

**STAAR
2012 Score Distributions
and Statistics
by Content Area
and Grade**

Glossary

This glossary provides definitions for the statistical terms that appear in the tables and graphs in this section (“STAAR 2012 Score Distributions and Statistics by Content Area and Grade”) of Appendix B. Definition of statistical terms and concepts in the other sections are given in chapter 3 or chapter 4.

Descriptive Statistics

Mean. The mean is a measure of central tendency. It is the average score for the assessment. It is computed by summing the scores of all students and dividing it by the total number of students (N).

Median. The median is another measure of central tendency. It is the score at the middle of the frequency distribution for the assessment. It is computed by finding the score at which there is the same number of scores above as there is below.

Mode. The median is another measure of central tendency. It is the most frequently obtained score for the assessment. It is determined by computing the frequency distribution and finding the score point with the highest frequency (n-count).

Range. The range is a measure of statistical dispersion (variability or spread). It is the difference between the lowest and highest scores obtained by students on the assessment. It is computed by subtracting the lowest score from the highest score.

Interquartile Range. The interquartile range is another measure of statistical dispersion (variability or spread). It is the difference between the 1st and 3rd quartiles (or 25th and 75th percentile) of the score distribution for the assessment. It is computed by subtracting the score at the 1st quartile (the point that splits the lowest 25% of the scores) from the score at the 3rd quartile (the point that splits the highest 25% of the scores).

Standard Deviation (SD). The standard deviation is another measure of statistical dispersion (variability or spread). It is an indicator of the degree of score variation around the mean. It is computed using the following formula.

$$SD = \sqrt{\frac{\sum_{i=1}^N (x_i - \bar{x})^2}{N - 1}}$$

where x_i is the score for student i , $\bar{x}$ is the mean score and N is the total number of students that took the assessment.

Variance. The variance is another measure of statistical dispersion (variability or spread) around the mean. It is computed as the square of the standard deviation (SD).

Skewness. The skewness is an indicator of the shape of the score distribution. It measures the extent to which the score distribution “leans” to one side of the mean. A positive skewness indicates that the score distribution leans below the mean. A negative skewness indicates that the score distribution leans above the mean. A skewness of zero indicates that the score distribution is symmetric around the mean. It is computed using the following formula.

$$Skewness = \frac{N}{(N-1)(N-2)} \sum_{i=1}^N \left(\frac{x_i - \bar{x}}{s_x} \right)^3$$

where x_i is the score for student i , $\bar{x}$ is the mean score, s_x is the standard deviation (SD) and N is the total number of students that took the assessment.

Kurtosis. The kurtosis is another indicator of the shape of the score distribution. It measures the “peakedness” of the score distribution. A positive kurtosis is referred to as *leptokurtic*, meaning that the distribution has a more acute peak around the mean and fatter tails. A negative kurtosis is called *platykurtic*, meaning the distribution has a lower, wider peak around the mean and thinner tails. It is computed using the following formula.

$$Kurtosis = \frac{N(N+1)}{(N-1)(N-2)(N-3)} \sum_{i=1}^N \left(\frac{x_i - \bar{x}}{s_x} \right)^4 - \frac{3(N-1)^2}{(N-2)(N-3)}$$

where x_i is the score for student i , $\bar{x}$ is the mean score, s_x is the standard deviation (SD) and N is the total number of students that took the assessment.

Frequency Distributions

Frequency (FREQ). This is the number of students that obtained the particular score point on the assessment.

Cumulative Frequency (CUM FREQ). This is the number of students that obtained a score that is less than or equal to the particular score point on the assessment.

Percentage (PCT). This is the percentage of students that obtained the particular score point on the assessment. It is computed as: $PCT = FREQ \div N \times 100$.

Cumulative Percentage (CUM PCT). This is the percentage of students that obtained a score that is less than or equal to the particular score point on the assessment. It is computed as: $CUM PCT = CUM FREQ \div N \times 100$.

Scale Score Descriptive Statistics for 2012 STAAR English 3–8 Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile Range	SD	Variance	Skewness	Kurtosis
GRADE 3 READING	327936	1426.59	1421	1503	1175	192	137.81	18990.24	0.3726	0.3421
GRADE 4 READING	334484	1515.89	1520	1580	1185	175	127.69	16304.97	0.2516	0.3523
GRADE 5 READING	348806	1545.20	1539	1612	1206	172	123.88	15347.03	0.3461	0.5439
GRADE 6 READING	354387	1589.88	1588	1660	1211	180	125.09	15648.23	0.3823	0.4402
GRADE 7 READING	347911	1638.89	1642	1722	1193	166	118.12	13951.17	0.2058	0.3522
GRADE 8 READING	340860	1672.20	1675	1773	1221	165	125.49	15747.26	0.1069	0.4386
GRADE 3 MATHEMATICS	337305	1457.24	1448	1548	1172	190	137.89	19014.70	0.4365	0.4426
GRADE 4 MATHEMATICS	346249	1532.70	1526	1564	1178	167	128.58	16533.49	0.5502	0.8252
GRADE 5 MATHEMATICS	353030	1585.43	1576	1672	1174	183	137.92	19023.25	0.6194	0.7883
GRADE 6 MATHEMATICS	344977	1620.51	1599	1509	1190	200	149.32	22296.02	0.6566	0.5040
GRADE 7 MATHEMATICS	323015	1628.62	1608	1545	1200	170	127.21	16183.17	0.7958	1.1665
GRADE 8 MATHEMATICS	312342	1664.14	1652	1583	1197	151	117.99	13921.91	0.6848	1.3746
GRADE 5 SCIENCE	354628	3779.13	3750	4000	4626	628	499.03	249027.33	0.5716	0.7943
GRADE 8 SCIENCE	336661	3782.96	3750	3882	5667	657	501.20	251197.10	0.4178	0.7013
GRADE 8 SOCIAL STUDIES	336762	3657.57	3602	3252	4936	678	499.83	249834.20	0.6864	0.6764
GRADE 4 WRITING	332417	3773.11	3794	3867	5729	653	502.29	252291.96	0.2845	0.4772
GRADE 7 WRITING	347294	3791.83	3773	3750	5981	668	505.35	255380.57	0.5727	1.3431

Scale Score Descriptive Statistics for 2012 STAAR Spanish 3–5 Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile Range	SD	Variance	Skewness	Kurtosis
GRADE 3 READING	36318	1359.53	1345	1304	1371	188	139.36	19422.32	0.5728	0.6303
GRADE 4 READING	23249	1442.06	1430	1458	1400	204	141.97	20154.12	0.4068	0.5440
GRADE 5 READING	9986	1511.54	1515	1552	1090	192	134.75	18158.29	0.2952	0.0711
GRADE 3 MATHEMATICS	19859	1410.94	1402	1436	1172	161	125.12	15656.04	0.4347	0.8605
GRADE 4 MATHEMATICS	10824	1484.58	1471	1482	1178	152	119.90	14375.95	0.5547	1.2718
GRADE 5 MATHEMATICS	3631	1486.55	1475	1405	1174	153	118.09	13945.27	0.6757	1.0815
GRADE 5 SCIENCE	4064	3393.24	3393	3345	3319	534	401.95	161566.01	0.3814	0.5221
GRADE 4 WRITING	24453	3655.55	3633	3633	5994	702	498.80	248801.74	0.1687	0.1079

Scale Score Descriptive Statistics for 2012 STAAR EOC Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile Range	SD	Variance	Skewness	Kurtosis
ENGLISH I - READING	334831	1972.36	1950	2000	2790	274	229.31	52584.21	0.3875	1.9895
ENGLISH I - WRITING	334951	1910.75	1899	1899	2797	333	261.34	68296.14	0.5481	1.4034
ENGLISH II - READING	27514	1937.42	1950	2114	2938	415	291.43	84933.45	0.0302	0.6551
ENGLISH II - WRITING	27899	1839.12	1823	1965	2526	337	250.72	62862.97	0.1989	1.2261
ENGLISH III - READING	42340	1872.29	1848	1608	2860	344	249.15	62075.37	0.2193	1.2447
ENGLISH III - WRITING	43071	1825.02	1819	1804	2307	263	208.76	43581.35	0.1898	1.8507
ALGEBRA I	333527	3903.17	3861	3861	4712	583	446.18	199072.68	0.6355	1.1976
GEOMETRY	84278	4308.94	4250	4397	4829	598	474.90	225527.19	0.6551	1.2158
ALGEBRA II	37953	3773.09	3652	3375	5221	671	572.02	327207.73	1.1158	2.4669
BIOLOGY	319022	3927.42	3875	3801	4866	572	427.80	183014.55	0.7551	1.4768
CHEMISTRY	48141	3589.44	3500	3280	5542	642	472.58	223327.98	0.5816	1.1977
PHYSICS	56680	3657.88	3608	3420	5370	601	452.66	204905.16	0.7014	1.5886
WORLD GEOGRAPHY	320925	3893.96	3870	4000	5185	610	443.11	196343.44	0.3743	0.5259
WORLD HISTORY	28623	3458.35	3404	3078	6635	672	518.98	269336.58	0.6350	1.4786
U.S. HISTORY	40680	3658.92	3618	3420	5575	575	458.88	210566.74	0.1865	3.8677

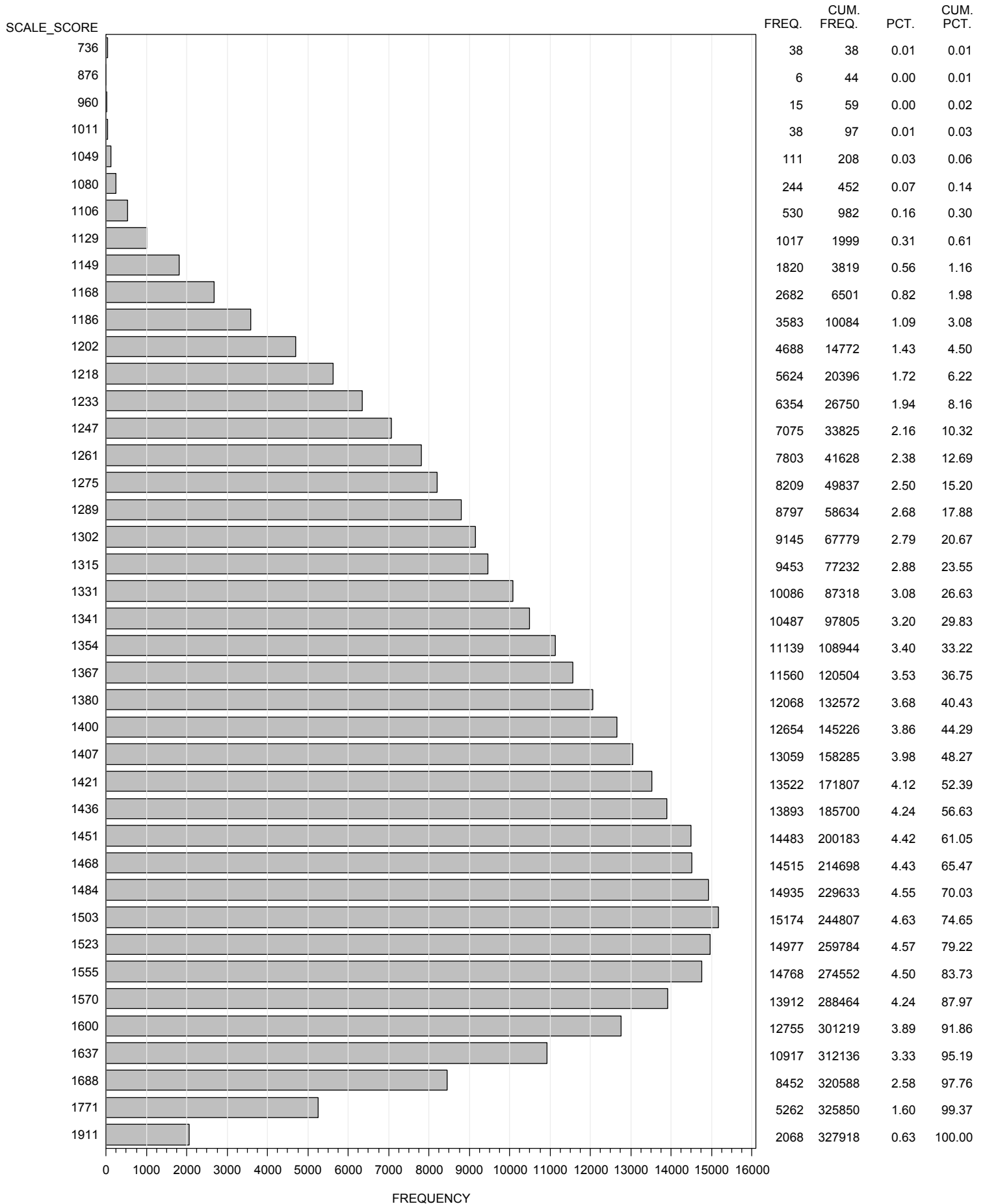
Scale Score Descriptive Statistics for 2012 STAAR L 3–8 Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile Range	SD	Variance	Skewness	Kurtosis
GRADE 3 MATHEMATICS	8653	1377.38	1369	1325	1172	145	110.85	12287.78	0.3622	1.1101
GRADE 4 MATHEMATICS	2007	1441.26	1430	1344	1178	182	129.44	16753.97	0.5224	1.3388
GRADE 5 MATHEMATICS	2073	1473.90	1465	1336	1174	185	133.00	17689.24	0.2945	1.1992
GRADE 6 MATHEMATICS	4059	1496.25	1464	1406	1190	155	126.66	16042.62	1.1999	2.6068
GRADE 7 MATHEMATICS	4377	1517.21	1495	1474	1065	113	104.54	10927.78	0.9373	2.3299
GRADE 8 MATHEMATICS	4348	1565.89	1545	1492	1197	125	106.03	11242.36	0.9547	2.9263
GRADE 5 SCIENCE	2310	3179.99	3116	2834	4626	666	473.12	223838.30	0.3103	1.4064
GRADE 8 SCIENCE	4685	3175.22	3127	2933	4662	458	394.38	155538.94	0.3576	2.9756
GRADE 8 SOCIAL STUDIES	4703	3143.60	3125	3032	3826	269	275.81	76069.78	0.7163	5.6362

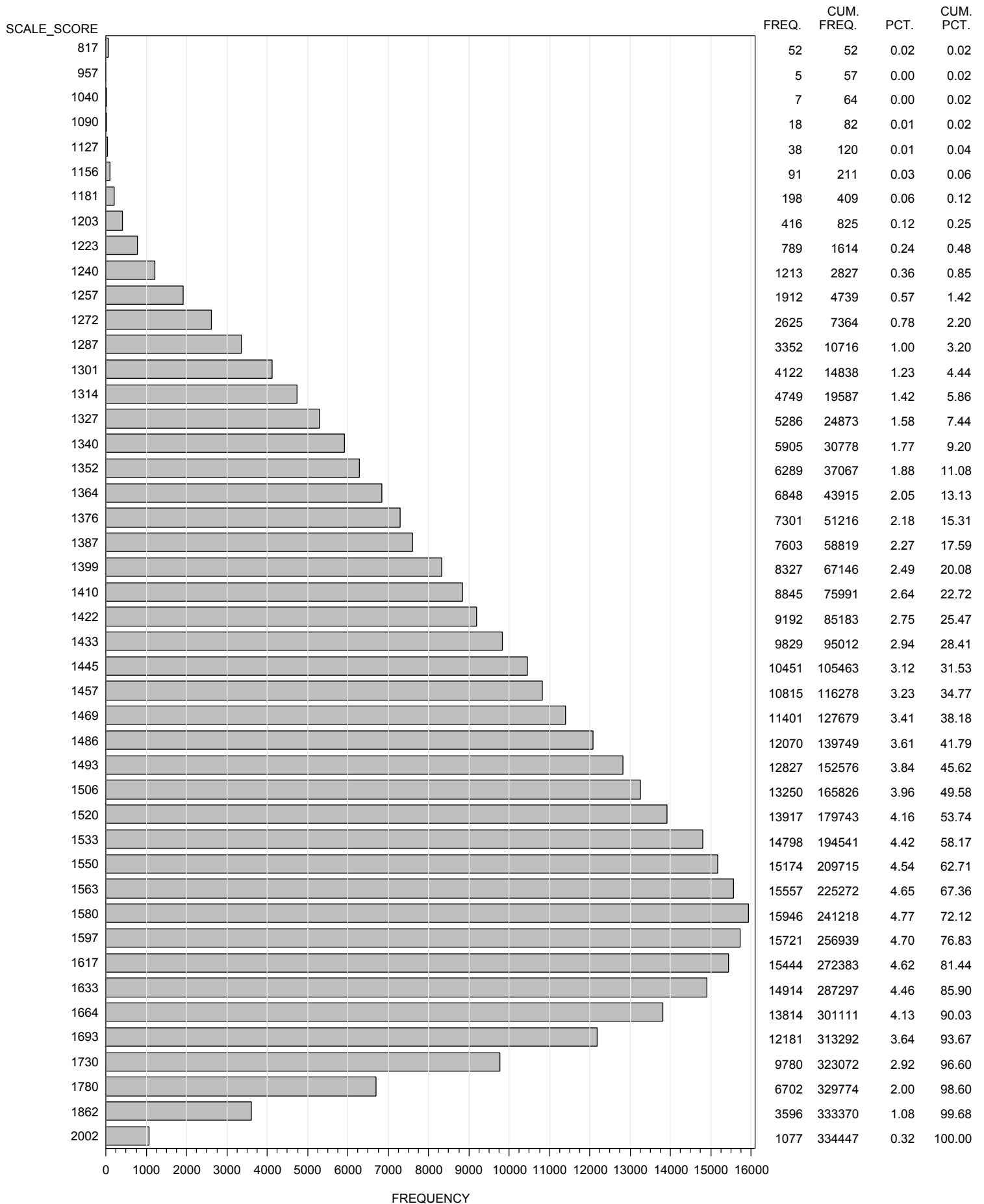
Scale Score Descriptive Statistics for 2012 STAAR L EOC Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile Range	SD	Variance	Skewness	Kurtosis
ALGEBRA I	5183	3526.03	3428	3304	4174	461	385.33	148479.56	0.8357	2.7545
GEOMETRY	116	3658.58	3540	3217	2018	626	444.77	197818.80	0.9137	0.4926
ALGEBRA II	36	3457.06	3424	3375	1218	283	235.39	55409.20	0.7815	1.6868
BIOLOGY	4210	3453.29	3422	3381	3651	285	261.67	68468.59	0.3810	4.4182
CHEMISTRY	17	3185.18	3176	3329	1139	424	340.25	115773.40	-0.2226	-0.5342
PHYSICS	14	3401.79	3420	2955	1086	442	321.05	103074.64	-0.1854	-0.6105
WORLD GEOGRAPHY	4893	3328.07	3270	3237	3733	352	305.77	93495.36	0.1721	6.0439
WORLD HISTORY	147	3154.93	3127	2869	2572	490	400.82	160657.10	0.5178	1.0919
U.S. HISTORY	49	3511.35	3520	3520	1031	230	213.58	45614.69	-1.0710	1.7733

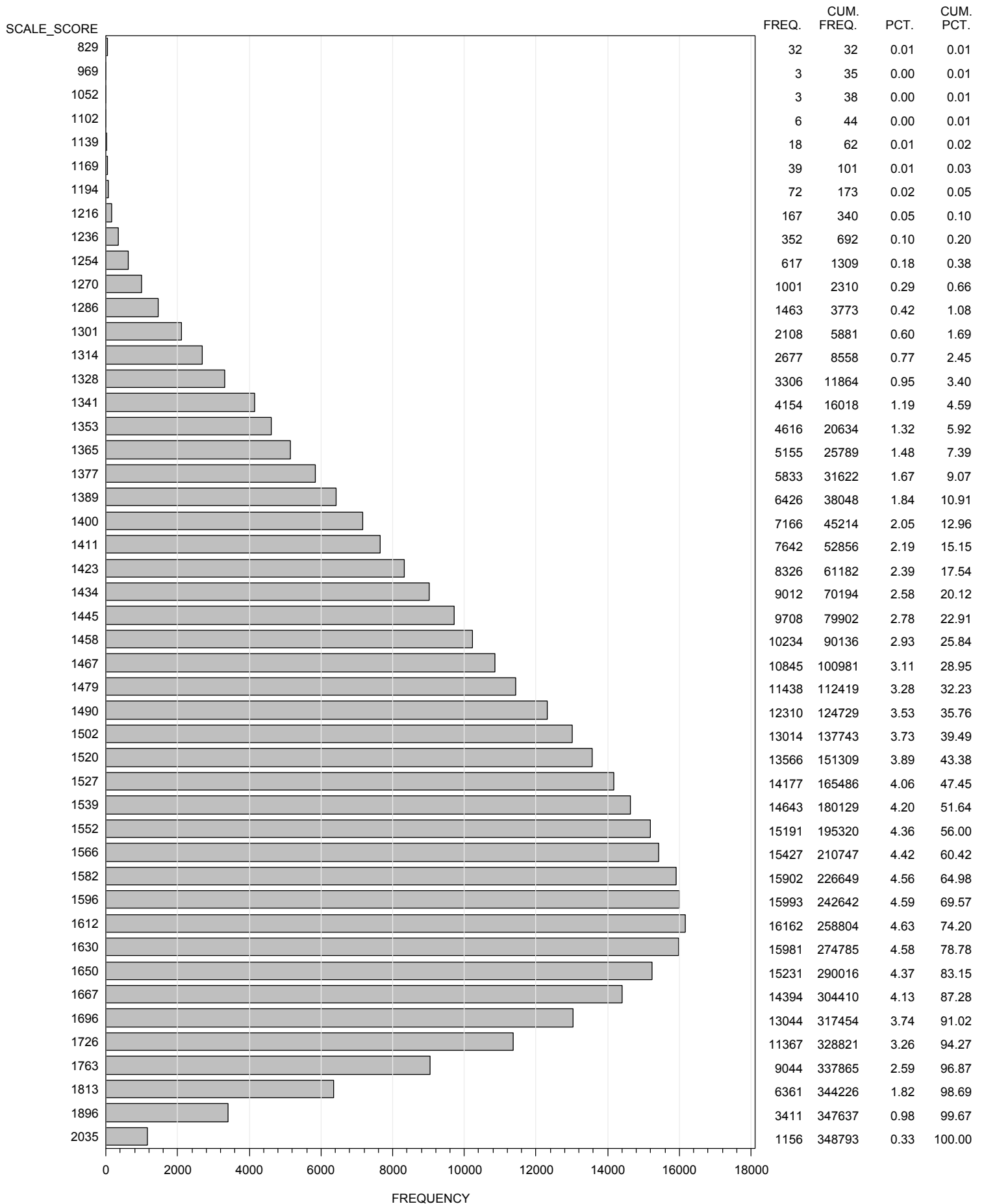
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 3 READING
ALL STUDENTS - EXCLUDING BRAILLE



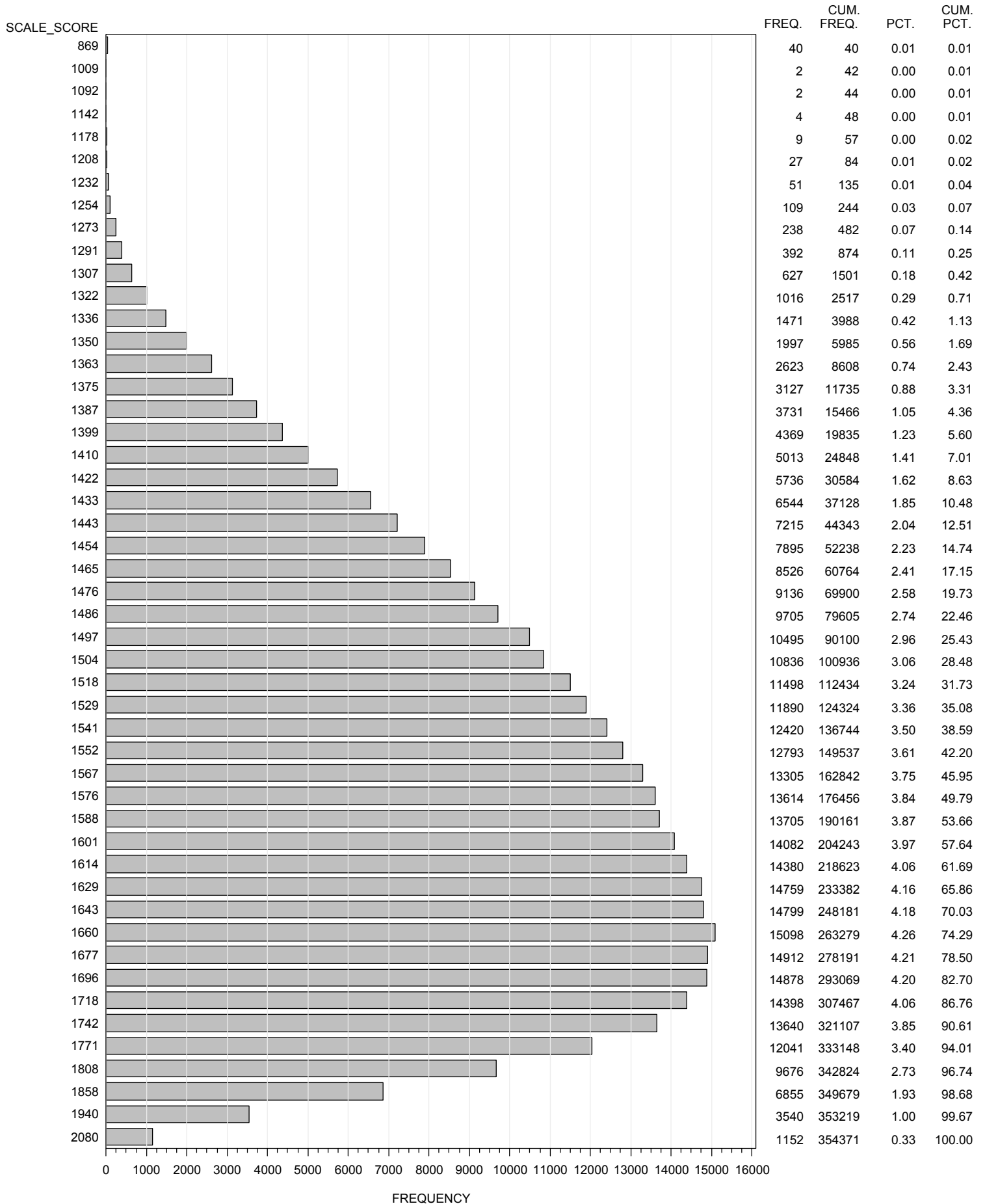
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 4 READING
ALL STUDENTS - EXCLUDING BRAILLE



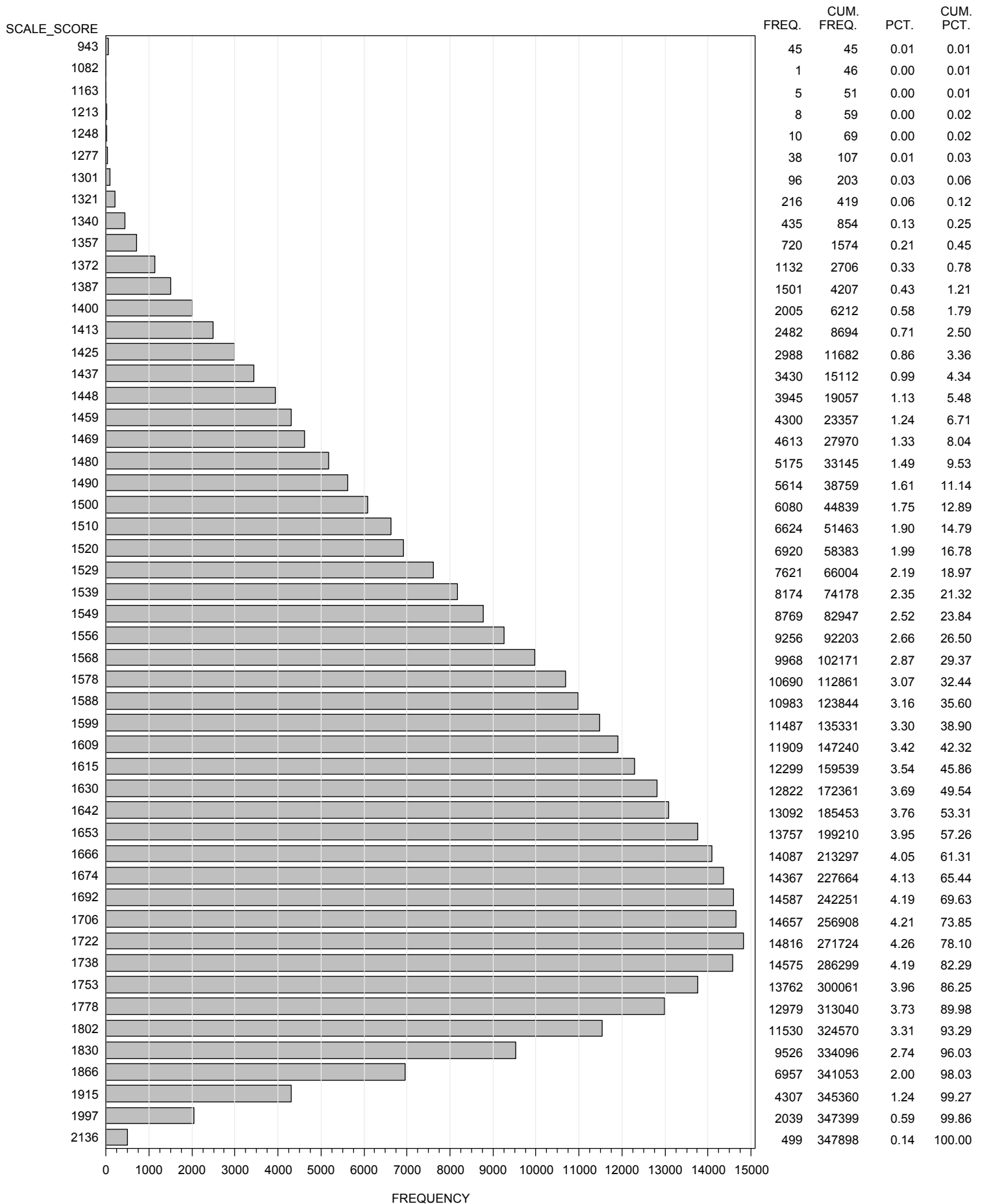
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 5 READING
ALL STUDENTS - EXCLUDING BRAILLE



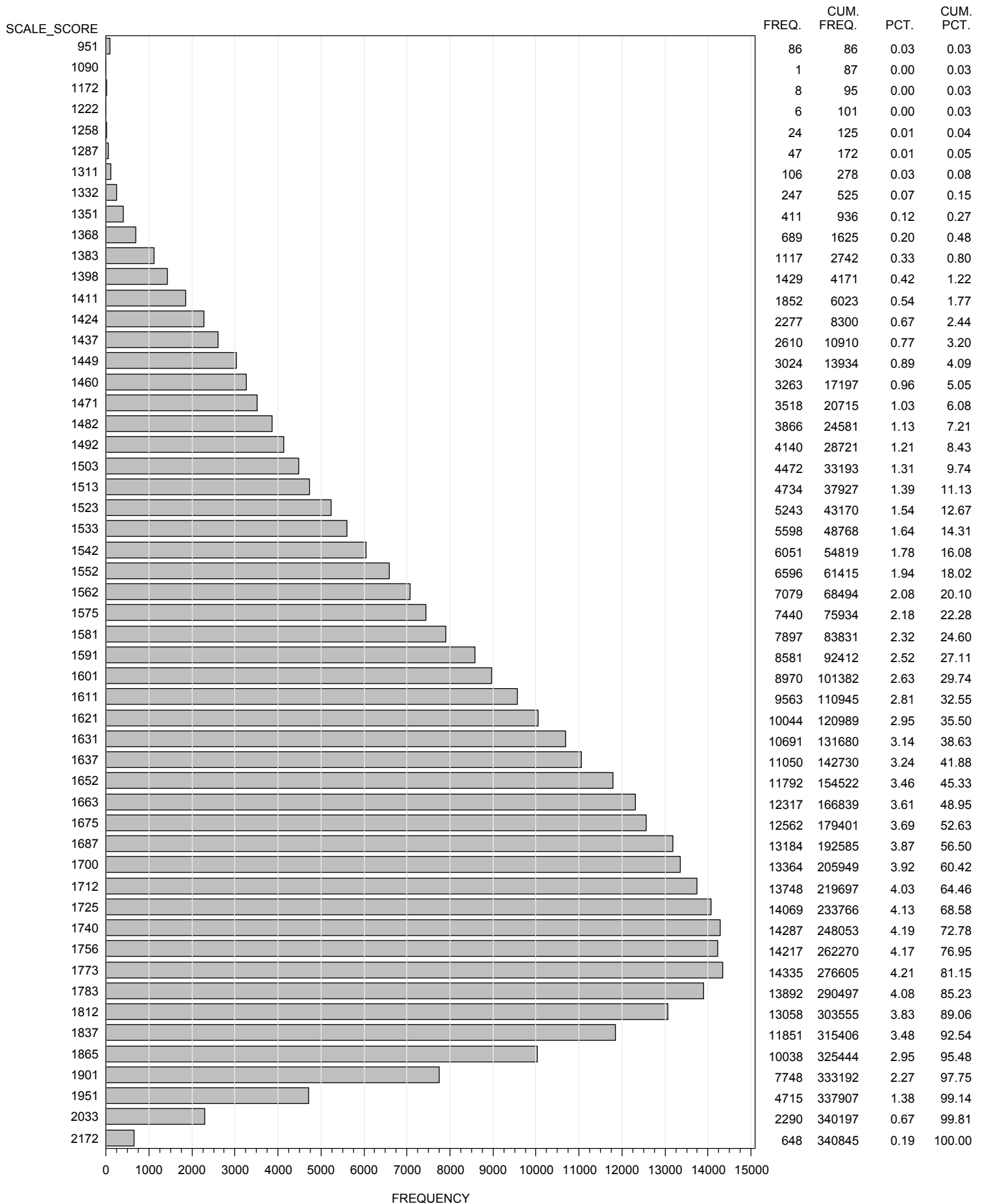
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 6 READING
ALL STUDENTS - EXCLUDING BRAILLE



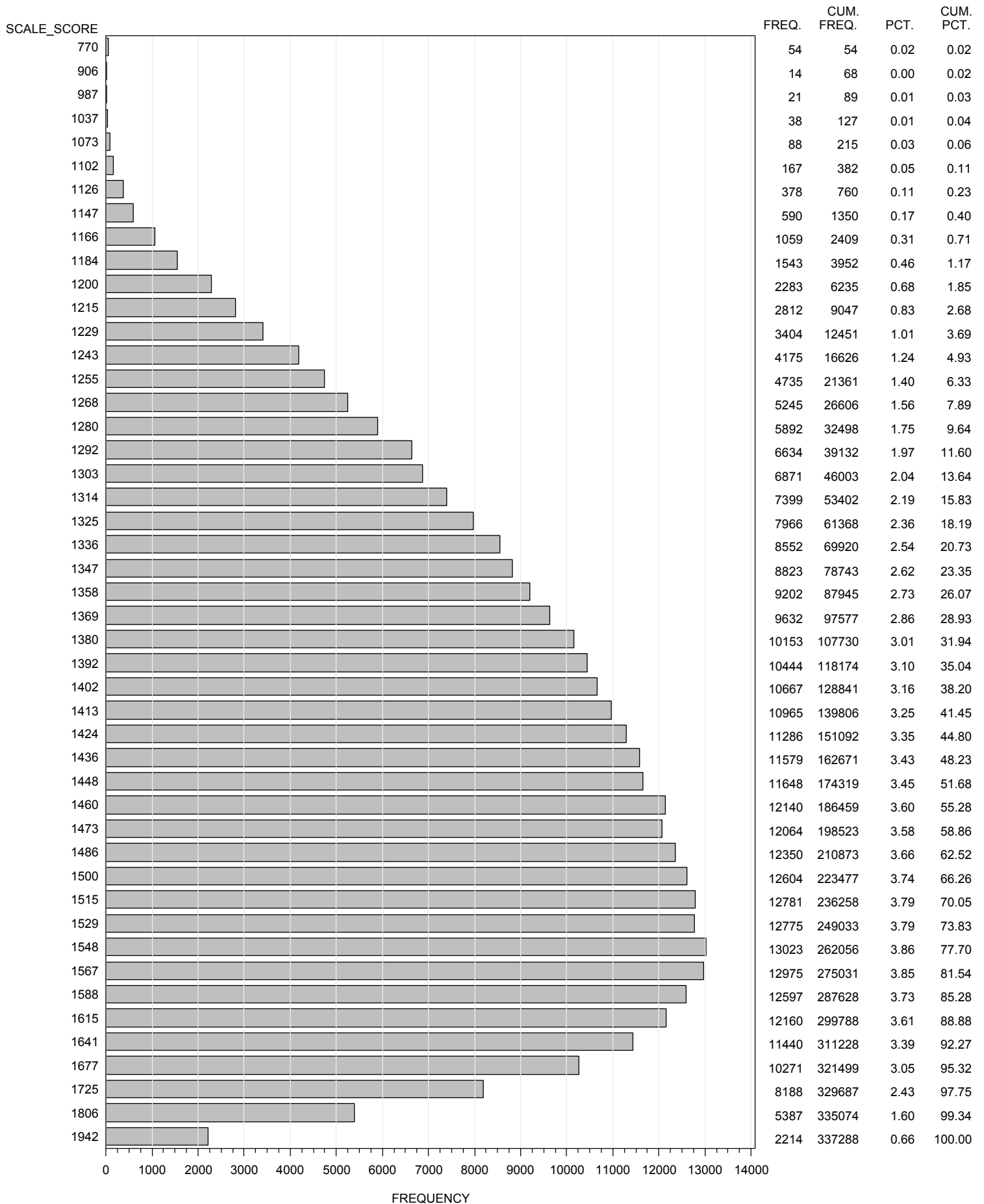
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 7 READING
ALL STUDENTS - EXCLUDING BRAILLE



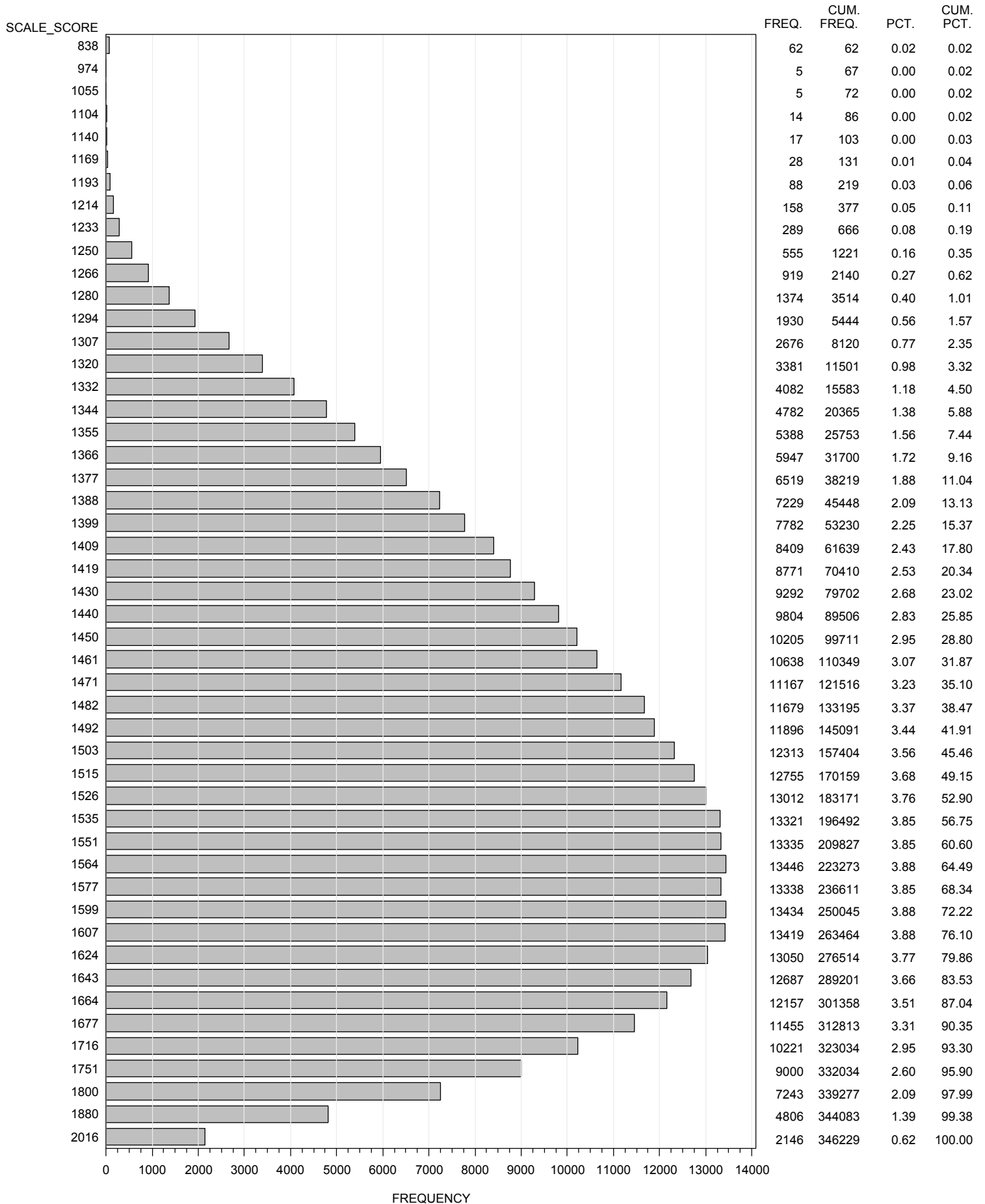
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 8 READING
ALL STUDENTS - EXCLUDING BRAILLE



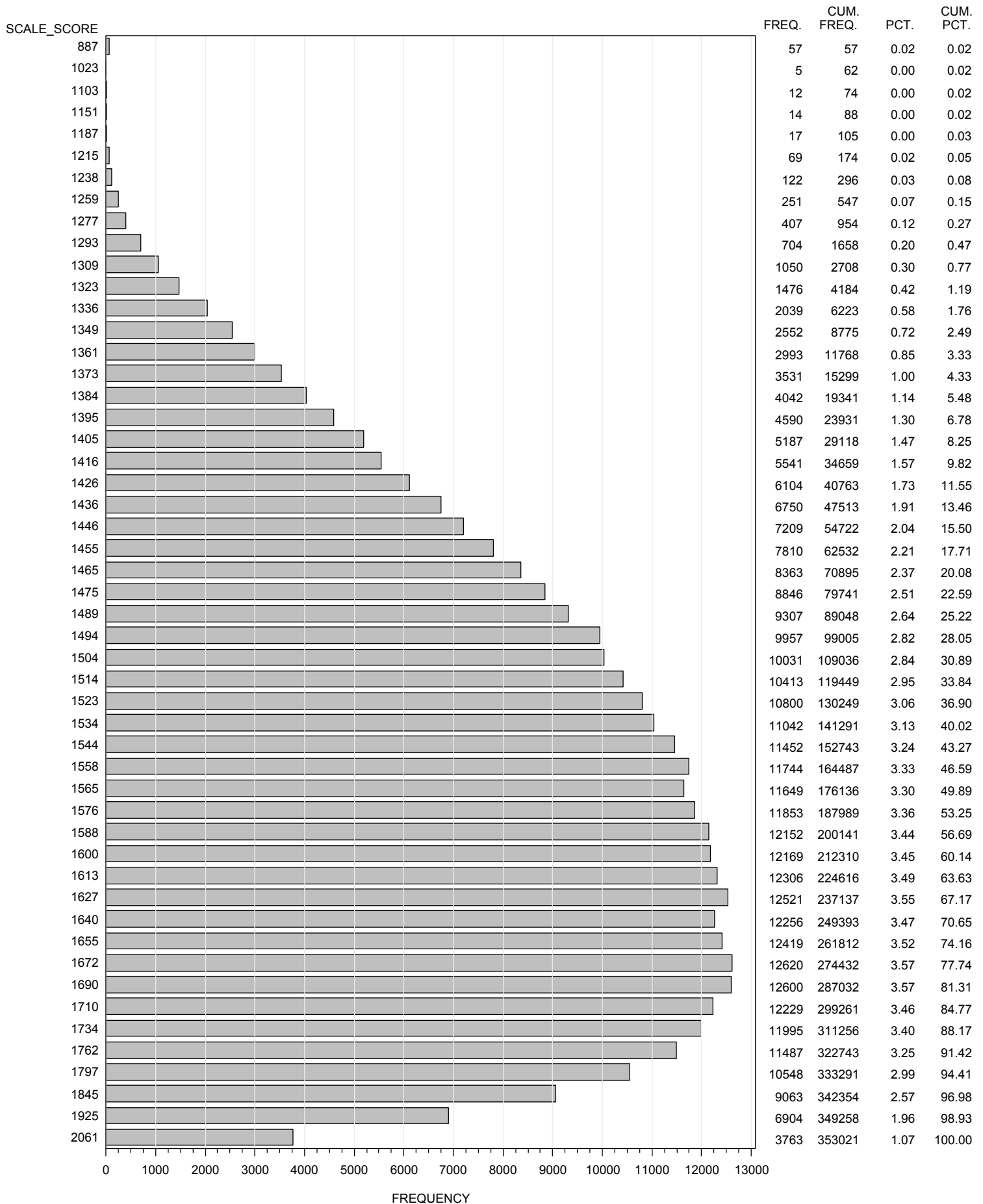
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 3 MATHEMATICS
ALL STUDENTS - EXCLUDING BRAILLE



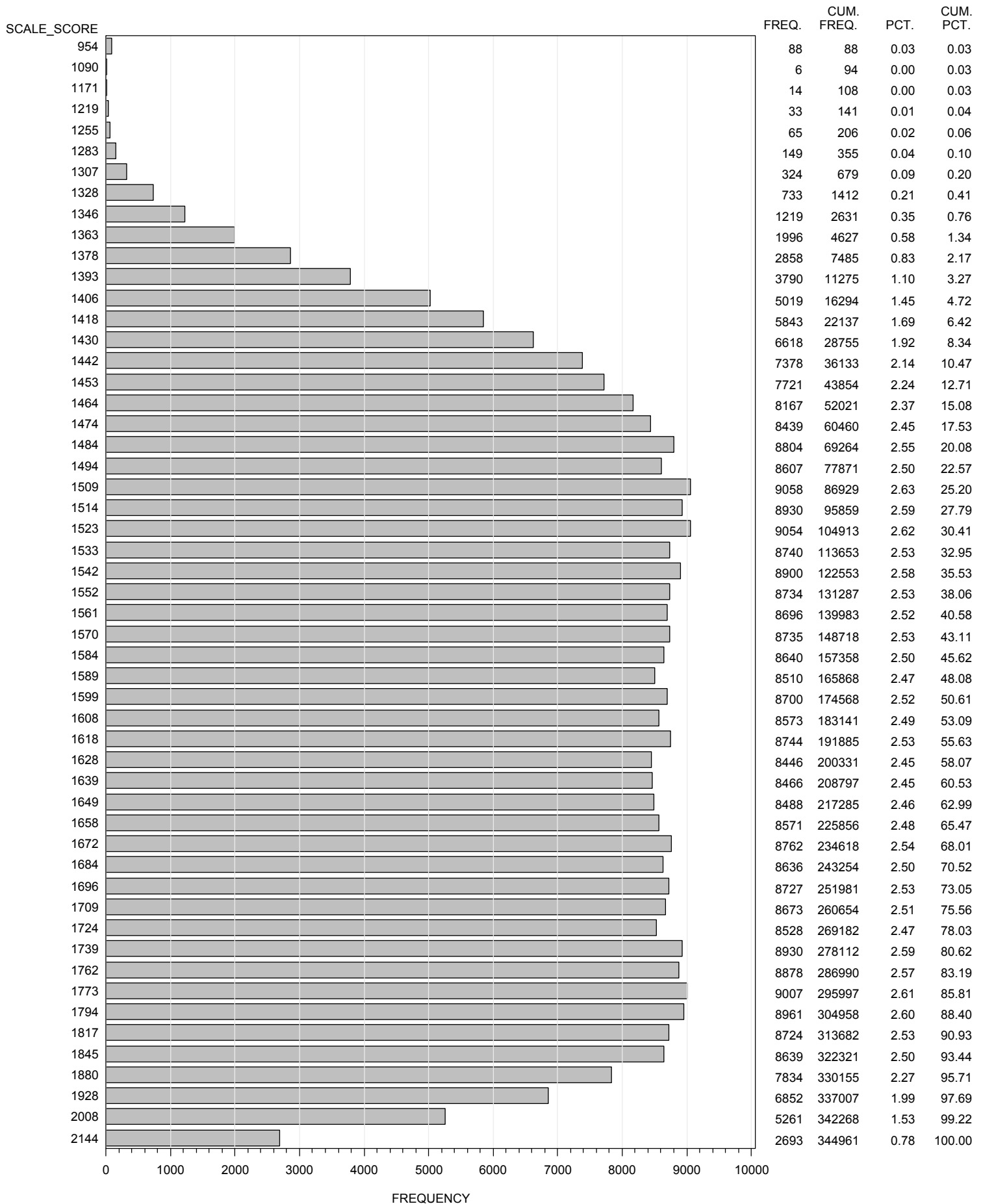
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 4 MATHEMATICS
ALL STUDENTS - EXCLUDING BRAILLE



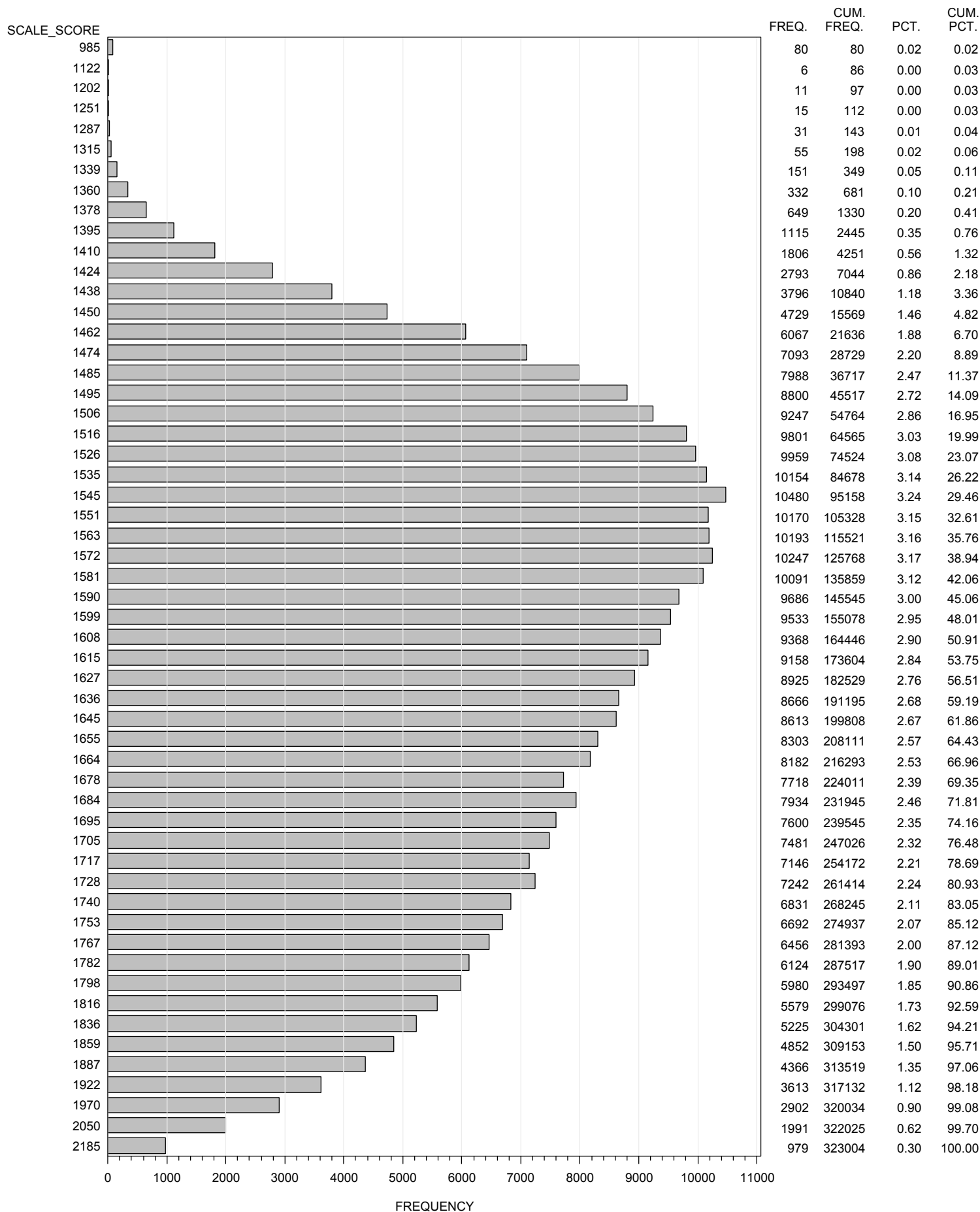
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 5 MATHEMATICS
ALL STUDENTS - EXCLUDING BRAILLE



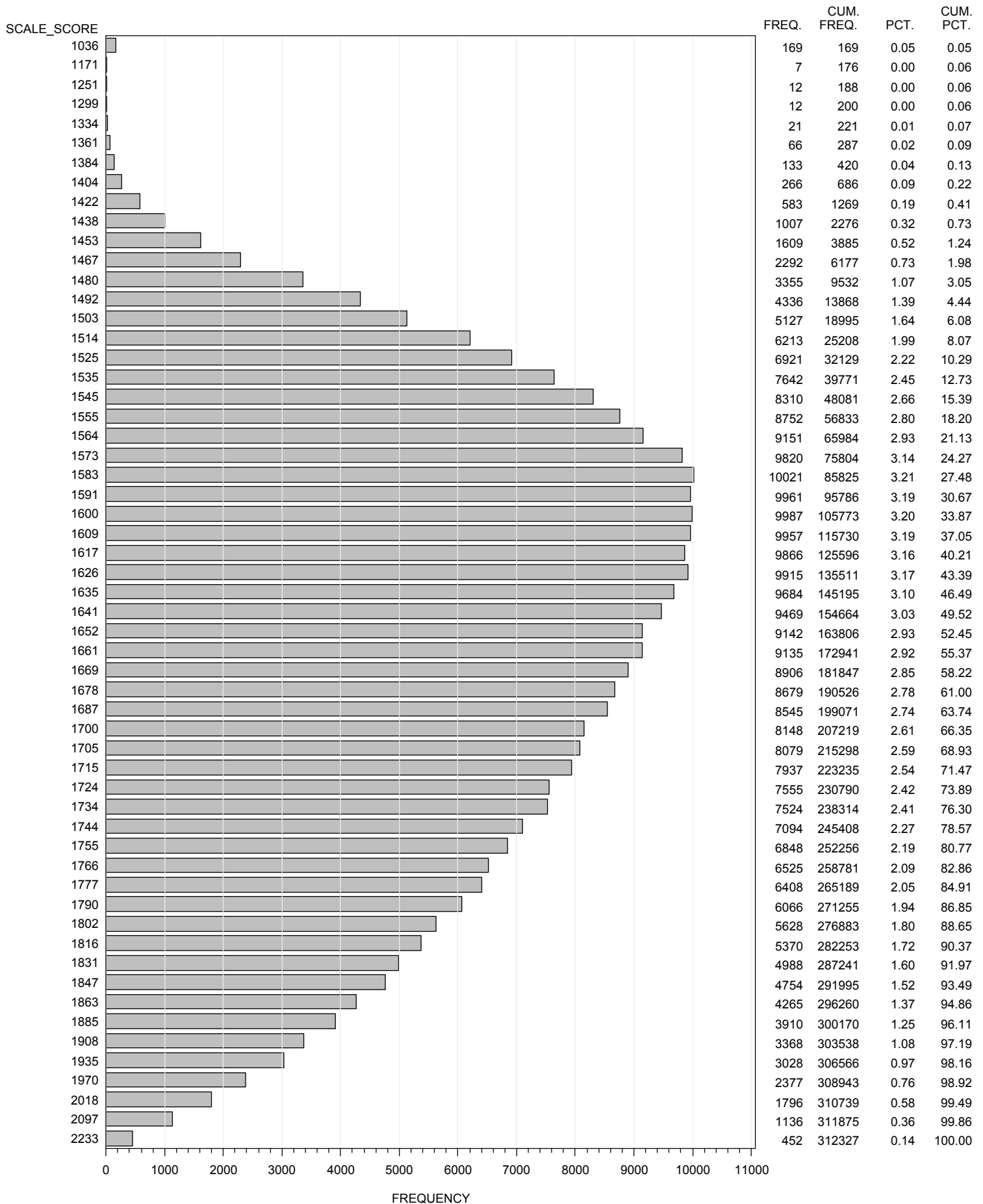
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 6 MATHEMATICS
ALL STUDENTS - EXCLUDING BRAILLE



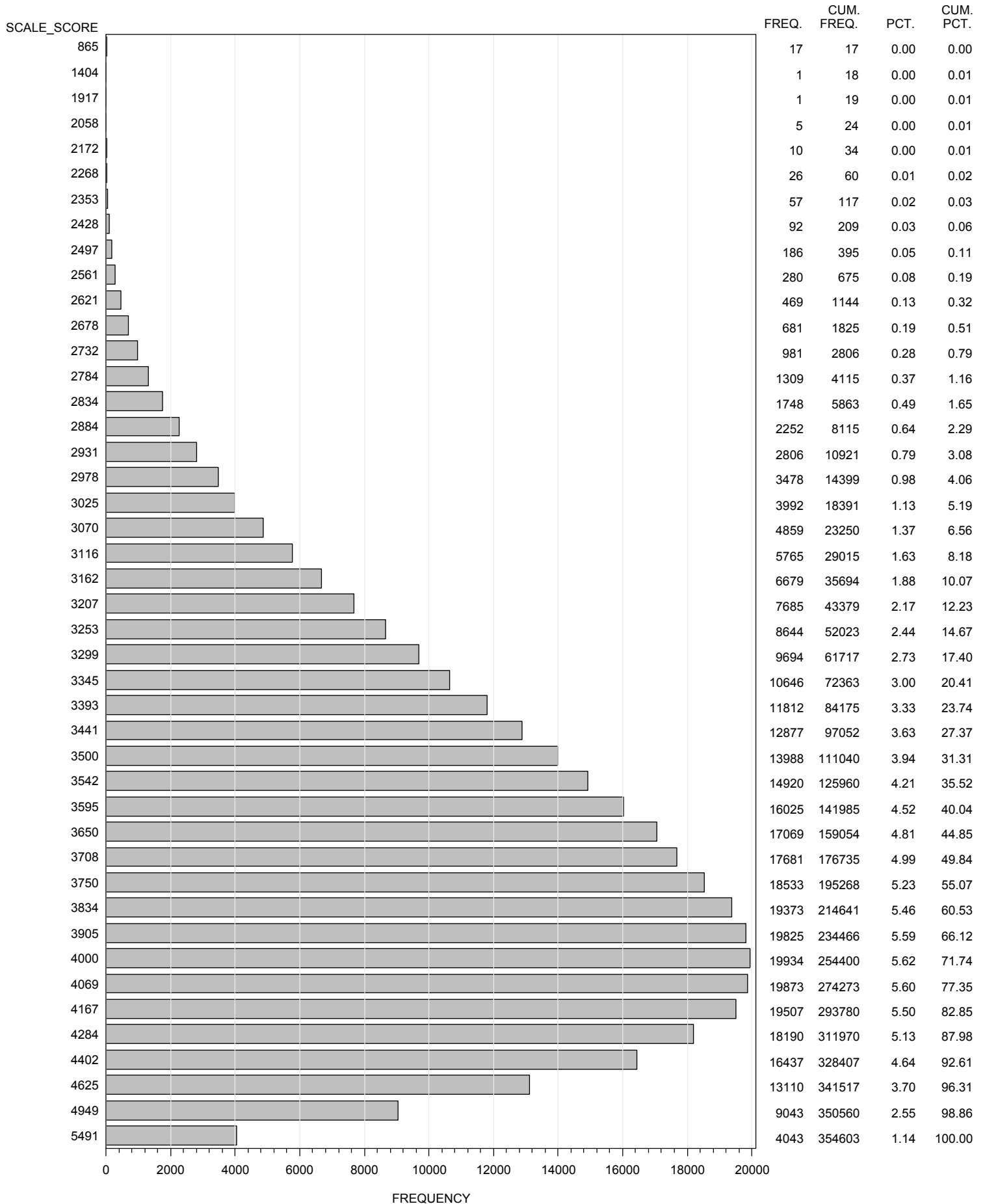
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 7 MATHEMATICS
ALL STUDENTS - EXCLUDING BRAILLE



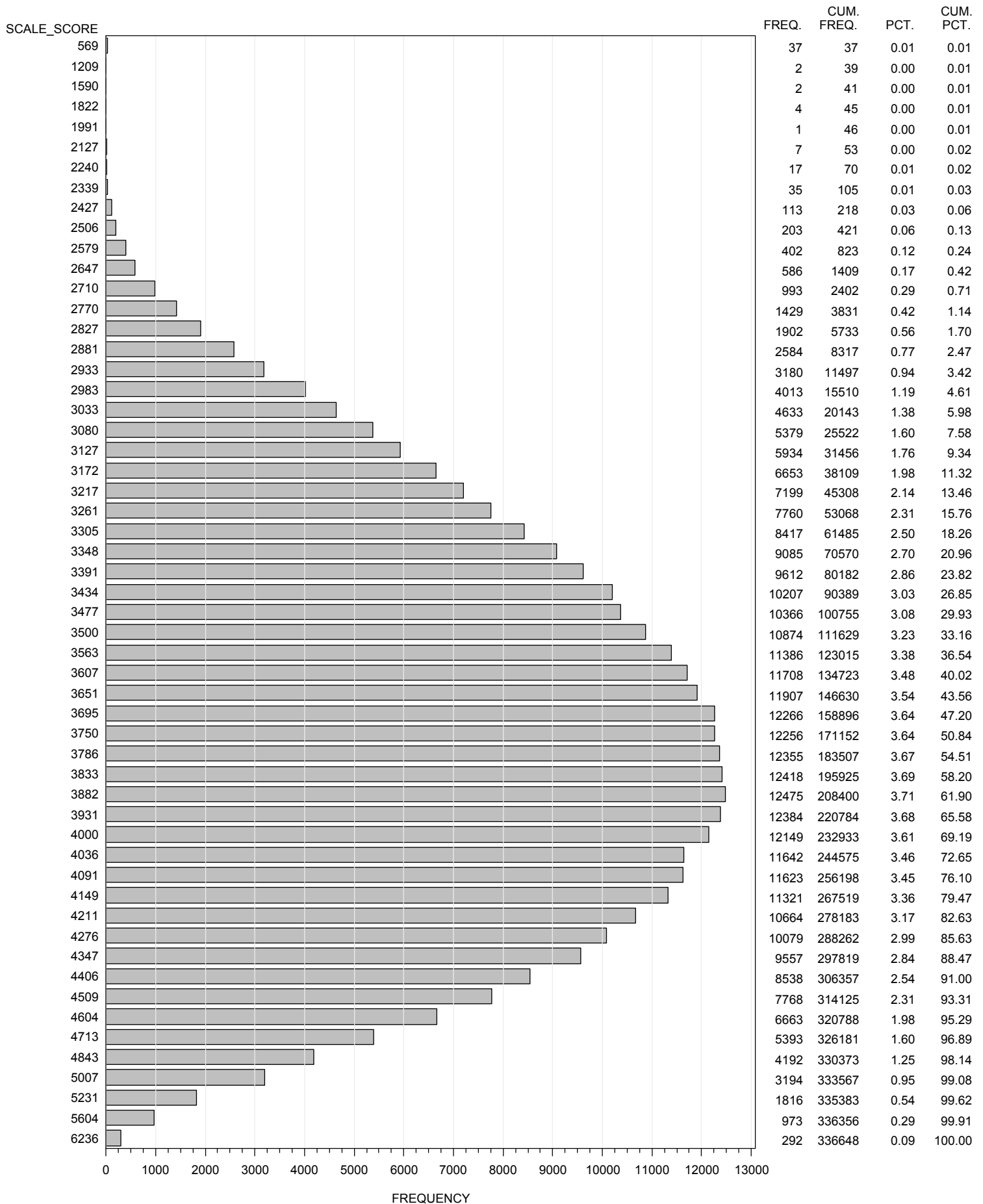
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 8 MATHEMATICS
ALL STUDENTS - EXCLUDING BRAILLE



FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 5 SCIENCE
ALL STUDENTS - EXCLUDING BRAILLE

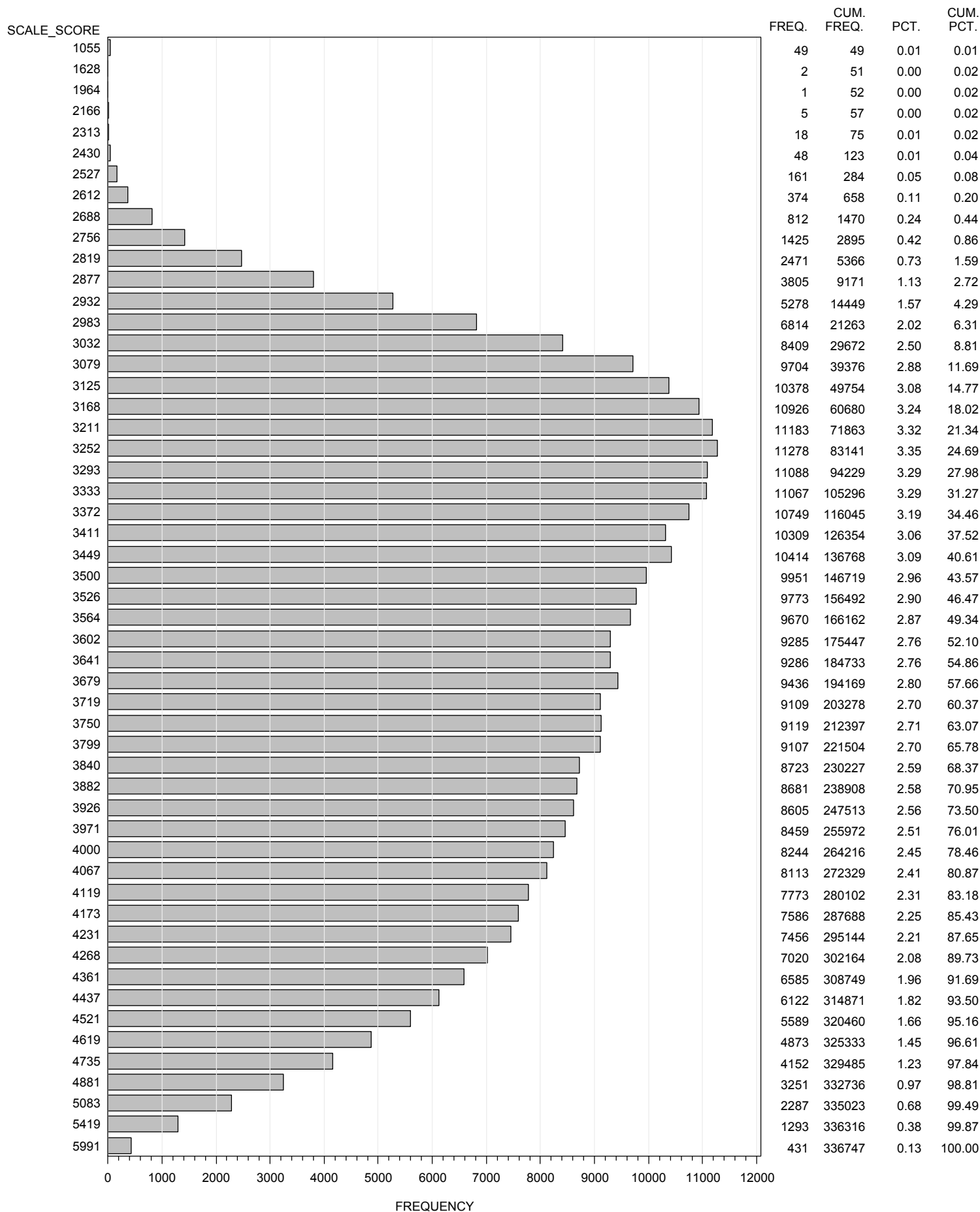


FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 8 SCIENCE
ALL STUDENTS - EXCLUDING BRAILLE

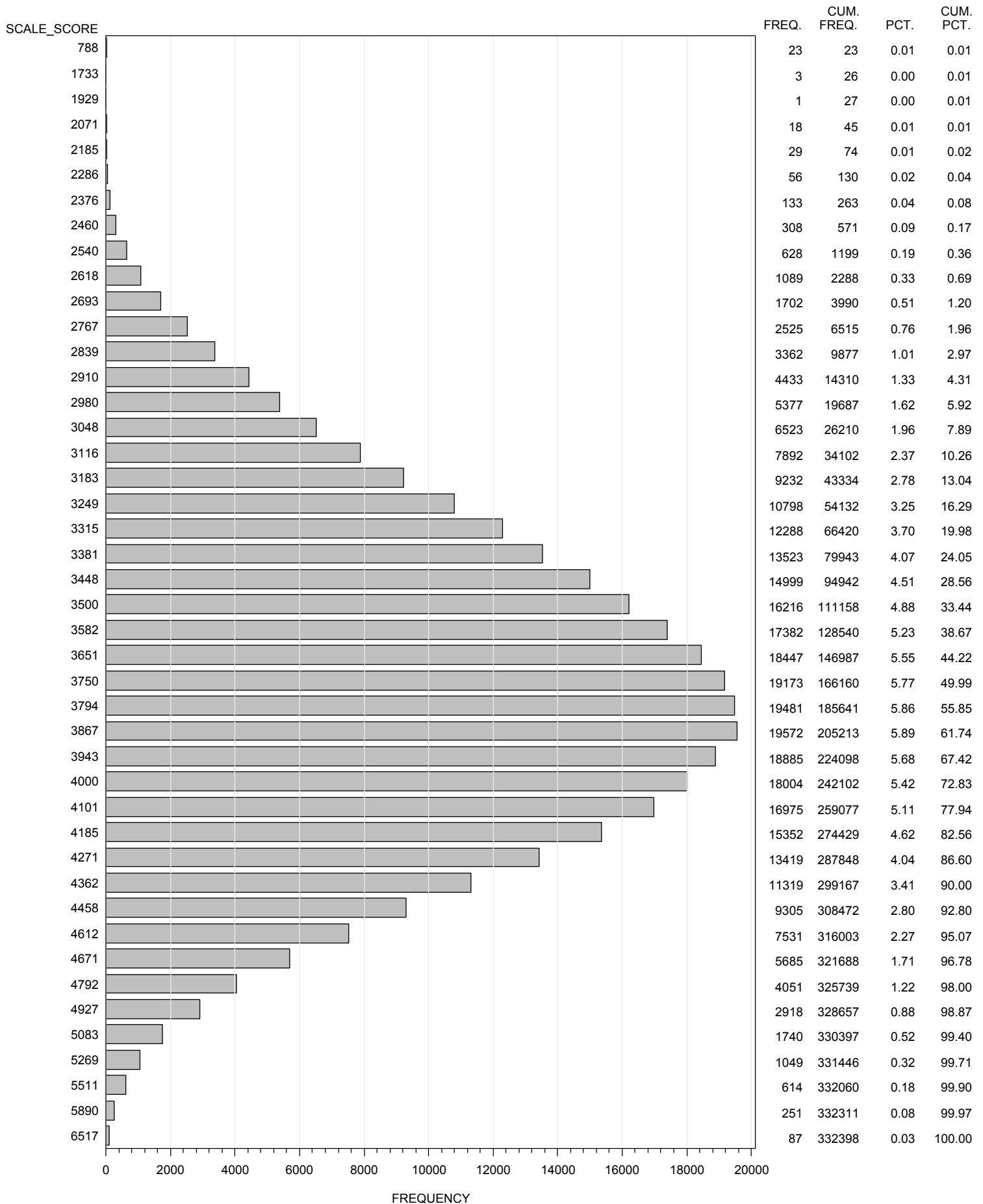


FREQUENCY DISTRIBUTION - SCALE SCORES

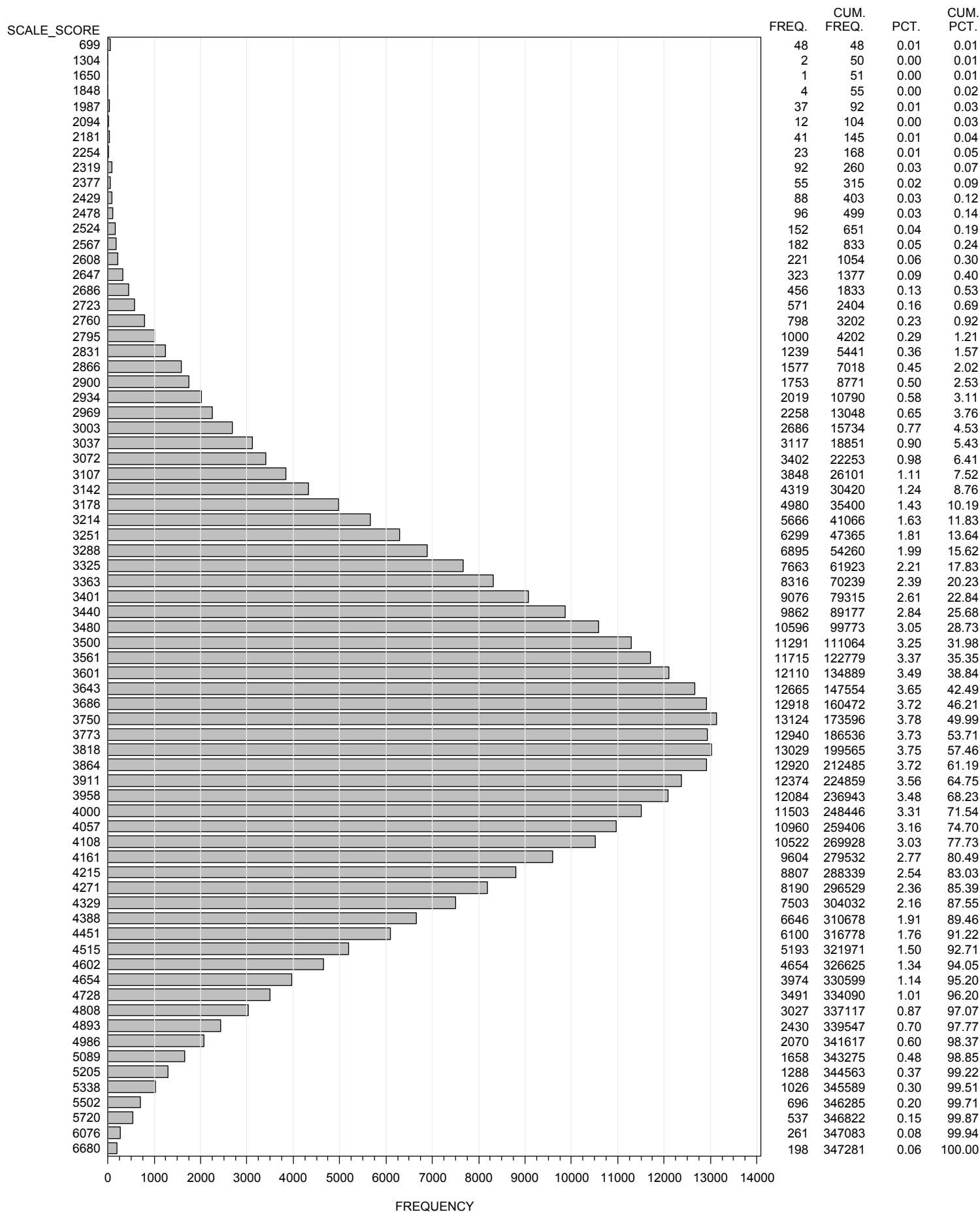
STAAR ENGLISH SPRING 2012
GRADE 8 SOCIAL STUDIES
ALL STUDENTS - EXCLUDING BRAILLE



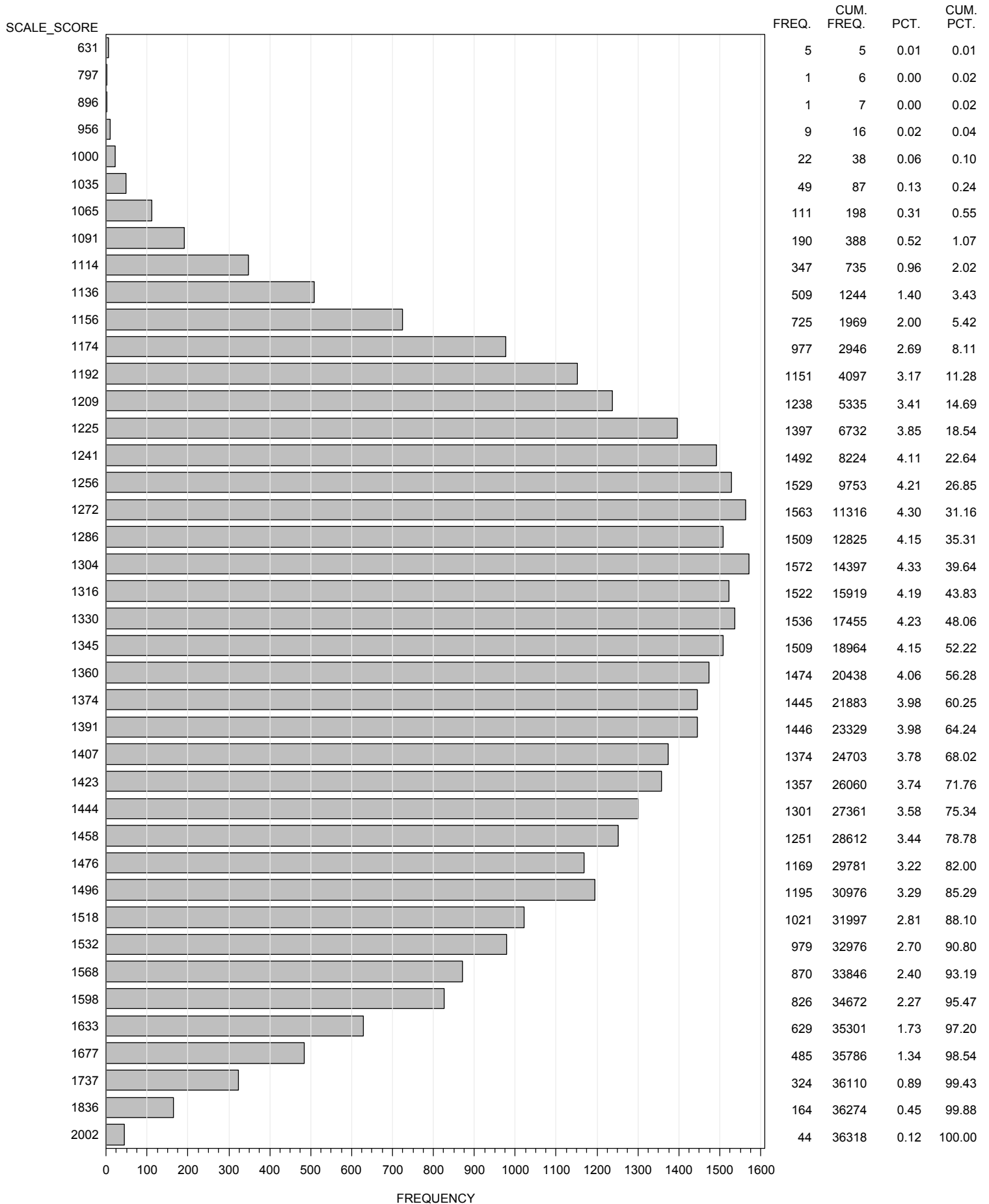
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 4 ENGLISH
ALL STUDENTS - EXCLUDING BRAILLE



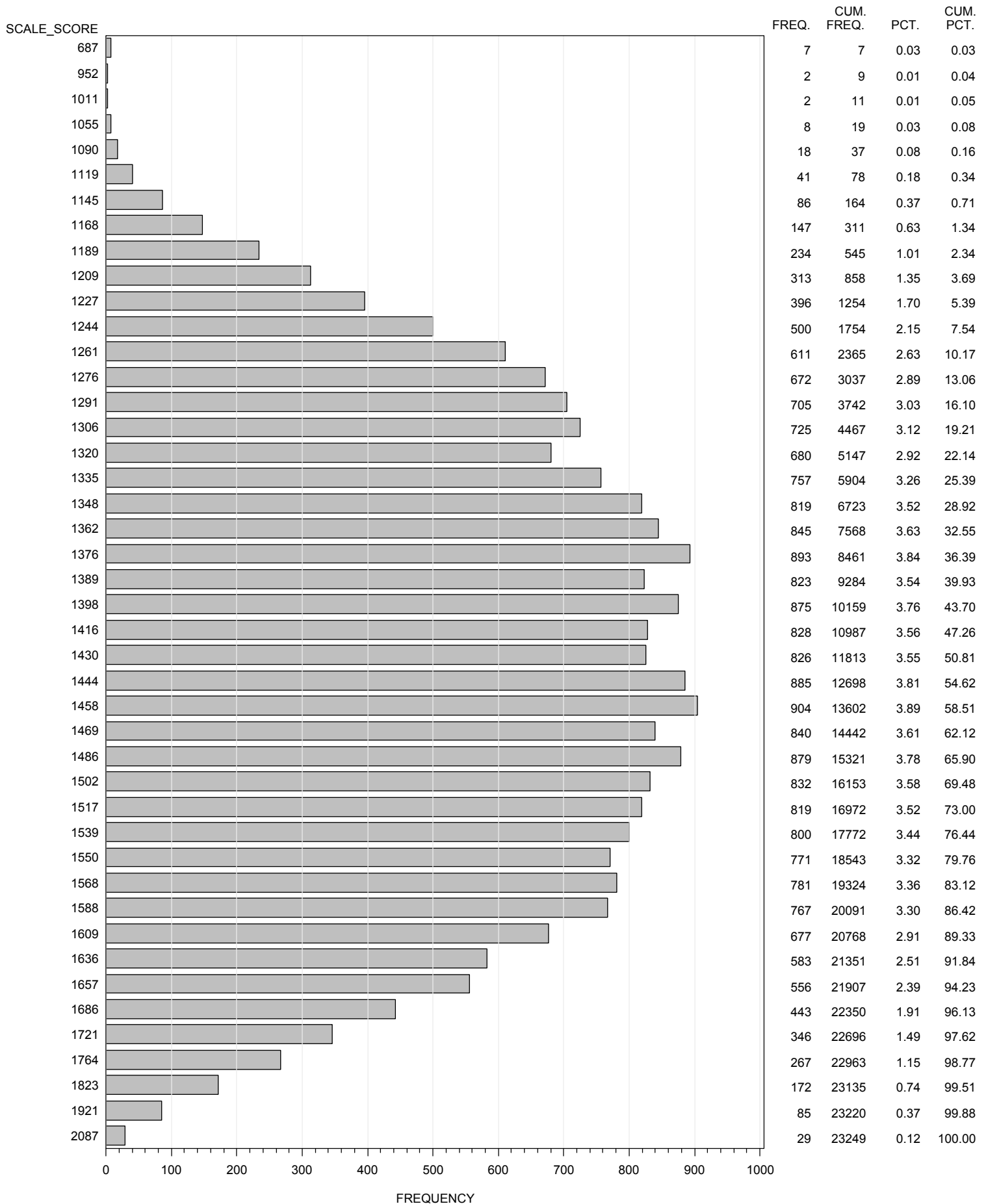
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR ENGLISH SPRING 2012
GRADE 7 WRITING
ALL STUDENTS - EXCLUDING BRAILLE



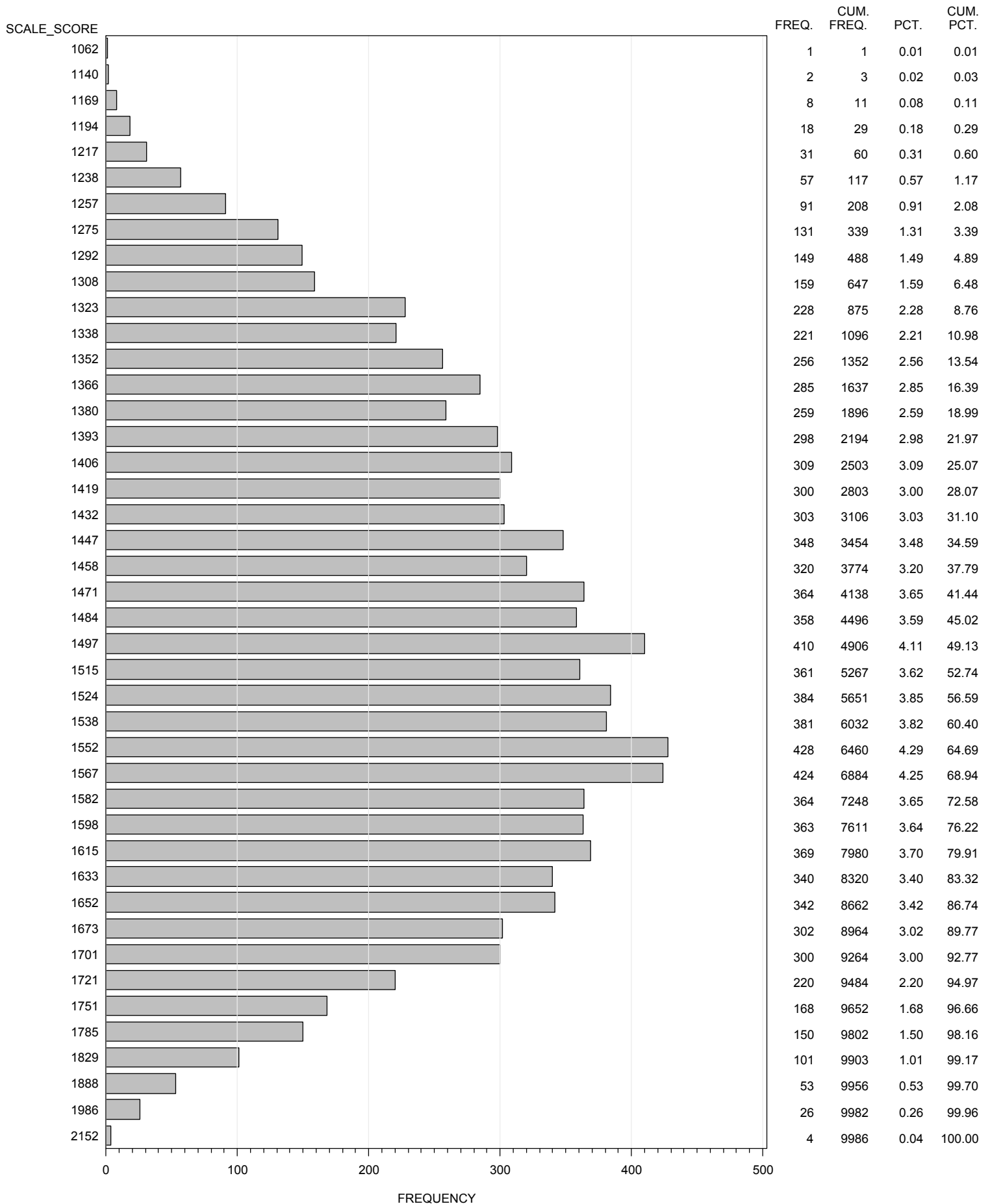
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 3 READING
ALL STUDENTS



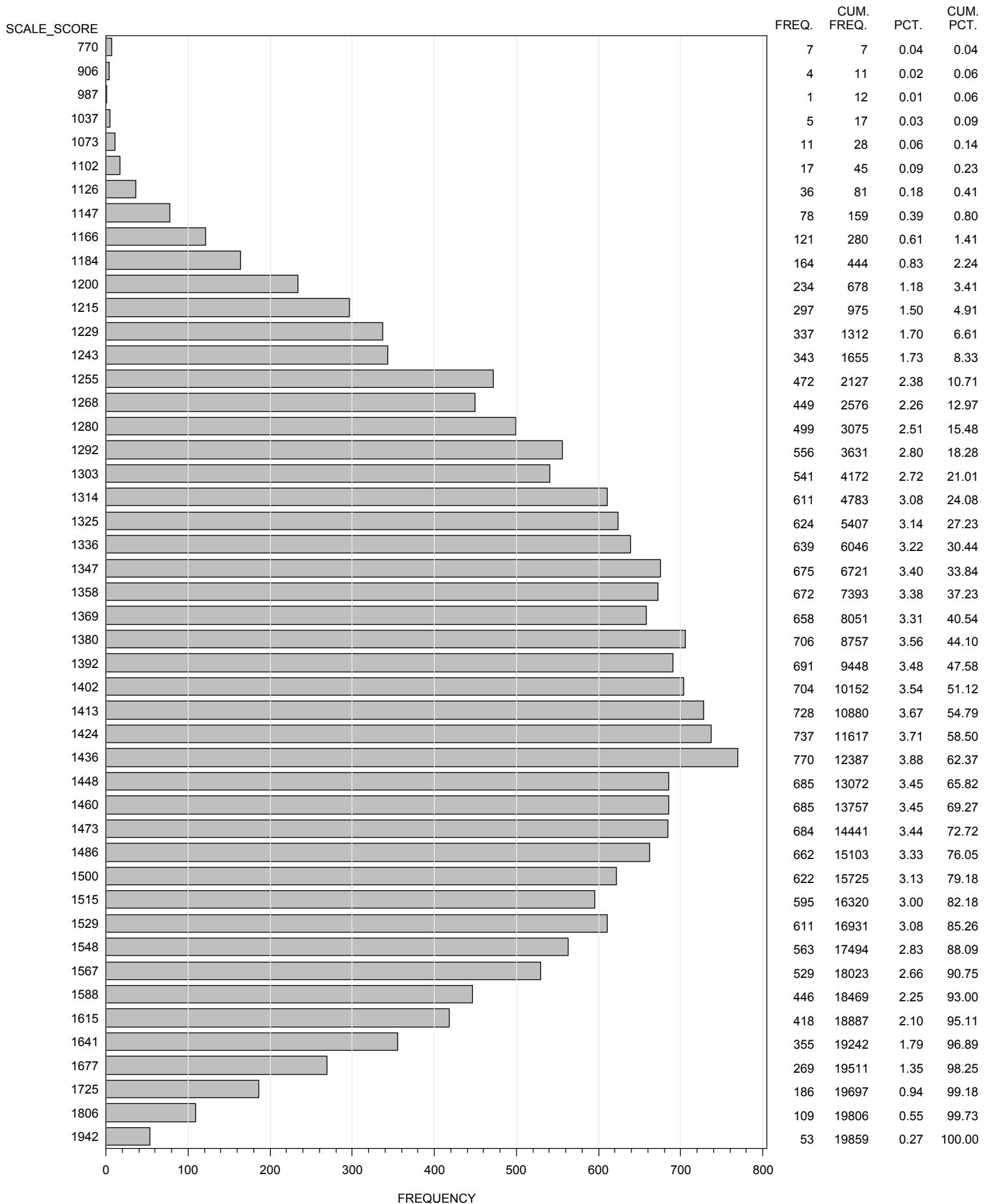
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 4 READING
ALL STUDENTS



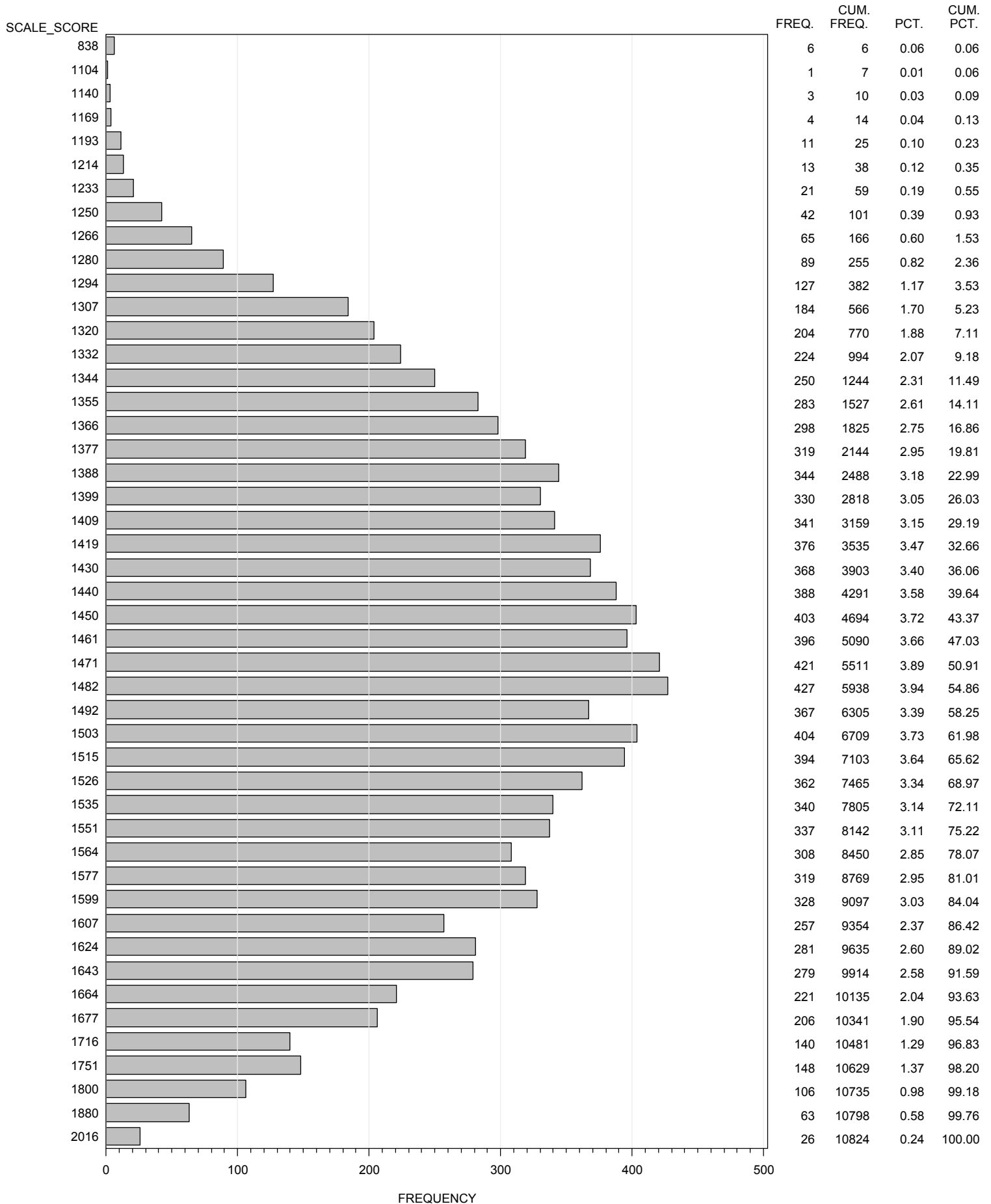
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 5 READING
ALL STUDENTS



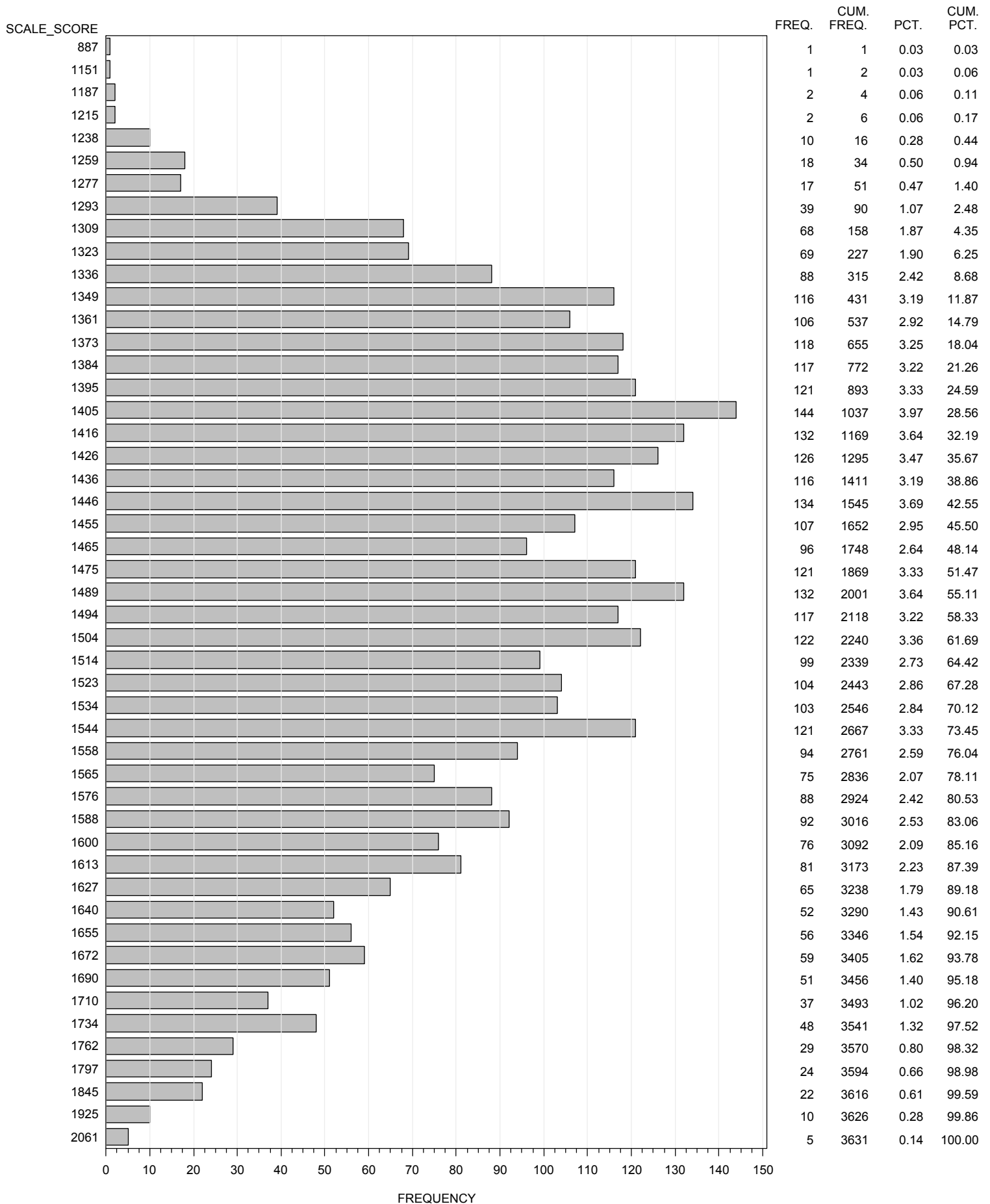
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 3 MATHEMATICS
ALL STUDENTS



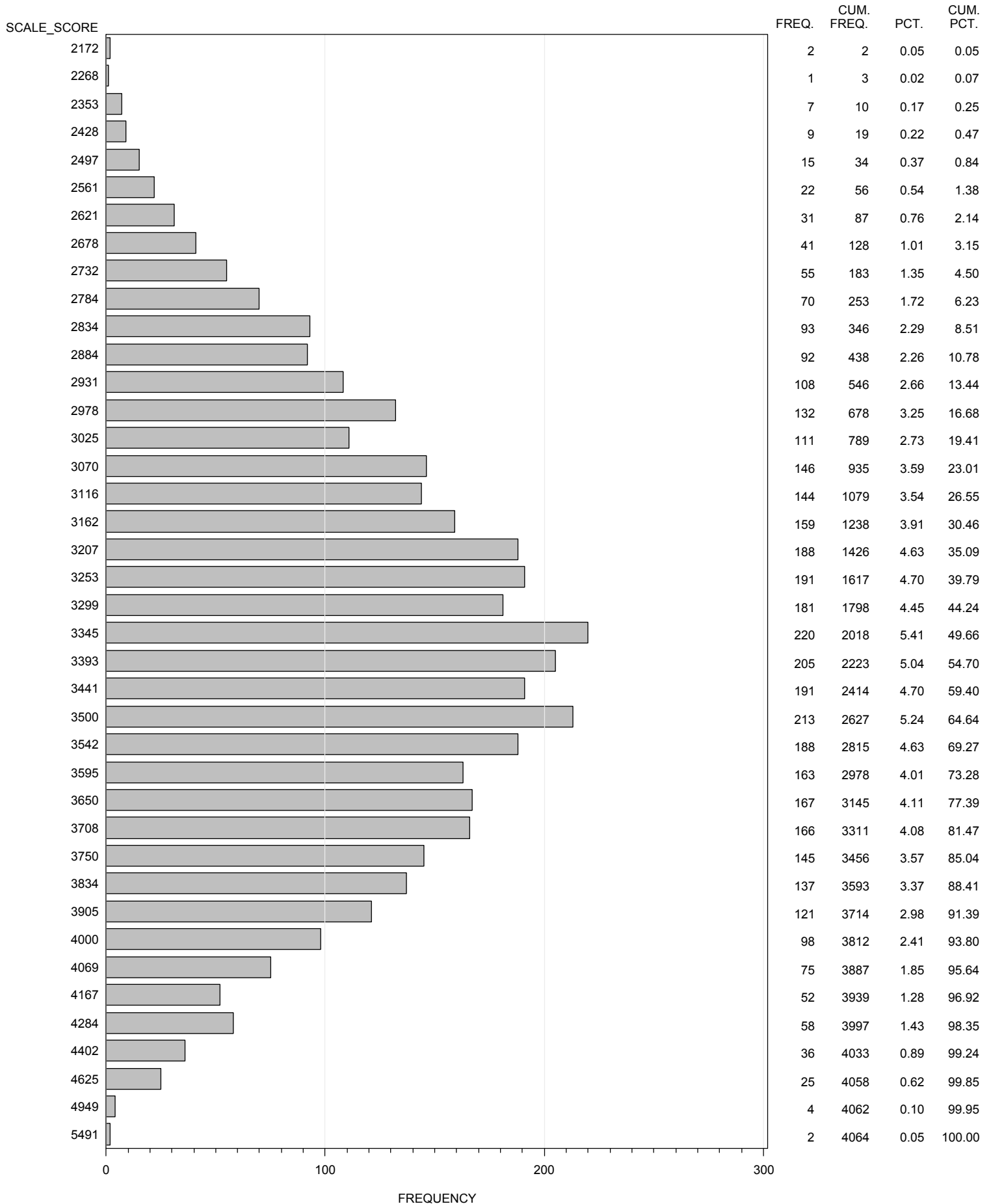
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 4 MATHEMATICS
ALL STUDENTS



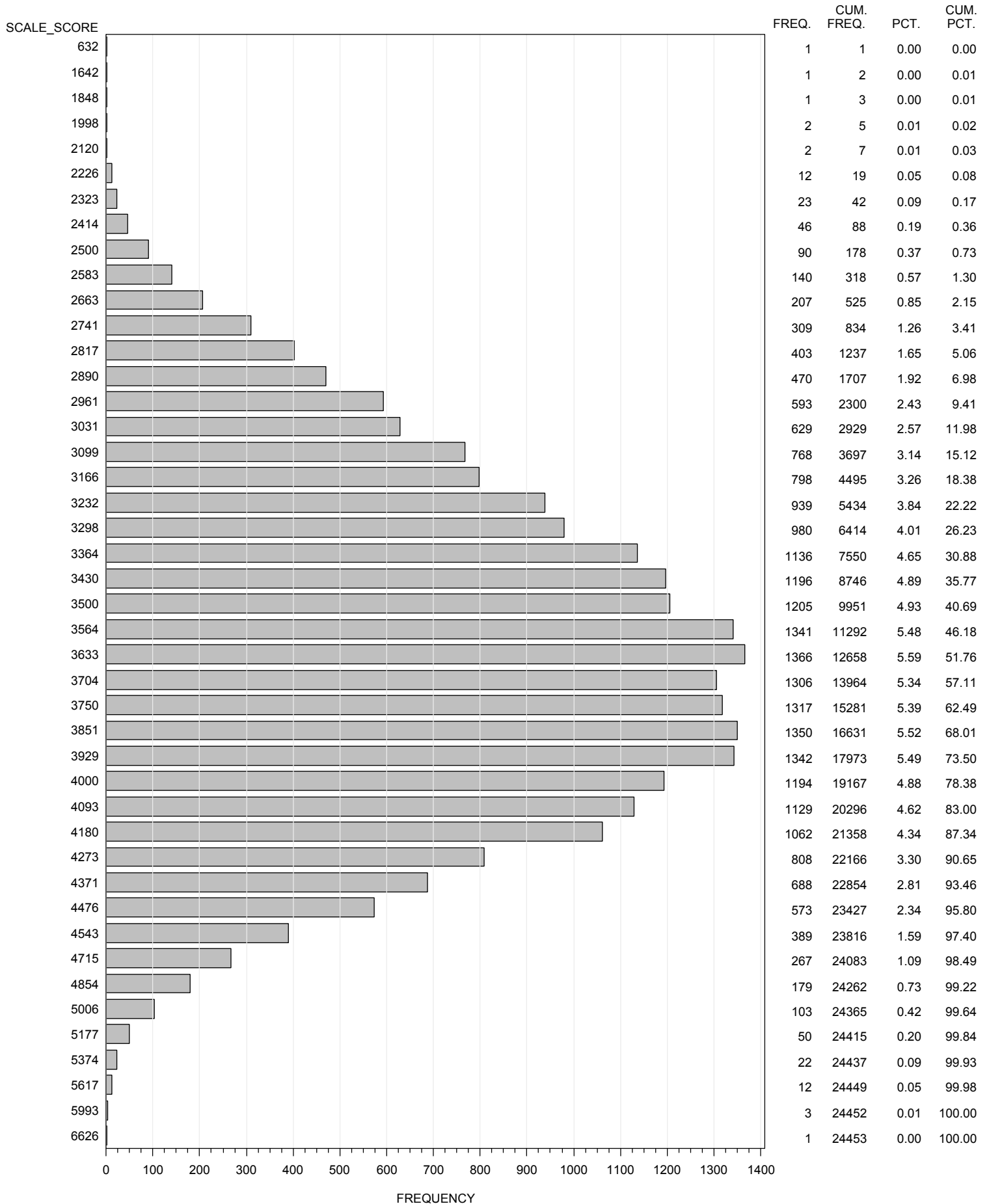
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 5 MATHEMATICS
ALL STUDENTS



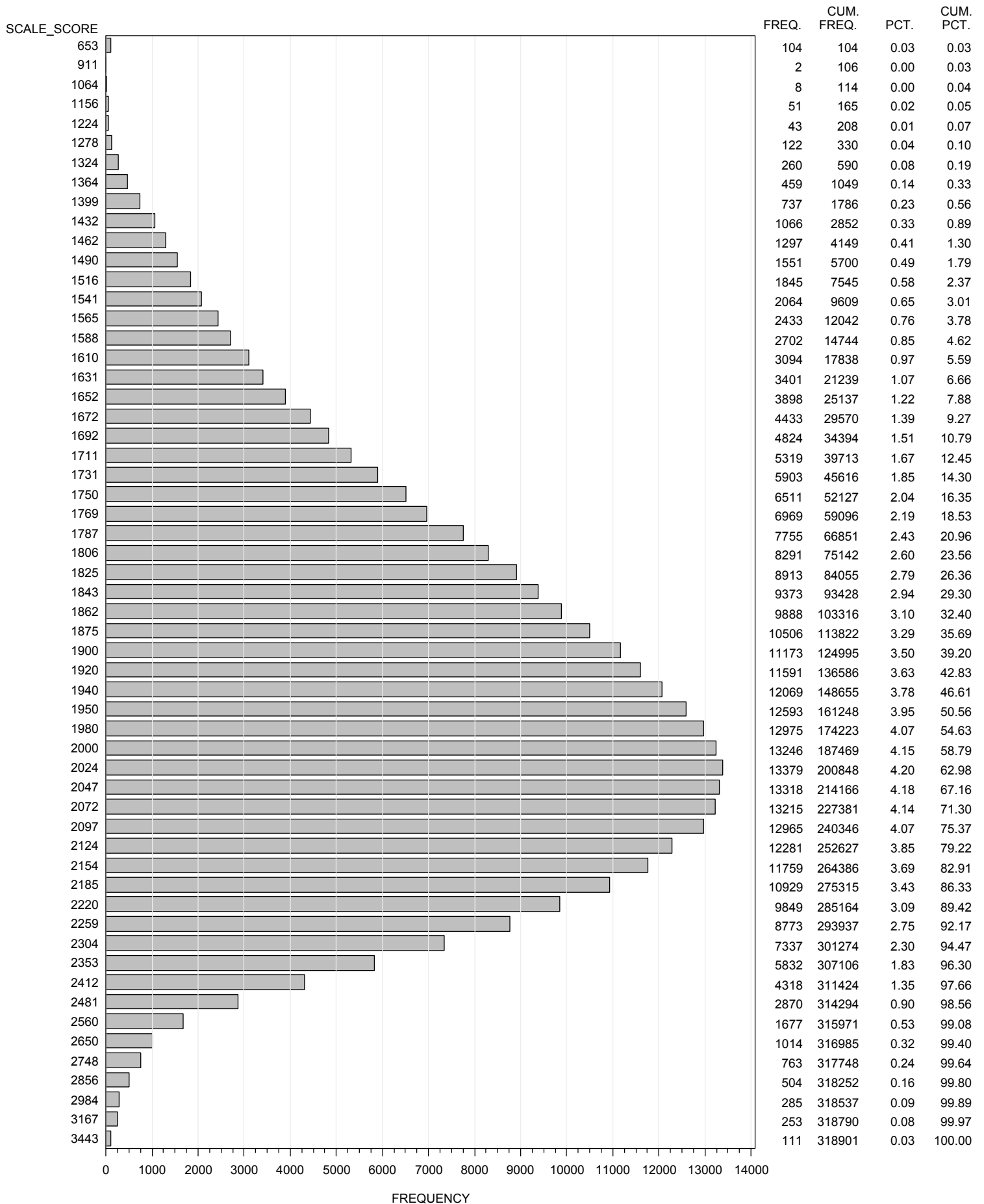
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 5 SCIENCE
ALL STUDENTS



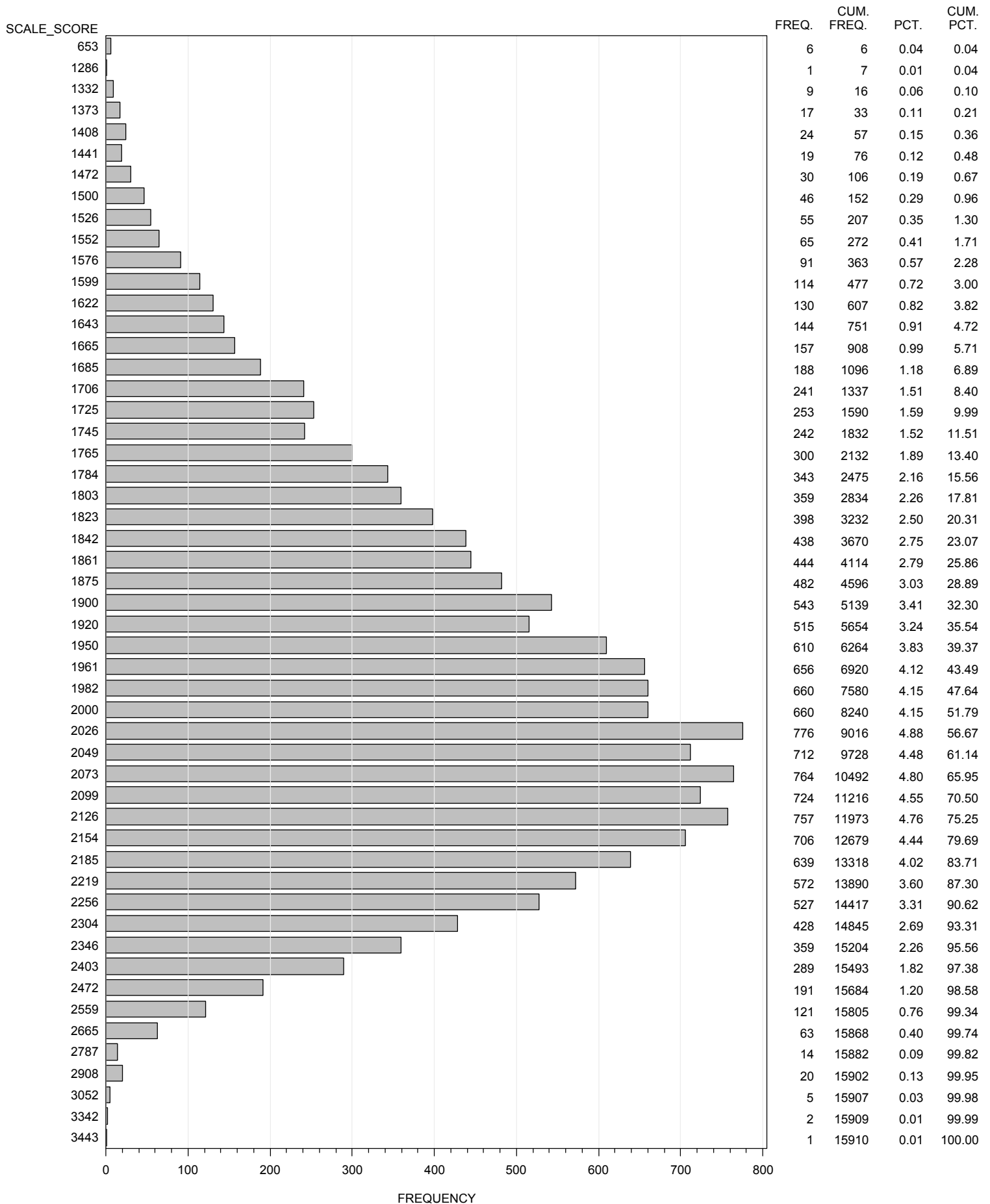
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR SPANISH SPRING 2012
GRADE 4 WRITING
ALL STUDENTS



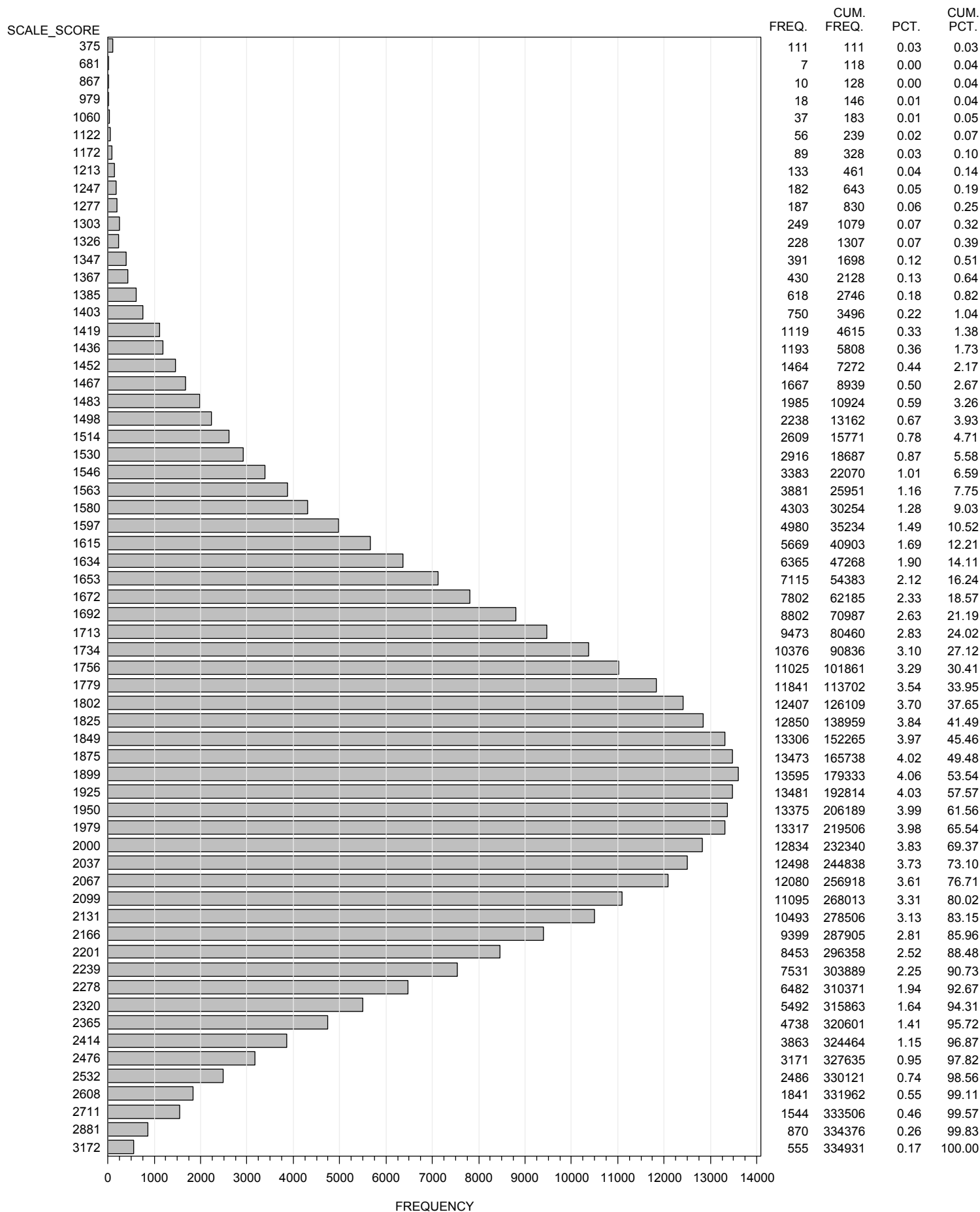
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ENGLISH I - READING
PAPER STUDENTS



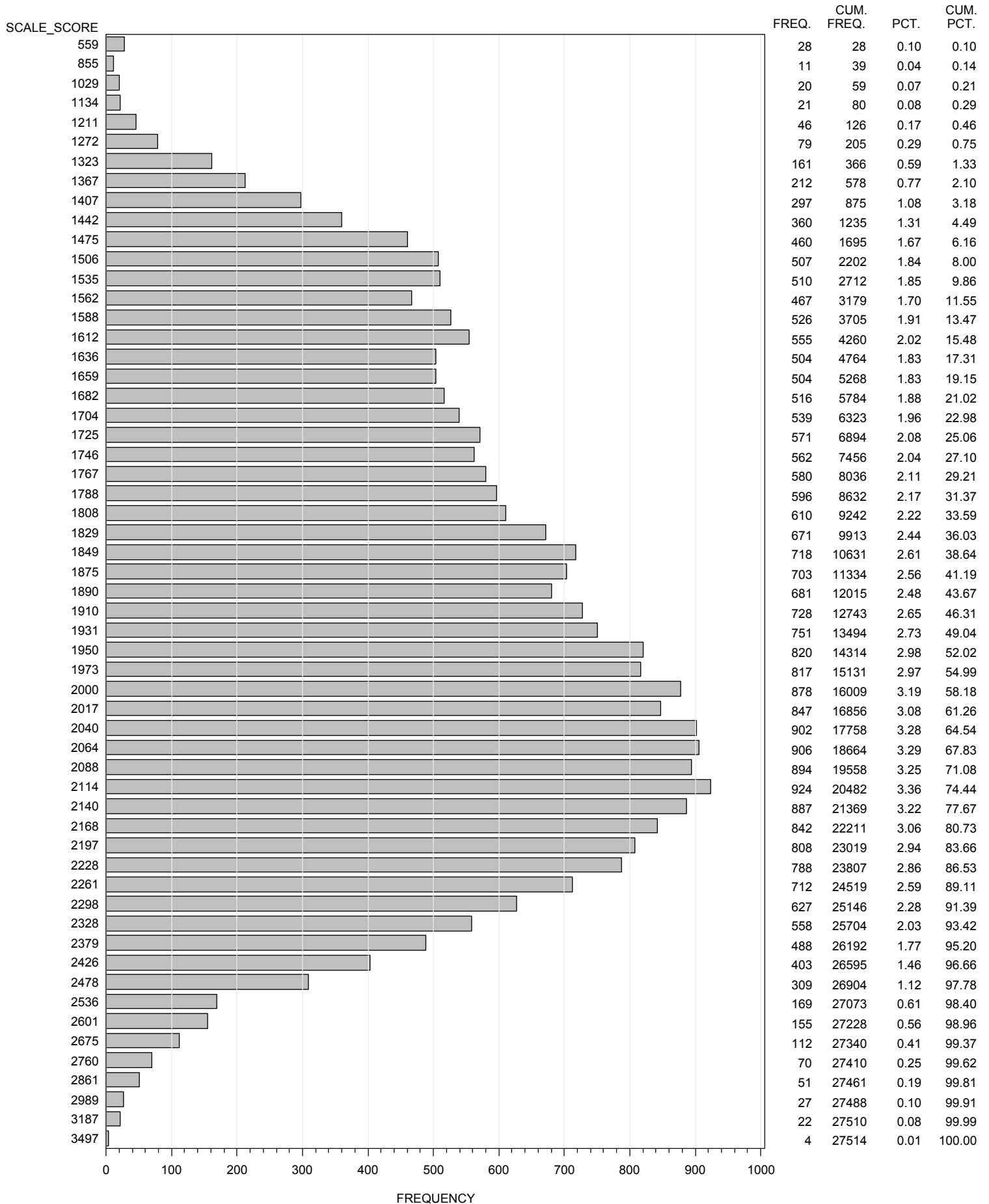
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ENGLISH I - READING
ONLINE STUDENTS



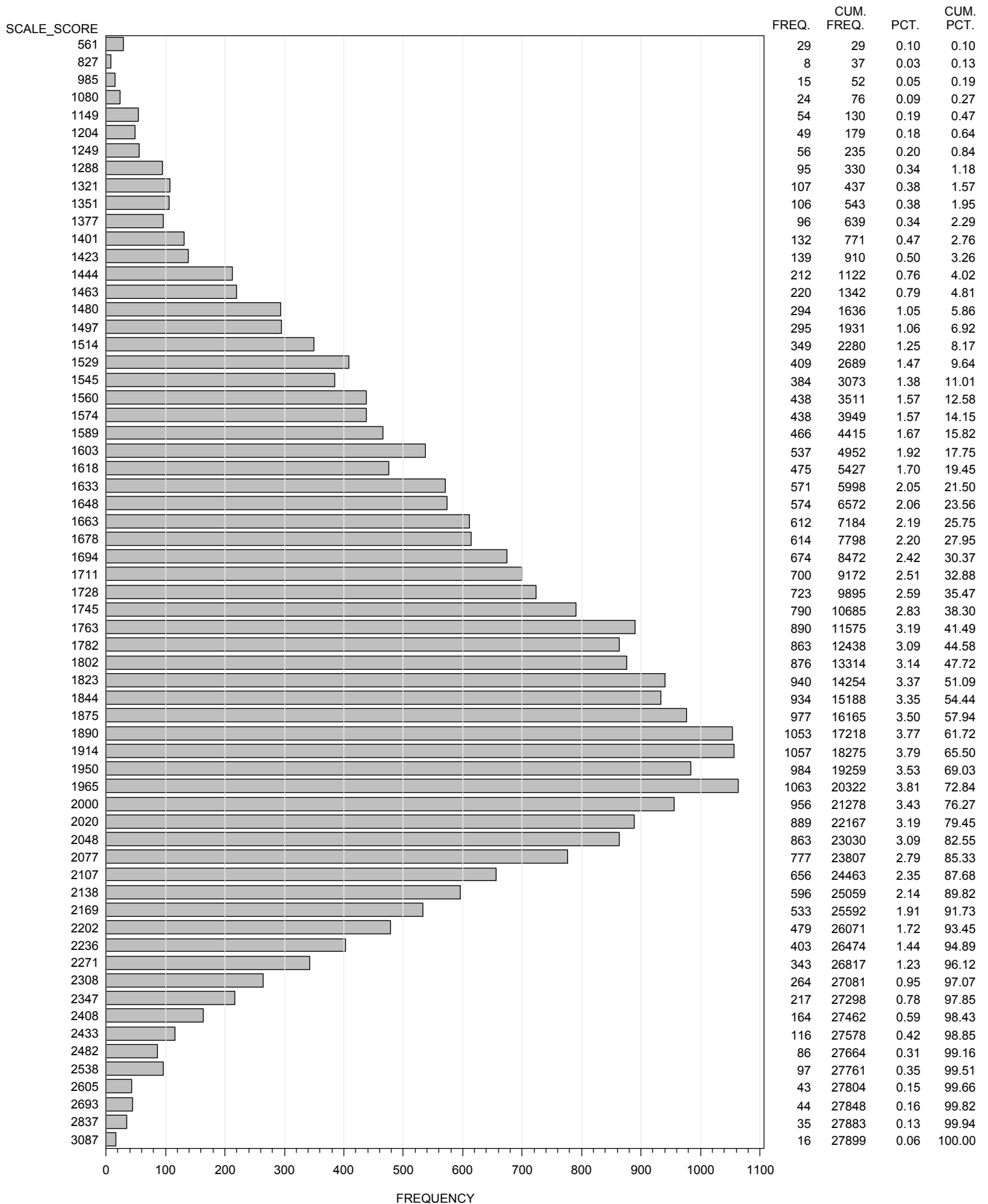
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ENGLISH I - WRITING
ALL STUDENTS - EXCLUDING BRAILLE



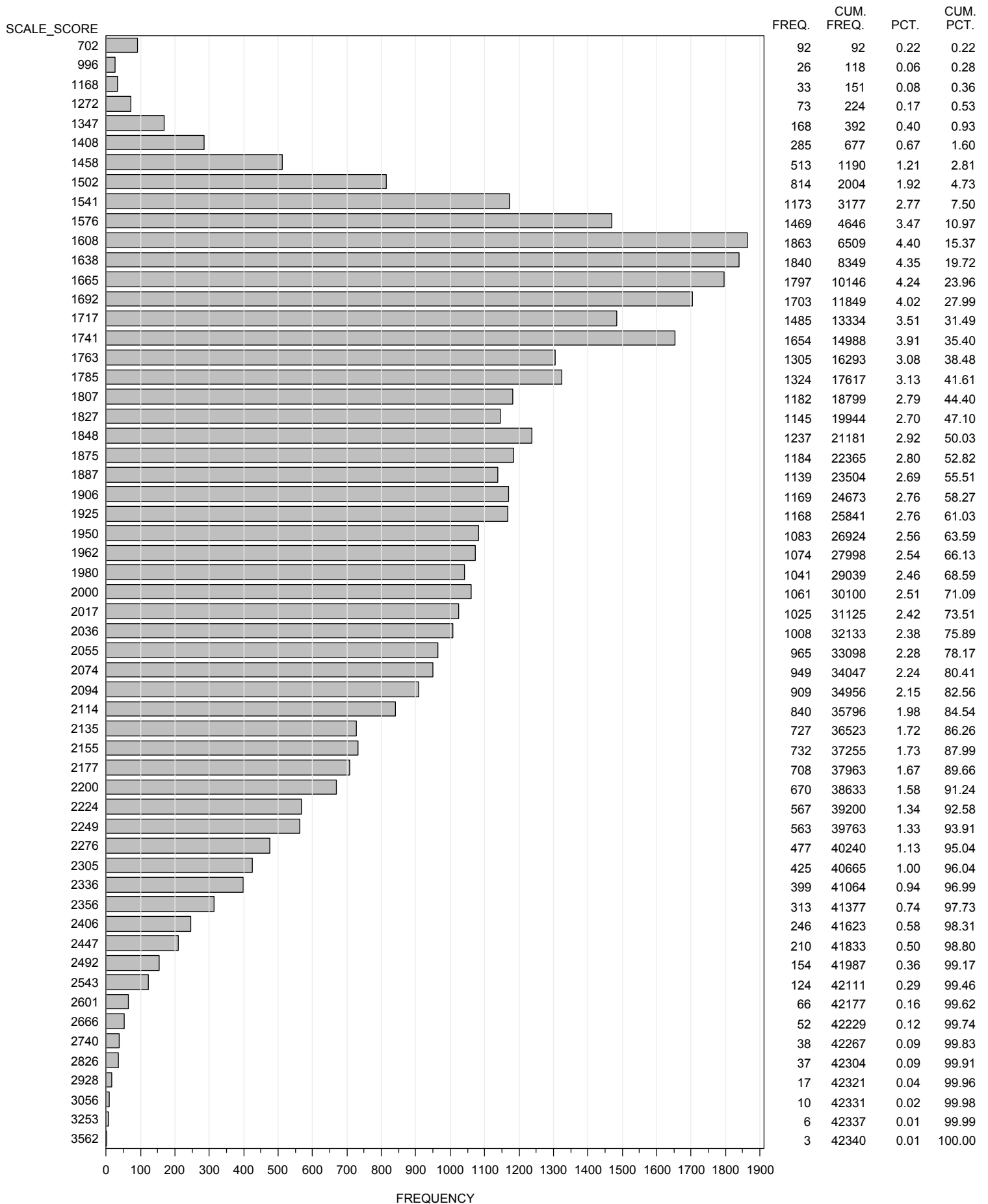
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ENGLISH II - READING
ALL STUDENTS - EXCLUDING BRAILLE



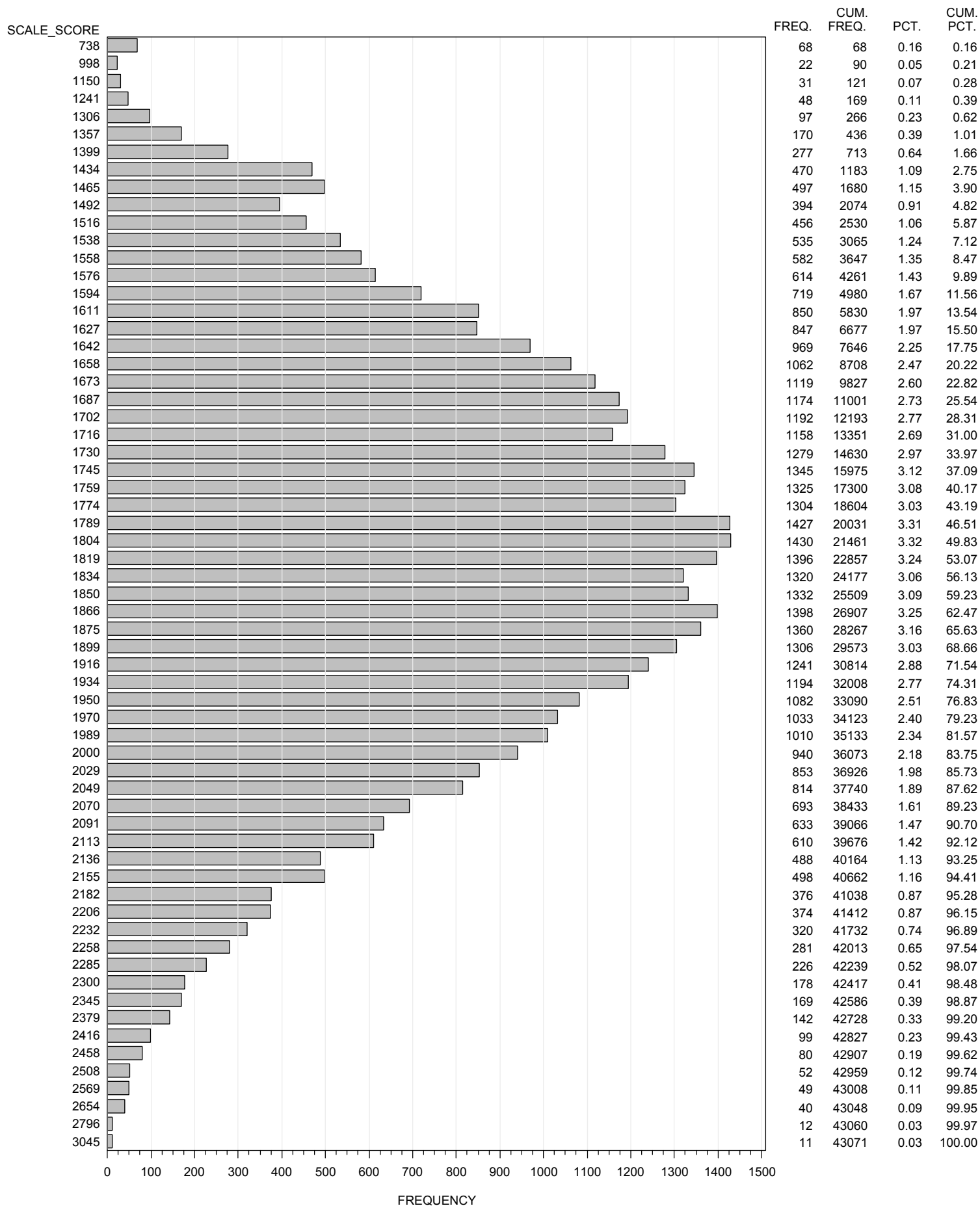
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ENGLISH II - WRITING
ALL STUDENTS - EXCLUDING BRAILLE



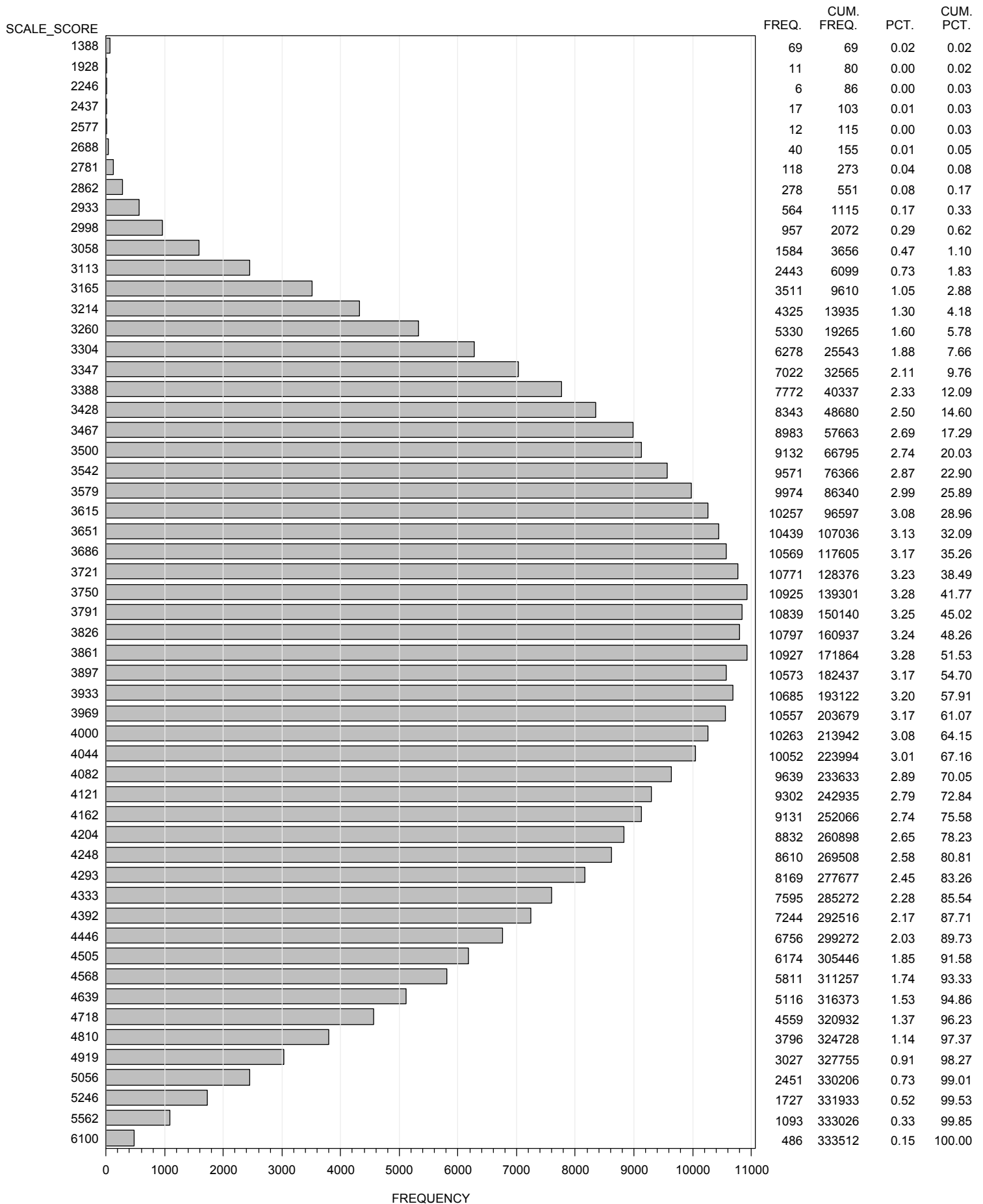
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ENGLISH III - READING
ALL STUDENTS - EXCLUDING BRAILLE



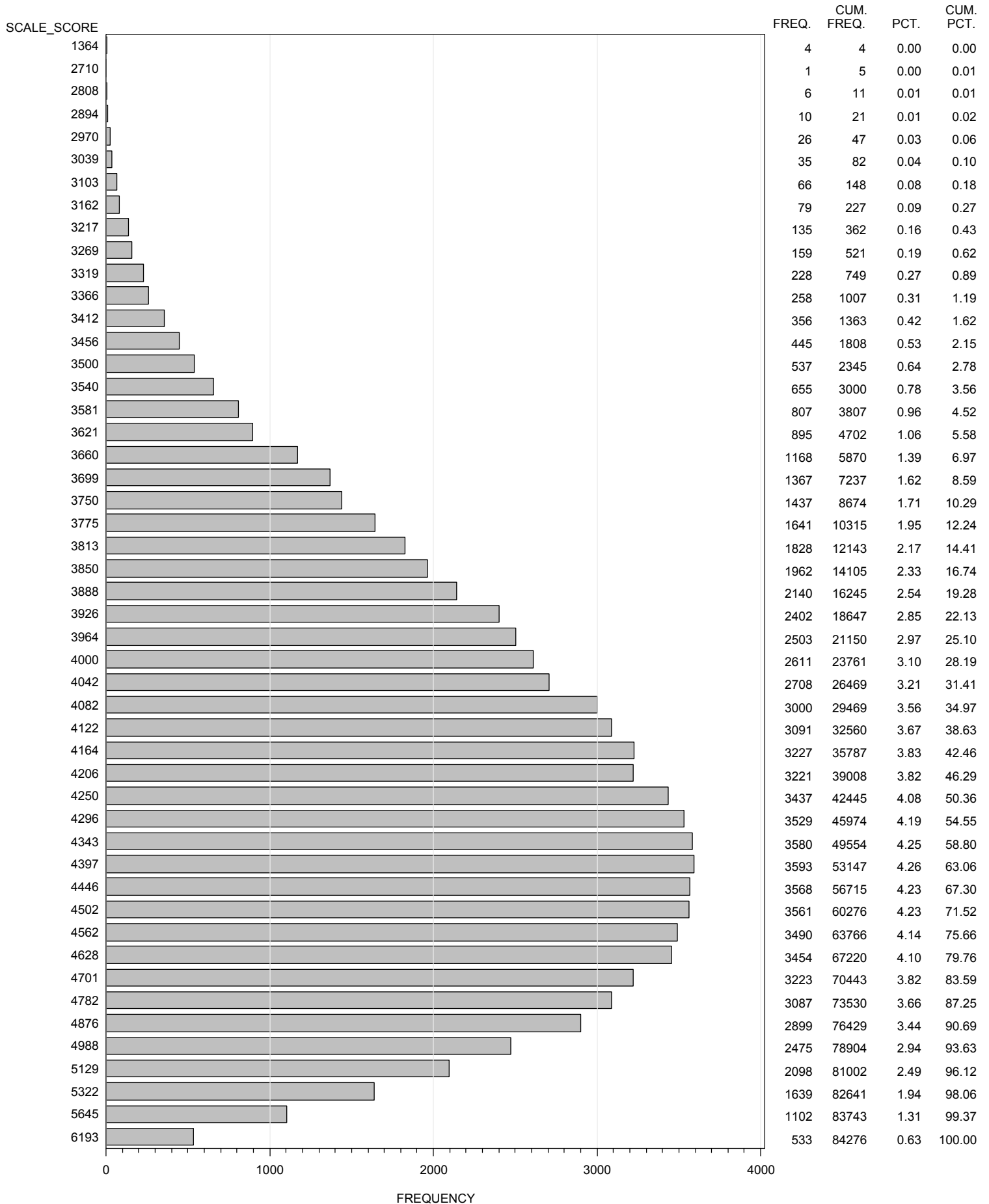
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ENGLISH III - WRITING
ALL STUDENTS - EXCLUDING BRAILLE



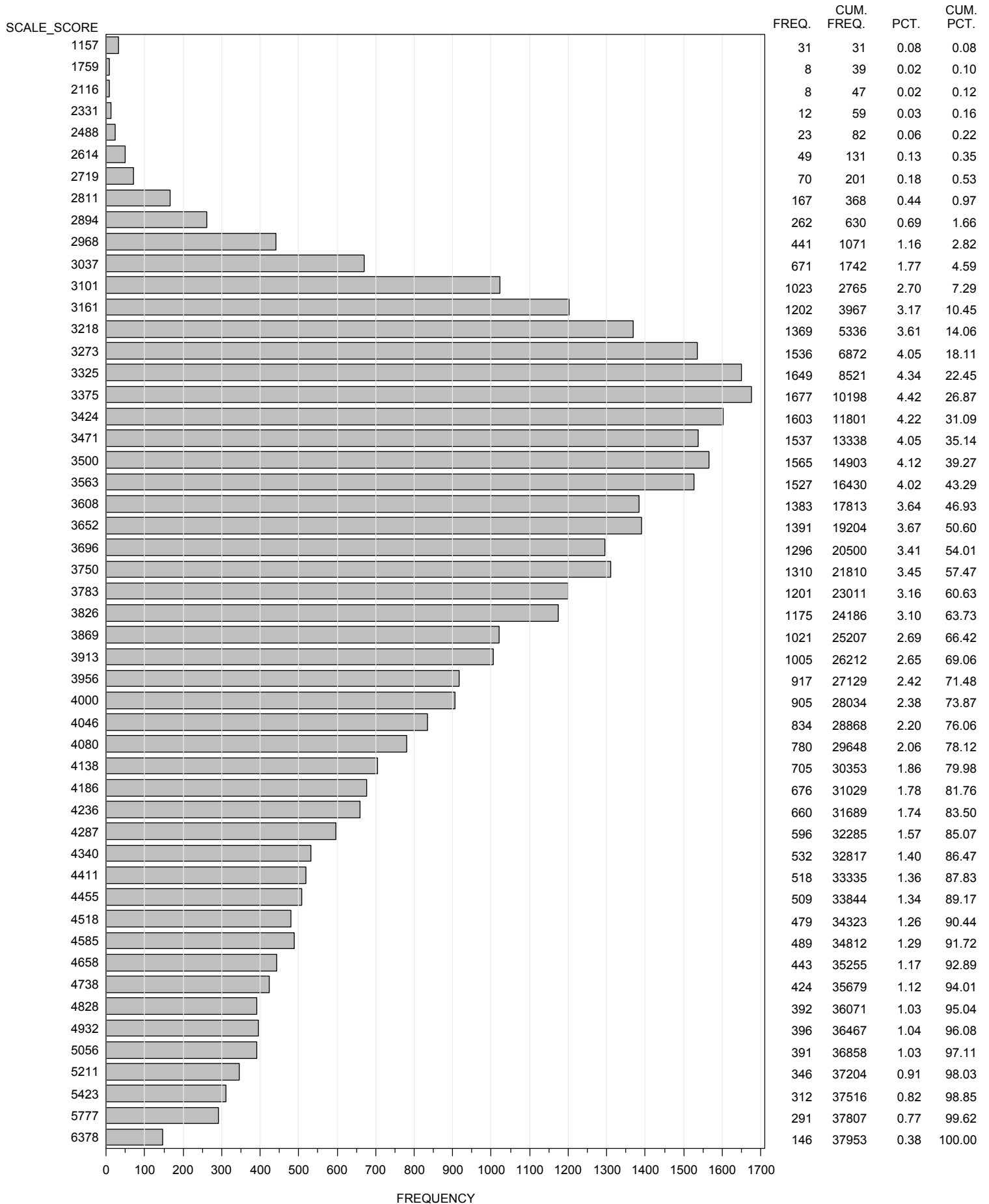
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ALGEBRA I
ALL STUDENTS - EXCLUDING BRAILLE



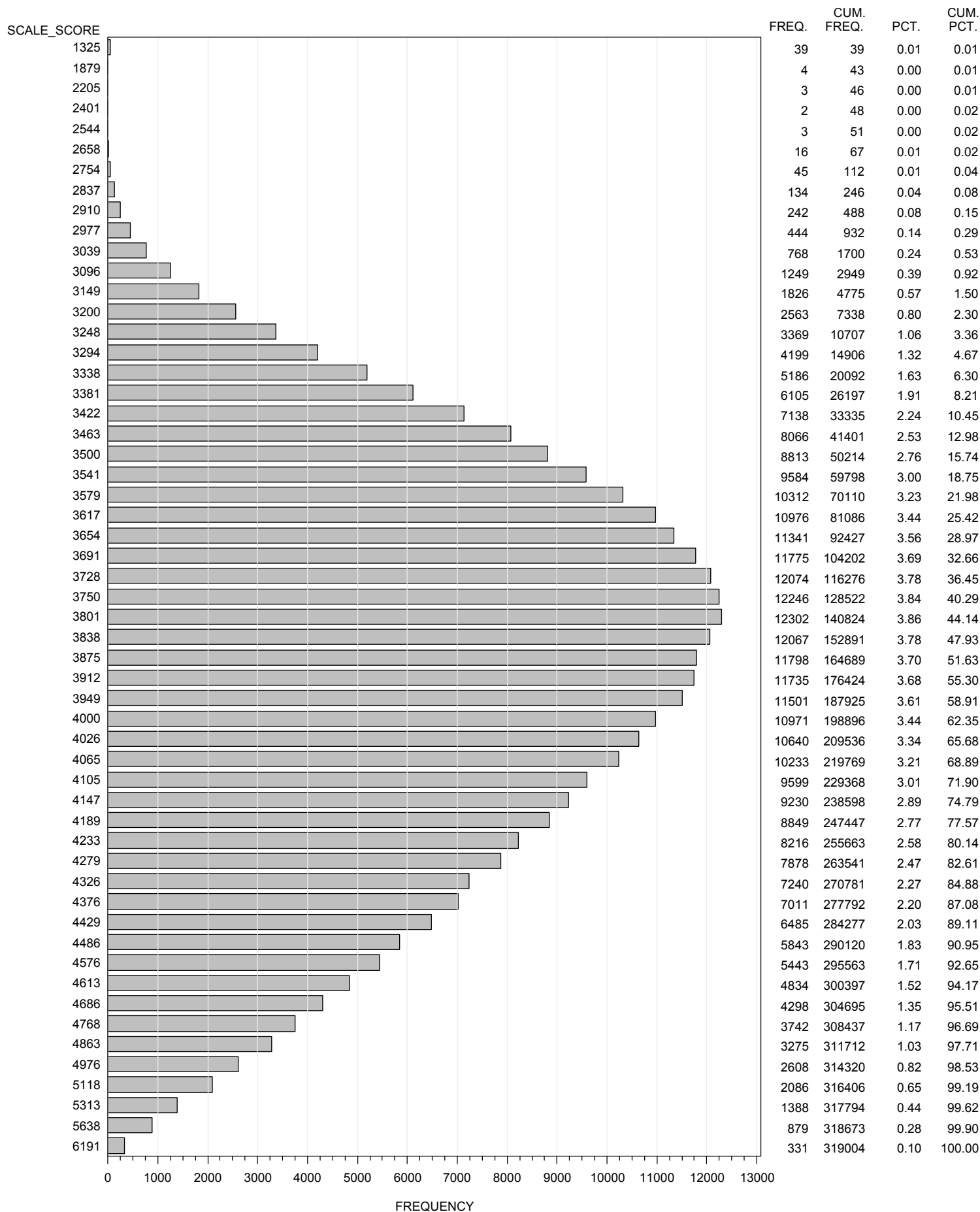
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
GEOMETRY
ALL STUDENTS - EXCLUDING BRAILLE



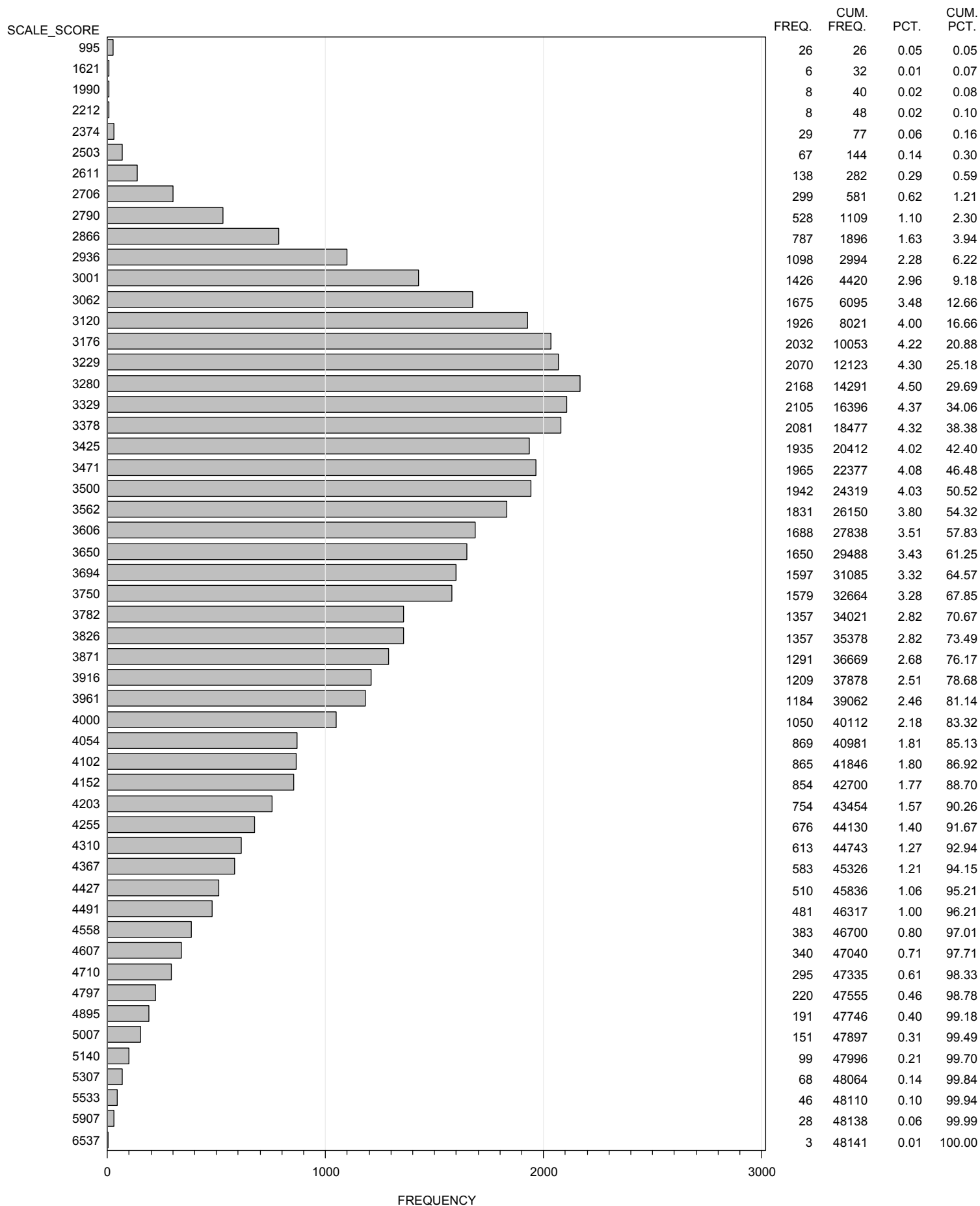
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
ALGEBRA II
ALL STUDENTS - EXCLUDING BRAILLE



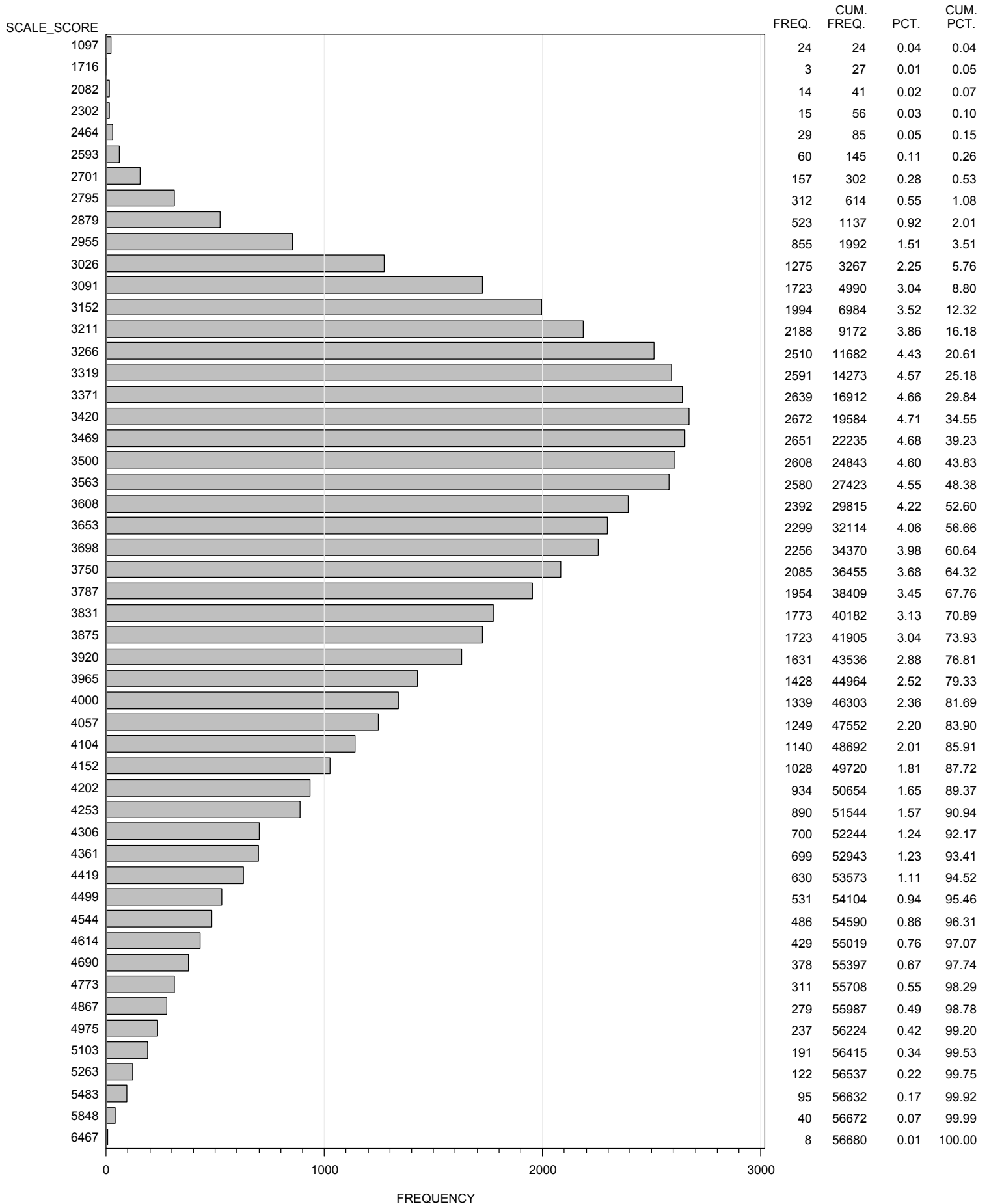
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
BIOLOGY
ALL STUDENTS - EXCLUDING BRAILLE



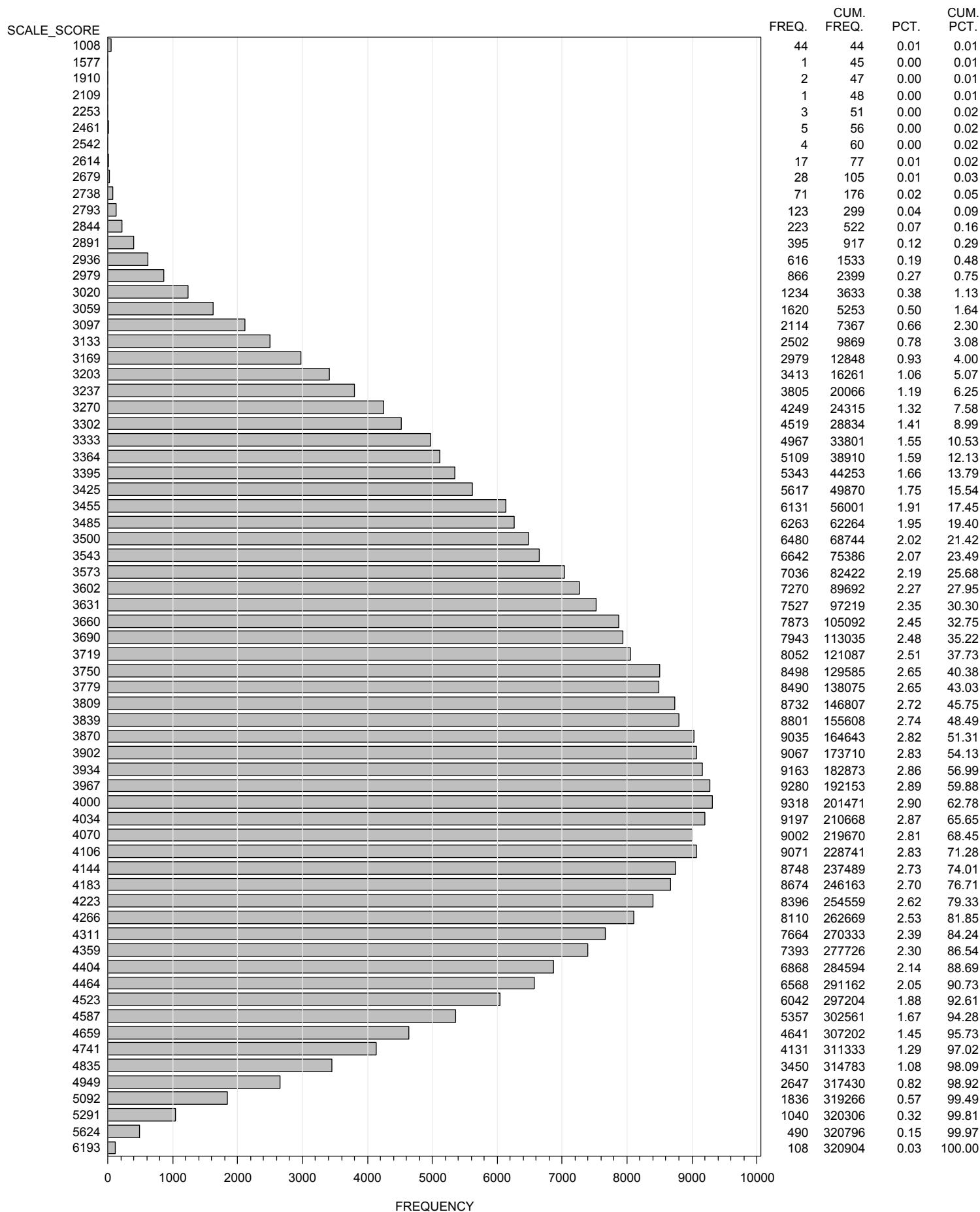
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
CHEMISTRY
ALL STUDENTS - EXCLUDING BRAILLE



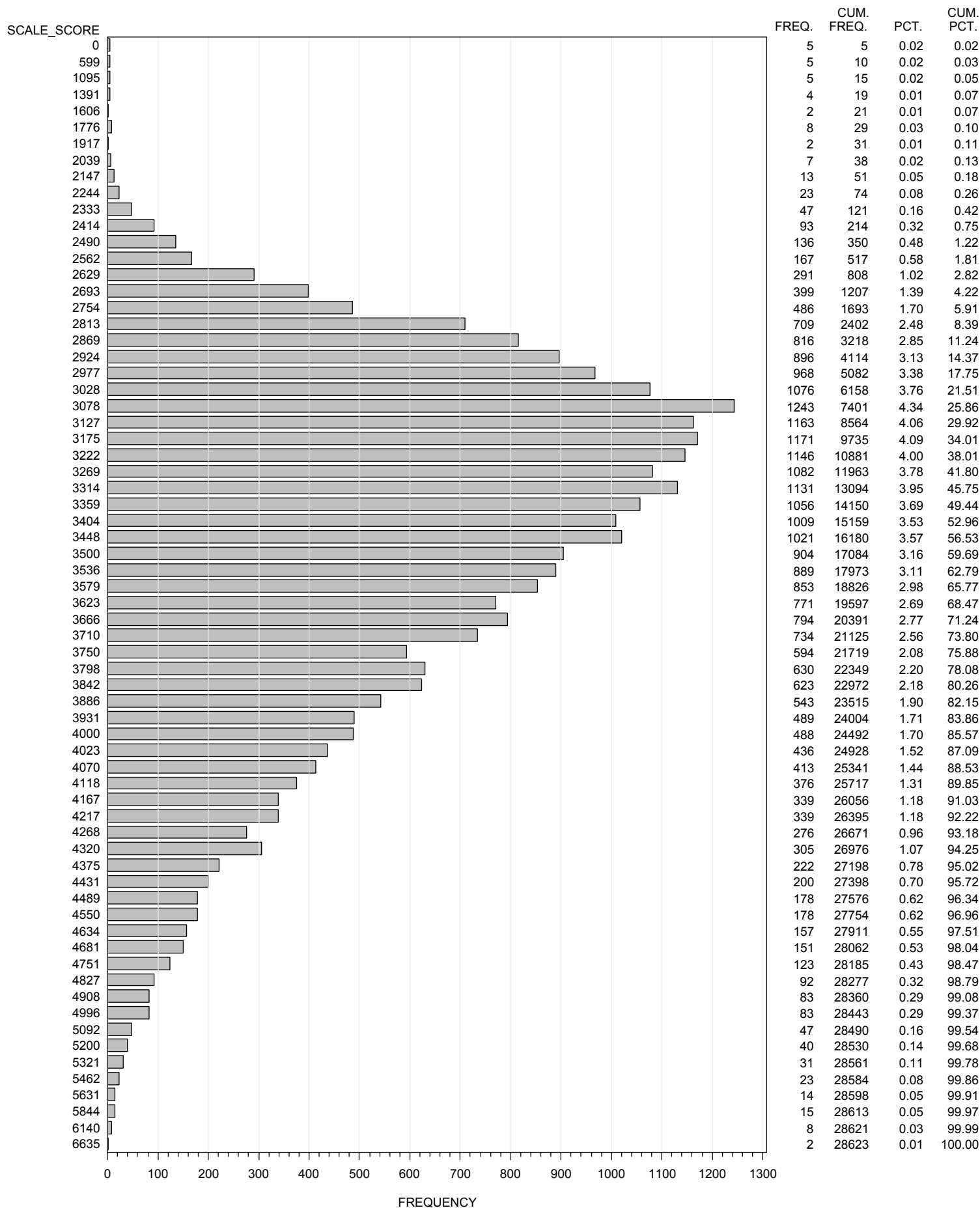
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
PHYSICS
ALL STUDENTS - EXCLUDING BRAILLE



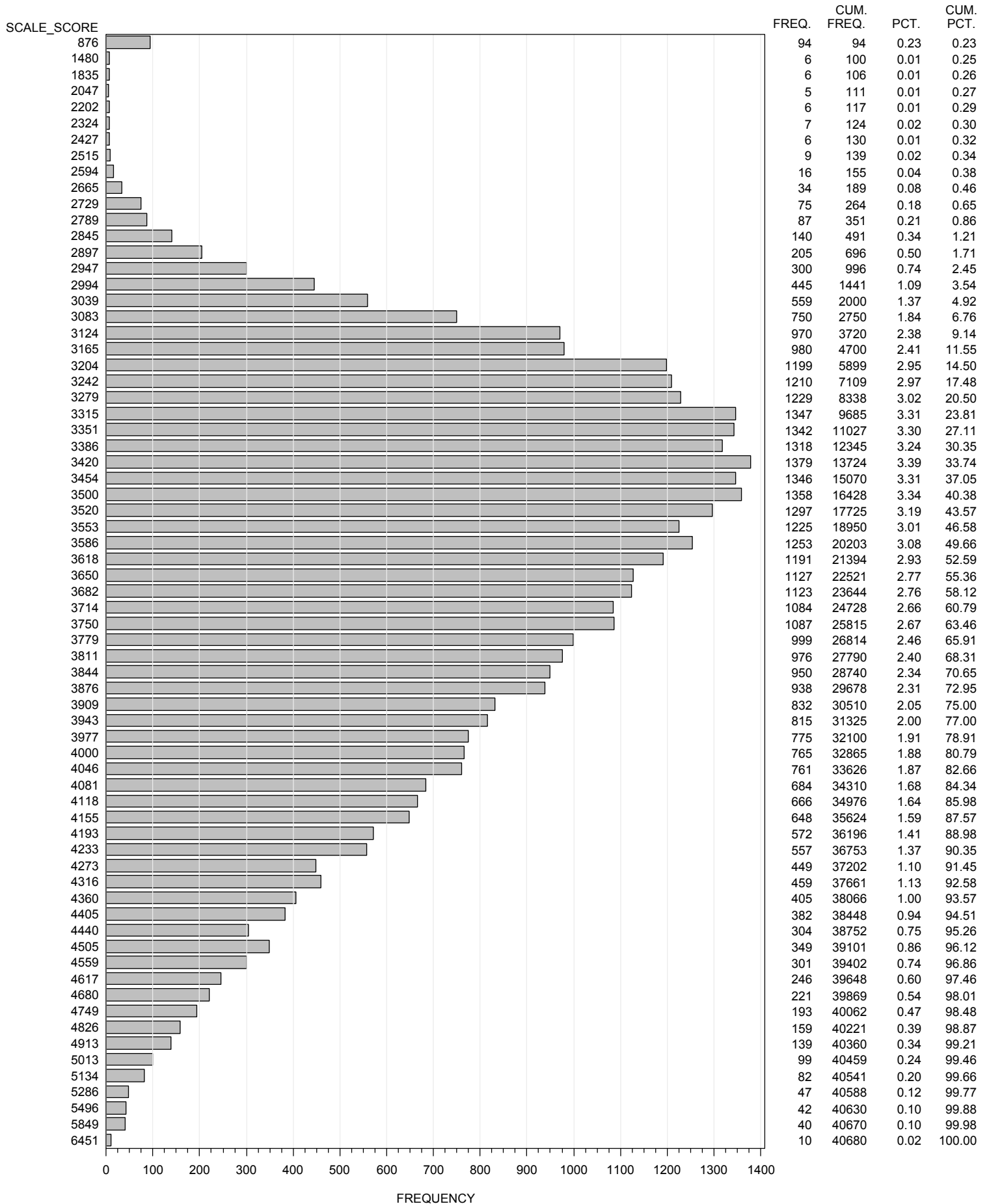
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
WORLD GEOGRAPHY
ALL STUDENTS - EXCLUDING BRAILLE



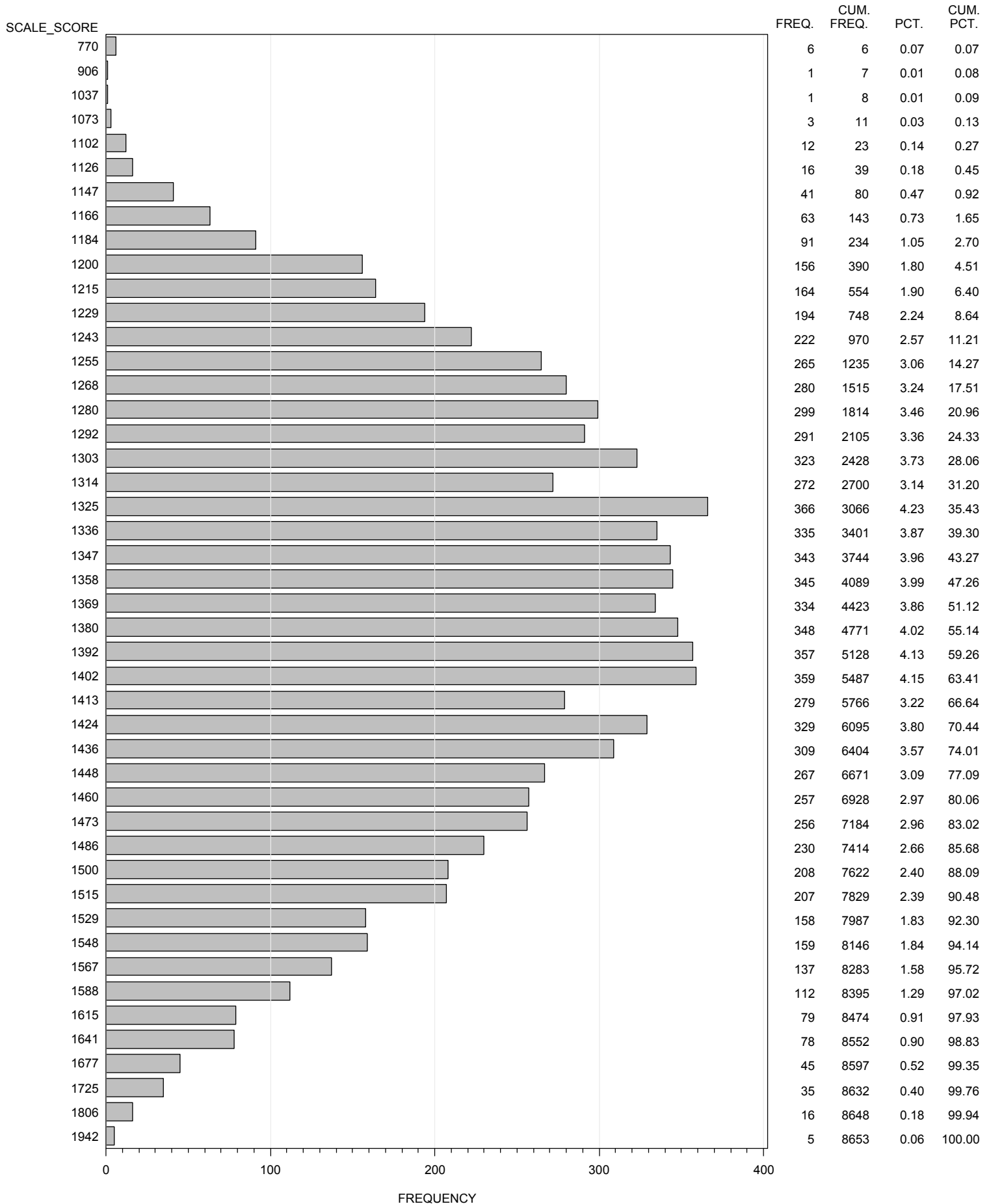
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
WORLD HISTORY
ALL STUDENTS - EXCLUDING BRAILLE



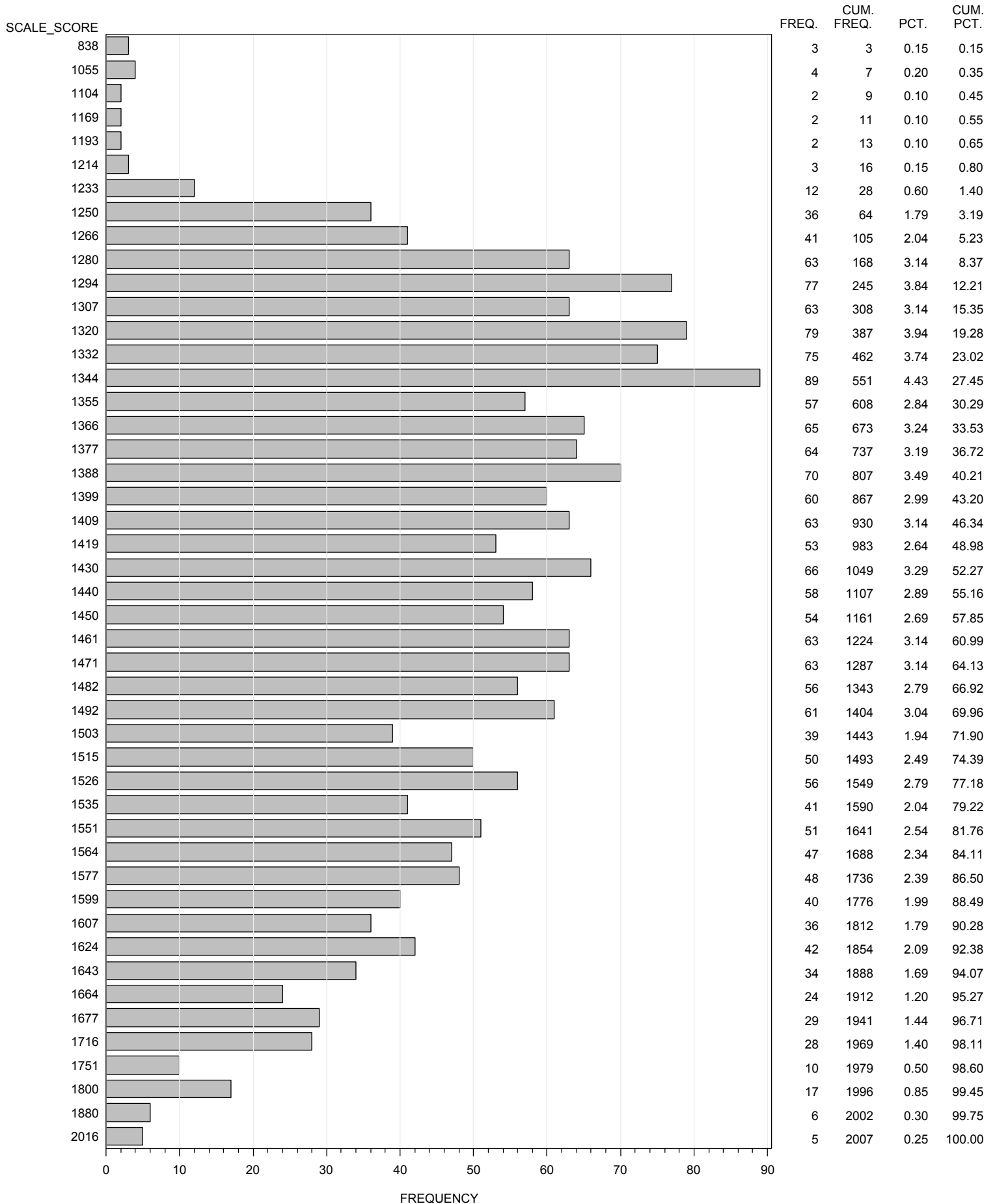
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR EOC SPRING 2012
U.S. HISTORY
ALL STUDENTS - EXCLUDING BRAILLE



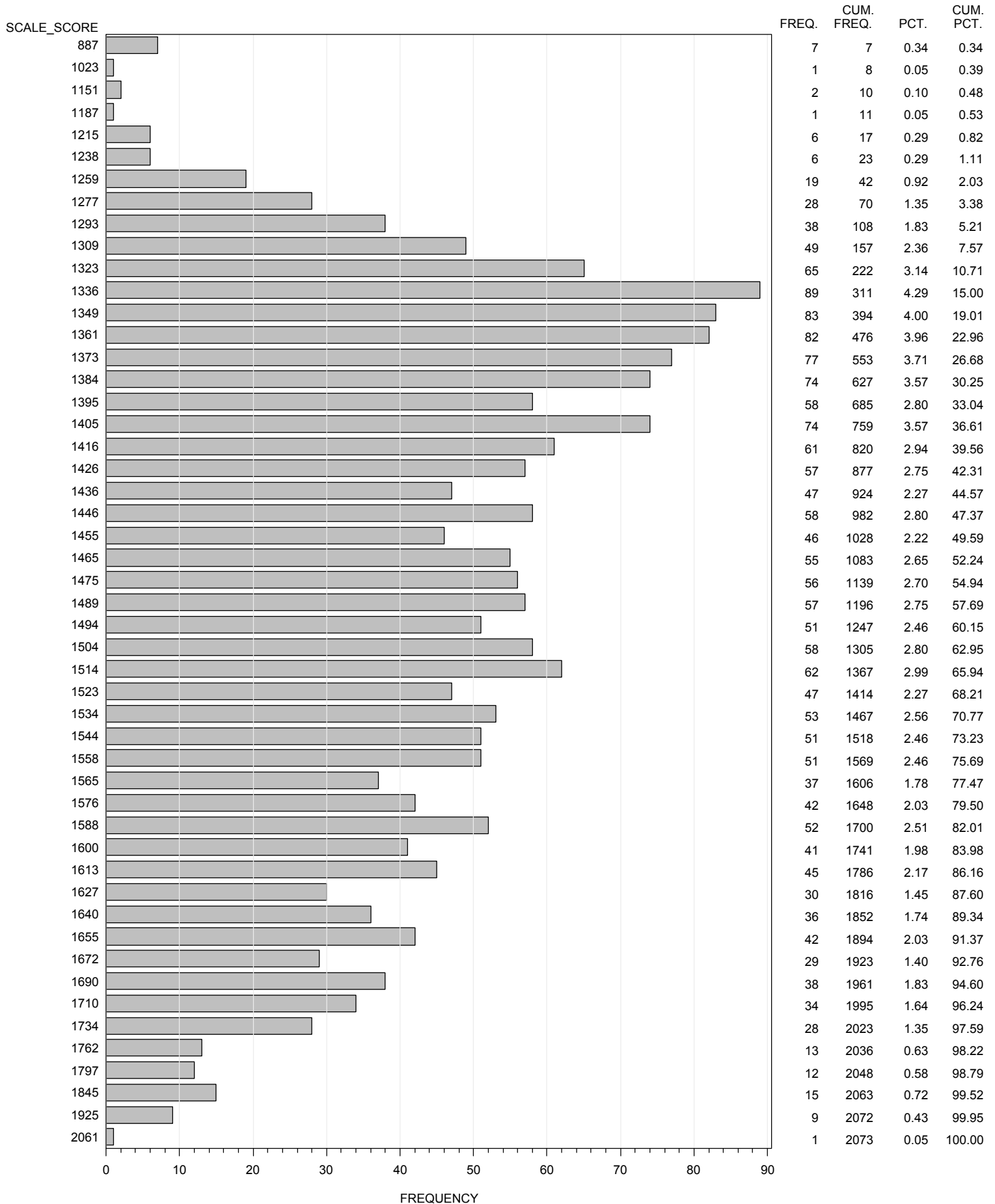
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 3 MATHEMATICS
ALL STUDENTS



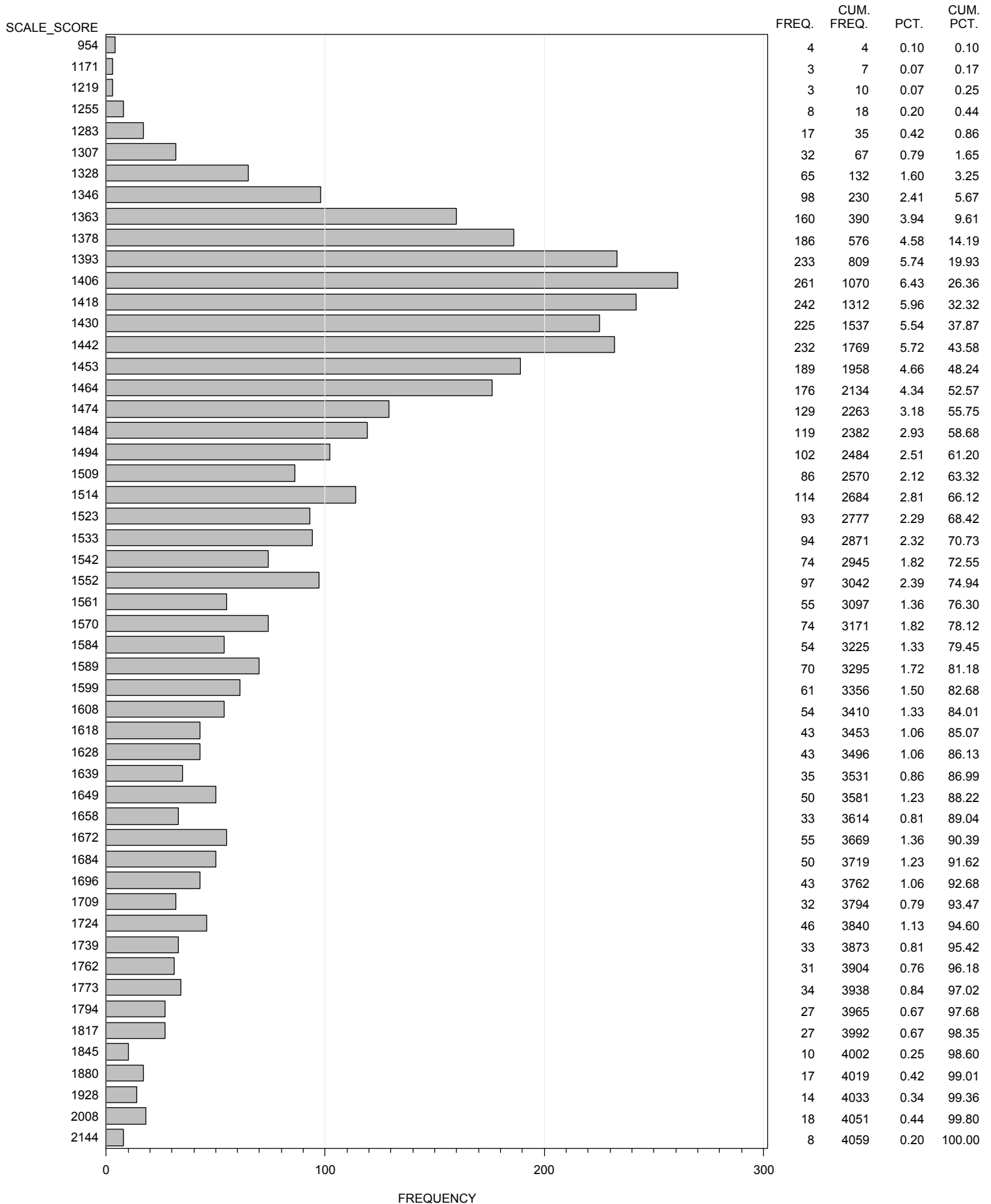
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 4 MATHEMATICS
ALL STUDENTS



FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 5 MATHEMATICS
ALL STUDENTS

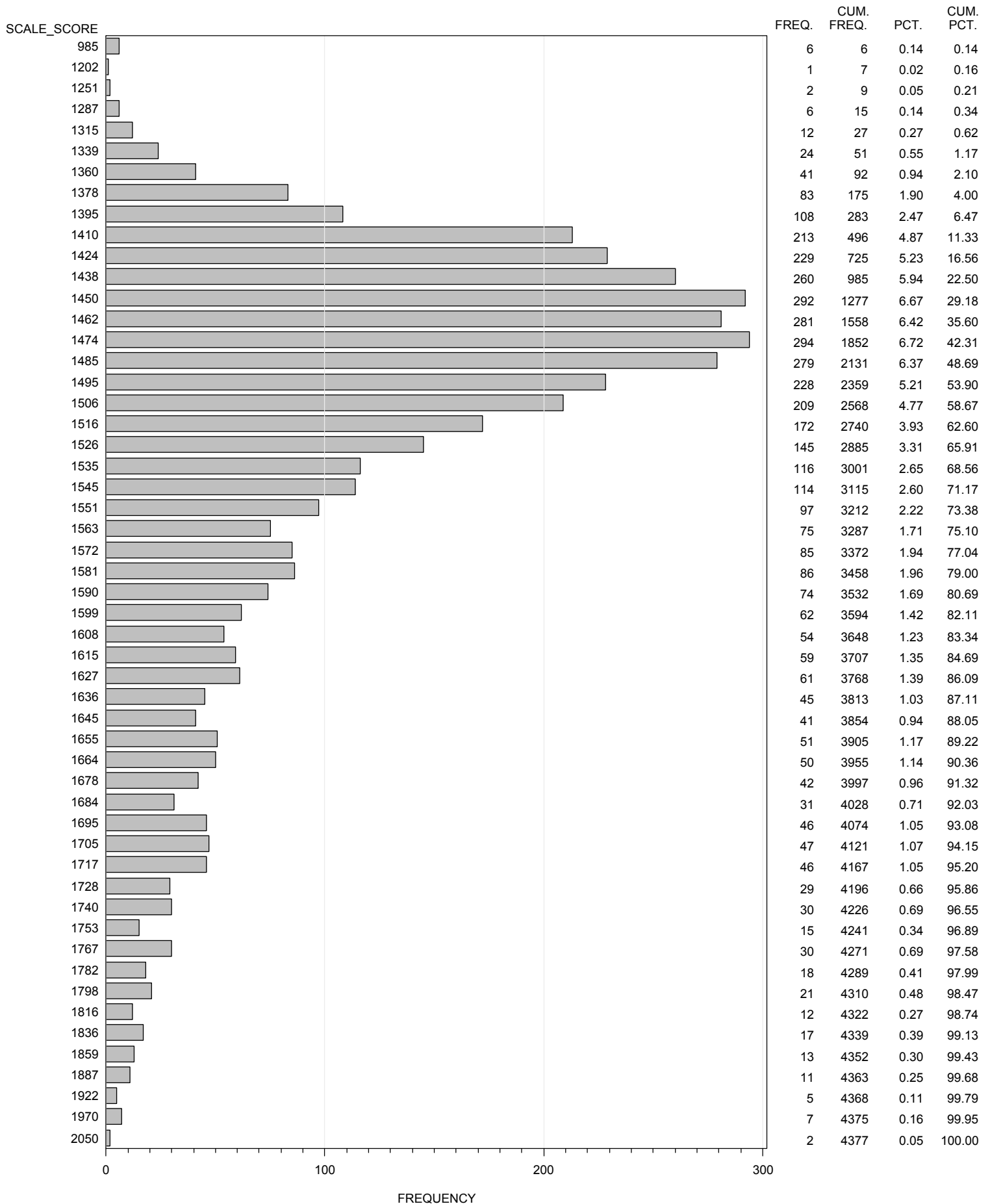


FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 6 MATHEMATICS
ALL STUDENTS

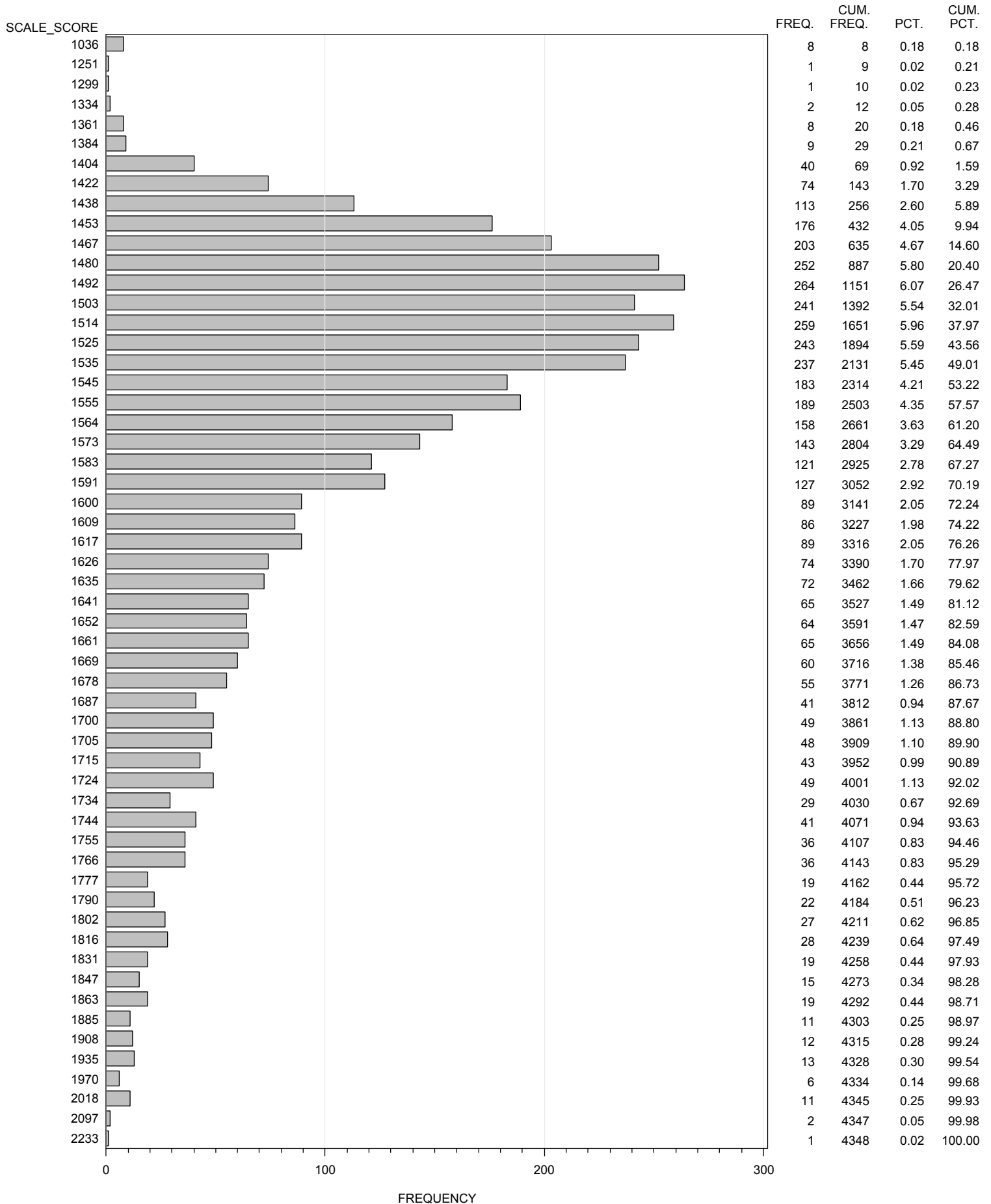


FREQUENCY DISTRIBUTION - SCALE SCORES

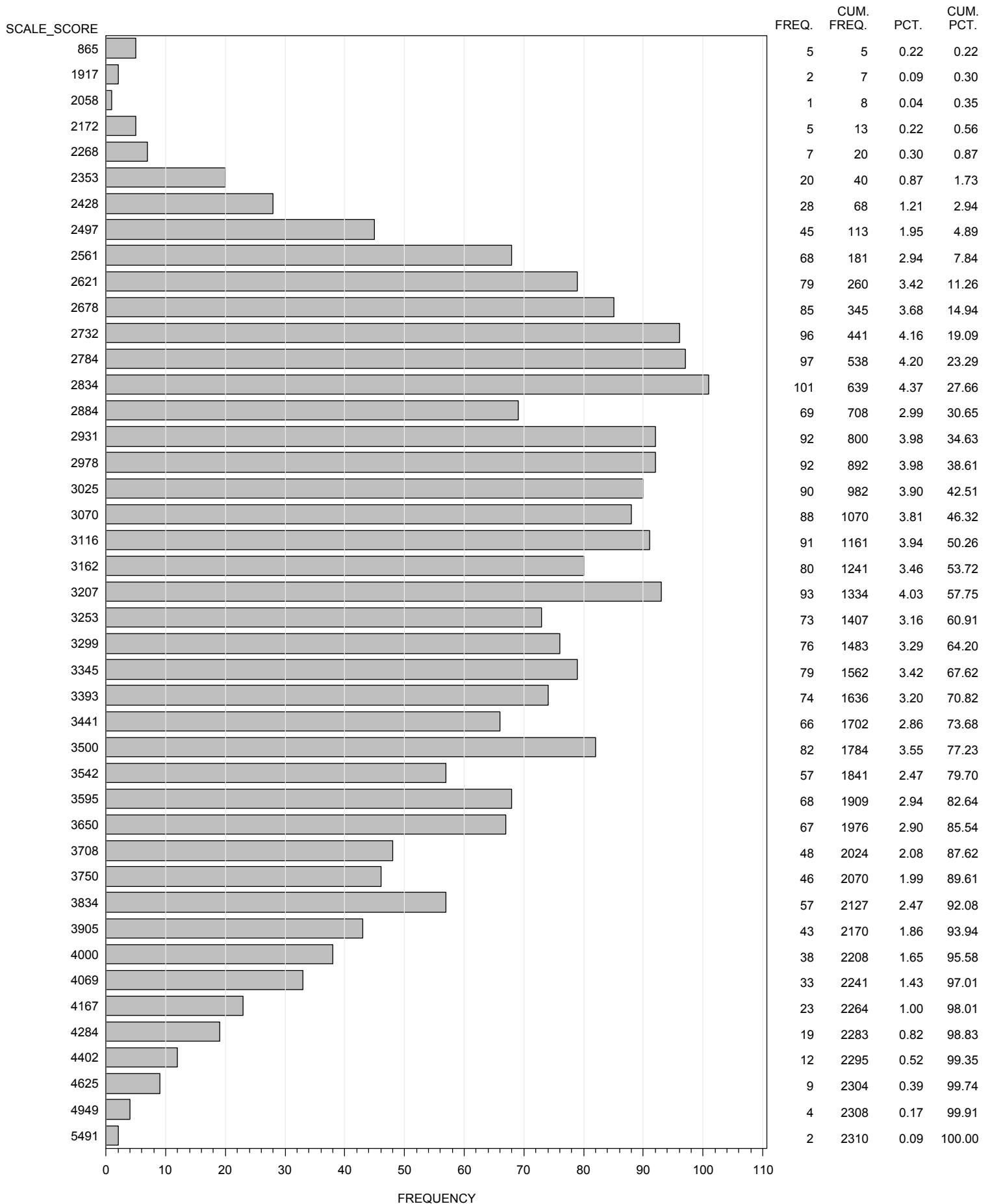
STAAR L SPRING 2012
GRADE 7 MATHEMATICS
ALL STUDENTS



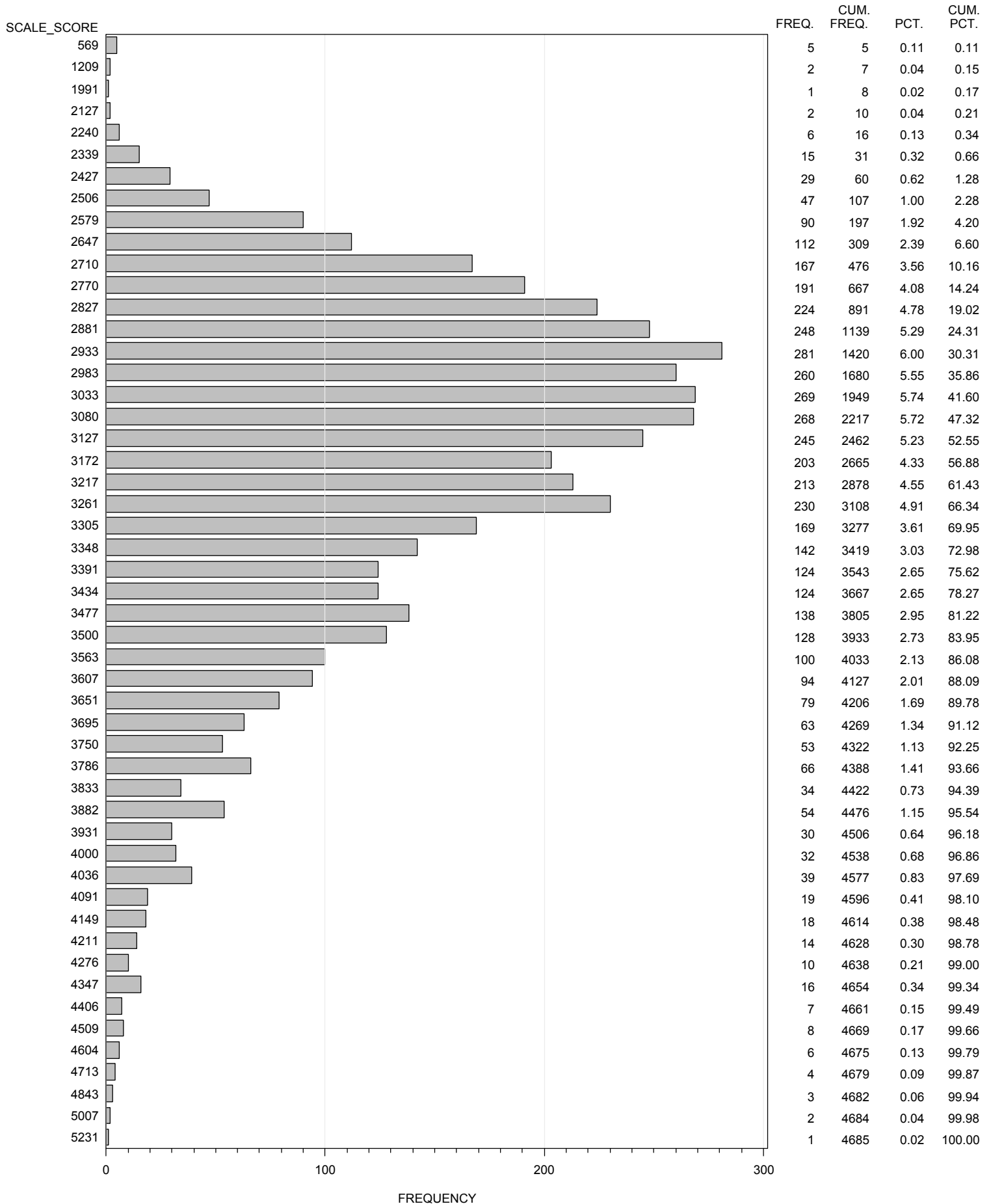
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 8 MATHEMATICS
ALL STUDENTS



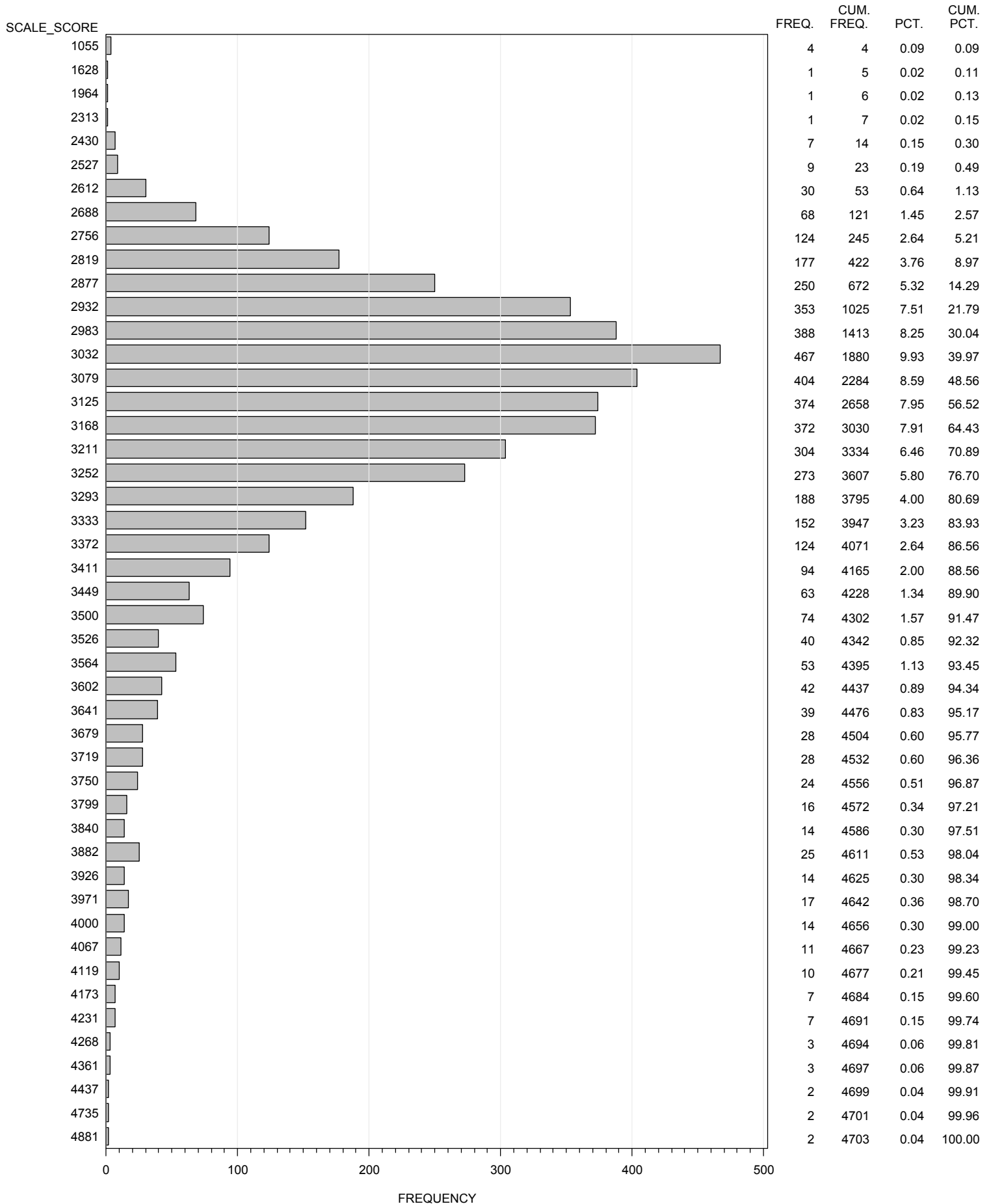
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 5 SCIENCE
ALL STUDENTS



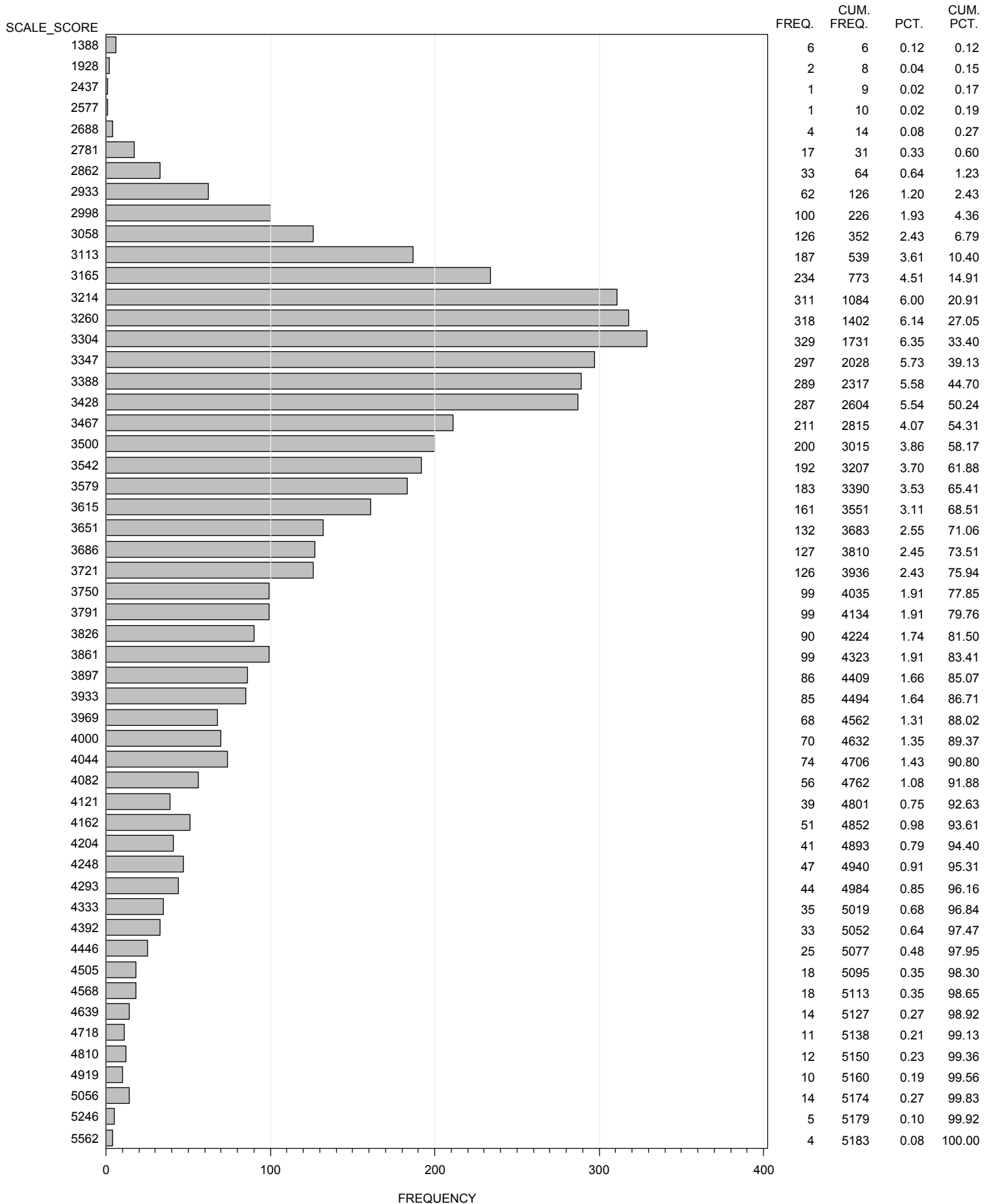
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 8 SCIENCE
ALL STUDENTS



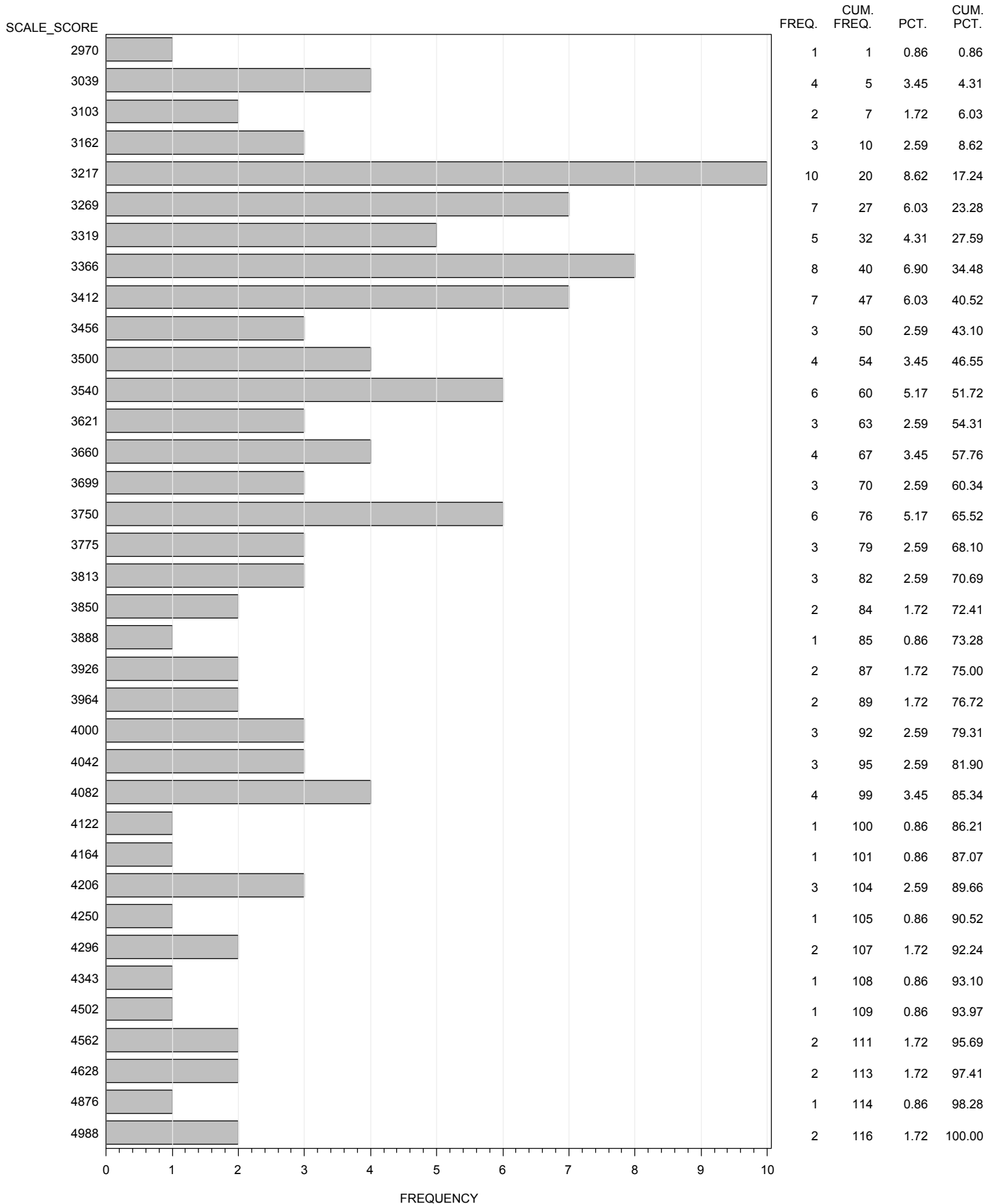
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L SPRING 2012
GRADE 8 SOCIAL STUDIES
ALL STUDENTS



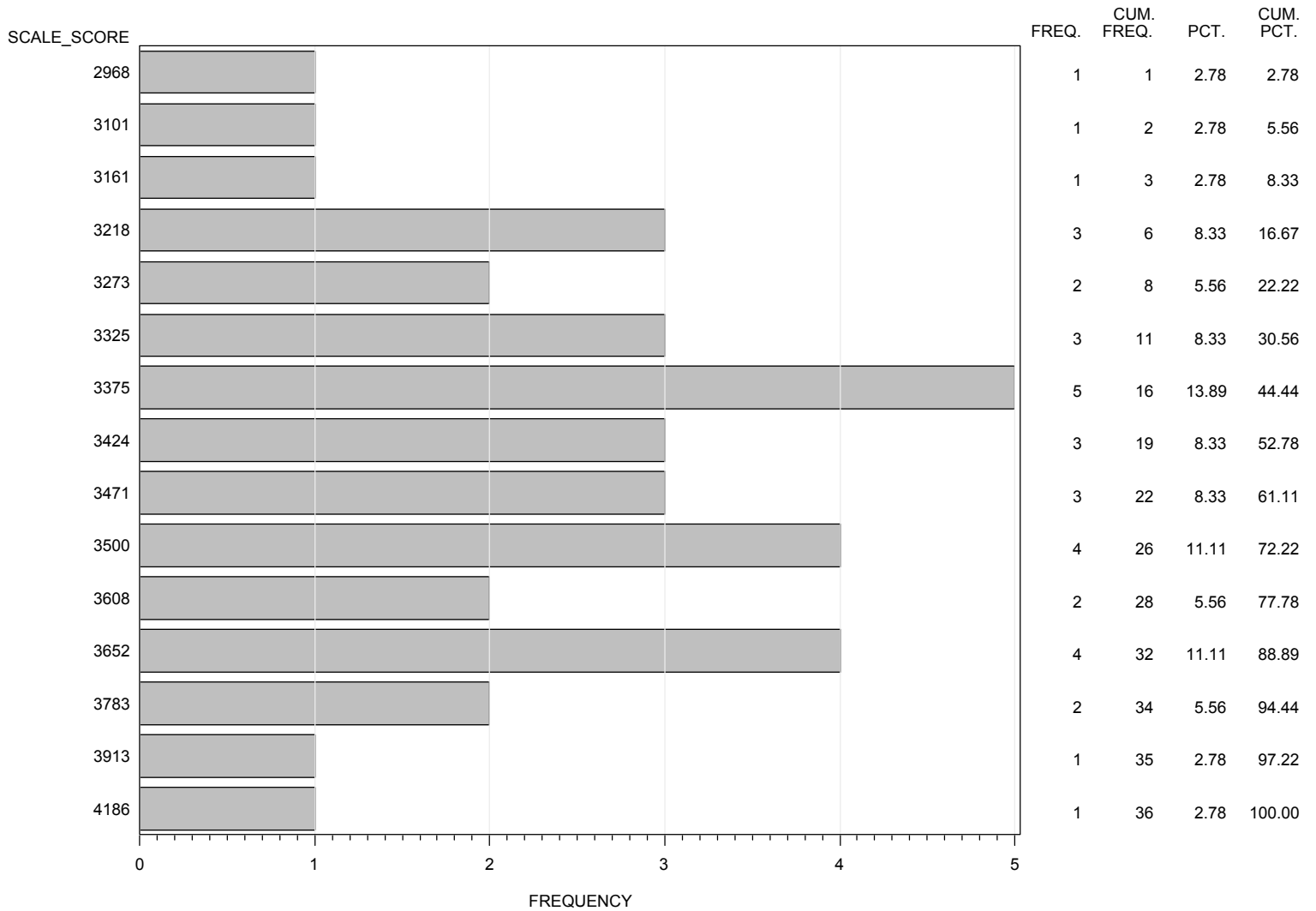
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
ALGEBRA I
ALL STUDENTS



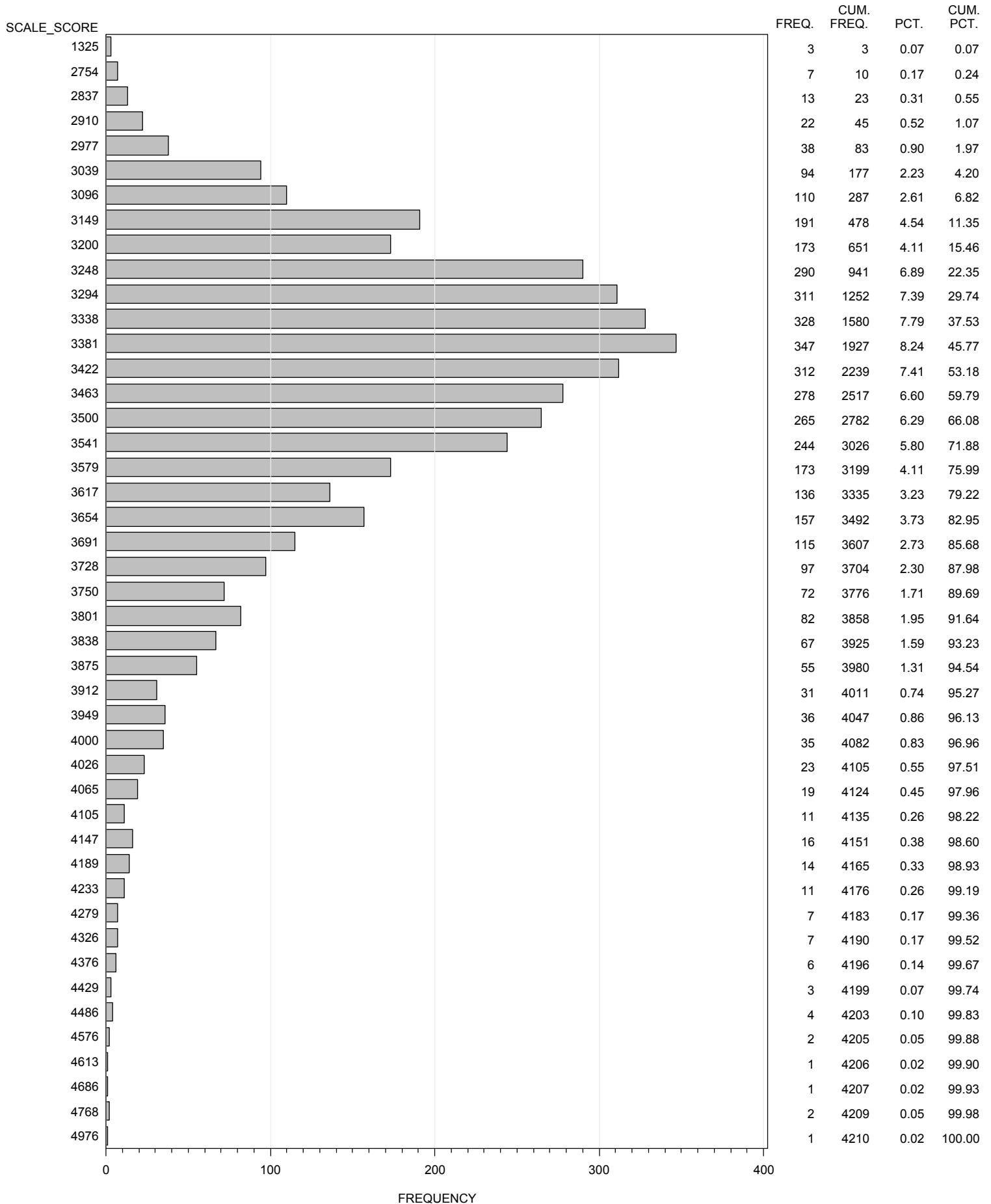
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
GEOMETRY
ALL STUDENTS



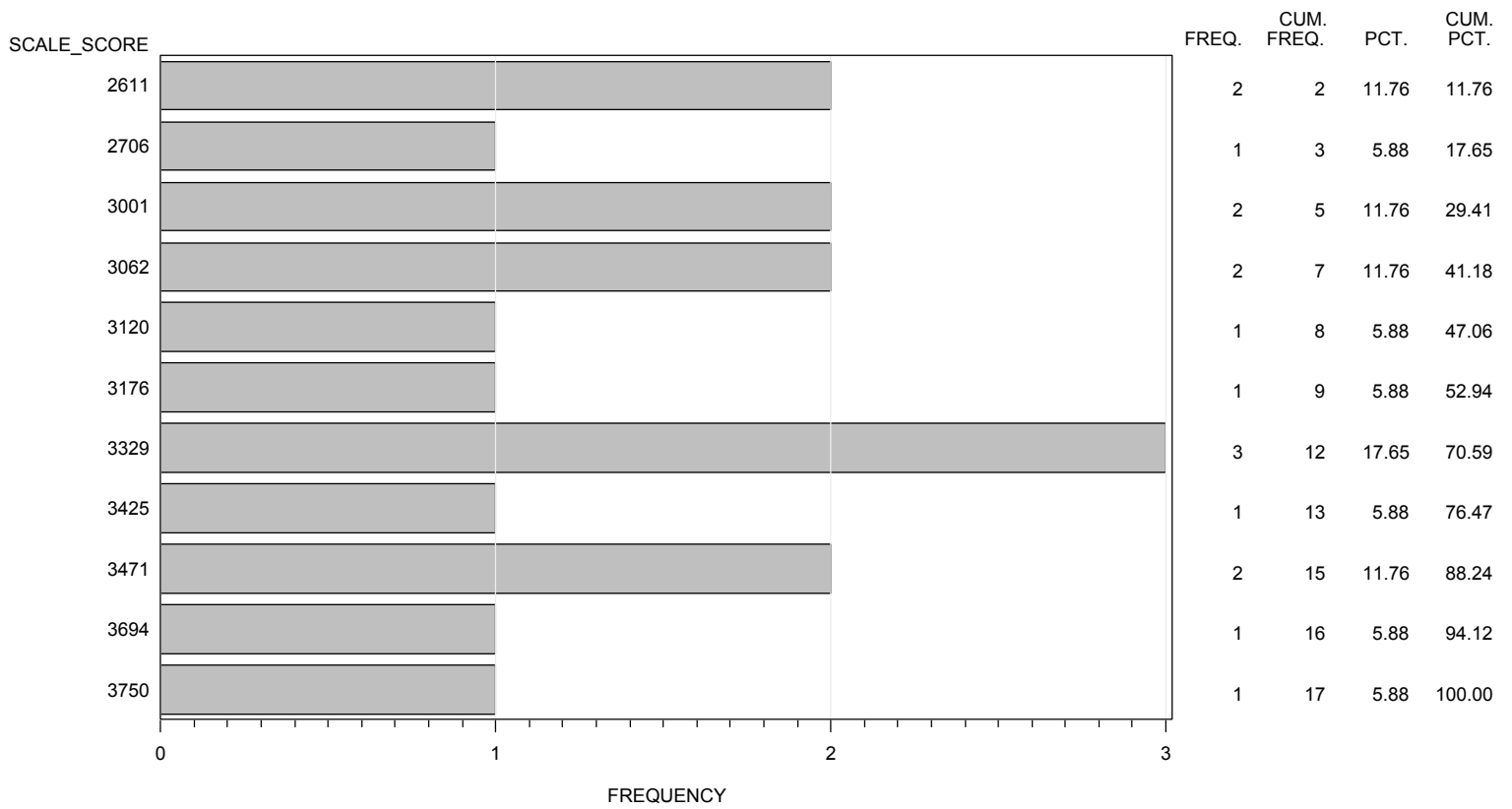
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
ALGEBRA II
ALL STUDENTS



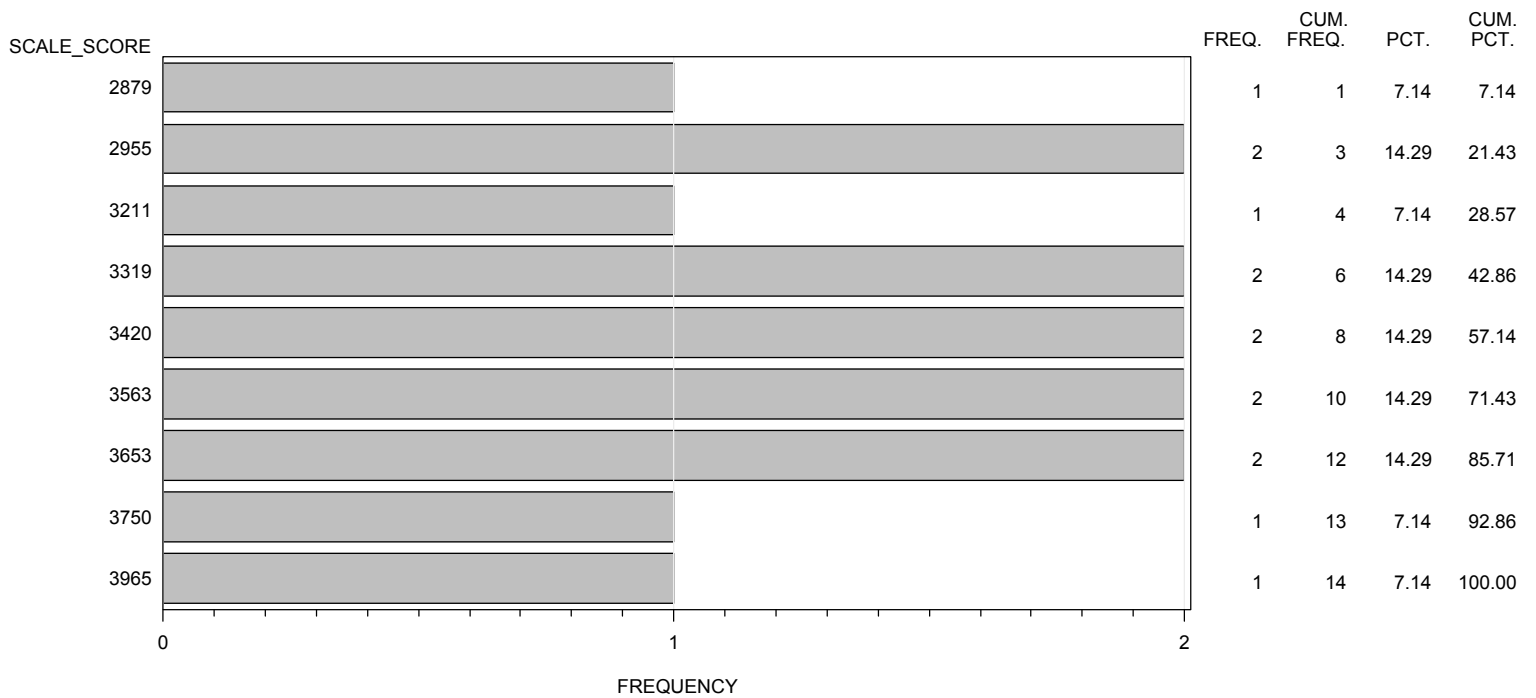
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
BIOLOGY
ALL STUDENTS



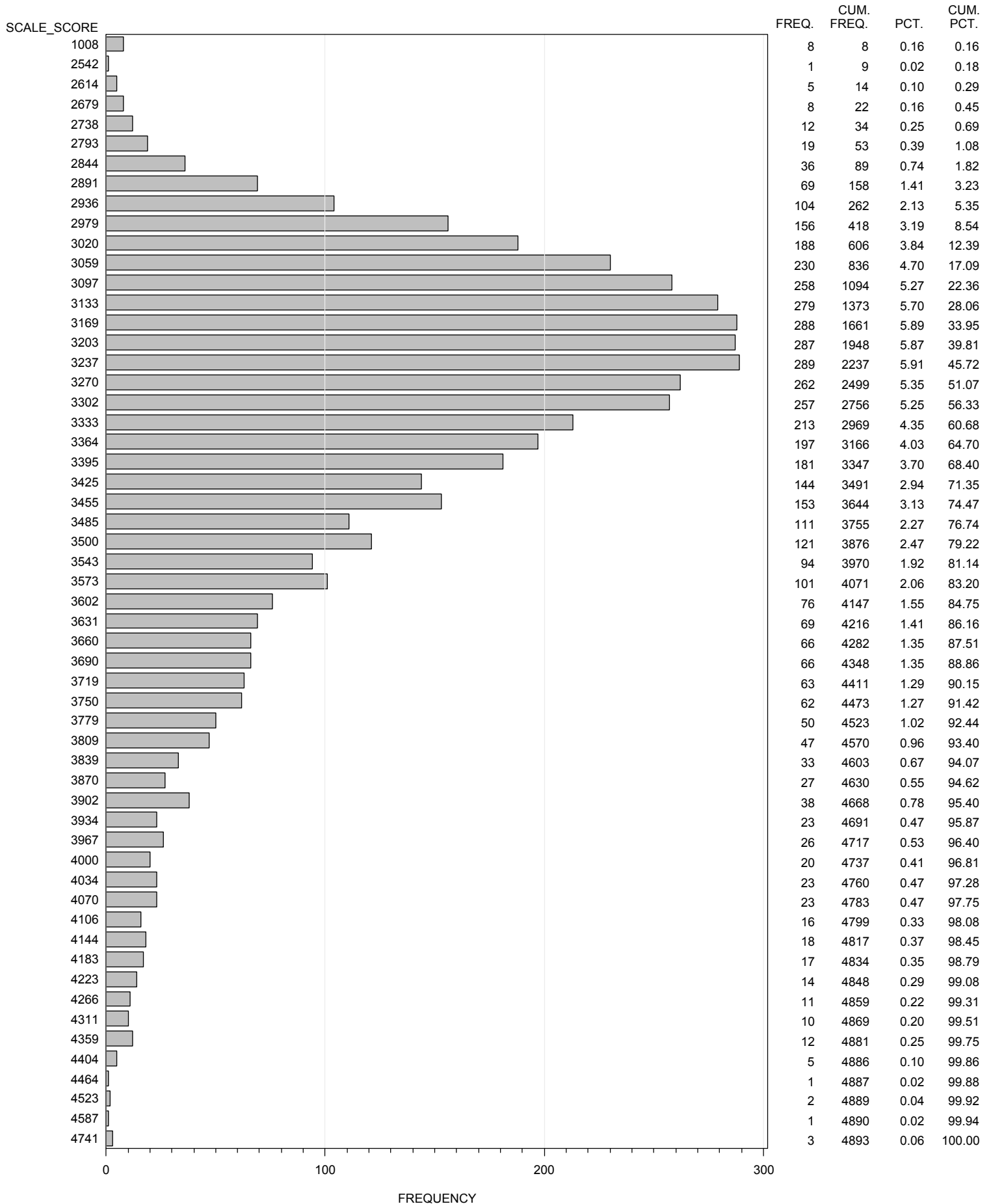
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
CHEMISTRY
ALL STUDENTS



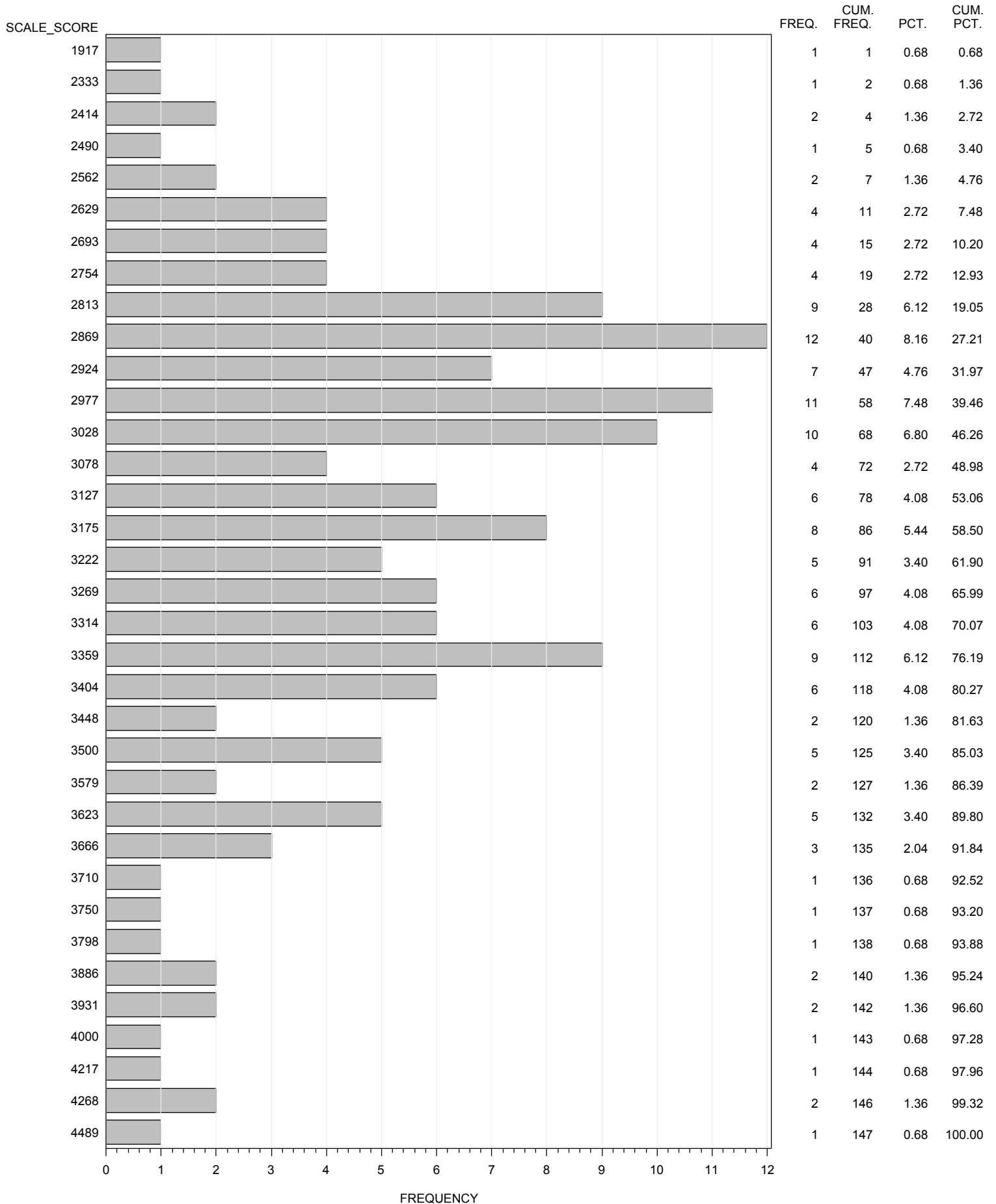
FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
PHYSICS
ALL STUDENTS



FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
WORLD GEOGRAPHY
ALL STUDENTS



FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
WORLD HISTORY
ALL STUDENTS



FREQUENCY DISTRIBUTION - SCALE SCORES
STAAR L EOC SPRING 2012
U.S. HISTORY
ALL STUDENTS

