Walden University

COLLEGE OF MANAGEMENT AND TECHNOLOGY

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Abstract

An Evaluation of the Relationship of a Public Organization and Its Use of a Comprehensive Experiential Leadership Training Program

by

Paula S. O'Neil

MSM, National-Louis University, 1993

BS, Missouri State University, 1976

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Applied Management and Decision Sciences

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May 2010

Abstract

Researchers have shown a positive correlation between training and employee satisfaction, customer satisfaction, and performance results. The problem is that there is limited research on the effectiveness of comprehensive experiential leadership training (CELT) programs. Theories of Knowles, Kolb, and Jarvis demonstrate the importance of effective training programs. The purpose of this study was to determine the type of relationship that existed between a CELT program and employee satisfaction, customer satisfaction, and performance results. The research questions addressed the relationships between participation in a CELT program and employee satisfaction, customer satisfaction, and performance results. This quantitative research was an ex post facto study of a state agency that used a CELT program for 25 years. The sample included 100% of the agency employees who participated in the CELT program prior to 2008. Existing data were collected, analyzed, and aggregated by district. Two-way ANOVAs without replication were conducted to demonstrate the relationships between CELT participation and employee satisfaction, customer satisfaction, and performance results between 2002 and 2007. Where possible, results were described by district. The findings demonstrated a positive relationship between CELT participation and employee satisfaction. The findings did not confirm a positive relationship between CELT participation and customer satisfaction or performance results. Relationships inferred in this study may improve governance and foster better public management, thereby advancing social change by demonstrating the management complexities of transportation infrastructure, providing a leadership training and development model for consideration by public administrators, and contributing to the wealth of resources held by professional associations.

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Dedication

This research is dedicated in memory of my sister, Catherine Clever, who thought I was smart enough to achieve this accomplishment and encouraged me to do so, and in honor of my children, Patrick and Phillip, my brother Harry, and my sisters, Barb and Betty. I thank God for blessing me with such a wonderful, loving, understanding family.

Acknowledgments

The successful completion of this dissertation would not have been possible without the dedicated efforts, support, persistence, and patience of the professors at Walden University, most specifically, Dr. Lilburn Hoehn. To this day, I do not know if he ever sleeps. He is a hero to countless students and a treasure to his family.

The cooperation received from the Florida Department of Transportation (FDOT) was also essential to the accomplishment of this task. Assistance from Larry Ferguson was continual and extended over a year. His direction to public documents and navigation through the FDOT government-speak were crucial to my comprehension of FDOT's vision. Irene Cabral was also very helpful with staffing questions and concerns, and ever cheerful. Encouragement to research this organization was received from Dr. Dan Vicker and Alaa El-Halwagy, both aware of the sophisticated surveying and performance measurement processes followed by FDOT.

Assistance with filtering through the plethora of information from FDOT was received from my son Phillip, a math whiz. Fresh eyes to help organize, sort, and prioritize data provided a welcome focus. I appreciate the patience of my family and friends and their understanding of the need to always work on papers, tests, and this dissertation. It would be negligent to leave out appreciation for Buddy, the Dachshund who sat at my feet as I worked countless hours on the computer.

Most importantly, I am thankful to God for giving me the opportunity to learn. May I honor Him and glorify His name in all I do.

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Chapter 1: Introduction to the Study

Introduction

Organizational performance has long been a concern for many organizations, public and private. In recent years, economic conditions and increased globalization have increased pressure from taxpayers and shareholders to decrease budgets and increase performance. Osborne and Gaebler (1993) explained that the circumstances that formed the bureaucratic model called *government* were different than the conditions of our current society. The pace of changes today are breathtaking, complicated by the global marketplace, the information society, the knowledge-based economy, and very demanding customers (p. 15). Harrington and Lomax (2002) identifed a very small margin between success and failure, citing the competitive difference between good and great ideas (p. 169). Adding further to this concern, Senge (2002) observed that many institutions are suffering breakdowns, including business, government, education, and the family (p. 123). With these concerns, it is necessary for all organizational leaders, public and private, to review their practices to ensure mission effectiveness and organizational sustainability.

Many companies look for quick fixes and instant results; however, desired positive outcomes are determined by multiple factors and require complex planning. Cunningham, Dawes, and Bennett (2004) warned leaders against using gimmicks and quick fixes to save money, as those solutions may not take the complexities of the organization into account (p. 26). They pointed out that learning is fundamental to economic success and organizational success, and that it needs to be based on realities.

All companies invest in training and education, however, the investments are not always effective (Cunningham et al., p. 6).

Manning and Curtis (1988) identified leadership as the key to success for organizations (p. 6). Buckingham and Coffman (1999) wrote that great managers should illustrate individualization, discipline, focus, and trust (p. 12). Matathia and Salzman (1999) believed accelerated changes would influence brand stewardship, with customers changing habits, preferences, and motiviation (p. 13). Giannetto and Zecca (2007) drew a relationship between revenue-generating strategic objectives, profit-enhancing strategic objectives, and improved customer value enhancing strategic objectives (p. 39). Organizational leaders are "always-on-always-connected" and overloaded with email messages, instant messages, phone calls, and meetings (Capossela, 2005). With all of these demands and pressures, it is easy to understand why leaders have difficulty deciphering best practices and training options for their organizations.

In response to the need for a systematic approach to training and leadership development for public administrators, the State of Florida developed the Florida Center for Public Management (FCPM) at Florida State University. The Governor and Cabinet approved a resolution designating it as a *preferred management development program* (Florida Governor & Cabinet, 1994). The program consists of eight levels, progressing through emphases on individual performance, group performance, organizational performance, organizational effectiveness, social change, systems theory, policy perspectives, and contemporary issues. I looked at specific results experienced by a state agency that utilized this program, in addition to other training avenues, within its

organization. Annual results on employee satisfaction, customer satisfaction, and performance measures between 2002 and 2007 were evaluated in detail.

Statement of the Problem

The problem was that research on the effectiveness of comprehensive experiential leadership training (CELT) programs is limited. Research conducted on small experiential leadership training programs and gaming inclusion in training have had different outcomes. For example, Wolfe's (1975) study of a business policy and the learning environment showed no improvement. Research on the inclusion of games in training experiences conducted by McKenney (1962) indicated it was a worthwhile diversion of class time and Wolfe (1973) indicated that gaming was superior to the case approach to teaching. Raia (1966) found that games provided a productive learning environment and Moore (1967) found that games were not superior in production management. Noack (2002) found that experiential groups helped develop relationships and Merta, Wolfgang, and McNeil (1991) found that, while experiential learning allowed for some therapeutic work, it could be at the expense of learning group processes and skills. Perksy, Stegall-Zanation, and Dupuis (2007) found that experiential training appeared to have a positive impact, but further assessment would be needed.

In regard to FCPM, facilators collected feedback on course content and participant experiences, but there were no empirical data to validate the effectiveness of the program. Limited studies were conducted in other states on similar statewide programs, all of which were detailed in Chapter 2. The FCPM program had over 7,000 participants within its first 30 years. Individual participation in the program normally

extended over a two- to three-year period. Organizational performance was emphasized, with topics including performance measure results, measurement, evaluation, auditing, operational learning, performance awards (e.g. Sterling, Baldrige, and Davis), communication, project management, scheduling, and flowcharting (FCPM, 2003, p. 3). While all of those topics sound valuable and timely, studies had not been conducted to determine if participation within this program resulted in positive changes in participant workplaces. There was a clear need to determine the potential effectiveness of FCPM and its justification as a state-preferred training program.

FCPM's purpose was to provide avenues for performance improvement for public managers and governmental organizations (FCPM, 2009, "What is CPM"). FCPM provided training for public sector employees throughout the state and had participants from over 21 different agencies. The Florida Department of Transportation (FDOT) used FCPM training since 1984 and had enrolled 1,249 FDOT employee participants prior to 2008. FDOT also had a sophisticated performance management office and coordinated annual surveys on employee satisfaction, customer satisfaction, and organizational performance. By analyzing the existing data into separate components, relationships between training and the results of employee satisfaction, customer satisfaction, and performances were explored.

Background of the Problem

Importance of Training

While society has established an educational system to prepare minor citizens for adult life and jobs, learning does not stop at high school graduation. Recognizing this fact

early in the 20th century, Bobbitt (1918) wrote about the importance of education for preparing students for adulthood, rather than childhood (p. 8). Employers experience this need for continued education and training. Merriam, Caffarella, and Baumgartner (2007) noted that lifelong education was reframed lifelong learning due to the need for a more skilled workforce and competition, with the term *learning* supplanting the term *education* by the early 1990s (p. 47). Learning does not stop with high school or college graduation, particularly since many of the life's challenges cannot be anticipated so many years in advance.

Decisions on training options are significant for many reasons. Primarily, proper training can prevent errors and mistakes that can be disastrous. A 2000 report from the United Kingdom government outlined tragic medical mistakes due to learning failures. Cited in the National Health Service report were an estimated 850,000 unfavorable events that resulted in additional hospital days, litigation settlements, incorrectly-administered drugs, 87 deaths, and 345 serious injuries (Department of Health, 2000, p. 5). It is important to consider that the organization responsible for that report was one of the largest organizations in the world with a highly educated and trained workforce (Cunningham et al., 2004, p. 18).

Studies on discharge paperwork from 14,732 cases in 28 hospitals in Colorado and Utah led experts to estimate that the cost of medical errors could be as much as 4.8% of per capita health care expenditures (Thomas et al., 1999). An extrapolation of the Colorado and Utah results led experts to estimate in 2000 that between 44,000 and 98,000 Americans die annually from medical errors (Agency for Healthcare, 2009).

While the state agency under evaluation does not provide medical services as described in the above examples, it contributes to increasing the safety, reliability, capacity, and efficiency of the transportation system in Florida. In 2007, the daily vehicle miles traveled over Florida's highways were near 300 million (FTC, 2008, p. 16). FDOT works with commercial service airports, general aviation reliever airports, spaceports, seaports, passenger terminals (rail, bus, and multimodal), rail freight terminals, passenger rail corridors, freight rail corridors, waterways, and highways (FTC, 2008, p. 1). Proper signage, engineering, and traffic trending require advanced professional skills, complex conceptual expertise, and refined collaboration with many business partners.

Importance of Job Satisfaction

Satisfied employees make a true difference in the workplace, both to coworkers and to customers. Research has shown a relationship between satisfied employees and increased productivity, creativity, and employer commitment, as well as a correlation between the levels of satisfaction of staff members and patients (Syptak, Marsland, & Ulmer, 1999, p. 26). Woods and Barron (2005) pointed out advantages of an increase of 10% in employee satisfaction, demonstrated by pride in teamwork and active participation in organizational decision-making (p. 34). Training can lead employees toward a positive change in employee focus and, consequently, increased job satisfaction.

Organizational leaders can make or break employee morale and encourage or discourage teamwork. In times of uncertainty, it is important to have a culture of trust. Changes in the world around us are stressful to most people, according to Sashkin and Sashkin (2003, p. 165). Giannetto and Zecca (2007) believed that organizations could

improve faster if they changed employee focus (p. 60). Thinking organizationally allows employees to concentrate on true organizational goals and consider organizational concerns above their own individual responsibilities. Success can be identified as performance improvement in most organizations, subsequently reducing stress and enabling people to feel better about their jobs and lives (Giannetto & Zecca, p. 60).

Importance of Customer Satisfaction

Customer satisfaction has recently taken the forefront as essential to governmental agencies. Services seen as basic and no-frills in the industrial era are no longer acceptable in our fast-paced society (Osborne & Gaebler, 1993, p. 14). Today's environment is much more demanding with customers choosing non-standardized services (p. 15). In order to know what is important to customers, agencies must determine customer priorities. Woods and Barron (2005) believed the implementation of a strategic market research survey allowed them to identify customers' needs for their organization (p. 35). A strategic approach, which includes customer-driven excellence, maximizes an organization's competitive position (Lynn & Rapp, 2007, p. 12) and positive customer service influences an organization's credibility (ASTD, 2009, p. 7). One recently cited example of a company that values customer feedback was eBay. eBay sellers had feedback profiles with customer comments, considered their official eBay reputation. This reputation was so important that it was attached to the sellers' usernames. eBay sellers were policed by their users and there was a preponderance of positive eBay feedback (Friedman, 2005, p. 454). Companies that do not consider their customers' needs and desires could jeopardize survival.

Importance of Performance Improvement

The need for employees to understand the organization's mission, vision, and values cannot be overlooked. Jarvis (2006) believed that procedures restricted employees and their actions were often taken for granted, limiting organizational growth and organizational creativity (p. 153). Jarvis observed that organizations which were considered more progressive learning organizations benefited by enabling employees to be more flexible performers (p. 153). When employees do not understand the purpose and mission of their organizations, they may not have the comprehension needed for quick and appropriate customer assistance and redirection when needed. This could restrict an organization from competing on a level playing field with other global organizations.

It has been widely accepted that employee development had a positive relationship to organizational performance improvement (Jacobs & Washington, 2003, p. 343). Jacobs and Washington stated that most research studies demonstrated that employee development programs were combined within other programs, making specific direct impact hard to measure (p. 345). In a study of 437 publicly traded companies, by McDonald and Smith (1995) found that performance management programs improved business performance. In a study of 319 business units conducted by Koch and McGrath (1996), employee development was indirectly related to organizational performance. Sustainability of any organization depends on positive organizational performance, especially in challenging times.

Purpose of the Study

The purpose of the study was to determine the type of relationship that existed between a comprehensive experiential leadership training (CELT) program and employee satisfaction, customer satisfaction, and performance results. CELT programs, similar to FCPM and also called certified public management programs, existed in 37 states and territories at the time of this research, yet little research existed to identify their value. FCPM has enrolled over 7,000 participants in its certified public management program in hopes of improving leadership in the public sector, thereby improving public administration and government overall.

The State of Florida Resolution (Florida Governor & Cabinet, 1994) declared FCPM as a preferred management development program in recognition of the need for leadership in public government, especially in challenging economic times. Further, the resolution acknowledged the value of best practices as a benefit to Florida's governmental agencies. An in-depth look at one agency's participation in FCPM over a defined timeframe was conducted to determine if changes could be identified with respect to management development initiatives, leadership development, service delivery, performance results, and best practices development. Answers to this question would allow this organization to evaluate its training initiatives and make appropriate modifications.

Theoretical Support of the Study

Training Considerations

Training decisions are of great importance (Agency for Healthcare, 2009; Bobbitt, 1918; Cunningham et al., 2004; Merriam et al., 2007; Thomas et al., 1999). Financial and time resources are valuable commodities and commitments in this arena need deliberate thought and purpose. To present a conceptual look at training, Knowles' assumptions about andragogy will be presented, followed by Kolb's Theory of Experiential Training, Jarvis' Theory on the Process of Learning, and Kirkpatrick's Model of Learning and Training Evaluation. Given that the certified public management training was designed using an experiential learning foundation, these theories provide a look at the history of and support for the adult learning process.

Theories of Adult Learning

To distinguish the difference between adult education and childhood education, Knowles (1968) declared a new label and technology (p. 351). Knowles (1980) presented the word *andragogy* to address helping adults learn (p. 43), contrasted with *pedagogy* based on helping children learn (Merriam et al., 2007, p. 84). Knowles developed four original assumptions and two subsequent assumptions, as follows:

1. As a person matures, his or her self-concept moves from that of a dependent personality toward one of a self-directing human being (Knowles, 1980, pp. 44-45).
2. An adult accumulates a growing reservoir of experience, which is a rich resource for learning (Knowles, 1980, pp. 44-45).

3. The readiness of an adult to learn is closely related to the developmental tasks of his or her social role (Knowles, 1980, pp. 44-45).
4. There is a change in time perspective: as people mature—from future application of knowledge to immediacy of applications. Thus, an adult is more problem centered than subject centered in learning (Knowles, 1980, pp. 44-45).
5. The most potent motivations are internal rather than external (Knowles & Associates, 1984, p. 12).
6. Adults need to know why they need to learn something (Knowles & Associates, 1984, p. 12).

These assumptions clearly illustrate the need for continued education as people mature. As employees experience life challenges and work challenges, training can help them prioritize.

Merriam et al. (2007) wrote that andragogy separated adult education from other educational areas (p. 85). Jarvis (2006) commented on the work of Knowles, pointing out that it was up to the learner to make education useful (p. 187). This supports the need for the learning experience to be relevant to the adult learner and for learning to be a continuing process.

Kolb's Model of Experiential Learning

Kolb (1984) pointed out the significance of what people learn over how learning occurs (p. 7). He also noted that the effectiveness of individuals and organizations depended on learning from experience and internal commitment (Kolb, p. 11). He

described a four-stage model on experiential learning theory. The four learning stages were *concrete experience, reflective observation, abstract conceptualization*, and *active experimentation* (Kolb, p. 40). McShane and Von Glinow (2005) emphasized the sensory and emotional engagement involved in the concrete experience, the first learning stage. They discussed the ingredients of listening, watching, and recording in reflective observation, the second learning stage, followed by elaboration of the experiences. The third learning stage, abstract conceptualization, documented the integration of observations into sound theories and the fourth learning stage, active experimentation, allowed learners to test previous experiences within a particular context (p. 100). The use of experiential training by FCPM enabled participants to consider their individual challenges and organizational situations to assist with problem solving and systems solutions.

Kolb's theory remained popular and influential for many years; however, one theorist who was critical of his work was Jarvis. Jarvis (2006) had difficulty replicating Kolb's results and proposed a more advanced theory. He offered four possibilities for the popularity of Kolb's cycle. Jarvis believed Kolb's introduction of experientialism was contemporary, that his focus on experience as central to understanding learning was comprehendible, that the simplicity of his theory made common sense, and that the readers were not critical of his research (p. 188). Clearly, training methodologies need to be able to reach the participants to be effective. By focusing on experience, participants can readily relate the training exercises to their own work situations.

Jarvis's Theory about Human Learning

Because Jarvis (2006) was dissatisfied with approaches to learning, including the limitations of Kolb's theory, he developed his own theory (p. 8). He believed there was a disconnect between classroom theory and practical application. Jarvis outlined three non-learning phases, three non-reflective phases, and three reflective learning phases (p. 10). The non-learning phases were presumption, non-consideration, and rejection. The non-reflective learning phases were pre-conscious, practice, and memorization. The final three, reflective learning, were contemplation, reflective practice, and experiential learning. Jarvis pointed out a social context that included combining reflections of the past and planning for the future in learning experiences (p. 5). Jarvis's theory was more complex than Kolb's theory, and added dimensions that are also important to consider. These theories support the value of experiential training both for adult learners and for practical application within the workplace.

Training Evaluation Theory

Kirkpatrick and Kirkpatrick (2006) developed a learning and training evaluation model with four distinct levels: reaction, learning, behavior, and results (p. 21). Level 1, reaction, measured participant reactions, a type of customer satisfaction. Kirkpatrick and Kirkpatrick pointed out that positive reactions were desired to motivate learning, as negative reactions would not lead to motivation. This was important in FCPM because positive reactions were more likely to have a positive impact on the participants' effectiveness within their individual organizations.

Level 2, learning, involved changing attitudes, improving knowledge, and/or increasing skills, either one of which could lead to behavioral change (Kirkpatrick & Kirkpatrick, 2006, p. 22). One of the reasons for training commitment is to shift the organization in a forward direction and model positive attitudes from leaders. Positive attitudes promote positive energy and collectively influence the organization's success (Gordon, 2007, p. 111).

Level 3, addressed behavioral changes, and was complicated by other competing factors (Kirkpatrick & Kirkpatrick, 2006, p. 22). Changes in behavior are complex and the lack of behavioral change may be misleading and cause management to conclude that training was ineffective. Kirkpatrick and Kirkpatrick indicated that there were four conditions necessary for changes to occur. They included a desire to change, knowledge of how to change, existence of the right climate, and a reward for changing (p. 23). Kirkpatrick and Kirkpatrick identified five different types of climates: preventing, discouraging, neutral, encouraging, and requiring (pp. 23-24). In the case of the state agency under study, the 1,249 participants worked in various areas of the state, in different job classes, and in varying levels of the organizational chart. It was unlikely that every participant faced the same exact climate upon return to his/her working environment. FDOT made additional efforts to make itself an employer of choice, beyond inclusion in the FCPM program, which could have influenced the effectiveness of participants with their individual working environments.

Level 4, results, is normally the primary goals of most training initiatives. Desired outcomes could include an increase in production, improvement in quality, decrease in

accidents, cost-savings, reduction in turnover, and higher profits (Kirkpatrick & Kirkpatrick, 2006, p. 25). Guidelines for evaluating results may include using a control group, measuring results, and/or conducting a cost/benefit analysis (Kirkpatrick & Kirkpatrick, p. 65). Results were important to the state of Florida, which led to the mandate of performance and productivity measures for FDOT (Transportation Performance and Productivity Standards (1992).

Assumptions

This study was based on existing data from the Florida Department of Transportation (FDOT), Florida Transportation Commission (FTC), and the Florida Center for Public Management (FCPM). For purposes of this research, all data acquired from state sources is assumed to be accurate and valid and no testing of the raw data was done. Access to data was granted by FDOT (see Appendix A) and attempts were made to address the research questions using available data. The prediction is that the components with greater participation in FCPM will show a higher percentage of employee satisfaction, customer satisfaction, and performance results.

Scope and Delimitations

The purpose of the study was to determine the type of relationship that existed between a comprehensive experiential leadership training program (CELT) and employee satisfaction, customer satisfaction, and performance results. I compared and analyzed the results of FDOT Leadership and Human Resource Practices Surveys (LHRPS), FDOT Customer Satisfaction Surveys, and Annual Production and Performance Review reports from 2002-2007 and evaluated the findings within consideration of the seven FDOT

geographic districts. While FDOT had FCPM participation from the central office and an enterprise operation (Florida Turnpike), only the findings from the districts were considered because of the similarities of their responsibilities and challenges.

To examine the employee satisfaction question, an analysis of LHRPS was conducted and separated into FDOT's strategic measures to be examined by districts. Analysis of FDOT Customer Satisfaction Surveys included satisfaction survey results from five customer groups: commercial drivers, government officials, well elders, visitors, and Florida residents. The customer satisfaction was not able to be compared by districts. The FDOT Performance and Production Review reports between 2002 and 2007 were analyzed to show progress from year to year and, in some cases, compare district performance.

Because FDOT participants were members of various levels in the organization and had representation from all seven districts, the outcomes of this research could be generalized to other public sector organizations with similar challenges. In addition, the outcomes could be useful to other states with similar CELTS and other organizations utilizing CELTS or considering training options.

Limitations

One limitation of this research was the progression of FDOT employees through the career ladder during their employment. Since the FDOT's participation with FCPM spans over 25 years, employee assignments within districts and subgroups at FDOT could have possibly changed. Consideration is only given to the district assignment at the time of the research.

Another limitation of this research was consideration of the effect of other training utilized by FDOT, including specialized training for specific occupations and career academies. While additional training opportunities may have affected the results of employee satisfaction, customer satisfaction, and performance outcomes, they were not analyzed.

Demographic information on the FCPM participants was limited to districts, subgroups, and dates of attendance. Limitations of the FDOT database did not allow comparison of age, education, or years of service information by districts.

Nature of the Study

This study was an ex post facto quantitative study using available data. Because FDOT had a sophisticated and methodical process to evaluate its performance, employee and customer surveys were readily available for assessment. Further, FDOT tracked performance measures to determine productivity and progress. Combining the FDOT available data with FCPM district participation, allowed the analysis of potential correlations and inferences regarding the effectiveness of FCPM and other CELTS.

The selected state agency, the Florida Department of Transportation (FDOT), incorporated various types of training tools statewide for its thousands of employees, some based on job type or management level and some voluntary. In addition, FDOT used the FCPM program in various capacities throughout the state, less consistently than other FDOT-designed and supported academies. I analyzed the demographics of all of the FCPM participants from FDOT who completed training before 2008, 1,249 employees in total, and compared the results of FDOT LHRPS, FDOT Customer Satisfaction Surveys,

and Annual Production and Performance Review reports from 2002-2007. Further, these analyses were broken down into the seven districts, where possible.

Definition of Terms

Malcolm Baldrige National Quality Award. An award based on measurement, analysis, and knowledge created in 1987 by the United States National Institute of Standards and Technology that recognizes organizations for performance excellence in six categories: manufacturing businesses, service businesses, small businesses, education organizations, health care organizations and nonprofit organizations.

Customer Satisfaction Surveys. Surveys used by FDOT to determine customer satisfaction. Between 2002 and 2007, there were five customer groups surveyed, including residents, visitors, well elders, government officials, and commercial drivers. Well elders was defined by FDOT as "still able to drive or use transit" (Stein & Sloane, 2003, p. 24).

Florida Certified Public Manager Program (FCPM). A program led by the Florida Center for Public Management designed with a systemic approach to the training and development of government administrators. The program consists of eight four-day sessions and is offered throughout the state of Florida. This experiential training consists of classroom instruction, required readings, examinations, and work-related projects. The program started in 1979 modeled after the state of Georgia and was named a preferred management development program in 1994 by the Florida Governor and Cabinet. Over 7,000 individuals have participated in the CPM program and over 2,000 Certified Public Managers have graduated.

Florida Department of Transportation (FDOT). The governmental agency responsible for the safety, reliability, capacity, and efficiency of the state transportation system in Florida, including commercial service airports, general aviation reliever airports, spaceports, seaports, passenger terminals (rail, bus, and multimodal), rail freight terminals, passenger rail corridors, freight rail corridors, waterways, and highways (FTC, 2008, p. 1). In 2008, the daily vehicle miles traveled over Florida's highways were near 300 million (FTC, 2007, p. 16). Responsibilities are limited to state roads and do not include federal or local roads.

Florida Department of Transportation (FDOT) Districts. FDOT contains seven geographic districts. District 1 includes Charlotte, Collier, Desoto, Glades, Hardee, Hendry, Highlands, Lee, Manatee, Okeechobee, Polk, and Sarasota Counties. District 2 includes Alachua, Baker, Bradford, Clay, Columbia, Dixie, Duval, Gilchrist, Hamilton, Lafayette, Levy, Madison, Nassau, Putnam, Saint Johns, Suwannee, Taylor, and Union Counties. District 3 includes Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton, and Washington Counties. District 4 includes Broward, Indian River, Martin, Palm Beach, and Saint Lucie Counties. District 5 includes Brevard, Flagler, Lake, Marion, Orange, Osceola, Seminole, Sumter, and Volusia Counties. District 6 includes Miami-Dade and Monroe Counties. District 7 includes Citrus, Hernando, Hillsborough, Pasco, and Pinellas Counties (FDOT, 2007b, p. B1).

Florida Sterling Council. A Council established in 1992 by the Governor of Florida to promote economic development and a high quality of life through

organizational performance excellence. This public/private partnership is a not-for-profit corporation that has established the Florida Sterling criteria for performance excellence, which was based on the National Malcolm Baldrige Award criteria.

ISO 9000. A family of standards used for quality improvement maintained by the International Organization for Standardization which provides a framework to help organizations fulfill their customer's quality requirements, enhance customer satisfaction, fulfill applicable regulatory requirements, and pursue continuous process improvement.

Leadership and Human Resources Practices Surveys (LHRPS). Surveys used by FDOT from 2002 to 2007 to determine employee satisfaction.

Performance measures. Performance measures were developed by the Florida Transportation Commission (FTC) as required by the Transportation Performance and Production Standards (F. S. 333.045, 1992) for FDOT performance evaluation. There are two levels of performance measures, primary and secondary. Both were defined in this section.

Primary performance measure. Primary measures were used by FTC and FDOT to assess major departmental functions that were mostly within FDOT's control (FTC, 2002, p. 29).

Secondary performance measure. Secondary measures were used by FTC and FDOT for informational purposes for functions considered sufficiently important to report (FTC, 2002, p. 29).

Research Questions

The research questions were:

1. What is the relationship between participation in a comprehensive experiential leadership training program and employee satisfaction?
2. What is the relationship between participation in a comprehensive experiential leadership training program and customer satisfaction?
3. What is the relationship between participation in a comprehensive experiential leadership training program and performance results?

The use of FCPM for training and leadership development was inconsistent between FDOT districts; therefore, an analysis of employee satisfaction, customer satisfaction, and performance results was conducted with evaluation tools that already existed. This analysis recognized that additional training was received by FDOT employees separate from FCPM; however, no analysis was performed in that regard.

Significance of the Study

This research served to determine potential correlations between FCPM participation and employee satisfaction, customer satisfaction, and performance results, all of which are crucial to organizational performance and sustainability. Training decisions are expensive in both funding and staffing allocation, so it is important to align investments in training with organizational vision. As FCPM is similar to 36 other certified public management programs throughout the country and could serve as a sample CELT, correlations inferred in this study may contribute to the overall

comprehension and understanding of the certified public management consortium and comprehensive experiential leadership training programs worldwide.

In addition to the desire to validate correlations between FCPM participation and organizational performance, this research has the potential to contribute to the public administration field. Because the curriculum design and target participation groups were intended for public leaders, and this study was centered on a public agency's participation and outcomes, this study may offer insight in this area. Even more globally, however, this study has the potential to offer a closer look at an organization's efforts over time to improve results, which has the potential to contribute to the leadership and management profession overall. Further, the selected organization manages the state transportation infrastructure for the fourth largest state in the United States, directly impacting economic conditions and social opportunities.

This research will contribute to the credibility of CELTs in general and FCPM, specifically. In addition, the findings will be provided to the Florida Society for Certified Public Managers and the American Society for Certified Public Managers for their resource collections. It is hoped that this research may assist decision-making capacities for public administrators in regard to future leadership development assessments, training initiatives, and leadership decisions. Improvements in leadership and public sector service delivery will ultimately lead to improved communities and positive social change.

Summary and Overview

Training is an essential component of every organization's budget, requiring considerable resources and commitment. Pivotal to organizational sustainability are job

satisfaction, customer satisfaction, and organizational performance, as demonstrated by researchers. Appropriate training can provide opportunities to increase job satisfaction, customer satisfaction, and organizational performance. This research offers an extraordinary look into a state agency's use of a comprehensive experiential leadership training program and its employee satisfaction, customer satisfaction, and performance results over a six-year period.

Further research is provided in the following chapter to emphasize the importance of and value of appropriate training options. Initially, FDOT training initiatives were reviewed to offer the reader a more comprehensive understanding of FDOT's mission. Second, completed studies of similar certified public management programs throughout the United States have been presented in an effort to offer the reader a more widespread look at public management's challenges. Contained within the review of literature, the reader will find an assessment of the importance of training, challenges presented by the global market, significance of benchmarking efforts, challenges of governments, and values of experiential training.

Chapter 3 contains a description of the research design, an ex post facto quantitative research using available data, and the logic for selecting this design option. Details regarding the target population, the plethora of available data, and the data analysis plan were included. This study serves to add to the body of research concerning organizational performance, public administration, training and development, and comprehensive experiential leadership training programs.

Chapter 2: Literature Review

Introduction

This study was an ex post facto quantitative study of the relationship between a public agency, the Florida Department of Transportation (FDOT), and a comprehensive experiential leadership training program (CELT), specifically the Florida Center for Public Management (FCPM). FDOT served as the subject public agency for several reasons. While FCPM had many public agencies as customers, FDOT accounted for 18% of its participation and accounted for 8% of its Certified Public Managers. Additionally, FDOT had been a customer of FCPM for more than 25 years. Although FCPM is not the only training initiative used by FDOT, the syllabus content of FCPM is comprehensive and similar to other programs throughout the country, allowing the research to be generalized. The following paragraphs contain a description of FDOT, its purpose, and its training initiatives. A review of studies conducted on certified public manager programs in the United States, similar to FCPM, follows.

Because FDOT is a public agency, this literature review begins with a look at some of the challenges of government. I examined the complications of the global market and the significance of benchmarking efforts and then explored the relationship of training to employee satisfaction, customer satisfaction, and organizational performance. Information and materials needed for this chapter were obtained from public documents from the Florida Department of Transportation (FDOT), Florida Transportation Commission (FTC), and the Florida Center for Public Management (FCPM). Many documents were readily available from agency websites and additional data were

received directly from FDOT. Authority was given by administrators of both FDOT and FCPM to obtain additional data as needed for this research. Subject-related books and peer-reviewed publications supplemented the published information to assist with reader comprehension of the appropriate correlations.

The literature search began with consideration of the challenges of a public agency and then, more specifically, the public agency under study. Strategies for searching literature began with reviewing similar CELTs, which were obtained from various sources of Certified Public Management programs throughout the country. In the interest of emphasizing the value of the three areas of evaluation, literature searches were conducted on employee satisfaction, customer satisfaction, and organizational performance.

History of Organizations under Evaluation

FDOT Training Initiatives

The selected state agency, the Florida Department of Transportation (FDOT), incorporated various types of training tools statewide for its over 7,000 employees, some based on job type or management level and some voluntary. In addition, FDOT utilized the FCPM program in various capacities throughout the state, less consistently than other FDOT-designed and supported academies. I analyzed the demographics of the FCPM participants from FDOT and compared the results of FDOT Leadership and Human Resource Practices surveys, FDOT Customer Satisfaction Surveys, and FDOT Production and Performance Review reports from 2002-2007. I compared the FCPM participation of the seven FDOT geographic districts.

FDOT participated in a performance improvement initiative led by a consultant firm named Qualtec in the early 1980s. One significant change resulting from that initiative was the evolution of the FDOT business model based on Baldrige and Sterling Criteria. As a part of the business model, training was identified as critical to performance improvement. FDOT participated in the National Leadership Training Institute for many years, sending a few employees to Indiana University annually for training. As staffing numbers grew, FDOT decided to coordinate training sessions locally and started its own training and development program. The Leadership Academy began in 1988, allowing 80 employees to be trained annually, and consisted of two separate weeks of intense leadership training. The Supervisory Academy was given to all supervisors within the first year of their promotions and consisted of one week of training. The Management Academy consisted of one week of training. The Graduate Academy was added in 2005 to serve as a booster shot of training and was an intense three-day session. These training opportunities were consistently administered through FDOT for specific positions. Other training courses were required over the years, some for all employees, such as sexual harassment avoidance, driver improvement, and first aid, and other training for specific jobs, such as water treatment plant operation (L. Ferguson, personal communication, January 30, 2009). Evidence of continual attention to performance measures, leadership initiatives, customer focus, and analysis was found throughout FDOT published documents and executive board meetings, even to the extent of leader responsibility assignments (FDOT, n.d.; FDOT, 2005d; FDOT, 2007b; FDOT, 2008b; FDOT, 2009c).

Studies of Certified Public Management Programs

The state of Georgia modeled the first Certified Public Management (CPM) program after the Certified Public Accountant designation and wanted to foster and encourage high levels of competence and ethics (Henning & Wilson, 1979, pp. 427-428). The seven guidelines initially established included curriculum development designed for state government employees, certification recognition by the state, professional emphasis rather than academic, active board participation, reality-oriented and job-related training, rigorous examination requirements, and continuous on-going education for graduates following certification (Henning & Wilson, pp. 427-428).

Georgia's program served as a model for many other states. Finkle (1985) noted four factors that affected professionalism. They included networking opportunities, the CPM credential, relationship with the university, and self-identification (p. 51). A study done by the Voinovich Center for Leadership and Public Affairs at Ohio University stressed the efforts to create stronger managers for public administration and increased recognition (Ohio, 2007, p. 4). The study noted that the goals of the CPM programs were similarly tied to professionalism, recognition, excellence, and government. The study also recognized that most programs were associated with state universities or agencies, but that there were considerable variations between funding, structure, and requirements. At the time of the Ohio study, tuition costs ranged from $1,380 for Oklahoma to $6,900 for the federal government's program (Ohio, p. 6).

A survey of articles and studies on CPM programs throughout the country illustrated limited research and evaluation. A 1987 survey of Alabama's CPM Program

participants illustrated mostly favorable results (Sims et al., 1987). Vanagunas and Webb (1994) looked at project plans submitted by CPM graduates of Arkansas' program and were impressed with the innovation displayed. They particularly noted the additional state agency analysis resulting from the CPM training (Sims et al., 1987, p. 10). Paddock (2004) reported that 58% of Wisconsin's CPM applied projects were implemented in whole or in part, pointing out that 93% of the projects with manuals/projects were implemented (p. 393). In a study conducted on graduates of Arkansas's CPM Program, results indicated an 80% endorsement of the program and improvements in leadership, knowledge, management, planning, and evaluation (Hanson, 2004, p. 363). An analysis of the District of Columbia's CPM program stated showed likely improvements to public service and higher confidence levels of managers (Fairholm et al., 2004, p. 359). Increasing capacities and confidence in public managers were also conceptually discussed by Larson (2005), who credited Idaho's CPM program as a contributing factor in leadership growth (p. 16).

A study conducted from 1994 to 1995 identified benchmarks for training programs, which could be applied to other levels of government (Paddock, 1997, p. 443). Thirty-eight benchmarks in 10 areas were defined. The 10 areas included oversight and leadership of the program, stability of administrative and financial support, consistent management philosophy, administrative control, selection and support of participants, accessibility, preparation and application of classroom learning, quality of program delivery, evaluation of participants, and ongoing program evaluation. While the programs

varied throughout the country, the dedication to excellence and improvement in public governance was consistent from program to program.

Challenges Identified

Challenges of Government

Deeply rooted in constitutions, historical foundations, and traditions, changes have not been readily welcomed or effortlessly implemented to governmental agencies. Gibson (1996) described our changing world as threatening, since our respect and trust has been "held together by powerful institutions—the government, the law, the education system, the church, the family, the work organization" (p. 2). He compared the societal transition to ancient rock formations and eroding turbulent seas, irreversibly shifting power from institutions to individuals.

Organizations had a significant history in the stabilization of our society. Gray, Frieder, and Clark (2005) described organizations as a place where groups of people bind together for a common purpose (p. 184). They believed the cost of doing business was more expensive because of the levels of bureaucracy in government, specifically discussing legislative activity fostering and/or impeding business activity (p. 184). While they discussed other institutions, the consensus from historians illustrated the importance of the presence of government (Gray et al., p. 191).

One such organization designed to maintain stability for residents and visitors to Florida is FDOT. With roads stretching 447 miles from north to south, 361 miles from east to west, and 792 miles between Key West and Pensacola (American Safety Council, 2009), FDOT has no shortage of roads to monitor. Upkeep of the infrastructure for

transportation is essential to the state's economy. As a governmental unit of the State of Florida, FDOT's thousands of employees are charged with compliance with many levels of regulations, procedures, and rules. FDOT is not unlike other government organizations, comsumed with paperwork, rules, federal regulations, state statutes, and challenging priorities.

Former Vice President Al Gore (1993) complained about the many layers of rules, supervisor, and controllers increasing the complexity of processes (p. 103). He believed the numerous layers wasted workers' time and wasted taxpayers' money (p. 103). While that sentiment was published 17 years ago and may have seemed narrow-minded considering the intricacies of governmental requirements, it remains reflective of the public opinion and emotion today. One reason why government may not have been as aggressive at organizational transformation as private industry may be, more often than not, studies and reports of competition and the need for efficiencies were centered on private industries. McGrath (2002) demonstrated, through an extensive study of two municipal governments, many of the complexities of governmental agencies, as she stated:

> These included strong leadership presence; an open relationship between the council and manager, manager and supervisors, and supervisors and employees; a strong commitment to an organizational vision of high-quality, cost effective services; commitment to a budget process that developed goals, strategic initiatives, and outcomes, while holding administrators accountable for taxpayer dollars; a commitment to learning through professional organizations, conferences

> and networking; commitment to involving the customers (community) in decision making, as well as, obtaining input from the community; and finally, an information system commitment that allows employees and the community access to information. (p. 354)

As McGrath explicitly wrote, the dynamics of governmental agencies are multifaceted. The political world often has hidden agendas, which frequently hinders open communication. To aid in leadership of and improvement of the government, it seems fitting that a national consortium of certified public manager programs could serve as a driving force. Consider that CPM focuses on raising ethics and values, establishing a network of civil servants dedicated to improving the quality and image of public service (Balanoff & Balanoff, 2008, p. 79). Fairholm et al. (2004) believed that a cultural change driven by a combination of personal and organizational improvements could reinvigorate public service (p. 359). A high quality program centered on the improvement of public governance meeting in small groups throughout the country can revitalize public leadership and invigorate the cultural change needed for citizens to believe their tax dollars are well invested.

Importance of Training

Continual education for public managers is important for many reasons, six of which were suggested by leaders at Missouri State University (MSU) in 2007. First, public trust must be maintained, so citizens can gain confidence in their government leaders. Second, efficiency and effectiveness are important to all shareholders. Third, it is important to have well-qualified leaders in government. Fourth, managers must be aware

of the latest technology. Fifth, education of managers helps them understand, communicate, and lead their employees. Finally, education helps government leaders increase their accountability to society (Missouri (MSU), 2007).

Buckingham and Coffman (1999) wrote that encouraging career learning was desired by great managers, even including self-discovery (p. 204). Lewis (2002) noted that companies were aware of the need for continual training and reinforcement (p. 121). Training options have expanded over the years with advancements in technology. The 2006 United States Training Industry Report reported a decrease in staffed trainers and an increase in online training to 26% of training delivery (Training, 2006, p. 23). It is believed that digital technologies will make the training difference for local governments facing crushing financial pressures. (Center, 2005, p. 3) One caution voiced by Cunningham et al. (2004) was to avoid looking at the short-term and quick fixes (p. 265). Apprentices that lasted for years have been replaced, in some cases, by institutional classroom settings. While some take years to solve a mathematics problem, the investment of that much time seems wasteful in some organizations. Investments of appropriate resources in training are vital to organizations.

The World Bank (2003) identified the importance of lifelong learning, specifically recommending the development of decision-making skills and problem-solving skills (p. 3). Lewis (2002) described training environments as favorable communication venues, helping define the company's direction, strategy, and vision (p. 123). Employees have been hired from all over the globe and have diverse value systems, complicating the opportunity to have a unified comprehension of the direction of the

organization. Sashkin and Sashkin (2003) emphasized the importance of shared values, clear standards, and consequences within an organization, adding that behaviors are less predictable in the absence of shared values, beliefs, and norms (p. 166). The importance of training as a tool and facilator in guiding and sustaining productive organizations has been well substantiated.

Challenges of Improving Employee Satisfaction

Friedman (2005) recognized changing rules, changing roles, and changing relationships as a result of the flatter world (p. 44). He predicted "digitization, virtualization, and automation of almost everything" (Friedman, p. 45), comparing this shift as a transition of the world from round to flat. Traditions are just that—traditions, as Friedman explained that challenges to hierarchies and organizational charts would eventually result in a more collaborative workplace (Friedman, p. 45). These challenges, while invigorating in one sense, can instill a sense of fear of the unknown in the workplace.

The World Bank (2003) reported that the labor market was being transformed by the knowledge economy (p. 1). Hamel (2002) observed that transforming industries are challenging companies all over the world (p. 89). These transformations lead to fewer jobs and higher skill requirements, adding to employee fears and insecurity.

Friedman (2005) applauded Rothkopf's description of new social, political, and business models emerging to transform communication between governments, business, and people (p. 45). Rothkopf believed the entire social contract would change, challenging deep roots of our society. Friedman cautioned that proper navigation of

changes require leadership to adapt to the speed of change, along with flexibility and imagination (Friedman, p. 46). Again, while this is happening on a daily basis within the world in general, government traditions and constraints have protected most government employees from the whims of the marketplace. News of these changes as a threat to the status-quo of government creates more fear for long-established government employees and traditional processes.

Giannetto and Zecca (2007) compared the management cycle to both the treadmill and Groundhog Day, with the repetition causing frustration and allowing competitors to have the advantage (p. 9). Friedman (2005) believed that success can be achieved in this flat world, but imagination and motivation are key (p. 469). Changes and competition are realities that must be considered in all aspects of planning for organizations. To sum it up, consider this sentiment from Hamel (2002), warning that the biggest threat was irrelevancy, not inefficiency (p. 89).

Appropriate training and networking enables employees to grow and adjust to changing requirements. McGrath (2002) noted the value of networking and comparing multiple perspectives (p. 364). The style of training delivered by FCPM, experiential, is actively challenging at an emotional level (Woolfe, 1992, p. 5). Woolfe believed this type of experience gave participants a better individual understanding along with a better worldview (p. 2).

Challenges of Improving Customer Satisfaction

Training, in every aspect, should lead to better job performance and improved customer service results. While private industries seem to concentrate on profits, the

goals of public government are not as clear. McGrath (2002) observed performance measurement in terms of cost-effectiveness and quality, rather than profitability (p. 357). Further, she noted complications of citizen expectations, intangible factors, perceived satisfaction, multiple levels of customers, and varying definitions of success (p. 357). Add to this murky water, the expansion beyond the safety of the city gates to the intimidating global economy.

Hamel (2002) wrote about obsolete business models and extremely demanding customers (p. 90). Government organizations are not immune either, as they face competition from private industry and tough decision-making choices. While political pressures may suggest spending funding locally, cost-effective measures may warrant low-bid prices overseas. Government officials make a plethora of decisions regarding purchasing, staffing, technology, and every other industry affected by the global market.

The World Bank (2002) identified specific features of the knowledge economy, which are important for companies to consider. The shorter length of product cycles, increased worldwide trade, increased competition, while the increased importance of smaller enterprises have created new challenges for businesses and governments (World Bank, p. 2). As competition by private industries has shortened life-cycles and increased customer service, those demands by citizens have carried over to the public sector. The ability to monitor bank accounts and credit card accounts online has led citizens to demand governments to provide online services as well.

An observation made by Hamel (2002) was the reduction in the *value* of experience. He noted that most organizations have a lot of experience, rather than

imagination. He explained how important imagination will be to future success, exceeding the value of experience (p. 91). There is a difference between thirty years of performing the same job and thirty years of learning, building, and improving the system.

Challenges of Organizational Performance Improvement

While government operates differently from business, government leaders can learn a lot from the private sector. McGrath (2002) stressed the importance of leadership, networking, and budgeting. She described the importance of instilling a vision to change the organizational culture in political environments, including a system to amass and embrace leadership, trust, encouragement, teamwork, communication, empowerment, and project assessment (p. 361).

Clearly, this description sounds like a dream organization. The same sentiments were expressed by Sashkin and Sashkin (2003), who pointed out that most goals are achieved through the coordination of many people in large, complex organizations (p. 57). How is that cooperation obtained and how does it lead to better organizational performance? Sashkin and Sashkin admitted that gaining cooperation was not easy (p. 57).

Giannetto and Zecca (2007) suggested that more focus on key objectives of the organization—revenue, profits, and customer value—were important to success (p. 71). Leaders need to set clear direction for employees. Consider that management cannot help employees focus if they have not decided where to focus (Giannetto & Zecca, p. 46). The scene described here is all too popular for organizations:

> Employees race about putting out fires; their vision is obscured by the smoke and chaos. They look to the past trying to understand how the fire could have started. It isn't their fault; they do want to do well, but nothing is pointing them in the right direction. Obviously, the fires need to be put out, but putting out fires leaves little time to improve the interior, build a new addition, repair the fire's damage, or fix what started the blaze in the first place. (Giannetto & Zecca, 2007, p. 47)

The Hospitals & Health Networks (2007) examined four quailty improvement approaches for hospital performance improvement. While they compared benefits and challenges of The Malcolm Baldrige National Quality Award, ISO 9000, Six Sigma, and Toyota Production System/Lean Management, it was clear that organizations would need to carefully evaluate these options to find the right fit for their organizational environments (Runy, 2007). In some cases, research was restricted to generalities using assumptions that may or may not be linked. For example, Walker (2005) researched the relationship between innovation and organizational performance and was unable to find evidence to support a specific defined impact (p. B6). Katou and Budhwar (2006) stated that there was a general consensus that human resource practices and management systems were not directly related to business performance (p. 1224). Lo and Wang (2007) found that business strategies varied based on specific competitive environments (p. 181).

Moving from looking at the corporate environment to the staffing component, there is even further research available. Hung (2006) found that business process management contained two specific constructs that positively affected organizational improvement, namely process alignment and people involvement (p. 36). Hung's

research also provided empirical evidence to support business process management literature's recommendations to strategicaly align business processes, executive commitment, and empowerment (p. 37). Panico (2004) discussed the value and importance of a good culture (p. 59).

In a 14-year study conducted on the effects of training, Dearden, Reed, and Van Reenen (2006) correlated a positive effect of training on productivity. The research implied that increased training measures were associated with increased productivity and wages, based on aggregated individual-level data from 1983-96 (Dearden et al., pp. 416-418).

It is important to consider that employees must learn their jobs and learn how to be effective and efficient. To increase organizational performance, business plans should work in concert with training efforts. How does an organization know if its training program is a successful one? Kirkpatrick and Kirkpatrick (2006) suggested four levels of program evaluation. The levels, in sequence, were reaction, learning, behavior, and results. The results range from reactions, changed attitudes, increased knowledge, and changed behavior to increased productivity, quality improvement, costs-savings, less accidents, increased sales, turnover reduction, and increased profits (Kirkpatrick & Kirkpatrick, pp. 21-25).

Performance improvement was documented in a pilot study of financial institutions conducted by Frei, Harker, and Hunter (1995). They found that proper technology, appropriate staffing, and management could lead to improved performance. Specific examples included decreases in errors, decreases in customer waiting time, longer retentions of customers, cost-savings, and improved adaptability and availability (Frei et al., p. 39). Along that same point of view, benchmarking was important to

continued existence. Spendolini (1992) explained that benchmarking allowed a better understanding of competitors and isolated common metrics, enabling organizations to look to leaders and innovators for direction (pp. 3-4). Paddock (1997) advised that public sector training programs should set benchmarks for excellence and, after studying 15 CPM states, she recommended 38 benchmarks (pp. 455-456).

As shown, organizational performance improvement is a relevant topic, with leadership as a common thread. Clear direction and goals, combined with high company values, are also pivotal to organizational success. Proper task/goal alignment, purposeful training, and accountable business plans can lead to a decrease in mistakes and increased performance. Benchmarking also offers further opportunities to enhance an organization's success.

Evaluation Methodology

Unmistakably, research has shown the value of positive employee satisfaction, customer satisfaction, and organizational performance. Improvement in these areas requires planning and focus. Two well-known performance excellence measurement tools available are the Malcolm Baldrige National Quality Award (MBNQA) and the Florida Governor's Sterling Award (GSA). The MBNQA criteria present a comprehensive road map and allow quality organizations become employers of choice (Lynn & Rapp, 2007, p. 11). The Florida Sterling Council's (FSC) mission statement is "to enhance Florida's competitive edge and quality of life through promotion, assessment, and recognition of performance excellence" (FSC, 2008, p. 2). Key characteristics of the Sterling criteria include focusing on performance results throughout the organization, which includes

outcomes based on products, services, customers, finances, market, workforce, processes, and leadership (FSC, p. 9).

The FCPM curriculum begins with individual performance and expands to broader organizational issues and public policy. While discussions about MBNQA and GSA requirements and benefits are prevalent within each level of FCPM training, level three is *management of organizational performance* and level four is *managing organizational effectiveness* (FCPM, 2003, p. 2-3). FDOT used these criteria as a guide for determination of its performance measures (L. Ferguson, personal communication, January 30, 2009).

Case studies on a financial institution, hospital, school, city governmental agency, and public health care provider illustrated systematic approaches to organizational performance improvement, which led to higher quality and more favorable outcomes (FSC, 2006, pp. 1-2). Case studies on an energy company, banking institution, retail store, federal agency, coaching and counseling course, information technology skills program, automotive sales company, and many more were detailed by Kirkpatrick and Kirkpatrick (2006). Similarly, these cited examples illustrated systematic approaches in their training programs and organizational improvement. On one example, Kirkpatrick and Kirkpatrick wrote that the training program resulted in positive results (p. 68). By comparing FDOT's employee satisfaction, customer satisfaction, and performance results over a six-year period, the relationships between FDOT outcomes and FCPM training was evaluated in an objective manner.

Other research methodologies considered included experimental and survey designs. Experimental research would not contain the comprehensive viewpoint desired, as the FCPM participants have historically shifted from class to class, adding in more employer size and complexity variations. Studying multiple employers with varied external variables would limit potential conclusions. Survey research was considered, both statewide and specific course level, over a set timeframe. Cultural differences between agencies could have slanted results and the timeframe would have been more limited. Comparing employee satisfaction, customer satisfaction, and organization performance between multiple organizations with limited and varied results would not be as beneficial as the evaluation study proposed. While literature supports the value of positive employee satisfaction, customer satisfaction, and organizational performance, organizational culture characteristics must be considered. Both the MBNQA and FSC evaluate their outcomes on a single organization at a time, supporting a review of one agency.

Summary

FDOT is a large agency performing a valuable service to the state of Florida. The employees have many challenges, similar to other public and private organizations. While FDOT has varied training initiatives, this study reviewed the potential impact of a CELT, namely, FCPM. The history of FCPM and other CPM programs have illustrated success areas and definite performance improvement potential. Challenges were identified within the bureaucracy of the traditional government arena, pointing out the need for revitalization. The importance of training was illustrated, using examples from

the medical field, government, financial institutions, and education. Training examples were related to employee satisfaction, customer satisfaction, and organizational improvement. Finally, the choice to review the outcomes of this agency over an extended period of time was chosen to determine correlations between the CELT program and employee satisfaction, customer satisfaction, and performance results.

Chapter 3: Methodology

Introduction

The purpose of the study was to determine the type of relationship that existed between a comprehensive experiential leadership program (CELT) and employee satisfaction, customer satisfaction, and performance results. As was revealed in the literature review, employee satisfaction, customer satisfaction, and performance results are important to the sustainability of an organization. This chapter includes the details of this quantitative research, the design, target population, sampling procedure, treatment, data collection, and data analysis.

Description of the Research Design

This study was an ex post facto quantitative research method using available data to review a state agency, specifically the Florida Department of Transportation (FDOT), and its use of a CELT program, specifically the Florida Center for Public Management (FCPM). Existing reports and documents were used to determine answers to three research questions, centering on the relationship between participation in FCPM training and employee satisfaction, customer satisfaction, and performance results.

This research design was chosen because of the desire to determine the effectiveness of FCPM for public agencies. The available data from FDOT provided a roadmap to consideration of results from employee satisfaction, customer satisfaction, and performance results. Using existing data, I was able to evaluate a six-year period of published employee surveys, customer surveys, and annual report results. This data

accumulation also allowed assessment of survey results and outcomes by districts in some cases.

One strength of using this type of research design was that the available data existed and there was not a concern about behavior changes or other reactive measurements that could have swayed research results. Another strength of this type of research design was that the assessment of data completeness could be assured because the entire office operation was evaluated and it included effects from one-hundred percent of the participants involved in this study. A weakness of this research design could include limitations of the data, as the available data were not designed for or intended to answer these specific research questions and were not entirely measured by districts.

Other research designs considered were experimental and survey designs. Experimental research would not be appropriate because the FCPM participants fluctuated from class to class and their employers varied in size, complexity, and culture. The number of external variables presented a threat to any potential conclusions. Survey research was considered, both on a statewide basis and on a specific course level, over a set timeframe, possibly one year. Again, the cultural differences between agencies could have skewed the results. Also, a one-year timeframe would not have allowed for comparisons of multiple years of agency outcomes.

Target Population

The population of the study consisted of 100% of the FDOT employees who participated in FCPM training classes prior to 2008. While this research was limited to

the agency outcomes from 2002 to 2007, FCPM participants prior to 2002 were taken into consideration because they would have unquestionably affected the outcomes for future years. Records indicated that 1,249 FDOT employees completed at least one level of training prior to 2008. Of those employees, 213 of them have received Certificates in Supervisory Management and 244 were Certified Public Managers.

Since the districts had flexibility in using FCPM and usage varied greatly between districts, evaluation of the survey and annual outcomes by district could illustrate a relationship between participation in the training and district performance. For example, 30% of the participants were from District 4, while only 2% were from District 3. District 4 has 178 employees with certifications compared to District 3 with only one certified employee.

Sampling Procedure and Sample

Since 100% of those who participated in the training before 2008 were included in the study and the research timeframe was from 2002 to 2007, no sampling procedure was used. The sample and population were the same. All data that were used was grouped by district and individual participants were not analyzed or discussed.

Instrumentation

Published reports and documents, mostly created by departments of the State of Florida, were used for this research. Some were created from implemented survey instruments and some were created as part of a formal reporting process. To address the specific research questions, results from the following instruments were used:

1. What is the relationship between participation in a comprehensive experiential leadership training program and employee satisfaction?
    a. Leadership and Human Resource Practices Surveys – conducted annually
2. What is the relationship between participation in a comprehensive experiential leadership training program and customer satisfaction?
    a. FDOT Satisfaction Surveys for Florida Visitors
    b. FDOT Customer Surveys of Government Officials
    c. FDOT Commercial Driver Surveys
    d. FDOT Resident Customer Surveys
    e. FDOT Well Elder Customer Surveys
3. What is the relationship between participation in a comprehensive experiential leadership training program and performance results?
    a. FDOT Annual Performance and Production Review Reports
    b. FDOT CPM Training Report

Data Collection Procedures

The data used for this ex post facto quantitative study were existing data, most readily available to the public. The Chief Engineer for the Florida Department of Transportation indicated support of and assistance with this research in a letter dated March 12, 2009 (Appendix A). Contacts were made with and assistance was given by the Performance Management Office Manager, the State Training Results Coordinator for

the Performance Management Office, the Communications Director; and the Personnel Resource Management Officer.

The Performance Management Office managed training and development and support of the FDOT Business Model. Specific requirements included "Leadership Consultation, Business Plan support, Quality Assurance/Quality Control, Performance Measures and the Performance Measurement System, the Employee Survey, Supervisors Academy, Management Academy, Leadership Academy, Graduate Academy, Basic Design Instructor Training, and much more" (FDOT, 2009d, "Business Model").

Examples of the resources used to identify the administrative responsibilities of the organization include the FDOT Business Plan (FDOT, n.d.; FDOT, 2008b), FDOT Source Book (FDOT, 2007b), Florida Technology Commission Performance and Production Review reports from 2002 to 2007 (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007), and the FDOT CPM Training Report (FDOT, 2009b).

To evaluate results related to employee satisfaction, the Leadership and Human Resource Practices Surveys (LHRPS) (FDOT, 2003, p. 2), given annually from 2002 through 2007 (FDOT, 2003; FDOT, 2005c; FDOT, 2006b; FDOT, 2007a), were reviewed in relationship to the organization's seven strategic measures: leadership (L), credibility (Cr), communication (Co), training and development T&D), employee involvement (EI), recognition (R), and pay (P). The questions associated with each strategic measure are identified in Table 1 below. These results were analyzed by district with respect to FCPM participation.

Table 1

LHRPS Questions Associated with Strategic Measures

	LHRPS Question	Strategic Measures						
		L	Cr	Co	T&D	EI	R	P
1	I get the training I need when I need it				X			
5	Understand DOT mission and goals	X		X				
7	Group has needed skills and knowledge				X			
8	I know how well I am doing			X				
12	Kept well informed about my part of DOT	X	X	X				
16	Know how my work contributes to goals	X		X				
18	Training & development available to all	X			X			
23	Projects consider environment & community	X						
24	You can believe what management tells you		X					
29	Supervisor asks for our ideas			X		X		
32	I have authority needed for results	X						
35	DOT changing to many new & better ways	X	X					
43	Recognition given for a job well done						X	
44	Secretaries will use survey results to improve	X	X	X				
47	People's pay in line with responsibility & performance							X
51	I see improvements since last years survey			X				
52	DOT is good community servant	X						

Note. Column titles: L = Leadership; Cr = Credibility; Co = Communication; T&D = Training & Development; EI = Employee Involvement; R = Recognition; P = Pay

Customer satisfaction results were addressed with information from five different customer survey groups. These included FDOT satisfaction surveys for Florida Visitors (FDOT, 2003; FDOT, 2005b; FDOT, 2005i; FDOT, 2008c), FDOT customer surveys of government officials (FDOT, 2003; FDOT, 2005e; FDOT, 2008e), FDOT commercial driver surveys (FDOT, 2003; FDOT, 2005f; FDOT, 2008d), , FDOT Florida resident customer surveys (FDOT, 2003; FDOT, 2005c; FDOT, 2005g; FDOT, 2006; FDOT, 2007a; FDOT, 2008a; FDOT, 2008f), and FDOT well elder customer surveys (FDOT, 2003; FDOT, 2005h; FDOT, 2008g). While the questions varied somewhat from survey

to survey and year to year, below is a general consensus of the customer satisfaction survey questions.

Customer Satisfaction Survey Questions

Part I – Key signing and road markings
A. Spacing of exit and crossroad signs allow me enough time for travel decisions.
B. Overall, road signs are visible.
C. Road signs are clearly readable.
D. During the day, visibility of roadway striping and markings is good.
E. At night, visibility of roadway striping and markings is good.

Part II – Construction zones
A. Have you traveled through a FDOT construction project in the last 12 months?
B. When FDOT construction projects were initiated in my area, I was notified through various media (newspaper, radio, television, fliers, etc.
C. Construction zones were clearly marked.
D. Construction zones were safe to drive through.
E. When road construction was in progress, I was easily able to access local business.
F. Construction projects on state roads are completed in a timely manner.
G. I was satisfied with completed FDOT construction projects.

Part III – Travel times and traffic on State Highway System
A. I am satisfied with the amount of time it takes to travel within local cities or towns.
B. I am satisfied with the amount of time it takes to travel between local cities or towns.
C. The overall level of traffic congestion on the State Highway System is acceptable.
D. Roadsides on the State Highway System are attractive.
E. Roadsides on the State Highway System are kept free of litter
F. The timing of traffic signals allows pedestrians enough time to cross state roads.

Bike lanes
3B1. Do you believe more bike lanes are needed along state roads?
A. Designated bike lanes on roadways
B. Bike paths separated from roads

Sidewalks
3B2. Do you believe more sidewalks are needed along state roads?

C. Sidewalks directly adjacent to the road.
D. Sidewalks with grass/landscaping between the sidewalk and the road.

Part IV – Public transportation in your community
A. Are there public transportation services (e.g. bus, other local or regional rail service) near your home?
B. Are there public transportation services (e.g. bus, other local or regional rail service) near your work?
C. Have you used public transportation in the last 6 months?
D. How often do you use public transportation?

Part V – Overall satisfaction with State Highway System
A. Overall safety on state roads.
B. Being able to walk safely on state roads.
C. Being able to ride bicycles safely on state roads.
D. Shoulders on state roads being adequate for my needs.
E. Overall smoothness of the roads in the State Transportation System.
F. The transportation system provided by FDOT.
(FDOT, 2008a)

To address research question number three regarding performance results, Annual Performance and Production Review Reports from 2002-2007 (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007) were consulted. The performance measure categories are listed below.

FDOT Performance Measures

1. Cost-Effective and Efficient Business Practices: Production
a. Consultant Acquisition
b. Right-of-way Acquisition
c. Construction Contract Lettings
d. Local Agency Program (LAP)
e. Construction Contract Adjustments

2. Preservation of Current State Highway System
a. Bridges
b. Pavement
c. Routine Maintenance

3. Capacity Improvements: Highway & All Public Transportation Modes
a. Strategic Intermodal System (SIS) Capacity

b. Capacity Improvements: Highways
c. Capacity Improvements: Public Transportation
d. Intelligent Transportation Systems (ITS)

4. Cost Effective & Efficient Business Practices: Finance & Admin.
a. Commitment of Federal Funds
b. Obligation Authority
c. Management of Administrative Costs
d. Cash Management

5. Minority and Disadvantaged Business Programs
a. Minority business Enterprise (MBE) Program
b. Disadvantaged Business Enterprise (DBE) Program

6. Safety Initiatives
a. Safety Initiatives

7. Florida's Turnpike Enterprise
a. Management of Toll Facility Operational Costs
b. Toll Revenue Variance
c. SunPass Participation
(FTC, 2007)

Data Analysis

The data were analyzed both in totality and by districts. No individual data were identified and no data regarding individuals will be published in order to protect the study subjects. Initially, the FCPM data were analyzed to determine the percentage who obtained Certificates of Supervisory Management (Levels 1-4) and those who obtained the Certified Public Manager certification (Levels 1-8). In addition to the actual numbers, the data were compared to the percentage of employees in each district. FDOT reports indicate FCPM participation to be 5% from District 1, 18% from District 2, 2% from District 3, 31% from District 4, 8% from District 5, 4% from District 6, 7% from District 7, 8% from District 8, 13% from District 9, and 3% from Materials (FDOT, 2009b). As shown, participation among districts and subgroups was not consistent and may have

influenced relationships between employee satisfaction, customer satisfaction, and performance results. Histograms and tables were used to display the population, number of FDOT employees, and number of FCPM participants by district from 2002 to 2007. Those numbers were prepared for comparison with each research question.

To answer the first research question, the Leadership and Human Resource Practices surveys from 2002 to 2007 was analyzed in regard to FDOT's strategic measures: leadership, credibility, communication, training and development, employee involvement, recognition, and pay. This analysis combined the strategic measure question scores into aggregate numbers and compared district results. The results were displayed with bar graphs showing the results by year and category for each strategic measure. Comparisons of annual changes were also demonstrated with line charts. Statistical significance was determined and explained for each strategic measure.

To consider the second research question, customer satisfaction survey results were analyzed. The Florida resident customer surveys were conducted in 2002, 2004, 2006,and 2007. Although the counties of residence were included, the results could not be tied to specific districts. The four other customer surveys were not tied to any specific areas and were analyzed on an aggregate basis. They included the *Florida commercial driver* surveys, conducted in 2004 and 2007; the *well elder customer* surveys, conducted in 2002 and 2004; the *government officials'* surveys, conducted in 2002, 2004, and 2007, and the *Florida visitors* surveys, conducted in 2002, 2004, and 2007. All surveys were conducted in 2000, which had to serve as a baseline for some comparisons. The results were displayed with bar graphs showing the results by survey year and category for each

survey group. There were only a few questions which could be compared among customer groups and survey years. Those results were presented on a bar chart and statistical significance was explained where possible.

To address the third research question, FDOT's performance measures were considered. While there were seven performance measures, only a few of them have specific district comparisons. The performance measures included cost-effective and efficient business practices for production, preservation of current state highway system, capacity improvements for highway and all public transportation modes, cost-effective and efficient business practices for finance and administration, minority and disadvantaged business programs, safety initiatives, and Florida's turnpike enterprise. District data were compared on cost-effective and efficient business practices for production and preservation of current state highway system. The results were displayed with bar graphs showing the results by year and category for the performance measures which could be compared by districts. Comments were made about progress on the remaining primary and secondary measures. Relationships between the training and performance results were discussed, indicating statistical significance.

This analysis was conducted using Microsoft Excel Data Analysis and included analysis of variance tests and histograms and charts. Determination of p-values were conducted to determine statistical significance between districts and between years within the research timeframe.

Protection of Participants' Rights

The data analyzed in this study were used for aggregate analysis of the entire agency. While district data were examined, it was not the intention of this study to scrutinize specific individuals or groups. No individual names were revealed or implied, as it was the researcher's intent to protect the rights of the participants of this study.

Chapter 4: Results

Introduction

This study was conducted to determine if a relationship existed between participation in a comprehensive experiential leadership (CELT) program and three separate characteristics of a sample organization. These characteristics were employee satisfaction, customer satisfaction, and performance results. The specific organization studied was the Florida Department of Transportation (FDOT), one of 21 different state government customers of the Florida Center for Public Management (FCPM). FCPM has provided training opportunities through its comprehensive experiential leadership program to 7,457 participants in the state of Florida since 1979 (FCPM, 2010, p. 2). FDOT has been a customer since 1985 with 1,249 participants, 18% of the total participation, prior to 2008 (FDOT, 2009b).

To understand the depth of FDOT, it was necessary to lay a foundation explaining some of the complexities of the organization under study. FDOT's participation in the FCPM program and some Florida state population statistics were also offered to establish a basic perspective. Following the FDOT introduction, each of the research questions were addressed. Survey results were reviewed to evaluate employee satisfaction, which were given each year from 2002 to 2007. These were also evaluated by FDOT district. Customer satisfaction was evaluated by reviewing surveys received from five different customer groups. Annual performance and production review reports for 2002 through 2007 were analyzed to assess performance results.

Demographic Data

Prior to detailing the analysis of the results of each research question, it was important to discuss statistics about the population of the state of Florida and FDOT that apply to all research questions. FCPM participation was considered by district for each research question in areas where the district scores were distinguished. The results of each research question will follow the FDOT introduction.

FDOT is responsible for 41,000 lane miles and 6,381 bridges within the Florida state highway system; 800 aviation facilities; 29 fixed-route transit systems; 14 seaports; and 2,707 railway miles (FDOT, 2010a). To manage this vast responsibility, FDOT was decentralized into seven different geographic districts. One factor used to consider impact between districts was *daily vehicle miles traveled* (DVMT) between districts. In 2008, District 5 had the highest DVMT at over 61 million and District 3 had just over 27 million DVMT (FDOT, 2008b). Population variances were also taken into consideration. The population estimates in Florida rose from 16,674,900 in 2002 to 18,680,300 in 2007 (FDOT, 2009a). Table 2 demonstrates the population by district from 2002 to 2007.

Table 2

Florida Population by FDOT District

District	2002	2003	2004
1	2,253,300	2,323,100	2,406,500
2	1,737,000	1,776,700	1,822,700
3	1,264,400	1,292,200	1,324,100
4	3,305,000	3,377,400	3,456,000
5	3,111,000	3,214,300	3,330,100
6	2,393,600	2,426,400	2,461,000
7	2,610,600	2,661,300	2,716,100
Total	16,674,900	17,071,400	17,516,500

District	2005	2006	2007
1	2,475,600	2,570,600	2,648,700
2	1,868,200	1,914,000	1,961,700
3	1,344,800	1,371,600	1,386,200
4	3,518,000	3,578,400	3,616,200
5	3,437,500	3,566,600	3,652,400
6	2,504,500	2,517,500	2,541,300
7	2,769,500	2,830,600	2,873,800
Total	17,918,100	18,349,300	18,680,300

While the population of the state grew 12% from 2002 to 2007 and the growth of the districts ranged from 6% to 18% within that timeframe, the distribution of the population throughout the districts did not vary by more than 1% comparing the 2002 population to the 2007 population (FDOT, 2009a). Refer to Table 3.

Table 3

Population Growth of Florida by FDOT District

FDOT District	Growth Percentage from 2002 – 2007	Distribution Percentage by District 2002	2007
1	18%	14%	14%
2	13%	10%	11%
3	10%	8%	7%
4	9%	20%	19%
5	17%	19%	20%
6	6%	14%	14%
7	10%	16%	15%
Total	12%	100%	100%

This comparison was presented to illustrate that the district population variances over the six-year period mirrored the state population growth. Absent exigent circumstances, the demands on the employees, customers, and performance standards could be assumed to be proportional throughout that timeframe.

Between the years of 1985 and 2007, 1,249 employees participated in FCPM training (FDOT, 2009b). The participation between districts varied greatly. For example, District 3 had only 24 employees participate, accounting for 2% of the total FDOT employee participation, while District 4 had 377 employees, accounting for 30% of the FDOT employee participation. Districts 1 through 7 are geographic districts, District 8 is the turnpike operation, and District 9 is the central office. Figure 1 demonstrates the variety of participation between the districts.

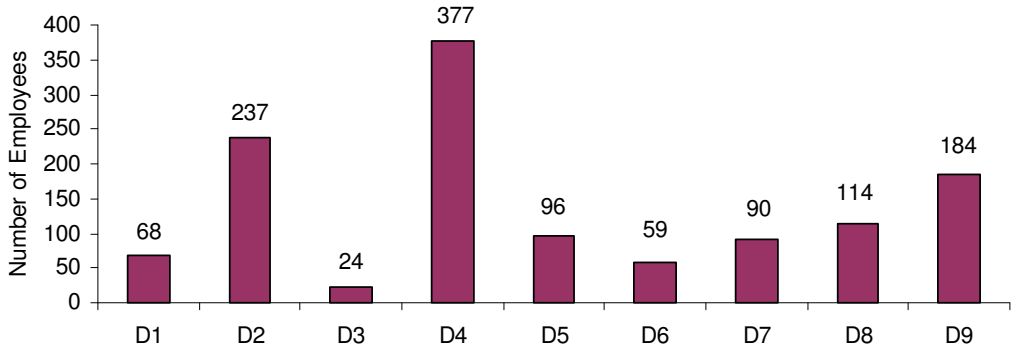

Figure 1. Bar graph of FCPM Participation by FDOT District.

Another variance that could affect the impact of the training is the degree of participation of the employees. While some employees only attended one level, others completed enough levels to obtain certification. In order to receive a Certificate in Supervisory Management (CSM), the first four levels of classes and associated homework must be completed. In order to become a Certified Public Manager (CPM), all eight levels and associated homework must be completed. In earlier years, however, there were only six or seven levels (D. Vicker, personal communication, January 25, 2009). For the purposes of this study, employees who completed levels one through four were considered in the CSM category. Employees who completed levels seven or more were considered in the CPM category. Figure 2 shows the breakdown of employee certification between districts up to December of 2007 (FDOT, 2009b), with NCE short for non-certified employee.

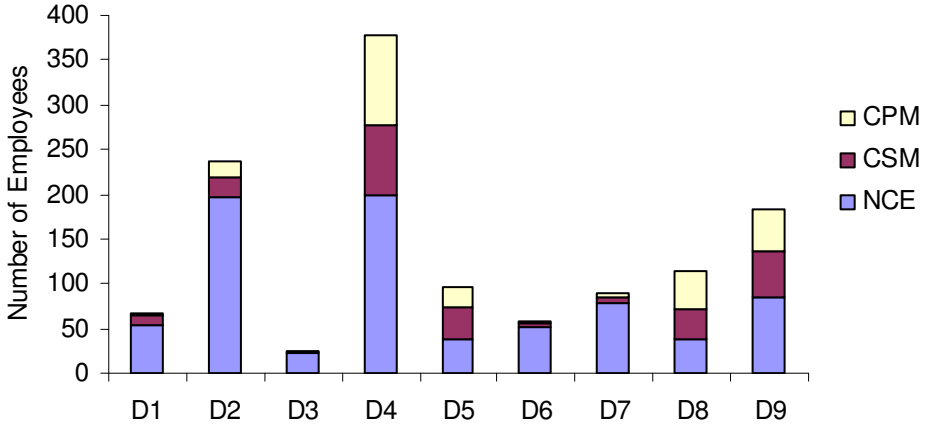

Figure 2. Stacked bar graph of FCPM Certification by FDOT District, identifying Non-Certified Employees (NCE), employees who received Certificates in Supervisory Management (CSM), and Certified Public Managers (CPM).

A final deliberation to be presented before discussing the actual research questions is the level of FDOT employment in each district. To consider fully the variance in participation, the number of employees in each district must be compared. It is noted that FDOT decreased the number of employees each of the years under study, even as the state's population grew. Table 4 illustrates the number of employees and percentage of reduction between 2002 and 2007 (I. Cabral, personal communication, October 12, 2009).

Table 4

Fiscal Year Budgeted FDOT Employee Levels

Fiscal Year Ending	Number of FDOT Budgeted Employees	Percentage Reduction
2002	9621	
2003	8908	8.0%
2004	8045	10.7%
2005	7813	3.0%
2006	7566	3.3%
2007	7547	0.3%

FDOT was not able to provide the district breakdown of employee level for each year from 2002 to 2007, however, the breakdown for actual employee assignments for 2007 is shown below on Table 5 (I. Cabral, personal communication, January 19, 2010).

Table 5

FDOT 2007 District Employee Distribution Compared to 2007 Population

FDOT District	Actual Number of Employees	Percentage of Total Employees	Percentage of District Employees	Percentage of Florida Population
D1	747	10%	15%	14%
D2	912	12%	18%	11%
D3	668	9%	13%	7%
D4	831	11%	16%	19%
D5	852	11%	17%	20%
D6	503	7%	10%	14%
D7	635	9%	12%	15%
D8	468	6%	N/A	N/A
D9	1,793	24%	N/A	N/A

The comparison of the FDOT district employees (I. Cabral, personal communication, January 19, 2010) and the population in each district (FDOT, 2009a) is

portrayed in Figure 3 below. The employees who worked in Districts 8 and 9, which accounted for 30% of the total, were not included in this demonstration.

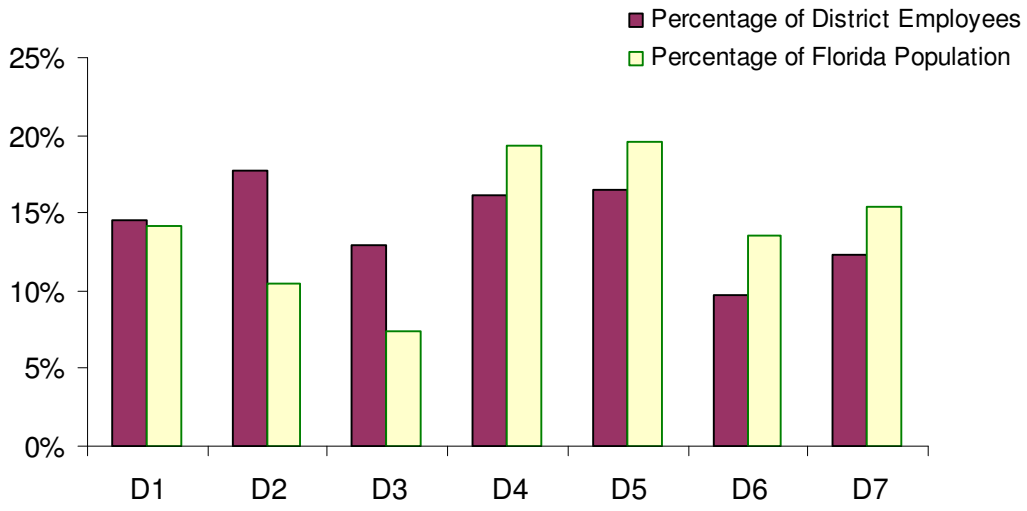

Figure 3. Bar chart comparing percentages of Florida population to FDOT employees by FDOT district.

As illustrated, Districts 4, 5, 6, and 7 percentages are proportional. District 1 has an equal percentage of population and employees, while Districts 2 and 3 have a greater percentage of employees than the percentage of the state population.

With this foundational explanation of FDOT, the research questions presented for this study were addressed in the following paragraphs. District 8, Florida's turnpike enterprise, and District 9, the central office, were eliminated from the data analysis, as the employee responsibilities for the turnpike and central office were not as similar as the geographic districts. In addition, Districts 8 and 9 have responsibilities throughout Districts 1 through 7. Most charts were presented in district participation order, explicitly, Districts 4, 2, 5, 7, 1, 6, and 3. Data and results on employee satisfaction, customer

satisfaction, and performance results take the population statistics, FCPM participation, and district distribution into account.

Results

Research Question #1: Employee Satisfaction

LHRPS survey introduction. Research question #1 was, "What is the relationship between participation in a comprehensive experiential leadership training program and employee satisfaction?" FDOT's leadership held to the belief that "Any organization's success depends on the knowledge, skills, innovative creativity, and motivation of its employees and partners." (FDOT, 2005a, p. 7) This desire to demonstrate value to its employees motivates the leadership to review FDOT's performance and survey feedback. Normal practice for the department has been the implementation of an annual Leadership and Human Resource Practices Survey (LHRPS). The LHRPS survey instrument used prior to 2001 contained demographic questions including age range and gender, however, those questions were eliminated when the instrument was updated in 2001 for two main reasons. First, few participants were willing to reveal that information and, secondly, there was "almost no difference in the scores" between the demographics (L. Ferguson, personal correspondence, July 29, 2009).

The LHRPS survey instrument used each year between and including 2002 and 2007 was the same and the questions used from the survey for evaluation appear in Table 1. The only difference between the annual surveys from year to year was the year identification on the top of the form. Respondents indicated one of four choices for each

question or they could leave any of the questions blank. Three points were calculated for *strongly agree*, two points for *agree*, one point for *disagree*, and no points for *strongly disagree*. The scores ranged from zero to three points for each question.

The LHRPS surveys were completed voluntarily and protected the identities of the employees. While the agency recommended electronic completion, paper surveys were available if the respondents felt more comfortable with that methodology. The survey began with identification of cost center code, "which enabled grouping respondents into their operating group, i.e., Districts 1 through 7, Turnpike Enterprise, or Central Office, and also into their Occupational Group, i.e., Maintenance, Design, Construction, Right-of-Way, Office of Information Systems, Materials, or Executive Direction" (FDOT, 2007a, p. 5-1). Table 6 contains the number of survey respondents from 2002 to 2007, as well as the percentage of employees who responded (L. Ferguson, personal communication, January 13, 2010). As illustrated, the return was very consistent over the six-year timeframe, ranging from 73% to 79%. While it is hard to determine typical survey response rates, Kraut (2006) wrote that "census surveys of employees typically get response rates of anywhere from 30% to 95%, averaging about 65%" (p. 3). FDOT's response rates were considerably above the average, allowing added weight to the survey results.

Table 6

LHRPS Respondents 2002-2007

Fiscal Year Ending	FDOT Budgeted Staffing	LHRPS Survey Respondents	Actual Percentage of Respondents To Staffing
2002	9,621	6,219	73%
2003	8,908	6,140	73%
2004	8,045	5,688	77%
2005	7,813	5,407	77%
2006	7,566	5,615	79%
2007	7,547	5,218	74%

Strategic measures. Of the 53 survey questions, 17 were linked to 7 strategic measures, as listed within Table 1. Although FDOT's strategic measures were realigned in 2006, the seven strategic measures detailed below were the agency's emphasis during the research timeframe and each strategic measure topic remains within its updated strategic measures (L. Ferguson, personal communication, July 27, 2009). Results were provided by FDOT in electronic composite formats (FDOT, 2003; FDOT, 2005c; FDOT, 2006b; FDOT, 2007a) and no individual surveys were received. The strategic measures were leadership, credibility, communication, training and development, employee involvement, recognition, and pay.

Strategic measure: Leadership. Nine survey questions addressed the leadership strategic measure. They were:

5 - Understand DOT mission and goals

12 – Kept well informed about my part of DOT

16 – Know how my work contributes to goals

18 – Training and development available to all

23 – Projects consider environment and community

32 – I have authority needed for results

35 – DOT changing to many new and better ways

44 – Secretaries will use survey results to improve

52 – DOT is a good community servant

Rather than look at the scores for these nine specific survey questions, the composite scores were combined by district over the research timeframe. Figure 4 displays the composite scores in district FCPM participation order.

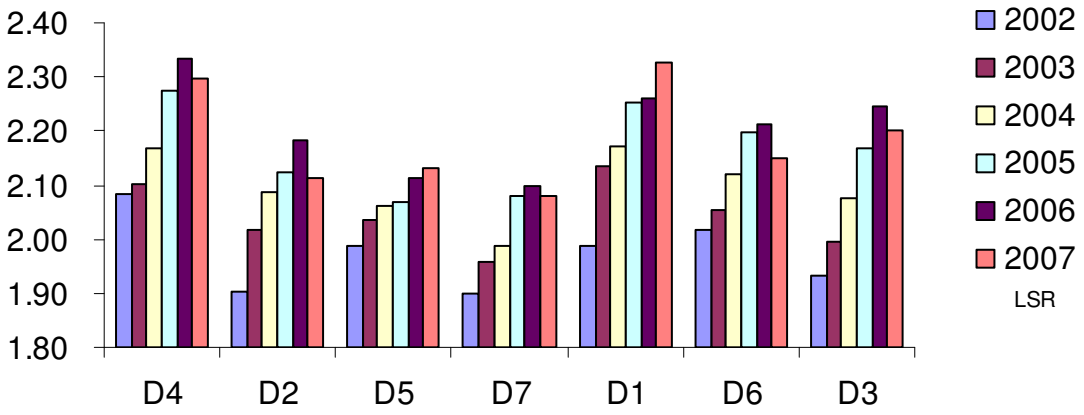

Figure 4. Bar graph of leadership survey results.

There was a consistent increase in scores for 2003, 2004, 2005, and most districts in 2006. The last survey year, 2007, illustrated decreases in Districts 2, 3, 4, 6, and 7. Districts 1 and 4 had the highest composite scores for geographical areas. A two-way

analysis of variance (ANOVA) without replication test comparing both the districts and the research years was conducted, as demonstrated in Table 7.

Table 7

Leadership ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Districts	0.17	6	0.03	23.16	<.001	2.42
Research Years	0.29	5	0.06	47.78	<.001	2.53

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between districts, the sum of squares (SS) was 0.17 with an F-value of 23.16 and 6 degrees of freedom (df). The mean square (MS) was 0.03 and the F crit was 2.42, demonstrating $p<.001$. The results indicated that the relationship between training participation and employee satisfaction between the districts with the *leadership* strategic measure was statistically significant. The ANOVA comparing the research years indicated the SS at 0.29 with an F-value of 47.78 and 5 df. The MS was 0.06 and the F crit was 2.53, also demonstrating $p<.001$. The results indicated that the change in employee satisfaction over the years for the *leadership* strategic measure was statistically significant. A positive relationship was found between FCPM participation and the leadership strategic measure both between the district comparison and by year progression.

Strategic measure: Credibility. There were four survey questions that addressed the credibility strategic measure. They were:

12 – Kept well informed about my part of DOT

24 – You can believe what management tells you

35 – DOT changing to many new and better ways

44 – Secretaries will use survey results to improve

Rather than look at the four specific questions, the composite scores were combined by district over the research timeframe. Figure 5 displays the composite scores in district participation order.

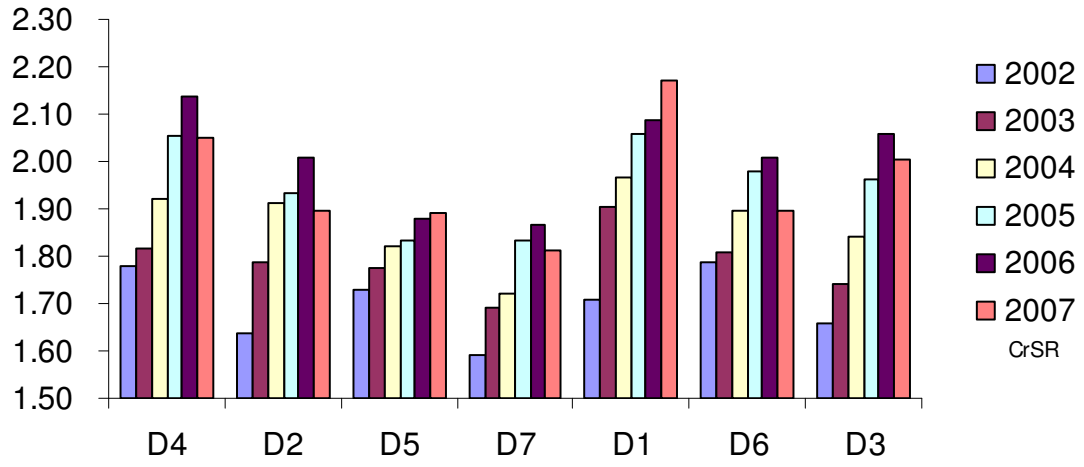

Figure 5. Bar graph of credibility survey results.

Again, the scores consistently increased annually from 2002 to 2006 in most areas. The 2007 scores were lower in each district except Districts 1, 5, and 9, consistent with the findings for the leadership strategic measure. A two-way ANOVA without replication test comparing both the districts and the research years was conducted, as demonstrated on Table 8.

Table 8

Credibility ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.22	6	0.04	13.99	<.001	2.42
Research Years	0.48	5	0.10	36.06	<.001	2.53

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between districts, the SS was 0.22 with an F-value of 13.99 and 6 df. The MS was 0.04 and the F crit was 2.42, demonstrating p<.001. The results indicated that the relationship between training participation and employee satisfaction between the districts with the *credibility* strategic measure was statistically significant. The ANOVA comparing the research years indicated the SS at 0.48 with an F-value of 36.06 and 5 df. The MS was 0.10 and the F crit was 2.53, also demonstrating p<.001. The results indicated that the change in employee satisfaction over the years for the *credibility* strategic measure was statistically significant. A positive relationship was found between FCPM participation and the credibility strategic measure both between the district comparison and by year progression.

Strategic measure: Communication. There were seven survey questions that addressed the communication strategic measure. They were:

5- Understand DOT mission and goals

8 – I know how well I am doing

12 – Kept well informed about my part of DOT

16 – Know how my work contributes to goals

29 – Supervisor asks for our ideas

44 - Secretaries will use survey results to improve

51 – I see improvements since last year's survey

Rather than look at the seven specific questions, the composite scores were combined by district over the research timeframe. Figure 6 displays the composite scores in district participation order.

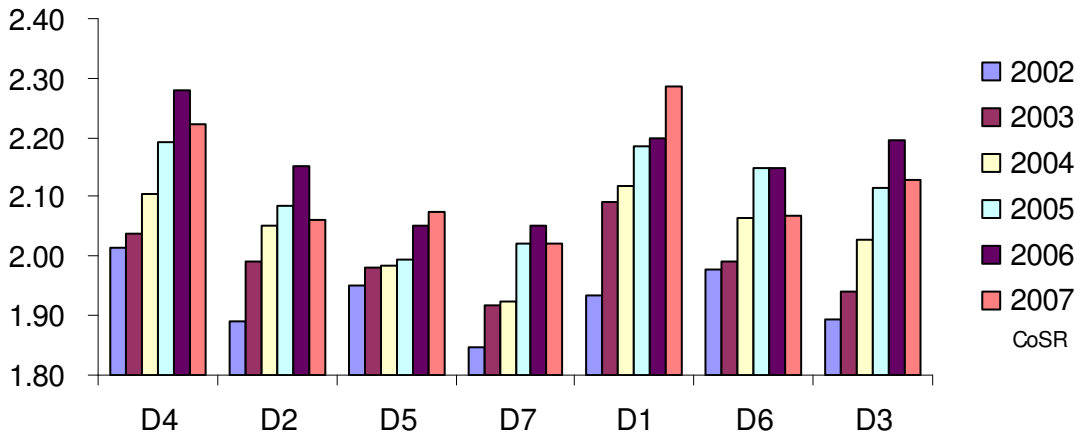

Figure 6. Bar graph of communications survey results.

The findings for the communication strategic measure were consistent with the leadership and credibility strategic measures, including increases from 2002 to 2006 in most districts and a decrease in 2007 in all districts except Districts 1, 5, and 9. A two-way ANOVA without replication test comparing both the districts and the research years was conducted, as detailed in Table 9.

Table 9

Communication ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.15	6	0.02	15.49	<.001	2.42
Research Years	0.26	5	0.05	31.95	<.001	2.53

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between districts, the SS was 0.15 with an F-value of 15.49 and 6 df. The MS was 0.02 and the F crit was 2.42, demonstrating $p<.001$. The results indicated that the relationship between training participation and employee satisfaction between the districts with the *communication* strategic measure was statistically significant. The ANOVA comparing the research years indicated the SS at 0.26 with an F-value of 31.95 and 5 df. The MS was 0.05 and the F crit was 2.53, also demonstrating $p<.001$. The results indicated that the change in employee satisfaction over the years for the *communication* strategic measure was statistically significant. A positive relationship was found between FCPM participation and the communication strategic measure both between the district comparison and by year progression.

Strategic measure: Training and development. Three survey questions addressed the training and development strategic measure. They were:

1 – I get the training I need when I need it

7 – Group has needed skills and knowledge

18 – Training and development available to all

Rather than look at the three specific questions, the composite scores were combined by district over the research timeframe. Figure 7 displays the composite scores in district participation order.

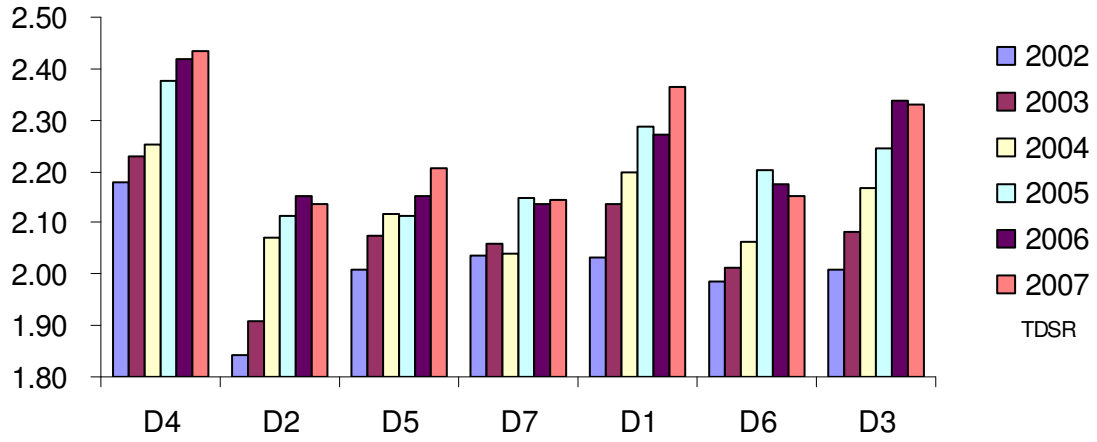

Figure 7. Bar graph of training and development survey results.

In most cases, the training and development strategic measure demonstrated consistent increases from 2002 to 2007. District 4 demonstrated the highest scores consistently with District 2 starting the lowest and making considerable progress higher. A two-way ANOVA without replication test comparing both the districts and the research years was conducted, as detailed in Table 10.

Table 10

Training and Development ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.32	6	0.05	30.14	<.001	2.42
Research Years	0.33	5	0.07	36.77	<.001	2.53

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between districts, the SS was 0.32 with an F-value of 30.14 and 6 df. The MS was 0.05 and the F crit was 2.42, demonstrating $p<.001$. The results indicated that the relationship between training participation and employee satisfaction between the districts with the *training and development* strategic measure was statistically significant. The ANOVA comparing the research years indicated the SS at 0.33 with an F-value of 36.77 and 5 df. The MS was 0.07 and the F crit was 2.53, also demonstrating $p<.001$. The results indicated that the change in employee satisfaction over the years for the *training and development* strategic measure was statistically significant. A positive relationship was found between FCPM participation and the training and development strategic measure both between the district comparison and by year progression.

Strategic measure: Employee involvement. The final three strategic measures—employee involvement, recognition, and pay—each had one question on the survey. Employee involvement's question was, "Supervisors ask for our ideas." Figure 8 illustrates the district scores for the research timeframe in district participation order.

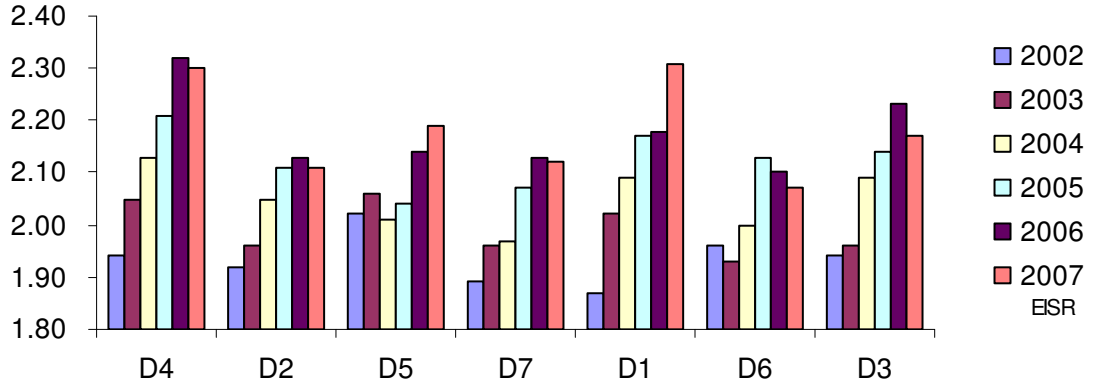

Figure 8. Bar graph of employee involvement survey results.

The employee involvement strategic measure was more spread out than the other strategic measures, ranging from a low of 1.87 in District 1 in 2002 to a high of 2.31 in 2007, a difference of 0.44 in score. District 4 demonstrated an increase of 0.36 in that same timeframe, scoring 1.94 in 2002 and 2.30 in 2007. Districts 1 and 5 were the only districts that demonstrated increases in 2007; however, the decreases in the other Districts were less than 0.03. A two-way ANOVA without replication test comparing both the districts and the research years was conducted, as detailed in Table 11.

Table 11

Employee Involvement ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.08	6	0.01	5.29	<.001	2.42
Research Years	0.36	5	0.07	28.27	<.001	2.53

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between districts, the SS was 0.08 with an F-value of 5.29 and 6 df. The MS was 0.01 and the F crit was 2.42, demonstrating p<.001. The results indicated that the relationship between training participation and employee satisfaction between the districts with the *employee involvement* strategic measure was statistically significant. The ANOVA comparing the research years indicated the SS at 0.36 with an F-value of 28.27 and 5 df. The MS was 0.07 and the F crit was 2.53, also demonstrating p<.001. The results indicated that the change in employee satisfaction over the years for the *employee involvement* strategic measure was statistically significant. A positive relationship was found between FCPM participation and the employee involvement strategic measure both between the district comparison and by year progression.

Strategic measure: Recognition. The recognition strategic measure was tied to one question, "Recognition given for a job well done." Figure 9 illustrates the survey results for recognition in district participation order.

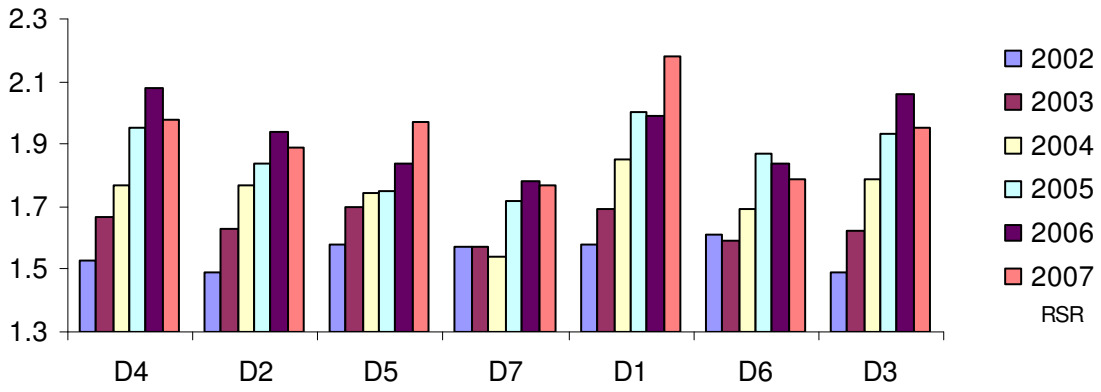

Figure 9. Bar chart of recognition survey results.

While the recognition strategic measure demonstrated increases between 2002 and 2006, there were decreases in 2007 in all districts except 1, 5, 8, and 9. In District 6, the difference between the 2002 score and 2007 was only 0.18 and District 7 only had a 0.20 gain in points. Districts 3, 4, and 9 had increases over 0.45 during that timeframe. A two-way ANOVA without replication test comparing both the districts and the research years was conducted, as detailed in Table 12.

Table 12

Recognition ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.19	6	0.03	5.87	<.001	2.42
Research Years	0.90	5	0.18	33.90	<.001	2.53

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between districts, the SS was 0.19 with an F-value of 5.87 and 6 df. The MS was 0.03 and the F crit was 2.42, demonstrating $p<.001$. The results indicated that the relationship between training participation and employee satisfaction between the districts with the *recognition* strategic measure was statistically significant. The ANOVA comparing the research years indicated the SS at 0.90 with an F-value of 33.90 and 5 df. The MS was 0.18 and the F crit was 2.53, also demonstrating $p<.001$. The results indicated that the change in employee satisfaction over the years for the *recognition* strategic measure was statistically significant. A positive relationship was found between FCPM participation and the recognition strategic measure both between the district comparison and by year progression.

Strategic measure: Pay. The final strategic measure was pay and was the lowest overall. The question on the survey was, "People's pay in line with responsibility and performance." Figure 10 illustrates the survey results in district participation order.

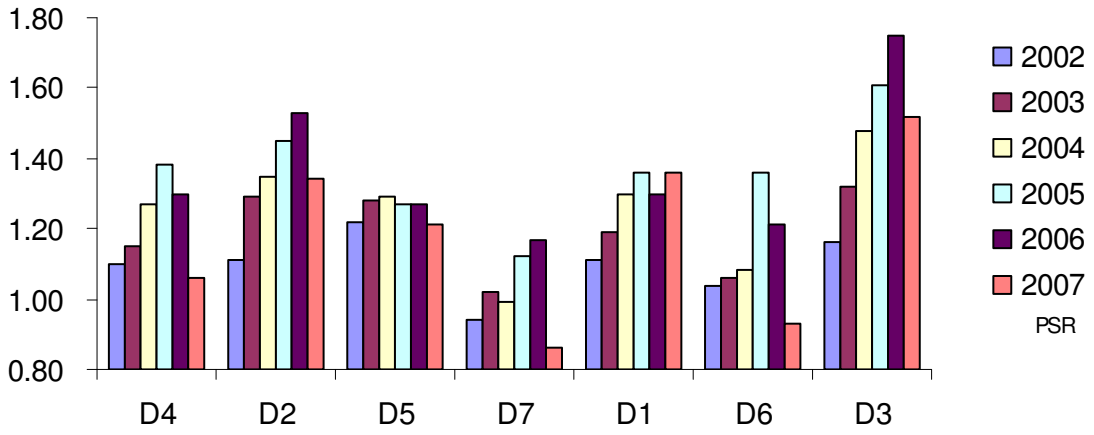

Figure 10. Bar graph of pay survey results.

The pay strategic measure was the lowest of the group, requiring the y-axis scale on the illustration to be lowered to 0.8 to 1.8. While the numbers increased continually for most districts from 2002 to 2005, numbers began to plummet in 2006. Districts 4, 5, 6, 7, and 8 demonstrated the lowest scores in this category in 2007. A two-way ANOVA without replication test comparing both the districts and the research years was conducted, as detailed in Table 13.

Table 13

Pay ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.80	6	0.13	16.83	<.001	2.42
Research Years	0.40	5	0.08	10.02	<.001	2.53

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between districts, the SS was 0.80 with an F-value of 16.83 and 6 df. The MS was 0.13 and the F crit was 2.42, demonstrating $p<.001$. The results indicated that the relationship between training participation and employee satisfaction between the districts with the *pay* strategic measure was statistically significant. The ANOVA comparing the research years indicated the SS at 0.40 with an F-value of 10.02 and 5 df. The MS was 0.08 and the F crit was 2.53, also demonstrating $p<.001$. The results indicated that the change in employee satisfaction over the years for the *pay* strategic measure was statistically significant. A positive relationship was found between FCPM participation and the pay strategic measure both between the district comparison and by year progression.

Strategic measures: Six-year averages. In order to look at the strategic measures agency-wide, Figure 11 illustrates the six-year average scores for each strategic measure by district.

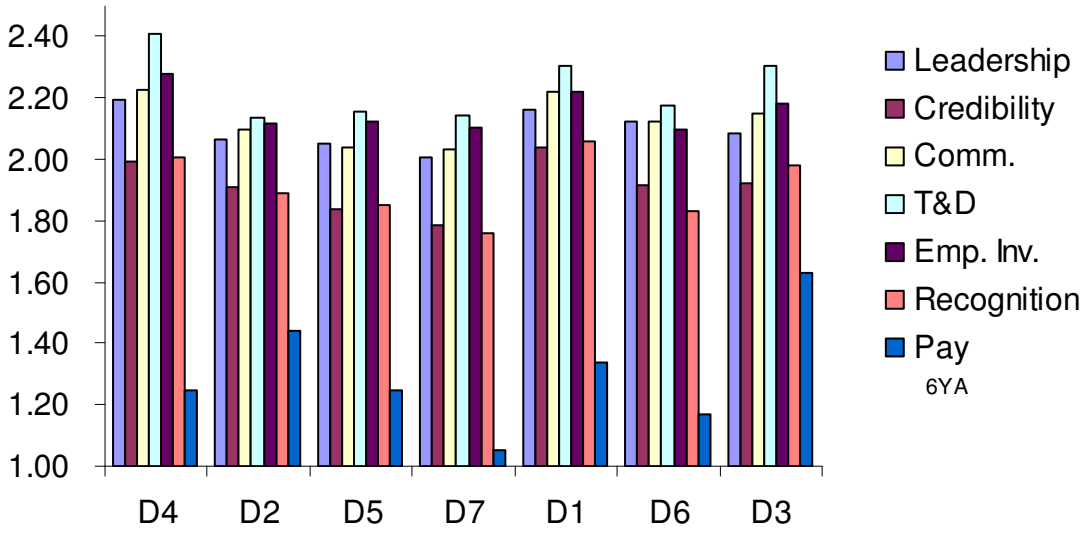

Figure 11. Bar chart of six-year average scores by FDOT district.

As demonstrated on the individual strategic measures charts, the pay strategic measure was the lowest. It is interesting to note that communications and leadership followed a close pattern, as did credibility and recognition. Training and development topped the list for each district. A two-way ANOVA without replication test comparing both the district six-year averages and the strategic measure six-year averages was conducted, as detailed in Table 14.

Table 14

Six-year Average ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.29	6	0.05	8.79	<.001	2.36

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between the district six-year averages, the SS was 0.29 with an F-value of 8.79 and 6 df. The MS was 0.05 and the F crit was 2.36, demonstrating $p<.001$. The results indicated that the relationship between training participation and employee satisfaction between the districts, using the average scores of the six-year analysis timeframe, was statistically significant. A positive relationship was found between FCPM participation between the districts, using the six-year averages, indicating the districts with higher participation with FCPM had higher employee satisfaction.

Throughout these charts, a direct relationship between FCPM participation and employee satisfaction might be illustrated by an increase in strategic measure results with increased FCPM participation. The charts were intentionally set up in FCPM participation order, District 4 through District 3, to assist the reader's perception. None of the strategic measures indicated a continual declining pattern associated with decreasing FCPM participation. In reviewing the six-year averages, a declining pattern occurred for the four districts with the highest FCPM participation (Districts 4, 2, 5, and 7) for most of the strategic measures. The final three districts (Districts 1, 6, and 3), however, did not follow a continual decline in employee satisfaction scores.

Strategic measures for Districts 4 and 3. It may be helpful to look at both extremes, the highest participating district, District 4, and the lowest participating district, District 3. District 4 had 377 FCPM participating employees, while District 3 had 24 FCPM participating employees prior to and including 2007. Figure 12 illustrates the six-

year average scores by strategic measure for Districts 4 and 3 and Figure 13 demonstrates the variance in the six-year average scores.

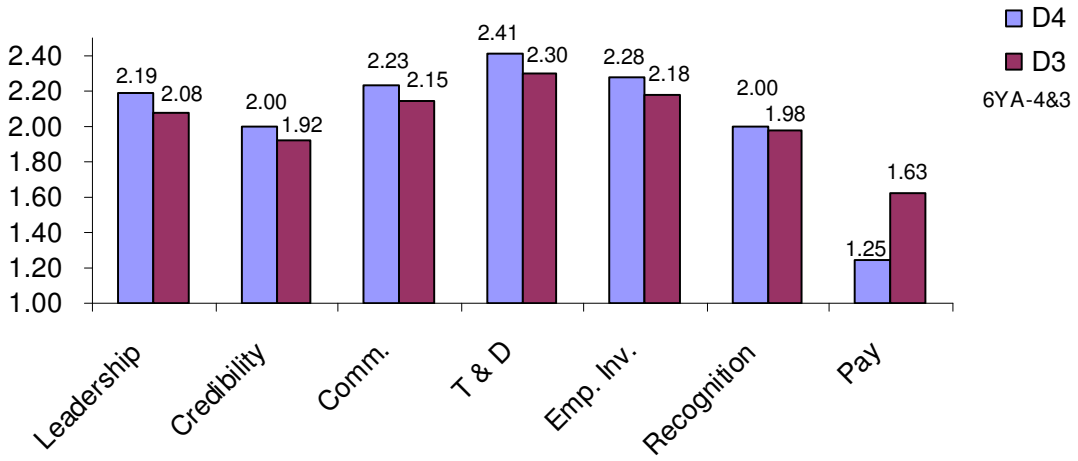

Figure 12. Bar chart of six-year average survey results for Districts 4 and 3.

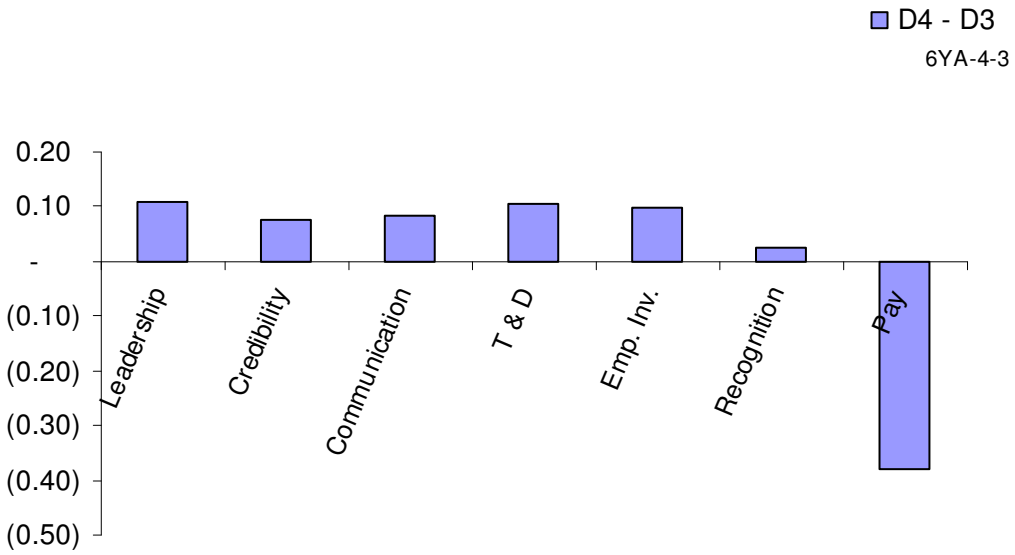

Figure 13. Bar graph of variance of six-year average scores for Districts 4 and 3.

While the numbers illustrated a positive relationship between FCPM participation and employee satisfaction in both District 4 and District 3, the variance was narrowed for the recognition strategic measure and inverse for the pay strategic measure. A two-way ANOVA without replication test comparing the six-year averages between District 4 and District 3 between the strategic measures was conducted, as detailed in Table 15.

Table 15

ANOVA - Districts 4 and 3

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Districts	0.00	1	0.00	0.06	0.82	5.99

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean square; F = F-value

In reference to the comparison between the district six-year averages, the SS was 0.00 with an F-value of 0.06 and 1 df. The MS was 0.00 and the F crit was 5.99, demonstrating a p-value of 0.82. The results indicated that the relationship between training participation and employee satisfaction for the six-year averages between Districts 4 and 3 was not significant. While increases were experienced in all strategic measures except the pay strategic measure, a positive relationship was found between higher FCPM participation and district scores for District 4 and District 3, however, the variance was not significant.

Potential outlier: Population diversity. Since Florida has a very diverse population, ranging from rural to urban population, a deeper look at the differences between FDOT Districts was warranted. The Florida legislature relies on the Bureau of Economic and Business Research (BEBR) at the University of Florida to determine a

methodology to compare Florida's counties for the purpose of establishing "an adjustment factor for school personnel costs" (Dewey, Denslow, & Lotfinia, 2008, p. 1). This index is called the Florida Price Level Index (FPLI) and is determined annually using a "cross-sectional measure that compares the cost of living or relative wage levels among Florida's 67 counties" (Dewey et al., p. 1). Table 16 contains the FPLI averages by FDOT District along with the lowest FPLI and the highest FPLI in each district. Note that District 4 has 5 counties and an average FPLI of 100.72 and District 3 has 16 counties and an average FPLI of 91.33 comparing the 2005 through 2007 FPLI scores. This is a difference of over 9 points, indicating a large discrepancy in the cost of living in the counties in Districts 4 and 3.

Table 16

Florida Price Level Index Average for 2005-2007

District	Number of counties in District	Lowest FPLI	Highest FPLI	Average FPLI
1	12	94.62	106.84	98.70
2	18	88.48	101.95	95.01
3	16	87.58	97.58	91.33
4	5	97.46	104.63	100.72
5	9	94.30	101.20	97.19
6	2	100.96	103.32	101.84
7	5	93.96	102.13	98.68

The FPLI is considered Florida's version of the cost of living index and is calculated using "extensive data on wages, occupational location, and the price of goods and services" (Dewey et al., 2008, p. 2). They noted that, "When population in and around urban areas reaches the high levels seen in south Florida, workers encounter high house prices, long commutes, or both, for which they must be compensated in the form of

higher wages." (p. 1). The Florida Department of Management Services (FDMS) determines a competitive pay differential (CAD) for state positions based on "geographical, localized recruitment, turnover, or competitive pay issues." (FDMS, 2010, "Competitive Area Differential"). District 4, which includes Palm Beach, Broward, Dade, and Monroe Counties, is included in the CAD. The differences in the FPLI and CAD between Districts 4 and 3 may contribute to a difference in pay expectations and associated employee dissatisfaction with that particular strategic measure.

Potential outlier: Decrease in 2007. Consistently throughout most of the strategic measures, 2007 scores showed a decrease in employee satisfaction over the prior year. Although no survey questions addressed the decline within this research timeframe, there were considerable internal and external factors that could have contributed to this decrease in employee satisfaction. There was a change in leadership at the top of the organization, as the Governor appointed a new Secretary of FDOT on April 2, 2007 (Florida Department of Transportation [FDOT], 2010b, "Overview"). In addition, there were several internal reorganizations. The year 2007 was the fifth year of staff reductions, representing a 27% reduction in total employees since 2002. There were no pay increases and the national and state economies were beginning to demonstrate signs of recession. Kotter (1996) wrote that the "downside of change is inevitable" and that "pain is ever present" whenever changing conditions happen (p. 4). This combination of challenges to FDOT could easily explain uncertainty within the agency during the 2007 survey process.

Potential outlier: District 1. With only 68 FCPM participants up to the end of the research timeframe, District 1 had the third lowest participation of FDOT districts. Nevertheless, District 1 continually scored high on all strategic measures. On the credibility and recognition strategic measures, District 1 scored the highest on the six-year average scores. On the remaining five strategic measure scores, District 1 scored second highest on the six-year averages. If the FCPM participation relationship was direct, District 1 might have scored fifth in those categories.

Potential Outlier: District 7. With 90 FCPM participants up to the end of the research timeframe, District 7 was fourth in FCPM participation, right in the middle of the districts. The scores for the strategic measures, however, were the lowest in each category for the six-year average except in training and development, where it was second lowest. A more direct relationship between FCPM participation and employee satisfaction might have demonstrated scores at the middle of the pack of districts.

Research Question #2: Customer Satisfaction

Customer survey introduction. The second research question was, "What is the relationship between participation in a comprehensive experiential leadership training program and customer satisfaction?" As this has long been a concern of FDOT, surveys were conducted on five different customer groups about every other year. The customer groups surveyed included resident customers (FDOT, 2003; FDOT, 2005c; FDOT, 2005g; FDOT, 2006; FDOT, 2007a; FDOT, 2008a; FDOT, 2008f), Florida visitors (FDOT, 2003; FDOT, 2005b; FDOT, 2005i; FDOT, 2008c), commercial driver customers (FDOT, 2003; FDOT, 2005f; FDOT, 2008d), government officials (FDOT,

2003; FDOT, 2005e; FDOT, 2008e), and well elder customers (FDOT, 2003; FDOT, 2005h; FDOT, 2008g). On all the survey instruments, the respondents were asked to "think of the state highway system as the Florida Turnpike, interstates, freeways, expressways, or highways with U.S. numbers or state road numbers" (FDOT, 2008a, p. 1). Each of these customer groups has been presented separately over the following pages. While some of the surveys collected district information, Ferguson (personal communication, January 14, 2009) indicated that "the sample size is so small [that they] make no conclusions based on this data, but simply use it as another reference point" for consideration (personal correspondence). Therefore, no district distinctions were made for the customer survey groups. However, the need and intention to increase customer satisfaction has been well documented (McGrath, 2002; Hamel, 2002; World Bank, 2003), as has FDOT's desire to serve its customers. Therefore, consider that by 2007, 17% of FDOT employees had participated in FCPM. Improvements in customer satisfaction demonstrate success for the organization overall.

*Customer survey: Residents***.** Resident customer surveys were conducted in 2002, 2004, 2006, and 2007 (FDOT, 2003; FDOT, 2005c; FDOT, 2005g; FDOT, 2006; FDOT, 2007a; FDOT, 2008a; FDOT, 2008f) and each contained six parts. Part I had questions about how well drivers were able to see key signing and road markings. Part II had questions about construction zones. Part III had questions about the state highway system in the respondents' areas. Part IV had questions about public transportation in the respondents' communities. Part V had questions about overall satisfaction with the state highway system and Part VI had questions about the respondents.

Figure 14 demonstrates the resident customer surveys received by district and survey year. As shown, the survey response distribution between districts did not vary by more than 5% any given year or over the span of the four surveys.

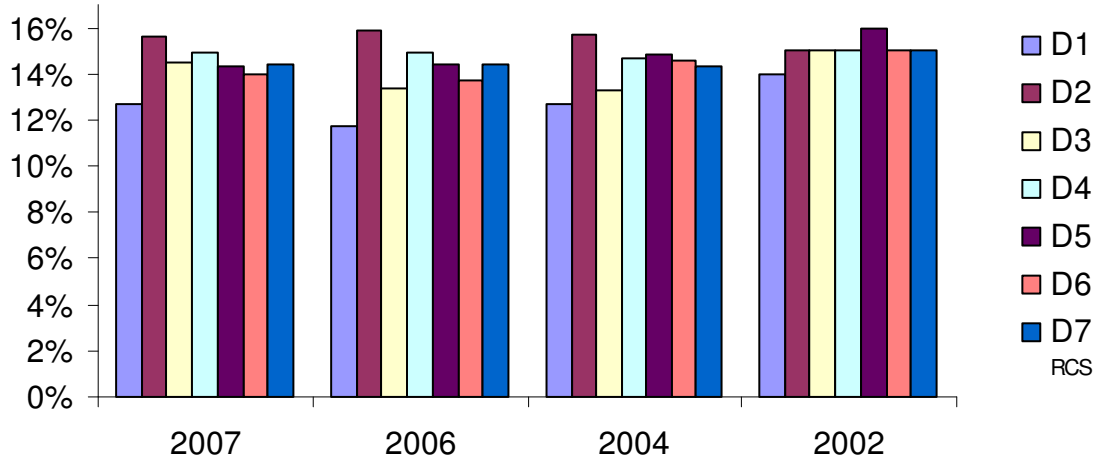

Figure 14. Bar graph of resident customer surveys by FDOT District.

The number of surveys received for this customer group, however, was less than 3,000 per year. While the state population ranged from 16.7 million in 2002 to 18.7 million in 2007 (see Table 4), the number of residents surveyed was less than 0.02% of the state population. The survey questions compared for the survey years were the five questions in Part V, overall satisfaction with the state highway system. The survey questions were (a) overall safety on state roads, (b) being able to walk safely on state roads, (c) being able to ride bicycles safely on state roads, (d) overall smoothness of the roads in the state highway system, and (e) the transportation system provided by FDOT.

Figure 15 shows the comparison of survey results of respondents who answered either *satisfied* or *very satisfied* on these questions.

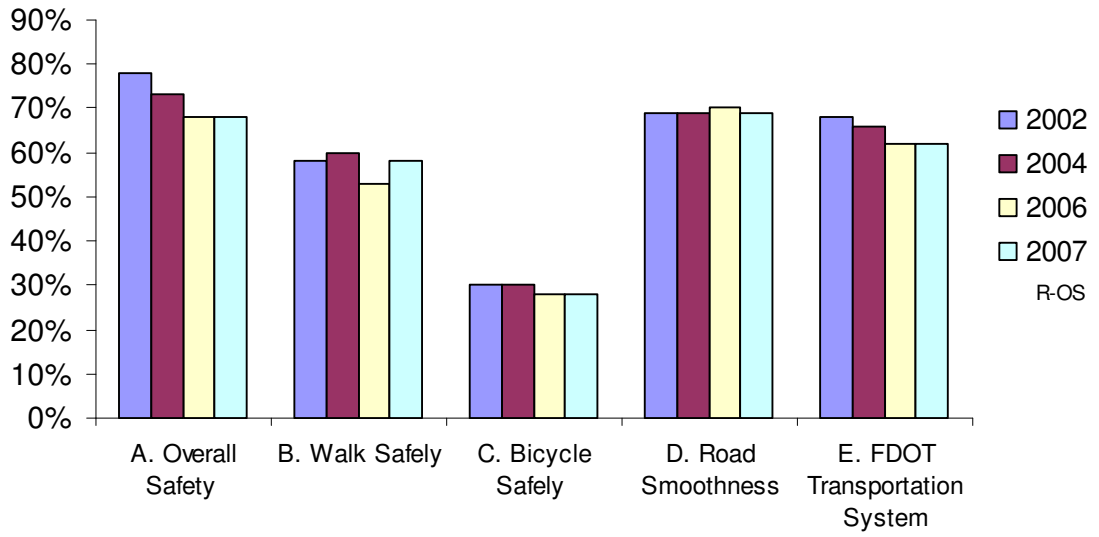

Figure 15. Bar chart of overall satisfaction with state highway system for residents.

Questions A, D, and E are similar in that they ask about satisfaction with overall safety on state roads, smoothness of the roads, and FDOT's transportation system. Questions A and E had decreases in 2004 and 2006, with 2007 the same as 2006. Question D scored the same in 2002, 2004, and 2007, with a percentage increase in 2006. Question B addressed walking on state roads and the satisfaction percentages ranged between 53% and 60%. Question C addressed bicycle safety, scoring 30% satisfaction in 2002 and 2004, and 28% in 2006 and 2007. An ANOVA test comparing results of the research year surveys was conducted. The SS was 0.00 with an F-value of 4.22 and 3 df. The MS was 0.00 and the F crit was 3.49, resulting in a p-value of 0.03, indicating

statistical significance and reliability on the results. Unfortunately, the resident satisfaction results did not consistently increase during the research timeframe. A positive relationship between FCPM participation and resident customer satisfaction was not demonstrated in this timeframe.

Customer survey: Florida visitors. The customer satisfaction survey for Florida visitors (FDOT, 2003; FDOT, 2005b; FDOT, 2005i; FDOT, 2008c) varied somewhat within the research timeframe, due to budget constraints (FDOT, 2005i, p. 1; FDOT, 2008c, p. 1). The survey was divided into four parts. Part I addressed how well drivers were able to see signing and road markings, part II addressed travel on the highways during the visitors' visit to Florida, part III addressed airports, and part IV addressed overall satisfaction with the state highway system.

For comparison purposes, the results from 2000 were included for the four questions in overall satisfaction to establish a baseline, since two of the questions were not posed in 2002. The percentages represent those who answered *satisfied* or *very satisfied* on the surveys and are shown on Figure 16. The numbers of surveys received for the each research year were not available.

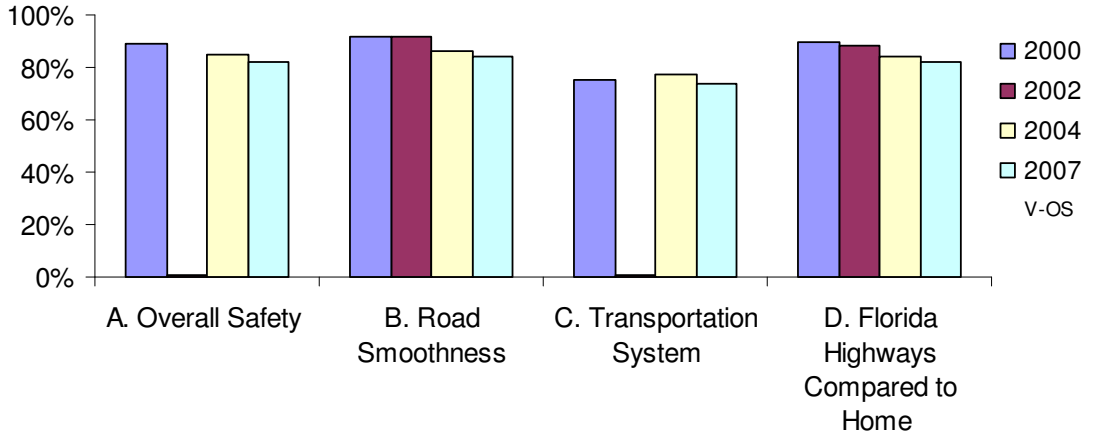

Figure 16. Bar chart of overall satisfaction with state highway system for visitors.

The *overall safety* question decreased 4% from 2000 to 2004 and another 3% in 2007. The *road smoothness* question was consistent on the 2000 and 2002 surveys at 92% and decreased to 86% in 2004 and 84% in 2007. The *transportation system* question stayed in the mid-seventy percent range. The questions about comparing *Florida highways to their home states* had a continual decrease, starting at 90% in 2000 and decreasing to 82% in 2007. Overall, there was no more than a 6% difference in the survey results during the research timeframe, 2002 to 2007. An ANOVA test conducted for the survey years resulted in an SS of 0.43 with an F-value of 2.50 and 3 df. The MS was 0.15 and the F crit was 3.86, resulting in a p-value of 0.13, indicating no statistical significance. Even though the decrease was small, no more than 6%, the visitor satisfaction results failed to demonstrate a positive relationship between FCPM participation and visitor customer satisfaction.

Customer survey: Commercial drivers. The commercial driver surveys given in 2000 had 1,767 respondents, the 2004 survey had 1,751 respondents, and the 2007 survey

had 2,803 respondents (FDOT, 2003; FDOT, 2005f; FDOT, 2008d). The survey had five parts. Part I addressed traveling through FDOT construction projects, part II addressed visibility and safety, part III addressed travel times and traffic, part IV addressed overall satisfaction, and part V addressed demographic information. The commercial drivers indicated in which counties they operated, as displayed in Figure 17.

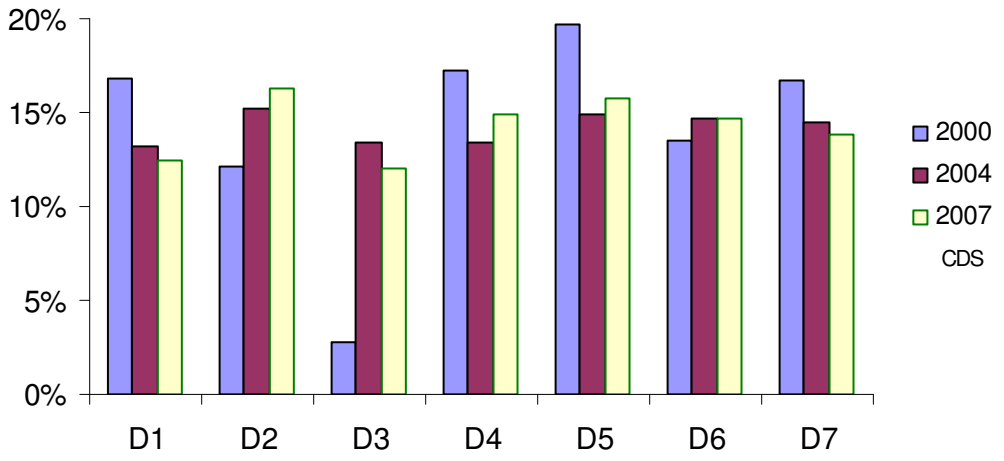

Figure 17. Bar chart of survey distribution results by district for commercial drivers.

The results from the three questions from the overall satisfaction section of the survey that were included all three years are displayed in Figure 18. The overall safety question results decreased 5% from 2000 to 2007, while road smoothness only dropped 1% in 2004 and increased to match the 2000 percentage in 2007. The transportation system question went from 79% to 73% to 81% from 2002 to 2007. An ANOVA test conducted for the surveys resulted in an SS of 0.00 with an F-value of 1.55 and 2 df. The MS was 0.00 and the F crit was 6.94, resulting in a p-value of 0.32, indicating no statistical significance. The commercial driver satisfaction results did not vary much for

overall safety and road smoothness, but increased for the FDOT transportation system. Since commercial drivers make it their business to travel the highways, it would stand to reason that they have the greatest exposure to the FDOT transportation system and would possibly be the most observant and critical. A positive relationship between FCPM training and customer satisfaction was not demonstrated for commercial drivers.

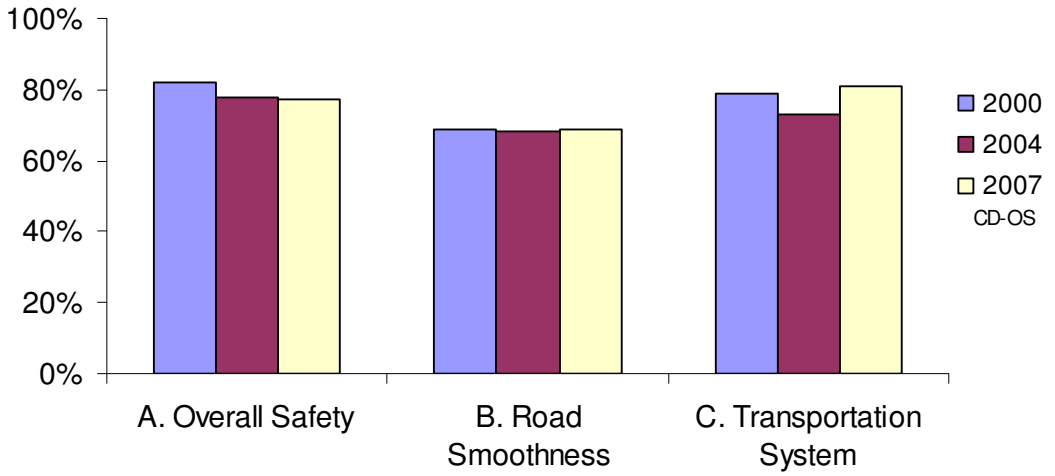

Figure 18. Bar chart of overall satisfaction with state highway system for commercial drivers.

*Customer survey: Government officials***.** The government official survey was conducted three times during the research timeframe, in 2002, 2004 and 2007 (FDOT, 2003; FDOT, 2005e; FDOT, 2008e). The surveys returned completed totaled 464 in 2002, 447 in 2004, and 354 in 2007. The survey form had six parts. Part I addressed questions about the respondents' experiences with FDOT. Part II addressed satisfaction with FDOT's allocation of transportation resources in the respondents' communities. Part III addressed recent experiences with construction zones. Part IV related to travel in the respondents' areas. Part V addressed overall satisfaction with the state highway system.

Part VI addressed the respondents' levels of government and office locations. The largest group of government official respondents was city officials, ranging around 70% each year. The other government officials represented county officials, regional officials, and state officials. An ANOVA test conducted for the surveys indicated an SS of 0.00 with an F-value of 1.15 and 2 df. The MS was 0.00 and the F crit was 4.46, resulting in a p-value of 0.36, indicating no statistical significance. While there were increases in *overall safety, walk safely*, and *road smoothness, decreases were demonstrated in bicycle safely* and satisfaction with the *FDOT transportation system,* as shown on Figure 19. This customer group represented professional customers of and partners with the FDOT transportation system. These results do not demonstrate a positive relationship between FCPM training and customer satisfaction for government officials.

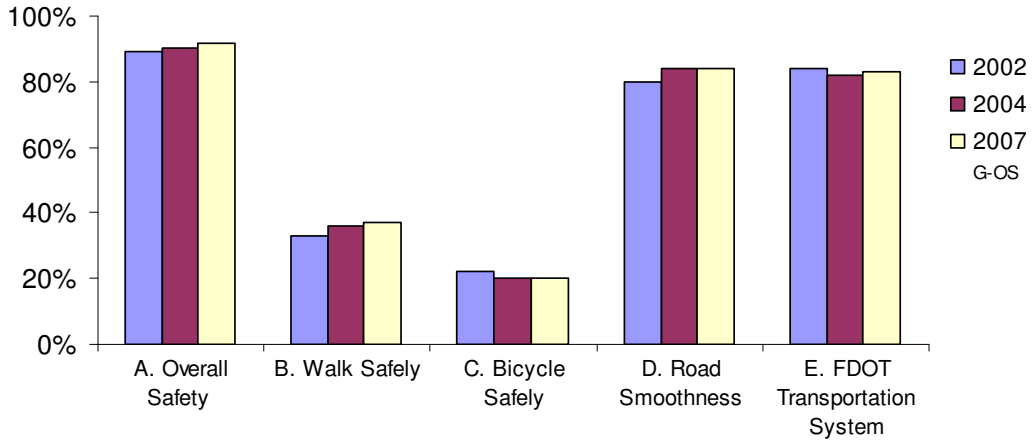

Figure 19. Bar chart of overall satisfaction with state highway system for government officials.

*Customer survey: Well elder residents***.** The customer survey given to well elders was implemented three times during the research timeframe (FDOT, 2003; FDOT,

2005h; FDOT, 2008g). Surveys were received from 356 respondents in 2002, 492 respondents in 2004, and 455 respondents in 2007. The survey form had six parts. Part I addressed key signing and road markings. Part II addressed constructions zones. Part III addressed travel on the state highway system. Part IV related to public transportation opportunities in the respondents' areas. Part V addressed overall satisfaction with the state highway system. Part VI addressed the respondents' demographic information. Combining the totals for *satisfied* and *very satisfied*, Figure 20 illustrates the responses for their overall satisfaction. An ANOVA test conducted on the survey results indicated an SS of 0.01 with an F-value of 24.68 and 2 df. The MS was 0.00 and the F crit was 6.94, resulting in a p-value of 0.01, indicating statistical significance between FCPM training and customer satisfaction. Unfortunately, the well elder satisfaction results did not consistently increase during the research timeframe. A positive relationship between FCPM participation and well elder customer satisfaction was not demonstrated in this area.

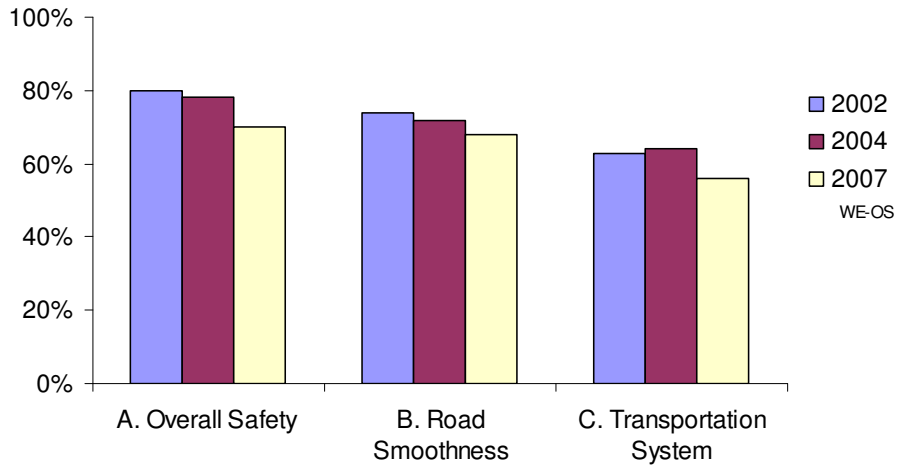

Figure 20. Bar chart of overall satisfaction with state highway system for well elders.

*Customer survey comparison for all types***.** As illustrated, the customer surveys varied between customer groups and survey years. There were three questions in the overall satisfaction category that were posed to all customer groups in 2004 and 2007. Comparing the results for the satisfied customers, the largest drop was an 8% decrease in the well elder customer group from 2004 to 2007. Figures 21, 22, and 23 illustrate the customer group results for those two survey years.

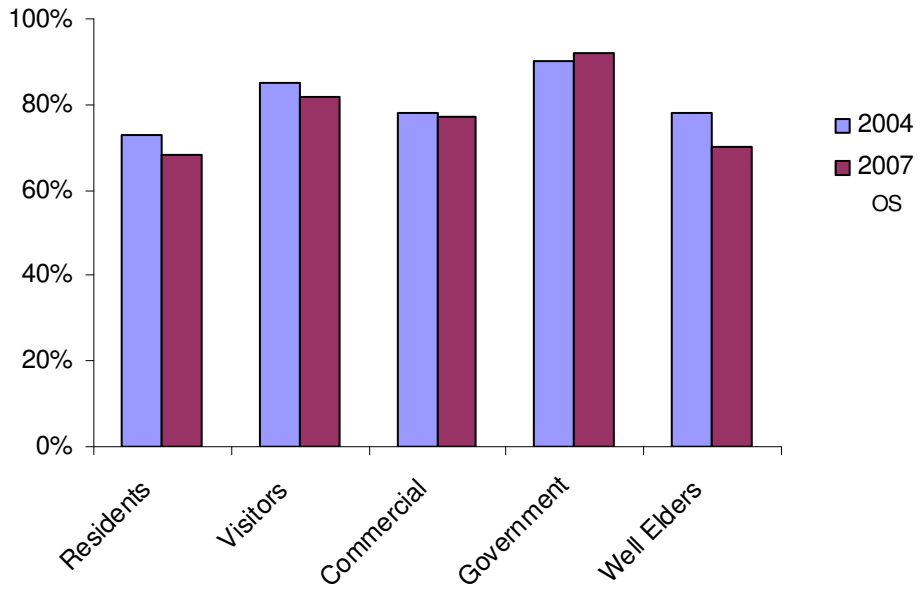

Figure 21. Bar chart comparing customer group satisfaction for overall safety in 2004 and 2007.

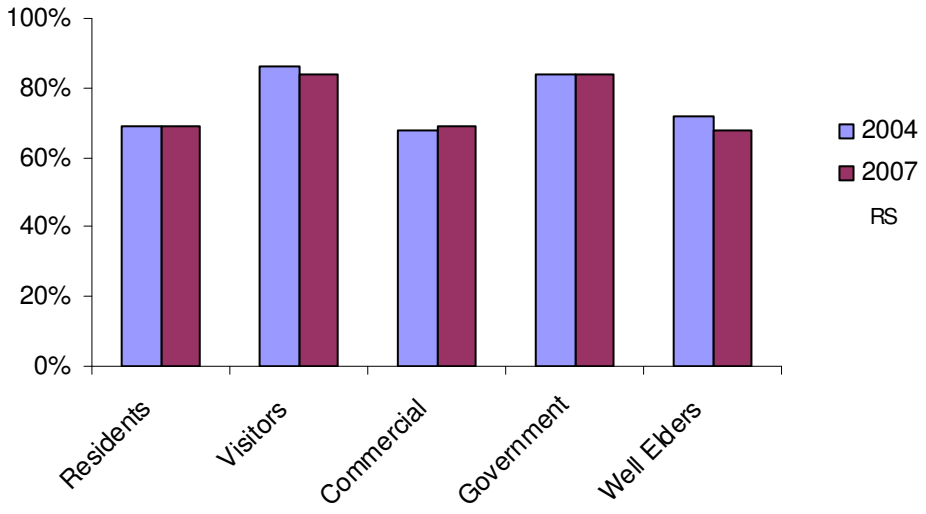

Figure 22. Bar chart comparing customer group satisfaction for road smoothness for 2004 and 2007.

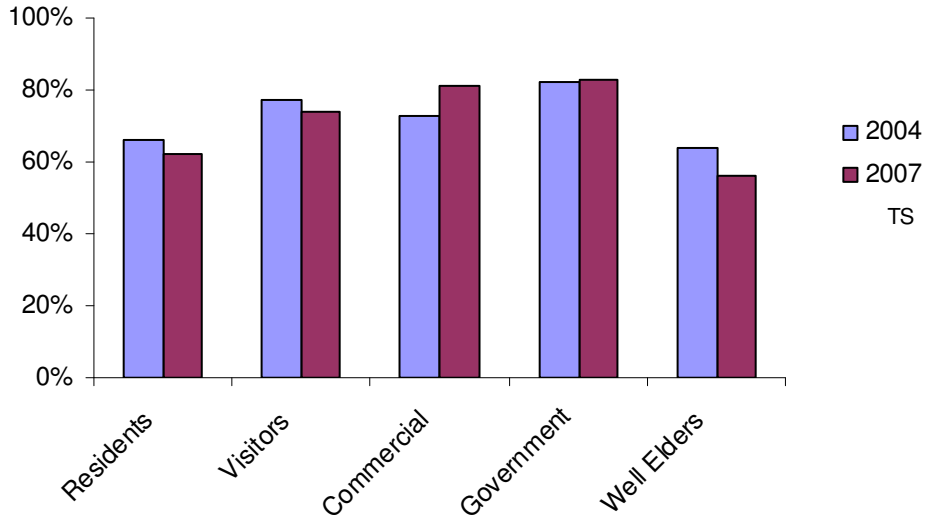

Figure 23. Bar chart comparing customer group satisfaction for FDOT transportation system for 2004 and 2007.

An analysis of variance test was conducted for each of these questions for the two survey years. An ANOVA test on the *overall safety* question results demonstrated an SS of 0.00 with an F-value of 3.10 and 1 df. The MS was 0.00 and the F crit was 7.71, resulting in a p-value of 0.15, indicating no statistical significance. The ANOVA test on the *road smoothness* question results demonstrated an SS of 0.00 with an F-value of 1.25 and 1 df. The MS was 0.00 and the F crit was 7.71, resulting in a p-value of 0.33, indicating no statistical significance. The ANOVA test on the *FDOT transportation system* question results demonstrated an SS of 0.00 with an F-value of 0.20 and 1 df. The MS was 0.00 and the F crit was 7.71, resulting in a p-value of 0.68, indicating no statistical significance. These results do not indicate a positive relationship between FCPM training and customer satisfaction.

Research Question #3: Performance Results

Performance results introduction. The third research question was "What is the relationship between participation in a comprehensive experiential leadership training program and performance results?" In compliance with the Transportation Performance and Productivity Standards (1992) .the Florida Transportation Commission (FTC) developed "transportation performance and productivity measures" for FDOT (FTC, 2002, p. 1). These measures were developed for public accountability to ensure that taxpayer dollars were "directed toward the development of tangible transportation products" (FTC, 2002, p. 1). The performance measures ranged from a combination of 33 primary and secondary measures in fiscal year ending 2002 to 38 primary and secondary measures (as defined in chapter 1) in fiscal year ending 2007 (FTC, 2002; FTC, 2003;

FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). In some years, measures were added and in some years, objectives for performance measures changed within the research timeframe. The performance measures addressed cost-effective and efficient business practices for production, preservation of current state highway system, capacity improvements for highways and all public transportation modes, cost-effective and efficient business practices for finance and administration, minority and disadvantaged business programs, safety initiatives, and Florida's turnpike enterprise, as shown on Table 3. Explanations of each of these seven sections and the results of the performance measures follow.

*Cost-effective and efficient business practices: Production***.** During the research timeframe, there were 7 primary measures (PM) and 9 secondary measures in the first section (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). The subsections included consultant acquisition, right-of-way acquisition, construction contract lettings, local agency program, and construction contract adjustments, although not all of these subsections existed the entire research timeframe. Five measures which existed throughout the research timeframe will be addressed, although two of them began as secondary measures. The first measure was, "The number of consultant contracts actually executed compared to the number planned." (FTC, 2007, p. 22). The objective was 95% or more. This objective was met every year except in 2005 and 2006. In 2005, only Districts 3 and 5 met the objective. The breakout by district is shown on Table 17. As demonstrated, in the years when the measure was met for the department, only one district did not meet the target.

Table 17

Performance Measure a: Number of Consultant Contracts Executed Compared to Number Planned

	2003	2004	2005	2006	2007
D1			Not met		
D2			Not met		
D3					
D4		Not met	Not met	Not met	
D5	Not met				
D6			Not met	Not met	
D7			Not met	Not met	Not met
Overall			Not met	Not met	

Note: FYE2002 was not reported by district.

The second measure was, "The number of Right-of-Way (ROW) projects certified compared to the number scheduled for certification." (FTC, 2007, p. 25). The objective was 90% or more. This measure was met every year and there were only four times when districts were unable to meet the target, as shown on Table 18.

Table 18

Performance Measure b: Number of ROW Projects Certified Compared to Number Scheduled

	2002	2003	2004	2005	2006	2007
D1		Not met				
D2						
D3						
D4						
D5						
D6	Not met					Not met
D7	Not met					
Overall						

The third measure was, “The number of construction contracts actually executed compared against the number planned.” (FTC, 2007, p. 31). The objective was 95% or more. This target was met in every year except 2005 and 2006. Table 19 demonstrates the results and illustrates the district comparisons.

Table 19

Performance Measure c: Number of Construction Contracts Not Executed Compared to Number Planned

	2002	2003	2004	2005	2006	2007
D1			Not met	Not met	Not met	
D2						
D3					Not met	
D4			Not met	Not met	Not met	
D5			Not met	Not met	Not met	
D6				Not met	Not met	
D7				Not met	Not met	Not met
Overall				Not met	Not met	

The fourth measure was “The percentage of construction contracts completed within 20% of the original contracted time.” (FTC, 2007, p. 43). The objective called for 80% or more of the projects to be less than 20% longer than the original contract timeframe. Table 20 illustrates the difficulty that FDOT had with that performance measure, only meeting the target in 2002. District 6 was successful every year, however, and District 1 had success every other year.

Table 20

Performance Measure d: Percentage of Construction Contracts Completed within 10% of Original Contracted Time

	2002	2003	2004	2005	2006	2007
D1		Not met		Not met		Not met
D2		Not met	Not met	Not met	Not met	Not met
D3		Not met	Not met	Not met	Not met	Not met
D4		Not met	Not met	Not met	Not met	Not met
D5		Not met	Not met	Not met	Not met	Not met
D6						
D7	Not met	Not met	Not met	Not met	Not met	Not met
Overall		Not met	Not met	Not met	Not met	Not met

The fifth measure in this section was "Percentage of construction contracts completed at no more than 10% above original contract amount." (FTC, 2007, p. 47). Table 21 demonstrates the difficulty FDOT had meeting the target. The overall target was not met during the research timeframe, but District 6 had success four of the six years. Note that District 6 also had the most success with the fourth measure described above, as these construction measures are related. District 1 was successful three of the six years, as they were with the previous measure, but not the identical years.

Table 21

Performance Measure e: Percentage of Construction Contracts Completed at no more than 10% over Original Amount

	2002	2003	2004	2005	2006	2007
D1	Not met	Not met				Not met
D2		Not met	Not met	Not met	Not met	Not met
D3		Not met	Not met	Not met	Not met	Not met
D4	Not met	Not met	Not met	Not met	Not met	Not met
D5	Not met	Not met		Not met	Not met	Not met
D6				Not met	Not met	
D7	Not met	Not met	Not met	Not met	Not met	Not met
Overall	Not met	Not met	Not met	Not met	Not met	Not met

While looking at these measures allows a picture of some of the challenges of FDOT and identifies some success areas, glancing at these five measures by district may offer some insight into district performance. The performance measures selected for district comparisons were (a) number of consultant contracts executed compared to number planned, (b) number of ROW Projects certified compared to number scheduled, (c) number of construction contracts not executed compared to number planned, (d) percentage of construction contracts completed within 10% of original contracted time, and (e) percentage of construction contracts completed at no more than 10% over original amount. Table 22 demonstrates the results in district order for the years of the research timeframe.

As demonstrated, the district performance for those five performance measures ranged from 8 *not met* designations for District 6 to 19 *not met* designations for District 7 during the research timeframe. Districts 1, 2, and 3 had 11 *not met* designations each and District 5 had 14 *not met* designations, while District 4 had 17. While each of the performance measures had different implications and required different attentiveness, there were many other factors to consider.

During the research timeframe, many factors were noted in the annual reports that affected the state highway system. The impact of the 2001 terrorist attacks affected FDOT in 2002 in two areas. First, the security measures at the airports affected air travel, which was approaching pre-attack numbers. Secondly, the daily vehicle miles traveled reached a record high of 273.7 million miles in 2002 (FTC, 2003, p. 5). Four hurricanes in 2004 presented a challenge for the state, delaying some projects and creating new

projects (FTC, 2005, p. 2). Construction costs, well above estimates, were a concern noted in 2006 and 2007, which affected performance measures (FTC, 2006, p. 1; FTC, 2007, p. 1). In addition to these factors, the staffing level of FDOT went form 9,621 in 2002 to 7,547 in 2007, a decrease of 22% over the five-year period (see Table 4).

Table 22

District Results for Performance Measures a, b, c, d, and e

D1	2002	2003	2004	2005	2006	2007
a				Not met		
b		Not met				
c			Not met	Not met	Not met	
d		Not met		Not met		Not met
e	Not met	Not met				Not met
D2	2002	2003	2004	2005	2006	2007
a				Not met		
b						
c						
d		Not met	Not met	Not met	Not met	Not met
e		Not met	Not met	Not met	Not met	Not met
D3	2002	2003	2004	2005	2006	2007
a						
b						
c					Not met	
d		Not met	Not met	Not met	Not met	Not met
e		Not met	Not met	Not met	Not met	Not met
D4	2002	2003	2004	2005	2006	2007
a			Not met	Not met	Not met	
b						
c			Not met	Not met	Not met	
d		Not met	Not met	Not met	Not met	Not met
e	Not met	Not met	Not met	Not met	Not met	Not met
D5	2002	2003	2004	2005	2006	2007
a		Not met				
b						
c			Not met	Not met	Not met	
d		Not met	Not met	Not met	Not met	Not met
e	Not met	Not met		Not met	Not met	Not met
D6	2002	2003	2004	2005	2006	2007
a				Not met	Not met	
b	Not met					Not met
c				Not met	Not met	
d						
e				Not met	Not met	
D7	2002	2003	2004	2005	2006	2007
a				Not met	Not met	Not met
b	Not met					
c				Not met	Not met	Not met
d	Not met	Not met	Not met	Not met	Not met	Not met
e	Not met	Not met	Not met	Not met	Not met	Not met

Reviewing the performance results in order of FCPM participation, Figure 24 demonstrates the aforementioned performance measures, a, b, c, d, and e, in district participation order for the met or exceeded categories from 2002 to 2007, inclusive.

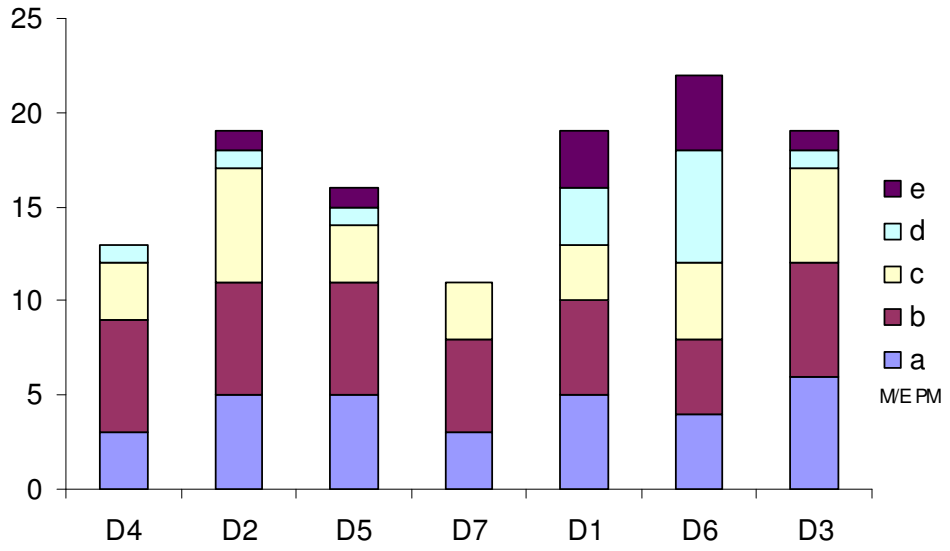

Figure 24. Bar chart of met or exceeded performance measures in FCPM district participation order.

A direct positive relationship between FCPM participation and performance results might demonstrate the tallest bar at the beginning of the chart with subsequent bars decreasing in height. While this chart only represents about a sixth of the organization's performance measures, these are the only measures that were consistent and tracked by district during the research timeframe. The chart does not demonstrate a positive relationship between FCPM participation and performance results.

Preservation of current state highway system. This section was divided into three subsections, bridges, pavement (called *resurfacing* during part of the research timeframe), and routine maintenance (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). Florida had 11,273 bridges in 2002 and 11,564 bridges in 2007. Of those bridges, the FDOT responsibility changed from 6,317 in 2002 to 6,135 in 2007. All bridges were inspected every two years and no bridges were allowed to become unsafe for the public. There were two primary measures under the bridge subsection. First, "the percentage of bridge structures on the state highway system having a condition rating of either excellent or good" (FTC, 2007, p. 54). The second measure was, "The percentage of bridge structures on the state highway system with posted weight restrictions" (FTC, 2007, p. 56). In earlier years, the measure was, "Percentage of FDOT-maintained bridges meeting department standards" (FTC, 2003, p. 50). Both measures were met every year within the research timeframe and were not split by district. The second subsection was pavement, referred to as resurfacing in the earlier years of the research timeframe. The standard was evaluated on "ride quality, crack severity, and rutting" (FTC, 2003, p. 53). The frequency of paving requirements depended on "traffic volume, type of traffic, and weather conditions" (FTC, 2007, p. 59).

The primary measure for this subsection was the "percentage of lane miles on the state highway system having a pavement condition rating of either excellent or good" (FTC, 2007, p. 59). The objective was 80% or more. This measure was met every year except 2002 and 2005. While the district details were not identified in the earliest

reporting years of the research timeframe, District 4 did not meet this objective from 2005 to 2007. In 2005, Districts 1 and 5 also did not meet this objective.

The third subsection, routine maintenance, had one measure, which was, "Achieve a maintenance rating of at least 80 on the state highway system" (FTC, 2007, p. 62). The maintenance rating was calculated by grading five maintenance elements and determining a composite score between 1 and 100, referred to as the maintenance rating program (FTC, p. 62). This objective was met every year of the research timeframe, with all districts meeting the objective in the years it was reported except District 3 in 2005.

The high compliance in these three areas, bridges, pavement, and routine maintenance, demonstrate a commitment to safety organization-wide. The results in this area could indicate a positive relationship between FCPM training and performance results for the organization.

Capacity improvements: Highway and all public transportation modes. This section was divided into four subsections, namely, strategic intermodal system (SIS) capacity, established in 2003, but not tracked until 2005; highways; public transportation; and intelligent transportation systems (ITS) (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). There were only two primary measures in this section during the entire research timeframe. The first measure, "Number of lane miles of capacity projects on the state highway system let [to contract] compared to the number planned" (FTC, 2007, p. 68), was met every year in the research timeframe except 2006 and 2007. The second measure, "The public transit ridership growth rate compared to the population growth rate" (FTC, 2007, p. 69), had an objective to double the average state

growth rate. This objective was met in 2004, 2005, and 2006. These results were not reported by district.

Cost-effective and efficient business practices: Finance and administration. This section had four subsections, three with primary measures and one with a secondary measure under development (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). None of these measures were broken out by district, however, the results are offered to indicate progress for the entire organization. The first primary measure was, "Of the federal funds subject to forfeiture at the end of the federal fiscal year, the percent that was committed by the department." (FTC, 2007, p. 74). The objective was 100% and was met every year of the research timeframe. This accomplishment demonstrated a strong commitment to using the allocated federal funds, enabling the department to progress.

The second measure was, "The department's dollar amount of administrative costs as a percent of the total program" (FTC, 2007, p. 76). The objective was less than 2% and this target was met every year of the research timeframe, indicating a potential link between FCPM participation and performance results. The third measure in this section was, "Cash receipts and disbursements compared against forecasted receipts and disbursements." (FTC, 2007, p. 77). The objective was plus or minus 5%. This target was met from 2002-2004, but was not met from 2005-2007. The annual production and performance reviews demonstrated an increase in the lowest cash balance from $94 million in 2002 to over $700 million in 2007 (FTC, 2007, p. 78). The cash amount as a percentage of obligations went from 2.3% in 2002 to 10% in 2007 (FTC, p. 78). Possibly

the pure volume made the performance measures that much more difficult to reach in the later years of the research timeframe.

Minority and disadvantaged business programs. There were two subsections, minority business enterprise (MBE) and disadvantaged business enterprise (DBE). MBE has one primary measure and that is to track the "annual dollar amount of MBE utilization" (FTC, 2007, p. 80) with the objective to increase annually (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). This objective was restated in 2007 (FTC, p. 10) and prior year adjustments were made. Given the change in the objective, no comparisons were made for this measure.

The DBE secondary measure was a "dollar value of DBE participation as a percentage of total federal funded construction and consultant contract amounts" (FTC, 2007, p. 81). The objective set for this measure was between 7.9% to 8.1% during the research timeframe and was met in all research years except 2004. FDOT also tracked DBE participation for state-funded construction projects, desiring 8.1% or higher. This objective was met all research years except 2004 and 2005. This information was not tracked by district.

Safety initiatives. There were no primary measures and only one secondary measure in this section (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). The purpose was to measure "the number of fatalities per 100 million vehicle miles traveled on all public roads in Florida compared to the national average," with an objective of staying within 5% of the national rate (FTC, 2007, p. 84). This

secondary measure was not reached any of the years during the research timeframe. This information was not tracked by district.

Florida's Turnpike Enterprise. There were three subsections in this section, each with a primary measure (FTC, 2002; FTC, 2003; FTC, 2004; FTC, 2005; FTC, 2006; FTC, 2007). The first measure, concerning the management of toll facility operational costs, was based on "the average amount of each toll transaction collected from all toll facilities, either owned or operated by the enterprise, that is dedicated to covering operational costs" (FTC, 2007, p. 86). The objective was to keep the cost under 16 cents per transaction. This measure was met in the each of the first five research years, but was not met in 2007.

The second primary measure was "revenue variance as expressed as a percentage of indicated revenue for all enterprise managed toll facilities" (FTC, 2007, p. 87). The objective was less than or equal to 5%. This measure started in 2003 and was met in all years except 2006.

The third primary measure concerned the "number of SunPass transactions as a percentage of total transactions" (FTC, 2007, p. 88). The objective was to increase participation from 25% in 2001 to 75% in 2008. The participation has grown steadily from 32.8% in 2002 to 60.7% in 2007, indicating that FDOT was on track to meet this objective.

Primary and secondary measures. While the total amount of primary and secondary measures for FDOT ranged from 33 in 2002 to 38 in 2007, the primary measures varied from 18 in 2002 to 21 in 2007. Figure 25 demonstrates that the highest

success in meeting this mandate was accomplished in 2003 and the greatest challenge was experienced in 2006. This broad comparison may be misleading because of FDOT's efforts to *raise the bar* by increasing targets and redefining performance measures, potentially concerned more for *true* customer service than merely meeting performance measures.

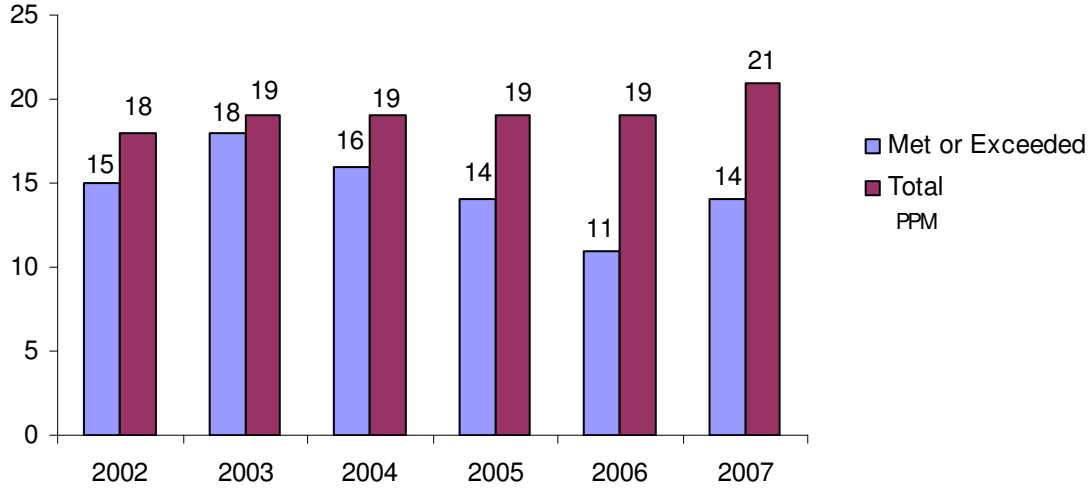

Figure 25. Bar graph comparing met or exceeded primary performance measures to total primary performance measures.

An analysis of variance test conducted on the number of measures *met or exceeded* resulted in a p-value of 0.009, indicating statistical significance. The fact that the numbers decreased, however, do not support a positive relationship between FCPM training and performance results.

Summary

This inside look at a large public agency involved reviewing six years of data to address three research questions. To evaluate the first research question, which involved employee satisfaction, leadership and human resources practices survey results were reviewed in respect to the agency's strategic measures. This data were easily divided by FDOT district and compared to district participation with FCPM. Analysis included comparing results for each strategic measure and comparing each year within the research timeframe. The findings indicated a positive relationship between FCPM training and employee satisfaction for each strategic measure and for the research timeframe.

To address the second research question, which involved customer satisfaction, customer surveys conducted during the research timeframe for five different customer groups were evaluated. Customer satisfaction could not be compared by district, however, since it was the goal of FCPM to improve public managers and organizational performance (FCPM-About CPM, 2009), it was valuable to look at customer satisfaction changes organization-wide during the research timeframe. The five customer groups surveyed included residents, visitors, commercial drivers, government officials, and well elders. The numbers of respondents compared to the populations served were low and it was difficult to find consistent, comparable questions between the five customer groups. As the customer survey groups were not evaluated annually, the number and frequency of surveys may misrepresent the true depiction of customer satisfaction. The findings did not determine that a positive relationship between FCPM training and customer satisfaction existed.

To study the third research question, involving performance results, annual performance and production review reports from 2002 to 2007 were reviewed. Performance measures ranged from 18 primary and 33 total measures in 2002 to 21 primary and 38 total performance measures in 2007. Some performance measures were changed throughout the research timeframe and some of the targets were adjusted during the research timeframe, potentially distorting comparisons from year to year. There were only five performance measures that could be compared by district. The district performance for those five performance measures had a mean average of 13, ranging from 8 *not met* designations for District 6 to 19 *not met* designations for District 7 during the research timeframe. Overall, the performance measures that were met or exceeded during the timeframe went from 15 of 18 in 2002 to 14 of 21 in 2007 primary measures. It is important to note that the performance measure criteria changed and the staffing level decreased 22% during the timeframe. The findings did not indicate a positive relationship between FCPM training and performance results.

Chapter 5: Summary, Conclusions, and Recommendations

Summary

Organizational performance is crucial to an organization's sustainability. Researchers have shown that organizational performance is improved by employee satisfaction (McGrath, 2002; Wolfe, 1992), customer satisfaction (Hamel, 2002; McGrath, 2002; World Bank, 2003), and performance measurement (Dearden, Reed & Van Reenen, 2006; Frei, Harker & Hunter, 1995; Giannetto & Zecca, 2007; Hung, 2006; Paddock, 1997; Spendolini, 1992). Training is a key element to improving organizational performance (Cunningham et al., 2004; Kirkpatrick & Kirkpatrick, 2006; Lewis, 2002), emphasizing the need for appropriate training decisions.

This quantitative study was conducted to determine if a relationship existed between a comprehensive experiential leadership training program and employee satisfaction, customer satisfaction, and performance results. The sample organization used for this research was a large public agency, the Florida Department of Transportation (FDOT) and the sample comprehensive experiential leadership training program was the Certified Public Manager Program at the Florida Center for Public Management (FCPM). This ex post facto study utilized available data from published reports from the Florida Transportation Commission (FTC), FDOT, and FCPM. While FDOT used many training sources, this study concentrated on comparing FCPM district participation and FDOT district results from 2002 to 2007.

The first research question asked about the relationship between a comprehensive experiential leadership training program and employee satisfaction. To evaluate this

question, the results from the leadership and human resources practices survey instruments, which were administered annually from 2002 to 2007, were reviewed. The questions were considered with respect to FDOT's seven strategic measures: leadership, credibility, communication, training and development, employee involvement, recognition, and pay. The findings indicated a positive relationship between FCPM participation and employee satisfaction.

The second research question asked about the relationship between a comprehensive experiential leadership training program and customer satisfaction. Customer survey results within the *overall satisfaction* category between 2002 and 2007 were reviewed. FDOT surveyed five different customer groups: residents, visitors, well elders, commercial drivers, and government officials. A positive relationship between FCPM participation and customer satisfaction was not demonstrated.

The third research question asked about the relationship between a comprehensive experiential leadership training program and performance results. There were only five performance measures that could be compared by district over the research timeframe. Over the research timeframe, the organization's primary performance measures which were *met or exceeded* ranged from 15 of 18 in 2002 to 14 of 21 in 2007. A positive relationship between FCPM participation and performance results was not demonstrated.

Conclusions

This research was based on the review of results of employee surveys, customer surveys, and performance measures for FDOT between 2002 and 2007. Recognizing that FDOT utilized many training avenues, this study sought to determine if the training

received by FCPM could demonstrate a positive relationship. The distinction that was made was district participation in FCPM. Of the seven geographic districts, District 4 experienced the highest FCPM participation, 45% of the employees, and District 3 had the lowest, 4%. District demographics were identified to establish a foundational understanding of the FDOT landscape.

Before discussing the specific research questions, it is important to point out that the year 2007 presented a challenge for all three research questions. The department experienced a change in leadership at the top, several reorganizations, the fifth year of decreased staffing, and no pay raises. In addition, the national and state economies were experiencing a downturn. For those reasons alone, I believe that the results from 2007 could be determined as outliers.

The first research question asked about the relationship between a comprehensive experiential leadership training program and employee satisfaction. This analysis was conducted with respect to composite scores by strategic measures. The pattern of FCPM district participation did not mirror the district employee satisfaction results and there were two outliers. First, District 1 was fifth in FCPM participation order, but scored either first or second in the average scores for every category. District 7 was fourth in FCPM participation order, but scored last on every category except one, where it scored second-lowest. Another factor that was inconsistent in the results order was the *pay* strategic measure. The measure was lower than all the other strategic measures and did not follow the patterns set by the districts for the other strategic measures. Financial

reward is a very personal concern and geographic differences may contribute to varying financial expectations and standards.

In comparing the highest and lowest FCPM participating districts, Districts 4 and 3, respectively, the findings demonstrated statistical significance and a positive relationship between FCPM participation and employee satisfaction. For every strategic measure and for every survey year comparison, the findings indicated statistical significance and a positive relationship between FCPM participation and employee satisfaction.

The second research question asked about the relationship between a comprehensive experiential leadership training program and customer satisfaction. Five customer groups were surveyed, however, the count of surveys in each case where the numbers were known was very low, surveying less than 0.02% of the state population in the highest yield of respondents. Consider also that FDOT's desire for continual improvement of survey instruments made it difficult to compare questions between survey instruments and survey years. Another challenge experienced with this category was the gap in survey timeframes. The final survey instrument for each customer group was administered in 2007, the most challenging year for all research questions. Had the surveys occurred more frequently, like the employee surveys, it would have been more comprehensive to reference prior years to determine any patterns of challenges or successes. Eliminating the 2007 results, however, would not allow any comparison within the research timeframe in some cases. One difference noticed was that in the cases where the customer groups did not have a professional relationship, the results were lower than

the customer groups who utilized the department for their professions. In every comparison, however, a positive relationship was not demonstrated between FCPM training and customer satisfaction.

The third research question asked about the relationship between a comprehensive experiential leadership training program and performance results. The five performance measures that were available for comparison by district over the research timeframe did not follow the pattern of FCPM district participation order. In addition, the department continued to widen the gap between the *met or exceeded* measures and the total performance measures. The results may be misleading because the criteria for some objectives and targets were changed to *raise the bar* and increase FDOT challenges during the research timeframe. In addition, the staffing level decreased from 9,621 in 2002 to 7,547 in 2007, a 22% decrease. A positive relationship between FCPM participation and performance results was not demonstrated.

Research has shown that connecting training to practical application in the workplace has its challenges (Kolb, 1984; McShane & Von Glinow, 2005; Jarvis, 2006). In consideration of the learning and training evaluation model of Kirkpatrick and Kirkpatrick (2006), the highest level was level 4, outcomes. This research demonstrated that FCPM training had a positive relationship with employee satisfaction. The research results for customer satisfaction and performance results, however, did not demonstrate a positive relationship with FCPM training. In addition to the limitations of the small number of survey respondents in each customer group and the gaps in the survey timeframes, also consider the challenges of competition (World Bank, 2003), demanding

customers (World Bank, 2003), and quality concerns over profitability (McGrath, 2002) presented earlier. For performance results, consider that FDOT redefined the performance measures and targets during the timeframe. Also, research has demonstrated challenges of layers of rules (Gore, 1993), complexity of processes (Gore, 1993), political dynamics (McGrath, 2002), and the flatness of the world (Friedman, 2005) as factors which could affect outcomes. Demonstrating a positive relationship between FCPM training and employee satisfaction in a labor market under transformation by the knowledge economy (World Bank, 2003) could prove to be the best step forward.

Recommendations for Practice

This study could be helpful to organizational leaders who are trying to make decisions about training priorities. FDOT is a large organization and this study illustrates many of the ways it has benefited from training. In addition to job-specific and organization-specific training, it pursued a comprehensive experiential leadership training program to enhance its desires to become an excellent organization.

FDOT has continued to update its approach to performance measures over the years, concentrating more about serving the public and providing safety than reaching a predetermined target. Its documentation of achievements, challenges, and opportunities for improvement would be beneficial to any organization, large or small. Its professional approach to creating performance measures and dissecting the complexities of the scope of work into measurable and comparable parts is commendable.

This study provided an in-depth look at employee and customer surveys and results with interpretations from an unassociated researcher. The range of employee

questions and the related results may provide insight for use by another agency. In addition, the choice of customer groups may assist leaders to determine how to identify customer bases and how to expand the selections presented to fit their organizations. Careful tracking of numbers and results by districts, where possible, would enable the agency to draw more accurate conclusions.

Recommendations for Related Research

It was clear that FDOT was able to reduce staffing levels within the research timeframe, decreasing from 9,621 employees in 2002 to 7,547 employees in 2007. This decrease took place during a timeframe when the population of the state was increasing and the needs of the citizens were growing. A study to determine how FDOT was able to decrease employees during that timeframe would be of benefit to other public agencies. Of particular importance would be the financial impact and competing relationships of using contracted consultants and local governments.

Another consideration for a related study would be state visitor behavior compared to resident behavior. As tourism plays an important role in the state's economy, studying the patterns and activities of visitors may contribute to a better understanding of their transportation needs and desires. Comparing those results to resident behavior may enable the state to better prioritize future projects.

A study comparing the impact of bicycles on buses could help FDOT determine if congestion could be reduced if more public transit operations had intersecting bike lanes. Asking bicyclists their reasoning for riding public transportation for portions of their trips

would give insight into whether the transportation choice is for health, financial, or other reasons.

Another related study could be consulting a class of FCPM graduates ten or twenty years, or another defined timeframe, following graduation to determine the impact they have made within their agencies. Comparisons of agency sizes, types of agencies, and organizational levels of graduates could be made.

Social Impact

Organizational improvement is crucial to the sustainability of every organization, public, not-for-profit, or private. No organization can survive without positive employee satisfaction, positive customer satisfaction, and positive performance results. In this global economy, no one can take anything for granted. Raising the bar and keeping the excellence momentum going are necessary components of competition, survival, and success, all of which were encouraged by FDOT and FCPM. In order to stay ready for each challenge, training decisions must be made carefully and vigilantly.

This study looked at a large organization over a six-year timeframe. Efforts made by the organization under study to pursue employee satisfaction, customer satisfaction, and performance measures were intense and detailed. The documentation of the leadership's ability to take large complex tasks, some out of its control, and divide them into manageable performance measures, is commendable. The attention to the employee satisfaction surveys and customer group surveys were also a testament to the organization's desire to learn the truth and make a difference for the people it served.

FDOT's management of the state transportation infrastructure for the fourth largest state in the nation contributes to economic success and improved societal opportunities.

Concluding Statement

This research was a conclusion of a lengthy, detailed study of government in the sunshine, two government entities working together and dedicated to pursuing excellence above all. Their stories are about building happy employees in order to effectuate happy customers and higher productivity. FDOT's dedication to customers was demonstrated in the variety of customers surveyed and its willingness to raise the bar and increase performance measure objectives and targets expressed a priority of safety over reaching preset targets. FDOT's commitment to employee satisfaction was demonstrated by a positive relationship between FCPM training and employee satisfaction increases. May these organizations serve as an inspiration to us all.

References

Agency for Healthcare Research and Quality. (2009, June 23). *Background.* Retrieved on June 23, 2009 from http://www.ahrq.gov/qual/pscongrpt/psini1.htm#Background

American Safety Council for Florida Residents & Visitors. (2009, July 26). *Florida Quick Facts*. Retrieved on July 26, 2009 from http://www.stateofflorida.com/Portal/DesktopDefault.aspx?tabid=95

American Society for Training & Development (ASTD). 2009. *Keep mission critical learning: How to communicate the value of learning in difficult economic times.* (White paper product code 700902). Alexandria, VA: Author.

Balonoff, H. & Balonoff, M. (2008, Fall). *The national CPM program. The Public Manager*, *37*(3), pp. 76-79.

Bobbitt, F. (1918) *The curriculum*. Boston: Houghton-Mifflin, Co.

Buckingham, M. & Coffman, C. (1999). *First, break all the rules.* New York: Simon & Schuster.

Capossela, C. (2005, September). *Microsoft: The new world of work.* Keynote speech presented at the Ninth Court Technology Conference, National Center for State Courts, Seattle, WA.

Cunningham, I., Dawes, G., & Bennett, B. (2004). *Handbook of work based learning*. Burlington, VT: Gower Publishing Company.

Dearden, L., Reed, H., & Van Reenen, J. (2006, August). *The impact of training on productivity and wages: Evidence from British panel data.* Oxford Bulletin of Economics and Statistics, *68*(4), 397-421. doi:10.1111/j.1468-0084.2006.00170.x

Department of Health. (2000). *An organization with a memory.* London: Department of Health.

Dewey, J. F., Denslow, D. A., & Lotfinia, B. T. (2008, January 8). *2007 Florida Price Level Index.* Gainesville: University of Florida.

Fairholm, M. R., Moe, K. J., Houghtby-Haddon, N. K., & Feldman, L. B. (2004, Fall). Lessons Learned: Assessing the District of Columbia's Certified Public Management Program. *Public Administration Quarterly*, *28*(3/4), 336-362.

Finkle, A. (1985, Spring). CPM—Professionalizing professionalism. *Public Administration Quarterly*, 47-54.

Florida Center for Public Management (FCPM), (2003, January). *Level 1: Management of Individual Performance.* Tallahassee, FL: FCPM.

Florida Center for Public Management (FCPM), (2009, July 5). *About CPM – About the Certified Public Manager Program*. Retrieved from http://www.fcpm.fsu.edu/about.cfm

Florida Center for Public Management (FCPM), (2009, July 5). *FAQ – Frequently Asked Questions*. Retrieved from http://www.fcpm.fsu.edu/faq.cfm#What

Florida Center for Public Management (FCPM), (2010, January 9). *CPM Information Booklet (Infobook).* Retrieved from http://www.fcpm.fsu.edu/about.cfm

Florida Department of Management Services (FDMS). (2010, February 4). *Definition of terms used in the schedule of salary ranges.* Retrieved from http://dms.myflorida.com/human_resource_support/human_resource_management/for_state_hr_practitioners/broadband_classification_and_compensation_program/classification_pay_plan/definition_of_terms_used_in_the_schedule_of_salary_ranges

Florida Department of Transportation (FDOT). (n.d.). *Business plan, Function/Office: Intermodal Systems Department, Transportation Statistics Office Tier 3*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2003, August 15). *Leadership and Human Resource Practices Survey 2003: Results for Key Subgroups.* Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005a, March). *Florida Department of Transportation 2004-2005 Short-Range Component & Annual Performance Report*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005b, March). *Satisfaction Survey for Florida Visitors: 2000, 2002, 2004*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005c, July). *Leadership and Human Resource Practices Survey 2005: Results for Key Subgroups*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005d, September). *FDOT Statewide Business Plan, Tier 1 (version 8).* Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005e, September 22). *Customer Survey of Government Officials: Statewide Detailed Results: 2000, 2002, 2004*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005f, September 22). *Florida Commercial Driver Survey Results: 2000, 2004*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005g, September 22). *Florida Resident Customer Survey Results: 2000, 2002, 2004*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005h, September 22). *Florida Well Elder Customer Survey Results: 2000, 2002, 2004*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2005i, September 29). Florida Visitor Results Comparisons: 2000 2004. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2006a). *2006 Florida Resident Customer Survey Results.* Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2006b). *Leadership and Human Resource Practices Survey 2005: Results for Composite Group of All Respondents.* Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2007a, July). *Leadership and Human Resources Practices Survey Results for Key Subgroups, Section 5*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2007b, September). *2006 Source Book of Florida Highway Data: SIS Emphasized*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2008a, March 11). *Florida Resident Customer Survey Results: 2000, 2002, 2004, 2006*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2008b, July 20). *Florida's Strategic Intermodal System Strategic Plan.* Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2008c, November 4). *FDOT 2007 Customer Satisfaction Survey; Florida Visitors*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2008d, November 4). *FDOT 2007 Florida Commercial Driver Customer Survey Results*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2008e, November 4). *FDOT 2007 Florida Government Officials Customer Survey Results*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2008f, November 4). *FDOT 2007 Florida Resident Customer Survey Results*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2008g, November 4). *FDOT 2007 Florida Well Elders Customer Survey Results*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2009a, January). FDOT Official Population Estimates, April 1, 2008. Retrieved from http://www.dot.state.fl.us/planning/policy/demographic/

Florida Department of Transportation (FDOT). (2009b, February 7). *CPM Training Report as of 1-27-09*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2009c, June 15). *2008 SHS Report: Roads on the state highway system*. Tallahassee, FL: FDOT.

Florida Department of Transportation (FDOT). (2009d, July 4). *Performance Management Office website*. Retrieved from http://www.dot.state.fl.us/businessmodel.

Florida Department of Transportation (FDOT). (2010a, January 9). Fast facts. Retrieved from http://www.dot.state.fl.us/publicinformationoffice/moreDOT/mission.shtm

Florida Department of Transportation (FDOT). (2010b, February 8). Overview. Retrieved from http://www.dot.state.fl.us/publicinformationoffice/moreDOT/mission.shtm

Florida Governor & Cabinet. (1994, July 26). *Certified Public Manager, State of Florida Resolution.*

Florida Sterling Council (FSC). (2008) *2008-2009 Sterling Performance Excellence Challenge.* Tallahassee, FL: FSC.

Florida Transportation Commission (FTC). (2002, October 3). *Performance and Production Review of the Department of Transportation, Fiscal Year 2001-2002.* Tallahassee, FL: FTC.

Florida Transportation Commission (FTC). (2003, September 22). *Performance and Production Review of the Department of Transportation, Fiscal Year 2002-2003*. Tallahassee, FL: FTC.

Florida Transportation Commission (FTC). (2004, October 18). *Performance and Production Review of the Department of Transportation, Fiscal Year 2003-2004*. Tallahassee, FL: FTC.

Florida Transportation Commission (FTC). (2005, October 10). *Performance and Production Review of the Department of Transportation, Fiscal Year 2004-2005.* Tallahassee, FL: FTC.

Florida Transportation Commission (FTC). (2006, October 20). *15th Annual Performance and Production Review of the Department of Transportation, Fiscal Year 2005-2006*. Tallahassee, FL: FTC.

Florida Transportation Commission (FTC). (2007, September 26). *Performance and Production Review of the Department of Transportation, Fiscal Year 2006-2007.* Tallahassee, FL: FTC.

Florida Transportation Commission (FTC). (2008, October 24). *Performance and Production Review of the Department of Transportation, Fiscal Year 2007-2008.* Tallahassee, FL: FTC.

Frei, F. X., Harker, P. T., & Hunter, L. W. (1995). *Performance in Consumer Financial Services Organizations: Framework and Results from the Pilot Study.* Philadelphia, PA: University of Pennsylvania, The Wharton School.

Friedman, T. L. (2005). *The world is flat: A brief history of the 21st century*. New York: Farrar, Straus and Giroux.

Giannetto, D. F., & Zecca, A. (2007). *Performance power grid.* Hoboken, NJ: John Wiley & Sons, Inc.

Gordon, J. (2007). *The Energy Bus*. Hoboken, NJ: John Wiley & Sons, Inc.

Gore, A. (1993). *Creating a government that works better and costs less.* New York: Penguin Books, Ltd.

Gray, K. R., Frieder, L. A., & Clark, G. W., Jr. (2005). *Corporate Scandals: The many faces of greed.* St. Paul, MN: Paragon House.

Hamel, G. (2002*). Reinventing the basis for competition*. In R. Gibson (Ed.) Rethinking the future. London: Nicholas Brealey.

Hanson, S. H. (2004, Fall). The perceived value of manager participation in the CPM program. *Public Administration Quarterly,* 363-387.

Harrington, H. J. & Lomax, K. C. (2002). *Performance improvement methods: Fighting the war on waste*. New York: McGraw-Hill.

Henning, K. K. & Wilson, L. D. (1979, March). The Georgia certified public manager (C.P.M.) program. *Southern Review of Public Administration,* 424-435.

Hospitals & Health Networks. (2007, October). *Which Performance Improvement Method is Right for Your Hospital?* H&HN: Hospitals & Health Networks [serial online]. *81*(10):50-54. PMID: 17982778 Available from: Business Source Premier, Ipswich, MA.

Hung, R. Y. (2006, January). Business process management as competitive advantage: a review and empirical study. *Total Quality Management*, *17*(1), 21-40. DOI:10.1080/14783360500249836

Jacobs, R. L. & Washington, C. (2003, September). Employee development and organizational performance: A review of literature and directions for future research. *Human Resource Development International*, 343-354. DOI**:**10.1080/13678860110096211

Jarvis, P. (2006). Towards a comprehensive theory of human learning: Lifelong learning and the learning society (Vol. 1). New York: Routledge.

Katou, A. A. & Budhwar, P. W. (2006, July). Human resource management systems and organizational performance: a test of a mediating model in the Greek manufacturing context. *International Journal of Human Resource Management, 17*(7), 1223-1253. DOI**:**10.1080/09585190600756525

Kirkpatrick, D. L. & Kirkpatrick, J. D. (2006). *Evaluating Training Programs: The Four Levels.* (3rd Ed.) San Francisco, CA: Berrett-Koehler Publishers, Inc.

Knowles, M. S. (1968). Andragogy, not pedagogy. *Adult Leadership*, *16*(10), 350-352, 386.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy (2nd Ed.).* New York: Cambridge Books.

Knowles, M. S. & Associates. (1984). *Andragogy in action: Applying modern principles of adult learning*. San Francisco, CA: Jossey-Bass.

Koch, M. J. & McGrath, R. G. (1996). Improving labor productivity: Human resource management policies do matter. *Strategic Management Journal, 17*, 335-354.

Kolb, D.A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, N.J. Prentice Hall.

Kotter, J. P. (1996). *Leading change*. Boston, MA: Harvard Business School Press.

Kraut, A. I. (2006). Organizational Surveys. *Encyclopedia of Industrial and Organizational Psychology*. SAGE Publications. Retrieved from http://www.sage-ereference.com/organizationalpsychology/Article_n243.html

Larson, L. (2005, September). Succession planning: Attitude, action. *Policy & Practice of Public Human Services*, 16-17.

Lo, C. & Wang, J. (2007, March). The relationships between defender and prospector business strategies and organizational performance in two different industries. *International Journal of Management*, *24*(1), 174-183. ProQuest ID:1278577511

Lewis, L. H. (2002). *The corporate university training function.* In M. Allen (Ed.) The Corporate University Handbook. New York: American Management Association.

Lynn, J. & Rapp, C. (2007, August). Local government excellence deserves a prestigious award. *Public Management,* 10-17. ProQuest ID:1330515301

Manning, G. & Curtis, K. (1988). *Leadership: Nine keys to success*. Cincinnati, OH: South-western Publishing, Co.

Matathia, I. & Salzman, M. (1999). *Next: Trends for the near future*. Woodstock, NY: The Overlook Press.

McGrath, V. J. (2002). The learning organization: Implications and lessons for municipal government, Volume I. *ProQuest Information and Learning*, (UMI No. 3077569).

McDonald, D. & Smith, A. (1995). A proven connection: Performance management and business results. *Compensation and Benefits Review*, *27*, 59-64. ISBN:9502270385

McKenney, James L. (1962). An Evaluation of a Business Game in an MBA Curriculum. *The Journal of Business*, *35*, 278-286. ProQuest ID:386514441

McShane, S. L. & Von Glinow, M A. (2005). *Organizational behavior: Emerging realities for the workplace revolution.* New York: McGraw-Hill Companies, Inc.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L M. (2007). *Learning in adulthood: A comprehensive guide*. 3rd Ed. San Francisco, CA: Jossey-Bass.

Merta, R., Wolfgang, A. & Sisson, J. (1991). The experiential group: An ethical and professional dilemma. *Journal for Specialist in Group Work, 16*, 236–245. ISSN:01933922

Missouri State University (MSU). (2007). *Management Development Institute*. Retrieved from http://www.mdi.missouristate.edu/Certificates/Certified%20Public%20Manager.htm

Moore, L. F. (1967). Business Games vs. Cases as Tools of Learning. *Training and Development Journal, 21*(10), 13-23. ISSN:00410861

Noack, A. (2002). *Working with trainees in experiential groups*. In A. Chesner and H. Hahn (Eds.), Creative Advances in Group Work, pp. 14-39. Philadelphia, PA: Jessica Kingsley Publishers.

Ohio University Voinovich Center for Leadership and Public Affairs (Ohio). (2007, July). *Certified public manager programs across the nation: Program structure, curriculum and participation.*

Osborne, D. & Gaebler, T. (1993). *Reinventing government: How the entrepreneurial spirit is transforming the public sector.* New York: The Penguin Group.

Paddock, S. C. (1997, Winter). Benchmarks in management training. *Public Personnel Management*, *26*(4).

Paddock, S. C. (2004, Fall). Professional education and applied projects: Where the rubber meets the road. *Public Administration Quarterly*, 388-402. ISSN:0734-9149

Perksy, A. M., Stegall-Zanation, J., Dupuis, R. E. (2007, April 15). Students' perceptions of the incorporation of games into classroom instruction for basic and clinical pharmacokinetics. *American Journal of Pharmacy Education, 71*(2), 21. PMCID: PMC1858604

Raia, A. P. (1966). A Study of the Educational Value of Management Games. *The Journal of Business, 39*, 339-352.

Runy, L. A. (2007). *Gatefold: Which performance improvement method is right for your hospital?* Chicago: Hospitals & Health Networks.

Senge, P. (2002). *Through the eye of the needle.* R. Gibson (Ed.) Rethinking the future. London: Nicholas Brealey.

Sims, R. R., Veres, J. G., III, Locklear, T. S., & Wells, R. B. (1987). Training for Public Managers: The Alabama Certifed Public Manager Program. *Journal of European Industrial Training (11)*6, 11-13. DOI:10.1108/eb014238

Spendolini, M. J. (1992). *The benchmarking book*. New York: American Management Association.

Stein, K. E. & Sloane, R. K. (2003). Using customer's needs to drive transportation decisions: National Cooperative Highway Research Program Report 487. Boston, MA: Howard/Stein-Hudson Associates, Inc.

Thomas, E. J., Studdert, D. M., Newhouse, J. P., Zbar, B. I., Howard, K. M., Williams, E. J., & Brennan, T. A. (1999, Fall). Costs of medical injuries in Utah and Colorado. *Inquiry, Vol. 36*(3): 255-64. PMID: 10570659

Transportation Performance and Productivity Standards, F.S. 334.045 (1992).

Training. (2006). *Industry Report*. Training, December, 2006.

Vanagunas, S. & Webb, J. (1994, Fall). Administrative Innovation and the Training of Public Managers. *Public Personnel Management*, 437-446.

Wolfe, J. (1973). The Comparative Learning Effects of a Management Game vs. Casework in the Teaching of Business Policy. *Academy of Management Proceedings, 33rd Annual Meeting,* 291-298.

Wolfe, J. (1975, September). A comparative evaluation of an experiential approach to business policy learning environment. *Academy of Management Journal, 18*(3), 442-452.

Woods, D. & Barron, T. (2005, December). The building blocks of excellence. *Associations Now*, 31-35.

Woolfe, R. (1992*) Experiential learning in workshops*. In Hobbs, T. (Ed.). Experiential training: Practical guidelines. (pp. 1-13). Florence, KY: Routledge.

World Bank. (2003). *Lifelong learning in the global knowledge economy: Challenges for developing countries.* Washington, DC: World Bank Publications.

Appendix A

Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS
SECRETARY

March 12, 2009

Ms. Paula S. O'Neil

Dear Ms. O'Neil:

Thank you for your letter regarding the Florida Department of Transportation's relationship with the Certified Public Management Program at Florida State University.

We would be happy to work with you and support your research. Please contact Larry Ferguson at 850-414-4382 or me at 850-414-5240 for additional information.

Sincerely,

Brian A. Blanchard, P.E.
Chief Engineer

BAB/cci

Curriculum Vitae

Elected in 2008 by the voters of Pasco County, Florida, Paula O'Neil became the seventh person and first female to serve as Clerk of Circuit Court & County Comptroller in Pasco County's history. Prior to serving as a constitutional officer, Paula worked in various capacities in Pasco County government for over 20 years, dedicated to excellence in government. With a continual desire to mentor and teach, Paula also served as an adjunct instructor for Pasco-Hernando Community College for ten years.

Ms. O'Neil is a Ph.D. candidate in Applied Management and Decision Sciences at Walden University, earned a Master's Degree from National-Louis University, and earned a Bachelor's Degree from Missouri State University. She is a Certified Public Manager, University of South Florida Executive Fellow, Leadership Pasco Alumnus, and Florida Sterling Examiner.

Paula has been recognized with numerous individual and agency awards. She serves on the Board of Directors for Florida West Coast Credit Union, Pasco Safety Town, West Pasco Habitat for Humanity, and the Florida Society for Certified Public Managers, and is on an Advisory Board for Pasco-Hernando Community College. Paula is Chair for *Pasco County Making Strides Against Breast Cancer,* District VI Director for the Florida Association of Court Clerks & Comptrollers, and a participant on several Supreme Court Workgroups. Memberships include the Rotary Club of Seven Springs, Chamber of Commerce, Lake Jovita Business Women, Republican Clubs, Calusa Business & Professional Women, and Beacon Community Church. Paula has two sons, Patrick and Phillip, grand-dogs Buddy and Max, and is a faithful Cardinals baseball fan.