

# COMMUNITY COLLEGE FUNDING FORMULA REVIEW 2018-2019 INTERIM

A Report Prepared for the  
Legislative Finance Committee

By  
**Shauna Albrecht**

September 7, 2018



## **INTRODUCTION**

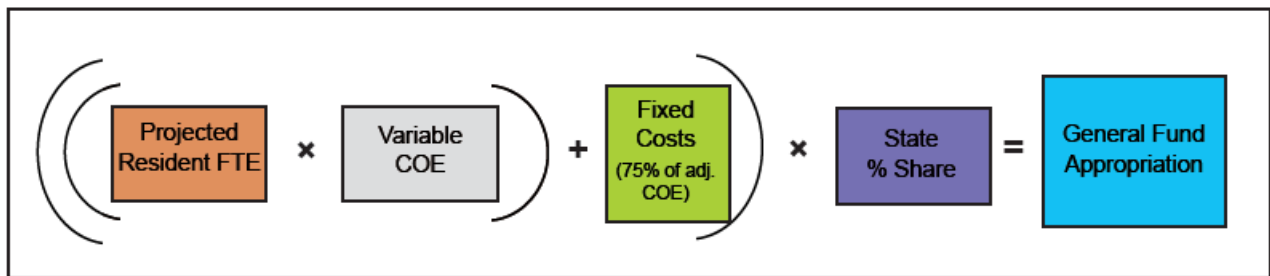
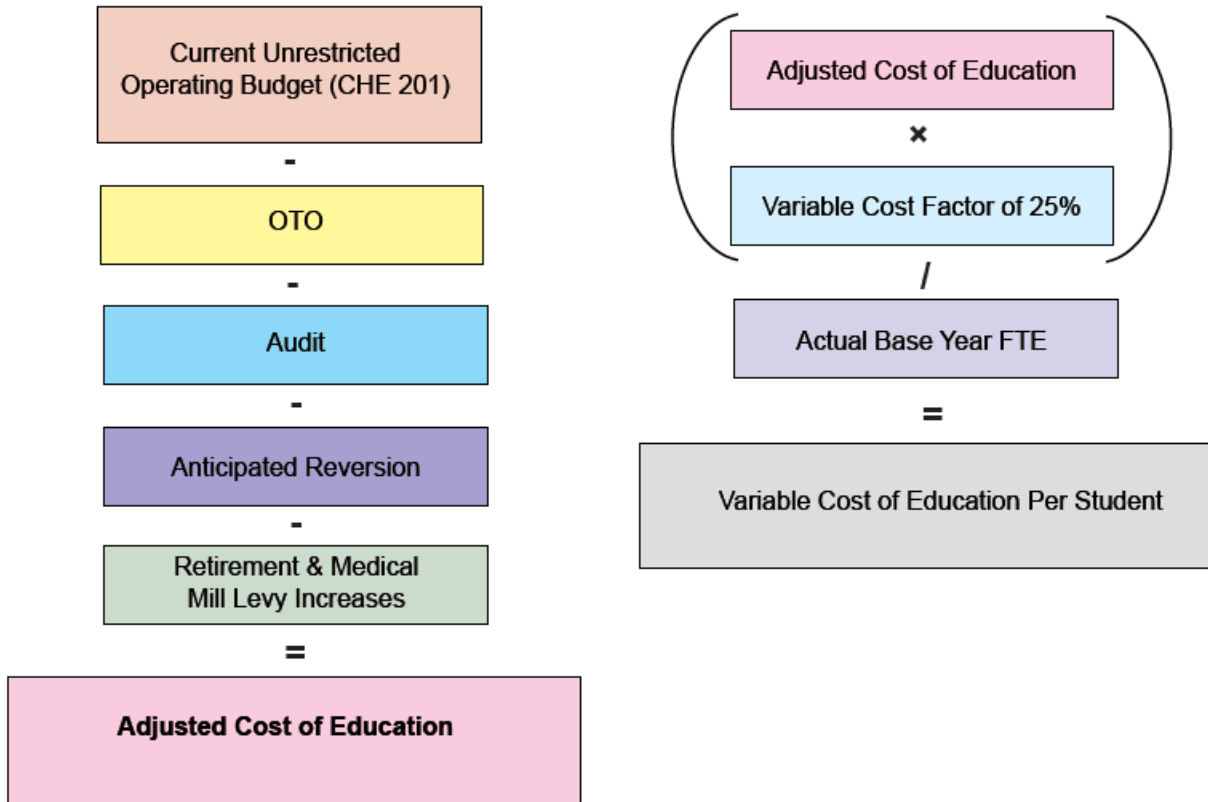
The community colleges state general fund appropriations are calculated through a multi-factor funding formula as defined in 20-15-3, MCA. A funding formula has been in place since 1981 with several refinements over the years by the legislature. As a guideline from the Legislative Finance Committee (LFC) a review of the formula is to be conducted every three biennia to determine if the factors in the formula are still valid to use for the state appropriation calculation.

The formula was last reviewed during the 2010-2011 interim. As a result of that review the LFC recommended an adjustment in which the cost of education calculation would be reduced by expenditures funded by audit and local retirement and medical mill levies in excess of the 2012 mill levy levels. The 2013 Legislature adopted the LFC recommendation and passed HB 25 that included statutory changes necessary to implement the formula changes.

The following report is an overview of the funding formula review conducted during the 2019 interim.

# CURRENT FUNDING FORMULA

The purpose of the community college funding formula is to provide a tool for the legislature to use to establish the state general fund appropriation for the community colleges each biennium. The state appropriation for the community colleges is based upon a multi-factor funding formula. The following graphic represents the funding formula. The definitions of the factors of the formula are listed in Appendix A.



# FUNDING FORMULA REVIEW

The community college funding formula was evaluated using the most recent data available for fiscal years 2013 through 2018. This range coincides with the time elapsed since the last formal review of the formula. Occasionally, data from prior years were utilized to review averages over time. The purpose of this report is to inform the Legislative Finance Committee of the findings of the review, identified issues, and seek direction from the committee on any desired adjustments to the current formula.

## SCOPE OF CURRENT REVIEW

This review analyzed the following factors within the funding formula:

- Cost of education (COE)
- Fixed and variable cost allocation
- Calculating the formula by individual community college or collectively
- State percent share
- State support per resident FTE
- State share calculations – commonly referred to as banding

The two areas of concern stemming from the review are the methods and results of the calculation of the cost of education, and its associated impact to the state general fund appropriation and the state share per resident FTE band. Each component of the formula along with the identified issues are outlined in further detail in the following sections along with potential action from the LFC.

## COST OF EDUCATION

The cost of education per student has been of concern for the last several reviews due to rate at which it has increased. To address these concerns, the COE factor has gone through several iterations. Initially, the cost of education was based on an average cost per student. Subsequently, the formula was changed to the sum of a fixed component that would include costs that are not influenced by student enrollment changes and a variable component that would include costs that are influenced by student enrollment changes. The most recent change included rebasing the COE each biennium based on actuals from the first year of the previous biennium.

Increases occurring in the cost of education remains an issue surrounding the use of the current formula. The variable cost of education per student has increased 70.4% from the 2013 biennium calculation of 1,872 to 3,189 for the 2019 biennium. There are several factors that influence this calculation. As the community colleges increase their operating budgets to accommodate growth, inflation, new programs, etc. this will subsequently, provide a higher variable proportion of the budget. This coupled with declining enrollments, create a much higher variable cost of education per student. In turn, a higher variable cost of education per student increases the overall general fund appropriation that the community colleges receive.

Between FY 2013 and FY 2018, the community colleges current unrestricted expenditures have increased by 20.1%. Conversely, the two-year campuses of the Montana University System (MUS) have increased at a rate of 3.6% over the same time. While, the community colleges and 2-year campuses are not funded in the same manner, both groups receive state general fund and the discussion is to point out the overall funding of higher education in Montana with a more relevant set of comparison points.

**Community Colleges Cost of Education and Funding Sources  
FY 2013 and FY 2018 Comparison**

Item	FY 2013	FY 2018	\$ Change FY13-18	% Change FY13-18
Cost of Education (CHE 201)	23,414,137	29,560,549	6,146,412	
Less Adjustments <sup>1</sup>	702,015	1,608,727	906,712	
Adjusted Cost of Education	22,712,122	27,951,822	5,239,700	23.1%
<b>Funding Sources</b>				
State Appropriations	10,770,917	12,856,403	2,085,486	19.4%
Net Tuition	6,598,159	6,601,092	2,933	0.0%
Mill Levy's	6,120,673	8,238,188	2,117,515	34.6%
Other	624,161	1,389,145	764,984	122.6%
<b>Total Revenue</b>	<b>24,113,910</b>	<b>29,084,828</b>	<b>4,970,918</b>	<b>20.6%</b>
<b>Total FTE</b>	<b>2,466</b>	<b>2,191</b>	<b>(275)</b>	<b>-11.2%</b>
<b>Variable Cost of Education per FTE</b>	<b>2,303</b>	<b>3,189</b>	<b>887</b>	<b>38.5%</b>
<sup>1</sup> Includes the items detailed in statute - Audit, OTO, and Medical and Retirement Mill Levy increases				

The table above outlines changes in revenues that support the community colleges, including state general fund, tuition, local mill levies, and other revenue sources. General fund appropriations have increased 19.4% from FY 2013 to FY 2018. After state appropriations, the largest revenue source for the community colleges is the local mill levies. Tuition revenue has remained relatively unchanged, even with tuition and fee increases, in part due to declining enrollment. However, the community colleges are projecting increased future enrollments that would be additional revenue to support operating budgets. Increases to the operating budgets will in turn increase the cost of education, and depending on the change in enrollment will determine how rapidly the cost of education increases.

The goal of the formula is to offset any large spikes, but with the current methodology for calculating the COE, it cannot effectively control the enrollment fluctuations. There are some factors that cannot be accounted for by using a formula, for instance the community colleges experienced a significant enrollment increase in the 2011 biennium due to the recession. At the same time expenditures did not increase as rapidly, and this created a drop in the variable cost of education per student for the 2013 biennium calculation.

Issue: The calculation for the cost of education creates disproportionate increases thus creating the effect of higher appropriations. Especially during times of declining enrollments. The variable cost of education is going to continue to increase at a quicker rate thus increasing state general fund appropriations. Some potential options for dealing with this issue include:

- Option 1 – Maintain banding in order to mitigate the exponential growth in state appropriations
- Option 2 – Develop a new method to calculate the COE
  - This will require an additional study to focus on this portion of the formula and a look at best practices
- Option 3 – Replace the cost of education factor with an alternate variable
  - This will require an additional study to focus on this portion of the formula and a look at best practices

Option 4 – Leave the COE as is and adjust the state percent share as needed to moderate excessive growth

## ALLOCATION OF FIXED AND VARIABLE COST OF EDUCATION COMPONENTS

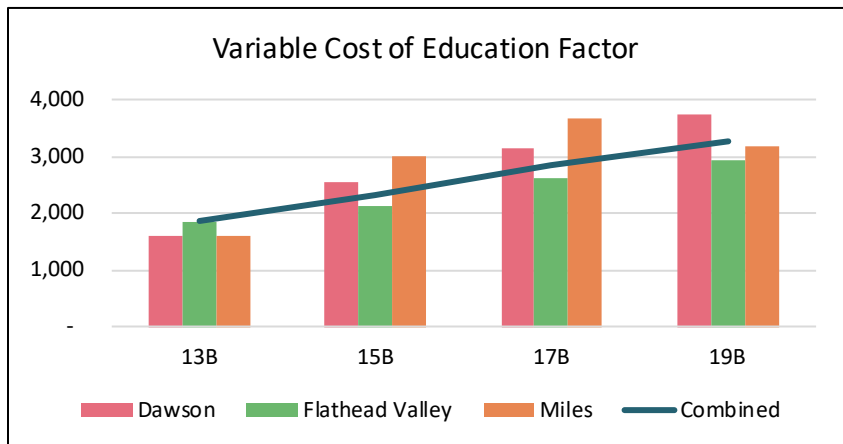
This review examined the allocation of the cost of education components to determine if allocating the base year costs into 75% fixed and 25% variable remains valid. To determine this, the definitions of fixed and variable cost categories that were used in the 2007 and 2012 formula revision were applied to the cost data submitted by the community colleges. The figure below summarizes the fixed and variable costs of education for FY 2017 for each community college and the average for all three colleges.

Fixed and Variable Costs FY 2017						
College	Fixed	Variable	Total	% Fixed	% Variable	College % of Total
Dawson	3,283,273	812,572	4,095,845	80.2%	19.8%	14.0%
Flathead Valley	13,534,470	5,940,157	19,474,627	69.5%	30.5%	66.4%
Miles	4,325,279	1,450,579	5,775,858	74.9%	25.1%	19.7%
<b>Total</b>	<b>21,143,022</b>	<b>8,203,308</b>	<b>29,346,330</b>	<b>74.8%</b>	<b>25.2%</b>	<b>100.0%</b>

As shown in the figure, the fixed and variable cost of education components, when averaged for the three community colleges, remains at 75% fixed and 25% variable. The individual campuses have some variation. With the current funding formula using the average allocation, based on the review the 75% fixed and 25% variable remains valid under the current definitions of fixed and variable cost categories.

## CALCULATING THE FORMULA: INDIVIDUALLY OR COLLECTIVELY

Historically, the funding formula has been calculated as a collective community college group. A portion of this review examined the impact if the formula had been calculated by individual college using the current statutory requirements. The chart to the right represents the cost of education as calculated by a combined formula process and by individual college from the 2013 biennium to the 2019 biennium.

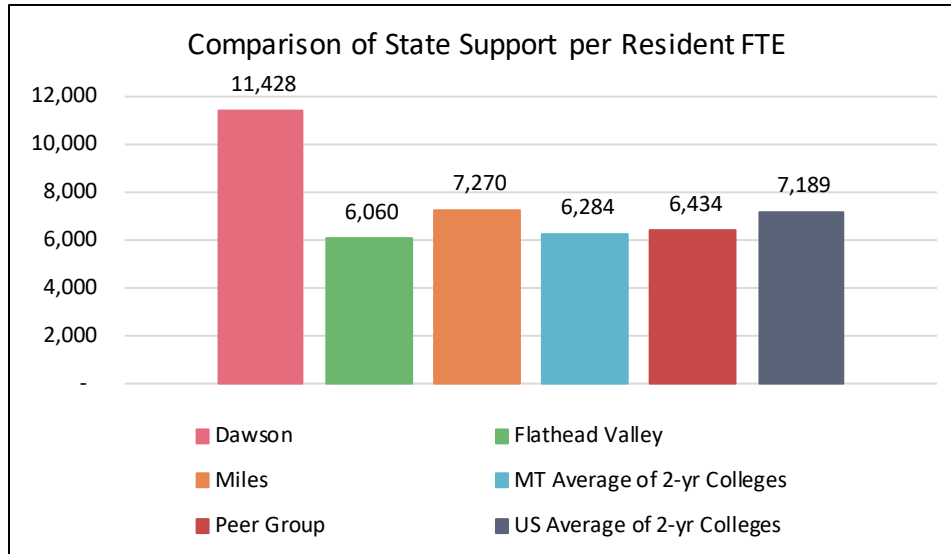


The combined method provides an average of the variable cost of education factor to use with the projected resident enrollment for each community college. The combined COE ranges from 1,872 during the 2013 biennium to 3,278 during the 2019 biennium. As reflected in the chart, by calculating the formula by individual college creates variances in the COE. The result of this variance in the 2019 biennium would have been a reduced state general fund appropriation by \$56,000.

## STATE PERCENT SHARE

As a matter of public policy, the legislature has the ability to adjust the state percent share that is used in the funding formula. For several biennia the state percent share remained at 50.8% for the community colleges. For FY 2018 and FY 2019 community college state general fund appropriations, the legislature adopted a reduced state percent share of 48.2%. While the MUS is not funded via a funding formula, their state support was 37.5% for FY 2018 and 36.6% projected for FY 2019.

## STATE SUPPORT PER RESIDENT FTE

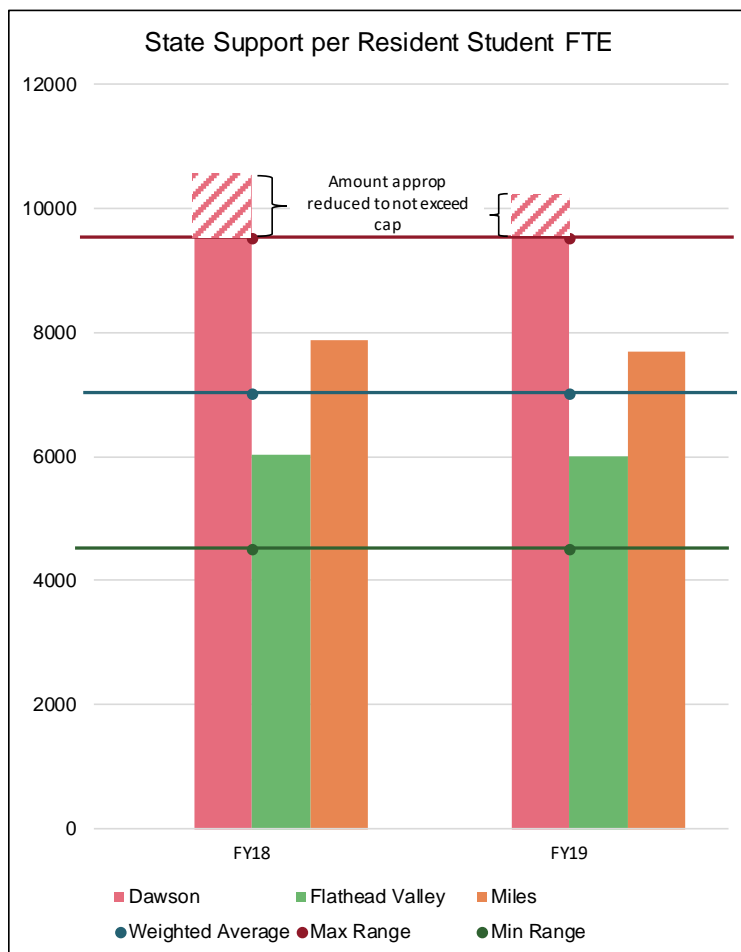


The state support per resident FTE was a discussion point during the previous regular session. The adjacent table compares the state support per resident FTE for FY 2017. Final data for FY 2018 on all colleges is not available at the time of this report's publication.

The peer group is based on peer community college institutions in the Western Interstate Commission of Higher

Education region that share similar characteristics to the Montana community colleges.

It is important to note that for FY 2018, there were significant changes in the state support per resident FTE to the community colleges due to legislation that was passed during the 65<sup>th</sup> Legislative Session. For FY 2018, Dawson Community College's state share per resident FTE dropped to \$8,614, Flathead Valley Community College remained relatively unchanged, and Miles Community College had a slight increase to \$6,940. Helena College and Great Falls College comprise the other 2-year colleges in this analysis; their state support per resident FTE experienced minor fluctuations in FY 2018.



## BANDING

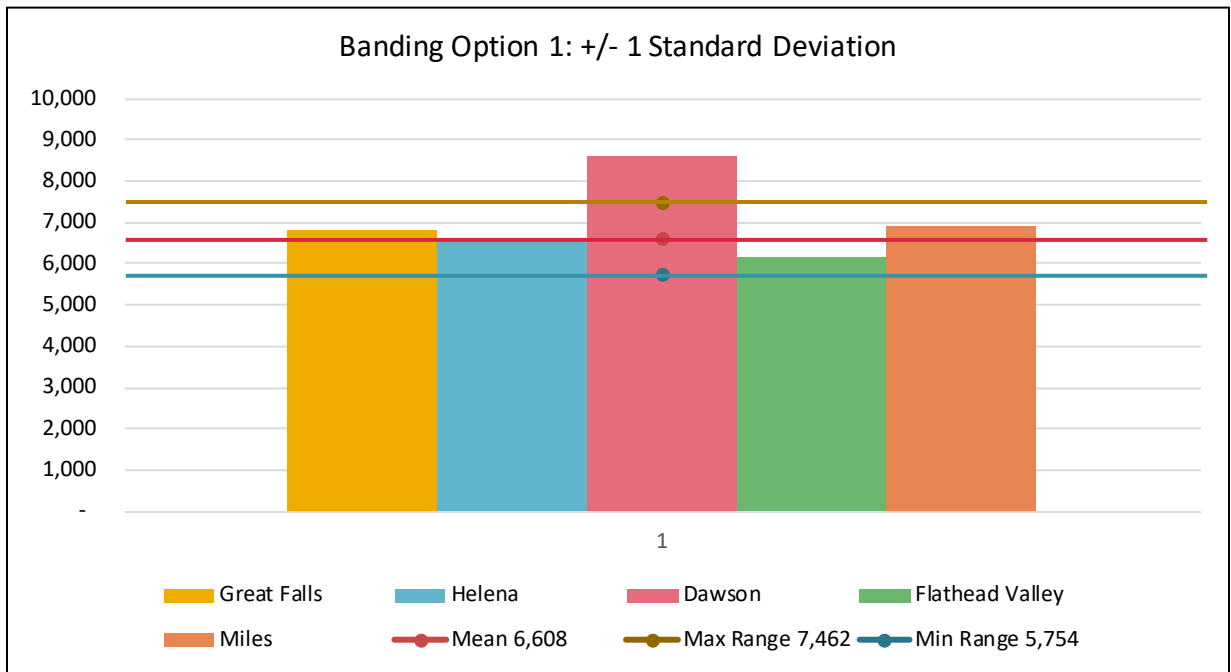
State share calculations were implemented through HB 647 during the 2017 Legislative Session. The legislation effectively provided a checks and balance to the formula by keeping the funding of resident students within a band. The current band is based on a weighted average of the community colleges and the Montana University system, with a set plus or minus margin of \$2,500.

In this review of the banding methodology, a comparison of the community colleges to Helena College and Great Falls College rather than the entire MUS is used. These two-year colleges and community colleges have more similarities than with 4-year colleges. Their degree offerings, size of student body, and missions are more comparable.

Issue 1: The use of state share calculations (banding) provides a check and balance to the Legislature for the state appropriations to the community colleges. The initial method used a set margin rather than creating a margin based on data that is relevant to the community colleges. The following options provide for determination of banding criteria based upon data derived from the operations of the community colleges and 2-year institutions.

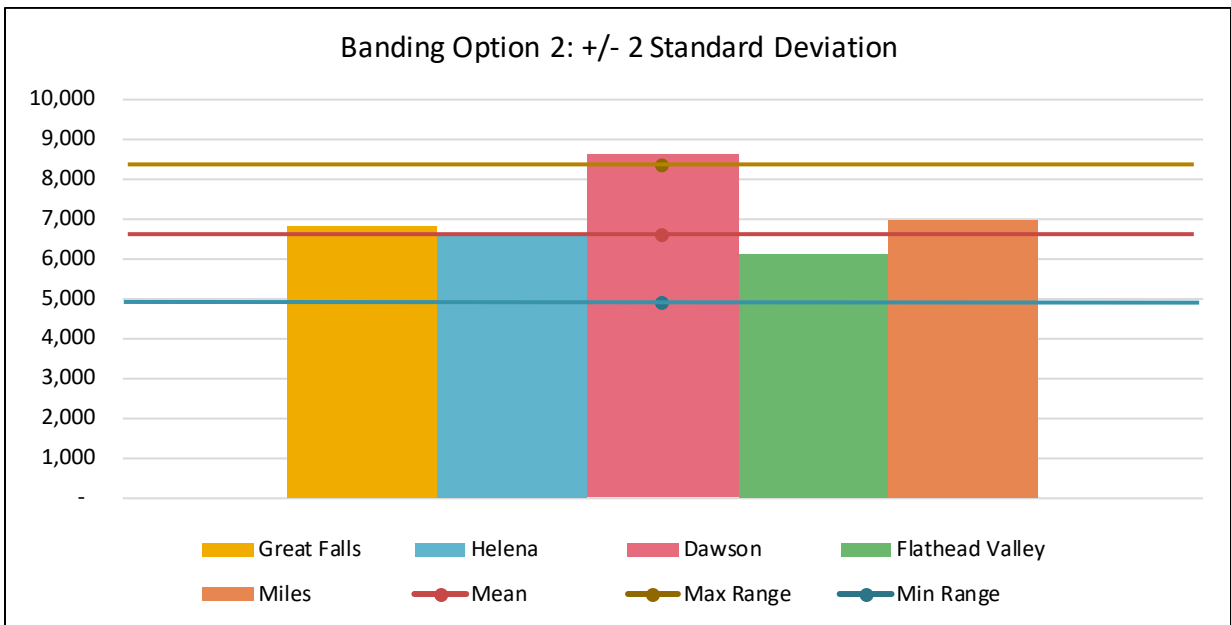
Option 1 – Calculate a six-year weighted average of the state support per resident FTE of the community colleges and 2-year colleges to establish the average. The band would then be based on a plus or minus one standard deviation of the six-year weighted average.





Utilizing option 1 as a band, the general fund state appropriation for the 2021 biennium would be reduced approximately \$210,000 to keep within the established band. One standard deviation is equivalent to 854, creating a band of plus or minus one standard deviation. This is a significant change from the currently established band of plus or minus 2,500 from the weighted average.

Option 2 – Calculate a six-year weighted average of the state support per resident FTE of the community colleges and 2-year colleges to establish the average. The band would then be based on a plus or minus two standard deviations of the six-year weighted average.



Under this scenario, the change from a plus or minus band of 2,500 is not as significant. The two standard deviations create a band of plus or minus 1,707 from the six-year weighted average. While this does tighten the margin, it is not as severe of a change. The overall general fund state appropriation would be reduced by approximately \$55,000.

Option 3: Maintain the current band guidelines

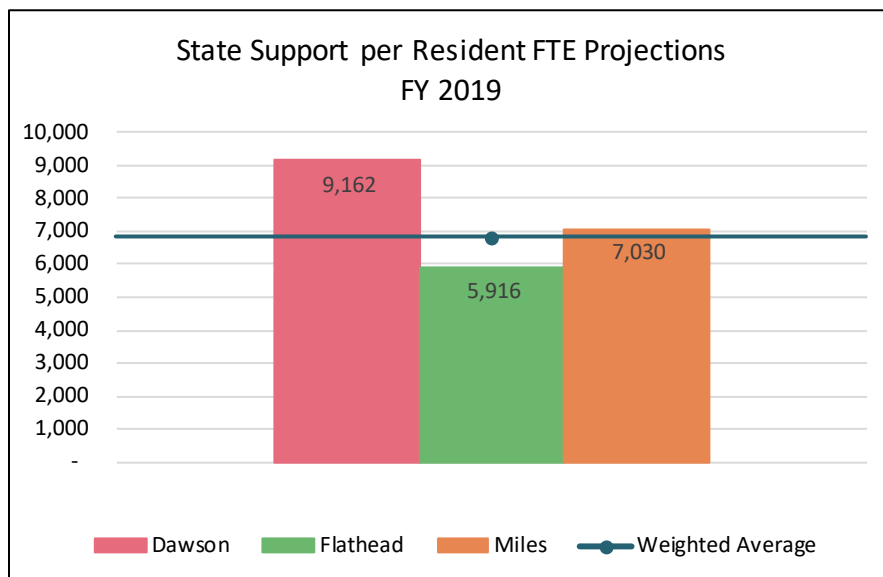
With either option 1 or 2, statute would need to be changed to reflect the new margins and the language would need to be changed to reflect the weighted average of the 2-year colleges and community colleges.

## ALTERNATIVES TO TRADITIONAL FUNDING FORMULA

The review of the formula has continued to identify concerns related to the cost of education. Adjustments have been made to the formula in the attempts to mitigate the concerns. While there have been efforts to manage the formula, an option remains to establish a base plus methodology rather than continue using the funding formula. In order to establish a base, one approach would be to use the same starting point as all agencies, including the MUS. For the 2021 biennium, this base would be the FY 2019 appropriations with any executive modifications and other bills. The resulting base by community college is outlined below.

FY 2019 Starting Point for Community Colleges General Fund Only			
	HB2 Allocated Budget + Pay Plan	SB 9 Restoration	FY 2019 Total
Dawson	1,557,486	18,946	1,576,432
Flathead Valley	8,667,286	107,326	8,774,612
Miles	2,474,666	30,693	2,505,359
<b>Community College Total</b>	<b>12,699,438</b>	<b>156,965</b>	<b>12,856,403</b>

The following chart represents the state support per resident FTE utilizing the hypothetical FY 2019 starting point. The resident FTE projections that were used for planning purposes during 2019 biennium were applied to calculate the state support per resident FTE.



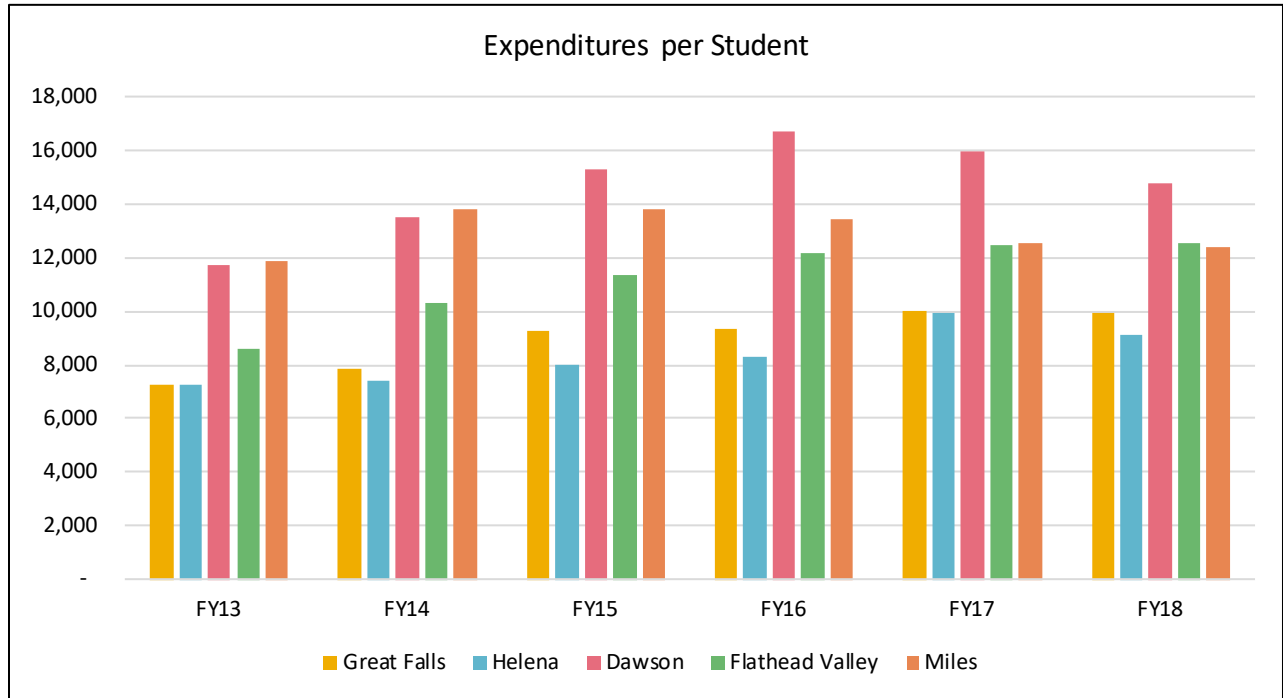
If the recommendation is to utilize a base model, statute would need to be changed in order to eliminate the funding formula. In addition, the legislature may wish to consider eliminating other items related to the formula such as the reversion, state share calculations (banding), and the requirement for a strategic plan for institutions that fall below a resident FTE level of 200. Consideration should be taken if the funding formula were to be eliminated and the potential impacts to the overall funding structure between state general fund and local support.

# APPENDIX A

## Definitions:

- **Adjusted Cost of Education:** the actual current unrestricted operating budget from the first year of the current biennium as adjusted to exclude one-time-only funding, audit, reversion from the base year, and medical and retirement mill levy increases above the FY 2012 levy amount. The total cost of education is rebased each biennium from the actual base year expenditures reported by the community colleges in the annual operating budgets submitted to and approved by the Montana Board of Regents
- **Variable Cost Factor:** the adjusted cost of education multiplied by the percent of expenditures that are considered variable. The current variable factor is 25%
- **Variable COE per student:** the total variable costs for the base year divided by actual full time equivalent (FTE) student enrollment for the base year. The variable cost of education per student is an average cost for all three community colleges under the current methods of calculating the formula
- **Fixed Cost of Education:** the total fixed costs for the base year as a percent of the adjusted cost of education. The fixed cost of education is currently based on 75% of the base year expenditures
- **Projected Resident FTE:** the aggregated resident FTE for each year of the proposed biennial budget. The legislature can choose to adopt the three community colleges projections or their own projections of resident FTE. One FTE is equal to 15 credits hours
- **State Percent Share –** the percent of the calculated fixed + variable cost calculation that the legislature decides to support with a state appropriation. The state percent share factor is the mechanism through which the legislature exercises public policy in this formula, as the percent level established is purely a matter of the public policy decision the legislature makes based upon available state revenue and the amount of funding the legislature determines that state government should support Montana resident students attending community colleges

## APPENDIX B



This chart represents the expenditures per total FTE from FY 2013 through FY 2018 for the two-year campuses and the community colleges. While expenditures per student is not an aspect of the funding formula, it was an area that was analyzed during the review for comparative purposes. Expenditures per student is often an indicator in higher education analysis.

## APPENDIX C

The chart below provides a comparison of funding by source of the two-year campuses and the community colleges. The community colleges receive local support from mill levies for their current unrestricted revenues. The two-year campuses do not receive local support. The allocation of the general fund to Helena and Great Falls is determined by the Board of Regents. The general fund appropriation to the community colleges is calculated utilizing the funding formula. General fund for FY 2018 has been adjusted for reductions from the November 2017 Special Session.

