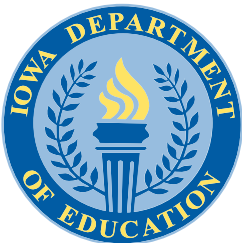


Senior Year Plus STEM Legislative Report

January 15, 2023



State of Iowa
Department of Education
Grimes State Office Building
400 E. 14th Street
Des Moines, IA 50319-0146

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LEGISLATIVE REQUIREMENT - IOWA CODE 261E.3 J

All eligible postsecondary institutions providing programming under this chapter shall include the unique student identifier assigned to students while in the kindergarten through grade twelve system as a part of the institution's student data management system. Eligible postsecondary institutions providing programming under this chapter shall cooperate with the department on data requests related to the programming. All eligible postsecondary institutions providing programming under this chapter shall collect data and report to the department on the proportion of females and minorities enrolled in science, technology, engineering, and mathematics-oriented educational opportunities provided in accordance with this chapter. The department shall submit the programming data and the department's findings and recommendations in a report to the general assembly annually by January 15

ADVANCED PLACEMENT ENROLLMENT IN STEM COURSES

Table 1: Advanced Placement Course Enrollments by Race/Ethnicity

Race/ Ethnicity	2019-20				2020-21				2021-22			
	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent	Number of STEM Courses	Percent STEM*
Asian	1,191	6.5%	486	8.5%	1,130	6.7%	493	8.5%	1,048	6.8%	480	9.1%
Black	919	5.0%	174	3.1%	828	4.9%	198	3.4%	715	4.6%	166	3.2%
Hispanic	1,489	8.8%	376	6.6%	1,404	8.3%	348	6.0%	1,269	8.2%	314	6.0%
Two or More Races	732	3.9%	190	3.3%	693	4.1%	191	3.3%	668	4.3%	186	3.5%
American Indian	37	0.2%	5	0.1%	31	0.2%	8	0.1%	23	0.1%	7	0.1%
Pacific Islander	23	0.1%	7	0.1%	19	0.1%	9	0.2%	13	0.1%	2	0.0%
White	13,522	75.6%	4,451	78.2%	12,835	75.8%	4,540	78.5%	11,646	75.7%	4,091	78.0%
Total	17,913	100.0%	5,689	100.0%	16,940	100.0%	5,787	100.0%	15,382	100.0%	5,246	100.0%

Source: Iowa Department of Education, Student Reporting in Iowa collection

* May not equal 100% due to rounding

Table 2: Advanced Placement Course Enrollments by Gender

Race/ Ethnicity	2019-20				2020-21				2021-22			
	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent	Number of STEM Courses	Percent STEM*
Female	9,913	55.3%	2,825	47.9%	9,485	56.0%	2,826	48.8%	8,506	55.3%	2,538	48.4%
Male	8,000	44.7%	3,073	52.1%	7,455	44.0%	2,961	51.2%	6,859	44.6%	2,705	51.6%
Non-Binary	--	--	--	--	--	--	--	--	17	0.1%	3	0.1%
Total	17,913	100%	5,898	100%	16,940	100.0%	5,787	100.0%	15,382	100.0%	5,246	100.0%

Source: Iowa Department of Education, Student Reporting in Iowa collection

* May not equal 100% due to rounding

CONCURRENT ENROLLMENT IN STEM COURSES

Table 3: Concurrent Course Enrollments by Race/Ethnicity

Race/ Ethnicity	2019-20				2020-21				2021-22			
	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent	Number of STEM Courses	Percent STEM*
Asian	1,289	2.9%	513	3.8%	1,114	2.7%	424	3.7%	1,169	2.7%	431	3.7%
Black	1,216	2.7%	449	3.3%	1,044	2.5%	336	2.9%	1,159	2.7%	379	3.2%
Hispanic	3,654	8.2%	1,345	9.8%	3,119	7.6%	986	8.6%	3,443	8.0%	1,051	9.0%
Two or More Races	1,202	2.7%	433	3.2%	1,102	2.7%	315	2.8%	1,291	3.0%	378	3.2%
American Indian	125	0.3%	44	0.3%	86	0.2%	30	0.3%	93	0.2%	30	0.3%
Pacific Islander	66	0.1%	19	0.1%	48	0.1%	14	0.1%	66	0.2%	25	0.2%
White	37,080	83.1%	10,862	79.5%	34,640	84.2%	9,341	81.6%	35,961	83.3%	9,418	80.4%
Total	44,632	100%	13,665	100%	41,153	100.0%	11,446	100.0%	43,182	100.0%	11,712	100.0%

Source: Iowa Department of Education, Student Reporting in Iowa collection

* May not equal 100% due to rounding

Table 4: Concurrent Course Enrollments by Gender

Race/ Ethnicity	2019-20				2020-21				2021-22			
	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent	Number of STEM Courses	Percent STEM*
Female	23,074	51.7%	6,441	47.1%	21,646	52.6%	5,563	48.6%	22,804	52.8%	5,608	47.9%
Male	21,558	48.3%	7,224	52.9%	19,507	47.4%	5,883	51.4%	20,368	47.2%	6,101	52.1%
Non-Binary	--	--	--	--	--	--	--	--	10	0.0%	3	0.0%
Total	44,632	100%	13,665	100%	41,153	100.0%	11,446	100.0%	43,182	100.0%	11,712	100.0%

Source: Iowa Department of Education, Student Reporting in Iowa collection

* May not equal 100% due to rounding

POSTSECONDARY ENROLLMENT OPTIONS IN STEM COURSES

Table 5: Postsecondary Enrollment Options by Race/Ethnicity

Race/ Ethnicity	2019-20				2020-21				2021-22			
	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent	Number of STEM Courses	Percent STEM*
Asian	65	11.0%	45	18.5%	74	15.0%	50	28.2%	68	13.5%	40	24.2%
Black	11	1.9%	3	1.2%	8	1.6%	1	0.6%	9	1.8%	3	1.8%
Hispanic	34	5.8%	12	4.9%	18	3.7%	4	2.3%	27	5.4%	5	3.0%
Two or More Races	19	3.2%	9	3.7%	25	5.1%	11	6.2%	17	3.4%	4	2.4%
American Indian	2	0.3%	-	0.0%	1	0.2%	-	0.0%	2	0.4%	-	0.0%
Pacific Islander	1	0.2%	1	0.4%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
White	459	77.7%	173	71.2%	367	74.4%	111	67.2%	380	75.5%	113	68.5%
Total	591	100%	243	100%	493	100.0%	177	100.0%	503	100.0%	165	100.0%

Source: Iowa Department of Education, Student Reporting in Iowa collection

* May not equal 100% due to rounding

Table 6: Postsecondary Enrollment Options by Gender

Race/ Ethnicity	2019-20				2020-21				2021-22			
	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent*	Number of STEM Courses	Percent STEM*	Number of Courses	Percent	Number of STEM Courses	Percent STEM*
Female	322	54.5%	104	42.8%	274	55.6%	58	32.8%	251	49.9%	57	34.5%
Male	269	45.5%	139	57.2%	219	44.4%	139	67.2%	248	49.3%	108	65.5%
Non-Binary	591	100.0%	243	100.0%	--	--	--	--	4	0.8%	-	0.0%
Total	322	54.5%	104	42.8%	493	100%	177	100%	503	100.0%	165	100.0%

Source: Iowa Department of Education, Student Reporting in Iowa collection

* May not equal 100% due to rounding

IOWA STUDENT DEMOGRAPHIC INFORMATION

Table 7: 2021-22 Enrollment by Race/Ethnicity

Race/Ethnicity	Student Count	Percent
Black or African American	31,873	6.6%
American Indian or Alaska Native	1,637	0.3%
Asian	11,967	2.5%
Native Hawaiian or Other Pacific Islander	2,306	0.5%
Hispanic/Latino	58,309	12.1%
Two or More Races	22,742	4.7%
White	352,414	73.2%
Total	481,248	100%

Table 8: 2021-22 Enrollment by Gender

Race/Ethnicity	Student Count	Percent
Female	233,671	48.6%
Male	247,518	51.4%
Non-Binary	59	0.0%
Total	481,248	100%

FINDINGS

This report provides information about enrollment patterns of students by race/ethnicity and gender across the multiple pathways under the Senior Year Plus umbrella. This report also includes information about the percent of students of color and gender enrollments in Senior Year Plus (SYP) courses as well as STEM Senior Year Plus courses. SYP pathways include Advanced Placement (AP), Concurrent Enrollment and Postsecondary Enrollment Options (PSEO).

There are sizable declines in AP course enrollments between 2019-20 (n=17,913) and 2021-22 (n=15,382). This same pattern also exists for PSEO enrollments between 2019-20 (n=591) and 2021-22 (n=503). Concurrent enrollment also saw declines in enrollment over the three-year period covered in the report. Most race/ethnicity student groups had fewer overall enrollments and STEM SYP Concurrent course enrollment in this same time period. There was a sizeable drop in Concurrent course enrollments between the 2019-20 and the 2020-21 due to the COVID-19 Pandemic. However, there was a rebound in Concurrent course enrollment in 2021-22 from the prior year. There were 2,029 more courses taken by students overall and 266 more STEM Concurrent courses.

In examining the year to year trends, a different pattern can be found. In 2021-22, there was a decrease in two of the three areas covered under SYP from the prior year. There were increases across both overall Concurrent Enrollment and STEM Concurrent courses for almost all race/ethnic student groups between 2020-21 and 2021-22. All race/ethnic students groups had an increase in Concurrent courses except white students. However, white students did see an increase in Concurrent STEM course enrollments. Both AP and PSEO had declines in overall enrollments and in SYP STEM courses between the 2020-21 and 2021-22 school years. The race/ethnicity enrollments also followed this same pattern in examining the year to year trends for AP courses.

In examining gender differences, there was a slight increase in the percent of female students taking STEM Concurrent courses between 2019-20 (47.1%) and 2021-22 (47.9%). AP STEM course enrollment also followed this same pattern between 2019-20 (47.9%) and 2021-22 (48.4%). For the first time, data about students who identify as Non-Binary is available across the multiple SYP pathways.