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Analysis of Christina School District's DSTP Performance, 1998-2002

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Abstract

This report provides a brief socioeconomic profile of the Christina School District (CSD), and summarizes CSD's 2002 and five-year test results from the Delaware Student Testing Program (DSTP). Comparisons of CSD's results versus Delaware's other public school districts reveal several persistent problems. CSD continues to lag behind comparator school districts in 5th, 8th and 10th grade mean scores and pass rates. The drop-off in student DSTP performance between grade levels is significantly worse than in other districts. Two of CSD's three high schools now rank at or near the bottom in Delaware in all three test categories. CSD has made little or no headway in closing racial gaps in DSTP performance.

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Introduction

The Christina School District (CSD) is Delaware's largest public school system, with 19,707 students enrolled as of September, 2001. The Delaware State Testing Program (DSTP) administers tests in reading, mathematics and writing annually to all 3rd, 5th, 8th and 10th graders in public schools in Delaware. This report summarizes CSD's overall performance on the DSTP, and compares CSD's 2002 test results against results from Delaware's other public school districts. All the data used in this analysis were obtained from the Delaware's State Board of Education (BOE) website (<http://www.doe.state.de.us>). DSTP score data were obtained from <http://dstp.doe.state.de.us/DSTPmart/default.asp>. In the tables below, **bolded and underlined items** indicate where CSD is **sub-average** relative to other Delaware school districts, while *italicized items* indicate where CSD is *above-average*

District Profile

CSD is widely perceived to have a large proportion of minority (African-American and/or Hispanic) students, and a large proportion of students from low-income households. CSD's poor performances on the DSTP are sometimes blamed on this socioeconomic profile. In 2001, CSD's student population was **35.4% African-American** versus 41.1% in Colonial, 36.0% in Brandywine, 29.4% in Red Clay and 33.9% in all public schools county-wide. CSD was **7.9% Hispanic** versus 14.0% in Red Clay, 8.8% in Colonial, 2.7% in Brandywine and 7.8% in all public schools countywide.

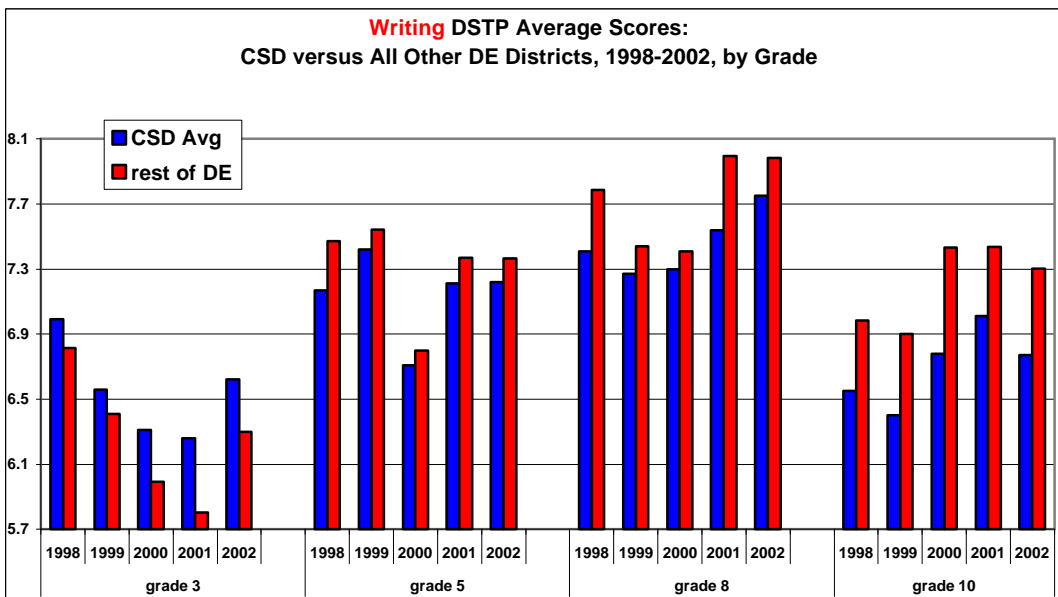
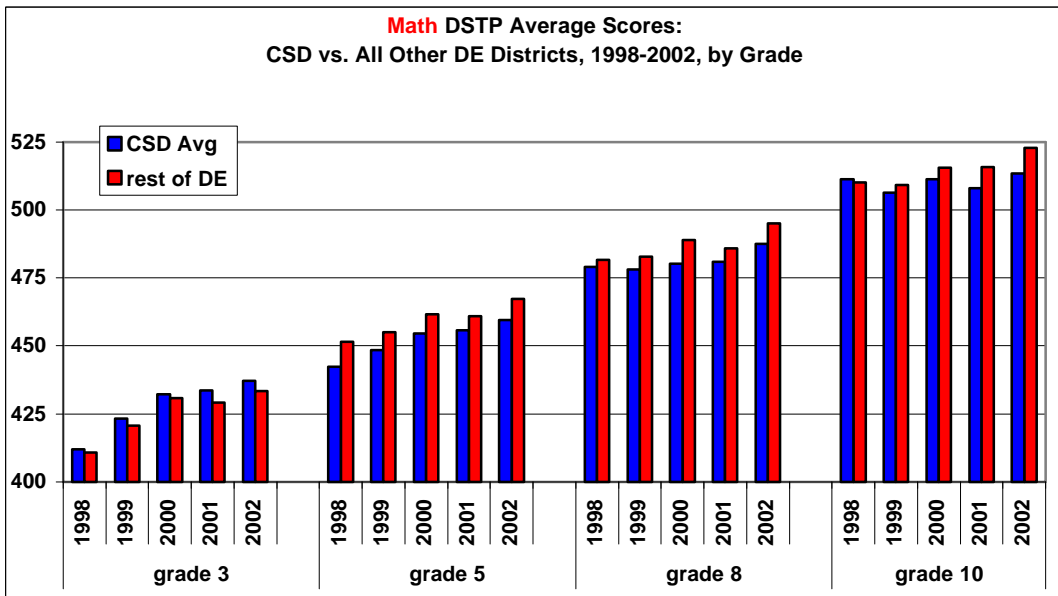
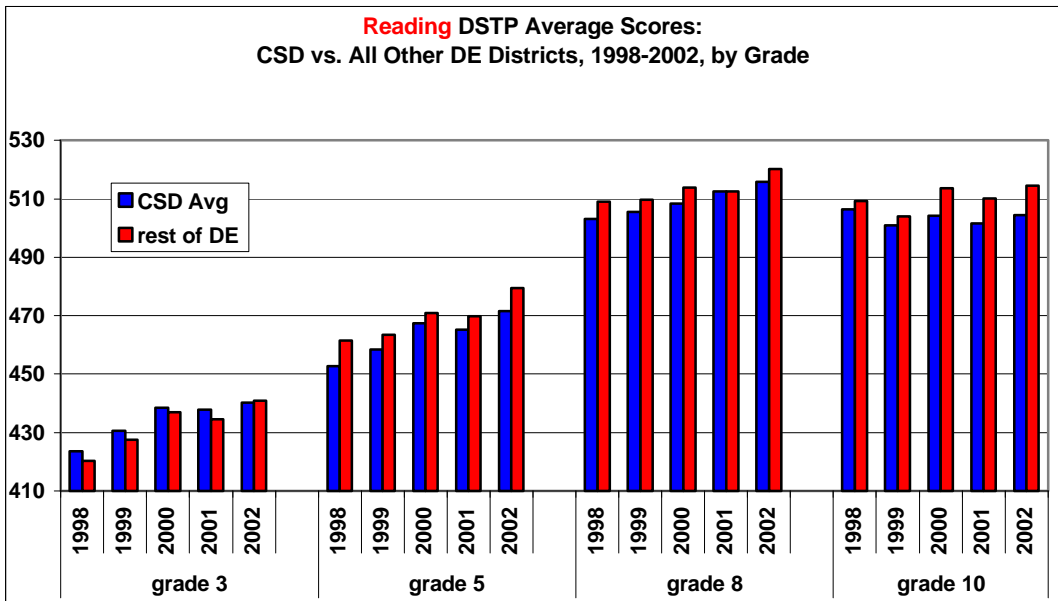
CSD's student population is **35.6% low-income** (defined as eligible for free or reduced-price lunches) versus 34.0% low-income statewide; 7 of the 18 other school districts in Delaware have higher proportions of students from low-income households

In fact, CSD is well supported by a strong tax base. CSD's spends more per pupil (\$8,448 in 2000-2001) than any other K-12 districts in DE except Brandywine, Cape Henlopen and Red Clay. Its average teacher salary (\$50,509 in 2000-2001) is the highest in the state. Its K-12 student-to-teacher ratio (14.8) is one of the best in the state: only Indian River, Brandywine and Cape Henlopen have lower student-to-teacher ratios. The University of Delaware is located in the suburban center of CSD, providing supervised student teachers; excellent pedagogy, counseling and child development resources; and diverse cultural opportunities enjoyed by CSD students. With all of these advantages, CSD has the potential to be the best school district in Delaware.

Unfortunately, there is a continuing exodus of students from CSD schools to private, parochial and charter schools, and to home schooling, reflecting a high level of parent dissatisfaction with CSD schools. CSD has a higher proportion of home-schooled children within its boundaries than any other district in the county, and has the third-highest proportion of children enrolled in non-public schools (22%), exceeded only by Red Clay and Brandywine.

- **CSD's student population is *not* inordinately minority or low-income relative to other school districts in Delaware. Its total expenditures per pupil, student/teacher ratio and teacher salaries are among the very best in the state. CSD's poor DSTP performance cannot be explained by its socioeconomic or financial profiles.**

Five-Year Trends in DSTP scores



Since the initiation of the DSTP in 1998, average scores statewide have been trending upward, particularly in reading and math. This sort of score inflation is to be expected as Delaware’s school systems get accustomed to the DSTP, adopt the writing rubric, teach students to include full explanations for their answers on math tests, etc. A naïve look at the above charts would suggest that today’s 3rd graders are almost as smart as 1998’s 5th graders in reading and math, but that in 2000 Delaware’s 3rd and 5th graders forgot how to write very well! Obviously this isn’t so: each grade gets a different new test each year.

The fact that CSD’s average scores are going up (or down) over time doesn’t really prove anything. What does matter is how CSD’s average scores rise or fall *relative to other Delaware public school students*. The CSD administration’s recent analyses of the CSD’s own DSTP performances have mostly focused on selected individual schools whose raw average scores went up or performance gaps went down. These appear to be the best examples of “success” the CSD administration could find, but unless they are presented in context, and compared against the performances of other districts, they don’t really prove that the CSD administration is doing a good job educating the district’s children.

In fact, the above charts also show that CSD students continue to lag behind other DE public school students taking the DSTP in everything except 3rd grade math and writing. The following sections analyze CSD’s DSTP performances in greater detail.

Spring 2002 DSTP Scores—Comparison of CSD against all of Delaware

Table 1 compares average 2002 DSTP test results of CSD students against the average test results of all public school students in Delaware. The first pair of data columns compare average CSD scores for 3rd, 5th, 8th and 10th grade reading, math, and writing against average scores statewide. The next pair of data columns compare the percentages of CSD students who failed to meet the state standard (Performance Level 3 or better) on the 2002 DSTP versus percentages of all Delaware students who failed to meet these standards.

Table 1: Spring 2002 DSTP: CSD vs. DE averages and failure rates

<u>gradetest</u>	<u>2002 DE avg</u>	<u>2002 CSD avg</u>	<u>2002 DE %<strd</u>	<u>2002 CSD%<strd</u>
3reading	440.74	<u>440.27</u>	20.69	<u>20.60</u>
3math	434.08	<u>437.05</u>	27.96	<u>27.12</u>
3writing	6.36	<u>6.62</u>	54.39	<u>47.95</u>
5reading	478.13	<u>471.46</u>	22.01	<u>26.65</u>
5math	465.99	<u>459.54</u>	32.82	<u>37.46</u>
5writing	7.34	<u>7.22</u>	50.72	<u>52.54</u>
8reading	519.31	<u>515.85</u>	28.52	<u>31.45</u>
8math	493.75	<u>487.57</u>	51.92	<u>59.52</u>
8writing	7.94	<u>7.75</u>	28.30	<u>32.80</u>
10reading	513.21	<u>504.51</u>	33.57	<u>43.10</u>
10math	521.68	<u>513.50</u>	58.69	<u>66.31</u>
10writing	7.23	<u>6.77</u>	50.66	<u>60.59</u>

- CSD’s average test scores are below the state averages in *all* subjects for grades 5, 8 and 10.
- CSD has significantly higher proportions of 5th, 8th and 10th graders failing to meet state standards (Performance Level 3) in all subjects.

CSD's Average DTSP Score Rankings Versus Other DE School Districts

Table 2: How CSD's Average DSTP Scores Rank Among DE School Districts, 1998 and 2002

<u>gradetest</u>	1998	2002	'98-'02 rank
	<u>CSD rank</u>	<u>CSD rank</u>	<u>change</u>
3reading	6/15	<u>10/15</u>	-4
3math	<u>9/15</u>	<u>9/15</u>	0
3writing	7/15	5/15	+2
5reading	<u>13/15</u>	<u>12/15</u>	+1
5math	<u>13/15</u>	<u>12/15</u>	+1
5writing	<u>15/15</u>	<u>9/15</u>	+6
8reading	<u>13/16</u>	<u>12/16</u>	+1
8math	8/16	<u>11/16</u>	-3
8writing	<u>13/16</u>	<u>14/16</u>	-1
10reading	10/19	<u>15/19</u>	-5
10math	7/19	<u>14/19</u>	-7
10writing	<u>15/19</u>	<u>16/19</u>	-1
	sum of rank changes		-10

Table 2 shows how CSD's average DSTP scores rank among the average scores of all public school districts in Delaware. CSD's rankings in 1998 (the first year of the DSTP) are compared against its rankings in 2002. The final column calculates CSD's changes in rank between 1998 and 2002.

- **In 1998 CSD's average DSTP scores ranked at or above the median in 5 of 12 test categories. In 2002 CSD's DSTP average scores rank below the median at all tested grade levels and in all subjects, with the exception of 3rd grade writing.**
- **Overall, CSD's 2002 DSTP average scores rank lower among all Delaware school districts in 2002 than they did in 1998. (In fact, CSD's 2002 averages rank lower now than in *any* previous year.)**

Tracking DSTP Performances Over Time

The DSTP reports student performance levels (PL) for each test using a 5-point scale, and tracks the performance levels of the same students on successive tests. Table 3 shows percentages of students whose 2002 performance levels decreased or increased by one level or more from their prior performance level in the same subject area. The matched performances of CSD students are compared against matched performances of all Delaware public school students at the same grade levels.

Table 3: Spring 2002 Performance Levels matched against students' prior PL's

<u>MATCHED SCORES</u>	<u>SUBJECT</u>	% with PL DECREASE		% with PL INCREASE	
		<u>DE-%decr</u>	<u>CSD-%decr</u>	<u>DE-%incr</u>	<u>CSD-%incr</u>
2002 5th vs. 2000 3 rd	reading	21.2	<u>24.4</u>	20.8	<u>16.6</u>
2002 5th vs. 2000 3 rd	math	22.7	<u>25.4</u>	18.8	<u>14.7</u>
2002 5th vs. 2000 3 rd	writing	11.4	<u>13.1</u>	41.6	<u>36.1</u>
2002 8th vs. 1999 5 th	reading	17.3	<u>22.3</u>	24.5	<u>9.6</u>
2002 8th vs. 1999 5 th	math	23.0	16.7	23.0	28.1
2002 8th vs. 1999 5 th	writing	10.1	<u>21.5</u>	40.0	<u>20.3</u>
2002 10th vs. 2000 8 th	reading	20.7	15.5	11.4	27.8
2002 10th vs. 2000 8 th	math	17.7	<u>22.8</u>	25.9	<u>17.9</u>
2002 10th vs. 2000 8 th	writing	18.5	10.3	27.2	40.0

- Over 2- or 3-year testing intervals, compared to all DE public school students, CSD students had higher-than-average rates of performance decline, and lower-than-average rates of performance improvement in six of nine categories.

Is CSD “Closing the Performance Gap?”

Statewide, average DSTP scores for African-American and Hispanic students are typically lower than the average scores of white and non-Hispanic students. Similarly, average DSTP scores for students from low-income (LI) households (students eligible for free or reduced-price lunches) are typically lower than average scores of students from non-LI households. Delaware and CSD have placed particular emphasis on closing the performance gaps between its minority and economically disadvantaged students and its other students.

Table 4 analyzes the average DSTP scores and performance gaps of CSD’s LI students. The first two data columns compare the average 2002 DSTP scores of CSD’s LI students against average 2002 DSTP scores of all LI public school students in Delaware. The last two data columns compare the performance gaps between LI and non-LI students in CSD versus the performance gaps between all LI and all non-LI public school students in Delaware.

Table 4: **Spring 2002 DSTP – LOW-INCOME STUDENTS**
(GAP = non-LI avg. minus LI avg.)

<u>GRADE</u> <u>SUBJECT</u>	<u>DE AVG.</u>	<u>CSD AVG.</u>	<u>DE GAP</u>	<u>CSD GAP</u>
3reading	423.33	425.03	28.01	24.94
3math	415.69	417.15	30.00	32.97
3writing	5.82	6.12	0.87	0.83
5reading	461.25	457.70	26.33	23.27
5math	447.18	443.65	18.81	15.89
5writing	6.74	6.67	0.94	0.95
8reading	502.31	500.84	24.98	22.95
8math	474.12	470.40	19.63	17.17
8writing	7.39	7.23	0.81	0.80
10reading	491.79	482.96	27.12	27.58
10math	500.63	498.44	21.05	15.06
10writing	6.54	6.09	0.87	0.88

- After 3rd grade, CSD’s low-income students perform worse on the DSTP than other low-income students in Delaware in *all* test categories in *all* grades.
- By 10th grade, CSD’s low-income students are scoring well below other CSD 10th-graders, and well below other low-income public school students in Delaware in reading and writing.
- After 3rd grade, any relatively “good” (lower) performance gaps of CSD’s low-income students simply reflect the low average scores of the CSD non-low-income students they are being compared against.

Tables 5 and 6 summarize 2002 DSTP performances of CSD’s racial/ethnic minorities. The first two columns compare the average scores of CSD’s minority students against all minority public school students in Delaware. The last two columns compare the performance gaps between minority and CSD white students in CSD versus the performance gaps between minority and white students across Delaware. .

Table 5: **Spring 2002 DSTP – AFRICAN-AMERICAN STUDENTS**
(GAP = white avg. minus African-American avg.)

<u>GRADE SUBJECT</u>	<u>DE AVG.</u>	<u>CSD AVG.</u>	<u>DE GAP</u>	<u>CSD GAP</u>
3reading	421.99	435.04	30.07	26.20
3math	411.85	415.21	35.19	36.12
3writing	5.84	6.13	0.82	0.79
5reading	461.25	459.70	27.18	22.47
5math	445.00	443.98	46.33	47.44
5writing	6.85	= 6.85	0.78	0.66
8reading	502.20	503.10	25.32	21.87
8math	471.97	469.28	31.82	29.93
8writing	7.45	7.32	0.72	= 0.72
10reading	492.59	483.56	29.99	34.83
10math	498.29	493.06	33.16	33.48
10writing	6.64	6.13	0.84	1.08

Table 6: **Spring 2002 DSTP – HISPANIC STUDENTS**
(GAP = white avg. minus Hispanic avg.)

<u>GRADE SUBJECT</u>	<u>DE AVG.</u>	<u>CSD AVG.</u>	<u>DE GAP</u>	<u>CSD GAP</u>
3reading	429.38	432.23	22.68	19.01
3math	422.10	430.42	62.82	72.22
3writing	6.11	6.61	0.55	0.31
5reading	460.51	455.85	27.92	26.32
5math	450.74	445.22	27.34	27.29
5writing	6.87	6.90	0.76	0.61
8reading	504.92	496.62	22.60	28.35
8math	477.53	470.20	26.26	29.01
8writing	7.53	7.19	0.64	0.85
10reading	493.75	494.95	28.83	23.44
10math	505.16	506.37	26.29	20.17
10writing	6.69	6.44	0.79	0.77

- After 3rd grade, CSD's African-American students fall progressively further behind other African-American public school students in Delaware in *all* test categories.
- By 10th grade, in *all* test categories, the performance gaps between CSD's African-American and CSD's white students are even larger than the performance gaps between African-American students and white students statewide.
- CSD's Hispanic 3rd-graders are generally out-performing other 3rd-grade Hispanic students in Delaware. After 3rd grade, CSD's generally under-perform other Hispanic public school students in Delaware.
- The CSD administration recently reported specific cases where low-income, African-American and Hispanic students in some individual schools were able to improve performances or close performance gaps. These optimistic anecdotes gloss over the actual difficulties CSD's low-income and minority students are facing district-wide.

CSD's High Schools

Table 7 breaks CSD's DSTP 10th grade performances down by high school and ranks these performances among all the public and vo-tech high schools in Delaware.:

Table 7:	2002 DSTP: CSD High Schools vs. All DE High Schools			
	<u>all DE High Schs</u>	<u>Newark HS</u>	<u>Glasgow HS</u>	<u>Christiana HS</u>
Reading average	513.21	<u>511.31</u>	<u>498.21</u>	<u>500.90</u>
Statewide rank (of 28)		<u>15th</u>	<u>27th</u>	<u>26th</u>
Math average	521.68	<u>521.15</u>	<u>508.43</u>	<u>507.68</u>
Statewide rank (of 28)		<u>14th</u>	<u>25th</u>	<u>26th</u>
Writing average	7.23	<u>6.95</u>	<u>6.68</u>	<u>6.62</u>
Statewide rank (of 28)		<u>19th</u>	<u>25th</u>	<u>26th</u>

- **Glasgow High School and Christiana High School now rank among the very worst high schools in Delaware.**

Conclusions

These results raise serious questions: Why is CSD student performance falling so sharply after 3rd grade? And if CSD is so concerned about its low-income and minority students, why are these students performing worse than low-income and minority students in most other districts? Why isn't CSD doing better at closing performance gaps within the district? Why are Glasgow and Christiana High Schools now ranked among the worst high schools in Delaware?

CSD has solid financial resources, a fairly typical socioeconomic profile for northern Delaware, a low student-to-teacher ratio, competitive teacher salaries, top-notch teaching talent, and excellent community support as evidenced by the large majority vote in favor of its recent referendum. CSD has the potential to be the best school district in Delaware.

Unfortunately, CSD continues to lag most other districts in just about every DSTP category. The test results summarized here prove that CSD's best programs are mostly mediocre; and most of its programs are clearly sub-standard. The examples of "progress" highlighted by the CSD administration are statistical exceptions to the general pattern of failure. The rankings prove that CSD has fallen further even behind most other Delaware school districts since 1998.

Five years of DSTP results show a district that is mired in failure and struggling to achieve mediocrity. CSD's problems as documented here are not localized to individual schools or programs. They are chronic and systemic, and they indicate a failure of leadership.