OneWSU: Initiative for Data-Informed Decision-Making Functional Reporting Workshop
WSU is engaging in an assessment to develop a Data Management and Analytics plan, including a roadmap to build a Data Governance structure, and an enhanced analytics framework to support and advance a data-informed culture throughout the WSU institution!

The goal of the Workshop sessions are to gather information about both the current state of Data Management and Analytics at WSU as well as the desired future state, and to tailor a strategic plan to reach the desired future state.

- REPORT MISALIGNMENT
  - Common line items do not tie out, results differ based on report source, resulting analysis is incomplete and out of date

- DATA EVERYWHERE
  - Data is ungoverned and has many sources; takes a long time to gather and prepare for reports

- DATA ACCESS
  - Users struggle to get needed data or are unsure where to go for data and reporting

- NO LINEAGE
  - Where is the data coming from? What happened to it along the way?

- TIMING & SYNC ISSUES
  - Systems are out of sync thus report timing can vary. Low confidence in report results vary during monthly reporting cycles

- NO DEFINED STANDARDS
  - Reports have varying formats, locations, and accessibility
# Reporting Organization Model

- Determine model for delivering reports across the institution (central vs. decentralized model)
- Determine process for sharing information
- Determine alignment of reporting organization with data stewards, and analytics goals
- Recommend who should participate in the reporting organization

# Data Governance and MDM Plan

- Develop framework and roadmap for Data Governance Implementation
- Establish Data Governance objectives
- Identify Master Data Domain Approach and Prioritization
- Recommend standardized and repeatable processes
- Determine project vs. institution Data Governance Goals

# Technology Recommendation

- Assess data management, reporting and analytics gaps in future state
- Rationalize and consolidate existing technologies
- Recommend and evaluate technologies to address gaps
- Determine impact of moving to new technologies
- Develop roadmap for implementation of new technologies

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### Today’s Focus

<table>
<thead>
<tr>
<th>Insights Strategy</th>
<th>Reporting Organization Model</th>
<th>Data Governance and MDM Plan</th>
<th>Technology Recommendation</th>
</tr>
</thead>
</table>
| • Develop roadmap to address operational, management and analytics needs  
• Identify key required dashboards & reports  
• Define how data is consumed  
• Define the prioritization approach for development and requirements gathering  
• Define and align on the key metric definitions | • Determine model for delivering reports across the institution (central vs. decentralized model)  
• Determine process for sharing information  
• Determine alignment of reporting organization with data stewards, and analytics goals  
• Recommend who should participate in the reporting organization | • Develop framework and roadmap for Data Governance Implementation  
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# Roadmap Outcomes
Agenda

1. Introductions
2. Insights Rationalization and Prioritization
   1. Best Practices
   2. Breakout Session
3. Reporting Organization
   1. Best Practices
   2. Breakout Session
4. Implementation Timing and Sequencing
Common Analytics Challenges

- Organization struggles to gain access to the information it needs
- Relatively high percentage of time spent on data collection and manipulation vs. data analysis
- Measurement of organization performance difficult to assess
- Silos of information resulting in conflicts in data accuracy
- Analytics investments not delivering expected impact
- Maintenance and licensing costs are high due to an overly broad tool footprint
- Existence of shadow Analytics technical groups within the organization compensating for lack of core capabilities
- High percentage of analysis performed reactively vs. proactively
- Data/analysis/reporting environment is difficult to navigate
- Frequent confusion regarding organization metrics (multiple definitions and data sources, conflicting measures, etc.)
Reporting Best Practices

- Standardized reports – Quality over quantity
- Provide consistent definition of key attributes and metrics
- Few/No reporting errors or inconsistencies
- Repeatable process for investigating anomalies

- Provide financial and economic implications of operational and strategic decisions
- Active management of data assets; agile and rapid integration of new data
- Leverages advanced analytics; entering the realm of big data and machine learning

- Automate report generation and distribution where appropriate
- Leverage reporting tools as designed “right tool for the job”, process optimization and 3rd-party service providers to minimize cost and improve quality
- Core systems and processes are stable and not primary focus of investment

- Provide a consistent, well understood framework for data access
- Support diverse community of data consumers with different needs (Transactional, Analytical, Real-Time, Snap Shots)
- Variety of data access points (Embedded, Cloud, Mobile, Social)
Insights Rationalization and Prioritization Process

**Rationalization**
- Is this a valid business need?
- Does a report exist? Should an existing report be modified?
- Who are the relevant data stewards that need to be involved?

**Functional Requirements**
- What questions am I trying to answer?
- What metrics should I include?
- What targets should I consider?

**Technical Requirements**
- Do the existing data models support this request?
- What is the source of the data?
- What tool should be used for development?
- What is the overall level of effort?

**Prioritization**
- How does this request align to the overall institution analytical goals?
- Is there a school / entity need to develop the request?
- Priority against queue of open requests?

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**Dashboard Example**

<table>
<thead>
<tr>
<th>WHY</th>
<th>Provides performance insights into your key academic areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHAT</td>
<td>• 5-Year trends for applications, admissions, retention, and enrollment</td>
</tr>
<tr>
<td></td>
<td>• 5-Year trend for the total cost of a degree for students</td>
</tr>
<tr>
<td>WHEN</td>
<td>Ad-hoc – as needed</td>
</tr>
<tr>
<td>WHO</td>
<td>Administrators</td>
</tr>
</tbody>
</table>

**What Questions Does Academic Dashboard Answer?**

1. How have student applications trended over the last 5 years?
   - Year
   - Academic Semester
   - Ethnicity
   - Degree Level

2. How have admission rates trended over the last 5 years?
3. How have retention rates trended over the last 5 years?
4. How has enrollment trended over the last 5 years?
5. How have student costs trended over the last 5 years for In-State and Out-of-State residents?
Breakout Round 1: Insights Priorities

- 15 minutes to rationalize and prioritize the insights for your area, steps below:
  - Does the list represent the top priorities per domain?
  - Prioritize the list
  - Map the prioritized insights to the strategic initiatives
- Self-Select the room you would like to participate in, with a limit of 10 people in each room, please choose another room if it is full
- A group leader has been pre-assigned who will provide a template and facilitate the discussion

1. Finance/Budgeting/Procurement
2. Foundation/Alumni
3. Facilities/Space
4. Risk and Compliance
5. Community/University Impact and Diversity and Inclusion
6. Academic Program Effectiveness
7. Student (Enrollment, FinAid, Success)
8. Faculty and Staff Productivity
9. Research/Grants Management
What is an Analytics Center of Excellence?

A focused team that provides analytics design, development, and delivery expertise and support for analytics projects and maintenance.

The development body that is responsible for rationalizing, building, and delivering data needs based on functional requirements.

A consolidated unit that promotes continuous process improvement, enterprise performance management, and business analysis.
Why Implement ACE?

ACE Seeks to Address the Following Challenges:

- Hard to do integrated reporting
- Data, system and process silos
- Reporting standards not consistent
- Reporting lives in different places
- Uncertainty on where to go for reports/data
- Access isn't equal

- Manual reporting
- Varying results
- Data definitions and metrics are not aligned
- Data cleansing efforts are redundant
- Limited delivered reports

Cultural Shift to Governance that Promotes Autonomy
ACE Concept- Potential Future State

This is not an organizational chart. Each box does not represent a unique role but rather a unique function, there will be overlap of resources across boxes. The objective is to identify how to scale this correctly for WSU.

Analytics Center of Excellence Leadership

Executive insight and guidance

- Sponsor
- Functional SME
- Project Manager & Comms
- Training
- Solution Architect

Data SME’s

Data Stewards/Custodians by Domain

Data expertise will be needed in key areas such as:
- HCM
- Research
- Finance
- Facilities
- Student
- Academic Affairs
- Grants

Technical Team

Technical direction and guidance

A team to support the technical solution:
- Data Warehouse / Data Lake
- Master Data Management
- Data Quality
- Integrations
- Infrastructure
- Security

WebApps (e.g., Tableau, PowerBI, Collibra, etc)

- Team Lead
- Report Developers by Domain...

DW Reporting Tools (e.g. OBIEE, Business Objects)

- Team Lead
- Report Developers by Domain...

Workday, Salesforce and other Source System Tools

- Team Lead
- Report Developers by Domain...

This level represents the need to have expertise and shared standards across all reporting tools.
How does an institutional report/dashboard get developed in ACE?

1. **Analytics Community**
   - Data Need Identified
   - Log a data need request and complete functional reqs
   - Receives Training
     - Yes
     - No
     - Validate the Business Need
     - Analyze the tool, source, frequency, and data availability

2. **Data SME**
   - Report already exist?
     - Yes
     - Receives Training
     - Completes final QA and Sign-Off
     - Report Available for Use
   - No
     - Prioritizes the request
     - Assigns reports to Development Team Lead
     - Confirms security and access requirements

3. **Technical Team**
   - Determines development effort
   - Develops and QA’s report per standards

4. **Report Developers**
   - Tests and validates report
   - Report Available for Use
# ACE Responsibilities

## Technical

<table>
<thead>
<tr>
<th>Data Management</th>
<th>Data Consumption</th>
<th>Data Sources</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Maintain common data models</td>
<td>• Determine, govern, and implement access policies</td>
<td>• Integrate and maintain data sources</td>
<td>• Maintain security model</td>
</tr>
</tbody>
</table>

## Functional

<table>
<thead>
<tr>
<th>Change Management</th>
<th>Requirements</th>
<th>Report Development</th>
<th>Campus Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Messaging of analytics priorities and projects</td>
<td>• Collection of data needs provided</td>
<td>• Build, testing and sign-off of reports</td>
<td>• Develop core training content</td>
</tr>
<tr>
<td>• Roll-out of common financial reports</td>
<td>• Provides data needs requests to Data SME's</td>
<td>• Apply best practice developme nt and standards</td>
<td>• Support questions around developed reports</td>
</tr>
</tbody>
</table>
Breakout Round 2: Reporting Organization Concept

• 15 minutes to discuss your groups assigned question
  • The group leader will provide a template
  • 2-minute read-out to the whole group, nominate 1 speaker

1. How could ensure alignment across systems and subject areas? How could you overcome data and system silos?

2. How might WSU roll-out something like ACE? What change management lessons learned can WSU bring forward from other initiatives?

3. If the model is used, how might it differ/remain the same at a System vs. Campus level? What change management lessons learned can WSU bring forward from other initiatives?

4. How might you measure the success of ACE? Identify specific metrics and the time to achieve those metrics.

5. How might ACE impact existing report development groups? Should these groups remain as-is or is a level of consolidation needed?

6. How could you ensure adherence to additional development and testing standards? What are the challenges and benefits of having a centralized technical support group?

7. What training might be needed? How could you get to the goal of having a consistent data IQ across the system?

8. How could you ensure the process is used across the institution? How could WSU get buy-in for ACE? What change management lessons learned can WSU bring forward from other initiatives?

9. How could WSU drive increased participation needed from data SME’s? How could data SME’s be determined?
Reporting and Analytics Implementation: Timing and Sequencing

- **Pre-Transformation**
  - Determine End-State Technologies
  - Determine Reporting Goals Across the Institution
  - Build Reporting Organization and Processes

- **During Transformation**
  - Build Go-Live Critical Reports

- **Post-Transformation**
  - Develop Analytics Capabilities
Questions?

• Reach out to us at onewsu.data@wsu.edu
• Website can be found here: https://strategicplan.wsu.edu/initiative-for-data-informed-decision-making/
  • Will Update with Content as the Project Evolves
  • Unanswered Questions and Recording from this Session
  • FAQ