**An Empirical Study on the Significance
Of Religiosity and Spirituality
For Job Satisfaction in Public Service**

Paul E. Morales

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of the requirements for the degree of
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A Dissertation

Submitted to
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Dedication

I dedicate my dissertation to the memory of my parents for their

constant love and support that I still feel today.

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ABSTRACT

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Paul Morales

The purpose of the research is to learn if religiosity and spirituality significantly predict job satisfaction in public service. The research study also addresses for whom or under what conditions religiosity and spirituality have a significant expected variance of determinacy for significantly predicting job satisfaction in public service.

Prior research studies on workplace spirituality on private businesses are common while the research on workplace spirituality within public institutions is limited. The prior research supports that religiosity and spiritualty affect the management of workforces and job satisfaction in both private businesses and public institutions.

To be efficient, the public consensus is for public institutions to adopt the technical-rational management approach. Research, however, finds that the technical-rational management approach popular in private businesses erodes substantive democracy values necessary for job satisfaction in public service.

The research study supports the existence of an evolution of job and life satisfaction for individuals. The evolution starts with self-sufficiency necessary to survive. Self-sufficiency changes to the wants of economic self-interest for satisfaction with job and life. Then economic individualism, with further development of the capitalist system in the U.S., becomes the basis for satisfaction with job and life. However, increasing materialism fails to provide overall satisfaction for many individuals. As such, materialism diminishes in importance to be replaced by self-actualization. The self-fulfillment of being the best person possible through self-actualization becomes the top motivation for overall satisfaction with job and life. A natural progression occurs with self-actualization being replaced by self-transcendence for the ultimate need for satisfaction with job and life. Self-transcendence only require the belief that something is superior to mankind. For satisfaction with job and life, self-transcendence aligns with a belief in a superior being or the existence of a God. As such, that belief exists in measurable amounts of religiosity and spirituality in public service.

The findings of the research study include that measurable amounts of religiosity and spirituality significantly predict job satisfaction in public service. The research on the prediction of job satisfaction is important because of the

imminent retirement loss of 640,000 federal employees. Hopefully, knowledge about the prediction of job satisfaction can help increase retention and hiring in public service.

Through factor analysis, the significant prediction of job satisfaction starts by building the dimensions of religiosity, work environment, work relationship, and job growth. To test these dimensions, the research study uses the survey responses from 1,179 public-service workers in the 2006 version and in the 2010 version of the General Social Survey (GSS).

The moderator religiosity and spirituality variables interact with four dimensions and demographic variables. The study's results from multiple regression find that religiosity significantly predicts job satisfaction for all of the workers; however, spirituality fails to significantly predict job satisfaction for all of the workers in the research study.

With the religiosity moderator variable, an increase of religiosity for public-service workers results in an increase of job satisfaction, too. However, with the spirituality moderator variable, an increase of spirituality for public-service workers results in a subsequent decrease of job satisfaction. In workplaces that support job growth, an increase of religiosity results in a decrease of job satisfaction for all of the workers in the research study.

The research study believes that Public Service Motivation (PSM) is congruent with religiosity and spirituality. Prior research finds that PSM is significant for job satisfaction in public service. The current research offers that by association PSM, religiosity, and spirituality significantly predict job satisfaction in public service.

The current study agrees with prior research that ignoring religiosity and spirituality while concentrating on extrinsic incentives "crowds out" intrinsic motives and hinders job satisfaction in public service. Effective job designs, clear tasks, and goals are congruent with PSM, religiosity, and spirituality. The study's conclusion is that the congruence supports that religiosity and spirituality significantly predict job satisfaction in public service.

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INTRODUCTION

The U.S. federal government is on the verge of a personnel especial crisis with the inability to govern the nation. As of 2012, nearly 270,000 federal employees, are eligible to retire according to the Government Accountability Office (GAO) (GAO 2014). In 2017, nearly 640,000 federal employees will be eligible to retire (2014). More than three in ten federal workers will have retirement eligibility according to GAO (Giuffrida April 4, 2014).

On October 17, 2014, in the Federal Diary column in the *Washington Post*, Joe Davidson's colleague Josh Hicks reported that the annual 2014 Federal Employee Viewpoint Survey (FEVS) showed poor job satisfaction among federal workers. Hicks reported that approval ratings had dropped in the FEVS. Out of eighty-four categories, forty-seven dropped among civilian employees at the Department of the Defense (DOD). In his column, Davidson wrote that an article by Jerry Markon reported that job satisfaction at the Department of Homeland Security (DHS) had dropped to 42 percent in the 2014 FEVS, down from 44 percent in the 2013 FEVS. The survey's results were from a federal workforce of a million employees at DOD and DHS according to the Office of Personnel Management (OPM) in Davidson's column.

Additionally, Davidson reported that the 2013 Best Place to Work organization found that the scores for job satisfaction and job commitment of federal workers were the lowest in ten years since the survey rankings started ten years ago in 2003. The Best Places to Work scores were produced by the Partnership for Public Service (2014).

The loss of almost one third of the current federal workforce creates the potential for an unprecedented personnel crisis for the government being unable to conduct daily business. If the massive retirements in the federal workforce are not addressed, then "mission critical skill gaps" are possible for many public institutions according to the GAO (2014). The lack of critical skills infers that public institutions will not have enough trained personnel to conduct business.

What is the federal government doing in response to the warnings of an impending crisis? Apparently, it is not much.

"OPM reports a staggering number of federal retirement claims, well over 52,000 for the first quarter of 2013, a figure which easily surpasses the 31,600 projected" (Giuffrida April 4, 2014). For 2014, the retirement claims have not abated with more than 17,000 for the month of January (April 4, 2014).

The competition for hiring educated, skilled workers is already difficult for public institutions. Governmental hiring in science, technology, engineering, math, and medical fields is especially difficult (Partnership for Public Service 2012, August). Compounding the problem is that the national pool of the eligible workers in the U.S. is rapidly shrinking (Lewis and Frank 2002).

Besides lacking the ability to hire the necessary personnel, public institutions use the technical-rational management approach to mirror the management practices in the private sector. According to the research, the technical-rational management approach negatively effects job satisfaction in public service.

Before the Progressive Era, the governments of municipalities were inefficient and corrupt. Citizens faced terrible hardships. The cities stank of misery. "Life in the cities consisted of…poor sanitation, crowding, the hazards of illness, disease, terrible working conditions and unsafe food" (Box 2015, 52). In response to the tragic conditions, the commissions of Brownlow in 1937 and Hoover in 1947 gave recommendations for governmental reform.

Many of the reform proposals established the characteristics for the ideal public institution: small in size,

efficient, and subservient while continuing to provide effective, expert services to the public (Box, Marshall, and Reed 2001). Some of the proposals of governmental reforms actually preserved democratic values. In discussing governmental reform in public administration, Box (2015, 21) cites "the public values of neutrality, efficiency, and accountability" developing into the professional roles of public-service workers.

Research studies, however, indicate that public-service workers also place high value on the meaningfulness of work in serving others (Perry and Wise 1990a, Perry 1997b, Crewson 1997, Houston 2000, Wright 2001, Moynihan and Pandey 2007, Taylor and Westover 2011, Wright, Moynihan, and Pandey 2012, Taylor 2013). Other positive attributes of public service include the employees enjoying helping others, being useful to society, and doing interesting work, with chances to learn new things (Naff and Crum 1999, Houston 2000, Frank and Lewis 2004, Houston and Cartwright 2007c, Pandey and Stazyk 2008).

Findings from the prior research studies show that public-service workers desire intrinsic motives over receiving extrinsic financial incentives (Crewson 1997, Naff and Crum 1999, Frank and Lewis 2004, Houston and Cartwright 2007c). Wanting intrinsic motives directly contrast with the motivation

of self-interest. The intrinsic motivations also conflict with economic individualism, which is where individuals are free to accumulate wealth without limits and "free of social control or collective determination of the 'public good'" (Box, Marshall, and Reed 2001, 609). With economic individualism, other than paying federal, state, or local taxes, individuals' obligations to society are optional.

In contrast, public-service workers want to provide services to others. The motives of public-service workers are so unique that "Public Service Motivation" is a term in public administration. Replacing the term of the public service ethic, Perry and Wise (1990) use the theory of PSM to capture the psychological state of an individual who feels a compulsion to serve others and is only satisfied by employment in public service. The PSM model by Perry (1996a) consists of the rational, norm-based, and affective motives for the individuals seeking employment in public service.

PSM blends with religiosity and spirituality. The results of prior research support the importance of religiosity and spirituality in public service. Public-service workers are more religious and hold less secular attitudes than private workers (Houston and Cartwright 2007a, Houston, Freeman, and Feldman 2008).

The special callings of spirituality can draw many individuals to seek employment in public service (Bruce 2000, Vandenabeele 2004, Houston, Freeman, and Feldman 2008, Freeman and Houston 2010, Taylor 2013). Additionally, public-service workers appear to have a strong belief in the existence of a God or in a superior transcendent being. The results of the current research study report that 64 percent of public-service workers express a belief in the existence of a God. Houston and Cartwright (2007a) report that public-service workers are 42 percent greater to have a strong belief in the existence of a God than private workers do.

The belief in the existence of a God supports public values. The wants, motives, and public values held by public-service workers are important predictors of job satisfaction.

Bozeman (2007, 117) defines public values as an "assessment of an object … characterized by cognitive and emotional elements … because a value is part of the individual's definition of self … not easily changed and has the potential to elicit action." The public values held by public-service workers overlap with religiosity and spirituality. Box (2015, 31) notes the existence of a "clear" overlap in public values with other value typologies.

Public values, however, lack permanence and can alter over time by the emphasis of individuals and the changing conditions of society (Box 2015). Public values can influence the stakeholders of public institutions. For public administration, Box (2015) remarks that professional stakeholders identify and prioritize values differently. The list of the public stakeholders includes the elected leaders, political appointees, and career public-service workers.

The research study does not claim that any particular stakeholder is solely responsible for the personnel crisis of the federal government. The research study only points to the threating personnel problems of the federal government and the possibility to learn how to significantly predict job satisfaction.

The federal government's ability to replenish human capital to prevent a retirement "tsunami" is linked to employee attitudes, which include job satisfaction and a willingness to stay in public service according to Cho and Perry (2011). Religiosity and spirituality significantly predict job satisfaction and the significance of prediction also depends on the workplace conditions in public institutions, too.

Problem Statement

Researchers in public administration have explored many facets of governance. However, the research on the prediction of job satisfaction, along with a dearth of studies on religiosity and spirituality is rare in public service.

While workplace spirituality research is abundant for private businesses, researchers have generally ignored the deep and rich connection between religiosity and public service (Lowery 2005, Houston, Freeman, and Feldman 2008, Freeman and Houston 2010). The examination of spirituality in public service has also received little attention from researchers.

To further an understanding, future research needs to examine not only the significance of religiosity and spirituality to predict job satisfaction, but also to answer the more nuance question of for whom and under what conditions are religiosity and spirituality significant for job satisfaction prediction in public service.

Theoretical Prospective

The research study uses the postpositivist paradigm to identify and assess for whom and under what conditions religiosity and spirituality are significant for the prediction

of job satisfaction in public service. Generally, postpositivists hold a deterministic philosophy that desires to identify and assess causes that influence outcomes (Creswell 2009). The research study believes that religiosity and spirituality are an outcome when they predict job satisfaction in public service.

The research study seeks an outcome of understanding the significance of religiosity and spirituality to predict job satisfaction in public service. By analyzing survey data, the research study wants to identify multiple regression models that explain a significant variance for the prediction of job satisfaction. By using quantitative research methods, the research study uses variables to build the dimensions that represent the constructs of religiosity and the characteristics of public-service's workplaces. A spirituality variable joins the dimensions of religiosity, job growth, work relationship, and work environment as variables to provide the multiple regression results for a significant model of explained variance for the prediction of job satisfaction and significant variables to predict job satisfaction in public service.

The research design is a postpositivist paradigm approach with the following elements: (1) The measures of the survey data from GSS are precise and objective; (2) The research consists of

survey questions as variables; (3) The use of a quasi-experimental design to analyze data from structured questionnaires; and, (4) The research study adheres to the scientific research method and uses deductive reasoning (Burns and Burns 2008, p. 14).

By using a top-down approach, the research design of the research study uses deductive reasoning to move to the different stages of research. The identification of the correlated variables is first. Factor analysis follows to build the dimensions of religiosity, job growth, work relationship, and work environment. Cronbach's Alpha tests the internal reliability of the dimensions. For regression analysis, the research study computes the factor scores for religiosity, job growth, work relationship, and work environment.

The conceptual framework of the research study is the factor analysis of the correlated variables to form the dimensions that have internal reliability as determined by Cronbach's Alpha. The factor loadings create the factor scores that make smaller data sets for the results from multiple regression. Spirituality consists of only one variable without a factor score. By using the results of multiple regression, the research study identifies the β coefficients with the *p* values that significantly predict job satisfaction in public service.

The theoretical prospective of the research study is to choose the variables from the data in the 2006 version and in the 2010 version of GSS. For the findings, the research study uses the results from multiple regression.

Significance of Research

The adaptions in management practices and society changes make important contributions to the evolution of job satisfaction. The research study wants to determine whether spirituality and religiosity significantly predict job satisfaction and identify for whom and under what conditions support the of religiosity and spirituality to significantly predict job satisfaction in public service. The study's results can advance an understanding of what factors in the workplaces are significant to predict job satisfaction in public service.

ORGANIZATION OF DISSERTATION

The research study consists of five major sections. The first section introduces the background, problem statement, theoretical prospective and the significance of conducting

research on religiosity, spirituality, and job satisfaction in public service.

The second section reviews the literature pertinent to support the proposal of a job satisfaction evolution. The literature reviews the motivation of self-sufficient and self-interest for satisfaction in life and work. The emergence of the Human Relations movement highlights the importance of meeting human needs in job satisfaction. The literature in the section suggests that intrinsic motives counter the technical-rational management approach and its use of rational choice and extrinsic financial incentives for job satisfaction in public service. The section ends with several definitions of religiosity and spirituality and reviews the research questions of the study from the literature.

The third section presents the methodology for the research study. The section includes the research questions, variables from GSS, and the measures of variables.

The fourth section presents the results of the research study. The section includes the findings from the crosstabs procedures, factor analysis, and Promax rotation. The section includes the development of the factor scores for religiosity, work relationship, work environment, and job growth. The section includes the results from multiple regression to identify for

whom and under what conditions spirituality and religiosity are significant for the prediction of job satisfaction in public service.

The final section includes the limitations and implications of the research study. The section ends with a summary of religiosity and spirituality significantly predicting job satisfaction in public service.

LITERATURE REVIEW

Job satisfaction typically represents an effective workforce that has higher productivity, lower absenteeism and lower employee turnover (Hackman and Oldham 1976, 1980a). Additional knowledge on job satisfaction prediction in public service can increase the retention and hiring of workers, especially in the federal government.

Satisfaction in life and work is evolutionary process. It lacks permanence and alters with the different management approaches in business and with the changing conditions of society.

The evolution of job satisfaction begins with the wants and needs for self-sufficiency to survive. As societies develop economically, with the increases of living standards, self-

interest replaces self-sufficient for satisfaction in life and work. The want of self-interest changes to the want of economic individualism and materialistic wealth. However, within the last twenty years, self-interest and economic individualism have lost importance as satisfaction in life and work evolved.

Near the end of the twentieth century, for many individuals, economic individualism starts to wanes as the want for self-actualization increases with the goal of self-fulfillment to become everything a person is capable of becoming. In the twentieth-first century, self-transcendence is the new keystone of the arch of satisfaction with life and work, especially for public-service workers.

Through the years, job satisfaction was the subject of abundant research studies. Up to 2002, research on job satisfaction included over 11,000 articles and books (Locke 1976a, Harter, Schmidt, and Hayes 2002). However, job satisfaction in public service has lagged in research. When using the Social Science Citation Index (SSCI), Steijn (2004) combined the terms of job satisfaction and public sector as a research query. It yielded fifty-two results. By changing the terms of public service to government with job satisfaction, forty-eight results occurred. Understanding what goals and

motivations are significant to predict job satisfaction remains an enigma in research.

In studies at the Western Electric Hawthorne Works (Hawthorne Works) plant, making changes to the workplace environments failed to change the productivity. However, the study's investigators identified attitudes and informal groups as important in workplaces. Investigators found that workplaces with trusting and cooperating environments affected the productivity.

Roethlisberger ([1941] 2005) called the studies at Hawthorne Works revolutionary for identifying the significance of workplace cooperation between workers and management. The studies were the impetus for the development of the Human Relations movement (Judge et al. 2001). The Human Relations movement emphasized workplace cooperation as a means to increase efficiency and productivity. Sprouting from the Human Relations movement was the development of the needs theories.

The awarding of productivity with the extensive use of extrinsic financial incentives conflicts with the workplaces that support cooperation between workers and management. The extensive use of extrinsic finance incentives are usually an important feature of the technical-rational management approach. That management approach prefers using the rationality of

individuals with only the wants of economic self-interest as motivation. The concentration by the technical-rational management approach of using economic extrinsic incentives, however, can "crowd out" the value of intrinsic motives in organizations (Georgellis, Iossa, and Tabvuma 2011, Frey and Jegen 2001). The technical-rational management approach uses rational choice to find the one best way to achieve efficiency to increase productivity. The theory of rational choice is to identify a problem, then, by procedures, take direct action as a solution.

Instead of using extrinsic economic self-interest needs in job satisfaction, the research study highlights the importance of wants for the goals of higher-needs as the important intrinsic motives in public service. The motivation for the basic needs is biological and necessary to survive. Learned through personal experiences, the psychological needs provide the motivation for achievements, love, self-esteem, etc.

Maslow's Hierarchy of Needs ([1943] 2013) consists of the wants for five needs. The Hierarchy of Needs theory consists of two major principles: deficit principle and progression principle. A satisfied need stops the want of an individual for the satisfaction of his or her deprived needs (Maslow [1943] 2013). The progression principal requires that lower-order needs

have to be satisfied before the satisfaction of other higher-order needs occurs (Maslow [1943] 2013).

There are many characteristics of job satisfaction in public service. Public institutions with the characteristics of poor job designs, undefined tasks, and a lack of clear goals all hinder job satisfaction. A job design with task significance, skill variety, and task identity creates the psychological state of "experienced meaningfulness of work" that offers an outcome of job satisfaction (Hackman and Oldham 1976, 1980a).

The research on job satisfaction in public institutions is limited (Steijn 2004). The role of workplace spirituality in job satisfaction for private businesses consists of many research studies; however, workplace spirituality research is less common in public service. Research on religiosity and spirituality that significantly predict job satisfaction in public service almost fails to exist. The research study wants to identify if religiosity and spirituality significantly predict job satisfaction in public service.

Defining Job Satisfaction

The definition of job satisfaction includes an evaluation of an employee's job experiences: favorable or unfavorable.

Bright (2009) defines job satisfaction as reflections of an outlook determined by the degree an employee's salient needs are satisfied by work; job satisfaction occurs when the characteristics of a workplace satisfy an employee's needs.

From the prospective of the work determinants, Wright (2001, 562) states that the "motives represent want employees want or expect and job satisfaction reflects the employees' reactions to what they receive."

Job satisfaction consists of three related parts: (1) the beliefs about the job; (2) the attitude itself; and, (3) the behavior intentions that result from the attitude of job satisfaction (Steers and Peters 1991).

Ellickson (2002, p. 344) notes, "The more a person's work environment fulfills his or her needs, values, or personal characteristics, then the greater the degree of job satisfaction." The statement reflects the importance of upholding the values of religiosity and spiritualty in workplaces, especially in public service.

With almost universal acceptance by the research on job satisfaction, Locke (1976b) defines job satisfaction as "a pleasurable or positive emotional state that results from a person's perspective that one's job fulfills or allows the fulfillment of one's important job values providing and to the

degree that those values are congruent with one's needs."
Implicit in Locke's definition is the recognition of the
cognitive and emotional components necessary for job
satisfaction; therefore, when we think, we have feelings about
what we think (Saari and Judge 2004).

A worker's personality is a critical element of job
satisfaction. Saari and Judge (2004) state that various research
findings indicate a relationship exists between disposition or
personality and job satisfaction. Yet, business organizations
cannot directly impact an employee's personality, so an
alternative is to provide a good match between an individual and
job, which will help enhance job satisfaction (2004). For
public-service workers, a good match or congruence is working in
public service. Of all the major factors of job satisfaction,
the satisfaction with the nature of work provides the best
prediction of job satisfaction (from various authors as cited in
Saari and Judge 2004).

Technical-Rational Management and Job Satisfaction

Early in the twentieth century, organizational theorists
sought ways to manage organizations with efficiency for higher
productivity. The administrative performance of efficiency in

the classic sense was the maximization of output to input or the results from limited resources. Efficiency was the ultimate criterion and was the result of rational administrative procedures (Hackman and Oldham 1980a). With the criterion came inhuman treatment of workers with the perspective of workers only having the wants of self-interest.

In 1911, Frederick Taylor wrote and published the book *Principles of Scientific Management* receiving the most credit for developing the principles of scientific management and the proper treatment of workers. Acknowledging the successful mass production by the industries in the U.S., Taylor ([1916] 2005) called scientific management an evolution, not a theory because the creation of its elements were from the failures and success of the past practices of businesses. Taylor popularized that organizations could increase efficiency by using the work science of scientific management. Taylor emphasized that the duties and burdens of decision making be undertaken by management for performance measurements ([1916] 2005). The statement referred to the business practices of management not mixing with workers during that historical time period.

Taylor stressed that scientific management called for a mental attitude revolution by both workers and management. Taylor called for the adoption of professionalism and stated for

"those engaged in scientific management to know their workmen and train them to do a better class of work than ever before" ([1916] 2005). The exultation of Taylor portrayed a neglected dimension of scientific management. Taylor called for the creation of an utopian world without human conflict and domination where a place and a way existed for everyone to fit together into one harmonious system (McSwite 1997).

The sharing of responsibility between management and labor was a radical approach at the time. The tenets of scientific management encouraged workers and management to cooperate to improve productivity. "The theory of scientific management was grounded thoroughly in the principles of cooperation and offered progressive change" (McSwite 1997, 127).

Hawthorne Works was the site of testing work science based on the scientific management approach. In 1929, Hawthorne Works was part of the conglomerate Bell Telephone System and centralized the manufacturing of electronic devices. Located on approximately 100 acres, 40,000 men and women worked at the plant producing the telephones, cables, transmission and switching equipment (Harvard Business School 2014). The performance of duties was in accordance with the scientific management approach. As a mechanistic organizational system, the employees worked in specific divisions doing precisely measured

tasks that sometimes required hundreds of separate operations for the assembly of the products (Harvard Business School 2014).

The investigators for the study at Hawthorne Works sought maximum efficiency to increase the productivity. The study wanted to find the ideal mix of physical conditions, working hours, and working conditions and methods to stimulate workers for maximum productivity. While using the scientific management approach, investigators wanted to discover the most efficient "one best way" to complete tasks. To do so, investigators studied how the different working conditions influenced the plant's productivity (Roethlisberger [1941] 2005).

The six studies at Hawthorne Works ranged from six months to several years occurring from 1924 through 1933. During the first three years, investigators tested the effects of the lighting on the productivity in the three separate manufacturing departments. Other than when a manufacturing area became too dark, the studies revealed no significant correlation between the productivity and work environments by adjusting the light levels. Investigators failed to confirm that changing the lighting altered the productivity at Hawthorne Works.

In 1928, Elton Mayo was invited to participate and give his opinions on the behavioral considerations for the prior studies at Hawthorne Works (Harvard Business School 2014). Mayo arrived

at Hawthorne Works joined by his research assistant Fritz Roethlisberger to conduct studies in the relay assembly test room. The studies in the relay assembly department started in 1928 and ended in 1932. They were the longest running studies at Hawthorne Works.

Mayo brought a new behavioral perspective to the studies at Hawthorne Works. Through training and reading a wide variety of scholarly works, "Mayo was influenced by famous psychologists, and sociologists, such as Janet, Freud, Piaget, and Durkheim" (Muldoon 2012, p. 109). With his experiences, Mayo stopped altering the lighting in the work areas and started "studying the behavioral and physical factors causing fatigue and monotony among the workers" (Sonnenfeld 1985). The changes in the work conditions included altering the duration of rest periods along with making differences in the length of work hours in a day (Roethlisberger [1941] 2005). Reducing fatigue among workers was an approach initiated by Taylor for making workers satisfied with jobs and productive. "Taylor implicitly assumed that if workers adopted scientific management and received the highest pay possible with the least fatigue they would be satisfied and more productive" (Locke 1976b, p. 1298).

The studies on fatigue monitored the productivity of five to six women operators working in a separate test room. The

women operators assembled parts for relays. The production rate was the completion of the relays. However, the empirical results failed to support that the changes in the workplace had permanently altered the productivity. Despite years of studies, investigators failed to detect any relationships between making workplace changes and productivity. However, investigators began to learn the importance of the attitudes of workers and informal groups in productivity.

According to Roethlisberger ([1941] 2005), if a human being was being experimented upon he or she would know it and that would alter his or her attitude. Roethlisberger ([1941] 2005) called the phenomenon "the Hawthorne effect" in which the subjects in behavioral studies changed their performances in response to being observed (as cited in Harvard Business School 2014).

The workers were aware of being studied through talks with investigators. Having conversations with workers were unique. The interviews treated workers as human beings in contrast to the dehumanizing conditions of typical manufacturing workplaces.

Investigators asked for the consent and advice of workers before altering the workplace conditions as part of the experiments. As a control mechanism, the investigators made a special effort to get the workers to cooperate evenly to prevent

extraneous factors like motivation from influencing the results (Gellerman 1963). Investigators wanted to isolate the different physical conditions so any variations in the productivity would be the sole result of the changing work conditions (Roethlisberger [1941] 2005).

To obtain cooperation, investigators allowed workers to give input and approval of the proposed workplace changes. When the use of closed questions failed, investigators turned to "interviews" as general conversations with workers.

With interviews, workers had an opportunity to talk about work or not. To the surprise of investigators, workers started talking not only about the work conditions, but also about important personal issues. Interviews with workers highlighted their attitudes in response to the workplace changes (Roethlisberger [1941] 2005).

Attitudes are invisible; however, behaviors can exhibit personal attitudes. As a unidimensional construct, attitudes exist along a continuum of very positive to very negative (Steers and Peters 1991). A job attitude consists of the beliefs about a job, the attitude itself, and the behavior intentions that result from the job attitude (Steers and Peters 1991).

Responses to work changes wrote Roethlisberger ([1941] 2005) could only be explained by workers' attitudes, as diagramed in Figure 1.

Figure 1 – Interaction of attitudes toward work changes

```
Change                                    Response


              Attitudes (sentiments)

Source: Roethlisberger ([1941] 2005 p. 164
```
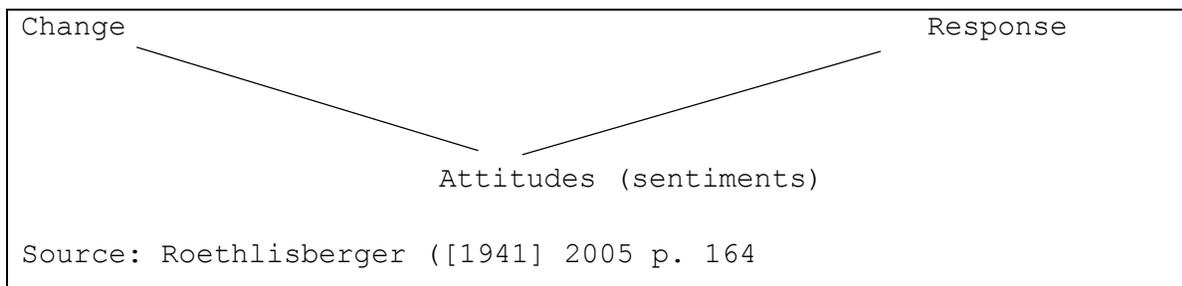
Figure 2 – Creation of work attitudes

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Change                                    Response




              Attitudes (sentiments)




Personal                                  Social
history                                    situation at
                                           work


Source: Roethlisberger ([1941] 2005 p. 164
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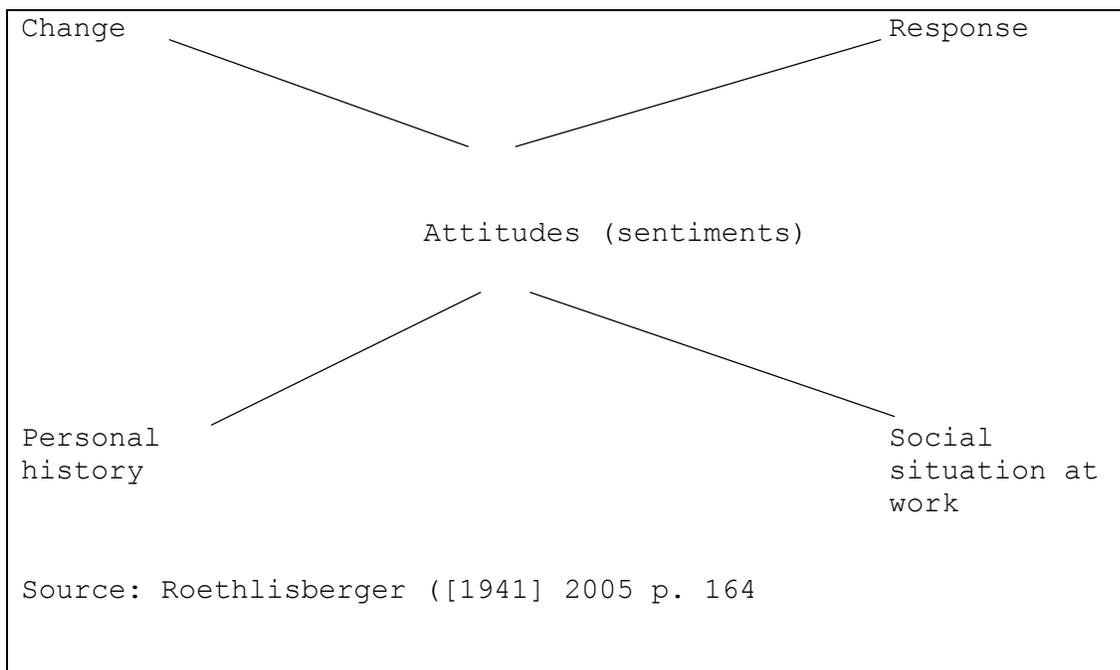
Figure 2 shows the development of a worker's attitude by his or her personal history and social situation in a workplace.

Roethlisberger ([1941] 2005) determines that two interactions create a worker's attitude in response to work changes. The responses depend on the experiences and values a worker brings to a workplace. Work changes create specific meanings for each person based on his or her personal social conditioning. The meanings depended on the interactions of a worker in a social situation at a workplace.

Another important effect of conducting interviews is the discovery of the power of informal groups for productivity. Informal groups of workers establish their own productivity. Group members adhere to the productivity standards out of loyalty (Gellerman 1963). The informal groups affect the productivity in two ways. When the informal groups identify and associate with management, the productivity increases; however, when the informal groups oppose the practices of management that are using oppressive or authoritarian treatment, the productivity stays close to the minimum levels (Gellerman 1963).

During the studies at Hawthorn Works, investigators realized that the scientific management approach of workers only wanting economic self-interest was too limiting. Investigators found that the idea of workers looking out only for themselves was false (Roethlisberger [1941] 2005). The self-interest

economic man theory conflicted with the observable multiple wants and desires by workers (Muldoon 2012).

Mayo agreed with the existence of the conflict. Management assumed the nature of worker motivation was to make as much money for as little as work possible (Gellerman 1963). The perspective of management was that the attitudes of workers consisted of "completely rational and soulless economic men" (Gellerman 1963, 28).

According to Locke (1976b, p. 1299), the importance of attitudes was noted decades earlier before the studies at Hawthorne Works by Taylor. Yet, it was the results of the studies at Hawthorne Works that raised new questions about attitudes and behaviors (Sonnenfeld 1985). For both Taylor and investigators at Hawthorne Works, the attitudes of workers exceeded only wanting job satisfaction (1976b). Locke (1976b) stated that the attitudes of workers, as envisioned by Taylor, were to review their own economic self-interest and the necessity of cooperating with management.

Developing workplace cooperation can conflict with the technical-rational management approach with its rigid approach of there being only one right way and all other ways are wrong. Rational decision makers arrive at a correct understanding and select the best choice and act (McSwite 1997). "Those who

dissent are not simply only in disagreement but are judged to be wrong" (McSwite 1997, 133). Additionally, the technical-rational management approach includes the extensive use of extrinsic incentives for job satisfaction.

Managing Extrinsic Motivators

The plant at Hawthorne Works used extrinsic incentives as heavily promoted noncash compensation. At the time, such practices were titled welfare capitalism. The business leaders in the early twentieth century promoted noncash compensation to quell the chances of labor unrest or to discourage unionization. Extrinsic incentives served as a public-relation tool by presenting to the public that a corporation was responsible and cared about its workers.

With its extensive distribution of noncash incentives, "the Western Electric Company operation of Hawthorne Works was widely respected as a responsible model employer" (Brandes 2005). According to the Harvard Business School (2014), the noncash benefits located at the plant included a hospital, a retail store, a gymnasium, tennis courts, a running track, and a park. The social atmosphere consisted of recreational and educational programs, along with lunchtime concerts (2014). The benefits

were extrinsic because the incentives were outside the control of the plant's workers.

Most intrinsic motives are controlled by the wants of individuals. The studies at Hawthorne Works confirm that intrinsic motives are part of the mixture of workplace characteristics (Sonnenfeld 1985). The workplace demonstrations during the studies at Hawthorne Works prove that the social systems of informal groups play a major role in developing attitudes for productivity and job satisfaction.

In reviewing literature on work motivation in public service, Wright (2001) finds that job characteristics and work context influence productivity. He describes the job characteristics as tasks employees perform, while work context is the characteristics of all organizational settings that include the reward systems and goals.

Setting specific challenging goals can increase productivity and job satisfaction (Locke and Latham 2002, Judge and Klinger 2009, Latham 2009, Chan Su and Rainey 2010). However, public institutions have missions with goals that support the common good. To increase productivity, businesses use goals. Profits reflect the accomplishments of goals for productivity in the private sector. In the public sector, the

completion of goals provide the quantity and quality of services as productivity.

The failure to link goals directly with the missions of public institutions creates frustration for public-service workers (Wright and Davis 2003, Scott and Pandey 2005, Bright 2008). A lack of linkage creates an appearance that public institutions have ambiguous goals and lack productivity in providing public services (Chan Su and Rainey 2010).

Using survey data from the 2005 U.S. Office of Management and Budget's (OMB) Program Assessment Rating Tool (PART), Jung and Rainey (2011) report that the responses from 36,926 federal employees indicate the positive effects of clear organizational goals. The study confirms clear goals motivate public-service workers while ambiguous goals have the opposite effect.

According to the Goal-Setting theory by Locke and Latham (2002), using easy work goals produce the lowest efforts and performances while the most difficult goals produce the highest efforts and productivity; however, if work goals are too easy, employees become bored while goals too hard frustrate workers. Job satisfaction results from clear work goals engaging employees to stretch self-efficacy for completing moderate to complex duties.

Public institutions have complex social missions. In response to the demands for equity, accountability, responsiveness, and economic efficiency, public institutions create multiple and even conflicting goals (Wright 2001). Many public policies consist of multiple goals to address the serious issues of crime, poverty, discrimination, etc. Box, Marshall, and Reed (2001, 608) confirm the "vexing problems include poverty, poor-quality education, inequalities of race, gender, crime, and violence, including the destruction of forest, farmland, wildlife habitat along with air and water pollution."

Because many social issues are complicated and lack clear answers, the absence of specific goals in public institutions is not surprising; however, it makes job satisfaction difficult. Lacking clear goals for addressing difficult social problems, as an answer, stakeholders propose that public institutions use the technical-rational management approach because of the success of the approach in providing profits for private businesses. Public institutions face constant demands to adopt private management approaches that use financial incentives to meet the wants of economic self-interest. (Box, Marshall, and Reed 2001). In response, many public institutions use similar extrinsic incentives of the private sector to meet the economic self-interests of public-service workers.

Recent Approaches (Merit-Based Pay)

Offering extrinsic financial incentives support economic individualism. The incentives support "A capitalist system, where individuals are free to accumulate wealth independent of social control or collective determination of the public good" (Box, Marshall, and Reed 2001). However, the promotion of merit-based pay systems in public service are controversial. Despite the negative opinions of using extrinsic monetary incentive systems, Crewson (1997) notes that such systems remain a dominant fixture in the management of public institutions. Merit-based promotions and cash awards in public service to improve efficiency are based on the theories of goals for self-interest and economic individualism (1997). The reasoning by modern private businesses for the extensive use of extrinsic financial incentives is the outdated historical belief that "people are rational self-maximizers in competition with others and respond primarily to economic incentives" (Box, Marshall, and Reed 2001, 611).

The implicit assumption for using monetary incentives notes Crewson (1997) is the belief that the wants and goals for public-service workers are the same as private workers. The support of monetary incentives is to retain public-service

workers similar to the financial practices of private businesses.

With a myopic perspective, policy makers support and mimic the management approaches of private businesses. Policy makers pursue efficiency by shrinking governments and using private management motivation techniques (Box, Marshall, and Reed 2001).

The prospective mirrors the indictment by former private business leaders in the manufacturing era in the early twentieth century that treated workers as insensitive and were only concerned with the ultimate want of self-interest. The continuous support for the merit-based pay systems suggests that policy makers view public-service workers as robotic doers of public policies. To know the preferences of the reward characteristics for public-service workers, Crewson (1997) recommends that policy makers develop a better understanding of the unique wants of public-service workers. "The failure to learn about public workforces can lead to poor job performances in the short-term and in the long-term can result in the permanent displacement of the public-service ethic" (p. 501).

The extensive use of extrinsic financial incentives in the 1980's drove a spiritual revival in the U.S. Garcia-Zamor (2003a) cited an anonymous religious scholar that stated many people experienced unhappiness despite making high incomes

during that era because their personal values were unwelcome in the corporate world. The consequences for wanting to earn higher incomes required altering or even dismissing the intrinsic properties of religiosity and spirituality of private workers.

The results of prior studies suggest that extrinsic economic incentives can actually "crowd out" intrinsic values. Based on circumstantial evidence, laboratory evidence by both psychologists and economists, and field evidence by econometric studies, the research findings by Frey and Jegen (2001) conclude that strong empirical evidence exists for supporting the theory of extrinsic incentives "crowding out" the natural occurrence of intrinsic values in public service.

The findings by Georgellis, Iossa, and Tabvuma (2011) agree with the conclusions of Frey and Jegen (2001). Using data from the British Household Panel Survey (BHPS), containing approximately 10,000 individuals, Georgellis, Iossa, and Tabvuma (2011) suggest individuals are attracted to public service by intrinsic motives and that higher extrinsic rewards actually can impede the intrinsic wants of individuals for employment in the public sector of the United Kingdom. Drawing data from 212,223 federal respondents from the 2008 Federal Human Capital Survey (FHCS), Cho and Perry (2011) provide more support for the "crowding out" theory with empirical evidence that shows high

expectancy for extrinsic rewards can hinder the use of intrinsic motives in public service.

Perry and Wise (1990a) warn that the concentration on extrinsic financial incentives by public institutions to mimic the practices of private businesses ignore a critical linkage between the bureaucratic administrative state and the advancement of social and democratic values that are important to many public-service workers. Additionally, the extensive use of extrinsic financial incentives while ignoring the intrinsic motives lessens job satisfaction for public-service workers. Crewson (1997) notes the importance of balancing adequate economic rewards with the intrinsic wants and needs of public-service workers.

The technical-rational management approach fails to create a balance between the use of extrinsic incentives and intrinsic motives. A lack of balance negatively effects job satisfaction, reduces retentions and hiring for national, state, and local public institutions.

Implications of Publicness in Technical-Rational Management

The work of public-service workers affects American life. Generally, private workers cannot claim the same importance for their work.

In the U.S, private businesses provide choices for the consumers to select what services or goods to purchase (Box 2015). Little choices exist in making mandatory tax payments for governmental services or the national defense. Unlike private businesses seeking profits, public institutions support local or national communities and provide services or functions made by the collective decisions of society (2015). Box (2015) claims another major difference is that the structures and functions of public institutions have to adhere to the U.S. Constitution and administrative regulations. A private business is only accountable to a board of directors or stockholders who volunteer to participate in managing the business.

Public service also differs because of the requirement for public institutions to operate with transparency and accountability. Transparency allows citizens to make knowledgeable choices on political candidates or public policies. Accountability provides whether public choices have been implemented (Box 2015).

Besides accountability, public-service workers and private workers differ on the value of extrinsic financial incentives.

Garcia-Zamor (2003a) reports that the promotion of extrinsic incentives fail to advance job satisfaction because public-service workers have wants for the intrinsic values like doing meaningful work. Ignoring the general wants for the intrinsic motives, many public institutions instead use the technical-rational management approach with its support of using extrinsic financial incentives to increase efficiency and productivity. Garcia-Zamor (2003a) warns that supporting extrinsic financial incentives in workplaces runs counter to a modern perception that work, especially in public-service workplaces, should be a medium for self-expression and self-discovery.

The attempts to offer more competitive incomes for job satisfaction in public service makes the assumption that all people are rational and respond primarily to economic incentives (Frederickson 1997, Box, Marshall, and Reed 2001). However, prior research studies validate that offering higher incomes or extrinsic financial incentives to public-service workers simply fails to effect job satisfaction in public service (Crewson 1997, Naff and Crum 1999, Houston 2000, Frank and Lewis 2004). Instead, the research shows that public-service workers want the intrinsic values like doing important and interesting daily work, having autonomy and chances to learn new duties (Frank and Lewis 2004, Houston 2000, Taylor 2013).

After reviewing the survey data in fourteen surveys from the 1973 version of GSS through the 1993 version of GSS, Crewson (1997) concludes that a clear difference exists between the wants for reward expectations by public-service workers and such wants of private workers. He reports that a significant difference is that public-service workers want the feelings of work accomplishments which have precedence over extrinsic monetary rewards and promotions. The findings include that 52 percent of private workers desire economic rewards as compared to 39 percent of public-service workers wanting the same rewards. Other differences between private workers and public-service workers is that employees in public service want and value helping others and being useful to society. Private workers want extrinsic financial incentives.

Houston (2000) supports the research findings by Crewson (1997). Pooling survey data from the 1991, 1993, and 1994 versions of GSS, Houston (2000) suggests that higher pay has less importance for public-service workers then private workers. Instead of concentrating on extrinsic rewards, public-service workers place great intrinsic value on achieving accomplishments that better society.

To motivate public-service workers, many public institutions currently use the technical-rational management

approach that is popular and successful for earning profits for private businesses (Houston 2000). Many efforts by public institutions include enhancing productivity with offering extrinsic financial incentives to mimic the private management practices that create profits for companies (Box, Marshall, and Reed 2001). The efforts, however, ignore the substantial priority differences between the wants of public-service workers and private workers. Multiple research studies report that private workers want and value extrinsic financial rewards while public-service workers want intrinsic satisfaction for the meaningful accomplishment of working to provide needed services to the public.

Human Relations Approaches to Motives

The contemporary perspective of the studies at Hawthorne Works is that it helped shape the Human Relations movement. The movement "stresses the importance of supervisors and workers cooperating in job satisfaction and productivity" (Locke 1976b, p. 1299).

The footmark of the Human Relations model comes from the studies at Hawthorne Works and the behavioral works of Elton Mayo (Frederickson 2010). The Human Relations model consists of

the "group dynamics, sensitivity training, and organizational development with the underlying values of worker participation in decision making, and emphasis on openness, honesty, self-actualization and workforce satisfaction"(2010, 35). The Human Relations model refutes strict obedience to a subordinate authority. An examination of the administration of complex organizations indicates that the Human Relations model correlates with the increases of job satisfaction, and productivity (Frederickson 2010).

The prescription of Human Relations to improve productivity is to place management in a favorable light in workplaces with informal work groups. Recognizing the wants and needs of workers are important in developing content theories or needs theories. The theories consist of several behavioral models that used the power of goals and needs to motivate individuals. Locke (1976b, p. 1303) defines needs as "the conditions necessary to sustain life and the well-being of a living organism."

Content theories consist of outside factors that affect individuals. The factors of primary needs and secondary needs exist outside individuals.

Biological in nature, primary needs are relatively stable if satisfied. Learned individual experiences create secondary psychological needs. The experiences of individuals consist of

internal psychological states, such as the wants for achievement, love, life, and job satisfaction.

The Hierarchy of Needs by Abraham Maslow ([1943] 2013) focuses on the wants for the specific needs of individuals. Figure 3 shows Maslow's Hierarchy of Needs. The model consists of lower-order needs and higher-order needs. The motivation occurs with the goal fulfillment of the most urgent needs by an individual, according to Maslow ([1943] 2013). An individual's want for higher-order needs is based on a hierarchy of relative prepotency ([1943] 2013). An assumption of the needs theories is that the fulfillment of lower-order needs are extrinsic while the completion of higher-order needs are intrinsic according to Bright (2009).

The research study offers that no solid boundary exists between intrinsic motives and extrinsic motives with lower-order needs and higher-order needs. For example, an extrinsic need for the lower-order needs of physiological or safety can also create an intrinsic motive of satisfaction for an individual. The degrees of relative satisfaction is important. A misconception of the five separate needs in the hierarchy of needs is that an all or nothing relationship requires fulfillment of 100 percent satisfaction of a need before the next need immerges. Instead, Maslow ([1943] 2008) states that a realistic description is the

decreasing percentages of satisfaction with the upward movements of needs in the hierarchy.

Maslow ([1943] 2013) begins his hierarchy with the physiological and safety needs. The physiological needs represent an individual being self-sufficient and acquiring sufficient food and shelter to survive. The fulfillment of the safety needs occurs when an individual is relatively free of threats and dangers. In today's society, Maslow believes that the almost automatic satisfaction of physiological and safety needs creates basically satisfied people. As a result, people are expected to have the wants for the fullest creativeness.

Beyond the physiological and safety needs, at the next level in the hierarchy is the need of love and belonging. The needs are associated with social needs, such as affiliation, belonging, and friendship ([1943] 2008). Next follows the want for the need of self-esteem in the hierarchy. At this level, an individual wants to achieve self-respect and earn the esteem of others.

The highest level of a need in the hierarchy is wanting the need of self-actualization where "new discontent and restlessness" develop unless a person has the opportunity to be his or her best person to "become everything that one is capable of being" ([1943] 2008, p. 171). Self-actualization is the

original want of the "growth needs" in the Hierarchy of Needs by Maslow.

Figure 3 – Hierarchy of Needs
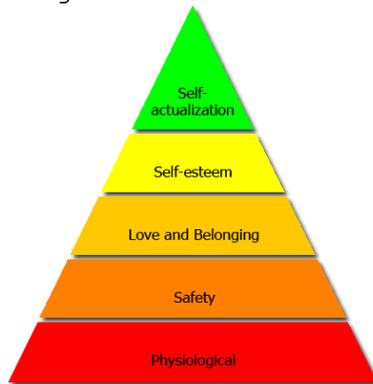
Source: 2006-2015 LetsStartThinking.org

An analogy for wanting the need of self-actualization is mountain hiking. A hiker climbs upwards. Then, at a ledge, rests. As a peak experience, the hiker looking downward can see the amount of distance traveled. Then, by looking upward, if the hiker wants to keep climbing, the distance still to cover. Each ledge can represent peak experiences. For the hiker, a peak experience can create a personal nirvana of satisfaction (Maslow [1943] 2013).

Koltko-Rivera (2006) reported that Maslow doubted that self-actualization was a motivational capstone for an individual. With the doubt, Maslow supported humanistic psychology and its highlighting the fallacy of basing behavioral models for content or needs theories mainly on the findings from

animal studies or only studying the abnormal behaviors and psychological problems of human beings (2006).

Using humanistic psychology, Maslow focused on the characteristics of healthy humans pursing the wants of needs for higher values of personal growth. Maslow has found that some individuals went beyond the want for the need of self-actualization with peak experiences and moved to satisfy the want for the need of self-transcendence.

Unlike the need of self-actualization for personal growth, self-transcendence consists of having a need for the primary concern for others. Self-transcendence is illustrated by the statement of "There is not greater love than to lay down one's life for one's friends" (New American Bible 1986). In public service, the spirit of benevolence represents the want of the higher-order of need for self-transcendence.

Frederickson (1997, 47) calls the spirit of benevolence for public-service workers "as having a sense of service for the extension of regime values offering protection to citizens, with a belief in a commitment to the greater good and dedication of a professional life to that end."

The spirit of benevolence was illustrated in the book, *The Spirit of Public Administration* by Frederickson (1997). "The Danish bureaucrats in 1940 refused the orders of the Germans to

disenfranchise the country's Jewish citizens so that they could be deported to concentration camps. In the fall of 1943, the Germans moved against the Danish Jews and put the Danish government in limbo. Asked to lead Denmark, Frederickson stated that the Danish bureaucrats performed with exemplary courage. The bureaucrats found finances, guaranteed the sanctity of Jewish homes and properties while providing other innumerable responses in the crisis. The bureaucrats watched over the few captured Jews sent to concentration camps, and eventually assisted in their release and transfer to Sweden" (1997, 198-99).

As part of the hierarchy of needs, growth needs exist, too. Figure 4 represents all of the growth needs. Past the self-esteem need, Maslow adds growth needs that are the need to know and to learn, and to use aesthetic needs to capture beauty, order, and symmetry of life (as cited in Huitt 2007).

Figure 4 – Maslow's Hierarchy of Needs expanded
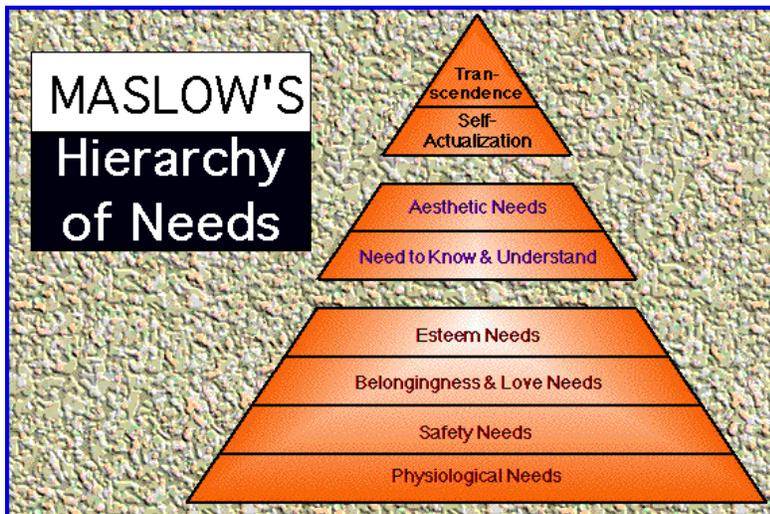
Source: (Huitt 2007)

Another needs-based theory is the Two-Factor Theory of satisfaction and motivation by Herzberg, Mausner, and Snyderman ([1959] 2010). For determining the primary determinants of job satisfaction, the Two-Factor Theory reduces the Hierarchy of Needs Theory by Maslow to two factors.

The Two-Factor Theory identifies the primary determinants of job satisfaction: motivators and hygiene. Job satisfaction consists of intrinsic motives and extrinsic motives that create superior efforts and work performances (Hackman and Oldham 1976).

The motivators are intrinsic motives that generate positive attitudes to satisfy individuals' needs for self-actualization (Herzberg, Mausner, and Snyderman [1959] 2010). In the Two-Factor theory, job satisfaction and job dissatisfaction do not

exist on a continuum. Instead, the lack of motivators for job satisfaction creates a neutral state for workers.

The hygiene factors are extrinsic motives of job context elements. The hygiene factors act in a manner analogous to medical hygiene actions removing health hazards from an environment not as curative measures, but as preventive measures (Herzberg, Mausner, and Snyderman [1959] 2010). The hygiene factors are the conditions of poor workplace environments, possibly consisting of low pay, poor interpersonal relationships and lack of leadership.

A review by Hackman and Oldham (1976, p. 251) on the Two-Factor theory specifies that the satisfaction and enhancement of motives occurs only to the degree that the "motivators" are designed into the work itself; however, changes that deal solely with the "hygiene" factors fail to increase job motivation."

Hackman and Oldham (1976) find the lack of empirical support for the Two-Factor theory troubling and to some extent compromises the usefulness of the theory. However, Hackman and Oldham (1976) continue to call the Two-Factor theory the most influential theory relevant to work redesign.

The Two-Factor theory concentrates on the significance of work itself as a factor for job satisfaction. Making work enriching and challenging, the Two-Factor theory focuses on job

design activities as the determinants for job satisfaction (Hackman and Oldham 1980b).

Managing Intrinsic Motivators

As a job design, the Job Characteristics Model (JCM) manages the want of intrinsic motives necessary to achieve the outcome of job satisfaction. The intrinsic nature of work is the primary underlying factor for job satisfaction (Judge and Klinger 2009). Designed by Hackman and Oldham (1976), the JCM focuses on the relationships between an individual and a workplace. A job design helps determine how an individual responds to a complex and challenging job. "The JCM theory best describes the role of work environments to providing mentally challenging workplaces" (Judge and Klinger 2009, p. 109).

Figure 5 is the JCM design. To measure the changeable properties of work that create psychological states for workers, the JCM uses five core job dimensions consisting of skill variety, task identity, task significance, feedback, and autonomy (Hackman and Oldham 1976, 1980a).

Figure 5 – Job Characteristics Model

| Core job dimensions | → | Critical psychological states | → | Personal and work outcomes |

1. Skill variety
2. Task identity
3. Task significance

→ Experienced meaningfulness of the work

High internal work motivation

High quality work performances

Autonomy → Experienced responsibility for outcomes of the work

→ High satisfaction with the work

Feedback → Knowledge of the actual results of the work activities

Low absenteeism and turnover

Growth needs strength

The JCM generates numerical values for a motivating potential score (MPS) formula as shown in Figure 6. The formula for MPS consists of skill variety (SV), task identity (TI), task significance (TS), feedback (F) and autonomy (A). The MPS score reflects the "overall potential of jobs to foster internal work motivations for workers" (1980a, p. 81).

Figure 6 – MPA formula to calculate internal motivation

Source: (Perot 2007-8)

The core job dimensions of skill variety, task identity, and task significance create the psychological state of the experienced meaningfulness of the work (Hackman and Oldham 1976, 1980a).

Skill variety represents the dimension of using a variety of skills and talents for finishing jobs. Task identity requires the completion of entire and identifiable pieces of work, doing jobs from beginning to end with visible outcomes. Task significance represents the importance workers feel in completing assigned tasks.

Hackman and Oldham (1976) tested the JCM with the collection instrument Job Diagnostic Survey (JDS). The collection of survey data came from 658 employees that worked in seven business organizations at sixty-two different jobs that included blue collar, white collar, and professional workers. The study by Hackman and Oldham (1976) supported that the three psychological states in the JCM mediated the effects of the core job dimensions on the outcome variables. Additionally, the

study's results showed that the successful completion of skill variety, task identity, and task significance predicted the experienced meaningfulness of the work (Hackman and Oldham 1976).

The critical psychological state of experienced meaning of work is important for public-service workers because they regularly seek meaningfulness in work (Perry and Wise 1990c, Perry 1997a, Crewson 1997, Houston 2000, Wright 2001, Moynihan and Pandey 2007, Taylor and Westover 2011, Wright, Moynihan, and Pandey 2012, Taylor 2013).

Not achieving a psychological state of experienced meaningfulness of work in public service can be costly, too. Using 116 survey respondents from four Australian government agencies, the findings by Taylor (2013) show the possible results when employees do not view their jobs as being part of meaningful goals. The failure to "demonstrate support for employees reaching goals or that the goals are not viewed by employees to be meaningful can require establishing cumbersome monitoring and control systems in order to manage performances" (2013, p. 461).

Making a difference in society can represent meaningful work, too. After conducting interviews with 200 public-service workers, a study by Pattakos (2004, p. 106) suggests that

public-service workers have a perception of their work making a difference in society.

Frank and Lewis (2004) also report from the data of the 1988 version and 1989 version of GSS that nearly two-thirds of public-service workers report doing the best at their jobs even if work interferes with their personal lives. Supporting meaningfulness of the work, Perry (1996a) writes that public-service workers have a willingness to substitute service to others for intangible personal rewards.

The core job dimension of autonomy in the JCM measures the degree of freedom and control workers have in performing job duties. Successful autonomy creates the psychological state of experienced responsibility for the outcomes of work. With job autonomy, the successful completion of tasks are mostly the direct result of work performances (Koehler and Rainey 2008). The successful completion of autonomous tasks gives workers an intrinsic sense of self-worth (Houston and Cartwright 2007b). Additionally, the presence of job autonomy is a major determinant of job satisfaction (Westover and Taylor 2010).

Feedback in the JCM reflects that workers receive direct results from work performances. The research results by Wright and Davis (2003) find that the quantity and quality of feedback significantly effects job satisfaction. Effective feedback

systems as a learning environment support high work motivation, high quality work performance, and job satisfaction (Hackman and Oldham 1976).

High motivating jobs offer the opportunities for learning self-direction and personal accomplishments (Hackman and Oldham 1980a, p. 85). In the JCM, growth-needs strength refers to the want of needs of workers for self-development. "The differences among workers moderate their reactions to work, while the growth-needs strength conceptualizes and measures those differences. The moderating effects of growth-needs strength occur at two places in the JCM: The effects occur at the links between the core job dimensions and the psychological states, and between the psychological states and the outcome variables. The moderating links confirm by empirical support that growth-needs strength occurs at both the links (1976).

Workers with high-growth needs strength experienced the three psychological states more strongly and responded more positively to outcomes such as job satisfaction (Hackman and Oldham 1976). Hackman and Oldham (1980a, p. 85) stated, "Individuals with strong growth-needs strength respond eagerly and positively to the opportunities provided by enriched work."

The growth-needs strength of the JCM share similarities with the Hierarchy of Needs theory by Maslow ([1943] 2013).

Hackman and Oldham (1976) claim that moderators such as growth-needs strength can be conceptualized and measured in the terms of human needs. The growth-needs strength in the JCM claims Mayfield (2013, p. 41) measures the degree an individual wants to reach for higher-order needs such as self-actualization.

The research study suggests that the growth-needs strength aligns with the self-esteem need of the Hierarchy of Needs theory. A worker with high growth-needs strength has self-esteem and wants self-growth opportunities. Additionally, self-esteem can represent peak experiences for individuals wanting the higher-order needs of self-knowledge, aesthetic needs, self-actualization, and self-transcendence.

In the JCM, intrinsic motives generate critical psychological states that lead to the positive outcome of job satisfaction. The JCM can increase the intrinsic motives of public-service workers wanting to complete achievable tasks and create job satisfaction.

Recent Approaches

A public institution offering tasks that support social missions give public-service workers a sense of accomplishments when completing the goals of tasks. Bright (2011, p. 12) states

that public-service workers want "job tasks to address questions of social equity, to express loyalty to country, or to pursue social programs." After surveying 1,895 respondents working at a New York State agency, Wright (2007) reports that the intrinsic value of missions at public institutions increases the importance of work for public-service workers.

Public-service workers "prioritize intrinsic rewards over extrinsic rewards" (Crewson 1997, p. 714). The importance of intrinsic motives held by public-service workers allows personal attribution for completion of tasks supporting important social missions instead of only reacting to the influences of others to complete goals (Bright 2009). Prior research studies support that public-service workers value intrinsic motives over extrinsic motives (Crewson 1997, Houston 2000, Frank and Lewis 2004, Buelens and Broeck 2007).

Besides wanting worthwhile accomplishments, job satisfaction in public service consists of other intrinsic factors, according to a research study by Taylor and Westover (2011). Accomplishments increase self-esteem and job satisfaction. Workplaces with job satisfaction offer intrinsic motives and opportunities for workers to have good, positive relationships with managers and coworkers (Taylor and Westover 2011, Ellickson 2002). Coworkers and managers with positive

attitudes foster trusting relationships through acts of communications and empowerments to create job satisfaction (Ellickson 2002, Westover and Taylor 2010, Cho and Perry 2011, Taylor and Westover 2011).

Using the 2008 Federal Human Capital Survey (FHCS), Cho and Perry (2011) explored the workplace conditions that affected intrinsic motives in public service. They found that intrinsic motives in workplaces were substantively associated with job satisfaction and lower turnover intentions. Other results of the study identified that managerial trustworthiness and goal directedness increased the advantage of intrinsic motives for job satisfaction in public service, while extrinsic incentives decreased the importance of intrinsic motives.

Multiple research studies report that procedural constraints and red tape reduce job satisfaction in public service (Wright and Davis 2003, Scott and Pandey 2005, Moynihan and Pandey 2007, Giauque et al. 2012).

The research study concludes that procedural constraints and red tape in public service create a psychological state of "resigned satisfaction" for public-service workers. Using a national survey of 3,754 civil servants at the Swiss municipal level, Giauque et al. (2012, p. 177) defines "resigned satisfaction" as an attitude of workers sensing discrepancies

between work and personal aspirations and responding by decreasing work efforts.

The research study finds that the psychological state of resigned satisfaction is a better description than the neutral state described in the Two-Factor theory when motivators are lacking for job satisfaction.

The psychological state of resigned satisfaction can also occur for public-service workers when public institutions fail to provide meaningful tasks and clear goals to support public missions. A lack of clarity represents the failure of job designs to use the correct and effective determinants of job satisfaction, too.

Implications of Publicness (including PSM)

For greater efficiency in public institutions, proponents of New Public Management (NPM) advocate the technical-rational management approach in use with many private businesses. Schacter (2007) calls efficiency initiatives naive that promote private management practices, especially those associated with NPM, and offers that public institutions should embrace the natural political underpinnings of efficiency.

Explaining how politics can help achieve efficiency in public service, Schacter (2007) uses an example of a public transit system. Fare collections will never pay for the capital costs or even the maintenance of any public transit system; however, advocates of NPM initiatives view ticket revenues as tangible evidence of inefficiency. When comparing ticket revenues to the tangible costs of a public transit system, NPM advocates view inefficiency as high tangible costs exceeding ticket revenues.

However, the intangible benefits of public transit systems include indirect values (Schachter 2007). The indirect value of the train stops of a public transit system can offer economic development. Train stops by a public transit system can revitalize communities by attracting new businesses, stimulating local hiring, and increasing the values of residential properties as indirect values.

Building large public projects like public transit systems can produce many intangible opportunities. Using a holistic approach for measuring the efficiency of public projects counters the approach of only using tangible costs for determination of efficiency. Efficiency is public participation in projects working with politicians and public administrators

as the natural political underpinnings of democracy addressing the social needs of society (Schachter 2007).

The holistic approach is not perfect and a challenge for public administrators is to maintain the appearance of neutrality. Box (2015) states neutrality or impartiality requires public-service workers to avoid showing preferences to particular groups or elected leaders. When working on projects with the public, public-service workers can use their technical expertise as answers to project neutrality as appearing to act with fairness or without bias toward particular groups or individuals when providing solutions for the problems of projects (2015, 68-70).

Public service also requires accountability, which is a work difference between public-service workers and private workers. In public service, accountability requires that public institutions and workforces must willingly justify and explain actions to the public.

Except for adherence to the thirteenth amendment of the U.S. Constitution, private workers owe no accountability to society. Private companies can provide services, or not, to the public. Public-service workers, however, lack choices. Personal constraints play no role when providing public services. Federal employees take an employment oath to support and defend the

Constitution. The swearing of an employment oath by federal employees is an intrinsic motive to go beyond personal value orientations and always be loyal in considering the common good first. In public service, loyalty is not personal, but calls for public-service workers to always act for the common good (Steen Trui and Rutgers 2009, Rutgers 2010).

Instead of loyalty, a research study by Crewson (1997, p. 505) finds that 90 percent of private workers report job security and promotions as important, while only 70 percent to 75 percent of public-service workers share similar opinions. Earning higher income is the most important extrinsic motive for private workers in comparison to public-service workers concentrating on the goals of intrinsic motives and wanting learning opportunities (Frank and Lewis 2004, Houston 2000).

To assess extrinsic reward motive differences between public-service workers and private workers, Crewson (1997) used several surveys addressing the importance of work-related rewards. The statements were from the 1989 survey version of GSS and the 1994 Institute for Electrical and Electronic Engineers (IEEE) survey. Crewson (1997) reported that public-service workers enjoyed performing work helpful to society and to others as important job characteristics and rated such tasks far higher than do private workers.

The findings by Crewson (1997) demonstrate the existence of the public service ethic in public-service workers. Attraction for employment in public service fosters work behaviors supporting the public interest (Brewer, Selden, and Facer II 2000). Powerful compulsions to protect and service society can attract individuals to seek employment in public service (Wright 2007).

Perry and Wise (1990b) and Perry (1996a) define the public service ethic as public service motivation (PSM). Perry and Wise (1990a) define PSM as "an individual's predisposition to respond to motives grounded primarily or uniquely in public institutions. The term motive means the psychological deficiencies or the needs that an individual feels as compulsions to eliminate and can only be relieved by employment in public service.

Vandenabeele (2007) claims that the many PSM definitions in research studies lack commonality. In response, Vandenabeele (2007) offers an overarching definition of PSM that uses value laden behavioral determinants such as ethics and roles. The proposed PSM definition also addresses self-interest and organizational interest and refers to nations or states. Vandenabeele (2007) defines "PSM as the belief, values, and attitudes that go beyond self-interest and organizational

interest, that concern the interest of a larger political entity and that motivate individuals to act accordingly whenever appropriate" (Vandenabeele, p. 547).

Perry and Hondeghem (2008) find that PSM is an individual's orientation to deliver services with a purpose to do good for society." Prior research studies, however, support that contributing to society is not exclusive to employment in public service. Private workers can provide services for the public, too. In a study of 3,364 Danish workers, Andersen and Kjeldsen (2013) find that private jobs can contribute to society. The research findings by Westover and Taylor (2010) and Leisink and Steijn (2008) state desires to serve the common good is not an automatic response to only work in public service.

Even with private workers providing social services, a historical belief exists that employment in public service is unique. The assumption is that PSM drives individuals to seek employment in public service because of the want for intrinsic motives and opportunities to provide meaningful services to the public.

The historical assumption for selecting employment in public service claims Wright and Pandey (2008) is for individuals with positive work habits to find satisfaction in providing services to the public. Taylor (2007) suggests that

individuals perceiving work that serves the public interest are largely satisfied and have motives to perform.

The goal by Perry (1996b) was to replace the historical assumptions of employment in public service being unique with a PSM model that generated scientific facts. The PSM model has served to facilitate research on whether measurable differences of motives existed between employment in public service and nonpublic employment. To examine the possible differences, the PSM model consisted of three motives: rational, norm-based, and affective.

Perry (1996a) explains that rational motives are an individual's drive to achieve utility maximization. This is closely related to self-interest motives. The norm-based motives are the actions by an individual to conform to the norms of society and the affective motives refer to trigging personal behaviors grounded in emotional responses to various social issues.

From the motives, Perry (1996a) has developed measurable dimensions to study the strength and levels of an individual's PSM. The four dimensions are attraction to public policy making, commitment to the public interest, social justice, and self-sacrifice. The PSM model with four dimensions consists of twenty-four statements.

Using the survey results from 359 public employees of a local government, Bright (2009) has studied the relationship between PSM and the intrinsic nonmonetary preferences of public-service workers. His findings confirm "the existence of an important relationship between intrinsic preferences and PSM" (p. 39). As a result, he determines that "PSM is a significant predictor of motives by public-service workers for personal recognition, task meaningfulness, and professional growth" (p. 39).

PSM does not automatically create congruence between workers and public institutions (Crewson 1997). However, PSM increases the likelihood of congruence between public-service workers and public institutions (Bright 2007, Wright and Pandey 2008, Bright 2009). The fit, however, depends on if the perceived personal values of the workers are congruent with their public institutions employers (Wright and Pandey 2008).

Additionally, PSM provides perseverance to public-service workers in public institutions even when congruence is missing. Perseverance, however, can negatively affect job satisfaction, too. Wright and Pandey (2008) observe that the mediation between PSM and job satisfaction is the extent to which public-service workers perceive their values are congruent with the values of their employers. Latham (2009) adds, "Job satisfaction is not a

result of the person alone or the job alone, but of the person in relation to the job."

PSM affects public-service workers by focusing their attentions on the importance of providing services to others instead of concentrating on possible valueless workplaces in public institutions. PSM has dual effects on congruence, encouraging it when present or dampening the negative effects when congruence is missing.

Taylor and Westover (2011) call PSM a special pair of glasses for public-service workers to view and interpret their work. The significance of a PSM vision increases with workplaces that have positive attributes and effective job designs.

The JCM can accent congruence to create public-service workplaces that nurture PSM. Well-designed specific job characteristics, along with PSM, increase job satisfaction in public service (Houston 2000, Wright and Davis 2003, Scott and Pandey 2005, Bright 2008). Support of PSM by public institutions meets the wants and expectations of job satisfaction for public-service workers.

The first major research study between PSM and job satisfaction was by Brewer and Selden (1998). Using the U.S. Merit Systems Protection Board, the study sampled 20,851 full-time executive branch employees from the 1992 Merit Systems

Survey to analyze the job satisfaction of whistle blowers in federal civil service. The study documented a broad pattern of associations between PSM, whistle blowing, and other job characteristics including job commitment, job satisfaction and organizational performance (Brewer and Selden 1998, Hafiz et al. 2014).

Another research study on the relationship between PSM and job satisfaction is by Naff and Crum (1999). By using responses from 10,000 federal employees in the MSPB's 1996 Merit Principles Survey, Naff and Crum (1999) validate the significant relationship of PSM with job satisfaction in public service. Prior studies also support that PSM supports job satisfaction in public service (Scott and Pandey 2005, Bright 2008, Westover and Taylor 2010, Taylor and Westover 2011, Andersen and Kjeldsen 2013).

Perry (1997b) cites that religiosity has a positive effect on PSM and directly affects several dimensions of PSM, including the commitment to the public interest, civic duty, and compassion. Individuals who espouse a communal worldview generally have a belief in the existence of a superior transcendent being and exhibit strong PSM characteristics.

Emphasizing communal values, Freeman and Houston (2010) suggest that religiosity cultivates PSM while balancing out the

atomistic and egoistic characteristics of current society. The
properties of religiosity can contrast with self-interest
motives. "Major religions offer a communal orientation by
promoting collective social responsibility, justice, altruism,
and service to others" (Freeman and Houston 2010, 700). Church
activities provide opportunities to meet those in need and learn
new skills by civic engagements, too (Perry 1997b, Freeman and
Houston 2010).

PSM and religiosity can stimulate self-transcendent values
and beliefs in the existence of a God or a superior transcendent
being, reducing materialist and egoistic financial reward needs.

Religiosity and Spirituality as Influences on Job Satisfaction

The popularity of spirituality has stimulated research on
its presence in workplaces. Searching on Goggle scholar for
articles on workplace spirituality results in retrieving three
million articles. Changing the search terms to workplace
spirituality and job satisfaction narrows the results to 54,000
articles. Smaller article results are for the terms of
spirituality, job satisfaction and public-service workplace. As
an example, on Goggle scholar, *Religion, Spirituality, and the*

Workplace: Challenges for Public Administration by King (2007b) is cited by fifty-three sources and related articles number 101.

Despite a lack of formal research, PSM, spirituality and religiosity appear to share unique extrinsic and intrinsic motives in public service. The properties of PSM, spirituality and religiosity significantly contribute to the prediction of job satisfaction in public service.

Definitions

The storied informal definition for the difference between religious and spiritual individuals is that religious people are afraid of hell and spiritual individuals have been through hell.

The formal definition of religion has been the subject of many research studies. The scientific approach consists of substantive and functional definitions for religion. The substantive approach uses the identification of the types of beliefs individuals hold for religions.

As a counter to the substantive approach, sociologist Milton Yinger (1970) uses a functional approach for examining religions. Yinger suggests instead of studying the religious beliefs of an individual, the nature of why an individual

believes in a particular religion is of greater importance (1970).

The functional approach studies the nature of religions for understanding the purpose of life and the meaning of suffering, evil, and injustice. Yinger (1970) states that the studies are from the perspective of what gives meaning to life and belief systems that fail to address the meaning of life are not true religions.

Yinger (1970, p. 33) views religion as, "Where one finds awareness of and interest in the…permanent problems of human existence and is not the struggling with specific problems in life. The ultimate victory in religions is the successful creation of shared rites and beliefs relevant to awareness. Religions exist when groups organize to teach and maintain the rites and beliefs that heighten the awareness of the permanent problems of the human condition.

Sociologists define religiosity as an affiliation with unique congregations, religious attendance, and specific religious beliefs (Hill and Hood 1999). Yinger (1970, p. 10) agrees that religions only exist within the interactions of groups. He calls religions a social phenomenon shared with the significant aspects of a group. Yinger (1970) also suggests

almost a universal belief in the existence of a God, but the intensity of beliefs varies among each person.

Typically, research has studied the religiosity and spirituality of individuals. Prior research studies collected empirical data from survey statements to measure religiosity. This included the properties of identifying a person's strength of religious affiliation, numerical attendance at religious services, and the perception of being a religious person. The responses usually formed a religiosity dimension in research studies. The present research study used a religiosity dimension as a single factor score in multiple regression.

In the current research, the religiosity dimension and spirituality are separate single variables. Bruce (2000) confirms the validity of separating religiosity and spirituality because spirituality exists but remains separate from religiosity opinions.

Agreeing, Garcia-Zamor (2003b) supports the existence of differences between religiosity and spirituality stating that the belief systems for spirituality and religiosity are not identical and may or may not coexist.

In defining spirituality, Bruce (2000, 461) compares spirituality to the "feeling of love or parenting that are tough to fathom until one has experienced them and once experienced,

no explanation is needed." Bruce (2000, p. 464-465) further defines spirituality as an "experientially based belief in a transcendent dimension to life, which inspires a personal search for meaning and values, a sense of vocation, awe and wonder, and altruism and a commitment to bettering the world."

Garcia-Zamor (2003b) acknowledges the vital role of spirituality to provide an understanding for the importance of interconnectedness of life by serving humanity and the planet. A popular definition today is that spiritually refers to a person's religious experiences and personal journeys. For most definitions, spirituality consists of strong beliefs in the existence of a God with also a deep connection with others in society.

Kolodinsky, Giacalone, and Jurkiewicz (2007) cite three formal concepts of workplace spirituality. In spirituality, a person brings his or her own spiritual ideals and values into a workplace. The second concept of workplace spirituality is organizational spirituality that reflects a person's perception of spiritual values held within an organization. The third concept of workplace spirituality includes the interactions between personal spiritual values and organizational spiritual values.

Managing with Awareness of Religiosity and Spirituality

Many times the definition of spirituality is personal and elusive in uniformity. The lack of a specific, clear definition of spirituality is a potential reason for limiting discussions in public institutions.

Bruce (2000) says that spirituality often exists within religious traditions; however, spirituality is not a religion and that is an important distinction for those who work in government entities. After surveying 391 members of the American Society for Public Administration (ASPA), Bruce (2000) reports that 56 percent of the ASPA respondents believe that it is not appropriate to talk about spirituality in public administration, and 66 percent believe it is not appropriate to discuss either spiritual experiences or religious beliefs at work. However, 54 percent of the ASPA respondents with a spiritual orientation find it appropriate to discuss spirituality in public administration. Yet, spirituality and religious discussions in public administration invoke personal fears of public-service workers proselytizing at work.

In the ASPA survey, 74 percent of the respondents fear that others will force contradictory religious or spiritual beliefs upon them. However, 84 percent of those same respondents

disagree with trying to convince others that personal beliefs are the only right beliefs.

Even without discussions or formal acknowledgements, religiosity and spirituality appear to have significance for the prediction of job satisfaction in public institutions; however, a lack of analysis exists for the reasons religiosity and spirituality predict job satisfaction in public service (Cunningham 2005, Lowery 2005, King 2007b, Houston and Cartwright 2007b, Freeman and Houston 2010).

Houston, Freeman, and Feldman (2008) offer several reasons to study religion in public administration including that professional administrators are missing participating in the current debate of religious rhetoric in the political arena. Another reason is the new advocacy of faith-based initiatives to deliver public services.

Expanding on the advocacy of faith-based initiatives, Freeman and Houston (2010) cite the increasing role of governmental outsourcing to faith-based organizations. Under the generic name "Charitable Choice," several federal laws allow government funding to provide choices among charities offering social services. Because of the possible prominence of religions delivering services, Freeman and Houston (2010, p. 695-697) argue that religious actions relate to the effectiveness of

public service and such outsourcing demands an examination of the "religions attitudes of public administrators."

Freeman and Houston (2010) also voice a concern about the growing religious heterogeneity of the U.S. population. The heterogeneity can affect a representative bureaucracy with individuals' religions serving as an important characteristic change in bureaucracies and influence the internal operations of public institutions. Implicit in the reasoning is that the properties of religiosity and spirituality effect public-service workforces (2010).

Freeman and Houston (2010) add that other characteristics are also delaying research on religiosity and spirituality in public service. The reasons for delay include the acceptance of the secularization theories by academics, the epistemology adopted early on by the scholars of public administration study, and the influence of the Progressive Era in the development of public administration in the U.S.

Historically, U.S. Constitutional issues are the usual reason given for halting studies on religiosity and spirituality in public administration. The excessive attention to church and state separation is a major concern for many public agencies (Bruce 2000, King 2007b, Maritam 2009). As noted earlier in the research study, the lack of a universal spirituality definition

causes concerns of violation of the U.S. Constitution and generally halts any examinations of spirituality or religiosity in public service.

Houston, Freeman, and Feldman (2008) disagree that the U.S. Constitution hinders religious and spirituality studies in public service. Instead, they blame the dominance of instrumental rationality and the rational choice explanations of bureaucratic behavior as the reasons for the secular nature of public administration (2008, p. 428).

The research study agrees that the influence of the U.S. Constitution is great with genuine, natural concerns for any appearances, latent or not, of national sponsored religions. Yet, the U.S. Constitution is not the sole reason for the lack of research on religiosity and spirituality in public service. As noted by Houston, Freeman, and Feldman (2008), the research study supports that a deterrence is the embodiment of the dominance of instrumental rationality, and rational choice for bureaucratic behavior by the technical-rational management approach.

For the lack of research addressing religiosity and spirituality, Houston, Freeman, and Feldman (2008) blame the secular nature on the efforts by public administration to seek legitimacy through increased professionalization. Other reasons

they cite for the delay include the prominence of scientific inquiry to both the study and the practice of public administration with a need to establish a "value-free" profession.

Bozeman and Murdock (2007, 13) cite the importance of having public values to provide a normative consensus about the rights, benefits, and prerogatives which citizens are entitled or not, the obligations of citizens to society, the state, one another, and the principles of on which government and policies should be based.

Commenting on the duality of a value-free government, Gawthrop (1998, p. 5) calls the tenets of frugality, loyalty, obedience, subservience, impersonality, and certitude value-loaded concepts. Gawthrop (1998) describes the tenets as acting as a veil of hypocrisy for the conflicts between the artificiality of the dichotomy between politics and public administration. He adds that the scientific management approach is destroying public administration with its rational objectivity and creation of a detached impersonality and political neutrality and leaves public institutions with "no tolerance for the ethical moral values and the virtues associated with the common good" (1998, p. 5).

Since the 1980s, NPM has affected the perception of motivation in public service (Vandenabeele 2007). The proponents of NPM support the technical-rational management approach with its use of rational solutions for the efficiency of public institutions. The rational approach influences public management to motivate public-service workers through extrinsic incentive systems that mirror the management practices of private businesses (Steen Trui and Rutgers 2009).

Unlike extrinsic motives, the intrinsic motives of democracy require a conscious awareness of ethical impulses, transcendent values, and moral vision (Gawthrop 1998). Under the authority of God or a supreme transcendent being, the swearing of the oath of employment for federal employees can awaken the intrinsic motives of ethical impulses and self-transcendence values.

Many prior research studies examining the want of religiosity and spirituality by individuals have found that transcendent beliefs are important in public service (Bruce 2000, Lowery 2005, Houston and Cartwright 2007a, King 2007a, Houston, Freeman, and Feldman 2008).

Many public-service workers consider working in public service as part of their spiritual journey. After surveying 391 ASPA members, Bruce (2000) reports that 45 percent of the

respondents associate spirituality with work, and 48 percent of them support that their work is part of a spiritual pathway.

Bruce (2000) research findings suggest that spirituality has positive values that integrate with the lives of many individuals. Public-service workers are more likely to "strongly agree" with "trying to carry [their] religious beliefs over into all [their] other dealings in life" (Houston, Freeman, and Feldman 2008).

Religiosity or spirituality can also provide an emotional balance for public-service workers, enabling them to make key decisions to support the common good and mostly avoid self-interest motives. Religiosity and spirituality consist of ethical-moral imperatives that public-service workers can use as guides for analysis in making difficult, discretionary decisions in public service (Bruce 2000).

Using a sample population of three public-service workers, Lowery (2005) claims his self-reflexivity research study goes beyond the simplistic portrayal of working in public administration as reflected in Kaufman's book, *The Forest Ranger*: *A Study in Administrative Behavior*. After conducting in-depth interviews, Lowery finds a deep and rich connection between personal belief systems and employment in public service. The research findings of two public administrators

include their claims of drawing explicitly on religious and spiritual values in conducting daily work.

An integration of public service with religiosity and spirituality is a common result of many prior research studies. Religiosity and spirituality integration include the personification of their properties in public-service workers. The presence of religiosity or spirituality appears to be a natural occurrence for public-service workers. In public service exists a deep sense of duty to ensure the well-being of others and local communities. Prior research studies indicate that the embodiment of religiosity and spirituality is inherent in many occupations of public service. Religious institutions help all individuals develop and enact personal beliefs. An eagerness to serve others and to act to provide services to support the common good represent the strong properties of religiosity and spirituality that flourish as intrinsic motives in public service.

The research findings by Kolodinsky, Giacalone, and Jurkiewicz (2007) suggest that workers want workplaces to exude the perception of spiritual values and that is even true for those workers without feelings of spirituality. Religiosity and spirituality are important for managing any business. Results from prior research commonly show that managers who develop and

maintain workplaces characterized by the values of religiosity and spirituality enjoy the favorable attitudes of workers, especially in public service.

Implications of Publicness

Religiosity and spirituality emphasize a communal orientation by promoting collective social responsibility, justice, altruism, and service to others. Religiosity and spirituality promote self-transcendence, which encourages cooperation in workplaces and helps reduce self-interests wanting only materialist and egoistic rewards (Harris, 2003).

The survey results from the 1998 version of GSS suggest to Houston, Freeman, and Feldman (2008) that public-service workers are more likely than private workers to agree that "We trust too much in science and not enough in faith." The response indicates a strong presence of faith in public-service workplaces.

Freeman and Houston (2010) confirm that religiosity and spirituality are more important for public-service workers as compared to private workers.

Religiosity and spirituality can influence public-service workers beyond employment, too. Houston, Freeman, and Feldman (2008) find that many people regard religiosity and spirituality

as an important element in daily life; in research, compared to private workers, public-service workers more strongly express that sentiment. Additionally, many public-service workers actively participate in religious communities. The research by Freeman and Houston (2010) find that public-service workers expressing religiosity are also more likely to be actively participating in religious communities than others in the general public. The research study by Freeman and Houston (2010) includes private contractors working in industries that provide essential and other social services to communities usually associated with performances by public institutions.

Using the survey data in the 2004 version of GSS with 2,698 respondents, Freeman and Houston (2010) measure religiosity with the statement of "Which of these statements comes closest to describing your feeling about the Bible?" To measure religiosity, two responses are used. "The Bible was the actual word of God and is to be taken literally, word for word" or "The Bible was the inspired word of God but not everything in it should be taken literally, word for word."

The selection of the Bible being the actual word of God indicates the presence of religiosity. Using logistic regression models, Freeman and Houston (2010) report that the predicted probabilities of accepting the chance of inerrancy of the Bible

being the "Word of God" are .15 for public-service workers, .19 for government contractors and .11 for the general public.

For the research study by Freeman and Houston (2010), results show public-service workers are more likely to attend religious services. Using logistic regression, the predicted probabilities of attending religious services at least two to three times a month are .44 for public-service workers, .41 for government contractors, and .33 for the public.

Houston, Freeman, and Feldman (2008) use the survey data from the 1998 version of GSS with the topical module "Religion, Culture, Jobs." The module pertains to an individual's attitudes about religion. In the research study, respondent are asked, "To what extent do you consider yourself a religious person?" The responses are on a four-point scale ranging from an answer of "Not religious at all" to "Very religious." Another question concerns how secular are public-service workers. The results for the answers of "Very religious" or "Moderately religious" are 71 percent and 65 percent for public-service workers. In each of the study's six models, the government-related public service variables are statistically significant indicating that public-service workers have measurable religiosity.

Measurable religiosity represents that strong faith will assume a greater presence in workplaces using a technical-

rational management approach and asks for workers to be more rational and productive (Garcia-Zamor 2003b). For public-service workers, the strong support of the technical-rational management approach using rational choice actually stimulates the ethos for democracy in public service.

The intrinsic motives of democracy, religiosity, and spirituality contrast with the promotion of extrinsic economic self-interest motives commonly in use with the technical-rational management approach. Public-service workers seem to experience the intrinsic motives of democracy differently than private workers. The research study offers the difference is the natural existence for the spiritual belief in the existence of a God or a superior transcendent being in public service.

With ASPA members, Bruce (2000) confirms such a natural existence with 73 percent of respondents identifying as being spiritual and 84 percent of the respondents having beliefs that they have souls or spirits or some parts of them are eternal in nature. An individual's spirituality is powerful. A belief in being a spiritual person creates a substantially different worldview than other individuals not employed in public service (Bruce 2000).

Spirituality plays a major role in the lives of public-service workers. Houston and Cartwright (2007a) report that

spirituality enjoys a greater prominence in the lives of public-service workers in contrast to private workers. Using 1,322 survey respondents from the 1998 version of GSS, research by Houston, Freeman, and Feldman (2008) shows that public-service workers are 46 percent more likely to express a higher level of religiosity than private workers.

The findings from the 1998 version of GSS indicate that public-service workers experience well-being and spiritual attitudes at a higher rate than private workers do. Public-service workers also report increased interconnectedness and meaning for life far greater than those not employed within public service.

Houston and Cartwright (2007a) cite that public-service workers have spirituality with pronounced notions of self-transcendence and compassion for others. Religiosity and spirituality offer an emotional cohesion among public-service workers to accept collective responsibilities for supporting the common good. The mutual cooperation develops job satisfaction in public service.

Public-service workers develop their own intrinsic motives or personal perspectives of why committing to serving in public service is important to them. If public-service workers experience tolerance of religiosity and spirituality beliefs

from coworkers and supervisors, workplaces experience an enhancement to create a positive connectedness for job satisfaction.

Questions (General Statements from the Literature Review in Justifying Research Questions)

Impact of Religiosity and Spirituality and Job Satisfaction

The intrinsic motives of spirituality and religiosity significantly predict job satisfaction in public service. Their intrinsic motives accent the goals of accomplishments for helping others and providing for a strong belief in the existence of a God or a supreme transcendent being. The interactions of religiosity and spirituality affect public workforces as significant predictors for job satisfaction in public service.

Using a cross-sectional survey design and a sample population of 200 MBA students, the results of a research study by Milliman, Czaplewski, and Ferguson (2001) indicate that there is significance between workplace spirituality and job satisfaction. The significance findings include interactions between three dimensions of spirituality and five organizational

behavior variables. The three spirituality dimensions are a sense of community, sense of values, and meaningful work. The five variables for organizational behaviors are organizational commitment, an individual's intention to quit, job involvement, organizational-based self-esteem, and work satisfaction. The results of multiple regression are that the spirituality dimension explains 68 percent of the variance of organizational commitment, 36 percent of the variance in of an individual's intention to quit, 33 percent of the variance in the prediction of job satisfaction, 34 percent of the variance in job involvement, and 50 percent of the variance in organizational-based self-esteem (2001).

In a research study by Walker (2012) the ability to integrate faith and work is not associated with job satisfaction. Using 216 participants recruited from the StudyResponse pool hosted by the School of Information Studies at Syracuse University, Walker (2012) explains a variety of potential factors affect job satisfaction. A possibility exists that the factors of the ability to integrate faith and work are too small to override other interacting factors. The overriding factors can include the relationships between bosses and coworkers, pay, benefits, and the ability to utilize valued skills.

Walker (2012) however, cites that job satisfaction lacking an ability to integrate faith and work can have less importance or overridden if a worker dislikes a job. Walker states that the integration of faith and work can be necessary but lacks sufficient condition for job satisfaction; however, Walker adds that the use of moderating variables to study the integration of faith and work effecting job satisfaction is worth future research.

The majority of findings by prior research studies support that religiosity and spirituality significantly predict job satisfaction in public service. Prior research also support the importance of the current research study's use of moderating variables of religiosity and spirituality to study job satisfaction in public service.

Interactions of Religiosity and Spirituality

Sampling 286 employees from an industrial company in Iran, Piryaei and Zare (2013) study workplace spirituality and the positive work attitudes of job satisfaction and organizational commitment while considering the moderating role of an individual's spirituality.

The three variables for workplace spirituality are meaning in work, community at work, and positive organizational purpose. The workplace spirituality variables consist of twenty statements using a five-point Likert scale with a range from a one (strongly disagree) to a five (strongly agree). The results of the research found that workplace spirituality is positively associated with job satisfaction (Piryaei and Zare 2013).

The moderating variable for an individual's spirituality consists of sixteen statements of the Daily Spiritual Experiences scale (DSES). The meaning in the work variable and the positive organizational purpose on the job satisfaction variable are moderated by the spirituality variable of an individual (Piryaei and Zare 2013).

With the results, Piryaei and Zare (2013) conclude that the respondents that express spirituality also report job satisfaction and organizational commitment.

The research study by Lee et al. (2003) uses an interaction or moderator spirituality variable as shown in figure 7 to study satisfaction with work and life for individuals.

Figure 7 – Conceptual model of life domains

Conceptual Model

Quality of Work Life (QWL)	Satisfaction with life domains	Subject well-being

```
┌─────────────────────┐          ┌─────────────────────┐
│ Satisfaction of higher-│────────▶│  Spiritual well-being │
│    order needs         │  ╲    ╱ └─────────────────────┘ ╲
└─────────────────────┘   ╲  ╱                              ╲  ┌─────────────────────┐
                           ╲╱                                ╲▶│    Overall life      │
                           ╱╲                                ╱ │    satisfaction      │
┌─────────────────────┐   ╱  ╲                              ╱  └─────────────────────┘
│ Satisfaction of lower- │─ ─ ─ ─▶│   Job Satisfaction    │ ╱
│    order needs         │────────▶└─────────────────────┘
└─────────────────────┘
```
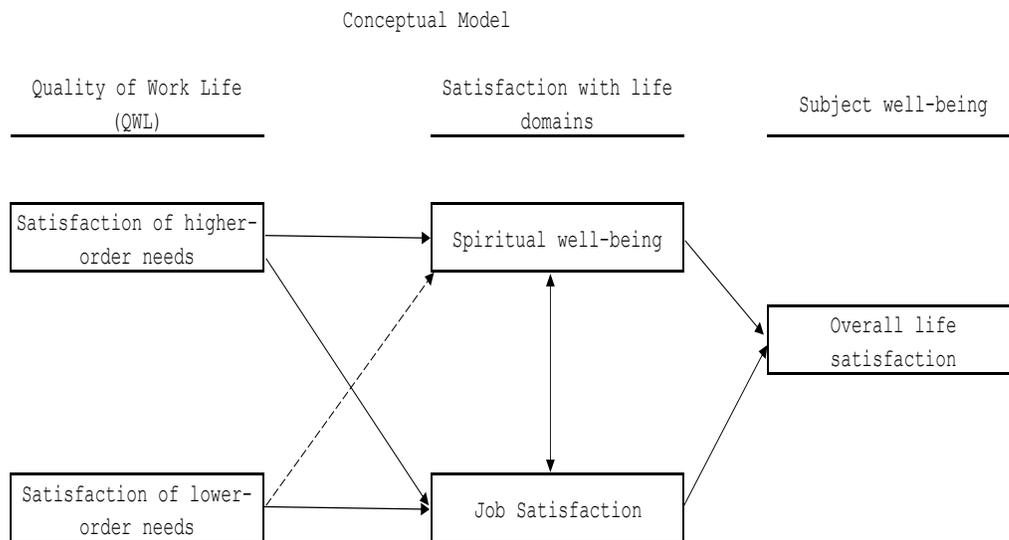
(Lee et al. 2003, 217)

Using the spillover theory, the research tests a quality-
of-life model to explain the interrelationships among the
variables of the quality of work life (QWL), spiritual well-
being, and life satisfaction domains.

After surveying approximately 556 university employees and
accounting employees, the findings by Lee et al. (2003) report
that the moderating spirituality variable effects job
satisfaction. The satisfaction of higher-order needs for

individuals contribute to the spiritual well-being of individuals.

In figure 7, the solid arrows indicate that the satisfaction of higher-order needs are compatible and share the same goals with spiritual well-being. As a moderator variable, spiritual well-being interacts with the satisfaction of higher-order needs for job satisfaction. Additionally, job satisfaction is unidirectional and effects spiritual well-being.

The research study by Lee et al. (2003) finds that the satisfaction of lower-order needs directly affect job satisfaction. The diagonal lines in Figure 7 represent that the satisfaction of lower-order needs do not interact with the spiritual well-being moderator variable for job satisfaction.

The satisfaction of lower-order needs directly affect job satisfaction. The lack of effect by the satisfaction of lower-order needs on the spiritual well-being of a person supports the current research study theory that the want for the goals of satisfaction of lower-order needs fail to be compatible with the want of goals in spiritual well-being (Lee et al. 2003, 219).

The satisfaction of lower-order needs consists of two dimensions. They are satisfaction with health and safety needs and satisfaction with economic and family needs.

Lee et al. (2003, p. 215) "believe that job satisfaction and spiritual well-being are positively related because a person's job satisfaction may cause him or her to feel more satisfied with social and other spiritual activities."

The life domain of spiritual well-being encapsulates personal satisfaction (Lee et al. 2003). The compatibility of wanting spiritual well-being and other higher-order needs supports horizontal spillover. The satisfaction in one life domain such as spiritual well-being spills over onto another life domain such as job satisfaction. The unidirectional of job satisfaction suggests its overall influence on the satisfaction of higher-order needs and spiritual wellbeing.

The findings support the research study's theory that public-workers as basic healthy humans have an almost automatic satisfaction of lower-order needs and want to seek the satisfaction of higher-order needs, which lead to wanting self-actualization and self-transcendence as part of the quest for spiritual well-being in life. The effort helps predict job satisfaction in public service.

The finding correlates with the evolution of acquiring low-order needs and higher-order needs for satisfaction with a job and life. With low-order needs, being self-sufficient creates satisfaction with a job and life. With further economic

development, self-sufficiency changes to the higher-order needs of economic self-interest. Higher incomes not leading to satisfaction in life encourages the importance of self-actualization and self-transcendence, especially in public service.

Prior research clearly supports that public-service workers with satisfaction of higher-order needs express innate wanting for self-transcendence. The majority of public-service workers have a belief in the existence of a God. A satisfaction in a job or life by seeking the higher-order needs of religiosity and spirituality significantly predict job satisfaction in public service.

LITERATURE SUMMARY

The literature review started with the Progressive Era when businesses sought higher productivity by increasing efficiency. The science of work offered, by use of the scientific management approach, an evolutionary process of satisfaction for workers.

As an evolution of job satisfaction, a technical-rational management approach seeks efficiency by making rational choices. The essence of rational choice is the concept of choosing the best option for action in a situation. As technology continues

to increase, a multitude of options makes selection of the best option difficult, especially with public policies. Multiple options creates contentious issues for public institutions both internally and externally and affects job satisfaction among public-service workforces. Another problem with the technical-rational management approach in public service is making the erroneous assumption of having chosen the best option to serve the common good.

The technical-rational management approach uses extensive extrinsic financial motives for job satisfaction and fails to use intrinsic motives. The findings of the studies at Hawthorne Works clearly show that the attitudes of informal groups of workers affect productivity and job satisfaction.

The studies at Hawthorne Works receive credit for increasing the momentum of the Human Relations Movement. A need begins to understand the attitudes of workers in informal groups toward management. The studies reject insensitive treatment of workers by management or the prospective of workers being extensions of machinery with only the concerns of their own self-interest. Instead, the studies highlight the importance of cooperation between managers and workers. Research indicates that workers are more productive in work environments that consist of trust and cooperation. In contrast, the use of

absolute authority as practiced in the technical-rational
management approach hinders productivity. Trust creates positive
attitudes and behaviors in workplaces. The Human Relations
Movement emphasizes cooperation and positive treatment of
workers, along with the presence of clear achievable goals to
increase productivity.

The Human Relations Movement consists of several behavioral
models; however, the research study uses the Hierarchy of Needs
theory by Maslow, which proposes that individuals first seek the
satisfaction of low-order needs and then move to acquiring
higher-order needs. Research demonstrates that the satisfaction
of basic physiological and safety needs lead to satisfaction of
higher-order needs, which link to spiritual well-being and self-
esteem, self-actualization and self-transcendence motives. The
findings from literature show that human behavior dictates a
need for satisfaction of life and self-fulfillment.

The research study shows, especially for public-service
workers, an increasing importance of the higher-order needs of
religiosity and spirituality as part of the evolution of job
satisfaction.

The JCM by Hackman and Oldham (1976) consists of developing
critical psychological states that lead to work outcomes such as
job satisfaction. Effective job designs can mold positive

psychological states. For public-service workers, in the JCM,
the psychological state of experienced meaningfulness of work is
important for job satisfaction. Religiosity and spirituality
significantly predict job satisfaction in public service.

The research literature on workplace spirituality is
abundant for private businesses. In comparison, research
literature on workplace spirituality in public service is
limited. However, the literature available presents evidence of
the importance of religion and spirituality for public-service
workers. The literature on the interaction of religiosity and
spirituality in public service is almost nonexistence.

A lot of literature shows that the principle of separation
of church and state blocks most discussions or research on the
role of religion or spirituality in public administration. Yet,
literature and polls clearly show that the majority of Americans
share a belief in the existence of a God. Public-service workers
mimic the U.S. population in the belief in the existence of a
God. For the past several decades, multiple national surveys
show that the majority of Americans, ranging from 66 percent to
90 percent, have a strong belief in the existence of a God
(Bozeman and Murdock 2007, Jones and Saud 2011).

Mirroring those results, the majority of public-service
workers express a strong belief in the existence of a God. As

such, the literature clearly shows religiosity and spirituality have profound effects on individuals, especially for public-service workers.

The evolution of job satisfaction in literature appears to support movement away from the primary motive of economic self-interest for job satisfaction. New research is starting to support the substantial importance of religiosity and spirituality in developing job and life satisfaction trigger a want for self-transcendence, making religiosity and spirituality significant in the prediction of job satisfaction in public service.

METHODOLOGY

Means, SD, Population and Survey Years

The research study analyzed variables with descriptive statistics. The procedures included frequency analysis to compare the means, standard deviation (SD), ranges, and included the minimum and maximum range for all of the variables in the research study.

Table 1 is the population, means of responses, and SDs for the variables in the study.

Table 1 – Mean, SD, and population of variables

Descriptive analysis			
	Mean	Std.	N
Age (40-years or older = 1)	47.40	17.146	6533
Years of service (worked 10-years or more with same employer)	7.62	8.734	2869
Work Relationship	Mean	Std.	N
Coworkers can be relied on when respondent needs help	3.37	.756	2840
Coworkers take a personal interest in respondent	3.22	.808	2818
Supervisor helpful to respondent in getting job done	3.26	.877	2761
The job security is good	3.30	.877	2839
A lot of freedom to decide how to do job	3.39	.815	2863
Respondent is likely to be praised by supervisor	3.37	.768	2807
How fair is what respondent earns on the job	2.54	.867	2797
Work Environment	Mean	Std.	N
Enough info to get the job done	3.49	.648	2864
Respondent has enough time to get the job done	3.19	.831	2859
Enough help and equip to get the job done	3.26	.817	2859
Workplace runs in smooth manner	2.94	.760	2848
Respondent proud to work for employer	3.26	.676	2832
Respondent knows what's expected on job	3.33	.635	2876
Job Growth	Mean	Std.	N
Respondent does numerous things on the job	3.29	.702	2877
Job allows respondent use of skills	3.29	.690	2876
Job requires respondent to learn new things	3.26	.789	2880
Spirituality	Mean	Std.	N
Respondent consider self a spiritual person	2.89	.937	4976
Religiosity	Mean	Std.	N
How often respondent attends religious services	4.24	2.130	4570
Respondent consider self a religious person	2.63	.963	5000
Feelings about the Bible	3.11	.777	4949
Strength of affiliation	2.92	1.067	6415

Respondent confidence in the existence of God	5.11	1.390	4989
How often does respondent pray	4.26	1.731	4994
Dependent Variable	Mean	Std.	N
JOBSAT	3.32	.746	2882
Source: IBM SPSS Statistics Version 22			

For the dependent variable of "JOBSAT," the response mean
was higher than a score of three, which indicated an average
response of "Very satisfied" score for job satisfaction. The
response mean for the variable of "Age (40-years or older = 1)"
was forty-seven years old with a SD of seventeen years. The
variable of "Years of service (worked 10-years or more for
employer = 1)" had a response mean of 7.62 years, almost eight
years, along with a SD of nine years.

The variable of "How fair is what respondent earns on the
job" had a mean of 2.54, which indicated a slight preference for
the response of "About as much you deserve." For the variable of
"Proud to work for employer," the response mean was 3.26. The
third response was "Agree."

The variable of "How often respondent attends religious
service" had a response range from "Less than once a year" to
"Every week." The mean was 4.24, which indicated an average
attendance of once a month.

The response mean for the variable of "Confidence in the
existence of God" indicated that the respondents believed but

had doubts; however, the SD had a range of greater than one,
which expanded the average belief to a response of "Sometimes"
but also included the response of "Know God exists."

For the variable of "Feelings about the Bible," the mean
indicated that the average response was "Inspired word."
However, the variable had a SD of .777, which was the smallest
SD among the religious variables and the spirituality variable.

For the variable of "How often does respondent pray" the
response range was from "Never" to "Several times a day." The
average was 4.26 for the response of "Once a week."

The variable of "Strength of affiliation" had a mean of
2.92, which indicated a "Somewhat strong" affiliation as an
average response.

For the variable of "Respondent consider self a spiritual
person," the mean of 2.89 indicated an average response of
"Moderate spiritual."

The research study considers its sample size sufficient to
conduct statistical testing. "Sample size is the most important
controllable source of statistical power and a small sample size
can increase the probability of committing a Type I error"
(Leech, Barrett, and Morgan 2008, p. 82-83).

Identified Relevant Factors

The research study used identified relevant factors of demographics. The variables included age, education, sex, race, self-identified public-service workers, and years of service with the same employer.

For the variable of "Sex (male = 1)" the population totaled 6,164 participants. The male public-service workers numbered 422 as shown in table 2. The female public-service workers totaled 757. The total population for public-service workers was 1,179. The population was 36 percent male and 64 percent female.

Table 2 – Males and females in sample population

Crosstabs					
			Private	Gov.	Total
Sex	Male	Count	2346	422	2768
		%	47.1	35.8	44.9
	Female	Count	2639	757	3396
		%	52.9	64.2	55.1
Total		Count	4985	1179	6164
		%	100	100	100
Source: IBM SPSS Statistics Version 22					

Dichotomous Variables

To isolate the influences of variables, the research study created dichotomous variables with the values of a one or a zero. By using the IBM SPSS Statistics Version 22 software, the

study transformed variables by recoding and computing new dichotomous variables.

The study recoded the variable of "Age (40-years or older = 1)." For the respondents that indicated that they were forty-years old or older, the study listed them as a one, and listed any other ages as a zero.

The population of 853 public-service workers was forty-years old or older as shown in table 3. Public-service workers that were forty-years old or older represented 72.5 percent of the total population of 1,176 for the 2006 version of GSS (2006 GSS) and the 2010 versions of GSS (2010 GSS).

Table 3 - Population of forty-years old and older

Crosstabs		Age		
		Private	Gov.	Total
	Other Count	1871	323	2194
	%	37.6	27.5	35.7
Total	40 and older Count	3101	853	3954
	%	62.4	72.5	64.3
Count		4972	1176	6148
Source: IBM SPSS Statistics Version 22				

The variable of "Education (have a college degree = 1)" listed the respondents that had graduated from college with a one. For the respondents that lacked a college degree, they were listed as a zero.

Table 4 showed that the variable of "Education (have college degree = 1)" had a total population of 6,163. Public-

sector workers that had a college degree totaled 537. For the population of 1,179 public-service workers, 45 percent earned a college degree.

Table 4 - Respondents with college degrees

Crosstabs		Education		
		Private	Gov.	Total
	No College Degree Count	3809	646	4455
	%	76.4	54.8	72.3
	Have college degree Count	1175	533	1708
	%	23.6	45.2	27.7
Total	Count	4984	1179	6163
	%	100	100	100
Source: IBM SPSS Statistics Version 22				

For the variable of "Race (white = 1)," listed as one were the respondents that selected race as white. The research study listed all of the other selected races as a zero. Table 5 showed that 882, 75 percent, of public-service workers selected white as a race.

Table 5 - Crosstabs for race (white = 1)

Crosstabs			Race		
			Private	Gov.	Total
Race	Other	Count	1262	297	1559
		%	25.3	25.2	25.3
	White	Count	3723	882	4605
		%	74.7	74.8	74.7
Total		Count	4985	1179	6164
		%	100	100	100
Source: IBM SPSS Statistics Version 22					

The study recoded the variable of "Years of service (ten-years or more for same employer = 1)." Listed as a one were the respondents that had worked ten or more years with the same

employer. The study recoded other responses as a zero. Table 6

listed 212 public-service workers with ten or more years with

the same employer.

Table 6 - Crosstabs for ten or more years at job

Crosstabs				
		Time at the job		
		Private	Gov.	Total
Other	Count	1127	252	1379
	%	65.6	54.3	63.2
10 or more years at work	Count	591	212	803
	%	34.4	45.7	36.8
Total	Count	1718	464	2182
	%	100	100	100
Source: IBM SPSS Statistics Version 22				

The research study recoded the variable of "Employer

(public-service worker = 1)." The transformation changed public-

service workers to a value of a one and all other types of

workers to a value of zero.

Primary Variables

In the research study, for the research design, the primary

variables were religiosity and spirituality. The identified

relevant factors were demographic, personal, and workplace

variables.

King, Keohane, and Verba (1994) recommend using scores from

the responses of survey statements for statistical testing to

estimate the effects and the relationships of variables on the

dependent variables. Considered separately, variables can have little overall effect on a dependent variable, allowing the possibility of outside environmental factors affecting the overall levels of measurements for a dependent variable (1994, p. 188).

The research study used survey responses for the results of the interactions of the variables. The results of linear and multiple regression determined what variables had significant p values and significantly predicted job satisfaction. For the study, multiple regression models provided results with and without moderator variables. The results were for the primary variables of religiosity, and spirituality. Other regression results included the identified relevant factors that acted as variables. The factors included the variables of age (40-years or older = 1), education (have a college degree = 1), race (white = 1), years of service (worked ten-years or more for same employer = 1), sex (male = 1), and employer (public-service worker = 1). Additionally, the research study identified job growth, work relationship, and work environment as three separate dimensions as three workplace variables.

As moderator variables, religiosity and spirituality interacted with the identified relevant demographic and personal factors, along with the three workplace variables. The

demographic variables included the variables of age (40-years or older = 1), sex (male = 1), and race (white = 1). The personal identified relevant factors were education (have a college degree = 1), employer (public-service worker = 1) and years of service (worked ten-years or more for same employer = 1). The three workplace variables were job growth, work environment, and work relationships.

Using the results of multiple regression, the research study tested the numerical scores of responses from the surveys to identify the variables with p values that significantly predicted job satisfaction.

Moderator Variables

The moderator variables in the study were religiosity and spirituality. By manipulating the two variables, it was possible to create variables with significant p values that significantly predicted job satisfaction. The interactions of the moderator variables could change the magnitude, either positive or negative, of other variables, too.

The twelve moderating variables were created by interactions. In the research study, the variables of age (40-years or older = 1), sex (male = 1), and race (white = 1),

education (have a college degree = 1), employer (public-service worker = 1) and years of service (worked ten-years or more for same employer = 1) were multiplied by the variables of religiosity and spirituality. The variables of religiosity and spirituality were multiplied by the variables of job growth, work relationship, and work environment to create new moderator variables, too.

Dependent Variable

The JOBSAT variable in the 2006 GSS and in the 2010 GSS asked if "All in all, how satisfied would you say you are with your job?" The research study recoded the responses to reverse the scoring range. After recoding, the JOBSAT variable ranged from a score of a four for the selection of "Completely satisfied" to a score of a one for the response of "Completely dissatisfied."

For the variable JOBSAT, the population totaled 2,831 including both public-service workers and private workers. In the 2006 GSS, public-service workers totaled 318 and 214 were in the 2010 GSS for a total of 532.

Table 7 showed that for job satisfaction in the 2006 GSS and in the 2010 GSS, 268 out of 532 individuals, 49 percent, of

public-service workers reported being very satisfied with their

jobs and that increased in the 2010 GSS to 53 percent.

Table 7 – Job satisfaction of workers

Crosstabs					
GSS Year			Private	Gov.	Total
2006	JOBSAT how satisfied would you say you are with your job	1 Not at all satisfied	Count	44	10	54
			%	3.2	3.1	3.2
		2 Not too satisfied	Count	100	10	110
			%	7.3	3.1	6.5
		3 Somewhat satisfied	Count	619	143	762
			%	45.1	45	45
		4 Very satisfied	Count	611	155	766
			%	**44.5**	**48.7**	45.3
	Total		Count	1374	318	1692
			%	100	100	100
2010	JOBSAT how satisfied would you say you are with your job	1 Not at all satisfied	Count	37	3	40
			%	4	1.4	3.5
		2 Not too satisfied	Count	77	17	94
			%	8.3	7.9	8.3
		3 Somewhat satisfied	Count	416	81	497
			%	45	37.9	43.6
		4 Very satisfied	Count	395	113	508
			%	**42.7**	**52.8**	44.6
	Total		Count	925	214	1139
			%	100	100	100
Total	JOBSAT how satisfied would you say you are with your job	1 Not at all satisfied	Count	81	13	94
			%	3.5	2.4	3.3
		2 Not too satisfied	Count	177	27	204
			%	7.7	5.1	7.2
		3 Somewhat satisfied	Count	1035	224	1259
			%	45	42.1	44.5
		4 Very satisfied	Count	1006	268	1274
			%	43.8	50.4	45
	Total		Count	2299	532	2831
			%	100	100	100
	Source: IBM SPSS Statistics Version 22					

Cronbach's Alpha

Cronbach's Alpha tests the reliability of groups of variables that represent the dimensions of specific constructs. As the intercorrelations among the set of variables increases the scores for Cronbach's Alpha increase, too. The correlations provide an estimate for the internal reliability of variables in the study, and represented the constructs of religiosity, job growth, work relationships, and work environment. Cronbach's Alpha evaluates the level of reliability among a set of variables to indicate that they are measuring specific constructs (Burns and Burns 2008).

In the research study, the dimension of religiosity consisted of six variables. In table 8, the results showed Cronbach's Alpha for religiosity was .755, which indicated acceptable internal reliability.

Table 8 - Cronbach's Alpha for religiosity variables

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.755	.804	6
Source: IBM SPSS Statistics Version 22		

For the workplace constructs, the three dimensions consisted of sixteen variables. The dimensions were six

statements for work relationship, six statements for work environment, and three statements for job growth.

Table 9 reported Cronbach's Alpha for the sixteen variables. Cronbach's Alpha was .831 and indicated acceptable internal reliability for the variables that represented the workplace construct.

Table 9 – Cronbach's Alpha for workplace variables

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.831	.834	16
Source: IBM SPSS Statistics Version 22		

RESULTS AND FINDINGS

Crosstabs

The research study uses the procedures of crosstabs from the IBM SPSS statistics version 22 software. Crosstabs measure the association among the variables as two-way and multilevel tables.

Appendix I contains the crosstabs tables for the variables in the research study. The tables provide the sample sizes for the GSS survey years along with the responses from public-service workers and private workers.

For the variable of "How often respondent attends religious services," a significant difference existed between public-service workers and private workers for those that attended religious service weekly. In the 2006 GSS and 2010 GSS, the weekly response remained unchanged at 33 percent for public-service workers. Private workers had a significant lower percentage of 25 percent for the response of "Weekly attendance."

For the variable of "Feelings about the Bible," responses were 30 percent in the 2006 GSS and increased to 36 percent in the 2010 GSS for public-service workers believing that the Bible was the "Word of God." For private workers, in the 2006 GSS, 35 percent believed that the Bible was the "Word of God," but the responses decreased to 32 percent in the 2010 GSS. For the response of believing that the Bible was the "Word of God," private workers had a higher percentage in the 2006 GSS but public-service workers in the 2010 GSS responded with a higher percentage than private workers for the response of "Word of God."

For the variable of "Confidence in the existence of God," 62 percent of public-service workers responded with "Know God exists" in the 2006 GSS and that response increased to 64 percent in the 2010 GSS. In the 2010 GSS, there was a

significant difference of 7 percent in the response of "Know God exists" between private workers at 57 percent and public-service workers with 66 percent.

For the variable of "How often does respondent pray," 30 percent of private workers prayed "Several times a day" in the 2006 GSS. For public-service workers those that prayed "Several times a day" were slightly higher at 35 percent in the 2006 GSS, and then dropped to 32 percent in the 2010 GSS.

For the variable of "Respondent consider self a religious person," 21 percent of public-service workers responded with being "Very religious" in the 2006 GSS. The response dropped slightly to 20 percent in the 2010 GSS; however, for both the survey years, the response percentages of being "Very religious" were higher for public-service workers as compared to private workers. The response of "Very religious" was 19 percent in the 2006 GSS and 16 percent in the 2010 GSS for private workers.

For the variable of "Respondent consider self a spiritual person," 30 percent of private workers and public-service workers responded with "Very spiritual" in the 2006 GSS and the 2010 GSS.

For the variable of "Strength of affiliation," public-service workers with "Strong" affiliation increased to 46 percent in the 2010 GSS and was 42 percent in the 2006 GSS. The

"Strong" response by public-service workers was 7 percent higher than the "Strong" response from private workers in the 2006 GSS. In the 2010 GSS, the "Strong" response difference for public-service workers was 10 percent higher than private workers. For the response of "Strong," private workers ranged from 34 percent to 35 percent for the survey years.

The workplace construct consisted of sixteen variables in three dimensions: work relationship, work environment, and job growth. The work relationship dimension consisted of seven variables.

Private workers dropped 5 percent in the 2006 GSS and the 2010 GSS for a "Very true" response to the variable of "Coworkers can be relied on when respondent needs help." In the 2006 GSS, the "Very true" response by private workers was 55 percent and 50 percent in the 2010 GSS. For the "Very true" response, public-service workers had a similar percentage to private workers in the 2010 GSS. In the 2006 GSS, 53 percent of public-service workers responded with "Very true." However, in the 2010 GSS, half of public-service workers responded with "Very true" and that was the same percentage by private workers for that response.

For the variable of "Coworkers take a personal interest in respondent," in the 2006 GSS, 43 percent of private workers

responded with "Very true" as compared to 37 percent for public-service workers, a 5 percent difference. In the 2010 GSS, the "Very true" response increased by 6 percent to 42 percent for public-service workers. Private workers dropped to 40 percent for the "Very true" response in the 2010 GSS.

For the variable of "Supervisor helpful to respondent in getting job done," 45 percent of public-service workers responded with "Very true" in the 2006 GSS. That response increased to 50 percent in the 2010 GSS for public-service workers while 47 percent private workers responded with "Very true."

A variable in the work relationship dimension asked respondents if "Job security is good." There was a significant difference in the responses between public-service workers and private workers. In the 2006 GSS, 61 percent of public-service workers responded with "Very true" and 52 percent of private workers responded with "Very true" representing a 9 percent difference. In the 2010 GSS, the "Very true" response for private workers dropped to 46 percent, a 6 percent difference. Public-service workers dipped to 58 percent in the 2010 GSS, a 3 percent drop, but the difference between public-service workers and private workers for the response of "Very true" was 12 percent.

For the variable of "Respondent is likely to be praised by supervisor," in the dimension of work relationship, 52 percent of public-service workers responded with "Strongly agree." For private workers, 56 percent responded with "Strongly agree" in the 2006 GSS but that dropped to 54 percent in the 2010 GSS.

For the variable of "How fair is what respondent earns on the job," in the work relationship dimension, the largest response from respondents was response "About as much as you deserve." In the 2006 GSS, half of private workers responded with "About as much as you deserve." Less than half of public-service workers, 47 percent, gave the same response in the 2006 GSS. In the 2010 GSS, more than half, 51 percent, of public-service workers responded with "About as much as you deserve." For the same response, private workers dropped to 46 percent in the 2010 GSS.

Six variables were in the work environment dimension. In the dimension, respondents were asked if they had "Enough info to get the job done" and 52 percent of public-service workers responded with "Very true." That response increased to 56 percent in the 2010 GSS. Private workers agreed at a similar percentage between 56 percent and 57 percent in both survey years for the response of "Very true."

For the response of "Very true" for the work environment variable of "Respondent has enough time to get the job done," private workers had higher percentages for both survey years. In the 2006 GSS, 41 percent of private workers responded with "Very true" and that increased to 42 percent in the 2010 GSS. Public-service workers were 37 percent in the 2006 GSS and 39 percent in the 2010 GSS for the responses of "Very true."

Another variable in the work environment dimension asked the respondents if there was "Enough help and equipment to get the job done" and 39 percent of public-service workers responded with "Very true" in the 2006 GSS. In the 2010 GSS, the "Very true" response increased to 41 percent for public-service workers. Private workers that responded with "Very true," in the 2006 GSS, were 46 percent and that response increased to 47 percent in the 2010 GSS.

There were low percentages for both public-service workers and private workers for the response of "Very true" for the variable of "Workplace runs in smooth manner." In the 2006 GSS, 18 percent of public-service workers responded with "Very true" as compared to 22 percent for private workers. In the 2010 GSS, the "Very true" response increased to 22 percent for public-service workers, slightly higher than the responses of private workers at 21 percent.

In the 2006 GSS, 34 percent of public-service workers responded with "Strongly agree" for the variable of "Respondent proud to work for employer." For private workers, 37 percent responded with "Strongly agree" in the 2006 GSS and that dropped to 36 percent in the 2010 GSS. The "Strongly agree" response increased by 7 percent to 41 percent for public-service workers in the 2010 GSS.

In the 2006 GSS, 42 percent of public-service workers and private workers responded with "Strongly agree" for the variable of "Respondent knows what's expected on job." In the 2010 GSS, the difference between private workers and public-service workers increased to 7 percent for the "Strongly agree" response. Public-service workers were 46 percent and private workers were 39 percent for the response of "Strongly agree."

In the work environment dimension, another variable asked the respondents if they had "A lot of freedom to decide how to do job." The difference was 6 percent between private workers and public-service workers for the "Very true" response. In the 2010 GSS, 51 percent of public-service workers, as compared to 57 percent for private workers, responded with "Very true." However, private workers and public-service workers had little or no change in the 2006 GSS and the 2010 GSS for that response.

The job growth dimension consisted of three variables. In the 2010 GSS, 47 percent of public-service workers responded with "Strongly agree" for the variable of "Respondent does numerous things on the job." In the 2010 GSS, the difference between public workers and private workers increased to 11 percent for the response of "Strongly agree" with 39 percent of private workers gave the same response.

In the 2006 GSS, 43 percent of public-service workers responded with "Strongly agree" for the variable of "Job allows respondent use of skills." In the 2010 GSS, the response increased to 48 percent for public-service workers while 40 percent of private workers in both the 2006 GSS and the 2010 GSS responded with "Strongly agree."

The study's results showed a significant difference between public-service workers and private workers for the variable of "Job requires respondent to learn new things" in the job growth dimension. For public-service workers, 53 percent responded with "Strongly agree" as compared to the same response by 41 percent of private workers in the 2006 GSS. In the 2010 GSS, the "Strongly agree" response increased to 57 percent for public-service workers and 43 percent for private workers.

From the IBM SPSS statistics version 22 software, Appendix II contains the research study's results from crosstabs between

the variable of religiosity, spirituality, and job satisfaction for public-service workers and private workers.

The research study used the results from crosstabs to measure the responses between the variable of "Respondent considers self a religious person?" and the dependent variable of "Job satisfaction." In the 2006 GSS, 61 percent of public-service workers responded being "Very religious," and also gave a response of being "Very satisfied" with their jobs while 55 percent of private workers gave the same combination of responses that represented a 6 percent difference. In the 2010 GSS, the responses dropped to 57 percent for public-service workers, but private workers still had a lower percentage of 50 percent, representing a larger difference of 7 percent.

The relationship between the variable of "Respondent consider self a spiritual person," and the dependent variable of "Job satisfaction" was 56 percent for public-service workers that considered themselves "Very spiritual," and also "Very satisfied" in the 2006 GSS. In the 2010 GSS, the percentages dropped to 53 percent for the same combination of responses. In comparison, the average response for private workers was about 52 percent for "Very spiritual" and "Very satisfied."

In the 2006 GSS, 52 percent of public-service workers responded with "Very satisfied" and also responded with "Know

God exists" for the variable of "Confidence in the existence of a God. Private workers had a lower percentage of 47 percent for the same response combination. In the 2010 GSS, the difference increased to 10 percent. For "Very satisfied" and "Know God exists," 55 percent of public workers responded with that combination as compared to 45 percent of private workers.

For the variable of "Feelings about the Bible," being the "Word of God," and "Very satisfied," a response difference existed between public-service workers and private workers. In the 2006 GSS, 64 percent of public-service workers gave that combination of responses as compared to 47 percent of private workers. In the 2010 GSS, the difference decreased to 51 percent for public-service workers and 43 percent for private workers that responded with "Very satisfied" and also believed the Bible was the "Word of God."

For the variable of "How often does respondent pray" and the response of "Several times a day" in the 2006 GSS, 52 percent of public-service workers gave the responses of "Several times a day and "Very satisfied." For private workers, 52 percent prayed "Several times a day" and responded with "Very satisfied." In the 2010 GSS, 55 percent of public-service workers gave the responses of "Several times a day and "Very

satisfied." For private workers 46 percent prayed "Several times a day" and responded with "Very satisfied."

For the variable of "Strength of affiliation" there was a difference between private workers and public-service workers. In the 2006 GSS, 56 percent of public-service workers reported the combination of "Strong affiliation" and "Very satisfied." In the 2010 GSS, that response combination dropped to 46 percent. For the same two survey years, 49 percent to 50 percent of private workers expressed the same responses.

Factor Analysis

The research study uses factor analysis for the grouping of variables to create new dimensions for the constructs of spirituality, religiosity along with job growth, work relationship, and work environment. Factor analysis makes order out of chaos identifying the basic underlying factors explaining other related variables in a parsimonious way (Burns and Burns 2008, p. 440). The underlying factors for factor analysis come from the opinions of the respondents in the 2006 GSS version and 2010 GSS version.

An example of factor analysis is the construction of a plastic airplane model. An airplane model consists of many

different shaped plastic pieces. It requires an analysis to determine what plastic pieces fit together to build a model. The plastic pieces require form similarity to join together. However, the form similarity of each piece has to include covariation to build an airplane model. A plastic piece designed to build a car model lacks form similarity for an airplane model. A plastic piece may join several other pieces of a plastic model, but it will never be a part of a complete airplane model because the design of the other plastic pieces is only for building an airplane model. The plastic pieces need form similarity as covariation to construct a model airplane.

Like a plastic airplane model, the variables in the research study shared correlations. Like the joining of plastic airplane pieces, factor analysis locates correlated variables to build specific dimensions. A set of variables need similarity as covariation to build specific dimensions.

Factor analysis makes the fundamental assumption of underlying factors smaller than the observable variables exist and are responsible for the covariation of the observed variables. Factor analysis reduces a set of variables into a single factor to explain their patterns of correlations. For factor analysis, variables need to be independent, yet they must share common factors but not overlap with each other.

Factor analysis emphasizes building constructs as the underlying structures of abstract ideas. In theory, a philosophical belief for the creation of constructs taken from abstract ideas can consist of variables that can be measured by empirical testing (Miller 2008). The importance of factor analysis comes from the belief that the dimensions of abstract ideas are not directly measurable; however, they can be revealed through the correlation of other variables (Julnes 2008).

By using the IBM SPSS Statistics Version 22 software, factor analysis builds the dimension for religiosity, along with the dimensions of work relationship, work environment, and job growth.

For each dimension, factor analysis develops a factor loading. The factor loadings simplify the results of multiple regressions. Defining a factor, Burns and Burns (2008, p. 440) call it a super-variable with its commonness, underlying factors, among a group of variables sharing an high intercorrelations, but low correlations with any other groups of variables.

After completing the bivariate correlation procedures by using the IBM SPSS Statistics Version 22 software, the research study uses extraction by rotation to build specific dimensions. The rotation procedure makes the patterns of factor loadings

more pronounced for the identification and simplification of dimensions. "The goal of rotations is to achieve the simplest possible factor structures" (Kim and Mueller 1978, p. 30).

Promax

The research study used either the oblique or the orthogonal rotations to define dimensions. The study used the oblique rotation except once and then used the orthogonal rotation of Varimax.

For the oblique rotation, the research study used Promax. To achieve parsimony, Promax provided factor loadings that created smaller data sets. Similar to Varimax, Promax clarified the loading factors by making clear distinctions between high and low factor loading scores (Burns and Burns 2008).

By using the method of principal components, Promax developed three separate factor loadings for the sixteen variables for the constructs of job growth, work relationship, and work environment. The work relationship dimension consisted of seven variables located in the first factor loading. The second factor loading was the work environment dimension created by five variables. The job growth dimension was the third factor loading and created by four variables.

Tables 10 and 11 represented the results of the pattern matrix and the structure matrix for Promax for the variables in the dimensions of job growth, work environment, and work relationships.

Table 10 - Pattern matrix for workplace variables

Pattern Matrix			
	Component		
	1	2	3
Coworkers take a personal interest in respondent	**.699**	-.112	.189
Coworkers can be relied on when respondent needs help	**.643**		
Respondent is likely to be praised by supervisor	**.631**		
Supervisor helpful to respondent in getting job done	**.616**	.171	
The job security is good	**.492**	.103	
How fair is what respondent earn on the job	**.486**		-.114
A lot of freedom to decide how to do job	**.315**	.166	.225
Respondent knows what's expected on job	-.416	**.799**	.263
Enough info to get the job done		**.716**	-.135
Respondent has enough time to get the job done	.199	**.626**	-.380
Workplace runs in smooth manner	.128	**.616**	.138
Enough help and equipment to get the job done	.253	**.602**	-.162
Respondent does numerous things on the job		-.105	**.774**
Job requires respondent to learn new things	.139	-.266	**.762**
Job allows respondent use of skills		.310	**.670**
Respondent proud to work for employer	.242	.324	**.411**
Source: IBM SPSS Statistics Version 22			

A structure matrix table by Promax created pronounced first and second factor loadings among the variables for the dimensions of work relationship and work environment.

Table 11 – Structure matrix for workplace variables

Structure Matrix			
	Component		
Supervisor helpful to respondent in getting job done	.703	.495	.194
Coworkers take a personal interest in respondent	.689	.310	.344
Coworkers can be relied on when respondent needs help	.682	.412	.204
Respondent is likely to be praised by supervisor	.624	.303	.235
The job security is good	.560	.378	.211
A lot of freedom to decide how to do job	.463	.394	.353
How fair is what respondent earn on the job	.412	.146	
Workplace runs in smooth manner	.492	.721	.338
Enough info to get the job done	.402	.710	
Enough help and equipment to get the job done	.530	.693	
Respondent knows what's expected on job		.649	.368
Respondent has enough time to get the job done	.431	.630	.159
Respondent proud to work for employer	.522	.563	.562
Respondent does numerous things on the job	.167	.112	.750
Job allows respondent use of skills	.271	.452	.735
Job requires respondent to learn new things	.199		.728
Source: IBM SPSS Statistics Version 22			

Because of the lack of a pronounced difference between the components of two and three, for the factor loadings of the variable of "Respondent proud to work for employer," the research study used Varimax for visualization purposes as shown in table 12. Varimax clarified the factor loadings on the second

and third components simplifying the interpretations. Table 12

showed more delineation between the loading factors.

Table 12 - Varimax

Rotated Component Matrix			
	Component		
	1	2	3
Coworkers take a personal interest in respondent	.662		.257
Supervisor helpful to respondent in getting job done	.641	.311	
Coworkers can be relied on when respondent needs help	.639	.221	.104
Respondent is likely to be praised by supervisor	.601	.111	.152
The job security is good	.509	.223	.128
How fair is what respondent earn on the job	.429		
A lot of freedom to decide how to do job	.379	.257	.284
Respondent knows what's expected on job	-.133	.681	.318
Enough info to get the job done	.249	.678	
Workplace runs in smooth manner	.322	.628	.237
Enough help and equipment to get the job done	.401	.614	
Respondent has enough time to get the job done	.329	.602	-.265
Respondent does numerous things on the job			.752
Job requires respondent to learn new things	.148	-.139	.733
Job allows respondent use of skills	.104	.344	.696
Respondent proud to work for employer	.378	.407	.480
Source: IBM SPSS Statistics Version 22			

Table 13 showed the three factors for religiosity and

spirituality when using Promax. The factor loadings in the table

showed that the spirituality variable was overwhelming the

factor loadings of the religiosity variables.

Table 13 - Pattern matrix for religiosity and spirituality

Pattern matrix			
	Component		
	1	2	3
Respondent consider self a spiritual person	**-1.028**	.109	.164
Respondent consider self a religious person	**.557**		.264
How often does respondent pray	**.526**	.310	.107
Strength of affiliation	-.106	**.947**	
How often respondent attends religious services		**.762**	
Feelings about the Bible	-.207		**.908**
Respondent confidence in the existence of God	.163	-.146	**.805**
Source: IBM SPSS Statistics Version 22			

The structure matrix results in table 14 were similar to the pattern matrix, showing that the spirituality variable was dominating factor loadings and lessening the effect of the factor loadings for the religiosity variables.

Table 14 - Structure matrix for religiosity and spirituality

Structure Matrix			
	Component		
	1	2	3
Respondent consider self a spiritual person	**-888**	-360	-294
Respondent consider self a religious person	**.745**	.644	.522
How often does respondent pray	**.740**	.525	.589
Strength of affiliation	.376	**.866**	.364
How often respondent attends religious services	.500	**.808**	.409
Feelings about the Bible	.281	.402	**.837**
Respondent confidence in the existence of God	.486	.337	**.815**
Source: IBM SPSS Statistics Version 22			

The research study used a single variable for the spirituality variable without a factor score.

The next factor analysis was for the religiosity dimension that consisted of six variables. Together, as a single variable, they represented the religiosity construct. To create a single factor loading, the research study used an unrotated solution as shown in table 15. The unrotated solution created only a single factor loading for the six variables for the religiosity dimension.

Table 15 – Unrotated solution for variables of religiosity

Component matrix	
	Component
	1
Respondent consider self a religious person	.771
How often does respondent pray	.753
How often respondent attends religious services	.714
Strength of affiliation	.675
Respondent confidence in the existence of God	.673
Feelings about the Bible	.625
Source: IBM SPSS Statistics Version 22	

Promax created a pattern matrix table and structure matrix table that showed four distinct factor loadings. The pattern matrix in table 16 showed in component one that the first factor loading in the table was pronounced for the combination of the religiosity dimension and the spirituality variable. The second factor loading in the table in component two was for the work relationship dimension. The third factor loading in the table in component three was for the work environment dimension. In

component four, the last factor loading in the table represented

the job growth dimension.

Table 16 – Pattern matrix for all variables

Pattern Matrix				
	Component			
	1	2	3	4
Respondent consider self a religious person	**.807**			
How often does respondent pray	**.782**			
Respondents confidence in the existence of God	**.707**	-.111	.140	
Strength of affiliation	**.692**			
How often respondent attends religious services	**.688**	.157	-.151	
Respondent consider self a spiritual person	**.675**	.101	-.140	.126
Feelings about the Bible	**.588**	-.187	.254	-.135
Coworkers take a personal interest in respondent		**.725**	-.163	.142
Supervisor helpful to respondent in getting job done		**.646**	.117	
Coworkers can be relied on when respondent needs help		**.643**		
Respondent is likely to be praised by supervisor		**.603**		
The job security is good		**.568**		
A lot of freedom to decide how to do job		**.435**		.227
How fair is what respondent earns on the job		**.404**		
Respondent knows what's expected on job		-.335	**.808**	.275
Enough info to get the job done		.174	**.613**	-.109
Workplace runs in smooth manner		.234	**.563**	.125
Enough help and equipment to get the job done		.307	**.558**	-.150
Respondent has enough time to get the job done		.309	**.485**	-.394
Respondent does numerous things on the job				**.759**
Job requires respondent to learn new things		.128	-.138	**.741**
Job allows respondent use of skills			.397	**.653**
Respondent proud to work for employer		.321	.316	**.382**
Source: IBM SPSS Statistics Version 22				

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Table 17 showed the structure matrix for all of the variables in the research study. The religiosity dimension and the spirituality variable loaded as a single factor in the table.

Table 17 - Structure matrix for all variables

Structure Matrix				
	Component			
	1	2	3	4
Respondent consider self a religious person	.808		.115	
How often does respondent pray	.777			
Respondents confidence in the existence of God	.717		.169	
Strength of affiliation	.685			
How often respondent attends religious services	.678	.123		
Respondent consider self a spiritual person	.670			.162
Feelings about the Bible	.602		.218	-.112
Supervisor helpful to respondent in getting job done		.699	.435	.121
Coworkers take a personal interest in respondent		.677	.220	.271
Coworkers can be relied on when respondent needs help		.661	.363	.104
Respondent is likely to be praised by supervisor		.603	.270	.213
The job security is good		.589	.323	.123
Respondent proud to work for employer	.105	.557	.527	.489
A lot of freedom to decide how to do job		.508	.298	.322
How fair is what respondent earns on the job		.363	.138	
Workplace runs in smooth manner		.538	.695	.244
Enough info to get the job done		.454	.684	
Enough help and equipment to get the job done		.549	.684	
Respondent knows what's expected on job		.120	.676	.309
Respondent has enough time to get the job done		.470	.590	-.269
Respondent does numerous things on the job		.167		.761
Job requires respondent to learn new things		.209		.748
Job allows respondent use of skills		.264	.448	.691
Source: IBM SPSS Statistics Version 22				

Creation of Factor Scores

The research study used the factor loadings from Promax to build the factor scores. Specific factor scores were the dimensions of religiosity, work relationship, work environment, and job growth. While using Promax, the two main classes of factor score computation methods available were refined and non-refined; the research study used the more sophisticated and technical method of refined (DiStefano, Zhu, and Mindrila 2009).

A factor score is a composite of several variables and it is a linear combination of observed variables. It is the result of sharing correlations between the observations to produce a refined method of standardized information. The data for a factor score is based on a specific survey response from an individual (DiStefano, Zhu, and Mindrila 2009). The factor scores differ between each dimension and provide smaller variables for regression analysis (DiStefano, Zhu, and Mindrila 2009).

Factor scores are similar to the mathematical concept of Z scores. The mean of a factor score is zero and the SD is always one. A factor score with a negative value indicates that the value is below the mean.

The research study used Promax to create the factor scores. Table 18 showed the results for the means, SD, and ranges for the factor scores representing the dimensions in the study.

Table 18 – Means, SDs, and ranges for factor scores

		Work relationship	Work environment	Work job growth	Religiosity
Factor scores for four dimensions					
N	Valid	2637	2637	2637	3354
	Missing	3917	3917	3917	3200
Mean		.00	.00	.00	.00
SD		1.00	1.00	1.00	1.00
Minimum		−4.22	−4.78	−4.31	−3.44
Maximum		2.04	2.01	2.45	1.48
Source: IBM SPSS Statistics Version 22					

Table 19 and Table 20 showed the results of Promax by using the factor scores for the dimensions of religiosity, work relationship, work environment, and job growth, along with the spirituality variable.

Table 19 - Pattern matrix for spirituality variable

Pattern matrix					
	Component				
	1	2	3	4	5
Factor score for work relationship	.000	.000	**.997**	.000	.006
Factor score for work environment	.000	.000	.006	.000	**.997**
Factor score for job growth	**1.000**	.000	.000	.000	.000
Factor score for religiosity	.000	**.996**	.000	.007	.000
Respondent consider self a spiritual person	.000	.007	.000	**.996**	.000
Source: IBM SPSS Statistics Version 22					

The pattern matrix table and structure matrix table showed that the factor score for the religiosity dimension was separate from the spirituality variable when using Promax.

Table 20 - Structure matrix for spirituality variable

Structure Matrix					
	Component				
	1	2	3	4	5
Factor score for work relationship	.240	.035	**1.000**	.066	.524
Factor score for work environment	.261	.112	.524	.060	**1.000**
Factor score for job growth	**1.000**	.041	.239	.126	.260
Factor score for religiosity	.042	**1.000**	.035	.533	.112
Respondent consider self a spiritual person	.126	.533	.066	**1.000**	.061
Source: IBM SPSS Statistics Version 22					

For both the pattern matrix table and the structure matrix table, the factor scores occupied the same component positions and had similar factor loading values. The factor score for the job growth dimension was located in component one for both tables and held a value of 1.000. The factor score for the religiosity dimension was located in component two. In the pattern matrix table its value was .996 while in table 26, for the structure matrix table, the value was 1.000. The factor score for the work relationship dimension was located in component three. The value was .997 in the pattern matrix table and 1.000 in the structure matrix table. The factor score for the work environment dimension was located in component five for

the pattern matrix table and the structure matrix table. The value was .997 in the pattern matrix table and 1.000 in the structure matrix table.

The spirituality variable, "Respondent consider self a spiritual person" occupied component four and its pattern matrix value was .996 and its value was 1.000 in the structure matrix table.

Multiple Regression

A linear regression is performed to determine the best linear line that approximates the relationships between variables (Schroeder, Sjquist, and Stephan 1986). The failure of the observation variables to form a perfect linear line leaves distances between the estimated linear line and the actual data points of the observation variables. Commonly, linear regression requires choosing the line that minimizes the errors known as the sum of the squared errors, SSE, or the least squares regression analysis or the solution (Schroeder, Sjquist, and Stephan 1986, Burns and Burns 2008).

With one variable, the linear regression equation is $Y = b_o + b_1X$. For the formula, $Y = b_o$ (constant) + [b_1(slope) x and X

(known score on the independent variable)] (Burns and Burns 2008, p. 368-369).

Since the research study used more than one variable, the multiple regression equation is $Y = b_o + b_1X_1 + b_2X_2 + b_3X_3 +.\ .\ .$ etc. (2008).

In the research study, the results of multiple regression determine a significant variance for the determination to predict job satisfaction from a set of variables.

The multiple regression procedures from the IBM SPSS Statistics Version 22 software creates three pertinent tables. In the model summary, the adjusted R^2 is the percentage of variance for the determination to predict job satisfaction by a model of variables. The ANOVA table presents the degrees of freedom (DF), F score. The F value represents the explained variance in a model and is the explained variance divided by the unexplained variance. In theory, the higher the F score, the higher of the explained variance or the lower of the unexplained variance for the prediction of job satisfaction.

The last table consists of β coefficients to calculate slope values from the main effects of variables and the moderator effects of variables on job satisfaction.

In table 21, the results of multiple regression consisted of six identified relevant factors and the factor scores for job

growth, work relationship, and work environment, along with the religiosity factor score and the spiritualty variable.

In table 21, the model summary showed an adjusted R^2 of .367 for the model of eleven variables. The adjusted R^2 indicated a good model that explained about 38 percent of the variance for determination to predict job satisfaction. The ANOVA results were F (11, 1383) = 74.009, p < .000, and showed that the model significantly predicted job satisfaction.

The β for the variable of age (40-years or older = 1) along with the variable of employer (public-service worker = 1) had p values that significantly predicted job satisfaction. The religiosity variable with a p value of .008 significantly predicted job satisfaction. The variables of job growth, work relationship, and work environment variables had p values that significantly predicted job satisfaction, too.

For research question one, job satisfaction was the dependent variable. With a significant p value of .048, the variable of employer (public-service worker = 1) significantly predicted job satisfaction.

In answering question 2, the results of multiple regression indicated that the religiosity variable had a significant p value of .048 and significantly predicted job satisfaction.

The spirituality variable lacked a significant *p* value with value of .050. Therefore, in the model, spirituality failed to predict job satisfaction.

Table 21 – Model summary, ANOVA, coefficients for variables

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.610a	.372	.367	.552

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	247.771	11	22.525	74.009	.000
Residual	417.567	1372	.304		
Total	665.338	1383			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	Beta		
1	(Constant)	3.293	.084		39.117	.000
	Age (40 years or older)	.119	.034	.083	3.530	.000
	Education (have college degree)	.037	.033	.026	1.113	.266
	Race (white)	.059	.037	.035	1.595	.111
	Sex (male)	-.036	.031	-.026	-1.164	.245
	Years of service (10 or more years with same employer)	.043	.034	.030	1.274	.203
	Employer (public-service worker)	.071	.036	.044	1.977	.048
	Respondent consider self a spiritual person	-.019	.021	-.023	-.890	.374
	Religiosity	.048	.018	.071	2.654	.008
	Work relationship	.213	.019	.296	11.372	.000
	Work environment	.189	.019	.268	10.106	.000
	Job growth	.141	.017	.194	8.282	.000

Source: IBM SPSS Statistics Version 22

To show a positive β for the spirituality variable, the research study used multiple regression with the dependent

variable of job satisfaction. The results shown in table 22 included the variables of job growth, work relationship, and work environment along with the spirituality variable.

In table 22, the model summary had an adjusted R^2 of .400 for the model of five variables. The model explained 40 percent of the variance of determination to predict job satisfaction. The ANOVA results were F (5, 2593) = 346.839, p < .000, and showed that the set of five variables significantly predicted job satisfaction.

The β results in table 22 showed that the β value for the spirituality variable was positive. The β value for the spirituality variable was slightly negative for the other results of multiple regression. The assumption of the research study was that other factors, including statistical calculations, created the negative β values for the spirituality variable.

Table 22 – Model summary, ANOVA, β, for spirituality variable

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.633	.401	**.400**	.579

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	581.056	5	116.211	**346.839**	**.000**
Residual	867.130	2588	.335		
Total	1448.187	**2593**			

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Model	β	Std. Error	Beta	t	Sig.
1 (Constant)	3.273	.037		87.737	.000
Employer (public-service worker = 1)	.097	.029	.051	3.359	**.001**
Work relationships	.245	.014	.327	18.019	**.000**
Work environment	.193	.014	.259	14.200	**.000**
Job growth	.179	.012	.239	14.828	**.000**
Respondent consider self a spiritual person	**.006**	.012	.007	.479	.632
Source: IBM SPSS Statistics Version 22					

In table 23, the model summary for the religiosity variable
was similar to the spirituality model summary but had a lower
adjusted R^2 of .378, and indicated that the set of five variables
explained 38 percent of the variance of determination to predict
job satisfaction. The ANOVA results were $F(5,1782) = 217.86$, p
< .000. The set of five variables had a p value that
significantly predicted job satisfaction.

The β coefficients in table 23 were a set of five variables
with p values of .050 and significantly predicted job
satisfaction.

Table 23 – Model summary, ANOVA, β, for religiosity variable

Model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.616	.380	**.378**	.571

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	354.757	**5**	70.951	**217.786**	**.000**
Residual	578.921	1777	.326		
Total	933.678	**1782**			

	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients		
Model	β	Std. Error	Beta	t	Sig.
1 (Constant)	3.298	.015		215.132	.000
Employer (public-service worker)	.102	.034	.057	3.044	**.002**
Work relationships	.248	.017	.333	15.017	**.000**
Work environment	.180	.017	.243	10.826	**.000**
Job growth	.162	.014	.221	11.243	**.000**
Religiosity	.024	.013	.034	1.785	**.074**
Source: IBM SPSS Statistics Version 22					

The variables of work relationship, work environment, and job growth had p values of .001 and significantly predicted job satisfaction. The variable of employer (public-service worker = 1) had a significant p value of .002. The religiosity variable had a p value of .074. If a variable had a value of $p < .090$, that represented a 90 percent confidence level that a variable significantly predicted job satisfaction. The p value represented an acceptable 90 percent confidence level so the religiosity variable significantly predicted job satisfaction.

Spirituality and Religiosity Moderator Variables

The research study developed spirituality and religiosity moderator variables to address the question of for whom and under what conditions religiosity and spirituality had p values that significantly predicted job satisfaction.

Table 24 showed the results of the interaction model of the
moderator variables that consisted of twenty-nine variables. The
interaction model with moderator variables had an adjusted R^2 of
.386. From the model of twenty-nine variables, the adjusted R^2
value explained 39 percent of the variance of determination to
predict job satisfaction.

Table 24 showed the ANOVA results of $F(29,1383) = 30.950$,
with a p value of .000 for the twenty-nine variables in the
interaction model. With a significant p value, the model
significantly predicted job satisfaction.

Table 24 – Summary, ANOVA and β for moderator variables

Model Summary			
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631	.399	.386	.544

ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	265.229	29	9.146	30.950	.000
Residual	400.109	1354	.296		
Total	665.338	1383			

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients		
Model	β	Std. Error	Beta	t	Sig.
1 (Constant)	3.290	.251		13.101	.000
Age (40 years or older =1)	.339	.141	.237	2.400	.017
Education (have college degree = 1)	-.102	.144	-.071	-.707	.480
Race (white = 1)	-.127	.158	-.076	-.804	.421
Sex (male = 1)	.073	.131	.052	.558	.577

Years of service (10 or more years with same employer = 1)	.172	.150	.120	1.153	.249
Employer (public-service worker = 1)	.515	.162	.315	3.180	.002
Respondent consider self a spiritual person	-.024	.082	-.029	-.290	.772
Religiosity	.072	.069	.106	1.047	.295
Work environment	.192	.019	.272	10.202	.000
Job growth	.125	.017	.172	7.226	.000
Work relationships	.209	.019	.290	11.111	.000
Spirituality X Age (40 years or older = 1)	-.073	.046	-.170	-1.594	.111
Religiosity X Age (40 years or older = 1)	.061	.039	.068	1.569	.117
Spirituality X Education (have college degree = 1)	.044	.046	.097	.958	.338
Religiosity X Education (have college degree = 1)	-.024	.039	-.024	-.623	.534
Spirituality X Race (white = 1)	.066	.052	.137	1.278	.201
Religiosity X Race (white = 1)	-.080	.044	-.105	-1.813	.070
Spirituality X Sex (male = 1)	.013	.042	.040	.301	.764
Religiosity X Sex (male = 1)	-.006	.036	-.014	-.175	.861
Spirituality X Years of Service (10 or more years with same employer = 1)	-.041	.048	-.090	-.842	.400
Religiosity X Years of Service (10 years with same employer = 1)	.035	.041	.031	.853	.394
Spirituality X Employer (public-service worker = 1)	-.145	.052	-.283	-2.785	.005
Religiosity X Employer (public-service worker = 1)	.114	.044	.078	2.595	.010
Spirituality X Work Relationships	-.019	.026	-.023	-.724	.469
Religiosity X Work Relationships	-.001	.023	-.002	-.065	.948
Spirituality X Work Environment	.018	.025	.022	.719	.473
Religiosity X Work Environment	-.002	.023	-.003	-.082	.935
Spirituality X Job Growth	.027	.024	.031	1.143	.253

		-.106	.020	-.149	-5.290	.000
	Religiosity X Job Growth					

Source: IBM SPSS Statistics Version 22

Table 24 displayed the unstandardized and standardized

coefficients and significant *p* values.

Job satisfaction as the dependent variable. The variable of

employer (public-service worker = 1) underwent multiple

regression. In table 24, the β value for the variable of

employer (public-service worker = 1) was .515. The *p* value of

the variable of employer (public-service worker = 1) was .002

and significantly predicted job satisfaction.

As an overall average main effect for all workers, both

private and public, the religiosity variable in table 24 had a β

value of .072 as shown in table 24. However, the *p* value lacked

significance with a value of .295.

As shown in table 24, the β value was .114 for the

religiosity moderator variable that consisted of the

multiplication of the religiosity variable by the variable of

employer (public-service workers = 1). The religiosity moderator

variable had a *p* value of .010. As a significant *p* value, the

interaction of the religiosity moderator variable significantly

predicted job satisfaction.

To identify the effects of a one unit increase or a one

unit of decrease of job satisfaction for the religiosity and

spirituality moderator variables, figures 8, 9, 10, and 11
represented mathematical calculations to determine the slope
values of the main effects for all workers and the effects of
the moderator variables of religiosity and spirituality.

To calculate the slope values, as shown in figure 8, the
research study used the β value of .072 for religiosity as a
main effect for all of the workers. The β value was .114 for the
religiosity moderator variable that consisted of the
multiplication of the religiosity variable by the variable of
employer (public-service worker = 1).

For a one unit of increased value of job satisfaction, the
religiosity variable β value, as a main effect for all workers,
was added to the β value of the religiosity moderator variable
for public-service workers using the formula .072 + (1)*.114.
The calculated β value was .186. As job satisfaction increased
by one unit, religiosity increased by .186 for public-service
workers.

For a one unit of decreased job satisfaction, the
religiosity variable β value, as a main effect of all the
workers, was subtracted by the β value of the religiosity
moderator variable using the formula .072 − (1)*.114. The
calculated β value was -.042. The value indicated as one unit of

job satisfaction decreased, religiosity decreased by -.042 for

public-service workers.

Figure 8 – Slopes for moderator religiosity variable and public-service workers

0.186 **Slope value for 1 unit of increased job satisfaction**

0.114 **β for moderator effect of religiosity for public-service workers**

0.072 **β for overall main effect of religiosity for all workers**

-0.042 **Slope value for 1 unit of decreased job satisfaction**

Job Satisfaction Increases

Religiosity Increases
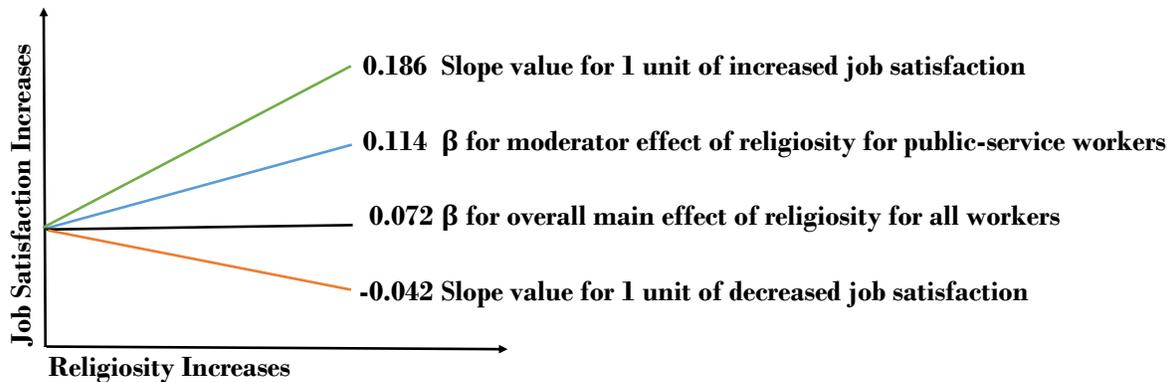
As a main effect, for all of the workers, the job growth variable in table 24 had a β value of .125. The *p* value of .000 was significant. The religiosity moderator variable for job growth was created by the multiplication of the religiosity variable by the factor score for the job growth dimension.

As shown in table 24, the β value was -.106 for the religiosity moderator variable for job growth. The religiosity moderator variable for job growth had a significant *p* value of .000. A negative β value suggested an inverse relationship existed between the variables of religiosity and job growth with the increase or decrease of one unit of job satisfaction.

For a one unit of increased value of job satisfaction, in Figure 9, the religiosity variable β value of .072, as the main effect for all workers, was added to the β value of the religiosity moderator variable for job growth using the formula .072 + (1)* -.106. The calculated β value was -.034. The negative β indicated as job satisfaction increased by one unit for all workers, religiosity decreased by -.034.

For figure 9, for a one unit of decreased job satisfaction, the religiosity variable β value was subtracted by the β value of the religiosity moderator variable for job growth using the formula of .072 – (1)-.106 and the β value was .178. As job satisfaction decreased by one unit, the religiosity of all workers increased by a β value of .178 for the religiosity moderator variable for job growth.

The religiosity moderator variable for job growth significantly predicted job satisfaction.

Figure 9 – Religiosity moderator variable with job growth
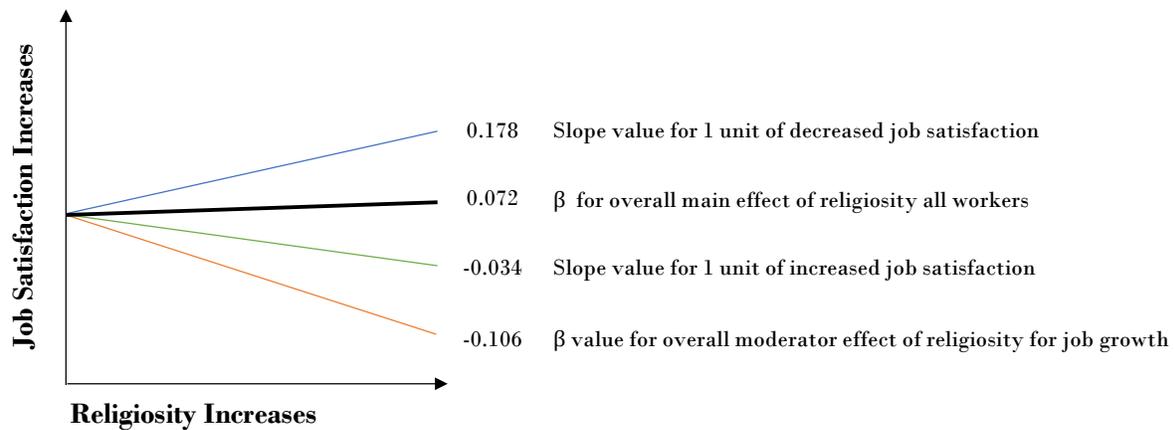
In workplaces with job growth, the results in figure 9 indicated that workers with an increase of one unit of job satisfaction experienced decreasing religiosity.

Job growth in the research study represented workplaces that offered workers opportunities to learn new things, perform complicated tasks, and develop strong self-efficacy.

In table 24, the β coefficient value for the spirituality variable was -.024 as a main effect for all workers. The spirituality variable had a p value of .772. and failed to significantly predict job satisfaction.

A spirituality moderator variable was created by multiplying the spirituality variable by the employer (public-service worker = 1) variable. The spirituality moderator variable for public-service workers had a β coefficient of -.145 with a significant p value of .005. The spirituality moderator

variable for public-service workers significantly predicted job satisfaction.

However, a negative β value suggested a strong inverse relationship between spirituality and public-service workers with the increase or decrease of one unit of job satisfaction.

Figure 10 – Spirituality moderator variable with public-service workers

0.121 Slope value for 1 unit of decreased job satisfaction

-0.024 β for overall main effect of spirituality for all workers

-0.145 β for moderator effect of spirituality for public-service workers

-0.169 Slope value for 1 unit of increased job satisfaction
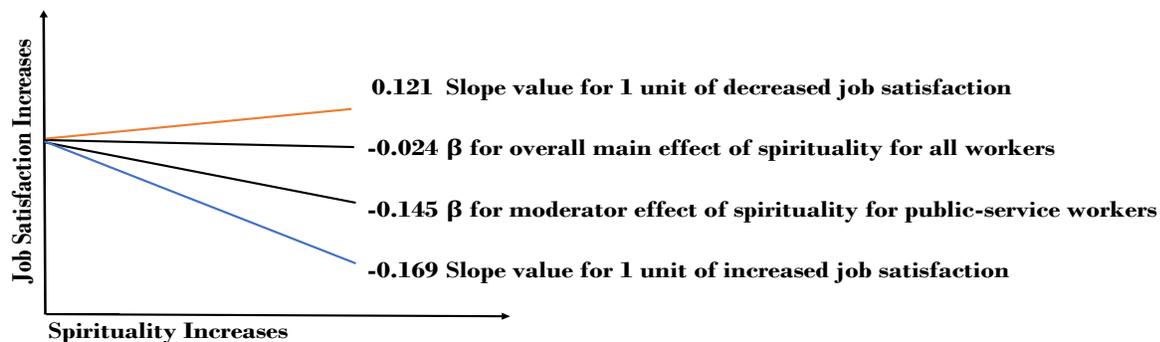
For a one unit of increased job satisfaction, in Figure 10, the spirituality variable β value of -.024, as the main effect for all workers, was added to the β value of the spirituality moderator variable for public-service workers by the formula of -.024 + (1)*-.145. The calculated value was -.169 for public-service workers. The negative value indicated that as job satisfaction increased by one unit spirituality for public-service workers decreased by -.169.

For a one unit of decreased job satisfaction, the spirituality variable β value was subtracted by the β value of

the spirituality moderator variable for public-service workers by using the formula -.024 -(1)* -.145 to create a value of .121. The value indicated as job satisfaction decreased by one unit the spirituality of public-service workers increased by .121.

In summary, as job satisfaction decreased by one unit the spirituality for public-service workers increased. Public-service workers with an increase of one unit of job satisfaction experienced decreased spirituality.

A religiosity moderator variable was created by multiplying the religiosity variable by the variable of race (white = 1). In table 24, the moderator variable religiosity for race had a β value of -.080. The moderator variable religiosity for race had a *p* value of .070. In table 24,the *p* value of .070 was significant in the prediction of job satisfaction.

Figure 11 – Slope values for religiosity moderating variable

Job Satisfaction Increases

0.152 Slope value for 1 unit of decreased job satisfaction

0.072 β for overall main effect of religiosity for all workers

-0.008 Slope value for 1 unit of increased job satisfaction

-0.080 β for moderator effect of religiosity and race (white = 1)

Religiosity Increases
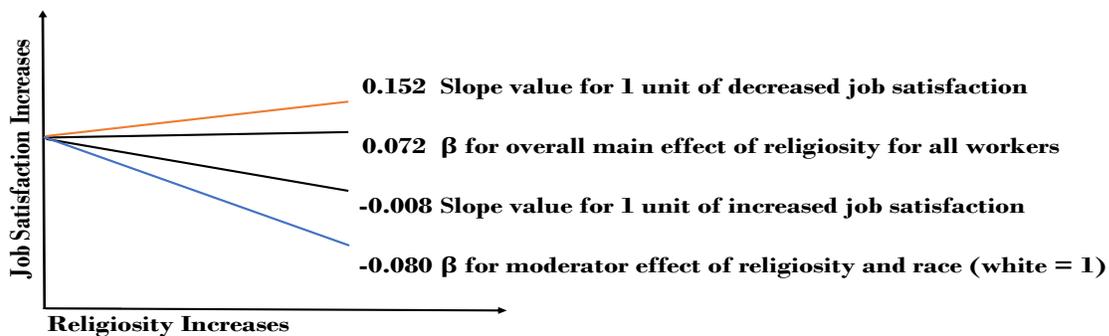
The results show in figure 12 suggested that the moderator variable with race (white = 1) religiosity moderator variable for race altered job satisfaction. For all workers, a one unit of decreased job satisfaction was calculated to be .152 from the formula .072 -(1)*-.080. The results of the slope values indicated as religiosity increased for the variable of race (white = 1) job satisfaction decreased by one unit.

For a one unit of increased job satisfaction, the slope value was calculated to be -.008 from the formula .072 + (1)*-.080. As job satisfaction increased by one unit, the religiosity for race (white = 1) decreased from .072 to -.008. The results suggested that the respondents that identified as not white, had an opposite relationship with job satisfaction. That indicated a possibility that as job satisfaction increased so did religiosity for nonwhite respondents.

The spirituality variable had a negative β value of -.024. For the spirituality moderator variable, the spirituality variable, as main effect of all ages, was multiplied by the age (forty-years or older) variable. The spirituality moderator variable for age had a β value of -.073. The spirituality moderator variable for age had a *p* value of .111. The spirituality moderator variable for age lacked significance to predict job satisfaction.

The job growth, work environment, and work relationships variables significantly predicted job satisfaction with significant *p* values of .000. As individual variables, job growth, work environment, and work relationships each significantly predicted job satisfaction. Job growth had a β value of .125, work environment had a β value of .192, and work relationships had a β value of .209.

For the spirituality moderator variable with race (white = 1), the β value was .066 but its *p* value of .201 was not significant to predict job satisfaction.

The variable of age (40-years old or older = 1) had a β value of .339 and was significant with a *p* value of .017. However, with both the spirituality moderator variable and religiosity variable, the variable of age was not significant.

The religiosity moderator variable with age (40-years old or older = 1) had a β value of .061. In table 24, the religiosity moderator variable with age (40-years old or older = 1) was not significant with a *p* value of .117. The spirituality moderator variable with age (40-years old or older = 1) had a β value of -.073. In table 30, the religiosity moderator variable with age (40-years old or older = 1) was not significant with a *p* value of .111.

SUMMARY

The study's general objective is to examine not only whether spirituality and religiosity significantly affect the prediction of job satisfaction but also to study for whom and under what circumstances religiosity and spirituality predict job satisfaction in public service.

Using an aggregate approach of all workers, the results of multiple regression showed the intrinsic motives and values, as variables, significantly predicted job satisfaction in public service. In answering research question one, the research study's results included that the variable of employer (public service worker = 1), as part of an eleven variables regression model, explained 38 percent of the variance to determine the prediction of job satisfaction. Additionally, the variable of employer (public-service worker = 1) had a β value with a significant p value of .045 and significantly predicted job satisfaction in public service.

For the second research question, the results showed that the variable of religiosity, as part of an eleven variables regression model, explained 38 percent of the variance in determining the prediction of job satisfaction. Additionally, the variable of employer (public-service worker = 1) had a β

value with a *p* value of .008 and significantly predicted job satisfaction for all workers including public-service workers.

The results showed that the spirituality variable had a *p* value of .374. Therefore, the spirituality variable failed to significantly predict job satisfaction for all workers including public-service workers.

Without the interactions of the moderator variables, the variables of age (forty-years old or older = 1), employer (public-service worker = 1), work environment, job growth, and work relationships all significantly predicted job satisfaction.

Results from multiple regression, for the third research question, provided empirical evidence for whom and under what conditions religiosity and spirituality significantly predicted job satisfaction. The findings required transforming and recoding variables for the interactions of the spirituality and religiosity moderator variables.

The research study identified for whom by using the moderator variables of religiosity and spirituality. A religiosity moderator variable was created by multiplying the religiosity variable by the variable of employer (public-service worker = 1). The results from multiple regression showed that the religiosity moderator variable for public-service workers significantly predicted job satisfaction. The religiosity

moderator variable, in a model of total of twenty-nine variables, had an adjusted R^2 of .386 and the model explained 39 percent of the variance in job satisfaction prediction. Additionally, the religiosity moderator variable had a β value of .114 with a significant p value of .010. The religiosity moderator variable for public-service workers significantly predicted job satisfaction.

For the religiosity moderator variable, as religiosity increased, job satisfaction increased for public-service workers. However, for the spirituality moderator variable, an increase of spirituality resulted in decreased job satisfaction for public-service workers.

Additionally, the religiosity moderator variable for race (white = 1) males significantly predicted job satisfaction. The results of the study suggested that as the religiosity moderator variables of age (forty-years old or older = 1), employer (public-service workers = 1) and race (white = 1) all significantly predicted job satisfaction. The findings suggested that for whom includes the variables of age (forty-years old or older = 1), race (white = 1), and employer (public-service workers = 1). They all significantly predicted job satisfaction.

Under what conditions is answered by the religiosity moderator variable multiplied by the job growth variable.

However, it was a negative relationship as religiosity increased and job satisfaction for all workers decreased.

Additionally, increased religiosity for the variables of race (white = 1) and job growth resulted in decreased job satisfaction. However, for public-service workers, when religiosity increased job satisfaction increased. When spirituality increased, however, job satisfaction decreased for public-service workers.

In the research study, the results of multiple regression supported that spirituality and religiosity significantly predicted job satisfaction.

The results of crosstabs in the research study supported the significance of religiosity and spirituality to predict job satisfaction for public-service workers.

LIMITATIONS OF THE STUDY

The research study has several limitations in identifying the significance of religiosity and spirituality for predicting job satisfaction in public service. When discussing private businesses, the literature varies but is substantial for job satisfaction, motivation, religiosity, and spirituality; however, prior research studies on workplace spirituality and

job satisfaction in public service is very limited. The lack of
research limits the scope of reviewing literature that addresses
job satisfaction in public service.

From the needs of self-sufficiency to self-transcendence,
the human motives for job satisfaction has been evolving for
over a hundred years in response to economic and social changes.
Many research approaches exist to explore job satisfaction for
private workers. The research study concentrates on the
Hierarchy of Needs by Maslow ([1943] 2013) because the theory
specifically addresses the higher-order needs of self-
actualization and self-transcendence. Several other theories use
the Hierarchy of Needs, too.

Drawing on Maslow's Hierarchy of Needs, the Self-
Determination theory by Richard Ryan and Edward Deci discusses
the three critical needs of autonomy, competence, and
relatedness (Huitt 2011). Built upon Maslow's Hierarchy of Needs
theory, Clayton Alderfer's ERG (existence, relatedness, growth)
theory uses three categories of needs: existence, relatedness,
and growth (Huitt 2007).

Outside the scope of the literature review is an in-depth
review of incentive theories in job satisfaction. The research
study touches upon intrinsic motives and extrinsic motives but

lacks full coverage of all the motive theories that have significance in predicting job satisfaction in public service.

From an empirical prospective, several limitations exist. Variable correlation issues did decrease data selection in the research study. Determining the strength of association for variables is important for the research study. Strong associations among variables is only available by using the 2006 version and 2010 version of GSS because of both surveys sharing similar variables.

A signification limitation is the lack of continuity for the topical modules of GSS. Since 1972, GSS has attempted to use core questions, but has reduced the core questions in favor of introducing topical modules to increase the survey's flexibility. The result is that specific topical modules are usually used for only one survey year. The lack of consistent topical modules reduces the use of similar variables in the GSS surveys.

The study's originally planned to use seven surveys from the 2000 GSS through the 2012 GSS; however, the lack of continuity created correlation issues among the variables. As a result, the research study only used the variables in the 2006 GSS and in the 2010 GSS.

A lack of variable correlation also curtailed the number of variables available for factor analysis. The lack of variables hindered building the dimensions for the constructs of religiosity, spirituality, and workplace. The spirituality variable was only a single variable because of the lack of correlation with other possible spirituality variables. The earlier survey versions of GSS had topical modules on spirituality but lacked variable correlations in the 2000 GSS through 2012 GSS.

Another limitation of the research study is the lack of background information for public-service workers. It is unknown if public-workers work at the national, state or local levels of government.

The research findings for the study raise more questions with its limitations. The research findings suggest that age significantly predicts job satisfaction. The results conclude that the demographics of older workers, forty years or older, significantly predict job satisfaction. The research study did not explore the finding.

Another demographic finding of the research study suggested that race played a role in the interactions of religiosity and job satisfaction. As the religiosity moderator variable for race (white = 1) increased, job satisfaction decreased; however, for

race (nonwhites = 0) as religiosity increased, job satisfaction increased. The research study made no exploration on the relationship between race and job satisfaction beyond the initial results from multiple regression.

Further research is needed to explain the lack of significance of spirituality for the prediction of job satisfaction in public service. Additional research is also needed to explain the study's initial results of the inverse relationship between decreasing job satisfaction and increasing spirituality for public-service workers.

Another inverse relationship that exists is job growth workplaces and religiosity. Further study is needed to explain why increasing job satisfaction reduces the need for workplaces with job growth for public-service employees.

FUTURE IMPLICATIONS OF THE STUDY

Many research opportunities exist for studying the prediction of job satisfaction in public service. New research on the significance of spirituality and religiosity for the prediction of job satisfaction is needed to increase retention and hiring in public service.

Some of the dimensions of PSM relate to religiosity and spirituality. Therefore, religiosity and spirituality are congruent with PSM and make employment in public service unique. The study posits that the rational, norm-based, and affective motives include the intrinsic motives of religiosity and spirituality. Additionally, the results from the current research study support prior studies finding that public-service workers have the innate motives of religiosity and spirituality. The congruence of PSM, religiosity, and spirituality support public-service workers with a belief in the existence of a God and makes religiosity and spirituality significant for the prediction of job satisfaction in public service.

In appendix I, in the 2010 GSS, 66 percent of public-service workers express a confidence in the existence of a God and by using an aggregate approach the 2.5 million federal employees represent 1.65 million employees with such beliefs, which indicates the presence and importance of religiosity and spirituality in public service. Therefore, it is not surprising that religiosity and spirituality are significant predictors of job satisfaction in public service.

Additionally, the study's results include, on an aggregate bases for 2.5 million workers, that over a million federal employees express a combination of high job satisfaction with

the firm belief that they know God exists. That estimate is based on the research's results of 52 percent of public-service workers in the 2006 GSS located in appendix II.

The results support the compulsive behavior of individuals to seek employment in public service. The research study provides results that religiosity and spiritualty support the uniqueness of working in public service. According to the study's results, the increase or decrease of one unit of job satisfaction effects the religiosity and spirituality of public-service workers.

FINAL SUMMARY

The research study offers that an array of literature, theories, and empirical findings support the evolution of satisfaction with life and work. The milieu of the workplace in the U.S. has been rapidly changing over a period of a hundred years. Today, the meeting of basic needs and safety needs is a regular occurrence, not even noteworthy in daily life.

Currently, most of the U.S. population consists of basically healthy, satisfied people that have no fear of starvation and have true safety in society. A basically healthy person's primary motivation is a need to actualize their fullest potential, according to Maslow ([1943] 2013). As such, the

satisfaction of basic needs changes the perspective of work or employment from the mortal goals of self-sufficiency to the moral goals of self-examination. Viewing satisfaction from a moralistic viewpoint creates new motivational goals serving as major catalysts for the evolution of self-actualization and self-transcendence for job satisfaction in public service.

Essentially, man is a perpetually wanting animal according to Maslow ([1943] 2013). The wants of man start with the motivation of staying alive and being self-sufficient for survival. The regular meeting of basic needs creates a new wanting; the paramount motivation is now to achieve self-interest, especially in employment. With the further advancement of materialism, motivation in self-interest then changes to the wants of economic individualism. At that point, the apex of economic individualism occurs in the last decades of the twentieth century. The acquirement of material objects is thought to create satisfaction with job and life. However, for many people, the lust for materialism fails to create satisfaction at work or in life.

The lack of satisfaction starts individuals taking inventories of their own self for the want of finding universal satisfaction with their lives. This creates motivation for self-actualization: a need where individuals seek to reach their full

potential as a human being. However, in the twentieth-first century, the wants of achieving self-actualization create a new ultimate higher-order need: self-transcendence.

With the satisfaction of low-order needs, religiosity and spirituality support the natural wants of public-service workers for self-actualization and self-transcendence by working in public service.

The research study's results from multiple regression support that in some workplace conditions the religiosity of public-service workers significantly predicts job satisfaction. For religiosity and spirituality, as moderator variables, the results of increases or decreases of job satisfaction for public-service workers is mixed. However, both moderator variables are significant for the prediction of job satisfaction. Additionally, the results of the study from crosstabs supports the empirical results of multiple regression. For the results of crosstabs, religiosity and spirituality are both significant factors in job satisfaction in public service.

The findings from prior research and the current study indicate that a natural infusion of religiosity and spirituality exists and is unique for employment in public service. Therefore, the study supports PSM in providing the results of empirical evidence to substantiate a different does exist

between public-service workers and private workers. The empirical evidence of the research study includes the findings that religiosity and spirituality significantly predict job satisfaction in public service.

Offering only extrinsic incentives while using the technical-rational management approach is failing to increase retention or hiring in public service. Prior research and the results of the current research study indicate that in public service the combination of extrinsic incentives and the rational-technical management approach has fatal flaws, which includes "crowding out" intrinsic motives and decreasing job satisfaction.

In contrast, the research study offers if religiosity and spirituality are not intently impeded, they will naturally arise in the workplaces of public institutions. The presence of self-transcendence includes the effects of religiosity and spirituality. Prior research and the current study offer that religiosity and spirituality help create an emotional balance for public-service workers. This emotional balance can provide assistance in making difficult decisions on the public policies trying to solve the "wicked problems" of society. It is clear from the results of multiple regression in the research study that public-service workers have measurable amounts of

religiosity and spirituality. As such, the research study finds that religiosity and spirituality significantly predict job satisfaction in public service.

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APPENDIX I

The following tables are the result of crosstabs for all of the variables in the research study.

How often respondent attends religious services

Crosstabs				Private	Gov.	Total
GSS Year						
2006	How often respondent attends religious services	1 Lt once a year	Count	229	58	287
			%	9.6%	9.8%	9.6%
		2 once a year	Count	458	92	550
			%	19.1%	15.5%	18.4%
		3 Several times a year	Count	388	85	473
			%	16.2%	14.3%	15.8%
		4 Once a month	Count	245	46	291
			%	10.2%	7.7%	9.7%
		5 2-3x a month	Count	292	75	367
			%	12.2%	12.6%	12.3%
		6 Nearly every week	Count	182	42	224
			%	7.6%	7.1%	7.5%
		7 Every week	Count	601	196	797
			%	**25.1%**	**33.0%**	26.7%
	Total		Count	2395	594	2989
			%	100.0%	100.0%	100.0%
2010	How often respondent attends religious services	1 Lt once a year	Count	108	28	136
			%	10.1%	10.1%	10.1%
		2 once a year	Count	226	43	269
			%	21.2%	15.6%	20.1%
		3 Several times a year	Count	162	38	200
			%	15.2%	13.8%	14.9%
		4 Once a month	Count	123	19	142
			%	11.5%	6.9%	10.6%
		5 2-3x a month	Count	124	37	161
			%	11.6%	13.4%	12.0%
		6 Nearly every week	Count	60	20	80
			%	5.6%	7.2%	6.0%
		7 Every week	Count	262	91	353
			%	**24.6%**	**33.0%**	26.3%
	Total		Count	1065	276	1341
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Feelings about the Bible

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Feelings about the Bible	1 Other	Count	55	16	71
			%	2.4%	3.1%	2.6%
		2 Book of fables	Count	381	86	467
			%	16.8%	16.8%	16.8%
		3 Inspired word	Count	1039	255	1294
			%	45.8%	49.7%	46.5%
		4 Word of God	Count	792	156	948
			%	**34.9%**	**30.4%**	34.1%
	Total		Count	2267	513	2780
			%	100.0%	100.0%	100.0%
2010	Feelings about the Bible	1 Other	Count	27	9	36
			%	1.8%	2.5%	1.9%
		2 Book of fables	Count	330	65	395
			%	21.8%	17.8%	21.0%
		3 Inspired word	Count	666	158	824
			%	44.0%	43.3%	43.9%
		4 Word of God	Count	489	133	622
			%	**32.3%**	**36.4%**	33.1%
	Total		Count	1512	365	1877
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

Confidence in the existence of God

Crosstabs						
				Private	Gov.	Total
GSS Year				Private	Gov.	Total
2006	Respondent confidence in the existence of God	1 Don't believe	Count	47	13	60
			%	2.1%	2.5%	2.1%
		2 No way to find out	Count	97	22	119
			%	4.3%	4.2%	4.2%
		3 Some higher power	Count	230	49	279
			%	10.1%	9.4%	10.0%
		4 Believe sometimes	Count	98	22	120
			%	4.3%	4.2%	4.3%
		5 Believe but doubts	Count	364	89	453
			%	16.0%	17.1%	16.2%
		6 Know God exists	Count	1445	325	1770
			%	**63.3%**	**62.5%**	63.2%
	Total		Count	2281	520	2801
			%	100%	100%	100%
2010	Respondent confidence in the existence of God	1 Don't believe	Count	52	10	62
			%	3.4%	2.7%	3.3%
		2 No way to find out	Count	95	20	115
			%	6.2%	5.5%	6.1%
		3 Some higher power	Count	173	31	204
			%	11.4%	8.5%	10.8%
		4 Believe sometimes	Count	73	8	81
			%	4.8%	2.2%	4.3%
		5 Believe but doubts	Count	268	54	322
			%	17.6%	14.8%	17.0%
		6 Know God exists	Count	863	242	1105
			%	**56.6%**	**66.3%**	58.5%
	Total		Count	1524	365	1889
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

How often does respondent pray?

Crosstabs						
GSS Year				Private	Gov.	Total
2006	How often does respondent pray	1 Never	Count	255	45	300
			%	11.2%	8.7%	10.7%
		2 Lt once a week	Count	269	58	327
			%	11.8%	11.2%	11.7%
		3 Several times a week	Count	149	32	181
			%	6.5%	6.2%	6.5%
		4 Once a week	Count	246	69	315
			%	10.8%	13.3%	11.2%
		5 Once a day	Count	678	131	809
			%	29.7%	25.2%	28.8%
		6 Several times a day	Count	689	184	873
			%	**30.1%**	**35.5%**	31.1%
	Total		Count	2286	519	2805
			%	100%	100%	100%
2010	How often does respondent pray	1 Never	Count	206	41	247
			%	13.5%	11.2%	13.1%
		2 Lt once a week	Count	181	27	208
			%	11.9%	7.4%	11.0%
		3 Several times a week	Count	93	16	109
			%	6.1%	4.4%	5.8%
		4 Once a week	Count	171	49	220
			%	11.2%	13.4%	11.6%
		5 Once a day	Count	434	115	549
			%	28.5%	31.3%	29.0%
		6 Several times a day	Count	438	119	557
			%	**28.8%**	**32.4%**	29.5%
	Total		Count	1523	367	1890
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Respondent consider self a religious person

Crosstabs						
				Private	Gov.	Total
GSS Year						
2006	Respondent consider self a religious person	1 Not religious	Count	340	76	416
			%	14.9%	14.6%	14.8%
		2 Slight religious	Count	520	106	626
			%	22.8%	20.4%	22.3%
		3 Moderate religious	Count	994	227	1221
			%	43.5%	43.7%	43.5%
		4 Very religious	Count	431	111	542
			%	**18.9%**	**21.3%**	19.3%
	Total		Count	2285	520	2805
			%	100%	100%	100%
2010	Respondent consider self a religious person	1 Not religious	Count	294	54	348
			%	19.2%	14.7%	18.3%
		2 Slight religious	Count	372	70	442
			%	24.3%	19.1%	23.3%
		3 Moderate religious	Count	618	170	788
			%	40.4%	46.3%	41.5%
		4 Very religious	Count	246	73	319
			%	**16.1%**	**19.9%**	16.8%
	Total		Count	1530	367	1897
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Respondent consider self a spiritual person

Crosstabs					
			Private	Gov.	Total
GSS Year					
2006	Respondent consider self a spiritual person	1 Not spiritual	Count	203	43	246
			%	8.9%	8.3%	8.8%
		2 Slight spiritual	Count	454	98	552
			%	20.0%	18.9%	19.8%
		3 Moderate spiritual	Count	935	219	1154
			%	41.1%	42.3%	41.3%
		4 Very spiritual	Count	681	158	839
			%	**30.0%**	**30.5%**	30.1%
	Total		Count	2273	518	2791
			%	100%	100%	100%
2010	Respondent consider self a spiritual person	1 Not spiritual	Count	174	25	199
			%	11.4%	6.8%	10.5%
		2 Slight spiritual	Count	332	66	398
			%	21.8%	17.9%	21.1%
		3 Moderate spiritual	Count	572	166	738
			%	37.6%	45.0%	39.1%
		4 Very spiritual	Count	442	112	554
			%	**29.1%**	**30.4%**	29.3%
	Total		Count	1520	369	1889
Source: IBM SPSS Statistics Version 22						

Strength of affiliation

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Strength of affiliation	1 No religion	Count	583	103	686
			%	17.1%	12.8%	16.2%
		2 Not very strong	Count	371	83	454
			%	10.9%	10.3%	10.8%
		3 Somewhat strong	Count	1269	283	1552
			%	37.1%	35.2%	36.8%
		4 Strong	Count	1195	335	1530
			%	**35.0%**	**41.7%**	36.2%
	Total		Count	3418	804	4222
			%	100%	100%	100%
2010	Strength of affiliation	1 No religion	Count	288	51	339
			%	19.6%	14.4%	18.6%
		2 Not very strong	Count	92	27	119
			%	6.3%	7.6%	6.5%
		3 Somewhat strong	Count	590	114	704
			%	40.1%	32.3%	38.6%
		4 Strong	Count	502	161	663
			%	**34.1%**	**45.6%**	36.3%
	Total		Count	1472	353	1825
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Enough info to get the job done

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Enough info to get the job done	1 Not at all true	Count	21	3	24
			%	1.5%	0.9%	1.4%
		2 Somewhat true	Count	51	23	74
			%	3.7%	7.2%	4.4%
		3 Not too true	Count	527	128	655
			%	38.7%	40.3%	39.0%
		4 Very true	Count	763	164	927
			%	**56.0%**	**51.6%**	55.2%
	Total		Count	1362	318	1680
			%	100%	100%	100%
2010	Enough info to get the job done	1 Not at all true	Count	15	3	18
			%	1.6%	1.4%	1.6%
		2 Somewhat true	Count	31	11	42
			%	3.4%	5.1%	3.7%
		3 Not too true	Count	353	81	434
			%	38.2%	37.7%	38.1%
		4 Very true	Count	525	120	645
			%	**56.8%**	**55.8%**	56.6%
	Total		Count	924	215	1139
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Enough help and equip to get the job done

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Enough help and equipment to get the job done	1 Not at all true	Count	56	19	75
			%	4.1%	6.0%	4.5%
		2 Somewhat true	Count	139	45	184
			%	10.2%	14.2%	11.0%
		3 Not too true	Count	543	130	673
			%	39.9%	40.9%	40.1%
		4 Very true	Count	622	124	746
			%	**45.7%**	**39.0%**	44.5%
	Total		Count	1360	318	1678
			%	100%	100%	100%
2010	Enough help and equipment to get the job done	1 Not at all true	Count	37	15	52
			%	4.0%	7.0%	4.6%
		2 Somewhat true	Count	81	23	104
			%	8.8%	10.7%	9.1%
		3 Not too true	Count	369	88	457
			%	40.0%	41.1%	40.2%
		4 Very true	Count	436	88	524
			%	**47.2%**	**41.1%**	46.1%
	Total		Count	923	214	1137
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Respondent knows what is expected on job

Crosstabs				Private	Gov.	Total
GSS Year				Private	Gov.	Total
2006	Respondent knows what's expected on job	1 Strongly Disagree	Count	15	4	19
			%	1.1%	1.3%	1.1%
		2 Disagree	Count	89	21	110
			%	6.5%	6.6%	6.5%
		3 Agree	Count	692	158	850
			%	50.6%	49.7%	50.4%
		4 Strongly Agree	Count	572	135	707
			%	**41.8%**	**42.5%**	41.9%
	Total		Count	1368	318	1686
			%	100%	100%	100%
2010	Respondent knows what's expected on job	1 Strongly Disagree	Count	7	4	11
			%	0.8%	1.9%	1.0%
		2 Disagree	Count	49	9	58
			%	5.3%	4.2%	5.1%
		3 Agree	Count	510	103	613
			%	55.1%	48.1%	53.8%
		4 Strongly Agree	Count	360	98	458
			%	**38.9%**	**45.8%**	40.2%
	Total		Count	926	214	1140
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

Supervisor helpful to respondent in getting job done

Crosstabs				Private	Gov.	Total
GSS Year				Private	Gov.	Total
2006	Supervisor helpful to respondent in getting job done	1 Not at all true	Count	84	22	106
			%	6.4%	7.0%	6.5%
		2 Somewhat true	Count	120	31	151
			%	9.2%	9.9%	9.3%
		3 Not too true	Count	474	120	594
			%	36.2%	38.2%	36.6%
		4 Very true	Count	631	141	772
			%	**48.2%**	**44.9%**	47.6%
	Total		Count	1309	314	1623
			%	100.0%	100.0%	100.0%
2010	Supervisor helpful to respondent in getting job done	1 Not at all true	Count	59	15	74
			%	6.6%	7.0%	6.7%
		2 Somewhat true	Count	76	14	90
			%	8.5%	6.5%	8.2%
		3 Not too true	Count	332	78	410
			%	37.3%	36.4%	37.1%
		4 Very true	Count	423	107	530
			%	**47.5%**	**50.0%**	48.0%
	Total		Count	890	214	1104
			%	100.0%	100.0%	100.0%
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

A lot of freedom to decide how to do the job

Crosstabs				Private	Gov.	Total
GSS Year				Private	Gov.	Total
2006	A lot of freedom to decide how to do job	1 Not at all true	Count	62	4	66
			%	4.6%	1.3%	3.9%
		2 Somewhat true	Count	127	32	159
			%	9.3%	10.1%	9.5%
		3 Not too true	Count	401	120	521
			%	29.5%	37.7%	31.0%
		4 Very true	Count	770	162	932
			%	**56.6%**	**50.9%**	55.5%
	Total		Count	1360	318	1678
			%	100.0%	100.0%	100.0%
2010	A lot of freedom to decide how to do job	1 Not at all true	Count	44	10	54
			%	4.8%	4.7%	4.7%
		2 Somewhat true	Count	74	16	90
			%	8.0%	7.4%	7.9%
		3 Not too true	Count	281	79	360
			%	30.4%	36.7%	31.6%
		4 Very true	Count	525	110	635
			%	**56.8%**	**51.2%**	55.8%
	Total		Count	924	215	1139
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

Respondent has enough time to get the job done

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Respondent has enough time to get the job done	1 Not at all true	Count	64	21	85
			%	4.7%	6.6%	5.1%
		2 Not too true	Count	156	49	205
			%	11.5%	15.4%	12.2%
		3 Somewhat true	Count	585	129	714
			%	43.0%	40.6%	42.5%
		4 Very true	Count	556	119	675
			%	**40.9%**	**37.4%**	40.2%
	Total		Count	1361	318	1679
			%	100%	100%	100.0%
2010	Respondent has enough time to get the job done	1 Not at all true	Count	44	15	59
			%	4.8%	7.0%	5.2%
		2 Not too true	Count	93	33	126
			%	10.1%	15.4%	11.1%
		3 Somewhat true	Count	401	83	484
			%	43.5%	38.8%	42.6%
		4 Very true	Count	384	83	467
			%	**41.6%**	**38.8%**	41.1%
	Total		Count	922	214	1136
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Coworkers can be relied on when respondent needs help

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Coworkers can be relied on when respondent needs help	1 Not at all true	Count	53	4	57
			%	3.9%	1.3%	3.4%
		2 Somewhat true	Count	75	18	93
			%	5.6%	5.7%	5.6%
		3 Not too true	Count	548	136	684
			%	40.7%	42.8%	41.1%
		4 Very true	Count	672	160	832
			%	**49.9%**	**50.3%**	49.9%
	Total		Count	1348	318	1666
			%	100%	100%	100%
2010	Coworkers can be relied on when respondent needs help	1 Not at all true	Count	40	2	42
			%	4.4%	0.9%	3.7%
		2 Somewhat true	Count	63	14	77
			%	6.9%	6.5%	6.8%
		3 Not too true	Count	361	80	441
			%	39.4%	37.2%	39.0%
		4 Very true	Count	453	119	572
			%	**49.4%**	**55.3%**	50.5%
	Total		Count	917	215	1132
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Coworkers take a personal interest in respondent

Crosstabs						
GSS Year						Total
				Private	Gov.	
2006	Coworkers take a personal interest in respondent	1 Not at all true	Count	60	13	73
			%	4.5%	4.1%	4.4%
		2 Somewhat true	Count	131	41	172
			%	9.8%	12.9%	10.4%
		3 Not too true	Count	579	145	724
			%	43.1%	45.7%	43.6%
		4 Very true	Count	572	118	690
			%	**42.6%**	**37.2%**	41.6%
	Total		Count	1342	317	1659
			%	100.0%	100.0%	100.0%
2010	Coworkers take a personal interest in respondent	1 Not at all true	Count	51	2	53
			%	5.6%	0.9%	4.7%
		2 Somewhat true	Count	94	15	109
			%	10.4%	7.0%	9.7%
		3 Not too true	Count	393	108	501
			%	43.5%	50.5%	44.8%
		4 Very true	Count	366	89	455
			%	**40.5%**	**41.6%**	40.7%
	Total		Count	904	214	1118
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

"The job security is good"

Crosstabs				Private	Gov.	Total
GSS Year				Private	Gov.	Total
2006	The job security is good	1 Not at all true	Count	80	10	90
			%	5.9%	3.2%	5.4%
		2 Somewhat true	Count	123	27	150
			%	9.1%	8.5%	9.0%
		3 Not too true	Count	446	88	534
			%	33.0%	27.8%	32.0%
		4 Very true	Count	702	192	894
			%	**52.0%**	**60.6%**	53.6%
	Total		Count	1351	317	1668
			%	100.0%	100.0%	100.0%
2010	The job security is good	1 Not at all true	Count	78	13	91
			%	8.5%	6.1%	8.1%
		2 Somewhat true	Count	85	12	97
			%	9.3%	5.6%	8.6%
		3 Not too true	Count	326	65	391
			%	35.7%	30.4%	34.7%
		4 Very true	Count	425	124	549
			%	**46.5%**	**57.9%**	48.7%
	Total		Count	914	214	1128
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

Respondent is likely to be praised by supervisor

Crosstabs				Private	Gov.	Total
GSS Year						
2006	Respondent is likely to be praised by supervisor	2 Disagree	Count	223	63	286
			%	16.7%	19.9%	17.3%
		3 Agree	Count	358	90	448
			%	26.8%	28.4%	27.1%
		4 Strongly Agree	Count	754	164	918
			%	**56.5%**	**51.7%**	55.6%
	Total		Count	1335	317	1652
			%	100%	100%	100%
2010	Respondent is likely to be praised by supervisor	2 Disagree	Count	161	48	209
			%	17.8%	22.4%	18.7%
		3 Agree	Count	258	56	314
			%	28.5%	26.2%	28.1%
		4 Strongly Agree	Count	485	110	595
			%	**53.7%**	**51.4%**	53.2%
	Total		Count	904	214	1118
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

Workplace runs in smooth manner

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Workplace runs in smooth manner	1 Not at all true	Count	58	24	82
			%	4.3%	7.6%	4.9%
		2 Somewhat true	Count	282	69	351
			%	20.8%	21.9%	21.0%
		3 Not too true	Count	719	165	884
			%	53.0%	52.4%	52.9%
		4 Very true	Count	298	57	355
			%	**22.0%**	**18.1%**	21.2%
	Total		Count	1357	315	1672
			%	100%	100%	100%
2010	Workplace runs in smooth manner	1 Not at all true	Count	31	14	45
			%	3.4%	6.6%	4.0%
		2 Somewhat true	Count	145	33	178
			%	15.8%	15.6%	15.8%
		3 Not too true	Count	549	118	667
			%	59.9%	55.9%	59.2%
		4 Very true	Count	191	46	237
			%	**20.9%**	**21.8%**	21.0%
	Total		Count	916	211	1127
			%	100%	100%	100%
Source: IBM SPSS Statistics Version 22						

How fair is what respondent earns on the job

Crosstabs						
GSS Year				Private	Gov.	Total
2006	How fair is what respondent earns on the job	1 Much less than you deserve	Count	159	36	195
			%	12.0%	11.5%	11.9%
		2 Somewhat less than you deserve	Count	378	110	488
			%	28.4%	35.0%	29.7%
		3 About as much as you deserve	Count	666	147	813
			%	**50.1%**	**46.8%**	49.5%
		4 Somewhat more than you deserve	Count	96	16	112
			%	7.2%	5.1%	6.8%
		5 Much more than you deserve	Count	30	5	35
			%	2.3%	1.6%	2.1%
	Total		Count	1329	314	1643
			%	100%	100%	100%
2010	How fair is what respondent earns on the job	1 Much less than you deserve	Count	138	26	164
			%	15.3%	12.5%	14.8%
		2 Somewhat less than you deserve	Count	282	65	347
			%	31.3%	31.3%	31.3%
		3 About as much as you deserve	Count	412	107	519
			%	**45.7%**	**51.4%**	46.8%
		4 Somewhat more than you deserve	Count	54	6	60
			%	6.0%	2.9%	5.4%
		5 Much more than you deserve	Count	16	4	20
			%	1.8%	1.9%	1.8%
	Total		Count	902	208	1110
			%	100.0%	100%	100%
Source: IBM SPSS Statistics Version 22						

Respondent proud to work for employer

Crosstabs					
GSS Year			Private	Gov.	Total
2006	Respondent proud to work for employer	1 Strongly Disagree	Count	28	3	31
			%	2.1%	0.9%	1.9%
		2 Disagree	Count	102	20	122
			%	7.6%	6.3%	7.3%
		3 Agree	Count	715	187	902
			%	53.2%	59.0%	54.3%
		4 Strongly Agree	Count	500	107	607
			%	**37.2%**	**33.8%**	36.5%
	Total		Count	1345	317	1662
			%	100.0%	100.0%	100.0%
2010	Respondent proud to work for employer	1 Strongly Disagree	Count	22	3	25
			%	2.4%	1.4%	2.2%
		2 Disagree	Count	74	10	84
			%	8.1%	4.7%	7.4%
		3 Agree	Count	491	112	603
			%	53.6%	52.8%	53.5%
		4 Strongly Agree	Count	329	87	416
			%	**35.9%**	**41.0%**	36.9%
	Total		Count	916	212	1128
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

Job requires respondent to learn new things

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Job requires respondent to learn new things	1 Strongly disagree	Count	55	7	62
			%	4.0%	2.2%	3.7%
		2 Disagree	Count	184	29	213
			%	13.4%	9.1%	12.6%
		3 Agree	Count	568	113	681
			%	41.5%	35.5%	40.3%
		4 Strongly agree	Count	563	169	732
			%	**41.1%**	**53.1%**	43.4%
	Total		Count	1370	318	1688
			%	100.0%	100.0%	100.0%
2010	Job requires respondent to learn new things	1 Strongly disagree	Count	30	2	32
			%	3.2%	0.9%	2.8%
		2 Disagree	Count	102	16	118
			%	11.0%	7.4%	10.3%
		3 Agree	Count	399	75	474
			%	43.1%	34.9%	41.5%
		4 Strongly agree	Count	395	122	517
			%	**42.7%**	**56.7%**	45.3%
	Total		Count	926	215	1141
			%	100.0%	100.0%	100%
Source: IBM SPSS Statistics Version 22						

Job allows respondent use of skills

Crosstabs						
GSS Year				Private	Gov.	Total
2006	Job allows respondent use of skills	1 Strongly Disagree	Count	27	2	29
			%	2.0%	0.6%	1.7%
		2 Disagree	Count	124	29	153
			%	9.1%	9.1%	9.1%
		3 Agree	Count	674	149	823
			%	49.3%	46.9%	48.8%
		4 Strongly Agree	Count	543	138	681
			%	**39.7%**	**43.4%**	40.4%
	Total		Count	1368	318	1686
			%	100.0%	100.0%	100.0%
2010	Job allows respondent use of skills	1 Strongly Disagree	Count	18	1	19
			%	1.9%	0.5%	1.7%
		2 Disagree	Count	72	15	87
			%	7.8%	7.0%	7.6%
		3 Agree	Count	469	96	565
			%	50.7%	44.7%	49.6%
		4 Strongly Agree	Count	366	103	469
			%	**39.6%**	**47.9%**	41.1%
	Total		Count	925	215	1140
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

Respondent does numerous things on the job

Crosstabs					
GSS Year			Private	Gov.	Total
2006	Respondent does numerous things on the job	1 Strongly Disagree	Count	18	2	20
			%	1.3%	0.6%	1.2%
		2 Disagree	Count	146	40	186
			%	10.7%	12.6%	11.0%
		3 Agree	Count	644	126	770
			%	47.0%	39.6%	45.6%
		4 Strongly Agree	Count	561	150	711
			%	**41.0%**	**47.2%**	42.1%
	Total		Count	1369	318	1687
			%	100.0%	100.0%	100.0%
2010	Respondent does numerous things on the job	1 Strongly Disagree	Count	18	2	20
			%	1.9%	0.9%	1.8%
		2 Disagree	Count	78	20	98
			%	8.4%	9.3%	8.6%
		3 Agree	Count	466	85	551
			%	50.4%	39.7%	48.4%
		4 Strongly Agree	Count	363	107	470
			%	**39.2%**	**50.0%**	41.3%
	Total		Count	925	214	1139
			%	100.0%	100.0%	100.0%
Source: IBM SPSS Statistics Version 22						

APPENDIX II

The following tables represent the results of crosstabs between job satisfaction and seven variables. The tables include the survey years and the number of private and public-service workers.

JOBSAT and Respondent considers self a religious person

Crosstabs					Respondent consider self a religious person				
GSS Year					1 Not religious	2 Slight religious	3 Moderate religious	4 Very religious	Total
2006	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	12	11	11	9	43
				%	5.3%	3.3%	1.9%	3.9%	3.1%
			2 Not too satisfied	Count	18	27	39	16	100
				%	8.0%	8.0%	6.8%	6.9%	7.3%
			3 Somewhat satisfied	Count	107	173	256	80	616
				%	47.6%	51.2%	44.8%	34.6%	45.1%
			4 Very satisfied	Count	88	127	266	126	607
				%	39.1%	37.6%	46.5%	**54.5%**	44.4%
		Total		Count	225	338	572	231	1366
				%	100.0%	100.0%	100.0%	100.0%	100.0%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	2	6	0	2	10
				%	4.1%	8.7%	0.0%	3.2%	3.2%
			2 Not too satisfied	Count	1	0	6	3	10
				%	2.0%	0.0%	4.4%	4.8%	3.2%
			3 Somewhat satisfied	Count	25	31	65	19	140
				%	51.0%	44.9%	48.1%	30.6%	44.4%

			4 Very satisfied	Count	21	32	64	38	155
				%	42.9%	46.4%	47.4%	**61.3%**	49.2%
		Total		Count	49	69	135	62	315
				%	100%	100%	100%	100%	100%
2010	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	10	11	12	4	37
				%	4.7%	4.7%	3.4%	3.3%	4.0%
			2 Not too satisfied	Count	18	21	31	7	77
				%	8.4%	8.9%	8.9%	5.7%	8.3%
			3 Somewhat satisfied	Count	98	116	150	51	415
				%	45.8%	49.2%	42.9%	41.5%	45.0%
			4 Very satisfied	Count	88	88	157	61	394
				%	41.1%	37.3%	44.9%	**49.6%**	42.7%
		Total		Count	214	236	350	123	923
				%	100.0%	100.0%	100.0%	100.0%	100.0%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	1	1	1	3
				%	0.0%	2.2%	1.0%	2.7%	1.4%
			2 Not too satisfied	Count	4	5	5	3	17
				%	11.4%	10.9%	5.2%	8.1%	7.9%
			3 Somewhat satisfied	Count	14	14	41	12	81
				%	40.0%	30.4%	42.7%	32.4%	37.9%
			4 Very satisfied	Count	17	26	49	21	113
				%	48.6%	56.5%	51.0%	**56.8%**	52.8%
		Total		Count	35	46	96	37	214
				%	100.0%	100.0%	100.0%	100.0%	100.0%
				%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: IBM SPSS Statistics Version 22

JOBSAT and Respondent considers self a spiritual person

					Respondent consider self a spiritual person				
GSS Year					1 Not spiritual	2 Slight spiritual	3 Moderate spiritual	4 Very spiritual	Total
2006	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	7	9	14	13	43
				%	5.8%	3.1%	2.6%	3.2%	3.2%
			2 Not too satisfied	Count	9	19	38	34	100
				%	7.4%	6.6%	6.9%	8.4%	7.4%
			3 Somewhat satisfied	Count	62	152	253	145	612
				%	51.2%	53.1%	46.2%	35.9%	45.0%
			4 Very satisfied	Count	43	106	243	212	604
				%	35.5%	37.1%	44.3%	**52.5%**	44.4%
		Total		Count	121	286	548	404	1359
				%	100%	100%	100%	100%	100%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	2	1	2	5	10
				%	7.7%	1.6%	1.6%	4.9%	3.2%
			2 Not too satisfied	Count	0	2	5	3	10
				%	0.0%	3.2%	4.0%	2.9%	3.2%
			3 Somewhat satisfied	Count	13	30	61	37	141
				%	50.0%	48.4%	49.2%	36.3%	44.9%
			4 Very satisfied	Count	11	29	56	57	153
				%	42.3%	46.8%	45.2%	**55.9%**	48.7%
		Total		Count	26	62	124	102	314
				%	100%	100%	100%	100%	100%
2010	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	4	11	9	13	37
				%	3.6%	5.1%	2.7%	5.1%	4.0%
			2 Not too satisfied	Count	13	17	31	16	77
				%	11.7%	7.9%	9.1%	6.3%	8.4%
			3 Somewhat satisfied	Count	54	112	155	95	416
				%	48.6%	52.1%	45.7%	37.1%	45.2%
			4 Very satisfied	Count	40	75	144	132	391
				%	36.0%	34.9%	42.5%	**51.6%**	42.5%
		Total		Count	111	215	339	256	921

Crosstabs

				%	100%	100%	100%	100%	100%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	0	2	1	3
				%	0.0%	0.0%	2.2%	1.4%	1.4%
			2 Not too satisfied	Count	1	6	4	6	17
				%	10.0%	15.0%	4.3%	8.5%	7.9%
			3 Somewhat satisfied	Count	3	12	40	26	81
				%	30.0%	30.0%	43.0%	36.6%	37.9%
			4 Very satisfied	Count	6	22	47	38	113
				%	60.0%	55.0%	50.5%	**53.5%**	52.8%
		Total		Count	10	40	93	71	214
				%	100%	100%	100%	100%	100%
Source: IBM SPSS Statistics Version 22									

JOBSAT and Respondent's confidence in the existence of a God

				Crosstabs							
				Respondents confidence in the existence of God							
GSS YEAR				Dont believe	No way to find out	Some higher power	Believe sometimes	Believe but doubts	Know God exists	Total
2006	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	2	7	5	1	5	24	44
					5.7%	10.1%	3.2%	1.7%	2.0%	3.0%	3.2%
			2 Not too satisfied	Count	4	3	11	3	19	59	99
					11.4%	4.3%	7.1%	5.1%	7.8%	7.3%	7.3%
			3 Somewhat satisfied	Count	14	35	74	34	111	346	614
					40.0%	50.7%	48.1%	57.6%	45.5%	43.1%	45.0%
			4 Very satisfied	Count	15	24	64	21	109	374	607
					42.9%	34.8%	41.6%	35.6%	44.7%	**46.6%**	44.5%
		Total		Count	35	69	154	59	244	803	1364
					100%	100%	100%	100%	100%	100%	100%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	0	1	1	2	6	10
					0.0%	0.0%	3.1%	8.3%	3.6%	3.0%	3.2%
			2 Not too satisfied	Count	0	0	1	1	1	7	10
					0.0%	0.0%	3.1%	8.3%	1.8%	3.5%	3.2%
			3 Somewhat satisfied	Count	4	6	18	5	26	82	141
					66.7%	60.0%	56.3%	41.7%	47.3%	41.2%	44.9%
			4 Very satisfied	Count	2	4	12	5	26	104	153
					33.3%	40.0%	37.5%	41.7%	47.3%	**52.3%**	48.7%
		Total		Count	6	10	32	12	55	199	314
					100%	100%	100%	100%	100%	100%	100%
2010	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	2	4	6	2	3	19	36
					6.3%	6.2%	5.1%	4.2%	1.9%	3.9%	3.9%
			2 Not too satisfied	Count	4	10	7	3	15	38	77
					12.5%	15.4%	5.9%	6.3%	9.3%	7.7%	8.4%
			3 Somewhat satisfied	Count	14	30	54	28	75	212	413
					43.8%	46.2%	45.8%	58.3%	46.3%	43.0%	45.0%
			4 Very satisfied	Count	12	21	51	15	69	224	392
					37.5%	32.3%	43.2%	31.3%	42.6%	**45.4%**	42.7%
		Total		Count	32	65	118	48	162	493	918
					100%	100%	100%	100%	100.0%	100%	100%

Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	0	0	0	0	2	2
				0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.9%
		2 Not too satisfied	Count	1	0	0	0	2	13	16
				33.3%	0.0%	0.0%	0.0%	5.9%	9.2%	7.5%
		3 Somewhat satisfied	Count	0	6	9	2	15	49	81
				0.0%	50.0%	47.4%	66.7%	44.1%	34.8%	38.2%
		4 Very satisfied	Count	2	6	10	1	17	77	113
				66.7%	50.0%	52.6%	33.3%	50.0%	**54.6%**	53.3%
	Total		Count	3	12	19	3	34	141	212
				100%	100%	100%	100%	100%	100%	100%

Source: IBM SPSS Statistics Version 22

JOBSAT and Feelings about the Bible

Crosstabs								
					Feelings about the Bible			
GSS Year					1 Other	2 Book of fables	3 Inspired word	4 Word of God	Total
2006	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	3	12	11	17	43
				%	7.0%	4.8%	1.7%	4.1%	3.2%
			2 Not too satisfied	Count	3	16	53	27	99
				%	7.0%	6.4%	8.2%	6.5%	7.3%
			3 Somewhat satisfied	Count	16	123	292	178	609
				%	37.2%	49.4%	45.3%	42.7%	45.0%
			4 Very satisfied	Count	21	98	289	195	603
				%	48.8%	39.4%	44.8%	**46.8%**	44.5%
		Total		Count	43	249	645	417	1354
				%	100.0%	100.0%	100.0%	100.0%	100.0%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	1	7	2	10
				%	0.0%	2.0%	4.2%	2.1%	3.2%
			2 Not too satisfied	Count	0	1	5	4	10
				%	0.0%	2.0%	3.0%	4.3%	3.2%
			3 Somewhat satisfied	Count	3	28	83	28	142
				%	60.0%	57.1%	50.3%	29.8%	45.4%
			4 Very satisfied	Count	2	19	70	60	151
				%	40.0%	38.8%	42.4%	**63.8%**	48.2%
		Total		Count	5	49	165	94	313
				%	100.0%	100.0%	100.0%	100.0%	100.0%
2010	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	1	9	17	10	37
				%	5.9%	4.0%	4.3%	3.6%	4.1%
			2 Not too satisfied	Count	1	26	24	25	76
				%	5.9%	11.5%	6.1%	9.1%	8.3%
			3 Somewhat satisfied	Count	8	100	180	122	410
				%	47.1%	44.1%	45.7%	44.5%	45.0%
			4 Very satisfied	Count	7	92	173	117	389
				%	41.2%	40.5%	43.9%	**42.7%**	42.7%
		Total		Count	17	227	394	274	912
				%	100.0%	100.0%	100.0%	100.0%	100.0%
	Gov.			Count	0	1	1	1	3

JOBSAT how satisfied would you say you are with your job	1 Not at all satisfied	%	0.0%	2.9%	0.9%	1.6%	1.4%
	2 Not too satisfied	Count	1	3	5	7	16
		%	12.5%	8.6%	4.6%	11.5%	7.5%
	3 Somewhat satisfied	Count	5	11	43	22	81
		%	62.5%	31.4%	39.8%	36.1%	38.2%
	4 Very satisfied	Count	2	20	59	31	112
		%	25.0%	57.1%	54.6%	**50.8%**	52.8%
Total		Count	8	35	108	61	212
		%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: IBM SPSS Statistics Version 22

JOBSAT and How often does respondent pray

Crosstabs					How often does respondent pray						
GSS Year					1 Never	2 Less than once a week	3 Several times a week	4 Once a week	5 Once a day	6 Several times a day	Total
2006	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	11	3	3	7	10	10	44
				%	6.0%	1.7%	3.2%	4.2%	2.6%	2.7%	3.2%
			2 Not too satisfied	Count	15	9	4	11	33	28	100
				%	8.2%	5.2%	4.3%	6.6%	8.6%	7.7%	7.3%
			3 Somewhat satisfied	Count	92	91	44	71	181	137	616
				%	50.0%	52.3%	46.8%	42.8%	47.3%	37.6%	45.1%
			4 Very satisfied	Count	66	71	43	77	159	189	605
				%	35.9%	40.8%	45.7%	46.4%	41.5%	**51.9%**	44.3%
		Total		Count	184	174	94	166	383	364	1365
				%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	1	1	1	2	0	5	10
				%	3.4%	2.8%	5.0%	4.5%	0.0%	4.6%	3.2%
			2 Not too satisfied	Count	0	0	3	0	2	5	10
				%	0.0%	0.0%	15.0%	0.0%	2.6%	4.6%	3.2%
			3 Somewhat satisfied	Count	14	19	8	20	38	42	141
				%	48.3%	52.8%	40.0%	45.5%	50.0%	38.5%	44.9%
			4 Very satisfied	Count	14	16	8	22	36	57	153
				%	48.3%	44.4%	40.0%	50.0%	47.4%	**52.3%**	48.7%
		Total		Count	29	36	20	44	76	109	314
				%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2010	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	4	7	3	2	10	10	36
				%	2.7%	6.0%	5.6%	1.6%	4.1%	4.3%	3.9%
			2 Not too satisfied	Count	15	9	5	12	18	18	77
				%	10.1%	7.7%	9.3%	9.8%	7.4%	7.7%	8.4%
			3 Somewhat satisfied	Count	75	57	29	56	101	97	415
				%	50.7%	48.7%	53.7%	45.5%	41.4%	41.6%	45.2%
			4 Very satisfied	Count	54	44	17	53	115	108	391
				%	36.5%	37.6%	31.5%	43.1%	47.1%	**46.4%**	42.5%
		Total		Count	148	117	54	123	244	233	919
				%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	0	0	0	2	1	3
					0.0%	0.0%	0.0%	0.0%	3.0%	1.6%	1.4%
			2 Not too satisfied	Count	2	0	0	5	4	6	17
				%	8.7%	0.0%	0.0%	14.3%	6.1%	9.4%	7.9%
			3 Somewhat satisfied	Count	9	5	4	12	29	22	81
				%	39.1%	35.7%	33.3%	34.3%	43.9%	34.4%	37.9%
			4 Very satisfied	Count	12	9	8	18	31	35	113
				%	52.2%	64.3%	66.7%	51.4%	47.0%	**54.7%**	52.8%
		Total		Count	23	14	12	35	66	64	214
				%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: IBM SPSS Statistics Version 22

JOBSAT and Strength of affiliation

Crosstabs					Strength of affiliation				
GSS Year					1 No religion	2 Not very strong	3 Somewhat strong	4 Strong	Total
2006	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	15	4	13	12	44
				%	5.6%	3.4%	2.5%	2.6%	3.2%
			2 Not too satisfied	Count	19	8	45	28	100
				%	7.1%	6.8%	8.6%	6.1%	7.3%
			3 Somewhat satisfied	Count	125	52	248	191	616
				%	47.0%	44.4%	47.1%	41.7%	45.1%
			4 Very satisfied	Count	107	53	220	227	607
				%	40.2%	45.3%	41.8%	**49.6%**	44.4%
		Total		Count	266	117	526	458	1367
				%	100%	100%	100%	100%	100%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	3	1	4	2	10
				%	6.3%	2.9%	3.5%	1.7%	3.2%
			2 Not too satisfied	Count	0	2	4	4	10
				%	0.0%	5.7%	3.5%	3.4%	3.2%
			3 Somewhat satisfied	Count	26	17	55	43	141
				%	54.2%	48.6%	48.2%	37.1%	45.0%
			4 Very satisfied	Count	19	15	51	67	152
				%	39.6%	42.9%	44.7%	**57.8%**	48.6%
		Total		Count	48	35	114	116	313
				%	100.0%	100.0%	100.0%	100.0%	100.0%
2010	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	10	2	12	10	34
				%	5.1%	3.5%	3.3%	3.7%	3.8%
			2 Not too satisfied	Count	18	2	35	20	75
				%	9.1%	3.5%	9.6%	7.5%	8.5%
			3 Somewhat satisfied	Count	96	28	168	106	398
				%	48.7%	49.1%	45.9%	39.7%	44.9%
			4 Very satisfied	Count	73	25	151	131	380
				%	37.1%	43.9%	41.3%	**49.1%**	42.8%

		Total		Count	197	57	366	267	887
				%	100.0%	100.0%	100.0%	100.0%	100.0%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	1	0	1	2
				%	0.0%	6.7%	0.0%	1.2%	1.0%
			2 Not too satisfied	Count	3	1	5	7	16
				%	7.9%	6.7%	7.4%	8.1%	7.7%
			3 Somewhat satisfied	Count	18	1	22	38	79
				%	47.4%	6.7%	32.4%	44.2%	38.2%
			4 Very satisfied	Count	17	12	41	40	110
				%	44.7%	80.0%	60.3%	**46.5%**	53.1%
		Total		Count	38	15	68	86	207
				%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: IBM SPSS Statistics Version 22

JOBSAT and How often respondent attends religious services

| | | | | | How often respondent attends religious services | | | | | | | |
GSS Year					1 less than once a year	2 Once a year	3 Several times a year	4 Once a month	5 2-3x a month	6 Nearly every week	7 Every week	Total
2006	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	4	9	4	3	5	2	0	27
				%	4.1%	4.2%	2.7%	3.3%	4.2%	3.5%	0.0%	2.8%
			2 Not too satisfied	Count	6	19	7	6	4	6	16	64
				%	6.1%	8.9%	4.7%	6.5%	3.4%	10.5%	7.1%	6.7%
			3 Somewhat satisfied	Count	45	96	65	50	65	25	95	441
				%	45.9%	45.1%	43.9%	54.3%	55.1%	43.9%	42.0%	46.3%
			4 Very satisfied	Count	43	89	72	33	44	24	115	420
				%	43.9%	41.8%	48.6%	35.9%	37.3%	42.1%	**50.9%**	44.1%
		Total		Count	98	213	148	92	118	57	226	952
				%	100%	100%	100%	100%	100%	100%	100%	100%
	Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	4	0	0	0	0	1	1	6
				%	20.0%	0.0%	0.0%	0.0%	0.0%	5.3%	1.5%	2.5%
			2 Not too satisfied	Count	2	2	0	2	0	1	2	9
				%	10.0%	4.3%	0.0%	8.7%	0.0%	5.3%	3.0%	3.8%
			3 Somewhat satisfied	Count	6	28	13	7	18	6	28	106
				%	30.0%	59.6%	52.0%	30.4%	46.2%	31.6%	41.8%	44.2%
			4 Very satisfied	Count	8	17	12	14	21	11	36	119
				%	40.0%	36.2%	48.0%	60.9%	53.8%	57.9%	**53.7%**	49.6%
		Total		Count	20	47	25	23	39	19	67	240
				%	100%	100%	100%	100%	100%	100%	100%	100%
2010	Private	How satisfied would you say you are with your job	1 Not at all satisfied	Count	3	7	3	1	5	0	2	21
				%	4.1%	4.8%	3.1%	1.3%	6.0%	0.0%	1.6%	3.3%
			2 Not too satisfied	Count	9	8	9	6	8	4	10	54
				%	12.3%	5.4%	9.3%	7.6%	9.6%	11.8%	7.8%	8.4%
			3 Somewhat satisfied	Count	37	73	49	38	36	16	46	295
				%	50.7%	49.7%	50.5%	48.1%	43.4%	47.1%	35.9%	46.0%
				Count	24	59	36	34	34	14	70	271

		4 Very satisfied	%	32.9%	40.1%	37.1%	43.0%	41.0%	41.2%	**54.7%**	42.3%
		Total	Count	73	147	97	79	83	34	128	641
			%	100%	100%	100%	100%	100%	100%	100%	100%
Gov.	How satisfied would you say you are with your job	1 Not at all satisfied	Count	0	1	0	0	0	0	0	1
			%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
		2 Not too satisfied	Count	2	3	1	0	1	2	1	10
			%	10.0%	10.3%	4.0%	0.0%	4.8%	16.7%	2.1%	6.2%
		3 Somewhat satisfied	Count	8	10	10	2	7	2	19	58
			%	40.0%	34.5%	40.0%	25.0%	33.3%	16.7%	40.4%	35.8%
		4 Very satisfied	Count	10	15	14	6	13	8	27	93
				50.0%	51.7%	56.0%	75.0%	61.9%	66.7%	**57.4%**	57.4%
		Total	Count	20	29	25	8	21	12	47	162
			%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: IBM SPSS Statistics Version 22

APPENDIX III

The table showed all of the statements in the research

study asked in the 2006 and the 2010 versions of GSS.

Variables	Survey years 20						
	00	02	04	06	08	10	12
How often respondent attends religious services	X	X	X	X	X	X	X
Feelings about the Bible	X	X	X	X	X	X	X
Respondent confidence in the existence of God	X			X	X	X	X
How often does respondent pray	X	X	X	X	X	X	X
Respondent consider self a religious person				X	X	X	X
Respondent consider self a spiritual person				X	X	X	X
Strength of affiliation	X	X	X	X	X	X	X
Coworkers can be relied on when respondent needs help	X			X		X	
Coworkers take a personal interest in respondent	X			X		X	
Enough info to get the job done		X		X		X	
Enough help and equip to get the job done		X		X		X	
Respondent knows what's expected on job		X		X		X	
The job security is good		X		X		X	X
Work place runs in smooth manner		X		X		X	
Respondent is likely to be praised by supervisor		X		X		X	
Supervisor helpful to respondent in getting job done		X		X		X	
A lot of freedom to decide how to do job		X		X		X	
Respondent has enough time to get the job done		X		X		X	
Respondent does numerous things on the job				X		X	
Job allows respondent use of skills				X		X	
Job requires respondent to learn new things				X		X	
Respondent proud to work for employer				X		X	
How fair is what respondent earns on the job				X		X	
JOBSAT		X		X		X	