

**Data-Driven Discussions:
Developing Shared Data Metrics to Inform the
Program Review Process at
Northwestern University**

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Today's Presenter

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Objectives for Today's Session

- 1) Discuss challenges and potential solutions related to data gathering and dissemination
- 2) Describe strategies to engage central administration, academic and administrative units during the program review process
- 3) Share examples of key performance metrics identified to support the program review process

Northwestern University



Over 18,000 Undergraduate and Graduate Students

Over 7,500 Full and Part-Time Staff

Over 3,400 Faculty

3 Campuses located in Evanston and Chicago, IL, and Doha, Qatar

12 Schools, 50+ Research Centers and Institutes

\$650 Million in annual research funding

Northwestern | PROGRAM REVIEW

Program Review at Northwestern

One way Northwestern facilitates continuous improvement is through Program Review, the systematic review of all academic and administrative units at the University.

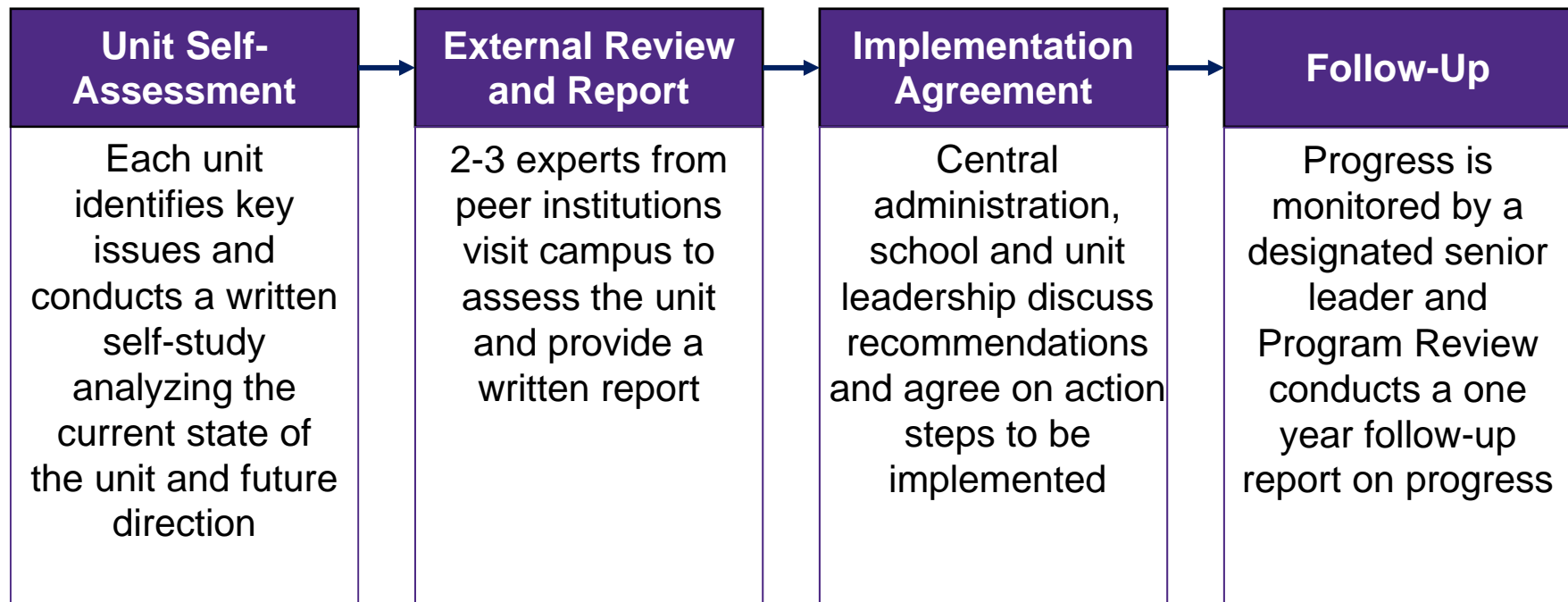


About Program Review:

- Started in 1985, faculty-initiated
- 15-20 units reviewed each year
- Purpose is to assess each unit's quality and effectiveness, and to stimulate planning and continuous improvement
- Results are confidential (not part of accreditation or external reporting)

Program Review Overview

Data Gathering Phase



The Challenge:

How can we capitalize on data to inform the review process?

Our Main Challenge: A Decentralized Data Landscape

Relevant data is stored in different systems and owned by different units throughout Northwestern.

Undergraduate Students

- *Enrollments*
- *Number of majors/minors*
- *Course evaluations*

Faculty

- *Demographic data*
- *Faculty publications and citations*
- *Engagement survey results*

Graduate Students

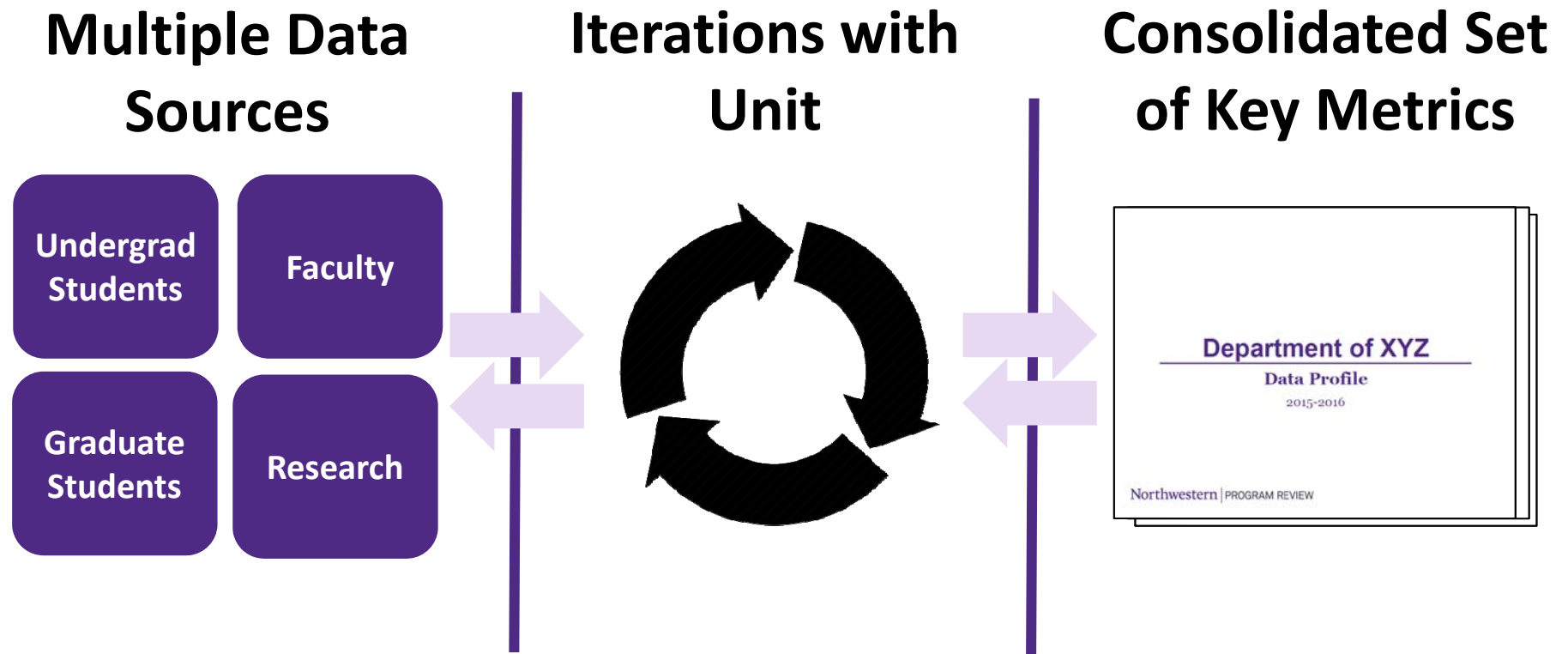
- *Admissions and selectivity*
- *Win/loss ratio*
- *Placement information*

Research

- *Sponsored research proposals*
- *Sponsored research awards*

Our Solution: Identify and Consolidate Key Metrics

Our team helps units gather and understand data and present it in a standard format to inform the identification of areas for improvement.



Related Challenges

Challenge

Our Approach

Data
Relevancy

- Present data within localized context
- Discuss utility of metrics within subfields/disciplines

Data Integrity

- Establish and share definitions
- “Pilot” key metrics before widespread dissemination

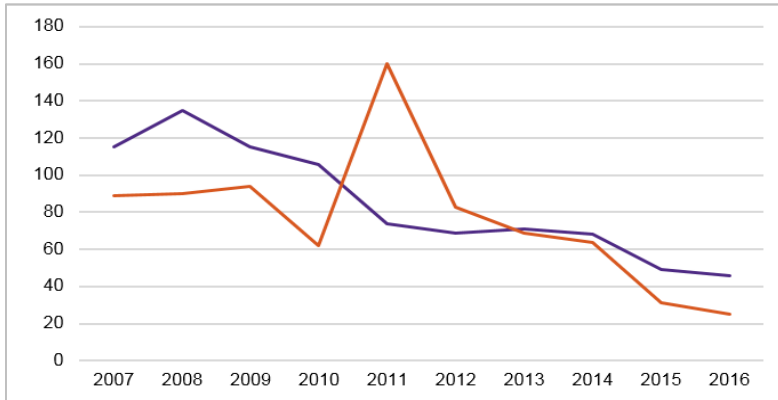
Data
Discrepancy

- Iterate with stakeholders to understand data in context
- Label source and timeframe for all data

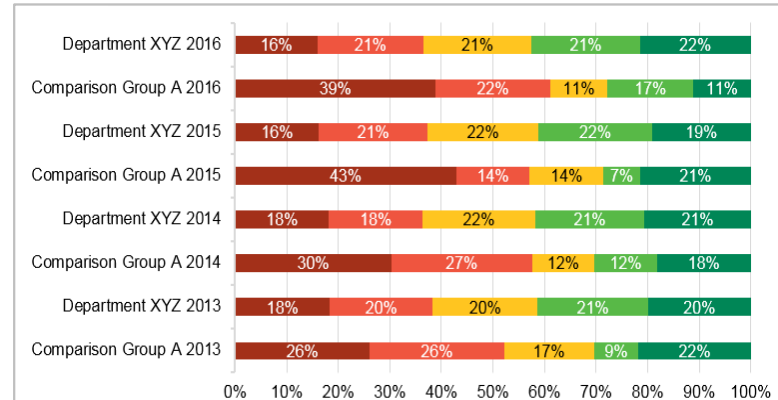
Data
Availability

- Identify ways to improve how source data is collected/ reported to reduce manual updating required

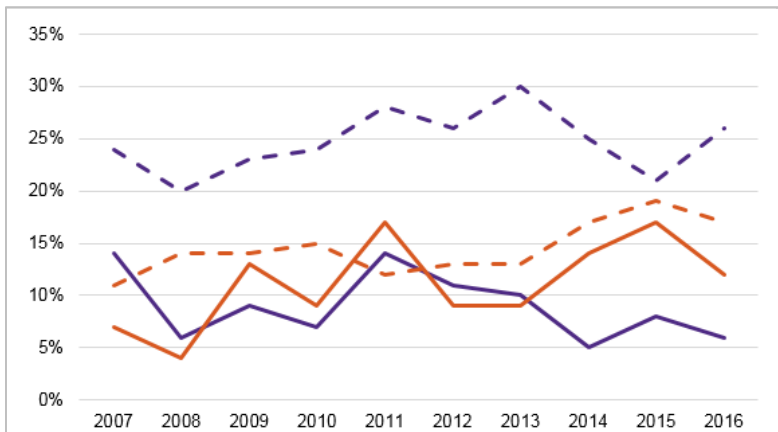
Examples of Academic Unit Metrics



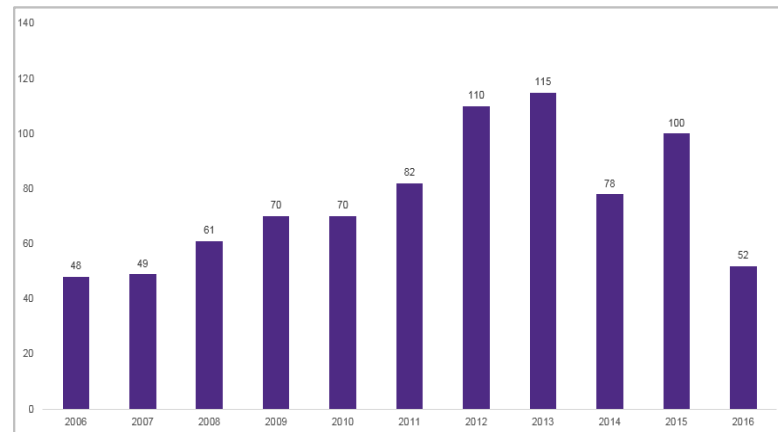
Enrollment



Student Satisfaction

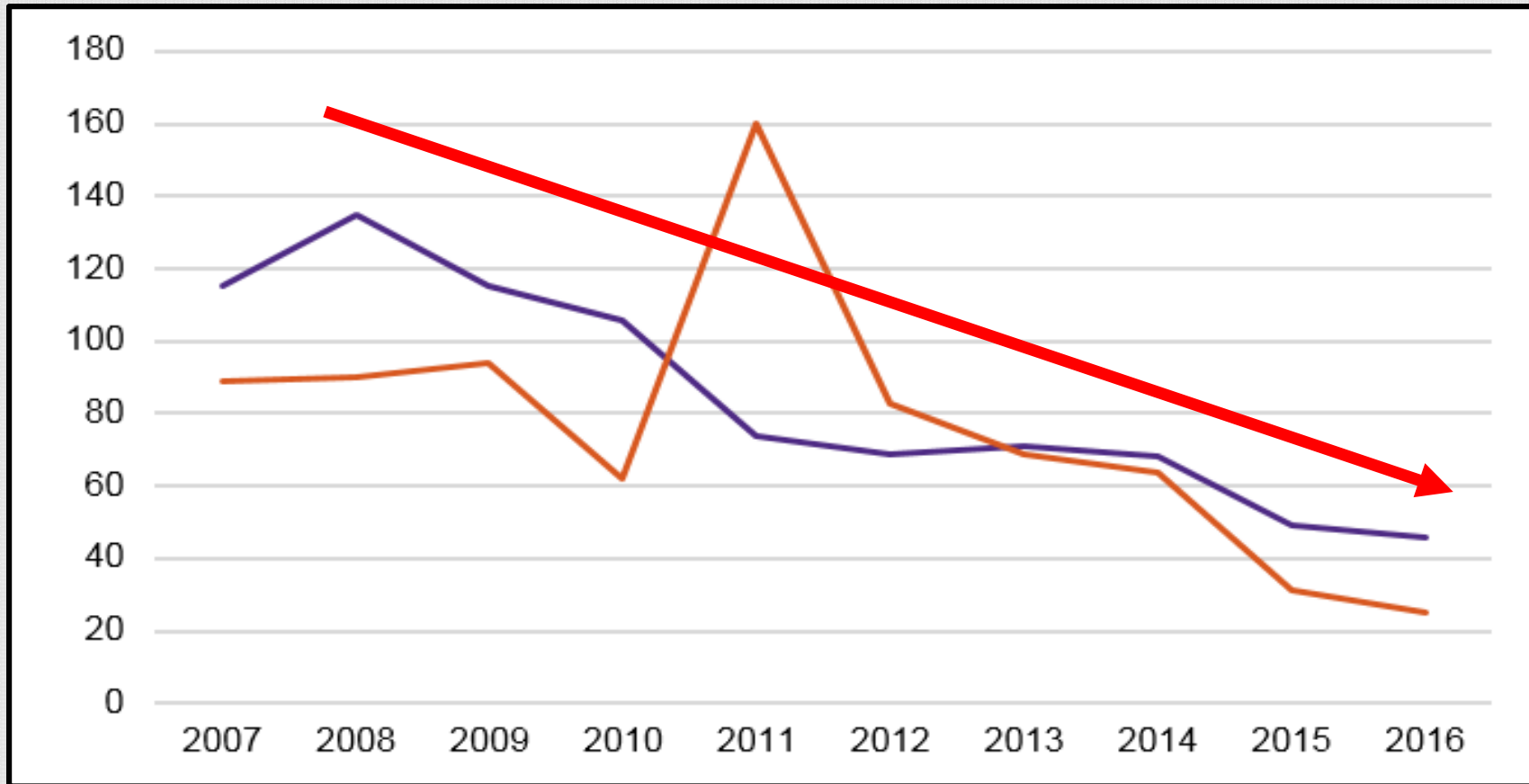


Diversity

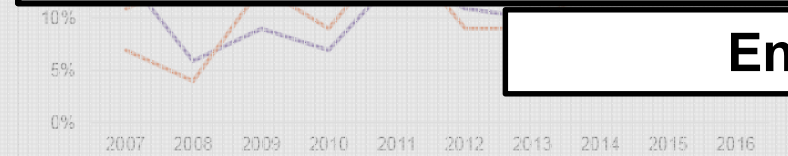


Research Productivity

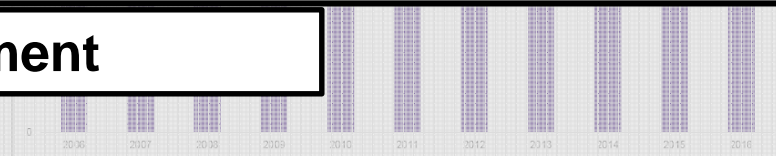
Enrollment



Enrollment

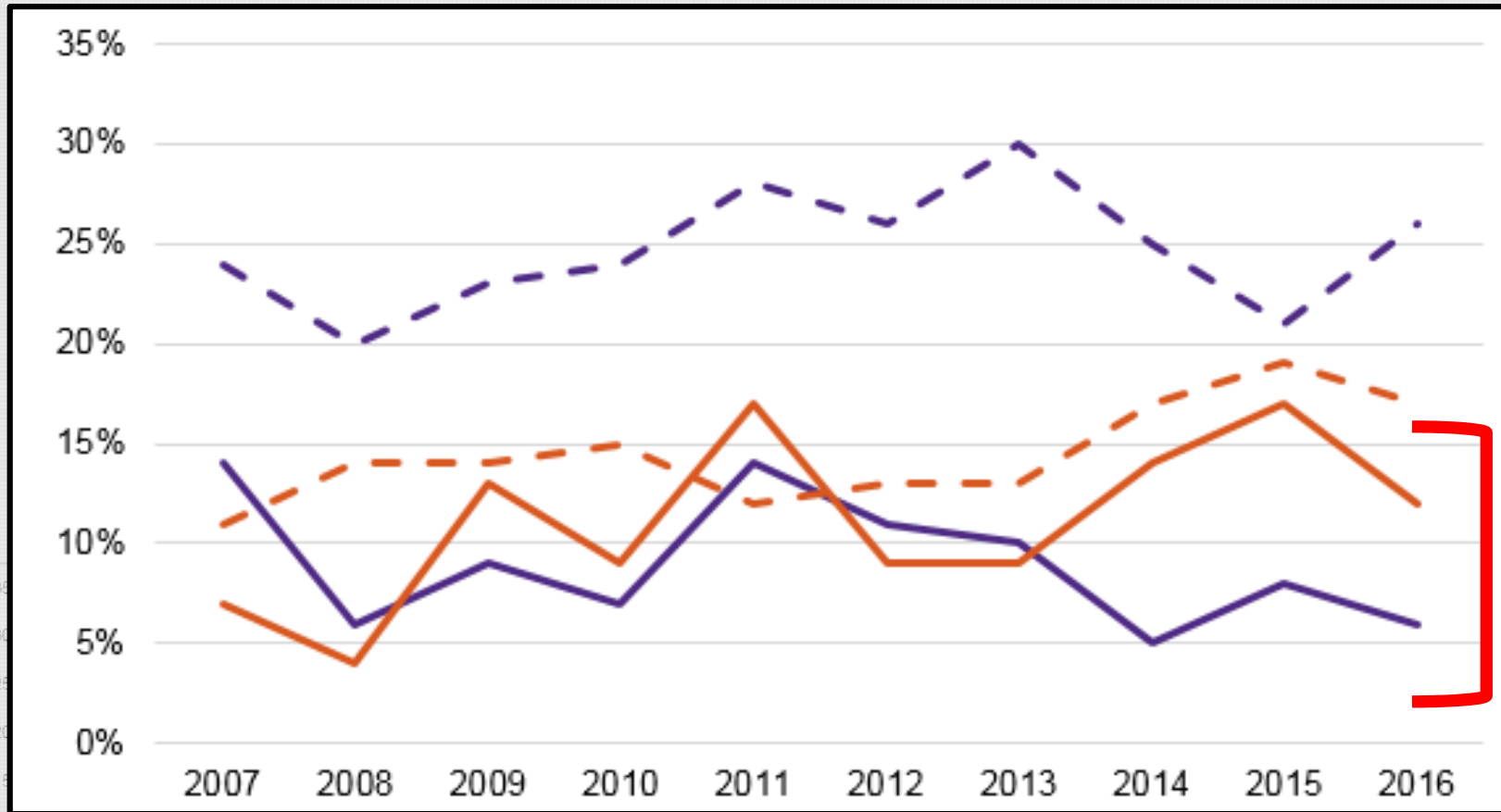


Diversity



Research Productivity

Diversity



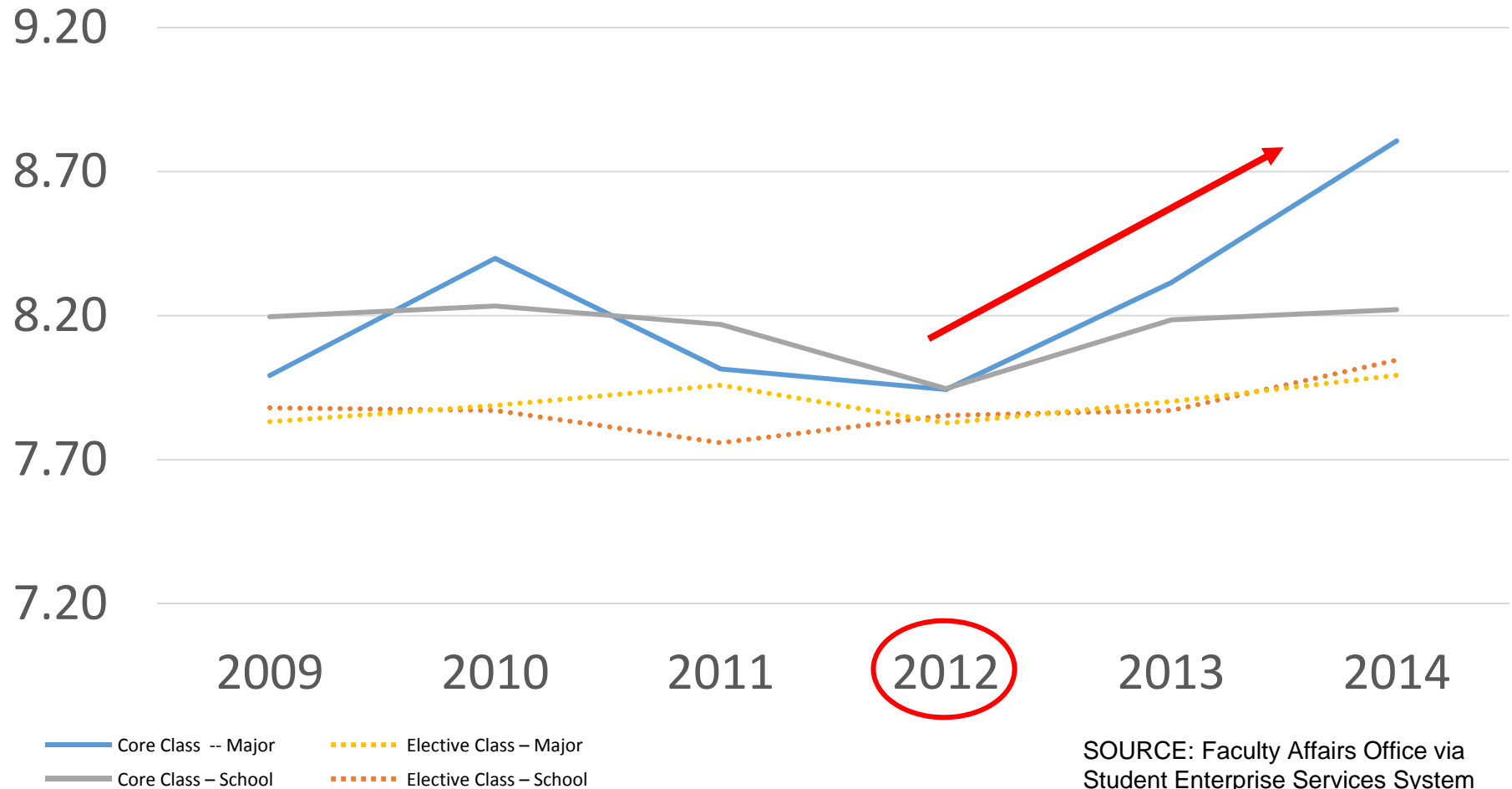
Diversity

Diversity

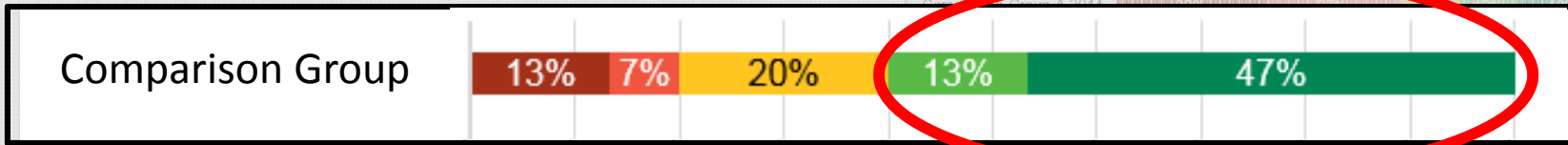
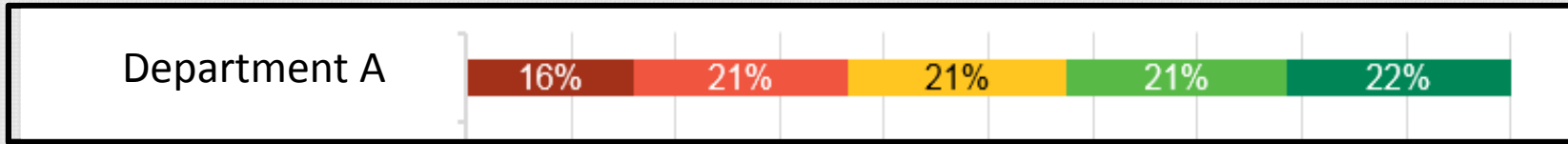
Research Productivity

Student Satisfaction

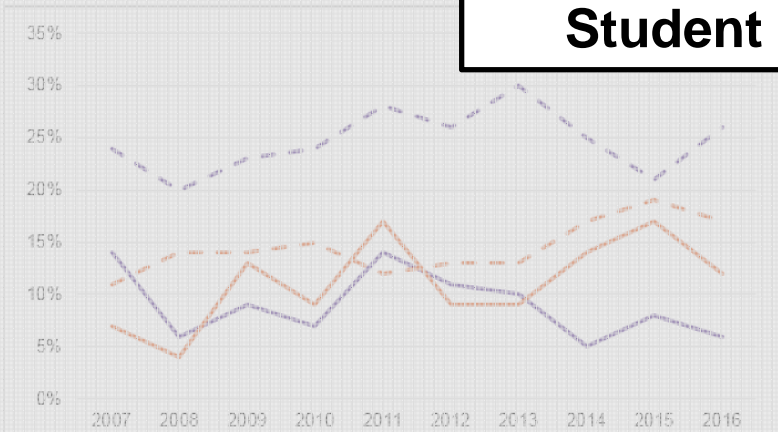
Mean Rating for Overall Class Satisfaction



Student Satisfaction



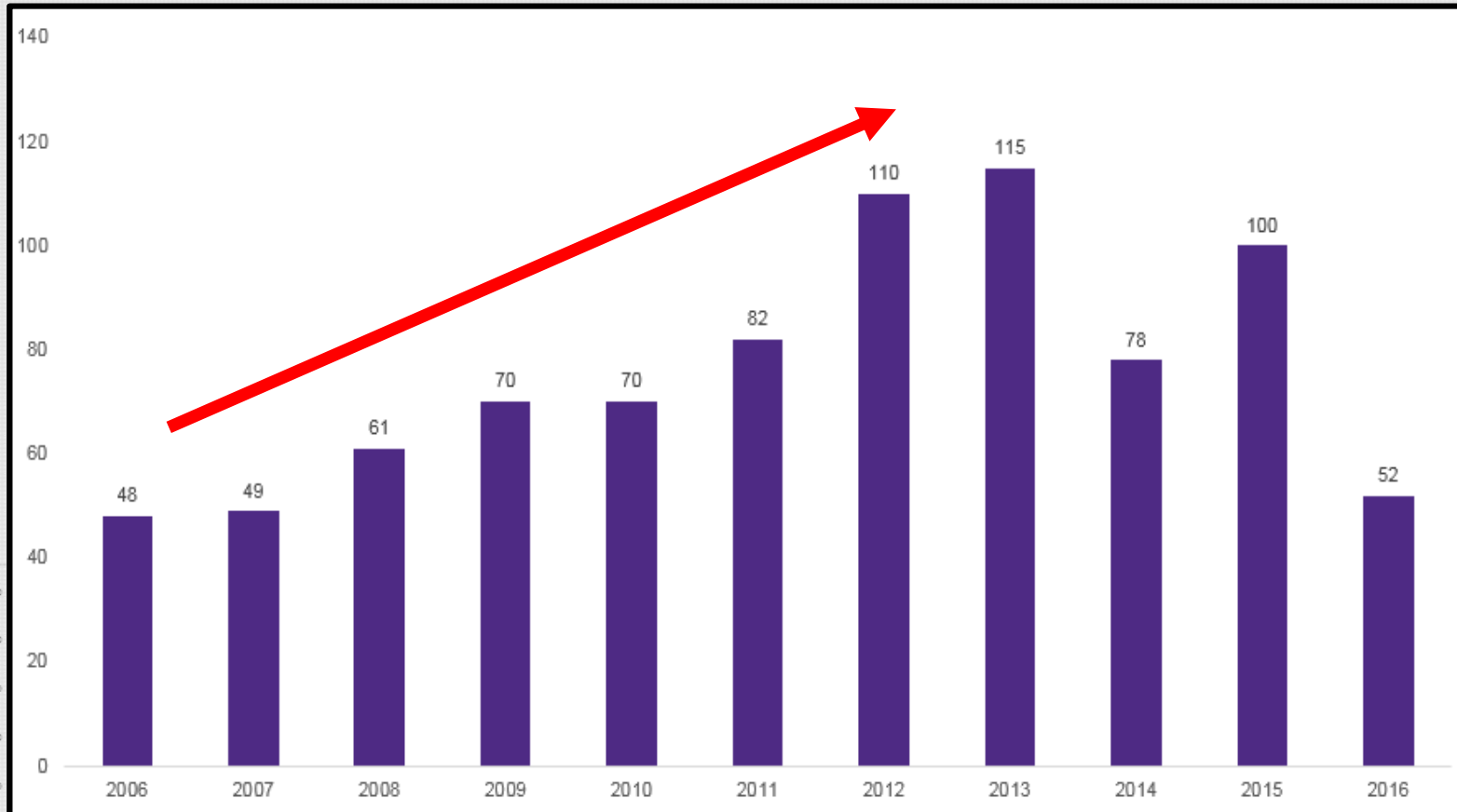
Student Satisfaction



Diversity

Research Productivity

Faculty Research Productivity



Research Productivity

Diversity

Research Productivity

Examples of Key Data Metrics – Academic Units

Academic Unit Profile

Student Profile

- Number of majors/minors
- Average course enrollments
- Gender and ethnic distribution of majors/minors

Student Performance

- External fellowships
- Time to degree
- Placements

Student Satisfaction

- Course feedback surveys
- Undergraduate senior surveys
- Graduate student surveys

Faculty Profile

- Number of faculty
- Gender and ethnic distribution of faculty
- Ratio of tenure-track to non-tenure track faculty

Faculty Performance

- Publications and citation data
- Research dollars proposed
- Research dollars awarded
- External honors and awards

Faculty Satisfaction

- Faculty engagement surveys

Examples of Key Data Metrics – Administrative Units

Administrative Unit Profile

Unit Composition

- Turnover rates
- Time to fill positions
- Gender and ethnic distribution
- Education/training certifications

Operational Metrics

- Volume of transactions processed
- Response time
- Reduction in errors/waste

Customer Satisfaction

- Average satisfaction score
- Demand for service

Unit Performance

- Impact on customers/units served
- Internal/external recognition
- Industry benchmarks

Note: Administrative units have the primary responsibility for identifying what metrics are most appropriate for their unit, with guidance from the Program Review Office

Facilities Management

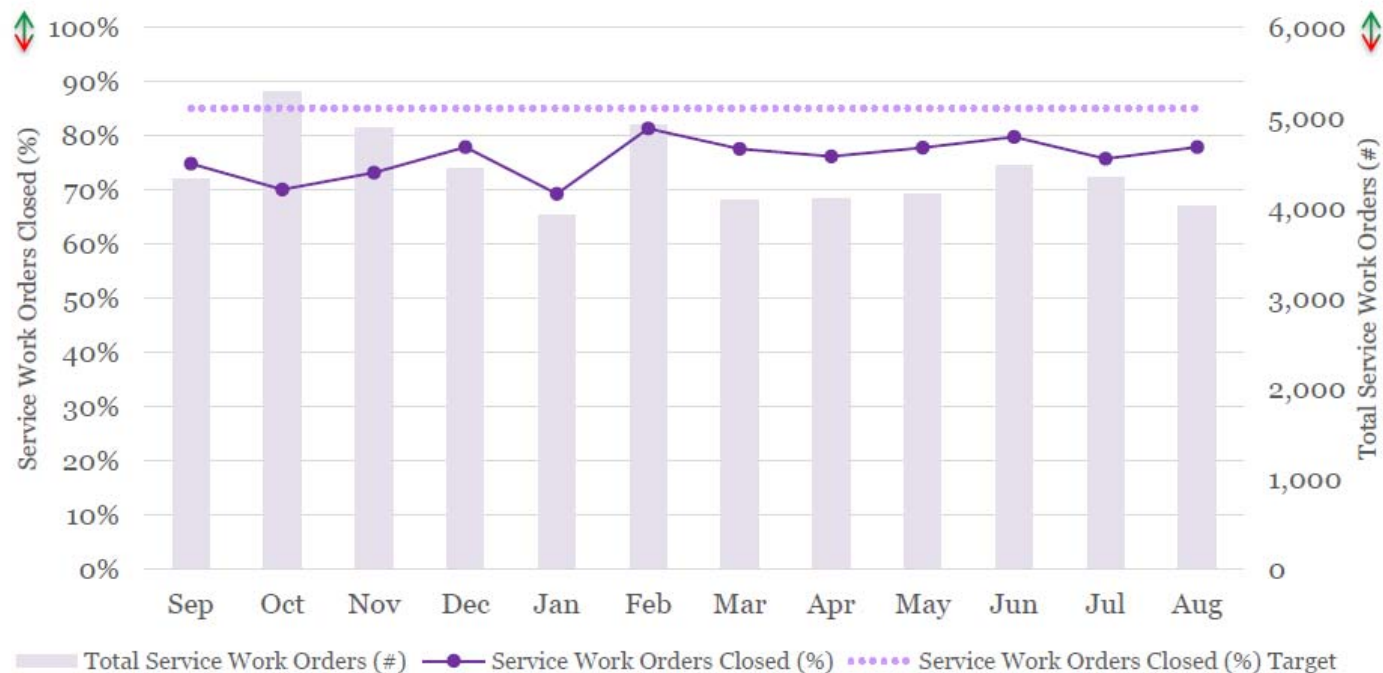
Key Performance Indicators

Slide #	KPI Description	Annual Goal	Aug-17 Goal	Actual	Trend
3	SD1. Service Request Closure	85%	85%	✘ 78%	✔ 2%
4	SD2. Preventative Maintenance Closure	95%	95%	✔ 96%	✔ 5%
5	SD3. Rework	<10%	<10%	✔ 9%	⚠ 0%
6	SD4. Proactivity: FM-Identified Work Orders	25%	25%	✔ 31%	✔ 1%
7	LO1. Common Space Program	5%	5.0%	✔ 5.2%	✔ 3.9%
8	LO2. Facilities Connect Implementation	100%	51%	✘ 36%	✔ 2%
9	LO3. Engagement: Sustainability Outreach	12%	1%	✘ -9%	⚠ 0%
10	CE1. Energy Use Intensity (kBtu/SF)	-5%	-5%	⚠ -4.0%	⚠ 0%
11	CE2. Recordable Injury Incident Rate	5.60	5.60	✔ 3.65	⚠ 0.23
12	CE3. Injury-Related Lost Workday Rate	2.70	2.70	✔ 1.96	⚠ 0.41
13	CE4. Waste Diversion Rate	38%	38%	✔ 41%	✔ 4%
14	CE5. Overtime	10%	10%	✔ 10%	✔ -1%
15	CE6. Minority, Female and Local Business Enterprise Use	15%	15%	✘ 11%	✘ -20%
16	CE7. Evanston Resident Employment	5%	5%	✘ 1%	✘ -1%
17	F1. Capital Project Cash Flow Execution	+/-2%	+/-2%	✘ 3%	✔ 9%
18	F2. Operating Budget Execution	+/-1%	+/-1%	✘ 2%	✔ 4%
19	F3. Utility Commodity Budget Execution	+/-5%	+/-5%	✔ 0%	⚠ 0%

Source: <http://www.northwestern.edu/fm/fm-staff/key-performance-indicators.html>

Service Request Closure

SD1. Service Request Closure



- KPI goal is to close 85% of service work orders within 30 days (excluding project-related work orders)
- f(staffing, contracted services, seasonal work order volume variations, closeout procedures, service provider productivity, parts/material availability, accessibility of work areas/equipment)
- Initiatives: increase functionality of mobile technology; plan and schedule work order assignments including estimator and kitter functions; adjust staffing levels to reflect workload; increase service provider productivity rates
- FM Leader: James McKinney and Nadia Jackson

Examples of Impact

Unit-Level

- Provides access to centrally-housed and dispersed data sources
- Illustrates trends and identifies issue areas

School-Level

- Improves ability to compare related units on standard data measures

University-Level

- Establishes an agreed upon source of truth for data
- Reconciles data discrepancies
- Generates improvements in how we store and manage data
- Sets a baseline to measure performance going forward

Best Practices for Your Institution

- **Engage data owners and collaborators early:** Identify data sources throughout the institution, and meet with liaisons from each area
- **Approach with an experimental mindset:** Select one or two units undergoing review to pilot this process
- **Collect input from the data users:** Seek input from stakeholders on what metrics they use (or want to use) to define impact, and at the end of review process, collect input on what was useful
- **Continue to iterate and refine:** Identify a point in the process to discuss feedback and refine data presentation

Data Profile Example

ADMINISTRATION AND PLANNING

Search this site

About Board of Trustees Planning Institutional Research Program Review

Program Review

HOME > PROGRAM REVIEW > RESOURCES

History
Purpose
Benefits
Process
Fourth Cycle Schedule
Program Review Council
Frequently Asked Questions
Resources
Staff

Resources

General Guides

- Procedures and Rationale
- Program Review Council and Internal Reviewer Guide
- External Reviewer Guide

Additional Resources For Units Going Through Review

- Academic Key Issues and Self-Study Guidance
- Administrative Key Issues and Self-Study Guidance
- Unit Data Profile Example

Questions about the process can be directed to:
Megan Blackwelder, Associate Vice President of Program Review
megan.blackwelder@northwestern.edu or 847-467-1730

<http://www.adminplan.northwestern.edu/program-review/resources.html>

Thank You!

Contact information:

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