

Higher Education Proposed Formula Funding Concepts

October 2012

Funding Framework

- Student Credit Hour
 - A successful completion of a student credit hour is considered a letter grade of D or above.
 - Measures progress towards graduation.
- 3 Factors
 - Classification of Instructional Programs (CIP)
 - Physical Plant
 - Credit Volume
- Adjusted Student Credit Hour
- General Fund Base Operating Budget

FORMULA

Funding Formula

$$\begin{array}{c}
 \text{Base \$\$} \\
 \text{Amount} \\
 \text{Per Student} \\
 \text{Credit Hour}
 \end{array}
 \times
 \begin{array}{c}
 \text{Adjusted Student Credit Hour} \\
 \hline
 \begin{array}{l}
 \text{Weighted Student Credit Hour (WSCH)} \\
 \hline
 (\text{Completed Student Credit Hour} \times \text{CIP Factor}) \times \text{Physical Plant Factor} \times \text{Credit Volume}
 \end{array}
 \end{array}
 =
 \begin{array}{c}
 \text{General Fund} \\
 \text{Base} \\
 \text{Appropriation} \\
 \text{per Institution}
 \end{array}$$

<u>CIP Factor</u>	<u>Physical Plant Factor</u>	<u>Credit Volume Factor</u>
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FORMULA

3 Categories of Factors

1. Categories of Instructional Programs (CIP)
2. Credit Volume
 - Based upon completed Student Credit Hours
3. Physical Plant Requirements

FORMULA

CIP Factor

- The Classification of Instructional Programs (CIP) provides a standardized coding that supports the accurate tracking and reporting of fields of study and program completions activity. CIP was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES) in 1980, with revisions occurring in 1985, 1990, 2000 and 2010.
- Based upon the actual 2009-11 historical costs of education.
- Grant funds, auxiliary, indirect, federal and other sources of the cost of education not factored in.
- Salaries and all instructional costs included.
- Excludes capital investment.
- Two main cost drivers
 - Course discipline
 - Level of instruction

FORMULA

CIP Factor Continued

DISCIPLINE CLUSTERS	STUDENT CREDIT HOUR WEIGHTING MATRIX						WEIGHTED SCH
	ELEMENTS	LOWER DIV	UPPER DIV	PROFESSIONAL	GRADUATE	MD	
Agriculture	09-11 SCH	-	-	-	-	-	-
	Cost Factor	1.9	3.8	5.7	7.6	-	
	Weighted SCH	-	-	-	-	-	
Architecture	09-11 SCH	-	-	-	-	-	-
	Cost Factor	1.8	3.6	5.4	7.2	-	
	Weighted SCH	-	-	-	-	-	
Aviation	09-11 SCH	-	-	-	-	-	-
	Cost Factor	1.9	3.8	5.7	7.6	-	
	Weighted SCH	-	-	-	-	-	
Biological/Physical Science	09-11 SCH	-	-	-	-	-	-
	Cost Factor	1.9	3.8	5.7	7.6	-	
	Weighted SCH	-	-	-	-	-	
Business	09-11 SCH	-	-	-	-	-	-
	Cost Factor	1.9	3.8	5.7	7.6	-	
	Weighted SCH	-	-	-	-	-	
Career/Tech Education	09-11 SCH	-	-	-	-	-	-
	Cost Factor	2.0	-	-	-	-	
	Weighted SCH	-	-	-	-	-	
Education	09-11 SCH	-	-	-	-	-	-
	Cost Factor	1.9	3.8	5.7	7.6	-	
	Weighted SCH	-	-	-	-	-	
Engineering	09-11 SCH	-	-	-	-	-	-
	Cost Factor	2.5	5.0	7.5	10.0	-	
	Weighted SCH	-	-	-	-	-	
Health Sciences	09-11 SCH	-	-	-	-	-	-
	Cost Factor	3.0	6.0	9.0	12.0	38.0	
	Weighted SCH	-	-	-	-	-	
Legal Studies	09-11 SCH	-	-	-	-	-	-
	Cost Factor	3.5	7.0	10.5	14.0	-	
	Weighted SCH	-	-	-	-	-	
Remedial	09-11 SCH	-	-	-	-	-	-
	Cost Factor	2.3	-	-	-	-	
	Weighted SCH	-	-	-	-	-	
Core Disciplines	09-11 SCH	-	-	-	-	-	-
	Cost Factor	1.0	2.0	3.0	4.0	-	
	Weighted SCH	-	-	-	-	-	

Total Completed Student Credit Hrs

-

Total Weighted Student Credit Hrs

-

FORMULA

Physical Plant Factor

$$\frac{\text{Campus Square Footage}}{\text{Weighted Student Credit Hour}} = \text{Ratio}$$

Ratio	Factor
0-4.99	1.0
5-9.99	2.0
10-14.99	3.0
15-19.99	4.0

Institution	Ratio
Bismarck State College	1.57
North Dakota State University	1.92
Lake Region State College	2.01
University of North Dakota	2.11
Mayville State University	2.49
Valley City State University	2.50
Dickinson State College	2.53
Minot State University	2.63
Dakota College at Bottineau	2.93
Williston State College	2.97
North Dakota State College of Science	6.67

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Credit Volume Factor

Factor	Completed Student Credit Hour
1.00	100,000 +
1.05	95,000 - 99,999
1.10	90,000 - 94,999
1.15	85,000 - 89,999
1.20	80,000 - 84,999
1.25	75,000 - 79,999
1.30	70,000 - 74,999
1.35	65,000 - 69,999
1.40	60,000 - 64,999
1.45	55,000 - 59,999
1.50	50,000 - 54,999
1.55	45,000 - 49,999
1.60	40,000 - 44,999
1.65	35,000 - 39,999
1.70	30,000 - 34,999
1.75	25,000 - 29,999
1.80	20,000 - 24,999
1.85	15,000 - 19,999
1.90	10,000 - 14,999
1.95	5,000 - 9,999
2.00	0 - 4,999

Institution	Completed Credit Hours
Dakota College at Bottineau	26,083
Williston State College	29,260
Mayville State University	37,501
Valley City State University	51,713
Lake Region State College	59,858
Dickinson State College	112,746
North Dakota State College of Science	116,059
Minot State University	161,859
Bismarck State College	171,226
University of North Dakota	648,858
North Dakota State University	693,838

Common Questions

- NDSU Agricultural Research & Extension appropriation will not be included in the formula as these functions are not operated or measured on a per credit model.
- UND Medical School does function on a per credit model, and the CIP code factor has been adjusted to reflect those costs.
- The formula has been developed based on the current appropriation and 2009-11 completed credit hours.
- Other prioritized adjustments such as performance outcomes, can be easily incorporated into the formula through the use of a factor. For example, if the desire was to increase the number of degrees completed on-time, a factor could be developed and inserted into the formula to reward achievement.
- Start up costs for a new program or expanded program(s) would be considered for funding in a similar process as capital projects. After the program has enrolled students, the formula would provide the needed funding to sustain the new or expanded program.

[FORMULA](#)

HIGHER EDUCATION PROPOSED FUNDING FORMULA

DRAFT

Institution	Completed Student Credit Hours (SCH) 2009-2011 Actual		Weighted Student Credit Hours (WSCH)	Physical Plant Factor	Credit Volume Factor	Adjusted Student Credit Hours (ASCH)	2011-13 General Fund Base Appropriation
BSC	171,226	Classification of Instructional Program Factor (CIP)	281,745	1.00	1.00	281,745	\$ 28,045,987
DCB	26,083		41,263	1.00	1.75	72,210	\$ 6,605,257
LRSC	59,858		78,639	1.00	1.45	114,027	\$ 9,158,981
NDSCHS	116,059		192,183	2.00	1.00	384,366	\$ 35,198,921
WSC	29,260		49,294	1.00	1.75	86,265	\$ 9,047,486
DSU	112,746		253,455	1.00	1.00	253,455	\$ 22,792,617
MASU	37,501		86,165	1.00	1.65	142,172	\$ 13,134,780
MISU	161,859		392,279	1.00	1.00	392,279	\$ 38,738,594
VCSU	51,713		135,459	1.00	1.50	203,189	\$ 18,103,060
NDSU	693,838		2,022,290	1.00	1.00	2,022,290	\$ 127,747,549
UND	648,858		2,903,224	1.00	1.00	2,903,224	\$ 192,617,021
							\$ 501,190,253