

## Demographics of College Honors Institute Students (Fall 2015-Spring 2018)

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### Purpose of Brief

The purpose of this brief is to analyze the demographic data for CHI students since Fall 2015.

### Summary of Findings

- Since Fall 2015, 244 students participated in the CHI at Crafton Hills College.
- 63% of CHI students are female.
- 40% of CHI of students fell between the ages of 20-24. 37% were 19 or younger.
- Students who are 19 or younger made up a higher percentage of students within the CHI (37%) compared to their makeup at Crafton; this difference was substantially ( $ES=.41$ ) and statistically significant (.000)
- 47% of CHI students identified as Caucasian and 35% identified as Hispanic.
- Disproportionate impacts exist for the following students who are underrepresented within the CHI:
  - Males ( $P=.81$ )
  - Students between ages of 20-24 ( $PI=.49$ ), 35-39 ( $PI=.40$ ), 40-49 ( $PI=.48$ ), and 50 or older ( $P=.52$ ).
  - Hispanics ( $PI=.79$ ) and Native Americans ( $PI=.00$ )

### Overview

The College Honors Institute (CHI) was created to give students who have met certain academic achievements an opportunity to be a part of the program which gives students priority registration, opportunities to get involved with Honors leadership, as well as participate in conferences, and priority consideration for admission to specified universities, among other benefits. This brief analyzes the demographic makeup of students who were identified as being a part of the CHI since Fall 2015.

### Methodology

Students who are a part of the CHI are flagged within our student information system. These flags were put into use starting in Fall 2015. Student honors flags were joined with demographic data in order to get the data needed for the analyses. Since Fall 2015, 244 students have participated in the CHI. For the purposes of this report, 233 students had demographic data available for analysis. According to Title 5 Education Code [§ 55502(a)], disproportionate impact occurs when

*...the percentage of persons from a particular racial, ethnic, gender, age or disability group who are directed to a particular service or placement based on an assessment instrument, method, or procedure is significantly different from the representation of that group in the population of persons being assessed, and that discrepancy is not justified by empirical evidence demonstrating that the assessment instrument, method or procedure is a valid and reliable predictor of performance in the relevant educational setting.*

This study contains a measure of disproportionate impact across gender, age groups, and ethnic groups. For this measure, any values that are less than 0.85 are generally considered to demonstrate disproportionate impact (PI in the following tables).

Finally, analysis of variance tests and effect size calculated using Cohen’s d methodology were used to measure the strength and relationship of SI success in the course and grade points earned.

The effect size (ES) statistic is commonly used in meta-analyses. A meta-analysis uses quantitative techniques to determine the average effect of a given technique over multiple studies. Noticing that even small differences can be statistically significant when large pools of data are analyzed, Jacob Cohen developed one method of interpreting effect size. Cohen defined “small,” “medium,” and “large” effect sizes and explained that an effect size of .20 can be considered small, an effect size of .50 can be considered medium, and an effect size of .80 can be considered large. Effect size is calculated by dividing the difference of the two means by the pooled standard deviation. It is important to mention that the number of students in each group does not influence effect size; whereas, when statistical significance is calculated, the number of students in each group does influence the significance level (i.e., “p” value being less than .05). Accordingly, using Cohen as a guide, a substantial effect would be .20 or higher.

**Findings**

Tables 1 through 3 illustrate the findings of this analysis. Pink highlights in cells indicate the presence of disproportionate impact for that group.

Table 1 demonstrates the breakdown by gender for CHI students. Sixty-three percent of students that participated in the CHI were female, the remaining 37% were male. When examining the presence of disproportionate impact, males are underrepresented within the CHI (PI=.081). Although the amount of female students within the CHI is higher compared to the overall population makeup at Crafton, the difference is not substantially significant (ES=.18). While the amount of males is lower in the CHI compared to their representation in the overall student population, the same result holds.

**Table 1. Gender of CHI students**

Categories	CHI Students		All Students		PI	P-Value	ES
	#	%	#	%			
Female	146	62.7	11,841	53.9	1.16	.006	.18
Male	87	37.3	10,140	46.1	0.81	.006	-.18
<b>Total</b>	<b>233</b>	<b>100.0</b>	<b>21,981</b>	<b>100.0</b>			

Table 2 shows the distribution of CHI students by age group. Forty-percent of CHI students fell between the ages of 20-24 and another 37% were 19 or younger. The age groups with disproportionate impact were those between the ages of 25-29 and students 35 years of age or older meaning that there were far fewer students of these age groups within the CHI relative to students 24 years of age and younger. Students who are 19 or younger made up a higher percentage of students within the CHI (37%) compared to their makeup of the overall campus population (24%) and this difference was substantially (ES=.41) and statistically significant (.000). Among those who were 25-29 years of age, there were fewer of them within CHI compared to the overall student population and this difference was substantially (ES=-.23) and statistically significant (.000).

**Table 2. Age groups of CHI students.**

Categories	CHI Students		All Students		PI	P-Value	ES
	#	%	#	%			
19 or younger	87	37.3	5,203	23.6	1.58	.000	.32
20-24 years old	93	39.9	8,860	40.2	0.99	.928	-.01
25-29 years old	18	7.7	3,606	16.4	0.47	.000	-.23
30-34 years old	22	9.4	1,727	7.8	1.20	.406	.06
35-39 years old	4	1.7	954	4.3	0.40	.003	-.13
40-49 years old	5	2.1	983	4.5	0.48	.017	-.11
50 or older	4	1.7	703	3.2	0.54	.088	-.08
<b>Total</b>	<b>233</b>	<b>100.0</b>	<b>22,036</b>	<b>100.0</b>			

Table 3 shows the distribution of CHI students by ethnic group. Forty-seven percent of CHI students identified as Caucasian and 35% identified as Hispanic. A disproportionate impact exists for Hispanic students who are underrepresented within the CHI (35%) relative to their presence in the student population (44%); this difference is statistically (.003) but not substantially significant (ES=-.19). The same trend exists for Native American students who are not currently present within the CHI.

**Table 3. Ethnic groups of CHI students.**

Categories	CHI Students		All Students		PI	P-Value	ES
	#	%	#	%			
African American	11	4.7	1,057	4.8	0.98	.950	.00
Asian	15	6.4	1,289	5.9	1.10	.723	.02
Caucasian	109	46.8	8,396	38.2	1.22	.010	.18
Hispanic	81	34.8	9,721	44.2	0.79	.003	-.19
Multiple Races	17	7.3	1,444	6.6	1.11	.672	.03
Native American	0	0.0	75	0.3	0.00	.000	-.06
<b>Total</b>	<b>233</b>	<b>100.0</b>	<b>21,982</b>	<b>100.0</b>			