

**THE BEST SCHOOL DISTRICTS IN TEXAS
FOR AFRICAN AMERICAN STUDENTS 1998-2001**

A REPORT OF THE
TEXAS EDUCATIONAL EXCELLENCE PROJECT

Number 17 June 2002

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The Texas Educational Excellence Project (TEEP) is a joint program of the Departments of Political Science at Texas A&M University and the University of Texas-Pan American. TEEP seeks to apply scholarly research to educational policy issues in order to make recommendations for greater quality and equity in Texas school systems.

The Best School Districts in Texas for African American Students 1998-2001

Texas minority students continue to make impressive gains on the statewide TAAS exam. The results of the 2001 TAAS exam indicate that scores for African American students continue to close the gap with Anglo students. In 1996, only 46.9 percent of African American Students passed the TAAS compared to 79.8 percent of Anglo students. In 2001 72 percent African American students passing all tests compared to 90.4 percent of Anglo students. However, while African American students have made impressive gains over the past five years, the gap still remains substantial. Statewide averages, however, mask some impressive performance by individual school districts. The Texas Educational Excellence Project believes the first step in improving black tests scores is to identify school districts that do a better job of educating black students. Programs and policies in these districts can then be used by other districts to improve performance.

The Hooks Independent School District provides one such example. TAAS pass rates for black students in Hooks have improved from 57.6 percent in 1996 to 88.6 percent in 2001. This dramatic improvement has resulted from a variety of efforts by school district leaders and teachers to identify effective programs and ensure district-wide implementation. Programs include early intervention programs implemented at lower grade levels to ensure students acquire fundamental skills. Hooks makes use of innovative technology and laptop computers to ensure that no student fails to get an adequate educational opportunity.

The Hooks district is a relatively small district, and their approach might not be directly transferable to large urban school districts. Many urban schools, however, also get dramatic improvements. The Galena Park school district had an African American pass rate of 54% in 1996 and 85.8 percent in 2001. The Galena Park district achieved this improvement by working in an aligned curriculum and intensive teacher training.

The Texas Educational Excellence Project uses a technique of analysis known as multiple regression to identify school districts that do a better job of educating black students. This analytical tool makes it possible to develop generalizations about the overall performance of Texas school districts in how well they educate black students, while also providing

information that can be used to make comparisons across individual school districts. Our model is based on what is generally known as an education "production function" where student performance (defined as black pass rates on the TAAS) is a function of inputs into the educational process, such as operating expenditures, student-teacher ratios, and various educational policies. Estimation of this production function results in predictions about how well districts are expected to do, given the level of inputs available to them. Based on the results of the production function model, we compare how well districts *actually* perform to how well the statistical model *predicts* they should perform based on their inputs. The difference, if any, between the actual results and the predictions indicates how well districts are doing in educating black students.

An Education Production Function

School districts are organizations; they receive inputs (resources and students) from their environment and produce outputs (educated students among others). A vast literature has designated a variety of education production functions whereby the outputs of school systems can be evaluated relative to their inputs (Burtless 1996; Smith 1995; Hanushek 1986; 1989; 1996).

Our dependent variable is the school district's pass rate for black students on the TAAS exam. Texas requires all school districts to administer exams to students in several grades on an annual basis. We make no claim that results on TAAS exams account for all of the overall learning experience of black students. Student performance is a multi-dimensional concept that can be measured in variety of different ways. However, pass rates on TAAS exams **do** measure whether students are picking up basic academic skills from grade to grade. Our dependent variable, therefore, focuses primarily on how well districts perform in teaching black students basic skills, and should not be construed as an overall measure of black student learning.

The independent variables fall into four general types-- environmental constraints, financial resources, teacher qualifications, and district policies. Environmental constraints are factors that restrict agency performance; in the case of education the key constraint is how difficult/easy it is to educate students. In the context of education policy, poverty is a serious constraint on student performance. The measures of constraint are the percent of poor students (defined as those eligible for free school lunches) and the percentage of black families that live in poverty. We also

measure the educational level of blacks in the school district using the percentage of blacks in the school district over age 25 with at least a high-school diploma. The education variable should be positively related to student performance and the other two measures should be negatively related to black pass rates.

Financial resources are the basic raw materials of any organization's attempt to meet its goals. Three measures of financial resources are included--per student instructional funds, average teacher's salary, and percent of funds received via state aid. These represent total resources devoted to education, the attractiveness of teaching positions in a competitive marketplace, and state efforts to overcome the unequal distribution of local financial resources. The relationship between expenditures and educational outcomes is one of the most contested questions in all of educational policy. Hanushek (1986; 1989; 1996) contends that there is no consistent relationship between money and student outcomes. Although this finding has been challenged by others (Hedges and Greenwald 1996), it remains the conventional wisdom. In recent longitudinal studies, however, Murray (1995), Evans, Murray and Schwab (1997), and Murray, Evans and Schwab (1995) found that districts that increased expenditures had improved performance afterward. Bohte (1999) found that expenditures were correlated with higher test scores even when controlling for the previous year's test scores. We consider expenditures a critical variable for inclusion in the model. All relationships should be positive.

The two teacher qualification measures (or lack thereof) are the percent of teachers who hold a temporary certification in a subject specialty (as opposed to a permanent certification) and the average number of years of teacher experience. The relationship for non-certification should be negative, while the expectation is that more experienced teachers will lead to higher student outcomes.

Finally, the education production function contains three policy measures--the percentage of students taking gifted classes, class size, and student attendance (percent attending on an average day). Performance should be positively related to gifted classes and attendance and negatively related to class size.

Texas has a large number of school districts; many are very small or deal with a homogeneous student body. In an effort to use a set of organizations relatively similar in the task that

they perform, we have restricted our analysis to school districts with a least 1000 students and at least 10 percent black students. These restrictions resulted in a total of 159 districts in the study.

The data analysis is a pooled time series with data from the years 1998 through 2001. In any pooled time series one needs to control for serial correlation resulting from any trend in the variables over time. A series of dummy variables are introduced to achieve this.

The basic production function is shown in table 1. Several variables are powerful predictors of black student pass rate. These include background, and policy variables. The black student pass rate is strongly influenced by the percentage of black adults age 25 and older with at least a high school education. Attendance also is strongly and positively related to the black student pass rate. The greater the percentage of low-income students in the district, the lower the black student pass rate. No other variable achieved statistical significance.

The results of this model allow us to compare school districts as to how well they do above (or below) expectations. As an illustration, the model predicted that the New Boston Independent School District would have an average black pass rate of 70.06% from 1997-2001. New Boston's actual pass rate of 83.75 represents a 13.09 percentage point improvement over this standard. Based on this method, the top ranked school district for black students in Texas was Linden-Kildare with a rating of +23.05% followed closely by Ferris with a +20.04 score and Hooks with a +20.02 score.

The top forty districts are shown in table 2. The first column is the numerical score on which the districts are ranked. The second column is the average pass rate for black students from 1998 to 2001 and the third column is the ranking score for 2001 only. These forty districts represent a variety of different types of school districts located throughout the state.

Table 3 reports the 25 best districts for black students in 2001 only. The Cuero Independent School District's performance in 2001 is striking in magnitude, moving from a 1998-2001 average of 0.73 to 10.41 for 2001 only, a gain of almost 10 percentage points on our score ranking. Recent gains are likely the result of the benefits of policies adopted earlier so these are the districts that are likely to continue to be rated highly in future studies.

Although our top 25 includes districts of all sizes, large districts often cannot change as rapidly as small districts simply because so many students are involved. Table 4 presents the top ten large districts (those with 15,000 or more students). Galena Park, Aldine, Lamar Consolidated and Goose Creek top this list of large districts.

The table in the Appendix gives an alphabetical listing of all of the school districts examined in this study, along with their scores. Any person interested in a specific school district can examine the Appendix to locate that district and identify the score and rank.

Conclusion

This study has identified those school districts in Texas that performed better than expected on the pass rate for black students. These districts can serve as role models for other districts in Texas. The districts have a wide variety of programs for early diagnosis, coordination of curriculum, and parental involvement. Not all of the districts use the same approach, indicating that success can be attained in a multiplicity of ways. If effective programs and performances from these districts are identified, then they can be transferred to other districts with an overall benefit to black students.

Although this study only examines exemplary districts, that should not detract from the relatively low over-all pass rate for black students in Texas. A great deal of additional improvement is needed in these districts as well as other districts to close the test gap between black and Anglo students. Substantial progress has been made in the last few years; a great distance remains to be covered. Improving educational opportunities for all Texas children requires a long-term commitment to education. Problems develop over a period of decades; solutions require both time and hard work.

Table 1. The Education Production Function

Independent Variable	Slope	Standard Error
Low Income Students	-.0963	.0311
Gifted Students	.0978	.1007
Attendance	2.7002	.5111
Teacher Salaries (k)	.3232	.2746
Class Size	-.2044	.3977
Noncertified Teachers	-.0413	.1096
Teacher Experience	.1921	.2492
State Aid	-.0088	.0198
Instructional Funding (k)	1.5703	1.5470
Black Education Levels	.2023	.0636
Black Poverty	-3.5773	4.4034

R-Square .31

Adjusted R-Square .30

F 21.66

N of cases 688

Table 2. Forty Best Districts for Black Students 1998-2001

Rank	District	Score	TAAS	2001 Score
1	Linden-Kildare	23.05	92.70	23.00
2	Ferris	20.04	83.35	17.78
3	Hooks	20.02	85.47	17.88
4	Pittsburgh	19.92	85.30	12.79
5	Atlanta	19.81	88.32	18.19
6	Angleton	15.99	87.93	14.91
7	Sweeny	13.98	86.07	15.50
8	Newton	13.31	75.32	11.53
9	New Boston	13.09	83.75	17.79
10	Del Valle	12.50	73.55	11.75
11	McGregor	12.09	82.13	9.77
12	El Campo	12.05	77.70	10.00
13	Galena Park	11.18	78.30	13.01
14	Aldine	10.29	75.85	8.43
15	Columbia-Brazoria	10.18	77.13	14.66
16	Tatum	10.01	76.13	8.37
17	Kountze	9.73	73.40	11.89
18	Hillsboro	9.70	71.95	7.51
19	Sulpher Springs	9.26	78.72	9.48
20	Denison	9.07	75.80	15.42
21	Bay City	7.70	70.15	7.34
22	Texas City	7.55	74.03	4.30
23	Whorton	7.30	70.65	7.15
24	Rice Consolidated	6.84	68.55	8.51
25	Terrell	6.68	72.13	4.01
26	Lamar Consolidated	6.67	72.22	3.71
27	Goose Creek	6.64	72.20	7.02
28	Longview	6.56	71.47	6.08
29	Liberty-Eylau	6.35	72.18	0.99
30	Waco	6.23	65.90	5.61
31	La Grange	6.13	72.35	8.06
32	Garland	5.65	75.15	4.28
33	Daingerfield-Lone St	5.53	73.07	4.53
34	La Marque	5.23	70.63	4.69
35	Connally	5.02	75.20	-5.26
36	Sabine	4.75	74.10	-5.95
37	Kirbyville	4.67	68.07	9.13
38	Houston	4.64	66.90	5.84
39	Abilene	4.49	72.65	10.12
40	Commerce	4.48	69.50	-3.27

Table 3. The Twenty-Five Best Districts for 2001

<u>Rank</u>	<u>District</u>	<u>2001 Score</u>
1	Linden-Kildare	23.00
2	Atlanta	18.19
3	Hooks	17.88
4	New Boston	17.79
5	Ferris	17.78
6	Sweeny	15.50
7	Denison	15.42
8	Angleton	14.91
9	Columbia-Brazoria	14.66
10	Queen City	13.17
11	Galena Park	13.01
12	Pittsburgh	12.79
13	Kountze	11.89
14	Del Valle	11.75
15	Newton	11.53
16	Cureo	10.41
17	Abilene	10.12
18	El Campo	10.00
19	McGregor	9.77
20	Sulpher Springs	9.48
21	Kirbyville	9.13
22	Rice Consolidated	8.51
23	Aldine	8.43
24	Tatum	8.37
25	La Grange	8.06

Table 4. The Best Large Districts (15,000 Students)

<u>Rank</u>	<u>District</u>	<u>Score</u>	<u>TAAS</u>	<u>2001 Score</u>
1	Galena Park	11.18	78.30	13.01
2	Aldine	10.29	75.85	8.43
3	Lamar Consolidated	6.67	72.22	3.71
4	Goose Creek	6.64	72.20	7.02
5	Waco	6.23	65.90	5.61
6	Garland	5.65	75.15	4.28
7	Houston	4.64	66.90	5.84
8	Abilene	4.49	72.65	10.12
9	Grand Prairie	3.47	73.05	-1.36
10	Beaumont	3.36	68.15	0.95

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Appendix. Scores for All Districts

Rank	District	Score	TAAS	2001 Score
39	Abilene	4.49	72.65	10.12
14	Aldine	10.29	75.85	8.43
93	Alief	-1.73	68.70	-4.41
57	Amarillo	2.53	65.68	2.56
59	Anahuac	2.22	67.78	-4.33
6	Angleton	15.99	87.93	14.91
119	Arlington	-5.84	66.55	-3.22
151	Athens	-11.48	55.08	-12.56
5	Atlanta	19.81	88.32	18.19
146	Austin	-10.42	53.80	-8.14
48	Bastrop	3.39	66.68	1.07
21	Bay City	7.70	70.15	7.34
50	Beaumont	3.36	68.15	0.95
143	Bellville	-8.87	57.83	-5.81
150	Brenham	-11.38	53.88	-7.29
70	Bryan	0.75	63.50	3.53
108	Caldwell	-4.18	62.08	-2.38
95	Cameron	-1.86	63.03	-8.10
156	Carthage	-13.67	54.20	-11.78
142	Cedar Hill	-8.79	67.32	-6.74
68	Center	0.81	63.63	-1.90
53	Channelview	2.90	72.20	1.27
154	Chapel Hill	-12.88	52.35	-12.14
133	Clarksville	-7.28	57.90	2.38
145	Cleveland	-10.14	49.15	-9.34
139	Cold Spring-Oakhurst	-8.44	49.55	3.72
148	College Station	-11.31	62.63	-7.32
15	Columbia-Brazoria	10.18	77.13	14.66
135	Columbus	-7.96	62.30	-7.01
40	Commerce	4.48	69.50	-3.27
35	Connally	5.02	75.20	-5.26
136	Corrigan-Camden	-8.15	53.90	-15.42
114	Corsicana	-5.02	57.33	-2.64
153	Crockett	-12.13	48.95	-12.09
85	Crosby	-0.95	68.65	-0.32
43	Crowley	3.84	81.13	0.57
71	Cureo	0.73	66.28	10.41
33	Daingerfield-Lone St	5.53	73.07	4.53
124	Dallas	-6.27	59.20	-6.83
10	Del Valle	12.50	73.55	11.75
20	Denison	9.07	75.80	15.42
94	Denton	-1.82	66.03	-1.38
67	DeSoto	1.00	75.15	0.03
49	Diboll	3.39	65.15	1.19
122	Dickinson	-6.15	56.35	-2.67

82	Duncanville	-0.67	70.38	-1.05
74	East Central	0.02	69.60	-3.08
96	Edna	-2.35	63.17	-11.34
12	El Campo	12.05	77.70	10.00
126	Elgin	-6.36	56.65	-10.95
98	Ennis	-2.96	64.03	0.18
52	Everman	3.07	70.93	5.20
132	Fairfield	-7.26	62.20	-4.20
2	Ferris	20.04	83.35	17.78
80	Fort Bend	-0.50	73.30	-1.56
100	Fort Worth	-3.06	58.13	-2.49
88	Ft Sam Houston	-1.18	80.72	-4.50
13	Galena Park	11.18	78.30	13.01
55	Galveston	2.85	62.35	2.88
32	Garland	5.65	75.15	4.28
117	Giddings	-5.54	62.40	-2.60
106	Gilmer	-3.78	61.80	1.28
118	Gladewater	-5.64	60.65	-8.78
138	Gonzales	-8.34	53.83	-3.46
27	Goose Creek	6.64	72.20	7.02
46	Grand Prairie	3.47	73.05	-1.36
144	Greenville	-9.03	53.53	-2.22
63	Groesbeck	1.86	69.27	7.72
62	Hallettsville	1.90	71.75	4.75
79	Hardin-Jefferson	-0.50	67.05	1.85
131	Hearne	-7.17	52.88	-15.65
158	Hempstead	-19.45	48.63	-11.56
125	Henderson	-6.30	59.03	-7.33
18	Hillsboro	9.70	71.95	7.51
157	Hitchcock	-14.14	51.33	-6.71
3	Hooks	20.02	85.47	17.88
38	Houston	4.64	66.90	5.84
99	Huntsville	-2.98	63.63	0.52
61	Irving	2.02	74.25	0.30
129	Jacksonville	-6.92	53.95	-13.67
72	Jasper	0.49	64.98	1.10
58	Jefferson	2.50	67.95	-2.17
75	Judson	-0.09	71.43	-1.45
78	Kilgore	-0.24	63.60	-2.74
76	Killeen	-0.12	71.28	-3.45
37	Kirbyville	4.67	68.07	9.13
113	Klein	-4.98	70.32	-5.72
17	Kountze	9.73	73.40	11.89
47	La Vega	3.45	67.45	2.43
34	La Marque	5.23	70.63	4.69
31	La Grange	6.13	72.35	8.06
26	Lamar Consolidated	6.67	72.22	3.71
128	Lancaster	-6.68	60.75	-4.79

29 Liberty-Eylau	6.35	72.18	0.99
84 Liberty	-0.77	67.10	-0.31
1 Linden-Kildare	23.05	92.70	23.00
104 Livingston	-3.55	59.85	2.80
28 Longview	6.56	71.47	6.08
87 Lubbock	-1.07	64.68	0.16
60 Lufkin	2.20	68.53	4.84
130 Madisonville	-6.98	56.13	-0.15
92 Malakoff	-1.56	63.33	2.48
120 Manor	-5.85	58.63	-8.24
152 Marlin	-11.96	50.33	-16.21
83 Marshall	-0.75	64.63	4.38
11 McGregor	12.09	82.13	9.77
54 Mesquite	2.86	72.68	3.38
42 Mexia	3.98	69.88	2.25
121 Midland	-5.99	58.63	-5.92
159 Mineola	-23.44	46.53	-12.06
86 Mount Pleasant	-1.05	64.28	2.23
103 Nacogoches	-3.50	62.40	-5.33
102 Navasota	-3.13	58.47	-3.67
9 New Boston	13.09	83.75	17.79
8 Newton	13.31	75.32	11.53
90 North Forest	-1.37	60.03	-0.61
137 Palestine	-8.28	57.42	-10.68
89 Paris	-1.32	65.90	2.13
81 Pflugerville	-0.53	73.60	-1.99
4 Pittsburgh	19.92	85.30	12.79
66 Port Arthur	1.39	59.33	4.46
41 Queen City	4.31	70.00	13.17
91 Randolph Field	-1.51	82.65	-3.42
24 Rice Consolidated	6.84	68.55	8.51
141 Richardson	-8.70	66.47	-6.88
45 Rockdale	3.50	71.52	-4.38
116 Royal	-5.43	59.70	-4.20
115 Rusk	-5.11	58.45	-6.21
36 Sabine	4.75	74.10	-5.95
147 San Antonio	-10.76	52.60	-11.70
155 San Augustine	-13.10	54.25	-13.93
110 Sealy	-4.55	63.78	-3.45
105 Sheldon	-3.65	67.28	-4.85
44 Shepherd	3.57	66.20	3.22
111 Sherman	-4.76	62.72	-4.76
65 Silsbee	1.45	66.75	6.43
127 Smithville	-6.61	58.42	-8.90
101 Spring	-3.10	70.53	-4.21
51 Stafford MSD	3.27	77.90	-2.56
19 Sulpher Springs	9.26	78.72	9.48
7 Sweeny	13.98	86.07	15.50

16 Tatum	10.01	76.13	8.37
73 Taylor	0.30	65.85	-7.68
112 Teague	-4.76	69.90	-9.54
123 Temple	-6.24	61.17	-4.71
25 Terrell	6.68	72.13	4.01
109 Texarkana	-4.52	60.05	0.35
22 Texas City	7.55	74.03	4.30
107 Tyler	-3.82	64.93	1.43
30 Waco	6.23	65.90	5.61
149 Waller	-11.33	57.35	-8.04
140 Waxahachie	-8.49	60.88	-10.80
69 West Orange-Cove	0.78	63.88	7.61
56 West Oso	2.61	62.88	2.02
134 Westwood	-7.72	60.75	-15.42
23 Whorton	7.30	70.65	7.15
64 Wichita Falls	1.47	69.43	1.63
77 Wilmer-Hutchins	-0.23	55.65	-4.68
97 Yoakum	-2.83	63.53	-2.63