

IRP@FHDA

To: Mallory Newell, EdD, FHDA Institutional Research and Planning Interim Executive Director
From: Lourdes Del Rio-Parent, PhD, Sr. Research Analyst/Data Warehouse Coordinator FHDA
Date: September 2, 2014
Re: Comparing results for two methods for deriving student enrollment status (SB15) using the custom function STU_STYP_FDHA and current MIS procedures

Two procedures for deriving student enrollment status were compared regarding their validity to produce the value that best “indicates the student’s current standing with respect to attendance at the reporting college.”¹ One of the procedures we called MIS SB15, which derived enrollment status through two main steps: (1) SQL functions processed and extracted data from the production system; (2) SAS further processed and edited data for MIS² submission. The second procedure computed student type (a proxy for enrollment status) using the function STU_STYP_FDHA³. This analysis was performed to address a request to make the ODS data consistent with that submitted through the MIS SB (Student Characteristics) quarterly report. This document briefly describes major findings related to the validity of both procedures, taking mainly into account the MIS definition of SB15.

SQL procedures were used to identify discrepancies between data in SB15 submitted to the CCCC in the MIS SB report at the end of July of 2014 for the 2013-14 academic year and the value produced by the function STU_STYP_FDHA. After discrepancies or mismatches between data values produced by the different procedures were identified, a sample of cases (students with mismatched values) were reviewed in detail to identify which procedure produced the most accurate results, and they key factor

¹ http://extranet.cccco.edu/Portals/1/TRIS/MIS/Left_Nav/DED/Data_Elements/SB/SB15.pdf. Attendance relates to enrollment in at least one credit course, excluding special admits.

² More information available at: <http://extranet.cccco.edu/Divisions/TechResearchInfoSys/MIS/DED.aspx>

³ This function uses two parameters: PIDM and academic period and return a label, which was then recoded as a value comparable to MIS SB15. The recoding was as follows: FIRST_TIME_STUDENT (1), FIRST-TIME TRANSFER STUDENT (2), RETURNING (3), CONTINUING (5), FIRST TIME CONCURRENT STUDENT and HIGH SCHOOL CONCURRENT (Y). The function calls secondary functions to compute student type within the ODS environment.

that may have hindered the validity of the less accurate procedure. Results are shown in Table 1 to Table 3.

Data in Table 1 show the number of SB records submitted by academic period (term and college) and the percentage of records with same value in SB15 and the one computed by STU_STYP_FDHA (matched data values linked by pidm and academic period). The academic period with the highest match was winter 2014 at De Anza (85%); the lowest, summer 2013 at Foothill (66%). Table 2 shows the combination of values that produced the highest count of discrepancies or mismatches between SB15 and the function STU_STYP_FDHA. Table 3 provides a sample of cases and brief comments regarding the possible reasons for the discrepancy (first two cases shown by the sql query were selected).

Based on comments in Table 3, major reasons for mismatches in student enrollment data between these two data sets can be accounted for by any of the following:

1. In MIS SB15 the value 'X' is used for students who did not enroll during the reporting academic period (student had no registration record with apportionment flag), but received student success related services. Students in this category need an SB record to bypass referential edits related to the other MIS reports (e.g., SD, SS report). The function STU_STYP_FDHA did not evaluate students for 'X' (Uncollected/Unknown/Unreported).⁴
2. A significant number of returning students were incorrectly classified by STU_STYP_FDHA as 'new transfer,' even though they had academic history in SHATERM-Banner (previous cumulative credit units at the college).
3. For MIS purposes, enrollment in non-credit courses is not considered higher education experience—students enrolled only in non-credit courses in the previous term are not considered 'continuing' students the following term. STU_STYP_FDHA does not distinguish between credit and non-credit students when identifying continuing students.
4. For MIS purposes, special admit status 'Y' as shown in Banner-SGASTDN for the academic period (term, college) supersedes any other derived value; this is not the case for STU_STYP_FDHA.

In conclusion, the data suggest that current procedures for computing SB15 were more accurate for deriving the data field SB15 submitted in the MIS SB report than those used by the function

⁴ MIS suggests the use of 'X' for non-credit students. However at FHDA, this value is used to identify non-enrolled students added to avoid referential edits related to the MIS SS and SD reports.

STU_STYP_FDHA. On the other hand, it is possible that this function may be a better solution or approach to meeting the needs of the colleges when developing reports related to enrollment projections or other specific needs. Thus, use of STU_STYP_FDHA for MIS reporting is not recommended.

Table 1
Count and Percent for Records in the MIS SB Report and Related Match
of SB15 Value with Function STU_STYP_FDHA by Academic Period

Academic Period	SB Record Count	SB15 Match with STU_STYP_FDHA	
		Count	Percent Match
201411	15,696	10,343	66%
201412	19,663	13,671	70%
201421	18,596	14,249	77%
201422	26,236	21,567	82%
201431	18,254	13,954	76%
201432	24,146	20,632	85%
201441	18,497	12,696	69%
201442	26,916	20,251	75%

Notes:

The MIS SB report includes one record for every student at each college who met at least one of the following criteria at the end of the term/submission time: (1) had at least one enrollment with apportionment flag, (2) DSPS claimable, or (3) received student success related services.

Table 2

Count for Mismatch Records by SB15 and STU_STYP_FDHA Combination

SB15 Enrollment Status	STU_STYP_FDHA	Mismatched Records
X	2	9,782
X	5	7,450
X	1	6,953
X	3	3,722
3	2	2,875
3	5	2,259
1	5	1,894
1	2	1,540
Y	1	1,155
Y	2	844
3	1	584
1	3	397
2	5	358
2	3	350
2	1	202
Y	5	181
Y	3	78
1	Y	8
5	1	8
5	Y	1

Notes:

Only includes MIS SB mismatched records, 40,641 of 168,004 (about 24%).

Table 3

Sample Cases for Combination of Values that produced the Highest Count of Mismatches Between SB15 and the Function STU_STYP_FDHA

Case #1: SB15= X, FUNCTION_STYP = 5				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Not registered for 201412--SS student	201412	1831672	5	X
Not registered for 201412--SS student	201412	428468	5	X
Case #2: SB15= 3, FUNCTION_STYP = 2				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Academic history prior to Banner, First Term Attended 1993	201411	485292	2	3
First Term Attended '000000' (prior 1987)	201411	1113654	2	3
Case #3: SB15= 3, FUNCTION_STYP = 5				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Non-credit in prior term; 0.5 units in acad history at FH	201411	486380	5	3
Non-credit in prior term; 0.5 units in acad history at FH	201411	486547	5	3
Case #4: SB15= 1, FUNCTION_STYP = 5				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
prior enrollments in 201432 resulted in drop, DR.	201442	1857772	5	1
prior enrollment in 201432 resulted in drop, DR.	201442	1826267	5	1

Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Case #5: SB15= 1, FUNCTION_STYP = 2				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
attendance/higher education (ed level, transfer units, application)	201442	1829626	2	1
attendance/higher education (ed level, transfer units, application)	201442	510872	2	1
Case #6: SB15= Y, FUNCTION_STYP = 1				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Special admit student in fall 2013 at De Anza	201422	1799053	1	Y
Special admit student in fall 2013 at De Anza	201422	1838939	1	Y
Case #7: SB15= Y, FUNCTION_STYP = 2				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Special admit student in fall 2013 at Foothill	201421	1818991	2	Y
Special admit student in fall 2013 at Foothill	201421	941216	2	Y

Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Case #8: SB15= 3, FUNCTION_STYP = 1				
Comment	Academic Period	Pidm	STU_STYP_FD HA	Enrollment Status
Academic history at DA began on 200232	201422	465544	1	3
Academic history at DA began on 200912	201422	463476	1	3

Notes:

- 1: First-Time Student: A Student enrolled in college for the first time after High School. The first time a student enrolls in a primary term, this element should be coded as '1', even if the student
- 2: First-Time Transfer Student: A student enrolled at the reporting college for the first time and who transferred from another institution of higher education.
- 3: Returning Student: A student enrolled at the reporting college after an absence of one or more primary terms.
- 5: Continuing Student: A student enrolled in the current session and was enrolled in the previous regular session.
- Y: Not Applicable: A Special Admit student currently enrolled in K-12
- X: Uncollected / Unreported / Unknown