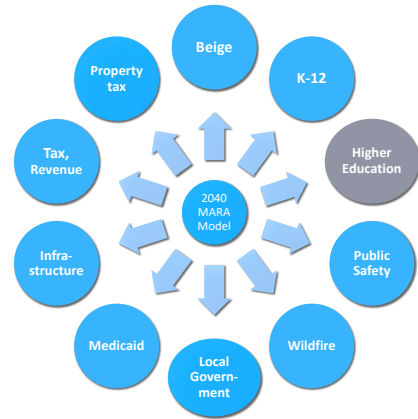**Financial Modernization and Risk Analysis (MARA) Study: Higher Education Module Summary**

MARA Study Overview

As directed by HB 330, the Financial Modernization and Risk Analysis Committee (MARA) has undertaken a study of the long-term financial needs of the state and local governments, while considering changes in demographics, technology, and the economy. The MARA forecasting model is based on econometric data and identifies future financial risks to the state's revenues and expenditures, as well as considering impacts on local governments' revenues and expenditures. The MARA committee relies on a data-driven approach to identify potential financial concerns for the state and local governments. This approach has a medium- to long-term time focus, from present to 2040.

MARA Higher Education Module Overview

The 2040 MARA model is broken into "modules". The modules reflect different aspects of the revenues and expenditures of state government, local government, and school districts. The higher education expenditures module includes programs like the Montana University System (MUS) and community colleges.

MARA Higher Education Module – Data Sources

Data sources for the higher education module include:

- Montana Statewide Accounting, Budgeting and Human Resources Systems (SABHRS)
- Community college revenue and expenditure data from the Office of the Commissioner of Higher Education (OCHE)
- University and community college enrollment data from OCHE
- Property tax collection data from the Department of Revenue
- Population data for college-age students (age 20-24) from IHS and REMI

MARA Higher Education Module – Assumptions and Methodology

Expenditures

Higher Education expenditures will be broken into the following categories (correlates with the U.S. Census subcategories) for modeling purposes:

- Montana University System – all current expenditures
- Montana University System – auxiliary
- Montana University System – building infrastructure
- Community colleges – all current expenditures
- Community colleges – auxiliary
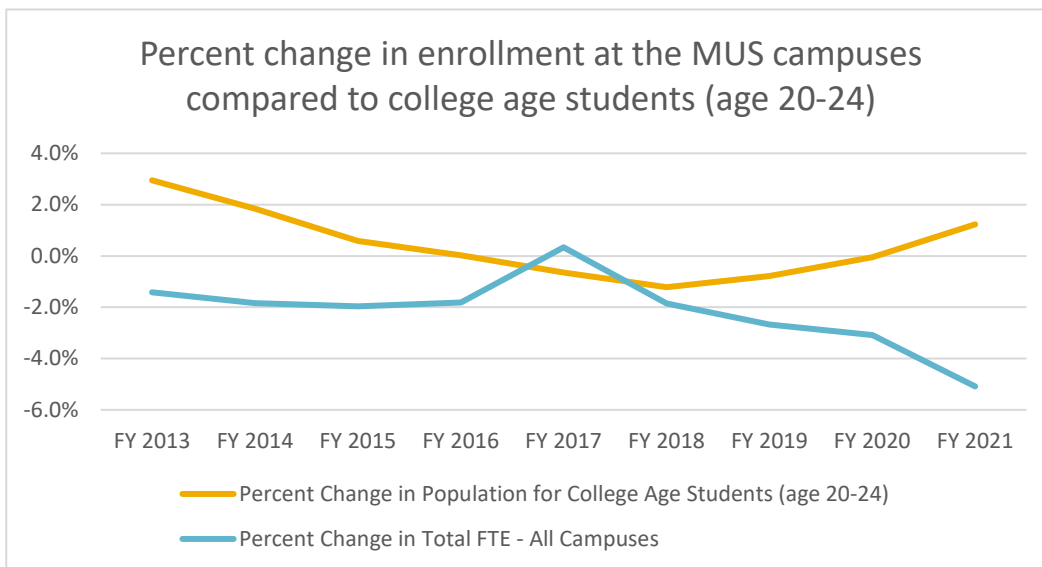- Community colleges – building infrastructure

Montana University System – Current Expenditures

Current expenditures at the Montana University System will be forecast using enrollment projections and historic costs adjusted by the consumer price index for all urban users (CPI-U). The calculations will be done by MUS unit to capture the individual expenditures and resources of each campus and to allow for flexibility in further refining the model. Results of the calculations will be rolled up to the MUS level to show a system-level projection.

The forecast for university enrollments will include both resident and non-resident full-time equivalent (FTE) and is assumed to remain proportional to recent years' enrollment. FY 2021 will be omitted because of pandemic anomalies. Growth in enrollment will initially be projected using IHS and REMI population data. There are challenges with using this data to project enrollment growth since there appears to be little correlation between changes in population and enrollment changes, as seen in the chart below. Other factors impacting enrollment numbers will be researched to help understand possible reasons for these differences.

> **MARA Higher Education Module: Program-level projections and "beige" projections**
>
> ➢ Many of the expenditures of state and local government in the MARA forecasting model are projected with a "status quo"-based methodology which assumes "business as normal" or "beige" continues into 2040. An example would be the administrative functions of Commissioners Office of Higher Education
>
> ➢ In the higher education module specific, "non-beige" projections are made for university enrollments and costs per resident and non-resident FTE

Percent change in enrollment at the MUS campuses compared to college age students (age 20-24)

Cost per resident and non-resident FTE will be calculated by examining historic cost per FTE from FY 2012 through FY 2019. FY 2020 and FY 2021 will be excluded to remove the impacts of the pandemic. These costs will be adjusted by the CPI-U in order to forecast costs through 2040.

The forecast for enrollment will be combined with the forecasted cost per FTE to get the projected current expenditures.

Montana University System – Auxiliary

Auxiliary expenditures are the costs related to providing goods or services to students, faculty, or staff for a fee. Examples include expenditures related to residence halls, food services, and bookstores. These expenditures will be projected using the "beige" methodology described in the box on the previous page.

Montana University System – Building Infrastructure

Building infrastructure will be modeled separately. Projected expenditures, based upon historical capital outlay data, will be compared against industry-recommended guidelines for annual capital maintenance, repair, and life-cycle renewal.

Community Colleges

Community college expenditures for all current expenditures, auxiliary, and building infrastructure will be calculated using the same methodology described for the MUS.

Funding

Funding will be allocated based upon the proportions of actual funding in FY 2019 for state general fund (MUS and community colleges), the 6-mill levy (MUS only), net tuition and fees, federal funds, local support (community colleges only), and other revenue.

Revenue

A summary of the revenues needed as determined by the funding analysis will be reported by type of revenue. Revenue availability compared to revenue needs will also be reported and any areas of concern will be reported. This comparison will not be available until the October model update, at the earliest.

Unusual revenues, like federal pandemic relief funds, will be excluded from the calculations.

Property Taxes

The analysis of the anticipated impact on property taxes will not be available until the October model update. The MUS receives funding from the 6-mill levy and the community colleges receive local support.