

National Board Certification

2018–2019 Evaluation Report

Introduction

The Austin Independent School District (AISD) supports staff interested in obtaining National Board (NB) certification through the National Board for Professional Teaching Standards (NBPTS). NBPTS's NB certification process is rigorous professional development opportunity available to teachers, counselors, and librarians that involve intensive self-reflection of their teaching practices, based on nationally established standards. Candidates build a portfolio (e.g., written component, video submission, content knowledge assessment) that demonstrates their teaching practice and ability to have an impact on students' learning.

The NBPTS's NB certification is a voluntary process that signifies accomplished practice in teaching (NBPTS, 2020b). Certification is based on five core propositions that describe what a teacher should know and be able to do. The five core propositions are:

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach those subject to students.
3. Teachers are responsible for managing and monitoring students' learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities (NBPTS, 2020b).

NBPTS offers certification in 25 subject areas (e.g., math, art, exceptional needs specialist, school counseling) and various developmental levels (e.g., student age ranges 3–8, 7–12, 14–18+; NBPTS, 2020a).

The certification process both develops teachers to meet national standards as well as identifies teachers who are experts in teaching. Previous research indicated mixed results regarding NB certification status and teacher effectiveness and student achievement (Harris & Sass, 2009; Horoi & Bhai, 2018). Additionally, research indicated that NB-certified teachers were not equally distributed across campuses (Humphrey, Koppich, & Hough, 2005). The purpose of the current report is to examine the impact of NB certification on teacher effectiveness and student achievement, as well as examine the representativeness of NB-certified staff across AISD campus.

Analyses

Analyses in this report examined outcomes related to AISD NB-certified staff and student achievement.

This evaluation answered several research questions:

1. Who were AISD NB-certified staff?
2. What was the representativeness of AISD NB-certified teachers? What were the campus transfer patterns of NB-certified teachers?
3. Did teacher appraisal differ based on NB certification status?
4. Did students' State of Texas Assessment of Academic Readiness (STAAR) performance differ based on teacher's NB certification status?

Descriptive analyses examined the representation of NB-certified staff across the district, as well as employee effectiveness, using AISD's Professional Pathway for Teacher's (PPfT) appraisal system. Additional analyses examined student achievement on the STAAR. See Appendix A for information regarding the data and methods used in this report.

Who is NB certified in AISD?

According to records maintained by the Professional Learning Department, 203 NB-certified staff were employed in AISD in the 2018–2019 academic year. Eighty-six percent of NB-certified staff were employed as teachers; other NB-certified staff held titles such as principal, instructional coach/specialist, counselor, and librarian.

As of the 2018–2019 academic year, 26% of NB-certified staff were certified for 4 years or less, 38% were certified for 5 to 9 years, 30% were certified for 10 to 14 years, and 5% were certified for 15 years or more. The majority of NB-certified staff had a generalist certificate (44%), followed by staff who had an English language arts certificate (13%), an exceptional needs specialist certificate (8%), and a mathematics certificate (8%). Overall, AISD's NB-certified staff held certificates across 22 disciplines and developmental levels; see Appendix B for a comprehensive description of the disciplines and developmental levels of certified AISD staff.

How were NB-certified staff distributed across the district?

Compared with other district teachers ($n = 5,280$; 20%) in the 2018–2019 academic year, NB-certified teachers ($n = 175$; 13%) were underrepresented at the middle school level (Figure 1). A smaller percentage of NB-certified teachers (29%) than of other district teachers (53%) were employed at Title I campuses. The majority of NB-certified teachers (71%) were employed at a non-Title I campus, while only 47% of other district

AISD's NB Certification Support

AISD supports a new cohort of 30 candidates for NB certification each semester. Candidacy is selected based on various factors, such as the number of NB-certified teachers on an applicant's campus, the campus's Title I status, principal recommendation, and a written submission. AISD's Professional Learning Department supports current candidates by continuously refining the curriculum used to guide monthly meetings intended to build the capacity of criteria scored by the NBPTS, providing funds for the majority of certification fees, and providing a network of NB-certified mentors and facilitator support for candidates over the course of two academic years. Similar support is provided to staff who opt to recertify.

NB-certified staff receive an annual stipend for the duration of their certification. The first cohort of teachers, supported by AISD's NB certification program, was certified in 2000. As of the 2018–2019 school year, 203 NB-certified staff were employed in the district.

teachers were employed at a non-Title I campus. Additionally, relative to other district teachers, a larger percentage of White teachers, teachers with a master’s degree, and female teachers were NB certified.

Figure 1

Relative to the proportion of other teachers across the district, a larger percentage of NB-certified teachers were White, had a master’s degree, and were female.



Source. AISD 2018–2019 staff records

Note. “Other” included staff assigned at locations such as the Special Education Department and Rosedale and included all levels. “Other race” included staff identified as American Indian or Alaskan Native, Asian, Native Hawaiian or Other Pacific Islander, and two or more races. “Other degree” included staff with 60 hours of college, an associate’s degree or 90+ hours of college, or doctorate. Percentages may not total 100 due to rounding. NB-certified teachers ($n = 175$); other district teachers ($n = 5,280$).

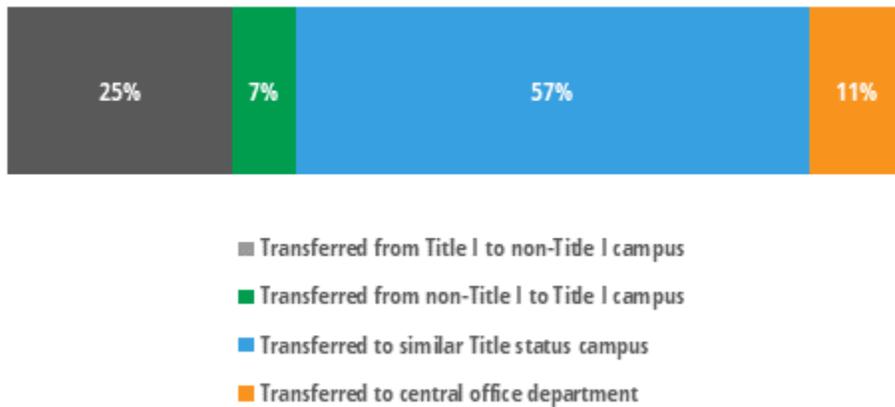
How often did NB-certified staff transfer campuses?

Overall, few staff certified in the 2004–2005 academic year or later transferred to other campuses within the first 3 years of certification. The majority of NB-certified staff certified in the 2004–2005 academic year or later ($n = 183$) who transferred to another campus within the first 3 years of certification moved to a campus with a similar Title I status; similar results were seen when examining in-district transfers of NB staff certified on a Title I campus ($n = 77$).

Fifteen percent of 183 NB-certified staff transferred to another campus within the first 3 years of certification.

Among the 28 staff who transferred to another campuses or to a central office location within the first 3 years of certification, 25% moved from a Title I campus to a non-Title I campus, 7% moved from a non-Title I campus to a Title I campus, 57% moved to a campus with a similar Title I status, and 11% moved to a central office department (Figure 2).

Figure 2
The majority of NB-certified staff who transferred to another campus within the first 3 years of certification moved to a similar Title I status campus.



Source. AISD 2004–2005 to 2018–2019 staff records

Note. Central office included departments and programs such as substitute, mentor teacher, social studies.

Forty-two percent of the 183 staff who received certification in 2004–2005 or later were employed at a Title I campus the year they received certification. Among the 77 staff who were employed at a Title I campus, 23% transferred to another campus within the first 3 years of certification. Among the 18 staff who transferred to another campus within the first three 3 of certification, 39% moved from a Title I campus to a non-Title I campus, 50% transferred to a campus with a similar Title I status, and 11% moved to a central office department.

How did employee effectiveness differ by NB certification areas?

Descriptive analyses conducted to examine Professional Pathway for Teacher’s (PPfT) results for NB-certified teachers for each certification subject area indicated final summative scores were highest for staff who were certified in math, and lowest for staff certified in a subject area categorized as other (Table 1). Overall, aside from teachers with a math certification, average PPfT summative scores indicated NB-certified teachers were rated as highly effective in the 2018–2019 academic year; average PPfT summative scores for teachers certified in math were slightly higher than scores for other teachers and were rated as distinguished. Teachers with a math certification had the highest IP rating and PGR rating, compared with teachers certified in other disciplines. Teachers with a fine arts certification had the highest SLO ratings, while

Professional Pathway for Teachers (PPfT)

PPfT launched district wide in the 2016–2017 academic year, after two pilot years. PPfT is a human capital system that includes four components: appraisal, professional development (PD) opportunities, leadership opportunities, and compensation. The goal of PPfT is to professionalize teaching and empower teachers.

The appraisal component is a multi-measure system that evaluates instructional practice (IP), professional growth and responsibilities (PGR), and student growth (i.e., student learning objective [SLO] and school-wide value-added [SWVA]). Three types of appraisal plans are available to distinguish between current teachers and new teachers and/or teachers on special campuses.

The PD component includes three types of PPfT-specific PD opportunities: Leadership Pathways, professional development units, and PD opportunities aligned to the PPfT observation rubric.

The leadership component includes a stipend-based position that is the campus contact for SLOs. Additional opportunities were developed and will be available beginning in the 2019–2020 academic year.

The compensation component is a base-building system adding permanent pay increases to a teacher’s salary. A cumulative point system is used, whereby teachers participating in PPfT Compensation earn points for each year of service, their PPfT appraisal rating, and participation in PPfT-specific professional development opportunities.

teachers certified in math had the highest SWVA ratings. For more information about PPfT, see Appendix A.

Table 1

NB-certified teachers certified in math had the highest PPfT summative score.

NB certification subject area	<i>n</i>	IP rating	PGR rating	SLO rating	SWVA rating	Summative score	Final rating
Math	15	3.82	3.85	3.44	3.11	371.15	Distinguished
Fine arts	13	3.72	3.77	3.78	2.69	363.82	Highly effective
Generalist	79	3.73	3.81	3.37	2.82	360.79	Highly effective
English	30	3.70	3.79	3.38	2.62	357.44	Highly effective
Exceptional needs specialist	15	3.65	3.55	3.45	2.32	350.25	Highly effective
Other	23	3.65	3.57	2.94	2.61	342.76	Highly effective

Source. AISD 2018–2019 staff records

Note. The “English” subject area included staff with certifications in English language arts and literacy: reading-language arts. The “Other” subject area included staff with certification in career and technical education, English as a new language, physical education, science, social studies-history, and world languages. The “Fine arts” subject area included staff with certification in music and art. The IP rating, PGR rating, SLO rating, and SWVA rating range from 1 to 4. The summative score ranges from 85 to 400.

NB-certified teachers had significantly higher average PPfT summative score than did the matched comparison group (Table 2). Examining various components of the PPfT appraisal, IP scores and PGR scores were significantly higher for NB-certified teachers than for the matched comparison group. See Appendix C for a comprehensive breakdown of PPfT scores by various staff/student characteristics.

Table 2

NB-certified teachers had significantly higher summative scores than did a matched comparison group.

PPfT	NB certified	Matched comparison
IP rating**	3.72	3.61
PGR rating***	3.78	3.63
SLO rating	3.36	3.27
SWVA rating	2.75	2.80
Summative score**	358.60	349.07
Final Rating	Highly effective	Highly effective

Source. AISD 2018–2019 staff records

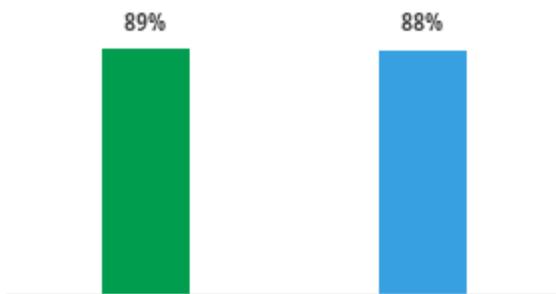
Note. The IP rating, PGR rating, SLO rating, and SWVA rating range from 1 to 4. The summative score ranges from 85 to 400. * statistically significant ($p < .05$); ** statistically significant ($p < .01$); *** statistically significant ($p < .001$). NB certified ($n = 173$); matched comparison ($n = 173$).

Student Analysis

STAAR Math Results

The percentage of students ($n = 945$; 89%) who were enrolled in a math course with a NB-certified teacher and passed the STAAR math was slightly higher than that of students in a matched comparison group who passed ($n = 945$; 88%); however, the difference was not statistically significant (Figure 3). With respect to academic growth, a smaller percentage of students (20%) enrolled in a math course with a NB-certified teacher met accelerated growth expectations, compared with students in a matched comparison group (22%); however, the difference was not statistically significant (Figure 4). See Appendix D and Appendix E for STAAR score disaggregations by various student characteristics.

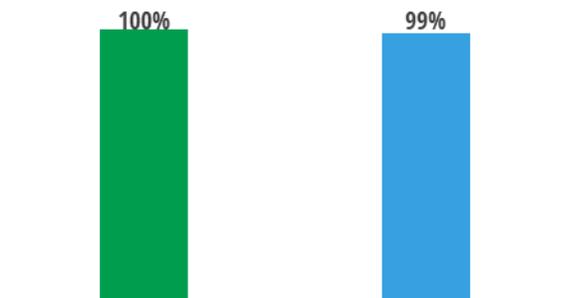
Figure 3
Students enrolled in a math course with a NB-certified teacher had higher passing rates on the STAAR math than did a students in a matched comparison group; however, the difference was not statistically significant.



Source. AISD 2018–2019 student records, STAAR 2017–2018 and 2018–2019 records

A slightly greater percentage of students ($n = 146$; 100%) enrolled in a math course with a NB-certified teacher than of students in a matched comparison group ($n = 146$; 99%) passed the Algebra I STAAR end-of-course (EOC) exam; however, the difference was not statistically significant (Figure 5). A smaller percentage of students (9%) enrolled in a math course with a NB-certified teacher met the limited growth category, compared with students in a matched comparison group (13%); however, the difference was not statistically significant (Figure 6).

Figure 5
The majority of students passed the Algebra I STAAR EOC.



Source. AISD 2018–2019 student records, STAAR 2017–2018 and 2018–2019 records

Figure 4
Fewer students enrolled in a math course with a NB-certified teacher met accelerated growth expectations on the STAAR math, compared with students in a matched comparison group; however, the difference was not statistically significant.

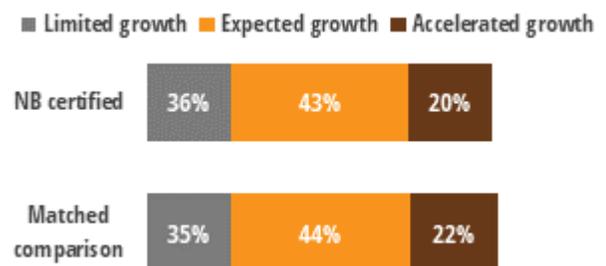
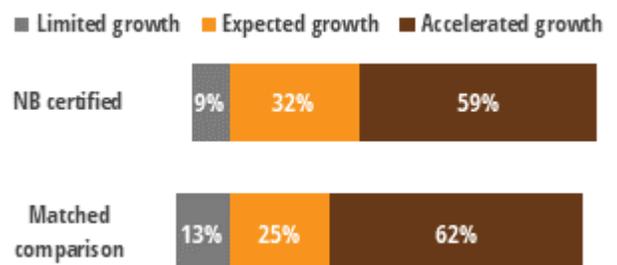


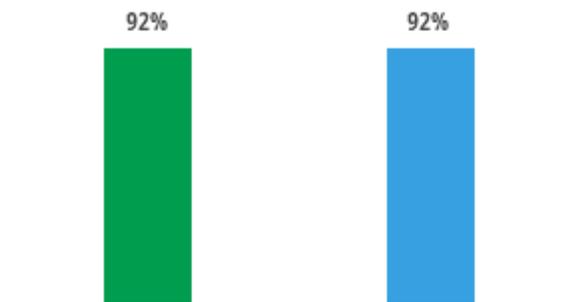
Figure 6
Fewer students enrolled in a math course with a NB-certified teacher met limited growth expectations on the Algebra I STAAR EOC, compared with students in a matched comparison group; however, the difference was not statistically significant.



STAAR Reading Results

The percentage of students ($n = 1,346$; 92%) who enrolled in a reading course with a NB-certified teacher and passed the STAAR reading was the same as the percentage of students in a matched comparison group ($n = 1,346$; 92%) who passed (Figure 7). With respect to academic growth, a significantly greater percentage of students (32%) enrolled in a reading course with a NB-certified teacher than of students in a matched comparison group (27%) met accelerated growth expectation (Figure 8).

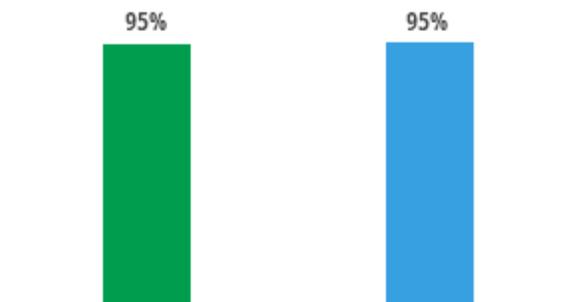
Figure 7
Students enrolled in a reading course with a NB-certified teacher and students in a matched comparison group had the same passing rates on the STAAR reading.



Source. AISD 2018–2019 student records, STAAR 2017–2018 and 2018–2019 records

A similar percentage of students enrolled in a reading course with a NB-certified teacher ($n = 813$; 100%) and of students in a matched comparison group ($n = 813$; 99%) passed the English II STAAR EOC (Figure 9). With respect to academic growth, a greater percentage of students (34%) enrolled in a reading course with a NB-certified teacher than of students in a matched comparison group (30%) met the limited growth category; however, the difference was not statistically significant (Figure 10).

Figure 9
Students enrolled in a reading course with a NB-certified teacher and students in a matched comparison group had the same passing rates on the English II STAAR EOC.

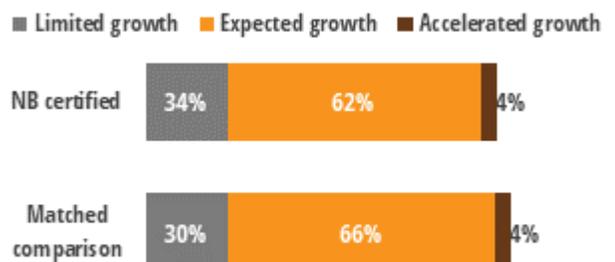


Source. AISD 2018–2019 student records, STAAR 2017–2018 and 2018–2019 records

Figure 8
Students enrolled in a reading course with a NB-certified teacher met accelerated growth expectations at significantly ($p < .05$) higher rates on the STAAR reading than did the students in a matched comparison group.



Figure 10
Students enrolled in a reading course with a NB-certified teacher met limited growth expectation at higher rates on the English II STAAR EOC than did students in a matched comparison group; however, the difference was not statistically significant.



Conclusion and Recommendation

This study indicated that NB-certified teachers were not equally distributed across the district in the 2018–2019 academic year, similar to results found by Humphrey et al. (2005). It should be noted that Title I campus status and district representation are taken into consideration when selecting candidates for AISD’s NB certification program. However, an examination campus transfer rates showed that the majority of NB-certified teacher remained at their campus within the first 3 yeears of certification. Future or additional recruitment efforts can target staff employed in underrepresented campuses to ensure NB certification is represented across the district.

PPfT results indicated that NB-certified teachers were more effective than similar non-NB-certified teachers. However, student enrolled in a NB-certified teacher’s course performed similarly to students not enrolled in a course with a NB-certified teacher on STAAR. Other researchers have found mixed results regarding NB certification and student outcomes (Harris & Sass, 2009; Horoi & Bhai, 2018). While students’ STAAR passing rates and academic growth were similar overall, disaggregations by student demographics may provide further insights into the academic achievement of students with NB-certified teachers and of students in the matched comparison group (Appendix D and Appendix E). One limitation to this study is that a large number of AISD NB-certified teachers instructed a classroom that did not take STAAR exams (e.g., grade 3 and lower, art, physical education). Future analysis may consider examining the academic outcomes of lower-level students, as well as continuing to monitor the impact of NB certification on students’ academic outcomes.

Appendix A

Evaluation Methodology

Staff Transfer Analysis

One consideration for AISD’s NB certification program candidacy included employment at a Title I campus at the year of application to ensure the development of high-quality teachers through the NB certification program was occurring at all campuses. The in-district transfer rates of NB-certified staff were analyzed to determine the distribution of staff across the district and to understand how staff with NB certification may be transferring within the district. In-district transfer rates among NB-certified teachers, certified in the 2004–2005 academic year or later, were examined in the 3 years after gaining certification. Out of the 203 NB-certified staff, there were records for 183 NB regarding campus of employment since 2004–2005.

Selection of Comparison Groups

To determine whether outcomes (i.e., employee effectiveness, student’s STAAR achievement) were related to National Board certification, a matched comparison group was selected using propensity score matching. The purpose of the matched comparison group was to create a control group similar to the treatment group, which allowed us to observe the differences in outcomes between similar subjects who received treatment and those who did not (i.e., NB-certified staff and non-NB-certified staff; students who were enrolled in a NB-certified teacher’s course and those who were not).

Propensity score matching is a quasi-experimental design approach that accounts for preexisting differences between a treatment group and control group. To use propensity group matching, it is recommended that the control group be 3 to 4 times larger than the treatment group.

For this report, propensity score matching included (a) creating propensity scores; (b) balancing covariates, using caliper matching, to create a control group similar to the treatment group; and (c) examining adequacy of balanced covariates. Propensity scores were first generated using logistic regression. Propensity scores determined each subject’s probability of program participation, accounting for various covariates (e.g., race/ethnicity, gender). Second, caliper matching was used to balance covariates and used to match a similar control group subject to a treatment subject based on propensity scores. A comparison subjects was selected if the comparison subject’s propensity scores were within one standard deviation of the treatment subject’s propensity score. If a control group subject’s propensity scores that met the matching criteria (i.e., within one standard deviation of treatment’s propensity) could not be found, the treatment was not matched with a control subject. The last step included examining the adequacy of balanced covariates to determine whether the treatment group and the selected matched control group were similar. When covariates are adequately balanced, propensity score matching helps reduce selection bias in observable covariates.

For the staff PPFT analysis, a similar matched comparison group was selected using propensity score matching, to explore employee effectiveness among NB-certified teachers. Variables used in the matching procedure included PPFT appraisal type, race/ethnicity, educational attainment, campus level, gender, job title, Title I status, and years of professional experience.

The STAAR analysis included students with STAAR math or reading scores in the 2017–2018 and 2018–2019 academic years. A similar matched comparison group was selected using propensity score matching to explore STAAR achievement among students enrolled in a math or reading course with a NB-certified teacher. Variables used in the matching procedure included race/ethnicity, grade, gender, Title I status, English learner (EL) status, economic disadvantage status, special education status, 2017–2018 STAAR scale scores, and STAAR accommodations.

Staff PPfT Analysis

AISD staff evaluate teachers annually using the PPfT appraisal system. The PPfT appraisal system includes components that measure instructional practice (IP), professional growth and responsibility (PGR), and student growth (i.e., student learning objectives [SLO] and school-wide value added [SWVA]). Staff PPfT IP rating, PGR rating, SLO rating, SWVA rating, and PPfT summative scores were examined.

Components of PPfT appraisal were weighted based on appraisal plans to create a final PPfT summative score. Component ratings ranged from 1 to 4, whereas summative scores ranged from 85 to 400. Higher ratings and scores indicated better performance on the PPfT appraisal system.

A summative score ranging from 370 to 400 indicated the teacher was a distinguished teacher for the academic year. A score range from 314 to 370.99 indicated the teacher was highly effective, and a score range from 257 to 313.99 indicated the teacher was effective. A score range from 200 to 256.99 indicated the teacher was minimally effective, and a score range from 85 to 199.99 indicated the teacher was ineffective.

Student STAAR Analysis

The STAAR math and reading test passing rates and academic growth were examined. Students in grades 3 through 8 take the STAAR test annually in math and reading. STAAR writing tests are administered to 4th- and 7th-grade students. STAAR science tests are administered to 5th- and 8th-grade students, and STAAR social studies tests are taken by 8th-grade students. High school courses may have associated EOC assessments for 9th- through 11th-grade students enrolled in English I, English II, Algebra I, Biology, and U.S. History. Passing standards and academic growth are determined by the Texas Education Agency (TEA). Academic growth is calculated by the TEA, using students' prior year and current year STAAR scores. Academic growth ranges from limited growth to expected growth to accelerated growth. For more information about the TEA's growth measure, refer to <https://tea.texas.gov/student-assessment/testing/staar/progress-measures>.

Appendix B

NBPTS offers certification in 25 subject areas (e.g., math, art, exceptional needs specialist, school counseling) and various developmental levels (e.g., student age ranges 3–8, 7–12, 14–18+). Overall, AISD’s NB-certified staff held certificates across 22 disciplines and developmental levels. Staff with a certificate at the early childhood developmental level are experts in working with students who are 3 to 8 years old. Staff with certificate at the middle childhood developmental level are experts in working with students who are 7 to 12 years old. Staff with certificate at the early adolescence developmental level are experts in working with students who are 11 to 15 years old. Staff with certificate at the adolescence and young adulthood developmental level are experts in working with students who are 14 to 18+ years old. Staff with certificate at the early and middle childhood development level are experts in working with student who are 3 to 12 years old. Staff with certificate at the early adolescences through young adulthood developmental level are experts in working with students who are 11 to 18+ years old. Staff with certificate at the early childhood through young adulthood developmental level are experts in working with students who are 3 to 18+ years old.

AISD Staff NB Certification, by Discipline and Developmental Level

Subject area	Developmental level	<i>n</i>	Percentage
Art	Early and middle childhood	4	2%
	Early adolescence through young adulthood	4	2%
CTE	Early adolescence through young adulthood	1	0%
English language arts	Early adolescence	10	5%
	Adolescence and young adulthood	17	8%
English as a new language	Early adolescence through young adulthood	1	0%
Exceptional needs specialist	Early childhood through young adulthood	17	8%
Generalist	Early childhood	51	25%
	Middle childhood	39	19%
Library media	Early childhood through young adulthood	7	3%
Literacy: reading-language arts	Early and middle childhood	6	3%
Mathematics	Early adolescence	8	4%
	Adolescence and young adulthood	9	4%
Music	Early and middle childhood	2	1%
	Early adolescence through young adulthood	3	1%
Physical education	Early and middle childhood	3	1%
School counseling	Early childhood through young adulthood	2	1%
Science	Early adolescence	4	2%
	Adolescence and young adulthood	2	1%
Social studies-history	Early adolescence	2	1%
	Adolescence and young adulthood	7	3%
World languages	Early adolescence through young adulthood	4	2%
Total		203	100%

Source. AISD 2018–2019 staff records

Appendix C

PPfT Results, by Characteristics

PPfT Results, by Campus Level

PPfT component	Campus level					
	Elementary		Middle		High	
	NB certified	Matched comparison	NB certified	Matched comparison	NB certified	Matched comparison
IP rating	3.71	3.62	3.80	3.63	3.71	3.56
PGR rating	3.77	3.69	3.67	3.36	3.76	3.56
SLO rating	3.39	3.33	3.06	2.95	3.42	3.22
SWVA rating	2.77	2.79	2.50	1.92	2.86	3.20
Summative score	358.65	351.51	352.49	329.67	360.01	347.85
Final rating	Highly effective	Highly effective	Highly effective	Effective	Highly effective	Highly effective

PPfT Results, by Title I Status

PPfT component	Title I status			
	Title I		Non-Title I	
	NB certified	Matched comparison	NB certified	Matched comparison
IP rating	3.62	3.55	3.76	3.65
PGR rating	3.68	3.62	3.79	3.63
SLO rating	3.44	3.27	3.33	3.28
SWVA rating	2.69	2.88	2.78	2.75
Summative score	352.76	345.76	360.98	350.92
Final rating	Highly effective	Highly effective	Highly effective	Highly effective

PPfT Results, by Percentage of Students Identified as Economically Disadvantaged

PPfT component	Percentage economically disadvantaged students			
	Less than 50%		More than 50%	
	NB certified	Matched comparison	NB certified	Matched comparison
IP rating	3.77	3.65	3.61	3.55
PGR rating	3.81	3.63	3.64	3.62
SLO rating	3.39	3.29	3.30	3.24
SWVA rating	2.77	2.69	2.73	2.98
Summative score	363.01	350.27	348.62	347.08
Final rating	Highly effective	Highly effective	Highly effective	Highly effective

PPfT Results, by Percentage of Students Identified as Limited English Proficiency

PPfT component	Percentage limited English proficiency students			
	Less than 50%		More than 50%	
	NB certified	Matched comparison	NB certified	Matched comparison
IP rating	3.73	3.62	3.57	3.61
PGR rating	3.78	3.61	3.58	3.75
SLO rating	3.36	3.24	3.35	3.53
SWVA rating	2.76	2.79	2.75	2.87
Summative score	359.94	348.24	345.44	355.78
Final rating	Highly effective	Highly effective	Highly effective	Highly effective

PPfT Results, by Percentage of Students Identified as Hispanic

PPfT component	Percentage Hispanic students			
	Less than 50%		More than 50%	
	NB certified	Matched comparison	NB certified	Matched comparison
IP rating	3.76	3.67	3.62	3.52
PGR rating	3.81	3.64	3.63	3.60
SLO rating	3.36	3.31	3.36	3.22
SWVA rating	2.80	2.71	2.63	2.95
Summative score	362.29	351.65	349.00	344.58
Final rating	Highly effective	Highly effective	Highly effective	Highly effective

PPfT Results, by Percentage of Students Identified as White

PPfT component	Percentage White students			
	Less than 50%		More than 50%	
	NB certified	Matched comparison	NB certified	Matched comparison
IP rating	3.65	3.59	3.80	3.67
PGR rating	3.71	3.62	3.81	3.65
SLO rating	3.37	3.24	3.35	3.36
SWVA rating	2.58	2.73	2.94	2.92
Summative score	352.89	346.52	364.94	354.41
Final rating	Highly effective	Highly effective	Highly effective	Highly effective

PPfT Results, by Percentage of Female Students

PPfT component	Percentage female students			
	Less than 50%		More than 50%	
	NB certified	Matched comparison	NB certified	Matched comparison
IP rating	3.72	3.62	3.72	3.61
PGR rating	3.76	3.65	3.75	3.59
SLO rating	3.32	3.22	3.41	3.36
SWVA rating	2.72	2.88	2.79	2.67
Summative score	358.13	349.79	359.11	347.98
Final rating	Highly effective	Highly effective	Highly effective	Highly effective

Source. AISD 2018–2019 staff records and AISD 2018–2019 student records

Note. Disaggregations by special education, percentage of students categorized as Black, and percentage of students categorized as other race were not included, due to *n* count. The IP rating, PGR rating, SLO rating, and SWVA rating range from 1 to 4. The summative score ranges from 85 to 400.

Appendix D

STAAR Passing Rates, by Student Characteristics

STAAR Math Passing Rates

	NB certified		Matched comparison	
	% passed	<i>n</i>	% passed	<i>n</i>
Title I	76.99%	226	73.11%	212
Non-Title I	92.35%	719	92.77%	733
Economically disadvantaged	73.79%	248	71.88%	256
Not economically disadvantaged	93.97%	697	94.48%	689
Limited English proficiency	75.31%	81	62.35%	85
Not limited English proficiency	89.93%	864	90.93%	860
Special education	58.46%	130	55.66%	106
Not special education	93.50%	815	92.49%	839
Black	75.86%	29	72.00%	25
Hispanic	80.46%	348	79.15%	355
White	94.56%	496	94.98%	498
Other race	93.06%	72	94.03%	67
Female	90.17%	468	89.39%	490
Male	87.21%	477	87.25%	455
Elementary	89.41%	425	92.12%	444
Middle	88.08%	520	85.03%	501

STAAR Reading Passing Rates

	NB certified		Matched comparison	
	% passed	<i>n</i>	% passed	<i>n</i>
Title I	70.91%	110	76.79%	112
Non-Title I	94.42%	1236	93.68%	1234
Economically disadvantaged	78.15%	270	77.82%	266
Not economically disadvantaged	96.10%	1076	95.83%	1080
Limited English proficiency	78.10%	105	75.56%	90
Not limited English proficiency	93.71%	1241	93.47%	1256
Special education	66.67%	135	60.91%	110
Not special education	95.38%	1211	95.06%	1236
Black	75.61%	41	74.42%	43
Hispanic	85.01%	387	84.71%	412
White	96.92%	780	96.67%	781
Other race	93.48%	138	96.36%	110
Female	91.75%	630	93.23%	635
Male	93.16%	716	91.42%	711
Elementary	91.29%	723	91.93%	719
Middle	93.90%	623	92.66%	627

English II STAAR EOC Passing Rates

	NB certified		Matched comparison	
	% passed	<i>n</i>	% passed	<i>n</i>
Title I	-	-	-	-
Non-Title I	94.59%	813	95.20%	813
Economically disadvantaged	86.93%	153	83.33%	144
Not economically disadvantaged	96.36%	660	97.76%	669
Limited English proficiency	60.71%	28	59.26%	27
Not limited English proficiency	95.80%	785	96.44%	786
Special education	56.10%	41	67.50%	40
Not special education	96.63%	772	96.64%	773
Black	94.29%	35	93.55%	31
Hispanic	89.84%	256	91.47%	258
White	97.29%	442	97.48%	436
Other race	95.00%	80	95.45%	88
Female	95.91%	367	96.73%	367
Male	93.50%	446	93.95%	446

Source. AISD 2018–2019 student records, STAAR 2017–2018 and 2018–2019 records

Note. Disaggregation by Algebra I STAAR EOC is not displayed, due to limited *n* count. English II STAAR EOC results included 10th-grade students only.

Appendix E

STAAR Academic Growth, by Student Characteristics

STAAR Math Academic Growth

	NB certified				Matched comparison			
	Limited	Expected	Accelerated	<i>n</i>	Limited	Expected	Accelerated	<i>n</i>
Title I	39.29%	42.41%	18.30%	224	50.48%	36.67%	12.86%	210
Non-Title I	35.43%	43.51%	21.06%	717	29.90%	45.68%	24.42%	729
Economically disadvantaged	44.49%	38.37%	17.14%	245	49.01%	36.76%	14.23%	253
Not economically disadvantaged	33.48%	44.97%	21.55%	696	29.15%	46.21%	24.64%	686
Limited English proficiency	41.98%	40.74%	17.28%	81	51.76%	37.65%	10.59%	85
Not limited English proficiency	35.81%	43.49%	20.70%	860	32.79%	44.26%	22.95%	854
Special education	51.54%	33.08%	15.38%	130	45.28%	42.45%	12.26%	106
Not special education	33.91%	44.88%	21.21%	811	33.13%	43.82%	23.05%	833
Black	51.72%	34.48%	13.79%	29	45.83%	37.50%	16.67%	24
Hispanic	39.60%	42.77%	17.63%	346	44.76%	41.64%	13.60%	353
White	33.33%	44.04%	22.63%	495	27.82%	45.77%	26.41%	496
Other race	35.21%	43.66%	21.13%	71	25.76%	40.91%	33.33%	66
Female	35.05%	43.66%	21.29%	465	32.85%	43.12%	24.02%	487
Male	37.61%	42.86%	19.54%	476	36.28%	44.25%	19.47%	452
Elementary	33.65%	34.12%	32.24%	425	25.23%	38.74%	36.04%	444
Middle	38.57%	50.78%	10.66%	516	42.83%	48.08%	8.72%	495

STAAR Reading Academic Growth

	NB certified				Matched comparison			
	Limited	Expected	Accelerated	<i>n</i>	Limited	Expected	Accelerated	<i>n</i>
Title I	39.62%	33.02%	27.36%	106	38.53%	33.94%	27.52%	109
Non-Title I	26.18%	41.33%	32.50%	1234	30.33%	42.52%	27.15%	1230
Economically disadvantaged	32.20%	40.53%	27.27%	264	39.00%	40.93%	20.08%	259
Not economically disadvantaged	26.02%	40.71%	33.27%	1076	29.07%	42.04%	28.89%	1080
Limited English proficiency	27.27%	46.46%	26.26%	99	42.86%	36.90%	20.24%	84
Not limited English proficiency	27.24%	40.21%	32.55%	1241	30.20%	42.15%	27.65%	1255
Special education	43.70%	27.41%	28.89%	135	55.45%	27.27%	17.27%	110
Not special education	25.39%	42.16%	32.45%	1205	28.80%	43.12%	28.07%	1229
Black	34.15%	29.27%	36.59%	41	30.23%	46.51%	23.26%	43
Hispanic	33.33%	38.06%	28.61%	381	37.78%	38.27%	23.95%	405
White	24.49%	41.92%	33.59%	780	28.17%	43.41%	28.43%	781
Other race	23.91%	44.20%	31.88%	138	26.36%	41.82%	31.82%	110
Female	24.68%	38.06%	37.26%	628	28.55%	41.64%	29.81%	634
Male	29.49%	42.98%	27.53%	712	33.19%	41.99%	24.82%	705
Elementary	26.92%	36.96%	36.12%	717	34.83%	37.36%	27.81%	712
Middle	27.61%	44.94%	27.45%	623	26.63%	46.89%	26.65%	627

Algebra I STAAR EOC Academic Growth

	NB certified				Matched comparison			
	Limited	Expected	Accelerated	<i>n</i>	Limited	Expected	Accelerated	<i>n</i>
Title I	6.67%	43.33%	50.00%	60	8.89%	15.56%	75.56%	45
Non-Title I	10.84%	24.10%	65.06%	83	15.00%	29.00%	56.00%	100
Economically disadvantaged	12.70%	52.38%	34.92%	63	17.86%	30.36%	51.79%	56
Not economically disadvantaged	6.25%	16.25%	77.50%	80	10.11%	21.35%	68.54%	89
Limited English proficiency	-	-	-	-	-	-	-	-
Not limited English proficiency	9.70%	29.10%	61.19%	134	13.04%	25.36%	61.59%	138
Special education	-	-	-	-	-	-	-	-
Not special education	9.09%	32.17%	58.74%	143	13.10%	24.83%	62.07%	145
Black	-	-	-	-	-	-	-	-
Hispanic	13.92%	40.51%	45.57%	79	18.57%	28.57%	52.86%	70
White	4.55%	20.45%	75.00%	44	7.69%	26.92%	65.38%	52
Other race	-	16.67%	83.33%	18	9.52%	9.52%	80.95%	21
Female	11.39%	37.97%	50.63%	79	13.33%	30.00%	56.67%	90
Male	6.25%	25.00%	68.75%	64	12.73%	16.36%	70.91%	55

English II STAAR EOC Academic Growth

	NB certified				Matched comparison			
	Limited	Expected	Accelerated	<i>n</i>	Limited	Expected	Accelerated	<i>n</i>
Title I	-	-	-	-	-	-	-	-
Non-Title I	33.60%	62.34%	4.07%	762	30.37%	65.84%	3.80%	764
Economically disadvantaged	37.50%	61.76%	0.74%	136	32.26%	66.13%	1.61%	124
Not economically disadvantaged	32.75%	62.46%	4.79%	626	30.00%	65.78%	4.22%	640
Limited English proficiency	33.33%	66.67%	-	21	25.00%	75.00%	-	20
Not limited English proficiency	33.60%	62.21%	4.18%	741	30.51%	65.59%	3.90%	744
Special education	43.33%	53.33%	3.33%	30	40.00%	56.67%	3.33%	30
Not special education	33.20%	62.70%	4.10%	732	29.97%	66.21%	3.81%	734
Black	40.00%	56.67%	3.33%	30	41.38%	55.17%	3.45%	29
Hispanic	36.17%	61.70%	2.13%	235	36.21%	61.64%	2.16%	232
White	33.33%	62.41%	4.26%	423	27.14%	68.33%	4.52%	420
Other race	24.32%	66.22%	9.46%	74	26.51%	68.67%	4.82%	83
Female	31.71%	64.00%	4.29%	350	30.37%	65.33%	4.30%	349
Male	35.19%	60.92%	3.88%	412	30.36%	66.27%	3.37%	415

Source. AISD 2018–2019 student records, STAAR 2017–2018 and 2018–2019 records

Note. Algebra I STAAR EOC results included high school students only. English II STAAR EOC results included 10th-grade students only.

References

- Harris, D. N. & Sass, T. R. (2009). The effects of NBPTS-certified teachers on student achievement. *Journal of Policy Analysis and Management*, 28, 55–80.
- Horoi, I & Bhai, M (2018). New evidence on national board certification as a signal of teacher quality. *Economic Inquiry*, 56, 1185–1201.
- Humphrey, D. C., Koppich, J. E., & Hough, H. J. (2005). Sharing the wealth; National Board certified teachers and the students who need them the most. *Education Policy Analysis Archives*, 13, 18.
- National Board for Professional Standards. (2020a). *Categories for board certification*. Retrieved from <https://www.nbpts.org/wp-content/uploads/Certification-Areas-1.pdf>
- National Board for Professional Standards. (2020b). *National board standards*. Retrieved from <https://www.nbpts.org/standards-five-core-propositions/>

AUSTIN INDEPENDENT SCHOOL DISTRICT

Jenny Leung, MA

Department of Research and Evaluation



4000 S IH 35 Frontage Road | Austin, TX 78704
512.414.1724 | fax: 512.414.1707
www.austinisd.org/dre | Twitter: @AISD_DRE

April 2020

Publication 18.52