



Diagnostic Online Math Assessment

&

Adaptive Diagnostic Assessment of Mathematics

Technical Document

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Adaptive Diagnostic Assessment of Mathematics & Diagnostic Online Math

Assessment Specifications

ADAM: Foundational Mathematics Assessment

ADAM assesses across 5 major math strands which span 44 sub-tests of K-7/8 mathematics. Grade scores range for all strands is K to 7. *ADAM* is used for grades K-12 for assessment of foundational math skills.

- Numbers and Operations: 14 sub-test; 661 criterion-referenced test items, in 105 constructs
- Measurement : 7 sub-tests; 133 criterion-referenced test items, in 34 constructs
- Geometry: 11 sub-test; 203 criterion-referenced test items, in 53 constructs
- Data Analysis: 8 sub-tests; 106 criterion-referenced test items, in 36 constructs
- Algebraic Thinking: 4 sub-test; 305 criterion-referenced test items, in 43 constructs

DOMA: Pre-Algebra

DOMA: Pre-Algebra consists of 14 sub-tests, as well as a pre-screening, math facts, and reading comprehension sections. The pre-screening is administered first as part of the OAASIS platform of adaptive test-taking, while the math facts and reading comprehension sections may be triggered by performance on the assessment. While



other LGL assessments are criterion-referenced to specific grade-level expectations, *DOMA: Pre-Algebra* uses test items criterion-referenced to pre-requisite knowledge expectations.

- Pre-Screening: 14 criterion-referenced test items, one from each sub-test of the full assessment.
- Integer Operations: 11 criterion-referenced test items
- Fraction Operations: 12 criterion-referenced test items
- Decimal Operations: 9 criterion-referenced test items
- Comparing and Converting: 10 criterion-referenced test items
- Estimating and Rounding: 6 criterion-referenced test items
- Evaluating Exponents: 6 criterion-referenced test items
- Ratios and Proportions: 5 criterion-referenced test items
- Simplifying Expressions: 6 criterion-referenced test items
- Coordinate Graphing 8 criterion-referenced test items
- Linear Functions and Extending Patterns: 8 criterion-referenced test items
- Simple Equations: 6 criterion-referenced test items
- Geometry: 11 criterion-referenced test items
- Interpreting Data: 10 criterion-referenced test items
- Simple Probability: 7 criterion-referenced test items

DOMA: Algebra

DOMA: Algebra, a course-specific diagnostic assessment, consists of 11 Algebra I-specific constructs, as well as a pre-screening section, much like the *DOMA*:

Pre-Algebra assessment.

- Pre-Screening: 22 criterion-referenced test items, representing two questions from each sub-test
- Evaluating Advanced Exponents: 7 criterion-referenced test items
- Solving Linear Equations: 6 criterion-referenced test items
- Graphing and Analyzing Linear Equations: 9 criterion-referenced test items
- Relations and Functions: 7 criterion-referenced test items
- Solving and Graphing Inequalities: 5 criterion-referenced test items
- Solving and Graphing Systems: 8 criterion-referenced test items
- Polynomial Operations: 8 criterion-referenced test items
- Factoring Polynomials: 7 criterion-referenced test items
- Radical Expressions and Equations: 7 criterion-referenced test items
- Quadratic Equations: 7 criterion-referenced test items
- Rational Expressions and Equations: 8 criterion-referenced test items



ADAM & DOMA Content Validity

The validity of an assessment instrument refers to its ability to support valid assessment inferences. That is, do test results support a valid conclusion about a student's level of knowledge or skill? Building a valid test begins with accurate definitions of the constructs (i.e., the knowledge domains and skills) to be assessed. If the assessment activities in a test (i.e., the test items) tap into the constructs that the test is designed to assess, then the test has content validity. Although additional factors affect overall test validity, content validity is the basic logical bedrock of any test.

Let's Go Learn's math assessments' content validity comes from best-practices in math curriculum. The development of these cutting-edge math products has been spear-headed by math specialist and teacher-trainer, Paul Giganti of UC Berkeley and Cal State Hayward. Prior to his work in professional development, Paul Giganti taught math in public schools for over 15 years. He has directed federally-funded professional development programs in California under the auspices of the California Post-Secondary Educational Commission. Currently he is the coordinator of the California Mathematics Council Festivals Programs and Professional Development. In addition to his classroom teaching and professional development career, Paul Giganti has published several children's picture books about mathematics.

In addition to the expertise of Paul Giganti, LGL derives construct validity for the *ADAM & DOMA* Series of tests by its alignment to both Common Core State Standards



(CCSS) and state standards. *DOMA: Basic Math Skills* test was originally aligned to the California state mathematics standards in the Number and Measurement strands, as well as NCTM National Standards for Mathematics. *ADAM K-7*, the sequel to the *DOMA Basic Math Skills* assessment, was redesigned fundamentally and expanded to cover all 5 NCTM major math strands and nearly all of the CCSS. *ADAM* is aligned to CCSS and state standards in all 50 states. Further, *DOMA: Pre-Algebra* and *DOMA: Algebra* are aligned to NCTM standards, CCSS, and all 50 state standards.

ADAM/DOMA Internal Growth Model Structure

ADAM is a K-7 multiple measured criterion-referenced assessment. *ADAM* consists of 44 subtests that address key foundational skills in mathematics. *ADAM*'s subtests employ scope and sequenced math skills organized in the order that they would be taught to students across each of these sub-tests. These leveled skills are also aligned with instructional grade-level content standards. *ADAM*, by design, uses an interval scale given that it is aligned to grade-level skills that span grades K-7. *ADAM* scores are reported as grade level scores, with partial year growth also noted.

DOMA Pre-Algebra is a grade 4-7 multiple measured criterion-referenced assessment. *DOMA Pre-Algebra* consists of 14 subtests that address key foundational skills in mathematics. *DOMA Pre-Algebra*'s subtests employ scope and sequenced math skills organized in the order that they would be taught to students across each of these



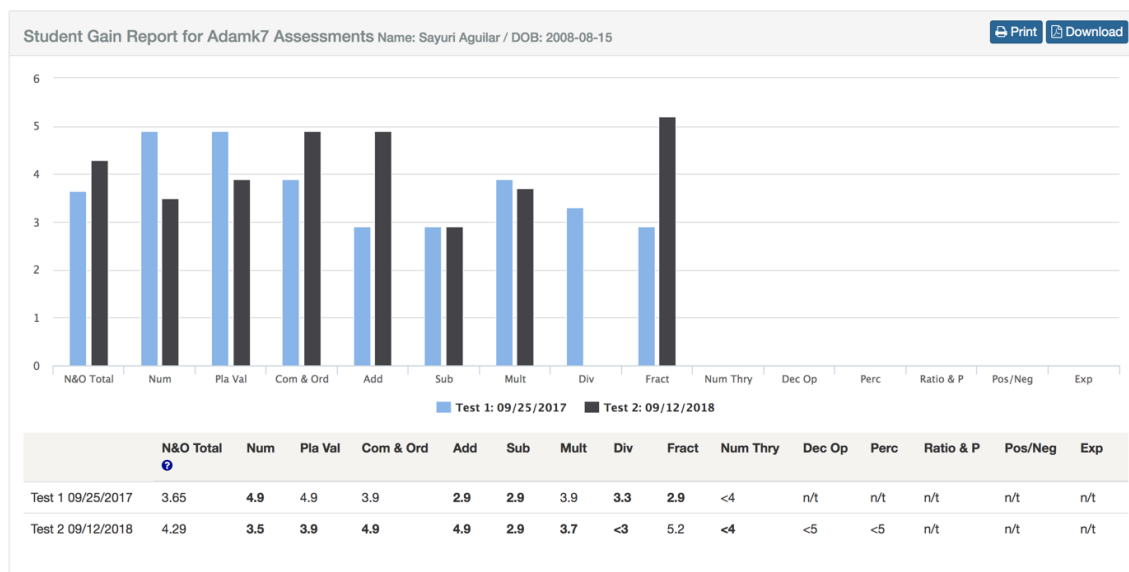
sub-tests. These leveled skills are also aligned with instructional grade-level content standards. *DOMA Pre-Algebra*, by design, uses an interval scale given that it is aligned to grade-level skills that span grades 4-7. *DOMA Pre-Algebra* scores are reported as grade level scores, with partial year growth also noted.

A single adaptive *DOMA Pre-Algebra* assessment is used for all grade level students who are learning their Grade 4 to 7 foundational math skills. The adaptive nature of *DOMA Pre-Algebra* was designed so that *DOMA Pre-Algebra* identifies the zone of proximal development (ZPD) of each student regardless of the student's actual grade level. The Grade 4 to 7 focus of *DOMA Pre-Algebra* allows teachers and administrators to identify gaps in students learning (previous year's standards that have not been met) as well as identify those who are working above their grade level.

ADAM and *DOMA Pre-Algebra* employ a gains score, or trajectory, model for student growth. Our gain score model captures the grade level progress on a particular scale or subscale between time 1 and time 2. The model is represented as: $GL(s)_2 - GL(s)_1$. Where GL = grade level, and where (s) denotes the particular scale or subscale.

The combination of an interval scale design with a K-7 set-item range allows *ADAM* to measure growth of students' ability either within a single school year or across students' entire K-7 experience. Likewise, the combination of an interval scale design with a Grade 4 to 7 set-item range allows *DOMA Pre-Algebra* to measure growth of students' ability either within a single school year or across students' grade 4 to 7 experience. *ADAM* and *DOMA*

Pre-Algebra scores can be used both to diagnose student needs and to track student growth over time.



In this sample graph above, a single student's growth is graphed from fall of one year to the fall of the next year. These grade-level scores are scores native to the software algorithms underlying the *ADAM* and *DOMA Pre-Algebra* assessment. No translation or scaling has to occur. This supports *ADAM* and *DOMA Pre-Algebra* for use as a student growth measurement tool with interval scaled scores that are understandable by students, teachers, parents, and administrators.

ADAM Construct Validity: Correlation Study (2013)

The *ADAM* assessment was administered to 83 students in grades 1 to 8. Students performed the *ADAM* assessment online in a computer lab. During the same month students were also give the *Scholastic Math Inventory* published by Scholastic. This assessment was administered in the same computer lab setting. It is a computer-based assessment.

The results were as follows when comparing the “total score” on the *ADAM* assessment and the Quantile score on the Scholastic Math Inventory:

Correlation (r): 0.835

Coefficient of Determination (R^2): 69.7%

This represents a very high correlation with low variance. This means that the *ADAM* assessment and the *Scholastic Math Inventory* are highly correlated, and demonstrates further construct validity for the *ADAM* assessment.

DOMA Pre-Algebra Construct Validity: Correlation Study (2007)

The *DOMA: Pre-Algebra* assessment was administered to 233 middle school students. Students performed the *DOMA: Pre-Algebra* assessment online. During the same week students were also give the Orleans-Hannah Algebra Prognosis Test published by Harcourt. This assessment is administered in a group setting. It is a paper and pencil assessment.

The results were as follows when comparing the “raw score” on the *DOMA* assessment and the total number of questions correct on the Orleans-Hannah Algebra Prognosis Test:

Correlation: 0.754

Delta: 0.066

This represents a high correlation with low variance. This means that the *DOMA: Pre-Algebra* assessment and the Orleans-Hannah Algebra Prognosis Test are highly correlated, and demonstrates further construct validity for the *DOMA: Pre-Algebra* assessment.

ADAM: National Norms for Grades K-12

Let's Go Learn offers a range of solutions designed to improve student achievement. The company's initial efforts led to two diagnostic assessments: (1) Diagnostic Online Reading Assessment (*DORA*) and (2) Adaptive Diagnostic Assessment of Mathematics (*ADAM*). These comprehensive assessment tools were designed to



provide students, educators, and families with clear, actionable data related to student performance through testing across an academic year. Each assessment consists of sub-tests that assess areas such as vocabulary and reading comprehension or numbers and operations, to develop a complete picture of student ability and opportunities for growth so that teachers can direct their instruction accordingly. This section of the technical manual summarizes the establishment of national norms for *ADAM* to supplement the criterion-referenced data already provided.

What are norms?

Norms take advantage of large datasets containing thousands of scores at different points in the school year (the “sample”). The goal is to establish “normal” performance on the diagnostic based on the performance of thousands of students with varying abilities. Norms allow educators to compare a given student’s score to the national sample and understand that student’s performance level relative to students contained in the sample.

The words “norms” and “percentiles” compare a student’s score to the representative sample of students from across the country. These students completed the same assessment, at the same grade level, at the same point in the school year.

How do educators use norms?

Using the total score from either *DORA* or *ADAM*, an educator can plot the score in the norming table to determine that student's performance compared to the national sample. For example, if the student's score aligns with the 85th percentile, that student's score is better than an estimated 85% of students in the national sample.

Sometimes a specific test score will correspond to multiple percentile ranks. For example, a score might appear next to three consecutive percentile ranks (i.e., a student's score is 17 and it corresponds to the 66th, 67th, and 68th percentile). In this case, you can choose to report the percentile as any of the three numbers, or simply report the range. For consistency, use whichever method you adopt each time you encounter this type of situation with the norming table.

Where did the norms come from?

The norming tables available for *DORA* and *ADAM* were made possible through national data from students using Let's Go Learn during the 2018-2019 school year. These scores represent students of all abilities from large urban districts in five different states. Let's



Go Learn programs are most frequently used with low-performing students. Therefore, it should be noted that the national sample is influenced by this trend.

Do norms differ based on time of year?

Scores are identified by testing windows falling within either the beginning, middle, or end (fall, winter, spring) of the school year.

- Fall consists of scores from tests taken between August 1 and November 30, 2018
- Winter consists of scores from tests taken between December 1, 2018 and February 28, 2019
- Spring consists of scores from tests taken between March 1 and June 30, 2019

Sample sizes for each grade level and testing window are reported within the norming tables.

Will the norms be updated?



As the national sample of *DORA* and *ADAM* continues to grow, updates to the norming data will be accomplished. However, due to COVID-19, data from the 2019-20 and 2020-21 school years isn't comparable. Since the 2018-19 school year was the most recent "normal" school operation year, we have used those scores for this initial effort.

See Appendix A for the norming tables by grade level.

ADAM Correlations to SBAC

ADAM Total Score to California Smarter Balanced Mathematics Scaled Scores

Sample Demographics

Category	<i>n</i>	%
Total	10,106	100.0
SPED %	980	9.7
EL %	3,015	29.8
Race		
American Indian or Alaska Native	43	.4
Asian Indian	10	.1
Black or African American	19	.2
Cambodian	5	.0
Chinese	74	.7
Filipino	36	.4
Hispanic or Latino	9,698	96.0
Japanese	26	.3
Korean	8	.1
Native Hawaiian	3	.0
Other Asian	14	.1
Other Pacific Islander	7	.1
Samoa	1	.0
Vietnamese	25	.2
White	130	1.3
Not indicated	7	.1

All Students—Mathematics

Grade	<i>N</i>	<i>r</i>	sig
Overall	7,604	.838	.000

Grade	<i>n</i>	<i>r</i>	sig
3	1,319	.834	.000

4	2,226	.824	.000
5	1,924	.816	.000
6	763	.836	.000
7	699	.850	.000
8	652	.774	.000

English Learner Comparison—Mathematics

Grade	Non-EL			EL		
	<i>n</i>	<i>r</i>	<i>sig</i>	<i>n</i>	<i>r</i>	<i>sig</i>
3	698	.840	.000	621	.815	.000
4	1,352	.828	.000	874	.763	.000
5	1,388	.824	.000	536	.682	.000
6	617	.825	.000	146	.687	.000
7	541	.856	.000	158	.550	.000
8	571	.753	.000	81	.640	.000

Special Education Learner Comparison—Mathematics

Grade	Non-SPED			SPED		
	<i>n</i>	<i>r</i>	<i>sig</i>	<i>n</i>	<i>r</i>	<i>sig</i>
3	1,168	.808	.000	151	.789	.000
4	1,976	.814	.000	250	.720	.000
5	1,733	.809	.000	191	.694	.000
6	698	.832	.000	65	.702	.000
7	609	.853	.000	90	.432	.000
8	602	.761	.000	50	.707	.000



ADAM: K-7 Internal-Consistency Reliability Study

Introduction

According to Allen & Yen (1979), reliability can be defined as the consistency between the observed scores on an assessment and the true scores. There are multiple methods of assessing the reliability of an assessment. One way is the test-retest method, comparing the consistency between one administration and a subsequent second administration of the same assessment. Another method of determining reliability is by using internal consistency, a measure of the consistency of results of items within one test. This report will present the internal consistency results for *Diagnostic Online Math Assessment: Basic Math Skills (DOMA BMS)* (Let's Go Learn, Inc.).

Methods

Let's Go Learn, Inc., a developer of online diagnostic reading and math assessments, has created an online diagnostic assessment to evaluate students' math abilities. *Adaptive Diagnostic Assessment of Mathematics (ADAM) K-7* assesses students across five major strands of mathematics: Number & Operations, Measurement, Data Analysis, Geometry, and Algebraic Thinking. Furthermore, the assessment is built upon a highly adaptive-logic platform, limiting the number of items seen by each student by both determining start points, variable jump sizes, and early termination. A total of 44

sub-tests make up the five strands of mathematics. For each sub-test, there is one version of the assessment. Sub-tests are organized into a linear scope and sequence of teachable math skills that match how students learn mathematics in the classroom.

In order to evaluate the reliability of *ADAM K-7*, the Rasch model was used to evaluate overall model fit for each strand. A sample of 28,226 students in grades K- 12 taken from 20 school districts nationwide was used.

Analysis

Analysis showed overall unidimensionality of each sub-test as well as good overall model fit. Reliability levels were strong (see Table 1).

Table 1

ADAM K-7 Sub-test Reliability (α)

Strand	Reliability (α)
Numbers & Operations	.70
Measurement	.61
Algebraic Thinking	.52
Data Analysis	.37
Geometry	.78

$n = 28,226$

Conclusions

For most high-stakes assessments, a reliability of .7 or higher is usually considered a reasonable level for strong reliability. Since ADAM K-7 is a formative assessment, the levels indicated for all strands more than demonstrate a high level of reliability.



DOMA: Pre-Algebra Internal-Consistency Reliability Study

Introduction

According to Allen & Yen (1979), reliability can be defined as the consistency between the observed scores on an assessment and the true scores. There are multiple methods of assessing the reliability of an assessment. One way is the test-retest method, comparing the consistency between one administration and a subsequent second administration of the same assessment. Another method of determining reliability is by using internal consistency, a measure of the consistency of results of items within one test. This report will present the internal consistency results for *Diagnostic Online Math Assessment: Pre-Algebra (DOMA: Pre-Algebra)* (Let's Go Learn, Inc.).

Methods

Let's Go Learn, Inc., a developer of online diagnostic reading and math assessments, has created an online diagnostic assessment to evaluate students' math abilities, *Diagnostic Online Math Assessment: Pre-Algebra (DOMA: Pre-Algebra)*. *DOMA Pre-Algebra* assesses students across 14 areas of math knowledge: integer operations, fraction operations, decimal operation, comparing and converting, estimating and rounding, evaluating exponents, ratios and proportions, simplifying expressions, coordinate graphing, linear functions, simple equations, geometry, interpreting data,

and simple probability. The pre-screening is administered first as part of the OAASIS platform of adaptive test-taking, while the math facts and reading comprehension sections may be triggered by performance on the assessment. Further, the assessment is built on an adaptive-logic platform, limiting the number of items seen by each student by both determined start point and by early termination. For each sub-test, there is one version of the assessment.

In order to evaluate the reliability of *DOMA Pre-Algebra*, the Rasch model was used to evaluate overall model fit for each sub-test. A sample of 62,631 students in grades K- 12 taken from school districts nationwide was used.

Analysis

Analysis showed overall unidimensionality of each sub-test as well as good overall model fit. The overall internal-consistency reliability level for *DOMA: Pre-Algebra* was .81, which demonstrates strong levels of reliability. Reliability levels were generally strong (see Table 1), although some individual sub-test reliability levels were questionable.

Table 1

DOMA Pre-Algebra Sub-test Reliability (α)

Sub-test	Reliability (α)
----------	--------------------------

Integer Operations	.80
Fraction Operations	.82
Decimal Operation	.79
Comparing and Converting	.61
Estimating and Rounding	.57
Evaluating Exponents	.68
Ratios and Proportions	.05
Simplifying Expressions	.37
Coordinate Graphing	.53
Linear Functions	.77
Simple Equations	.75
Geometry	.69
Interpreting Data	.46
Simple Probability	.54
Pre-Screener	.78

Conclusions

For most high-stakes assessments, a reliability of .7 or higher is usually considered a reasonable level for strong reliability. Since *DOMA Pre-Algebra* is a



formative assessment, the levels indicated for most sub-tests more than demonstrate a high level of reliability.

ADAM K-7 Test-Retest Reliability Study (2012)

Test-Retest is the ability of a test to be taken once and then immediately again and have similar results. Let's Go Learn undertook a test-retest analysis in the Fall of 2012 with the ADAM K-7 assessment. Students were given the assessment two times over a one week period. The results were again excellent. Variability was low, meaning that the ADAM K-7 assessment is very precise and can be re-administered with low bias. Sample size: n=50

The reliability coefficient based on the above test-retest reliability study is shown in the table below. These values are statistically significant and represent a high level of reliability.

Test-Retest Correlations for ADAM NUM

Subtest	<i>r</i>
1	.764
2	.738
3	.482
4	.669
5	.687
6	.741
7	.756
8	.718

9 .813

10 .599





DOMA Pre-Algebra Test-Retest Reliability Study (2007)

Test-Retest is the ability of a test to be taken once and then immediately again and have similar results. Let's Go Learn undertook a test-retest analysis in Q3 2007 with the DOMA: Pre-Algebra assessment. Students were given the assessment two times over a one week period. The results were again excellent. Variability was low, meaning that the DOMA: Pre-Algebra assessment is very precise and can be re-administered with low bias. Sample size: n=230

DOMA: Pre-Algebra assessment is composed of 14 constructs that define pre-algebra. In the individual student detailed report and in the classroom summary reports, teachers look at how students perform across these 14 constructs. Summarily, they can see mastery, partial, or non-mastery in each of these constructs for each student. For the analysis of this study, mastery of a construct was denoted by a 1, partial mastery with a 0.5, and non-mastery with a 0. So the highest raw score possible was a 14 and the lowest raw score was a 0. Translating this raw score to a percent mastery, the range of scores was 0% to 100%.

Analyzing the change in scores, the variance of this sample was 2.28. This translates to an average score variance as a percentage of 16.3%. This represents low variance and supports the statement that DOMA: Pre-Algebra can be use as a pre-post measure without significant bias.



The reliability coefficient based on the above test-retest reliability study is .844, which is statistically significant, and represents a high level of reliability.

DOMA: Algebra Internal-Consistency Reliability Study

Introduction

According to Allen & Yen (1979), reliability can be defined as the consistency between the observed scores on an assessment and the true scores. There are multiple methods of assessing the reliability of an assessment. One way is the test-retest method, comparing the consistency between one administration and a subsequent second administration of the same assessment. Another method of determining reliability is by using internal consistency, a measure of the consistency of results of items within one test. This report will present the internal consistency results for *Diagnostic Online Math Assessment: Algebra (DOMA: Algebra)* (Let's Go Learn, Inc.).

Methods

Let's Go Learn, Inc., a developer of online diagnostic reading and math assessments, has created an online diagnostic assessment to evaluate students' math abilities, *Diagnostic Online Math Assessment: Algebra (DOMA: Algebra)*. *DOMA Algebra* assesses students across 11 areas of Algebra I knowledge: Evaluating Advanced Exponents; Solving Linear Equations; Graphing and Analyzing Linear Equations; Relations and Functions; Solving and Graphing Inequalities; Solving and Graphing Systems;

Polynomial Operations; Factoring Polynomials; Radical Expressions and Equations; Quadratic Equations; and Rational Expressions and Equations. The pre-screening is administered first as part of the OAASIS platform of adaptive test-taking, while the math facts and reading comprehension sections may be triggered by performance on the assessment. Further, the assessment is built on an adaptive-logic platform, limiting the number of items seen by each student by both determined start point and by early termination. For each sub-test, there is one version of the assessment.

In order to evaluate the reliability of *DOMA Algebra*, the Rasch model was used to evaluate overall model fit for each sub-test. A sample of 62,631 students in grades K-12 taken from school districts nationwide was used.

Analysis

Analysis showed overall unidimensionality of each sub-test as well as good overall model fit. The overall internal-consistency reliability level for *DOMA: Algebra* was .64, which demonstrates moderate levels of reliability. Reliability levels were generally moderate (see Table 1), although some individual sub-test reliability levels were questionable.

Table 1

DOMA Algebra Sub-test Reliability (α)

Sub-test	Reliability (α)
Evaluating Advanced Exponents	.46
Solving Linear Equations	.42
Graphing and Analyzing Linear Equations	.42
Relations and Functions	.41
Solving and Graphing Inequalities	.34
Solving and Graphing Systems	.51
Polynomial Operations	.44
Factoring Polynomials	.27
Radical Expressions and Equations	.33
Quadratic Equations	.39
Rational Expressions and Equations	.22
Pre-Screener	.70

Conclusions

For most high-stakes assessments, a reliability of .7 or higher is usually considered a reasonable level for strong reliability. The overall reliability coefficient for *DOMA Algebra* is .64, and since *DOMA Algebra* is a formative, low-stakes assessment, that level demonstrates a high level of reliability. In addition, the Pre-Screener, which is used to drive the overall adaptive logic of *DOMA Algebra* is .70, which demonstrates a

high level of reliability. The levels indicated for most sub-tests demonstrate a moderate level of reliability as well; however, there are some subtests that demonstrate a notably lower level of reliability. For diagnostic purposes, and in creating a profile of student strengths and weaknesses, the reliability levels demonstrated by the individual subskills are still high enough to indicate a confident level of test reliability. It should further be considered, however, that these subskills are not individual testing sections, but only reporting sections.

There are a number of explanations as to why the reliability of the subskill sets decreased when examined separately. First of all, it is not unexpected to see reliability levels decrease as the number of items assessed decreases. When the subskill sets are small, there is less variability in the student responses. Further, there is the issue of missing data, which will effect the reliability levels. Since no one student ever takes all test items, there is always missing data. In the reliability of the overall assessment, the missing data is less of a factor than in the reliability of the individual subskills, due again to the smaller number of items being measured. The missing data there serves to restrict variability even further, in turn increasing the standard error and increasing the mean square error as well.

Adherence to Universal Design

All Let's Go Learn assessments and modules have the ability to use a combination of audio, text, and images in both the questions and choices of the test items. In



addition, our assessments have been designed to adapt and find students' instructional points in order to guide instruction, find present levels for IEP writing, drive teacher-directed or automated Specially Designed Instruction (SDI), and help teachers with small-group instruction. Overall, these factors allow for the reduction of bias that arises when questions are asked and students cannot access those questions in order to answer them. Ironically, most assessments used in K-12 education, including high stakes accountability assessments, fail to provide equitable access because they are summative in nature and focus too narrowly on "standards." Their goal is often to determine whether a student has completed a specific content standard and demonstrated mastery of it. Test design bias occurs because standards target end-of-year grade-level instructional content standards and require foundational skills mastery in the case of Common Core, TEKs, or other modern state standards. Thus, most standards require the prior mastery of multiple foundational skills and the comprehension of many concepts. This creates a significant bias when the majority of students in K-12 urban settings are below grade level. Let's Go Learn's assessments, by the very nature of being multiple-measured and diagnostic, are fairer and more equitable. Our fundamental student-focused design, as opposed to grade-level-focused design, removes biases present in pure standards-based assessments and benchmark tests. See the bulleted list below that shows how our assessments provide a superior assessment in terms of fairness and reduction of bias.

- Foundational Math is broken into 44 sub-tests that are a scope and sequence of skills and concepts ranked in the order in which they are learned by students. This removes the incorrect conclusion that a student may be “low” in a major standard such as “Numbers and Operations,” for example, when in reality it is just a low ability in fractions that is biasing the results.
- Any paragraph of text has audio that reads the paragraph to the student.
- Items formats are chosen to maximize display on a computer or device screen. Items are tested for different device platforms to adjust for wide or vertical formats.
- Adaptive logic, when testing multiple items in a single area, will terminate early when a student cannot attain mastery of a skill or concept. This is to reduce test-taker fatigue, which is a big source of test error.
- Any reporting of “mastery” of a skill or concept requires multiple items rather than a single item.
- We avoid expressions such as “Student is ready to work on...” or “Student is developmentally at the level to do...” These expressions are often used when summative data points are making instructional recommendations at a granular level. We never use this approach. As a case in point, we would not use a single scaled Numbers and Operations score to make instructional recommendations for a specific student.

- Our technology allows the use of audio, text, and images in the question portion of a test item. Any combination of these can be used: audio and text, text and pictures, or audio, text, and pictures.
- Our technology allows for the use of audio, text, and images in the choice portion of a test item. In addition, the number of choices can vary from two to many.
- Our technology allows for the formatting of any test item to vary depending on the needs of the question.

References

Allen, M. & Yen, W (1979). *Introduction to measurement theory*. Long Grove: Waveland Press.

Appendix A: ADAM National Norms for Grades K-12

Samples by grade and time of year

Grade	Beginning	Middle	End
K	3,788	3,351	5,046
1	7,837	6,109	8,736
2	10,393	8,201	11,430
3	9,272	7,626	10,055
4	8,906	6,845	9,060
5	9,205	7,246	10,111
6	9,153	6,618	7,900
7	3,707	1,346	3,406
8	2,544	858	1,267
9	565	207	332
10	414	185	333
11	407	156	280
12	328	120	144

Sample Size	3,785			3,349			5,040													
	Percentile			Total Score			ALG			DAT			GEO			ME			NUM	
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End		
1	0.07	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	0.07	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3	0.07	0.07	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4	0.07	0.07	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
5	0.07	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6	0.07	0.14	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7	0.07	0.14	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
8	0.07	0.14	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.07	0.14	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.07	0.14	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20		
11	0.14	0.14	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20		
12	0.14	0.21	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20		
13	0.14	0.21	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20		
14	0.14	0.21	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20		
15	0.14	0.21	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20		
16	0.14	0.21	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20		
17	0.14	0.21	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.20	0.20		
18	0.14	0.21	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.20	0.20		
19	0.14	0.29	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.20	0.20		
20	0.14	0.29	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.20	0.20		
21	0.14	0.29	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.20	0.20		
22	0.14	0.29	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.20	0.20		
23	0.14	0.29	0.43																	

Sample Size	7,834			6,062			8,643																	
	Percentile			Total Score			ALG			DAT			GEO			ME			NUM					
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End			
1	0.14	0.18	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
2	0.14	0.29	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20			
3	0.21	0.35	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20			
4	0.21	0.36	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20			
5	0.29	0.43	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20			
6	0.29	0.43	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40			
7	0.29	0.50	0.64	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.40			
8	0.36	0.50	0.64	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.40			
9	0.36	0.57	0.71	0.00	0.00	0.00	0.00	0.00	0.50	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.40			
10	0.36	0.57	0.79	0.00	0.00	0.45	0.00	0.50	0.50	0.20	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.40			
11	0.43	0.64	0.79	0.00	0.00	0.50	0.00	0.50	0.50	0.20	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.40			
12	0.43	0.64	0.86	0.00	0.00	0.50	0.00	0.50	1.25	0.20	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.60			
13	0.43	0.64	0.86	0.00	0.50	0.50	0.00	0.50	1.25	0.20	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.60			
14	0.50	0.71	0.93	0.00	0.50	0.50	0.00	0.50	1.25	0.20	0.40	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.60			
15	0.50	0.71	0.93	0.00	0.50	0.50	0.00	0.50	1.25	0.20	0.40	0.60	0.00	0.00	0.33	0.00	0.00	0.33	0.20	0.40	0.60			
16	0.50	0.71	1.05	0.00	0.50	0.50	0.00	0.50	1.25	0.20	0.40	0.60	0.00	0.00	0.33	0.00	0.00	0.33	0.20	0.40	0.60			
17	0.50	0.79	1.05	0.00	0.50	0.50	0.00	0.50	1.25	0.20	0.40	0.80	0.00	0.00	0.33	0.00	0.00	0.33	0.20	0.40	0.60			
18	0.57	0.79	1.10	0.00	0.50	0.50	0.50	1.25	1.25	0.20	0.60	0.80	0.00	0.00	0.33	0.00	0.00	0.33	0.20	0.40	0.80			
19	0.57	0.79	1.10	0.00	0.50	0.50	0.50	1.25	1.25	0.20	0.60	0.80	0.00	0.00	0.33	0.00	0.00	0.33	0.40	0.40	0.80			
20																								

Second

Sample Size 10,388 8,099 11,216

Percentile	Total Score			ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End
1	0.36	0.50	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.40
2	0.50	0.71	0.79	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.20	0.00	0.00	0.00	0.20	0.40	0.40
3	0.57	0.86	0.93	0.00	0.00	0.00	0.00	0.50	0.50	0.00	0.20	0.20	0.00	0.00	0.33	0.20	0.40	0.60
4	0.64	0.93	1.10	0.00	0.00	0.50	0.00	0.50	1.25	0.00	0.20	0.40	0.00	0.33	0.33	0.40	0.60	0.60
5	0.71	1.10	1.19	0.00	0.50	0.50	0.50	1.25	1.25	0.20	0.40	0.40	0.00	0.33	0.33	0.40	0.60	0.80
6	0.79	1.14	1.29	0.00	0.50	0.50	0.50	1.25	1.25	0.20	0.40	0.60	0.00	0.33	0.33	0.40	0.80	1.10
7	0.86	1.19	1.38	0.00	0.50	0.50	0.50	1.25	1.50	0.20	0.60	0.80	0.33	0.33	0.67	0.40	0.80	1.20
8	0.86	1.24	1.43	0.50	0.50	0.50	1.25	1.25	1.50	0.20	0.60	0.80	0.33	0.33	0.67	0.40	0.80	1.30
9	0.93	1.29	1.52	0.50	0.50	0.50	1.25	1.25	1.50	0.40	0.60	1.25	0.33	0.33	0.67	0.60	1.10	1.40
10	1.05	1.33	1.57	0.50	0.50	0.50	1.25	1.50	1.50	0.40	0.80	1.25	0.33	0.67	0.67	0.60	1.10	1.50
11	1.05	1.38	1.62	0.50	0.50	0.50	1.25	1.50	1.50	0.40	0.80	1.25	0.33	0.67	0.67	0.60	1.20	1.60
12	1.10	1.43	1.67	0.50	0.50	0.50	1.25	1.50	1.75	0.40	0.80	1.25	0.33	0.67	1.33	0.60	1.30	1.60
13	1.14	1.48	1.76	0.50	0.50	0.50	1.25	1.50	1.75	0.60	1.25	1.25	0.33	0.67	1.33	0.60	1.30	1.70
14	1.14	1.52	1.81	0.50	0.50	0.50	1.25	1.50	1.75	0.60	1.25	1.50	0.33	0.67	1.33	0.60	1.40	1.80
15	1.14	1.52	1.86	0.50	0.50	1.25	1.25	1.50	1.75	0.60	1.25	1.50	0.33	0.67	1.33	0.80	1.50	1.80
16	1.19	1.57	1.90	0.50	0.50	1.25	1.25	1.75	1.75	0.80	1.25	1.50	0.33	0.67	1.33	0.80	1.50	1.90
17	1.19	1.62	1.95	0.50	0.50	1.25	1.50	1.75	1.75	0.80	1.25	1.50	0.67	0.67	1.33	0.80	1.60	1.90
18	1.24	1.67	1.95	0.50	0.50	1.25	1.50	1.75	1.75	0.80	1.25	1.50	0.67	1.33	1.33	0.80	1.60	2.10
19	1.29	1.71	2.04	0.50	0.50	1.25	1.50	1.75	1.75	0.80	1.50	1.50	0.67	1.33	1.33	1.10	1.70	2.20
20	1.29	1.76	2.07	0.50	1.25	1.25	1.50	1.75	2.17	0.80	1.50	1.50	0.67	1.33	1.67	1.10	1.70	2.20
21	1.33	1.76	2.11	0.50	1.25	1.25	1.50	1.75	2.17	1.25	1.50	1.50	0.67	1.33	1.67	1.10	1.70	2.30
22	1.33	1.81	2.14	0.50	1.25	1.50	1.50	1.75	2.17	1.25	1.50	1.50	0.67	1.33	1.67	1.10	1.80	2.30
23	1.38	1.86	2.18	0.50	1.25	1.50	1.50	1.75	2.17	1.25	1.50	1.75	0.67	1.33	1.67	1.20	1.80	2.40
24	1.38	1.90	2.18	0.50	1.25	1.50	1.50	1.75	2.17	1.25	1.50	1.75	0.67	1.33	1.67	1.20	1.90	2.40
25	1.43	1.90	2.21	0.50	1.25	1.50	1.50	1.75	2.17	1.25	1.50	1.75	0.67	1.33	1.67	1.20	1.90	2.50
26	1.43	1.95	2.25	0.50	1.25	1.50	1.50	1.75	2.17	1.25	1.50	1.75	0.67	1.33	1.67	1.30	2.10	2.50
27	1.48	2.04	2.29	0.50	1.25	1.50	1.50	1.75	2.17	1.25	1.50	1.75	0.67	1.33	1.67	1.30	2.10	2.50
28	1.52	2.04	2.32	0.50	1.50	1.50	1.75	2.17	2.17	1.25	1.50	1.75	0.67	1.33	2.11	1.30	2.10	2.60
29	1.52	2.07	2.32	0.50	1.50	1.50	1.75	2.17	2.17	1.50	1.50	1.75	1.33	1.33	2.11	1.40	2.20	2.60
30	1.57	2.07	2.36	0.50	1.50	1.50	1.75	2.17	2.17	1.50	1.50	1.75	1.33	1.67	2.11	1.40	2.20	2.60
31	1.57	2.11	2.39	0.50	1.50	1.50	1.75	2.17	2.33	1.50	1.50	1.75	1.33	1.67	2.11	1.50	2.30	2.60
32	1.62	2.14	2.39	1.25	1.50	1.70	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.11	1.50	2.30	2.70
33	1.62	2.14	2.43	1.25	1.50	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.11	1.50	2.30	2.70
34	1.67	2.18	2.46	1.25	1.50	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.11	1.50	2.40	2.70
35	1.67	2.21	2.46	1.25	1.50	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.11	1.60	2.40	2.70
36	1.71	2.21	2.50	1.25	1.50	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.11	1.60	2.40	2.80
37	1.71	2.25	2.50	1.25	1.50	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.22	1.60	2.40	2.80
38	1.76	2.25	2.54	1.25	1.75	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.22	1.60	2.50	2.80
39	1.76	2.29	2.54	1.25	1.75	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	1.67	2.22	1.70	2.50	2.80
40	1.81	2.29	2.57	1.25	1.75	1.75	1.75	2.17	2.33	1.50	1.75	2.25	1.33	2.11	2.22	1.70	2.50	2.80
41	1.81	2.32	2.57	1.25	1.75	2.33	1.75	2.33	2.33	1.50	1.75	2.25	1.33	2.11	2.22	1.70	2.50	2.90
42	1.86	2.32	2.61	1.25	1.75	2.33	1.75	2.33	2.33	1.50	1.75	2.50	1.33	2.11	2.22	1.70	2.60	2.90
43	1.86	2.36	2.61	1.25	1.75	2.33	2.17	2.33	2.50	1.50	2.25	2.50	1.33	2.11	2.22	1.80	2.60	2.90
44	1.86	2.36	2.64	1.50	1.75	2.33	2.17	2.33	2.50	1.75	2.25	2.50	1.33	2.11	2.22	1.80	2.60	2.90
45	1.90	2.39	2.64	1.50	1.75	2.33	2.17	2.33	2.50	1.75	2.25	2.50	1.67	2.11	2.22	1.80	2.60	2.90
46	1.90	2.39	2.68	1.50	1.75	2.33	2.17	2.33	2.50	1.75	2.25	2.50	1.67	2.11	2.33	1.80	2.60	3.05
47	1.95	2.43	2.68	1.50	1.75	2.33	2.17	2.33	2.50	1.75	2.25	2.50	1.67	2.11	2.33	1.90	2.70	3.05
48	1.95	2.43	2.71	1.50	1.75	2.33	2.17	2.33	2.50	1.75	2.25	2.50	1.67	2.11	2.33	1.90	2.70	3.05
49	2.04	2.43	2.71	1.50	2.33	2.33	2.17	2.33	2.50	1.75	2.25	2.50	1.67	2.11	2.33	1.90	2.70	3.05
50	2.04	2.46	2.75	1.50	2.33	2.33	2.17	2.33	2.67	1.75	2.25	2.50	1.67	2.11	2.33	2.10	2.70	3.05
51	2.07	2.46	2.75	1.50	2.33	2.67	2.17	2.33	2.67	1.75	2.25	2.75	1.67	2.11	2.33	2.10	2.70	3.05
52	2.07	2.50	2.75	1.50	2.33	2.67	2.17	2.33	2.67	1.75	2.25	2.75	1.67	2.22	2.33	2.10	2.70	3.10
53	2.11	2.50	2.79	1.50	2.33	2.67	2.17	2.33	2.67	1.75	2.25	2.75	1.67	2.22	2.33	2.10	2.80	3.10
54	2.11	2.54	2.79	1.50	2.33	2.67	2.17	2.33	2.67	1.75	2.25	2.75	1.67	2.22	2.33	2.20	2.80	3.10
55	2.11	2.54	2.82	1.50	2.33	2.67	2.17	2.50	2.67	2.25	2.25	2.75	1.67	2.22	2.33	2.20	2.80	3.10
56	2.14	2.57	2.82	1.75	2.33	2.67	2.17	2.50	2.67	2.25	2.50	2.75	1.67	2.22	2.44	2.20	2.80	3.10
57	2.18	2.57	2.86	1.75	2.33	2.67	2.17	2.50	2.67	2.25	2.50	2.75	2.11	2.22	2.44	2.20	2.80	3.10
58	2.18	2.57	2.86	1.75	2.33	2.67	2.33	2.50	2.67	2.25	2.50	2.75	2.11	2.22	2.44	2.30	2.90	3.15
59	2.18	2.61	2.89	1.75	2.33	2.67	2.33	2.50	2.67	2.25	2.50	3.10	2.11	2.22	2.44	2.30	2.90	3.15
60	2.21	2.61	2.89	1.75	2.33	2.67	2.33	2.50	2.67	2.25	2.50	3.10	2.11	2.22	2.44	2.30	2.90	3.15
61	2.21	2.64	2.93	1.75	2.67	2.67	2.33	2.50	2.67	2.25	2.50	3.10	2.11	2.22	2.44	2.30	2.90	3.15
62	2.25	2.64	2.93	1.75	2.67	2.67	2.33	2.67	2.67	2.25	2.50	3.10	2.11	2.33	2.44	2.40	2.90	3.15
63	2.25	2.68	2.96	1.75	2.67	2.67	2.33	2.67	2.83	2.25	2.50	3.10	2.11	2.33	2.44	2.40	2.90	3.20
64	2.29	2.68	2.96	1.75	2.67	2.67	2.33	2.67	2.83	2.25	2.75	3.10	2.11	2.33	2.44	2.40	3.05	3.20
65	2.29	2.71	3.02	1.75	2.67	2.67	2.33	2.67	2.83	2.25	2.75	3.10	2.11	2.33	2.56	2.40	3.05	3.20
66	2.32	2.71	3.02	1.75	2.67	2.67	2.33	2.67	2.83	2.25	2.75	3.20	2.11	2.33	2.56	2.50	3.05	3.20
67	2.32	2.75	3.04	1.75	2.67	2.67	2.33	2.67	2.83	2.50	2.75	3.20	2.11	2.33	2.56	2.50	3.05	3.20
68	2.36	2.75	3.04	2.33	2.67	2.67	2.33	2.67	2.83	2.50	2.75	3.20	2.22	2.33	2.56	2.50	3.05	3.25
69	2.36	2.79	3.07	2.33	2.67	2.67	2.33	2.67	2.83	2.50	2.75	3.20	2.22	2.33	2.56	2.50	3.10	3.25
70	2.3																	

Third

Sample Size 9,266 7,548 9,952

Percentile	Total Score			ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End
1	0.86	1.14	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.60	1.10	1.30
2	1.14	1.38	1.48	0.00	0.00	0.00	0.00	0.50	0.50	0.40	0.40	0.40	0.33	0.33	0.33	0.80	1.40	1.50
3	1.29	1.57	1.67	0.00	0.50	0.50	0.50	1.25	1.25	0.40	0.60	0.80	0.33	0.33	0.33	1.30	1.60	1.70
4	1.38	1.71	1.76	0.50	0.50	0.50	0.50	1.25	1.50	0.40	0.80	1.25	0.33	0.33	0.67	1.40	1.70	1.80
5	1.48	1.81	1.90	0.50	0.50	0.50	1.25	1.50	1.50	0.60	1.25	1.50	0.33	0.67	0.67	1.50	1.90	2.10
6	1.52	1.90	2.05	0.50	0.50	0.50	1.25	1.50	1.75	0.80	1.25	1.50	0.33	0.67	0.67	1.60	2.10	2.20
7	1.62	2.04	2.14	0.50	0.50	0.50	1.50	1.75	1.75	0.80	1.50	1.50	0.67	0.67	1.33	1.70	2.20	2.40
8	1.67	2.11	2.21	0.50	0.50	1.25	1.50	1.75	1.75	1.25	1.50	1.75	0.67	0.67	1.33	1.70	2.30	2.50
9	1.76	2.14	2.29	0.50	0.50	1.25	1.50	1.75	1.75	1.25	1.50	1.75	0.67	1.33	1.33	1.80	2.40	2.60
10	1.81	2.21	2.32	0.50	1.25	1.25	1.50	1.75	2.17	1.50	1.75	1.75	0.67	1.33	1.33	1.80	2.50	2.60
11	1.86	2.25	2.39	0.50	1.25	1.25	1.50	2.17	2.17	1.50	1.75	2.25	0.67	1.33	1.67	1.90	2.50	2.70
12	1.90	2.29	2.43	0.50	1.25	1.50	1.75	2.17	2.17	1.50	1.75	2.25	0.67	1.33	1.67	1.90	2.60	2.80
13	1.95	2.32	2.46	0.50	1.25	1.50	1.75	2.17	2.17	1.50	1.75	2.25	1.33	1.33	1.67	2.10	2.70	2.80
14	2.04	2.36	2.54	1.25	1.50	1.50	1.75	2.17	2.33	1.50	2.25	2.25	1.33	1.67	1.67	2.20	2.70	2.90
15	2.07	2.39	2.57	1.25	1.50	1.50	1.75	2.17	2.33	1.75	2.25	2.50	1.33	1.67	1.67	2.20	2.70	2.90
16	2.14	2.46	2.64	1.25	1.50	1.75	1.75	2.17	2.33	1.75	2.25	2.50	1.33	1.67	2.11	2.30	2.80	3.05
17	2.14	2.50	2.68	1.25	1.50	1.75	1.75	2.33	2.33	1.75	2.25	2.50	1.33	1.67	2.11	2.30	2.80	3.05
18	2.18	2.54	2.71	1.25	1.50	1.75	2.17	2.33	2.50	1.75	2.25	2.50	1.33	1.67	2.11	2.40	2.90	3.10
19	2.21	2.57	2.75	1.25	1.75	2.33	2.17	2.33	2.50	1.75	2.25	2.50	1.33	1.67	2.11	2.40	2.90	3.10
20	2.25	2.61	2.79	1.25	1.75	2.33	2.17	2.33	2.50	2.25	2.50	2.75	1.67	2.11	2.11	2.50	2.90	3.10
21	2.29	2.62	2.82	1.50	1.75	2.33	2.17	2.33	2.67	2.25	2.50	2.75	1.67	2.11	2.22	2.50	3.05	3.15
22	2.32	2.67	2.86	1.50	1.75	2.33	2.17	2.50	2.67	2.25	2.50	2.75	1.67	2.11	2.22	2.50	3.05	3.15
23	2.36	2.68	2.89	1.50	2.33	2.67	2.17	2.50	2.67	2.25	2.50	2.75	1.67	2.11	2.22	2.60	3.05	3.20
24	2.36	2.71	2.93	1.50	2.33	2.67	2.17	2.50	2.67	2.25	2.50	2.75	1.67	2.11	2.22	2.60	3.10	3.20
25	2.39	2.75	2.96	1.50	2.33	2.67	2.17	2.50	2.67	2.25	2.50	2.75	1.67	2.11	2.22	2.60	3.10	3.20
26	2.43	2.79	3.02	1.50	2.33	2.67	2.33	2.67	2.67	2.25	2.50	3.10	1.67	2.22	2.33	2.60	3.10	3.25
27	2.43	2.82	3.04	1.50	2.33	2.67	2.33	2.67	2.67	2.50	2.75	3.10	1.67	2.22	2.33	2.70	3.10	3.25
28	2.46	2.86	3.07	1.75	2.67	3.13	2.33	2.67	2.67	2.50	2.75	3.10	2.11	2.22	2.33	2.70	3.15	3.25
29	2.50	2.86	3.09	1.75	2.67	3.13	2.33	2.67	2.67	2.50	2.75	3.10	2.11	2.22	2.33	2.70	3.15	3.30
30	2.50	2.89	3.09	1.75	2.67	3.13	2.33	2.67	2.83	2.50	2.75	3.10	2.11	2.22	2.33	2.70	3.15	3.30
31	2.54	2.93	3.11	1.75	2.67	3.13	2.33	2.67	2.83	2.50	2.75	3.10	2.11	2.22	2.33	2.80	3.20	3.30
32	2.57	2.93	3.13	1.75	2.67	3.13	2.33	2.67	2.83	2.50	2.75	3.10	2.11	2.22	2.33	2.80	3.20	3.35
33	2.57	2.96	3.16	1.75	2.67	3.13	2.50	2.67	2.83	2.50	2.75	3.20	2.11	2.33	2.44	2.80	3.20	3.35
34	2.61	3.02	3.18	2.33	2.67	3.13	2.50	2.67	2.83	2.50	3.10	3.20	2.11	2.33	2.44	2.80	3.20	3.35
35	2.64	3.02	3.20	2.33	3.13	3.25	2.50	2.67	2.83	2.50	3.10	3.20	2.11	2.33	2.44	2.80	3.25	3.40
36	2.64	3.04	3.20	2.33	3.13	3.25	2.50	2.83	2.83	2.50	3.10	3.20	2.22	2.33	2.44	2.90	3.25	3.40
37	2.68	3.07	3.22	2.33	3.13	3.25	2.67	2.83	2.83	2.75	3.10	3.20	2.22	2.33	2.44	2.90	3.25	3.40
38	2.68	3.07	3.24	2.33	3.13	3.25	2.67	2.83	2.83	2.75	3.10	3.20	2.22	2.33	2.44	2.90	3.25	3.45
39	2.71	3.09	3.27	2.33	3.13	3.38	2.67	2.83	2.83	2.75	3.10	3.20	2.22	2.33	2.56	2.90	3.30	3.45
40	2.71	3.11	3.27	2.33	3.13	3.38	2.67	2.83	2.83	2.75	3.10	3.30	2.22	2.33	2.56	2.90	3.30	3.45
41	2.75	3.11	3.29	2.67	3.13	3.38	2.67	2.83	2.83	2.75	3.10	3.30	2.22	2.44	2.56	3.05	3.30	3.50
42	2.75	3.13	3.31	2.67	3.13	3.38	2.67	2.83	2.83	2.75	3.20	3.30	2.22	2.44	2.56	3.05	3.30	3.50
43	2.79	3.13	3.33	2.67	3.25	3.50	2.67	2.83	2.83	2.75	3.20	3.30	2.22	2.44	2.56	3.05	3.35	3.50
44	2.82	3.16	3.34	2.67	3.25	3.50	2.67	2.83	2.83	2.75	3.20	3.30	2.22	2.44	2.56	3.05	3.35	3.55
45	2.82	3.18	3.36	2.67	3.25	3.50	2.67	2.83	2.83	3.10	3.20	3.30	2.33	2.44	2.56	3.05	3.35	3.55
46	2.86	3.18	3.38	2.67	3.25	3.50	2.83	2.83	2.83	3.10	3.20	3.30	2.33	2.44	2.56	3.10	3.35	3.55
47	2.86	3.20	3.40	2.67	3.25	3.50	2.83	2.83	2.83	3.10	3.20	3.40	2.33	2.44	2.67	3.10	3.40	3.55
48	2.89	3.20	3.42	2.67	3.38	3.50	2.83	2.83	2.83	3.10	3.20	3.40	2.33	2.44	2.67	3.10	3.40	3.60
49	2.89	3.22	3.42	2.67	3.38	3.63	2.83	2.83	2.83	3.10	3.20	3.40	2.33	2.56	2.67	3.10	3.40	3.60
50	2.93	3.24	3.44	2.67	3.38	3.63	2.83	2.83	2.83	3.10	3.30	3.40	2.33	2.56	2.67	3.10	3.40	3.60
51	2.93	3.24	3.47	2.67	3.38	3.63	2.83	2.83	2.83	3.10	3.30	3.40	2.33	2.56	2.67	3.15	3.45	3.65
52	2.96	3.27	3.47	3.13	3.38	3.63	2.83	2.83	2.83	3.10	3.30	3.40	2.33	2.56	2.67	3.15	3.45	3.65
53	3.02	3.29	3.49	3.13	3.50	3.63	2.83	2.83	2.83	3.20	3.30	3.40	2.44	2.56	2.67	3.15	3.45	3.65
54	3.02	3.29	3.51	3.13	3.50	3.63	2.83	2.83	2.83	3.20	3.30	3.50	2.44	2.56	2.78	3.15	3.45	3.70
55	3.04	3.31	3.53	3.13	3.50	3.75	2.83	2.83	2.83	3.20	3.30	3.50	2.44	2.56	2.78	3.15	3.50	3.70
56	3.04	3.31	3.53	3.13	3.50	3.75	2.83	2.83	2.83	3.20	3.30	3.50	2.44	2.56	2.78	3.20	3.50	3.70
57	3.07	3.33	3.56	3.13	3.50	3.75	2.83	2.83	3.25	3.20	3.30	3.50	2.44	2.67	2.78	3.20	3.50	3.75
58	3.07	3.36	3.58	3.13	3.50	3.75	2.83	2.83	3.25	3.20	3.30	3.50	2.44	2.67	2.78	3.20	3.50	3.75
59	3.09	3.36	3.60	3.13	3.50	3.88	2.83	2.83	3.25	3.20	3.40	3.50	2.44	2.67	2.78	3.20	3.55	3.75
60	3.09	3.38	3.60	3.13	3.50	3.88	2.83	2.83	3.25	3.20	3.40	3.52	2.44	2.67	2.78	3.20	3.55	3.80
61	3.11	3.40	3.62	3.25	3.63	3.88	2.83	2.83	3.25	3.30	3.40	3.60	2.56	2.67	2.89	3.25	3.55	3.80
62	3.11	3.40	3.64	3.25	3.63	3.88	2.83	2.83	3.25	3.30	3.40	3.60	2.56	2.67	2.89	3.25	3.55	3.80
63	3.13	3.42	3.67	3.25	3.63	3.88	2.83	3.25	3.25	3.30	3.40	3.60	2.56	2.67	2.89	3.25	3.60	3.85
64	3.13	3.44	3.67	3.25	3.63	3.88	2.83	3.25	3.25	3.30	3.40	3.60	2.56	2.67	2.89	3.25	3.60	3.85
65	3.16	3.44	3.69	3.25	3.63	4.13	2.83	3.25	3.25	3.30	3.40	3.60	2.56	2.78	2.89	3.30	3.60	3.85
66	3.16	3.47	3.71	3.25	3.63	4.13	2.83	3.25	3.25	3.30	3.40	3.60	2.56	2.78	2.89	3.30	3.65	3.90
67	3.18	3.49	3.73	3.38	3.75	4.13	2.83	3.25	3.25	3.30	3.40	3.70	2.56	2.78	3.14	3.30	3.65	3.90
68	3.20	3.51	3.76	3.38	3.75	4.13	2.83	3.25	3.25	3.30	3.50	3.70	2.67	2.78	3.14	3.30	3.65	3.90
69	3.20	3.51	3.78	3.38	3.75	4.13	2.83	3.25	3.25	3.40	3.50	3.70	2.67	2.78	3.14	3.35	3.65	3.95
70	3.22</																	

Fourth

Sample Size 8,895 6,740 8,861

Percentile	Total Score			ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End
1	1.24	1.38	1.38	0.00	0.00	0.00	0.00	0.50	0.50	0.20	0.20	0.20	0.02	0.33	0.33	0.60	1.20	1.30
2	1.48	1.70	1.71	0.00	0.50	0.50	1.25	1.25	1.25	0.40	0.60	0.60	0.33	0.33	0.33	1.40	1.60	1.70
3	1.67	1.95	1.95	0.50	0.50	0.50	1.25	1.50	1.50	0.60	1.25	0.80	0.33	0.67	0.67	1.70	1.90	2.10
4	1.86	2.14	2.14	0.50	0.50	0.50	1.50	1.50	1.50	0.80	1.50	1.25	0.67	0.67	0.67	1.90	2.30	2.40
5	2.04	2.25	2.29	0.50	0.50	0.50	1.50	1.75	1.75	1.25	1.50	1.50	0.67	1.33	1.33	2.10	2.50	2.60
6	2.14	2.36	2.43	0.50	1.25	1.25	1.75	1.75	1.75	1.50	1.75	1.75	1.33	1.33	1.67	2.30	2.60	2.70
7	2.21	2.46	2.54	0.50	1.25	1.50	1.75	2.17	2.17	1.50	1.75	1.75	1.33	1.33	1.67	2.40	2.80	2.90
8	2.29	2.61	2.64	1.25	1.50	1.50	1.75	2.17	2.17	1.75	2.25	2.25	1.33	1.67	1.67	2.50	2.90	3.10
9	2.39	2.68	2.75	1.25	1.50	1.75	2.17	2.33	2.33	1.75	2.25	2.25	1.67	1.67	2.11	2.60	3.05	3.15
10	2.46	2.75	2.82	1.50	1.75	1.75	2.17	2.33	2.33	2.25	2.50	2.50	1.67	2.11	2.11	2.70	3.10	3.20
11	2.54	2.82	2.93	1.50	1.75	2.29	2.17	2.33	2.50	2.25	2.50	2.50	1.67	2.11	2.22	2.80	3.15	3.25
12	2.61	2.89	3.02	1.50	1.99	2.33	2.33	2.50	2.50	2.25	2.50	2.50	1.67	2.22	2.22	2.90	3.20	3.30
13	2.64	2.96	3.07	1.75	2.33	2.67	2.33	2.50	2.50	2.50	2.50	2.75	2.11	2.22	2.22	2.90	3.25	3.35
14	2.71	3.04	3.13	1.75	2.67	2.67	2.33	2.67	2.67	2.50	2.75	2.75	2.11	2.22	2.33	3.05	3.30	3.40
15	2.77	3.09	3.18	1.75	2.67	2.67	2.50	2.67	2.67	2.50	2.75	2.75	2.11	2.22	2.33	3.10	3.35	3.40
16	2.82	3.11	3.20	2.33	2.67	3.13	2.50	2.67	2.83	2.50	2.75	3.10	2.11	2.33	2.33	3.10	3.35	3.45
17	2.86	3.16	3.24	2.33	3.13	3.13	2.50	2.83	2.83	2.50	2.75	3.10	2.22	2.33	2.33	3.15	3.40	3.50
18	2.93	3.18	3.29	2.33	3.13	3.13	2.67	2.83	2.83	2.75	3.10	3.10	2.22	2.33	2.44	3.15	3.40	3.55
19	2.96	3.22	3.31	2.67	3.13	3.20	2.67	2.83	2.83	2.75	3.10	3.20	2.22	2.33	2.44	3.20	3.45	3.60
20	3.02	3.24	3.36	2.67	3.13	3.25	2.67	2.83	2.83	2.75	3.10	3.20	2.22	2.33	2.44	3.25	3.50	3.60
21	3.04	3.27	3.38	2.67	3.25	3.25	2.67	2.83	2.83	2.75	3.10	3.20	2.33	2.44	2.44	3.25	3.50	3.65
22	3.07	3.29	3.42	2.67	3.25	3.38	2.83	2.83	2.83	3.10	3.10	3.20	2.33	2.44	2.56	3.30	3.55	3.65
23	3.11	3.33	3.44	3.13	3.38	3.38	2.83	2.83	3.25	3.10	3.20	3.30	2.33	2.44	2.56	3.30	3.55	3.70
24	3.13	3.36	3.47	3.13	3.38	3.38	2.83	3.25	3.25	3.10	3.20	3.30	2.33	2.44	2.56	3.30	3.60	3.70
25	3.16	3.38	3.49	3.13	3.38	3.50	2.83	3.25	3.25	3.10	3.20	3.30	2.33	2.56	2.56	3.35	3.60	3.75
26	3.18	3.40	3.53	3.13	3.38	3.50	2.83	3.25	3.25	3.10	3.20	3.30	2.33	2.56	2.56	3.35	3.65	3.80
27	3.20	3.42	3.56	3.13	3.38	3.50	2.83	3.25	3.25	3.12	3.30	3.30	2.44	2.56	2.67	3.40	3.65	3.80
28	3.22	3.44	3.58	3.25	3.50	3.50	2.83	3.25	3.25	3.20	3.30	3.40	2.44	2.56	2.67	3.40	3.70	3.85
29	3.24	3.47	3.60	3.25	3.50	3.50	2.83	3.25	3.25	3.20	3.30	3.40	2.44	2.56	2.67	3.40	3.70	3.85
30	3.27	3.49	3.64	3.25	3.50	3.50	3.25	3.25	3.25	3.20	3.30	3.40	2.44	2.56	2.67	3.45	3.75	3.90
31	3.29	3.51	3.67	3.38	3.50	3.63	3.25	3.25	3.25	3.20	3.30	3.40	2.44	2.67	2.67	3.45	3.75	3.93
32	3.29	3.53	3.69	3.38	3.50	3.63	3.25	3.25	3.25	3.20	3.30	3.40	2.56	2.67	2.67	3.45	3.80	3.95
33	3.31	3.56	3.71	3.38	3.50	3.63	3.25	3.25	3.25	3.30	3.30	3.50	2.56	2.67	2.78	3.50	3.80	4.05
34	3.33	3.58	3.73	3.38	3.63	3.63	3.25	3.25	3.50	3.30	3.40	3.50	2.56	2.67	2.78	3.50	3.85	4.05
35	3.36	3.60	3.76	3.38	3.63	3.63	3.25	3.25	3.50	3.30	3.40	3.50	2.56	2.67	2.78	3.55	3.85	4.10
36	3.38	3.62	3.78	3.50	3.63	3.75	3.25	3.25	3.50	3.30	3.40	3.50	2.56	2.67	2.78	3.55	3.90	4.10
37	3.40	3.62	3.80	3.50	3.63	3.75	3.25	3.50	3.50	3.30	3.40	3.50	2.56	2.67	2.78	3.55	3.90	4.14
38	3.40	3.64	3.82	3.50	3.63	3.75	3.25	3.50	3.50	3.30	3.40	3.60	2.56	2.78	2.89	3.60	3.90	4.14
39	3.42	3.67	3.84	3.50	3.63	3.75	3.25	3.50	3.50	3.40	3.40	3.60	2.67	2.78	2.89	3.60	3.95	4.19
40	3.44	3.69	3.87	3.50	3.75	3.88	3.25	3.50	3.50	3.40	3.50	3.60	2.67	2.78	2.89	3.60	3.95	4.19
41	3.47	3.71	3.89	3.50	3.75	3.88	3.25	3.50	3.50	3.40	3.50	3.60	2.67	2.78	2.89	3.60	4.05	4.24
42	3.49	3.73	3.91	3.50	3.75	3.88	3.25	3.50	3.50	3.40	3.50	3.60	2.67	2.78	2.89	3.65	4.05	4.24
43	3.51	3.76	3.91	3.50	3.75	3.88	3.25	3.50	3.50	3.40	3.50	3.60	2.67	2.78	3.14	3.65	4.05	4.29
44	3.51	3.78	3.93	3.63	3.88	3.88	3.50	3.50	3.50	3.40	3.50	3.70	2.67	2.89	3.14	3.65	4.10	4.29
45	3.53	3.78	3.96	3.63	3.88	4.13	3.50	3.50	3.50	3.40	3.50	3.70	2.67	2.89	3.14	3.70	4.10	4.33
46	3.56	3.80	3.98	3.63	3.88	4.13	3.50	3.50	3.50	3.50	3.50	3.70	2.78	2.89	3.14	3.70	4.10	4.33
47	3.58	3.82	4.02	3.63	3.88	4.13	3.50	3.50	3.50	3.50	3.60	3.70	2.78	2.89	3.14	3.70	4.14	4.38
48	3.58	3.84	4.04	3.63	3.88	4.13	3.50	3.50	3.75	3.50	3.60	3.70	2.78	2.89	3.14	3.75	4.14	4.38
49	3.60	3.87	4.06	3.75	3.88	4.25	3.50	3.50	3.75	3.50	3.60	3.70	2.78	3.07	3.29	3.75	4.14	4.38
50	3.62	3.89	4.08	3.75	4.13	4.25	3.50	3.50	3.75	3.50	3.60	3.70	2.78	3.14	3.29	3.75	4.19	4.43
51	3.62	3.89	4.10	3.75	4.13	4.25	3.50	3.50	3.75	3.50	3.60	3.80	2.78	3.14	3.29	3.80	4.19	4.43
52	3.64	3.91	4.12	3.75	4.13	4.25	3.50	3.75	3.75	3.50	3.60	3.80	2.89	3.14	3.29	3.80	4.24	4.48
53	3.67	3.93	4.13	3.75	4.13	4.25	3.50	3.75	3.75	3.50	3.60	3.80	2.89	3.14	3.29	3.80	4.24	4.48
54	3.67	3.96	4.15	3.88	4.13	4.38	3.50	3.75	3.75	3.60	3.70	3.80	2.89	3.14	3.43	3.85	4.24	4.48
55	3.69	3.96	4.17	3.88	4.25	4.38	3.50	3.75	3.75	3.60	3.70	3.80	2.89	3.29	3.43	3.85	4.29	4.52
56	3.71	3.98	4.19	3.88	4.25	4.38	3.50	3.75	3.75	3.60	3.70	3.80	2.89	3.29	3.43	3.85	4.29	4.52
57	3.73	4.02	4.21	3.88	4.25	4.38	3.50	3.75	3.75	3.60	3.70	3.90	2.89	3.29	3.43	3.90	4.29	4.57
58	3.76	4.04	4.23	3.88	4.25	4.38	3.50	3.75	3.75	3.60	3.70	3.90	3.14	3.29	3.57	3.90	4.33	4.57
59	3.76	4.06	4.25	3.88	4.25	4.38	3.50	3.75	3.75	3.60	3.70	3.90	3.14	3.29	3.57	3.90	4.33	4.62
60	3.78	4.06	4.27	4.13	4.38	4.50	3.50	3.75	3.75	3.60	3.70	3.90	3.14	3.29	3.57	3.95	4.33	4.62
61	3.80	4.08	4.29	4.13	4.38	4.50	3.50	3.75	3.75	3.60	3.70	3.90	3.14	3.43	3.57	3.95	4.38	4.67
62	3.82	4.10	4.31	4.13	4.38	4.50	3.75	3.75	3.75	3.70	3.80	4.08	3.14	3.43	3.57	3.95	4.38	4.67
63	3.82	4.12	4.33	4.13	4.38	4.50	3.75	3.75	4.20	3.70	3.80	4.08	3.14	3.43	3.71	4.05	4.40	4.71
64	3.84	4.12	4.35	4.13	4.38	4.50	3.75	3.75	4.20	3.70	3.80	4.08	3.29	3.43	3.71	4.05	4.43	4.71
65	3.87	4.13	4.35	4.13	4.38	4.50	3.75	3.75	4.20	3.70	3.80	4.08	3.29	3.43	3.71	4.05	4.43	4.76
66	3.88	4.15	4.38	4.25	4.50	4.50	3.75	3.75	4.20	3.70	3.80	4.08	3.29	3.57	3.71	4.10	4.48	4.76
67	3.89	4.17	4.40	4.25	4.50	4.63	3.75	4.20	4.20	3.70	3.80	4.15	3.29	3.57	3.86	4.10	4.48	4.81
68	3.91	4.19	4.42	4.25	4.50	4.63	3.75	4.20	4.20	3.70	3.90	4.15	3.29	3.57	3.86	4.10	4.48	4.81
69	3.93	4.21	4.44	4.25	4.50	4.63	3.75	4.20	4.20	3.70	3.90	4.15	3.43	3.57	3.86	4.14	4.52	4.86
70	3.96</																	

Fifth

Sample Size 9,187 7,184 10,016

Percentile	Total Score			ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End
1	1.48	1.70	1.57	0.00	0.50	0.00	0.50	0.50	0.50	0.20	0.40	0.40	0.33	0.33	0.33	1.30	1.55	1.50
2	1.81	2.11	2.07	0.50	0.50	0.50	1.25	1.25	1.25	0.60	0.80	0.80	0.67	0.67	0.67	1.70	2.20	2.10
3	2.07	2.32	2.29	0.50	0.50	0.50	1.50	1.50	1.50	0.80	1.50	1.25	0.67	1.33	1.33	2.10	2.50	2.40
4	2.23	2.46	2.46	0.50	1.25	0.50	1.50	1.75	1.75	1.25	1.50	1.50	1.33	1.67	1.67	2.40	2.80	2.74
5	2.36	2.64	2.64	0.50	1.25	1.25	1.75	2.17	1.75	1.50	1.75	1.75	1.33	2.11	2.11	2.60	3.05	3.05
6	2.46	2.82	2.79	1.25	1.50	1.50	1.75	2.17	2.17	1.75	2.25	2.25	1.67	2.11	2.11	2.80	3.15	3.15
7	2.57	2.93	2.89	1.25	1.50	1.50	2.17	2.33	2.33	1.75	2.50	2.50	1.67	2.22	2.22	2.90	3.20	3.25
8	2.68	3.04	3.04	1.50	1.75	1.75	2.17	2.33	2.33	2.25	2.50	2.50	2.11	2.22	2.22	3.05	3.30	3.35
9	2.79	3.11	3.12	1.50	2.33	2.33	2.33	2.50	2.50	2.25	2.75	2.75	2.11	2.33	2.33	3.15	3.35	3.40
10	2.86	3.16	3.18	1.50	2.33	2.33	2.33	2.50	2.50	2.50	2.75	2.75	2.22	2.33	2.33	3.20	3.40	3.50
11	2.93	3.22	3.24	1.75	2.67	2.67	2.33	2.67	2.67	2.50	2.75	3.10	2.22	2.33	2.44	3.25	3.50	3.55
12	3.04	3.29	3.31	2.33	2.67	2.67	2.50	2.67	2.67	2.75	3.10	3.10	2.22	2.44	2.44	3.30	3.55	3.60
13	3.09	3.31	3.38	2.33	3.13	3.13	2.50	2.83	2.83	2.75	3.10	3.20	2.33	2.44	2.56	3.35	3.60	3.70
14	3.13	3.36	3.44	2.63	3.13	3.13	2.67	2.83	2.83	2.75	3.10	3.20	2.33	2.50	2.56	3.40	3.65	3.70
15	3.18	3.40	3.49	2.67	3.13	3.25	2.67	2.83	2.83	3.10	3.20	3.20	2.33	2.56	2.56	3.40	3.70	3.75
16	3.22	3.44	3.53	2.67	3.25	3.25	2.67	2.83	3.20	3.10	3.20	3.30	2.44	2.56	2.56	3.45	3.75	3.80
17	3.27	3.49	3.58	2.67	3.25	3.38	2.83	3.25	3.25	3.10	3.20	3.30	2.44	2.56	2.67	3.50	3.80	3.85
18	3.31	3.53	3.62	3.13	3.33	3.38	2.83	3.25	3.25	3.10	3.30	3.30	2.44	2.56	2.67	3.55	3.80	3.90
19	3.33	3.58	3.67	3.13	3.38	3.50	2.83	3.25	3.25	3.20	3.30	3.40	2.44	2.67	2.67	3.55	3.85	4.05
20	3.38	3.62	3.71	3.13	3.38	3.50	2.83	3.25	3.25	3.20	3.30	3.40	2.56	2.67	2.67	3.60	3.90	4.10
21	3.40	3.67	3.76	3.13	3.50	3.50	3.25	3.25	3.50	3.20	3.40	3.40	2.56	2.67	2.78	3.65	3.95	4.10
22	3.44	3.69	3.80	3.25	3.50	3.63	3.25	3.25	3.50	3.30	3.40	3.50	2.56	2.67	2.78	3.70	4.05	4.14
23	3.47	3.73	3.84	3.25	3.50	3.63	3.25	3.50	3.50	3.30	3.40	3.50	2.56	2.67	2.78	3.70	4.10	4.19
24	3.51	3.76	3.87	3.25	3.63	3.63	3.25	3.50	3.50	3.30	3.40	3.50	2.67	2.78	2.78	3.75	4.14	4.24
25	3.53	3.79	3.91	3.38	3.63	3.75	3.25	3.50	3.50	3.30	3.40	3.50	2.67	2.78	2.89	3.80	4.14	4.29
26	3.56	3.82	3.96	3.38	3.63	3.75	3.25	3.50	3.50	3.40	3.50	3.60	2.67	2.78	2.89	3.80	4.19	4.29
27	3.60	3.84	3.98	3.50	3.63	3.75	3.25	3.50	3.50	3.40	3.50	3.60	2.67	2.78	2.89	3.85	4.19	4.33
28	3.62	3.89	4.02	3.50	3.75	3.88	3.25	3.50	3.75	3.40	3.50	3.60	2.67	2.89	2.89	3.85	4.24	4.38
29	3.64	3.91	4.06	3.50	3.75	3.88	3.50	3.50	3.75	3.40	3.50	3.60	2.67	2.89	3.14	3.90	4.29	4.42
30	3.67	3.93	4.08	3.50	3.88	3.88	3.50	3.50	3.75	3.40	3.60	3.70	2.78	2.89	3.14	3.95	4.29	4.43
31	3.69	3.96	4.12	3.63	3.88	4.13	3.50	3.50	3.75	3.50	3.60	3.70	2.78	2.89	3.14	3.95	4.33	4.48
32	3.73	4.02	4.13	3.63	3.88	4.13	3.50	3.50	3.75	3.50	3.60	3.70	2.78	2.89	3.14	4.05	4.38	4.52
33	3.76	4.04	4.17	3.63	3.88	4.25	3.50	3.75	3.75	3.50	3.60	3.70	2.78	3.14	3.14	4.05	4.38	4.52
34	3.78	4.06	4.19	3.63	4.13	4.25	3.50	3.75	3.75	3.50	3.60	3.80	2.78	3.14	3.29	4.10	4.43	4.57
35	3.80	4.08	4.21	3.75	4.13	4.25	3.50	3.75	3.75	3.50	3.60	3.80	2.89	3.14	3.29	4.10	4.43	4.62
36	3.82	4.10	4.25	3.75	4.13	4.38	3.50	3.75	4.20	3.60	3.70	3.80	2.89	3.14	3.29	4.14	4.48	4.62
37	3.84	4.13	4.27	3.75	4.25	4.38	3.50	3.75	4.20	3.60	3.70	3.80	2.89	3.14	3.29	4.14	4.52	4.67
38	3.87	4.15	4.29	3.75	4.25	4.38	3.50	3.75	4.20	3.60	3.70	3.80	2.89	3.29	3.43	4.19	4.52	4.71
39	3.91	4.17	4.33	3.88	4.25	4.50	3.50	3.75	4.20	3.60	3.70	3.90	2.89	3.29	3.43	4.19	4.57	4.71
40	3.91	4.19	4.35	3.88	4.38	4.50	3.50	3.75	4.20	3.60	3.70	3.90	3.14	3.29	3.43	4.24	4.57	4.76
41	3.93	4.21	4.37	3.88	4.38	4.50	3.75	3.75	4.20	3.60	3.80	3.90	3.14	3.29	3.43	4.24	4.62	4.81
42	3.96	4.23	4.40	3.88	4.38	4.50	3.75	3.75	4.20	3.70	3.80	3.90	3.14	3.29	3.57	4.29	4.62	4.86
43	3.98	4.27	4.42	3.88	4.50	4.63	3.75	3.75	4.20	3.70	3.80	3.90	3.14	3.29	3.57	4.29	4.67	4.86
44	4.04	4.29	4.44	4.13	4.50	4.63	3.75	3.75	4.20	3.70	3.80	4.08	3.14	3.43	3.57	4.33	4.71	4.90
45	4.06	4.31	4.46	4.13	4.50	4.63	3.75	4.20	4.40	3.70	3.80	4.08	3.29	3.43	3.57	4.33	4.71	4.95
46	4.08	4.33	4.50	4.13	4.50	4.63	3.75	4.20	4.40	3.70	3.80	4.08	3.29	3.43	3.71	4.38	4.76	5.04
47	4.10	4.35	4.52	4.25	4.50	4.63	3.75	4.20	4.40	3.70	3.90	4.08	3.29	3.43	3.71	4.38	4.76	5.09
48	4.12	4.37	4.54	4.25	4.63	4.63	3.75	4.20	4.40	3.80	3.90	4.08	3.29	3.57	3.71	4.43	4.81	5.09
49	4.13	4.38	4.56	4.25	4.63	4.75	3.75	4.20	4.40	3.80	3.90	4.15	3.29	3.57	3.71	4.43	4.86	5.13
50	4.15	4.40	4.60	4.25	4.63	4.75	3.75	4.20	4.40	3.80	3.90	4.15	3.43	3.57	3.80	4.48	4.86	5.17
51	4.15	4.44	4.62	4.38	4.63	4.75	3.75	4.20	4.40	3.80	3.90	4.15	3.43	3.57	3.86	4.48	4.90	5.22
52	4.17	4.46	4.63	4.38	4.63	4.75	3.75	4.20	4.40	3.80	4.08	4.15	3.43	3.67	3.86	4.48	4.90	5.22
53	4.19	4.48	4.65	4.38	4.63	4.75	3.75	4.20	4.40	3.80	4.08	4.15	3.43	3.71	3.86	4.52	4.95	5.26
54	4.21	4.50	4.67	4.38	4.63	4.75	4.20	4.20	4.40	3.90	4.08	4.15	3.43	3.71	3.93	4.52	4.95	5.30
55	4.23	4.52	4.69	4.38	4.75	4.75	4.20	4.40	4.40	3.90	4.08	4.23	3.57	3.71	4.11	4.57	5.04	5.30
56	4.25	4.54	4.73	4.50	4.75	4.75	4.20	4.40	4.60	3.90	4.08	4.23	3.57	3.71	4.11	4.57	5.09	5.35
57	4.27	4.56	4.75	4.50	4.75	4.75	4.20	4.40	4.60	3.90	4.08	4.23	3.57	3.86	4.11	4.62	5.09	5.35
58	4.29	4.58	4.77	4.50	4.75	4.75	4.20	4.40	4.60	3.90	4.15	4.23	3.57	3.86	4.11	4.62	5.13	5.39
59	4.31	4.60	4.79	4.50	4.75	4.75	4.20	4.40	4.60	4.08	4.15	4.23	3.71	3.86	4.22	4.67	5.17	5.39
60	4.33	4.62	4.81	4.50	4.75	4.88	4.20	4.40	4.60	4.08	4.15	4.31	3.71	3.86	4.22	4.67	5.17	5.39
61	4.35	4.63	4.83	4.63	4.75	4.88	4.20	4.40	4.60	4.08	4.15	4.31	3.71	4.11	4.22	4.71	5.22	5.43
62	4.37	4.65	4.85	4.63	4.75	4.88	4.20	4.40	4.60	4.08	4.15	4.31	3.71	4.11	4.22	4.71	5.22	5.43
63	4.38	4.67	4.87	4.63	4.75	4.88	4.20	4.40	4.60	4.08	4.15	4.31	3.71	4.11	4.33	4.76	5.26	5.48
64	4.40	4.69	4.88	4.63	4.75	4.88	4.40	4.40	4.80	4.08	4.23	4.31	3.86	4.11	4.33	4.76	5.30	5.48
65	4.42	4.71	4.90	4.63	4.75	4.88	4.40	4.40	4.80	4.15	4.23	4.31	3.86	4.22	4.33	4.81	5.30	5.52
66	4.44	4.73	4.92	4.63	4.75	4.88	4.40	4.50	4.80	4.15	4.23	4.38	3.86	4.22	4.44	4.81	5.30	5.52
67	4.46	4.75	4.94	4.63	4.75	4.88	4.40	4.60	4.80	4.15	4.23	4.38	3.86	4.22	4.44	4.86	5.35	5.52
68	4.48	4.77	4.96	4.75	4.88	4.88	4.40	4.60	4.80	4.15	4.23	4.38	4.11	4.22	4.44	4.86	5.35	5.57
69	4.50	4.79	4.98	4.75	4.88	5.17	4.40	4.60	4.80	4.15	4.29	4.38	4.11	4.33	4.44	4.90	5.39	5.57
70	4.5																	

Sixth

Sample Size 9,141 6,582 7,734

Percentile	Total Score			ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End
1	1.71	1.94	1.73	0.00	0.00	0.00	1.25	1.25	0.50	0.40	0.40	0.20	0.33	0.67	0.33	1.50	1.80	1.60
2	2.11	2.29	2.18	0.50	0.50	0.00	1.25	1.50	1.25	0.60	1.25	0.80	0.67	1.33	1.33	2.10	2.40	2.30
3	2.36	2.54	2.39	0.50	0.50	0.50	1.50	1.75	1.50	1.25	1.50	1.25	1.33	1.67	1.67	2.50	2.80	2.80
4	2.50	2.69	2.57	0.50	0.50	0.50	1.75	1.75	1.75	1.50	1.75	1.50	1.67	2.11	2.11	2.80	3.10	3.05
5	2.64	2.86	2.79	0.50	1.25	1.25	1.75	2.17	1.75	1.75	2.25	1.75	2.11	2.22	2.11	3.10	3.20	3.20
6	2.79	3.02	2.96	1.25	1.50	1.25	2.17	2.33	2.17	2.25	2.50	2.25	2.11	2.33	2.22	3.15	3.30	3.30
7	2.89	3.13	3.07	1.50	1.75	1.50	2.33	2.33	2.33	2.25	2.50	2.50	2.22	2.33	2.33	3.25	3.40	3.40
8	3.02	3.22	3.16	1.50	1.75	1.75	2.33	2.50	2.33	2.50	2.75	2.50	2.33	2.44	2.33	3.30	3.50	3.50
9	3.11	3.29	3.22	1.75	2.33	2.33	2.50	2.67	2.50	2.50	3.10	2.75	2.33	2.44	2.44	3.40	3.55	3.55
10	3.16	3.36	3.31	1.75	2.67	2.33	2.50	2.67	2.50	2.75	3.10	2.75	2.33	2.56	2.44	3.45	3.65	3.70
11	3.22	3.42	3.38	2.33	2.67	2.67	2.67	2.83	2.67	2.75	3.10	3.10	2.44	2.56	2.56	3.50	3.75	3.75
12	3.27	3.49	3.44	2.67	3.13	3.13	2.67	2.83	2.83	3.10	3.20	3.20	2.44	2.56	2.56	3.55	3.80	3.80
13	3.33	3.53	3.51	2.67	3.13	3.13	2.83	3.25	2.83	3.10	3.20	3.20	2.44	2.67	2.67	3.60	3.85	3.90
14	3.38	3.60	3.58	3.13	3.13	3.13	2.83	3.25	2.83	3.10	3.30	3.30	2.56	2.67	2.67	3.65	3.90	3.95
15	3.42	3.64	3.64	3.13	3.25	3.25	2.83	3.25	3.25	3.20	3.30	3.30	2.56	2.67	2.67	3.70	3.95	4.05
16	3.47	3.69	3.70	3.13	3.38	3.25	3.25	3.25	3.25	3.20	3.30	3.30	2.56	2.78	2.78	3.75	4.05	4.10
17	3.51	3.73	3.76	3.13	3.38	3.38	3.25	3.50	3.25	3.20	3.40	3.40	2.67	2.78	2.78	3.80	4.10	4.14
18	3.56	3.78	3.80	3.25	3.50	3.38	3.25	3.50	3.33	3.30	3.40	3.40	2.67	2.78	2.78	3.85	4.14	4.19
19	3.60	3.82	3.84	3.25	3.50	3.50	3.25	3.50	3.50	3.30	3.50	3.50	2.67	2.78	2.89	3.90	4.19	4.24
20	3.64	3.84	3.89	3.38	3.50	3.50	3.25	3.50	3.50	3.30	3.50	3.50	2.67	2.89	2.89	3.95	4.24	4.29
21	3.67	3.91	3.93	3.38	3.63	3.63	3.50	3.50	3.50	3.40	3.50	3.50	2.67	2.89	2.89	3.95	4.29	4.33
22	3.71	3.93	3.98	3.38	3.63	3.63	3.50	3.50	3.50	3.40	3.50	3.60	2.78	2.89	2.89	4.05	4.33	4.38
23	3.73	3.98	4.04	3.50	3.63	3.63	3.50	3.75	3.50	3.40	3.60	3.60	2.78	3.14	3.14	4.10	4.38	4.43
24	3.78	4.04	4.08	3.50	3.75	3.75	3.50	3.75	3.75	3.46	3.60	3.60	2.78	3.14	3.14	4.14	4.43	4.48
25	3.80	4.08	4.12	3.50	3.75	3.75	3.50	3.75	3.75	3.50	3.60	3.60	2.89	3.14	3.14	4.14	4.48	4.52
26	3.84	4.12	4.15	3.63	3.88	3.88	3.50	3.75	3.75	3.50	3.70	3.70	2.89	3.14	3.14	4.19	4.52	4.57
27	3.87	4.15	4.17	3.63	3.88	3.88	3.75	3.75	3.75	3.50	3.70	3.70	2.89	3.29	3.29	4.24	4.52	4.57
28	3.91	4.17	4.21	3.63	3.88	3.88	3.75	3.75	3.75	3.60	3.70	3.70	2.89	3.29	3.29	4.29	4.57	4.62
29	3.93	4.23	4.25	3.75	4.13	4.13	3.75	4.20	3.75	3.60	3.70	3.70	2.89	3.29	3.29	4.29	4.62	4.67
30	3.98	4.25	4.29	3.75	4.13	4.13	3.75	4.20	4.20	3.60	3.70	3.80	3.14	3.29	3.29	4.33	4.67	4.71
31	4.02	4.29	4.31	3.75	4.13	4.25	3.75	4.20	4.20	3.60	3.80	3.80	3.14	3.43	3.43	4.38	4.71	4.76
32	4.05	4.31	4.35	3.88	4.25	4.25	3.75	4.20	4.20	3.60	3.80	3.80	3.14	3.43	3.43	4.38	4.71	4.81
33	4.08	4.35	4.38	3.88	4.25	4.38	3.75	4.20	4.20	3.70	3.80	3.88	3.14	3.43	3.43	4.43	4.76	4.86
34	4.10	4.38	4.42	3.88	4.38	4.38	3.75	4.20	4.20	3.70	3.80	3.90	3.14	3.43	3.43	4.48	4.81	4.90
35	4.13	4.40	4.44	4.13	4.38	4.50	3.75	4.20	4.20	3.70	3.90	3.90	3.29	3.57	3.57	4.48	4.86	4.95
36	4.15	4.42	4.46	4.13	4.38	4.50	4.20	4.20	4.20	3.70	3.90	3.90	3.29	3.57	3.57	4.52	4.86	5.04
37	4.17	4.44	4.50	4.13	4.50	4.50	4.20	4.20	4.40	3.70	3.90	3.90	3.29	3.57	3.57	4.52	4.90	5.04
38	4.19	4.48	4.54	4.25	4.50	4.50	4.20	4.40	4.40	3.70	3.90	4.08	3.29	3.57	3.71	4.57	4.95	5.09
39	4.23	4.52	4.56	4.25	4.50	4.63	4.20	4.40	4.40	3.80	3.90	4.08	3.43	3.71	3.71	4.62	5.04	5.13
40	4.25	4.54	4.60	4.25	4.63	4.63	4.20	4.40	4.40	3.80	4.08	4.08	3.43	3.71	3.71	4.62	5.09	5.17
41	4.27	4.58	4.62	4.38	4.63	4.63	4.20	4.40	4.40	3.80	4.08	4.08	3.43	3.71	3.71	4.67	5.13	5.22
42	4.29	4.60	4.65	4.38	4.63	4.75	4.20	4.40	4.40	3.80	4.08	4.15	3.43	3.86	3.86	4.67	5.17	5.26
43	4.33	4.63	4.67	4.38	4.63	4.75	4.20	4.40	4.40	3.80	4.08	4.15	3.57	3.86	3.86	4.71	5.22	5.26
44	4.35	4.65	4.71	4.38	4.63	4.75	4.20	4.40	4.40	3.90	4.08	4.15	3.57	3.86	3.86	4.76	5.26	5.30
45	4.37	4.67	4.73	4.50	4.75	4.75	4.40	4.40	4.60	3.90	4.15	4.15	3.57	3.86	4.11	4.76	5.26	5.35
46	4.38	4.69	4.75	4.50	4.75	4.75	4.40	4.40	4.60	3.90	4.15	4.15	3.57	4.11	4.11	4.81	5.30	5.39
47	4.42	4.71	4.79	4.50	4.75	4.88	4.40	4.60	4.60	3.90	4.15	4.23	3.71	4.11	4.11	4.86	5.35	5.43
48	4.44	4.75	4.81	4.50	4.75	4.88	4.40	4.60	4.60	3.90	4.15	4.23	3.71	4.11	4.11	4.86	5.39	5.43
49	4.46	4.77	4.85	4.50	4.75	4.88	4.40	4.60	4.60	3.90	4.15	4.23	3.71	4.11	4.22	4.90	5.39	5.48
50	4.48	4.81	4.87	4.63	4.75	4.88	4.40	4.60	4.60	4.08	4.23	4.23	3.71	4.22	4.22	4.95	5.43	5.48
51	4.50	4.83	4.88	4.63	4.75	4.88	4.40	4.60	4.80	4.08	4.23	4.23	3.71	4.22	4.22	5.04	5.48	5.52
52	4.54	4.85	4.92	4.63	4.88	5.17	4.40	4.60	4.80	4.08	4.23	4.31	3.86	4.22	4.33	5.09	5.48	5.57
53	4.56	4.88	4.94	4.63	4.88	5.17	4.40	4.60	4.80	4.08	4.23	4.31	3.86	4.22	4.33	5.09	5.52	5.57
54	4.58	4.90	4.98	4.63	4.88	5.17	4.40	4.60	4.80	4.08	4.23	4.31	3.86	4.33	4.33	5.13	5.52	5.61
55	4.62	4.92	5.02	4.75	4.88	5.17	4.40	4.80	4.80	4.15	4.23	4.31	3.86	4.33	4.44	5.17	5.57	5.61
56	4.63	4.94	5.05	4.75	4.88	5.17	4.60	4.80	4.80	4.15	4.31	4.31	4.11	4.33	4.44	5.22	5.57	5.65
57	4.65	4.98	5.09	4.75	4.88	5.33	4.60	4.80	4.80	4.15	4.31	4.38	4.11	4.44	4.44	5.26	5.61	5.70
58	4.67	5.02	5.12	4.75	5.17	5.33	4.60	4.80	4.80	4.15	4.31	4.38	4.11	4.44	4.44	5.26	5.61	5.70
59	4.69	5.05	5.16	4.75	5.17	5.33	4.60	4.80	5.17	4.15	4.31	4.38	4.11	4.44	4.56	5.30	5.65	5.74
60	4.73	5.07	5.19	4.75	5.17	5.33	4.60	4.80	5.17	4.23	4.31	4.38	4.22	4.44	4.56	5.30	5.65	5.74
61	4.75	5.09	5.21	4.75	5.17	5.50	4.60	4.80	5.17	4.23	4.38	4.46	4.22	4.56	4.56	5.35	5.70	5.78
62	4.77	5.12	5.23	4.75	5.17	5.50	4.60	4.80	5.17	4.23	4.38	4.46	4.22	4.56	4.67	5.35	5.70	5.78
63	4.79	5.14	5.28	4.88	5.17	5.50	4.60	4.80	5.17	4.23	4.38	4.46	4.22	4.56	4.67	5.39	5.74	5.83
64	4.81	5.16	5.30	4.88	5.33	5.50	4.80	5.17	5.17	4.23	4.38	4.46	4.33	4.56	4.67	5.39	5.74	5.83
65	4.85	5.21	5.33	4.88	5.33	5.51	4.80	5.17	5.17	4.23	4.38	4.46	4.33	4.67	4.67	5.43	5.78	5.87
66	4.87	5.23	5.37	4.88	5.33	5.67	4.80	5.17	5.33	4.31	4.46	4.54	4.33	4.67	4.78	5.43	5.78	5.87
67	4.88	5.26	5.40	4.88	5.33	5.67	4.80	5.17	5.33	4.31	4.46	4.54	4.33	4.67	4.78	5.48	5.80	5.91
68	4.90	5.28	5.42	4.88	5.33	5.67	4.80	5.17	5.33	4.31	4.46	4.54	4.44	4.78	4.78	5.48	5.83	5.91
69	4.92	5.30	5.47	4.88	5.33	5.83	4.80	5.17	5.33	4.31	4.46	4.54	4.44	4.78	4.78	5.52	5.83	5.91
70	4.94																	

Seven

Sample Size		3,666		1,283		3,326															
Percentile	Total Score						ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End			
1	1.48	1.42	1.67	0.00	0.00	0.00	0.50	0.00	0.50	0.20	0.00	0.06	0.33	0.33	0.33	1.20	1.20	1.57			
2	1.86	1.62	2.13	0.29	0.00	0.00	1.25	0.50	1.25	0.60	0.34	0.40	0.67	0.33	1.33	1.60	1.46	2.10			
3	2.14	1.79	2.32	0.50	0.00	0.50	1.50	1.25	1.50	0.80	0.40	0.80	1.33	0.67	1.67	2.19	1.89	2.50			
4	2.39	2.07	2.54	0.50	0.50	0.50	1.75	1.50	1.50	1.25	0.60	1.25	1.67	1.33	2.11	2.60	2.12	2.90			
5	2.57	2.18	2.68	0.50	0.50	1.25	1.75	1.50	1.75	1.50	0.80	1.50	2.11	1.33	2.11	2.88	2.30	3.10			
6	2.71	2.29	2.86	1.25	0.50	1.25	2.17	1.75	2.17	1.75	1.25	1.72	2.11	1.67	2.22	3.10	2.40	3.25			
7	2.82	2.43	3.02	1.25	0.50	1.50	2.33	1.75	2.17	1.75	1.50	1.75	2.22	1.67	2.33	3.20	2.70	3.40			
8	2.96	2.60	3.11	1.50	1.25	1.50	2.33	1.75	2.33	2.25	1.50	2.25	2.22	2.11	2.44	3.25	2.90	3.50			
9	3.07	2.64	3.22	1.50	1.25	1.75	2.50	2.17	2.33	2.25	1.75	2.50	2.33	2.22	2.44	3.35	3.10	3.60			
10	3.13	2.77	3.29	1.75	1.25	2.33	2.50	2.17	2.50	2.50	2.25	2.75	2.44	2.33	2.56	3.45	3.25	3.70			
11	3.20	2.93	3.36	1.75	1.50	2.67	2.50	2.33	2.67	2.50	2.25	2.75	2.44	2.33	2.56	3.50	3.30	3.75			
12	3.24	3.09	3.44	2.33	1.50	2.67	2.67	2.33	2.67	2.75	2.25	2.75	2.56	2.44	2.67	3.55	3.40	3.80			
13	3.31	3.13	3.51	2.38	1.50	3.13	2.67	2.50	2.83	2.75	2.50	3.10	2.56	2.44	2.67	3.60	3.45	3.90			
14	3.36	3.20	3.58	2.67	1.75	3.13	2.83	2.50	2.83	2.75	2.50	3.10	2.56	2.56	2.67	3.65	3.55	3.95			
15	3.42	3.26	3.67	3.13	1.75	3.13	2.83	2.67	3.25	3.10	2.75	3.20	2.64	2.56	2.78	3.70	3.60	4.05			
16	3.47	3.33	3.72	3.13	2.33	3.25	2.83	2.67	3.25	3.10	2.75	3.20	2.67	2.56	2.78	3.75	3.69	4.14			
17	3.51	3.37	3.80	3.13	2.33	3.25	3.25	2.67	3.25	3.10	2.91	3.20	2.67	2.56	2.78	3.80	3.71	4.19			
18	3.53	3.40	3.84	3.13	2.67	3.38	3.25	2.83	3.50	3.20	3.10	3.30	2.67	2.67	2.78	3.85	3.77	4.24			
19	3.60	3.47	3.89	3.25	2.67	3.38	3.25	2.83	3.50	3.20	3.10	3.30	2.78	2.67	2.89	3.90	3.80	4.29			
20	3.62	3.53	3.93	3.25	3.13	3.50	3.50	2.83	3.50	3.20	3.10	3.30	2.78	2.67	2.89	3.95	3.85	4.33			
21	3.69	3.58	3.98	3.38	3.13	3.50	3.50	2.83	3.50	3.30	3.20	3.40	2.78	2.67	2.89	4.05	3.90	4.38			
22	3.73	3.60	4.04	3.38	3.13	3.63	3.50	3.25	3.50	3.30	3.20	3.40	2.78	2.78	3.14	4.10	3.93	4.43			
23	3.78	3.64	4.06	3.50	3.13	3.63	3.50	3.25	3.75	3.30	3.20	3.50	2.78	2.78	3.14	4.14	3.95	4.48			
24	3.82	3.69	4.12	3.50	3.25	3.75	3.50	3.25	3.75	3.40	3.30	3.50	2.89	2.78	3.14	4.19	4.05	4.52			
25	3.87	3.73	4.15	3.50	3.25	3.75	3.75	3.25	3.75	3.40	3.30	3.50	2.89	2.78	3.14	4.24	4.10	4.57			
26	3.89	3.78	4.19	3.63	3.38	3.88	3.75	3.50	3.75	3.40	3.30	3.60	2.89	2.89	3.29	4.29	4.14	4.62			
27	3.93	3.84	4.25	3.63	3.38	3.88	3.75	3.50	4.20	3.40	3.40	3.60	2.89	2.89	3.29	4.32	4.19	4.67			
28	3.98	3.87	4.27	3.75	3.38	4.13	3.75	3.50	4.20	3.50	3.40	3.60	3.14	2.89	3.29	4.33	4.24	4.71			
29	4.04	3.91	4.31	3.75	3.50	4.13	3.75	3.50	4.20	3.50	3.40	3.60	3.14	3.14	3.29	4.38	4.29	4.76			
30	4.08	3.96	4.35	3.75	3.50	4.13	3.75	3.55	4.20	3.50	3.50	3.70	3.14	3.14	3.43	4.43	4.33	4.76			
31	4.10	4.02	4.38	3.88	3.50	4.25	4.20	3.75	4.20	3.50	3.50	3.70	3.14	3.14	3.43	4.45	4.38	4.86			
32	4.13	4.04	4.40	3.88	3.63	4.25	4.20	3.75	4.20	3.60	3.50	3.70	3.29	3.14	3.43	4.48	4.43	4.89			
33	4.17	4.06	4.44	3.88	3.63	4.38	4.20	3.75	4.40	3.60	3.50	3.72	3.29	3.14	3.43	4.52	4.48	4.90			
34	4.21	4.11	4.48	4.13	3.75	4.38	4.20	3.75	4.40	3.60	3.60	3.80	3.29	3.29	3.57	4.57	4.48	4.95			
35	4.23	4.13	4.51	4.13	3.75	4.38	4.20	3.75	4.40	3.60	3.60	3.80	3.29	3.29	3.57	4.57	4.52	5.04			
36	4.27	4.15	4.54	4.25	3.75	4.50	4.20	4.20	4.40	3.60	3.60	3.80	3.29	3.29	3.57	4.62	4.57	5.09			
37	4.29	4.19	4.56	4.25	3.88	4.50	4.20	4.20	4.40	3.70	3.70	3.90	3.43	3.29	3.71	4.67	4.62	5.09			
38	4.31	4.23	4.60	4.38	3.88	4.50	4.40	4.20	4.60	3.70	3.70	3.90	3.43	3.43	3.71	4.71	4.67	5.13			
39	4.35	4.25	4.62	4.38	4.13	4.63	4.40	4.20	4.60	3.70	3.70	3.90	3.43	3.43	3.71	4.71	4.71	5.17			
40	4.37	4.31	4.65	4.38	4.13	4.63	4.40	4.20	4.60	3.70	3.70	3.90	3.43	3.57	3.71	4.76	4.76	5.22			
41	4.39	4.33	4.67	4.50	4.25	4.63	4.40	4.20	4.60	3.80	3.80	4.08	3.57	3.57	3.86	4.81	4.81	5.26			
42	4.42	4.37	4.71	4.50	4.25	4.75	4.40	4.26	4.60	3.80	3.80	4.08	3.57	3.57	3.86	4.86	4.81	5.30			
43	4.44	4.40	4.73	4.50	4.31	4.75	4.40	4.40	4.60	3.80	3.80	4.08	3.57	3.71	3.86	4.90	4.86	5.35			
44	4.48	4.44	4.77	4.63	4.38	4.75	4.40	4.40	4.60	3.80	3.90	4.08	3.57	3.71	4.11	4.95	4.95	5.39			
45	4.52	4.48	4.79	4.63	4.38	4.88	4.40	4.40	4.80	3.80	3.90	4.08	3.71	3.71	4.11	5.04	5.04	5.39			
46	4.56	4.50	4.83	4.63	4.50	4.88	4.60	4.40	4.80	3.90	3.90	4.15	3.71	3.86	4.11	5.09	5.13	5.43			
47	4.58	4.54	4.85	4.68	4.50	4.88	4.60	4.40	4.80	3.90	3.90	4.15	3.71	3.86	4.22	5.09	5.17	5.48			
48	4.62	4.56	4.88	4.75	4.50	4.88	4.60	4.60	4.80	3.90	4.08	4.15	3.71	3.86	4.22	5.13	5.17	5.52			
49	4.63	4.60	4.90	4.75	4.63	5.17	4.60	4.60	4.80	3.90	4.08	4.15	3.86	4.11	4.22	5.17	5.22	5.52			
50	4.67	4.63	4.94	4.75	4.63	5.17	4.60	4.60	4.80	3.90	4.08	4.23	3.86	4.11	4.22	5.22	5.26	5.57			
51	4.69	4.67	4.96	4.75	4.63	5.17	4.60	4.60	5.17	4.08	4.15	4.23	3.86	4.11	4.33	5.26	5.30	5.57			
52	4.71	4.74	4.98	4.88	4.63	5.17	4.60	4.80	5.17	4.08	4.15	4.23	3.86	4.11	4.33	5.30	5.35	5.61			
53	4.73	4.81	5.05	4.88	4.75	5.33	4.80	4.80	5.17	4.08	4.15	4.23	4.11	4.22	4.33	5.32	5.39	5.65			
54	4.75	4.85	5.07	4.88	4.75	5.33	4.80	4.80	5.17	4.08	4.15	4.23	4.11	4.22	4.44	5.35	5.48	5.65			
55	4.77	4.90	5.12	4.88	4.82	5.33	4.80	4.80	5.17	4.08	4.23	4.31	4.11	4.22	4.44	5.39	5.50	5.70			
56	4.81	4.94	5.14	5.17	4.88	5.33	4.80	4.80	5.17	4.08	4.23	4.31	4.11	4.33	4.44	5.43	5.57	5.74			
57	4.83	4.96	5.19	5.17	4.88	5.50	4.80	5.17	5.17	4.15	4.23	4.31	4.22	4.33	4.56	5.43	5				

Eight

Sample Size 2,344 730 1,167																		
Percentile	Total Score			ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End
1	1.38	1.10	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.33	0.00	0.33	1.10	0.35	0.40
2	1.76	1.27	1.59	0.00	0.00	0.00	1.25	0.00	0.00	0.40	0.20	0.20	0.33	0.33	0.33	1.55	0.80	0.80
3	2.07	1.38	1.81	0.00	0.00	0.00	1.25	0.00	1.25	0.60	0.20	0.40	0.67	0.33	0.67	1.95	1.23	1.40
4	2.20	1.67	1.90	0.50	0.00	0.12	1.50	0.50	1.25	0.80	0.40	0.60	1.33	0.67	0.67	2.30	1.50	1.60
5	2.32	1.76	2.11	0.50	0.50	0.50	1.50	1.25	1.50	1.25	0.40	0.80	1.67	0.67	1.33	2.60	1.69	2.20
6	2.43	1.90	2.21	0.50	0.50	0.50	1.75	1.25	1.50	1.50	0.60	1.25	1.67	0.67	1.33	2.80	1.70	2.40
7	2.54	2.11	2.31	0.50	0.50	0.50	1.75	1.50	1.75	1.50	0.80	1.25	2.11	1.33	1.33	3.05	1.98	2.60
8	2.64	2.19	2.50	0.50	0.50	0.50	2.17	1.50	1.75	1.75	1.25	1.50	2.11	1.33	1.67	3.10	2.30	2.78
9	2.75	2.28	2.61	1.25	1.25	0.91	2.17	1.75	1.75	1.75	1.50	1.50	2.22	1.67	2.11	3.15	2.40	2.90
10	2.89	2.36	2.68	1.25	1.25	1.25	2.33	1.75	2.17	2.25	1.50	1.75	2.22	2.11	2.11	3.20	2.60	3.10
11	3.02	2.39	2.79	1.50	1.25	1.25	2.33	1.75	2.17	2.50	1.50	1.75	2.33	2.11	2.22	3.30	2.70	3.15
12	3.09	2.46	2.86	1.50	1.25	1.50	2.33	1.75	2.17	2.50	1.75	1.75	2.44	2.11	2.22	3.40	2.80	3.20
13	3.13	2.57	3.02	1.50	1.50	1.50	2.50	2.17	2.33	2.50	1.75	2.25	2.44	2.22	2.33	3.45	3.05	3.25
14	3.20	2.64	3.04	1.75	1.50	1.50	2.50	2.17	2.33	2.75	2.25	2.50	2.44	2.22	2.33	3.50	3.14	3.30
15	3.24	2.71	3.09	2.33	1.75	1.75	2.67	2.17	2.50	2.75	2.25	2.50	2.56	2.33	2.33	3.55	3.18	3.35
16	3.31	2.82	3.13	2.33	1.75	1.75	2.67	2.33	2.50	2.75	2.25	2.50	2.56	2.33	2.44	3.60	3.25	3.45
17	3.36	2.93	3.20	2.33	2.33	2.33	2.83	2.33	2.50	3.10	2.50	2.75	2.56	2.44	2.44	3.69	3.30	3.50
18	3.40	3.02	3.24	2.67	2.33	2.33	2.83	2.33	2.50	3.10	2.50	2.75	2.67	2.44	2.44	3.73	3.35	3.57
19	3.44	3.02	3.29	2.67	2.33	2.67	2.83	2.50	2.67	3.20	2.75	2.96	2.67	2.56	2.56	3.75	3.45	3.60
20	3.49	3.13	3.35	3.13	2.33	2.67	3.25	2.50	2.67	3.20	2.75	3.10	2.67	2.56	2.56	3.80	3.50	3.70
21	3.53	3.18	3.40	3.13	2.67	3.13	3.25	2.50	2.67	3.30	2.75	3.10	2.67	2.56	2.56	3.85	3.55	3.70
22	3.58	3.23	3.44	3.13	2.67	3.13	3.25	2.60	2.83	3.30	3.10	3.20	2.78	2.56	2.67	3.90	3.60	3.75
23	3.63	3.29	3.47	3.13	3.13	3.13	3.25	2.67	2.83	3.30	3.10	3.20	2.78	2.56	2.67	4.05	3.65	3.80
24	3.67	3.36	3.53	3.25	3.13	3.13	3.50	2.73	2.83	3.40	3.10	3.20	2.78	2.67	2.67	4.05	3.70	3.85
25	3.71	3.40	3.58	3.25	3.13	3.25	3.50	2.83	3.25	3.40	3.20	3.30	2.78	2.67	2.78	4.10	3.75	3.90
26	3.73	3.42	3.62	3.38	3.13	3.25	3.50	2.83	3.25	3.40	3.20	3.30	2.78	2.67	2.78	4.14	3.80	3.95
27	3.80	3.49	3.67	3.38	3.25	3.25	3.50	3.25	3.25	3.50	3.20	3.30	2.89	2.67	2.78	4.19	3.85	4.05
28	3.84	3.52	3.71	3.44	3.25	3.38	3.50	3.25	3.25	3.50	3.30	3.40	2.89	2.67	2.78	4.24	3.90	4.05
29	3.89	3.56	3.76	3.50	3.38	3.38	3.52	3.25	3.25	3.50	3.30	3.40	2.89	2.78	2.78	4.29	3.92	4.10
30	3.93	3.58	3.78	3.50	3.38	3.38	3.75	3.25	3.50	3.50	3.30	3.40	2.89	2.78	2.89	4.33	4.05	4.14
31	3.96	3.62	3.82	3.50	3.38	3.50	3.75	3.25	3.50	3.60	3.40	3.50	3.14	2.78	2.89	4.38	4.09	4.19
32	4.00	3.64	3.87	3.63	3.50	3.50	3.75	3.50	3.50	3.60	3.40	3.50	3.14	2.78	2.89	4.38	4.14	4.19
33	4.04	3.71	3.89	3.63	3.50	3.50	3.75	3.50	3.50	3.60	3.40	3.50	3.14	2.78	2.89	4.43	4.14	4.24
34	4.08	3.78	3.91	3.75	3.50	3.63	3.75	3.50	3.75	3.70	3.50	3.50	3.14	2.84	2.89	4.48	4.24	4.29
35	4.10	3.80	3.96	3.75	3.50	3.63	4.20	3.50	3.75	3.70	3.50	3.60	3.29	2.89	3.14	4.48	4.24	4.29
36	4.13	3.82	3.98	3.75	3.63	3.75	4.20	3.50	3.75	3.70	3.50	3.60	3.29	2.89	3.14	4.52	4.29	4.33
37	4.17	3.87	4.04	3.88	3.63	3.75	4.20	3.75	3.75	3.70	3.56	3.60	3.29	2.89	3.14	4.57	4.33	4.33
38	4.21	3.89	4.08	3.88	3.63	3.75	4.20	3.75	4.20	3.70	3.60	3.70	3.29	2.89	3.17	4.62	4.38	4.43
39	4.23	3.91	4.11	3.88	3.68	3.88	4.20	3.75	4.20	3.80	3.60	3.70	3.29	3.14	3.29	4.63	4.38	4.43
40	4.25	3.96	4.12	4.13	3.75	3.88	4.20	3.75	4.20	3.80	3.60	3.70	3.29	3.14	3.29	4.67	4.43	4.52
41	4.27	4.01	4.15	4.13	3.75	3.88	4.40	3.75	4.20	3.80	3.60	3.70	3.43	3.14	3.29	4.71	4.48	4.52
42	4.31	4.04	4.19	4.13	3.88	4.13	4.40	4.20	4.20	3.80	3.70	3.80	3.43	3.14	3.29	4.76	4.52	4.57
43	4.33	4.08	4.23	4.25	3.88	4.13	4.40	4.20	4.40	3.90	3.70	3.80	3.43	3.29	3.38	4.76	4.57	4.62
44	4.35	4.12	4.25	4.25	3.88	4.13	4.40	4.20	4.40	3.90	3.70	3.80	3.43	3.29	3.43	4.81	4.57	4.62
45	4.38	4.15	4.29	4.38	4.13	4.25	4.40	4.20	4.40	3.90	3.70	3.80	3.57	3.29	3.43	4.86	4.62	4.67
46	4.40	4.17	4.33	4.38	4.13	4.25	4.40	4.20	4.40	3.90	3.80	3.80	3.57	3.29	3.43	4.90	4.67	4.67
47	4.42	4.20	4.35	4.50	4.13	4.38	4.60	4.20	4.40	3.90	3.80	3.90	3.57	3.29	3.57	4.90	4.67	4.71
48	4.45	4.25	4.38	4.50	4.14	4.38	4.60	4.34	4.60	3.90	3.80	3.90	3.71	3.41	3.57	4.95	4.71	4.76
49	4.48	4.27	4.41	4.50	4.25	4.50	4.60	4.40	4.60	4.08	3.80	3.90	3.71	3.43	3.57	5.04	4.71	4.81
50	4.52	4.31	4.44	4.50	4.25	4.50	4.60	4.40	4.60	4.08	3.80	3.90	3.71	3.43	3.57	5.09	4.79	4.81
51	4.56	4.35	4.46	4.50	4.38	4.50	4.60	4.40	4.60	4.08	3.90	4.08	3.71	3.43	3.71	5.09	4.82	4.86
52	4.58	4.37	4.48	4.63	4.38	4.50	4.60	4.40	4.60	4.08	3.90	4.08	3.86	3.43	3.71	5.13	4.90	4.90
53	4.60	4.39	4.52	4.63	4.38	4.50	4.80	4.40	4.60	4.08	3.90	4.08	3.86	3.49	3.71	5.17	4.90	4.90
54	4.62	4.44	4.55	4.63	4.38	4.63	4.80	4.40	4.80	4.08	3.90	4.08	3.86	3.57	3.71	5.20	4.93	4.95
55	4.65	4.46	4.60	4.75	4.50	4.63	4.80	4.40	4.80	4.15	3.90	4.08	3.98	3.57	3.86	5.22	4.95	5.04
56	4.69	4.49	4.62	4.75	4.50	4.75	4.80	4.40	4.80	4.15	4.08	4.15	4.11	3.57	3.86	5.26	5.04	5.09
57	4.71	4.51	4.63	4.75	4.50	4.75	4.80	4.60	4.80	4.15	4.08	4.15	4.11	3.71	3.86	5.26	5.04	5.13
58																		

Nine

Sample Size 558 200 321																			
Percentile	Total Score			ALG			DAT			GEO			ME			NUM			
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	
1	0.80	1.05	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.33	0.60	0.41	0.20
2	1.52	1.10	1.37	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.20	0.00	0.00	0.33	0.33	0.48	1.20	0.63	0.40
3	1.66	1.33	1.60	0.00	0.00	0.00	0.50	0.00	0.50	0.20	0.20	0.20	0.67	0.33	0.67	1.30	1.20	1.20	
4	1.76	1.48	1.76	0.00	0.00	0.50	1.25	0.12	1.25	0.20	0.40	0.40	0.67	0.67	0.67	1.50	1.43	1.60	
5	1.86	1.63	2.11	0.00	0.00	0.50	1.25	0.50	1.25	0.20	0.40	0.46	0.67	0.67	0.74	1.90	1.50	1.70	
6	2.04	1.91	2.21	0.50	0.50	0.50	1.25	1.25	1.25	0.40	0.40	0.80	1.18	0.75	1.67	2.19	1.54	1.80	
7	2.07	2.07	2.29	0.50	0.50	0.50	1.25	1.25	1.44	0.60	0.60	0.80	1.33	1.33	1.67	2.36	1.80	2.31	
8	2.14	2.11	2.37	0.50	0.50	0.50	1.25	1.25	1.50	0.60	0.68	1.50	1.33	1.67	2.11	2.50	2.01	2.40	
9	2.29	2.18	2.50	0.50	0.50	0.50	1.25	1.25	1.75	0.80	0.80	1.50	1.33	1.67	2.11	2.60	2.10	2.50	
10	2.36	2.25	2.62	0.50	0.50	0.50	1.50	1.25	1.75	1.25	1.03	1.50	1.67	2.11	2.22	2.70	2.31	2.90	
11	2.43	2.32	2.77	0.50	0.50	1.25	1.50	1.50	2.17	1.25	1.25	1.72	1.67	2.11	2.22	2.80	2.40	3.12	
12	2.50	2.43	2.86	0.50	0.50	1.25	1.50	1.50	2.17	1.50	1.40	1.75	1.67	2.11	2.22	2.90	2.75	3.15	
13	2.54	2.47	2.89	1.25	0.50	1.25	1.75	1.50	2.21	1.50	1.50	1.94	2.11	2.11	2.33	3.05	2.80	3.20	
14	2.64	2.50	2.93	1.25	1.24	1.41	1.75	1.71	2.33	1.57	1.50	2.25	2.11	2.11	2.33	3.10	2.90	3.25	
15	2.68	2.54	2.96	1.25	1.25	1.50	1.75	1.75	2.33	1.75	1.69	2.25	2.11	2.22	2.44	3.14	2.90	3.30	
16	2.77	2.55	3.02	1.50	1.25	1.50	1.75	1.75	2.50	1.75	1.75	2.29	2.12	2.22	2.44	3.20	3.06	3.30	
17	2.89	2.62	3.09	1.50	1.25	1.75	1.98	1.75	2.50	2.25	1.75	2.50	2.22	2.22	2.56	3.25	3.11	3.35	
18	2.91	2.69	3.16	1.50	1.25	1.75	2.17	2.17	2.50	2.25	1.75	2.50	2.26	2.33	2.56	3.29	3.15	3.37	
19	2.94	2.82	3.22	1.75	1.25	1.75	2.17	2.17	2.50	2.25	2.23	2.74	2.33	2.33	2.56	3.30	3.18	3.49	
20	3.01	2.96	3.24	1.75	1.35	1.75	2.33	2.17	2.50	2.50	2.25	2.75	2.33	2.33	2.60	3.35	3.25	3.55	
21	3.07	2.96	3.24	1.75	1.50	2.33	2.33	2.17	2.67	2.50	2.25	2.75	2.33	2.44	2.67	3.40	3.27	3.57	
22	3.13	3.02	3.29	2.33	1.64	2.33	2.33	2.17	2.67	2.50	2.25	3.10	2.44	2.44	2.67	3.45	3.30	3.60	
23	3.17	3.02	3.31	2.33	1.75	2.33	2.50	2.23	2.83	2.50	2.25	3.10	2.44	2.44	2.67	3.45	3.35	3.65	
24	3.20	3.04	3.33	2.33	1.75	2.67	2.50	2.33	2.83	2.54	2.50	3.10	2.56	2.56	2.67	3.50	3.42	3.66	
25	3.22	3.05	3.35	2.67	2.19	2.67	2.50	2.33	2.83	2.75	2.50	3.10	2.56	2.56	2.78	3.55	3.45	3.70	
26	3.25	3.08	3.40	2.67	2.33	3.02	2.67	2.33	3.25	2.75	2.75	3.18	2.56	2.56	2.78	3.60	3.45	3.70	
27	3.29	3.11	3.44	2.67	2.33	3.13	2.67	2.44	3.25	2.75	2.75	3.20	2.67	2.56	2.78	3.60	3.49	3.75	
28	3.31	3.14	3.45	3.13	2.33	3.13	2.67	2.50	3.25	3.10	2.75	3.20	2.67	2.67	2.78	3.65	3.50	3.77	
29	3.38	3.18	3.51	3.13	2.67	3.13	2.67	2.50	3.25	3.10	2.75	3.20	2.67	2.67	2.78	3.70	3.55	3.85	
30	3.41	3.18	3.56	3.13	2.67	3.25	2.77	2.50	3.38	3.10	3.10	3.30	2.67	2.67	2.78	3.70	3.60	3.85	
31	3.44	3.24	3.60	3.13	2.67	3.25	2.83	2.65	3.50	3.20	3.10	3.30	2.67	2.67	2.89	3.75	3.60	3.90	
32	3.47	3.32	3.62	3.25	3.13	3.25	2.83	2.67	3.50	3.20	3.10	3.30	2.78	2.67	2.89	3.75	3.65	3.90	
33	3.49	3.35	3.65	3.25	3.13	3.25	2.83	2.67	3.50	3.20	3.17	3.30	2.78	2.67	2.89	3.80	3.65	3.95	
34	3.51	3.39	3.67	3.38	3.13	3.25	2.86	2.83	3.50	3.30	3.20	3.40	2.78	2.67	2.89	3.80	3.65	4.05	
35	3.56	3.43	3.70	3.38	3.13	3.38	3.25	2.83	3.50	3.30	3.30	3.40	2.78	2.78	3.14	3.85	3.70	4.08	
36	3.60	3.44	3.76	3.38	3.13	3.38	3.25	2.83	3.50	3.30	3.30	3.40	2.89	2.78	3.14	3.90	3.70	4.10	
37	3.64	3.45	3.80	3.38	3.13	3.38	3.25	2.83	3.50	3.30	3.30	3.50	2.89	2.78	3.14	3.90	3.73	4.10	
38	3.69	3.47	3.80	3.38	3.13	3.50	3.50	2.95	3.50	3.40	3.30	3.50	2.89	2.78	3.14	3.95	3.75	4.10	
39	3.71	3.52	3.82	3.50	3.13	3.50	3.50	3.25	3.75	3.40	3.40	3.50	2.89	2.87	3.14	4.05	3.79	4.19	
40	3.71	3.55	3.86	3.50	3.23	3.50	3.50	3.25	3.75	3.40	3.40	3.60	2.89	2.89	3.14	4.10	3.80	4.24	
41	3.74	3.58	3.89	3.50	3.25	3.50	3.50	3.25	3.75	3.50	3.40	3.60	2.89	2.89	3.29	4.14	3.80	4.29	
42	3.78	3.61	3.91	3.63	3.25	3.62	3.50	3.25	3.75	3.50	3.50	3.60	3.14	2.89	3.29	4.19	3.85	4.29	
43	3.82	3.65	3.91	3.63	3.25	3.63	3.50	3.40	3.75	3.50	3.50	3.60	3.14	2.89	3.29	4.19	3.85	4.33	
44	3.87	3.70	3.96	3.63	3.39	3.63	3.75	3.50	3.75	3.50	3.50	3.60	3.14	3.14	3.29	4.24	3.96	4.34	
45	3.89	3.72	4.02	3.63	3.50	3.71	3.75	3.50	4.20	3.56	3.50	3.60	3.14	3.14	3.29	4.24	4.05	4.38	
46	3.91	3.73	4.06	3.63	3.50	3.75	3.75	3.50	4.20	3.60	3.50	3.70	3.29	3.14	3.43	4.29	4.06	4.38	
47	3.93	3.76	4.08	3.75	3.50	3.75	3.75	3.50	4.20	3.60	3.60	3.70	3.29	3.14	3.43	4.29	4.14	4.43	
48	3.93	3.78	4.08	3.75	3.50	3.81	3.75	3.50	4.20	3.60	3.60	3.70	3.29	3.14	3.43	4.33	4.16	4.43	
49	3.98	3.82	4.12	3.88	3.50	3.88	4.20	3.50	4.20	3.70	3.60	3.70	3.29	3.14	3.43	4.38	4.19	4.47	
50	4.04	3.83	4.13	3.88	3.63	3.88	4.20	3.50	4.30	3.70	3.60	3.80	3.43	3.14	3.57	4.43	4.19	4.48	
51	4.06	3.86	4.15	3.88	3.63	4.13	4.20	3.75	4.40	3.70	3.66	3.80	3.43	3.14	3.57	4.43	4.19	4.52	
52	4.08	3.87	4.20	3.88	3.75	4.13	4.20	3.75	4.40	3.70	3.70	3.80	3.43	3.29	3.57	4.51	4.24	4.52	
53	4.13	3.87	4.23	3.88	3.75	4.25	4.20	3.75	4.40	3.70	3.70	3.80	3.43	3.29	3.57	4.57	4.29	4.57	
54	4.19	3.90	4.25	4.13	3.88	4.38	4.20	3.75	4.40	3.80	3.70	3.80	3.43	3.30	3.69	4.62	4.29	4.58	
55	4.21	3.93	4.29	4.13	3.88	4.38	4.20	3.89	4.55	3.80	3.78	3.90	3.57	3.43	3.71	4.67	4.32	4.62	
56	4.25	3.95	4.33	4.25	3.88	4.50	4.40	4.20	4.60	3.80	3.80	3.90	3.57	3.43	3.86	4.67	4.33	4.67	
57	4.27	3.96	4.38	4.25	3.88	4.50	4.40	4.20	4.60	3.90	3.80	3.90	3.57	3.43	3.86	4.71	4.33		

Ten

Sample Size 411 182 326																		
Percentile	Total Score			ALG			DAT			GEO			ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End
1	0.79	0.31	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.40	0.33	0.40
2	1.14	0.88	1.22	0.00	0.00	0.00	0.00	0.00	0.31	0.06	0.00	0.20	0.00	0.00	0.33	0.80	0.53	0.60
3	1.32	1.31	1.47	0.00	0.00	0.00	0.50	0.00	0.50	0.20	0.12	0.39	0.13	0.33	0.67	1.14	1.05	0.80
4	1.64	1.76	1.57	0.00	0.00	0.00	1.25	0.77	0.68	0.40	0.40	0.40	0.33	0.33	0.67	1.45	1.33	1.40
5	1.74	2.04	1.87	0.35	0.50	0.30	1.25	1.25	1.25	0.60	0.60	0.60	0.67	0.38	0.67	1.60	1.50	1.47
6	2.01	2.21	2.01	0.50	0.50	0.50	1.25	1.25	1.25	0.80	0.87	0.60	0.67	1.32	0.67	1.78	1.70	1.60
7	2.14	2.21	2.10	0.50	0.50	0.50	1.50	1.25	1.25	0.80	1.25	0.80	1.33	1.33	0.67	2.10	1.80	1.66
8	2.29	2.21	2.25	0.50	0.50	0.50	1.50	1.43	1.25	0.80	1.47	0.80	1.33	1.67	1.33	2.21	2.20	1.90
9	2.36	2.28	2.27	0.50	0.50	0.50	1.50	1.50	1.50	1.25	1.50	0.80	1.33	1.67	1.33	2.42	2.40	2.20
10	2.47	2.39	2.32	0.50	0.95	0.50	1.50	1.50	1.50	1.25	1.75	1.25	1.67	2.11	1.33	2.53	2.70	2.50
11	2.54	2.54	2.36	0.50	1.25	1.25	1.64	1.75	1.50	1.25	1.75	1.25	1.67	2.11	1.67	2.70	2.71	2.70
12	2.54	2.57	2.57	1.25	1.33	1.25	1.75	1.78	1.50	1.50	1.91	1.50	1.67	2.22	1.67	2.80	2.90	2.70
13	2.57	2.73	2.61	1.25	1.50	1.29	1.75	2.17	1.75	1.75	2.25	1.50	2.11	2.22	2.11	2.90	3.02	2.80
14	2.68	2.75	2.67	1.25	1.50	1.50	1.75	2.17	1.75	1.75	2.25	1.50	2.20	2.22	2.22	3.02	3.14	2.90
15	2.78	2.85	2.71	1.28	1.50	1.50	2.17	2.17	1.75	1.75	2.25	1.75	2.22	2.27	2.22	3.10	3.22	3.05
16	2.86	2.96	2.79	1.50	1.75	1.50	2.17	2.33	1.75	2.25	2.44	1.75	2.22	2.33	2.33	3.15	3.30	3.10
17	2.89	3.03	2.84	1.50	1.75	1.50	2.17	2.33	2.17	2.25	2.50	1.75	2.22	2.33	2.33	3.20	3.31	3.18
18	2.93	3.07	2.96	1.75	2.33	1.69	2.33	2.33	2.17	2.25	2.75	1.75	2.33	2.33	2.33	3.22	3.35	3.25
19	3.04	3.16	3.04	1.75	2.33	1.75	2.33	2.49	2.17	2.25	2.75	2.20	2.33	2.53	2.44	3.27	3.39	3.26
20	3.04	3.19	3.08	2.21	2.67	1.75	2.33	2.50	2.17	2.50	2.75	2.25	2.44	2.56	2.56	3.35	3.50	3.30
21	3.07	3.22	3.11	2.33	2.67	2.33	2.49	2.67	2.33	2.50	3.10	2.25	2.44	2.56	2.56	3.35	3.52	3.35
22	3.09	3.22	3.13	2.33	3.09	2.33	2.50	2.67	2.33	2.52	3.10	2.46	2.44	2.56	2.56	3.44	3.60	3.40
23	3.11	3.24	3.16	2.33	3.13	2.33	2.50	2.67	2.33	2.75	3.10	2.50	2.44	2.67	2.56	3.50	3.60	3.45
24	3.13	3.27	3.18	2.33	3.13	2.67	2.50	2.70	2.50	2.75	3.16	2.50	2.56	2.67	2.67	3.55	3.65	3.50
25	3.22	3.31	3.20	2.33	3.13	2.67	2.59	2.83	2.50	2.75	3.20	2.75	2.56	2.67	2.67	3.56	3.70	3.55
26	3.27	3.43	3.24	2.67	3.13	2.67	2.67	2.83	2.50	2.75	3.20	2.75	2.56	2.67	2.67	3.60	3.75	3.60
27	3.29	3.47	3.27	2.67	3.25	2.67	2.67	3.12	2.67	3.02	3.30	2.75	2.56	2.67	2.67	3.65	3.75	3.60
28	3.31	3.51	3.31	2.67	3.25	3.11	2.67	3.25	2.67	3.10	3.30	3.10	2.67	2.67	2.67	3.65	3.76	3.65
29	3.32	3.53	3.35	3.13	3.25	3.13	2.83	3.25	2.67	3.10	3.39	3.10	2.67	2.67	2.67	3.70	3.80	3.70
30	3.33	3.60	3.38	3.13	3.38	3.13	2.83	3.25	2.83	3.20	3.40	3.20	2.67	2.77	2.78	3.75	3.85	3.70
31	3.35	3.62	3.41	3.13	3.38	3.13	2.83	3.50	2.83	3.20	3.40	3.20	2.67	2.78	2.78	3.80	3.85	3.75
32	3.40	3.63	3.46	3.13	3.38	3.13	2.83	3.50	2.83	3.20	3.40	3.20	2.78	2.78	2.78	3.80	3.88	3.75
33	3.47	3.68	3.47	3.20	3.50	3.25	2.83	3.50	2.83	3.20	3.50	3.20	2.78	2.78	2.78	3.85	3.92	3.84
34	3.49	3.69	3.49	3.25	3.50	3.25	2.83	3.50	3.25	3.30	3.50	3.30	2.78	2.78	2.84	3.85	4.05	3.85
35	3.51	3.73	3.51	3.25	3.63	3.28	3.25	3.50	3.25	3.30	3.50	3.30	2.78	2.89	2.89	3.88	4.05	3.85
36	3.58	3.76	3.55	3.38	3.63	3.38	3.25	3.75	3.25	3.30	3.50	3.30	2.78	2.89	2.89	3.90	4.10	3.90
37	3.61	3.81	3.58	3.38	3.63	3.38	3.25	3.75	3.25	3.30	3.50	3.30	2.78	2.89	2.89	3.94	4.10	3.95
38	3.64	3.82	3.63	3.38	3.63	3.38	3.50	3.75	3.25	3.40	3.50	3.30	2.89	2.89	2.89	3.95	4.12	4.05
39	3.68	3.84	3.67	3.44	3.75	3.50	3.50	3.75	3.50	3.40	3.55	3.40	2.89	2.89	3.14	3.96	4.14	4.05
40	3.71	3.87	3.69	3.50	3.75	3.50	3.50	3.75	3.50	3.40	3.60	3.44	2.89	2.89	3.14	4.05	4.20	4.10
41	3.73	3.96	3.71	3.50	3.88	3.50	3.50	3.75	3.50	3.50	3.60	3.50	2.89	3.14	3.14	4.10	4.24	4.14
42	3.78	3.98	3.73	3.50	3.88	3.50	3.50	4.20	3.50	3.50	3.60	3.60	3.01	3.14	3.14	4.10	4.24	4.14
43	3.78	4.03	3.77	3.50	3.88	3.50	3.75	4.20	3.50	3.50	3.60	3.60	3.14	3.24	3.14	4.14	4.29	4.19
44	3.81	4.06	3.80	3.63	4.13	3.50	3.75	4.20	3.50	3.50	3.70	3.60	3.14	3.29	3.14	4.18	4.31	4.22
45	3.84	4.08	3.82	3.63	4.13	3.63	3.75	4.20	3.50	3.50	3.70	3.70	3.14	3.29	3.29	4.19	4.38	4.24
46	3.88	4.10	3.88	3.75	4.13	3.63	3.75	4.20	3.57	3.60	3.70	3.70	3.14	3.29	3.29	4.24	4.38	4.29
47	3.91	4.12	3.91	3.75	4.18	3.63	3.75	4.20	3.75	3.60	3.70	3.70	3.14	3.43	3.29	4.29	4.38	4.29
48	3.91	4.16	3.93	3.75	4.25	3.63	4.07	4.20	3.75	3.60	3.70	3.79	3.14	3.43	3.43	4.29	4.47	4.32
49	4.02	4.22	3.98	3.88	4.25	3.75	4.20	4.40	3.75	3.70	3.80	3.80	3.29	3.43	3.43	4.33	4.48	4.34
50	4.04	4.24	4.02	3.88	4.25	3.75	4.20	4.40	3.75	3.70	3.80	3.80	3.29	3.43	3.43	4.33	4.52	4.38
51	4.10	4.29	4.04	3.88	4.36	3.88	4.20	4.40	3.75	3.70	3.80	3.80	3.29	3.43	3.54	4.38	4.52	4.38
52	4.13	4.35	4.08	3.88	4.38	3.88	4.20	4.54	3.75	3.80	3.80	3.80	3.29	3.57	3.57	4.43	4.58	4.43
53	4.13	4.35	4.12	4.13	4.38	3.88	4.40	4.60	4.20	3.80	3.80	3.90	3.29	3.57	3.57	4.48	4.62	4.43
54	4.15	4.37	4.15	4.13	4.38	4.13	4.40	4.60	4.20	3.80	3.90	3.90	3.29	3.57	3.57	4.48	4.66	4.48
55	4.19	4.38	4.17	4.13	4.50	4.13	4.40	4.60	4.20	3.80	3.90	3.90	3.43	3.57	3.71	4.52	4.71	4.52
56	4.20	4.40	4.25	4.25	4.50	4.13	4.40	4.60	4.20	3.80	3.90	3.90	3.43	3.64	3.71	4.52	4.71	4.54
57	4.23	4.44	4.26	4.25	4.50	4.13	4.40	4.78	4.20	3.90	3.90	3.90	3.43	3.71	3.71	4.57	4.73	4.57

Eleven

Sample Size		406			152			278														
Percentile	Total Score						ALG			DAT			GEO				ME			NUM		
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End				
1	1.24	0.84	1.29	0.00	0.00	0.00	0.50	0.00	0.00	0.20	0.00	0.00	0.03	0.17	0.26	0.62	0.67	0.56				
2	1.43	1.54	1.56	0.00	0.00	0.00	1.25	0.06	0.00	0.20	0.20	0.32	0.33	0.67	0.67	1.20	1.26	1.10				
3	1.53	1.86	1.81	0.12	0.36	0.00	1.25	0.50	1.25	0.40	0.63	0.40	0.67	1.06	0.67	1.52	1.84	1.60				
4	1.67	2.37	1.90	0.50	0.50	0.12	1.25	1.25	1.25	0.60	0.80	0.40	0.67	1.33	0.67	1.60	2.17	1.80				
5	1.83	2.43	2.04	0.50	0.50	0.50	1.50	1.25	1.25	0.60	0.80	0.60	0.93	1.33	1.30	1.74	2.48	1.90				
6	1.90	2.55	2.14	0.50	0.50	0.50	1.50	1.50	1.47	0.80	1.25	0.77	1.33	1.39	1.67	1.90	2.54	2.20				
7	2.19	2.57	2.23	0.50	0.50	0.50	1.50	1.50	1.50	0.80	1.25	1.25	1.33	1.67	1.67	2.16	2.69	2.20				
8	2.29	2.64	2.32	0.50	1.25	0.50	1.50	1.62	1.50	1.25	1.39	1.50	1.67	2.11	2.11	2.36	2.80	2.35				
9	2.38	2.69	2.50	0.50	1.25	0.50	1.75	1.75	1.50	1.41	1.50	1.75	1.99	2.19	2.11	2.50	2.80	2.50				
10	2.43	2.72	2.54	0.50	1.25	0.50	1.75	1.75	1.75	1.50	1.68	1.75	2.11	2.22	2.21	2.50	2.90	2.51				
11	2.52	2.81	2.60	1.25	1.50	0.50	1.75	2.17	1.75	1.69	1.89	1.75	2.11	2.22	2.22	2.69	3.05	2.69				
12	2.60	2.86	2.64	1.25	1.50	1.25	2.15	2.17	1.75	1.75	2.25	1.75	2.22	2.33	2.22	2.70	3.09	2.70				
13	2.64	2.89	2.71	1.25	1.75	1.25	2.17	2.21	1.75	1.75	2.25	2.25	2.22	2.33	2.33	2.80	3.10	2.80				
14	2.71	2.91	2.79	1.25	1.75	1.50	2.17	2.33	1.75	1.75	2.50	2.34	2.22	2.33	2.33	2.81	3.14	2.95				
15	2.79	2.96	2.82	1.30	1.75	1.50	2.17	2.33	2.17	2.25	2.50	2.50	2.22	2.43	2.33	2.93	3.20	3.06				
16	2.87	3.08	2.85	1.50	1.82	1.50	2.33	2.33	2.17	2.28	2.75	2.50	2.33	2.44	2.33	3.06	3.25	3.10				
17	3.02	3.11	2.94	1.50	2.33	1.50	2.33	2.50	2.17	2.50	2.75	2.50	2.33	2.44	2.33	3.15	3.25	3.15				
18	3.04	3.16	2.98	1.50	2.33	1.50	2.33	2.50	2.17	2.50	2.75	2.50	2.44	2.56	2.44	3.20	3.30	3.25				
19	3.08	3.18	3.07	1.75	2.33	1.75	2.33	2.50	2.17	2.58	2.75	2.75	2.44	2.67	2.44	3.25	3.41	3.30				
20	3.12	3.20	3.11	1.75	2.33	1.75	2.33	2.50	2.33	2.75	3.10	2.75	2.44	2.67	2.44	3.38	3.46	3.35				
21	3.16	3.27	3.17	2.33	2.33	1.76	2.50	2.50	2.33	2.75	3.10	2.75	2.56	2.67	2.51	3.48	3.50	3.40				
22	3.18	3.30	3.18	2.33	2.67	2.33	2.50	2.67	2.33	2.75	3.10	2.75	2.56	2.67	2.56	3.50	3.52	3.45				
23	3.21	3.34	3.20	2.33	2.72	2.33	2.50	2.67	2.44	2.96	3.10	2.75	2.56	2.67	2.56	3.55	3.55	3.45				
24	3.27	3.39	3.20	2.64	3.13	2.33	2.50	2.74	2.50	3.10	3.10	2.75	2.56	2.67	2.56	3.60	3.60	3.50				
25	3.31	3.43	3.24	2.67	3.13	2.42	2.67	2.83	2.50	3.10	3.20	3.10	2.56	2.70	2.56	3.65	3.75	3.56				
26	3.36	3.48	3.28	2.67	3.13	2.67	2.67	2.83	2.50	3.10	3.20	3.10	2.57	2.78	2.62	3.65	3.80	3.60				
27	3.38	3.52	3.32	3.13	3.13	2.67	2.67	2.83	2.67	3.10	3.24	3.10	2.67	2.78	2.67	3.70	3.85	3.65				
28	3.42	3.58	3.36	3.13	3.13	2.67	2.67	3.12	2.67	3.20	3.30	3.20	2.67	2.78	2.67	3.71	3.88	3.65				
29	3.47	3.66	3.38	3.13	3.13	2.67	2.67	3.25	2.67	3.20	3.30	3.20	2.67	2.89	2.67	3.75	3.91	3.70				
30	3.49	3.69	3.40	3.13	3.26	3.13	2.83	3.25	2.67	3.20	3.40	3.23	2.67	2.89	2.67	3.77	3.95	3.70				
31	3.51	3.71	3.44	3.13	3.38	3.13	2.83	3.25	2.67	3.30	3.40	3.30	2.67	2.89	2.78	3.82	4.07	3.75				
32	3.54	3.73	3.48	3.25	3.38	3.13	2.83	3.25	2.83	3.30	3.42	3.30	2.67	2.89	2.78	3.85	4.10	3.85				
33	3.59	3.74	3.53	3.25	3.38	3.13	3.25	3.25	2.83	3.30	3.50	3.30	2.78	3.01	2.78	3.85	4.12	3.85				
34	3.64	3.76	3.58	3.25	3.50	3.25	3.25	3.25	3.06	3.30	3.50	3.30	2.78	3.14	2.78	3.90	4.14	3.90				
35	3.65	3.81	3.58	3.38	3.50	3.25	3.25	3.40	3.25	3.40	3.50	3.40	2.78	3.14	2.78	3.90	4.25	3.90				
36	3.69	3.82	3.60	3.38	3.50	3.25	3.25	3.50	3.25	3.40	3.50	3.40	2.78	3.14	2.89	3.95	4.29	3.91				
37	3.71	3.87	3.62	3.50	3.50	3.38	3.25	3.50	3.25	3.40	3.50	3.40	2.78	3.14	2.89	4.05	4.29	4.05				
38	3.71	3.91	3.69	3.50	3.50	3.38	3.50	3.50	3.45	3.40	3.57	3.48	2.89	3.14	2.89	4.05	4.33	4.05				
39	3.75	3.93	3.71	3.50	3.50	3.38	3.50	3.50	3.50	3.40	3.60	3.50	2.89	3.14	2.89	4.10	4.33	4.10				
40	3.78	3.98	3.73	3.50	3.60	3.50	3.50	3.50	3.50	3.50	3.60	3.50	3.14	3.14	2.89	4.10	4.33	4.10				
41	3.82	4.01	3.78	3.50	3.63	3.50	3.75	3.50	3.50	3.50	3.60	3.50	3.14	3.14	2.89	4.14	4.33	4.14				
42	3.84	4.05	3.82	3.55	3.63	3.50	3.75	3.50	3.50	3.50	3.60	3.50	3.14	3.18	2.94	4.16	4.38	4.19				
43	3.87	4.06	3.84	3.63	3.63	3.50	3.75	3.75	3.50	3.60	3.60	3.50	3.14	3.29	3.14	4.19	4.38	4.24				
44	3.89	4.09	3.87	3.63	3.63	3.58	3.75	3.75	3.66	3.60	3.70	3.50	3.14	3.29	3.14	4.24	4.41	4.24				
45	3.93	4.12	3.90	3.63	3.63	3.63	3.75	3.75	3.75	3.60	3.70	3.60	3.29	3.29	3.14	4.24	4.43	4.29				
46	3.96	4.14	3.94	3.75	3.75	3.63	3.75	3.75	3.75	3.60	3.70	3.60	3.29	3.29	3.14	4.29	4.47	4.29				
47	4.02	4.15	4.02	3.75	3.75	3.63	3.75	4.20	3.75	3.60	3.70	3.60	3.29	3.42	3.16	4.33	4.52	4.29				
48	4.03	4.19	4.04	3.88	3.75	3.74	4.20	4.20	3.75	3.70	3.70	3.60	3.29	3.43	3.29	4.38	4.52	4.33				
49	4.09	4.21	4.06	3.88	3.75	3.75	4.20	4.20	3.75	3.70	3.70	3.60	3.43	3.43	3.29	4.38	4.57	4.41				
50	4.12	4.22	4.10	4.13	3.88	3.75	4.20	4.20	3.75	3.70	3.70	3.70	3.43	3.43	3.29	4.43	4.62	4.43				
51	4.14	4.23	4.11	4.13	3.90	3.75	4.20	4.20	4.20	3.70	3.80	3.70	3.43	3.43	3.29	4.43	4.62	4.45				
52	4.18	4.26	4.15	4.13	4.13	3.88	4.20	4.22	4.20	3.70	3.80	3.70	3.43	3.51	3.29	4.48	4.62	4.52				
53	4.21	4.31	4.17	4.13	4.13	3.88	4.25	4.40	4.20	3.70	3.80	3.70	3.57	3.57	3.29	4.48	4.65	4.57				
54	4.23	4.33	4.22	4.13	4.13	3.88	4.40	4.40	4.20	3.80	3.80	3.70	3.57	3.57	3.43	4.52	4.67	4.57				
55	4.25	4.37	4.25	4.25	4.25	4.13	4.40	4.40	4.20	3.80	3.84	3.70	3.57	3.59	3.43	4.52	4.70	4.62				
56	4.27	4.38	4.29	4.25	4.37	4.13	4.40	4.47	4.40	3.80	3.90	3.80	3.57	3.71	3.46	4.54	4.71	4.67				
57	4.29	4.38	4.29	4.32	4.38	4.13	4.40	4.60	4.40	3.80	3.90	3.80	3.71	3.71	3.57							

Twelve

Sample Size		326			119			144														
Percentile	Total Score			ALG			DAT			GEO			ME			NUM						
	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End	Beginning	Middle	End				
1	1.07	1.65	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.33	0.07	0.15	0.66	1.40	1.25				
2	1.47	2.00	1.51	0.00	0.00	0.00	0.28	0.00	0.45	0.20	0.28	0.36	0.67	0.47	0.33	1.30	1.44	1.39				
3	1.80	2.14	1.64	0.00	0.00	0.00	0.50	0.00	0.50	0.20	0.40	0.40	0.67	0.67	0.45	1.67	1.50	1.50				
4	1.96	2.24	1.74	0.06	0.00	0.00	0.59	0.42	0.50	0.40	0.57	0.40	1.33	1.20	0.67	1.82	2.00	1.50				
5	2.08	2.25	1.86	0.50	0.50	0.13	1.25	0.54	1.25	0.40	0.61	0.65	1.45	1.67	0.84	2.10	2.31	1.53				
6	2.18	2.33	1.92	0.50	0.50	0.50	1.25	1.32	1.25	0.60	0.80	1.12	1.67	1.76	1.33	2.37	2.40	1.74				
7	2.21	2.36	2.11	0.50	0.50	0.50	1.25	1.50	1.25	1.25	0.80	1.25	1.67	2.11	1.67	2.60	2.49	1.80				
8	2.33	2.36	2.18	0.50	0.50	0.50	1.50	1.50	1.40	1.25	0.80	1.40	2.11	2.18	1.93	2.63	2.67	1.86				
9	2.48	2.38	2.21	1.25	1.17	0.54	1.50	1.50	1.50	1.50	0.80	1.50	2.16	2.22	2.12	2.70	2.79	1.90				
10	2.57	2.46	2.29	1.25	1.25	1.25	1.50	1.75	1.50	1.75	1.53	1.50	2.22	2.22	2.22	2.89	2.83	2.00				
11	2.64	2.48	2.39	1.25	1.25	1.25	1.75	1.75	1.50	1.75	1.75	1.74	2.33	2.22	2.22	3.06	3.05	2.39				
12	2.72	2.55	2.46	1.34	1.38	1.25	1.75	1.75	1.60	2.25	1.75	1.75	2.33	2.22	2.26	3.12	3.08	2.50				
13	2.83	2.61	2.53	1.50	1.50	1.46	2.17	2.06	1.75	2.25	2.12	1.75	2.44	2.22	2.33	3.20	3.14	2.59				
14	3.02	2.84	2.62	1.50	1.50	1.50	2.17	2.17	1.75	2.27	2.25	2.25	2.44	2.31	2.44	3.20	3.15	2.76				
15	3.11	2.89	2.78	1.50	1.50	1.50	2.17	2.17	1.75	2.50	2.50	2.25	2.56	2.33	2.44	3.30	3.20	3.01				
16	3.15	3.07	2.87	1.75	1.59	1.75	2.25	2.17	1.75	2.50	2.50	2.30	2.56	2.46	2.44	3.35	3.24	3.06				
17	3.20	3.09	2.92	2.33	1.75	1.75	2.33	2.17	1.75	2.50	2.50	2.50	2.56	2.56	2.52	3.40	3.33	3.17				
18	3.24	3.09	2.96	2.33	1.75	1.75	2.33	2.29	2.17	2.75	2.70	2.50	2.56	2.56	2.56	3.55	3.39	3.25				
19	3.27	3.18	2.99	2.33	2.32	2.07	2.33	2.33	2.17	2.75	3.10	2.64	2.56	2.56	2.56	3.55	3.40	3.28				
20	3.31	3.20	3.04	2.33	2.33	2.33	2.33	2.36	2.17	2.75	3.12	2.75	2.67	2.67	2.56	3.55	3.50	3.35				
21	3.35	3.23	3.12	2.67	2.33	2.33	2.50	2.50	2.24	3.10	3.20	3.10	2.67	2.67	2.56	3.60	3.50	3.37				
22	3.38	3.29	3.19	3.13	2.54	2.64	2.50	2.50	2.33	3.10	3.20	3.10	2.67	2.71	2.66	3.65	3.56	3.40				
23	3.42	3.34	3.22	3.13	2.67	2.67	2.50	2.50	2.33	3.20	3.20	3.10	2.67	2.78	2.67	3.70	3.68	3.47				
24	3.45	3.41	3.22	3.13	3.13	2.67	2.67	2.50	2.33	3.20	3.20	3.18	2.67	2.78	2.67	3.75	3.75	3.50				
25	3.49	3.56	3.31	3.25	3.13	2.67	2.67	2.50	2.50	3.20	3.20	3.20	2.78	2.78	2.67	3.80	3.80	3.51				
26	3.53	3.56	3.32	3.25	3.13	2.99	2.67	2.58	2.50	3.25	3.25	3.20	2.78	2.78	2.75	3.85	3.82	3.55				
27	3.61	3.58	3.34	3.32	3.13	3.13	2.83	2.78	2.67	3.30	3.30	3.20	2.78	2.78	2.78	3.85	3.85	3.55				
28	3.64	3.59	3.40	3.38	3.13	3.13	2.83	2.83	2.67	3.30	3.30	3.20	2.78	2.78	2.78	3.90	3.94	3.58				
29	3.71	3.62	3.44	3.38	3.13	3.13	2.83	2.83	2.67	3.30	3.30	3.20	2.78	2.78	2.78	3.90	3.96	3.60				
30	3.76	3.71	3.49	3.38	3.17	3.13	3.25	2.83	2.75	3.40	3.30	3.20	2.89	2.89	2.78	3.90	4.05	3.60				
31	3.80	3.82	3.51	3.46	3.25	3.13	3.25	2.83	2.83	3.40	3.30	3.30	2.89	2.89	2.78	3.95	4.08	3.65				
32	3.80	3.84	3.53	3.50	3.34	3.13	3.25	3.13	2.83	3.40	3.37	3.30	2.89	2.89	2.82	4.05	4.13	3.77				
33	3.84	3.87	3.57	3.50	3.38	3.23	3.50	3.25	2.83	3.46	3.40	3.30	2.89	2.89	2.89	4.05	4.19	3.80				
34	3.91	3.87	3.63	3.50	3.50	3.25	3.50	3.25	2.83	3.50	3.40	3.30	2.89	2.89	2.89	4.10	4.19	3.88				
35	3.92	3.91	3.64	3.60	3.55	3.25	3.50	3.34	3.15	3.50	3.44	3.38	2.89	3.14	2.89	4.19	4.19	4.03				
36	3.95	3.91	3.67	3.63	3.63	3.28	3.50	3.50	3.25	3.50	3.50	3.40	3.07	3.14	3.14	4.19	4.19	4.06				
37	3.98	3.94	3.69	3.63	3.63	3.38	3.75	3.50	3.25	3.57	3.50	3.40	3.14	3.14	3.14	4.24	4.23	4.10				
38	4.02	3.97	3.76	3.63	3.63	3.50	3.75	3.50	3.28	3.60	3.50	3.40	3.14	3.14	3.14	4.24	4.24	4.10				
39	4.05	4.01	3.78	3.63	3.65	3.50	3.75	3.55	3.50	3.60	3.52	3.46	3.14	3.14	3.14	4.29	4.25	4.10				
40	4.06	4.02	3.82	3.75	3.80	3.50	3.75	3.75	3.50	3.60	3.60	3.50	3.14	3.29	3.14	4.33	4.29	4.14				
41	4.08	4.05	3.83	3.75	3.88	3.56	3.75	3.75	3.50	3.60	3.60	3.50	3.14	3.32	3.29	4.33	4.34	4.16				
42	4.09	4.08	3.84	3.88	3.88	3.63	3.75	3.75	3.50	3.70	3.60	3.50	3.29	3.43	3.29	4.33	4.38	4.19				
43	4.12	4.08	3.90	3.88	4.13	3.75	3.75	3.75	3.59	3.70	3.60	3.50	3.29	3.43	3.29	4.38	4.48	4.24				
44	4.15	4.10	3.91	3.88	4.13	3.85	3.75	3.86	3.75	3.70	3.62	3.58	3.29	3.43	3.29	4.42	4.52	4.24				
45	4.15	4.12	3.92	3.88	4.13	3.88	4.20	4.20	3.75	3.70	3.70	3.60	3.29	3.43	3.29	4.43	4.54	4.30				
46	4.17	4.12	3.93	3.88	4.13	3.88	4.20	4.20	3.75	3.73	3.70	3.60	3.29	3.57	3.39	4.48	4.57	4.33				
47	4.19	4.15	3.96	4.13	4.13	4.13	4.20	4.20	3.82	3.80	3.70	3.60	3.39	3.57	3.43	4.48	4.61	4.33				
48	4.21	4.18	4.03	4.13	4.25	4.13	4.20	4.20	4.20	3.80	3.71	3.60	3.43	3.57	3.43	4.52	4.62	4.36				
49	4.21	4.21	4.08	4.25	4.25	4.25	4.20	4.26	4.20	3.80	3.80	3.70	3.43	3.68	3.57	4.52	4.67	4.38				
50	4.23	4.25	4.09	4.25	4.25	4.25	4.40	4.40	4.20	3.80	3.80	3.70	3.57	3.71	3.57	4.55	4.67	4.41				
51	4.25	4.31	4.13	4.38	4.25	4.25	4.40	4.54	4.20	3.80	3.80	3.70	3.57	3.71	3.57	4.57	4.70	4.48				
52	4.27	4.32	4.14	4.38	4.25	4.38	4.40	4.60	4.20	3.81	3.80	3.70	3.57	3.71	3.63	4.62	4.71	4.50				
53	4.31	4.33	4.17	4.48	4.38	4.38	4.40	4.60	4.37	3.90	3.81	3.70	3.61	3.71	3.71	4.67	4.76	4.52				
54	4.32	4.35	4.21	4.50	4.42	4.38	4.40	4.60	4.40	3.90	3.90	3.70	3.71	3.71	3.71	4.71	4.76	4.57				
55	4.35	4.38	4.25	4.55	4.50	4.38	4.60	4.60	4.40	3.90	3.90	3.70	3.71	3.86	3.71	4.71	4.76	4.57				
56	4.35	4.40	4.31	4.63	4.50	4.50	4.60	4.60	4.40	4.08	4.04	3.72	3.71	3.91	3.71	4.76	4.80	4.57				
57	4.39	4.41	4.31	4.63	4.50	4.50	4.60	4.60	4.53	4.08	4.08	3.80	3.86	4.11	3.71	4						