

Suppression Summary

Suppression and Complementary Suppression

The DataVista adheres to the privacy requirements in the **Family Educational Rights and Privacy Act (FERPA)** of 1974 along with other best practices in order to protect students' right to privacy. FERPA is a federal law that protects the privacy of student education records and pertains to the release of and access to educational records or any information directly related to a student that are maintained by an educational institution or agency or other party acting on their behalf. The law applies to all schools that receive funds under applicable programs of the US Department of Education.

The **California convention** for protecting personally identifiable data is that information for groups of less than 10 students may not be reported in aggregated tables. For DataVista additional practices have been adopted from **Federal guidelines** as well as from other states such as **Texas** including complementary suppression. Complementary suppression rules are applied in cases where using simple subtraction from the total could allow viewers to back into the suppressed low value count of a group. Over summer 2020, the Chancellor's Office convened workgroups that met and approved the FERPA suppression policy applied.



DataVista Suppression Rules Summary

1. For most metrics, counts less than 10 and greater than 0 are not shown. For survey data since viewers do not have the information as to which students responded to the survey question, counts less than 3 and greater than 0 are not shown instead.
2. When separate subgroups are masked and added together, they are totaled into a new subgroup called "All Masked Values." In a later release of DataVista, the suppressed subgroups that are included in the "All Masked Values" category will be listed below the graph.
3. When only one subgroup is masked, complementary suppression is used to prevent users from backing into the masked value of the subgroup with simple subtraction from the overall by masking the smallest unmasked group and adding its value to the "All Masked Values" subgroup. To determine the smallest unmasked group:
 - a. Whenever there is more than one "generated" subgroup such as "unknown/non-respondent" or "multiple values reported" and either includes a value less than 10, including 0, then the two subgroups are combined and masked together to prevent a possible non-generated subgroup with 10 or greater students from being suppressed.
 - b. If values for subgroups are present and identical for complementary suppression, then the subgroup with the lowest denominator (or n value) will be suppressed. If denominators are the same for subgroups, then an alpha-numeric value (either a label or an ID value) will be used to determine which of the identical subgroups will be masked with consistency. This alpha-numeric value is used to resolve arbitrary ties and produce consistent results across dashboards.
 - c. In situations where a secondary disaggregation (e.g., Female First Generation) is present, the "All Masked Values" subgroup is created within a relevant generated category if available within the primary disaggregation's generated subgroup (e.g., "All Other Gender All Masked Values") to prevent a possible non-generated subgroup with 10 or greater students from being suppressed.
4. If an overall disaggregation is masked, all subgroups will be masked as well.



How Suppression and Complementary Suppression Work

Unsuppressed: Counts by Race/Ethnicity

Ethnicity	Count of Students
American Indian/Alaska Native	6
Asian	88
Black or African American	52
Filipino	37
Hispanic	46
Pacific Islander or Hawaiian Native	14
White	95
Two or More Races	96
Unknown/Non-Respondent	50
Multiple Values Reported	16
Total	500

Table 1



Suppression: Suppress counts less than 10 and greater than 0

Ethnicity	Count of Students
American Indian/Alaska Native	*
Asian	88
Black or African American	52
Filipino	37
Hispanic	46
Pacific Islander or Hawaiian Native	14
White	95
Two or More Races	96
Unknown/Non-Respondent	50
Multiple Values Reported	16
Total	500

Table 2. This level of suppression is not enough because someone could find the students in the American Indian/Alaska Native category by subtracting the sum of the other ethnicities from the total. Total (500) – All Available Ethnicity Groups (494) = American Indian/Alaska Native (6)



Complementary Suppression: When only one subgroup is masked, suppress the subgroup with the next lowest count

Ethnicity	Count of Students
American Indian/Alaska Native	*
Asian	88
Black or African American	52
Filipino	37
Hispanic	46
Pacific Islander or Hawaiian Native	*
White	95
Two or More Races	96
Unknown/Non-Respondent	50
Multiple Values Reported	16
Total	20

Table 3. By implementing complementary suppression someone could not use simple mathematics to determine the data for the American Indian/Alaska Native category. Masked values are summed and displayed together in the "All Masked Values" category. In this example, "All Masked Values" (20) includes American Indian/Alaska Native (6) and Pacific Islander or Hawaiian Native (14).



Complementary Suppression When Two or More Generated Subgroups Are Present

The example below illustrates how suppression is being implemented on DataVista when two or more generated subgroups are present ensuring the display of data for non-generated student populations wherever possible.

Unsuppressed: Counts by Gender

Gender	Count of Students
Female	25
Male	13
Unknown/Non-Respondent [∅]	5
Multiple Values Reported [∅]	17
Total	60

Table 4. [∅] Generated subgroup

Suppressed: Suppress counts < 10 and suppress the value of generated subgroups for complementary suppression instead of following the rule above

Gender	Count of Students
Female	25
Male	13
Unknown/Non-Respondent	*
Multiple Values Reported	*
All Masked Values	22
Total	60

Table 5. In this instance, the multiple values reported subgroup is masked even though it had a value greater than 10 and was not the next smallest group ensuing that the Male subgroup is displayed.



Suppression for Secondary Gender Disaggregation

In order to meet the legislative requirements of Student Equity Achievement (SEA), a secondary gender disaggregation has been included for the First-Time Non-Special Admit Cohort student group. The Chancellor’s Office decided to create a subcategory labeled “All Other Values” to group together non-binary, multiple values reported, and unknown/non-respondent regardless of the size of the counts for two main reasons: legibility of the display on one graph and low “n” sizes for those subgroups resulting in suppressed data and the inability of colleges to determine equity gaps for those subgroups to include in SEA plans.

Unsuppressed Primary Disaggregation: Counts by First Generation Status - Prior to Secondary Gender Disaggregation

First Generation	Count of Students
First Generation	80
Not First Generation	75
Unknown/Unreported	5
Total	160

Table 6.

Suppressed: Suppresses counts < 10, and when only one subgroup is masked, suppress the subgroup with the next lowest count

First Generation	Count of Students
First Generation	80
Not First Generation	*
Unknown/Unreported	*
All Masked Values	80
Total	60

Table 7. Unknown/Unreported is masked since <10. The next highest subgroup, Not First Generation, is also masked for complementary suppression rules.



Unsuppressed Secondary Disaggregation: Counts by First Generation Status further disaggregated by Gender

Gender	First Generation	Count of Students
Female	First Generation	45
Female	Not First Generation	30
Female	Unknown/Unreported	1
Male	First Generation	30
Male	Not First Generation	35
Male	Unknown/Unreported	3
All Other Values	First Generation	5
All Other Values	Not First Generation	10
All Other Values	Unknown/Unreported	1
Total		160

Table 8.



Suppressed Secondary: Implement the standard and complementary suppression logic for the primary disaggregation. Sum together all masked values within the “All Other Values” category and display as “All Masked Values.”

Gender	First Generation	Count of Students
Female	First Generation	45
Female	Not First Generation	*
Female	Unknown/Unreported	*
Male	First Generation	*
Male	Not First Generation	35
Male	Unknown/Unreported	*
All Other Values	First Generation	*
All Other Values	Not First Generation	10
All Other Values	Unknown/Unreported	*
All Other Values	All Masked Values	80
Total		160

Table 9. Female Not First Generation is masked due to complementary suppression with Female Unknown/Unreported. Same for Male First Generation and Unknown/Unreported. All Other Values First Generation and Unknown/Unreported are masked because values are <10. All masked subgroups are summed together and reported as All Masked Values in the All Other Values subgroup.

