

IT Workforce Pipeline: Trends and Implications

**Chicago SIM
October 19,2005**

**Kate M. Kaiser
Marquette University
SIM Wisconsin**

Origins

- **SIM Chapter Summit**
 - **2004 Outsourcing**
 - **2005 IT Skills and Relationship with Academia**
- **sponsored by Phil Zwieg**
 - **Vice President, SIM Advocacy and Communities of Interest**

Research Team

Coordinator	Kate Kaiser	Marquette University
Pamela Abbott		University College Dublin
Tom Abraham		Kean University
Cynthia Beath		University of Texas Austin
Christine Bullen		Stevens Institute
Erran Carmel		American University
Roberto Evaristo		University of Illinois Chicago
Mike Gallivan		Georgia State University
Kevin Gallagher		Florida State University
Tim Goles		University of Texas-San Antonio
Steve Hawk		University of Wisconsin-Parkside
Joy Howland		Seattle SIM
Seamas Kelly		University College Dublin
Mary Lacity		University of Missouri
John Mooney		Pepperdine University
C Ranganathan		University of Illinois Chicago
Judy Simon		University of Memphis
Joe Rottman		University of Missouri
Terry Ryan		Claremont Graduate School
Rick Wion		Smith Bucklin Associates

Advisory Board

Rudy Hirschheim	Louisiana State University
Frank Ianella	Pepsico
Blake Ives	University of Houston
Eric Lannert	i.c. Stars
Jack Rockart	MIT
Geoff Smith	Forrester
Kathy White	Rural Sourcing
Bob Zmud	University of Oklahoma
Phil Zwieg	Northwestern Mutual

Special Thanks to

Jim Luis	Smith Bucklin Associates
Ruth Gallagher	Smith Bucklin Associates

Why Study the IT Workforce?

- Declining university IT enrollments
- Pending baby boomer retirements
- Reallocation due to global sourcing
- Shift from IT to business process services

Objectives of the Research

- *understand current and future IT skills and capability needs of private/public, client/vendor*
- *determine how organizations access IT skills and capabilities through global sourcing now to 2008*
- *describe skills universities should provide to graduates*
- *determine how organizations recruit, develop, and retain in-house IT skills and capabilities now to 2008*

Methods

- **SIM chapter solicitation**
- **Structured Interviews**
 - 103 held (75 SIM members)
 - 87 organizations
 - Clients 78% 3PP 11%
 - IT Senior Management 82%
 - >10 yrs in IT 89%
 - <3 yrs in current position 43%
- **May to October**

Demographics

Industries Most Represented

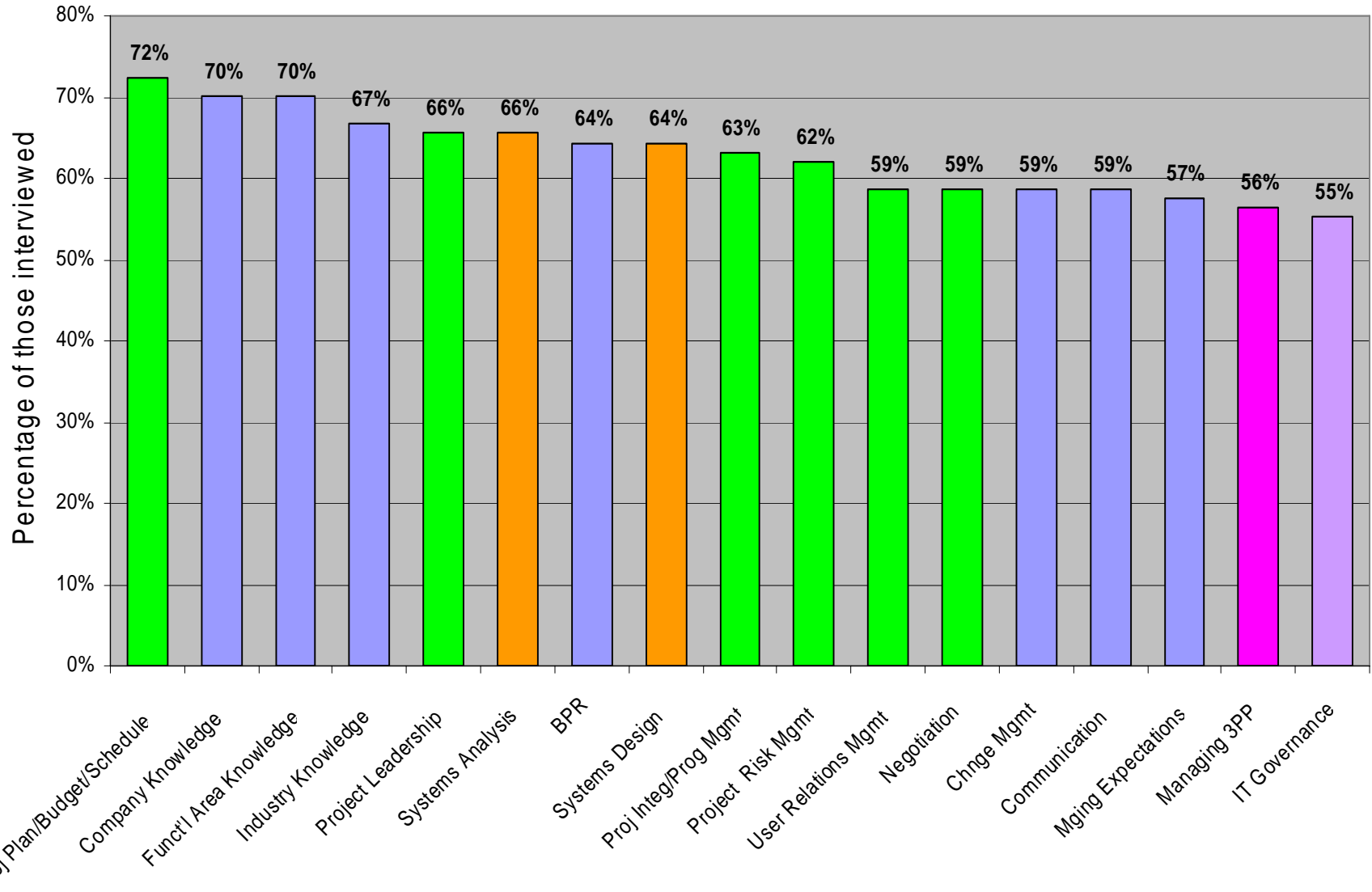
Professional Services	19%
Financial Services	20%
Manufacturing	24%
Other	37%

	<\$3B	Fortune500+
Revenue	51%	44%
IT FTEs	<100	>500

Overview

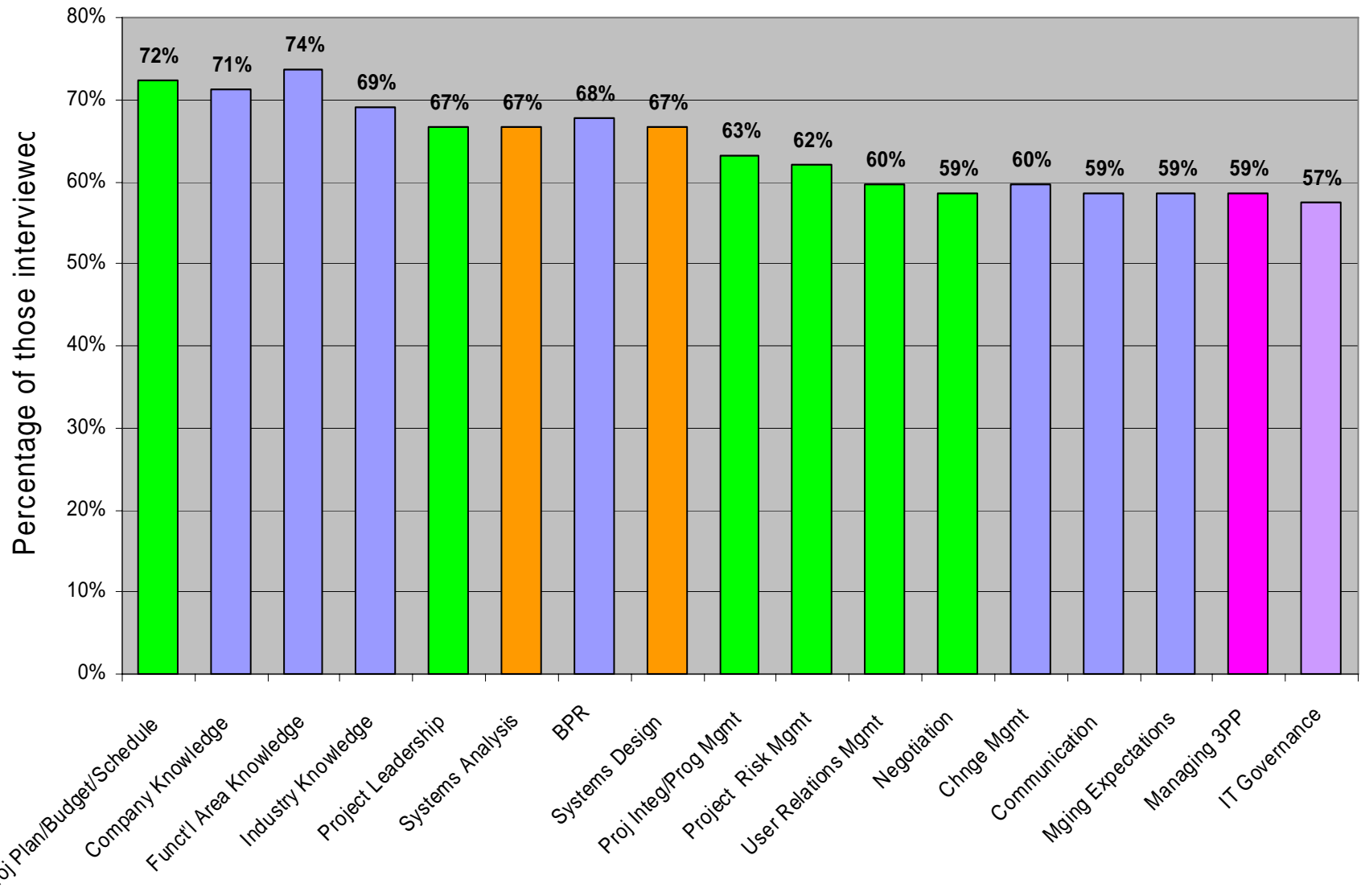
- Skills Critical to Retain In House
- Changes by 2008
- Sourcing Distribution
- Retirees
- Relationships with Academia
- Next Steps

Top Critical Skills Needed In-house in 2005 (55%+)



Category: *Project Management* *Business Domain* *Technical* *Sourcing* *IT Administration*

Top Critical Skills Needed In-house in 2008 (55%+)



Category: *Project Management* *Business Domain* *Technical* *Sourcing* *IT Administration*

Skills Less Critical in House by 2008

Programming
Operations
Desktop/Help
Mainframe/Legacy

BUT...Specialized Capabilities Remain Critical

Web-based-Java, .Net
ERP reporting
Integration
Mainframe
Wireless
Image/sound
Security audit

Category

Project Management *Business Domain* *Technical* *Sourcing* *IT Administration*

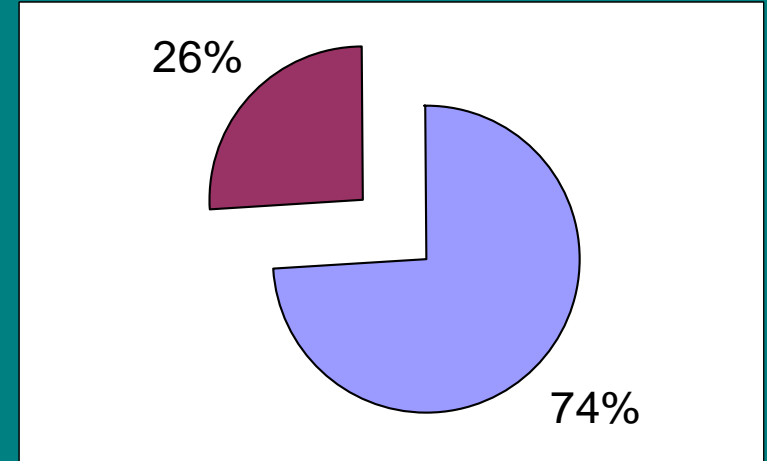
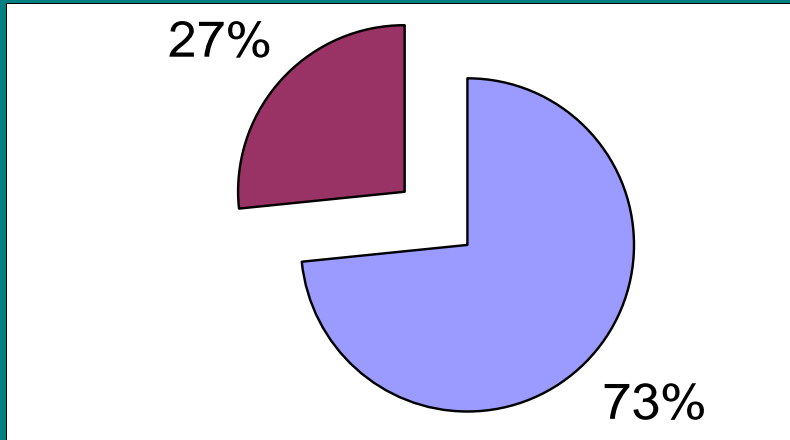
Workforce Changes 2005-2008

In House vs Sourcing

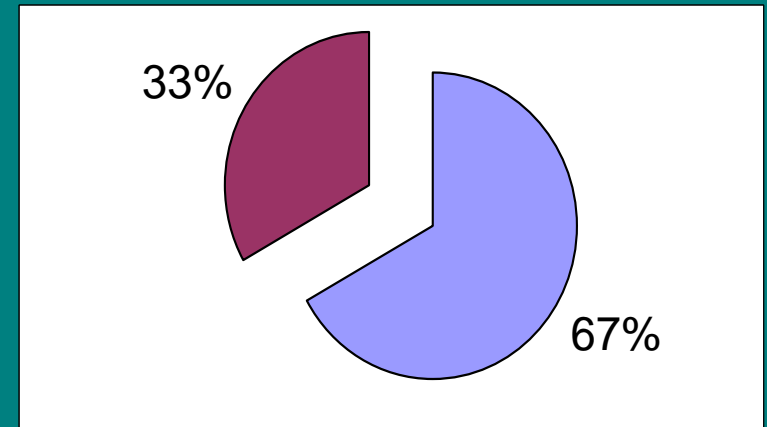
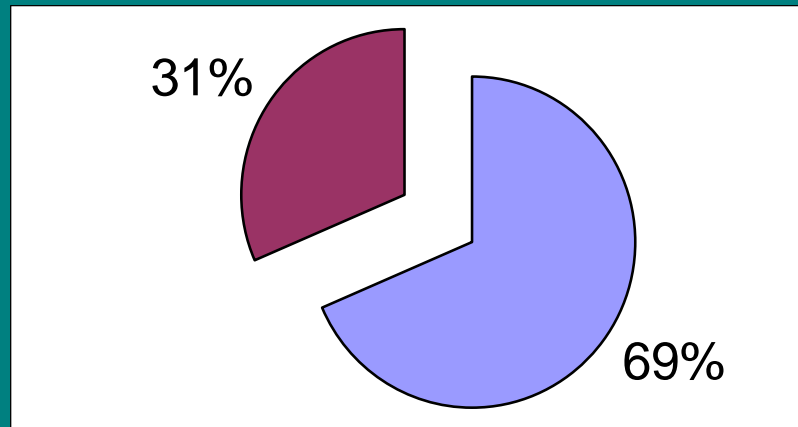
<\$3B

Fortune 500+

2005

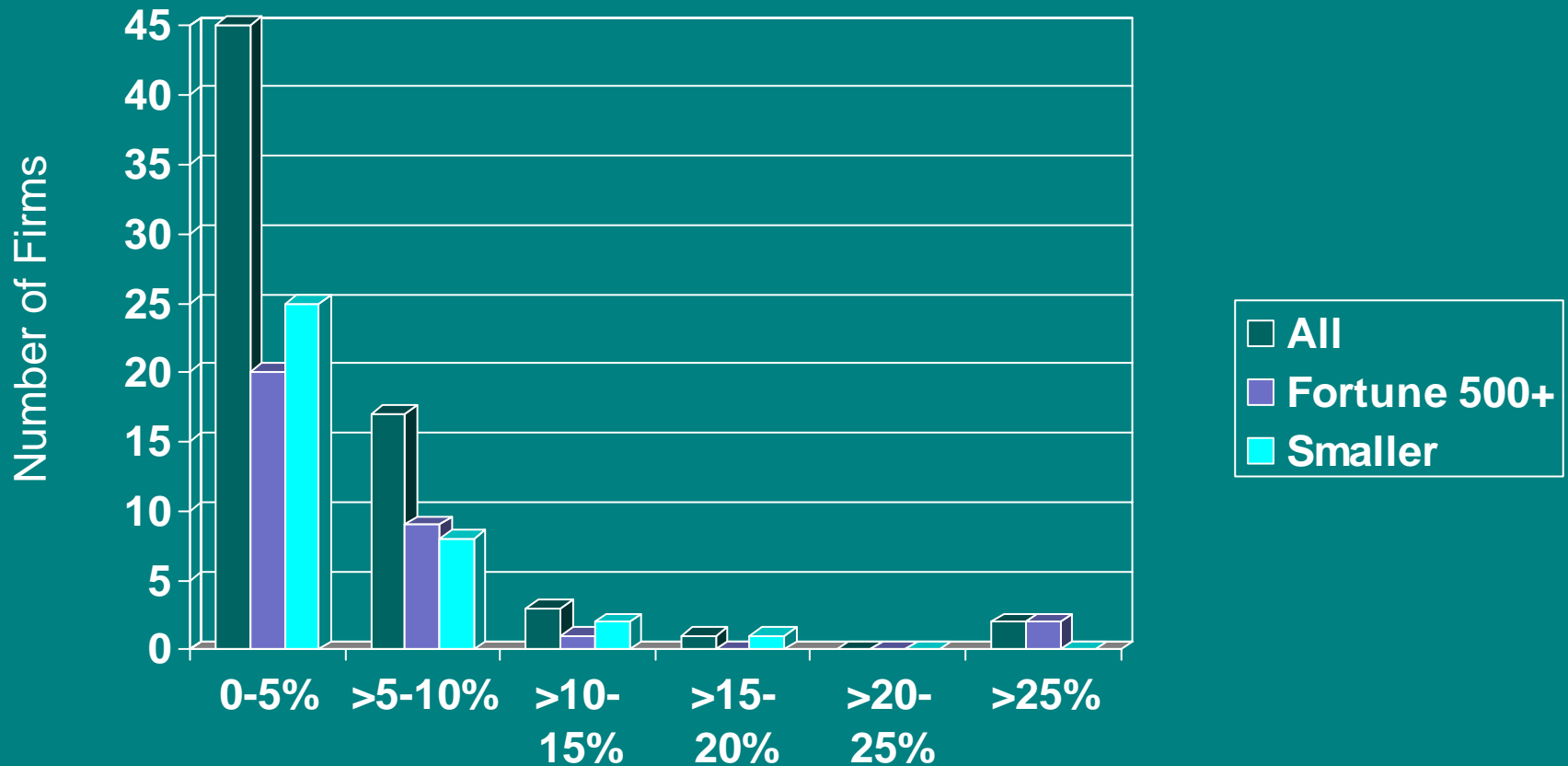


2008



Fortune 500+ and <\$3B are similar when viewing aggregate sourcing patterns

Expected Retirement Rates



University Relationships

CS/MIS/IT/CE/Info Science definitions

- Entry-level (UG) - IT/MIS/CS + internships
- Mid-Level (Grad) - MIS with experience

Internships

Real Projects

Advisory Boards

Chapter Academic Liaison

Microsoft/SIM collaboration

Next Steps

Research Team

- MISQuarterly Executive submission
- Other publications
- SIM Academic Workshop
- Funding
 - Expanded data analysis
 - Additional studies

Chicago Chapter

- Internships
- Academic Liaison
- Curriculum Advice

Summary

- Critical Skills to Retain in house
 - Client Facing Skills
 - IT Management Skills Specific to the Organization
- Portable Skills are Relative to Your Organization
- Integration of Business Knowledge and IT Skills
- Intriguing Issues
 - Pipeline?
 - Declining enrollments
 - Entry-level outsourced
 - Where to get project managers
 - What's not on top
 - Inconsistencies

Questions/Comments

Kate M. Kaiser

kate.kaiser@marquette.edu