

# Strategic Budgeting

## Using Analytics to Efficiently Allocate Instructional Resources

CBMI- University of Kentucky  
Course #HED 2246

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# Class Objectives

- Compare common budget allocation models
- Use enrollment, section, and productivity data to inform funding decisions
- Apply a macro instructional budget model to a realistic enrollment target
- Analyze faculty productivity after a college's general decline in enrollment and identify budget implications

# **Financial State of Our Colleges**



# Financial Pressure Facing Colleges

- Enrollment softness is weakening tuition revenue
- Inflation, labor, benefits, and technology costs continue to rise
- Fixed costs limit short-term flexibility
- Public, federal, and research funding are increasingly uncertain

# Why Fiscal Stability Is Declining

- Public confidence in the value of college is more fragile
- Enrollment and completion patterns are weakening revenue streams
- Students and families are more debt and price-sensitive
- Career outcomes increasingly shape perceived institutional value



# Winners, Losers, and Fiscal Risk



- Higher education is separating into stronger and weaker institutions
- Smaller, lower-resourced colleges face the greatest pressure
- The risk is not just lower revenue; it is a compounding “death spiral”
- Budget strategy must shift resources toward high-impact areas

# Budgeting Challenges

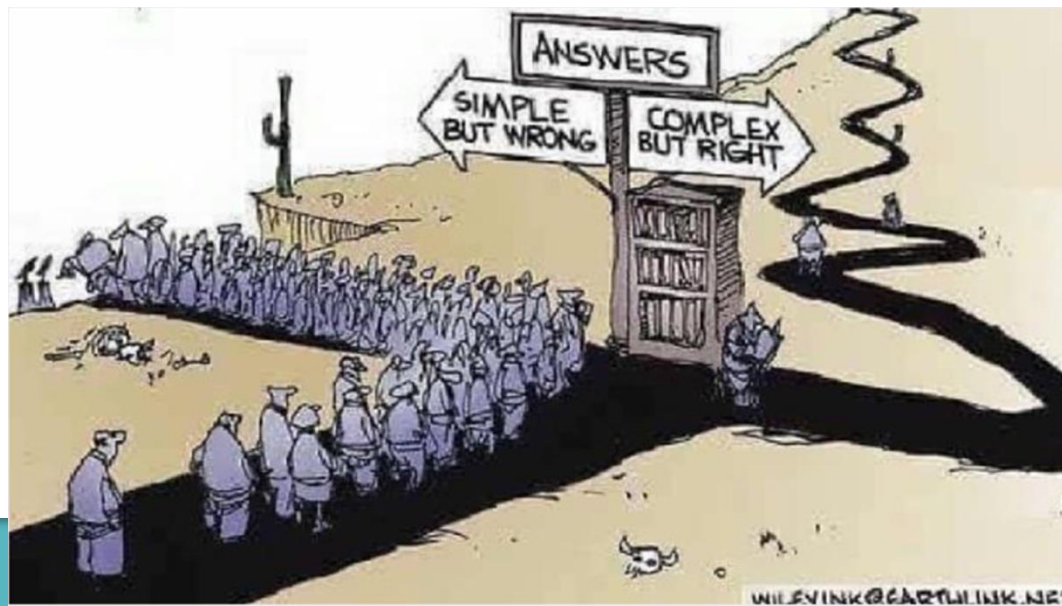
# Budgeting Models – Potential Challenges

- Many institutions allocate funds through habit and politics, often resulting in inefficient funding allocations
- SWOT (strengths, weaknesses, opportunities and threats) or objective-based budgeting depends on who defines priorities
- Incremental budgeting protects existing allocations
- Program or project budgeting can miss broader outcomes
- Zero-based budgeting requires strong oversight and clear measurable criteria

# Budgeting Crossroads

- Wealthier colleges can absorb inefficiency more easily
- Less affluent colleges need a more strategic allocation process

**Continuing the status quo is the simplest road, but “simple” isn’t the same as the “right” path to success**





# **Applying Analytics to Budgeting Models Isn't the Simple Road**

**However**  
**Applying Analytics to Strategic Budgeting  
is the Right Road**

## When We Don't Pay Attention to the Data



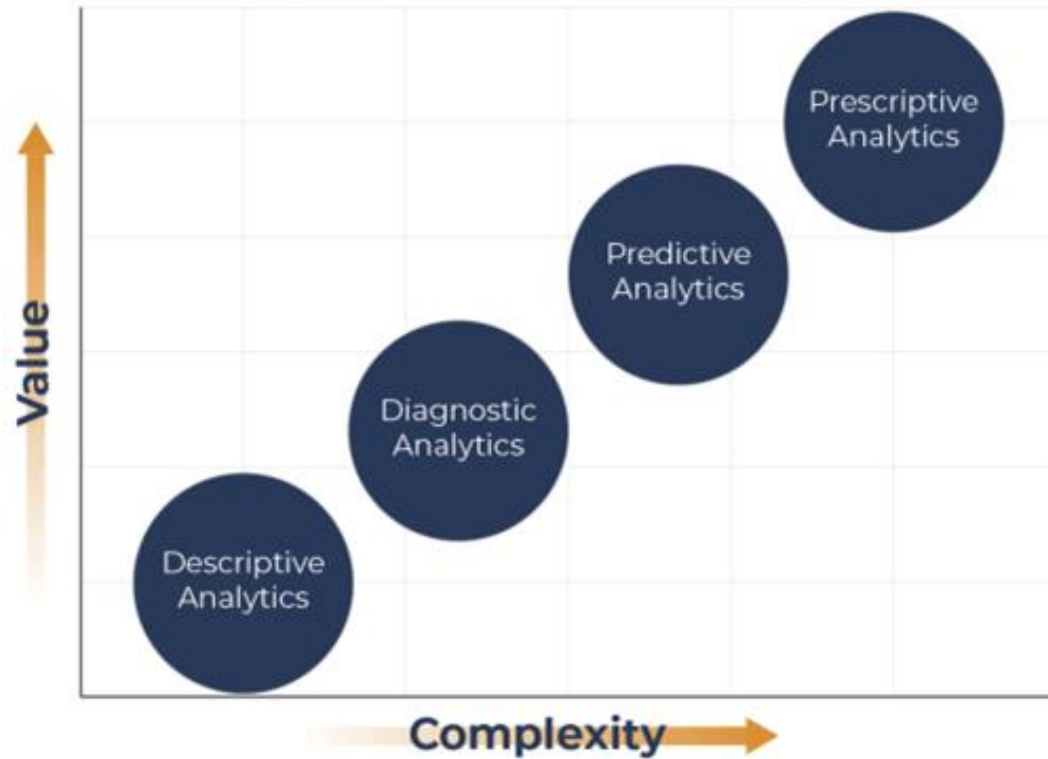
# **Analytics Shifts the Budget Conversation**

- Budgeting is not just allocating dollars — it is choosing priorities
- Analytics connects resources to demand, productivity, cost, and outcomes
- Analytics makes tradeoffs clearer, more transparent, and less political
- The goal is not to replace judgment, but to improve it

**Analytics moves the budget from “Who gets what?”**

**to “What works, what matters, and what can we afford?”**

# Four Stages of Analytics



1. What happened?
2. Why it happened?
3. What is likely to happen?
4. What should be done?

# Strategic Budgeting: What It Means

- Uses data as evidence to understand demand, cost, productivity, and outcomes
- Applies analytics to identify patterns, gaps, and tradeoffs
- Moves resources from lower-impact activities to higher-impact priorities
- Aligns budget decisions with mission, fiscal reality, and student success
- Creates a more rational environment for difficult resource decisions

**Strategic budgeting helps colleges fund what matters most — not just what was funded before**

# The Budget Questions Data Should Answer

- Where is demand increasing, declining, or shifting?
- Are staffing and expenses aligned with current activity?
- Which costs are fixed, flexible, or discretionary?
- Which areas are producing strong results relative to cost?
- What should be protected, reduced, redesigned, or reinvested in?

**Data does not make the decision — but it makes the right decision harder to ignore**

# Bringing the Pieces Together

## **Analytics shifts the conversation**

*From politics, history, and habit to evidence, impact, and affordability*

## **Strategic budgeting defines the approach**

*A more intentional way to align limited resources with mission and results*

## **Data answers the budget questions**

*Where demand, cost, staffing, productivity, and outcomes are aligned — or out of alignment*

**Now we need a budget model that helps turn  
these ideas into decisions**

# A Three-Level Strategic Budget Model

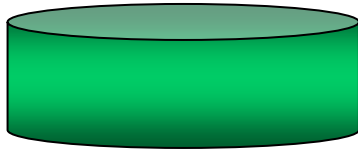
*Before colleges can make better budget choices, they need to know which costs are essential, which are fixed, and which can be changed*

- **Level 1:** Instructional salaries + direct teaching costs
- **Level 2:** Mandatory and contractual expenses
- **Level 3:** Discretionary and supportive expenses

**The model helps separate what must be funded from where choices can be made**

# Level 1

## Instructional Salaries



### Level 1: Instructional

Funding for all full  
and part-time  
faculty

First dollar emphasis  
on classroom  
instruction = primary  
college mission

## Level 2

# Mandatory & Contractual Expenses



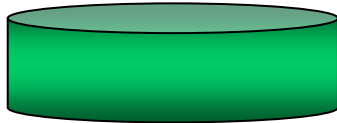
ALL OTHER FULL-TIME SALARIES



CONTRACTUAL OBLIGATIONS—E.G. DEBT SERVICE



OPERATIONAL REQUIREMENTS  
-E.G. UTILITIES,  
HOUSEKEEPING, TELEPHONES,  
TRASH REMOVAL



Level 1: Instructional

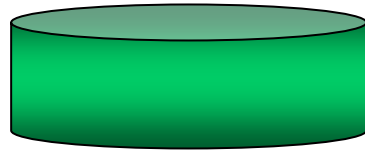


Level 2: Mandatory

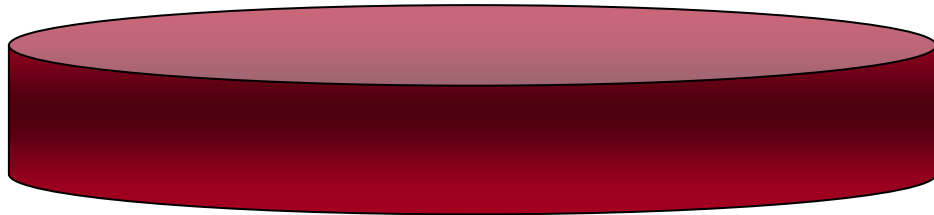
# Level 3

## Discretionary/Supportive Expenses

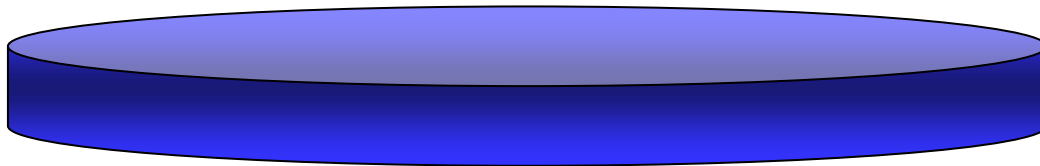
All other expenses not included in Levels 1 and 2



Level 1: Instructional



Level 2: Mandatory



**Level 3: Discretionary**

# Key Data Terms for Strategic Budgeting

- **FTE** — full-time equivalent
- **FTEs** — full-time equivalent students; converts enrollment activity into a common measure
- **FTEF** — full-time equivalent faculty
- **Credit hours** — the instructional activity generated by student enrollment
- **Sections** — the number of class offerings needed to serve demand
- **Faculty load** — the teaching assignment carried by faculty
- **Productivity** — the relationship between instructional output and staffing or cost

# Time to put the theory into practice



Work in teams of 3-4 participants

Use the assumptions provided to build a college-level instructional budget

# Engagement 1

## Case Study 1

### Developing a Macro Instructional Budget



# Case Study 1.1

## Assumptions

- Target: 5,000 FTES, with 30 credits per FTES
- Average 27 students per three-credit section/class
- Full-time faculty teach 10 courses per year; 125 full-time faculty
- Part-time faculty cost: \$3,500 per section

## Assignment

What is the part-time faculty budget for an enrollment of 5,000 full-time equivalent students– FTES?



# Case Study 1.1



## Part-Time Faculty Calculations

### Step 1: Total credits needed

$5,000 \text{ FTES} \times 30 \text{ credits} = 150,000 \text{ credits}$

### Step 2: Credits generated per section

$27 \text{ students} \times 3 \text{ credits} = 81 \text{ credits per section}$

### Step 3: Total sections needed

$150,000 \div 81 = 1,852 \text{ sections (rounded from 1,851.85)}$

### Step 4: Sections covered by full-time faculty

$125 \text{ faculty} \times 10 \text{ courses} = 1,250 \text{ sections}$

### Step 5: Sections needed from part-time faculty

$1,852 \text{ total sections} - 1,250 \text{ full-time sections} = 602 \text{ part-time sections}$

### Step 6: Part-time faculty budget $602 \text{ sections} \times \$3,500$

**Part-time faculty budget = \$2,107,000**

# Case Study 1.2

## Enrollment Adjustment

### Assignment

**What would be the additional cost if the target was increased to 5,500 FTES?**

### Assumptions

**Assume all additional classes will be taught by part-time faculty.**



## Case Study 1.2



### Cost to Add 500 FTES Calculations

#### Step 1: Additional credits needed

$500 \text{ FTES} \times 30 \text{ credits} = 15,000 \text{ credits}$

#### Step 2: Credits generated per section

$27 \text{ students} \times 3 \text{ credits} = 81 \text{ credits per section}$

#### Step 3: Additional sections needed

$15,000 \div 81 = 185.19 \text{ sections}$

#### Step 4: Rounded sections needed

186 sections (*rounded up from 185.19*)

#### Step 5: Additional part-time faculty cost

$186 \text{ sections} \times \$3,500 = \$651,000$

**Additional part-time faculty cost: \$651,000**

# Case Study 1



## Question

**Change in assumptions that would affect the results?**

## Discussion

**How was analytics applied to the case study when enrollment was increased by 500 FTES?**

# Four Stages of Analytics

## 1. What happened?

- *Level 1 instructional costs increased*
- *The additional 500 FTES required more sections*

## 2. Why it happened?

- *Enrollment growth created an additional cost*
- *The assumption was that added sections would be taught by part-time faculty*

## 3. What is likely to happen?

- *Level 2 and Level 3 budgets may be squeezed if revenue does not cover the added cost*
- *Other allocations may need to be revised*

## 4. What should be done?

- *Rebalance the proposed budget*
- *Review assumptions, revenue, and noninstructional funding levels*



# Now let's drill down into a micro budget level



Please stay with your teams of 3-4 participants  
Use the exhibit (1 through 6) packet that each of you should have

# Micro Analysis: Why It Matters



- This exercise examines institutional efficiency and faculty productivity
- The goal is to test whether costs align with enrollment realities
- Participants compare post-decline staffing to pre-decline productivity
- The analysis supports evidence-based budget decisions

## Engagement 2

# Case Study 2

## Micro Analysis of an Instructional Budget



# Micro Analysis: The Data Set

- The exhibits use faculty-load data from an actual university
- Enrollment declined significantly over a three-year period
- The analysis focuses on productivity, not just headcount
- The goal is to identify whether budget adjustments (FTEF) were sufficient when current productivity is compared to pre-reduction enrollments

# Micro Analysis: FY1 to FY2

- FY1 represents the pre-decline enrollment baseline
- FY2 reflects faculty-load adjustments after the decline
- Productivity is measured through credit-hour and faculty-load relationships

# Micro Analysis: Participant Task

- Analyze XYZ University faculty-load and budget data
- Compare FY1 and FY2 after an enrollment decline
- Determine whether faculty adjustments matched the enrollment change
- Compare credit-hour changes with faculty (FTEF) changes
- Look for departments where productivity improved or weakened
- Use the data to recommend FY3 budget action

# Case Core Questions

Which departments are out of alignment with enrollment change?

Where would cuts, reinvestment, or deeper analysis be justified?

What recommendation(s) would you present to campus leaders?

Did the university reduce enough faculty FTE to regain fiscal stability?

# Exhibit 1

## Comparison of Faculty Productivity



### What to Look For

- Sorts credit-hour increases and declines by department
- Compares faculty productivity before and after enrollment decline
- Shows whether FTEF reductions matched credit-hour losses
- Key finding: faculty declined far less than credit decline

# Exhibit 1

## XYZ University Comparison of Enrollment Between FY1 and FY2 Sorted by % Change in Total Credit Hours

| Program              | FY1<br>CHs     | FY2<br>CHs     | Δ<br>CHs       | %Δ<br>CHs   | FY1<br>FTEF | FY2<br>FTEF | Δ<br>FTEF  | %Δ<br>FTEF | FY1<br>CH/FTEF | FY2<br>CH/FTEF | Δ<br>CH/FTEF | %Δ<br>CH/FTEF |
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**It's OK! I've got you**

# Exhibit 1

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# Exhibit 1

## Questions

1. What do the totals tell us about the college's FY2 enrollment and the aggregate faculty teaching loads?
2. Does it appear that the decline in FTEF matched the decline in FTES?
3. What does the  $\% \Delta \text{CH} / \text{FTEF}$  (percentage change in credit hours per FTEF/faculty load) tell us about the overall teaching productivity?

# Exhibit 1

## Debrief

- Total credit-hour decline was 15%, not 25%, because some areas grew—see Exhibit 4
- Many departments did not reduce faculty FTEF to match enrollment decline
- Overall FY2 productivity has declined
- The budget question is where adjustments are still needed



## Exhibit 2

# Average Credit Hours per Faculty



### What to Look For

- The far-right column shows percentage change in faculty load
- Negative change means faculty taught fewer credits per faculty member
- Persistent negative change may signal insufficient FTEF reductions
- Use the graph to spot the largest productivity shifts quickly

# Exhibit 2

## XYZ University

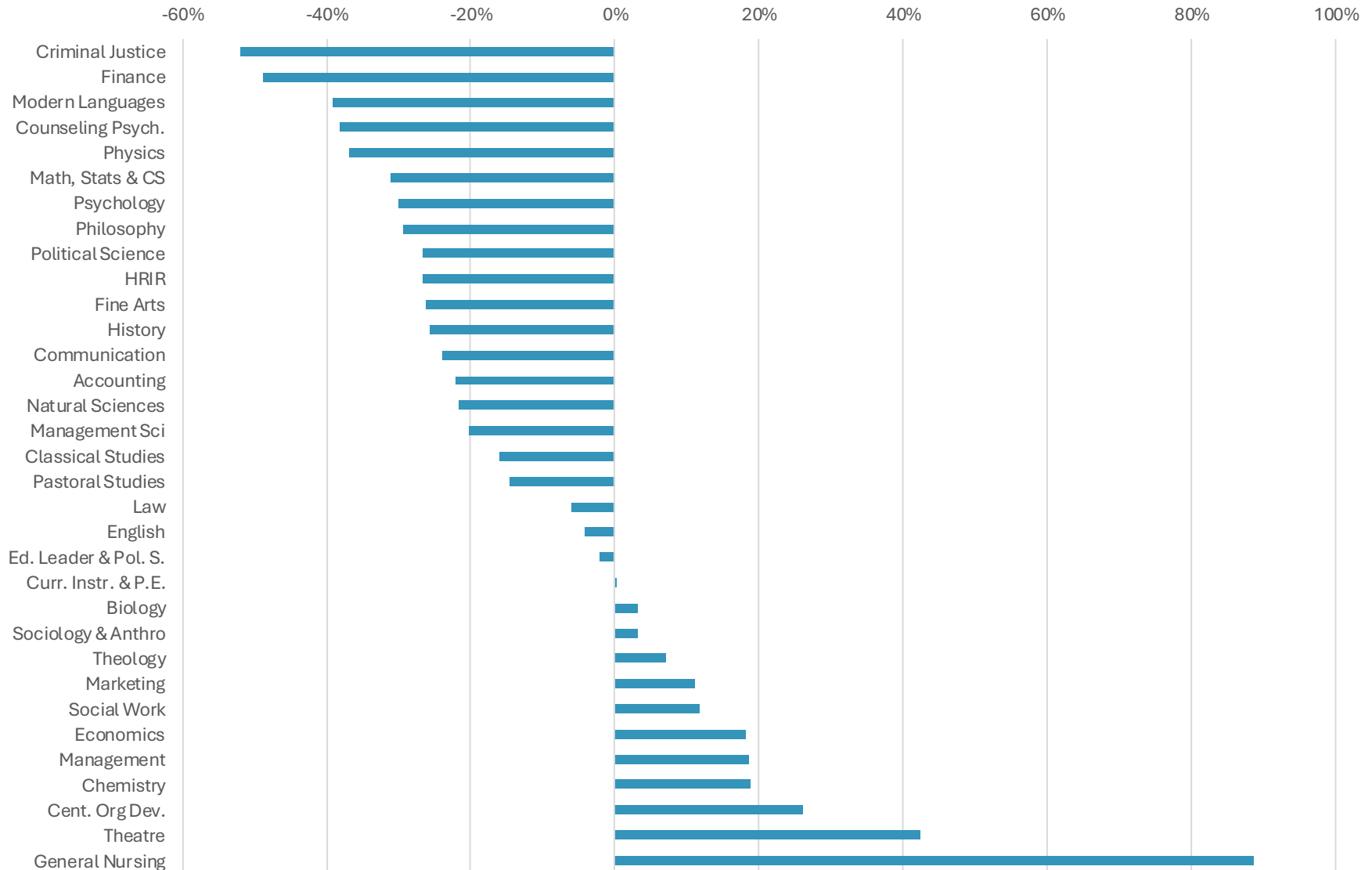
### Comparison of Faculty Productivity Between FY1 and FY2 Sorted by % Change in Average Credit Hour/Faculty

| Program              | FY1<br>CHs     | FY1<br>CH/FTEF | FY2<br>CHs     | FY2<br>CH/FTEF | Δ<br>CHs       | %Δ<br>CHs   | Δ<br>CH/FTEF | %Δ<br>CH/FTEF |
|----------------------|----------------|----------------|----------------|----------------|----------------|-------------|--------------|---------------|
| Criminal Justice     | 4,260          | 387            | 3,163          | 186            | -1,097         | -26%        | -201         | -52%          |
| Finance              | 6,302          | 630            | 5,492          | 323            | -810           | -13%        | -307         | -49%          |
| Modern Languages     | 9,774          | 752            | 7,309          | 457            | -2,465         | -25%        | -295         | -39%          |
| Counseling Psych.    | 6,786          | 117            | 3,472          | 72             | -3,314         | -49%        | -45          | -38%          |
| Physics              | 3,851          | 94             | 3,439          | 59             | -412           | -11%        | -35          | -37%          |
| Math, Stats & CS     | 15,483         | 774            | 19,725         | 533            | 4,242          | 27%         | -241         | -31%          |
| Psychology           | 19,684         | 1,158          | 14,574         | 810            | -5,110         | -26%        | -348         | -30%          |
| Philosophy           | 22,068         | 613            | 16,035         | 433            | -6,033         | -27%        | -180         | -29%          |
| Political Science    | 9,476          | 271            | 6,357          | 199            | -3,119         | -33%        | -72          | -27%          |
| HRIR                 | 4,230          | 846            | 3,105          | 621            | -1,125         | -27%        | -225         | -27%          |
| Fine Arts            | 7,984          | 614            | 5,431          | 453            | -2,553         | -32%        | -162         | -26%          |
| History              | 17,648         | 441            | 10,824         | 328            | -6,824         | -39%        | -113         | -26%          |
| Communication        | 10,999         | 200            | 7,297          | 152            | -3,702         | -34%        | -48          | -24%          |
| Accounting           | 10,934         | 643            | 6,518          | 501            | -4,416         | -40%        | -142         | -22%          |
| Natural Sciences     | 6,049          | 224            | 5,259          | 175            | -790           | -13%        | -49          | -22%          |
| Management Sci       | 9,507          | 453            | 8,667          | 361            | -840           | -9%         | -92          | -20%          |
| Classical Studies    | 4,410          | 401            | 3,702          | 337            | -708           | -16%        | -64          | -16%          |
| Pastoral Studies     | 5,093          | 170            | 4,062          | 145            | -1,031         | -20%        | -25          | -15%          |
| Law                  | 21,246         | 1,931          | 21,774         | 1,815          | 528            | 2%          | -117         | -6%           |
| English              | 24,603         | 439            | 18,111         | 421            | -6,492         | -26%        | -18          | -4%           |
| Ed. Leader & Pol. S. | 4,344          | 92             | 4,794          | 90             | 450            | 10%         | -2           | -2%           |
| Curr. Instr. & P.E.  | 6,774          | 357            | 10,722         | 357            | 3,948          | 58%         | 1            | 0%            |
| Biology              | 10,994         | 234            | 9,893          | 241            | -1,101         | -10%        | 7            | 3%            |
| Sociology & Anthro   | 11,610         | 581            | 9,584          | 599            | -2,026         | -17%        | 19           | 3%            |
| Theology             | 20,650         | 626            | 15,425         | 671            | -5,225         | -25%        | 45           | 7%            |
| Marketing            | 5,739          | 179            | 5,185          | 199            | -554           | -10%        | 20           | 11%           |
| Social Work          | 12,493         | 171            | 12,421         | 191            | -72            | -1%         | 20           | 12%           |
| Economics            | 7,828          | 313            | 5,549          | 370            | -2,279         | -29%        | 57           | 18%           |
| Management           | 7,146          | 265            | 7,531          | 314            | 385            | 5%          | 49           | 19%           |
| Chemistry            | 8,560          | 306            | 8,712          | 363            | 152            | 2%          | 57           | 19%           |
| Cent. Org Dev.       | 1,026          | 114            | 1,293          | 144            | 267            | 26%         | 30           | 26%           |
| Theatre              | 2,457          | 137            | 2,526          | 194            | 69             | 3%          | 58           | 42%           |
| General Nursing      | 6,639          | 604            | 9,116          | 1,140          | 2,477          | 37%         | 536          | 89%           |
| <b>Total</b>         | <b>326,647</b> | <b>357</b>     | <b>277,067</b> | <b>313</b>     | <b>-49,584</b> | <b>-15%</b> | <b>-44</b>   | <b>-12%</b>   |

A negative percentage change in credit hours per faculty indicates faculty are teaching fewer students during FY2 as compared to FY1 = may indicate insufficient FTEF reductions.

# Exhibit 2 – A Picture is Worth...

## Change in Faculty Productivity (CH/FTEF) Between FY1 and FY2



# Exhibit 2

## Questions

1. Which department(s) adjusted their FTEF consistent with the changes in enrollment (CHs)?
2. Are there any other columns besides the  $\% \Delta \text{CH} / \text{FTEF}$  column that identifies clues to whether department productivity is in sync with FY1?
3. Which departments grew in credit hours (CHs) and still experienced a decline in FTEF productivity?

# Exhibit 2

## Debrief

Question #1: Biology (decline); PE & Pol. Sci = growth

Question #2: Change in CH/FTEF

Question #3: Math, Law, Pol. Sci



## Exhibit 3

### FTEF Cuts Needed



#### What to Look For

- Focuses only on departments with enrollment decreases
- Compares credit-hour declines with FTEF reductions
- Identifies additional FY3 adjustments needed to match FY1 loads
- Includes both full-time and part-time faculty
- What programs with declining enrollments added FTEF? Any reason(s) why?

# Exhibit 3

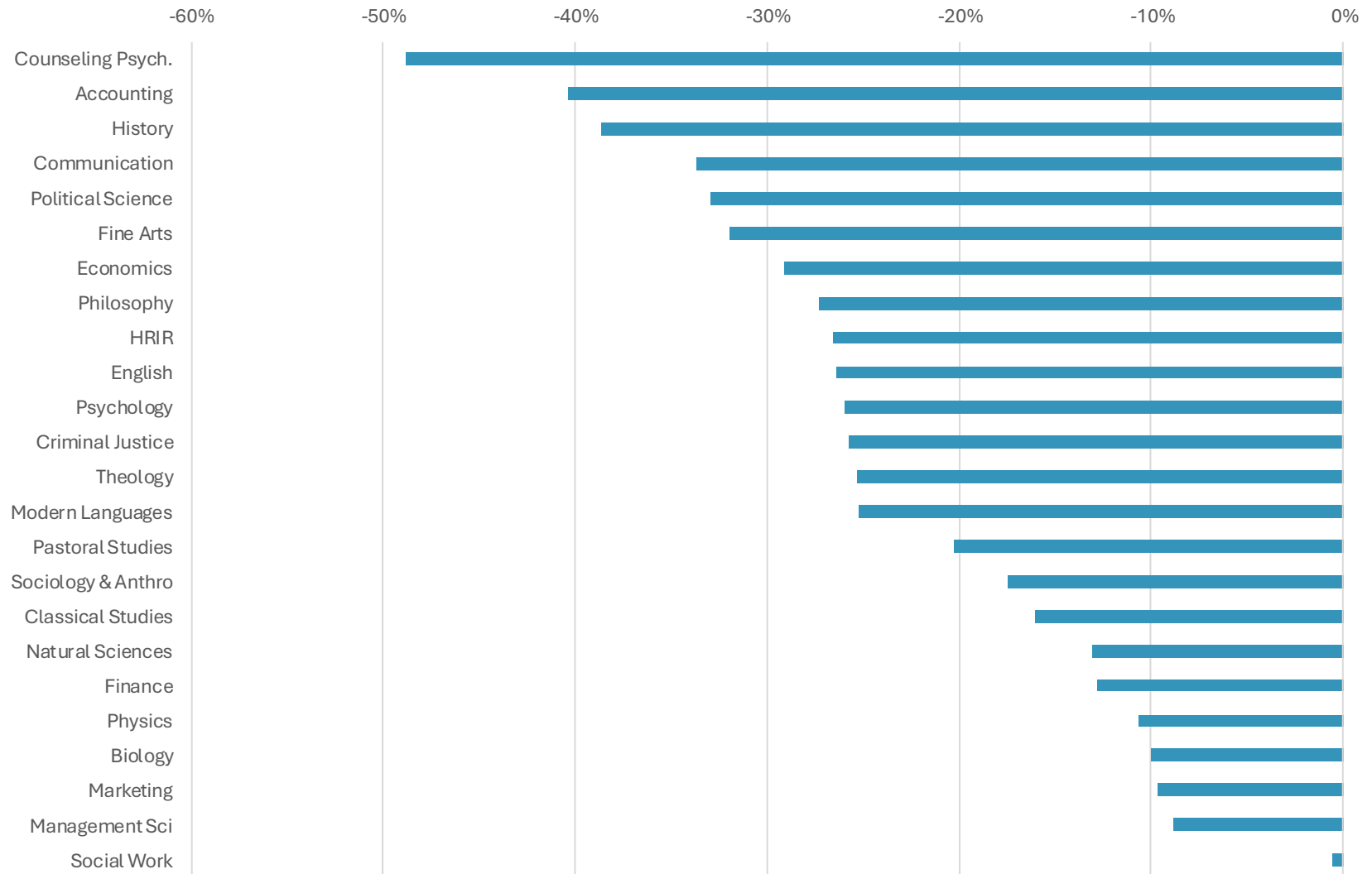
## XYZ University

### Assessment of Departments with Declining Enrollement FY3 FTEF Adjustments Needed to Equal FY1 Faculty Loads

| Program            | %Δ<br>CHs   | FY1<br>FTEF | FY2<br>FTEF | Δ<br>FTEF  | %Δ<br>FTEF | FY2<br>REQ ADJ | FY3<br>FTEF ADJ |
|--------------------|-------------|-------------|-------------|------------|------------|----------------|-----------------|
| Counseling Psych.  | -49%        | 58          | 48          | -10        | -17%       | -28            | -18             |
| Accounting         | -40%        | 17          | 13          | -4         | -24%       | -7             | -3              |
| History            | -39%        | 40          | 33          | -7         | -18%       | -15            | -8              |
| Communication      | -34%        | 55          | 48          | -7         | -13%       | -19            | -12             |
| Political Science  | -33%        | 35          | 32          | -3         | -9%        | -12            | -9              |
| Fine Arts          | -32%        | 13          | 12          | -1         | -8%        | -4             | -3              |
| Economics          | -29%        | 25          | 15          | -10        | -40%       | -7             | 3               |
| Philosophy         | -27%        | 36          | 37          | 1          | 3%         | -10            | -11             |
| HRIR               | -27%        | 5           | 5           | 0          | 0%         | -1             | -1              |
| English            | -26%        | 56          | 43          | -13        | -23%       | -15            | -2              |
| Psychology         | -26%        | 17          | 18          | 1          | 6%         | -4             | -5              |
| Criminal Justice   | -26%        | 11          | 17          | 6          | 55%        | -3             | -9              |
| Theology           | -25%        | 33          | 23          | -10        | -30%       | -8             | 2               |
| Modern Languages   | -25%        | 13          | 16          | 3          | 23%        | -3             | -6              |
| Pastoral Studies   | -20%        | 30          | 28          | -2         | -7%        | -6             | -4              |
| Sociology & Anthro | -17%        | 20          | 16          | -4         | -20%       | -3             | 1               |
| Classical Studies  | -16%        | 11          | 11          | 0          | 0%         | -2             | -2              |
| Natural Sciences   | -13%        | 27          | 30          | 3          | 11%        | -4             | -7              |
| Finance            | -13%        | 10          | 17          | 7          | 70%        | -1             | -8              |
| Physics            | -11%        | 41          | 58          | 17         | 41%        | -4             | -21             |
| Biology            | -10%        | 47          | 41          | -6         | -13%       | -5             | 1               |
| Marketing          | -10%        | 32          | 26          | -6         | -19%       | -3             | 3               |
| Management Sci     | -9%         | 21          | 24          | 3          | 14%        | -2             | -5              |
| Social Work        | -1%         | 73          | 65          | -8         | -11%       | 0              | 8               |
| <b>Total</b>       | <b>-25%</b> | <b>726</b>  | <b>676</b>  | <b>-50</b> | <b>-7%</b> | <b>-168</b>    | <b>-118</b>     |

# Exhibit/Graph 3a

## Declining Departments (only): FY2 FTEF Adjustments Needed to Equal FY1 Faculty Loads



# Exhibit 3

## Questions

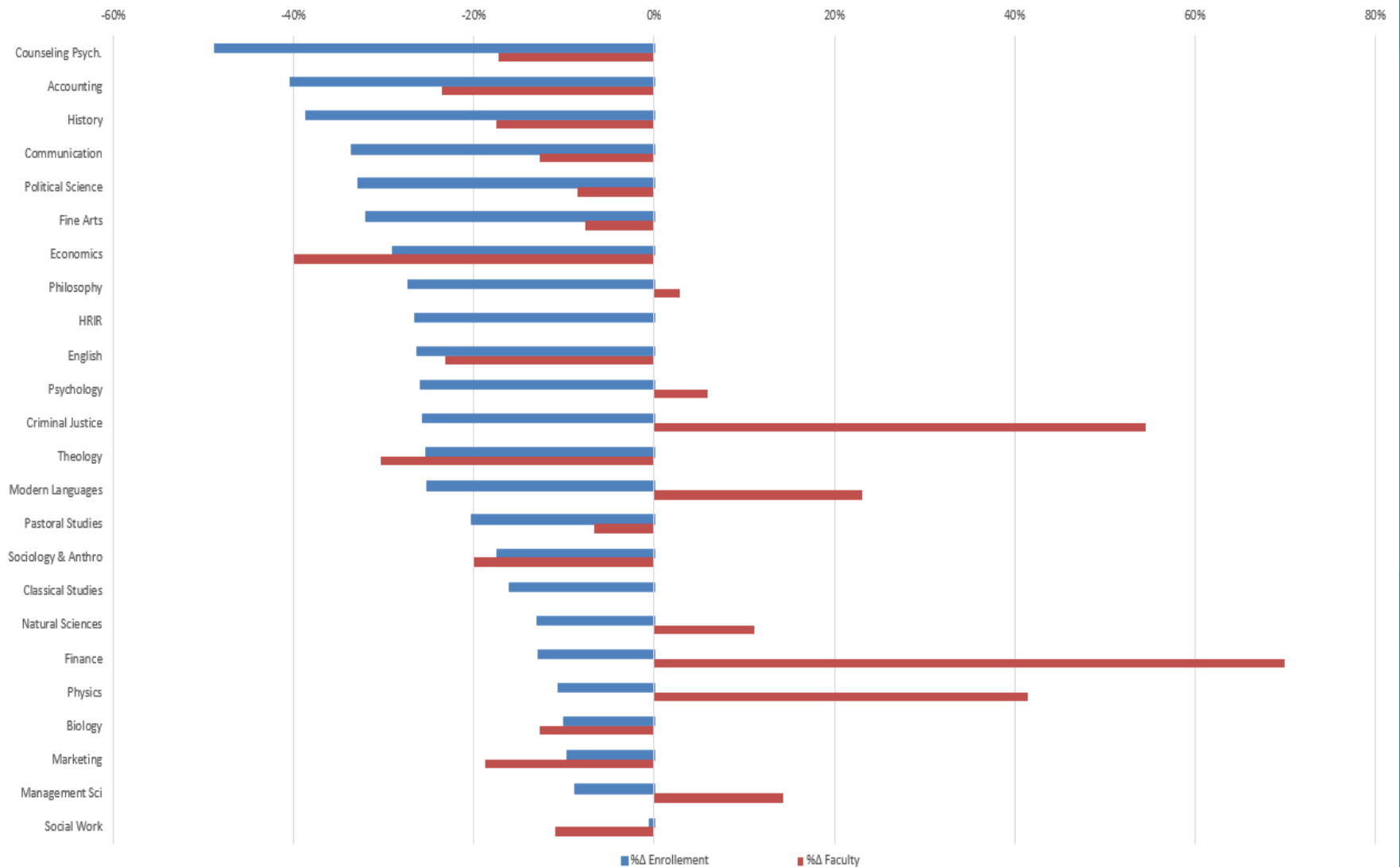
1. How does the total required  $\%\Delta\text{FTEF}$  compare to the  $\%\Delta\text{CH}$ ? How many more FTEF cuts are needed to get the faculty load in sync with FY1?

2. Did all of the departments with declining enrollments reduce FTEF? See Graph 3b below.

3. If you were a department head, what would be a reason you would use to increase FTEF when enrollments are decreasing?

# Exhibit/Graph 3b

## %Δ Enrollement / Faculty



# Exhibit 3

## Debrief



### Question #1:

- 168 FTEF should have been eliminated to maintain FY1 productivity
- Only 50 FTEF were eliminated

### Question #2: Refer to bar graph (3b)

### Question #3:

- Reduce class size for academic purposes (Math, Criminal Justice) or prepare for growth (Law).
- Politics, student retention concerns, new sites

## Exhibit 4

# Growth Inside Decline



### What to Look For

- Department productivity decline can be offset by growth in selected programs
- Growing departments may offset the perceived need to adjust declining department budgets
- Budget reductions should be applied using productivity measurements and analytics
- Strategic instructional budgeting protects growth while correcting excess FTEF capacity

# Exhibit 4

## XYZ University

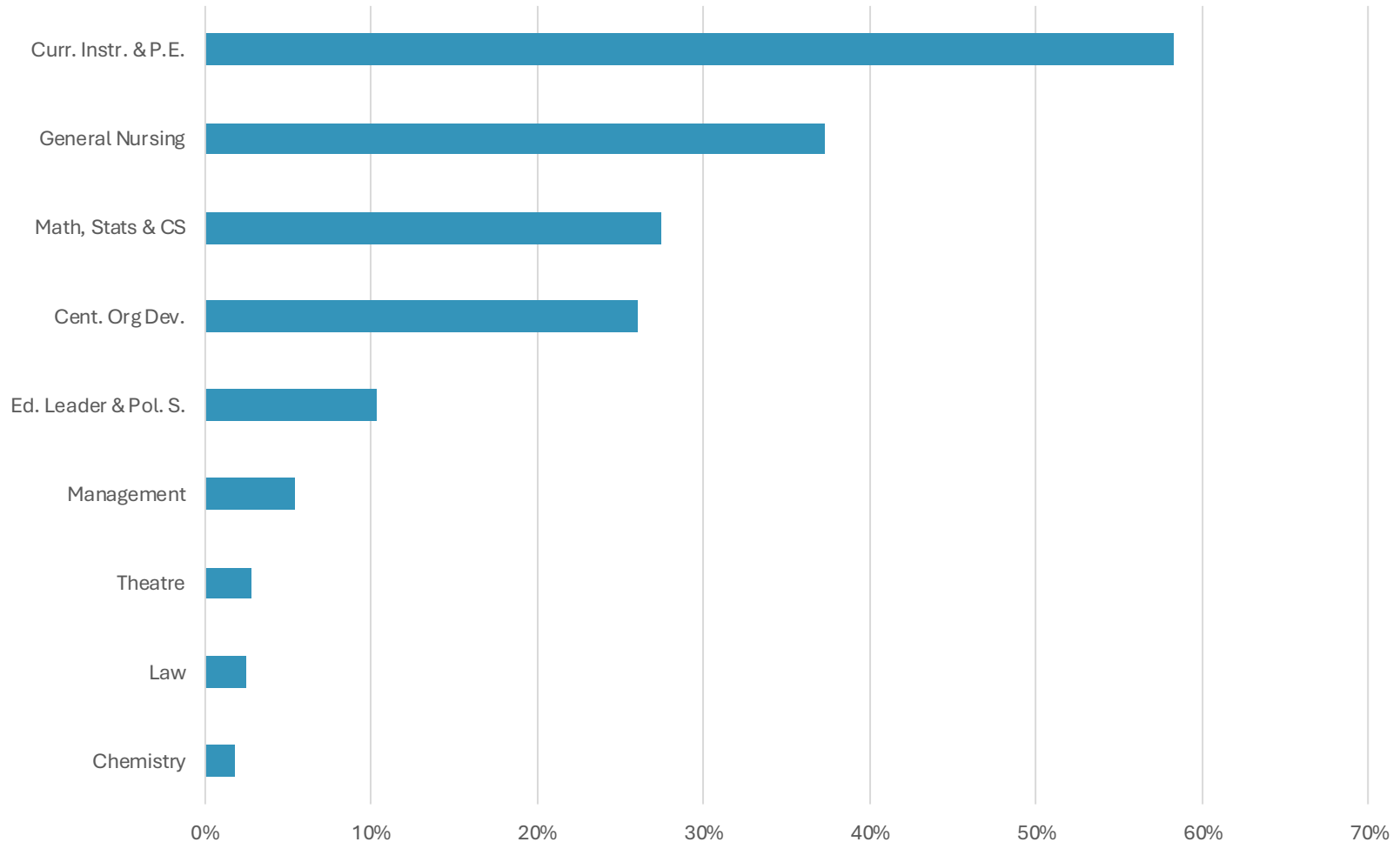
### Assessment of Departments with Increasing Enrollement FY3 FTEF Adjustments Needed to Equal FY1 Faculty Loads

| Program              | %Δ<br>CHs  | FY1<br>FTEF | FY2<br>FTEF | Δ<br>FTEF | %Δ<br>FTEF | FY1<br>CH/FTEF | FY2<br>CH/FTEF | Δ<br>CH/FTEF | %Δ<br>CH/FTEF | FY2<br>ALW ADJ | FY3<br>FTEF ADJ |
|----------------------|------------|-------------|-------------|-----------|------------|----------------|----------------|--------------|---------------|----------------|-----------------|
| Chemistry            | 2%         | 28          | 24          | -4        | -14%       | 306            | 363            | 57           | 19%           | 0              | 4               |
| Law                  | 2%         | 11          | 12          | 1         | 9%         | 1931           | 1815           | -116         | -6%           | 0              | -1              |
| Theatre              | 3%         | 18          | 13          | -5        | -28%       | 137            | 194            | 57           | 42%           | 1              | 6               |
| Management           | 5%         | 27          | 24          | -3        | -11%       | 265            | 314            | 49           | 18%           | 1              | 4               |
| Ed. Leader & Pol. S. | 10%        | 47          | 53          | 6         | 13%        | 92             | 90             | -2           | -2%           | 5              | -1              |
| Cent. Org Dev.       | 26%        | 9           | 9           | 0         | 0%         | 114            | 144            | 30           | 26%           | 2              | 2               |
| Math, Stats & CS     | 27%        | 20          | 37          | 17        | 85%        | 774            | 533            | -241         | -31%          | 5              | -12             |
| General Nursing      | 37%        | 11          | 8           | -3        | -27%       | 604            | 1140           | 536          | 89%           | 4              | 7               |
| Curr. Instr. & P.E.  | 58%        | 19          | 30          | 11        | 58%        | 357            | 357            | 0            | 0%            | 11             | 0               |
| <b>Total</b>         | <b>17%</b> | <b>190</b>  | <b>210</b>  | <b>20</b> | <b>11%</b> | <b>388</b>     | <b>410</b>     | <b>22</b>    | <b>6%</b>     | <b>31</b>      | <b>11</b>       |

1. Not all departments experienced a decline in enrollment between FY1 and FY2. Despite an increase in enrollment, several departments cut FTEF, thus contributing eleven net FTEF cuts not shown.
2. Several departments with increasing enrollments also justified decreases in FTES/faculty ratios because of extremely high faculty (FTES) loads--see Law and Math/Stats & CS.

# Exhibit 4

## Increasing Enrollment Depts: FY2 FTEF Increases Allowed to = FY1 Productivity



# Exhibit 4

## Questions

1. The departments on this schedule experienced overall growth between FY1 and FY2. How did they respond in comparison to the declining enrollment departments?

2. Two of the “growth” departments appear to have taken advantage of their increased enrollments and substantially reduced faculty loads—e.g., credit hours per faculty. What are your thoughts?

# Exhibit 4

## Debrief



- Growth departments may justify additional FTEF if enrollment demand supports it
- Programs experiencing growth can mask (offset) overall-productivity problems in declining departments
- Budget decisions should protect genuine growth while correcting excess FTEF
- Some departments may need deeper review before action is taken

## Exhibit 5

# Additional Reductions Needed



### What to Look For

- FY3 adjustments begin with part-time faculty reductions
- After adjunct capacity is exhausted, remaining reductions affect full-time positions
- Cost estimates include salary, taxes, benefits, and related payroll costs
- The exhibit translates productivity gaps into budget implications

# Exhibit 5

## XYZ University FY3 Faculty Reductions to Match FY1 Faculty Teaching Load

| Program              | Total<br>FY2<br>FTEF | FY2<br>FT<br>Faculty | FY2<br>PT<br>Faculty | FY3<br>Required<br>Δ FTEF | FY3<br>Δ<br>FT | FY3<br>FT \$<br>Adj. | FY3<br>Δ<br>PT | FY3<br>PT \$<br>Adj. | FY3<br>Total<br>Savings |
|----------------------|----------------------|----------------------|----------------------|---------------------------|----------------|----------------------|----------------|----------------------|-------------------------|
| History              | 33                   | 17                   | 16                   | 8                         | 0              | \$0                  | 8              | \$600,000            | \$600,000               |
| Physics              | 58                   | 34                   | 24                   | 21                        | 0              | 0                    | 21             | 1,575,000            | 1,575,000               |
| Counseling Psych.    | 48                   | 32                   | 16                   | 18                        | 2              | 250,000              | 16             | 1,200,000            | 1,450,000               |
| Criminal Justice     | 17                   | 14                   | 3                    | 9                         | 6              | 750,000              | 3              | 225,000              | 975,000                 |
| Communication        | 48                   | 35                   | 13                   | 12                        | 0              | 0                    | 12             | 900,000              | 900,000                 |
| Math, Stats & CS     | 37                   | 22                   | 15                   | 12                        | 0              | 0                    | 12             | 900,000              | 900,000                 |
| Finance              | 17                   | 15                   | 2                    | 8                         | 6              | 750,000              | 2              | 150,000              | 900,000                 |
| Philosophy           | 37                   | 23                   | 14                   | 11                        | 0              | 0                    | 11             | 825,000              | 825,000                 |
| Political Science    | 32                   | 13                   | 19                   | 9                         | 0              | \$0                  | 9              | 675,000              | 675,000                 |
| Modern Languages     | 16                   | 12                   | 4                    | 6                         | 2              | 250,000              | 4              | 300,000              | 550,000                 |
| Natural Sciences     | 30                   | 20                   | 10                   | 7                         | 0              | 0                    | 7              | 525,000              | 525,000                 |
| Ed. Leader & Pol. S. | 53                   | 30                   | 23                   | 6                         | 0              | 0                    | 6              | 450,000              | 450,000                 |
| Psychology           | 18                   | 14                   | 4                    | 5                         | 1              | 125,000              | 4              | 300,000              | 425,000                 |
| Management Sci       | 24                   | 17                   | 7                    | 5                         | 0              | 0                    | 5              | 375,000              | 375,000                 |
| Pastoral Studies     | 28                   | 24                   | 4                    | 4                         | 0              | 0                    | 4              | 300,000              | 300,000                 |
| Accounting           | 13                   | 11                   | 2                    | 3                         | 1              | 125,000              | 2              | 150,000              | 275,000                 |
| Fine Arts            | 12                   | 7                    | 5                    | 3                         | 0              | 0                    | 3              | 225,000              | 225,000                 |
| English              | 43                   | 32                   | 11                   | 2                         | 0              | 0                    | 2              | 150,000              | 150,000                 |
| Classical Studies    | 11                   | 8                    | 3                    | 2                         | 0              | 0                    | 2              | 150,000              | 150,000                 |
| Law                  | 12                   | 9                    | 3                    | 1                         | 0              | 0                    | 1              | 75,000               | 75,000                  |
| HRIR                 | 5                    | 3                    | 2                    | 1                         | 0              | 0                    | 1              | 75,000               | 75,000                  |
| <b>Total</b>         | <b>592</b>           | <b>392</b>           | <b>200</b>           | <b>153</b>                | <b>18</b>      | <b>\$2,250,000</b>   | <b>135</b>     | <b>\$10,125,000</b>  | <b>\$12,375,000</b>     |

# Exhibit 5

## Questions

1. Would you assume PT-FTEF are typically the first choice for cuts? Could there be exceptions?

2. How would you be able to determine whether the FY1 FTEF teaching loads were efficient?

# Exhibit 5

## Debrief



- Part-time reductions are usually the first place to look because they are more flexible—no tenure
- Exceptions may apply if adjuncts are needed for accreditation, specialized expertise, or hard-to-staff courses
- FY1 productivity should not automatically be assumed efficient
- Historical load, institutional comparisons, class size, program need, and student retention should be reviewed

# What Happens When the Data Is Incomplete?



Before paper and scissors

# Exhibit 6

## Beyond Faculty Costs



### What to Look For

- Faculty productivity is important, but it is not the whole budget story
- FY2 cost per credit hour can reveal disproportionate resource use
- Division-level total budget comparisons help identify where deeper review is needed
- Budget decisions should integrate productivity, cost, and mission impact

# Exhibit 6

## XYZ University

### Program Budget Comparisons Cost of Instruction Per Credit Hour (CH)

| Program                                 | FY1<br>Avg CHs<br>/Faculty | FY2<br>Total<br>CHs | FY2<br>Avg CHs<br>/Faculty | FY2<br>Division<br>Budget | FY2<br>Cost<br>\$/Cr Hr |
|-----------------------------------------|----------------------------|---------------------|----------------------------|---------------------------|-------------------------|
| <b>Arts &amp; Sciences</b>              |                            |                     |                            |                           |                         |
| Theatre                                 | 197                        | 2,526               | 211                        | \$ 2,273,364              | \$ 900                  |
| Chemistry                               | 405                        | 8,712               | 363                        | 5,798,892                 | 666                     |
| Biology                                 | 411                        | 9,893               | 330                        | 6,138,514                 | 620                     |
| Physics                                 | 363                        | 3,439               | 287                        | 2,130,044                 | 619                     |
| Fine Arts                               | 243                        | 5,431               | 236                        | 3,100,552                 | 571                     |
| Criminal Justice                        | 442                        | 3,163               | 266                        | 1,520,130                 | 481                     |
| Political Science                       | 345                        | 6,357               | 265                        | 2,925,574                 | 460                     |
| Psychology                              | 354                        | 14,574              | 339                        | 6,376,610                 | 438                     |
| Communication                           | 346                        | 7,297               | 281                        | 3,163,296                 | 434                     |
| Modern Languages                        | 243                        | 7,309               | 221                        | 3,126,874                 | 428                     |
| Sociology & Anthro                      | 391                        | 9,584               | 342                        | 3,940,950                 | 411                     |
| History                                 | 377                        | 10,824              | 264                        | 4,108,932                 | 380                     |
| Classical Studies                       | 241                        | 3,702               | 285                        | 1,364,936                 | 369                     |
| Math, Stats & CS                        | 382                        | 19,725              | 340                        | 6,931,995                 | 351                     |
| Philosophy                              | 399                        | 16,035              | 334                        | 4,532,092                 | 283                     |
| Theology                                | 359                        | 15,425              | 321                        | 4,118,336                 | 267                     |
| English                                 | 339                        | 18,111              | 279                        | 4,597,103                 | 254                     |
| Natural Sciences                        | 534                        | 5,259               | 478                        | 1,239,274                 | 236                     |
| <b>Total &amp; Averages</b>             | <b>354</b>                 | <b>167,366</b>      | <b>302</b>                 | <b>\$ 67,387,468</b>      | <b>\$ 403</b>           |
| <b>Business</b>                         |                            |                     |                            |                           |                         |
| Accounting                              | 418                        | 6,518               | 362                        | \$ 3,311,975              | \$ 508                  |
| Finance                                 | 573                        | 5,492               | 323                        | 2,401,226                 | 437                     |
| Management                              | 536                        | 7,531               | 471                        | 2,786,437                 | 370                     |
| Management Sci                          | 559                        | 8,667               | 482                        | 3,019,771                 | 348                     |
| Economics                               | 470                        | 5,549               | 427                        | 1,742,035                 | 314                     |
| Marketing                               | 626                        | 5,185               | 576                        | 1,549,671                 | 299                     |
| <b>Total &amp; Averages</b>             | <b>420</b>                 | <b>319,579</b>      | <b>358</b>                 | <b>\$ 119,322,371</b>     | <b>\$ 373</b>           |
| <b>Education</b>                        |                            |                     |                            |                           |                         |
| Ed. Leader & Pol. S.                    | 233                        | 4,794               | 282                        | \$ 2,443,512              | \$ 510                  |
| Counseling Psych.                       | 274                        | 3,472               | 231                        | 1,567,206                 | 451                     |
| Curr. Instr. & P.E.                     | 333                        | 10,722              | 290                        | 3,499,769                 | 326                     |
| <b>Total &amp; Averages</b>             | <b>280</b>                 | <b>18,988</b>       | <b>268</b>                 | <b>\$ 7,510,487</b>       | <b>\$ 396</b>           |
| <b>Nursing</b>                          |                            |                     |                            |                           |                         |
| General Nursing                         | 120                        | 9,116               | 285                        | \$ 12,096,932             | \$ 1,327                |
| Food & Nutrition                        | 162                        | 1,511               | 378                        | 394,726                   | 261                     |
| <b>Total &amp; Averages</b>             | <b>141</b>                 | <b>10,627</b>       | <b>332</b>                 | <b>\$ 12,491,658</b>      | <b>\$ 1,175</b>         |
| <b>Institution Total &amp; Averages</b> | <b>299</b>                 | <b>516,560</b>      | <b>315</b>                 | <b>\$ 206,711,984</b>     | <b>\$ 400</b>           |

# Exhibit 6

## Questions

1. What would be a possible explanation for a difference in \$/CR besides faculty productivity? When looking at the highest cost budgets, is faculty productivity always the root cause?

2. Do only the FY3 faculty load adjustments resolve the university's total budget issues? What financial information is missing?

# Exhibit 6

## Debrief



- Cost per credit can differ because of labs, accreditation, equipment, facilities, clinical requirements, or program mix
- Faculty-load adjustments alone may not resolve the full budget issue
- Missing information includes nonfaculty costs, revenue sources and amounts, subsidies, program outcomes, and strategic priority
- Final recommendations should combine productivity, cost, mission, and feasibility

# Budget Builder Discussion



- What should XYZ University recommend for FY3?
- How should the macro three-level model connect to micro department analysis?
- Where can Level 2 and Level 3 adjustments free resources for reallocation?
- Which recommendations are analytically defensible and politically realistic?

And that is how it's done . . .



Using data to drive budget decisions.



Any  
**QUESTIONS?**

# Key Takeaways

## Why Strategic Budgeting Matters

- Maintaining the status quo protects yesterday's decisions
- Fiscal challenges require rational resource allocations
- High-impact functions should receive priority funding
- Strategic budgeting helps colleges fund what matters most — not just what was funded before

# Communicating the Numbers:

## Make the Case Clear



- Numerical information is difficult to absorb quickly
- Translate data into charts, ratios, and clear comparisons
- Use visuals to make budget tradeoffs easier to understand
- A clear picture can make the case more memorable than a table

# Closing Reflection

## From Data to Decisions

- Fiscal administration sets the tone for rational decision-making
- Data-informed leaders can challenge bad inertia and political budgeting practices
- The goal is not just cuts, but to better align resources with results

**The goal is not simply to spend less**

**The goal is to spend better**

# Thank you for your time and participation

Jeff Marsee, PhD

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**Don't forget to complete the CBMI  
Instructor/Class evaluation—it matters**

