



**RESEARCH**  
PLANNING & INSTITUTIONAL EFFECTIVENESS

# The 2022 COS Student Equity Plan:

**A Guide to Understanding  
Disproportionately  
Impacted Groups (DIGs)**

**August 2022**

COLLEGE OF THE SEQUOIAS  
SEQUOIAS COMMUNITY COLLEGE DISTRICT  
HANFORD | TULARE | VISALIA



To: The COS Community  
From: Dr. Mehmet “Dali” Öztürk, Dean, Research, Planning and Institutional Effectiveness  
Date: August 23, 2022

Subject: The 2022 COS Student Equity Plan: A Guide to Understanding Disproportionately Impacted Groups (DIGs)

Analysis and evaluation of student data are valued and are integral parts of our improvement efforts at the College of the Sequoias (COS). The Office of Research, Planning, and Institutional Effectiveness (R-PIE) conducted an analysis on the 2022 Student Equity Plan data provided by the California Community College Chancellor’s Office (CCCCO) to better understand disproportionate impacts among various student groups. (A special thanks to Tyler Virden and the Giant Research Team!)

Attached for your review is The 2022 COS Student Equity Plan: A Guide to Understanding Disproportionately Impacted Groups (DIGs).

The purpose of the document is to provide an overview of the College of Sequoia’s 2022 Student Equity Plan data, which can assist in determining equity related goals and activities at COS. This overview examines disproportionate impact among 28 primary groups based on race/ethnicity and gender, as well as college generation, foster youth, veteran, LGBTQ+, homeless, DSPS, and economically disadvantaged status. Each of these student characteristics (excluding gender) are further disaggregated by gender, resulting in disproportionate impact analysis of 69 gender subgroups.

The CCCCOC provided aggregate data and disproportionate impact calculations to the District for first-time student cohorts across five metrics. The five metrics included 1) Successfully enrolled in first year; 2) Persisted (primary terms); 3) Completed transfer math & English; 4) Attained Vision Completion goal in 3 years; 5) Transferred in 3 years. The following outcome measures were included for each primary group and gender subgroup: group/subgroup rate, reference rate, percentage point gap, PPG threshold, and full equity number. The disproportionate impact calculations were conducted using the Percentage Point Gap (PPG) -1 methodology, which is a change in methodology from previous equity plans. The PPG-1 method compares the outcome of a student group to the outcome of all other students in the cohort (group/subgroup rate vs reference rate) and utilizes a margin of error calculation to determine a student group’s DIG (Disproportionately Impacted Group) designation. If the student groups’ percentage point gap is greater than the margin of error (PPG threshold) then the group is identified as a DIG.

To further explore the COS Student Equity Plan data, please visit this [link](#) for the [2022 COS Student Equity Plan Dashboard](#). This dashboard allows users to view the five relevant outcomes for each primary group and gender subgroup across each of the five metrics. The dashboard includes historical data going back to the 2011-2012 academic year (as available). The dashboard allows users to view equity time trend data by metric, equity time trend data for a specific primary group or gender subgroup, and single year detailed equity data for a specific primary group or gender subgroup.

Please be aware that the data is only reported in the aggregate so that the privacy of students is protected. Disclosure of the personally identifiable information to unauthorized parties violates the Family Education Rights & Privacy Act (FERPA). It is expected that employees/administrators exercise the

privilege of using such data/information with care and integrity, and protect the confidentiality and privacy of individuals. Please use this information only for its intended purpose and handle it in a professional and careful manner, as required by the District's General Ethical Standards (COS AP 3050).

The Office of Research, Planning and Institutional Effectiveness is happy to provide assistance with interpreting the data, if needed. For additional data and analysis or consultation, please submit a Data/Research Request Form: <https://www.cos.edu/datarequest/>

Sincerely,



Dr. Mehmet "Dali" Öztürk

Dean, Research, Planning and Institutional Effectiveness



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## **The 2022 COS Student Equity Plan: A Guide to Understanding Disproportionately Impacted Groups (DIGs)**

### **Background Information**

Aggregate data was provided to the District by the California Community College Chancellor's Office (CCCCO). A password protected, unFERPA suppressed data file was uploaded to Data On Demand for use by the District's Office of Research, Planning, and Institutional Effectiveness. The data provided was collected via the District's Management Information System (MIS) report. The District was provided two data files 1) baseline data file that included the most recent year of data for each metric and 2) historical data file, which included available data for each metric going back as far as the 2011-2012 academic year. The data is disaggregated by student characteristics (race/ethnicity and gender, as well as college generation, foster youth, veterans, homeless, LGBT, Perkins economically disadvantaged and students with disability status). The student characteristics can be further disaggregated by gender (gender intersectionality). More information about the 2022 Student Equity Plan data provided by the CCCCCO, can be accessed by following this [link](#). The CCCCCO also provided FERPA suppressed data for these metrics on the [Student Success Metrics Cohort View dashboard](#), which can be accessed by following this [link](#).

### **Metric Descriptions**

The 2022 Student Equity Plan consisted of five metrics, which were determined by the CCCCCO. The five metrics included 1) Successfully enrolled in first year; 2) Persisted (primary terms); 3) Completed transfer math & English; 4) Attained Vision Completion goal in 3 years; 5) Transferred in 3 years. The successfully enrolled in first year metric assess the proportion of COS applicants, who enrolled in at least one term at COS in the given year. The most recent year of data for this metric is the 2020-2021 academic year, and the data can only be disaggregated by race/ethnicity and gender. The persisted (primary terms) metric assess the proportion of students, who persisted at COS from their first primary term of enrollment to the subsequent primary term. The most recent year of data for this metric is the 2019-2020 academic year. The completed transfer math & English metric assess the proportion of students, who completed both transfer-level math and English at COS within their first year. The most recent year of data for this metric is the 2020-2021 academic year. The attained Vision Completion goal in 3 years metric assess the proportion of students, who earned one or more of the following within 3 years: CO approved certificate, associate degree, and/or baccalaureate degree, and had an enrollment at COS in the selected year. The most recent year of data for this metric is the 2017-2018 academic year. The transferred in 3 years metric assess the proportion of students, who transferred to any four-year postsecondary institution within 3 years. The most recent year of data for this metric is the 2016-2017 academic year.

### **Disaggregation and Intersectionality**

The data for all metrics, with the exception of successfully enrolled, is disaggregated by the following nine student characteristics:

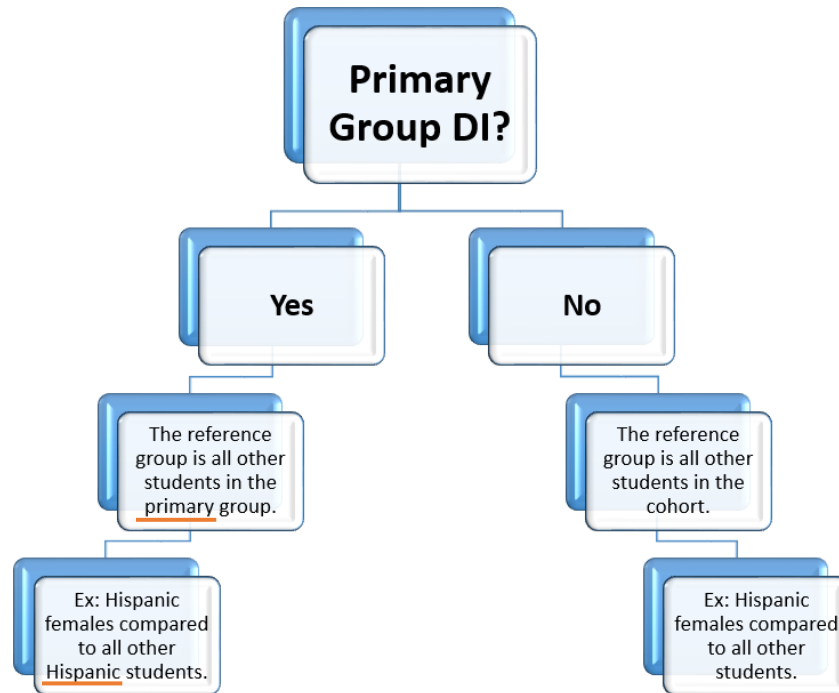
- Race/ethnicity (Asian, Black/African American, Filipino, Hispanic, Native American, Pacific Islander, Two or More race/ethnicity, Unknown race/ethnicity, and White)
- Gender (male; female; non-binary; unknown gender)
- DSPS (students who received services; students who did not receive services)

- College generation (first generation; not first generation; unknown generation)
- Foster youth (foster youth; not foster youth)
- Homeless (homeless; not homeless)
- LGBT (LGBT; non-LGBT)
- Economically disadvantaged (economically disadvantaged; not economically disadvantaged)
- Veterans (veterans; not veterans)

The disaggregation resulted in 28 possible primary groups for disproportionate impact analyses. Additionally, each of the primary student groups, with the exception of gender groups, can be further disaggregated by gender (male, female, all other values), which resulted in 72 possible gender subgroups for disproportionate impact analyses. Successfully enrolled in first year data is only available for gender and race/ethnicity. LGBT data was not collected until the 2015-2016 academic year. Non-Binary data was not collected until the 2017-2018 academic year. Therefore, there is currently no data for non-binary students on the transfer metric. Homeless data was not collected until the 2018-2019 academic year. Therefore, there is currently no data for transfer and vision goal completion metrics.

### ***PPG-1 (Percentage Point Gap minus 1) Methodology***

To assist the District in identifying where to focus equity efforts, the 2022 Student Equity Plan includes Disproportionate Impact analyses for each of the five metrics. Disproportionate Impact is calculated using the Percentage Point Gap (PPG) -1 methodology, which is a change in methodology from previous equity plans. The PPG-1 method compares the outcomes of a disaggregated group to the outcomes for all other students (excluding students in the group). For instance, PPG-1 compares the transfer rate for Hispanic students to the transfer rate for all non-Hispanic students. This method attempts to improve the accuracy of detecting disproportionate impact for groups that may make up a sizable proportion of the college. When examining disproportionate impact based on gender intersectionality, the reference rate for the PPG -1 methodology depends on the disproportionate impact of the primary group. If the primary group is not disproportionately impacted, the reference rate for the gender subgroup is the percentage of all students, excluding the selected gender subgroup. For example, if Hispanic students are not disproportionately impacted, to examine the disproportionate impact of Hispanic females, one would compare Hispanic females to all students, excluding Hispanic females. However, if the primary group is disproportionately impacted, the reference rate for the gender subgroup is the percentage of all students within the primary group, excluding the selected gender. For example, if Hispanic students are disproportionately impacted, to examine the disproportionate impact of Hispanic females, one would compare Hispanic females to all Hispanic students, excluding Hispanic females. For additional information about the PPG-1 methodology, please follow this [link](#) and download the document.



### ***Outcome Definitions***

This report presents the five outcomes (Group/Subgroup Rate, Reference Rate, Percentage Point Gap minus 1, PPG Threshold, and Full Equity Number) provided in the Student Equity Plan data files that are most relevant to understanding disproportionate impact among student groups.

- Group/Subgroup rate refers to the percentage of students within the group/subgroup, who achieved the selected outcome.
- Reference rate refers to the percentage of all students (excluding group/subgroup), who achieved the selected outcome. \*\*If the primary group is disproportionately impacted, the reference rate for gender subgroup is the percentage of all students within the primary group, excluding the selected gender. For example, if Hispanic students are disproportionately impacted, the reference group for Hispanic females is all Hispanic students, excluding females. If Hispanic students are not disproportionately impacted, the reference group for Hispanic females is all students, excluding Hispanic females.
- PPG-1 (Percentage point gap minus 1) refers to the group/subgroup rate minus the reference rate.
- PPG threshold refers to the minimum limit for PPG -1. For example, if the PPG threshold is - 12 the percentage point gap must be -12 or greater.
- Full Equity Number refers to the number of students within the group/subgroup, who would need to achieve the outcome to fully close the equity gap.

### **Disproportionate Impact by Metric**

#### ***Successfully enrolled in first year***

Successfully enrolled in first year refers to all cohort applicants, who enrolled in the selected college in their first year. For this metric, data is currently available from the 2014-2015 academic year through

the 2020-2021 academic year. The data can only be disaggregated by race/ethnicity and gender. For this metric, 13 primary groups and 22 gender subgroups were analyzed for disproportionate impact. Overall, 46% of individuals, who applied to COS for the 2020-2021 academic year successfully enrolled at COS during that academic year. Based on race/ethnicity, four of the nine primary race/ethnic groups were disproportionately impacted (Asian, Black/African American, Pacific Islander, and White students) and based on gender, two of the four primary gender groups were disproportionately impacted (female and non-binary students). When examining disproportionate impact among race/ethnic groups by gender, Hispanic, American Indian/Alaska Native, and Asian students of all other gender values as well as American Indian/Alaska Native male students were identified as disproportionately impacted groups (DIGs). For specific information regarding the five outcomes for each DIG, see Table 1.

### ***Persisted (primary terms)***

Persisted (primary terms) refers to all cohort students, who persisted from first primary term of enrollment to the subsequent primary term. For this metric, data is currently available from the 2011-2012 academic year through the 2019-2020 academic year. The data can be disaggregated by race/ethnicity and gender, as well as college generation, foster youth, veterans, homeless, LGBT, Perkins economically disadvantage and DSPS status. For this metric, 28 primary groups and 69 gender subgroups were analyzed for disproportionate impact. Overall, 74% of students in the cohort persisted from one primary term to the next at COS. Based on race/ethnicity, only one of the nine primary race/ethnic groups were disproportionately impacted (White students), and based on gender, one of the four primary gender groups were disproportionately impacted (male students). Additionally, first generation, foster youth, not DSPS, not economically disadvantaged, and veteran students were disproportionately impacted. When examining disproportionate impact based gender intersectionality, only male student subgroups were identified as DIGs. Specifically, 12 male student groups were disproportionately impacted (Hispanic, White, first generation, unknown college generation, foster youth, non-foster youth, not DSPS, not homeless, non-LGBT, economically disadvantaged, veterans, and non-veterans). For specific information regarding the five outcomes for each DIG, see Table 2.

### ***Completed transfer math & English***

Completed transfer math and English refers to all cohort students, who completed both transfer-level math and English within the District in the first year. For this metric, data is currently available from the 2011-2012 academic year through the 2020-2021 academic year. The data can be disaggregated by race/ethnicity and gender, as well as college generation, foster youth, veterans, homeless, LGBT, Perkins economically disadvantage and students with disability status. For this metric, the 28 primary groups and 65 gender subgroups were analyzed for disproportionate impact. Overall, 16% of students in the cohort completed transfer level math and English within their first year. Based on race/ethnicity, none of the nine primary race/ethnic groups was disproportionately impacted, but based on gender, two of the four primary gender groups were disproportionately impacted (male and non-binary students). Additionally, first generation, unknown college generation, DSPS, foster youth, homeless, LGBT, and not economically disadvantaged students were disproportionately impacted. When examining disproportionate impact based on gender intersectionality, there were 13 male student groups identified as DIGs (Native American, Black/African American, Hispanic, DSPS, Not DSPS, first generation, foster youth, non-foster youth, homeless, not homeless, non-LGBT, not economically disadvantaged, and not veterans), and one female student group was identified as a DIG (veteran students). Among



students of all other gender values, Multi-ethnic students were disproportionately impacted. For specific information regarding the five outcomes for each DIG, see Table 3.

### ***Attained Vision Completion goal in 3 years***

Attained vision completion within three years refers to all cohort students, who attained the vision goal completion definition within three years. For this metric, data is currently available from the 2011-2012 academic year through the 2017-2018 academic year. The data can be disaggregated by race/ethnicity and gender, as well as college generation, foster youth, veterans, LGBT, Perkins economically disadvantaged and DSPS status. Homeless data was not collected until the 2018-2019 academic year. Therefore, there is currently no data for this group on this metrics. For this metric, 26 primary groups and 66 gender subgroups were analyzed for disproportionate impact. Overall, 16% of students in the cohort attained the vision goal definition for success within three years. Based on race/ethnicity, one of the nine primary race/ethnic groups were disproportionately impacted (Native American students), and based on gender, two of the four primary gender groups were disproportionately impacted (male and non-binary students). Additionally, DSPS, first generation, unknown college generation, foster youth, LGBT, and not veteran students were disproportionately impacted. When examining disproportionate impact based on gender intersectionality, there were nine male student groups identified as DIGs (Native American, Hispanic, DSPS, first generation, foster youth, not foster youth, non-LGBT, economically disadvantaged, and not veteran students). Among students of all other gender values, those who were DSPS, LGBT, or not economically disadvantaged were disproportionately impacted. No female student subgroup was identified as a DIG. For specific information regarding the five outcomes for each DIG, see Table 4.

### ***Transferred in 3 years***

Transferred within three years refers to all cohort students, who transferred to a four-year postsecondary institution within three years. For this metric, data is currently available from the 2011-2012 academic year through the 2016-2017 academic year. The data can be disaggregated by race/ethnicity and gender, as well as college generation, foster youth, veterans, LGBT, Perkins economically disadvantaged and DSPS status. Non-Binary data was not collected until the 2017-2018 academic year and homeless data was not collected until the 2018-2019 academic year. Therefore, there is currently no data for these groups on this metric. For this metric, 25 primary groups and 59 gender subgroups were analyzed for disproportionate impact. Overall, 21% of students in the cohort transferred to a four-year postsecondary institution within three years. Based on race/ethnicity, two of the nine primary race/ethnic groups were disproportionately impacted (Hispanic and Pacific Islander students), and based on gender, one of the three primary gender groups were disproportionately impacted (male students). Additionally, DSPS, first generation, unknown college generation, foster youth, economically disadvantaged, and not veteran students were disproportionately impacted. When examining disproportionate impact based on gender intersectionality, there were nine male student groups identified as DIGs (Native American, Hispanic, not DSPS, first generation, not foster youth, LGBT, non-LGBT, economically disadvantaged, and not veteran students). Among students of all other gender values, Asian, Black/African American, Hispanic, and DSPS students were disproportionately impacted. No female student subgroup was identified as a DIG. For specific information regarding the five outcomes for each DIG, see Table 5.

### **Disproportionate Impact by Primary Group and Gender Subgroup**

There were three primary groups (Male, first generation, and foster youth students) who were identified at baseline as DIGs on four of the five 2022 Student Equity Plan Metrics. Additionally, two gender subgroups (Hispanic male and first generation male students) were also identified at baseline as DIGs on four of the five 2022 Student Equity Plan Metrics. Each of these primary groups and gender subgroups were identified as DIGs for persisted (primary terms), completed transfer math & English, attained vision completion goal in 3 years, and transferred in 3 years. For specific information regarding the outcomes for the three primary groups, see Table 6, and for specific information regarding the outcomes for the two gender subgroup group, see Table 7.

### **Disproportionate Impact by Metric**

Overall, when examining disproportionate impact among primary groups for each metric, transferred in 3 years (n = 9), attained vision completion goal in 3 years (n = 9), and completed transfer math & English (n = 9) had the most DIGs, followed by persisted (primary terms) (n = 7) and successfully enrolled in first year (n = 6). When examining disproportionate impact among gender subgroups for each metric, completed transfer math & English (n = 14) had the most number of DIGs, followed by transferred in 3 years (n = 13), attained vision completion goal in 3 years (n = 12), persisted (primary terms) (n = 12), and successfully enrolled in first year (n = 3).











Table 6. Primary Groups with Most DIG Designations					
Male Students					
Metric	Group/ Subgroup Rate	Reference Rate	PPG-1	PPG Threshold	Full Equity Number
<i>Persisted (primary terms)</i>	70%	78%	-8%	-2%	131
<i>Completed transfer math &amp; English</i>	14.40%	17.70%	-3.30%	-2%	43
<i>Attained Vision Completion goal in 3 years</i>	14%	18%	-4%	-2%	58
<i>Transferred in 3 years</i>	19%	24%	-5%	-3%	44
First Generation Students					
Metric	Group/ Subgroup Rate	Reference Rate	PPG-1	PPG Threshold	Full Equity Number
<i>Persisted (primary terms)</i>	72%	77%	-5%	-2%	87
<i>Completed transfer math &amp; English</i>	15%	17%	-2%	-2%	30
<i>Attained Vision Completion goal in 3 years</i>	14%	19%	-5%	-2%	95
<i>Transferred in 3 years</i>	16%	27%	-10%	-2%	93
Foster Youth Students					
Metric	Group/ Subgroup Rate	Reference Rate	PPG-1	PPG Threshold	Full Equity Number
<i>Persisted (primary terms)</i>	64%	75%	-11%	-8%	16
<i>Completed transfer math &amp; English</i>	6.50%	17%	-10%	-5%	11
<i>Attained Vision Completion goal in 3 years</i>	8%	17%	-9%	-5%	11
<i>Transferred in 3 years</i>	7%	22%	-15%	-7%	9

Table 7. Gender Subgroups with Most DIG Designations						
Hispanic Male Students						
Metric	Primary DIG	Group/ Subgroup Rate	Reference Rate	PPG-1	PPG Threshold	Full Equity Number
<i>Persisted (primary terms)</i>	<i>N</i>	70%	76%	-6%	-3%	70
<i>Completed transfer math &amp; English</i>	<i>N</i>	14%	17%	<del>-8%</del>	-2%	33
<i>Attained Vision Completion goal in 3 years</i>	<i>N</i>	14%	17%	<del>-8%</del>	-2%	40
<i>Transferred in 3 years</i>	<i>Y</i>	14%	22%	<del>-8%</del>	-3%	88
First Generation Male Students						
Metric	Primary DIG	Group/ Subgroup Rate	Reference Rate	PPG-1	PPG Threshold	Full Equity Number
<i>Persisted (primary terms)</i>	<i>Y</i>	66%	75%	-9%	-3%	75
<i>Completed transfer math &amp; English</i>	<i>Y</i>	12%	17%	-5%	-3%	31
<i>Attained Vision Completion goal in 3 years</i>	<i>Y</i>	10%	16%	-6%	-2%	67
<i>Transferred in 3 years</i>	<i>Y</i>	13%	19%	-6%	-3%	57
<i>Due to rounding, some groups' PPG-1 may appear to be off by a percentage point.</i>						



