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ISASP

**IOWA STATEWIDE ASSESSMENT
of STUDENT PROGRESS**

**Student Performance Changes
2021 to 2022**

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 2021 and 2022 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
<i>03</i>	409	28.7
<i>04</i>	432	34.4
<i>05</i>	454	41.3
<i>06</i>	476	45.5
<i>07</i>	500	50.0
<i>08</i>	521	55.0
<i>09</i>	544	60.5
<i>10</i>	568	60.5
<i>11</i>	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 2022 is described in Table 2 using the average scale score metric.

Table 2. Average Scale Scores for 2022 and 2021 by Subject and Grade

<i>Subject</i>	Grade	2022			2021			
		N-Count	Mean	SD	N-Count	Mean	SD	
<i>ELA</i>	<i>03</i>	37463	410.3	30.9	35596	399.8	27.8	
	<i>04</i>	37043	437.3	36.0	35527	436.8	33.5	
	<i>05</i>	37001	455.6	42.3	36642	453.7	39.5	
	<i>06</i>	38093	477.6	48.6	37057	482.8	42.4	
	<i>07</i>	38771	505.4	50.4	38005	493.3	45.9	
	<i>08</i>	39924	528.3	53.9	38064	529.1	52.2	
	<i>09</i>	40264	539.8	60.0	37274	540.6	57.1	
	<i>10</i>	38245	567.4	59.7	35870	571.0	56.5	
	<i>11</i>	36094	592.9	63.6	33592	601.0	58.8	
	<i>Math</i>	<i>03</i>	37492	411.9	30.9	35622	410.3	30.5
		<i>04</i>	37087	431.0	36.0	35561	428.1	34.6
<i>05</i>		37017	450.7	42.3	36671	448.6	41.4	
<i>06</i>		38129	474.9	48.6	37106	473.2	47.6	
<i>07</i>		38808	494.4	50.4	38058	492.6	49.5	
<i>08</i>		39995	519.2	53.9	38161	521.0	53.3	
<i>09</i>		40391	533.9	60.0	37485	536.6	59.1	
<i>10</i>		38454	560.4	59.7	36124	562.9	59.4	
<i>11</i>		36301	587.0	63.6	33839	593.3	64.9	
<i>Science</i>		<i>05</i>	36933	460.2	38.0	36633	459.3	46.8
		<i>08</i>	39879	528.7	52.1	38067	536.7	65.0
	<i>10</i>	38356	570.4	62.5	35963	566.5	55.4	

State Results for Matched Cohorts

Tables 3 to 7 provide results for matched cohorts of students. Matching records for 2021 and 2022 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 2021 and 2022). This process resulted in the final matched datasets with student records for Grades 4-11 in 2022 matched to their records for Grades 3-10 in 2021 for ELA and Mathematics. Science is only administered in Grades 5, 8, and 10, so there no students in 2021 that also completed Science in 2022.

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

Race	N-Count	2022			2021		
		Grade	Mean	SD	Grade	Mean	SD
Asian	823	04	442.3	33.9	03	402.2	28.0
African American	2053	04	414.0	31.3	03	381.6	22.7
Hispanic	3781	04	423.1	32.6	03	387.3	24.4
Two or more races	1675	04	432.2	33.8	03	395.6	26.9
American Indian	137	04	420.1	30.3	03	384.4	22.1
Native Hawaiian/Pacific Islander	152	04	413.0	30.9	03	379.4	21.2
White	25734	04	442.3	32.8	03	403.9	27.4
Asian	800	05	463.3	39.9	04	441.9	34.8
African American	2094	05	429.9	33.9	04	414.1	31.1
Hispanic	3964	05	440.7	35.1	04	423.1	31.6
Two or more races	1473	05	450.5	36.9	04	432.2	32.7
American Indian	126	05	434.0	35.1	04	418.2	31.5
Native Hawaiian/Pacific Islander	143	05	429.0	33.5	04	412.0	29.9
White	25750	05	461.0	37.0	04	441.5	32.3
Asian	777	06	487.8	45.3	05	461.9	40.8
African American	2069	06	450.3	37.5	05	428.0	35.8
Hispanic	4041	06	460.5	38.6	05	436.9	36.8
Two or more races	1606	06	470.5	42.3	05	448.3	40.2
American Indian	127	06	460.8	40.4	05	440.0	36.8
Native Hawaiian/Pacific Islander	135	06	443.2	33.3	05	419.9	32.7
White	26612	06	483.6	40.7	05	459.2	38.1
Asian	753	07	519.7	51.2	06	491.0	45.5
African American	2069	07	470.2	43.2	06	451.7	38.8
Hispanic	4064	07	489.1	44.5	06	466.5	39.9
Two or more races	1549	07	498.9	48.2	06	475.8	42.4
American Indian	112	07	486.8	41.7	06	464.7	40.3
Native Hawaiian/Pacific Islander	139	07	465.2	40.7	06	445.7	35.2
White	27031	07	512.1	45.9	06	488.7	40.7
Asian	771	08	544.5	50.4	07	509.0	50.4
African American	1985	08	492.2	47.9	07	461.6	40.8
Hispanic	4187	08	511.9	47.2	07	477.9	42.7
Two or more races	1562	08	520.2	50.3	07	486.0	45.2
American Indian	126	08	504.7	48.2	07	470.8	41.9
Native Hawaiian/Pacific Islander	138	08	487.8	48.1	07	459.9	41.6
White	27824	08	535.1	47.8	07	499.1	44.7
Asian	708	09	559.7	58.4	08	547.6	52.7
African American	1880	09	500.5	50.0	08	490.3	48.7
Hispanic	4087	09	521.2	52.2	08	509.9	50.4
Two or more races	1444	09	531.7	57.5	08	521.7	52.9
American Indian	113	09	512.9	50.6	08	498.5	43.0

Student Performance Changes 2021 to 2022

<i>Native Hawaiian/Pacific Islander</i>	104	09	495.7	47.9	08	488.0	49.1
<i>White</i>	27881	09	548.1	53.8	08	536.6	49.8
<i>Asian</i>	688	10	583.4	58.6	09	557.7	59.2
<i>African American</i>	1607	10	526.9	51.9	09	499.3	50.4
<i>Hispanic</i>	3778	10	546.8	54.0	09	518.8	53.5
<i>Two or more races</i>	1330	10	560.3	59.1	09	535.6	57.4
<i>American Indian</i>	95	10	542.2	53.2	09	514.8	56.3
<i>Native Hawaiian/Pacific Islander</i>	103	10	521.6	43.3	09	490.9	46.2
<i>White</i>	27305	10	574.9	54.9	09	549.3	54.4
<i>Asian</i>	741	11	611.7	65.4	10	587.8	59.2
<i>African American</i>	1479	11	550.8	54.7	10	532.4	51.0
<i>Hispanic</i>	3425	11	568.8	55.4	10	549.1	51.9
<i>Two or more races</i>	1181	11	586.8	59.3	10	565.2	55.1
<i>American Indian</i>	101	11	567.9	51.1	10	547.6	48.6
<i>Native Hawaiian/Pacific Islander</i>	103	11	545.5	56.5	10	526.2	55.5
<i>White</i>	25985	11	600.4	56.8	10	579.9	54.0

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

<i>Race</i>	N-Count	2022			2021		
		Grade	Mean	SD	Grade	Mean	SD
<i>Asian</i>	825	04	439.4	39.5	03	416.3	33.4
<i>African American</i>	2059	04	403.8	26.6	03	386.1	22.5
<i>Hispanic</i>	3799	04	414.5	30.4	03	395.5	25.4
<i>Two or more races</i>	1677	04	423.4	35.0	03	404.1	29.8
<i>American Indian</i>	137	04	412.6	33.0	03	393.5	27.3
<i>Native Hawaiian/Pacific Islander</i>	152	04	404.7	26.2	03	385.5	23.1
<i>White</i>	25769	04	436.9	35.2	03	415.3	29.8
<i>Asian</i>	800	05	466.7	50.9	04	435.6	39.5
<i>African American</i>	2098	05	423.1	32.1	04	403.4	26.1
<i>Hispanic</i>	3971	05	434.1	35.8	04	412.8	29.0
<i>Two or more races</i>	1475	05	442.2	39.6	04	420.6	31.9
<i>American Indian</i>	126	05	430.7	36.1	04	411.3	31.1
<i>Native Hawaiian/Pacific Islander</i>	143	05	422.6	32.0	04	402.7	23.7
<i>White</i>	25770	05	456.5	41.9	04	433.3	34.2
<i>Asian</i>	776	06	496.7	58.2	05	465.8	49.3
<i>African American</i>	2079	06	441.4	37.6	05	421.6	30.6
<i>Hispanic</i>	4049	06	455.4	41.8	05	431.2	34.3
<i>Two or more races</i>	1609	06	464.5	46.8	05	440.3	40.0
<i>American Indian</i>	127	06	452.8	43.0	05	436.1	36.4
<i>Native Hawaiian/Pacific Islander</i>	136	06	437.1	31.9	05	416.0	28.7
<i>White</i>	26649	06	481.8	47.6	05	454.3	41.1

Student Performance Changes 2021 to 2022

<i>Asian</i>	755	07	513.4	61.4	06	493.0	59.3
<i>African American</i>	2082	07	458.9	35.6	06	437.4	35.6
<i>Hispanic</i>	4064	07	475.0	40.7	06	453.6	39.7
<i>Two or more races</i>	1557	07	484.1	48.8	06	462.5	45.8
<i>American Indian</i>	112	07	471.1	40.4	06	448.8	38.2
<i>Native Hawaiian/Pacific Islander</i>	139	07	457.0	33.1	06	433.7	35.4
<i>White</i>	27076	07	501.6	50.0	06	480.0	46.8
<i>Asian</i>	771	08	547.2	67.6	07	516.8	63.5
<i>African American</i>	1998	08	484.0	39.0	07	459.1	35.6
<i>Hispanic</i>	4213	08	500.3	44.2	07	473.2	39.8
<i>Two or more races</i>	1564	08	507.3	51.0	07	482.6	47.3
<i>American Indian</i>	129	08	496.5	45.7	07	470.7	42.6
<i>Native Hawaiian/Pacific Islander</i>	140	08	483.9	39.6	07	454.6	36.7
<i>White</i>	27882	08	526.4	53.7	07	499.1	49.3
<i>Asian</i>	712	09	572.9	77.4	08	552.8	68.7
<i>African American</i>	1910	09	494.9	41.4	08	485.0	38.1
<i>Hispanic</i>	4114	09	512.4	48.4	08	502.1	44.1
<i>Two or more races</i>	1455	09	524.9	58.9	08	511.3	50.8
<i>American Indian</i>	113	09	508.2	49.1	08	491.7	40.1
<i>Native Hawaiian/Pacific Islander</i>	110	09	495.0	36.3	08	486.2	34.9
<i>White</i>	27952	09	542.1	59.4	08	527.9	53.0
<i>Asian</i>	696	10	589.2	70.1	09	567.1	71.9
<i>African American</i>	1662	10	519.9	42.7	09	497.5	44.1
<i>Hispanic</i>	3838	10	537.1	49.5	09	514.2	49.5
<i>Two or more races</i>	1349	10	549.2	56.5	09	526.8	57.9
<i>American Indian</i>	98	10	528.1	50.9	09	510.7	55.6
<i>Native Hawaiian/Pacific Islander</i>	107	10	518.1	44.9	09	495.8	42.6
<i>White</i>	27417	10	568.5	59.1	09	545.2	58.4
<i>Asian</i>	748	11	620.1	78.5	10	590.0	70.7
<i>African American</i>	1528	11	546.8	42.3	10	521.8	41.6
<i>Hispanic</i>	3481	11	561.1	49.6	10	538.8	48.8
<i>Two or more races</i>	1201	11	575.5	59.3	10	554.8	57.4
<i>American Indian</i>	102	11	559.5	49.0	10	533.1	44.3
<i>Native Hawaiian/Pacific Islander</i>	106	11	552.9	48.1	10	523.2	50.1
<i>White</i>	26131	11	594.8	63.8	10	572.2	58.7

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

Subject	IEP	N-Count	2022			2021			
			Grade	Mean	SD	Grade	Mean	SD	
ELA	No	29513	04	443.5	31.0	03	404.1	26.8	
	Yes	4842	04	402.8	29.5	03	375.5	19.7	
	No	29591	05	462.4	35.2	04	442.9	30.5	
	Yes	4759	05	417.1	30.3	04	401.2	27.2	
	No	30632	06	484.9	38.9	05	460.7	36.5	
	Yes	4735	06	435.1	33.2	05	411.8	28.7	
	No	31183	07	513.6	44.3	06	490.2	38.7	
	Yes	4534	07	456.9	37.2	06	436.2	33.9	
	No	32111	08	537.3	45.5	07	501.0	43.0	
	Yes	4482	08	473.1	38.6	07	444.3	31.4	
	No	32072	09	549.8	52.1	08	538.6	47.7	
	Yes	4145	09	480.9	39.2	08	468.6	38.4	
	No	31336	10	576.1	53.6	09	550.7	52.7	
	Yes	3570	10	506.5	40.5	09	476.6	38.8	
	No	30044	11	600.8	56.0	10	580.5	52.5	
	Yes	2971	11	528.8	40.8	10	507.7	38.9	
	Math	No	29559	04	436.2	34.8	03	414.5	29.7
		Yes	4859	04	403.5	28.9	03	387.2	23.6
		No	29606	05	456.5	41.4	04	433.0	33.6
		Yes	4777	05	418.4	30.7	04	400.3	25.9
No		30671	06	482.3	46.8	05	454.4	40.6	
Yes		4754	06	433.2	35.2	05	415.2	28.0	
No		31227	07	501.5	49.3	06	480.1	45.9	
Yes		4558	07	453.2	33.3	06	430.6	33.9	
No		32187	08	526.8	53.1	07	499.6	48.7	
Yes		4510	08	475.1	32.2	07	449.1	28.1	
No		32180	09	542.8	58.8	08	528.6	52.3	
Yes		4186	09	482.9	33.5	08	474.4	31.0	

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

Subject	FRL	N-Count	2022			2021		
			Grade	Mean	SD	Grade	Mean	SD
ELA	No	20517	04	447.4	31.4	03	407.9	27.1
	Yes	13838	04	423.5	32.4	03	388.5	24.5
	No	20625	05	467.0	36.0	04	446.6	31.1
	Yes	13725	05	439.8	34.8	04	422.9	31.5
	No	21512	06	489.8	39.6	05	465.1	37.3
	Yes	13855	06	460.3	38.8	05	437.3	36.2
	No	21943	07	519.4	44.8	06	495.0	39.1
	Yes	13774	07	485.7	44.0	06	464.6	40.0
	No	22804	08	541.9	46.4	07	505.6	44.2
	Yes	13789	08	508.8	47.4	07	474.9	41.7
	No	23026	09	555.1	52.6	08	543.3	48.3
	Yes	13191	09	519.0	52.4	08	508.5	50.0
	No	23011	10	581.1	54.2	09	555.8	53.7
	Yes	11895	10	545.6	53.5	09	518.6	52.6
Math	No	22635	11	605.1	56.7	10	584.5	53.6
	Yes	10380	11	570.9	55.7	10	550.8	52.5
	No	20552	04	441.9	34.9	03	419.6	29.6
	Yes	13866	04	416.2	31.5	03	397.4	26.6
	No	20628	05	462.9	42.0	04	438.5	33.9
	Yes	13755	05	433.8	35.9	04	413.3	29.5
	No	21532	06	489.2	47.8	05	460.5	41.5
	Yes	13893	06	454.8	41.4	05	431.7	34.5
	No	21973	07	508.9	50.9	06	487.1	47.1
	Yes	13812	07	473.6	40.5	06	452.6	40.0
	No	22833	08	533.8	54.7	07	506.2	50.4
	Yes	13864	08	498.5	44.2	07	472.2	39.7
	No	23064	09	550.2	60.4	08	534.9	53.8
	Yes	13302	09	511.2	49.2	08	500.6	44.4
No	23079	10	575.6	60.0	09	552.3	59.2	
Yes	12088	10	536.7	48.8	09	513.6	49.2	
No	22734	11	601.1	65.4	10	577.9	59.6	
Yes	10563	11	561.9	49.8	10	540.2	49.2	

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

Subject	EL	N-Count	2022			2021			
			Grade	Mean	SD	Grade	Mean	SD	
ELA	No	32384	04	440.0	33.2	03	401.9	27.4	
	Yes	1971	04	401.2	22.7	03	370.8	13.2	
	No	32617	05	458.4	37.2	04	439.3	32.5	
	Yes	1733	05	413.7	24.2	04	396.4	21.4	
	No	33870	06	480.4	41.1	05	456.4	38.5	
	Yes	1497	06	429.5	24.7	05	404.7	21.4	
	No	34342	07	508.7	46.5	06	485.5	41.1	
	Yes	1375	07	448.7	28.6	06	428.1	26.3	
	No	35144	08	531.9	48.5	07	496.3	44.9	
	Yes	1449	08	470.5	32.7	07	438.8	25.1	
	No	34839	09	544.6	54.4	08	533.3	50.5	
	Yes	1378	09	475.4	31.3	08	462.7	31.0	
	No	33449	10	572.0	55.4	09	546.3	54.8	
	Yes	1457	10	501.1	32.9	09	470.5	32.0	
	No	31627	11	597.6	57.4	10	577.1	54.2	
	Yes	1388	11	521.3	33.4	10	502.8	32.0	
	Math	No	32437	04	433.6	35.5	03	412.4	30.2
		Yes	1981	04	398.2	21.1	03	381.0	16.4
		No	32647	05	453.2	42.1	04	430.2	34.3
		Yes	1736	05	414.7	23.0	04	395.4	18.7
No		33924	06	477.8	48.0	05	450.9	41.2	
Yes		1501	06	428.7	28.6	05	410.3	19.9	
No		34402	07	497.3	50.0	06	475.8	47.1	
Yes		1383	07	447.0	23.2	06	424.3	25.1	
No		35239	08	522.5	53.7	07	495.3	49.3	
Yes		1458	08	471.9	26.0	07	445.5	21.7	
No		34967	09	538.1	59.5	08	524.3	53.1	
Yes		1399	09	482.6	28.6	08	472.6	24.9	
No	33669	10	564.7	59.1	09	541.6	58.6		
Yes	1498	10	505.4	28.8	09	481.1	27.2		
No	31876	11	591.2	63.6	10	568.6	58.8		
Yes	1421	11	532.2	26.2	10	505.8	27.4		

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