AN EXAMINATION OF THE CAREER PATHS AND PROFESSIONAL CHALLENGES OF WOMEN IN MANAGEMENT POSITIONS IN MAJOR UNIVERSITY AND COLLEGE TRANSPORTATION DEPARTMENTS

A Dissertation in
Workforce Education and Development

by

Teresa A. Davis

Copyright 2008 Teresa A. Davis

Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

August 2008
The dissertation of Teresa A. Davis was reviewed and approved* by the following:

Judith A. Kolb  
Associate Professor of Education  
Dissertation Advisor  
Chair of Committee  
In Charge of Graduate Programs in Workforce Education and Development

Edgar I. Farmer, Sr.  
Professor of Education

Edgar P. Yoder  
Professor of Agricultural and Extension Education

Wesley E. Donahue  
Associate Professor of Management Development

*Signatures are on file in the Graduate School.
ABSTRACT

Women have been involved in the field of transportation since the 1800s yet although women comprise almost half of today’s workforce, the transportation industry continues to be male-dominated. The Transportation Research Board in its 2000 Task Force on Women’s Issues in Transportation identified a need to learn more about women leaders in transportation and their career paths. Such new knowledge would help the transportation industry in the pursuit and hiring of women into transportation careers. Additionally, such information would assist those females wishing to pursue a career in transportation. The purpose of this study was to examine the career paths and professional challenges of women managers in major university and college transportation departments.

A theoretical model by Karaevli and Hall that shows how managerial adaptability develops from career variety over the span of a person’s career was used as the study’s conceptual framework. Additionally, due to the lack of information related to women managers in transportation, demographic information of women managers in major university and college transportation departments was obtained.

Qualitative analysis was used to gather and analyze data about the career paths and professional challenges of women managers in major university and college transportation departments. Descriptive statistics were used to gather valuable demographic information on the women managers. Thirty-three women managers from universities or colleges with a student enrollment of 20,000 or more students participated in a survey developed to gain demographic information, information related to their
career paths, and any information about professional challenges. Twelve in-depth interviews were conducted with higher-level women managers in transportation. Finally, a focus group comprised of five participants was conducted to verify and/or confirm findings from the in-depth interviews.

The findings from the study resulted in the following three themes: “Climbing the Ladder;” “Experience is the Key;” and “Support of the Administration.” Most of the women managers rose within the ranks of their department rather than moving between various external work experiences. And, in terms of those work experiences, experience assumed the dominant role over training and education in relationship to preparing for managerial positions in these transportation departments. Most participants agreed that in order to be successful in their positions they also needed the support of the university or college administration.

Additional findings from this study provide demographic information that can be used to help build a base of knowledge for the topic of women in transportation. All of the women participating in the study were over the age of thirty-one years old with the majority over forty-one. The majority of these women were married with almost half with children still residing in their homes. Over half of them possessed a four-year degree. When identifying the career variety of these women managers the findings reflect a fairly low level of career variety, however when evaluated in terms of knowledge internal to the industry these women showed a high level of career variety. Although the participants pursued advancement within their departments and in some cases, within their university or college, few were interested in pursuing career variety outside of those areas.
Professional challenges were identified and discussed during the interviews. The findings from these discussions indicated a variety of challenges ranging from issues related to working in a traditionally-male industry, to learning how to deal with the politics of the university and industry, to issues related to support or lack of support from the university or college administration. Various issues related to communication were also identified. Skills to handle such professional challenges were obtained more through previous work experiences and personality traits than any other areas.

The findings of the study led to recommendations for women wishing to pursue a profession in major university or college transportation departments and will add to the current body of knowledge on transportation as a career. Such information will also be useful to transportation employers, professional organizations, and educational institutions for the recruitment and retention of individuals in the field.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>ix</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES</td>
<td>x</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>xi</td>
</tr>
<tr>
<td>CHAPTER 1  INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Historical Perspectives</td>
<td>1</td>
</tr>
<tr>
<td>The Problem</td>
<td>3</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>3</td>
</tr>
<tr>
<td>Research Questions</td>
<td>4</td>
</tr>
<tr>
<td>Limitations</td>
<td>5</td>
</tr>
<tr>
<td>Assumptions</td>
<td>5</td>
</tr>
<tr>
<td>Conceptual Framework</td>
<td>6</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>10</td>
</tr>
<tr>
<td>CHAPTER 2  REVIEW OF RELATED LITERATURE</td>
<td>12</td>
</tr>
<tr>
<td>Women Managers in the Workforce</td>
<td>12</td>
</tr>
<tr>
<td>Women Managers in Transportation</td>
<td>16</td>
</tr>
<tr>
<td>Career Paths of Women Managers</td>
<td>17</td>
</tr>
<tr>
<td>Theoretical Model of Managerial Adaptability &amp; Career Variety</td>
<td>18</td>
</tr>
<tr>
<td>Professional Challenges of Women in Management Positions</td>
<td>19</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>21</td>
</tr>
<tr>
<td>CHAPTER 3  METHODOLOGY</td>
<td>23</td>
</tr>
<tr>
<td>Research Design</td>
<td>23</td>
</tr>
<tr>
<td>Method</td>
<td>23</td>
</tr>
<tr>
<td>Pilot Study</td>
<td>25</td>
</tr>
<tr>
<td>Interview Protocol</td>
<td>25</td>
</tr>
<tr>
<td>Data Collection</td>
<td>26</td>
</tr>
<tr>
<td>Population and Sample</td>
<td>26</td>
</tr>
<tr>
<td>Survey</td>
<td>27</td>
</tr>
<tr>
<td>Interviews</td>
<td>28</td>
</tr>
<tr>
<td>Focus Group</td>
<td>30</td>
</tr>
<tr>
<td>Validity, Reliability, &amp; Objectivity</td>
<td>31</td>
</tr>
</tbody>
</table>
CHAPTER 4 STUDY RESULTS

Review of the Study .......................................................................................... 37
Research Findings ............................................................................................ 40
  The Pilot Study ......................................................................................... 40
  The Survey ............................................................................................. 41
    Demographics ...................................................................................... 41
    Transportation as a Career .................................................................... 43
    Career Support and Advancement ....................................................... 45
  The Interviews .......................................................................................... 48
    “Climbing the Ladder” ................................................................. 48
    “Experience is the Key” ............................................................. 51
    “Support of the Administration” ................................................... 55
  Additional Information from the Interviews ........................................... 58
  Focus Group Discussion ........................................................................ 60
  Results for Research Question 1 ......................................................... 64
  Results for Research Question 2 ......................................................... 66
  Results for Research Question 3 ......................................................... 76
  Results for Research Question 4 ......................................................... 78
  Results for Research Question 5 ......................................................... 78
  Chapter Summary ................................................................................. 79

CHAPTER 5 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction ..................................................................................................... 82
Study Overview .............................................................................................. 82
Summary Findings ....................................................................................... 84
  “Climbing the Ladder” ............................................................................ 84
  “Experience is the Key” .......................................................................... 85
  “Support of the Administration” ........................................................... 87
  Summary of Findings Related to Research Question 1 .................... 90
  Summary of Findings Related to Research Question 2 .................... 93
  Summary of Findings Related to Research Question 3 .................... 94
  Summary of Findings Related to Research Question 4 .................... 96
  Summary of Findings Related to Research Question 5 .................... 96
Information Related to Career Paths and Professional Challenges ........ 97
## LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Framework for how Career Variety Promotes the Adaptability of Managers</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Survey Participant Demographics</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>Educational Background of Women Managers in Major University and College Transportation Departments</td>
<td>43</td>
</tr>
<tr>
<td>4</td>
<td>Career Variety of Interview Participants</td>
<td>67</td>
</tr>
<tr>
<td>5</td>
<td>Criteria for Advancement in University or College Transportation Departments</td>
<td>76</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A model of how career variety promotes the adaptability of managers</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Factors that play a role in the career advancement and success of women managers in major university and college transportation departments</td>
<td>88</td>
</tr>
<tr>
<td>3</td>
<td>Factors vital to the managerial success of women managers in major university and college transportation departments</td>
<td>89</td>
</tr>
<tr>
<td>4</td>
<td>Support factors required for the career advancement and success of women managers in major university and college transportation departments</td>
<td>89</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

Many individuals have supported and guided me through this five-year journey. First, I must blame, or perhaps thank, Steve Shelow for getting me in this mess in the first place. Were it not for him, I would not have known about the program and as such, would not have applied.

The most important person throughout this whole dissertation process, however, has been my son, Connor. He has stuck with me through the moods caused by sleepless nights and pending deadlines and missed play time due to homework and classes. He is truly a special kid! I also wish to thank my family for supporting me and understanding cancelled visits, missed birthday calls and grumpy telephone calls. My sisters and brother have always been there to support me through thick and thin.

To my Transportation Services family, I apologize again for my general disposition during this last year of research. I appreciate your patience, your willingness to give me space, and your constant support during this process. In addition, special thanks to my bosses, Tom Gibson and Gail Hurley, and my colleague, Rich Pearce, who have supported this effort 100% and always been there to offer support and an ear. To Gabrielle Pennabaker, my assistant and friend, who has taken the hits on the front line while I huddled at home or behind close doors completing classroom assignments and research. Also, I wish to thank her for her willingness to listen and provide words of encouragement.

Obviously, this accomplishment would not be possible without the Workforce Education and Development faculty, particularly Dr. Judith Kolb, my advisor, whose
straightforward guidance helped successfully lead me through the program. Thanks to Dr. Edgar Farmer for getting me back on track in terms of my dissertation topic. I have to say thanks to Dr. Ken Gray for instilling in me a fascination for Economics and Workforce Education and Development. It was his class lectures and stories that helped inspire me to continue and understand the global impacts of our program. Thanks to fellow grad student, Jennifer Heinzen Krueger, who found time for a peer review the week that she gave birth to her second child. Also, a special thanks to Dr. Kimberly Powell for helping me to get "unstuck" during the analysis process.

It’s important to acknowledge my parking and transportation colleagues from the International Parking Institute who took time out of their busy schedules to help a colleague accomplish a milestone in her life.

I would also be remiss if I didn’t mention Dani Whitbred and her willingness to hang-out with Connor while I attended class and to my neighbor, Linda Mcclimans, for being there to help whenever I called.
CHAPTER 1

INTRODUCTION

Historical Perspectives

Women have been involved in the field of transportation since the 1800s. Their involvement extends from inventor to worker and from owner/operator to cabinet member. Mary I. Riggins invented the railway crossing gate. Mary Walton followed with the noise reduction system for New York City's elevated railroads and then Mary Anderson came along in 1903 with the windshield wiper. We also cannot forget the women who left their homemaker duties during World War II in order to keep American industry alive. From 1940 to 1945, the number of female workers increased by 50%. They worked in the production of durable goods in a variety of jobs ranging to include operating machinery, streetcars, buses, cranes, and tractors. During this time, these women also entered the Army, Navy, Coast Guard and Marines (U.S. Department of Transportation, 1999). These pioneers in transportation helped pave the way for women such as Sally Ride, first American woman in space, and the 1983 Secretary of Transportation, Elizabeth Dole (U.S. Department of Transportation, 1999).

Women comprise almost half of the workforce today and yet the transportation industry continues to be male-dominated. An article in the *Monthly Labor Review* stated that in the year 2000 over half of the young workers in executive/managerial, professional and technical occupations were female (DiNatale & Boraas, 2002). Although females are advancing, they remain underrepresented in some professional occupations such as lawyers and engineers to name a few (DiNatale & Boraas, 2002). Additionally, their numbers in the executive ranks, while growing, still remain minimal.
in comparison to their male counterparts. In his book, *Fortune Favors the Bold*, Thurow (2003) states, "It is those societies that are willing to invest in female workers and tap into their potential knowledge that will pull ahead of those societies that continue to inhibit female participation" (p. 306). When women can contribute fully and equally in a country's work, politics, and community life, then they unleash the potential of cities, states, and the nation as a whole (Caiazza, Shaw, & Werschkul, 2005).

Of the more than 60 million women in today's labor force, women make up only 8 percent of engineers, 18 percent of engineering technicians, and 30 percent of natural scientists (U.S. Department of Transportation, 1999). In a gender breakdown across the U.S. Industries, the Institute for Women's Policy Research (Caiazza et al., 2005) identifies the transportation, communication and public utilities industries as being composed of 7.5% of men in the total employed and 3.6% women. These industries were compared to the following additional industries: Agriculture; Construction & Mining; Manufacturing; Durables; Non-durables; Wholesale and Retail Trade; Finance, Insurance & Real Estate; Services; & Government. In comparison, only two industries, Agriculture and Construction & Mining, employ a lower percentage of women than transportation (Caiazza et al., 2005).

In light of this information, transportation agencies are beginning to see the need for hiring and developing women. The downsizing of state transportation agencies in the 1990s had a negative impact on the employee pool and these same agencies came to the realization that female employees would provide more representation of the citizens whom the transit agencies serve (Schachter, 2004).
The Problem

Little to no research exists that specifically addresses the career paths of women in management positions in transportation, specifically women managers in major university and college transportation departments. In 2000, the Transportation Research Board’s Task Force on Women’s Issues in Transportation (Transportation Research, 2000) identified women leaders in transportation and the career paths of women in transportation as important research topics for the transportation community because they reflect women’s experiences, not just men’s experiences. In order to pursue the hiring and development of women in the transit industry, first the agencies need information on the education and career paths that women use to gain leadership skills (Schachter, 2001). Data on the interrelatedness of educational background, educational level, professional work experiences and career challenges may help identify and understand the successful career paths of women at a time when women managers in the transportation arena are scarce. In his article, "Transportation Education and Workforce Development," Mason (2003) identifies the need for state departments of transportation and transit agencies to focus on continuous recruiting, training and retraining, retention of employees and succession management. Although Mason’s focus is on the need to increase the recruitment of college students into the engineering discipline for transportation careers, his message holds true for all potential transportation employees.

Significance of the Study

The purpose of this study was to examine the career paths and professional challenges of women in management positions in major university and college transportation departments. The information obtained through this examination will
provide useful information for women wishing to pursue a profession in major university or college transportation departments and will add to the current body of knowledge on transportation as a career. Such information will also be useful to transportation employers and professional organizations as well as by educational institutions for recruitment and retention of individuals in the field (Transportation Research Board, 2000).

This study was also significant because little research exists related to women managers in major university and college transportation departments. As a member of that population, I know that the number of women directing college and university transportation departments is growing, however, little if any research has been done on the topic.

Research Questions

This study will seek answers to the following questions:

Q1. What are the similarities and differences in the demographics of women in management positions in major university and college transportation departments to include age, marital status, the existence of children in the household, educational level, type of degree, and previous work experiences?

Q2. Based on Karaevli and Hall’s theoretical model of career variety and managerial adaptability, what are the previous work experiences prior to the management position in the transportation department and what was the length of time associated with each experience?

Q3. How did career variety play a part in the managerial adaptability, career advancement and success of these women managers in transportation?
Q4. What aspects of employment in the university and college transportation departments attracted these women managers?

Q5. What professional challenges have women managers in transportation experienced during their careers and how has their previous work experience prepared, or not prepared, them to handle those challenges?

Limitations

The limitations are as follows:

- This study was limited to women in management positions in major university and college transportation departments.
- Neither men nor women managers outside of the university or college transportation departments were included in this study.
- This study was limited to universities and colleges with a student enrollment of 20,000 or more.
- Women managers in college and university transportation departments represent only a small portion of the total number of women in the transportation industry.
- As the director of Transportation Services at the Pennsylvania State University, I am representative of the group of women managers studied.

Assumptions

This study was guided by the following assumptions:

- The women managers participating in the study provided accurate information on the initial demographic questionnaire.
• Responses to the interview questions by the selected women managers were indicative of their true feelings and perceptions and not skewed by the researcher’s status as a professional colleague.

Conceptual Framework

This study was based on Karaevli and Hall’s (2006) theoretical model that shows how managerial adaptability develops from career variety over the span of a person’s career. Adaptability is defined by Karaevli and Hall (2006) as the “key quality that enables a person to manage the process of change and development over the span of her career” (p. 360). This theoretical model is a new conceptualization created by building upon the literature of career theory, adult learning and development, and career adjustment (Karaevli & Hall, 2006). This model was selected because studies show shift in the type of employee that transportation departments are seeking. One example involves the selection of managers who possess an interdisciplinary degree and work experience in areas other than transportation (Schachter, 2001). My personal experience in the field directly relates to the theoretical model as well because I possess interdisciplinary degrees and varied past work experiences.

Career variety is defined as “the diversity in an individual’s functional area and institutional context experiences accumulated over time” (Karaevli & Hall, 2006, p. 360). Globalization, changing employee demographics and rapidly evolving technologies are only some of the factors impacting the career experiences and career paths of managers today. The shifting of jobs, elimination of positions, and movement within organizations due to baby boom retirements may all be forces that create or force maneuverability and thus career variety for employees. Studies show that managers with careers in a single
industry possess limited knowledge and skills, and are less likely to search for needed information (Karaevli & Hall, 2006). Management expertise is identified by Karaevli and Hall (2006) as multi-dimensional and obtained through a variety of experiences.

The theory of managerial adaptability from career variety is comprised of three dimensions; behavioral cognitive, cognitive, and socio-emotional (Karaevli & Hall, 2006). These dimensions or competencies were drawn from Karaevli and Hall’s (2006) review of literature on adult learning and development and career adjustment.

**Behavioral** - “Critical dimensions of adaptive performance for handling emergencies or crisis situations, handling work stress, solving problems creatively, dealing with uncertain and unpredictable work situations, learning work task, technologies and procedures, demonstrating inter-personal adaptability, demonstrating cultural adaptability, demonstrating physically oriented adaptability” (Karaevli & Hall, 2006, p. 361).

**Cognitive** - There are two types identified by Hall: 1) Task learning – “adaptability requires one to transfer previous learning to subsequent tasks;” and 2) Self-related – “adaptability requires an individual to be capable of making internal changes, and being resilient, positive, confident, and flexible in making those personal changes” (Karaevli & Hall, 2006, p. 361-362).

**Socio-emotional** – “Adaptive individuals have the ability to combine cognitive and affective skills to promote learning, curiosity, self-confidence, and coping abilities in approaching new tasks” (Karaevli & Hall, 2006, p. 362).
The competencies listed above are required of managers who operate in constantly changing environments and circumstances in order to assist them in adapting without the need for lengthy training or socialization periods (Karaevli & Hall, 2006).

Karaevli and Hall (2006) created a model entitled, “A model of how career variety promotes the adaptability of managers.” The model identifies managerial career variety as directly influencing managerial adaptability. Additionally, moderators are listed and identified as having potential impacts on the managerial career variety and its interplay with managerial adaptability (see Figure 1).

![Moderators]

Managerial Career Variety
- Functional background diversity
- Institutional background diversity

Managerial Adaptability
- Adaptive performance
- Effective learning transfer ability
- Self-awareness
- Socio-emotional competence


The research questions relate to this theory by examining the career variety of current women managers in major university and college transportation departments and
how that career variety, if applicable, impacts their managerial adaptability. In framing the questions, the moderators identified by Karaevli and Hall were addressed to identify any potential interactions with the career variety and adaptability.

The framework for this theoretical model is composed of seven propositions taken from the discussions about managerial adaptability, an explanation of the connections between career variety and managerial adaptability, and moderators impacting the process of managerial adaptability through the variety of manager’s career experiences (Karaevli & Hall, 2006). The following table lists and describes each proposition.

Table 1
Framework for How Career Variety Promotes the Adaptability of Managers

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposition 1</td>
<td>Adaptive performance, effective learning transfer ability, self-awareness, and socio-emotional competence are critical dimensions of managerial adaptability.</td>
</tr>
<tr>
<td>Proposition 2a</td>
<td>Career variety is associated positively with a manager’s adaptive performance.</td>
</tr>
<tr>
<td>Proposition 2b</td>
<td>Career variety is associated positively with a manager’s ability to transfer previous learning to novel tasks effectively.</td>
</tr>
<tr>
<td>Proposition 2c</td>
<td>Career variety is associated positively with a manager’s self-awareness and understanding of developmental needs and values.</td>
</tr>
<tr>
<td>Proposition 2d</td>
<td>Career variety is associated positively with a manager’s socio-emotional competence.</td>
</tr>
<tr>
<td>Proposition 3</td>
<td>The greater the magnitude of career transitions, the greater is the positive association between career variety and managerial adaptability.</td>
</tr>
<tr>
<td>Proposition 4</td>
<td>The positive association between career variety and managerial adaptability is greater if the pace of career transitions is optimized.</td>
</tr>
<tr>
<td>Proposition 5</td>
<td>Managers who have a greater number of career transitions in their early career have</td>
</tr>
</tbody>
</table>
A greater adaptability than those who experience transitions in their mid- or late career stages.

| Proposition 6 | The greater the subjective perceptions of the magnitude of career transitions, the stronger is the positive relationship between career variety and managerial adaptability. |
| Proposition 7 | The greater the subjective perceptions of the magnitude of career transitions, the stronger is the positive relationship between career variety and managerial adaptability. |


The model in Figure 1 and the framework outlined in Table 1 are both used with the permission of Karaevli and Hall (see Appendix H).

“Diversity in a person’s career experience builds a more adaptive manager capable of handling a variety of complex, unforeseen situations” (Karaevli & Hall, 2006, p. 371).

**Definition of Terms**

Adaptability - Defined by Karaevli and Hall (2006) as the “key quality that enables a person to manage the process of change and development over the span of her career” (p. 360).

Behavioral – “Critical dimensions of adaptive performance for handling emergencies or crisis situations, handling work stress, solving problems creatively, dealing with uncertain and unpredictable work situations, learning work task, technologies and procedures, demonstrating inter-personal adaptability, demonstrating cultural adaptability, demonstrating physically oriented adaptability” (Karaevli & Hall, 2006, p. 361).
Career variety – “The diversity in an individual’s functional area and institutional context experiences accumulated over time” (Karaevli & Hall, 2006, p. 360).

Cognitive – The task-related “adaptability requires one to transfer previous learning to subsequent tasks” and the self-related “adaptability requires an individual to be capable of making internal changes, and being resilient, positive, confident, and flexible in making those personal changes” (Karaevli & Hall, 2006, p. 361-362).

Major university or college – Campuses with an enrollment of 20,000 or higher (International Parking Institute, 2006).

Managers - Workers who “establish policies, make plans, determine staffing requirements, and direct the activities of businesses government agencies and other organizations” (U.S. Department of Labor, 1997, p. 2).

Optimized pace – “A pace that permits balance between job assignments that are long enough to permit the learning of the knowledge, competencies, and perspectives associated with the role, yet assignment transitions that are frequent enough to require the individual to learn the skills of change and to become comfortable with the change” (Karaevli & Hall, 2006, p. 368).

Socio-emotional – The third dimension of adaptability when “individuals have the ability to combine cognitive and affective skills to promote learning, curiosity, self-confidence, and coping abilities in approaching new tasks” (Karaevli & Hall, 2006, p. 362).
CHAPTER 2

Review of Related Literature

The purpose of this study was to examine the career paths and professional challenges of women in management positions in major university and college transportation departments. Demographic information obtained through the study provided data to draw upon for analyzing the characteristics of women managers in this non-traditional field. Literature from the following topical areas was reviewed: women managers in the workforce; women managers in transportation; the career paths of women managers; and professional challenges of women in management positions. A summary of the literature review concludes the chapter.

Women Managers in the Workforce

The U.S. Department of Labor (1997) defines women in the executive, administrative and managerial occupations category as workers who “establish policies, make plans, determine staffing requirements, and direct the activities of businesses government agencies and other organizations” (p. 2). In 1991, the Glass Ceiling Commission was created to study and make recommendations about potential barriers preventing women and minorities from advancing to senior level positions (U.S. Department of Labor, 1997). Although there are those that question whether the “glass ceiling” still exists, statistics continue to reveal differences in male versus female salaries in higher paying jobs. Young women have, however, narrowed the gap earning 82 percent as much as young men in 2000 for full-time work compared to 68 percent in 1979 (DiNatale & Boraas, 2002). In their article, “What’s Holding Women Back?” Wellington, Kropf, and Gerkovich (2003) stated that as of 2003, although females
account for over half the managerial and professional labor pool, they account for just over one percent of all Fortune 500 chief executives.

Despite the success of women in gaining access into the labor force, concerns continue about the “glass ceiling” continuing to be “a barrier so subtle it’s transparent, yet so strong it prevents women and minorities from moving up in the management hierarchy” (Becker, Ayman, & Korabik, 2002, p. 1). “One of the reasons that such barriers are so prevalent and persistent is that gender is an extremely salient stimulus characteristic that affects both the manner in which men and women perceive themselves and the way that they are perceived and evaluated by others” (Becker et al., 2001, p. 2).

Denmark (1993) identifies that women comprise the secondary labor force while men remain primary resulting in little visibility and mobility for women seeking upward advancement. The socialization of females and males is cultural and exhibits different role assignments and behaviors acceptable for each gender (Denmark, 1993).

Some studies reflect the need for female executives to find ways to demonstrate managerial competence and create a management style more in line with their male colleagues’ perceptions of how a female should act (Bartol, Martin, & Kromkowski, 2003). Organizational context is an important variable influencing gender differences especially for females in non-traditional settings where the norms in the male-dominated contexts have been set by the men that make up the majority of the group (Becker et al, 2001, p. 3). Denmark (1993) found that the female manager must often contend with an initial negative evaluation when intruding upon a traditionally masculine domain or adopting a typically masculine leadership style. Research has shown that such “norms are long-lasting and may take several generations before they are questioned or changed”
Female executives, as a result, may work to demonstrate competence by operating in a way that is compatible with the gender norms of the organization in order to gain power positions (Bartol et al., 2003).

Essential to understanding how the female gender stereotype can obstruct women from advancing up the organizational hierarchy is the realization that top management and executive level jobs are almost always considered to be “male” in sex-type (Heilman, 2001). She adds to this understanding through consistent findings that indicate that a good manager is described predominantly by masculine attributes and that those attributes are thought necessary to being a successful executive (Heilman, 2001). The role of leader may be problematic for women because the schemas that people hold of leaders/managers are quite different from those they hold of women (Becker et al., 2001, p. 3). Heilman’s Lack of Fit model is based on the idea that expectations about how successful or unsuccessful a person will be in working at a particular job are a driving force underlying personnel decisions. “A woman in a management role potentially activates two conflicting schemas—a feminine schema traditionally associated with her gender and a masculine schema associated with her role as a leader” (Becker et al., 2001, p. 3). There are additional theories related to why women do not fill higher organizational positions. Heilman (1999) identifies the “pipeline theory” which states that there is a problem with the supply of women for such positions and their lack of time in the organization to qualify and the “deficit theory” that presume women to be deficient in the characteristics necessary for traditionally male roles (p. 658).

Gender stereotypes are categorical beliefs composed of the traits and behavioral characteristics assigned to men and women only on the basis of their group level and they
serve as a type of expectation regarding the likely abilities of group members (Martell & DeSmet, 2001, p. 1223). “The perceived lack of fit between the requirements of traditionally male jobs and the stereotypic attributes ascribed to women is therefore likely to produce an expectation of failure” (Heilman, 2001, p. 660). If left unchallenged, gender stereotypes can translate into behavior causing female managers to be treated differently than their male counterparts in areas such as hiring decisions, evaluations of managerial and leadership performance and task assignments (Martell & DeSmet, 2001).

In her research with college students, Kolb (2000) provides encouraging results related to biological sex and leadership emergence and mixed results related to stereotypical descriptions of leaders. Females were just as likely as males to be identified as leaders by other students. Of the 31 individuals identified as preferred leaders in project groups, 16 were male, and 15 were female. In terms of stereotypical gender characteristics, however, almost half (45 percent) of the individuals identified as preferred leaders by group members had self-described masculine gender classification. The next largest category, 23 percent, was those classified as androgynous, having high but equal male and female characteristics. In Kolb’s study (2000), no differences were found between male and female scores on the masculinity scale. Apparently, both males and females in the study identified closely with the characteristics stereotypically defined as masculine. Although such scales have legitimate research use, Kolb cautions against using the term masculine to describe a set of behaviors that seems to be adopted equally by the sexes (2000).
Women Managers in Transportation

The Bureau of Labor Statistics in their “Employment and Earnings Data” from January 1997 indicated that women managers are less likely to be employed in manufacturing, construction, transportation and public utilities than men (U.S. Department of Labor, 1997). Those findings hold true today. The Institute for Women's Policy Research (2005) reported that the transportation, communication and public utilities industries are composed of 7.5% of men in the workforce and 3.6% women. Traditionally, men have dominated professional and managerial positions in state transportation agencies and still do in highway and transportation agencies, however the number of women has increased since the 1980s (Schachter, 2001).

When women are numerically under-represented in their task groups, they violate norms about gender-appropriateness of occupations, they perform tasks that are typically associated with men, and they carry with them the status afforded women in their culture (Yoder, Schleicher, & McDonald, 1998). The findings of Yoder, Schleicher, and McDonald (1998) suggest that for token women to be effective as leaders of male-dominated masculine-task groups, they must not only be empowered with position (by being appointed the leader) and expertise through training, but also be legitimated by high-status others. Schein (2001) builds upon this concern in her global look at women in management where she found research that suggests, “probably the single most important hurdle for women in management in all industrialized countries is the stereotype that associates management as a “masculine” position” (p. 676). Obviously, women managers in the transportation industry fall within these categories due to their low participation rates.
One way to find out what is needed to develop female employees for leadership positions in transportation is to obtain information on the education and job paths used by successful female executives and note the commonalities (Schachter, 2001). The Transportation Research Board’s *Task Force on Women’s Issues in Transportation* (2000) revealed that due to the increasing number of women in administrative positions in the transportation field and the number of successful women in the private transportation sector, there is an urgent need to understand the career paths of female transportation professionals with the objective of noting any linkages between educational background and career advancement.

**Career Paths of Women Managers**

The traditional career development theories fail to relate to women’s experiences (Schreiber, 1998). Schreiber (2006) further explains by stating that women’s career development is more complex than the traditional theories based on male experiences and that a new theory is needed that places women’s career choices in the current context of social norms and beliefs about their capabilities and acceptable roles. Sullivan and Arthur (2006) pointed out research that indicates societal norms and expectations repeatedly restricted women’s education, occupational, and job choices. Even though men and women may obtain similar levels of education and work experience, pursue external labor market strategies, occupy similar functional areas, pursue training opportunities, and obtain supportive relationships, it is shown that these factors are more beneficial for the career progression of men than women (Forret & Dougherty, 2004).
Theoretical Model of Managerial Adaptability and Career Variety

This study, based on Karaevli and Hall’s (2006) theoretical model, shows how managerial adaptability develops from career variety over the span of a person’s career. This theoretical model is a new conceptualization created by building upon the literature of career theory, adult learning and development, and career adjustment (Karaevli & Hall, 2006). Approaches to the study of careers range from focusing on an individual’s occupation, to the variety of work experiences during a person’s lifetime, or taking a broad look at all work and non-work activities and behaviors (Higgins, 2001). This changing view of the study of careers by including work experiences relates to the concept of career variety. Career variety is defined as “the diversity in an individual’s functional area and institutional context experiences accumulated over time” (Karaevli & Hall, 2006, p. 360).

The theory of managerial adaptability from career variety is composed of three dimensions: behavioral cognitive; cognitive; and socio-emotional (Karaevli & Hall, 2006). Karaevli and Hall (2006) argue that it is through this mix of functional and institutional context experiences that individuals acquire the necessary cognitive complexities, and behavioral and cognitive flexibility needed to help them to achieve adaptation and therefore operate in different circumstances, different environments or the mix of business changes. Prior research shows that greater opportunities for advancement are provided by jobs exposing managers to new challenges and unfamiliar contexts thus for women to remain competitive they need to be exposed to new developmental challenges comparable to those received by their male counterparts (Lyness & Schrader, 2006).
Professional Challenges of Women in Management Positions

Upon a global review of women’s progress in management, Schein (2001) found that embedded in all cultures are traditions, practices, and views that impede women’s equality with managerial sex typing as a major obstacle that reflects the devaluation of women. Yoder et al. (1998) also alluded to this problem when they found that in order for token women to be effective as leaders of male-dominated masculine-task groups, they must not only be empowered with position (by being appointed the leader) and expertise through training, but also be legitimated by high-status others.

The marital and parental status of employees and their spouses’ employment status have been related to managers’ pay and promotion (Tharenou, 1999). Tharenou (1999) found that marital/single status is more consistently linked to advancement for men and women while family structures derived from marital status, parental status, and spousal employment help explain men’s advancement. Extensive research in the area of work-family balance reveals that marital and family status are common predictors of women’s career orientation and status (Schreiber, 1998). Schreiber (1998) describes a study where it was found that for men, work and family roles occurred sequentially, i.e. work is completed first, then family, but for women, the roles occurred simultaneously resulting in role interferences that required more time overall from women causing them to experience higher levels of role overload.

Another potential challenge for women managers is a lack of networking opportunities. Engaging in networking behaviors, such as joining professional associations, seeking high-visibility assignments, and participating in social functions, is considered vital for those pursuing protean careers that rely on themselves (Forret &
Dougherty, 2004). Forret and Dougherty (2004) explain further that the lack of women in influential organizational circles puts women at a disadvantage, even after efforts to improve their status.

A lack of mentors is perhaps one of the most relevant challenges for women managers. Mentors teach organizational skills and values, publicize protégé accomplishments, and provide various forms of career and social support (Schachter, 2001). She continues by identifying the argument that women in male-dominated organizations also need male advisors in order to get information on the informal workings of the “old-boy” network.

Originally, organizations were driven to be family friendly to attract and retain qualified employees, but with the implementation of the Family-Medical Leave Act (FMLA) the need to address moral and ethical considerations came to the forefront (Rogier & Padgett, 2004). In their article, “Women from Generation X”, DiNatale & Boraas (2002) identify statistics revealing that women between the ages of 25 to 34 are making the decision to put college and careers before family resulting in more women having to balance their roles as wives and mothers with their jobs. They continue by describing the labor force participation rates for women with children under three years of age as doubling between 1975 and 2000 however, those participation rates still remain below those of men with children which seems to suggest that raising children has a greater impact on mothers in the workforce than fathers (DiNatale & Boraas, 2002).

Daniel (2004) provides a different aspect on women managers by indicating that women self-owned businesses increased by approximately 16 percent between 1987 and 1997. These women cite several reasons for leaving the corporate world, to include
dissatisfaction with corporate life, a desire for more balance between work and home, and a desire for greater challenge (Daniel, 2004). Flexible work schedules were created to provide such organizational benefits as increased employee job satisfaction, organizational commitment and productivity and decreased absenteeism and turnover (Rogier & Padgett, 2004). One potential benefit to women of having flexible work schedules is that it may make it easier for them to progress into upper management positions by helping to balance work and family responsibilities (Rogier & Padgett, 2004). Career derailment is a concern of employees using or considering using flexible work schedules in that employees fear that they will be seen as less committed if they do so (Rogier & Padgett, 2004).

Chapter Summary

Even though women make up over half of the managerial and professional workforce, they account for less than two percent of the chief executive slots (Wellington et al., 2003). Typically, men have dominated professional and managerial positions in state transportation agencies and still do in highway and transportation agencies; however, Schachter (2001) indicates that the number of women has increased since the 1980s. Schreiber (1998) finds that traditional career development theories fail to relate to women’s experiences because women’s career development is more complex than the traditional theories based on male experiences and that a new theory is needed that places women’s career choices in the current context of social norms and beliefs about their capabilities and acceptable roles. One potential theoretical model to help explain women’s career choices is Karaevli and Hall’s (2006) Theoretical Model of Managerial
Adaptability and Career Variety. Karaevli and Hall (2006) seek to show how managerial adaptability develops from career variety over the span of a person’s career.

Professional challenges to women managers involve issues with the sex typing of management positions (Schein, 2001), the potential impact of family structures (Tharenou, 1999), the lack of networking opportunities (Forret & Dougherty, 2004), and insufficient mentoring opportunities (Schachter, 2001).
CHAPTER 3

METHODOLOGY

In this chapter, the research methodology is described to include a discussion of the research design, tools for data collection and the data analysis process. The research design identifies the method used to gather and analyze the data, a discussion about the creation of the research questions, details about participant selection, information related to pre-collection instruments such as pilot studies and the protocols for participant involvement. The information related to data collection explains the chosen participant population and sample, and the tools used which in this case are the survey, interviews, and focus group discussion. This chapter will also review the importance of validity, reliability and objectivity and how those important items are addressed in this study. Finally, a review of the data analysis process is provided to include the transcription process, open coding, focused coding, and connecting strategies to spur theme building.

Research Design

Method

Qualitative analysis was used to gather and analyze data about the career paths and professional challenges of women managers in major university and college transportation departments. Qualitative analysis was selected based on the lack of information related to this topic and the need to provide descriptive information about the personal and professional experiences of women managers in transportation. In keeping with qualitative methodology, the research questions were created in advance of the data collection process in order to provide direction for the study. The research questions formulate what you want to understand; the interview questions are what you ask people
in order to gain that understanding (Maxwell, 2005). New information obtained from the survey, interviews, and focus group served to help mold the research questions to reflect the true nature of the career paths and professional challenges of the women managers.

This study utilized a structured approach to qualitative research methods through the use of a survey to obtain descriptive statistics, in-depth interviews and a focus group. Such a structured approach allows for comparability of data across individuals, times, settings, and researchers and is therefore useful in answering questions that deal with differences between things (Maxwell, 2005).

The selection of the participants for this study was conducted through purposeful selection. Maxwell (2005) identifies purposeful selection as the “strategy that involves selecting individuals deliberately in order to provide information that can’t be gotten as well from other choices” (p. 88). In order to obtain the data needed to answer the research questions, it is important that the sample included women managers from the very specific area of major university and college transportation departments. Maxwell (2005) identified four possible goals for purposeful selection.

1. Achieving representativeness or typicality of the settings, individuals, or activities selected.
2. To adequately capture the heterogeneity in the population.
3. To deliberately examine cases that are critical for the theories that you began the study with or that you have subsequently developed.
4. To establish particular comparisons to illuminate the reasons for differences between settings or individuals.

For this study, a list of major universities and colleges was coordinated with the membership directory to come up with the list of women managers from universities and colleges with a student enrollment of 20,000 or more (see Appendix A).
**Pilot Study**

Prior to initiating data collection, a pilot test of the survey and survey process was conducted to ensure that the survey questions were clear and understandable and that the process of using the Survey Monkey website was easy to access and complete. I solicited the assistance of three transportation managers who were not part of the survey sample. I contacted two of the participants by telephone and one via email to request their participation in the pilot study. Upon their acceptance, they were provided an email invite to the survey process (see Appendix B), an electronic implied consent form (see Appendix C) and a list of four questions to consider when taking the survey (see Appendix D). The questions are listed as follows:

1. Were the questions clearly stated and easy to understand? If not, which questions were unclear? Do you have any recommendations on how to better state those questions?
2. Was the survey process easy to complete? If not, what difficulties did you encounter? How could those difficulties be best addressed to provide a smooth process?
3. How long did it take for you to complete the survey process from start to finish? Was the process too long?
4. Please provide any additional comments that you feel would help me in providing an understandable and fluid survey process.

**Interview Protocol**

The interview questions were created based upon the information needed to answer the identified research questions and the research questions were molded from the information obtained from current literature. Together, this information helped form the interview questions (see Appendix E). A diagram was created connecting the interview questions to the applicable research questions to help ensure that the information needed to answer the research questions was covered (see Appendix F). Additionally, once the interview questions were created, the questions were reviewed with the researcher’s
faculty advisory committee. The committee provided comments and the questions were modified in response.

Data Collection

Population and Sample

In keeping with purposeful selection, the potential candidates were obtained from the membership roles of the International Parking Institute (IPI). The International Parking Institute is a professional organization composed of personnel involved in the management of parking and transportation departments for universities, colleges, airports, hospitals, municipalities, and cities. It also includes many members from businesses associated with the parking and transportation industry, such as engineers, architects, vehicle and bus companies, and support units. IPI's publication entitled, *Who's Who in Parking* identified 1248 members for membership year 2006 (IPI, 2006). Of those 1248 members, women in upper and mid-level management positions from major university or college transportation departments were identified. The major universities or colleges were defined as those schools with a school enrollment of 20,000 students or greater. These schools were identified in International Parking Institute’s Annual Membership Directory (2006).

A comparison of the list of major universities and colleges to the IPI membership roles showed that 31 of the major schools had representation in IPI (see Appendix A). Of the 31 major colleges and universities, thirty-seven women in upper and mid-level management positions were identified. The upper-level management positions in college and university transportation departments are titled as "directors,
associate directors, or assistant directors”. The term “manager” or “coordinator” identifies the mid-level managers.

The population for the survey included upper and mid-level managers from campuses with a student enrollment of 20,000 or more. Women in the upper-level positions titled “directors” who were selected for the in-depth interviews came from universities or colleges with an enrollment of 30,000 or more. As a member of IPI for the past twelve years, I am familiar with the membership and have access to member information and access through the organization’s annual conference and membership directory. Women managers from similar sized universities and colleges were chosen to maintain commonalities in their facilities. There are significant differences between the transportation needs of larger universities versus smaller universities.

**Survey**

The initial phase of the process started with notification of the women managers who are members of the International Parking Institute and employed by major university and college transportation departments. An invitation to participate in the survey was sent electronically and included an implied consent form outlining the research process for Social Science Research (see Appendix C). The second step for data collection involved administering the survey to a larger sample of the IPI population composed of women in the positions of manager and director from schools with enrollments of 20,000 or greater. The survey, created using the Survey Monkey website program, was then distributed via e-mail using Survey Monkey’s distribution process (see Appendix D). Once completed, the women managers returned the survey to the Survey Monkey website where the results were compiled. The information was collected with no
identifying information assigned to ensure confidentiality to the greatest extent possible. Each survey participant’s results are maintained in a password protected file for use by the researcher when needed. The descriptive statistics obtained from the responses were used to analyze similarities and difference among the women managers.

Interviews

As described previously, the women managers for the in-depth interviews were selected from universities or colleges with a student enrollment of 30,000 or more. These women managers in the positions of director, associate director and assistant director were contacted with an e-mail invitation and accompanying informed consent form to obtain volunteers for the in-depth interviews. They were invited to participate through e-mail communication or telephone conversation. Once the interview participants were identified, based on their agreement to participate, an interview schedule was coordinated. The interview participants were provided informed consent forms which they completed on-site, in the case of those interviews done in Tampa, Florida, or faxed for those interviews conducted by phone (see Appendix C).

Although the interview guide implies a structured approach because they were created prior to the actual interviews, the questions were used to introduce concepts which the interview participants expounded upon based on their own particular experiences. As such, the interviews were nondirective in order to “learn the respondents’ beliefs, experiences, and views rather than persuade them of my perspective” (Glesne, 2006, p. 95). Based on the interview participant’s preference, the interviews were located in the Tampa Bay Conference Center during IPI’s annual conference or they were conducted by telephone interview. Several of the participants
either did not attend the conference or were busy in committee meetings or providing presentations at the committee. As a result, some telephone interviews were required. Additionally, all interviews were audio taped and then transcribed as soon as possible after the interviews.

In addition to the interviews, a copy of the formal job descriptions of each of the interviewees was requested in order to conduct a content analysis to compare and contrast the qualifications that the various universities and colleges are looking for when hiring transportation managers. These descriptions were requested with the intent of identifying the similarities and differences of the transportation manager positions. In qualitative analysis, documents “provide both historical and contextual dimensions to the observations and interviews” (Glesne, 2006, p. 68). Not all universities and colleges may be seeking the same qualifications when seeking transportation managers therefore such differences may be notable for both the educational institutions and for those persons seeking employment in these same transportation departments. Information from the job descriptions may assist in raising questions for the interviews, supporting or challenging interview data, and for providing thick description (Glesne, 2006). Unfortunately, the majority of the participants indicated that they either did not have a job description or that their job descriptions were outdated. Most participants did provide some type of job description, however most admitted that the descriptions were not current. In some cases, the descriptions had not been rewritten for ten to twenty years. As a result, this information was not provided as data for analysis in this study.
Focus Group

The focus group, composed of women from the initial survey sample, convened once the analysis of the interviews was conducted using the Adobe Connect internet meeting program. Focus groups can be a “useful way to gather further insight into issues that developed through data analysis of individual interviews or to member check my developing understandings with the participants” (Glesne, 2006, p. 104). The focus group was composed of individuals from the larger initial survey sample taken from the universities and colleges with enrollments over 20,000. The focus group was used to discuss and verify the themes that resulted from the in-depth interviews. Each member of the focus group was provided an informed consent form which they completed and faxed to the researcher (see Appendix C).

As the discussion facilitator, I assisted the group by setting ground rules at the beginning of the session and then, in order to keep the discussion moving and on track, posed or redirected questions (Glesne, 2006). This group was used to verify the categories and themes that arose from the interviews pertaining to career paths and professional challenges. The focus group was held on January 14 and 15, 2008 using the Adobe Connect program. The intent was to hold one focus group discussion. Unfortunately, one of the five participants was unable to gain access to the assigned Adobe Connect meeting room. In order to obtain input from the fifth person, a second meeting involving the researcher and fifth person was held the following day using the same program and talking points.
Validity, Reliability, & Objectivity

Maxwell (2005) identifies validity in qualitative analysis as a component of the research design that employs strategies to identify and attempt to rule out validity “threats” by providing evidence to the contrary. Both Maxwell (2005) and Glesne (2006) list the following common verification procedures often used in qualitative research:

1. Prolonged engagement and persistent observation
2. Triangulation – use of multiple data-collection methods, multiple sources, investigations, and/or theoretical perspectives
3. Peer review and debriefing – external reflection and input
4. Negative case analysis – conscious search for negative cases and unconfirming evidence
5. Clarification of researcher bias – reflection upon one’s own subjectivity and how that knowledge will be used and monitored in the research
6. Member checking – sharing the research information with the participants to ensure accurate representation
7. Rich, thick description – writing that provides the reader with research context
8. External audit – outside person examines the research process and product

Throughout this study process, triangulation, peer review, negative case analysis, clarification of researcher process, member checking, and the use of rich thick description were all utilized to address concerns related to validity as well as reliability, and objectivity. The process of triangulation using interviews, surveys, and a focus group was utilized. In order to evaluate the effectiveness and accuracy of the interview questions, the researcher’s faculty advisory committee reviewed the interview questions.
A pilot test of the survey was administered to three transportation managers to ensure the clarity of both the survey questions and survey process using the website tool, Survey Monkey. The interviewees, through member checking, were provided copies of their interview transcripts to give them the opportunity to review them for accuracy and understanding of their narrative. One of the interview participants had experienced a very negative experience compared to the other interview participants. This participant’s situation provided information for a negative case analysis. The focus group discussion served to verify the themes arising from the individual in-depth interviews. It also served to add to the descriptions provided by the interview participants. In writing the analysis, rich, thick description was used to accurately express the information obtained from the twelve interviews and the focus group discussions. A rich, thick description of women managers in transportation is a goal of this process in order to provide a basis of knowledge for future study. Samples of the data, coding efforts and resulting written analysis were shared with a peer and recent graduate from the Pennsylvania State University's College of Education's Workforce Education and Development graduate program. She reviewed the samples and provided useful and constructive comments which were incorporated into the study.

Maxwell (2005) identifies the researcher as “the instrument of the research and the research relationships as the means by which the research gets done” (p. 83). It is because of this very connection to both the topic and the people involved in the study that I elected to study a topic of interest related to my own profession. It is important to clarify that my connection to the people involved in this study is that of a professional nature. My interactions with the persons involved are limited to one or two times per
year at professional conferences. Additional contacts throughout the year are conducted through an e-mail list serve used to discuss and share work-related issues and recommendations. Even though the relationships are on a professional basis only, as a professional colleague of the women interviewed and as the director of a major university transportation department, it was important to examine and clarify my own biases before starting the process and then continue to be cognizant of those thoughts throughout the process. I do not believe that my connection with the subject is a hindrance to the study. Actually, I believe that my knowledge of the subject and my own experiences helped me to understand the comments of each of the participants on a deeper level. “One’s subjectivity is like a garment that cannot be removed. It is insistently present in both the research and nonresearch aspects of our life” (Peshkin, 1991, p. 286). "Subjectivity, once recognized, can be monitored for more trustworthy research and subjectivity, in itself, can contribute to research" (Glesne, 2006, p. 119).

Data Analysis

Maxwell (2005) emphasizes that “reading & thinking about your interview transcripts and observation notes, writing memos, developing coding categories and applying these to your data, and analyzing narrative structure & contextual relationships are all important types of data analysis” (p. 96). Although stated in a simplistic manner, Maxwell identifies the framework used for the analysis of this study.

Transcription

In his text, *Qualitative Research Design: An Interactive Approach*, Maxwell's (2005) first step focuses on listening. Based on Maxwell's information, time must be taken first to listen to the interview tapes. Although listening is the main objective, it was important to
jot down notes or memos to assist with the next steps. I also maintained a “living” schedule that included a “to do” list with deadline dates. After the first review of the tapes, a second review was conducted in order to begin the transcription process.

**Open Coding**

Upon completion of the interview transcriptions, open coding was used to begin categorizing the information from the wealth of information provided from each of the twelve interviews (see Appendix I). Coding was also used to analyze the comments made to the open-ended questions on the survey. In open coding, the researcher reviews the data “line by line to identify and formulate any and all ideas, themes, or issues they suggest, no matter how varied and disparate” (Emerson, Fretz, & Shaw, 1995, p. 143). This coding of substantive categories is primarily descriptive and does not imply a more abstract theory (Maxwell, 2005). Coding in qualitative research is different from that used in the quantitative method. The use of coding in qualitative research involves breaking down the data and organizing and rearranging the data into categories that provide for comparisons between things in the same category and than can aid in the development of theoretical concepts (Maxwell, 2005). It is during the third connecting strategy that data are placed into a preliminary theoretical framework.

**Connecting Strategies**

"Connecting strategies attempt to understand the data in context, using various methods to identify the relationships among the different elements of the text" (Maxwell, 2005, p. 98). Glesne (2006) identifies this stage of the analysis as "the effort of researcher to manage and make sense of their data, to transform it from its acquired form - at which point it is perhaps more accurately called "information" - into a form that
communicates the promise of a study's findings" (p. 165). From the open coding of both the surveys and interviews, obvious categories and then themes began to arise related to career paths and professional challenges (see Appendix I).

It was at this point that I requested the assistance of a faculty member from the College of Liberal Arts' Integrated Arts Department. This faculty member had been my instructor for two classes that I had taken in Qualitative Analysis. I asked her assistance in helping me move from coding to theme building. Her advice and assistance involved an axial coding exercise and an exercise as simple as just talking out loud about my whole data analysis process. It was not until this time that I realized that I had never sat and talked to someone, in-depth, about the work that I had been involved in. This simple exercise helped me move past the coding aspect into theme building.

Next was the process of focused coding. “This involves building up and elaborating analytically interesting themes, both by connecting data that initially may not have appeared to go together and by delineating sub themes and subtopics that distinguish differences and variations within the broader topic” (Emerson et al., 1995, p. 160). These categories and themes were then reviewed during the focus group discussions for verification purposes and to obtain additional information specific to the results. It is through this method that I searched for relationships connecting statements and events "within a context into a coherent whole" (Maxwell, 2005, p. 98) (see Appendix I). Connection is necessary for building theory which is a primary goal of analysis. This theory building and creation of themes was then applied and matched to the appropriate research questions resulting in meaningful data aimed at building a base of knowledge for the study of women in transportation.
Chapter Summary

In summary, this chapter presents qualitative analysis as the methodology used for this study. Initially, data were gathered from volunteer participants recruited from the International Parking Institute membership roles. The data were gathered through conduct of an on-line survey with thirty-three respondents, twelve in-depth interviews with high-level managers, and a focus group discussion with five managers who had also participated in the survey process. Multiple techniques were used to address concerns about validity, reliability, and objectivity. In addition to triangulation, a peer reviewed the data to provide an external viewpoint, a negative case analysis arose from one of the in-depth interviews that helped balance the data, a clarification of the researcher’s bias was provided, as well as member checking by each of the interview participants and the use of rich, thick description prompted by the in-depth interviews and focus group discussion. The analysis was conducted by first reviewing the data which included data from the surveys, interview transcripts and transcripts from the focus group discussion. The data were then categorized through the use of open coding and focused coding techniques. From the coding process, an exercise in axial coding helped provide the connection between categories and then themes. Those categories and themes were then applied to the applicable research questions resulting in meaningful data that will serve to build on the base of knowledge about women in transportation.
CHAPTER 4
STUDY RESULTS

This chapter contains the framework and results of the study. First, the purpose of the study, research questions, methodology, and types of data analysis are reviewed. Secondly, information gleaned from the pilot study, survey, interviews, and focus group discussion are explained and then connected to the pertinent research questions. Quotations from the interviews are cited to provide thick, rich description to the findings.

Review of the Study

The purpose of this study was to examine the career paths and professional challenges of women in management positions in major university and college transportation departments. The interest in this topic of study was based on the lack of information about transportation careers for women and the hope that it will provide useful information for women wishing to pursue a profession, in this case, in a major university or college transportation department. It will also serve to add to the current minimal body of knowledge on transportation as a career. The use of Karaevli and Hall's (2006) theoretical model of career variety and managerial adaptability were used to help identify whether or not the women managers' career paths impacted their managerial adaptability.

The following research questions were designed to obtain necessary information related to the purpose of the study including demographic information on women managers in major university and college transportation departments, their career paths and any professional challenges that they may have experienced:

Q1. What are the similarities and differences in the demographics of women in management positions in major university and college
transportation departments to include age, marital status, the existence of children in the household, educational level, type of degree, and previous work experiences?

Q2. Based on Karaevli and Hall's theoretical model of career variety and managerial adaptability, what were the previous work experiences prior to the management position in the transportation department?

Q3. How did career variety play a part in the managerial adaptability, career advancement and success of these women managers in transportation?

Q4. What aspects of employment in the university and college transportation departments attracted these managers?

Q5. What professional challenges have women managers in transportation experienced during their careers and how has their previous work experience prepared, or not prepared, them to handle those challenges?

The data for this study were analyzed using qualitative methodology. Three tools were used to obtain the necessary data for this study. First, a survey was sent to forty-five women managers from major university and college transportation departments who are also members of the professional organization, the International Parking Institute. Thirty-three participants responded to the survey. The data from the surveys were analyzed using descriptive statistics in order to provide the needed demographic information for this topic. From that survey group, twelve women in the higher-level management positions, identified by the titles of director, associate director, or assistant director of transportation, were selected for in-depth interviews. Five of the interviews were conducted as face-to-face interviews at the IPI's annual conference held May 20–23, 2007 in Tampa, Florida. The remaining seven interviews were conducted as telephone interviews between May and June 2007. The length of interviews ranged from 40 minutes to 1 hour and 45 minutes. Data from these interviews were analyzed through the use of open coding and axial coding in order to create pertinent themes. The resulting
themes were the basis of discussion for the focus group discussion. The focus group, comprised of five women managers from the initial survey group, was conducted via the internet by using the Adobe Connect program. Initially, the five women managers and I, as the host, were to "meet" in the Adobe Connect meeting space on January 14, 2008 for a one-hour meeting to discuss the resulting themes about women managers in transportation. Unfortunately, one of the participants was unable to access the Adobe Connect site. As a result, I conducted a second meeting with the one participant the following day (January 15, 2008) utilizing the same format and questions from the day prior. The themes used in the focus group discussion arose from the in-depth interviews. The themes were discussed among the five women managers to determine whether or not they resonated with other women managers, or if there were any contrasting opinions to the themes, additional information related to the themes, or any surprising questions or comments.

The following section identifies the research findings. Because one important aspect of qualitative methodology is the use of thick, rich description, quotes from the women managers interviewed and from participants in the focus group discussion are used. The quotations are written verbatim except in those instances where the interviewee strayed off topic during the interview or focus group. In those instances, I omitted the extraneous information and denoted it using a bracket [...]. To ensure confidentiality of the participants, the resulting data, and their university or college, generic descriptors were put in place of actual data, for example, [I2] was used to denote the second interviewee and [university] was put in place of the actual university or college name.
Research Findings

The Pilot Study

In advance of sending the survey instrument to participants, a pilot test of the survey was conducted to ensure that the survey process via the web was easy to take and that the questions in the survey were clear and concise. Initially, the survey questions were reviewed by two, faculty members from my advisory committee. This review helped to ensure that the questions were all relative to the topic and understandable. After the review by the advisory committee members, I initiated the survey process by sending it to a small pilot test group. The pilot test group was made up of three members of the university transportation network who are also members of the IPI. Two of the members were female and one was a male. Although the actual survey would be taken by only females, I elected to include a male participant to the test group in order to get a different perspective on the questions. One female member was a higher-level manager in a university transportation department. The second female is a mid-level manager in a university transportation department. The third member, who is also the male participant, has over 35 years in the university parking and transportation industry to include holding top positions in professional parking associations. He also is very experienced in the technological side of the industry; therefore, his feedback on the survey process via the web was important to me.

Prior to participation in the pilot test of the survey, the participants were provided four questions to consider as they conducted their review of the survey process. The questions related to the actual survey questions, the survey process, and time needed to complete the survey. Feedback from the participants of the pilot study test group was
minimal. All three participants felt that the questions were easy to understand and were clearly stated. It took each of them approximately seven minutes to complete. There was one comment regarding the survey process that actually related to the way that a question was written and the available responses. The question was changed to allow for additional responses.

The Survey

The survey's intent was threefold: 1) to gather demographic data about women managers in major university or college transportation departments; 2) to obtain information about transportation as a career; and 3) to probe into career support and the career advancement potential of such women managers in the transportation field. This basic demographic and career data helps to begin building a body of knowledge about this population of transportation employees, as well as providing insight into transportation as a viable career for women in the workforce.

Demographics

From the demographic portion of the survey, the data reveal that over fifty-one percent of respondents were over the age of 41 years old. An additional twelve percent of those surveyed were between 31 and 40 years of age. Thirty percent, or ten of those women surveyed, fell into the age category of 51 to 60 and two were sixty and over. Twenty-five of the thirty-three respondents were married, with an additional six divorced, and two single. Fourteen of the thirty-three participants still had children living at home.
Table 2

Survey Participant Demographics

<table>
<thead>
<tr>
<th>Age</th>
<th>Response Percent (Count)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 &amp; under</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>26-30</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>31-40</td>
<td>12.1% (4)</td>
</tr>
<tr>
<td>41-50</td>
<td>51.5% (17)</td>
</tr>
<tr>
<td>51-60</td>
<td>30.3% (10)</td>
</tr>
<tr>
<td>60 &amp; over</td>
<td>6.1% (2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Martial Status</th>
<th>Response Percent (Count)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>6.1% (2)</td>
</tr>
<tr>
<td>Married</td>
<td>75.8% (25)</td>
</tr>
<tr>
<td>Divorced</td>
<td>18.2% (6)</td>
</tr>
<tr>
<td>Widowed</td>
<td>0.0% (0)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you have children currently living at home?</th>
<th>Response Percent (Count)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>42.4% (14)</td>
</tr>
<tr>
<td>No</td>
<td>57.6% (19)</td>
</tr>
</tbody>
</table>

In terms of educational background, 17 participants, or 51.5%, had completed either four years of college or obtained a Bachelor's degree. Six of the seventeen degree majors were in the field of business. Only two of the seventeen degree holders, actually possessed a degree in the area of transportation or transportation and logistics. Appendix G provides specific degree information. Four participants reported high school diploma or GED as their highest level of educational attainment. Twenty-one percent of the
thirty-three participants possessed a Master's degree with specialties ranging from Business Administration to Public Administration to Anthropology (see Appendix H). None of the respondents possessed graduate degrees in the area of transportation. It is also interesting to note that none of the participants had an engineering background even though the field of transportation is commonly connected to engineering programs. In terms of the propensity of business backgrounds, this is not surprising based on the information that most transportation departments fall under the Auxiliary and Business Services arm of the university or college.

Table 3

Educational Background of Women Managers in Major College and University Transportation Departments

<table>
<thead>
<tr>
<th>Educational background (check highest degree earned &amp; provide degree information)</th>
<th>Response Percent (Count)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school graduate</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>High School graduate or GED</td>
<td>12.1% (4)</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>21.2% (7)</td>
</tr>
<tr>
<td>2 years of college/Associate’s degree (Major)</td>
<td>12.1% (4)</td>
</tr>
<tr>
<td>4 years of college/Bachelor’s degree (Major)</td>
<td>51.5% (17)</td>
</tr>
<tr>
<td>Master’s degree (Major)</td>
<td>21.2% (7)</td>
</tr>
<tr>
<td>Professional degree (Specify)</td>
<td>12.1% (4)</td>
</tr>
<tr>
<td>Doctoral degree (Topic of Study)</td>
<td>0.0% (0)</td>
</tr>
</tbody>
</table>

Transportation as a Career

The second set of questions from the survey focused on transportation as a career. Twenty of the thirty-three women managers taking the survey indicated that they would stay in the field of transportation in the event that they contemplated a change in
positions. When queried about the type of position in transportation that they would pursue, the majority of the women managers identified career advancement positions within their own organization. For example, the mid-level managers wished to pursue upper-level or director positions. The current participants already in director positions would pursue Vice Chancellor or Assistant/Associate Vice President positions. Three respondents were nearing retirement and therefore were not interested in advancement, one respondent mentioned moving into consulting and one respondent was content in her current position.

Based on the related literature, participation in professional organizations, training opportunities and the use of mentors all can have a positive impact on the career path. In terms of this study, all of the participants are members of IPI. The question in this survey relating to membership in other organizations revealed that fourteen of thirty-one respondents to this question, are members of organizations that had not been identified as possibilities. Unfortunately, I did not provide a comment section for this question and therefore do not know the names of the "other" organizations. I am very interested in what these "other" associations refer to however; it could be as simple as referring to their smaller state transportation or parking organizations. I also now realize that I omitted another large parking organization entitled the National Parking Association (NPA). Many university and college transportation managers are members of either IPI or NPA, or both. Other professional organizations were listed and represented. Four of the thirty-one respondents were members of the American Public Transit Association and one was a member of the Women's Transportation Seminar. Two participants skipped this question.
In terms of training and development, the survey reflects high response rates. Over 87% of respondents participate in in-house training and more than 90% participate in training programs outside of the organization. Eighteen of thirty-two respondents have obtained or are pursuing a professional certification with a professional organization. Half of the respondents are attending academic classes to enhance educational levels. One participant skipped the question.

The existence of mentors for these women managers in transportation leaned positively with twenty-one of the thirty-two respondents stating that they had or have had a mentor to assist in their career advancement. When asked the number of mentors throughout their career, ten respondents identified one mentor, eight participants identified two, and two respondents identified the existence of three mentors during their career and one revealed four or more. Fifteen of the respondents who identified themselves as having mentors, had selected or found the mentors on their own. One respondent obtained a mentor through an organized program and the remaining six respondents identified their selection process by opting for the "other" category. Once again, this question did not provide for comment therefore the "other" category is not defined. In terms of the gender of the mentors, it was a split with 50% male and 50% female.

Career Support and Advancement

The final section of the survey addressed the areas of career support and advancement. Some literature suggests that there is a tendency of women to change their management style, to a style more synonymous with male managers, in order to be successful in management positions (Bartol, Martin, & Krankowski, 2003). Of the 32
respondents to the survey, 23 or 71.9% either disagreed or strongly disagreed that they needed to change their management style to be successful in their current positions. Seven respondents identified the need to change their style and two were undecided. One respondent skipped the question.

In terms of gender, when asked if being female in a male-dominated industry has helped them to advance in their career only one respondent agreed. Twenty-six respondents, resulting in 81.2% of the respondents, did not believe that being female in the male-dominated industry assisted in their career advancement.

The majority of respondents at 78.2% stated that their organizations support or empower them to perform successfully. Three respondents were undecided and four disagreed that they received organizational support or empowerment. One respondent skipped the question.

The final question of the survey was an open-ended question giving the respondents the opportunity to provide any information that they felt would be important to note in terms of their current position, career path, educational background or challenges experienced. Seventeen respondents skipped this question; however, sixteen provided written responses. The responses ranged in content from educational requirements required for the job, to networking, training, and related experiences. S9 identifies her experience in the industry as follows:

“I have found in this type of industry you must be aggressive while not turning people off. The nature of the parking industry requires people to be “tough”. As a women in this type of position, it can be controversial....The other aspect of transportation, particularly in parking, is that the industry, until recently, was not recognized, nor were there formal resources. Anyone in the industry had/has to have the ability to gather information and ideas from networking versus through formal education and training. If you don’t have the initiative or willingness to take charge and run on your own, it can be a difficult industry.”
S4 provides information about the industry from her experience by providing the following:

“Part of my experience as a woman in the parking management field has included working on a degree while raising a family and working full-time in an extremely busy and stressful position. Trying to maintain balance has not always been easy.”

There are those respondents who share experiences related to gender issues. S29 relates,

“in a university environment, I have found it difficult to advance. ... It is difficult to gain additional responsibilities. Other male directors who report to my boss have been able to obtain additional responsibilities that have led to their ability to advance in rank.”

S22 states her opinion based on her experiences, “Women are still underpaid, underclassed, and undercut at every opportunity.” In contrast, S13 shares, “I have found the new parking professional to be very progressive and haven’t experienced a gender bias.”

Several respondents identified the importance of networking and training through professional organizations such as the IPI. S12 shares,

“Belonging to our state association as well as IPI has broadened my horizons and has been a great tool in helping me with resources. Starting my IPI certification has opened many new doors, plus given me fifty-three new networking resources to learn from.”

The importance of work experience was a common theme as well. S21 provided the following insights:

“I think what has built my experience was gaining knowledge in all aspects of institutional transportation. I haven’t gained too much knowledge on the municipal side of things, but I have taken classes with IPI on those aspects and have networked with professionals in that field.”
S11 relates, “I believe that all of my life’s experiences have helped me to be successful in my current position.” In comparing a career move from one university to another, S6 provides,

“I did find that moving from one college where I started as a clerk and was promoted to administrator over fifteen years to another university where I came in as director opened up a whole new level. I was viewed as an expert in my field rather than the nice young kid who grew up here.”

The Interviews

The in-depth interviews with the higher-level managers served to provide stories of their career experiences including career paths and challenges. These stories were analyzed individually and then compared and contrasted against each other. The majority of stories were similar in some aspects; however there were contradictions as well. These contradictions are just as important as the similarities. After analyzing the data from several perspectives, the following three themes emerged in relationship to these managers and their career paths and professional challenges.

“Climbing the Ladder”

This theme, entitled “Climbing the Ladder” which was the most prominent among the women interviewed, was also the most surprising to me. When I first began this study, I assumed that these women managers would have come to their current, higher-level management position with the university via a variety of previous work experiences outside of the university environment. In the case of these twelve women, this did not hold true.

“Climbing the Ladder” refers to career advancement either within the same department, within the same career field, or starting the climb outside of the university arena. Six of the twelve interview participants moved up through the ranks within the
university transportation organization. In some cases, this includes police departments due to their connections with many university transportation departments. Participant I1 related,

“When I came to the university, I was a student employee in the parking department working towards a four-year degree in Business Administration. Here we are twenty-four years later and I am running a business.”

Participant I2 relates,

“Transportation was never my chosen career field, I fell into it. I was getting married and needed a full-time job. I was going to college. My mother-in-law knew someone in the parking office at the [major university]. I was hired on as a clerk and fell into it, rising through the ranks.”

Participant I11 provided the following information regarding her career path;

“I spent my entire career, even my job as a student employee in this department...in this field. My career is pretty straight and narrow. I started out as a bus driver, loved the department, loved the people, loved what we were doing, and loved the students.”

Several incentives were mentioned in regards to the participant’s motivation for “Climbing the Ladder.” Three of the interview participants identified transportation as their original career goals in college and opted to pursue those goals in the university transportation realm. One of those participants, Participant I6, shared her story; “I took Transportation Logistics in college. I worked for a professor in Transportation Logistics. He got me interested in the whole field of moving product, moving people.” Participant had a degree and background in Urban and Regional planning. She relates that “my first internship out of school was in the [city] as a transportation intern... From that path, I always stayed in it, since I liked it – Transportation planning, the engineering side.” The third participant, I7, stated that transportation was always her chosen career field – “transportation in the global end of things, not the parking end.” She further explained
that she “started out in freight management. Then, I was in parking management for a
[university]. I worked for the management company where the university liked the
company and liked their management style...”

As mentioned previously, half of the participants accepted entry-level positions in
transportation departments early in their careers, and remained in the department, rising
through the ranks. Participant I11 identifies her career path as follows:

“When I first came back to the department in the late eighties, I held a series of
administrative leadership jobs from painting parking lots to working events,
how to respond to event parking, permit operations, enforcement, appeals,
garage operations, all over the course of twelve to thirteen years.”

For two participants, the move to the university transportation department was the
result of a career change. Participant I3 reveals,

“I actually came to the [major university] to do graduate work – a mid-life
career change. I was attending graduate school in counseling psychology.
I needed a job and I was hired to work the counter in the parking office.
... By the time I had finished my graduate work, I had been promoted
twice. For awhile I worked part-time in the evenings in a counseling center.
Another promotional opportunity came up, to be assistant director. I took
that and then the director left ... and that’s when I decided to seek that
position. I went from the parking counter to director.”

Participant I12 shares her story:

“I never worked in parking before. I was working as a family therapist,
I had a degree in psychology and I wanted to get out of it. I was fried
and wanted to work for the state, with the university, so I put in an
application. That’s when they (the university) started sending the
job vacancies.”

One participant cited financial incentive and stability as the attraction to a position
in the university’s transportation department. “I started down the path of parking because
of money. I started in the airport as a parking manager and was hired away from them to
work in the university in a manager role in parking. I was then the interim director and
then became director. I guess transportation was an opportunity to manage.” She also stated that “when the (university) position opened up, it was interesting to me. The airport was always exciting. I felt it (the university position) was a pretty solid career. People weren’t going to stop using transportation.”

Regardless of the attraction or reason for accepting a position with a major university transportation department, all interview participants remained to “climb the ladder.”

“Experience is the Key”

A second theme that arose from the in-depth interviews and resulting discussions is entitled “Experience is the Key”. During the interviews, we discussed work experience, training and education as it pertains to the managers’ career paths and current positions. In all but one of the cases, work experience took the primary role in preparing the participants for their positions as high-level managers. This experience ranged from work experiences internal to the transportation department, work experiences external to the university position, to personal life experiences.

Participant I1 shared how the experiences she gained from “climbing the ladder” put her in a position to advance.

“\textquote{T}he experiences I gained from \textquote{climbing the ladder} put me in a position to advance. I started as the front office clerk, and then became the accountant. Then I became the office manager while it was under the police. I was the secretary to the Chief of Police, then parking manager and dispatch coordinator. When they (the department) decided to separate parking and police, the administration asked if I wanted to go with police or parking. They gave me a year shot at it with a temporary increase. They were happy. By the time I was twenty-two, I was acting director and then at twenty-three, the director.”

Experience outside of the university is exemplified by Participant I3’s story taken from previous work experience as a classroom teacher. She relates,
“There is very little in terms of management that you don’t exercise in a classroom. I taught high school. Much of your effort is in managing the classroom as well as managing the educational opportunities in the students. I think in that regard, while it was not formal management training, it prepared me to deal with a variety of issues to deal with differing personalities, differing objectives.”

Participant I6 reveals how both student employment and external work experience played a part in reaching her current higher-level position.

“I went to work for [major company] for a couple of years. ...If I can move cake mix and flour, I can move people. The [fast food restaurant] job (as a student) helped me to deal with angry people. It’s the same kind of people.”

Participant I11 summed it up when she stated,

“It’s totally all about my previous work experience since it did round out my candidacy when I was candidate for director. I think I would have been a good candidate anywhere to be a director.”

In the case of Participant I5, it was not any previous work that helped prepare her for a career in transportation but rather life’s lessons learned as the middle daughter in a military family.

“I didn’t have anything really to prepare me.... Moving a lot in the military and having to fit in with different groups of people. My parents decided we could go to Catholic school, not the army school, which was really tough. It makes you a little better at adapting.”

Participant I4 attributes her ability to deal with the challenges in her position more to training than to previous work experiences.

“I grew with the department. [University] prides itself on training. [University] has an excellent program on supervision and leadership. The training has been a huge thing. I can’t say enough about it....Our department, because of training, has had multiple people leave to be directors elsewhere.”

The politics of a university transportation department, particularly when it comes to the parking side of transportation, were echoed by eight of the participants as a
difficult component of the position. How to handle the political aspect of a university environment is not easily taught in training but rather through direct experience. While some participants did not mind the politics of the job, others would rather stay in their current position than advance into an administrative position because of the increased need to deal with the political rather than operational aspects of their jobs. Participant I2 stated, “I don’t mind the politics; I enjoy it sometimes, at a certain level.” Participant I6 discusses her frustration with the politics of a university and how she and her supervisor create a balance in that role:

“The only thing that I get frustrated with is our administration, not our boss. We work as partners. We have a great relationship. We can talk. Above her it gets fuzzy. Sometimes it’s hard and you get to the point where you have to pick your battles. I am ready to fight all of the time. She (the supervisor) says that we need to think this through. I am still learning. It’s a balance. I like doing operations and she is more about the policy. We compliment each other very well.”

Participant I7 equates her previous work experience and her ability to deal with the politics as key to succeeding in the position.

“Through default, if I wanted to succeed at my job, I needed to take the initiative; do what needed to be done. All of those jobs (previous work experience) built up to a point where I am comfortable doing the job and doing new things and ready to take on the politics with the job. Parking is not a popular world and most people want to stay out of it.”

A balance between the transportation operation and the politics of the people involved is one of the greatest challenges of the position. Participant I8 shared “How do you balance the politics? It’s always a challenge.” She continued by stating,

“I remember a quote. There are two things that you never mess with: a person’s pay check or their parking space. ...Probably my biggest ongoing challenge is to be able to say to somebody, ‘Yes, you are an extremely important person who does wonders for the campus and the community but you still cannot park next to your building.’”
In the case of Participant I9, she found a difference between public versus private university environments when she accepted a position at a private institution. “I learned a different kind of thing at [university], not professional more political. That was a valuable lesson since I am not a political animal.” Participant I12 summarizes the political component as follows, “It’s the trickiest part of being at a university. The politics make or break you.”

Managing people is another area of this higher-level position that is learned more through experience than through training. Participant I2 states, “Probably the biggest challenge is managing the people.” Personnel management in terms of this position is two-fold. There is the management of the departmental staff and then there is the management of the needs of the university population utilizing the transportation services. Participant I2 proceeded by saying that in terms of her staff, “They work in remote settings, often by themselves. The biggest challenge is making them feel valued, informed, etc.” In terms of managing the needs of the customers, she relates, “When I moved here, my assistant said, “Where do you spend most of your time? I responded that 80% to 90% of the time is the people – faculty, staff, students. If you don’t have people skills and don’t like people; you can’t work in this environment.”

Participant 8 also expressed the challenges of the staff. She shared, “I think the most challenging part is the staff. Things come up that, honestly, I could have looked at a year ago and said that I never thought I’d be dealing with something like this. I have been challenged with weird situations. It was interesting. You have to look at it as I love being around people and it’s a people job.”
“Support of the Administration”

The third theme identified by the interview participants revolves around support of the administration. This term is defined broadly in this sense ranging from the support or lack of support from a direct manager to the support or lack of support of the university administration. It encompasses areas such as decision-making, training, resources, and professional development.

Seven of the twelve managers interviewed identified issues related to a lack of support by their administration. In one interview, the participant relates that although through her years of experience and work with the university she has gained the support of the administration, there still remains an overarching issue. Participant I3 stated,

“I have to tell you that it remains a challenge being a women administrator on a university campus. Another challenge is advancement. You get to the executive officer level at our campus and there are only two out of twenty at my level. It is a little bit better but still not outstanding.”

Participant I7 talked about her experience in not just the university setting, but in the field of business as well.

“Probably the biggest thing about being a woman in business is the typical thing that you run into such as the roadblocks or lack of support from male management and stuff. ...You learn to deal with it and manage those people or manage around those people. I think that it’s a lot less than what it was. I also think it’s a cultural issue where some people just aren’t with it and refuse to get on board.”

Participant I12 shared similar experiences by stating,

“There are always obstacles and barriers. Being a woman, still to some degree, impacts one’s ability to get ahead or get common respect like the guys do. The guys get it whether they deserve it or not. We (female managers) need to work for it. We need to be a little faster, smarter, more intuitive, and more creative. It’s a barrier that will always be there.”
Participant I10 had a similar story regarding lack of support without the gender differences. She identified one of her challenging experiences as follows:

“My biggest challenge was upsetting since I had worked with my supervisor for three years and she was my mentor. It was time for us to move on. I saw it. The director saw it and she (her supervisor) didn’t see it. ... The one thing was that the supervisor didn’t think was that a woman should be in the new position that I was applying for and she was a woman.”

Only four of the twelve participants identified gender inequity as an issue related to support of the administration. Participant I9 identified additional issues related to support of the administration to include weak management, lack of support in decision-making, providing necessary resources, and access to needed information in order to be successful in her job.

“The challenges started nine months into the job. It stemmed from if you don’t have the administration backing you and if you don’t have the ability to sell your program, and if you don’t have access either. I didn’t have access. There was a filter between me and him (administrator). ...The turning point was this is not getting any better. You are not being heard any better. Staff turned on each other and on me. No leadership. I didn’t look like a leader.”

Eleven of the twelve interviewees expressed that, in their current positions, their administration supported their decisions, training opportunities, and participation in professional organizations for career development. Participant I12 shares her experience as follows:

“I could probably count on the fingers of one hand the number of times that the university administrator made a decision about parking or transportation that they did not first consult me. I am a very fortunate person. ...I talk to too many of my colleagues who were the last to know.”

Participant I7 identifies her university and its administration as a “very open environment” and “very supportive and direct”. Participant I10 states, “The biggest thing is that I feel like they trust my judgment; my decisions.” Participant I11 states that “All
along my bosses and my colleagues have all been supportive of my development of skill sets.” The importance of trust from the administration is highlighted by participant I10 as she shares the following,

“Probably the biggest thing is that I feel like they trust my judgment, my decisions. Mostly, unless it is something huge, I sometimes don’t see my boss for a week. We are at different locations. We might chat on the phone or emails. Probably the element of trust, if I need help I have support, very supportive.”

In terms of providing support through training opportunities, participant 8 explains her variety of experiences.

“Yes, with my newest boss, he has been very positive in helping me with training pieces. My old boss didn’t believe in it (training) so I did it against his will. He felt it was a waste of time and money. I still did it since I felt it was important.”

Participant 12 explains her position on the importance of supporting training for her employees.

“I get people to training that they want to go to – IPI, NPA. I am trying to get everyone out there so that they feel that they are important and learn they are not alone. I appreciate that the administration allows this opportunity.”

Support by the administration by allowing the departments flexibility in their management and operation was explained by Participant I4. Her university allows the department to move staff among various positions in order to find the best fit that will help the employee to be his or her most productive. “If a position opens up somewhere else, we can waiver that person in as long as they are doing an acceptable job and there are no disciplinary actions. We don’t have to hire from the public.” Participant I6 described the same type of flexibility at her university.

“The other thing that happens is if you’re not happy in something you are doing, we can find a way to move you into it. Use your strengths. All of those years in transit were fine but I wasn’t getting anywhere. The guy in
events parking left and I came to life and it’s been that way ever since. I am a much better person for it.”

Additional Information from the Interviews

At the end of each interview, I provided each participant the opportunity to provide any additional information that they felt would be important to note in terms of their career paths, educational background, or any professional challenges. The participants provided a variety of responses related to the attractiveness of university or college transportation departments as a career path particularly for women in the workforce and the importance and need for mentors, to name a few.

Several participants discussed how the industry has changed in regards to women.

“For women in transit, I think it’s getting easier. IPI twenty years ago, there were three skirts and the rest were business suits. Boy was that uncomfortable. It’s not that way anymore. I think women make really good managers, have a little more touchy-feely than men do. Just to care about people.” (Participant I2)

Participant I4 explained, “Definitely in parking there is an opportunity. Excellent environment for women in parking and transportation. Our whole management team has been women. My director is a woman.” Participant I6 added to these comments by stating,

“I think that now is a great time to be in transportation. Look at all the women who are here (IPI Conference). Everyone you talk to, most schools, are represented by a woman. It’s amazing the change, how far we’ve come. Transit is in between. I think things like this (the conference) get us out and talking to people and it is very helpful.”

The idea of the parking and transportation industry being open to women was expanded on by Participant I12 as well,

“Women play an important part. Women are a vital part. They play a really good part to help with changes and moving ahead. The transit industry is becoming more women. Fleet is still a man’s world. Parking is more women. There
are a lot of male directors. It’s starting to go the other way. I think women are capable. I don’t have kids, just two puppies and 30,000 children. I think we provide an education for the students just as professors and parents do. I love watching it, I love it.”

The importance of having a mentor was another recurring topic in the responses to this final interview question. Participant I3 stated, “One thing is that a person can benefit greatly from having a mentor or two. They don’t have to be a mentor in your field. ...A mentorship program would be good.” Participant I7 stated her comment succinctly, “Learn from the people that are good. You work with them and use them as mentors and run with it.” Participant I8 reflects on her career path and the absence of a mentor,

“One of the things that I never had, that I wish that I had, was a mentor. I can look back on my career, and I never really had one. I never had any one person say, “Wow! If my life could have ended up like their life. No one to model myself after. To see how they made it through. ...To be able to learn from veterans, people who have been in the industry for a length of time and partner them with people who haven’t been in the industry very long. It’s great to know how people long ago funded their garages or what worked and what didn’t. I have ten garages. I’ve tweaked it a little to make it better. Why have them face those challenges when I can help them. I think that is the weakest part of the industry – male or female, it doesn’t matter. A mentor for new people in the industry to look up to those that have been there for awhile.”

Some participants looked at the industry in broader terms. “The first and foremost thing is you got to have a passion for this. You have to want to do this” (Participant I9).

Participant I7 points out the industry’s constant evolution by sharing the following:

“I think it’s one of those careers that what I like is that there are so many things you can do in the industry. It’s not routine. So, if you want to go into it, you must have the mindset that you will have the knowledge of a lot of things. You will have to master a lot of things. You have to have the wherewithal. You have to operate on your own, dealing with the negative things. You have to have a strong backbone and withstand it. Stand up for yourself. ...You have to have broad shoulders in this industry and be able to take on challenges. If they (future employees) are timid, it will be a tough industry to survive in.”
Participant I11 shares her experiences about the changing industry as well.

“It’s constantly changing so that even when I built on my skills five years ago, which was event management, customer service and stuff like that... you have to keep moving forward since it’s now completely different. It’s now all about reducing parking demand. It’s all about sustainability now. Two years ago that wasn’t even a consideration. Two years ago, it was about how many parking permits you can sell. Now it’s, “What’s up with all of these cars?” It’s really different. It’s not a once and done thing. You can’t prepare yourself and say, “Whew, I made it.”

Focus Group Discussion

A focus group discussion involving five participants from the survey group was used to verify the themes and information previously presented. The participants of the focus group were asked to discuss their feelings about the resulting themes and categories related to the career paths and professional challenges of women managers in university and college transportation departments. They were asked to discuss whether or not the themes resonated with them in terms of their experiences. Did any of the themes or corresponding categories stand out to them or seem surprising? They were also asked to identify if there were any gaps in the information provided. Is anything missing in terms of their experiences?. It is important to note that one of the participants requested that her comments not be published; therefore I will quote only from four of the five participants.

The focus group was conducted via the internet through the use of an Adobe Connect meeting room. Power point slides identifying the three themes and the associated categories within the themes were exhibited in the meeting room for discussion purposes. When reviewing the themes with the focus group participants, if they were all in agreement with the categories within the themes, there was very little
additional discussion other than to say that they agree. The discussion of the first theme, "Climbing the Ladder," revealed no surprises to the focus group participants. Four of the five participants stated that their experiences identified with the concept that most women managers in transportation started in lower-level positions and advanced through the ranks. FG3 stated, “I also think that we raise our own within our organizations.” FG4 presented a different view, “Most of the managers who work for me did not plan to be in transportation. Of my three associate directors, two moved to transportation from other university departments and one was hired from the outside with a business background.”

Educational background was one of the categories listed under the “Climbing the Ladder” theme. All participants agreed that although in the past bachelor’s or master’s degrees were not necessarily required to obtain a management position in the university and college transportation departments, most universities and colleges have moved to such a requirement. FG4 related, “One of my associate directors does not have a four year degree but she started thirty years ago. Now, at least a Bachelor of Arts would be needed, and my other two associate directors and I have Master’s degrees.” FG3 shared that “Twenty-six years ago, when I got started, no degree was required. When I retire, a Master’s will probably be required.” Although degrees may be required, FG1 stated her opinion from her experiences by stating, “Once you are in an organization, it is all about experience. The education helps you get in the door.” FG5 agreed by stating, “Transportation and parking requires a unique individual, and education isn’t always a major factor. I’m a firm believer in education; and I don’t think we should discount it. I just think experience should be considered as well.”

These comments helped to confirm the results of the analysis related to educational experience.
The individuals in the focus group were quick to identify with the politics of the job. This was one of the stronger categories within the third theme, “Support of the Administration.” The concept of “politics” in the job intermingled with the need for the woman manager to be assertive on many occasions is contradictory. FG4 shared that “You need to be assertive enough to make things happen and overcome obstacles, but it is very important to be politically astute.” FG1 added, “Learning to be assertive without rubbing people the wrong way (the political side of the business) is a critical factor.” FG5 explains it by stating,

“Assertive women are often called a b*tch. Not fair, but it’s how we’re viewed. I’ve accepted that label, and don’t view it as a negative thing anymore. I suppose it means I’m doing my job correctly.”

In discussions about specific challenges, most agreed that the politics of the job were difficult. There were varying opinions about the priority of other challenges. Personnel management and customer service issues were identified as priority issues and equally as challenging.

In terms of support, the focus group participants voiced the concerns and sometimes frustrations of the interview participants. FG4 stated, “Internal Public Relations (within the university) is critical. You need to lay the ground-work for the support you need and provide the administration with the policy arguments to take up the ladder for you.” Four of the five participants shared that their administration was supportive of their work. One participant did add a disclaimer to her support response with the following,

“I feel we are supported by upper administration to a degree. We are supported as we are. However, in order for us to experience growth, there needs to be change, and we’re faced with an administration who is afraid of the change that’s necessary to move forward.”
Theses concept all fall in line with the results of my survey and interview analysis.

The group provided additional input on the idea of gender inequities in the industry. FG4 brought up an interesting point when she stated,

“I think there is somewhat of a glass ceiling, however, it is compounded by the image of “Parking.” My colleagues in the university system at other campuses who were all male have encountered some difficulties moving to other areas and expanding responsibility.”

This was a new concept that had not been brought up in either the surveys or the interviews: The idea that it is not necessarily gender that impacts advancement potential but the idea that the person, male or female, comes from the “parking” industry. In contrast, however, FG5 shared her opinion by stating, “I think women have to climb the ladder more so than men. Women tend to have to prove themselves. Where men are given more of a chance with simply a degree.” FG1 added her take on the situation.

“Some females start with a chip on their shoulder – they expect to be treated poorly and they create their own reality. We need to develop strong female leaders who can lead others along the path.” This statement led the participants to a discussion about ways in which to develop strong female leaders. These were ideas that had not been discussed by the survey or interview participants. FG4 identified a “Women in Transportation” organization at her location that provides good networking and scholarships for young women. FG3 has approached IPI about providing a reduced rate for students to attend IPI conferences in order to expose students to the industry. She also shared, “We have a graduate position in our department with Civil Engineering. We have graduated at least six Master’s students that interned with us.” FG1 stated that they have had Urban Planner interns.
One participant identified a challenge in a different light than had been brought up previously. When asked whether or not she had a mentor during her career, she responded,

“No, not really. My drive came from my desire to excel and surpass the label that the women in my family had assumed over the years. Women in my family were taught to be mothers and nothing else. We weren’t supposed to do anything else and I was determined to break the tradition. I AM a mother; but I can have a career too.” (FG5)

This sharing of personal experience by the focus group participant falls in line with the categories falling under the “Experience is the Key” theme. There were several participants in the survey and interviews that identified their personal experiences as playing a key role in their career advancement.

All of the previous information leads to the next segment of this chapter which relates the findings of the analysis to the study’s research questions.

*Results for Research Question 1*

**Q1. What are the similarities and differences in the demographics of women in management positions in major university and college transportation departments to include age, marital status, the existence of children in the household, educational level, type of degree, and previous work experiences?**

Survey questions 1-5 were the predominant means of obtaining demographic information from the women managers working in low, middle, and high level management positions in university and college transportation departments with a student enrollment of 20,000 or higher. One question, question 12, from the in-depth interviews also provided pertinent information related to previous work experiences (see Table 3).
Earlier in this chapter, I reported the results from the demographic portion of the survey. In terms of age, the data revealed that all of the women managers surveyed were older than thirty-one years old. Women in the age group of thirty-one to forty comprised 12% of those surveyed. Just over half were over the age of forty-one years old. Thirty percent of the women were between the ages of fifty-one and sixty and two women, equating to 6%, were sixty and over.

The similarities and differences among the age demographics are quite obvious. The numbers reflect a total lack of young women, under the age of thirty, in the management positions of the larger university and college transportation departments in the sample. Based on the higher percentages among the women managers who are forty-one years old and above, the numbers reflect that the near future will provide available entry-level management positions and advancement opportunities for young women, or men for that matter, choosing to enter this career field.

In terms of marital status, the majority of women managers at 75.8% were married. The differences lay in the 6.1% percent of single women and 18.2% divorced. Due to the ages of the respondents and lack of women under thirty, it is not surprising that the majority were married rather than single. The difference among those women who had children residing at home and those who did not was about 15%. Forty-two percent of the women still cared for children in their home while fifty-seven percent did not.

Over half of the women managers had completed either four years of college or obtained a Bachelor's degree. There were many differences among the degree majors pursued or obtained. The most common major, however, was that of business numbering
six of the seventeen majors identified. As I mentioned earlier in the chapter, only two of the seventeen degree holders, actually possessed a degree in the area of transportation. Probably not so surprising, based on the age range of the participants, was the fact that four of the women managers reported a high school diploma or GED as their highest level of educational attainment. Twenty-one percent of the thirty-three participants possessed a Master’s degree. The topic of education was discussed during the interviews and the focus group discussion. Several of the higher-level women managers related that although their positions did not require graduate degrees when they entered the field, they knew that when they left the job descriptions would be changed to require a Master’s degree. Specific areas of study were not identified, just the need for a graduate degree.

Information related to previous work experiences was gained through the twelve in-depth interviews focusing primarily on Question 12. Five of the women interviewed identified that their previous work experience occurred in the transportation field. Four women explained that because they entered the field at an early age, in most cases, right out of college or during college, they had basically no real previous work experiences. Of course, there were those women, three of those interviewed, who began their careers in other fields, for example teaching, psychology, and financial management.

Results for Research Question 2

Q2. Based on Karaevli and Hall’s theoretical model of career variety and managerial adaptability, what are the previous work experiences prior to the management position in the transportation department?

The Karaevli and Hall model identifies managerial career variety as directly influencing managerial adaptability. In responding to the results for this question, I
focused on the twelve interview participants and their previous work experiences. The women managers in this study all hold director, associate director or assistant director positions in the university and college transportation departments. The director level is the highest management level within these university and college transportation departments. The following table outlines each interview participant’s previous work experience in broad terms. This outline is provided to reflect the existence or non-existence of career variety in the work history of these women managers and how that information relates to Karaevli and Hall’s theory on managerial adaptability.

Table 4
Career Variety of Interview Participants

<table>
<thead>
<tr>
<th>Participants</th>
<th>Work Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>University</td>
</tr>
<tr>
<td></td>
<td>Transportation 1</td>
</tr>
<tr>
<td></td>
<td>Internal advancement to Director</td>
</tr>
<tr>
<td>I2</td>
<td>University University</td>
</tr>
<tr>
<td></td>
<td>Transportation 1 Transportation 2</td>
</tr>
<tr>
<td></td>
<td>Internal advancement to Director</td>
</tr>
<tr>
<td>I3</td>
<td>Secondary Education Counseling University</td>
</tr>
<tr>
<td></td>
<td>Transportation 1</td>
</tr>
<tr>
<td></td>
<td>Internal advancement to Director</td>
</tr>
<tr>
<td>I4</td>
<td>University Consulting University</td>
</tr>
<tr>
<td></td>
<td>Transportation 1 Transportation 2</td>
</tr>
<tr>
<td></td>
<td>Internal advancement to Associate Director</td>
</tr>
<tr>
<td>I5</td>
<td>University</td>
</tr>
<tr>
<td></td>
<td>Transportation 1</td>
</tr>
<tr>
<td></td>
<td>Internal advancement to Director</td>
</tr>
</tbody>
</table>
In their theory on how managerial learning and adaptability develop from career variety, Karaevli and Hall (2006) “propose that individuals who have a high variety of career experiences develop certain behavioral, cognitive, and socio-emotional competencies and these competencies help them to adapt to new environmental circumstances without lengthy training or socialization periods” (p. 360). They have
provided a framework stated as propositions to help explain each component of the theory.

Proposition 1: Adaptive performance, effective learning, transfer ability, self-awareness, and socio-emotional competence are critical dimensions of managerial adaptability.

In addressing Proposition 1, Karaevli and Hall (2006) provide the following:

“They identified the critical dimensions of adaptive performance as “handling emergencies, or crisis situations, handling work stress, solving problems creatively, dealing with uncertain and unpredictable work situations, learning work tasks, technologies and procedures, demonstrating interpersonal adaptability, demonstrating cultural adaptability, demonstrating physically oriented adaptability” (p. 361).

Since university and college transportation departments house the university or college’s parking operation, anyone who has ever worked on a campus can understand how the above dimensions would be applied on a daily basis to the parking industry whether it is complaints about parking tickets, location of parking space, issues related to towing, booting, or parking meter issues, just to name a few. Participant I9 identified her duties when she became director by stating, “With my education, skills, experience, one thing I saw that was missing from the department was being extroverted and being out in front taking the heat and defusing it or bringing back the information that they needed to do a better job.” Participant I3 shared her experiences that reflect the dimensions of Proposition 1.

“As I accepted each new job, I approached them as challenges. I’ve always had a couple of things that, to me, are important in any job: Embrace new things; Never let your boss be surprised by something you knew about and don’t be afraid to initiate change. I thing I learned those things through the progression of jobs I had.”

Each of the twelve participants identified the need for the critical dimensions of managerial adaptability in one form or another. In discussing her move to the director
position, I7 stated, “Through default, if I wanted to succeed at my job, I needed to take
the initiative. Do what needed to be done.”

Proposition 2a: Career variety is associated positively with a manager’s adaptive
performance.

Proposition 2b: Career variety is associate positively with a manager’s ability to
transfer previous learning to novel tasks effectively.

Career variety which we have defined as the diversity of role-related experiences
accumulated over time is categorized into “functional area” and “institutional context”
(Karaevli and Hall, 2006, p.363). Table 4 shows that eight of the twelve interview
participants had some external work experience outside of the university or college
transportation department but the variety was minimal. In most cases, the majority of the
participants’ work experience has been within the university or college transportation
realm. In light of this information, in terms of experience in different functional
domains, the women managers interviewed did not reflect a wide variety of diversity in
their experiences. However, when evaluating the contextual knowledge defined as “local
knowledge at the job, organization, and industry level”, their career experiences are rich.

In all cases, these women managers held more than one position within the
transportation department and in several cases; they started as a receptionist or parking
counter attendant and worked their way up the ladder. Participant I2 exhibits this by
relating, “(I) started as a clerk, moved up to chief clerk, finally manager, then
administrator over both parking and transit.” Participant I5 shared a similar story,

“I was the receptionist dispatcher of parking for a year, then secretary.
I worked as administrative assistant, then working title of assistant director
four years after I started. The (previous director) left and then I was put
into (director) position.”
I’ve identified that the data reveals that the predominance of the women managers experience is related to university and college transportation departments. Karaevli and Hall (2006) state that “there are disadvantages associated with becoming specialized” (p. 364). They expand on this by stating that

“If a person spends his or her career in one specialized area or function, it is harder to adapt to a new specialty, new functional area, or new technology, due to a phenomenon known as “career routine” (Karaevli and Hall, 2006, p. 364).

*Proposition 2c: Career variety is associated positively with a manager’s self-awareness and understanding of developmental needs and values.*

*Proposition 2d: Career variety is associated positively with a manager’s socio-emotional competence.*

The experiences from career variety also are identified as promoting the development of new kinds of self-awareness and a type of identity change caused by the new connections or relationships that the manager encounters (Karaevli & Hall, 2006). Participant I2 relates that she learned through her “life’s experiences, fifteen years of work experience, and through the school of hard knocks.” Karaevli and Hall (2006) state that “in time, through trial and error, the person will learn to behave in new ways, and these new behaviors will lead the person to see herself in new ways” (p. 365). Participant I7 revealed her initial management experiences. She began by stating,

“Management is still a male-dominated world. I was a manager at [university], running on my own, sink or swim. It was tough when I did it, but I learned a lot doing it. It built up my confidence. “

Although I used only two quotes, all of the stories from the women managers revealed that each of the women felt the need to delve into new territory, initiate change,
learn on their own, in order to keep up with the rapidly changing industry and be successful in their careers.

*Proposition 3: The greater the magnitude of career transitions, the greater is the positive association between career variety and managerial adaptability.*

The results from this study do not provide evidence of this proposition. As I mentioned previously, as is exhibited by Table 4, the majority of the women managers interviewed did not have a great variety of career experiences and those that do have previous experiences in their past, have been in the transportation industry for the majority of their work years. Of course, several of the managers possess career variety within the transportation industry but minimal external career experiences.

“Stretch assignments”, or out-of-comfort zone stretch targets, have been found to enhance motivation, performance, and creative decision-making” (Karaevli & Hall, 2006, p. 9). Participant I1 stated,

“I have tried to be over more, like fleet service. I’ve never had success in running more. I run a good operation. It works like clockwork. I’d like to take on more responsibility. I never have the opportunity to break out of parking and transportation and add to it.”

Karaevli and Hall (2006) further explain that “unrelated variety in career experiences may also improve learning by giving the individual a chance to take some time off from his core job and reflect on what he has learned” (p. 367).

*Proposition 4: The positive association between career variety and managerial adaptability is greater if the pace of career transitions is optimized. (An optimized pace is defined as one that permits a balance between job assignments that are long enough to permit the learning of the knowledge, competencies, and perspectives associated with the
role, yet assignment transitions that are frequent enough to require the individual to learn the skills of change and to become comfortable with the change.)

In terms of previous external work experience, those managers possessing prior external work experience held such positions long enough to learn the knowledge, competencies and perspectives. My discussions about the pacing of career experiences internal to the department were not specific enough in terms of time in each position, to provide results. Each manager identified the various positions that she held within the department. In some cases, the manager advanced from one level to the next. In several cases, the women advanced through numerous positions starting with secretary until reaching the higher management level. Karaevli and Hall (2006) state that “experience that comes too fast can overwhelm managers and lead to an inability to transform an experience into a meaningful learning but on the other had; an infrequent experience can lead managers to forget what was learned previously and may result in little knowledge accumulation” (p. 368). These women managers, regardless of the pace of transition through the various internal positions in advancing to the director level, would continue to be involved in every aspect of the operation as the director. As a result, the continued association as the director of the department with each area would provide “refresher course” opportunities to maintain those competencies.

**Proposition 5: Managers who have a greater number of career transitions in their early career have a greater adaptability than those who experience transitions in their mid- or late career stages.**

Eight of the twelve women interviewed, experienced a career transition (defined as external to university or college transportation department) however, I would not
categorize these transitions as occurring in their mid-career stages. These women, however, did accumulate early career experiences outside of the university and college transportation area. None of them, up to this point in their careers, have experienced a transition in the late career stages.

In this proposition, Karaevli and Hall (2006) argue that the advantages of career variety for the development of adaptability will be particularly pronounced when the experiences are acquired early in an individual’s career. This seems to ring true with several of the women managers who did work in external jobs early in their careers. Participant I6 shares her experiences in her first job as an intern.

“When I worked at [major company] in [city], it was a very different place. I was a single girl out of college. It was very hard. I worked in a warehouse. It was my first union job. It had very harsh people. They didn’t behave the way I was accustomed to. They said you will never be successful here. There was nothing more I could do there. I had to get out. ... I didn’t do everything right. I learned from the situations. You just get through it.”

Although not a pleasant experience, I6 relates that she did learn from the experience early in her career. Participant I3 speaks of her early years in teaching, “I think teaching prepared me to change careers and to bring skills even to the entry level positions that caught the attention of my supervisors.”

*Proposition 6: The greater the subjective perceptions of the magnitude of career transitions, the stronger is the positive relationship between career variety and managerial adaptability.*

Karaevli and Hall (2006) refer to the findings of a study of nineteen new managers that found that advancement to managerial levels involves a role identity transformation from a specialist to a generalist and that such a change in identity presented a challenge but at the same time served to provide personal development
opportunities. One particular interview comes to mind in relationship to Proposition 6. Participant I10 related her most upsetting challenge as the time when she made the decision to apply for a management position. “I had worked with her (my supervisor) for three years and she was my mentor. It was time for us to move on. ... (She) did not think a woman should be in that position and she was a woman.” This situation certainly exemplifies a change in subjective perceptions or role identity transformation. She not only had to experience the change personally by advancing but she also had to deal with her role identity’s impact on her co-workers. This, it seems, would be particularly pertinent to those women managers who have remained at the same institution and in the same department throughout the majority of their careers.

Participant I11 shares her story that in many ways relates to change in subjective perceptions or role identity transformations that occur when moving into the higher-level management positions. I11 confided that when she moved into the assistant director and director positions, her “biggest bumps were because of her tendency to trust people too much or thinking that we all see the good in everyone, which is not the case with everyone. There were staff people not doing their jobs but it was getting covered up. I wasn’t addressing it very much. It always kicks you in the butt. I am trying to compensate for that over the years, because it’s a weakness. The weakness is that I don’t have the right balance.”

*Proposition 7: The positive association between career variety and managerial adaptability is greater if an individual has a high tolerance for uncertainty, openness to experience and propensity toward risk-taking, positive attitude, proactive personality, and learning and protean career orientation.*
During the interviews in the survey, I asked the women managers what criteria they believed were required to advance in their organization. The following table identifies the list of criteria that was provided.

Table 5

Criteria for Advancement in University or College Transportation Departments

<table>
<thead>
<tr>
<th>loyalty</th>
<th>goal-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>good track record</td>
<td>educated</td>
</tr>
<tr>
<td>problem solver</td>
<td>customer service oriented</td>
</tr>
<tr>
<td>excellent communicator</td>
<td>fiscally-minded</td>
</tr>
<tr>
<td>consensus builder</td>
<td>well-rounded</td>
</tr>
<tr>
<td>articulate</td>
<td>patience</td>
</tr>
<tr>
<td>positive</td>
<td>diverse</td>
</tr>
<tr>
<td>responsiveness</td>
<td>initiative</td>
</tr>
<tr>
<td>expressiveness</td>
<td>competent</td>
</tr>
<tr>
<td>adaptability</td>
<td>enthusiastic</td>
</tr>
<tr>
<td>strategic-thinking</td>
<td>committed</td>
</tr>
<tr>
<td>stress tolerance</td>
<td>integrity</td>
</tr>
<tr>
<td>organized</td>
<td>empowering</td>
</tr>
<tr>
<td>creative</td>
<td></td>
</tr>
</tbody>
</table>

Karaevli and Hall (2006) identify that “at the individual level, personality factors will affect the person’s inclination to seek out or welcome new assignments that might represent variety” (p. 369). The women managers provided quite an extensive, “laundry list” of criteria that they feel that their university or college looks for in an employee wishing to advance. When compared to Karaevli and Hall’s discussion regarding personality factors, the women managers’ list of necessary criteria for advancement falls in line with a positive association between career variety and managerial adaptability.

**Results for Research Question 3**

Q3. How did career variety play a part in the managerial adaptability, career advancement and success of these women managers in transportation?
Both the survey and interview components of this study, provided information in response to this question. Questions S6, S9, and S11-14 from the survey apply as well as interview questions I1, I2, and I4. Although identified as career variety, this question relates to what I refer to in the study as “previous work experience” and how that work experience impacted their ability to advance to managerial positions successfully. I addressed this question previously in this chapter when I discussed the first two themes resulting from the data analysis: 1) Climbing the Ladder; and 2) Experience is the Key. In all but one instance, the women managers who were interviewed believed that all of their previous work experience provided them with skills and knowledge that would assist them in their ability to manage, as well as advance in their careers. In the one instance, contrary to that belief, the manager relied more heavily on the training provided by the organization due to her minimal previous work experiences.

Question six of the survey queried the women managers on their career advancement desires. Of the managers in lower or mid-level management positions, ten respondents wished to advance to the higher-level or director position. Two of the respondents wished to advance to vice president or vice chancellor positions. Three of the women were either in the initial phases of retirement or moving toward retirement. Only two indicated a desire to move outside of a university setting. One person, out of those who responded by completing the comment box, preferred to stay in her current position. On the basis of the information provided, there seemed to be little desire to pursue career variety outside of their current functional areas.

In regard to support provided by the organization to assist the managers with their potential success, all respondents indicated that their organizations were willing to
support training, both internal and external. Over 65% of the respondents on the survey revealed that they had a mentor to assist in their career advancement and that most had selected the mentor on their own. Over 71% of the respondents did not feel a need to change their management style in order to be successful. 21.9% disagreed. Twenty-six of thirty-two respondents stated that being female in a male-dominated industry did not help them to advance in their career. Five were undecided and one strongly agreed that being female had helped to advance her career.

*Results for Research Question 4*

Q4. *What aspects of employment in the university and college transportation departments attracted these women managers?*

The most common reason for being attracted to employment in the university and college transportation departments among those women managers interviewed relied on the fact that they had entered the department and found that advancement opportunities were readily available. Three of the twelve women interviewed had majored in some facet of transportation in college and therefore were attracted to the university and college transportation departments in keeping with their career goals. Two of the twelve fell into transportation departments after making a career change from a career outside of the university and transportation. One of the women managers admitted that the stability and financial incentive (or salary) of the university lured her away from her previous position.

*Results for Research Question 5*

Q5. *What professional challenges have women managers in transportation experienced*
during their careers and how has their previous work experience prepared, or not prepared, them to handle those challenges?

The twelve in-depth interviews revealed a variety of professional challenges that these women managers have experienced during their careers. Four of the interview participants identified being female in the industry as a challenge. Three specified the politics of their position as the most challenging. A lack of the administration’s support, lack of information about the university’s goal or mission, and lack of access to administration were discussed or touched upon by several of the women. The absence of budgetary control of her department’s resources was a difficult challenge for one of the veteran managers. Managing people and the ability to communicate effectively to all customers and administration were equally as challenging.

“Challenges started nine months into the job. It stemmed from if you don’t have the administration backing you and if you don’t have the ability to sell your program, and if you don’t have access either. I didn’t have access. There was a filter between him (supervisor) and me. After the first year, I don’t know what information actually reached him”(Participant I9).

The majority of women managers state that their ability to handle these challenges came from their previous work experience. Four of the twelve identified their personalities as helping them to deal with such issues. Others mentioned training, education, skills, and having a mentor as factors that prepared them to deal with challenging situations.

Chapter Summary

This chapter represents a culmination of the results of the study. The study utilized data from a survey completed by thirty-three women managers from major university transportation departments, twelve-in depth interviews of high-level women
managers, and a focus group comprised of five women managers from the initial survey pool. The survey provided data related to three categories: 1) Demographics; 2) Transportation as a Career; 3) Career Support and Advancement. The information from the interviews served to expound upon the survey categories through the stories that sprang from the career experiences of the twelve interview participants. Three themes arose from the data. The first theme entitled “Climbing the Ladder” referred to the participants’ career advancement starting from their first career experience. It touched upon advancement, work experiences, training, networking, education personality and mentors. The second theme, “Experience is the Key”, delved into the importance and impact that internal and external work experiences had on these women managers’ careers and also the role that their personal life experiences played. The final theme, “Support of the Administration”, emphasized the role that university politics and the support or lack of support by supervisors and administration played in these women managers’ careers. A focus group discussion held via an Adobe Connect meeting room was used to verify the themes. The focus group participants agreed to the validity of the themes and provided additional relevant information related to the career paths and challenges of women in transportation.

This chapter also related the findings of the analysis to the study’s research questions. Demographic information was obtained to include age, marital status, the existence of children in the household, educational level, type of degree and work experiences was provided to help build upon the base of knowledge about women in the transportation industry. The second question was directly related to Karaevli and Hall’s theoretical model of career variety and managerial adaptability by providing data about
the previous work experiences of these women managers. Research question three focused on the relationship between career variety and the women managers’ managerial adaptability, career advancement and success. In the fourth question, the information revealed that the most common reason for these women managers attraction to the university transportation department positions included the advancement opportunities and the stability of the university environment. The final question revealed a variety of professional challenges experienced by these women managers during their careers to include being female in the transportation industry, the politics of their position at the university, a lack of support by the administration and managing personnel who tend to be located at a variety of sites.
CHAPTER 5
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

My selection of the topic for this study stemmed from a recommendation made by the Transportation Research Board's Task Force on Women's Issues in Transportation in 2000 (Transportation Research, 2000). In response to their recommendation, the purpose of the study became an examination of the career paths and professional challenges of women in management positions in major university and college transportation departments. Additionally, Karaevli and Hall's (2006) theoretical model was used to examine the career paths of these women managers and show whether or not managerial adaptability develops from career variety over the span of a person's career. Chapters 1-3 introduced the study topic including the context and conceptual framework that molded the research questions, reviewed related literature, and described the data collection and data analysis processes. In Chapter 4, the study results were presented. This final chapter provides an overview of the study: summarizing the findings, identifying conclusions and their connections with the current literature, and offering recommendations to researchers who may be interested in expanding upon this topic of study.

Study Overview

The purpose of this study was to examine the career paths and professional challenges of women in management positions in major university and college transportation departments. The information obtained through this examination provides useful information for women wishing to pursue a profession in major college or
university transportation departments and adds to the current body of knowledge on transportation as a career. Additionally, the study is based on Karaevli and Hall's (2006) theoretical model that shows how managerial adaptability develops from career variety over the span of a person's career.

The following research questions were designed to obtain necessary information related to the purpose of the study including demographic information on women managers in major university and college transportation departments, their career paths and any professional challenges they may have experienced:

Q1. What are the similarities and differences in the demographics of women in management positions in major university and college transportation departments to include age, marital status, existence of children in the household, educational level, type of degree, and previous work experiences?

Q2. Based on Karaevli and Hall's theoretical model of career variety and managerial adaptability, what were the previous work experiences prior to the management position in the transportation department?

Q3. How did career variety play a part in the managerial adaptability, career advancement and success of these women managers in transportation?

Q4. What aspects of employment in the university and college transportation departments attracted these managers?

Q5. What professional challenges have women managers in transportation experienced during their careers and how has their previous work experience prepared, or not prepared, them to handle those challenges?
Summary of Findings

The summary of findings encapsulates results for each of the research questions. Comments made by the individual participants are identified as direct quotes. The researcher has provided all additional discussion as a summary of the results of the study.

Themes Related to Career Paths and Professional Challenges

The information obtained from the in-depth interviews, the results of the survey, and the focus group discussion culminated in three major themes: 1) Climbing the Ladder; 2) Experience is the Key; and 3) Support of the Administration. The stories from each interview participant, the multiple choice and short answer responses from the thirty-three women surveyed and the topics in the focus group discussion could all be linked to one of the three themes.

"Climbing the Ladder"

The theme entitled, "Climbing the Ladder" was the most prominent among the women interviewed. This theme was surprising to me as the researcher. When I first began this study, I assumed that these women managers would have come to their current, higher-level, management positions by way of a variety of previous work experiences external to their current university environment. This, however, was not the case. Half of the women managers interviewed started in entry-level positions within their organization and moved up through the ranks to their current positions of director, assistant director or associate director. One focus group participant summed it up by stating, "I also think that we raise our own within our organization" (FG3). There were those participants that began their careers outside of the university transportation
department, however, once inside, regardless of the attraction or reason, the participants remained to "climb the ladder."

In terms of education, there was diversity in both the levels of education achieved and the major topics of study. Only three participants identified possession of a transportation degree. Additionally, for that matter, the same number identified transportation as their intended career goal.

"Experience is the Key"

This theme resulted from discussions related to work experience, training and education as it pertains to the managers' career paths and current positions. Experience assumed the dominant role over training in preparing the participants for their positions as high-level managers. The experiences identified were wide-ranging detailing the importance of personal life experiences, work experiences internal to the transportation department, and external work experiences. One focus group participant summarized the discussion by stating,

"Transportation and parking requires a unique individual, and education isn't always a major factor. I'm a firm believer in education; and I don't think we should discount it. I just think experience should be considered as well" (FG5).

Although the focus group participants agreed on the importance of experience, the majority stated that their upgraded job descriptions would require an advanced degree for future directors, associate directors, and assistant directors. This common statement among the upper-level managers contradicted the findings about experience. Although all of the managers support higher education, the majority admitted that education could not replace experience for persons pursuing such a position.
A recurring topic under this theme involved the politics of working for a university and/or working in a university transportation department. Most participants identified politics as the toughest part of their position and in some cases, the need to deal with political issues, kept mid-level managers from advancing to higher-level positions. How to handle the political aspect of a university environment is not easily taught in training but rather through direct experience. "It's the trickiest part of being at a university. The politics make or break you" (I12). Discussions of the “politics of the job” initially began with groans from the interview and focus group participants. All of these managers deal with politics at some level. One example may involve handling a parking complaint from an award-winning faculty member, medical center physician or a high-level donor. The manager must maintain the integrity of the program while at the same time understanding that her actions with these specific individuals could have far-reaching implications to the university.

The process of managing people was identified as two-fold: 1) managing the staff or; 2) managing the needs of the customers which included the university population and visitors to campus all of who utilized the campus' transportation services in one way or another. Again the majority of participants felt that this management process was learned more through experience than through training. Until actually faced with an angry customer or employee, one does not truly know how s/he will respond. Typical training does not provide the emotion and resulting physiological reactions that being in the moment provides. The emotions associated with the angry insults incorporating personal attacks against your character and/or background are hard to mimic in a training module.
"Support of the Administration"

This theme encompasses a broad range of situations from the support or lack of support of a supervisor to the support or lack of support of the university administration. The types of support identified in this study varied from support of the managers’ decision-making to supporting professional development through training opportunities or membership in professional organizations to support by providing the adequate resources needed to be successful in their organization. Almost all participants in the interview and the survey stated that their current administration supported training and professional development. It was in the elements of decision-making and resources that participants reflected differences in the support that they received. Some managers felt less supported when it came to looking for professional development opportunities in terms of growing their department or responsibilities.

It was also in this theme that several participants expressed their opinion that women in university administration, in the business world, and in the transportation industry still experience challenges related to perceived gender inequity. Although most participants did not feel that gender negatively impacted their career paths, the concept of gender inequity was raised several times. Most participants talked of the past and how the parking and transportation industry used to be predominantly male. They all agreed that it has changed immensely. In fact, most participants highlighted that there are probably as many females representing the parking side of the industry than men. Some participants related that gender equity issues still exist but it is based more on specific location than in the overall parking industry. Some universities are seen as being more
equitable than others in terms of gender equity. It has become more of a case-by-case situation rather than an overarching issue.

The following figures depict the connectivity of the previous three themes discussed.

Figure 2. Factors that play a role in the career advancement and success of women managers in major university and college transportation departments.
Figure 3. Factors vital to the managerial success of women managers in major university and college transportation departments.

Figure 4. Support factors required for the career advancement and success of women managers in major university and college transportation departments.
Each figure (see Figures 2, 3 and 4) identifies a set of factors culminating in a central theme that study participants identified as key to career advancement and success. All three figures, although shown separately, play an interconnected role as well. Based on the findings, in order to “Climb the Ladder”, these women managers relied on their “Experience as the Key” and the “Support of their Administration” to advance and be successful in their careers. So, the figures may be viewed in layers. The first layer breaks down each theme and its components. The second layer incorporates the blending of the themes and their shared factors and how the interconnections among the three works together to relate what these women managers believe are the necessary requirements for managerial advancement and success in major university transportation departments.

Summary of Findings Related to Research Question 1

_What are the similarities and difference in the demographics of women in management positions in major university and college transportation departments to include age, marital status, the existence of children in the household, educational level, type of degree, and previous work experience?_

The first question was created to address the need for obtaining more information about women managers in transportation. The women surveyed and interviewed in this study were all over the age of thirty-one years old. The majority of the current women managers were over forty-one years of age. Several participants were in phased retirement or planning to retire within the next year. The similarities and differences among the age demographics were quite obvious. The numbers reflected a total lack of young women, under the age of thirty, in the sample of management positions of the
larger university and college transportation departments. Based on the higher percentages among the women managers forty-one years and older, the potential for available entry-level management positions for young women entering the field and advancement opportunities for those currently in the field should be soon available.

Due to the predominance of women managers over thirty and the lack of women under thirty years of age, it is not surprising that the majority were married rather than single. Approximately 42% of these women still had children residing at home. This number, when compared to the average age of the women in such manager positions, is also not surprising. This study question was based on literature that claimed that women managers had to deal with both a career and a family and as a result, experienced additional challenges in pursuing their careers (Schreiber, 1998; DiNatale & Boraas, 2002). Because of this literature, I, as the researcher, assumed that more of the women managers would have children living at home. For example, I am the director of a transportation department and my child was born when I was thirty-two years of age. He will continue to live in my household for at least another six years. Perhaps the percentage of women managers with children not residing in their home is the result of their age and the changing family structures in the United States.

As related earlier, over half of the women managers possessed a four-year degree. Although there was variation in the degree type, the most common academic major was some type of business degree. Only three of the women managers reported possessing a degree specific to transportation. Four of the women managers reported their highest level of education as high school or GED. Twenty-one percent of the participants possessed a Master's degree. There were no PhDs reported from this sample. Several of
the higher-level managers stated that once they left their director, associate director, or assistant director position, their job descriptions would be rewritten and would require a Master's degree. No major area of study was identified for these future Master's degrees. Based on the information from the interviews, the surveys, and the focus group, I remain unclear as to why a Master’s degree is required for the position. Since the requirement seems to focus only on level and not on specific area of study, I offer that perhaps the degree is required not for industry expertise but for acceptance among the higher education population. One male colleague who completed his Ph.D. while the director of a major university shared that once he acquired the degree he was treated differently by the faculty and administration. They treated him with more respect and would listen to what he had to say.

In terms of previous work experience, with the exception of part-time student positions such as working for fast food restaurants and the like, most of these women managers entered the university transportation departments at entry-level positions and climbed through the ranks to their current management positions. Some of the women managers worked at one or two universities or began in a transportation position in private industry before settling into their current location. Three of the women managers interviewed started in different professions and then moved into university transportation departments where they have remained for most of their professional careers. When I began this study, I assumed that most of the upper-level managers had experienced a variety of past work experiences. As I look back to the beginning of this research process, I believe that I presumed the varied work experiences based on my own career path. My work experiences were as varied as my educational background. Not counting
summer employment as a student, I began my career “search” in the U.S. Army’s Military Police Corps serving as a Military Policeperson and Training Clerk. Work experiences after the Army included a brief stint as a Taco Bell Manager (hardest job ever) and a couple of years as a Psychiatric Technician on the adolescent psychiatric unit of a private hospital. I then worked for the U.S. Army as a civilian employee Relocation Specialist, Crime Prevention Specialist, and Plans Officer. I completed my bachelor’s degree while in the military and my master’s degree while working for the Department of the Army. I then accepted my current position. If nothing else, I find from this research exercise that my prior experience seems to be more the exception than the norm.

Summary of Findings Related to Research Question 2

Based on Karaevli and Hall's theoretical model of career variety and managerial adaptability, what are the previous work experiences prior to the management position in the transportation department?

This research question refers to Karaevli and Hall's (2006) model that identifies managerial career variety as directly influencing managerial adaptability. The findings for these questions are based on a framework comprised of seven propositions about various facets of career variety and managerial learning and adaptability. The information from the twelve in-depth interviews was used to respond to this question. In terms of the career variety of these women managers, half of the women managers had at least one job external to the university transportation department. Three of the twelve managers had worked in more than one career area. Four of the women began their careers in the university transportation department and two began in the transportation industry external to the university environment. These findings reflect a fairly low level
of career variety among these women managers. It is interesting to note that the women managers with the most career variety are those with a transportation background or degree. Career variety is defined as experience occurring outside of their current departments and early in their careers. When evaluated in terms of their contextual knowledge defined as "local knowledge at the job, organization, or industry level," these women managers revealed high internal career variety due to their advancement and work in various positions within the department (Karaevli & Hall, 2006, p.5). These positions equate to specialized knowledge in the industry rather than expanding experience outside of transportation.

Proposition 7 of Karaevli and Hall's (2006) model addresses the effect of personality factors on the person's inclination to seek out or welcome new assignments. The women managers provided a list of criteria that they felt their organizations look for when seeking managers for the department. This long list was representative of the personality factors associated with a positive association between career variety and managerial adaptability (see Table 4). As I compiled the list, I thought that any person who possessed all such characteristics would surely be super-human. Whether this high level of expectation reflects highly on the academic environment or the transportation industry itself, such expectations were voiced by all of the women managers in one way or another.

Summary of Findings Related to Research Question 3

How did career variety play a part in the managerial adaptability, career advancement and success of these women managers in transportation?
Question 3 was used to identify how previous work experience impacted the women managers' ability to successfully advance to managerial positions. All but one of the women managers interviewed identified previous work experience as the main factor that provided the skills and knowledge needed to assist them in their ability to manage and advance in their career. One manager felt that the training provided by the university was the helpful factor. In her case, however, the researcher identified that she was one of the managers who had very little previous work experience and had entered the department right out of college. In this case, it makes sense that she would identify training as the primary factor in her development due to the absence of any relevant work experience.

The managers in lower and mid-level management positions sought advancement opportunities within the department. Two participants in the director positions expressed a desire to advance within the university to Assistant Vice President or Chancellor level positions. Three of the women interviewed were preparing for retirement and one wished to stay where she was. Based on the responses from both the survey and the interview, most seemed content in their current departments. There seemed little desire to pursue career variety outside of their current functional areas. This is an interesting finding that may have been clarified by additional questioning. Is there a reason that most of the managers are content in their current positions or departments? Does this relate to their educational background where perhaps their educational levels do not qualify them for advancement, or could it be related to the position or departmental fit with their home lives? Perhaps it is as simplistic as reflecting the managers desire to remain in a known
environment where the expertise is already in place. In terms of my own experience, the requirements of the position fit well with my life as a single mother.

Summary of Findings Related to Research Question 4

*What aspects of employment in the university and college transportation departments attracted these women managers?*

The most common reason found for why these women managers were attracted to the university and college transportation departments was based on the fact that most of them had entered the department early in their careers and found that advancement opportunities were readily available. Other reasons for being attracted to the university transportation department related to the job stability and financial incentives provided by the university system. Those managers who majored in the area of transportation in college were attracted to the transportation departments in keeping with their initial career goals.

Summary of Findings Related to Research Question 5

*What professional challenges have women managers in transportation experienced during their careers and how has their previous work experience prepared, or not prepared them, to handle those challenges?*

A variety of professional challenges were identified during the twelve in-depth interviews. Being female in a traditionally-male industry was identified as a challenge. Participants also discussed the politics of the university environment. Specifically they identified the parking operation as one of the most challenging issues in the transportation arena. The politics of the industry was also discussed at length during the
focus group discussion. Several individuals stated that a person could not be successful in this position if he or she could not handle the associated politics. Aspects involving the university administration were discussed at length. A lack of support by the administration and access to the administration were identified by the women managers as detrimental to one's advancement success. Communication, whether related to communicating to staff, customers, or the administration, was a major and on-going issue for all of the women managers. This was an area that several felt that they struggle with due to the nature of the department. In the cases of these women managers, they managed staff located outside of the office environment. Most transportation departments have staff distributed throughout campus as bus drivers, meter collectors, kiosk (information booth) attendants, or event parkers, to name a few. In the case of the customers, the customers may be employees of the university, visitors to the university, visitors to medical centers housed on university property, students, prospective students, or donors to the university. This diversity of both staff and customers presents difficulties when attempting to find the best ways to communicate effectively.

The majority of the women identified their previous work experiences as providing them with the skills needed to handle the challenges of their management positions. Others identified certain personality factors such as patience, assertiveness, and the ability to effectively communicate as assisting them in dealing with these challenges.

Information Related to Career Paths and Professional Challenges

Additional information not discussed in relation to the research questions arose from both the survey and interview questions in terms of the career path, professional
challenges and experiences of women managers in transportation. Although the information is not directly related to the research questions, the information is still useful to the study as general knowledge for transportation as a career.

All of the participants indicated that their administration supported professional development through training and membership in professional organizations. All study participants were members of the International Parking Institute. Other associations used for networking and professional development included the Women's Transportation Seminar, the American Public Transit Association, and the universities’ state parking associations. Over ninety-percent of the participants stated that they attended training programs outside of the organization. In-house training was identified by almost 90% and over 55% had pursued a certification program with a professional organization. Half of the participants had also taken academic classes to enhance or pursue their educational level.

The topic of mentors was presented in the survey as well. Over 65% of the participants stated that they had, at some point in their career, had a mentor to assist in their advancement. Most participants related that they had one mentor, followed by 38% who had at least two mentors, and a little more than 14% shared that they had three or more mentors throughout their career. The concept of mentors was discussed on several occasions through the comment boxes in the survey, the interview discussions, and the focus group session. In all of the discussions, these women managers felt that mentors were important and could assist new managers with professional development and career advancement through sharing of experiences, advice, and networking opportunities. Gender of the mentors was not a factor. It did not matter, and the participants were split
fifty-fifty on those that had male versus female mentors. Participants identified the need for a mentorship program for women managers in at least one of the professional organizations. At this time, the International Parking Institute does not have such a program. One participant did identify the mentorship program provided through the Women's Transportation Seminar program as an option; however, very few of the women managers in this study were members of this organization.

Being female in the non-traditional occupation of transportation was a recurring topic in the discussions and survey responses. Most respondents did not feel that their gender had any impact on their career advancement in either a negative or positive way. Also, over 71% of the women managers did not believe that they needed to change their management style in order to be successful in their current positions. There were those respondents that stated that being female in the industry was more difficult in the past.

The industry, particularly in the parking sector, seems to have made the shift from a non-traditional career to one that is more balanced, and in fact, probably tipping the scale toward more females than males in terms of management positions. One participant did share that she observed the gender inequities more in the university administration than in the management levels. She also added the disclaimer that her university administration was working on this but had some way to go to provide balance. An interesting comment was made during the focus group discussion related to this topic. One participant commented,

"I think there is somewhat of a glass ceiling, however, it is compounded by the image of "Parking." My colleagues in the university system at other campuses who were all male have encountered some difficulties moving to other areas and expanding responsibility" (FG4).
Connections to Literature

The results of this study do not support the notion that a “glass ceiling” exists for women managers in major university or college transportation departments (Becker, Ayman, & Korabik, 2002). Such a barrier may, however, exist in the higher, administrative levels of academia based on information obtained from the interviews and focus groups. The career paths of these women managers in transportation departments also negate Denmark’s (1993) concept that women comprise a secondary labor force that inhibits their visibility and mobility for advancement. Additionally, results from the surveys, interviews, and focus groups are not supportive of the concept that females must create management styles in line with the perceptions of their male counterparts on how a female manager should act (Bartol, Martin, & Kromkowski, 2003). The majority of the women managers in this study stated that they did not feel the need to change their management styles in order to be successful in their positions in the non-traditional occupation of transportation. As such, this study also does not support the idea that women must demonstrate competence by acting in a way compatible with the gender norms of the organization (Bartol et al., 2003).

It is important to note that this study did not conduct comparisons between female managers and male managers. The interviews and discussions focused on the experiences and the professional challenges of women only and, as such, are related in the words of the women managers themselves.

Results from this study indicated that most women managers do not feel the need to change their management style in any way to include a style more closely associated with males. These results do not support the three theories identified in the literature that
explained potential gender issues for women managers: 1) Lack of Fit model; 2) Pipeline theory; and 3) Deficit theory (Heilman, 2001). All three models indicated that women may encounter problems with becoming successful managers or advancing in such non-traditional occupations due to pre-conceived, masculine typecasting of such positions. Even though the women managers in this study work in a non-traditional occupation, they did not identify a need to change their management style in order to be successful or to advance in their organizations. The findings did identify, however, the need for the support of the administration in order to be successful managers. This need correlates with the findings of Yoder, Schleicher, and McDonald (1998) who suggest that for token women to be effective as leaders of male-dominated masculine-task groups, they must not only be empowered with position (by being appointed the leader) and expertise through training, but also be legitimated by high-status others.

The study also provided valuable information related to the educational background of these women managers and information about career advancement. The Transportation Research Board (2000) identified a need to obtain such information to help build a body of knowledge about women managers in transportation careers.

On the topic of professional challenges, this study found support for Schreiber's (1998) notion that for women, the roles of work and family occur simultaneously. In the same context, DiNatale & Boraas (2002) identified that statistics reveal that more women are postponing families until completion of their education and success in their careers has been achieved. As a result, these women must balance both career and family. This study supports the findings of both Schreiber and DiNatale and Boraas by revealing that
all of the women managers participating in the study were over thirty-one years of age, over 75% were married, and 42% still had children residing in their households.

The study does not support the concept that women managers in transportation lack networking opportunities as identified by Forret and Dougherty (2004) who considered engaging in networking behaviors as vital for those pursuing career advancement. Almost all of the study participants shared that their organization and university administration supports professional development through membership in professional organizations which includes networking opportunities.

Contribution to Literature

The results of this study serve multiple purposes. First, all of the findings from this study add to a base of knowledge that was minimal at best regarding the demographics, education, work experiences, career paths and professional challenges of women managers in transportation. This information answered the call of the Transportation Research Board’s (2000) “Task Force on Women’s Issues” that identified a need to understand the career paths of female transportation professionals with the objective of noting any connections between educational background and career advancement. Although the call for information came in 2000, this study did not uncover any new data in response to the need.

A second purpose, closely related to the first, was offered by Schachter (2001) and Mason (2003) who highlighted the need to better understand the correlations between the educational background, educational level, professional work experiences and career challenges of women in the transportation arena. Although Mason and Schachter specified the need for this information for state departments of transportation and transit
agencies, the same information applies to all potential transportation employees. The findings of this study provide data that can help agencies and/or departments recruit, train, and retain women managers in transportation.

One of the most significant findings of this study indicated that the majority of the women managers entered the department at entry-level positions, and remained in the department to advance to the higher-level management positions. Even the women, who entered the department at the mid-level or higher-level positions, remained in the department with little desire to change careers. Some of these women managers had started in different careers, but once in the university’s transportation department, they had remained as well. These women attributed the desire to remain in their departments to various reasons from financial stability, to university benefits, to a love of the job. This love of the job was defined in a variety of ways one of which involved the idea that the transportation industry, like many others, is constantly evolving and therefore offering new challenges almost daily. There were others that had no desire to leave their staff or the students whom they serve.

A second important finding related to Karaevli and Hall’s (2006) theoretical model of managerial adaptability and career variety. This study contradicted portions of Karaevli and Hall’s model because most of the women managers had minimal past work experiences outside of the department. However, the results supported other aspects of the same theory because these same women occupied and learned the skills associated with various positions within the department as they advanced into the managerial positions. These findings are also beneficial to those organization or departments
desiring to recruit, train, or retain women in transportation because it is based on the actual career path experiences of proven and successful women managers.

An additional finding relates to the display of the three themes: Climbing the Ladder; Experience is the Key; and Support of the Administration in Figures 2, 3 and 4. Each theme, identified at the center of the figure, is connected to the factors that in various combinations occurred to aid in the advancement and success of these women managers in transportation. The importance of this finding is the applicability of the three themes and factors to the career advancement and success of managers regardless of gender and regardless of occupation. The themes portray a simplistic and yet universal depiction of the requirements for managerial career advancement and success.

The following section identifies recommendations based on the study's findings that may be useful to researchers, university administrations, human resource departments, and women interested in pursuing a career with a university transportation department.

Recommendations

The purpose of this study was to examine the career paths and professional challenges of women in management positions in major university and college transportation departments. Using Karaevli and Hall's theoretical model of career variety and managerial adaptability, this study also examined whether or not career variety played a role in their managerial adaptability, career advancement, and career success (2003). The following recommendations, based on the study's findings, are identified for potential future research.
Recommendations for Future Research

The transportation industry, which in this case refers to the transportation departments of major universities and colleges, has undergone a significant change in philosophy over the past six years. The events occurring on September 11, 2001 initiating the Department of Homeland Security and associated security requirements, combined with the United States' reliance on foreign oil and subsequent desire to pursue alternative fuels, and the impact of the Climate Study on Global Warming that kick-started a movement toward environmental sustainability which universities are embracing, have all significantly impacted the way that universities and colleges look at their various transportation systems. This view ranges from university vehicles, to rail and air, impacts on regional and local transportation systems, and the construction and maintenance of the overall university’s physical plant to include parking lots and parking structures. As a result, managers, whether male or female, will be required to keep up with such changes. These rapid changes may impact the requirements of candidates seeking such management positions. Although the sample for this study was relatively small at 33 respondents, the findings identified that all of the women managers were over the age of thirty-one and several within five years of retirement. This means that soon these positions will be open for new candidates. Future research regarding how current events continues to change the transportation industry and thus the requirements for women (or men) pursuing such careers in transportation would serve to assist students interested in careers in transportation, as well as human resource departments and university administrations in their search for qualified candidates. The information could also assist the academic departments with their ability to create curriculum that will
assist and prepare students for such positions. It is important to note that it is not only university transportation departments that are experiencing such changes. Public and private transportation agencies are faced with the same issues and fast-paced changes.

The sample for this study was comprised of women managers from universities and colleges with a student population of 20,000 plus who are also members of the International Parking Institute. University and college transportation departments vary among the various institutions but all of them usually contain a transit element in addition to the university’s parking operation. Some also manage a fleet of rental vehicles. More information is available to add to the knowledge base of women managers in transportation by broadening the sample to include all women managers in university transportation departments including those women managing rental fleets and transit operations. Obviously, there are differences among the parking, fleet, and transit industries. The findings of this study revealed that the parking industry showed a greater change in terms of gender balance than transit or fleet. Such information and comparisons would provide a greater perspective in terms of careers in university transportation departments.

Only women managers were studied during this research. A comparison between male and female career paths and experiences would be an interesting and helpful exercise to aid in identifying any potential gender differences related to manager positions in major university and college transportation departments. It has been said that transit and fleet operations lag behind the parking component in terms of gender equity. Such a comparison could shed light on the reason for staggered progression in gender balance. The information obtained from the male managers could also be applied to
Karaevli and Hall's (2006) theory of career variety and managerial adaptability to determine whether there are any notable differences based on gender.

In relation to Karaevli and Hall's theory of career variety and managerial adaptability, the findings from this study revealed that these women managers were isolated to the area of transportation, specifically university transportation, and therefore had minimal experiences outside of this functional domain. Did this result occur just because of the sample selected, or is such limited external experience typical of most women managers in transportation? Are there differences among women within the various transportation areas such as fleet operations, transit and parking or is it typical of all women managers in transportation? Why is there minimal pursuit of knowledge outside of the one functional domain? Perhaps, as in the case of this study, the women managers found an avenue for career advancement and stayed with it for such progression. Such information would add depth to the information provided in this study in terms of Karaevli and Hall's theory.

Conclusion

This study arose in response to the Transportation Research Board’s (2000) “Task Force on Women’s Issues in Transportation.” In their study, they identified the importance of learning about women leaders in transportation and the career paths of women in transportation in order to obtain information about women’s experiences, rather than just relying on information obtained from men’s experiences. Little to no research exists that specifically addresses the career paths and professional challenges of women managers in transportation.
This study obtained information about thirty-three women managers in various management level positions in major university and college transportation departments. Through the use of a survey, in-depth interviews, and a focus group discussion valuable information related to demographics, education, career paths, and professional challenges was obtained.

The majority of women managers in this study entered the department through entry-level positions and remained to advance in to management positions. These participants shared their desire to remain in the organization, some continuing to advance to administrative positions, some satisfied to remain in their current positions, and others awaiting or in the beginning stages of retirement. Many participants claimed that transportation, specifically the parking arena, is a good profession for women wishing to pursue a career in transportation or management.

The career paths of these women managers seemed very direct in most cases. Most of the women entered the department at an early age and with little previous work experience. These women entered through an entry-level position and climbed the ladder to management. A second group of women held a minimal number of previous work experiences outside of transportation and then turned to the university transportation departments for reasons such as stability, financial incentives, and advancement potential. The third, and smaller group of these women, identified transportation as their career goal and pursued that goal in other transportation-related positions before moving into the university transportation department.

All of these women shared, through discussion and participation in the survey, their experiences outlining professional challenges and identifying their career paths. In
all of these cases, the women shared various scenarios ranging from quite traumatic to humorous. They were eager to discuss these experiences in hopes that their professional lives might assist in providing valuable information for women pursuing positions in transportation or to, in some way, help enhance the transportation industry for future women managers. This valuable information will now serve to add to a base of knowledge about women managers in the transportation industry. The information will also be useful to transportation employers and professional organizations as well as by education institutions for recruitment and retention of individuals in the field (Transportation Research Board, 2000).
REFERENCES


# APPENDIX A

List of Major Universities and Colleges with Women Transportation Managers who are also Members of IPI

<table>
<thead>
<tr>
<th>Major University/College</th>
<th>Title of Women Managers Who Are Members of IPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Alabama, Birmingham</td>
<td>Director</td>
</tr>
<tr>
<td>Arizona State University</td>
<td>Director, Assistant Director, Manager, Coordinator</td>
</tr>
<tr>
<td>University of Arizona</td>
<td>Director</td>
</tr>
<tr>
<td>Bowling Green State University</td>
<td>Manager, Parking and Traffic</td>
</tr>
<tr>
<td>California State University, Sacramento</td>
<td>Transportation &amp; Parking Manager</td>
</tr>
<tr>
<td>University of California, Davis</td>
<td>Administrative Services Manager</td>
</tr>
<tr>
<td>University of California, Los Angeles</td>
<td>Director</td>
</tr>
<tr>
<td>University of Central Florida</td>
<td>Executive Assistant Parking Services</td>
</tr>
<tr>
<td>University of Cincinnati</td>
<td>Director</td>
</tr>
<tr>
<td>University of Colorado, Boulder</td>
<td>Assistant Director</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>Assistant Director, Associate Commander</td>
</tr>
<tr>
<td>Duke University</td>
<td>Director, Assistant Director (2)</td>
</tr>
<tr>
<td>Florida Atlantic University</td>
<td>Associate Director</td>
</tr>
<tr>
<td>Florida International University</td>
<td>Coordinator</td>
</tr>
<tr>
<td>Florida State University</td>
<td>Director</td>
</tr>
<tr>
<td>Harvard University</td>
<td>Assistant Parking Manager</td>
</tr>
<tr>
<td>Indiana University, Purdue</td>
<td>Director, Assistant Director</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>Manager, Parking Services</td>
</tr>
<tr>
<td>University of Kansas</td>
<td>Director</td>
</tr>
<tr>
<td>Middle Tennessee State University</td>
<td>Manager, Parking &amp; Transportation Services</td>
</tr>
<tr>
<td>State University of New York, Buffalo</td>
<td>Director</td>
</tr>
<tr>
<td>University of North Carolina, Chapel Hill</td>
<td>Assistant Director, TDM Coordinator</td>
</tr>
<tr>
<td>The Ohio State University</td>
<td>Director, Associate Director,</td>
</tr>
<tr>
<td>Ohio University</td>
<td>Parking Operations Supervisor</td>
</tr>
<tr>
<td>University of Oklahoma</td>
<td>Director</td>
</tr>
<tr>
<td>Oklahoma State University</td>
<td>Assistant Parking Manager</td>
</tr>
<tr>
<td>Oregon State University</td>
<td>Manager</td>
</tr>
<tr>
<td>The Pennsylvania State University</td>
<td>Director, Parking Office Manager</td>
</tr>
<tr>
<td>University of Pittsburgh</td>
<td>Associate Director</td>
</tr>
<tr>
<td>Purdue University</td>
<td>Transportation &amp; Parking Manager</td>
</tr>
<tr>
<td>University of Tennessee</td>
<td>Director</td>
</tr>
<tr>
<td>University of Texas at Arlington</td>
<td>Parking Services Manager</td>
</tr>
<tr>
<td>University of Texas at Austin</td>
<td>Manager</td>
</tr>
<tr>
<td>University of Texas at San Antonio</td>
<td>Director</td>
</tr>
<tr>
<td>Texas Tech University</td>
<td>Unit Manager,</td>
</tr>
<tr>
<td>Towson University</td>
<td>Director</td>
</tr>
<tr>
<td>University of Virginia</td>
<td>Director, Assistant Director</td>
</tr>
<tr>
<td>University of Washington</td>
<td>Director</td>
</tr>
<tr>
<td>Washington State University</td>
<td>Transit Manager, Night Operations Supervisor</td>
</tr>
<tr>
<td>University of Wisconsin, Madison</td>
<td>Associate Director</td>
</tr>
</tbody>
</table>
APPENDIX B

Protection of Human Subjects/
ORP Approval
ORP APPROVAL FOR PILOT STUDY, SURVEY, AND INTERVIEWS

IRB#25489 "An Examination of Career Paths & Professional Challenges of Women in Managerial Positions in Major College & University Transportation Departments"

Hi Teresa,

The Office for Research Protections (ORP) has reviewed the above-referenced study and determined it to be exempt from IRB review. You may begin your research. This study qualifies under the following category(ies):

**Category 2:** Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observations of public behavior unless: (i) information obtained is recorded in such a manner that human participants can be identified, directly or through identifiers linked to the participants; and (ii) any disclosure of the human participants’ responses outside the research could reasonably place the participants at risk of criminal or civil liability or be damaging to the participants’ financial standing, employability, or reputation. [45 CFR 46.101(b)(2)]

**COMMENT:** Please use the attached recruitment material to recruit individuals to participate in this research study.

**PLEASE NOTE THE FOLLOWING:**

- Include your IRB number in any correspondence to the ORP.

- The principal investigator is responsible for determining and adhering to additional requirements established by any outside sponsors/funding sources.

- **Record Keeping**
  - The principal investigator is expected to maintain the original signed informed consent forms, if applicable, along with the research records for at least three (3) years after termination of the study.
  - This will be the only correspondence you will receive from our office regarding this modification determination.
    - **MAINTAIN A COPY OF THIS EMAIL FOR YOUR RECORDS.**

- **Consent Document(s)**
  - The exempt consent form(s) will no longer be stamped with the approval/expiration dates.
  - The most recent consent form(s) that you sent in for review is the one that you are expected to use.

- **Follow-Up**
  - The Office for Research Protections will contact you in three (3) years to inquire if this study will be on-going.
  - If the study is completed within the three year period, the principal investigator may complete and submit a Project Close-Out Report. (http://www.research.psu.edu/orp/areas/humans/applications/closeout.rtf)
- **Revisions/Modifications**
  - Any changes or modifications to the study must be submitted to the Office for Research Protections on the *Modification Request Form - Exemption* available on our website: http://www.research.psu.edu/orp/areas/humans/applications/exemptmod.rtf
  - Modifications will **not** be accepted unless the Modification Request Form is included with the submission.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you,

Jodi

Jodi L. Mathieu, BS, CIP
Research Compliance Coordinator
Office for Research Protections
The Pennsylvania State University
201 Kern Graduate Building
University Park, PA 16802
Phone: (814) 865-1775
Fax: (814) 863-8699
http://www.research.psu.edu/orp/
REVISED ORP APPROVAL TO INCLUDE FOCUS GROUP DISCUSSION

IRB#25489 "An Examination of Career Paths & Professional Challenges of Women in Managerial Positions in Major College & University Transportation Departments

Hi Teresa,

The Office for Research Protections (ORP) has reviewed the modification for the above referenced study. This request does not change the exemption status and this study continues to be exempt from IRB review. You may continue with your research.

MODIFICATION REVIEW CATEGORY:

Category 2: Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observations of public behavior unless: (i) information obtained is recorded in such a manner that human participants can be identified, directly or through identifiers linked to the participants; and (ii) any disclosure of the human participants' responses outside the research could reasonably place the participants at risk of criminal or civil liability or be damaging to the participants' financial standing, employability, or reputation. [45 CFR 46.101(b)(2)]

COMMENT: Approval of the December 5, 2007 email has been granted.

PLEASE NOTE THE FOLLOWING:

- Include your IRB number in any correspondence to the ORP.

- The principal investigator is responsible for determining and adhering to additional requirements established by any outside sponsors/funding sources.

- **Record Keeping**
  - The principal investigator is expected to maintain the original signed informed consent forms, if applicable, along with the research records for at least three (3) years after termination of the study.
  - This will be the only correspondence you will receive from our office regarding this modification determination.
    - **MAINTAIN A COPY OF THIS EMAIL FOR YOUR RECORDS.**

- **Consent Document(s)**
  - The exempt consent form(s) will no longer be stamped with the approval/expiration dates.
  - The most recent consent form(s) that you sent in for review is the one that you are expected to use.

- **Follow-Up**
  - The Office for Research Protections will contact you in three (3) years to inquire if this study will be on-going.
  - If the study is completed within the three year period, the principal investigator may complete and submit a [Project Close-Out Report](http://www.research.psu.edu/orp/areas/humans/applications/closeout.rtf)
• **Revisions/Modifications**
  
  o Any changes or modifications to the study must be submitted to the Office for Research Protections on the *Modification Request Form - Exemption* available on our website: http://www.research.psu.edu/orp/areas/humans/applications/modrequest.rtf
  
  o Modifications will not be accepted unless the Modification Request Form is included with the submission.

Please do not hesitate to contact me if you have any questions or concerns.
REVISED ORP APPROVAL TO INCLUDE JOB DESCRIPTIONS

IRB#25489 "An Examination of Career Paths & Professional Challenges of Women in Managerial Positions in Major College & University Transportation Departments

Hi Teresa

The Office for Research Protections (ORP) has reviewed the modification for the above referenced study. This request does not change the exemption status and this study continues to be exempt from IRB review. You may continue with your research.

MODIFICATION REVIEW CATEGORY:

Category 2: Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observations of public behavior unless: (i) information obtained is recorded in such a manner that human participants can be identified, directly or through identifiers linked to the participants; and (ii) any disclosure of the human participants’ responses outside the research could reasonably place the participants at risk of criminal or civil liability or be damaging to the participants’ financial standing, employability, or reputation. [45 CFR 46.101(b)(2)]

COMMENT: Approval of the August 1, 2007 email has been granted.

PLEASE NOTE THE FOLLOWING:

• Include your IRB number in any correspondence to the ORP.

• The principal investigator is responsible for determining and adhering to additional requirements established by any outside sponsors/funding sources.

• Record Keeping
  o The principal investigator is expected to maintain the original signed informed consent forms, if applicable, along with the research records for at least three (3) years after termination of the study.
  o This will be the only correspondence you will receive from our office regarding this modification determination.
    ▪  MAINTAIN A COPY OF THIS EMAIL FOR YOUR RECORDS.

• Consent Document(s)
  o The exempt consent form(s) will no longer be stamped with the approval/expiration dates.
  o The most recent consent form(s) that you sent in for review is the one that you are expected to use.

• Follow-Up
  o The Office for Research Protections will contact you in three (3) years to inquire if this study will be on-going.
  o If the study is completed within the three year period, the principal investigator may complete and submit a Project Close-Out Report. (http://www.research.psu.edu/orp/areas/humans/applications/closeout.rtf)

• Revisions/Modifications
Any changes or modifications to the study must be submitted to the Office for Research Protections on the Modification Request Form - Exemption available on our website: http://www.research.psu.edu/orp/areas/humans/applications/exemptmod.rtf

- Modifications will not be accepted unless the Modification Request Form is included with the submission.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you,

Andrea

Andrea R. Seisler, MBE
Compliance Coordinator
Office for Research Protections
The Pennsylvania State University
201 Kern Graduate Building
University Park, PA 16802

Telephone: 814-865-1775
Fax: 814-863-8699
http://www.research.psu.edu/orp/
APPENDIX C

Informed and Implied Consent Forms
Informed Consent Form for Social Science Research (Pilot Study Survey)
The Pennsylvania State University

Title of Project: An Examination of Career Paths and Professional Challenges of Women in Managerial Positions in Major College and University Transportation Departments

Principal Investigator: Teresa A. Davis, Graduate Student
University Park, PA  16802
Room 5, Fleet Operations Building
(814) 863-4006; tad6@psu.edu

Advisor: Dr. Judith A. Kolb
301A Keller
University Park, PA  16802
(814) 865-1876; jak18@psu.edu

1. Purpose of the Study: The purpose of the study is to examine the ways in which women in management positions in major university and college transportation departments describe the career paths that led to their position in the non-traditional occupation of transportation and to identify professional challenges that they may have experienced along the way. The resulting information will provide useful to women wishing to pursue a profession in college and university transportation departments, will add to the current body of knowledge on transportation, and will be useful to transportation employers, professional organizations and educational institutions for recruitment and retention of individuals in the field.

2. Procedures to be followed: You will be asked to participate in a pilot study that will involve participating and reviewing a short online survey. You will be asked to provide comments regarding question clarity, ease of administration of the online survey, and time of survey. The questions are listed in the Appendix.

3. Duration/Time: The survey will take approximately 15 minutes to complete and a maximum of 15 additional minutes for comments.

4. Statement of Confidentiality: Your participation in this research is confidential. Only the principal investigator and her advisor will know your identity. The doctoral study committee will have access only to the transcribed documents, in which your real name is not identified. Data will be stored and secured in the principal investigator's personal computer protected by password. Only the principal investigator will have access to the recorded data. The recorded data will be destroyed by the year 2010. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. Your confidentiality will be kept to the degree permitted by technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties.

5. Right to Ask Questions: Please contact Teresa Davis at (814) 863-4006 with questions or concerns.
6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to consent to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

______________________________  _____________________
Participant Signature        Date

______________________________  _____________________
Person Obtaining Consent        Date
Informed Consent Form for Social Science Research (Interview)
The Pennsylvania State University

Title of Project: An Examination of Career Paths and Professional Challenges of Women in Managerial Positions in Major College and University Transportation Departments

Principal Investigator: Teresa A. Davis, Graduate Student
Room 5, Fleet Operations Building
University Park, PA 16802
(814) 863-4006; tad6@psu.edu

Advisor: Dr. Judith A. Kolb
301A Keller
University Park, PA 16802
(814) 865-1876; jak18@psu.edu

Purpose of the Study: The purpose of the study is to examine the ways in which women in management positions in major university and college transportation departments describe the career paths that led to their position in the non-traditional occupation of transportation and to identify professional challenges that they may have experienced along the way. The resulting information will provide useful to women wishing to pursue a profession in college and university transportation departments, will add to the current body of knowledge on transportation, and will be useful to transportation employers, professional organizations and educational institutions for recruitment and retention of individuals in the field.

1. Procedures to be followed: You will be asked to participate in a face to face interview. The questions are listed in the Appendix. The interviews will be recorded and transcribed.

2. Duration/Time: Maximum time requested for each interview is one hour. At least one follow-up interview may be scheduled at your convenience in person or by telephone.

Statement of Confidentiality: Your participation in this research is confidential. Only the principal investigator and her advisor will know your identity. The doctoral study committee will have access only to the transcribed documents, in which your real name is not identified. Data will be stored and secured in the principal investigator's personal computer at home protected by password. Only the principal investigator will have access to the recorded data. The recorded data will be destroyed by the year 2010. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.

3. Right to Ask Questions: Please contact Teresa Davis at (814) 863-4006 with questions or concerns.

4. Voluntary Participation: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.
You must be 18 years of age or older to consent to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

_____________________________________________ _____________________
Participant Signature       Date

_____________________________________________ _____________________
Person Obtaining Consent     Date
Implied Informed Consent Form for Social Science Research (Survey)
The Pennsylvania State University

Title of Project: An Examination of Career Paths and Professional Challenges of Women in Managerial Positions in Major College and University Transportation Departments

Principal Investigator: Teresa A. Davis
Room 5, Fleet Operations Building
University Park, PA 16802
(814) 863-4006; tad6@psu.edu

Advisor: Dr. Judith A. Kolb
301A Keller
University Park, PA 16802
(814) 865-1876; jak18@psu.edu

1. **Purpose of the Study:** The purpose of the study is to examine the ways in which women in management positions in major university and college transportation departments describe their career paths and to identify professional challenges that they may have experienced along the way. The resulting information will provide useful to women wishing to pursue a profession in college and university transportation departments, will add to the current body of knowledge on transportation, and will be useful to transportation employers, professional organizations and educational institutions for recruitment and retention of individuals in the field.

2. **Procedures to be followed:** You will be asked to participate in a short online survey. The principal investigator will utilize a web based program to help distribute, collect and compile the data from the surveys. Participation in the survey is strictly voluntary. As a participant of the survey, you may also be asked to participate in a focus group later in the research process. The focus group will be conducted via the internet using a computer program that allows small group, real time discussion. The group discussion will be transcribed and analyzed using qualitative analysis methods.

3. **Duration/Time:** The survey will take approximately 15 minutes to complete. If selected for the focus group, the maximum time for the group discussion will be one hour.

4. **Statement of Confidentiality:** Your participation in this research is confidential. The survey does not ask for any information that would identify who the responses belong to. Confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the internet by any third parties. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared.

5. **Right to Ask Questions:** Please contact Teresa Davis at (814) 863-4006 with questions or concerns.
6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to take part in this research study.

Completion and return of the survey implies that you have read the information in this form and consent to take part in the research. Please print off this form to keep for your records.
APPENDIX D

Survey Instrument
1. Introduction

This survey is focused on obtaining valuable information about women managers in major university and college transportation departments. Your information will assist in adding to the current body of knowledge on transportation as a viable career for women.

Click "Next" to get started with the survey. If you’d like to leave the survey at any time, just click "Exit this survey". Your answers will be saved.
Women Managers in Major University and College Transportation

2. Demographic

Please check one answer for each of the following demographic questions:

* 1. Age:
   - 25 & under
   - 26-30
   - 31-40
   - 41-50
   - 51-60
   - 60 & over

* 2. Marital Status:
   - Single
   - Married
   - Divorced
   - Widowed

* 3. Do you have children currently living at home?
   - Yes
   - No

4. Educational background (check highest degree earned & provide degree information)
   - Less than high school graduate
   - High School graduate or GED
   - Some college, no degree
   - 2 years of college/Associate’s degree (Major)
   - 4 years of college/Bachelor’s degree (Major)
   - Master’s degree (Major)
   - Professional degree (Specify)
   - Doctoral degree (Topic of Study)
Women Managers in Major University and College Transportation

3. Your Transportation Career

Please check one answer and add information as requested.

* 5. If you were to contemplate a change in jobs, would you stay in the field of transportation?
   ☐ Yes  ☐ No

6. If staying in the field of transportation, what would be your next step in your career advancement?

7. If changing jobs, what would be your job of choice?

8. Are you a member of any of the following professional organizations? (Check all that apply)
   ☐ International Parking Institute
   ☐ Women's Transportation Seminar
   ☐ American Public Transit Association
   ☐ Association for Commuter Transportation
   ☐ Other

9. What types of training and development have been offered to you in your current position? (Check all that apply)
   ☐ In-house training
   ☐ Training programs outside the organization
   ☐ Certification with a professional organization
   ☐ Academic classes to enhance or pursue educational level
   ☐ Other

10. Do you, or have you ever, had a mentor(s) to assist you in your career advancement?
    ☐ Yes  ☐ No

11. If yes, how many mentors have you had during your career?
    ☐ 1  ☐ 2  ☐ 3  ☐ 4 or more

12. How did you find your mentor(s)?
    ☐ Selected the mentor on your own
    ☐ Obtained the mentor through an organizational program
    ☐ Other

13. What gender was your mentor(s)?
    ☐ Male  ☐ Female
### Women Managers in Major University and College Transportation

#### 4. Career Support and Advancement

For each of the following statements, please indicate the extent to which you agree or disagree:

14. I needed to change my management style to be successful in my current position.
   - [ ] strongly agree
   - [ ] agree
   - [ ] undecided
   - [ ] disagree
   - [ ] strongly disagree

15. Being female in a male-dominated industry has helped me to advance in my career.
   - [ ] strongly agree
   - [ ] agree
   - [ ] undecided
   - [ ] disagree
   - [ ] strongly disagree

16. My organization supports or empowers me to perform successfully in my job.
   - [ ] strongly agree
   - [ ] agree
   - [ ] undecided
   - [ ] disagree
   - [ ] strongly disagree

17. It is my intent to use this information to help build a body of knowledge about women managers in transportation. Is there any other information that you feel would be important to note in terms of your current position, career path, educational background or challenges experienced?

   [ ]

   [ ]
5. Thanks!

I appreciate your feedback. It is your participation that will help provide useful information for women in the transportation industry.

Thanks again!

Teresa A. Davis
Ph.D. Candidate, The Pennsylvania State University
APPENDIX E

Interview Guide
Directors of Transportation Interview Guide

Thank you for taking the time to meet with me today. I’d like to talk to you about your current position, your career path, and any professional challenges that you have experienced during your professional work experience in transportation.

1. What attracted you to your current position as the Director, Associate Director or Assistant Director of Transportation at a major college or university? Was transportation always your chosen career field, or did you have other career interests?

2. In terms of your previous work experience, how do you feel that your previous positions prepared you for your current position especially the management aspect of the job? Are there any positions that you feel had no bearing on your current position? What kind of impact, if any, do you think your previous work experience had on your career advancement?

3. Could you please share any professional challenges that you have experienced during your career and how you dealt with them? In dealing with the challenges, where did the skills that you used to handle the challenges come from?

4. Are there or have there been opportunities for advancement in your organization? What criteria, do you believe, are required in your organization to advance? In what ways does your organization support or empower you to successfully perform your job and/or advance?

5. It is my intent to use the information from these interviews, to build a body of knowledge about women managers in transportation. Is there any other information that you feel would be important to note in terms of your career path, educational background, or challenges that you have experienced?
APPENDIX F
Research Questions with Corresponding
Survey & Interview Questions
<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Survey &amp; Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the similarities and differences in the demographics of women in management positions in major university and college transportation departments to include age, marital status, presence of children in the household, educational level, type of degree, and previous work experiences?</td>
<td>• Age (S 1)</td>
</tr>
<tr>
<td></td>
<td>• Marital Status (S 2)</td>
</tr>
<tr>
<td></td>
<td>• Children (S 3)</td>
</tr>
<tr>
<td></td>
<td>• Elderly Parents (S 4)</td>
</tr>
<tr>
<td></td>
<td>• Education (S 5)</td>
</tr>
<tr>
<td></td>
<td>• Previous work experience (I 2)</td>
</tr>
<tr>
<td></td>
<td>• Previous work experience (I 2)</td>
</tr>
<tr>
<td>2. Based on Karaevli and Hall’s theoretical model of career variety and managerial adaptability, what are the previous work experiences prior to the management position in the transportation department and what was the length of time associated with each experience?</td>
<td></td>
</tr>
<tr>
<td>3. How did career variety play a part in the managerial adaptability, career advancement and success of these women managers in transportation?</td>
<td>• Current position/transportation career (I 1)</td>
</tr>
<tr>
<td></td>
<td>• Previous work experience (I 2)</td>
</tr>
<tr>
<td></td>
<td>• Career advancement (I 4)</td>
</tr>
<tr>
<td></td>
<td>• Potential change in jobs (S 6)</td>
</tr>
<tr>
<td></td>
<td>• Organization support (Career success) (S 9)</td>
</tr>
<tr>
<td></td>
<td>• Mentor (Career advancement) (S 11)</td>
</tr>
<tr>
<td></td>
<td>• Management style (Career success) (S 12)</td>
</tr>
<tr>
<td></td>
<td>• Male-dominated (Advancement) (S 13)</td>
</tr>
<tr>
<td></td>
<td>• Networking (Career success) (S 14)</td>
</tr>
</tbody>
</table>
4. What aspects of employment in the university and college transportation departments attracted these women managers?

5. What professional challenges have women managers in transportation experienced during their careers and how has their previous work experience prepared, or not prepared, them to handle those challenges?

- Current position (I 1)
- Change of jobs (S 6)
- Professional organizations (S 7)
- Training and development (S 8)
- Networking (S 14)

- Previous work experience (I 2)
- Professional challenges (I 3)
APPENDIX G

Survey Question #4
Educational Background
Four-year Degree Majors
1. Bachelor of Science in Business Administration
2. Business Administration, Marketing
3. Business Management and Wildlife Biology
4. BA Public Administration
5. Business Management
6. English, History, Business
7. Bachelor of Science Degree in Mathematics
8. Double Major in Transportation & Logistics and Marketing
9. Bachelor of Science
10. Psychology
11. Accounting
12. Transportation
14. Political Science
15. Criminal Justice
16. Education
17. American Studies
APPENDIX H

Survey Question #4
Educational Background
Master's Degree Majors
Survey Question #4: Educational Background
Master's Degree Majors

1. Anthropology
2. Working on Administration
3. Masters of Education
4. Criminal Justice/Currently attending courses
5. MBA
6. x
7. Certificate - Public Administration
APPENDIX I

Samples of Data Analysis
# Transcription/Open Coding

<table>
<thead>
<tr>
<th>Participant 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 1a</strong></td>
<td>student employee pursuing career-goal in business</td>
</tr>
<tr>
<td>What attracted you to your current position as the Director of Parking and Transportation?</td>
<td>working towards a Business Administration degree climbed the ranks</td>
</tr>
<tr>
<td>24 years later, running a business</td>
<td></td>
</tr>
<tr>
<td>did every position on the way up</td>
<td></td>
</tr>
<tr>
<td>managing at 18, director at 23</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 2</th>
<th>leaving unattractive position</th>
</tr>
</thead>
<tbody>
<tr>
<td>not much of an attraction as much an aversion</td>
<td></td>
</tr>
<tr>
<td>tired of supervising whiny bus drivers</td>
<td></td>
</tr>
<tr>
<td>got here, same issues, same things, different day</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 3</th>
<th>climbing the ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>moved up through the ranks</td>
<td>challenge</td>
</tr>
<tr>
<td>applied for director's position 12 years ago</td>
<td></td>
</tr>
<tr>
<td>as assistant director I could either sit back in a comfort zone or accept a new challenge</td>
<td></td>
</tr>
<tr>
<td>I decided to seek a new challenge</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 4</th>
<th>pursuing a career-goal in business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's degree in Business Admin &amp; Marketing</td>
<td>climbed the ranks</td>
</tr>
<tr>
<td>Wanted something in business, not sales</td>
<td>challenging</td>
</tr>
<tr>
<td>Answered ad to run company, ended up parking</td>
<td></td>
</tr>
<tr>
<td>Found it fascinating, HR, getting married</td>
<td></td>
</tr>
<tr>
<td>Vacancy as Parking Manager</td>
<td></td>
</tr>
<tr>
<td>3 years later, director called to military duty, I became interim director</td>
<td></td>
</tr>
<tr>
<td>parking and transit, no fleet</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 5</th>
<th>climbed the ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>been there since 1981</td>
<td></td>
</tr>
<tr>
<td>receptionist dispatcher of parking</td>
<td></td>
</tr>
<tr>
<td>never left</td>
<td></td>
</tr>
<tr>
<td>receptionist for a year</td>
<td></td>
</tr>
<tr>
<td>secretary, then administrative assistant</td>
<td></td>
</tr>
<tr>
<td>assistant director 4 years after I started</td>
<td></td>
</tr>
<tr>
<td>interim director 2002</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 6</th>
<th>pursuing career-goal in transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>transportation logistics in college</td>
<td></td>
</tr>
<tr>
<td>worked for a professor in transportation logistics</td>
<td></td>
</tr>
<tr>
<td>moving products, moving people</td>
<td></td>
</tr>
</tbody>
</table>
Teresa Davis worked for private industry, family ill, wanted to get back
Analysis job listing for Assistant Director for Transportation

**Question 1a (cont)**

If I can move products, I can move people

Assistant Director for 3 or 4 years

Transportation was not with Parking

Burnt out on transit, moved into event parking

<table>
<thead>
<tr>
<th>Participant 7</th>
<th>pursuing career-goal in transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>transportation in college, transportation degree</td>
<td>started private industry</td>
</tr>
<tr>
<td>Business degree, transportation</td>
<td></td>
</tr>
<tr>
<td>started in computer science, then went into business</td>
<td></td>
</tr>
<tr>
<td>started in freight management, freight traffic</td>
<td></td>
</tr>
<tr>
<td>then went into parking management (private)</td>
<td></td>
</tr>
<tr>
<td>worked as management group for university</td>
<td></td>
</tr>
<tr>
<td>then moved into university parking</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 8</th>
<th>position financially attractive</th>
</tr>
</thead>
<tbody>
<tr>
<td>started in parking because of money</td>
<td>management path</td>
</tr>
<tr>
<td>Airport parking manager</td>
<td></td>
</tr>
<tr>
<td>Hired away from Airport by University as</td>
<td></td>
</tr>
<tr>
<td>parking manager</td>
<td></td>
</tr>
<tr>
<td>Interim director, then director</td>
<td></td>
</tr>
<tr>
<td>Graduated with a management degree</td>
<td></td>
</tr>
<tr>
<td>I originally was going down the management path</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 9</th>
<th>pursuing career-goal in transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>background is urban regional planning</td>
<td>transportation planner</td>
</tr>
<tr>
<td>first internship-transportation intern</td>
<td>university parking</td>
</tr>
<tr>
<td>From that path, I stayed in it</td>
<td></td>
</tr>
<tr>
<td>Transit systems for cities, then General Manager</td>
<td></td>
</tr>
<tr>
<td>operations</td>
<td></td>
</tr>
<tr>
<td>Became pregnant &amp; given 90 day notice</td>
<td></td>
</tr>
<tr>
<td>took a break</td>
<td></td>
</tr>
<tr>
<td>Contracted by major university as temporary help</td>
<td></td>
</tr>
<tr>
<td>I ended up staying as a transportation planner</td>
<td></td>
</tr>
<tr>
<td>That started my career at major university</td>
<td></td>
</tr>
<tr>
<td>I came in and got parking - I knew it was my niche</td>
<td></td>
</tr>
<tr>
<td>I like comprehensive, fitting pieces of puzzles together</td>
<td></td>
</tr>
<tr>
<td>liked the dynamics of a university campus</td>
<td></td>
</tr>
<tr>
<td>Contacts were already established with location and state government</td>
<td></td>
</tr>
<tr>
<td>I felt comfortable at major university</td>
<td></td>
</tr>
<tr>
<td>We were under facilities-</td>
<td></td>
</tr>
<tr>
<td>P9 took over parking but was still called planner</td>
<td></td>
</tr>
<tr>
<td>Someone else was named Associate Director</td>
<td></td>
</tr>
<tr>
<td>burnt me</td>
<td></td>
</tr>
<tr>
<td>Between me and male counterpart for director,</td>
<td></td>
</tr>
<tr>
<td>Teresa Davis</td>
<td>supervisor could not make decision, left up to us</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Interview Coding &amp; Analysis</td>
<td>Became a shared directorship, then I was selected</td>
</tr>
<tr>
<td>Question 1a (cont)</td>
<td>approached by university, I wasn't looking</td>
</tr>
<tr>
<td></td>
<td>Offered more money and a clean slate</td>
</tr>
<tr>
<td></td>
<td>Major university counter-offered, but I was looking</td>
</tr>
<tr>
<td></td>
<td>for a challenge &amp; took the university position</td>
</tr>
</tbody>
</table>

**Participant 10**  
Looking for a challenge  
Attracted because of boredom with what I was doing, I needed to move on  
Not enough challenge  
I was a supervisor in parking  
New position created for managing garages  
and parking

**Participant 11**  
Climbed the ranks  
Spent my entire career, event as a student, in the same department in this field  
My career is pretty straight and narrow  
started as a bus driver, loved the dept, loved the people, loved what we were doing, loved the students  
First few years after college, took a job in city, not in transportation  
Kept an eye on positions - open administration position  
Brought me back after two years

**Participant 12**  
Opportunity  
Associate director of Transportation Leaving undesirable position  
Ability to go in, it was a blank slate, I looked at it as a wonderful opportunity  
Promoted to Associate  
Never worked in parking before, the University kept sending me job vacancy notices for assistant evening supervisor of the parking garages and I would throw the away  
Previously worked as family therapist, degree as a psychologist - I was fried, wanted out  
Wanted to work for the state so I put in the application, that's when they started sending notices
Open Coding/Axial Coding

Interview Coding and Analysis

Q1a - What attracted you to your current position as the Director of Parking and Transportation?

- R Moved up through the ranks 6
- TR Transportation as career 3
- F Financial incentive 1
- CC Career change 2

Q1b Was transportation always your chosen career field, or did you have other interests?

- Yes 5
  - Business Administration
  - Transportation Logistics
  - Business - Transportation
  - Urban Planning
- No 7
  - Counseling Psychology
  - Education
  - Business
  - Grocery/Retail
  - Business Management
  - Retail/Manufacturing
  - Psychology

Q2a In terms of previous work experience, how do you feel that your previous positions prepared you for your current position, especially the management aspect of the job?

- M Minimal preparation 3
- T Teacher - 1
- PE Not work, Personal Experience 1
- TR Transportation - 5
Q2b  Are there any positions that you feel had no bearing on your current position?

No  7  All positions had a bearing on my current position

Yes  5  Ammunition plant in the 1960s
       Supervisor for a trucking operation
       Managing a nursing home for the mentally retarded
       Manufacturing line
       Hourly student jobs

Q2c  What kind of an impact, if any, do you think your previous work experience had on your career advancement?

CS  Customer Service  Work solutions out (1)

CC  Career Change  Teacher: Prepared me to change careers & bring skills to even an entry level position
       I approached each job as a challenge
       Learned to embrace new things, never let your boss be surprised, don't be afraid to initiate change (1)

E  Experience  Rising through the ranks in the department and having the knowledge. (1)
       Because of the places I've gone into and the shape that they were in. Take initiative.
       Comfort level with the job, the politics, new things. (1)

E  Experience  Everything. I was exposed to the world of parking. (1) My contacts were already established due to my previous work experience. (1)
       It's totally about my previous work experience. (1)

E  Experience  I grew with the department. And the training aspect. Most of the people around me and that I have worked with, have made my success easier. (1)
| E | Experience | I think my experience. My desire to keep adding on more tasks helped me to be a more global director. |
| C | Change | |
| I | Initiative | There is nothing in the department that I can't do. |
| E | Experience | The positions that I was in as a supervisor. I worked with just parking. The position involved the skills that I already had. |
| R | Recognition | Plenty. Moving up within the institution people knew me at all different levels. |
| F | Financial Knowledge | The positions that helped me the most were on the financial end. |
| D | Desire to learn | I think my desire to learn. I'm like a sponge. |
| O | Openness | My background involves my ability to be open. |

Q3a Could you please share any professional challenges that you have experienced during your career and how you dealt with them?

| ER | Expanded responsibility | Failed attempts to expand responsibility |
| MP | Managing people | |
| P | Politics | |
| C | Communication | |
| IS | Issues with supervisor | |
| BF | Bad fit with organization | |
| AS | Lack of administration's support | |
| AA | Lack of access to administration | |
| BC | No budgetary control | |
| LI | Lack of information about goal or mission | |
Too trusting 1
Being female in the industry 4

Q3b In dealing with the challenges where did the skills that you used to handle the challenges come from?

Personality 4
Training 1
Experience 7
Education 1
Skills 1
Mentor 1

Q4a Are there or have there been opportunities for advancement in your organization?

Yes 9
No 3

Q4b What criteria do you believe are required in your organization to advance?

Loyalty 1
Good Track Record 1
Problem solver 3
Communicator 3
Positive 1
Responsive 1
Adaptable 1
Strategic Thinking 2
Patient/Tolerant 2
| CS | Customer Service 2 |
| Tm | Temperament 1 |
| O | Organized 1 |
| GO | Goal oriented 1 |
| Cm | Committed 1 |
| En | Enthusiastic 1 |
| Ct | Competent 1 |
| Ed | Educated 1 |
| Cr | Creative 1 |
| TC | Take charge 4 |
| I | Initiative 1 |
| F | Fiscal management 1 |
| Ch | Accepts challenges 1 |
| WR | Well-rounded 2 |

Q4c In what ways does your organization support or empower you to successfully perform your job and/or advance?

| N | None 1 |
| C | Conferences 4 |
| Tr | Training 4 |
| Ed | Education 2 |
| D | Supports decisions 5 |
| L | Leadership roles 1 |
| OC | Open communication 1 |
Q5 It is my intent to use the information from these interviews to build a body of knowledge about women managers in transportation. Is there any other information that you feel would be important to note in terms of your career path, educational background, or challenges that you have experienced?

M Mentors 3
SC Self confidence 1
CW Good career for women 4
CP Care about people 1
HR Human resource skills are helpful 1
S Higher salaries are available 1
N Networking is important 3
V There is variety in this industry. 1
SP You need a strong personality 1
P Passion for the industry 1
Mis Parking industry is misunderstood
AS Administration's support 1
ES Employee selection 1
SS Show your successes 1
CC It's a constantly changing industry 1
CL Continuous learning 1
D Diversity 1
Open Coding/Axial Coding
Survey Coding

1. **A** Attraction to current position:
   - RQ4
   - AC Career progression
   - AF Financial compensation
   - AS Job stability
   - AO Opportunity (?)

2. **T** Transportation as a career:
   - TC Transportation has always been a career-goal
   - TJ Just needed a job
   - TCh Looking for a change
   - TSt Stable occupation

3. **EW** Previous work experience:
   - RQ2
   - EWI All internal
   - EWIE All internal and external to the department, helped prepare me for the current position
   - EWNR Prior experience had no relevance to this position

4. **ECA** Previous work experience and Career Advancement:
   - RQ2
   - RQ3
   - RQ5
   - ECAC Career progression through various positions in the department
   - ECAEx Skills from external positions assisted with advancement
   - ECATr Training within the department helped with advancement
   - ECAPEt My personality and work ethic assisted with advancement

5. **PC** Professional challenges:
   - RQ5
   - PCPM Personnel management
   - PCF Being a female manager or administrator in a university setting
   - PCPo Politics of parking and the university: Egos of customers (i.e. MDs, faculty, administrators
   - PCAd Frustration with administration: Resistance to expand role/operation; Lack of support by the administration

6. **Sk** Skills for dealing with:
   - RQ3
   - RQ5
   - SkP Personality the challenges:
   - SkTr Training
   - SkTE Trial and error (learn from previous experiences)
   - SkEd Education
7. **AdO Opportunities for Advancement:**  
   - **AdOY**: Yes, climbed through the ranks  
   - **AdON**: No opportunities at current location  
   - **AdONI**: No interest in advancing beyond current position  
   - **AdOYOth**: Yes, at other locations  

8. **AdCr Criteria to advance:**  
   - **RQ3**: Loyalty, problem solver, communicator, consensus builder, positive attitude, responsive, adaptable, patient, strategic thinker, organized, creative, goal oriented, likes a challenge, educated, customer-service oriented, fiscally-responsible, well-rounded, "big picture thinker", enthusiastic, takes initiative, integrity  

9. **S Support from organization:**  
   - **RQ5**:  
     - **SPD**: Professional development: participation in conferences, training, continued education  
     - **SD**: Supports decisions; respects knowledge & expertise  
     - **SNS**: No support  
     - **SR**: Supports by providing necessary resources  
     - **SO**: Supports by being open and flexible  

10. **Additional information:**  
    - Transit industry getting easier for women  
    - Mentors are important and helpful  
    - Networking and participation in organizations is important  
    - Parking is an excellent career for women  
    - Human resource management skills are helpful  
    - Now is a great time to be in transportation for women  
    - Professional certifications are very valuable in experience and completion  
    - Support from the administration is important  
    - The parking industry is misunderstood  
    - People with diverse backgrounds and experience are vital to the industry
Axial Coding/Connecting Strategies

Climb the Ladder

- Advancement
- Mentors
- Personality
- Training
- Education
- Networking
- Work experiences

Experience

- External work experiences
- Personal life experiences
- Internal work experiences
Connecting Strategies/Themes

Theme One: Climbing the Ladder
- Advancement
- Work experiences
- Training
- Networking
- Education
- Personality
- Mentors

Theme Two: Experience is the Key
- Internal work experience
- External work experience
- Personal life experiences
  - Contradiction: Training

Theme Three: Support of the Administration
- Politics
- Supports decisions
- Provides needed resources
- Supports development through training and professional organizations
- Provides flexibility
  - Contradiction: Lack of support (openness)
APPENDIX I
Copyright Permissions
Hi Teresa,

Your dissertation sounds very interesting. Of course, we give the permission to use the figure and the propositions as long as they are properly cited.

Best of luck with your dissertation. I will be looking forward to seeing your papers in print!

Best regards,

Ayse
VITA

Teresa A. Davis

Teresa A. Davis was born and raised in Salem, Indiana. After attending Indiana State University and Indiana University Southeast for over two years, she joined the United States Army’s Military Police Corps where she completed a Bachelor of Science Degree in Liberal Studies from the State University of New York’s Regents External Degree Program. In 1995, while employed as the Plans Officer for the United States Military Academy’s Provost Marshal’s Office in West Point, she received a Master of Public Administration degree with a dual specialty in Human Resource Management and Budget and Fiscal Policy.

Teresa has been involved in many aspects of transportation and security for over twenty years. Her military service included positions in law enforcement, physical security, and training. After her discharge, she worked for the Department of Defense working in Stuttgart, Germany for the Army Community Service Office as a Family Outreach Specialist and for the VII Corps Provost Marshal’s Office as a Crime Prevention Specialist. Upon her return to the United States, Teresa assumed the position at USMA’s Provost Marshal’s Office where she coordinated the military police details, parking and transit movement of all special events occurring at West Point. For the past twelve years, she has served as the director of Transportation Services at the Pennsylvania State University providing oversight for the university’s parking, transit and fleet vehicle operations.

Teresa enjoys spending time with her son, Connor, and giving back to her community through her membership in the Downtown State College Rotary Club.