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Employee Use of the Internet and Acceptable Use Policies in the Academic Workplace: Controlling Abuse while Creating Culture.

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Employee Use of the Internet and Acceptable Use Policies in the Academic Workplace: Controlling Abuse While Creating Culture

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by

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ABSTRACT

Employee Use of the Internet and Acceptable Use Policies in the Academic Workplace: Controlling Abuse While Creating Culture

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The use of the Internet has grown substantially, especially since the late 1990s. Businesses are relying increasingly on the Internet and intranet as tools to promote productivity. Use of the Internet has several implications for institutions of higher education. Some of the issues institutions are faced with include legal liability for defamatory postings and sexually explicit materials, monitoring versus privacy, motivations to abuse Internet privileges, and use of the Internet to create a corporate culture. Institutions of higher education need to consider how the Internet is being used and how it should be used when acceptable use policies are being formulated.

The purpose of this quantitative study was to gain an understanding of perceptions about acceptable use of the Internet by employees at work, attitudes about personal use of the Internet during working hours, and the knowledge and effectiveness of an acceptable use policy within the context of institutions of higher education. The data gathered could be used as a foundation for an effective, progressive acceptable use policy for higher education.

The data for the research were gathered from December, 2005 through January of 2006. Six 4-year institutions were surveyed. The study revealed older employees responded that the use of the Internet at work as not acceptable, while younger employees, faculty members and respondents with more Internet experience or more hours of overtime indicated that personal use was acceptable. The study identified significant differences in self-reported use of the Internet, both at home and at work. Additionally, a general lack of knowledge existed regarding an institutional Internet acceptable use policy. The results of the study were applicable to the formulation of policy for institutions of higher education.

DEDICATION

To my husband Bud for helping provide the solid foundation of faith, family, and friends from which all our endeavors begin. This accomplishment would not have been possible without your unfailing love and support.

To my children, grandchildren, and sisters for the sacrifices and accommodations made by you all as I pursued this goal. Thank you for your understanding and encouragement.

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CHAPTER 1

INTRODUCTION

In an effort to determine the viability of this topic, a preliminary survey was conducted in an ETSU Educational Leadership course as part of a report on an ethical issue that related to higher education. A small group of employees at this 4-year university were queried about their personal use of the Internet at work a part of that project.

What were surprising was how interested those students were in the topic and how varied their own personal observations were on that one aspect of employee use of the Internet at work. The class opinions ran the gamut from the stance that no personal use should be allowed to a hands-off approach by employers. Some students stated abuse was a major problem, while others said there was nothing to it. Some expressed the opinion that employer monitoring of e-mail and Internet use was completely appropriate while others were appalled at the lack of privacy. The most revealing thing was that everyone held a belief about what was acceptable and wanted to express it.

Following that initial review, the topic was discussed with others outside the classroom setting. Everyone had his or her own point of view and wanted to add those thoughts to the discussion. Many were vehement in their response to different aspects of the issue and raised interesting points. Regardless of the opinions registered, the discussion was always lively whenever this issue was broached. Despite the various divergent beliefs held, the analysis raised the question of whether use of an employer's Internet connection had become a moot point, something akin to the issue of frequent flyer miles generated by business travel.

It became apparent that personal use of the Internet by employees in the business setting was still being defined and raised many questions. Was personal use of the employers' Internet connection acceptable if it were not used to download pornographic images or send defamatory e-mail, as long as no one was hurt? Alternatively, was the behavior viewed as an unethical or

unacceptable misuse of employer assets? Was the high-speed Internet connection at work considered a perquisite of an office job, akin to an employer-supported coffee station or water cooler? Had the personal use of the Internet become a non-issue for some institutions or something that was readily accepted within the organizational culture? Were institutions using the Internet to help create a sense of belonging, an identifiable culture? Were employees motivated to abuse their Internet privileges as a means of punishment when a positive corporate culture was not created? Did attitudes differ based on demographics such as age or gender? Did faculty, staff, or administrators in higher education hold different attitudes?

Based on experiences in and outside the classroom, talking with people in both education and business, the topic appeared to be a viable one for continued research. In order to determine the perceptions of higher education faculty and staff about using the Internet for personal purposes at work and its ethical implications, it was necessary to determine the level of employee knowledge of institutional acceptable-use policies or Internet-use policies. These policies might be a reflection of the organizational culture regarding acceptable use. It was also of interest to compare perceptions of the acceptability of personal use in institutions of higher education with the realities of acceptable use policies in corporate America.

History and Growth of the Internet

The first step in understanding the acceptable use of the Internet by employees at work was to understand how it came into being and what factors aided its development. This provided an understanding of how the technology was viewed by the public. The first phase in the creation of the Internet occurred in the 1960s as a method to network computers at the United States (U.S.) government's Advanced Research Projects Agency (ARPA) of the U.S. Department of Defense (Abbate, 2001; Hafner & Lyon, 1996). This fledgling form of the Internet was developed as a means of facilitating research and sharing of resources and data among various ARPA centers spread throughout the U.S. (Beckett, 2000). As with many other

new technological developments, the growth of applications was slow but sure. The idea of using the ARPA network to send personal messages came after the establishment of the network itself. The first message, or e-mail, was sent in 1973 (Beckett). The original implementations of e-mail were rather crude and the application was limited. In hindsight, however, e-mail became one of the most prolific applications on the Internet.

The initial design concept of the ARPA network was an "open-architecture" of interconnected networks (Leiner et al., 1997). Graduate students originally created the standards for the applications on the ARPA network. The standards were developed by consensus with no proprietary content, primarily because of the student involvement (Beckett, 2000). This open, non-proprietary system probably contributed significantly to the rapid proliferation of Internet applications and technology.

According to Kizza (2002), the focus of Internet development moved from the defense industry orientation of the ARPA to a research orientation in the scientific community. In this second phase of development, the National Science Foundation (NSF) took over the infrastructure of the Internet in the late 1980s, at the same time that the World Wide Web was starting to develop. The growth of personal computing, development of the World Wide Web browser technology, and guidance from NSF spurred the use of the Internet to greater heights.

Following the development of the first web browsers in the early 1990s (Abbate, 2001) and the elimination of NSF funding of the Internet backbone (Beckett, 2000), the third phase in the development of the Internet began. Commercial organizations took over the operation of the telecommunications network that supported all Internet activities. This privatization effort ensured the fulfillment of the vision of integration of the Internet into the mainstream of Western culture. Most Americans would likely state they became personally familiar with the Internet and e-mail technology in the 1990s. Before that time, the applications just were not fiscally feasible for the average company or the average home personal computer user.

The growth from that simple start with the ARPA network almost 40 years ago was phenomenal. Business and personal use of the Internet has grown exponentially, especially from the mid-1990s onward. Porter and Griffaton (2003), citing Kesan, stated that the number of email users rose from 8 million in 1991 to 108 million in 2000. The acquisition of Internet technology within the business community and for personal home use was unparalleled.

The use of the Internet replaced the traditional concept of community, causing social change by altering the ways in which information was accessed and processed (Michalski, 2001). Researchers and business managers tried to understand how the Internet was used and how best to use it for creating corporate culture, conducting research, promoting business, effectively marketing, and providing entertainment both at work and at home. Naturally, these parties were also interested in how the Internet created change and how the users of the Internet were changing over time.

A case in point is the Georgia Tech Research Corporation's (GTRC) Graphic, Visualization, & Usability Center (GVU), which began collecting data on Internet usage in 1994. The data were collected online in a publicly accessible format. Data sets were obtained on a biannual basis from 1994 through 1998, with 10 data sets collected. In the words of the GVU researchers "a better understanding of these users, and their reasons for accessing the Web will lead to improved development of Web related tools and technologies as well as make the Web more usable by all users" (GVU's WWW user survey background information, n.d., ¶ 1).

The GVU survey primarily developed trend information. From the data gathered by GVU, it was noted that statistically significant differences in Internet usage exist based on gender, location, and age of users. Additionally, the user skill levels increased with experience and continued use. Additional research could clarify these relationships and add to the trend data already collected by the GVU.

The results of the GVU surveys demonstrated growth in the use of the Internet over virtually every demographic included in the study during the years that data were collected. The

survey looked at users all over the world, at both work and at home. The data confirmed the growth in use of the Internet for personal use as well as for business applications. The type of data collected in this research project as well as others could become an invaluable tool for the development of future Internet applications.

Statement of the Problem

There were many implications concerning the acceptable use of the Internet at work that could be researched to derive policy. Unfortunately, there was not much research available that addressed the attitudes and perception about how employees defined acceptable use. Most of the available information focused on quantifying the personal use of the Internet at work and the cost of that access to employers. Economics were an issue for employers in all industries. Institutions of higher education were coming under increased scrutiny regarding the cost of fulfilling their mission of teaching, service, and research, especially in public institutions. These institutions, along with other governmental entities, had to balance cost with productivity in the light of increased review by their constituents.

Higher education institutions were also faced with issues of employee job satisfaction, which could affect recruitment and retention of employees. There were large employee turnovers in higher education, particularly among faculty. Institutions needed to stop this drain on their investment in human assets. Job satisfaction through perquisites and benefits was to be one way employers could retain employees (Cairncross, 2002; Davis, 2002).

Some employees viewed monitoring activities by employers as Draconian, erring on the side of Big Brother. Although employers might not realize it, employees could be surfing the Internet as a form of stress relief from the tedium of their job. This activity, in turn, might actually increase productivity. In addition, the personal use of the employer's Internet connection at work might aid employees developing better web-based search and retrieval skills that could be used in their jobs.

The purpose of this quantitative study was to gain an understanding of perceptions about acceptable use of the Internet by employees at work, attitudes about personal use of the Internet during work hours, and the knowledge and effectiveness of an acceptable use policy within the context of institutions of higher education. The study was limited to administrators, faculty, and staff at the six 4-year institutions within the Tennessee Board of Regents (TBR) system. The results provided a self-assessment of Internet users' knowledge of their institution's acceptable use policy, their attitudes about personal use of the Internet at work, and whether they considered personal use to be acceptable or unacceptable. Demographic data were collected to determine whether there were any differences based on age, gender, home Internet connection, job classification, years of Internet experience, and average hours worked per week.

Research Questions

The study focused on the perceptions of higher education faculty, administrators, and staff members.

Question 1: Is there a difference in the attitudes and perception about the acceptable use of the Internet and personal use of the Internet during work hours based on the demographic factors of age, gender, type of home Internet connection, job classification, years of Internet experience, and number of overtime hours worked?

Question 2: To what extent do higher education employees believe personal use of the Internet is a problem in the higher education workplace and are there differences based on demographics?

Question 3: Is there a difference in the overall self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet from home, based on the demographic factors of higher education employees?

Question 4: Is there a difference in the extent of knowledge about Internet acceptable use policies based on demographic factors of age, gender, type of home Internet connection, job classification, years of Internet experience, and number of overtime hours worked?

Question 5: Do perceptions of higher education employees differ by demographics regarding the possible deterrents, such as monitoring, to personal use of the Internet at work?

Question 6: To what extent do higher education employees rely on acceptable use policies to guide personal use and modify behavior?

Question 7: Do perceptions of higher education employees differ by demographics regarding the institutions use of the Internet to communicate university and unofficial events, programs, or information?

Significance of the Study

Use of the Internet became pervasive in modern society. Colleges and universities needed to promote the use of the Internet for scholarly research, to equip and educate students, to conduct business, and to provide efficient customer services. The emphasis at TBR schools was to provide an adequate technological infrastructure to advance the integration of the Internet into every aspect of the campuses. One effect of this upgrade in technology infrastructure was that more employees had high-speed Internet access on their desktop computers. This would be considered a Type I benefit, according to Applegate, Austin, and McFarlan (2003), "Type I benefits arise from improvements in IT infrastructure, including computers, databases, data centers, Web hosing services, networks and IT professionals" (p. 274).

Based on a review of literature, research in the area of possible employee misuse of corporate Internet access appeared to be on the rise. There were several articles available that delved into many aspects of the misuse of corporate Internet access by employees. Some analyzed the legal aspects of the misuse and its impact on employee law (Mills, Hu, Beldona, & Clay, 2001). Others attempted to determine the social impact of the abuse by examining the relationship of the employee to the company and the rationale for the misbehavior (Lim, 2002). Still others explored the need for a valid acceptable use policy to protect employees and the company (Menzel, 1998).

Another possible and more serious implication for acceptable use of the Internet was that personal use, primarily through e-mail, could expose the employer's assets to viruses that could then affect all the users on the corporate network (Kizza, 2002). In addition, employees could expose their employer to legal liability based on the types of materials that were downloaded and displayed on a desktop computer (Mills et al., 2001; Soewita & Kleiner, 2000). Each of these issues was relevant to administrators in higher education as institutions encouraged the use of more technology in their daily operations.

Delimitations and Limitations

1. This study was confined to the 4-year institutions of higher education in Tennessee Board of Regents system in the state of Tennessee and might not be generalized to community colleges, technology centers, other states, or other systems of higher education.
2. The study might be limited by the number of higher education employees responding to the survey and the demographic characteristics they represented.
3. The study might be limited by the degree of honesty of the respondents to the survey.
4. The study might be limited by the electronic sampling methodology used to gather the data.

Definitions of Terms

Internet – A global network connecting millions of computers (Webopedia, n.d.).

Network - A group of two or more computer systems linked together (Webopedia, n.d.).

World Wide Web – A system of Internet servers that supports specially formatted documents. The documents are formatted in a markup language called HTML (HyperText Markup Language) that supports links to other documents, as well as graphics, audio, and video files (Webopedia, n.d.).

Intranet – A network, based on TCP/IP protocols (an internet), belonging to an organization, usually a corporation, and accessible only by the organization's members, employees, or others with authorization. An intranet's Web sites look and act just like any other Web sites, but the firewall surrounding an intranet fends off unauthorized access (Webopedia, n.d.).

E-mail - Short for electronic mail, the transmission of messages over communications networks (Webopedia, n.d.).

Cyber (in conjunction with loafing, surfing, or bludging) - A prefix used in a growing number of terms to describe new things that are being made possible by the spread of computers (Webopedia, n.d.).

Bandwidth - The amount of data that can be transmitted in a fixed amount of time (Webopedia, n.d.).

Broadband - A type of data transmission in which a single medium (wire) can carry several channels at once. Cable TV, for example, uses broadband transmission. In contrast, baseband transmission allows only one signal at a time (Webopedia, n.d.).

Overview of the Study

The study was organized and presented in five chapters. The organization of the chapters presents the significant areas of the research.

Chapter 1 provided background on the interest in the personal use of the Internet at work. A brief historical overview of the growth of the Internet was provided to demonstrate the pervasive implementation in everyday business and its ubiquitous nature within an organization. The statement of the problem and the corresponding research questions to be addressed were presented. The significance of the study was outlined, along with the limitations and delimitations of the study and the definition of terms used in the study.

Chapter 2 contains a review of the literature related to the personal use of the Internet. Included are a review of the issues of legal liability, viruses, monitoring versus privacy, motivation for personal use, and acceptable use policies.

Chapter 3 discusses the methodologies used in the research. Included are descriptions of the study's population and the research design. The chapter also provides information regarding the development of the survey instrument, data collection methods, and data analysis tools.

Chapter 4 provides the results of the survey and an analysis of the data collected. Research findings are presented with the analysis.

Chapter 5 presents a summary of the findings and conclusions or recommendations resulting from the study.

CHAPTER 2

LITERATURE REVIEW

Business Ethics

The topic of personal use of the Internet during work falls under a much broader area of study defined as business ethics. Newton and Ford (1992) asserted that business and ethics had often been separated, as if the two could not be combined. One could be in business or one could be ethical. In reality, business and ethics are never truly separated because all business decisions are also ethical decisions.

There was a significant growth in the interest in business ethics from the 1980s onward (Peterson, Rhoads, & Vaught, 2000). This interest was created, in part, by two legislative acts, the Federal Sentencing Guidelines for Organizations (FSGO) and the Sarbanes Oxley Act of 2002 (Tyler, 2005). While the two legislative acts were primarily formulated in response to fraudulent and illegal business activities, an ancillary outcome was the development and enforcement of corporate codes of ethics.

Personal ethics of employees were often derived from the perceived ethical standards of top management. The ethical standard for any business or institution flowed from the top down and permeated the organization. Many companies were able to promote an ethical workplace consistently. Blank, Wood, and Wood (2003) stated some companies, including FedEx, mandate their directors or executives provide written assurance that they have no conflicts of interest and they must agree to abide by the company code of ethics.

Business ethics and codes of conduct were somewhat relative in that they had to continually adjust as the business environment changed. New business practices and methodologies had to be examined for their ethical implications and outcomes. As Internet technology developed, it fundamentally changed the work environment. The ethical use of

Internet technology should be examined in light of its susceptibility to abuse, as well as its ability to create a positive culture.

Internet Ethics

There were no hard and fast rules for ethical use of the Internet, no list of dos and don'ts chiseled in stone. In fact, some theorists believed that ethical considerations changed when one entered the realm of computers, and even more on entering the nebulous land of the World Wide Web. Others thought the same rules should apply, one should only give thought as to how to apply them (Tavani, 2002). The introduction of Internet technology into the academic workplace raised questions about what was ethical and what the institution should do to encourage and promote ethical use of the Internet.

One early attempt to codify ethics and computers was developed by the Creative Ethics Institute in 1992. These 10 commandments of computer ethics were an appropriate starting place for development of policy regarding Internet usage. They were as follows:

1. Thou shalt not use a computer to harm other people.
2. Thou shalt not interfere with other people's computer work.
3. Thou shalt not snoop around in other people's computer files.
4. Thou shalt not use a computer to steal.
5. Thou shalt not use a computer to bear false witness.
6. Thou shalt not copy or use proprietary software for which you have not paid.
7. Thou shalt not use other people's computer resources without authorization or proper compensation.
8. Thou shalt not appropriate other people's intellectual output.
9. Thou shalt think about the social consequences of the program you are writing or the system you are designing.
10. Thou shalt always use a computer in ways that insure consideration and respect for your fellow humans. (Computer Ethics Institute,1992, ¶1)

These basic tenets should be kept in mind when developing any Internet use policies. They provided a broad foundation on which a policy might be constructed.

Business Use of the Internet

The major users of the Internet appeared to be businesses. Employee use of the Internet grew substantially between 1995 and 2005. Greengard (2000) stated "many of the competitive gains of the last few years can be directly attributed to Internet connectivity" (p. 22). He goes on to call the Internet "essential technology" akin to the copier or telephone in business use. This trend was true in virtually all industry and service sectors. More and more offices were connecting to the World Wide Web and providing their employees with Internet access, as well as hosting their own web sites.

Use of the Internet allowed employees, effectively and efficiently, to locate and to retrieve information vital to their job functions. This connectivity permitted those employees to conduct the day-to-day business of their employer in a better fashion. Information provided on a timely basis helped companies respond to quickly changing economic conditions and put their knowledge to work in creating a market advantage. The number of Internet based data repositories and business applications significantly increased, improving these informational based activities.

It was apparent that researchers had not agreed on a definition of the ethical use of the Internet in the business setting. Gattiker and Kelly (1999) discussed questions of morality facing information systems researchers, practitioners, and manager. They question whether decisions of a moral nature are involved in the use of computer technology and how unethical behavior should be confronted within an organization.

Rise in Research on Employee Misuse

Based on a review of literature, research in the area of employee misuse of corporate Internet access, while limited, appeared to be on the rise. Several articles delved into many aspects of the misuse of corporate Internet access by employees. Some looked at the legal aspects of the misuse and its impact on employee law (Mills et al., 2001). Others examined the

social impact of the abuse via the relationship of the employee to the company and the rationale for the misbehavior (Lim, 2002). Still others explored the need for a valid acceptable use policy to protect employees and the company (Menzel, 1998). All of these issues were relevant to the modern manager as businesses encouraged the use of more technology in their daily operations.

In conjunction with the growing research was the growth of slang terms for the employee misuse of corporate Internet resources. One term used was cyberslacking defined as, "recreational web surfing on the job or using the Internet at work for one's own purposes" (Mills et al., 2001, p. 34). Another expression was cyberloafing defined as, "any voluntary act of employees' using their companies' Internet access during office hours to surf non-job related Web sites for personal purposes and to check (including receiving and sending) personal e-mail" (Lim, 2002, p. 677). Cyberbludging, another term, appeared to be used primarily outside the United States (Mills et al.). The fact that there was terminology created specifically to describe this type of activity lent credence to the study of this issue in the modern business environment.

While this discussion might appear to be much ado about nothing, one only has to reflect on the heated debate some years ago over who should receive the benefit of frequent flyers miles earned on business travel. Should the company get the benefit of free travel in the future or should the benefit go to the employee? Some companies required the employee to give the company the frequent flyer miles generated by corporate travel. After some time, the attitudes toward the frequent flyer miles changed. This might be attributed, in part, to the difficulty of implementing effective management policies that would benefit the company.

Controlling the use of corporate frequent flyer miles was miniscule when compared to the issues spawned when investigating employee use of the Internet at work. There were more tangential issues than just the idea of an additional perquisite for employees with Internet access. The issues also seemed to be constantly changing. In an article summarizing the results of a survey conducted by the Computer Security Institute (CSI) and the Federal Bureau of

Investigation (FBI), Richardson (2003) concluded that the insider abuse of Internet access had the following trend in dollar losses:

2000 - $27,984,740
2001 – $35,001,650
2002 - $50,099,000
2003 - $11,767,200 (p. 20)

The sharp decrease in reported dollar losses from 2002 to 2003 should be noted in particular. The decrease in reported dollar loss indicated either a change in the amount of abuse or possibly a change in what could be defined as abuse. It would be an interesting question for a follow-up study.

Issues Related to Personal Use at Work

There are several issues related to the personal use of the Internet at work. A few of the predominant issues are cyberslacking, bandwidth consumption, and exposure to computer viruses.

Cyberslacking

Along with the increase in the number of valid business and informational uses of the web, there was also been an increase in the ability to use the Internet for personal purposes during business hours. A 1999 American Management Association study determined that over half of the Internet use of employees, through their companies' Internet connection, was personal (Greengard, 2000). The personal use of the Internet at work had many broad implications, including ethical employee use, cost, computer viruses, legal liability, monitoring versus privacy, social impact of Internet use, management issues, and acceptable use policies, to name a few.

The most obvious result of cyberslacking was the misuse of employee time paid for by the company. There were an abundance of web sites with games, news, music, cartoons, puzzles, and other time-stealing activities that could take away from an employee's productive

work. Many pornographic and gambling web sites also existed on the Internet. Although accessing sites might well be illegal or immoral, employees may be able to access them from work. Numerous retail outlets offered online sales web sites where shopping could be conducted over any type of Internet connection. Additionally, vacation airline and hotel arrangements are easily made through many online travel web sites. There were so many Internet web sites available that one literally could not navigate through them all. If one added to that the rather addictive nature of Internet surfing, an environment ripe for abuse was established.

Most Americans had no access to a high-speed Internet system except at work (Mills et al., 2001). For most Americans, home connection to the Internet via a telephone landline was the norm. These landlines operated at a markedly slower transfer rate than the connections available through most employers' systems in the workplace. This meant the workplace offered an ideal venue for surfing the web quickly and easily. In addition, employees could cybersurf while at their desks looking as if they were busy at work. It was harder to identify the misuse of the Internet than other time-wasting activities, such as chronically long lunches or hanging out at the company water cooler, because employees were at their desks and could easily navigate out of their Internet connections and onto business applications with a single click of their mouse.

Bandwidth Consumption

Another problem with personal use of the corporate Internet resources was the degradation of speed as the Internet highway became clogged with traffic (Mills et al., 2001). This clogging could create a huge drain on the system, consuming much of the Internet bandwidth provided by the company. According to the East Tennessee State University Prohibited Software web site, some programs that seemed innocent enough, such as time and temperature, web screen savers, and web based music, as well as stock ticker programs, are, in fact, substantial consumers of corporate Internet resources. Many of these programs constantly send information about the workstation activities back to the host and update information

displayed on the computer. Although it was difficult to convince employees that the use of this software affected the entire information system, their application drastically degraded the data transfer rate for all users on the corporate network.

Some companies limited the type of Internet activity for their employees. Many companies have devised systems whereby access to the Internet was controlled by password security systems. Logging on to the company resources provided specialized access based on a pre-assigned level, usually determined by a supervisor. Thus, some employees might have no Internet access at all, while others could have limited access to e-mail or the Internet and still others might be given unlimited access.

An alternative to prescribed levels of access was limiting the programs available for e-mail or the websites being visited. Technology existed to block various Internet addresses for personal use websites. The problem with this technology, however, could be maintaining a list of prohibited web sites because of the volume of websites and their ever changing addresses. On the other hand, a company might be able to enforce the prohibition of certain instant messaging programs, chat rooms, or spyware-type software that degraded the bandwidth available to all users within the company.

Exposing Company Internet Assets to Viruses

Many businesses had employees who were ill trained or untrained in the use of the Internet. The point-and-click technology of the 1990s was so deceptively easy that users assumed they knew it all. However, what they really did not understand was the risk they created for their company through the misuse of the Internet assets. In his book on network security and cyber ethics, Kizza (2002) listed eight reasons for the vulnerability of Internet assets. One of those reasons related to the user's lack of knowledge of the Internet. Kizza stated, "the average user in cyberspace has very limited knowledge of the computer network infrastructure, its weaknesses and gaping loopholes" (p. 2).

The Computer Emergency Response Team (CERT) program at Carnegie Mellon University's Software Engineering Institute featured a web site that tracked the number of reported virus attacks. As shown in Table 1 below, the number of reported incidents grew significantly over the years from 1988 through 2003.

Table 1.

Reported Virus Incidents, 1988 - 2003

Year	*Number of Incidents*
1988	6
1989	132
1990	252
1991	406
1992	773
1993	1,334
1994	2,340
1995	2,412
1996	2,573
1997	2,134
1998	3,734
1999	9,859
2000	21,756
2001	52,658
2002	82,094
2003	137,529

Lack of knowledge of Internet users might well be what led to the most prolific Internet virus attacks in recent history. E-mail, a seemingly innocuous application on the Internet, has become the number one source for virus transmission (Kizza, 2002). The viruses were usually attached to e-mails that by their very subject line or message appeared to be personal in nature. A notorious virus attack was transmitted with a message that said, "I love you."

Less savvy users could receive an e-mail from someone they do not know and click on an infected attachment. This would cause the attachment to open, allowing the virus to infect the user's machine and possibly spread to anyone in the user's e-mail directory. This snowball effect could cause even knowledgeable users to spread an infection because viruses could be transmitted unknowingly from someone with whom they conduct routine legitimate business. The best policy for the user was to never open e-mail attachments unless they were absolutely positive that the sender identified was the actual sender and the attachment was clean. The best policy for a business was to scan all incoming e-mail attachments for viruses at the server level and remove the viruses before they gets to the desktop machine.

These policies tended to work well until an infected disk or laptop computer was brought from the outside into the business. When an infected diskette was inserted into a network computer without the adequate virus protection to check all diskettes, the potential to infect the entire network was obvious. Additionally, if a laptop that did not have adequate virus protection was brought in from outside the network and plugged into the network, it could send out a virus from inside the company firewall. These scenarios happened at a higher frequency in institutions of higher education than in the business world, perhaps because of the open nature of the higher education organization.

Institutional Legal Liability

One of the most important things that managers should understand about the personal use of the Internet while at work was the liability the institution assumed through the actions of the employee. One such area was the use of e-mail and chat rooms to talk about or post libelous or defamatory statements about others (Mills et al., 2001). Companies were sued, not because they posted the online information, but because employees under their control and using company resources committed the actions. Email and chat rooms produced complicated areas for companies to monitor, but corporate liability might exist if the employees' actions were reasonably incidental to their jobs and fall within the scope of their employment (Mills et al.).

Even some sexual harassment suits were filed based on other employees' cyberslacking behavior that included pornographic materials downloaded from the Internet (Mills et al., 2001; Soewita & Kleiner, 2000). This activity created what could be generally referred to as a hostile work environment. If the offensive material was downloaded to a desktop computer and left on the monitor where other employees might be able to view it, the activity could be considered sexual harassment. In addition, companies were sued for email circulating through the organization that was racist in nature. In cases of sexual harassment, companies lost in litigation even when their managers were not aware of the e-mail that had been circulating.

Monitoring and Controlling Usage vs. Privacy

Employers could try to reduce cyberslacking liability and to control employee behavior through monitoring or restricting Internet use, establishing an Internet acceptable use policy, and disciplining employees who were identified as cyberslackers (Mills et al., 2001). Monitoring Internet usage was expensive but effective. Sometimes merely the thought that an employee's activity might be monitored could serve as a deterrent to misuse of the resource. Companies could configure their Internet access to block certain web sites, although it would be time consuming to set up and maintain a comprehensive listing of inappropriate web sites because

those addresses changed daily. Institutions could also limit access to the Internet, but this would hamper the quick access to information via the Internet needed by the firm and restrict the growth of corporate-sponsored Internet-based data repositories. Citing an article by Yauckey in *USA Today*, Watson (2001) noted that a survey by the American Management Association found 45% of companies in the U.S. were monitoring employee use of the Internet.

Martin and Freeman (2003) discussed seven arguments both for and against monitoring. They are summarized as follows:

1. Productivity - Monitoring would reduce personal use and increase productivity.
2. Security - Monitoring would increase security and keep disgruntled employees from causing the firm harm.
3. Liability - Monitoring could reduce sexual harassment and hostile environment litigation based on Internet usage that perpetuated this type of activity.
4. Privacy – Even the threat of monitoring could cause a loss of control for employees.
5. Creativity - Monitoring could reduce employee creativity and create an extremely detrimental homogeneous environments.
6. Paternalism - Monitoring might be viewed as intrusive and symbolize a lack of trust on the part of the employer. It could reduce employee morale and encourage childish behaviors.
7. Social Control - Monitoring could change the manner in which employees thought and participated within the organization.

These arguments emphasized both the benefits and costs of monitoring Internet usage by employees.

According to Lawson, Information Technology Manager, East Tennessee State University, the issue of privacy was a concern with monitoring on the university campus (T. Lawson, personal communication, April 15, 2003). The need for a right to privacy might not affect the corporate world as much as it does academic institutions, but it was an area that all corporate and governmental institutions had to consider.

Weckert (2001) discussed both sides of this monitoring-privacy debate, and his own analysis revealed what a thorny issue privacy versus monitoring could be. On one side was the idea of corporate ownership of assets that could have lead to corporate knowledge of all activities of the assets. On the other hand, if employees were productive and getting their jobs done, employers should not have needed to review all uses of the assets. Werkert continued with a comparison of monitoring where there was an indication of a problem versus monitoring without any evidence of inappropriate use. The article proposed monitoring only where problems indicated the need.

In 2000, legislation was introduced in Congress that would have codified the notice employers must give employees when monitoring was going to take place (Watson, 2001). The proposed law, Notice of Electronic Monitoring Act, did not go forward at that time, but many business organizations were favorably disposed toward enacting such a law. Time would tell which side of the issue lawmakers and managers were leaning toward. It was a delicate balance to control Internet use, while simultaneously allowing freedom and promoting business use.

A later development in computing was the increased use of "thin client" systems (Bulkeley, 2005). This technology actually demonstrated a step backward to a centralized computing environment. "Thin Clients" consisted of a computer screen, keyboard, and mouse. The centralized computer center was the repository for all programs and data. This allowed management to permit Internet access through the computer center only to limited web sites.

Possible Motivating Factors - Metaphor of the Ledger

Several different surveys reported that anywhere from 64% to 90% of individuals in the U.S. workforce surf the Internet while at work (Lim, 2002). One question might be what motivated employees to use the Internet at work when it was also available at home or at many other accessible locations. A study by Lim, conducted in Singapore, looked at the theories of

organizational justice and social exchange to analyze the inappropriate use of the Internet during work.

Lim's hypothesis was that if employees felt they were treated unjustly by their employers, they neutralized the impact of their own negative behavior by rationalizing that they were owed something by the company. Employees will seek to create a balance between what they give to their employer and what the employer gives back to them. The research identifies personal use of the Internet at work as an easy and safe way for employees to obtain what they perceive they are owed by their employer.

Lim's study specifically looked at three elements of organizational justice: (a) being fairly rewarded for one's work - distributive justice; (b) the fairness of the company's procedures - procedural justice; and (c) fair treatment by one's supervisor - interactional justice. The study hypothesized that if employees felt they were not being adequately rewarded or treated fairly, the incidence of cyberslacking would increase. The results of this online study bore out the hypothesis in that respondents' inappropriate use of the Internet while at work increased as their perception of unfair treatment by their employers increased.

Employer Encouraged Surfing, Creating a Culture

Type I benefits of investing in infrastructure were discussed in Chapter 1, Introduction. "Type I benefits arise from improvements in IT infrastructure, including computers, databases, data centers, Web hosting services, networks and IT professionals" (Applegate et al., 2003, p. 274). Another benefit of an institutional investment in infrastructure is a Type II benefit. Type II benefits "accrue when an organization exploits new IT-enabled business opportunities that take advantage of the infrastructure" (Applegate et al., p. 278). Two significant outcomes of using the institutions investment in infrastructure might be in creating a corporate culture and retaining employees in a competitive environment. Applegate defined one of the Type II benefits as a community benefit. "Community benefits are created when a company uses

networked technologies to increase the commitment and loyalty of internal and external stakeholders" (Applegate et al., p. 278).

Some companies used the internal communications features of the networked computers to increase communication among members via an intranet (Williams, 2000; Wilson, 2000). This type of internal network could prove invaluable to institutions with complex distributed structures, certainly an apt description of higher education. Companies were using the intranet to provide retirement plan information, e-print pay stubs, publish company news, and host electronic bulletin boards allowing employees to post personal ads and information (Clark, 2000; Sisk, 2004). An intranet could help companies keep all employees working toward the same goal, reduce paper costs, and become the primary tool for business and personal communications within the company.

Encouraging use of the corporate intranet could aid in creating a corporate culture. Cairncross (2002) stated, "[E]stablishing a culture, then, becomes partly a question of expressing an idea and persuading others to join, and partly a matter of establishing way for employees to express opinions, and for managers to react to them quickly" (p. 32). Cairncross went on to explain how this creation and nurturing of culture could be achieved. "The Internet will help both to spread corporate culture and to link communities together. Through corporate intranets and e-mails, the scattered workers of the future will keep in touch, share gossip, and learn at a distance" (p.33). If companies could embrace the flexibility and fluidity inherent in the Internet, they could use it to their advantage to create and grow their corporate culture.

Acceptable Use Policies

Menzel (1998) conducted a study of acceptable use policies and identified some common elements. In general, an acceptable use policy would identify who may have Internet access. Not all employees have a needed for Internet access to conduct their business or perform their job. Internet accounts were usually requested by an employee or supervisor, went through some

sort of executive approval process, and were typically password protected. Most acceptable use policies stated that personal use of the Internet is not allowed, although some organizations expected some personal use and, therefore, tried to quantify what was acceptable. The majority of policies provided a mission statement of their institutions' Internet use.

Research showed there were three tactics most policies took regarding the misuse of Internet access (Menzel, 1998). One method was a general admonition regarding unacceptable use with a brief listing of dos and don'ts. A second tactic was to list specific appropriate uses and inappropriate or illegal abuses. The third format presented a general guideline for the use of the Internet. Any one of these approaches could require the user to sign a statement of understanding regarding acceptable use.

The TBR Governance and Organization Policy for Information Technology Resources, as well as the published policies of the six TBR institutions of higher education, were reviewed. In general, it appeared that TBR had taken the general guideline approach to policy formation. The policy included a list of prohibited activities in sections 6.2 and 6.3 (Appendix A). Nowhere in the document were there express references to using the Internet for business purposes only. The policy as it was written might be subject to interpretation regarding the personal use of Internet resources. The focus of this policy was to protect users as well as to protect the computing assets. The focus was not on identifying or restricting cyberslacking activities. The unacceptable behavior detailed in this policy was also pertinent to legal liability issues.

There were several guides available for the development of an appropriate acceptable use policy. They generally served as a template that must be modified for each organization. However, Menzel (1998) showed that there was much latitude in the direction and tone of the acceptable use policy. In its best form, it could be used to encourage the use and integration of the Internet into the corporate culture.

Summary

Chapter 2 contains a review of the literature related to the ethical use of the Internet. Included are discussions of Internet ethics definitions, business use of the Internet, research on abuses of Internet access, issues of legal liability, viruses, monitoring versus privacy, motivation for personal use, creating corporate culture, and acceptable use policies. The literature serves as a basis for the formation of the research questions presented in the study which are discussed in Chapter 3.

CHAPTER 3

METHODOLOGY

Overview

This chapter discusses the methodologies used in the research. The details of the development of the survey instrument are presented. Included are descriptions of the study's population, and the data collection procedures. The data analysis tools used in the study are described and explained.

Research Design

A quantitative study was chosen as a vehicle for this study for several reasons. A quantitative study can be used effectively to describe patterns and tendencies within the sample and it can serve as a foundation for decision-making and policy formation. This makes the study an effective tool to analyze the acceptable use and policies governing the Internet. A survey was created because it "can investigate a much larger number of important independent variables in relation to any dependent variable" (Levin & Fox, 2003, p. 4). The purpose of the survey research design was to be able to generalize from the sample to the population (Creswell, 2003). This allowed the research to be used in policy formation. Additionally, this particular methodology was chosen because it provides confidentiality to the study participants. A quantitative study could provide a level of confidentiality that may not be possible with a qualitative research project. Confidentiality might be important when the issue being researched had an ethical component that might lead respondents to color their responses if they could possibly be identified.

The study attempted to understand attitudes about the ethics of personal use of the Internet at work, self-reported personal use of the Internet work, and knowledge about and effectiveness of an institution's acceptable use policy. These attitudes were reviewed in the

context of demographic information gathered on age, gender, employment position, and perceptions of organizational justice. A quantitative design was selected using descriptive methods to gain this understanding and to compare respondent characteristics.

Survey Instrument Development

The survey instrument was initially developed based on the review of literature. The literature review encompassed several divergent areas including: business ethics, use of the Internet, motivations for employee abuse of the Internet, management of Internet resources, and acceptable use policies. The literature lead to the research questions, which then guided the development of specific survey questions. Survey questions were developed to address the broader research questions. The major content areas of the survey were demographics, perception and attitude elements, and self-reported behavior elements. Although a cross-sectional survey was developed to gather data at a specific point in time, the survey might allow for some approximation of a trend analysis by gathering age and years of Internet experience of the respondents (Bobbie, 1990). The instrument used both continuous and categorical scales.

Instrument Validity

The survey instruments were presented to content experts from the field of organization development and management. Three faculty members in the area of management reviewed the initial questionnaire. Suggestions made by these experts resulted in some rewording and combining of the questions. These suggestions were incorporated into the questionnaire.

A web page with the survey instrument was then prepared from the revised questionnaire. The web-based questionnaire was pilot tested on nine employees from ETSU, three faculty members, three administrators, and three staff members. A survey evaluation worksheet (Appendix C) was completed by all involved in the pilot testing. Reviewers were asked to rate the questions as clear or vague and pertinent or unrelated to the study. They were additionally

asked to add, delete, or modify any questions as they saw fit. The suggestions received from the pilot test resulted in rewording the leading paragraph, modification of some of the responses, and adding two questions. Additional suggestions from committee members resulted in the modification to two questions and the addition of one question. All of these suggestions were incorporated into the final questionnaire (Appendix D).

Population and Sample Selection

The population for the survey in higher education consisted of faculty, administrators, and staff at the six 4-year institutions of higher education in the Tennessee Board of Regents (TBR) system that were included in the institutions' online directory. The population of full-time equivalent employees in the TBR 4-year institutions was approximately 8,268 (D. Johnson, email communication, February 7, 2005). The community colleges and technology centers were excluded because their employee base included a higher percentage of part-time or adjunct instructors than was the case for the TBR universities. Thus, the study was related to permanent employees who had an opportunity to participate in the corporate culture of each institution. Additionally, the diversity of employees inherent in a 4-year institution was more applicable to the study.

The sample included approximately 900 employees who were employed during the fall semester of 2005 and were listed in an institutional online directory. A probability proportionate to size sample was used, selecting a sample of employees from each institution proportionate to the institution's number of employees in the total population. After the sample size from each school was determined, a interval sample was selected from each institution, starting with a randomly selected number. Email addresses and campus addresses were obtained from each institution's website.

Data Collection Procedures

The initial survey response request was mailed to the sampled members of the population (Appendix E). It contained a brief description of the survey and a web address for the survey instrument. The request also identified the email address of the sender. This return address was added to prevent sample participants from deleting further email because the sender was unknown. An email request with the web survey address followed in 4 days (Appendix F). One week after the initial email, a second email request was sent (Appendix G). A 30% response rate was achieved through the survey procedures and solicitation of responses was halted.

Research Questions

A matrix located in Appendix B depicts the relationship between the survey questions and the research questions under study. The research questions are as follows:

Question 1: Is there a difference in the attitudes and perception about the acceptable use of the Internet and personal use of the Internet during work hours based on the demographic factors of age, gender, type of home Internet connection, job classification, years of Internet experience, and number of overtime hours worked?

Question 2: To what extent do higher education employees believe personal use of the Internet is a problem in the higher education workplace and are there differences based on demographics?

Question 3: Is there a difference in the overall self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet from home based on the demographic factors of higher education employees?

Question 4: Is there a difference in the extent of knowledge about Internet acceptable use policies based on demographic factors of age, gender, type of home Internet connection, job classification, years of Internet experience, and number of overtime hours worked?

Question 5: Do perceptions of higher education employees differ by demographics regarding the possible deterrents, such as monitoring, to personal use of the Internet at work?

Question 6: To what extent do higher education employees rely on acceptable use policies to guide personal use and modify behavior?

Question 7: Do perceptions of higher education employees differ by demographics regarding the institutions use of the Internet to communicate university and unofficial events, programs, or information?

Data Analysis

Chapter 4 presents the results of the data analysis for each of the research questions in the study. Some of the analyses include frequency distributions to determine commonalities within the data. Descriptive statistics were used to categorize the data from the respondents. Comparisons were made between different demographic groupings using Mann Whitney *U* and Kruskal-Wallis non-parametric tests. Comments from the respondents are included in the data analysis.

Summary

Chapter 3 presented the overall research design of this study. The survey instrument development and instrument validity are detailed within the chapter. The research questions are presented and are related to the hypothesis that will be tested. The data collection procedures and data analysis methods are presented.

CHAPTER 4

RESULTS AND ANALYSIS OF DATA

Overview

This study focused on the perceptions of higher education faculty, administrators, and staff members regarding the use and abuse of the Internet at work in higher education settings Information was obtained on use of the Internet by employees in higher education, both at work and at home.

The research questions in the study were:

Question 1: Is there a difference in the attitudes and perception about the acceptable use of the Internet and personal use of the Internet during work hours based on the demographic factors of age, gender, type of home Internet connection, job classification, years of Internet experience, and number of overtime hours worked?

Question 2: To what extent do higher education employees believe personal use of the Internet is a problem in the higher education workplace and are there differences based on demographics?

Question 3: Is there a difference in the overall self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet from home based on the demographic factors of higher education employees?

Question 4: Is there a difference in the extent of knowledge about Internet acceptable use policies based on demographic factors of age, gender, type of home Internet connection, job classification, years of Internet experience, and number of overtime hours worked?

Question 5: Do perceptions of higher education employees differ by demographics regarding the possible deterrents, such as monitoring, to personal use of the Internet at work?

Question 6: To what extent do higher education employees rely on acceptable use policies to guide personal use and modify behavior?

Question 7: Do perceptions of higher education employees differ by demographics regarding the institutions use of the Internet to communicate university and unofficial events, programs, or information?

Analysis of the Data

Population, Sample, and Respondents

The population for the survey consisted of faculty, administrators, and staff at the six 4-year institutions of higher education in the Tennessee Board of Regents (TBR) system that were included in the institutions' online directory. The sample included approximately 900 employees who were employed during the fall semester of 2005. A probability proportionate to size sample was used, selecting a sample of employees from each institution proportionate to the institution's number of employees in the total population. After the sample size from each school was determined, an interval sample was selected from each institution's population, starting with a randomly selected number. This resulted in each institution having a percentage representation within the sample equal to its percentage of employees in the total population. Institutional websites provided email and campus address for each participant selected.

The initial survey response request was mailed to the sampled members of the population. It contained a brief description of the survey and a web address for the survey instrument. The request also identified the email address of the sender. This return address was added to prevent sample participants from deleting email because the sender was unknown. An email request with the web survey address followed in 4 days. One week after the initial email, a second email request was sent. Two hundred seventy completed surveys (30.0%) were either submitted via the Internet survey instrument or printed and returned by mail.

Gender of Respondents

According to the U.S. Department of Commerce (2001), the percentage of females and males in the United States, as reported in Census 2000, was 50.9% and 49.1%, respectively. The ratio of respondents to the study survey was 67.4% female to 32.6% male, as shown in Table 2 below and in Figure 1, Appendix I.

Table 2

Gender of Respondents

Gender	Frequency	%
Male	88	32.6
Female	182	67.4

Demographic information available from five of the six TBR 4-year institutions reveal female and male employees were 55% and 45% of the institutions population, respectively. A higher percentage of females responded to the survey as compared to the general population in the universities and in the population in the United States.

Age of Respondents

Table 3 below demonstrates the age demographics of the respondents to the survey. Age of respondents is also depicted in Figure 2, Appendix I.

Table 3

Age of Respondents

Age	Frequency	%
18-27	25	9.3
28-39	63	23.3
40-49	62	23.0
50-58	79	29.3
59-68	39	14.4
69 and over	2	.7

This age demographic did not appear to differ substantially from data on government employees available from the U.S. Department of Labor, Bureau of Labor Statistics for 2005.

Home Internet Connection of Respondents

Table 4 presents the responses to the range of home Internet connection used by the respondents. Figure 3 in Appendix I displays graphically the type of home Internet connection of the respondents.

Table 4

Home Internet Connection of Respondents

Home Internet Connection	Frequency	%
None	39	14.4
Dial up	73	27.0
Broadband	158	58.5

Eighty-five percent of the respondents to the study survey had home Internet access. Of those with access, 32% had dial-up access and 68% reported broadband access. When compared to a study by Horrigan (2006) that indicated 42% of adults in America had high-speed Internet access at home, this survey revealed more than average high-speed home Internet access among participants.

Job Classification of Respondents

The self-reported job classification of respondents is presented in Table 5. Job classification by respondent is also presented graphically in Figure 4, Appendix I.

Table 5

Job Classification of Respondents

Job Classification	Frequency	%
Faculty	105	38.9
Administrator	55	20.4
Staff	110	40.7

Demographic information available from five of the six TBR 4-year institutions revealed Equal Employment Opportunity Commission (EEOC) job classifications for faculty, administrators and staff are 41%, 3%, and 56% of the institutions' population, respectively. This differed from the self-reported classifications of the respondents to the survey. A much higher percentage of respondents identified themselves as administrators than were reported by the institutional job classifications. This could have been caused by, in part, a reclassification of employees from administrative to professional by the Tennessee Board of Regents during the year of the study.

Years of Internet Experience of Respondents

The number of years of Internet experience of the respondents is detailed in Table 6 below and in Figure 5, Appendix I.

Table 6

Years of Internet Experience of Respondents

Years of Internet experience	Frequency	%
Less than 1 year	1	.4
1-3 years	5	1.9
4-6 years	41	15.2
7-9 years	77	28.5
10 years or more	146	54.1

According to a 2006 data set from the Pew Internet & American Life Project, 35% of respondents to a survey conducted February through March reported 10 or more years of Internet experience, while 2% reported less than 1 year of experience. Comparing the two sets of respondents, the higher education employees who responded to this survey have more Internet experience than those general population selected in the Pew Internet & American Life Project survey.

Overtime Hours Worked per Week by Respondents

Table 7 indicates responses to the survey question regarding the number of overtime hours worked each week. The number of overtime hours worked is depicted graphically in Figure 6, Appendix I.

Table 7

Overtime Hours Worked per Week by Respondents

Overtime hours worked per week	Frequency [a]	% [b]
None	80	30.1
1-3 hours	48	18.0
4-6 hours	45	16.9
7-9 hours	25	9.4
10 hours or more	68	25.6

Note: [a] Total respondents 266, 4 missing cases
[b] Percent based on total responses

Histograms of all other survey responses are presented in Figures 7 through 32 of Appendix I.

Research Question 1

Research question 1 was stated as follows: Is there a difference in the attitudes and perception about the acceptable use of the Internet and personal use of the Internet during work hours based on the demographic factors of age, gender, years of Internet experience, years of employment in higher education, number of overtime hours worked, and job classification of higher education employees? Thirty-six percent of the respondents to the survey expressed no opinion concerning the statement "many employees are abusing their access to the Internet at work," while almost 35% disagreed (see Table 8, Appendix K). Forty-nine percent of respondents agree with the statement "personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail." More than half (57%) of respondents agreed with the statement "personal use of my institution's Internet connection is acceptable if it does not take time away from my job." Forty-nine percent of

respondents agree with the statement "personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours." Forty-six percent of respondents disagreed and 34% strongly disagreed with the statement "personal use of my institution's Internet connection is unethical under any conditions." Slightly more than half (52%) of respondents disagree with the statement "personal use of my institution's Internet connection is a misuse of employer assets." Forty percent of respondents concurred with the statement "my institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access." Thirty-five percent of respondents agreed with the statement "personal use of the Internet is a non-issue at my institution," while 40% offered no opinion. The trend of the data revealed an accepting attitude toward use of the Internet at work, both during work hours and after hours.

Further testing assessed variations within the demographic data collected. A Mann-Whitney *U* test was conducted to evaluate the hypothesis that there would not be a relationship between gender and attitudes or perceptions about the acceptable use of the Internet and personal use of the Internet during work hours. The results of the test were not significant for gender (see Table 9, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the six age groups of the respondents and attitudes or perceptions about the acceptable use of the Internet and personal use of the Internet during work hours. The test, which was corrected for tied ranks, was significant for one survey question, "personal use of my institution's Internet connection is acceptable if it does not take time away from my job," with $X^2 = 13.611$ (5, $N = 268$) and $p = .018$ (see Figure 33, Appendix J). All other question responses were not significant (see Table 10, Appendix K).

According to Green, Salkind, and Akey (2000), the effect size index for the Kruskal-Wallis test, η^2, can be computed using the chi-square value and the number of cases. This method of calculating the effect size index was employed in the study. The proportion of

variability in the ranked dependent variable explained by respondent's age was .05, indicating a moderate relationship between respondent's age and attitude regarding personal use of the institution's Internet if it did not take time away from work.

According to Green et al. (2000), a follow-up test of pairwise comparisons among the groups was appropriate when the overall result of the Kruskal-Wallis test was significant. Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the six age groups. The Holm's sequential Bonferroni method for control of Type I error across all pairwise comparisons was used, resulting in an α_1 of .003. The results of these tests (see Table 11, Appendix K) indicated a significant difference in attitude toward personal use of an institution's Internet connection if it did not take time away from the respondent's job between the 28 to 39 and the 59 to 68 age groups, with $z = -3.023$ and $p = .003$.

A Kruskal-Wallis test was conducted to evaluate differences among the three groups that indicated home Internet connections of the respondents and attitudes or perceptions about the acceptable use of the Internet and personal use of the Internet during work hours. The test was not significant for any of the survey questions (see Table 12, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the three employee job classifications of the respondents and attitudes and perceptions about the acceptable use of the Internet and personal use of the Internet during work hours. The test, which was corrected for tied ranks, was significant for one survey question, "many employees are abusing their access to the Internet at work," with $X^2 = 12.843$ (2, $N = 269$) and $p = .002$ (see Figure 34, Appendix J). The proportion of variability in the ranked dependent variable explained by respondent's job classification was .05, indicating a moderate relationship between job classification and attitude regarding employees abusing their Internet access at work. All other questions responses were not significant (see Table 13, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the three job classifications using the LSD method to control for Type I errors

across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. According to Green et al. (2000), when using the LSD method for comparison of three groups, the alpha for the family is equal to the alpha for the pairwise comparison, or equal to .05. The results of these tests (see Table 14, Appendix K) indicated a significant difference in attitude that many employees are abusing their access to the Internet at work between both faculty and staff (z = -3.505 and $p < .001$) and faculty and administrators (z = -2.276 and p = .023). Significantly more faculty disagreed with the statement that employees are abusing their Internet access at work than did administrators or staff.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating years of Internet experience of the respondents and attitudes or perceptions about the acceptable use of the Internet and personal use of the Internet during work hours. The test, which was corrected for tied ranks, was significant for one survey question, "personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours," with X^2 = 10.397 (4, N = 265) and p = .034 (see Figure 35, Appendix J). The proportion of variability in the ranked dependent variable explained by the number of years of Internet experience was .04, indicating a small relationship between years of Internet experience and attitudes regarding personal use of the institution's Internet outside of work hours. Responses to all other questions were not significant (see Table 15, Appendix K).

Follow-up tests were conducted using the Mann-Whitney U test to evaluate pairwise differences among the five groups indicating years of Internet experience when the overall result of the Kruskal-Wallis test was significant. Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons was used with α_1 equal to .0050, α_2 equal to .0056 and α_3 equal to .0063. The results of these tests (see Table 16, Appendix K) indicated a significant difference in attitude that personal use of the Internet is acceptable if conducted outside of work hours among employees with 1 to 3 and 10 years or more of Internet experience (z = -3.068 and p = .002), employees with 1 to 3 and 7 to 9 years of Internet experience (z = -

3.024 and $p = .002$) and employees with 1 to 3 and 4 to 6 years of Internet experience ($z = -2.981$ and $p = .003$). Significantly more employees with 1 to 3 years of Internet experience either disagree or had no opinion regarding the statement that personal use of the institution's Internet connection was acceptable if it were conducted outside of work hours.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating hours of overtime worked by the respondents and attitudes or perceptions about the acceptable use of the Internet and personal use of the Internet during work hours. The test, which was corrected for tied ranks, was significant for one survey question, "personal use of the Internet is a non-issue at my institution," with $X^2 = 14.018$ (4, $N = 264$) and $p = .007$ (see Figure 36, Appendix J). The proportion of variability in the ranked dependent variable explained by the number of overtime hours worked was .05, indicting a moderate relationship between overtime worked and attitude toward Internet usage being a non-issue at the respondent's institution. All other question responses were not significant (see Table 17, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the six groups indicating number of hours of overtime worked when the overall result of the Kruskal-Wallis test was significant. The Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons was used with α_1 equal to .005. The results of these tests (see Table 18, Appendix K) indicated a significant difference in attitude that personal use of the Internet was a non-issue at the respondent's institution between employees who worked 4 to 6 and those who worked 10 hours or more of overtime per week with $z = -3.672$ and $p < .001$. Significantly more employees working 10 hours or more a week agreed with the statement that personal use of the Internet was a non-issue at their institution, while the majority of employees working 4 to 6 hours of overtime per week offered no opinion.

Research Question 2

Research question 2 was stated as follows: To what extent do higher education employees believe personal use of the Internet is a problem in the higher education workplace and are there differences based on demographics? Thirty-six percent of the respondents to the survey expressed no opinion on the statement "many employees are abusing their access to the Internet at work," while almost 35% disagreed (see Table 19, Appendix K). Thirty-five percent of respondent's agreed with the statement that "personal use of the Internet is a non-issue at my institution," while 40% had no opinion. The trend of the data indicated respondents either have no opinion or did not believe personal use of the Internet was a problem in the higher education workplace.

Further testing was conducted for variations within the demographic data collected. A Mann-Whitney *U* test evaluated the hypothesis that there would not be a relationship between gender and the belief that personal use of the Internet was a problem in the higher education workplace. The results of the test were not significant for gender (see Table 20, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the six age groups of respondents and the belief that personal use of the Internet was a problem in the higher education workplace. The test was not significant for any of the survey questions (see Table 21, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among three groups indicating home Internet connection of the respondents and the belief that personal use of the Internet was a problem in the higher education workplace. The test was not significant for any of the survey questions (see Table 22, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the three employee job classifications of the respondents and the belief that personal use of the Internet was a problem in the higher education workplace. The test, which was corrected for tied ranks, was significant for one survey question, "many employees are abusing their access to the Internet at

work," with $X^2 = 12.843$ (2, $N = 269$) and $p = .002$ (see Figure 34, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's job classification was .05, indicating a moderate relationship between job classification and attitude regarding employees abusing their Internet access at work. The other question responses were not significant (see Table 23, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the three job classifications, using the LSD method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests (see Table 14, Appendix K) indicated a significant difference in attitude between both faculty and staff ($z = -3.505$ and $p < .001$) and faculty and administrators ($z = -2.276$ and $p = .023$) on whether many employees were abusing their access to the Internet at work. Significantly more faculty disagreed with the statement that employees are abusing their Internet access at work than did administrators or staff.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating years of Internet experience of the respondents and the belief that personal use of the Internet was a problem in the higher education workplace. The test was not significant for any of the survey questions (see Table 24, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating hours of overtime worked by the respondents and the belief that personal use of the Internet was a problem in the higher education workplace. The test, which was corrected for tied ranks, was significant for one survey question, "personal use of the Internet is a non-issue at my institution," with $X^2 = 14.108$ (4, $N = 264$) and $p = .007$ (see Figure 36, Appendix J). The proportion of variability in the ranked dependent variable explained by the number of overtime hours worked was .05, indicating a moderate relationship between the hours of overtime worked and attitude toward Internet usage being a non-issue. All other questions responses were not significant (see Table 25, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the six groups indicating number of hours of overtime worked when the overall result of the Kruskal-Wallis test was significant. The Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons was used with α_1 equal to .005. The results of these tests (see Table 18, Appendix K) indicated a significant difference in attitude that personal use of the Internet was a non-issue at the respondent's institution among employees working 4 to 6 and 10 hours or more overtime per week with $z = -3.672$ and $p < .001$. Significantly more employees working 10 hours or more a week agreed or strongly agreed with the statement that personal use of the Internet was a non-issue at their institution, while the majority of employees working 4 to 6 hours of overtime per week had no opinion.

Research Question 3

Research question 3 was stated as follows: Is there a difference in the overall self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet from home based on the demographic factors? Fifty-two percent of the respondents agreed and 23.9% strongly agreed with the statement, "I use the Internet at work to send and receive personal email" (see Tables 26 and 27, Appendix K). Forty-six percent of respondents agreed and 20.9% strongly agreed with the statement "I use the Internet at home to send and receive personal email". Nearly 30 % of respondents agree and another 30% strongly agree with the statement, "I use the Internet at home to send and receive work-related email." Fifty-four percent of respondents agreed and 25.4% strongly agreed with the statement, "I use the Internet at work to gather information for personal purposes." Twenty-six percent of respondents agreed and 17.2% strongly agreed with the statement, "I use the Internet at home to gather information for personal purposes." Thirty-one percent of respondents agreed and 28% strongly agreed with the statement, "I use the Internet at home to gather information for work-related purposes." The

trend of the data revealed more use of the Internet at work for both email and information gathering. It also indicates significant use of the Internet at home for work-related purposes.

Further testing was conducted for variations within the demographic data collected. A Mann-Whitney *U* test was conducted to evaluate the hypothesis that there would not be a relationship between gender and self-reported frequency of personal use of the Internet during work hours or work-related use of the Internet from home. The results of the test were significant for two survey questions. The first significant question was "I use the Internet at home to gather information for personal purposes" (z = -2.663 and p = .008) (see Table 28, Appendix K). According to Green et al. (2000), when using the Mann-Whitney *U* test, the average rank for the two groups being tested could serve as an effect size index. This method of determining the effect size index for the Mann-Whitney test was used throughout the study. The average rank for this question was 152.34 and 126.07 for males and females, respectively. The second significant question was "I use the Internet at home to gather information for work-related purposes" (z = -2.197 and p = .028), where the average rank was 149.16 and 127.57 for males and females, respectively. The tests showed that men were using the Internet at home significantly more than women were (see Figures 37 and 38 in Appendix J).

A Kruskal-Wallis test was conducted to evaluate differences among the six age groups of the respondents and self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet at home. The test, which was corrected for tied ranks, was significant for two survey questions, "I use the Internet at home to gather information for personal purposes," with $X^2 = 28.474$ (5, $N = 268$) and $p < .001$ and "I use the Internet at home to gather information for work-related purposes," with $X^2 = 13.252$ (5, $N = 268$) and $p = .021$ (see Figures 39 and 40, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's age was .11 for the use of Internet at home to gather information for work, indicating a fairly strong relationship. The proportion of variability in the ranked dependent variable explained by the respondent's age was .05 for the use of Internet at

home to gather information for work, indicating a moderate relationship. All other questions responses were not significant (see Table 29, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the six age groups when the overall result of the Kruskal-Wallis test was significant. The Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons was used with α_1 equal to .0033 and α_2 equal to .0038. The results of these tests indicated a significant difference in self-reported frequency of personal use of the Internet at work among three pairs within the age groups (see Table 30, Appendix K): comparing the 28 to 39 and the 59 to 68 age groups, $z = -4.280$ and $p < .001$; evaluating the 28 to 39 and the 50 to 58 age groups, $z = -3.642$ and $p < .001$; and comparing the 18 to 27 and the 59 to 68 age groups, $z = -3.422$ and $p = .001$. Tests also indicated a significant difference in self-reported frequency of work-related use of the Internet at home between one pair within the age groups (see Table 31, Appendix K). That testing compared the 18 to 27 and the 59 to 68 age groups, with $z = -3.252$ and $p = .001$. Both of these tests indicated that respondents in the 18 to 27 and 28 to 39 age groups were using the Internet more at work and at home than respondents in the 50 to 58 or 59 to 68 age groups.

For research question 3, the respondents with no home Internet access were excluded from the testing to compare the differences in home and work activities for only those respondents with home Internet access. A Mann-Whitney *U* test was conducted to evaluate the hypothesis that there would not be a relationship between type of home Internet access and self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet from home. The results of the test were significant for four survey questions. The first significant question was "I use the Internet at home to send and receive personal email" ($z = -2.236$ and $p = .025$), where average ranks were 102.17 and 121.58 for dial up and broadband, respectively. The second significant question was "I use the Internet at home to send and receive work-related email" ($z = -2.666$ and $p = .008$), where average ranks were 98.88 and 123.23 for

dial up and broadband, respectively. The third significant question was "I use the Internet at home to gather information for personal purposes" (z = -4.422 and p < .001), where average ranks were 87.82 and 128.11 for dial up and broadband, respectively. The fourth significant question was "I use the Internet at home to gather information for work-related purposes" (z = -2.393 and p = .017), where average ranks were 100.46 and 122.35 for dial up and broadband, respectively (see Table 32, Appendix K). The tests revealed that respondents who had broadband home Internet access used the Internet and email at home more for both work-related and personal purposes. Figures 41, 42, 43, and 44 in Appendix J show the distributions of the self-reported frequency of use by those with home Internet access.

A Kruskal-Wallis test was conducted to evaluate differences among the three employee job classifications of the respondents and self-reported frequency of personal use of the Internet at work and work-related use of the Internet at home. The test, which was corrected for tied ranks, was significant for three survey questions, "I use the Internet at home to send and receive personal email," with X^2 = 14.424 (2, N = 268) and p = .001, "I use the Internet at home to send and receive work-related email," with X^2 = 37.474 (2, N = 268) and p < .001 and "I use the Internet at home to gather information for work-related purposes," with X^2 = 44.441 (2, N = 268) and p < .001 (see Figures 45, 46, and 47, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's job classification was .05 for the use of Internet at home to send and receive personal email, which indicated a moderate relationship. The proportion of variability in the ranked dependent variable explained by the respondent's job classification was .14 for the use of Internet at home to send and receive work-related email, indicating a fairly strong relationship. The proportion of variability in the ranked dependent variable explained by the respondent's job classification was .17 for the use of Internet at home to gather work-related information, indicating a strong relationship. All other questions responses were not significant (see Table 33, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the three job classifications, using the LSD method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests indicated a significant difference in use of the Internet at home to send and receive personal email between both faculty and administrators with $z = -3.399$ and $p = .001$ and faculty and staff with $z = -2.920$ and $p = .004$ (see Table 34, Appendix K). A significant difference existed in the use of the Internet at home to send and receive work-related email between faculty and staff with $z = -6.026$ and $p < .001$ and faculty and administrators with $z = -3.579$ and $p < .001$ (see Table 35 Appendix K). A significant difference also existed in the use of the Internet at home for work-related purposes between faculty and staff with $z = -6.592$ and $p < .001$ and faculty and administrators with $z = -3.777$ and $p < .001$ (see Table 36, Appendix K). Significantly more faculty members reported use of the Internet at home for work-related and personal email than did administrators or staff. Additionally, significantly more faculty members recounted use of the Internet at home to gather work-related information than did administrators or staff.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating years of Internet experience of the respondents and self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet at home. The test, which was corrected for tied ranks, was significant for five survey questions: "I use the Internet at home to send and receive personal email," with $X^2 = 9.573$ (4, $N = 268$) and $p = .048$; "I use the Internet at home to send and receive work-related email," with $X^2 = 11.083$ (3, $N = 268$) and $p = .011$; "I use the Internet at work to gather information for personal purposes," with $X^2 = 8.244$ (3, $N = 268$) and $p = .041$; "I use the Internet at home to gather information for personal purposes," with $X^2 = 13.844$ (4, $N = 268$) and $p = .008$; and "I use the Internet at home to gather information for work-related purposes," with $X^2 = 14.609$ (4, $N = 268$) and $p = .006$

(see Figures 48, 49, 50, 51 and 52, Appendix J). All other question responses were not significant (see Table 37, Appendix K).

The proportion of variability in the ranked dependent variable explained by the respondent's years of Internet experience was, as follows: .04 for the use of Internet at home to send and receive personal email; .04 for the use of Internet at home to send and receive work-related email; .03 for the use of Internet at work to gather personal information; .05 for the use of Internet at home to gather personal information; and .05 for the use of Internet at home to gather work-related information. All these effect size indices indicated a fairly small relationship.

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the five groups indicating years of Internet experience when the overall result of the Kruskal-Wallis test was significant. The Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons was used. The results of these tests indicated no significant difference in personal use of email at home when α_1 was equal to .005 (see Table 38, Appendix K). A significant difference existed in the use of the Internet at home to send and receive work-related email between those with 7 to 9 and 10 or more years of Internet experience with $z = -2.707$ and $p = .007$ (see Table 39, Appendix K). A significant difference existed in the use of the Internet at work for personal purposes between those with 1 to 3 and 4 to 6 years of Internet experience with $z = -2.967$ and $p = .003$ and between those with 1 to 3 and 7 to 9 years Internet experience with $z = -2.924$ and $p = .003$ (see Table 40, Appendix K). A significant difference existed in the use of the Internet at home for personal purposes between those with 4 to 6 and 10 or more years of Internet experience where $z = -2.873$ and $p = .004$ (See Table 41, Appendix K). There was no significant difference in the use of the Internet at home for work-related purposes (see Table 42, Appendix K). In general, those with the most years of Internet experience were using the Internet at home and work more frequently for personal and work-related purposes.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating hours of overtime worked of the respondents and self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet from home. The test, which was corrected for tied ranks, was significant for three survey questions: "I use the Internet at work to send and receive personal email," with $X^2 = 10.086$ (4, $N = 265$) and $p = .039$; "I use the Internet at home to send and receive work-related email," with $X^2 = 37.038$ (4, $N = 264$) and $p < .001$ and "I use the Internet at home to gather information for work-related purposes," with $X^2 = 34.832$ (4, $N = 265$) and $p < .001$ (see Figures 53, 54 and 55, Appendix J). The proportion of variability in the ranked dependent variable explained by the overtime worked by the respondent was .04 for the use of Internet at work to send and receive personal email, indicating a fairly small relationship. The proportion of variability in the ranked dependent variable explained by the overtime worked by the respondent was .14 for the use of Internet at home to send and receive work-related email, indicating a fairly strong relationship. The proportion of variability in the ranked dependent variable explained by the overtime worked by the respondent was .13 for the use of Internet at home to gather work-related information, indicating a fairly strong relationship. All other question responses were not significant (see Table 43, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the number of hours of overtime worked using the Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests indicated no significant difference in the use of the Internet at work for personal email based on overtime worked where $\alpha_1 = .005$ (see Table 44, Appendix K). A significant difference existed in the use of the Internet at home to send and receive work-related email, as follows: between employees with no overtime and those with 10 hours or more of overtime worked per week with $z = -5.332$ and $p < .001$; between employees working 1 to 3 and 10 hours or more of overtime per week

with $z = -4.206$ and $p < .001$; between employees reporting no overtime and those with 4 to 6 hours of overtime worked per week with $z = -3.347$ and $p = .001$; and between employees reporting 7 to 9 hours and those with 10 hours or more of overtime worked per week with $z = -2.962$ and $p = .003$ (see Table 45, Appendix K). A significant difference existed in the use of the Internet at home to gather information for work-related purposes between employees with no overtime and those with 10 hours or more of overtime worked per week with $z = -5.301$ and $p < .001$, between employees working 1 to 3 and 10 hours or more of overtime per week with $z = -4.137$ and $p < .001$, and between employees reporting no overtime and those with 4 to 6 hours of overtime worked per week with $z = -2.885$ and $p = .004$ (see Table 46, Appendix K). In general, those with the most overtime hours per week are using the Internet both at home and work more for personal and work-related purposes.

Research Question 4

Research question 4 was stated as follows: Is there a difference in the extent of knowledge about Internet acceptable use policies based on demographic factors? Forty-eight percent of the respondents were not aware whether or not their institution had an Internet Acceptable Use Policy, while 46% responded that they did have a policy (see Table 47, Appendix K). Fifty percent of respondents who affirmed that their institution had an Internet Acceptable Use Policy stated that their institution's policy limited personal use of the Internet (see Table 48, Appendix K). Nearly 40% indicated that their institution's policy allowed unlimited personal use of the Internet. Only 10% responded that their institution prohibited personal use of the Internet. Thirty-six percent of respondents agreed with the statement, "I have knowledge about my institution's Internet Acceptable Use Policy" (see Table 49, Appendix K). This differed from the 46% who noted that their institution had a policy and that they were aware such a policy existed but they had no knowledge of the specifications of that policy. Twenty-five of respondents disagreed and 9% strongly disagreed with the statement, "I have knowledge

about my institution's Internet Acceptable Use Policy." The trend of the data revealed a lack of knowledge about the Internet Acceptable Use Policy as well as possible disagreement over the personal use acceptable under the various policies.

Further testing was conducted for variations within the demographic data collected. A Mann-Whitney *U* test evaluated the hypothesis that there would not be a relationship between gender and knowledge of the existence of an institutional Internet Acceptable Use Policy. The results of the test were significant for one survey question, "does your institution have an Internet Acceptable Use Policy," $z = -3.097$ and $p = .002$, where the average ranks were 116.73 and 144.58 for males and females, respectively (see Table 50, Appendix K). The tests showed that men responded affirmatively at a higher rate than women when asked if their institution had an Internet Acceptable Use Policy. All other question responses were not significant. Figure 56 in Appendix J shows the distribution of responses to survey question 7 by gender.

A Kruskal-Wallis test was conducted to evaluate differences among the six age groups of the respondents and the existence of or knowledge of an institutional Internet Acceptable Use Policy. The test, which was corrected for tied ranks, was significant for one survey question, "does your institution have an Internet acceptable use policy," with $X^2 = 12.617$ (5, $N = 270$) and $p = .027$ (see Figure 57, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's age was .05, indicating a moderate relationship between age and knowledge of an institutional Internet Acceptable Use Policy. All other questions responses were not significant (see Table 51, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the six age groups, using the Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant with $\alpha_1 = .0033$. The results of these tests indicated a significant difference in responses to survey question 7 between one pair within the age groups, in comparing the 18 to 27 and the 59 to 68 age groups, $z = -3.103$ and $p = .002$ (see Table 52,

Appendix K). This test indicated that significantly more respondents in the 59 to 68 age group affirmed that their institution had an Internet Acceptable Use Policy than did respondents in the 18 to 27 age group.

A Kruskal-Wallis test was conducted to evaluate differences among the three groups indicating home Internet connection of the respondents and the existence of and knowledge of an institutional Internet Acceptable Use Policy. The test was not significant for any of the survey questions (see Table 53, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the three employee job classifications of the respondents and the existence and knowledge of an institutional Internet Acceptable Use Policy. The test, which was corrected for tied ranks, was significant for two survey questions: "does your institution have an Internet Acceptable Use Policy," with X^2 = 11.588 (2, N = 270) and p = .003 and "I have knowledge about my institution's Internet Acceptable Use Policy," with X^2 = 7.113 (2, N = 268) and p = .029 (see Figures 58 and 59, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's job classification was .04 for question 7 and .03 for question 18, indicating a minimal relationship between job classification and the existence of or knowledge of an institutional Internet Acceptable Use Policy. The remaining question response was not significant (see Table 54, Appendix K).

Follow-up tests were conducted using the Mann-Whitney U test to evaluate pairwise differences among the job classifications, using the LSD method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests indicated a significant difference in the existence of an institutional Internet Acceptable Use Policy between both administrators and staff (z = -3.408 and p = .001) and between faculty and administrators where z = -2.443 and p = .015 (see Table 55, Appendix K). Additionally, significant differences appeared in the knowledge about the institution's Internet Acceptable Use Policy between faculty and administrators where z = -2.543

and $p = .011$ and between administrators and staff where $z = -2.253$ and $p = .024$ (see Table 56, Appendix K). Significantly more administrators were aware of the existence of an Internet Acceptable Use Policy than were staff members, while significantly more faculty members than administrators were not aware of the existence of an Internet Acceptable Use Policy. Results show significantly more administrators had knowledge about an Internet Acceptable Use Policy than did either faculty or staff.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating years of Internet experience of the respondents and the existence and knowledge of an institutional Internet Acceptable Use Policy. The test was not significant for any of the survey questions (see Table 57, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating hours of overtime worked by the respondents and the existence and knowledge of an institutional Internet Acceptable Use Policy. The test was not significant for any of the survey questions (see Table 58, Appendix K).

Research Question 5

Research question 5 was stated as follows: Do demographics help determine the perceptions of higher education employees regarding the possible deterrents, such as monitoring, to personal use of the Internet at work? Nearly 30% of respondents to the survey disagreed with the statement "email usage at work should be monitored by the university," while 24% strongly disagreed (see Table 59, Appendix K). Forty-one percent of respondents had no opinion regarding the statement, "the institution's Internet Acceptable Use Policy guides my use of the Internet," while 27% agreed. Thirty-one percent of respondents disagreed and 20% strongly disagreed with the statement, "personal use of the Internet should be monitored by the university," while nearly 23% offered no opinion. Nearly 38% of respondents disagreed and 18% strongly disagreed with the statement, "the university should monitor personal use of the

Internet," while 24% had no opinion. The trend of the data revealed a prevalent attitude that use of the Internet should not be monitored and presented no strong opinion about whether or not the institution's Internet Acceptable Use Policy guided employees' use of the Internet.

Further testing was conducted for variations within the demographic data collected. A Mann-Whitney *U* test was conducted to evaluate the hypothesis that there would not be a relationship between gender and attitudes and perceptions about monitoring the use of the Internet at work and referring to the institution's Internet Acceptable Use Policy to guide behavior. The results of the test were significant for gender that personal use of the Internet should be monitored by the university, $z = -2.124$ and $p = .034$, where the average ranks were 148.99 and 128.22 for males and females, respectively (see Figure 60, Appendix J). Significantly more males thought that use of the Internet should not be monitored by the university. The remaining question responses were not significant (see Table 60, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the six age groups of respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test was not significant for any of the survey questions (see Table 61, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the three groups indicating type of home Internet connection of the respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test was not significant for any of the survey questions (see Table 62, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the three employee job classifications of the respondents and their attitudes or perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test was not significant for any of the survey questions (see Table 63, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating years of Internet experience of the respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test was not significant for any of the survey questions (see Table 64, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating hours of overtime worked by the respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test was not significant for any of the survey questions (see Table 65, Appendix K).

Research Question 6

Research question 6 was stated as follows: To what extent do higher education employees rely on acceptable use policies to guide personal use and modify behavior? Forty-eight percent of the respondents did not know if their institution had an Internet Acceptable Use Policy, while 46% responded that there was a policy in place (see Table 66, Appendix K). Forty-one percent of respondents had no opinion regarding the statement, "the institution's Internet Acceptable Use Policy guides my use of the Internet," while 27% agreed (see Table 67, Appendix K). Fifty percent of respondents agreed and nearly 16% strongly agreed with the statement, "if the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes." The trend of the data revealed an inconsistency between awareness of the existence of an Internet Acceptable Use Policy and the use of that policy to guide behavior.

Further testing was conducted for variations within the demographic data collected. A Mann-Whitney *U* test evaluated the hypothesis that there would not be a relationship between gender and attitudes and perceptions about monitoring the use of the Internet at work and using

the institution's Internet Acceptable Use Policy to guide behavior. The results of the test were significant for one survey question, "does your institution have an Internet Acceptable Use Policy," $z = -3.097$ and $p = .002$, where the average ranks were 116.73 and 144.58 for males and females, respectively (see Table 68, Appendix K). The tests show that men responded affirmatively at a higher rate than did women about awareness for an institutional Internet Acceptable Use Policy. All other question responses were not significant. Figure 56, Appendix J, shows the distribution of responses to survey question 7 by gender.

A Kruskal-Wallis test was conducted to evaluate differences among the six age groups of the respondents and attitudes and perceptions about monitoring the use of the Internet at work, using the institution's Internet Acceptable Use Policy to guide behavior. The test, which was corrected for tied ranks, was significant for one survey questions, "does your institution have an Internet Acceptable Use Policy," with $X^2 = 12.617$ (5, $N = 270$) and $p = .027$ (see Figure 57, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's age was .05, indicating a moderate relationship between age and knowledge of an institutional Internet Acceptable Use Policy. All other question responses were not significant (see Table 69, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the age groups, using the Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant with $\alpha_1 = .0033$. The results of these tests indicated a significant difference in knowledge of an institutional Internet Acceptable Use Policy between one pair within the age groups for survey question 7, when comparing the 18 to 27 and the 59 to 68 age groups, $z = -3.103$ and $p = .002$ (see Table 52, Appendix K). This test indicated that significantly more respondents in the 59 to 68 age group affirmed knowledge of an institutional Internet Acceptable Use Policy than respondents in the 18 to 27 age group.

A Kruskal-Wallis test was conducted to evaluate differences among the three groups indicating type of home Internet connection of the respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test was not significant for any of the survey questions (see Table 70, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the three employee job classifications of the respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test, which was corrected for tied ranks, was significant for one survey question, "does your institution have an Internet Acceptable Use Policy," with $X^2 = 11.588$ (2, $N = 270$) and $p = .003$ (see Figure 58, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's job classification was .04, indicating a minimal relationship between job class and existence of an institutional Internet Acceptable Use Policy. The remaining question response was not significant (see Table 71, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the job classifications, using the LSD method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests indicated a significant difference in whether the respondent's institution had an Internet Acceptable Use Policy between both administrators and staff ($z = -3.408$ and $p = .001$) and faculty and administrators where $z = -2.443$ and $p = .015$ (see Table 55, Appendix K). Significantly more administrators than staff were aware of the existence of an Internet Acceptable Use Policy and significantly more faculty than administrators were not aware of a policy.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating years of Internet experience of the respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use

Policy to guide behavior. The test was not significant for any of the survey questions (see Table 72, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating hours of overtime worked by the respondents and attitudes and perceptions about monitoring the use of the Internet at work and using the institution's Internet Acceptable Use Policy to guide behavior. The test was not significant for any of the survey questions (see Table 73, Appendix K).

Research Question 7

Research question 7 was stated as follows: Do demographics influence the perceptions of higher education employees regarding the institutions use of the Internet to communicate university and unofficial events, programs, or information? Nearly 96% of respondents to the survey agreed with the statement, "my institution is using the Internet and email to promote university events and programs" (see Table 74, Appendix K). Forty-five percent of respondents answered yes to the statement, "my institution provides a listserv or email subscription that is used to communicate unofficial information across campus," while 41.3% expressed not knowing. Sixty-five percent of respondents agreed and 24.9% strongly agreed with the statement, "the university should use the Internet and email more to keep employees informed" (see Table 75, Appendix K). Nearly 59% of respondents agreed and 24.9% strongly agreed with the statement, "the university should use the Internet and email more to create a positive campus culture." The trend of the data revealed a perception that the institutions are using the Internet as a means of communicating and creating institutional culture and should be using the medium more consistently in the future. It also appeared that a listserv or other unofficial electronic communication tool might not be employed effectively on some campuses.

Further testing was conducted for variations within the demographic data collected. A Mann-Whitney *U* test was conducted to evaluate whether there would be a relationship between

gender and attitudes and perceptions about the institutions' use of the Internet to communicate university and unofficial events, programs, or information. The results of the test were significant for gender for institutional use of the Internet to promote university events and programs, $z = -2.350$ and $p = .019$, where average ranks were 130 and 138.16 for males and females, respectively (see Figure 61, Appendix J). Significantly more males than females reported that their institution was using the Internet and email to promote university events and programs. The remaining questions responses were not significant (see Table 76, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the six age groups of the respondents and attitudes and perceptions about the institutions' use of the Internet to communicate university and unofficial events, programs, or information. The test was not significant for any of the survey questions (see Table 77, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the three groups indicating home Internet connection of the respondents and attitudes and perceptions about the institutions' use of the Internet to communicate university and unofficial events, programs or information. The test, which was corrected for tied ranks, was significant for one survey question, "the university should use the Internet and email more to keep employees informed," with $X^2 = 10.089$ (2, $N = 269$) and $p = .006$ (see Figure 62, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's type of home Internet connection was .04 indicating a small relationship between home connection and attitudes about using the Internet to keep employees informed. All other question responses were not significant (see Table 78, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the home Internet connection, using the LSD method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests indicated a significant difference in the perception of institutional use of the Internet and email to inform employees between both employees with a

dial up home Internet connection and those with broadband (z = -2.528 and p = .011) and those with no home Internet connection and those with broadband (z = -2.444 and p = .015) (see Table 79, Appendix K). Significantly more respondents with a broadband Internet connection at home strongly agreed that the university should use the Internet and email to keep employees informed.

A Kruskal-Wallis test was conducted to evaluate differences among the three employee job classifications of the respondents and attitudes and perceptions about the institutions' use of the Internet to communicate university and unofficial events, programs, or information. The test was not significant for any of the survey questions (see Table 80, Appendix K).

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating years of Internet experience of the respondents and attitudes and perceptions about the institutions' use of the Internet to communicate university and unofficial events, programs, or information. The test, which was corrected for tied ranks, was significant for one survey question, "my institution provides a listserv or email subscription that is used to communicate unofficial information across campus," with X^2 = 9.860 (4, N = 269) and p =.043 (see Figure 63, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's years of Internet experience was .04 indicating a slight relationship between years of experience and whether an institution used a listserv or email to communicate unofficial information. All other questions responses were not significant (see Table 81, Appendix K).

Follow-up tests were conducted using the Mann-Whitney U test to evaluate pairwise differences among the groups, using the Holm's sequential Bonferroni method for control of Type I error across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests indicated a significant difference in the knowledge of the institutional use of Internet and email to keep employees informed between one pair within the groups for survey question 17, when comparing employees with 1 to 3 years and those with 10 years or more of Internet experience, z = -2.657 and p = .008 (see Table 82, Appendix K).

This test indicated that significantly more respondents with 1 to 3 years of Internet experience do were not aware if their institution were using a listserv or email to keep employees informed, while those with 10 years or more knew if a listserv or email was being used on their campus.

A Kruskal-Wallis test was conducted to evaluate differences among the five groups indicating hours of overtime worked by the respondents and attitudes and perceptions about the institutions use of the Internet to communicate university and unofficial events, programs, or information. The test, which was corrected for tied ranks, was significant for one survey question, "my institution provides a listserv or email subscription that is used to communicate unofficial information across campus," with $X^2 = 10.708$ (4, $N = 265$) and $p = .030$ (see Figure 64, Appendix J). The proportion of variability in the ranked dependent variable explained by the respondent's hours of overtime was .04 indicating a minimal relationship between hours of overtime worked and a listserv or email service being used to communicate unofficial information. All other questions responses were not significant (see Table 83, Appendix K).

Follow-up tests were conducted using the Mann-Whitney *U* test to evaluate pairwise differences among the groups, using the Holm's sequential Bonferroni method for control of Type I errors across all pairwise comparisons when the overall result of the Kruskal-Wallis test was significant. The results of these tests indicated a significant difference in the knowledge of the institutional use of Internet and email to keep employees informed between one pair within the groups, in comparing employees who worked no overtime hours with those who worked 10 hours or more of overtime per week, $z = -2.774$ and $p = .006$ (see Table 84, Appendix K). This test indicated that significantly more respondents who worked no overtime did not know if their institution was using a listserv or email to keep employees informed, while those working 10 hours or more of overtime knew if a listserv was being used on their campus.

Qualitative Comments

Forty-three of the 270 respondents included comments in their survey responses. These comments were not analyzed as part of this quantitative study but were included, unedited and in their entirety, in Appendix L. It was noted by several respondents that reading the request to complete this survey and responding to the survey instrument using their work Internet connection could be construed as personal use of the Internet at work. Many thoughtful comments were generated and could lead to the development of other studies in the area of personal use of the Internet at work.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter of the study includes both findings and conclusions. The study revealed areas for further research and those are also presented.

As the use of technology has grown, businesses are relying increasingly on the Internet and the intranet as tools to promote productivity. Use of the Internet has several implications, both positively and negatively, for institutions of higher education. Some of the issues institutions are faced with might include legal liability for defamatory postings and sexually explicit materials, monitoring versus right to privacy, motivation to abuse Internet privileges, and use of the Internet to create a corporate culture. Institutions of higher education need to consider how the Internet is being used and how it should be used when Acceptable Use Policies are being formulated.

The purpose of this quantitative study was to gain an understanding of perceptions about acceptable use of the Internet by employees at work, attitudes about personal use of the Internet during work hours, and the knowledge and effectiveness of an Acceptable Use Policy within the context of institutions of higher education. The results provided a self-assessment of Internet users' knowledge of their institution's Acceptable Use Policy, their attitudes about personal use of the Internet at work, and whether they considered personal use to be acceptable or unacceptable.

The survey instrument was initially developed based on the review of literature. The literature review encompassed several divergent areas, including: business ethics, use of the Internet, motivations for employee abuse of the Internet, management of Internet resources, and acceptable use policies. The data for the research were gathered from December 2005 through January 2006. A sample of 900 employees from the six 4-year institutions in the Tennessee Board of Regents was surveyed. Responses were received from 270 employees (30%) in the

sample. The results of the research were significant regarding perceptions of higher education employees and their use of the Internet. The results were also applicable to the formulation of policy for institutions of higher education.

Findings

Research Question 1

Research question 1 asked whether there was a difference in the attitudes and perceptions about the acceptable uses of the Internet during work hours based on the demographic data collected in the study. The study revealed no significant difference in attitude based on gender or type of home Internet connection. The study did find differences in attitudes and perceptions based on age, job classification, years of Internet experience, and overtime hours worked.

Many more employees in the 28 to 39 age group strongly agreed with the statement that personal use of university's Internet connection was acceptable if it did not take time away from their job than did employees aged 59 to 68. In general the data showed that employees aged 50 to 58 disagreed most with this statement, while surprisingly, those 69 and over agree.

Job classifications determined significant differences in attitudes and perceptions regarding abuse of the Internet at work. Significantly more faculty thought the Internet was not abused at work than did either administrators or staff.

Regarding the statement that personal use was acceptable if conducted outside of work hours, years of Internet experience helped determine attitudes and perceptions. Significantly more employees with 1 to 3 years of Internet experience disagreed with the statement than did employees with more years of Internet experience.

Hours of overtime worked were significant in the perception of whether the personal use of the Internet at work was a non-issue at the respondent's institution. The majority of respondents with 4-6 hours of overtime expressed no opinion, while those with 10 hours or more of overtime either agreed or strongly agreed that personal use was a non-issue.

Richardson (2003), in a review of data collected by the Computer Security Institute (CSI) and the Federal Bureau of Investigation (FBI), identified a sharp decrease in reported dollar losses related to insider abuse of Internet access. Richardson's data correspond with results from this study, which might suggest that the definition of abuse is changing. The study revealed employees aged 50 to 58 responded that the use of the Internet at work as not acceptable, while faculty members, respondents with more Internet experience, and those that worked significant number of hours of overtime reported such use was acceptable.

Research Question 2

Research question 2 sought to determine whether higher education employees believed the personal use of the Internet created a problem in the higher education workplace. The study revealed no significant difference in perception based on gender, age, type of home Internet connection, or years of Internet experience. However, the study identified differences in perceptions based on job classifications, years of Internet experience, and hours of overtime worked.

Job classification appeared to be a determining factor in attitudes toward whether personal use of the Internet was a problem in the higher education workplace. Significantly more faculty than administrators did not think the Internet was being abused at work. And significantly more faculty than staff did not think the Internet was abused at work.

The number of overtime hours worked was significant in the perception of whether the personal use of the Internet at work was a non-issue at the respondent's institution. The majority of respondents with 4-6 hours of overtime expressed no opinion, while those with 10 hours or more of overtime either agreed or strongly agreed that personal use was a non-issue.

Lim (2002) conducted a study that revealed employees seek to balance their relationship with their employer. Increased use of the Internet at work might be a method to balance disparate work schedules and extensive overtime worked by some employees. The survey

responses in this study indicated that faculty members and other employees working substantial overtime do not agree that the personal use of the Internet was a problem in the higher education setting. These groups expressed the opinion that abuse was not occurring and offered that personal use was not a problem in the higher education workplace.

Research Question 3

Research question 3 asked whether there was a difference in the self-reported frequency of personal use of the Internet during work hours and work-related use of the Internet at home. The study revealed differences in self-reported use of the Internet, both at home and at work, across all the demographic groups from which data were collected.

Many more males than females reported using the using the Internet ten or more times per week at home to gather information for personal purposes. Additionally, more males than females reported using the Internet at home 10 or more times per week to gather work-related information. The study showed that males reported the use of the Internet at home with higher frequencies than females.

Age was a factor in the use of the Internet, both at work and at home. Significantly more employees aged 50 to 58 and 59 to 68 reported they did not use the Internet at work for personal purposes than did employees 28 to 39 years old. Additionally, significantly more employees aged 18 to 27 reported using the Internet at work for personal purposes (1 to 3 times per week) than did employees age 59 to 68. Significantly more employees aged 18 to 27 than those in the 59 to 68 age group reported using the Internet 10 or more times per week at home for personal purposes. The study indicated that respondents in the 18 to 27 age group were using the Internet more at work and at home than respondents in the 59 to 68 age group.

Respondents with no home Internet access were excluded from the testing for research question 3 to allow a comparison of the reported frequency of Internet usage for those with home Internet connections. The study indicated those employees with broadband access were using

the Internet more at home for personal and work-related email and to gather information for both personal and work-related purposes. The broadband connection appeared to facilitate more frequent use of the Internet at home.

Job classification was a factor in the self-reported use of the Internet at home. Faculty reported a significantly higher frequency of use of their home Internet connection for both personal and work-related email than did either administrators or staff. Additionally, faculty reported a higher frequency of use of the Internet at home for gathering work-related information.

Self-reported frequencies of use of the Internet for work-related email at home revealed more use by employees with 10 or more years of experience when compared to those with 7 to 9 years of experience. Differences were also noted among employees with 1 to 3 years of experience and those with 4 to 6 or 7 to 9 years experience when reporting use of the Internet at work for personal purposes. The majority of employees with 1 to 3 years experience reported no use of the Internet at work for personal purposes. Employees with 10 years or more of Internet experience reported higher frequencies of use of the Internet at home for personal purposes than employees with 4 to 6 year Internet experience. The study indicated that frequency of Internet use, both at home and at work, increased with experience.

Hours of overtime worked was a factor in the use of the Internet at home for work-related email and to gather work-related information. Employees working more hours of overtime recounted significantly more frequent use of the Internet at home for work-related email than did employees with less or no overtime. Employees working 10 or more hours of overtime reported more frequent use of the Internet at home for work-related purposes than did the other groups with fewer overtime hours. Employees with more overtime revealed higher frequencies of use of the Internet at home for work-related purposes.

Current research has shown the ubiquitous nature of the Internet technology (Applegate et al., 2003; Greengard, 2000). This study revealed corresponding trends in higher education.

The study showed significant differences in self-reported use of the Internet, both at home and at work. In general, males and younger employees used the Internet more frequently than females or older employees. Those with broadband access were accessing the Internet at home more frequently for both personal and work-related purposes. Faculty members were more engaged in the use of Internet at home for work than were administrators or staff. Frequency of Internet use, both at work and at home, increased with experience. Employees reporting higher number of hours of overtime also recorded higher levels of Internet use at home for work-related purposes.

Research Question 4

Research question 4 asked whether there was a difference in the extent of respondent's knowledge about Internet Acceptable Use Policies. The study revealed a general lack of knowledge of any institutional Internet Acceptable Use Policy or the prevailing Tennessee Board of Regents Internet Acceptable Use Policy. The study identified no significant difference in extent of knowledge based on type of home Internet connection, years of Internet experience, or overtime hours worked. The study revealed differences in the extent of knowledge of an Internet Acceptable Use Policy based on gender, age, and job classification.

Many more males than females responded affirmatively when asked if their institution had an Internet Acceptable Use Policy. The same question identified differences between two age groups. More respondents aged 59 to 68 affirmed knowledge of an institutional Internet Acceptable Use Policy than did those in the 18 to 27 age group.

The question regarding existence of an institutional Internet Acceptable Use Policy generated differences in responses between both administrators and faculty, and between administrators and staff. Significantly more administrators reported knowledge of a policy than did either faculty or staff.

Institutions might seek to control personal use of the Internet by establishing an effective Internet Acceptable Use Policy and by disciplining employees who do not comply (Mills et al.,

2001). This implies employee knowledge of Internet policies where such awareness might not exist. The study revealed a general lack of knowledge regarding an institutional Internet Acceptable Use Policy. Additionally, older respondents and male respondents affirmed knowledge of a policy at a higher rate than did younger or female respondents. And administrators affirmed knowledge of a policy at a higher rate than either faculty or staff.

Research Question 5

Research question 5 asked whether there was a difference in the perceptions regarding the possible deterrents to personal use of the Internet at work. The study identified no significant difference in extent of knowledge based on age, type of home Internet connection, job classification, years of Internet experience, or overtime hours worked. On the other hand, the study revealed differences in perceptions about possible deterrents to personal use based on gender. In responses to the survey question regarding whether personal use of the Internet should be monitored by the university, significantly more males than females disagreed or strongly disagreed.

Various arguments exist, both for and against the monitoring of personal use of email and the Internet (Martin & Freeman, 2003). In general, the majority of respondents did not think that email or personal use of the Internet should be monitored by the university. Many respondents expressed no opinion on the survey question and responses were fairly evenly distributed regarding reliance on an institutional policy.

Research Question 6

Research question 6 asked to what extent higher education employees rely on Acceptable Use Policies to guide personal use and modify behaviors. The study revealed a general lack of knowledge of any institutional Internet Acceptable Use Policy or the prevailing Tennessee Board of Regents Internet Acceptable Use Policy. A lack of reliance on the institution's policy to guide

the personal use of the Internet at work was expressed by respondents, possibly because of lack of knowledge of an existing policy. The majority of employees affirmed they would abide by a policy prohibiting personal use if one existed. The study identified no significant difference in extent of reliance on a policy based on type of home Internet connection, years of Internet experience, or overtime hours worked. The study revealed differences in the extent of reliance on policies on gender, age, and job classification.

Many more males than females responded affirmatively when asked if their institution had an Internet Acceptable Use Policy. The same question identified differences between two age groups. More respondents aged 59 to 68 cited knowledge of an institutional Internet Acceptable Use Policy than did those in the 18 to 27 age group.

The question regarding existence of an institutional Internet Acceptable Use Policy generated differences in responses both between administrators and faculty and between administrators and staff. Significantly more administrators reported knowledge of a policy than did either faculty or staff.

Menzel (1998) discussed several approaches to the development of an acceptable use policy. Such policies can encourage the use of and integration of the Internet into the corporate culture. This encouragement can only arise if knowledge and understanding of a policy exists. The study revealed no indication of overwhelming reliance on an existing institutional Internet Acceptable Use Policy by employees to guide the use of the Internet at work, which may be because of a lack of knowledge of a policy. The majority of employees reported they would not use the Internet for personal purposes if a policy existed that prohibited personal use.

Research Question 7

Research question 7 asked whether there was a difference in the perceptions regarding the institution's use of the Internet to communicate university and unofficial events, programs, and information. The study identified no significant difference in perception of institutional use

of the Internet as a communication tool based on age or job classification. The study did reveal differences in the perception of institutions' use of the Internet as a communication tool based on gender, type of home Internet connection, years of Internet experience, and overtime hours worked.

More males than females stated that their institution was using the Internet and email to promote university events and programs. Employees with a broadband home Internet connection were more likely to strongly agree that the university should be using the Internet and email more extensively to keep employees informed.

Review of the literature revealed several benefits for institutions that use the Internet and email to create positive corporate culture (Cairncross, 2002). The study revealed that employees with fewer years of Internet experience were less likely than those with 10 or more years experience to have knowledge of an institutional listserv or email subscription used to communicate unofficial information to the campus community. The same response difference existed between those working no overtime and those working 10 or more hours of overtime. Employees working 10 or more hours of overtime were more likely to report their institution was using a listserv or email to communicate information. In general, employees using the Internet frequently had more knowledge of the institutional use of the Internet to communicate information across campus.

Conclusions

1. The study revealed older employees responded that the use of the Internet at work as not acceptable, while younger employees, faculty members, and respondents with more Internet experience or more hours of overtime expressed the opinion that personal use was acceptable.

a. Younger employees expressed the opinion that personal use of the institutions' Internet was acceptable. As universities hire younger employees, the prevailing attitude over time might become one of acceptance of personal use.
b. Faculty members did not respond that abuse was taking place, while administrators and staff did. This might be because of differences in work arrangements for these employee subgroups and might need to be addressed in any Acceptable Use Policy.
c. Employees with more Internet experience revealed the Internet as a pervasive presence in their work and personal lives. As more employees gain experience, fewer could view the use of the Internet at work as an abuse.
d. Employees working more overtime were more likely to blend their work life and their personal life. Because they are engaging in work after their regularly scheduled hours, they did not see a problem with use of the Internet for personal reasons.

2. Faculty members and employees who worked substantial overtime did not indicate that the personal use of the Internet was a problem in higher education. Universities might need to make accommodations for different work schedules and styles in their policies regarding personal use of the Internet at work by faculty and others who work beyond their scheduled hours.
3. There were significant differences in the self-reported use of the Internet, both at work and at home. The study clearly indicated patterns of use that could be targeted with training to promote the adoption of the use of the Internet across campus for work. Campus seminars geared to older employees, female employees, or staff could be initiated to encourage the adoption of Internet-related skills in the workplace.
4. A general lack of knowledge existed regarding an institutional Internet Acceptable Use Policy. Those who were using the Internet at a higher frequency were more cognizant of

a policy. Institutions should ensure that their employees are all knowledgeable about the Internet Acceptable Use Policies in effect on their campus.

5. The majority of respondents did not respond that email or personal use of the Internet should be monitored by the university. If such monitoring existed or were implemented, employees should be made aware of the policies regarding monitoring and its consequences for their employment.
6. As noted above, a general lack of knowledge regarding an Internet Acceptable Use Policy existed. While the majority of respondents indicated they would not use the Internet for personal purposes, they were unaware that the guidance existed. This pointed out the need for an educational campaign to promote knowledge of the policies to ensure adherence to them.
7. While institutions were using the Internet and email to communicate information to their campus and community, many employees were not aware of the existence of these communication tools. Institutions should take steps to educate the campus about existing listservs and the use of email to communicate information on campus.

Recommendations for Practice

The following are recommendations for practice in higher education.

1. Institutions of higher education should create policies that promote the goals of their organization. One goal of higher education institutions should be to increase the use of the Internet at work for faculty, staff, and administrators. Policies regarding the use of the Internet should reflect the increased use of the Internet, while discouraging abuse.
2. Institutions of higher education should create Internet Acceptable Use Policies that are based on an understanding of whom their employees are and how their employees are working. Many employees appeared to be working outside the routine work schedule and many reported working substantive hours from home.

3. Acceptable use of the Internet might need to be qualified in an Internet Acceptable Use Policy to provide the campus with a workable guideline for appropriate use.

Recommendations for Further Study

The following are recommendations for further study related to personal use of the Internet in the higher education workplace.

1. A similar study should be conducted among other institutions of higher education in the United States to determine whether similar responses are found.
2. A study of Internet Acceptable Use Policies for other colleges and universities should be undertaken to determine how other institutions are using an Internet Acceptable Use Policy to foster use of the Internet while controlling abuse.
3. The study indicated that there is a lack of knowledge regarding an Internet Acceptable Use Policy. A study should be undertaken to determine how other institutions are communicating an Internet Acceptable Use Policy to their employees and how effective that communication is.

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APPENDICES

Appendix A

Tennessee Board of Regents
Governance and Organization Policy for Information Technolgoy Resources
Sections 6.2 and 6.3

Section 6.2 Respect for others

1. A user shall not attempt to obstruct usage or deny access to other users.
2. Users shall not transmit or distribute material that would be in violation of existing TBR policies or guidelines using TBR information technology resources.
3. Users shall respect the privacy of other users, and specifically shall not read, delete, copy, or modify another user's data, information, files, e-mail or programs (collectively, "electronic files") without the other user's permission. Users should note that there should be no expectation of privacy in electronic files stored on the resident memory of a computer available for general public access, and such files are subject to unannounced deletion.
4. Users shall not intentionally introduce any program or data intended to disrupt normal operations (e.g. a computer "virus" or "worm") into TBR information technology resources.
5. Forgery or attempted forgery of e-mail messages is prohibited.
6. Sending or attempts to send unsolicited junk mail or chain letters is prohibited.
7. Flooding or attempts to flood a user's mailbox is prohibited.

Section 6.3 Respect for State-owned property

1. A user shall not intentionally, recklessly, or negligently misuse, damage or vandalize TBR information technology resources.
2. A user shall not attempt to modify TBR information technology resources without authorization.
3. A user shall not circumvent or attempt to circumvent normal resource limits, logon procedures, or security regulations.
4. A user shall not use TBR information technology resources for purposes other than those for which they were intended or authorized.
5. A user shall not use TBR information technology resources for any private or personal for-profit activity.
6. Except for those not-for-profit business activities which are directly related to an employee's job responsibilities or which are directly related to an organization which is affiliated with the Institution, a user shall not use TBR information technology resources for any not-for-profit business activities, unless authorized by the President or Director (or his/her designee).

Users shall at all times endeavor to use TBR information technology resources in an efficient and productive manner, and shall specifically avoid excessive game playing, printing excessive copies of documents, files, data, or programs; or attempting to crash or tie-up computer resources. (2002, ¶6)

Appendix B

Matrix of Relation Between Research Questions And Survey

Survey Question	Research Question(s)						
	Q1	Q2	Q3	Q4	Q5	Q6	Q7
1 – 6. Demographic Information	X	X	X	X	X		X
7. Does your institution have an Internet Acceptable Use Policy?				X		X	
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?				X			
9. I use the Internet at work to send and receive personal email.			X				
10. I use the Internet at home to send and receive personal email			X				
11. Email usage at work should be monitored by the university.					X		
12. I use the Internet at home to send and receive work-related email.			X				
13. I use the Internet at work to gather information for personal purposes.			X				
14. I use the Internet at home to gather information for personal purposes.			X				
15. I use the Internet at home to gather information for work-related purposes.			X				
16. My institution is using the Internet and email to promote university events and programs.							X
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.							X
18. I have knowledge about my institution's Internet Acceptable Use Policy.				X			
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.					X	X	
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.						X	
21. Personal use of the Internet should be monitored by the university.					X		

22. The university should monitor personal use of the Internet during work hours only.					X		
23. Many employees are abusing their access to the Internet at work.	X	X					
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory email.	X						
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	X						
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	X						
27. Personal use of my institution's Internet connection is unethical under any conditions.	X						
28. Personal use of my institution's Internet connection is a misuse of employer assets.	X						
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	X						
30. Personal use of the Internet is a non-issue at my institution.	X	X					
31. I think the university should use the Internet and email more to keep employees informed.							X
32. I think the university should use the Internet and email more to create a positive campus culture.							X

Appendix C

Survey Assessment Form

Please access the Survey of Higher Education Faculty, Staff and Administrators Regarding Personal Use of the Internet at Work at http://students.etsu.edu/kingbj.
Take the survey and indicate the amount of time needed to complete it.
You do not have to submit the survey, but may if you choose to.
The survey took _____ minutes to complete.
After completing the survey, please indicate your comments to each question below.

	The question is (circle response)		Please specify questions you would delete or modify. Explain modifications needed.
	Clear (C) or Vague (V)	Pertinent (P) or Unrelated (U)	
1.	C V	P U	
2.	C V	P U	
3.	C V	P U	
4.	C V	P U	
5.	C V	P U	
6.	C V	P U	
7.	C V	P U	
8.	C V	P U	
9.	C V	P U	
10	C V	P U	
11.	C V	P U	
12.	C V	P U	
13.	C V	P U	
14.	C V	P U	
15.	C V	P U	
16.	C V	P U	
17.	C V	P U	
18.	C V	P U	
19.	C V	P U	
20.	C V	P U	
21.	C V	P U	
22.	C V	P U	
23.	C V	P U	
24.	C V	P U	
25.	C V	P U	
26.	C V	P U	
27.	C V	P U	
28.	C V	P U	
29.	C V	P U	
Add the following questions to the survey:			

Appendix D

Survey Of Higher Education Faculty, Staff, And Administrators

Regarding Personal Use Of The Internet At Work

Dissertation Survey – B.J. King

The purpose of this study is to determine the attitudes and behaviors of higher education faculty, staff and administrators regarding personal use of the Internet at work and institutional use of the Internet to create culture. The number of employees with high-speed Internet connections at work has grown exponentially. Popular management media has given much attention to how the Internet is used at work, including personal use. Less attention has been given to how employers use the Internet to create an institutional culture. Employee's attitudes about Internet use and self-reported behaviors can assist in the development of effective policies for higher education management.

Pilot tests of this survey indicate the form can be completed in under 10 minutes. Your response to this survey will remain strictly confidential. If you would prefer to mail the completed survey, it can be printed and sent to B.J. King, 8 Fox Run Lane, Johnson City, TN 37604.

Question 1. Gender:

__ M
__ F

Question 2. Age:

__ Under 18
__ 18-27
__ 28-39
__ 40-49
__ 50-58
__ 59-68
__ 69 and over

Question 3. Home Internet connection:

__ None
__ Dial up
__ Broadband

Question 4. Primary Job Classification:

__ Faculty
__ Administrator
__ Staff

Question 5. Years of Internet experience:

__ less than 1 year
__ 1-3 years
__ 4-6 years
__ 7-9 years
__ 10 years or more

Question 6. Average overtime hours worked per week:

__ none - work scheduled hours
__ 1-3 hours over scheduled hours
__ 4-6 hours over scheduled hours
__ 7-9 hours over scheduled hours
__ 10 hours or more over scheduled hours

Question 7. Does your institution have an Internet Acceptable Use Policy?

__ Yes
__ No ----→Skip to Question 9
__ Don't Know ----→Skip to Question 9

Question 8. Does your institution's Internet Acceptable Use Policy

__ prohibit personal use of the Internet connection?
__ allow limited personal use of the Internet connection?
__ allow unlimited personal use of the Internet connection?

Question 9. I use the Internet at work to send and receive personal email.

__ 0 times per day
__ 1-3 times per day
__ 4-6 times per day
__ 7-9 times per day
__ 10 or more times per day

Question 10. I use the Internet at home to send and receive personal email.

__ 0 times per day or no home Internet access
__ 1-3 times per day
__ 4-6 times per day
__ 7-9 times per day
__ 10 or more times per day

Question 11. Email usage at work should be monitored by the university.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 12. I use the Internet at home to send and receive work-related email.

__ 0 times per week or no home Internet access
__ 1-3 times per week
__ 4-6 times per week
__ 7-9 times per week
__ 10 or more times per week

Question 13. I use the Internet at work to gather information for personal purposes.

__ 0 times per week
__ 1-3 times per week
__ 4-6 times per week
__ 7-9 times per week
__ 10 or more times per week

Question 14. I use the Internet at home to gather information for personal purposes.

__ 0 times per week or no home Internet access
__ 1-3 times per week
__ 4-6 times per week
__ 7-9 times per week
__ 10 or more times per week

Question 15. I use the Internet at home to gather information for work-related purposes.

__ 0 times per week or no home Internet access
__ 1-3 times per week
__ 4-6 times per week
__ 7-9 times per week
__ 10 or more times per week

Question 16. My institution is using the Internet and email to promote university events and programs.

__ Yes
__ No
__ Don't Know

Question 17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.

__ Yes
__ No
__ Don't Know

Question 18. I have knowledge about my institution's Internet Acceptable Use Policy.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 19. The institution's Internet Acceptable Use Policy guides my use of the Internet.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 21. Personal use of the Internet should be monitored by the university.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 22. The university should monitor personal use of the Internet during work hours only.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 23. Many employees are abusing their access to the Internet at work.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory email.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 27. Personal use of my institution's Internet connection is unethical under any conditions.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 28. Personal use of my institution's Internet connection is a misuse of employer assets.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 30. Personal use of the Internet is a non-issue at my institution.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 31. I think the university should use the Internet and email more to keep employees informed.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Question 32. I think the university should use the Internet and email more to create a positive campus culture.

__Strongly Agree __Agree __No Opinion __Disagree __Strongly Disagree

Please add any comment below:

Appendix E

Initial Mailing Letter

Date

Name
Institution Name
Institution Address
City, State, Zip

The use of the Internet on the college campus has grown significantly over the last decade. Most faculty and staff rely on the Internet to conduct research, transmit information and help create a student environment conducive for both instruction and business. Research to date reveals we are still defining the personal use of the Internet by employees in the business and educational setting. However, no research has sought to determine the perceptions of higher education faculty and staff regarding use of the Internet for personal purposes at work.

As an employee in the Tennessee Board of Regents system, I am requesting your opinions on your use of the Internet, both at home and at work to help gain an understanding of how employees in higher education are using the Internet. This understanding may be used to assist in the formulation of institutional acceptable-use policies or Internet-use policies.

All responses are completely confidential. The questionnaire may be completed online and electronically submitted. No identifiable information is collected in the survey. Because the survey does not identify the respondent, all employees selected for the survey will receive email follow up reminders. The survey is located at http://students.etsu.edu/kingbj.

I hope to have the study completed and published by May 2006. An electronic copy of the dissertation will be available for review through the ETSU library following publication.

If you have any questions about the study, please contact me at (423) 282-5314 or by email at kingbj@etsu.edu.

Thank you for your assistance.

BJ King
Doctoral Candidate
East Tennessee State University

Appendix F

First Follow-up Email

Date

Name
Institution Name
Institution Address
City, State, Zip

Last week you received a letter soliciting your participation in an online survey to assess the use of the Internet by employees in higher education.

For those who have already submitted a response, thank you for participating. If you have not had a chance to complete the survey, please take a moment to do so now. Results of a pilot test show the survey takes 5 to 10 minutes to complete. Getting an adequate response to the survey will help in developing a comprehensive understanding of the use of the Internet.

All responses are completely confidential. The questionnaire may be completed online and electronically submitted. No identifiable information is collected in the survey. Because the survey does not identify the respondent, all employees selected for the survey will receive email follow up reminders. The survey is located at http://students.etsu.edu/kingbj and can be completed online. Alternatively, the survey can be printed and returned by mail to BJ King, 8 Fox Run Lane, Johnson City, TN 37604..

If you have any questions about the study, please contact me at (423) 282-5314 or by email at kingbj@etsu.edu.

Thank you again for your response.

BJ King
Doctoral Candidate
East Tennessee State University

Appendix G

Second Follow-up Email

Date

Name
Institution Name
Institution Address
City, State, Zip

Two weeks ago you received a letter soliciting your participation in an online survey to assess the use of the Internet by employees in higher education.

Many of you have responded to the survey and I thank you for your participation. If you have not had a chance to complete the survey, please take a moment to do so now. Results of a pilot test show the survey takes 5 to 10 minutes to complete. Having a higher response rate will lend validity to the study and make the findings more meaningful.

The survey is located at http://students.etsu.edu/kingbj and can be completed online. Alternatively, the survey can be printed and returned by mail to BJ King, 8 Fox Run Lane, Johnson City, TN 37604. All responses are completely confidential.

If you have any questions about the study, please contact me at (423) 282-5314 or by email at kingbj@etsu.edu.

Thank you again for your response.

BJ King
Doctoral Candidate
East Tennessee State University

Appendix H

Final Mailing Letter

Date

Name
Institution Name
Institution Address
City, State, Zip

As an employee in the Tennessee Board of Regents system, I am requesting your opinions on your use of the Internet, both at home and at work to help gain an understanding of how employees in higher education are using the Internet. This understanding may be used to assist in the formulation of institutional acceptable-use policies or Internet-use policies.

I have recently contacted you via both standard mail and email soliciting your response to an online survey. Because the survey is being collected online, I do not know who has responded. If you have participated, my sincere thanks. If you have not responded, I again ask that you take a moment to do so. The survey is located at http://students.etsu.edu/kingbj. Some may question the confidentiality of responding to a questionnaire online, so I have enclosed a printed copy of the survey and a self-addressed, stamped envelope you may use to respond.

Your participation in the survey is vital to this project. All responses are completely confidential.

If you have any questions about the study, please contact me at (423) 282-5314 or by email at kingbj@etsu.edu.

Thank you for your assistance.

BJ King
Doctoral Candidate
East Tennessee State University

Appendix I

Survey Question Histograms

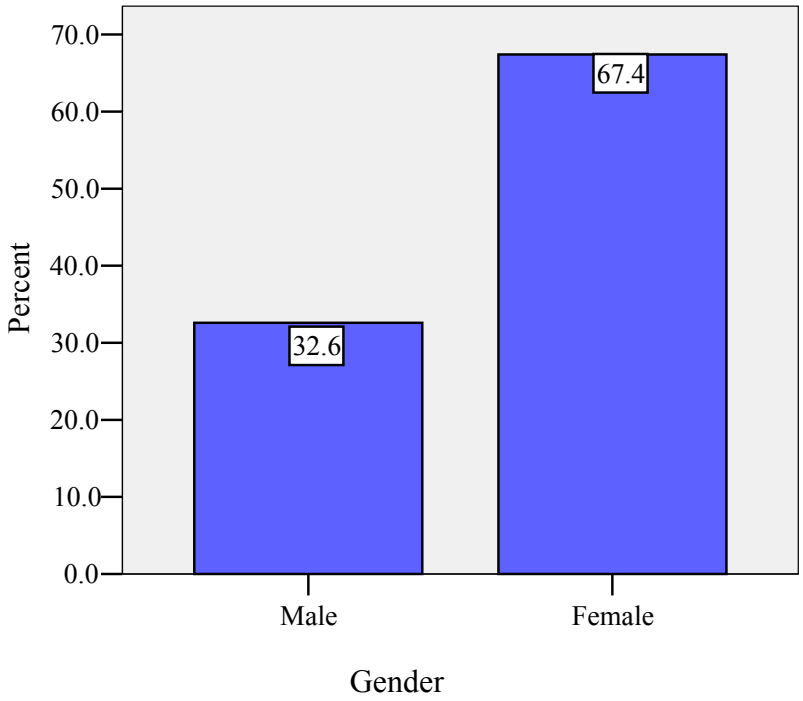


Figure 1. Response to Survey Question 1.

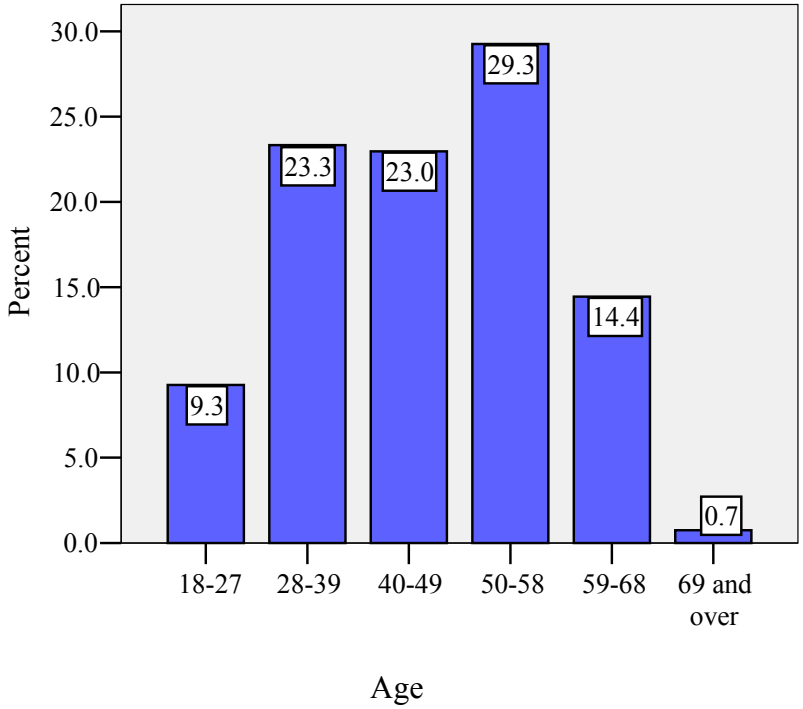


Figure 2. Response to Survey Question 2.

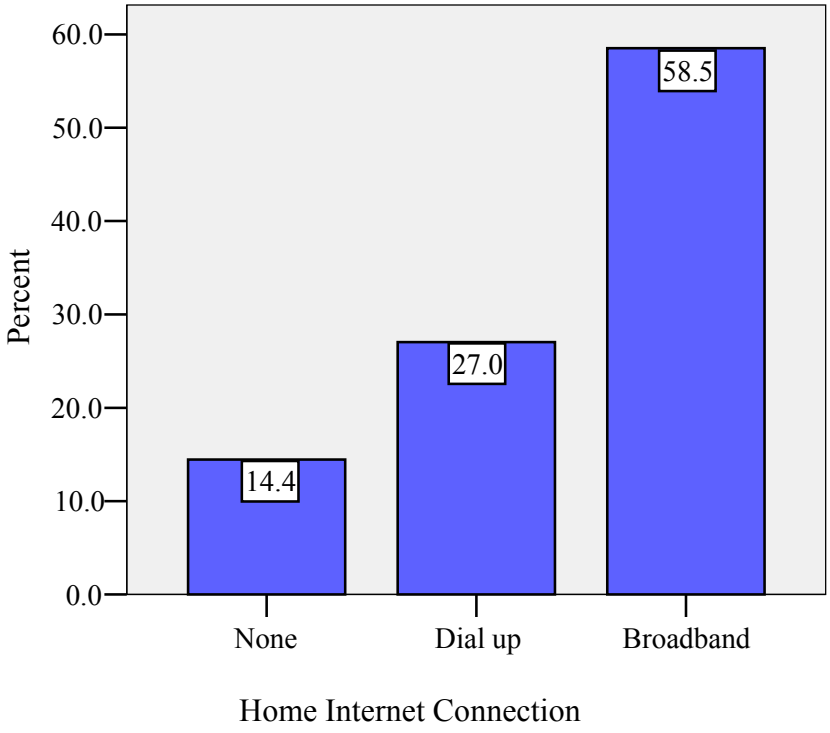


Figure 3. Response to Survey Question 3.

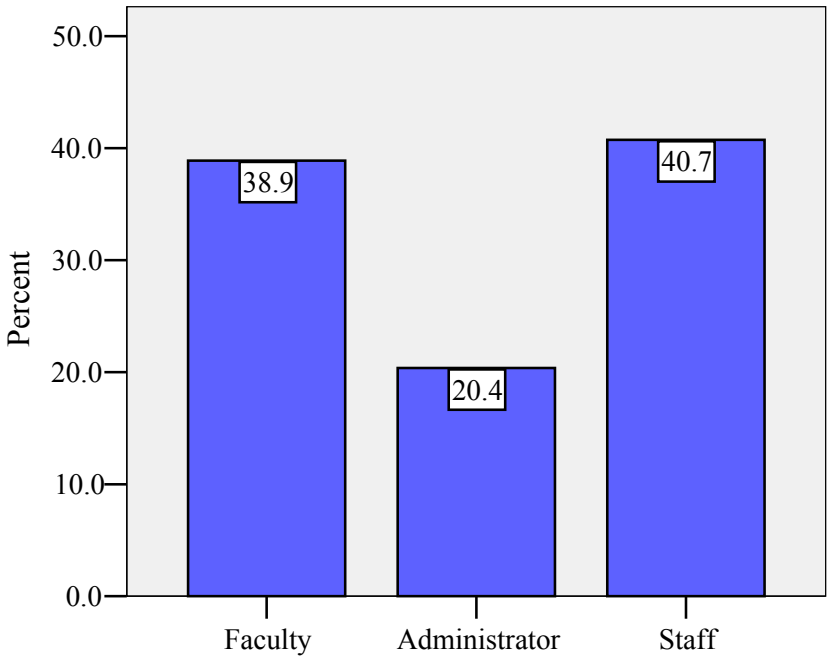


Figure 4. Response to Survey Question 4.

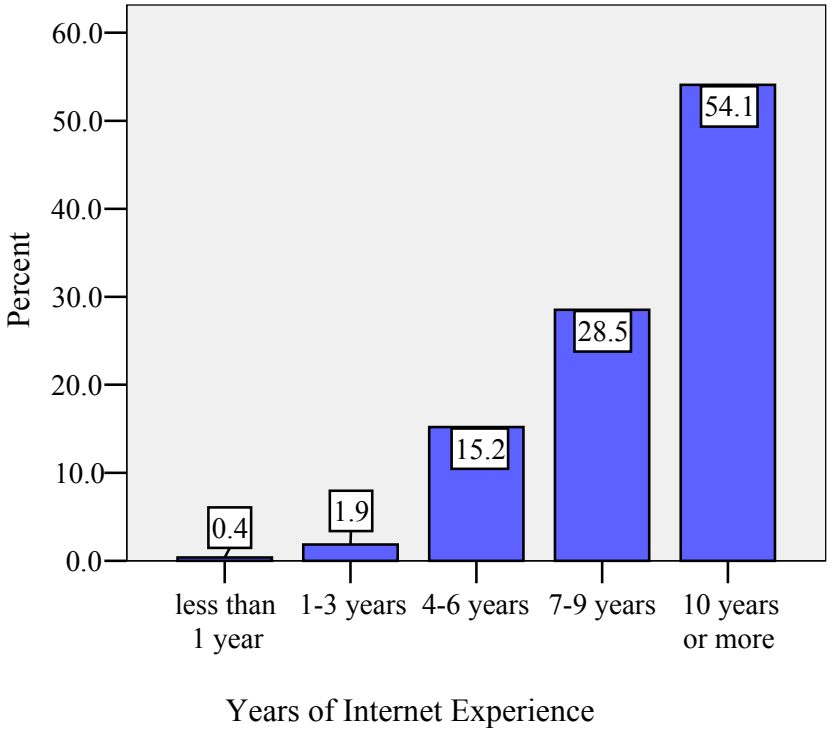


Figure 5. Response to Survey Question 5.

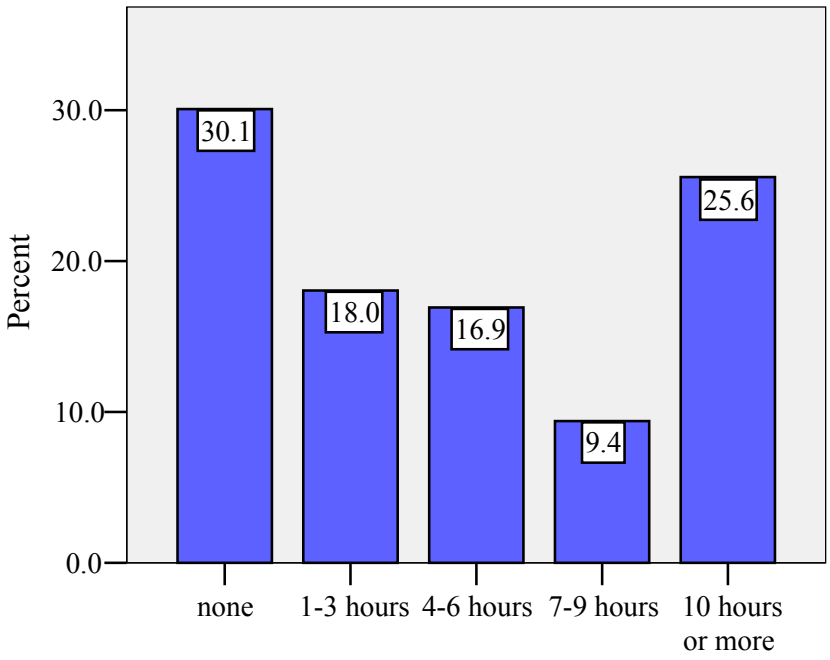
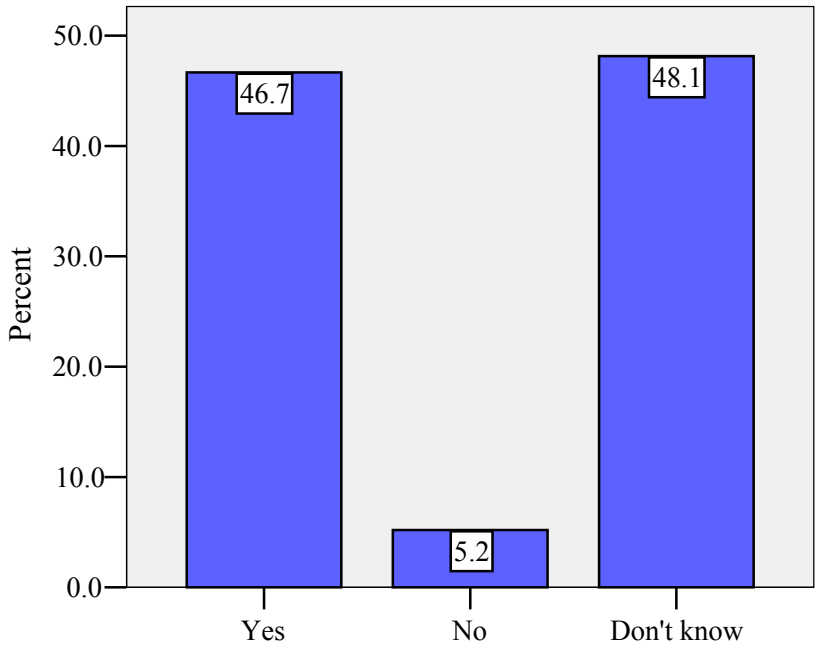
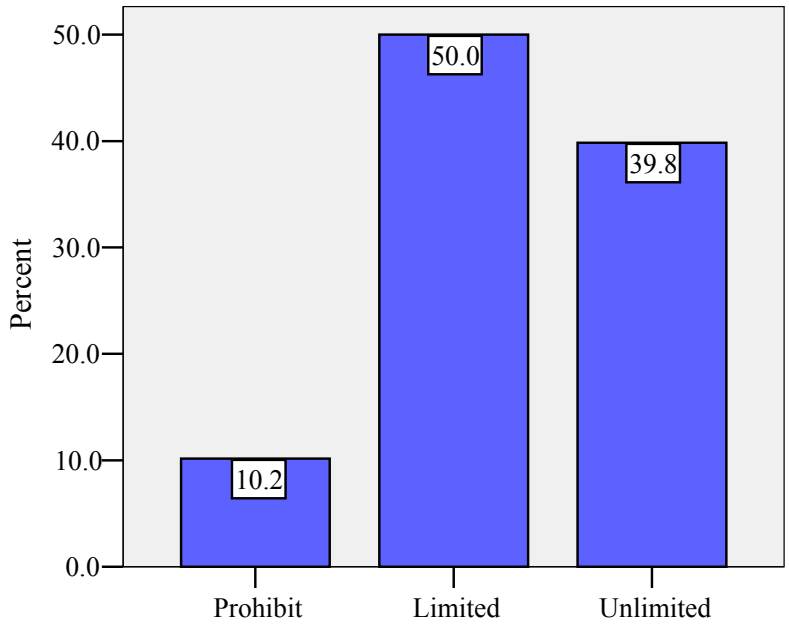


Figure 6. Response to Survey Question 6.



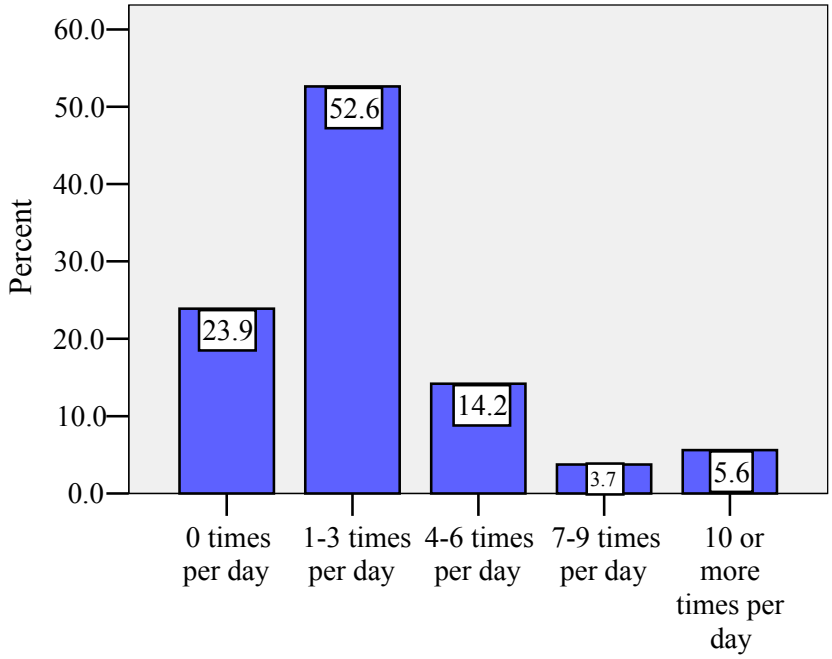
Does your institution have an Internet Acceptable Use Policy?

Figure 7. Response to Survey Question 7.



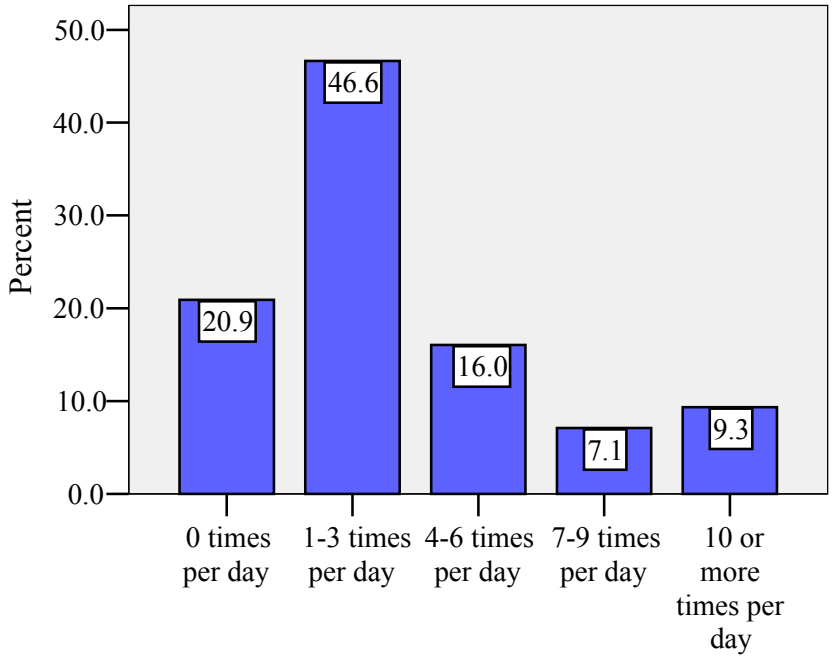
Does your institution's Internet Acceptable Use Policy prohibit personal use of the Internet connection, allow limited personal use of the Internet connection or allow unlimited personal use of the Internet connection?

Figure 8. Response to Survey Question 8.



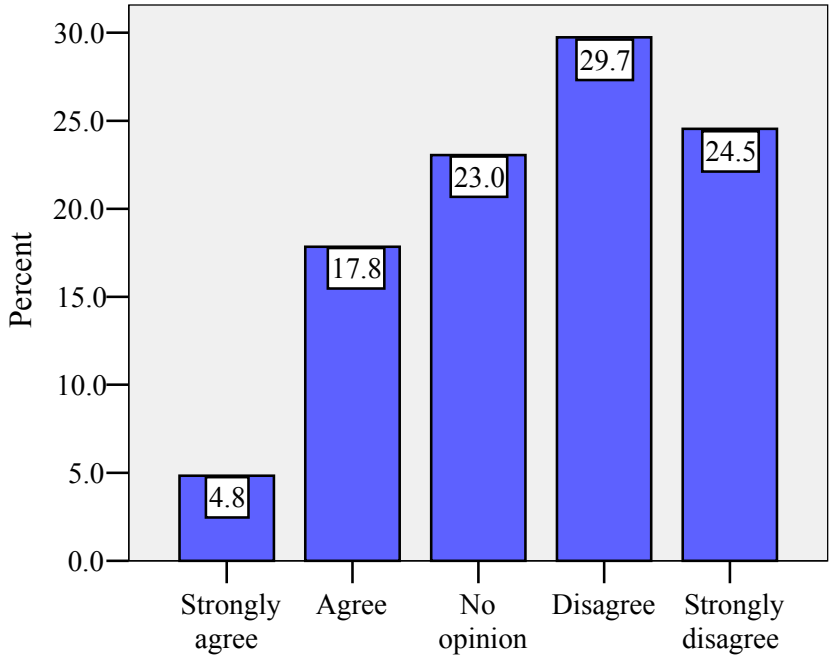
I use the Internet at work to send and receive personal email.

Figure 9. Response to Survey Question 9.



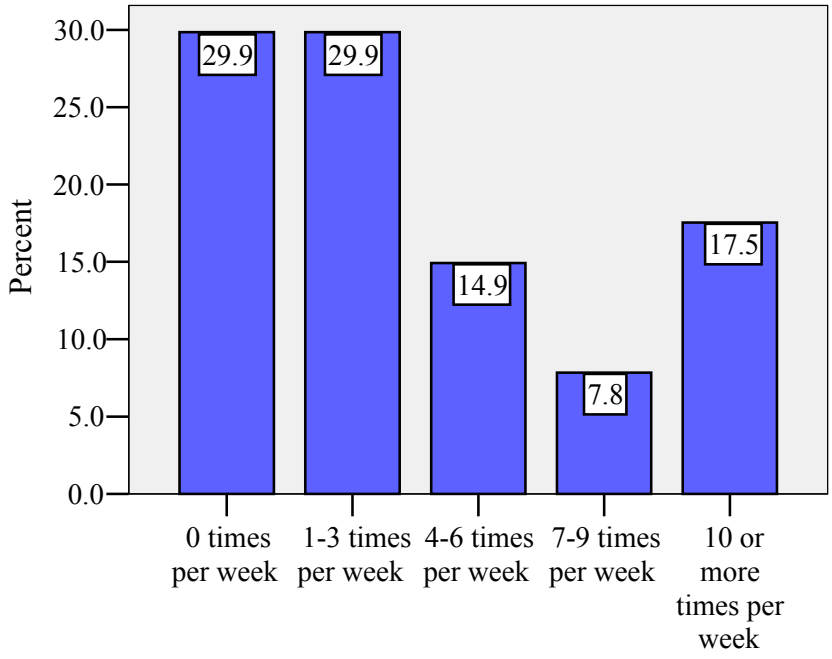
I use the Internet at home to send and receive personal email.

Figure 10. Response to Survey Question 10.



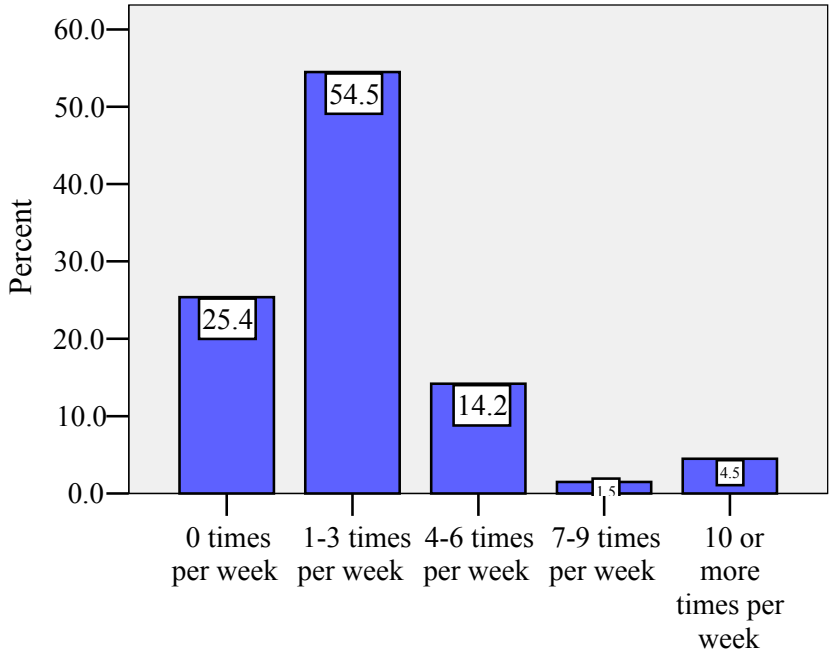
Email usage at work should be monitored by the university.

Figure 11. Response to Survey Question 11.



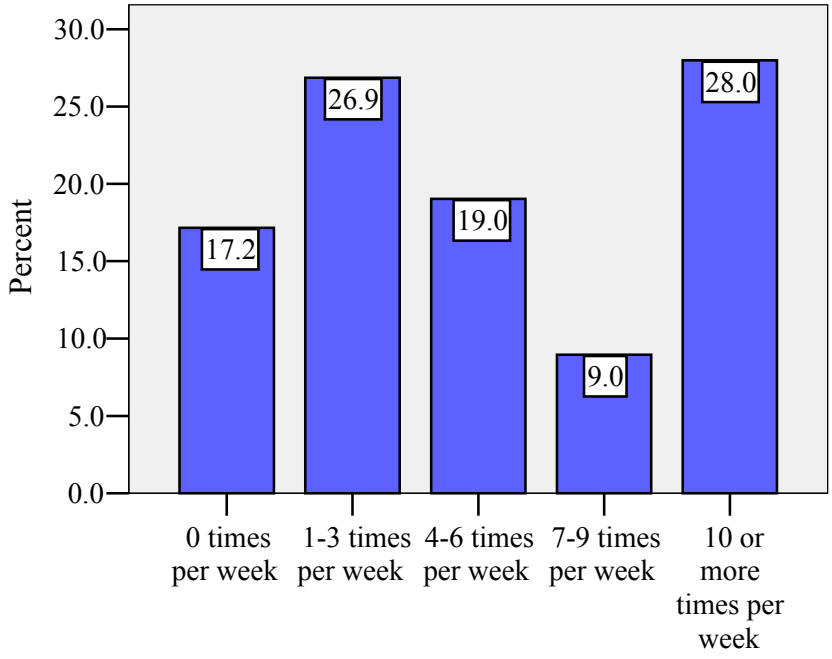
I use the Internet at home to send and receive work-related email.

Figure 12. Response to Survey Question 12.



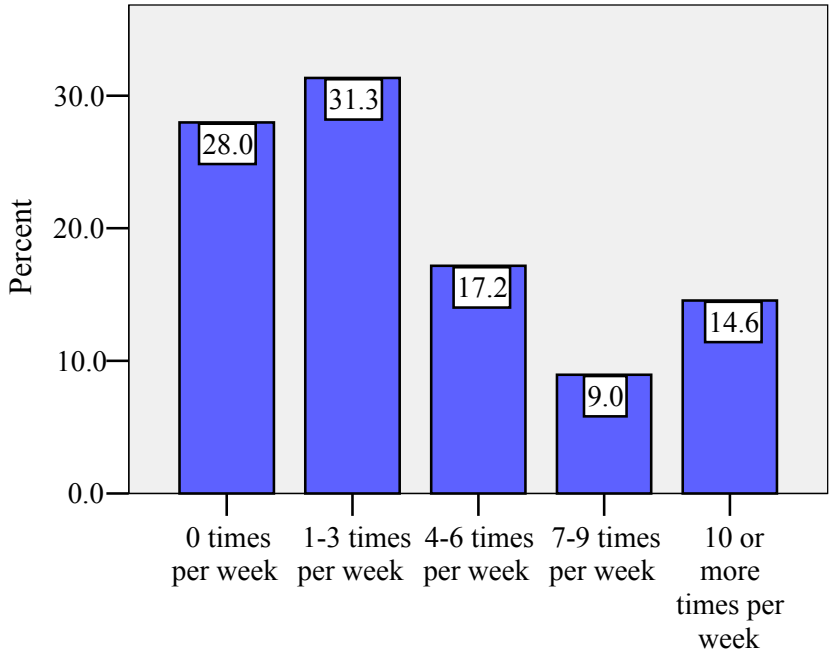
I use the Internet at work to gather information for personal purposes.

Figure 13. Response to Survey Question 13.



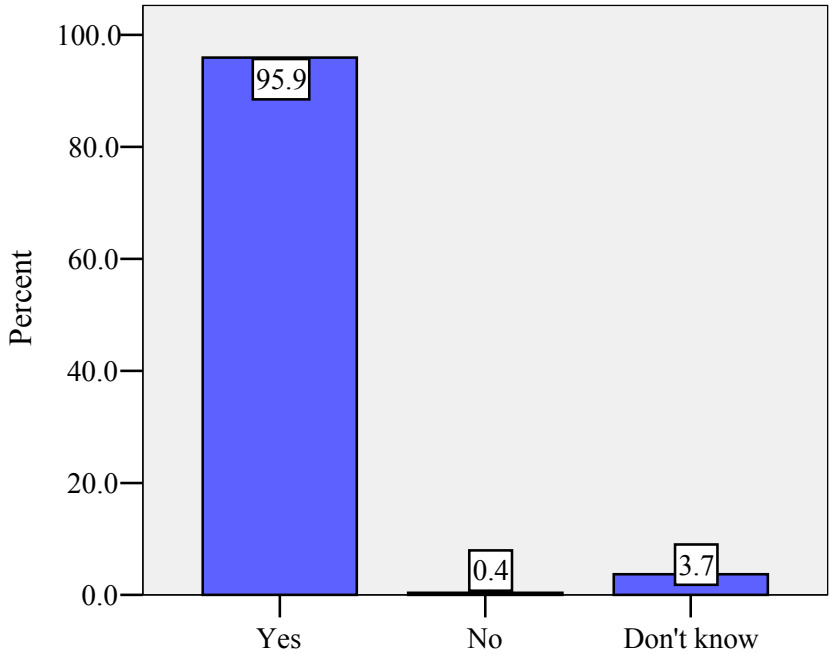
I use the Internet at home to gather information for personal purposes.

Figure 14. Response to Survey Question 14.



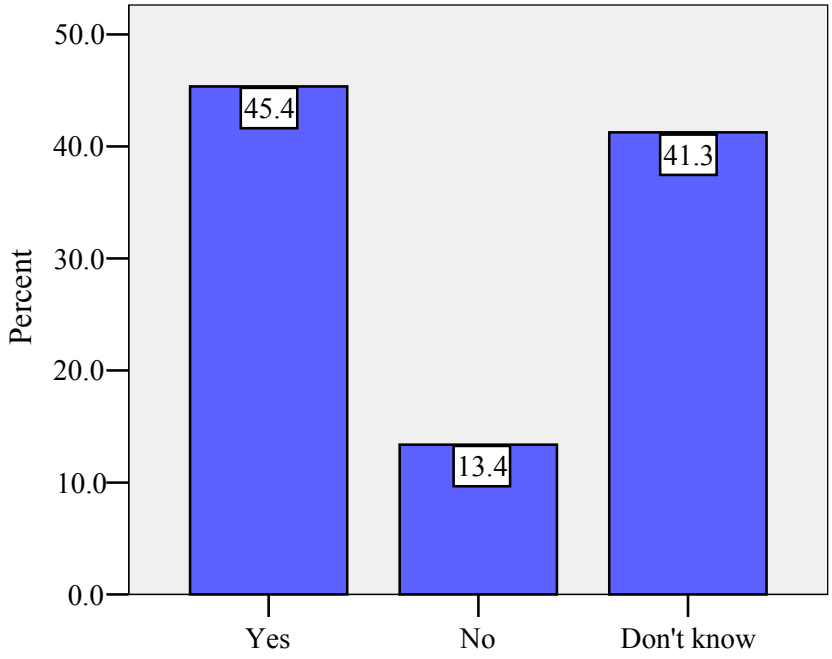
I use the Internet at home to gather information for work-related purposes.

Figure 15. Response to Survey Question 15.



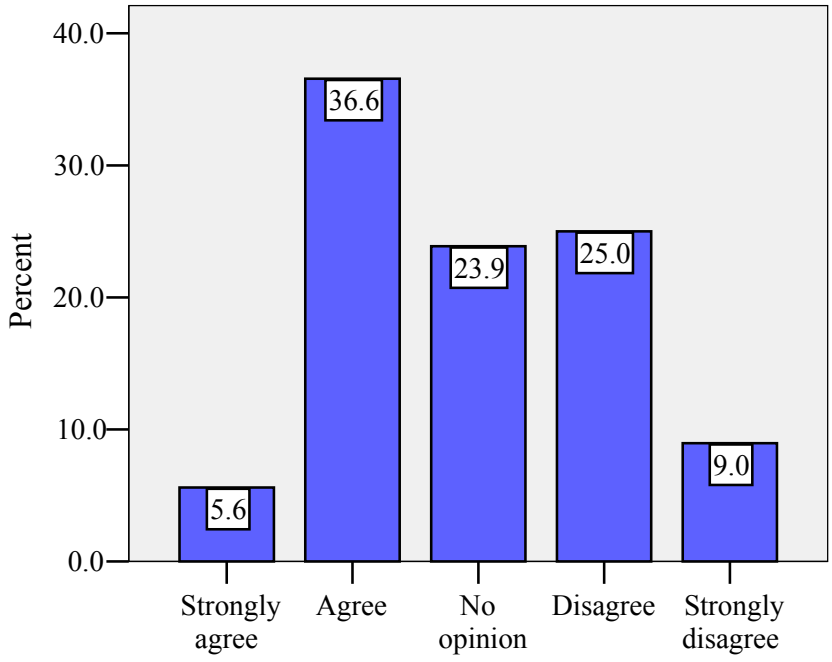
My institution is using the Internet and email to promote university events and programs.

Figure 16. Response to Survey Question 16.



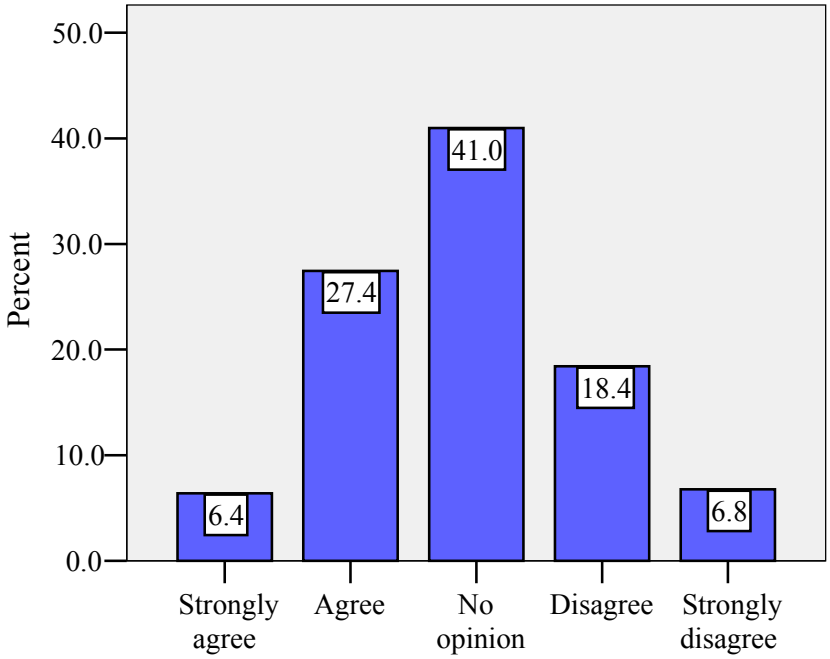
My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.

Figure 17. Response to Survey Question 17.



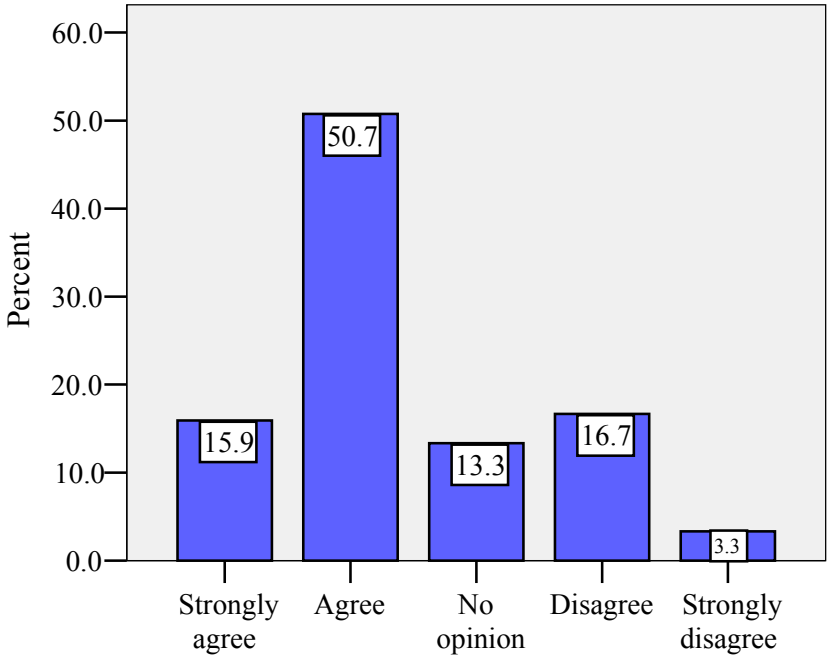
I have knowledge about my institution's Internet Acceptable Use Policy.

Figure 18. Response to Survey Question 18.



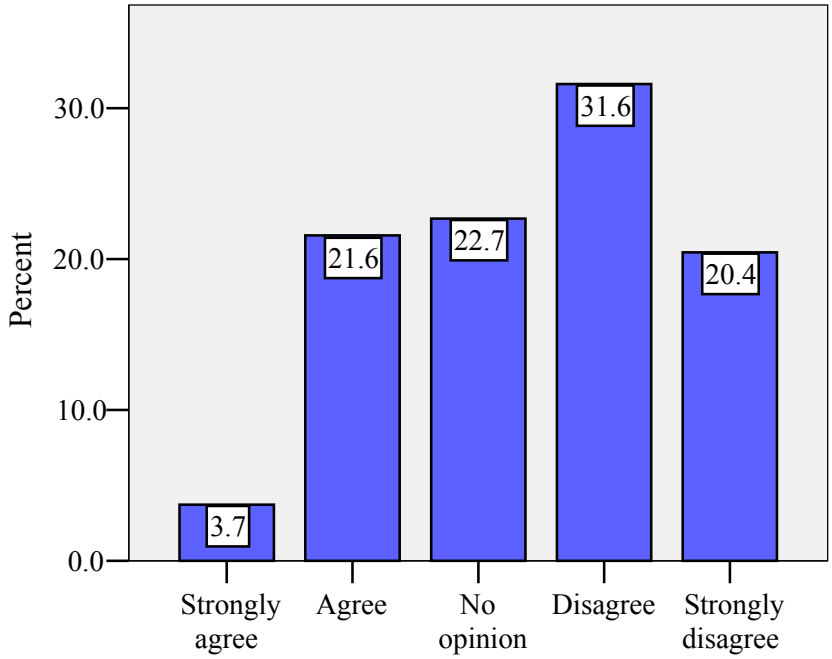
The institution's Internet Acceptable Use Policy guides my use of the Internet.

Figure 19. Response to Survey Question 19.



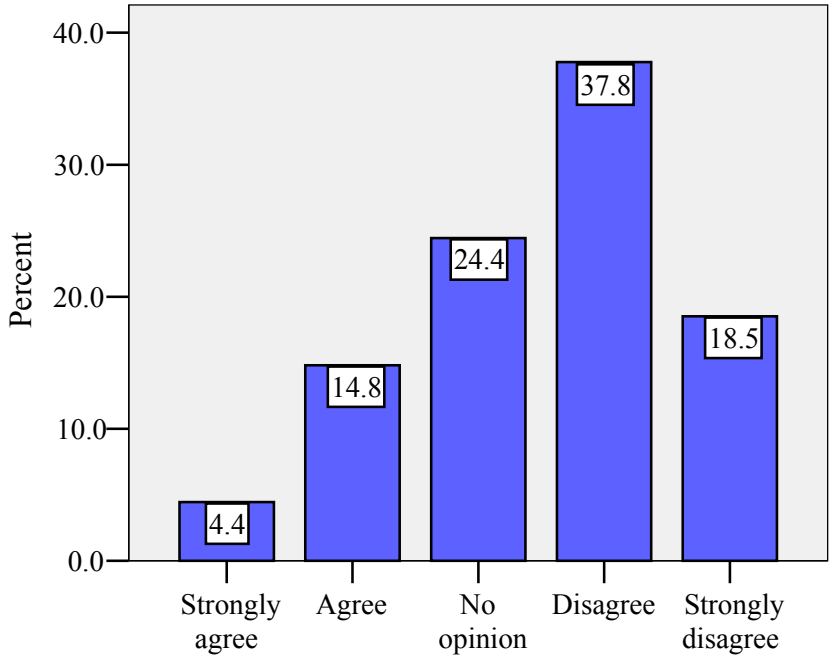
If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.

Figure 20. Response to Survey Question 20.



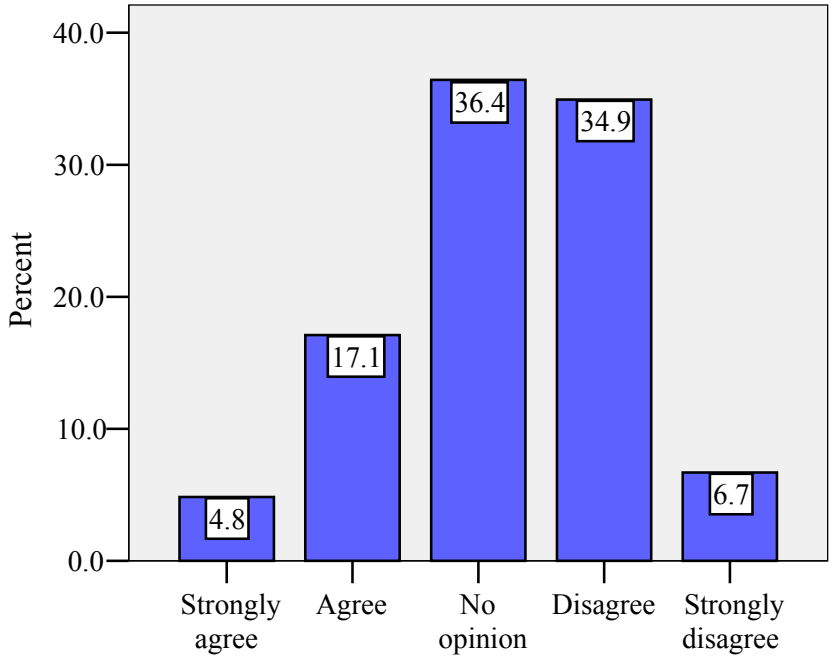
Personal use of the Internet should be monitored by the university.

Figure 21. Response to Survey Question 21.



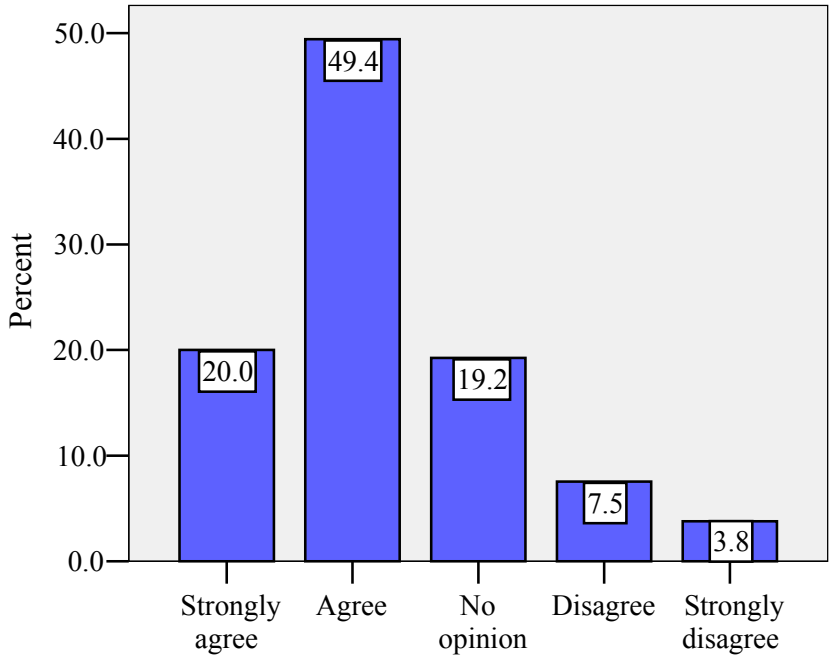
The university should monitor personal use of the Internet during work hours only.

Figure 22. Response to Survey Question 22.



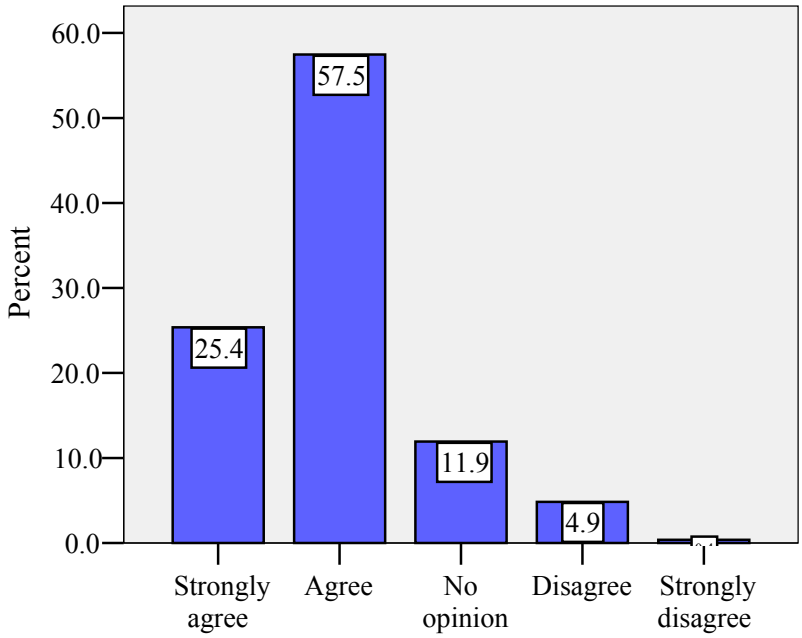
Many employees are abusing their access to the Internet at work.

Figure 23. Response to Survey Question 23.



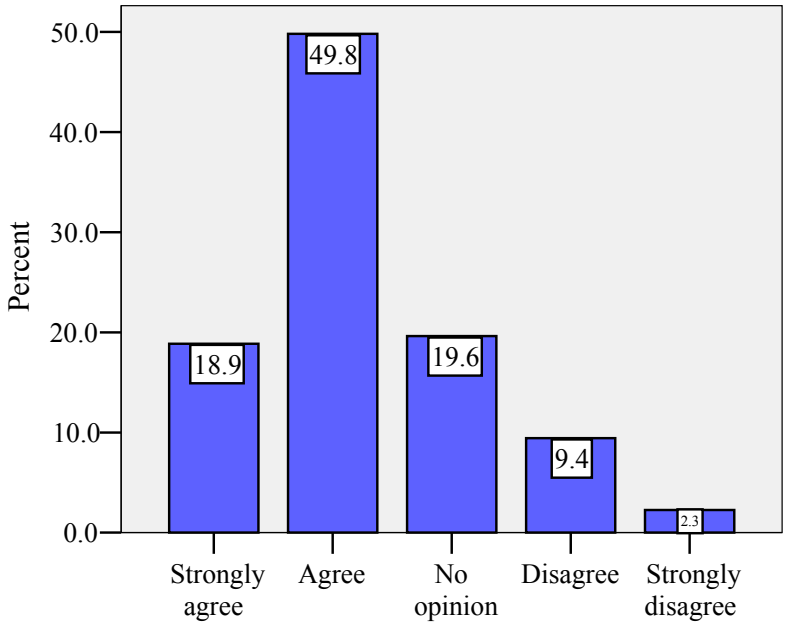
Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory email.

Figure 24. Response to Survey Question 24.



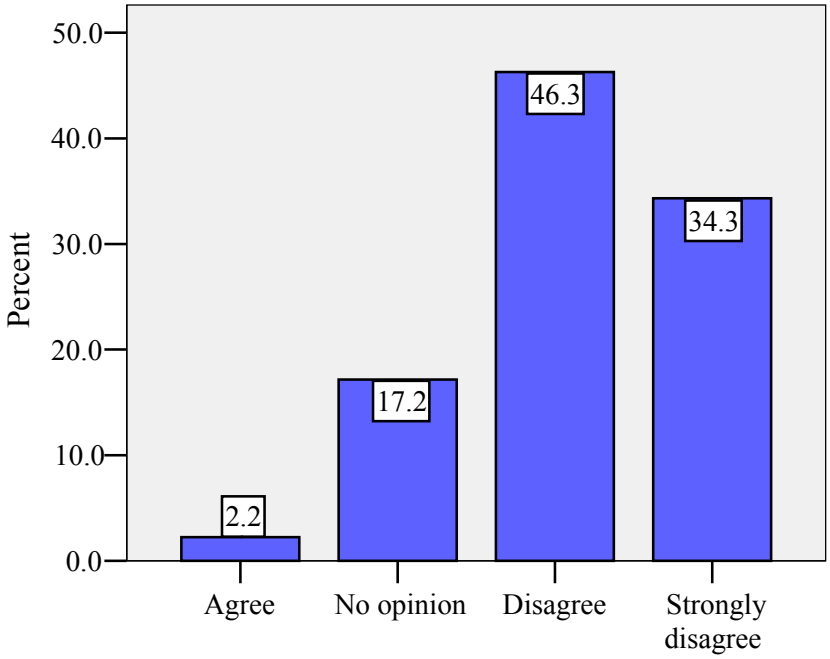
Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.

Figure 25. Response to Survey Question 25.



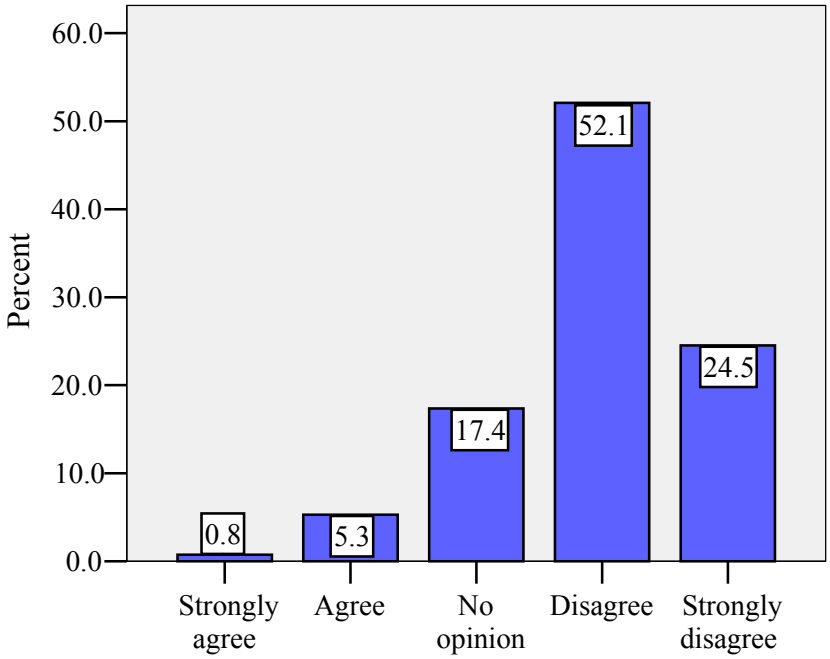
Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.

Figure 26. Response to Survey Question 26.



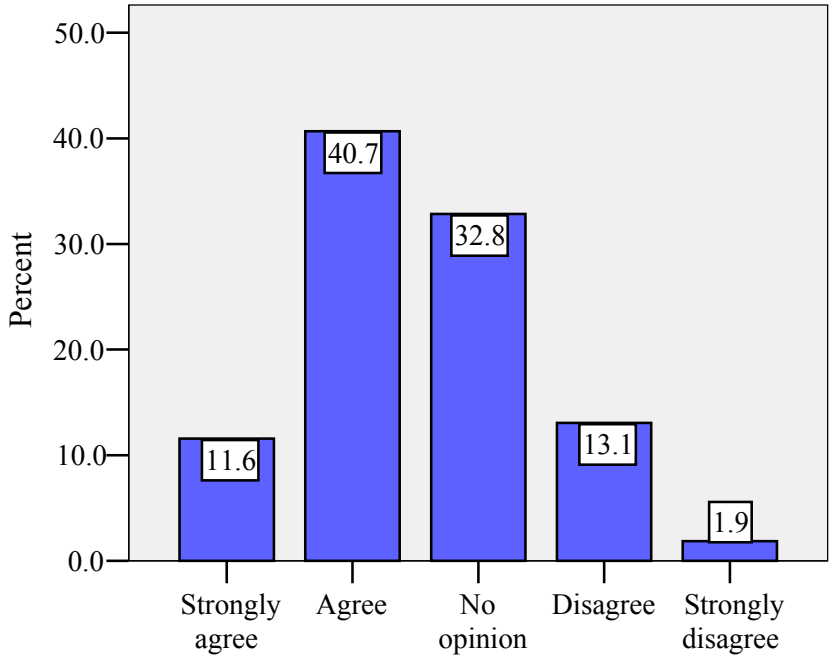
Personal use of my institution's Internet connection is unethical under any conditions.

Figure 27. Response to Survey Question 27.



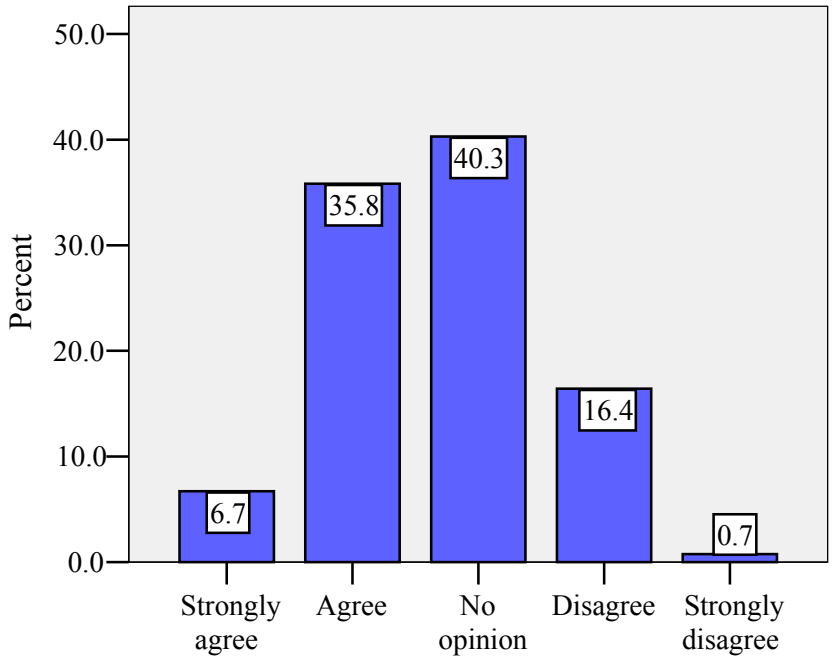
Personal use of my institution's Internet connection is a misuse of employer assets.

Figure 28. Response to Survey Question 28.



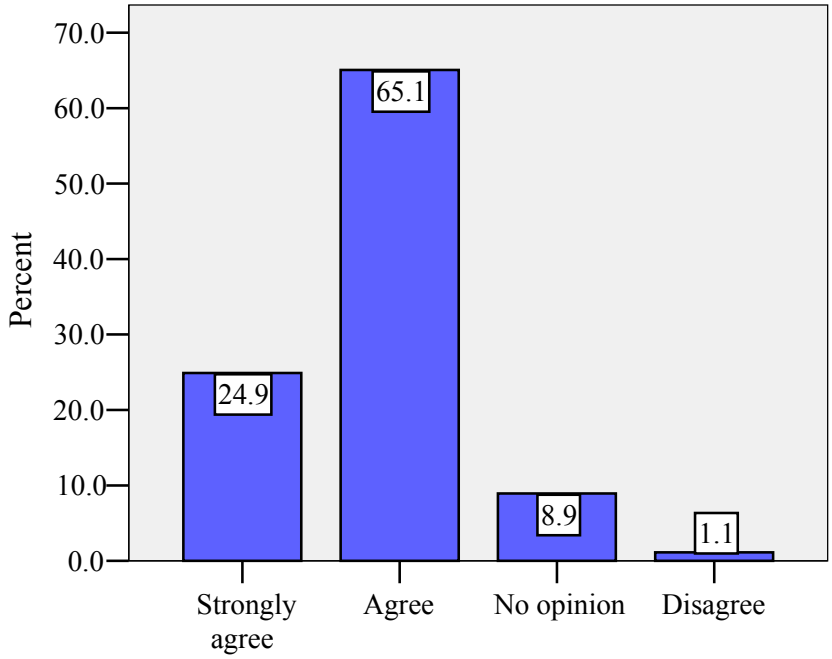
My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.

Figure 29. Response to Survey Question 29.



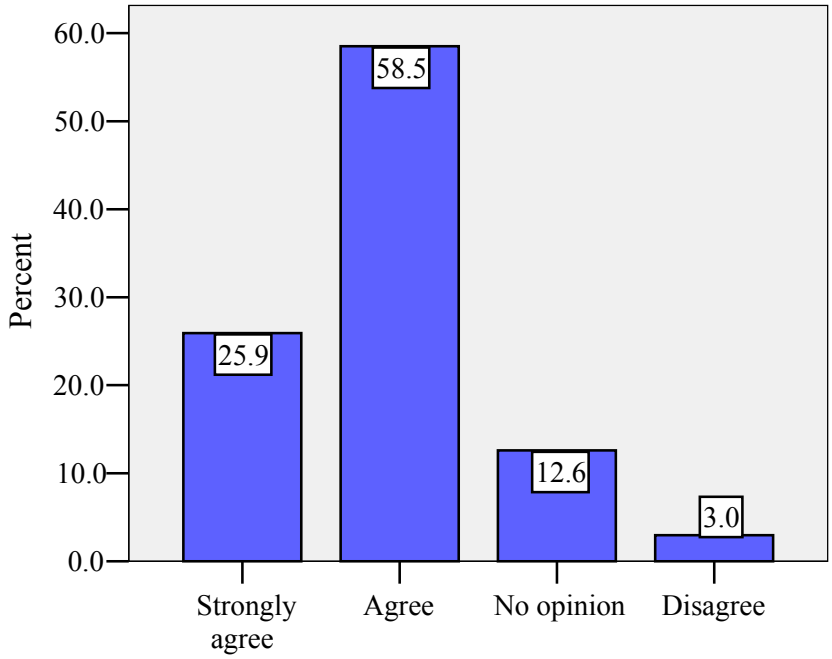
Personal use of the Internet is a non-issue at my institution.

Figure 30. Response to Survey Question 30.



I think the university should use the Internet and email more to keep employees informed.

Figure 31. Response to Survey Question 31.

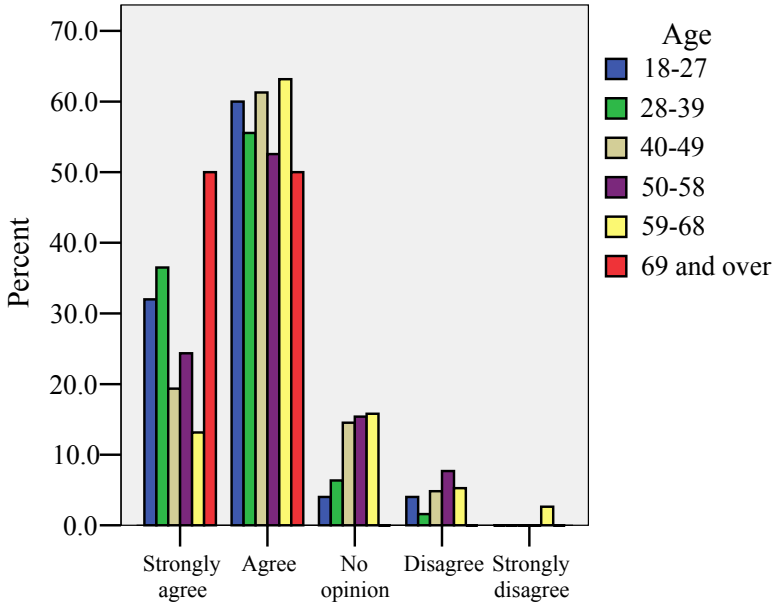


I think the university should use the Internet and email more to create a positive campus culture.

Figure 32. Response to Survey Question 32.

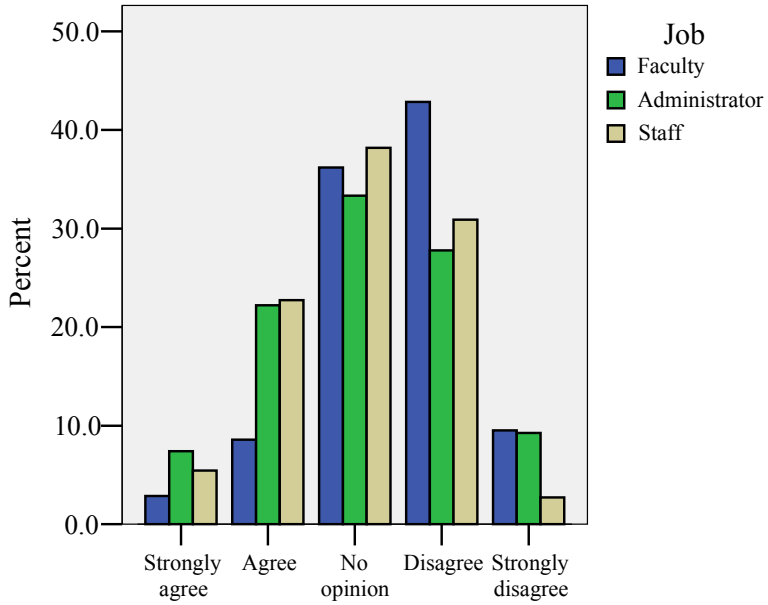
Appendix J

Figures for Significant Survey Responses



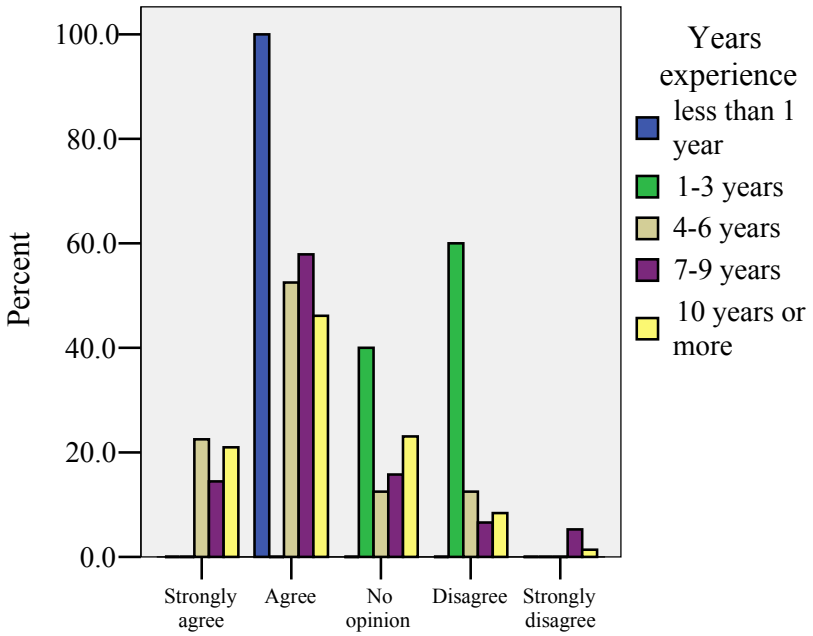
Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.

Figure 33. Distribution of responses to survey question 25 by age.



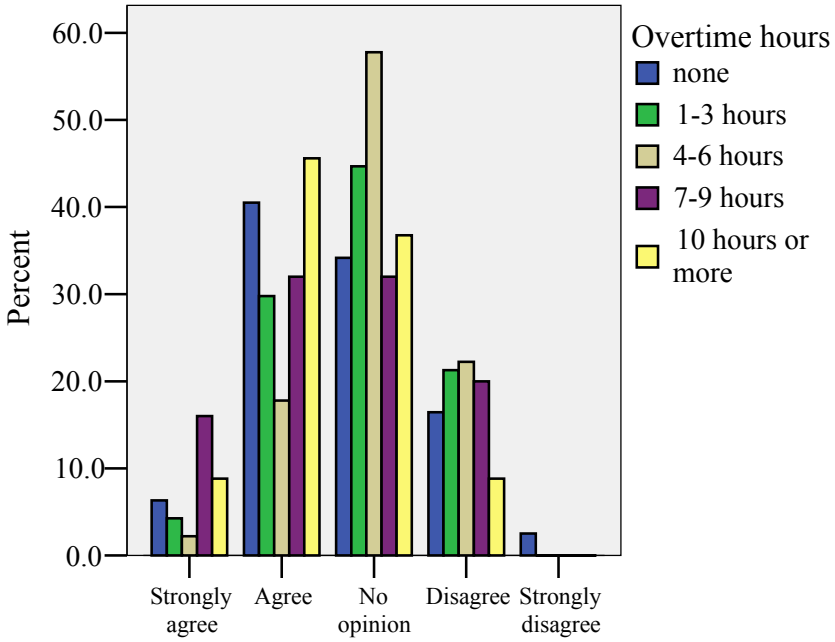
Many employees are abusing their access to the Internet at work.

Figure 34. Distribution of responses to survey question 23 by job classification.



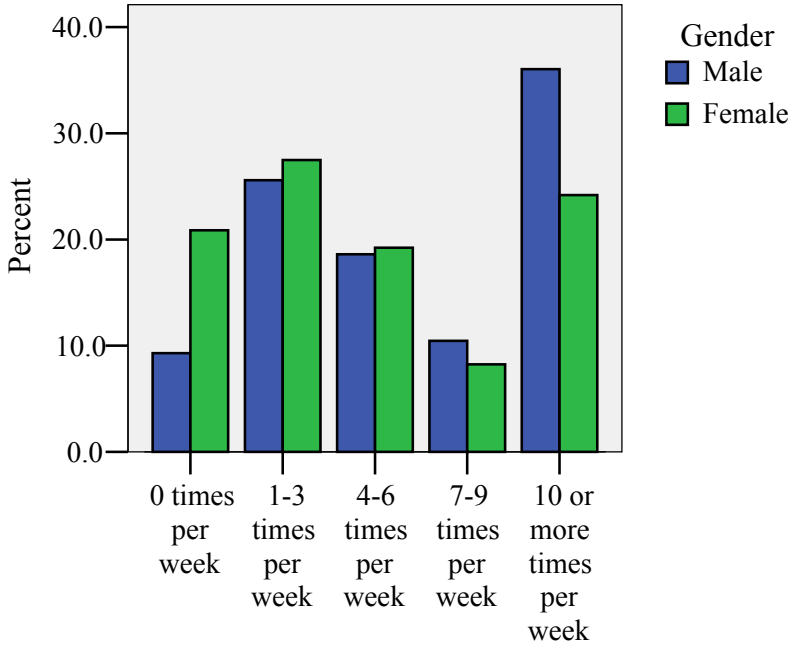
Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.

Figure 35. Distribution of responses to survey question 26 by years of Internet experience.



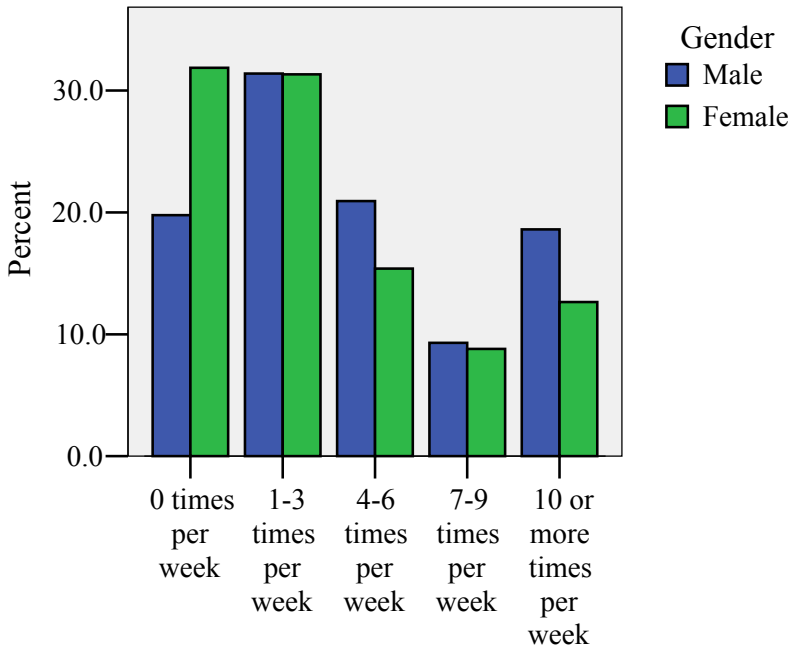
Personal use of the Internet is a non-issue at my institution.

Figure 36. Distribution of responses to survey question 30 by overtime hours worked.



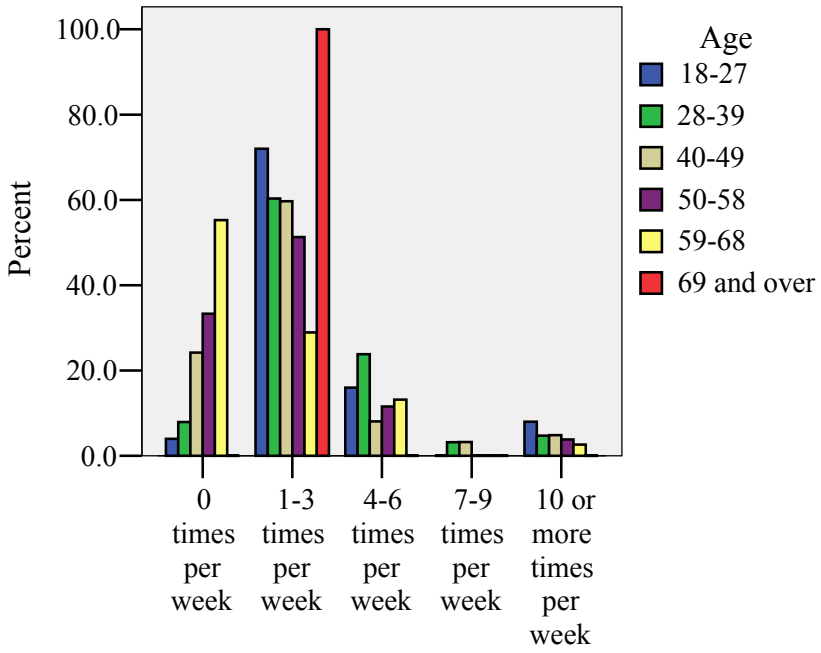
I use the Internet at home to gather information for personal purposes.

Figure 37. Distribution of responses to survey question 14 by gender.



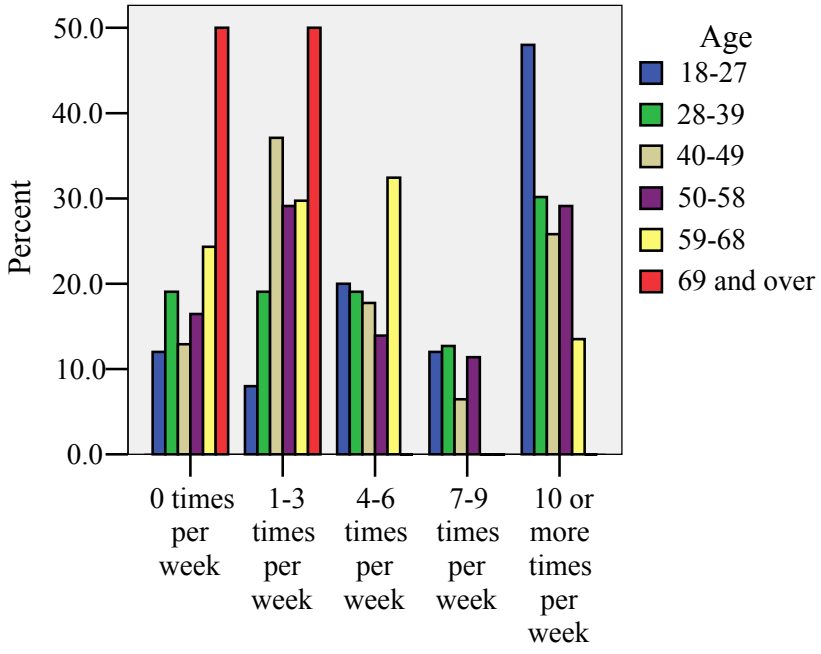
I use the Internet at home to gather information for work-related purposes.

Figure 38. Distribution of responses to survey question 15 by gender.



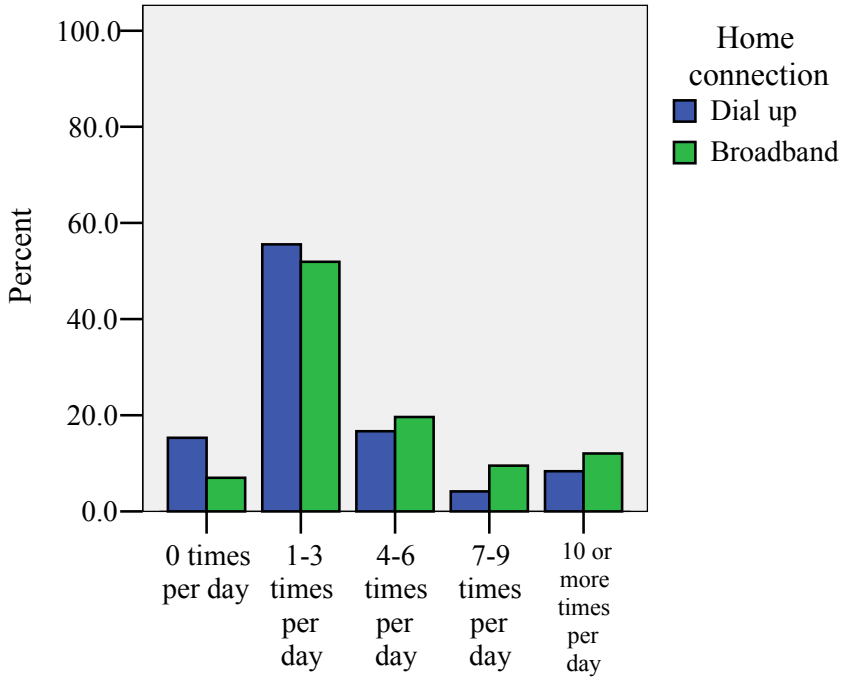
I use the Internet at work to gather information for personal purposes.

Figure 39. Distribution of responses to survey question 13 by age.



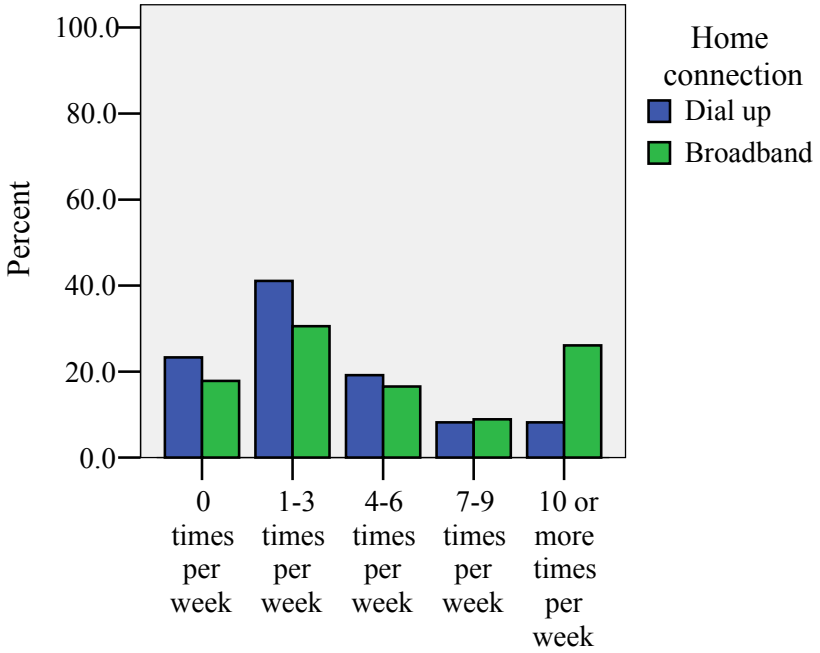
I use the Internet at home to gather information for personal purposes.

Figure 40. Distribution of responses to survey question 14 by age.



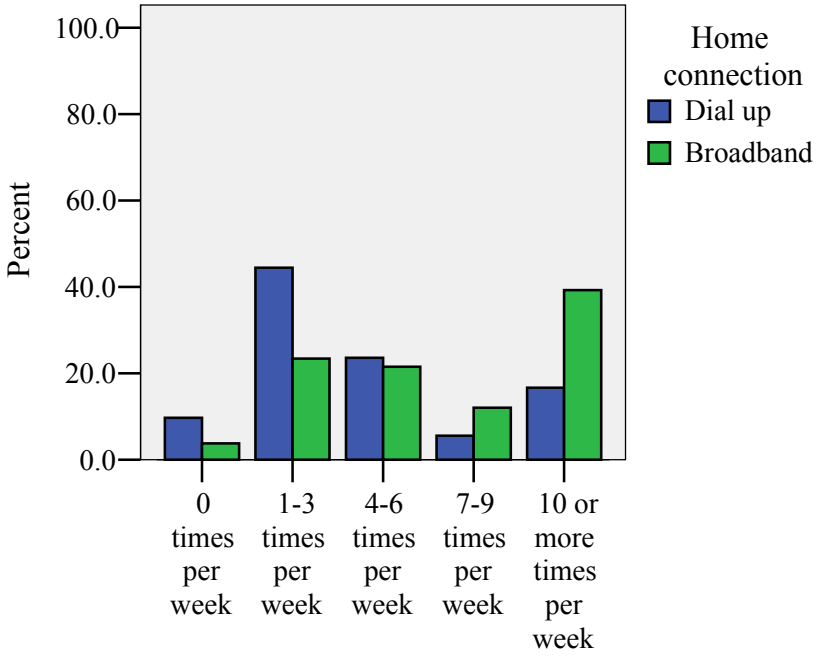
I use the Internet at home to send and receive personal email.

Figure 41. Distribution of responses to survey question 10 by type of home Internet access.



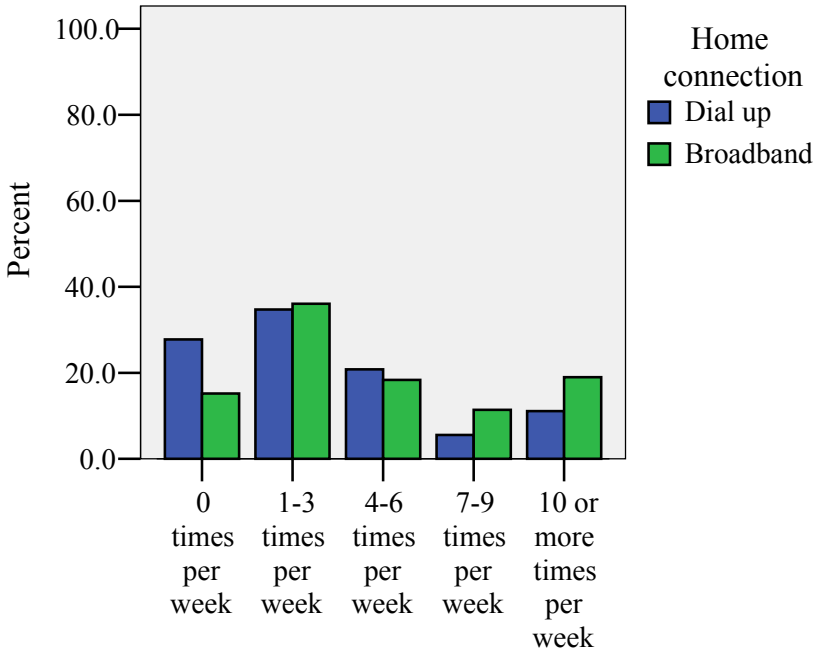
I use the Internet at home to send and receive work-related email.

Figure 42. Distribution of responses to survey question 12 by type of home Internet access.



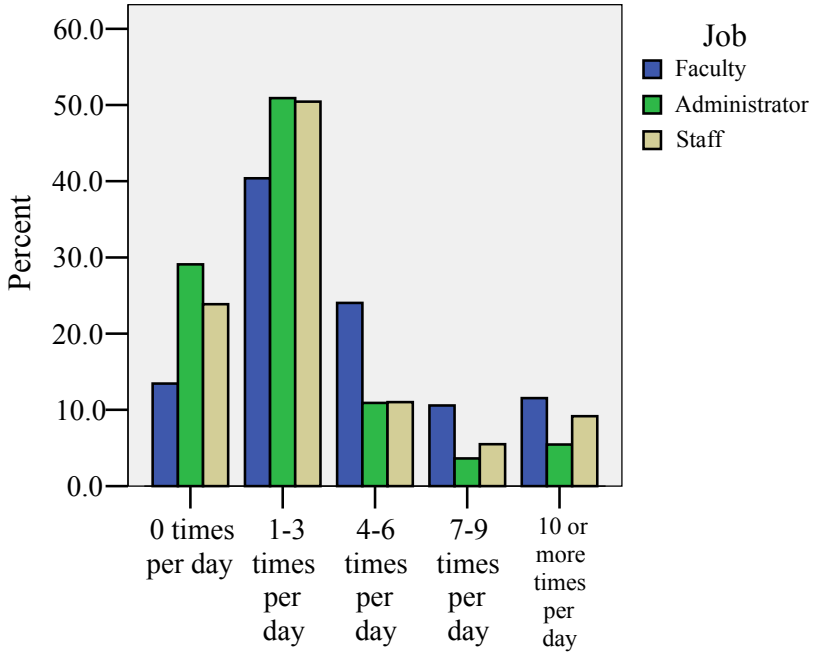
I use the Internet at home to gather information for personal purposes.

Figure 43. Distribution of responses to survey question 14 by type of home Internet access.



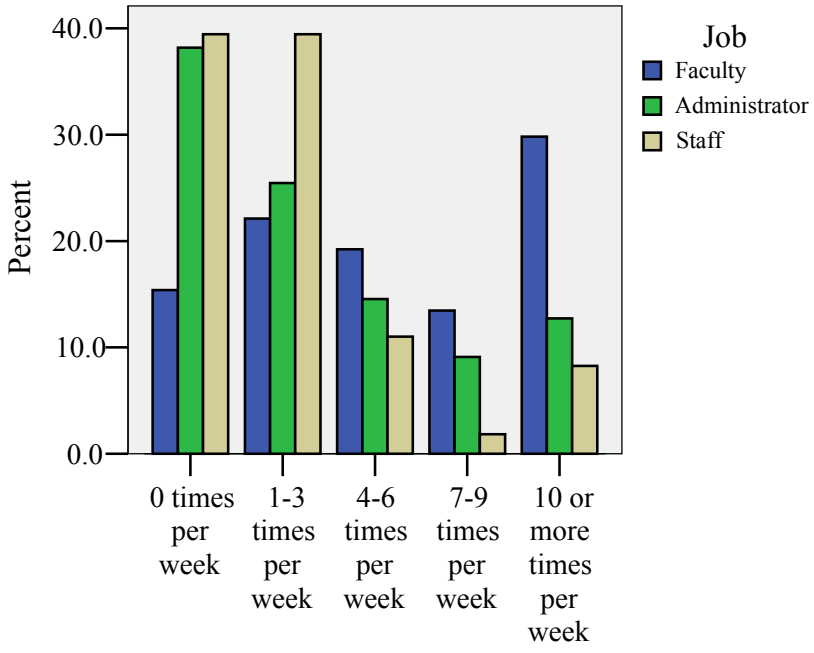
I use the Internet at home to gather information for work-related purposes.

Figure 44. Distribution of responses to survey question 15 by type of home Internet access.



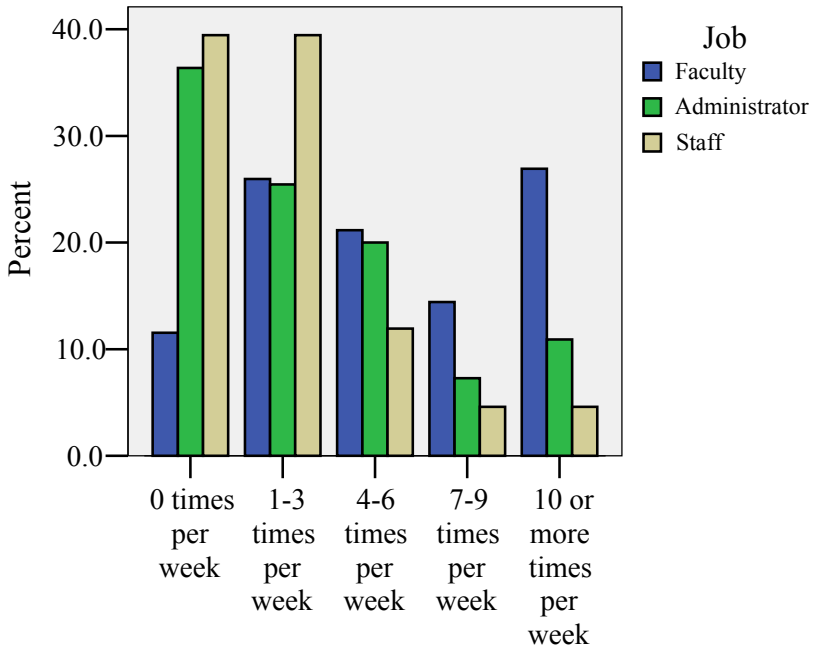
I use the Internet at home to send and receive personal email.

Figure 45. Distribution of responses to survey question 10 by job classification.



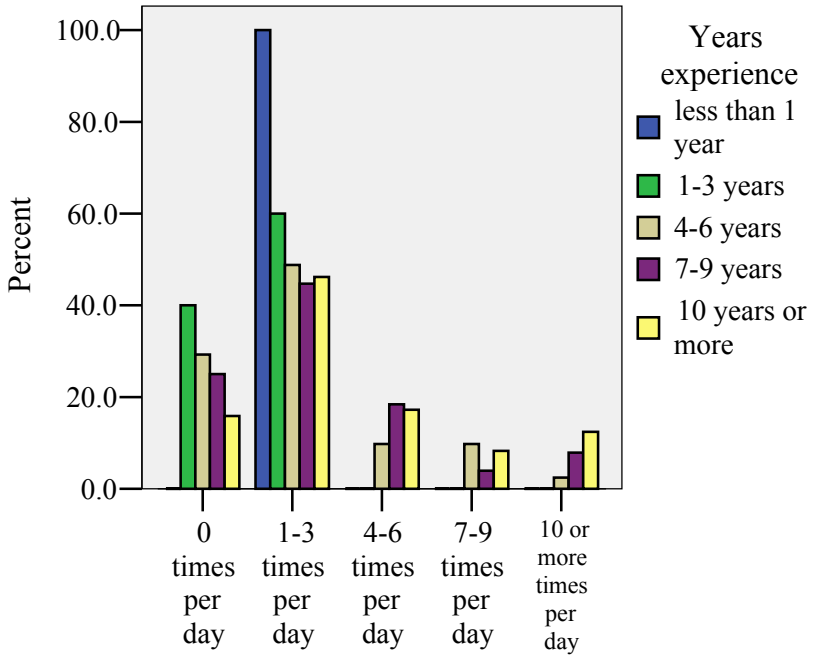
I use the Internet at home to send and receive work-related email.

Figure 46. Distribution of responses to survey question 12 by job classification.



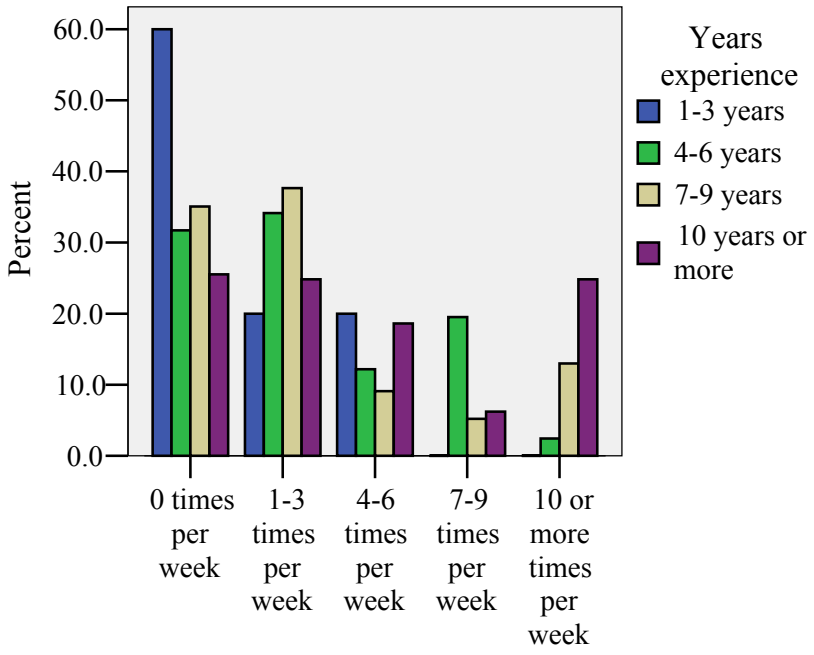
I use the Internet at home to gather information for work-related purposes.

Figure 47. Distribution of responses to survey question 15 by job classification.



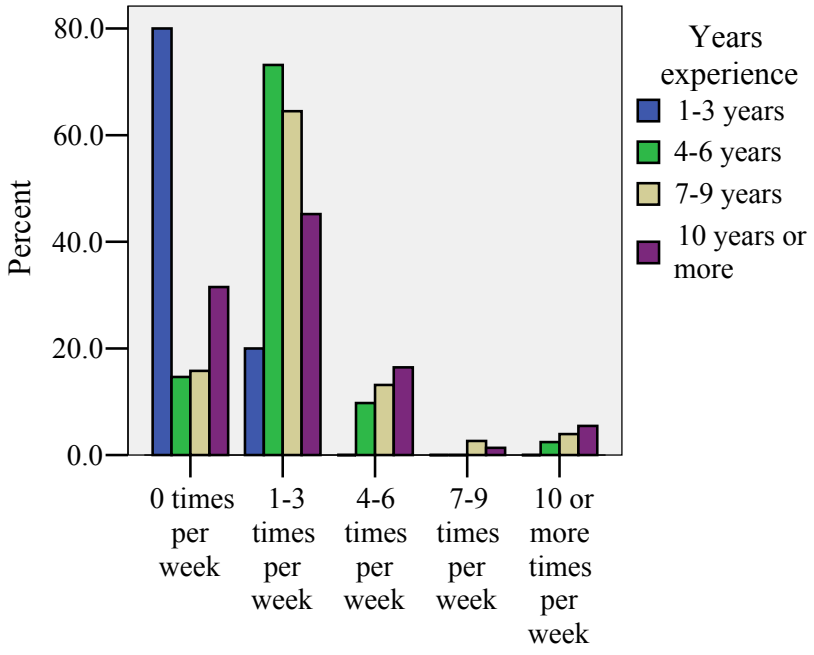
I use the Internet at home to send and receive personal email.

Figure 48. Distribution of responses to survey question 10 by years of Internet experience.



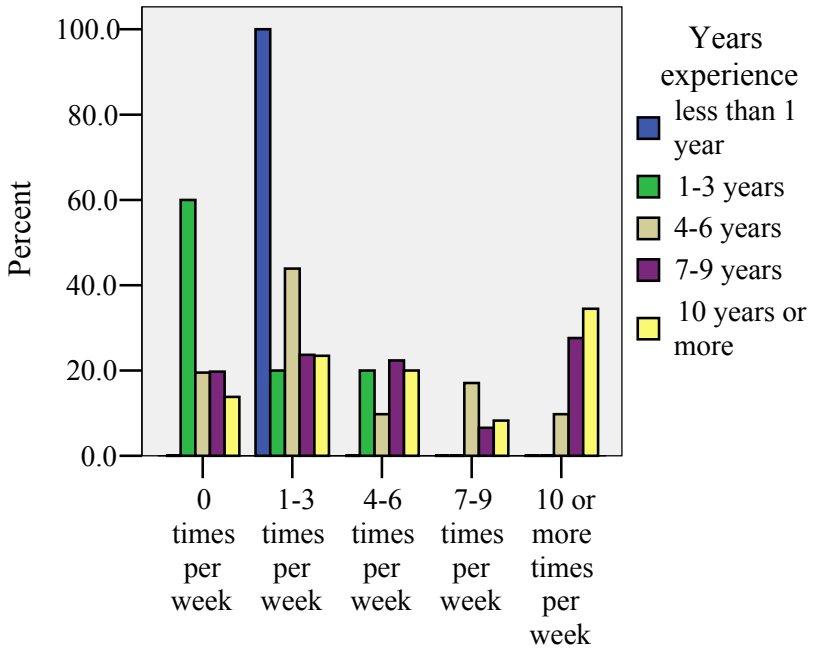
I use the Internet at home to send and receive work-related email.

Figure 49. Distribution of responses to survey question 12 by years of Internet experience.



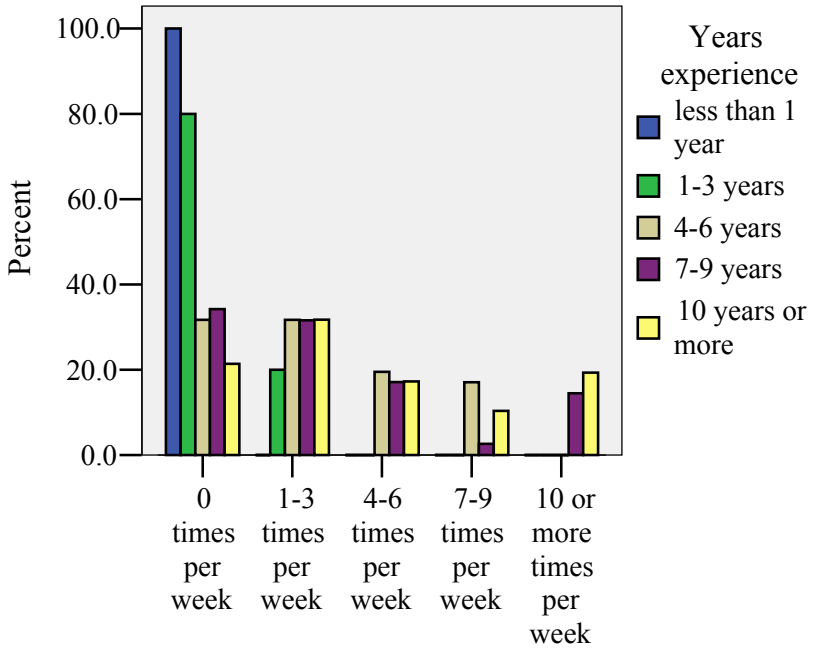
I use the Internet at work to gather information for personal purposes.

Figure 50. Distribution of responses to survey question 13 by years of Internet experience.



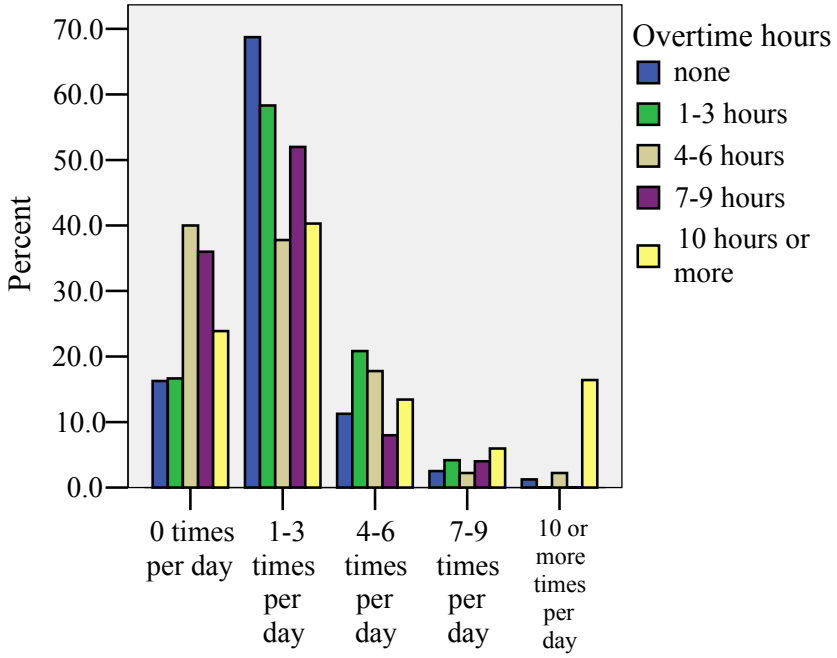
I use the Internet at home to gather information for personal purposes.

Figure 51. Distribution of responses to survey question 14 by years of Internet experience.



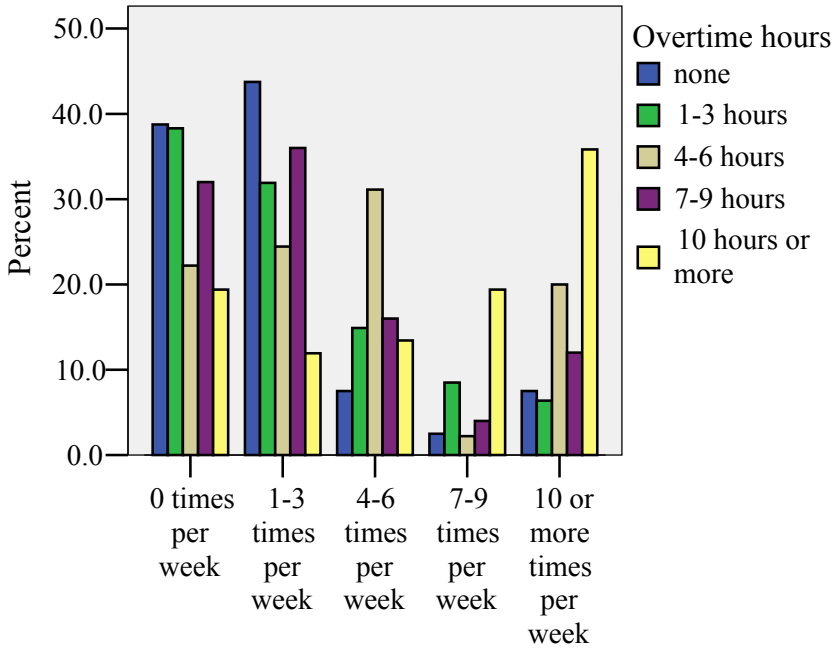
I use the Internet at home to gather information for work-related purposes.

Figure 52. Distribution of responses to survey question 15 by years of Internet experience.



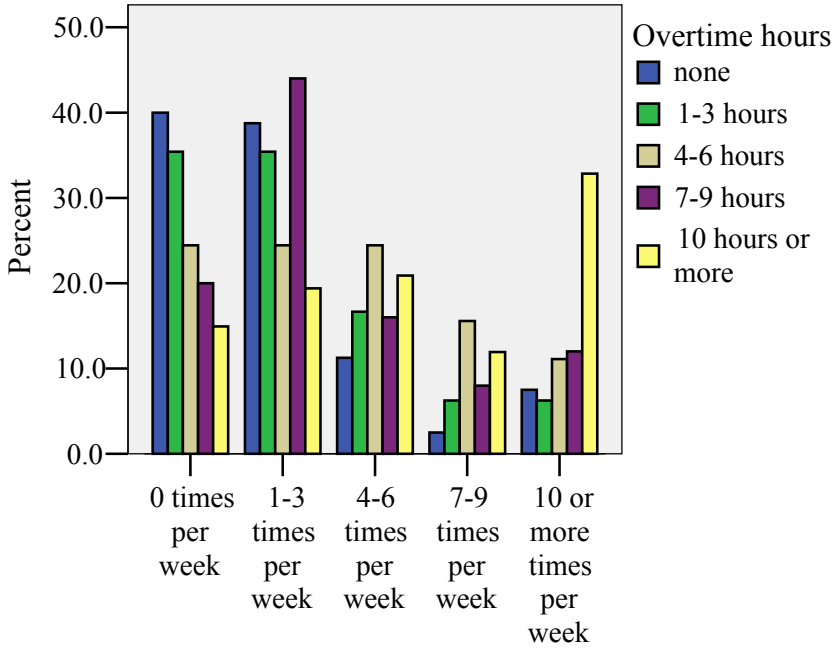
I use the Internet at work to send and receive personal email.

Figure 53. Distribution of responses to survey question 9 by overtime hours worked.



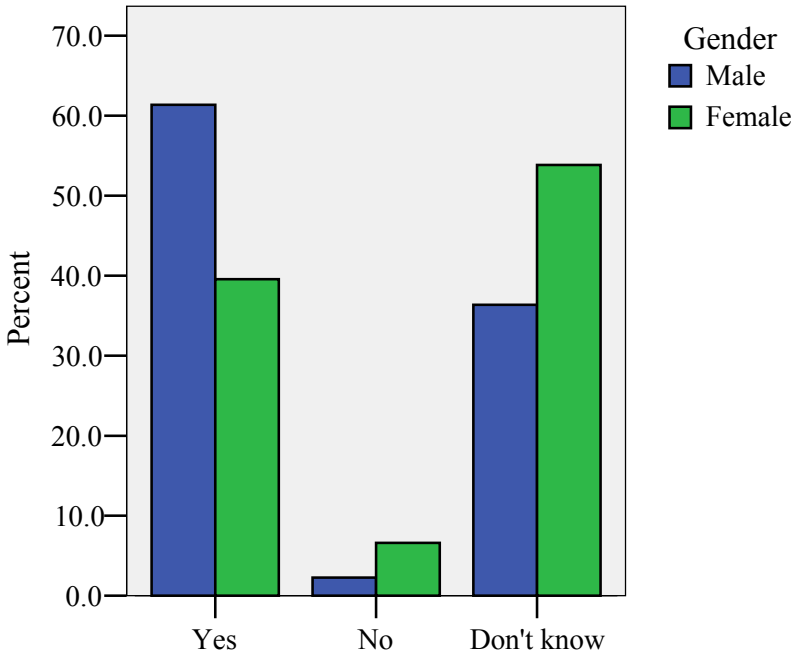
I use the Internet at home to send and receive work-related email.

Figure 54. Distribution of responses to survey question 12 by overtime hours worked.



I use the Internet at home to gather information for work-related purposes.

Figure 55. Distribution of responses to survey question 15 by overtime hours worked.



Does your institution have an Internet Acceptable Use Policy?

Figure 56. Distribution of responses to survey question 7 by gender.

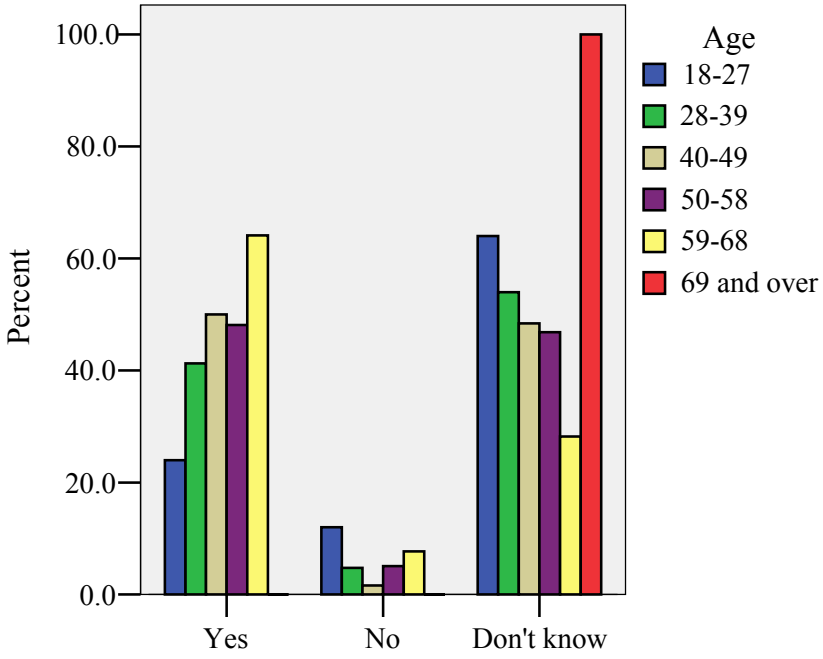


Figure 57. Distribution of responses to survey question 7 by age.

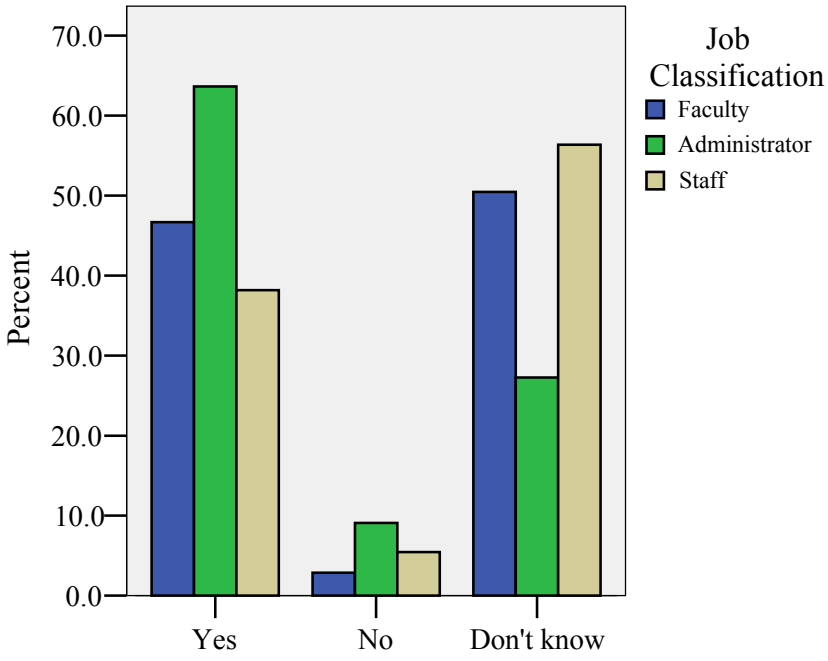
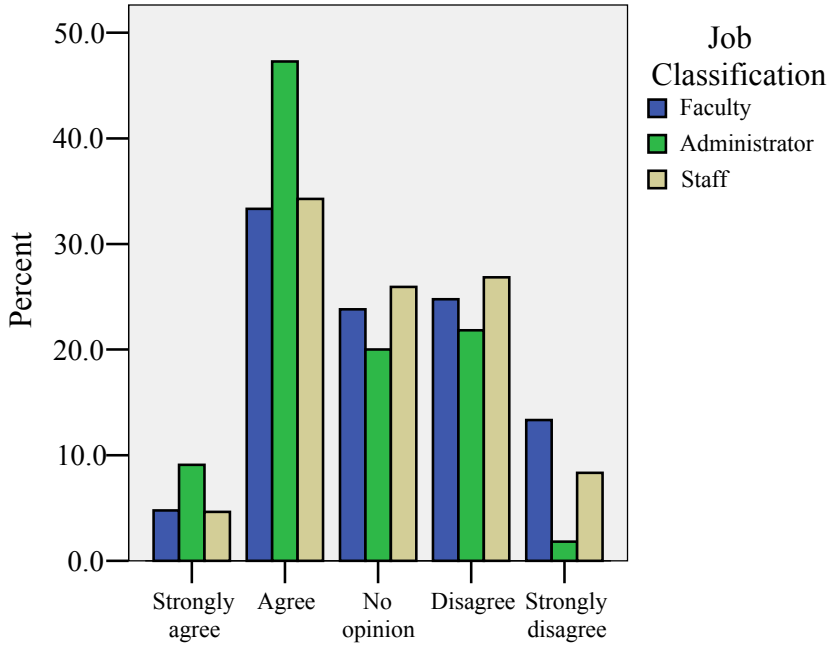
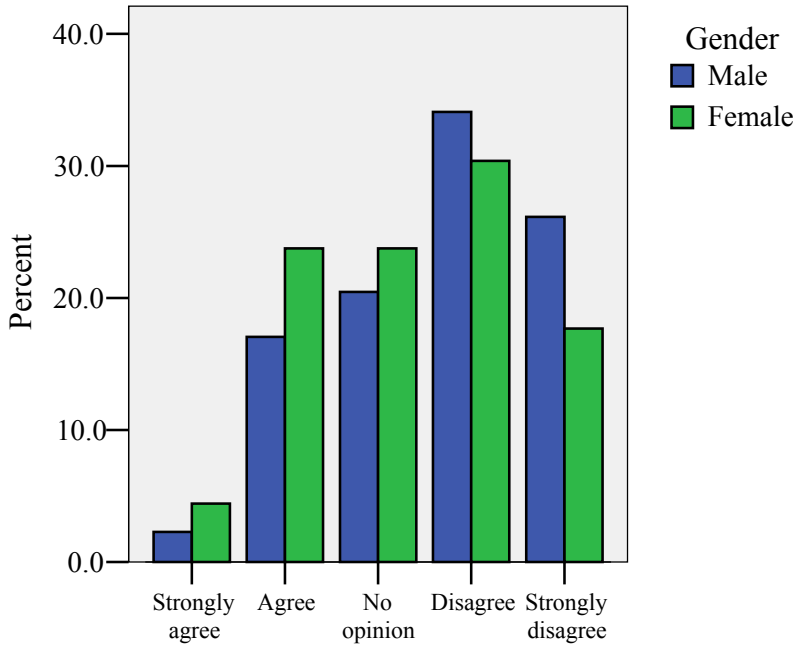


Figure 58. Distribution of responses to survey question 7 by job classification.



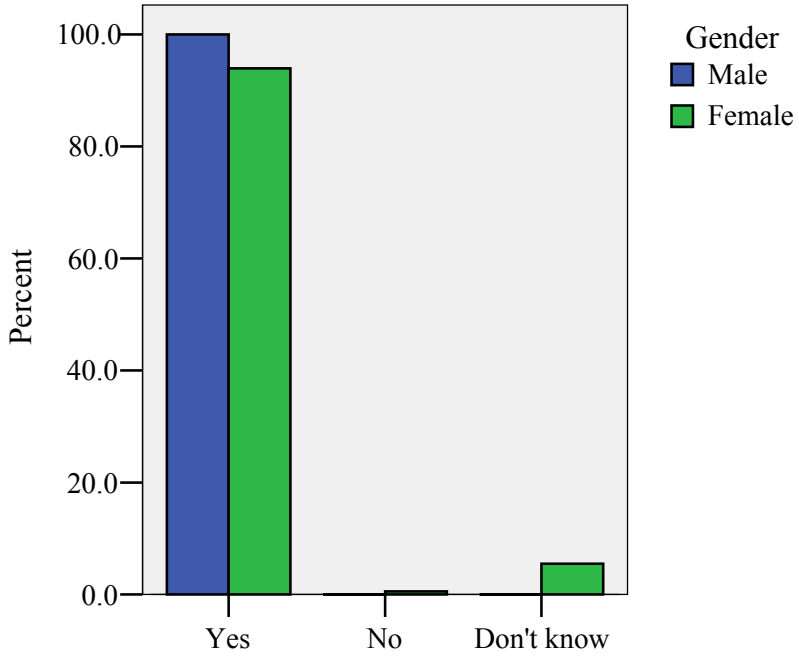
I have knowledge about my institution's Internet Acceptable Use Policy.

Figure 59. Distribution of responses to survey question 18 by job classification.



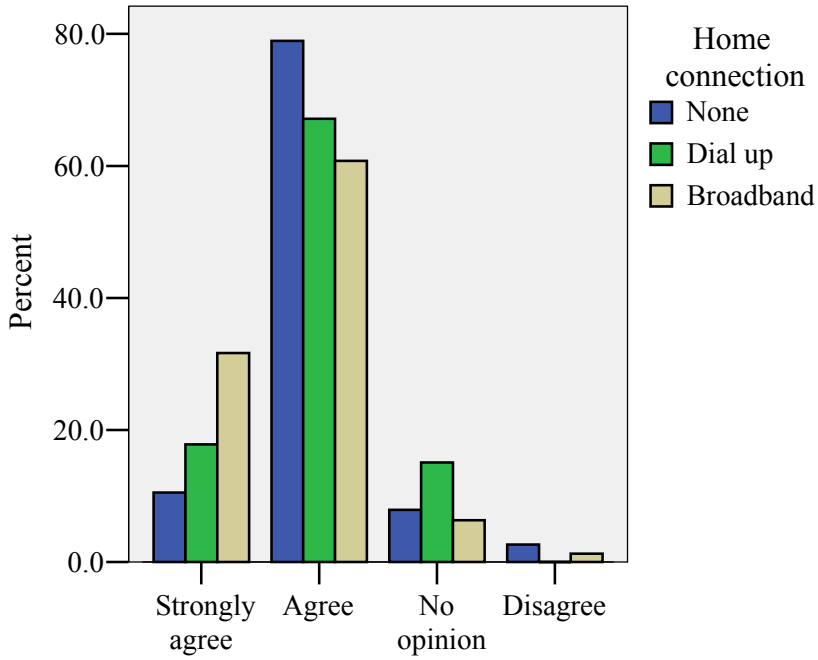
Personal use of the Internet should be monitored by the university.

Figure 60. Distribution of responses to survey question 21 by gender.



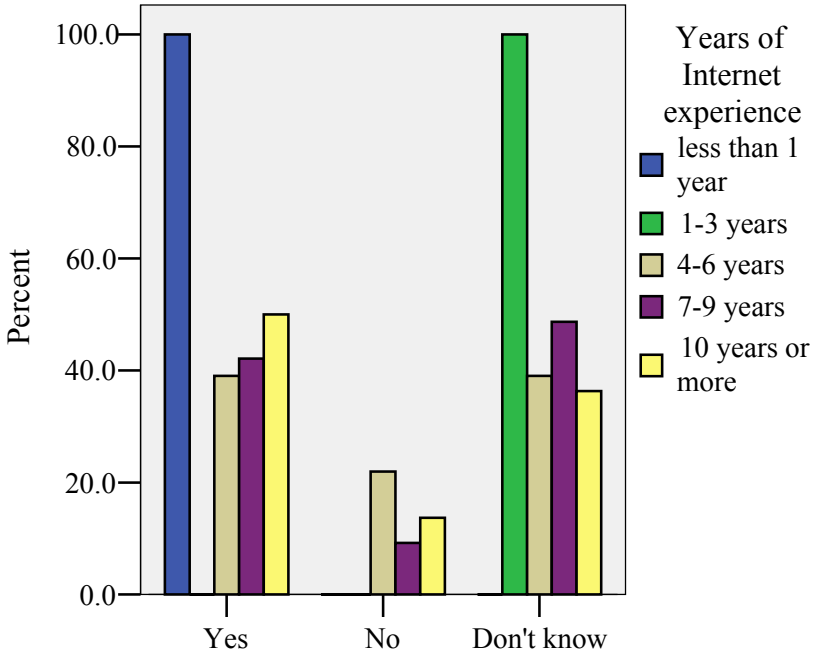
My institution is using the Internet and email to promote university events and programs.

Figure 61. Distribution of responses to survey question 16 by gender.



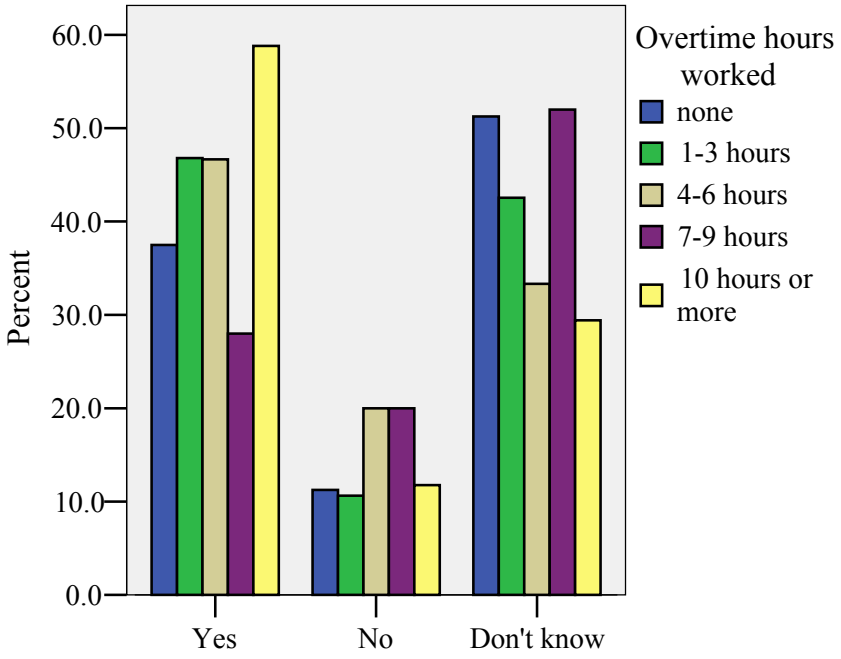
I think the university should use the Internet and email more to keep employees informed.

Figure 62. Distribution of responses to survey question 31 by type of home Internet access.



My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.

Figure 63. Distribution of responses to survey question 17 by years of Internet experience.



My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.

Figure 64. Distribution of responses to survey question 17 by overtime hours worked.

Appendix K

Tables for Survey Responses

Table 8

Distribution of Responses to Survey Questions Related to Research Question 1

Survey Question	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
23. Many employees are abusing their access to the Internet at work.	13	4.8	46	17.1	98	36.4	94	34.9	18	6.7	269
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail.	53	20.0	131	49.4	51	19.2	20	7.5	10	3.8	265
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	68	25.4	154	57.5	32	11.9	13	4.9	1	0.4	268
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	50	18.9	132	49.8	52	19.6	25	9.4	6	2.3	265
27. Personal use of my institution's Internet connection is unethical under any conditions.	0	0.0	6	2.2	46	17.2	124	46.3	92	34.3	268
28. Personal use of my institution's Internet connection is a misuse of employer assets.	2	0.8	14	5.3	46	17.4	138	52.1	65	24.5	265

(Table 8 continued)

Survey Question	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	31	11.6	109	40.7	88	32.8	35	13.1	5	1.9	268
30. Personal use of the Internet is a non-issue at my institution.	18	6.7	96	35.8	108	40.3	44	16.4	2	0.7	268

Table 9

Research Question 1 Results of Mann-Whitney U Analysis of Gender

Survey Question	*z*	*p*
23. Many employees are abusing their access to the Internet at work.	-.209	.834
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail.	-1.905	.057
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	-1.610	.107
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	-.376	.707
27. Personal use of my institution's Internet connection is unethical under any conditions.	-.548	.584
28. Personal use of my institution's Internet connection is a misuse of employer assets.	-.584	.559
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	-.766	.444
30. Personal use of the Internet is a non-issue at my institution.	-.168	.866

Table 10

Research Question 1 Results of Kruskal-Wallis Analysis of Age

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	2.749	.739
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail.	10.111	.072
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	13.611	.018
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	4.545	.474
27. Personal use of my institution's Internet connection is unethical under any conditions.	7.911	.161
28. Personal use of my institution's Internet connection is a misuse of employer assets.	8.439	.134
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	4.124	.532
30. Personal use of the Internet is a non-issue at my institution.	7.853	.165

Table 11

Pairwise Differences Between Age Groups in Survey Question 25

Pairwise comparison between:	*z*	*p*
18-27 years old and 28-39 years old	-.363	.717
18-27 years old and 40-49 years old	-1.581	.114
18-27 years old and 50-58 years old	-1.407	.160
18-27 years old and 59-68 years old	-2.137	.033
18-27 years old and 69 years and older	-.586	.558
28-39 years old and 40-49 years old	-2.528	.011
28-39 years old and 50-58 years old	-2.374	.018
28-39 years old and 59-68 years old	-3.023	.003
28-39 years old and 69 years and older	-.473	.636
40-49 years old and 50-58 years old	-.075	.940
40-49 years old and 59-68 years old	-.867	.386
40-49 years old and 69 years and older	-1.105	.269
50-58 years old and 59-68 years old	-.898	.369
50-58 years old and 69 years and older	-.977	.328
59-68 years old and 69 years and older	-1.326	.185

Table 12

Research Question 1 Results of Kruskal-Wallis Analysis of Home Internet Connection

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	4.292	.117
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail.	3.611	.164
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	1.292	.524
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	2.684	.261
27. Personal use of my institution's Internet connection is unethical under any conditions.	3.967	.138
28. Personal use of my institution's Internet connection is a misuse of employer assets.	3.405	.182
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	2.072	.355
30. Personal use of the Internet is a non-issue at my institution.	1.504	.471

Table 13

Research Question 1 Results of Kruskal-Wallis Analysis of Job Classifications

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	12.843	.002
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail.	1.515	.469
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	4.024	.134
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	4.002	.135
27. Personal use of my institution's Internet connection is unethical under any conditions.	4.331	.115
28. Personal use of my institution's Internet connection is a misuse of employer assets.	.895	.639
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	4.395	.111
30. Personal use of the Internet is a non-issue at my institution.	3.270	.195

Table 14

Pairwise Differences Between Job Classification Groups in Survey Question 23

Pairwise comparison between:	*z*	*p*
Faculty and Staff	-3.505	<.001
Faculty and Administrators	-2.276	.023
Administrators and Staff	-.339	.735

Table 15

Research Question 1 Results of Kruskal-Wallis Analysis of Years of Internet Experience

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	3.163	.531
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail.	2.652	.618
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	7.607	.107
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	10.397	.034
27. Personal use of my institution's Internet connection is unethical under any conditions.	8.030	.090
28. Personal use of my institution's Internet connection is a misuse of employer assets.	5.826	.213
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	3.725	.445
30. Personal use of the Internet is a non-issue at my institution.	1.671	.796

Table 16

Pairwise Differences Between Years of Internet Experience Groups in Survey Question 26

Pairwise comparison between:	*z*	*p*
Less than 1 year and 1-3 years experience	-1.581	.114
Less than 1 year and 4-6 years experience	-.046	.963
Less than 1 year and 7-9 years experience	-.253	.801
Less than 1 year and 10 or more years experience	-.218	.827
1-3 years and 4-6 years experience	-2.981	.003
1-3 years and 7-9 years experience	-3.024	.002
1-3 years and 10 years or more experience	-3.068	.002
4-6 years and 7-9 years experience	-.804	.421
4-6 years and 10 years or more experience	-.594	.552
7-9 years and 10 years or more experience	-.232	.816

Table 17

Research Question 1 Results of Kruskal-Wallis Analysis of Overtime Hours Worked

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	.340	.987
24. Personal use of my institution's Internet connection is ethical if it is not used to download pornographic images or send defamatory e-mail.	4.467	.346
25. Personal use of my institution's Internet connection is acceptable if it does not take time away from my job.	4.714	.318
26. Personal use of my institution's Internet connection is acceptable if it is conducted outside of work hours.	9.385	.052
27. Personal use of my institution's Internet connection is unethical under any conditions.	6.840	.145
28. Personal use of my institution's Internet connection is a misuse of employer assets.	4.040	.401
29. My institution's high-speed Internet connection should be considered a perquisite (perc) of the job for any employee with computer access.	7.093	.131
30. Personal use of the Internet is a non-issue at my institution.	14.108	.007

Table 18

Pairwise Differences Between Overtime Hours Worked in Survey Question 30

Pairwise comparison between:	*z*	*p*
No overtime and 1-3 hours overtime	-1.112	.266
No overtime and 1-3 hours overtime	-2.274	.023
No overtime and 1-3 hours overtime	-.424	.671
No overtime and 1-3 hours overtime	-1.390	.165
1-3 hours and 4-6 hours overtime	-1.059	.289
1-3 hours and 7-9 hours overtime	-1.118	.264
1-3 hours and 10 hours or more overtime	-2.426	.015
4-6 hours and 7-9 hours overtime	-1.906	.057
4-6 hours and 10 hours or more overtime	-3.672	< .001
7-9 hours and 10 hours or more overtime	-.508	.611

Table 19

Distribution of Responses to Survey Questions Related to Research Question 2

Survey Question	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
23. Many employees are abusing their access to the Internet at work.	13	4.8	46	17.1	98	36.4	94	34.9	18	6.7	269
30. Personal use of the Internet is a non-issue at my institution.	18	6.7	96	35.8	108	40.3	44	16.4	2	0.7	268

Table 20

Research Question 2 Results of Mann-Whitney U Analysis of Gender

Survey Question	*z*	*p*
23. Many employees are abusing their access to the Internet at work.	-.209	.834
30. Personal use of the Internet is a non-issue at my institution.	-.168	.866

Table 21

Research Question 2 Results of Kruskal-Wallis Analysis of Age

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	2.749	.739
30. Personal use of the Internet is a non-issue at my institution.	7.853	.165

Table 22

Research Question 2 Results of Kruskal-Wallis Analysis of Home Internet Connection

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	4.292	.117
30. Personal use of the Internet is a non-issue at my institution.	1.504	.471

Table 23

Research Question 2 Results of Kruskal-Wallis Analysis of Job Classifications

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	12.843	.002
30. Personal use of the Internet is a non-issue at my institution.	3.270	.195

Table 24

Research Question 2 Results of Kruskal-Wallis Analysis of Years of Internet Experience

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	3.163	.531
30. Personal use of the Internet is a non-issue at my institution.	1.671	.796

Table 25

Research Question 2 Results of Kruskal-Wallis Analysis of Overtime Hours Worked

Survey Question	X^2	*p*
23. Many employees are abusing their access to the Internet at work.	.340	.987
30. Personal use of the Internet is a non-issue at my institution.	14.108	.007

Table 26

Distribution of Responses to Survey Questions Related to Research Question 3, Survey Questions 9 & 10

Survey Question	0 times per day		1-3 times per day		4-6 times per day		7-9 times per day		10 or more times per day		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
9. I use the Internet at work to send and receive personal email.	64	23.9	141	52.6	38	14.2	10	3.7	15	5.6	268
10. I use the Internet at home to send and receive personal email.	56	20.9	125	46.6	43	16.0	19	7.1	25	9.3	268

Table 27

Distribution of Responses to Survey Questions Related to Research Question 3, Survey Questions 12 – 15

Survey Question	0 times per week		1-3 times per week		4-6 times per week		7-9 times per week		10 or more times per week		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
12. I use the Internet at home to send and receive work-related email.	80	29.9	80	29.9	40	14.9	21	7.8	47	17.5	268
13. I use the Internet at work to gather information for personal purposes.	68	25.4	146	54.5	38	14.2	4	1.5	12	4.5	268
14. I use the Internet at home to gather information for personal purposes.	46	17.2	72	26.9	51	19.0	24	9.0	75	28.0	268
15. I use the Internet at home to gather information for work-related purposes.	75	28.0	84	31.3	46	17.2	24	9.0	39	14.6	268

Table 28

Research Question 3 Results of Mann-Whitney U Analysis of Gender

Survey Question	*z*	*p*
9. I use the Internet at work to send and receive personal email.	-.776	.438
10. I use the Internet at home to send and receive personal email.	-.801	.423
12. I use the Internet at home to send and receive work-related email.	-1.763	.078
13. I use the Internet at work to gather information for personal purposes.	-1.847	.065
14. I use the Internet at home to gather information for personal purposes.	-2.663	.008
15. I use the Internet at home to gather information for work-related purposes.	-2.197	.028

Table 29

Research Question 3 Results of Kruskal-Wallis Analysis of Age

Survey Question	X^2	*p*
9. I use the Internet at work to send and receive personal email.	8.389	.136
10. I use the Internet at home to send and receive personal email.	8.346	.138
12. I use the Internet at home to send and receive work-related email.	8.472	.132
13. I use the Internet at work to gather information for personal purposes.	28.474	<.001
14. I use the Internet at home to gather information for personal purposes.	13.252	.021
15. I use the Internet at home to gather information for work-related purposes.	3.200	.669

Table 30

Pairwise Differences Between Age Groups in Survey Question 13

Pairwise comparison between:	*z*	*p*
18-27 years old and 28-39 years old	-.303	.762
18-27 years old and 40-49 years old	-1.903	.057
18-27 years old and 50-58 years old	-2.586	.010
18-27 years old and 59-68 years old	-3.422	.001
18-27 years old and 69 years and older	-.602	.547
28-39 years old and 40-49 years old	-2.649	.008
28-39 years old and 50-58 years old	-3.642	< .001
28-39 years old and 59-68 years old	-4.280	< .001
28-39 years old and 69 years and older	-.656	.512
40-49 years old and 50-58 years old	-.985	.325
40-49 years old and 59-68 years old	-2.469	.014
40-49 years old and 69 years and older	-.221	.825
50-58 years old and 59-68 years old	-1.752	.080
50-58 years old and 69 years and older	-.477	.634
59-68 years old and 69 years and older	-1.028	.304

Table 31

Pairwise Differences Between Age Groups in Survey Question 14

Pairwise comparison between:	*z*	*p*
18-27 years old and 28-39 years old	-1.705	.088
18-27 years old and 40-49 years old	-2.314	.021
18-27 years old and 50-58 years old	-1.986	.047
18-27 years old and 59-68 years old	-3.252	.001
18-27 years old and 69 years and older	-1.902	.057
28-39 years old and 40-49 years old	-.737	.461
28-39 years old and 50-58 years old	-2.094	.036
28-39 years old and 59-68 years old	-.321	.749
28-39 years old and 69 years and older	-1.519	.129
40-49 years old and 50-58 years old	-.391	.696
40-49 years old and 59-68 years old	-1.412	.158
40-49 years old and 69 years and older	-1.546	.122
50-58 years old and 59-68 years old	-1.815	.070
50-58 years old and 69 years and older	-1.505	.132
59-68 years old and 69 years and older	-1.193	.233

Table 32

Research Question 3 Results of Mann-Whitney U Analysis of Home Internet Connection

Survey Question	*z*	*p*
9. I use the Internet at work to send and receive personal email.	-.142	.887
10. I use the Internet at home to send and receive personal email.	-2.236	.025
12. I use the Internet at home to send and receive work-related email.	-2.666	.008
13. I use the Internet at work to gather information for personal purposes.	-.791	.429
14. I use the Internet at home to gather information for personal purposes.	-4.422	< .001
15. I use the Internet at home to gather information for work-related purposes.	-2.393	.017

Table 33

Research Question 3 Results of Kruskal-Wallis Analysis of Job Classifications

Survey Question	X^2	*p*
9. I use the Internet at work to send and receive personal email.	2.426	.297
10. I use the Internet at home to send and receive personal email.	14.424	.001
12. I use the Internet at home to send and receive work-related email.	37.474	<.001
13. I use the Internet at work to gather information for personal purposes.	2.670	.263
14. I use the Internet at home to gather information for personal purposes.	3.817	.148
15. I use the Internet at home to gather information for work-related purposes.	44.441	<.001

Table 34

Pairwise Differences Between Job Classification Groups in Survey Question 10

Pairwise comparison between:	*z*	*p*
Faculty and Administrators	-3.399	.001
Faculty and Staff	-2.920	.004
Administrators and Staff	-1.002	.316

Table 35

Pairwise Differences Between Job Classification Groups in Survey Question 12

Pairwise comparison between:	*z*	*p*
Faculty and Administrators	-3.579	<.001
Faculty and Staff	-6.026	<.001
Administrators and Staff	-1.176	.240

Table 36

Pairwise Differences Between Job Classification Groups in Survey Question 15

Pairwise comparison between:	*z*	*p*
Faculty and Administrators	-3.777	<.001
Faculty and Staff	-6.592	<.001
Administrators and Staff	-1.463	.143

Table 37

Research Question 3Results of Kruskal-Wallis Analysis of Years of Internet Experience

Survey Question	X^2	*p*
9. I use the Internet at work to send and receive personal email.	6.610	.158
10. I use the Internet at home to send and receive personal email.	9.573	.048
12. I use the Internet at home to send and receive work-related email.	11.083	.011
13. I use the Internet at work to gather information for personal purposes.	8.244	.041
14. I use the Internet at home to gather information for personal purposes.	13.844	.008
15. I use the Internet at home to gather information for work-related purposes.	14.609	.006

Table 38

Pairwise Differences Between Years of Internet Experience Groups in Survey Question 10

Pairwise comparison between:	*z*	*p*
Less than 1 year and 1-3 years experience	-0.707	.480
Less than 1 year and 4-6 years experience	-.134	.893
Less than 1 year and 7-9 years experience	-.096	.924
Less than 1 year and 10 or more years experience	-.403	.687
1-3 years and 4-6 years experience	-.940	.347
1-3 years and 7-9 years experience	-1.317	.188
1-3 years and 10 years or more experience	-1.890	.059
4-6 years and 7-9 years experience	-.835	.404
4-6 years and 10 years or more experience	-2.355	.019
7-9 years and 10 years or more experience	-1.775	.076

Table 39

Pairwise Differences Between Years of Internet Experience Groups in Survey Question 12

Pairwise comparison between:	*z*	*p*
1-3 years and 4-6 years experience	-1.235	.217
1-3 years and 7-9 years experience	-1.042	.297
1-3 years and 10 years or more experience	-1.782	.075
4-6 years and 7-9 years experience	-.400	.689
4-6 years and 10 years or more experience	-1.912	.056
7-9 years and 10 years or more experience	-2.707	.007

Table 40

Pairwise Differences Between Years of Internet Experience Groups in Survey Question 13

Pairwise comparison between:	*z*	*p*
1-3 years and 4-6 years experience	-2.937	.003
1-3 years and 7-9 years experience	-2.924	.003
1-3 years and 10 years or more experience	-2.160	.031
4-6 years and 7-9 years experience	-.610	.542
4-6 years and 10 years or more experience	-.545	.586
7-9 years and 10 years or more experience	-1.296	.195

Table 41

Pairwise Differences Between Years of Internet Experience Groups in Survey Question 14

Pairwise comparison between:	*z*	*p*
Less than 1 year and 1-3 years experience	-.632	.527
Less than 1 year and 4-6 years experience	-.305	.760
Less than 1 year and 7-9 years experience	-.647	.517
Less than 1 year and 10 or more years experience	-.871	.384
1-3 years and 4-6 years experience	-.1.683	.092
1-3 years and 7-9 years experience	-2.056	.040
1-3 years and 10 years or more experience	-2.454	.014
4-6 years and 7-9 years experience	-1.588	.112
4-6 years and 10 years or more experience	-2.873	.004
7-9 years and 10 years or more experience	-1.289	.197

Table 42

Pairwise Differences Between Years of Internet Experience Groups in Survey Question 15

Pairwise comparison between:	*z*	*p*
Less than 1 year and 1-3 years experience	-.447	.655
Less than 1 year and 4-6 years experience	-1.203	.229
Less than 1 year and 7-9 years experience	-1.173	.241
Less than 1 year and 10 or more years experience	-1.391	.164
1-3 years and 4-6 years experience	-.2.105	.035
1-3 years and 7-9 years experience	-2.053	.040
1-3 years and 10 years or more experience	-2.656	.008
4-6 years and 7-9 years experience	-.030	.976
4-6 years and 10 years or more experience	-1.983	.047
7-9 years and 10 years or more experience	-2.256	.024

Table 43

Research Question 3 Results of Kruskal-Wallis Analysis of Overtime Hours Worked

Survey Question	X^2	*p*
9. I use the Internet at work to send and receive personal email.	10.086	.039
10. I use the Internet at home to send and receive personal email.	4.855	.303
12. I use the Internet at home to send and receive work-related email.	37.038	< .001
13. I use the Internet at work to gather information for personal purposes.	3.249	.517
14. I use the Internet at home to gather information for personal purposes.	4.428	.351
15. I use the Internet at home to gather information for work-related purposes.	34.832	< .001

Table 44

Pairwise Differences Between Overtime Hours Worked in Survey Question 9

Pairwise comparison between:	*z*	*p*
No overtime and 1-3 hours overtime	-.853	.394
No overtime and 4-6 hours overtime	-1.486	.137
No overtime and 7-9 hours overtime	-1.705	.088
No overtime and 10 hours or more overtime	-1.535	.125
1-3 hours and 4-6 hours overtime	-1.752	.080
1-3 hours and 7-9 hours overtime	-1.930	.054
1-3 hours and 10 hours or more overtime	-.818	.413
4-6 hours and 7-9 hours overtime	-.205	.838
4-6 hours and 10 hours or more overtime	-2.284	.022
7-9 hours and 10 hours or more overtime	-2.163	.031

Table 45

Pairwise Differences Between Overtime Hours Worked in Survey Question 12

Pairwise comparison between:	*z*	*p*
No overtime and 1-3 hours overtime	-.705	.481
No overtime and 4-6 hours overtime	-3.347	.001
No overtime and 7-9 hours overtime	-1.131	.258
No overtime and 10 hours or more overtime	-5.332	< .001
1-3 hours and 4-6 hours overtime	-2.225	.026
1-3 hours and 7-9 hours overtime	-.477	.633
1-3 hours and 10 hours or more overtime	-4.206	< .001
4-6 hours and 7-9 hours overtime	-1.443	.149
4-6 hours and 10 hours or more overtime	-2.234	.025
7-9 hours and 10 hours or more overtime	-2.962	.003

Table 46

Pairwise Differences Between Overtime Hours Worked in Survey Question 15

Pairwise comparison between:	*z*	*p*
No overtime and 1-3 hours overtime	-.781	.435
No overtime and 1-3 hours overtime	-2.885	.004
No overtime and 1-3 hours overtime	-1.990	.047
No overtime and 1-3 hours overtime	-5.301	< .001
1-3 hours and 4-6 hours overtime	-1.980	.048
1-3 hours and 7-9 hours overtime	-1.236	.216
1-3 hours and 10 hours or more overtime	-4.137	< .001
4-6 hours and 7-9 hours overtime	-.543	.587
4-6 hours and 10 hours or more overtime	-2.270	.023
7-9 hours and 10 hours or more overtime	-2.351	.019

Table 47

Distribution of Responses to Survey Questions Related to Research Question 4, Survey Question 7

Survey Question	Yes		No		Don't know		Total
	f	%	*f*	%	*f*	%	
7. Does your institution have an Internet Acceptable Use Policy?	126	46.7	14	5.2	130	48.1	268

Table 48

Distribution of Responses to Survey Questions Related to Research Question 4, Survey Question 8

Survey Question	Prohibit		Limit		Unlimited		
	f	%	*f*	%	*f*	%	
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?	13	10.2	64	50.0	51	39.8	128

Table 49

Distribution of Responses to Survey Questions Related to Research Question 4, Survey Question 18

Survey Question	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
18. I have knowledge about my institution's Internet Acceptable Use Policy.	15	5.6	98	36.6	64	23.9	67	25.0	24	9.0	268

Table 50

Research Question 4 Results of Mann-Whitney U Analysis of Gender

Survey Question	Mann-Whitney *U*	*z*	*p*
7. Does your institution have an Internet Acceptable Use Policy?	6356.000	-3.097	.002
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?	1683.000	-1.688	.091
18. I have knowledge about my institution's Internet Acceptable Use Policy.	7380.500	-.943	.345

Table 51

Research Question 4 Results of Kruskal-Wallis Analysis of Age

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	12.617	.027
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?	2.023	.732
18. I have knowledge about my institution's Internet Acceptable Use Policy.	1.452	.919

Table 52

Pairwise Differences Between Age Groups in Survey Question 7

Pairwise comparison between:	*z*	*p*
18-27 years old and 28-39 years old	-1.151	.250
18-27 years old and 40-49 years old	-1.752	.080
18-27 years old and 50-58 years old	-1.834	.067
18-27 years old and 59-68 years old	-3.103	.002
18-27 years old and 69 years and older	-1.001	.317
28-39 years old and 40-49 years old	-.801	.423
28-39 years old and 50-58 years old	-.847	.397
28-39 years old and 59-68 years old	-2.442	.015
28-39 years old and 69 years and older	-1.259	.208
40-49 years old and 50-58 years old	-.024	.981
40-49 years old and 59-68 years old	-1.677	.093
40-49 years old and 69 years and older	-1.415	.157
50-58 years old and 59-68 years old	-1.813	.070
50-58 years old and 69 years and older	-1.443	.149
59-68 years old and 69 years and older	-1.968	.049

Table 53

Research Question 4 Results of Kruskal-Wallis Analysis of Home Internet Connection

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	4.171	.124
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?	1.605	.448
18. I have knowledge about my institution's Internet Acceptable Use Policy.	.940	.625

Table 54

Research Question 4 Results of Kruskal-Wallis Analysis of Job Classifications

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	11.588	.003
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?	3.263	.196
18. I have knowledge about my institution's Internet Acceptable Use Policy.	7.113	.029

Table 55

Pairwise Differences Between Job Classification Groups in Survey Question 7

Pairwise comparison between:	*z*	*p*
Faculty and Administrators	-2.443	.015
Faculty and Staff	-1.059	.290
Administrators and Staff	-.408	.001

Table 56

Pairwise Differences Between Job Classification Groups in Survey Question 18

Pairwise comparison between:	*z*	*p*
Faculty and Administrators	-2.543	.011
Faculty and Staff	-.487	.626
Administrators and Staff	-2.253	.024

Table 57

Research Question 4 Results of Kruskal-Wallis Analysis of Years of Internet Experience

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	8.585	.072
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?	.450	.978
18. I have knowledge about my institution's Internet Acceptable Use Policy.	6.137	.189

Table 58

Research Question 4 Results of Kruskal-Wallis Analysis of Overtime Hours Worked

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	2.768	.597
8. Does your institution's Internet Acceptable Use Policy prohibit personal use, allow limited use, or allow unlimited use of the Internet connection?	4.238	.375
18. I have knowledge about my institution's Internet Acceptable Use Policy.	2.857	.582

Table 59

Distribution of Responses to Survey Questions Related to Research Question 5

Survey Question	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
11. Email usage at work should be monitored by the university.	13	4.8	48	17.8	62	23.0	80	29.7	66	24.5	269
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	17	6.4	73	27.4	109	41.0	49	18.4	18	6.8	266
21. Personal use of the Internet should be monitored by the university.	10	3.7	58	21.6	61	22.7	85	31.6	55	20.4	269
22. The university should monitor personal use of the Internet during work hours only.	12	4.4	40	14.8	66	24.4	102	37.8	50	18.5	270

Table 60

Research Question 5 Results of Mann-Whitney U Analysis of Gender

Survey Question	Mann-Whitney *U*	*z*	*p*
11. Email usage at work should be monitored by the university.	7247.500	-1.234	.217
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	7225.500	-.922	.356
21. Personal use of the Internet should be monitored by the university.	6732.500	-2.124	.034
22. The university should monitor personal use of the Internet during work hours only.	7496.000	-.887	.375

Table 61

Research Question 5 Results of Kruskal-Wallis Analysis of Age

Survey Question	X^2	*p*
11. Email usage at work should be monitored by the university.	3.598	.609
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	3.749	.586
21. Personal use of the Internet should be monitored by the university.	1.761	.881
22. The university should monitor personal use of the Internet during work hours only.	.545	.990

Table 62

Research Question 5 Results of Kruskal-Wallis Analysis of Home Internet Connection

Survey Question	X^2	*p*
11. Email usage at work should be monitored by the university.	.623	.732
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	1.454	.483
21. Personal use of the Internet should be monitored by the university.	3.964	.138
22. The university should monitor personal use of the Internet during work hours only.	.533	.766

Table 63

Research Question 5 Results of Kruskal-Wallis Analysis of Job Classifications

Survey Question	X^2	*p*
11. Email usage at work should be monitored by the university.	.691	.708
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	4.475	.107
21. Personal use of the Internet should be monitored by the university.	.825	.662
22. The university should monitor personal use of the Internet during work hours only.	3.094	.213

Table 64

Research Question 5 Results of Kruskal-Wallis Analysis of Years of Internet Experience

Survey Question	X^2	*p*
11. Email usage at work should be monitored by the university.	2.161	.706
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	3.193	.526
21. Personal use of the Internet should be monitored by the university.	2.537	.638
22. The university should monitor personal use of the Internet during work hours only.	3.139	.535

Table 65

Research Question 5 Results of Kruskal-Wallis Analysis of Overtime Hours Worked

Survey Question	X^2	*p*
11. Email usage at work should be monitored by the university.	3.167	.530
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	1.446	.836
21. Personal use of the Internet should be monitored by the university.	2.896	.575
22. The university should monitor personal use of the Internet during work hours only.	1.207	.877

Table 66

Distribution of Responses to Survey Questions Related to Research Question 6, Survey Question 7

Survey Question	Yes		No		Don't know		Total
	f	%	*f*	%	*f*	%	
7. Does your institution have an Internet Acceptable Use Policy?	126	46.7	14	5.2	130	48.1	268

Table 67

Distribution of Responses to Survey Questions Related to Research Question 6, Survey Questions 19 & 20

Survey Question	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	17	6.4	73	27.4	109	41.0	49	18.4	18	6.8	266
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.	43	15.9	137	50.7	36	13.3	45	16.7	9	3.3	270

Table 68

Research Question 6 Results of Mann-Whitney U Analysis of Gender

Survey Question	Mann-Whitney *U*	*z*	*p*
7. Does your institution have an Internet Acceptable Use Policy?	6356.000	-3.097	.002
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	7225.500	-.922	.356
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.	7923.500	-.152	.879

Table 69

Research Question 6 Results of Kruskal-Wallis Analysis of Age

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	12.617	.027
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	3.749	.586
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.	6.719	.242

Table 70

Research Question 6 Results of Kruskal-Wallis Analysis of Home Internet Connection

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	4.171	.124
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	1.454	.483
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.	1.715	.424

Table 71

Research Question 6 Results of Kruskal-Wallis Analysis of Job Classifications

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	11.588	.003
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	4.475	.107
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.	.511	.774

Table 72

Research Question 6 Results of Kruskal-Wallis Analysis of Years of Internet Experience

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	8.585	.072
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	3.193	.526
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.	1.889	.756

Table 73

Research Question 6 Results of Kruskal-Wallis Analysis of Overtime Hours Worked

Survey Question	X^2	*p*
7. Does your institution have an Internet Acceptable Use Policy?	2.768	.597
19. The institution's Internet Acceptable Use Policy guides my use of the Internet.	1.446	.836
20. If the institution had policies prohibiting the personal use of the Internet, I would not use it for personal purposes.	8.155	.086

Table 74

Distribution of Responses to Survey Questions Related to Research Question 7, Survey Questions 16 & 17

Survey Question	Yes		No		Don't know		Total
	f	%	*f*	%	*f*	%	
16. My institution is using the Internet and email to promote university events and programs	259	95.9	1	0.4	10	3.7	270
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.	122	45.4	36	13.4	111	41.3	269

Table 75

Distribution of Responses to Survey Questions Related to Research Question 7, Survey Questions 31 & 32

Survey Question	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	
31. I think the university should use the Internet and email more to keep employees informed.	67	24.9	175	65.1	24	8.9	3	1.1	0	0.0	269
32. I think the university should use the Internet and email more to create a positive campus culture.	70	25.9	158	58.5	34	12.6	8	3.0	0	0.0	270

Table 76

Research Question 7 Results of Mann-Whitney U Analysis of Gender

Survey Question	Mann-Whitney *U*	*z*	*p*
16. My institution is using the Internet and email to promote university events and programs	7524.000	-2.350	.019
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.	7768.000	-.358	.720
31. I think the university should use the Internet and email more to keep employees informed.	7885.500	-.069	.945
32. I think the university should use the Internet and email more to create a positive campus culture.	7839.000	-.318	.750

Table 77

Research Question 7 Results of Kruskal-Wallis Analysis of Age

Survey Question	X^2	*p*
16. My institution is using the Internet and email to promote university events and programs.	4.391	.495
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.	8.237	.144
31. I think the university should use the Internet and email more to keep employees informed.	2.648	.754
32. I think the university should use the Internet and email more to create a positive campus culture.	4.513	.478

Table 78

Research Question 7 Results of Kruskal-Wallis Analysis of Home Internet Connection

Survey Question	X^2	*p*
16. My institution is using the Internet and email to promote university events and programs	2.055	.358
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.	2.012	.366
31. I think the university should use the Internet and email more to keep employees informed.	10.089	.006
32. I think the university should use the Internet and email more to create a positive campus culture.	5.276	.072

Table 79

Pairwise Differences Between Home Internet Connection Groups in Survey Question 31

Pairwise comparison between:	*z*	*p*
No home Internet and Dial up	-.308	.758
No home Internet and Broadband	-2.444	.015
Dial up and Broadband	-2.528	.011

Table 80

Research Question 7 Results of Kruskal-Wallis Analysis of Job Classifications

Survey Question	X^2	*p*
16. My institution is using the Internet and email to promote university events and programs	1.247	.536
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.	2.306	.316
31. I think the university should use the Internet and email more to keep employees informed.	1.644	.440
32. I think the university should use the Internet and email more to create a positive campus culture.	.180	.914

Table 81

Research Question 7 Results of Kruskal-Wallis Analysis of Years of Internet Experience

Survey Question	X^2	*p*
16. My institution is using the Internet and email to promote university events and programs	.785	.940
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.	9.860	.043
31. I think the university should use the Internet and email more to keep employees informed.	2.577	.631
32. I think the university should use the Internet and email more to create a positive campus culture.	2.974	.562

Table 82

Pairwise Differences Between Years of Internet Experience Groups in Survey Question 17

Pairwise comparison between:	*z*	*p*
Less than 1 year and 1-3 years experience	-2.236	.025
Less than 1 year and 4-6 years experience	-1.106	.269
Less than 1 year and 7-9 years experience	-1.100	.271
Less than 1 year and 10 or more years experience	-.948	.343
1-3 years and 4-6 years experience	-2.384	.017
1-3 years and 7-9 years experience	-2.141	.032
1-3 years and 10 years or more experience	-2.657	.008
4-6 years and 7-9 years experience	-.391	.696
4-6 years and 10 years or more experience	-.892	.373
7-9 years and 10 years or more experience	-1.509	.131

Table 83

Research Question 7 Results of Kruskal-Wallis Analysis of Overtime Hours Worked

Survey Question	X^2	*p*
16. My institution is using the Internet and email to promote university events and programs	8.911	.063
17. My institution provides a listserv or email subscription that is used to communicate unofficial information across campus.	10.708	.030
31. I think the university should use the Internet and email more to keep employees informed.	1.550	.818
32. I think the university should use the Internet and email more to create a positive campus culture.	2.962	.564

Table 84

Pairwise Differences Between Overtime Hours Worked in Survey Question 17

Pairwise comparison between:	*z*	*p*
No overtime and 1-3 hours overtime	-1.034	.301
No overtime and 4-6 hours overtime	-1.583	.113
No overtime and 7-9 hours overtime	-.424	.671
No overtime and 10 hours or more overtime	-2.774	.006
1-3 hours and 4-6 hours overtime	-.435	.664
1-3 hours and 7-9 hours overtime	-1.203	.229
1-3 hours and 10 hours or more overtime	-1.412	.158
4-6 hours and 7-9 hours overtime	-1.661	.097
4-6 hours and 10 hours or more overtime	-1.017	.309
7-9 hours and 10 hours or more overtime	-2.521	.012

Appendix L

Comments

1. I don't know how we "functioned" in our job pre-internet. I use it daily to pull journal articles, reference medical terminology, etc.

2. I had difficulty answering many of these items and would have preferred an option for explanation because I could not respond without a qualifier. I think that personal use of the internet at work is unethical if used for illegal activity, viewing pornography, ordering illegal substances, etc. However, since I pay for DSL at home and use my home computer to check my work email and use my own personal computer and printer and other resources at home to do work-related activities, if I check my personal email from work or use the internet to look up a book on Amazon I really don't have a problem with that (for me or anyone else). That said, if personal use of the internet interferes with work activities or if it involves harmful or illegal activity, then that's another story. Also, I believe we should trust that our employees are responsible adults who do their jobs and do them well. I think the term "abuse" is key here. I'll be interested in the results of the study!

3. I feel that personal use of the intenet at work is acceptable if it does not take away from work time, is not illegal, and does not discredit the employer/university. For example, I just took this survey using my employers internet connection, and I see nothing wrong with it. Do you?

4. I attempted to locate on the OIT website at http://www.etsu.edu/oit a part of the Computer Usage Policy that addressed this issue and could not find it. In fact, I could not even locate the Computer Usage Policy. It is difficult for me to comment on the degree to which the university's assets are abused by personal usage because I am not aware of how other staff workers utilize those assets for personal goals.
   Speaking for myself, I think that it is unreasonable to expect employees not to use the university's internet access for any personal purposes now that the internet has become so ubiquitous. However, I do think that employees should be conscienscious to ensure that any such usage is not taking time away from their job duties.
   I do believe that accessing pornografic and/or distributing defamatory material should definitely be forbidden by an acceptable usage policy. However in an age when SPAM and other unsolicited emails are so prevalent and hostnames of websites like

http://www.whitehouse.com (which was once a porn site) can be easily mistyped by unsuspecting users, the enforcement of an acceptable usage policy must take into account the intended vs. unintended actions of employees.

5. The service is provided and we should be able to use it as we see fit, providing the usage does not involve any illegal uses, such as accessing pornography or harassment of anyone. As long as the work gets done in a timely manner, we should be allowed to use the internet freely. I think we are all adults here and should be trusted to get the work done!

6. I believe the university has an internet policy but I am unsure what it is. I believe there should be restrictions and that use of the internet should be monitored, but I do not think it should be eliminated for personal use. It should be available for personal use during breaks and lunch, but what is viewed could be serious business. If there is a site that could cause bodily harm to others (bomb making websites, etc...) they should not be accessable or if it is found they have been, security should be notified. Whereas, if, in some instances, a person wants to look up and compare medical insurances, that should be allowed. (Although medical insurance is a personal issue, it is provided by the work place and therefore work related.) It is possible that some people on this campus do not have access to computer ans internet at home and therefore, I think it should be available, just monitored.

7. This is pile of crap.

8. Lest my responses be misconstrued, I really don't send much in the way of "personal" email. Probably the closest thing I do as far as misusing email/the university computer system is forwarding the occasional joke to a colleague or my wife. It would be unfortunate if such use were prohibited (yes, I've read how reading/sending jokes costs employeers gazillions of $$ each year). Maybe I'm too much of a geek, but the occasional humorous email can provide a brief break in an otherwise quite full day (my days are a bit long, 10-11 hours are a normal day). Good luck with your survey!

9. I believe that the Internet can be abused by employees however those who would abuse a liberal usage policy would abuse other policies. I think the good far outweighs the need for "Big Brother" type tactics.

10. good survey and asked alot of pertinent questions that need to be answered by faculty, staff and alot of administrators on this campus.

11. Could not respond to some of the questions because the the appropriate responses could not be found in the enumerated answers in this "close type" of questionnaire. It may be helpful if blank line is added to give the respondent/s the opportunity to write the appropriate answer/s. I have written two books on thesis and dissertation writing entitled "Practical Guide to Thesis and Dissertation Writing" and "Thesis and Dissertation Writing" which are used in the Honors Program Senior Thesis class and are both available at Cokesbury Bookstore in Nashville which I feel will be helpful in your research. I am also available for free consultation. The booksote Phone # is (615) 749-6123. Good luck.

12. Personal use of work place Internet and personal use of a work place telephone system is the same -- excessive personal use of either should not be tolerated. Each supervisor must be tasked to monitor subordinates work performance which can be directly affected by abusive use of Internet and telephone resources. Do you know where your secretary has surfed today?
    Good Luck BJ
    P.S. Are you still in the green?

13. UOM uses internet and emails to inform employees and students of many things: special meetings, special events, important information. The general policy of personal use of the internet is supported by personal web pages, and personal email is sometimes hard to distinguish when one takes in to consideration that personal friendships and work-related networks are strengthened by ocassional personal exchanges. Work can be interrupted less, frankly, by a quick email and then back to task at hand, rather than prolonged frustration with voice mail.
    The idea of listservs for various university communities is a great idea, but requires some dedicated administrators and a great deal of front-end labor. But compelling, nevertheless.
    Thanks. Hope you send out your report to all those to whom you emailed the questionnaire.
    By the way, I never got the letter in the mail. Glad you emailed this!!!!!!
    Good luck! Don't forget to send out your report!

One last thing. I know it's hard to devise a questionnaire, but UOM's policy is basically non-interventionist unless an abuse is reported. I know there is some low-level checking and I suspect that the spam filtering may catch some undesireables, but so far as I can see, the university is accepting of personal use as a part of daily life. I say this because I don't really know how to answer some of your questions based on monitoring. They don't distinguish between institutions that do passive monitoring to protect the institution and stop abuse and the monitoring done to stop and punish any use. I guess it all depends on (1) what the institution's policy is (2)if the user knows the policy and (3) if the user abides by the policy. The one thing that bothers me about honestly answering these questions is the area not touched on: how one responds to personal email sent to the institutional user and if the institutional user uses internet connectivity to log on to a personal account rather than use the institution's internet connections/email account. I wonder if that option would be a contravention of an institution's policy if it prohibited personal email at work.

14. Clarificaiton on #21 - only if certain cirsumstances warrant it. I chose Disagree to the question, but there are times that it is necessary. I am involved in enforcing the Code of Ethics regarding IT on campus, and it can get pretty stressful sometimes when employees abuse the privelege of having high-speed access via work. The abusers should be recognized and disciplined, those who are not taking away from their work nor doing anything illegal or unethical should not be monitored without cause. Congratulations on making it this far - and good luck on your survey, hope you get tons of responses. Keep up the good work!

15. My answers above reflect an assumption that personal use of university internet services, while acceptable to me, is limited in scope and at no time violates laws or ethical standards of moral behavior.

16. Personal vs. work related use of the internet is a non-issue for faculty as we do as much work at home as at school. Work hours are not scheduled, except for class time. Personal and work related issues are very often overlapped.

17. I answered "yes" to #7 indicating that my university has an Internet Acceptable Use Policy. However, I did not answer #8 because I do not know the answer. I have never actually read it...I just think it is there.

My overall feeling on this topic is as long as my work is thoroughly completed, it should not matter what I am doing with the internet (as long as it is not illegal or explicit). Also, surely we have something better to do with our time than monitor internet use by employees. If they are abusing it, it will show in the quality of their work.

18. The internet is an valuable asset to higher education. I intend to use it to improve the work habits of the employees. Supervisors can post work schedules and receive information from their employees through the e-mail system. Employees can report to work knowing the work that is to be done and it is already prioritized. The internet can probably be used in more meaningful ways that it already is a this institution.

19. The use of the term "personal" could be interpreted as "personal research". Therefore, working on a book publication might be constued as "personal" use as opposed to "work related" resposibilities.

20. This is a complicated issue that cannot be covered in a survey. Community building can be enhansed by the use of the internet. Many people take work home and work on their personal time. Should they not then be able to use work time (down time) to persue the personnal? Time frames are clearly becoming blurred and the internet is helping to do that. A reasoned response would be to ask employees to be repectful of how and when they use the internet. This survey is an example. I am at work. I am using work time to respond. The University has sanctioned this. It makes sense that a University should support research. It also makes sense for the University to sanction anything that helps its staff and doesn't cost them any extra money. That can include the means to keep in touch with people, to do research online for personnal reasons (daycare, elder care, doctors) People can not always take time off to take care of these things, nor would the University want them too. Universities offer very little salary. What they can offer is perks. Internet connection, responsibly used, is one of these perks.

21. Most of my personal use of the i-net involves obtaining news, current events. I have a personal account that I access through the institution.

22. I come in early to work to handle personal e-mail. I also use break time for this. I also use the Internet and university resources for historical research for my own entertainment.

23. Many of us spend most of our waking hours at the office, commuting, or working from home. Our "personal" lives and work lives are intertwined. I see no difference in making a "personal" phone call from the office to get my refrigerator repaired to placing the order over the internet. We can be more productive on the job and at home/with family if we are allowed to take advantage of the efficiencies technology has to offer. It's win-win.

24. i really am not aware as to what others do with their internet connection on campus. i have an more than adequate computer and isp at home and restict personal use to the home, but i also do alot of work-related internetting at home. in the past 10 yrs, i may have used work internet to, for example, buy my mother flowers for mothers day or something similar, but thats all

25. I am not aware of faculty members abusing the availability of connectivity. However, I am very aware of secretaries and support staff using the Internet and "playing" (Examples: creating greeting cards, "bulk" emails of useless games and pictures, surfing web sites, and shopping) during work hours. The abuse of the high speed Internet should be monitored since in many cases it does detract and prevent work getting done.

26. My workday enroaches on my personal time to a large extent. When I have something personal that needs to be done during business hours, I have no problem with doing it at work and on the university computer. It is much more often that I do work-related business from my home than vice versa. I imagine this is similar for other faculty.

27. I think personal use policies should limit activities which require a large percentage of bandwidth, such as transmitting a home TV connection to work, or downloading large personal files such as movies. Otherwise, I live at work and work at home through my internet connection.

28. On questions 9 & 10 you did not have an option for per week. I use the Internet for these purposes just a few times per week. The same for questions 12-15. I use the Internet for these questions just a few times per month.

29. There are a number of instances where an employee could use the internet at work without infringing on his or her work duties, such as breaks, lunch period, before or after

scheduled work time, or staffing a location that might not necessarily require continuous clerical duties.

30. We use our personal computers at home for university business and it is often more efficient to use University computers at home for personal business. So it is a fair trading of time and computer resources which helps both parties.

31. This institution uses the internet to keep students well informed and to create a positive campus culture.

32. I use my personal computer and high speed internet access at home to conduct university business during days when I'm not on campus, in the evening, and on weekends and thus think it should be acceptable to infrequently use the university internet access to conduct personal business.. With the evolvement of telecommuting, there is more work than ever before being conducted at home. There computer acess expected 27/7 there is a real blurring between personal issues and work issues. You are doing both at the same time. My cell phone is utilized the same way --- business and personal --- you are expected to be available for students and family.. Where do you draw the line?

33. The questions are somehow too repeatable.

34. Any responsible person will not abuse the internet.

35. I have not really given a lot of thought to this issue and would like to see more of the pros and cons of personal internet use before making judgments on some of these issues. With more online courses being taught and more work being done at home via internet there are a number of issues regarding the overlap of personal and work use. Good luck on your research.

36. Participation in this survey surely falls under the category of personal use of the internet!

37. I do all work and personal email and internet use from home. I spend many hours with students on the internet, but not from work. However, my MTSU email is linked to my home address and comes directly to me. When I am on campus I am in classes or with

students and I don't have time to be on the computer. Computers are not really my thing anyway - they are a necessary piece of equipment in my opinion and I use them only when I must.

38. In my opinion, which may not necessarily be that of the institution, is that since the employee spends most of the day at work, it is very important that he/she have some way of connecting with the outside world especially for contacts that do not have access to long distance phone calls. It also saves time in conducting personal business by sending attached documents instead of taking time off to go mail it or attend outside business offices.

39. At my job, I do not have a computer that I can use. But I am a student at the university as well, and I use the computer labs on campus for personal use.

40. The blur between work and personal is so great that use of the Internet is like using university electricity to study or pay personal bills. What is the difference of using the Internet from your office or going to the office Saturday and while there, paying personal bills using a pen provided for work? In that case, you not only use electricity you are also using office supplies. Since I respond to emails 7 x 24 and am expected to be on call 7 days a week, I see nothing wrong with using the Internet at work for personal business, like filling out this survey.

41. I answered your survey to the best of my understanding of UofM Policy for Internet use for employees. I am grateful, as a state employee, to enjoy the added benefits our university provides for Internet access.

42. the rules for public discourse should be the same for online discourse. What you say in a mall setting should be the same for publicly provided online expressions. If you encrypt your conversations online, then what you say is protected as a private conversation.

43. Anything that promotes the use of the Internet in an academic setting is positive.

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