFTED | 60.4 | 59.8 | 66.3 | 56.1 | 58.9 | 58.9 | 53.8 | 52.9 |

Other Choice or ACE Schools

| | | | | | | | | |
|--|------|------|------|------|------|------|------|------|
| 175 UMPHREY LEE ELEMENTARY SCHOOL | 58.3 | 55.3 | 47.0 | | 34.0 | 45.2 | 59.4 | 52.3 |
| 191 ELISHA M. PEASE ELEMENTARY SCHOOL | 48.7 | 71.0 | 47.1 | 45.7 | 50.8 | 30.6 | 48.9 | 49.5 |
| 357 BARACK OBAMA MALE LEADERSHIP ACADEMY (MIDDLE) | | | 54.0 | 56.9 | 52.6 | 51.5 | 51.2 | 47.5 |
| 382 INNOVATION, DESIGN, ENTREPRENEURSHIP ACADEMY AT Fannin | | | | | | | 48.3 | 47.3 |
| 217 WILLIAM B. TRAVIS VANGUARD FOR TALENTED AND GIFTED | 54.5 | 56.8 | 55.4 | 47.0 | 54.0 | 56.6 | 49.4 | 46.6 |
| 3 A. MACEO SMITH NEW TECH HIGH SCHOOL | 43.6 | 39.3 | 56.0 | 55.6 | 48.6 | 48.3 | 42.0 | 46.2 |
| 46 YOUNG MEN'S LEADERSHIP ACADEMY AT FRED F. FLORENCE MID | 51.4 | 55.2 | 56.1 | 48.9 | 43.7 | 51.2 | 46.5 | 46.1 |

There are still a number of unmeasured and probably biased indicators as part of TEI. For example, student performance measured as passing a district designed test like ACP without consideration of prior achievement is obviously biased and favoring higher academic achieving students. The Academic Peer calculation is based on a concept called Median Student Growth Percentile, SGP. It is a fixed model that assumes the pretest and posttest are similar and measured without error. Nationwide SGP is losing favor as it has been shown that up to 50% of the SGP could be error^{5,6}. In Dallas it is worse. The pretest bands in SGP are usually narrow so that a pretest band might be the 70th to 72nd percentile of students for comparison in the posttest. In Dallas there are only 4 pretest bands so it is theoretically possible that a student in the 76th percentile is in the same post-test pool of students as the 99th percentile student yet they both have the same expectation to beat the median within their group.

Conclusion:

A performance pay structure that inherently pays more to teachers who have been assigned students whose parents have a strong emphasis of education in the home or whose students have a past history of high academic achievement and the metrics used do not properly adjust for these differences is unconscionable. The results above do not mean many teachers in schools of student choice are not effective, nor does it mean many neighborhood campus teachers are ineffective. It just means the current TEI system metrics and algorithms are insensitive to the differences in these campuses and comparisons across these different campuses are biased and lead to false conclusions.

Discussion and Possible Solution:

Measuring teacher effectiveness is very difficult. In Dallas ISD the current TEI thinking seems to be based on the philosophies that one size fits all, the triangulation of imprecise measures improves precision, and teacher effectiveness is best extracted by parsing limited information from multiple choice tests. None of these assertions are compelling as a basis for teacher effective measures but without solutions, or ideas for discussion, pointing out the flaws of TEI will have little impact on the primary goal of preparing children for the future.

At the heart of TEI is the belief that only measurable data is accurate and objective and that the same data needs to be used across campuses to make valid rankings of effectiveness for the purpose of a pay for performance scheme. Yet, it is the comparison of teachers across campuses that are causing the biases in TEI. Comparisons should either be within campuses or within clusters of very similar campuses.

The insistence on a hard data driven algorithm based on very flawed metrics is not the solution. Often softer approaches are better. Measuring teacher effectiveness will be imprecise so instead of pretending the hard data measures are without error, minimize the error by eliminating artificial constraints. The best example of “soft yet powerful imprecision” is high school GPA. In NYC, Chicago, and Dallas, multiple choice assessments such as STAAR in Texas, SAT and ACT tests are not as strong of a predictor of success in college as the high school GPA. The point is, the soft estimate of student performance by the teacher who grades based on performance, effort, punctuality, nearly correct

responses, and shifts in knowledge acquisition based on observations is much more accurate than the hard estimate of a few test scores when predicting college success.

Let a group of evaluators at the campus level, such as administrators and master teachers make soft judgments about teacher effectiveness. The traits of an exemplary teacher at a high performing magnet campus are different than the traits of an exemplary teacher at a low performing neighborhood campus. Comparing student and thus teacher performance across campuses with vastly different demographics is not productive.

Give the campuses the tools to make valid judgments. One option is adaptive testing where low performing students are given items more in line with their ability level and conceptual, cognitive or communications growth is relative to the individual measured and not compared to other higher performing students. Another option is to do learning communities. In a learning community the “benchmark” assessment items are published and the response of individual students to each option is known. Under a team approach the teachers examine common errors as well as correctness and attempt to determine learning issues for individual students. A third option geared towards current metrics in Dallas ISD is to rethink the CEI. The CEI is based on a student residual from a sophisticated regression analysis. Think of this residual as a learning index for each student. For the ACE and ISN programs, instead of finding the best teachers, find the best teachers with the bottom third of achievers and use this information to develop a pool of teachers for struggling campuses.

A campus-based effectiveness rating system eliminates much of the bias and puts the solution on a team of educators at each campus. The district would have to limit the distribution of effectiveness rankings at each campus based on school level attributes unique to the type of campus under review and consider factors dependent of outside influences at the campus like emphasis of education in the home. The principal and the site-based management team would set goals for each teacher. The onus would be on the campus as a whole to improve and increase the number of teachers with higher effectiveness ratings.

It will be difficult to convince the business and local communities that common assessments (STAAR/ACP) do not have the information they think these assessments possess and they will demand some measure of accountability. Realize, the general perception is these assessments are measuring mastery of content and content mastery is the ultimate goal. However, statistical analysis shows the STAAR scale score to be almost perfectly correlated with the normal curve equivalent of the state percentile rank. It is a percentile rank in disguise. Also, the underlying constructs of these tests are more aligned with cognitive linguistic traits than content mastery. Cognitive linguistic traits include being deliberative versus immediate or impulsive, figurative versus literal, and deductive versus hypothesis generating. A child who is deliberative, figurative and hypothesis generating will always perform better on most multiple choice tests. A child who is impulsive, has poor deduction skills, and only thinks literally will not perform well and needs a type of teacher. The cognitive linguistic abilities of the student versus the cognitive linguistic demands of the test are never considered when making judgments about student and ultimately teacher performance.

Sources of data

- a Public release of Dallas ISD teacher salary by teacher and campus as of 11/7/2017.
- b Public release of Dallas ISD aggregate TEI ratings by campus 2017-18.
- c Teacher experience extracted from TEA TAPR downloads.
<https://tea.texas.gov/perfreport/tapr/index.html>
- d Publically available longitudinal SEI data from My DataPortal.
https://mydata.dallasisd.org/docs/SEI/SEI1617/201617_SEI_LONGITUDINAL.pdf

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- 5 Andrea Lash, Reino Makkonen, Loan Tran, Min Huang, Analysis of the stability of teacher-level growth scores from the student growth percentile model, 2016, IES National Center for Educational Evaluation and Regional Assistance. REL West.
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https://www.umass.edu/remp/pdf/CEAResearchBrief-16-1_WhyWeShouldAbandonSGPs.pdf