General Structure/Architecture of State Level Higher Education Funding Models

Data for Informed Decisions: Who is in the Driver's Seat?

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Session Overview

- Introduction of Panelists
- Funding Model Background and Concepts
- Review of General Types of Models
- Uses and Limitations of Each type
- Role of Institutional Research
- Questions and Answers

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Why Does IR Care?

- What do Funding Models Have to do with IR?
  - Models are Typically Data Intensive
  - Likelihood of IR Involvement in Analytical Support
  - Growing Trend in Accountability and Performance Measurements

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Funding Model Background and Concepts

- Major Components of State Level Funding Models:
  - Multipurpose Component
    - Fund Core Mission and Direct Support Functions
    - Examples:
      - Incremental
      - All-Inclusive
      - Functional
      - Peer Based
  - Single-purpose Component:
    - Performance Funding,
    - Initiative Funding
    - Special Program Funding
  - Most States Have Both

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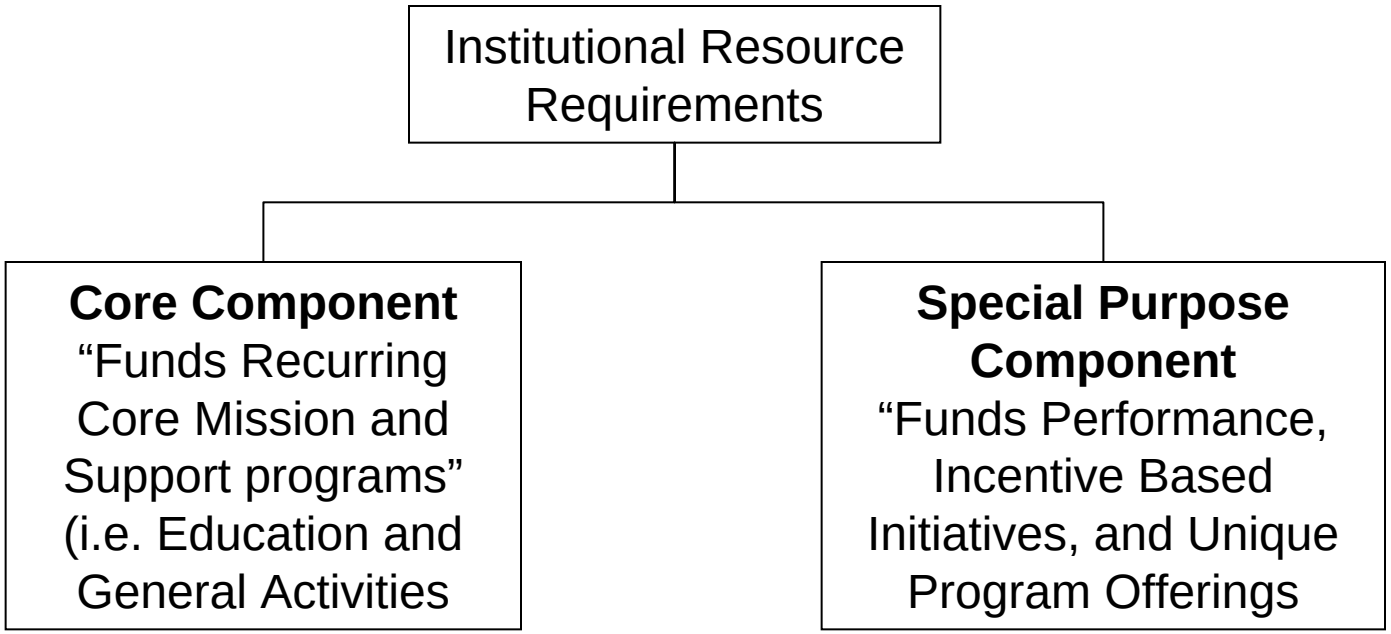
Funding Model Background and Concepts

(continued)

Figure 1

Funding Model Architecture



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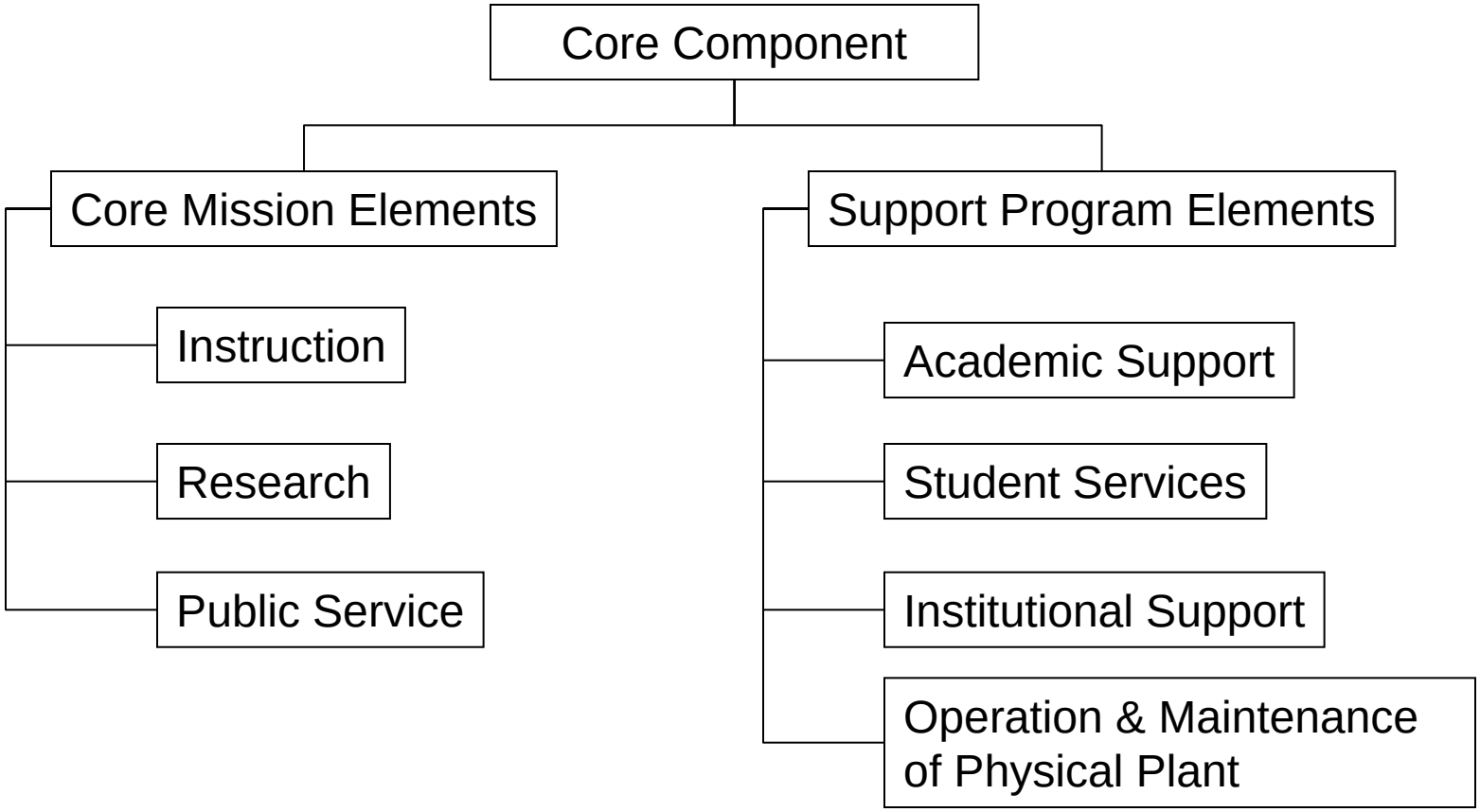
Funding Model Background and Concepts

(continued)

Figure 1 (Continued)



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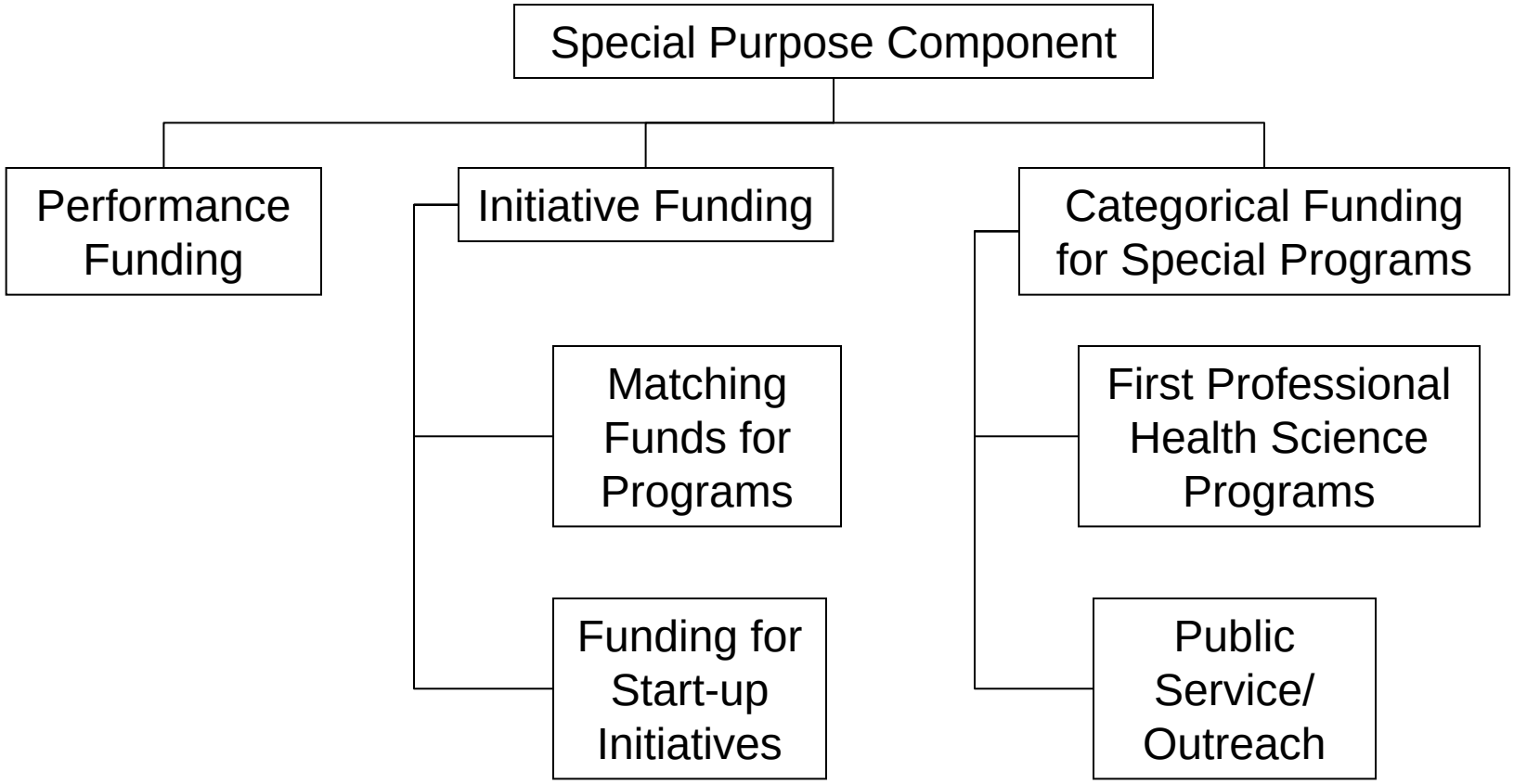
Funding Model Background and Concepts

(continued)

Figure 1 (Continued)



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Funding Model Background and Concepts

(continued)

- The Missouri Experience
  - Functional Model – Early 1970's to Mid-1980's
  - Modified Functional Model – Mid-1980's to 2000
  - Funding For Results (FFR) – 1990's
  - Mission Enhancement – 1990's
  - Incremental – 2000's On
  - What Next?

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Four Approaches to Allocating Funds

- Incremental
- All-Inclusive
- Functional
- Peer Based

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All-Inclusive Funding Model

- Goal - fund core mission and support functions
  - Only State Support
  - Single Formula
- Student Count as a Base Factor:
  - Headcount
  - FTE or SCH
  - Weighted FTE Weighted (by Level and/or Discipline)
- Excludes:
  - Special Purpose Components, e.g. Dentistry, Medicine, COOP/Extension
  - Performance and Initiative Funding

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All-Inclusive Funding Model

(continued)

- Model Stabilization
  - Buffering: insulate appropriations from sudden enrollment shifts
  - Threshold: Allows Appropriations to Increase or Decrease by a Maximum Amount
  - Corridor: Use of a set Percentage Range in Which Appropriations Can Change.

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All-Inclusive Funding Model

(continued)

- Advantages:
  - Vertical and Horizontal Equity
  - Transparent and Easy to Understand
  - Enrollment Sensitive
  - Fairly Valid and Reliable Data
  - Can be made to be Relatively Stable
  - Can Help Limit the Role of Politics
- Disadvantages:
  - Unresponsive to Internal and External Changes
  - Fails to Address Issue of Adequacy
  - Does Not Address Research and Public Service
  - Limited linkage to State-wide Goals

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Functional Funding Model by Expenditure Classification

- Structured According to Functional Expenditure Categories (NACUBO)
- Use of Program Classification Structure (PCS)
  - **Instruction**
  - **Research**
  - **Public Service**
  - **Academic Support**
  - **Institutional Support**
  - **Operation and Maintenance of Physical Plant**
  - **Not Included:**
    - **Scholarships/Fellowships**
    - **Auxiliary enterprises**
    - **Hospitals**
    - **Mandatory Transfers**

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Functional Funding Model

(continued)

- Calculations
  - Rate per Base factor
  - Percentage of Base Factor
  - Base Factor-Position with Salary rates
- Base Factors:
  - Student headcount
  - Full-time Equivalent (FTE)
  - Student Credit Hour
  - Number of Faculty and/or Staff Positions
  - Square Footage or acreage

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Functional Funding Model by Expenditure Classification

- **Instruction**
  - Examples:
    - » Rate per student/faculty ratios by level and discipline
    - » Rate times a weighted SCH or FTE
- **Research**
  - Examples:
    - » Percent of External Sponsored Research
    - » Percent of Instruction and Academic Support
- **Public Service**
  - Examples:
    - » Percent of Instruction and Academic Support
    - » Base plus Percent of Instruction
- **Academic Support**
  - Examples:
    - » Percent of Instruction
    - » Base Plus per SCH Computation

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Functional Funding Model

(continued)

- **Student Services**
  - Examples:
    - » Percent of Instruction
    - » Base Plus per SCH Computation
- **Institutional Support**
  - Examples:
    - » Base Plus Percent of E&G (less institutional support)
    - » Percent of E&G (less institutional support)
- **Operation and Maintenance of Physical Plant**
  - Examples:
    - » Flat Rate per Square Foot
    - » Differentiated Rates by Category of Facility

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Economies of Scale and Scope

- **Institutional Differentiation**
  - Horizontal and Vertical Equity
  - Economies of Scale and Scope

- **Relative Institutional Sizes May Cause Variations in Per Unit Costs**
  - Carnegie Foundation Thresholds
    - 1,000 to 1,300 FTE for Comprehensive Institutions
    - 5,000 to 5,500 FTE for Research Institutions
  - Most Pronounced in Institutional Support, Student Services, and Physical Plant

- **Responses**
  - Fixed Cost Factors (i.e. Minimum Guaranteed Funding)
  - Differentiated Funds for Complex Institutions

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Functional Funding Model

(Continued)

- Advantages
  - Comprehensive in Design
  - Horizontal and Vertical Equity
  - Flexibility to Control Support Functions
- Disadvantages
  - Complexities
  - Data Intensive
  - Data Validity and Reliability
  - Leveling of Institutional Mission

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Peer-Based Funding Model

- 8 States use some form of the Peer-based Model
  - Examples: Kentucky, Oklahoma, West Virginia, South Carolina
- Tend to be Linked to Explicit Plans for Improvement

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Peer-Based Funding Model

(Continued)

- Use of Comparative Benchmarks
  - For Example,015 cm/I3f

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Peer-Based Funding Model

(Continued)

- Peer Selection Methods
  - Cluster Analysis
  - Hybrid Approach
  - John Minter Process
  - Panel Review

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Peer-Based Model

(Continued)

- Advantages
  - Transparency
  - Ease of Understanding
  - Highlight the Levels of State Support for Higher Education
  - Can Directly Address Funding Gaps
- Disadvantages
  - Peer Selection Process and Politics: Athletic Conference, Competitors, Aspirations, Similarity
  - Hard-to-Find Peers

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Role of Institutional Research

- **Data Requirements to Support Funding Models**
  - **All-Inclusive Model**
    - **Student Credit Hours (SCH) or Full-time Equivalency (FTE)**
    -

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Role of Institutional Research

(continued)

- **Data Requirements to Support Funding Models**
  - **Functional Model**
    - **Discipline Weighting**
    - **Instructional or Student Level Weighting**
    - **E&G Expenditures by Classification of Instructional Program Structure (CIP)**
    - **Student/Faculty Headcounts**
    - **Plant – Square Feet and/or Replacement Value**

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Role of Institutional Research

(continued)

- **Data Requirements to Support Funding Models**
  - **Peer Based Model**
    - **Determination of Peers – Perils of Peer Selections**
    - **IPEDS Peer Analysis System**
    - **Estimation of Peer Funding Gaps – Per FTE**

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Level and Discipline Weightings

- National Study of Instructional Costs and Productivity (“Delaware Study”)
- Methodology
- Use of Clusters for Greater Simplification

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Level Weightings Example: Texas 2008-2009

http://www.thecb.state.tx.us/reports/PDF/1419.PDF

Formulas

Discipline	Lower Division	Upper Division	Masters	Doctoral	1st Prof
Liberal Arts	1.00	1.77	4.01	9.94	-
Fine Arts	1.50	2.51	5.65	9.78	-
Pharmacy	1.75	3.85	14.90	22.27	5.13
Engineering	2.45	3.51	7.39	17.05	-

Formula * Weight ($59.02)

Discipline	Lower Division	Upper Division	Masters	Doctoral	1st Prof
Liberal Arts	$59.02	$104.47	$236.67	$586.66	-
Fine Arts	$88.53	$148.14	$333.46	$577.22	-
Pharmacy	$103.29	$227.23	$879.40	$1,314.38	$302.77
Engineering	$144.60	$207.16	$436.16	$1,006.29	-

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What Should IR Do?

- Funding Models And IR?
  - Many Models are Data Driven
  - Analytical Support
  - Growing Trend in Accountability and Performance Measurements

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Questions and Further Discussions

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Thank You for Your Time

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