

THE CAREER SUCCESS OF PARAMEDIC PROGRAM DIRECTORS

by

Cornelia Ann Bryan

Submitted in Partial Fulfillment of the Requirements

for the Degree of

Doctor of Education

in Educational Leadership

YOUNGSTOWN STATE UNIVERSITY

The Career Success of Paramedic Program Directors

Cornelia Ann Bryan

I hereby release this dissertation to the public. I understand that this dissertation will be made available from the OhioLINK ETD Center and the Maag Library Circulation Desk for public access. I also authorize the University or other individuals to make copies of this dissertation as needed for scholarly research.

Signature: _____

Cornelia A. Bryan, Student Date

Approvals:

Dr. Charles B. Vergon, Dissertation Co-Chair Date

Dr. John M. Hazy, Dissertation Co-Chair Date

Dr. Mary L. Di Pillo, Committee Member Date

Dr. Salvatore A. Sanders, Committee Member Date

Dr. Salvatore A. Sanders, Associate Dean of Graduate Studies Date

©

Cornelia A. Bryan

2015

ABSTRACT

Paramedic program directors are educational leaders in the EMS profession; however, little is known about them. The current study explored the career success of paramedic program directors. The study sought to determine who the paramedic program directors were and how they achieved their career success. It also explored the barriers and challenges faced by these individuals and identified ways that they overcame the barriers and challenges in order to achieve their career success. The study profiled the participants and examined four predictors of subjective and objective career success (human capital, sociodemographic status, stable individual differences, and organizational sponsorship) in an effort to determine how they achieved their career success.

Methods: An exploratory cross-sectional web-based survey containing closed and open-ended questions was distributed electronically using Survey Monkey to all the program directors of CAAHEP accredited paramedic programs or those CAAHEP paramedic programs that held a Letter of Review from CoAEMSP. Quantitative and qualitative analyses were used to interpret the data.

Results: Overall, the paramedic program directors are experienced educators who are satisfied with the career success they have attained despite facing barriers and challenges that they have encountered along the way. They are motivated to succeed and utilize a variety of methods to overcome the perceived barriers and challenges that they face. The majority of program directors do not intend to leave their positions or the EMS profession in the next year, but do wish they had more support from others.

DEDICATION

I dedicate this work to my children, Donald and David. You are my world. Thank you for inspiring me to live life to the fullest and teaching me to appreciate all it has to offer. My life would not be complete without you both. I love you.

ACKNOWLEDGMENTS

First, this work would not have been possible without the guidance of my wonderful committee. To my chairs, Dr. Vergon and Dr. Hazy, thank you for your unwavering support and reassurance in completing this process. I would also like to thank my other committee members Dr. DiPillo and Dr. Sanders for their support and their contributions to this work. Over the years, each of you has served as an excellent role model for what an educational leader should be and you have continuously supported my professional development, growth, and success. Thank you.

Throughout this process, I have been blessed to have the support and friendship of my cohort members at YSU. You truly are a special group of unique individuals with the ability to make such a difference in this world. I am honored to know each of you. I would also like to thank the faculty who have worked so diligently to help us succeed along the way. Youngstown State University is filled with exceptional faculty and staff who have been a family to me for the past 10 years and without whom this would not be possible. I would especially like to thank my mentor, Joe Mistovich, for his guidance.

This work would not be possible without members of the EMS profession, especially the Paramedic Program Directors who completed the study and serve as educational leaders in our field. I would like to also thank the members of the CoAEMSP, National Registry of EMTs, NASEMSO, and others who reviewed this work.

Finally, to my family, students, and all those that I have failed to mention specifically but whose contribution is no less important, thank you all for your help.

TABLE OF CONTENTS

ABSTRACT.....	iv
DEDICATION.....	v
ACKNOWLEDGMENTS.....	vi
TABLE OF CONTENTS.....	vii
LIST OF TABLES.....	xvii
LIST OF FIGURES.....	xxiii

CHAPTER I: INTRODUCTION

Introduction.....	1
Statement of the Problem.....	5
Career Success.....	7
Purpose of the Study.....	16
Hypotheses of the Study.....	17
Significance of the Study.....	22
Limitations and Delimitations.....	24
Assumptions.....	24
Definitions of Terms.....	25
Summary.....	29

CHAPTER II: LITERATURE REVIEW

Introduction.....	30
-------------------	----

History of EMS Education	31
EMS Educators/ Instructors.....	41
Paramedic Program Directors	47
Other Program Directors.....	49
Academic Career Pathways	53
Challenges and Barriers.....	55
EMS Career Success.....	55
LEADS Related Findings.....	59
Summary.....	63

CHAPTER III: METHODOLOGY

Introduction.....	65
Research Design.....	65
Selection of the Subjects.....	66
Treatment of the Subjects.....	67
Human Protection	67
Instrumentation	68
Data Collection	72
Data Analysis	75

Variables/ Measures.....	78
Career Success Outcomes.....	78
Subjective Career Success.....	79
Objective Career Success.....	80
Human Capital Variables.....	81
Socio-demographic Status.....	83
Organizational Sponsorship.....	83
Stable Individual Differences.....	85
Limitations/ Delimitations.....	87

CHAPTER IV: RESULTS

Introduction.....	88
Profile of the Sample.....	88
Demographic Data.....	88
Job Related Data.....	93
Comparisons.....	103
Correlations.....	105
Hypothesis 1.....	105
Hours Worked.....	106
Years as a Program Director.....	109
Years of Experience.....	111
Highest Degree Held.....	112

Pursuit of an Academic Degree	114
Rank	116
Position	118
Hypothesis 2.....	119
Gender	120
Ethnicity.....	121
Age.....	122
Marital Status.....	123
Class.....	124
Hypothesis 3.....	126
Barriers to achieving success	127
Institutional/ Organizational.....	128
Personal Factors	129
Lack of Understanding/ Lack of Support.....	129
Professional Roles/ Responsibilities.....	130
Discrimination	130
Work/Life Balance.....	131
Other	132
Overcome the barriers.....	133
Have not been able to overcome them.....	133
Help from others.....	134
Education	134

Hard work/ Persistence	135
Time Management.....	136
Other.....	136
Formula for career success	139
Conscientiousness.....	140
Agreeableness	141
Extraversion	142
Openness.....	143
Neuroticism	143
Proactive Personality.....	144
Other	145
Motivation for Becoming a Program Director.....	147
Necessity.....	149
Advance the Profession.....	149
Passion for Teaching and EMS.....	150
Career Advancement.....	151
Challenge	152
Other	152
Hypothesis 4.....	153
Type of Organization	154

Type of Degree	155
Size of the Program	157
Accreditation Status	159
Obtained Position	160
Formal Training/ Education Provided	162
Hypothesis 5.....	168
Pay- Current Salary as a PD.....	169
Salary of the Last Position.....	170
Promotion.....	172
Number of Programs Directed.....	173
Hypothesis 6.....	175
Career Satisfaction	176
Overall Career Satisfaction	180
Career Outcomes.....	182
Intent to Leave the Position.....	182
Intent to Leave the EMS Profession.....	184
Regressions	186
Hypothesis 1.....	187
Hypothesis 2.....	191
Hypothesis 3.....	194

Hypothesis 4.....	196
Hypothesis 5.....	198
Hypothesis 6.....	200
Additional Models Explored	202
Human Capital Factors Predicting Career Outcomes.....	203
Sociodemographic Variables Predicting Career Outcomes.....	205
Stable Individual Variables Predicting Career Outcomes.....	207
Organizational Variables Predicting Career Outcomes	208

CHAPTER V: DISCUSSION AND CONCLUSION

Introduction.....	211
Purpose.....	211
Summary of Procedures.....	213
Dependent and Independent Variables.....	213
Discussion of the Major Findings	214
Motivation.....	216
Gender, Ethnicity, Age and Class.....	216
Experience.....	219
Educational Attainment and Professional Growth.....	220

Job Related Roles and Responsibilities	222
Career Advancement.....	225
Work/ Life Balance.....	226
How do paramedic program directors achieve their career success?	227
Qualitative Findings.....	227
Summary of the findings related to the hypotheses.....	229
Discussion of Significant Relationships.....	240
Implications.....	241
Limitations and Recommendations for Future Research.....	242
Conclusion	244
REFERENCES.....	246
APPENDICES	
Appendix A: List of Abbreviations.....	279
Appendix B: List of the 459 Accredited Programs.....	281
Appendix C: List of the 217 Programs that have a Letter of Review	300
Appendix D: Institutional Review Board Approval Protocol#134-15.....	311
Appendix E: Survey Instrument.....	313
Appendix F: Pre-notification E-mail Request.....	326
Appendix G: Cover Letter.....	328

Appendix H: Reminder Notification.....	330
Appendix I: Codebook.....	332
Appendix J: Demographic characteristics.....	339
Appendix K: Job Related Characteristics.....	340
Appendix L: Summary of major findings.....	344
Appendix M: Themes that Emerged from the Qualitative Analysis.....	346

LIST OF TABLES

Table 1. Gender.....	89
Table 2. Ethnicity.....	90
Table 3. Age.....	91
Table 4. Marital Status.....	91
Table 5. Highest Level of Education	92
Table 6. Parents' Highest Level of Education	93
Table 7. Type of Organization.....	94
Table 8. Hours Worked.....	95
Table 9. Current Yearly Salary as Program Director.....	96
Table 10. Classification of Position.....	97
Table 11. Rank.....	99
Table 12. Experience as a Paramedic	100
Table 13. Experience as a Paramedic Instructor.....	101
Table 14. Experience as an EMS related instructor.....	102
Table 15. Experience as an Administrator/ Manager.....	102
Table 16. Experience as a Military Medic	103
Table 17. Correlation -Human Capital and Objective Career Success.....	106
Table 18. Hours worked per week	107
Table 19. Descriptive related to the percentage of time dedicated to tasks.....	108
Table 20. Descriptive statistics for years as a program director	109
Table 21. Years of experience as a program director	110
Table 22. Years of experience directors	111

Table 23. The total number of years of all previous experiences	111
Table 24. Highest degree earned.....	113
Table 25. Working towards a degree	114
Table 26. Type of degree being pursued.....	115
Table 27. Rank	117
Table 28. Rank (Re-coded).....	117
Table 29. Classification of position	118
Table 30. Classification of position/tenure	119
Table 31. Correlation -Sociodemographic and Objective Career Success	120
Table 32. Ethnicity.....	122
Table 33. Age.....	123
Table 34. Marital Status.....	124
Table 35. Parents' education level (class)	125
Table 36. Correlation- Stable Differences and Subjective Career	127
Table 37. Barriers and challenges.....	128
Table 38. Ways the barriers and challenges were overcome	133
Table 39. How barriers/challenges were overcome.....	138
Table 40. Formula for Career Success.....	140
Table 41. Formula for Career Success (Re-coded).....	146
Table 42. Reasons for becoming a paramedic program director	148
Table 43. Correlation- Organizational and Subjective Career Success	154
Table 44. Types of Organizations.....	154
Table 45. Highest degree offered by the program	155

Table 46.Highest degree offered by the program (Re-coded)	156
Table 47.Total number of students in the program.....	157
Table 48.Total number of students in the program.....	158
Table 49.Program accreditation status.....	159
Table 50.The way the position of program director was obtained	161
Table 51.The way the position of program director was obtained	161
Table 52.Amount of training received from the organization	163
Table 53.Correlation- Objective Career Success and Career Outcomes	169
Table 54.Total yearly salary as program director	169
Table 55.Yearly salary as a program director.....	170
Table 56.Previous salary.....	171
Table 57.Promotions.....	172
Table 58.Descriptive for the number of programs the participant directed.....	174
Table 59.Number of programs directed.....	174
Table 60.Correlation- Subjective Career Success and Career Outcomes.....	175
Table 61.Career satisfaction scale by Greenhaus et al. (1990).....	176
Table 62.Career Satisfaction.....	180
Table 63.Overall satisfaction with the position	181
Table 64.Overall Satisfaction with the position (high or low).....	182
Table 65.Likelihood of leaving the position.....	183
Table 66.Intent to leave the position.....	183
Table 67.Likelihood of leaving the EMS Profession.....	184
Table 68.Intent to Leave the EMS Profession	185

Table 69. Regression for Human Capital Predicting Current Salary	187
Table 70. Regression for Predicting Salary of the Last Position	188
Table 71. Regression for Human Capital Predicting Promotions.....	189
Table 72. Regression for Human Capital Predicting Programs Directed	190
Table 73. Regression for Sociodemographic Predicting Current Salary	191
Table 74. Regression for Sociodemographic Predicting Last Position.....	192
Table 75. Regression for Sociodemographic Predicting Promotions	193
Table 76. Regression for Sociodemographic Predicting Programs Directed	194
Table 77. Regression for Stable Variables Predicting Overcome Barriers.....	195
Table 78. Regression for Stable Predicting Formula for Career Success	195
Table 79. Regression for Organizational Predicting Career Satisfaction	197
Table 80. Regression for Organizational Predicting Satisfaction position.....	198
Table 81. Regression for Objective Predicting Intent to Leave the Position.....	199
Table 82. Regression for Objective Predicting Intent to Leave the EMS.....	200
Table 83. Regression for Subjective Predicting Intent to Leave the Position	201
Table 84. Regression for Subjective Predicting Intent to Leave the EMS	202
Table 85. Regression for Human Predicting Intent to Leave the Profession.....	203
Table 86. Regression for Human Predicting Intent to Leave the EMS	204
Table 87. Regression for Sociodemographic /Intent to Leave the Position.....	205
Table 88. Regression for Sociodemographic/ Intent to Leave the EMS.....	206
Table 89. Regression for Stable Variables /Intent to Leave the Position	207
Table 90. Regression for Stable Variables /Intent to Leave the EMS	208
Table 91. Regression for Organizational/ Intent to Leave the Position.....	209

Table 92. Regression for Organizational/ Intent to Leave the EMS.....	210
Table 93. Demographic Characteristics.....	340
Table 94. Job Related Characteristics.....	342

LIST OF FIGURES

Figure 1. Predictors of Career Success	12
Figure 2. Hypothesized model of career success	21
Figure 3. Types of organizations in which paramedic programs are located in	94
Figure 4. The average number of hours spent completing their duties.....	95
Figure 5. Current yearly salaries reported by paramedic program directors	96
Figure 6. Directors that are tenured	98
Figure 7. The prior experience of paramedic program directors	100
Figure 8. Number of hours worked per week	108
Figure 9. Percentage of time dedicated to tasks.....	108
Figure 10. Number of years as a program director	110
Figure 11. Total Experience.....	112
Figure 12. Highest degree earned	113
Figure 13. Pursuit of an academic degree.....	115
Figure 14. Types of degrees being pursued by program directors.....	116
Figure 15. Gender	120
Figure 16. Ethnicity	121
Figure 17. Age of the participants.....	122
Figure 18. Marital status	123
Figure 19. Highest education level received by either of the participants' parents	125
Figure 20. Barriers and challenges.....	132
Figure 21. How the barriers were overcome.....	138
Figure 22. Formulas for career success.....	147

Figure 23. Reasons for becoming a paramedic program director	148
Figure 24. Highest degree offered by the program	156
Figure 25. Number of students.....	157
Figure 26. Number of students.....	158
Figure 27. Accreditation status of programs.....	160
Figure 28. How the position in the organization was obtained.....	162
Figure 29. Formal training/ education received in administration.....	163
Figure 30. Formal training/ education received in pedagogy or andragogy	164
Figure 31. Formal education/training received in scholarship.....	165
Figure 32. Formal education/ training received in service	165
Figure 33. Formal education/ training received in mentorship.....	166
Figure 34. Formal education/ training received in distance education	167
Figure 35. Total amount of education and training provided by the organization	167
Figure 36. Salary earned as a program director	170
Figure 37. Previous salary in last position	171
Figure 38. Promotions since obtaining the position of program director	173
Figure 39. Number of programs directed.....	174
Figure 40. Satisfaction with the success achieved in their career.....	177
Figure 41. Satisfaction with the progress toward meeting overall career goals	177
Figure 42. Satisfaction with the progress made towards meeting goals for income.....	178
Figure 43. Satisfaction with the progress made towards meeting goals advancement..	179
Figure 44. Satisfaction with the progress made toward goals for new skills.....	179
Figure 45. Overall satisfaction with the position	181

Figure 46. Intent to leave the position in the next twelve months	184
Figure 47. Intent to leave the EMS profession	185

CHAPTER I

INTRODUCTION

The future of Emergency Medical Services (EMS) as a profession rests in part with the individuals who educate and train paramedics and other EMS professionals to provide emergency care to patients in need. The efficiency and effectiveness of paramedic educational programs is an essential element in the supply of paramedics (Margolis, Romero, Fernandez, & Studnek, 2009). Paramedic program directors have the ability to affect the training and education that is delivered to these EMS professionals across the nation. Although paramedic program directors actively contribute to the EMS profession, not much is known about them. These individuals have successfully attained educational leadership positions in the EMS workforce, but little is known about how they have achieved their success. Judge, Higgins, Thoresen, and Barrick (1999) described how an employee's personal success can eventually contribute to organizational success and that the career success is of concern to both the individual and the organization. Based on this premise, the career success of the program directors can affect their organizations and future of the EMS profession.

According to the National Highway Traffic Safety Administration (2007), EMS professionals treat over 20 million medical and trauma patients a year in the United States. The number of patients is expected to grow as a result of age-related health emergencies, and the projection of growth for Emergency Medical Technicians (EMTs) and Paramedics in the workforce is expected to rise by 23 percent from 2012 to 2022, much faster than the average for all occupations (Bureau of Labor Statistic, 2014).

Educated and trained EMS professionals will be needed to meet the future demands of the workforce. The National Registry of Emergency Medical Technicians (2014) reported that there are an estimated 700,000 EMS professionals in the country who are certified as either First Responders, Emergency Medical Technicians, Advanced Emergency Medical Technicians, or Paramedics. Each of these individuals require education and training in order to provide proper treatment and care to their patients until definitive care can be received at a hospital. The majority of these individuals receive training from educational programs across the country that are overseen by paramedic program directors.

The education and training requirements for EMS professionals have been affected by the National Highway Traffic Administration's (NHTSA) *EMS Agenda for the Future* (1996) and *Emergency Medical Services Education Agenda for the Future: A Systems Approach* (2000). In order to provide a common vision of EMS and to assist governmental and private organizations in EMS planning, decision-making, and policy, the NHTSA issued the *EMS Agenda for the Future*. The *EMS Agenda for the Future* identified EMS as a unique discipline that intertwines with public safety, public health, and health care and explained how EMS and EMS education play significant roles in the changes that are occurring in the EMS profession. According to the NHTSA, the *Vision* for the future of EMS is described as:

Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic

conditions and community health monitoring. This new entity will be developed from re-distribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net.

(EMS Agenda for the Future, p. III)

The NHTSA recognized that the EMS education system was fragmented and in response issued the *EMS Education Agenda for the Future: A Systems Approach* (2000). The *EMS Education Agenda for the Future* recommended the implementation of five key educational components (National EMS Core Content, National EMS Scope of Practice Model, National EMS Education Standards, National EMS Program Accreditation, and a National EMS Certification) in order to develop EMS as a profession that more closely parallels that of other allied health care professions. The use of the five components is anticipated to help achieve the *Vision* of EMS in the future. In order to accomplish this mission, EMS educators and administrators must work diligently to address the changes and demands associated with the implementation of these components. For example, instead of just delivering a prescribed curriculum, the EMS educator of the future will be expected to implement a more student-centered approach to teaching and learning that requires substantially more knowledge and skill on the part of the educator (NHTSA, 2000). The Emergency Medical Services Workforce Agenda for the Future (2011) states that “high quality EMS education is needed to develop EMS personnel who are capable of delivering high quality prehospital health care” (p.4). These types of changes necessitate that the educational programs incorporate new content into their curriculum

so that EMS professionals can provide better services to their communities and help achieve the *Vision* for the future.

According to the Committee on Accreditation of Educational Programs for the Emergency Services Professions (CoAEMSP), EMS program personnel must be able to identify and respond to changes in the needs and/or expectations of its communities of interest (June 2, 2014). To do so requires educational leadership and guidance from the paramedic program directors that oversee and are responsible for all aspects of the program. According to the Paramedic proposed Standards & Guidelines from the CoAEMSP (2014), the responsibilities of the program director include:

- 1) the administration, organization, and supervision of the educational program,
- 2) the continuous quality review and improvement of the educational program,
- 3) long range planning and ongoing development of the program,
- 4) the effectiveness of the program, including instruction and faculty, with systems in place to demonstrate the effectiveness of the program,
- 5) cooperative involvement with the medical director,
- 6) the orientation/training and supervision of clinical and field internship preceptors
- 7) the effectiveness and quality of fulfillment of responsibilities delegated to another qualified individual

As educational leaders in the field of EMS, paramedic program directors have the ability to contribute to the success of the EMS profession and help fulfill the *Vision* for

the Future. Leone, Judd, and Colandreo (2008) described how “Program directors play a critical role in the advocacy of the profession within institutions of higher education through professional preparation of students” (p.43). Hegmann and Dehn (2006) affirmed that program directors also have the potential to greatly influence the priorities and time use of their faculty members, as well as the future direction of education. In EMS, paramedic program directors are “core to the structure and foundation of the program” (Tritt, n.d.). Although the role of the program directors has been recognized as important to the success of the students and their educational organizations, little is known about who these individuals are or how they have achieved their career success as EMS educational leaders.

This study profiles the characteristics of paramedic program directors and explores how the program directors have achieved their career success. The study also identifies some of the perceived challenges/barriers that the program directors have faced and describes how the program directors have overcome them in order to achieve their career success.

Statement of the Problem

Paramedic program directors play a significant role in the education and training of EMS professionals; however, not much is known about these professionals. The roles and responsibilities of a paramedic program director extend beyond those of just an EMS educator in the classroom. Other professions describe a program director’s position not only as a clinician and educator but also as a faculty member, recruiter of students, clinical supervisor, coordinator of educational experiences, and liaison between the

curriculum and accrediting agency (Leard, Booth, & Johnson, 1991). Those individuals with clinician-educator backgrounds who choose to pursue academic careers should possess the ability to be a clinical teacher, a curriculum developer, an administrator/leader, and an educational scholar (Heflin, Pinheiro, Kaminetzky, & McNeill, 2009). The transition from a professional role as a clinician to academia requires that clinicians become familiar with a new environment, culture and expectations, as well as demonstrate their educational professional development (Frantz & Smith, 2013). To perform these duties effectively, the directors must also possess leadership skills. Miller (2013) claimed that leadership skills can be learned, taught and improved in EMS educational programs. Despite a large number of clinical providers and EMS educators, the precise proportion willing or able to perform the duties of a program director is unknown.

Traditional academic pathways for achieving career success have been identified for other allied health professions; however, those specifically related to paramedic program directors have not yet been studied sufficiently. According to Ruple, Frazer, Hsieh, Bake, and Freel (2005) the majority of EMS educators do not consider the traditional method of preparation for educational professionals or the attainment of academic degrees as a requirement for success. The perceptions of paramedic program directors may or may not be similar to that of EMS educators. Ruple et al. (2006) concluded that additional teaching and administrative responsibilities faced by EMS educators will challenge the current EMS educator cadre and adversely affect educator workforce recruitment and retention. Differences may exist between EMS educator and paramedic program directors, so it is necessary to explore factors that specifically can

contribute to the recruitment and retention of paramedic program directors in the workforce. Therefore, research is necessary in order to better understand these professionals and evaluate the challenges that they face in achieving success in their careers.

Career Success

Career success is a complex, dynamic, and social issue that is not a static construct with a defined objective reality (Adamson, Doherty, & Viney, 1998; Dries, 2011). Career success has been defined as the positive psychological or work related outcomes or achievements that an individual accumulates as a result of their work experiences (Ng, Eby, Sorensen, & Feldman, 2005; Seibert, Crant, & Kraimer, 1999; Seibert & Kraimer, 2001). The idea of career success has been explored throughout the literature yet consensus as to what it truly is and what it is derived from remains debated. Bartolome and Evans (1980) stated that what appears to be success as a good outcome to one individual can be seen very differently by another individual. Individuals continually interpret and reinterpret their work experiences and their career success (Nicholson & De Waal-Andrews, 2005). Independent facets such as financial, hierarchal, interpersonal, job, and life-related have been suggested to be incorporated into career success (Gattiker & Larwood, 1986). Because various facets and independent factors can influence an individual's career success and retention in a job, it is important to explore which factors may predict the career success of the individuals who choose to become paramedic program directors. The benefits of understanding the factors that promote career success

extend beyond future employees alone. Research has suggested that individual outcomes (rewards) and organizational outcomes (retention of desired talent) are benefits that can simultaneously occur (Ng, Sorensen, Eby, & Feldman, 2007; Stumpf, 2014). Exploring factors that relate to the career success of paramedic program directors is therefore not only important to the individual but to the EMS profession.

Multiple theoretical perspectives have been used to help explain the construct of career success including upward mobility and human capital theory both of which are not mutually exclusive (Mauer & Chapman, 2013). Both elements of mobility and human capital are present in Blau and Duncan's Status Attainment Theory (1967) which provides a theoretical foundation for the proposed study. Blau and Duncan's Model for Status Attainment suggests that factors such as educational attainment and parental status affect the ability for an individual to move upward or downward in a class system, specifically in relation to occupational status (Blau, P. 1992). The objective and positional variables that Blau and Duncan (1967) examined demonstrated how the effect of parental position on occupational attainment was mitigated by educational attainment (Knottnerus, 1987). The addition of social-psychological variables have added significantly to Blau and Duncan's theoretical framework (Kerckhoff, 1976).

The status-attainment model "reconceptualizes mobility in terms of the influences individuals' socioeconomic origins, and other attributes, have on their life chances, specifically on occupational status" (Blau, P.M., 1992). Mobility research provides descriptions of the extent and direction of statuses in a society (Haller & Portes, 1973). According to Ng et al. (2005) research on upward mobility is "relevant to career success

because those who are typically able to move up the societal or organizational hierarchy are typically regarded as successful and are more likely to view themselves as successful” (p. 369). Ng et al. (2007) described how an individual’s job mobility unfolds through the structural, individual preference, and decisional perspectives.

Social mobility has been explored specifically in relation to career literature. Turner (1960) posited two different modes of social mobility which can be applied to career success, *contest mobility* and *sponsored mobility*. Contest mobility refers to the idea that people compete for promotions and career success while sponsored mobility refers to the idea that elite sponsors within an organization help selected individuals achieve career success. According to Turner, contest mobility is like a sporting event in which many compete for a few recognized prizes and that victory is won solely by one’s own efforts (p. 857). In the realm of career success, the victory can be seen in competing for promotions by producing the most and working the hardest utilizing factors associated with human capital such as hours worked, job tenure, work experience, and education level (Russ-Eft, Levine, & Fernandez, 2014). These factors relate primarily to internal-upward mobility (Ng. et al., 2007).

Turner (1960) also claimed that sponsored mobility “rejects the pattern of the contest” and instead the mobility occurs as a result of elite individuals sponsoring the induction of a chosen individual (p.857). Mentorship, supervisory support, and network support are examples of factors that can illustrate the role of others in the career success of an individual. According to Cable and Murray (1999), the previous practices of rewarding individuals in academia based on sponsored mobility norms have been

replaced more frequently by management departments that utilize more contest-based criteria for academic jobs.

In the literature, the construct of career success has been operationalized by both objective and subjective measures (Hall & Chandler, 2005; Ng et al., 2005; Thorndike, 1934). Everett Hughes (1937, 1958) initially differentiated between objective and subjective career success and explained that the objective is directly observable and measurable while the subjective is experienced by the individual engaged in his career. Judge, Cable, Boudrea, and Bretz (1995) explained how the concept of career success is usually referred to as objective (or extrinsic) that can be measured such as salary or promotions or as subjective (or intrinsic) that can be measured with job or career satisfaction. Gunz and Heslin (2005) discussed the complexities of defining career success and also attempted to define objective and subjective career success. The conflicting nature of the relationship between subjective and objective success has also been described in the literature (Punnett et al., 2007).

Objective career success reflects an individual's ability to attain career success through indicators such as salary attainment and number of promotions (Gutteridge, 1973; Hall & Chandler, 2005; Judge et al., 1995). Becker (1964) suggested that human capital variables such as the numbers of hours worked, job tenure, work experience, and education level contribute to an individual's career success. Individuals' past career mobility, promotions, and salary changes have been found to be objective indices of success that affect the way professionals perceive themselves and are perceived by others (Stumpf & Tymon, 2012). Objective indicators also "provide a more consistent criterion

for making generalizations” (Hogan, Chamorro-Premuzic, & Kaiser, 2013, p.4). However, the acquisition of high pay or promotions do not necessarily make people feel proud or successful (Hall, 2002). In addition, careers are becoming more boundaryless and therefore some individuals are evaluating their career success by more subjective standards than ever before (Arthur & Rousseau, 1996; Dries, Pepermans, & Carlier, 2008; Verbruggen, 2012). However, the pursuit of a boundaryless career may both support and hinder an individual’s subjective career success (Colakoglu, 2011).

Subjective career success reflects an individual’s judgments about their career attainments, their appraisals of self-worth and capabilities, and their satisfaction in their career (Stumpf & Tymon, 2012; 2014). Gattiker and Larwood (1988) claim that subjective career success reflects the individual’s personal standards and preferences. Subjective career success addresses factors such as career satisfaction (Greenhaus, 1990) that transcend the objective criteria in the literature (Hall, 2002). Heslin (2005) suggested that the measurement of subjective career success can be improved by “a) drawing upon research into what the employee wants, b) paying greater attention to how people in different career contexts conceptualize their career success, and c) adopting more qualitative methods” (p. 117).

The relationships between the subjective and objective indicators of career success are debated throughout the literature. Various scholars have debated how objective indicators are distinct from subjective indicators (Greenhaus, Parasuraman, & Wormley, 1990; Judge et al., 1995). Other researchers suggest that objective career success affects subjective career success (Poole & Langan-Fox, 1993; Stumpf, 2014) and

yet others believe that objective and subjective factors of career success are interdependent (Seibert, Kraimer, & Liden, 2001). Because of the subjective-objective career duality and the interdependence between the objective and subjective sides of career success, it makes it difficult to assess “the adequacy of the relationship between the sides” (Arthur, Khapova, & Wilderom, 2005, p. 181). However, a broad consensus has been reached on the necessity of using both objective and subjective elements to grasp career success (Dries et al., 2008; Tremblay, Dahan, & Gianecchini, 2014). The use of subjective career success in conjunction with objective attainments is a commonly adopted method of dealing with the deficiencies of using objective criteria alone (Heslin, 2005).

Ng, Eby, Sorensen, and Feldman (2005) conducted a meta-analysis in order to identify predictors of objective and subjective career success. They were able to categorize four types of predictors of objective and subjective career success: *human capital*, *organizational sponsorship*, *sociodemographic status*, and *stable individual differences*. Figure 1 depicts the predictors of objective career success and subjective career success as described by Ng et al.

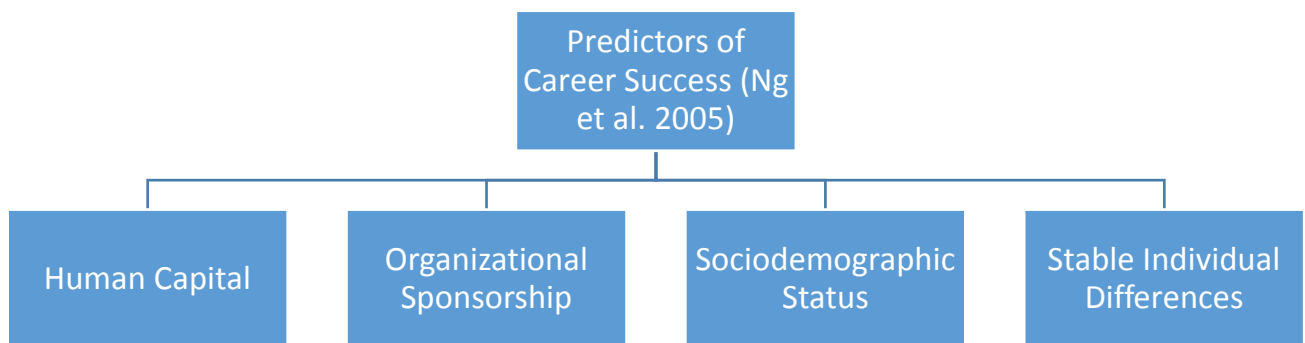


Figure 1. Predictors of Career Success by Ng, Eby, Sorensen, and Feldman (2005).

According to Ng et al. (2005), human capital is one of the commonly utilized predictors of career success. The number of hours worked, job tenure, work experience, and education level are human-capital variables that lead to an individual's career success (Becker, 1964). Other indicators such as work centrality, willingness to transfer, organizational tenure, career planning, networking, and social capital have also been used across different occupations to comprise human capital (Pachulicz, Schmitt, & Kuljanin, 2008). Ng and Feldman (2010) illustrated how human capital contributes to 'objective career success' by increasing individuals' work skills and knowledge (p.210). Tremblay et al. (2014) found that the more respondents perceive that performance carries weight in promotion decisions, the higher their level of objective career success was.

Organizational sponsorship was the second category of predictors described by Ng et al. (2005). This predictor includes factors that represent the extent to which an organization provides special assistance to its employees (Ng et al., 2005). Other indicators of organizational sponsorship include coaching, supervisor support, training and skill development opportunities, and organizational resources (Pachulicz et al., 2008). Mentorship and career sponsorship are examples of other ways organizations can support their employees. Supporting and promoting the development of an employee by the organization can enhance positive outcomes for both the organization and the employees (Kraimer, Seibert, Wayne, Liden & Bravo, 2011; Senge, 1990).

Sociodemographic predictors of career success were also described by Ng et al. (2005) and included social and demographic factors such as gender, race, age, and marital status. Each of these factors were used in this study as predictors of career success. Additionally, the highest level of education obtained by either parent was used as a

sociodemographic predictor of career success because it related to the mobility of the individual as depicted in Blau and Duncan's Status Attainment Theory (1967).

Stable individual differences was the last of the four categories of predictors specified by Ng et al. (2005). These predictors included the "Big Five" personality factors and other factors such as proactivity, locus of control, and cognitive ability (Ng et al., 2005). Personality has been explored as a factor of career success in the literature (Boudreau, Boswell, & Judge, 2001). One of the most commonly used models for assessing personality is the Five-Factor Model often referred to as the "Big Five" which classifies personality factors into one of five domains: agreeableness, openness, extroversion, conscientiousness, and neuroticism (McRae & Costa, 1996). The Big Five framework examines the five factors and summarizes them into more specific facets and traits (Gosling, Rentfrow, & Swann, 2003). Big Five personality traits and general mental ability have been found to affect the career success across a lifespan (Judge et al., 1999) and contribute to job satisfaction (Judge, Heller, & Mount, 2002). Career anchors, or individuals' dispositions, have also been shown to have an effect on career success (Tremblay et al., 2014). Proactive personality has also been used to predict salary, promotions, and career satisfaction (Seibert et al., 1999; Mauer & Chapman, 2013). Bateman and Crant (1993) suggested that people high in proactive personality actively seek out opportunities and act on them, demonstrate initiative and create change. Fuller and Marler (2009) described how proactive personality is related to success because proactive people utilize contest mobility and sponsored mobility pathways.

In the meta-analysis conducted by Ng et al. (2005), human capital and sociodemographic predictors were found to have stronger relationships with objective

success while organizational sponsorship and stable individual differences were found to have stronger relationships with subjective career success. Although the relationships may have been stronger with either objective or subjective success, relationships were found to exist between all of the factors. Their findings support the need for future studies to examine factors associated with both objective success and subjective success.

Pachulicz, Schmitt, and Kuljanin (2008) used the findings from the Ng et al. (2005) meta-analysis as a foundation for a longitudinal study of emergency physicians' career success. Pachulicz et al. distributed a thirty-eight page survey to a sample of emergency physicians three times within a period of ten years in order to assess their career success. They explored human capital factors (number of hours worked, work excitement, number of years in Emergency Medicine, and certifications), sociodemographic factors (age, race, and marital status), individual differences (planful, social, self-efficacy, health, leisure, and personal conflict), and organizational sponsorship (organizational support, perceived control, and further education opportunities) to determine the objective career success (number of academic leads, number of Emergency Medicine leads, and salary change) and subjective career success (career satisfaction) of emergency physicians. In addition to Ng et al.'s predictors, Pachulicz et al. evaluated the outcomes of the physicians' career success by examining the physicians' intentions to leave the specialty, the profession, and their retirement status. Joiner, Bartram, and Garreffa (2004) described how research on career success has focused on individual outcomes such as turnover intention. In addition to adding the new dimension of intent to leave, Pachulicz et al. confirmed the model of career success

depicted in Ng et al. and partially confirmed the suggested relationships inherent in the meta-analysis through the use of longitudinal data.

Ng et al. (2005) suggested that the predictors described in their meta-analysis and other predictors should be researched in more detail to more fully understand the complex phenomenon of career success. Since no information specifically addressing the career success of paramedic program directors exists in the literature, the exploration of these predictors of career success for this specific population is warranted.

Purpose of the Study

The purpose of this study was to gain valuable insight into who paramedic program directors are and determine how paramedic program directors achieved their career success. Because little is known about the factors that contribute to the career success of paramedic program directors, it was necessary to examine both objective and subjective sides of their career success. This study also explored the perceived barriers and challenges faced by these individuals in achieving success and sought to determine how these challenges were overcome.

The study attempted to answer the following research questions:

- 1) Who are the paramedic program directors of today?
- 2) What barriers/challenges have paramedic program directors faced in achieving their career success?
- 3) How have paramedic program directors achieved their career success?

An electronic survey consisting of 33 close-ended and open-ended questions was used to gather data about paramedic program directors and provide a profile for this population. Alford (1998) suggested that all good work combines elements of historical, interpretive, and multivariate paradigms in various ways. This study explored who the directors in the present are and took into consideration how they may impact the future of the profession, utilized qualitative analyses to gain a better understanding of the respondents, and used a variety of factors to explore the concept of career success.

The questions used in the survey addressed the research questions and expanded upon the work of Ng et al. (2005) by examining human capital, sociodemographic, stable individual differences, and organizational sponsorship factors that were hypothesized to contribute to the career success of paramedic program directors. The survey also included questions that addressed the outcomes of career success (intent to leave the profession and the occupation) based on the work of Pachulicz et al. (2008). A model of hypothesized objective and subjective factors was designed to frame the construct of career success and explore the career success of program directors. Finally, thematic analyses were used to interpret the qualitative responses including those that related to the perceived barriers to achieving career success as well as formulas for overcoming the barriers and achieving career success.

Hypotheses of the Study

The following hypotheses served to help guide and understand the construct of career success in the study.

- *Hypothesis 1-* Human capital factors are positively related to objective career success. The human capital variables explored in this study included the number of hours worked, the number of years as a program director, the number of years of experience, the highest degree obtained, the pursuit of an academic degree, the individual's rank, and the individual's position/tenure. Each of these variables was expected to be positively related to the participant's objective career success.
- *Hypothesis 2-* Sociodemographic variables (gender, race, age, marital status, and class) are positively related to objective career success. Each of these factors was used in this study as predictors of career success. Being male, white, married and older were expected to be positively related to the objective career success of the participants. The indicator of class was identified as the highest level of education obtained by either parent and was also hypothesized to be positively related to objective career success.
- *Hypothesis 3-* Stable individual differences are positively related to subjective career success. Although stable individual difference predictors have illustrated that dispositional traits may affect the career success of an individual, these stable individual differences were not directly measured by utilizing the Big 5 or other scales in this study. Some predictors of stable individual differences emerged when the analysis of themes related to the career success of the program directors was performed. The responses provided to questions asking about the barriers to achieving success, how those barriers were overcome, the individual's formula for achieving success, and their reason for becoming a program director were used in the thematic analysis that related to these factors.

- *Hypothesis 4-* Organizational sponsorship factors are positively related to subjective career success. In this study, organizational sponsorship was determined by the type of organization, type of degree offered by the program, the size of the program, the program's accreditation status, how the employee obtained their position as program director, and formal training/education provided by the institution. Each of these variables was expected to be positively related to the subjective career success of the participants.
- *Hypothesis 5-* Objective career success is positively related to the career success outcomes. In the study, objective career success was based on four indicators associated with the description provided by Ng. et al. (2005). The indicators were the current salary of the individual as a program director, the change in the salary from their last position, the number of promotions that they have received, and the number of programs that they have directed. Each of these variables was expected to be related to the outcomes of career success (intent to leave the position and intent to leave the profession) similarly to what was done in Pachulicz et al. (2008).
- *Hypothesis 6-* Subjective career success, based on job satisfaction, is positively related to career outcomes. The subjective career success was determined by the overall career satisfaction of the individual and the responses to the career satisfaction scale developed by Greenhaus, Parasuraman, and Wormley (1990). Both the intent to leave the position and the intent to leave the profession were the variables that determined the ultimate career success outcomes.

A hypothesized model representing the career success of paramedic program directors based on the works of Ng. et al. (2005) and Pachulicz et al. (2008) appears in Figure 2. The model demonstrates the hypothesized relationships between the factors identified by Ng. et al. (2005), subjective and objective career success, and some career success outcomes similar to Pachulicz et al. (2008).

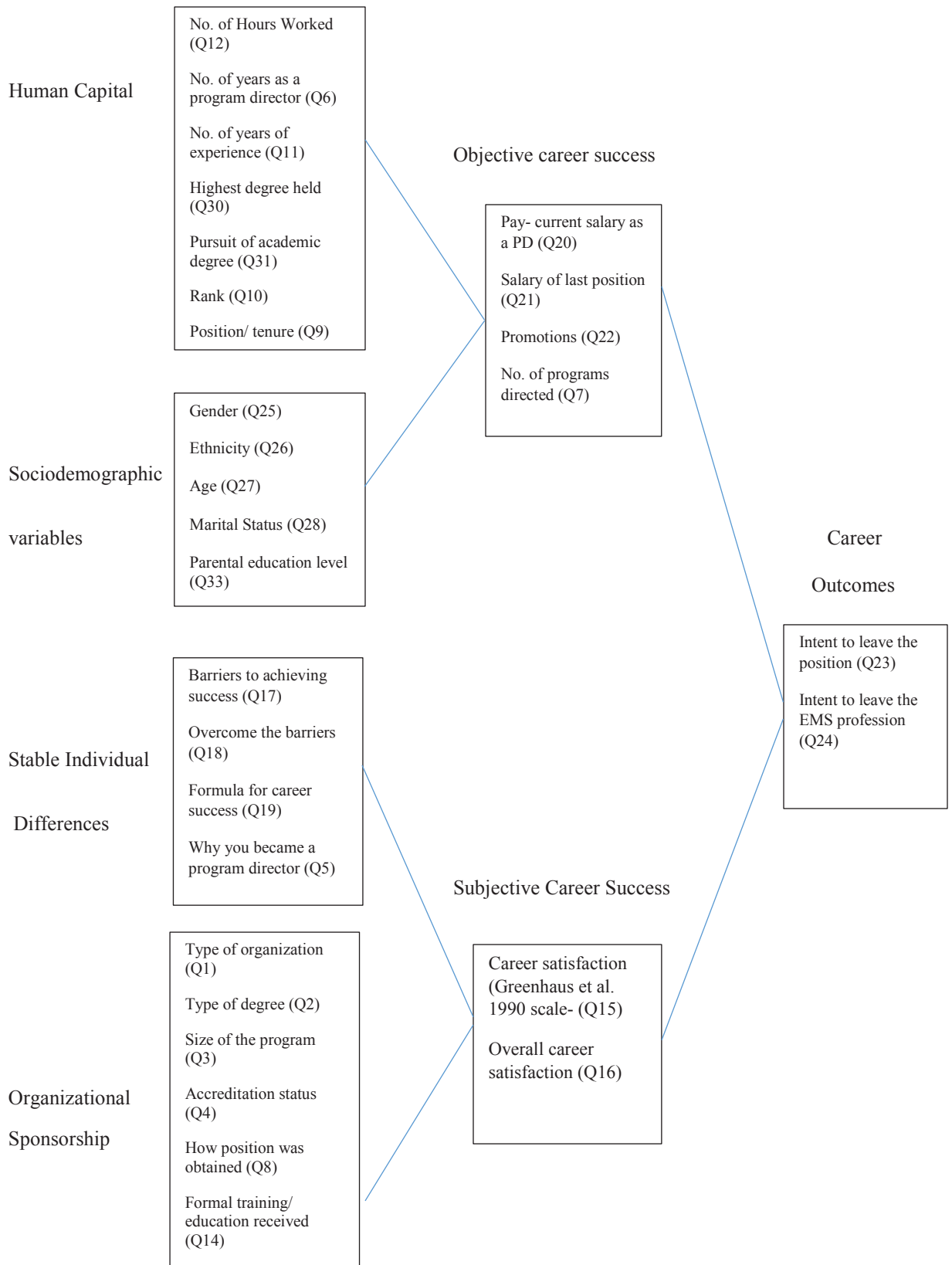


Figure 2. Hypothesized model of career success for paramedic program directors. Based on the works of Ng et al. (2005) and Pachulicz et al. (2008).

Significance of the Study

This study was the first national study to examine the career success of paramedic program directors. It also was the first to provide a description of all paramedic program directors. These professionals oversee programs that train individuals to provide proper medical care during a crisis. The study provided an opportunity to better understand the work related factors that affect these individuals. EMS professionals are trained to provide emergency care to patients through various types of educational programs offered in various settings throughout the country. Although the U.S. Department of Education's National Center for Education Statistics collects information about many EMS educational programs, it does not differentiate between the various levels of EMS instruction and the data are not collected from every program. This study provides information that can be used to better understand the individuals and their job-related characteristics.

Although national sources of workforce data exist, the accuracy in estimating the EMS workforce and the complexities associated with the EMS workforce are not accounted for and can hamper the ability to anticipate and address future workforce needs (NHTSA, 2011). The Bureau of Labor Statistics Occupational Outlook handbook classifies both EMTs and Paramedics in the same group and although a brief description of the various duties performed between the levels is described, the report does not differentiate between the compensation or employment prospects for the groups separately. Furthermore, data specific to program directors or other specific EMS related educators and managers are lacking. This study will add to the data available by describing details that relate specifically to these members of the workforce.

Blau, Bentley, and Eggerichs-Purcell (2012) explained that individuals must have realistic expectations and information about the rewards as well as challenges facing them when they consider a career in EMS. This statement applies to the EMS professionals in the field as well as to those who will serve as paramedic program directors. According to the Emergency Medical Services Workforce Agenda for the Future (2011), the factors that impede or enhance career growth and worker development in EMS need to be identified and shared. Because of the limited amount of knowledge that exists in the literature about paramedic program directors and in order to prepare a future workforce, it is necessary to determine the barriers/challenges these individuals have faced and have overcome in order to achieve success in their current positions. The obstacles, or career hurdles, an employee faces over their careers can create stress and lower their subjective career success (Ng & Feldman, 2014). The findings of this study will also add to the knowledge base on EMS professionals and will provide information that can be used to help attract and retain a diversified workforce capable of educating and training future EMS professionals.

Career advisors and human resource personnel may be able to use the information from this study to design orientation programs and staff development programs which could facilitate healthy transition and employment programs that provide EMS educators with administrative skills, mentors, and other resources to achieve career success as a paramedic program director. The findings of this study should also be beneficial to students and paramedics seeking to become future EMS educators and paramedic program directors.

Limitations and Delimitations

This study is not without limitations. The data from this study are self-reported and subject to personal bias. A limited number of accredited paramedic programs exist in the United States. Although many of the programs offer EMS education for various levels of EMS providers including that of paramedic, only the paramedic educational programs were utilized because these programs possess sufficient content to be accredited. Paramedic program accreditation is part of the *Vision for the Future* of EMS and according to the National Association of State EMS Officials report (NASEMO, 2013) approximately 90% of the paramedic programs in the country have or are in the process of obtaining accreditation, therefore non-accredited paramedic programs were excluded. Therefore, the results are not generalizable to the directors of the non-accredited programs. Although the study provides valuable information about paramedic program directors, it was beyond the scope of this study to address every variable that could affect an individual's career success. Therefore, only selected variables that were included in the hypotheses were used in this study.

Assumptions

Several assumptions were made in this study. First, it is assumed that EMS as an entity is seeking to achieve the *Vision of the Future* as described in the EMS Agenda for the Future and that paramedic program directors contribute to fulfilling that vision. Next, it assumed that career success is individually determined and the factors that predict success for paramedic program directors are similar to ones that predict success for other

professionals in other disciplines. It also assumed that subjective and objective outcomes are adequate measures for success and that these measures hold similar value to one another. The study also assumed that individuals who hold the title of program director have achieved career success in acquiring their positions.

Definition of Terms

A list of key terms and their definitions will be provided below. A listing of abbreviations used throughout the dissertation can be found in Appendix A.

Career- is the unfolding sequence of a person's work sequence over time (Arthur, Hall, & Lawrence, 1989; Li, You, Lin & Chan; 2014). It includes the individual's work related experiences, objective events such as job positions, duties, activities and work related decisions as well as subjective events such as work aspirations, expectations, values, needs, and feelings about work experiences (Greenhaus, Callanan, & Goshalk, 2009).

Career Success- is the positive psychological or work related outcomes or achievements that the individual accumulates as a result of work experiences (Ng et al., 2005; Seibert et al., 1999; Seibert & Kraimer, 2001).

Contest and Sponsored mobility- Concepts of career mobility described by Turner (1960).

Discrimination- is the act of treating a person differently, or less favorably, for some reason. Employment discrimination occurs when unfair treatment is received

because of race, color, religion, sex, national origin, disability, age, or genetic information (U. S. Equal Employment Opportunity Center, 2015).

Emergency Medical Services (EMS) - is a system that provides emergency medical care to patients. According to the NHTSA (2013), “EMS operates at the crossroads between health care, public health and public safety” and employs a combination of each of their principles and resources in its operations.

EMS professional- is any person who is nationally or state certified to assess and manage patients who experience medical or traumatic emergencies in the pre-hospital environment (NHTSA, 2013). Four recognized levels of EMS professionals exist today: Emergency Medical Responder, Emergency Medical Technician, Advanced Emergency Medical Technician, and Paramedic (NREMT, 2014).

Emergency Medical Technician- an individual certified to provide a basic level of prehospital emergency care and transport of patients to a receiving hospital.

EMTs/Paramedics- refers to EMS providers that have been combined with other levels of EMS providers for analysis in previous research. Some literature only looks at one group or the other and is identified by the appropriate level if available; however, some studies combine both and therefore EMTs/Paramedics will be used to differentiate between them.

Human Capital- is a commonly utilized predictor of career success (Ng et al., 2005). Becker (1964) suggested that the number of hours worked, job tenure, work experience, and education level are human-capital variables that lead to an individual’s career success.

Intent to leave- an individual's decision not to remain in a specified position.

Factors such as job satisfaction, intentions of quitting, organizational commitment, and job search activities have been related to turnover (Steel, 2002). Koster, De Grip, and Fourage (2011) suggests that the perceived support in employee development may affect the turnover in an organization.

Job Satisfaction- is a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Locke, 1976).

National Registry of Emergency Medical Technicians (NREMT) - is the national EMS certification organization for EMS professionals. It provides a valid, uniform process to assess the knowledge and skills required for competent practice required by EMS professionals throughout their careers. It maintains a record of all currently registered nationally certified EMS professionals at the levels of Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), or Paramedic (NRP).

Objective career success- reflects an individual's ability to attain career success through indicators such as salary attainment and number of promotions (Gutteridge, 1973; Hall & Chandler, 2005; Judge et al., 1995).

Organizational sponsorship- includes factors that represent the extent to which an organization provides special assistance to its employees (Ng et al., 2005). In this study, it includes factors such as receiving training/education in administration, pedagogy/andragogy, scholarship, service, mentorship, and distance education, as well as the way the individual obtained their current position as a paramedic program director.

Paramedic- an individual certified to provide the highest level of emergency care and transport of patients in the pre-hospital environment. Paramedics can perform advanced emergency care that includes the ability to administer medications, initiate intravenous therapy, interpret electrocardiograms, and perform endotracheal intubation (Bureau of Labor Statistics, 2014). Individuals who apply for national paramedic certification must be at least 18 years of age, must be currently certified at the EMT level or higher, and must have successfully completed an accredited paramedic program (NREMT, 2013). Paramedics provide basic and advanced skills focused on the acute management of patients and their scope of practice includes advanced assessment, the formulation of field diagnosis, and the provision of invasive and pharmacological interventions to reduce the morbidity and mortality associated with medical and traumatic emergencies (NHTSA, 2007).

Passion- constitutes a “dynamic process that develops in the interface between an individual and a given activity” (Balon, Lecoq, & Rime, 2013, p. 60).

Promotions- is any “increases in level and or any significant increases in job responsibilities or job scope” (Seibert, Kraimer, & Linden, 2001, p. 227).

Scope of Practice- is a legal description of the distinction between licensed health care providers and the lay public and among different types of health care professionals. It describes, “What a licensed individual legally can, and cannot, do” (NHTSA, 2007).

Subjective career success- reflects an individual’s judgments about their career attainments, their appraisals of self-worth and capabilities, and their satisfaction in their career (Stumpf & Tymon, 2012). Subjective career success addresses factors such as career satisfaction (Greenhaus, 1990).

Stable individual differences- variables that represent dispositional traits that may affect the career success of an individual. In this study, stable individual differences are not directly measured; however, some forms may be noted as analysis of themes related to the career success of the program directors emerge. Big Five personality traits, general mental ability were studied by Judge, Higgins, Thoresen, and Barrick (1999) as factors that affect the career success across a lifespan. Career anchors, or individuals' dispositions, have been demonstrated to have an effect on career success (Tremblay et al., 2014).

Status Attainment- a process “by which individuals mobilize and invest resources for returns in socioeconomic standings” (Lin, 1999, p. 467).

Summary

Paramedic program directors play an important role in the education and training of EMS professionals. In order to better understand this group of professionals, more descriptive information and insight is needed about who they are, where they work, and what they do. As educational leaders in the field of EMS, it is important to explore how they have achieved their career success and have overcome challenges/barriers that they encountered along their way so that others may too. The information and insight gained from this study may be used to help attract and retain the most qualified workforce capable of sustaining the EMS Vision of the future through the educational leadership and instruction of EMS professionals.

CHAPTER II

LITERATURE REVIEW

Introduction

Limited research exists in the literature about Emergency Medical Services (EMS) and even less is available about paramedic program directors. Campeau (2008) describes how “paramedicine has neither medicine’s long history of professional presence nor the occupational research base of nursing and is therefore often assumed to be a hybrid of knowledge and skills taken from other pre-established occupations” (p.2). This substantially limits the amount of data and credible evidence that exists within the profession to draw from. According to Bigham, Jensen and Blanchard (2010), paramedics have become involved in conducting EMS research that has produced some publications of scholarly articles that have changed clinical and operational practice; however, many topics and areas have yet to be studied. Currently, no published studies are available that specifically address the career success of individuals who are paramedic program directors.

The following review of the literature contains a brief history of EMS education and information about EMS educators and instructors. The roles and responsibilities of program directors as well as the barriers/challenges experienced by them are explored. This section concludes with a summary of the literature that exists related to factors associated with the career success of EMS professionals.

History of EMS Education

The formal history of EMS education in the United States began in the 1950s when the American College of Surgeons developed the first training program for ambulance attendants (National Highway Traffic and Safety Administration, 2000). The first ambulance services appeared in the military and later spread into the civilian sector (Russ-Eft, Dickison, & Levine, 2008). Over the next decade, ambulance attendant training programs began to develop without any type of standardized curriculum guiding their implementation. In 1960, the President's Committee for Traffic Safety recognized the need to reduce traffic fatalities and the use of ambulance attendants was posited as a way to help reduce these types of traumatic fatalities (NHTSA, 2009). Eisenberg (1997) noted that advances in the understanding of cardiac arrest resuscitation were also occurring during the 1960s and the need for a timely and organized system of response to these types of emergencies was also recognized.

In 1966, the National Academy of Sciences and National Research Council released the report *Accidental Death and Disability: The Neglected Disease of Modern Society* (1966) or the "White Paper" that suggested the importance of prehospital care in the treatment of sudden injury. According to the report, accidents were identified as the "leading cause of death among persons between the ages of 1 and 37 and were the fourth leading cause of death for all ages" (p. 8). The report identified how the general public was insensitive to the magnitude of the problem and lacked instruction in basic first aid. It also described how few individuals/ professionals were trained in life saving skills and that politicians had neglected their responsibility to provide optimal EMS care to the public. The report suggested that national EMS conferences be conducted, a national

trauma association and national trauma institute be formed, a national council on accident prevention be formed, and community councils for the delivery of EMS be established. The report prompted a need for the standardization of ambulance training in EMS education (Becknell, 1997). It also recommended that “preparation of nationally acceptable texts, training aids, and courses of instruction for rescue squad personnel, policemen, firemen, and ambulance attendants” be implemented and utilized for the delivery of care (p. 13).

In response to the “White Paper”, the National Highway Safety Bureau (later to become the NHTSA) began to develop a curriculum to standardize ambulance attendant training in 1969. This curriculum would be used as a precedent for EMS education over the next three decades (NHTSA, 2000). The U.S. Department of Transportation published the curricula recommendations and guidelines for Emergency Medical Technicians (1971), paramedics (1977) and for other levels of EMS providers (Aehlert & Vroman, 2009). These educational guidelines were based on a predetermined number of hours and the curriculum was interwoven with the scope of practice for each particular EMS provider level. The EMT-basics received approximately 120 hours of training (Samules & Stoy, 1994) while the more advanced EMT-Paramedics received approximately 1000-1200 hours of training (Stoy & Margolis, 1998).

Although the guidelines were established by the U.S. Department of Transportation, individual states could choose to adopt, revise or reject any portion of the recommendations, thus leading to significant differences in the provision of EMS services and EMS education throughout the nation. Because of the substantially large gap between the time and competencies of EMT-Basics and EMT-Paramedics, many states

adopted various certification/licensure levels between the two (Margolis, 2005). To date, each state continues to determine how EMS is provided, the criteria for licensure at various levels, and the educational requirements for their EMS programs and certifications. According to the NHTSA (1996), the variability between the states has resulted in public confusion, limited professional mobility, reciprocity issues, and decreased efficiency due to duplication of efforts among EMS services.

In hopes of improving such a fragmented EMS system, national recommendations and guidelines were issued by various agencies including the National Registry of Emergency Medical Technicians (NREMT). In 1993, the NREMT released the *National Emergency Medical Services Education and Practice Blueprint* that described how educational systems and training systems could guide the DOT curricula. The report recognized specific levels of EMS professionals (First Responder, EMT-Basic, EMT-Intermediate, and EMT-Paramedic), scopes of practice, and guidelines for reciprocity between the states. The Recognition of EMS Personnel Licensure Interstate CompAct has been developed to help solve the dilemma of providing appropriately credentialed individuals from one state to practice under specified conditions in other states (NASEMSO, REPLICA, 2014).

In 1996, various EMS leaders and organizations worked with the NHTSA to create the *EMS Agenda for the Future*, an initiative designed to establish a new direction for the EMS profession (Margolis, 2005). This publication attempted to create a common vision for the future of the EMS profession and was developed to help assist governmental and private organizations in EMS planning, decision-making, and policy (NHTSA, 1996). The *EMS Agenda for the Future* identified EMS as a unique discipline

that intertwines with public safety, public health, and health care. The Education System Goals addressed in the EMS Agenda for the Future included the following (NHTSA, 1996; National Academies Press, 2007):

- Ensure the adequacy of EMS education programs.
- Update the objectives of care curricula frequently enough so they reflect the health care needs of EMS patients.
- Incorporate research, quality improvement, and management learning objectives in higher-level EMS education.
- Commission the development of national core curriculum content to replace existing EMS program curricula.
- Conduct EMS education with medical direction.
- Seek accreditation of EMS education programs.
- Establish innovative and collaborative relationships between EMS education programs and academic institutions.
- Recognize EMS education as an academic achievement.
- Develop bridging and transition programs.
- Include EMS-related objectives in the education of all health professionals.

Like the overall EMS system, the EMS educational system was also in need of improvement. The NHTSA subsequently issued the *EMS Education Agenda for the Future: A Systems Approach* (2000) that recommended five key educational components for the development of a profession that more closely parallels that of other allied health care professions. These components included the National EMS Core Content, National

EMS Scope of Practice Model, National EMS Education Standards, National EMS Program Accreditation, and a National EMS Certification. Over the past decade, significant progress has been made to meet these recommendations.

The National EMS Core Content was released in 2004 and defined the domain of prehospital care. The Core Content also described what “providers must know and how they practice” (NHTSA, 2004). The National EMS Scope of Practice Model (2007) divided the EMS Core Content into differentiated levels of practice and identified the corresponding skills and knowledge for each level. It also supported common nomenclatures similar to that of other health care licensures and provided a guide for the states to build their EMS policy from. The Scope of Practice Model also recommended four levels of EMS personnel licensure that are used today by nationally certified EMS professionals: Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), and Paramedic.

In 2009, the NHTSA released the new *National EMS Education Standards*. According to the NREMT (2014), “Along with changes in the national scope of practice, some additional cognitive information and psychomotor skills were incorporated (into the standards) in order to improve the depth and breadth of EMS education in hopes of producing a better prepared EMS provider.” These new Educational Guidelines replaced the old DOT curriculum and left a gap between the “old” curricula and the “new” standards. The new standards also give the instructor and educational programs freedom to develop their own curricula and instructional resources for each level (NHTSA, 2009). The educational standards consist of four components: competency, knowledge required to achieve competency, clinical behaviors/judgments, and educational infrastructure.

Instead of merely delivering a prescribed curriculum, EMS educators will require more knowledge and skills in order to provide a more student-centered approach to educating adult learners when using the education standards (Ruple et al., 2005).

The National Association of State EMS Officials has addressed the complexities of implementing these new standards throughout the nation. The *Timeline for Implementation of the EMS Education Agenda* was released in 2010 and addressed the need for a “multifaceted, multidisciplinary approach by a variety of EMS stakeholders” to achieve success (NASEMSO, p.2). The timeline projected that the various stakeholders including NASEMSO, states, educational programs, educators/instructors, professional organizations, and publishers would complete their primary responsibilities prior to the end of 2013. Analyses of these activities are currently being conducted by their corresponding primary organizations. For example, on April 23, 2014, the NASEMSO released a report to the National EMS Advisory Council that described the statewide implementation of the *Education Agenda* based on the data collected in 2013. The data described the progress made by states based on different certification levels. According to the report based on the paramedic level, 100% of the states intend to use or have implemented the Scope of Practice model as a foundation for state licensure, 90% of the states currently require National EMS Program Accreditation, and 88% of the states require National Certification for initial licensure (NASEMSO, 2014). The report also identified the greatest barriers to Education Agenda Implementation: instructor/educator preparedness (to use the educational standards), social/political challenges (pressure to disrupt and/or prevent implementation), inadequate manpower (lack of adequate staffing to facilitate change), legislative challenges, and economic challenges (ability to finance

system improvements). Of these barriers, the most frequent barrier identified was the instructor/educator preparedness.

National EMS Program Accreditation is also one of the visions of the *EMS Education Agenda for the Future: A Systems Approach* (2000) that has changed the current state of the EMS profession. Accreditation is an effort to assess the quality of institutions, programs and services, measuring them against agreed-upon standards and thereby assuring that they meet those standards in the health-related disciplines and also serves as a tool intended to help assure a well-prepared and qualified workforce providing health care services (Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions, 2014). McClincy (2011) explained how the “benefits of accreditation become apparent when an educational institute identifies better than average level of competency, has students excel on national certification exams, and has graduates who attain success within their professions” (p. 43). The Commission on Accreditation of Allied Health Programs (CAAHEP) is a postsecondary accrediting agency recognized by the Council for Higher Education Accreditation that carries out its accrediting activities in cooperation with 20 review committees in different allied health programs (CAAHEP, 2014). The Commission ensures the quality of its educational programs through self-study and compliance with specified standards. In many professions, now including EMS at the national level, graduation from an accredited CAAHEP program is needed for licensure. For EMS paramedic programs, the Committee on the Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) serves as the recognized committee used for EMS accreditation purposes.

National EMS Certification is available through the National Registry of Emergency Medical Technicians (NREMT). The NREMT provides a valid, uniform process to assess the knowledge and skills required for competent practice by EMS professionals throughout their careers. The NREMT also maintains a registry of certification status for individual EMS providers. As of June 1, 2013, in order for certification at the paramedic level, the paramedic program graduate must have attended an accredited educational program. The NREMT also addressed the changes in educational practices in determining the competency of current EMS providers. EMS professionals wishing to remain certified as nationally registered EMS providers are required to transition to the new standards through the acquisition of increased refresher training and continuing education at the appropriate level of their certification (NREMT, Have you..., 2014).

The services provided by EMS professionals are also changing in response to the EMS *Agenda for the Future* and in response to the health care changes occurring throughout the nation. Instead of just a treat and transport type of modality, paramedics are being utilized for their skills in alternative settings. Croom (2008) stated that paramedics are likely to spend more time with patients, see more treat and refer programs, and participate in more extended care programs. Mobile Intensive Care programs, Community Paramedic Programs and Advanced Practitioner, Tactical, Pediatrics, Occupational Health and other specialty programs designed for experienced professionals are beginning to gain momentum throughout the nation (NASEMSO, 2015). These types of programs, like community paramedics, require a shift in practice and the individuals are now making house calls and responding to the needs of patients

outside of emergency scenarios (Garcia, 2007). Leggio (2014b) claimed the focus of paramedic education was on emergency assessment and intervention while community based education focused on assessing community needs to develop, implement, and evaluate community intervention. Although some of the objectives of the programs were shared, additional education to cover unshared objectives is needed (Leggio, 2014b). These types of new programs will also require changes in the education provided to the EMS students in order to prepare them for their new professional roles. The NASEMSO Board is working with other agencies to assess the bodies of knowledge and psychomotor skills associated with different specialty certifications in order to determine if changes in scope of practice or certifications are necessary (NASEMSO, 2015). Many agencies that currently use these types of newer models require their personnel to receive additional educational degrees and experience beyond what is received in traditional paramedic courses.

The need for advanced education in the EMS profession is a highly debated topic. According to the National Center for Education Statistics the number of associate degrees for Emergency Medical technicians (EMT paramedics) conferred by post-secondary institutions has continuously risen from 1, 203 in 2001-2002 to 3,352 in 2011-2012 (U.S. Department of Education, 2013). Vroman (2010) stressed the need for paramedics to possess at least an associate degree and explained that some states are requiring this for licensure. Barishansky and Kirkwood (2010) described how academic preparation allows other professional pursuits, such as management and administration, education, other healthcare careers, or careers outside of medicine. William E. Brown, former director of the NREMT in response to the article “Why EMS Leaders of

Tomorrow need advanced postgraduate degrees?" (Barishansky & Kirkwood, 2014) stated the following:

"Degrees indicate not only attendance in college but movement beyond a "technical" approach to solving problems but one based upon scientific evidence where there is a unique body of knowledge. I believe EMS has a unique body of knowledge but our science is lacking. And I would say it is lacking because our "science," is being conducted by another profession; medicine (mainly emergency medicine). EMS does not possess its own body of scientific evidence. That evidence must be gathered by scientists and scientists require education over the scientific approach; which means graduate education." (Bill Brown, April 2014)

Many advocates for advanced degrees in EMS cite the need for professional growth and development. In 2011, there were only 121 individuals that received bachelor degrees, 9 individuals that received master degrees and no doctoral degrees conferred that specifically were reported as EMS related (U.S. Department of Education, 2013). Barishansky and Kirkwood (2014) explained how advanced educational degrees not only attest to an individual's knowledge and advanced mastery of a subject, but they provide leaders with skills needed to compete in a challenging and changing environment. Many individuals, especially in the fire service, oppose such a change in educational requirements citing the financial and personal burdens that come along with it. Fritz, Gonzalez and Harris (2005) claimed that it would be too difficult to fill fire department positions if stringent paramedic educational requirements were implemented because not everyone is capable of fulfilling them. Position statements reflecting different opinions

have been posted on the website of major EMS related organizations, and the issue remains an unresolved hot topic in EMS today.

EMS Educators/ Instructors

A small body of literature exists that specifically addresses EMS educators. The initial investigation of the role of educators stemmed from an agreement between the National Association of EMS Educators, the NHTSA, and the Health Resources and Services Administration. In January 2001, this group was tasked with developing an instructor preparation curriculum for EMS educators so that it could effectively be delivered to adult learners in EMS classrooms. EMS education takes place in various settings and the variance between the educational preparedness of individuals teaching in those settings was acknowledged as a set of expectations deemed essential for all professional educators was established. *The National Education Guidelines for Educating EMS Instructors* were released in 2002 and were designed to “assist with the implementation of the vision prescribed in the EMS Education Agenda for the Future: A Systems Approach (2000)” (p. 2). The guidelines consist of a common core of teaching knowledge consisting of adult learning and motivation theories, curriculum design, and teaching methods that all fields share that is designed to be used in outcome based educational programs. Although some administrative and managerial functions associated with EMS instruction were mentioned in the instructor guidelines, emphasis was specifically placed on the “instruction and teaching processes” instead (NHTSA, 2002, p.11).

In response to the *EMS Agenda for the Future*, the State of EMS Education Research Project Task Force was also initiated in 2002. A national study was then conducted to gain a better understanding of what EMS educators looked like, the state of the EMS educational infrastructure, and what attributes future EMS instructors should possess in order to implement the Education Agenda's standards (Ruple et al., 2005). Ruple et al. (2005) reported that the majority of EMS educators were males, worked part-time, and earned less than \$10,000 from their EMS education workplace. They were also satisfied with their teaching experience, expected to continue teaching, and entered the teaching profession because there was a lack of qualified instructors. A little over half of the instructors had a college degree, but only twenty percent believed "obtaining a degree was important to succeed as an EMS educator" (p. 206). However, almost half of the respondents believed clinical experience as an EMS provider contributed to their success as an EMS educator. Most respondents reported that clinical experience and special certificates were prerequisites for their employment. Ruple et al. (2005) concluded that the current educational approach in EMS still relies heavily on the concept that a "good clinician" is a "good teacher" and suggested that EMS educators should not expect to learn their vocation by "trial and error." Although some of the educators that responded were also program directors (9.4% self-identified their primary roles as program director), the study did not specifically separate their responses from the others nor did it distinguish between the types of programs they were director of (Ruple et al., 2005, p. 208).

In 2006, Ruple, Frazer, and Bake expanded upon the findings from the State of EMS Education Research Project Task Force and addressed the common practices,

experience, and job satisfaction of EMS educators. They concluded that most instructors were experienced clinicians before they became EMS educators and most were comfortable with the content of EMS instruction. They stated that almost a quarter of the respondents were uncomfortable evaluating psychomotor skills and almost half were uncomfortable writing objectives (p. 233). Ruple et al. (2006) also found that a “significant number of current educators may have never received or currently receive no, or minimal continuing education on instructional theory” (p.233). According to the study, paramedic instructors were selected based on academic preparation, clinical experience and teaching experience, whereas Emergency Medical Technician instructors were selected based on their teaching and clinical experiences. Ruple et al. (2006) also claimed that many EMS educators did not have additional assistance in the classroom and many lacked adequate resources both within and outside of the classroom (p. 234).

In addition to the above, other research relating to EMS educators and instruction has been conducted. Dawson, Brown, and Harwell (2003) surveyed EMT-Basics and Paramedics about their educational experiences in their certification courses and found that the majority were satisfied with the education they received in their programs and felt well prepared to become EMS professionals. Russ-Eft, Dickison, and Levine (2005) examined the effects of instructor quality on the preparedness level of EMTs/Paramedics and identified significant differences between the student ratings for topics such as trauma patient assessment, medical patient assessment, cardiac arrest management, spinal immobilization, fracture management, hemorrhage control, childbirth, pediatric patient management, and patient transport.

A few studies examined the effects of student or program variables on student achievement. Dickison, Hostler, Platt, and Wang (2006) identified that students who had attended accredited programs were more likely to pass the National Registry Paramedic Certification Examination when compared to students that did not attend an accredited program. Fernandez, Studnek, and Margolis (2008) attempted to determine the possibility of passing the National Registry's cognitive certification examination by analyzing various student and program characteristics. Fernandez et al. (2008) concluded that factors such as national accreditation, instructor qualification, time since course completion as well as student characteristics had a significant positive effect on the outcome of the examination. Subsequently, Fernandez, Studnek, and Cone (2009) examined how factors such as the student's EMT-Basic examination score and their length of certification were associated with the student's success on the National Registry examination at the paramedic level. Fernandez et al. (2009) concluded that both the score and length of certification were significantly associated with success and that paramedic educators should consider those factors when admitting students to their programs.

The quality of the EMS educational instructor was also addressed in the literature. Margolis, Studnek, Fernandez, and Mistovich (2008) explored the strategies that high-performing EMT-Basic programs used to maintain high first time pass rates on the National Registry certification examination. Twelve strategies were identified by top performing programs when asked "What are specific strategies that lead to a successful EMT-Basic educational program?" Based on their analysis, the authors recommended seven strategies other EMT-Basic programs could use for success: 1) securing strong institutional support, 2) hiring well qualified EMT lead instructors, 3) striving for

instructional consistency, 4) recruiting students who are positively motivated to succeed, 5) admitting students who have demonstrated that they have the academic skills necessary to complete the course, 6) developing student test taking skills, and 7) establishing a course passing standards that exceed the minimum competency for certification. Margolis, Romero, Fernandez, and Studnek (2009) then explored the strategies used by high-performing paramedic programs to pass the National Registry Certification examination at the paramedic level. They made twelve recommendations some of which included the need for national accreditation, creation of examinations and course materials, high admission requirements, the use of case-based scenarios and critical thinking, and predictive testing with analysis (Margolis et al., 2009).

The NASEMSO (2010) built a transition toolkit to assist lead agencies in understanding and implementing the EMS Education Agenda. As part of the toolkit, a template was provided suggesting criteria for instructor qualifications to ensure that EMS educators are prepared to teach the Education Standards. The recommendations differentiated between the criteria, roles, education, experience, and recommendations for assistant instructors, adjunct faculty, lead faculty, and program directors. The recommendations suggested for paramedic program directors exceeded the criteria for the other educational positions and explained that program directors are “expected to minimally comply with the standards established by the Committee on Accreditation for EMS Professions Standards and Guidelines” (NASEMSO, EMS instructor, 2010). The differentiation between the services provided by each type of educational instructor suggests that different preparation is needed for different types of EMS instructors to succeed.

According to the Committee on Accreditation of Educational Programs for the Emergency Services Professions (2014), paramedic program directors are responsible for the administration, operation, and evaluation of their programs. As of 2011, paramedic program directors must possess or be showing continual progress towards the attainment of a bachelor's degree for accreditation purposes; however, new recommendations released from CoAEMSP (2014) suggest that paramedic program directors have a master's degree and that remaining faculty within their educational programs possess at least bachelor degrees. Additionally, the Paramedic proposed Standards & Guidelines (2014) from the CoAEMSP state the program director must also:

- 1) have appropriate medical or allied health education, training, and experience,
- 2) be knowledgeable about methods of instruction, testing, and evaluation of students,
- 3) have field experience in the delivery of out-of-hospital emergency care,
- 4) have academic training and preparation related to emergency medical services at least equivalent to that of a paramedic,
- 5) be knowledgeable about the current versions of the *National EMS Scope of Practice* and *National EMS Education Standards*, and about evidence-informed clinical practice

The analysis of the roles and responsibilities of the different levels of instructors and EMS educators suggest that differences exist between them and that further research is needed to better understand each of these groups and individuals. Although literature addressing EMS educators is available, many of the studies do not permit the differentiation between paramedic program directors and the other EMS educators.

Paramedic Program Directors

To date, the lack of literature about paramedic program directors does not permit a thorough understanding of this population. Only a few isolated studies have addressed paramedic program directors separately from other types of EMS professionals.

In 2005, Gregg Margolis interviewed all fourteen of the paramedic program directors of bachelor degree in EMS programs within the United States to identify the role that they believed their programs played in the professionalization of paramedicine. Although no consensus was achieved as to what constituted the profession, if EMS is a profession, and the roles that the programs played in contributing to the profession, Margolis did find that the majority of these directors believed that professionalism would improve the quality of care provided by EMS practitioners and that it would improve the way EMS is viewed by others. Margolis also profiled this specific group of individuals and described them as more educated and experienced than other EMS professionals. Although his study provided value insight into the perceptions of these individuals, he chose to only focus on a few of the programs that required the longest time commitment

and were located in institutions that offered higher degrees than what is normally received by most paramedics.

Bentley, Fernandez, and Gibson (2010) surveyed accredited and non-accredited paramedic program directors in order to assess their perceptions about national accreditation and identify barriers to their educational programs becoming nationally accredited. They found that while most respondents had a favorable attitude toward accreditation and believed that accreditation would have “long term benefits” for the students, many perceived barriers that would inhibit their abilities to become nationally accredited at the time. Some of the biggest barriers to becoming nationally accredited were identified as: initial cost, ongoing cost, cost to students, access to live patient intubations, institutional administration support, increased resources, access to pediatric patients, preceptor education, faculty quality, and clerical/support resources (Bentley et al., 2010). Although information about the perceptions of paramedic program directors was obtained, the focus was related to program accreditation and did not address other facets related to their professional careers nor did it focus on additional barriers or challenges that could be faced outside by program directors after accreditation was obtained. This study also examined both accredited and non-accredited programs, and since that time changes at the national level have led to the majority of programs becoming accredited. This study also did not specifically address many characteristics that could be associated with paramedic program directors’ career success.

In January 2015, Crowe, Bentley, Carhart, and McKenna conducted a national study of paramedic program directors who served as lead instructors in their programs. They explored workload characteristics and resources of the educators that provided the

lead instruction for paramedic programs. Crowe et al. found that the majority of lead instructors were educated and experienced EMS providers and educators who spent the majority of their time participating in instructionally related tasks. Many of the lead instructors had access to different resources within and outside of the classroom, but some resources like technology for entering skills and assistants to help were lacking. Although Crowe et al. (2015) provided information about some of the paramedic program directors in the United States, they did not include directors who were not identified as lead instructors in their study. The study also did not address many factors that related to career success such as satisfaction, workload, and employee turnover.

Other Program Directors

Paramedic program directors are not the only allied health profession that enlists program directors to oversee the quality of the education they provide to students in their organizations. Some literature related to other types of program directors exists and can be used to help understand workforce issues that may be similar to those experienced by paramedic program directors.

Previous research from other allied health disciplines suggest that program directors with clinical backgrounds should possess the ability to be a clinical coordinator/teacher, a curriculum developer, an administrator/ leader, and an educational scholar (Heflin et al., 2009; Leard et al., 1991). Each of these roles requires different skill sets in order to succeed in the job position. Hegmann and Dehn (2006) claimed that many faculty members with clinical backgrounds do not receive any formal preparation

for teaching, research, or academic writing and thus feel unprepared to meet the requirements of their new positions. Jacobson et al. (2010) stated a lack of focus exists for developing the administrative skills crucial to the promotion of young physicians into subsequent leadership roles in academic or other care delivery settings. Department chairs in the allied health care fields may also face additional challenges when the need for maintaining an accredited program is added to their roles and responsibilities (Passauer, 2004). The lack of training or preparation in any of these areas may affect the execution of the requirements of the role of the educator and/or administrator.

As previously stated, many EMS educators were clinicians before becoming educators but little exists in the literature about factors that may potentially affect the ability to fulfill the role and responsibilities of a paramedic program director. According to the EMS Workforce Agenda for the Future (2011), “little to no evidence of training and education courses geared towards EMS managers in the fundamentals of leadership and organizational management “exists (NHTSA, 2011, p.8). Likewise, additional teaching and instruction for EMS educators is limited. Although national EMS educator guidelines were developed, the implementation and focus of the objectives specified were primarily on instruction and other associated job functions such as managerial and administrative tasks performed by paramedic program directors are barely addressed (NHTSA, 2002).

Rich (2009) claimed that a natural way to ensure that educators are receiving adequate pedagogical training is through graduate education. Ng and Feldman (2010) suggested that additional years of education raise an individual’s cognitive ability that may promote both a worker’s “core task performance and contextual performance” as

well as increase their “conscientiousness” (p. 211). Freidson (1994) claimed that the acquisition of formal education is not enough to define a profession, but described how the professional education process can change the organizational culture, increase the solidarity of the occupation, and create a sense of community.

Anderson (2009) claimed that insufficient preparation in the knowledge and skills for education is only one aspect of challenges that face expert clinicians who move into the academic setting. He suggested that the work-role transition also entails assimilating the individual into a new set of values and norms as well as developing a new identity for them (Anderson, 2009). In addition to a lack of skill preparation related to the roles and responsibilities of program director, other barriers and challenges in assuming the director role have been addressed. For instance, Sciera (1981) found many athletic program directors were appointed to their positions, and they had to learn *in situ* versus receiving formal training in higher education and administrative positions. Beres (2006) also noted a lack of any substantial orientation or mentoring for nursing educators and states that they are “expected to immediately undertake a full teaching load and ‘hit the ground running’.” Likewise, many residency program directors learned their jobs through trial and error and only a few had benefitted from the wisdom and experience of their predecessors and mentors (Pugno, Dornfest, Kahn, & Avant, 2001).

Like other program directors, the degree to which a program director has influence is governed by their personal attributes and their situation (Milburn, 2010). In a study of athletic program directors, the diverse nature of their appointments set program directors apart from their faculty colleagues (Staurowsky & Scriber, 1998). Many professors of nursing, allied health professions and social work express frustration with

an environment that requires a heterogeneous role profile combined with an unrealistically high workload (Jackson, Callinan, & Cowell, 2012). Faculty and workload issues faced by nursing program directors were found to contribute to high stress levels, burnout, sleep problems, and decreased physical health (Mintz-Binder & Sanders, 2012). West, Halvorsen, Swenson, and McDonald (2013) identified that younger program directors and women experienced higher levels of distress than their colleagues did. Gender differences in the pay and objective career success of women have been found in EMS (Bryan, 2011; Russ-Eft, Dickison, & Levine, 2008).

Perkins and Judd (2001) investigated and described the roles and dilemmas of athletic program directors and compared their findings to those published by Perrin and Lephart (1988). The survey used by Perkins and Judd (2001) was designed to elicit responses in the areas of 1) demographics 2) professional appointment 3) program director position 4) reasons for becoming a program director 5) reasons for leaving the position 6) most beneficial and most satisfying aspects of the position 7) least beneficial and least satisfying aspects of the position and 8) general issues not addressed in the previous questions. Since 1988, the number of education programs, the highest degree earned by directors, years of experience as a certified athletic trainer and program director all increased; however, the number of program directors that were clinically active were found to have decreased by almost 38% (Perkins & Judd, 2001). The duties and expectations of these program directors as well as the nature of the program directors' academic appointments also had changed during this short period. Despite organizational expectations remaining constant, the roles and responsibilities of the athletic program directors increased and created greater workload demands for them.

Finally, the dilemmas described by Perrin and Lephart (1988) still existed and were identified as more complex because of educational reforms and promotion and tenure requirements (Perkins & Judd, p. 400).

Academic Career Pathways

According to the literature, the rank of professor or “full” professor represents the highest status possible for faculty members and is gained through professional expertise and reputation (Gardner & Blackston, 2013). Many studies exist that address issues such as faculty duties, responsibilities, workload, job satisfaction, incentives and interactions between different types of work- typically articulated in terms of teaching, scholarship and institutional service (Foley, 2006; Peterson, Stuart, Hargis & Patel, 2009; Balogu & Sloan, 2006). Previous research suggests a tension exists among clinical service, teaching, administrative burdens, and the scholarly productivity necessary for promotion (Gazewood, Margo, Jerpbak, Burge, Ballinger, & Usatine, 2007; Roberts, Schwartz, and Weinberger (2014). Pachulicz et al. (2008) explained that promotions in a medical career differ from those in traditional business organizations because they mean that some change in one’s job includes more administrative than medical tasks which may actually decrease career satisfaction for some individuals who heavily invested in the practice of emergency medicine.

In 1940, tenure was incorporated into the Declaration of Principles by the American Association of University Professors in order to permit professionals in academia the freedom of teaching, research, and extramural activities as well as provide

economic security to them by not dismissing them without adequate cause (Brown & Kurland, 1990). Attention to traditional academic pursuits could improve the likelihood of a favorable review by the institution's promotion and tenure committee (Coates, Hobgood, Birnbaum & Farrell, 2003). According to Rich (2009), a non-tenured track position may permit a faculty member to have “time to focus on administrative duties or programmatic responsibilities without substantial pressure to publish research or obtain a grant”; however, it may also limit the individual’s ability to participate in bargaining units, vote on faculty issues and result in being viewed as a less than equitable colleague within the institution (p. 135).

Perrin and Lephart (1988) described how each of the tenure and promotion areas such as teaching, service, and research may be accorded different weights by individual institutions. The variances between institutional requirements necessitates that an individual must understand the effects that performing more in one area and less in another might have on their ability to be promoted or move up the career ladders in their institution. Heslin (2005) stated that even when continual attainment of objective outcomes does not lead to an increase in pay, promotion, occupational status, or rank, the value of the individual’s indicants of career success may not be diminished. The value that paramedic program directors associate with traditional academic rewards such as tenure and promotion have not been explored.

Challenges and Barriers

Various types of career hurdles (i.e. background related hurdles, trait related hurdles, motivational hurdles, skill-related hurdles, social network hurdles, organizational and job hurdles) have been found to reduce an individual's resources for successfully fulfilling their career goals (Ng & Feldman, 2014). These types of factors may potentially lead to a lack of satisfaction, burnout, or leaving the position. For instance, Mintz-Binder and Sanders (2012) described how faculty and workload issues faced by nursing program directors contributed to high stress levels, burnout, sleep problems, and decreased physical health. Many professors of nursing, allied health professions and social work expressed frustration with an environment that requires a heterogeneous role profile combined with an unrealistically high workload (Jackson et al., 2012). Individuals may also be overwhelmed by opportunities, projects, and clinical and educational responsibilities, and struggle to balance their work and family demands (Castiglioni et al., 2013). According to West, Halvorsen, Swenson, and McDonald (2013), younger program directors and women serving in the role of director experienced higher levels of distress than their colleagues did. Understanding and minimizing factors that may impede the career success of program directors may help improve the retention of qualified personnel.

EMS Career Success

Literature addressing EMS professionals and their career success exist; however, no studies specifically addressing the career success of paramedic program directors are

present. The majority of the literature about career success in EMS involves the EMT and paramedic practitioners in the field. Various methods and factors have been used to explore objective and subjective career success indicators in these groups. The following section summarizes some of the studies conducted in the field of EMS that relate to career success and career outcomes such as intent to leave the profession.

Job satisfaction and occupational stress was explored by Allison, Whitley, Reviki, and Landis (1987). They utilized the Health Professional Stress Inventory and a job satisfaction scale to measure the responses of the participants and differentiated their findings based on their compensation and community types. Sources of stress for EMTs included administrative issues, number of calls during a shift, relationships with the public, dangerous working conditions, and dealing with critically ill or injured people. Allison et al. concluded that paid EMTs were more likely to be dissatisfied with their freedom on the job, less satisfied with the recognition they receive, and more likely to have family/work balance issues than volunteer EMTs.

Federiuk, O'Brien, Jui, and Schmidt (1993) also analyzed the job satisfaction of paramedics. They used scales from the Michigan Organizational Assessment Questionnaire to determine if differences in extrinsic factors (pay and compensation) or intrinsic satisfaction existed between male and female paramedics. Federiuk et al. identified that males who worked in public agencies were found to be the most satisfied while females in private agencies were the least satisfied.

Job stressors and job satisfaction were also addressed by Bowron and Todd (1999). They used focus groups and informal interviews to collect data about the

perceptions of EMTs and paramedics in a major metropolitan service. They attempted to identify which job stressors would predict the job satisfaction of the EMS professionals. Bowron and Todd found that only 15% of the respondents were not satisfied with their job and that the quality of training, quality of physician interaction, and their career choice were associated with global satisfaction, but only career choice and quality of physician interaction were predictive of global job satisfaction.

Grigsby and Mc Knew (1988) explored the effect that job-related variable had on the work stress and burnout of paramedics. They used a Staff Burnout Scale designed for health professionals to measure factors associated with burnout. Factors found to affect paramedic burnout included: negative relations with co-workers, perceived physical threat from job, and general job dissatisfaction.

Wirth (1990) examined factors and elements in the structure of the work EMTs and paramedics performed and examined how it affected their levels of motivation, satisfaction, and job performance. A modified Job Diagnostic survey was used to determine that a significant positive relationship existed between a number of the job characteristic variables (such as task significance, autonomy, and job feedback) and job satisfaction. Wirth (1990) concluded that job longevity was not significantly related to job satisfaction and that individuals who volunteered had higher levels of job satisfaction than the paid counterparts.

Patterson, Probst, Leith, Corwin, and Powell (2005) conducted a qualitative study using focus groups to explore factors that contribute to the recruitment and retention of EMS professionals. They found that the majority of the respondents believed their pay

and benefits are inadequate for the work they perform even though they found the job to be stressful and rewarding. Patterson et al. also found that the majority of respondents identified that EMS was not a primary career path and that they had entered the profession as an alternative or replacement for a nursing career or following service in the military as a medic.

In 2002, a joint venture between the NREMT and the NHTSA was initiated to describe the demographics and characteristics of emergency medical technicians throughout the United States. The Longitudinal EMT Attributes and Demographics Study (LEADS) was designed to identify trends and factors that influence the careers of individuals in EMS (Brown, Dickison, Missleback, & Levine, 2002). The LEADS study consists of a “core” set of questions asked annually and a “snap shot” which permits different EMS issues to be explored (NREMT, 2014). The LEADS study has provided valuable information about EMS professionals over the years and its data have been used to further other research studies addressing a variety of issues including seat belt use (Studnek & Ferketich, 2007), behavior health (Pirrallo, Levine, & Dickison, 2005), illness and on-the-job injuries (Studnek, Ferketich, & Crawford, 2007), the characteristics of those involved in ambulance crashes (Studnek & Fernandez, 2008) and other key health indicators of EMS professionals (Studnek, Bentley, Crawford, & Fernandez, 2010).

The majority of the studies related to the career success of EMS professionals are derived from LEADS data. Secondary analyses of LEADS data is limited to the questions on the survey instrument and do not permit free responses from the participants nor do they allow a qualitative picture of the experiences or perceptions of these individuals to be made. The LEADS data also does not permit the differentiation of Paramedic Program

Directors from other EMS respondents, so therefore it could not be used in the present study. A summary of findings derived from LEADS data that are related to career success are included in the section below.

LEADS Related Findings

Brown, Dawson, and Levine (2003) explored the compensation, benefit packages and level of satisfaction with the benefits of nationally registered EMTs and paramedics. Both EMTs and paramedics expressed dissatisfaction with the pay and benefits they received. The dissatisfaction with the objective factors (pay and benefits) of the paramedics was only exceeded by the lack of opportunity for advancement by paramedics. Brown et al. reported that both EMTs/paramedics were not satisfied with the appreciation and recognition they received from their employers.

Job satisfaction, opportunities for advancement, pay and benefits, and the intention to leave the EMS profession were explored using 2005 LEADS data by Patterson, Moore, Sanddal, Wingrove, and LaCroix (2009). About half of the respondents were satisfied with the pay and benefits they received and only about six percent had intentions of leaving the profession during the following year. Patterson et al. found that the individual's years of experience and work location were non-significant factors associated with job satisfaction while other factors such as education, overall health, income from all sources, current level of certification, and type of agency were significantly associated with job satisfaction (p. 89). Patterson et al. reported that a strong association existed between the intent to leave the profession and the satisfaction with pay and benefits and their ability to help others.

Chapman, Blau, Pred, and Lopez (2009) also investigated the correlates of intent to leave EMS but did so by differentiating between EMTs and paramedics. They used data from the 2007 LEADS survey to analyze five intrinsic factors of job satisfaction (e.g. exciting job, technical challenges, variety of tasks, working without close supervision, and helping others) and a four-item extrinsic job satisfaction measures (e.g. pay and benefits, work schedule, opportunities for advancement, and supervision). Chapman et al. (2009) concluded that no significant intrinsic differences existed between the groups. Paramedics' intrinsic job satisfaction was negatively associated with their intent to leave the profession. Chapman et al. concluded that the extrinsic job satisfaction was negatively related to their intent of leaving the profession for both groups of EMS professionals.

Blau, Chapman, Gibson, Pred, and Lopez (2009) also examined the intent of EMS professionals to leave the profession. They identified that the factors such as perceived health, job satisfaction, affective occupational commitment, and limited alternative occupational commitment had significant negative relationships to the individual's intent to leave.

Blau and Chapman (2011) retrospectively explored the decision of EMS professionals to leave the EMS profession. They examined factors related to life satisfaction after leaving EMS and the likelihood of returning to EMS. Blau and Chapman identified that stress/burnout and the lack of job challenges were the most important reasons individuals left while the desire for better pay and benefits were the least important reasons. The individuals' desire for career change was positively related to life satisfaction after leaving EMS and negatively related to likelihood of returning to

EMS. Stress/burnout was also found to be positively related to life satisfaction after leaving EMS.

The intent to leave EMS was also addressed through the examination of sleep-related impairments by Blau (2011). He used a time lagged research design to explore the impact of sleep-related impairments on the perceived general health and retention intent for a sample of EMS personnel. He found that sleep-impairment had a significant impact on subsequent perceived health and intent to leave EMS.

Intrinsic and extrinsic satisfaction was also explored by using LEADS data from 2006, 2007, and 2008. Blau and Gibson (2011) analyzed personal factors, job perceptions, work attitudes, and intent to leave the profession by using intrinsic and extrinsic job satisfaction measures. They concluded that prior intrinsic (extrinsic) satisfaction was the dominant antecedent of subsequent intrinsic (extrinsic) satisfaction. Blau and Gibson also found that the quality of an EMS continuing education instructor is a significant antecedent across both types of subsequent job satisfaction.

Blau, Chapman, Gibson, and Bentley (2011) examined the affect that 17 different factors had between fully compensated, partially compensated, and non-compensated/volunteer EMTs as reasons for them leaving the EMS profession. Blau et al. (2011) suggested that the desire for better pay and benefits was more important to those who were partially compensated than for those that were fully compensated. They also concluded that the perceived lack of advancement opportunity was a more important reason for leaving the profession for those that were not fully compensated than for those that were.

Russ-Eft, Dickison, and Levine (2008a) used LEADS data from 1999 and 2000 to determine if higher NREMT certification examination scores and fewer attempts to pass the certification exam resulted in objective and subjective career success for EMS professionals. Although their results showed no relationship for the entire sample, when the sample was divided into “new” and “old” paramedics, the scores on the certification exams for “new” paramedics were found to be related to their subjective career success. No relationships were found to exist for any group between examination results and objective career success.

The job satisfaction of paramedics was further addressed by Russ-Eft, Dickison, and Levine (2008) who also took into consideration the effects of gender and ethnicity. Both objective career success (e.g. education, experience, and hours worked) and subjective career success (e.g. satisfaction) factors were assessed. Russ-Eft et al. found that education, experience, and hours worked were positively related to salary. Women were found to receive significantly lower compensation than men. Even though gender had a negative influence on the participants’ objective career success, it did not have a significant effect on their subjective career success. The minority status of the paramedics was not related to either objective or subjective career success.

Bryan (2011) expanded upon these findings of Russ-Eft et al. (2008) and examined gender differences in EMS using 2008 LEADS data. Bryan (2011) sought to identify pay disparities between male and female paramedics and controlled for their years of experience, community size, type of agency, and level of certification. The gender of the participants accounted for 4% of the variance in their pay; however, only

48% of the variance in the salaries between men and women EMS professionals was attributed to the human resource factors addressed in the study.

In 2014, Russ-Eft, Levine, and Fernandez explored the effects of race and location (non-rural versus rural) of work on the objective career success (salary) of paramedics. LEADS data spanning from 1999 to 2008 was used to stratify the sample based on years of experience and maximize the efficiency of the sample for comparisons because minorities are under-represented in the EMS profession. Russ-Eft et al. concluded that paramedics working in rural areas earned significantly less than their urban counterparts. They also found that minority paramedics earned more than white paramedics.

Summary

Currently, no published studies specifically addressing the career success of paramedic program directors are present in the literature. Although several EMS studies have recognized and addressed issues related to career success, the studies have not been able to differentiate between the responses from other EMS professionals and those of paramedic program directors. A limited amount of information exists within the literature about paramedic program directors themselves. Previous research has addressed some of the experiences of EMS educators; however, not every educator will take on the additional roles of becoming a program director as her or his career progresses.

The perceptions, experiences, and subjective and objective determinants of career success as well as other information about paramedic program directors is needed to

better understand who these EMS professionals are. This study will help to fill this gap in the literature and will provide a better understanding of these professionals and how they have achieved their career success.

CHAPTER III

METHODOLOGY

Introduction

In this chapter, the methodology for the study is explained. This is the first known national study to specifically examine the career success of paramedic program directors and does so through the use of quantitative and qualitative analyses. Previous research on factors that contribute to career success and literature in the field of EMS has guided the methods used for this exploratory study.

Research Design

The study was based on an exploratory cross-sectional design and used a web-based survey to collect data about paramedic program directors in March 2015. Surveys are beneficial ways to collect a large amount of data that can be used to describe attitudes, opinions, or trends in a sample from the participant's responses to questions (Creswell, 2003). Web-based surveys offer several advantages over traditional paper-and-pencil surveys such as their time and cost savings, interactive nature, and convenience (Sax, Gilmartin, & Bryant, 2003). According to Wright (2005), benefits of online research can include access to unique populations, time and cost savings, and equal or better response rates when compared to traditional methods. Dowell (2012) stated two other benefits of utilizing an on-line survey include the scalability of the data and the data collection functions. 'Scalability' is the "ability to adapt an innovation to effective usage

within a wide variety of contexts, including settings where major conditions for success are absent or attenuated” (as defined by Clarke, Dede, Ketelhut, Nelson & Bowman, 2006, p. 1). The use of the web-based survey permitted the data to be collected efficiently and conveniently over a period of ten days.

Selection of the Subjects

The number of all known paramedic program directors in the United States whose programs are accredited or are seeking accreditation as evidenced by having a Letter or Review was queried. A list of accredited programs is published for the information and use of students, employers, educational institutions and agencies, and the public (CoAEMSP, 2014). The subjects were identified from a web-page list of CoAEMSP accredited programs located on the Committee on the Accreditation of Allied Health Education Programs (CAAHEP) website. As of March 1, 2015, CAAHEP reported that 459 programs (See Appendix B) are currently accredited and that 217 hold Letters of Review (See Appendix C) from the CoAEMSP. Each of the programs that were listed on the website also provided the names and e-mail addresses for their respective program directors.

Various types of EMS programs exist throughout the United States and are either currently accredited, in the process of seeking accreditation verified by a Letter of Review, or are not accredited by CAAHEP. Paramedic programs have a sufficient length and academic complexity to require accreditation (NASEMSO, April 23, 2014); however, programs such as those for the EMT basic do not have the course or academic

complexity to require accreditation. Therefore, only paramedic programs were used in this study. According to an oral report given at the NASEMSO annual meeting on October 7, 2014 held in Cleveland, Ohio, approximately 90% of paramedic programs throughout the nation have already applied for or have attained accreditation. Additionally, 90% of the states currently require National EMS Program Accreditation at the Paramedic Level and 88% require national certification for state licensure (NASEMSO, April 23, 2014).

Previous EMS studies and institutions have cited that they only collect data on programs that are accredited. For instance, the American Medical Association also only collects information from accredited paramedic programs and does not collect information from EMT programs (NHTSA, 2011). In addition to the majority of programs being accredited, it is difficult to estimate and verify the existence of those programs that are not accredited and even more difficult to identify the persons who may fill the role of director. The present study therefore included only the directors of the accredited paramedic programs on the CAAHEP website or those whose programs were listed as having Letters of Review from CAAHEP.

Treatment of the Subjects

Human Protection

An application was submitted to the Institutional Review Board of Youngstown State University on March 10, 2015. Approval was obtained from Youngstown State University's Institutional Review Board on March 12, 2015 for protocol#134-15 prior to

conducting the study (See Appendix D). Participants were over the age of 18 and voluntarily chose to participate in the study. No foreseeable risks to the participants were anticipated and the completion of the survey implied their consent.

The confidentiality of the participants was maintained by minimizing any personal information such as names, email addresses, or IP addresses and limiting access to the information. An e-mail list of potential participants was created from the information obtained on the CAAHEP website (<http://www.caahep.org>). The list contained information for both Accredited EMS programs and EMS programs that have Letters of Review. The list was kept separately from the data in order to help maintain confidentiality and only the principal investigator had access to it. Codes/links were assigned to each of the potential respondents via Survey Monkey (2015). The codes identifying the participants were kept separately from the other data collected and stored electronically on a computer utilizing password protection. Only the principal investigators listed on the IRB request had access to the information. Other records and data collected from the participants' responses were maintained by the principal investigator and will be kept for a minimum of two years in electronic format on a password protected computer.

Instrumentation

A questionnaire consisting of 33 open-ended and close-ended questions was used to gather data about paramedic program directors and their career success (See Appendix E). Based on a review of the literature that focused on career success and the literature

related to EMS education and career success, a survey was developed to address the research questions and the hypotheses. The survey instrument was constructed to elicit responses that would profile paramedic program directors and explore factors that could contribute to their career success.

The survey addressed the areas of 1) demographics (i.e., age, ethnicity, and gender); 2) professional appointment (i.e., title, position, and rank); 3) position of paramedic program director (i.e., roles, duties, allocation of time); 4) reasons for becoming a program director; 5) challenges faced as a program director in achieving success; 6) human capital factors; 7) sociodemographic factors; 8) stable individual factors; 9) organizational factors; 10) factors that influence objective career success (i.e., pay, promotions, appointments); 11) factors that influence subjective career success (i.e., overall job satisfaction and the Greenhaus et al. (2005) Career Satisfaction Scale); and 12) the intent to leave (i.e., position and the EMS profession).

Multiple-choice questions, Likert-like items, single response, and fill in the blank questions were used to collect data. While Likert (1932) used a five-point scale, other variations of his response alternatives have been demonstrated to be appropriate, including those that have deleted the neutral response (Clason & Dormody, 1994). The subjects were asked to provide responses for each of the open-ended questions. Although some of the questions may have limited the free response of the participants, others encouraged a free response intended to provide rich data about the topics. Both the quantitative and qualitative data collected provide information about the sample.

Quantitative, qualitative, and mixed method surveys have been used to examine constructs related to career success. According to Blessing and Forister (2013):

“Due to the shift in philosophical perspective, qualitative research differs from quantitative methods in three ways: (1) the purpose of the research, (2) the use of the literature review and relationship between theory and data, and (3) the level of investigator involvement in the imposition of specific procedures and steps throughout the research process” (p. 160).

The conflict between the paradigms has been addressed in survey methodology. Jansen (2010) found that statistical surveys are designed to study the numerical distribution of the characteristics of a topic in a population, while qualitative surveys study the diversity and not the distribution in a population. Lincoln and Guba (1985) explained how the measure of quality in a qualitative study is not made in positivist terms of validity, but rather in its trustworthiness.

A mixed method or blended approach is not without limitations. Östlund, Kidd, Wengström, and Rowa-Dewar (2011) explained how the differing assumptions of the paradigms associated with qualitative and quantitative research have “had a major influence on whether the integration of the two is feasible, let alone desirable” (p.370). However, Feilzer (2010) claimed that pragmatism “sidesteps the contentious issues of truth and reality, accepts, philosophically, that there are singular and multiple realities that are open to empirical inquiry and orients itself toward solving practical problems in the ‘real world’” (p. 8). By utilizing both qualitative and quantitative data in the study, a deeper understanding of the “phenomenon of interest” could be achieved (Venkatesh, Brown, & Bala, 2013, p.31).

Traditionally, cross-sectional designs using correlation analysis have been used to analyze factors related to career success throughout the literature (Judge & Bretz, 1994).

The majority of these studies focus on objective measures of career success (Arthur et al., 2005). According to Heslin (2005) career satisfaction is most often assessed using the Career Satisfaction Scale developed by Greenhaus, Parasuraman, and Wormley (1990). The Career Satisfaction Scale has been used in many studies such as Bourdrea et al. (2001), Judge et al. (1995) and Seibert and Kraimer (2001). Standardized measures, such as the CSS, generally have “acceptable levels of internal consistency”, but such characteristics are not necessarily sufficient to validly assess each respondent’s subjective career success (Heslin, 2005, p. 117). Heslin described three ways to improve the conceptualization and measurement of subjective career success: 1) drawing upon research into what employees want, 2) paying greater attention to how people in different career contexts conceptualize career success, and 3) adopting more qualitative methods. In addition to the Career Satisfaction Scale, questions on the instrument asked participants to identify their motivations for becoming a paramedic program director and indicate their own formulas for their career success.

The survey instrument was reviewed by a panel of 8 EMS professionals consisting of representatives from the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), National Registry of Emergency Medical Technicians (NREMT), and the National Association of State EMS Officials (NASEMSO). The majority of members on the panel that reviewed this work served in the role of a paramedic program director at some point in their careers. Most of the reviewers provided their input at the NASEMSO annual meeting on October 7, 2014 held in Cleveland, Ohio, but a few submitted their comments after the conclusion of the meeting. The panel of EMS experts reviewed the survey for clarity,

content, and face validity. Minor changes were made to the instrument based on the panel members' individual suggestions and were incorporated into the final design. None of the individuals who participated in the review were in the actual group of those selected to participate in the study.

Survey Monkey was the web-based tool used to collect data. Kaplowitz, Hadlock, and Levine (2004) concluded that a web survey application could achieve a comparable response rate to a questionnaire delivered by surface mail when both were preceded by an advanced mail notification. Survey Monkey is a self-serve survey platform that allows individuals to create, deploy, and analyze their own surveys through an interactive interface (www.surveymonkey.com). In addition to the data collection features, Survey Monkey also has the ability to convert and export data into other programs including Microsoft Excel and *Statistical Package for the Social Sciences* (SPSS) software. SPSS software version 22 was used for data analysis study.

Data Collection

Recommendations made in Don Dillman's Tailored Design Method (Dillman, Smyth, & Christian, 2009) were incorporated into the data collection procedures for the study. Each of the participants received a personalized pre-notification e-mail invitation (Appendix F) which provided a brief description of the purpose of the survey and advised the potential respondents that a cover letter and survey would be emailed to them in a couple days. The e-mail invitations were sent to the potential participants on either March 12, 2015 or March 13, 2015. According to Porter and Whitcomb (2007), little difference

in response rates exists between pre-notifications sent by e-mail and those by other methods using paper for e-mailed surveys. The pre-notification e-mail permitted the e-mail addresses of the potential participants to be verified and corrected if possible prior to the distribution of the actual survey. Out of the 676 total programs meeting the criteria for inclusion, 3 of the programs did not have program directors listed and 8 of the participants' email addresses were initially returned as undeliverable. Several of the potential participants served as program director for multiple programs and were limited to receiving a single email. Only 646 of the paramedic program directors were able to receive the requests for participation based on the e-mail addresses provided to Survey Monkey. Individualized thank you e-mails were sent to those individuals who responded to the initial pre-notification and stated they would be participating in the study. Individualized thank you emails were also sent to respondents who had informed the researchers that they completed the study after it was distributed.

A cover letter (Appendix G) was sent on March 16, 2015 using Survey Monkey to the 646 potential participants explaining the purpose of the study and asking for their voluntary participation and consent. The cover letter contained an individualized code/Web link generated by the Survey Monkey for them to be able to access the survey instrument and complete the survey. This feature in Survey Monkey facilitated the ability to send follow-up e-mail to only those who did not initially participate. The codes and identifiers were kept confidential and maintained by the principal investigator. Potential participants were asked to click on the code/weblink provided to them in order to complete the electronic survey. The participants were also reassured that all the information collected would be used for research purposes only and that the results of the

study would be published without identifying any individual participant or their respective program in any way. The participants were also advised that the survey would take less than 15 minutes to complete and that they could exit the survey at any time. The participants were provided with information related to consent and withdrawal. Only 1 of the 360 respondents chose to not participate in the study and used the withdrawal feature in Survey Monkey.

A reminder e-mail (Appendix H) was sent to the 452 potential participants on March 19, 2015 who did not initially respond to the survey request. A second reminder e-mail, identical in content to the first reminder, was sent on March 25, 2015 to 325 contacts advising them the study would be closing and giving them the chance to participate. The survey was closed on March 26, 2015. Following the closure, three e-mails were received from individuals stating that they could no longer access and participate in the survey. The individuals were contacted and advised that the survey was closed but were asked if they would be interested in participating in future studies. Following the conclusion of this study, thank you emails will be sent along with an executive summary of the findings from this study to those that participated in it by using the thank you note feature on Survey Monkey.

Declining survey response rates have been shown to increase the potential for nonresponse bias and have raised questions about the inferences drawn from the sample (Lee, Brown, Grant, Belin, & Brick, 2009). The survey was open for ten days. A total of 120 respondents completed the survey on the first day alone. On the first day of its availability, 120 survey responses were received. A total of 359 individuals attempted the survey and of those 343 were completed. The response rate of 53% was achieved. The

average response rate for internet based surveys has been reported to be 38% (Sheehan, 2001), while 20% is typical for EMS related internet survey responses. The response rate of this study surpassed both averages by 15% and 33% respectively. Schmuhl, Van Duker, Gurley, Webster, and Olson (2010) found the highest response rates for EMS related surveys came from using the traditional paper mode which had yielded an average response rate of 40.4%, but the results of this study suggest that web-based surveys are more effective when assessing the responses of paramedic program directors.

Data Analysis

The data collected via Survey Monkey was exported to a Microsoft Excel spreadsheet and to a SPSS file. Subsequent analysis of the data was done using SPSS software Version 22. The survey results provide a rich source of information about both the demographics and job related characteristics of the population. According to Mills (1959), analysis of any kind is an effort to the various experiences of the individuals in relation to others in a social environment. The quantitative data analysis in this study occurred in four stages: descriptive, comparisons, correlations, and explanations. Most of the data collected were at the nominal or ordinal level. Very few questions were at the interval level. Descriptive data included the missing values; however, valid percentages were used for further analysis related to the hypotheses of the study.

Descriptive statistics on age, race, gender, education level, academic rank, number of years of experience, and type of institution were collected. Frequencies and percentages were reported for each variable. Measures of central tendency and dispersion

such as standard deviations were reported as appropriate based on their level of measurement according to Steven's Scale of Measurement (Ary, Jacobs, & Sorenson, 2010). The mode was one of the most frequently reported measure of central tendency since the majority of the values were ordinal. Chi-square and t-tests were used to test for differences between selected sociodemographic variables and those that related to career success. A *p*-value of .05 was used to determine statistical significance.

Relationships between the hypothesized variables were also assessed. A popular approach to assessing the adequacy of both sides of career success is through the use of cross-sectional designs with analysis of correlations (Arthur et al., 2005, Judge & Bretz, 1994). Correlations were assessed using Pearson's *r* in order to examine if relationships between selected variables related to the research questions existed. A Pearson correlation coefficient (*r*) describes the size and direction of a linear relationship between two variables and ranges from -1.0 (perfect negative) to 1.0 (perfect positive) with 0 indicating no relationship exists between the variables (Goodwin & Leech, 2006). According to Bentler and Bonett (1980), covariance structure analysis provides "a means for using correlational data in a truly model testing way" (p. 603). Cronbach's alpha and factor analysis were used to verify the internal consistency using the .60 level.

Ordinary least square regression was used to predict subjective career success, objective career success and the career outcomes. Logistic regression is "well suited for describing and testing hypotheses about relationships between a categorical outcome and one or more categorical predictor variables" (Peng, Lee & Ingersoll, 2002, p. 4). The career success factors were explored and differences between the groups were noted. Although a regression line is not a perfect representation of the data, it is drawn to be the

best fit that yields the smallest sum of the squared residuals (Trochim & Donnelly, 2008, p. 312). The fit of the models was also assessed.

Qualitative data were obtained from the responses to the open ended questions. Content analysis was used to analyze the themes that emerged related to the career success of program directors such as their motivation, barriers/challenges faced in achieving success, and their formulas for achieving career success. Thematic analysis is a process for encoding qualitative data into specific codes based on themes or patterns found in the information that describes and organizes aspects of a phenomenon (Boyatzis, 1998). Sandelowski (1995) stated that analysis of the text begins with reading the material and identifying key phrases that made sense. Repetitive phrases, similarities and differences, and cutting and sorting of the material were used as suggested by Ryan and Bernard (2003). A feature in Survey Monkey allowed the frequency of words to be assessed, and was also used to help identify the themes related to each individual open-ended question. Codes were assigned to each of the participants' responses for each of the questions that were answered. To help insure trustworthiness, comparisons between the identified themes, review of the literature, and a review was used to triangulate the data (Hatch, 2002). The credibility of research was determined by assessing if the findings were "believable, trustworthy, convincing, and reliable" (Donaldson, Christie, & Mark, 2009, p. 71).

For the purpose of this dissertation, the analyses were limited to the techniques mentioned in order to address the hypotheses of the study.

Variables/ Measures

The following measures were addressed in the study. The ultimate dependent variable in the study was the *career success outcomes*. Precursor dependent variables consisted of both objective career success and subjective career success. Groups of four independent variables consisting of human capital, sociodemographic status, stable individual differences, and organizational sponsorship were assessed. The dependent and independent variables are presented respectively. Re-coding of some of the variables was necessary to allow additional comparisons and analysis of the data (Sweet, 1999). The re-coding was done using SPSS software Version 22 by creating new variables from existing ones. By re-coding the variables, the external validity of the study was strengthened. The codebook containing the key of the coded and re-coded variables is found in Appendix I.

Career Success Outcomes

Two items, intent to leave the position and intent to leave the profession, were used to measure the career success outcomes.

- *Intent to leave the position* was measured by the self-reported likelihood to leave their present position in the next twelve months and was coded 1= definitely stay, 2= probably stay, 3= probably leave, and 4= definitely leave. This variable was re-coded as 0= intends to stay or 1= intends to leave.

- *Intent to leave the EMS profession* was the likelihood of the individual to leave the EMS profession in the next twelve months and was coded 1= definitely stay, 2= probably stay, 3= probably leave, and 4= definitely leave.

Subjective Career Success

Subjective career success was measured by two indicators: career satisfaction and overall career satisfaction.

- *Career satisfaction.* The Career Satisfaction Scale developed by Greenhaus, Parasuraman, and Wormley (1990) was used to measure the career satisfaction of the individual and is widely accepted as a measure of career satisfaction (Spurk, Abele, & Volmer, 2011). The Greenhaus et al. (1990) Career Satisfaction Scale measures responses to the statements “I am satisfied with the success I have achieved in my career”, “I am satisfied with the progress I have made toward meeting my overall career goals”, “I am satisfied with the progress I have made toward meeting my goals for income”, “I am satisfied with the progress I have made toward meeting my goals for advancement”, and “I am satisfied with the progress I have made toward meeting my goals for the development of new skills” by using a five point Likert scale ranging from 1= Strongly Agree to 5= Strongly Disagree. The sum of the five items from the Career Satisfaction

Scale form a composite (Seibert et al., 2001). The variable was re-coded as 0= high satisfaction (16 or more) and 1= low satisfaction (less than 16).

- *Overall career satisfaction* was measured using a four point Likert scale ranging from 1= Very satisfied to 4= Not at all satisfied in response to the question “Overall, with respect to your current position as paramedic program director, how satisfied are you?” The variable was re-coded as 0= high satisfaction or 1= low satisfaction.

Objective Career Success

The *objective career success* was measured by the current salary of the individual as a program director, the change in the salary from their last position, the number of promotions that they have received, and the number of programs that they have directed.

- The *number of programs directed* was reported as a continuous variable based on the individual’s response to the question “Including this program, for how many programs have you been the program director?” This variable was re-coded 0=1 program and 1= more than 1 program.
- Income is often a sensitive issue for some individuals, so income levels were used instead of specific numbers to calculate salary similar to that performed in Judge et al. (1999). *Pay* was determined by the current total yearly salary as a paramedic program director (coded 1= less than \$45,000, 2= \$45,001 to \$55,000, 3= \$55, 001 to \$65,000, 4= \$65,001 to \$75,000, 5= \$75,001 to \$85,000, 6= more

than \$85,000). The variable was re-coded as 0= \$65,000 or less and 1= more than \$65,000.

- The *salary of the last position* reflected the salary of the individual before becoming a paramedic program director and was coded as 1= lower than the current salary, 2= same as the current salary, or 3= higher than the current salary. The variable was re-coded to reflect the salary of the last position as 0= lower than the current position or 1= same or higher than the current position.
- The variable *promotions* was measured by the response to the question “Have you been promoted since becoming program director?” and was coded as 1= no or 2= yes. The variable was re-coded as 0= no and 1= yes.

Human Capital Variables

The following seven human capital variables were measured: the number of hours worked, the number of years as a program director, the number of years of experience, the highest degree obtained, the pursuit of an academic degree, the participant’s rank, and the individual’s position/tenure.

- The variable for the average *number of hours worked* per week was coded as 1= less than 30, 2= 30 to 40, 3= 41 to 50 or 4= more than 50. The responses were re-coded as 0= 40 or less or 1= more than 40.
- The *number of years as a program director* was coded as a continuous variable. This variable was re-coded as 0= less than 5 or 1= 5 or more.

- The *number of years of experience* was the total number of years calculated from the combined responses to the question “Prior to becoming a paramedic program director, please indicate the number of years of experience you had as a paramedic, paramedic instructor, other EMS related instructor, administrator/manager, or military medic.” This variable was re-coded to reflect the total number of years of experience as 0= less than 35 or 1= 35 or more.
- The *highest degree held* by the individual was a single measure coded as 1= Associate’s degree, 2= Bachelor’s degree, 3= Master’s degree or 4= Doctorate degree. This variable was re-coded as 0= undergraduate degree or 1= graduate degree.
- The investment in furthering the individual’s education was measured by their *pursuit of an academic degree* that was coded as 1= no and 2= yes. This variable was re-coded as 0= no and 1= yes.
- The current *position/tenure* of the individual was coded as 1= full-time faculty (tenured), 2= full-time faculty (tenure track), 3= full-time faculty (non-tenure track), 4= part-time faculty or 5= full-time (other). This variable was re-coded as 0= not-tenured position or 1= tenured or tenure track position.
- The *rank* of the individual was measured as 1= full professor, 2= associate professor, 3= assistant professor, 4= instructor, 5= director/coordinator, 6= dean/ administration/manager, or 7= other. This variable was re-coded as 0= not full professor/dean/administrator or 1= full professor/dean/administrator.

Sociodemographic Status

The sociodemographic status variables measured in the study consisted of gender, ethnicity, age, marital status, and class.

- *Gender* was coded as either 1= male or 2=female. This variable was re-coded as 0= male and 1= female.
- *Ethnicity* was coded as 1= American Indian/Alaskan Native, 2= Black/ Non-Latino, 3= Asian/Pacific Islander, 4= Latino, 5=White/ Non-Latino or 6= Other. This variable was subsequently re-coded as 0= White/ Non-Latino or 2= Minority.
- *Age* was coded as 1= Less than 20 years, 2=20 to 29 years, 3=30 to 39 years, 4=40 to 49 years, 5=50 to 59 years, 6=60 to 69 years, or 7=70 years or older. This variable was re-coded as 0= less than 50 or 1= 50 or older.
- *Marital status* was coded as 1= married, 2= single, 3=divorced, and 4=widowed. This variable was re-coded as 0= married or 1= not married.
- *Parental education level* measures the highest level of education attained by either parent and was coded as 1= high school, 2= some college, 3= college, 4= graduate degree/ professional, or 5= unknown. This variable was re-coded as 0= no college degree or 1= college degree.

Organizational Sponsorship

Organizational sponsorship was determined by the type of organization, type of degree offered by the program, the size of the program, the program's accreditation

status, how the employee obtained their position as program director, and formal training/education provided by the institution.

- The *type of organization* was coded as 1= 4 year college or university, 2= community college, 3= hospital, 4= fire department/ city or county EMS, 5= consortia or 6= Technical school/career center, or 7= other. The variable was re-coded for analysis as 0= 4 year college or university and 1= other.
- The *type of degree* offered by the program was coded as 1= diploma, 2= certificate, 3= associates, or 4= bachelors. The variable was re-coded as 0= diploma/certificate and 1= associates/ bachelors.
- The *size of the program* was measured by the total number of paramedic students currently enrolled in the paramedic program and was coded as 1= less than 10, 2= 11 to 20, 3= 21 to 31, 4=31 to 40, 5= 41 to 50, 6= more than 50. The variable was re-coded as 0= 20 or less and 1= more than 20.
- The program's *accreditation status* reflected their program's status with CoAEMSP/ CAAHEP and was coded as 1= yes, we are currently accredited, 2= no, we have a letter of review but are not fully accredited yet. The variable was re-coded as 0= accredited and 1= not fully accredited.
- *How position was obtained* reflected the way the individual obtained their current position as program director in their organization and was coded 1= by appointment from inside the organization, 2= recruited from within the organization or 3= recruited from outside the organization. This variable was re-coded as 0= from within the organization and 1= from outside the organization.

- The amount of *formal training/education received* by the organization was grouped into a single measure. The amount of training in administration, pedagogy or andragogy, scholarship, service, mentorship, and distance education were each coded as 1= none, 2= a little, 3= some, 4= quite a bit and 5= very much. The variable was re-coded to reflect a sum of the scores in each area with 0= not much (18 or less) and 1= a lot (more than 19).

Stable Individual Differences

According to Ng. et al. (2005), indicators of stable individual differences include the Big 5 personality factors, proactivity, locus of control, or cognitive ability. The Big Five personality factors and proactive personality were used to help identify stable individual differences. Themes emerged from the content analysis of the open ended questions coded as described below.

- In response to the question “What barriers/ challenges have you experienced in achieving your career success?” seven themes emerged. The *barriers to achieving success* were coded as 1= institutional/ organizational, 2= personal, 3=lack of understanding/ lack of support, 4= discrimination, 5= professional roles/ responsibilities, 6= work/life balance, or 7= other. This variable was not re-coded or included in further quantitative analysis.
- In response to the question “How did you overcome the barriers/challenges?” six themes emerged and *overcome barriers* was coded as 1= education, 2= have not been able to, 3= time management, 4= hard work/persistence, 5=help from others,

or 6= other. This variable was re-coded as 0= hard work/ persistence and 1= other.

- *Formula for success* was coded based on the responses provided to the question “What is your formula for career success?” The codes were 1= openness (inventive/curious), 2= Conscientiousness (efficient, hardworking, organized, goal oriented), 3= extraversion talkative, social, outgoing), 4= agreeableness (nice, friendly, trusting, good natured), 5= neuroticism (nervous, anxiety), 6= proactive personality, or 7= other. This variable was re-coded as 0= conscientiousness or proactive personality and 1= other.
- Respondents were asked to “Please describe in your own words why you became a program director?” and six themes emerged from their responses and were coded as 1= passion for teaching and EMS, 2= advance the profession, 3= necessity, 4= career advancement, 5= challenge, or 6= other. This variable was not re-coded or included in further quantitative analysis.

The themes from each question were then separated into groups that related to the stable individual differences present in the literature. Conscientiousness (represented by hard work) and proactive personality (represented by persistence) emerged as themes in two questions of the four questions and were subsequently re-coded for further analysis as stable individual differences.

Limitations/ Delimitations

All the data were self-reported and therefore subject to personal bias. It is beyond the scope of the study to review every possible relationship between factors that may contribute to career success independently, so only the described analyses were conducted. Various factors have been demonstrated to affect an individual's career success and only the selected variables were examined in this study. For instance, the monetary compensation from a particular position is only one aspect related to the perceived value of a work position. Other benefits such as leave time or medical coverage can significantly impact the perceived value of a work position. Likewise, contributions of the entire family income may permit an individual to stay in a lower compensated position. The present study elected to focus only on the variables as they were described.

The study is also limited by the way that the variables were coded for analysis. Additional methodology could be utilized to assess the variables. The researchers chose to include only the methods described.

Although the proposed study will provide valuable information about paramedic program directors, the ability to generalize the findings to paramedic programs that are not accredited should be done with caution. Likewise, the ability to generalize to other types of program directors is also limited.

CHAPTER IV

RESULTS

This chapter describes the findings of the present study that are used to provide answers to the research questions and profiles selected characteristics of the sample. The profile is followed by the results from both the quantitative and qualitative analyses of the data relating to the hypotheses of the present study. The results are presented in four stages: 1) descriptives, 2) comparisons, 3) correlations, and 3) explanations.

Introduction

Survey Monkey was used to collect all the survey results from the respondents. The results were downloaded from Survey Monkey into Microsoft Excel and SPSS version 22.0 for analysis. Of the 646 surveys sent out, a total of 343 respondents completed and returned the surveys yielding a responses rate of 53%. Over half of all the paramedic program directors in the nation completed the survey. An alpha level of .05 was used to determine statistical significance.

Profile of the Sample

Demographic Data

Demographic variables of gender, ethnicity, age, marital status, highest degree earned, and the highest level of education for either parent were analyzed and charted. A summary of these demographic variables is found in Appendix J. Job related

characteristics consisting of the type of organizations the programs are located in, the number of hours worked per week as a paramedic program director, their current yearly salary from the position of program director, and their years of experience as a paramedic, paramedic instructor, other EMS related instructor, administrator/manager, or as a military medic were also analyzed and charted. A summary of the job related characteristics can be found in Appendix K. These demographic characteristics were compared to other data in order to better understand the respondents.

The respondents were asked to indicate their gender and their results are summarized in Table 1

Table 1. *Gender*

Gender	<i>f</i>	%
Male	223	65.0
Female	113	32.9
Chose not to answer	7	2.0

The majority of respondents ($n=223$, 65%) were men and only a third ($n=113$) were women while 2% ($n=7$) chose not to answer the question. The representation of males to females is similar to that reported by the NREMT's LEADS Update (May 2014) with 66% of the respondents in EMS profession being male. The representation of males who were paramedic program directors was lower than that reported for EMS educators (72% male) by Ruple et al. (2005) and lead instructors (76% male) by Crowe et al. (2015). The gender of the respondents was similar to that of Bachelor Degree directors (64% male) reported by Margolis (2005). The higher representation of females in the

position of paramedic program director suggests differences might exist between individuals who are program directors and those who are educators or lead instructors.

The summary results of the ethnicity reported by the respondents are depicted in Table 2. The majority of respondents were White/Non-Latinos and accounted for 92% of the sample. Of the remaining respondents, only 2% were Latino, 1% were American Indian/ Alaskan Native, 1% were Asian/ Pacific Islander, 1% were self-identified as other. According to the U.S. Department of Education’s National Center for Education Statistics (2014), of the full-time instructional faculty whose race/ethnicity was known in Fall 2011, 79% were White and only 6% were Black, 4% were Hispanic, 9% were Asian/Pacific Islander, and less than 1% were American Indian/Alaska Native or two or more races. The underrepresentation of minorities were prevalent in both groups, but the lack of diversity was even more pronounced for the paramedic program directors. The lack of minority representation made further analysis difficult.

Table 2. *Ethnicity*

Ethnicity	<i>f</i>	%
American Indian/ Alaskan Native	5	1.5
Asian/ Pacific Islander	2	0.6
Black/ Non-Latino	3	0.9
Latino	7	2.0
White/ Non-Latino	317	92.4
Other	4	1.2
Chose not to answer	5	1.5

The respondents were also asked to provide their age by selecting from several ranges provided in the survey. Table 3 depicts the ages of the respondents.

Table 3. *Age*

Age	<i>f</i>	%
20-29	4	1.2
30-39	48	14.0
40-49	119	34.7
50-59	126	36.7
60-69	41	12.0
70 or older	2	0.6
Chose not to answer	3	0.9

A little over a third of the individuals were either age 50- 59 (37%) or age 40- 49 (35%). The median age for the respondents was 40- 49 years of age. The mode was 50- 59 years of age. The NREMT’s LEADS Update (May 2014) stated that the average age of the EMS practitioner was 32. Crowe et al. (2015) found the mean age for lead instructors was 54 (*SD* 9).

Table 4 shows a summary of the participants’ responses about their marital status. Over three quarters of the respondents were married (76%). The representation of those who were married is higher than the average reported by the U.S. Census Bureau (2014) that showed approximately 55% were married, 35% had never been married, less than 10% were divorced, and less than 5% were widowed. Those reporting to be divorced (11%) were similar to the data from the Census report.

Table 4. *Marital Status*

Marital Status	<i>f</i>	%
Married	262	76.4
Single	37	10.8
Divorced	38	11.1
Widowed	3	0.9
Chose not to answer	3	0.9

The participants were asked to provide information about their educational attainment. Table 5 shows a summary of the highest level of education that the respondents reported having. Only 1% ($n=5$) of the respondents chose not to respond to the question and all of the other respondents (99%) reported having earned a college degree. The mode was that of the Master's Degree.

Table 5. *Highest Level of Education*

<i>Level of Education</i>	<i>f</i>	<i>%</i>
Associate's degree	1	0.3
Bachelor's degree	147	42.9
Master's degree	164	47.8
Doctorate degree	26	7.6
Chose not to answer	5	1.5

The level of educational attainment of the respondents differs significantly from other EMS related professionals. The highest level of education reported for EMS professionals in the NREMT LEADS Update (2014) claimed that 43% had some college, 21% had an Associate's degree, and 23% had a Bachelor's degree. Only 5% of EMTs and 6.0% of Paramedics possessed graduate degrees (Brown et al., 2002). Ruple et al. (2005) reported that 9% of EMS educators had graduate degrees. Crowe et al. (2015) identified that 34% of lead instructors had a master's degree and 11% had a doctoral degree. Out of the paramedic program directors in this study, 48% had master's degrees and 8% doctorate degrees. Margolis (2005) reported that all of the directors of Bachelor in EMS programs had master's degrees and 29% of them had doctorate degrees.

Table 6 provides a summary of the responses provided about the highest level of education that was received by either of the participant's parents. Almost a third of all the

respondents (31%) reported that the highest level of education attained by either one of their parents was that of high school or less. The mode for the highest level of education by either parent was some college. According to the U.S. Census Bureau (2014b), the highest level of education reported for individuals over 25 years of age include 41% with high school or less, 17% with some college, 30% with a college degree, and 12% with a graduate or professional degree. The education level of the parents of paramedic program directors is slightly higher than that of the national average with the exception of those having a college degree.

Table 6. *Parents' Highest Level of Education*

Parents' Highest Level of Education	<i>f</i>	%
High school or less	108	31.5
Some college	86	25.1
College	78	22.7
Graduate degree/ professional	66	19.2
Unknown	1	0.3
Chose not to answer	4	1.2

Job Related Data

Participants were also asked to provide the type of organization in which their program was located. Table 7 summarizes the types of organizations that the paramedic programs are located in.

Table 7. *Type of Organization*

Type of Organization	<i>f</i>	%
4 year college or university	38	11.1
Community college	203	59.2
Hospital	32	9.3
Fire department/ City or County EMS	13	3.8
Consortia	17	5.0
Technical School/ Career center	23	6.7
Other	17	5.0

Over half of the respondents (59.2%) reported that their paramedic program was located in a community college. Crowe et al. (2015) reported that 69% of lead instructors worked in postsecondary institutions with 66% of those being located in two-year colleges.

Figure 3 shows the types of organizations that the paramedic programs are located in.

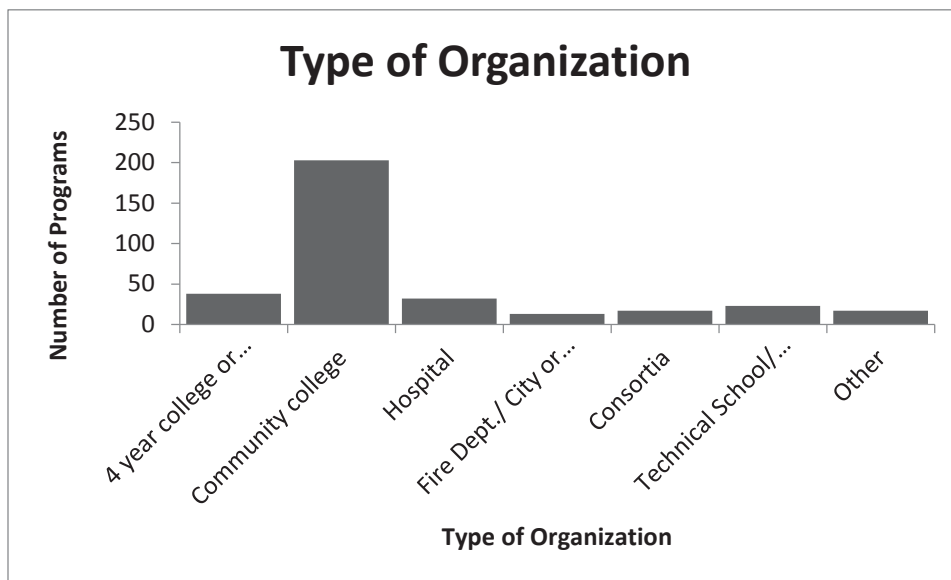


Figure 3. Types of organizations in which paramedic programs are located in.

Participants were asked to identify the number of hours spent fulfilling their responsibilities as a program director. Table 8 summarizes the data about the hours worked per week by the respondents.

Table 8. *Hours Worked*

<i>Hours worked per week</i>	<i>f</i>	<i>%</i>
Less than 30	65	19.0
30- 40	88	25.7
41- 50	113	32.9
More than 50	75	21.9
Chose not to answer	2	0.6

Almost one third (32.9%) of the respondents reported working 41- 50 hours a week fulfilling their responsibilities and 21.9% reported working more than 50 hours per week. The mode was also 41-50 hours per week. The median range was 41- 50 hours worked per week. Crowe et al. (2015) reported that lead instructors were assigned to work a median of 25 hours a week, but found that the educators reported working a median of 57 hours per week, with 56% of those hours spent on instructional tasks. The dispersion of the responses is depicted in Figure 4.

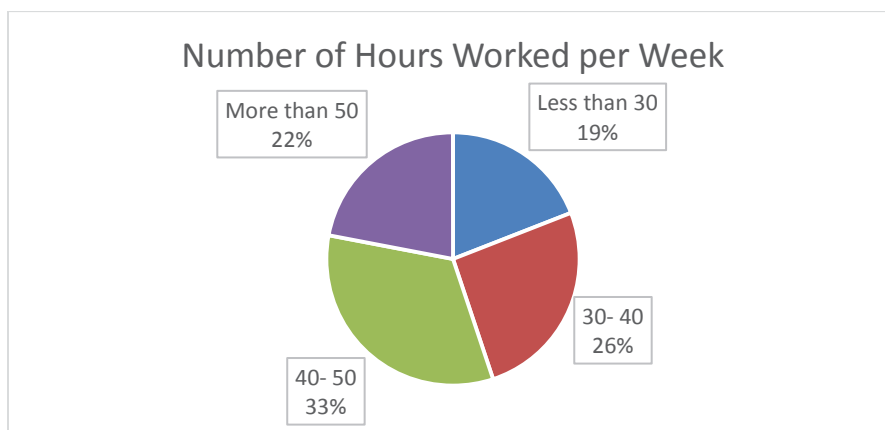


Figure 4. The average number of hours that paramedic program directors spend completing their duties a week.

The participants were also asked to select a range of compensation that reflected their current yearly salary from their position as a paramedic program director. Table 9 provides a summary of the salaries reported by the respondents.

Table 9. *Current Yearly Salary as Program Director*

<i>Current Yearly Salary</i>	<i>f</i>	<i>%</i>
Less than \$45,000	46	13.4
\$45,001- \$55,000	45	13.1
\$55,001- \$65,000	79	23.0
\$65,001- \$75,000	69	20.1
\$75,001- \$85,000	37	10.8
More than \$85,000	60	17.5
Chose not to answer	7	2.0

Almost a quarter of all respondents (23%) reported earning \$55,001 to \$65,000 or \$65,001 to \$75,000 (20%) per year as a program director. The median range for salary was \$65,001 to \$75,000 per year. The mode for salary was \$55,001 to \$65,000. The self-reported salaries of paramedic program directors are depicted in Figure 5.

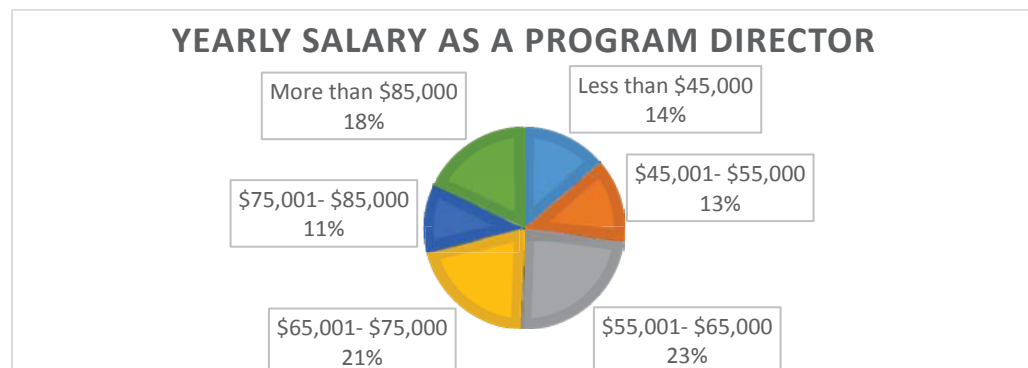


Figure 5. Current yearly salaries reported by paramedic program directors.

The National Center for Education Statistics (March 2014) reported that the average salary of all full-time faculty on 9-month contracts in degree-granting institutions in 2013 was \$77,301. The national average appears to be higher than that received by paramedic program directors. According to the U.S. Bureau of Labor Statistics (2014), the median pay for EMTs and Paramedics in 2012 is \$31,020 per year which is lower than the average received for the paramedic program directors.

Not every organization that houses a paramedic program classifies their employees by traditional academic criteria such as tenure or rank. However, since a large majority of paramedic programs are located in post-secondary institutions both were explored in this study. Participants were asked about the classification of their positions specifically related to tenure and if they were full or part-time. A summary of their responses is located in Table 10.

Table 10. *Classification of Position*

Classification of Position	<i>f</i>	%
Full-time faculty (tenured)	88	25.7
Full-time faculty (tenure track)	33	9.6
Full-time faculty (non-tenure track)	131	38.2
Full-time faculty (other)	58	16.9
Part-time faculty	28	8.2
Other	5	1.5

Non-tenure track faculty members accounted for 38% ($n= 131$) and other full-time employees accounted for 17% ($n= 58$). Figure 6 shows the number of paramedic program directors who are tenured or on a tenure track compared to those who are not.

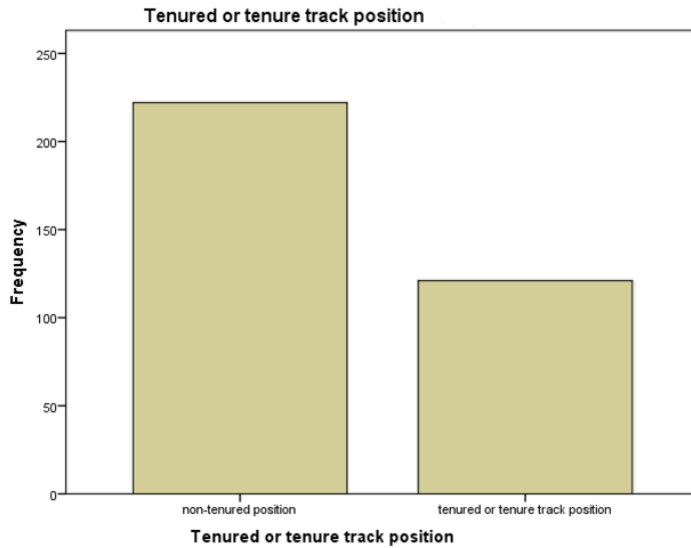


Figure 6. Paramedic program directors that are tenured or on a tenure track compared to those that are not.

Crowe et al. (2015) reported that 28% of all lead instructors were tenured or on tenure track. Approximately one quarter (26%) of program directors are tenured full-time faculty members and 10% ($n=33$) are on tenured tracks. Paramedic program directors who identified their position as part-time faculty account for 8% while only 2% ($n= 5$) of the respondents did not indicate if their positions were full-time or part-time in nature. Ruple et al. (2005) reported that over two-thirds of the EMS educators were classified as part-time. None of the Bachelors in EMS program directors were classified as part-time (Margolis, 2005).

The participants were also asked to identify their rank and a summary of their responses is found in Table 11.

Table 11. *Rank*

<i>Rank</i>	<i>f</i>	<i>%</i>
Full professor	46	13.4
Associate professor	51	14.9
Assistant professor	40	11.7
Instructor	94	27.4
Director/Coordinator	51	14.9
Dean/ Administrator/Manager	31	9.0
Other	29	8.5
Chose not to answer	1	0.3

Those respondents holding the rank of full professor accounted for 13% ($n=46$), associate professor for 15% ($n=51$), assistant professors for 12% ($n=40$), and instructors for 27% ($n=94$). Other categories of the individual's titles included director/coordinator which accounted for 15% ($n=51$), dean/administrator/manager for 9% ($n=31$) and other for 9% ($n=29$) while one individual chose not to answer. Those paramedic program directors who indicated possessing higher traditional ranks were less than those reported for Bachelor of EMS program directors, which may be due to the increased levels that they instruct. Margolis (2005) reported that 21% of Bachelor in EMS program directors were ranked as both full professors and associate professors while 36% were assistant professors, 14% instructors, and 7% lecturers.

Respondents also provided their years of experience prior to becoming a program director as a paramedic, paramedic instructor, other EMS related instructor, administrator/ manager, and as a military medic. Figure 7 depicts the amount of experience the respondents reported having in each area prior to becoming a paramedic program director.

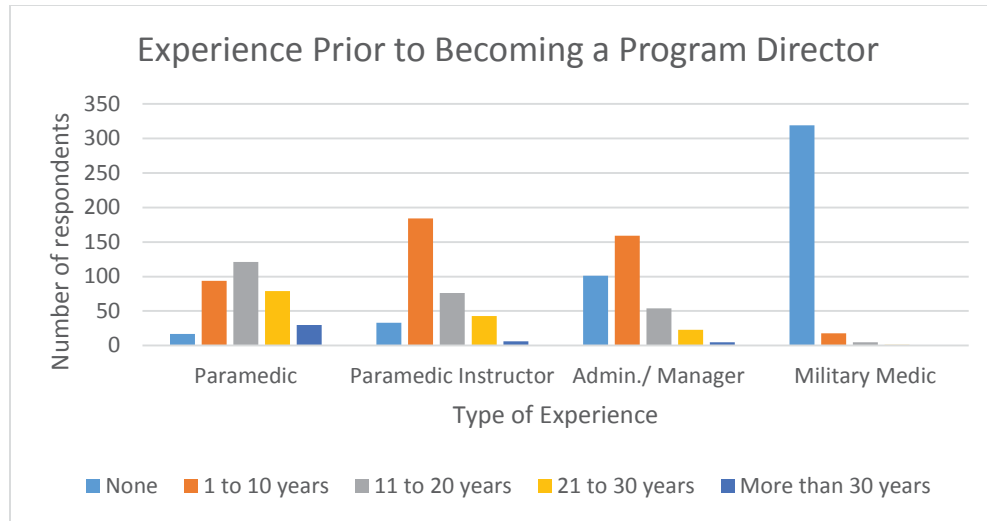


Figure 7. The prior experience of paramedic program directors.

Table 12 summarizes the participants' responses about their previous experience as a paramedic. Only 5% ($n=17$) of the respondents indicated they were not paramedics before assuming the position while 27% ($n=94$) had 1 to 10 years of experience, 35% ($n=121$) had 11 to 20 years of experience, 23% ($n=79$) had 21 to 30 years of experience and 9% ($n=30$) had more than 30 years of experience as a paramedic. Brown et al. (2002) reported that Paramedics overall had a median of 9.12 years of experience. According to Crowe et al. (2015), 75.7% of lead instructors were paramedics for more than 15 years while bachelor of EMS program directors had an average of 18 years of experience as a paramedic (Margolis, 2005).

Table 12. *Experience as a Paramedic*

Experience as a Paramedic	<i>f</i>	%
None	17	5.0
1 to 10 years	94	27.3
11 to 20 years	121	35.2
21 to 30 years	79	23.1
More than 30 years	30	8.8

Table 13 depicts the experience that the paramedic program directors had as a paramedic instructor. Over half of the respondents (54%, $n=184$) indicated they had 1 to 10 years of experience as a paramedic instructor while 22% ($n=76$) had 11 to 20 years of experience, 13% ($n=43$) had 21 to 30 years of experience and 2% ($n=6$) had more than 30 years of experience as a paramedic instructor while 10% ($n=33$) indicated that they had no experience as a paramedic instructor prior to becoming a program director. Crowe et al. (2015) found that 53% of lead instructors had less than or equal to 15 years of experience as paramedic educators while 47% had more than 15 years of experience in this role.

Table 13. *Experience as a Paramedic Instructor*

Experience as a Paramedic Instructor	<i>f</i>	%
None	33	9.6
1 to 10 years	184	53.5
11 to 20 years	76	22.2
21 to 30 years	43	12.7
More than 30 years	6	1.8

A little over a third of the respondents (34%, $n=118$) also indicated that they had experience from being an EMS related instructor in another area, while 26% ($n=90$) stated they had no experience in that area. Others that had experience as an EMS related instructor included 21% ($n=73$) that reported having 11 to 20 years of experience while those with 21 to 30 years of experience accounted for 13% ($n=45$) and those with 30 or more years accounted for 5% ($n=16$). Table 14 summarizes the responses of the participants about their years of experience as an EMS related instructor.

Table 14. *Experience as an EMS related instructor*

Experience as an Other EMS Instructor	<i>f</i>	%
None	90	26.2
1 to 10 years	118	34.3
11 to 20 years	73	21.1
21 to 30 years	45	13.3
More than 30 years	16	4.8

Approximately 46% ($n=159$) indicated that they had 1 to 10 years of experience as an administrator/manager before assuming the role of program director and 29% ($n=101$) stated they had no experience in this area. Those who indicated they had 11 to 20 years of experience as an administrator/manager accounted for 16% ($n=54$), 21 to 30 years for 7% ($n=23$), and more than 30 years for 2% ($n=5$). Table 15 reflects the number of years respondents reported having as an administrator/ manager.

Table 15. *Experience as an Administrator/ Manager*

Experience as an Administrator/ Manager	<i>f</i>	%
None	101	29.4
1 to 10 years	159	46.3
11 to 20 years	54	15.9
21 to 30 years	23	6.8
More than 30 years	5	1.5

The majority (93%, $n=319$) of paramedic program directors indicated they had no experience as military medics. Only 5% ($n=18$) had 1 to 10 years, 2% ($n=5$) had 11 to 20 years, and one individual had 21 to 30 years of experience as a military medic. Combat medics make up the second largest military specialty in the Army following the infantry and account for over 18,300 individuals (Tan, 2011). As of June 2013, over 2.7 million

people have served in the Armed Forces (Bureau of Labor Statistics, 2015). Table 16 reflects the number of years of experience that paramedic program directors had as a military medic.

Table 16. *Experience as a Military Medic*

Military Medic	<i>f</i>	%
None	319	93.0
1 to 10 years	18	5.4
11 to 20 years	5	1.5
21 to 30 years	1	0.3
More than 30 years	0	0.0

The remainder of this chapter revolves around the hypotheses outlined in Chapter I.

Comparisons

Comparisons were made in order to better understand differences that were present in the data. The sociodemographic variables were examined using cross-tabulations and Chi-Square tests. Most of the findings between the variables were found to be statistically non-significant and subsequently were not included in this section. Those findings that were statistically significant with a $p < .05$ were included below with a brief description of the differences found.

Comparisons of the data were made based on the sociodemographic characteristics of the respondents. A significant difference was noted between the gender of the participant and their total experience. Males reported having more over all experience (35

years or more) than their females counterparts did ($p = .01$). Significant differences were also found related to the ethnicity of the participants. Those who were identified as a minority (Non-White/Non-Latino) were more likely to have attained a higher rank than their White/ Non-Latino counterparts ($p < .01$) and were also more likely to remain in the profession than them ($p = .01$).

Age was also a factor that was shown to have significant differences in relation to several career success factors. Those individuals who reported being older than 50 years of age were more likely to have more total experience ($p < .01$), more years as a program director ($p < .01$), and earn more ($p < .01$) than their younger counterparts. The older respondents also were less likely to be pursuing an academic degree when compared to younger program directors ($p < .01$).

The class of the participant based on the highest level of education attained by either of their parents also was shown to play a significant difference in the participants' formula for success and their pursuit of an academic degree. Individuals whose parents did not have a college degree were more likely to use formulas for success that were associated with conscientiousness and proactive personality than those whose parents had college degrees were ($p = .02$). Individuals whose parents did not have a college degree were also more likely to be pursuing an academic degree when compared to their peers whose parents possessed a college degree.

Correlations

This section presents the statistical results that were used to determine if relationships existed between the selected variables presented in each hypothesis. The coding and data manipulation techniques used in the analysis are described. The codebook is found in Appendix I.

Correlations were conducted to further analyze the data. Correlations range from +1 or -1 to zero; with +1 or -1 meaning that all the information measured by the variables are shared and with 0 meaning that no information is shared (Malgady & Krebs, 1986). Correlations with an $r > 0.5$ were regarded as a strong correlation, an r between 0.3 and 0.5 as a moderate correlation, an r between 0.2 and 0.3 as a weak correlation, and an $r < 0.2$ as no or a negligible correlation (Holton, Bates, Bookter, & Yamkovenko, 2007). A p -value of $<.05$ was considered to be statistically significant. A summary of the major findings from this section are included in Appendix L.

Hypothesis 1- Human capital factors are positively related to objective career success.

The human capital variables explored in this study include (a) the number of hours worked, (b) the number of years as a program director, (c) the number of years of experience, (d) the highest degree held, (e) the pursuit of an academic degree, (f) the individual's rank, and the (g) individual's position/tenure. Each of these variables will be positively related to the participant's objective career success.

The correlations for each of the human capital variables and the variables that comprise objective career success are presented in Table 17. The results for each variable

are subsequently discussed in this section. Additional information related to each variable that was not provided in Appendix J: Demographic information or Appendix K: Job related characteristics are presented in this section.

Table 17. *Correlation- Human Capital Factors and Objective Career Success*

Human Capital Factor	Pay (n=336)		Salary of Last Position (n=340)		Promotions (n=340)		Number of Programs Directed (n=343)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Hours Worked	.02	.72	-.06	.29	.06	.24	.05	.41
Years as a program director	.18**	.00	-.27**	.00	.16**	.00	.22**	.00
Years of experience	-.01	.93	.07	.21	.04	.50	.01	.83
Highest level of education held	.25**	.00	-.08	.12	.21**	.00	.12*	.03
Pursuit of an academic degree	-.05	.36	.06	.25	-.07	.21	.02	.69
Rank	.17**	.00	-.12*	.03	.03	.56	.01	.93
Position/ tenure	.09	.10	.08	.13	.13*	.02	.01	.92

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

a) *Hours worked*. The participants were asked to select one of four possible responses to the question “On average, how many hours per week do you spend completing all of your duties as the program director?” The distribution of their responses is presented in Table 18.

Table 18. *Hours worked per week*

Hours per week	<i>f</i>	%
Less than 30	65	19.0
30- 40	88	25.7
40- 50	113	32.9
More than 50	75	21.9
Chose not to answer	2	0.6

Figure 8 shows the number of hours worked per week by paramedic program directors. Almost half of the respondents ($n=153$, 45%) reported working 40 hours or less per week with the remaining ($n=188$, 55%) indicating that they work more than 40 hours per week fulfilling their duties as program director. The mode of the number of hours worked was 41-50 hours.

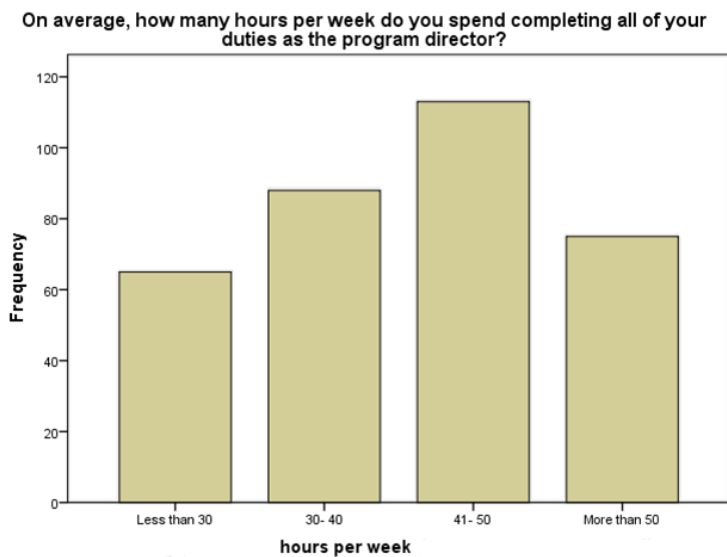


Figure 8. Number of hours worked per week

The National Study of Postsecondary Faculty conducted in 2003 found that full-time faculty members worked an average of 53.4 hours in a week. The study also concluded that almost 62% of their time was spent on course preparation/advisement, 20% on administrative tasks, and 18% on research (U.S. Department of Education, 2015).

Crowe et al. (2015) reported that paramedic program lead instructors worked a median of 57 hours per week, with 56% of those hours spent on instructional tasks. The paramedic program directors were also asked to provide the percentage of their work time that they dedicate to activities in the following categories-administration, instruction, scholarship, and service. Table 19 contains the descriptive statistics of the percentage of time that the individuals dedicated to each task.

Table 19. Descriptive statistics related to the percentage of time dedicated to tasks

Task	<i>N</i>	Min.	Max.	Mean	<i>SD</i>
Administration	340	0	100	53.7	24.2
Instruction	339	0	90	32.7	23.3
Scholarship	339	0	30	3.7	5.5
Service	339	0	70	7.7	9.1

The respondents identified that they spent over half of their time (54%) performing administrative tasks, followed by instructional tasks (33%), service (8%), and scholarship (4%). Figure 9 shows the percentages of time that were reported for each task.

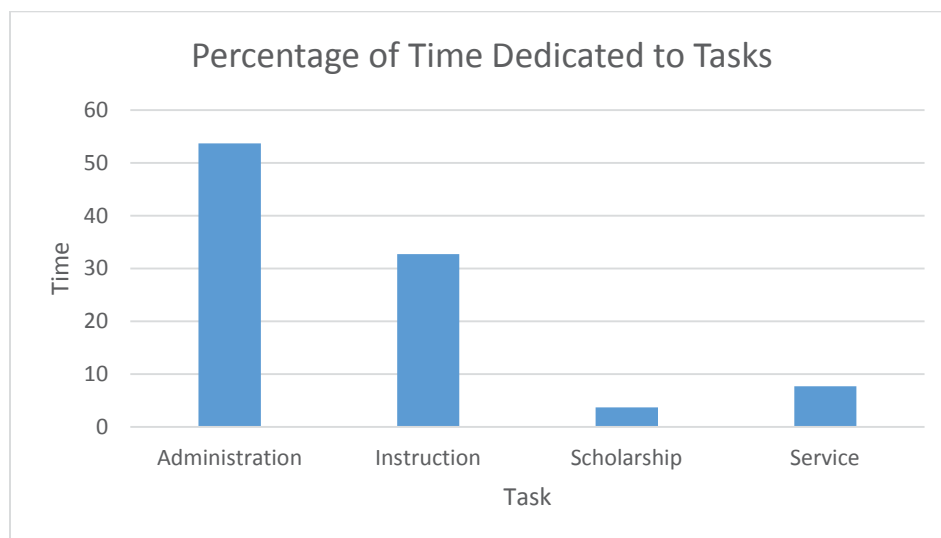


Figure 9. Percentage of time dedicated to tasks

Unlike the other studies, paramedic program directors spend more of their time on administrative tasks than on instructional related ones. The percentage of time dedicated to research related or scholarly duties was the lowest in each group.

The number of hours worked per week was correlated with the objective career success factors. The correlations were used to determine if statistically significant relationships existed between hours worked and pay, salary of last position, promotions, and the number of programs directed. The correlations were analyzed and negligible positive relationships with no statistical significance existed between hours worked and pay ($r = .02, p = .72$), promotions ($r = .06, p = .24$), and the number of programs ($r = .05, p = .41$). A negative negligible non-statistically significant relationship was found between the hours worked and the salary of the last position ($r = -.06, p = .29$).

b) *Years as a program director.* The participants were asked to provide the number of years that they have been a program director. Table 20 shows the descriptive statistics of the participants' responses. The mean was found to be 7.8 years.

Table 20. *Descriptive statistics for years as a program director*

	<i>N</i>	Range	Minimum	Maximum	<i>Mean</i>	<i>Std. Deviation</i>
# of years	341	33	0	33	7.8	7.2

Approximately 57% ($n = 197$) of the program directors reported having more than 5 years of experience in this type of job position while 43% ($n = 146$) reported having less than 5 years of experience. These results are shown in Table 21.

Table 21. *Years of experience as a program director*

Years of experience	<i>f</i>	%
less than 5	146	42.6
5 or more	197	57.4

Figure 10 also shows the number of paramedic program directors and their years of experience as a program director.

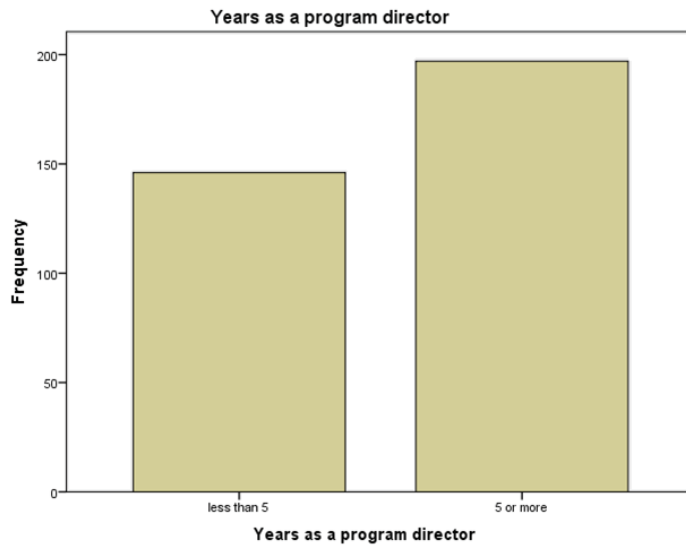


Figure 10. Number of years as a program director

Correlations were used to determine if statistically significant relationships existed between the number of years as a program director and the objective career success factors (pay, salary of last position, promotions, and the number of programs directed). The correlations were analyzed and a weak positive statistically significant relationship was found between the number of years as a program director and the number of programs directed ($r = .22, p < .01$). Negligible positive statistically significant relationships were found between the number of years as a program director and pay ($r = .18, p < .01$) and promotions ($r = .16, p < .01$). A weak negative statistically significant

relationship was identified between the number of years as a program director and the salary of the last position ($r = -.27, p < .01$)

c) *Years of Experience*. The participants were also asked about their years of experience as a paramedic, paramedic instructor, other EMS instructor, administrator/manager, and as a military medic. The descriptive statistics related to the previous experience of paramedic program directors are shown in Table 22.

Table 22. *Descriptive statistics related to the years of experience prior to becoming paramedic program directors.*

Experience	<i>N</i>	Range	Min.	Max.	<i>Mean</i>	<i>SD</i>
Paramedic	341	40	0	40	16.6	9.8
Paramedic Instructor	342	40	0	40	10.4	8.7
Other EMS related Instructor	342	42	0	42	10.5	10.4
Administrator/Manager	342	45	0	45	7.2	8.3
Military Medic	343	30	0	30	0.6	2.8

A total score of all the years of experience for each category was calculated and used as a basis for further analysis. A little over half of the respondents (54%, $n=184$) had at least 35 combined years of experience prior to becoming a paramedic program director. The frequencies and percentages related to the total number of years of experience are depicted in Table 23.

Table 23. *The total number of years of all previous experiences*

Total years of experience	<i>f</i>	%
Less than 35	157	46.0
35 or more	184	54.0

Figure 11 shows the responses for the total number of years of experience as less than 35 years or 35 years or more.

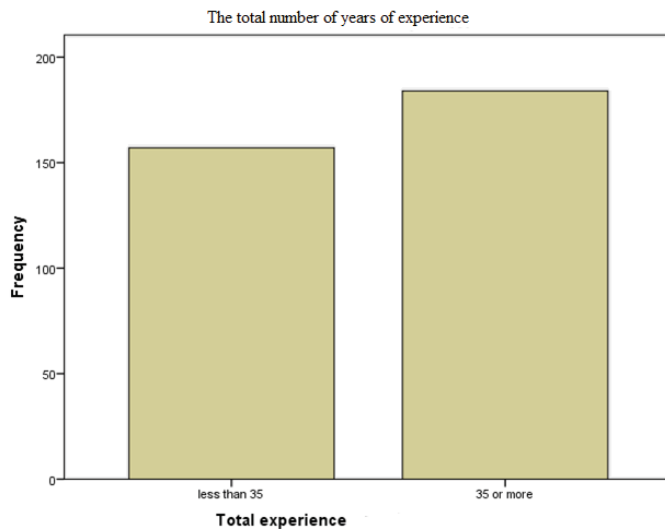


Figure 11. Total Experience

The results of the correlations between the number of years as a program director and pay, salary of the last position, promotions, and the number of programs directed were analyzed. The relationships between years of experience and pay ($r = -.01, p = .93$) was found to be negligible, negative, and statistically non-significant. The relationships between years of experience and salary of the last position ($r = .07, p = .21$), promotions was $r = .04 (p = .50)$, and the number of programs ($r = .01, p = .83$) were found to be positive, negligible, and statistically non-significant.

d) *Highest degree held.* The participants provided information about the type of degrees they had earned. The responses were identified as associate's degree, bachelor's degree, master's degree, and doctorate degrees. The data depicting the highest level of education earned by degree are shown in Figure 12.

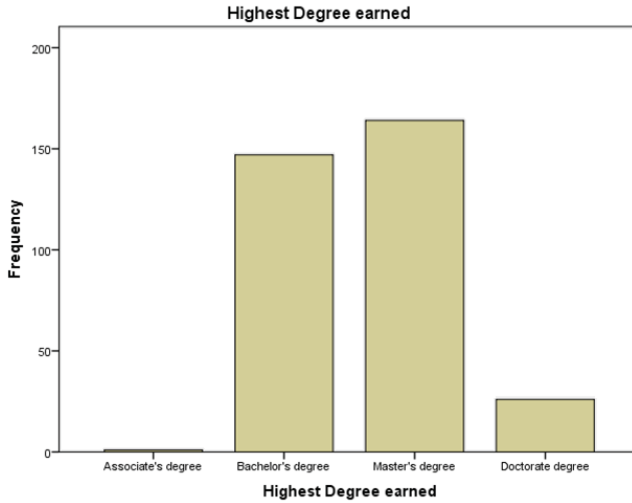


Figure 12. Highest degree earned

For analysis, the data were categorized into either an undergraduate degree or a graduate degree. More than half of all the paramedic program directors (56%) held graduate degrees while 44% held undergraduate degrees. Table 24 shows the highest degree earned by the respondents as either an undergraduate degree or a graduate degree.

Table 24. Highest degree earned

Degree	<i>f</i>	%
Undergraduate degree	148	43.8
Graduate degree	190	56.2

The results of these correlations found that weak positive statistically significant relationships existed between the highest degree held and pay ($r = .25, p < .01$) and promotions ($r = .21, p < .01$). A negligible positive statistically significant relationship was found between the highest degree held and the number of programs directed ($r = .12,$

$p = .03$). A negligible negative non-significant relationship was identified between the highest level of education and the salary of the last position ($r = -.08, p = .12$).

e) *Pursuit of an academic degree*. The participants were asked to identify if they were working towards an academic degree. Table 25 identifies the frequencies and percentages of those who are or are not seeking an academic degree.

Table 25. *Working towards a degree*

Working towards degree	<i>f</i>	%
No	226	65.9
Yes	113	32.9
Chose not to answer	4	1.2

Approximately two-thirds of the respondents (66%, $n = 226$) stated they were not working towards a degree. Only 33% ($n = 113$) of the respondents stated they were working towards a degree. The number of paramedic program directors that are or are not pursuing degrees is shown in Figure 13. The number of paramedic program directors working towards an academic degree is comparable to that of Crowe et al. (2015) who identified that 29% of lead instructors were enrolled in higher education.

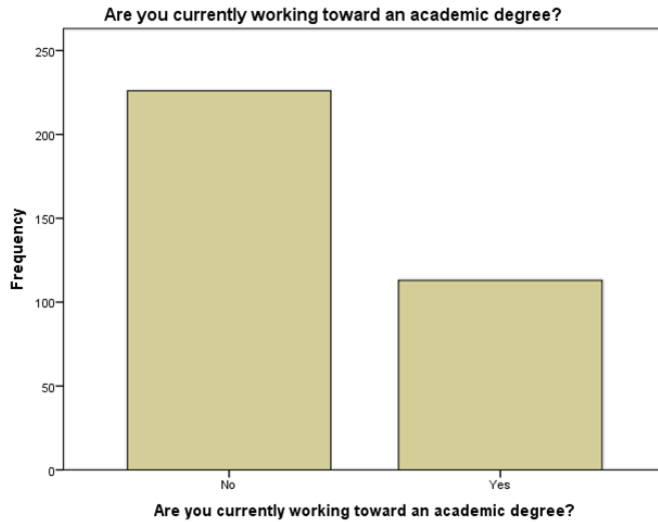


Figure 13. Pursuit of an academic degree

The respondents who indicated they were pursuing an academic degree were also asked to specify the type of degree they were pursuing. Table 26 identifies the frequencies and percentages of the types of degrees being pursued by the respondents.

Table 26. *Type of degree being pursued*

Type of degree	<i>f</i>	%
Associate's degree	1	0.9
Bachelor's degree	3	2.7
Master's degree	60	54.5
Doctorate degree	44	40.0
Did not specify	2	0.6

Over half (55%, $n = 60$) of the respondents who were pursuing an academic degree indicated that they were pursuing a Master's degree and 40% ($n = 44$) indicated that they were pursuing a Doctorate degree. Figure 14 illustrates the types of degrees being pursued.

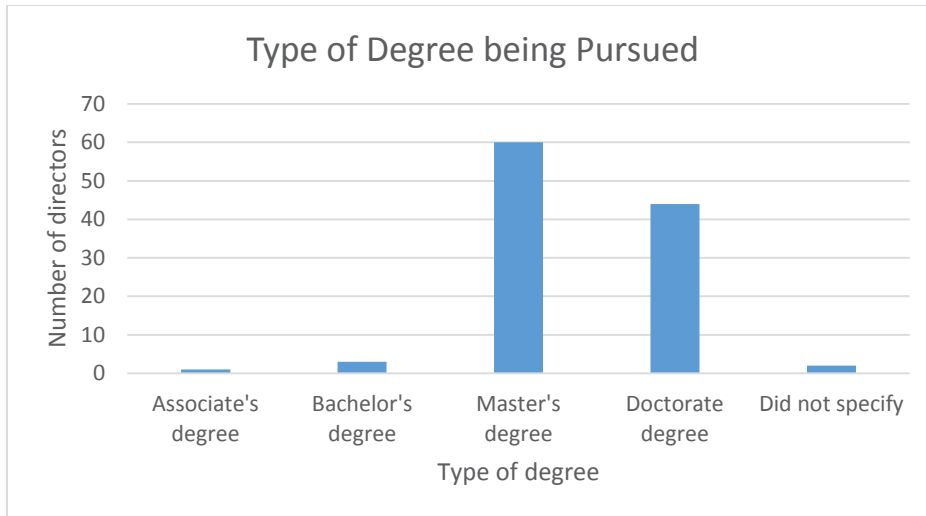


Figure 14. Types of degrees being pursued by program directors

Correlations were used to determine if a relationship between the pursuit of an academic degree and the objective career success factors (pay, salary of last position, promotions, and number of programs directed) existed. The relationships between the pursuit of an academic degree and pay ($r = -.05, p = .36$) and promotions ($r = -.07, p = .21$) were negative, negligible, and not statistically significant. The relationships between pursuit of an academic degree and the number of programs ($r = .02, p = .69$) and the salary of the last position ($r = .06, p = .25$) were positive, negligible, and not statistically significant ($r = .02, p = .69$).

f) *Rank*. The participants were asked to identify their rank as either full professor, associate professor, assistant professor, instructor, or other. Not all the paramedic programs are located in organizations that incorporate the ranking system. Because almost a third of participants selected “other” ($n = 111, 32\%$), two new categories (Director/Coordinator, Dean/ Administrator/ Manager) were included into the analysis.

The frequencies and percentages reflecting the ranks of the participants are found in Table 27. The mode was identified as instructor.

Table 27. Rank

Rank	<i>f</i>	%
Full professor	46	13.4
Associate professor	51	14.9
Assistant professor	40	11.7
Instructor	94	27.4
Director/Coordinator	51	14.9
Dean/ Administrator/Manager	31	9.0
Other	29	8.5
Chose not to answer	1	0.3

The responses were re-categorized as either “not full professor or dean/administrator” or “full professor or dean/administrator.” Deans and administrators have been shown to have responsibilities that extend beyond regular faculty members (Jensen, Kurtz, & Stassen, 2015). Table 28 reflects the frequencies and percentages of the individuals by rank after they were re-coded.

Table 28. Rank (Re-coded)

Rank	<i>f</i>	%
Not full professor or dean/administrator	265	77.5
Full professor or dean/administrator	77	22.5

Correlations were used to determine if rank was related to pay, salary of last position, promotions, and the number of programs directed. The correlations were analyzed and negligible positive relationships with no statistical significance were found between rank and promotions ($r=.03, p=.56$) and the number of programs ($r=.01, p=.93$). The negligible positive statistically significant relationship was found between rank and pay ($r=.17, p<.01$) and a negative negligible statistically significant relationship between rank and the salary of the last position ($r=-.12, p=.03$) was noted.

g) *Position*. The participants were asked to classify their current positions. The participants were given the option to select full-time (tenured), full-time (tenure tack), full-time faculty non-tenure track), part-time faculty, or other. An additional category was added after coding the other responses and classified as full-time (other). Approximately 45% of institutions across the United States had tenure systems in 2011- 2012 (U.S. Dept. of Education, Characteristics, 2014). Table 29 depicts the frequencies and percentages of the respondents by their positions. The mode was determined to be full-time faculty (non-tenure track).

Table 29. *Classification of position*

Classification of position	<i>f</i>	%
Full-time faculty (tenured)	88	25.7
Full-time faculty (tenure track)	33	9.6
Full-time faculty (non-tenure track)	131	38.2
Full-time faculty (other)	58	16.9
Part-time faculty	28	8.2
Other	5	1.5

The responses were then classified as either a “non-tenured position” or “tenured or tenure track position” for analysis. Almost two-thirds of the respondents (65%, $n = 222$) were identified as having a non-tenured position when compared to the 35% that were either tenured or in a tenure-track position. Table 30 depicts the frequencies and percentages of the position/tenure. The results of those in tenures or tenure track positions were found to be slightly higher than that of paramedic lead instructors (28%) identified by Crowe et al. (2015).

Table 30. *Classification of position/tenure*

Classification of position	<i>f</i>	%
Non-tenured position	222	64.7
Tenured or tenure track position	121	35.3

Correlations were used to determine if relationships existed between position and all the objective career success factors. All of the relationships were found to be negligible and positive. The relationships between position/tenure and pay was $r = .09$ ($p = .10$), the number of programs directed was $r = .01$ ($p = .92$), and the salary of the last position ($r = .08$, $p = .13$) were not statistically significant while the relationships between position/tenure and promotions ($r = .13$, $p = .02$) was statistically significant.

Hypothesis 2- Sociodemographic variables (gender, race, age, marital status, and class) are positively related to objective career success. Each of these factors are used in this study as predictors of career success. Being (a) male, (b) white, (c) older and (d) married are expected to be positively related to the objective career success of the participants. The indicator of (e) class will be identified as the highest level of education obtained by either parent and will also be positively related to objective career success.

The correlations for each of the sociodemographic variables and the variables that comprise objective career success are presented in Table 31. The results for each variable are subsequently discussed in this section. Additional information related to each variable

that was not provided in Appendix J: Demographic information is presented in this section.

Table 31. *Correlation - Sociodemographic Status and Objective Career Success*

Sociodemographic Status Variables	Pay (n=336)		Salary of Last Position (n=337)		Promotions (n=340)		Number of Programs Directed (n=343)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Gender	-.04	.49	.07	.20	-.02	.66	-.06	.29
Ethnicity	.04	.47	.02	.68	.06	.30	.00	.99
Age	.16**	.00	-.08	.13	.00	.93	.10	.07
Marital Status	.04	.52	-.01	.88	.01	.84	.07	.21
Parental education level	.07	.22	.04	.84	.04	.52	.00	.97

** . Correlation is significant at the 0.01 level (2-tailed).

a) *Gender*. The respondents were asked to provide their gender. Figure 15 shows the number of participants that were males and females.

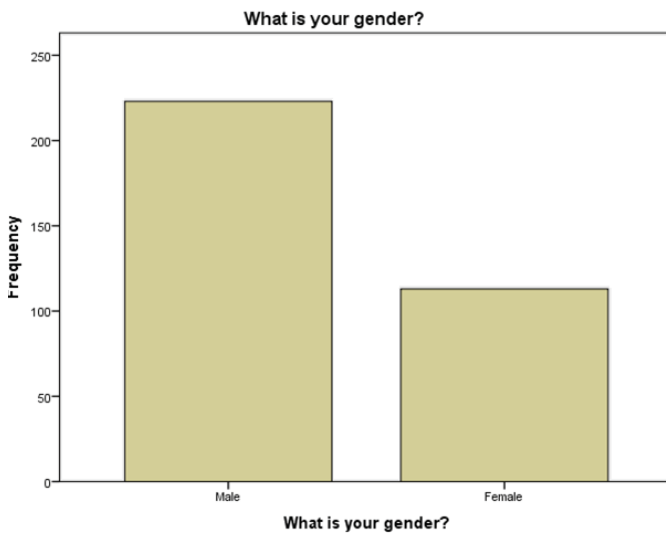


Figure 15. Gender

Correlations were used to determine if statistically significant relationships existed between gender and the objective career success factors of pay, salary of last position, promotions, and the number of programs directed. The correlations were analyzed and negligible negative relationships with no statistical significance existed with pay ($r = -.04, p = .49$), promotions ($r = -.02, p = .66$), and the number of programs ($r = -.06, p = .29$). A negligible positive non-statistically significant relationship was noted between gender and the salary of the last position ($r = .07, p = .20$).

b) *Ethnicity*. The participants were asked to identify their ethnicity. Figure 16 shows the number of participants by their self-identified ethnicity.

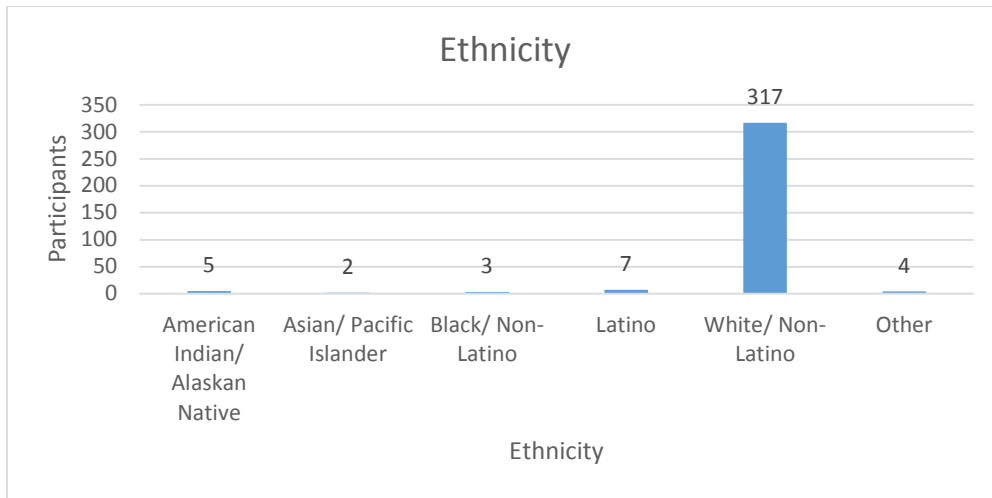


Figure 16. Ethnicity

The ethnicity of the respondents was re-classified as either “White/Non-Latino” or “Minority” for further analysis. Almost all of the respondents (94%) were identified as White/ Non-Latino as reflected in Table 32.

Table 32. *Ethnicity*

Ethnicity	<i>f</i>	%
White/ Non-Latino	317	93.8
Minority	21	6.2

Correlations were used to examine if relationships between ethnicity and the factors of objective career success (pay, salary of last position, promotions, and the number of programs) existed. The correlations were analyzed and negligible positive relationships with no statistical significance existed for all factors (pay, $r = .04, p = .47$), (salary of last position, $r = .02, p = .68$), (promotions, $r = .06, p = .30$) and (number of programs, $r = .00, p = .99$).

c) *Age*. The participants were asked to select their appropriate age range. Figure 17 illustrates the number of respondents in each age category.

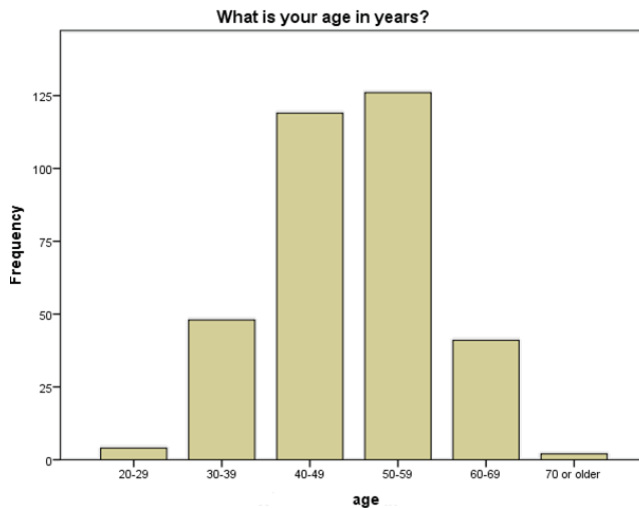


Figure 17. Age of the participants

The mode was 50- 59 years of age. The age of the participants was classified as either “less than 50 years of age” or “50 or older.” Table 33 shows the frequencies and

percentages of the participants. Approximately half of the participants were in both age groups.

Table 33. *Age*

Age	<i>f</i>	%
less than 50 years of age	171	50.3
50 or older	169	49.7

Correlations were used to analyze if relationships between the age of the participants and objective career success factors existed. A negligible positive relationship with statistical significance was found to exist between age and pay ($r = .16$, $p < .01$). A negligible negative non-statistically significant relationship was noted between age and the salary of the last position ($r = -.08$, $p = .13$). Negligible positive non-statistically significant relationships were noted between age and promotions ($r = .00$, $p = .93$) and number of programs ($r = .10$, $p = .07$).

d) *Marital Status*. The participants were asked to identify their marital status. The marital status reported by the participants are reflected in Figure 18.



Figure 18. Marital status

The majority of respondents (77.1%) were married and the remaining responses (22.9%) were categorized as not married for subsequent analysis. Table 34 shows the frequencies and percentages of the participants by their marital status.

Table 34. *Marital Status*

Marital status	<i>f</i>	%
Married	262	77.1
Not Married	78	22.9

Correlations were used to determine if relationships between marital status and the objective career success factors existed. The analysis of the correlations identified negligible positive non-statistically significant relationships between marital status and pay ($r = .04, p = .52$), promotions ($r = .01, p = .84$), and the number of programs directed ($r = .07, p = .21$). A negligible negative non-statistically significant relationship was found to exist between marital status and the salary of the last position ($r = -.01, p = .88$).

e) *Class*. Class was represented by the highest level of education attained by either of the individual's parents. Figure 19 depicts the highest level of educational attainment that the individual's parents possessed.

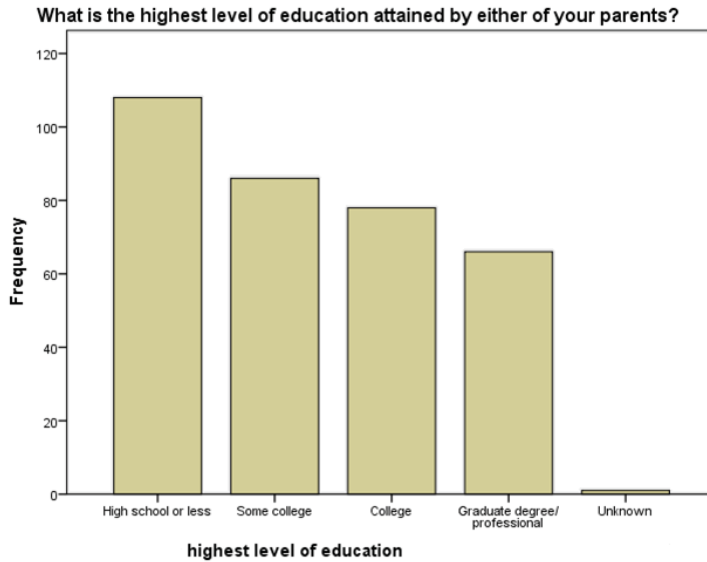


Figure 19. Highest education level received by either of the participants' parents

The responses of the individuals were re-categorized into those who had “no college degree” or those that had a “college degree.” Over half of the responses (57.2%, $n= 194$) were classified as “no college degree” and the remaining 42.8% ($n= 145$) were classified as having a college degree. Table 35 shows the frequencies and percentage of the parents' education level.

Table 35. Parents' education level (class)

Level of education	f	%
No college degree	194	57.2
College degree	145	42.8

Correlations were used to assess the relationships between class and the objective career success factors. The analysis of the correlations identified that negligible positive non-statistically significant relationships existed between class and all the objective career success variables. The relationship between class and pay was based on $r = .07$ ($p = .22$); salary of the last position ($r = .04$, $p = .84$); promotions ($r = .04$, $p = .52$); and the number of programs directed ($r = .00$, $p = .97$).

Hypothesis 3- Stable individual differences are positively related to subjective career success. The responses provided to questions asking about the (a) barriers to achieving success, (b) how those barriers were overcome, (c) the individual's formula for achieving success, and (d) their reason for becoming a program director will be used in the thematic analysis that relates to these factors.

The results for each open-ended question are presented in this section. The themes that emerged from the qualitative analysis are described and the subsequent use of the data are discussed. Themes that Emerged from the Qualitative Analysis in Appendix M shows a summary of the findings from the qualitative analysis. Following the initial analysis the data were coded. If more than one theme appeared in a particular response, the first theme was used for categorizing the data. Only two of the questions that revealed similar concepts were used as the stable individual differences in the correlations and regressions. The correlations for each of the stable individual differences variables were used to determine if relationships existed between the stable individual differences and

the subjective career success of the participants. The correlations for are presented in Table 36.

Table 36. *Correlation- Stable Individual Differences and Subjective Career Success*

Stable Individual Differences	Career Satisfaction (<i>n</i> =340)		Overall Career Satisfaction (<i>n</i> =341)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Overcome the barriers	.03	.56	.05	.42
Formula for career success	.14*	.02	.05	.38

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

a) *Barriers to achieving success*. The participants were asked to identify barriers and challenges that they have faced in achieving their career success. After reviewing the data from 302 respondents, seven themes appeared to emerge as types of barriers or challenges that the individuals faced: institutional/organizational, personal, lack of understanding/lack of support, discrimination, professional roles/responsibilities work/life balance, and other. Each of the themes were coded and used in the analyses. The frequencies and percentages of each theme are presented in Table 37.

Table 37. *Barriers and challenges*

Type of barrier/challenge	<i>f</i>	%
Institutional/ organizational	81	23.6
Personal	36	10.5
Lack of understanding/ lack of support	39	11.4
Discrimination	20	5.8
Professional roles/responsibilities	51	14.9
Work/ life balance	25	7.3
Other	50	14.6
Chose not to answer	41	12.0

Institutional/Organizational

Almost a quarter of all or respondents (24%) identified that they faced institutional and organizational barriers and challenges while achieving their success. The prevailing perceptions suggested that administration does not understand their responsibilities nor do they provide adequate support in the form of funding, training, mentorship, or additional assistance that is needed to accomplish the goals of the programs. Some of the representative comments included:

- “NO TRAINING! Everything has been OJT, managing a large team of part time faculty , accreditation”
- “Bureaucratic delays within the institution”
- “Lack of mentorship; lack of assistance with obtaining CAAHEP accreditation”
- “Not enough resources for faculty and manpower to support the program.”
- ADMINISTRATION at the college is VERY unsupportive and often a HUGE barrier to success and advancement in the program.”

Personal Factors

Outside of institutional/organizational barriers and challenges, 11% of the respondents ($n = 36$) cited personal factors that were barriers to their success. Time and money were two that were repeated in their responses. They also felt that furthering their education was a challenge. A few representative comments of personal factors included:

- “The greatest barrier is myself, my ego, and my unwillingness to adapt and change when needed.”
- “(The) ability and time to further graduate education. Funding for graduate education.”
- “If I have to name a barrier it would be distance to educational opportunities.
- “The biggest barriers I have faced have been personal- relocating, uprooting my family, etc”
- “Time and funding for further personal education.”

Lack of Understanding/ Lack of Support

The respondents (11%) also perceived a lack of understanding and a lack of support as a barrier/challenge to their career success. The lack of understanding and support was felt by the respondents from their families, peers, supervisors, health care providers, and others within their communities. Some representative statements included:

- “Lack of support at the community college level for research.”
- “Lack of respect as a paramedic”
- “Not considered a healthcare professional with others at the table.”
- “Lack of support from school ownership.”

- “Lack of understanding about EMS work from individuals not involved with EMS.”

Professional Roles/ Responsibilities

Approximately 15% of the respondents expressed how their professional roles and responsibilities were barriers/challenges to their career success. The role of the paramedic program director was described as multi-faceted and required a significant amount of time to fulfill. Some of the participants felt that it was difficult to learn the job and to make the transition from one role to another. A few representative comments include:

- “Balancing ongoing education with employment duties.”
- “My role includes many other responsibilities aside from my involvement in our EMTP program. Time management and delegation are critical skills needed to keep up on all facets of my role.”
- “A huge challenge was making the transition from instructor to program director.”
- “Learning the job and keeping up with last minute jobs:
- “I had very little knowledge of how to be a good Program Director, I was unfamiliar with state requirements, accreditation requirements and College policies when I accepted the position.”

Discrimination

Discrimination is defined as the practice of unfairly treating a person or group of people differently from other people or groups of people (Merriam-Webster, 2015). Some of the respondents (6%) described how they have been discriminated against on the basis

of their age or gender. This perceived discrimination has been expressed as a barrier/challenge to their career success. Some representative comments include:

- “Age discrimination” and “age bias”
- “Being a female has presented some challenges within the EMS field.”
- “Being a woman in EMS has its disadvantages”
- “I have been perceived as too young to be an EMS educator”
- “Being a woman is a challenge when it comes to the ‘good old boys club’.”
- “Reverse discrimination, i.e. the institution's need to fulfill affirmative action requirements.”

Work/ Life Balance

Some of the participants (7%) expressed that one of the barriers/ challenges they faced was balancing various aspects of their lives with others. Personal goals, work responsibilities, and family responsibilities were factors mentioned as barriers/challenges.

A few comments exemplifying this theme include:

- “Completing formal education (Master's Degree) as an adult while having a family and working in EMS full-time.”
- “Obtaining my master's degree, juggling family responsibilities with work and school”
- “Working as a full time mother of 4 children. Having time to complete education.”

Other

Some of the responses (15%) did not clearly fit into the above themes. Accreditation, politics, a lack of advancement, and outcomes related to achieving student success were described as barrier/challenges faced by some of the respondents. Other participants stated that they did not have any barrier/challenges. A few of their representative comments include:

- “Student outcomes”
- “Current EMS lacks a clear advancement/promotional path.”
- “Accreditation”
- “The most difficult barriers involve having to try and control the actions of others that impact your program. Ex. Medical director, hospital clinical sites and field internship sites.”
- “Political influences.”

Figure 20 shows the valid percentages of each theme that was identified as barriers/challenges.

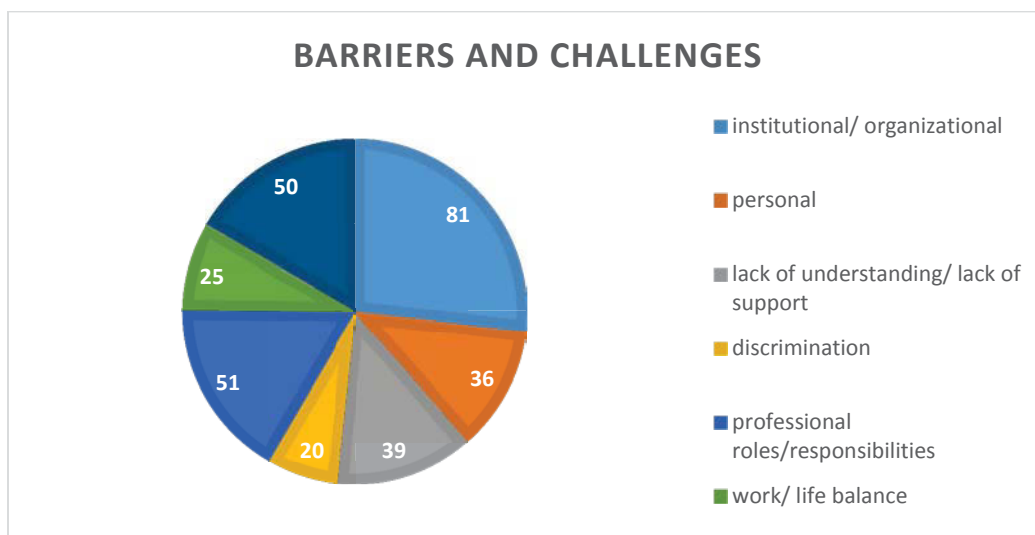


Figure 20. Barriers and challenges

b) *Overcome the barriers.* The participants were asked to identify how they overcame the barriers and challenges they faced. Six themes emerged from the qualitative analysis of the 298 responses and the data were coded as: education, have not been able to, time management, hard work/ persistence, help from others, and other. The frequencies and percentages of the responses to how the barriers and challenges were overcome by their themes are portrayed in Table 38.

Table 38. *Ways the barriers and challenges were overcome*

Way the barrier was overcome	<i>f</i>	%
Education	45	13.1
Have not been able to	62	18.1
Time management	26	7.6
Hard work/ persistence	39	11.4
Help from others	53	15.5
Other	73	21.3
Missing	45	13.1

Have not been able to overcome them

Approximately one fifth (21%) of those that chose to answer the question claimed that they have not been able to overcome their barriers and challenges. A few of the respondents indicated that as a result they are changing jobs. Some of their representative comments of this theme included:

- “Have not. Have added faculty but really should have one more FT instructor for this department.”
- “The struggle continues...”
- “I changed jobs.”
- “I haven't. I resigned last week.”

Help from others

Many of the respondents (18%) stated they have been able to overcome their barriers and challenges with the help of others. The support that they received came from their organizations, peers, friends, their communities, and their families. Some of the comments that encompassed this theme included:

- “Good friends and trusted colleagues. Spiritual practices are a key.”
- “The way I helped overcome the challenges (although still facing some of them) was to talk to experienced people in the field. To get advice from other successful program directors. Also attending NAEMSE conferences are very helpful and important.”
- “I have spread some of the responsibilities to some trustworthy instructors which has taken extra load off me to do some recruiting, and scholarship for my program.”
- “Seek out faculty / administrative mentors that understand the rules of being a successful faculty member.”
- “Strong faculty and support from community provider agencies has supported my success”

Education

One of the ways that 15% of the respondents identified to overcome the barriers/ challenges they faced was to embrace and attain further education. The educational activities varied from professional development to formal degree attainment. Some of the representative comments included:

- “Professional development, furthered my education”
- “We are in a very rural area and have worked for scholarships and other means of payment for tuition for the students in our district.”
- “I continue to educate myself in anticipation of a future position coming available.”
- “I sought education and training on my own.”
- “I have traveled all over this country to different conferences and class offerings”
- “I have worked to experience as many different aspects of prehospital care (provider, operations, administration, education) through my various employments.”
- “I sought out a Master's degree in education and am working on a doctorate in education currently.”

Hard work/ Persistence

Some of the respondents (13%) reported that they used hard work and persistence to overcome the barriers and challenges that they faced in achieving their career success.

The comments in this theme also references setting and achieving their goals. Some of the representative comments included:

- “Make a vision and plan and stick with it. No matter what, you can overcome any obstacles and challenges.”
- “Being persistent, knowledgeable and showing the same respect that I wanted shown to me.”
- “Put my nose to the grindstone and get things done”

- “Hard work and determination.”
- “Persistence and determination to reach the goals I have set for myself.”
- “Hard work, perseverance, goal setting and achieving.”

Time Management

Time management also emerged as a theme reported by 9% of the respondents. Some individuals reported having to work additional hours while others attempted to balance their responsibilities. A few of the respondents reported having to sacrifice time away from their personal lives in order to meet the demands of the job. Some of the comments that reflected this theme included:

- “Still bucking the barriers everyday. Spending evenings and extra days every week at work. Barely able to keep up, so no new growth of teaching seems to ever be in a day.”
- “Excellent time management, great communication skills with students, other faculty, family, and key stakeholders.”
- “Sacrificed time with my family.”
- “Time management and innovative scheduling”
- “I work approximately 60 hours a week and get paid for 37.5”

Other

Approximately a quarter (25%) of the responses did not fall into a specific theme. Some of the representative comments included:

- “I overcome these barriers by finding more effective ways to communicate needs to top administrators. From my experience, the more they understand the value of student outcomes, program reputation, and support, the more willing they are to consider funding.”
- “Well...that's a very good question. It is a constant struggle. We try to continue to show our hospital administration that we impact patient care prior to their arrival at our facilities & our value is part of a continuum of care: EMS/prehospital care > Trauma Center/ED > Surgery (if needed) > ICU/hospital > Rehab. It all works together - luckily, the majority of the time it works. With focus moving away from hospital care to more prevention, who knows?”
- “Borrow great amounts of money”
- “Remembering any problem I had was not life and death as I could have been when I was working on the road as a paramedic.”
- “In this setting, I am free to design a learning environment that is student-driven. Creativity is encouraged here. Our program has full-support of the Dean of Health Sciences, and we are encouraged to continue exploring new ideas.

Figure 21 show the distribution of the themes associated with how the barriers/ challenges were overcome by the program directors.

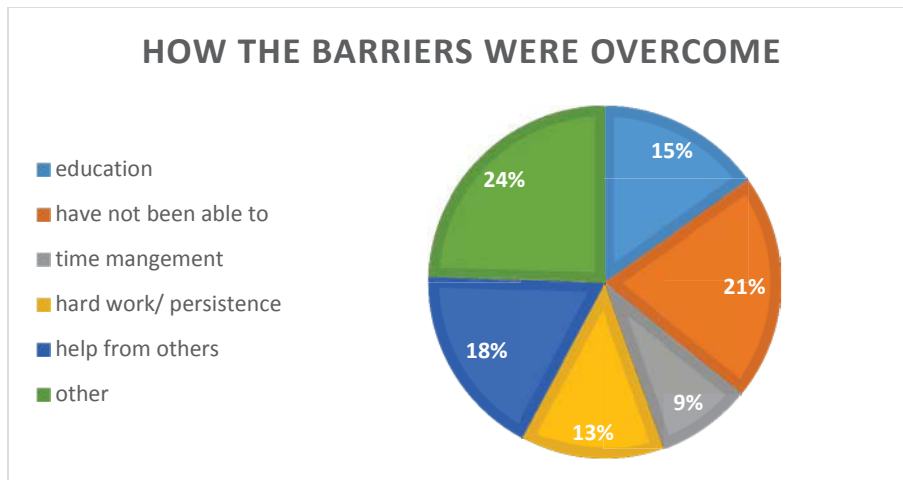


Figure 21. How barriers were overcome by program directors

Based on the themes that emerged, the data were then classified into either “hard work/ persistence” or “other” for further analysis as a stable individual difference. Table 39 shows the frequencies and percentages of the responses placed in each corresponding category.

Table 39. How barriers/challenges were overcome.

How barriers were overcome	<i>f</i>	%
hard work/ persistence	39	13.1
Other	259	86.9

Only 13% of the responses were categorized as hard work/persistence while the remaining 87% were categorized as other. Figure 21 shows the frequencies and percentages of the re-coded responses in each of categories that were identified as ways the barriers/ challenges were overcome by the program directors.

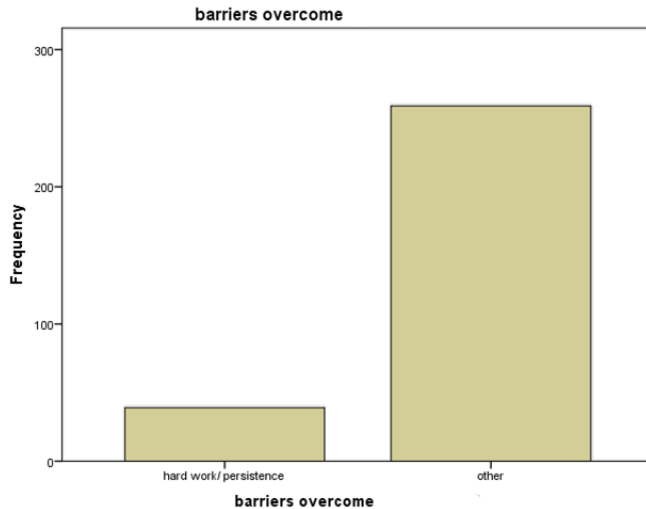


Figure 21. How the barriers were overcome.

The theme of hard work/ persistence was similar to the theme of conscientiousness and proactive personality that emerged from the analysis of the formula for success question so it was incorporated into the subsequent correlation and regression analyses as a stable individual difference.

Correlations were used to determine if a relationship existed between how the barriers were overcome and the factors of subjective career success. Positive negligible non-statistically significant relationships were found between how the barriers were overcome and both the career satisfaction ($r = .03, p = .56$) and the overall career satisfaction ($r = .05, p = .42$).

c) *Formula for career success.* The participants were asked to answer the question “What is your formula for career success?” Almost 300 (n=298) participants chose to respond to the question. After reading through the responses, the Big 5 personality factors and Proactive Personality were selected as filters for the data analysis. Openness (inventive/

curious), Conscientiousness (efficient, hardworking, organized, goal oriented), extraversion (talkative, social, outgoing), agreeableness (nice, friendly, trusting, good natured), neuroticism (nervous, anxiety), proactive personality, and other are based on Goldberg's (1992) list of unipolar and bi-polar markers, John and Srivastava's (1999) adjective checklist, and the items used by Gosling et al. (2003). The data were coded and Table 40 shows the frequencies and percentages for each of the themes that were identified as formulas for success. The contents of each theme are subsequently described.

Table 40. *Formula for Career Success*

Formula	<i>f</i>	%
Openness	24	7.0
Conscientiousness	90	26.2
Extraversion	27	7.9
Agreeableness	44	12.8
Neuroticism	10	2.9
Proactive personality	41	12.0
Other	62	18.1
Missing	45	13.1

Conscientiousness (efficient, hardworking, organized, goal oriented)

Gosling et al. (2003) describes conscientiousness as being hard working, responsible, self-disciplined, and thorough, not careless or impulsive. Approximately 30% of the respondents reported that hard work was a factor in their formula for success. Other aspects of conscientiousness that were portrayed in some of the responses alluded to their

ability to set and achieve their goals and effectively manage their time. A few samples of the responses from this theme include:

- “Not sure that I have a formula other than always seeking to improve on time management/organization.”
- “Good time management, setting high expectations early, developing a growth plan.”
- “Hard work, don't lose sight of your end product. Believe in and support your staff and students!”
- “Keep working toward your goal”
- “Stay focused on your goals. Never be outworked.”

Agreeableness (nice, friendly, trusting, good nature)

Agreeableness consists of traits such as being kind, trusting, generous, sympathetic, cooperative, friendly not aggressive or cold (Gosling et al., 2003). Approximately 15% of the responses provided by the participants included formulas for career success based on their personal values. Some of the participants stated that their success was attributed to putting the needs of others, specifically the students or communities, first. Some of the representative comments for agreeableness included:

- “I learned from one of my military mentors to always be the 3 F's. Firm, Friendly and Fair. I treat people how I want to be treated and I never give up. This seems to work, sometimes not at first, but no matter what the outcome being consistent is always admired and appreciated in the end.”

- “To remember what I'm doing is not about me or for me but rather for the students”
- “Putting the education of the students first and foremost. I see my success when my students work and succeed as a paramedic.”
- “Trust, Respect, Integrity, compassion, Synergy”
- “Positive attitude, being nice”
- “Treat people the way they should be treated. Do the right thing for the right reason. Be flexible with rules when such flexibility is in the best interest of the student and the other communities of interest (future patients, employers, the program itself, other students).”

Extraversion (Talkative, social, outgoing)

According to Gosling et al. (2003), the traits associated with extraversion included being sociable, assertive, talkative, active- not reserved or shy. The theme of extraversion emerged as some of the participants (9%) described ideas such as networking and communication as the formulas for their success. Some of their representative comments included:

- “Networking with other directors to learn best practices from those with more experience.”
- “Trusting my adjunct instructors, communicate needs to administration, have fun”
- “Open communication with the faculty, students and administration.”
- “Direct, honest communication whilst maintaining a sense of humor.”

Openness (inventive/curious)

Personality traits such as being inventive, imaginative, curious, and open to new experiences are classified as openness (Gosling et al., 2003). Some of the respondents (8.1%) described their formula for success through their desire to expand their education and knowledge. Their desire to acquire new knowledge reflected their curiosity. The need to look forward to the future and seek out new opportunities were also expressed as factors of openness related to their experiences. A few of the responses included:

- “I will need to continue to learn and improve my craft.”
- “Openness, integrity, love of profession, hard work, servant leadership”
- “Continue to strive to improve myself and constantly learning new processes for the program”
- “With EMS education I truly believe you never know enough. Expanding your knowledge base and understanding of the body, medications, procedures and treatments will only help you in the end. Never stop learning. Never stop listening to new ideas/concepts. If you do not enjoy it change it.”

Neuroticism (nervous, anxiety)

According to Judge, Heller, and Mount (2011), neuroticism is negative in nature and is related to individuals’ experiencing negative life events and a negative affect. Barrick and Mount (1991) claim traits associated with neuroticism include being anxious, depressed, angry, embarrassed, emotional, worried and insecure. Only 3% of the respondents described their formulas for success in terms of qualities associated with

neuroticism. These participants expressed how the barriers/ challenges they face are overwhelming and some stated that they intend to leave because of them. Some of the representative comments included:

- “I am not sure how I can answer this as I am feeling very frustrated and exhausted with being a program director.”
- “Get someone else to be program coordinator and let me do what I love....to teach.”
- “If I want to change some of the barriers/challenges I will need to find a position in a different institution.”
- “Take it as long as I can then leave. But do not leave it damaged, leave it successful.”
- “Stay out of EMS totally!”

Proactive Personality

Proactive personality has been shown to have a unique effect on individuals that is not accounted for by the Big Five (Maurer & Chapman, 2013). Seibert, Crant, and Kraimer (1999) described individuals with proactive personality as unconstrained by situational forces and who choose to take it on themselves to impact the world around them. Approximately 14% of the formulas for career success described by the participants contained themes related to proactive personality. The most commonly expressed characteristic associated with proactive personality was persistence. Others also expressed their passions and drives for achieving success. A few comments that were representative of this theme include:

- “Constant focus on what success looks like and plan old persistence.”
- “Passion, excellence, tenacity, & drive.”
- “Keep on truckin' and keep the big picture in the forefront”
- “Persistence and patience”
- “Don't ever stop trying to better yourself or others.”

Other

Some of the participants expressed their formulas for success in ways that were not categorized into any of the above themes. A few respondents also expressed that they did not have a formula or were unsure of how to answer the question. Some representative statements of such included:

- “I have heard people use the formula analysis repeatedly, however it is misleading. Formulas work in math and science as we can explore the impact of each variable, however applied to teaching or success it fails in that people often overestimate the impact of variables and are unable to appreciate and account for random chance. So their formulas fail to be valid.”
- “This is a complex question to say the least. The facets of program director include administration, education, developer, advocate, and sometimes practitioner...”
- “Prioritize your life. My life is not just being a program director or instructor. I have to balance my personal life, marriage, family, and career.”

- “We have a very positive work environment which allows me the freedom to express my views. Very hard work ethic at the office as well as balance with my family life has worked out pretty well.”
- “Passion for EMS + outcomes of student success = increased job satisfaction”

The data for formula for career success were re-coded into either “hard work/ persistence” or “other.” Based on the review of the literature, hard work was identified as a characteristic associated with conscientiousness and persistence was a characteristic associated with proactive personality. According to Barrick and Mount (1991), “Individuals who exhibit traits associated with a strong sense of purpose, obligation, and persistence generally perform better than those who do not” (p. 18). Table 41 shows the frequencies and percentages of the responses that were re-coded in response to the formula for success provided by the participants.

Table 41. *Formula for Career Success (Re-coded)*

Formula for success	<i>f</i>	%
hard work/ persistence	130	45.6
Other	155	54.4

A little less than half (46%) of the responses were identified as “hard work/ persistence” and the remaining 54% of the responses were coded as “other.” Figure 22 shows the distribution of the responses in each category for the formula for success.

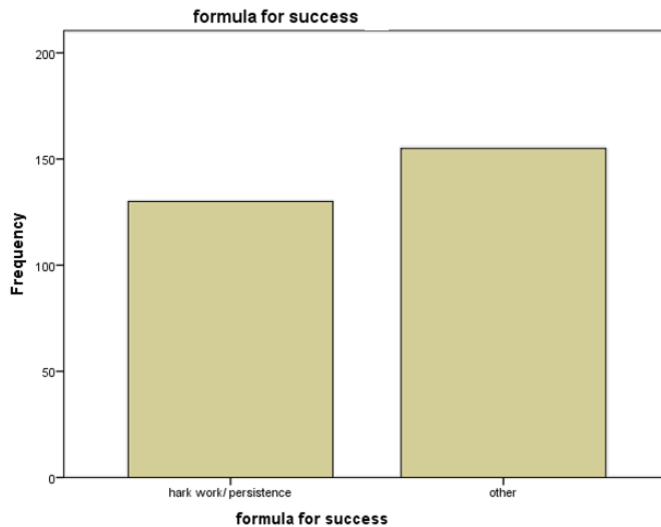


Figure 22. Formulas for career success

The re-coded data was similar in theme to that of the ways the barriers/ challenges were overcome so it was included in the subsequent analysis of the stable individual differences.

Correlations were used to identify if relationships existed between the formula for career success and the factors of subjective career success. A positive negligible statistically significant relationship was found between the formula for career success and the career satisfaction ($r = .14, p = .56$). A positive negligible non-statistically significant relationship was found to exist between the formula for career success and the overall career satisfaction ($r = .05, p = .42$).

d) Motivation for becoming a program director. The participants were asked why they became paramedic program directors. The open-ended question allowed for free response in order to better understand the individual's motivation for becoming a paramedic program director. After analyzing the data, the participants' responses were coded into

six themes: necessity ($n=82$), advancement of the profession ($n=77$), passion for teaching and EMS ($n=56$), career advancement ($n=48$), challenge ($n=16$), and other ($n= 46$). Table 42 shows the frequencies and percentages of the responses based on each theme.

Table 42. *Reasons for becoming a paramedic program director*

Reason for becoming a program director	<i>f</i>	%
Passion for teaching and EMS	53	15.5
Advance the profession	73	21.3
Necessity	89	25.9
Career advancement	55	16.0
Challenge	17	5.0
Other	37	10.8
Chose not to answer	19	5.5

Figure 23 shows the responses for each of the themes.

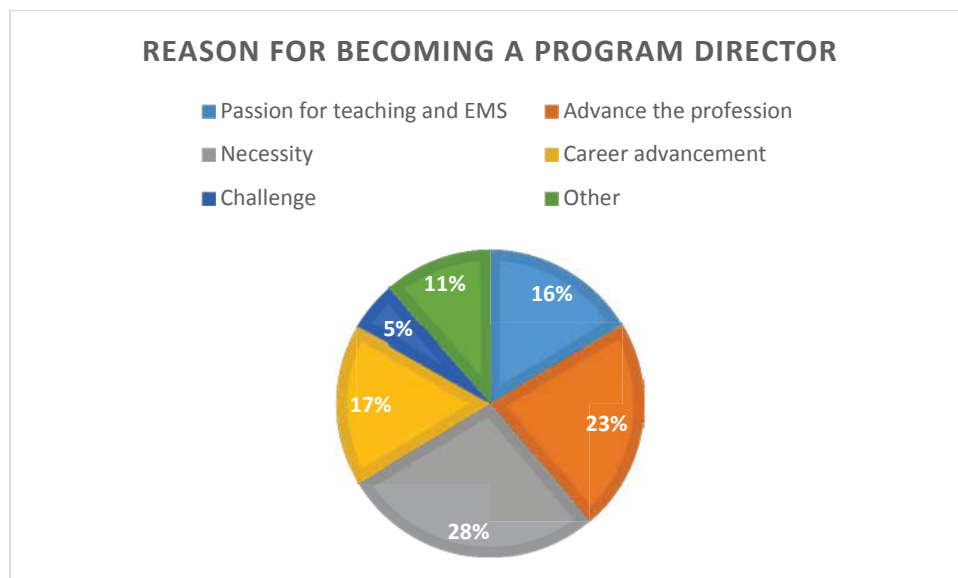


Figure 23. Reasons for becoming a paramedic program director

Necessity

There was a perceived necessity by many program directors that contributed to their motivation to assume the position of paramedic program director. The necessity was described in various forms such as a perceived lack of adequate services in their communities, a lack of qualified personnel to fill the position, or the need to meet other organizational requirements. Some representative comments included:

- “I was the only other faculty member with the educational requirements at the time.”
- “I became a program director because I saw a need in our community for quality education, and I felt that I could offer something unique to the role.”
- “No Paramedic Program existed in the area so I decided to start one 10 years ago”
- “Other guy got demoted and I didn't run fast enough.”
- “I was forced to, there was no one else to do it. However, I did want the chance as I wanted to lead and help make good paramedics”

Advance the Profession

Another theme that emerged from the respondents was that many were motivated to become paramedic program directors so that they could help to advance the profession. The advancement of the profession was characterized by many respondents as having both education and EMS related elements. Their ability to be an agent of change in that process was also conveyed.

Some of the representative comments were:

- “I wanted to influence the future of the EMS Profession”
- “To share, shape, and inspire the next generation of paramedics”
- “I wanted to spearhead the advancement of our profession from technicians to clinicians through education.”
- “In this chair I have a greater ability to effect the changes I feel are necessary to progress our profession. It was not an easy decision to leave the truck fulltime but it was the correct choice.”
- “I did not want to be the person who complained about the next generation of providers. I wanted to change what I saw coming out of area programs. Give back and make a difference in healthcare!”

Passion for Teaching and EMS

For many respondents, both EMS and education were identified as their passions and motivation for becoming paramedic program directors. Their past experiences in both roles as paramedics in the field and as educators in the classrooms were cited by many as having contributed to their desire and choice to pursue the career pathway of a paramedic program director. The fit between both roles seemed to be a “natural fit” described by some respondents. Comments that reflected this theme included:

- “Love of teaching and love of EMS.”
- “1) I have long been an educator in diverse settings 2) I have long been a paramedic.3) It seemed natural to combine the two.”
- “Have a passion for EMS and for education. Seemed to be a natural fit.”
- “Natural transition between field work, education and a desire to teach!”

- “...One cannot save the world, but this career has allowed me to pursue my favorite fields - EMS and teaching- to make an exponential impact on others.”

Career Advancement

The advancement of the individual’s career was also a theme that emerged as a motivational factor for selecting to become a paramedic program director. Several respondents described a career pathway that led from field work to education and then to the position of paramedic program director. Some explained that there is a lack of opportunity for advancement of paramedics and that this type of position offered an opportunity for both personal and professional growth. Examples of the responses included:

- “It was a natural career progression. After working as a full time paramedic in the field for 22 years and as a paramedic instructor for 6 years, this was another opportunity for me to contribute to the EMS profession.”
- “It seemed like the next logical upward progression from teaching and working on the ambulance and I was not interested in operational management (shift supervisor/EMS director positions).”
- “Avenue for advancement within the company.”
- “Initially it was for a job, now it's my career.”
- “Interest in leading. It was a bucket list item to be the inaugural director of a program.”

Challenge

A less frequent theme that emerged as a motivation factor for becoming a paramedic program director was that of the position being a challenge. The respondents seemed to view elements of the job itself as challenging and appeared to be open to the opportunity to face that challenge, whether it was from fulfilling the job itself or if it was creating a new program. A few examples that illustrate their openness to undertaking the challenges were:

- “The challenge to develop a program from scratch with my imprint of knowing what works and hasn't worked was too tempting to ignore.”
- “Needed a new challenge.”
- “Have been involved as a part-time instructor for many years and felt this would be a challenge and satisfying way to complete my career.”
- “I was currently the EMT Program director and was asked if I would be interested in the challenge of creating and overseeing the Paramedic Program.”
- “I was interested in the challenge of being a program director. It took me several years to feel comfortable in the position “

Other

Respondents also described their motivation for becoming paramedic program directors in other ways. Some examples of the other types of responses were:

- “Actually I did not originally plan on being one, but I was involved in prehospital education for quite a while and then the opportunity came about to be the director.”

- “Just fell into it, right time & place”
- “It is part of my job responsibility as the assistant dean of the EMS department.”
- “My job evolved to include those duties. It was not a part of the position when I started 11 years ago.”
- “Feel that the "job" is much more than a job and many people would not put forth the effort to do it right.
- “In my case it was close to home and I had lots of experience.”
- “Opportunity, hours, autonomy”

Hypothesis 4- Organizational sponsorship factors are positively related to subjective career success. In this study, organizational sponsorship will be determined by (a) the type of organization, (b) type of degree offered by the program, (c) the size of the program, (d) the program’s accreditation status, (e) how the employee obtained their position as program director, and the (f) formal training/education provided by the institution. Each of these variables will be positively related to the subjective career success of the participants.

The correlations for each of the organizational sponsorship variables and the variables that comprise subjective career success are presented in Table 43. The results for each variable are subsequently discussed in this section. Additional information related to each variable that was not provided in Appendix K: Job related characteristics is presented in this section.

Table 43. *Correlation- Organizational Sponsorship and Subjective Career Success*

Organizational Sponsorship	Career Satisfaction (n=340)		Overall Career Satisfaction (n=341)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Type of organization	.00	.94	.01	.84
Type of degree	.05	.35	.07	.21
Size of the program	-.08	.15	-.12*	.03
Accreditation status	-.06	.28	-.16**	.00
How position was obtained	.03	.53	.01	.85
Formal training/education received	-.21**	.00	-.13*	.019

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

a) *Type of Organization*. The participants were asked to identify the type of organization that their paramedic program was affiliated with. The types of organizations were then classified as either being a “four year college or university” or “other.” The respective frequencies and percentages of the types of organization are depicted in Table 44. Over two thirds (89%, $n = 305$) of the organizations were classified as other.

Table 44. *Types of Organizations*

Type of Organization	<i>f</i>	%
4 year college or university	38	11.1
Other	305	88.9

Correlations were used to determine if relationships existed between the type of organization variables and the subjective career success factors (career satisfaction and overall career satisfaction). Negligible positive relationships that were statistically non-

significant were identified. The relationship between the type of organization and career satisfaction was reflected by $r = .00$ ($p = .94$) and $r = .01$ ($p = .84$) for overall career satisfaction.

b) *Type of Degree*. The participants were also asked to provide the type of degrees offered by their paramedic programs. Only the highest degree offered was used for analysis. Table 45 show the numbers and type of degree offered by the programs.

Table 45. *Highest degree offered by the program*

Type of degree	<i>f</i>	%
Diploma	6	1.7
Certificate	97	28.3
Associates	224	65.3
Bachelors	15	4.4
Chose not to answer	1	.3

Almost a third of the programs were shown to offer associate degrees (65.3%) and only 4% offer bachelor degrees. According to the CAAHEP website (April 14, 2015), 298 of the accredited programs and 74 programs with letter of reviews offer associate degrees and 12 accredited programs and 1 program with a letter or review offer bachelor degrees. The findings of this study are different than Borrell (2011) who found that the majority of paramedics receive their training through certificate programs that last less than a year. Figure 24 shows the number of programs that were reported by the participants about the type of degree their programs offer.

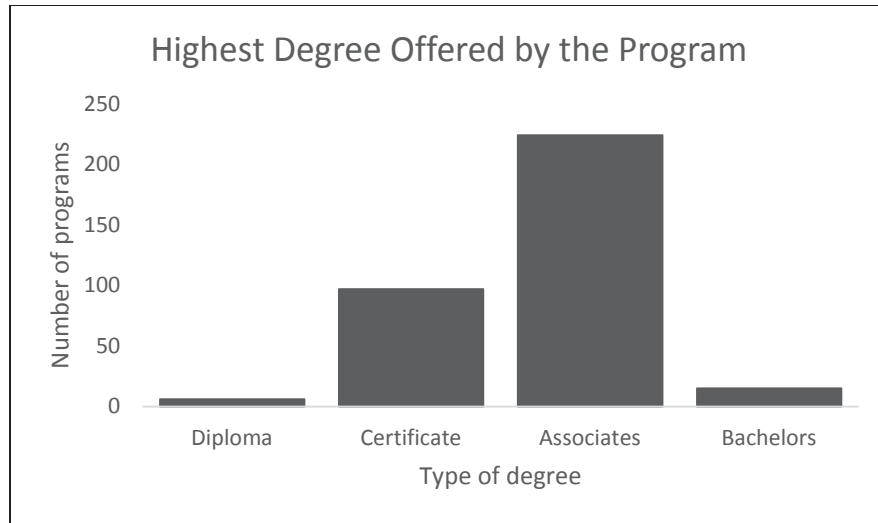


Figure 24. Highest degree offered by the program

The types of degrees offered were then re-coded as either a “diploma/certificate” or as “associates or bachelors.” Table 46 depicts the frequencies and percentages reported in each category.

Table 46. Highest degree offered by the program (Re-coded)

Type of degree	<i>f</i>	%
Diploma or certificate	103	30.0
Associates or Bachelors	239	69.9

Correlations between the type of organization and the subjective career success factors were used to determine if relationships existed among the variables. Negligible positive non-statistically significant relationships were found for both career satisfaction ($r = .05, p = .35$) and overall career satisfaction ($r = .05, p = .21$).

c) *Size of the Program.* The participants were asked to provide the number of students that were currently enrolled in their paramedic program. Table 47 reflects the frequencies and percentages of the participants' responses. The mode was 11- 20 students.

Table 47. *Total number of students in the program*

Total number of students	<i>f</i>	%
Less than 10	39	11.4
11- 20	106	30.9
21- 30	84	24.5
31- 40	47	13.7
41- 50	25	7.3
More than 50	40	11.7
Chose not to answer	2	0.6

Figure 25 shows the distribution of the number of students in each of the programs and reflects the size of the program.

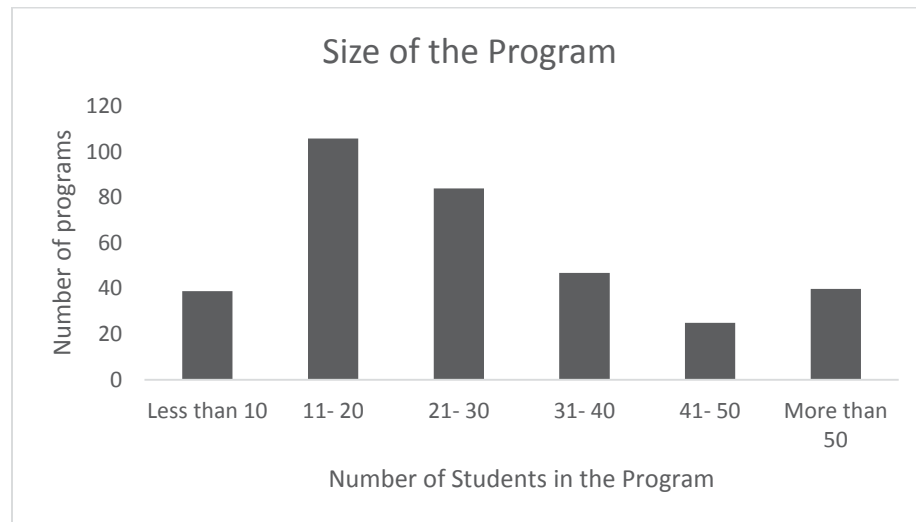


Figure 25. Number of students

The number of students reported in this study for each program is slightly less than median annual enrollment of 24 reported by Crowe et al. (2015). The number of students were re-categorized into either “20 or less” or “more than 20” for further analysis. Table 48 shows the frequencies and percentages of the number of students in each category.

Table 48. *Total number of students in the program*

Total number of students	<i>f</i>	%
20 or less	145	42.5
more than 20	196	57.5

Approximately 58% of the programs were classified as having more than 20 students while 43% were classified as having 20 or less students. Figure 26 shows the number of students in each of the categories used for analysis.

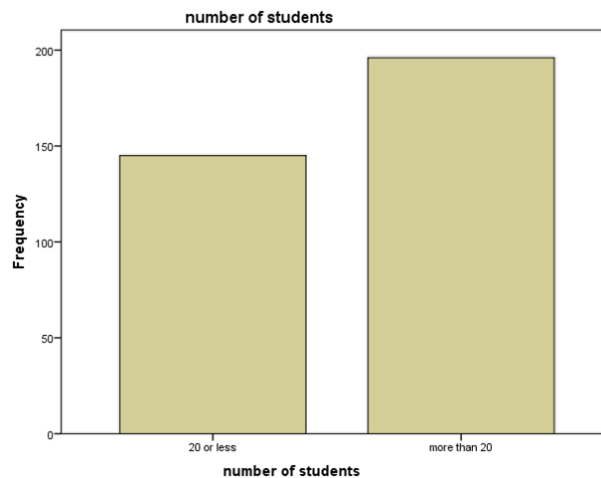


Figure 26. Number of students

Correlations were used to identify if relationships existed between the size of the program based on the number of students and the subjective career success factors. A negative negligible non-statistically significant relationship was found between the size

of the program and career satisfaction ($r = -.08, p = .15$). A negative negligible statistically significant relationship was noted between the size of the program and the overall career success of the participants ($r = -.12, p = .03$).

d) *Accreditation Status*. The participants were asked to provide their program's accreditation status. Approximately 70% ($n = 241$) of the respondents stated their programs were accredited while 29% ($n = 101$) stated their program had a letter of review. Table 49 shows the frequencies and percentages of their responses.

Table 49. *Program accreditation status*

Program accreditation status	<i>f</i>	%
Yes, we are accredited.	241	70.3
No, we have a letter of review.	101	29.4
Chose not to answer	1	0.3

According to the CAAHEP website (April 14, 2015), 473 paramedic programs are accredited and 204 programs have a letter of review. Approximately 50% of both types of programs were represented proportionally in the sample from the current study. Figure 27 shows the representation of accredited programs and programs with letters of review.

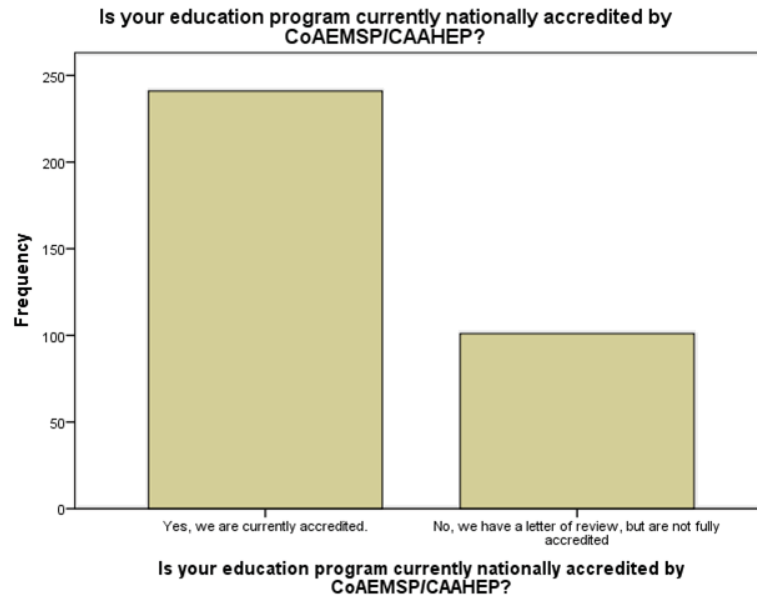


Figure 27. Accreditation status of programs

Correlations were performed to determine if relationships exist between the accreditation status of the programs and the factors of subjective career success. Accreditation status was found to have a negligible negative non-significant relationship with career satisfaction ($r = -.06, p = .28$) and a negligible statistically significant relationship with overall career satisfaction ($r = -.16, p < .01$).

e) *Obtained Position.* The participants were asked to identify how they obtained their current position as paramedic program director. Table 50 shows the ways that the program directors identified getting their positions.

Table 50. *The way the position of program director was obtained*

How the position was obtained	<i>f</i>	%
By appointment inside the organization	135	39.4
Recruited from within the organization	75	21.9
Recruited from outside the organization	133	38.8

Appointment from inside the organization ($n= 135$) and recruitment from outside of the organization ($n= 133$) were the most commonly reported forms of obtaining the position of paramedic program director. Recruitment from inside the organization accounted for 21.9% ($n= 75$) of the response. The responses were re-classified as either “from within the organization” or “recruited from outside the organization” for further analysis. Table 51 shows the frequencies and percentages of each re-coded category.

Table 51. *The way the position of program director was obtained*

How the position was obtained	<i>f</i>	%
From within the organization	210	61.2
Recruited from outside the organization	133	38.8

Figure 28 reflects the ways that the positions were obtained by the paramedic program directors.

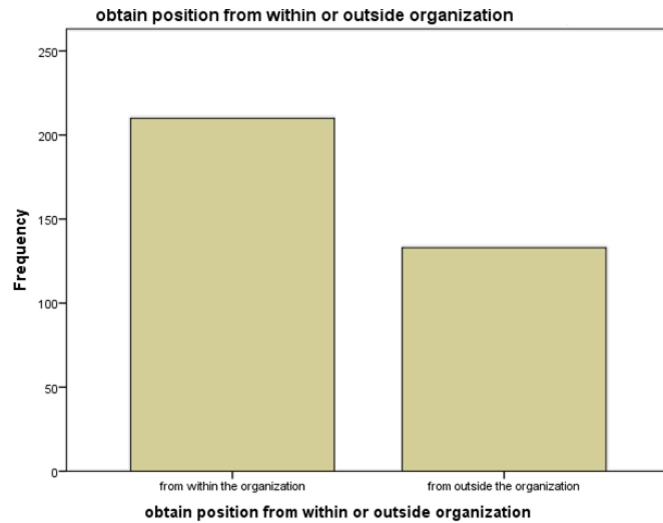


Figure 28. How the position in the organization was obtained.

Over half of the respondents (61%) were found to be recruited from within the organization while only 39% were recruited from outside the organization.

Correlations were used to determine if relationships exist between the ways the program directors obtained their position and their career satisfaction and overall career satisfaction. Positive negligible non-significant relationships were found between how the position was obtained and career satisfaction ($r = .03, p = .53$) and overall career satisfaction ($r = .01, p = .85$).

f) *Formal Training/ Education Provided*. Participants were asked to provide the amount of training/education that their organizations provided to them in the following areas: administration, pedagogy/andragogy, scholarship, service, mentorship, and distance education. Table 52 shows the frequencies and percentages reported in each area by the respondents.

Table 52. Amount of training/ formal education received from the organization

Amount of training	Administration		Pedagogy/ Andragogy		Scholarship		Service		Mentorship		Distance Education	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
None	48	14.0	90	26.2	194	56.6	54	15.7	113	32.9	139	40.5
A little	89	25.9	94	27.4	92	26.8	113	32.9	90	26.2	75	21.9
Some	116	33.8	89	25.9	43	12.5	101	29.4	84	24.5	85	24.8
Quite a bit	69	20.1	50	14.6	9	2.6	60	17.5	41	12.0	31	9.0
Very much	19	5.5	20	5.8	4	1.2	14	4.1	12	3.5	11	3.2
Missing	1	0.3	0	0	1	0.3	1	0.3	3	0.9	2	0.6

In the area of administration, approximately one third (34%) of the participants reported having some training that addressed areas such as general policies and procedures and human resources. Figure 29 shows the distribution of the participants' responses in the area of administration.

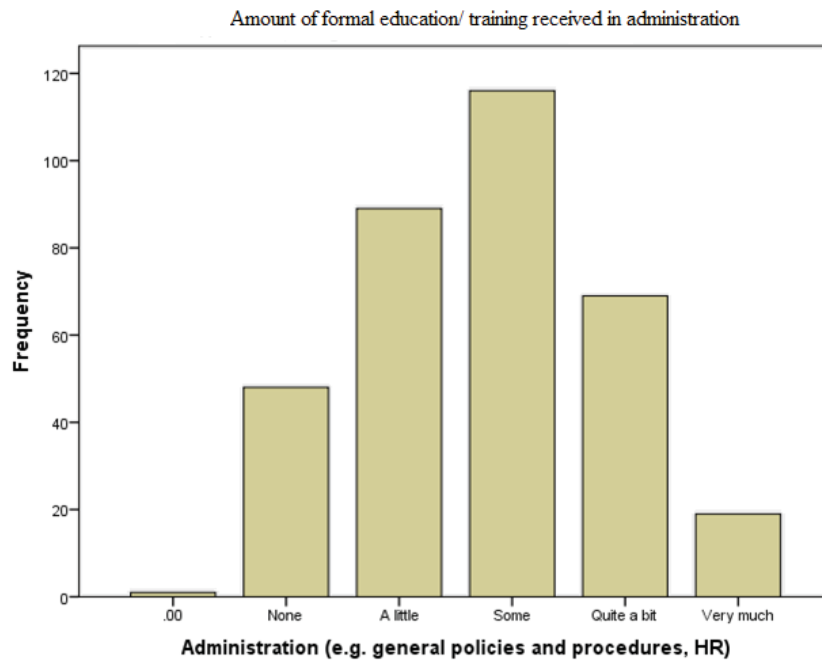


Figure 29. Formal training/ education received in administration

Approximately one quarter of the participants reported that they received no training (26%), a little training (27%) or some training (26%) in the area of pedagogy or andragogy. Of the participants, 33.8% reported having some training that addressed areas such as general policies and procedures and human resources. Figure 30 shows the distribution of the responses in the area of pedagogy or andragogy.

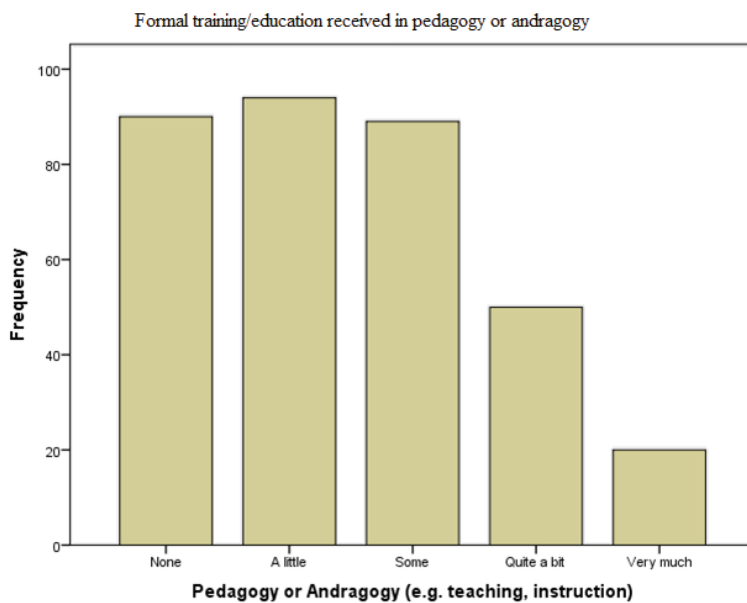


Figure 30. Formal training/ education received in pedagogy or andragogy

In the area of scholarship, over half of the respondents (57%) reported that they received no training or education in areas such as research or grants. Figure 31 shows the distribution of the participants' responses in the area of scholarship.

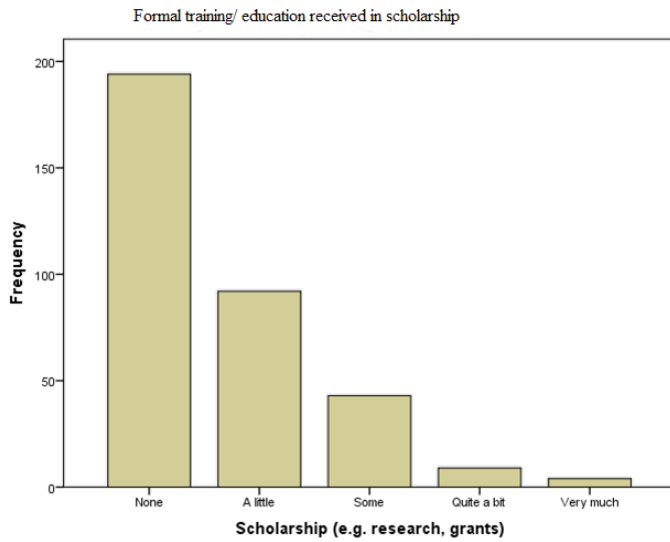


Figure 31. Formal education/training received in scholarship

Almost a third (33%) of the participants indicated that they received formal education or training from their organization in the area of service which included topics such as institutional plans, goals, missions, and outreach. Figure 32 shows the distribution of the participants' responses in the area of service.

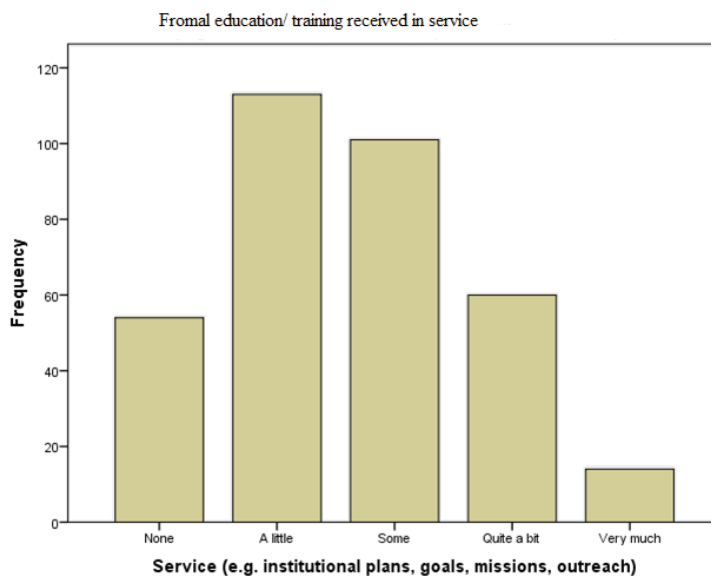


Figure 32. Formal education/ training received in service

In the area of mentorship, most of the participants reported having received no training (33%), a little training (26%) of some training (25%). Figure 33 shows the distribution of the participants' responses in the area of mentorship.

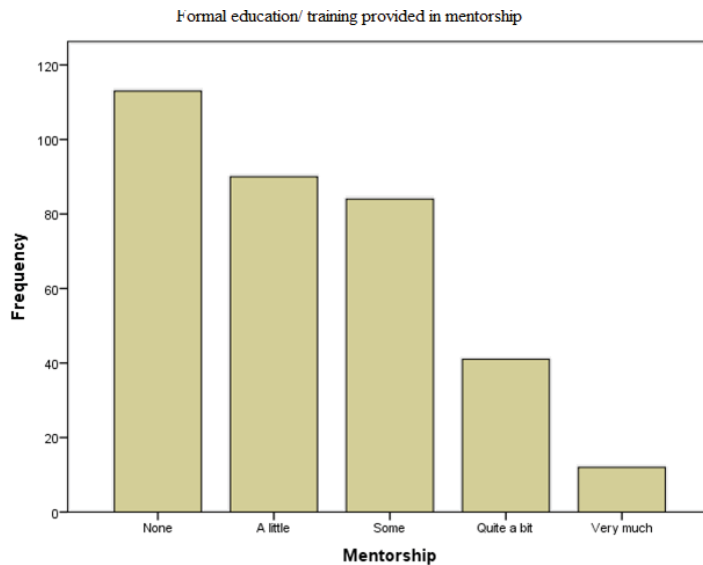


Figure 33. Formal education/ training received in mentorship

In the area of distance education, 41% of the participants stated that they received no training. About one quarter of the participants stated that they had some (25%) of a little (22%). Figure 34 shows the distribution of the participants' responses in the area of distance education.

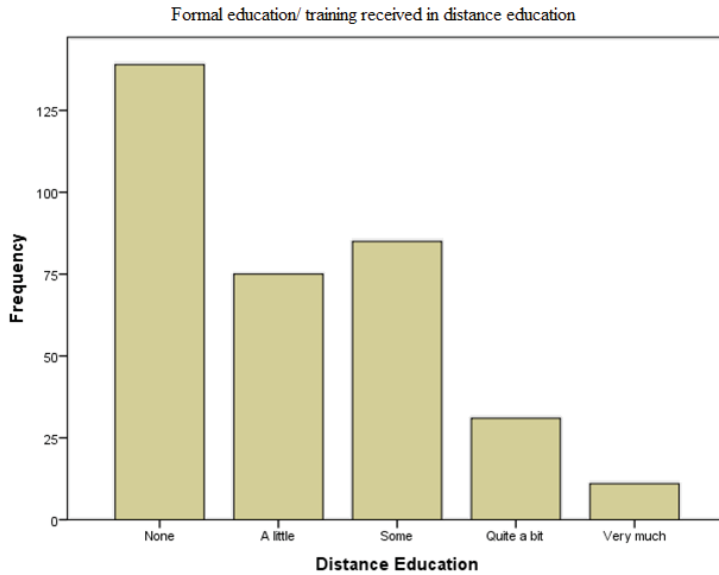


Figure 34. Formal education/ training received in distance education

Each of the responses provided by the participants were summed to provide a total amount of training/education used in further analysis. The responses were categorized as “not much” which consisted of the values 18 or less or “a lot” which consisted of the values 19 or more. Figure 35 shows the amount of total education/ training the participants reported receiving from their organization.

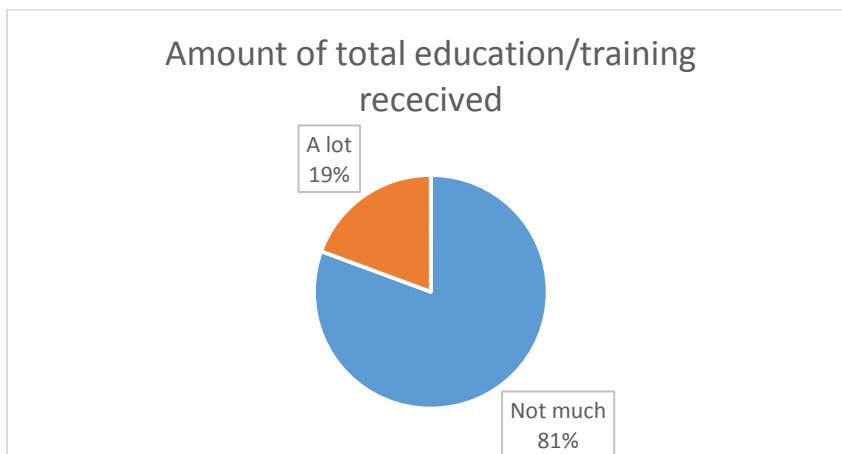


Figure 35 Total amount of education and training provided by the organization

Over three quarters (81%) of the responses indicated that participants received not much training while 19% had received a lot.

Correlations were used to determine if relationships existed between the amount of formal education/training received by the participants and the factors of subjective career success. A slightly negative statistically significant relationship was shown to exist between the formal education and training received and career satisfaction ($r = -.21$, $p < .01$). A negative negligible non-statistically significant relationship was shown between the formal education and training and overall career satisfaction ($r = -.13$, $p = .19$).

Hypothesis 5- Objective career success is positively related to the career success outcomes. The (a) current salary of the individual as a program director, (b) the change in the salary from their last position, (c) the number of promotions that they have received, and (d) the number of programs that they have directed will be related to the outcomes of career success- intent to leave the position and intent to leave the EMS profession.

The correlations for each of the factors for objective career success and the outcomes of career success are presented in Table 53. The results for each variable are subsequently discussed in this section. Additional information related to each variable that was not provided in Appendix K: Job related characteristics is presented in this section.

Table 53. *Correlation- Objective Career Success and Career Outcomes*

Objective Career Success	Intent to leave the position (n=339)		Intent to leave the profession (n=339)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Pay- current salary as a PD	.05	.32	.04	.53
Salary of last position	-.11*	.04	-.16**	.00
Promotions	.02	.66	.13*	.02
No. of programs directed	-.07	.22	.00	.95

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

a) *Pay- Current Salary as a PD.* The participants were asked to select their current salary as a program director from a variety of salary ranges. The frequencies and percentages that correspond with the salary ranges appear in Table 54.

Table 54. *Total yearly salary as program director*

Salary	<i>f</i>	%
Less than \$45,000	46	13.4
\$45,001- \$55,000	45	13.1
\$55,001- \$65,000	79	23.0
\$65,001- \$75,000	69	20.1
\$75,001- \$85,000	37	10.8
More than \$85,000	60	17.5
Chose not to answer	7	2.0

The salaries reported were re-categorized as either “\$65,000 or less” or “more than \$65,000.” Approximately half of the responses were placed in each category. The data were used in future analysis. Table 55 shows the frequencies and percentages of the responses that were included in each salary range.

Table 55. Yearly salary as a program director

Salary	<i>f</i>	%
\$65,000 or less	170	50.6
more than \$65,000	166	49.4

Figure 36 depicts the current yearly salary as a program director using the re-categorized variables.

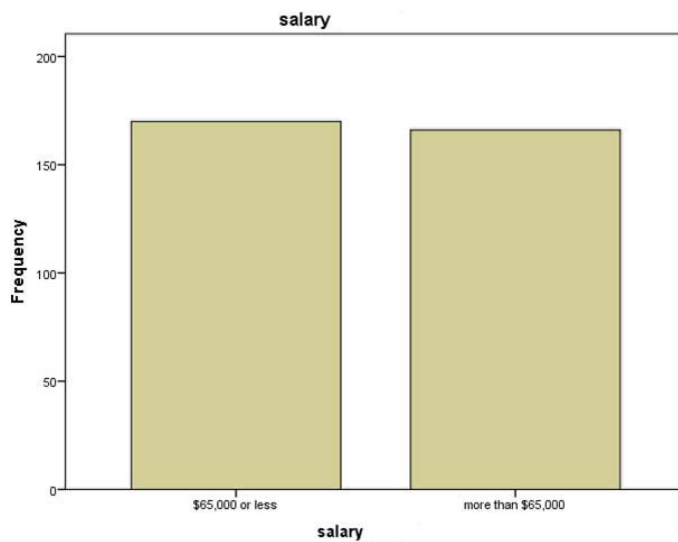


Figure 36. Salary earned as a program director

Correlations were used to identify if relationships existed between the pay of the program directors and their intent to leave the position and the profession. A positive negligible non-statistically significant relationship between pay and both the intent to leave the position ($r = .05, p = .32$) and the intent to leave the EMS profession ($r = .04, p = .53$) were found.

b) *Salary of the Last Position.* Participants were asked to provide information about the salary that they had received from their last position prior to becoming the program director. Over half of the respondents (56%) reported that the salary they made in their previous position was lower than their current salary. Table 56 shows the frequencies and percentages related to their responses about their previous salaries.

Table 56. *Previous salary*

Previous salary	<i>f</i>	%
Lower than current salary	190	56.4
Same as current salary	70	20.4
Higher than current salary	77	22.4
Chose not to answer	6	1.7

The responses were re-categorized into “lower than the current salary” or “the same or higher than the current salary.” Figure 37 portrays the salaries in the two categories with (56%, $n= 190$) in the less than the current salary range and 44% ($n= 147$) in the same or higher than the current salary.

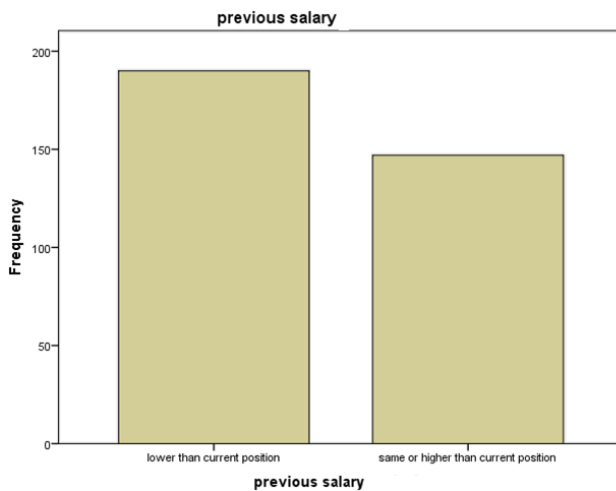


Figure 37. Previous salary in last position

Correlations were used to determine if relationships existed between the previous salary and the career outcomes of intent to leave the position and intent to leave the EMS profession. Negative, negligible, non-significant relationships were found between the previous salary and both the intent to leave the position ($r = -.05, p = .32$) and the intent to leave the EMS profession ($r = -.04, p = .53$).

c) *Promotions*. The participants were asked if they had received any promotions since they became a paramedic program director. Table 57 shows the frequencies and percentages reported by those who did and did not receive promotions since becoming program directors.

Table 57. *Promotions*

Promotion	<i>f</i>	%
No	273	79.6
Yes	67	19.5
Chose not to answer	3	0.9

Over three quarters of the respondents (80%, $n = 273$) said they have not received a promotion while 20% ($n = 67$) stated they have received a promotion since becoming the paramedic program director. Figure 38 reflects the number of respondents who did or did not receive promotions since becoming program director.

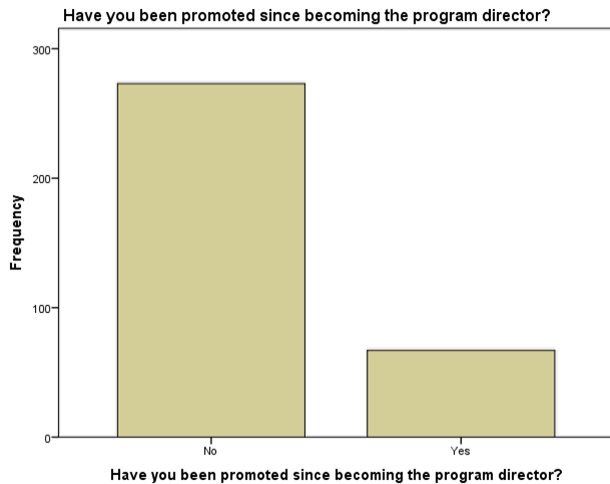


Figure 38. Promotions since obtaining the position of program director.

Correlations were used to identify possible relationships between promotions and career satisfaction and overall career satisfaction. A positive negligible non-statistically significant relationship was found between promotions and the intent to leave the position ($r = .02, p = .66$). A positive negligible statistically significant relationship was identified between the promotions received since becoming program director and the individuals' intent to leave the EMS profession ($r = .13, p = .02$).

c) *Number of Programs Directed*. The participants were asked to identify the number of programs that they have directed including the one that they are currently filling. The descriptive statistics for the number of programs that the participants directed are shown in Table 58.

Table 58. *Descriptive statistics for the number of programs the participant directed*

	N	Range	Minimum	Maximum	Mean	Std. Deviation
# of years	342	50	0	50	2.5	5.4

The mode was found to be one program directed while the mean was 2.5 programs. The number of programs directed were re-categorized into either one or more than one programs for further analysis. Table 59 shows the number of programs for each category.

Table 59. *Number of programs directed*

Number of programs	<i>f</i>	%
One	228	66.5
More than one	115	33.5

Approximately two thirds of the responses (67%) reflected that only one program was directed by the program directors. Figure 39 also shows the number of programs that were directed by the program directors.

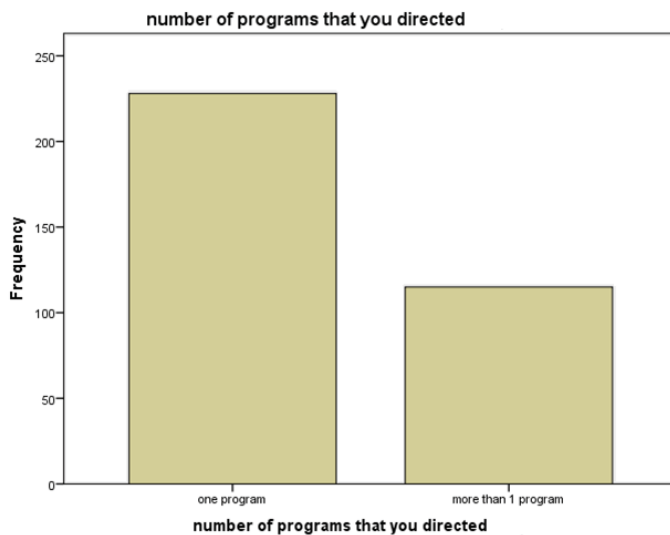


Figure 39. Number of programs directed

Correlations between the number of programs directed and the career outcome factors were used to determine if relationships existed. A negative negligible non-statistically significant relationship ($r = -.07, p = .22$) was found between the number of programs directed and the intent to leave the position. A positive negligible non-statistically significant relationship ($r = .00, p = .95$) was found between the number of programs directed and the intent to leave the EMS profession.

Hypothesis 6- Subjective career success, based on (a) career satisfaction using the Greenhaus, Parasuraman, and Wormley (1990) scale and (b) overall career satisfaction, is positively related to the career outcomes of intent to leave the position and intent to leave the EMS profession.

The correlations results for each of the subjective career success variables and the career outcomes are depicted in Table 60. The individual results for each variable are subsequently discussed in this section.

Table 60. *Correlation- Subjective Career Success and Career Outcomes*

Subjective Career Success	Intent to leave the position (n=339)		Intent to leave the profession (n=339)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Career Satisfaction	-.12*	.04	-.04	.47
Overall career satisfaction	-.34**	.00	-.10	.07

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

a) *Career Satisfaction*. The participants were asked to respond to each of the five questions that are included in the Career Satisfaction Scale developed by Greenhaus et al. (1990). The results from each question are displayed in Table 61.

Table 61. *Career satisfaction scale by Greenhaus et al. (1990)*

I am satisfied with the....	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Missing	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
success I have achieved in my career	155	45.2	160	46.6	18	5.2	8	2.3	2	0.6	0	0.0
progress I have made toward meeting my overall career goals	134	39.1	171	49.9	23	6.7	13	3.8	2	0.6	0	0.0
progress I have made toward meeting my goals for income	68	19.8	139	40.5	81	23.6	42	12.2	0	0.0	1	0.3
progress I have made toward meeting my goals toward advancement	90	26.2	166	48.4	57	16.6	23	6.7	5	1.5	2	0.6
progress I have made toward meeting my goals for the development of new skills	90	26.2	184	53.6	54	15.7	11	3.2	4	1.2	0.0	0.0

The first of the five questions in the Greenhaus et al. (1990) Career Satisfaction Scale asked participants how much they agreed with the statement “I am satisfied with the success that I have achieved in my career.” Those indicating they agreed with the statement comprised 47% ($n= 160$) of the respondents and another 45% of the respondents said they strongly agreed with the statement. Figure 40 shows the distribution of the participants’ responses.



Figure 40. Satisfaction with the success achieved in their career

The second question in the Career Satisfaction Scale asked the participants how much they agreed with the statement “I am satisfied with the progress I have made toward meeting my overall career goals.” Half of the respondents (50%, $n= 171$) agreed with the statement and 39% ($n=134$) strongly agreed with the statement. Figure 41 shows the responses to the question were distributed.

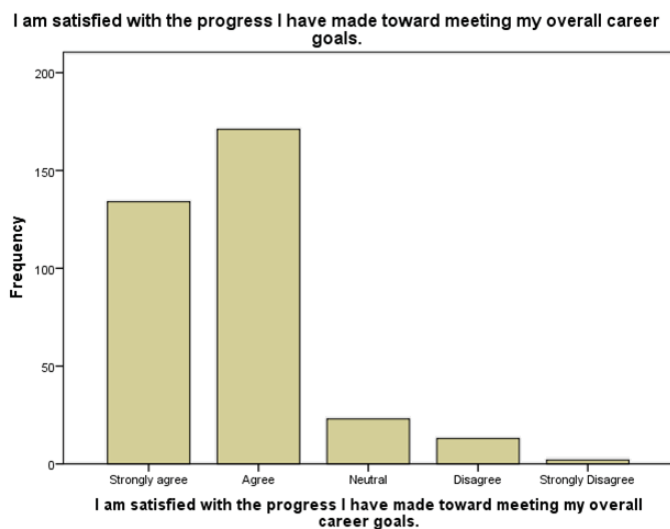


Figure 41. Satisfaction with the progress toward meeting overall career goals.

The third question in the Career Satisfaction Scale asked participants how much they agreed with the statement “I am satisfied with the progress I have made toward meeting my goals for income.” Approximately 41% of the respondents agreed with the statement while 20% strongly agreed with the statement. The distribution of the responses about their satisfaction towards meeting their goals for income are portrayed in Figure 42.

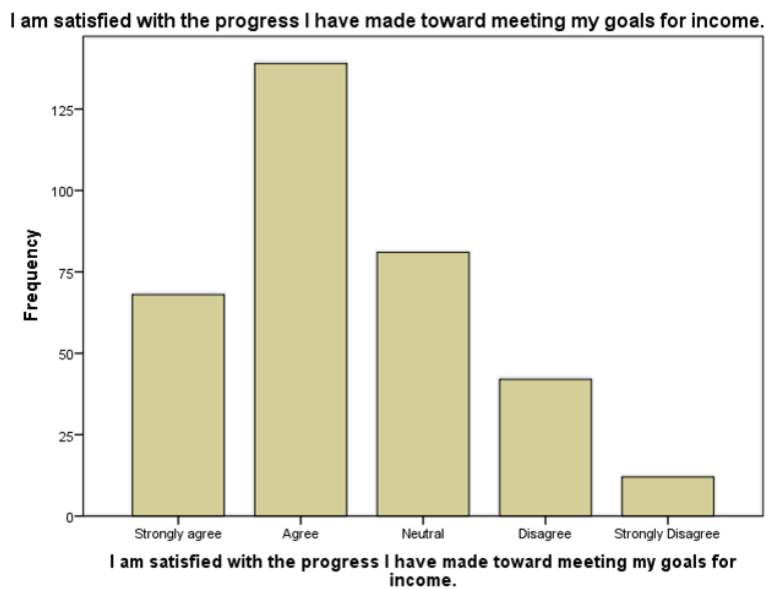


Figure 42. Satisfaction with the progress made towards meeting goals for income.

The fourth statement in the Career Satisfaction Scale was “I am satisfied with the progress I have made toward meeting my goals toward advancement.” Almost half (48%) of the respondents agreed with the statement and 26% strongly agreed with it. Those that agreed with the statement are portrayed in Figure 43 along with the other responses.



Figure 43. Satisfaction with the progress made towards meeting goals for advancement.

The last statement in the Career Satisfaction Scale was “I am satisfied with the progress I have made toward meeting my goals for the development of new skills.” Those that agreed with the statement comprised a little over half (54%) of all the responses while another 26% strongly agreed with the statement. Figure 44 shows all the responses to the question related to the participants’ desire to develop new skills.



Figure 44. Satisfaction with the progress made toward goals for the development of new skills.

Individually, the results from each question provide data that can help interpret the satisfaction of the respondents; however, the summative total of the scale has been demonstrated to be more powerful for analysis and interpretation (Hoffman Dries & Pepermans, 2008; Spurk, Abele, & Volmer, 2014). The responses were subsequently summed for further analysis. The sums were used to place the responses into two categories: high satisfaction (16 or more) and low satisfaction (less than 16). Table 62 depicts the frequencies and percentages of those with high career satisfaction and those with low career satisfaction.

Table 62. *Career Satisfaction*

Satisfaction	<i>f</i>	%
High (16 or more)	204	60
Low (Less than 16)	136	40

Correlations between career satisfaction and the career outcomes were analyzed to determine if any relationships existed between the variables. A negative negligible statistically significant relationship was found between career satisfaction and the intent to leave the position ($r = -.12, p = .04$). A negative negligible non-statistically significant relationship was identified between career satisfaction and the intent to leave the EMS profession ($r = -.04, p = .47$).

b) *Overall Career Satisfaction*. The participants were asked to respond to the statement “Overall, with respect to your current position as program director, how satisfied are you.” Almost half of the respondents (47%, $n = 160$) stated they were very satisfied and

44% ($n= 151$) stated they were somewhat satisfied. The frequencies and percentages of their responses are shown in Table 63.

Table 63. *Overall satisfaction with the position*

Level of satisfaction	f	%
Very satisfied	160	46.6
Somewhat satisfied	151	44.0
A little satisfied	21	6.1
Not at all satisfied	9	2.6
Missing	2	0.6

Figure 45 also shows how the responses to the overall career satisfaction in the position were distributed. The responses were re-categorized to reflect high satisfaction or low satisfaction.

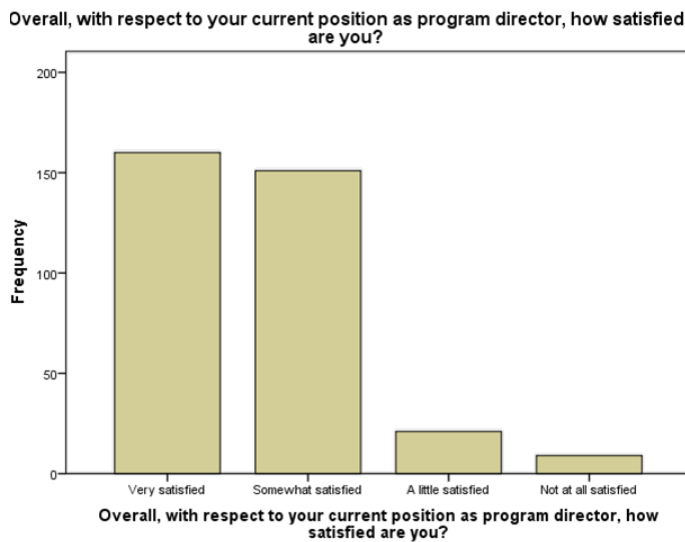


Figure 45. Overall satisfaction with the position

Table 64 demonstrates that the majority of respondents (91%, $n= 311$) had a high level of satisfaction with their current positions and that only 9% ($n= 30$) experienced a low satisfaction level with their position. Workload is inherently part of the position, so the

findings from this study do not mirror the results of Crowe et al. (2015) who found that 41% of the lead instructors were dissatisfied with their paramedic program workload.

Table 64. *Overall Satisfaction with the position (high or low)*

Satisfied with position	<i>f</i>	%
satisfaction (high)	311	91.2
satisfaction (low)	30	8.8

Correlations were used to determine if a relationship between overall career satisfaction and the career outcomes existed. A negative moderate statistically significant relationship was shown to exist between overall career satisfaction and the intent to leave the position ($r = -.34, p < .01$). A negative negligible non-statistically significant relationship was found between overall career satisfaction and the intent to leave the EMS profession ($r = -.10, p = .07$).

Career Outcomes

The career outcomes for the study included (a) the intent to leave the position and (b) the intent to leave the EMS profession.

a). *Intent to leave the position.* Participants were asked about their likelihood to leave their position as paramedic program director within the next twelve months. Table 65 shows the frequencies and percentages of the responses. Approximately 40% of the respondents stated they would either definitely stay or would probably stay in their position.

Table 65. *Likelihood of leaving the position*

Likelihood of leaving	<i>f</i>	%
Definitely stay	140	40.8
Probably stay	137	39.9
Probably leave	39	11.4
Definitely leave	23	6.7
Chose not to answer	4	1.2

The responses were categorized as either “intend to stay” or “intend to leave.” The majority of the respondents (81%, $n = 277$) reported that they intend to stay in the position as a paramedic program director, while only 18% ($n = 62$) reported they intend to leave the position. Table 66 shows the frequencies and percentages of the respondents indicating their intent to leave the profession within the next twelve months.

Table 66. *Intent to leave the position*

Intent	<i>f</i>	%
intend to stay	277	81.7
intend to leave	62	18.3

Figure 46 depicts the distribution of respondents who reported that they intend to stay or intend to leave the position in the next twelve months.

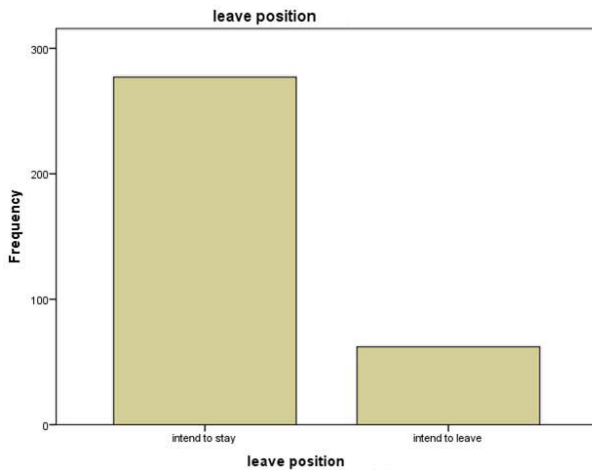


Figure 46. Intent to leave the position in the next twelve months.

b) *Intent to Leave the EMS Profession.* The participants were asked to identify their likelihood of leaving the EMS profession within the next twelve months. Table 67 depicts the frequencies and percentages of the respondents who reported their likelihood of leaving the EMS profession within the next twelve months.

Table 67. *Likelihood of leaving the EMS profession*

Likelihood of leaving	<i>f</i>	%
Definitely stay	205	59.8
Probably stay	113	32.9
Probably leave	12	3.5
Definitely leave	9	2.6
Chose not to answer	4	1.2

Table 68 shows the re-coded data indicating the frequencies and percentages of the respondents who either intend to leave or intend to stay in the EMS profession over the next twelve months.

Table 68. *Intent to Leave the EMS Profession*

Intent	<i>f</i>	%
intends to stay	318	93.8
intends to leave	21	6.2

The responses were categorized as either “intend to stay” or “intend to leave.” The majority of the respondents (94%, $n= 277$) reported that they intend to stay in the EMS profession, while only 6% ($n= 62$) reported they intend to leave the EMS profession.

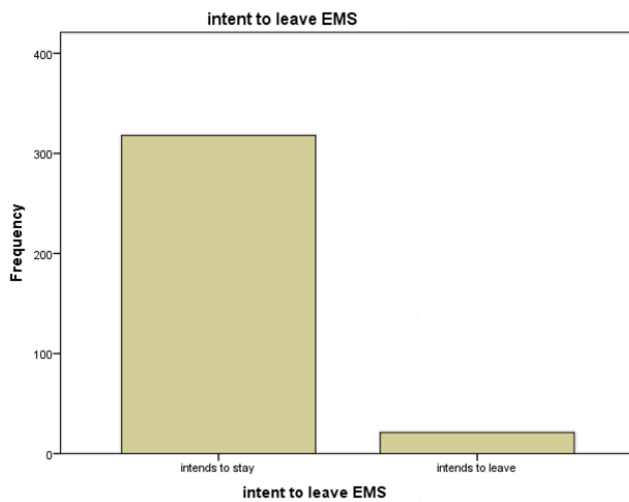


Figure 47. Intent to leave the EMS profession.

Figure 47 shows the distribution of the respondents by their intention to leave or remain in the EMS profession within the next twelve months. The findings from this study are similar to Patterson et al. (2009) who also found 6% of the EMS professionals had intentions of leaving the profession during the following year.

Regressions

General linear regression models were used to predict the contribution of each variable to the hypothesized corresponding dependent variables. The models corresponding to each hypothesis is followed by an explanation of their results. Tests for normal distribution, linearity, homoscedasticity and independence were examined before the regression analyses were conducted (Osborne & Waters, 2002). The predicted amount of variance in the dependent variable by the independent variable was determined by *R*-Squared. *Beta* co-efficients were used to determine what factors had the largest effect on the variance (Schroder, Sjoquist, & Stephan, 1986).

The models analyzed that related directly to the hypotheses consisted of 1) Human Capital Variables Predicting Objective Career Success, 2) Sociodemographic Variables Predicting Objective Career Success, 3) Stable Individual Differences Variables Predicting Subjective Career Success 4) Organizational Sponsorship Variables Predicting Subjective Career Success 5) Objective Career Success Variables Predicting Career Outcomes 6) Subjective Career Success Variables Predicting Career Outcomes. A few other regression models were also analyzed and subsequently described.

Rather than reporting every dummy-coded variable related to the hypothesized model, only those that were found to be statistically significant were incorporated into the final analyses similarly to what had been done in Seibert et al. 2001.

Hypothesis 1- Human capital factors are positively related to objective career success (pay, salary of last position, promotions, and number of programs directed).

A general linear regression model was used to determine the relationships between the objective career success outcome of current salary and the human capital variables of hours worked, years as a program director, years of experience, highest level of education held, pursuit of an academic degree, rank, and tenure/ position. Table 69 shows a summary of the linear regression for human capital variables predicting the current salary as a program director.

Table 69. *Summary of Linear Regression for Human Capital Variables Predicting Objective Career Success- Current Salary as a Program Director*

Model: Dependent Variable Current Salary as a PD ($R=.338$, $R\text{ Square}=.114$)

Independent variables	Unstandardized Coefficient <i>B</i>	Unstandardized Coefficient <i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Hours Worked	-.03	.05	-.03	-.46	.65
Years as a program director	.15	.05	.15	2.80	.01
Years of experience	-.02	.05	-.02	-.36	.72
Highest level of education held	.21	.05	.21	3.89	.00
Pursuit of an academic degree	-.04	.06	-.04	-.66	.51
Rank	.17	.06	.15	2.70	.01
Position/ tenure	.09	.06	.08	1.53	.13

The regression analysis indicated that approximately 11.4% of the variance in current salary was attributable to the human capital variables. The largest affect was demonstrated to come from the highest level of education held ($p < .01$), then years as a program director ($p = .01$) and rank ($p = .01$).

Table 70 shows a summary of the linear regression for human capital variables predicting the objective career success factor salary of the last position.

Table 70. *Summary of Linear Regression for Human Capital Variables Predicting Objective Career Success- Salary of the Last Position*

Model: Dependent Variable Salary of last position ($R = .337$, $R\text{ Square} = .113$)

Independent variables	Unstandardized Coefficient <i>B</i>	Unstandardized Coefficient <i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Hours Worked	-.04	.05	-.04	-.72	.47
Years as a program director	-.26	.05	-.26	-4.86	.00
Years of experience	.08	.05	.08	1.46	.14
Highest level of education held	-.05	.05	-.05	-.90	.37
Pursuit of an academic degree	.08	.06	.07	1.31	.19
Rank	-.15	.06	-.13	-2.32	.02
Position/ tenure	.11	.06	.11	2.05	.04

The regression analysis indicated that 11.3% of the variance in the objective career success variable last salary is attributed to the human capital factors. The number

of years as a program director ($p < .01$) had the strongest affect, then rank ($p = .02$), followed by position/ tenure ($p = .04$).

The number of promotions received was also considered a factor of objective career success. Table 71 shows a summary of the human capital variables used to predict the variance associated with the promotions the program directors received.

Table 71. *Summary of Linear Regression for Human Capital Variables Predicting Objective Career Success- Promotions*

Model: Dependent Variable Promotions ($R = .229$, $R\text{ Square} = .089$)

Independent variables	Unstandardized Coefficient <i>B</i>	Unstandardized Coefficient <i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Hours Worked	.02	.04	.03	.52	.60
Years as a program director	.11	.04	.14	2.55	.01
Years of experience	.01	.04	.01	.26	.79
Highest level of education held	.15	.04	.19	3.58	.00
Pursuit of an academic degree	-.03	.05	-.04	-.74	.46
Rank	-.00	.05	-.00	-.07	.95
Position/ tenure	.11	.04	.14	2.55	.01

The regression analysis indicated that 8.9% of the variance in the objective career success variable promotions was attributed to the human capital factors. The highest level of education ($p < .01$) showed the largest affect, followed by both years as a program director ($p = .01$) and position/ tenure ($p = .01$).

The number of programs directed was also considered to be a factor of objective career success. The summary of the linear regression analysis for the human capital factors predicting the objective career success factor number of programs directed is found in Table 72.

Table 72. *Summary of Linear Regression for Human Capital Variables Predicting Objective Career Success- Number of Programs Directed*

Model: Dependent Variable Number of Programs Directed ($R=.243$, $R\text{ Square}=.059$)

Independent variables	Unstandardized Coefficient <i>B</i>	Unstandardized Coefficient <i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Hours Worked	.00	.05	.01	.09	.93
Years as a program director	.21	.05	.22	3.94	.00
Years of experience	.00	.05	.00	.03	.98
Highest level of education held	.09	.05	.10	1.77	.08
Pursuit of an academic degree	.05	.06	.05	.91	.36
Rank	-.02	.06	-.02	-.29	.78
Position/ tenure	-.01	.05	-.01	-.15	.89

The regression analysis indicated that 5.9% of the variance in the objective career success factor number of programs directed was attributable to the human capital factors. The years as a program director had the strongest affect ($p < .01$), followed by the highest level of education held ($p < .08$) which was statistically non-significant.

Overall, very little variance in the objective career success of paramedic program directors based on the human capital factors explored was accounted for.

Hypothesis 2- Sociodemographic variables (gender, race, age, marital status, and class) are positively related to objective career success (pay, salary of last position, promotions, and number of programs directed).

A general linear regression model was also used to determine the relationship between Sociodemographic variables and the objective career success factor current salary as a program director. Table 73 shows a summary of the Sociodemographic variables used to predict the variance associated with the current salary received by the program director.

Table 73. *Summary of Linear Regression for Sociodemographic Variables Predicting Objective Career Success- Current Salary as a Program Director*

Model: Dependent Variable Current Salary as a PD ($R=.191$, $R\text{ Square}=.037$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
Gender	<i>B</i> -.07	<i>Std. Error</i> .06	-.06	-1.15	.25
Ethnicity	.07	.11	.03	.63	.53
Age	.16	.06	.16	2.94	.00
Marital Status	.05	.07	.04	.74	.46
Parents education level	.09	.06	.09	1.69	.09

Only 3.7% of the variance in the objective careers success (current salary as a program director) was attributed to the Sociodemographic variables specified in the model. The age of the program director ($p < .01$) was found to have the largest affect followed by the parental education level ($p = .09$) which was found to be statistically non-significant.

Table 74 shows the summary of the linear regression analysis used to predict the objective career success (salary of last position) using the Sociodemographic variables of gender, ethnicity, age, marital status, and parents' education level.

Table 74. *Summary of Linear Regression for Sociodemographic Variables Predicting Objective Career Success- Salary of Last Position*

Model: Dependent Variable Salary of last position ($R = .126$, $R\text{ Square} = .016$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Gender	.09	.06	.08	1.49	.14
Ethnicity	.02	.11	.01	.16	.87
Age	-.09	.06	-.09	-1.63	.10
Marital Status	-.01	.07	-.01	-.21	.83
Parents education level	.03	.06	.03	.48	.63

Approximately 1.6% of the variance in the objective careers success based on the salary of the last position was attributed to the Sociodemographic variables. Although age of the participant ($p = .10$) was shown to have the largest affect, all of the findings were statistically non-significant.

The linear regression analysis used to predict the objective career success (promotions) using the Sociodemographic variables of gender, ethnicity, age, marital status, and parents' education level are depicted in Table 75.

Table 75. *Summary of Linear Regression for Sociodemographic Variables Predicting Objective Career Success- Promotions*

Model: Dependent Variable Promotions ($R=.077$, $R\text{ Square}=.006$)

Independent variables	Unstandardized Coefficient <i>B</i>	Unstandardized Coefficient <i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Gender	-.02	.05	-.03	-.46	.65
Ethnicity	.11	.09	.06	1.15	.25
Age	.00	.05	.01	.08	.94
Marital Status	.01	.05	.01	.25	.80
Parents education level	.03	.05	.04	.68	.50

Approximately 0.6% of the variance in the objective careers success based on promotions was attributed to the Sociodemographic variables. Although ethnicity ($p=.25$) appeared to have the largest affect, all of the findings were statistically non-significant.

The number of programs directed was also considered to be a factor of objective career success. The summary of the linear regression analysis for the Sociodemographic factors predicting the objective career success factor number of programs directed is found in Table 76.

Table 76. *Summary of Linear Regression for Sociodemographic Variables Predicting Objective Career Success- Number of Programs Directed*

Model: Dependent Variable Number of Programs Directed ($R=.131$, $R\text{ Square}=.017$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Gender	-.07	.06	-.07	-1.30	.19
Ethnicity	.02	.11	.01	.15	.88
Age	.08	.05	.09	1.59	.11
Marital Status	.09	.06	.08	1.35	.18
Parents education level	-.00	.05	-.00	-.05	.96

Only 1.7% of the variance in the objective career success based on the number of programs directed was found based on the Sociodemographic variables used in the model. Age ($p = .11$) appeared to have the largest affect, but all the sociodemographic factors were found to be statistically non-significant.

Overall, the sociodemographic factors used to predict the objective career success contributed very little to the variance found.

Hypothesis 3- Stable individual differences are positively related to subjective career success (Career satisfaction and Overall career satisfaction).

A general linear regression model was also used to determine the relationship between the stable individual differences variables and the subjective career success factor career satisfaction. Only the stable individual differences “overcome barriers” and “formula for success” were used in the regression model. Table 77 shows a summary of

the Stable individual difference variables used to predict the variance associated with the subjective career success (Career satisfaction) of the program directors.

Table 77. *Summary of Linear Regression for Stable Individual Difference Variables Predicting Subjective Career Success- Overcome Barriers*

Model: Dependent Variable Career Satisfaction Greenhaus CSS ($R=.150$, $R\text{ Square}=.022$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
overcome barriers	.03	.09	.02	.37	.71
formula for success	.14	.06	.14	2.35	.02

Only 2.2% of the variance in the subjective career success (career satisfaction) was found based on the stable individual difference variables used in the model. The formula for success had the largest affect ($p= .02$) and was statistically significant while overcome barriers was not-statistically significant.

A summary of the Stable individual difference variables used to predict the variance associated with subjective career success (Satisfaction with the position) is found in Table 78.

Table 78. *Summary of Linear Regression for Stable Individual Difference Variables Predicting Subjective Career Success- Formula for Career Success*

Model: Dependent Variable Satisfaction with Position ($R=.053$, $R\text{ Square}=.003$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
overcome barriers	.02	.05	.02	.35	.73
formula for success	.02	.03	.04	.72	.47

Only 0.3% of the variance in overall career success was attributed to stable individual differences. Although formula for success ($p = .47$) appeared to have a greater influence on subjective career success than overcome barriers ($p = .73$), both findings were statistically non-significant.

Overall, the variance accounted for by stable individual differences in predicting the subjective career success of paramedic program directors accounted for was very weak.

Hypothesis 4- Organizational sponsorship factors are positively related to subjective career success.

A general linear regression model was performed in order to determine the relationship between the organizational sponsorship variables and the subjective career success factor career satisfaction. Table 79 shows a summary of the linear regression for organizational sponsorship variables used to predict the variance associated with the subjective career success (Career satisfaction) of the program directors.

Table 79. Summary of Linear Regression for Organizational Sponsorship Variables Predicting Subjective Career Success- Career Satisfaction CSS

Model: Dependent Variable Career satisfaction Greenhaus CSS ($R=.230$, $R\text{ Square}=.053$)

Independent variables	Unstandardized Coefficient <i>B</i>	Unstandardized Coefficient <i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Type of organization	-.04	.09	-.02	-.44	.66
Type of degree offered	.03	.06	.03	.56	.58
Size of the program	-.06	.06	-.06	-1.09	.28
Accredited	-.05	.06	-.05	-.80	.42
Obtained position	.01	.06	.01	.09	.93
Training/education	-.26	.07	-.21	-3.80	.00

Approximately 5.3% of the variance in the subjective career success (career satisfaction) was found to be attributable from the organizational sponsorship variables of type of organization, type of degree offered, size of the program, accredited, obtained position, and training/ education. The training/ education ($p < .01$) received by the individuals appeared to have the strongest affect followed by the size of the program ($p = .28$). With the exception of the training/ education, all of the variables were not-statistically significant.

A summary of the organizational sponsorship variables used to predict the variance associated with subjective career success (Satisfaction with the position) is found in Table 80.

Table 80. *Summary of Linear Regression for Organizational Sponsorship Variables Predicting Subjective Career Success- Satisfaction with the position*

Model: Dependent Variable Satisfaction with the position ($R=.263$, $R\text{ Square}=.069$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Type of organization	.02	.05	.03	.47	.67
Type of degree offered	.02	.04	.03	.59	.56
Size of the program	-.09	.03	-.16	-2.79	.01
Accredited	-.12	.04	-.20	-3.40	.00
Obtained position	-.02	.03	-.04	-.73	.47
Training/education	-.07	.04	-.10	-1.85	.07

Only 6.9% of the variance in the subjective career success (Satisfaction with the position) was attributed to the organizational sponsorship factors used in the model. The largest affect was from the program's accreditation status ($p < .01$) followed by the size of the program ($p = .01$). All the remaining variables were found to be statistically non-significant.

Overall, the organizational sponsorship variables predicted little of the variance in the subjective career success of paramedic program directors.

Hypothesis 5- Objective career success is positively related to the career success outcomes (intent to leave the position and intent to leave the EMS profession).

A general linear regression model was performed in order to determine the relationship between the objective career success variables and the career outcomes

(intent to leave the position and intent to leave the profession). Table 81 shows a summary of the linear regression for the objective career success variables (pay, salary of last position, promotions, and number of programs directed) used to predict the variance associated with the career outcome (intent to leave the position).

Table 81. *Summary of Linear Regression for Objective Career Success Variables Predicting Career Outcomes- Intent to Leave the Position*

Model: Dependent Variable Intent to Leave the Position ($R=.138$, $R\text{ Square}=.019$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient <i>B</i>	Coefficient <i>Std. Error</i>			
Current salary	.02	.04	.03	.48	.63
Salary of last position	-.09	.05	-.11	-1.91	.06
Promotions	-.01	.06	-.01	-.15	.88
Number of programs directed	-.07	.05	-.08	-1.45	.15

Only 1.9% of the variance in the career outcome was attributable to the objective career success factors included in the model. The salary of the last position had the largest affect ($p= .06$) and all of the findings were statistically not significant.

Table 82 shows a summary of the linear regression for the objective career success variables (pay, salary of last position, promotions, and number of programs directed) used to predict the variance associated with the career outcome (intent to leave the EMS profession).

Table 82. *Summary of Linear Regression for Objective Career Success Variables Predicting Career Outcomes- Intent to Leave the EMS Profession*

Model: Dependent Variable Intent to Leave the EMS Profession ($R=.185$, $R\text{ Square}=.034$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
Current salary	-.02	.03	-.03	-.58	.56
Salary of last position	-.07	.03	-.15	-2.52	.01
Promotions	.06	.03	.10	1.73	.08
Number of programs					
Directed	-.01	.03	-.01	-.22	.83

Approximately 3.4% of the variance in the career outcomes was attributable to the objective career success factors current salary, salary of the last position, promotions, and number of programs directed. The salary of the last position was found to have the largest affect ($p= .01$). The remaining variables in the model were all found to be statistically non-significant.

Overall, the objective career success variables predicted little of the variance in the career outcomes of paramedic program directors.

Hypothesis 6- Subjective career success is positively related to the career outcomes of intent to leave the position and intent to leave the EMS profession.

A general linear regression model was performed in order to determine the relationship between the subjective career success variables and the career outcomes (intent to leave the position and intent to leave the profession). Table 83 shows a

summary of the linear regression for the subjective career success variables (Career satisfaction and Satisfaction with the position) used to predict the variance associated with the career outcome (intent to leave the position).

Table 83. *Summary of Linear Regression for Subjective Career Success Variables Predicting Career Outcomes- Intent to Leave the Position*

Model: Dependent Variable Intent to leave the position ($R=.354$, $R\text{ Square}=.126$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Career satisfaction	-.00	.04	-.00	.00	.10
Satisfaction with position	-.48	.07	-.35	-6.55	.00

Approximately 12.6% of the variance in the career outcome of intent to leave the position was attributable to the subjective career success variables in the model. The satisfaction with the position had the largest affect ($p < .01$) and was found to be statistically significant.

A summary of the linear regression for the subjective career success variables used to predict the variance associated with the career outcome (intent to leave the EMS profession) is found in Table 84.

Table 84. *Summary of Linear Regression for Subjective Career Success Variables Predicting Career Outcomes- Intent to Leave the EMS Profession*

Model: Dependent Variable Intent to leave the EMS profession ($R=.102$, R Square=.010)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Career satisfaction	.00	.03	.01	.10	.92
Satisfaction with position	-.09	.05	-.10	-1.79	.07

Only 1.0% of the variance in the career outcome (intent to leave the EMS profession) was found to be attributable to the subjective career factors. Both satisfaction with the position and career satisfaction were statistically not significant although the satisfaction with the position appeared to have a slightly larger effect on the variance than career satisfaction.

Overall, the subjective career success factors predicted little of the variance in the career outcomes of paramedic program directors.

Additional Models Explored

A few additional regression models were explored in order to examine the relationship between some of the factors that were hypothesized to contribute to the career success of paramedic program directors. The models used included 1) Human capital factors predicting Career Outcomes, 2) Sociodemographic Variables Predicting Career Outcomes, 3) Stable Individual Variables Predicting Career Outcomes and 4) Organizational Sponsorship Variables Predicting Career Outcomes.

Human Capital Factors Predicting Career Outcomes

A general linear regression model was performed in order to determine the relationship between the human capital variables and the career outcomes (intent to leave the position). Table 85 shows a summary of the linear regression.

Table 85. *Summary of Linear Regression for Human Capital Variables Predicting Career Outcomes- Intent to Leave the Profession*

Model: Dependent Variable Intent to leave the position ($R=.147$, $R\text{ Square}=.022$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
Hours Worked	-.03	.04	-.04	-.67	.50
Years as a program director	-.01	.04	-.02	-.32	.75
Years of experience	-.00	.04	-.00	-.05	.96
Highest level of education held	-.05	.04	-.06	-1.09	.28
Pursuit of an academic degree	-.09	.05	-.10	-1.81	.07
Rank	-.06	.05	-.06	-1.06	.29
Position/ tenure	-.00	.05	-.00	-.00	1.00

Approximately 2.2% of the variance in the career outcome (intent to leave the position) was attributed to human the human capital factors of hours worked, years as a program director, years of experience, highest level of education held, pursuit of an academic

degree, rank, and position/ tenure. All of the variables were found to be statistically non-significant with the pursuit of an academic degree appearing to have the largest affect ($p= .07$) on the variance.

Table 86 shows a summary of the linear regression used to determine the relationship between the human capital factors and the career outcome intent to leave the EMS profession.

Table 86. *Summary of Linear Regression for Human Capital Variables Predicting Career Outcomes- Intent to Leave the EMS Profession*

Model: Dependent Variable Intent to leave the EMS profession ($R=.173$, $R\text{ Square}=.030$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Hours Worked	.01	.03	.02	.43	.67
Years as a program director	.03	.03	.06	1.02	.31
Years of experience	-.01	.03	-.02	-.37	.71
Highest level of education held	-.05	.03	-.11	-1.91	.06
Pursuit of an academic degree	-.04	.03	-.08	-1.42	.16
Rank	-.05	.03	-.09	-1.53	.13
Position/ tenure	.01	.03	.02	.37	.71

Only 3.0% of the variance in career outcomes (intent to leave the EMS profession) was attributable to the human capital factors included in the model. While the highest level of education held ($p = .06$) appeared to have the largest affect, all the variables were found to be statistically non-significant.

Sociodemographic Variables Predicting Career Outcomes

A general linear regression model was performed in order to determine the relationship between the sociodemographic variables and the career outcome (intent to leave the position). Table 87 shows a summary of the linear regression.

Table 87. *Summary of Linear Regression for Sociodemographic Status Variables Predicting Career Outcomes- Intent to Leave the Position*

Model: Dependent Variable Intent to leave the position ($R = .150$, $R\text{ Square} = .023$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
Gender	-.07	.05	-.09	-1.52	.13
Ethnicity	.20	.09	.12	2.19	.03
Age	.02	.04	.02	.40	.69
Marital Status	.04	.05	.04	.77	.45
Parents education level	.02	.04	.02	.42	.68

Approximately 2.3% of the variance in the career outcome (intent to leave the position) was found to be attributed to the sociodemographic variables gender, ethnicity, age, marital status, and parents' education level. The ethnicity of the participant was found to have the largest affect ($p = .03$) while all of the other variables were found to be statistically non-significant.

Table 88 shows a summary of the linear regression for the sociodemographic variables used to predict the variance associated with the career outcome (intent to leave the EMS profession).

Table 88. *Summary of Linear Regression for Sociodemographic Status Variables Predicting Career Outcomes- Intent to Leave the EMS Profession*

Model: Dependent Variable Intent to leave the EMS Profession ($R = .137$, $R\text{ Square} = .019$)

Independent variables	Unstandardized Coefficient <i>B</i>	Unstandardized Coefficient <i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Gender	-.04	.03	-.07	-1.24	.21
Ethnicity	.06	.06	.06	1.10	.27
Age	-.01	.03	-.02	-.29	.77
Marital Status	-.05	.03	-.08	-1.46	.14
Parents education level	-.01	.03	-.02	-.30	.77

Approximately 1.9% of the variance in the career outcome (intent to leave the EMS profession) was found to be attributable to the sociodemographic variables gender, ethnicity, age, marital status, and the parents' education level. All of the variables were

found to be statistically non-significant, although the marital status of the participants appeared to have the strongest affect ($p = .14$).

Stable Individual Variables Predicting Career Outcomes

A general linear regression model was performed in order to determine the relationship between the stable individual difference variables (overcome barriers and formula for success) and the career outcome intent to leave the position. Table 89 shows a summary of the linear regression.

Table 89. *Summary of Linear Regression for Stable Individual Difference Variables Predicting Career Outcomes- Intent to Leave the Position*

Model: Dependent Variable Intent to leave the position ($R = .045$, $R\text{ Square} = .002$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Overcome barriers	-.04	.07	-.04	-.58	.56
Formula for success	-.02	.05	-.02	-.32	.75

Only 0.2% of the variance in the career outcome (intent to leave the position) was attributed to the stable individual differences. Both of the variables, overcome barriers and formula for success, were found to be statistically non-significant.

Another general linear regression model was performed in order to determine the relationship between the stable individual difference variables (overcome barriers and formula for success) and the career outcome intent to leave the EMS profession. Table 90 shows a summary of the linear regression.

Table 90. *Summary of Linear Regression for Stable Individual Difference Variables Predicting Career Outcomes- Intent to Leave the EMS Profession*

Model: Dependent Variable Intent to leave the EMS profession ($R=.019$, $R\text{ Square}=.000$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient <i>B</i>	Coefficient <i>Std. Error</i>			
Overcome barriers	-.01	.04	-.01	-.17	.87
Formula for success	.01	.03	.02	.28	.78

The factors explored in this model were statistically non-significant and did not appear to attribute to any variance in the career outcome intent to leave the profession.

Organizational Sponsorship Variables Predicting Career Outcomes

A general linear regression model was performed in order to determine the relationship between the organizational sponsorship variables and the career outcome intent to leave the position. Table 91 shows a summary of the linear regression.

Table 91. *Summary of Linear Regression for Organizational Sponsorship Variables Predicting Career Outcomes- Intent to Leave the Position*

Model: Dependent Variable Intent to leave the position ($R=.134$, $R\text{ Square}=.018$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Type of organization	-.03	.07	-.02	-.37	.72
Type of degree offered	-.02	.05	-.02	-.36	.72
Size of the program	.05	.05	.06	1.03	.30
Accredited	-.03	.05	-.04	-.61	.54
Obtained position	-.06	-.04	.07	-1.31	.19
Training/education	.06	.05	.06	1.11	.27

Only 1.8% of the variance in the career outcome intent to leave the position was attributed to the organizational sponsorship factors presented in the model. Although the way the employee obtained their position ($p=.19$) appeared to have the largest affect, none of the variables were found to be statistically significant.

Table 92 shows a summary of the general linear regression model performed in order to determine the relationship between the organizational sponsorship variables and the career outcome intent to leave the EMS profession.

Table 92. *Summary of Linear Regression for Organizational Sponsorship Variables Predicting Career Outcomes- Intent to Leave the EMS Profession*

Model: Dependent Variable Intent to leave the EMS profession ($R=.093$, $R\text{ Square}=.009$)

Independent variables	Unstandardized	Unstandardized	<i>Beta</i>	<i>t</i>	<i>p</i>
	Coefficient	Coefficient			
	<i>B</i>	<i>Std. Error</i>			
Type of organization	-.06	.04	-.08	-1.47	.14
Type of degree offered	.01	.03	.03	.45	.66
Size of the program	-.00	.03	.00	.02	.99
Accredited	.01	.03	.02	.28	.78
Obtained position	-.01	.03	-.03	-.51	.61
Training/education	.00	.03	.01	.09	.93

Only 0.9% of the variance in the career outcome intent to leave the EMS profession was attributed to the organizational sponsorship variables presented in the model. All of the variables were statistically non-significant although the type of organization appeared to have the largest affect ($p= .14$).

Chapter V

DISCUSSION AND CONCLUSIONS

Introduction

This chapter concludes the present study. The chapter begins with a summary of the purpose, research methods, and description of the variables used in the hypotheses. It is followed by a description of the major findings related to the research questions and the hypotheses. The section concludes with a brief discussion of implications, limitations, and recommendations for future research.

Purpose

This study was the first national study that examined the career success of paramedic program directors in the United States. The construct of career success is complex (Adamson et al., 1998; Dries, 2011; Gunz & Heslin, 2005) and no consensus about it has been reached in the literature. The paucity of research that exists in the literature about paramedic program directors was not enough to provide a profile of this specific population; therefore, it was necessary to profile these individuals in order to obtain a better understanding of who they were as professionals prior to analyzing factors that could have contributed to their career success.

The purposes of the study were to identify who paramedic program directors are and determine how they achieve their career success. The study sought answers to the following research questions:

- 1) Who are the paramedic program directors of today?
- 2) What barriers/challenges have paramedic program directors faced in achieving their career success?
- 3) How have paramedic program directors achieved their career success?

Career success has been explained by various theories including upward mobility and human capital theory (Mauer & Chapman, 2013) both of which are incorporated as elements in Blau and Duncan's Status Attainment Theory (1967). This theory suggests that factors such as educational attainment and parental status affect the ability for an individual to move upward or downward in a class system (Blau, 1992). The Blau and Duncan Status Attainment Theory guided the present study but elements of contest and sponsored mobility (Turner, 1960) were also considered.

The model used to test the hypotheses in the study was based on the works of Ng et al. (2005) and Pachulicz et al. (2008). Ng et al. (2005) conducted a meta-analysis of factors that contributed to objective and subjective career success and categorized them as human capital, sociodemographic status, stable individual differences, and organizational sponsorship. Pachulicz et al. (2008) extended the Ng et al. model to include career outcomes of the intention to leave the position and the profession. The types of factors explored in the models provided a framework that was used to explore career success of paramedic program directors.

Summary of the Procedures

A cross-sectional web-based survey consisting of 33 closed-ended and open-ended questions was distributed to 646 paramedic program directors across the United States who were listed on the Commission of Accredited Allied Health Education Programs website. The survey was designed to profile paramedic program directors, address the research questions, and explore factors related to the paramedic program directors' career success.

After receiving Institutional Review Board Approval, pre-notification e-mails were sent to the program directors and were followed by e-mail invitations distributed via Survey Monkey. Reminder follow-up e-mails were sent to those that did not initially respond. Survey Monkey was used to collect the responses. A total of 343 respondents completed and returned the surveys yielding a responses rate of 53.1%.

Statistical analyses were performed using SPSS software Version 22. The quantitative data analysis occurred in four stages: descriptive, comparison, correlation, and explanation. Qualitative data were coded using thematic analysis and some were chosen to be incorporated into further analysis as stable individual differences. The variables in the study were recoded for correlation and regression analyses.

Dependent and Independent Variables

The ultimate dependent variable in the study was the *career success outcomes* which included the intent to leave the position and intent to leave the EMS profession. Precursor dependent variables consisted of *objective career success* (pay, salary of the

last position, promotions, and number of programs directed) and *subjective career success* (career satisfaction using the Greenhaus et al. (1990) Career Satisfaction Scale and overall career satisfaction). Four groups of independent variables were based on the Ng et al. (2005) model with human capital, sociodemographic status, stable individual differences, and organizational sponsorship being assessed.

Discussion of the Major Findings

The following section discusses some of the major findings of this study and is based on the research questions. This section integrates both the quantitative and qualitative findings into a description of who the paramedic program directors are and the barriers/challenges they face in achieving their career success. It is followed by a section that addresses how paramedic program directors have achieved their career success which includes a summary of the findings related to the hypotheses.

Overall, the paramedic program directors are experienced educators who are satisfied with the career success they have attained despite facing barriers and challenges that they have encountered along the way. They are motivated to succeed and make a difference in their programs, communities, and the EMS profession. The paramedic program directors utilize a variety of methods to address and sometimes overcome the perceived barriers and challenges that they face along the way. The majority of the program directors do not intend to leave their positions or the EMS profession in the next year, but do wish they had more support from others.

The findings of this study depict the typical paramedic program director in the United States as a 50 -59 year old White/non-Latino married male with a Master's Degree who works 40- 50 hours per week at a community college and earns \$55,001 to \$65,000 per year as an instructor in a full-time non-tenured track position. He has 11-20 years of experience as a paramedic, and has 1 to 10 years as a paramedic instructor, another type of EMS related instructor, and as an administrator/manager but does not have any experience as a military medic. He spends the majority of his time completing administrative tasks and has not received any promotions, but is satisfied with the success he has made in his position and career and does not intend to leave the position of the EMS profession within the next twelve months.

While this portrayal may summarize a typical paramedic program director, the responses provided by those individuals who chose to participate in this study varied greatly. One of the assumptions of this study was that the paramedic program directors were successful because they attained their positions; however, the idea of success can be interpreted differently. For instance, Pan and Zhou (2015) claim that “success is an evaluation on whether the task is finished, whereas satisfaction is a feeling that the current status is acceptable” (p.47). Differences may be attributed to the way career success was defined and interpreted by each individual. What one individual views as a successful outcome may be seen very differently by another individual (Bartolome & Evans, 1980). Career outcomes may be measured relative to personal standards (self-referent) or to the attainments of others (other-referent criteria) (Heslin, 2005). The career success reported by the individual is based on their own interpretations of its meaning. Several major findings emerged from the analysis of the data and are discussed below.

Motivation

Individuals who chose to become the paramedic program directors of today were motivated to do so by several factors. Their desire to advance the profession ($n= 77/343$ or 22%), advance their careers ($n= 48/343$ or 14%), and fulfill needs ($n= 82/343$ or 24%) in their organizations and communities resonated through their responses. Passion for teaching and EMS ($n= 56/343$ or 16%) were expressed by several of the paramedic program directors. A few of the directors also indicated they were excited about taking on a new challenge ($n=16/343$ or 5%) while some other responses were more individually based ($n= 46/343$ or 13%).

The findings of this study suggest that a majority of the paramedic program directors are not only motivated to acquire their roles and responsibilities in this position, but are satisfied with the success that they have acquired throughout their careers. An altruistic desire to improve the profession of EMS was present in many of the responses provided.

Gender, Ethnicity, Age and Class

The paramedic program directors of today are predominately male, but are not disproportionately so in comparison to those within the EMS community (NREMT, Leads Update, 2014). Statistically, there were no significant differences between male and female paramedic program directors except with their overall experience prior to becoming a paramedic program director. The male respondents appeared to have more overall experience than their female counterparts did. This finding suggests that males

and females may take different pathways to the position of paramedic program director and more research into the career pathways should be conducted. Although there were minimal statistical differences between male and female paramedic program directors, a perceived gender bias in the field of EMS was expressed by the participants through comments such as “Being a woman is a challenge when it comes to the ‘good old boys club’” and “Being a woman in EMS has its disadvantages.” This type of perceived bias may impede the career success and mobility of an individual and contribute to the ‘glass ceiling’ (Alkadry & Tower, 2006). Effort is needed to eliminate any perceived bias that may prohibit or impede any individual’s success.

There is a lack of ethnic diversity among the paramedic program directors of today. Only 8% of the respondents reported that they were not White/Non-Latino and from a minority. The underrepresentation of minorities is not new in the fields of EMS or education. The reasons for such a disparity were not specifically addressed in this study. Although it is not possible to change one’s ethnicity, it is possible to create an inclusive environment that fosters mutual respect for one another. The incorporation of pedagogical activities such as peer interactions and intentional interactions with diversity outside of the classroom can increase a student’s diversity awareness (Lee, William, & Kilaberia, 2012). Likewise, it may also improve the success of attracting and retaining a more diverse workforce that more closely resembles the communities that are served. If paramedic program directors incorporate more of these types of interactions in their curriculum and courses, perhaps more minorities will not only choose to enter the profession but will become EMS educational leaders in the future. These types of activities may also promote more favorable workplace hiring practices and inhibit the

“reverse discrimination” expressed by some participants who felt that “the institution's need to fulfill affirmative action requirements” has been a barrier to their success. The findings of this study suggest that those who self-identified as minorities were less likely to leave the position as director and were less likely to leave the EMS profession compared to those who were White/Non-Latino. The individuals who identified themselves as a minority were also more likely to be full-professors and administrators than their White/Non-Latino counterparts. This may suggest that these individuals who achieve success in becoming program directors may have other motivations and reason for remaining in the position and profession and these differences should be explored in future studies.

The findings of this study suggest that paramedic program directors are typically older and more experienced than those in the field of EMS (NREMT, LEADS Update, 2014) or those that are EMS educators (Ruple et al. , 2005). Paramedic program directors who were over the age of 50 were more likely to have more total experience and more experience as a program director than their younger counterparts. They were also more likely to earn a larger salary and were less likely to be pursuing an academic degree than their younger counterparts. Like gender, there was a perceived bias in relation to age reported from both older and younger program directors. This reported “age bias” was seen as a barrier to achieving career success and efforts to eliminate this perceived bias are warranted.

The findings of this study also suggest that class, based on the parents’ level of education, contributes to differences between the participants. Individuals whose parents did not have a college degree were more likely to use formulas that were associated with

conscientiousness and proactive personality than those whose parents had college degrees were. Those individuals were also more likely to be pursuing an academic degree when compared to their peers whose parents possessed a college degree. These findings support the theory that class relates to the mobility of the individual; however, those individuals whose parents were more educated were less likely to be pursuing advanced academic degrees. This finding suggests that the mobility related to the parents' education level may not be upwards. Further exploration is needed.

Experience

Most of the participants reported having more than 10 years of experience as paramedics ($n=230/343$ or 67%) and at least some experience as a paramedic instructor ($n=309/343$ or 90%), EMS related instructor ($n=252/343$ or 73%), and as an administrator/manager ($n=241/343$ or 70%) prior to becoming a paramedic program director. Compliance with the suggestions made by the NASEMSO (2010) for paramedic program directors is supported.

The data from this study suggest that the career pathways taken by paramedic program directors have permitted them to gain professional experience as they have progressed in their careers. According to Bamberg and Layman (2004), the majority of deans and directors of allied health programs view experience as more beneficial in leadership development than formal programs, workshops and activities.

The findings from this study suggest that not only do paramedic program directors possess experience in various areas, but that their experience may help develop

their leadership skills. Additional research into how these experiences have influenced their leadership skills and subsequently their success is needed. For example, 93% of paramedic program directors reported not having experience as a military medic, but significant leadership skills may have been gained by the remaining 7% from their military training. Since this study did not specifically address how these types of experiences varied, further study is necessary.

Educational Attainment and Professional Growth

The findings of this study suggest that educational attainment is important to paramedic program directors. Almost half (48%) of the paramedic program directors currently possess master's degrees and approximately 8% have doctorate degrees. It is not surprising that their educational attainment surpassed many field practitioners and educators. Although there are not many educational programs that offer graduate programs related specifically to EMS, many of the respondents' graduate degrees were in EMS related areas such as education, leadership, management, or health.

The number of paramedic program directors who possess terminal degrees may have contributed to the fact that two-thirds of the respondents reported that they were not working towards an academic degree. Over half ($n= 60$) of the directors who reported actively pursuing degrees were working towards a master's degree and 44 were working towards a doctorate degree. Like their counterparts who already possess graduate degrees, those seeking degrees are doing so in fields related to EMS education. The proposed changes to the CoAEMSP Guidelines (2015) suggest that paramedic program

directors possess a master's degree. The findings of this study suggest that this is an attainable recommendation and that many have or are actively pursuing this level of educational attainment already. However, the cost for attaining this education has been a barrier for many program directors. "Time and funding for further personal education" was perceived as a barrier for attaining more advanced education. Although a few forms of educational assistance may be available for paramedic program directors, additional assistance is needed to help these professionals obtain funding and repay loans that have been incurred in pursuit of their education.

Although the value of higher degrees in EMS has been questioned and debated for those EMS professionals working in the field, the value of the education should not be underappreciated by the educational institutions and other organizations that offer paramedic programs. Some of the paramedic program directors expressed that they were "not considered a healthcare professional with others at the table" and that there was a "lack of understanding (or the desire to understand) of higher administration to the unique needs of an EMS Program." One respondent stated, "One of the main barriers I've faced is convincing administration that EMS programs are being held to a higher standard than any time previous. Therefore we require more administrative AND instructional staff in order to collect and analyze data to measure outcomes more precisely."

Paramedic programs provide the foundation for EMS professionals to help save the lives of others and that ability requires those individuals to critically think and make critical decisions almost instantaneously. High quality EMS education is necessary in order to develop personnel capable of providing high quality patient care (EMS Workforce Agenda, 2011). In order for that education to be received, it requires

instructors and educational leaders capable of facilitating the acquisition of that knowledge and understanding the content themselves. Malcolm Knowles stated that the quality of faculty resources is a centrally crucial factor in program operation (Knowles, Holton, & Swanson, 1998). Professional education can change the culture of an organization, can increase the solidarity of the occupation, and can also create a sense of community (Freidson, 1994). The paramedic program directors of today are vested in their professional education and are contributing to the professionalization of EMS.

Job Related Roles and Responsibilities

The findings of the study suggest that paramedic program directors spend a significant amount of time fulfilling the roles and responsibilities of their jobs in order to be successful. The majority ($n= 188$) of the professionals work over 40 hours a week and spend over half of their time performing administrative tasks and almost a third of their time performing instructional duties. The distribution of their time to various tasks differs from EMS educators (Ruple et al. 2006) and EMS Lead Instructors (Crowe et al., 2015). One respondent stated that “Workload interferes with personal scholarship which by extension interferes with advancement” and that their administration “does not acknowledge ‘program director’ as an official position and does not allow any acknowledgement of release time for administrative duties.” It is unknown how the roles and responsibilities of the program directors may affect their health and well-being. Similar types of issues have been shown to contribute to high stress, burnout, sleep problems, and decreased physical health among nursing program directors (Mintz-Binder & Sanders, 2012).

In addition to workload, different types of skills and training may be necessary in order for paramedic program directors to meet the demands of their jobs. The findings of this study suggest that the majority of the paramedic program directors do not receive much training in the areas of administration, pedagogy/andragogy, scholarship, or service. Few have received mentorship and even fewer have received formal education/training in distance education. Some of the respondents expressed how the lack of training and preparation has resulted in having to “learn everything on the job.” This is similar to the findings of Leggio (2014) who described how EMS leadership itself is “primarily learned from informal mentoring and on-the-job training in less than supportive environments” (p.1). Other paramedic program directors cited “little training”, a “lack of mentorship”, and “keeping up with technology” as additional barriers to their career success. These types of barriers and challenges are not isolated to paramedic program directors. Other faculty members with clinical backgrounds have reported that their lack of formal preparation made them feel unprepared to fulfill their job requirements (Hegmann & Dehn, 2006).

Maurer & Chapman (2013) suggested that there are long term payoffs for work support and employee development. Administrations can help improve the career success of their employees by enhancing their ‘career management abilities’ (Wang, 2013), providing additional administrative supports such as grant preparation assistance, statistical consultation, in-service training, and mentors (Freedenthal, Potter, & Grinstein-Weiss, 2008). Some of the program directors expressed how supportive their administrations were and that they “have very few barriers or challenges within my institution.” Support from organizations is needed and can not only help improve the

success of the individuals but can contribute to the success of the organization.

Additional support may also be sought from outside the organization and additional state support, national organizational support, and a “program director course...somewhere” might be helpful.

The established guidelines and standards by the CoAEMSP contribute to the professionalization of EMS but are still identified as barriers and challenges to the career success of some of the program directors. Bentley et al. (2010) described several perceived barriers to becoming nationally accredited such as cost, access to patients, institutional administration support and resources. The findings of this study suggest that some of these barriers continue to affect the perceived success of the paramedic program directors. For example one respondent stated, “With the CoAEMSP accreditation I am overwhelmed with administrative duties that I can never keep up with. I am always behind as the workload is too much. The college is resistant to provide administrative support (secretary, etc) because we don't have as many students as the nursing program.” Other professionals such as superintendents face similar challenges such as financing, learner outcomes, accountability/credibility, administrator/board relations, teacher recruiting, and community involvement in decision making (Glass, Bjork, and Brunner, 2000).

The lack of adequate resources and time were perceived barriers not isolated to program accreditation. Several respondents expressed that “time commitment to the program”, “time, limited staff”, and “funding” contribute to the barriers and challenges they have faced in their careers. The lack of resources in EMS education has been expressed by EMS educators (Ruple et al., 2006), paramedic program directors in the past

seeking national accreditation (Bentley et al., 2010), and lead instructors (Crowe et al. 2015). These types of institutional and organizational barriers were a re-occurring theme faced by almost a quarter of the respondents in this study. Additional resources and support are needed to help minimize these challenges and barriers and optimize the success of the paramedic program directors in fulfilling not only their roles and responsibilities but in achieving career success.

Career Advancement

The perceived lack of career advancement and opportunity has been a recurrent theme in the EMS satisfaction literature (Brown et al., 2002; Patterson et al., 2009; Chapman et al., 2009; Blau et al., 2011). The findings of this study support that career advancement is a barrier/challenge faced by paramedic program directors. Examples of this perceived lack of advancement included “Current EMS lacks a clear advancement/promotional path” and “In a paramilitary organization, advancement is based on opening available. Without opening, there is no movement or room for advancement.”

A number of program directors stated that their current position was a “logical choice” in advancing their EMS careers. The findings from this study suggest that those who received lower salaries in their last positions, often benefitted financially once they became a director; however, once this position was achieved the majority of the directors have not seen any further advancement in their careers in traditional terms of promotion but they may continue to receive salary increases, which may enhance satisfaction.

Approximately 80% of the respondents in this study stated they have not received a promotion since becoming the paramedic program director. Those that were promoted described their advancement in terms of professorship or to more administrative positions such as department chair, dean, coordinator, or manager.

According to Stumpf and Tymon (2012), the past career mobility, promotions, and salary change of an individual sets the stage for future opportunities and affects the way professionals perceive themselves and are perceived by others. Scott, White, and Roydhouse (2013) described how initiatives targeting formal education preparation, consistency in employment status, and clearer career progression may improve the educational and career pathways for clinical nurses. Similar offerings may benefit paramedic program directors seeking to acquire new administrative or leadership roles in their organizations.

Work/Life Balance

The findings of this study suggest that work/life balance is a perceived barrier/challenge faced by paramedic program directors in achieving their career success. Individuals are actively looking for a good balance between their careers and their lives (Johnson et al., 2008; Twenge et al., 2010). One paramedic program director described their work/life balance issues as “Obtaining my master's degree, juggling family responsibilities with work and school.”

High job satisfaction does not necessarily lead to subjective career success when it exacts a high toll in terms of health, family relationships, or other salient personal

values (Heslin, 2005). Future studies should examine some of the work-family issues for paramedic program directors and determine how they affect satisfaction or turnover.

How do Paramedic Program Directors Achieve their Career Success?

Qualitative Findings

The findings of the present study suggest that paramedic program directors achieve their career success in different ways. The qualitative data provides rich examples of what motivates them to succeed, how they face and overcome their perceived barriers, and a description of their individual formulas for achieving career success. The personality traits and characteristics that emerged from the thematic analysis suggest that many of these individuals achieve career success by “working hard and persevering” while working toward a vision with passion to change the EMS profession- characteristics associated with the Big Five domain conscientiousness and proactive personality. All of the Big Five personality domains- agreeableness, openness, extraversion, conscientiousness, and neuroticism (McRae & Costa, 1986) - emerged during the analysis. Many of the respondents’ formulas for success contained multiple references to different traits. For example, one respondent stated, “Hard work and dedication. Believing in being the best at what I do. Living a life with integrity and being a person of good character.”

The combination of ideas from so many individuals suggest that a number of factors contribute to “career success.” Future research should address how these traits influence the career success and outcomes of paramedic program directors.

The findings of this study also suggest that paramedic program directors use a variety of resources to address and overcome the barriers/ challenges they perceive to their career success. Many reported that they have overcome their barriers with help from others- family, peers, mentors, and administrators among others. They believe that education, hard work, and persistence are needed to work past and through these challenges.

Although many continue to face the challenges and barriers in their current positions, the findings of this study suggest that many of them are still content with their overall career success and do not intend to leave the position or profession. However, some of the respondents reported that they are choosing to leave their positions (18%) in hopes of finding other institutions that are more supportive or are leaving the EMS profession (6%) altogether. Other health professions face similar challenges. This turnover could negatively impact the education and training provided within their institutions and the profession. According to Silver (2004),”Beyond the shortages of personnel in several allied health professions, forecasts of even greater shortages in the future make attracting and training new entrants to these fields crucial.” Future studies should examine the effects this turnover has on the students, program faculty, and the organizations.

Summary of the findings related to the hypotheses of the study

The hypothesized model based on Ng et al. (2005) and Pachulicz et al. (2008) was used to explore factors related to the career success of paramedic program directors. The findings of the hypotheses that address the specific factors are summarized below.

- *Hypothesis 1*: Human capital factors are positively related to objective career success (pay, salary of last position, promotions, and number of programs directed).
 - The relationship between *number of hours* worked and:
 - *Pay* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Salary of Last Position* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Promotions* was positive negligible and statistically non-significant which supported the hypothesis.
 - *Number of programs directed* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - The relationship between the number of *years as a program director* and:
 - *Pay* was positive, negligible, and statistically significant which supported the hypothesis.
 - *Salary of Last Position* was negative, weak, and statistically significant which failed to support the hypothesis.
 - *Promotions* was positive, negligible, and statistically significant which supported the hypothesis.

- *Number of programs directed* was positive, weak, and statistically significant which supported the hypothesis.
- The relationship between the *years of experience* and:
 - *Pay* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Salary of Last Position* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Promotions* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Number of programs directed* was positive, negligible, and statistically non-significant which supported the hypothesis.
- The relationship between the *highest level of education held* and:
 - *Pay* was positive, weak, and statistically significant which supported the hypothesis.
 - *Salary of Last Position* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Promotions* was positive, weak, and statistically significant which supported the hypothesis.
 - *Number of programs directed* was positive, negligible, and statistically significant which supported the hypothesis.
- The relationship between the *pursuit of an academic degree* and:
 - *Pay* was negative, negligible, and statistically non-significant which failed to support the hypothesis.

- *Salary of Last Position* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Promotions* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Number of programs directed* was positive, negligible, and statistically non-significant which supported the hypothesis.
- The relationship between *rank* and:
 - *Pay* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Salary of Last Position* was negative, negligible, and statistically significant which failed to support the hypothesis.
 - *Promotions* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Number of programs directed* positive, negligible, and statically non-significant.
- The relationship between *position/tenure* and:
 - *Pay* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Salary of the Last Position* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Promotions* was positive, negligible, and statistically significant which supported the hypothesis.

- *Number of programs* directed was positive, negligible, and statistically non-significant which supported the hypothesis.

The findings of this study failed to support the hypothesis that all the human capital factors were positively related to the objective career success (pay, salary of last position, promotions, and number of programs directed) of paramedic program directors. Although the majority of the relationships were positive, many of them were also negligible. The regression analysis indicated that human capital factors contributed to approximately:

- 11% of the variance in current salary
 - 11% of the variance in the last salary from the previous position
 - 9% of the variance in the promotions
 - 6% of the variance in number of programs directed
- *Hypothesis 2*: Sociodemographic variables (gender, race, age, marital status, and class) are positively related to objective career success (pay, salary of last position, promotions, and number of programs directed).
 - The relationship between *gender* and:
 - *Pay* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Salary of Last Position* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Promotions* was negative, negligible, and statistically non-significant which failed to support the hypothesis.

- *Number of programs directed* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
- The relationship between *ethnicity* and:
 - *Pay* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Salary of Last Position* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Promotions* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Number of programs directed* was positive, negligible, and statistically non-significant which supported the hypothesis.
- The relationship between *age* and:
 - *Pay* was positive, negligible, and statistically significant which supported the hypothesis.
 - *Salary of the Last Position* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Promotions* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Number of Programs Directed* was positive, negligible, and statistically non-significant which supported the hypothesis.
- The relationship between marital status and:
 - *Pay* was positive, negligible, and statistically non-significant which supported the hypothesis.

- *Salary of Last Position* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Promotions* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Number of programs directed* was positive, negligible, and statistically non-significant which supported the hypothesis.
- The relationship between the *Class (parental education level)* and :
- *Pay* was positive, negligible and statistically non-significant which supported the hypothesis.
 - *Salary of Last Position* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Promotions* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Number of programs directed* was positive, negligible, and statistically non-significant which supported the hypothesis.

The findings of this study failed to support the hypothesis that the sociodemographic variables (gender, race, age, marital status, and class) were positively related to objective career success (pay, salary of last position, promotions, and number of programs directed) of paramedic program directors.

The regression analysis indicated that the sociodemographic status factors contributed to approximately:

- 4% of the variance in current salary
- 2% of the variance in the last salary from the previous position

- 1% of the variance in the promotions
 - 1.7% of the variance in number of programs directed
- *Hypothesis 3*: Stable individual differences are positively related to subjective career success (Career satisfaction, overall career satisfaction).
 - The relationship between *Overcome Barriers* and:
 - Career satisfaction was positive, negligible, and statistically non-significant which supported the hypothesis.
 - Overall career satisfaction was positive, negligible, and statistically non-significant which supported the hypothesis.
 - The relationship between the Formula for Career Success and:
 - Career satisfaction was positive, negligible, and statistically significant which supported the hypothesis.
 - Overall career satisfaction was positive, negligible, and statistically non-significant.

Overall, the findings of this study supported the hypothesis that stable individual differences were positively related to the subjective career success (Career satisfaction and overall career satisfaction) of paramedic program directors.

Although the findings were supported, the relationships were only negligible and should be interpreted with caution. The regression analysis indicated that the stable individual differences contributed to approximately:

- 2% of the variance in the career satisfaction
- 0.3% of the variance in the overall career success

- *Hypothesis 4*: Organizational sponsorship factors are positively related to subjective career success (Career satisfaction, overall career satisfaction).
 - The relationship between *type of organization* and:
 - *Career satisfaction* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Overall career satisfaction* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - The relationship between the *type of degree* and:
 - *Career satisfaction* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Overall career satisfaction* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - The relationship between the *size of the program* and:
 - *Career satisfaction* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Overall career satisfaction* was negative, negligible, and statistically significant which failed to support the hypothesis.
 - The relationship between the program *accreditation* status and:
 - *Career satisfaction* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Overall career satisfaction* was negative, negligible, and statistically significant which failed to support the hypothesis.
 - The relationship between how the *position was obtained* and:

- *Career satisfaction* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Overall career satisfaction* was positive, negligible, and statistically non-significant which supported the hypothesis.
- The relationship between the *formal training/ education received* and:
 - *Career satisfaction* was negative, weak, and statistically significant which failed to support the hypothesis.
 - *Overall career satisfaction* was negative, negligible, and statistically significant which failed to support the hypothesis.

Overall, the findings from this study failed to support the hypothesis that the organizational sponsorship factors were positively related to subjective career success (*Career satisfaction, overall career satisfaction*) of paramedic program directors. The regression analysis indicated that organizational sponsorship variables contributed to approximately:

- 5% of the variance in the career satisfaction
 - 7% of the variance in the overall career success
- *Hypothesis 5*: Objective career success is positively related to the career success outcomes (intent to leave the position and intent to leave the EMS profession).
 - The relationship between *pay* and:
 - *Intent to leave the position* was positive, negligible, and statistically non-significant which supported the hypothesis.

- *Intent to leave the EMS profession* was positive, negligible, and statistically non-significant which supported the hypothesis.
- The relationship between *salary of last position* and:
 - *Intent to leave the position* was negative, negligible, and statistically significant which failed to support the hypothesis.
 - *Intent to leave the EMS profession* was negative, negligible, and statistically significant which failed to support the hypothesis.
- The relationship between *promotions* and:
 - *Intent to leave the position* was positive, negligible, and statistically non-significant which supported the hypothesis.
 - *Intent to leave the EMS profession* was positive, negligible, and statistically significant which supported the hypothesis.
- The relationship between the *number of programs directed* and:
 - *Intent to leave the position* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - *Intent to leave the EMS profession* was positive, negligible, and statistically non-significant which supported the hypothesis.

Overall, the findings of this study failed to support the hypothesis that objective career success was positively related to the career success outcomes (intent to leave the position and intent to leave the EMS profession). The regression analysis indicated that objective career success variables contributed to approximately:

- 2% of the variance in the intent to leave the position

- 3% of the variance in the intent to leave the profession
- *Hypothesis 6*: Subjective career success, based on job satisfaction, is related to career outcomes (intent to leave the position and intent to leave the profession).
 - The relationship between *Career Satisfaction* and:
 - *Intent to leave the position* was negative, negligible, and statistically significant which failed to support the hypothesis.
 - *Intent to leave the EMS profession* was negative, negligible, and statistically non-significant which failed to support the hypothesis.
 - The relationship between *Overall career satisfaction* and:
 - *Intent to leave the position* was negative, moderate, and statistically significant which failed to support the hypothesis.
 - *Intent to leave the EMS profession* was negative, negligible, and statistically non-significant which failed to support the hypothesis.

Overall, the findings of this study failed to support the hypothesis that Subjective career success, based on job satisfaction, is related to career outcomes (intent to leave the position and intent to leave the profession). The regression analysis indicated that objective career success variables contributed to approximately:

- 13% of the variance in the intent to leave the position
- 1% of the variance in the intent to leave the profession

Discussion of Significant Relationships

- A weak positive statistically significant relationship was found between the number of years as a program director and the number of programs directed ($r = .22, p < .01$). This suggests that as an individual increases the number of years of experience that they have as a program director the more likely they are to direct more than one program.
- A weak negative statistically significant relationship was identified between the number of years as a program director and the salary of the last position ($r = -.27, p < .01$). This suggests that as the number of years of experience as a program director increases there is a decline in the salary that was reported from their last position.
- Weak positive statistically significant relationships existed between the highest degree held and pay ($r = .25, p < .01$) and promotions ($r = .21, p < .01$). This suggests that as an individual's educational attainment increases their pay and likelihood of being promoted increase too.
- A weak negative statistically significant relationship between formal training and education received and the career satisfaction (CSS) was found. This suggests that as the amount of formal education and training received by an individual increases, their career satisfaction decreases.
- A negative moderate statistically significant relationship was shown to exist between overall career satisfaction and the intent to leave the position. This suggests that as an individual's overall career satisfaction increases their intent to leave their position as paramedic program director decreases.

Implications

In order to achieve the *Vision of EMS* for the future, the profession of EMS must continue to evolve. This requires educational leaders to embrace the vision, establish goals to reach it, and face and overcome the barriers and challenges along the way. The findings of this study provide insight into who these educational leaders are and how they perceive and have overcome barriers to their own career success. The nature and past behaviors of these individuals may provide a way to predict their future behaviors (Verplanken & Orbell, 2003) in achieving success outside of their current roles as program directors.

The willingness of so many of the participants to quickly respond and voice their personal experiences exemplifies a desire as a group to be heard and understood. It also speaks to their commitment to advance the profession through participation in research, an openness to make changes in their profession today, and a willingness to impact the career success of those seeking to become paramedic program directors in the future. Many of the respondents asked for follow-up from this study suggesting that the findings of this study are relevant to them.

According to the Emergency Medical Services Workforce Agenda for the Future (2011), the factors that impede or enhance career growth and worker development in EMS need to be identified and shared. The perceived barriers to achieving career success as a paramedic program director were explored in this study. By understanding the barriers and challenges faced by these professionals, perhaps organizations will offer additional supports toward overcoming them and recognize that their investment in these individuals not only can benefit them, but their organizations and the profession as well.

Individuals hoping to become paramedic program directors in the future may also use this information to help develop realistic expectations of the roles and challenges that they may face in pursuing this career choice in the future.

Heslin (2005) claimed that career outcomes may be measures relative to personal standards (self-referent) or to the attainments of others (other-referent criteria). The findings from this study provide some insight into the attainment of others who are paramedic program directors in the United States and may permit individuals to examine some of the relevant criteria objectively. Social comparison theory (Festinger, 1954) suggests that individuals are motivated to evaluate the outcomes they attain and they will seek to gather information from similar others if it is not available, while Equity theory (Adams, 1965) describes how an individual may use the outcomes of others to determine fairness for themselves. Some of the findings of this study, such as those related to gender, suggest that some equity exists in the position of program director that was not present in other EMS positions such as paramedic (Bryan, 2011). Future research should look at the differences between the professional roles. Although social comparisons may be useful, perils have been documented to exist from when an individual compares themselves to others (Dweck, 1999). As such, the interpretation of these findings should be done with caution.

Limitations and Recommendations for Future Research

The findings of this study suggest that future research is needed to better understand factors that contribute to the career success of paramedic program directors.

The study made several assumptions that may not have adequately reflected the perception of the participants and may have contributed to bias that limits the generalizability of the findings. Future studies may choose to utilize additional methods to help minimize these assumptions.

Blau and Duncan's status attainment theory was used to help understand and place into context the career success of the paramedic program directors. Although positive relationships were demonstrated between class and objective career success factors, the relationships that were identified were not strong. Previous research has criticized the status-attainment model for centering attention on the influences on careers of individual differences and neglecting structural influences" (P.M. Blau, 1992). Future researchers wishing to analyze career success for paramedic program directors may consider using other theories for the foundation of their work.

The findings of this study also suggest that the model adapted from Ng et al. (2005) and Pachulicz et al. (2008) was not the best way to capture the career success of paramedic program directors. One possible explanation is the choice of factors included in the model. Since this was an exploratory study, multiple measures related to each construct that were present in the literature were explored. Although many of the findings in the present study were identified as not being statistically significant, statistical significance is not a test of scientific importance (Guttman, 1977). Considering very little information existed prior to this study about the factors that may contribute to the career success of these professionals, the findings of this study provide a basis for future comparisons. If these models were to be used again, different statistical analyses such as the use of structural equation modeling should be considered.

Numerous factors are cited within the literature that can be used to predict career success, but this study was limited to only the ones included within the model. For example, other indicators such as work centrality, willingness to transfer, mental ability, career anchors, or individual disposition could be examined more closely for paramedic program directors.

Although open-ended questions were used to gather data that reflected some of the personality characteristics that could affect career success, a more thorough analysis of these factors should be done using focus groups, interviews, or even validated personality assessment tests. Boone and Boone (2012) stated that the difficulty of measuring attitudes, character, and personality traits lies in the procedure for transferring these qualities into a quantitative measure for data analysis purposes but the use of more recent qualitative techniques has relieved some of the burden of the dilemma. The findings of this study suggest that personality does play a role in achieving career success as paramedic program director, so future research may want to evaluate how different personality types affect EMS professionals.

Conclusion

This study contributes to the knowledge about paramedic program directors and factors that contribute to their career success. Future research is needed to better understand these professionals and how they contribute to the future of the EMS profession.

“The only way to do great work is to love what you do. If you haven't found it yet, keep looking. Don't settle”

- Steve Jobs (1955- 2011)

References

- Adams, J. S. (1965). Inequity in social exchange. *Advances in experimental social psychology*, 2, 267-299. New York: Academic Press.
- Adamson, S. J., Doherty, N., & Viney, C. (1998). The meaning of career revisited: Implications for theory and practice. *British Journal of Management*, 9(4), 251-259.
- Aehlert, B., & Vroman, R. (2009). *Paramedic roles and responsibilities. Paramedic Practice Today: Above and Beyond*. (Vol. 1, p.22-24). St. Louis, Missouri: Mosby/JEMS.
- Alford, R. R. (1998). *The craft of inquiry: Theories, methods, evidence*. New York, NY: Oxford University Press.
- Alkadry, M & Tower, L. (2006). Unequal pay: the role of gender. *Public Administrative Review*, 11, 888-898.
- Allison, E. J., Whitley, T. W., Revicki, D. A., Landis, S. S. (1987). Specific occupational satisfaction and stresses that differentiate paid and volunteer emts. *Annals of Emergency Medicine*, 16(6), 111-114.
- Anderson, J. (2009). The work-role transition of expert clinician to novice academic educator. *Journal of Nursing Education*, 48(4), 203-208. doi:10.3928/01484834-20090401-02
- Arthur, M. B., Hall, D. T., & Lawrence, B. S. (1989). *Handbook of career theory*. New York: Cambridge University Press.

- Arthur, M. B., Khapova, S. N., & Wilderom, C. P. (2005). Career success in a boundaryless career world. *Journal of Organizational Behavior*, 26, 177- 202.
- Arthur, M. B., & Rousseau, D. M. (1996). *The boundaryless career*. Oxford University Press: New York: New York.
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). Introduction to research education (8th ed.). California: Thomson Wadsworth.
- Balogu, J. A., & Sloan, P. E. (2006). Emerging trends on tenure policies and practices in nursing and allied health education. *Journal of Allied Health*, 35(3), 134-141.
- Balon, S., Lecoq, J., & Rime, B. (2013). Passion and personality: Is passionate behavior a function of personality? *Revue europeenne de psychologie appliquee*, 63, 59- 65.
- Bamberg, R. & Layman, E. (2004). Approaches to leadership development used by deans of allied health. *Journal of Allied Health*, 33(2), p. 113-24
- Barishansky, R., & Kirkwood, S. (2010). Degrees in EMS. EMS- emergency medical services, news, training & career resources for paramedics and EMTs. Retrieved from [www.emsresponder.com/print/EMS-magazine/The-Four-year-Plan/1\\$12981](http://www.emsresponder.com/print/EMS-magazine/The-Four-year-Plan/1$12981)
- Barishansky, R., & Kirkwood, S. (2014). Graduate Degrees: Are they worth it for EMS. EMS-emergency medical services, news, training & career resources for paramedics and EMTs.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1- 65.

- Bartolomé, F., & Evans, P. A. L. (1980). Must success cost so much. *Harvard Business*, 137-148.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior. *Journal of Organizational Behavior*, 14, 103- 118.
- Becknell, J. (1997). Time for a change. *Journal of Emergency Medical Services*, 21 (12), 25-58.
- Becker, G. S. (1964). *Human capital: a theoretical analysis with special reference to education*. National Bureau for Economic Research, Columbia University Press, New York and London.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit models in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588- 606.
- Bentley, M. A., Fernandez, A. R., & Gibson, G. (2010). Sizing up the accreditation debate. *EMS: Emergency Medical Services Magazine*, 39(9), 45-49. Retrieved from <http://search.proquest.com/docview/814798763?accountid=29141>
- Beres, J. (2006). Staff Development to University Faculty: Reflections of a Nurse Educator. *Nursing Forum*, 41(3), 141-145. doi:10.1111/j.1744-6198.2006.00050.x
- Bigham, B., Jensen, J., & Blanchard, I. (2010). Paramedic-driven research. *CMAJ: Canadian Medical Association Journal*, 182(10), 1080. doi:10.1503/cmaj.110-2079
- Blau, G (2011). Exploring the impact of sleep-related impairments on the perceived general health and retention intent of an Emergency Medical Services (EMS) sample. *Career Development International*, 16(3), 238-253.

- Blau, G., & Chapman, S. (2011). Retrospectively exploring the importance of items in the decision to leave the emergency medical services (EMS) profession and their relationships to life satisfaction after leaving EMS and likelihood of returning to EMS. *Journal of Allied Health, 40*(2), 29e-43e.
- Blau, G., Chapman, S., Gibson, G., & Bentley, M. A. (2011). Exploring the importance of different items as reasons for leaving emergency medical services between fully compensated, partially compensated, and non-compensated/volunteer samples. *Journal of Allied Health, 40*(3), e33-e37.
- Blau, G., Chapman, S., Gibson, G., Pred, R., & Lopez, A. (2009). Can a four-dimensional model of occupational commitment help to explain intent to leave the Emergency Medical Service occupation?. *Journal of Allied Health, 38*(1), 177-186.
- Blau, G., & Gibson, G. (2011). Exploring antecedents of intrinsic versus extrinsic satisfaction in a sample of emergency medical service professionals. *Journal of Workplace Behavioral Health, 26*, 240-251.
- Blau, P. (1992). The American occupational structure: Reflections after twenty-five years. *Contemporary Sociology, 21*(5), 596-598.
- Blau, P. (1964). *Exchange and power in Social Life*. Wiley: New York, NY.
- Blau, P., & Duncan, O. D. (1967). *The American occupational structure*. New York: Wiley
- Blau, P. M. (1992). Mobility and status attainment. *Contemporary Sociology, 21*(5), 596-598.

- Blessing, J. D. & Forister, J. G. (2013). *Introduction to research and medical literature for health professionals* (3rd ed.). Burlington, MA: Jones and Bartlett Learning, LLC.
- Boone, H. N., & Boone, D. A. (2012). Analyzing likert data. *Journal of Extension* [Online], 50(2), Article 2TOT2. Available at <http://www.joe.org/joe/2012april/tt2p.shtml>
- Borrell, J. L. (2011). *Utilization of the paramedic certification among emergency medicine undergraduate students*. Thesis. University of Pittsburgh.
- Boudreau, J. W., Boswell, W. R., & Judge, T. A. (2001). Effects of personality on executive career success in the United States and Europe. *Journal of Vocational Behavior*, 58, 53-81.
- Bowron, J. S. & Todd, K. N. (1999). Job stressors and job satisfaction in a major metropolitan public EMS service. *Prehospital and Disaster Medicine*, 14, 32-35. Doi:10.1017/S1049023X00027692.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage.
- Brown, Bill. (April 2014). Blog response to EMS article “Why EMS Leaders of Tomorrow need advanced postgraduate degrees?”
- Brown, R. S., & Kurland, J. E. (1990). Academic tenure and academic freedom. *Law and Contemporary Problems*, 325-355.
- Brown, W. E., Dawson, D. E., & Levine, R. (2003). Compensation, benefits, and satisfaction: The longitudinal emergency medical technician demographic study (LEADS) project. *Prehospital Emergency Care*, 7, 357-362.

- Brown, W. E. Jr, Dickison, P. D., Misselbeck, W. J., Levine, R. (2002). Longitudinal emergency medical technician attribute and demographic study (LEADS): an interim report. *Prehospital Emergency Care*. 6(4):433-9.
- Bryan, C. A. (2011). *Gender pay disparities within the emergency medical services*. Masters thesis. Youngstown State University
- Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2014 15 Edition*, EMTs and Paramedics. Retrieved April 9, 2015 from <http://www.bls.gov/ooh/healthcare/emts-and-paramedics.htm>.
- Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2014-15 Edition*, Military Careers, on the Internet at <http://www.bls.gov/ooh/military/military-careers.htm> (visited April 12, 2015).
- Cable, D. M. & Murray, B. (1999). Tournaments versus sponsored mobility as determinants of job search success. *Academy of Management Journal*, 42(4), 439-449.
- Campeau, A. (2008). Why paramedics require "theories-of-practice." *Journal of Emergency Primary Health Care*, 6(2), 1-7.
- Castiglioni, A., Aagaard, E., Spencer, A., Nicholson, L., Karani, R., Bates, C. K., & ... Chheda, S. G. (2013). Succeeding as a clinician educator: Useful tips and resources. *Journal of General Internal Medicine*, 28(1), 136-140.
doi:10.1007/s11606-012-2156-8

- Chapman, S. A., Blau, G., Pred, R., & Lopez, A. B. (2009). Correlates of intent to leave job and profession for emergency medical technicians and paramedics. *Career Development International, 14*(5), 497-503.
- Clarke, J., Dede, C., Ketelhut, D. J., Nelson, B., & Bowman, C. (2006). A design-based research strategy to promote scalability for educational innovations. *Educational Technology-Saddlebrook then Englewood Cliffs, NJ, 46*(3), 27.
- Clason, D. L., & Dormody, T. J. (1994). Analyzing data measured by individual Likert-type items. *Journal of Agricultural Education, 35*(4), 31-35.
- Colakoglu, S. N. (2011). The impact of career boundarylessness on subjective career success: The role of career competencies, career autonomy, and career insecurity. *Journal of Vocational Behavior, 79*, 47- 59.
- Commission on the Accreditation of Allied Health Education Programs. (2014). Retrieved from www.caahep.org.
- Commission the Accreditation of Allied Health Education Programs. (Revised 2005). Standards and guidelines for the accreditation of educational programs in the emergency medical services professions.
- Commission the Accreditation of Allied Health Education Programs. (June 2, 2014). Paramedic proposed standards and guidelines for the accreditation of educational programs in the emergency medical services professions.

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). Internet website <http://www.coaemsp.org/> intext ("Coaemsp," 2014)

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions. (2014b). October 2014 eNewsletter. Retrieved November 20, 2014 from <http://archive.constantcontact.com/fs134/1103098668638/archive/1118663830569.html>

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.), Thousand Oaks, CA: Sage.

Croom, N. (2008). The impact of the baby-boom generation on fire-based ems systems. The International Association of Fire Chiefs.

Crowe, R. P., Bentley, M. A., Carhart, E., & McKenna, K. (2015). Are paramedic educators overworked and underresourced? EMS World. Retrieved April 12, 2015 from <http://www.emsworld.com/article/12024404/paramedic-educator-workload>.

Cydulka, R. K., Lyons, J., Moy, A., et al. (1989). A follow-up report of occupational stress in urban EMT-paramedics. *Annals of Emergency Medicine*, 18, 1151- 1155.

Dawson, D. E., Brown, W. E., & Harwell, T.S. (2003). Assessment of nationally registered emergency medical technicians certification training in the United States: The leads project. *Prehospital Emergency Care*, 7, 114-119.

- Dickison, P., Hostler, D., Platt, T. E., & Wang, H. E. (2006). Program accreditation effect on paramedic credentialing examination success rate. *Prehospital Emergency Care, 10*(2), 224-8. Retrieved from <http://search.proquest.com/docview/221116590?accountid=12953>
- Dillman, D., Smyth, J., & Christian, L. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method*, New York: Wiley.
- Discrimination. (2015). Merriam Webster Dictionary. Retrieved April 16, 2015 from <http://www.merriam-webster.com/dictionary/discrimination>.
- Donaldson, S. I., Christie, C. A. & Mark, M. M. (2009). *What counts as credible evidence in applied research and evaluation practice?* Thousand Oaks, CA: Sage Publications, Inc.
- Dowell, M. (2012). *Gender Differences in the Compensation, Promotion Track and Performance Evaluations for School Superintendents*. (Electronic Thesis or Dissertation). Retrieved from <https://etd.ohiolink.edu/>
- Dries, N. (2011). The meaning of career success: Avoiding reification through a closer inspection of historical, cultural, and ideological contexts. *Career Development International, 16*(4), 364- 384. doi: 10.1108/136204311111158788
- Dries, N., Pepermans, R., & Carlier, O. (2008). Career success: Constructing a multidimensional model. *Journal of Vocational Behavior, 73*(2), 254-267.
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA:Psychology Press.

- Eisenberg, M (1997). *Life in the balance: Emergency medicine and the quest to reverse sudden death*. New York: Oxford Press.
- Federiuk, C. S., O'Brien, K., Jui, J., & Schmidt, T. A. (1993). Job satisfaction of paramedics: The effects of gender and type of agency of employment. *Annals of Emergency Medicine*, 22(4), 657-662.
- Feilzer, M. Y. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of mixed methods research*, 4(1), 6-16.
- Fernandez, A. R., Studnek, J. R., & Cone, D. (2009). The association between emergency medical technician-basic (EMT-B) exam score, length of emt-b certification, and success on the national paramedic certification examination. *Academic Emergency Medicine*, 16, 1-6.
- Fernandez, A. R., Studnek, J. R. & Margolis, G. S. (2008). Estimating the probability of passing the national paramedic certification examination. *Academic Emergency Medicine*, 15(3), 258. Retrieved from <http://search.proquest.com/docview/220850794?accountid=12953>
- Frantz, J. M., & Smith, M. R. (2013). Exploring the subjective experiences of allied health professionals in their transition from clinical educators to academia: Barriers and facilitators to successful transition. *African Journal of Health Professions Education*, 5(1), 37-41. doi:10.7196/AJHPE.224

- Freedenthal, S., Potter, C., & Grinstein-Weiss, M. (2008). Institutional supports for faculty scholarship: A national survey of social work programs. *Social Work Research, 32*(4), 220-230.
- Frederiuk, C. S., O'Brien, K., Jui, J., & Schmidt, T. A. (1993). *Annals of Emergency Medicine, 22*(4), 28-33.
- Freidson, E. (1994). Professionalism reborn: Theory, prophecy, and policy. Chicago, IL: The University of Chicago Press
- Fritz, J., Gonzales, L., & Harris, K. (2005). EMS SoP position statement. Scope of Practice Position Statement. Retrieved July 21, 2014 from http://www.emseat.com/documents/EMS_SoP_Position_Statement.Pdf
- Fuller, J. B., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of proactive personality literature. *Journal of Vocational Behavior, 75*, 329- 345.
- Garcia, M. (2007). Beyond EMS: Community paramedics make house calls. *Journal of Emergency Medical Services, 32*(9), 62-68.
- Gardner, M. M. (2005). Job satisfaction and intention to leave among KY EMTs. Abstract. American Public Health Association 133rd Annual Meeting and Exposition, December 10 to 14, 2005. Philadelphia, PA.
- Gardner, S. K., & Blackston, A. (2013). "Putting in your time": Faculty experiences in the process of promotion to professor. *Innovative Higher Education, 38*, 311-425.
- Gattiker, U. E., & Larwood, L. (1986). Subjective career success: A study of managers and support personnel. *Journal of Business Psychology, (1)2*, 78-93.

- Gazewood, J., Margo, K., Jerpbak, C., Burge, S., Ballinger, T., & Usatine, R. (2007). Predoctoral directors: Who they are and what they do in these trying times? *Family Medicine, 39*(3), 171-177.
- Glass, T. E., Bjork, L., & Brunner, C. C. (2000). *The study of American school superintendency, 2000*. A look at the superintendent of education in the new millennium. American Association of School Administrators, Arlington, VA.
- Goldberg, L. R. (1992). The development of markers for the big five factor structure. *Psychological Assessment, 4*, 26-42.
- Goodwin, L. D., & Leech, N. L. (2006). Understanding correlation: Factors that affect the size of r. *The Journal of Experimental Education, 74*(3), 251-266.
- Gosling, S. D., Rentfrow, P. J., & Swann Jr., W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*, 504- 528.
- Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2009). *Career management*. Sage.
- Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance, and career outcomes. *Academy of Management, 33*(1), 64- 86.
- Grigsby, D. W., & Mc Knew, M. A. (1988). Work-stress burnout among paramedics. *Psychology Reports, 63*, 55-64.

- Gunz, H. P. & Heslin, P. A. (2005). Reconceptualizing career success. *Journal of Organizational Behavior*, 26, 105-111.
- Guttman, L. (1977). What is not what in statistics? *Statistician*, 26, 81- 107.
- Hall, D. T. (2002). *Careers in and out of organizations*. Thousand Oaks, CA: Sage.
- Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is calling. *Journal of Organizational Behavior*, 26(2), 155-176.
- Haller, A. O., & Portes, A. (1973). Status attainment processes. *Sociology of Education*, 46(1), 51- 91.
- Hatch, A. J. (2002). *Doing qualitative research in education settings*. Albany, NY: Sunny Press.
- Heflin, M. T., Pinheiro, S., Kaminetzky, C. P., & McNeill, D. (2009). 'So you want to be a clinician-educator ...': Designing a clinician-educator curriculum for internal medicine residents. *Medical Teacher*, 31(6), 233-240.
doi:10.1080/01421590802516772
- Hegmann, T. E., & Dehn, R. W. (2006). Physician assistant program director opinions regarding the importance of faculty research and publication. *Journal of Physician Assistant Education*, 17(2), 5-10.
- Heslin, P.A. (2005). Conceptualizing and evaluating career success. *Journal of Organizational Behavior*, 26, 113- 136.
- Hofmans, J., Dries, N., & Perpermans, R. (2008). The career satisfaction scale: Response bias among men and women. *Journal of Vocational Behavior*, 73, 397- 403.

- Hogan, R., Chamorro-Premuzic, T., & Kaiser, R. B. (2013). Employability and career success: Bridging the gap between theory and reality. *Industrial and Organizational Psychology, 6*, 3-16.
- Holton, E. F., Bates, R. A., Bookter, A. I., & Yamkovenko, V. B. (2007). Convergent and divergent validity of the learning transfer system inventory. *Human Resource Development Quarterly, 18*(3), 385- 419.
- Hughes, E. C. (1937). Institutional office and the person. *American Journal of Sociology, 43*, 404- 413.
- Hughes, E. C. (1958). *Men and their work*. Glencoe: Free Press.
- Jackson, C. S., Callinan, C., & Cowell, A. (2012). Professorial roles: A study of the professional populations within nursing and midwifery, social work and allied health professions. *Journal of Research in Nursing, 17*(4), 395-411.
- Jansen, H. (2010, May). The logic of qualitative survey research and its position in the field of social research methods. In *Forum: Qualitative Social Research, 11*(2).
- Jensen, T. D., Kurtz, D. L., & Stassen, R. E. (2015). Endowed Chairs in Marketing: Responsibilities and Benefits. In *Proceedings of the 1993 Academy of Marketing Science (AMS) Annual Conference* (pp. 487-491). Springer International Publishing.
- John, O. P., & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research*, 102-138. New York: Guilford Press.

- Joiner, T. A., Bartram, T., & Garreffa. (2004). The effects of mentoring on perceived career success, commitment and turnover intentions. *Journal of American Academy of Business*, 5(1,2), 164-170.
- Judge, T. A., & Bretz, R. D. (1994). Political influence processes and career success. *Journal of Management*, 20, 43-65.
- Judge, T. A., Cable, D. M., Boudreau, J. W., & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology*, 48, 485-519.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87(3), 530- 541.
- Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology*, 52, 621- 651.
- Kaplowitz, M. D., Hadlock, T. D., & Levine, R. (2004). A comparison of web and mail survey response rates. *Public Opinion Quarterly*, 68(1), 94-101.
- Kerckhoff, A. C. (1976). The status attainment process: Socialization or allocation? *Social Forces*, 55(2), 386-381.
- Krottnerus, J. D. (1987). Status attainment research and its image of society. *American Sociological Review*, 52(1), 113-121.
- Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2012). *The adult learner*. Routledge.

- Koster, E., De Grip, A., & Fourage, D. (2011). Does perceived support in employee development affect personnel turnover? *International Journal of Human Resource Management*, 22(11), 2403- 2418.
- Kraimer M. L., Seibert, S. E., Wayne, S. J., Liden, R. C., & Bravo, J. (2011). Antecedents and outcomes of organizational support for development: The critical role of career opportunities. *Journal of Applied Psychology*, 96(3), 485-500.
- Kuh, G. D., Jankowski, N., Ikenberry, S. O., & Kinzie, J. (2014). Knowing what students know and can do: The current state of student learning outcomes assessment in US colleges and universities. *Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA)*.
- Leard, J. S., Booth, C., & Johnson, J. C. (1991). A study of career pathways of NATA program directors. *Journal of Athletic Training*, 26, 211-214.
- Lee, A., Williams, R., & Kilaberia, R. (2012). Engaging diversity in first-year college classrooms. *Innovative Higher Education*, 37(3), 199-213.
- Lee, S., Brown, R., Grant, D., Belin, T. R., & Brick, J. M. (2009). Exploring nonresponse bias in a health survey using neighborhood characteristics. *American Journal of Public Health*, 99(10), 1811- 1817.
- Leggio, W. J. (2014). The state of leadership education in emergency medical services: A multi-national qualitative study. *Prehospital and Disaster Medicine*, 29(5), 1-6.
- Leggio, W. J. (2014b). Objectives, taxonomies and competencies of community oriented and community based education applied to community

paramedicine. *Journal of Contemporary Medical Education*, 1-7. Doi
10.5455/jcme.20140716062857

- Leone, J. E., Judd, M. R., & Colandreo, R. M. (2008). Descriptive qualities of athletic training education program directors. *Athletic Training Education Journal*, 2, 43-49.
- Li, Z-K., You, L-M., Lin, H-S. & Chan, S. W-C. (2014). The career success scale in nursing: psychometric evidence to support the Chinese version. *Journal of Advanced Nursing*, 70(5) 1194-1203. Doi://10.1111/jan.12285
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22(140), 1-55.
- Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology*, 25, 467-487.
- Lincoln, Y. & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Locke, E. A. (1976). The nature and causes of job satisfaction. *Handbook of Industrial and Organizational Psychology*. Chicago, Rand-McNally.
- Margolis, G. S. (2005). *The role of bachelor's degree emergency medical services programs in the professionalization of paramedicine* (Doctoral dissertation, University of Pittsburgh).
- Margolis, G. S., Levine, R. & Weijetunge, G. (2006). The change in full-time EMS provider career satisfaction in their first three years of employment. Oral

presentation at the annual meeting of the National Association of EMS Physicians, January 2006.

Margolis, G. S., Romero, G. A., Fernandez, A. R., & Studnek, J. R. (2009). Strategies of high-performing paramedic educational programs. *Prehospital Emergency Care, 13*, 505-511.

Margolis, G. S., Studnek, J. R., Fernandez, A. R., & Mistovich, J. J. (2008). Strategies of high-performing emt-basic educational programs. *Prehospital Emergency Care, 12*, 206-211.

Maurer, T. J., & Chapman, E. F. (2013). Ten years of career success in relation to individual and situational variables from the employee development literature. *Journal of Vocational Behavior, 83*, 450-465.

McClincy, W. (2011). Chapter 6: Accreditation. *Instructional Methods for Public Safety* (pp. 40-44). Sudbury, Massachusetts: Jones & Bartlett Learning, LLC.

McRae, R. R., & Costa, P. T. (1996). Toward a new generation of personality theories: Theoretical contexts for the five-factor model. In J. S. Wiggins (Ed.), *The five-factor model of personality: Theoretical perspectives* (pp. 51-87).

Milburn, P.C. (2010). The role of programme directors as academic leaders. *Active Learning in Higher Education, 11*(2), 87-95.

Miller, M. G. (2013). Teaching and assessing leadership skills in the emergency medical services classroom. *Domain 3: National Association of EMS Educators, Winter, 19-24*.

Mills, C. W. (1959). *The sociological imagination*. New York, NY: Oxford University Press.

Mintz-Binder, R. D. & Sanders, D. L. (2012). Workload demand: A significant factor in the overall well-being of directors of associate degree nursing programs. *Teaching and Learning in Nursing*, 7(1), 10-16.

National Academies Press. (2007). "4 Supporting a High-Quality EMS Workforce." *Emergency Medical Services: At the Crossroads*. Washington, DC

National Academy of Sciences National Research Council. (1966). *Accidental Death and Disability: The Neglected Disease of Modern Society*.

National Association of State EMS Officials. (2010). *Timeline for implementation of the EMS education agenda*.

National Association of State EMS Officials. (Dec 2010). *EMS instructor qualifications*.

Retrieved November 25, 2014 from

<http://www.nasemso.org/EMSEducationImplementationPlanning/documents/EMSIInstructorQualificationsFinal.pdf>

National Association of State EMS Officials. (April 23, 2014). EMS education agenda: A systems approach: A report to the national EMS advisory council (NEMSAC) on statewide implementation of the *Education Agenda*.

National Association of State EMS Officials. (September, 2014). Recognition of emergency medical services personnel licensure interstate compact ("REPLICA"). Retrieved November 21, 2014 from <http://www.nasemso.org/Projects/InterstateCompacts/>

National Association of State EMS Officials. (October 7, 2014). Annual meeting report. Cleveland, Ohio.

National Association of State EMS Officials. (February 1, 2015). A national strategy for EMS specialty certification.

National Highway Traffic Safety Administration. (1996). *EMS Agenda for the Future*. Washington: D.C.

National Highway Traffic Safety Administration. (2000). *Emergency medical services education agenda for the future: A systems approach*. Washington: D.C.

National Highway Traffic Safety Administration. (2002). *National guidelines for educating EMS instructor*. Washington: D.C. Retrieved November 2014 from http://www.nhtsa.gov/people/injury/ems/instructor/instructor_ems/2002_national_guidelines.htm

National Highway Traffic Safety Administration. (2007). *National EMS scope of practice model*. Washington: D.C.

- National Highway Traffic Safety Administration. (2008). *EMS Workforce for the 21st Century: A National Assessment*. Retrieved from www.nhtsa.gov/staticfiles/DOT/NHTSA/Traffic%20%Control/Articles/Associate%20Files?EMSWorkforceReport_June2008.pdf.
- National Highway Traffic Safety Administration. (2009). *National EMS education standards*. Washington, D.C.
- National Highway Traffic Safety Administration. (2011). *The emergency medical services workforce agenda for the future*. Washington, D.C.
- National Highway Traffic Safety Administration. Office of Emergency Medical Services (2013). Retrieved from website: <http://www.ems.gov/whatisEMS.htm>
- National Registry of Emergency Medical Technicians. (1993). *National Emergency Medical Services Education and Practice Blueprint*.
- National Registry of Emergency Medical Technicians. (2013). Retrieved from www.nremt.org.
- National Registry of Emergency Medical Technicians. (2014). *EMS Fast facts*. Retrieved on October 13, 2014 from https://www.nremt.org/nremt/about/ems_fast_facts.asp.
- National Registry of Emergency Medical Technicians. (May 1, 2014). Leads Update. Retrieved April 8, 2015 from https://www.nremt.org/nremt/downloads/Appendix%20C_Longitudinal_Fact%20Sheet.pdf.

- National Registry of Emergency Medical Technicians. (Summer 2014). Have you transitioned to the national education standards? *The Registry*.
- Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel Psychology*, *58*, 367-408.
- Ng, T. W. H., & Feldman, D. C. (2010). Human capital and objective indicators of career success: The mediating effects of cognitive ability and conscientiousness. *Journal of Occupational and Organizational Psychology*, *83*, 207-235.
- Ng, T. W. H., & Feldman, D. C. (2014). Subjective career success: A meta-analytic review. *Journal of Vocational Behavior*, *85*, 169- 179.
- Ng, T. W. H., Sorensen, K. L., Eby, L. T., & Feldman, D. (2007). Determinants of job mobility: A theoretical integration and extension. *Journal of Occupational and Organizational Psychology*, *80*, 363- 386.
- Nicholson, N., & De Waal-Andrews, W. (2005). Playing to win: Biological imperatives, self-regulation, and trade-offs in the game of career success. *Journal of Organizational Behavior*, *26*(2), 137-155.
- Osborne, J. W. & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research, and Evaluation*, *8*(2), 1- 9.

- Östlund, U., Kidd, L., Wengström, Y., & Rowa-Dewar, N. (2011). Combining qualitative and quantitative research within mixed method research designs: A methodological review. *International journal of nursing studies*, 48(3), 369-383.
- Pachulicz, S., Schmitt, N., & Kuljanin, G. (2008). A model of career success: A longitudinal study of emergency physicians. *Journal of Vocational Behavior*, 73, 242-253.
- Pan, J., & Zhou, W. (2015). How do employees construe their career success: An improved measure of subjective career success. *International Journal of Selection and Assessment*, 23(1), 45- 58.
- Passauer, B. M. (2004). *Administrative Preparation of Undergraduate Athletic Training Program Directors* (Doctoral dissertation, University of Pittsburgh).
- Patterson, P. D., Moore, C. G., Sanddal, N. D., Wingrove, G., & LaCroix, B. (2009). Characterizing job satisfaction and intent to leave among nationally registered emergency medical technicians: An analysis of the 2005 leads survey. *Journal of Allied Health*, 38(3), 84-91.
- Patterson, P. D., Probst, J. C., Leith, K. H., Corwin, S. J., & Powell, M. P. (2005). Recruitment and retention of emergency medical technicians: A qualitative study. *Journal of Allied Health*, 34(3), 153-162. Retrieved from <http://search.proquest.com/docview/210973437?accountid=12953>

- Peng, C. Y. J., Lee, K. L., & Ingersoll, G. M. (2002). An introduction to logistic regression analysis and reporting. *The Journal of Educational Research*, 96(1), 3-14.
- Perkins, S. A., & Judd, M. R. (2001). Dilemmas of program directors: Then and now. *Journal of Athletic Training*, 36(4), 396-400.
- Perrin, D. H., & Lephart, S. M. (1988). Role of the NATA curriculum director as clinician and educator. *Athletic Training*, 23, 41-43.
- Peterson, C. A., Stuart, D. W., Hargis, J., & Patel, R. A. (2009). Promotion and tenure: Institution, program, and faculty-candidate characteristics. *Journal of Physical Therapy Education*, 23(1), 64-70. Retrieved from <http://search.proquest.com/docview/854504699?accountid=12953>
- Pirrallo, R. G., Levine, R., Dickison, P.D. (2005). Behavioral health risk factors of U.S. emergency medical technicians: The leads project. *Prehospital Disaster Medicine*, 20(4), 235-239.
- Poole, M. E., Langan-Fox, J. (1993). Contrasting subjective and objective determinants of career success: A longitudinal study. *Journal of Occupational and Organizational Psychology*, 66(1), 39-55.
- Porter, S. R., & Whitcomb, M. E. (2007). Mixed-mode contacts in web surveys. *Public Opinion Quarterly*, 71(4), 635- 648.

- Pugno, P. A., Dornfest, F. D., Kahn, N. B. & Avant, R. (2001). The national institute for program director development: A school for program directors. *Journal of American Board Family Practice, 15*, 209-213.
- Rich, V. (2009). Employment characteristics, educational histories, and pedagogical training of educators in CAATE-accredited athletic training programs. *Athletic Training Education Journal, 4*(4), 131-138.
- Roberts, D. H., Schwartz, R. M., & Weinberger, S. E. (2014). Career Development for the Clinician–Educator. Optimizing Impact and Maximizing Success. *Annals of the American Thoracic Society, 11*(2), 254-259. doi: [10.1513/AnnalsATS.201309-322OT](https://doi.org/10.1513/AnnalsATS.201309-322OT)
- Ruple, J. A., Frazer, G. H., & Bake, W. (2006). Commonalities of the EMS education workforce (2004) in the United States. *Prehospital Emergency Care, 10*(2), 229-38. Retrieved from <http://search.proquest.com/docview/221188519?accountid=12953>
- Ruple, J., Frazer, G., Hsieh, A., Bake, W., & Freel, J. (2005). The State of EMS Education Research Project: Characteristics of EMS Educators. *Prehospital Emergency Care, 9*(2), 203-212.
- Russ-Eft, D. F., Dickison, P. D., Levine, R. (2005). Instructor quality affecting emergency medical technician (EMT) preparedness: A leads project. *International Journal of Training and Development, 9*(4), 256-270.

- Russ-Eft, D., Dickison, P., & Levine, R. (2008a). Certification and career success: a LEADS project. *Online Submission*.
- Russ-Eft, D. F., Dickison, P. D., & Levine, R. (2008). Examining career success of minority and women emergency medical technicians (EMTs): A LEADS project. *Human Resource Development Quarterly*, 19(4), 281 - 298.
doi:10.1002/hrdq.1242
- Russ-Eft, D., Levine, R., & Fernandez, A. R. (2014). Objective career success among paramedics: interaction effects of location and race. *Human Resource Development International*, 17(1), 10-29. doi:10.1080/13678868.2013.840084
- Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field methods*, 15(1), 85-109.
- Samules, D. J., & Stoy, W. A. (1994). EMT-Basic national standard curriculum. Washington, DC: U.S. Department of Transportation/ National Highway Traffic Safety Administration.
- Sandelowski, M. (1995). Qualitative analysis: What it is and how to begin. *Research in Nursing and Health*, 18, 371– 375.
- Sax, L. J., Gilmartin, S. K., & Bryant, A. N. (2003). Assessing response rates and nonresponse bias in web and paper surveys. *Research in Higher Education*, 44(4), 409- 432.

- Schroeder, L., & Sjoquist, D. L., Stephan, P.E. (1986). *Understanding regression analysis: An introductory guide*, 07-057.
- Schmuhl, P., VanDuker, H., Gurley, K. L., Webster, A., & Olson, L. M. (2010). Reaching emergency medical services providers: is one survey mode better than another? *Prehospital Emergency Care*, *14*(3), 361- 169.
- Sciera, J. L. (1981). The role of the NATA program director. *Journal of Athletic Training*, *16*, 125-126.
- Scott, K., White, K., & Roydhouse, J. K. (2013). Advancing the education and career pathway for clinical trials nurses. *The Journal of Continuing Education in Nursing*, *44*(4), 165-170.
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, *84*(30), 416-427.
- Seibert, S. E., & Kraimer, M. L. (2001). The five-factor model of personality and career success. *Journal of Vocational Behavior*, *58*, 1-21.
- Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001) A social capital theory of career success. *Academy of Management Journal*, *44*, 219-237.
- Senge, P. (1990). *The fifth discipline*. New York: Doubleday.
- Sheehan, K. B. (2001). E-mail survey response rates: A review. *Journal of Computer-Mediated Communication*, *6*: 0. doi: 10.1111/j.1083-6101.2001.tb00117.x

- Silver, S. (Friday, October 8, 2004). The U.S. facing personnel and faculty shortages in allied. *The Washington Post*. Retrieved from <http://www.washingtonpost.com/wp-dyn/articles/A46215-2003Jul25.html>.
- Spurk, D., Abele, A. E., & Volmer, J. (2011). The career satisfaction scale: Longitudinal measurement invariance and latent growth analysis. *Journal of Occupational and Organizational Psychology, 84*, 315-326.
- Spurk, D., Abele, A. E., & Volmer, J. (2014). The career satisfaction scale in context: A test for measurement invariance across four occupational groups. *Journal of Career Assessment, 5*, 1-19.
- Staurowsky, E., & Scriber, K. (1998). An analysis of selected factors that affect the work lives of athletic trainers employed in accredited educational programs. *Journal of Athletic Training, 25*, 34- 39.
- Steel, R. P. (2002). Turnover theory at the empirical interface: Problems of fit and function. *Academy of Management Review, 27*(3), 346-360.
- Stoy, W. A. & Margolis, G. S. (1998). EMT-Paramedic national curriculum. Washington, DC: U.S. Department of Transportation/ National Highway Traffic Safety Administration.
- Studnek, J. R., Bentley, M. A., Crawford, J. M., & Fernandez, A. R. (2010). An assessment of key health indicators among emergency medical service professionals. *Prehospital Emergency care, 14*(1), 14-20.

- Studnek, J. R., & Ferketich, A. (2007). Organizational policy and other factors associated with emergency medical technician seat belt use. *Journal of Safety Research*, 38(1), 1-8.
- Studnek, J. R., Ferketich, A., & Crawford, J. M. (2007). On the job illness and injury resulting in lost work time among a national cohort of emergency medical service professionals. *American Journal of Industrial Medicine*, 50(12), 921-931.
- Studnek, J. R., & Fernandez, A. R. (2008). Characteristics of emergency medical technicians involved in ambulance crashes. *Prehospital and Disaster Medicine*, 23(5), 432-437.
- Stumpf, S. & Tymon, W. (2012). The effects of objective career success on subjective career success. *Journal of Vocational Behavior*, 81(3), 345- 353.
- Stumpf, S. A. (2014). A longitudinal study of career success, embeddedness, and mobility of early career professionals. *Journal of Vocational Behavior*, 85, 180-190.
- SurveyMonkey Inc. (2015) Palo Alto, California, USA. Retrieved from www.surveymonkey.com.
- Sweet, S. A. (1999). *Data analysis with SPSS*. Boston, MA: Allyn and Bacon.
- Tan, M. (2011). Wars have changed combat medic training. *Army Times*. Retrieved April 9, 2015 from <http://archive.armytimes.com/article/20110918/NEWS/109180307/Wars->

changed-combat-medic-training

<http://archive.armytimes.com/article/20110918/NEWS/109180307/Wars->

[changed-combat-medic-training](#)

Thorndike, E. L. (1934). *Prediction of vocational success*. Oxford University Press: New York, New York.

Tremblay, M., Dahan, J., & Gianecchini, M. (2014). The mediating influence of career success in relationship between career mobility criteria, career anchors, and satisfaction with organization. *Personnel Review*, 43(6), 818-844.

Tritt, P.L. (n.d.) CoAEMSP."How do I..." Retrieved from www.coaemp.org

Trochim, W., & Donnelly, J. (2008). *The research methods knowledge base*. (3rd ed.). Mason, Ohio: Cengage Learning.

Turner, R. H. (1960). Sponsored and contest mobility and the school system. *American Sociological Review*, 25(6), 855-867.

U.S. Census Bureau, Decennial Censuses, 1950 to 1990, and Current Population Survey, Annual Social and Economic Supplements, 1993 to 2014. Retrieved April 2015 from <https://www.census.gov/hhes/families/files/graphics/MS-1a.pdf>

U.S. Census Bureau. (2014b). Educational Attainment of the Population 25 Years and Over, by Selected Characteristics: 2014. Retrieved April 8, 2015 from <http://www.census.gov/hhes/socdemo/education/data/cps/2014/tables.html>.

U.S. Department of Education, National Center for Education Statistics. (2014). *The Condition of Education 2014* (NCES 2014-083), Characteristics of Postsecondary Faculty. Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=61>

U. S. Department of Education, Institute of Educational Sciences, National Center for Education Statistics. (March 2014). Average salary of full-time instructional faculty on 9-month contracts in degree-granting postsecondary institutions, by academic rank, control and level of institution, and sex. Selected years, 1970-71 through 2012-13. Retrieved April 8, 2015 from https://nces.ed.gov/programs/digest/d13/tables/dt13_316.10.asp.

U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS). (2014). Characteristics of Postsecondary faculty.

U. S. Department of Education, Institute of Educational Sciences, National Center for Education Statistics. (July 2013). Integrated Postsecondary Education Data System (IPEDS). Fall 2002 through Fall 2012 Completion Component.

U. S. Department of Education, Institute of Educational Sciences, National Center for Education Statistics. (2014). 51.0904 Emergency Medical Technology/Technician (EMT Paramedic). Retrieved November 24, 2014 from <http://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=88782>.

- U. S. Department of Education, National Center for Education Statistics, Institute of Education Sciences. (2015). *National study of postsecondary faculty (2004)*. Retrieved April 12, 2015 from <https://nces.ed.gov/surveys/nsopf/index.asp>.
- U.S. Department of Education, National Center for Education Statistics. (2011). The Condition of Education 2011 (NCES 2011-033), Indicator 43.
- U. S. Equal Employment Opportunity Center. (2015). Discrimination by type. Retrieved April 22, 2015 from <http://www.eeoc.gov/laws/types/>
- Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, 37(1).
- Verbruggen, M. (2012). Psychological mobility and career success in the 'new' career climate. *Journal of Vocational Behavior*, 81, 289-297.
- Verplanken, B., & Orbell, S. (2003). Reflections on Past Behavior: A Self-Report Index of Habit Strength¹. *Journal of Applied Social Psychology*, 33(6), 1313-1330.
- Vroman, R. (2010). EMS education: A fragmented system.
- Wang, Y-F. (2013). Constructing career competency model of hospitality industry employees for career success. *International Journal of Contemporary Hospitality Management*, 25(7), 994- 1016.

- West, C. P., Halvorsen, A. J., Swenson, S. L., & McDonald, F. S. (2013). Burnout and distress among internal medicine program directors: Results of a national survey. *Journal of General Internal Medicine, 28*(8), 1056 – 1063.
- Wirth, S. R. (1990). Job satisfaction in EMS: A different approach. *Prehospital and Disaster Medicine, 5*, 9-17. doi:10.1017/S1049023X00026455.
- Wright, K. B. (2005). Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services. *Journal of Computer-Mediated Communication, 10*(00). doi: 10.1111/j.1083-6101.2005.tb00259.

Appendix A

List of Abbreviations

List of Abbreviations

AEMT- Advanced Emergency Medical Technician

CAAHEP- Commission on Accreditation of Allied Health Programs

CoAEMSP- Committee on Accreditation of Educational Programs for the Emergency
Medical Services Professions

DOT- Department of Transportation

EMR- Emergency Medical Responder

EMS- Emergency Medical Services

EMT- Emergency Medical Technician

EMT-P – Emergency Medical Technician Paramedic

LEADS- Longitudinal EMT Attributes and Demographics Study

NAEMSE- National Association of EMS Educators

NASEMSO- National Association of State EMS Officials

NHTSA- National Highway Traffic Safety Administration

NREMT- National Registry of Emergency Medical Technicians

NRP- Paramedic

Appendix B

List of the 459 Accredited Programs by State located on the Committee on the Accreditation of Allied Health Education Programs website on March 1, 2015

List of the 459 Accredited Programs by State located on the Committee on the Accreditation of Allied Health Education Programs website on March 1, 2015.

University of Alaska-Anchorage Matanuska Susitna College - Palmer, AK

University of Alaska Fairbanks Community & Technical College - Fairbanks, AK

AL - Alabama

Calhoun Community College - Decatur, AL

Faulkner State Community College - Gulf Shores, AL

Gadsden State Community College - Gadsden, AL

Herzing University-Birmingham - Birmingham, AL

Jefferson State Community College - Birmingham, AL

Lurleen B Wallace Community College - Andalusia, AL

Northeast Alabama Community College - Rainsville, AL

Northwest Shoals Community College - Muscle Shoals, AL

Southern Union State Community College - Opelika, AL

Wallace Community College - Dothan, AL

Wallace State Community College - Hanceville, AL

H. Council Trenholm State Technical College - Montgomery, AL

University of South Alabama - Mobile, AL

Bevill State Community College - Sumiton, AL

AR - Arkansas

Arkansas Tech University - Ozark, AR

Black River Technical College - Pocahontas, AR

National Park Community College - Hot Springs, AR

North Arkansas College - Harrison, AR

Northwest Arkansas Community College - Bentonville, AR

South Arkansas Community College - El Dorado, AR

Southeast Arkansas College - Pine Bluff, AR

University of Arkansas at Monticello - McGehee, AR

University of Arkansas Community College At Hope - Hope, AR

University of Arkansas for Medical Sciences-Little Rock - Little Rock, AR

University of Arkansas Community College Batesville - Batesville, AR

Arkansas State University-Mountain Home - Mountain Home, AR

East Arkansas Community College - Forrest City, AR

Arkansas Northeastern College - Blytheville, AR

Arkansas State University-Beebe - Searcy, AR

AZ - Arizona

Cochise College - Sierra Vista, AZ

Mohave Community College - Kingman, AZ

Paradise Valley Community College - Phoenix, AZ

Pima Community College - Tucson, AZ

Central Arizona College - Apache Junction, AZ

Northland Pioneer College - Holbrook, AZ

Flagstaff Medical Center - Flagstaff, AZ

Glendale Community College - Glendale, AZ

Maricopa Community Colleges-Phoenix College - Phoenix, AZ

Yavapai College - Prescott, AZ

CA - California

Butte Community College - Oroville, CA

California State University-CSUS Prehospital Education Program - Sacramento, CA

City College of San Francisco - San Francisco, CA

College of the Redwoods - Arcata, CA

Cuesta College - San Luis Obispo, CA

Fresno County Paramedic Program / Fresno City College Consortium - Fresno, CA

Imperial Community College District - Imperial, CA

Moreno Valley College-Riverside Community College - Riverside, CA

Mt. San Antonio College - Walnut, CA

National College of Technical Instruction-Roseville - Roseville, CA

National College of Technical Instruction-Santa Barbara - Santa Barbara , CA

National College of Technical Instruction-Siskiyou County - Weed, CA

Point Loma Nazarene University/EMSTA College for EMS - Santee, CA
Saddleback College - Mission Viejo, CA
Santa Rosa Junior College - Windsor, CA
University of Antelope Valley (UAV) - Lancaster, CA
Bakersfield College - Bakersfield, CA
UEI College - Santa Cruz, CA
Palomar Community College - Escondido, CA
Los Angeles County Emergency Medical Services Agency - Santa Fe Springs, CA
Foothill College - Palo Alto, CA
National College of Technical Instruction-Bay Area (Livermore) - Roseville, CA
National College of Technical Instruction - Riverside - Riverside, CA
Southwestern College-San Diego - San Diego, CA
Ventura College - School of Prehospital and Emergency Medicine - Ventura, CA
Crafton Hills College - Yucaipa, CA
National College of Technical Instruction - San Diego - San Diego, CA
Victor Valley College - Victorville, CA
American River College - Sacramento, CA
Absolute Safety Training Inc. - Chico, CA
WestMed College-San Jose - San Jose, CA
Napa Valley College - Napa, CA
UCLA Paramedic Education Program - Inglewood, CA
CO - Colorado
HealthONE EMS/Arapahoe Community College - Englewood, CO
Pikes Peak Community College - Colorado Springs, CO
Pueblo Community College - Pueblo, CO
St. Anthony Hospitals - Lakewood, CO
Colorado Mountain College - Edwards, CO
Community College of Aurora - Denver, CO
Denver Health Medical Center - Denver, CO
Aims Community College - Greeley, CO

CT - Connecticut

Bridgeport Hospital - Bridgeport, CT
Goodwin College - East Hartford, CT
Yale-New Haven Hospital - New Haven, CT
Capital Community College - Hartford, CT

DE - Delaware

Delaware Technical and Community College-Terry Campus - Dover, DE

FL - Florida

Broward College - Davie, FL
City College-Altamonte Springs - Ft. Lauderdale, FL
City College-Ft. Lauderdale - Ft. Lauderdale, FL
City College-Gainesville - Ft. Lauderdale, FL
City College-Miami - Miami, FL
College of Central Florida - Ocala, FL
Daytona State College - Daytona Beach, FL
Eastern Florida State College - Cocoa, FL
Florida SouthWestern State College - Fort Myers, FL
Florida State College at Jacksonville - Jacksonville, FL
Fortis Institute-Mulberry - Mulberry, FL
Gulf Coast State College - Panama City, FL
Hillsborough Community College - Tampa, FL
Indian River State College - Fort Pierce, FL
Lake Technical College - Eustis, FL
Manatee Technical Institute - Bradenton, FL
Northwest Florida State College - Niceville, FL
Palm Beach State College - Lake Worth, FL
Pasco-Hernando State College - New Port Richey, FL
Pensacola State College - Pensacola, FL
Polk State College - Winter Haven, FL
Santa Fe College - Gainesville, FL

Seminole State College - Sanford, FL
South Florida State College - Avon Park, FL
Suncoast Technical College - Sarasota, FL
Tallahassee Community College - Tallahassee, FL
First Coast Technical College - St. Augustine, FL
Valencia College - Orlando, FL
Florida Gateway College - Lake City, FL
Miami Dade College - Miami, FL
St Petersburg College - Pinellas Park, FL

GA - Georgia

Athens Technical College - Athens, GA
Georgia Northwestern Technical College-Rome - Rome, GA
Georgia Piedmont Technical College - Covington, GA
Fortis College-Smyrna - Smyrna, GA
Lanier Technical College-Oakwood - Oakwood, GA
Darton State College - Albany, GA
Atlanta Technical College - Atlanta, GA
Southeastern Technical College-Vidalia - Vidalia, GA
Southern Crescent Technical College - Griffin, GA
Southwest Georgia Technical College - Thomasville, GA
West Georgia Regional Emergency Education Coalition - Temple, GA
Gwinnett County Fire and Emergency Services - Dacula , GA
Gwinnett Technical College - Lawrenceville, GA
Henry County Fire Department - McDonough, GA

HI - Hawaii

Kapiolani Community College - Honolulu, HI

IA - Iowa

Kirkwood Community College - Cedar Rapids, IA
Northeast Iowa Community College - Peosta, IA
Southeastern Community College - West Burlington, IA

University of Iowa Health Care - Iowa City, IA
Western Iowa Tech Community College - Sioux City, IA
Iowa Central Community College - Fort Dodge, IA
Iowa Western Community College - Council Bluffs, IA
Indian Hills Community College - Ottumwa, IA
Eastern Iowa Community College - Davenport, IA
Mercy College of Health Sciences - Des Moines, IA

ID - Idaho

Brigham Young University-Idaho - Rexburg, ID
Idaho State University - Meridian, ID
College of Southern Idaho - Twin Falls, ID

IL - Illinois

Advocate Bromenn Medical Center, OSF St Joseph Medical Center, and McLean County Area EMS System Paramedic Training Program Consortium - Bloomington, IL
Advocate Good Samaritan Hospital - Downers Grove, IL
Black Hawk College - Moline, IL
Blessing Hospital - Quincy, IL
Illinois Central College - East Peoria, IL
Morris Hospital and Healthcare Centers - Morris, IL
OSF Saint Anthony Medical Center - Rockford, IL
Parkland College - Champaign, IL
Presence Saint Joseph Hospital - Elgin, IL
Swedish American Hospital - Rockford, IL
Waubonsee Community College - Geneva, IL
Malcolm X College - Chicago, IL
Loyola University Medical Center - Maywood, IL
Southwestern Illinois College - Belleville, IL
Advocate Christ Medical Center - Oak Lawn, IL
Edward Hospital - Naperville, IL
Vista Health System - Waukegan, IL

IN - Indiana

Elkhart General Hospital - Elkhart, IN
Hendricks Regional Health - Danville, IN
Indiana University Health-Goshen Hospital - Goshen, IN
Ivy Tech Community College-Bloomington - Bloomington, IN
Ivy Tech Community College-Columbus - Columbus, IN
Ivy Tech Community College-Ft. Wayne - Fort Wayne, IN
Ivy Tech Community College-Kokomo - Kokomo, IN
Ivy Tech Community College-South Bend - South Bend, IN
Ivy Tech Community College-Terre Haute - Terre Haute, IN
Vincennes University - Vincennes, IN
Adams Memorial Hospital - Decatur, IN
Franciscan Alliance/St Elizabeth Health - Lafayette, IN
Franciscan Saint Anthony Health Crown Point - Crown Point, IN
Indiana University School of Medicine - Indianapolis, IN
Franciscan St. Francis Health - Indianapolis, IN
Ivy Tech Community College-Madison - Madison, IN
St. Vincent's Indianapolis Hospital - Indianapolis, IN
Ivy Tech Community College-Richmond - Richmond, IN
St. Mary Medical Center - Hobart, IN
The Methodist Hospitals, Inc. - Gary, IN
Community Health Network - Indianapolis, IN
Harrison County Hospital Paramedic Consortium - Corydon, IN
Indiana University Health - Indianapolis, IN
Ivy Tech Community College-Evansville - Evansville, IN
Pelham - Ball Memorial Consortium - Bloomington, IN

KS - Kansas

Coffeyville Community College - Coffeyville, KS
Cowley College - Winfield, KS
Garden City Community College - Garden City, KS

Johnson County Community College - Overland Park, KS

Hutchinson Community College - Hutchinson, KS

Kansas City Kansas Community College - Kansas City, KS

Barton County Community College - Great Bend, KS

KY - Kentucky

Ashland Community and Technical College - Ashland, KY

Eastern Kentucky University - Richmond, KY

Lexington Division of Fire and Emergency Services - Lexington, KY

Owensboro Community and Technical College - Owensboro, KY

LA - Louisiana

Bossier Parish Community College - Bossier City, LA

Delgado Community College - New Orleans, LA

National EMS Academy/South Louisiana Community College - Lafayette, LA

MA - Massachusetts

National Medical Education and Training Center/Medtech College Consortia - West Bridgewater, MA

Pro EMS Center for Medics/Mount Auburn Hospital Consortium for Paramedic Education - Cambridge, MA

Springfield College - Springfield, MA

MD - Maryland

Chesapeake College - Easton, MD

College of Southern Maryland - La Plata, MD

Community College of Baltimore County - Essex Campus - Baltimore, MD

Garrett College - McHenry, MD

Hagerstown Community College - Hagerstown, MD

Howard Community College - Columbia, MD

Howard County Department of Fire and Rescue - Marriottsville, MD

University of Maryland Baltimore County - Baltimore, MD

Wor-Wic Community College - Salisbury, MD

Anne Arundel Community College - Arnold, MD

Cecil College - Elkton, MD

Prince George's Community College - Largo, MD

ME - Maine

Northern Maine Community College - Presque Isle, ME

Southern Maine Community College - South Portland, ME

Kennebec Valley Community College - Fairfield, ME

MI - Michigan

Baker College of Clinton Township - Clinton Township, MI

Genesys Regional Medical Center - Grand Blanc, MI

Huron Valley Ambulance - Ann Arbor, MI

Kalamazoo Valley Community College - Kalamazoo, MI

Lansing Community College - Lansing, MI

Kellogg Community College - Battle Creek, MI

Macomb Community College - Warren, MI

Wayne County Community College District - Taylor, MI

MN - Minnesota

Hennepin County Medical Center - Minneapolis, MN

Mesabi Range College - Eveleth, MN

Northland Community and Technical College - East Grand Forks, MN

St. Cloud Technical and Community College - St. Cloud, MN

South Central College - North Mankato, MN

Inver Hills Community College - Inver Grove, MN

Ridgewater College - Minneapolis, MN

Century College - White Bear Lake, MN

MO - Missouri

Cape Girardeau Career and Technology Center - Cape Girardeau, MO

East Central College - Union, MO

Grand River Technical School - Chillicothe, MO

IHM Health Studies Center - St. Louis, MO

Ozarks Technical Community College - Springfield, MO

Rolla Technical Center - Rolla, MO

South Howell County Ambulance District - West Plains, MO

St. Charles County Ambulance District - St. Peters, MO

Missouri Southern State University - Joplin, MO

Univ of Missouri Health Care EMS Institute - Columbia, MO

Crowder College - Neosho, MO

Respond Right EMS Academy/St. Charles Community College Consortia - St. Peters, MO

Metropolitan Community College - Kansas City, MO

St. Louis Community College - St. Louis, MO

Mineral Area College - Park Hills, MO

MS - Mississippi

East Central Community College - Decatur, MS

Mississippi Gulf Coast Community College - Gulfport, MS

Northwest Mississippi Community College - Senatobia, MS

Holmes Community College - Ridgeland, MS

Itawamba Community College - Fulton, MS

East Mississippi Community College - Mayhew, MS

Jones County Junior College - Ellisville, MS

Meridian Community College - Meridian, MS

Hinds Community College-Jackson - Jackson, MS

MT - Montana

Flathead Valley Community College - Kalispell, MT

Great Falls College-Montana State University - Great Falls, MT

Montana State University-Billings - Billings, MT

NC - North Carolina

Asheville-Buncombe Technical Community College - Asheville, NC

Catawba Valley Community College - Hickory, NC

Gaston College - Dallas, NC

Southwestern Community College-Sylva - Sylva, NC

Joint Special Operations Medical Training Center - Fort Bragg, NC

Guilford Technical Community College - Jamestown, NC

Piedmont Community College - Roxboro, NC

Western Carolina University - Cullowhee, NC

Blue Ridge Community College - Flat Rock, NC

ND - North Dakota

Emergency Training Associates/Greater Minnesota Paramedic Consortium - Jamestown, ND

Sanford Health EMS Education/North Dakota State College of Science - Fargo, ND

Bismarck State College - Bismarck, ND

NE - Nebraska

Central Community College - Grand Island, NE

Creighton University - Omaha, NE

McCook Community College/Mid-Plains Community College - McCook, NE

Northeast Community College - Norfolk, NE

Southeast Community College - Lincoln, NE

Metropolitan Community College - Omaha - Omaha, NE

NH - New Hampshire

NHTI-Concord's Community College - Concord, NH

New England EMS - Manchester, NH

MONOC/Ocean County College - Neptune, NJ

Jersey City Medical Center EMS - Jersey City, NJ

NM - New Mexico

Central New Mexico Community College - Albuquerque, NM

Eastern New Mexico University - Roswell, NM

University of New Mexico School of Medicine - Albuquerque, NM

Dona Ana Community College - Las Cruces, NM

NV - Nevada

College of Southern Nevada - Las Vegas, NV

REMSA - Reno, NV

Truckee Meadows Community College - Reno, NV
National College of Technical Instruction-Las Vegas - Las Vegas, NV
NY - New York
Dutchess Community College - Wappingers Falls, NY
Erie Community College - Orchard Park, NY
Faxton St. Luke's Healthcare Paramedic Program - Utica, NY
Monroe Community College - Rochester, NY
Nassau County Fire Police EMS Academy at NUMC - East Meadow, NY
St. John's University - Fresh Meadows, NY
SUNY Cobleskill - Cobleskill, NY
Hudson Valley Community College - Troy, NY
New York Methodist Hospital - Brooklyn, NY
CUNY Borough of Manhattan Community College - New York, NY
OH - Ohio
Fortis College-Centerville - Centerville, OH
Four County Career Center - Archbold, OH
James A. Rhodes State College - Lima, OH
Owens Community College - Toledo, OH
Sinclair Community College - Dayton, OH
University of Cincinnati Blue Ash College - Cincinnati, OH
Vanguard-Sentinel Career & Technology Center - Fremont, OH
Youngstown State University - Youngstown, OH
Miami Valley Career Technology Center - Clayton, OH
Akron General Medical Center - Akron, OH
Clark State Community College - Springfield, OH
Columbus State Community College - Columbus, OH
Shawnee State University - Portsmouth, OH
Grant Medical Center - Columbus, OH
Cuyahoga Community College - Cleveland, OH
Life Care EMS Training Academy/Lorain County CC Consortium - Elyria, OH

Summa Health System - Akron, OH

OK - Oklahoma

Eastern Oklahoma County Technology Center - Choctaw, OK

Great Plains Technology Center - Lawton, OK

Oklahoma State University-Oklahoma City - Oklahoma City, OK

Redlands Community College - El Reno, OK

Rogers State University - Claremore, OK

Tulsa Technology Center - Tulsa, OK

Oklahoma City Community College - Oklahoma City, OK

Gordon Cooper Technology Center - Shawnee, OK

Kiamichi Technology Center - Poteau, OK

OR - Oregon

Central Oregon Community College - Bend, OR

Chemeketa Community College - Salem, OR

Portland Community College - Portland, OR

Rogue Community College - White City, OR

Southwestern Oregon Community College - Coos Bay, OR

Umpqua Community College - Roseburg, OR

National College of Technical Instruction-Oregon and (Vancouver, WA) - Milwaukie, OR

Lane Community College - Eugene, OR

Oregon Health and Science University/Oregon Institute of Technology - Wilsonville, OR

PA - Pennsylvania

All-State Career School - Essington, PA

Community College of Allegheny County-Boyce Campus - Monroeville, PA

Delaware County Community College - Media, PA

Harrisburg Area Community College-Harrisburg Campus - Harrisburg, PA

Lehigh Valley Health Network (Hospital) - Allentown, PA

Montgomery County EMS Training Institute - Conshocken, PA

Reading Hospital School of Health Sciences - Reading, PA

Star Career Academy - Philadelphia, PA
Thomas Jefferson Univ Hosp-JeffSTAT EMS Education Center - Philadelphia, PA
Conemaugh Memorial Medical Center - Johnstown, PA
Pennsylvania College of Health Sciences - Lancaster, PA
Luzerne County Community College - Nanticoke, PA
Center for Emergency Medicine of Western PA - Pittsburgh, PA
Pennsylvania College of Technology - Williamsport, PA
Fortis Institute-Erie - Erie, PA

SC - South Carolina

SC Midlands Emergency Medical Service Management Association - West Columbia, SC
Horry Georgetown Technical College - Myrtle Beach, SC
Trident Technical College - Charleston, SC
Greenville Technical College - Greenville, SC

SD - South Dakota

Western Dakota Technical Institute - Rapid City, SD
Lake Area Technical Institute - Watertown, SD
Avera McKennan Hospital and University Health Center - Sioux Falls, SD

TN - Tennessee

Chattanooga State Community College - Chattanooga, TN
City of Memphis Division of Fire Services - Memphis, TN
Columbia State Community College - Columbia, TN
Northeast State Community College - Blountville, TN
Roane State Community College - Knoxville, TN
Southwest Tennessee Community College - Memphis, TN
Tennessee Technological University - Cookeville, TN
Volunteer State Community College - Gallatin, TN
Jackson State Community College - Jackson, TN
Walters State Community College - Morristown, TN
Dyersburg State Community College - Dyersburg, TN

TX - Texas

Angelina College - Lufkin, TX
Brookhaven College - Farmers Branch, TX
Central Texas College - Killeen, TX
College of the Mainland - Texas City, TX
Collin County Community College District - McKinney, TX
East Texas Medical Center - Tyler, TX
El Paso Community College - El Paso, TX
Galveston College - Galveston, TX
Hill College - Cleburne, TX
Howard College - San Angelo - San Angelo, TX
Lone Star College - North Harris - Houston, TX
Lone Star College-Cy Fair - Cypress, TX
Navarro College - Waxahachie, TX
North Central Texas College - Corinth, TX
Paris Junior College - Paris, TX
San Antonio College - San Antonio, TX
San Jacinto College - Central - Pasadena, TX
South Texas College - McAllen, TX
Temple College - Temple, TX
Texas Engineering Extension Service - College Station, TX
Trinity Valley Community College - Palestine, TX
Victoria College - Victoria, TX
Weatherford College - Weatherford, TX
Wharton County Junior College - Wharton, TX
Houston Community College System - Houston, TX
University of Texas Southwestern Medical Center - Dallas, TX
San Jacinto College North - Houston, TX
Brazosport College - Lake Jackson, TX
Tyler Junior College - Tyler, TX

Blinn College - Bryan , TX
Grayson County College - Denison, TX
University of Texas Health Science Center at San Antonio - San Antonio, TX
Tarrant County College - Hurst, TX
Odessa College - Odessa, TX
South Plains College - Lubbock, TX
Midland College - Midland, TX
PERCOM/Kilgore College Consortium - Abilene, TX
San Antonio College - San Antonio, TX
Amarillo College - Amarillo, TX
Panola College - Carthage, TX
Texas State Technical College-Abilene - Abilene, TX
Austin Community College - Austin, TX
UT - Utah
Unified Fire Authority - Salt Lake City, UT
Utah Valley University - Provo, UT
Weber State University - Ogden, UT
Mt. Nebo Paramedic/University of Utah Consortium for Paramedic Education - Payson,
UT
Dixie State University - St. George, UT
VA - Virginia
American National University-Salem - Salem, VA
Loudoun County Department of Fire-Rescue - Leesburg, VA
Patrick Henry Community College - Martinsville, VA
Piedmont Virginia Community College - Charlottesville, VA
Southside Virginia Community College - Alberta, VA
Virginia Commonwealth University School of Medicine - Richmond, VA
Jefferson College of Health Sciences - Roanoke, VA
Tidewater Community College - Virginia Beach, VA
Stafford County and Associates in Emergency Care Consortium - Manassas, VA

Northern Virginia Community College - Springfield, VA

Historic Triangle EMS Institute - Williamsburg, VA

J Sargeant Reynolds Community College - Richmond, VA

Central Virginia Community College - Lynchburg, VA

Lord Fairfax Community College - Middletown, VA

Southwest Virginia Community College - Richlands, VA

WA - Washington

Columbia Basin College - Pasco, WA

Central Washington University - Ellensburg, WA

Tacoma Fire Department - Tacoma, WA

Tacoma Community College - Tacoma, WA

University of Washington/Harborview Medical Center - Seattle, WA

WI - Wisconsin

Chippewa Valley Technical College - Eau Claire, WI

Fox Valley Technical College - Appleton, WI

Gateway Technical College-Burlington - Burlington, WI

Lakeshore Technical College - Cleveland, WI

Mercy Health System - Janesville, WI

Moraine Park Technical College - Fon du Lac , WI

Northcentral Technical College - Wausau, WI

Northeast Wisconsin Technical College - Green Bay, WI

Wisconsin Indianhead Technical College-Rice Lake - Rice Lake, WI

Waukesha County Technical College - Pewaukee, WI

Madison Area Technical College - Madison, WI

Milwaukee County Emergency Medical Services - Milwaukee, WI

Western Technical College - La Crosse, WI

Mid-State Technical College - Wisconsin Rapids, WI

WV - West Virginia

Blue Ridge Community and Technical College - Martinsburg, WV

Mountwest Community and Technical College - Huntington, WV

Pierpont Community & Technical College - Fairmont, WV

Southern West Virginia Community & Technical College - Mount Gay, WV

New River Community and Technical College - Summerville, WV

WY - Wyoming

Casper College - Casper, WY

Laramie County Community College - Cheyenne, WY

Appendix C

**List of the 217 Programs by State that have a Letter of Review located on the
Committee on the Accreditation of Allied Health Education Programs website on
March 1, 2015.**

**List of the 217 Programs by State that have a Letter of Review located on the
Committee on the Accreditation of Allied Health Education Programs website on
March 1, 2015.**

AL - Alabama

Alabama Fire College - Tuscaloosa, AL

AZ - Arizona

Arizona College/Arizona Academy of Emergency Services Consortium for Paramedic Education - Mesa, AZ

Arizona Consortium for Paramedic Education - Peoria, AZ

Arizona Western College - Yuma, AZ

Mesa Community College - Mesa, AZ

Pima Medical Institute-Mesa - Mesa, AZ

Phoenix Fire Department - Phoenix, AZ

CA - California

California Regional Fire Academy - Sacramento, CA

FRSHCE/BAS EMS Consortium - Berkeley, CA

Las Positas College - Livermore, CA

West Hills College Lemoore - Lemoore, CA

WestMed College-Chula Vista - Chula Vista, CA

WestMed College-Fresno - Fresno, CA

WestMed College-Merced - Merced, CA

CT - Connecticut

American/Backus Paramedic Program Consortium - Norwich, CT

Central Connecticut Paramedic Education Program Consortium - New Britain, CT

FL - Florida

Health Career Institute - West Palm Beach, FL

North Florida Community College - Madison, FL

Oak Hill Hospital/Nature Coast Emergency Medical Institute Consortium - Lecanto, FL

Orlando Medical Institute - Orlando, FL

St. Johns River State College - Paulatka, FL

American Medical Academy - Miami, FL

GA - Georgia

Central Georgia Technical College - Macon, GA

Chatham County Paramedic Consortium - Savannah, GA

Columbus Fire & EMS Academy - Columbus, GA

MetroAtlanta EMS Academy - Kennesaw, GA

Oconee Fall Line Technical College - Dublin, GA

Savannah Technical College - Savannah, GA

Wiregrass Georgia Technical College - Valdosta, GA

Albany Technical College - Albany, GA

Georgia EMS Academy Consortium - Demorest, GA

Chattahoochee Technical College- North Metro Campus Acworth - Acworth, GA

Georgia Regents University - Augusta, GA

Grady Health System - Atlanta, GA

Clayton County Fire & Emergency Services - Riverdale, GA

Coastal Pines Technical College - Brunswick, GA

West Point Fire Department - West Point, GA

IA - Iowa

Des Moines Area Community College-Ankeny Campus - Ankeny, IA

Hawkeye Community College - Waterloo, IA

Lewis-Clark State College - Lewiston, ID

College of Western Idaho - Nampa, ID

IL - Illinois

Advocate Condell Medical Center - Libertyville, IL

Cadence Health at Central DuPage Hospital - Winfield, IL

Illinois Valley Community College - Ogelsby, IL

Ingalls Memorial Hospital - Harvey, IL
Kaskaskia College - Centralia, IL
Kishwaukee College - DeKalb, IL
Lake Land College - Mattoon, IL
Lewis & Clark Community College - Godfrey, IL
McHenry County College - Crystal Lake, IL
Northshore University Health System Highland Park Hospital - Highland Park, IL
Presence Saint Francis Hospital - Evanston, IL
Rend Lake College - Ina, IL
Riverside Medical Center - Kankakee, IL
Southwestern Illinois College - Belleville, IL
Advocate Sherman Hospital - Elgin, IL
Advocate Lutheran General Hospital - Park Ridge, IL
Presence St. Mary's Hospital - Kankakee, IL
Silver Cross Hospital - Lenox, IL

KY - Kentucky

Central Kentucky Paramedic Program Consortium - Lexington, KY
Jefferson Community and Technical College - Louisville, KY
Somerset Community College - Somerset, KY
Western Kentucky University - Bowling Green, KY
Gateway Community & Technical College - Edgewood, KY
Madisonville Community College - Madisonville, KY

LA - Louisiana

East Baton Rouge Parish EMS - Baton Rouge, LA
Nunez Community College - Chalmette, LA

MA - Massachusetts

Bunker Hill Community College - Boston, MA
CCCC/EMTS, Inc EMS Consortium - Pembroke, MA

Massasoit Community College - Brockton, MA
National College of Technical Instruction-Natick - Leominster, MA
Northern Essex Community College - Lawrence, MA
MassBay Community College - Framingham, MA
National College of Technical Instruction-Springfield - Springfield, MA
Quinsigamond Community College - Worcester, MA
CMTI/Tufts Medical Center Consortium For Paramedic Education - Hanover, MA
First Response EME/Canton Fire Consortium for EMS Education - Stoughton, MA
Greenfield Community College - Greenfield, MA

MD - Maryland

Baltimore City Community College - Baltimore, MD
Carroll Community College - Westminster, MD
Harford Community College - Bel Air, MD
Montgomery County Fire Rescue Training Academy - Rockville, MD
Frederick County Division of Fire and Rescue Services - Frederick, MD

ME - Maine

Eastern Maine Community College - Bangor, ME
United Training Center - Lewiston, ME
National College of Technical Instruction-Maine - Standish, ME

MI - Michigan

Baker College of Muskegon/Professional Med Team, Inc Consortia - Muskegon, MI
DLP/Marquette Gen Health Systems - Marquette, MI
Great Lakes EMS Academy/Davenport Univ Consortium - Grand Rapids, MI
Life EMS Ambulance Education Centre/Metro Health Hospital Consortium - Grand Rapids, MI
Life Support Training Institute at Botsford Hospital - Southfield, MI
McLaren Flint-EMS Education Programs - Flint, MI
Medstar Medical Education Center - Clinton Township, MI
Schoolcraft College - Garden City, MI

St. Clair County Community College - Port Huron, MI
Lake Superior State University - Sault Ste. Marie, MI
Superior Medical Education - Madison Heights, MI
STAT EMS Inc/Hurley Medical Center - Flint, MI
Gogebic Community College - Ironwood, MI
Mobile Medical Response Education - Saginaw, MI
Mid-Michigan Medical Center - Midland, MI
Kirtland Community College - Roscommon, MI
North Central Michigan College - Petoskey, MI
Jackson College - Jackson, MI
Oakland Community College-Auburn Hills - Auburn Hills, MI
Baker College of Cadillac - Cadillac, MI
Lansing Area Paramedic Education Consortium - Mason, MI
Medic 1 Community Emergency Services - Benton Harbor, MI
Michigan Academy of Emergency Services-Division of Dorsey Schools, Inc. - New Boston, MI
Mayo School of Health Sciences - Rochester, MN

MO - Missouri

Boone County Fire Protection District - Columbia, MO
Central Jackson County Fire Protection District - Blue Springs, MO
Excelsior Springs Area Career Center & Liberty Hospital Consortium for Paramedic Education - Excelsior Springs, MO
Jefferson College - Hillsboro, MO
Kirksville Area Technical Center - Kirksville, MO
Pike Lincoln Technical Center - Eolia, MO
University of Missouri-Kansas City School of Medicine - Kansas City, MO
Hillyard Technical Center - St. Joseph, MO
Mercy Hospital Springfield - Springfield, MO
Three Rivers College - Poplar Bluff, MO

MS - Mississippi

Coahoma Community College - Clarksdale, MS

NC - North Carolina

Caldwell Community College & Technical Institute - Hudson, NC

Central Carolina Community College-Sanford - Sanford, NC

Coastal Carolina Community College - Jacksonville, NC

Davidson County Community College - Thomasville, NC

Durham Technical Community College - Hillsborough, NC

Fayetteville Technical Community College - Fayetteville, NC

Pitt Community College - Greenville, NC

Sandhills Community College - Pinehurst, NC

Tri-County Community College - Murphy, NC

Rockingham Community College - Wentworth, NC

Lenoir Community College - Kinston, NC

North Carolina State University - Raleigh, NC

Cleveland Community College - Shelby, NC

Western Piedmont Community College - Morgantown, NC

Central Piedmont CC/Carolina Medical Center Consortium - Charlotte, NC

Stanly Community College - Albemarle, NC

Coastal Carolina Community College - Jacksonville, NC

ND - North Dakota

Dakota College at Bottineau - Minot, ND

NJ - New Jersey

Bergen Community College - Paramus, NJ

Union County College - Elizabeth, NJ

Virtua West Jersey Health System, Inc - Blackwood, NJ

NM - New Mexico

San Juan College - Farmington, NM

Santa Fe Community College - Santa Fe, NM

NV - Nevada

Las Vegas Academy for Prehospital Emergency Care-Las Vegas Campus - Las Vegas, NV

NY - New York

Arnot Ogden Medical Center - Elmira, NY

Stony Brook University - Stony Brook, NY

SUNY Rockland Community College - Suffern, NY

Westchester Community College - Valhalla, NY

Suffolk County Community College - Selden, NY

North Shore-LIJ Health System Center for Learning and Innovation-Emergency Medical Institute - Lake Success, NY

Jefferson Community College - Watertown, NY

LaGuardia Community College - Long Island City, NY

Kingsborough Community College - Brooklyn, NY

OH - Ohio

Auburn Career Center - Concord, OH

Central Ohio Technical College - Pataskala, OH

Cincinnati State Technical Community College - Cincinnati, OH

Columbus Div of Fire - Columbus, OH

EHOVE Adult Career Center - Milan, OH

Emergency Training Academy of Southern Ohio/The Career Center Paramedic Consortium - Belpre, OH

Hocking College - Nelsonville, OH

Mercy College of Ohio - Toledo, OH

Mid-East Career and Technology Center - Zanesville, OH

Parma Community General Hospital - Parma, OH

UH Conneaut Medical Center - Conneaut, OH

UH Geauga Medical Center - Chardon, OH

University of Toledo - Toledo, OH

Lakeland Community College - Kirtland, OH

Pickaway-Ross County Joint Vocational School District. - Chillicothe, OH

TriRivers Career Ctr/Marion Gen Hosp Sch - Marion, OH

Cincinnati Fire Dept EMS Program - Cincinnati, OH

Collins Career Center-Chesapeake - Chesapeake, OH

Stark State College - North Canton, OH

Lorain County Community College - Elyria, OH

Butler Tech - Hamilton, OH

Eastern Gateway Community College - Steubenville, OH

OK - Oklahoma

Cherokee Nation EMS - Tahlequah, OK

PA - Pennsylvania

EmergyCare-UPMC-CEM Paramedic Training Consortium - Erie, PA

Good Fellowship Ambulance & EMS Training Institute - West Chester, PA

McCann School of Business and Technology-Hazleton - Hazle Township, PA

Mutual Aid Training Institute Consortia - Greensburg, PA

Penn State Fayette - Lemont Furnace, PA

Citizens Ambulance Service Training Institute - Indiana, PA

Lackawanna College - Scranton, PA

RI - Rhode Island

New England Paramedic Education Consortium - Johnston, RI

The Roger Williams University/American Safety Programs & Training Inc Consortium for Paramedic - Providence, RI

Educational Resource Group, LLC/SKEMS Consortium for Paramedic Education - East Providence, RI

SC - South Carolina

Aiken Technical College - Aiken, SC

Pee Dee Regional Medical Center EMS - Florence, SC

Spartanburg Community College - Spartanburg, SC
Upstate EMS Council - Greenville, SC
LowCountry Regional EMS Council - North Charleston, SC
TN - Tennessee
Motlow State Community College - Fayetteville, TN
TX - Texas
Abilene Fire Department - Abilene, TX
Alvin Community College - Alvin, TX
Cypress Creek EMS - Spring, TX
EMTS Academy and St David's Round Rock Medical Center Paramedic Program Consortium - Austin, TX
Kilgore College - Longview, TX
Lamar Institute of Technology - Beaumont, TX
Laredo Community College - Laredo, TX
McLennan Community College - Waco, TX
Northeast Texas Community College - Mt. Pleasant, TX
EMTS/Arlington Career Institute Consortium - Richardson, TX
Laredo Fire Department - Laredo, TX
Life EMS Academy/El Pase ESD 2 Consortium - El Paso, TX
Del Mar College - Corpus Christi, TX
Vernon College - Vernon, TX
Texas Southmost College - Brownsville, TX
El Paso Fire Department - El Paso, TX
Texarkana College - Texarkana, TX
Texas State Technical College-Harlingen - Harlingen, TX
Prince William County Dept of Fire & Rescue - Nokesville, VA
Rappahannock Community College - Glenss, VA
VT - Vermont
Vermont Technical College - Bennington, VT

St. Luke's Rehabilitation Institute - Spokane, WA

University of Wisconsin Hospitals & Clinics - Madison, WI

BridgeValley Community and Technical College - South Charleston, WV

Appendix D

Youngstown State University's Institutional Review Board

Approval Protocol#134-15

March 12, 2015

Dr. Charles Vergon, Principal Investigator
Dr. John Hazy, Co-investigator
Ms. Cornelia Bryan, Co-investigator
Department of Educational Foundations, Research, Technology & Leadership
UNIVERSITY

RE: HSRC Protocol Number: 134-2015
Title: The Career Success of Paramedic Program Directors


Dear Drs. Vergon and Hazy and Ms. Bryan:

The Institutional Review Board has reviewed the abovementioned protocol and determined that it is exempt from full committee review based on a DHHS Category 3 exemption.

Any changes in your research activity should be promptly reported to the Institutional Review Board and may not be initiated without IRB approval except where necessary to eliminate hazard to human subjects. Any unanticipated problems involving risks to subjects should also be promptly reported to the IRB.

The IRB would like to extend its best wishes to you in the conduct of this study.

Sincerely,


Dr. Scott C. Martin
Interim Associate Dean for Research
Authorized Institutional Official

SCM:cc

c: Dr. Mary Lou DiPillo, Chair
Department of Educational Foundations, Research, Technology & Leadership

Appendix E

Survey Instrument

Paramedic Director Career Success Survey

Introduction

Please complete this 33 question survey. Your response is important to advancing our profession and will help me complete my dissertation. The topics cover your paramedic program and a general profile of you. Thank you in advance!

Paramedic Director Career Success Survey

Section 1: Program Information

1. In what type of organization is your program located?

- 4 year college or university
- Community college
- Hospital
- Fire department/ City or County EMS
- Consortia
- Other (please specify)

2. What type of degree is offered by your program? (Check all that apply)

- Diploma
- Certificate
- Associates
- Bachelors
- Other (please specify)

3. What is the total number of paramedic students currently enrolled in your paramedic program?

- Less than 10
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- More than 100

Paramedic Director Career Success Survey

4. Is your education program currently nationally accredited by CoAEMSP/CAAHEP?

- Yes, we are currently accredited.
- No, we have a letter of review, but are not fully accredited yet.
- Other (please specify)

Paramedic Director Career Success Survey

Section 2: Professional Information

5. Please describe in your own words why you became a paramedic program director.

6. How long have you been a paramedic program director?

of years

7. Including this program, for how many programs have you been the program director?

of programs

8. Which of the following best describes how you obtained your current position as program director?

- By appointment from inside the organization
- Recruited from within the organization
- Recruited from outside the organization

9. How is your current position classified?

- Full-time faculty (tenured)
- Full-time faculty (tenure track)
- Full-time faculty (non-tenure track)
- Part-time faculty
- Other (please specify)

10. What is your current rank?

- Full professor
- Associate professor
- Assistant professor
- Instructor
- Other (please specify)

Paramedic Director Career Success Survey

11. How many years of experience have you had in each of the following prior to becoming a paramedic program director?

Paramedic	<input type="text"/>
Paramedic instructor	<input type="text"/>
Other EMS related instructor	<input type="text"/>
Administrator/ Manager	<input type="text"/>
Military medic	<input type="text"/>

12. On average, how many hours per week do you spend completing all of your duties as the program director?

- Less than 30
- 30- 40
- 41- 50
- More than 50

13. As program director, what percentage of your time do you dedicate to the following activities?

(Answers should total 100%)

Administration	<input type="text"/>
Instruction	<input type="text"/>
Scholarship	<input type="text"/>
Service	<input type="text"/>

14. In your current position as program director, how much formal education/training did you receive from your organization in:

	None	A little	Some	Quite a bit	Very much
Administration (e.g. general policies and procedures, HR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedagogy or Andragogy (e.g. teaching, instruction)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scholarship (e.g. research, grants)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service (e.g. institutional plans, goals, missions, outreach)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mentorship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Distance Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Paramedic Director Career Success Survey

15. Please indicate the extent to which you agree or disagree with the following statements.

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
I am satisfied with the success I have achieved in my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the progress I have made toward meeting my overall career goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the progress I have made toward meeting my goals for income.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the progress I have made toward meeting my goals for advancement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the progress I have made toward meeting my goals for the development of new skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Overall, with respect to your current position as program director, how satisfied are you?

- Very satisfied
- Somewhat satisfied
- A little satisfied
- Not at all satisfied

Paramedic Director Career Success Survey

17. What barriers/challenges have you experienced in achieving your career success?

18. How did you overcome the barriers/challenges?

19. What is your formula for career success?

Paramedic Director Career Success Survey

20. What is your current total yearly salary as a paramedic program director?

- Less than \$25,000
- \$25,001- \$35,000
- \$35,001- \$45,000
- \$45,001- \$55,000
- \$55,001- \$65,000
- \$65,001- \$75,000
- \$75,001- \$85,000
- \$85,001- \$95,000
- More than \$95,000

21. What was the salary of your last position prior to becoming the program director?

- Lower than the current salary
- Same as the current salary
- Higher than the current salary

22. Have you been promoted since becoming the program director?

- No
- Yes. Please specify how many times and to what position(s) and/or rank(s).

23. What is the likelihood of your leaving your present position in the next twelve months?

- Definitely stay
- Probably stay
- Probably leave
- Definitely leave

24. What is the likelihood of your leaving the EMS profession in the next twelve months?

- Definitely stay
- Probably stay
- Probably leave
- Definitely leave

Paramedic Director Career Success Survey

Section 3: Demographic Information

25. What is your gender?

- Male
- Female

26. With which of the following do you best identify?

- American Indian/ Alaskan Native
- Asian/ Pacific Islander
- Black/ Non-Latino
- Latino
- White/ Non-Latino
- Other (please specify)

27. What is your age in years?

- Less than 20
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70 or older

28. What is your marital status?

- Married
- Single
- Divorced
- Widowed

Paramedic Director Career Success Survey

29. Please indicate the type of paramedic program that you completed.

- Diploma
- Certificate program
- Associate's degree program
- Bachelor's degree program
- Other (please specify)

30. Specify the Field of Study for each of the degrees that you have earned.

Associate's degree	<input type="text"/>
Bachelor's degree	<input type="text"/>
Master's degree	<input type="text"/>
Doctorate degree	<input type="text"/>

31. Are you currently working toward an academic degree?

- No
- Yes

Paramedic Director Career Success Survey

32. Specify the Field of Study for each of the degrees that you are pursuing.

Associate's degree	<input type="text"/>
Bachelor's degree	<input type="text"/>
Master's degree	<input type="text"/>
Doctorate degree	<input type="text"/>

33. What is the highest level of education attained by either of your parents?

- High school or less
- Some college
- College
- Graduate degree/ professional
- Unknown

Paramedic Director Career Success Survey

Thank you for your valuable time in completing this survey.

APPENDIX F

Pre-Notification E-mail Request

Pre-Notification E-mail Request

Dear [Program Director]:

Paramedic Program Directors such as you play a critical role in overseeing the quality of education provided to EMS professionals. Yet, there is little research on paramedic program directors and the factors that contribute to their success. My name is Cornelia Bryan and I am a paramedic and EMS educator currently pursuing my doctorate in Educational Leadership at Youngstown State University. Since you are the paramedic program director at your institution, your perceptions and input as to your personal success in this position is important to my dissertation, but more importantly to the future of the profession.

Within the next few days, you will be receiving an e-mail request to complete a brief survey. I would appreciate if you would take time to complete the survey when it arrives. As an educational leader, your personal knowledge and experiences are vital to the present and future success of the EMS profession. I hope that you choose to assist me and the profession to better understand the factors that lead to career success of individuals in your position.

Thank you,

Cornelia Bryan, M.H.H.S., NRP

Youngstown State University

APPENDIX G

Cover Letter

Cover Letter

March 16, 2015

Dear Program Director,

As a paramedic program director, you are responsible for the oversight and quality of the education provided to many EMS professionals. The additional roles and responsibilities assigned to you surpass those of a typical EMS educator and not everyone is capable of achieving success in your position. As a paramedic and EMS educator, I have contemplated what to do professionally after my graduation and I have considered becoming a paramedic program director. It is based on that premise that I began to question what factors make a paramedic program director achieve their career success and subsequently derived that topic for my doctoral dissertation. Knowing how you along with other paramedic program directors have achieved your career success is important to me and is valuable to the professional growth of our field.

This survey gives you the unique opportunity to express how you have achieved success, the barriers you have faced and overcome to achieve it, and allows you to make suggestions that could help others achieve success and in turn advance the profession. There are no foreseeable risks associated with your participation. The survey contains 33 questions and should take you less than 15 minutes to complete.

Please be assured that this survey is confidential and has been approved by the Institutional Review Board at Youngstown State University. The results of this study will be published, but all information that could personally identify you will be removed. Your participation is voluntary and, of course, can be discontinued at any time without negative consequence. Your participation will be sincerely appreciated. If you have any questions about this study, please contact my dissertations advisors Dr. Charles Vergon (330-941-1574, cbvergon@ysu.edu) and Dr. John Hazy (330-941-1789, jmhazy@ysu.edu) . If you have questions about your rights as a participant in a research project, you may contact Dr. Edward Orona, Director of Grants and Sponsored Programs at YSU (330)-941-2377 or at eorona@ysu.edu.

Thank you for your participation. It is greatly appreciated.

Please click on the following link to begin this survey. By doing so, you indicate your consent and verify that you are over the age of 18. This link is uniquely tied to this survey and your email address, so please do not forward this message.

<https://www.surveymonkey.com/s.aspx>

Sincerely,

Cornelia Bryan, M.H.H.S., NRP
Youngstown State University

Please note: If you do not wish to participate, please click the link below and you will be automatically removed from the study.

<https://www.surveymonkey.com/optout.aspx>

Appendix H
Reminder Notification

Reminder Notification

March 19, 2015

Dear Program Director,

As a paramedic program director, you are responsible for the oversight and quality of the education provided to many EMS professionals. The additional roles and responsibilities assigned to you surpass those of a typical EMS educator and not everyone is capable of achieving success in your position. As a paramedic and EMS educator, I have contemplated what to do professionally after my graduation and I have considered becoming a paramedic program director. It is based on that premise that I began to question what factors make a paramedic program director achieve their career success and subsequently derived that topic for my doctoral dissertation. Knowing how you along with other paramedic program directors have achieved your career success is important to me and is valuable to the professional growth of our field.

This survey gives you the unique opportunity to express how you have achieved success, the barriers you have faced and overcome to achieve it, and allows you to make suggestions that could help others achieve success and in turn advance the profession. There are no foreseeable risks associated with your participation. The survey contains 33 questions and should take you less than 15 minutes to complete.

Please be assured that this survey is confidential and has been approved by the Institutional Review Board at Youngstown State University. The results of this study will be published, but all information that could personally identify you will be removed. Your participation is voluntary and, of course, can be discontinued at any time without negative consequence. Your participation will be sincerely appreciated. If you have any questions about this study, please contact my dissertations advisors Dr. Charles Vergon (330-941-1574, cbvergon@ysu.edu) and Dr. John Hazy (330-941-1789, jmhazy@ysu.edu). If you have questions about your rights as a participant in a research project, you may contact Dr. Edward Orona, Director of Grants and Sponsored Programs at YSU (330)-941-2377 or at eorona@ysu.edu.

Thank you for your participation. It is greatly appreciated.

Please click on the following link to begin this survey. By doing so, you indicate your consent and verify that you are over the age of 18. This link is uniquely tied to this survey and your email address, so please do not forward this message.

<https://www.surveymonkey.com/s.aspx>

Sincerely,

Cornelia Bryan, M.H.H.S., NRP
Youngstown State University

Please note: If you do not wish to participate, please click the link below and you will be automatically removed from the study.

<https://www.surveymonkey.com/optout.aspx>

Appendix I

Codebook

Codebook

Variable	Question	Coded	Re-coded
Human Capital			
Number of hours worked	12	1= less than 30, 2= 30 to 40, 3= 41 to 50, 4= more than 50	0= 40 or less, 1= more than 40
Number of years as a program director	6	Continuous variable	0= less than 5, 1= 5 or more
Number of years of experience	11	Total number of years of experience summed from the following: Paramedic Paramedic instructor Other EMS related instructor Administrator/ Manager Military Medic (all continuous)	0= less than 35, 1= 35 or more
Highest degree held	30	1= Associate's degree, 2= Bachelor's degree, 3= Master's degree or 4= Doctorate degree	0= undergraduate degree or 1= graduate degree
Pursuit of an academic degree	31	1= no and 2= yes	0= no and 1= yes
Rank	10	1= full professor, 2= associate professor, 3= assistant professor, 4= instructor, 5= director/coordinator, 6= dean/ administration/manager, or 7= other	0= not full professor/dean/administrator, 1= full professor/dean/administrator
Position/ tenure	9	1= full-time faculty (tenured), 2= full-time faculty (tenure track), 3= full-time faculty (non-tenure track), 4=	0= not-tenured position, 1= tenured or tenure track position

part-time faculty, 5=
full-time (other)

Sociodemographic

Status

Gender	25	1= male, 2=female	0= male, 1= female
Ethnicity	26	1= American Indian/Alaskan Native, 2= Black/ Non-Latino, 3= Asian/Pacific Islander, 4= Latino, 5=White/ Non-Latino, 6= Other	0= White/ Non-Latino, 2= Minority
Age	27	1= Less than 20 years, 2=20 to 29 years, 3=30 to 39 years, 4=40 to 49 years, 5=50 to 59 years, 6=60 to 69 years, 7=70 years or older	0= less than 50, 1= 50 or older
Marital Status	28	1= married, 2= single, 3=divorced, 4=widowed	0= married, 1= not married
Parental Education Level	33	1= high school, 2= some college, 3= college, 4= graduate degree/ professional, or 5= unknown.	0= no college degree, 1= college degree

Organizational Sponsorship

Type of organization	1	1= 4 year college or university, 2= community college, 3= hospital, 4= fire department/ city or county EMS, 5= consortia, 6=Technical	0= 4 year college or university, 1= other
----------------------	---	---	---

		School/career center, 7= other	
Type of degree	2	1= diploma, 2= certificate, 3= associates, 4= bachelors	0= diploma/certificate, 1= associates/ bachelors
Size of the program	3	1= less than 10, 2= 11 to 20, 3= 21 to 31, 4=31 to 40, 5= 41 to 50, 6= more than 50	0= 20 or less, 1= more than 20
Accreditation status	4	1= yes, we are currently accredited, 2= no, we have a letter of review but are not fully accredited yet or 3= other	0= accredited, 1= not fully accredited
How position was obtained	8	1= by appointment from inside the organization, 2= recruited from within the organization, 3= recruited from outside the organization	0= from within the organization, 1= from outside the organization
Formal training/education received	14	Sum of the following areas: Administration Pedagogy or andragogy Scholarship Service Mentorship Distance education (all 1= none, 2= a little, 3= some, 4= quite a bit, 5= very much)	0= not much (18 or less), 1= a lot (19 or more)

**Stable Individual
Differences**

Barriers to achieving success	17	1= institutional/ organizational, 2= personal, 3=lack of understanding/ lack of support, 4= discrimination, 5= professional roles/ responsibilities, 6= work/life balance, 7= other	not re-coded
Overcome the barriers	18	1= education, 2= have not been able to , 3= time management, 4= hard work/persistence, 5=help from others, 6= other	0= hard work/ persistence 1= other
Formula for career success	19	1= openness (inventive/curious), 2= Conscientiousness (efficient, hardworking, organized, goal oriented), 3= extraversion talkative, social, outgoing), 4= agreeableness (nice, friendly, trusting, good natured), 5= neuroticism (nervous, anxiety), 6= proactive personality, 7= other	0= conscientiousness or proactive personality, 1= other
Why you became a program director	5	1= passion for teaching and EMS, 2= advance the profession, 3= necessity, 4= career advancement, 5= challenge, 6= other	not re-coded

Objective Career Success

Pay	20	1= less than \$45,000, 2= \$45,001 to \$55,000, 3= \$55,001 to \$65,000, 4= \$65,001 to \$75,000, 5= \$75,001 to \$85,000, 6= more than \$85,000	0= \$65,000 or less, 1= more than \$65,000
Salary of last position	21	1= lower than the current salary, 2= same as the current salary, 3= higher than the current salary	0= lower than the current position, 1= same or higher than the current position
Number of programs directed	7	Continuous variable	0=1 program and 1= more than 1 program
Promotions	22	1= no, 2= yes	0= no and 1= yes
Subjective Career Success			
Career Satisfaction	15	Greenhaus et al. (1990) composite score of the following: I am satisfied with the success I have achieved in my career I am satisfied with the progress I have made toward meeting my overall career goals I am satisfied with the progress I have made toward meeting my goals for income I am satisfied with the progress I have made toward meeting my goals for advancement I am satisfied with the progress I have made toward meeting my goals for the	0= high satisfaction (16 or more) and 1= low satisfaction (less than 16).

development of new skills
 (all 1= Strongly Agree, 2= Agree, 3= Neutral, 4= Disagree, 5= Strongly Disagree)

Overall Career Satisfaction 16 1= Very satisfied, 2= Somewhat satisfied, 3=A little satisfied, 4= Not at all satisfied 0= high satisfaction, 1= low satisfaction.

Career Outcomes

Intent to leave the position	23	1= definitely stay, 2= probably stay, 3= probably leave, 4= definitely leave	0= intend to stay, 1=intend to leave
Intent to leave the EMS profession	24	1= definitely stay, 2= probably stay, 3= probably leave, 4= definitely leave	0= intend to stay, 1=intend to leave

Appendix J
Demographic Characteristics

Table 93. *Demographic Characteristics*

Factor	<i>f</i>	%
<i>Gender</i>		
Male	223	65
Female	113	32.9
Chose not to answer	7	2.0
<i>Ethnicity</i>		
American Indian/ Alaskan Native	5	1.5
Asian/ Pacific Islander	2	0.6
Black/ Non-Latino	3	0.9
Latino	7	2.0
White/ Non-Latino	317	92.4
Other	4	1.2
Chose not to answer	5	1.5
<i>Age</i>		
20-29	4	1.2
30-39	48	14
40-49	119	34.7
50-59	126	36.7
60-69	41	12
70 or older	2	0.6
Chose not to answer	3	0.9
<i>Marital status</i>		
Married	262	76.4
Single	37	10.8
Divorced	38	11.1
Widowed	3	0.9
Chose not to answer	3	0.9
<i>Level of Education</i>		
Associate's degree	1	0.3
Bachelor's degree	147	42.9
Master's degree	164	47.8
Doctorate degree	26	7.6
Chose not to answer	5	1.5
<i>Parents' Highest Level of education</i>		
High school or less	108	31.5
Some college	86	25.1
College	78	22.7
Graduate degree/ professional	66	19.2
Unknown	1	0.3
Chose not to answer	4	1.2

Appendix K
Job Related Characteristics

Table 94. *Summary of job-related characteristics*

Factor	<i>f</i>	%
<i>Type of Organization</i>		
4 year college or university	38	11.1
Community college	203	59.2
Hospital	32	9.3
Fire department/ City or County EMS	13	3.8
Consortia	17	5.0
Technical School/ Career center	23	6.7
Other	17	5.0
<i>Hours worked per week</i>		
Less than 30	65	19
30- 40	88	25.7
40- 50	113	32.9
More than 50	75	21.9
Chose not to answer	2	0.6
<i>Current Yearly Salary as Program Director</i>		
Less than \$45,000	46	13.4
\$45,001- \$55,000	45	13.1
\$55,001- \$65,000	79	23.0
\$65,001- \$75,000	69	20.1
\$75,001- \$85,000	37	10.8
More than \$85,000	60	17.5
Chose not to answer	7	2.0
<i>Classification of position</i>		
Full-time faculty (tenured)	88	25.7
Full-time faculty (tenure track)	33	9.6
Full-time faculty (non-tenure track)	131	38.2
Full-time faculty (other)	58	16.9
Part-time faculty	28	8.2
Other	5	1.5
<i>Rank</i>		
Full professor	46	13.4
Associate professor	51	14.9
Assistant professor	40	11.7
Instructor	94	27.4
Director/Coordinator	51	14.9
Dean/ Administrator/Manager	31	9.0
Other	29	8.5
Chose not to answer	1	0.3

Table 94. Summary of job-related characteristics continued

Factor	<i>f</i>	%
<i>Experience as a Paramedic</i>		
None	17	5.0
1 to 10 years	94	27.3
11 to 20 years	121	35.2
21 to 30 years	79	23.1
More than 30 years	30	8.8
<i>Experience as a Paramedic Instructor</i>		
None	33	9.6
1 to 10 years	184	53.5
11 to 20 years	76	22.2
21 to 30 years	43	12.7
More than 30 years	6	1.8
<i>Experience as an Other EMS Instructor</i>		
None	90	26.2
1 to 10 years	118	34.3
11 to 20 years	73	21.1
21 to 30 years	45	13.3
More than 30 years	16	4.8
<i>Experience as an Administrator/ Manager</i>		
None	101	29.4
1 to 10 years	159	46.3
11 to 20 years	54	15.9
21 to 30 years	23	6.8
More than 30 years	5	1.5
<i>Military Medic</i>		
None	319	93
1 to 10 years	18	5.4
11 to 20 years	5	1.5
21 to 30 years	1	0.3
More than 30 years	0	0.0

Appendix L

Summary of Major Findings

Summary of major findings that were important

Human capital variables and objective career success:

- A weak positive statistically significant relationship was found between the number of years as a program director and the number of programs directed ($r = .22, p < .01$).
- A weak negative statistically significant relationship was identified between the number of years as a program director and the salary of the last position ($r = -.27, p < .01$).
- Weak positive statistically significant relationships existed between the highest degree held and pay ($r = .25, p < .01$) and promotions ($r = .21, p < .01$).

Sociodemographic variables and objective career success:

- Only negligible relationships were found.

Stable individual differences and subjective career success:

- Only negligible relationships were found

Organizational sponsorship and subjective career success:

- A weak slightly negative statistically significant relationship between formal training and education received and the career satisfaction (CSS) was found.

Objective career success and career outcomes:

- Only negligible relationships were found

Subjective career success and career outcomes:

- A negative moderate statistically significant relationship was shown to exist between overall career satisfaction and the intent to leave the position.

Appendix M

Themes that Emerged from Qualitative Analysis

Themes that Emerged from the Qualitative Analysis

Themes for Barrier/ Challenges (n= 302)

Institutional/ organizational (23.6%, n= 81)
Professional roles/responsibilities (14.9%, n= 51)
Lack of understanding/ lack of support (11.4%, n= 39)
Personal (10.5%, n= 36)
Work/ life balance (7.3%, n= 25)
Discrimination (5.8%, n= 20)
Other (14.6%, n= 50)

Themes for How the Barriers/ Challenges were Overcome (n= 298)

Have not been able to (20.8%, n= 62)
Help from others (17.8%, n= 53)
Education (15.1%, n= 45)
Hard work/ persistence (13.1%, n= 39)
Time management (8.7%, n= 26)
Other (24.5%, n= 73)

Themes for Formula for Success (n= 298)

Agreeableness- nice friendly, trusting, good natured (12.8%, n=30)
Openness- inventive/curious (8.1%, n= 24)
Conscientiousness- efficient, hardworking, organized, goal oriented (30.2%, n= 90)
Extraversion- talkative, social, outgoing (9.1%, n= 27)
Agreeableness- nice, friendly, trusting, good natured (14.8%, n= 44)
Neuroticism- nervous, anxiety (3.4%, n= 10)
Proactive personality (13.8%, n= 41)
Other (20.8%, n= 62)

Themes for Motivation (n= 325)

Necessity (director left, need, appointment, asked) (25%, n= 82)
Advance the profession (EMS, education, program) (24%, n= 77)
Passion for teaching and EMS (17%, n= 56)
Career Advancement (career progression, leadership) (15%, n= 48)
Challenge (5%, n= 16)
Other (14%, n= 46)