

Key Issues of IT Organizations and Their Leadership: The 2013 SIM IT Trends Study

Despite enduring economic uncertainties, we get a sense of watchful optimism from the Society for Information Management's (SIM) 2013 IT Trends Study. This article presents the major findings based on responses from senior IT leaders in 484 U.S.-based organizations, including their top IT management issues and concerns, their largest/most significant IT investments, IT budget and staffing trends, and both CIO role and IT organization characteristics, including practices regarding budgets, hiring, salaries, and performance measurement. Comparisons are provided to SIM survey results in prior years. In addition, senior IT leaders' personally most "worrisome" IT issues and investments are also reported for the first time this year.¹

Leon Kappelman

University of North Texas
(U.S.)

Ephraim McLean

Georgia State University
(U.S.)

Jerry Luftman

Global Institute for IT
Management (U.S.)

Vess Johnson

University of North Texas
(U.S.)

Introduction

Since 1980, the Society for Information Management (SIM), in a joint effort with different research institutions, has conducted an annual survey of the key issues facing IT executives. One of the important contributions of this research is its ability to identify important trends across the industry. The 2013 SIM IT Trends Survey, conducted in the second quarter of 2013, focused on five important areas:

- I. IT management key issues and concerns
- II. Largest/most significant IT investments
- III. IT budget and staffing trends
- IV. CIO role characteristics (tenure, previous employment, reporting relationships)
- V. IT organization characteristics (structure, performance measures, use of cloud and shared services)

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Table 1: Top 10 Most Important IT Management Concerns, 2003-2013 (1)

IT Management Concerns	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Alignment of IT with the Business	1	2	1	3	2	1	2	1	1	1	1
Business Agility (4)	2	3	2	2	3	13	17	7		5	7
Business Productivity (3)	3	1	4	1	1	7	4				
Business Cost Reduction & Controls (3)	4	1	4	1	1	7	4				
IT Cost Reduction and Controls	5	5	10	8	5	7	4	5	10	8	5
Time-to-Market/ Velocity of Change (4)	6	3	2	2	3	13	17	7		5	7
Security (2)	7	9	8	9	9	8	6	3	2	3	3
IT Service Delivery	8	New									
IT Efficiency	9	10	6	3	6	Previously combined with "IT Reliability"					
Revenue Generating IT Projects	10	4	9	6	8	17					

(1) Blank cells, unless otherwise noted, indicate that the issue was not asked about in that year of the survey.

(2) Previously combined with "Privacy"

(3) "Business Productivity & Cost Reduction" was a combination option in previous years.

(4) "Business Agility & Speed to Market" was a combination option in previous years.

In addition to determining the most important IT issues and investments of organizations, as in the past, participants were also asked to identify the IT management issues and investments that they considered most "worrisome" or important to them personally. This year's questionnaire was developed and refined using a Delphi research method and online pilot testing. The survey invitation with a personal link was distributed by individual e-mail to all 4,913 SIM members. We received a total of 659 complete responses from 594 IT and 65 non-IT executives (a 13.4% response rate). We used responses from the highest ranking IT executive in 484 unique organizations for the findings for this report with one exception: only responses from the 285 CIOs (identified as the "top or highest IT person (e.g., the CIO)" were used to analyze the findings for section IV. Additional details, including a breakdown of these organizations by industry, can be found in the Appendix.

The major insights gained from the 2013 survey in each of the five areas are presented below.

I. The Top IT Management Issues and Concerns

Similar to the approach used in the past, the respondents were asked to identify the three IT management issues or concerns, from a list of 37, that they considered "most important" to their organization. As detailed in the Appendix, 10 new options were added in 2013 and several of the combination options used in prior-year questionnaires were separated. In addition, this year's participants were asked to select the top three IT management issues that they considered "most important or worrisome" to them personally or that "keep you up at night." The 2013 top 10 IT management concerns of most importance to the organization, from the perspective of the senior-most IT leader in each of the 484 organizations, are shown in Table 1, together with the comparative rankings from prior SIM IT Trends Surveys since 2003. Comparing the top 10 issues reported this year with those reported in prior years, we find that these top issues have been relatively stable. Since some combination options in prior surveys

were separate options in the 2013 survey seven of the 2012 top 10 concerns filled nine of the 2013 top 10 positions. Only IT Service Delivery (#8), a new option added in 2013, was new to the top 10. Three IT management concerns that appeared in the 2012 list but fell off of the 2013 top 10 list were Business Process Re-engineering (#12), IT Strategic Planning (#15), and Enterprise Architecture (#21). One interpretation is that in these uncertain and middling economic times, organizations have changed their focus to more operational and measurable considerations.

Looking at the organization's top five most important IT management issues and concerns in Table 1, Aligning IT with the Business is ranked number one. This issue has been ranked #1 or #2 in all but one year since 2003, when it ranked #3. Business Agility ranked second in 2013 and has appeared in the top three since 2009. Business Productivity, also a top five since 2009, ranked third in 2013, down from number one in 2012 when it was combined with Business Cost Reduction, which itself ranked #4 in 2013. Holding steady at 5th again this year was IT Cost Reduction.

1. Aligning IT with the Business

Aligning IT with the Business has been a top 10 concern since these SIM Surveys began in 1980. It ranked number one in seven of the last 11 years. This year, 211 of 483 organizations, or nearly 44% of all the responding organizations, identified Alignment as one of its top three IT management concern. Alignment is a persistent issue because organizations, markets, economies, and technologies are constantly changing and thus achieving and maintaining alignment is a continuous process.

2. Business Agility

Business Agility became a top three IT management concern in 2009 during the global economic downturn. It is number two in this year's survey, up from number three in last year's when it was combined with Speed to Market (now ranked #6). This year it was identified as a top three pick by 133 organizations (27.5%). Agility's high ranking suggests that the greater business uncertainty and increasing pace of change that characterize these times correspondingly increases the need for organizations to be more

flexible and responsive to market and other changes too. On the other hand, IT agility requires not just understanding how the business and its requirements have changed, but also requires having a technological infrastructure in place that can be quickly and economically changed.

3. Business Productivity

Business Productivity was selected as a top three concern by 113 organizations (23.4%), down from #1 in 2012 when it was combined with Business Cost Reduction (see #4 below). Business Productivity has been in the top five all but one year, and ranked number #1 three times during the seven years since its introduction into the SIM IT Trends questionnaire. Its continued high ranking demonstrates that organizations are still striving to "do more, with less."

4. Business Cost Reduction

Business Cost Reduction and Controls was added this year as a separate choice. In prior years Business Cost Reduction was combined with Business Productivity. This year 90 senior IT leaders (18.6%) selected it as one of the top three IT management concerns facing their organization. The fact that both of these items ranked in the top five highlights the overall importance of efficiencies, productivity, and controlling business costs.

5. IT Cost Reduction and Controls

IT Cost Reduction has appeared in the top 10 every year since 2003. In six of the last 11 years, it was ranked in the top five, but never higher than fourth place. This year, IT Cost Reduction and Controls is in 5th position, with 81 (16.8%) organizations selecting IT Cost Reduction as one of their organization's top three IT management concerns.

Comparing Top 10 IT Management Concerns with Those Personally Most Important or Worrisome to IT Leaders

As discussed above, in the 2013 survey respondents were also asked to select up to three IT issues from the same list of 37 that personally were the most important or worrisome to them. This brought to light several significant differences. In Table 2, the first column lists the top 10 *personal* concerns of the 483 senior IT

Table 2: Comparison of Organizational and Personal Key IT Management Issues

Personally Most Important/Worrisome to IT Leader Respondents	Issues IT Leaders Perceived as Most Important to the Organization	Management Issue
1	*1	Alignment of IT with the Business
2	*7	Security
3	16	IT Talent / Skill Shortage
4	14	Business Continuity / Disaster Recovery
5	11	Prioritization Process for IT Projects
6	*2	Business Agility
7	*8	IT Service Delivery
8	19	Change Management
9	*6	Time-to-Market / Velocity of Change
10	23	CIO Leadership Role
* Top 10 Issues for 2013 in Table 1		

leaders, and the second column lists the ranking of those same issues reported by the same leaders from an *organizational* perspective.

As shown in Table 2, five of the issues are in both top 10 lists. Although Alignment of IT with the Business appears in the top five of both lists, only 30.2% of senior IT leaders selected it as one of their top three personal concerns (versus 43.7% as a top organizational concern).

Many of the other personally worrisome issues have a clear IT, rather than a business, focus. The five issues not in Table 1 are #3 IT Skill Shortages, #4 Business Continuity / Disaster Recovery, #5 IT Project Prioritization, #8 Change Management, and #10 the Role of the CIO – all issues, save perhaps the last, which are more operational than strategic in focus.

II. The Largest / Most Significant IT Investments

The 2013 survey asked respondents to pick, from a list of 55, their organization’s three “largest or most significant current or near-future IT investments.” Table 3 lists the top 15 technologies identified for 2013, along with their rankings since 2003. Although all but two of these technologies were also options in the 2012 survey, the list of options in the surveys has

changed considerably over the previous ten years, due to the rapid rate of change in the IT field. However, the top four for 2013 have been highly rated over the past three or more years.

The diversity of IT investments is indicated by the small percentage of respondents selecting any one of them. Only the top seven were selected by more than 10% of the respondents as one of their top three investments. Although more than 42% selected Analytics/BI, making it #1 for the fifth year in a row, #2 ranked CRM was selected by only 19.5%, #3 Cloud by 18.5%, #4 ERP by 16.6%, #5 Big Data by 12.6%, #6 [Mobile] Apps by 11.8%, and #7 Enterprise Application Integration by 10.4%. Those ranked #8 to #19 were each selected by between 5% and 10% of the respondents.

Examining the 2013 top five largest and most significant IT investments of organizations in Table 3, it is not surprising to see that each of them could play a significant part in achieving the organizations’ top five IT management concerns shown in Table 1. All of the top 10 investments in Table 3 clearly have the potential to play a part in achieving the business objectives indicated in the top four IT management issues /concerns in Table 1.

Table 3: Top 15 Largest /Most Significant IT Investments, 2003-2013*

	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Analytics / Business Intelligence	1	1	1	1	1	2	2	2	3	2	1
Customer Relationship Management	2	5	5	9	13						
Cloud Computing (e.g., SaaS, PaaS, IaaS)	3	2	2	5	17						
Enterprise Resource Planning	4	3	3	3	3	14	6		5		
Big Data	5	10									
[Mobile] Apps	6	6	4	9	24						
Enterprise Application Integration	7	8	9	18	5	12	32				3
Network / Telecommunications	8	12									
Customer / Corporate Portals	9	16									
Business Process Management Systems	10	9	16	12							
Disaster / Recovery	11	13	14	4	6	3	4				
Collaboration Tools	12	4	8	7	7						
Virtualization	13	15	7	2							
Security	14		11	8							
Enterprise Architecture	15										

*Blank cells, unless otherwise noted, indicate that the issue was not asked about in that year of the survey.

1. Analytics / Business Intelligence

Analytics / Business Intelligence (BI) remains in first place as the top IT investment, a ranking that it has now held for five consecutive years. It ranked in the top three since 2003. BI was selected by 203 organizations (42%) as one of their three largest or most significant IT investments, more than twice the number for second place Customer Relationship Management. Of course, potential synergies exist between BI systems and the data made available via other technology investments, including CRM (#2), ERP (#4), and Big Data (#5).

2. Customer Relationship Management (CRM)

Customer Relationship Management (CRM) first appeared on the list of largest IT investments in 2009. In 2010 it tied for ninth and moved to fifth place in 2011 and 2012. It was selected by 19.5% of organizations as one of their top three technology investments in 2013. CRM is a tool

for managing an organization’s interactions with its customers and/or suppliers. CRM systems can help organize, automate, and synchronize business processes related to sales, marketing, and customer service, enhancing quality and efficiency, decreasing overall costs, reducing response time, and promoting enterprise agility – all among the top 10 IT management concerns of organizations in 2013.

3. Cloud Computing

As technologies have evolved and matured, some of the technology investment categories in the SIM IT Trends questionnaire have also evolved. The first appearance of a Cloud Computing technology was Software as a Service (SaaS) in the 2009 survey. Later, the more-comprehensive category “Cloud Computing” was added, to include SaaS, PaaS (Platform as a Service), and IaaS (Infrastructure as a Service). Cloud Computing is third in this year’s SIM IT Trends Survey, down from second place in the last

Table 4: Comparison of Organizational and Personal Viewpoints on IT Investments

Personally Most Important/Worrisome Technologies to IT Leaders	Largest/ Most Significant IT Investments of the Organization	Technology /Application
1	*1	Analytics / Business Intelligence
2	14	Security
3	11	Disaster Recovery
4	*3	Cloud Computing (e.g., SaaS, PaaS, IaaS)
5	21	BYOD (Bring Your Own Device)
6	15	Enterprise Architecture
7	20	Enterprise Application Integration
8	17	Legacy Applications
9	*4	Enterprise Resource Planning
10	*2	Customer Relationship Management

* Issues among Top 10 in Table 3.

two years, but a close third behind CRM; 18.6% selected it as one of their three largest or most important IT investments.²

4. Enterprise Resource Planning (ERP)

ERP was ranked third in the four consecutive years from 2009 until 2012, and this year it fell slightly into fourth position. ERP was picked as one of the three largest or most significant technology investments by 16.6% of organizations. ERPs provides a vehicle for reducing business expenses and optimizing business processes, both important current organizational objectives, as they leverage IT to reengineer business processes. ERP systems can often facilitate IT agility; and thus IT’s ability to quickly help its business partners and customers reduce costs, improve productivity, and respond to opportunities. ERP systems, by virtue of the comprehensive data they can provide about internal operations, as well as about supply chains and customers, can enable second and third order benefits when used in combination with BI and other systems. Thus, it is not surprising that ERP investments remain in the top five.

² The December 2014 *MIS Quarterly Executive* issue will be devoted to academic research on Cloud Computing topics of interest to senior IT leaders; the SIM/MISQE workshop held prior to the annual ICIS conference in December 2013 is on the same topic.

5. Big Data

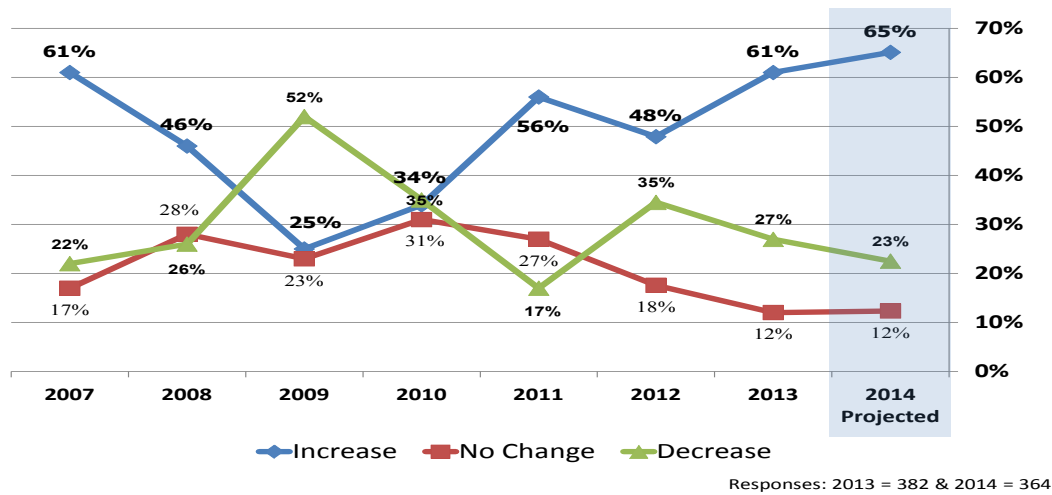
Rounding out the five largest IT investments of 2013, Big Data was selected by 61 (12.6%) organizations as one of their three largest investments. Often linked to BI and Analytics (ranked #1), Big Data often has a customer-facing focus and, in addition to traditional data sources, can include the use of unstructured and external data, including data available from social media, government records, search engines, credit card transactions, and other digital sources. Its ranking is up considerably from #10 in 2012, when it was first added to the SIM questionnaire.³

Comparing Organizations’ Largest IT Investments to IT Leadership’s Most Worrisome

As was done with the top IT management issues, the 2013 SIM IT Trends questionnaire also asked respondents to select, from the same list of 55, “up to three (3) technologies” that were *personally* “most worrisome to you (i.e., things that ‘keep you up at night’).” Similar to Table 2, this comparison in Table 4 shows some considerable differences between the two rankings. Although BI ranks number #1 on both

³ The high ranking of this issue is also reflected in the four research articles in the December 2013 issue of *MIS Quarterly Executive*, which is dedicated to the Big Data theme.

Figure 1: IT Budget Trends (2007 – 2013 Actual, 2014 Projected)



lists, only four of the IT leaders’ top 10 personal technology concerns appear in the organization’s top 10. As with the IT management issues discussed above, almost all of the technologies on the senior IT leaders’ top 10 list are operational in nature.

Some of this divergence between the two lists in Table 4 lists could be explained by the fact that some things may not require a lot of investment or cost, but nevertheless pose large risks or provide great opportunities. For example, #2 and #3 ranked personal concerns, Security and Disaster Recovery, can be relatively small investments but still pose great risks to the organization and the responsibility of IT to “keep the lights on.” Similarly, BYOD ranked #5 as a concern of import or worry to senior IT leaders, yet ranked #21 as a significant IT investment of organizations. Sixth, seventh, and eighth ranked Enterprise Architecture, Enterprise Application Integration, and Legacy Applications all have a relatively low-cost potential for IT cost reduction and increased agility, but not without some project and execution risk.

III. IT Budget and Staffing Trends

Changing economic conditions have brought changes to IT budgets. From 2004-07 (prior to the “Great Recession” that began in late 2007 in the U.S.), the majority of organizations reported increasing IT budgets: 51% in 2004, 62.5%

in 2005, 56.6% in 2006, and 61.3% in 2007. In 2008, however, only 48% of organizations reported increases, a paltry 25% in 2009 (with 52% decreasing), and in 2010 only 34% reported increasing IT budgets. However, as shown in Figure 1, in 2011 the trend lines sharply improve with 56% of the respondents reporting rising IT budgets, 27% flat, and only 17% decreasing.

In 2012, with its pullback from 56% the previous year to only 48% increasing, when respondents were asked about anticipated 2013 budgetary changes, 54.2% responded that budgets would remain flat or decrease and only 45.8% of organizations anticipated an increase in IT spending. However, in 2013 61% of 382 organizations reported that budgets actually increased, 12% that budgets remained flat, and 27% that budgets decreased. In 2013, more than 65% percent of 364 responding organizations anticipate IT budgets will increase in 2014, 12.4% predict no change, and only 22.5% anticipate budgetary reductions. However, it is possible that there is some recency bias in the annual budget projections of senior IT leaders.

IT Budget Allocations

On average, IT budgets represent 4.95% of total revenues as reported in the 2013 SIM IT Trends Survey, which is about the same as reported in the 2012 survey, but significantly higher than the 3.5% to 3.9% range reported between 2005 and 2011. In fact, IT spending in

Table 5: 2009-2013 IT Budget Allocation Actual and 2014 Projected

IT Budget Area		2014 Projected	2013	2012	2011	2010	2009	2009-13 Average
PEOPLE								
Employees / Internal Staff:	Domestic	37.1%	38.3%	34.0%	38.0%	43.0%	39.0%	
	Offshore	2.2%	2.0%	6.0%	2.0%	3.0%	4.0%	
Outsourced Services/Contractors:	Domestic	5.5%	5.7%	8.0%	3.0%	7.0%	8.0%	
	Offshore	4.2%	3.8%	3.0%	2.0%	5.0%	4.0%	
	Consulting Services	3.1%	3.1%	9.0%	11.0%	10.0%	12.0%	
TOTAL PEOPLE		52.1%	52.9%	60.0%	56.0%	68.0%	67.0%	60.8%
THINGS: Hardware, Software, Facilities								
	In-house - domestic	34.2%	35.0%	24.0%	32.0%	32.0%	33.0%	
	In-house – offshore	2.1%	1.9%	2.0%	*	*	*	
	Outsourced - domestic	9.3%	8.3%	14.0%	12.0%	*	*	
	Outsourced - offshore	2.4%	1.9%	*	*	*	*	
TOTAL THINGS		47.9%	47.1%	40.0%	44.0%	32.0%	33.0%	39.2%
* indicates category not used in that year.			Responses: 2013 actual 314, 2014 projected 281					

2012 and 2013, as a percentage of total revenue, is 25% above the 3.96% average for the period from 2005 to 2013. This may be indicative of “catch up” investments, given what appear to be low levels in 2009-10 as shown in Table 5; although, it could be a data artifact in light of respondent pool differences and how some of the categories have evolved over the years. The outlook for IT budget allocations in 2014 is similar to the 2013 actuals. Additional findings regarding IT budgets are below in the section on IT organizations.

An examination of Table 5 suggests there may be some common misconceptions about IT spending. More than 90% of the IT budgets of organizations based in the U.S. are spent domestically. Of the 9.6% or so of total IT spending that is spent offshore, more than 40% goes to *internal* employees and facilities, and thus offshore outsourcing represents only 5.7% of U.S. IT spending. Similarly, although nearly 23% of total IT spending is outsourced, 75% of that is outsourced to U.S.-based organizations.

IT Staffing Trends

Forty-seven percent of the 375 organizations that responded to this question reported an increase in the number of internal IT employees in 2013, and only 23% reported a decrease. Fifty-five percent of organizations expect further increases in 2014, while only 18% anticipate decreases, with an average anticipated increase in internal IT staff of 1.75% (median 1%). Findings regarding IT and total employment are below in the section on IT organizations.

Ninety-six percent of the 352 organizations responding reported that average IT salaries either remained flat or increased in 2013, with 89% reporting increases and 7% no change. This is a significant improvement over recent years and brings the percentage of organizations seeing decreases in average IT salary back down to the 4% level last seen in 2008.

Looking forward to 2014, most organizations are predicting a year very similar to 2013. Ninety percent of the 351 responding organizations anticipate average salary increases, 6% predict no change, and only 4% again foresee reductions. The average IT salary rose 2.24% in 2013 and is projected to rise by 2.45% more in 2014.

Table 6: To Whom CIOs Report, 2005-2013

CIO Reports to ...	Avg. 2005- 2013	Percentage of Respondents								
		2005	2006	2007	2008	2009	2010	2011	2012	2013
CEO	43.2%	43%	45%	31%	43%	46%	44%	49%	43%	44.7%
CFO	27.2%	22%	25%	29%	28%	24%	31%	32%	27%	27.1%
COO	15.9%	21%	16%	22%	14%	14%	11%	12%	19%	14.4%
Business Unit Executive	6.9%	6%	9%	7%	3%	9%	4%	5%	10%	9.2%
Other	6.8%	9%	5%	10%	12%	7%	10%	2%	2%	4.6%

Turnover and Retirement. IT employee turnover in the preceding 12 months increased significantly this year to 6.58%. This is up more than 25% from the 2012 turnover rate of 5.23%, is approaching levels similar to those in the years prior to 2009, and is above the eight-year average rate of 5.92%. This is typically indicative of an improving job market, with more job opportunities inducing some employees to consider switching employers.

For the first time in 2013, senior IT leaders were also asked to estimate the percent of IT employees they expected to retire within the next five years. With 408 organizations responding, the average was only 5.46%, with 32% predicting 1% or less.

Education and Training. In the 2012 SIM IT Trends Survey, respondents anticipated an increased budget allocation for education and training to 2.99% of total IT spending. However, the actual amount of 4.68% as reported in the 2013 survey greatly exceeded the 2012 projection for 2013 and is nearly 34% above the 2009-13 average of 3.47%. Given the large investments in new technologies and their potentially positive impact on the business, combined with IT skills shortages and increased IT budgets, salaries, and turnover, this comes as no surprise.

IV. CIO Role Characteristics

For the CIO role data reported in this section, we utilized only the 285 responses by participants who identified themselves as the “top or highest IT person (e.g., the CIO).” However, it should be noted that in prior surveys this distinction was not made, so this difference

needs to be taken into account when evaluating any trends.

CIO Tenure and Previous Employment

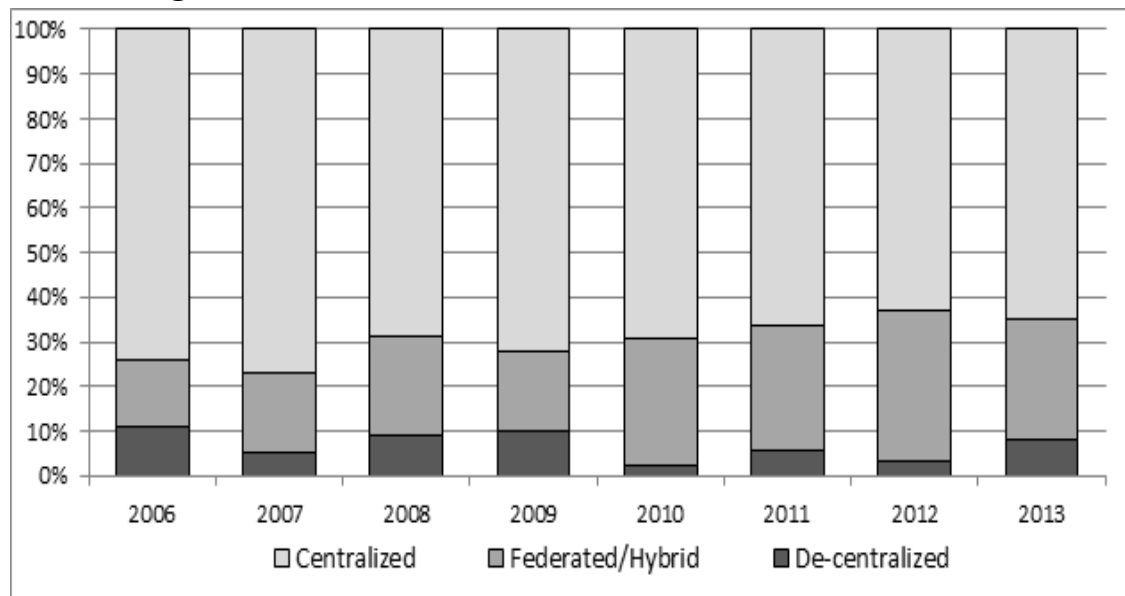
The average time in their current position for CIOs was down from the 5.96 years level reported in 2012 to 5.20 years; although well above the 2006-2013 average of 4.66 years. This represents a 12.75% decrease from 2012, but it remains higher than the six years prior to 2012. However, as noted above, such high variability may be an artifact of the variations in the sample from year to year. The median job tenure for a CIO respondents in the 2013 survey was 3.55 years. The average organization tenure of these 285 CIOs was 8.1 years, with a median of 6.1 years.

Responding CIOs were asked to indicate from where they were hired before becoming CIO. With all 285 responding, 31.6% indicated that they were promoted from within their current organization’s IT function. The 2010-2013 average for this is 35%. The majority, 59.3%, indicated that they came from the IT function within another organization. The 2010-2013 average is 57%. Nearly 5% indicated that they were hired from a non-IT function within their current organization and 4.2% indicated that they came from a non-IT function at another organization, down from 5% in 2012 but above the longer term average of 4%. In all, 63.5% of CIOs came from outside their organization, 36.5% were promoted from within, and 90.9% came directly from a prior role in IT.

CIO Reporting Relationships

Nearly 45% of the 284 CIOs responding to this question report to their CEO, 27.1% report

Figure 2: IT Organization Structure 2006-2013



to the CFO, 14.4% to the COO, and 9.2% report to another executive (see Table 6). The trends in CIO reporting relationships are not particularly strong, and there is a lot of year-to-year variation in some of these data.

Despite the growing importance of the Chief Marketing Officer (CMO) as a customer of IT services and solutions, combined with the growth and importance of e-commerce, social media, CRM, BI, Big Data, customer-facing mobile apps, and marketing management systems, no CIO indicated that they reported to a CMO in 2013. Nevertheless, other manifestations of CIO role relationships with CMOs and other C-level executives are likely.⁴

V. IT Organization Characteristics

As described in the Appendix, we identified 484 unique organizations represented by a senior IT leader who responded to the 2013 SIM IT Trends Survey, and these were the primary dataset for this report. (For the distribution of these organizations by industry, see the Appendix). The 2013 average revenue, with 370 responses, was \$4.36 billion (about half the size

of the *Forbes* Global 2000) and median revenue was \$502.5 million. Their IT budgets average \$107.34 million, with a median of \$10 million for the 357 responding organizations. Their IT spending as a percentage of revenue in 2013 averaged 4.95%, with a median of 2.24% for the 332 organizations providing data necessary for the calculations.

On average, with 411 responding, these participating organizations had 8,629 total employees, with a median of 1,070. Their average number of IT employees was 585, with a median of 40, for 411 organizations responding. On average, IT employment represents about 6.78% of total employees in these organizations, with a median of 3.37%. In all, 45% have IT employment at 3% or less of total employment and in 45% IT employment represents more than 4% of total employment. There is a large variation in the data regarding IT employees as a percentage of total employees.

IT Organization Structure

As in previous years, the majority of organizations (65%) report having a centralized IT organization structure. The 2006-2013 average is 68.4%. With 280 organizations responding, 27% report a federated/hybrid structure (above the 2006-2013 average of 23.4%) and 8% decentralized (above the 6.6% longer term average). Stated differently, about

4 For example, see: Deans, P. C. "The Impact of Social Media on C-level Roles," *MIS Quarterly Executive* (10:4), 2011, pp. 187-200, and Preston, D., and Karahanna, E. "How to Develop a Shared Vision: The Key to IS Strategic Alignment," *MIS Quarterly Executive* (8:1), 2009, pp. 1-8.

Table 7: Performance Measures Used for Internal and Outsourced IT, 2012-2013

Metrics Used	Internal IT			Outsourced IT	
	2013	% 2013	2012	2013	% 2013
Projects delivered on time	1	65.9%	1	1	73.9%
Projects delivered on budget	2	49.6%	2	2	66.4%
Increased customer/client satisfaction	3	33.3%	5	6	14.6%
SLA targets	4	30.1%	3	3	51.3%
Productivity improvement	5	28.6%	6	4	19.5%
Project ROI	6	24.3%	4	5	16.8%
Increases in new products/services	7	13.0%	8	8	7.5%
Innovation/new ideas	8	11.6%	10	9	5.8%
Lower error rates	9	8.3%	13	7	12.4%
Improved decision making	10	7.6%	9	12	1.8%
Revenue growth	11	7.3%	7	10	3.1%
Industry specific measurements	12	2.9%	11	11	2.2%
ROE	13	1.5%	12	13	0.4%
Earnings per share	14	0.4%	14	14	0.0%
Organizations responding	276		195	226	

two-thirds of the respondents reported having a centralized IT organization structure, and one-third reported having a federated/hybrid or decentralized structure, as indicated in Figure 2.

IT Performance Measures for Internal and Outsourced IT

The investigation of IT performance metrics was new to the SIM IT Trends Study in 2012. In 2013, respondents were given the same list of 14 metrics, but were asked to “select up to three (3) IT metrics most used currently for internal IT and up to three (3) for outsourced IT.” Table 7 shows the rankings and percentages reported for each metric.

Little change occurred between the 2012 and 2013 rankings of those metrics used for *internal* IT. Not surprisingly, a more operational focus in general is reflected in the outsourced IT metrics, including higher percentages for SLA targets as well as the traditional project metrics (on-time

and on-budget) for outsourced IT versus internal IT.

Internal IT performance measures focused on organization-level performance again rated highly in 2013: Increased Customer Satisfaction, Productivity Improvements, and Project ROI ranked 3, 5, and 6 with 33.3%, 28.6%, and 24.3% selecting them respectively as one of their top three. For outsourced IT performance metrics, Customer Satisfaction, Productivity Improvements, and Project ROI ranked 6, 4, and 5 with 14.6%, 19.5%, and 16.8% selecting them respectively.

Strategic performance measures in the rankings for internal IT include Increases in New Products and Services (#7 with 13% selecting it as a top three metric), Innovative Ideas (#8 with 11.6%), and Revenue Growth (#10 with 7.3%). As might be expected, more strategic measures such as Increases in New Offerings, Innovative Ideas, Revenue Growth, ROE, and EPS are used, but not widely as internal IT performance

measures, and, as with the more organizational metrics, are used significantly less for outsourced IT.

Use of Cloud and Shared Services

For the first time in 2013, questions were added to determine the extent to which IT solutions were being delivered as a shared service and as a cloud-based service. However, these questions were in the optional section of the questionnaire (see details in the Appendix), and thus received fewer responses.

Of the 260 organizations responding to the cloud questions, about 81% (211) used “the cloud” to some extent, with 39.3% of these 211 organizations using only external or public clouds, 18.5% using only internal clouds, and 42.2% using a combination. On average, 26.5% of all IT services and solutions in 2013 were cloud-based: 12.1% were delivered via internal/private clouds and 14.4% via public/external ones.

Of the 244 organizations responding to the IT shared services questions, 171 of them (70.1%) reported that their IT organizations delivered some IT services and solutions as a shared service. On average, they reported that 56.4% of all their IT services were delivered as a shared service: 41.3% of all IT services were internally sourced via private clouds (73.2% of the 56.4%) and 15.1% were externally sourced via public ones (26.8% of the 56.4%). Moreover, 40.9% of these 171 organizations reported using only internal capabilities (i.e., via a private cloud) to deliver IT shared services, while 16.4% were exclusively externally sourced, leaving 42.7% utilizing a combination of the two

Summary and Conclusions

The 2013 SIM IT Trends Study points to a number of positive things happening for IT organizations and IT workers, for IT vendors and suppliers, and perhaps even for the U.S. economy as a whole. Considering the increasing number of organizations with rising IT budgets, salaries, and headcounts; with the relative magnitude of IT budgets as a percent of total revenue; and with more than 90% of this IT spending being domestic, as Lennon and McCartney (of the Beatles) say, we’ve “got to admit it’s getting better.”

It also appears to be a good time to be an IT professional. Organizations are hiring, salaries are up, there is more (presumably voluntary) turnover, and IT budgets for training and education are up too. Organizations are making new investments in IT and more than 20% of the senior IT leaders responding to our survey reported the shortage of IT skills as one of the top three concerns keeping them up at night.

This is not, however, a “rising tide lifts all boats” situation, as we see 27% of responding organizations cutting IT budgets in 2013, 28% cutting IT employment, 7% reducing total IT salaries, and 4% cutting IT average salaries. Apparently uncertainty and economic weakness are still taking a toll; as far as anyone can tell, this situation will continue to some degree for the foreseeable future.

Nevertheless, it does appear that IT is fairly resilient as both organizations and senior IT leaders focus on operational and organizational issues and investments. Moreover, with 61% of responding organizations raising IT budgets, 47% adding to their IT workforce, 89% raising average IT salaries, 83% reporting increases in total IT salaries, and all projecting further increases in 2014, IT appears to be “part of the solution” during these challenging times.

Appendix: Design and Delivery of SIM's IT Trends Survey

The SIM IT Trends Study has been conducted since the late 1970s and the results have been published since 1980. Surveys prior to 2000 focused just on the top IT management concerns or key issues. Since 2003, the survey has been extended to include additional insights regarding key IT practices and investments. A significant strength of this research is its ability to identify important trends by comparing SIM IT Trends Survey data from previous years. As with almost all other surveys of actual management practices and activities in organizations, surveying SIM's membership provides an opportunistic or "convenience" sample rather than a randomized or "scientific" one. Therefore, it is unknown to what extent these findings can be generalized to all organizations, or even to just U.S.-based ones. Nevertheless, as the U.S.'s largest professional organization of senior IT leaders, we believe these data are about as good as it is possible to get.

The 2013 SIM IT Trends Survey was similar to previous ones in methodology and process; although, in the interests of increasing the response rate, additional effort was invested in questionnaire design and delivery. The questions were based on previous SIM surveys and reports, with questions modified or added based on previous results and suggestions from the Delphi group (i.e., an expert panel largely of IT practitioners) consisting of members of SIM's Enterprise Architecture Working Group (SIMEAWG) and the SIM IT Trends Survey Team, which included the authors and the SIMEAWG representatives Bill Peterson (LiquidHub) and Barbara Stewart (Celanese).

In the "Key Issues" (or "Top IT Management Concerns") section of the 2013 SIM IT Trends questionnaire, ten new options were added: Business Continuity / Disaster Recovery, BYOD, Integration, IT Quality, IT Service Delivery, IT Talent / Skill Shortage, Legal Compliance (e.g., HIPAA, SOX, PCI, +), Prioritization of IT Projects, Risk Management, and Societal Impacts of IT. Moreover, the following compound options from prior years were split into two separate choices in 2013:

- "Business Productivity & Cost Reduction" became
 - Business Cost Reduction and Controls
 - Business Productivity
- "Business Agility & Speed to Market" became
 - Time to Market/Velocity of Change
 - Business Agility
- "IT Reliability and Efficiency" became
 - IT Reliability
 - IT Efficiency
- "Vendor Management and Outsourcing" became
 - Vendor Management
 - Outsourcing
- "Security & Privacy" became
 - Security
 - Privacy

All 4913 SIM members were first invited in late April by individual e-mail to take the online survey. The e-mail contained a personalized link to control survey access. In an effort to increase the response rate by making it possible to complete the questionnaire in 12 minutes or less, the survey was divided into a "main" part and an "optional" part. Those who completed the main survey were automatically entered into a drawing to win one of five \$500 gift cards, and those who complete the optional part were entered into a second drawing to win one of four additional \$500 gift cards. These prizes were provided thanks to the generous support of survey sponsors BravoTECH, ClearEdge Partners, Farr Systems, Pariveda Solutions, and VOTUM Technology Group. Reminder articles were also published periodically in SIM's weekly and monthly e-mailed newsletters.

Several reminder e-mails were also sent to those who had not yet completed the survey. The survey was closed in mid June. The authors conducted the analysis and presentation of the findings. Statistical and graphical assistance was provided by Natalie Gerhart (University of North Texas) and Walter Rich (Georgia State University). The key findings are presented each year at SIM's annual SIMposium conference and that slide deck is provided online to all SIM members after the conference.

A total of 659 complete responses were received from 594 IT and 65 non-IT executives (a 13.4% response rate). For section IV of the report (CIO role characteristics), we used the responses from the 285 CIOs that completed the questionnaire (identified as the “top or highest IT person (e.g., the CIO).” For all other reporting, 484 unique organizations were identified and analyzed, represented by their senior-most IT

person responding to the survey: 267 (55.2%) of these were CIOs (organization affiliation was not available for 18 of the 285 CIOs), 129 (26.7%) were direct reports to their organization’s CIO, 60 (12.4%) were direct reports of direct reports, and 20 (4.1%) were farther down their organization’s IT reporting structure. The distribution of those 484 organizations by industry is shown below.

Response by Industry for 484 Unique Organizations

Industry	Percentage	Industry	Percentage
Financial Services / Insurance	14.3%	Construction	1.7%
Healthcare/Medical	10.7%	Other	1.7%
Manufacturing	10.7%	Hospitality/Travel/Leisure	1.4%
Education	7.0%	Medical Technology/BioMedical	1.2%
Government	5.8%	Real Estate	1.2%
IT Services / Consulting	5.4%	Utilities	1.2%
Retail/Wholesale	5.4%	Aerospace / Defense	1.0%
Not-For-Profit	5.2%	Electronics / Semiconductor	1.0%
Business Professional Services	4.5%	Telecommunications	1.0%
Energy	3.7%	Agriculture	0.8%
Transportation/Distribution	3.1%	Automotive	0.8%
Consumer Goods	2.7%	Food Services	0.6%
Media / Entertainment	2.5%	Printing / Publishing	0.6%
Technology	2.3%	Mining / Minerals	0.4%
Chemical Industry	1.9%		

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