Noncredit Academic Outcomes in Iowa
Research Brief
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Introduction

Noncredit community college education plays a critical workforce development role in the United States. In fact, noncredit education accounts for 47% of all community college headcount enrollment (AACC, 2020). Despite its prevalence, it is at times viewed as the "hidden college" (Voorhees & Milam, 2005). Though our observations, conversations, and analysis of data in Iowa, we have gained an understanding that the noncredit role in Iowa community colleges is well established, and that there have been recent efforts by the Iowa Department of Education through two groundbreaking reports to document the labor market outcomes and noncredit-to-credit transitions of Iowa's noncredit students in career and technical education programs (Iowa Department of Education Division of Community Colleges and Workforce Preparation, 2018; 2019).

The purpose of the current project, and thus the research brief, is to provide additional insights into noncredit community college education across all of Iowa's noncredit offerings. In this brief, we will map Iowa's noncredit categories to our established noncredit course typology, compare Iowa's noncredit enrollment distribution across types as compared with our previous national sample of 33 states, and summarize our analysis of predictors of noncredit outcomes (the number of noncredit completions, noncredit contact hours). Our analyses were conducted based on 181,765 records from the 2016-2017 academic year thanks to the generous data-sharing partnership with the Iowa Department of Education Division of Community Colleges and Workforce Preparation.

Noncredit Course Types

One of the downfalls of research on noncredit education in community colleges has been the lack of a common language to document noncredit course types. In our previous work (D'Amico, Morgan, Robertson, & Houchins, 2014), we analyzed one state's data and noncredit course categories to develop a noncredit typology that could be used by scholars and practitioners to offer more consistent descriptors. The types include occupational training for which individuals enroll individually; sponsored occupational training such as through a contract between an employer and college; pre-college remediation that includes topics such as ESL, GED preparation, and developmental education; and personal interest for courses that serve other community interests.

A first step was to map Iowa's noncredit course categories to our typology, a necessary but important challenge to understand the state context. As in our work with other data, we saw that Iowa uses their own categories largely based on funding and reporting requirements. Through a collaborative process with colleagues in the Iowa Department of Education, we mapped the Iowa Noncredit Categories with our typology. See Table 1.

Next, we calculated percentages of Iowa's noncredit enrollment by noncredit type (Figure 1) and compared the distribution with our previous

study of a national estimate based on data from 33 states (Figure 2).

What the comparison of Iowa to a larger sample shows is that Iowa's noncredit enrollment during 2016-2017 was more concentrated in occupational training, mostly through individual enrollments, less concentrated in sponsored training, and Iowa had less enrollment in pre-college remediation through noncredit education. Clearly, workforce education is a high priority for Iowa's community colleges, and the state uses noncredit courses as an important tool to address its workforce needs.

Table 1: Mapping Iowa Noncredit Categories to Noncredit Course Types

Noncredit Course Types	Iowa Noncredit Categories
Occupational training (individual enrollment)	Career/vocational, academic services, community/public policy, recertification/relicensure, state and federal mandated training (split among types)
Sponsored occupational (contract) training	Economic development, state and federal mandated training (split among types)
Personal interest	Adult learning, family development and health, leisure/recreational, state and federal mandated training (split among types)
Pre-college remediation	Adult/continuing education, secondary education

Figure 1: Iowa Noncredit Enrollments (2016-2017)

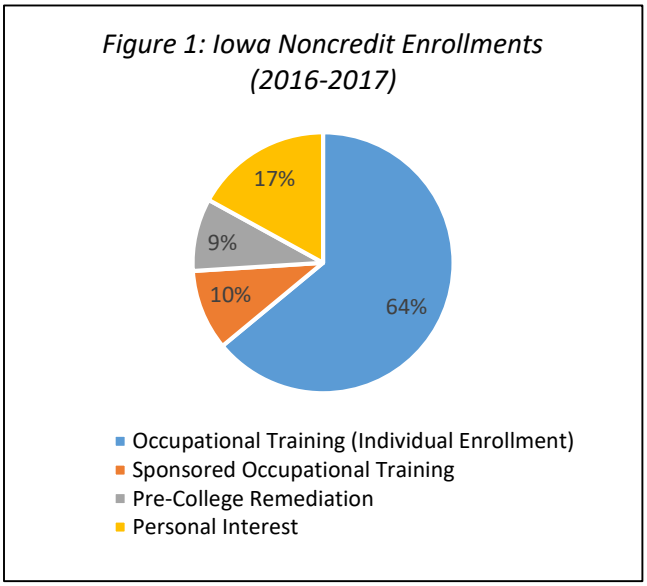
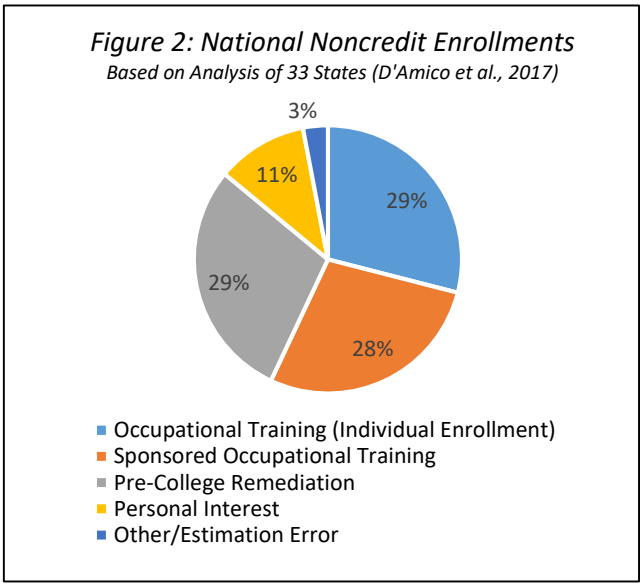


Figure 2: National Noncredit Enrollments
Based on Analysis of 33 States (D'Amico et al., 2017)



An additional descriptive analysis shows the demographic breakdown by noncredit course type (Table 2). Some of the major takeaways include that women were only half as likely to enroll in sponsored occupational training, but more likely to enroll in occupational training by individual enrollment. White students were more likely to enroll in sponsored occupational training than all other racial/ethnic subgroups. Lastly, colleges with a Carnegie Classification with higher concentrations of CTE, also had greater concentrations of enrollment in occupational training.

Table 2: Enrollment Percentages by Noncredit Course Types

Variable	Pre-college Remediation	Personal Interest	Occupational Training – Individual	Occupational Training - Sponsored
	%	*%*	*%*	*%*
Gender				
Women	9.4	16.9	66.9	6.9
Men	9.8	17.9	59.7	12.5
Missing	4.7	14.4	71.0	9.9
Race				
Multiracial	14.6	29.6	50.3	5.5
American Indian	29.7	18.3	46.2	5.8
Asian	56.1	16.9	23.6	3.4
Black or African American	47.7	12.9	34.6	4.8
Hispanic/Latinx	50.2	14.8	30.5	4.4
Pacific Island	24.4	12.2	56.7	6.7
Missing	3.0	15.5	72.3	9.1
White	8.0	19.4	60.9	11.8
Carnegie Class.				
High Transfer	16.7	26.6	45.2	11.5
Career/Tech	6.3	11.0	71.8	11.0
Mixed	8.7	17.7	64.6	9.0

Noncredit Outcomes

The study of noncredit academic outcomes has been elusive due to the differences between noncredit and credit-based education. Iowa is a rare state that captures noncredit completions and also has a robust dataset that captures noncredit contact hours. Thus, we sought to employ a series of regression analyses to predict noncredit completions and hours by demographic variables, institutional focus as captured through Carnegie Classifications, and the noncredit course types.

When reviewing the Iowa data, we learned that the "completion rate" is 97%, which does not provide the variability needed to run such an analysis; however, we elected to pursue two different outcome variables that capture attainment as well as enrollment intensity. They are (1) the number of noncredit completions and (2) the number of noncredit contact hours.

In this analysis of one year of data, we found that the number of completions ranged from 0 to 68 and the number of contact hours ranged from 1 to 173. Table 3 shows that higher numbers of completions and contact hours are often associated with those in pre-college remediation.

Table 3: Summary Outcomes by Noncredit Course Types

	Pre-College Remediation	Personal Interest	Occupational Training - Individual Enrollment	Occupational Training - Sponsored
Completions (mean)	2.2	1.3	1.7	1.6
Contact Hours (mean)	65.5	12.2	10.9	7.0

Table 4 shows the summarized results from the regression analysis that predicted noncredit outcomes by the demographics, sex/gender, race/ethnicity, institutional mission as captured through Carnegie Classifications, and noncredit course types.

Some of the key findings are that those completing courses at colleges with a high CTE focus had a greater number of course completions. This may be due to high concentrations of students in health care and industrial programs prevalent in the dataset. Additionally, those in pre-college remediation had a greater number of completions than other types, as they completed courses in areas such as adult education, developmental studies, or ESL. This can be explained further in the analysis on contact hours, where those from most racial/ethnic groups other than White completed more hours, and those in the Asian, Black/African American, Hispanic/Latinx subgroups had their greatest representation in the pre-college remediation course type.

Table 4: Predictors of Noncredit Outcomes

Variable	Outcomes	
	Greater Number of Completions	Greater Number of Contact Hours
Age (older)	+	-
Female	-	-
Sex Unknown	-	-
Multiracial	-	-
American Indian	-	+
Asian	-	+
African American	-	+
Hispanic/Latinx	-	+
Pacific Island	+	+
Race Unknown	-	+
High Transfer	-	+
High Career & Technical	+	+
Precollege	+	+
Personal Interest	-	+
Occupation Training (Sponsored)	-	-

Note: (1) Comparison groups include: male for sex/gender; white for race/ethnicity, mixed transfer/CTE for Carnegie Classification, and occupational training (personal enrollment) for noncredit course type. (2) While these findings show significant differences, the effect of many of these differences is small.

Conclusion

Throughout our time looking at noncredit in Iowa, we found two key observations. One is that noncredit education is critically important to the community college mission and that the institutions work to deliver noncredit education in a variety of venues for myriad purposes. Noncredit education can and should be uniquely used to meet individual state and local needs, and this is evident through our analysis of the data.

That high CTE colleges have greater prevalence in occupational training is indicative of noncredit fitting the identity of the institutions. In addition, the high transfer setting has a greater concentration of pre-college remediation.

There are additional implications based on demographics that are worth considering. One is the distinct gender roles in the noncredit types. Men are twice as likely as women to be in sponsored (contract) occupational training, which may mean that employer-paid training is less available for

women. Some of this may be related to career fields, as a tangential finding of our study is that health care is typically more associated with individual enrollment occupational training, while industrial fields are more associated with sponsored training. This reinforces that traditional gender roles are observed in this dataset.

Another is that minoritized students are more likely to be in pre-college remediation, which may include ESL, GED preparation, or remedial education. While there is a significant body of literature that discusses developmental education as a marginalizing force in community college education, additional reflection is required on whether we are observing an issue of inequity, or if shorter-term developmental work through noncredit may be part of a solution that allows individuals to move through requirements more quickly. The equity lens is important to all community college missions, and noncredit is no different.

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