IOWA STATE UNIVERSITY

2024 P&S Council Professional Development Conference
Understanding the University’s Budget Model

and

Research Findings on Nationwide RCM Model Impacts on Staff and Student Retention

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Learning Objectives

Develop a working understanding of:

- The university’s budget structure
- The university’s funding structure
- How sources are included in the current budget process
- Where your units live within the university’s budget structure
- Impacts on staff retention
- Impacts on student retention
- RMM Performance vs other budget models
Resource Management Model
Background
Resource Management Model

Iowa State University utilizes a decentralized financial management model for the development of its annual operating budgets. The Resource Management Model (RMM), a responsibility-centered and incentive-driven approach to financial planning and management, is utilized for the development of the university's budget.
History of the RMM at ISU

Due to the dynamic environment in higher public education, budget leaders at Iowa State University worked with the university community to develop an alternative budget model that would be more flexible and responsive to the needs of the university. On Jan. 24, 2007, President Geoffroy decided that Iowa State University will adopt the Resource Management Model, which was developed through a series of university committees with broad feedback from the university community. The RMM was implemented the next July to begin FY 2009.
RMM Development Principles

The model should:

- Incorporate incentives to reward high-quality programs
- Link funding and costs to the responsibilities and performance of units
- Distribute revenues transparently and informed by data
- Attribute the cost of central admin to units that benefit from those services
- Engage campus in setting priorities for investing resources
- Work effectively during years of funding growth and decline
- Increase flexibility and improved ability to conduct multi-year financial planning
RMM Development Principles

The model should not:

- Drive decisions, but should inform decisions
- Create internal competition
- Create emphasis on quantity over quality
- Cause priorities to be driven by money
- Erode Institutional Culture
RMM Budget Concepts and Terms

- Units are defined as Resource Responsibility Centers (RRCs) or Administrative Service Centers (ASCs).
- RRCs generate revenues and receive funding from external sources.
  - Includes Colleges, VPR, Extension, and University Auxiliaries
  - Revenue and budget allocations occur in these primary resource units. Budget distribution to departments, programs, centers, and institutes is determined by each administrator of the primary resource unit.
- ASCs do not directly generate revenue but provide administrative and support services to resource units across the university.
  - ASCs include University Administration and Support, Academic administration and support, Library, Grad College, Enrollment Management, CELT, ITS, Business Services, and Facilities
RMM Budget Concepts and Terms

• Revenue
  • Tuition and Fees, General State Appropriations, Directed State Appropriations, Federal Appropriations, Indirect Cost Recovery (IDC), Sales and Services, Auxiliary, Gifts, Grants, Investment Interest, and Independent Ops (Ames Lab)

• Expenses
  • Salaries and Wages, Fringe Benefits, Financial Aid, Plant Capital, Equipment, Debt Service, Utilities, Supplies, Services, and Travel

• Surplus or Deficit: a surplus occurs when revenues exceed expenses, and a deficit occurs when expenses exceed revenues.

• Net Position (also known as carry forward balance, cash balance, generally university ACF)
  • Cumulative net surplus/deficit balance

• Balanced Budget
  • Plans annual expenses equal to estimated revenues. Actuals will differ from the budget, causing budget variances.
RMM Budget Concepts and Terms

• General Fund (Workday Term: Legislative and Advance Commitment Funds)
  • Fund sources that support instruction, research, financial aid, library, student activities, all institutional and academic support offices, continuing education, public service and physical plant.

• Restricted Funds
  • Fund sources that are restricted by a gift, grant, contract, or a unit providing service to the institution (Fee for service, auxiliary, Ames Lab)

• All Funds
  • Includes both general fund and restricted fund sources
FY24 Budget Background
FY24 All Funds Budget

FY24 Budget
$1.7B

General Fund
$768M (45%)

Restricted Fund
$926M (55%)
FY24 All Funds Budget

All Funds Revenue $ By Source

- Tuition and Fees: 538M
- Auxiliary Enterprise: 271M
- State Appropriations: 235M
- Federal Support: 206M
- Sales and Services: 100M
- Private Gifts, Grants & Contracts: 95M
- Independent Operations: 86M
- Plant Fund: 70M
- Indirect Cost Recovery (IDC): 39M
- Other State Support: 29M
- Other Income and Interest: 26M
**FY24 All Funds Budget**

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**All Funds Expense $ By Source**

- Salaries, Wages, & Benefits: 843M
- Supplies and Services: 387M
- Financial Aid: 213M
- Plant Capital: 83M
- Utilities: 54M
- Debt Service: 47M
- Building Repairs: 30M
- Other Expenses: 20M
- Equipment: 17M

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Iowa State University
FY24 General Fund Budget

General Fund Expense $ By Source

- Salaries, Wages, & Benefits: 501M (65%)
- Financial Aid: 130M
- Supplies and Services: 67M
- Utilities: 36M
- Other Expenses: 16M
- Building Repairs: 15M
- Equipment: 1M
College Enrollment Trend

- College Enrollment/SCH trends correlate to revenue distribution – incentivizes growth
General Fund Revenue Trend

Iowa State University General Fund
Revenue $ by Source

Fiscal Year

Millions
0 100 200 300 400 500 600

- General State Appropriations
- Directed State Appropriations
- Tuition & Fee Revenue
- Other

IOWA STATE UNIVERSITY
RMM Revenue Distribution
RMM Revenue Distribution – Appropriations

- General University State Appropriations
  - Colleges
  - Research
  - Extension
  - Strategic Initiatives
  - Undergraduate Resident Financial Aid
- Directed State and Federal Appropriations
  - 100% to Designated Unit
- Capital Appropriations
  - 100% to Designated Capital Project
- Note: Within Academic Affairs Division the Provost has the discretion to transfer general university state appropriations within that division as deemed necessary.
RMM Revenue Distribution – Tuition

- Tuition revenue distributed to colleges based on RMM formulas that factor in:
  - Tuition $ Assessed
  - Student Level (Undergrad/Grad/Prof)
  - Residency
  - College of Enrollment
  - Student Credit Hours (SCH) taught by college
  - Differential tuition rates
  - Non-resident student financial aid
RMM Revenue Distribution – Tuition (Graduate & Professional)

- **Resident Tuition**
  - Differential Tuition to Colleges
  - **Base Resident Tuition**
    - Net Tuition
      - 100%
      - Colleges (based on student’s major)
      - Revenue Transfer (based on SCH taught)

- **Nonresident & Intl Tuition**
  - Differential Tuition to Colleges
  - **Base Nonresident Tuition**
    - Net Tuition
      - 100%
      - Colleges (based on student’s major)

- Central Student Financial Aid Fund (professional tuition only)
Example – Undergraduate Tuition Revenue Distribution

Assessment

<table>
<thead>
<tr>
<th>Student</th>
<th>Residency</th>
<th>College</th>
<th>Enrollment</th>
<th>SCH Taught by</th>
<th>SCH Taught by</th>
<th>SCH Grand</th>
<th>Base Tuition</th>
<th>Differential Tuition</th>
<th>Total Tuition</th>
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<tbody>
<tr>
<td>Bob (Undergrad)</td>
<td>Iowa</td>
<td>LAS</td>
<td>12</td>
<td>12</td>
<td>$4,491</td>
<td>$4,491</td>
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<td></td>
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<tr>
<td>Jessica (Undergrad)</td>
<td>US Non-Resident</td>
<td>Engineering</td>
<td>9</td>
<td>6</td>
<td>15</td>
<td>$13,084</td>
<td>$1,787</td>
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<td>Iowa State University Total</td>
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<td></td>
<td>9</td>
<td>18</td>
<td>27</td>
<td>$17,575</td>
<td>$1,787</td>
<td>$19,362</td>
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<tr>
<td>SCH Taught</td>
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<td>9</td>
<td>18</td>
<td></td>
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<tr>
<td>SCH Total</td>
<td></td>
<td></td>
<td>27</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SCH Rate %</td>
<td></td>
<td></td>
<td>33%</td>
<td>67%</td>
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<td></td>
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</table>

Revenue Distribution

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<tr>
<th>Unit</th>
<th>Total Tuition Assessed</th>
<th>1. Distribute Differential</th>
<th>2. Distribute Base 25% on Enrollment</th>
<th>3. Distribute Base 75% on SCH %</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Differential Assessment</td>
<td>Financial Aid Assessment</td>
<td>Financial Base Tuition</td>
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<td>($290)</td>
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<td>$17,575</td>
<td>$0</td>
<td>$9,747</td>
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</table>

Student Financial Aid Budget - Example Budget

- Undergrad Resident - State Appropriations: $1,000
- Undergrad Non-Resident - Base Tuition: $4,579
- Undergrad Non-Resident - Differential Tuition: $290
- Total Student Financial Aid Budget: $5,869
RMM Revenue Distribution – Indirect Cost Recovery

• Also referred to as Facilities and Administrative Cost Recovery (F&A), IDC, Overhead
• Funds administrative expenses that support research activities

Restricted Fund Distribution
• 15% Principal Investigator Fund
• 14% Research Infrastructure Fund
• 6% Faculty Start-Up Fund

General Fund Distribution
• 10% to Administering Unit (College)
• 10% Interdisciplinary Research Support (VPR)
• 45% Research Overhead (VPR)
RMM Revenue Distribution – Restricted Revenues

• Restricted revenues are allocated directly to the designated units/purpose or service provider (gifts, grants, fees, auxiliary, fee for service unit)
RMM University-Wide Services
(ASC Funding)
University-Wide Services (UWS)

- Administrative Service Centers receive their funding from the UWS allocation to RRCs. ASC budgets are grouped into 6 cost pools, changes approved by Sr. Leadership.
- Academic Support Programs
  - Provost Office, Graduate College, CELT
- Library
- Student Services
  - Dean of Students, Student Affairs Admin, Counseling & Wellness, Enrollment Management
- Information Technology Services
  - IT, Enterprise Systems, Security
- Business Services
  - Finance and HR Service Delivery, Treasury, Controller, UHR, General Counsel, Payroll, EH&S, DPS, etc.
- Facility Services
  - Excludes construction, discretionary improvements, utilities
University-Wide Services (UWS)

Expense Source
- Direct Expenses of Admin. Service Centers (ASCs)

Expense Pools
- Academic Support Programs
- Library
- Student Services
- Information Technology Services
- Business Services
- Facility Services

Allocation Methods
- Faculty FTE
- Weighted Employee FTE & Student Headcount
- Student Headcount
- Employee FTE & Student Headcount
- Employee FTE
- Net Assignable Square Feet

Resource Responsibility Centers (RRCs)
- College of Ag & Life Sciences
- Ivy College of Business
- College of Design
- College of Engineering
- College of Human Sciences
- College of Liberal Arts & Sciences
- College of Veterinary Medicine
- Research
- Extension
- Other Auxiliary RRRCs

Note: FTE = Full Time Equivalency
How Resource Management Models Impact Faculty/Staff Investment and Student Retention
Measuring performance

- Graduation rates
- Retention rates
RCM-type budget models

- Budgets prepared
- Resources are allocated
- Expenses assigned to revenue centers
- Overhead fee paid mid-year
Prospect Theory Utility Curve

. xtreg salary_wages rcm locale instsize landgrnt infl_pct_change, re

Random-effects GLS regression
Group variable: FY

R-squared:
    Within = 0.3520
    Between = 0.8427
    Overall = 0.3571

Number of obs = 1,642
Number of groups = 10

Obs per group:
    min = 164
    avg = 164.2
    max = 165

Wald chi2(5) = 908.81
Prob > chi2 = 0.0000

corr(u_i, X) = 0 (assumed)

| salary_wages | Coefficient | Std. err. | z    | P>|z|  | [95% conf. interval] |
|--------------|-------------|-----------|------|------|----------------------|
| rcm          | 4.43e+08    | 2.90e+07  | 15.25| 0.000| 3.86e+08 5.00e+08    |
| locale       | -7941029    | 1062945   | -7.47| 0.000| -1.00e+07 -5857695   |
| instsize     | 2.32e+08    | 1.25e+07  | 18.58| 0.000| 2.08e+08 2.57e+08    |
| landgrnt     | -1.29e+08   | 1.87e+07  | -6.90| 0.000| -1.65e+08 -9.22e+07  |
| infl_pct_change | -1.11e+09 | 6.54e+08  | -1.70| 0.089| -2.39e+09 1.66e+08   |
| _cons        | -3.03e+08   | 7.53e+07  | -4.03| 0.000| -4.51e+08 -1.56e+08  |
### Results: Investment in Faculty/Staff

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
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<tbody>
<tr>
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<td>4.43E+08</td>
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<td>0.000*</td>
<td>0.000*</td>
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<td>0.000*</td>
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<td>Institution Size</td>
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<td>2.32E+08</td>
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<td>Institution Size p-value</td>
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<td>0.000*</td>
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<td>-6.08E+08</td>
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<td>0.000*</td>
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<td>Model p-value</td>
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<td>0.000*</td>
<td>0.000*</td>
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<tr>
<td>R² value</td>
<td>0.2657</td>
<td>0.3571</td>
<td>0.3560</td>
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<td>0.3519</td>
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</tbody>
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**Iowa State University**
Results: Investment in Faculty/Staff

Graphs by RCM
## Results: Student Retention

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
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<tbody>
<tr>
<td>RCM Coefficient</td>
<td>4.735</td>
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<td>-0.033</td>
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Results: Student Retention

Graphs by RCM
Mediation relationship

<table>
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<tr>
<th>Equation</th>
<th>Obs</th>
<th>Parms</th>
<th>RMSE</th>
<th>&quot;R-sq&quot;</th>
<th>F</th>
<th>P&gt;F</th>
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<td>0.2440</td>
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<td>3.45e+08</td>
<td>0.3544</td>
<td>223.2769</td>
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</table>

|                | Coefficient | Std. err. | t    | P>|t| | [95% conf. interval] |
|----------------|-------------|-----------|------|------|----------------------|
| retention      |             |           |      |      |                      |
| rcm            | 4.485921    | .6843248  | 6.56 | 0.000| 3.14367              | 5.828171     |
| locale         | .0367457    | .0251855  | 1.46 | 0.145| -.0126538            | .0861451     |
| instsize       | 5.079171    | .3001408  | 16.92| 0.000| 4.490468             | 5.667874     |
| landgrnt       | -4.216939   | .4406032  | -9.57| 0.000| -5.081148            | -3.352729    |
| _cons          | 63.33489    | 1.773971  | 35.70| 0.000| 59.85539             | 66.8144      |
| salary_wages   |             |           |      |      |                      |
| rcm            | 4.45e+08    | 2.91e+07  | 15.30| 0.000| 3.88e+08             | 5.02e+08     |
| locale         | -7893284    | 1070634   | -7.37| 0.000| -9993249             | -5793318     |
| instsize       | 2.35e+08    | 1.28e+07  | 18.38| 0.000| 2.10e+08             | 2.60e+08     |
| landgrnt       | -1.29e+08   | 1.87e+07  | -6.89| 0.000| -1.66e+08            | -9.23e+07    |
| _cons          | -3.38e+08   | 7.54e+07  | -4.48| 0.000| -4.86e+08            | -1.90e+08    |
Investment in F/S as Control

Random-effects GLS regression
Group variable: FY

Number of obs = 1,632
Number of groups = 10

R-squared:
Within = 0.4220
Between = 0.7787
Overall = 0.4242

Obs per group:
min = 163
avg = 163.2
max = 164

Wald ch2(5) = 1198.11
Prob > chi2 = 0.0000

corr(u_i, X) = 0 (assumed)

| retention      | Coefficient | Std. err. | z     | P>|z|  | [95% conf. interval] |
|----------------|-------------|-----------|-------|------|----------------------|
| rcm            | -.6277113   | .638946   | -0.98 | 0.326| -1.880022 .6246     |
| salary_wages   | 1.15e-08    | 5.09e-10  | 22.56 | 0.000| 1.05e-08 1.25e-08   |
| locale         | .1274069    | .0223503  | 5.70  | 0.000| .0836011 .1712126   |
| instsize       | 2.384987    | .2879436  | 8.28  | 0.000| 1.820627 2.949346   |
| landgrnt       | -2.735064   | .3901992  | -7.01 | 0.000| -3.49984 -1.970287  |
| _cons          | 67.21638    | 1.558141  | 43.14 | 0.000| 64.16248 70.27028   |
Discussion

- RCM-type budget models are positively correlated with
  - Investment in faculty/staff
  - Student retention
- Mediation effect supported
- Negative framing
  - More aggressive budgeting supported
Conclusion

- RMM model breakdown
- Tuition and enrollment discussion
- Administrative fee discussion
- Increased investment in faculty/staff
- Improved retention rates
- Increased investment in faculty/staff improves retention in RMM models
- RMM performs well against other budget models
Questions?
Contact Me

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“Don’t tell me what you value, show me your budget, and I’ll tell you what you value” – President Joe Biden
Budgeting exercise

You are the director of a general funds unit. You want to propose a new program, but, have been told that there’s no new funding and you must reallocate internally in order to launch the program.

- Total budget $500,000
- Salary and benefits commitments = $255,000
  - 1 director, 2 program specialists, 1 GA
- Program 1 existing budget = $100,000
  - Budget utilization in previous FY = 92%
- Program 2 existing budget = $100,000
  - Budget utilization in previous FY = 91%
- Travel, supplies, conferences, professional development budget = $25,000
- Utilities and rent = $20,000