

How Calculated Variables Are Created

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This document provides detailed descriptions of how all derived variables in the *SENSE* data are created. These variables include developmental status, traditional/non-traditional age, first-generation status, and weights.

Entering vs. Returning Students [RETURN]

Item 6: How many semesters/quarters have you been enrolled at this college? [TERMSENR]

- 1 = This is my first semester/quarter
- 2 = This is my second semester/quarter
- 3 = This is my third semester/quarter
- 4 = This is my fourth semester/quarter
- 5 = I have been enrolled for more than four semesters/quarters

If a respondent selects option 1, they are considered to be an entering student (RETURN = 0); if the respondent selects options 2, 3, 4, or 5, they are considered a returning student (RETURN = 1).

Note: Returning students are excluded from all standard reports and the online reporting tool, but they are included in the raw data file for colleges that administered the survey on paper.

Developmental Status [DEVELOPM]

Item 17: In which of the following types of courses were you enrolled in your FIRST SEMESTER/QUARTER at this college?

- 17a. Developmental Reading (also referred to as Basic Skills, College Prep, etc.) [EDCPR]
1 = Enrolled 2 = Not enrolled
- 17b. Developmental Writing (also referred to as Basic Skills, College Prep, etc.) [EDCPW]
1 = Enrolled 2 = Not enrolled
- 17c. Developmental Math (also referred to as Basic Skills, College Prep, etc.) [EDCPM]
1 = Enrolled 2 = Not enrolled

If a respondent indicates they were enrolled in one of the three types of classes above during their first semester/quarter, they are classified as developmental (DEVELOPM = 1); otherwise, they are classified as non-developmental (DEVELOPM = 2). To be classified as non-developmental, a respondent must have responded to all three items.

Traditional/Non-Traditional Age [STUDAGE]

Item 30: Mark your age group. [AGENEW]

1 = Under 18	6 = 30 to 39
2 = 18 to 19	7 = 40 to 49
3 = 20 to 21	8 = 50 to 64
4 = 22 to 24	9 = 65+
5 = 25 to 29	

Students under the age of 18 are excluded from all data sets.

If a student selected 2, 3, or 4, they are classified as traditional age (STUDAGE = 1); if they selected 5, 6, 7, 8, or 9, they are classified as non-traditional age (STUDAGE = 2).

First-Generation Status [FIRSTGEN]

Item 39: Who in your family has attended at least some college? (Mark all that apply)

Mother [MOTHED]	Spouse/Partner [SPOUCED]
Father [FATHED]	Legal Guardian [LGUARDED]
Brother/Sister [SIBLINED]	None of the above [NONED]
Child [CHILDED]	

First-generation status is based on responses for mother and father's college education experiences only. If a student marked that either their mother or father had attended at least some college, they were classified as not first-generation. If the student did not mark any response options, [FIRSTGEN] is classified as missing.

Note: Prior to the 2024 administration, there were no missing classifications for the [FIRSTGEN] variable. If respondents indicated that their mother or father had attended at least some college, then those students were classified as not first-generation; otherwise, students were classified as first-generation.

Institutional weights based on enrollment status and gender [IWEIGHT]

This variable is the post-stratification weight used to correct for sampling and respondent bias in the data. For colleges that administered the survey in person, the sampling process results in full-time students having a higher probability of being selected compared to part-time students. For colleges that administered the survey online, both full-time students and women are typically overrepresented among respondents. To address these biases across all survey administration modalities, CCCSE research staff created new weights based on both enrollment status and gender. The formulas used to calculate the weights are below:

Part-time Man weight

$$PTMan_{WEIGHT} = \frac{\% PT Male population as reported to IPEDS}{\% PT Man respondents from the college's surveys}$$

Part-time Woman weight

$$PTWoman_{WEIGHT} = \frac{\% \text{ PT Female population as reported to IPEDS}}{\% \text{ PT Woman respondents from the college's surveys}}$$

Full-time Man weight

$$FTMan_{WEIGHT} = \frac{\% \text{ FT Male population as reported to IPEDS}}{\% \text{ FT Man respondents from the college's surveys}}$$

Full-time Woman weight

$$FTWoman_{WEIGHT} = \frac{\% \text{ FT Female population as reported to IPEDS}}{\% \text{ FT Woman respondents from the college's surveys}}$$

If a student indicated they are part-time (Item 2, ENRLMENT) and a man (Item 29, GENDER_4CAT), the IWEIGHT value is set to the PT Man weight above; students reporting they are women and part-time are assigned the PT Woman weight. The same logic applies to assigning weights to full-time men and women. If a respondent selected “Other” for gender, the IWEIGHT is set to 1 regardless of their enrollment status. If a student did not answer either the enrollment status or gender item, their IWEIGHT will be set to missing. For colleges that administered the survey online, enrollment status and gender are required fields so the only missing values for gender will be those students who answered “I prefer not to respond.” The only options for enrollment status are full-time or part-time; this item cannot be skipped.

Took classes only online or ever face-to-face [ONLINE_ONLY]

This variable has been created to allow colleges that administered the survey to at least some of their students online to examine differences in engagement for students who took classes exclusively online and those who had at least some face-to-face classes on campus. This variable has two possible values: 0 = not online only, 1 = online only and missing.

The NUMCLF2F, NUMCLOL, AND NUMCLHYB variables specific to the online survey instrument, as well as survey administration modality (in-class or online) are used to create this variable.

During the current academic term, how many of each type of classes are you taking?...

- a. Face-to-face (a class in which all instruction is face-to-face in a classroom) (NUMCLF2F)
- b. Online (a class in which all instruction is online) (NUMCLOL)
- c. Hybrid (a class that is a mixture of face-to-face and online instruction) (NUMCLHYB)

The response options for the three items above are

0 = None	3 = 3
1 = 1	4 = 4
2 = 2	5 = 5 or more

If a student completed the survey in the classroom, by definition, this person could not be considered an online-only student as they had to be in a face-to-face environment to complete the survey. Therefore, ONLINE_ONLY = 0 for these students. For students who completed the survey online, the following logic is used to classify respondents:

ONLINE_ONLY coded 1 (one) if the following conditions are met:

1. NUMCLOL is 1, 2, 3, 4, or 5 and NUMCLF2F and/or NUMCLHYB are either zero or missing.
2. NUMCLOL is missing and NUMCLF2F and NUMCLHYB are both zero.

ONLINE_ONLY is coded 0 (zero) if the following conditions are met:

1. If the student completed the survey in the classroom (Because the respondent completed the survey in the classroom, by definition, the student did have at least one class that met on campus at least part of the time.)
2. NUMCLF2F is 1 and/or NUMCLHYB is 1

ONLINE_ONLY is coded as missing if the following conditions are met:

1. All three variables are missing.
2. NUMCLF2F = 0 and NUMCLOL is missing and NUMCLHYB is missing (Because NUMCLHYB is missing, we cannot determine if the student ever attended class on campus.)
3. NUMCLHYB= 0 and NUMCLOL is missing and NUMCLF2F is missing (Because NUMCLF2F is missing, we cannot determine if the student ever attended class on campus.)

Type of survey administration (paper-and-pencil or online) [SURVEY_TYPE]

Note: This variable is only applicable to colleges that administered the paper-and-pencil survey to students in sampled classes and to online-only students online.

For respondents whose survey responses were collected through the paper-and-pencil administration, SURVEY_TYPE = 1; for data collected through the online administration, SURVEY_TYPE = 2.

Pell Grant Recipients vs. Non-Pell Grant Recipients [PELL_BRK]

Item 35: Did you receive a federal Pell Grant as part of your financial aid package at this college this year? [PELL]

- 1 = Yes
- 2 = No

If a respondent selects option 1, they are considered to be a Pell grant recipient (PELL_BRK = 1); if the respondent selects option 2 they are considered to be a non-Pell grant recipient (PELL_BRK = 2).

Race/Ethnicity [RACE_10CAT]

Item 36: What is your racial or ethnic identification? (Mark all that apply)

- 36a. American Indian, Indigenous, Native American, or Alaskan Native
- 36b. Asian
- 36c. Black or African American
- 36d. Hispanic or Latino
- 36e. Native Hawaiian
- 36f. Pacific Islander (non-Native Hawaiian)
- 36g. White
- 36h. Other
- 36i. I prefer not to respond.

If a student marked only one of the above population subgroups, the student is classified as belonging to that subgroup. If a student marked two or more of the above responses, the student is reported as “Two or More Races” (9). Finally, if the student marked “I prefer not to respond” (10), regardless of any other subgroups that may have been marked, the student’s race/ethnicity classification is set to missing.

Note: Prior to the 2024 administration, Race or Ethnicity was a seven category variable [DIVERSIT]. Starting in 2024, a seven category version of the [RACE_10CAT] variable was created to resemble the [DIVERSIT] variable for the purposes of continuing ongoing longitudinal studies. This new seven category race variable [RACE_7CAT] is derived from the [RACE_10CAT] variable as follows:

<u>RACE_10CAT</u>	→	<u>RACE_7CAT</u>
1 = American Indian, Indigenous, Native American, or Alaskan Native		1 = American Indian or Native American
2 = Asian		2 = Asian, Asian American, Pacific Islander
3 = Black or African American		4 = Black or African American, Non-Hispanic
4 = Hispanic or Latino		6 = Hispanic, Latino, Spanish
5 = Native Hawaiian		3 = Native Hawaiian
6 = Pacific Islander (non-Native Hawaiian)		2 = Asian, Asian American, or Pacific Islander
7 = White		5 = White, Non-Hispanic
8 = Other		7 = Other
9 = 2 or more		MISSING
10 = I prefer not to respond		MISSING

Gender Identity [GENDER_4CAT]

Item 29: Your gender identity [GENDER_4CAT]

- 1 = Man
- 2 = Woman
- 3 = I prefer to self-identify
- 95 = I prefer not to respond

Note: Prior to the 2024 administration, the gender identity [GENDER_2CAT] variable was survey Item 29 [SEX]. Starting in 2024, the two category version of the [GENDER_4CAT] variable was created to resemble the [SEX] variable for the purposes of continuing ongoing longitudinal studies.

If a respondent selects option 1, they are considered to be male (GENDER_2CAT = 1); if the respondent selects option 2 they are considered to be female (GENDER_2CAT = 2). Finally, if a respondent selects options 3 or 95, their gender identity classification is set to missing.

Institutional weights based on enrollment status [IWEIGHT_ENRL]

Please note that this weight variable should not be used when analyzing standardized benchmarks as benchmark scores are created using the new IWEIGHT variable based on enrollment status and gender identity.

Part-time weight

$$PT_{WEIGHT} = \frac{\% \text{ PT population at college as reported to IPEDS}}{\% \text{ PT respondents from the college survey data}}$$

Full-time weight

$$FT_{WEIGHT} = \frac{\% \text{ FT population at college as reported to IPEDS}}{\% \text{ FT respondents from the college survey data}}$$

If a student indicated they are full-time (Item 2, ENRLMENT), the IWEIGHT_ENRL value is set to the full-time weight; if the respondent indicates they are part-time, then IWEIGHT_ENRL is set to the part-time weight.