Colorado Minimum Value Threshold (MVT) calculations

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Presentation agenda:

- Situate Minimum Value Threshold (MVT) work in the context of the Colorado higher education Strategic Plan and HB22-1349

- Discuss role/work of the Technical Working Group over the past 14 months

- Present MVT formula, sample, and data sources

- Demonstrate interface mockup

- Discuss next steps and goals for the future of this work

Colorado Commission on Higher Education (CCHE) Strategic Plan

- **Overarching Goal**

  - "Increase the number of Coloradans benefiting from valuable career skills, obtained while in high school or via postsecondary education, that –at a minimum– enable additional lifetime earnings greater than the cost of attendance."

- **How to get there? Better data.**

  - "The Commission, Department of Higher Education, and institutions will take a first step to accessing better data through implementation of House Bill 22-1349. More timely disaggregated data connected to workforce outcomes will enable more effective interventions. Better data will also enable transparency for learners about what they can expect from an educational pathway—from the skills and competencies they will acquire to the career outcomes those competencies lead to."

HB22-1349

1. CCHE shall enact a policy directing CDHE to develop student success measures that measure the progression of students through postsecondary education and the impact of postsecondary pathways on a student's career opportunities and success	2. CDHE shall create and maintain a statewide data system of student success information to enhance data-based decision-making by institutions and the public to increase student success using the student success measures	3. CDHE shall update and modernize its data collection systems, including its student-unit record data system (SURDS)	4. CCHE shall submit reports to the Legislature on the work required and any barriers identified, including recommendations for legislative changes necessary, to deliver a statewide longitudinal data system that connects K-12, postsecondary, and workforce information

Items 2 - 4

- Technical Working Group identified many other student success metrics (i.e., retention and graduation rates, time to degree, etc.) to populate dashboards and other information sources.

- CDHE staff working our vendor partner, Resultant, and engage stakeholders regarding SURDS rebuild and modernization.

- Reporting (including those produced in 2023 and 2024) reviews Colorado's longitudinal landscape and outlines best practices for data linkages, governance, and use.

Technical Working Group charge

- To support implementation of CCHE's Strategic Plan and HB22-1349, CCHE will convene a Technical Working Group of local stakeholders and national experts to determine and define:

  - Colorado-specific measures of postsecondary value, including a "minimum economic viability threshold" *(CCHE Strategic Plan)*

  - "Student success measures that measure the progression of students through postsecondary education and the impact of postsecondary pathways on a student's career opportunities and success. The student success measures must include postsecondary success measures and workforce success measures." *(HB22-1349)*

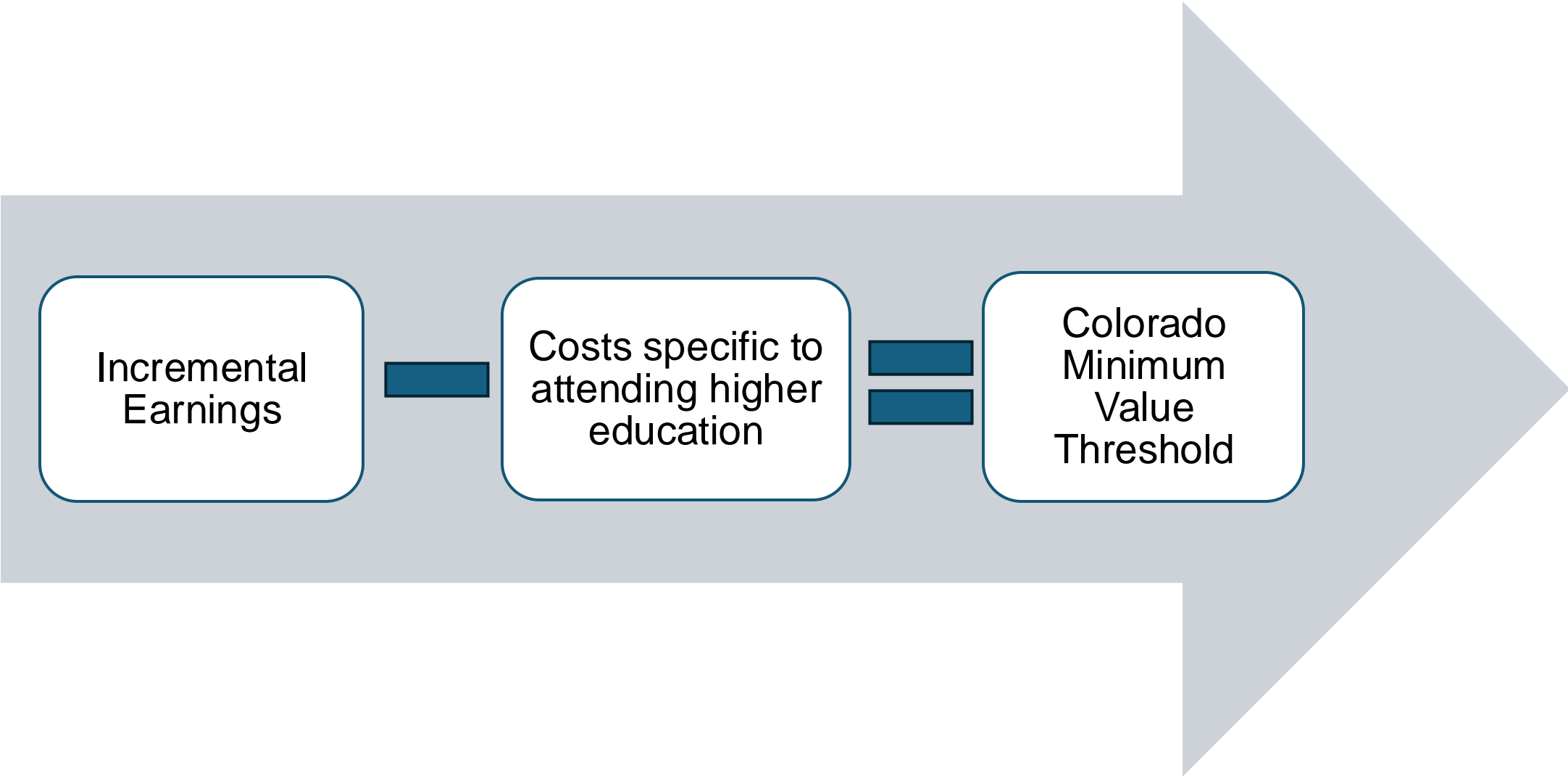# Collaboration with Education Strategy Group (ESG)

- Great thanks to Dr. Emily House, Dr. Gina Johnson, and Disraelly Cruz for their support of this work and the facilitation of the Technical Working Group.

  - ESG's currently scoped work on this project ends on November 1st.

  - CDHE staff is working with ESG to compile and finalize a variety of documents and documentation related to this work.

  - Those documents will be completed by end of October.
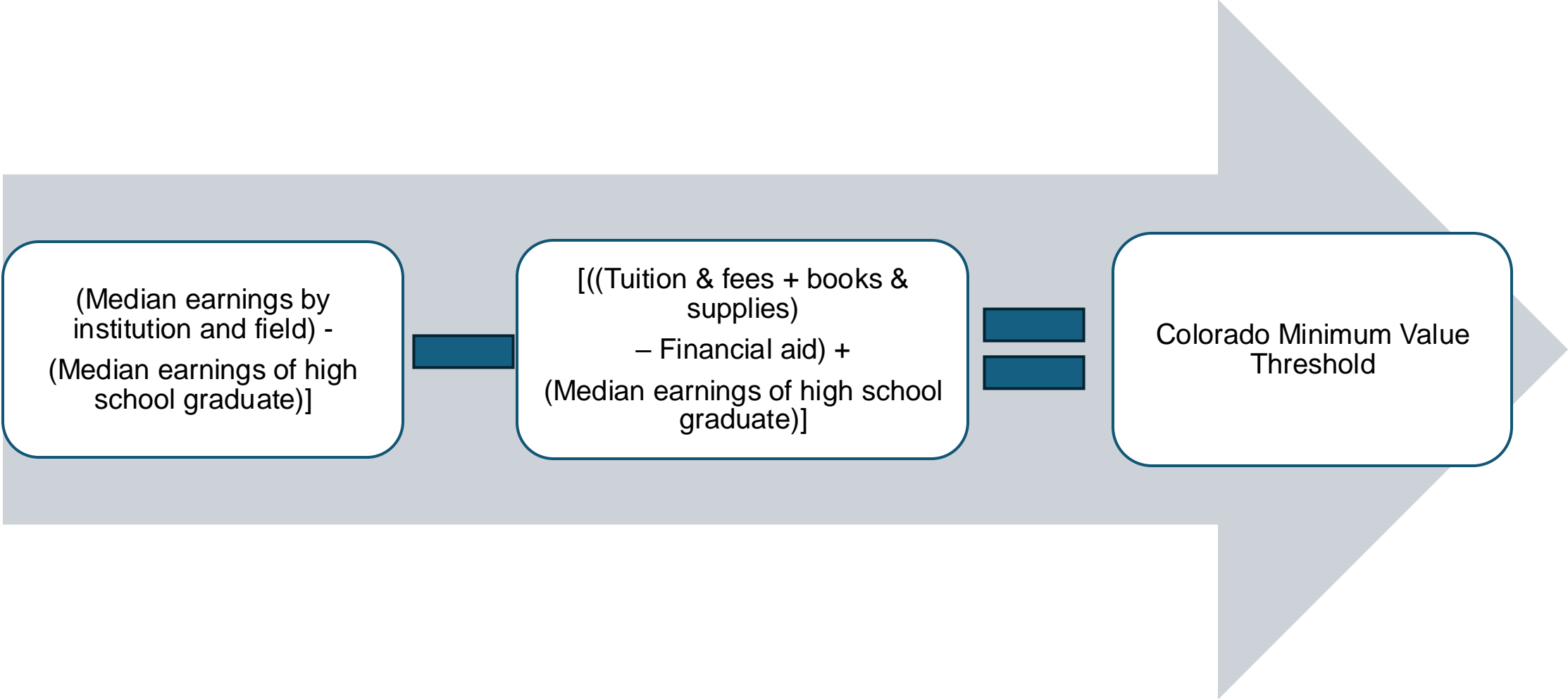
Technical Working Group

- ## Group has met monthly since June 2023
  - 90-minute, virtual meetings
  - Public meetings; recordings are available on the CDHE website

- ## 16 members
  - CCHE Chair and Vice-Chair
  - CDHE staff
  - Colorado Colleges and Universities
    - Institutional researchers, CFOs, CAOs
  - Community stakeholders
  - National experts
    - Institute for Higher Ed Policy, FreOPP

Colorado Value Threshold Model

Incremental Earnings — Costs specific to attending higher education = Colorado Minimum Value Threshold

Colorado Value Threshold Model detail

(Median earnings by institution and field) -
(Median earnings of high school graduate)]

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[((Tuition & fees + books & supplies)
– Financial aid) +
(Median earnings of high school graduate)]

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Colorado Minimum Value Threshold

Technical documentation

- Living document; reflects "parking lot" and FAQs

- Three components of MVT calculation:
  - **Realized earnings:** the earnings of students who participate in higher education after they separate from school.

  - **Counterfactual earnings:** the earnings that students who participate in higher education would have earned had they not attended school (i.e., if they had entered the labor force with only a high school degree.) These include lost labor market earnings while enrolled.

  - **College costs:** costs specific to attending higher education, including net tuition and required fees, books and supplies.

Sample

- For this initial MVT calculation, the sample is a <u>combined cohort of undergraduate students</u> who first enrolled in higher education in <u>2007 or 2008</u>.
  - 63,000 students
  - All public institutions for whom we have available data

- Students are followed for <u>fifteen years</u> to to determine whether their investment in postsecondary education meets a minimum value threshold for their <u>program of study.</u>
  - 600 programs

Data currently available

- ## Median earnings
  - Enrollment data connect to state wage (unemployment insurance) data

- ## Counterfactual earnings
  - Counterfactual is constructed using the American Community Survey (ACS)
  - Counterfactuals are demographic specific

- ## Tuition and Fee data
  - Collected from Colorado institutions of higher education
  - Books and supplies data from IHE submissions to the federal government

- ## As data get better and SLDS is built out, this analysis and its applications will be even more robust.

Interface demonstration

Additional Minimum Value Threshold (MVT) findings

- CDHE can disaggregate these data in various ways filtering by:
  — Student cohorts based on completion or non-completion
  — Institution of higher education
  — Degree level
  — Program (2-digit CIP)

- However, the more filters applied, the smaller counts become for each level of analysis. When all elements are applied 78% of program (at the 2-digit CIP code level) are suppressed. However, that only represents 21% of the student population in this analysis. This means that almost 80% of students in the cohort are captured in the data institutions received on their MVT.

- With so much program level data suppressed, other levels of analysis become necessary. By removing the specific institution from the analysis and rolling up all institutional data to a statewide level, more statewide themes can be observed.

- By looking statewide at the general program level, the percent of programs above or below MVT by degree type can be seen. In addition, by looking at the data statewide without breaking out the data institution or completion status, there is a reduction in the amount of data suppression. **In total across Colorado public institutions, 86% of programs meet the MVT**.

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Data considerations

- Use 15 years of wage data as proxy for "lifetime earnings"
    - 15 years may not provide some programs/professions with sufficient time to recoup the costs of postsecondary education
    - To proxy "lifetime earnings", projections could be made from the last year of earnings and counterfactual data available using 2% raise per year

- Limitations of unemployment insurance (UI) data
    - Use of Colorado UI data is limited only to those who work in Colorado; data not available for those who leave the state
    - Self-employed, military, and federal government jobs excluded

- Tuition classification limitations
    - Students may have in-state tuition classification for a variety of reasons and doesn't necessarily mean that they are "in-state" students

- Discount rate to account for inflation?

Minimum Value Threshold (MVT) findings

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Next steps

- Collaborative conversations between CCHE, CDHE, and IHEs
  - How can we best use these data with IHEs to identify the various levers we all have to increase student success?
  - How can the output of this model along with data from CDHE's annual ROI report (and potentially other IHE analyses) be used all together for those collaborative conversations?

- Share model's data and output
  - Plans to only share with individual IHEs (and/or their governing board)
  - Feedback from DAG to allow for viewing of cross-IHE data.