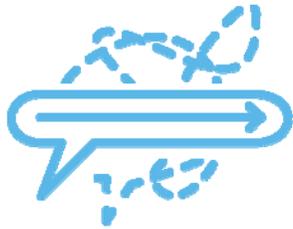


**Information Technology Benchmarking Assessment – 2010**

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**Get the straight story.**

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## Overview

Baker Tilly, an accounting and advisory firm, conducted an Information Technology (IT) benchmarking assessment in 2010 in partnership with a not-for-profit organization. The assessment was designed to provide information about IT-related practices in a variety of areas that can be challenging for organizations. This report summarizes participant practices along with correlating strengths and challenges. The information is organized into six focus areas that were addressed in an IT benchmarking survey (See Appendix A for the survey questions), and follow up discussions with each participant. The focus areas, correlating objectives, and topical areas are summarized below:

### I. Organizational Overview

- > Objective: Understand the size, scope, and characteristics of the organization and the IT resources allocated to supporting the organization as a whole and at remote offices.
  1. Organizational Dynamic
  2. Organizational Change
  3. Application and Offensive Content Policies and Procedures

### II. Collaboration

- > Objective: Understand the tools, methodologies, and frameworks leveraged to connect, share, and communicate within the organization, both locally and remotely.
  1. Knowledge Sharing
  2. Connectivity and Bandwidth
  3. E-Mail Platform

### III. Enterprise and Project Management

- > Objective: Understand what enterprise and project management tools and applications are leveraged to support an organization's business functions, and how they are integrated into the culture and execution of day-to-day operations, projects, and tasks.
  1. Enterprise Resource Management and Systems Integration
  2. Project Management and Outsourcing

### IV. Information Technology Governance and Organization

- > Objective: Understand what groups within an organization are responsible for defining and executing the implementation of IT policies, procedures, and software at home and remote offices, and what processes are leveraged to manage and measure IT support and services.
  1. Roles and Responsibilities of the Chief Information Officer
  2. Information Technology Governing Bodies
  3. Information Technology Framework
  4. Information Technology Employee Satisfaction and Retention

### V. Information Technology Budgeting and Spending

- > Objective: Understand the models and best practices leveraged by organizations to budget, forecast, manage, and track IT spending for services and activities for the organization as a whole, as well as at the remote offices.
  1. Effective Budgeting Process
  2. Cost Allocation

### VI. Programmatic Information Technology Initiatives/Capabilities

- > Objective: Understand the size, scope, and characteristics of the Project or Programmatic IT resources allocated to supporting the organization.
  1. Customer Service
  2. Research and Data Analysis

## Approach and Peer Group Demographics

### Approach

Baker Tilly worked with a not-for-profit organization to recruit benchmarking participants and create benchmarking questions that were focused on areas of common IT opportunities and challenges.

### Demographic Overview

Participants consisted of not-for-profit and for-profit organizations of a range of sizes and industries, including health and pharmaceuticals; technology solutions; and global and health development. Participants manage remote offices in a variety of international locations, including Africa, Latin America, Europe, and the Middle East. The survey results feature practices from organizations that are well recognized in their IT practices as well as from organizations whose IT capabilities are evolving.

The following charts outline high-level demographics of the survey participants:

Company Type	Number of Participants
For-Profit	4
Not-For-Profit	7

Number of Locations	Number of Participants
0 – 50 Offices	2
51 – 100 Offices	6
> 100 Offices	3

Participant Averages	Mean	Median
Total Staff	6,141	3,500
IT Staff – Home Office	61	31
Number of Remote Offices	78	68
Home Office IT Staff Dedicated to Supporting Remote Offices	37	8

Headcount	Number of Participants
< 1,000	0
1,000 < 2,000	1
2,000 < 3,000	3
3,000 < 4,000	2
> 5,000	5

Annual Revenue	Number of Participants
< \$250 million	1
\$250 million < \$500 million	5
\$500 million < \$750 million	2
\$750 million < \$1 billion	1
> \$1 billion	2

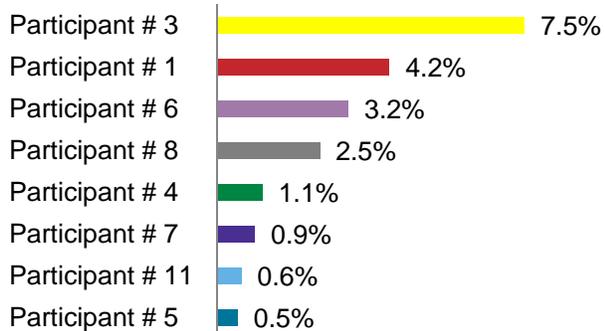
## Peer Group Analytics

The bar graphs below provide a high-level comparison of the participants' allocation of IT investments and resources (i.e., budget, labor). The analytics provide comparative metrics relative to participant size (e.g., number of staff, size of total budget, revenues). *Note that some analytics do not include information for all eleven participants, as not all participants chose to respond to all questions.*

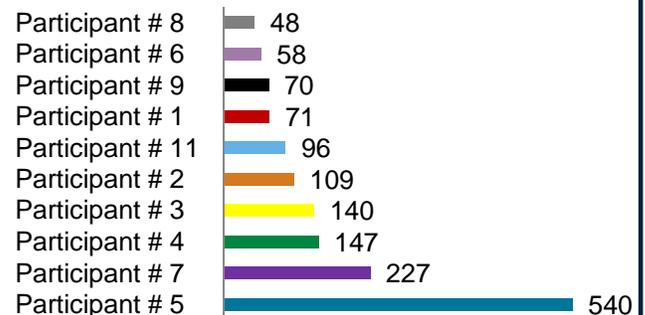
The bar graphs below highlight each participant in a different color to allow simple comparison of one participant across multiple charts.

- > The mean IT budget as a percentage of total budgeted expenses is 2.6%, and the corresponding median is 1.8% (See Figure 0.1).
- > The mean number of end users supported by each headquarters IT staff is 151, and the corresponding median is 103 (See Figure 0.2).
- > The mean number of headquarters IT staff per million of revenue is 0.07 and the corresponding median is 0.06 (See Figure 0.3).
- > The mean number of remote offices supported by each IT staff at headquarters who are dedicated to supporting remote offices (i.e., local support not included) is 12.6, and the corresponding median is 7.8 (See Figure 0.4).

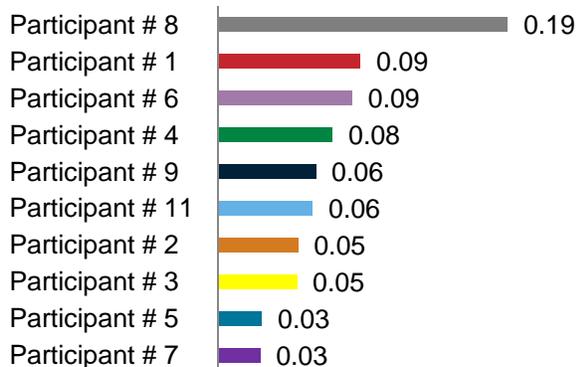
**Figure 0.1: IT Budget (as a percentage of total budgeted expenses)**



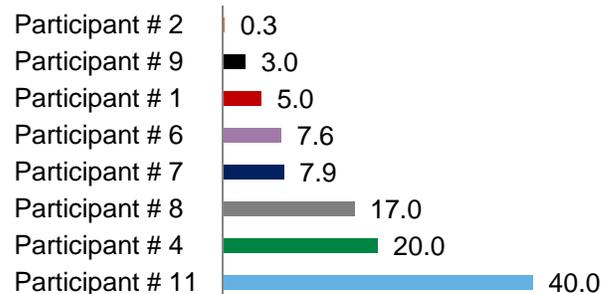
**Figure 0.2: Number of End Users Each Headquarters IT Staff Supports**



**Figure 0.3: Headquarters IT Staff per Million of Revenue**



**Figure 0.4: Number of Remote Offices Supported by Each Headquarters IT Staff Dedicated to Supporting Remote Offices**



## Common Participant Practices

<b>Organizational Overview</b>	<ul style="list-style-type: none"> <li>&gt; Some participants have overcome gaps between the home and remote offices by clarifying roles and responsibilities for IT staff at all locations.</li> <li>&gt; Use multiple methods of communication to promote and manage organizational change (e.g., formal and informal communication and meetings).</li> <li>&gt; Prohibit and monitor access to websites containing offensive content.</li> <li>&gt; Monitor and govern collaboration and social media sites through a Social Media Policy and encourage such use for business purposes.</li> </ul>
<b>Collaboration</b>	<ul style="list-style-type: none"> <li>&gt; Some participants are considering the benefits of using cloud-based solutions.</li> <li>&gt; Although most participants use Microsoft Exchange as their e-mail platform, two use Google Apps Enterprise, and another is transitioning to Microsoft Exchange Online.</li> <li>&gt; Employ SharePoint as one of their main collaboration tools.</li> <li>&gt; Use a range of connectivity methods for the headquarters office and remote offices to access the internet and/or local area networks.</li> </ul>
<b>Enterprise and Project Management</b>	<ul style="list-style-type: none"> <li>&gt; Some participants change processes to meet out-of-the-box software configurations, while others customize software to meet established processes.</li> <li>&gt; Employ a variety of Enterprise Resource Planning (ERP) systems.</li> <li>&gt; Among participants that outsource their payroll administration, Automatic Data Processing (ADP) was the most commonly used vendor.</li> <li>&gt; Use products in the Microsoft Office Suite (e.g., Microsoft Project, Microsoft Excel) for their project management tools.</li> </ul>
<b>Information Technology Governance and Organization</b>	<ul style="list-style-type: none"> <li>&gt; Charge IT Governance Committees with aligning technological investments with the organization's strategic objectives.</li> <li>&gt; Delegate leadership and strategic roles and responsibilities to their Chief Information Officer (CIO), including overseeing strategic planning, leading major technological initiatives, and managing systems acquisition.</li> <li>&gt; Apply several IT frameworks, including the Information Technology Infrastructure Library (ITIL), Control Objectives for Information and Related Technology (COBIT), and Val IT.</li> <li>&gt; Measure IT employee satisfaction both formally and informally.</li> </ul>
<b>Information Technology Budgeting and Spending</b>	<ul style="list-style-type: none"> <li>&gt; Allocate IT costs in a variety of ways to meet the needs of the organization, depending on organizational characteristics (e.g., size, industry).</li> <li>&gt; Assign a group or committee to be responsible for overseeing the selection and prioritization of IT-related investments and activities.</li> <li>&gt; Use either a completely centralized approach for budgeting IT costs, or a mix of a centralized and decentralized approach.</li> </ul>
<b>Programmatic Information Technology Initiatives/Capabilities</b>	<ul style="list-style-type: none"> <li>&gt; Maintain a centralized IT department that supports program-specific IT deliverables.</li> <li>&gt; Provide standardized IT applications (e.g., flowcharting applications, staffing applications) to all remote offices, and specific IT applications only to offices that require them.</li> <li>&gt; Support their standard and non-standard (i.e., specific to individual offices/projects) applications by IT staff in the headquarters or remote offices.</li> </ul>

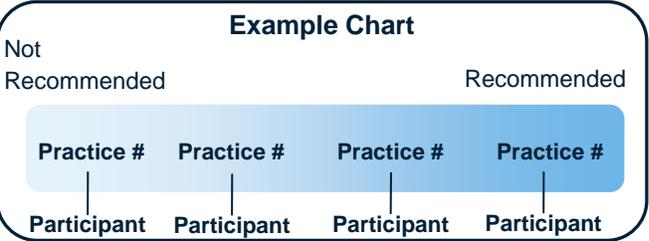
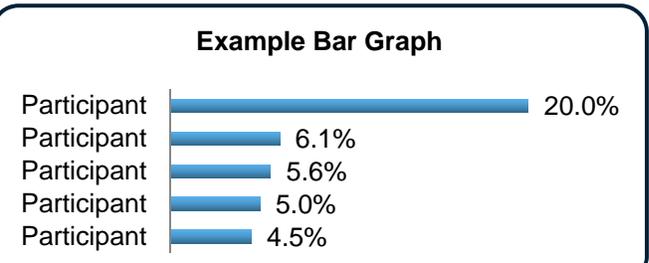
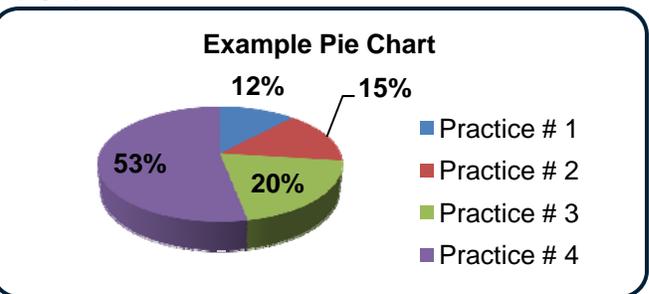
## Objectives, Participant Actions, Strengths, and Challenges

In the following section, we provide aggregated information and supporting details for each benchmarking topical area, using the format outlined below:

Topical Area	
Objective	
<p>Outlines the objective for each topical area identified in the benchmarking survey.</p>	
Participant Actions	
<p>&gt; Summarizes participants' actions based on survey data in the topical area.</p>	
Strengths of Participant Actions	Challenges of Participant Actions
<p>&gt; Lists the strengths of the above mentioned participant actions.</p>	<p>&gt; Lists the challenges of the above mentioned participant actions.</p>

## Benchmarking Results

Each theme has a corresponding “Benchmarking Results” page that illustrates participants’ survey responses. The following types of visuals may accompany each section:

Graph/Chart	Interpretation of Graph/Chart																														
<p><b>Chart:</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><b>Example Chart</b></p> <p style="text-align: center;">Not Recommended <span style="float: right;">Recommended</span></p>  <p style="text-align: center;">Practice # Practice # Practice # Practice #</p> <p style="text-align: center;">Participant Participant Participant Participant</p> </div>	<p><b>Interpretation:</b></p> <p>The chart to the left illustrates the practices used by the survey participants for a given theme. Each practice will be defined along the gradient as a step towards the recommended state.</p>																														
<p><b>Survey Response Matrix:</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><b>Example Matrix</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #e1f5fe;"> <th>#</th> <th>Practice</th> <th>Participant</th> <th>Participant</th> <th>Participant</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Practice #1</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>2</td> <td>Practice #2</td> <td>X</td> <td></td> <td></td> </tr> <tr style="background-color: #e1f5fe;"> <td>3</td> <td>Practice #3</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>4</td> <td>Practice #4</td> <td></td> <td>X</td> <td>X</td> </tr> <tr> <td>6</td> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div>	#	Practice	Participant	Participant	Participant	1	Practice #1			X	2	Practice #2	X			3	Practice #3	X	X	X	4	Practice #4		X	X	6	Other				<p><b>Interpretation:</b></p> <p>The survey response matrix to the left illustrates those practices that are most often used by the survey participants. The highlighted row(s) shows the most commonly used practice(s).</p>
#	Practice	Participant	Participant	Participant																											
1	Practice #1			X																											
2	Practice #2	X																													
3	Practice #3	X	X	X																											
4	Practice #4		X	X																											
6	Other																														
<p><b>Bar Graph:</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><b>Example Bar Graph</b></p>  </div>	<p><b>Interpretation:</b></p> <p>The bar graph to the left illustrates those practices that are most often used by the survey participants.</p>																														
<p><b>Pie Chart:</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><b>Example Pie Chart</b></p>  <ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Practice # 1</li> <li><span style="color: red;">■</span> Practice # 2</li> <li><span style="color: green;">■</span> Practice # 3</li> <li><span style="color: purple;">■</span> Practice # 4</li> </ul> </div>	<p><b>Interpretation:</b></p> <p>The pie chart to the left illustrates the practices that are most often used by the survey participants.</p>																														

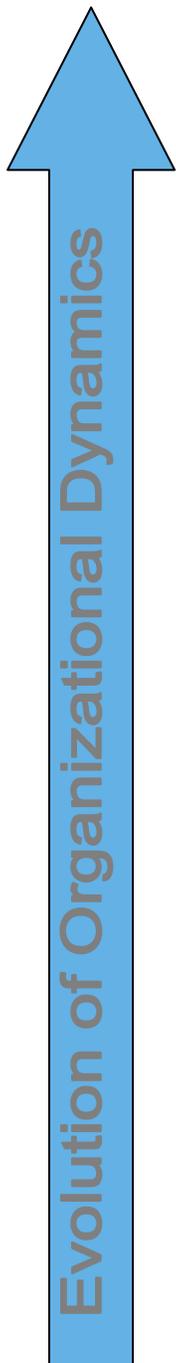
## I. Organizational Overview

1. Organizational Dynamic	
<b>Objective</b>	
Understand the size, scope, and characteristics of the organization and the IT resources allocated to supporting the organization as a whole and at remote offices.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Some participants experience organizational dynamic challenges (i.e., remote offices often feel overlooked because a large number of business decisions focus on the headquarters office) (See Figure 1.1).</li> <li>&gt; Other participants have evolved from having under-supported and unsatisfied remote offices to having more satisfied remote offices by hiring remote office staff, as needed, for projects and programs. The remote offices' IT staff are responsible for local applications, service desk/help desk support, and their local area network. High-level actions for participants at this evolved level include:               <ul style="list-style-type: none"> <li>- Headquarters IT staff establish strategy, technical standards, and global applications.</li> <li>- Remote office IT staff receive little to no oversight from the headquarters office.</li> <li>- Remote office IT staff support local applications, help desk, and the local network.</li> <li>- Remote office IT staff are hired as needed.</li> </ul> </li> <li>&gt; Some participants do not experience organizational dynamic challenges, because they have clarified roles and responsibilities for IT staff at their headquarters, regional, and remote offices (e.g., headquarters office is responsible for maintaining IT strategy, funding, program support, and back office functions; regional offices provide international support; and the remote office IT staff help with project execution). These participants also have an IT representative located at the regional office that serves as a liaison between the remote office and the headquarters office. High-level actions for participants include:               <ul style="list-style-type: none"> <li>- Headquarters IT staff assist with initial IT setup, troubleshooting, and coordination.</li> <li>- Remote offices employ an IT Project Manager to support and review operations.</li> <li>- IT staff from regional offices are liaisons between remote and headquarters offices.</li> <li>- Remote office IT staff report to the liaisons in the largest remote office in their region.</li> <li>- Regional office IT staff provide network assessment, international support, and participation in financial planning meetings.</li> <li>- Remote office IT staff have frequent meetings with the regional and headquarters offices.</li> <li>- All users are informed of IT updates through e-mail blasts.</li> </ul> </li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Defined responsibilities for all IT staff at the remote, regional, and headquarters offices allow for efficient IT support.</li> <li>&gt; IT liaisons between the headquarters office and the remote offices help to facilitate global communication by providing network assessment and international support to the remote offices and participating in IT financial planning meetings.</li> <li>&gt; Meetings with regional and headquarters offices facilitate communication to keep users informed and satisfied on IT updates.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and expense to:               <ul style="list-style-type: none"> <li>- Train remote, regional, and headquarters office IT staff.</li> <li>- Employ a qualified IT Project Manager.</li> <li>- Employ/designate experienced representatives to serve as IT liaisons.</li> <li>- Facilitate effective meetings.</li> <li>- Circulate meeting updates to appropriate users.</li> </ul> </li> </ul>

## Benchmarking Results

**Figure 1.1 – Organizational Dynamics**

- > The following chart outlines various organizational dynamics between participants' remote offices and headquarters office, as explained in the above Participant Actions section.



State	Organizational Dynamic
Participants without organizational dynamic challenges	<ul style="list-style-type: none"> <li>&gt; The headquarters office maintains strategy, funding, program support, and back office functions. The remote offices execute the projects. A range of IT resources (e.g., six to ten IT staff) report to their largest country office. These resources act as tertiary support and as IT liaisons between the headquarters and local country directors. They also provide network assessment, international support, and participation in financial planning meetings.</li> <li>&gt; When a project starts in a remote office, the IT staff help with the initial setup, troubleshooting, and coordination of outsourcing IT services. The IT staff's salaries are covered by the headquarters office, but their expenses incurred on the project are covered by that project. All members of the IT staff assist with these responsibilities when support is needed.</li> <li>&gt; Domestic remote offices have frequent meetings and dedicated videoconferencing with main offices to facilitate collaboration.</li> <li>&gt; Remote offices have an IT Project Manager and staff supporting and reviewing operations.</li> <li>&gt; Remote offices feel connected to the headquarters through e-mail blasts.</li> </ul>
Participants that evolved from having under-supported and unsatisfied remote offices to more satisfied remote offices	<ul style="list-style-type: none"> <li>&gt; Remote office IT staff are hired as needed for projects on a contractual basis. Remote office IT staff are intended to fit the needs of the project with no oversight from the headquarters office.</li> <li>&gt; The home office is responsible for establishing the IT strategy, setting technical standards, and maintaining global applications (e.g., HR, finance, e-mail, intranet, EIC, WAN). The remote offices are responsible for local applications, service desk/help desk support, and their local area network.</li> </ul>
Participants with organizational dynamic challenges	<ul style="list-style-type: none"> <li>&gt; IT is centralized and IT staff in remote offices fulfill support functions only. Remote offices often feel overlooked and under-supported because a large number of business decisions focus on the headquarters office (e.g., various mobile service providers based on location and coverage availability). IT costs in international offices are managed by the corporate IT budget.</li> <li>&gt; Remote offices, which are often shielded for confidentiality, can feel isolated.</li> </ul>

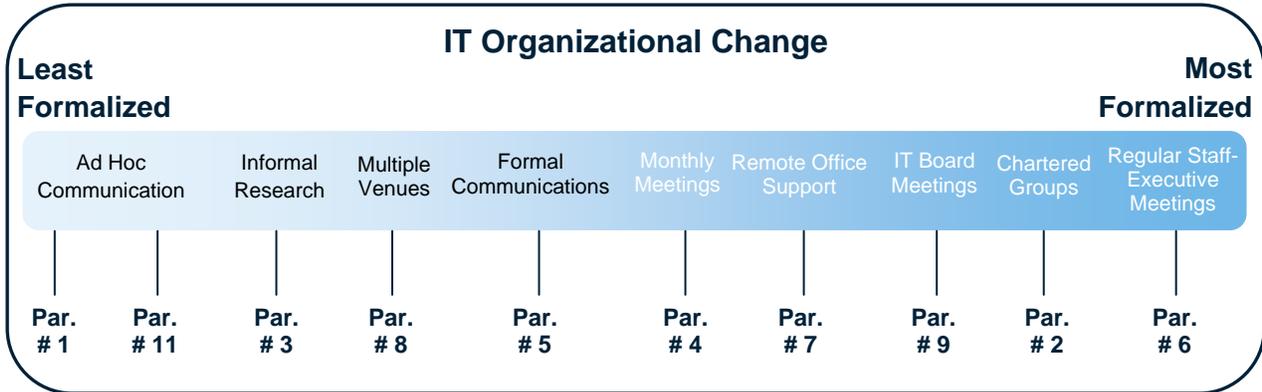
## I. Organizational Overview

2. Organizational Change	
Objective	
Understand the size, scope, and characteristics of the organization and the IT resources allocated to supporting the organization as a whole and at remote offices.	
Participant Actions	
<ul style="list-style-type: none"> <li>&gt; Depending on the size and scope of the project, IT requirements and processes are created in a collaborative manner through working with executive sponsors, business unit stakeholders, and representatives from trainings and communications.</li> <li>&gt; Formal and informal research is used to assess the organization's ability to adapt to IT changes and to structure a change management plan accordingly.</li> <li>&gt; On a periodic basis, one participant conducts regional meetings to capture ideas and issues from the remote offices. At the headquarters office, there is a management committee that serves as the IT steering committee engaged to manage medium to large initiatives.</li> <li>&gt; Participants use multiple methods of communication to promote and manage organizational change (e.g., headquarters and remote office meetings, quarterly board meetings, quarterly all hands meetings, monthly strategic goal alignment meetings, weekly department meetings, newsletters, intranet communications) (See Figure 1.2).</li> <li>&gt; Participants hold several types of meetings with different representatives from the organizations, including meetings at the department, division, executive staff, and organization level.</li> </ul>	
Strengths of Participant Actions	Challenges of Participant Actions
<ul style="list-style-type: none"> <li>&gt; Requirements and processes created in a collaborative manner can help IT projects meet organizational goals.</li> <li>&gt; Using multiple communication methods increases the likelihood that users will understand IT initiatives, goals, and updates.</li> <li>&gt; Soliciting feedback at various levels allows employees to share ideas and feel involved in potential solutions.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and effort is required to gather individuals' input and collaboration, aside from their daily work.</li> <li>&gt; Time and effort is needed to create multiple communication methods. The risk exists of creating organizational communication clutter.</li> <li>&gt; Feedback from individuals at various levels can conflict and cause difficulty in selecting priorities and investments.</li> </ul>

## Benchmarking Results

**Figure 1.2 – IT Organizational Change**

- > The participants' responses to organizational change questions are illustrated below from least formalized to most formalized.



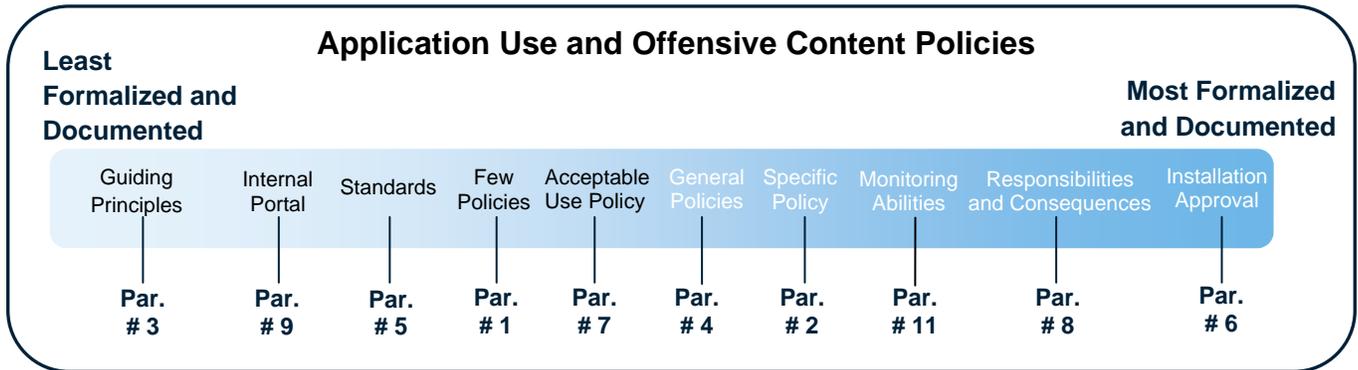
## I. Organizational Overview

3. Application and Offensive Content Policies and Procedures	
<b>Objective</b>	
Understand the size, scope, and characteristics of the organization and the IT resources allocated to supporting the organization as a whole and at remote offices.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Implement policies/guiding principles on application use (See Figure 1.3).</li> <li>&gt; Access to offensive content websites is prohibited, except where required by specific program office/department use (See Figure 1.4).</li> <li>&gt; Third party software requiring installation must be approved; otherwise, it is prohibited by policy.</li> <li>&gt; Websites that are not business related are allowed; however, all web traffic is monitored in accordance with the Acceptable Use Policy.</li> <li>&gt; Collaboration and social media sites are governed by a Social Media Policy and are encouraged when used for business purposes (e.g., Hulu is discouraged for use as an entertainment channel).</li> <li>&gt; Policies discourage LinkedIn recommendations and connecting with subordinates on Facebook.</li> <li>&gt; Users' e-mail and website logs may be reviewed under explicit conditions and with the formal approval of the head of human resources (HR) or legal counsel. Violation of acceptable use policies or related HR policies may result in disciplinary action, including termination.</li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Clarity in use of applications and allowable websites organization-wide.</li> <li>&gt; Transparent procedures for supervisors in response to incidents of inappropriate use of information or IT.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and expense to:               <ul style="list-style-type: none"> <li>- Document policies and procedures.</li> <li>- Monitor activities.</li> <li>- Reprimand inappropriate use of IT.</li> </ul> </li> <li>&gt; Segment network where specific applications are required.</li> </ul>

## Benchmarking Results

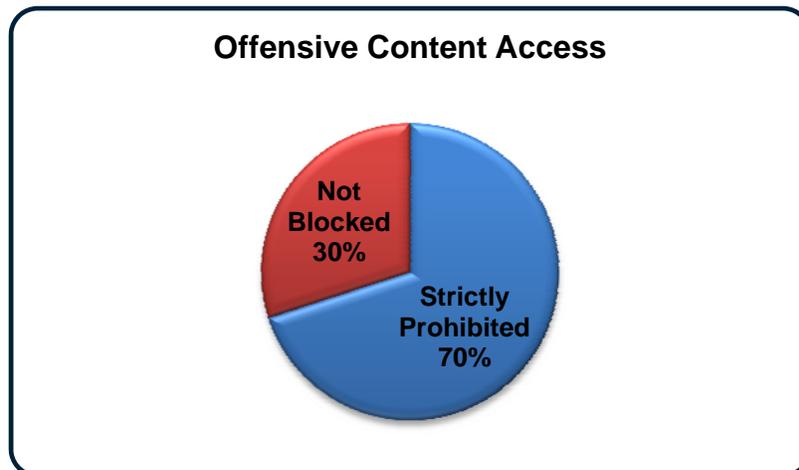
**Figure 1.3 – Application Use and Offensive Content Policies**

- > The chart below summarizes the participants' responses to the Application Use and Offensive Content policy questions. The participants' procedures range from informal and undocumented to formal and documented.



**Figure 1.4 – Offensive Content Access**

- > The following chart analyzes the survey participants' responses on access to offensive content (e.g., pornographic websites). Due to the nature of work at some organizations, two organizations allow limited access to these sites for approved users for research purposes. The remaining survey participants prohibit access to offensive content and outline their policies in an Acceptable Use Policy.



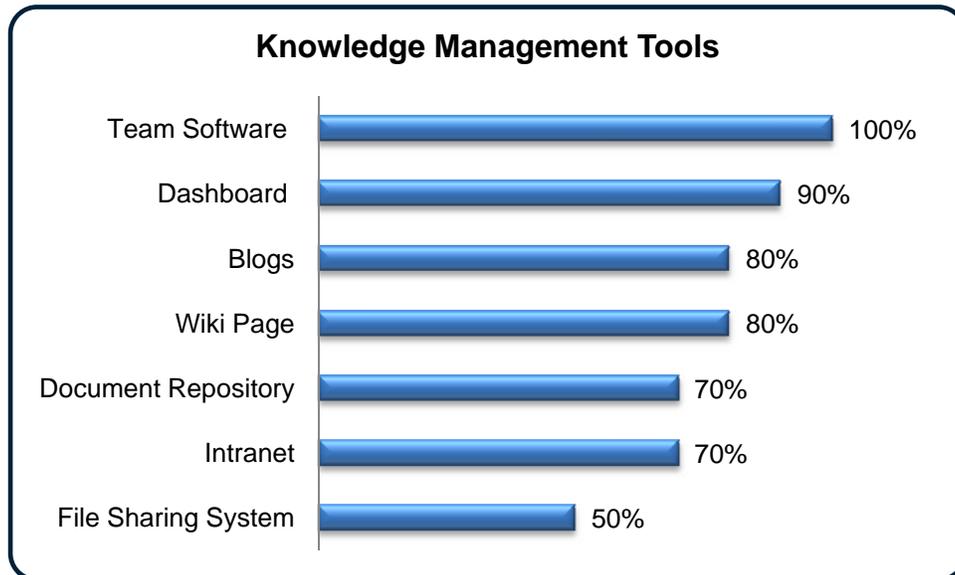
## II. Collaboration

1. Knowledge Sharing	
<b>Objective</b>	
To understand the tools, methodologies, and frameworks leveraged to connect, share, and communicate within the organization, both locally (i.e., the headquarters office) as well as at the remote offices.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Participants leverage a variety of knowledge management tools (e.g., intranet, document repository, dashboards) to store and share information from the headquarters office and remote offices (See Figure 2.1).</li> <li>&gt; The majority of participants use SharePoint as a way to publish research and collaborate on projects across the organization (See Figure 2.2).</li> <li>&gt; Participants leverage a variety of additional collaboration tools to improve idea generation (e.g., WebEx, Skype, instant messaging) (See Figure 2.3).</li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Knowledge management tools create a global database of information (e.g., reports, tools, frameworks).</li> <li>&gt; Knowledge management tools enhance employee awareness of intellectual capital and promote employee information sharing.</li> <li>&gt; File sharing systems mitigate the risk of losing critical knowledge and also allow users to take advantage of the range of professional expertise available within an organization.</li> <li>&gt; Collaboration tools centralize information and increase transparency to reduce employee re-work and frustration.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and resources to effectively communicate, educate, and train users on knowledge management tools.</li> <li>&gt; Time and resources to set-up tools (e.g., SharePoint) in a standard format so that employees can evaluate and access information easily.</li> <li>&gt; Difficulties in motivating employees to populate collaboration tools when they are immersed in their day jobs.</li> <li>&gt; Time and resources to implement appropriate security measures and careful diligence for knowledge management tools (e.g., a robust firewall infrastructure, web filtering, third party security audits) to mitigate vulnerability risk (e.g., video attachments).</li> </ul>

## Benchmarking Results

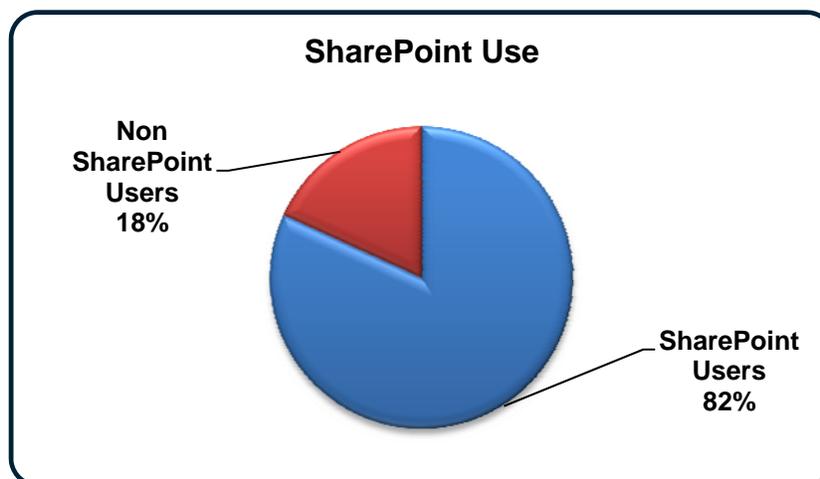
**Figure 2.1 – Knowledge Management Tools**

- > Participants use a range of knowledge management tools to store and share information across the headquarters and remote offices.



**Figure 2.2 – SharePoint Use**

- > Microsoft SharePoint is used by 82 percent of the participants as a collaboration tool to store and share information.



**Figure 2.3 – Collaboration Tools**

> The following table provides details of specific collaboration tools used by each participant. The two collaboration tools that are used most often by participants are highlighted in blue:

Collaboration Tools												
#	Practice	Participant										
		# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11
1	WebEx			X	X	X				X		X
2	SharePoint	X	X	X	X		X	X	X	X	X	
3	Skype	X	X	X	X	X		X	X			X
4	Video Conferencing	X		X	X	X	X	X	X	X		X
5	E-Mail	X	X	X	X	X	X	X	X	X	X	X
6	Instant Messaging	X	X	X		X	X	X	X	X	X	X
7	Other (Please Specify)	X Wiki	X internal social net- working			X Wiki						

## II. Collaboration

2. Connectivity and Bandwidth	
<b>Objective</b>	
To understand the tools, methodologies, and frameworks leveraged to connect, share, and communicate within the organization, both locally (i.e., the headquarters office) as well as at the remote offices.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Participants use a range of connectivity methods for the headquarters office and remote offices to access the internet and/or local area networks (e.g., dial-up, cable, Ethernet, Wi-Fi, Very Small Aperture Terminal (VSAT) connectivity) (See Figure 2.4).</li> <li>&gt; Participants leverage various access capabilities and controlled gateways (e.g., Virtual Private Network (VPN) and Citrix) to remotely access applications from remote offices (See Figure 2.5).</li> <li>&gt; Participants have teams to support system information tools and to report system availability variances, outages, and peak usage details. Participants use these reports to enhance connectivity (e.g., large files are usually uploaded in the morning or evening at the remote offices).</li> <li>&gt; Some participants establish locally hosted exchange servers in their remote offices to accelerate bandwidth needs and improve performance issues.</li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Reliable connectivity methods and access capabilities allows for remote offices to access the headquarters' applications without creating their own local solutions.</li> <li>&gt; A team supporting system monitoring tools provides management with clarity on accelerating bandwidth and connectivity issues at the remote offices.</li> <li>&gt; Local exchange servers mitigate many performance issues and accelerate bandwidth to help connect users across the organization.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and resources to:               <ul style="list-style-type: none"> <li>- Install, monitor, and manage multiple connectivity methods and to access capabilities.</li> <li>- Employ qualified IT staff to implement system monitoring tools and to effectively report system functionality to users.</li> <li>- Employ qualified IT staff to install and monitor local exchange servers.</li> </ul> </li> </ul>

## Benchmarking Results

**Figure 2.4 – Connectivity Methods**

- > The following table provides details of specific connectivity methods used by each participant to access the internet and local area networks. The most common connectivity methods are highlighted in blue.

Connectivity Methods												
#	Practice	Participant										
		# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11
1	Dial-Up	X		X								X
2	Cable	X		X					X		X	X
3	Ethernet	X	X	X	X				X		X	X
4	Wi-Fi	X	X	X	X	X	X					X
5	3G	X		X								X
6	Cellular	X		X	X							X
7	VSAT Connectivity	X	X	X	X	X		X	X			X
10	Other (Please Specify)				X Satellite phones			X T-1, ADSL <sup>1</sup> , and leased lines	X DSL <sup>2</sup> , Fiber Optics	X VPN		

**Figure 2.5 – Access Capabilities**

- > The following table provides details of access capabilities used by each participant to access the headquarters and/or headquarters' applications from the remote offices. The most common access capabilities are highlighted in blue.

Access Capabilities												
#	Practice	Participant										
		# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11
1	VPN			X	X	X	X	X	X	X	X	X
2	Citrix			X	X			X			X	X
3	Other (Please Specify)		X MPLS <sup>3</sup> Balanced network	X Anyconnect			X VPN and circuit	X Wide Area Network	X			

<sup>1</sup> Asymmetric Digital Subscriber Line (ADSL)

<sup>2</sup> Digital Subscriber Line (DSL)

<sup>3</sup> Multiprotocol Label Switching (MPLS)

## II. Collaboration

3. E-Mail Platform	
<b>Objective</b>	
To understand the tools, methodologies, and frameworks leveraged to connect, share, and communicate within the organization, both locally (i.e., the headquarters office) as well as at the remote offices.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Participants support one e-mail platform for the entire organization, and did not report significant performance issues with e-mail platforms.</li> <li>&gt; Most participants use Microsoft Exchange as their e-mail platform (See Figure 2.6).</li> <li>&gt; Participants allow consumer e-mail access (e.g., Gmail) only for personal use or in the case of a business emergency (e.g., if the e-mail platform becomes temporarily unavailable). No work content is allowed to be transferred via personal e-mail accounts.</li> <li>&gt; Most participants document their e-mail usage policy under an Acceptable Use Policy. Violation of this policy may result in reprimand, up to and including termination.</li> <li>&gt; Three participants are either using or considering using cloud-based solutions; one participant is assessing a potential transition to cloud services for its e-mail system; another participant currently uses Google Apps Enterprise as its e-mail system; while another participant is transitioning to Microsoft Exchange Online.</li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; A uniform e-mail platform eliminates the need for different remote offices to establish their own system or to use personal e-mail accounts for business purposes.</li> <li>&gt; A uniform e-mail platform enhances communication between the headquarters office and the remote offices and facilitates organization-wide communication (e.g., notification of a systems outage).</li> <li>&gt; Transitioning to an online e-mail platform has several cost benefits (e.g., the reduced cost of upgrades), while also having the benefits of an active directory.</li> <li>&gt; Transparent e-mail use guidelines are documented in an Acceptable Use Policy.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and resources to:               <ul style="list-style-type: none"> <li>- Employ and train the IT staff to support a uniform e-mail platform.</li> <li>- Monitor and enforce compliance of consumer e-mail accounts for personal use only.</li> <li>- Document policies and procedures and reprimand inappropriate use.</li> </ul> </li> <li>&gt; Time, costs, and concerns associated with cloud services:               <ul style="list-style-type: none"> <li>- Initial start-up costs.</li> <li>- Privacy and data security concerns.</li> <li>- The cost of hiring an implementation partner and integration team to establish user acceptance and to successfully integrate e-mails.</li> </ul> </li> </ul>

## Benchmarking Results

**Figure 2.6 – E-Mail Service**

- > The following table lists e-mail platforms used by each participant and whether personal e-mail access is allowed. The most common e-mail platform and practice are highlighted in blue.

E-Mail Service												
#	Practice	Participants										
		# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11
1	GroupWise											X
2	Google Apps Enterprise					X						X (transitioning)
3	Microsoft Exchange	X	X	X	X		X	X	X	X	X	
4	Personal E-Mail (personal use only)	X	X	X		X		X	X		X	X
5	Personal E-Mail (in case of emergency)				X				X			X
6	Other (multiple systems used)			X		X						X

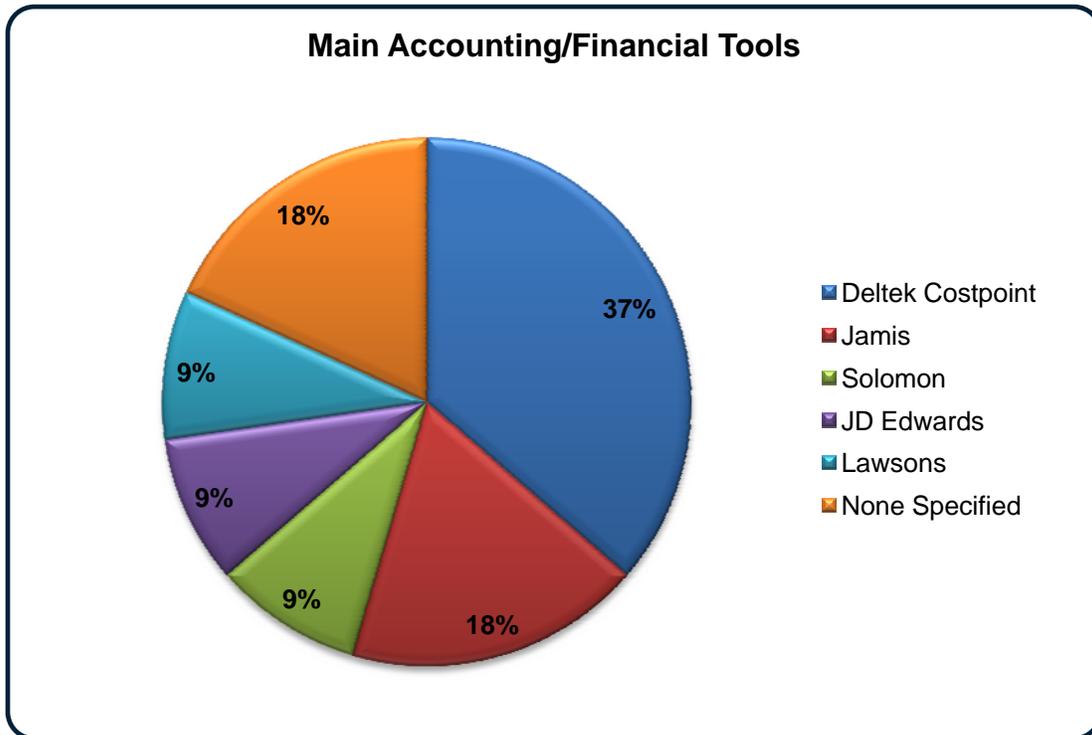
### III. Enterprise and Project Management

1. Enterprise Resource Management and Systems Integration	
Objective	
To understand what enterprise and project management tools and applications are leveraged to support an organization's business functions and how those tools and applications are integrated into the culture and execution of day-to-day operations, projects, and tasks.	
Participant Actions	
<ul style="list-style-type: none"> <li>&gt; There are a variety of Enterprise Resource Planning (ERP) systems in use (See Figure 3.1).</li> <li>&gt; Participants have a set of dedicated IT staff supporting their ERP systems.</li> <li>&gt; Some participants change processes to meet out-of-the-box software configurations, while other participants customize their software to meet established processes (See Figure 3.2).</li> <li>&gt; Participants use a variety of reporting capability tools (See Figure 3.3).</li> </ul>	
Strengths of Participant Actions	Challenges of Participant Actions
<ul style="list-style-type: none"> <li>&gt; ERP systems can increase data integrity, provide information for better decision making, reduce manual workarounds, and create cost efficiencies.</li> <li>&gt; Participants with dedicated staff supporting their ERP applications expressed overall satisfaction with their current ERP software.</li> <li>&gt; Less customization can reduce the cost and time needed for upgrades.</li> <li>&gt; Existing reporting tools can bolt on to ERP systems easily and are user friendly.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Costs associated with:               <ul style="list-style-type: none"> <li>- Implementing and maintaining an ERP system.</li> <li>- Training staff and re-organizing staffing set-up.</li> </ul> </li> <li>&gt; It is difficult to change business processes to align to an ERP system.</li> <li>&gt; High levels of customization make system upgrades difficult and costly.</li> </ul>

## Benchmarking Results

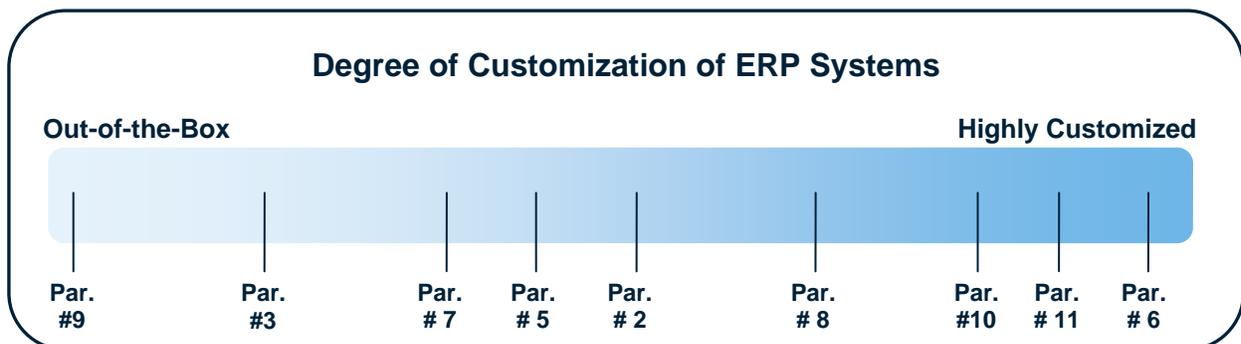
**Figure 3.1 – Main Accounting/Financial Tools**

- > Participants use a range of accounting and financial tools.



**Figure 3.2 – Degree of Customization of Enterprise Management Planning Systems**

- > The following chart shows the participants' level of customization for ERP systems. "Out-of-the-Box" relates to organizations that change their established processes to meet the ERP system's standard configurations. "Highly Customized" relates to organizations that customize their ERP system to meet the needs of the organization's established processes.



**Figure 3.3 – Financial Reporting Tools**

> The following table displays the financial reporting tools used by each participant. The majority of participants use Crystal as their reporting software, highlighted in blue.

Financial Reporting Tools												
#	Practice	Participants										
		# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11
1	Cognos	X	X				X		X	X	X	
	- ReportNet		X				X		X	X	X	
	- Impromptu						X					
	- TM1	X					X				X	
2	<b>Crystal Business Objects</b>	X		X		X		X	X	X		X
3	SQL Server Reporting Services	X						X				
4	Hyperion		X									
5	Excel			X								X
6	Other (Please Specify)				X Mariner							X Internal Budget Tool

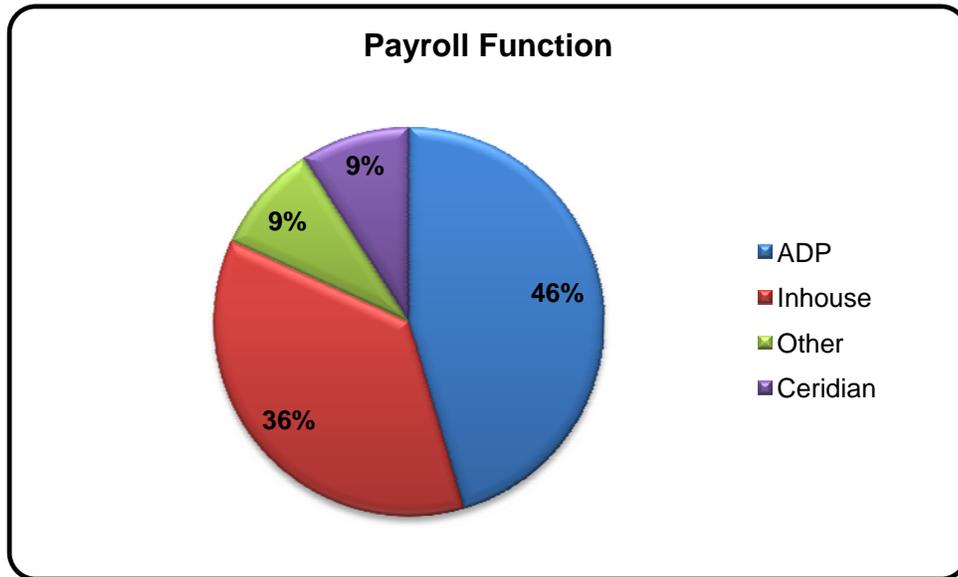
### III. Enterprise and Project Management

2. Project Management and Outsourcing	
Objective	
To understand what enterprise and project management tools and applications are leveraged to support an organization's business functions and how those tools and applications are integrated into the culture and execution of day-to-day operations, projects, and tasks.	
Participant Actions	
<ul style="list-style-type: none"> <li>&gt; Automatic Data Processing (ADP) is the most prevalent vendor used by participants to outsource payroll administration; however, a variety of other options are in use (See Figure 3.4).</li> <li>&gt; Most participants use products in the Microsoft Office Suite (e.g., Microsoft Project, Microsoft Excel) for their project management tools (See Figure 3.5).</li> </ul>	
Strengths of Participant Actions	Challenges of Participant Actions
<ul style="list-style-type: none"> <li>&gt; Participants who outsource payroll reduce costs by focusing on their core business rather than payroll administration.</li> <li>&gt; Participants use low cost, manageable tools to meet their project management needs.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; To outsource business functions, participants need uniform, repeatable processes.</li> <li>&gt; Data security may be jeopardized when data is managed by a third party (e.g., vendors).</li> <li>&gt; Project management tools used by participants can lack data integrity and present version control issues.</li> </ul>

## Benchmarking Results

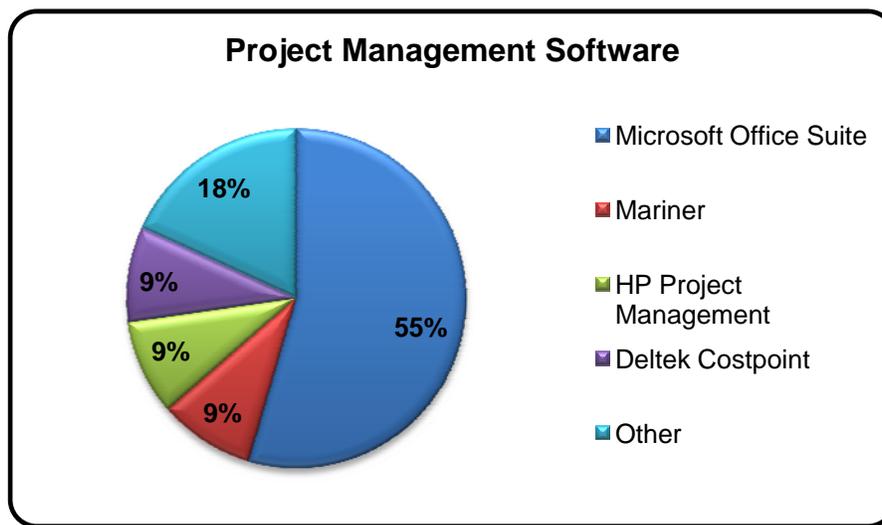
**Figure 3.4 – Payroll Function**

- > The chart below shows the vendors to whom participants outsource payroll administration. The majority of participants outsource payroll administration to ADP.



**Figure 3.5 – Project Management Software**

- > Participants use a variety of software packages for project management; however, the majority of participants use the Microsoft Office Suite to support their project management needs.



## IV. Information Technology Governance and Organization

1. Roles and Responsibilities of the Chief Information Officer	
Objective	
To understand which individuals and/or groups within an organization are responsible for defining and executing the implementation of IT policies, procedures, and software at both home and remote offices, and which processes are leveraged to manage and measure IT support and services.	
Participant Actions	
<ul style="list-style-type: none"> <li>&gt; The majority of participants delegate leadership and strategic roles and responsibilities to their CIO. The roles and responsibilities include (See Figure 4.1):               <ul style="list-style-type: none"> <li>- Oversee strategic planning.</li> <li>- Lead major technological initiatives.</li> <li>- Oversee systems acquisition and implementation.</li> <li>- Manage the organization’s Charter and Strategic Plan, as it relates to IT.</li> <li>- Participate in governing bodies, such as: Steering Committees, IT Governance Boards, Executive Committees, and Management Councils.</li> </ul> </li> <li>&gt; The CIO directly reports to other “C-Level” positions (e.g., CEO, CFO, COO).</li> </ul>	
Strengths of Participant Actions	Challenges of Participant Actions
<ul style="list-style-type: none"> <li>&gt; Participants delegate leadership and strategic authority to CIOs, allowing for more efficient decision making in accordance with the organizations’ strategic initiatives.</li> <li>&gt; Participants have a clearly articulated chain of command, resulting in clear communicative channels, accountability, and the ability to enact initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The time required for the CIO to participate in committees.</li> <li>&gt; The time required for a “C-Level” executive (e.g., CEO, CFO) to oversee the CIO and IT activities.</li> </ul>

## Benchmarking Results

**Figure 4.1 – CIO Roles and Responsibilities**

> The following table shows CIO (or equivalent) roles and responsibilities for participants.



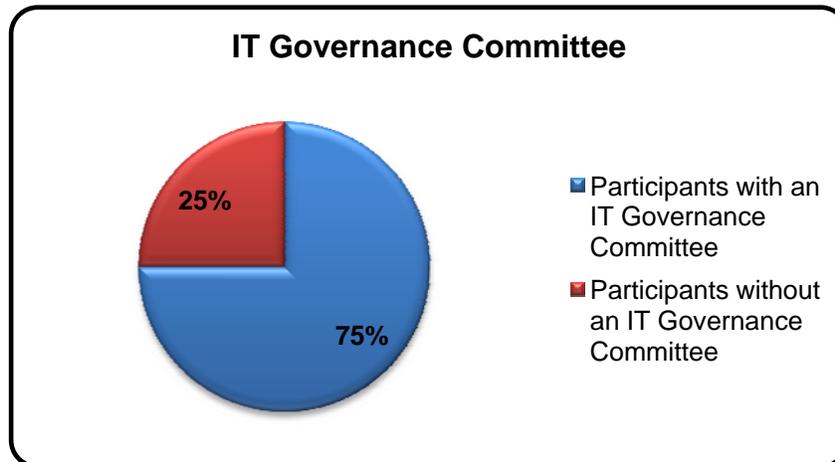
## IV. Information Technology Governance and Organization

2. Information Technology Governing Bodies	
Objective	
To understand which individuals and/or groups within an organization are responsible for defining and executing the implementation of IT policies, procedures, and software at both home and remote offices, and which processes are leveraged to manage and measure IT support and services.	
Participant Actions	
<ul style="list-style-type: none"> <li>&gt; Participants have committees with clearly defined members, meeting intervals, and roles and responsibilities. Committee charters clearly outline strategic initiatives, vision, and goals. Participants' committees include equivalents of an Executive Committee and a Steering Committee.</li> <li>&gt; Participants' "C-Level" executives report to and/or participate in multiple governing bodies including: Steering Committees, IT Governance Boards, Executive Committees, and Management Councils.</li> <li>&gt; Participants have IT Governance Committees, consisting primarily of "C-Level" executives, who are responsible for providing feedback and ideas on technological investments, as well as aligning technological investments with the organization's strategic objectives (See Figures 4.2 and 4.3).</li> </ul>	
Strengths of Participant Actions	Challenges of Participant Actions
<ul style="list-style-type: none"> <li>&gt; Committees with clearly defined roles and responsibilities are able to operate in a more efficient and effective manner. Committee charters provide a framework for addressing strategic initiatives.</li> <li>&gt; Participants' "C-Level" executives are actively involved in multiple governing bodies, allowing for greater leadership awareness and buy-in to major strategic initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and resources required to create and maintain committees (e.g., Steering Committees) and corresponding charters.</li> <li>&gt; Time and resources required for "C-Level" executives to actively participate in committee meetings.</li> </ul>

## Benchmarking Results

**Figure 4.2 – IT Governance Committee**

> The following table shows the percentage of participants that have an IT Governance Committee.



**Figure 4.3 – IT Governance Committee Roles and Responsibilities**

> The following table displays the roles and responsibilities for the IT Governance Committees for the 75 percent of participants who have such a committee.

Of the 75% of participants with an IT Governance Committee...	Roles and Responsibilities
... <b>all</b> participants listed these roles and responsibilities:	<ul style="list-style-type: none"> <li>&gt; Align technological investments with the organization's strategic objectives.</li> <li>&gt; Provide feedback on potential technological investments.</li> <li>&gt; Provide ideas for potential technological investments.</li> </ul>
... <b>most</b> participants listed these roles and responsibilities:	<ul style="list-style-type: none"> <li>&gt; Consider the IT needs of the organization's remote offices.</li> <li>&gt; Consider the IT needs of the organization's administrative areas.</li> <li>&gt; Consider the IT needs of the organization's programs.</li> <li>&gt; Monitor the status of ongoing IT projects.</li> <li>&gt; Establish remote office IT strategic priorities.</li> <li>&gt; Establish central IT strategic priorities.</li> </ul>
... <b>some</b> participants listed these roles and responsibilities:	<ul style="list-style-type: none"> <li>&gt; Develop the IT budget.</li> <li>&gt; Establish programmatic IT strategic priorities.</li> </ul>

## IV. Information Technology Governance and Organization

3. Information Technology Framework	
<b>Objective</b>	
To understand which individuals and/or groups within an organization are responsible for defining and executing the implementation of IT policies, procedures, and software at both home and remote offices, and which processes are leveraged to manage and measure IT support and services.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Participants currently leverage one or more of the following IT frameworks (See Figure 4.4):               <ul style="list-style-type: none"> <li>- Information Technology Infrastructure Library (ITIL) – An IT framework used to guide best practices for service management.</li> <li>- Control Objectives for Information and Related Technology (COBIT) – An IT governance framework used to align control requirements, technical issues, and business risks.</li> <li>- Val IT – An IT framework that provides organizations with best practices to measure, monitor, and optimize the value obtained by IT investments. Val IT aligns with COBIT.</li> </ul> </li> <li>&gt; One participant leverages the International Standards Organization (ISO) IT framework to define and maintain quality IT systems.</li> <li>&gt; One participant leverages NetHope as a resource for acquiring IT best practices. NetHope is a network of humanitarian organizations which encourages idea sharing amongst its members to establish information and communication technology best practices.</li> <li>&gt; Participants informally monitor adherence to frameworks.</li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Participants have established frameworks to support their IT service management, governance, and investment methodologies.</li> <li>&gt; Informally monitoring adherence to IT frameworks is less costly than formally monitoring adherence to IT frameworks, while still providing many of the benefits associated with the IT framework.</li> <li>&gt; Val IT aligns with COBIT, providing additional methodology valuation of IT investments.</li> <li>&gt; Idea sharing networks (e.g., NetHope) allow members to share best practices and build upon peer organizations' strengths.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The time and expense to train and hold staff accountable for adherence to multiple frameworks to support different IT functions (e.g., service management, governance, investment).</li> <li>&gt; The cost of IT framework materials (e.g., ITIL book series).</li> <li>&gt; Participants who informally monitor adherence to IT frameworks may not be experiencing the full benefit of having such a framework.</li> </ul>

## Benchmarking Results

**Figure 4.4 – IT Frameworks**

- > The following table shows IT frameworks used by participants. Most participants use ITIL as an IT framework, as highlighted in blue.

IT Frameworks												
#	Practice	Participants										
		# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11
1	COBIT		X									
2	ITIL	X	X		X		X		X			X
3	Other (Please Specify)		X ISO elem ents		X NetH ope							
4	Not Specified			X		X		X		X	X	

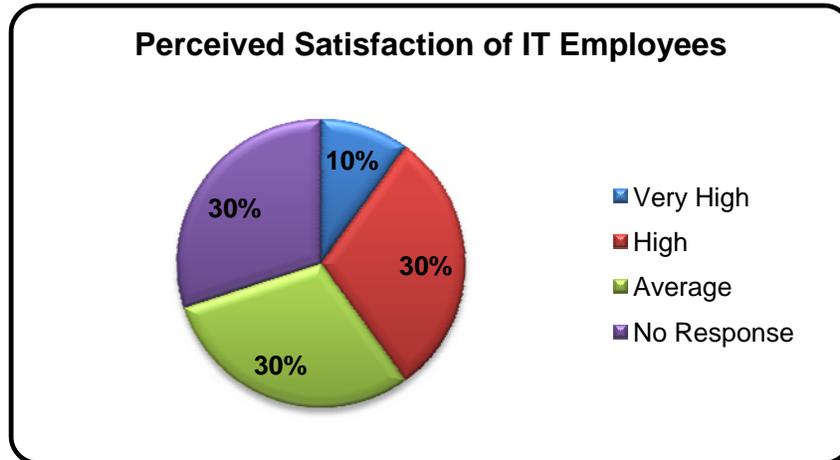
#### IV. Information Technology Governance and Organization

4. Information Technology Employee Satisfaction and Retention	
<b>Objective</b>	
To understand which individuals and/or groups within an organization are responsible for defining and executing the implementation of IT policies, procedures, and software at both home and remote offices, and which processes are leveraged to manage and measure IT support and services.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Most participants reported a perceived high satisfaction level among IT employees (See Figure 4.5).</li> <li>&gt; Participants measure IT employee satisfaction using formal and informal communication channels (e.g., meetings, conversations, surveys, suggestion boxes) (See Figure 4.6).</li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Participants with low turnover maintain institutional knowledge of IT activities and organizational processes.</li> <li>&gt; Formal employee satisfaction metrics lead to uniform, measurable results.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Retaining employees while salaries are flat and/or budgets are tight.</li> <li>&gt; Informal employee satisfaction metrics may result in inconsistent and/or unclear responses, making them difficult to measure.</li> </ul>

## Benchmarking Results

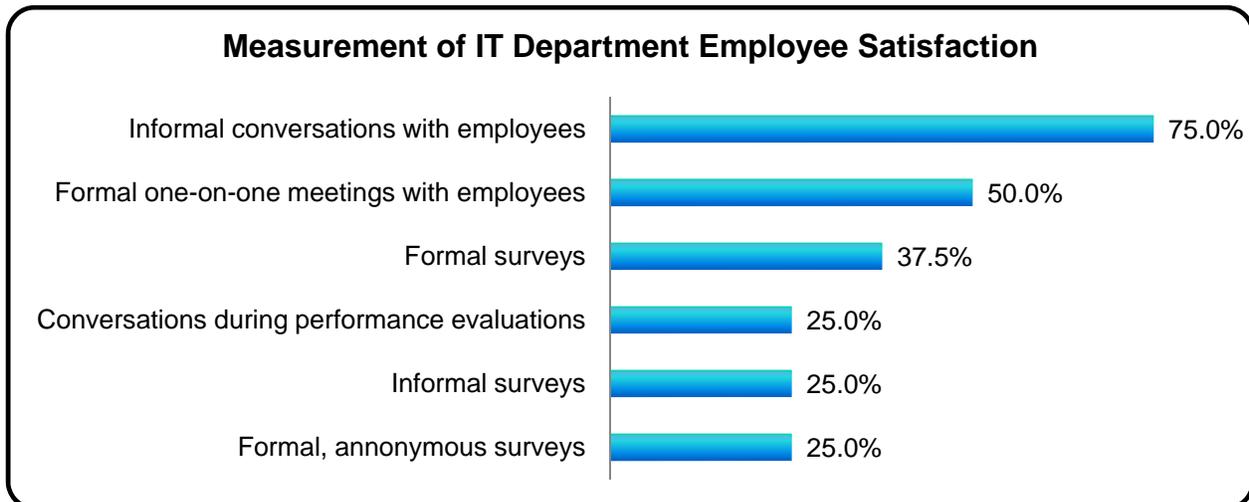
**Figure 4.5 – Perceived Satisfaction of IT Employees**

- > Participants reported the perceived level of their IT employee satisfaction. Most participants reported high levels of perceived satisfaction, based on formal and informal communication channels.



**Figure 4.6 – Measurement of IT Department Employee Satisfaction**

- > Participants measure IT department employee satisfaction in a variety of ways, but most measure it through a combination of informal and formal conversations with employees.



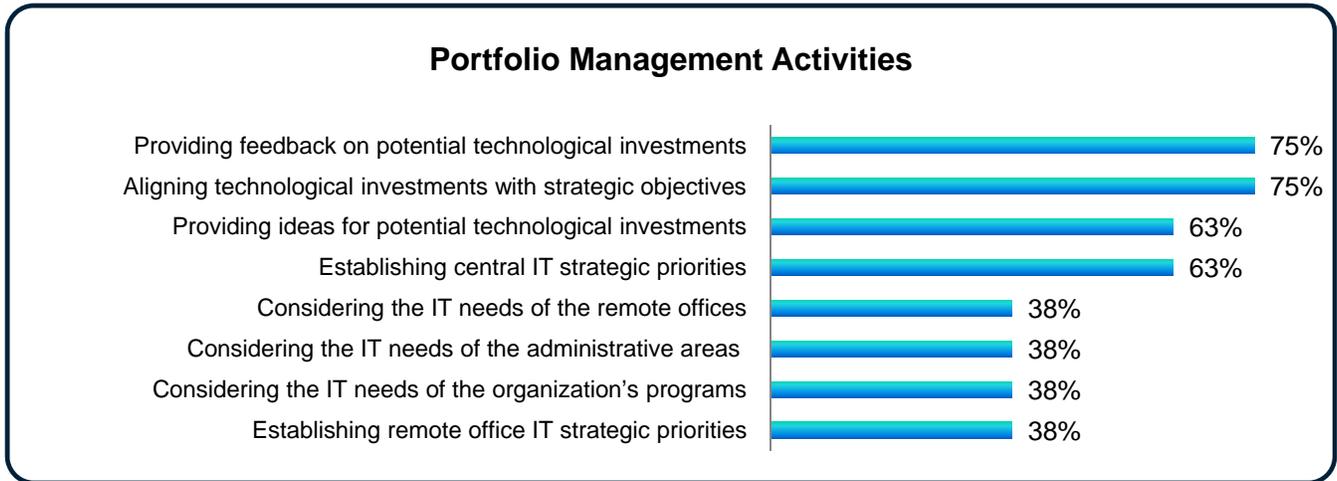
## V. Information Technology Budgeting and Spending

1. Effective Budgeting Process	
Objective	
To understand the models and best practices leveraged by organizations to budget, forecast, manage, and track IT spending for services and activities for the organization as whole, as well as at the local level (e.g., remote offices).	
Participant Actions	
<ul style="list-style-type: none"> <li>&gt; Participants have a group or committee responsible for overseeing the selection and prioritization of IT-related investments and activities. Aligning IT investments with the organization’s strategic objectives and providing ideas and feedback on potential IT investments are among this group’s responsibilities (See Figure 5.1). Included in this group are the COO, CIO, CFO, and a mixture of team representatives and/or initiative leaders. Some participants also have this group create the IT budget.</li> <li>&gt; Participants use either a completely centralized approach for budgeting IT costs, or a centralized approach for headquarters and a decentralized approach for remote offices (See Figure 5.2).</li> <li>&gt; For additional participant budgeting actions, see Peer Group Analytics on pages five through seven.</li> </ul>	
Strengths of Participant Actions	Challenges of Participant Actions
<ul style="list-style-type: none"> <li>&gt; A formalized group or committee focusing on IT-related investments can increase the exposure and potential success of such investments.</li> <li>&gt; Using a centralized approach for creating the IT budget may create cost-savings and synergies by providing visibility into the remote offices’ needs.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and resources of “C-Level” and other organization leaders to actively participate in such a responsible group or committee.</li> <li>&gt; Remote offices may not have sufficient resources to create an effective budget.</li> </ul>

## Benchmarking Results

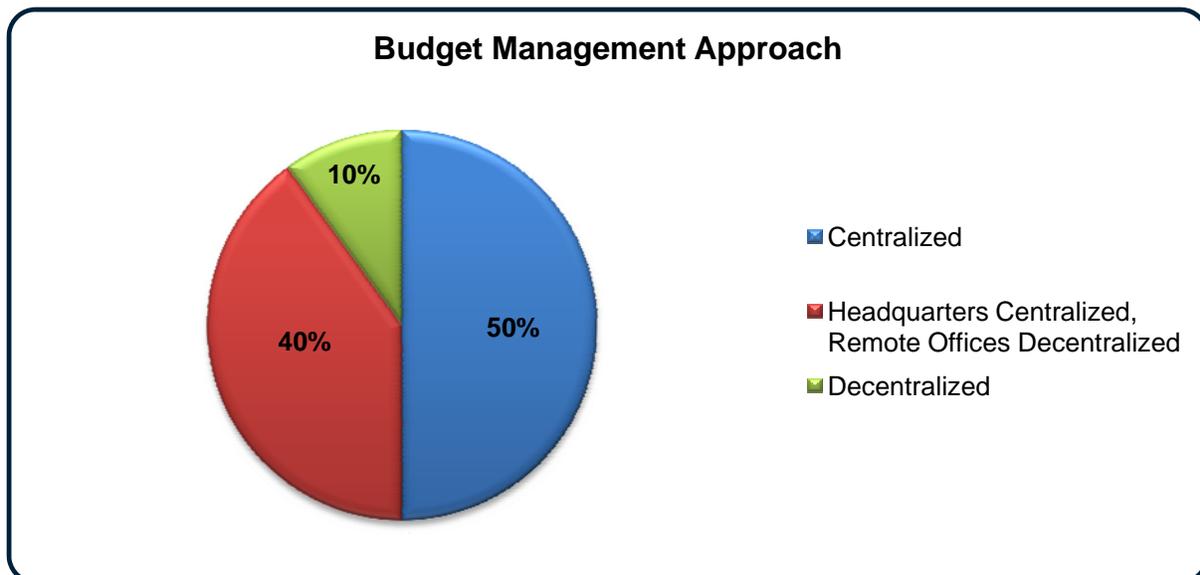
**Figure 5.1 – Portfolio Management Activities**

- > The following chart shows the activities of the participants' group or committee responsible for overseeing the selection and prioritization of IT-investments.



**Figure 5.2 – Budget Management Approach**

- > The following chart shows the budget management approaches used by participants.



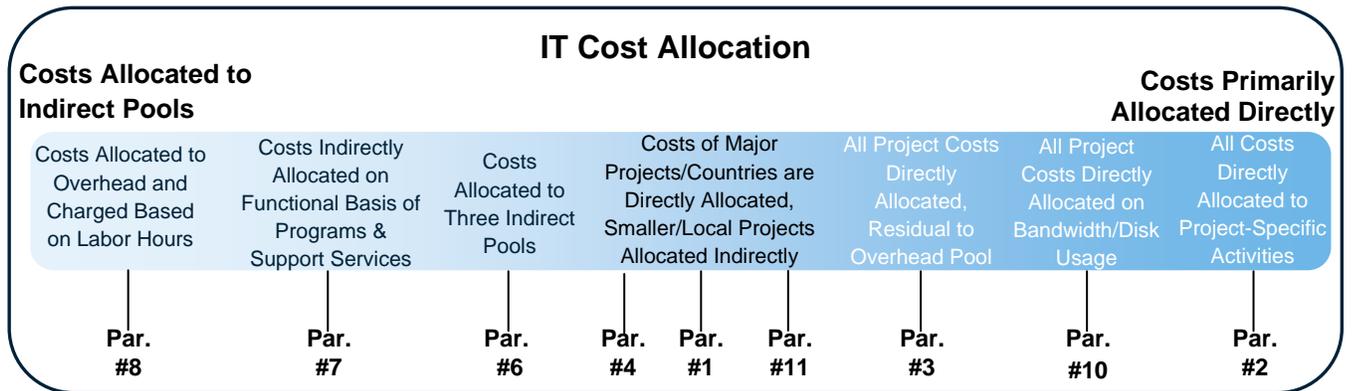
## V. Information Technology Budgeting and Spending

<b>2. Cost Allocation</b>	
<b>Objective</b>	
To understand the models and best practices leveraged by organizations to budget, forecast, manage, and track IT spending for services and activities for the organization as whole, as well as at the local level (e.g., remote offices).	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; IT costs can be allocated in a variety of ways to meet the specific needs of an organization depending on organizational characteristics (e.g., size, industry, availability of resources). Although no single methodology is optimal for all organizations, participant actions can be described in one of the following generalized categories (See Figure 5.3):               <ul style="list-style-type: none"> <li>- IT costs are charged to one or more indirect cost pools (e.g., general and administrative (G&amp;A), overhead, support, communications).</li> <li>- Costs are charged directly to projects when possible; additional costs are charged to one or more indirect cost pools.</li> <li>- Costs are consistently allocated to the individual projects that they support; relatively small residual costs may be charged to one or more indirect cost pools.</li> </ul> </li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Allocating all IT costs to one or more indirect cost pool(s) requires a small amount of resources, training, and overall organizational cooperation.</li> <li>&gt; Directly allocating only major IT costs to the projects that they support requires fewer resources than other methods (e.g., allocating all IT costs to projects), but may not account for all IT costs incurred by the organization for a given project.</li> <li>&gt; Consistently allocating IT costs to the projects that they support (either directly or indirectly) is a comprehensive method of accounting for and recovering IT costs.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Indirectly allocating all IT costs to a pool of overhead expenses can result in a less accurate determination of project costs and/or overall IT costs not being fully recovered.</li> <li>&gt; Directly allocating IT costs to projects only when possible can leave a significant portion of costs to an overhead/G&amp;A pool.</li> <li>&gt; Consistently allocating IT costs to projects requires a significant amount of resources, training, and procedural organization, and is, therefore, not financially beneficial for all organizations.</li> </ul>

## Benchmarking Results

**Figure 5.3 — IT Cost Allocation**

- > The chart below summarizes how participants allocate their IT costs. The chart ranges from organizations primarily allocating their costs through an indirect pool to organizations primarily allocating their costs to projects that they support directly.



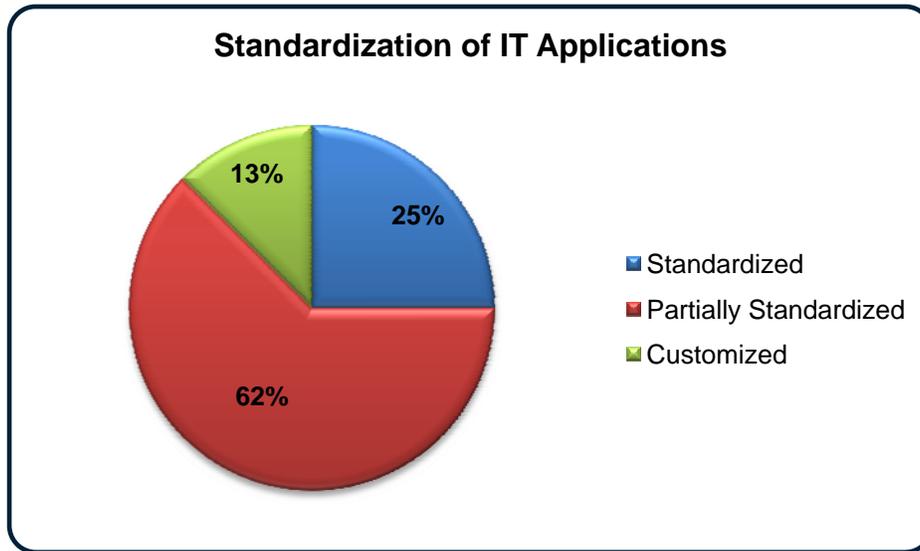
## VI. Programmatic Information Technology Initiatives/Capabilities

1. Customer Service	
Objective	
To understand the size, scope, and characteristics of the Project or Programmatic IT resources allocated to supporting them.	
Participant Actions	
<ul style="list-style-type: none"> <li>&gt; Participants provide standardized IT applications (e.g., flowcharting applications, staffing applications, file storage applications) as applicable to all remote offices (See Figure 6.1), while providing specific applications only to offices that require them. Participants support their standard and non-standard (i.e., specific to individual offices or projects) applications by IT staff in the headquarters or remote offices.</li> <li>&gt; Participants have a centralized IT department that supports program-specific IT deliverables (See Figure 6.2).</li> </ul>	
Strengths of Participant Actions	Challenges of Participant Actions
<ul style="list-style-type: none"> <li>&gt; Partially standardized IT applications allow IT support staff to be more efficient and targeted in providing support to employees. Furthermore, specific applications are made available and supported by IT for only the offices that require them.</li> <li>&gt; Centralized IT departments that support program-specific deliverables can streamline IT staff efforts.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and expense to support applications that are not standard across all of the remote offices.</li> <li>&gt; Cultural shift required to standardize applications.</li> <li>&gt; A centralized IT department may not offer as much flexibility to remote offices with unique IT needs.</li> </ul>

## Benchmarking Results

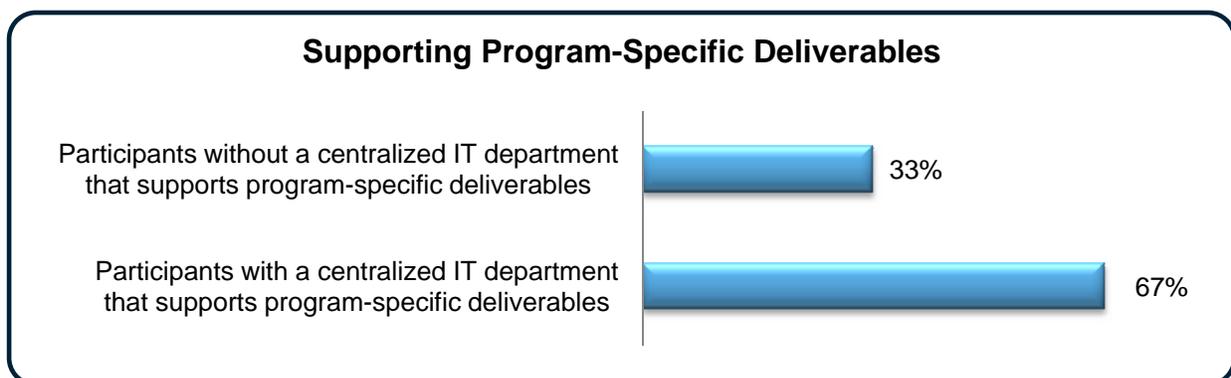
**Figure 6.1 — Standardization of IT Applications**

- > The chart below summarizes the percentage of participants that have IT applications, supported by IT, that are customized, partially standardized, or standardized across the remote offices.



**Figure 6.2 — Supporting Program-Specific Deliverables**

- > The chart below summarizes the percentage of participants that have a centralized IT department that supports program-specific IT deliverables.



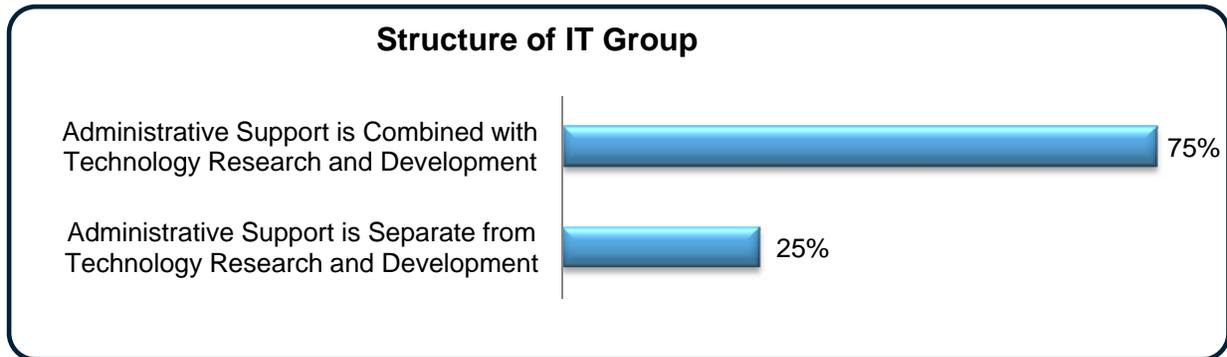
## VI. Programmatic Information Technology Initiatives/Capabilities

<b>2. Research and Data Analysis</b>	
<b>Objective</b>	
To understand the size, scope, and characteristics of the Project or Programmatic IT resources allocated to supporting them.	
<b>Participant Actions</b>	
<ul style="list-style-type: none"> <li>&gt; Participants dedicate resources within IT responsible for technology research and development that is separate from resources responsible for providing administrative support (See Figure 6.3).</li> <li>&gt; Participants have a team that provides research and data analysis services to their clients (e.g., company reporting, report development, rate pool analysis, billing trends, employee composition, benchmark reporting) (See Figure 6.4). Some participants maintain an in-house data center to support this research.</li> <li>&gt; Participants safeguard research and data with a range of programs (e.g., antivirus, spam filtering, Cisco firewalls, intellectual property specialists, and third party testing) (See Figure 6.5).</li> </ul>	
<b>Strengths of Participant Actions</b>	<b>Challenges of Participant Actions</b>
<ul style="list-style-type: none"> <li>&gt; Dedicating resources tasked with IT technology research and development helps to focus efforts and leverage resources without adding burden to the IT administrative staff.</li> <li>&gt; Data centers are beneficial depending on the nature of work performed (e.g., size and sensitivity of research and/or data).</li> <li>&gt; Safeguarding data protects the integrity of an organization's intellectual property and decreases the risk of over-exposure.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Time and expense to:               <ul style="list-style-type: none"> <li>- Segregate IT technology research and development resources from IT administrative resources.</li> <li>- Maintain a research and data analysis team and a data center.</li> <li>- Initiate and maintain methods to safeguard research and data.</li> </ul> </li> </ul>

## Benchmarking Results

**Figure 6.3 — Structure of IT Group**

> The chart below summarizes how participants' IT resources are structured.



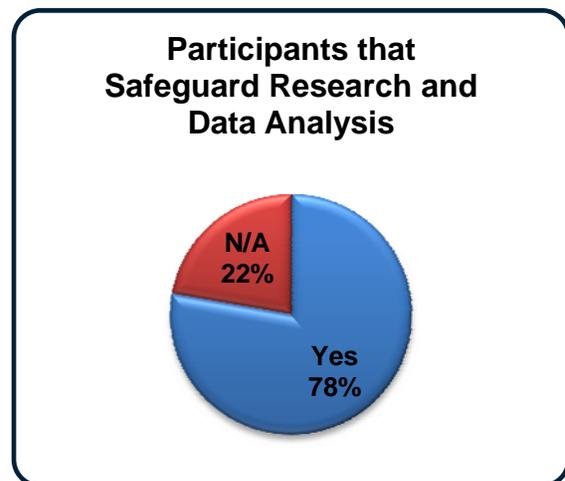
**Figure 6.4 — Participants with a Research and Data Analysis Team**

> The chart below summarizes the percentage of participants that have a research and data analysis team.



**Figure 6.5 — Participants that Safeguard Research and Data Analysis**

> The chart below summarizes the percentage of participants that use safeguarding methods.



## Appendix A – Information Technology Benchmarking Survey

### Information Technology Benchmarking Assessment

We are performing a benchmarking study regarding select organizations' information technology (IT) practices. We would greatly appreciate if you could complete the survey below and we will follow up with you to further discuss your responses. All such findings will be reported anonymously (e.g., not attributed to individuals or institutions). At the completion of our review, Baker Tilly will share a summary of what we learned with you.

#### Organizational Overview

**Objective:** Understand the size, scope, and characteristics of the organization and the IT resources allocated to supporting the organization as a whole and at remote offices.

1. What is the size of your overall workforce?
2. What is the size of the IT staff for the home office (i.e., corporate office)?
3. What is the total number of remote offices within your organization?
4. How many overhead IT people are dedicated to supporting remote offices?
5. What percentage of IT resources supporting remote offices work at the remote location?
6. Describe the organizational dynamic between the home office and remote offices.
7. What methods do you have to promote and manage organizational change (e.g., formal communications to obtain stakeholder buy-in, organization-wide meetings)?
8. What organizational policies do you have related to the following:
  - Application use such as Skype, Hulu, YouTube, Facebook
  - Collaboration websites
  - Rules against pornography and other offensive content

#### Collaboration

**Objective:** Understand the tools, methodologies, and frameworks leveraged to connect, share, and communicate within the organization, both locally (i.e., home office) as well as outside the home office.

1. What e-mail system do you use?
  - Is it used for the entire organization or do you have different e-mail systems for geographic areas/projects?
  - Can your staff use consumer e-mail accounts?
2. What connectivity methods does the home office and remote offices use to access the internet and/or local area networks (e.g., dial-up, cable, Ethernet, Wi-Fi, 3G, cellular, VSAT connectivity)?
3. What access capabilities (e.g., VPN, Citrix) are leveraged to access the home office and/or home office applications from remote offices?
4. What types of collaboration tools (e.g., SharePoint, WebEx, Skype, video conferencing, e-mail, instant messaging) are leveraged by the home office and remote offices?
5. What security practices are in place to mitigate vulnerability risks inherent to certain collaborative tools (e.g., video attachments) for the home office and remote offices?

6. What knowledge management tools are used by the home office and remote offices to store and share information:
- |  |   |
|--|---|
| <input type="checkbox"/> File sharing system | <input type="checkbox"/> Teaming software |
| <input type="checkbox"/> Document repository | <input type="checkbox"/> Dashboards       |
| <input type="checkbox"/> Intranet            | <input type="checkbox"/> Other:           |
| <input type="checkbox"/> Wiki pages          | _____                                     |
| <input type="checkbox"/> Blogs               | _____                                     |
7. What types of mobile devices are leveraged by your organization, if at all, and what business functions are permitted on the devices?

### **Enterprise and Project Management**

**Objective:** Understand what enterprise and project management tools and applications are leveraged to support an organization's business functions, and how those tools and applications are integrated into the culture and execution of day-to-day operations, projects, and tasks.

1. What type(s) and cost(s) of enterprise management software are used for the home office and remote offices?
2. What reporting capabilities and tools (e.g., Crystal) are used by the home office and remote offices?
3. To what degree (e.g., highly customized, out-of-the box) is your enterprise management software customized to meet your organization's needs?
4. Indicate which business functions are supported by enterprise management software:
  - Project Management and Project Accounting
  - General Ledger
  - Billing
  - Revenue and Accounts Receivable
  - Purchasing and Procurement
  - Accounts Payable
  - Payroll
  - Human Resources
  - Financial Reporting
  - Customer Relationship Management
  - Skills and Competencies Management and Inventory
  - Grants and Contracts Management
  - Bids and Proposal
  - Knowledge Management
  - Time and Allocation

For the business function(s) above that are not supported by the enterprise management software, state the systems that are used to support them.

5. Rate your satisfaction level on how well enterprise management software supports each business function on a scale from 1 to 5, with 1 indicating complete dissatisfaction and 5 indicating total satisfaction.
6. How many IT staff are dedicated to maintain the enterprise management software and where do they reside in the organization?
7. Are there any business functions that are outsourced to a third party?
8. Is there a standard set of project management tools? If so, what are they?

### **IT Governance and Organization**

Objective: Understand what individuals and/or groups within an organization are responsible for defining and executing the implementation of IT policies, procedures, and software at both home and remote offices, and what processes are leveraged to manage and measure IT support and services.

1. What are the CIO's responsibilities and whom does the CIO report to within the organization?
2. What governing bodies and documents (e.g., charter) are in place to make strategic IT decisions for the home office and remote offices?
3. Identify which role or group performs the following functions:
  - Oversees and manages change control
  - Owns and champions project management practices, processes, and tools
  - Leads major initiatives with a technology aspect
4. Which IT services (e.g., email, security, and infrastructure) are centralized and which are decentralized?
5. What formal IT service management framework methodologies (e.g., COBIT, ITIL) are leveraged?
6. What are your annual IT employee training requirements?
7. Describe your IT employee satisfaction and retention levels.

### **IT Budgeting and Spending**

Objective: Understand the models and best practices leveraged by organizations to budget, forecast, manage, and track IT spending for services and activities for the organization as a whole, as well as at the local level (remote offices).

1. What percentage of your annual budget is allocated to IT?
2. What is the size of the overall IT budget, as well as a breakdown of IT capital/operational costs, IT planned/unplanned costs, and IT training budgets?
3. What tools or methodologies do you leverage to plan, budget, and forecast your IT budget?
4. Describe your budget management approach (i.e., centralized versus decentralized) for IT (e.g., hardware and software, voice, payroll, consulting services) for the home office and remote offices.
5. Describe the allocation of expenses associated with overhead IT services (e.g., bandwidth connectivity, network security) to the home office and/or remote offices.
6. Describe your methods for funding IT projects for the home office and remote offices.

**Programmatic IT Initiatives/Capabilities**

Objective: Understand the size, scope, and characteristics of the Project or Programmatic IT resources allocated to supporting them.

1. Does your organization have a centralized IT department to support program specific IT deliverables? If so, how many staff?
2. What services are performed at these programs (e.g., distance learning, research and data analysis)?
3. What types of research and data analysis services does your organization provide to your clients?
4. How large is your research and data analysis staff?
5. Do you have an in-house data center to perform the research and data analysis or is it done externally? If it is in-house, what kind of equipment/software do you use?
6. How do you safeguard your research and data analysis?

## **Appendix B – Follow Up Information Technology Benchmarking Survey**

### **Information Technology Benchmarking Follow Up Assessment**

The following survey was administered to follow up with the participants of the initial IT benchmarking assessment. This survey was administered online using Survey Monkey. Please note that for some questions, certain answers prompted different follow up questions. As a result, not all of the participants answered all of, or the same, questions.

#### **IT Governance and Portfolio Management**

1. What is the name of your organization?
2. Does your organization have a responsible group or committee (e.g., IT governance committee) that oversees the selection and prioritization of IT-related investments and activities?
  - Yes
  - No

*If “No” to question 2, answer questions 3-8*

3. Who leads the selection and prioritization of IT-related investments and activities? Who else is involved?
4. Does your organization have a responsible group or committee whose responsibilities include creating, reviewing, and submitting an IT budget?

#### **Committee Questions: IT Budget**

5. What are additional activities of this group or committee?
  - Select and prioritize all IT programmatic/remote office investments
  - Provide ideas/feedback on IT programmatic/remote office investments
  - Discuss status of ongoing IT programmatic/remote office projects
  - Establish the annual budget and IT programmatic/remote office strategic priorities
  - Establish IT programmatic/remote office strategic priorities
  - Other (please specify)
6. Who comprises this group or committee?
  - Only IT
  - Only programmatic/business representatives/leaders
  - Only central/administrative representatives/leaders
  - Cross-functional committee (please specify)
7. Who chairs this group or committee?
  - CIO (IT leader)
  - CFO
  - Business Leader
  - President/CEO
  - COO
  - IT Staff
  - Other (please specify)

8. How often does this group or committee meet?

- Weekly
- Monthly
- Quarterly
- Annually
- Ad Hoc

### **IT Governance and Portfolio Management**

*If "Yes" to question 2, answer questions 9-12*

9. What are the specific areas for which this group is responsible?

- IT budget development
- Aligning technological investments with the organization's strategic objectives
- Establishing central IT strategic priorities
- Establishing remote office IT strategic priorities
- Establishing programmatic IT priorities
- Monitoring status of ongoing IT projects
- Considering the IT needs of the organization's programs
- Considering the IT needs of the organization's administrative areas (e.g., finance)
- Considering the IT needs of the organization's remote offices
- Providing ideas for potential technological investments
- Other (please specify)

10. Who is involved in this group?

- COO
- CIO
- CFO
- IT staff
- CEO
- Other (please specify)

11. Who chairs this group?

- CIO
- CFO
- CEO
- Programmatic executive (e.g., executive leader of a major program area)
- Other (please specify)

12. How often does this group meet?

- Annually
- Quarterly
- Monthly
- Weekly
- Ad Hoc
- Other (please specify)

### **Roles & Responsibilities and IT Project Management**

13. How are users and other stakeholder groups involved in IT projects?
- Users submit high-level requests to IT, but are not otherwise involved in projects
  - Users create proposals/business cases to justify IT investments
  - Users define the functional/business requirements for IT projects
  - Users perform acceptance testing before an IT product is deployed
  - Users co-manage the deployment of technology solutions with IT
  - Other
14. Are the same IT staff responsible for handling reactive trouble tickets also responsible for delivering and managing the longer term IT projects?
- Yes
  - No
15. How does IT estimate due dates? (Please select the best option)
- Due dates are not usually assigned (e.g., work on a best effort basis)
  - Due dates are assigned to every IT project
  - Other (please specify)
16. How does IT manage projects?
- No Project Managers within IT, development/technical skills only
  - Dedicated Project Manager within IT
  - Multiple Project Managers within IT
  - Other (please specify)

### **Programmatic IT Initiatives/Capabilities**

17. Does your IT group have a team tasked with administration support (e.g., desktop computing support, user support services, training, help desk, or similar activities) that is SEPARATE from a team tasked with technology research and development (e.g., researching, planning, and/or implementing IT initiatives, researching/developing advanced technology, or similar tasks)?
- Yes, our administrative team is separate from our technology research and development team
  - No, we have one team that does both administrative duties and technology research and development
  - No, we ONLY have a team tasked with administrative duties
18. Are IT applications (e.g., flowcharting applications, staffing application, file storage application, etc):
- Partially standard across all remote offices
  - Standard across all remote offices
  - Customized to each remote office

### **Standard Application Support**

19. Is there a team to support your standard applications (e.g., flowcharting applications, staffing applications, file storage application)?
- No
  - Yes, standard applications for remote offices are generally supported by It staff in the home office

- Yes, standard applications for remote offices are generally supported by IT staff in the remote office
- If supported by remote IT staff, how many on average?

### **Customized Application Support**

20. Is there a team to support your customized applications (e.g., flowcharting applications, staffing applications, file storage applications)?
- No
  - Yes, customized applications for remote offices are generally supported by IT staff in the home office
  - Yes, customized applications for remote offices are generally supported by IT staff in the remote office
  - If supported by remote IT staff, how many on average?

### **Partially Customized Application Support**

21. Is there a team to support your partially standard applications (e.g., flowcharting applications, staffing applications, file storage applications)?
- No
  - Yes, partially standard applications for remote offices are generally supported by IT staff in the home office
  - Yes, partially standard applications for remote offices are generally supported by IT staff in the remote office
  - If supported by remote IT staff, how many on average?
22. What percentage of your applications are standardized across your remote offices? (please select the best answer)
- Less than 25%
  - 26% - 50%
  - 51% - 75%
  - Greater than or equal to 76%

### **IT Framework and Employee Satisfaction**

23. We understand most organizations use some IT framework (e.g., ITIL, COBIT, Val IT). What tools, methods, and/or processes do you use to fully leverage the framework?
- Framework used to develop meeting agendas and goals
  - Formally monitor adherence to framework (e.g., audit/review process)
  - Informally monitor adherence to framework (e.g., committee annual review of framework)
  - Other (please specify)
24. How do you measure the satisfaction of your IT department's employees?
- Formal one-to-one meetings with employees
  - Informal conversations with employees
  - Formal, anonymous surveys
  - Formal surveys
  - Informal surveys
  - Other (please specify)

## **Appendix C – Baker Tilly Contact Information**

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Founded in 1931, Baker Tilly is the 13th largest accounting firm in the U.S., as ranked by revenue. Our project teams deliver enterprise risk management and risk advisory services to clients from around the country, spanning not-for-profits, higher education, commercial and residential real estate, health care, manufacturing, energy and utility, public sector, and hospitality industries.

Our goal is to be recognized as America’s Finest Professional Services Firm. We believe that the way to achieve this goal is to provide an uncommon depth of industry and technical expertise, a client service model that emphasizes partner involvement, and a business orientation to developing solutions for our clients.



## Our Capabilities

Baker Tilly serves organizations across the country and internationally. We offer the broad resources of a full-service accounting and advisory firm, blending deep industry insight with sound business advice and providing consulting, risk advisory, assurance, and tax services for leading organizations. We collaborate with management, internal audit functions, boards, and audit committees to address areas of strategic importance.

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