



**Evaluation of HCD 310 for First Time Freshman:
Milestone Achievement and Completion**

CRC Office of Institutional Effectiveness

Fall 2018

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Background

Human Career Development 310 (HCD 310) at Cosumnes River College (CRC) is designed to assist students in obtaining the skill set necessary for goal achievement in college. This course covers a breadth of topics, from motivation to study skills to personal issues facing students. Recently, the Clarifying the Path workgroup at Cosumnes River College (CRC) has started to consider recommended courses for students in their first semester of college. HCD 310 has been discussed as a recommendation given its potential positive impact on completion. In order to support this discussion, the Office of Institutional Effectiveness conducted an evaluation of the impact of HCD 310 on milestone achievement (15, 30, and 45 UC/CSU transferable units completed) and completion.

Method

Data were combined for four fall cohorts at CRC from Fall 2011 to Fall 2014. Students were included in the cohort if they were flagged as “First Time Student (New)” in the Los Rios Peoplesoft database, had no experience prior to summer in the District (aside from dual enrollment), and had a declared educational goal of completing or transferring. Each cohort was followed for three years. Specific milestone achievements (15, 30, and 45 UC/CSU transferable units) and completion were tracked. For the purposes of this study, *completion* is defined as completing a degree/certificate, transferring, or reaching transfer-prepared status. *Transfer-prepared* status is defined as earning 60 transferable units while maintaining a 2.0 GPA.

Ultimately, students who took HCD 310 on or before their first fall term were compared to students who did not. Various demographic variables were also used in the analysis to evaluate equity and access to the HCD course, specifically: ethnicity, gender, age, reported disability, foster youth status, veteran status, first generation status, and basic skills status. Students were defined as *basic skills* if they attempted a basic skills math or English course during the tracked three year period.

Summary of Findings

1. Hispanic/Latino students, foster youth students, first generation students, students under the age of 25, and basic skills students were more likely to take HCD compared to their peers (*Table 1*).
2. Students who took HCD earned 15/30 transferable units at higher rates than students who did not (*Table 2*; 15 units: 52.9% vs. 48.6%, respectively; 30 units: 33.3% vs. 30.8%, respectively). Nevertheless, the size of the difference (a.k.a. the statistical “effect size”) between HCD and non-HCD students was extremely small, although statistically significant. HCD explained less than one-half of one percent of the variability in 15/30 transferable unit completion (*Table 3*).
3. Students who took HCD were not more likely to complete or earn 45 transferable units (*Table 2*).

Conclusions and Limitations

The findings reported here suggest that taking an HCD course can have a small impact on early transferable unit completion but may not affect eventual award completion or transfer. This conclusion mirrors previous findings that suggest HCD courses create short term impacts that are sometimes not sustained (e.g., to completion; <https://ccrc.tc.columbia.edu/media/k2/attachments/prepare->

[redesigning-first-year-seminar.pdf](#)). Students in HCD were more likely to complete 15/30 transferable units, but this impact did not translate into completion.

The findings reported here should not be taken as definitive. Many HCD offerings are integrated in to special programs and cohorts that may not be fully representative of all students at CRC. Moreover, students who enroll in HCD courses may fundamentally need more assistance than other students. As such, we can't tell how HCD students would have done *without* the HCD course. Finally, this investigation focused on students who took HCD on or before their first term. A broader investigation – including students who took HCD later – may yield different results.

Recommendations

On the basis of these findings, it may be prudent to investigate best practices for HCD courses so as to create a more sustained impact on new students. Moreover, for the purposes of future evaluation, expanding offerings (after implementing best practices) to more new students may allow for more evidence based improvement of HCD at CRC.

Participants

A demographic breakdown of students participating in HCD can be found in *Table 1* below. Overall, 363 students (4.45%) of students participated in HCD on or before their first fall term. Ethnicity was significantly associated with taking HCD ($\Delta\chi^2(5) = 84.78, p < .001$), such that Hispanic/Latino students were substantially more likely to take HCD on or before their first fall term. Moreover, younger students ($\Delta\chi^2(1) = 10.74, p < .01$), foster youth students ($\Delta\chi^2(1) = 6.43, p < .05$), first generation students ($\Delta\chi^2(1) = 16.65, p < .001$), and students in basic skills were more likely to take HCD on or before their first fall term ($\Delta\chi^2(1) = 23.77, p < .001$).

Table 1. Demographic breakdown of HCD vs. Non-HCD students.

Demographic	Non-HCD		HCD		Overall	
	Headcount	%	Headcount	%	Headcount	%
Ethnicity						
African American	1103	14.2%	48	13.2%	1151	14.1%
Asian/Pacific Islander	1991	25.6%	47	12.9%	2038	25.0%
Hispanic/Latino	2043	26.2%	174	47.9%	2217	27.2%
Native American	40	0.5%	1	0.3%	41	0.5%
Unknown/Other	914	11.7%	28	7.7%	942	11.6%
White	1700	21.8%	65	17.9%	1765	21.6%
Gender						
Female	3809	48.9%	183	50.4%	3992	49.0%
Male	3875	49.7%	176	48.5%	4051	49.7%
Unknown	107	1.4%	4	1.1%	111	1.4%
Age						
24 and younger	6867	88.1%	339	93.4%	7206	88.4%
25 and older	924	11.9%	24	6.6%	948	11.6%
Reported Disability						
No Reported Disability	7425	95.3%	340	93.7%	7765	95.2%
Reported Disability	366	4.7%	23	6.3%	389	4.8%
Foster Youth						
Foster Youth	228	2.9%	20	5.5%	248	3.0%
Not Foster Youth	7563	97.1%	343	94.5%	7906	97.0%
Veteran Status						
Not Veteran	7638	98.0%	363	100.0%	8001	98.1%
Veteran	153	2.0%		0.0%	153	1.9%
First Generation						
First Generation	3062	39.3%	182	50.1%	3244	39.8%
Not First Generation	4729	60.7%	181	49.9%	4910	60.2%
Basic Skills						
Basic Skills	3172	40.7%	195	53.7%	3367	41.3%
Not Basic Skills	4619	59.3%	168	46.3%	4787	58.7%
Total	7791		363		8154	

Analysis of Achievements and Completion

On the basis of a quick assessment, students in HCD seemed to achieve 15 and 30 transferable units at higher rates but completed and achieved 45 transferable units at slightly lower rates. Despite this difference in rates, one cannot tell if the two groups differ because of randomness inherent in all processes and behaviors or if they differ because of a substantive impact of HCD. Statistical significance tests were therefore conducted to help draw conclusions about what differences were substantive and which differences may be due to chance/random variation.

In all cases, logistic regressions were used to test for significant differences (with quasibinomial error and a logit link function). These types of regressions are used to test for differences in a binomial (two-outcome, e.g., completed/did not complete) variable. Because age, basic skills status, ethnicity, first generation status, and foster youth status were all correlated with taking HCD courses, these variables could act as possible explanations for any difference between HCD and non-HCD students. For example, a difference between the HCD groups could simply be explained by the fact that there are more basic skills students in the HCD group. Therefore, all analyses controlled for the five aforementioned demographic variables.

In short, students who took HCD achieved 15 and 30 transferable units at higher rates than students who did not (*Table 3*). These differences were statistically significant – meaning a student who took HCD had a higher probability of earning 15/30 transferable units than a student with the same ethnicity, age, basic skills status, foster youth status, and first generation status who did not. However, the size of the effect was extremely small (*Table 3*). Additionally, the two groups did not significantly differ in completion or achievement of 45 transferable units.

Finally, based on completion rates alone, it appeared as if HCD improved the completion rate for some groups (e.g., African American, Asian/Pacific Islander, White, and basic skills students). However, these differences were also not statistically significant.

Table 2. Achievements and Completion by Demographic Group and HCD vs. Non-HCD

Demographic	15 Transfer Units		30 Transfer Units		45 Transfer Units		Completion	
	Non-HCD	HCD	Non-HCD	HCD	Non-HCD	HCD	Non-HCD	HCD
Ethnicity								
African American	26.6%	31.3%	14.5%	16.7%	7.5%	4.2%	9.2%	12.5%
Asian/Pacific Islander	61.2%	70.2%	41.3%	55.3%	25.4%	36.2%	16.9%	27.7%
Hispanic/Latino	46.6%	56.9%	26.4%	32.8%	15.8%	13.8%	11.3%	8.0%
Native American	42.5%	0.0%	25.0%	0.0%	15.0%	0.0%	10.0%	0.0%
Unknown/Other	45.7%	39.3%	28.8%	28.6%	16.7%	10.7%	14.3%	7.1%
White	52.2%	52.3%	35.7%	33.8%	21.2%	21.5%	17.9%	23.1%
Gender								
Female	49.8%	53.0%	31.6%	33.3%	19.2%	13.7%	15.0%	10.9%
Male	47.4%	52.8%	30.1%	33.0%	17.6%	19.3%	13.5%	16.5%
Unknown	47.7%	50.0%	29.9%	50.0%	14.0%	25.0%	14.0%	25.0%

Age									
24 and younger	52.0%	54.9%	33.6%	34.2%	20.2%	17.4%	15.3%	14.5%	
25 and older	23.5%	25.0%	10.6%	20.8%	4.4%	4.2%	6.5%	4.2%	
Reported Disability									
No Reported Disability	49.1%	53.8%	31.5%	34.7%	18.9%	17.4%	14.6%	14.1%	
Reported Disability	38.3%	39.1%	16.9%	13.0%	6.8%	4.3%	7.4%	8.7%	
Foster Youth									
Foster Youth	17.1%	25.0%	6.6%	10.0%	3.9%	5.0%	6.1%	0.0%	
Not Foster Youth	49.5%	54.5%	31.6%	34.7%	18.8%	17.2%	14.5%	14.6%	
Veteran Status									
Not Veteran	48.7%	52.9%	31.2%	33.3%	18.6%	16.5%	14.3%	13.8%	
Veteran	40.5%		15.0%		6.5%		10.5%		
First Generation									
First Generation	43.5%	52.2%	25.9%	30.2%	15.0%	14.3%	10.5%	10.4%	
Not First Generation	51.9%	53.6%	34.0%	36.5%	20.5%	18.8%	16.6%	17.1%	
Basic Skills									
Basic Skills	52.6%	59.5%	29.6%	34.4%	13.9%	12.3%	7.8%	10.3%	
Not Basic Skills	45.9%	45.2%	31.7%	32.1%	21.4%	21.4%	18.7%	17.9%	
Total	48.6%	52.9%	30.8%	33.3%	18.3%	16.5%	14.2%	13.8%	

Table 3. Significance Test Summaries by Achievement

Outcome	df	Chi-Square	Statistically Significant	Effect Size (R-Squared)	Effect Size Rating
15 Transferable Units	1	4.05	Significant	0.05%	Small
30 Transferable Units	1	4.14	Significant	0.05%	Small
45 Transferable Units	1	0.03	Not Sig.	N/A	N/A
Completion	1	1.25	Not Sig.	N/A	N/A

Note. An effect size of less than 2% is considered small in the behavioral sciences. In this case, the effect size is an estimate of how much variability in the outcome variable is explained by HCD.