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ABSTRACT

A survey to gather information concerning school district testing programs in Pennsylvania is reviewed. The information concerns the commercially produced norm referenced and criterion referenced achievement tests, as well as locally produced achievement tests used in the state's school districts. The Pennsylvania Division of Educational Testing and Evaluation records of demographic data were merged with the results of the survey administered to all state school districts. The results of the data analysis are reported in several ways, including a breakdown by socioeconomic status, population density, and school district enrollment. The analysis indicates limited use of criterion referenced tests in Pennsylvania schools. A summary of information on district developed tests is also included. The testing survey and directions for completion are reproduced in their entirety. (DWH)

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PENNSYLVANIA SCHOOL DISTRICT
TESTING PROGRAMS

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PENNSYLVANIA SCHOOL DISTRICT TESTING PROGRAM

Summary

This report reviews a survey of Pennsylvania school district testing programs. In 1983, the survey gathered information on Pennsylvania school district use of: (1) commercially produced norm-referenced achievement tests; (2) commercially produced criterion-referenced achievement tests; and (3) school district developed achievement tests. Survey data were supplied by all 500 school district superintendents.

In general, Pennsylvania school districts are doing the following with respect to commercially produced norm-referenced achievement tests:

1. Pennsylvania school districts are using norm-referenced tests extensively. For example, 69.4 percent of the school districts are testing seven or more grade levels and 9.4 percent test at all twelve grade levels (page 3).
2. Most testing is concentrated in grades one through eight. The most frequently assessed grade levels were two, three, four, five and six with 400 or more school districts (over 80 percent) assessing those grades (page 4).
3. For Pennsylvania six achievement tests are used by 91.3 percent of the school districts. The major tests are the following: Stanford, Metropolitan, California, CTBS, Iowa and SRA. Those tests are produced by four publishers. The Psychological Corporation, CTB/McGraw-Hill, Riverside and Science Research Associates (page 5).
4. Most testing is conducted in either April or May (page 6).
5. A company's scoring service is employed in 89.5 percent of the cases (page 6).
6. Low socioeconomic school districts are conducting more testing than high socioeconomic school districts (page 7).
7. The high socioeconomic school districts selected tests published by less frequently used publishers, and they conducted testing more frequently in the fall months (page 9 and 10).
8. Urban school districts conducted more testing, and linked that testing to promotion or graduation requirements more frequently (page 11 and 14).

There are only about 20 Pennsylvania districts that appear to be using major criterion-referenced tests. Thus, there appears to be little use of criterion-referenced tests in Pennsylvania school districts.

A total of 86 school districts reported they developed, at the local level, an achievement test. Most of the school district developed tests were used at the secondary level. Of the 86 school districts, 64 administered the

tests at the secondary level. The most frequently tested subject areas were: English/language arts/writing (29 districts), mathematics (37 districts), school social studies (27 districts) and science (21 districts).

Based on the survey Pennsylvania's school districts are conducting extensive achievement testing. The question of how well test results are being used remains unanswered. For example, testing issues in need of investigation include the following:

- (1) How well school district testing programs are coordinated with state assessment programs?
- (2) Are teachers using test results as a part of the task of teaching or are test results used mainly by administrators.
- (3) Do teachers need to coordinate teacher-made tests with the need to produce school-wide data?
- (4) Are teacher constructed tests good measures of student achievement?

PENNSYLVANIA SCHOOL DISTRICT
TESTING PROGRAMS

Introduction

In August of 1983 a paper and pencil survey of all Pennsylvania school district testing programs was initiated by the Division of Educational Testing and Evaluation. The survey form (see Appendix A) was designed to gather information on three different testing topics: (1) school district use of commercially produced norm-referenced achievement tests; (2) school district use of commercially produced criterion-referenced achievement tests; and (3) school district use of achievement tests developed by individual school districts. There were two companion items mailed with the test survey to each Pennsylvania school district superintendent. A cover letter (see Appendix B) and directions for completing the test survey (see Appendix C) were included with the survey form.

The cover letter, directions and survey forms were mailed in August of 1983, as noted, to all Pennsylvania school district superintendents. Follow-up letters were mailed in October and follow-up telephone calls made in December of 1983 to request the completed test survey from superintendents not having supplied the information. Survey data were supplied by all 500 Pennsylvania school district superintendents by January of 1984.

Pennsylvania's superintendents and school district employees were most cooperative in supplying the information on testing programs. A note of thanks is appropriate for those individuals who spent the time required to gather the test program information.

This report reviews the commercially produced (1) norm-referenced and (2) criterion-referenced achievement tests along with (3) locally produced achievement tests used in Pennsylvania school districts. In addition, Division of Educational Testing and Evaluation records for each Pennsylvania school district contained demographic information such as socioeconomic level, school district population density, and geographic location. These demographic data were merged with the test survey information, thereby permitting analysis of testing programs for meaningful subgroups.

Norm-Referenced Achievement Tests

Pennsylvania Results - All School Districts

For the norm-referenced achievement tests data were collected on the: (1) test publisher; (2) test edition; (3) level; (4) grade level the test was administered; (5) month of testing; (6) scoring service utilized; and (7) if the test was used as a part of the promotion or graduate requirements. The number of grade levels tested was summarized in Table 1. In Pennsylvania the number of grade levels tested for individual school districts varied from none to all 12. As illustrated the most frequent number of grade levels assessed was eight which represented about 17 percent of the school districts. These data revealed that most school districts were testing at multiple grade levels.

For example, 69.4 percent of the school districts in Pennsylvania were testing seven or more grade levels and 9.4 percent test at all 12 grade levels.

The amount of testing at given grade levels was also ascertained as a part of the survey. Again the data reflected only the school districts' use of commercially produced achievement tests. These data were used to construct Table 2. The most frequently assessed grade levels were 2, 3, 4, 5 and 6 with 400 or more school districts assessing those grades (over 80 percent of the Pennsylvania school districts). Data from the survey revealed that testing was focused in grades one to eight. Another way of stating this was that decreased testing was conducted at the senior high level.

TABLE 1
Number of Grade Levels Assessed With Commercially
Produced Norm-Referenced Achievement Tests by Pennsylvania
School Districts

Number of Grade Levels	Number of School Districts	Percentage	Cumulative Percentage
0	2	0.4	0.4
1	0	0.0	0.4
2	3	0.6	1.0
3	19	3.8	4.8
4	32	6.4	11.2
5	43	8.6	19.8
6	54	10.8	30.6
7	54	10.8	41.4
8	84	16.8	58.2
9	77	15.4	73.6
10	54	10.8	84.4
11	31	6.2	90.6
12	47	9.4	100.0

n = 500 school districts

Overall, the data from Tables 1 and 2 indicated that most Pennsylvania school districts utilize achievement tests in multiple grade levels. Also, the testing focused at the elementary and middle school or junior high levels. Although a considerable amount of achievement testing is conducted, no data were gathered on how well the test results were utilized. Thus, one question was answered. Pennsylvania's school districts conduct extensive achievement testing. The question of how well test results are utilized remains unanswered.

TABLE 2

Specific Grade Levels Assessed by Pennsylvania School
Districts with Commercially Produced
Norm-Referenced Achievement Tests

Grade Level	Number of School Districts	Percentage ^{1,2}
1	332	66.7
2	400	80.3
3	427	85.7
4	432	86.7
5	430	86.3
6	436	87.6
7	358	71.9
8	382	76.7
9	252	50.6
10	235	47.2
11	163	32.7
12	80	16.1

¹n = 498 school districts. The two school districts that did not administer tests were not included.

²In calculating the "percentage" of school districts assessing a specific grade level those two districts not administering tests were excluded.

The next part of this report presents information on the school district use of specific commercially produced achievement tests. The percentage of school districts using individual norm-referenced tests was placed in Table 3. Of the 500 Pennsylvania school districts, 373 utilized only one norm-referenced test, 113 school districts utilized two, ten school districts employed three and two school districts administered four different tests. The percentages found in Table 3 reflect the fact that 125 school districts administered more than one norm-referenced achievement test. Of all the commercially produced tests, the Stanford was the most frequently used with 24.3 percent of the school districts selecting the test. The next most frequently used test was the Iowa, employed by 19 percent of the school districts. When the data were examined by publisher, the Psychological Corporation was used most often. The next most often used publisher was CTB/McGraw-Hill. Most frequent use was based on the number of school districts (not students) administering the tests. These data reflected the diversity in the number of commercially produced achievement tests administered in Pennsylvania school districts. It should be noted that several urban school districts administered achievement tests published by CTB/McGraw-Hill. Given the very large student populations comprising these school districts and considering the number of students tested statewide, it is probable the largest volume of tests processed originate from the comprehensive achievement tests published by CTB/McGraw-Hill.

TABLE 3
 Pennsylvania School District Utilization
 of Norm-Referenced Achievement Test Publishers

Test Publisher	Percentage of Schoc ¹ Districts ¹
Psychological Corp	37.3
Stanford	(24.3)
Metropolitan	(13.0)
CTB/McGraw-Hill	25.4
California	(12.1)
CTBS	(13.3)
Riverside (Iowa)	19.0
Science Res. Assoc. (SRA)	9.6
All Others	8.7

n = 498 school districts

¹The percentage of school districts was calculated based on the 498 Pennsylvania school districts utilizing norm-referenced achievement tests.

School administrators reported the months in which achievement tests were given. These data were summarized in Table 4. Note that over 100 school districts employed more than one test; plus some school districts administered the same test two times each school year. This resulted in the total number of tests used to formulate Table 4 exceeding the number of Pennsylvania school districts. Most norm-referenced testing occurred in April and May with a total of 60.7 percent during those months. October was the month when most of the fall testing was conducted.

TABLE 4

Month the Norm-Referenced Achievement
Tests Were Administered by School Districts

Month	Frequency	Percentage
August	1	0.2
September	44	6.9
October	81	12.7
November	13	2.0
December	2	0.3
January	14	2.2
February	26	4.1
March	60	9.4
April	274	42.9
May	114	17.8
June	0	0.0
July	0	0.0
Not Reported	10	1.6

The next two variables examined were the scoring service utilized by the school district and if the test was considered when determining student promotion or graduation. The scoring service most often used was company provided, which accounted for 89.5 percent of the tests. A local scoring service (hand scoring in many cases) was employed for 6.1 percent of the tests. Only 2.7 percent of the tests were scored by a Pennsylvania intermediate unit, and the scoring service was not reported for 1.7 percent of the tests. Most norm-referenced tests were not used (92.5 percent) for promotion or graduation requirements. Only 5.8 percent of the tests were considered in promotion or graduation requirements. For this variable 1.7 percent of the tests were not identified as having or not having a part in promotion or graduation requirements.

In summary, Pennsylvania school districts are using norm-referenced achievement tests extensively. About 70 percent of the school districts assess seven or more grade levels with the testing concentrated in grades one through eight. Six achievement tests are used by 91.3 percent of the school districts. Most testing takes place in April and May with a company scoring service used to produce student, building and district results.

Results by Socioeconomic Status

Pennsylvania school districts were divided into four socioeconomic groups based on the parental education level. Each socioeconomic group contained from 104 to 147 school districts. The analysis by socioeconomic status was on the following topics: (1) number of grade levels assessed; (2) specific grade

levels assessed; (3) test publisher; (4) month of test administration; (5) scoring service; and (6) use for promotion or graduation.

The number of grade levels assessed was examined by school district socioeconomic groups (see Table 5). The trend was for low socioeconomic school districts to conduct the most norm-referenced achievement testing and high socioeconomic school districts to conduct the least amount of testing. It should be noted the differences between socioeconomic groups was not extremely large for the number of grade levels tested. The specific grade levels tested for each socioeconomic group was summarized in Table 6. Since more testing takes place in low socioeconomic schools, the percentages were higher for low socioeconomic schools in most grade levels. A large percentage of all school districts in fact, over 80 percent, were testing at grades 2 through 6 regardless of the socioeconomic group considered.

TABLE 5
Number of Grade Levels Assessed With Commercially
Produced Norm-Referenced Achievement Tests by
Socioeconomic Status for Pennsylvania School Districts

Number of Grade Levels	Percentage by Socioeconomic Status			
	Low	Medium/ Low	Medium/ High	High
0	0.9	0.7	0.0	0.0
1	0.0	0.0	0.0	0.0
2	0.9	0.0	0.7	1.0
3	4.5	4.3	4.8	1.0
4	5.4	3.6	7.5	9.7
5	4.5	11.6	8.2	8.7
6	9.0	15.2	8.9	10.7
7	11.7	6.5	8.2	19.3
8	13.5	14.5	20.6	17.5
9	9.9	20.4	15.1	14.6
10	19.0	7.2	11.0	6.8
11	5.4	8.0	7.5	2.9
12	15.3	8.0	7.5	7.8

Low n = 111, Medium/Low n = 138, Medium/High n = 147, High n = 104 school districts

TABLE 6

Specific Grade Levels Assessed by Socioeconomic
Status of Pennsylvania School Districts With
Commercially Produced Norm-Referenced Achievement Tests

Grade Level	Percentage by Socioeconomic Status			
	Low	Medium/ Low	Medium/ High	High
1	74.8	73.9	65.3	49.0
2	81.1	73.9	78.9	73.1
3	92.8	83.3	85.7	79.8
4	82.0	86.2	87.8	89.4
5	91.0	84.8	85.7	82.7
6	82.9	89.1	88.4	87.5
7	82.0	68.1	64.6	75.0
8	79.3	67.4	81.6	77.9
9	58.6	52.9	44.9	46.2
10	54.1	37.7	46.3	52.3
11	36.0	34.8	34.0	24.0
12	21.6	12.3	17.0	13.5

Low n = 111, Medium/Low n = 138, Medium/High n = 147, High n = 104 school districts

The percentage of school districts using a specific test was calculated, and the data were placed in Table 7. For most tests there was little change from low to high socioeconomic school district groups. The Iowa and CTBS were the two tests that reflected greater use in certain socioeconomic groups. The CTBS was employed more often by high socioeconomic school districts while the Iowa was used less frequently in high socioeconomic school districts. For the "All Others" group of tests, high socioeconomic school districts indicated greater use. Based on conversations with school administrators, this could be caused in part by high socioeconomic school district administrators searching for tests with norms they felt were appropriate for their students.

TABLE 7

Norm-Referenced Achievement Test Publisher
Utilization by Socioeconomic Status of
Pennsylvania School Districts

Test Publisher	Percentage by Socioeconomic Status			
	Low	Medium/ Low	Medium/ High	High
Psychological Corp	35.2	41.6	36.4	35.4
Stanford	(21.8)	(25.8)	(23.9)	(25.8)
Metropolitan	(13.4)	(15.8)	(12.5)	(9.6)
CTB/McGraw-Hill	24.0	20.7	27.8	30.2
California	(12.7)	(10.9)	(14.2)	(10.3)
CTBS	(11.3)	(9.8)	(13.6)	(19.9)
Riverside (Iowa)	22.5	19.8	18.8	14.7
Science Res. Assoc. (SRA)	10.6	10.9	9.7	6.6
All Others	7.7	7.0	7.3	13.1

Low n = 111, Medium/Low n = 138, Medium/High n = 147, High n = 104 school districts

The months during which tests were administered was presented for each socioeconomic group in Table 8. Low, medium/low and the medium/high groups were similar in the months they selected to administer norm-referenced achievement tests. High socioeconomic school districts conducted more testing in the fall and less in the spring than other groups.

There was a slight tendency for low and medium/low socioeconomic school districts to use local scoring rather than company scoring services. For example, 7.8 percent of the low and 9.4 percent of the medium/low socioeconomic status school districts used local scoring while 2.9 percent of the medium/high and 4.5 percent of the high socioeconomic status school districts used local scoring. The low and the medium/low socioeconomic school districts were using norm-referenced tests as a part of their promotion or graduation requirements a little more often than the medium/high and high socioeconomic school districts.

Overall, the low socioeconomic school districts were conducting more norm-referenced achievement testing than the high socioeconomic school districts. This was reflected in the number of grade levels tested and the specific grade levels tested. The high socioeconomic school districts selected tests published by less frequently used publishers (the "All Others" from Table 7) and they made greater use of the CTBS by CTB/McGraw-Hill. A higher percentage of the

low socioeconomic school districts used the Iowa than did the other socioeconomic groups. Lastly, the high socioeconomic group differed from the other socioeconomic levels in that they tested more frequently in the fall and less frequently in the spring.

TABLE 8
Month of Test Administration by Socioeconomic
Status of Pennsylvania School Districts

Month	Percentage by Socioeconomic Status			
	Low	Medium/ Low	Medium/ High	High
August	0.0	0.5	0.0	0.0
September	1.4	3.8	6.8	16.9
October	10.5	10.9	14.2	15.4
November	0.7	2.2	2.3	2.9
December	0.0	0.5	0.0	0.7
January	1.4	4.3	0.6	2.2
February	6.3	3.3	2.3	5.1
March	7.7	8.2	10.2	11.8
April	45.4	48.4	41.4	34.7
May	25.2	16.3	20.5	8.8
June	0.0	0.0	0.0	0.0
July	0.0	0.0	0.0	0.0
Not Reported	1.4	1.6	1.7	1.5

Low n = 111, Medium/Low n = 138, Medium/High n = 147, High n = 104 school districts

Results by Population Density

Pennsylvania school districts were classified as rural (n=78), small town (n=215), suburban (n=188), and urban (n=18) according to a measure of population density. As was the case for socioeconomic status, the analysis by population density included: (1) number of grade levels assessed; (2) specific grade levels assessed; (3) test publisher; (4) month of test administration; (5) scoring service; and (6) use for promotion or graduation.

The number of grade levels assessed was identified by population density groups in Table 9. There was a clear tendency for urban school districts to conduct more testing than the other three groups of school districts. Rural, small town and suburban school districts differed only slightly in the number of grade levels tested. One example of the difference between urban school districts and the other three groups was the following. For urban school districts 72 percent tested ten or more grade levels, while 29.2 percent of the rural, 24.3 percent of the small town and 23.6 percent of the suburban districts tested ten or more grade levels. Specific grade levels tested by population

density groups was presented in Table 10. Since urban school districts conducted more testing, their percentages were higher than the other three population density groups. The most notable differences were for grades 9 through 12 with 50 percent of the urban school districts testing grade 11 students and 33.3 percent testing grade 12.

TABLE 9
 Number of Grade Levels Assessed with Commercially
 Produced Norm-Referenced Achievement Tests by
 Population Density for Pennsylvania School Districts

Number of Grade Levels	Percentage by Population Density			
	Rural	Small Town	Suburban	Urban
0	1.3	0.0	0.0	5.6
1	0.0	0.0	0.0	0.0
2	0.0	0.5	1.1	0.0
3	2.5	2.8	5.3	5.6
4	3.8	7.0	7.5	0.0
5	5.1	11.2	7.5	0.0
6	10.1	11.7	11.2	5.6
7	21.4	6.5	12.3	0.0
8	12.7	20.1	15.5	5.6
9	13.9	15.9	16.0	5.6
10	12.7	8.9	10.2	33.2
11	3.8	5.6	7.5	11.1
12	12.7	9.8	5.9	27.7

Rural n = 79, Small Town n = 215, Suburban n = 188, Urban n = 18 school districts



TABLE 10

Specific Grade Levels Assessed by Population Density
of Pennsylvania School Districts with Commercially Produced
Norm-Referenced Achievement Tests

Grade Levels	Percentage by Population Density			
	Rural	Small Town	Suburban	Urban
1	72.2	71.6	56.4	83.3
2	89.9	81.4	73.4	88.9
3	88.6	84.7	84.0	94.4
4	89.9	86.5	84.6	88.9
5	89.9	83.3	86.7	94.4
6	87.3	88.4	85.6	88.9
7	75.9	68.8	71.8	83.3
8	74.7	75.3	77.7	83.3
9	54.4	48.4	48.9	72.2
10	45.6	42.8	50.0	72.2
11	32.9	33.0	30.3	50.0
12	20.3	15.8	12.8	33.3

Rural n = 79, Small Town n = 215, Suburban n = 188, Urban n = 18 school districts

The percentage of school districts by population density groups using a specific test was placed in Table 11. A higher percentage of the urban school districts used the Stanford, California and Iowa than did the other population density groups. Rural and suburban school districts made greater use of the "All Others" group of tests. It is possible the suburban school districts (also noted for high socioeconomic districts) were using tests from the "All Others" group because they perceived norms as being more appropriate for their students as stated earlier.

The month of test administration for each population density group was identified in Table 12. Rural, small town and urban school districts were similar with most of those school districts testing in the spring. Suburban school districts reported a slightly higher percentage of fall testing than the other groups.

TABLE 11

Norm-Referenced Achievement Test Publisher
Utilization by Population Density of Pennsylvania School Districts

Test Publisher	Percentage by Population Density			
	Rural	Small Town	Suburban	Urban
Psychological Corp	38.4	37.0	36.5	45.0
Stanford	(25.6)	(22.2)	(25.2)	(35.0)
Metropolitan	(12.8)	(14.8)	(11.3)	(10.0)
CTB/McGraw-Hill	19.3	26.7	27.3	20.0
California	(9.2)	(13.0)	(12.2)	(15.0)
CTBS	(10.1)	(13.7)	(15.1)	(5.0)
Riverside (Iowa)	19.3	19.3	18.1	25.0
Science Res. Assoc. (SRA)	9.2	11.5	8.0	5.0
All Others	13.8	5.5	10.1	5.0

Rural n = 79, Small Town n = 215, Suburban n = 128, Urban n = 18 school districts

TABLE 12

Month of Test Administration by Population Density
of Pennsylvania School Districts

Month	Percentage by Population Density			
	Rural	Small Town	Suburban	Urban
August	0.0	0.4	0.0	0.0
September	1.8	3.7	13.0	4.8
October	11.8	12.6	13.9	4.8
November	0.9	2.2	2.5	0.0
December	0.0	0.4	0.4	0.0
January	1.8	2.6	2.1	0.0
February	6.4	3.0	3.8	9.5
March	8.2	9.3	10.1	9.5
April	45.5	47.3	36.1	47.6
May	21.8	17.4	16.4	19.0
June	0.0	0.0	0.0	0.0
July	0.0	0.0	0.0	0.0
Not Reported	1.8	1.1	1.7	4.8

Rural n = 79, Small Town n = 215, Suburban n = 188, Urban n = 18 school districts

The scoring service utilized was examined along with whether the test was used for promotion or graduation. A company scoring service was used by 95 percent of the urban and 94 percent of the suburban school districts while 90 percent of the rural and 89 percent of the small town school districts utilized that service. Thus, there was a slightly greater tendency for small town and rural school districts to use local and intermediate unit scoring services. Urban school districts in 15 percent of the cases did have achievement testing linked to promotion or graduation requirements. Only 8 percent of the rural, 6 percent of the suburban and 4 percent of the small town school districts used achievement tests as a part of their promotion or graduation requirements.

In general, urban school districts conducted more testing, and linked that testing to promotion or graduation requirements more often. Urban districts made greater use of specific tests such as the Stanford, California and Iowa. Suburban school districts did more fall testing than the other population density groups.

Results by School District Enrollment

School district enrollment was utilized to create four school district size groups labeled small, medium/small, medium/large and large. Analyses conducted for groups based on district size followed the topics used in the previous sections.

The number of grade levels assessed by school district size groups was placed in Table 13. Only slight differences were noted between size groups and the number of grade levels tested. Large school districts conducted a little more testing than the others.

TABLE 13

Number of Grade Levels Assessed with Commercially
Produced Norm-Referenced Achievement Tests by Pennsylvania
School District Size Groups

Number of Grade Levels	Percentage by School District Size			
	Small	Medium/ Small	Medium/ Large	Large
0	0.0	0.5	0.6	0.0
1	0.0	0.0	0.0	0.0
2	0.0	0.5	1.1	0.0
3	3.4	3.3	4.4	3.8
4	6.9	4.9	7.8	6.4
5	8.6	8.2	8.9	9.0
6	15.5	9.3	12.8	6.4
7	8.6	10.9	10.0	14.1
8	17.2	15.8	16.6	18.0
9	12.1	21.9	11.1	12.8
10	8.6	10.4	11.7	11.5
11	3.4	6.0	6.1	9.0
12	15.5	8.2	8.9	9.0

Small n = 58, Medium/Small n = 183, Medium/Large n = 181, Large n = 78 school districts

The specific grade levels tested was presented by school district size groups in Table 14. The percentages indicated that tests were used a little more by large school districts and slightly less by the medium/large school districts. Possibly, the large school district group would have different percentages if only the 20 largest Pennsylvania school districts were used in the analysis.

School district use of specific achievement tests was recorded in Table 15. The small school districts made greater use of the Metropolitan and to some degree the Stanford. Medium/small school districts in about 22 percent of the cases used the Iowa which was the most frequent use of that test. The CTBS and California were used most often by large school districts while the other tests were less frequently used by large school districts.

TABLE 14
Specific Grade Levels Assessed by School
District Size Groups with Commercially Produced
Norm-Referenced Achievement Tests

Grade Level	Percentage by School District Size			
	Small	Medium/ Small	Medium/ Large	Large
1	74.1	72.3	61.1	59.0
2	86.2	85.3	74.4	75.6
3	87.9	86.4	81.7	89.7
4	87.9	87.0	83.9	89.7
5	84.5	87.0	83.9	89.7
6	89.7	88.6	83.9	89.7
7	79.3	72.8	71.1	64.1
8	75.9	75.0	75.0	83.3
9	51.7	53.3	46.7	51.3
10	44.8	40.8	49.4	57.7
11	34.5	32.6	32.8	30.8
12	15.5	14.1	17.2	17.9

Small n = 58, Medium/Small n = 183, Medium/Large n = 181, Large = 78 school districts

TABLE 15

Norm-Referenced Achievement Test Publisher
Utilization by School District Size Groups

Test Publisher	Percentage by School District Size			
	Small	Medium/ Small	Medium/ Large	Large
Psychological Corp	46.3	37.7	36.8	29.7
Stanford	(26.1)	(23.7)	(25.9)	(20.9)
Metropolitan	(20.2)	(14.0)	(10.9)	(8.9)
CTB/McGraw-Hill	21.4	20.6	25.0	42.8
California	(10.7)	(10.7)	(12.7)	(15.4)
CTBS	(10.7)	(9.9)	(12.3)	(27.4)
Riverside (Iowa)	17.9	21.6	18.6	24.3
Science Res. Assoc. (SRA)	6.0	10.3	12.3	4.4
All Others	8.4	9.8	7.3	8.8

Small n = 58, Medium/Small n = 183, Medium/Large n = 181, Large n = 78 school districts

The month of testing for school district size groups is presented in Table 16. Percentages in Table 16 illustrated that small and medium/small school districts more often tested in the spring than do medium/large and large school districts. As was the case for suburban school districts, the medium/large and large school districts did more testing in the fall months. Over 60 percent of the school districts in each size group tested during the months of March, April or May.

A review of the differences between school district size and the scoring service utilized produced some results that were of interest. About 80 percent of the small school districts used the company scoring service, with 16 percent doing local scoring and 4 percent using an intermediate unit scoring service. Large school districts in approximately 97 percent of the cases utilized the company scoring service with only 2 percent doing local scoring and 1 percent using an intermediate unit scoring service. Little difference was found between the school district size groups and the use of standardized achievement as a part of graduation or promotion requirements.

Overall, large school districts tested slightly more often than the other groups. Small school districts made somewhat greater use of the Metropolitan and the Stanford. Other differences were found in the use of specific tests by school district size groups. Most testing was conducted in the spring but large and medium/large school districts tended to test a little more frequently in the fall. Greater use of company scoring services was made by the large school districts.

TABLE 16

Month of Test Administration by
School District Size Groups

Month	Percentage by School District Size			
	Small	Medium/ Small	Medium/ Large	Large
August	0.0	0.0	0.5	0.0
September	4.8	2.5	10.4	12.1
October	8.3	11.5	14.5	15.4
November	2.4	2.5	2.3	0.0
December	0.0	0.4	0.0	1.1
January	0.0	1.6	4.1	1.1
February	3.6	4.5	2.7	6.6
March	11.9	8.2	7.7	14.3
April	39.2	49.1	40.2	36.2
May	28.6	18.1	15.8	12.1
June	0.0	0.0	0.0	0.0
July	0.0	0.0	0.0	0.0
Not Reported	1.2	1.6	1.8	1.1

Small n = 58, Medium/Small n = 183, Medium/Large = 181, Large n = 78 school districts

Results were presented by school district socioeconomic status, population density and enrollment. It should be noted that some groups of school districts, when categorized by population density, enrollment and socioeconomic status, contained many of the same school districts. For example, the "large" school district group (when defined using enrollments) contained all of the eighteen "urban" (when defined using population density) school districts. This produced similar results for selected groups due to the same school districts being assigned to those groups.

Criterion Referenced Achievement Test

Information on district use of commercially produced criterion-referenced tests was also requested. Survey directions alerted the respondent that a criterion-referenced test might incorporate a variety of terms in the title such as mastery, competency, criterion-referenced, objective-referenced, etc. The survey directions further pointed out that criterion-referenced tests generally measure a series of important objectives and report scores in terms of objectives passed or mastered. Sixty-three districts indicated they used a criterion-referenced test; however, close scrutiny revealed that many fewer districts used "true" criterion-referenced tests. For instance, major comprehensive norm-referenced achievement tests were identified by seven districts as criterion-referenced tests, possibly because of confusion regarding company options to provide criterion-referenced information along with traditional

norm-referenced information. In addition, eight districts identified norm-referenced achievement tests in certain specialty areas as being criterion-referenced. Another type of test identified by 29 districts as criterion-referenced was the end of unit test associated with elementary textbooks, particularly the basal reading series. If one excludes all of these tests there are only about 20 districts remaining that appeared to be using major criterion-referenced tests. From the analysis there appeared to be little use of criterion-referenced tests in Pennsylvania schools.

Information Reported on District Developed Tests

School districts were requested to report on their usage of locally developed achievement tests. These include tests developed by various departments (e.g., mathematics, science, language arts, social studies, etc.). These tests were used district-wide for purposes such as final examinations in a subject area, promotion, placement (i.e., into an ability group or for a certain level course such as Honors English) or as a prerequisite for high school graduation. Information supplied pertained to only those tests administered to all regular classroom students at a specific grade level. Table 17 reveals that 86 districts administered locally developed achievement tests. This represents 17 percent of the Commonwealth's school districts. Of these 86 districts, 19 indicated they tested only at the elementary level. Typically, these districts tested at the terminal grade in the elementary program, generally 5th or 6th grade. Mathematics, reported by 15 districts, was the most frequently tested subject area, with reading second (eight districts) and several districts testing social studies, science or English/language arts/writing skills.

Exactly one-half of the districts using locally developed tests administered them at secondary levels only. For seven of these districts testing was confined to the middle school or junior high school level, 19 districts reported senior high school only and 17 tested at levels distributed across the entire secondary range. The most frequently tested subject areas were English/language arts/writing skills (29 districts), mathematics (37 districts), social studies (27 districts), science (21 districts), foreign language (13 districts), business (eight districts), health (eight districts), industrial arts (five districts), music (five districts), reading (five districts), home economics (four districts), art (four districts), and an assortment of speciality areas like consumer education/life role competency, screening for honors courses, and determining readiness for algebra.

Table 17 also revealed that 21 districts reported testing at both elementary and secondary level with four testing in the elementary to the middle school/junior high school levels and the other 17, elementary through high school. Three districts indicated they developed a kindergarten readiness which was the only district-wide test they used.

TABLE 17

Summary of Information Reported
on District Developed Tests

Level at Which Testing Was Recorded	Number of Districts Reporting
Elementary Only	19
Secondary Only	43
Middle School/Junior High School	(7)
High School	(19)
Both MS/JHS & HS	(19)
Both Elementary & Secondary	21
Elementary & MS/JHS	(4)
Elementary through High School	(17)
Kindergarten Readiness Only	<u>3</u>
TOTAL	86

Other Studies of Testing

The data presented in this report dealt with a survey of Pennsylvania school districts regarding the amount of testing conducted with commercially produced norm-referenced and criterion-referenced tests. Some insight on the amount of testing with district developed tests was provided. While no information was gathered on test utilization, the impression gained from informal conversations with school administrators was that considerably more use could be made of the test information reported to districts.

To get a larger perspective of testing practices and test use in schools several major investigations were reviewed. One example was a study of testing in the nation's schools by the Center for the Study of Evaluation (Burry, Catterall, Choppin and Dorr-Bremme, 1982). That study identified two main categories of testing. First, teacher constructed and administered tests were identified which were used to motivate students and generate grades. Second, school district and/or state tests were considered which were aimed at evaluating the educational system. Teacher organized and administered tests were used extensively with a considerable amount of trust. Mandated testing results were not used as intelligently, if at all, and there was some doubt about the effectiveness. A solution offered to the problem was to train teachers to use calibrated item banks in constructing teacher tests. By employing a school-wide or district-wide record keeping system to keep track of all student test data, the required information for school district, or state reporting could be extracted. This would serve to decrease the amount of time spent on testing, thus allowing more time for instruction. It would seem that this suggestion would serve other purposes. First, teachers would have items that are well written to use in constructing teacher tests. The quality of teacher tests varies from teacher to teacher, hence, this would be an improvement. Second,

the objectives for a subject or course would be better defined from teacher to teacher if data are to be made available at the school and school district levels. For example, if addition and subtraction of fractions was taught at grade 5, then school data on student performance would be collected by every fifth grade teacher using the items from the item bank. This would not eliminate the need for school district or state testing but may reduce the amount of testing at that level.

The Center for the Study of Evaluation report also listed how and why teachers used tests. In interviews, teachers reported tests were most used in functions relating to teaching. The purposes most frequently cited were: (1) deciding what to teach and how to teach it to students of different achievement levels; (2) keeping track of student progress and how teachers needed to adjust the teaching; and (3) evaluating and grading students. Using test results to compare groups of students and reporting those results were rarely mentioned as a test use by teachers. Teachers were more interested in relating tests to the practical task of teaching.

The means of assessing which teachers most heavily rely on were: (their own) self-constructed tests and major assignments; (less formal) peer evaluation, oral exercises, conferences with students and consultations with students' former teachers; and curriculum-imbedded tests. Based on the findings, it was evident that teachers relied most on assessments which were immediately accessible and served their intended purposes but were practical activities and related to the content taught. Thus, the list of teacher assessment strategies most often used were logical based on the conditions found in those schools.

The Center for the Study of Evaluation report listed some of the reasons for teachers not using standardized commercially produced tests. The standardized tests were selected by administrators and imposed on teachers. Also, teachers indicated that they did not furnish any new information. They are not broadly based tests that include social goals. Standardized tests were not sufficiently precise for diagnostic purposes nor were they linked to instruction. Teachers lacked training on how to use test results in grading and advising pupils or in providing pupils with feedback.

Standardized tests were found to play an important part in several teacher activities. Planning instruction at the beginning of the school year, initial grouping of students and changing a student from one group to another were influenced by standardized test scores. Deciding a student's report grade was influenced only slightly by standardized test results.

An investigation of testing was also conducted by the Center for Performance Assessment, Northwest Regional Educational Laboratory (Stiggins and Bridgeford, 1983). About one-half of the teachers reported they were comfortable using teacher-made objective tests. This held across grades and subjects with the level of comfortable use ranging from 40 percent to 61 percent (49 percent for the total sampled). The level of non-use was 21 percent for the total sample on teacher-made objective tests. For published tests, 35 percent to 61 percent (45 percent of the total sampled) of the teachers reported comfortable use. Again, for published tests, 35 percent of the teachers reported non-use. These data were presented to provide information on the use and non-use of teacher-made and published tests. This report also provides a detailed review of the teachers' self-analysis of assessment.

References

- Burry, James, et al. Testing in the Nation's Schools and District: How Much? What Kinds? To What Ends? At What Cost? A paper presented at the annual meeting of the American Educational Research Association, New York, 1982.
- Stiggins, Richard J. and Bridgeford, Nancy J. The Use of Performance Assessment in the Classroom. Research Report. Center for Performance Assessment, Northwest Regional Educational Laboratory, Portland, Oregon, 1978.

APPENDIX A

PENNSYLVANIA SCHOOL DISTRICT TESTING SURVEY, 1983

PENNSYLVANIA SCHOOL DISTRICT TESTING SURVEY, 1983

1. School District: _____
2. Contact Person for Additional Information: Name _____ Phone _____
3. COMMERCIALLY PRODUCED ACHIEVEMENT TEST (NORM REFERENCED) INFORMATION

Test Publisher/Name (Example)	Edition (Copyright) Year	Level and/or Form	Grade Level(s)	Month(s) Tested	Scoring (Company or Local)	Used for Promotion/ Graduation
Metropolitan Achievement	1978	Intermediate/JS	5	May	Company	No
Metropolitan Achievement	1978	Advanced 1/JS	7,9	May	Company	No

4. COMMERCIALLY PRODUCED ACHIEVEMENT TEST (CRITERION REFERENCED) INFORMATION

<u>Test Publisher/Name</u>	Edition (Copyright) Year	Level and/or Form	Grade Level(s)	Month(s) Tested	Scoring (Company or Local)	Used for Promotion/ Graduation
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5. LOCALLY (SCHOOL DISTRICT) PRODUCED ACHIEVEMENT TEST INFORMATION

<u>Subject/Content</u>	<u>Year Developed</u>	<u>Grade Level(s)</u>	<u>Month(s) Tested</u>	<u>Scoring (Company or Local)</u>	<u>Used for Promotion/ Graduation</u>
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APPENDIX B
COVER LETTER

August 17, 1983

Dear :

Currently, the Pennsylvania Department of Education is examining ways for better coordination of a state assessment program and local school district testing. In order to accomplish this task information is needed from each Pennsylvania school district on specific aspects of their testing program. Therefore, I am requesting each school district superintendent to complete or have completed the enclosed survey form.

Information collected through this survey will be used to determine which tests are being used in Pennsylvania and how frequently. In addition, it will provide data on the grade levels assessed, when the testing is conducted, scoring services utilized and the relationship to graduation requirements or promotion. These data will provide an indication of the extent to which local testing programs can be coordinated with a State Assessment Program.

Please return the completed survey to Drs. Richard L. Kohr and Ross S. Blust at: Division of Testing and Evaluation, 12th Floor, Pennsylvania Department of Education, 333 Market Street, Harrisburg, PA 17108.

This information is needed by September 22, 1983. If you have any questions, please call Drs. Kohr or Blust at (717) 787-4234. Your assistance in seeing that this survey is completed will help to improve the services provided by the Department of Education. A summary of the survey results will be available upon your request.

Sincerely,

Dr. Margaret A. Smith

Enclosure

APPENDIX C

**DIRECTIONS FOR COMPLETING THE PENNSYLVANIA
SCHOOL DISTRICT TESTING SURVEY**

**DIRECTIONS FOR COMPLETING THE PENNSYLVANIA
SCHOOL DISTRICT TESTING SURVEY**

Please supply information regarding school district achievement testing, for the 1983-84 school year, on commercially produced (norm referenced) achievement tests, commercially produced (criterion referenced) achievement tests, and locally produced (school district) achievement tests. Provide only information on tests administered to all regular classroom students at a grade level.

On the Pennsylvania School District Testing Survey record the district name (item 1) and a name and phone number for a contact person (item 2) should clarifying information be needed. Item 3 requests information on commercially produced achievement tests which provide norm referenced information. Common examples of norm referenced achievement tests include the Comprehensive Test of Basic Skills (CTBS), California Achievement Test (CAT), Iowa Test of Basic Skills (ITBS), Metropolitan Achievement Test (MAT), Science Research Associates (SRA), and Stanford Achievement Test (SAT) along with others. Typical scores produced for a norm referenced test include a raw score (number correct), grade equivalent, percentile or stanine and perhaps a scaled score of some type. Scores such as percentiles, stanines or grade equivalents compare a student's standing relative to a norm group, generally a national norm and, sometimes at the school district option, a local norm. Notice that on the survey form an example is provided to illustrate the information needed. For each test please record the following information:

Test Publisher/Name: Indicate the name of the test used.

Edition: This refers to the year the test was copyrighted, e.g., Stanford, 1973 or Stanford, 1982.

Level and/or Form: The test usually specifies a level such as primary, intermediate, secondary, advanced, etc. and a form identification.

Grade Level(s): Specify at which grade levels the test is administered.

Month Tested: Specify the month the test is administered or months if the test is administered more than one time per school year.

Scoring: Indicate whether scoring services are provided by the test company, by another agency such as an IU or whether it is scored locally -- that is, by the local school district.

Used for Promotion/Graduation: If scores from the test are used by the district as at least one factor considered for promotion or for high school graduation please indicate with a "yes." If the test is not used for these purposes, record "no".

Item 4 requests information on commercially produced criterion referenced tests (CRT). Criterion referenced tests go by a variety of titles such as Objective Referenced Test, Mastery Test, Competency Test, etc. Such tests generally measure a series of important objectives and report scores in terms of objectives mastered or passed. The information requested here is identical to that described above for norm referenced tests.

Item 5 concerns the use of locally developed achievement tests. These are developed by various departments (e.g., mathematics, science, language arts, social studies) as district-wide tests to be used for purposes such as a final examination in the subject area, promotion, placement (i.e., into an ability group or for a certain level course such as honors English) or as a prerequisite for high school graduation. Again, the information requested is the same as that described initially for norm referenced tests.

Remember to supply information on only those tests administered to all regular classroom students at a specific grade level. In the event that you have questions regarding the nature of the information desired, please contact either Dr. Richard Kohr or Dr. Ross Blust in the Pennsylvania Department of Education at (717) 787-4234.