



Utilizing Activity Based Costing to Improve Strategic Budgeting and Communicate the Cost and Value of Services

Kelly Block
Karen Greenwalt
Ginny Schroeder



Abstract

Learn how activity based costing (ABC) can demonstrate the value of administrative services to the university, assist with strategic planning and the annual budgeting process, and help the University community understand the customer impact when cutting administration. Hear how we have implemented a process that is well defined, repeatable, and transparent. We will describe what components we were able to perform in-house, what aspects required a consultant's help, and how we integrated all of these aspects into our portfolio and project management office (PPMO).

© 2016 The Board of Trustees of the University of Illinois. All rights reserved



What We Will Cover

- Introduction
- Define Activity Based Costing
- Our Process
- Current State
- Outcomes
- Future State
- Questions



Introduction



Kelly Block, CPA, PMP, MIS

Assistant Vice President
Portfolio and Process Management
Office of the CIO
University of Illinois System

Karen Greenwalt, EdM, MBA

Director, Strategic Budget and Finance
Office of the CIO
University of Illinois System



Ginny Schroeder

Practice Director
WTC

© 2016 The Board of Trustees of the University of Illinois. All rights reserved

Introduction

University of Illinois

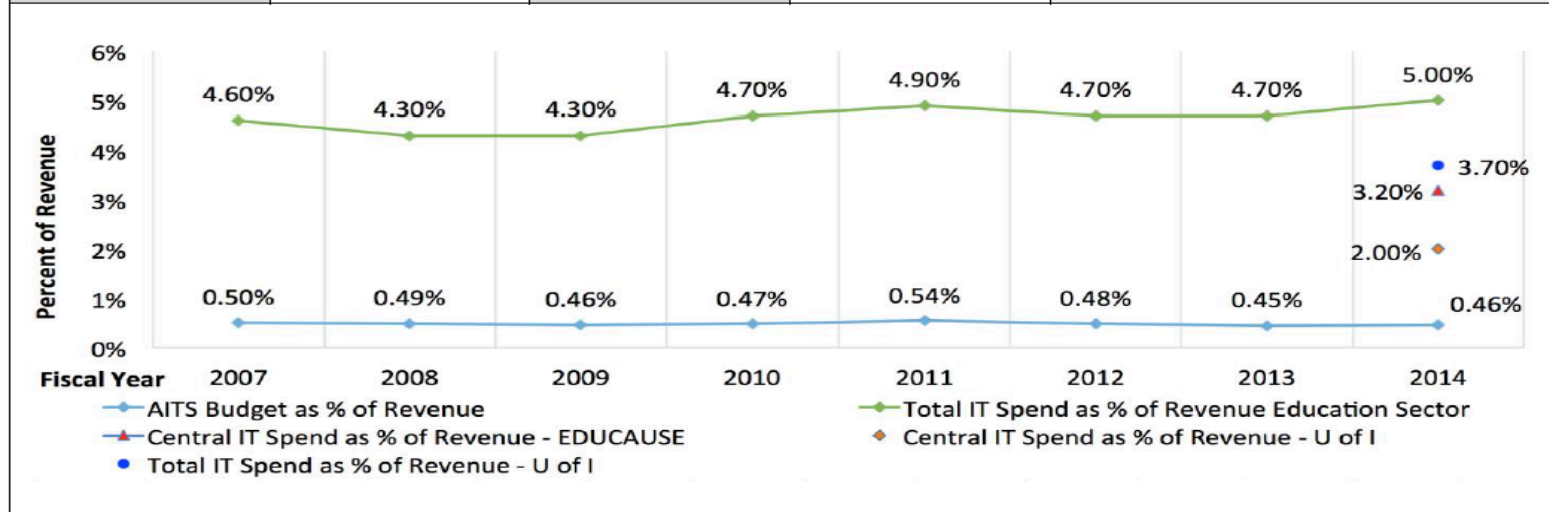
- Three campus system
- 34,000 employees
- 80,000 students
- About 700,000 living alumni
- \$5.6B budget
- 35th in Best Global Universities
- 10,000 international students from more than 110 nations - 1st among American publics
- 897 buildings, 1,000's of rooms



\$5.6B University of Illinois Budget

Figure 2. IT Spending in Higher Education Metrics

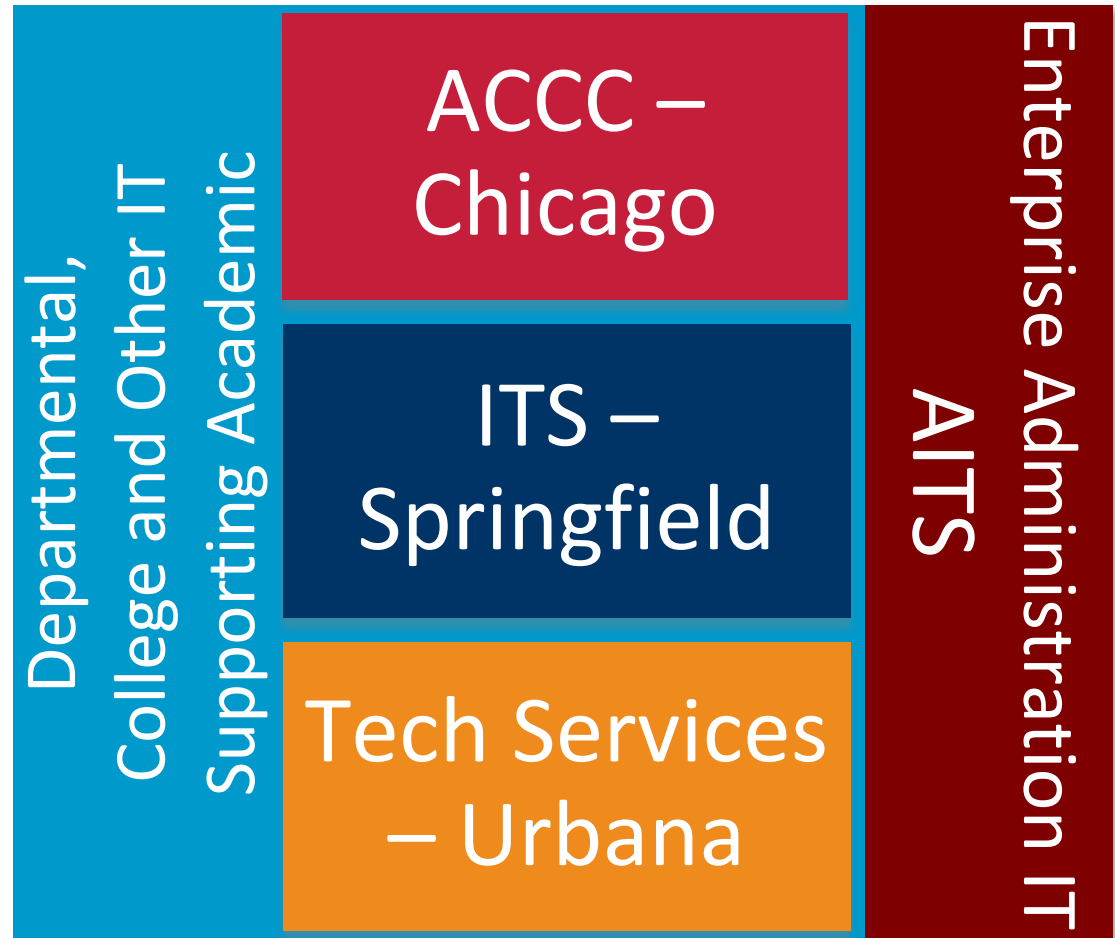
| | | | | |
|---|------------------------|---|------------------------|-------------------------------------|
| 5.0% | 3.7% | 3.2% | 2.0% | 0.5% |
| Total IT spending as a % of total revenue | | Central IT spending as a % of total revenue | | IT spending as a % of total revenue |
| Education Sector - (Gartner) | University of Illinois | Higher Education - (EDUCAUSE) | University of Illinois | University of Illinois - AITS |



© 2016 The Board of Trustees of the University of Illinois. All rights reserved

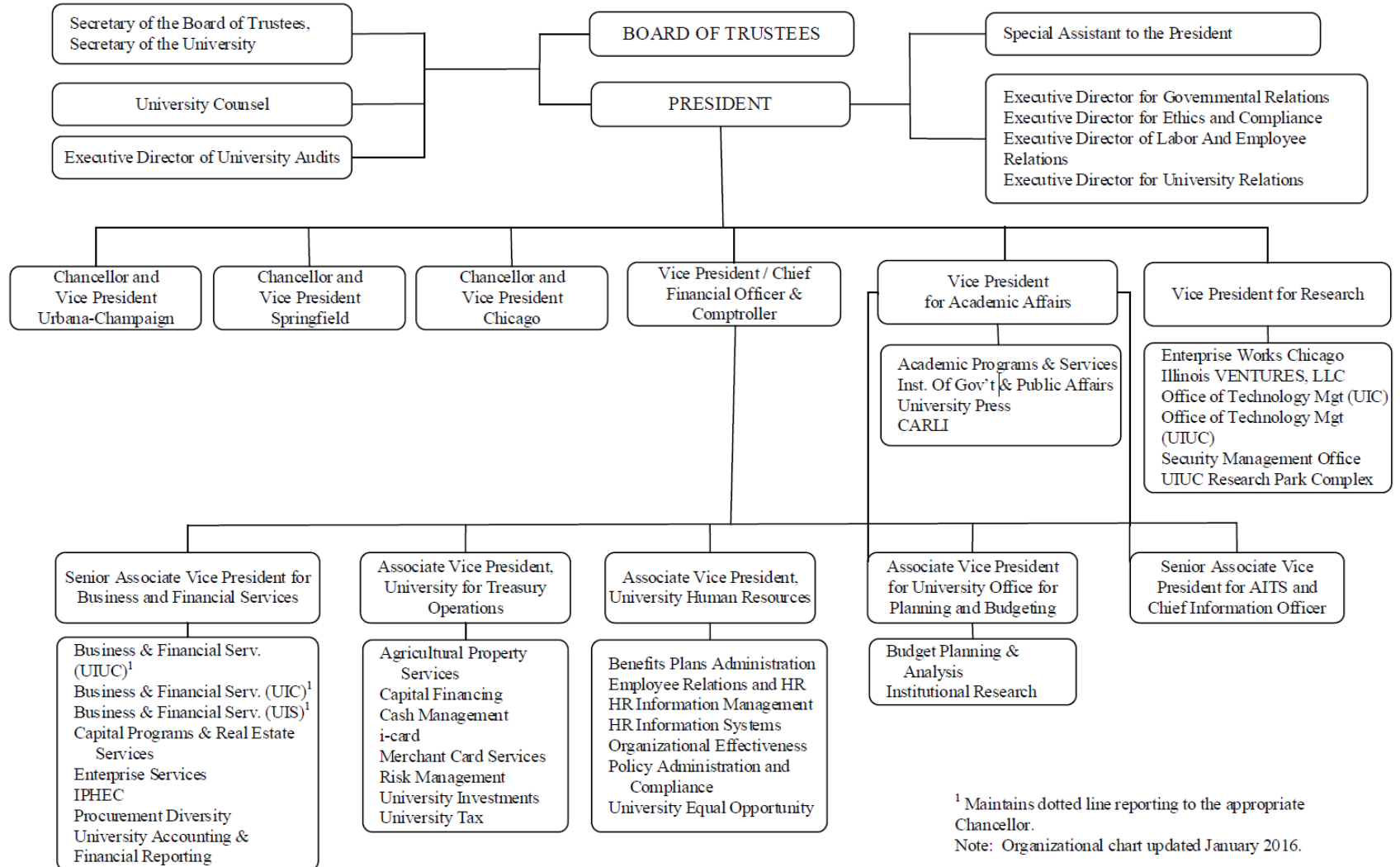
IT Structure at U of I

- Academic
- Campus
- College/
Department
- Enterprise
Administration
(AITS)





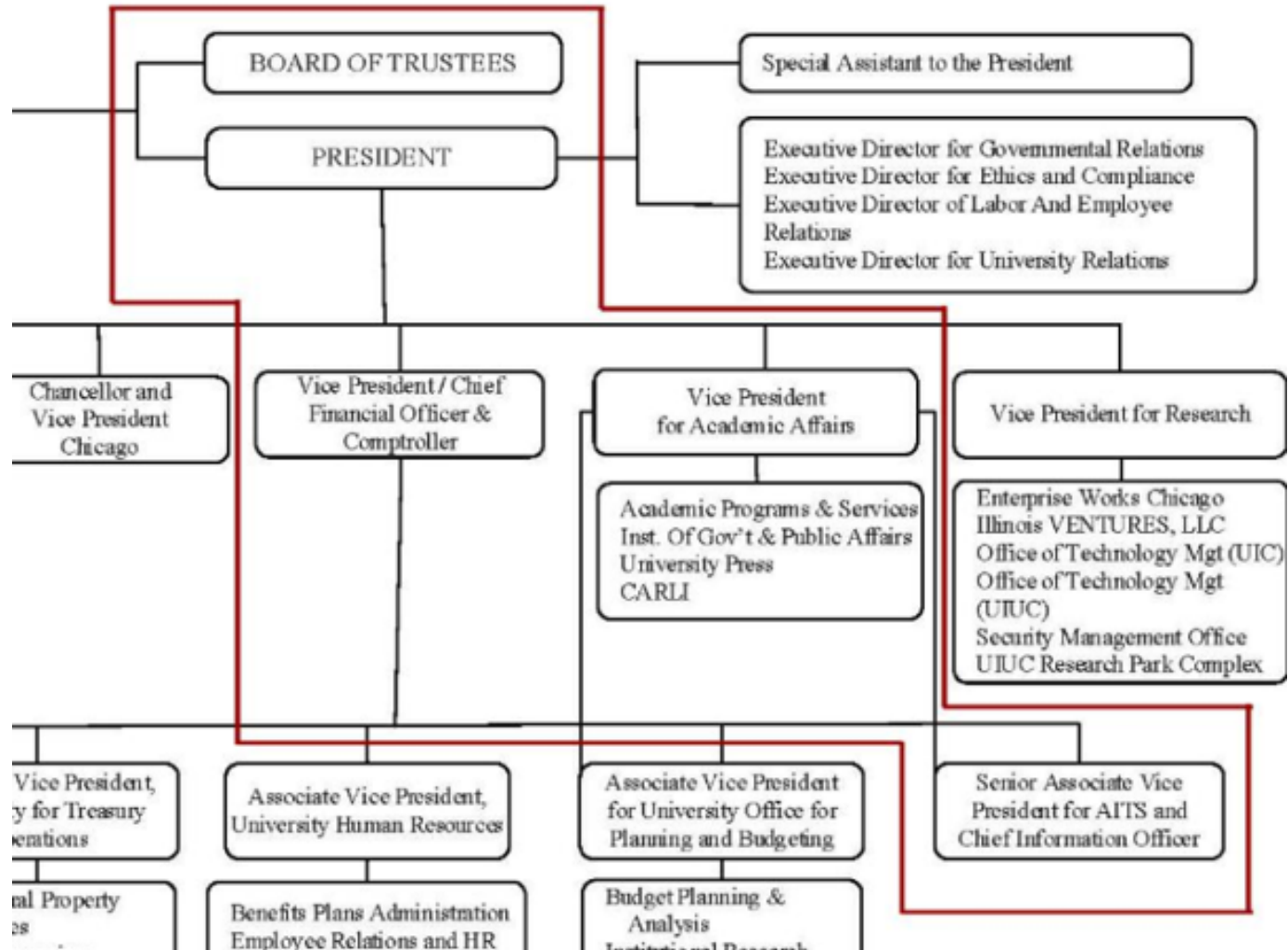
University of Illinois University Administration



¹ Maintains dotted line reporting to the appropriate Chancellor.
Note: Organizational chart updated January 2016.



**UNIVERSITY OF ILLINOIS
UNIVERSITY ADMINISTRATION**



© 2016 The Board of Trustees of the University of Illinois. All rights reserved



Group Interactive Activity

Define Administrative IT

© 2016 The Board of Trustees of the University of Illinois. All rights reserved



Instructions

Group discussion defining admin IT (10 min)

Reflect on the IT structure just defined at the University of Illinois and at your institution.

- What does it include?

- Who are the customers?

- How would you explain what it is?



Administrative IT

Definition of Administrative IT to most people

- Servers
- People
- Hardware
- Software
- Databases

| By IT Function | |
|---|---|
| General and administrative computing; Co-investments and shared infrastructure | |
| Application Services Application Administration Application Development Application and Website Testing Data Visualization Distributed Hosting Document Management Enterprise Application Integration Enterprise Data Warehouse Enterprise Batch Scheduling Service Desk Management Web Content Management System | Professional Services Business Process Improvement Shared Services Change Management Service Database Services IT Portfolio Management Release Management Risk Management and Business Continuity Planning Records and Information Management Services |
| Network and Desktop Services Backup Management Collocation Services Desktop Support Storage Management System Monitoring, Alerting and Availability | Security and Access Services Authentication and Authorization Services Directory Services Firewall Services Information Security Consulting and Support Remote Access and VPN |



Administrative IT

- We are overhead!
- We are a commodity!
- We are core for running the business!



Administrative IT

Problems with this?

- No one understands what this means
- If they don't understand it, they don't value it

| By IT Function | |
|---|---|
| General and administrative computing; Co-investments and shared infrastructure | |
| Application Services Application Administration Application Development Application and Website Testing Data Visualization Distributed Hosting Document Management Enterprise Application Integration Enterprise Data Warehouse Enterprise Batch Scheduling Service Desk Management Web Content Management System | Professional Services Business Process Improvement Shared Services Change Management Service Database Services IT Portfolio Management Release Management Risk Management and Business Continuity Planning Records and Information Management Services |
| Network and Desktop Services Backup Management Collocation Services Desktop Support Storage Management System Monitoring, Alerting and Availability | Security and Access Services Authentication and Authorization Services Directory Services Firewall Services Information Security Consulting and Support Remote Access and VPN |

Administrative IT

- Through ABC our definition has changed
 - More descriptive
 - Customer-centric
 - Less techy
- Now we define by the services we provide

By Function for faculty, staff and students General and administrative services

Student Services

Financial Aid Processing
Registration and Records
Recruiting and Admissions

HR Services

Benefits
Payroll
Recruiting and Hiring

Financial Services

Accounts Payable
Accounts Receivable
Contract Management
eProcurement
General Ledger
Management
Inventory Accounting
Travel Expense
Reimbursement

Research Services

Research Administration
Management

Professional Services

(some may be fee-based)
Business Process
Improvement Consulting
Data Visualization
Identity and Access
Management
Mobile Application
Consulting
Project Management
Records and Information
Management
Security and Compliance
Consulting
Workflow Development
Consulting
Security Provisioning
Server Hosting
Quality Assurance
Web Services Consulting
Workstation Management

Original State

Budget Model

- Activity-based budgeting
- Centralized budgeting
- Incremental-based budgeting
- Performance-based budgeting
- Responsibility Centered Management
- Zero-based budgeting

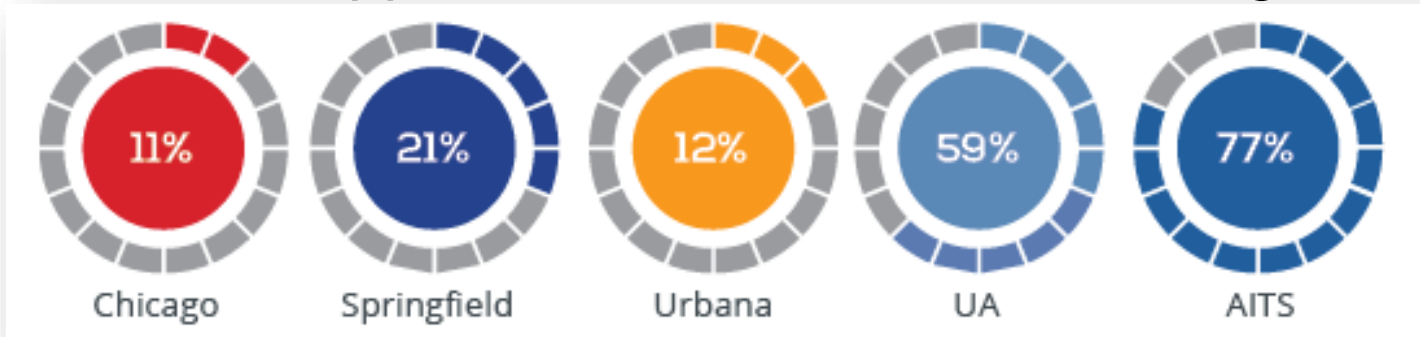
Problem Statement

– Funding problems

- \$2M cut
- No ability for long term planning/funding
- Nature of IT infrastructure, expensive, critical, not glamorous
- State funding on the decline, being held back completely
- System Administration funding make-up

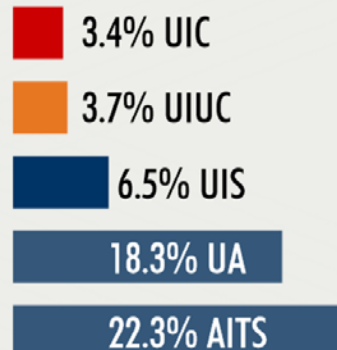
Funding

State Support as a Percent of FY15 Budget



Effective Rate of State Funding Cuts

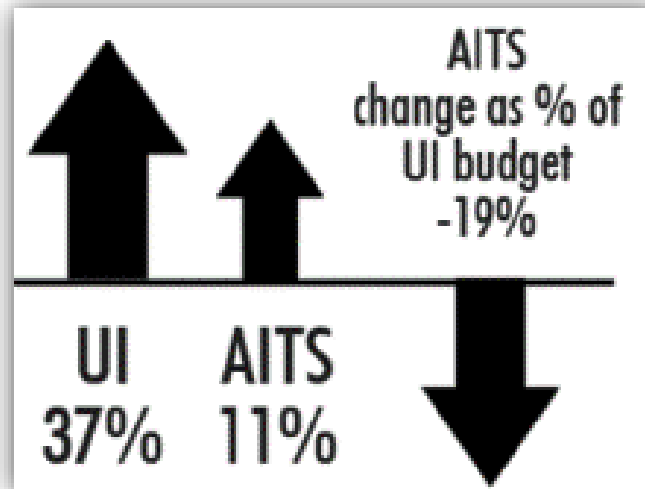
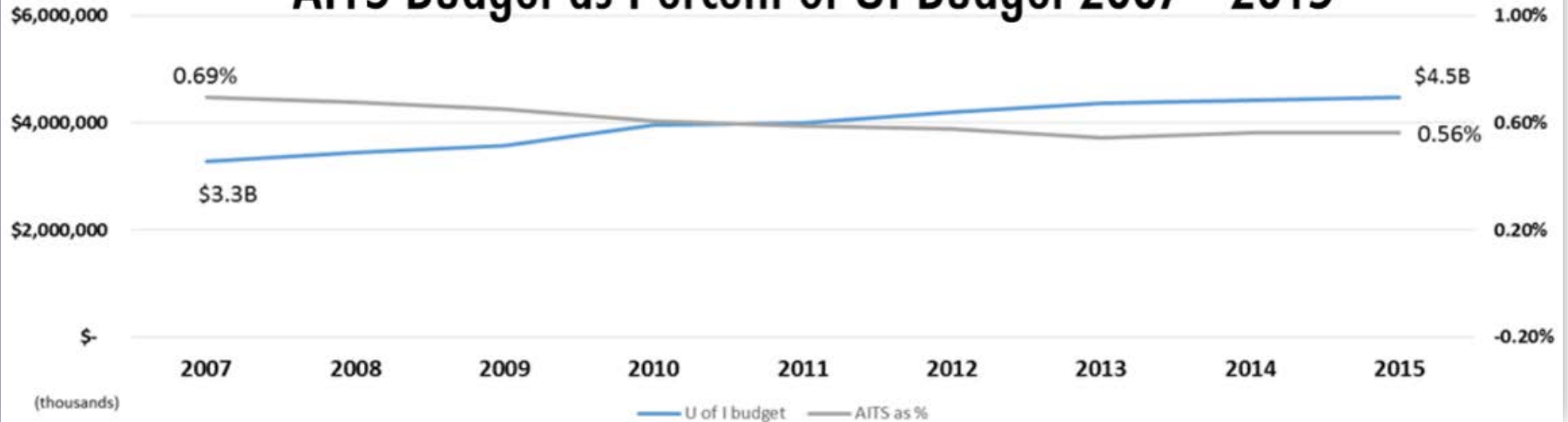
The Disproportionate Effect of a 30% Cut in Funding





Funding

AITS Budget as Percent of UI Budget 2007 - 2015





Now what?

- Incremental budgeting fine when there is money.
- Illinois will be flat to decreasing budget for the unforeseeable future.
- Need to better show what we do.

What is ABC?

Costing methodology that...

- Identifies activities
- Addresses all products and services
- Assigns all cost
- Includes both direct and indirect

Indirect

Leadership, Administrative Support, Facilities, Office Supplies, Professional Development

Direct

Software, Hardware, Labor, Maintenance





Questions

Who uses activity based costing?

Why is Higher ED interested in ABC?



Who Uses it?

University of Illinois at Urbana-Champaign (ABC+Rates)
University of Illinois at Chicago (ABC+Rates)
University of Michigan
University of Washington (ABC+Rates)
University of Washington, Medicine
University of Texas Southwestern Medical Center (ABC+Rates)
Emory University
George Mason University (in progress)
University of Virginia
University of New Hampshire (ABC+Rates)
University of Arizona (ABC+Rates)
North Dakota State University (ABC+Rates)
Florida State University (ABC+Rates)
University of Oklahoma

WTC higher education client list for ABC

© 2016 The Board of Trustees of the University of Illinois. All rights reserved



Why is Higher Ed interested in ABC?

They have the facts to...

- Compare alternatives
- Examine marginal services
- Lower cost through process improvement
- Compare to distributed services
- Set the stage for rate and funding plans
- Project the impact of forecasted initiatives



How We Use It

ABC is being utilized as a well-defined, repeatable, and transparent tool to provide improved information about the true cost of our services, and in turn, we are using this to determine the most efficient sourcing for strategic planning.

Expectations

What did we think was going to happen?

- Lots of work
- Not going to be useful
- Could be used against us
- Not repeatable



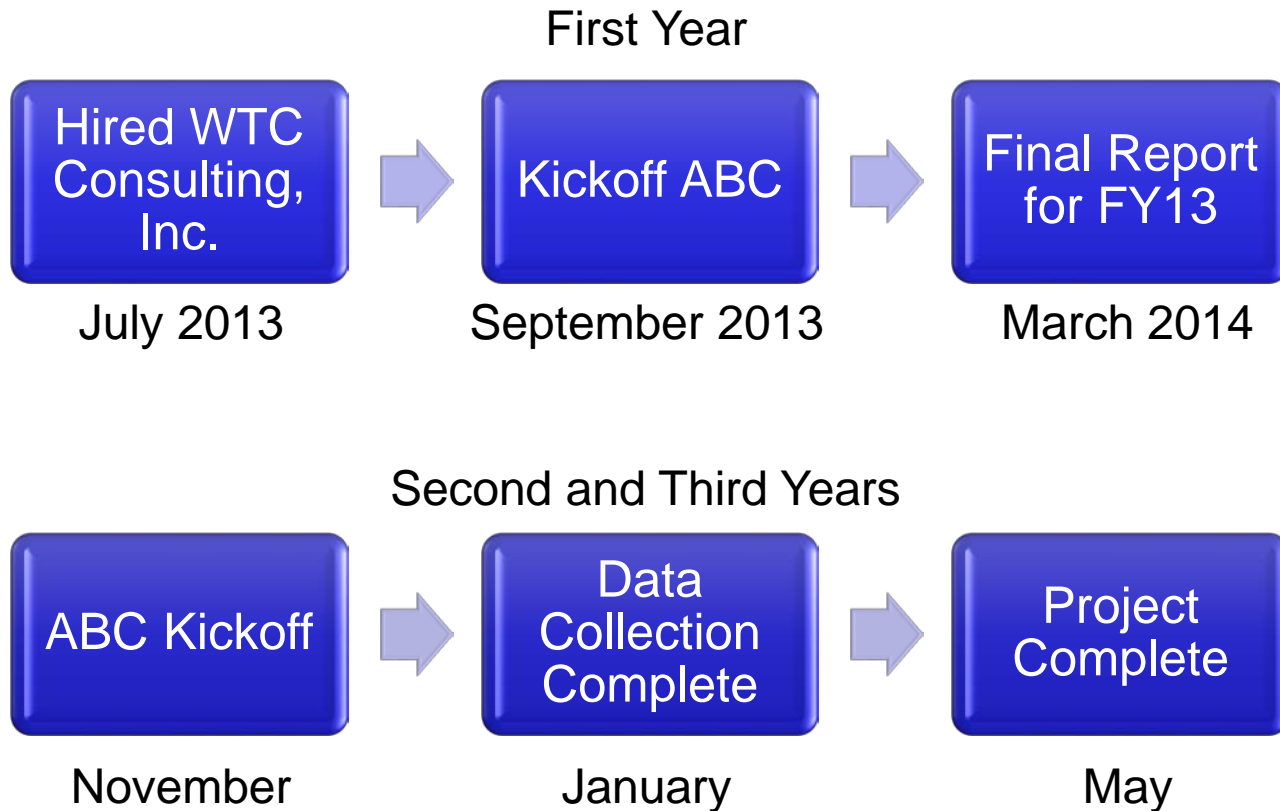
Goals

- Repeatable
- Logic based model for pricing of services
- Customers better understand our services and what is costs to provide services





Our Process





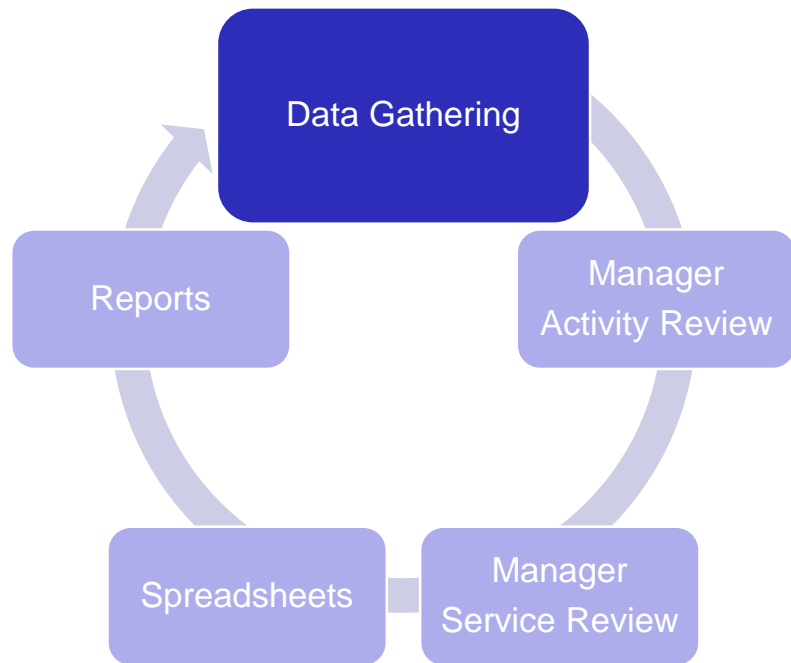
Consultant

- Where to begin
- How to overcome barriers
- Learn the process

Our Process



Our Process



- Time tracking
- Non FTE expenses
- Salary expenses
- Depreciation

Our Process

- Provide managers hours
- Line up with activities



Our Process

- Provide managers hours
- Line up with services





Our Process

- Master sheet
- Non FTE



© 2016 The Board of Trustees of the University of Illinois. All rights reserved

Our Process



- Summary of expenses
 - By activity
 - By service
 - By Campus
- Trends
- Additional output



Challenges

- Accuracy
- Peer comparisons/benchmarks
- Time and Resources

Activity

What costs support an ERP?

- on your own or with a group, make a list of the costs involved. (Example: Banner support, software maintenance)

How would you measure the support?



Activity

ONLINE COURSE CATALOG

Better, searchable course catalog

This project will allow students and prospective students to search for relevant courses and view programs of study in a website that meets modern web standards. As the online courses catalog and programs of study are the two most heavily used marketing tools, we also expect that this project will help attract and recruit students. In addition, we expect significant labor savings as we will be introducing a single, university-wide streamlined system for the management of the catalog and curriculum. (Status: In Progress)

Expected benefits: Helps attract and recruit students | Creates labor efficiencies

2016-2017 Catalog

Home / Undergraduate Students / College of Education and Human Services / Teacher Education

Teacher Education

Overview | Bachelors | Online | Minor | Post Baccalaureate Licensure | Project MSS

Admissions Requirements | Courses

Elementary Education B.A.

Course work for TEP Candidates falls into six categories: general education, introductory courses, core courses, methods courses, clinical practice (student teaching), and concurrent academic content major area.

Introductory Courses

| | | |
|------------------------------|-------------------------------------|-----|
| TEP 207 | Foundations of American Education | 3 |
| Select one of the following: | | 3-4 |
| TEP 222 | Child Development for Teachers | |
| PSY 322 | Child Development ¹ | |
| Select one of the following: | | 3-4 |
| TEP 227 | Educational Psychology for Teachers | |



Activity

[ALL FUNDS](#)
[HELP](#)
[GO TO RVM](#)

All Funds

Filter by: Fiscal Year: Fiscal Period:

Chart: College: School: Dept.: Type of Fund: Fund PI Name:

[Get Records](#) [Clear Row](#)

Show entries Search:

| CoA | Fund Cd | Orgn Cd | Prog Cd | Title | Ind | Budget | Cur Month Exp | Expenses | Encumbrances | Bud Bal Avail | Actions |
|-----|---------|---------|---------|-------------------------|-----|------------|---------------|------------|--------------|---------------|---------|
| 9 | 100016 | 582000 | 582001 | Departmental Operations | YTD | 0.00 | 5,021.10 | 45,943.12 | 34,018.96 | -79,962.08 | |
| 9 | 200201 | 582000 | 582001 | Departmental Operations | YTD | 389,300.00 | 15,246.03 | 149,789.74 | 110,478.43 | 129,031.83 | |
| 9 | 200250 | 582000 | 582001 | Departmental Operations | YTD | 20,000.00 | 724.38 | 4,089.54 | 0.00 | 15,910.46 | |



Activity

UNIVERSITY OF ILLINOIS myResearch Portal

PORTFOLIO REPORTS HELP SEARCH

Research Portfolio > All Awards/Agreements

All Awards/Agreements

Filter and Search Records

Copy CSV Excel PDF Print Show 50 rows Column visibility

Showing 1 to 50 of 54 entries

| Sponsor | Type | Status | Amount | Start Date | End Date |
|---|------------------|--------|----------------|------------|------------|
| US Dept of Justice (DOJ) | Award - Grant | Closed | \$499,269.00 | 09/01/2007 | 06/30/2011 |
| US Dept of Justice (DOJ) | Award - Contract | Closed | \$300,000.00 | 08/01/2005 | 07/31/2007 |
| Community Oriented Policing Service | Award - Grant | Closed | \$455,120.00 | 09/01/2007 | 09/30/2014 |
| US Dept of Justice (DOJ) | Award - Contract | Closed | \$50,000.00 | 08/31/2005 | 03/31/2007 |
| US Dept of Justice (Bureau of Justice Assistance) | Award - Grant | Closed | \$214,376.00 | 09/01/2007 | 06/30/2009 |
| US Dept of Justice (Bureau of Justice Assistance) | Award - Grant | Active | \$435,304.00 | 10/01/2014 | 09/30/2016 |
| IL Emergency Management Agency | Award - Grant | Closed | \$1,420,374.00 | 08/01/2009 | 11/30/2012 |

© 2016 The Board of Trustees of the University of Illinois. All rights reserved

Activity

UNIVERSITY OF ILLINOIS

UI NEW HIRE *Steps to starting at the University*

① 2 3 4 5 6

STEP 1 : EIF Loan Default ANCRA I-Card Terms Insurance Marketplace Notice

Employee Information Form

Select the sections that you would like to complete. You must complete items with an "**". When all sections are complete, click **Continue** to submit the Employee Information Form.

- ✓ **Demographics***
- ✓ **Ethnicity***
- ✓ **Voluntary Self-Identification of Disability***
- Veteran and Military Status***
- U of I Relatives***
- Education***

Activity

What costs support an ERP?

- on your own or with a group, make a list of the costs involved. – banner support?

How would you measure that?



Activity

- Hardware
- Software
- People
- Building



Outcomes

| Unit Cost Details for Enterprise System Student Applications by Number of Enrolled Students | | | |
|---|------------------------------------|---------------------|-----------------|
| Activity | FY15 Activity Expense | Percent for Service | Cost Allocation |
| Application Support - Other | \$ 1,307,100.99 | 1% | \$ 17,974 |
| Authentication Services | \$ 14,752.31 | 5% | \$ 705 |
| Backup Services for Servers | \$ 81,870.18 | 1% | \$ 751 |
| Business Continuity | \$ 3,391.13 | 2% | \$ 54 |
| Change Management | \$ 16,550.73 | 7% | \$ 1,088 |
| Compliance | \$ 65,539.37 | 9% | \$ 5,663 |
| Configuration Management | \$ 44,105.07 | 49% | \$ 21,494 |
| Data Center Network | \$ 30,428.55 | 6% | \$ 1,866 |
| Data Modeling and Data Analysis | \$ 125,206.04 | 13% | \$ 15,732 |
| Database Management Services (DBMS) - Oracle | \$ 450,519.16 | 22% | \$ 97,574 |
| Disaster Recovery | \$ 1,327.97 | 6% | \$ 82 |
| Enterprise Application Development for Student System | \$ 18,494.65 | 100% | \$ 18,495 |
| Enterprise Application Support for Student Financial Aid | \$ 179,720.83 | 100% | \$ 179,721 |
| Enterprise Application Support for Student System | \$ 961,381.92 | 99% | \$ 947,518 |
| Enterprise Application Support for Workflow | \$ 175,541.19 | 18% | \$ 31,489 |
| Enterprise Application Support for Xtender | \$ 101,992.33 | 69% | \$ 70,712 |
| Enterprise Storage Services | \$ 167,991.77 | 2% | \$ 2,873 |
| Help Desk - Tier 1 | \$ 270,785.18 | 10% | \$ 26,080 |
| Help Desk - Tiers 2 and 3 | \$ 234,878.55 | 2% | \$ 4,278 |
| Help Desk Ticket Escalation | \$ 12,357.55 | 4% | \$ 453 |
| Indirect - Strategy and Leadership | \$ 202,543.66 | 1% | \$ 1,548 |
| Indirect - General Professional Development | \$ 579,231.38 | 7% | \$ 40,436 |
| Indirect - Supervisory and Management | \$ 1,148,357.56 | 1% | \$ 7,673 |
| IT Security Standards | \$ 54,219.46 | 40% | \$ 21,564 |
| IT Standards | \$ 72,504.51 | 5% | \$ 3,511 |
| Legal, Criminal, and Internal Investigative Requests for Information | \$ 2,340.58 | 50% | \$ 1,170 |
| 29 Others.. | | | \$ 466,386 |
| | Direct FTE Cost | | \$ 1,986,890 |
| | Indirect FTE Cost and Non FTE Cost | | \$ 1,813,112 |
| | Total Service Cost | | \$ 3,800,002 |
| | Unit of Measure | Enrolled Students | |
| | Activity Level | 78,540 | |
| | Unit Cost | | \$ 48.38 |



Outcomes

REALIZED BENEFITS

| Before | After |
|---|--|
| ➤ Cost of doing business allocated at the hardware/software/FTE level | ✓ Cost allocated by the customer perceived service level |
| ➤ Indirect costs are unknown | ✓ Indirect costs are allocated accurately to products and services |
| ➤ Budget requests based on incremental funding model | ✓ Align budget and portfolio planning with a focus on growth or reduction in target areas |
| ➤ Details of resource requirements cannot be communicated to customer | ✓ Customer gains understanding of true costs for services = creates transparency |
| ➤ Pricing for services based on FTE | ✓ Pricing model includes fully loaded costs: <ul style="list-style-type: none">• Direct costs: hardware, software, maintenance, FTE• Indirect costs: procurement, rent, support |



Outcomes

Example by Utilization

| AITS FY 2015 Expense Allocation | | |
|---------------------------------|----------------------|-------------|
| Campus Responsibility | \$24,717,789 | 85% |
| UA Responsibility | \$4,020,223 | 14% |
| Self-Supporting | \$412,792 | 1% |
| | \$ 29,150,804 | 100% |



Outcomes

Example by support focus

| | | | | |
|---------------------------|--|----|-------------------|-------------------|
| Enterprise Support | | | | |
| | Enterprise Data and Reports | \$ | 3,157,251 | |
| | Enterprise System Capital Programs | \$ | 437,759 | |
| | Enterprise System Finance Applications | \$ | 3,073,920 | |
| | Enterprise System HR Applications | \$ | 3,862,705 | |
| | Enterprise System Mobile Applications | \$ | 627,919 | |
| | Enterprise System Research Administration | \$ | 2,173,215 | |
| | Enterprise System Student Applications | \$ | 3,800,002 | |
| | Identity and Access Management | \$ | 3,336,834 | |
| | Records and Information Management System | \$ | 335,843 | |
| | | | | \$ 20,805,449 |
| | Enterprise Services | | | |
| | Application System Support | \$ | 1,183,091 | |
| | Business Process Improvement | \$ | 225,627 | |
| | Collaboration tools | \$ | 67,139 | |
| | Compliance | \$ | 109,358 | |
| | Customer Training | \$ | 114,698 | |
| | Data Center Management / Co Location Services | \$ | 217,360 | |
| | Data Visualization | \$ | 287,615 | |
| | Enterprise Class Storage/Backup Services | \$ | 392,944 | |
| | Enterprise Integrations | \$ | 101,390 | |
| | Enterprise System Support* | \$ | 2,397,480 | |
| | Projects and Portfolio Management (Consulting) | \$ | 196,766 | |
| | Security | \$ | 99,295 | |
| | Security Provisioning | \$ | 312,884 | |
| | UI Ready (Kuali) | \$ | 129,219 | |
| | Web Services Infrastructure | \$ | 80,693 | |
| | Workflow Development | \$ | 243,247 | |
| | | | | \$ 6,158,806 |
| | | | | \$ 26,964,255 92% |
| UA | | | | |
| | Centralized Desktop Support | \$ | 1,514,396 | |
| | Video Bridge Conferencing | \$ | 259,361 | |
| | | | | \$ 1,773,757 6% |
| Self-Supporting | | | | |
| | Database Customer Services (Consulting) | \$ | 195,143 | |
| | Mobile Applications (Consulting) | \$ | 12,166 | |
| | Server Support Services (Consulting) | \$ | 185,169 | |
| | Web Services (Consulting) | \$ | 20,314 | |
| | | | | \$ 412,792 1% |
| | | | | |
| | Total | \$ | 29,150,804 | 100% |



Outcomes

- Graphic representation of expenses
- Transparency
- Rate development
- Project planning

| Number | Line of Business | FTE Cost | Non Labor Costs | Total Cost |
|--------|--|---------------------|--------------------|---------------------|
| 1 | BPI (Delivered to Customer) | \$220,833 | \$4,794 | \$225,627 |
| 2 | Collaboration tools | \$78,405 | -\$11,266 | \$67,139 |
| 3 | Compliance | \$84,213 | \$25,146 | \$109,358 |
| 4 | Database Customer Services (Consulting) | \$195,143 | \$0 | \$195,143 |
| 5 | Customer Training | \$96,734 | \$17,964 | \$114,698 |
| 6 | Data Visualization | \$287,615 | \$0 | \$287,615 |
| 7 | Centralized Desktop Support | \$1,401,449 | \$112,947 | \$1,514,396 |
| 8 | Enterprise System Support | \$1,696,486 | \$700,994 | \$2,397,480 |
| 9 | Enterprise System Research Administration | \$1,037,469 | \$1,135,746 | \$2,173,215 |
| 10 | Enterprise System Finance Applications | \$1,606,780 | \$1,467,141 | \$3,073,920 |
| 11 | Enterprise System HR Applications | \$2,493,577 | \$1,369,129 | \$3,862,705 |
| 12 | Enterprise System Student Applications | \$2,295,645 | \$1,504,356 | \$3,800,002 |
| 13 | Enterprise System Capital Programs | \$331,213 | \$106,546 | \$437,759 |
| 14 | Enterprise System Mobile Applications | \$574,305 | \$53,614 | \$627,919 |
| 15 | Identity and Access Management | \$1,475,488 | \$1,861,346 | \$3,336,834 |
| 16 | Mobile Applications (Consulting) | \$12,166 | \$0 | \$12,166 |
| 17 | Records and Data Management | \$2,179,618 | \$977,634 | \$3,157,251 |
| 18 | System | \$322,601 | \$13,242 | \$335,843 |
| 19 | Security (Consulting) | \$99,295 | \$0 | \$99,295 |
| 20 | Enterprise Class Storage/Backup Services | \$285,727 | \$107,217 | \$392,944 |
| 21 | Server Support Services (Maint & Consulting) | \$38,589 | \$146,579 | \$185,169 |
| 22 | Workflow Development | \$243,247 | \$0 | \$243,247 |
| 23 | Application System Support | \$1,183,091 | \$0 | \$1,183,091 |
| 24 | Security Provisioning | \$312,884 | \$0 | \$312,884 |
| 25 | Data Center Management / Co Location Services | \$160,583 | \$56,777 | \$217,360 |
| 26 | UI Ready (Kuali) | \$3,490 | \$125,729 | \$129,219 |
| 27 | Video Bridge Conferencing (Consulting) | \$117,522 | \$141,839 | \$259,361 |
| 28 | Web Services (Consulting) | \$20,314 | \$0 | \$20,314 |
| 29 | Projects and Portfolio Management (Consulting) | \$196,563 | \$203 | \$196,766 |
| 30 | Web Services Infrastructure | \$72,941 | \$7,753 | \$80,693 |
| 31 | Enterprise Integrations | \$101,390 | \$0 | \$101,390 |
| | TOTAL | \$19,225,375 | \$9,925,429 | \$29,150,804 |

0.65% of University Budget



Outcomes

| Number | Line of Business | FTE Cost | Non Labor Costs | Total Cost |
|--------|---|-------------|-----------------|-------------|
| 1 | BPI (Delivered to Customer) | \$220,833 | \$4,794 | \$225,627 |
| 2 | Collaboration tools | \$78,405 | -\$11,266 | \$67,139 |
| 3 | Compliance | \$84,213 | \$25,146 | \$109,358 |
| 4 | Database Customer Services (Consulting) | \$195,143 | \$0 | \$195,143 |
| 5 | Customer Training | \$96,734 | \$17,964 | \$114,698 |
| 6 | Data Visualization | \$287,615 | \$0 | \$287,615 |
| 7 | Centralized Desktop Support | \$1,401,449 | \$112,947 | \$1,514,396 |
| 8 | Enterprise System Support | \$1,696,486 | \$700,994 | \$2,397,480 |
| 9 | Enterprise System Research Administration | \$1,037,469 | \$1,135,746 | \$2,173,215 |
| 10 | Enterprise System Finance Applications | \$1,606,780 | \$1,467,141 | \$3,073,920 |
| 11 | Enterprise System HR Applications | \$2,493,577 | \$1,369,129 | \$3,862,705 |

| | | | | |
|----|--|-------------|-------------|-------------|
| 6 | Data Visualization | \$287,615 | \$0 | \$287,615 |
| 7 | Centralized Desktop Support | \$1,401,449 | \$112,947 | \$1,514,396 |
| 8 | Enterprise System Support | \$1,696,486 | \$700,994 | \$2,397,480 |
| 9 | Enterprise System Research Administration | \$1,037,469 | \$1,135,746 | \$2,173,215 |
| 10 | Enterprise System Finance Applications | \$1,606,780 | \$1,467,141 | \$3,073,920 |
| 11 | Enterprise System HR Applications | \$2,493,577 | \$1,369,129 | \$3,862,705 |
| 12 | Enterprise System Student Applications | \$2,295,645 | \$1,504,356 | \$3,800,002 |
| 13 | Enterprise System Capital Programs | \$331,213 | \$106,546 | \$437,759 |
| 14 | Enterprise System Mobile Applications | \$574,305 | \$53,614 | \$627,919 |
| 15 | Identity and Access Management | \$1,475,488 | \$1,861,346 | \$3,336,834 |
| 16 | Mobile Applications (Consulting) | \$12,166 | \$0 | \$12,166 |
| 17 | Reports and Data Records and Information Management | \$2,179,618 | \$977,634 | \$3,157,251 |

| Enterprise System Finance Applications | Number of Transactions | Percent of All Transactions | Cost |
|--|------------------------|-----------------------------|----------------|
| Chicago | 892,966 | 39% | \$999,718.16 |
| Springfield | 68,488 | 3% | \$76,675.59 |
| Urbana Champaign | 1,255,292 | 55% | \$1,405,359.45 |
| University Administration | 75,871 | 3% | \$84,941.21 |
| | 2,292,617 | | \$ 2,566,694 |

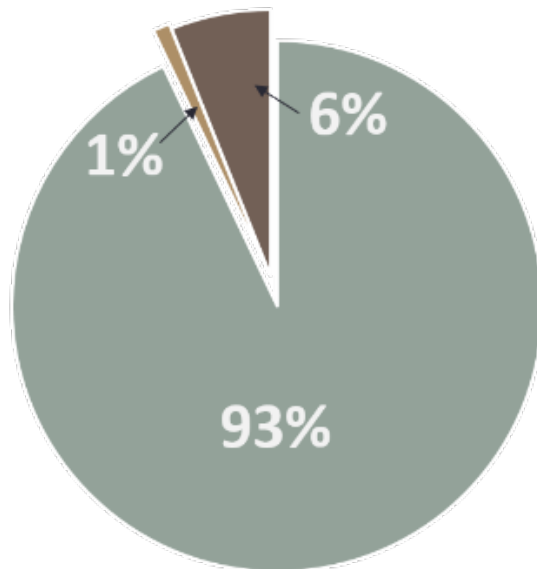
Application for each

| | | | |
|---------------------------|-----------|-----|----------------|
| Urbana Champaign | 1,255,292 | 55% | \$1,405,359.45 |
| University Administration | 75,871 | 3% | \$84,941.21 |

| Springfield | | |
|-------------|---|---------------------|
| | Enterprise Data and Reports | \$ 804,860 |
| | Enterprise System Capital Programs | \$ 170,026 |
| | Enterprise System Finance Applications | \$ 76,676 |
| | Enterprise System HR Applications | \$ 118,292 |
| | Enterprise System Mobile Applications | \$ 65,976 |
| | Enterprise System Research Administration | \$ 19,506 |
| | Enterprise System Student Applications | \$ 268,553 |
| | Identity and Access Management | \$ 777,811 |
| | Records and Information Management System | \$ 68,247 |
| | Subtotal | \$ 2,369,946 |
| | Enterprise Services | \$ 261,663 |
| | Total | \$ 2,631,610 |

Outcomes

Services as % of Budget



- Enterprise Services
- Self Supporting
- Administration

Customer Resource Utilization

Urbana-Champaign
43% (\$12.6M)

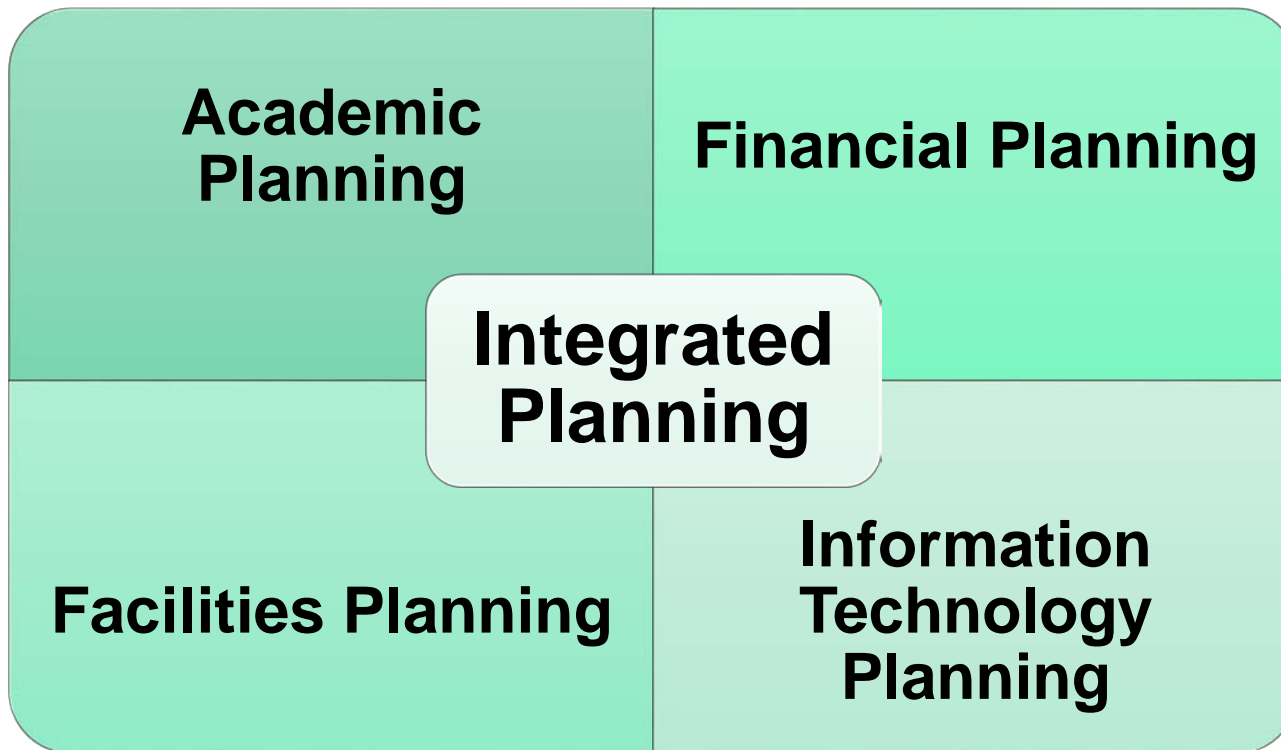
Chicago
32% (\$9.2M)

Springfield
10% (\$2.9M)

Administration
15% (\$4.5M)

Integrated Planning

Supporting broad planning





Services in Tech Speak





ENTERPRISE SERVICES



Business Processes

Provide analysis, training, tools, and methodology in business process improvement and project management in support of initiatives to improve customer service, free-up staff time, deliver services faster and/or reduce cost.



Customer Requests

Build and support new systems and functionality as requested by university constituents that are evaluated, selected and prioritized by multi-campus customer-driven IT governance (Information Technology Priorities Committee (ITPC)).

Systems and Applications

Support of vital business processes of the University by building and maintaining administrative software applications for constituents on all three campuses.

Data and Analytics

Scope, design, and deliver solutions to university business problems using a combination of enterprise data warehouse, business intelligence, and data visualization frameworks.



Support 7x24x365

The AITS Service Desk provides support for clients/constituents and serves as a single point of contact for personalized help with administrative systems. Assistance is also provided through a self-service collaborative tool containing thousands of documents at answers.uillinois.edu.



Business Processes

Provide analysis, training, tools, and methodology in business process improvement and project management in support of initiatives to improve customer service, free-up staff time, deliver services faster and/or reduce cost.



Support 7x24x365

The AITS Service Desk provides support for clients/constituents and serves as a single point of contact for personalized help with administrative systems. Assistance is also provided through a self-service collaborative tool containing thousands of documents at answers.uillinois.edu.

Customer Requests

Build and support new systems and functionality as requested by university constituents that are evaluated, selected and prioritized by multi-campus customer-driven IT governance (Information Technology Priorities Committee (ITPC)).



2,638,555
data warehouse sessions

12,823,000
registration record transactions

888k
regular payroll transactions

536
thousand financial aid disbursements

109k
transcripts processed

136,700
HR Front End transactions



128%
increase in Banner access via mobile device since 2012

158,600
eProcurement transactions

303,000
student application transactions

(annual transaction volumes)



STUDENT SERVICES:

Financial Aid Processing | Registration & Records | Recruiting and Admissions



FINANCIAL SERVICES:

Accounts Payable/Receivable | Contract Management | eProcurement | General Ledger Management | Inventory Accounting | Travel Expense Reimbursement



HR SERVICES:

Benefits | Payroll | Recruiting & Training



PROFESSIONAL SERVICES:

Business Process Improvement | Data Visualization | Enterprise Data Warehouse | Identity and Access Management | Mobile Application Consulting | Project Management | Records and Information Management | Security and Compliance Consulting | Workflow Development Consulting | Security Provisioning | Server and Storage Hosting | Quality Assurance | Web Services Consulting | Workstation Management



RESEARCH SERVICES:

Research Administration Management

© 2016 The Board of Trustees of the University of Illinois. All rights reserved



Outcomes

IT SERVICE PORTFOLIO REDEFINED

Services Redefined

Student Services

- Financial Aid Processing
- Registration and Records
- Recruiting and Admissions

HR Services

- Benefits
- Payroll
- Recruiting and Hiring

Financial Services

- Accounts Payable
- Accounts Receivable
- Contract Management
- eProcurement
- General Ledger Management
- Inventory Accounting
- Travel Expense Reimbursement

Research Services

- Research Administration Management

Application Services

- Application Administration
- Application Development
- Application and Website Testing
- Data Visualization
- Distributed Hosting
- Document Management
- Enterprise Application Integration
- Enterprise Data Warehouse
- Enterprise Batch Scheduling
- Service Desk Management
- Web Content Management System

Network and Desktop Services

- Backup Management
- Collocation Services
- Desktop Support
- Storage Management
- System Monitoring, Alerting and Availability



Integration with PMO

Time reporting

- Personnel costs are ~75% of costs
- Precise cost allocation v. annual estimates

Clarity PPM | Kelly Block Logout | Help | About

Home Administration Favorites

Timesheet

ALERT: TMA-0116: This timesheet's time period is closed.

Resource Name: Sherri Presson | Approved by: Stephanie Dable

Timesheet Status: Posted

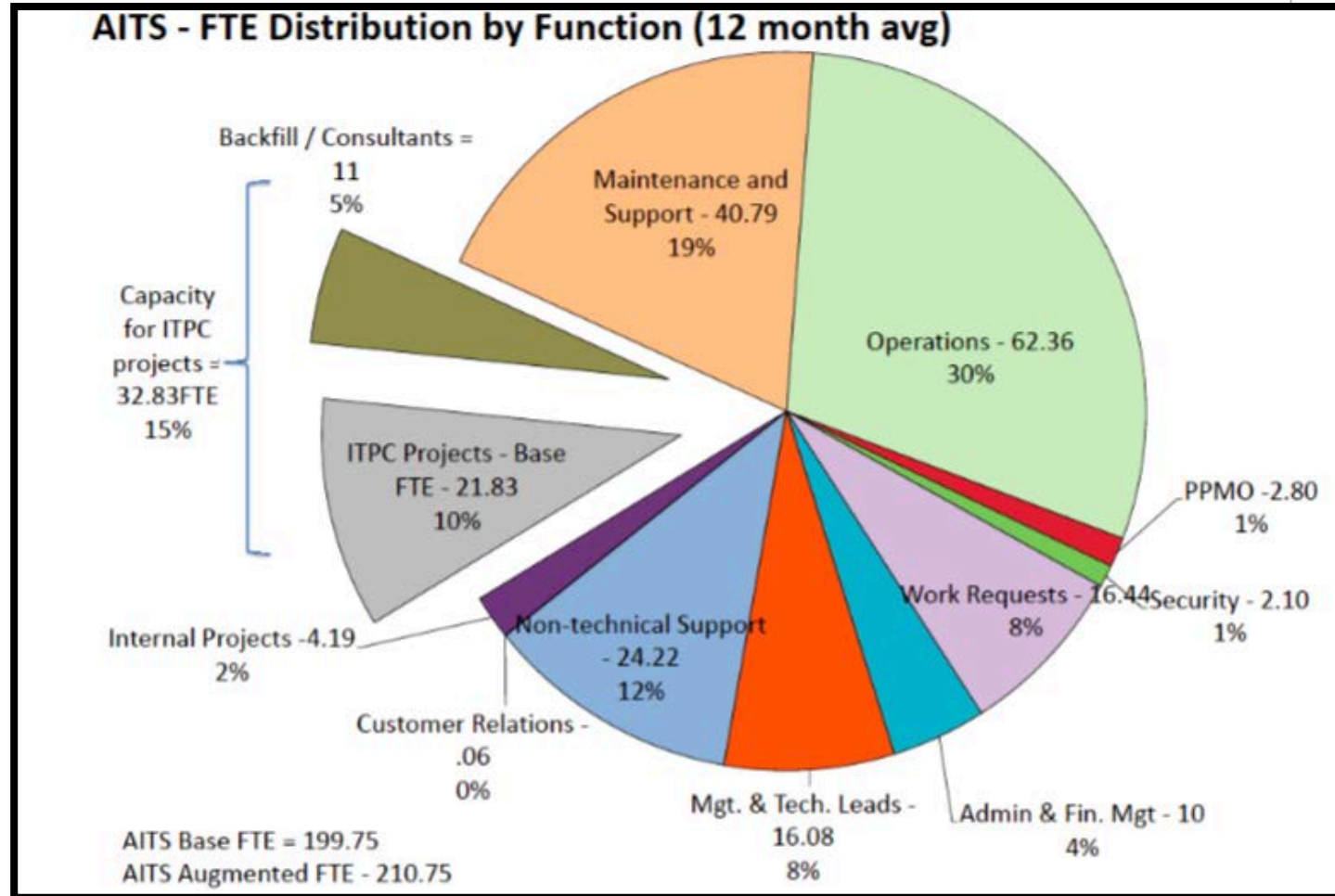
| Investment ID | Investment | Parent | Description | Sun 5/15 | Mon 5/16 | Tue 5/17 | Wed 5/18 | Thu 5/19 | Fri 5/20 | Sat 5/21 | Total | ETC |
|---------------|--------------------------------|---|---|----------|----------|----------|----------|----------|----------|----------|-------|-------|
| PROJ-01995 | AITs - FY16 - Activity by BPSE | BPSE 57 - Enterprise Application Support for HR/Payroll | BPSE 57 - Enterprise Application Support for HR/Payroll | | 3.00 | 1.00 | 4.00 | 3.50 | 4.50 | | 16.00 | 0.00 |
| PROJ-01995 | AITs - FY16 - Activity by BPSE | BPSE 57 - Enterprise Application Support for HR/Payroll | BPSE 57: FY16 Union Labor Agreements | | | | 1.00 | | 0.50 | | 1.50 | 0.00 |
| Total | | | | | 0.00 | 8.50 | 9.50 | 7.50 | 9.00 | 9.50 | 0.00 | 44.00 |

| | | | |
|--------------|---|---|-------------|
| PROJ-01995 | AITs - FY16 - Activity by BPSE | BPSE 57 - Enterprise Application Support for HR/Payroll | 0.00 |
| PROJ-00599 | ITPC-0463 Analysis and Implement PPACA Monitoring, Controlling, and Reporting | Execution | 0.25 |
| Total | | | 0.25 |

Integration with PMO

Old way:

How many people performing what role





Integration with PMO

New way:

What services are provided and how much does it cost




| Number | Line of Business | FTE Cost | Non Labor Costs | Total Cost |
|--------|---|-------------|-----------------|-------------|
| 1 | BPI (Delivered to Customer) | \$230,915 | \$0 | \$230,915 |
| 2 | Collaboration tools | \$16,570 | \$38,523 | \$55,093 |
| 3 | Compliance | \$161,798 | \$15,532 | \$177,331 |
| 4 | Database Customer Services (Consulting) | \$139,079 | \$0 | \$139,079 |
| 5 | Customer Training | \$75,449 | \$6,851 | \$82,300 |
| 6 | Data Visualization | \$7,788 | \$0 | \$7,788 |
| 7 | Centralized Desktop Support | \$1,292,842 | \$36,845 | \$1,329,686 |
| 8 | Enterprise System Support | \$2,327,804 | \$579,716 | \$2,907,520 |
| 9 | Enterprise System Research Administration | \$1,046,702 | \$689,338 | \$1,736,040 |
| 10 | Enterprise System Finance Applications | \$1,366,780 | \$1,199,914 | \$2,566,694 |
| 11 | Enterprise System HR Applications | \$2,622,589 | \$1,037,756 | \$3,660,345 |
| 12 | Enterprise System Student Applications | \$2,062,091 | \$1,499,917 | \$3,562,007 |
| 13 | Enterprise System Capital Programs | \$626,324 | \$53,778 | \$680,103 |
| 14 | Enterprise System Mobile Applications | \$246,583 | \$17,323 | \$263,906 |
| 15 | Identity and Access Management | \$1,211,572 | \$1,899,671 | \$3,111,243 |
| 16 | Mobile Applications (Consulting) | \$75,305 | \$0 | \$75,305 |
| 17 | Reports and Data | \$2,545,799 | \$673,641 | \$3,219,440 |



Scenario Planning

Help university community understand customer impact with cutting enterprise services

Impact to University Services and Projects with State Reduction

| | |
|----------------------|--|
| 10% (\$1,933,000) | IMPACT: <ul style="list-style-type: none">- Equipment/System Reliability- Customer-Requested Projects |
| 20% (\$3,866,000) |  <ul style="list-style-type: none">- Services to Campus Units- New Work- All Customer-Requested Projects |
| 30% (\$5,800,000) |   <ul style="list-style-type: none">- Diminished Core Services and Reliability |



Integration with PMO

University of Illinois
Powered by OnStrategy

Plan Performance Reports Dashboard

Kelly

Strategic Planning

- Initiative funding and tracking from budget and ABC
- Sometimes de-funding

| Areas | OnStrategy Score: 86 |
|---|---------------------------------|
| 1. Business Process Support, Organizational Effectiveness, Financial Stewardship — Business Process Support | 163 5 23 |
| 2. Business Process Support, Organizational Effectiveness, Financial Stewardship — Organizational Effectiveness | OnStrategy Score: 87 36 2 4 |
| 3. Business Process Support, Organizational Effectiveness, Financial Stewardship — Financial Stewardship | OnStrategy Score: 100 16 |
| 4. Collaboration/Communication Services & IT Governance — Collaboration and Communication Services | OnStrategy Score: 100 20 |
| 5. Collaboration/Communication Services & IT Governance — IT Governance | OnStrategy Score: 83 8 1 1 |
| 6. Information Security and Privacy & Infrastructure — Information Security and Privacy | OnStrategy Score: 88 14 1 1 |
| 7. Information Security and Privacy & Infrastructure — Infrastructure | OnStrategy Score: 88 34 5 |
| 8. Institutional Data and Information — Institutional Data and Information | OnStrategy Score: 100 16 |
| | OnStrategy Score: 61 19 1 12 |

MANAGE CARDS

My Focus

Flagged (35)

- 1.1 Promote and support collaboration and community source initiatives to leverage tools we've already built and ... 0%
- 1.2 Systems and services that support university business processes will be designed with easier contemporary ... 0
- 1.4 Increase customer satisfaction through better metrics and communication of services. 0%
- 1.5 Improve/implement tools and services that facilitate improved efficiency and effectiveness of ... 0

Active (2)

Coming Up (2)

Recent Reports

Action Plan
06/02/2016

To be an engaged partner within our University community to advance the institution's mission and

Scenario Planning

| Project | Impact | Type | Current Funding Level | Scenario A | Scenario B |
|---------|--------|-----------|-----------------------|------------|------------|
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |
| | | Mandatory | Proceed | Proceed | Proceed |

Provide choices

Current Funding Level

- Complete all mandatory projects
- Complete all customer requested projects

Scenario A - Reduction of \$850,000

- Complete all mandatory projects
- Complete 37 customer-requested projects FY 16 - FY 18
- Eliminate 52 customer-requested projects FY 16 - FY 18
- Stop IAM project after One ID/PW implemented or trade remainder of IAM project for 33 smaller projects in queue for completion

Scenario B - Reduction of \$1,950,000

- Complete all mandatory projects
- Complete 20 customer-requested projects FY 16 - FY 18
- Eliminate 69 customer-requested projects FY 16 - FY 18
- Stop IAM project after One ID/PW implemented or trade remainder of IAM project for 33 smaller projects in queue for completion
- Eliminate all future capacity for customer-requested projects



Current State

- Still same budget model
 - smarter discussion
- Gives us options, discussions with real data –
outsource? Better cost analysis
- Have done road shows



WHAT IT COSTS.

AITs developed a sustainable activity based costing (ABC) model, that is a well-defined, repeatable, and transparent tool to provide improved information about the true cost of our services, and in turn, we are using this to determine the most efficient sourcing for strategic planning. With ABC, we have been able to identify that 85% of the cost AITs incurs are in support of all three campuses in the University of Illinois system. Support for the system is delivered through the action of 149 different activities such as security provisioning, identity and access management, and enterprise application support for student systems. As part of the mapping process these activities are aligned to our 31 lines of business which make up our service catalog. We can further track down campus utilization of services, for example, by the number of transactions, research applications, or student registrations, and tie this utilization to detailed expenses made up of hardware expense, software expense, and personnel expense by the hour.

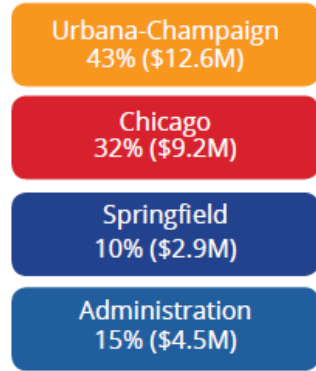
Current State

SUPPORT OF CORE PROCESSES

| Line of Business | FTE Cost | Non Labor Costs | Total Cost |
|--|---------------------|--------------------|---------------------|
| BPs (Delivered to Customer) | \$220,839 | \$4,794 | \$225,633 |
| Collaboration tools | \$74,405 | \$11,266 | \$85,671 |
| Compliance | \$84,213 | \$25,146 | \$109,359 |
| Database Customer Services (Consulting) | \$195,143 | \$0 | \$195,143 |
| Customer Training | \$96,734 | \$17,964 | \$114,698 |
| Data Visualization | \$287,615 | \$0 | \$287,615 |
| Centralized Desktop Support | \$1,401,449 | \$13,947 | \$1,514,396 |
| Enterprise System Support | \$1,696,466 | \$700,994 | \$2,397,460 |
| Enterprise System Research Administration | \$1,037,469 | \$1,135,746 | \$2,173,215 |
| Enterprise System Finance Applications | \$1,606,780 | \$1,467,141 | \$3,073,920 |
| Enterprise System HR Applications | \$2,493,577 | \$1,369,129 | \$3,862,705 |
| Enterprise System Student Applications | \$2,295,645 | \$1,504,356 | \$3,800,001 |
| Enterprise System Capital Programs | \$331,233 | \$106,546 | \$437,779 |
| Enterprise System Mobile Applications | \$574,305 | \$58,614 | \$632,919 |
| Identity and Access Management | \$1,475,488 | \$1,861,346 | \$3,336,834 |
| Mobile Applications (Consulting) | \$12,166 | \$0 | \$12,166 |
| Reports and Data | \$2,175,618 | \$977,634 | \$3,153,251 |
| Records and Information Management System | \$322,601 | \$13,242 | \$335,843 |
| Security (Consulting) | \$99,295 | \$0 | \$99,295 |
| Enterprise Class Storage/Backup Services | \$285,727 | \$107,217 | \$392,944 |
| Server Support Services | \$34,389 | \$146,579 | \$180,968 |
| Workflow Development | \$243,247 | \$0 | \$243,247 |
| Application System Support | \$1,183,091 | \$0 | \$1,183,091 |
| Security Provisioning | \$312,884 | \$0 | \$312,884 |
| Data Center Management / Co Location Services | \$160,583 | \$56,777 | \$217,360 |
| UI Ready (Kuali) | \$3,490 | \$125,729 | \$129,219 |
| Video Bridge Conferencing (Consulting) | \$117,532 | \$141,839 | \$259,371 |
| Web Services (Consulting) | \$20,314 | \$0 | \$20,314 |
| Projects and Portfolio Management (Consulting) | \$196,563 | \$203 | \$196,766 |
| Web Services Infrastructure | \$72,941 | \$7,753 | \$80,694 |
| Enterprise Integrations | \$301,390 | \$0 | \$301,390 |
| TOTAL | \$19,225,375 | \$9,925,429 | \$29,150,804 |

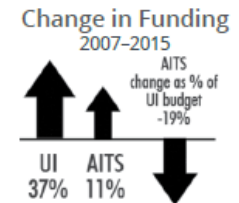
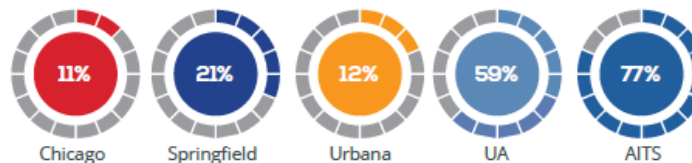
0.65% of University Budget

Customer Resource Utilization



The funding model for AITs is based on historical internal allocations and is not based on the services provided to the university and who consumes them. AITs receives the majority of its funding from state support which further exacerbates the difficulty with the lack of rational funding model and AITs disproportionately vulnerable to continuing declines in state funding.

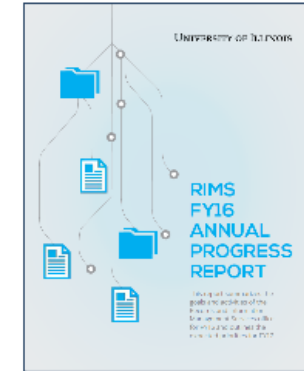
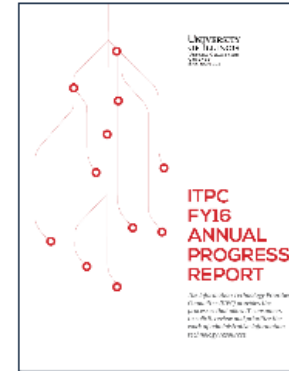
STATE SUPPORT AS A PERCENT OF FY15 BUDGET



Current State

What We Do.

- FY17 Services Portfolio
- **Annual Progress Reports FY16**



How We Do It.

- AITS FY16 - FY18 Strategic Plan Progress Report as of July 1, 2016
- Current AITS Strategic Plan FY16 - FY18
- AITS Strategic Plan Final Report FY13 - FY15
- ITPC Charter
- BPISS Charter
- RIMS Charter
- Architecture Group Charter

How Much It Costs.

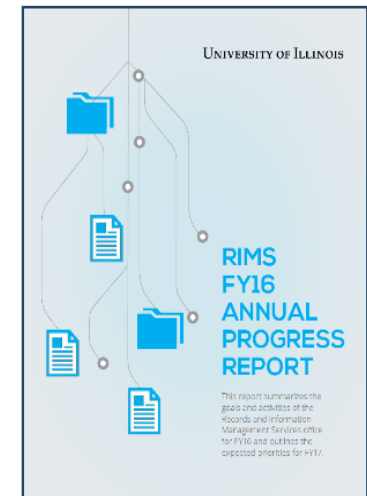
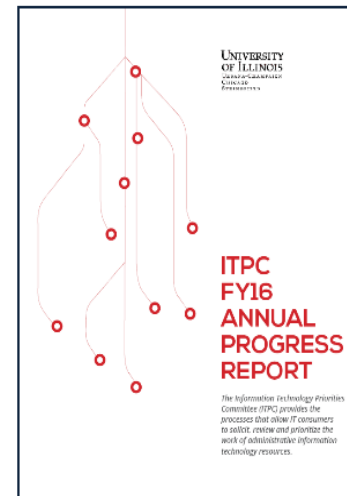
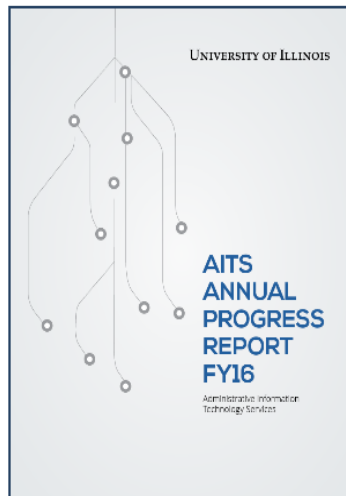
- AITS Budget Infographic
- **Activity Based Costing Funding Model FY14**

© 2016 The Board of Trustees of the University of Illinois. All rights reserved

Current State

What We Do.

- FY17 Services Portfolio
- Annual Progress Reports FY16





Current State

What We Do.

- FY17 Services Portfolio
- Annual Progress Reports FY16

How We Do It.

- AITS FY16 - FY18 Strategic Plan Progress Report as of July 1, 2016
- Current AITS Strategic Plan FY16 - FY18
- AITS Strategic Plan Final Report FY13 - FY15
- ITPC Charter
- BPISS Charter
- RIMS Charter
- Architecture Group Charter



Current State

What We Do.

- FY17 Services Portfolio
- Annual Progress Reports FY16

How We Do It.

- AITS FY16 - FY18 Strategic Plan Progress Report as of July 1, 2016

How Much It Costs.

- AITS Budget Infographic
- Activity Based Costing Funding Model FY15

Future State

- Automate
 - Software



- Rational, fact based budget model
 - Approved by campuses on a multi-year basis
- Strategic plan

Dashboards

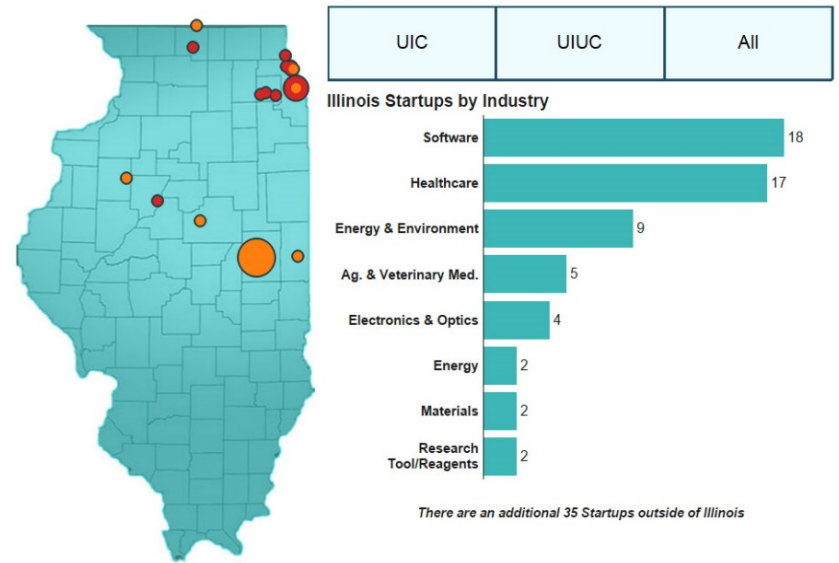
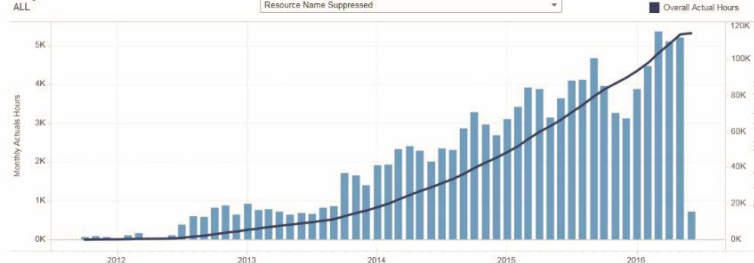
Active Project Status Dashboard



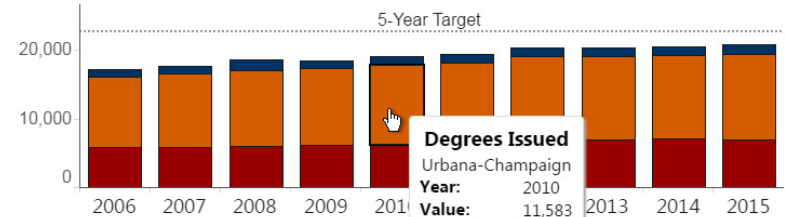
ITPC Active Project Scorecard

| Project Name | Scheduled Finish Date | Project Mgr Name | Project Status as of Date | Project Status Comment | ETC Hours | Total Effort % | Schedule Status | Budget Status | Banner Status |
|--|-----------------------|---------------------|---------------------------|----------------------------|-----------|----------------|-----------------|---------------|---------------|
| ITPC-0389 DARwin Upgrade to u.achieve | 9/30/2016 | Wells, David | 5/31/2016 | ATIS and UIUC are testi | 257 | 298% | ● | ● | ▲ |
| ITPC-0388 Athletics NCAA CAI | 12/16/2016 | Neuhouser, Michelle | 6/2/2016 | No update this month. | 399 | 75% | ● | ● | ● |
| ITPC-0375 Identity and Access Management (I.. | 2/24/2017 | Cobb, Cynthia | 6/8/2016 | Development and testin. | 43,898 | 102% | ● | ● | ● |
| ITPC-0412 Online Course Catalog | 5/19/2017 | Bland, Amanda | 5/31/2016 | UIUC: UIUC CIM Cours. | 377 | 94% | ● | ● | ▲ |
| ITPC-0421 Employee Training Infrastructure A.. | 8/31/2016 | Velazquez, Robyn | 6/6/2016 | The date for opening pro. | 60 | 140% | ● | ● | ● |
| ITPC-0442 GCO: Federal Financial Report Mod.. | 7/29/2016 | Hill, Edward | 5/31/2016 | Testing has revealed a f. | 291 | 110% | ● | ● | ● |
| ITPC-0449 UAIFR: Banner Feeder Application | 2/24/2017 | Beere, Renee | 6/1/2016 | 6/1/16: A pilot of the AR. | 403 | 104% | ● | ● | ● |
| ITPC-0483 Analysis and Implement PPACA Mo.. | 1/31/2017 | Presson, Sherri | 5/16/2016 | Design and developmen. | 686 | 101% | ● | ● | ● |
| ITPC-0485 STARt myResearch | 7/6/2018 | Lavender, AJ | 6/2/2016 | Testing for STARt myDI. | 35,104 | 89% | ● | ● | ● |
| ITPC-0486 Hire Touch Data Acquisition Phase .. | 6/30/2017 | Williamson, Tanya | 6/7/2016 | Analysis and Design con. | 2,296 | 100% | ● | ● | ● |

Project Actual Hours Over Time



Degrees Issued University





Questions?



Abstract

Learn how activity based costing (ABC) can demonstrate the value of administrative services to the university, assist with strategic planning and the annual budgeting process, and help the University community understand the customer impact when cutting administration. Hear how we have implemented a process that is well defined, repeatable, and transparent. We will describe what components we were able to perform in-house, what aspects required a consultant's help, and how we integrated all of these aspects into our portfolio and project management office (PPMO).



Thank you!