Business Process Analysis Workshop:
Strategic Enrollment Management and Performance-Based Budgeting Process

June 25 and 26, 2015
Introduction

As part of the effort to improve the effectiveness of the Strategic Enrollment Management (SEM) and Performance-Based Budgeting (PBB) processes at Portland State University (PSU), Strata Information Group (SIG) is working with PSU to analyze and strengthen the underlying framework and methods. Such an analysis yields an "ideal" process map to support ongoing advancements and process improvements, and to strengthen the use of information technology in support of the reimagined process.

To meet the objectives, a two-day Business Process Analysis (BPA) workshop was conducted on June 25 and 26, 2015 to examine the SEM and PBB processes at PSU. Provost Andrew’s blog “Looking Under the Hood of Budget and Enrollment” provides a useful summary of what took place during the workshop.

The workshop included the following activities:

- Review the principles of Business Process Analysis (BPA)
- Map the existing process
- Analyze the process map and identify obstacles and potential opportunities for improvement
- Develop a new process that improves the connection to PSU’s strategic plans, gains competitive advantage, and better leverages University resources

The workshop participants represented many areas of the University – including the Faculty Senate Budget Committee, School of Social Work, College of Urban and Public Affairs, School of Business Administration, College of Liberal Arts and Sciences, College of the Arts, Maseeh College of Engineering and Computer Science, Graduate School of Education, Office of Graduate Studies, Library, University Studies, Intensive English Language Program, Office of Academic Affairs, Office of International Affairs, Office of Academic Innovation, the Budget Office, the Office of Institutional Research and Planning, the Division of Enrollment Management and Student Affairs and the Office of Research and Strategic Partnerships. Appendix D lists the participants. Kari Blinn, from SIG, facilitated the workshop.

Participants engaged in a very lively and productive discussion. The group worked diligently and candidly to identify issues with the current process – and then to envision a new, unified process. This document summarizes the contents and outcomes of the group’s efforts.

Background

FY 15 was our first year of PBB. We made the decision to move from our existing, incremental-based budget model to PBB after years of discussion and study. Although we did not have it all figured out,
we had enough information to create several tools to feel confident to take the plunge. We did a deeper integration of SEM/PBB planning when setting the FY 16 performance requirements (revenue requirement and expenditure budgets) for schools and colleges.

Implementing both SEM and PBB has changed how we do things at PSU: In FY 12, FY13 and FY14 we saw overall university declining enrollment and made budget reductions in each of those three years. In FY15, our first year of utilizing both SEM and PBB we managed our $5.4M deficit in Academic Affairs through a $2.4M reduction in areas of decline and $3M additional revenue generated from areas of growth. In FY16, we were able to increase the Academic Affairs budget to support new faculty positions in targeted areas because of revenue growth in strategic areas.

Colleges and schools now have greater flexibility in planning and decision-making regarding their resources, and for the first time in years, we were able to fund new revenue growth. However, with any new major transition comes new bumps. We knew it was time to take a look at what was working well and what needed improvements to have a fully integrated SEM/PBB process.

Overview and Recommendations

Many issues were discussed during the workshop. Examples included the multitude of tools and templates being updated; the variations among units for developing projections and providing narratives; the pressure on the process in March and April; and the need to improve communication, especially during compressed timelines. From a process perspective, the current sequence represents two sequential, abutted processes – that is to say, SEM and then PBB – not a single, integrated process.

This group of stakeholders set the trajectory toward significant improvements. When the team pivoted to reimagine the process, they favored a single, integrated process that included enrollment, revenue, and budget from beginning to end. Participants also rallied around the idea of doing multi-year planning.

Recommendations

- Develop a single, integrated process to support PSU’s strategic plan
  - Include enrollment, revenue, and budget information from start to finish
  - Improve communication and visibility into the process
  - Show trends and working assumptions
Coordinate and integrate unit and University level projections

- Utilize a “hub and spoke” model
  - Continue to make data visible to all stakeholders throughout the process
  - Institute a single source of data
  - Deploy a single technology tool – e.g. TM1

- Simplify the model
  - Spend less time and achieve better results
  - Ensure information is easy to understand – “Everything should be made as simple as possible but not simpler” – Einstein

- Create a multi-year time horizon – for example, three years
  - Use rolling projections
  - Fine-tune future years as actual data comes in

Role of Technology

Entering the same data into multiple tools and templates wastes valuable time, increases the likelihood of error, and creates confusion. Some modules of TM1 were adopted for FY14 by PSU to assist with the budget process and enhancement were made for FY15. TM1 has the potential to be a single tool that meets the full host of requirements for this process. TM1 has the capacity to support historical data, projections, and current data in a single “hub.” It has the capability to include sabbaticals and other leaves, in addition to the ability to run “what if…” scenarios at both the local and University level. Integration tools would make it possible for TM1 to “talk” to other systems – e.g. import class schedule data from Banner. It would be a significant undertaking to fully implement and maintain TM1. While it would not be fully deployed in the short-term, it is a desirable to assess if and how TM1 could be more effectively used once a revised budget and enrollment planning process is determined.

Next Steps

The Vice Provost for Academic and Fiscal Planning will work with leadership in the administrative, college/school and other Divisions to create a structure for Integrated Planning-Enrollment and Budget (IPEB).
The structure will support (1) the development of short and intermediate range recommendations for changes to the IPEB process and associated tools and (2) the creation of a path to longer-term transformation of the IPEB process and enhancement to associated tools. In the short term, a Core IPEB Team will:

More specifically, the Core IPEB will:
- Derive recommendations for changes to current process to occur during FY16 for FY17.
- Develop recommended new IPEB process to occur starting FY17 based on workshop outcomes and learning from other engagements.
- Identify and describe organizational, process, tool, data and reporting needs to implement changes for FY16 and FY17.
- Create a complete workplan for implementing recommended IPEB process.
- Continually track workplan progress and recommend adjustments/changes.

The Core IPEB team will be meeting at least once per week and will include representatives from OAA, EMSA, OIRP, UFS and OIT/BI. The recommendations of the Core IPEB team will be passed to the Strategic IPEB team, which will have broader representation from the University, including Faculty Senate Budget Committee and School/College fiscal officers. Frequent consultation will also take place with the Academic Leadership Team as well as the Fiscal Officers Group and Faculty Senate Budget Committee.

Process Themes
Process mapping is a technique used to visualize and to correct business process problems. The group reviewed the symptoms, identified in the literature that often plague these processes:

- Choke points – when all paths lead to a single person
- Layering – adding automated steps on top of paper steps
- End runs – disregarding the established process entirely and jumping to the end
- Shadow systems – entering the same data in multiple systems (e.g., MS Excel, MS Access)
- Exception-based – complexity resulting from “one time five years ago, event ABC happened”
• Unintended consequences “downstream”
• Not scalable – the process breaks under increased volume
• Focus on symptoms rather than roots
• Paper-heavy – long, opaque, sequential, and inefficient

**Process Mapping**

Mapping processes with key stakeholders serves as a vehicle to:

• Identify issues with the current process
• Work together to develop a clear, effective, consistent process
• Align new process to support strategic objectives
• Take full advantage of technology

The following pages include maps of the current process and one way to think about an “ideal” process. The objective is to use the new map as a guide for the project team as it implements process changes, policy revisions, and deploys technology.
Current Enrollment Process - 1

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MEM
(Sept)
Prepare timeline and kick-off
Conduct kick-off meeting -- describe objectives, tools, and deliverables

Academic Unit
(Oct/Nov)
Write SEM plan -- incl enrollment forecasts, sabbaticals, retirements, class offerings, etc.
(some units)
Involve chairs at this point
(some units)
Use Excel or other tools -- e.g. RCAT, TM1
(some units)
Perform numerical modeling first -- then involve the chairs later in the process
[iterate as needed]
Submit SEM (using Word template) to Enrollment Mgmt

Enrollment Mgmt
(Nov)
Post to "Enrollment Watch" on the web
Post revisions to "Enrollment Watch"

MEM
(Dec)
Read all SEM plans
Create/combine list of questions for units
(Jan)
Meet w/ each unit (college)

FSBC
(Jan)
Read all SEM plans
Create a list of questions for units
Send questions to Provost

Academic Unit
(Jan)
Update TM1 -- e.g. class offerings
Update TM1 -- e.g. expenses for E&G

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(ongoing)
Meet w/ college liaison

After meeting, revise SEM plan -- highlight changes in color
Respond to FSBC

 ongoing: provide updates to FSBC, UBT review, hold campus forums

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Current SEM and PBB Process - 2

**OIRP**
- (Jan) Run enrollment projection from TM1
- Update Excel and Access
- Compare w/ SEM plans

**Provost's Office**
- (Jan) Conduct university-wide SEM plan review
- MEM meets

**Academic Unit**
- (Feb) Revise enrollment forecasts and complete Template 2 -- use SEM plan, RCAT, TM1, Excel, etc.
- Propose revenue increases/decreases -- and associated costs
- Lay Template 1 on top of base budget
- "Set" the budget
- (ongoing) Make changes when new information is received
- Roll up all Templates (2s) to Template 1

**Budget Office**
- (Feb) Revise revenue projections
- Lay Template 1 on top of base budget
- "Set" the budget
- (ongoing) Make changes when new information is received
- [After TM1 is updated, load budget to Banner]

**Provost's Office**
- (Mar-Apr) Incorporate budget and revise revenue projections
- Propose revenue commitment to UBT
- [President reviews and approves]
- (May) Present final (revenue and budget) using Template 1
- (May) Approve strategic investments -- beyond E&G
- (Summer) Revisit strategic investments when State budget is approved
- (Fall) Revisit again when actual fall enrollments are confirmed

**President's Executive Committee**
- [NOTE: In April, Revenue Supporters update TM1]
Assumptions

Before drawing a scenario for a new process map, the following assumptions were reviewed:

- Develop a single, unified process
- Clearly connect to University strategy
  - Student success
  - Faculty success
  - Research
- Include enrollment, revenue, and budget data from beginning to end
- Deploy a three planning cycle
- Utilize a single tool to support the process
- Use a “hub and spoke” model
  - Single source of data
  - All stakeholders have visibility into the “hub”
- Simplify the model
- Enable “what if…” scenarios locally and University wide
- Focus on E & G for academic areas
Possible New Enrollment, Revenue, and Budget Planning Process

**Strategic IPEB**
- Confirm strategy, analyze data, confirm trends, articulate university-wide assumptions -- conversations and decisions
- Project enrollment trends, revenue, and budget
- Update tool for upcoming FY
- Open access to tool for units to review and revise

**Academic Units**
- Open window of time to revise in tool -- all can access
- Review assumptions, analysis, projections
- Coordinate w/chairs and other units
- Plan course offerings
- Add new/revised programs
- Factor in advising, office support, non-funded research, etc. to dept budgets

**Academic Units**
- Run "What if..." scenarios
- Using PBB principles, revise data in tool
- Add narrative in tool
- Submit for review
- Auto-notify FSBC, leadership group

**Strategic IPEB**
- Review in tool -- "hub and spoke" model -- real-time "roll up" -- drill down for detail
- Accept or revise unit submissions -- enrollment, revenue, budget
- Provost makes recommendation to UBT for revenue and expenditure requirements. Approved by President
- Compare actuals to projections, revise model

<-------- Ongoing: as actuals come in, update future FYs and alert when current year deviates beyond tolerances -------->
Appendix A

Opportunities

In brainstorming fashion, the workshop participants identified the following potential opportunities for improvement. Items are not listed in any particular order; however, the items were grouped by general topic area following the workshop to provide additional clarity. Additionally, they do not represent consensus.

Forecasting/Precision/Planning

- “Perfect” enrollment predictions
- Process allows for less certainty earlier in the cycle
- Take a longer time horizon in order to act nimbly
- Multi-year planning
- Allow stakeholders to use their skills – e.g. core team takes first cut at projections then provides to the units for input
- Distinguish course management for upcoming year from planning and projections for future years
- Understand incoming student projections – and type of students – include in enrollment projections
- Utilize funnel reports earlier in the budget planning process
- Use student sequencing tool – include incoming students, current students, graduating students – refine prediction models
- Look at factors beyond current programs – e.g. new programs, market forces
- Anticipate better data coming from graduate admissions funnel
- Use PSU online and online inquiry form to assess demand
- Step back and build in allowance for +/- X% -- understand ranges in projections
- Assume variances and plan within them
- Connect headcount with SCH with revenue
- Find “sweet spot” with level of granularity – how much is enough for good planning
- Determine level of detail to track – e.g. revenue by course or a formula?
- Handle variations – e.g. supply and demand, by program, by grad and undergrad
• Understand capacity up front – e.g. seats, dollars, people

Tools/Technology
• RCAT is good at revealing cost structure
• Ability to run “what if...” scenarios – e.g. implications of introducing new program
• Use the right tool for the right task
• Take inventory of all current tools
• Reimagine the use of TM1
  o Functionality beyond course planning
  o Produce data for strategic enrollment management and budget development
  o Replace all other tools – e.g. RCAT, Excel, templates, etc.
• Use TM1 from enrollment planning to revenue forecast to budget

Transparency/Access/Communications
• Visibility into the process
• Clear communication throughout the process
• Communicate across units – overcome silos
• Include chairs in the process and develop meaningful projections
• Involve faculty in the planning
• Involve revenue supporters earlier in the process
• Provide easy way in tool to see revisions
• Review planning with Faculty Senate earlier in the cycle
• Provide visibility into the process
• Reduce steps and improve communication
• Develop a process that is easy to understand
“Everything should be made as simple as possible, but not simpler” Einstein
Effective communication highlights the most important ideas and information
Coordinate input and questions
Understand “local” (unit) needs in context of university-wide goals

Process/Integration/Sequencing

- Proper sequencing of events
- Plan early enough to take action – e.g. hiring
- Include revenue and budget planning from the beginning of the process – integrate with enrollment planning
- Develop a single, integrated process (formerly known as two processes SEM and PBB)
- Deploy a single tool to support new, integrated process
- Overcome bottlenecks in the process
- Optimize relationship between enrollment management and budget planning
- Rather than two abutting processes (SEM and PBB), develop a single, integrated process
- Consider a shorter timeline
- Tie to academic and course planning

Financial/Strategic

- Address “financial concern” with students
- Evaluate different “tuition sensitivity” for specific groups of students
- Incentivize net contribution
- Incentivize performance
- Simplify tuition structure
- Consider what the market will bear for tuition – different for different programs
- Challenge the idea that “all growth is good” – re-frame to targeted growth
• Use data to understand reasons to stay – and reasons they leave
• Create a longer planning horizon – e.g. 5-year rolling budget
• Leverage data to create strategies to increase retention
• Leverage aid dollars more strategically – e.g. target students before they leave for financial reasons
• Create contingency for each college
• Develop guidelines for contingencies
• Clarify connections across disciplines – e.g. cross-listed classes, dependencies, etc.
• Develop consistent revenue and cost measurement guidelines – clear parameters
• Develop guidelines for actions when projections are exceeded
• Clear reconciliation at year end
• Build strategic investments into the overall planning process – anticipate rather than react
• Shift fiscal year to align with fall
• Connect budget development process to types of students applying
• Capture efficiencies – i.e. lower costs and increase or maintain revenue
• Anticipate cost changes for revenue supporters
• Engage revenue supporters with strategic initiatives
Appendix B

Obstacles

In the same manner, participants identified the following potential obstacles:

Forecasting/Precision/Planning

- “Imperfect” information at the time of kick-off – early in the cycle
- Uncertainty – “filling in” blanks
- When there are changes to the projections after actuals are received, makes it difficult to act confidently based on the projections
- Countervailing forces acting on the process – i.e. need budget early in order to take action in enough time to impact upcoming FY (e.g. hiring), but enrollment projections get better later in the cycle
- Varied effort and accuracy in department projections
- RCAT revenue data is “close enough”
- Using enrollment projections (SCH) for the first part of the process (until February) then switch to dollars (revenue and budget)

Tools/Technology

- RCAT structure reinforces silos – does not represent interdependencies
- Tweaking the current tools – asking them to do things they weren’t intended to do
- Dissatisfaction with RCAT
  - Can’t use it to run “what if...” scenarios
  - Not a budget tool
- Don't have all the right tools needed
- Shadow systems – entering data multiple times, using to run queries
- Template 2 includes subjective data
- Template 2 reinforces silos
- Managing Excel and TM1 and other tools – always out-of-sync – “non-value added” steps to reconcile shadow systems

Transparency/Access/Communications
• Room to improve communication
• “Fuzzy” closure on current SEM planning process

Data
• Coding for international students makes it difficult to see “who’s who”
• Not all data is apples-to-apples
• Redundant data entry – Excel, TM1, Banner, SEM Plan, Budget Template
• Differential tuition is challenging to include
• Don’t have clear data on the “cost to educate” a PSU student
• Difficult to extract the amount each student paid – e.g. that reflects net payment after financial aid

Process/Integration/Sequencing
• Many intersecting and concurrent processes – complicated
• Schedule gets compressed in March and April – decisions are rushed
• Need more time for collaboration before making decisions in March and April
• When process feels rushed, questions arise
• Processes abut rather than integrate
• Revenue supporters are involved too late or not at all
• Current process attempts to bring together data coming from the bottom up and the top down
• Process built on individual units, requires additional effort to take a university-wide view
• Process does not include non-credit, fees, sponsored research, philanthropy
• Performance-based budget is E&G only – must look at multiple sources to assemble the entire picture
• Schedule summer classes without enrollment projections or budget
• Some data is not clear until it is too late in the process – results in changes (e.g. in May)
• When the process is under time pressure – e.g. prior to spring Board meeting – making fast decisions without as much collaboration, can seem like “fairy dust”
- Opportunity cost when some turn in numbers just to meet deadline – i.e. spend more time adjusting after the fact
- Reticent to commit

Financial/Strategic
- Disincentives for projecting low – therefore overall projects integrate too much optimism
- Complex tuition structure
- Variation in semesters
- Competing for the same students – understand net versus new
- Revenue supporters don’t have a step in the process to discuss costs
- When the process is late, it has a real effect on students – e.g. canceled classes
- Not all costs allocated – e.g. Library
Appendix C

Additional Items for Implementation Team

The group identified several topics during the workshop for further consideration:

- Include clear justification when revising projections – e.g. unique features, marketability, quality and accomplishments, vision and long-term viability, financial viability, etc.
- Tie funding to expected results – specifically, what will each dollar accomplish? e.g. graduate N students
- Find the right amount of detail needed to meet the goals of the process – not too granular, not too general
- Include Centers and Institutes in planning
- Use external benchmarking
- Identify integration points for operating in the larger context – e.g. sponsored research, other revenue, etc.
Appendix D List of Participants

- Michael Bowman, Gerardo Lafferriere, Faculty Senate Budget Committee
- Laura Burney Nissen, Keva Miller, Jean Cavanaugh, School of Social Work
- Sy Adler, Robin Michell, College of Urban and Public Affairs
- Ann Marie Fallon, Honors College
- Kathy Black, Cliff Allen, Erica Wagner, School of Business Administration
- Karen Marrongelle, Drake Mitchell, K.C. Hall, Veronica Dujon, College of Liberal Arts and Sciences
- Bob Bucker, College of the Arts
- Ren Su, Barbara Chen, Jim Hook, Maseeh College of Engineering and Computer Science
- Randy Hitz, Jana Smilanich-Rose, Graduate School of Education
- Anne Rudwick, School of Public Health Initiative
- Margaret Everett, Courtney Hanson, Office of Graduate Studies
- Marilyn Moody, Tom Bielavitz, Claudia Weston, Library
- Thuy Vu, University Studies
- Julie Haun, Karin Tittelbach, Intensive English Language Program
- Sona Andrews, Sukhwant Jhaj, Shelly Chabon, Gil Miller, Scott Marshall, Office of Academic Affairs
- Ron Witzak, Office of International Affairs
- Johannes De Gruyter, Janelle DeCarrico Voegele, Office of Academic Innovation
- Alan Finn, Andria Johnson, Keren Ceballos, Susan Klees, University Financial Services/Finance and Administration
- Kathi Ketcheson, David Burgess, Office of Institutional Research and Planning
- John Fraire, Cindy Skaruppa, Enrollment Management and Student Affairs
- Alan Kolibaba, Sinnamon Tierney, Office of Research and Strategic Partnerships