

# FALL ENROLLMENT

## IOWA COMMUNITY COLLEGES

2019



**COMMUNITY COLLEGES &  
WORKFORCE PREPARATION**  
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**IOWA DEPARTMENT  
OF EDUCATION**



Grimes State Office Building

Phone: 515-281-8260  
Fax: 515-242-5988  
www.educateiowa.gov

Ryan Wise  
Director, Iowa Department  
of Education  
515-281-3436  
ryan.wise@iowa.gov

Jeremy Varner  
Administrator, Division of  
Community Colleges and  
Workforce Preparation  
515-281-8260  
jeremy.varner@iowa.gov

Barbara Burrows  
Chief, Bureau of  
Community Colleges  
515-281-0319  
barbara.burrows@iowa.gov

Pat Thieben  
Acting Chief, Bureau of  
Career and Technical Education  
515-281-4716  
pat.thieben@iowa.gov

Dan Li  
Consultant, Bureau of  
Community Colleges  
515-281-3503  
dan.li@iowa.gov

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

**State Board of Education**

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**Division of Community Colleges  
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**Bureau of Community Colleges**

Barbara Burrows, Bureau Chief  
Dan Li, Education Program Consultant

**Bureau of Career and Technical Education**

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## Executive Summary

The Iowa Department of Education collects enrollment information from all 15 community colleges. This report summarizes several aspects of community college enrollment. Some highlights of this report include:

- » Fall 2019 enrollment decreased 1.7 percent to 88,375 students.
- » Part-time enrollment remained larger than full-time students and reached the all times record high 64.3 percent of total fall enrollment.
- » Minorities comprised 23.6 percent of fall enrollment.
- » Total credit hours registered decreased 2.4 percent to 754,124 credit hours.
- » Average course load for both full-time students (13.9 credits) and part-time students (5.5 credits) remained unchanged.
- » Students in college parallel programs comprised 41.3 percent of total fall enrollment, followed by students with no program of study (29.6 percent) and CTE programs (27.3 percent).
- » For the first time in history the number of high school students participating in joint enrollment decreased (less than one percent) to 35,734 students.
- » The majority of high school students (99.4 percent) participated in joint enrollment through contracted courses between high schools and community colleges.





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## Students

In fall 2019, a total of 88,375 students enrolled in Iowa community colleges, a slight decrease (less than two percent) in enrollment from last fall. Figure 1 displays fall enrollment data since 1969, illustrating that although there has been a year-to-year decrease in fall enrollment since 2011, historically, fall enrollment has increased substantially in the past 50 years.

The number of full-time students (i.e., students who enrolled in more than 12 credit

hours) as a percentage of total fall enrollment has steadily declined from 91.3 percent in 1969 to 35.7 percent in 2019 (Figure 2). This fall, enrollment of full-time students was 31,580 (35.7 percent of total enrollment) students, compared to 33,005 students (36.7 percent) last fall.

While the percentage of full-time students has been decreasing since 1969, the percentage of part-time student has increased steadily over the years. In fall 2019, 56,795 students were enrolled as part-time students, which accounted for 64.3 percent of total enrollment, compared to 56,889 part-time students (63.3 percent of total enrollment) last fall. Table 1 shows the full-time, part-time and total enrollment of each community college. This fall, the enrollment increased at 4 colleges and decreased at 11 colleges.

### FALL ENROLLMENT HIGHLIGHTS



Enrollment  
**88,375**  
students



Enrollment  
increased at **4** colleges  
and decreased at 11.



**35.7%**  
of students  
enrolled full time

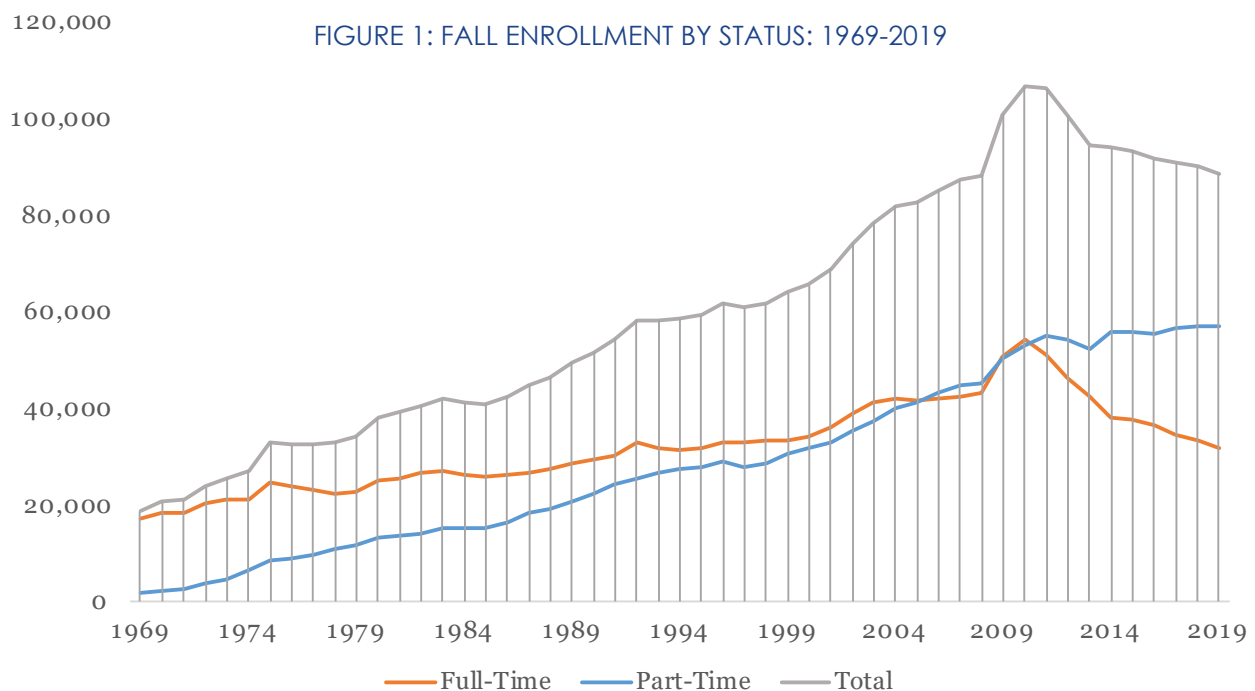


FIGURE 2: HISTORICAL ENROLLMENT OF FULL-TIME STUDENTS AND PART-TIME STUDENTS AS A PERCENT OF TOTAL ENROLLMENT: 1969-2019

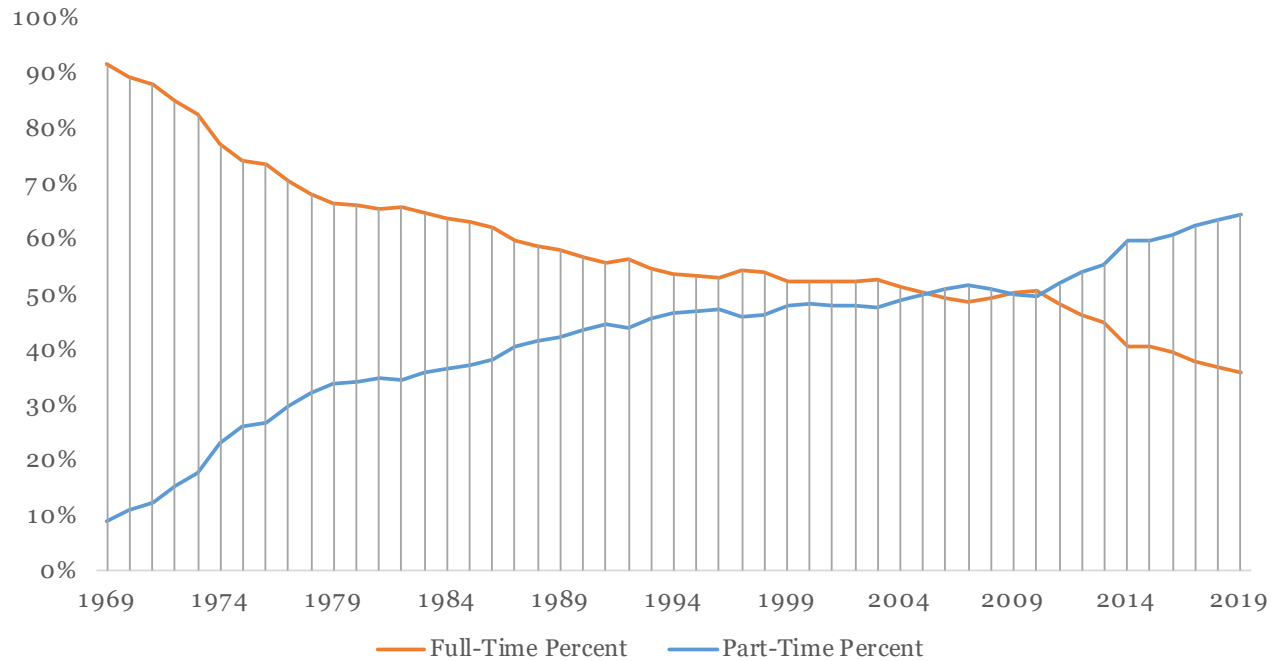


TABLE 1: FALL 2019 ENROLLMENT BY COLLEGE

College	Total	Full-time		Part-time		Change (%) from last year
		N	%	N	%	
Northeast Iowa	4,410	1,125	25.5%	3,285	74.5%	-0.2%
North Iowa Area	2,894	1,389	48.0%	1,505	52.0%	-3.4%
Iowa Lakes	2,069	948	45.8%	1,121	54.2%	-2.4%
Northwest Iowa	1,773	605	34.1%	1,168	65.9%	1.5%
Iowa Central	4,998	2,500	50.0%	2,498	50.0%	-6.6%
Iowa Valley	2,708	1,286	47.5%	1,422	52.5%	-1.7%
Hawkeye	5,112	2,096	41.0%	3,016	59.0%	-2.3%
Eastern Iowa	8,002	2,269	28.4%	5,733	71.6%	3.0%
Kirkwood	14,182	5,177	36.5%	9,005	63.5%	-1.0%
Des Moines Area	23,258	6,146	26.4%	17,112	73.6%	-0.9%
Western Iowa Tech	5,976	1,792	30.0%	4,184	70.0%	5.3%
Iowa Western	5,322	2,535	47.6%	2,787	52.4%	-11.6%
Southwestern	1,581	677	42.8%	904	57.2%	2.2%
Indian Hills	3,612	1,870	51.8%	1,742	48.2%	-7.8%
Southeastern	2,478	1,165	47.0%	1,313	53.0%	-2.7%
<b>TOTAL</b>	<b>88,375</b>	<b>31,580</b>	<b>35.7%</b>	<b>56,795</b>	<b>64.3%</b>	<b>-1.7%</b>

## Students Demographics

In fall 2019, 55.9 percent of students enrolled were female, 44.1 percent were male, and ten students didn't report gender (Figure 3). Females have outnumbered males nationally in higher education since 1980.

The average age of community students this fall is 21 with a median age of 19, which is consistent with last year. Figure 4 displays the age distribution of students enrolled in community colleges this fall. Students age between 18 and 22 (40.6 percent), and students under 18 (37.2 percent) are the two largest age groups that Iowa's community colleges are serving, followed by students age between 23 and 26 (7.5 percent), and between 31 and 39 (5.8 percent). Other age groups in total comprised less than 10 percent of fall enrollment this year.

### STUDENT DEMOGRAPHIC HIGHLIGHTS



**55.9%**  
of students  
are female



**19**  
median age  
of students



**23.6%**  
of students are  
minorities

FIGURE 3: FALL 2019 ENROLLMENT BY GENDER

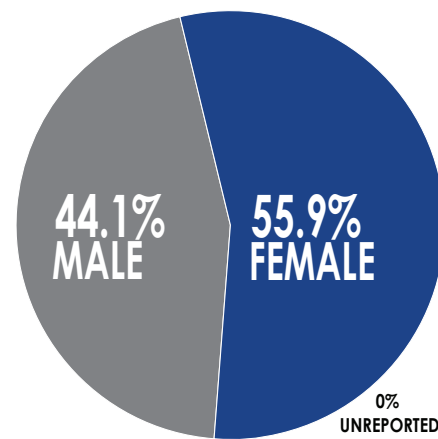
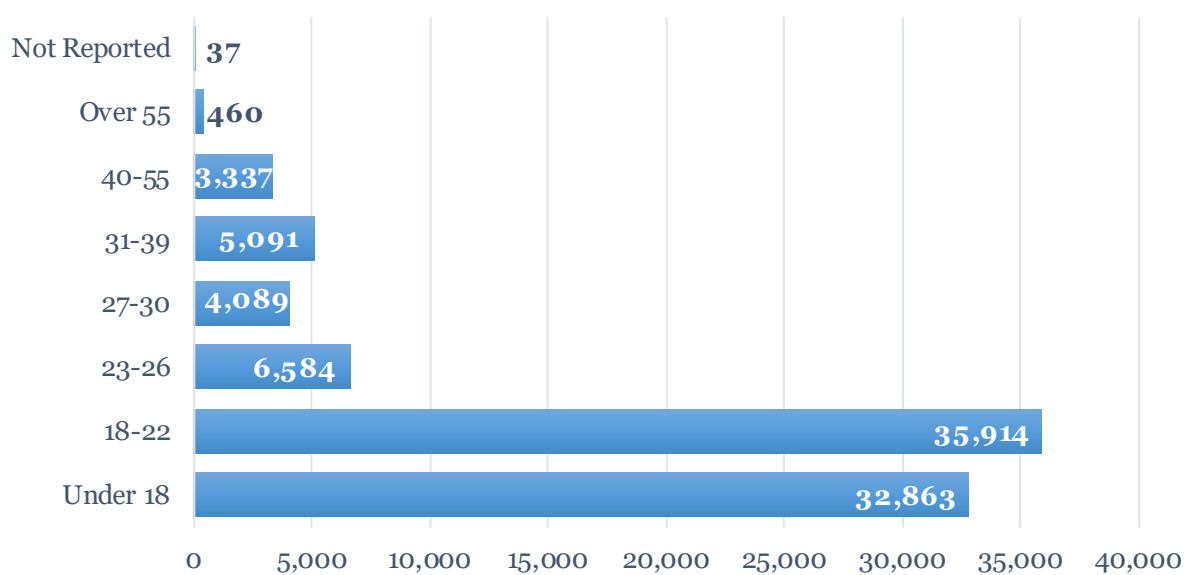


FIGURE 4: AGE DISTRIBUTION OF STUDENTS ENROLLED IN FALL 2019



This fall, 6,233 students (7.1 percent) did not report their race and ethnicity. Among the 82,142 students (Figure 5) who reported their race and ethnicity, 23.6 percent of students were minorities, compared to 22.6 percent last year. Hispanic were the second largest racial/ethnic group (9.3 percent), followed by African-American (7.9 percent), and Asian (3.1 percent). More than two percent indicated they were part of multiple racial and ethnic groups. American Indian and Pacific Islander respectively constituted 0.6 percent and 0.2 percent.

In terms of residency, around 90.2 percent students enrolled in Iowa’s community colleges this fall were Iowans. Residents from other states accounted for 8.5 percent of enrolled students, and foreign nationals comprised 1.3 percent (Figure 6).

FIGURE 6: FALL 2019 ENROLLMENT BY RESIDENCY

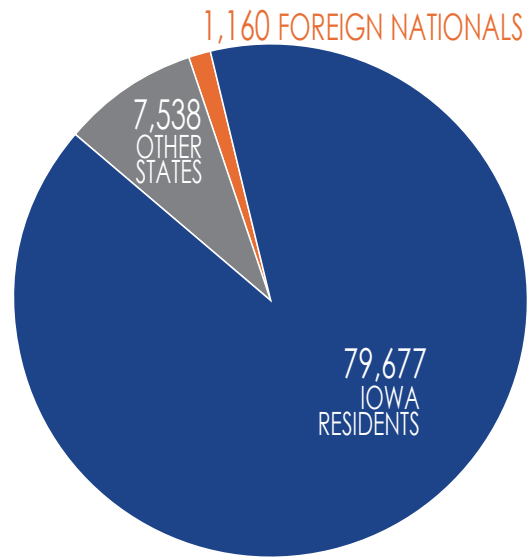
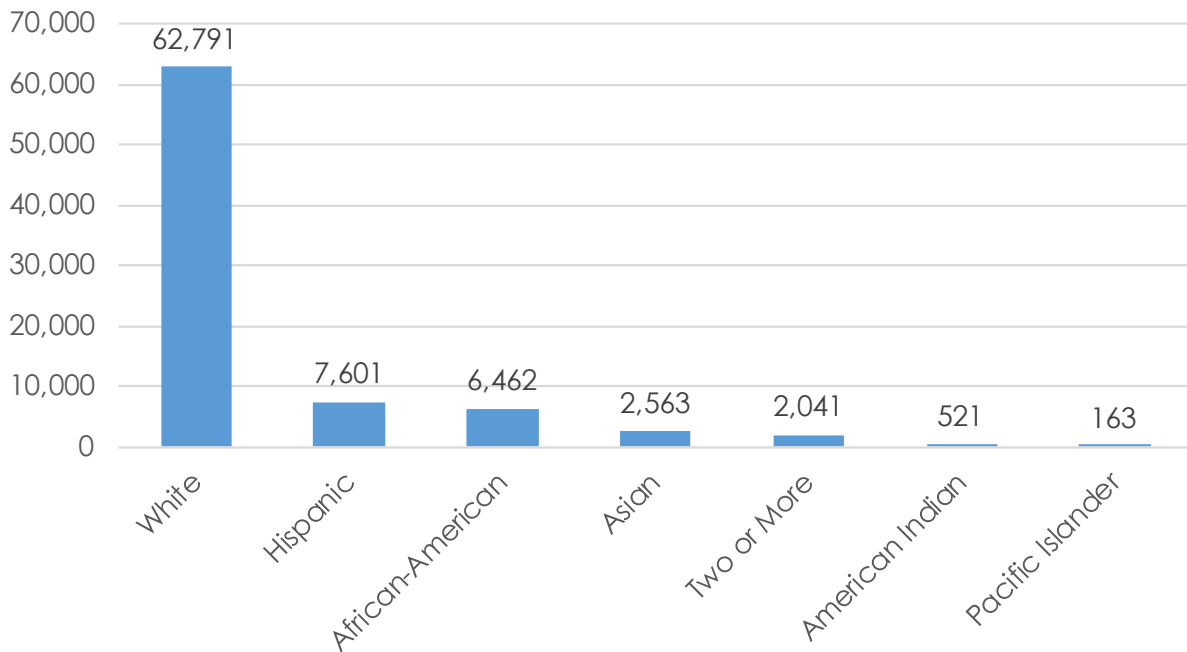


FIGURE 5: FALL 2019 ENROLLMENT BY RACE AND ETHNICITY



## Academics

Students attending Iowa's community colleges this fall registered for 754,124 credit hours, compared to 772,764 credit hours last fall (a 2.4 percent decrease). On average, students enrolled in 8.5 credit hours in the fall semester, which is slightly smaller than

last fall. Figure 7 and Figure 8 respectively display the change of total credit hours, and average credit hours registered per student in recent five years. The decreases in total credit hours and average credit hours, as indicated in two figures, align with the enrollment decline in recent years.

### STUDENT ACADEMIC HIGHLIGHTS



**8.5**  
Average  
number of  
credit hours



Total Credit  
Hours Down  
**2.4%**  
since last year

FIGURE 7: TOTAL CREDIT HOURS REGISTERED: 2015-2019

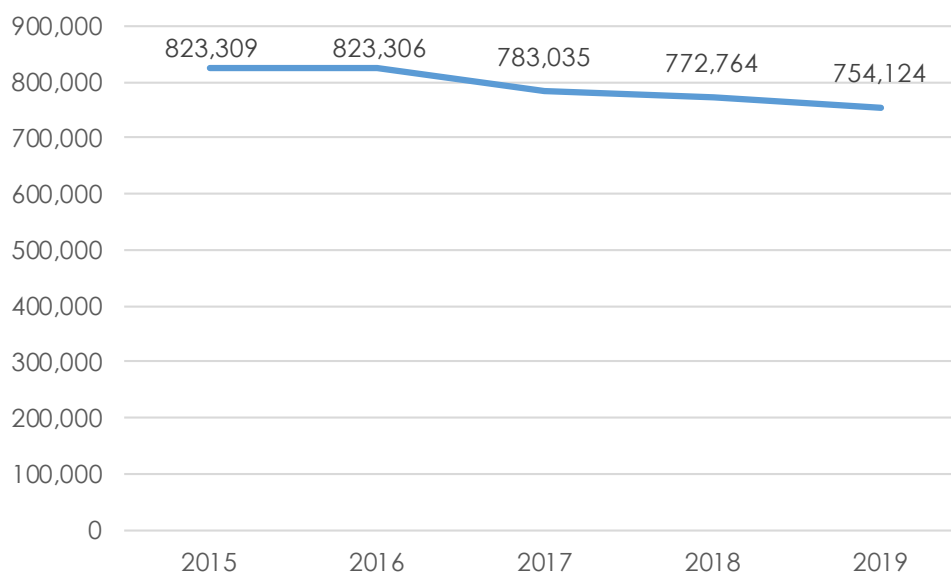


FIGURE 8: AVERAGE CREDIT HOURS REGISTERED PER STUDENT: 2015-2019

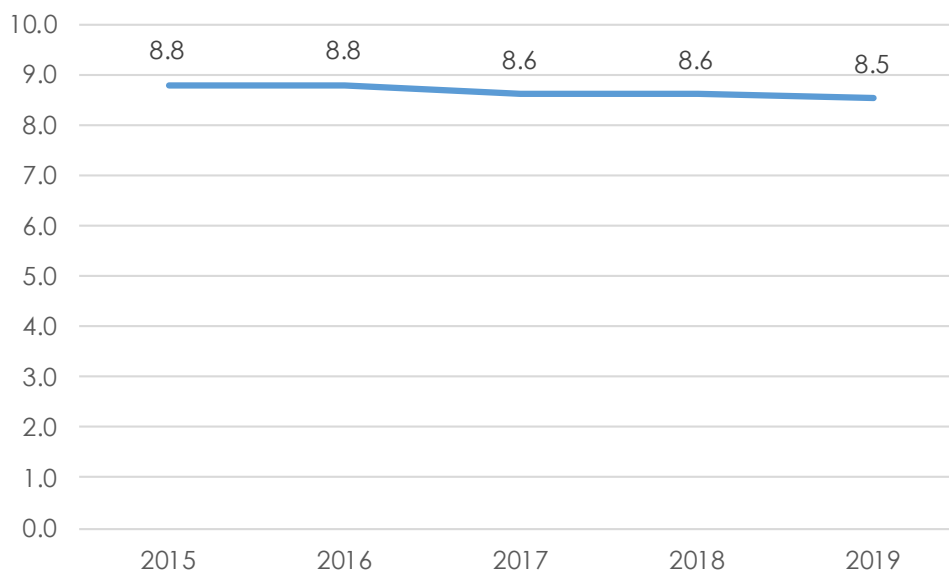


Table 2 summarizes credit hours registered this fall by college. Full time students registered for 439,923 credit hours, accounting for 58.3 percent of total credit hours registered. This represents a slight decrease from last fall, in which full-time students registered comprised 59.2 percent of total registration hours. However, the average course load for full-time students was 13.9, which is consistent with last fall.

Part-time students registered for 314,201 credit hours, accounting for 41.7 percent of total credit hours, representing a 0.4 percent decrease from last fall. The average course load for part-time students remained virtually unchanged from last fall's 5.5 credit hours.

TABLE 2: SUMMARY OF FALL 2019 TOTAL REGISTERED CREDIT HOURS BY COLLEGE

College	Total Hours	Credit Hours Taken by Full-Time Students		Credit Hours Taken by Part-Time Students		Average Course Load	
		(N)	(%)	(N)	(%)	Full-Time	Part-Time
Northeast Iowa	33,925	16,147	47.6	17,778	52.4	14.4	5.4
North Iowa Area	28,110	20,052	71.3	8,058	28.7	14.4	5.4
Iowa Lakes	19,922	14,499	72.8	5,423	27.2	15.3	4.8
Northwest Iowa	15,179	9,251	60.9	5,929	39.1	15.3	5.1
Iowa Central	51,010	37,438	73.4	13,572	26.6	15.0	5.4
Iowa Valley	26,600	18,745	70.5	7,855	29.5	14.6	5.5
Hawkeye	46,501	29,974	64.5	16,527	35.5	14.3	5.5
Eastern Iowa	61,765	30,451	49.3	31,314	50.7	13.4	5.5
Kirkwood	124,619	71,235	57.2	53,384	42.8	13.8	5.9
Des Moines Area	178,597	84,484	47.3	94,113	52.7	13.7	5.5
Western Iowa Tech	47,964	25,705	53.6	22,259	46.4	14.3	5.3
Iowa Western	54,002	36,291	67.2	17,712	32.8	14.3	6.4
Southwestern	14,531	9,695	66.7	4,836	33.3	14.3	5.3
Indian Hills	27,196	19,295	70.9	7,901	29.1	10.3	4.5
Southeastern	24,204	16,662	68.8	7,542	31.2	14.3	5.7
<b>TOTAL</b>	<b>754,124</b>	<b>439,923</b>	<b>58.3</b>	<b>314,201</b>	<b>41.7</b>	<b>13.9</b>	<b>5.5</b>

Note: Rounding may yield minor inaccuracies in total hours.

## Program Type

Programs offered by community colleges are generally categorized as college parallel (transfer arts and sciences), career and technical education (CTE), or general studies (AGS). College parallel programs prepare students for matriculation into four-year colleges or universities; CTE programs prepare students for the workforce; and AGS

allows students to receive a two-year degree with a custom-selected set of courses, not leading to a specific occupation or direct transfer. Students who declared two or more different types of programs were reported as a separate group. Students who were not eligible or were not willing to declare their programs of study for a variety of reasons (e.g., high school students taking college credits as joint enrollment) were identified as a group with no program of study.

As shown in Figure 9, college parallel programs comprised the largest group with 36,466 students, accounting for 41.3 percent of total enrollment, followed by the “no program of study” group (26,116 students, accounting for 29.6 percent) and CTE programs (24,095 students, accounting for 27.3 percent). This fall, 1,689 students enrolled in AGS programs (1.9 percent) and only nine students declared two or more different types of programs.

As compared to last year, number of students with no program of study decreased 22.6 percent. Number of students in AGS programs and in CTE programs decreased 3.9 percent and 2.9 percent respectively. Number of students enrolled in college parallel programs increased 23.3 percent.

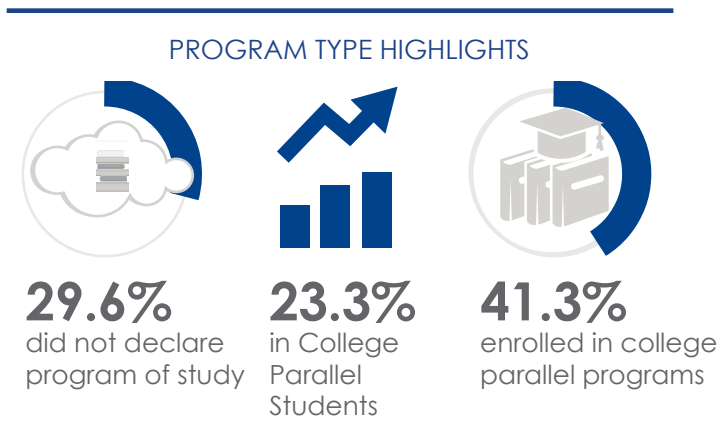
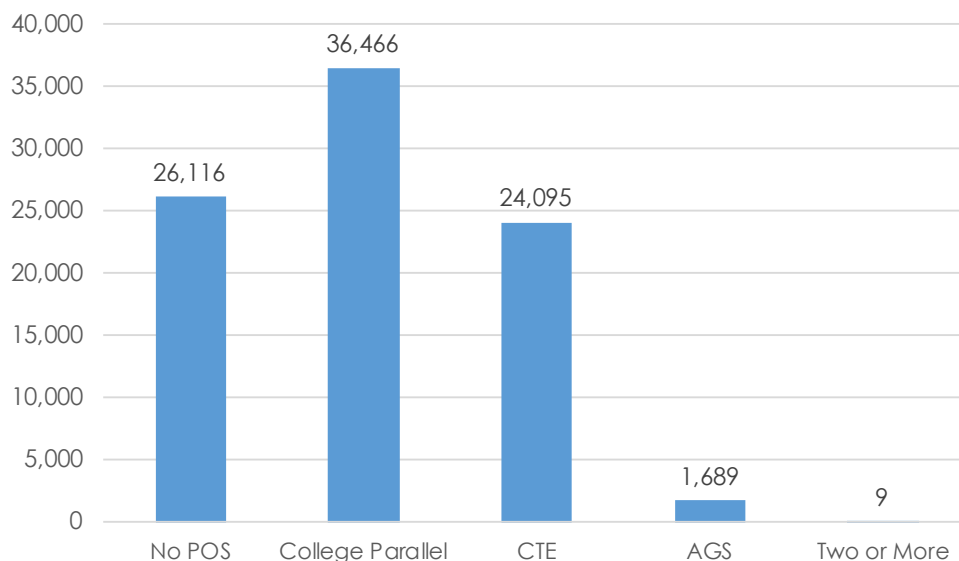


FIGURE 9: FALL 2019 ENROLLMENT BY PROGRAM TYPE



*Note:* No POS refers to students who were either ineligible or not willing to declare a program of study. Two or more refers to students who declared two or more different programs of study.

## Transfer Major Programs

In December 2017, the Iowa Association of Community College Presidents unanimously approved an Iowa Department of Education proposal to establish an authorized process to permit community colleges to adopt Transfer Majors. This process has now been authorized through Iowa Administrative Code 281 21.3. These Transfer Majors are designed to guide students to take program-specific coursework within their associate of arts (AA) or associate of science (AS) studies that will transfer seamlessly into related majors at four-year institutions with the goal of:

- » improving communication and transfer efficiency among institutions;
- » providing students with a defined pathway toward their academic goals;
- » supporting a more data-informed assessment/articulation process;
- » avoiding excessive credits and decreasing time to degree completion; and
- » making postsecondary education more affordable, thus reducing student debt.

### TRANSFER MAJOR HIGHLIGHTS

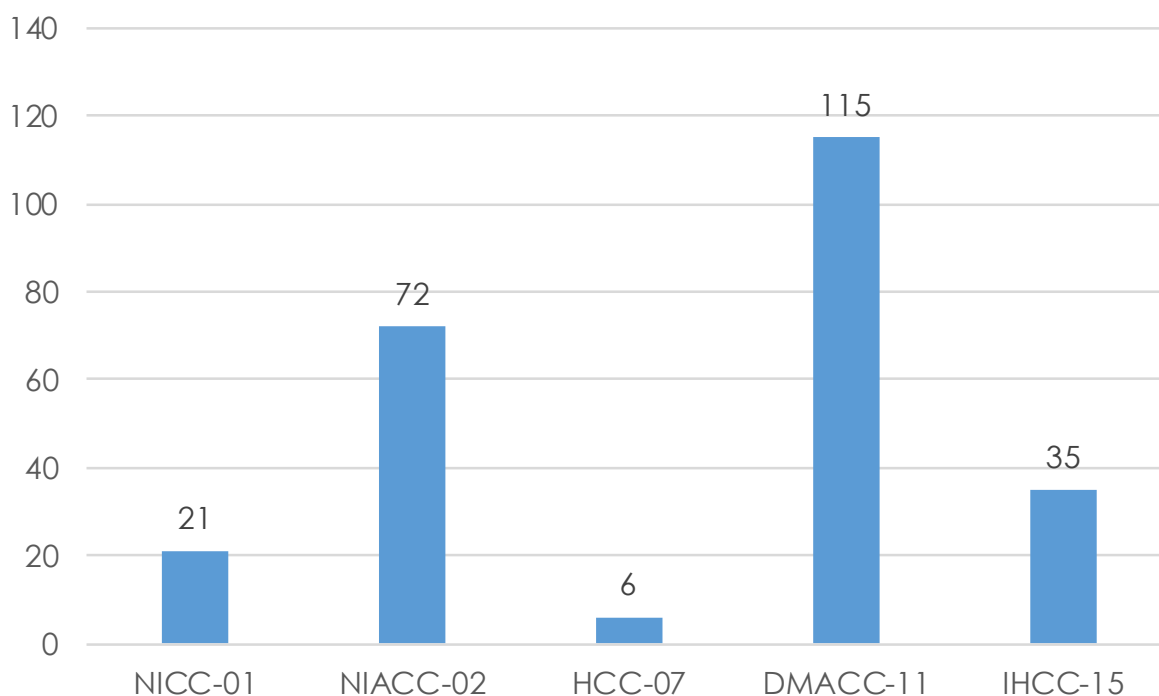


**249**  
students enrolled  
in transfer major  
programs



**115**  
students in  
Criminal Justice/  
Safety Studies

FIGURE 10: DISTRIBUTION OF TRANSFER MAJOR STUDENTS BY COLLEGE

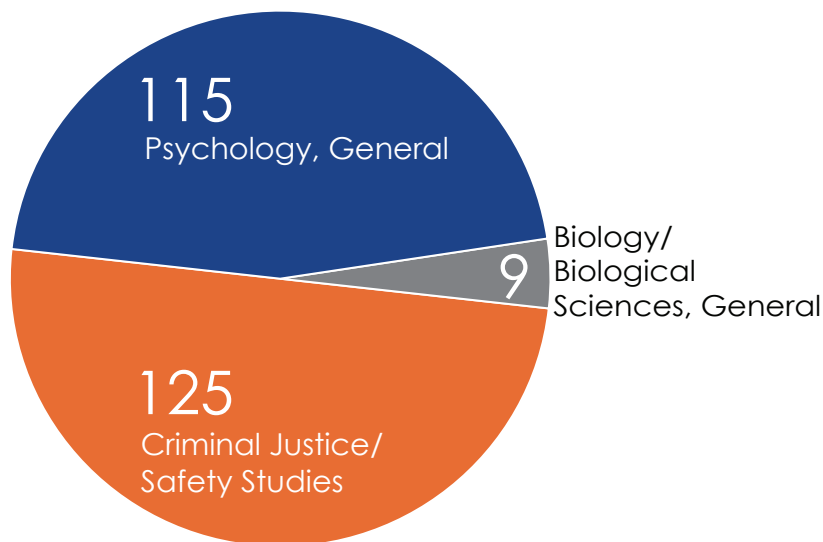


As of October 1, 2019, 40 transfer majors have been approved by the Iowa Department of Education for enrollment by students. Eleven of Iowa's 15 colleges have at least one approved transfer major and the most common ones to be adopted are Psychology, Criminal Justice, and Biology which were the first 3 to be completed by the committees. Once reviewed by the Department, colleges will be able to market and transcript their transfer majors.

More transfer majors will be discussed, vetted, and approved in the next year for colleges that align their curriculum with these frameworks. On October 3, 2019, faculty met to start the discipline framework development for an additional six discipline areas: communications, English, journalism, Music, art, and theatre. In February 2020, the disciplines of history, political science, human services/social work, and health/wellness will begin discussions to articulate content for potential new transfer major programs.

As of 2019, 249 unduplicated students across five colleges (Figure 10) enrolled in Biology, Psychology and Criminal Justice programs (Figure 11) for 2,993 credit hours. Of these 249 students, 191 were full-time students and 58 were part-time; 95 were males and 154 were females; and 28.9 percent were minorities.

FIGURE 11: DISTRIBUTION OF TRANSFER MAJOR STUDENTS BY DISCIPLINES



## Career Clusters

The Iowa Department of Education reports CTE programs by the 16 National Career Clusters Framework that aligns academic programs with occupational fields. Information on career clusters can be obtained from [www.careerclusters.org](http://www.careerclusters.org).

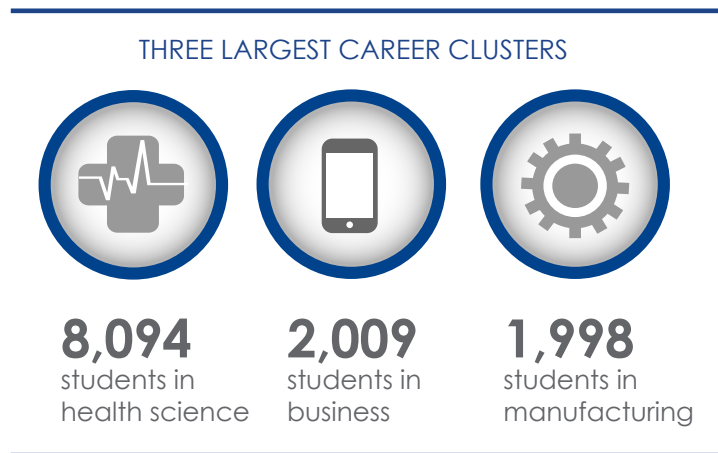
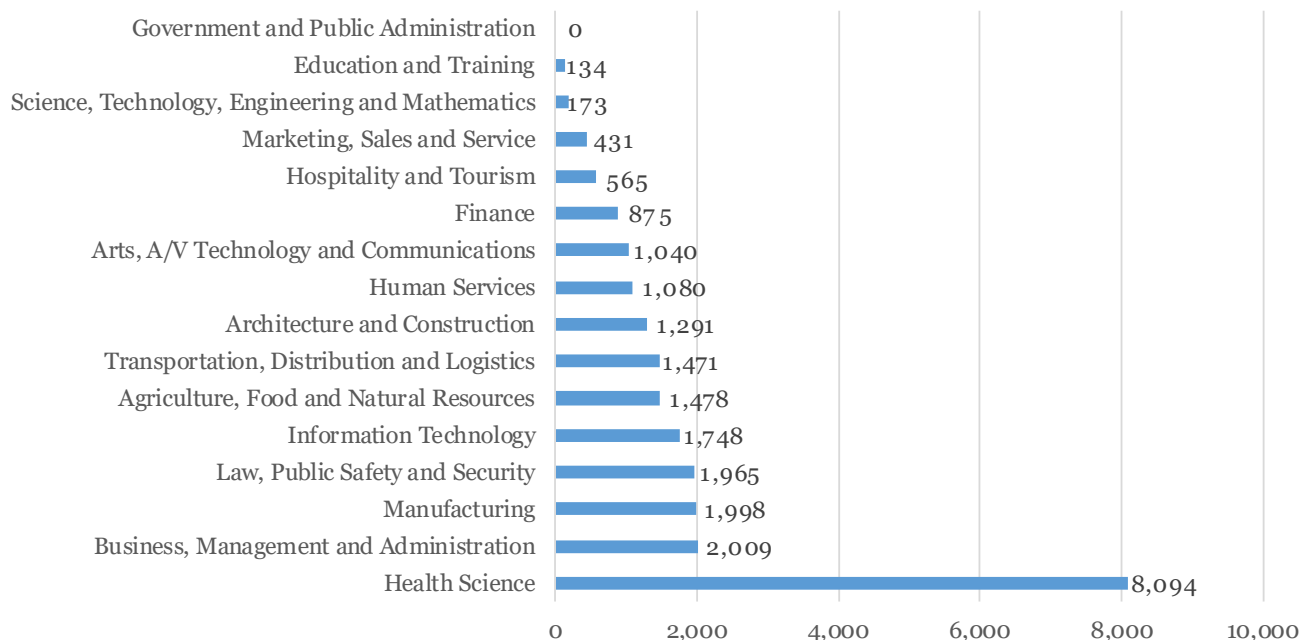


Figure 12 displays the distribution of CTE enrollment by career clusters.

Historically, cluster categories with the largest enrollments have been health science, manufacturing business, management and administration, and manufacturing, and this fall was no exception: 8,094 students enrolled in health science (a 5.1 percent decrease from last fall), 1,998 students enrolled in manufacturing (a 9.8 percent decrease), and 2,009 students enrolled in business, management and administration (a 3.2 percent increase).

FIGURE 12: FALL 2019 CTE ENROLLMENT BY CAREER CLUSTER



## Online Enrollment

Online enrollment at Iowa’s community colleges is broken down into two categories: online classes and blended classes. An online class is defined as instruction delivered completely on the internet. In a blended class, at least half of the instruction is delivered via the internet and the remainder of the class is delivered in a face-to-face context.

### ONLINE ENROLLMENT HIGHLIGHTS



**5.8%**  
increase in  
online  
enrollment



**33,655**  
students enrolled in  
at least one online  
course



**5.8%**  
increase in  
credit hours for  
online classes

Table 3 summarizes the number of students enrolled in online and blended classes, and credit hours attributed to online and blended classes. In fall 2019, 33,655 students enrolled in at least one online course (a 5.0 percent increase from last year) and 6,584 students enrolled in at least one blended course (a 17.7 percent increase from last year). Online course students registered for 170,241 credit hours. Compared to 160,848 credit hours last fall, this volume represents a 5.8 percent increase. This fall, students registered for 24,421 credit hours in blended classes, compared to 20,888 credit hours last fall, representing an increase of 16.9 percent.

TABLE 3: FALL 2019 ONLINE AND BLENDED COURSE ENROLLMENT BY COLLEGE

College	Online Course Enrollment			Blended Course Enrollment		
	Hours	Headcount	% Change Credit Hours	Hours	Headcount	% Change Credit Hours
Northeast Iowa	8,288	1,599	26.2%	1,598	473	-31.5%
North Iowa Area	7,185	1,695	7.7%	512	180	-39.8%
Iowa Lakes	5,251	1,037	-2.6%	-	-	-
Northwest Iowa	6,683	1,216	22.5%	195	71	-42.5%
Iowa Central	5,028	1,049	-10.8%	4,131	991	-
Iowa Valley	6,677	1,397	9.4%	1,613	453	39.8%
Hawkeye	8,040	1,746	-2.9%	4,044	1,101	-2.4%
Eastern Iowa	17,005	2,874	4.7%	1,384	258	47.8%
Kirkwood	22,149	4,549	3.3%	4,173	1,094	9.1%
Des Moines Area	37,576	7,723	11.0%	-	-	-
Western Iowa Tech	14,992	2,673	9.6%	2,860	1,010	5.7%
Iowa Western	15,167	2,721	3.2%	2,412	517	-8.3%
Southwestern	4,415	933	-1.5%	298	89	-36.5%
Indian Hills	5,529	1,288	-6.6%	396	154	-38.9%
Southeastern	6,256	1,155	-2.9%	806	193	-6.0%
<b>TOTAL</b>	<b>170,241</b>	<b>33,655</b>	<b>5.8%</b>	<b>24,421</b>	<b>6,584</b>	<b>16.9%</b>

## Joint Enrollment

Iowa community colleges offer joint enrollment opportunities to high school students. Such students may earn high school credit simultaneously with college credit, which is applicable toward a one- or two-year award or to transfer to a four-year institution. There are three ways in which joint enrollment is provided to Iowa students: postsecondary enrollment options (PSEO), contractual agreements between high schools and community colleges, and direct payment of tuition. Students may choose to participate in more than one joint enrollment program during an academic year.

This fall, 35,734 high school students participated in at least one joint enrollment program, compared to 35,943 participants last fall, which represents a 0.6 percent decrease. Students participating in joint enrollment programs accounted for 40.0 percent of total enrollment.

High school students participating in joint enrollment programs this fall registered for 182,521 credit hours of classes, compared to 184,928 credit hours last fall, which represents a 1.3 percent decrease. The number of credit hours attributed to joint enrollment programs this fall accounted for 24.2 percent of total registered credit hours, compared to 23.9 percent last fall. On average, students enrolled in 5.1 credit hours, which is consistent with last fall.

In terms of joint enrollment type, 99.4 percent of high school students participated in joint enrollment through contractual agreements (Figure 13), 0.5 percent through direct payment of tuition, and 0.1 percent through PSEO. Last year, contractual agreement, PSEO, and direct payment of tuition comprised 98.2 percent, 1.2 percent, and 0.6 percent of total joint enrollment, respectively. The decline in PSEO enrollments is expected, as the rules for types of joint enrollment changed as of academic year 2017-2018 [3].

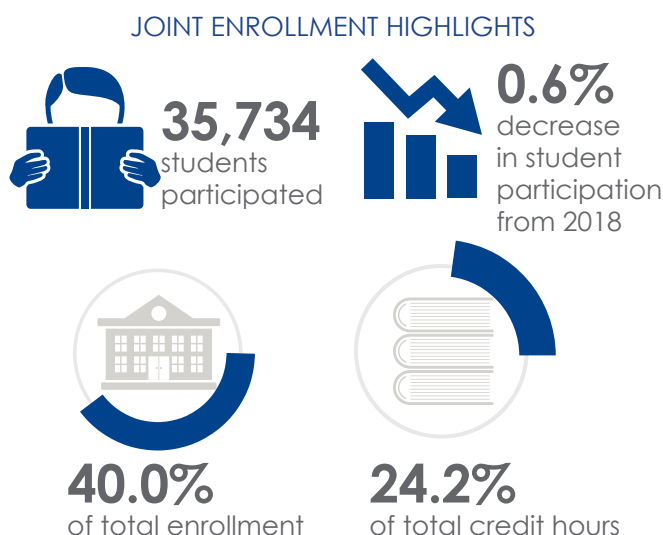
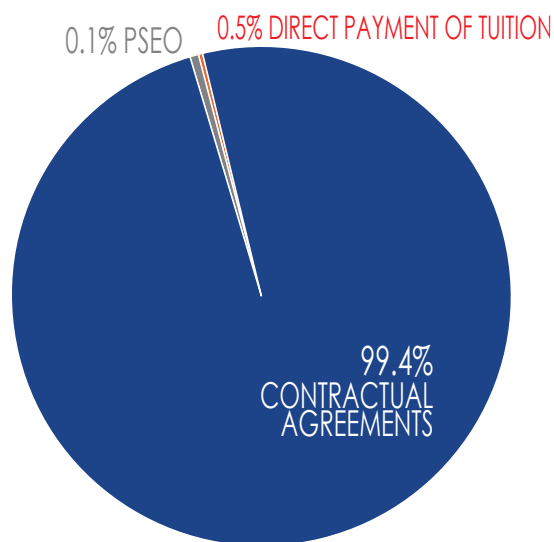


FIGURE 13: FALL 2019 JOINT ENROLLMENT BY OPTIONS



## Immediate Enrollment

Every fall, Iowa community colleges enroll a large number of new non-High School students. This fall, they comprised 34.7 percent of total enrollment, with 19.7% of them having previous joint enrolled experience. A sizable portion of the first-time non-High School community college population is comprised of students directly out of high school. According to annually stable patterns, such cohort of “immediate enrollees” comprises one-quarter to one-third of all Iowa high school graduating classes, and around one-tenth of Iowa community colleges’ total fall enrollment.

This fall, a state identification number has been used to match Iowa high school students to community college enrollees. The matching procedure identified 8,888 students who entered Iowa community colleges directly after graduating from their Iowa high schools. Those immediate enrollees made up 10.1 percent of the total fall enrollment at Iowa’s community colleges. Distributed by community college, they present a range from 6.7 percent to 15.8 percent of the total fall enrollment (Figure 12).

Close to 62 percent of immediate enrollees (5,518) took some college level courses through joint enrollment opportunities while in Iowa high school. Distributed by college, those percentages range from 42.5 to 79.1 (Figure 13).

### IMMEDIATE ENROLLMENT HIGHLIGHTS



**10.1%**  
of all students  
are immediate  
enrollees



**34.7%**  
of fall enrollment  
are new enroll-  
ees



**62.1%**  
participated in  
joint enrollment  
in high school



FIGURE 14: FALL 2019 SHARE OF IMMEDIATE ENROLLEES IN IOWA COMMUNITY COLLEGES

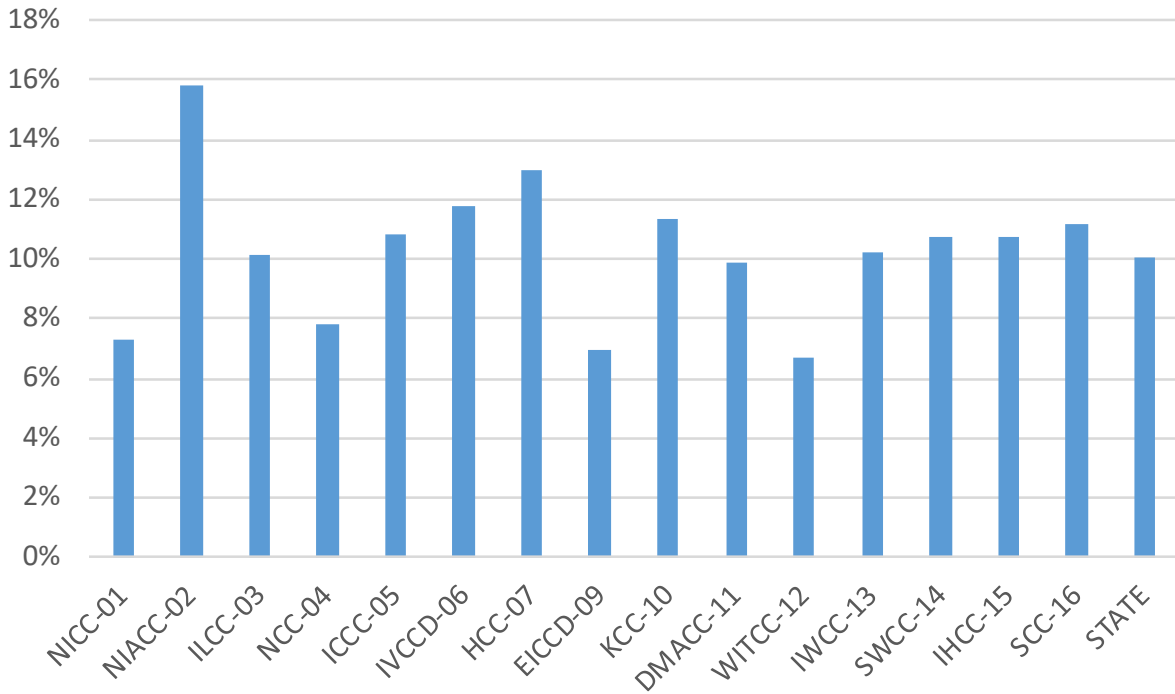
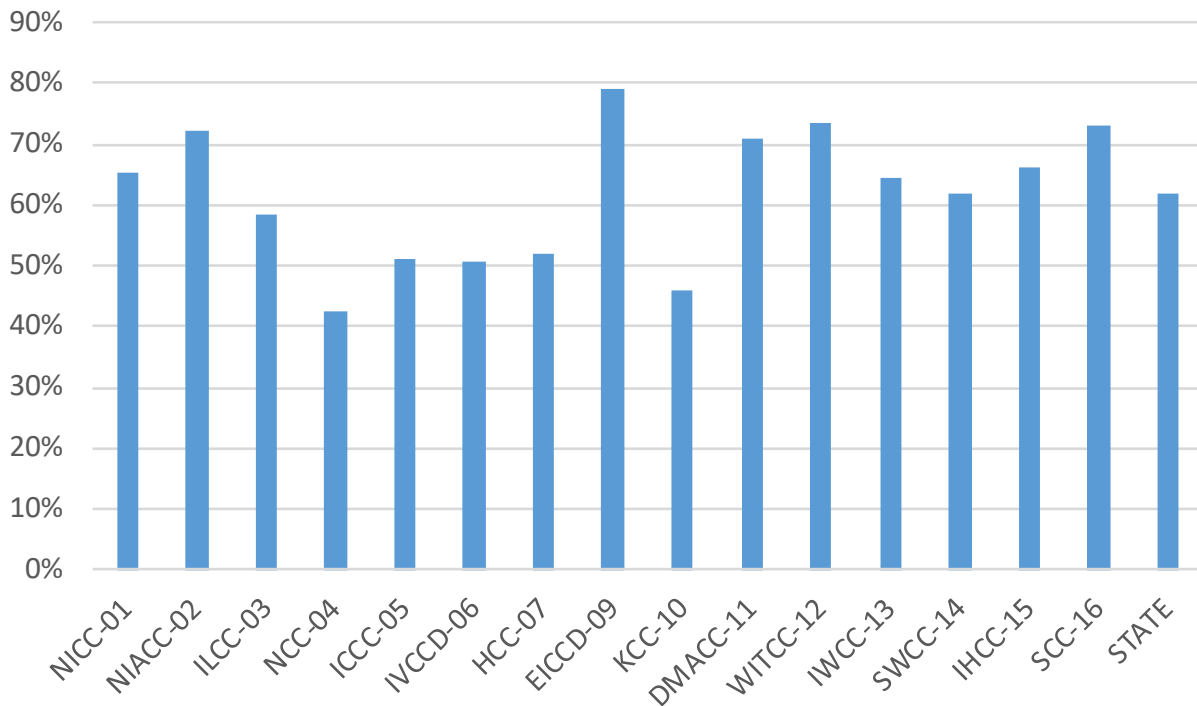


FIGURE 15: PERCENT OF IMMEDIATE ENROLLEES WITH PRIOR JOINT ENROLLMENT EXPERIENCE BY COMMUNITY COLLEGE



## Enrollment Projections

There are two quantitative forecasting methods that are often used for enrollment projections: causal forecasting methods and time series methods. Causal forecasting methods are based on the assumption that the variable being forecasted is under the influence of one or more other variables [1]. Time series models assume that all information needed for forecasting is contained in data observed over successive periods in time, and that the past data patterns (i.e., trend, seasonal, cyclical) have an effect on future data [1].

In terms of community college enrollment, causal forecasting method assumes that enrollment in any given year is under the influence of other relevant factors. Such factors may include, but are not limited to, the distribution of demographics and economy in that year. Therefore, in order to estimate fall 2020 community college enrollment with causal forecasting methods, obtaining information regarding the distribution of demographics and economy in 2020 is a prerequisite. However, such information is unknown for 2020.

Given that Iowa's community college enrollment data is available back to 1960s, and that information on other relevant factors are unknown for 2020, time series methods are more appropriate for fall 2020 enrollment forecasting.

We used a single exponential smoothing equation  $\hat{y}_{t+1} = \partial y_t + (1-\partial)\hat{y}_t$  in time series methods to estimate fall 2020 enrollment. According to this equation, the value of  $y$  at time  $t+1$  (i.e.,  $\hat{y}_{t+1}$ ) is a weighted combination of the observed value at time  $t$  (i.e.,  $y_t$ ) and the forecasted value at time  $t$  (i.e.,  $\hat{y}_t$ ), and the value of  $\partial$  is the smoothing constant, which ranges from 0 to 1 [2]. In our case, the fall 2020 enrollment is forecasted to be a weighted combination of the actual fall 2019 enrollment and the forecasted fall 2019 enrollment.

Based on single exponential smoothing equation with  $\partial=0.1$  and  $\partial=0.3$ , we estimate that the total enrollment for fall 2020 will fall between 86,437 and 90,975 students.



## References

- [1] P. J. Brockwell and R. A. Davis. Introduction to Time Series and Forecasting. Springer, New York, 1996.
- [2] P. S. Kalekar, "Time series forecasting using Holt-Winters exponential smoothing," Kanwal Rekhi School of Information Technology, 2004.
- [3] See revision to Iowa Code Chapter 261E (Senior Year Plus), section 6, subsection 3.







## **COMMUNITY COLLEGES & WORKFORCE PREPARATION**

*PROSPERITY THROUGH EDUCATION*

The Division of Community Colleges and Workforce Preparation within the Iowa Department of Education administers a variety of diverse programs that enhance Iowa's educational system and lead to a skilled and knowledgeable workforce. Divided between two bureaus — the Bureau of Community Colleges and the Bureau of Career and Technical Education — the Division is committed to providing and supporting opportunities for lifelong learning. In addition to working with the 15 Iowa public community colleges on state accreditation, program approval, and data reporting, guidance is also provided in the areas of career and technical education, workforce training and economic development, adult education and literacy, military education, the state mandated OWI education program, the GAP Tuition program, Senior Year PLUS, the National Crosswalk Service Center, and the Statewide Intermediary Network for Academic Career and Employment (PACE) program.