Degree Information System

(DIS)

(Includes Cumulative Errata Sheet and Special 2010 Reporting Revision Addendum)

November, 2010

Maryland Higher Education Commission
Office of Information Systems

Degree Information System (DIS)

Addendum for the 2010 Reporting Revisions

(covers changes during the collection year 2009 and 2011)

February, 2009

Summary of changes:

In the past data collection standards allowed individuals to be identified in only one racial category. The federal government has developed new ethnic and racial categories to provide a more accurate picture of the nation's diversity. The new categories enable individuals to be identified in both ethnicity and race. They also allow more than one race to be identified

This addendum provides specific instructions for the DIS system including a revised file format and data dictionary changes. It was recommended by the State-wide workgroup that the schedule for 2010 reporting revisions be oriented around the federally mandatory academic year of AY 2010-2011. Since DIS collects data for the prior academic year 2010-2011, a fully modified DIS file containing the new race/ethnicity fields will be required in **August of 2011**.

For additional clarification see the 2010 Reporting Revisions Statewide Workgroup "Final Recommendations" available on the web at:
http://data.mhec.state.md.us/MACInfo/Final%202010%20Workgroup%20Recommendations.pdf

Collection Year 2009 –

Changes to the existing five Degree Sought fields

- **Degree Sought – Highest (positions 24-25)**
- **Degree Sought – Second (positions 32-33)**
- **Degree Sought – Third (positions 40-41)**
- **Degree Sought – Fourth (positions 48-49)**
- **Degree Sought – Fifth (positions 56-57)**
- **New Degree codes. See new degree code table** (**DD30 and DD30.1**).

Collection Year 2011 –

Additional 7 New Fields to be reported in collection year 2011

ethnicity and race **(positions 67-73)** are collected in seven new fields. Each student record has an indicator for Hispanic/Latino ethnic origin and five race categories under 1997 standards.

• **US Citizenship**	**(position 67)**	**DD24**
• **Hispanic/Latino Ethnicity**	**(position 68)**	**DD25**
• **White**	**(position 69)**	**DD26.1**
• **Black/African American**	**(position 70)**	**DD26.2**
• **Asian**	**(position 71)**	**DD26.3**
• **American Indian/Alaskan Native**	**(position 72)**	**DD26.4**
• **Native Hawaiian/Pacific Islander**	**(position 73)**	**DD26.5**

A revised DIS file format below shows the new fields highlighted in purple and the fields revised for 2009 in yellow. The revised format includes an additional column labeled, "MAC Year Required" to note the collection year the new fields are to be reported.

Degree Information System (DIS) File Version 2 Specification Format

Record Position	Field Length	Data Element	Data Dictionary Reference	Description	MAC Year
1-2	2	Highest Degree Month	See DIS Manual	Calendar Month the highest degree was conferred.	
3-4	2	Highest Degree Year	See DIS Manual	Calendar Year the highest degree was conferred.	
5-10	6	FICE Code	DD3	Institution identifier using FICE codes.	
11	1	Sub-campus Code	DD4	An identifier to define students within institution. Optional	
12-20	9	Identification	DD5	Social Security Number or alternative identifier or Individual Taxpayer Identification Number (ITIN)	
21	1	Identification Type	DD6	Code "blank" if the identification number is a Real SSN or ITIN. Code "2" to indicate that the identifier is NOT a real SSN or ITIN.	
22	1	Gender	DD21	Employee's gender or assigned gender if unknown	
23	1	Race/Ethnic (1997 Standard)	DD20	The 1977 standards for single category race/ethnicity. Required through 2009 collection and reported if available after 2010 and beyond	
24-25	2	Degree Sought (Highest)	DD30	Highest degree awarded during the reporting period. If single degree report it here.	2009
26-31	6	Program Taxonomy (Highest)	DD31	MHEC academic program code for the degree specified in highest degree field above.	
32-33	2	Degree Sought (Second)	DD30	Degree conferred in addition to the highest degree during reporting period. If highest degree was a single degree but covered multiple majors a code of "99" optimally can be placed here.	2009
34-39	6	Program Taxonomy (Second)	DD31	MHEC academic program code for the second degree or for multiple major (if "99" specified above).	
40-41	2	Degree Sought (Third)	DD30	Degree conferred in addition to the highest degree during reporting period. If highest degree was a single degree but covered multiple majors a code of "99" optimally can be placed here.	2009
42-47	6	Program Taxonomy (Third)	DD31	MHEC academic program code for the second degree or for multiple major (if "99" specified above).	
48-49	2	Degree Sought (Fourth)	DD30	Degree conferred in addition to the highest degree during reporting period. If highest degree was a single degree but covered multiple majors a code of "99" optimally can be placed here.	2009
50-55	6	Program Taxonomy (Fourth)	DD31	MHEC academic program code for the second degree or for multiple major (if "99" specified above).	
56-57	2	Degree Sought (Fifth)	DD30	Degree conferred in addition to the highest degree during reporting period. If highest degree was a single degree but covered multiple majors a code of "99" optimally can be placed here.	2009
58-63	6	Program Taxonomy (Fifth)	DD31	MHEC academic program code for the second degree or for multiple major (if "99" specified above).	
64-66	3	Cumulative GPA	See DIS Errata Sheet	Grade Point Averages required for 2-year publics; not required for independents and 4-year publics	

67	**1**	**US Citizenship**	**DD24**	**Identifies whether student is in the U.S. Citizenship Group or not**	**2011**
68	**1**	**Hispanic Latino Ethnicity (1997 Standard)**	**DD25**	**Identifies whether student is of Hispanic or Latino origin under 1997 standards**	**2011**
69	**1**	**White (1997 Standard)**	**DD26.1**	**Multi-race identification for indicator under 1997 standards**	**2011**
70	**1**	**Black/African American (1997 Standard)**	**DD26.2**	**Multi-race identification for indicator under 1997 standards**	**2011**
71	**1**	**Asian (1997 Standard)**	**DD26.3**	**Multi-race identification for indicator under 1997 standards**	**2011**
72	**1**	**American Indian (1997 Standard)**	**DD26.4**	**Multi-race identification for indicator under 1997 standards**	**2011**
73	**1**	**Native Hawaiian (1997 Standard)**	**DD26.5**	**Multi-race identification for indicator under 1997 standards**	**2011**
74-80	16	Reserved for future		Must be blank	

2009 Degree Sought Coding Changes

MHEC has identified a new uniform degree coding system to be used in all MAC systems.

For the 2009 degree data must be submitted using the new Degree Sought set as found in the Data Dictionary DD30.

Degree Sought Codes: 00 = unknown
01 = private career school diploma/certificate undergraduate
10 = lower division certificate
20 = associate
30 = upper division certificate
40 = bachelors
47 = non-degree undergraduate
50 = post-baccalaureate certificate
60 = masters
70 = certificate of advanced study
81 = doctorate research/scholarship
85 = doctorate professional practice
86 = doctorate other
87 = non-degree graduate
99 = multi-major (DIS only)

For historical purposes it is vitally important that the old Degree Sought codes and Degree Records used up to and through the 2008 DIS collection year are not altered but kept for future references.

ELEMENT TITLE:

Degree Sought

DEFINITION: The student's most recent status in pursuing a formal award indicating either the level of degree being sought or non-degree seeking. This is the 2009 standard.

FORMAT: numeric – 2 digit

CODES:
00 = unknown
01 = private career school diploma/certificate undergraduate
10 = lower division certificate
20 = associate
30 = upper division certificate
40 = bachelors
47 = non-degree undergraduate
50 = post-baccalaureate certificate
60 = masters
65 = post-masters certificate
70 = certificate of advanced study
81 = doctorate research/scholarship
85 = doctorate professional practice
86 = doctorate other
87 = non-degree graduate
99 = multi-major (DIS only)

COMMENTS: This code used in degree sought varies between different MHEC reporting systems prior to 2009. Please review the system manual to determine correct coding or refer to DD30.1. Postmasters certificate added in 2010 collection but not for degrees.

RELATED TO: Program Taxonomy code, together make up academic program code

GLOSSARY: FORMAL AWARD, NON-DEGREE SEEKING, DEGREE SEEKING, ASSOCIATE, BACHELORS, LOWER DIVISION CERTIFICATE, UPPER DIVISION CERTIFICATE, POST-BACCALAUREATE CERTIFICATE, CERTIFICATE OF ADVANCED STUDY, DOCTORATE RESEARCH/SCHOLARSHIP, DOCTORATE PROFESSIONAL PRACTICE, DOCTORATE OTHER, PRIVATE CAREER SCHOOL/DIPLOMA/CERTIFICATE, POST-MASTERS CERTIFICATE

SYSTEMS: EIS, DIS, FAIS, HGS,TSS

SYSNAME: DEGREE

DOCUMENTED: 1/10/77 Revised: 1/30/09

-DD30-

Comparison of the degree sought field coding up to the 2009 collection which is prior to the 2010 revisions starting in 2009. Revised for post-masters certificate in 2010.

Degree Sought	OLD EIS from inst. Prior 09	OLD DIS from inst. Prior 09	TSS and HGS from inst. Unchanged	NEW for all starting in 2009, revised for 2010
Unknown	00	00	00	00
Lower Division Certificate	01	01	10	10
Associate	02	02	20	20
Upper Division Certificate	07	07	30	30
Bachelors	03	03	40	40
Non-Degree undergrad	10	n/a	47	47
Post-Baccalaureate Certificate	08	08	50	50
Masters	04	04	60	60
Post-Masters Certificate	n/a	n/a	n/a	65
Certificate of Advance Study	12	09	n/a	70
Doctorate (OLD single category)	05	05	n/a	n/a
Doctorate (research and scholarship)	n/a	n/a	n/a	81
Doctorate (professional practice)	n/a	n/a	n/a	85
Doctorate (other)	n/a	n/a	n/a	86
Non-degree graduate	11	n/a	n/a	87
First-Professional	06	06	n/a	n/a
First-Professional Certificate	09	10	n/a	n/a
Non-degree first-professional	n/a	n/a	n/a	n/a
Multiple majors	n/a	99	n/a	99

ELEMENT TITLE:
Race/Ethnicity (1977 Standard)

DEFINITION: Federal 1977 categories used to describe groups to which individuals identify with, or belong in the eyes of the community. The categories do not denote scientific definitions of anthropological origins. A person may be counted in only one group. Resident aliens (holders of Form I-551/155), noncitizens who have been lawfully admitted for permanent residence are to be reported in the appropriate racial/ethnic categories along with United States citizens.

THESE CATEGORIES ARE NO LONGER DETERMINED FOR ALL STUDENTS OR EMPLOYEES AFTER THE 2010 REVISIONS. ALL REPORTING WHICH IS BASED ON THE AY 2010-2011 AND LATER USES THE NEW 1997 STANDARDS ON PAGES 26-26.5. THIS DATA IS CONTINUED TO BE SUBMITTED FOR STUDENTS WHO ENROLLED PRIOR TO 2010 AND REPORTED UNDER 1977 STANDARD.

FORMAT: numeric - 1 digit
CODES:

0 = Unknown
1 = Black (African American), non-hispanic
2 = American Indian or Alaskan Native
3 = Asian/Pacific Islander
4 = Hispanic
5 = White, non-hispanic
6 = Foreign (in EDS 6 = All Other)
7 = All Other (in EDS 7 not used)

COMMENTS: In EDS prior to 2010 reporting, Citizenship is used to determine foreign employees. See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: US Citizenship

GLOSSARY: UNKNOWN, BLACK, NON-HISPANIC (1977), ASIAN (1977), HISPANIC (1977), WHITE, NON-HISPANIC (1977), FOREIGN (1977), ALL OTHER(1977), NATIVE AMERICAN, AFRICAN AMERICAN, AMERICAN INDIAN OR ALASKAN NATIVE (1997)

SYSTEMS: EIS,TSS,HGS,DIS,EDS,AGGR,RTN,FAIS

SYSNAME: RACE

DOCUMENTED: 1/10/77 Revised: 1/30/09

-DD20-

ELEMENT TITLE:

US Citizenship

DEFINITION: The identification of whether a student or employee is a U.S. citizen or not (nonresident alien). The determination of U.S. citizen requires the use of a "group" concept that includes several types of individuals including U.S. citizens, U.S. nationals, resident aliens and other eligible non-citizens.

FORMAT: numeric - 1 digit

CODES: 1 = U.S. citizenship group consisting of U.S. citizens, U.S. nationals, resident aliens and other eligible non-citizens
2 = non-resident alien (also known as foreign)

COMMENTS: There is no allowance for unknown citizenship.
See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: RACE/ETHNICITY (1977), MULTI-RACE (1997), ETHNICITY (1997)

GLOSSARY: U.S. CITIZENSHIP GROUP, RESIDENT ALIEN, U.S. NATIONAL, NONRESIDENT ALIEN

SYSTEMS: EIS,HGS,AGGR,RTN,EDS,TSS,DIS,FAIS

SYSNAME: CITIZEN

DOCUMENTED: 1/10/77 Revised: 1/30/09

ELEMENT TITLE:

Hispanic Latino Ethnicity (1997 Standard)

DEFINITION:	The identification of whether a student or employee is of Hispanic or Latino ethnicity.
FORMAT:	alphanumeric – 1 character
CODES:	Y = yes to Hispanic or Latino origin N = no to Hispanic or Latino origin blank = not answered or declared
COMMENTS:	See 2010 Reporting Revisions Recommendations document for more information.
RELATED TO:	Race/Ethnicity (1997), multi-race (1997), US Citizenship
GLOSSARY:	HISPANIC (1997), LATINO
SYSTEMS:	EIS,HGS,AGGR,RTN,EDS,TSS,DIS,FAIS
SYSNAME:	HISPANIC
DOCUMENTED:	1/30/09 Revised:

ELEMENT TITLE:

Multi-race for 1997 Standard

DEFINITION: The student's multi-race responses to the race question of the 1997 two-question format. The data can be directly from the student response (preferred method), an institution mapping of the old 1977 standard or possibly by observer declaration depending upon the data and the institutions procedures.

FORMAT: alphanumeric - 5 character array may be all blank

CODES: The coding is the same in each of the race fields in the array.
Y = yes to the specific race category
blank = not answered or declared

COMMENTS: There is no unknown coding. If the array is blank for all fields the students race is considered to be unknown.
Each individual race field is defined on the pages for:

- White (1997)
- Black or African American (1997)
- Asian (1997)
- American Indian or Alaska Native (1997)
- Native Hawaiian or Pacific Islander (1997)

See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: US Citizenship, Ethnicity (1997)

GLOSSARY: WHITE (1997), BLACK (1997),AFRICAN AMERICAN,
ASIAN (1997), AMERICAN INDIAN OR ALASKA NATIVE (1997), NATIVE HAWAIIAN OR PACIFIC ISLANDER (1997)

SYSTEMS: EIS,DIS,HGS,TSS,EDS,FAIS

SYSNAME: RACEALL

DOCUMENTED: 1/30/09 Revised:

-DD26-

ELEMENT TITLE:

White (1997 Standard)

DEFINITION: The student's response to the White question of the multi-race question of the 1997 two-question format. The data can be directly from the student response (preferred method), an institution mapping of the old 1977 standard or possibly by observer declaration depending upon the data and the institutions procedures.

FORMAT: alphanumeric - 1 character may be blank

CODES: Y = yes to the White race category
blank = not answered or declared

COMMENTS: Only for the one single White race category.
See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: Multi-race for 1997 Standard, US Citizenship, Ethnicity (1997)

GLOSSARY: WHITE (1997)

SYSTEMS: EIS,DIS,HGS,TSS,EDS,FAIS

SYSNAME: RWHITE

DOCUMENTED: 1/30/09 Revised:

ELEMENT TITLE:

Black/African American (1997 Standard)

DEFINITION: The student's response to the Black/African American question of the multi-race question of the 1997 two-question format. The data can be directly from the student response (preferred method), an institution mapping of the old 1977 standard or possibly by observer declaration depending upon the data and the institutions procedures.

FORMAT: alphanumeric - 1 character may be blank

CODES: Y = yes to the Black/African American race category
blank = not answered or declared

COMMENTS: Only for the one single Black/African American race category. See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: Multi-race for 1997 Standard, US Citizenship, Ethnicity (1997)

GLOSSARY: BLACK (1997) OR AFRICAN AMERICAN

SYSTEMS: EIS,DIS,HGS,TSS,EDS,FAIS

SYSNAME: RBLACK

DOCUMENTED: 1/30/09 Revised:

ELEMENT TITLE:

Asian (1997 Standard)

DEFINITION: The student's response to the Asian question of the multi-race question of the 1997 two-question format. The data can be directly from the student response (preferred method), an institution mapping of the old 1977 standard or possibly by observer declaration depending upon the data and the institutions procedures.

FORMAT: alphanumeric - 1 character may be blank

CODES: Y = yes to the Asian race category
blank = not answered or declared

COMMENTS: Only for the one single Asian race category. See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: Multi-race for 1997 Standard, US Citizenship, Ethnicity (1997)

GLOSSARY: ASIAN (1997)

SYSTEMS: EIS,DIS,HGS,TSS,EDS,FAIS

SYSNAME: RASIAN

DOCUMENTED: 1/30/09 Revised:

-DD26.3-

ELEMENT TITLE:

American Indian/Alaskan Native (1997 Standard)

DEFINITION: The student's response to the American Indian/Alaskan Native question of the multi-race question of the 1997 two-question format. The data can be directly from the student response (preferred method), an institution mapping of the old 1977 standard or possibly by observer declaration depending upon the data and the institutions procedures.

FORMAT: alphanumeric - 1 character may be blank

CODES: Y = yes to the American Indian/Alaskan Native race category
blank = not answered or declared

COMMENTS: Only for the one single American Indian/Alaskan Native category. See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: Multi-race for 1997 Standard, US Citizenship, Ethnicity (1997)

GLOSSARY: AMERICAN INDIAN/ALASKAN NATIVE (1997)

SYSTEMS: EIS,DIS,HGS,TSS,EDS,FAIS

SYSNAME: RAIAN

DOCUMENTED: 1/30/09 Revised:

ELEMENT TITLE:

Native Hawaiian/Pacific Islander (1997 Standard)

DEFINITION: The student's response to the Native Hawaiian/Pacific Islander question of the multi-race question of the 1997 two-question format. The data can be directly from the student response (preferred method), an institution mapping of the old 1977 standard or possibly by observer declaration depending upon the data and the institutions procedures.

FORMAT: alphanumeric - 1 character may be blank

CODES: Y = yes to the Native Hawaiian/Pacific Islander category
blank = not answered or declared

COMMENTS: Only for the one single Native Hawaiian/Pacific Islander category. See 2010 Reporting Revisions Recommendations document for more information.

RELATED TO: Multi-race for 1997 Standard, US Citizenship, Ethnicity (1997)

GLOSSARY: NATIVE HAWAIIAN/PACIFIC ISLANDER (1997)

SYSTEMS: EIS,DIS,HGS,TSS,EDS,FAIS

SYSNAME: RNHPI

DOCUMENTED: 1/30/09 Revised:

-DD26.5-

MARYLAND HIGHER EDUCATION COMMISSION

Degree Information System

Errata Sheet

June, 2008

The following changes relate to the Identification Number Type:

1. Change to (Page 9) Table 1 Record Format
The following is changed from:

Blank	Blank	Card Column 21

To:

Identification Number Type	**Card Column 21**

A Code to indicate whether an actual SSN or ITIN or an institution assigned student number was used (only if SSN or ITIN not available).

Blank = Valid Social Security or Individual Taxpayer Identification Number.

2 = Assigned identification number. A student identifier must be unique to the student within the institution and traceable across multiple years of the institution data records.

2. Add to Appendix B Data Element Definitions (Page 27)
Identification Number Type and the following definition.

ELEMENT TITLE: Identification Number Type

DEFINITION: An indicator that determines whether the identification number is based upon a valid social security number(SSN) or individual taxpayer identification number (ITIN) or an institution assigned substitute number in lieu of SSN.
FORMAT: numeric - 1 digit - blank valid
CODES: blank = valid social security number or ITIN
2 = assigned identification number
COMMENTS: An assigned substitute number is only used for students for whom the institution has no social security number or ITIN. In older EIS and DIS there may be an additional code of 1 and 3 which means the same as blank. A student identifier must be unique to the student within the institution and traceable across multiple years of the institution data records.
RELATED TO: Identification Number
SYSTEMS: TSS,HGS,EIS,DIS
DOCUMENTED: 1/10/77 Revised: 11/1/95

DEGREE INFORMATION SYSTEM

ERRATA SHEET

MAY 2001

With the reorganization of higher education in 1988, the Maryland Higher Education Commission (MHEC) was created to replace the State Board for Higher Education (SBHE) as the agency responsible for statewide coordination of higher education. All references in this document to SBHE now refer to MHEC.

HEGIS Taxonomy Code and Suffix – The reporting of the programs of study will follow existing conventions as documented in manual for the 1981 HEGIS collection. Starting with the 1982 HEGIS reporting, the programs and suffixes will be determined by the recently created SBHE Program Inventory. All institutions should report only programs and suffixes contained in the inventory on the degree tape.

Cumulative GPA – This field has been added to positions 64-66 of DIS record. It is required for two-year colleges starting in fall of 2001. Version 2 DIS software is available from MHEC. The field is the student's grade point average (based on four point system) at the time of highest degree awarded. Format is numeric 3 digits, implied decimal 9V99 but blank field is valid for missing data. Zero-filled is not valid.

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PURPOSE

The Degree Data Tape has been designed to replace SBHE-D "Degrees and Formal Awards" and NCES 2300-2.1A "Degrees and Other Formal Awards" on which institutions have annually reported degrees awarded during the previous fiscal year. Selected characteristics of students receiving degrees are recorded on computer tape and submitted in a common format so that institutional and statewide reports can be efficiently generated. The data also provides needed information to determine completion status for retention studies using previously collected student enrollment records (The Enrollment Information System - EIS).

SYSTEM DESIGN

Each institution is provided several computer programs, written in COBOL, which can be used on institutional computers to create an edited output tape with a standard format and common codes for the needed data elements. A program which produces a report facsimile of the SBHE-D report is also provided each school so that an institutional copy of this report can be produced for the school's review and for the school's file. These programs are briefly described below.

A. The Translation-Edit Program

1. Assumes the needed data for each student is contained in an institutionally unique computerized student record; that several student data files which contain this information are combined into a single data file; or that the data can be conveniently entered into a data file from a roster of graduates.
2. Reads the institution's file and creates an output tape with a standard student record file containing the selected data elements.

3. Translates the institutionally unique codes for the data elements into a statewide standard coding system.
4. Scrambles the student identification code on the institution tape to a code which allows the Degree Tape record to be matched with the previously collected EIS tape record.
5. Allows a place in the program for the institution to control input records processed and multiple degrees awarded.
6. Checks the records for the proper range of responses.
7. Checks the completeness of each record based on position.
8. Provides an edit report of any errors which might have been encountered.
9. Provides a frequency count for each data element on the tape.

B. The Multiple Degree Reformat Program converts the standard statewide record into a format which will allow the Report Generating Program to count multiple degrees.

C. The SBHE-D Report Generator

Provides a printed output to each school which is similar to the previously submitted SBHE-D Report of Degrees by Race and Sex for the programs offered by each school.

The design of this system at the institutional level is illustrated in Figure 1.

Figure 2 illustrates the steps which occur after the tapes from all institutions are submitted to SBHE. Tapes for the schools are read, edited if necessary after consultation with the institution, and a master file is created. An Internal Report Generator can then aggregate the data by program, institution, segment, region or State in order to facilitate planning and reporting the data to local, state and federal audiences. A second program aggregates the data by program and institution into the NCES 2300-2.1A report format and SBHE directly provides NCES with a computer tape containing the degree reports of all the Maryland schools in the HEGIS system.

GENERAL INSTRUCTIONS

1. Inclusive Dates. Report only those degrees and formal awards which were actually conferred between July 1 of the previous year and June 30 of the current year. Degrees earned but not yet conferred during this time period should be reported in next year's survey.

2. Each institution, branch, campus or other entity separately certified by the federal Division of Eligibility and Agency Evaluation (DEAE) of the U.S. Office of Education, with its own FICE Code, and listed separately in the Educational Directory, Colleges and Universities, should be reported on a separate tape and not included or combined with any other such certified units.

3. Major Changes in Degrees Awarded. If the number or types of degrees you report in any area is significantly larger or smaller than the number you reported last year, it will be most helpful if you will include explanatory notes on an accompanying sheet of paper in order to expedite editing.

4. Use the HEGIS Taxonomy Codes which you have previously used on the Enrollment Information System Tape and on the SBHE-D forms. A print-out of the previously reported programs and codes used by your school will be sent upon request.

FIGURE 1

Institutional Level of Degree Tape System

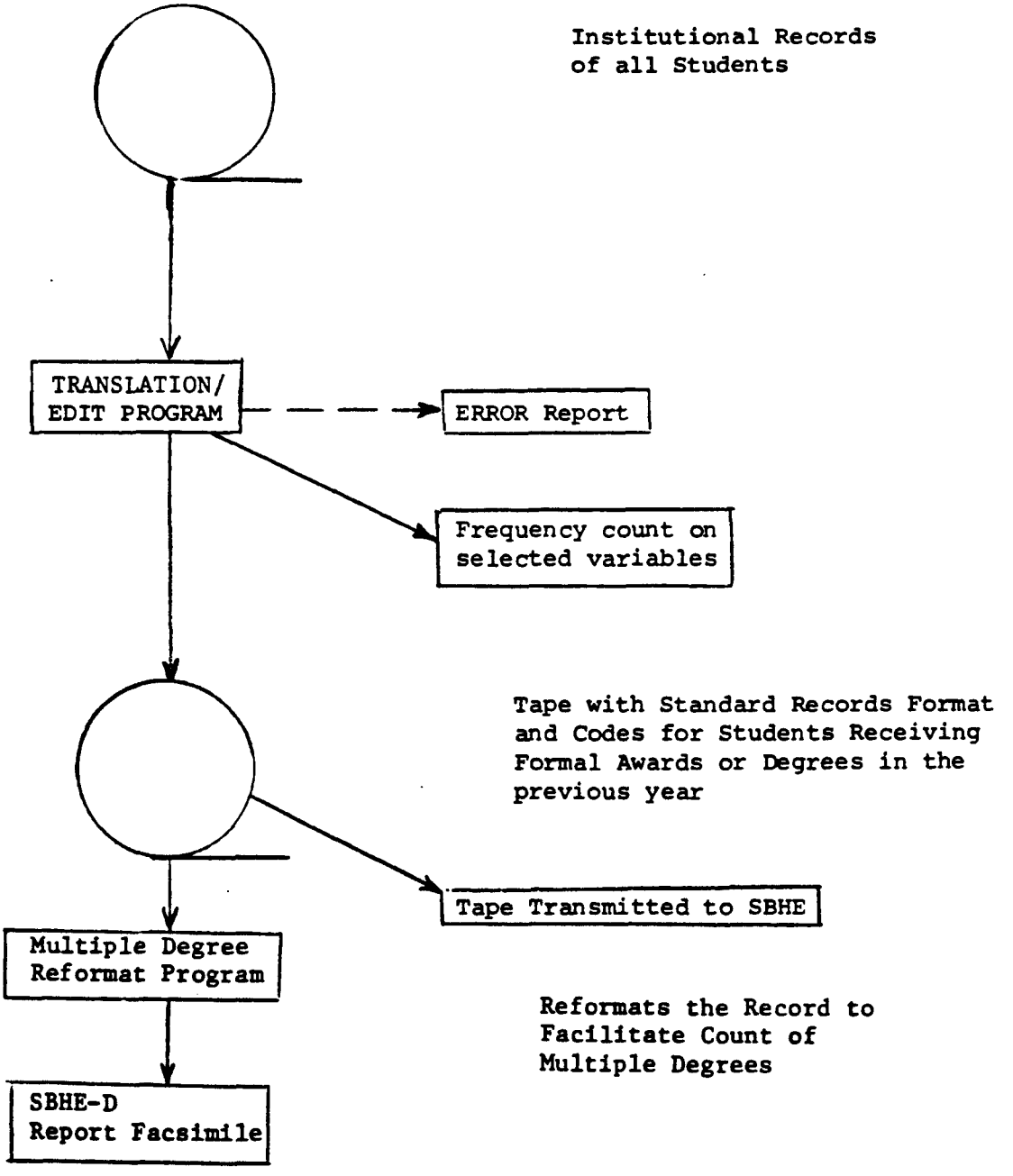
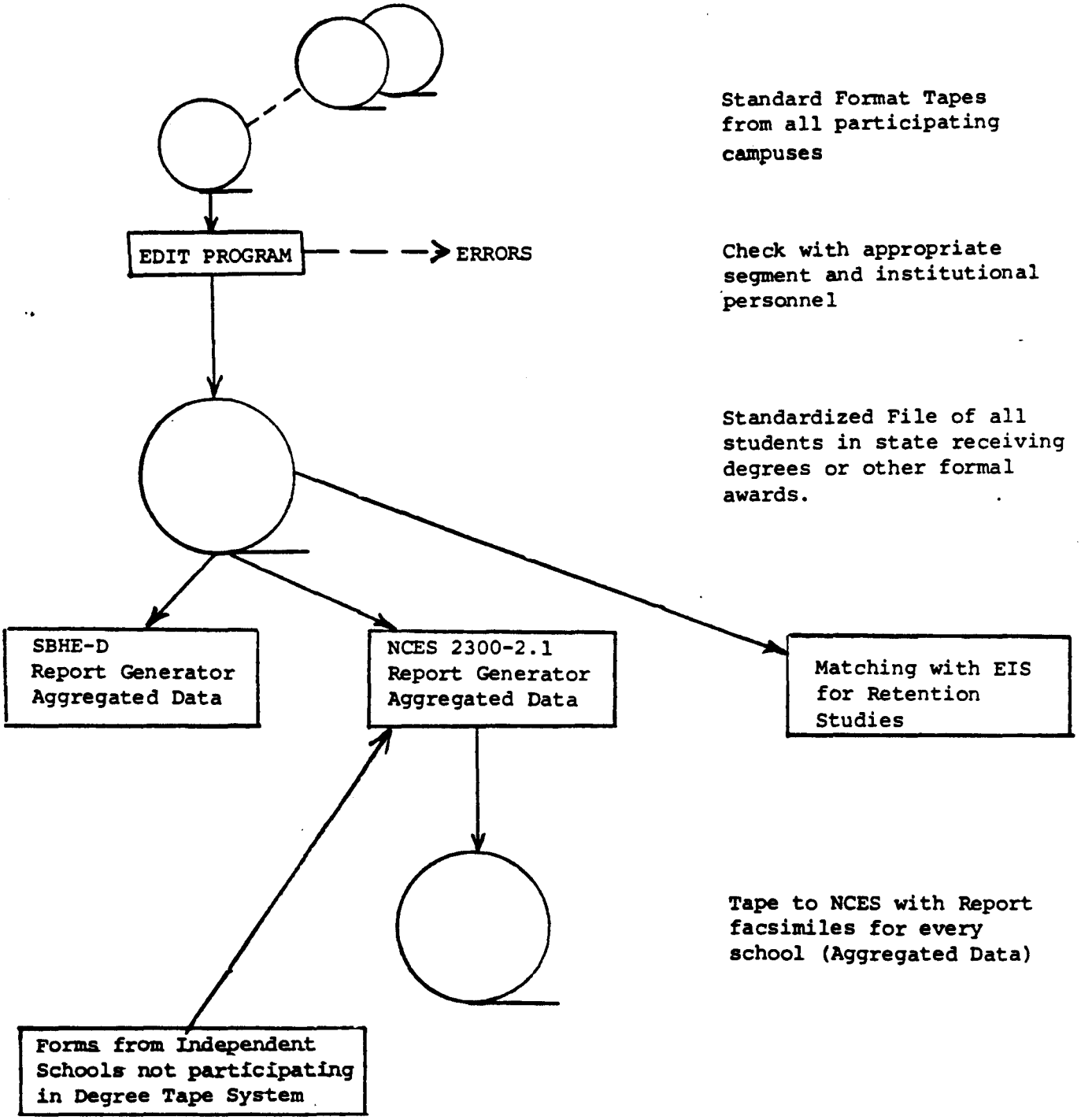


FIGURE 2

State Level Design of Degree Tape System



RECORD KEEPING AND VERIFICATION OF REPORTS

As part of an order in the Adams vs. Califano litigation, insititutions receiving Federal financial assistance are required to keep copies of this completed survey on file and make it available to the public on request. (Order, December 29, 1977, K. 28. at p. 20-21.)

The SBHE-D report generated by the software supplied to each school by SBHE should be reviewed for accuracy and completeness prior to submiting the tape to SBHE. The accuracy and completeness of the data tape should be verified by an institutional official and the certificate form located on page 21 should be signed and submitted with the tape. A copy of the tape submitted to SBHE and of this report should be kept by each school. SBHE, before submitting the statewide NCES 2300-2.1A tape to NCES will print form facsimiles of each school's report and send each school a copy of this report to be kept in their files.

RECORD FORMAT AND DATA DEFINITIONS

Table 1 contains the record format and the standard codes for the Degree Tape. Extended explanations of the codes for several of the data elements are contained in Appendix B "Data Element Definitions."

The record format has provisions for a student earning more than one degree during the reporting period and for reporting multiple majors. The data record for each student can accommodate up to five degrees. Multiple majors can be reported by using a "99" code for the second degree and reporting the HEGIS program code of the second major. (Appendix C)

The NCES 2300-2.1A Report, which SBHE submits to NCES on a tape, requires that double or split majors be reported only in the area of primary specialization. SBHE will use the first major in the student record for reporting to NCES.

In the case of multiple degrees earned by one student in the reporting period, each degree and its accompanying program will be included in the NCES and the SBHE-D reports.

Table 1

Record Format for Degree Data Tape

Data Element	Description	Card Column
MONTH	01-12 Calendar Month the Highest Degree was Conferred.	1-2
YEAR	Calendar year in which degree was conferred. (eg., 80=1980)	3-4
FICE	Federal Interagency Code for College (FICE codes for higher education institutions in Maryland are included in Appendix B).	5-10
CAMPUS CODE	One digit suffix to FICE code for branches, campuses and other organizational entities not separately certified (optional).	11
STUDENT ID	Student ID used to code this student on the EIS Tape. (The Degree Translation Program uses the same algorithm to scramble the students' college identification number as that used in the EIS software.)	12-20
BLANK	Blank	21
SEX	1 = Male 2 = Female 3 = Unknown Male Assigned 4 = Unknown Female Assigned (Students with an unknown sex code on the college file will be divided evenly between category 3 and 4 by the Translation-Edit Program.)	22
RACE/ETHNIC	0 = Unknown 1 = Black 2 = American Indian 3 = Asian 4 = Hispanic 5 = White 6 = Non-Resident Alien 7 = Other (See Appendix B)	23

Table 1
(Continued)

Record Format for Degree Data Tape

Data Element	Description	Card Column
HIGHEST DEGREE	Highest degree earned during reporting period. 01 = Certificate below Associate level 02 = A. A. Associate 03 = Bachelor's 04 = Masters 05 = Doctorate 06 = First Professional 07 = Other Undergraduate Certificate 08 = Post-Bacculaureate Certificate 09 = Advanced Graduate Certificate 10 = First Professional Certificate (See Appendix B for descriptions of these categories)	24-25
MAJOR FIELD OF STUDY	Use 4 digit HEGIS Taxonomy Code for the student's primary field of study.	26-29
PROGRAM SUFFIX	Code to uniquely identify a program when more than one program is offered within a single HEGIS code category. Otherwise use 01.	30-31
SECOND DEGREE	Use for multiple degrees or for multiple majors. a. For additional degree use the same codes as above for "Degree" b. For multiple major use a code "99" Only the primary area of specialization will be reported (program reported in card column 26-29) to NCES or counted in the SBHE-D Report in the case of multiple majors.	32-33
SECOND PROGRAM	HEGIS Code for the student's second degree or second/split major.	34-37
PROGRAM SUFFIX-2	Code to identify program when more than one program is offered within a single HEGIS category. Otherwise use 01.	38-39

The record format for each student can accommodate up to 5 degrees and 5 program areas for the year. (See Figure 3 "Coding Sheet Layout.") The columns 32-63 will be used only when multiple degrees or multiple majors are required.

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APPENDIX A

DEGREE INFORMATION SYSTEM

TECHNICAL USER GUIDE

May, 1980

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INTRODUCTION

The Degree Data Tape is a procedure for transmitting degree information on computer tape rather than on a manually completed form. The design of this tape system closely parallels the Enrollment Information System (EIS) currently in use at all public higher education campuses in Maryland.

Each school is supplied computer software which contains three programs written in COBOL. The Translation-Edit Program reads a source file and translates information into standard codes and then performs routine edit checks on the output. The Program also provides for frequency counts of all data elements. The Multiple Degree Reformat Program converts the standard statewide record into a format that will allow the Report Generating Program to count multiple degrees. A Report Generating Program is provided which summarizes the data into the SBHE-D report form.

Inclusive Dates

Report only those degrees and other formal awards which were actually conferred between July 1 of the previous year and June 30 of the current year. Degrees earned but not yet conferred during this time period should be reported in next year's survey.

Prepare Input File

DEG-FILE is the college student file which should contain one record for each student with all the pertinent data for the SBHE-D data tape. However, the data can still be in the coding structure used by the college since the program supplied by SBHE can read this file and translate the data to a common structure and codes. Remove the cards from the Translation program with the file description for the DEG-FILE. Reorder these cards to match the order of the fields in your input file and then put in the proper field lengths in the picture clause. Add filler cards where necessary.

If special coding is necessary to manipulate your data before this translation, add the coding in the Edit-Start paragraph of the TRANS-EDIT section.

If students who have received a degree are included in a college data file which contains students who have not received an award, the Translation-Edit Program must be modified so that only the subset with degrees are processed by the program.

Prepare the Control Card

This is a single card which precedes the Translation Tables. It is the first card read by the program.

Columns 1-4	ID = "CNTL"
5-8	NUM-RCDS - Number of input records to be read. If blank, read to end of file.
9-10	LINE-PAGE = Lines to be printed in each page.
11	TAPE-SW = "T" if tape is to be written. Blank if no tape is to be written.
12-16	MUST BE BLANK
17-20	FICE-CD = 6 digit USOE code for institution.
23	CAMPUS-CD = Optional, for identification of internal campus divisions.
24-31	DATE = Run date e.g., "08/27/80"
32-61	NAME = Institution and/or run name.

Prepare the Translation Tables

TRANSFILE is the file containing the Translation Tables necessary to convert institutional codes to the standard codes and to reformat a college student data file. For example, a degree in marketing at a community college which is coded "MKTG" on the college data file must be converted to "500400" for standard HEGIS reporting. This conversion is accomplished by including a card in the TRANSFILE to instruct the program

to change all "MKTG" to "500400."

This file is read by the Translation-Edit programs each time they are run. It must be sorted on Column 1-4 in the following required sort sequence:

"DEGR" for In-Degree-Awarded

"PROG" for In-Program-CD

"RACE" for In-Racial Category

"SEX" for In-Sex

The format for the cards in this file is:

Column 1-4	The Field being translated: "DEGR" "PROG" "RACE" "SEX"
Column 5-14	The lowest input value to be converted to the standard value.
Column 15-24	The highest input value to be converted to the standard value.
Column 25-34	The standard code to which any value falling in the above range is converted.

Examples of translation cards might be:

DATA ELEMENT 1-4	5-14	DEG-FILE Code 15-24	DEGREE TAPE Code 25-34	Explanation
DEGR	BACHELORS	BACHELORS	3	School's Code for B.A. Degree is re-coded 03.
PROG	MKTG	MKTG	500400	School's Code for Marketing is coded 500400

Note that the "PROG" card translates to a 6 digit number consisting of a 4 digit HEGIS number plus a 2 digit suffix. HEGIS program codes used in previous years on the EIS tape and on SBHE-Report D will be sent by SBHE to your school upon request. New programs are usually assigned HEGIS codes and suffixes by the segment boards.

Please note that unknown programs and degrees are not allowed for the degree tape. All other fields use zero "0" (not blank) to denote data unknown. A translation card may be necessary to convert blanks to zeroes for fields where blanks are encountered.

The program, as distributed, allows for 300 Translation cards. If you have more than 300 Translation cards change the "occurs" value for TRANS-ITEM under TRANS-DATA in working storage and the test for TRANS-RCD-CNT in the LOAD-TRANS Tables paragraph of the Translation tables section.

Standard Program Codes

HEGIS codes for degrees have usually been assigned to programs at your school by your campus or segment in previous years. If new programs are added, the names of programs changed, or if new HEGIS codes are assigned please footnote those changes in a cover letter sent with the tape.

Program Modifications

These steps may be necessary to adapt the program to your installation or input file needs.

1. "TOP-OF-PAGE" is used for a printer slew to a new page. Define this under special names as necessary.
2. Remove the cards from the program deck with the file description for the DEG-FILE. These cards will be used to describe your input file. Reorder the cards to match the order of the fields in your input file. Put the proper field lengths in the picture clause and add filler cards as necessary.
3. Special coding may be necessary to construct a required data field using inputs from 2 or more fields, to bypass records of students not awarded degrees in the reporting period, or to add multiple degrees to standard output record. This coding can be added in the edit start paragraph of the trans-edit section of the program.
4. Change the file selection, tape label and recording mode as necessary.

CHECK THE OUTPUT

The TRANSLATION-EDIT program provides a detailed edit output of errors encountered in a student record. These errors can generally be fixed by adding additional translation cards to the translation file or by making necessary corrections in the input files.

The TRANSLATION-EDIT program also prints a summary edit report of the TRANSLATION output. When this report is free of errors a frequency count of all variables are printed which should be checked for consistency with other institutional records.

NEVER FORWARD THE TAPE TO SBHE UNTIL ALL ERRORS REPORTED BY THE EDIT PROGRAM HAVE BEEN CORRECTED AND THE EDIT PROGRAM HAS BEEN RUN ERROR-FREE.

RUN THE SBHE-D REPORT GENERATING PROGRAM

This program generates the SBHE Report "D" which has been filled out by hand in previous years. The following steps need to be followed to generate this report.

A. TRANSLATION-EDIT PROGRAM

1. Run the TRANSLATION-EDIT Programs until there are no errors in the data file.
2. The error-free output of TRANSLATION-EDIT Programs is STND-DEG-FILE which will contain one record for each student who has received a degree(s) during the reporting year.

B. MULTIPLE DEGREE REFORMAT PROGRAM

1. STND-DEG-FILE must be converted so there is one record for each degree conferred rather than one record per student. This program is necessary in order to count multiple degrees of a single student.
2. Program Modifications
   a. Change the 'selects' section as necessary for your installation.
   b. Change the tape label and recording modes as necessary.
   c. TOP-OF-PAGE is used for a printer slew to a new page. Define this under special names as necessary.
3. REPT-FILE is the output printer file. It will produce control counts of number of students (records in standard degree file) and number of degrees (total all degrees awarded).
4. MSTND-DEG-FILE is the output file in the standard format except it will contain one record for each degree awarded. Therefore, a student who received multiple degrees in the reporting period will have a record for each degree.

C. SORT UTILITY

1. The output file of the Multiple Degree Reformat program (MSTND-DEG-FILE) must be sorted by Program-CD (column 26-31) within Degree Awarded (24-25).

D. SBHE-D REPORT GENERATOR PROGRAM

1. REPT-CT is the control card that must be added to the Report Generating Program. The first 4 columns should contain 'TITL'. The next 30 characters will be displayed in the title.
2. Program Modifications
   A. Change the 'selects' section as necessary for your installation.
   b. Change the tape label and recording modes as necessary.
3. The program uses the output file of the Multiple Degree Reformat Program (sorted by program and degree). This sorted file is read into the SBHE-D Report Program as the STND-DEG-FILE.
4. REPT-FILE is the output printer file. This file is the institutional copy of the SBHE-D report and allows the college to see what their report would look like if it had been prepared manually. It is for use on the campus.

SUBMITTING THE DATA TO SBHE

Before submitting the tape, this SBHE-D report should be reviewed by the registrar, the director of institutional research or other administrators who can compare this report with other institutional records and verify the accuracy and completeness of the data.

The data may be submitted on 80-column cards or on magnetic tape. If tape is used, the following specificatins are preferred. Records must always have a length of 80 characters (logical record length).

Preferred Tape Specifications

1. Unlabeled
2. ASCII character format
3. 8000 character physical blocksize (blocking factor 100)
4. At least one end-of-file mark following last data record.
5. 9 Track
6. Even parity
7. 1600 BPI

Please complete the following form and return with the cards or tape each year. Keep a copy of the tape, the SBHE-D report and the college file (DEG-FILE) from which this tape was produced.

The Degree Data Tape, the Tape Specification Form, the Certification Letter, a copy of the SBHE-D Report generated from this tape and footnotes explaining major changes in the number or type of degrees should be sent to:

DEGREE Information System
State Board for Higher Education
ATTN: Dan McConochie
16 Francis Street
Annapolis, Maryland 21401

Date Submitted _____

Due Date: October 15

TAPE SPECIFICATIONS

DEGREE DATA TAPE

(Please complete this form each year and return it with the Degree Data Tape.)

Name of Institution: _____

FICE Code: _____

Person whom we may contact if we have problems:

Name: _____

Department or Office: _____

Phone: _____

Number of records in data base _____

(Must equal number of students receiving degrees or other formal awards) _____)

Name and model of computer used: _____

Character format (e.g. BCD, EBCDIC, ASCII) _____

If magnetic tape is being submitted, please answer the following questions:

7 or 9 track? _____

Even or odd parity? _____

800 or 1600 BPI? _____

Tape label or label omitted? _____

If label-characteristics of label? _____

Block-size (physical record length)? _____

Address to which you wish to have tape returned:

_____

_____

_____

_____

Degree Information System
Maryland State Board for
Higher Education
16 Francis Street
Annapolis, Maryland 21401

Enclosed is the Degree and Formal Awards Data for the period _____ to _____ in the standard State Board for Higher Education record format and prepared in accordance with SBHE instructions and data definitions.

I certify that the information submitted on this tape and summarized in the attached SBHE-D Degrees and Other Formal Awards Report is correct and true to the best of my knowledge.

Name (Type or Print)	Title	Date
Signature	Phone	

APPENDIX B

DATA ELEMENT DEFINITIONS

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FICE CODES

Each Institution, Branch, campus center administration office, or other entity separately certified by the Division of Eligibility and Agency Evaluation of the U.S Office of Education, with its own FICE code, and listed separately in the Education Directory - Colleges and Universities, should be reported separately and not included or combined with any other such certified unit. Branches, campuses and other organizational entities not separately certified should be included with the appropriate institution or branch report.

Code	Type	Institution
	COMMUNITY COLLEGES	
002057		ALLEGANY COLLEGE OF MARYLAND
002058		ANNE ARUNDEL COMMUNTIY COLLEGE
002061		BALTIMORE CITY COMMUNITY COLLEGE
031007		CARROLL COMMUNITY COLLEGE
008308		CECIL COMMUNITY COLLEGE
004650		CHESAPEAKECOLLEGE
002064		COLLEGE OF SOUTHERN MARYLAND
002063		COMMUNITY COLLEGE OF BALTIMORE COUNTY
002071		FREDERICK COMMUNITY COLLEGE
010014		GARRETT COLLEGE
002074		HAGERSTOWN COMMUNITY COLLEGE
002075		HARFORD COMMUNITY COLLEGE
008175		HOWARD COMMUMTY COLLEGE
006911		MONTGOMERY COLLEGE
002089		PRINCE GEORGE'S COMMUNTIY COLLEGE
020739		WOR-WIC COMMUNITY COLLEGE
	UNIVERSITY SYSTEM OF MARYLAND	
002062		BOWE STATE UNIVERSITY
002068		COPPIN STATE UNIVERSITY
002072		FROSTBURG STATE UNIVERSITY
002091		SALISBURY UNIVERSITY
002099		TOWSON STATE UNVERSITY
002102		UNIVERSITY OF BALTIMORE
002104		UNIV OF MD, BALTIMORE
002105		UNlV OF MD, BALTIMORE COUNTY
002103		UNIV OF MD, COLLEGE PARK
002106		UNIV OF MD, EASTERN SHORE
011644		UNIV OF MD, UNIVERSITY COLLEGE
007959		UNIV OF MD, CENTRAL ADMINISTRATION
907959		UNIV OF MD, CTR FOR ENVIRON SCI
997959		UNIV OF MD, BIOTECHNICAL INSTITUTE

STATE COLLEGES AND OTHER STATE UNIVERSITIES

002083	**MORGAN STATE UNIVERSITY**
002095	**ST. MARY’S COLLEGE OF MARYLAND**

RACIAL/ETHNIC DATA

The Office of Civil Rights instructions for the categories are:

0 = Unknown

1 = Black, non-Hispanic. A person having origins in any of the black racial groups of Africa (except those of Hispanic origin).

2 = American Indian or Alaskan Native. A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.

3 = Asian or Pacific Islander. A person having origins in any of original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands, and Samoa.

4 = Hispanic. A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

5 = White, non-Hispanic. A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).

6 = Non-resident alien. A person who is not a citizen of the United States and who is in this country on a temporary basis and does not have the right to remain indefinitely.

7 = Other

Resident aliens, non-citizens who have been lawfully admitted for permanent residence (and who hold a "green card" - Form I-151), are to be reported in the appropriate racial/ethnic categories along with United States citizens.

DEGREE CODES

General Instructions:

If a student has received two or more degrees during the year the highest degree should be reported first, i.e. if a student has received both a Bachelors and Masters Degree, the Masters Degree should be reported in Column 24-25 and the Bachelor's Degree in column 32-33.

If a student has received both an associate degree and a certificate for the same 2 year curriculum, only the Associate Degree will be reported to NCES.

Definitions of the degree categories follow:

01. Below Associate Level

02. Associate Degree (A.A.)

03. Bachelors - Report all bachelor's degrees requiring at least four (4) years but not more than five (5) years of academic work. Report certificates and diplomas if they are equivalent to a bachelor's degree and if they are based on at least four (4) years of college work.

04. Masters - The master's degree in liberal arts and sciences is the degree customarily granted upon successful completion of one (sometimes two) academic years of work beyond the bachelor's degree.

    Report all master's degrees even though the master's is required in some fields, such as Library Science, and Social Work, for employment at the professional level. Report Education Specialist (6-year degree) in this category.

05. DOCTORATE. The doctorate classification includes such degrees as Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, and the Ph.D. degree in any field whether Agronomy, Food Technology, Education, Engineering, Public Administration, Ophthalmology, Radiology, etc.

(DO NOT REPORT HONORARY DEGREES)

06. First Professional - A first-professional degree is defined by NCES as one which meets all three of the following criteria:

(1) it signifies completion of the academic requirements to begin practice in the profession; (2) it is based on a program which requires at least 2 years of college work prior to entrance; and (3) a total of at least 6 academic years of college work is required to complete the degree program, including prior required college work plus the length of the professional curriculum itself. Examples are:

Dentistry (D.D.S. or D.M.D. degree)
Osteopathic medicine (D.O. degree)
Medicine (M. D. degree)
Optometry (O.D. degree)
Podiatry (Pod. D. or D. P. degree)
or podiatric medicine
(D.P.M. degree)
Pharmacy (D. Phar. degree)
Theological professions, general (M. Div.,
M.H.L., or other first-professional
degree).
Chiropractic (D. C. degree)
Law, general (LL.B or J.D. degree)

07. Upper Division Undergraduate Certificate

08. Post-Bachelor's Certificate

09. Advanced Graduate Certificate - Any recognition (degree or certificate) for a program intermediate between the master's degree and the doctor's degree (Ph.D., Ed.D., etc.) which in essence is the doctor's degree without the dissertation (for example, Master of Philosophy, Candidate-in-Philosophy, etc., do not include 6-year specialist degrees).

10. First-Professional Certificate.

APPENDIX C

CODING SHEET LAYOUT

The attached coding sheet can be copied and used to prepare the data input file if an institution does not presently have a computerized student record file with the necessary data elements.

The columns 32-63 would be used only when multiple degrees or multiple majors are reported.

If the data has to be submitted in code sheet format or on cards, SBHE or the appropriate segment data processing center will run the TRANSLATION-EDIT program and return a copy of the SBHE-D Report to the institution.

APPENDIX C

STATE BOARD FOR HIGHER EDUCATION
CONFERRED DEGREES AND OTHER FORMAL AWARDS
JULY 1, 19__ - JUNE 30, 19__

- Coding Sheet -

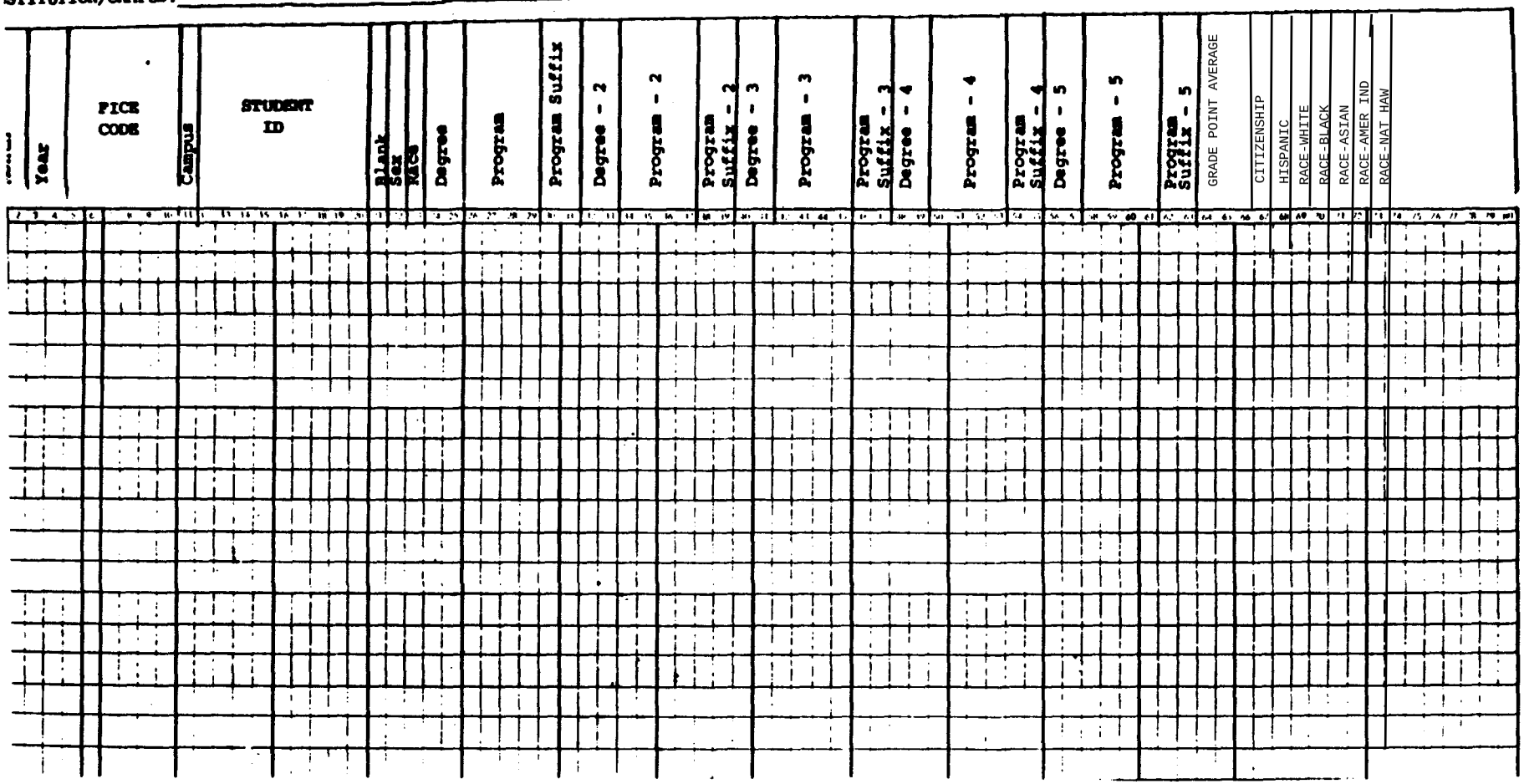
INSTITUTION/CAMPUS: _____ Page: __ of __

Month	Year	FICE CODE	Campus	STUDENT ID	Blank	Sex	Race	Degree	Program	Program Suffix	Degree - 2	Program - 2	Program Suffix - 2	Degree - 3	Program - 3	Program Suffix - 3	Degree - 4	Program - 4	Program Suffix - 4	Degree - 5	Program - 5	Program Suffix - 5	
1 2	3 4	5 6 7 8 9 10	11	12 13 14 15 16 17 18 19 20	21	22	23	24 25	26 27 28 29	30 31	32 33	34 35 36 37	38 39	40 41	42 43 44 45	46 47	48 49	50 51 52 53	54 55	56 57	58 59 60 61	62 63	64 65 66 67 68 69 70 71 72	73 74 75 76 77 78 79 80

APPENDIX C

STATE BOARD FOR HIGHER EDUCATION
CONFERRED DEGREES AND OTHER FORMAL AWARDS
JULY 1, 19__ - JUNE 30, 19__

- Coding Sheet -

Page: __ of __

STITUTION/CAMPUS: _____