



Revitalizing the Program Portfolio

Elevating Academic Program Performance and Strategic Alignment

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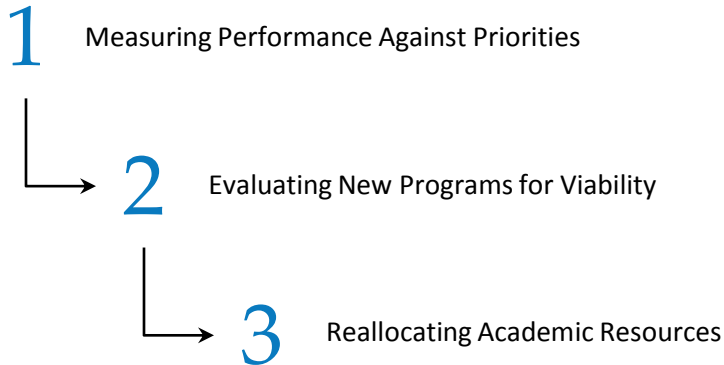
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Road Map for Discussion



Notes:

Your Charge to Us

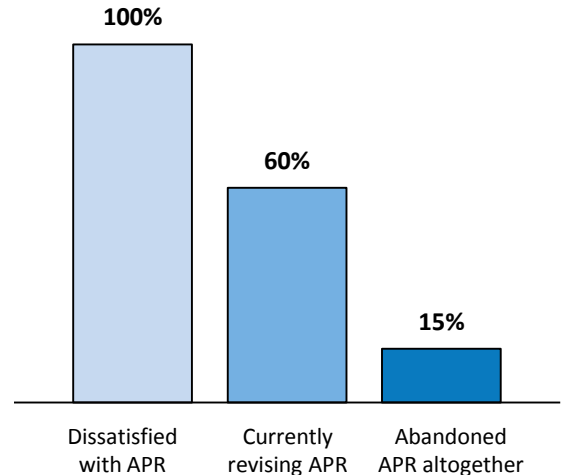
“Help Us Find a Better Approach to Program Review”

A Universal Complaint

“I can tell you what every single one of those program reviews is going to say before I’ve even read it. ‘This program is doing great, it just needs more resources.’ Or, ‘This program is struggling, it just needs more resources.’ The problem is, I don’t have any more resources to give, and so the whole exercise feels pretty pointless.”

An Unscientific Analysis

Interviews with Universities and Colleges
n = 110



Our Initial Hypothesis

Find the “Moneyball” Metrics

Replacing Experience with Data



$$\text{On-Base Percentage} = \frac{\text{Hits} + \text{Walks} + \text{Hit by Pitch}}{\text{At Bats} + \text{Walks} + \text{Hit by Pitch} + \text{Sac Flies}}$$

The Magic Equation That Solves All of Your Problems

- Sophisticated new program performance metrics
- Previously hidden correlations between multiple factors
- Algorithms for optimal resource allocation
- Dramatically improved performance

The Real Challenge

Achieving Performance Improvement in a Decentralized Environment

Unprecedented Pressures to Improve Institutional Performance

New Accountability Standards

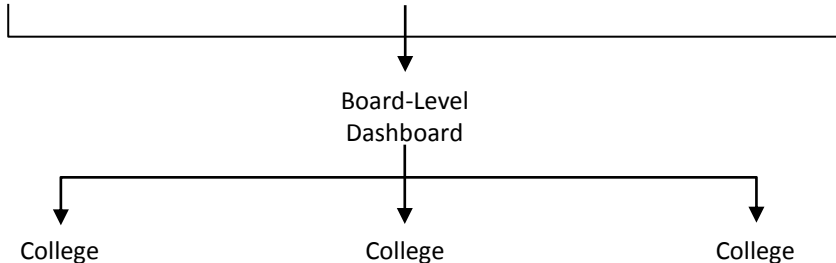
- Graduation Rates
- Affordability
- Student Learning Outcomes

Ambitious Strategic Goals

- Research Excellence
- Global Reach
- Enhanced Reputation

Increased Competition

- Recruiting
- Research Funding
- Philanthropy



Accountability Chasm

Impossible to achieve rising expectations without program-level performance improvement

Program Program

Program Program

Program Program

Program Program

Program Program

Program Program

Aiming for a Different Target

Disciplinary Excellence Untethered from Accountability

Disciplinary Identity More Important Than Institutional Identity

"Most departments didn't even know their retention rate. Some faculty even argued that we should pay them more if we wanted them to improve retention."

Director of Institutional Research, Public Masters University

"The only place I can really use some of the research I have is at the graduate level, and now I don't have someone to impart it to."

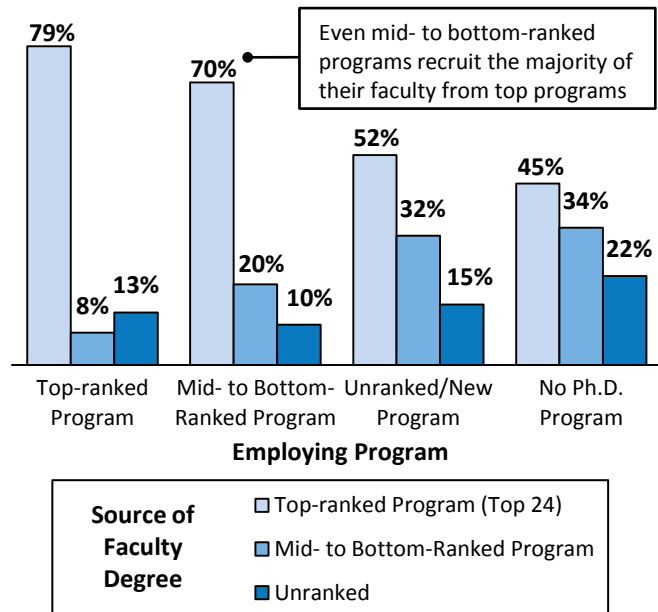
Art History Professor, University of Maryland

"My discipline is not the town of Syracuse. I'm an intellectual, and I have a community of scholarship all over the world."

Biology Professor, Syracuse University

Not Just a Problem at Research Universities

History Faculty by Hiring Dept and Ph.D. Program



Source: Anthony Grafton and Robert B. Townsend, "The Parlous Paths of the Profession," *Perspectives on History* (September 2008); <http://chronicle.com/article/Graduate-Programs-in/131123/>; <http://chronicle.com/article/Syracuses-Slide/129238/>; Education Advisory Board interviews and analysis.

We Can't Afford What We've Become

The High Cost of Disciplinary Aspirations

The Impact of the Drive for Disciplinary Autonomy

Disciplinary Silos



- Duplicate courses
- Obstacles to collaboration

Subscale Departments



- Duplicated admin support
- Lack of critical mass for research and teaching

Underutilized Faculty



- Underenrolled niche courses
- Low-enrollment programs

Student Success Challenges



- Credit creep
- Difficulties changing majors



Higher administrative costs



Lower instructional productivity



Longer time to degree



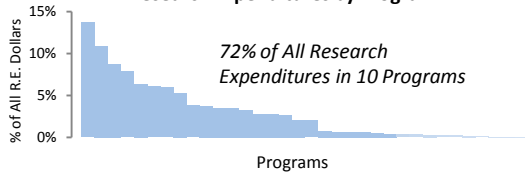
Less collaborative research

A Portfolio Approach

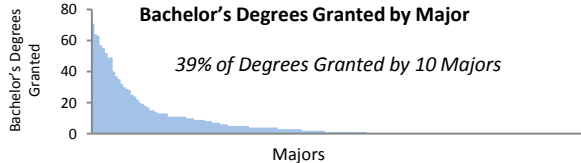
Three Ways to Improve Institutional Performance

Significant Variation in Performance across Programs

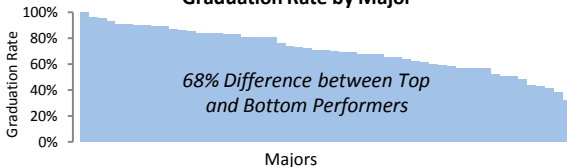
Research Expenditures by Program



Bachelor's Degrees Granted by Major



Graduation Rate by Major



Three Ways to Improve Overall Performance

1 Improve Individual Programs



2 Differential Investment



3 Integrate/Collaborate Across Programs



The Wrong Tool for the Job

Program Reviews Reinforce Disciplinary Standards, Not Institutional Priorities

Why Program Reviews Fail to Improve Performance



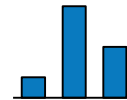
Reviewed in Isolation



Long Cycle Time



Disciplinary Standards



Program-Specific Metrics

Who's Being Reviewed Here?

Program Reviews Designed to Hold Institutions Accountable for Supporting Disciplines

External Review Committee



“We bring in eminent faculty from our peer and aspirant institutions, and not surprisingly they always end up recommending that we need to invest more in their discipline.”

Professional Accreditor



“In theory, these standards... ensure a certain level of quality by requiring every law school to be run like an expensive research university—limiting, for instance, the use of adjuncts and teachers on contract. In practice, however, by imposing a “one-size-fits-all” template, these standards ensure that there is little differentiation.”

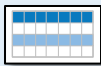
Our Contrarian Findings

- 1 You already have all of the data you need– There are no new “moneyball” metrics
- 2 The data won’t tell you much that you don’t already know
- 3 Mathematical rigor is important only to the extent that it helps to generate consensus
- 4 Data does not make decisions for you, it helps to justify decisions made on the basis of judgment
- 5 You don’t want all of your programs to be leaders in their discipline; you want the portfolio of programs to achieve your institutional goals

Notes:

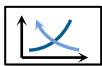
Revitalizing the Program Portfolio

Elevating Academic Program Performance and Strategic Alignment



Securing Faculty Trust in Metrics

- Base resource allocation decisions on program-level metrics
- Centralize and standardize data and reporting
- Invite faculty to critique data and to select metrics within a framework
- Limit self studies to 20 pages and focus reviews on no more than 5 critical metrics
- Build interactive decision support tools for deans and chairs



Measuring Performance Against Priorities

- Link program performance metrics to strategic plan goals
- Review performance against targets annually
- Start by encouraging year-over-year improvement
- Compare performance against other programs inside the university
- Categorize programs by their primary institutional contribution
- Use external benchmarks to identify program strengths and weaknesses



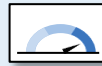
Setting New Program Viability Hurdles

- Provide decision-support tools to help faculty model often-overlooked costs
- Match sophistication of demand estimates to type of program
- Adjust program proposals to reach breakeven in 5 years
- Create program launch logistics checklist
- Create staged market testing for professional and online programs



Improving Signature Programs

- Shift resources from five-year reviews to ad hoc opportunity analysis
- Concurrently review related programs to surface collaborative opportunities
- Agree upfront on narrowly defined scope for review
- Empower university-wide faculty committee to synthesize findings across reviews and launch new studies
- Engage trustees for “real-world” perspective and fundraising advice



Maximizing Resource Flexibility

- Award seed funding and new faculty lines to programs that support institutional priorities
- Require departments to reallocate 3-5% of operating budget to institutional priorities
- Recapture all open faculty lines and reallocate based on strategic goals
- Consolidate departments into divisions to facilitate flexible hiring

Notes:

Revitalizing the Program Portfolio

Elevating Academic Program Performance and Strategic Alignment

1

Securing Faculty Trust in Metrics

2

Measuring Performance Against Priorities

3

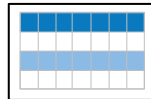
Setting New Program Viability Hurdles

4

Improving Signature Programs

5

Maximizing Resource Flexibility



- ✓ *Base resource allocation decisions on program-level metrics*
- ✓ *Centralize and standardize data and reporting*
- ✓ *Invite faculty to critique data and to select metrics within a framework*
- ✓ *Limit self studies to 20 pages and focus reviews on no more than 5 critical metrics*
- ✓ *Build interactive decision support tools for deans and chairs*

Notes:

The Problem Is a Lack of Trust, Not a Lack of Data

Faculty Criticism of Metrics Hides a Deeper Concern About Accountability

Faculty Critique of Data



Incomplete

“You’re only measuring half of my activity.”



Inappropriate

“You can’t hold me accountable for something I don’t control.”



Incommensurable

“You can’t compare biology and English lit.”



Inaccurate

“That’s just plain wrong.”



Irrelevant

“We’re not making widgets here, we’re educating students.”

The IR Director’s Lament

- “We had a long history of people developing and holding their own data. Whenever there was a dispute over whose data was right, no one wanted to trust IR.”
- “Each program thinks they are unique and that they cannot all be held to the same standards.”
- “We’ve always had data in our annual reports, but no one looked at it until recently.”

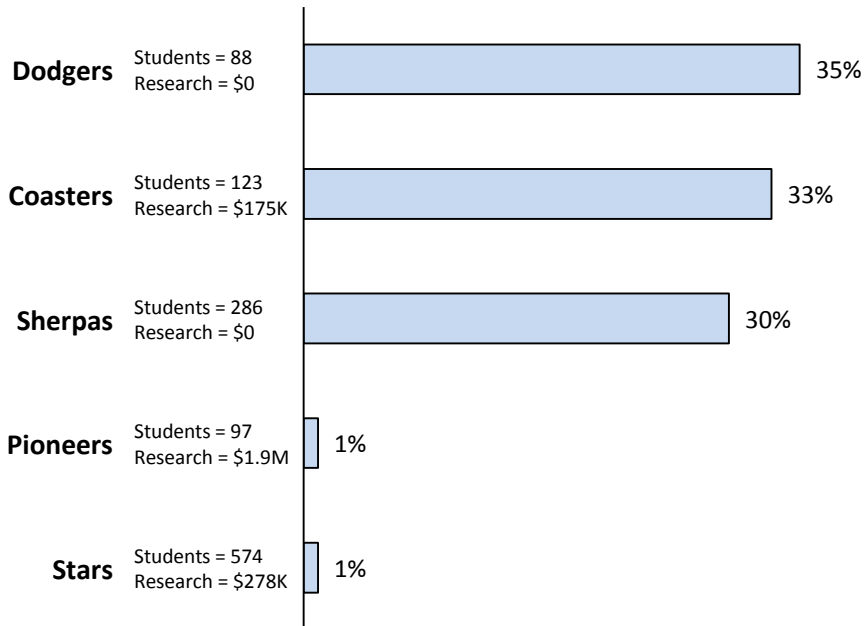
Notes:

Misusing Metrics

Faculty Fears of Data-Driven Accountability Well Founded

Third Party Analysis of Texas A&M Faculty Profile¹

Percentage of Faculty by Cohort



¹ Figures exclude full-time administrators and normalize for part-time faculty.

² Includes faculty salary and benefits and associated overhead costs.

It's Complicated

Texas Institutions Fire Back at Overly Simplistic Conclusions

UT Points Out Data's "Monochromatic" Nature

"The data do not measure the many thousands of hours that faculty work each year to:

- Publish and keep abreast of their fields
- Supervise graduate and undergraduate students and their research
- Serve on committees inside and out of the university that promote its interests."

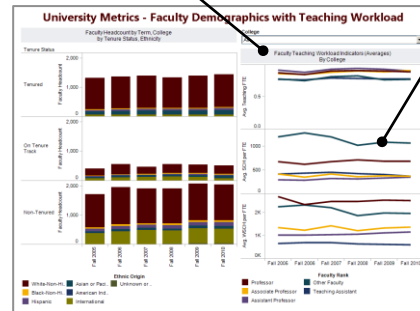
Marc Musick
Associate Dean
College of Liberal Arts,
University of Texas at Austin



A&M Releases Own Analysis, Noting Limitations and Avoiding Sweeping Conclusions

Faculty workloads aggregated; individuals not singled out

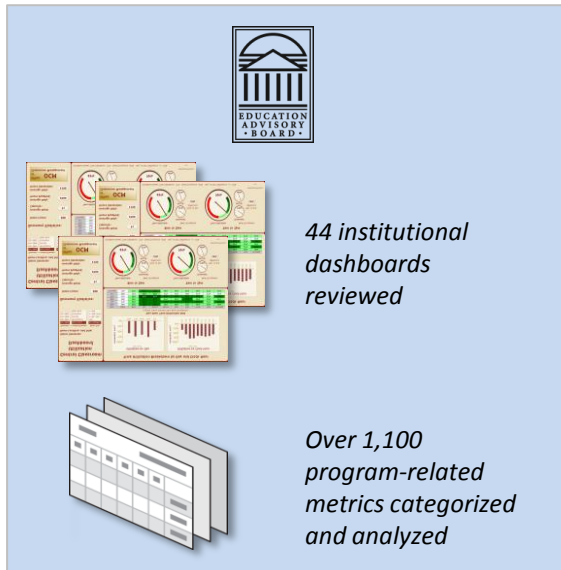
Note: Does Not Include Research Or Public Service



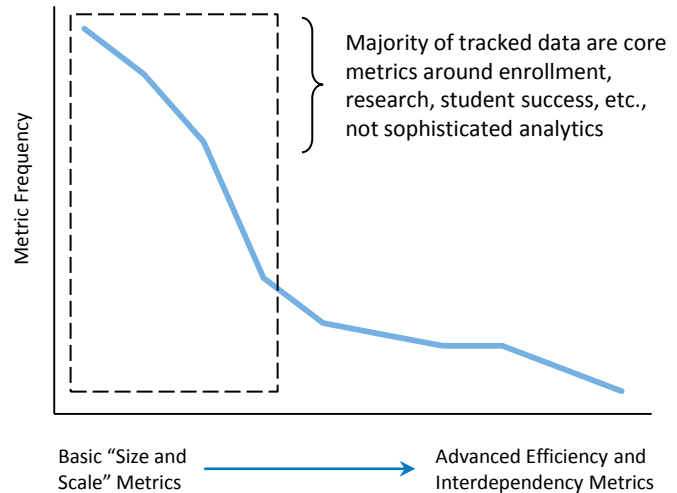
Nothing New under the Sun

Broad Collection of Program Review Metrics Shows Little Innovation

An extensive analysis...



...with few surprises emerging



Top Program-Related Metrics from University and College Dashboards, by Category

Enrollment

- Headcount (undergrad and grad, FT/PT, first-time/transfer, gender, ethnicity)
- % in-state, by region, out-of-state, international
- Average SAT/ACT/HS Rank
- % receiving financial aid
- Top majors
- Degrees awarded

Research

- Publications
- Grants
- Faculty awards
- R&D expenditures
- Patents

Instructional Productivity

- # of sections taught
- # of student credit hours taken
- Average class size
- Average teaching load
- Classroom utilization rate
- Sections with less than 30 students
- Student/faculty ratio
- Cost per SCH

Revenue/Expenses

- Net tuition
- Operating expenditures
- Expenditures for administration as % of total
- Miscellaneous revenue (licensing, startups)

Student Success

- First-year retention rate
- Six-year graduation rate
- % study abroad
- Job placement rate
- Licensure pass rate
- Average debt load at graduation

Faculty Demographics

- Headcount (T/TT, FT/PT, gender, ethnicity, age)
- Average salary/benefits, by rank
- % with terminal degree
- Alma mater

Facilities

- % teaching/classroom space
- % research/lab space
- Space utilization
- Average room capacity
- Deferred maintenance cost

Five Stages of (Data) Grief

Gaining Data Acceptance a Process, Not a One-Time Dictate

Faculty Objections to Data Take Time to Overcome (So Start Now)



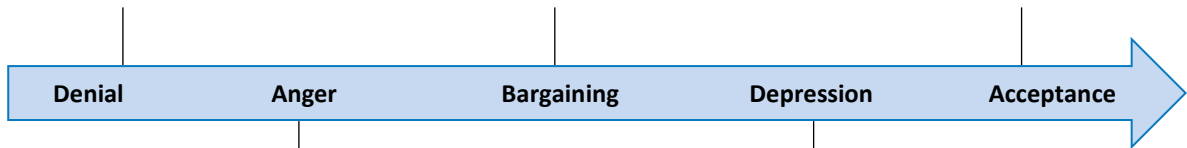
“Data-driven decisions? Yeah, I’ve heard that one before. This too shall pass.”



“Let’s not rush into this. We need a committee to do a comprehensive study of academic performance metrics.”



“This data might actually help us make smarter decisions. Besides, it’s the only way to get resources out of the provost.”



Denial

Anger

Bargaining

Depression

Acceptance



“I didn’t become an academic just to become part of the corporatization of higher ed. And the data is all wrong, too!”



“I guess we’ll just give up on all of our traditional ideals of quality and intellectual autonomy.”

Data Improves with Use

Require Programs to Use Central Data and Allow Them to Correct It

Numerous Real Problems with Data Integrity



Central data doesn't match departmental or program data



Hard to disaggregate program-level data



Need to manage conflicting definitions for different stakeholders



Centralization with Flexibility

- **Centralize** management of data
- **Collaboratively resolve problems** of definition and data integrity/consistency with individual units
- **Allow trial period** for corrections and feedback
- **Deploy data in programmatic** decisions to establish ongoing relevance

Light at the End of the Tunnel

"The first two years we did QA reviews, every single meeting got derailed by arguing about the data. We've worked hard to get the data totally reliable. Now people talk about what the data means, and the contentiousness is about program issues rather than data quality."

*Simon Greenwold
Senior Associate Dean, The Graduate School
Northwestern University*

A Need for Focus

WSU Launches Prioritization to Support Strategic Goals



Ambitious Goal Chosen

Goal 1: Achieve national and international preeminence in innovation, discovery, and creativity.

(2008-2013 Strategic Plan)

Benchmarks Selected

- AAU indicators at or above AAU peer institutional averages
- Faculty productivity/quality indicators at or above peer averages
- Center and program project grants compared to target
- Academic expenditures at or above AAU peer average
- Library expenditures per faculty FTE compared to peer average

But Can't Invest in Everything

“Our goal is to become an AAU institution, and we realized that to make progress on the AAU criteria we really had to focus our resources on high-priority areas.”

*Warwick Bayly
Provost*

Washington State University

Academic Affairs Program Prioritization (A2P2)

- 1 *House cleaning*—Reduce excess courses and excess majors; improve quality by reducing dependence on adjuncts
- 2 *Prioritization*—Identify programs to invest in, maintain, downsize, or eliminate



Profiled Institution: Washington State University



Location: Pullman, WA

Enrollment: 21,816 / 4,492

T/TT Faculty: 730 / 278

Programs: 95 / 64 / 44

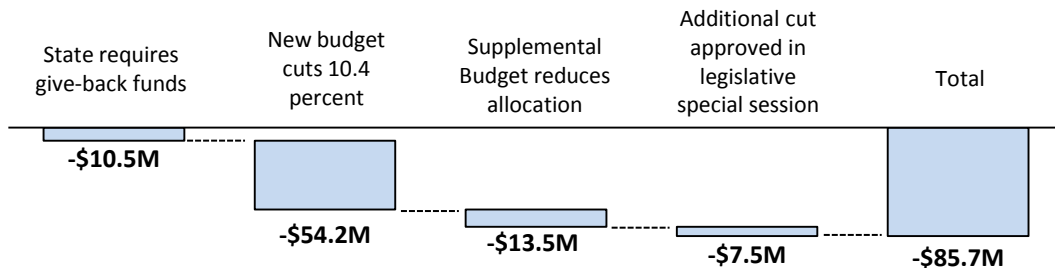
Research: \$134.1M

From Investment to Preservation

State Budget Cuts Shift the Focus of Prioritization

Draconian Pullback

Cuts in State Support, 2009-2010



Dramatic Action Required

WSU loses approximately 30% of operating budget

- ❌ 16 degrees or programs phased out
- ❌ 3 academic program areas eliminated
- ❌ 8 degrees consolidated or reduced
- ❌ 1,080 courses removed from catalogue
- ❌ 7 academic units consolidated, reduced, or phased out
- ❌ 517 FTE's eliminated

Not Rocket Science

Listing Program Prioritization Metrics Straightforward

Prioritization Criteria

Productivity Metrics

Centrality		Teaching and Learning	Scholarship and Research	Outreach and Engagement
Cost Effectiveness		<ul style="list-style-type: none"> • Credit hours taught • Degrees granted • Student retention • Time to degree • Number of majors, minors • Student faculty ratio; Faculty advising within and outside of program • Ratio of credit hours offered to majors versus non-majors 	<ul style="list-style-type: none"> • Grant expenditures • Awards • Publications, works, performances • Citations 	<ul style="list-style-type: none"> • Number of events (workshops, conferences, field days, etc.) • Number of persons reached • Caseloads • Number of scholarly products
Demand- External				
Demand- Internal				
Impact				
Productivity				
Quality				
Size				

It's Not Just about the Numbers

Key Is Building Consensus around Difficult Decisions

Collaboration, Not Calculus

- ✓ Task Force develops metrics and criteria for self-study
- ✓ Units develop self-studies and submit to dean
- ✓ Deans prioritize programs in their colleges
- ✓ Second task force reviews dean recommendations and makes recommendation to provost

Don't Overthink It

"We tried to pick metrics around teaching, research, and outreach that would account for different program roles. We even tried a few different approaches to weighting the different criteria, but it didn't make much of a difference. The weak units always came out at the bottom, and the high-performing units always came out at the top."

*Larry James
Associate Executive Vice President
Washington State University*

Getting Past “But We’re Different!”

Incontrovertible Evidence Helps Overcome Departments’ Resistance to Attempts to Measure or Compare Performance

Underperformance Even Your Friends Can’t Defend

“The faculty will want to argue about decimal points. We said, ‘It doesn’t matter whether it’s 10.3 or 10.9, it should be 40.’ Ultimately, you need their peers to say, ‘The data really demonstrates that your program is underperforming compared to other programs.’”

*Warwick Bayly
Provost
Washington State University*

A Regional Competition for National Status

Texas Stimulates Investments in Research



National Research University Fund (Established 2009)

Designated emerging research universities:

- Texas State University
- Texas Tech University
- University of Houston
- University of North Texas
- University of Texas at Arlington
- University of Texas at Dallas
- University of Texas at El Paso
- University of Texas at San Antonio

Mandatory Criteria

- \$45M in restricted research expenditures

Optional Criteria (4 of 6)

- \$400M endowment
- 50% of entering freshmen in the top 25% of their HS class
- 5 National Academy members or Nobel Prize recipients
- 50 graduate programs
- 200 Ph.D.s
- Membership in the Association of Research Libraries, Phi Beta Kappa, or Phi Kappa Phi



Profiled Institution: University of North Texas

UNIVERSITY_{of}
NORTH TEXAS

Location: Denton, TX

Enrollment: 29,518 / 8,057

T/TT Faculty: 542 / 246

Programs: 97 / 82 / 35

Research: \$21.3M

The Perfect Person for the Job

A Dean With a Background in Applied Statistics

Michael Monticino



- Dean of the College of Arts & Sciences
- Former Dean of the Graduate School
- Professor in the Department of Mathematics and Institute for Applied Science
- Expert in statistical analysis, probability models, operations research, and environmental modeling

The Need for Data-Driven Decisions

“You can’t really answer the question of where you should invest without the data.”

*Michael Monticino
Dean of Arts & Sciences
University of North Texas*

Notes:

A Failure to Communicate

Not Getting the Right Data to the Right People at the Right Time



From Reporting to Decision Support

Building Tools to Support Academic Managers

Develop Interactive Tools

“We spend our time constructing tools rather than reports.”

Incorporate Faculty’s Advice

“Any good manager has an intuitive sense of what matters. We incorporate those intuitions into the quantitative analysis and the visualization.”

The Decision- Support Model

Lessen IR’s Workload

“This is a tool for decreasing the workload on IR and the college-level analysts, so they don’t have to go back and forth with managers.”

Empower Program-Level Managers

“We put the work into designing the tool and then let managers answer their own questions.”

Equations Don't Make Decisions, People Do

The Limits of Data-Driven Decision-Making

Using Multiple Metrics

“You need to emphasize clearly and repeatedly that this is just one metric. We won't make any allocation decisions based on a single metric. People are afraid of being judged by a single number. Then they push back on the fairness of the weightings.”

*Matt Cooper, Analyst
University of North Texas*

Using Data to Inform

“Many managers have a keen intuitive sense of what works and what doesn't, what's important and what's not. Credible resource allocation decisions must incorporate this intuition *alongside* quantitative evidence to create a holistic picture of a unit and how it supports the institution's broad goals.”

*Matt Cooper, Analyst
University of North Texas*

Notes:

Securing Faculty Trust in Metrics

Results

- Institution has “a single version of the truth”
- Faculty (grudgingly) accept metrics
- Debates are about performance not metrics
- Time is spent analyzing data, not generating reports
- Metrics inform resource allocation decisions, but do not determine them

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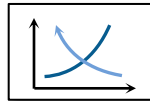
1 **Securing Faculty Trust in Metrics**

2 **Measuring Performance Against Priorities**

3 **Setting New Program Viability Hurdles**

4 **Improving Signature Programs**

5 **Maximizing Resource Flexibility**



- ✓ *Link program performance metrics to strategic plan goals*
- ✓ *Review performance against targets annually*
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- ✓ *Categorize programs by their primary institutional contribution*
- ✓ *Use external benchmarks to identify program strengths and weaknesses*

Notes:

Unique Institution, Familiar Challenges

A Changing Landscape Leads Gallaudet to a Crisis Point



Distinctive Mission

- The country's only liberal arts institution for the deaf and hard of hearing
 - Bilingual education in English and American Sign Language
 - Hearing students less than 5% of undergraduate enrollment
- Federally chartered
 - Majority of budget comes directly from federal government
 - Direct oversight from Department of Education

Changing Landscape

- No longer the only option for deaf students
 - 1990 ADA requires all universities to accommodate deaf students
 - Cochlear implants increasingly common
- Federal oversight more challenging
 - Funding falls from 83% of budget to 69%
 - Stronger accountability metrics (GPRA)



A Crisis Point 2006-2007

- Enrollment down 42% from 1991
- Students shut down campus to protest new choice for president
- Accreditor (MSCHE) puts Gallaudet on probation



Profiled Institution: Gallaudet University



Location: Washington, DC

Enrollment: 1,100 / 413

T/TT Faculty: 130 / 48

Programs: 31 / 17 / 6

Research: \$9.3M

A Plan for Reform

Holding Everyone Accountable for Meeting Critical Targets



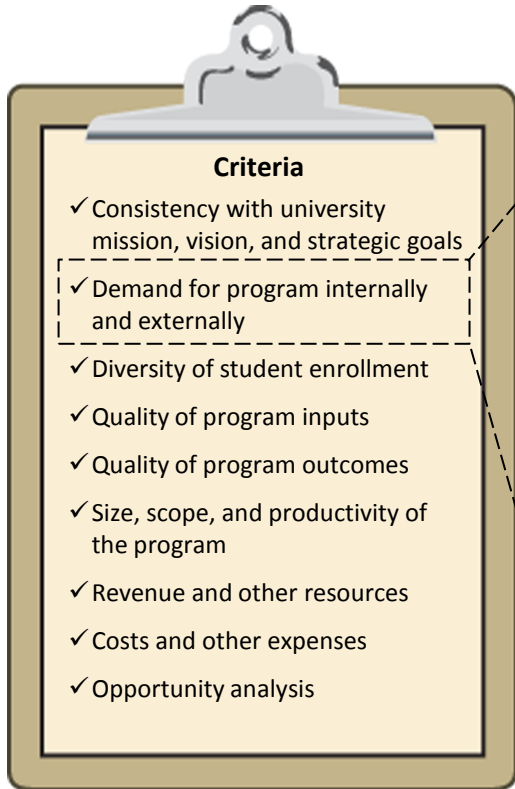
STRATEGIC PLAN 2010-2015

- Grow enrollment to 3,000 by 2015
- Improve six year graduation rate to 50%
- Diversify funding and increase efficiency
- Refine core programs to ensure students' career success
- Increase research and outreach

- | | | |
|----------|--|---|
| 1 | Student Learning Outcomes Assessment (2007-) | Define and assess programmatic learning outcomes |
| 2 | Academic Program Prioritization (2009-2010) | Identify high priority programs for investment and cancel low priority programs |
| 3 | Annual Unit Effectiveness Review (2011-) | Hold individual academic units accountable for performance against the strategic plan |
| 4 | University Planning and Budget Committee (in process) | Link budgeting process to performance review process |

Creating a Yardstick to Measure All Programs

Operationalizing the Program Prioritization Process



Template for Assessing Program Demand

Criteria	Indicators	Information Sources
Internal and external demand for the program	Number of students in program	OIR
	Number of students who applied to or declared for a program	OIR/ Program
	Number of students admitted to the program	OIR
	Number of students in program taking classes	OIR
	Number of credit hours taught	OIR
	FTE taught	OIR
Future outlook/ trends for graduates	Describe future outlook/ job trends. Data sources could include US Job Opportunities Outlook, professional organizations, program networks, etc.	Program

Implementing the Prioritization

Prioritization Process Guides Critical Investment and Organizational Decisions

Proposed Program Changes		Results
Resource Ranking	Programs	
Retain and enhance if feasible	19	Consolidated 5 majors into Art and 5 majors into Phys Ed
Monitor and address identified issues	29	
Realign, reorganize, or integrate	12	Home Economics transformed into Family and Child Studies
Close in current form and replace	2	Ultimately closed 11 degree offerings and 6 minors
Eliminate	20	

The Most Important Result: Building Trust in the Data

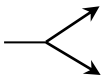
Lessons Learned from Program Prioritization at Gallaudet

Benefits of the Prioritization Process



Data Standardization

“The program prioritization process forced us to use standard metrics. And if a program disagreed with our data, we asked them to help us fix it.”



Data Relevance

“People only started caring about the data after we began using it to make decisions.”

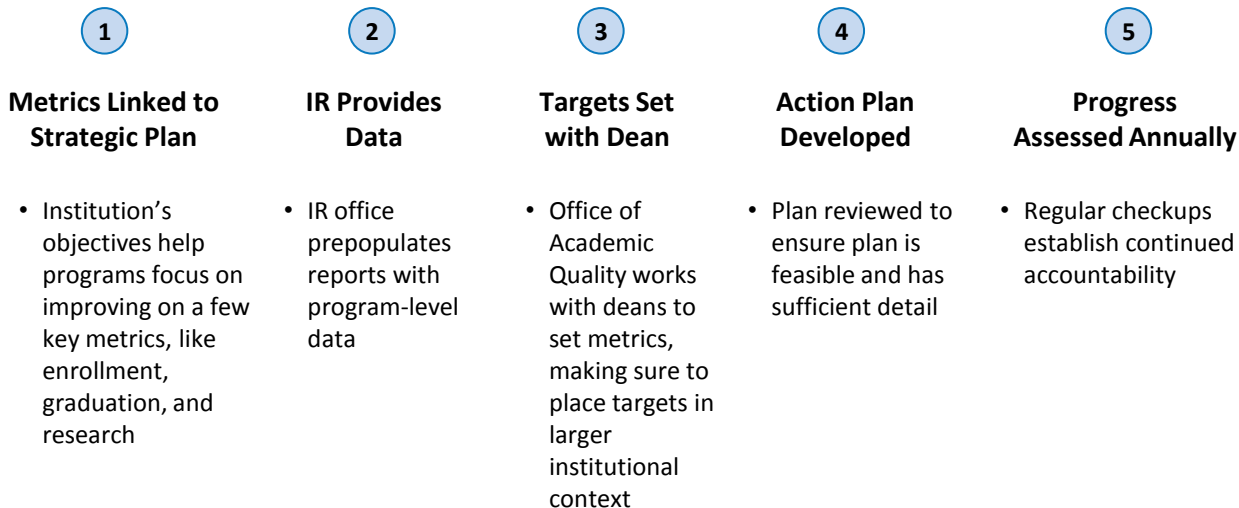


Data Trust

“The prioritization did not achieve the cost savings that people wanted (because we chose not to eliminate faculty positions, and the programs that were closed were small), **but what it did achieve was an agreement that, going forward, data matters and everyone needs to be on board.**”

Annual Unit Effectiveness Reviews

Linking Unit Performance to Institutional Goals



A Small Set of Straightforward Metrics

Annual Review in Action

Gallaudet Strategic Plan Objective	Program Strategic Planning Goal ¹
A.5 Increase and broaden accountability for enrollment	<ul style="list-style-type: none"> • The program will enroll ___ students for matriculation in 2012
B.4 Increase and broaden accountability for student retention and graduation	<ul style="list-style-type: none"> • The program will retain ___% of the students who enter its program and do not graduate from Fall 2011 to Fall 2012 • The program will graduate ___% of the students who entered its program in AY 2011-12
D.3 Strengthen students' preparation for employment and career success	<ul style="list-style-type: none"> • ___% of the students in the program will successfully complete an internship during AY 2011-12 • ___% of the students who graduated from the program will be employed one year after graduation • ___% of students who graduated from the program will be in advanced education one year after graduation • Fewer than ___% of the students who graduated from the program will be neither employed or in advanced education one year after graduation
E.1 Establish Gallaudet's research agenda and set targets for externally-funded research proposal submission, funding, and completion by 2015 and beyond	<ul style="list-style-type: none"> • ___% of the faculty in the program will have submitted proposals for externally funded research • ___% of the faculty in the program will have received funding for externally funded research
E.2 Create the infrastructure needed to support a world-class research enterprise	<ul style="list-style-type: none"> • ___% of faculty in the program will have submitted manuscripts to peer-reviewed journals and/or creative activities to juried venues • ___% of faculty in the program will have had manuscripts published in peer-reviewed journals and/or creative activities shown in juried venues

¹ Examples are illustrative.

A Rapid Turnaround

A Concerted Response Reassures Accreditor and Improves Performance

May 2006
Faculty vote no
confidence in provost

Oct 2006
Protesting students shut
down the campus

May 2009
New strategic
plan approved

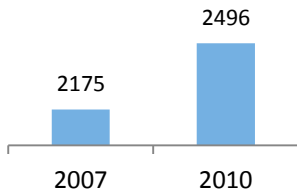
Oct 2009
New president
appointed

May 2006
MSCHE puts Gallaudet
on warning

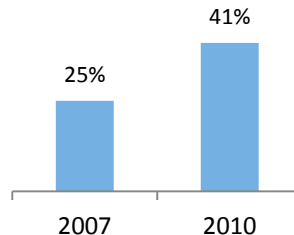
June 2007
MSCHE puts Gallaudet
on probation

April 2008
MSCHE reaffirms
accreditation

Total Enrollment



Six-Year Graduation Rate



Notes:

Acknowledging Programmatic Diversity

Programs Contribute to Institutional Success in Different Ways

Measurement Should Follow Mission

Four Program Types and Key Metrics to Watch for Each

	Enrollment Driver	Research Leader	Service Unit	Revenue Generator																
	<ul style="list-style-type: none"> • Enrollment • Application Volume/ Yield • Retention Rate • Six-Year Graduation Rate 	<ul style="list-style-type: none"> • Publications • Citations • Awards • Grants 	<ul style="list-style-type: none"> • Student Credit Hours/FTEs • Total SCH • Drop/Fail/Withdraw Rate 	<ul style="list-style-type: none"> • Net Tuition Revenue • Instructional Costs per Student • Miscellaneous Revenue (licensing, startups) 																
External Market Potential	<table border="1"> <tr> <td>Monitor</td> <td>Grow</td> </tr> <tr> <td>Reduce/ Cut</td> <td>Monitor</td> </tr> </table> <p>Enrollment by Major</p>	Monitor	Grow	Reduce/ Cut	Monitor	<table border="1"> <tr> <td>Monitor</td> <td>Grow</td> </tr> <tr> <td>Reduce/ Cut</td> <td>Monitor</td> </tr> </table> <p>Research Expenditures</p>	Monitor	Grow	Reduce/ Cut	Monitor	<table border="1"> <tr> <td>Monitor</td> <td>Grow</td> </tr> <tr> <td>Improve</td> <td>Monitor</td> </tr> </table> <p>SCH per FTE</p>	Monitor	Grow	Improve	Monitor	<table border="1"> <tr> <td>Monitor</td> <td>Grow</td> </tr> <tr> <td>Reduce/ Cut</td> <td>Monitor</td> </tr> </table> <p>Contribution Margin</p>	Monitor	Grow	Reduce/ Cut	Monitor
Monitor	Grow																			
Reduce/ Cut	Monitor																			
Monitor	Grow																			
Reduce/ Cut	Monitor																			
Monitor	Grow																			
Improve	Monitor																			
Monitor	Grow																			
Reduce/ Cut	Monitor																			
Growth in Research			D/F/W Rate	Gross Revenue																

Setting Appropriate Expectations

Four Basic Approaches to Target-Setting



Outliers / Annual Improvement

Spotlight clearly subpar performance, set improvement targets



Internal Benchmarks

Compare programs internally

Externally Imposed Standards

Meet requirements from accreditor, state legislature, union



External Benchmarks

Compare to peer institutions



Addressing Incommensurability

Finding Usable Benchmarks

Enrollment Driver



IPEDS
Degree
completions



SAT/ ACT
Application/
admissions
data

Research Leader



**National Science
Foundation**
Reports on
research funding



**National
Research Council**
Doctoral program
rankings

Service Unit



**Delaware Cost
Study**
Instructional costs
and productivity



NSSE
Student
engagement

Revenue Generator



Notes:

Creating a Comprehensive Set of Benchmarks

Covering All Major Variables Across 9,000 Doctoral programs

Broad Coverage of Metrics and Programs



31 Variables in 6 Areas

171

Disciplines

383

Institutions

9,000

PhD Programs and Departments

280,000

Faculty

Journal Articles

- Publications per author
- Publication weight

Citations

- Total citations
- Number of faculty cited

Grants

- Percentage of faculty with grants
- Total grant dollars

Books

- Number of books per faculty
- Ranking for number of books

Awards

- Number of faculty with awards
- Ranking for number of awards

Conference Proceedings

- Percentage of faculty with proceedings
- Total number of proceedings

Limitations

- Only covers faculty in doctoral programs
- No data on Co-PI's or subawards
- Data lags by approximately two years
- Currently tracks only scholarly productivity, not graduate education or teaching productivity

Overcoming the Unicorn Objection

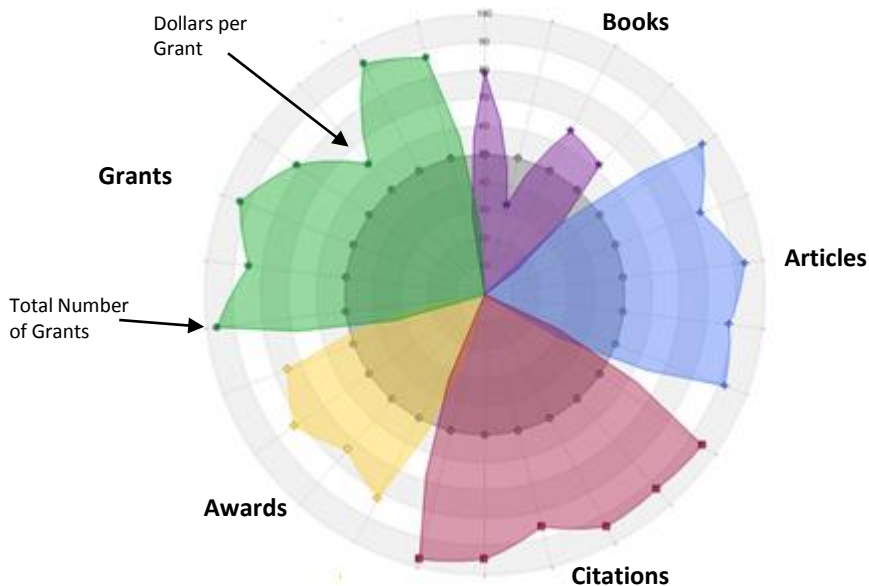
Customizing Benchmarks to Account for Real Disciplinary Differences

Faculty Complaint	Academic Analytics Solution
"You're not counting what's important."	Broad range of research productivity metrics
"Those factors don't matter in my discipline."	Programs can set weights for each metric
"Other programs look better because they're bigger."	All metrics are on a per-faculty basis
"Those aren't my peers."	Programs pick peers from over 9,000 Ph.D. programs at 383 institutions—or use peer-picking tool
"No other program looks like me."	Data categorized at the individual faculty level—can be cut in different ways
"Rankings are uni-dimensional."	Focus on comparisons across multiple factors, not a single ranking
"It's not fair to compare me to other disciplines."	Overall productivity index presented as standard deviations from the national mean in each discipline

Identifying Program Strengths and Weaknesses

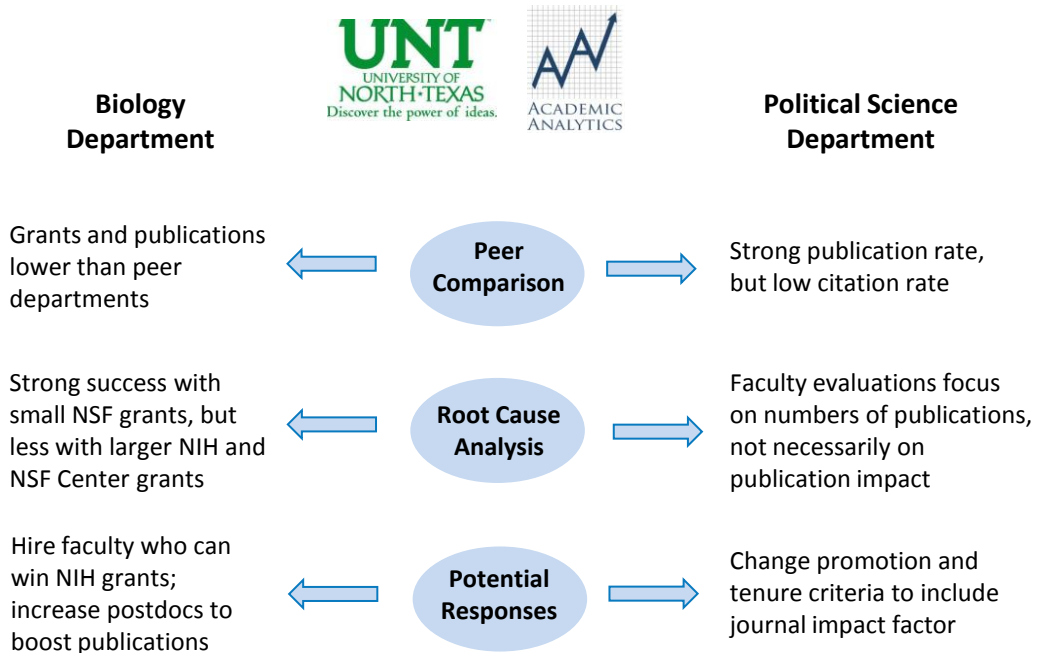


Faculty Productivity Radar
Anthropological Sciences—Stony Brook



Using Data to Diagnose Underperformance

Peer Benchmarks Identify Performance Improvement Opportunities



A Moneyball Approach

Northwestern Leverages Analytics to Allocate Graduate School Resources



NORTHWESTERN
UNIVERSITY

Strategic Plan

“TGS Office of Research and Analysis aims to become a national leader in analysis of doctoral education and support of evidence-based decision-making; statistical reports and critical analysis on each graduate program will be delivered annually to the program, school, and central administration...”

“We often liken ourselves to the Oakland A's. We are in the major leagues with the Ivies, Stanford, and MIT, but are often at a competitive disadvantage to these ‘bigger market’ teams.”

Simon Greenwold
Senior Associate Dean, The Graduate School
Northwestern University



Profiled Institution: Northwestern University



NORTHWESTERN
UNIVERSITY

Location: Evanston, IL

Enrollment: 9,549 / 10,985

T/TT Faculty: 940 / 317

Programs: 98 / 71 / 62

Research: \$441.9M

Creating a Culture of Measurement

Annual Program Progress Reviews

Detailed Data for All Graduate Programs

Admissions and Enrollment	<ul style="list-style-type: none"> • Admissions • Selectivity 	<ul style="list-style-type: none"> • Yield • Demographics
Attrition and Completion	<ul style="list-style-type: none"> • Cumulative attrition • Cumulative completion rate 	<ul style="list-style-type: none"> • Transfers
Ph.D. Outcomes	<ul style="list-style-type: none"> • Student Outcomes • Time to degree • Total graduates 	<ul style="list-style-type: none"> • Demographics • Survey of earned doctorates
Placement	<ul style="list-style-type: none"> • First placement • Placement by institutional ranking 	<ul style="list-style-type: none"> • Most frequent employers • Alumni database
NRC Data	<ul style="list-style-type: none"> • Rank on individual NRC variables • R-ranking 	<ul style="list-style-type: none"> • S-ranking
Student Satisfaction	<ul style="list-style-type: none"> • Student satisfaction survey 	<ul style="list-style-type: none"> • Early exit survey
Competitive Positioning	<ul style="list-style-type: none"> • Survey of admitted students who enrolled elsewhere 	

An Exercise with Consequences

- The Graduate School is centralized and holds the vast majority of the financial resources that programs then receive
- Controls graduate student lines
- Can suspend poor-performing programs



Hard to Argue

“We don’t have a single standard for time-to-degree. We know it varies by discipline. But our national statistics show us the norms for each discipline, and faculty have a hard time arguing with that.”

Simon Greenwold
Senior Associate Dean, The Graduate School
Northwestern University

Measuring Performance Against Priorities

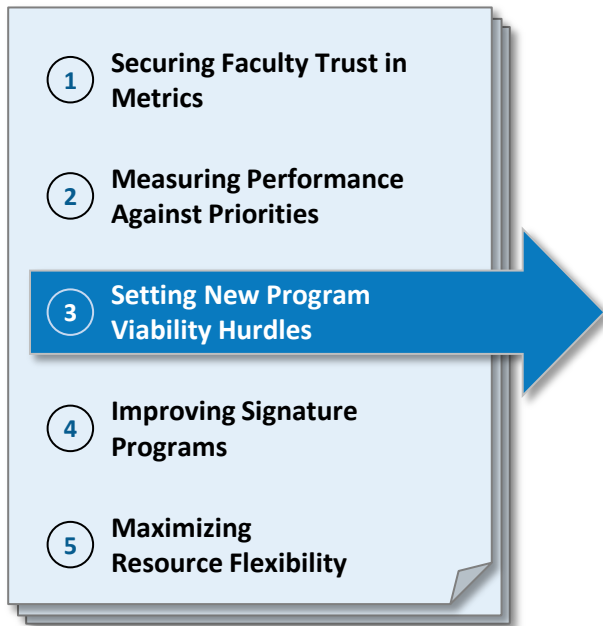
Results

- Each program has metrics that link directly to the strategic plan
- Each program has a defined institutional role with performance metrics appropriate to that goal
- Each program has identified relevant peer programs

Notes:

Revitalizing the Program Portfolio

Elevating Academic Program Performance and Strategic Alignment



- ✓ *Provide decision-support tools to help faculty model often-overlooked costs*
- ✓ *Match sophistication of demand estimates to type of program*
- ✓ *Adjust program proposals to reach breakeven in 5 years*
- ✓ *Create program launch logistics checklist*
- ✓ *Create staged market testing for professional and online programs*

Notes:

Assessing New Program Viability

The Necessity of Getting New Programs Right



Typical Approach

- Faculty propose new programs
- Check for minimum quality
- Approve most proposals



- Unchecked programs proliferate
- Many programs fail to break even
- Increasing draw on institutional resources

New Approach

- Faculty propose new programs
- Examine income and expenses with specialists
- Improve proposals
- Approve same percentage or more



- New programs at break-even or better
- Higher quality proposals lead to higher quality programs



Profiled Institution: Philadelphia University



Location: Philadelphia, PA

Enrollment: 3,000 / 619

T/TT Faculty: 43 / 13

Programs: 36 / 18 / 1

Research: N/A

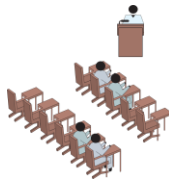
Recipe for a Failed Program Launch

Faculty Are Curricular Experts, Not Program Design Experts



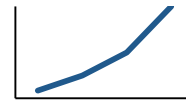
Underestimate Costs

- Ignore library and IT costs
- Exclude support staff costs
- Ignore annual salary and benefits cost increases
- Use inaccurate discount rates
- Fail to understand the importance of the timing of expenses



Ignore Capacity Constraints

- Fail to factor in new program's impact on existing programs, esp. general education courses
- Unaware of capacity step functions—when a new section will be necessary



Overestimate Demand

- Lack experience in estimating program demand
- Estimate using headcounts, not student credit hours
- Fail to differentiate the needs of full-time vs. part-time students
- Ignore impact of retention rates

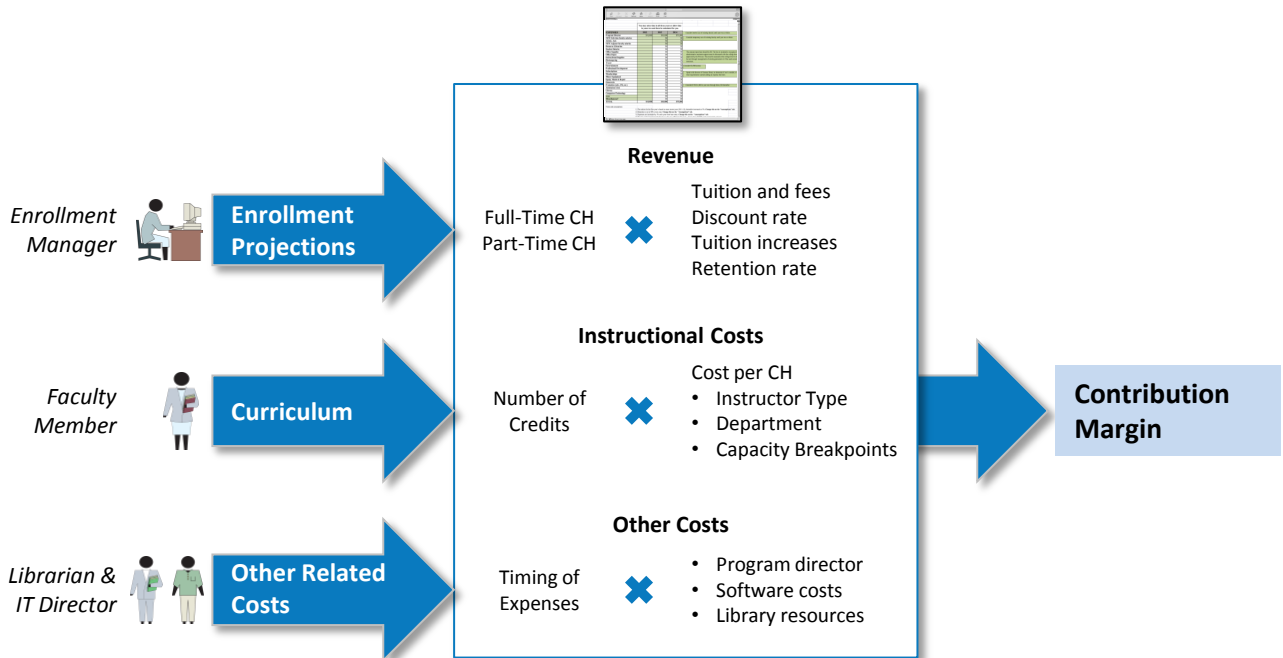
Building a Business Plan

Factoring in All Determinants of Profitability

Designated Inputs Provided
by Content Experts

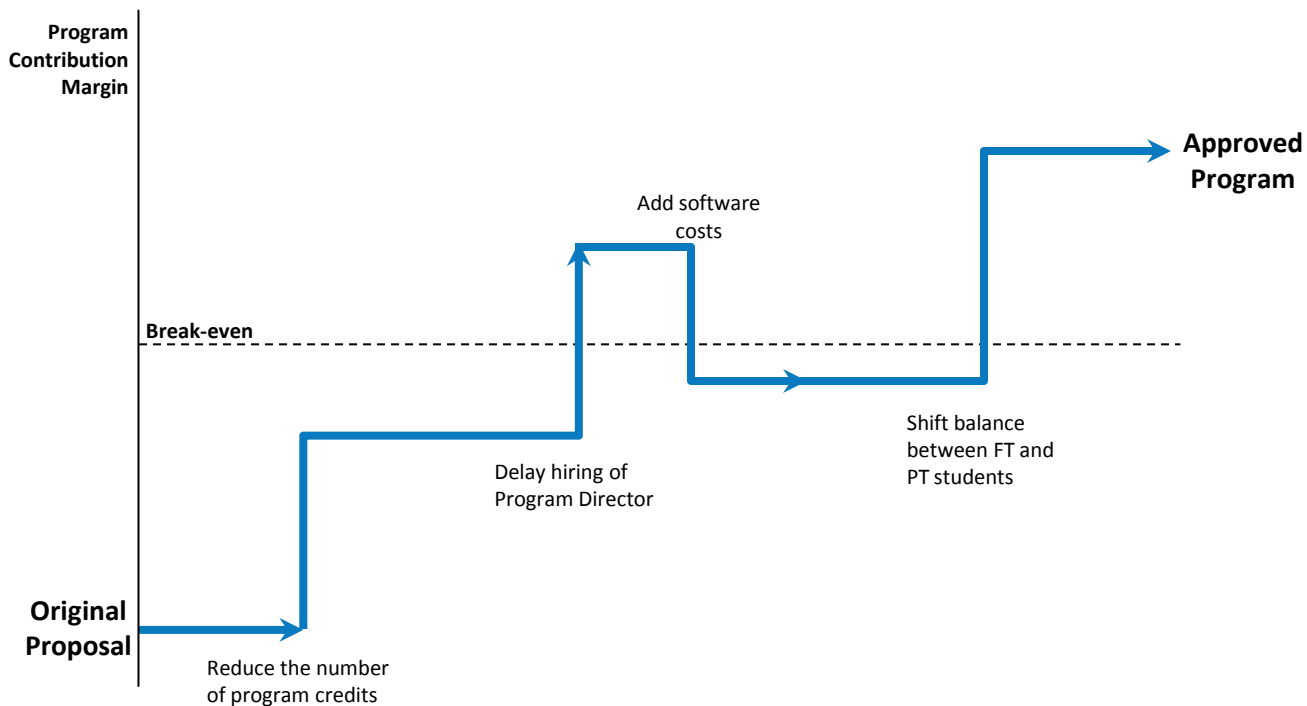
Automated
Cost/Income Calculator

Objective Determination
of Financial Viability



Getting to Yes

Helping Faculty Design More Viable Programs



Notes:

If We Build It, Will They Come?

Estimating Demand for New Academic Programs

“Gut” Doesn’t Cut It

“We need more than an internal hunch. Our people may know the regional market, and their hunches are a good place to start, but we need to validate them.”

*Associate VP for Academic Affairs
Private Master’s University*

Student Demand

- Number of degrees granted annually (IPEDS)
- Student expressions of interest (ACT/ SAT, custom surveys, focus groups)
- Student demographics (Census, College Board, GMAC)

Employer Demand

- Number of jobs (EMSI, BLS, Monster, NACE)
- Occupational projections (BLS, employer surveys)
- Number of businesses (Nielsen Claritas, Dunn & Bradstreet)
- Job qualifications (industry associations, licensing bodies, employer surveys)

Competition

- Recently launched programs (accreditors)
- Market share by institution (IPEDS)
- Number of programs vs. job openings in region
- Cross-application rates (ETS, GMAC)

Wanted: Richer Employer-Side Market Intelligence

Conventional Market Research Ill-Suited to Discover Breakthrough Opportunities

Typical Program Market Research



Student Surveys

- Schedule and delivery preference
- True labor market demand

Employer Advisory Boards



- Local employer perspectives
- Thought leadership and national perspectives

Bureau of Labor Statistics



- It's free?
- Data too old

Wishing for Better Answers



Will Employers Hire Our Students?

“Surveys show what students will take, but not what companies will hire”



Where Will a Field Be in Five Years?

“Program advisors know what’s going on in their world, but not across the world”



What New Professions and Credentials are Coming?

“Government statistics show where the puck is, not where it’s going”

Triangulating Employer Demand

Combining Strategic Industry Research with Real-Time Job Posting Analysis

AI Meets HR



- Leading developer of technology for career-planning, labor market analytics, and workforce development
- Clients include government agencies, private companies, institutions of higher education
- “Spidering” technology aggregates online job postings in the U.S., Canada, and U.K. to build industry’s most complete jobs database
 - Major Job Boards
 - National and Local Employer Websites
 - Craigslist

Unprecedented Granularity, Real-Time Data



What Fields Are in Highest Demand?



What Specialized and General Skills Are the Most Valued?



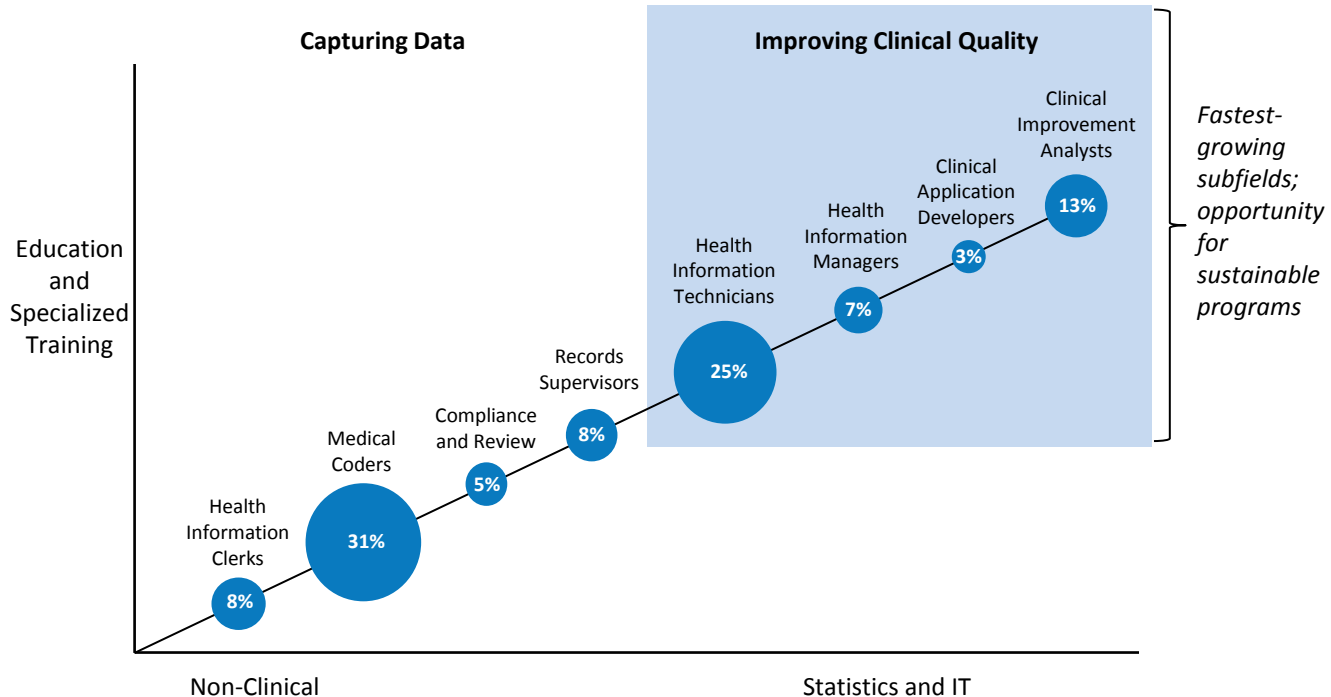
Which Emerging Fields Are Candidates for Tailored Programs?



What Geographies Have the Hottest Markets?

What Fields Are in Highest Demand?

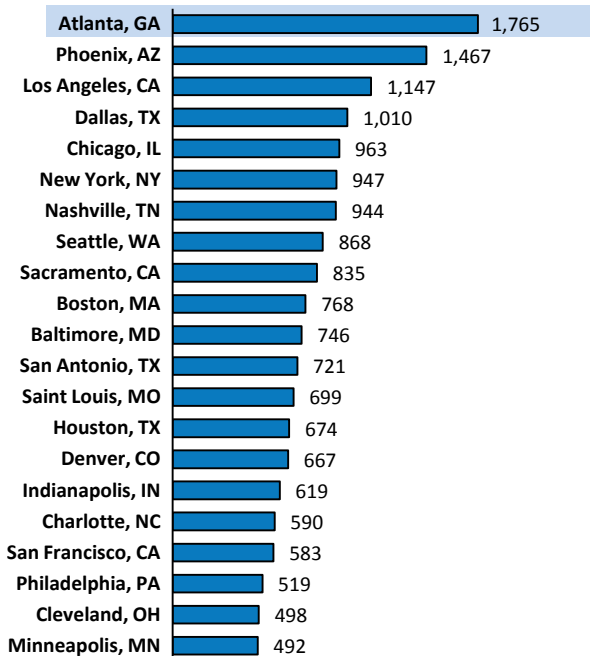
Health Informatics Listings by Job Type, H1 2011



What Cities Have the Hottest Markets?

Some Markets "Punching Over Their Weight"

Top MSAs for Health Informatics Job Postings



Markets Finding Their Own Equilibrium

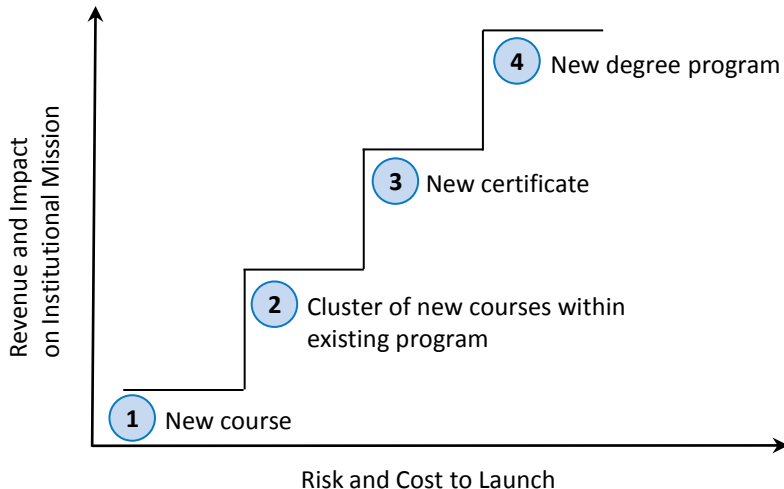
	Masters +	BSN	Associates
Charlotte	13.5%	52.9%	33.6%
Boston	11.3%	74.6%	14.1%
Chicago	10.6%	48.7%	40.8%
Seattle	9.9%	72.2%	17.9%
Los Angeles	5.7%	71.2%	23.1%
Atlanta	3.7%	59.4%	36.9%
Amarillo	3.3%	27.9%	68.9%

Notes:

Getting New Programs Off the Ground

Reducing the Risk of Roadblocks

Staged Program Launch



Key Ingredients:

- Leverage existing resources as much as possible
- Test demand at each stage before further investment
- Change program features in response to student/ employer suggestions
- Stop program development before major investments if problems appear

Notes:

Setting New Program Viability Hurdles

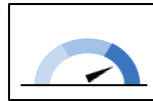
Results

- New program proposals include full projected costs
- More proposals meet breakeven targets
- Demand estimates are evidence based
- All critical parties are aware of implementation needs
- New programs launched with less risk

Notes:

Revitalizing the Program Portfolio

Elevating Academic Program Performance and Strategic Alignment



1 **Securing Faculty Trust in Metrics**

2 **Measuring Performance Against Priorities**

3 **Setting New Program Viability Hurdles**

4 **Improving Signature Programs**

5 **Maximizing Resource Flexibility**

- ✓ *Shift resources from five-year reviews to ad hoc opportunity analysis*
- ✓ *Concurrently review related programs to surface collaborative opportunities*
- ✓ *Agree upfront on narrowly defined scope for review*
- ✓ *Empower university-wide faculty committee to synthesize findings across reviews and launch new studies*
- ✓ *Engage trustees for “real-world” perspective and fundraising advice*

Notes:

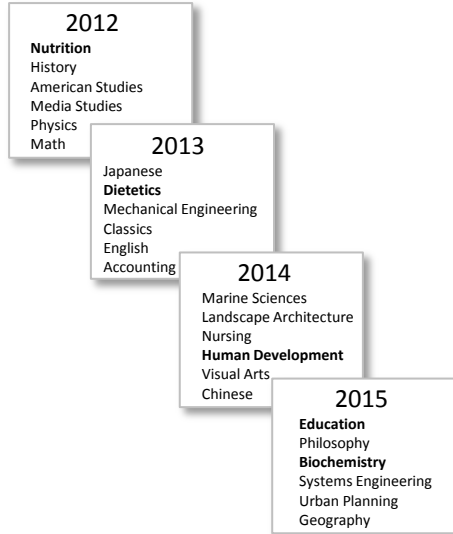
Identifying Strategic Opportunities

Reviewing Related Programs Together¹

RUTGERS

The Typical Approach

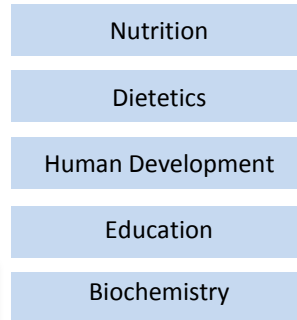
Determined by the Calendar



The Strategic Approach

Cluster Related Programs

Nutrition Science Cluster



The Benefits

Identify Joint Opportunities

- Hire joint faculty
- Share equipment
- Share lab space
- Launch new interdisciplinary programs
- Consolidate programs
- Differentiate programs



Profiled Institution: Rutgers University

RUTGERS

Location: New Brunswick, NJ

Enrollment: 30,351 / 8,561

T/TT Faculty: 1,187 / 311

Programs: 121 / 180 (M + Ph.D.)

Research: \$319.2M

The Power of Numbers

Independent Requests Lack the Strength of a Unified Request¹

RUTGERS

Applied and Professional Psychology

Request for \$1M MRI machine



DENIED

Educational Psychology

Request for \$1M MRI machine



DENIED

Psychology

Request for \$1M MRI machine



DENIED

Joint Request

Same \$1M MRI machine



APPROVED

¹ Hypothetical example

Triggered Reviews

A Shift from Passive to Proactive Program Reviews

Committee on Academic Planning and Review



Provost / President



Dean / Department Chair



Before

Passively received program reviews and transmitted to provost

Overwhelmed by an endless parade of resource requests from individual programs

Saw reviews as a bureaucratic hassle that rarely led to additional resources

Now

Proactively request reviews and launch more detailed studies

Works with Committee and Deans to focus review on institutional priorities

See clustered reviews as an opportunity to make the case for strategic investment

Key Questions

Which programs are on track to achieve excellence?

How can we go after large interdisciplinary opportunities?

How can I make the most effective use of limited resources?



The Benefits of Cluster Reviews

“The five-year cycle of program reviews created an avalanche of reviews, many of which resulted in unfulfilled resource requests. The cluster reviews promote strategic thinking about how a new initiative could fit into the overall mission of the university.”

*Rob Heffernan,
Director of Institutional Research and Planning
Rutgers University*

Notes:

Choosing to Be Great

Raising Aspirations at Boston University



New President 2005



Bob Brown
(Formerly at MIT)

New Provost 2011



Jean Morrison
(Formerly at USC)

A New Strategic Plan “Choosing to Be Great”

- 10-year plan, \$1.8B cost
- 100 new tenure-track faculty in the College of Arts and Sciences
- “We must make selective investments that will give us the biggest impact and which will do the most to improve the University’s overall standing in the years to come.”



Profiled Institution: Boston University



Location: Boston, MA

Enrollment: 18,568 / 13,897

T/TT Faculty: 664 / 222

Programs: 141 / 43 / 33

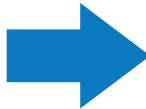
Research: \$200.8M

Learning from Experience

Adopting Review Strategies from MIT and USC to Fit the Culture and Needs of BU

USC: Program Review MOUs

- All program reviews begin with an explicit agreement (MOU) on the goals and scope between the Dept. Chair, Dean, and Provost
- Focuses the review on key strategic issues
- Self-study addresses MOU questions
- External reviewers receive MOU charge

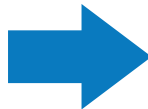


BU: Agreement on Scope of Review

- Focuses the reviewers' attention on the critical challenges facing the unit
- Guides the selection of appropriate external reviewers
- Helps to ensure that review provides useful information at the levels of the department, dean, and provost

MIT: Visiting Committee Includes Trustees

- MIT Corporation members participate in program reviews
- Industry leaders valued for their deep knowledge of trends in technology, business, and workforce development



BU: Overseers Join Review Committees

- No disciplinary knowledge—value is in their outsider perspective and commitment to BU
- Industry connection not necessary
- Just finished first round; still in the experimental stage

A Balanced Review Committee

Introducing an Institutional Advocate to Program Reviews

External

Disciplinary Experts

(Faculty from Peer/Aspirant
Departments)



How does this program
compare to other leaders in
the discipline?

Internal

Expert

(Faculty Member from
Related Discipline)



How does this program
relate to other initiatives at
the university?

Non-Disciplinary

Member

(Institutional
Supporter)



Are graduates of this
program well-prepared
for jobs?



The Benefits of Including Outsiders

“We don’t expect the overseers to bring subject-matter expertise. Their distance from the field provides them with an interesting viewpoint and affords them relative freedom to pursue alternate lines of inquiry. They’re not so deeply embedded, so they can ask the obvious but critical questions.

This is a great way to engage the University’s board leadership in the academic mission, but even more importantly, it gives them a real feeling of confidence in the institution’s leadership around accountability and transparency.”

*Nicole Hawkes
Associate Provost for Strategic Initiatives
Boston University*

Notes:

Improving Signature Programs

Results

- Program reviews focus on narrowly defined opportunity assessment rather than basic compliance
- Opportunities assessed stretch across multiple related programs
- While disciplinary experts play a crucial role, they do not define the terms of the review
- Reviewers from outside the discipline ensure that the review committee considers the program's broader implications and opportunities

Notes:

Revitalizing the Program Portfolio

Elevating Academic Program Performance and Strategic Alignment

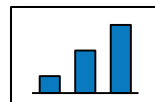
1 **Securing Faculty Trust in Metrics**

2 **Measuring Performance Against Priorities**

3 **Setting New Program Viability Hurdles**

4 **Improving Signature Programs**

5 **Maximizing Resource Flexibility**



- ✓ *Award seed funding and new faculty lines to programs that support institutional priorities*
- ✓ *Require departments to reallocate 3-5% of operating budget to institutional priorities*
- ✓ *Recapture all open faculty lines and reallocate based on strategic goals*
- ✓ *Consolidate departments into divisions to facilitate flexible hiring*

Notes:

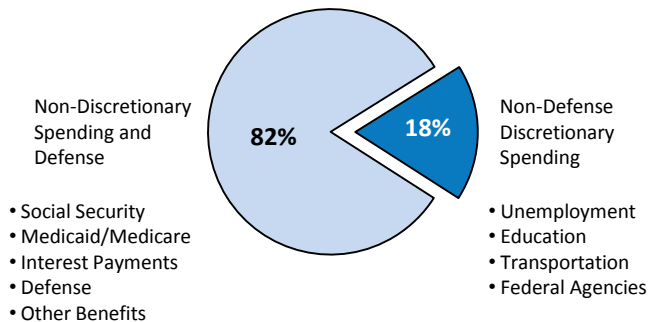
An Entitlement Mentality

Few Flexible Funds to Dedicate to Strategic Investments



The Federal Government's "Entitlement Crisis"

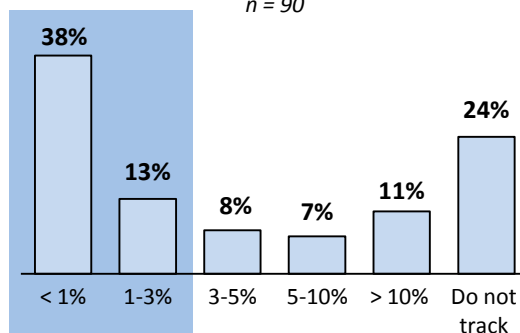
Federal Spending, FY 2011



Higher Ed's Strategic Squeeze

Percentage of Operating Budget Dedicated to Strategic Initiatives¹

n = 90



Half of surveyed institutions dedicate less than 3% of operating budget to strategic initiatives

¹ Education Advisory Board survey of university and college chief business officers, conducted in early 2012.

Notes:

Seeding New Centers

Encouraging Deans to Support Multidisciplinary Research

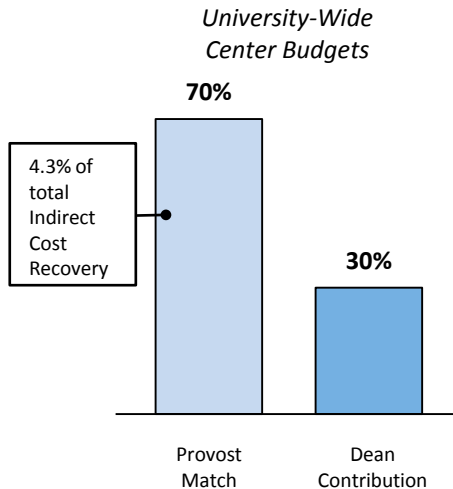
Portfolio of high-profile
multi-disciplinary efforts...



University-Wide
Centers

- Winners of triannual internal seed-funding competition
- Eligible for substantial provost investment
- Requires at least two sponsoring schools to ensure “true multi-disciplinarity”
- Sponsoring deans obliged to commit funds for three years

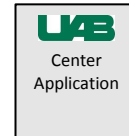
...are jointly funded by
provost investment and
dean commitments...



...with the ranking and funding
process generating information
for dean negotiations

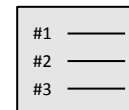
1

Standardized
Applications



2

Two-Tiered
Forced Rankings



3

Formula-Based
Funds Matching





**Profiled Institution: University of Alabama
at Birmingham**



Location: Birmingham, AL

Enrollment: 11,028 / 6,515

T/TT Faculty: 803 / 434

Programs: 59 / 34 / 17

Research: \$362.5M

Two-Tiered Forced Ranking

Generating Objective Information for Dean Negotiations



Evaluators

Dean's Advisory Group

- Department chairs
- Star faculty

Key Question

Will the school derive value?

Ranking Criteria

Sponsor School Utilization

- Faculty participation
- Junior faculty support
- Core facility use
- Help with recruitment



Final Rankings

Center	Priority	Rank
A	1.0	1
B	1.8	2
C	3.0	3
D	3.0	3



Evaluators

Research Advisory Group

- VPR
- School representatives

Key Question

Is the center aligned with university goals?

Ranking Criteria

Total Impact

- Societal significance
- Core facilities benefit multiple investigators
- Innovation
- University reputation



Final Rankings

Center	Priority	Rank
A	1.0	1
B	1.8	2
C	3.0	3
D	3.0	3

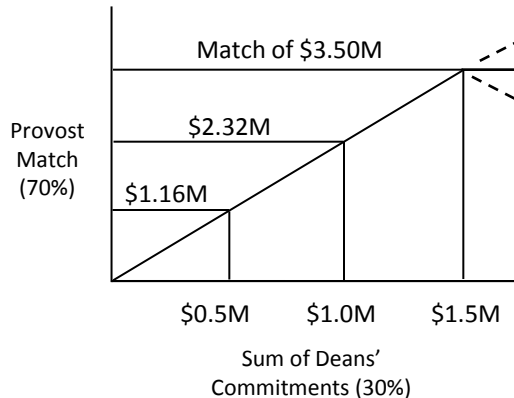
Formula-Based Funds Matching

University-Wide Center Matching Fund Allocation (Illustrative)

**Deans' Collective
Commitments...**

**...Dictate Size and Distribution
of Provost Annual Investment**

University-Wide Center
Funding Formula



Option: Spread the Wealth
35 Centers at ~\$10,000 match

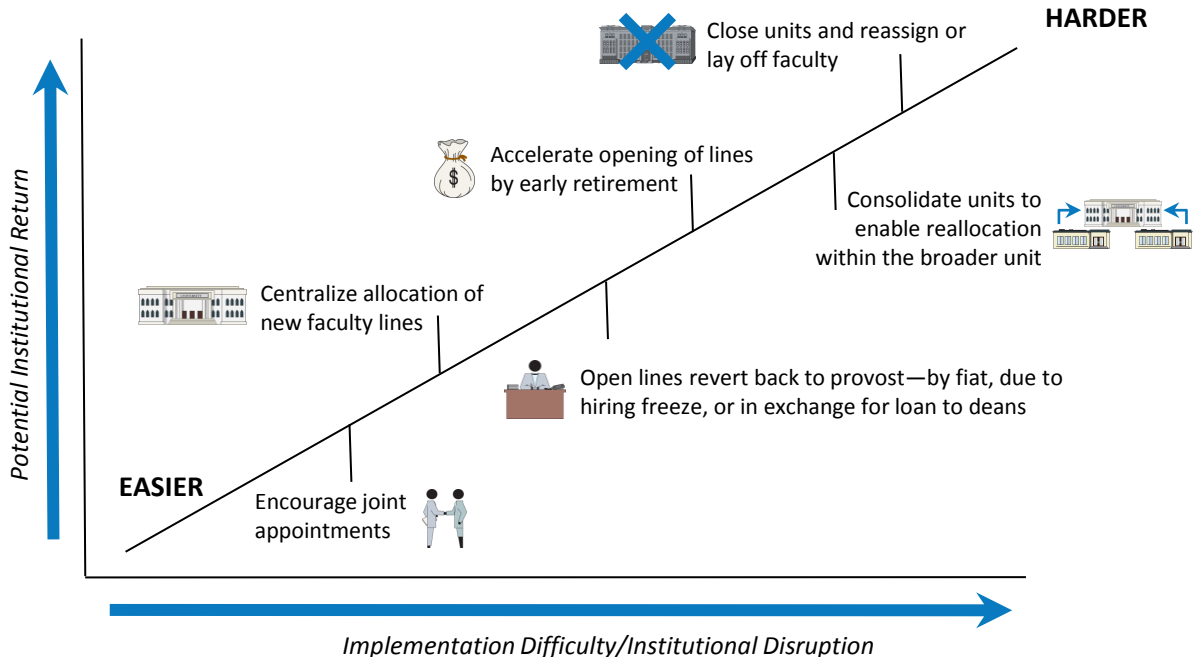
Actual: Commitments
25 Centers ranging from
\$70,000 to \$700,000

Option: Concentrate Bets
10 Centers at \$350,000 match

A University's Most Valuable Resource: Faculty Lines

Hiring for Institutional Rather than Departmental Needs

A Menu of Options, from Simple to "Nuclear"



Notes:

A New Leader, a New Plan

Rensselaer Sets Bold Goals

Shirley Ann Jackson



Appointed
President 1999



Rensselaer

THE RENSSELAER PLAN APPROVED BY TRUSTEES IN 2000

- Expand research funding from \$40M to \$100M
- Double the number of doctorates, from 125 to 250
- Grow the endowment to support 20% of the budget (now 10%)
- Build new strengths in biotechnology and information technology



Profiled Institution:
Rensselaer Polytechnic Institute



Rensselaer

Location: Troy, NY

Enrollment: 5,348 / 1,243

T/TT Faculty: 240 / 88

Programs: 37 / 38 / 27

Research: \$105.2M

A Mechanism for Accelerating Change

Reallocating Resources to Support Strategic Goals

The Rensselaer Plan has substantial implications for financial resources...

We will:

- Derive Performance Plans and then annual operating plans (budgets) from The Rensselaer Plan.
- Refine or reinvent the budgetary model to focus resources for maximum strategic impact, while maintaining appropriate institutional flexibility.
- Provide managers at every level with accurate, timely, and relevant performance and management information.

Mandate Unit-Level Reallocation to Strategic Priorities

All units required to reallocate 3% of budget to strategic priorities annually

Centralize Staffing Decisions

All open faculty and staff positions revert to the provost

Leverage Program-Level Data To Determine Resource Needs

Positions allocated based on strategic priorities and data on the resource needs of individual programs

Growing Strategically

Two Separate Allocation Pathways Guide Faculty-Line Decisions

**Open Faculty (and Staff) Lines
Revert to Provost (and CFO)**

**Provost Reallocates Faculty Lines to
Programs That Meet One of Two Criteria**

~\$5M of faculty and staff turn over every year (about 5 percent of operating budget)

1 Program Meets Key Performance Threshold



- Metrics examined include student demand, research volume, and advising load
- Committee of deans define key concepts like faculty workload

2 Program Aligns with Strategic Growth Area



- Strategic priorities for the coming year, and three- to five-year horizon
- Deans included in discussion
- External environment examined to identify relevant trends and opportunities

Faculty Activity Dashboard

A Schoolwide View of Teaching Loads and Research Expenditures

Faculty Activity Dashboard

Number of Faculty by Research Expenditures and Number of Courses Taught

Fiscal Year:
 Term:
 School:
 Depts:
 Type:

Expenditures	Courses Taught								
	0	1	2	3	4	5	6	10	TOTAL
\$0	75	112	94	17	5	1	2	0	306
\$1-\$100K	18	40	21	7	1	0	0	1	88
\$100-\$200K	9	34	20	2	0	0	0	0	65
\$200-\$300K	3	16	7	1	0	0	0	0	27
\$300-\$400K	5	8	2	1	0	0	0	0	16
> \$400K	14	36	6	0	0	0	0	0	56
TOTAL	124	246	150	28	6	1	2	1	558

Includes administrators with faculty status (such as the president), plus all academic deans, chairs, and faculty on leave and on sabbatical

There are 20 faculty with research expenditures between \$100k and \$200k who taught 2 courses in Fall 2010

Faculty Activity Dashboard (cont'd)

Faculty Data Drill Down to School and Department Level

Faculty Activity Dashboard

Number of Faculty by Research Expenditures and Number of Courses Taught

Fiscal Year:
 Term:
 School:
 Depts:
 Type:

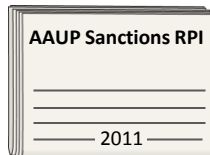
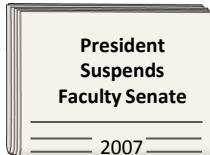
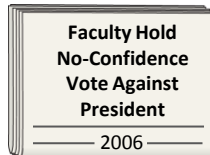
Expenditures	Courses Taught				
	0	1	2	3	TOTAL
\$0	1	1	0	0	2
\$1-\$100K	3	5	0	1	9
\$100-\$200K	0	2	2	0	4
\$200-\$300K	0	0	1	0	1
\$300-\$400K	0	1	0	0	1
> \$400K	1	3	0	0	4
TOTAL	5	12	3	1	21

There are 2 tenure & tenure-track faculty in computer science with research expenditures between \$100k and \$200k who taught 1 course in Fall 2010

Measuring Progress Against Plan

Significant Progress 12 Years into the Plan

Process Not without Some Controversy...



...But an Impressive Record of Accomplishment That's Hard to Ignore

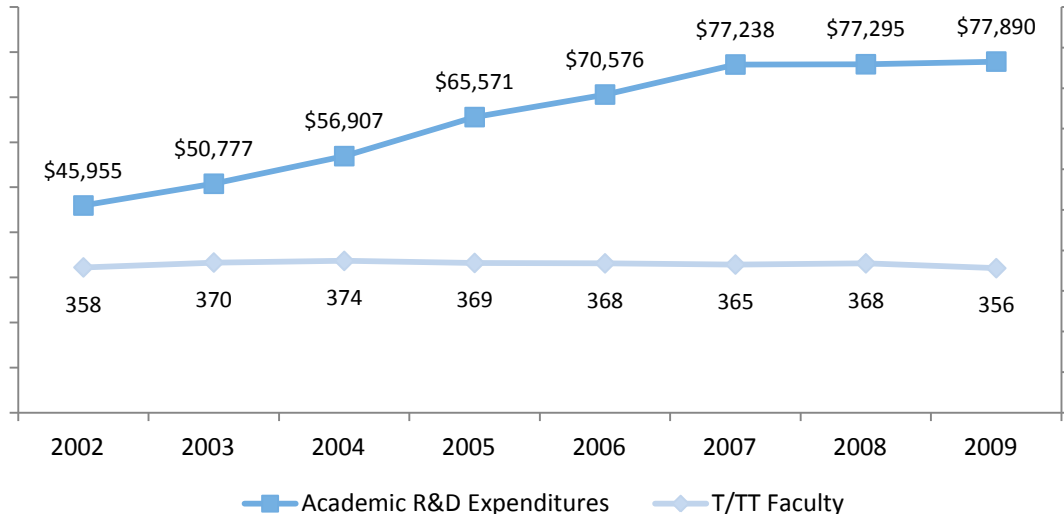
- Secured a \$360 million unrestricted gift to the university and completed the \$1.4 billion campaign
- Invested approximately \$700 million in new and renovated facilities for research, teaching, and student life
- Curtis R. Priem Experimental Media and Performing Arts Center (2008)
- Computational Center for Nanotechnology Innovations, a \$100 million partnership involving Rensselaer, IBM, and New York state
- Center for Biotechnology and Interdisciplinary Studies (2004)

The True Measure of Productivity

Growing Research Output While Holding the Size of the Faculty Level

Number of Faculty vs. Research Expenditures

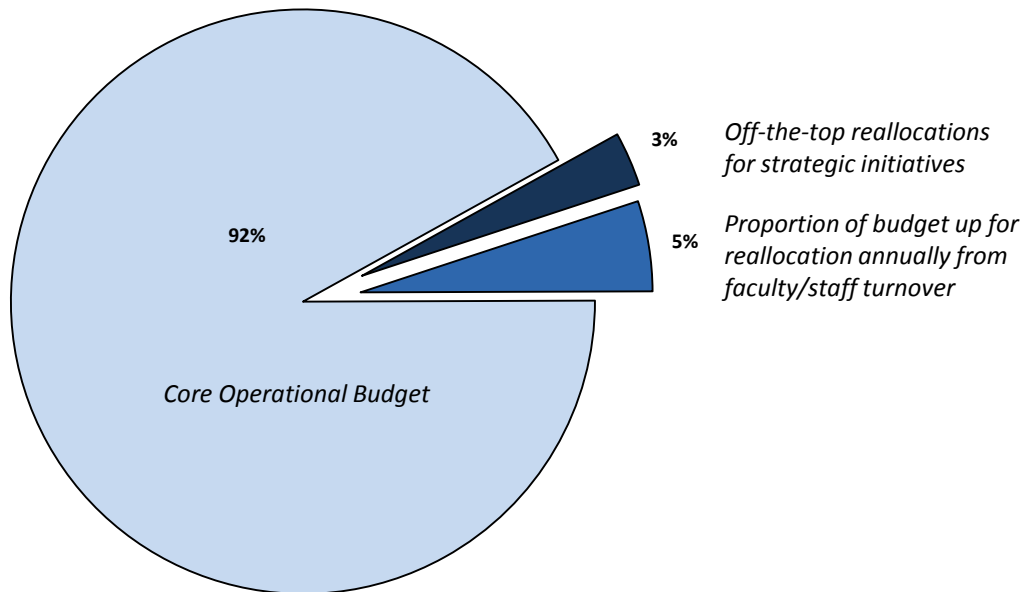
Expenditure Figures \$1,000



An Untapped Strategic Investment Fund

Annual Faculty and Staff Turnover Equal to 5% of Operating Budget

Faculty and Staff Turnover Represent Opportunities to Redirect Institutional Funds to Strategic Priorities



Notes:

Excellence, Efficiency, and Accountability

Three Reasons to Improve Resource Allocation



Aspiring to Excellence

Goal: Become a Top 10 Land Grant University

Strategic Plan Identifies Three Signature Areas for Research

- Advancing the Science of Sustainable Earth Ecosystems
- Improving Human Health and Wellness
- Promoting Economic Growth and Social Progress



Strategic Hiring

Facing Constrained Resources

Proposed Cuts in State Appropriations up to 30%

Strategic Alignment and Budget Reduction Review

- Explored scenarios from closing programs to reduce administration
- Set university guidelines for unit size, class size, and program graduation expectations at all levels



Program Consolidation

Responding to State Needs

Oregon Introduces 40/40/20 Completion Goals

Oregon Education Achievement Compact

- Mandated completion goals
- Emphasis on learning outcomes assessment



Annual Program Assessment



Profiled Institution: Oregon State University



Location: Corvallis, OR

Enrollment: 19,575 / 4,193

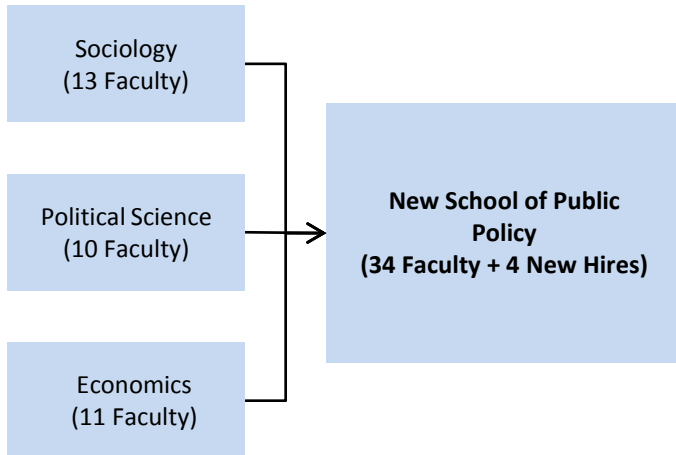
T/TT Faculty: 565 / 227

Programs: 86 / 76 / 51

Research: \$207.1M

More Than the Sum of Its Parts

The Benefits of Academic Consolidation



Advantages

- Aligns with strategic plan: “Promoting economic growth and social progress”
- All three disciplines support the largest master’s program in public policy in Oregon
- Launching a new Ph.D. program in public policy
- Replaces three department chairs with one School Director
- Meets student concerns about siloed courses; advancing interest in interdisciplinary programs
- Individual undergraduate majors remain
- Improved ability to hire top scholars



Bigger Is Better

“We asked our colleges if they could align the different departments in ways that could help them reach a critical mass that advances something they could not do as small units... When they recruited faculty for the new program ... they found that they were recruiting the top faculty in all three disciplines. The strategy attracted many Ph.D. graduates coming out of elite institutions because they noticed that the university was being innovative in how it developed its programs...You are not joining a department within a university as a sole individual, you're joining as part of a cohort.”

*Becky Warner
Senior Vice Provost for Academic Affairs
Oregon State University*

Matching Our Mission

Requests for New Faculty Positions Judged by Alignment with Strategic Criteria

Provost's Rubric for Faculty Investments



Advances one or more of the three signature areas of excellence: Advancing the Science of Sustainable Earth Ecosystems, Improving Human Health and Wellness, and Promoting Economic Growth and Social Progress



Is collaborative and integrative involving multiple colleges within a division or across divisions



Enables the University's ability to successfully **compete for large center-level federal grants and build collaborations with industry and business**



Enables the University to **deliver effectively its educational mission**, including making substantial progress in its student retention and success goals



Leverages existing resources demonstrating a high level of commitment from divisions, colleges, and units (e.g. cost share on start-up funds, redirecting existing available lines to complement requests)



Strengthens and **reinforces recent directional and realignment changes** and initiatives in colleges and programs



Advances University's goal to enhance and **promote faculty diversity**

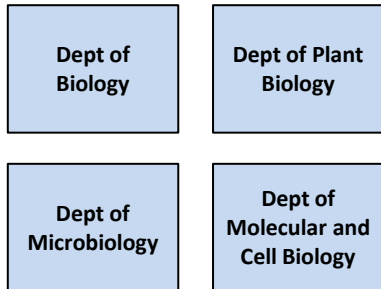
Notes:

Reorganizing for Success

Generating Flexibility by Abandoning Departmental Silos

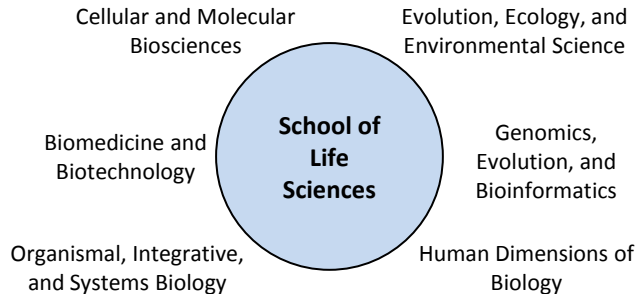


Old Departmental Structure



- Separate doctoral programs
- Separate undergraduate programs
- Duplicated courses
- Separate department chairs
- Separate administrative staff

New Faculty Structure



- All faculty belong to a primary and secondary faculty
- Faculties are evaluated for viability every year
- Headed by a Director with responsibility for faculty hiring, evaluation and work assignment
- Reduced staff duplication



Profiled Institution: Arizona State University



ARIZONA STATE UNIVERSITY

Location: Tempe, AZ

Enrollment: 56,562 / 13,878

T/TT Faculty: 1,268 / 456

Programs: 310 / 48 / 19

Research: \$ 222.8M



The Benefits of Flexibility

Changing the traditional departmental structure to an organizational model focused on individual faculty grouped into easily modified clusters that match academic and intellectual interests will facilitate education and research and, at the same time, save a lot of money.

*Elizabeth Capaldi, Provost
Arizona State University*

Notes:

Maximizing Resource Flexibility

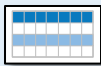
Results

- Departments compete for funds by contributing to strategic goals
- Open faculty lines are filled based on institutional priorities
- Up to 5% of institutional resources are reallocated from low priority activities to higher priorities every year
- Larger, multidisciplinary academic units support collaborative teaching and research, reduce administrative support needs, and attract better talent

Notes:

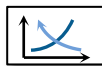
Revitalizing the Program Portfolio

Elevating Academic Program Performance and Strategic Alignment



Securing Faculty Trust in Metrics

- Base resource allocation decisions on program-level metrics
- Centralize and standardize data and reporting
- Invite faculty to critique data and to select metrics within a framework
- Limit self studies to 20 pages and focus reviews on no more than 5 critical metrics
- Build interactive decision support tools for deans and chairs



Measuring Performance Against Priorities

- Link program performance metrics to strategic plan goals
- Review performance against targets annually
- Start by encouraging year-over-year improvement
- Compare performance against other programs inside the university
- Categorize programs by their primary institutional contribution
- Use external benchmarks to identify program strengths and weaknesses



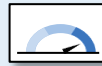
Setting New Program Viability Hurdles

- Provide decision-support tools to help faculty model often-overlooked costs
- Match sophistication of demand estimates to type of program
- Adjust program proposals to reach breakeven in 5 years
- Create program launch logistics checklist
- Create staged market testing for professional and online programs



Improving Signature Programs

- Shift resources from five-year reviews to ad hoc opportunity analysis
- Concurrently review related programs to surface collaborative opportunities
- Agree upfront on narrowly defined scope for review
- Empower university-wide faculty committee to synthesize findings across reviews and launch new studies
- Engage trustees for “real-world” perspective and fundraising advice



Maximizing Resource Flexibility

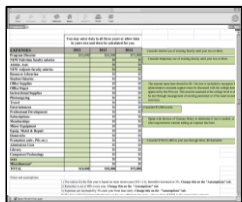
- Award seed funding and new faculty lines to programs that support institutional priorities
- Require departments to reallocate 3-5% of operating budget to institutional priorities
- Recapture all open faculty lines and reallocate based on strategic goals
- Consolidate departments into divisions to facilitate flexible hiring

Notes:

Program Review Resource Center

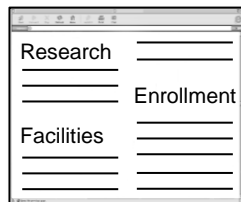
Supporting Members with Practice Implementation (Fall 2012)

Financial Viability Calculator



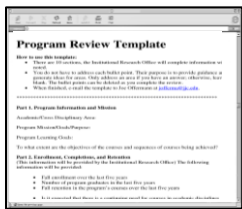
- Cost/income calculator
- Templates for new and existing undergrad and grad programs

Metrics Compendium



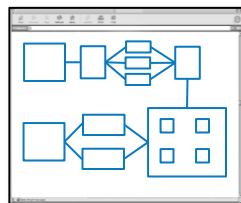
- 100+ metrics
- By category
- More and less commonly used

Program Review Templates



- Examples of different formats
- Rubrics for evaluating programs

Review Process Roadmaps



- Sample timelines
- Stakeholder responsibilities

Notes:



University Leadership Council • Education Advisory Board

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