As Figure 4.13 illustrates, both SBOE- and ISD-authorized charter middle school campuses evaluated under AEA provisions posted higher composite performance index scores than their matched traditional public middle school campuses (43 vs. 24 and 57 vs. 25, respectively). The composite index scores were comparable for SBOE-authorized charter high school campuses evaluated under AEA provisions compared to their matched traditional public high school campuses (49 vs. 49) and lower for ISD-authorized charter high school campuses evaluated under AEA provisions compared to their matched traditional public high school campuses (43 vs. 47). No SBOE- or ISD-authorized charter school campuses evaluated under AEA provisions at the elementary school level were matched to traditional public school campuses.

Figure 4.13. TEA Composite Performance Index Scores for SBOE-Authorized Charter School Campuses, ISD -Authorized Charter School Campuses, and Matched Traditional Public School Campuses Evaluated Under Alternative Education Accountability Provisions, by School Level, 2016–17

Section 5: Analysis of Charter School Campuses Authorized by the Commissioner of Education Compared to Matched Traditional Public School Campuses

school campuses and matched traditional public school campuses, these differences in student characteristics, may have had an impact on the aggregate outcome results for the various charter school campus types and their matched traditional public school campuses. Prior academic performance metrics were not included in the matching procedures for this report. Because of the small number of COE-authorized charter school campuses available for analysis, and the relatively short duration these

Section 6:

for both SBOE- and ISD-authorized charter school campuses compared to their matched traditional public school campuses (13 and 17 percentage points, respectively).

Only modest differences in the percentage of students achieving the Approaches Grade level standard on the 2016–17 STAAR-Reading and STAAR-Mathematics exams were observed between SBOE- and ISD-authorized charter school campuses and their matched traditional public school campuses. However, after disaggregating by school level, lower passing rates were observed for ISD-authorized charter school campuses (compared to their matched comparison campuses) at the elementary school level (61% vs. 70% for STAAR-)8061(1)7.(di)1.5(4-h1( )0.I(,)5.I(,)3.6( )0.5(()-1.79[)% s. 61[)D differences were observed in annual dropout rates for Grades 7–8 between ISD-authorized (0.3% vs. 0.3%) charter school campuses and their matched comparison campuses.

The Grade 9 four-year longitudinal graduation rate for the class of 2016 was substantially lower for SBOE-authorized (87% vs. 92%) and ISD-authorized charter (79% vs. 91%) school campuses than their matched traditional public school campuses.

Attrition rates at COE-authorized charter school campuses were approximately seven percentage points higher than they were at matched traditional public school campuses (29% vs. 22%). COE-authorized charter school campuses had a substantially higher percentage of students achieving the Approaches Grade Level standard on the 2016–17 STAAR-Reading (78% vs. 68%) exams and a comparable percentage of students achieving the Approaches Grade level standard on the STAAR-Mathematics (72% for both) exams compared to their matched traditional public school campuses. COE-authorized charter school campuses and their matched traditional public school campuses have comparable scores on the Student Achievement and Student Progress indices (72 vs. 73 and 37 vs. 37, respectively). For the Closing Performance Gaps (40 vs. 43) and Postsecondary Success (36 vs. 51) indices, COE-authorized charter school campuses had lower index scores than their matched traditional public school campuses.

The intent of the matching procedure used for this study was to select traditional public school campuses that had similar student enrollment profiles in order to generate comparative descriptive statistics for several measures of campus performance, and not to produce inferences about the relative effectiveness of charter school campuses compared to matched traditional public school campuses. Thus, the findings presented in this report do not suggest that one type of public school campus consistently outperforms another type. The evaluation team used all available public data and went through extensive efforts to find traditional public school campuses with similar student populations to match to SBOE-, ISD-, and COE-authorized charter school campuses; however, because statistical controls were not used to account for the differences in the composition of student populations enrolled at charter school campuses and matched traditional public school campuses, differences in student characteristics, as well as prior academic performance, may have had an impact on the aggregate outcome results for the various charter school campus types and their matched traditional public school campuses. Furthermore, the number of campuses available for some of the analyses reported in this report, particularly those involving campuses evaluated under AEA provisions and COE-authorized charter school campuses, may be fairly small. Analyses involving small numbers of campuses warrant cautious interpretation.

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Appendix A: Methodological Detail

This appendix includes technical details associated with the propensity score matching (PSM) techniques used to match comparable campuses from traditional school districts to charter school campuses included in this study, and technical details related to the calculation of the various performance metrics included in this report.

Below, we explain the PSM procedures employed in this study and provide a rationale for the approach. This appendix also includes a list of variables used in PSM algorithm and a formal description of procedure, including formulae. Texas Education Code (TEC) § 12.1013(b)(4), 2016, requires a comparison of charter school campuses by authorizer type with matched traditional campuses. The Request for Proposals (RFP) issued by the Texas Education Agency (TEA) requested the vendor to use a statistical matching procedure to identify traditional public school campuses that resemble charter school campuses based on publicly score algorithm.[57] In the 2012–13 Charter Authorizer Report published by TEA, 40 matched traditional public school campuses were selected for each charter school campus with no documented constraints imposed on the similarity between the matched and charter campuses based on each campus's propensity score.[58] We imposed two constraints on the selection of campuses with this procedure. First, we only selected traditional public school campus matches with a propensity score within 0.2 standard deviations of each charter school campus. Second, a constraint on the maximum number of traditional campuses (N=10) matched to each charter school campus was imposed based on discussions with TEA staff to limit the number of matches to a sufficient amount.

To identify measurably similar traditional public school campuses, the research team

- Percentage at-risk

In TAPR, both the campus-level average years of experience of teachers have missing values. The reason for the missing values for teachers’ experience levels is currently unknown but appears to be a function of whether the campus has dedicated staff who are assigned to the campus, as opposed to sharing the staff with other schools within the district. To retain these variables in the matching procedure, and to incorporate information about the pattern of missingness between charter campuses and traditional public schools, dummy variable imputation will be used so that this variable can still be included in the propensity score algorithm and that campuses that are missing this information are not discarded. See Stuart (2011) for advocacy of this method for the estimation of propensity scores.

Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance Gaps	Index 4: Postsecondary Readiness	TEA Composite Com-		

Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance Gaps	Index 4: Postsecondary Readiness	TEA Composite Performance Index	Grade 9 Four Year Longitudinal Graduation Rate	Annual Dropout Rate
PATHWAYS 3H CAMPUS (227806023)	–	–	–	–	–	–	–	–	–	–	–
PAUL AND JANE MEYER PUBLIC H S (161802001)	19.7%	73.0%	88.0%	75.0%	84.0	18.0	48.0	84.0	58.5	100.0%	0.6%
PAUL AND JANE MEYER PUBLIC H S (161802001) - COMPARISON CAMPUSES	20.0%	79.3%	77.8%	94.9%	83.3	37.5	49.9	71.0	60.6	100.0%	1.3%
PEGASUS SCHOOL (046802007)	–	*	*	*	100.0	–	34.0	–	67.0	–	–
PHOENIX SCHOOL AT SOUTHWEST SCHOOL (101838004)	–	50.0%	70.0%	*	58.0	23.0	36.0	–	39.0	86.5%	6.0%
PINEYWOODS COMMUNITY ACADEMY H S (003801001)	13.8%	66.0%	68.0%	82.0%	75.0	34.0	35.0	89.0	58.2	100.0%	0.0%
PINEYWOODS COMMUNITY ACADEMY H S (003801001) - COMPARISON CAMPUSES	23.3%	55.6%	54.9%	76.0%	64.0	31.1	37.2	51.9	46.0	82.0%	3.5%
POR VIDA ACADEMY CHARTER H S (015801001)	64.1%	30.0%	23.0%	41.0%	36.0	29.0	21.0	66.0	38.0	45.8%	24.8%
POR VIDA ACADEMY CHARTER H S (015801001) - COMPARISON CAMPUSES	20.0%	79.3%	77.8%	94.9%	83.3	37.5	49.9	71.0	60.6	100.0%	1.3%

Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance Gaps	Index 4: Postsecondary Readiness	TEA Composite Performance Index	Grade 9 Four Year Longitudinal Graduation Rate	Annual Dropout Rate
PREMIER H S OF AUSTIN (072801113) - COMPARISON CAMPUSES	15.8%	76.5%	62.4%	82.2%	83.0	30.7	48.2	80.2	60.3	100.0%	0.5%
PREMIER H S OF BROWNSVILLE (072801103)	50.9%	64.0%	78.0%	100.0%	79.0	21.0	41.0	100.0	60.2	98.5%	1.2%
PREMIER H S OF BROWNSVILLE (072801103) - COMPARISON CAMPUSES	20.2%	91.0%	–	90.0%	86.6	36.3	55.0	73.8	62.0	98.4%	4.6%
PREMIER H S OF COMANCHE/EARLY (072801001)	71.6%	*	52.0%	*	45.0	42.0	22.0	100.0	52.2	100.0%	0.6%
PREMIER H S OF COMANCHE/EARLY (072801001) - COMPARISON CAMPUSES	22.5%	50.0%	30.0%	–	69.3	45.6	40.1	36.6	47.9	75.0%	12.9%
PREMIER H S OF DAYTON (072801138)	55.8%	83.0%	64.0%	65.0%	76.0	25.0	41.0	100.0	60.5	96.9%	0.0%
PREMIER H S OF DAYTON (072801138) - COMPARISON CAMPUSES	37.2%	74.1%	78.1%	84.9%	81.6	29.2	48.3	69.8	57.2	96.7%	3.7%
PREMIER H S OF DEL RIO (072801107)	50.8%	47.0%	48.0%	89.0%	66.0	25.0	41.0	100.0	58.0	100.0%	0.0%
PREMIER H S OF DEL RIO (072801107) - COMPARISON CAMPUSES	26.5%	23.7%	23.4%	82.7%	64.2	36.4	35.9	38.4	43.7	80.1%	8.8%
PREMIER H S OF EAST EL PASO (072801143)	67.4%	*	*	50.0%	48.0	–	26.0	87.0	53.7	–	0.0%

Campus Name	Attrition Rate	STAAR									

Campus Name	**Attrition Rate**	**STAAR English I EOC**	**STAAR English II EOC**	**STAAR Algebra I EOC**	**Index 1: Student Achievement**	**Index 2: Student Progress**	**Index 3: Closing Performance Gaps**	**Index 4: Postsecondary Readiness**	**TEA Composite Performance Index**	**Grade 9 Four Year Longitudinal Graduation Rate**	**Annual Dropout Rate**
PREMIER H S OF PHARR (072801115)	69.3%	50.0%	63.0%	84.0%	73.0	37.0	43.0	100.0	63.2	97.8%	0.0%
PREMIER H S OF PHARR (072801115) - COMPARISON CAMPUSES	45.5%	74.1%	78.1%	81.8%	82.3	25.4	47.5	82.4	59.3	96.7%	3.7%
PREMIER H S OF [illegible]											
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance Gaps	Index 4: Post-secondary Readiness	TEA Composite Performance Index	Grade 9 Four Year Longitudinal Graduation Rate	Annual Dropout Rate
PREMIER H S OF TEXARKANA											

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Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance ment TEAD [(P)30(erf)20(or)]TJ /T1_1 1 Tf ( )omD (EOC)T En-T1_01TfT*(Gap1_01TfT*(ClD(ing)Tj/T1_11Tf()Tj				

Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance Gaps	Index 4: Postsecondary Readiness	TEA Composite Performance Index	Grade 9 Four Year Longitudinal Graduation Rate	Annual Dropout Rate
RICHLAND COLLEGIATE H S OF MATH SCHOOL (057840001) - COMPARISON CAMPUSES	30.1%	91.0%	–	90.0%	79.7	14.0	47.6	82.1	57.1	98.4%	4.3%
ROCKDALE (015808007)	–	–	–	–	–	–	–	–	–	–	–
SAN ANTONIO CAN ACADEMY (057804011)	70.5%	33.0%	56.0%	46.0%							

Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance Gaps	Index 4: Postsecondary Readiness	TEA Composite Performance Index	Grade 9 Four Year Longitudinal Graduation Rate	Annual Dropout Rate
UPLIFT HEIGHTS PREPARATORY H S (057803006)	6.7%	65.0%	61.0%	89.0%	78.0	28.0	50.0	47.0	50.8	—	0.0%
UPLIFT HEIGHTS PREPARATORY H S (057803006) - COMPARISON CAMPUSES	21.4%	91.0%	—	90.0%	86.6	36.3	55.0	73.4	61.5	98.4%	4.3%
UPLIFT INFINITY H S (057803013)	11.1%	74.0%	79.0%	70.0%	83.0	24.0	47.0	62.0	54.0	—	—
UPLIFT INFINITY H S (057803013) - COMPARISON CAMPUSES	21.4%	91.0%	—	90.0%	86.6	36.3	55.0	73.4	61.5	98.4%	4.3%
UPLIFT LUNA PREPARATORY H S (057803005)	16.6%	58.0%	65.0%	72.0%	71.0	28.0	39.0	82.0	55.0	—	0.6%
UPLIFT LUNA PREPARATORY H S (057803005) - COMPARISON CAMPUSES	21.4%	91.0%	—	90.0%	86.6	36.3	55.0	73.4	61.5	98.4%	4.3%
UPLIFT MIGHTY H S (057803014)	9.8%	53.0%	48.0%	47.0%	62.0	21.0	38.0	40.0	40.2	—	—
UPLIFT MIGHTY H S (057803014) - COMPARISON CAMPUSES	20.2%	91.0%	—	90.0%	86.6	36.3	55.0	73.8	62.0	98.4%	4.6%
UPLIFT PEAK PREPARATORY H S (057803010)	11.1%	70.0%	78.0%	76.0%	77.0	28.0	45.0	88.0	59.5	—	0.0%

Campus Name	Attrition Rate	STAAR English I EOC	STAAR English II EOC	STAAR Algebra I EOC	Index 1: Student Achievement	Index 2: Student Progress	Index 3: Closing Performance Gaps	Index 4: Postsecondary Readiness	TEA Composite Performance Index	Grade 9 Four Year Longitudinal Graduation Rate	Annual Dropout Rate
YES PREP - NORTH CENTRAL (101845101)	4.9%	84.0%	90.0%	96.0%	87.0	38.0	53.0	89.0	66.8	97.6%	0.7%
YES PREP - NORTH CENTRAL (101845101) - COMPARISON CAMPUSES	17.9%	72.3%	69.4%	87.5%	80.0	31.6	46.8	75.3	58.4	100.0%	0.4%
YES PREP - SOUTHEAST (101845001)	6.2%	89.0%	87.0%	96.0%	85.0	41.0	53.0	90.0	67.2	94.2%	0.0%
YES PREP - SOUTHEAST (101845001) - COMPARISON CAMPUSES	28.8%	62.3%	60.3%	75.8%	71.8	24.1	40.7	68.5	51.5	78.0%	7.9%
YES PREP - SOUTHWEST (101845002)	5.1%	79.0%	81.0%	97.0%	85.0	42.0	54.0	90.0	67.8	95.3%	0.2%
YES PREP - SOUTHWEST (101845002) - COMPARISON CAMPUSES	20.0%	79.3%	77.8%	94.9%	83.3	37.5	49.9	71.0	60.6	100.0%	1.3%
YES PREP - WEST (101845005)	9.9%	83.0%	86.0%	93.0%	85.0	38.0	53.0	90.0	66.5	–	0.2%
YES PREP - WEST (101845005) - COMPARISON CAMPUSES	18.6%	77.9%	73.6%	90.1%	83.2	33.7	49.7	78.0	61.3	100.0%	0.9%

Source: Texas Academic Performance Reports, Texas Education Agency, 2016–17. Public Education Information Management System, Texas Education Agency, 2016–17 and 2017–18.