Newcomers to IR in Maryland

Practical Tips for Navigating the Maryland IR Maze
Introductions

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❖ Workshop participants
Today’s Topics

- What is IR?
- IR Within the Institution
- Maryland Higher Ed and IR
- IR’s Alphabet Soup
- Roles
- Tips for Success
- Resources
What IS Institutional Research?

- The art of providing higher education decision makers with bad answers to support questions which they will otherwise address using foregone conclusions or untested hypotheses.
  ~ Harold Richard
- A profession occupying a very precious space between spineless administrators and mindless academicians.
  ~ James Dator
- Higher Education's Central Intelligence Agency.
  ~ Stuart Rich
- Whatever [my president] wants.
  ~ Robin Shores
What IS Institutional Research

- Research leading to improved understanding, planning, and operating of institutions of postsecondary education.
  ~ Association for Institutional Research

- Fosters and assists institutional change.
  ~ Marvin Peterson
# What IS Institutional Research

## Purposes and Audiences

<table>
<thead>
<tr>
<th>Organizational Role &amp; Culture</th>
<th>Formative &amp; Internal For Improvement</th>
<th>Summative &amp; External For Accountability</th>
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</thead>
<tbody>
<tr>
<td>Administrative &amp; Institutional</td>
<td>To describe the institution</td>
<td>To present the best case</td>
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<tr>
<td></td>
<td><em>IR as Information Authority</em></td>
<td><em>IR as Spin Doctor</em></td>
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<tr>
<td>Academic &amp; Professional</td>
<td>To analyze alternatives</td>
<td>To supply impartial evidence of effectiveness</td>
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<td><em>IR as Policy Analyst</em></td>
<td><em>IR as Scholar and Researcher</em></td>
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From Volkwein (1999). What is Institutional Research All About? NDIR # 104
IR Structures within Institutions

- No one correct model
- Often defined by reporting structure
  - Academic Dean or Provost
  - Administrative Vice President / Budget
  - Direct line to President
  - Others
- Varying areas of focus, including:
  - Enrollment management
  - Planning, institutional assessment
  - External reporting or marketing
Higher Ed and IR in Maryland
Academe’s Alphabet Soup

- Federal Acronyms – IPEDS, NCES, WIA, NSF, NPEC
- IR Related Professional Associations – AIR, NEAIR, SAIR, NCRP, SCUP, ASHE, AAHE
- Other National Associations – AACC, AAU, NSLGUC, SHEEO, NACUBO, AAUP, AACRAO, …
- Consortia – AAUDE, HEDS, COFHE
Maryland’s Alphabet Soup

- Higher Ed – MHEC, USM, MACC, MCCRG
- State Agencies
  - DLLR – Department of Labor, Licensing, Regulation
  - DBED – Department of Business and Economic Development
  - MSDE – Maryland State Department of Education
  - MOP – Maryland Office of Planning
  - GWIB – Governor’s Workforce Investment Board
Roles and Responsibilities

- Keepers of the Data – Consistency, Integrity, Quality
- Mandatory Reporting – External and Internal
- Tracking Student Progress – Retention, Graduation, Longitudinal Tracking
- Surveys, Focus Groups
- Enrollment Management & Projection
- Strategic Planning
- Assessment – Institutional, Learning Outcomes
Data Extraction

- Standard reports (usually developed by IT in consultation with IR) for distribution to a large audience
  - Distribute to those who need to know
  - Consider appropriate audiences
- “Frozen” files
  - Be cognizant of important dates
  - Understand that “current” is not always best
- Befriend the “IT guys”
Common “Frozen” Files

- Applicant files
- Unduplicated student files
  - Demographics (ex. age, ethnicity, address)
  - Semester registration and other academic information
    - Program, student level, credits attempted, GPA
- Course enrollment detail files
  - All registrations, updated with grades
- End of term performance files
  - GPA, academic actions, academic awards
- Degrees awarded
- Personnel files
  - Gender, ethnicity, EEO code, tenure status, salary, benefits
Principles of Data Consistency

- Develop and employ clear data definitions
  - Develop a set/glossary/library of data definitions
  - Keep records of the decisions and their implementation
  - Be able to provide a clear rationale for what you do

- Question past practice
  - Resist - “that’s the way we have always done it” and “that’s the way Joe did it” traps

- Develop protocols and follow them
Principles of Data Integrity

- Edit check and re-check
- Sample the data
- Befriend the “owners” of the data
  - Explanations of context, quality
  - Review and re-entry of edits
- Look for and recognize patterns
  - The “Gee, that’s strange” clues
Ensuring Data Quality

- Make comparisons with known standards and/or other institutions/groups
- Examine various measures of central tendency
- Examine various measures of variability
- Employ a “5 point” data summary
- Examine and explore outliers
- Consider the appropriate level of precision needed
- Strike an appropriate balance between “cost and benefit”
External Reporting

- IPEDS
- State Specific Reports (MHEC, USM, MACC)
  - Enrollment, accountability, financial, capital
- Middle States compliance
  - Annual Institutional Profile, PRR, Self Study
- CDS and Publications
IPEDS

- The core postsecondary education data collection program for NCES
- Designed to collect data from ALL institutions whose primary purpose is to provide postsecondary education
- A comprehensive system of interrelated surveys to collect institution-level data
IPEDS Surveys
9 Components

❖ General Information
  ● Institutional Characteristics

❖ Student Surveys
  ● Enrollment
  ● Completions
  ● Graduation Rates
  ● Student Financial Aid

❖ Resource Surveys
  ● Employees by Assigned Positions
  ● Fall Staff
  ● Salaries
  ● Finance
MHEC Reporting

- Data Files – Unit Record Data
  - HGS – Recent High School Graduates
  - EIS – Fall Enrollment (All Enrolled for Credit)
  - EDS – Employee Data (as of November 1)
  - DIS – Fiscal Year Graduate Data
  - TSS – Fiscal Year CC graduate data (4 yr public only)

- Keyed by SSN, used in MHEC longitudinal reports on retention, graduation, etc.
MHEC Reporting, cont’d

- **Annual Reports**
  - Accountability/MFR, Opening Fall Enrollment, Financial Aid (soon to be unit record data file), ESOL, Facilities, Budget/Finance, Enrollment/FTE, Enrollment Projections

- **Other Reports**
  - Minority Achievement, Student Learning Outcomes Assessment Report (SLOAR), Mission Statement
Internal Reporting

- Advises decision makers – helps inform policy
- Standard reporting schedule plus timely and ad hoc reports
- Surveys, cohort studies play key role
- Analyses on multiple levels – institutional, college, program
Internal Standardized Reports

- Movement from paper to electronic
- Tiered system of access to information
- Routine reporting process, schedule
  - Start simple, make it better each year
- Goals
  - Efficiency – eliminate need for simple requests
  - Proactive – anticipate user needs
  - Useful – become the “first source” for information
  - Consistency – ensure similar story regardless of teller
Typical Internal Reports

- Fact Books or similar web sites
- Enrollment Reports
  - Students, seats, FTEs
  - Split by student or course characteristics
- Faculty Workload
- Finance / Budget related
- Student financial aid and tuition policy studies
- Salary comparisons, equity studies
- Efficiency/process improvement studies
- When possible, provide peer comparisons
Peer Data – Why Use It?

- Used for benchmarking purposes
- May have different peers depending upon the questions being asked
- Can help explain/justify budget requests, teaching loads, salary adjustments, tuition and/or fee increases
- Assists in decision making – “What do our peers do?”
Four Types of Comparison Groups

(Theter and Brinkman, 2003)

- Competitor – compete for students, faculty or finances
- Aspirational – dissimilar to your institution but worthy of emulation
- Predetermined – arranged together for some purpose (e.g., athletic conference, geographic, Carnegie classification)
- Peer – similar in role and mission
Peer Selection

- Project goal, use of data
- Availability of comparable data
  - National databases – IPEDS PAS
  - Consortia – AAUDE, SUG, HEDS
  - MHEC or MACC Groupings
- Clustering of data itself
- Institutional leader and decision-maker opinion
- You may not necessarily be your peers’ peer
Tracking Student Progress

- Academic preparedness
- Cohort Tracking – Longitudinal Studies
  - Retention
  - Graduation / Time to Degree
  - Transfer
- Completers
- Grades/Course retention
- Progression to next level for sequenced courses
- Licensure Rates
Surveys and Focus Groups

- More than just administration
- Multiple uses (sometimes for the same data)
  - Institutional Effectiveness
  - Program Assessment
  - Marketing and Enrollment Management
  - Planning
- Use of a survey cycle to streamline process
- Institutional Human Subjects Review Board
Tips for Effective Surveys

Plan
- Clear objectives
- Understand how the results will be used
- Identify critical questions
- Ask: is the data collected anywhere else?
- How will you analyze and report the data?
- Who will you survey? Sample or Census?
- How many?
- Know what other surveys are happening at your institution
- Understand the impact on instructional time
Enrollment Management and Projection

- Enrollment Management more than just projections
  - Marketing, admissions, retention, graduation
  - Not just institutional level – program, college, department
- More than just state mandates – MHEC and USM projections just a beginning
- Ongoing process
Enrollment Projection/Forecasting

- Part science, part art
- Requires blending of historical information with campus goals and expectations
  - Size
  - Selectivity
  - Capacity
- Institutional level enrollment projections
- Used for enrollment management, facilities planning AND for budget preparation (i.e. used to project revenue!)
Strategic Planning

- Collaborative process – IR supports (or leads)
- Policy analysis – data informs decisions
- Reflects mission and goals
- Ties to budget and institutional assessment strengthen the process

Tools
- SWOT
- Environmental Scan
- Indicators
- Benchmarking
Assessment

- Evaluation for the purposes of improvement
- MISSION, MISSION, MISSION
- Comes in many varieties
  - Institutional Effectiveness – concerned with overall institutional performance on a variety of measures
  - Learning Outcomes – concerned with effectiveness of instruction
  - Program Assessment – concerned with the functioning of a discipline or curriculum - a blend of effectiveness and outcomes measures
  - Needs Assessment – concerned with determining the demand for a particular program or curriculum
Assessment Principles

Assessment helps us think about the following:

- What we want to do (goals and objectives)
- How we operationalize what it is we want to do (specific outcomes)
- How we are going to measure how well and what we are doing (methodology)
- What we are going to do with the information (feedback) that we generate
“There’s absolutely nothing on this entire beach that lends itself to a bulleted list.”
Tips for Success

- No matter how stressed, a lit review can save time in the long run
- Never forget core research practices
- Know your audience
- Don’t just summarize – analyze and raise questions
- Remaining neutral increases credibility
- Maintain professional connections, remain active
- Take on innovative projects – don’t be just a technocrat
More Tips for Success

- Document processes
- Understand your yearly cycle and production schedule
- Don’t be afraid to ask for guidance – within your institution or within the state
- Vet early and often
- Become active at your institution – including activities outside the “normal” office duties
- Keep current with the literature
- Learn about all aspects of IR office functioning
Useful Mantras

- Great, Good, and Good Enough
- Forget perfection – improve continuously
- Analyze once, use often
- A great analysis that’s never completed and distributed is no good to anyone
- No doorstops
- Avoid creating roadblocks
- Don’t go it alone
Coping Mechanisms

- Use resources from associations
- Don’t be afraid to contact those who know (including your supervisor)
- Ask for help setting priorities
- Read the Chronicle, Change and other higher education publications
- Find a group of trusted advisors
- Find a group of local IR peers
- Have fun
Resources for IR Professionals
AIR Published Materials

- **Monographs**
  - Questionnaire survey research: What Works?
  - Strategies for the Practice of IR
  - People, Processes and Managing Data
  - Effective Reporting
  - The Primer For Institutional Research

- **New Directions for Institutional Research**
- **Professional File**
- **AIR Alerts**
Journals

- Research in Higher Education
- Journal of Higher Education
- ASHE Higher Education Research Reports
- Society for College and University Planners (SCUP)
- Journal of Applied Research in the Community College (JARCC)
- Community College Journal
Reports – National Focus

- ASHE Higher Education Research Reports
- NCES Reports (Condition of Education, etc.)
- WICHE (Enrollment projection report)
- Lumina Foundation
- Education Commission of the States
- NCHEMS, IHEP, etc. reports
Other Regular Publications

- Chronicle of Higher Education
- Community College Times
- Change
- Postsecondary Opportunity
- University Business
Professional Associations

- National IR Organizations
  - Association for Institutional Research (AIR)
  - National Council for Research and Planning (NCRP)
  - Society for College and University Planners
- Regional & State AIR and SCUP
- American Educational Research Association
- American Association for Higher Education
- Association for the Study of Higher Education
- League for Innovation in Community Colleges
External Data Sources

- NCES – IPEDS data
  - Peer Analysis System (PAS)
  - Electronic Code Book (ECB)
- Data Sharing Consortia (HEDS, SUG, AAUDE, CSRDE)
- NCHEMS – National Center for Higher Education Management Systems
- Highered.org
- Commercial companies
IR Web Resources

- AIR
  - http://www.airweb.org
- NEAIR
  - http://www.neair.org
- American Association of Collegiate Registrars and Admissions Officers
  - http://www.aacrao.org/
- National Association of College and University Business Officers
  - http://www.nacubo.org/
Federal Web Resources

- NCES
  - http://www.nces.ed.gov
- Census Bureau
  - http://www.census.gov
- Bureau of Labor Statistics
  - http://www.bls.gov
- Library of Congress
  - http://www.loc.gov
National Organizations/Publications

- National Student Clearing House
  - http://www.nslc.org
- National Governor’s Association
  - http://www.nga.org
- The Chronicle of Higher Education
  - http://chronicle.com
- National Center for Higher Education Management Systems
  - http://www.nchems.org
- Council for the Advancement and Support for Education
  - http://www.case.org
Helpful Community College Web Sites

- **American Association for Community Colleges**
  - [http://www.aacc.nche.edu](http://www.aacc.nche.edu)

- **The League for Innovation in the Community College**
  - [http://www.league.org](http://www.league.org)

- **National Council for Research and Planning**
  - [http://www.nmsu.edu/~NCRP/](http://www.nmsu.edu/~NCRP/)
Helpful Four-year Web Sites

- AASCU – American Association of State Colleges and Universities www.aascu.org
- AAC&U – Association of American Colleges & Universities www.aacu.org
- AAU – Association of American Universities www.aau.edu
- CIC – Council of Independent Colleges www.cic.org
- NAICU - National Association of Independent Colleges and Universities www.naicu.org
- NASULGC – National Association of State Universities and Land Grant Colleges www.nasulgc.org
Questions

Discussion

Evaluation