

### **ACER General Ability Test**

Australian Norms



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### The Australian Norms

AGAT norms are established using a sample of Australian students at each year level. This sample is drawn from AGAT 1st Edition sittings in the ACER's Online Assessment and Reporting System (OARS) database.

For this norm update, de-identified student results from the OARS database were selected based on certain criteria. First, only student results from testing during the last quarter of the 2019 calendar year (October – December) were selected. The decision was made to limit the sample to students tested around the same time of year so that comparisons are made to students at approximately the same stage of their schooling. Students in a particular year level sitting a test at the beginning of the year would likely perform differently from students from the same level sitting a test at the end of the year.

At each year level from Year 2 to Year 10, only cases where the sitting year level matched the target year level and the student's age fell within an appropriate range were retained. The age ranges were drawn based on Australian Bureau of Statistics (ABS) data on the distribution of students by age and year level. This measure was taken to minimise erroneous or unusual year-level information in the OARS database and with the assumption that students described as being in a particular year level at the time of testing would fall within the typical age range. Further, the sample was restricted to schools that could be matched to the ACER 2019 School Sampling Frame, which provides population-level information about schools and students in Australia.

The final numbers of schools and students comprising the norm sample from the OARS database are shown in Table 1. The total number of students' results used to calculate the norms are presented by state/territory in Table 2 and by sector in Table 3.

Table 1 School and Students by year level, 2019

Year level	Number of schools	Number of students
Year 2	170	5486
Year 3	169	5140
Year 4	218	6865
Year 5	195	5981
Year 6	181	7889
Year 7	108	5134
Year 8	87	4418
Year 9	74	3985
Year 10	37	1758

<sup>1</sup> Australian Bureau of Statistics (2019) Table 42b. Number of Full-time and Part-time Students by Affiliation, Sex, Grade, Age and Indigenous Status, States and Territories, 2006-2020 [data set], Schools, 2020, accessed July 2021.

Table 2 Students by year level by state/territory, 2019

Year level	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
Year 2	105	2731	0	777	151	294	812	616
Year 3	112	1834	0	890	231	367	744	962
Year 4	167	3137	0	1177	295	361	716	1012
Year 5	109	2323	0	1237	395	316	627	974
Year 6	85	3164	131	1258	553	318	1320	1060
Year 7	14	1128	0	1197	344	73	1788	590
Year 8	10	1135	0	1383	223	80	1134	453
Year 9	0	665	111	1083	256	49	1430	391
Year 10	152	109	0	648	7	0	787	55

Table 3 Students by year level by sector, 2019

Year level	Government	Catholic	Independent
Year 2	1481	2107	1898
Year 3	1527	1762	1851
Year 4	1728	2867	2270
Year 5	1604	2244	2133
Year 6	1925	2955	3009
Year 7	654	1829	2651
Year 8	332	2043	2043
Year 9	513	1534	1938
Year 10	476	619	663

The previous norm study was the result of a probability sampling process undertaken at the time of the original test development. The data for 2023 AGAT Australian norms are 'self-selecting' or convenient. This means that the sample was not selected using probability sampling methods but rather used all appropriate data gathered from AGAT tests in OARS. Therefore, the data are not necessarily nationally representative.

Because the data are self-selecting, a weighting adjustment is applied for analysis so that students representing different components of the national population – for example, states, sectors, locations, and socio-economic backgrounds – were contributing to the norm outcomes in proportion to their representation in the population.

## Weighting

The underlying assumption behind weighting is that the participating student is representative of the group of students that the student is being weighted to – the so-called 'weighting class'. This assumption is more likely to hold when the weighting class is confined to a relatively small part of the population. Rather than simply considering Year 2 students in the OARS database from Victoria as representative of all Victorian Year 2 students and giving each participant the same weight reflecting the proportion of that group in the data, it is better to consider those students as representatives of smaller subgroups within the larger Victorian Year 2 group – for example, students from schools in similar locations or socioeconomic areas, or students from the same school sector.

At the same time, it is important that weighting classes are represented by a good number of schools and students. Too few participating schools or students representing a weighting class may lead to individual students being assigned relatively large weights. This is undesirable as these students may have an overly strong influence on outcomes.

The formation of weighting classes is, therefore, an exercise in finding well-defined, smaller subgroups within the population within which a good number of schools and students have participated. For each year level, the available student data was distributed across subpopulations defined by the following criteria:

	Six states
Jurisdiction	Two territories
	Government
Management	Non-government
	Government
Sector	Catholic
	Independent
Cabaallaantian	Metropolitan
School location	Non-metropolitan
School socio-economic status	Five quintiles based on the postcode-derived Education and Occupation Index, one of the ABS Socio-Economic Index for Areas (SEIFA) indices. <sup>1</sup>

The population reference at this stage was the ACER Sampling Frame, and the maximum possible number of weighting classes across the population was 240.

Weight classes were typically not maintained if fewer than five schools were present in the weighting class. Where this standard was not met, weight classes with small numbers of schools were collapsed to form a larger class, usually working backwards through the components outlined above.

Following the initial formation of weighting classes, the distribution of data within weight classes by student gender was examined. A weight adjustment was made so that the weighted number of boys and girls in the weighting class matched the population for that class. In some cases, due to the presence of single-sex schools, the number of schools in the newly formed weighting classes was reduced to below five after taking the sex of students into account. In these cases, another round of collapsing was undertaken so that a minimum of five schools per weighting class was maintained.

Table 4 shows the weighted distribution of students comprising the norm sample by state or territory and sector and is compared with the population distribution calculated from the ABS Schools Data, Table 42b Number of Full-time and Part-time Students<sup>2</sup>.

<sup>2</sup> Australian Bureau of Statistics (2019) Table 42b. Number of Full-time and Part-time Students by Affiliation, Sex, Grade, Age and Indigenous Status, States and Territories, 2006-2020 [data set], Schools, 2020, accessed July 2021.

Table 4 Weighted distribution of the AGAT norm sample (2019) compared with the population by state and sector

		Gover	nment	Cat	holic	Independent	
	State	Weighted sample %	Population %	Weighted sample %	Population %	Weighted sample %	Population %
	ACT	3.5	1.7	0.0	2.2	0.0	2.1
	NSW	37.7	31.3	59.5	32.6	15.5	30.4
	NT	0.0	1.3	0.0	0.6	0.0	1.1
Year 2	QLD	29.1	21.4	0.0	20.0	16.2	21.0
Yec	SA	1.1	6.4	0.0	5.8	16.5	9.4
	TAS	0.0	2.1	19.8	1.9	0.0	1.7
	VIC	13.1	24.5	4.7	27.8	48.4	23.5
	WA	15.4	11.3	16.0	9.1	3.3	10.8
	ACT	2.8	1.7	0.0	2.2	0.0	2.1
	NSW	32.7	31.3	55.9	32.6	16.5	30.4
	NT	0.0	1.3	0.0	0.6	0.0	1.1
Year 3	QLD	23.0	21.4	0.0	20.0	28.3	21.0
Yec	SA	4.0	6.4	0.0	5.8	17.5	9.4
	TAS	0.0	2.1	19.4	1.9	0.1	1.7
	VIC	25.6	24.5	0.0	27.8	35.8	23.5
	WA	11.9	11.3	24.7	9.1	1.7	10.8
	ACT	2.8	1.7	0.0	2.5	0.0	2.0
	NSW	32.1	30.7	60.6	31.9	16.0	30.2
	NT	0.0	1.2	0.0	0.6	0.0	1.1
Year 4	QLD	23.4	22.4	0.0	20.3	28.1	21.8
Yec	SA	4.7	6.3	0.0	5.6	15.1	9.1
	TAS	0.0	2.2	21.8	2.0	0.1	1.7
	VIC	25.3	24.2	0.0	27.8	35.0	23.2
	WA	11.7	11.2	17.6	9.3	5.7	10.8

Table 4 Cont.

		Gove	rnment	Cat	tholic	Indep	endent
	State	Weighted sample %	Population %	Weighted sample %	Population %	Weighted sample %	Population %
	ACT	3.3	1.6	0.0	2.5	0.0	1.8
	NSW	0	30.8	62.1	31.9	6.8	30.5
	NT	0.0	1.2	0.0	0.6	0.0	1.1
Year 5	QLD	29.2	22.4	5.8	19.9	16.7	21.5
Yec	SA	4.4	6.5	0.0	5.5	12.6	8.7
	TAS	0.0	2.3	17.8	2.0	0.1	1.8
	VIC	8.4	24.0	0.0	28.1	59.6	23.7
	WA	14.5	11.2	14.3	9.4	4.1	10.8
	ACT	3.3	1.5	0.0	2.4	0.0	1.7
	NSW	39.8	30.9	29.9	32.0	15.2	29.8
	NT	2.0	1.2	0.0	0.6	0.0	1.0
Year 6	QLD	29.1	22.5	13.7	19.6	13.6	21.4
Хео	SA	2.5	6.5	0.0	5.8	18.4	8.9
	TAS	0.0	2.2	11.5	2.0	0.2	1.9
	VIC	8.7	24.0	35.3	28.3	47.5	24.0
	WA	14.6	11.3	9.5	9.3	5.1	11.3
	ACT	0.0	1.6	0.0	2.6	5.7	1.7
	NSW	33.7	30.2	26.0	34.1	30.3	28.5
	NT	0.0	1.1	0.0	0.8	0.0	1.0
Year 7	QLD	29.5	23.1	14.1	19.3	16.9	21.9
Yec	SA	4.5	6.8	0.0	5.5	13.8	7.3
	TAS	0.0	2.3	0.3	2.2	6.4	1.7
	VIC	30.2	23.7	28.6	26.1	15.1	26.2
	WA	2.1	11.2	31.0	9.5	11.7	11.7

Table 4 Cont.

		Gove	rnment	Cat	holic	Indep	Independent		
	State	Weighted sample %	Population %	Weighted sample %	Population %	Weighted sample %	Population %		
	ACT	0.0	1.6	0.0	2.5	3.6	1.7		
	NSW	13.8	29.9	31.5	34.1	32.8	28.5		
	NT	0.0	1.1	0.0	0.7	0.0	1.1		
Year 8	QLD	16.8	23.5	20.9	19.3	24.4	21.4		
X ec	SA	1.2	6.9	0.0	5.5	13.0	7.6		
	TAS	0.0	2.3	1.6	2.1	2.9	1.8		
	VIC	54.5	23.7	24.5	26.2	21.0	26.0		
	WA	13.7	10.9	21.5	9.7	2.3	12.0		
	ACT	51.2	1.6	22.7	2.5	19.0	1.7		
	NSW	2.7	30.3	0.0	34.2	0.0	28.3		
	NT	3.8	1.0	25.3	0.7	37.2	1.0		
Year 9	QLD	0.0	23.3	0.0	19.5	16.1	21.8		
× ec	SA	0.0	6.7	0.0	5.6	5.1	7.6		
	TAS	40.3	2.2	26.2	2.1	12.0	1.7		
	VIC	2.0	23.9	25.8	26.0	10.6	26.2		
	WA	51.2	10.9	22.7	9.5	19.0	11.7		
	ACT	0.0	1.7	9.0	2.4	0.0	1.7		
	NSW	17.7	30.3	0.0	34.3	46.8	28.2		
	NT	0.0	1.1	0.0	0.6	0.0	0.9		
Year 10	QLD	0.0	23.0	39.9	19.0	23.3	22.1		
√ed	SA	0.0	7.2	0.0	6.0	11.9	7.8		
	TAS	0.0	2.2	0.0	2.2	0.0	1.7		
	VIC	82.3	24.4	48.3	26.1	1.5	25.8		
	WA	0.0	10.2	2.8	9.5	16.5	11.7		

# Achievement of students in the norm study

Results from AGAT assessments administered to the norm samples of Australian students were used to ascertain the scale score averages and standard deviations of each year level and – assuming a normal distribution – to calculate the set of percentile ranks associated with achieved scale scores.

The percentile rank of a score is the percentage of students who achieve less than that score. For example, a student with a percentile rank of 75 on a Year 3 test has a score that is higher than 75 per cent of Australian Year 3 students.

Table 5 shows the number of students, the AGAT scale score mean and standard deviation at each year level of the norm sample.

Table 5 AGAT norm sample (2019 update) achievement statistics by year level

	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Students (Weighted N)	313,225	312,626	314,748	312,405	318,518	307,964	297,742	283,138	278,953
Mean Scale Score (agat)	115.6	121.6	125.6	127.9	129.1	129.4	129.3	129.4	129.9
Standard deviation (agat)	12.2	11.0	11.9	13.0	11.8	11.4	11.0	10.3	10.4

Figure 1 (page 8) shows the distribution of achievement of the AGAT norm samples for Year 2 to Year 10.

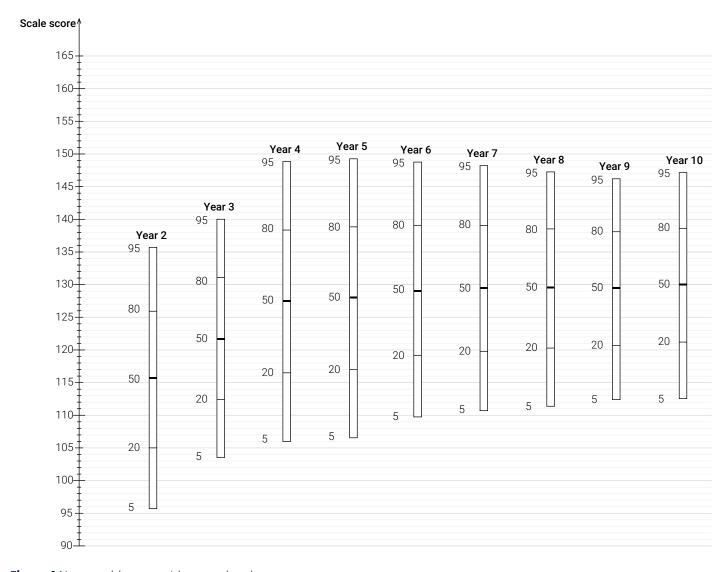


Figure 1 Norm achievement by year level

# AGAT 2nd Edition score conversion tables

			Percentile rank and stanine					
	01 -		Yea	ır 2	Yea	ır 3		
Raw score	Scale score	Error	percentile rank	stanine	percentile rank	stanine		
35	157.6	14.7	99	9	99	9		
34	146.1	8.7	99	9	98	9		
33	140.4	6.9	97	9	95	8		
32	136.5	5.9	95	8	91	8		
31	133.5	5.3	92	8	85	7		
30	131.0	4.9	89	7	80	7		
29	128.8	4.6	86	7	74	6		
28	126.8	4.4	82	7	68	6		
27	125.0	4.2	77	6	61	6		
26	123.3	4.1	73	6	55	5		
25	121.8	4.0	69	6	50	5		
24	120.3	3.9	65	6	45	5		
23	118.9	3.8	60	5	40	4		
22	117.5	3.7	56	5	35	4		
21	116.1	3.7	51	5	30	4		
20	114.8	3.6	47	5	26	4		
19	113.5	3.6	43	5	22	3		
18	112.3	3.6	39	4	19	3		
17	111.0	3.6	35	4	16	3		
16	109.7	3.6	31	4	13	3		
15	108.4	3.6	27	4	11	2		
14	107.1	3.7	24	4	9	2		
13	105.8	3.7	21	3	7	2		
12	104.4	3.8	18	3	5	2		
11	103.0	3.9	15	3	4	1		
10	101.5	3.9	12	3	3	1		
9	99.9	4.1	9	2	2	1		
8	98.3	4.2	7	2	1	1		
7	96.5	4.4	5	2	1	1		
6	94.5	4.6	4	1	1	1		
5	92.3	4.9	2	1	1	1		
4	89.8	5.3	1	1	1	1		
3	86.7	5.9	1	1	1	1		
2	82.8	6.9	1	1	1	1		
1	77.2	8.7	1	1	1	1		
0	65.6	14.7	1	1	1	1		

					Percentile ran	k and stanine		
	Coalo		Yeo	ar 2	Yeo	ır 3	Yeo	ar 4
Raw score	Scale score	Error	percentile rank	stanine	percentile rank	stanine	percentile rank	stanine
35	160.4	14.6	99	9	99	9	99	9
34	148.9	8.6	99	9	99	9	97	9
33	143.4	6.8	98	9	97	9	93	8
32	139.6	5.8	97	9	94	8	87	7
31	136.6	5.3	95	8	91	8	82	7
30	134.2	4.8	93	8	87	7	76	6
29	132.0	4.6	91	8	82	7	70	6
28	130.1	4.3	88	7	77	6	64	6
27	128.4	4.1	85	7	73	6	59	5
26	126.7	4.0	81	7	67	6	53	5
25	125.2	3.9	78	7	62	6	48	5
24	123.8	3.8	74	6	57	5	43	5
23	122.4	3.7	71	6	52	5	39	4
22	121.1	3.7	67	6	48	5	35	4
21	119.8	3.6	63	6	43	5	31	4
20	118.5	3.6	59	5	38	4	27	4
19	117.2	3.6	55	5	34	4	23	3
18	116.0	3.6	51	5	30	4	20	3
17	114.7	3.6	47	5	26	4	17	3
16	113.5	3.6	43	5	22	3	15	3
15	112.2	3.6	39	4	19	3	12	3
14	110.9	3.7	35	4	16	3	10	2
13	109.6	3.7	31	4	13	3	8	2
12	108.2	3.8	27	4	11	2	7	2
11	106.8	3.8	23	3	8	2	5	2
10	105.3	3.9	20	3	6	2	4	1
9	103.8	4.1	16	3	5	2	3	1
8	102.1	4.2	13	3	3	1	2	1
7	100.3	4.4	10	2	2	1	1	1
6	98.3	4.6	7	2	1	1	1	1
5	96.0	5.0	5	2	1	1	1	1
4	93.5	5.4	3	1	1	1	1	1
3	90.3	6.0	1	1	1	1	1	1
2	86.3	6.9	1	1	1	1	1	1
1	80.5	8.8	1	1	1	1	1	1
0	68.8	14.9	1	1	1	1	1	1

		Percentile rank and stanine							
	Scale		Yea	ır 3	Yea	ır 4	Yeo	Year 5	
Raw score	score	Error	percentile rank	stanine	percentile rank	stanine	percentile rank	stanine	
40	166.0	14.7	99	9	99	9	99	9	
39	154.5	8.7	99	9	99	9	97	9	
38	148.9	6.8	99	9	97	9	94	8	
37	145.0	5.9	98	9	94	8	90	8	
36	141.9	5.3	96	8	91	8	85	7	
35	139.4	4.9	94	8	87	7	81	7	
34	137.2	4.6	92	8	83	7	76	6	
33	135.3	4.4	89	7	79	7	71	6	
32	133.5	4.2	85	7	74	6	66	6	
31	131.9	4.0	82	7	70	6	61	6	
30	130.3	3.9	78	7	65	6	57	5	
29	128.9	3.8	74	6	60	5	52	5	
28	127.5	3.7	70	6	56	5	48	5	
27	126.2	3.6	66	6	51	5	44	5	
26	124.9	3.6	61	6	47	5	40	4	
25	123.7	3.5	57	5	43	5	37	4	
24	122.4	3.5	52	5	39	4	33	4	
23	121.2	3.5	48	5	35	4	30	4	
22	120.1	3.5	44	5	32	4	27	4	
21	118.9	3.4	40	4	28	4	24	4	
20	117.7	3.4	35	4	25	4	21	3	
19	116.6	3.4	32	4	22	3	19	3	
18	115.4	3.5	28	4	19	3	16	3	
17	114.2	3.5	24	4	16	3	14	3	
16	113.0	3.5	21	3	14	3	12	3	
15	111.8	3.5	18	3	12	3	10	2	
14	110.6	3.6	15	3	10	2	9	2	
13	109.3	3.6	13	3	8	2	7	2	
12	108.0	3.7	10	2	6	2	6	2	
11	106.6	3.8	8	2	5	2	5	2	
10	105.2	3.9	6	2	4	1	4	1	
9	103.7	4.0	5	2	3	1	3	1	
8	102.0	4.1	3	1	2	1	2	1	
7	100.3	4.3	2	1	1	1	1	1	
6	98.4	4.6	1	1	1	1	1	1	
5	96.2	4.9	1	1	1	1	1	1	
4	93.7	5.3	1	1	1	1	1	1	
3	90.7	5.9	1	1	1	1	1	1	
2	86.9	6.8	1	1	1	1	1	1	
1	81.3	8.6	1	1	1	1	1	1	
0	69.8	14.6	1	1	1	1	1	1	

Raw score		Percentile rank and stanine								
	Scale	Error	Year 4		Year 5		Year 6			
	score		percentile rank	stanine	percentile rank	stanine	percentile rank	stanine		
40	169.1	14.6	99	9	99	9	99	9		
39	157.7	8.6	99	9	98	9	99	9		
38	152.1	6.8	98	9	96	8	97	9		
37	148.2	5.9	97	9	94	8	94	8		
36	145.2	5.3	94	8	90	8	91	8		
35	142.7	4.9	92	8	87	7	87	7		
34	140.5	4.6	89	7	83	7	83	7		
33	138.6	4.4	86	7	79	7	79	7		
32	136.8	4.2	82	7	75	6	74	6		
31	135.1	4.0	78	7	70	6	69	6		
30	133.6	3.9	74	6	66	6	64	6		
29	132.1	3.8	70	6	62	6	60	5		
28	130.7	3.7	66	6	58	5	55	5		
27	129.4	3.7	62	6	54	5	51	5		
26	128.1	3.6	58	5	50	5	46	5		
25	126.8	3.6	53	5	46	5	42	5		
24	125.6	3.5	49	5	42	5	38	4		
23	124.4	3.5	45	5	39	4	34	4		
22	123.1	3.5	41	5	35	4	30	4		
21	121.9	3.5	37	4	32	4	27	4		
20	120.8	3.5	34	4	29	4	24	4		
19	119.6	3.5	30	4	26	4	21	3		
18	118.4	3.5	27	4	23	3	18	3		
17	117.2	3.5	23	3	20	3	15	3		
16	116.0	3.5	20	3	17	3	13	3		
15	114.7	3.6	17	3	15	3	11	2		
14	113.4	3.6	15	3	13	3	9	2		
13	112.1	3.7	12	3	11	2	7	2		
12	110.8	3.7	10	2	9	2	6	2		
11	109.4	3.8	8	2	7	2	4	1		
10	107.9	3.9	6	2	6	2	3	1		
9	106.4	4.0	5	2	4	1	2	1		
8	104.7	4.2	3	1	3	1	1	1		
7	102.9	4.4	2	1	2	1	1	1		
6	100.9	4.6	1	1	1	1	1	1		
5	98.7	4.9	1	1	1	1	1	1		
4	96.1	5.4	1	1	1	1	1	1		
3	93.0	6.0	1	1	1	1	1	1		
2	89.1	6.9	1	1	1	1	1	1		
1	83.3	8.7	1	1	1	1	1	1		
0	71.7	14.8	1	1	1	1	1	1		

					Percentile ranl	k and stanine		Percentile rank and stanine							
aw score	Scale		Year 5		Year 6		Year 7								
	score	Error	percentile rank	stanine	percentile rank	stanine	percentile rank	stanine							
40	168.7	14.6	99	9	99	9	99	9							
39	157.4	8.6	98	9	99	9	99	9							
38	151.8	6.7	96	8	97	9	97	9							
37	148.1	5.8	93	8	94	8	94	8							
36	145.1	5.2	90	8	91	8	91	8							
35	142.7	4.8	87	7	87	7	87	7							
34	140.6	4.5	83	7	83	7	83	7							
33	138.8	4.3	79	7	79	7	79	7							
32	137.1	4.1	75	6	75	6	75	6							
31	135.5	3.9	71	6	70	6	70	6							
30	134.0	3.8	67	6	66	6	65	6							
29	132.7	3.7	64	6	62	6	61	6							
28	131.3	3.6	60	5	57	5	56	5							
27	130.1	3.6	56	5	53	5	52	5							
26	128.9	3.5	52	5	49	5	48	5							
25	127.7	3.5	49	5	45	5	44	5							
24	126.5	3.4	45	5	41	5	40	4							
23	125.4	3.4	42	5	37	4	36	4							
22	124.2	3.4	38	4	34	4	32	4							
21	123.1	3.4	35	4	30	4	29	4							
20	122.0	3.4	32	4	27	4	25	4							
19	120.9	3.4	29	4	24	4	22	3							
18	119.7	3.4	26	4	21	3	19	3							
17	118.6	3.4	23	3	18	3	17	3							
16	117.4	3.5	20	3	16	3	14	3							
15	116.2	3.5	18	3	13	3	12	3							
14	115.0	3.5	15	3	11	2	10	2							
13	113.8	3.6	13	3	9	2	8	2							
12	112.5	3.7	11	2	8	2	6	2							
11	111.1	3.8	9	2	6	2	5	2							
10	109.7	3.9	8	2	5	2	4	1							
9	108.2	4.0	6	2	3	1	3	1							
8	106.5	4.2	4	1	2	1	2	1							
7	104.8	4.3	3	1	2	1	1	1							
6	102.8	4.6	2	1	1	1	1	1							
5	100.6	4.9	1	1	1	1	1	1							
4	98.1	5.3	1	1	1	1	1	1							
3	95.1	5.9	1	1	1	1	1	1							
2	91.2	6.9	1	1	1	1	1	1							
1	85.5	8.7	1	1	1	1	1	1							
0	74.0	14.7	1	1	1	1	1	1							

		Percentile rank and stanine								
aw score	Scale		Year 6		Year 7		Year 8			
	score	Error	percentile rank	stanine	percentile rank	stanine	percentile rank	stanine		
40	172.3	14.7	99	9	99	9	99	9		
39	160.8	8.6	99	9	99	9	99	9		
38	155.2	6.8	98	9	98	9	99	9		
37	151.3	5.9	96	8	97	9	97	9		
36	148.3	5.3	94	8	95	8	95	8		
35	145.8	4.9	92	8	92	8	93	8		
34	143.6	4.6	89	7	89	7	90	8		
33	141.7	4.3	85	7	86	7	87	7		
32	139.9	4.2	82	7	82	7	83	7		
31	138.3	4.0	78	7	78	7	79	7		
30	136.8	3.9	74	6	74	6	75	6		
29	135.3	3.8	70	6	69	6	70	6		
28	134.0	3.7	66	6	65	6	66	6		
27	132.7	3.6	62	6	61	6	62	6		
26	131.4	3.6	57	5	57	5	57	5		
25	130.2	3.5	53	5	52	5	53	5		
24	128.9	3.5	49	5	48	5	48	5		
23	127.8	3.5	45	5	44	5	44	5		
22	126.6	3.5	41	5	40	4	40	4		
21	125.4	3.4	37	4	36	4	36	4		
20	124.3	3.4	34	4	32	4	32	4		
19	123.1	3.4	30	4	29	4	28	4		
18	121.9	3.5	27	4	25	4	24	4		
17	120.8	3.5	24	4	22	3	21	3		
16	119.6	3.5	21	3	19	3	18	3		
15	118.4	3.5	18	3	16	3	15	3		
14	117.1	3.6	15	3	14	3	13	3		
13	115.8	3.6	13	3	11	2	10	2		
12	114.5	3.7	10	2	9	2	8	2		
11	113.1	3.8	8	2	7	2	6	2		
10	111.7	3.9	7	2	6	2	5	2		
9	110.2	4.0	5	2	4	1	4	1		
8	108.6	4.2	4	1	3	1	2	1		
7	106.8	4.3	3	1	2	1	1	1		
6	104.9	4.6	2	1	1	1	1	1		
5	102.7	4.9	1	1	1	1	1	1		
4	100.2	5.3	1	1	1	1	1	1		
3	97.2	5.9	1	1	1	1	1	1		
2	93.4	6.8	1	1	1	1	1	1		
1	87.8	8.6	1	1	1	1	1	1		
0	76.3	14.6	1	1	1	1	1	1		

		Percentile rank and stanine								
aw score	Scale		Year 7		Year 8		Year 9			
	score	Error	percentile rank	stanine	percentile rank	stanine	percentile rank	stanine		
40	172.1	14.5	99	9	99	9	99	9		
39	160.8	8.5	99	9	99	9	99	9		
38	155.3	6.7	98	9	99	9	99	9		
37	151.6	5.8	97	9	97	9	98	9		
36	148.7	5.2	95	8	96	8	96	8		
35	146.3	4.8	93	8	93	8	95	8		
34	144.2	4.5	90	8	91	8	92	8		
33	142.3	4.2	87	7	88	7	89	7		
32	140.7	4.1	83	7	85	7	86	7		
31	139.1	3.9	80	7	81	7	82	7		
30	137.7	3.8	76	6	77	6	79	7		
29	136.3	3.7	72	6	73	6	75	6		
28	135.0	3.6	68	6	69	6	70	6		
27	133.8	3.5	65	6	65	6	66	6		
26	132.6	3.5	61	6	61	6	62	6		
25	131.4	3.4	57	5	57	5	57	5		
24	130.2	3.4	52	5	53	5	53	5		
23	129.1	3.4	49	5	49	5	49	5		
22	128.0	3.4	45	5	45	5	44	5		
21	126.9	3.4	41	5	41	5	40	4		
20	125.8	3.4	37	4	37	4	36	4		
19	124.7	3.4	34	4	33	4	32	4		
18	123.6	3.4	30	4	30	4	28	4		
17	122.4	3.4	27	4	26	4	24	4		
16	121.3	3.4	23	3	23	3	21	3		
15	120.1	3.5	20	3	20	3	18	3		
14	118.9	3.5	17	3	17	3	15	3		
13	117.7	3.6	15	3	14	3	12	3		
12	116.4	3.7	12	3	11	2	10	2		
11	115.0	3.8	10	2	9	2	8	2		
10	113.6	3.9	8	2	7	2	6	2		
9	112.1	4.0	6	2	5	2	4	1		
8	110.5	4.2	4	1	4	1	3	1		
7	108.7	4.4	3	1	2	1	2	1		
6	106.8	4.6	2	1	1	1	1	1		
5	104.5	4.9	1	1	1	1	1	1		
4	102.0	5.3	1	1	1	1	1	1		
3	98.9	6.0	1	1	1	1	1	1		
2	94.9	6.9	1	1	1	1	1	1		
1	89.1	8.8	1	1	1	1	1	1		
0	77.4	14.8	1	1	1	1	1	1		

aw score	Scale		Year 8		Year 9		Year 10	
	score	Error	percentile rank	stanine	percentile rank	stanine	percentile rank	stanine
40	175.5	14.6	99	9	99	9	99	9
39	164.1	8.6	99	9	99	9	99	9
38	158.6	6.8	99	9	99	9	99	9
37	154.8	5.8	98	9	99	9	99	9
36	151.8	5.2	97	9	98	9	98	9
35	149.4	4.8	96	8	97	9	96	8
34	147.3	4.5	94	8	95	8	95	8
33	145.4	4.3	92	8	94	8	93	8
32	143.7	4.1	90	8	91	8	90	8
31	142.1	4.0	87	7	89	7	87	7
30	140.6	3.9	84	7	86	7	84	7
29	139.2	3.8	81	7	83	7	81	7
28	137.8	3.7	78	7	79	7	77	6
27	136.5	3.6	74	6	75	6	73	6
26	135.2	3.6	70	6	71	6	69	6
25	134.0	3.5	66	6	67	6	65	6
24	132.8	3.5	62	6	63	6	61	6
23	131.6	3.5	58	5	58	5	56	5
22	130.5	3.5	54	5	54	5	52	5
21	129.3	3.4	49	5	49	5	47	5
20	128.1	3.5	45	5	45	5	43	5
19	127.0	3.5	41	5	40	4	39	4
18	125.8	3.5	37	4	36	4	34	4
17	124.6	3.5	33	4	32	4	30	4
16	123.4	3.5	29	4	28	4	26	4
15	122.1	3.6	25	4	24	4	22	3
14	120.8	3.6	21	3	20	3	19	3
13	119.5	3.7	18	3	16	3	15	3
12	118.1	3.8	15	3	13	3	12	3
11	116.7	3.9	12	3	10	2	10	2
10	115.1	4.0	9	2	8	2	7	2
9	113.5	4.2	7	2	6	2	5	2
8	111.7	4.3	5	2	4	1	3	1
7	109.8	4.5	3	1	2	1	2	1
6	107.6	4.8	2	1	1	1	1	1
5	105.2	5.2	1	1	1	1	1	1
4	102.4	5.6	1	1	1	1	1	1
3	99.0	6.2	1	1	1	1	1	1
2	94.6	7.2	1	1	1	1	1	1
1	88.3	9.1	1	1	1	1	1	1
0	75.9	15.3	1	1	1	1	1	1

			Percentile rank and stanine						
			Yea	ır 9	Yea	r 10			
Raw score	Scale score	Error	percentile rank	stanine	percentile rank	stanine			
40	178.8	15.0	99	9	99	9			
39	166.9	8.9	99	9	99	9			
38	160.9	7.0	99	9	99	9			
37	156.8	6.1	99	9	99	9			
36	153.6	5.5	99	9	98	9			
35	150.9	5.0	98	9	97	9			
34	148.6	4.7	96	8	96	8			
33	146.6	4.4	95	8	94	8			
32	144.7	4.2	93	8	92	8			
31	143.0	4.1	90	8	89	7			
30	141.4	3.9	87	7	86	7			
29	139.9	3.8	84	7	83	7			
28	138.5	3.7	81	7	79	7			
27	137.2	3.7	77	6	75	6			
26	135.9	3.6	73	6	71	6			
25	134.6	3.5	69	6	67	6			
24	133.4	3.5	65	6	63	6			
23	132.2	3.5	60	5	58	5			
22	131.1	3.5	56	5	54	5			
21	129.9	3.4	52	5	50	5			
20	128.7	3.4	47	5	45	5			
19	127.6	3.4	43	5	41	5			
18	126.4	3.4	38	4	36	4			
17	125.3	3.5	34	4	32	4			
16	124.1	3.5	30	4	28	4			
15	122.9	3.5	26	4	25	4			
14	121.7	3.5	22	3	21	3			
13	120.4	3.6	19	3	18	3			
12	119.1	3.7	15	3	14	3			
11	117.8	3.7	13	3	12	3			
10	116.4	3.8	10	2	9	2			
9	114.9	4.0	8	2	7	2			
8	113.3	4.1	5	2	5	2			
7	111.6	4.3	4	1	3	1			
6	109.7	4.5	2	1	2	1			
5	107.6	4.8	1	1	1	1			
4	105.1	5.2	1	1	1	1			
3	102.2	5.8	1	1	1	1			
2	98.4	6.8	1	1	1	1			
1	92.8	8.6	1	1	1	1			
0	81.4	14.6	1	1	1	1			