

# Maryland Higher Education Commission

## Operating Funding Guidelines and Formulas for Institutions of Higher Education in Maryland

Commission to Develop the Maryland Model for  
Funding Higher Education

June 4, 2007

# Maryland Higher Education Commission

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# State Operating Funding to Higher Education Institutions in Maryland

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## Funding Guidelines

- University System of Maryland Institutions
- Morgan State University

## Funding Formulas

- St. Mary's College of Maryland
- Independent Colleges and Universities
- Locally Controlled Community Colleges
- Baltimore City Community College



# Funding Guidelines

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Model that compares funding and performance of Maryland public colleges and universities with similar colleges and universities nationally and informs the budget process by providing an assessment of funding levels as well as a source of comparison between institutions.

Legislation in 1999 required:

Maryland Higher Education Commission to develop operating budget funding guidelines based on current and aspirational peer institution comparisons and other appropriate factors in consultation with the segments of higher education and the presidents of the institutions of the University System of Maryland, Morgan State University, and St. Mary's College of Maryland.

(Senate Bill 682 - Higher Education - University System of Maryland - Coordination, Governance, and Funding – 1999 Session)



# Funding Guideline Components

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## Funding peers

- Select public four-year institutions that are similar to the Maryland institution
- Use statistical model based on institutional profile variables to objectively select institutions

## Funding guideline

- Determine levels of State appropriations and tuition and fee revenue funding per full-time equivalent student for the funding peers and Maryland institutions
- Calculate the 75<sup>th</sup> percentile of State appropriation and tuition and fee revenue per FTE consistent with the objective of achieving national eminence

## Funding level

- Determine a funding guideline-based recommendation for current year State appropriation



# Selection of Funding Peers

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- Limit possible peer institutions to
  - Public Institutions within the U.S.
  - Within the same Carnegie Classification
- Run variations to select similar institutions based on variables
- Determine institutions that are closest to the Maryland institution by mathematical cluster analysis
- Choose 20 closest institutions within each variation to establish peer group of 50 to 60 institutions



# Variations and Variables to Select Funding Peers

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- Institutions are run through five to seven variations composed of 1 to 18 variables, including:
  - Size: funding, headcount, FTE, levels of enrollment, racial composition, degrees
  - Student mix: undergraduate, graduate, full-time, part-time, racial composition
  - Program mix: by degrees awarded
  - Distance from urban center: by miles from nearest Metropolitan Statistical Area with population of 250,000 or more
- Each variation is run using cluster method
- Twenty institutions that are closest to the Maryland institution in each variation are compiled
- This method forms a group of 50 - 60 institutions – the funding peers



# Institutions with Peer groups formed outside the cluster method

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## **University of Maryland, College Park**

- “Flagship” Institution of the University System
- Allowed to choose five aspirational peers by which to compare funding
- Funding guideline recommends average of aspirational peers, not 75<sup>th</sup> percentile

## **University of Maryland, Baltimore**

- Allowed to select group of “Composite” Peers
- Recognizes UMB’s status as providing mostly graduate and professional degrees in health sciences, law and social work
- Each school within the university chose peer institutions reflective of the school. Institutions chosen were compiled into a composite group of 5 institutions

## **University of Maryland Eastern Shore**

- Added extra variation for research to reflect UMES status as an 1890 land grant institution
- Peer group is composed of 24 institutions

## **Morgan State University**

- Recognized Morgan’s status as a public urban university with a doctoral mission
- Peers composed of 12 institutions from Master’s, Doctoral and Research Carnegie classification that are similar to Morgan statistically



# Forming, setting the guideline funding level and determining recommended State appropriation

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- Most recent State appropriations, tuition and fee revenue, and enrollment data are examined for each peer group from IPEDS data base
- Determine State appropriations and tuition and fee revenue per FTE student for each institution within peer group
- Determine 75<sup>th</sup> percentile of funding per FTE or average of peers for UMCP and UMB
- Inflate to current year level by inflating by annual Higher Education Price Index (HEPI)
- Determine inflated 75th percentile funding level of the peers
- Multiply by projected FTE enrollment for the Maryland institution based on annual MHEC Enrollment Projections
- Subtract tuition and fee revenue as projected by institutional budget



# Example: Funding Guideline for Towson University FY 2008

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Step 1: Inflated 75<sup>th</sup> Percentile = \$13,909 Resources per FTES  
*multiplied by*

Step 2: MHEC Projected 15,858 FTES Enrollment  
*subtract*

Step 3: Institutional Budgeted \$128,785,154 tuition and fee revenue  
*equals*

Result: \$91,783,768 Recommended State Appropriation

## Attainment

FY 2008 Funding Guideline	FY 2008 Appropriation	FY 2008 Attainment
\$91,783,768	\$83,426,876	91%

Attainment represents how close the institution's State appropriation comes to the guideline recommendation.



# Funding Guidelines - Accountability

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- Each institution is compared on a number of performance factors against 10 performance peer institutions selected from its funding peers
- Maryland institutions are expected to perform at the level of or better than the performance peers
- This information is reported to the General Assembly on an annual basis



# Funding Formulas for other Segments of Higher Education

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- **St. Mary's College of Maryland:**

- Four-year public honors college
- Formula calculates current year appropriation by multiplying the prior year appropriation by the Implicit Price Deflator for State and Local Governments

- **Independent Institutions:**

- 17 institutions funded under the statutory formula
- 16 MICUA Members plus National Labor College

- State appropriations are based on prior year State appropriations divided by the FTE enrollment for the prior year at the following four-year public institutions:

Bowie State University

Coppin State University

Frostburg State University

Morgan State University

St. Mary's College of Maryland

Salisbury University

University of Maryland Baltimore County

University of Maryland, College Park

University of Maryland Eastern Shore

- Average FTE funding level is then multiplied by 16 percent for FY 2008
- This figure is then multiplied by each independent institution's certified fall enrollment for the preceding year



# Funding Formulas for other Segments of Higher Education (continued)

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- **Locally-controlled community colleges (county-based):**
  - Annual appropriation determined by the John A. Cade formula for aid to community colleges
  - Calculation of the amount of formula aid:
    - State appropriations are based on prior year State appropriations divided by FTE enrollment for select four-year public institutions (those designated for the Joseph A. Sellinger Program)
    - Average FTE funding level is then multiplied by 25.5 percent for FY 2008
    - This figure is then multiplied by the number of FTE students eligible for State aid at the community colleges two years prior to the funding year
  - Funds are distributed using the following components:
    - Fixed cost component
    - Small size component
    - Marginal cost component
    - Hold harmless provision
  - Funds are also provided for fringe benefits and various grant programs



# Baltimore City Community College

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## **Baltimore City Community College – State controlled:**

- Formula also bases State appropriations on prior year State appropriations divided by FTE enrollment for select four-year public institutions (those designated for the Joseph A. Sellinger Program)
- Average FTE funding level is then multiplied by 66.5 percent for FY 2008
- This figure is then multiplied by the number of FTE students at the college two years prior to the funding year
  
- Funds are also provided through various grant programs



# Appendix

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- Maryland Higher Education General Fund Appropriations: FY 2006 – 2008
- Maryland Public Colleges and Universities: FY 2008 Operating Funding Guidelines
- Maryland Higher Education Commission - Joseph A. Sellinger Program of Aid to Non-Public Institutions: FY 2006 – 2008
- Senator John A. Cade Funding Formula: Community College State Formula Aid – FY 2008 Governor’s Allowance
- Maryland Higher Education Commission - Aid to Community Colleges: FY 2005-2008

## Maryland Higher Education General Fund Appropriations: FY 2006 - 2008

Segment	FY 2006 Actual	FY 2007 Legislative Appropriation	FY 2008 Appropriation	FY 2007 - 2008 % Change	FY 2007 - 2008 Difference
<i>Funding Guideline Institutions</i>					
Bowie State University	\$ 22,269,547	\$ 31,110,537	\$ 33,629,175	8.1%	2,518,638
Coppin State University	20,802,188	30,427,867	32,193,361	5.8%	1,765,494
Frostburg State University	26,434,454	29,667,299	31,488,485	6.1%	1,821,186
Salisbury University	27,570,519	32,928,037	35,436,780	7.6%	2,508,743
Towson University	63,121,550	76,170,647	83,426,876	9.5%	7,256,229
University of Baltimore	22,709,573	26,241,675	28,176,184	7.4%	1,934,509
UM, Baltimore	145,702,081	157,678,766	170,871,964	8.4%	13,193,198
UM Baltimore County	70,490,730	79,269,769	85,497,159	7.9%	6,227,390
UM Biotechnology Institute	17,400,955	20,771,123	22,005,716	5.9%	1,234,593
UM Center for Environmental Science	14,053,768	15,450,329	17,610,226	14.0%	2,159,897
UM, College Park	328,809,523	370,688,761	400,904,508	8.2%	30,215,747
UM Eastern Shore	23,321,709	28,616,142	31,245,211	9.2%	2,629,069
UM University College	15,191,125	20,069,456	24,986,265	24.5%	4,916,809
Morgan State University	51,928,549	62,914,721	68,134,160	8.3%	5,219,439
St. Mary's College of Maryland	\$ 14,592,910	\$ 15,906,000	\$ 16,367,188	2.9%	461,188
Sellinger Aid to Independents	45,830,265	49,964,598	58,551,065	17.2%	8,586,467
Total Aid to Community Colleges	191,661,872	205,883,212	243,700,700	18.4%	37,817,488
Baltimore City Community College	34,313,544	35,024,587	40,197,646	14.8%	5,173,059

Notes:

1) FY 2008 Total appropriation for USM reduced by \$2,000,000. Not reflected in institutional appropriations.

Sources: FY 2008 Senate Reprint Budget Bill; Conference Committee Report, Department of Budget and Management.

## Maryland Public Colleges and Universities FY 2008 Operating Funding Guidelines

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Institution	Funding Guideline	Appropriation <sup>1</sup>	Attainment
Bowie State University	\$ 44,853,451	\$ 33,629,175	75%
Coppin State University	34,310,235	32,193,361	94%
Frostburg State University	37,948,389	31,488,485	83%
Salisbury University	44,143,547	35,436,780	80%
Towson University	91,783,768	83,426,876	91%
University of Baltimore	21,064,840	28,176,184	134%
UM, Baltimore	232,154,166	170,871,964	74%
UM Baltimore County	114,701,879	85,497,159	75%
UM Biotechnology Institute	28,505,502	22,005,716	77%
UM Center for Env. Science	21,203,446	17,610,226	83%
UM, College Park	508,719,204	400,904,508	79%
UM Eastern Shore	35,253,247	31,245,211	89%
UM University College	40,695,800	24,986,265	61%
USM Office		19,563,624	
USM Total	1,255,337,474	1,017,035,534	81%
 Morgan State University	 70,844,066	 68,134,160	 96%
 Total	 \$ 1,326,181,540	 \$ 1,085,169,694	 82%

Notes:

1) Includes COLA Allocation for FY 2008.

Sources: Maryland State Operating Budget Books, Department of Budget and Management,  
Maryland Higher Education Commission, University System of Maryland, NCES IPEDS Peer Analysis System

**Maryland Higher Education Commission**  
**Joseph A. Sellinger Program of Aid to Non-Public Institutions: FY 2006 - 2008**

Eligible Institutions	FY 2006		FY 2007		FY 2008	
	Fall 04 FTES	Actual	Fall 05 FTES	Appropriation	Fall 06 FTES	Appropriation
Baltimore Hebrew University	62.93	\$ 75,884	66.60	\$ 84,466	79.93	\$ 116,897
Baltimore International College	552.73	666,506	504.80	640,213	481.40	704,043
Capitol College	404.60	487,885	424.87	538,841	431.60	631,211
College of Notre Dame	1,437.53	1,733,438	1,500.13	1,902,540	1,464.67	2,142,065
Columbia Union College	830.13	1,001,008	787.93	999,292	806.61	1,179,659
National Labor College	511.60	616,910	454.80	576,800	219.60	321,163
Goucher College	1,680.30	2,026,180	1,659.70	2,104,915	1,759.63	2,573,441
Hood College	1,173.90	1,415,541	1,313.73	1,666,138	1,457.70	2,131,872
Johns Hopkins University	15,636.67	18,855,392	16,565.60	21,009,322	16,813.73	24,589,912
Loyola College	4,588.52	5,533,041	4,694.33	5,953,584	4,627.57	6,767,775
Maryland Institute College of Art	1,686.83	2,034,055	1,774.10	2,250,002	1,943.63	2,842,539
McDaniel College	2,271.87	2,739,522	2,397.80	3,041,010	2,469.70	3,611,912
Mount St. Mary's University	1,626.67	1,961,511	1,667.93	2,115,352	1,708.93	2,499,293
St. John's College	635.27	766,037	645.33	818,440	665.33	973,038
Sojourner-Douglass College	990.60	1,194,510	867.80	1,100,587	922.13	1,348,606
Villa Julie College	2,433.70	2,934,664	2,596.37	3,292,846	2,747.23	4,017,796
Washington College	1,482.93	1,788,183	1,474.67	1,870,250	1,435.80	2,099,843
<b>Total</b>	<b>38,006.78</b>	<b>\$ 45,830,265</b>	<b>39,396.50</b>	<b>\$ 49,964,598</b>	<b>40,035.19</b>	<b>\$ 58,551,065</b>
<b>Grant per FTE</b>		<b>\$ 1,205.84</b>		<b>\$ 1,268.25</b>		<b>\$ 1,462.49</b>

Sources: Maryland FY 2007 Operating Budget Books; FY 2007 Budget Bill; Maryland Higher Education Commission.

**Senator John A. Cade Funding Formula  
Community College State Formula Aid  
FY 2008 Governor's Allowance**

Institution	FY 2007 Direct Grant	Actual FTES FY 2006	Fixed Cost Component 38%	Marginal Cost Component 60%	Size Factor Component 2%	FY 2008 Direct Grant	FY 2007 Total State Share	FY 2008 Governor's Allowance		
								Hold Harmless Provision	Total State Share	Unrestricted Grants
Allegany	\$ 4,023,224	1,664.54	\$ 1,822,155	\$ 2,327,876	\$ 561,300	\$ 4,711,331	\$ 4,023,224	\$ -	\$ 4,711,331	\$ 959,692
Anne Arundel	22,845,904	11,977.50	10,347,120	16,750,654	-	27,097,774	22,845,904	-	27,097,774	
Baltimore County	31,761,156	15,967.00	14,384,920	22,330,009	-	36,714,929	31,761,156	-	36,714,929	
Carroll	5,460,692	2,535.87	2,473,198	3,546,440	561,300	6,580,937	5,460,692	-	6,580,937	299,846
Cecil	3,573,785	1,549.59	1,618,600	2,167,117	561,300	4,347,017	3,573,785	-	4,347,017	299,846
CSM	8,692,575	4,651.13	3,936,947	6,504,652	-	10,441,599	8,692,575	-	10,441,599	
Chesapeake	4,564,664	1,958.82	2,067,378	2,739,429	561,300	5,368,107	4,564,664	-	5,368,107	299,846
Frederick	6,070,177	3,440.97	2,749,239	4,812,231	-	7,561,470	6,070,177	-	7,561,470	
Garrett	1,773,707	527.81	803,328	738,148	561,300	2,102,775	1,773,707	-	2,102,775	839,692
Hagerstown	5,298,799	2,517.10	2,399,875	3,520,190	561,300	6,481,364	5,298,799	-	6,481,364	599,692
Harford	8,121,634	4,277.82	3,678,363	5,982,574	-	9,660,937	8,121,634	-	9,660,937	
Howard	9,640,797	5,185.19	4,366,406	7,251,540	-	11,617,946	9,640,797	-	11,617,946	
Montgomery	28,746,256	16,039.54	13,019,444	22,431,457	-	35,450,901	28,746,256	-	35,450,901	
Prince George's	18,821,058	9,568.00	8,524,230	13,380,944	-	21,905,174	18,821,058	-	21,905,174	
Wor-Wic	5,435,176	2,423.76	2,461,641	3,389,653	561,300	6,412,594	5,435,176	-	6,412,594	299,846
<b>Total</b>	<b>\$ 164,829,605</b>	<b>\$ 84,284.64</b>	<b>\$ 74,652,844</b>	<b>\$ 117,872,912</b>	<b>\$ 3,929,097</b>	<b>\$ 196,454,853</b>	<b>\$ 164,829,605</b>	<b>\$ -</b>	<b>\$ 196,454,853</b>	<b>\$ 3,598,459</b>

<b>Community College Formula Calculation Summary</b>	
<b>State Aid per FTES at Selected 4-year Public Colleges</b>	
Budgeted appropriation (FY 2007)	\$ 757,699,780
Budgeted FTES (FY 2007)	82,894.00
FY 2008 State Aid per FTES	\$ 9,140.59
<b>State Formula Aid per FTES at Community Colleges</b>	
FY 2008 State Aid per FTES	\$ 9,140.59
Formula Percentage	25.5%
Community College Aid per FTES	\$ 2,330.85
<b>State Formula Aid for the Community Colleges</b>	
Aid per FTES	\$ 2,330.85
Actual FTES	84,284.64
Direct Grant (excluding Hold Harmless)	<b>\$ 196,454,853</b>

median FTES 3,440.97  
80% of median 2,752.78

Note:

FTE enrollments for four-year public institutions are based on budgeted enrollments as shown in the budget book

Unrestricted grants are provided in Md. Annotated Code, Section 16-305 (f)(2) and are increased by a factor equal to the annual percentage growth in the four-year public appropriations per FTE for the current fiscal year as provided in Md. Annotated Code, Section 16-304(f)(3).

**Maryland Higher Education Commission**  
**Aid to Community Colleges: FY 2005 - 2008**

	<b>FY 2006 Actual</b>	<b>FY 2007 Appropriation</b>	<b>FY 2008 Appropriation</b>	<b>FY 2007 - 2008 % Change</b>
<b><i>Formula Aid:</i></b>				
Allegany College	\$ 3,767,574	\$ 4,023,224	\$ 4,711,331	17.10%
Anne Arundel Community College	21,567,819	22,845,904	27,097,774	18.61%
Community College of Baltimore County	30,160,310	31,761,156	36,714,929	15.60%
Carroll Community College	4,984,598	5,460,692	6,580,937	20.51%
Cecil Community College	3,241,115	3,573,785	4,347,017	21.64%
College of Southern Maryland	7,988,312	8,692,575	10,441,599	20.12%
Chesapeake College	4,441,676	4,564,664	5,368,107	17.60%
Frederick Community College	5,605,906	6,070,177	7,561,470	24.57%
Garrett College	1,664,700	1,773,707	2,102,775	18.55%
Hagerstown Community College	4,837,006	5,298,799	6,481,364	22.32%
Harford Community College	7,701,612	8,121,634	9,660,937	18.95%
Howard Community College	8,813,182	9,640,797	11,617,946	20.51%
Montgomery College	26,118,764	28,746,256	35,450,901	23.32%
Prince George's Community College	18,126,404	18,821,058	21,905,174	16.39%
Wor-Wic Community College	5,123,730	5,435,176	6,412,594	17.98%
<b>Total Cade Funding Formula Aid</b>	<b>\$ 154,142,707</b>	<b>\$ 164,829,605</b>	<b>\$ 196,454,853</b>	<b>19.19%</b>
<b><i>Grants:</i></b>				
Small Community College/Appalachian Grants	3,100,000	3,200,208	\$ 3,598,459	12.44%
Statewide and Health Manpower	4,423,460	4,310,000	4,822,611	11.89%
Garrett/WVa Reciprocity Grant	114,505	160,000	160,000	0.00%
ESOL Grants	2,500,000	2,500,000	3,454,773	38.19%
Somerset Grant	285,254	353,219	353,219	0.00%
Innovative Partnership	1,632,382	2,928,699	1,247,509	-57.40%
<b>Total Grants</b>	<b>\$ 12,055,601</b>	<b>\$ 13,452,126</b>	<b>\$ 13,636,571</b>	<b>1.37%</b>
<b>Subtotal Cade and Grants</b>	<b>\$ 166,198,307</b>	<b>\$ 178,281,731</b>	<b>\$ 210,091,424</b>	<b>17.84%</b>
<b><i>Fringe Benefits:</i></b>				
Optional Retirement	9,720,000	10,012,000	11,306,000	12.92%
Teachers Retirement	15,743,564	17,589,481	22,303,276	26.80%
<b>Total Fringe Benefits</b>	<b>\$ 25,463,564</b>	<b>\$ 27,601,481</b>	<b>\$ 33,609,276</b>	<b>21.77%</b>
<b>Total State Aid</b>	<b>\$ 191,661,871</b>	<b>\$ 205,883,212</b>	<b>\$ 243,700,700</b>	<b>18.37%</b>

Notes: Excludes Baltimore City Community College.

Sources: Maryland FY 2007 Operating Budget Books; FY 2007 Budget Bill; Maryland Higher Education Commission.