Cost Driver Analysis:
General Approach to the Work

Expert Team Meeting
Denver, Colorado
August 27, 2014

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- Find a way to convey to policymakers and the general public
  - The factors that determine the costs of educating a student and why those costs differ in different types of institutions
  - The factors that determine prices charged to students
  - The extent to which Colorado institutions have managed to control cost and prices
- Put state appropriations in the context of overall institutional finance
- Base the story line on sound analyses
- Build trust by increasing transparency of cost and pricing considerations

Cost Driver Analyses – General Approach

- Separate analyses for different types of institutions – tentatively
  - Research 1
  - Research 2
  - Other 4-year
  - 2-year
- Identify those factors that explain most of the variation in cost
- Compare Colorado institutions to other, similar institutions on these variables
- Work hard at developing graphic presentations that tell the story

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- Conduct majority of analyses using national data
  - Cast a wide net
- Add granularity by using data compiled from CDHE and institutions
  - Every effort made to minimize impact on institutions
- Address cost driver analyses first, pricing second
  - Inform mission metric decisions in funding model

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Cost Driver Analyses

- Dependent variables
    1. Expenditures on instruction
    2. Expenditures on student-related functions
        - Instruction
        - Student services
        - $[I/(I+P.S+Res)]$ Academic Support

A. Basic institutional characteristics

    1.   Sector (Carnegie classifications)

    2.   Locale

- Rural
- Small town
- Suburban
- Urban

    3.   Median wages of county/area in which institution is located

    4.   Size – annual FTE enrollment

B. Student characteristics

1.   Preparation – entering ACT/SAT

2.   % Part-time

3.   % Pell

4.   % Underrepresented minorities

   •   Hispanic

   •   African-American

   •   American Indians

5.   % older than 25

6.   % of entering students requiring remediation

7.   % headcount enrollments that are graduate and professional

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7

Independent Variables
(continued)

C. Program characteristics

1. % FTE enrollment that is graduate & professional
2. Breadth of undergraduate programs
   - Number of UG programs (6-digit) with completers
3. Breadth of graduate programs
   - Number of graduate programs (6-digit) with completers
4. Concentration of programs in high cost fields
   - Weighted degrees/un-weighted degrees
   - Undergraduate & graduate separate
5. Research emphasis
   - Research expenditure per FT Faculty or relative to instruction expenditures
6. Med/Vet school
7. Land Grant status

D. Staffing related factors

1. Number of staff by category
   - Faculty – FT/PT
   - Executive & managerial
   - Other professional
   - Technical
   - Clerical
   - Service

2. Salaries
   - Faculty (by rank)
   - Administrators

3. Benefits
   - As % of compensation

E. Delivery method factors*

1. Class/section size distribution

   •   Common data set for total

   •   By 2-digit CIP & Level

2. Number in each category taught by

   •   FT Faculty

   •   PT Faculty

3. Number and proportion of SCH taught by FT Faculty

   •   By level

4. Number and percent of credit hours taught on-line

   •   Graduate

   •   Undergraduate

*Not available from national sources.

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F. Success Factors
- Completions by level and 2-digit CIP
- Proportions awarded to Pell recipients
  - Level and disc.
- Graduation rates
  - 100%
  - 150%
  - 200%
- Retention Rates
- Number of students completing 30, 60, 90 credits (4-year)
- Number of students completing 15, 30, 45 credits (2-year)
- Number of transfer with ≥30 credits

G. Facilities related factors

    1.   Annual depreciation amount

    2.   Replacement value

    3.   Gross area

    4.   Net area

H. Unrestricted revenues

– Revenues from

- Tuition and fees
- State appropriations
- Local government appropriations

– Provides the data to demonstrate "Bowen's Law"

Data Needed to Address Specific Items in the RFP

G. Uncontrollable or "mandated" costs - operating

Line item expenditures, by function

	Instruction	Research	……………	Total
Salaries				
Benefits				
Op. Expenses				
• Supplies				
• Utilities				
• Insurance				
• Other				
Capital items				

Most current & 5 years prior

Data Needed to Address Specific Items in the RFP

H. Expenditures on facilities and relationship to student fees

Funding of facilities construction & maintenance

– Separate for
  - Academic (Inst., Res., P.S.)
  - Administration
  - Recreation
    – Athletics
    – Other (Student Union, etc.)
  - Auxiliary Enterprises – other than athletics/recreation

– Omit hospitals

Revenue Source	Capital	Maintenance
State Appropriation – Cap		
State Appropriation – General Fund		
Federal		
Gifts		
Student Fees		
Use charges		

– Last 5 years

Data Needed to Address Specific Items in the RFP

I. The use of institutional financial assistance & scholarships at various institutions

	Undergraduate	Graduate
Scholarship Payments ($'s come into institutions)		
Waivers		