Proposed Rulemaking

Title

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Title 6. Education

Chapter IV. Division of Higher Education, Department of Education

Subchapter A. Generally

Part 376. Value-Based Productivity Funding Model — State-Supported Institutions of Higher Education

Subpart 1. Generally

6 CAR § 376-101. Definitions.

As used in this part:

(1) “Adjustment measure” means a measure that is a part of the value-based productivity funding model related to research and diseconomies of scale;

(2) “Base years” means the second, third, and fourth most recent years of data used to implement the productivity-based funding model;

(3) “Change in productivity index” means the difference between the total outcomes index of the three (3) current years and the total outcomes index of the three (3) comparative years;

(4) “CIP Code” means the first two digits of a six-digit number developed by the U.S. Department of Education's National Center for Education Statistics that serves as the national taxonomic standard for accurately tracking, classifying, and reporting academic programs and field-of-study data.

(5) “Credential” means one of the following:

(A) Certificate of proficiency;

(B) Technical certificate;

(C) Advanced certificate;

(D) Associate degree;

(E) Bachelor's degree;

(F) Postbaccalaureate certificate;

(G) Master's degree;

(H) Postmaster's certificate;

(I) Specialist;

(J) Doctoral degree;

(K) Post-First Professional Certificate; and

(L) Post-First Professional Degree;

(6) "Current years" means the most recent three (3) years of data used to implement the productivity-based funding model;

(7) "Diseconomies of scale" means a percentage increase to scores of two-year institutions serving a small population of students;

(8) "Index score" means the resulting change in productivity index expressed as a percentage;

(9) "Institution" means a state-supported:

(A) Two-year institution of higher education; or

(B) Four-year institution of higher education;

(10) "Gateway Course Success" means a math, English, or reading course that receives additional weight;

(11)(A) "Productivity funding metrics" means the sets of measures used to align institutional funding with statewide priorities for higher education by incentivizing progress toward statewide goals based on effectiveness, affordability, and efficiency.

(B) The productivity funding metrics also include:

(i) Credentials, including return on investment;

(ii) Progression, including Gateway Course Success; and

(iii) Transfer Success;

(12) “Productivity index” means the numerical value given to a three (3) year period to describe the success of an institution of higher education over that three (3) year period;

(13) “Progression” means the progress toward a credential for programs that require more than one (1) semester to complete;

(14) “Research” means an adjustment to the score of four-year institutions to acknowledge their unique mission that is essential to the discovery of new knowledge, innovation, entrepreneurism, and societal, health, and economic development advancements;

(15) “Return on investment” means the amount of time it takes for a college graduate to recover the cost of their post-secondary education and begin earning more than a high school graduate;

(16) “Scaled” means the mathematical process that adjusts the numerical value of a measure to be proportional to the other measures for the purpose of formula weighting; and

(17) “Transfer success” means the efficient and effective transfer of students to encourage collaboration among institutions.

6 CAR § 376-102. Value-based productivity funding model – Funding formula.

(a) The measure used to implement the value-based productivity funding model for state-supported institutions of higher education is the change in productivity index and resulting index score calculated as follows:

(1) The change in the productivity index is determined by subtracting the base years productivity index from the current years productivity index; and

(2) The index score is determined by dividing the change in productivity index by the base years productivity index, then multiplied by one hundred (100) to express the resulting percentage of change.

(b) The base years productivity index is calculated as follows:

(1) The unscaled data is calculated for the following productivity funding metrics categories based on data submitted annually by institutions of higher education:

(A) Credentials, including return on investment;

(B) Progression, including Gateway Course Success; and

(C) Transfer success.

(2) The unscaled data for the three productivity funding metrics listed in subdivision (b)(1) of this section for each two-year institution or each four-year institution is totaled to provide the relevant categorical totals for the productivity funding metrics;

(3) The values of the productivity funding metrics are then scaled by indexing as follows:

(A) The credentials metric receives an index value of 1.00;

(B) The scaling index value for the progression category of the productivity funding metrics is calculated by dividing the categorical totals for the credentials metric by the categorical totals for the progression metric;

(C) The scaling index value for the transfer success category of the productivity funding metrics is calculated by dividing the categorical totals for the credentials metric by the categorical totals for the transfer success metric; and

(D) Each metric for each institution is then multiplied by the respective scaling index values to determine the scaled metrics;

(4) Scaled metrics are then weighted as follows:

(A) The scaled value of the credentials metric is weighted fifty percent (50%) by multiplying the scaled value for the credentials metric by 0.50;

(B) The scaled value for the progression metric is weighted thirty percent (30%) by multiplying the scaled value for the progression metric by 0.30; and

(C) The scaled value for the transfer success metric is weighted twenty percent (20%) by multiplying the scaled value for the transfer success metric by 0.20; and

(5) The weighted sum of the scaled values for the productivity funding metrics categories equals the productivity index for the base years.

(c) The productivity index for the current years is calculated as follows:

(1) The unscaled data is calculated for the following productivity funding metrics categories based on data submitted annually by institutions of higher education:

(A) Credentials, including return on investment;

(B) Progression, including Gateway Course Success; and

(C) Transfer success;

(2) The values of the productivity funding metrics categories for each intuition are scaled by multiplying the values by the respective scaling index calculated for the base years;

(3) Scaled metrics are then weighted as follows:

(A) The scaled value of the credentials metric is weighted fifty percent (50%) by multiplying the scaled value for the credentials metric by 0.50;

(B) The scaled value for the progression metric is weighted thirty percent (30%) by multiplying the scaled value for the progression metric by 0.30; and

(C) The scaled value for the transfer success metric is weighted twenty percent (20%) by multiplying the scaled value for the transfer success metric by 0.20; and

(4)(A) The weighted sum of the scaled values for each productivity funding metrics for an institution equals the productivity index for the current years, unless adjustment is required pursuant to § 376-109 of this part.

(B) If subject to adjustment under § 376-109 of this part, the current years productivity index of an institution shall be adjusted pursuant to that section.

6 CAR § 376-103. Measures.

Measures shall be reviewed every five (5) years, or less, to ensure that productivity funding distribution continues to respond to the needs and priorities of this state.

6 CAR § 376-104. Productivity measures – Summary of measures.

(a) The value-based productivity funding model measures the effectiveness, affordability, and efficiency of an institution through the following productivity funding metrics categories:

(1) Credentials, including return on investment;

(2) Progression, including Gateway Course Success; and

(3) Transfer success.

(b) The metrics are subject to the following adjustments:

(1) For four-year institutions, adjustments shall be made to reflect the value of research at institutions; and

(2) For two-year institutions, adjustments shall be made based on diseconomies of scale.

6 CAR § 376-105. Productivity funding metrics – Credentials.

(a) The credentials metric is calculated as follows:

(1) For each credential issued by the institution, multiply one (1) by the applicable weighting specification associated with the degree level under subsection (b) of this section;

(2) Next, multiply the product of subdivision (a)(1) of this section with the applicable weighting specification associated with years to return on investment under subsection (c) as defined by the CIP code of the degree specified in Appendix A;

(3) Next, add the product of subdivision (a)(1) of this section and subdivision (a)(2) of this section;

(4) Next, multiply the sum of subdivision (a)(3) of this section with total number of applicable weighting specifications associated with each student earning the credential based on the student's characteristics described under subsection (d);

(5) Next, add the sum of subdivision (a)(3) of this section and the product of subdivision (a)(4) of this section;

(6) Next, add the sum of subdivision (a)(5) of this section for each credential issued by the institution together to equal the sum of the credential metric for the institution in an academic year; and

(7) The credentials metric for a three-year period shall be the average of the credential metric for the institution in those three (3) academic years.

(b)(1) A credential at a two-year state supported institution of higher education shall be given the following weight:

(A) The weight of 1.00 shall be given to a certificate of proficiency;

(B) The weight of 2.00 shall be given to:

(i) A technical certificate; and

(ii) An advanced certificate; and

(C) The weight of 3.00 shall be given to an associate degree.

(2) A credential at a four-year state supported institution of higher education shall be given the following weight:

(A) The weight of 0.50 shall be given to a certificate of proficiency;

(B) The weight of 1.00 shall be given to:

(i) A technical certificate;

(ii) An advanced certificate;

(iii) A Postbaccalaureate certificate;

(iv) A Postmaster's certificate;

(v) Post-First Professional Certificate;

(vi) Post-First Professional Degree; and

(vii) Specialist.

(C) The weight of 2.00 shall be given to an associate degree;

(D) The weight of 4.00 shall be given to a bachelor's degree;

(E) The weight of 5.00 shall be given to a master's degree; and

(F) The weight of 6.00 shall be given to a doctoral degree.

(c) A credential shall be given the following weight based on the years necessary for the investment in the credential to return a financial benefit based on the investment:

(1) The weight of 1.75 shall be given to a credential with a return on investment not more than two (2) years;

(2) The weight of 1.50 shall be given to a credential with a return on investment greater than two (2) years but not more than four (4) years;

(3) The weight of 1.25 shall be given to a credential with a return on investment greater than four (4) years but not more than six (6) years;

(4) The weight 1.00 shall be given to a credential with:

(A) A return on investment greater than six (6) years but not more than eight (8) years;

(B) A cohort of less than four (4) members, and

(C) No return on investment data available; and

(5) The weight of 0.00 shall be given to a credential which fails to provide a return on the investment to obtain the credential within eight (8) years.

(d) A credential shall be given weight based on the sum of the student characteristic weights described below which are applicable to the student earning the credential:

(1) The weight of 1.00 shall be given to all students;

(2) The weight of 0.25 shall be given to:

(A) First generation students;

(B) Adults between the ages of twenty-five (25) and fifty-four (54); and

(C) Students with underserved income.

(e) The credentials metric is weighted at fifty percent (50%) of the formula.

6 CAR § 376-106. Productivity funding metrics – Progression.

(a) For programs requiring more than one (1) semester to complete, progression toward a credential shall be measured using the following calculation:

(1) For each student, take the sum of the progression goals each student has achieved under subsection (b) of this section;

(2) Multiplying the sum of subdivision (a)(1) of this section by the total number of weighting specifications applicable to that student under subsection (c) and subsection (d) of this section;

(3) Adding the number of progression goals under subdivision (a)(1) of this section to the product under subdivision (a)(2) of this section; and

(4) The progression metric for a three-year period shall be the average of the progression metric for the institution in those three (3) academic years.

(b)(1) For a two-year institution of higher education, a student achieves one (1) progression goal upon completion of the following milestones:

(A) The accumulation of fifteen (15) hours;

(B) The accumulation of thirty (30) hours; and

(C) The accumulation of forty-five (45) hours.

(2) For a four-year institution of higher education, a student achieves one progression goal for completion of the following milestones:

(A) The accumulation of fifteen (15) hours;

(B) The accumulation of thirty (30) hours;

(C) The accumulation of forty-five (45) hours;

(D) The accumulation of sixty (60) hours; and

(E) The accumulation of ninety (90) hours.

(c) A credential shall be given weight based on the sum of the student characteristic weights described below which are applicable to the student earning the credential:

(1) The weight of 1.00 shall be given to all students;

(2) The weight of 0.25 shall be given to:

(A) Students with underserved academics;

(B) Adults between the ages of twenty-five (25) and fifty-four (54); and

(C) Students with underserved income.

(d) A credential shall be given weight based on the sum of the Gateway Course Success class weights as follows:

(1) The weight of 0.25 shall be given to:

(A) Math;

(B) English; and

(C) Reading.

6 CAR § 376-107. Productivity funding metrics – Transfer – Two-year.

(a) The transfer measure for a two-year institution of higher education shall be calculated as follows:

(1) The sum of the total number of students who transfer successfully from the two-year intuition to a four-year institution with:

(A) Thirty (30) hours of Arkansas Course Transfer Systems courses; or

(B) An associate degree;

(2) Each successful transfer shall be given weight based on the achievement at the time of transfer which is applicable to the student:

(A) The weight of 1.00 shall be given to a successful transfer with thirty (30) hours of Arkansas Course Transfer Systems courses; and

(B) The weight of 1.25 shall be given to a successful transfer with an associate degree; and

(4) The transition metric for a three-year period shall be the average of the transition metric for the institution in those three (3) academic years.

6 CAR § 376-108. Productivity funding metrics – Transfer – Four-year.

(a) The transfer measure for a four-year institution of higher education shall be calculated as follows:

(1) The sum of the total number of students who transfer successfully to a four-year intuition from a two-year institution; and

(2) The transition metric for a three-year period shall be the average of the transition metric for the institution in those three academic years.

(b) The transfer metric is weighted at twenty percent (20%) of the formula.

6 CAR § 376-109. Adjustments.

(a) For an institution described in this section, the productivity index for the current years shall be adjusted pursuant to the provisions of this section before calculating the productivity index or index score under § 376-102(a) of this part.

(b) A two-year institution shall be subject to the following adjustment upward of their productivity index for the current years to account for the diseconomies of scale:

(1) The productivity index of an institution with at least thirty percent (30%) but not less than fifty percent (50%) of the average enrollment shall be increased by one percent (1%) by multiplying the productivity index by 0.01 and adding that product to the productivity index;

(2) The productivity index of an institution with less than fifty percent (50%) but not less than seventy percent (70%) of the average enrollment shall be increased by two percent (2%) by multiplying the productivity index by 0.02 and adding that product to the productivity index; and

(3) The productivity index of an institution with less than seventy percent (70%) of the average enrollment shall be increased by three percent (3%) by multiplying the productivity index by 0.03 and adding that product to the productivity index.

(c) A four-year institution shall be subject to the following adjustment upward of their productivity index for the current years to account for value of academic research:

(1) The productivity index of an institution with a research percentage expenditure of less than five percent (5%) shall be increased by one percent (1%) by multiplying the productivity index by 0.01 and adding that product to the productivity index;

(2) The productivity index of an institution with a research percentage expenditure of between five percent (5%) and ten percent shall be increased by one-and one-half percent (1.5%) by multiplying the productivity index by 0.015 and adding that product to the productivity index; and

(3) The productivity index of an institution with a research percentage expenditure of more than ten percent (10%) shall be increased by two percent (2%) by

multiplying the productivity index by 0.02 and adding that product to the productivity index.

Appendix A.

0 to <2 Years to ROI

CIP Code	Abbreviated Title
11	Computer and Information Sciences
14	Engineering
15	Engineering and Related Technologies
51	Health Professions

2 to <4 Years to ROI

CIP Code	Abbreviated Title
01	Agriculture and Related Fields
04	Architecture and Related Services
27	Mathematics and Statistics
30	Multi/Interdisciplinary Studies
40	Physical Sciences
49	Transportation and Materials Moving
52	Business, Management, Marketing and Finance

4 to <6 Years to ROI

CIP Code	Abbreviated Title
09	Communication and Journalism Programs
10	Communications Technologies and Services
13	Education
16	Foreign Languages, Literatures and Linguistics
19	Family and Consumer Sciences
24	Liberal Arts and Sciences
26	Biological and Biomedical Sciences
31	Parks, Recreation, Fitness and Kinesiology
43	Law Enforcement, Firefighting and Protective Services
44	Public Administration and Social Service
45	Social Sciences
54	History

6 to <8 Years to ROI

CIP Code	Abbreviated Title
03	Natural Resources and Conservation
23	English Language and Literature
38	Philosophy and Religious Studies
42	Psychology
50	Visual and Performing Arts

No Return on Investment in 8 Years

CIP Code	Abbreviated Title
05	Area, Ethnic, Cultural and Gender Studies

No ROI Data Available

CIP Code	Abbreviated Title
12	Culinary, Entertainment and Personal Services
22	Legal Professions and Studies
29	Military Technologies and Applied Sciences
41	Science Technologies
46	Construction Trades
47	Mechanic and Repair Technologies
48	Precision Production