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ISASP

IOWA STATEWIDE ASSESSMENT
of STUDENT PROGRESS

**Student Performance Changes
2022 to 2023**

Prepared By
Iowa Testing Programs

ISASP Student Performance Changes

The Iowa Statewide Assessment of Student Progress (ISASP) measures student achievement and understanding of the Iowa Core Standards in English Language Arts (ELA), Mathematics and Science. Indicators of student proficiency and growth from grade-to-grade are provided. ISASP assesses students in English Language Arts and Mathematics for students in grades 3–11. The Science assessment is administered to students in grades 5, 8, and 10. The assessments, offered in both paper-and pencil and computer-based formats during the last quarter of the academic year, include multiple-choice and technology-enhanced items, constructed response items, and open-ended essay questions.

Understanding how students change and grow over time is extremely important as teachers and schools design education programs tied to standards in English Language Arts, Mathematics, and Science. Student achievement and growth can be characterized in a variety of ways, including proficiency, growth scores, and status relative to a goal such as college readiness. Three different types of metrics are available to help interpret ISASP results. A *proficiency-based reference* provides students and educators with descriptions and indicators of levels of proficiency as determined by the state of Iowa. Proficiency-based scores are criterion-referenced and reflect the level of achievement compared to the Iowa Core standards. A *normative-based reference* is provided through the state of Iowa percentile ranks that are available after each administration. A *growth reference* provides a metric for examining the change between two or more administrations of an assessment. ISASP was first administered in the spring of 2019, the second administration of ISASP was spring 2021 (after COVID cancelled the assessment in 2020) and the third administration was spring 2022. This document summarizes the changes in student performance for all test takers as well as for a matched set of test takers that completed both the 2022 and 2023 administrations. This document is designed to complement available information on proficiency rates and state percentile ranks.

ISASP Scale

The primary functions of the ISASP Scale Score are (1) to provide a consistent metric for translating ISASP scores into the standards-based achievement levels adopted by the Iowa State Board of Education of Not-Yet-Proficient, Proficient, and Advanced; (2) to establish a common metric for scores on ISASP forms across years that can be responsive to changes in assessment design such as adaptive testing; (3) to support future efforts related to metrics for student growth; and (4) to determine how far students are from the various proficiency levels without depending upon the changing raw scores across forms.

Table 1 provides the means and standard deviations of the ISASP scale score distributions used to develop the raw score to scale score conversion tables for the ISASP program. These can be used as reference points for future administrations. The steadily increasing means from grade-to-grade establish the expected change for grade cohorts. The ISASP scale scores can be used as a direct measure of year-to-year change on a common metric in a change-score growth

model. The distributions of ISASP scores also exhibit the property of steadily increasing variability across grades.

Table 1. Means and Standard Deviations of the ISASP Scale Score Distributions for 2019

<i>Grade</i>	Mean Scale Score	Standard Deviation
03	409	28.7
04	432	34.4
05	454	41.3
06	476	45.5
07	500	50.0
08	521	55.0
09	544	60.5
10	568	60.5
11	593	60.5

Average State Results for All Test Takers

The performance of all public and accredited private schools in the State of Iowa in 2023 is described in Table 2 using the average scale score metric.

Table 2. Average Scale Scores for 2023 and 2022 by Subject and Grade

<i>Subject</i>	<i>Grade</i>	2023			2022			
		N-Count	Mean	SD	N-Count	Mean	SD	
<i>ELA</i>	03	38005	411.0	27.6	37463	410.3	28.3	
	04	37734	435.8	34.1	37043	437.3	34.3	
	05	37420	457.0	39.7	37001	455.6	38.3	
	06	37182	483.1	43.7	38093	477.6	42.3	
	07	38248	508.5	49.5	38771	505.4	47.9	
	08	38976	529.4	50.7	39924	528.3	50.0	
	09	40524	536.7	55.7	40264	539.8	56.3	
	10	39660	569.4	61.3	38245	567.4	57.4	
	11	37212	591.2	59.6	36094	592.9	59.1	
	<i>Math</i>	03	37994	412.0	29.9	37492	411.9	30.9
		04	37727	434.9	37.3	37087	431.0	36.0
05		37403	454.8	41.0	37017	450.7	42.3	
06		37169	477.1	46.6	38129	474.9	48.6	
07		38230	499.4	52.3	38808	494.4	50.4	
08		38951	528.8	57.5	39995	519.2	53.9	
09		40498	539.2	64.1	40391	533.9	60.0	
10		39626	566.6	59.1	38454	560.4	59.7	
11		37182	597.7	66.4	36301	587.0	63.6	
<i>Science</i>		05	37325	462.4	37.5	36933	460.2	38.0
		08	38843	528.0	52.0	39879	528.7	52.1
	10	39566	568.0	63.1	38356	570.4	62.5	

State Results for Matched Cohorts

Tables 3 to 7 provide results for matched cohorts of students. Matching records for 2022 and 2023 ISASP was done so that only students that completed tests in both years were included. All students in the state datasets had verified state identification numbers. Students were removed from the matched datasets if they did not complete the applicable test for both years (i.e., removed from the ELA dataset if they did not have an ELA score for both 2022 and 2023). This process resulted in the final matched datasets with student records for Grades 4-11 in 2023 matched to their records for Grades 3-10 in 2022 for ELA and Mathematics. Science is only administered in Grades 5, 8, and 10, so there no students in 2022 that also completed Science in 2023.

**Note:* The 2023 matched cohort samples will be larger than those in the 2022 report because the 2022 report excluded students who tested remotely in 2021.

Table 3. Average Scale Scores for Matched Cohort by Race/Ethnicity by Grade for ELA

Race	2023				2022		
	N-Count	Grade	Mean	SD	Grade	Mean	SD
Asian	899	04	444.0	35.8	03	415.0	29.3
African American	2210	04	415.1	32.2	03	392.5	25.5
Hispanic	4305	04	423.4	32.1	03	398.4	25.8
Two or more races	1850	04	431.2	34.3	03	405.8	28.1
American Indian	113	04	422.8	29.7	03	396.2	24.3
N. Hawaiian/Pac. Islander	176	04	408.4	29.4	03	386.8	21.4
White	26689	04	440.7	32.7	03	414.3	27.6
Asian	947	05	466.9	41.3	04	442.8	35.1
African American	2209	05	430.6	34.7	04	413.7	31.6
Hispanic	4114	05	441.0	36.9	04	422.4	32.9
Two or more races	1807	05	451.7	40.0	04	432.8	34.1
American Indian	140	05	439.5	35.2	04	421.8	32.4
N. Hawaiian/Pac. Islander	177	05	428.0	33.8	04	410.0	30.8
White	26450	05	463.0	38.2	04	442.4	32.8
Asian	898	06	494.5	45.9	05	464.0	40.2
African American	2254	06	455.0	40.2	05	429.6	34.1
Hispanic	4247	06	465.7	40.3	05	439.8	35.7
Two or more races	1580	06	477.9	43.5	05	451.2	37.5
American Indian	119	06	457.8	40.5	05	433.0	34.4
N. Hawaiian/Pac. Islander	179	06	452.3	38.9	05	427.1	33.3
White	26469	06	489.7	41.9	05	461.1	37.0
Asian	867	07	524.6	53.5	06	487.6	45.9
African American	2245	07	475.8	45.2	06	449.4	37.5
Hispanic	4351	07	488.8	46.0	06	459.8	39.4
Two or more races	1705	07	501.6	50.8	06	471.8	42.6
American Indian	127	07	488.3	43.4	06	459.6	38.8
N. Hawaiian/Pac. Islander	165	07	467.1	38.5	06	442.6	33.6
White	27239	07	515.9	47.2	06	483.9	40.7
Asian	851	08	544.9	51.3	07	521.4	51.6
African American	2280	08	493.1	47.3	07	471.2	43.3
Hispanic	4529	08	511.2	47.9	07	487.4	45.4
Two or more races	1658	08	522.4	51.9	07	500.1	48.0
American Indian	115	08	505.3	50.4	07	482.9	46.0
N. Hawaiian/Pac. Islander	165	08	486.0	42.3	07	463.5	39.6
White	27756	08	537.1	47.9	07	512.3	46.0
Asian	911	09	555.8	56.6	08	544.0	51.9
African American	2235	09	498.8	50.5	08	493.4	48.0
Hispanic	4620	09	517.6	51.6	08	511.3	47.5
Two or more races	1640	09	529.7	55.1	08	521.4	49.7
American Indian	137	09	514.9	55.0	08	505.4	48.2
N. Hawaiian/Pac. Islander	159	09	493.5	50.0	08	484.9	46.3
White	28426	09	545.5	53.0	08	535.6	47.6

Student Performance Changes 2022 to 2023

<i>Asian</i>	862	10	596.2	64.4	09	561.1	57.9
<i>African American</i>	2066	10	527.8	54.5	09	501.6	50.4
<i>Hispanic</i>	4672	10	547.2	58.3	09	518.2	53.9
<i>Two or more races</i>	1490	10	563.2	62.2	09	533.7	56.9
<i>American Indian</i>	116	10	537.9	48.0	09	514.0	49.4
<i>N. Hawaiian/Pac. Islander</i>	126	10	517.3	49.7	09	492.6	47.9
<i>White</i>	28461	10	578.5	58.5	09	549.3	53.3
<i>Asian</i>	811	11	610.9	64.4	10	586.7	60.9
<i>African American</i>	1736	11	548.3	54.1	10	530.3	51.7
<i>Hispanic</i>	4111	11	568.2	56.5	10	547.2	54.6
<i>Two or more races</i>	1339	11	583.8	60.3	10	564.0	58.4
<i>American Indian</i>	93	11	564.2	54.9	10	543.3	53.9
<i>N. Hawaiian/Pac. Islander</i>	103	11	546.3	49.6	10	523.6	47.4
<i>White</i>	27307	11	599.6	57.0	10	576.6	54.6

Table 4. Average Scale Scores for Matched Cohort by Race/Ethnicity by Grade for Mathematics

<i>Race</i>	2023				2022		
	N-Count	Grade	Mean	SD	Grade	Mean	SD
<i>Asian</i>	898	04	446.3	41.8	03	420.0	35.3
<i>African American</i>	2215	04	409.1	29.6	03	390.4	24.9
<i>Hispanic</i>	4307	04	419.4	32.5	03	398.2	26.9
<i>Two or more races</i>	1849	04	427.9	36.7	03	405.9	30.6
<i>American Indian</i>	114	04	419.4	31.9	03	394.9	26.8
<i>N. Hawaiian/Pac. Islander</i>	176	04	402.5	25.2	03	383.5	19.8
<i>White</i>	26710	04	440.7	36.4	03	416.6	30.2
<i>Asian</i>	948	05	473.4	49.0	04	440.4	40.2
<i>African American</i>	2209	05	427.1	31.5	04	403.2	26.4
<i>Hispanic</i>	4131	05	437.7	35.7	04	414.6	30.8
<i>Two or more races</i>	1814	05	447.4	40.1	04	423.7	35.2
<i>American Indian</i>	140	05	435.0	35.1	04	413.1	33.7
<i>N. Hawaiian/Pac. Islander</i>	175	05	423.8	31.6	04	401.6	25.0
<i>White</i>	26494	05	460.8	40.0	04	436.9	35.2
<i>Asian</i>	896	06	496.2	55.8	05	468.7	51.1
<i>African American</i>	2272	06	445.5	36.1	05	422.8	32.0
<i>Hispanic</i>	4260	06	457.3	38.8	05	433.3	35.6
<i>Two or more races</i>	1583	06	469.6	45.4	05	443.2	40.7
<i>American Indian</i>	119	06	451.1	41.3	05	429.6	36.2
<i>N. Hawaiian/Pac. Islander</i>	179	06	446.7	34.5	05	419.5	28.4
<i>White</i>	26483	06	484.0	45.9	05	456.4	41.8
<i>Asian</i>	868	07	523.2	64.5	06	497.8	59.0
<i>African American</i>	2262	07	464.0	38.4	06	440.8	37.3
<i>Hispanic</i>	4364	07	478.4	43.6	06	455.2	42.1
<i>Two or more races</i>	1717	07	489.0	51.5	06	465.4	47.6
<i>American Indian</i>	127	07	478.0	46.4	06	450.7	43.3

Student Performance Changes 2022 to 2023

<i>N. Hawaiian/Pac. Islander</i>	169	07	459.7	33.6	06	437.1	31.7
<i>White</i>	27286	07	506.9	51.6	06	482.0	47.6
<i>Asian</i>	854	08	556.3	68.2	07	516.4	63.3
<i>African American</i>	2290	08	489.7	43.9	07	459.8	36.4
<i>Hispanic</i>	4534	08	507.4	48.4	07	474.0	40.5
<i>Two or more races</i>	1669	08	518.7	57.4	07	485.1	49.7
<i>American Indian</i>	115	08	503.8	52.7	07	468.8	43.7
<i>N. Hawaiian/Pac. Islander</i>	161	08	487.0	38.7	07	456.5	30.9
<i>White</i>	27802	08	537.1	56.7	07	501.7	50.0
<i>Asian</i>	909	09	577.3	82.6	08	548.4	68.9
<i>African American</i>	2259	09	498.1	45.8	08	484.4	39.3
<i>Hispanic</i>	4649	09	515.6	52.5	08	499.5	43.8
<i>Two or more races</i>	1650	09	526.5	61.5	08	507.5	51.1
<i>American Indian</i>	139	09	514.3	55.3	08	496.3	45.3
<i>N. Hawaiian/Pac. Islander</i>	163	09	495.3	41.9	08	479.9	34.2
<i>White</i>	28494	09	548.8	63.5	08	526.7	53.7
<i>Asian</i>	870	10	604.3	76.0	09	574.3	78.6
<i>African American</i>	2091	10	528.9	41.5	09	495.9	42.2
<i>Hispanic</i>	4712	10	544.1	47.5	09	511.3	49.2
<i>Two or more races</i>	1498	10	557.3	58.0	09	526.3	59.2
<i>American Indian</i>	116	10	535.2	40.3	09	504.7	44.5
<i>N. Hawaiian/Pac. Islander</i>	130	10	524.1	37.9	09	494.7	36.0
<i>White</i>	28551	10	574.9	58.8	09	542.9	59.3
<i>Asian</i>	815	11	630.1	79.4	10	592.0	72.4
<i>African American</i>	1768	11	551.3	47.3	10	521.7	43.7
<i>Hispanic</i>	4155	11	570.6	55.9	10	537.6	49.8
<i>Two or more races</i>	1355	11	586.6	64.9	10	552.4	57.5
<i>American Indian</i>	94	11	563.5	53.9	10	529.3	52.3
<i>N. Hawaiian/Pac. Islander</i>	110	11	557.3	49.4	10	522.5	46.0
<i>White</i>	27406	11	606.7	65.6	10	569.9	59.0

Table 5. Average Scale Scores for Matched Cohort by Individualized Education Plan (IEP) by Subject and Grade

Subject	IEP	N-Count	2023			2022			
			Grade	Mean	SD	Grade	Mean	SD	
ELA	No	30986	04	442.3	30.8	03	415.2	26.4	
	Yes	5256	04	402.0	29.4	03	382.6	21.9	
	No	30803	05	464.4	36.4	04	443.7	31.1	
	Yes	5041	05	417.3	31.7	04	400.6	28.1	
	No	30904	06	490.9	40.2	05	462.4	35.3	
	Yes	4842	06	439.9	35.5	05	415.0	28.9	
	No	31997	07	517.0	45.9	06	484.8	39.3	
	Yes	4702	07	458.3	37.3	06	433.3	32.0	
	No	32893	08	538.1	46.2	07	513.2	44.7	
	Yes	4461	08	474.7	40.2	07	454.2	35.1	
	No	33709	09	546.4	51.7	08	537.1	45.7	
	Yes	4419	09	479.2	38.5	08	471.6	37.8	
	No	33908	10	578.7	58.0	09	549.4	52.6	
	Yes	3885	10	507.2	41.4	09	479.8	38.6	
	No	32314	11	599.5	56.5	10	576.9	53.7	
	Yes	3186	11	526.1	39.2	10	505.1	38.7	
	Math	No	30996	04	440.4	35.8	03	416.2	30.0
		Yes	5273	04	406.5	31.2	03	388.1	24.6
No		30851	05	460.9	39.6	04	436.3	34.8	
Yes		5060	05	422.2	31.5	04	401.5	27.6	
No		30929	06	483.9	45.1	05	456.4	41.3	
Yes		4863	06	438.5	34.9	05	416.4	29.4	
No		32062	07	506.9	50.9	06	482.1	46.9	
Yes		4731	07	454.6	34.6	06	431.1	33.5	
No		32933	08	537.1	55.9	07	501.1	49.4	
Yes		4492	08	477.3	36.8	07	450.9	31.0	
No		33807	09	548.6	63.0	08	526.4	53.2	
Yes		4456	09	483.9	36.1	08	473.5	31.0	
No		34037	10	574.2	58.4	09	542.4	59.1	
Yes		3931	10	516.0	32.7	09	481.8	32.7	
No		32477	11	605.6	65.2	10	569.1	58.6	
Yes		3226	11	534.9	33.8	10	505.7	31.9	

Table 6. Average Scale Scores for Matched Cohort by Free and Reduced Lunch (FRL) by Subject and Grade

Subject	FRL	N-Count	2023			2022			
			Grade	Mean	SD	Grade	Mean	SD	
ELA	No	20581	04	446.9	31.1	03	419.2	26.7	
	Yes	15661	04	422.7	32.1	03	399.0	26.0	
	No	20699	05	469.6	36.9	04	447.9	31.4	
	Yes	15145	05	441.7	36.8	04	423.6	32.7	
	No	20787	06	497.2	40.4	05	467.5	36.0	
	Yes	14959	06	465.5	40.3	05	439.9	35.1	
	No	21749	07	523.9	46.3	06	490.3	39.8	
	Yes	14950	07	488.5	45.0	06	460.4	38.9	
	No	22330	08	544.5	46.1	07	519.7	45.0	
	Yes	15024	08	509.6	48.3	07	486.0	44.3	
	No	22922	09	553.0	52.0	08	542.4	46.5	
	Yes	15206	09	517.0	51.6	08	510.0	47.5	
	No	23561	10	585.9	58.0	09	555.9	52.7	
	Yes	14232	10	547.4	57.0	09	519.6	52.5	
	No	23160	11	605.6	56.4	10	582.2	54.2	
	Yes	12340	11	569.1	56.2	10	548.4	53.8	
	Math	No	20588	04	446.8	36.1	03	421.7	30.0
		Yes	15681	04	420.6	33.0	03	399.6	27.3
No		20733	05	467.2	40.1	04	442.4	34.9	
Yes		15178	05	439.4	36.0	04	416.4	31.7	
No		20793	06	492.1	45.8	05	463.5	42.1	
Yes		14999	06	457.9	39.7	05	433.6	35.8	
No		21777	07	515.2	52.4	06	489.9	48.0	
Yes		15016	07	478.3	43.4	06	454.8	41.2	
No		22362	08	545.7	57.1	07	509.3	51.2	
Yes		15063	08	506.4	49.1	07	473.9	40.6	
No		22968	09	558.0	65.0	08	534.2	55.0	
Yes		15295	09	515.7	52.8	08	499.3	44.5	
No		23620	10	582.7	60.2	09	550.8	60.7	
Yes		14348	10	544.4	48.3	09	512.0	49.7	
No		23235	11	614.2	66.6	10	576.5	60.0	
Yes		12468	11	571.3	55.5	10	538.8	49.9	

Table 7. Average Scale Score for Matched Cohort for English Learners (EL) by Subject and Grade

Subject	EL	N-Count	2023			2022		
			Grade	Mean	SD	Grade	Mean	SD
ELA	No	33944	04	438.8	33.0	03	412.5	27.7
	Yes	2298	04	402.2	24.1	03	380.7	17.1
	No	33984	05	460.2	38.6	04	439.9	33.2
	Yes	1860	05	414.4	24.6	04	395.4	20.7
	No	34051	06	486.4	42.4	05	458.3	37.2
	Yes	1695	06	433.8	27.6	05	408.5	22.7
	No	35196	07	512.0	48.0	06	480.5	41.2
	Yes	1503	07	450.0	29.8	06	424.1	23.2
	No	35845	08	533.1	48.9	07	508.8	46.6
	Yes	1509	08	468.7	32.7	07	444.4	28.0
	No	36491	09	541.6	53.7	08	532.3	48.3
	Yes	1637	09	472.2	30.9	08	467.6	32.8
	No	36069	10	574.9	59.2	09	545.7	54.0
	Yes	1724	10	496.8	35.1	09	469.0	31.3
Math	No	33978	11	596.3	57.6	10	573.7	55.0
	Yes	1522	11	517.4	32.2	10	496.8	32.0
	No	33968	04	437.7	36.8	03	414.2	30.5
	Yes	2301	04	402.1	23.1	03	382.4	17.8
	No	34048	05	457.6	40.5	04	433.4	35.6
	Yes	1863	05	417.3	24.1	04	394.7	18.5
	No	34092	06	480.0	46.2	05	453.0	42.0
	Yes	1700	06	433.0	25.2	05	411.2	20.8
	No	35281	07	502.3	51.9	06	477.7	48.1
	Yes	1512	07	449.7	26.9	06	425.6	26.8
	No	35912	08	532.2	57.1	07	497.1	50.1
	Yes	1513	08	475.1	29.2	07	445.5	22.1
	No	36612	09	543.8	63.7	08	522.5	53.7
	Yes	1651	09	481.0	28.4	08	470.8	25.9
No	36226	10	570.9	58.8	09	538.9	59.6	
Yes	1742	10	512.7	28.3	09	479.6	27.7	
No	34147	11	602.2	65.9	10	566.1	59.1	
Yes	1556	11	534.8	30.4	10	503.6	28.1	

Gain Scores

The ISASP tests are vertically aligned and scaled. This means that each successive test level builds upon the content and skills previously measured to ensure that tests taken over multiple grade levels show a coherent progression in learning. Each test is developed for a different grade level, student growth and progress can be monitored using the same scale. Table 8 provides the predicted growth between two grades.

Gain scores can be used to quantify the change in performance from one year to the next for either an individual student or for a group of students. Average gain scores for a class or school can be calculated by subtracting each student's prior scale score from their current-year score (i.e., $SS_{\text{Year}2} - SS_{\text{Year}1}$) and then taking the average over all students. The sign and magnitude of the gain scores are important in indicating the change in performance. The magnitude of the gain score indicates how much the group of students has changed, whereas the sign indicates if the gain is positive (signifying improvement) or negative (signifying decline).

Table 8. Predicted Growth based on ISASP Vertical Scale

<i>Grade</i>	Mean Scale Score	Standard Deviation	Predicted Growth for One Year
03	409	28.7	
04	432	34.4	23
05	454	41.3	22
06	476	45.5	22
07	500	50.0	24
08	521	55.0	21
09	544	60.5	23
10	568	60.5	24
11	593	60.5	25