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ABSTRACT

This document contains the results of a standard setting conducted between August 2 and August 12, 1999, on the Delaware Student Testing Program (DSTP) Mathematics, Reading, and Writing subtests at grades 3, 5, 8, and 10. At the standard setting, judges were asked to recommend only the cut point between "Below the Standard" and "Meets the Standard" and the cut point between "Meets the Standard" and "Exceeds the Standard." The Delaware State Department of Education then used these cut points to recommend the remaining two cut points ("Distinguished" and "Well Below the Standard"). The cut points are recommended to the State Board of Education for the three domains. Once the State Board of Education approves a set of cut points for the subtests, the results will be applied to the 1999 test scores, which will then be released to students and schools. Then, students will need to achieve to the level of "Meets the Standard" to be eligible for promotion to the next grade level; and for students in grade 10, the tests will serve as eligibility criteria for a state diploma. It is possible that a "fairness" adjustment may be made since some high school students will have had the opportunity to be in a standards-based classroom for only a few years. Five appendixes contain judge-by-judge recommendations, information on the judges, a data comparison for 1998 and 1999, data disaggregations, and a survey of the standard setting participants. (Contains 14 figures and 30 tables.) (SLD)

Report and Recommendations to the Delaware State Board of Education for:

Establishing Proficiency Levels for the Delaware Student Testing Program in Reading, Writing, and Mathematics

Presented August 26, 1999
By the Assessment and Accountability Branch
Assessment and Analysis Work Group

D. Blowman

Note about the test data included in this document:

All test data included in this document indicated as being from 1998 are from the 1998 spring administration of the Delaware Student Testing Program. The data from 1998 are complete and may be considered final.

All test data in this document indicated as being from 1999 are from the 1999 spring administration of the Delaware Student Testing Program. However, the data are to be considered preliminary in that the final quality control procedures have not yet been applied. Thus all 1999 data herein—including mean scores, score distributions, and impact data—are subject to change prior to final release. However, it is highly unlikely that any significant changes will occur. Furthermore, it is unlikely that the percentage of students falling into a particular proficiency level will differ from what is indicated here.

Finally, many of the numbers (from both 1998 and 1999 data) have been rounded to make the document more user-friendly. This should be noted when dealing with percentages, since not all of them will total 100% as a result of rounding anomalies. Also, n-counts of students may be affected as well.

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1. Overview

This document contains the results of a Standard Setting conducted between August 2, 1999, and August 12, 1999, on the Delaware Student Testing Program (DSTP) Mathematics, Reading, and Writing sub-tests at grades 3, 5, 8, and 10.

Delaware statute requires that the State produce an assessment in each of these areas and establish five levels of proficiency for each sub-test. The Department of Education and the State Board of Education are in the process of creating the final regulations that define and describe that system. The system is as follows:

Table 1: DSTP Proficiency Levels

Level	Category	Description
5	Distinguished	Excellent performance
4	Exceeds the Standard	Very good performance
3	Meets the Standard	Good performance
2	Below the Standard	Needs improvement
1	Well Below the Standard	Needs lots of improvement

It should be noted that the standard error just below the "Meets" cut point shall be designated "Near" the Standard and that the consequences for being that close to the "Meets the Standard" are somewhat different than students who are below the "Near" threshold as constituted by statute. This is to account for students who might test under different circumstances and achieve at a higher level, given that all tests have some amount of error in them since they "sample" what students are to have learned. For students below that threshold, it is unlikely that a retest would place them in the "Meets the Standard" proficiency level without additional instruction and/or learning time.

At the Standard Setting judges were asked to recommend only the cut point between Below the Standard and Meets the Standard, and the cut point between Meets the Standard and Exceeds the Standard. These two cut points were deemed to be the most important since they define the range of scores students can achieve in order to Meet the Standard. It was determined to have the judges recommend only two of the necessary four cut points since the cognitive overload of setting four distinct cuts was simply too much for judges to accomplish in a two day session. The Department of Education then used the results to calculate the remaining two cut points using the cuts established by the judges and a standard error measure to do so.

Also at the Standard Setting judges were specifically told to think of the cut point between Meets the Standard and Below the Standard as the line that delineates students whose performance is "good enough" from those students who might need some

additional instruction and/or time do so. This distinction is important because it differs dramatically from what a cut point that delineates "failing" students from "passing" students might look like. Had we asked the judges for a pass/fail cut point it is our sense that the standard setting would have produced a different result.

Next Steps

Once the State Board of Education approves a set of cut points for the Mathematics, Reading, and Writing sub-tests, the results will be applied to the 1999 test scores which will then be released to students and schools. In addition, the cut points will be traced back on to 1998 data. This fall, once the rules for calculating a school's Accountability Index are fully in place, the resulting cut points will be used to establish school baselines for eventual accreditation decisions.

Then, next spring, students will need to achieve to the level of "Meets the Standard" in reading at 3, 5, and 8, and in mathematics at grade 8, in order to be eligible for promotion to the next grade level. Students below the proficiency level "Meets the Standard" on the indicated sub-tests—including students who are "Near" the standard—will be required by statute to attend summer school.

For students in grade 10 the tests will serve as an eligibility criteria for a State Diploma. Students at grade 10 will have multiple opportunities to take the DSTP before the conclusion of their grade 12 year.

Finally, much discussion has occurred regarding a fairness issue, particularly at the high school level. This is because next spring when the stakes for students become real many high school students will have had an opportunity to be in a standards-based classroom for only a few years. To account for the fact that they may not have had an opportunity to learn some of the material covered by the State Content Standards, and tested on the DSTP, a temporary fairness adjustment to the "Meets the Standard" cut point will be considered. The temporary adjustment would apply only to the consequences for students.

Should a fairness adjustment be made, a schedule would accompany the adjustment indicating when the expectation resulting from the Standard Setting process would need to be met. It is anticipated that any fairness adjustment would be in place for a relatively short period of time.

2. Reading and Mathematics

The methodology utilized by the judges for setting the initial two cut points in reading and mathematics is often referred to as "Item Mapping," or, as CTB-McGraw Hill has named a similar procedure, "Bookmarking." This approach requires groups of judges to examine a book of items arranged from the easiest to the most difficult[1] and insert "bookmarks" at the items they feel most strongly define where a cut should be placed. Each group of judges worked with a single test at a single grade.

The Item Mapping procedure requires approximately ½ day for training on the instrument, and ½ day for each of three rounds of judgments. Discussion occurs before and after each round, using the judge's individual recommendations as the focus for the discussion. Impact data are shown to judges, usually after the second round, so that judges understand the impact of their decisions on actual students.[2] The Item Mapping procedure results in a cadre of judges with an excellent understanding of the tests and what they assess.

Following the third round of judgments judges were excused and the results tabulated. The results of each round are included in **Appendix A—Judge by Judge Recommendations** which begins on page 27. In compiling the final recommendation from the judges the median score of round three was used. The scores of each judge who participated in the full process are included in the final calculation.

Following the calculation of the judges' recommendations, the Department of Education made minor adjustments to three of the eight recommendations in Reading, and three of the eight cut points in Mathematics. Each adjustment was made utilizing a standard error calculation as the maximum threshold for adjustments. Each adjustment was carefully discussed and deemed necessary in order to provide consistency to the system across grade levels. Adjustments were made utilizing the impact data across grades within a subject area as opposed to trying to determine "equal" distances on the score scale.

[1] Constructed response items are included in the book one time for each possible score point to account for the fact that a low score on a constructed response item may be very "easy" to achieve while a high score may be very "difficult." Judges were told to assume that a student who earned a high score on a constructed response item can also be said to have earned each of the lower scores on that item as well. Judges were given access to sample responses at each score point.

[2] Judges worked with data from the 1999 administration of the DSTP.

Once the judges' recommendations had been finalized, the Department of Education calculated the cut point between Well Below and Below using a standard error calculation that ensured the Well Below/Below cut was placed two standard errors from the Meets/Below cut. Then, DOE calculated the cut point between Exceeds and Distinguished using a standard error calculation that ensured the cut was established at least one standard error ahead of the Meets/Exceeds cut. Finally, the Department of Education calculated the "Near" band just below "Meets the Standard" using the standard error calculation. See **Table 2: Rules for cut points in Reading and Mathematics** for the rules underlying the process.

Table 2: Rules for cut points in Reading and Mathematics

Level	Recommended by	Criteria for establishing the cut point	Criteria for Adjustments
Distinguished	DOE	Establish the cut at least 1 SEM[3] for the test + 1 SEM for the cut point above the Exceeds cut, but at an achievable score.[4]	If the criteria conflict, precedence should be given to placing the cut using the SEM result.[5]
Exceeds the Standard AND Meets the Standard	Judges	Establish thresholds (benchmarks) at the lowest possible score a judge would accept from a student who could be said to meet and/or exceed the standard; thresholds should be rechecked twice, at least one time with impact data.[6]	If an adjustment is necessary to create a coherent system, the adjustment cannot be greater than 1 SEM for the test + 1 SEM for the cut point.
Below the Standard	DOE	Establish the cut for Below at 2(1 SEM for the test + 1 SEM for the cut), but at a score at least 1 SEM removed from chance.[7]	If the criteria conflict, preference should be given to placing the cut at least 1 SEM from chance.[8]

[3] Standard error of measurement.
[4] i.e., at least 50 students should have achieved that score. The only place this criteria was not met was in Grade 10 reading, which had an N=35 at the cut. However, scores in the immediate vicinity had sufficient numbers that it is felt the exception is justified.
[5] This is to create a goal for students that is substantially different than the Exceeds level.
[6] All impact data seen by judges was from the 1999 administration.
[7] "Chance" refers to the score a student might earn if a "guess" is made on each multiple choice item. For example, if a student selected the third option on every multiple choice item, the student, by chance, would answer approximately ¼ of the items correctly, since the correct answers are randomized among the four possible options.
[8] This conflict did not occur.

Reading—Final Recommendation

The recommendation to the State Board for cut points as a result of the Standard Setting in reading is below.

Table 3: DOE Reading Recommendation to State Board

	Below	Meets	Exceeds	Distinguished
Grade 3	387	411	465	482
Grade 5	427	451	508	529
Grade 8	475	500	564	584
Grade 10	477	502	573	593

Each number in **Table 3** indicates the lowest score on the DSTP Reading Score Scale a student could earn and still achieve the indicated level.

In addition, the Department of Education is recommending that the State Board of Education establish the "Near" band one standard error below the recommended "Meets the Standard" cut. This would mean that the lower bound of the "Near" band for reading would be as follows:

Table 4: "Near" Cut Points for Reading

	Near Cut
Grade 3	401
Grade 5	441
Grade 8	490
Grade 10	490

For more information on what the recommended cut points mean, the following five pages contain charts that detail the results of the Reading Standard Setting.

Figure 1 (page 6) contains the impact data from the judges' cut points. The data are from 1999.

Figure 2 (page 7) contains the adjustments from the judges' cut points that the Department of Education felt were necessary in order to create a consistent system over time. All adjustments were based upon consistency in terms of the numbers of students in each category as opposed to the number of score points. Three adjustments were deemed necessary:

1. The "Meets the Standard" cut point was adjusted up at grade 3 to create consistency from grade 3 to grade 5.
2. The "Exceeds the Standard" cut point was adjusted up at grade 3 both to create consistency from grade 3 to grade 5, but also to keep with the original recommendation of the judges regarding the percentage of students they felt should achieve "Meets the Standard."
3. The "Meets the Standard" cut point was adjusted up to create consistency between grade 5 and grade 10.

Figure 3 (page 8) shows the degree to which DOE tried to adhere to the cut points as established by the judges. The scale scores from the test are used to show this.

Figure 4 (page 9) shows the impact of the adjusted cuts points as well as the impact of the additional two proficiency levels ("Distinguished" and "Well Below"). The chart also shows the percentage of students who fall into "Near" band. The rules for establishing the additional cut points are in **Table 2: Rules for cut points in Reading and Mathematics** on page 4.

Finally, **Figure 5** (page 10) shows the complete proficiency level system overlaid on the DSTP Reading Score Scale.

Figure 1: 1999 Impact Data for Reading—Judges' Cut Points

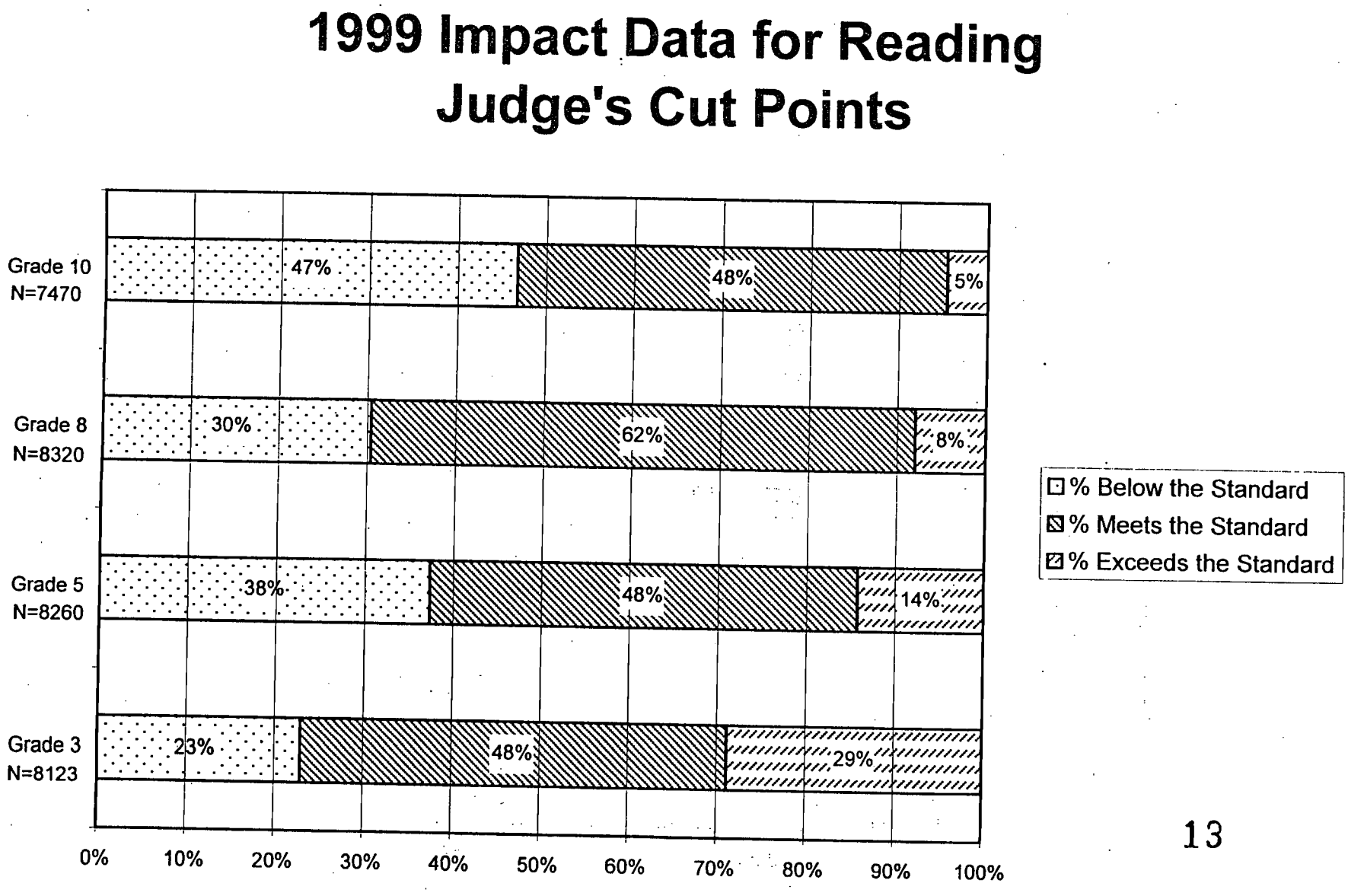


Figure 2: 1999 Impact Data for Reading—DOE Cut Points

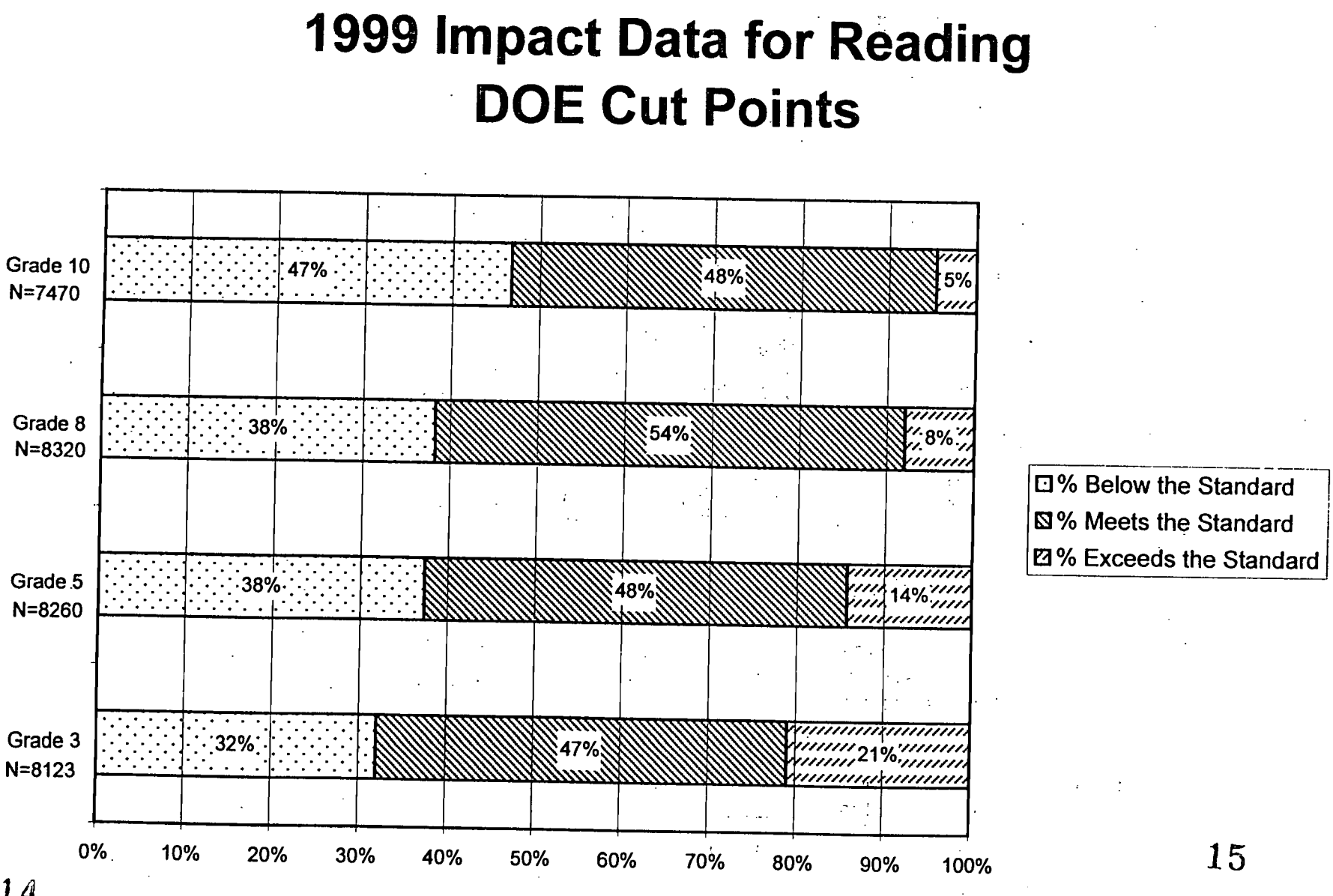


Figure 3: Cut Points Plotted on DSTP Score Scale for Reading

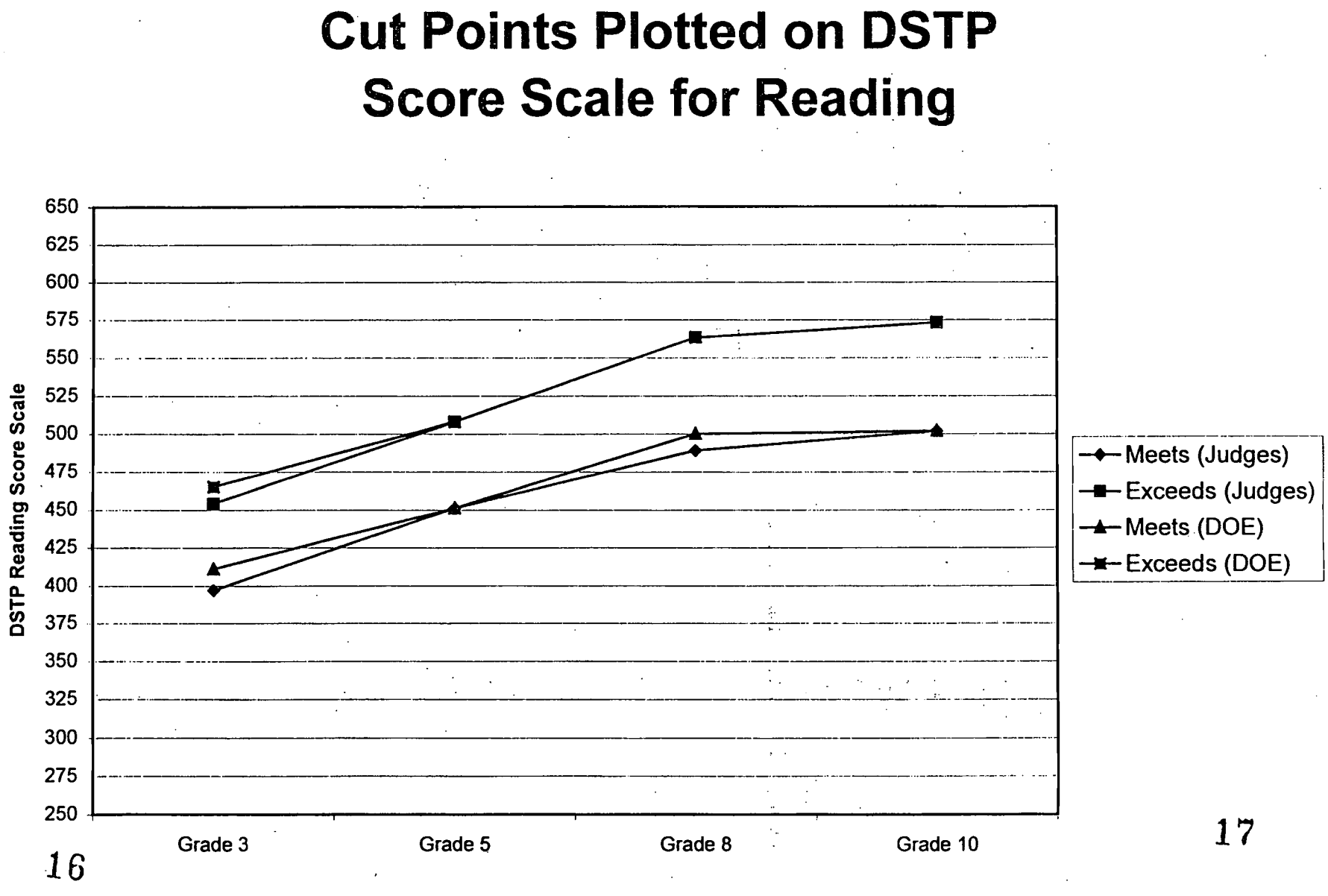


Figure 4: 1999 Impact Data for Reading—All Proficiency Levels

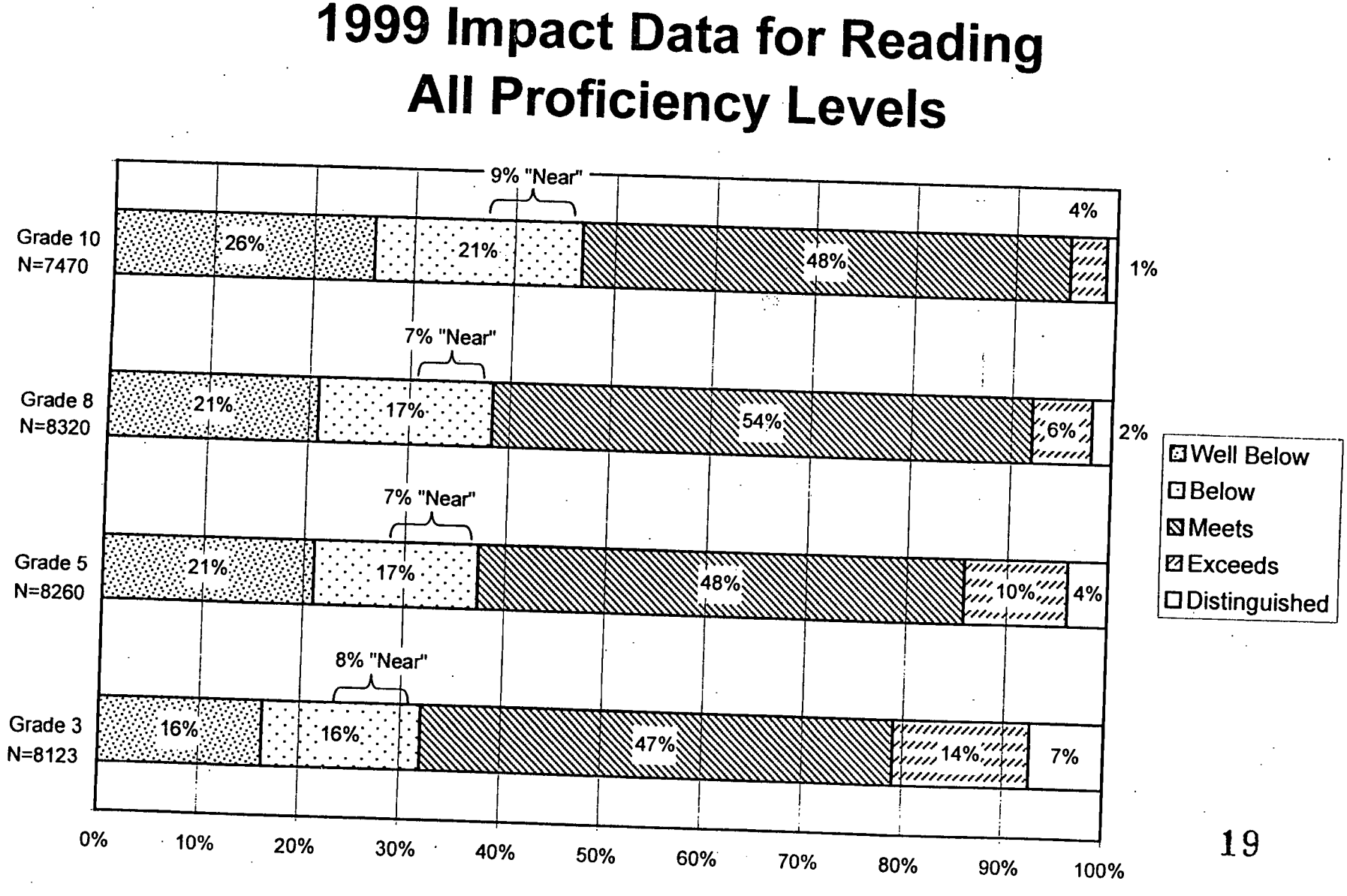
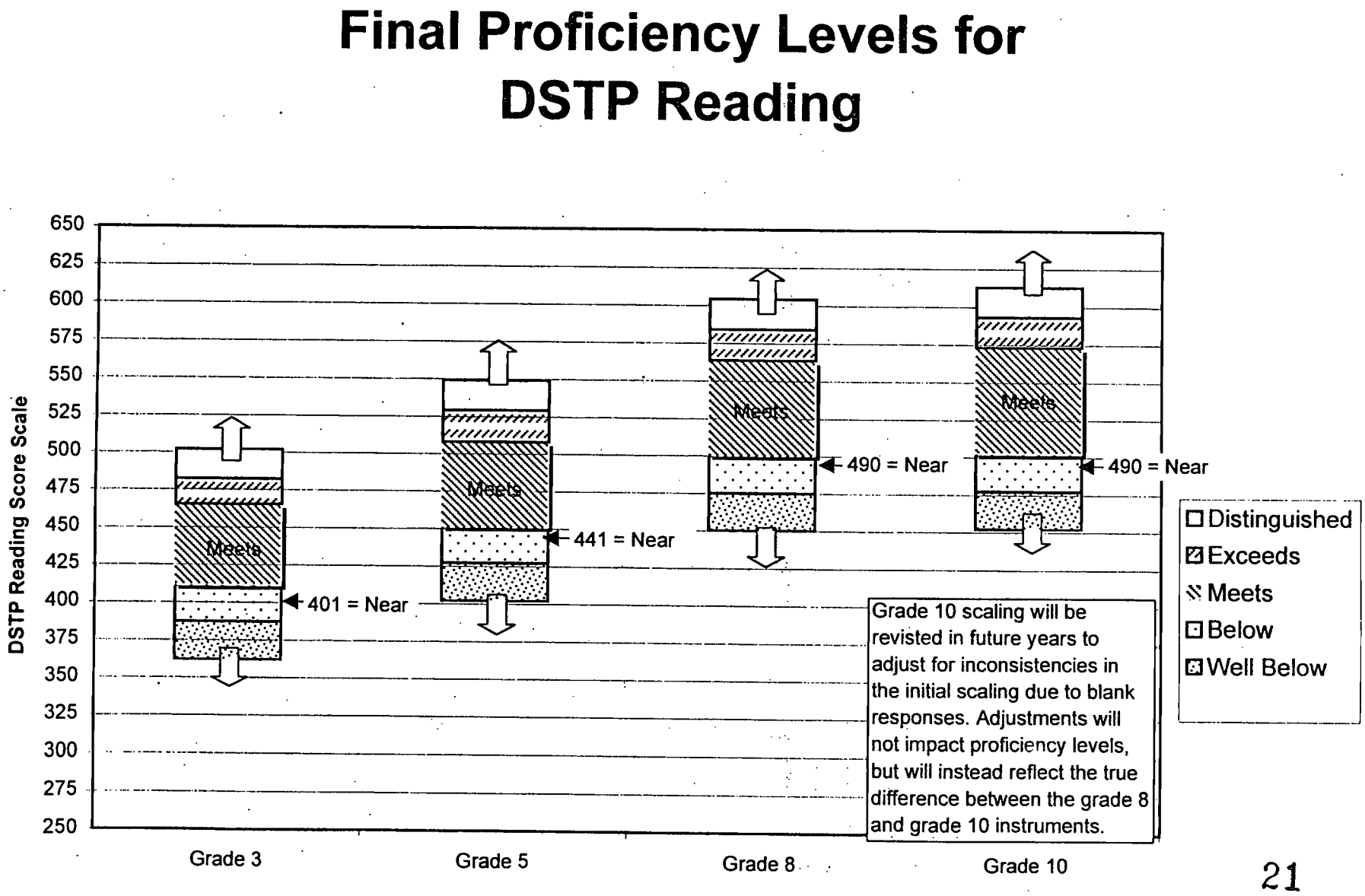


Figure 5: Final Proficiency Levels for DSTP—Reading



Mathematics—Final Recommendation

The recommendation to the State Board for cut point as a result of the Standard Setting in mathematics is as follows:

Table 5: DOE Mathematics Recommendation to State Board

	Below	Meets	Exceeds	Distinguished
Grade 3	382	407	464	499
Grade 5	424	449	503	525
Grade 8	469	493	531	549
Grade 10	500	525	559	574

Each number in **Table 5** indicates the lowest score on the DSTP Mathematics Score Scale a student could earn and still achieve the indicated level.

In addition, the Department of Education is recommending that the State Board of Education establish the "Near" band one standard error below the recommended "Meets the Standard" cut. This would mean that the lower bound of the "Near" band for mathematics would be as follows:

Table 6: "Near" Cut Points for Mathematics

	Near Cut
Grade 3	397
Grade 5	440
Grade 8	484
Grade 10	512

For more information on what the recommended cut points mean, the following five pages contain charts that detail the results of the Mathematics Standard Setting.

Figure 6 (page 13) contains the impact data from the judges' cut points. The data are from 1999.

Figure 7 (page 14) contains the adjustments from the judges' cut points that the Department of Education felt were necessary in order to create a consistent system over time. All adjustments were based upon consistency in terms of the numbers of students in each category as opposed to the number of score points. Three adjustments were deemed necessary:

1. The "Exceeds the Standard" cut was adjusted down at grade 5 to create consistency with the other "Exceeds" cut points. **Figure 8: Cut Points Plotted on DSTP Mathematics Score Scale** show that judges at grade 5 actually set a relatively more difficult "Exceeds" cut than the judges at grade 8.[9]
2. The "Exceeds the Standard" cut was adjusted up at grade 8 to create consistency with the other "Exceeds" cut points. **Figure 8: Cut Points Plotted on DSTP Mathematics Score Scale** show that judges at grade 8 actually set a relatively less difficult "Exceeds" cut than the judges at grade 5.[10]
3. The "Meets the Standard" cut point was adjusted down to create consistency between grade 5 and grade 10.

Figure 8 (page 15) shows the degree to which DOE tried to adhere to the cut points

[9] Last year DOE expressed some concern with the grade 10 scaling of the mathematics tests, and possibly with the grade 8 scaling. However, given the behavior of the subset of items that comprise the Stanford 9 portion of the test, and the normative functioning of the test across grades, this adjustment seems justified even should the scaling need to be readjusted at some point in the future.

[10] See footnote number 9.

as established by the judges. The scale scores from the test are used to show this.

Figure 9 (page 16) shows the impact of the adjusted cuts points as well as the impact of the additional two proficiency levels ("Distinguished" and "Well Below"). The chart also shows the percentage of students who fall into "Near" band. The rules for establishing the additional cut points are in **Table 2: Rules for cut points in Reading and Mathematics** on page 4.

Finally, **Figure 10** (page 17) shows the complete proficiency level system overlaid on the DSTP Mathematics Score Scale.

Figure 6: 1999 Impact Data for Mathematics—Judges' Cut Points

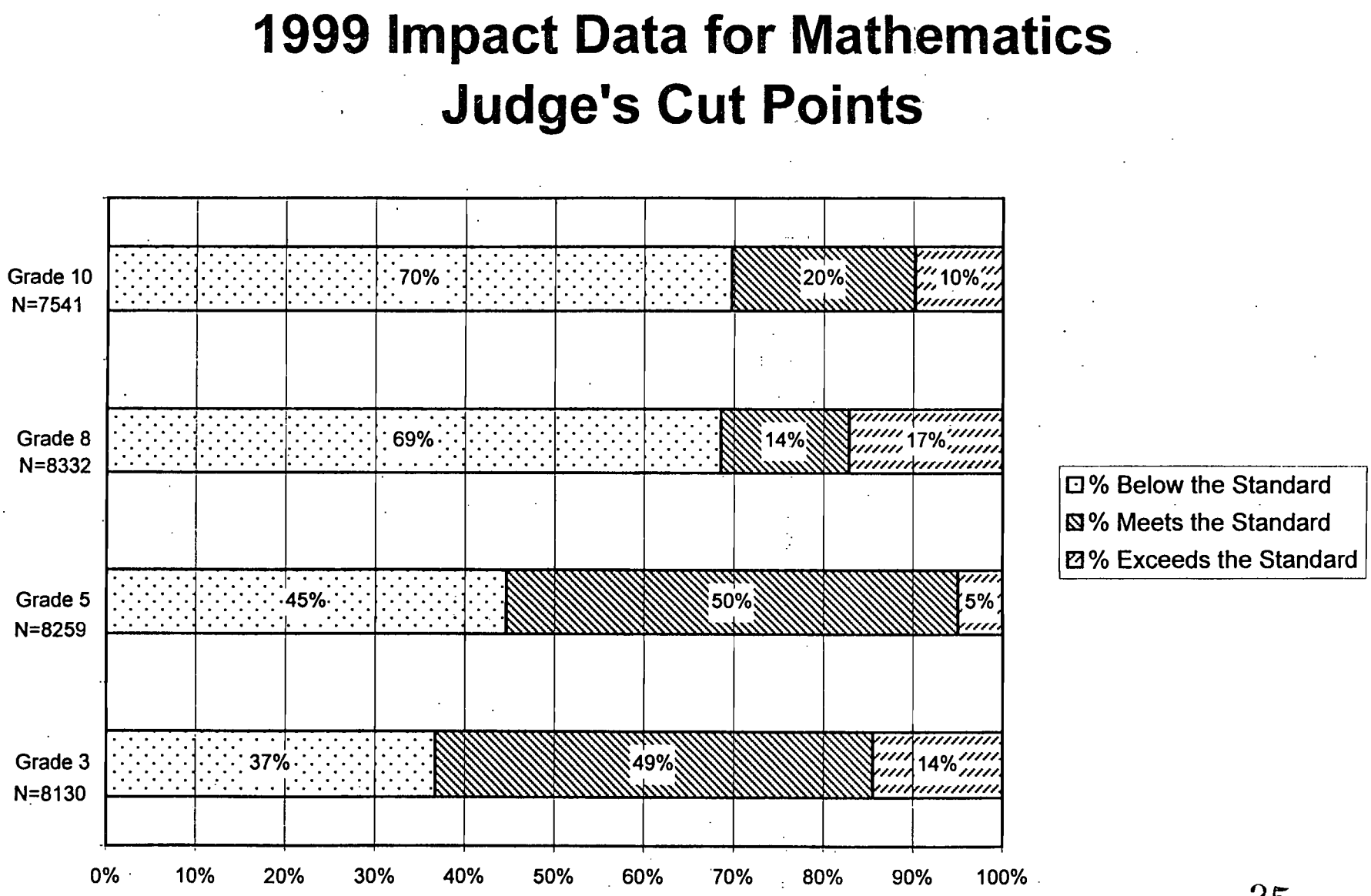


Figure 7: 1999 Impact Data for Mathematics—DOE Cut Points

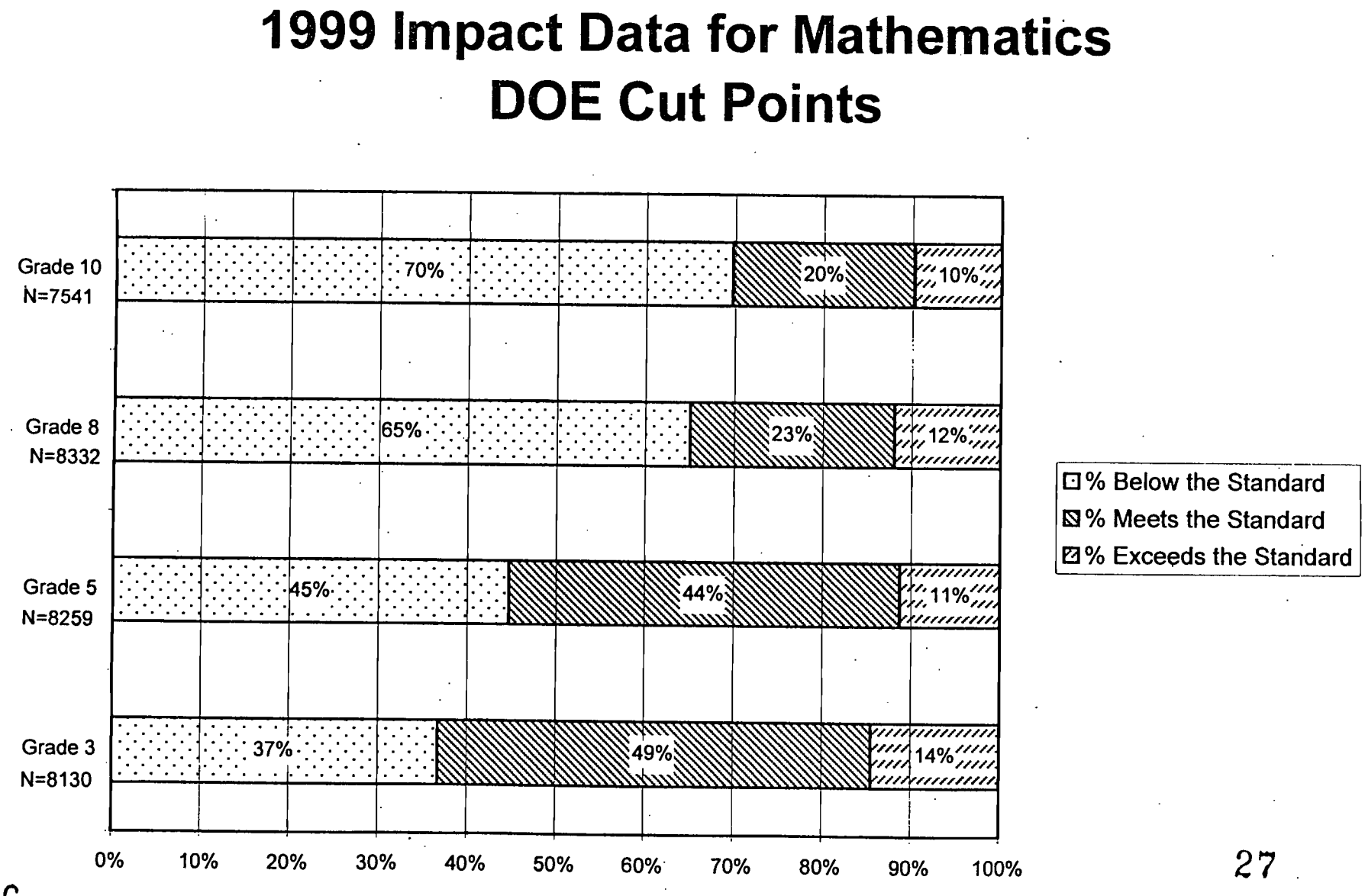


Figure 8: Cut Points Plotted on DSTP Mathematics Score Scale

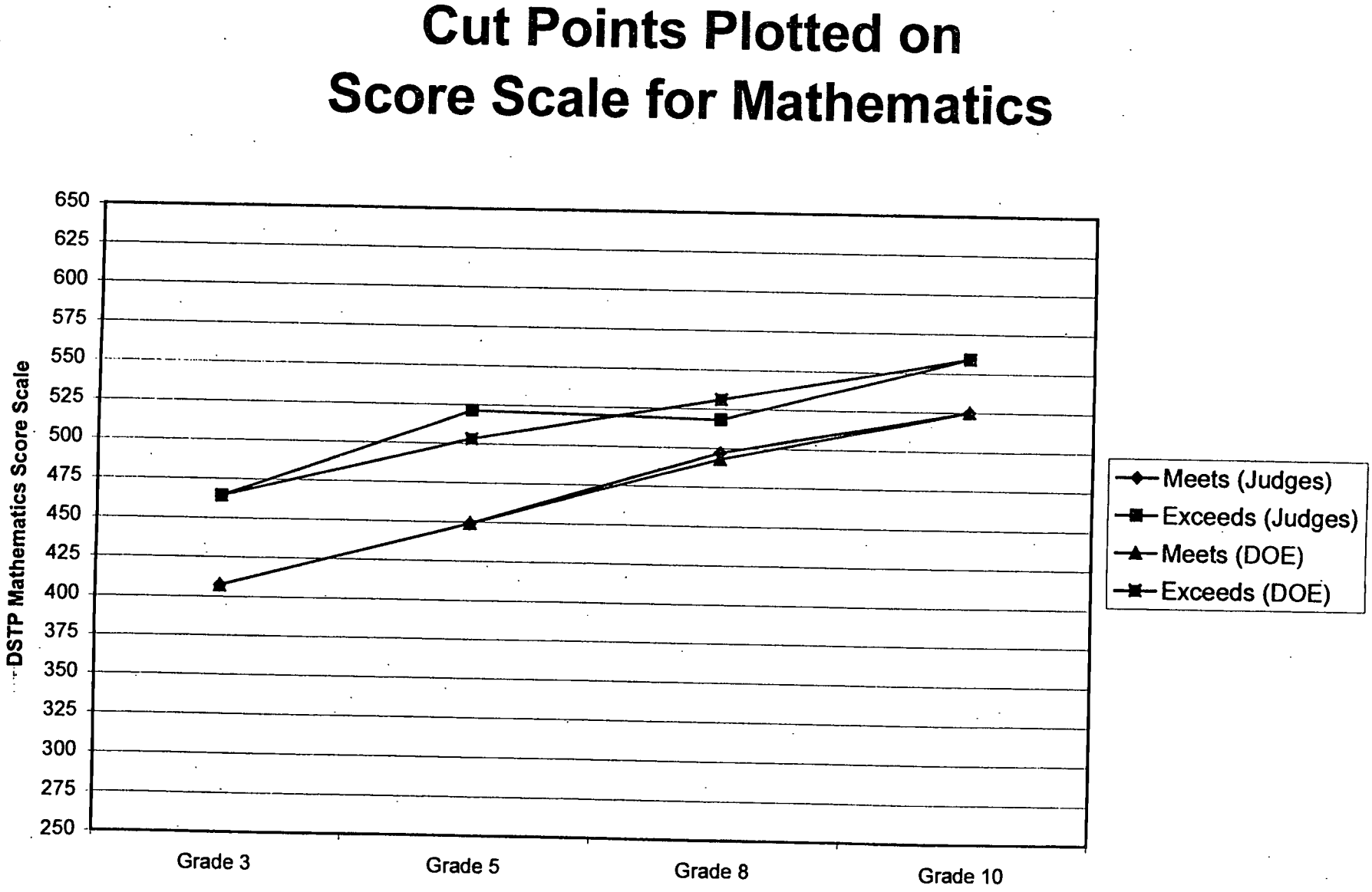


Figure 9: 1999 Impact Data for Mathematics—All Proficiency Levels

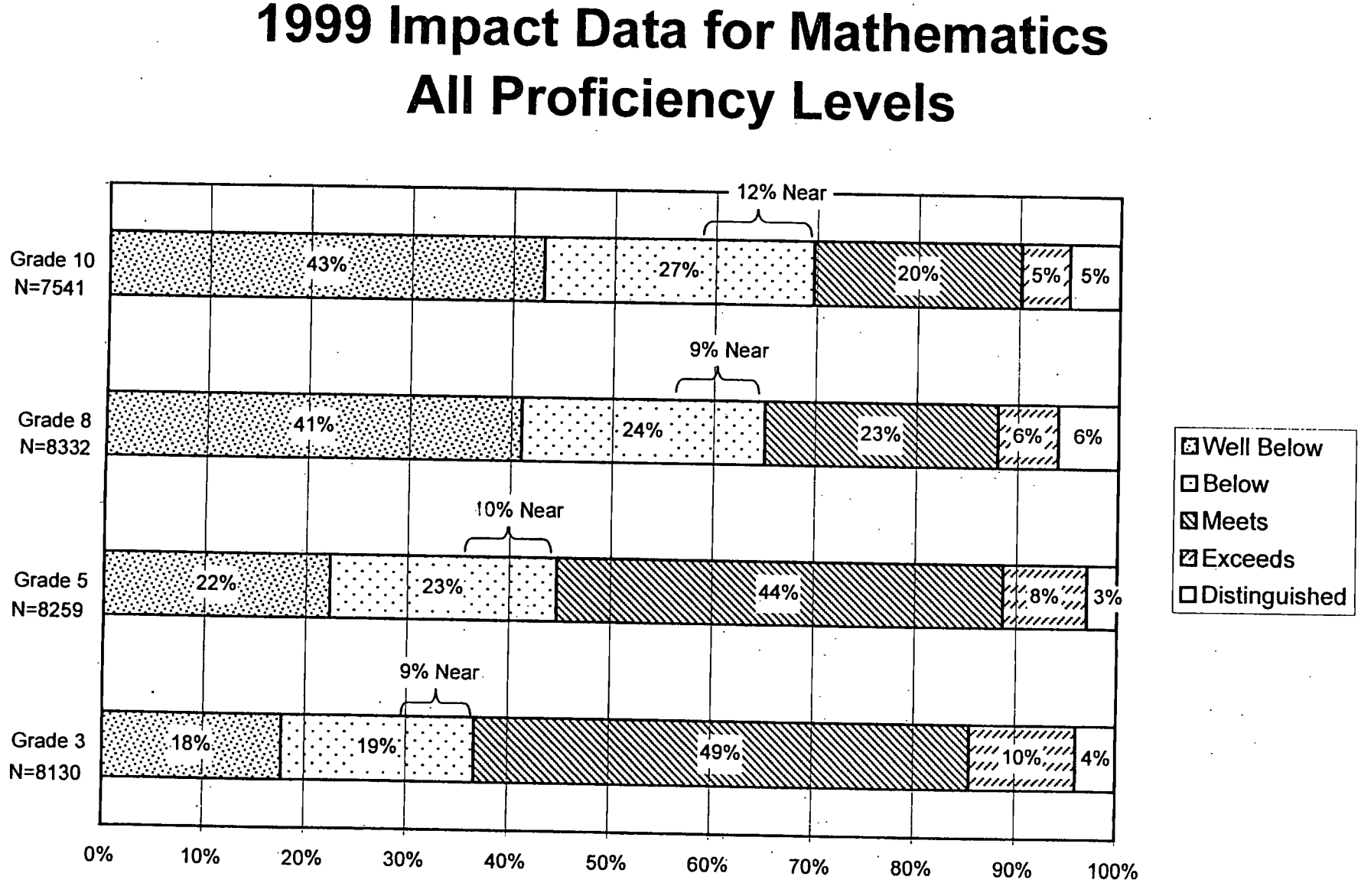
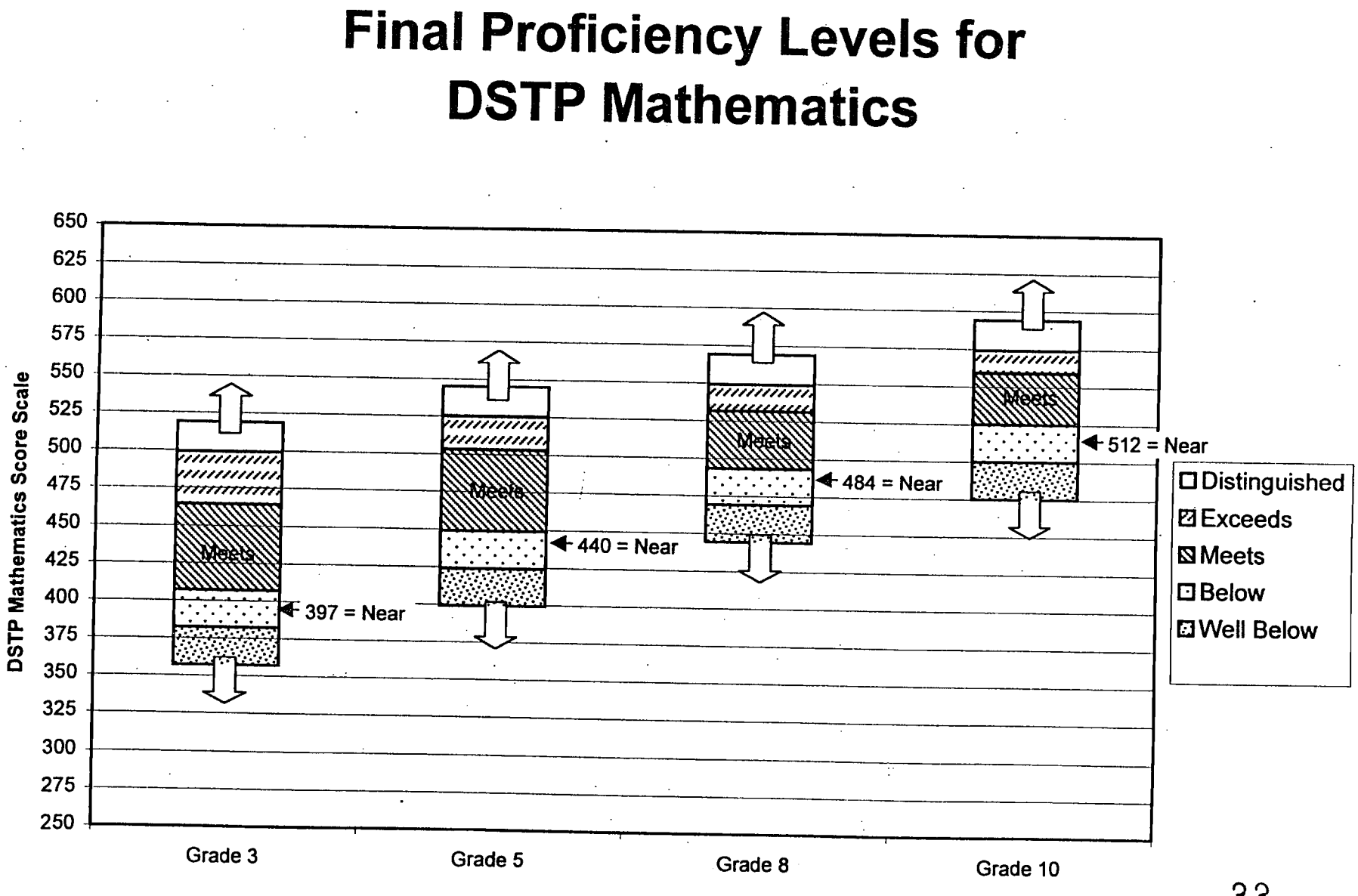


Figure 10: Final Proficiency Levels for DSTP Mathematics



3. Writing

The methodology utilized by the judges for setting the initial two cut points in Writing required judges to examine actual samples of student work and determine the proficiency level in which the work belonged. This approach allows judges to become very familiar with the products of the test and make their judgments based on real student performances. This procedure is conducive to setting standards in writing. Each of two groups worked with two grades.

This procedure requires approximately ½ day for training on the instrument, and ½ day for each of three rounds of judgments. Discussion occurs before and after each round, using the judge's individual recommendations as the focus for the discussion. Impact data are shown to judges, usually after the second round, so that judges understand the impact of their decisions on actual students.[11]

Following the third round of judgments judges were excused and the results tabulated. The results of each round are included in **Appendix A—Judge by Judge Recommendations**. In compiling the final recommendation from the judges the median score of round three was used. The scores of each judge who participated in the full process are included in the final calculation.

Following the calculation of the judges' recommendations, the Department of Education made an adjustment to one of the eight recommendations in Writing. The adjustment was made at grade 3 and involved accepting the mean score of the judges rather than the median. The resulting cut produced a consistent result across the tested grades. See **Table 7: Rules for cut points in Writing** for the rules underlying the process.

Note that no standard error measure was used here since the score scale is limited to thirteen points. Instead, adjustments and the calculation of the additional cut points relied on the rubric and the understanding developed there for what a score point means. Working from the rubric, in this instance, provided a valid way to deal with the cut points, since the rubric often provides the backbone for much of the schools' writing curriculum.

Finally, judges had numerous discussions as to which individual score point on the rubric constituted a "good enough" performance in and of itself. While it was understood that no one score will suffice for such a decision, a score level of 3 was determined to satisfy the requirement for "good enough." This was the case at all grade levels and the proficiency levels honor this to the greatest degree possible.

[11] Judges worked with data from the 1999 administration of the DSTP.

Table 7: Rules for cut points in Writing

Level	Recommended by	Criteria for establishing the cut point	Criteria for Adjustments
Distinguished	DOE	Establish the cut for Distinguished at least 2 score points above Exceeds in order to ensure that enough of the scale is included in the category to be meaningful.	NA
All Proficiency Levels	Judge's	Establish thresholds (benchmarks) at the lowest possible score a judge would accept from a student who could be said to meet and/or exceed the standard; thresholds should be rechecked twice, at least one time with impact data.	If an adjustment is necessary, the adjustment must be limited to 1 score point on the score scale.
Below the Standard	DOE	Establish the cut for Well Below at least 2 score points below Meets in order to ensure that enough of the scale is included in the category to be meaningful.	NA

Writing—Final Recommendation

The recommendation to the State Board for cut point as a result of the Standard Setting in writing is as follows:

Table 8: DOE Writing Recommendation to State Board

	Below	Meets	Exceeds	Distinguished
Grade 3	5	7	11	13
Grade 5	6	8	11	13
Grade 8	6	8	11	13
Grade 10	6	8	11	13

Each number in **Table 8** indicates the lowest score on the DSTP Writing Scale a student could earn and still achieve the indicated level.

In addition, the Department of Education is recommending that the State Board of Education establish the "Near" band one point below the recommended "Meets the Standard" cut. This differs from the "Near" band in both reading and mathematics in that no error calculation is used. However, setting the "Near" band in this fashion is reasonable since the "Below the Standard" level contains only two score points and thus has only one option for a "Near" band. This would mean that the lower bound of the "Near" band for writing would be as follows:

Table 9: "Near" Cut Points for Writing

	Near Cut
Grade 3	6

Grade 5	7
Grade 8	7
Grade 10	7

For more information on what the recommended cut points mean, the following four pages contain charts that detail the results of the Writing Standard setting.

Figure 11 (page 22) contains the impact data from the judges' cut points. The data are from 1999.

Figure 12 (page 23) contains the adjustments from the judges' cut points that the Department of Education felt were necessary in order to create a consistent system over time. Only one adjustment was deemed necessary: at grade 3 the judges' median score place 71% of the students below the standard, while the judge's mean score placed 51% of the students below the standard. The latter is more in line with the results in the other grade levels and thus is a reasonable adjustment to add consistency to the system.

Figure 13 (page 24) shows the impact of the adjusted cuts points as well as the impact of the additional two proficiency levels ("Distinguished" and "Well Below"). The rules for establishing the additional cut points are in Table 7: Rules for cut points in Writing on page 20.

Finally, **Figure 14** (page 25) shows the complete proficiency level system overlaid on the DSTP Writing Score Scale.

Figure 11: 1999 Impact Data for Writing—Judges' Cut Points

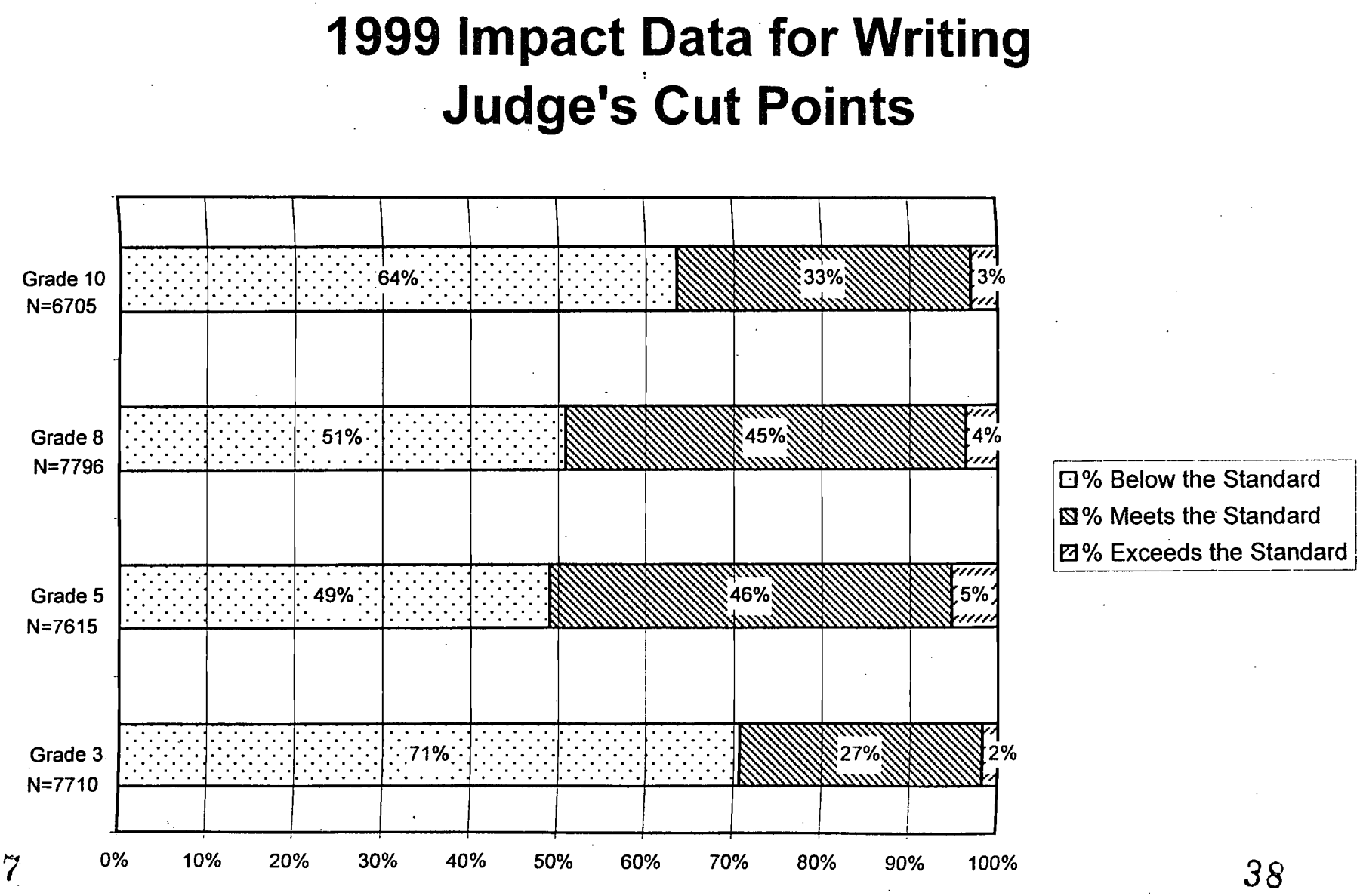


Figure 12: 1999 Impact Data for Writing—DOE Cut Points

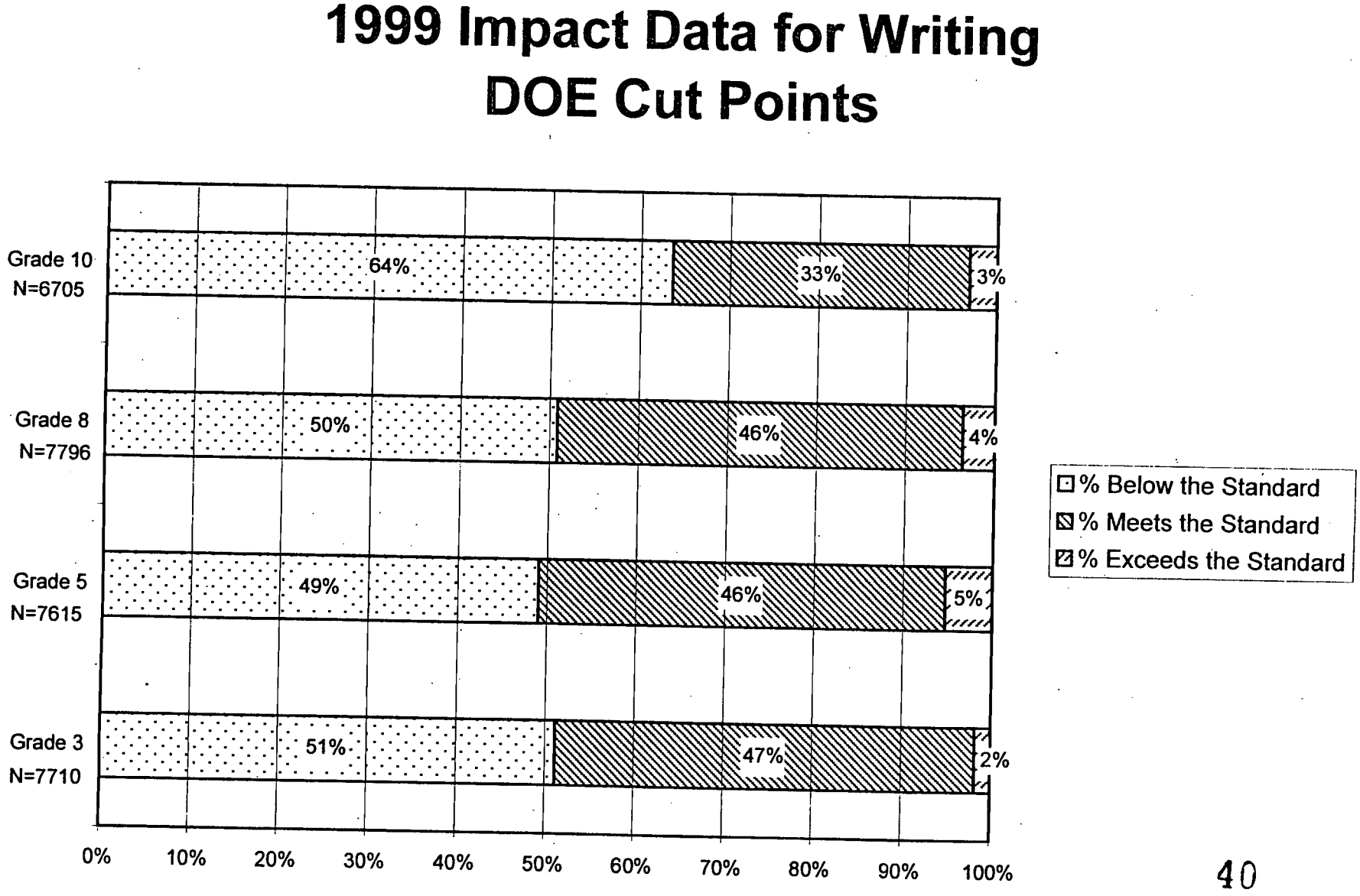


Figure 13: 1999 Impact Data for Writing—All Proficiency Levels

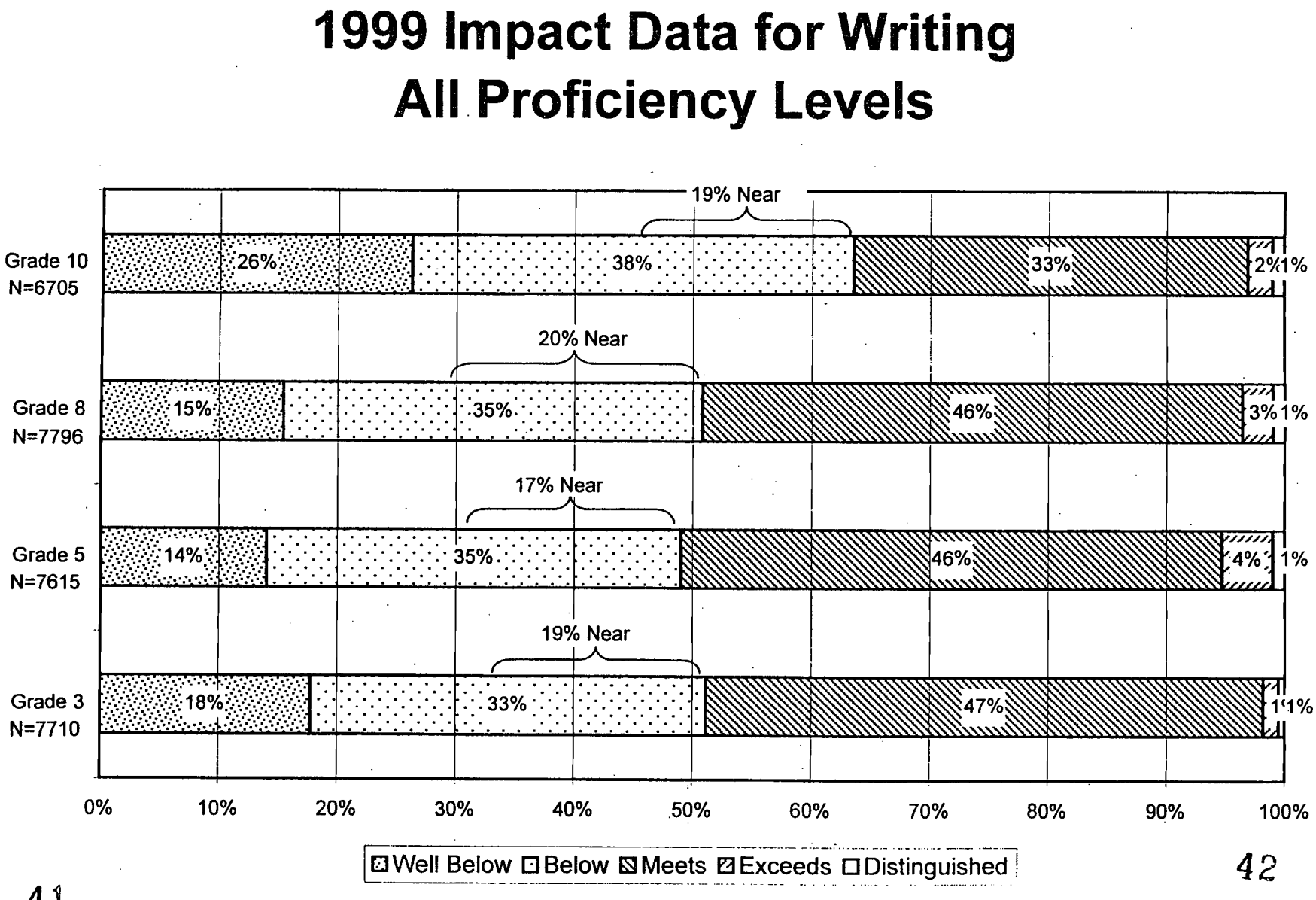
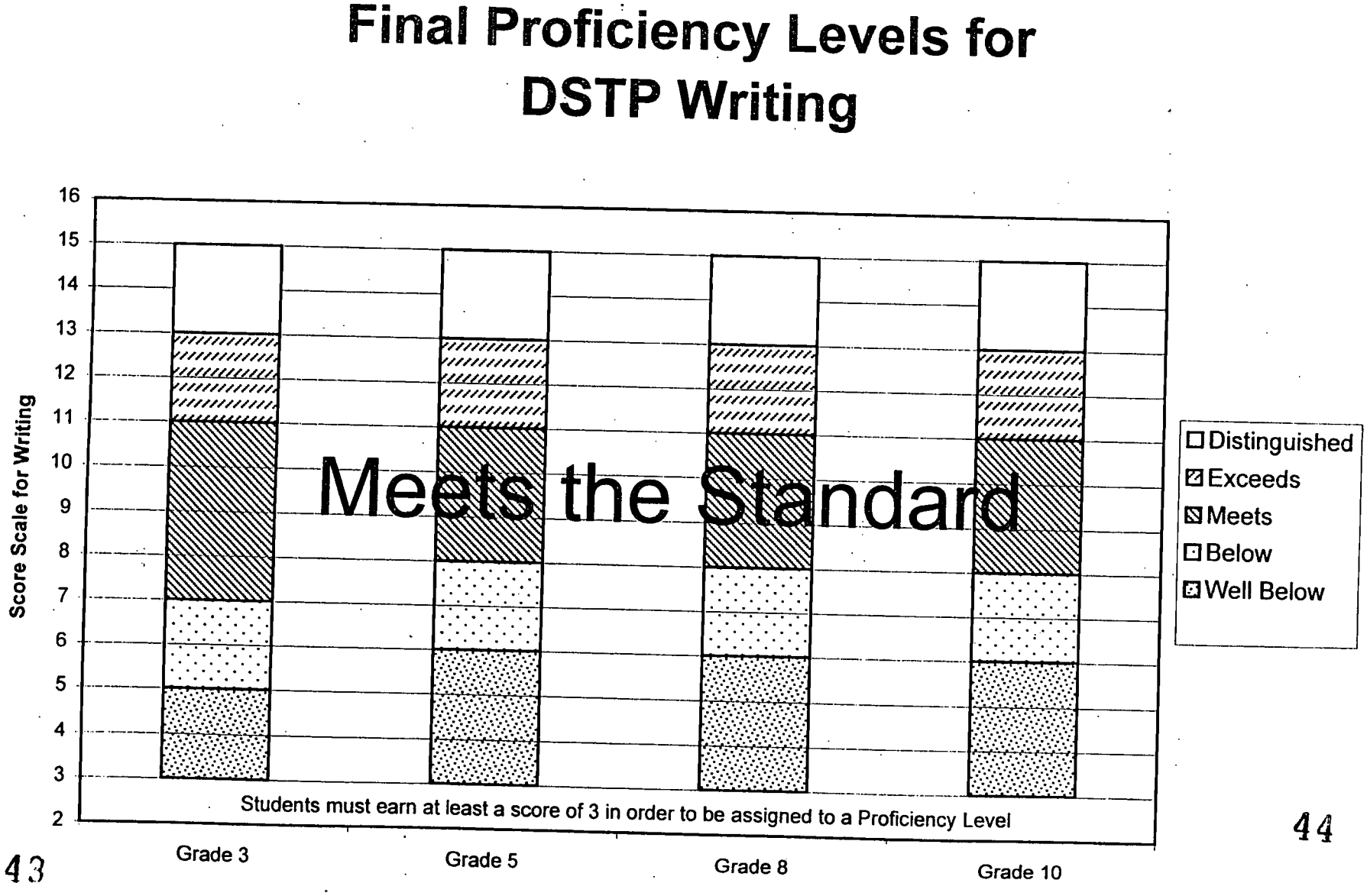


Figure 14: Final Proficiency Levels for DSTP Writing



Appendix A—Judge by Judge Recommendations

This Appendix contains the judge by judge recommendations through each of the three rounds of the Standard Setting process.

Reading and Mathematics

The judges in reading and mathematics worked from books that included each of the live items from the test administered in the spring of 1998, while impact data came from the test administered in the spring of 1999. This made sense logistically in that the 1998 items were available earlier than the 1999 items, and because the various forms of the test are equated any available form can be used with equal confidence in the results. However, to ensure that the judges understood the true impact of their cut points, the judges were shown the 1999 impact data. This way their understanding of where they had established their cut points was as current as possible.

Each of the books contained constructed response items as well as multiple choice items. Each constructed response item appeared one time for each possible score point to account for the fact that a low score on a constructed response item may be very "easy" to achieve while a high score may be very "difficult." Judges were told to assume that a student who earned a high score on a constructed response item can also be said to have earned each of the lower scores on that item as well.

The judges' decisions have been listed here according to the corresponding scaled score for both reading and mathematics. While the "scores" the judges set were discussed in terms of the number of items in their books before and after a cut point, these numbers do not equate to a raw score or even a percent correct. They do, however, convert to the DSTP score scale, in which form they are presented here.

Trends are easily observable throughout the rounds, most specifically that judges—in virtually every case—moved towards a sort of consensus throughout the rounds even though that was never a requirement of the process. In addition, judges tended to move their decisions upward throughout the

rounds (as indicated by the impact data), even after having seen impact data.

The results of the Reading Standard Setting sessions begin on page 29 and the results of the Mathematics Standard Setting sessions begin on page 33.

Writing

The judges in writing worked from sets of student work that included both responses from a selected set of students whose scores represented the most common "profiles" of scores. Judges were not told in advance what scores were assigned to the work. As in reading and mathematics, the responses came from the test administered in 1998, while impact data came from the test administered in the spring of 1999.

The judges' decisions have been listed here according to the corresponding raw scores. The writing portion of the DSTP is not "scaled" as are the reading and mathematics tests, meaning that the number of points a student actually earns equals the score awarded.

The score scale for writing is from 3 to 15. These scores are derived from responses to two writing prompts, one long response that receives two scores on a 1-5 scale, and a shorter response that receives a single score on a 1-5 scale. The score scale begins at 3 because students must receive at least a 1 from each of the three scorers in order to receive a valid score. An invalid score occurs when a student leaves the response blank, or writes a response that is completely off-topic, etc.

Also, it must not be inferred that an earned score would be higher if the student had answered a few more items correctly. The three scores are from rubrics, meaning they are qualitative judgements of the students' work made by trained scorers according to a carefully scripted set of rules.

The most easily observable trend in the judges' recommendations is the consistency of their decisions through the rounds.

The results of the Writing Standard Setting sessions begin on page 37.

Table 10: Grade 3 Reading Standard Setting Sessions

Grade 3 Reading						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	367	406	381	432	402	443
2	384	408	399	425	396	473
3	371	396	376	416	396	453
4	379	426	381	431	381	461
5	379	434	387	443	393	487
6	381	422	387	431	393	468
7	387	468	422	454	422	454
8	379	431	383	431	397	454
9	402	425	397	453	402	473
10	383	431	405	431	405	453
11	383	422	383	422	397	453
12	366	422	367	425	393	447
13	367	422	369	422	387	443
14	NA[12]	NA	NA	NA	NA	NA
15	425	487	403	431	402	473
16	402	430	392	431	402	468
17	405	430	383	430	405	431
18	406	461	402	431	405	461
19	379	422	394	454	396	447
20	381	406	370	431	397	432
21	376	403	392	431	396	431
22	367	407	381	417	393	473
Mean	384	427	388	432	398	456
Median	381	422	387	431	397	454
Min	366	396	367	416	381	431
Max	425	487	422	454	422	487
Mode	379	422	381	431	402	473
	1998%	1999%	1998%	1999%	1998%	1999%
Below	19.7%	13.9%	22.2%	16.3%	28.0%	22.9%
Meets	26.7%	27.7%	33.1%	32.1%	48.4%	48.2%
Exceeds	53.6%	58.4%	44.7%	51.6%	23.6%	28.9%

[12] NA indicates that the judge's decisions do not count.

Table 11: Grade 5 Reading Standard Setting Sessions

Grade 5 Reading						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	416	490	438	490	438	508
2	430	478	438	491	440	508
3	438	461	447	470	438	490
4	453	458	447	458	447	458
5	451	477	451	486	450	486
6	458	490	450	478	451	490
7	431	458	454	512	454	508
8	453	512	450	527	450	527
9	477	490	470	491	457	530
10	450	480	453	491	451	508
11	453	508	454	508	453	508
12	451	512	450	490	451	508
13	453	508	450	516	451	516
14	430	461	461	516	454	514
15	NA[13]	NA	NA	NA	NA	NA
16	461	530	458	515	458	515
17	490	580	419	486	450	486
18	458	515	440	515	451	515
19	454	512	447	514	435	480
20	453	490	453	514	453	514
Mean	451	495	449	498	449	504
Median	453	490	450	491	451	508
Min	416	458	419	458	435	458
Max	490	580	470	527	458	530
Mode	453	490	450	491	451	508
	1998%	1999%	1998%	1999%	1998%	1999%
Below	43.2%	39.4%	39.1%	37.3%	41.1%	37.3%
Meets	29.0%	34.2%	33.1%	36.3%	43.1%	48.4%
Exceeds	27.8%	26.4%	27.8%	26.4%	15.8%	14.3%

[13] NA indicates that the judge's decisions do not count.

Table 12: Grade 8 Reading Standard Setting Sessions

Grade 8 Reading						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	495	526	495	564	495	564
2	483	514	492	569	490	569
3	457	522	490	569	490	569
4	NA[14]	NA	NA	NA	NA	NA
5	466	506	471	564	475	564
6	506	522	498	526	495	526
7	506	545	510	563	510	564
8	492	545	495	569	495	569
9	470	564	466	576	470	564
10	455	522	488	564	486	563
11	457	488	488	545	472	522
12	NA	NA	NA	NA	NA	NA
13	466	557	490	658	490	658
14	NA	NA	NA	NA	NA	NA
15	471	510	483	576	503	564
16	466	492	474	557	474	557
17	453	514	460	514	463	526
18	466	514	457	545	486	563
19	469	514	510	595	492	557
20	449	530	511	557	500	563
21	483	658	483	514	466	514
22	NA	NA	NA	NA	NA	NA
23	470	569	483	564	483	563
24	469	514	469	564	488	564
Mean	472	531	486	563	486	560
Median	469	522	488	564	489	564
Min	449	488	457	514	463	514
Max	506	658	511	658	510	658
Mode	466	514	483	564	495	564
	1998%	1999%	1998%	1999%	1998%	1999%
Below	17.2%	17.8%	29.9%	30.4%	31.8%	30.4%
Meets	43.1%	42.2%	63.6%	61.6%	61.7%	61.6%
Exceeds	39.7%	40.0%	6.5%	8.0%	6.5%	8.0%

Table 13: Grade 10 Reading Standard Setting Sessions

Grade 10 Reading						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	492	627	491	573	531	573
2	495	568	531	573	502	573
3	499	558	506	563	506	563
4	491	524	491	531	491	573
5	566	635	524	627	498	574
6	482	558	491	572	502	573
7	491	558	491	563	506	568
8	495	558	491	548	491	568
9	476	499	493	563	516	574
10	473	531	485	587	485	574
11	482	531	491	563	491	587
12	506	531	531	572	531	572
13	524	563	531	573	531	573
14	482	491	492	563	492	563
Mean	497	552	503	569	505	572
Median	492	558	492	567.5	502	573
Min	473	491	485	531	485	563
Max	566	635	531	627	531	587
Mode	482	558	491	563	531	573
	1998%	1999%	1998%	1999%	1998%	1999%
Below	32.7%	38.0%	32.7%	38.0%	42.4%	46.7%
Meets	56.0%	51.7%	59.8%	56.3%	52.8%	48.7%
Exceeds	11.3%	10.3%	7.5%	5.7%	4.8%	4.6%

[14] NA indicates that the judge's decisions do not count.

Table 14: Grade 3 Mathematics Standard Setting Sessions

Grade 3 Mathematics						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	NA	NA	NA	NA	NA	NA
2	381	464	409	428	413	464
3	384	464	411	474	428	474
4	415	437	414	428	428	464
5	409	437	407	428	407	474
6	413	428	409	464	415	464
7	NA[15]	NA	NA	NA	NA	NA
8	389	437	394	437	406	474
9	NA	NA	NA	NA	NA	NA
10	371	437	380	437	389	464
11	359	381	415	467	414	467
12	356	437	384	437	396	461
13	384	437	396	464	406	474
14	370	409	389	441	407	474
15	384	424	389	437	412	461
16	412	428	437	474	409	474
17	350	389	389	464	393	464
18	370	413	389	437	396	464
19	406	415	413	437	409	452
20	388	412	393	452	407	464
Mean	385	426	401	447	408	467
Median	384	428	396	437	407	464
Min	350	381	380	428	389	452
Max	415	464	437	474	428	474
Mode	384	437	389	437	407	464
	1998%	1999%	1998%	1999%	1998%	1999%
Below	24.8%	19.2%	36.0%	28.2%	45.4%	36.7%
Meets	39.9%	36.1%	38.6%	34.6%	45.7%	48.8%
Exceeds	35.3%	44.7%	25.4%	37.2%	8.9%	14.5%

[15] NA indicates that the judge's decisions do not count.

Table 15: Grade 5 Mathematics Standard Setting Sessions

Grade 5 Mathematics						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	439	513	444	513	439	513
2	439	554	439	554	439	554
3	421	481	462	554	462	554
4	457	499	469	506	469	499
5	437	449	446	485	449	554
6	449	469	468	515	468	515
7	449	481	449	521	452	521
8	439	447	439	485	449	513
9	449	578	449	485	449	554
10	476	485	482	513	447	506
11	446	554	457	554	449	521
12	472	515	472	521	472	521
13	421	457	421	478	421	457
14	433	437	457	482	450	482
15	439	554	439	554	446	554
16	422	469	449	554	449	469
17	468	554	478	575	478	575
Mean	444	500	454	521	452	521
Median	439	485	449	515	449	521
Min	421	437	421	478	421	457
Max	476	578	482	575	478	575
Mode	439	554	439	554	449	554
	1998%	1999%	1998%	1999%	1998%	1999%
Below	38.9%	35.1%	47.9%	44.6%	47.9%	44.6%
Meets	41.4%	43.8%	46.8%	49.3%	48.8%	50.4%
Exceeds	19.7%	21.1%	5.3%	6.1%	3.3%	5.0%

Table 16: Grade 8 Mathematics Standard Setting Sessions

Grade 8 Mathematics						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	489	511	492	518	493	518
2	503	518	509	539	503	518
3	509	530	509	535	509	535
4	502	530	502	530	502	530
5	493	532	493	530	491	530
6	502	561	502	511	502	512
7	466	488	488	512	488	512
8	497	530	492	516	492	516
9	502	539	502	512	491	512
10	482	512	504	535	497	530
11	445	488	492	511	492	511
12	NA[16]	NA	NA	NA	NA	NA
13	NA	NA	NA	NA	NA	NA
14	NA	NA	NA	NA	NA	NA
15	491	530	502	556	502	530
16	491	535	491	516	497	516
17	491	530	491	512	491	516
18	488	508	502	516	502	518
19	491	516	508	530	503	535
20	488	508	497	530	492	518
21	508	535	502	530	493	532
Mean	491	522	499	524	497	522
Median	491	530	502	518	497	518
Min	445	488	488	511	488	511
Max	509	561	509	556	509	535
Mode	491	530	502	530	502	518
	1998%	1999%	1998%	1999%	1998%	1999%
Below	64.2%	62.6%	71.1%	72.4%	67.9%	68.5%
Meets	22.6%	25.5%	10.2%	10.4%	13.4%	14.3%
Exceeds	13.2%	11.9%	18.7%	17.2%	18.7%	17.2%

[16] NA indicates that the judge's decisions do not count.

Table 17: Grade 10 Mathematics Standard Setting Sessions

Grade 10 Mathematics						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	528	566	529	577	528	566
2	513	529	511	525	523	560
3	536	560	538	559	528	555
4	512	516	528	555	528	555
5	532	554	525	554	525	556
6	546	592	538	587	536	559
7	571	619	534	553	534	560
8	515	563	532	555	525	560
9	509	566	516	566	525	560
10	528	546	528	555	528	555
11	532	550	525	550	525	550
12	511	536	528	560	525	560
13	509	534	516	550	516	555
14	525	563	525	563	525	563
15	493	529	501	555	523	563
16	511	546	516	553	516	553
17	524	541	525	559	525	559
Mean	523	554	524	557	526	558
Median	524	550	525	555	525	559
Min	493	516	501	525	516	550
Max	571	619	538	587	536	566
Mode	528	566	525	555	525	560
	1998%	1999%	1998%	1999%	1998%	1999%
Below	67.3%	69.7%	69.3%	69.7%	69.3%	69.7%
Meets	17.1%	17.1%	17.1%	19.1%	19.1%	20.5%
Exceeds	15.6%	13.2%	13.6%	11.2%	11.6%	9.8%

Table 18: Grade 3 Writing Standard Setting Sessions

Grade 3 Writing						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	8	11	7	11	8	11
2	8	10	7	11	6	10
3	9	11	6	11	6	11
4	7	12	7	13	7	13
5	7	10	8	12	8	12
6	8	10	8	11	8	11
7	8	10	8	10	8	12
8	9	13	8	13	8	13
9	8	11	No Show	No Show	8	11
10	6	10	6	11	6	11
11	6	10	6	11	6	11
12	7	10	6	10	6	10
13	8	11	8	11	8	11
14	8	10	8	10	8	10
15	8	10	8	12	8	13
16	8	10	8	11	8	11
17	8	11	7	11	7	11
18	7	9	6	10	6	10
19	8	11	6	10	6	10
20	6	9	6	11	6	11
21	9	11	9	12	8	11
22						
Mean	8	10	7	11	7	11
Median	8	10	7	11	8	11
Min	6	9	6	10	6	10
Max	9	13	9	13	8	13
Mode	8	10	8	11	8	11
	1998%	1999%	1998%	1999%	1998%	1999%
Below	62.7%	70.6%	44.4%	51.4%	62.7%	70.6%
Meets	28.2%	24.1%	47.3%	46.8%	34.4%	27.6%
Exceeds	9.1%	5.3%	2.9%	1.8%	2.9%	1.8%

Table 19: Grade 5 Writing Standard Setting Sessions

Grade 5 Writing						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	8	11	8	11	8	11
2	9	11	9	11	7	11
3	9	13	9	13	7	13
4	8	13	9	13	8	13
5	9	11	9	13	8	12
6	10	13	10	13	10	13
7	10	11	10	13	10	13
8	9	13	9	13	9	13
9	7	11	No Show	No Show	8	11
10	7	10	7	11	7	11
11	6	11	7	11	7	11
12	10	11	9	11	8	10
13	10	10	9	10	9	10
14	9	10	9	10	9	11
15	9	10	9	11	8	12
16	9	11	9	11	8	11
17	8	10	9	12	7	11
18	7	9	8	13	8	12
19	8	12	8	13	8	11
20	10	13	8	13	8	13
21	9	12	9	13	9	11
Mean	9	11	9	12	8	12
Median	9	11	9	12	8	11
Min	6	9	7	10	7	10
Max	10	13	10	13	10	13
Mode	9	11	9	13	8	11
	1998%	1999%	1998%	1999%	1998%	1999%
Below	70.4%	68.1%	70.4%	68.1%	54.0%	49.0%
Meets	23.6%	26.6%	27.4%	30.3%	40.0%	45.7%
Exceeds	6.0%	5.3%	2.2%	1.6%	6.0%	5.3%

Table 20: Grade 8 Writing Standard Setting Sessions

Grade 8 Writing						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	8	12	8	12	8	12
2	8	12	8	12	8	12
3	8	13	8	12	8	12
4	9	11	9	11	9	11
5	8	9	8	10	8	10
6	9	11	8	11	8	11
7	7	9	7	10	7	10
8	6	9	7	10	7	10
9	NA[17]	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA	NA
11	6	12	7	12	8	12
12	8	10	8	11	8	11
13	8	11	8	11	8	11
14	8	11	8	11	8	11
15	9	11	9	11	9	11
16	9	11	9	11	9	11
17	4	13	7	12	7	12
18	7	9	7	12	7	12
19	9	12	9	11	8	11
20	8	11	8	11	8	11
21	8	9	8	11	8	11
22	7	11	7	11	7	11
23	8	10	8	11	8	11
24	8	10	8	11	8	11
25	8	9	8	10	8	10
26	8	13	8	12	8	12
Mean	8	11	8	11	8	11
Median	8	11	8	11	8	11
Min	4	9	7	10	7	10
Max	9	13	9	12	9	12
Mode	8	11	8	11	8	11
	1998%	1999%	1998%	1999%	1998%	1999%
Below	45.2%	50.8%	45.2%	50.8%	45.2%	50.8%
Meets	45.4%	45.6%	45.4%	45.6%	45.4%	45.6%
Exceeds	9.4%	3.6%	9.4%	3.6%	9.4%	3.6%

[17] NA indicates that the judge's decisions do not count.

Table 21: Grade 10 Writing Standard Setting Sessions

Grade 10 Writing						
	Round 1		Round 2		Round 3	
Judge	Meets	Exceeds	Meets	Exceeds	Meets	Exceeds
1	8	11	7	11	8	11
2	8	11	8	11	8	11
3	9	11	8	11	8	11
4	8	11	8	11	8	11
5	8	9	8	11	8	11
6	9	12	8	12	8	12
7	7	9	7	10	7	10
8	6	9	7	10	7	10
9	NA[18]	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA	NA
11	7	9	7	13	7	13
12	8	10	8	11	8	11
13	7	9	7	9	8	11
14	7	11	7	9	8	11
15	9	11	9	11	8	11
16	9	12	9	11	9	11
17	5	11	7	11	7	11
18	6	8	7	11	7	11
19	8	11	8	11	8	11
20	8	11	8	11	8	11
21	8	9	8	11	8	11
22	7	11	8	11	8	11
23	7	10	8	10	8	11
24	8	10	9	11	9	11
25	8	11	8	11	7	10
26	8	11	8	10	8	10
Mean	8	10	8	11	8	11
Median	8	11	8	11	8	11
Min	5	8	7	9	7	10
Max	9	12	9	13	9	13
Mode	8	11	8	11	8	11
	1998%	1999%	1998%	1999%	1998%	1999%
Below	63.1%	63.5%	63.1%	63.5%	63.1%	63.5%
Meets	35.0%	33.4%	35.0%	33.4%	35.0%	33.4%
Exceeds	1.9%	3.1%	1.9%	3.1%	1.9%	3.1%

[18] NA indicates that the judge's decisions do not count.

Appendix B— Information on the Judges

Nominations for who should participate as judges were solicited from each of the School Districts and Charter Schools as well as from constituency groups from throughout the State who have a vested interest in Delaware's efforts to improve student achievement. In addition, community members who indicated an interest to participate were also invited to nominate themselves. In the end, each and every individual who was nominated received an invitation to participate as a judge.

In total, 262 individuals were nominated and invited to participate as judges. In the end, 188 actually participated.

Two tables are included in this Appendix. Table 22 that begins on page 42 details the demographics of the participants. Table 23 that begins on page 44 lists the invited participants (note that those who actually attended the session are indicated by an asterisk in the first column).

Table 22: Demographics of Standard Setting Participants

Grade		Mathematics	Reading	Writing	Sub-Total
3	Total	17	21	21	59
	male	0	3	3	6
	female	17	18	18	53
	minority	1	0	2	3
	majority	16	21	19	56
	parent	0	2	2	4
	administrator	1	2	3	6
	teacher	16	17	16	49
	Organization	0	0	0	0
5	Total	16	19	Judges were the same for gr 5 writing as for gr 3 writing	35
	male	1	4		5
	female	15	15		30
	minority	2	3		5
	majority	14	16		30
	parent	0	1		1
	administrator	2	1		3
	teacher	14	16		30
	Organization	0	1		1
8	Total	18	20	24	62
	male	5	3	4	12
	female	13	17	20	50
	minority	2	1	2	5
	majority	16	19	22	57
	parent	3	2	2	7
	administrator	0	2	1	3
	teacher	15	15	21	51
	Organization	0	1	0	1
10	Total	18	14	Judges were the same for gr 8 writing as for gr 10 writing	32
	male	2	2		4
	female	16	12		28
	minority	2	1		3
	majority	16	13		29
	parent	3	1		4
	administrator	1	0		1
	teacher	14	13		27
	Organization	0	0		0

Total	Total Participants				188
	male				27 (.14)
	female				161 (.84)
	minority				16 (.09)
	majority				172 (.91)
	parent				16 (.09)
	administrator				13 (.07)
	teacher				157 (.83)
	Organization				2 (.01)

Table 23: Invited Participants in the Standard Setting Process

Note: The participants flagged in the first column are those who actually participated in the Standard Setting and had their votes count.

	First Name	MI	Last Name	Job Title	Gndr	Race	District/ Organization	District
*	Ruth Ann		Abbate	Executive Assistant, Delaware Electric Signal	F	C	Milford	Milford
*	Barbara	B.	Adams	Teacher (grade 8)	F	C	Capital	Capital
*	Carol	L.	Antes	Teacher (grade 3)	F	C	Christina	Christina
*	Megan		Baehre	DOE Intern	F	C	DOE Intern	DOE
	Carolyn		Baith	Teacher (grade 8)	F	C	Caesar Rodney	Caesar Rodney
*	Carol	L.	Banz	Teacher (grade 5)	F	C	Red Clay	Red Clay
	Kenneth	A.	Bardales	Teacher (grade 3)	M	C	Red Clay	Red Clay
*	Curtis	A.	Barlett	Parent	M	C		
*	Holly	H.	Barrow	Teacher (grade 9)	F	C	Sussex County Vo Tech	Sussex County Vo Tech
	Terry	H.	Bartley	Retail Buyer & District Manager	M		Cape Henlopen	Cape Henlopen
	Janet		Basara	Teacher (grade 5)	F	C	Red Clay	Red Clay
	Diane	M.	Bell	Teacher (grade 3)	F	C	Laurel	Laurel
*	Joan	L	Bestpitch	Teacher (grade 7)	F	C	Smyrna	Smyrna
*	Linda	W.	Bishop	Housewife	F	C	Colonial	Colonial
*	Mary	H.	Bixler	Reading Specialist	F	C	Indian River	Indian River
	Linda	C.	Bledsoe	Teacher (grades 3-4)	F	C&H	Appoquinimink	Appoquinimink
*	Czar	N.	Bloom	Teacher (grades 9-12)	M	C	Milford	Milford
*	Teri	J.	Bodine	Special Education Teacher (grade 5)	F		Smyrna	Smyrna
	Terry	A.	Bolick	Teacher (grade 5)	F	C	Cape Henlopen	Cape Henlopen
*	Jennifer		Bonham	Teacher (grades 6-8)	F	C	Colonial	Colonial
*	Kathleen	M.	Booth	Teacher (grades 9-12)	F	C	Seaford	Seaford
*	Edward	H.	Bosso	Principal	M	C	Christina	Christina
	Michael	P.	Boyd	Teacher (grade 10)	M	C	Lake Forest	Lake Forest
	Janelle	T.	Boyer	Teacher (grade 8)	F	C	Smyrna	Smyrna
*	Janet	W.	Bratten	Parent	F	AA	Smyrna	Smyrna
*	Rebecca	A.	Breasure	Parent & Teacher (grade 4)	F	C	Indian River	Indian River
	Michael		Breen	Teacher (grade 8)	M	C	Appoquinimink	Appoquinimink
	Susan	R.	Brown	Special Education Teacher (Pre K – K)	F	C	Capital	Capital
*	Marilyn	V.	Burbage	Court Manager	F	AA	Woodbridge	Woodbridge
*	Madeline	D.	Burgoon	Teacher (grade 10)	F	C	Smyrna	Smyrna
*	Evelyn	D.	Burris	Teacher (grade 7)	F	AA	Appoquinimink	Appoquinimink
*	Becky	A.	Burton	Teacher (grade 5)	F	C	Indian River	Indian River
*	Brad		Cain	Teacher (grade 8)	M	C	Appoquinimink	Appoquinimink
*	Amanda	E.	Camenisch	Teacher (grade 8)	F	C	Woodbridge	Woodbridge
*	Helen	L.	Camenisch	Teacher (grade 3)	F	C	Cape Henlopen	Cape Henlopen
*	Nancy	E.	Campbell	Teacher (grades 3,5,6)	F	C	Indian River	Indian River
	Earl	M.	Cannon	Director of Early Childhood Education	M	C	Seaford	Seaford
*	Nancy	L.	Carnevale	Teacher (grade 5)	F	C	Cape Henlopen	Cape Henlopen
*	Brenda		Cassel	Teacher (grade 3)	F	C	Christina	Christina
	Linda	A.	Catts	Special Education Teacher (grade 8)	F	C	Smyrna	Smyrna
*	Deborah	B.	Chadwick	Teacher (grade 3)	F	C	Smyrna	Smyrna
	Karen	J.	Chaffee	Teacher (grades 9-10)	F	C	Lake Forest	Lake Forest
	Kathy	M.	Cioffi	Teacher (grade 3)	F	C	Appoquinimink	Appoquinimink
	Willa		Clair	Teacher (grade 3)	F	C	Christina	Christina
*	Patricia	M.	Clemente	English Specialist	F	C	New Castle County Vo Tech	New Castle County Vo Tech
*	Lena		Cocciolone	President, PAC	F	C	Parent Advisory Council	

	First Name	MI	Last Name	Job Title	Gndr	Race	District/ Organization	District
*	Deborah	J.	Coffin	Computer Teacher	F	C	Christina Parent	Christina
*	Rodney	W.	Collins	Teacher (grade 5)	M	C	Lake Forest	Lake Forest
	Jeffrey	W.	Conrad	Assistant Principal	M	C	Milford	Milford
*	Jessilene	E.	Corbett	Special Education Teacher	F	AA	Caesar Rodney	Caesar Rodney
*	Jennifer	V.	Cornell	Teacher (grade 9-12)	F	C	Sussex County Vo Tech	Sussex County Vo Tech
*	Sharon	M.	Cornell	Teacher (grade 3)	F	C	Red Clay	Red Clay
*	Betsy		Corrigan	Teacher (grade 11)	F	C	Colonial	Colonial
*	Valerie	R.	Crockett	Special Education Teacher (grade 8)	F	AA	Seaford	Seaford
	Lara	M.	Crowley	Teacher (grade 4)	F	C	Colonial	Colonial
*	Joann		Czernik	Reading Specialist & Title I	F	C	Delmar	Delmar
*	Beth	E.	Dailey	Special Education Teacher (ILC) (Grades 3-5)	F	C	Colonial	Colonial
*	Ann	D.	Darden	Teacher (grade 7)	F	C	Seaford	Seaford
*	John	G.	Davidson	Administrator	M	C	Lake Forest	Lake Forest
	Laura	L.	Davies	Teacher (grades 9-12)	F	C	Polytech	Polytech
*	June	R.	Day	Title I Coordinator/English Resource Teacher	F	C	Polytech	Polytech
	Mark	M.	Delpercio	Teacher (grades 8-12)	M	C	Appoquinimink	Appoquinimink
*	Joyce	S.	Denman	Special Education Teacher (grade 5)	F	C	Capital	Capital
*	Kathleen		Devine	Special Education Teacher (grades 6-12)	F	C	DSCYF	DSCYF
	Robert		DiGennaro	Teacher (grade 3)	M	C	Laurel	Laurel
*	Linda	D.	Dillinger	Teacher (grade 3)	F	C	Cape Henlopen	Cape Henlopen
*	Peggy		Dillner	Librarian	F	C	Colonial	Colonial
	JoVonna	H.	Dodge	Special Education Teacher (grades 9-12)	F	C	Smyrna	Smyrna
	Diane	S.	Dolan	Teacher (grade 5)	F	C	Laurel	Laurel
*	Kelly	L.	Dorman	Teacher (grade 3)	F	C	Indian River	Indian River
	Darla	H.	Downer	Special Education Teacher & Dept. Chair (grades 9-12)	F	C	Smyrna	Smyrna
*	Esther	M.	Downes	Teacher (grade 3)	F	C	Smyrna	Smyrna
*	Debra		Doyle	Secretary, Science Coalition Center	F	C	Smyrna	Smyrna
	John		Drumheller	Teacher (grades 9-12)	M	C	Cape Henlopen	Cape Henlopen
*	Deborah		Duke	Inclusion Teacher (grades 3-4)	F	C	Capital	Capital
*	Wayne	A.	Dukes	Teacher (grades 9-12)	M	C	Sussex County Vo Tech	Sussex County Vo Tech
*	Angela		Dunmore	Teacher (grade 8)	F	C	Cape Henlopen	Cape Henlopen
*	Kathy	C.	Edwards	ILC Teacher (grades K-3)	F	C	Seaford	Seaford
*	Shay	C.	Eli	Teacher (grade 3)	F	C	Cape Henlopen	Cape Henlopen
*	Shirley	F.	Ellison	Teacher (grade 5)	F	AA	Red Clay	Red Clay
	Linda	C.	Emerick	Teacher (grade 8)	F	C	Red Clay	Red Clay
*	Edward	J.	Emmett	Teacher (grades 7-12)	M	C	Positive Outcomes	Positive Outcomes
	Diane	S.	English	Teacher (grade 3)	F	C	Smyrna	Smyrna
	Valerie	D.	Eskridge	Teacher (grade 3)	F	C	Laurel	Laurel
*	Anne Marie		Esposito	Teacher (grade 10)	F	C	New Castle County Vo Tech	New Castle County Vo Tech
*	Marsha		Evans	Teacher (grades 9-12)	F	AA	Colonial	Colonial
	Sandra	M.	Falatek	Director of Instructional Services	F	C	Sussex County Vo Tech	Sussex County Vo Tech
*	Kenneth	F.	Falgowski	Principal	M	C	Colonial	Colonial
*	Scott	W.	Fellenbaum	Teacher (grades 3, 5)	M	C	Red Clay	Red Clay
*	Denise	A.	Ferguson	Teacher (grade 3)	F	C	Brandywine	Brandywine
*	Barbara		Firchak	Teacher (grade 8)	F	C	Christina	Christina

	First Name	MI	Last Name	Job Title	Gndr	Race	District/ Organization	District
*	Mary	E.	Fisher	Teacher (grades 1,4,5)	F	C	Colonial	Colonial
*	Bernard	P.	Floriani	Curriculum Supervisor	M	C	Smyrna	Smyrna
	Douglas	J.	Forcucci	Teacher (grades 9, 11)	M	C	Sussex County Vo Tech	Sussex County Vo Tech
*	Judith	M.	Ford	Teacher (grades 2-8)	F	C	Indian River	Indian River
*	Daniel	E.	Forsee	Special Education Teacher (grades 9-12)	M	C	Brandywine	Brandywine
*	Harry	J.	Fox	Teacher (grade 5)	M	C	Brandywine	Brandywine
*	Bert		Freeman	Director of Development, TALK Associates & Parent	M	AA	TALK Associates	
*	Michele	A.	Gallagher	Special Education Teacher (grade 5)	F	C	Capital	Capital
	Nancy	L.	Gallagher	Title I Resource (grades 3-6)	F	C	Colonial	Colonial
	Lee Ann		Gibson	Special Education Teacher (grade 7)	F	C	Colonial	Colonial
*	Walter	P.J.	Gilefski	Administrator	M	C	Woodbridge	Woodbridge
*	Susan	L.	Gilmore	Teacher (grade 3)	F	C	Smyrna	Smyrna
	Ronald	W.	Girton, Jr.	Teacher (grade 5)	M	C	Smyrna	Smyrna
	Heather	H.	Gladish	Preschool Director	F	C	Lake Forest Parent	Lake Forest
	Carol	A.	Glanden	Special Education – Teaming Phy. Science Teacher (grade 9)	F	C	Seaford	Seaford
*	Jennifer	W.	Gonce	Teacher (grades 2-4)	F	C	Appoquinimink	Appoquinimink
	Ken	L.	Goodwin	Teacher (grade 8)	M	C	Appoquinimink	Appoquinimink
	Pamela	W.	Gordy	Postal Carrier	F	C	Laurel	Laurel
	Laura	G.	Grass	Teacher (Math, Reading)	F	C	Appoquinimink	Appoquinimink
	Dorothy		Gregory	English Department Chair	F	C	Christina	Christina
*	Rachel	G.	Griffin	Teacher (grade 3)	F	C	Milford	Milford
	Dana	T.	Griffith	Teacher (Math)	F	C	Appoquinimink	Appoquinimink
*	Barbara		Grogg	Teacher	F	C	Colonial	Colonial
	Stephen	R.	Halter	Teacher (grade 8)	M	C	Lake Forest	Lake Forest
*	Catherine	D.	Handy	Teacher (grades 9-12)	F	AA	Seaford	Seaford
*	Julia	N.	Harper	Teacher (grade 8)	F	C	Delmar	Delmar
	Diane	W.	Harrington	Teacher (grade 9)	F	C	Smyrna	Smyrna
	Robert	C.	Harrington	Teacher (grades 6-8)	M	C	Caesar Rodney	Caesar Rodney
*	Todd	D.	Harvey	Principal	M	C	Christina	Christina
	Antoinette		Haug	Special Education Teacher (grade 8)	F	C	Colonial	Colonial
*	Kristan	O.	Helms	Teacher (grades 9-12)	F	C	Sussex County Vo Tech	Sussex County Vo Tech
	Tina	R.	Hilligoss	Teacher (grades 9-12)	F	C	Milford	Milford
*	Kimberly	S.	Hoey	Teacher (grade 3)	F	C	Indian River	Indian River
	Patricia		Hollingshaus	Parent	F	C	Red Clay	Red Clay
*	Terry	L.	Holton	Assistant Principal	F	C	Polytech	Polytech
*	Roger	E.	Hovermale	Teacher (grades 10-11)	M	C	Lake Forest	Lake Forest
*	Elizabeth		Howell	Teacher (grade 5)	F	C	Colonial	Colonial
*	Tracy	O.	Hudson	Special Education / Reading Specialist (grades 3-5)	F	C	Indian River	Indian River
*	Colleen	M.	Ingram	Teacher (grades 3,6,8)	F	C	Laurel	Laurel
	Elizabeth	M	Janairo	Teacher (grade 8)	F	C	Capital	Capital
*	Jennifer	A.	Janoss	Teacher (grades 10, 11,12)	F	C	Polytech	Polytech
*	Theresa	A.	Jenner	Teacher	F	C	Smyrna	Smyrna
*	Karen	L.	Jessee	Teacher (grade 10)	F	C	Red Clay	Red Clay
	Barbara	S.	Johnson	Teacher (grade 3)	F	C	Capital	Capital
*	Jean	N.	Johnson	Teacher (grade 8)	F	C	Cape Henlopen	Cape Henlopen
*	Katherine	C.	Jones	Teacher (grade 3)	F	C	Indian River	Indian River

	First Name	MI	Last Name	Job Title	Gndr	Race	District/ Organization	District
*	Mary Beth		Jones	Teacher (grades 9-10)	F	C	Appoquinimink	Appoquinimink
*	Susan	L.	Judd	Teacher (grade 3)	F	C	Appoquinimink	Appoquinimink
*	Connie	M.	Justice	Teacher (grade 4)	F	C	Indian River	Indian River
*	Mary		Kaled	Teacher (grade 8)	F	C	Christina	Christina
*	Sandra	H.	Keller	Teacher (grade 7)	F	C	Appoquinimink	Appoquinimink
*	Mary	L.	Kelly	Teacher (grades 10-11)	F	C	New Castle County Vo Tech	New Castle County Vo Tech
	Wendy	M.	Kemberling	Teacher (grade 5)	F	C	Christina	Christina
*	Gene	M.	Kerns	Teacher	M	C	DSEA	Milford
*	Betty	D.	Kessler	Teacher (grades K-3)	F	C	Christina	Christina
*	Mary	E.	Kidd	Teacher (grades 10-12)	F	C	Polytech	Polytech
*	Sean	A.	Knowles	Teacher (grade 8)	M	C	Seaford	Seaford
	Donna	A.	Kolakowski	Teacher (grade 3)	F	C	Smyrna	Smyrna
*	Jeff	J.	Kosinski	Teacher (grade 8)	M	C	Smyrna	Smyrna
	Barbara	S.	Koston	Teacher (grades 2,3,4)	F	C	Colonial	Colonial
	Cindy	D.	Kramer	Teacher (grade 5)	F	AI	Lake Forest	Lake Forest
	Howard	R.	Kutcher	Teacher (grade 8)	M	C	Red Clay	Red Clay
*	Maureen		LaBorde	Teacher (grade 5)	F	C	Christina	Christina
*	Mary	S.	Lauer	Teacher (grade 8)	F	C	Capital	Capital
*	Dana	M.	Levy	Governor's Advisory Council for Exceptional Citizens	F	C	Governor's Advisory Council for Exceptional Citizens	
*	Donna		Longobardi	Teacher (grade 5)	F	C	Indian River	Indian River
*	Kerry	A.	Lowe	Teacher (grade 3)	F	C	Smyrna	Smyrna
*	Sharon	M.	Lupinski	Teacher (grade 3)	F	C	Red Clay	Red Clay
*	Elizabeth	H.	Lynn	Teacher (grade 3)	F	C	Indian River	Indian River
*	Cynthia	L.	Mack	Teacher (grades 9-12)	F	C	Woodbridge	Woodbridge
	Betty	B.	Manion	Teacher (grade 8)	F	C	Cape Henlopen	Cape Henlopen
*	Gwendolyn	S.	Mays	Teacher (grade 3)	F	AA	Capital	Capital
*	Janice	L	McCarthy	Teacher (grade 8)	F	C	Red Clay	Red Clay
*	Colette	A.	McDonald	Teacher (grade 8)	F	C	Red Clay	Red Clay
	Sherry	I.	McKee	Teacher (grade 9)	F	C	Milford	Milford
*	Linda	A.	McLeod	Teacher (grade 3)	F	C	Colonial	Colonial
*	Faith	H.	McNamara	Teacher (Resources 1,2)	F	C	Colonial	Colonial
	Toni	A.	Mealey	Teacher (grade 3)	F	C	Red Clay	Red Clay
*	Lorei	C.	Meanor	Curriculum Supervisor	F	C	Laurel	Laurel
*	Linda	S.	Micucio	Teacher (grade 10)	F	C	Red Clay	Red Clay
	Lewis	C.	Miller	Supervisor of Instruction	M	C	Delaware ASCD	Caesar Rodney
*	Susan	E.	Miller	Teacher (grades K-8)	F	C	Colonial	Colonial
*	Lou	A.	Mingione	Teacher (grades 9-11)	M	C	Lake Forest	Lake Forest
*	Susan		Mitchell	Teacher (grade 8)	F	C	Christina	Christina
*	Gina	A.	Moody	Teacher (grade 7)	F	AA	Christina	Christina
*	Susan	H.	Moody	Teacher	F	C	Colonial	Colonial
*	Linda	D.	Mosley	Teacher (grade 5)	F	AA	Red Clay	Red Clay
*	Marcia	J.	Motley	Teacher (grade 5)	F	C	Capital	Capital
*	Meriam	O.	Moyer	Teacher (grade 8)	F	C	Capital	Capital
*	Carol	E.	Muller	Homemaker	F	C	Christina	Christina
*	Mandy	T.	Munson	Special Education Teacher	F	C	Colonial	Colonial
*	Betty	L.	Myers	Teacher (grade 5)	F	C	Lake Forest	Lake Forest
	Jane	W.	Myers	Teacher (grade 8)	F	C	Cape Henlopen	Cape Henlopen
*	Richard	R.	Nabb	Teacher (grades 5-6)	M	C	Appoquinimink	Appoquinimink
	Jake	A.	Nathan	Teacher (grade 8)	M	C	Cape Henlopen	Cape Henlopen
	Faith	R.	Newton	Principal	F	C	Red Clay	Red Clay
*	Debra	D.	Nicol	Teacher (grades 9-10)	F	C	Appoquinimink	Appoquinimink
*	Sandra	L.	Orbison	Teacher (grades 10-12)	F	C	Seaford	Seaford
*	Beverly	M.	Palmer	Teacher (grade 3)	F	C	Seaford	Seaford
*	Terun	Y.	Palmer	Teacher (grades 5-6)	F	AA	Capital	Capital

	First Name	MI	Last Name	Job Title	Gndr	Race	District/ Organization	District
	Debbie	L.	Panchisin	Administrator	F	C	Appoquinimink	Appoquinimink
*	Lorainne		Paolillo	Teacher/Dept. Chair (7-8)	F	C	Colonial	Colonial
	Colleen	E.	Papen	PTO Secretary	F	C	Caesar Rodney	Caesar Rodney
*	Karen	M.	Parker	Teacher (grade 5)	F	C	Indian River	Indian River
*	Robert	J.	Parsons	Special Education Chair & Teacher	M	C	Parent Advisory Council	Indian River
*	Amy	M.	Pearson	Teacher (grade 5)	F	C	Seaford	Seaford
*	Wayne	A.	Pepper	Special Education Teacher	M	C	Seaford	Seaford
*	Nancy	S.	Phillips	Teacher (grades 9-12)	F	C	Sussex County Vo Tech	Sussex County Vo Tech
	Ruth	A.	Phillips	Teacher (grades 9,11,12)	F	C	Sussex County Vo Tech	Sussex County Vo Tech
*	Sherry		Polite	Teacher (grade 10)	F	C	Red Clay	Red Clay
*	Barbara	W.	Poore	Teacher/Dept. Chair (grades 9-12)	F	C	Colonial	Colonial
*	Linda		Poorman	Teacher-to-Teacher Cadre	F	C	Colonial	Colonial
*	Suzanne	M.	Powers	Teacher (grade 5)	F	C	Seaford	Seaford
*	Margaret	R.	Prouse	Parent	F	C	Polytech	Polytech
	Judith	A.	Purcell	Teacher (grade 3)	F	C	Milford	Milford
	Adrianne	R.	Quarles	Teacher (grades 10,12)	F	AA	New Castle County Vo Tech	New Castle County Vo Tech
*	Leah	C.	Quinn	Curriculum Supervisor	F	C	Christina	Christina
*	Jane	U.	Ragains	Teacher (grade 5)	F	C	Capital	Capital
*	Prisana	L.	Rennie	Teacher (grade 5)	F	A	Lake Forest	Lake Forest
	Kay	B.	Rhoads	Teacher (grade 3)	F	C	Lake Forest	Lake Forest
*	Linda	C.	Robbins	Teacher (grades 7-8)	F	C	Colonial	Colonial
	Patricia	A	Ruffalo	Teacher (grade 10)	F	C	Red Clay	Red Clay
	Jill	E.	Rumley	Teacher (grade 8)	F	C	Lake Forest	Lake Forest
*	Roslyn	A.	Ryan	Teacher (grades 9-12)	F	C	Seaford	Seaford
*	Eileen	M.	Saddow-Smith	Teacher (grades 9-12)	F	C	Christina	Christina
*	Charlotte	M.	Samans	Teacher (grade 3)	F	C	Seaford	Seaford
*	Geneva	A.	Sampson	Teacher (grade 8)	F	C	Seaford	Seaford
*	Lynn	M.	Scanlon	Teacher (grade 8)	F	C	Brandywine	Brandywine
	Dale	L.	Schaffner	Teacher (grade 5)	F	C	Laurel	Laurel
*	Stephen	E.	Schwartz	Assistant Superintendent	M	C	Seaford, Parent, DASA	Seaford
*	Susan	E.	Scott	Teacher (grade 3)	F	C	Milford	Milford
*	Patti	L.	Seabolt	Teacher (grade 3)	F	C	Cape Henlopen	Cape Henlopen
*	Amy	A.	Selheimer	Teacher (grade 5)	F	C	Christina	Christina
*	Sherry	M.	Sharpe	Teacher (grades 3-4)	F	C	Capital	Capital
*	Debbie	L.	Shockley	Teacher (grade 5)	F	C	Seaford	Seaford
*	Jackie	J.	Shockley	Teacher (grades 2-3)	F	C	Cape Henlopen	Cape Henlopen
*	David	M.	Simkins	Special Education Teacher (grade 7)	M	C	Appoquinimink	Appoquinimink
*	Karen	E.	Simkins	Teacher (grade 5)	F	C	Cape Henlopen	Cape Henlopen
	Mohan		Singh	Farmer	M	A	Parent	Laurel
*	Nadine	R.	Smack	Parent	F	AA	Sussex County Vo Tech	Sussex County Vo Tech
	Frances	S.	Smart	Teacher (grades 9-12)	F	C	New Castle County Vo Tech	New Castle County Vo Tech
	Dee	V.	Smith	Teacher (Language Arts)	F	C	Appoquinimink	Appoquinimink
	George	N.	Spalaris	Assistant Principal	M	C	Cape Henlopen	Cape Henlopen
*	Diane	E.	Sterling	Special Education Teacher (grade 8)	F	C	Smyrna	Smyrna
*	Jane	P.	Stewart	Teacher (grade 3)	F	C	Capital	Capital
	Linda		Stigile	Teacher (grades 9-10)	F	C	Colonial	Colonial
	Diane	S.	Stubbs	Teacher (grades 10,12)	F	C	Polytech	Polytech
*	Sharon		Sundelin	Teacher (grades 9,10,12)	F	C	Christina	Christina

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*	Bernice	B.	Swann	Teacher (grade 10)	F	AA	Red Clay	Red Clay
*	Karin	L.	Synoski	Teacher (grade 8)	F	C	Caesar Rodney	Caesar Rodney
*	David	G.	Talanca	Talent Development Teacher	M	C	Colonial	Colonial
*	Waynettta	B.	Talley	Teacher (grades 1-3)	F	C	Lake Forest	Lake Forest
*	Teresa	A.	Thomspon	Teacher (grades 9,11)	F	C	Smyrna	Smyrna
*	Susan	K.	Timpson	Teacher (grades 2-3)	F	C	Christina	Christina
*	Betty	A.	Tosi	Teacher-to-Teacher Cadre	F	C	Colonial	Colonial
*	Janice		Trainer	Teacher (grade 3)	F	C	Christina	Christina
*	Marlene		Tribbitt	Teacher (grade 3)	F	C	Christina	Christina
*	Kathleen	M.	Trivits	Teacher (grade 3)	F	C	Red Clay	Red Clay
*	Shirley	B.	Truitt	Teacher (grades 6-8)	F	C	Indian River	Indian River
*	Debbie		Tuson	Teacher (grades 9-12)	F	C	New Castle County Vo Tech	New Castle County Vo Tech
*	April	L.	Urrunaga	Teacher (grade 8)	F	C	Laurel	Laurel
	Susan	P.	Urwin	Teacher (grade 8)	F	C	Red Clay	Red Clay
*	Veronica	D.	Vansant	Teacher (grade 3)	F	C	Brandywine	Brandywine
*	Heidi	M.	Wahrhaftig	Merchandising Representative – Parent	F	C	Appoquinimink	Appoquinimink
*	Ronye	K.	Wentling	Teacher (grade 5)	F	C	Smyrna	Smyrna
*	Lorianne		White	Teacher (grade 7)	F	C	Indian River	Indian River
*	Ann	H.	Whitman	Teacher (grade 3)	F	C	Milford	Milford
*	Julia	A.	Wilkins	Teacher (grade 3)	F	C	Milford	Milford
*	Sara	D.	Wilkinson	Assistant Principal	F	C	Cape Henlopen	Cape Henlopen
*	Cathie	M.	Wilson	Teacher (grade 5)	F	C	Smyrna	Smyrna
*	Juanita	G.	Wilson	Principal	F	C	Capital	Capital
*	Julie	A.	Yakimowicz	Curriculum Secretary	F	C	Cape Henlopen	Cape Henlopen
*	Donna	R.	Zakrewsky	Parent – Homemaker	F	C	Seaford	Seaford

Appendix C—Data Comparison: 1998 and 1999

The judges who participated in the Standard Setting process saw only 1999 preliminary data as part of their decision-making process. When the impact of the cut points is compared across years, the result in movement of students from one category to another parallels the difference in scores, which is to be expected. [19]

Reading

The reading scores indicate a sizable increase at grade 3, a minor increase at grade 5, no increase at grade 8, and a decrease at grade 10.

Table 24: Reading Score Comparison

	Reading	
	1998	1999
Grade 3	421	428
Grade 5	460	462
Grade 8	508	508
Grade 10	509	503

Mathematics

The mathematics scores indicate a sizable increase at grades 3 and 5, and stability at grade 8 and grade 10.

Table 25: Mathematics Score Comparison

	Mathematics	
	1998	1999
Grade 3	411	421
Grade 5	450	454
Grade 8	481	481
Grade 10	510	509

[19] All 1999 data are preliminary, but are sufficiently accurate to use to assess impact in terms of students. Any interpretation of mean (average) scores from 1999 should be made with caution as the final analysis will likely produce somewhat different results. At the same time, trends in the data, as well as impact, are unlikely to change even should the results need to be adjusted somewhat. The preliminary 1999 mean scores are included as part of this document because they became available the instant we produced a score distribution from which to generate impact data, and anyone with a statistical background would understand this and quite probably ask for the data.

Writing

The writing scores must be interpreted more carefully than the reading and mathematics scores. This is due to the inability to equate tests of writing due to the fact that the writing test consists of two large items and many more items than this are required to conduct a valid equating study.

That being the case, the scores went down in grades 3, 8, and 10. Scores at grade 5 went up.

Table 26: Writing Score Comparison

	Writing	
	1998	1999
Grade 3	6.85	6.44[20]
Grade 5	7.42	7.52
Grade 8	7.72	7.39
Grade 10	6.92	6.82

Impact Data From 1998 and 1999

To provide a sense of how the increase and/or decrease of scores plays out according to the recommended cut points, the following tables are provided. Each table indicates the percentage of students in each year and at each grade level who fell above and below the Meets the Standard cut point.

[20] The 1999 extended prompt assessed informative/procedural writing, which represents the first time this mode was assessed in Delaware. The lower than expected scores may be the result and should perhaps be interpreted as a lack of familiarity with the mode as opposed to a decrease in writing skills.

Table 27: Reading Impact Data—1998 vs. 1999

	At/Above the Standard[21]	Below the Standard[22]
Grade 3 Reading		
1998	62%	38%
1999	68%	32%
Grade 5 Reading		
1998	59%	41%
1999	62%	38%
Grade 8 Reading		
1998	61%	39%
1999	62%	38%
Grade 10 Reading		
1998	59%	41%
1999	53%	47%

Table 28: Mathematics Impact Data—1998 vs. 1999

	At/Above the Standard[23]	Below the Standard[24]
Grade 3 Math		
1998	55%	45%
1999	63%	37%
Grade 5 Math		
1998	52%	48%
1999	55%	45%
Grade 8 Math		
1998	36%	64%
1999	35%	65%
Grade 10 Math		
1998	31%	69%
1999	30%	70%

[21] Includes all students in the Meets, Exceeds, and Distinguished proficiency levels.
[22] Includes all students in the well Below and Below proficiency levels.
[23] Includes all students in the Meets, Exceeds, and Distinguished proficiency levels.
[24] Includes all students in the well Below and Below proficiency levels.

Table 29: Writing Impact Data—1998 vs. 1999

	At/Above the Standard[25]	Below the Standard[26]
Grade 3 Writing		
1998	56%	44%
1999	50%	50%
Grade 5 Writing		
1998	46%	54%
1999	51%	49%
Grade 8 Writing		
1998	55%	45%
1999	49%	51%
Grade 10 Writing		
1998	37%	63%
1999	36%	64%

[25] Includes all students in the Meets, Exceeds, and Distinguished proficiency levels.
[26] Includes all students in the well Below and Below proficiency levels.

Appendix D—Disaggregations

This Appendix contains disaggregated data from the 1998 test. The data from 1998 were used because they represent the most accurate data with which we had available. When the 1999 data are finalized the same diaggregations will be run using those data.

Note that some rounding error may occur in these tables. The underlying data are accurate.

Table 30: Disaggregated Data

Grade 3			
Reading		Meets or Above	Near or Below
Total		62%	38%
Sex	F	67%	33%
	M	56%	44%
Race	African American	43%	57%
	Caucasian	72%	28%
	Hispanic	40%	60%
Low Income[27]	Not Low Income	74%	26%
	Low Income	43%	57%
Special Ed	Non Spe ED	66%	34%
	Spec Ed	15%	85%
Mathematics		Meets or Above	Near or Below
Total		55%	45%
Sex	F	55%	45%
	M	55%	45%
Race	African American	32%	68%
	Caucasian	66%	34%
	Hispanic	37%	63%
Low Income	Not Low Income	68%	32%
	Low Income	36%	64%
Special Ed	Non Spe ED	59%	41%
	Spec Ed	16%	84%
Writing		Meets or Above	Near or Below
Total		56%	44%
Sex	F	64%	36%
	M	48%	52%
Race	African American	44%	56%
	Caucasian	61%	39%
	Hispanic	40%	60%
Low Income	Not Low Income	65%	35%
	Low Income	42%	58%
Special Ed	Non Spe ED	59%	41%
	Spec Ed	16%	84%

[27] Free and reduced price lunch.

Grade 5			
Reading		Meets or Above	Near or Below
Total		59%	41%
Sex	F	63%	37%
	M	55%	45%
Race	African American	37%	63%
	Caucasian	71%	29%
	Hispanic	37%	63%
Low Income[28]	Not Low Income	73%	27%
	Low Income	40%	60%
Special Ed	Non Spe ED	65%	35%
	Spec Ed	11%	89%
Mathematics		Meets or Above	Near or Below
Total		52%	48%
Sex	F	53%	47%
	M	52%	48%
Race	African American	29%	71%
	Caucasian	64%	36%
	Hispanic	33%	67%
Low Income	Not Low Income	67%	33%
	Low Income	32%	68%
Special Ed	Non Spe ED	57%	43%
	Spec Ed	9%	91%
Writing		Meets or Above	Near or Below
Total		46%	54%
Sex	F	54%	46%
	M	38%	62%
Race	African American	30%	70%
	Caucasian	54%	46%
	Hispanic	32%	68%
Low Income	Not Low Income	56%	44%
	Low Income	31%	69%
Special Ed	Non Spe ED	50%	50%
	Spec Ed	10%	90%

[28] Free and reduced price lunch.

Grade 8			
Reading		Meets or Above	Near or Below
Total		61%	39%
Sex	F	69%	31%
	M	54%	46%
Race	African American	40%	60%
	Caucasian	71%	29%
	Hispanic	40%	60%
Low Income[29]	Not Low Income	71%	29%
	Low Income	41%	59%
Special Ed	Non Spe ED	66%	34%
	Spec Ed	11%	89%
Mathematics		Meets or Above	Near or Below
Total		36%	64%
Sex	F	35%	65%
	M	37%	63%
Race	African American	15%	85%
	Caucasian	46%	54%
	Hispanic	19%	81%
Low Income	Not Low Income	46%	54%
	Low Income	17%	83%
Special Ed	Non Spe ED	40%	60%
	Spec Ed	3%	97%
Writing		Meets or Above	Near or Below
Total		55%	45%
Sex	F	66%	35%
	M	45%	55%
Race	African American	41%	59%
	Caucasian	61%	39%
	Hispanic	43%	57%
Low Income	Not Low Income	62%	38%
	Low Income	40%	60%
Special Ed	Non Spe ED	59%	41%
	Spec Ed	10%	90%

[29] Free and reduced price lunch.

Grade 10			
Reading		Meets or Above	Near or Below
Total		59%	41%
Sex	F	64%	36%
	M	54%	46%
Race	African American	37%	63%
	Caucasian	67%	33%
	Hispanic	37%	63%
Low Income[30]	Not Low Income	65%	35%
	Low Income	37%	63%
Special Ed	Non Spe ED	62%	38%
	Spec Ed	6%	94%
Mathematics		Meets or Above	Near or Below
Total		31%	69%
Sex	F	31%	69%
	M	32%	68%
Race	African American	12%	88%
	Caucasian	38%	62%
	Hispanic	14%	86%
Low Income	Not Low Income	36%	64%
	Low Income	13%	87%
Special Ed	Non Spe ED	33%	67%
	Spec Ed	1%	99%
Writing		Meets or Above	Near or Below
Total		37%	63%
Sex	F	47%	53%
	M	26%	74%
Race	African American	23%	77%
	Caucasian	42%	58%
	Hispanic	29%	71%
Low Income	Not Low Income	40%	60%
	Low Income	24%	76%
Special Ed	Non Spe ED	39%	61%
	Spec Ed	5%	95%

[30] Free and reduced price lunch.

Appendix E— Survey of Standard Setting Participants

A survey was administered to each participant at the conclusion of the standard setting event. The results of the survey are included below.

Summary of Evaluation of Standard Setting for Delaware Student Testing Program

August 2-12, 1999

How adequate was the training in preparing you to make judgments about the level of student performance required by the standard setting procedure?

	Adequate		Inadequate		No Response
Level	**5**	**4**	**3**	**2**	**1**	
n	**107**	**55**	**17**	**3**	**2**	**4**
%	**58**	**30**	**9**	**2**	**1**	
mean	**4.4**					
S.D.	**0.8**					

In applying the standard setting method, your committee was asked to set cut points for student performance. How confident do you feel that the descriptions of the cut points are reasonable for each student performance level?

2a. Exceeds/Meets cut point:

	High	Low		No Response		
Level	5	4	3	2	1	
n	47	94	23	9	3	12
%	27	53	13	5	2	
mean	4.0					
S.D.	1.0					

2b. Meets/Below cut point:

	High	Low		No Response		
Level	5	4	3	2	1	
n	35	86	38	13	4	12
%	20	49	22	7	2	
mean	4.0					
S.D.	1.0					

Did you have adequate opportunities to address your professional opinions about student performance levels during the standard setting sessions?

	High	Low		No Response		
Level	5	4	3	2	1	
n	137	37	5	4	0	5
%	75	20	3	2	0	
mean	4.7					
S.D.	0.6					

4. How confident do you feel that the student performance levels are set based on professional judgments of the committee members rather than outside influences?

	High	Low		No Response		
Level	**5**	**4**	**3**	**2**	**1**	
n	**61**	**73**	**36**	**5**	**5**	**8**
%	**34**	**40**	**20**	**3**	**3**	
mean	**4.0**					
S.D.	**1.0**					

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