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The Social Impact of Public Safety Exploring

A Dissertation Submitted in Partial Fulfillment of the
Requirements for the Degree
Doctor of Public Administration

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The Social Impact of Public Safety Exploring

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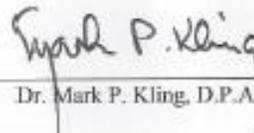
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ABSTRACT

The Social Impact of Exploring Career Education Program

by Brian W. Guzzetta, DPA

Purpose. The purpose of this quantitative research study was to investigate the potential social impact that offering early public safety education had on a community. Utilizing Learning for Life’s national membership, data were collected comparing individuals who participated in Fire & Emergency Services (EMS) and Law Enforcement Career Exploring Programs to those who had not. By looking beyond the perceived benefits and focusing on the quantifiable results of program participation, an explicit representation of the social impact is identified.

Theoretical Framework. The theoretical framework of this research was anchored on empowerment theory. This theory indicates that by empowering individuals through a helping system, proactive behaviors will result in social change. As applied to the present study, this theory holds that the researcher would expect that participation in an early public safety education program to influence or explain the proactive behaviors that create social impact.

Methodology. This study employed a nonexperimental, quantitative research design to examine the benefits of empowering young adults with early public safety education. To test a series of assumptions regarding the prosocial effects of participating in Fire & EMS and Law Enforcement Career Exploring Programs, data collected by Learning for Life were analyzed. A series of statistical analyses were conducted to see whether two groups of survey respondents—former Explorers and non-Explorers differ in their responses to

questions categorized as career opportunities, leadership experience, life skills, citizenship, and character education.

Findings. Examination of the quantitative research data revealed a statistically significant relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and prosocial behavior. Specifically, the data indicated that young adults between the ages of 23-28 who had participated in a Public Safety Exploring Program for at least 1 year had experienced enhanced career opportunities, leadership experience, life skills, citizenship, and character education compared to similar individuals who had not participated in an Exploring Program.

Conclusions. This study adds to the body of knowledge by combining quantitative supporting data to the established preconceived benefits of early public safety education. It also confirms the impact of programs that create social change through individual empowerment.

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DEDICATION

This research is dedicated to my loving wife Jami, daughter Gracie, and son Max, family, friends, and coworkers who have believed in my accomplishments, sacrificed quality time, and celebrated my successes through this unforgettable journey. You all have a special place in my heart.

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CHAPTER I: INTRODUCTION

Nearly every community nationally offers some sort of early public safety education program geared toward future careers in the fire service and law enforcement. In 2015, Learning for Life's Exploring Program was the program of choice for 4,922 communities, reaching 110,445 young adults throughout the United States (Learning for Life, 2015). Often, these communities commend the benefit of supporting these programs, focusing on the resulting development of career, character, citizenship, life skills, and leadership experience. While these programs are often considered beneficial, a real understanding of the social impact of offering these programs has yet to be answered.

Numerous conceptual and empirical studies have examined factors that purportedly influence a citizen's social impact. In the field of public administration, a number of these studies have focused on the effect that empowerment has on the economy and society (Cho & De Moya, 2016; Kernaghan, 2008; Kieffer, 1984; Jennings, Parra-Medina, Hilfinger-Messias, & McLoughlin, 2006; Lee & Koh, 2001). According to Fawcett et al. (1994), empowerment refers to "the process of gaining influence over events and outcomes of importance to an individual or group" (p. 471). A pioneer of empowerment research, Julian Rappaport chronicled in his 1977 book *Community Psychology: Values, Research, and Action* the importance and need for additional studies in the field:

In the future (we) will need to study, experience, and understand the communities . . . the communities and naturally occurring helping systems that evolve in families, neighborhoods, and social networks in which people find meaning in life

and a psychological sense of community. By understanding these systems, we may be able to do more to provide alternatives for those who do not “fit in” than by trying to force such people into the existing limited options developed under professional controls. (Rappaport, 1977, p. viii)

Examining the social impact of early public safety education has a direct connection to many of the challenges facing the modern public administrator. These include: determining the social equity of government-sponsored programs, justifying the expenditure of public funds, utilizing data to drive policymaking, recognizing the social value of nonessential government services, and understanding the importance of empowering individuals with the necessary tools to promote social change. An empowerment value orientation encompasses the belief that people should be provided with the skills, resources, and opportunities to better their quality of life, instead of needing to rely on others to do so (Zimmerman, 2000). With an understanding of the value of empowerment, public administrators have the knowledge necessary to make the critical decisions essential to the profession.

This study employed a nonexperimental, quantitative research design to examine the benefits of empowering young adults with early public safety education. This was accomplished by measuring the social impact of participating in both Fire & Emergency Service (EMS) and Law Enforcement Career Exploring Programs by evaluating the association between program participation and various prosocial behaviors. Within Chapter I, the overview of the study, background, problem, purpose, and research design are identified. The study scope, limitations, delimitations, assumptions, and definitions are also included.

Background of the Problem

In 2015, there were an estimated 3,077,173 public safety professionals in the United States (American Ambulance Association, 2016; Bureau of Justice Statistics, 2016; National Fire Protection Association, 2017). These fire service, law enforcement, and emergency medical service professionals composed nearly 3% of all employment nationally (U.S. Census Bureau, 2014). According to the 2015 U.S. Department of Labor Bureau of Labor Statistics *Occupational Outlook Handbook*, all three of these sectors have historically shown high growth rates with anticipated future demands ranging from 5-24% in the next 10 years (Bureau of Labor Statistics, 2015).

The U.S. Department of Labor, Office of Employment and Training Administration 2016 Executive Summary addressed the importance of school-to-work transition:

Preparing young people for the job market is a critical task for all modern societies. The primary objectives are 1) to give all young people the opportunity to attain their career potential while meeting the demands of the labor market and 2) to minimize the number of youth who experience long-term joblessness or poor career outcomes. Critical to a nation's success in achieving both goals is an effective education and training system for all young people. (U.S. Department of Labor, 2016, p. 1)

Learning for Life, building upon the Department of Labor's findings, assists communities nationally through community-based youth education programs. Learning for Life is a school and worksite-based youth program that is a subsidiary of the Boy Scouts of America. It utilizes programs designed for schools and community-based organizations

that are designed to prepare youth for the complexities of contemporary society and to enhance their self-confidence, motivation, self-esteem, and future career opportunities (Learning for Life, 2015).

Learning for Life's Exploring Program targets young adults 15 to 21 years of age with a vision of shaping the workforce of tomorrow by engaging and mentoring today's youth in career and life-enhancing opportunities (Exploring, 2017b):

Exploring's purpose is to provide experiences to help young people mature and to prepare them to become responsible and caring adults. Explorers are ready to investigate the meaning of interdependence in their personal relationships and communities. Exploring is based on a unique and dynamic relationship between youth and the organizations in their communities. Local community organizations initiate an Explorer post by matching their people and program resources to the interests of young people in the community. The result is a program of activities that helps youth pursue their special interests, grow, and develop. (Exploring, 2017b, p. 1)

Focusing on the future demand for public safety professionals, Exploring's Fire & EMS and Law Enforcement Career Programs provide hands-on programs for young men and women with an interest in learning more about careers in the field of fire or emergency service and law enforcement or related areas in the criminal justice system (Learning for Life, 2015). Understanding the popularity and effectiveness of the Exploring program, youths, adults, and community leaders from across the United States have chosen to support and fund these programs. Often these individuals speak of the

social benefit of supporting these programs, typically focusing on their development of career, character, service, life skills, and leadership experience:

Exploring is a great program that helps me associate the concepts I am learning in high school with practical uses in the real world. —Frank B., Exploring Youth Participant. (Exploring, 2017b)

The program has taught my son to be more efficient and more responsible. Even when it was hard for him to come to class on a Friday evening, he kept at it and made the effort. Hopefully more kids will make use of the opportunity. —Norman Sadsad, Parent. (Exploring, 2017b)

You can actually see young people grow, becoming members of the community as their curiosity is satisfied through Exploring. We attract sharp young people during their formative years. —Hal Shevers, Exploring Adult Volunteer. (Exploring, 2017b)

Exploring is an excellent recruitment tool that allows the department to hire a diverse workforce that is representative of the community they work in. —Tom Roberts, Assistant Sheriff, Las Vegas Metropolitan Police Department. (Exploring, 2017b)

While these programs are often considered beneficial, an explicit understanding of the impact of offering these programs has yet to be answered. This study focused on quantifying the social impact of participating in Exploring's Fire & EMS and Law Enforcement Career Programs.

Statement of the Problem

Nearly every city has some community development program focusing on early public safety education. For young adults interested in a career in public safety, numerous cities utilize Learning for Life's Fire & EMS and Law Enforcement Career Exploring Programs. Exploring exists to teach valuable life and career skills to young people from all backgrounds through immersive career experiences and mentorship provided by community and business leaders. Together, they equip young people with character, leadership, and life skills that can be used both today and in their future careers (Learning for Life, 2015). With over 30,000 current Fire & EMS and Law Enforcement Explorers nationally and over 67,000 former participants that are now of "careerable" age, a clear understanding of the social impact that participating in such programs is necessary for the individuals who participate in them, departments that utilize them, and communities that support them.

Purpose of the Study

The purpose of this quantitative research study was to investigate the potential social impact that offering early public safety education had on a community. Specifically, the study used survey data gathered by Learning for Life in 2018 to identify the relationship between participation in Fire & EMS and Law Enforcement Career Exploring Programs and particular social behaviors. With these data, the social impact that results from offering early public safety education programs within a community can be identified. For this study, prosocial behavior was measured utilizing Exploring's program emphasis based on the five following categories: (a) career opportunities,

(b) leadership experience, (c) life skills, (d) citizenship, and (e) character education (Exploring, 2017b). Per Exploring, these terms are described as

1. Career opportunities – Exploring offers “programs that develop potential contacts that may broaden employment options. Activities that boost a young adult’s self-confidence and help him or her experience success at school and work” (Learning for Life, n.d., p. 1)
2. Leadership experience – Exploring offers “programs that help youth develop leadership skills to fulfill their responsibilities in society. Activities that provide exposure to different leadership traits” (Learning for Life, n.d., p. 2).
3. Life skills – Exploring offers “programs that develop physical and mental fitness. Activities that provide opportunities for youth to experience positive social interaction” (Learning for Life, n.d., p. 2).
4. Citizenship – Exploring provides “programs that encourage youth to develop the skill and desire to help others. Activities that provide opportunities for youth to gain a keen respect for the basic rights of others” (Learning for Life, n.d., p. 2).
5. Character education – Exploring provides “programs that help youth develop skills necessary to make ethical choices. Activities that provide opportunities for fulfilling one’s responsibility to society” (Learning for Life, n.d., p. 3).

A quantitative research study was deemed the most appropriate approach for the study design since the purpose of the study was to explore the relationship between participating in Learning for Life Public Safety Career Exploring Programs and current social behavior, particularly for adults between the ages of 23-28 whom Psychologist Daniel Levinson’s season of life theory categorized as “entering the adult world”

(Levinson & Darrow, 1979). This is the stage in which a person makes more concrete decisions regarding his or her occupation, friendship, values, and lifestyle (Levinson & Darrow, 1979). Whereas a qualitative phenomenological research study may be initially best in an attempt to understand people's perceptions, perspectives, and understanding of a particular situation, a quantitative study was deemed best to provide a clear indicator of the social impact that participating in early public safety education programs can produce so that these programs will be better utilized to maximize their potential in the future.

Significance of the Study

With limited quantifiable data on the benefits of early public safety education programs focusing on young adults, a void exists that requires scholarly research. As public administrators nationally attempt to identify the importance of empowering individuals with the tools necessary to create long-term developmental success, quantifiable data that illustrate these programs' impact are needed.

Empowerment is both a value orientation for working in the community and a theoretical model for understanding the process and consequences of effort to exert control and influence over decisions that affect one's life, organizational functioning, and the quality of community life (Perkins & Zimmerman, 1995; Rappaport, 1981; Zimmerman & Warschausky, 1998). Empowerment is a process that can be set in motion only by the people concerned themselves; community organizations can provide the climate, the relations, the resources and the administrative means that enable people to achieve more control of their lives; in other words, community organizations create empowering environments (Sadan, 1997).

By researching the relationship between empowering young adults through early public safety education and the corresponding social impact, connections can be made to establish the social benefits of these programs. With quantifiable data on the social impact of participating in Fire & EMS and Law Enforcement Career Exploring Programs, a more explicit understanding is available for the individuals who participate in them, departments that utilize them, and communities that support them.

Nature of the Study

The study utilized a quantitative research model since the researcher intended to survey a broad cross-section of participants (Creswell, 2008) and use statistical processes to analyze the results objectively (Kalinowski, Lai, Fidler, & Cummings, 2010; Trusty, 2011). According to Creswell (2009), quantitative research allows the researcher to ask specific questions, collect numeric data, analyze data using statistics, and conduct an unbiased inquiry in an objective manner. Survey data were received from individuals who participated in Fire & EMS Exploring Programs. These data, which measure prosocial behavior have been categorized into five categories: (a) career opportunities, (b) leadership experience, (c) life skills, (d) citizenship, and (e) character education.

The logic behind the structure of this study is based on the lack of quantifiable results on the subject. While numerous outlets speak of the benefit of early public safety education programs, there are limited quantifiable results on how beneficial these programs are. Through measurable data collection, connections between participation and social impact can be determined.

Participants in the study were drawn from Learning for Life's national membership database utilizing a nonprobability sampling design. This comprised

individuals who, for this study, are labeled careerable, that is, individuals who have the following characteristics: (a) adults 23-28 years of age and (b) actively participated in the program for at least 1 year. The rationale behind this survey design was to incorporate individuals who are 5 years out of high school or 1 year out of college who are at a point in their life where based on Levinson's Theory, they are making concrete decisions regarding their occupation, friendships, values, and lifestyles (Levinson & Darrow, 1979).

Overview of the Design Appropriateness

The objectives of this quantitative analysis were to examine the relationship between the independent variable (participation in a public safety Exploring program) and the dependent variables (social indicators) and to determine the statistical significance of the relationship. The researcher selected this method of research for two reasons. The first reason was that research indicated that this type of quantitative analysis illustrating the relationship between participating in Learning for Life's Fire & EMS and Law Enforcement Exploring programs and their potential social impact had not yet been conducted. The second reason was that quantitative methodologies was known to provide rigorous and measurable data, which is a necessary factor in reporting organizational outcomes. Additionally, a quantitative research study was appropriate because it involved the collection of data to determine whether and to what extent an association existed between two quantifiable variables (Gay, 1992).

This project utilized a nonexperimental, quantitative, cross-sectional research design to explore the aspects of this study further. Nachmias-Frankfort and Nachmias (2008) indicated that the cross-sectional design is predominant in social science research.

It is associated with survey research and describing associations and relationships between variables. Nachmias-Frankfort and Nachmias further explained that this research is associated with the property-disposition relationship because the “researcher cannot manipulate the independent variable and make before-and-after comparisons” (p. 117) as found in stimulus-response designs. This study did not include a before-and-after comparison but included a between-groups comparison. Statistical analysis protected internal validity and made a comparison between the different groups in the cross-sectional design.

Research Questions

This study included the following research questions and associated null and alternative hypotheses. These questions and hypotheses include the independent and dependent variables for the comparison.

1. Research Question 1 (RQ1) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities?

H₀₁: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

H_{a1}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

2. Research Question 2 (RQ2) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience?

H₀₂: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

H_{a2}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

3. Research Question 3 (RQ3) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills?

H₀₃: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

H_{a3}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

4. Research Question 4 (RQ4) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship?

H₀₄: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

H_{a4}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

5. Research Question 5 (RQ5) What is the relationship between participating in Fire & EMS and Law Enforcement Exploring Career Programs and character education?

H₀₅: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

H_{a5}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

Theoretical Construct

The theoretical framework of this study focused on analyzing the social impact of individuals who were empowered by Learning for Life's community education Exploring

program. According to Fawcett et al. (1994), empowerment refers to “the process of gaining influence over events and outcomes of importance to an individual or group” (p. 471). Embedded within this definition is the assumption that empowerment can mean different things to different people or groups (Rappaport, 1984; Zimmerman, 1995). Empowerment theory research, practice, and instruction occur in multiple scholarly disciplines including but not limited to sociology, psychology, political science, business, and public administration. Jennings et al. (2006), defined empowerment as “individuals, families, organizations, and communities gaining control and mastery, within the social, economic, and political context of their lives, to improve equity and quality of life” (p. 32). According to Peterson (2006), empowerment was first introduced to the field of community psychology by Rappaport (1981). Peterson (2006) suggested that empowerment has become a cornerstone in prevention science and has extended the reach of community psychology to other disciplines such as social work (Itzhaky, 2003), public health (Koelen & Lindstrom, 2005; Minkler, 2004), as well as to community practice (Holden, Evans, Hinnant, & Messeri, 2005, p. 274).

Empowerment is based on a process of change (Cornell Empowerment Group, 1989). McClelland (1975) suggested that for people to take power, they need to gain information about themselves and their environment and be willing to identify and work with others for change. Whitmore (1988) defined this concept as “an interactive process through which people experience personal and social change, enabling them to take action to achieve influence over the organizations and institutions which affect their lives and the communities in which they live” (p. 13).

Building upon the concepts of those previously indicated, empowerment theory is a construct that links individual strengths and competencies, natural helping systems, and proactive behaviors to social policy and social change (Rappaport, 1981, 1984). Figure 1 illustrates the connection.



Figure 1. Rappaport’s empowerment model. Adapted from “In Praise of Paradox: A Social Policy of Empowerment Over Prevention,” by J. Rappaport, 1981, *American Journal of Community Psychology*, 9(1), 1-25; “Studies in Empowerment: Introduction to the Issue,” by J. Rappaport, 1984, *Prevention in Human Services*, 3(2-3), 1-7, https://oi.org/10.1300/j293v03n02_02

By integrating the researcher’s research design into empowerment theory, the importance of quantifying the social impact of participating in an early public safety education program becomes apparent (Figure 2). By confirming the preconceived benefit of these programs through quantifiable data, my research attempted to validate the importance that these programs have on social impact.



Figure 2. Rappaport’s model applied to public safety exploring programs. *Source:* Author.

Definitions of Terms

The following operational terms are used throughout the study:

Careerable. Individuals who are between the ages of 23-28 who based on their existing knowledge, skills, and abilities are capable of transitioning from a job to a career (term created by author). A career is defined as a chosen pursuit, a profession or occupation. An occupation undertaken for a significant period of a person's life and with opportunities for progress (Merriam-Webster, 1999).

Early public safety education programs. Youth activity programs mostly organized by local public safety organizations. They serve as a means of personal development for youth interested in a career in public safety. Programs include but are not limited to Exploring, Junior Firefighters, Police Cadets, Junior EMS Program, and Youth Police Academy (term created by the author).

Entering the adult world. Psychologist Daniel Levinson developed a comprehensive theory of adult development and referred to as the Seasons of Life theory, which identified stages and growth that occur well into the adult years. Entering the adult world (ages 23-28) is the stage in which a person makes more concrete decisions regarding his or her occupation, friendships, values, and lifestyles (Levinson & Darrow, 1979).

Exploring. Exploring is an innovative, worksite-based program. Exploring is based on a unique and dynamic relationship between youth and their organizations in their community. Local community organizations initiate a specific Explorer post by matching their people and program resources to the interests of young people in the community. The result is a program of activities that help youth pursue their special interest, grow, and develop (Exploring, 2017b)

Learning for Life. Learning for Life is a school- and worksite-based youth program that is a subsidiary of the Boy Scouts of America. It utilizes programs designed for schools and community-based organizations that are designed to prepare youth for the complexities of contemporary society and to enhance their self-confidence, motivation, self-esteem, and future career opportunities (Learning for Life, 2015).

Prosocial behavior. Refers to voluntary actions that benefit other people or society as a whole (Eisenberg & Mussen, 1989).

Public safety. Refers to the welfare and protection of the general public. It is usually expressed as a governmental responsibility. Most states have departments for public safety. The primary goal of the department is prevention and protection of the public from dangers, such as crimes or disasters, that affect safety. In many cases, the public safety division will be comprised of individuals from other organizations, including police, emergency medical services, firefighting, and so forth (USLegal, n.d.)

Public safety exploring. The combination of Learning for Life’s Fire & EMS and Law Enforcement Exploring Programs.

Social impact. A significant, positive change that addresses a pressing social challenge. Having a social impact is the result of a deliberate set of activities (University of Michigan Center for Social Impact, 2017).

Assumptions

Assumptions are concepts that are accepted as truths or “statements about the nature of things that are not observable or testable” (Creswell, 2005, p. 49). There were several assumptions made in the development of this research. First and foremost, this study intended to obtain a better understanding of the social impact that offering early

public safety education has on a community. The researcher acknowledges that some assumptions contributed to the findings and conclusions of this study. Three principle assumptions that guided this study are (a) the subject's responses to Learning for Life surveys were truthful and accurate, (b) the data collection instruments utilized by Learning for Life's research department are valid and reliable based upon their previous use, and (c) that the findings have been evaluated objectively and free from personal biases of the researcher. These assumptions ensure that the conclusions and recommendations generated from this study are reflective of the real environment and occurrences being considered.

Scope and Limitations

The extent of the study was confined to survey responses of two comparison groups totaling 679 former Fire & EMS and Law Enforcement Explorers and non-Explorers self-reporting on various prosocial behaviors. The sampled population in the 2018 Learning for Life Social Impact Survey reached individuals who had participated in Fire & EMS Exploring or Law Enforcement Exploring for at least 1 year and had a current age of between 23 and 28 years of age and a comparison group of non-Explorers of similar ages.

Several limitations were noted during this study. Limitations are potential weaknesses out of the researcher's control (M. K. Simon, 2011). The first limitation was the electronic survey design, which left responses rates to chance. A second limitation, also involving survey design, was the assumption that Learning for Life's past membership contact database was accurate. Another limitation was the quantitative statistical model which can only determine statistical association but not causation. The

final limitation was the fact that participants were being asked to self-report on their own behavior.

Delimitations

This study's boundaries are demarcated by some limits strategically implemented to focus on a specific target population. These delimitations are limits established by the researcher to narrow the scope of the study (M. K. Simon, 2011). In this research project, the sampled population was restricted to individuals who had participated in Fire & EMS Exploring and Law Enforcement Exploring programs for a minimum of 1 year and were currently between the ages of 23 and 28 years of age. While individuals who have been influenced by these programs extend well beyond these constraints, the scope was limited to focus on what has been coined careerable individuals by the researcher. For the sake of this study, the sample population fitting the restrictions mentioned above are referred to as careerable Public Safety Explorers.

Summary

Since the late 1970s, the term *empowerment* has been used liberally by researchers, academics, and practitioners in public administration, social services, social psychology, public health, adult literacy, and community development (B. L. Simon, 1994). The term empowerment means many things to many people. Concepts of power, choice, freedom, authority, autonomy, enablement, and self-determination, however, are common to virtually all definitions. Consensus can, therefore, be found on the idea that empowerment is a multidimensional social process that helps people gain control over their own lives. It is a process that fosters power in people for use in their own lives, their communities, and in their society by acting on issues that they define as important

(Page & Czuba, 1999). In short, empowerment can serve as a mechanism to give an individual the power to create broad-based social change.

Kieffer's (1984) work on personal empowerment is one of the few empirical studies that examined personal empowerment as a process. He labeled empowerment as a developmental process that includes four stages: entry, advancement, incorporation, and commitment. The entry stage appears to be motivated by the participant's experience of some event or condition threatening to the self or family, what Kieffer referred to as an act of "provocation." In the advancement stage, there are three major aspects that are essential to continuing the empowerment process: a mentoring relationship, supportive peer relationships with a collective organization, and the development of a more critical understanding of social and political relations. The central focus of the third stage appears to be the development of a growing political consciousness. Commitment is the final stage—one in which the participants apply the new participatory competence to ever-expanding areas of their lives (Lord & Hutchison, 1993).

However, in spite of the growing popularity of the concept and the studies committed to the examination of the process, explanations regarding the social benefits of empowerment are limited. Therefore, the goal of this quantitative study was to explore the potential social impact that empowering individuals by offering early public safety education had on a community. Chapter II presents the review of the relevant literature related to Learning for Life's Exploring Fire & EMS and Law Enforcement Career Programs. Chapter II also presents relevant literature linking empowerment at the individual and organizational level to community development.

CHAPTER II: REVIEW OF RELATED LITERATURE

This chapter critically reviews several relevant topics addressed in the literature based on the key ideas put forth for exploration by the research questions. According to Padgett (1998), “The literature review shapes the study, prevents reinventing the wheel, and promotes cumulative advances in knowledge” (p. 31). The literature review attempts to provide pertinent background information to the reader, to outline historical significance, to discuss previous research theories that address aspects of this study, and to identify relevant concepts that can inform the data analysis and interpretation process of the research.

The goal of this quantitative research study was to explore the social impact of career development programs. Specifically, this study addressed the importance of empowering young adults by researching the social consequences that participating in an early public safety education program had on a community. This study used survey data gathered by Learning for Life in 2018 to identify the relationship between participation in Fire and EMS and Law Enforcement Career Exploring Programs and particular prosocial behaviors. By quantifying specific social indicators, an explicit representation of the social impact that funding and supporting these programs can be identified, which will assist in objectifying their benefit.

Chapter II presents a view of the available literature on the research problem. This section includes the historical overview of Learning for Life’s Career Exploring Program. Second, the review also presents, defines, and analyzes the concept of empowerment and the practical application of empowerment theory. Finally, the chapter

identifies a gap in research literature related to quantifying the social impact that supporting career development programs had on a community.

Documentation

The review of the literature was drawn from relevant scholarly information published from 1920 to 2018 to generate the fullest dimension of both historical and contemporary literature in the review. The primary areas of research investigated Learning for Life's Career Exploring Program and empowerment theory. Keyword searches of referred journal articles, books, dissertation, professional publications, and website sources were conducted on several online databases, most notably, ProQuest and Google Scholar. Keywords that were used to produce the literature used in this study from the resources include Boy Scouts, Exploring, Learning for Life, community development, early public safety education, social impact, career opportunities, leadership, life skills, citizenship, character education, and empowerment.

Exploring's Boy Scout Origin

The social benefits of modern-day Exploring can be contributed to its rich history as an affiliate of the Boy Scouts of America. According to historians, "the American version of the Boy Scouts has its origins in an event that occurred in London in 1909. Chicago publisher William Boyce was lost in the fog when a Boy Scout came to his aid. After guiding Boyce to his destination, the boy refused a tip, explaining that as a Boy Scout he would not accept payment for doing a good deed. This anonymous gesture inspired Boyce to organize several regional U.S. youth organizations, specifically the Woodcraft Indians and the Sons of Daniel Boone, into the Boy Scouts of America. Incorporated on February 8, 1910, the movement soon spread throughout the country"

(History.com, 2009). Scouting has since grown from 2,000 Boy Scouts and leaders in 1910 to millions strong today. From a program for Boy Scouts only, it has spread into a program including Tiger Cubs, Cub Scouts, Webelos Scouts, Boy Scouts, Varsity Scouts, and Venturers (Boy Scouts of America, 2017).

From the earliest days of Scouting, Exploring's modern-day vision, shaping the workforce of tomorrow by engaging and mentoring today's youth in career and life-enhancing opportunities (Learning for Life, 2015), was the driving force for its original leaders. The first executive officer James E. West, a young man from Washington who had risen above a tragic boyhood and physical disability to become a successful lawyer, dedicated his life to helping all children to have a better life and led the Boy Scouts of America for 32 years as the Chief Scout Executive (1911-1943; Boy Scouts of America, 2017). In the Tenth Annual Report of the Boy Scouts of America, which was delivered to Congress on April 1, 1920, James West outlined numerous issues plaguing his organization that would eventually evolve into the foundation of the current Explorer program nearly a 100 years later.

One of West's original concerns was based on the modern-day and often researched impressionable years hypothesis, which rests on the belief that the social influences individuals experience when they are young have a profound impact on their thinking throughout their life (Cutler, 1974; Dennis, 1973).

The most troublesome period in a boy's life is between the ages of 14-17, and it would add greatly to the value of the Scout program if a larger number of boys could be furnished with a program for their leisure time. (Boy Scouts of America, 1920, p. 52)

West added to this issue by identifying the importance of understanding the theoretical significance of researching youth and the problems they face.

It is the responsibility of those who are in Scouting, not only to promote the program of the Boy Scouts of America but to wage aggressive educational campaigns as to the vital need of a more intelligent understanding of the actual facts concerning the youth of America. (Boy Scouts of America, 1920, pp. 54-55)

West also addressed the need for a program that would bridge the gap between Boy Scouting and the time an individual would enter the workforce. As stated in the 1920 annual report of the Boy Scouts of America, “One of the greatest weakness in our program today is the inadequacy of our methods in providing for an orderly exit from membership in the Boy Scouts of America” (p. 52). Finally, one of James West’s most profound observations was his take on the necessity to empower youth with the tools necessary to succeed in life. This was primarily reflective considering the vision of Mr. West nearly 100 years ago is almost identical to that of Exploring today.

Doing is Learning—We want to help boys on leaving school to escape the evils of ‘blind alley’ occupations—that is, such work as gives the boy a mere wage for the moment, but leaves him stranded without any trade or handicraft to pursue when he is a man and so sends him as a recruit to the great army of unemployed, and, what is worse, the unemployable. ‘Doing is learning,’ and when a scout in the formative stage of his life has this lesson thoroughly impressed upon his mind, he has learned to be resourceful. This simple, help-yourself experience which a scout receives in his impressionable years prepares him to meet emergencies

covering the entire range of existence which may develop later in his life. (Boy Scouts of America, 1920, p. 5)

Early History of Exploring

Nearly 100 years after James E. West first outlined his vision of Scouting, the Boy Scouts of America continue their commitment to youth empowerment. To achieve West's "Doing is Learning" vision, Boy Scouting needed to evolve its youth based scouting program into a community education program for young adults. According to Learning for Life's (2015) historical account, Exploring began as a senior program in early Boy Scout troops. These older boys carried out high-adventure activities and service projects and gave leadership to young Scouts. In 1935, Senior Scouts were called Explorers for the first time, and many were organized in separate Explorer crews in troops, using a senior Scout program. In May 1949, the National Executive Board revised Senior Scouting to recognize as Explorers all young men in posts, Sea Scout ships, Air Scout squadrons, and all Boy Scouts over age 14 in troops (Exploring, 2017b).

In 1954, the National Executive Board and the University of Michigan led a national study that revealed the needs, desires, and concerns of boys 14 to 16. As a result, an entirely new Exploring program was developed and put into effect January 1, 1959. This new program included activities, methods, and recognitions that were similar to but separate from the Boy Scouting program. After almost 10 years of limited progress, a study was conducted of the special-interest posts being organized by William H. Spurgeon III, a businessman from Orange County California and the newly completed research project of Learning for Life by Daniel Yankelovich. This study indicated that

83% of youth surveyed wanted more information on careers than they were getting at home or in school, and 94% wanted adult associations. Coed participation, sports, and adult-life recognition were found necessary to attract young adults to Exploring (Exploring, 2017b).

As a result, special-interest Explorer posts began to be organized by businesses and professional and trade organizations. The career interest survey of high school students was developed to identify and recruit members. This opportunity to join posts that specialize in careers or recreational programs attracted large numbers of young adults to Exploring. In April 1971, young women became eligible for full membership in Exploring, and the upper age limit in Exploring was increased to 21. With these new methods came a series of national activities designed and conducted to strengthen local posts and ships: the safe-driving road rally, the Explorer Olympics, and the national Explorer Congress, which led to the organization of the Explorer Presidents' Association, involving Explorers in planning their program at every level. By 1981, the rapid growth of Exploring led to the development of national specialty programs in aviation, business, science and engineering, law and government, law enforcement, health careers, outdoor, Sea Exploring, sports, career education, arts, skilled trades, social service, fire and rescue, and communications. An Explorer Presidents' Association Congress was designed to train local and national youth leaders. A biennial national Explorer leadership conference was implemented in 1994 (Exploring, 2017b).

In 1991, the Boy Scouts of America announced the creation of the Learning for Life character education curriculum that could be facilitated by educators in the classroom. Learning for Life was considered a subsidiary of the Boy Scouts of America.

In 1998, Exploring functioned as a career education program and was subsequently shifted to the Learning for Life program (Exploring, 2017b).

Role of Learning for Life

In 1991, the Boy Scouts of America officially announced their work-site based youth program, Learning for Life. Learning for Life is a wholly-owned subsidiary that offers two nontraditional programs. First, Learning for Life (same name as the primary organization) is a coed, school-based program of character education with programs set up by grades from kindergarten through high school. Second, Exploring is a coed branch of Learning for Life that focuses on workplace-based and career-oriented interest for high school aged youth and young adults. Learning for Life is a character education program designed to support schools and community-based organizations in their efforts to prepare youth to successfully handle the complexities of our contemporary society (Learning for Life, 2017). Built on the statement that it helps teachers grow the whole student, it is based upon a curriculum that prepares students to enhance their self-confidence, motivation, and self-esteem. The program uses age-appropriate, grade-specific lesson plans to give youth skills and information that will help them make positive decisions for themselves, their families, and their futures (Learning for Life, 2017).

The Learning for Life (2017) curriculum focuses on nine character attributes: respect, responsibility, honesty/trust, caring/fairness, perseverance, self-discipline, life skills, courage, and citizenship to fulfill their mission statement: “To empower students to build exceptional character and leadership skills by guiding them through an innovative, research-based curriculum that enhances the learning experience and teaches the skills

necessary to succeed both academically and throughout their lives” (Learning for Life, 2017, p. 3).

Exploring Today

While Learning for Life’s character education program, also named Learning for Life, is a school-based program, utilizing curriculum to prepare youth to handle the complexities of a contemporary society successfully, Exploring is a workplace-based program that attempts to shape the workforce of tomorrow by engaging and mentoring young adults in career and life-enhancing opportunities. Exploring is advertised as a program that teaches valuable life and career skills to young people from all backgrounds through immersive career experience and mentorship provided by community and business leaders. Together they provide young people with character, leadership, and life skills that can be used both today and in the future. Exploring is based on a unique and dynamic relationship between youth and the organizations in their communities. Businesses and community organizations initiate a career-specific Explorer post or club by matching their people and organizational resources to the career interests of youth in the community. The result is a program of interactive activities that help youth pursue special interests, grow, and develop (Exploring, 2017b).

Participation in the Exploring program exposes young adults to a variety of career opportunities available to them, bridging the demands of the local job market with students’ interests. Exploring serves two different age groups, both coed. Explorer clubs serve middle schoolers, ages 10-13, in sixth through eighth grade, and Explorer posts serve older youth 14-20 years old. Both clubs and posts are designed around a group of young people who have a similar interest in the same career and look to gain knowledge

about the profession through hands-on activities provided by advisors. Each post is categorized by an individual career field. Currently, Exploring offers 12 career fields that are aligned to the 16 U.S. Department of Education career clusters (Learning for Life, 2017):

- Arts & Humanities Career Program
- Business Career Program
- Engineering & Technology Career Program
- Health Care Education Career Program
- Law Enforcement Career Program
- Skill Trades Career Program
- Aviation Career Program
- Communications Career Program
- Fire & Emergency Service Career Program
- Law & Government Career Program
- Science Career Program
- Social Service Career Program

Every post falls under the jurisdiction of a local council branch, with more than 270 operating across the country. Councils work with community leaders to determine regional workforce shortages and needs. This information then lends itself to whichever posts are created for that region. As of August 2017, Exploring had 4,737 posts in all 50 states and Puerto Rico and the Virgin Islands reaching 81,884 youth (Table 1).

Table 1

August 2017 Exploring Participants

Career program	# Posts	# Youth	# Adults
Arts & Humanities Career Program	26	263	193
Aviation Career Program	74	1,071	436
Business Career Program	55	1,215	183
Communications Career Program	23	409	89
Career Education	139	3,434	508
Engineering Career Program	79	2,140	418
Explorer Clubs	362	8,351	694
Fire & Emergency Services Career Program	1,169	13,127	6,502
General Interest	256	7,543	1,168
Health Careers Program	247	8,870	1,003
Law Enforcement Career Program	1,766	26,218	9,634
Law/Gov't/Public Service Career Program	155	3,163	776
Science Career Program	45	1,425	151
Skilled Trades Career Program	38	562	182
Social Services Career Program	12	244	44
STEM	291	3,849	921
TOTAL	4,737	81,884	22,902

Note. From “Learning for Life—Character Education, Anti-Bullying, Exploring,” by Learning for Life, 2017, retrieved from <https://www.learningforlife.org>.

In addition to focusing on localized workforce information, councils conduct Career Interest Surveys at high schools to inquire about students’ career goals. Once the data are collected, Exploring recruits local businesses to become partners, trains employee volunteers to be active mentors, and works with volunteers to create meaningful hands-on activities that are linked to the respective industry. These surveys resulted in 92 different career fields young adults can experience (Table 2).

Table 2

Explorer Career Fields

Career field	Career program	
Arts & humanities	Arts and hobbies	
	Actor / actress	
	Drama / theater	
	Fashion design / model / buyer	
	Interior designer / decorator	
Aviation	Aviation	
	Aerospace / aeronautical engineer	
	Aviation engineer / designer	
	Civil Air Patrol	
	Pilot / flight engineer	
Business	Accountant / CPA	
	Banker / teller	
	Business	
	Computer programmer	
	Data processing management	
	Food service / restaurant mgmt.	
	Hotel management	
	Marketing	
	Real estate / insurance	
	Small business manager / owner	
	Stock broker / investments	
	Communications	Broadcasting
		Communications
Journalist / reporter / newspaper		
Public relations manager		
Engineering		Architect
	Chemical & petroleum engineer	
	Civil engineer	
	Computer engineer	
	Electronic engineer	
	General engineering	
	Mechanical engineer	
	Solar engineer	
	Surveyor	

Table 2 (continued)

Career field	Career program
Health careers	Dental assistant / technician
	Dentist
	Health careers
	Hospital administrator
	Medical technician
	Nurse / nurse-aide
	Pathologist / microbiologist
	Pharmacist
	Physician / surgeon
	Veterinarian
Law / government / public service	Army
	Attorney / lawyer
	Civil service / government
	Law / govt. / public service
	Marine corps
	Military career
	National guard
	Urban planning
Science	Biochemist
	Computer / programmer
	Conservationist / ecologist
	Environmental scientist
	General science
	Marine biologist / oceanographer
	Physicist / nuclear scientist
	Wildlife / fish manager
	Zoologist / zoo director
Skilled trades	Animal control officer
	Auto repair
	Building contractor
	Carpenter / wood working
	Chef / baker
	Electrician
	Farmer / rancher
	Forester / lumberjack
	Hair stylist
	Heavy equipment operator
	Mass transit employee / railroad
	Plumber / pipe fitter
	Skilled trades

Table 2 (*continued*)

Career field	Career program
Social services	Handicap career professional Museum curator / history School counselor / guidance Social services Teacher / teacher-aide

Note. The Explorer career fields in the table do not include Fire & Emergency Services and Law Enforcement. From “Learning for Life—Character Education, Anti-Bullying, Exploring,” by Learning for Life, 2017, retrieved from <https://www.learningforlife.org>.

Fire & Emergency Services Career Exploring Program

Fire & EMS Career Exploring is a hands-on program for both young men and women who are 14 and graduates of the eighth grade or 15 through 20 years of age with an interest in learning more about careers in the field of fire or emergency services (Learning for Life, 2015). Exploring matches the interests of young adults with the resources and adult expertise of their participating organizations and is based on the five areas of program emphasis: career opportunities, leadership experience, life skills, service learning, and character education. This is accomplished by

1. Career opportunities – Offer “programs that develop potential contacts that may broaden employment options. Activities that boost a youth’s self-confidence and help him or her experience success at school and work” (Learning for Life, n.d., p. 1).
2. Leadership experience – Offer “programs that help youth develop leadership skills to fulfill their responsibilities in society. Activities that provide exposure to different leadership traits” (Learning for Life, n.d., p. 2).

3. Life skills – Offer “programs that develop physical and mental fitness. Activities that provide opportunities for youth to experience positive social interaction” (Learning for Life, n.d., p. 2).
4. Citizenship – Provide “programs that encourage youth to develop the skill and desire to help others. Activities that provide opportunities for youth to gain a keen respect for the basic rights of others” (Learning for Life, n.d., p. 2).
5. Character education – Provide “programs that help youth develop skills necessary to make ethical choices. Activities that provide opportunities for fulfilling one’s responsibility to society” (Learning for Life, n.d., p. 3).

Fire & EMS Exploring targets young adults interested in becoming a firefighter, emergency medical technician, paramedic, emergency service coordinator, shelter manager, lifeguard, ski patrol, search & rescue, fire inspector, or fire investigator. Currently there are 1,169 posts throughout the United States influencing 13,127 young adults (Table 3).

Table 3

August 2017 Fire & Emergency Services (EMS) Explorers

Career program	# Posts	# Youth	# Adults
Fire / emergency service	532	5,584	2,930
Civil defense / emergency service	5	5	21
First aid / ambulance corps	38	570	233
Firefighter / rescue service	461	5,246	2,588
Paramedic / emergency medical services	53	919	280
Volunteer fireman	80	753	450
TOTAL	1,169	13,127	6,502

Note. From “Learning for Life—Character Education, Anti-Bullying, Exploring,” by Learning for Life, 2017, retrieved from <https://www.learningforlife.org>.

Law Enforcement Career Exploring Program

Law Enforcement Exploring is a hands-on program open to young men and women who have completed the sixth grade through 20 years old and are interested in a career in law enforcement or a related field in the criminal justice system. The program offers young adults a personal awareness of the criminal justice system through training, practical experiences, competition, and other activities. Additionally, the program promotes personal growth through character development, respect for the rule of law, physical fitness, good citizenship, and patriotism (Exploring, 2017b).

Law Enforcement Explorer posts are sponsored by local, state, and federal law enforcement agencies throughout the country. Law Enforcement Exploring is endorsed by numerous professional organizations, including the International Chiefs of Police Association (IACP) and the National Sheriffs Association (NSA). Law Enforcement Exploring offers numerous benefits, including gaining exposure to various criminal justice careers and having positive interaction with law enforcement professionals:

- Obtaining hands-on experience and awareness of the criminal justice system, thereby helping Explorers to make an informed decision on a career in law enforcement or a related field.
- Receiving comprehensive career-focused training.
- Getting prepared for career-related college degree programs and other advanced education opportunities.
- Receiving benefit from interpersonal growth through self-discipline, teamwork, challenging experiences, and high standards of performance and personal conduct.
- Enhancing character development and improving physical and mental fitness.

- Learning responsibility to self and others through leadership opportunities (Exploring, 2017b).

Law Enforcement Exploring targets young adults interested in becoming a city law enforcement officer, county law enforcement officer, state law enforcement officer, federal law enforcement officer, special agent, law enforcement intelligence analysts, and forensic laboratory specialists. Law Enforcement is Exploring’s most popular career field with 1,766 posts reaching 26,218 young adults nationally (Table 4).

Table 4

August 2017 Law Enforcement

	# Posts	# Youth	# Adults
General law enforcement	823	12,593	4,154
Federal agent	22	448	174
Police officer	643	9,047	3,614
Sheriff / deputy	222	3,492	1,337
State police / highway patrol	42	497	291
Police reserve / auxiliary	12	119	55
Private security	2	22	9
TOTAL	1,766	26,218	9,634

Note. From “Learning for Life—Character Education, Anti-Bullying, Exploring,” by Learning for Life, 2017, retrieved from <https://www.learningforlife.org>.

Theoretical Construct—Empowerment Theory

The theoretical framework of this study focused on analyzing the social impact of individuals who were empowered by Learning for Life’s community education Exploring program. Empowerment theory research, practice, and instruction occur in multiple scholarly disciplines, including but not limited to sociology, psychology, political

science, business, and public administration. Empowerment is both a value orientation for working in the community and a theoretical model for understanding the process and consequences of effort to exert control and influence over decisions that affect one's life, organizational functioning, and the quality of community life (Perkins & Zimmerman, 1995; Rappaport, 1981; Zimmerman & Warschausky, 1998). This theory indicates that by empowering individuals through a helping system, proactive behaviors will result in social change. As applied to this study, this theory holds that one would expect that participation in an early public safety career development program will influence or explain the proactive behaviors that create social impact.

Defining Empowerment

Empowerment is a phrase that has achieved broad usage not only among scholars but also by practitioners, politicians, and throughout popular culture (Bennett-Cattaneo & Chapman, 2010). As a result, the term empowerment has been broadly defined. According to Ambrosino, Heffernan, Shuttlesworth, and Ambrosino (2005), the focus of empowerment revolves around the "process to help others increase their personal control, interpersonal, or political power so they can take action themselves to improve their lives" (p. 506). Sadan (1997) described empowerment as "a transition from a state of powerlessness to a state of more control over one's life, fate, and environment" (p. 13). Gutierrez (1990) defined empowerment as "a process of increasing personal, interpersonal, or political power so that individuals can take action to improve their life situations" (p. 149). Rappaport (1995) cited as a definition of empowerment "an international, ongoing process centered in the local community, involving mutual respect, critical reflection, caring and group participation, through which people lacking an equal

share of valued resources gain greater access to and control over those resources” (p. 802). Additionally, Rappaport (1987) described empowerment as having “individual determination over one’s own life as well as a democratic participation in the life of one’s community” (p. 121). He stressed (as cited in National Opinion Research Center, 2010) that empowerment is “a process by which people gain control over their lives, democratic participation in the life of their community, and a critical understanding of their environment” (p. 8). Collectively, empowerment has been constructed as a limitless resource (Gutierrez, 1994; Rappaport, 1987; Wallerstein, 2002).

Among these various definitions, empowerment revolves around three major themes: empowerment by means of the individual, empowerment by means of the organization, and empowerment by means of the community. As such, empowerment exists on all three levels: the personal level, where the individual is gaining control over his or her daily life (Kieffer, 1984); the small group level, where shared experiences happen (Presby, Wandersman, Florin, Rich, & Chavis, 1990); and the community level, where every resource is used to improve community control (Pilisuk, McAllister, & Rothman, 1996). While numerous scholarly definitions of empowerment exist, this study did not intend to utilize a single author’s interpretation. Instead, a collective approach utilizing a spectrum of the previously mentioned definitions was used. It is the hope of this study that a collective application of empowerment theory encompassing all three levels of the theoretical applications (by means of the individual, the organizations, and the community) will illustrate the importance of empowerment in relation to career development programs.

Levels of Empowerment

Empowerment could occur at the levels of individuals, groups, organizations, and other settings, communities, and social policies. Zimmerman (2000) also described the potential for empowerment at multiple levels of analysis including individual, organizational, and community level. Jennings et al. (2006) defined empowerment as “a social action process that can occur at multiple levels, e.g., individual, family, organizational, and community” (p. 33). According to Christens, Peterson, and Speer (2011), Zimmerman’s (2000) theory of empowerment describing three levels of analysis is widely used in empowerment theory. Zimmerman’s (2000) three degrees of empowerment apply to Exploring’s career development program given that the participants represent the individual, Exploring represents the organization, and the hosting town/city represents the community. Consequently, this study summarizes empowerment outcomes utilizing Zimmerman’s levels (Table 5).

Table 5

Empowering Process and Outcomes Across Levels

Levels of analysis	Process (empowering)	Outcomes (empowered)
Individual	Learning decision-making skills Managing resources Working with others	Sense of control Critical awareness Participatory behavior
Organizational	Opportunities to participate in decision making Shared responsibilities Shared leadership	Effectively compete for resources Networking with other organizations Policy influence
Community	Access to recourses Open government structure Tolerance for diversity	Organizational coalitions Pluralistic leadership Social change

Note. From “Empowerment Theory: Psychological, Organizational and Community Levels of Analysis,” by M. A. Zimmerman, in J. Rappaport & E. Seidman, *Handbook of Community Psychology*, p. 47, 2000, New York, NY: Kluwer Academic/Plenum.

Individual Level Empowerment

Empowerment at the individual level is often referred to as psychological empowerment (Zimmerman & Rappaport, 1988). Psychological empowerment occurs when individuals perceive that they have gained greater control or influence over outcomes of importance to them (Christens et al., 2011; Holden, Messeri, Evans, Crankshaw, & Ben-Davies, 2004; Zimmerman, 2000). Zimmerman and Rappaport (1988) explained, “The individual experience of empowerment is expected to include a combination of self-acceptance and self-confidence, social and political understanding, and the ability to play an assertive role in controlling resources and decision in one’s community” (p. 726).

Zimmerman (2000) identified three categories of psychological empowerment outcomes: intrapersonal (emotional), interpersonal (relational), and interactional (cognitive). The interpersonal, or emotional, component of psychological empowerment refers to the belief that one is capable through participation and engagement of having an impact in decision-making and collective change processes. Christens, Peterson, and Speer’s (2014) study, “Psychological Empowerment in Adulthood” described an individual who has achieved emotional empowerment as “I would prefer to be a leader rather than a follower” and “People like me are generally well qualified to participate in political activity and decision making in this country” (p. 1768).

The interactional or cognition component refers to the critical and strategic understanding of social systems, processes, and power that are necessary for exerting influence and making social change. This includes a crucial understanding of societal injustices and power dynamics. Christens et al. (2014) described cognition

empowerment outcomes through “I can have power in my community only by working in an organized way with others” and “Those with power shape the way people think about community problems” (p. 1769).

The interpersonal or relational component refers to the personal understanding, skills, beliefs, and disposition of the exercise of power. An individual who has achieved empowerment at the interpersonal level understands the significance of the power they have gained. Christens et al. (2014) described relational empowerment achievement by “I feel strongest when I am investing in the people around me,” “I like doing things with people who are different from me,” and “I’m passing things that I’ve learned along to others” (p. 1769).

According to Zimmerman (2000), psychological empowerment can increase through involvement in organizations and participation in activities. When Zimmerman’s psychological empowerment concept is applied to Exploring’s career development programs, individual outcomes can be predicted. At the intrapersonal level, one would predict that through Exploring, participants gain the self-acceptance and self-confidence to make decisions that affect their own life. At the interpersonal or relational level, Explorers realize the significance of social and political power. And finally, at the interactional or cognitive level, Explorers understand that the life skills that they have gained through participation in Exploring have given them the ability to influence those around them.

Organizational Level Empowerment

Zimmerman (2000) detailed empowering organizations as ones that provide experiences to their members that lead to individual empowerment. Maton and Salem’s

1995 study of empowering agencies identified essential organizational characteristics that helped to develop empowered members. The first feature of an empowering organization was a shared belief system that inspires growth that is strength based and focused beyond the self. This provides members with an ability to set challenging and motivating goals that are perceived to be attainable and encourages members to view themselves not just as individuals but also as part of a broader community (Maton & Salem, 1995). The second characteristic was an opportunity role structure that is pervasive, highly accessible, and multifunctional. This allows the members to take on a variety of meaningful roles designed to enable individuals to “develop, grow, and participate” (Maton & Salem, 1995, p. 643). The third characteristic Maton and Salem (1995) detailed was a support system that is “(a) encompassing, (b) peer-based, and (c) provides a psychological sense of community” (p. 646). The final aspect of empowering organizations dealt with leadership. A common denominator was leaders who were inspiring, talented, and committed to both settings and members (Maton & Salem, 1995).

Similar to individual empowerment, empowered organizations promote frequent and valuable experiences for members while adding a dimension related to quality relationships with other organizations and the overall community. Applying this general framework of analysis to Exploring suggests that empowerment includes organizational processes and structures that enhance member participation and improve goal achievement for the organization. Exploring’s career development programs encompass Maton and Salem’s (1995) shared beliefs that an encompassing, peer-based support system that creates a viable sense of community has the potential to contribute to the

social value of the individuals who participate in them and the communities that support them.

Community-Level Empowerment

Community education programs promote community empowerment by increasing individuals' and communities' awareness of their capacity by providing a framework and strategies through which participants can identify and resolve problems (Wiggins, 2012). Zimmerman (2000) described empowering communities as those that provide access to resources and equal opportunities for all citizens to be involved in activities and programs that allow them to reach their fullest potential. Zimmerman continued by describing an empowered community as “one that initiates efforts to improve the community, respond to threats to quality of life, and provides opportunities for citizen participation” (p. 45).

Laverack (2005) identified nine empowerment domains of a successful community development program. The empowerment domains are the areas of influence that allow individuals and groups to better organize and mobilize themselves toward social and political change. The nine domains identified by Laverack to build more empowered or capacity-rich communities represent a program that

- improves participation;
- develops local leadership;
- increases problem assessment capacities;
- enhances the ability to ‘ask why’;
- builds empowering organizational structures;
- improves resource mobilization;
- strengthens links to other organizations and people. (p. 2)

When community-level empowerment is applied to the general framework of the Exploring program, analysis would suggest that an investment in community education programs has the potential to collectively improve the quality of life in a community and the connections among community organizations that support them.

Interaction Across Levels

Empowerment occurs at the individual, organizational, and community levels with significant interaction across levels. Interaction is often most evident when addressing the outcomes of various levels. Much of empowerment literature focuses on participatory empowering strategies that lead to outcomes. Most of the literature on empowerment outcomes centers on psychological empowerment (Zimmerman, 2000) measured by collective efficacy (the belief that people together can make a difference; Sampson, Raudenbush, & Earls, 1997), outcome efficacy (the belief that one's actions can produce results; Bandura, 1997), political efficacy (the belief that one can influence the political process, organizations, and communities; Becker, 2002; B. A. Israel, 1994; Yeich & Levine, 1994), critical thinking ability (Wallerstein, 1992), and participatory behavior (Zimmerman, 2000). The existence of interactions across levels is evident: empowering organizations and communities can contribute to the empowerment of individuals who can lead to positive changes at organizational and community levels. The delineation where one level ends and transitions to the next does not exist, and levels often highly overlap.

Lord and Hutchinson's (1993) study identified the complexity of empowerment research: "Understanding individual change and empowerment informs community strategies and policy and vice versa" (p. 10). As a result, it is important that research on

empowerment begin with an understanding of individuals, not in a clinical sense, but in an experimental sense (Lord & Hutchinson, 1993). Since empowered individuals, organizations, and communities can all advance equity and quality of life issues, the focus of research needs to depend on a specific population and the topic of interest.

Zimmerman (2000) wrote,

Empowerment is an individual-level construct when one is concerned with intrapersonal and behavioral variable, an organizational-level construct when one is concerned with resource mobilization and participatory opportunities, and a community-level construct when sociopolitical structure and social change are of concern. (p. 59)

Exploring career development programs illustrates the complexity of empowerment dynamics. While research can determine outcomes at the individual, organization, and community level, it is a collaboration of the three that makes empowerment possible. For Exploring could not exist without individuals who are willing to participate and communities that are willing to fund and support such programs. The symbiotic relationship between the individual, the Exploring programs, and the communities that support them creates the unique connection resulting in empowerment at all levels.

Empowerment Value Orientation

Empowerment is both a value orientation for working in the community and a theoretical model for understanding the process and consequences of efforts to exert control and influence over decisions that affect one's life, organizational functioning, and the quality of community life (Perkins & Zimmerman, 1995; Rappaport, 1981;

Zimmerman & Warschausky, 1998). A distinction between the underlying values of empowerment and the conceptual theories of empowerment is needed. Zimmerman (2000) stated, “The value orientation of empowerment suggest goals, aims, and strategies for implementing change. Empowerment theory provides principles and a framework for organizing our knowledge” (p. 43).

Value orientation is defined as an individual’s idea of what is desirable and worthwhile. Most values are acquired through prior learning experiences in interactions with family, friends, educators, organizations, and anyone else who has made an impression on a person’s thinking (Zastrow & Kirst-Ashman, 2012). When value orientation is combined with empowerment, the value becomes the ability to exert control and influence over decisions that affect one’s life. An empowerment value orientation encompasses the belief that people should be provided the skills, resources, and opportunities to better their quality of life instead of needing to rely on others to do so (Zimmerman, 2000). Exploring, when analyzed based on an empowerment value orientation, exposes the emphases of the program—career opportunity, character development, life skills, leadership experience, and citizenship (Exploring, 2017b).

Empowerment Theoretical Model

Empowerment theory, research, and intervention link individual well-being with larger social and political environments. It compels one to think in terms of wellness versus illness, competence versus deficits, and strength versus weakness. The theoretical model of empowerment provides the framework for organizing our knowledge (Zimmerman, 2000). Empowerment is a construct that links individual strengths and competencies, helping systems, and proactive behaviors to social policy and social

change (Rappaport, 1981, 1984). Rappaport's empowerment theory can be further illustrated as a theoretical model (Figure 1, reproduced here for convenience).



Figure 1. Rappaport's empowerment model. Adapted from "In Praise of Paradox: A Social Policy of Empowerment Over Prevention," by J. Rappaport, 1981, *American Journal of Community Psychology*, 9(1), 1-25; "Studies in Empowerment: Introduction to the Issue," by J. Rappaport, 1984, *Prevention in Human Services*, 3(2-3), 1-7, https://oi.org/10.1300/j293v03n02_02

Within this study, Rappaport's empowerment model has been applied to Learning for Life's community education Exploring program to determine whether the theoretical constructs apply. Rappaport's *individual* has been operationalized in this study as individuals that have participated in Exploring's community education programs. A "helping system" has been defined as Public Safety Exploring, which includes both Fire & EMS and Law Enforcement Career Exploring programs. Proactivity or proactive behavior by individuals refers to anticipatory, change-oriented, and self-initiated behavior in situations. Proactive behavior involves acting in advance of a future situation (foreactive) rather than just reacting (counteractive; Bateman & Crant, 1993).

Exploring's proactive behavior is defined through their programs' five areas of emphasis:

1. Career opportunities – Offer "programs that develop potential contacts that may broaden employment options. Activities that boost a youth's self-confidence and help him or her experience success at school and work" (Learning for Life, n.d., p. 1).

2. Leadership experience – Offer “programs that help youth develop leadership skills to fulfill their responsibilities in society. Activities that provide exposure to different leadership traits” (Learning for Life, n.d., p. 2).
3. Life skills – Offer “programs that develop physical and mental fitness. Activities that provide opportunities for youth to experience positive social interaction” (Learning for Life, n.d., p. 2).
4. Citizenship – Provide “programs that encourage youth to develop the skill and desire to help others. Activities that provide opportunities for youth to gain a keen respect for the basic rights of others” (Learning for Life, n.d., p. 2).
5. Character education – Provide “programs that help youth develop skills necessary to make ethical choices. Activities that provide opportunities for fulfilling one’s responsibility to society” (Learning for Life, n.d., p. 3).

Within this study, Exploring’s proactive behavior is operationalized through measurable social benchmarks reflected within the survey questions. The social benchmarks that were addressed in this study include

1. Career opportunities (e.g., with survey questions dedicated to employment status, annual income, and level of education)
2. Leadership experience (e.g., with survey items focusing on civic and career leadership)
3. Life skills (e.g., survey statements asking about commitment to health, physical, and mental well-being)
4. Citizenship (e.g., with survey details illustrating civic attitudes, community volunteering, community problem solving, and political participation)

5. Character education (e.g., with survey question highlighting goal orientation, self-efficacy, accountability, moral and civic attitudes)

The combined effect of the individual, helping system, and proactive behavior result in the goal of every empowerment process—social impact. According to the Center for Social Impact at the University of Michigan (2017), social impact is defined as a “significant, positive change that addresses a pressing social challenge” (p. 1). Having a social impact is the result of a deliberate set of activities with a goal based on this definition. The Center for Social Impact emphasizes the need to define a “pressing social challenge.”:

It’s critical to clearly differentiate between the broad term of ‘impact’ and a more deliberate definition of social impact. Impact on its own implies an influence or effect on virtually anything, given its context. Social impact, however is grounded in the effect it has on a pressing social challenge. (p. 1)

Within this study, social impact builds upon the pressing social challenge of preparing young adults with the skills necessary to pursue a career or profession, therefore contributing to the community they live in.

When adapted with the previously mentioned operationalized components, Rappaport’s empowerment model can be applied to Exploring’s community education programs. Within this study, this adapted model was tested to determine whether application applies (Figure 2, reproduced here for convenience).



Figure 2. Rappaport’s model applied to public safety exploring programs. Source: Author.

Empowering Processes Versus Empowered Outcomes

Perkins and Zimmerman (1995) wrote, “A distinction between empowering processes and outcomes is critical in order to clearly define empowerment theory” (p. 570). Theories of empowerment include both processes and outcomes, suggesting that actions, activities, or structures may be empowering, and the outcomes of such processes result in a level of being empowered (Swift & Levin, 1987; Zimmerman, 2000). Perkins and Zimmerman (1995) detailed empowering processes and outcomes across all three levels of analysis: individual, organization, and community:

Empowering processes for individuals might include participation in community organizations. At the organizational level, empowering processes might include collective decision making and shared leadership. Empowering processes at the community level might include collective action to access government and other community resources (e.g., media). Empowered outcomes refer to operationalization’s of empowerment that allow us to study the consequences of empowering processes. Empowered outcomes for individuals might include situation-specific perceived control and resource mobilization skills. When we are studying organizations, outcomes might include development of organizational networks, organizational growth, and policy leverage. Community-level empowerment outcomes might include evidence of pluralism, and existence of organizational coalitions, and accessible community resources. (p. 570)

This study builds upon Perkins and Zimmerman’s (1995) empowering processes versus empowered outcomes concepts. Within this study, operationalized outcomes in

the form of social and economic indicators: (a) career opportunities, (b) leadership experience, (c) life skills, (d) citizenship, and (e) character education. These data illustrated the consequences of the empowering process.

Gaps in Literature

In support of this study, two main concepts of literature were explored: the organizational structure and dynamics of Learning for Life's Exploring career development programs and the theoretical constructs of empowerment theory. While both individual concepts revealed substantial scholarly information, an extensive review of literature found a lack of analysis on the social impact that participating in Exploring results in. With limited quantifiable data on the benefits of early public safety education programs focusing on young adults, a void exists that requires scholarly research. As public administrators nationally attempt to identify the importance of empowering individuals with the tools necessary to create long-term developmental success, quantifiable data that illustrates the program's impact are needed.

Summary

Chapter II provided a review of literature pertaining to the research problem, which included an analysis of Exploring's Boy Scout origins, the early history of Exploring, and the role of Exploring today. Additionally, the two target Exploring programs—Fire & EMS and Law Enforcement—labeled Public Safety Exploring were reviewed. Chapter II also included the framework and models used in the study, including empowerment theory application to Exploring's community education programs. The review revealed a connection between the mission of the Exploring program and the conceptual framework of empowerment theory.

Historically, programs like the Boy Scouts of America have committed to the empowerment of young adults in an attempt to provide the necessary tools to be productive in society. Individuals who have the opportunity to be empowered usually have the confidence, high self-esteem, feelings of self-efficacy, control over their life, increased critical awareness, and increased civic participation (Röger, Rütten, Frahsa, Abu-Omar, & Morgan, 2010). Chapter II identified a gap in literature connecting the outcomes of the Exploring program with the theoretical constructs of empowerment theory. Chapter III presents the methodology used to research the social impact of participating in Fire & EMS and Law Enforcement Career Exploring programs.

CHAPTER III: RESEARCH METHODS

The purpose of this quantitative research study was to investigate the potential social impact that offering early public safety education had on a community. Specifically, the study used survey data gathered by Learning for Life in 2018 to identify the relationship between participation in Fire & EMS and Law Enforcement Career Exploring Programs and particular prosocial behaviors. A quantitative research design was employed to examine the relationship between variables using statistical analysis. This section provides an outline of the strategic approach and organization of this research project. This chapter outlines and explains the analytical and theoretical support utilized to answer the research questions. The purpose of the study, research design, research questions methodology, population, sample size, instrument, and data collection process are identified. This is followed by operationalization of the independent and dependent variables that were utilized in the data and statistical analysis portion of the study. Finally, this chapter concludes with the threats to validity, limitations, and ethical considerations of the study.

Appropriateness of Research Design

To address the research questions, a quantitative research study attempted to generate insightful information to identify the association between participation in Fire & EMS and Law Enforcement Career Exploring Programs and prosocial behaviors. A quantitative study was employed to understand emergent themes in the analysis of survey data collected by Learning for Life in 2018. According to Johnson and Christensen (2008),

A quantitative approach is most effective since quantitative research attempts to operate under the assumption of objectivity. It assumes that there is a reality to be observed and that rational observers who look at the same phenomenon will agree on its existence and its characteristics. (p. 36)

A quantitative research model was utilized since the researcher intended to survey a broad cross-section of participants (Creswell, 2008) and use statistical processes to analyze the results objectively (Kalinowski et al., 2010; Trusty, 2011). According to Creswell, quantitative research allows the researcher to ask specific questions, collect numeric data, analyze data using statistics, and conduct an unbiased inquiry in an objective manner (Creswell, 2009).

One of the primary focuses of a quantitative study is to predict an event without trying to establish cause and effect (Borland, 2001). This kind of research recognizes trends and patterns in data, but it does not go so far in its analysis to prove causes for these observed patterns. This study focused on a nonexperimental comparison of means design in which two variables were investigated without testing the cause and effect relationship of a hypothesis (Borland, 2001). Comparison of two means with statistical significance studies explores variables that cannot be or are unable to be manipulated and that assess the strength of the variable as they occur (Fitzgerald, Rumrill, & Schenker, 2004). As a comparison of two means with statistical significances study, this study did not seek to establish a cause-effect relationship between the variables but to determine whether a prediction could be made using quantifiable data (Johnson, 2001). Cause and effect are not the basis of this type of observational research. The data, relationships, and

distributions of variables are studied only. Variables are not manipulated; they are only identified and are examined as they occur in a natural setting.

Methodology

The research methodology used to conduct this study is data analyses using descriptive and inferential analytics. Descriptive analytics enables the researcher to summarize a given data set, which can be either a representation of the entire population or a sample of it. Thereby, relationships and differences within groups are revealed including past and current behavior patterns (Fitz-enz & Davison, 2002). By utilizing descriptive statistics, features of the research data can be illustrated. Relational analytics helps determine the strength of the relationship between factors and the interdependence of those factors (Fitz-enz & Davison, 2002). Predictive analytics refers to what we know opposed to the unknown (Fit-enz & Davison, 2002). Predictive analytics ascribes meaning to the patterns observed in a descriptive analysis (Fitz-enz & Davison 2002). Utilizing inferential statistics, predictive conclusions looking beyond data were researched.

Research Design

Learning for Life, the governing body that oversees the Exploring program, was contacted early in this study to assist with various portions of research design. Their research department, headed by Daniel Warren, Ph.D., was instrumental in the design, implementation, and collection of survey data. Collaboratively, a nonexperimental, quantitative research design was created to examine the relationship between participation in Fire & EMS and Law Enforcement Career Exploring Programs and particular prosocial behaviors. Utilizing Learning for Life's database of former

Explorers, an online survey adapted from a previous independent research study, *Eagle Scouts: Merit Beyond the Badge*, was disseminated to catalog the current social behavior of former Explorers deemed careerable by this study. This includes individuals who have the following characteristics: (a) adults 23-28 years of age and (b) actively participated in a Public Safety Career Exploring Program for at least 1 year. For means of comparison, the same survey was disseminated to a group of non-Explorers who shared the same age limitations (adults 23-28 years of age).

Research Questions and Hypotheses

This study attempted to reveal the prosocial benefits associated with Learning for Life's Public Safety Career Exploring Programs. The remaining chapter outlines the framework established to provide answers to the study's research questions while testing their associated null and alternative hypotheses:

1. Research Question 1 (RQ1) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities?

H₀₁: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

H_{a1}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

2. Research Question 2 (RQ2) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience?

H₀₂: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

H_{a2}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

3. Research Question 3 (RQ3) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills?

H₀₃: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

H_{a3}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

4. Research Question 4 (RQ4) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship?

H₀₄: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

H_{a4}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

5. Research Question 5 (RQ5) What is the relationship between participating in Fire & EMS and Law Enforcement Exploring Career Programs and character education?

H₀₅: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

H_{a5}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

Population

According to Hair and Bush (2003), a target population is said to be an entire group of people or objects to which the researcher wishes to generalize the study's

findings. Therefore, former careerable participants of Learning for Life’s Fire & EMS and Law Enforcement Career Exploring Programs served as the target population for this study. The sampling frame can be defined as a set of source materials from which the sample is selected. The definition also encompasses the purpose of sampling frames, which is to provide a means for choosing the particular members of the target population who are to be interviewed in the survey (Turner, 2003). The specific sampling frame includes past participants whom this study has labeled careerable. To be deemed careerable, one needed to encompass the following characteristics: (a) adults 23-28 years of age and (b) actively participated in a Public Safety Career Exploring Program for at least 1 year. The rationale behind this sampling frame was to incorporate individuals who are 5 years out of high school or 1 year out of college and who are at a point in their life where the benefits of program participation can materialize. According to Learning for Life’s registration achieves, there are 67,857 former Fire & EMS and Law Enforcement Explorers who participated in Exploring for at least 1 year and who are currently between the ages of 23-28 years old (Learning for Life, 2018). Thus, the complete population for the study was 67,857 individuals (Table 6).

Table 6

Population Totals

Population group	# Adults
Fire / EMS Exploring females 23-28 years old	5,719
Fire / EMS Exploring males 23-28 years old	21,165
Law enforcement females 23-28 years old	13,052
Law enforcement males 23-28 years old	27,921
Total fire / EMS	26,884
Total law enforcement	40,973
Total combined (public safety)	67,857

Note. Learning for Life, 2018.

Sample Size

According to Creswell (2008), the sample size is a part of the population chosen for a survey or experiment. Researchers calculate the required sample size before beginning the study, and that size remains a constant target throughout the study. There are several approaches to determining the sample size. These include using a census for small populations, imitating a sample size of similar studies, using published tables, applying formulas, and sample size calculators (G. D. Israel, 1992). For this study, to determine the sample size derived from the study population, the Raosoft (2004) sample size calculator was utilized. The Raosoft (2004) sample size calculator required the input of the following components to determine the sample size for the study. First, it was necessary to input the margin of error, which according to Nachmias-Frankfort and Nachmias (2008) “is one of the statistical measures that indicates how closely sample results reflect the true value of the parameter” (p. 42). According to Hunter (2016), margin of error reveals the imprecision inherent in survey data. Survey data provide a range, not a specific number. Therefore, a margin of error of 5% was utilized in the Raosoft calculation. Second, the confidence level is the level of confidence in the margin of error that the results will not fall outside the margin of error. A larger sample size can increase the strength of confidence level. Confidence levels of 90%, 95%, and 99% were inputted. Third, knowing or closely estimating the population size was necessary (Nachmias-Frankfort & Nachmias, 2008). The population was able to be obtained from Learning for Life’s registration database at 67,857 individuals. The final component needed for input was the response distribution, which represents the expected response. The response was set for the worst possible scenario or 50%, which gave the largest

sample size (Raosoft, 2004). Based on the previous information, the following recommended sample sizes were calculated for a confidence level of 90%, 95%, and 99% (Table 7).

Table 7

Raosoft Sample Size Calculator—Multiple Confidence Levels

Input	90%	95%	99%
Margin of error	5%	5%	5%
Confidence level	90%	95%	99%
Population size	67,857	67,857	67,857
Response distribution	50%	50%	50%
Recommended sample size	270	382	658

Note. From Raosoft, homepage, n.d., retrieved from <http://www.raosoft.com>.

Based upon Raosoft’s calculation for sample size, it was determined that this study would benefit from using the 95% confidence level with a 5% margin of error resulting in a sample size of 382 participants. In addition to the sample size, a designated limited timeframe of 1 month for data collection was established. If the data collection fell short of 382 responses within the 1-month deadline, the process would cease, and the actual number of surveys obtained during the timeframe would represent the sample size.

Because the study design incorporated comparison of the prosocial behavior of former Fire & EMS and Law Enforcement Explorers to similar individuals who were not exposed to the benefits of Exploring (non-Explorers), a comparable sample was necessary. When comparing two independent means, samples sizes are assumed to have equal groups, normal distribution, and the same variance (Pandey, 1999). Therefore, the comparative sample was designed utilizing the same size and timeframe limitations.

Instrument

This quantitative deductive research project included the administration of a cross-sectional survey questionnaire as the research tool for collecting information for the study. The data collection instrument was adapted from a previous research study, *Eagle Scouts Merit Beyond the Badge*, conducted by Sung Joon Jang, Bryon R. Johnson, and Young-II Kim (2010) representing Baylor University. The purpose of the *Eagle Scouts Merit Beyond the Badge* study was to confirm the prosocial benefits associated with Scouting or earning the rank of Eagle Scout. The central question of their research was “do youth participating in Scouting receive character-building advantages over youth that have not participated in scouting?” (Jang et al., 2010, p. 2).

To answer this research question, Baylor’s researchers developed a survey instrument that was designed to

Cover a number of areas that, broadly defined, would elicit responses related to character, values, ethics, morality, citizenship, responsibility, healthy living, and prosocial behavior. In essence, the survey attempted to tap the virtues, habits, and attitudes the Boy Scouts of America seek to instill in the youth who participate in Scouting. (Jang et al., 2010, p. 34)

The survey included categories and subjects that were grouped within three main topics: well-being (e.g., with survey questions dedicated to recreational activities, emotional well-being, relational well-being, and physical well-being), civic engagement (e.g., with survey items focusing on membership in formal and informal groups, community donations, community volunteering, community problem solving, environmental stewardship, political participation, and civic leadership), and character development

(e.g., survey statements asking about commitment to learning, goal orientation, planning/preparedness, self-efficiency, activities with neighbors, accountability, moral attitudes, openness to diversity, civic attitudes, and spirituality; Jang et al., 2010). Due to the similarities in research design and target population, the *Eagle Scouts Merit Beyond the Badge* survey instrument was deemed fitting to be adapted for this research project.

Jang et al.'s (2010) instrument consisted of a 55-item survey with 14 demographic questions. For this research study, 15 items were adopted to examine the research questions along with four demographic questions. Building on Baylor's original research, the adapted survey was intended to mimic the original design - to "cover a number of areas that, broadly defined, would elicit responses related to career opportunities, leadership experience, life skills, citizenship, and character education. In essence, the survey attempted to tap the virtues, habits, and attitudes that Exploring seeks to instill in the youth who participate in their programs. Appendix A offers a list of the questions used explicitly for this study.

Pilot Study

This study included a formal pilot study that provided information about validity, reliability, and usability of the adapted *Eagle Scouts Merit Beyond the Badge* survey instrument. The pilot study also provided information regarding the strength of operational definitions contained within the survey questionnaire before the actual data collection. A small group of eight participants, representative of the intended sample (five former Public Safety Explorers and three non-Explorers who fit the careerable criteria) received invitations to participate in the survey. The pilot study invitation and instructions letter are included in Appendix B.

California Baptist University requires Institutional Review Board (IRB) approval before performing formal pilot testing. The IRB approved the study on March 6, 2018, reference IRB # - 067-1718-EXM. The IRB Approval Letter is included in Appendix C. Test-retest reliability was used to assess the consistency of the measure from one time to another. Test-retest reliability is a measure of reliability obtained by administering the same test twice over a period of time to a group of individuals (Phelan & Wren, 2006). The first administration of the pilot test commenced on March 12, 2018 and concluded on March 16, 2018. The second administration or retest began on March 19, 2018 and ended on March 23, 2018. The pilot study consisted of the administration of the survey questionnaire via e-mail along with feedback instructions. The pilot study intended to obtain input from individuals who were representative of those who would be participating in the formal data collection. There were benefits associated with performing the pilot study. These included identification of problems with operational definitions as well as other issues with the instrument, the clarity of the instructions, along with providing validation of the instrument's usability and statistical validity. A Cronbach's alpha was utilized for reliability and internal consistency. The Cronbach's alpha coefficient of the questionnaire during the pilot study was .81.

The steps for creating a data collection instrument for this research project included the following:

1. The researcher obtained permission from Sung Joon Jang, Bryon Johnson, and Young-Il Kim of Baylor University to adapt their research instrument utilized in their 2010 study—*Eagle Scouts Merit Beyond the Badge*.

2. The researcher in collaboration with the Research and Evaluation Department of the Boy Scouts of America and the dissertation committee personalized the adapted instrument for this specific research project.
3. The researcher presented and obtained approval from the dissertation committee to move forward with the research instrument.
4. California Baptist University IRB approved the research design: IRB approval number 067-1718-EXM
5. The instrument was pilot tested and retested and adjusted based on feedback. A Cronbach alpha score of .81 was established.
6. The formal survey questionnaire was sent to the Boy Scouts of America Research and Evaluation Department for dissemination.

Data Collection Procedures

The Boys Scouts of America, the parent organization of Learning for Life and Exploring maintains records and has the ability to access and contact all current and former participants of Exploring Career Programs. With access to this database, former careerable participants of Learning for Life's Fire & EMS and Law Enforcement Career Exploring Programs were able to be contacted for this research project. To be deemed careerable for this study, one needed to encompass the following characteristics:

(a) adults 23-28 years of age and (b) actively participated in a Public Safety Career Exploring Program for at least 1 year. Due to the fact that the study design incorporated comparing the prosocial behavior of former Fire & EMS and Law Enforcement Explorers to similar individuals who were not exposed to the benefits of Exploring (non-Explorers), a comparative sample was necessary. When comparing two independent means, samples

sizes are assumed to have equal groups, normal distribution, and the same variance (Pandey, 1999). To achieve a comparable comparison group, all former Public Safety Explorers who received e-mail survey invitations were asked to forward the survey link to “a friend of similar age as yourself who was NOT an Explorer.” The logic behind this approach was the academic research that suggests that people have a universal preference for similarity; that is, that people typically have friends who are similar to themselves (Bahns, Pickett, & Crandall, 2011). Utilizing a snowball sampling technique initiated by former Explorers reaching out to friends who were not Explorers, a comparison group of similar demographics was established.

The original data were collected and analyzed by the Research and Evaluation Department of the Boy Scouts of America under the direction of Team Leader, Daniel Warren Ph.D. The data were obtained with an electronic Qualtrics survey linked via e-mail. In addition to the collection of data, the Research and Evaluation Department of the Boy Scouts of America provided preliminary data cleaning, removing all connectable personal information from the data set. The steps for data collection for this research project included the following:

1. The researcher obtained permission from the Boy Scouts of America to utilize their Research and Evaluation Department to assist in the collection of data using their database of former Explorers.
2. The researcher obtained permission from Sung Joon Jang, Byron Johnson, and Young-Il Kim of Baylor University to adapt their research instrument utilized in their 2010 study, *Eagle Scouts Merit Beyond the Badge*.

3. The researcher presented and obtained approval from the dissertation committee to move forward with the research design.
4. Upon approval of California Baptist University IRB, IRB # 067-1718-EXM, the researcher contacted the Boy Scouts of America Research and Evaluation Department at which time surveys were sent to the sample population and data were collected.
5. The researcher obtained the data sets from the Boy Scouts of America Research and Evaluation Department, cleaned and organized the data for analysis, created spreadsheets to log information, defined protocols associated with data coding, and began the research process using SPSS software.

Data Cleaning Procedures

Data sets received from Learning for Life had undergone preliminary data cleaning before being obtained by the researcher. This included the removal of all direct and indirect personal information. Upon receiving the data sets, the responses to the survey questionnaire underwent screening for abnormalities that might have required editing, such as missing data or unclear answers. Nachmias-Frankfort and Nachmias (2008) indicated, “Data cleaning is the proofreading of the data to catch any errors and inconsistent codes” (p. 134). Even though the strategy used in this study was to make the best data collection instrument before its administration, data cleaning was still necessary to achieve the most accurate data possible for analysis. The steps for data cleaning for this research project included the following:

1. The researcher received de-identified raw data from Learning for Life via Qualtrics export. Original $n = 856$
2. The researcher removed all incomplete surveys. Updated $n = 760$.

3. The research project was limited to individuals who were former participants of a Fire & EMS or Law Enforcement Career Exploring Program. The researcher removed all responses that did not include one of the aforementioned Exploring Programs.
Updated $n = 736$.
4. The research project was limited to individuals who had participated in a Fire & EMS or Law Enforcement Career Exploring Program for at least 1 year. All survey responses “less than 1 year” and “don’t know” were removed by the researcher.
Updated $n = 732$.
5. The research project was limited to individuals who were currently between the ages of 23-28 at the time of the survey. The researcher removed the survey age response “other.” Updated $n = 684$.
6. The researcher removed all invalid zip codes that were not five digits (the first digit of 0 remained in the study). Updated $n = 681$.
7. The researcher removed all nonresponses to “what is your gender.” Updated $n = 679$.
8. The results of the data cleaning procedure resulted in an updated sample size of 679 individuals. A n of 679 was utilized for the remainder of the research project.

Statistical Analysis Software

Inferential statistics were used to draw conclusions from the sample tested. The Statistical Package for the Social Sciences (SPSS) 25.0 was the statistical software selected for the data analysis associated with this study. This software package was used to code and tabulate scores collected from the survey and provide summarized values where applicable, including the mean, central tendency, variance, and standard deviation.

Statistical Analysis

A representative sample employing reliable and applicable statistical measurement enhanced the data analysis process. A primary goal of this research project was to keep the sample size and statistical analysis as manageable as possible without compromising the statistical validity and reliability. According to Carifio and Perla (2008), the Likert scale offers an opportunity to measure response at the ordinal, interval, and ratio levels of measurement. Additionally, they explained that the use of higher levels of data measurement prepares the data for general linear analysis, advanced level statistical analysis, and parametric testing (Carifio & Perla, 2008). They further explained that higher levels of data measurement include standard deviation, t tests, Pearson Correlation Coefficient, and regression analysis, using summative ratings for multivariate analytic analysis (Carifio & Perla, 2008).

The data analysis plan (Table 8) summarizes the structure of this research study, including statistical analysis with a preference for the independent samples t test for the Likert scale responses. An independent samples t test was conducted to compare the means of two independent groups to determine whether there was statistical evidence that the associated population means are significantly different (Lund Research, n.d.). A reliable and applicable statistical measurement enhanced the data analysis process.

Before analyzing data, the researcher had to determine whether the significant assumptions for using an independent sample t test were met. The researcher used the Levene's test for equality of variance and normal distribution of scores for each category of the independent variable. The six significant assumptions for an independent samples

Table 8

Data Analysis Plan and Process

Statistical analyses	Analyzing
Intent of analysis	The study intended to compare the prosocial behavior of two independent groups: Explorers and non-Explorers regarding career opportunities, leadership experience, life skills, citizenship, and character education. survey questionnaire. The analysis also included a comparison of descriptive information.
Research Information	<ul style="list-style-type: none"> • Quantitative • Comparison • Survey questionnaire (closed ended) • Cross-sectional
Sample size and description	<p>Estimated sample: 382 former Fire & EMS and law enforcement Explorers (Raosoft, 2004). A comparison group (non-Explorers) reflecting a similar sample size.</p> <p>Two independent groups (Explorers and non-Explorers)</p> <p>The current study resulted in a total sample size of 679 with 384 Explorers and 295 non-Explorers</p>
Research location	<p>Pilot study: Purposefully selected group reflective of the formal sample population.</p> <p>Primary study: National utilizing Learning for Life’s database of former Exploring participants</p>
Survey questionnaire	Survey questionnaire responses: (5-point Likert, dichotomous, demographic) 10 Likert scale items and 14 dichotomous / demographic type questions
Cleaning data	Abnormal data, missing data, and outliers (identified through descriptive statistics). The imputation method of cleaning data was not necessary.
Coding variables	<p>SPSS values column</p> <p>Likert scale: 5-point</p> <p>Dichotomous: 2-point</p>
Independent samples <i>t</i> test	Independent samples <i>t</i> test assessed the statistical significance of the difference between the prosocial behaviors of the two independent groups: Explorers and non-Explorers regarding career opportunities, leadership experience, life skills, citizenship, and character education. This statistical analysis tests the significance of the difference between the means of two independent groups. Significance for this study was set at the customary alpha value <0.05.

Table 8 (continued)

Statistical analyses	Analyzing
Other assumptions and confirmatory analyses	Additionally, testing of the assumption of the Independent Samples <i>t</i> test was considered, or statistical inquiry performed, including Levene’s test for equality of variances, Mann-Whitney U confirmatory test, and Shapiro-Wilk for determining deviation from normality.
Pilot study	Descriptive statistics Cronbach’s Alpha (for testing reliability) Test-retest method of collection 10 invitations resulting in 8 participants Final participants—5 Explorers and 3 non-Explorers

t test are (a) the dependent variable should be measured on a continuous scale, (b) the independent variable should consist of two categorical, independent groups, (c) there is independence of observations, (d) there are no significant data outliers, (e) the dependent variable should be approximately normally distributed for each group of the independent variable, and (f) there needs to be homogeneity of variance (Lund Research, n.d.). All six assumptions were met.

Further statistical analysis included descriptive statistics and a test-retest approach for the survey administration using Cronbach’s alpha to establish the reliability of the questionnaire during the formal pilot study. For the primary research, the data analysis procedures included descriptive statistics and independent samples *t* tests. Additionally, testing for assumptions of the independent samples *t* test was considered or statistically performed, including Levene’s test for equality of variance and the Shapiro-Wilk test for determining deviation from normality. Tables included in this document provide a succinct presentation of the critical highlights of the data analysis and statistical findings.

Internal Validity

Validity is concerned with the integrity of the conclusions that are generated in a particular piece of research (Bryman, 2016, p. 28). Belli (2009) stated that “validity relates to whether it measures what we intend it to measure and represents the overarching quality of the measure” (p. 62). Internal validity, in particular, is concerned with the question of whether a conclusion that posits a causal relationship between two or more variables is valid (Bryman, 2016, p. 28). Robson (2004) stated seven areas of concern in the internal validity of a study: (a) history, (b) maturation, (c) testing familiarity, (d) instrumentation, (e) statistical regression, (f) experimental mortality, and (g) selection maturation interaction.

Some of the threats to validity presented by Robson (2004) did not present a problem for this study because they did not apply to the construct of the study design, measurement, and intent. These include (a) history, (b) maturation, and (c) testing familiarity. The fourth area of concern, (d) instrumentation, refers to changes in the instrument that could affect the outcomes. This concern was alleviated by providing the same instrument to all participants. Statistical regression (e) of the two groups was determined using a *t* test to compare the means of the two groups. There was no significant dissimilarity in means scores of the groups. The issue of mortality (f) could occur during any research project because researchers cannot control the deaths of individuals during a study (Creswell, 2008). This study, however, worked with an immediate collection that did not require follow-up with participants, thus eliminating this threat. Finally, selection maturation interaction (g), refers to the possibility that the two comparison groups communicated with each other; which could have influenced the

outcomes of the dependent variables. This variable was uncontrollable, but to the researcher's knowledge, the two groups did not communicate with each other during the course of the study.

External Validity

External validity refers to generalizability to other populations, setting, and time (Creswell, 2008; Leedy & Ormrod, 2005; Trochim & Donnelly, 2006). Quantitative studies are intended to allow the researcher an opportunity to conduct objective research by which findings can be extended to a larger population (Borrego, Douglas, & Amelink, 2009). Bryman (2016) related that external validity is representative of how applicable the results of a study are outside of the context of a particular study or population that was examined. The population chosen for the present study examined Learning for Life's Fire & EMS and Law Enforcement Career Exploring Programs. This represents only two of the twelve career fields offered through Exploring. These programs were chosen by the researcher due to the unique characteristics of emergency responders. Responders encompass a broad and diverse group of people. According to Miller (2012), "Responders in uniform—police, firefighters, paramedics, first responders, and law enforcement officials have unique professional cultures and needs" (p. 308). Although the study included a sample population taken from Exploring's Career Programs, due to the unique characteristics of Fire & EMS and Law Enforcement Exploring Programs, the results are not generalized across all of Exploring's programs. Additionally, due to Exploring's "innovative, worksite-based program that is based on a unique and dynamic relationship between youth and organizations in their community" (Exploring, 2017a, p. 4), the result may not be consistent with those of a sample population from other early

public safety education programs. While the results of the study might be of interest to Exploring's remaining 10 programs and other similar community education programs, the results could only be generalized to Exploring's Fire & EMS and Law Enforcement Career Program.

Ethical Considerations

As with any research involving human subjects, there are always ethical considerations to consider. The Belmont Report (1979) provides ethical principles and guidelines when researching human subjects: "Three basic principles, among those generally accepted in our cultural tradition are particularly relevant to the ethics of research involving human subjects: the principle of respect for the persons, beneficence, and justice" (p. 4). With regard to respect of person, informed consent is required for inclusion in research studies. Each potential participant has the right to be informed about the study as well as their ability to self-determine participation. In addition, the information must be shared in a manner that the participant can comprehend, making provision for those with mental disabilities or immaturity, and without coercion (U.S. Department of Health, Education, and Welfare, 1979).

Second, concerning beneficence, all participants must be protected from harm and treated in an ethical manner (Belmont Report, 1979). Therefore, all risks and benefits must be assessed and disclosed. Finally, the issue of justice and fairness in the selection of subjects for the study must be considered, assuring all participants are not taken advantage of and that when public funds support the research, no one is excluded from the benefit based on the ability to pay (U.S. Department of Health, Education, and Welfare, 1979).

The current study took into consideration the above-mentioned ethical principles and guidelines. Furthermore, data sets were not obtained before getting approval from California Baptist University IRB. The study used de-identified data sets obtained from Learning for Life that were collected in their ordinary course of business. By utilizing a preexisting data set, the assumption was made that the original collection of the data followed all the correct principles and guidelines when performing the initial survey. Exploring, Learning for Life, and The Boy Scouts of America ensured that the ethical consideration of participants maintained priority during all aspects of the preliminary data collection. All data sets obtained from the primary researcher were only used for the purpose of this study and were stored on a single, password-protected computer. The researcher strictly adhered to all ethical consideration outlined in the Memorandum of Understanding (Appendix D) during the entire research process. There are no characteristics or information to identify the participants from the original study. No harm to humans or animals has resulted because of this study. There is no contact with participants as the researcher was not involved in the data collection process. All the participants are over 18 years of age and are not considered a vulnerable population (Belmont Report, 1979).

Summary

This chapter detailed the framework of the current study, which was intended to contribute to the body of knowledge related to the potential social impact that offering early public safety education has on a community. Chapter III presented the purpose and goal of utilizing a quantitative research study design. Specifically, the study contributes to this body of knowledge through a research design that used data gathered by Learning

for Life in 2018 to identify the relationship between participation in Fire & EMS and Law Enforcement Career Exploring Programs and particular social behaviors. The chapter also described the population under investigation, sampling frame, and data collection and analysis methods to be used. An explanation of the survey instrument and the study reliability and validity was also presented. Chapter IV presents the research findings.

CHAPTER IV: FINDINGS

The purpose of this quantitative research study was to investigate the potential social impact that offering early public safety education had on a community. Specifically, the study used survey data gathered by Learning for Life in 2018 (see Appendix A for a copy of the survey questions) to identify the relationship between participation in Fire & EMS and Law Enforcement Career Exploring Programs and particular prosocial behaviors. A quantitative research design was employed to examine the relationship between variables using statistical analysis. The purpose of this chapter is to present the findings of the data collected from the 679 individuals who were enlisted to participate in this social impact study. Chapter IV presents the pilot study findings, details of the data collection process, the demographic characteristics of the study's participants, and the analysis of the data in relation to the research questions.

Pilot Study

The research plan included a formal pilot test that was performed before the primary data collection process. The pilot study intended to provide information about validity, reliability, and usability of the adapted *Eagle Scouts Merit Beyond the Badge* survey instrument. An important component in the data collection process is the pilot study, which according to Monette, Sullivan, and DeJong (2002) is “a small-scale trial run of all the procedures planned for use in the main study” (p. 9). Pilot testing of an instrument (e.g., questionnaire) administered for research purposes is the standard in social sciences (Neuman, 1997). Some of the benefits of the pilot study included (a) an opportunity to test hypotheses; (b) allowance for checking statistical and analytical procedures; (c) a chance to reduce problems and mistakes in the study (Isaac & Michael,

1995). Moreover, the researcher can seek information from the participants in the pilot study to determine the degree of clarity of questions and to identify problem areas that need attention (Neuman, 1997; Borg & Gall 1979).

A small group of 10 participants representative of the intended sample (five former Public Safety Explorers and five non-Explorers who fit the careerable criteria) received invitations to participate in the pilot test study on March 12, 2018. The pilot study invitation and instructions letter are included in Appendix B. The formal pilot study involved the test-retest method for determining reliability and consistency of the questionnaire and reproducibility of the survey administration and data collection process. Test-retest reliability is a measure of reliability obtained by administering the same test twice over a period of time to a group of individuals. The scores from Time 1 (test) and Time 2 (retest) can then be correlated to evaluate the test for stability over time (Phelan & Wren, 2006). The two administrations of the survey included in the test re-test process were conducted as similarly as possible to one another and to that used in the primary research study.

California Baptists University requires IRB approval before performing formal pilot testing. The IRB approved the study on March 6, 2018, reference IRB # - 067-1718-EXM. The Institutional Review Board Approval Letter is included in Appendix C. The initial pilot test was conducted March 12 through 16, 2018. The pilot retest was held March 19 through 23, 2018. Test-retest reliability was used to assess the consistency of the measure from one time to another. The pilot study consisted of the administration of the survey questionnaire via e-mail along with feedback instructions. The pilot study

retest was conducted in the same manner as the initial pilot test and included the same group of individuals who previously completed the questionnaire.

Pilot Study Outcomes

During the initial pilot test, an e-mail invitation including survey and instructions was sent to a group of 10 individuals who were purposefully selected because they represented the intended sample population. The group included five former Public Safety Explorers who fit the careerable criteria—between the ages of 23-28 years of age and had participated in a Public Safety Career Exploring Program for at least 1 year—and five non-Explorers who fit the same age criteria. Eight individuals (80%) responded to the survey invitation request. During the retest, an e-mail invitation was sent to the same eight who participated in the initial administration of the survey. All eight of the individuals (100%) responded to the survey during the retest phase of the pilot test. During both test and retest, participants were asked to complete the survey and provide feedback. All participants were advised that their replies to the survey would not be used for data collection purposes. Instead, the researcher used responses to enhance, validate, and improve the data collection instrument.

The survey contained 10 Likert scale items and 14 dichotomous/demographic type questions. The collected data were analyzed using SPSS Grad-Pack 25.0. The responses to the 24 questions were labeled in SPSS from the initial pilot test as PT101 through PT124 and from the pilot retest as PT201 through PT224. According to Field (2009), “Cronbach’s alpha indicates the overall reliability of a questionnaire” (p. 681). Therefore, Cronbach’s alpha was used to measure the internal consistency or overall

reliability of the questionnaire’s response scale for correlation of items associated with test-retest.

In Table 9, the SPSS reliability statistics output is presented. Field (2009) indicated that values for Cronbach’s alpha should range between “.7 to .8 (or thereabouts)” (p. 679). The value of Cronbach’s alpha for the Exploring Social Behavior Survey pilot study test-retest was .81, which indicated an adequate level of consistency or overall reliability for the scale ($> .70$).

Table 9

Pilot Test Cronbach’s Alpha Test-Retest Results

SPSS output	Cronbach’s alpha	Cronbach’s alpha based on standardized items	Sig (2-tailed)
Test-retest	.81	.82	24
If item deleted (Question 4)	.84	.87	22

The “If Item Deleted” results were also considered. This analysis provided information regarding the effect on reliability if an item was removed. When searching among the values to identify items that were most likely to increase the alpha, Question 4 was found to have the highest value above the overall reliability. Removal of Question 4 would have resulted in a Cronbach’s alpha coefficient of .84 indicating a higher level of consistency. According to Field (2009), it is best to identify and remove items only if deleting them will “dramatically increase” (p. 681) the Cronbach alpha value. Based on a corrected improvement alpha score of .04, it was determined that no “dramatic increase” existed and therefore all questions would retain within the survey.

Based on the results of the pilot study and feedback from participants, it was determined that no further revisions to the research instrument or changes to the planned data collection and analysis processes were needed. The pilot study was beneficial for assessing the usability, validity, and reliability of the survey instrument. Additionally, platform compatibility, survey completion timeframes, aesthetics, and overall instrument quality was evaluated in a controlled environment before mass distribution. Based on the success of the pilot test, the primary research study was launched on March 26, 2018.

Survey Data Collection

The primary data collection was launched on March 26, 2018. Utilizing Learning for Life's database of former Fire & EMS & Law Enforcement Explorers, survey requests were sent via e-mail utilizing Qualtrics online survey platform. Learning for Life's Research Department explained that due to inconsistency in historical record keeping practices, a limited number of viable e-mail addresses would be available for the study. Of the 67,857 former Public Safety Explorers in Learning for Life's database, only 10,437 (15.4%) had an accessible e-mail address. Additionally, of the 10,437 e-mail invitations that were sent, 2855 were "bounced" due to e-mail address issues. This resulted in an original e-mail distribution of 7,582 survey invitation, or 11.2% of the total population. Because the study design incorporated comparison of the prosocial behavior of former Fire & EMS and Law Enforcement Explorers to similar individuals who were not exposed to the benefits of Exploring (non-Explorers), a comparative sample was necessary. When comparing two independent means, sample sizes are assumed to have equal groups, normal distribution, and the same variance (Pandey, 1999). To achieve a comparable comparison group, all former Public Safety Explorers who received e-mail

survey invitations were asked to forward the survey link to “a friend of similar age as yourself that was NOT an Explorer.”

The survey remained open for 1 month, closing on April 26, 2108. It was predetermined by Learning for Life’s Research Department that the survey would close after 1 month regardless if the estimated sample size of 382 individuals was met. Of the 7,582 survey invitations, the data collection process resulted in 525 participants.

Additionally, 331 non-Explorers responded via forwarded e-mail invitations.

Cumulatively, the data collection process resulted in 856 participants, with 525 Explorers and 331 non-Explorers. Of the 7,582 surveys delivered to a viable e-mail address, the 856 participants resulted in a usable response rate of 11.3%.

Data Coding and Cleaning

According to LeBlanc (2010), “The first step after collecting data and before analysis involves the coding of data into a form that can be read by statistical programs” (p. 3). The coding of data often requires the transformation of data on the research instrument into a set of numbers. In the social sciences, coding is an analytical process in which data are categorized to facilitate analysis (Bryman, 2016). Coding serves as a way to label, compile, and organize data. It also allows one to summarize and synthesize what is occurring within the data set (Bryman, 2016). Careful attention needs to be paid to data coding when hypotheses are posed to compare the means or variances between two or more groups of respondents. The data for the two groups must be coded similarly to allow for direct comparison (LeBlanc, 2010). To facilitate data analysis, survey questions were coded to support both descriptive and inferential statistical analysis.

Additionally, careful consideration was made to ensure both independent variables (Explorers and non-Explorers) were coded similarly to allow for direct comparison.

Raw data sets received from Learning for Life had undergone preliminary data cleaning before being obtained by the researcher. This included the removal of all direct and indirect personal information. When the researcher received the data sets, the responses to the survey questionnaire underwent screening for abnormalities such as missing data or unclear answers that might have required editing. Nachmias-Frankfort and Nachmias (2008) indicated, “Data cleaning is the proofreading of the data to catch any errors and inconsistent codes” (p. 134). The raw data received from Learning for Life were cleaned utilizing the following steps:

1. The researcher received de-identified raw data from Learning for Life via Qualtrics export. Original $n = 856$
2. The researcher removed all incomplete surveys. Updated $n = 760$.
3. The research project was limited to individuals who were former participants of a Fire & EMS or Law Enforcement Career Exploring Program. The researcher removed all responses that did not include one of the aforementioned Exploring Programs.
Updated $n = 736$.
4. The research program was limited to individuals who had participated in a Fire & EMS or Law Enforcement Career Exploring Program for at least 1 year. All survey responses “less than 1 year” and “don’t know” were removed by the researcher.
Updated $n = 732$.

5. The research program was limited to individuals who were between the ages of 23-28 at the time of the survey. The researcher removed the survey age response “other.” Updated $n = 684$.
6. The researcher removed all invalid zip codes that were not five digits (the first digit of 0 remained in the study). Updated $n = 681$.
7. The researcher removed all nonresponses to “what is your gender.” Updated $n = 679$.
8. The results of the data cleaning procedure resulted in an updated sample size of 679 individuals. A n of 679 was utilized for the remainder of the research project.

Descriptive and Demographic Characteristics of the Sample

This comparative cross-sectional study compared the social behaviors of two groups, Explorers and non-Explorers. The combined sample size numbered 679 individuals, with 384 being former Explorers (56.6%) and 295 being non-Explorers (43.3%). Table 10 illustrates the frequency and percentage statistics of the sample. This study was limited to former Public Safety Explorers including both Fire & EMS and Law Enforcement Career Exploring Programs. Of the 384 former Explorers, 39.8% reported being former Fire & EMS Explorers ($n = 153$) while 60.2% reported being former Law Enforcement Explorers ($n = 231$). Table 11 outlines the distribution of the reporting former Explorers.

Table 10

Frequency and Percentage Statistics of Participants' Previous Exploring History

Demographics	Frequency (n)	Percentage (%)
Former Explorer	384	56.6
Non-Explorer	295	43.3

Note. Total $N = 679$.

Table 11

Frequency and Percentage Statistics of Participants' Exploring Program

Demographics	Frequency (<i>n</i>)	Percentage (%)
Fire & EMS Career Exploring Program	153	39.8
Law Enforcement Career Exploring Program	231	60.2

Note. Total *N* = 384.

Age and gender demographics were reported by all survey participants. Of the combined sample size, 69.2% of the participants were male ($n = 470$), 28.7% were female ($n = 195$) and the remaining 2.1% of participants ($n = 14$) reported their gender as “other.” Table 12 illustrates the frequency and percentage statistics of participants’ gender. Additionally, 25.2% were 23 years old ($n = 171$), 20.3% were 24 years old ($n = 138$), 18.4% were 25 years old ($n = 125$), 14.9% were 26 years old ($n = 101$), 11.6% were 27 years old ($n = 79$), and 9.6% were 28 years old ($n = 65$). Displayed in Table 13 are frequency and percentage statistics of participants’ age.

Table 12

Frequency and Percentage Statistics of Participants' Gender—Total

Demographics	Frequency (<i>n</i>)	Percentage (%)
Male	470	69.2
Female	195	28.7
Other	14	2.1

Note. Total $n = 679$.

Table 13

Frequency and Percentage Statistics of Participants' Age Group—Total

Demographics	Frequency (<i>n</i>)	Percentage (%)
23-year-olds	171	25.2
24-year-olds	138	20.3
25-year-olds	125	18.4
26-year-olds	101	14.9
27-year-olds	79	11.6
28-year-olds	65	9.6

Note. Total *n* = 679.

The ethnicity and geographic region that the participants currently reside in were also collected. Specifically, 56.6% reported being White (*n* = 384), 10.6% reported being Black or African American (*n* = 72), 19.3% reported being Hispanic (*n* = 131), 5.3% reported being Asian (*n* = 36), 2.1% reported being another ethnicity (*n* = 14), and 6.2% reported being multiracial (*n* = 42). Displayed in Table 14 are frequency and percentage statistics of participants' race. Additional data were collected identifying the participant's geographic locations. Based on reported current zip codes, participants were grouped into the following categories:

Midwest - Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Montana, Missouri, North Dakota, Nebraska, Ohio, and South Dakota

Northeast—Connecticut, Washington D.C, Delaware, Massachusetts, Maryland, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

South—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

Southwest—Arizona, New Mexico, Oklahoma, and Texas.

West—Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

Mexico—All responses from Mexico

Military—All responses from foreign U.S. Military Bases.

Table 14

Frequency and Percentage Statistics of Participants' Race—Total

Demographics	Frequency (<i>n</i>)	Percentage (%)
White	384	56.6
Black or African American	72	10.6
Hispanic	131	19.3
Asian	36	5.3
Other	14	2.1
Multiracial	42	6.2

Note. Total *n* = 679.

Specifically, 21.9% reported living in the Midwest (*n* = 149), 15.8% reported living in the Northeast (*n* = 107), 17.1% reported living in the South (*n* = 116), 7.5% reported living in the Southwest (*n* = 51), 37% reported living in the West (*n* = 251), .4% reported living in Mexico (*n* = 3), and .3% reported living at a foreign U.S. Military Base (*n* = 2). Table 15 illustrates the frequency and percentage statistics of participants' geographic locations.

Table 15

Frequency and Percentage Statistics of Participants' Geographic Location—Total

Demographics	Frequency (<i>n</i>)	Percentage (%)
Midwest	149	21.9
Northeast	107	15.8
South	116	17.1
Southwest	51	7.5
West	251	37.0
Foreign military bases	2	.3
Mexico	3	.4

Note. Total *N* = 679.

Descriptive and demographic characteristics were also recorded independently for each comparison group. The first group, former Explorers, had a sample of 384 participants while the second group, non-Explorers, had a sample size of 295 participants. Of the 384 former Explorers, 73.7% were male ($n = 283$), 25.3% were female ($n = 97$), and the remaining 1.0% of participants ($n = 4$) reported their gender as “other.” Comparatively, the non-Explorer group reported 63.4% male ($n = 187$), 33.2% female ($n = 98$), and the remaining 3.4% ($n = 10$) reported their gender as “other.” Table 16 displays the frequency and percentage statistics of participants' gender.

Table 16

Frequency and Percentage Statistics of Participants' Gender—Explorers and Non-Explorers

Demographics	Frequency (<i>n</i>)	Percentage (%)
Explorers		
Male	283	73.7
Female	97	25.3
Other	4	1.0
Non-Explorers		
Male	187	63.4
Female	98	33.2
Other	10	3.4

Note. Explorer *n* = 384 / non-Explorer *n* = 295.

The frequency and percentage of participants' age were also collected and categorized based upon being an Explorer or a non-Explorer. Of the 384 Explorers, 25.2% were 23 years old (*n* = 100), 14.6% were 24 years old (*n* = 58), 18.8% were 25 years old (*n* = 72), 15.4% were 26 years old (*n* = 59), 13.3% were 27 years old (*n* = 51), and 11.5% were 28 years old (*n* = 44). Comparatively, the non-Explorer group reported that 24.1% were 23 years old (*n* = 71), 27.3% were 24 years old (*n* = 80), 18.0% were 25 years old (*n* = 53), 14.2% were 26 years old (*n* = 42), 9.5% were 27 years old (*n* = 28), and 7.1% were 28 years old (*n* = 21). Displayed in Table 17 are frequency and percentage statistics of participants' age.

Table 17

Frequency and Percentage Statistics of Participants' Age—Explorers and Non-Explorers

Demographics	Frequency (<i>n</i>)	Percentage (%)
Explorers		
23-year-olds	100	25.2
24-year-olds	58	14.6
25-year-olds	72	18.8
26-year-olds	59	15.4
27-year-olds	51	13.3
28-year-olds	44	11.5
Non-Explorers		
23-year-olds	71	24.1
24-year-olds	80	27.3
25-year-olds	53	18.0
26-year-olds	42	14.2
27-year-olds	28	9.5
28-year-olds	21	7.1

Note. Explorer $n = 384$ / non-Explorer $n = 295$.

Demographics information regarding both Explorers' and non-Explorers' ethnicity was also collected. Explorers reported 66.4% being White ($n = 255$), 6.8% reported being black or African American ($n = 26$), 14.6% reported being Hispanic ($n = 56$), 3.4% reported being Asian ($n = 13$), 2.1% reported being another ethnicity ($n = 8$), and 6.8% reported being multiracial ($n = 26$). Comparatively, non-Explorers reported 43.7% being White ($n = 129$), 15.6% reported being black or African American ($n = 46$), 25.4% reported being Hispanic ($n = 75$), 7.8% reported being Asian ($n = 23$), 2.0% reported being another ethnicity ($n = 6$), and 5.4% reported being multiracial ($n = 16$). Displayed in Table 18 are frequency and percentage statistics of participants' ethnicity.

Table 18

Frequency and Percentage Statistics of Participants' Race—Explorers and Non-Explorers

Demographics	Frequency (<i>n</i>)	Percentage (%)
Explorers		
White	255	66.4
Black or African American	26	6.8
Hispanic	56	14.6
Asian	13	3.4
Other	8	2.1
Multiracial	26	6.8
Non-Explorers		
White	129	43.7
Black or African American	46	15.6
Hispanic	75	25.4
Asian	23	7.8
Other	6	2.0
Multiracial	16	5.4

Note. Explorer $n = 384$ / non-Explorer $n = 295$.

The geographic location where both Explorers and non-Explorers reported living was collected. Explorers reported 24.0% living in the Midwest ($n = 92$), 15.1% reported living in the Northeast ($n = 58$), 16.4% reported living in the South ($n = 63$), 8.1% reported living in the Southwest ($n = 31$), 35.2% reported living in the West ($n = 135$), .8% reported living in Mexico ($n = 3$), and .5% reported living on a foreign U.S. Military Base ($n = 2$). Comparatively, non-Explorers reported 19.3% living in the Midwest ($n = 57$), 16.6% reported living in the Northeast ($n = 49$), 18.0% reported living in the South ($n = 53$), 6.8% reported living in the Southwest ($n = 20$), and 39.3% reported living in the West ($n = 116$). No non-Explorers reported living in Mexico or on foreign Military

Bases. Table 19 illustrates the comparison between where Explorers' and non-Explorers' reported currently living.

Table 19
*Frequency and Percentage Statistics of Participants' Reported Current Geographic Location—
Explorers and Non-Explorers*

Demographics	Frequency (<i>n</i>)	Percentage (%)
Explorers		
Midwest	92	24.0
Northeast	58	15.1
South	63	16.4
Southwest	31	8.1
West	135	35.2
Mexico	3	.8
Foreign U.S. military bases	2	.5
Non-Explorers		
Midwest	57	19.3
Northeast	49	16.6
South	53	18.0
Southwest	20	6.8
West	116	39.3
Mexico	0	0
Foreign U.S. Military Bases	0	0

Note. Explorer $n = 384$ / non-Explorer $n = 295$.

The study also recorded the current geographical location of each participant. Reported zip codes were converted to individual states. Survey participants represented all 50 states and the District of Columbia. Additionally, responses were received from individuals in Mexico and foreign U.S. Military Bases. Table 20 has a breakdown of the frequency and percentage statistics of participants reported the state in which they currently reside.

Table 20

Frequency and Percentage Statistics of Participants' Reported State Currently Living In—Total

Demographics	Frequency (<i>n</i>)	Percentage (%)
Alabama - AL	10	1.5
Alaska – AK	3	.4
Arizona – AZ	13	1.9
Arkansas – AR	1	.1
California – CA	177	26.1
Colorado – CO	17	2.5
Connecticut – CT	10	1.5
Delaware - DE	1	1
District of Columbia – DC	3	.4
Florida – FL	24	3.5
Georgia – GA	15	2.2
Hawaii – HI	2	.3
Idaho – ID	8	1.2
Illinois – IL	32	4.7
Indiana – IN	12	1.8
Iowa – IA	10	1.5
Kansas - KS	6	.9
Kentucky – KY	8	1.2
Louisiana – LA	10	1.5
Maine – ME	4	.6
Maryland – MD	10	1.5
Massachusetts – MA	10	1.5
Michigan – MI	8	1.2
Minnesota – MN	22	3.2
Mississippi – MS	4	.6
Missouri – MO	16	2.4
Montana – MT	3	.4
Nebraska – NE	3	.4
Nevada – NV	11	1.6
New Hampshire - NH	2	.3
New Jersey – NJ	10	1.5
New Mexico – NM	5	.7
New York - NY	48	7.1
North Carolina – NC	9	1.3

Table 20 (continued)

Demographics	Frequency (<i>n</i>)	Percentage (%)
North Dakota – ND	1	.1
Ohio – OH	21	3.1
Oklahoma – OK	7	1.0
Oregon – OR	9	1.3
Pennsylvania – PA	5	.7
Rhode Island - RI	2	.3
South Carolina – SC	9	1.3
South Dakota – SD	4	.6
Tennessee - TN	15	2.2
Texas – TX	26	3.8
Utah – UT	5	.7
Vermont – VT	2	.3
Virginia – VA	10	1.5
Washington – WA	14	2.1
West Virginia – WV	1	.1
Wisconsin – WI	14	2.1
Wyoming – WY	2	.3
Mexico	3	.4
Foreign U.S. military bases	2	.3

Note. Total *N* = 679.

Data Analysis of Research Questions

The independent samples *t* test is an inferential statistical test that determines whether there is a statistically significant difference between the means in two unrelated groups. The null hypothesis (H_0) for the independent samples *t* test is that the population means from two unrelated groups are equal (Field, 2009). In research studies utilizing an independent samples *t* test, data are analyzed to determine whether to accept or reject the null hypothesis (H_0). In rejecting the null hypothesis (H_0), the alternative hypothesis (H_a) is accepted, which is that the sample means are not equal. To accomplish this,

researchers need to set a significance level (alpha level) that allows researchers to either reject or accept the alternative hypothesis (H_a ; Lund Research, n.d.).

The study included the following research questions and associated null (H_o) and alternative hypotheses (H_a). These questions and hypotheses include the independent and dependent variables for the comparison. For this study, the two unrelated groups were individuals who participated in a Fire & EMS or Law Enforcement Career Exploring Program and individuals who did not participate in such a program. To answer these questions, an independent sample t test utilizing a significance level (alpha level) of 0.05 was used.

1. Research Question 1 (RQ1) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities?

H_{o1} : There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

H_{a1} : There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

2. Research Question 2 (RQ2) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience?

H_{o2} : There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

H_{a2} : There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

3. Research Question 3 (RQ3) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills?

H₀₃: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

H_{a3}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

4. Research Question 4 (RQ4) What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship?

H₀₄: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

H_{a4}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

5. Research Question 5 (RQ5) What is the relationship between participating in Fire & EMS and Law Enforcement Exploring Career Programs and character education?

H₀₅: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

H_{a5}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

Composite Variables

A composite variable analysis research design was used in this study to create variables that would specifically address individual research questions. Specifically, five composite variables were created utilizing 15 individual survey response questions.

Researchers often need to employ multiple indicators to measure a variable adequately and validly (Babbie, 2012). A composite variable analysis is a data reduction technique used to create variables that can specifically address individual research questions.

According to Payne (2016), a composite variable is a variable created by combining two or more individual variables into a single variable. Each variable alone does not provide sufficient information, but altogether they can represent a more complex concept. When creating composite variables, researchers need to emphasize an empirical relationship that is scored in such a manner that each variable contributes independently and is weighted equally (Babbie, 2012). According to Ley (1972), a composite variable is a variable made up of two or more variables or measures that are highly related to one another conceptually or statistically. Using composite variables is a common practice when organizing multiple highly correlated variables into more digestible or meaningful information (Song, Lin, Ward, & Fine, 2013)

This study was created around the five-program emphasis that Exploring is based upon career opportunities, leadership experience, life skills, citizenship, and character education. Research questions were designed to investigate the relationship between program participation and specific prosocial behaviors corresponding to each program emphasis. Consequently, the survey instrument was designed specifically to be composited to answer research questions directly related to each program emphasis. All composite variables contain survey questions that were coded in such a manner that they contribute independently and are weighted equally. For each following research question, a composite variable utilizing an aggregated sum of the associated survey questions was established:

Research Question 1 (RQ1)—Composite Means Career Opportunities (CMCO)

Q6—What is your current employment status?

Q7—What was your approximate annual income in 2017, before taxes?

Q24—What is your highest level of education you have completed?

For CMCO, all questions were coded to contribute independently and equally. Q6, Q7, and Q24 were all coded on a 1-6-point scale resulting in a minimum value of 3 and a maximum value of 18 with a range of 16.

Research Question 2 (RQ2)—Composite Means Leadership Experience (CMLE)

Q8—How often are you given leadership roles at the organization in which you are employed, or have been employed?

Q9—How often do you hold leadership positions in your local community?

For CMLE, all questions were coded to contribute independently and equally. Q8 and Q9 were both coded on a 1-5-point scale resulting in a minimum value of 2 and a maximum value of 10 with a range of 9.

Research Question 3 (RQ3)—Composite Means Life Skills (CMLS)

Q10—Would you say your health, in general is...?

Q11—How would you rate your current physical fitness?

Q12—How would you describe your mental fitness?

For CMLS, all questions were coded to contribute independently and equally. Q10, Q11, and Q12 were all coded on a 1-5-point scale resulting in a minimum value of 3 and a maximum value of 15 with a range of 13.

Research Question 4 (RQ4)—Composite Means Citizenship (CMC)

Q13—Did you vote in the 2016 presidential election when Donald Trump and Hillary Clinton were the two main candidates?

Q14—Have you voted in local elections in the past 12 months?

Q15—In the past year, have you worked with others in your local community to address a problem or improve something?

For CMC, all questions were coded to contribute independently and equally. Q13, Q14, and Q15 were all coded on a 0-1-point scale resulting in a minimum score of 0 and a maximum score of 3 with a range of 4.

Research Question 5 (RQ5)—Composite Means Character Education (CMCE)

Q16—I always do what is right?

Q17—I fully accept the consequences of choices I make?

Q18—I work hard to get ahead?

Q19—How important is it to learn something new everyday

For CMCE, all questions were coded to contribute independently and equally. Q16, Q17, Q18, and Q19 were all coded on a 1-5-point scale resulting in a minimum value of 4 with a maximum value of 20 with a range of 17.

Independent Samples *t* Test Assumptions for Validity

The independent samples *t* test evaluates the difference between the means of two independent or unrelated groups (Howell, 2007). This section includes the assumptions essential for the independent samples *t* test, which was considered for use for the statistical analysis associated with this study's primary inquiry. The following three assumptions were tested and evaluated:

1. The assumption of independence—the data (scores) are independent of each other (that is, scores of one participant are not systematically related to scores of the other participants).

2. The assumption of normality—the test (dependent) variable is normally distributed within each of the two populations (as defined by the grouping variable).
3. The assumption of homogeneity of variance—the variance of the test (dependent) variable in the two populations is equal (Howell, 2007).

First, the assumption of independence was confirmed to use the independent samples *t* test. According to Field (2009), independence is a methodological concern that is dealt with during project design. It is assessed through an examination of the design of the study (Field, 2009). In this research project, independence was assumed by having participants self-identify themselves individually as either former Public Safety Explorers or non-Explorers.

The assumption of normality was evaluated to determine whether the independent samples *t* test could be utilized. To test the assumption of normality, data associated with this study were organized graphically through histograms with normality plots, which indicated some skewness and kurtosis in the data. The normal distribution of the data was also tested via the Shapiro-Wilk test through SPSS, which indicated $\leq .005$ maximum for the individual items, thus indicating nonnormal distribution. Field (2009) explained that the Shapiro-Wilk test has its limitations and that “a significant test does not necessarily tell us whether the deviation from normality is enough to bias any statistical procedures that we apply to the data” (p. 144). With the independent samples *t* test, this assumption can be moderately violated and still provide valid results because it is a robust test that only requires “approximately normal data” (Lund Research, n.d.).

To use the independent samples *t* test, the assumption of homogeneity of variance was tested to ensure the null hypothesis assumes no difference between the two groups’

variance. According to Field, the Levene's F test for equality of variance is the most commonly used statistic to test the assumption of homogeneity of variance. Specifically, the assumption of homogeneity of variance was violated for several of the response items associated with this study. This was tested in SPSS using Levene's test for homogeneity of variances, and adjustments to the interpretation of the output, whether equal variances were assumed or equal variances were not assumed, were made in accordance to the guidelines for the Levene's test (Field 2009). Specifically, if the assumption of variance was not met, the study utilized data results associated with the "Equal variance not assumed," which takes into account the Cochran and Cox (1957) adjustment for the standard error of estimate and the Satterthwaite (1946) adjustment for the degrees of freedom.

The independent samples t test is referred to as a "robust" test. That is, the t test is relatively insensitive (having little effect) to violations of normality and homogeneity of variance depending on the sample sizes. If $n_1 = n_2$ and the size of each sample is equal to or greater than 30, the t test for independent groups may be used without significant error despite moderate violations of the normality and/or the homogeneity of variance assumption (Pagano, 2004). Additionally, sample sizes can be considered equal if the larger group is not more than 1 1/2 times larger than the smaller group (Morgan, Leech, Gloeckner, & Barrett, 2004). Applying the details mentioned above to this study, which had a $n_1 = 384$ and $n_2 = 295$, the violations of the assumptions of the t test for independent groups would not be considered significant, allowing the data results to be considered valid.

To ensure quality and validity of this study's finding, the nonparametric version of the independent samples t test, the Mann-Whitney U test, was run and compared. The Mann-Whitney U test is used to compare differences between two independent groups when the dependent variable is either ordinal or continuous but not normally distributed (Lund Research, n.d.). The results of the parametric (independent samples t test) and nonparametric (Mann-Whitney U) tests were compared to assure the probability of the validity of the results of the independent samples t test. Statistically, the independent samples t test produced similar critical values yielding almost identical degrees of significance. Therefore, the preference was to use the more robust test, which was the independent samples t test, for the data analysis associated with this study.

After assessment and consideration of these assumptions, it was determined that the independent samples t test was a good fit for the data analysis associated with this study. Although not a perfect match with all assumptions met, the appropriate adjustments or confirmatory analysis were made to assure the validity of the output and inferences. Therefore, the independent samples t test was employed to evaluate the difference between the means of two independent samples (former Public Safety Explorers and non-Explorers) in this research study.

Independent Samples t Test Data Analysis

An independent samples t test was conducted to compare the means of two independent groups to determine whether there was statistical evidence that the associated population means are significantly different (Lund Research, n.d.). Data were examined using IBM SPSS Student Grad Pack version 25.0. For this study, the independent samples t test was used to perform a comparison of the means of the two

independent participant groups, former Public Safety Explorers and non-Explorers. The test results were used to determine whether the null hypothesis (the two population means are equal) would be accepted or rejected, therefore accepting the alternative hypothesis (the two population means are not equal).

Composite scores were calculated for each of the research questions utilizing a combination of survey responses. Five factor groups were established and entered as test variables. The first, composite means career opportunities (CMCO), consisted of three survey questions (Q6, Q7, and Q24) and addressed Research Question 1. Second, composite means leadership experience (CMLE) consisted of two survey questions (Q8 and Q9) and addressed Research Question 2. Third, composite means life skills (CMLS) consisted of three survey questions (Q10, Q11, and Q12) and addressed Research Question 3. Next, composite means citizenship (CMC) consisted of three survey questions (Q13, Q14, and Q15) and addressed Research Question 4. Finally, composite mean character education (CMCE) consisted of four survey questions and addressed Research Question 5.

The comparison grouping variables were defined as Group 1 (former Public Safety Explorers) and Group 2 (non-Explorers). This data analysis process included a two-tailed analysis, standard 95% confidence interval and an alpha value of 0.05. Interpretation of the independent samples *t* test focused on the alpha level and *p* value for determining the significance associated with CMCO, CMLE, CMLS, CMC, and CMCE responses in relation to the comparison of the means for the two independent groups. The SPSS output for the independent samples *t* test indicated the significance or *p* value for comparison to the alpha value. In addition to the composite means, CMCO, CMLE,

CMLS, CMC, and CMCE, all corresponding survey questions were also assessed for significance in the difference between the two independent groups to provide detail. While these results provided additional insight, they were not used directly for the hypotheses testing determination. Unique details of these data are elaborated on in Chapter V. Table 23 illustrates these findings.

The independent samples *t* test analysis included the results of Levene's test for equality of variance. Levene's test of equality of error variances determines whether the variance between group combinations for the dependent variable are equal (Lund & Lund, n.d.-b). This test of equality tests the null hypothesis that the error variance of the dependent variable is equal across groups (Lund & Lund, n.d.-b). The "Sig." column in Table 21 represents the significance level or *p* value of this test.

If $p < 0.05$, Levene's test is statistically significant, and unequal or heterogeneous variance exists (Lund, Lund, n.d.-b). Alternatively, if the Sig. values are higher than 0.05 ($p > 0.05$), this indicates that the variances are equal and the homogeneity of variance assumption is met (Lund & Lund, n.d.-b). Based on a resulting assumed / not assumed variance, SPSS produced the following corresponding *t* values. Levene's output for CMCO was 0.099 indicating equal variance was assumed, CMLE was 0.535 indicating equal variance was assumed, CMLS was .040 indicating equal variance was not assumed, CMC was 0.002 indicating variance was not assumed, and CMCE was 0.000 also indicating variance was not assumed. As reported and indicated in Table 21, CMLS, CMC, and CMCE did not meet the assumption of homogeneity of variance in this study. However, given that the sample sizes for each group of the independent variable (Former Public Safety Explorers $n = 384$ and non-Explorers $n = 295$) were robust, the violation of

the assumption of homogeneity of variance-covariance matrices was not a significant concern and should not impede the undertaking of the independent samples *t* test (Lund & Lund, n.d.-b).

Table 21

Levine's Test for Equality of Variance

Composite variable and research question	<i>F</i>	Sig.	Equal / not equal
Career opportunities			
CMCO	2.728	.099*	Assumed
Q6	78.643	.000	Not Assumed
Q7	58.715	.000	Not Assumed
Q24	3.523	.061*	Assumed
Leadership experience			
CMLE	.386	.535*	Assumed
Q8	2.366	.124*	Assumed
Q9	5.170	.023	Not Assumed
Life skills			
CMLS	4.249	.040	Not Assumed
Q10	9.294	.002	Not Assumed
Q11	2.107	.147*	Assumed
Q12	6.940	.009	Not Assumed
Citizenship			
CMC	9.410	.002	Not Assumed
Q13	.040	.842*	Assumed
Q14	207.832	.000	Not Assumed
Q15	380.938	.000	Not Assumed
Character education			
CMCE	61.379	.000	Not Assumed
Q16	19.281	.000	Not Assumed
Q17	62.995	.000	Not Assumed
Q18	32.068	.000	Not Assumed
Q19	7.519	.006	Not Assumed

Note. * $p > 0.05$ equal variance is assumed.

This study used a composite variable analysis research design to create variables that would specifically address individual research questions. Specifically, five

composite variables were created utilizing 15 individual survey response questions. The findings of the independent samples *t* tests were grouped into five composite mean variables—CMCO, CMLE, CMLS, CMC, and CMCE—for testing the hypotheses aligned with the research question associated with this study. The values related to the *t* test—the *t* value (*t*), degrees of freedom (*df*), the *p* value (Sig. 2-tailed)—are reported in Table 22. In addition to the composite means variables, independent samples *t*-test results are included for all corresponding survey question.

Table 22

Results of Independent Samples t Test

Composite variable and research question	<i>t</i>	<i>df</i>	<i>p</i>
Career opportunities			
CMCO	14.291	677	.000
Q6	10.514	534.741	.000
Q7	10.810	676.153	.000
Q24	10.382	677	.000
Leadership experience			
CMLE	14.455	677	.000
Q8	14.957	677	.000
Q9	9.567	677	.000
Life skills			
CMLS	13.761	677	.000
Q10	11.279	601.216	.000
Q11	9.889	677	.000
Q12	14.416	677	.000
Citizenship			
CMC	14.110	663.114	.000
Q13	12.429	677	.000
Q14	8.624	675.479	.000
Q15	9.014	664.593	.000
Character education			
CMCE	16.689	522.773	.000
Q16	13.421	589.541	.000
Q17	14.305	532.809	.000
Q18	13.379	568.672	.000
Q19	12.269	677	.000

Table 22 presents the results of the independent samples *t* test. Table 23 provides the association of significance results from independent samples *t* tests to the survey question based upon an alpha of 0.05 and the Sig. (2-tailed) value that is included in the data analysis output presented in Table 22. The composite variables (CMCO, CMLE, CMLS, CMC, and CMCE) for the individual research questions are addressed in detail later in this chapter.

Research Question 1 Findings

Data analyses provided insight into the Research Question 1 (RQ1) and its associated hypothesis as presented below:

Research Question 1 (RQ1). What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities?

H₀₁: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

H_{a1}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

This question and its associated hypotheses were tested as the composite variable, CMCO, which included the responses to questions Q6, Q7, and Q24. An independent samples *t* test was conducted to compare career opportunities between former Public Safety Explorers and non-Explorers. There was a significant difference in the scores for former Public Safety Explorers ($M = 12.33$ $SD = 3.70$) and non-Explorers ($M = 8.29$ $SD = 3.57$); $t(677) = 14.30$, $p = 0.000$. Therefore, the null hypothesis, *H₀₁* was rejected and the alternative hypothesis, *H_{a1}* was accepted. Specifically, these results suggest there is a

Table 23

Association of Significance Results From Independent Samples t Test to the Survey Questions

Survey question	Response interpretation
Career opportunities	
Q6	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and employment status.
Q7	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and annual income.
Q24	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and the highest level of education completed.
Leadership experience	
Q8	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and holding leadership roles at the organization they are employed.
Q9	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and holding leadership positions in their local community.
Life skills	
Q10	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and overall health.
Q11	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and physical fitness.
Q12	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and mental fitness.
Citizenship	
Q13	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and voting in presidential elections.
Q14	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and voting in local elections.
Q15	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and working to address problems in their community.

Table 23 (continued)

Survey question	Response interpretation
Character education	
Q16	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and doing what is right.
Q17	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and accepting the consequences of their choices.
Q18	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and working hard to get ahead.
Q19	There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and learning something new every day.

significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities. These data are visually represented in Figure 3.

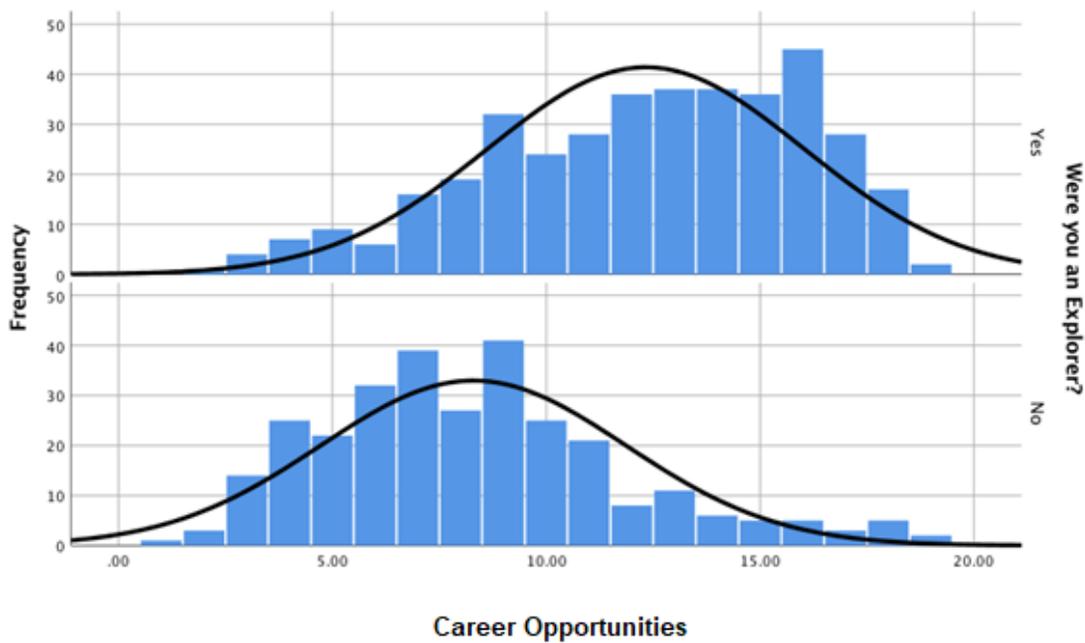


Figure 3. Composite means career opportunities.

Research Question 2 Findings

Data analyses provided insight into the Research Question 2 (RQ2) and its associated hypothesis as presented below:

Research Question 2 (RQ2). What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience?

H_02 : There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

H_a2 : There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

This question and its associated hypotheses were tested as the composite variable, CMLE, which included the responses to questions Q8 and Q9. An independent samples t test was conducted to compare leadership experience between former Public Safety Explorers and non-Explorers. There was a significant difference in the scores for former Public Safety Explorers ($M = 6.68$ $SD = 1.79$) and non-Explorers ($M = 4.70$ $SD = 1.71$); $t(677) = 14.46$, $p = 0.000$. Therefore, the null hypothesis, H_01 was rejected and the alternative hypothesis, H_a1 was accepted. Specifically, these results suggest there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience. These data are visually represented in Figure 4.

Research Question 3 Findings

Data analyses provided insight into the Research Question 3 (RQ3) and its associated hypothesis as presented below:

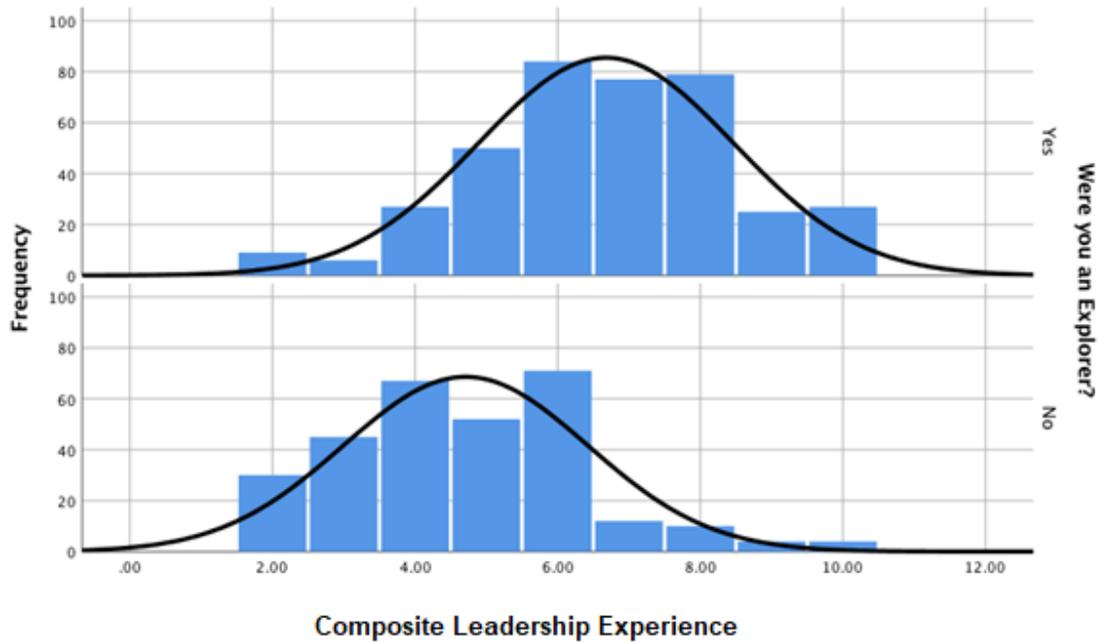


Figure 4. Composite means leadership experience.

Research Question 3 (RQ3). What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills?

H₀₃: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

H_{a3}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

This question and its associated hypotheses were tested as the composite variable, CMLS, which included the responses to questions Q10, Q11 and Q12. An independent samples *t* test was conducted to compare life skills between former Public Safety Explorers and non-Explorers. There was a significant difference in the scores for former Public Safety Explorers ($M = 12.33$ $SD = 1.95$) and non-Explorers ($M = 10.12$ $SD = 2.12$); $t(589) = 13.54, p = 0.000$. Therefore, the null hypothesis, H_{01} was rejected and

the alternative hypothesis, H_{a1} was accepted. Specifically, these results suggest there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills. These data are visually represented in Figure 5.

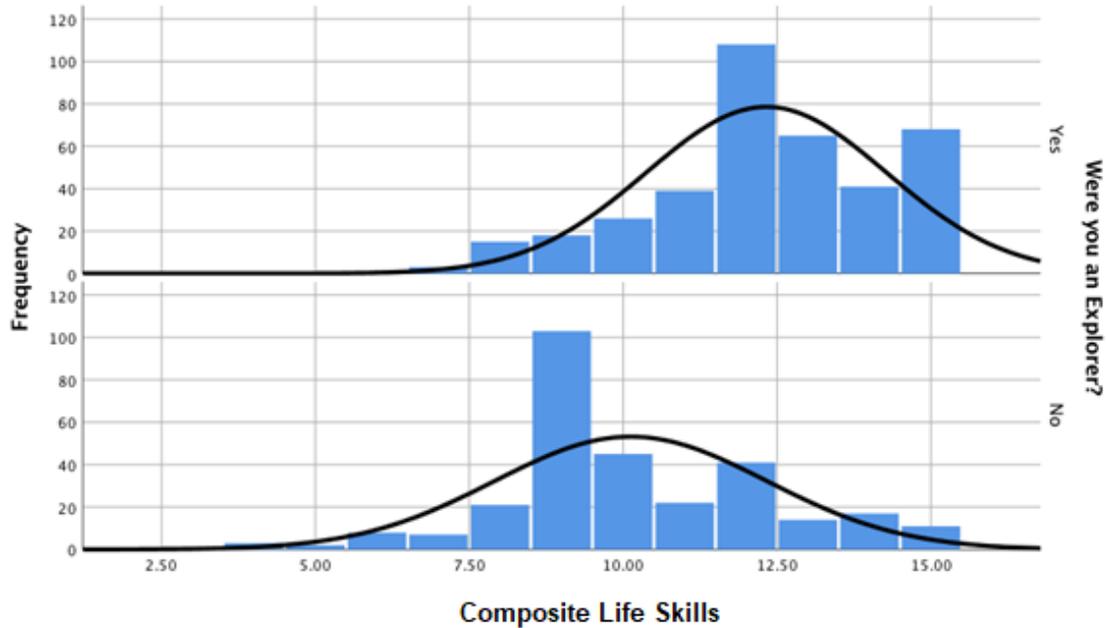


Figure 5. Composite means life skills.

Research Question 4 Findings

Data analyses provided insight into the Research Question 4 (RQ4) and its associated hypothesis as presented below:

Research Question 4 (RQ4). What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship?

H_{04} : There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

H_{a4}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

This question and its associated hypotheses were tested as the composite variable, CMC, which included the responses to questions Q13, Q14, and Q15. An independent samples *t* test was conducted to compare citizenship between former Public Safety Explorers and non-Explorers. There was a significant difference in the scores for former Public Safety Explorers ($M = 1.63$ $SD = 1.00$) and non-Explorers ($M = 0.61$ $SD = 0.88$); $t(663) = 14.11, p = 0.000$. Therefore, the null hypothesis, H_0 was rejected and the alternative hypothesis, H_a was accepted. Specifically, these results suggest there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship. These data are visually represented in Figure 6.

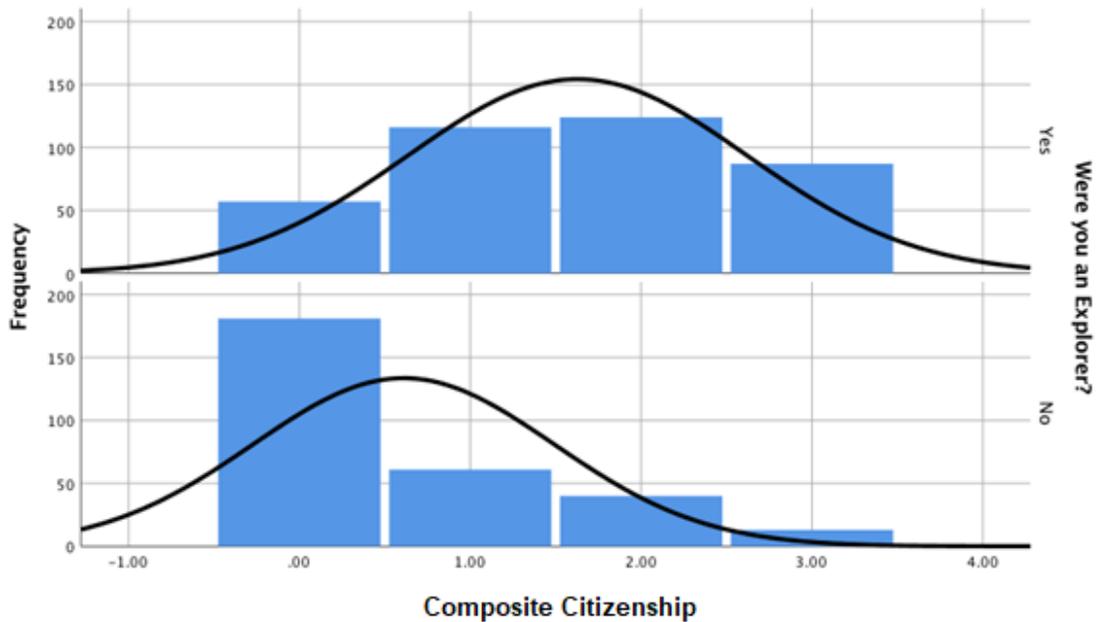


Figure 6. Composite means citizenship.

Research Question 5 Findings

Data analyses provided insight into the Research Question 5 (RQ5) and its associated hypothesis as presented below:

Research Question 5 (RQ5). What is the relationship between participating in Fire & EMS and Law Enforcement Exploring Career Programs and character education?

H₀₅: There is no significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

H_{a5}: There is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

This question and its associated hypotheses were tested as the composite variable, CMCE, which included the responses to questions Q16, Q17, Q18, and Q19. An independent samples *t* test was conducted to compare character education between former Public Safety Explorers and non-Explorers. There was a significant difference in the scores for former Public Safety Explorers ($M = 18.00$ $SD = 2.61$) and non-Explorers ($M = 13.92$ $SD = 3.52$); $t(523) = 16.689, p = 0.000$. Therefore, the null hypothesis, H_01 was rejected and the alternative hypothesis, H_a1 was accepted. Specifically, these results suggest there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education. These data are visually represented in Figure 7.

Summary

The purpose of this quantitative research study was to investigate the potential social impact that offering early public safety education had on a community. Specifically, the study used survey data gathered by Learning for Life in 2018

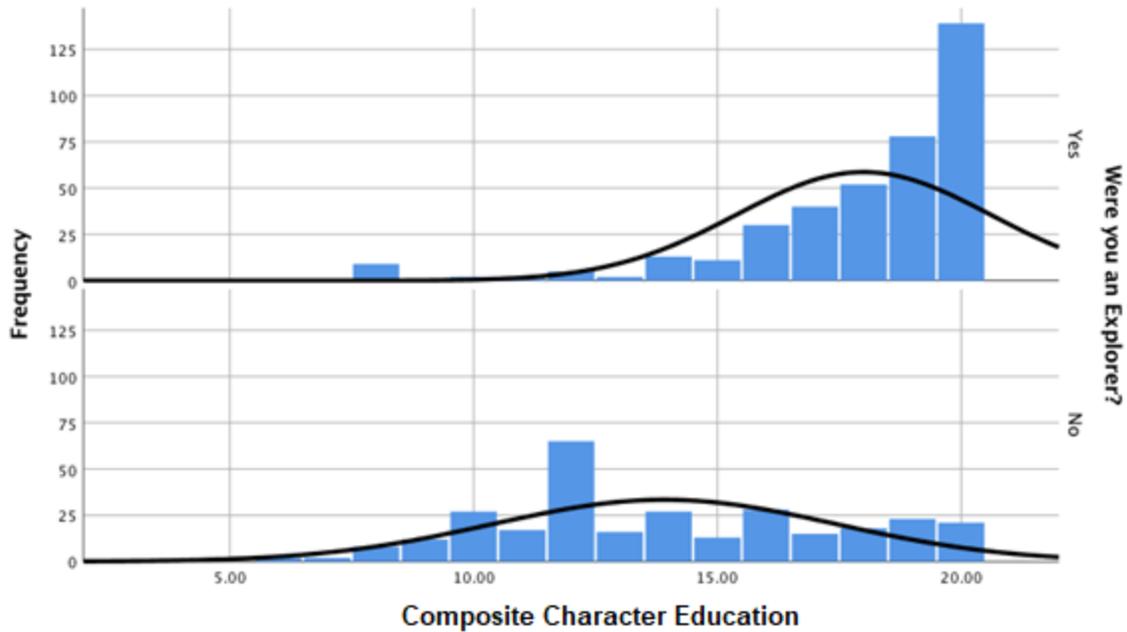


Figure 7. Composite means character education.

(see Appendix A for specific survey questions) to identify the relationship between participation in Fire & EMS and Law Enforcement Career Exploring Programs and particular prosocial behaviors. Focusing on Rappaport’s empowerment theory, which links individual strengths and competencies, helping systems, and proactive behaviors to social policy and social change, the researcher, attempted to see whether Rappaport’s empowerment model applies to Public Safety Exploring programs. When applying Public Safety Exploring Programs to Rappaport’s Model, “individuals” (program participants) when introduced to a “helping system” (Exploring) will result in “proactive behavior” (prosocial behaviors the study measured) that can ultimately lead to social impact or change. To measure the potential social impact that offering early public safety education has on a community, the researcher employed a quantitative research design to examine the relationship between variables using statistical analysis. This chapter presented the data management steps conducted before analysis in the current study. This

included pilot study results, data collection process, and data cleaning and coding utilized in this study. Descriptive and demographic characteristics of the sample were presented and analyzed. This process preceded independent samples *t* tests which were used to answer the studies research questions.

Examination of the quantitative research data revealed a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and prosocial behavior. Specifically, the data indicated that young adults between the ages of 23-28 who had participated in a Public Safety Exploring Program for at least 1 year had experienced enhanced career opportunities, leadership experience, life skills, citizenship, and character education compared to similar individuals who had not participated in an Exploring Program.

Chapter V provides possible explanations of the results reached. In addition, the practical implication of this study is reviewed as well as the studies limitations. Finally, implications for practice and propositions for future research are presented.

CHAPTER V: DISCUSSION AND RECOMMENDATIONS

The purpose of this quantitative research study was to investigate the potential social impact that offering early public safety education had on a community. Utilizing Learning for Life's national membership, data were collected comparing individuals who participated in Fire & EMS and Law Enforcement Career Exploring Programs to those who had not. By looking beyond the perceived benefits and focusing on the quantifiable results of program participation, an explicit representation of the social impact could be identified. With this understanding, city officials can maximize these programs to achieve their fullest potential for the individuals who participate in them, departments that utilize them, and communities that support them.

Chapter V includes a summary and discussion of the results, conclusions, and recommendations for future research. In the discussion section, the results are interpreted within the context of the original research questions and hypotheses, a restatement of the problem, and the methodology used for the study. The recommendations sections include a brief discussion of how the study may expand on the knowledge base regarding the benefits of empowerment through early public safety education and then concludes with a recommendation for the future.

Summary of Study

The current study included an inquiry in determining whether there is a relationship between participation in Fire & EMS and Law Enforcement Career Exploring Programs and particular prosocial behaviors. To achieve this, prosocial behaviors were analyzed between two independent groups: Group 1, former Public Safety Explorers and Group 2, non-Explorers. This study did not account for or control any

intervening variables as the intent of the study was to investigate and compare differences in prosocial behavior as they existed.

The data collection instrument was adapted from a previous research study, *Eagle Scouts Merit Beyond the Badge*, conducted by Jang et al. (2010; Appendix A). This instrument allowed participants to self-report on various prosocial behaviors through 10 Likert scaled and 14 dichotomous and demographic type questions. Data were collected by Learning for Life's Research and Evaluation Department, the parent organization of Exploring. Utilizing their alumni database, former careerable participants of Learning for Life's Fire and EMS and Law Enforcement Career Exploring Programs were solicited to participate in a prosocial behavior research study. To be deemed careerable for this study, one needed to encompass the following characteristics: (a) adults 23-28 years of age and (b) actively participated in a Public Safety Career Exploring Program for at least 1 year. Because the study design incorporated comparing the prosocial behavior of former Fire & EMS and Law Enforcement Explorers to similar individuals who were not exposed to the benefits of Exploring (non-Explorers), a comparative sample was necessary. To achieve a comparable comparison group, all former Public Safety Explorers who received e-mail survey invitations were asked to forward the survey link to "a friend of similar age as yourself that was NOT an Explorer." According to Learning for Life registration archives, there are 67,857 former Fire and EMS and Law Enforcement Explorers who participated in Exploring for at least 1 year and are currently between the ages of 23-28 years old (Learning for Life, 2018). Thus, the population for the study was 67,857 individuals.

Utilizing Raosoft's sample size calculator, statistical analysis revealed that the study would benefit from using the 95% confidence level with a 5% margin of error, resulting in a sample size of 382 participants. Since the study design incorporated comparing the prosocial behavior of former Fire and EMS & Law Enforcement Explorers to similar individuals who were not exposed to the benefits of Exploring (non-Explorers), a comparison sample was necessary. A comparison sample was designed utilizing the same sample size and analyzed to ensure there was a normal distribution of the dependent variable for each group within the research project.

After receiving California Baptist University IRB approval (Appendix C), a test-retest approach to data collection and analysis was used for the pilot test. This included two separate administrations of the survey questionnaire to the same participants. Cronbach's alpha was used to measure the internal consistency or overall reliability of the questionnaire's response scale for correlation of items associated with the test-retest. The primary research study was conducted from March 26 to April 26, 2018, by Learning for Life's Research and Evaluation Department. Of the 7,582 survey invitations delivered via Qualtrics online survey platform, the data collection process resulted in 525 participants. Additionally, 331 non-Explorers responded via forwarded e-mail invitations. Cumulatively, the data collection process resulted in 856 participants, with 525 Explorers and 331 non-Explorers. Of the 7,582 surveys initially delivered, the 856 participants resulted in a usable response rate of 11.3%. After de-identifying all personal information, Learning for Life released data sets to the researcher per the stipulation of the Memorandum of Understanding (Appendix D).

There were several statistical analyses performed to provide detailed and critical statistical findings for both the pilot and primary studies. There were also confirmatory testing measures that were carried out to assure the quality of the outcomes, including appropriateness of data and statistical analyses. The data analysis procedure included in the pilot study was descriptive statistics and a test-retest approach to the survey administration using Cronbach's alpha to establish reliability. For the primary research, the data analysis procedure involved descriptive statistics, composite variable creation, independent samples *t* tests, and confirmatory testing via the Mann-Whitney U test. Furthermore, assumptions for the independent samples *t* test were measured and statistical assessment performed to determine the usability of the test for the data analysis related to the current study. The assumptions were tested via SPSS Grad Pack version 25 and included Levene's test for equality of variance and Shapiro-Wilk for determining deviation from normality.

Descriptive Statistics

The primary study compared the social behaviors of two groups, former Public Safety Explorers and non-Explorers. The combined sample size numbered 679 individuals, with 384 being former Explorers (56.6%) and 295 being non-Explorers (43.3%). The study was limited to former Public Safety Explorers including both Fire & EMS & Law Enforcement Career Exploring Programs. Of the 384 former Explorers, 39.8% reported being former Fire & EMS ($n = 153$) while 60.2% reported being former Law Enforcement Explorers ($n = 231$). Descriptive statistics were conducted between the two comparison groups to compare age, race, gender, and geographic region. The results indicated that between the comparison groups of former Public Safety Explorers

($n = 384$) and non-Explorers ($n = 295$) age, race, gender, and geographic region were not extremely unbalanced. Therefore, the researcher concluded there would be a normal distribution of the dependent variable for each group for this research project.

The survey included a question addressed only to former Public Safety Explorers if their “primary job was in the career field of the Exploring program they participated in.” Explicitly, this question sought to answer the key perceived benefit of Exploring participation—does participation in Fire & EMS & Law Enforcement Exploring Career programs translate to a career in the fire service or law enforcement. Of the 384 former Public Safety Explorers who participated in the study, 62% ($n = 238$) reported having a primary job in the career field of the Exploring program in which they participated compared to 36.2% ($n = 139$) who replied “no” and 1.8% ($n = 7$) who did not know. Table 24 provides a breakdown of the frequency and percentage statistics of participants whose primary job was in the career field of the Exploring program they participated in.

Table 24

Frequency and Percentage Statistics of Primary Job in Career Field of Exploring

Demographics	Frequency (n)	Percentage (%)
Yes—Primary job is in the career field of the Exploring program one participated in.	238	62.0
No—Primary job is not in the career field of the Exploring program one participated in.	139	36.2
Don’t know	7	1.8

Note. Total $N = 384$.

While this information in itself provided evidence of Exploring’s value, this study’s purpose was to look beyond the perceived benefits and focus on the quantifiable

social impact of program participation so an explicit representation of the social benefit could be identified.

Interpretation of the Findings

For this study, a review of approximately 70 scholarly peer-reviewed works associated with the conceptual framework of empowerment theory was performed. The seminal works of Zimmerman and Rappaport (1988), Perkins and Zimmerman (1995), and Rappaport (1981) provided the framework for this study through their theories and recommendations for future research. A significant portion of the literature concentrated on the concept that empowerment is both a value orientation for working in a community and a theoretical model for understanding the process and consequences of effort to exert control and influence over decisions that affect one's life (Perkins & Zimmerman, 1995; Rappaport, 1981; Zimmerman & Warschausky, 1998).

According to Ambrosino et al. (2005), the focus of empowerment revolves around the "process to help others increase their personal control, interpersonal, or political power so they can take action themselves to improve their lives" (p. 506). Sadan (1997) described empowerment as "a transition from a state of powerlessness to a state of more control over one's life, fate, and environment" (p. 13). Gutierrez (1990) defined empowerment as "a process of increasing personal, interpersonal, or political power so that individuals can take action to improve their life situations" (p. 149). Rappaport (1995) cited as a definition of empowerment "an international, ongoing process centered in the local community, involving mutual respect, critical reflection, caring and group participation, through which people lacking an equal share of valued resources gain greater access to and control over those resources" (p. 802). Additionally, Rappaport

(1987) described empowerment as having “individual determination over one’s own life as well as a democratic participation in the life of one’s community” (p. 121). He stressed (as cited in National Opinion Research Center, 2010) that empowerment is “a process by which people gain control over their lives, democratic participation in the life of their community, and a critical understanding of their environment” (p. 8).

Collectively, empowerment has been constructed as a limitless resource (Gutierrez, 1994; Rappaport, 1987; Wallerstein, 2002).

Empowerment theory indicates that by empowering individuals through a helping system, proactive behaviors will result in social change (Rappaport, 1981). As applied to this study, this theory holds that one would expect participation in an early public safety career development program to influence or explain the proactive behaviors that create social impact. The current study utilized Rappaport’s empowerment model to visually illustrate the application of empowerment theory when applied to Public Safety Exploring Programs (Figure 1, reproduced here for convenience).



Figure 1. Rappaport’s empowerment model. Adapted from “In Praise of Paradox: A Social Policy of Empowerment Over Prevention,” by J. Rappaport, 1981, *American Journal of Community Psychology*, 9(1), 1-25; “Studies in Empowerment: Introduction to the Issue,” by J. Rappaport, 1984, *Prevention in Human Services*, 3(2-3), 1-7, https://oi.org/10.1300/j293v03n02_02

This study, utilizing Rappaport’s model Applied to Public Safety Exploring (Figure 2, reproduced here for convenience), created research questions to evaluate

Exploring's relationship to several prosocial behavior indicators. These prosocial behavior indicators were based upon the five-program emphasis of Exploring: (a) career opportunities, (b) leadership experience, (c) life skills, (d) citizenship, and (e) character education. The key findings and discussion are presented below.



Figure 2. Rappaport's model applied to public safety exploring programs. Source: Author.

Research Question 1 (RQ1) was based on Exploring's program emphasis of career opportunities, which states - Exploring offers "programs that develop potential contacts that may broaden employment options. Activities that boost a youth's self-confidence and help him or her experience success at school and work" (Learning for Life n.d. p. 1). Specifically, the study inquired whether there was a relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities. The associated hypotheses were tested with a composite variable CMCO, which linked survey questions on current employment status, approximate 2017 annual income, and their highest level of education completed. Utilizing an independent samples *t* test, there was a significant difference in the scores for former Public Safety Explorers ($M = 12.33$ $SD = 3.70$) and non-Explorers ($M = 8.29$ $SD = 3.57$); $t(677) = 14.30$, $p = 0.000$. Therefore, based on these results, the null hypothesis H_o1 was rejected and the alternative hypothesis H_a1 was accepted. Specifically, these results suggested

there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and career opportunities.

The next research question (RQ2) was based on Exploring's second program emphasis of leadership experience, which is defined as Exploring offers "programs that help youth develop leadership skills to fulfill their responsibilities in society. Activities that provide exposure to different leadership traits" (Learning for Life, n.d., p. 2).

Mainly, the study asked "What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience?" The associated hypotheses were tested with a composite variable CMLE, which summed the survey questions on holding leadership roles at work and in their local community.

Applying an independent samples *t* test, there was a significant difference in the scores for former Public Safety Explorers ($M = 6.68$ $SD = 1.79$) and non-Explorers ($M = 4.70$ $SD = 1.71$); $t(677) = 14.46$, $p = 0.000$. Therefore, the null hypothesis H_{o1} was rejected and the alternative hypothesis H_{a1} was accepted. Specifically, these results suggested there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and leadership experience.

The third research question (RQ3) was based on Exploring's program emphasis of life skills explained as Exploring offers "programs that develop physical and mental fitness. Activities that provide opportunities for youth to experience positive social interaction" (Learning for Life, n.d., p. 2). Specifically, the research asked, "What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills?" The hypotheses were tested with the composite variable CMLS, which combined the sum of self-reported questions on overall health,

physical fitness, and mental fitness. Utilizing an independent samples t test to compare life skills between former Public Safety Explorers and non-Explorers, there was a significant difference in the scores for former Public Safety Explorers ($M = 12.33$ $SD = 1.95$) and non-Explorers ($M = 10.12$ $SD = 2.12$); $t(589) = 13.54, p = 0.000$. Therefore, the null hypothesis H_o1 was rejected and the alternative hypothesis H_a1 was accepted. Specifically, these results suggest there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and life skills.

Next, research question (RQ4) was based on the Exploring emphasis on citizenship, which is defined as Exploring provides “programs that encourage youth to develop the skill and desire to help others. Activities that provide opportunities for youth to gain a keen respect for the basic rights of others” (Learning for Life, n.d., p. 2). This was researched by asking “What is the relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship?” The hypotheses were examined by creating a composite variable CMC, which linked citizenship-based survey questions asking about participation in past presidential election, local elections, and commitment to addressing problems within the community. An independent samples t test was conducted to compare citizenship between former Public Safety Explorers and non-Explorers. There was a significant difference in the scores for former Public Safety Explorers ($M = 1.63$ $SD = 1.00$) and non-Explorers ($M = 0.61$ $SD = 0.88$); $t(663) = 14.11, p = 0.000$. Therefore, the null hypothesis H_o1 was rejected and the alternative hypothesis H_a1 was accepted. Specifically, these results suggest there is a significant

statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and citizenship.

The final research question (RQ5) focused on the program emphasis on character education—Exploring provides “programs that help youth develop skills necessary to make ethical choices. Activities that provide opportunities for fulfilling one’s responsibility to society” (Learning for Life, n.d., p. 3). This was explored by asking “What is the relationship between participating in Fire & EMS and Law Enforcement Exploring Career Programs and character education?” The hypotheses were evaluated by applying a composite variable CMCE, which linked survey questions on accepting consequences of choices, working hard to get ahead, the importance of learning something new every day, and always doing what is right. An independent samples *t* test was conducted to compare character education between former Public Safety Explorers and non-Explorers. There was a significant difference in the scores for former Public Safety Explorers ($M = 18.00$ $SD = 2.61$) and non-Explorers ($M = 13.92$ $SD = 3.52$); $t(523) = 16.689, p = 0.000$. Therefore, the null hypothesis H_o1 was rejected and the alternative hypothesis H_a1 was accepted. Specifically, these results suggest there is a significant statistical relationship between participating in Fire & EMS and Law Enforcement Career Exploring Programs and character education.

Collectively, these findings confirm that there is a significant relationship between participating in Fire & EMS & Law Enforcement Career Exploring Programs and prosocial behaviors. In particular, the results indicated that former Public Safety Explorers are more likely to excel in career opportunities, leadership experience, life skills, citizenship, and character education than similar individuals who did not

participate in an Exploring Career Development Program. These findings substantiate the theories presented in the literature review regarding the power of empowerment. Specifically, the findings support Rappaport's (1981) empowerment model that empowering individuals through a helping system produces proactive behaviors that can result in social change. Additionally, the results extended to all three major areas as the literature explained. Among these various definitions, empowerment revolves around three major themes, empowerment by means of the individual, empowerment by means of the organization, and empowerment by means of the community. As such, empowerment was evident on all three levels: the personal level, where the individual is gaining control over his or her daily life (Kieffer, 1984); the small group level, where shared experiences happen (Presby et al., 1990); and the community level, where every resource is used to improve community control (Pilisuk et al., 1996).

Limitations of the Study

This study was designed and executed in a manner to ensure trustworthiness, internal and external validity, and reliability. The external validity of this study may have benefited from a larger sample size, which would have increased the statistical power or likelihood of detection during data analysis for comparison of the two groups (Suresh & Chandrashekara, 2012). While the sample size was met for the main group, former Explorers, the data collection fell short of the sample size for the comparison group of non-Explorers that was calculated via Raosoft Power Analysis (Raosoft, 2004). The power analysis indicated that 382 responses were needed for an optimal power of 95% confidence level based upon a population of 67,857 former Public Safety Explorers who had participated in an Exploring program for at least 1 year and were currently between

the ages of 23-28 years old, with a 5.0% margin of error. The comparison sample group only totaling 295 participants increased the margin of error to 5.69%. This type of increase in margin of error is expected as sample sizes decrease.

The limited response rate (11.3%) could be attributed to the assumption that Learning for Life's past membership database was accurate and representative of the entire population. Of the 67,857 former Public Safety Explorers who had participated in a program for at least 1 year and were currently between the age of 23 and 28 years old, only 7,582 (11.2%) had a deliverable e-mail address. Of the 7,582 e-mails that were sent, there was no way to ensure the accuracy of delivery. The electronic survey design left response rate to chance. Increased participation could have potentially been obtained if alternative methods of reaching the participant pool were included in the data collection process. However, it was determined that this sample was adequate for representing the defined population based on the number of responses and the corresponding margin of error. All other statistical limitations were addressed through confirmatory statistical analyses or other processes that indicated the adequacy and usability of the results.

The current study leads to numerous ideas and recommendations for areas of consideration in future research. These are discussed in the recommendations of this document. The current research project could have been expanded to include several of these recommendations presented therein; however, the intended time frame and scope of the study limited the inquiry to the specific purpose of this study—to identify the relationship between participation in Fire and EMS & Law Enforcement Career Exploring Programs and particular social behaviors. Therefore, these recommendations were not considered limitations of this research study.

Recommendations

Based on the results of this study and a review of empowerment theory literature, it is recommended that community leaders consider building upon their current program or implementing an early public safety education program for the development of their community. The need and demand for such programs are evident. In 2015, there were an estimated 3,077,173 public safety professionals in the United States (Bureau of Justice Statistics, 2016; National Fire Protection Association, 2017; American Ambulance Association, 2016). These fire service, law enforcement, and emergency medical service professionals composed nearly 3% of all employment nationally (U.S. Census Bureau, 2014). According to the 2015 U.S. Department of Labor, Bureau of Labor Statistics (2015) *Occupational Outlook Handbook*, all three of these sectors have historically shown high growth rates, with anticipated future demands ranging from 5-24% in the next 10 years. This study indicated that Exploring is a clear pathway for individuals to obtain a career in Public Safety, with 62% of former Explorers reporting they currently work in a public safety career. With a persistent necessity for public safety professionals and an ever-increasing demand for public services, community leaders would be astute to prioritize programs that exhibit proven results.

Additionally, the U.S. Department of Labor, Office of Employment and Training Administration 2016 Executive Summary addressed the importance of school-to-work transition:

Preparing young people for the job market is a critical task for all modern societies. The primary objectives are: 1) to give all young people the opportunity to attain their career potential while meeting the demands of the labor market and

2) to minimize the number of youth who experience long-term joblessness or poor career outcomes. Critical to a nation's success in achieving both goals is an effective education and training system for all young people. (U.S. Department of Labor, 2016, p. 1)

According to a PEW Institute study, the average American between the ages of 23-28 makes \$32,456 (PEW Research Center, 2014). Similarly, the average salary for a recent college graduate with a bachelor's degree was \$50,219 a year in 2015 according to the National Association of Colleges and Employers (2017). In contrast, this study reported that the average income of an individual who participated in Public Safety Exploring for at least 1 year was between \$55,000 and \$75,000. For community leaders concerned about school-to-work transition programs that will reduce long-term joblessness or poor career outcomes, Exploring offers a sensible solution with data-driven results.

The data confirm that Public Safety Exploring programs not only produce a career pathway to employment as a public safety professional but also result in prosocial behavior. From this study, significant career opportunities, leadership experience, life skills, citizenship, and character education were deemed traits of former Public Safety Explorers compared to an individual who did not experience the benefits of program participation. Public administrators continually search for avenues to improve on their community development. Often the quantifiable benefits of community development programs are limited or unknown. Utilizing the recommendations of this study and having an understanding of the value of empowerment, public administrators have a data-driven tool to assist them in making the critical decision essential to the profession.

Future Research

The outcomes of this study suggest future research could employ a broader target population with expanded sampling procedures and a qualitative component. The target population chosen for the present study examined Learning for Life's Fire & Emergency Services (EMS) and Law Enforcement Career Exploring Programs. This represents only two of the twelve career fields offered through Exploring. The researcher chose these programs due to the unique characteristics of emergency responders. Responders encompass a broad and diverse group of people. According to Miller (2012), "Responders in uniform—police, firefighters, paramedics, first responders, and law enforcement officials have unique professional cultures and needs" (p. 308). Similar research of the additional 10 career fields not identified in this study will be noteworthy to evaluate whether the results of this study extend to other career programs.

Due to Exploring's "innovative, worksite-based program that is based on a unique and dynamic relationship between youth and organizations in their community" (Exploring, 2017b, p. 4), the result of this study may not be consistent with those of a sample population from other early public safety education programs. While the results of the study might be of interest to other similar community education programs, the results could only be generalized to Exploring's Fire & EMS and Law Enforcement Career Program. Additional research would be valuable to determine whether similar results occur in comparable early public safety education programs.

The current study was limited to a careerable age group. That is, it was limited to adults who are currently between 23 and 28 years of age. The rationale behind this design was to incorporate individuals who were 5 years out of high school or 1 year out

of college and who are at a point in their life where, based on Levinson's Theory, they are making concrete decisions regarding their occupation, friendships, values, and lifestyles (Levinson & Darrow, 1979). While the study reported on significant results for this age group, additional research extending beyond the age restrictions would be valuable, particularly to ascertain whether longitudinal improvement continues or whether the benefits of program participation is limited to early adulthood.

Qualitative research focusing on why the results of this study occurred would also be beneficial. One of the primary focuses of a quantitative study is to predict an event without trying to establish cause and effect (Borland, 2001). This kind of research recognizes trends and patterns in data, but it does not go so far in its analysis to prove causes for these observed patterns. Since cause and effect were not considered, a question arises whether Exploring produces individuals that exhibit prosocial behavior, or whether people with prosocial behavior are attracted to programs like Exploring. Due to this fact, a qualitative component would allow participants to report on the level of impact they believe Exploring has had in their decision-making process. Also, future studies could include an examination into what motivates an individual join an Exploring program. This information would be invaluable to community leaders seeking to enhance the benefits of existing successful Exploring programs while recruiting individuals who might not be familiar with its social benefit.

Conclusion

The primary goal of this research study was to examine the potential social impact that provides early public safety education has on a community. Nearly every community nationally offers some type of early public safety education program geared

toward future careers in the fire service and law enforcement. In 2015, Learning for Life's Exploring Program was the program of choice for 4,922 communities, reaching 110,445 young adults throughout the United States (Learning for Life, 2015). Often, these communities commend the benefit of supporting these programs, focusing on the resulting development of career, character, citizenship, life skills, and leadership experience. While these programs are often considered beneficial, a real understanding of the social impact of offering these programs has yet to be answered. While limitations have been identified, the significant findings of this study confirm the social benefit of participation in a Public Safety Exploring program while adding quantifiable data to support these claims.

Examining the social impact of early public safety education has a direct connection to many of the challenges facing the modern public administrator nationally. These include: determining the social equity of government-sponsored programs, justifying the expenditure of public funds, utilizing data to drive policymaking, recognizing the social value of nonessential government services, and understanding the importance of empowering individuals with the necessary tools to promote social change. With this study and its associated data, public administrators have an additional tool to make the critical decision necessary of the profession.

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APPENDICES

APPENDIX A

Survey

Social Impact of Public Safety Exploring

Start of Block: Block 1

Intro Welcome

Thank you for agreeing to take part in this survey. Today we will be asking you to report on your career, civic, and personal behaviors. This survey should only take 5-10 minutes to complete. Please answer each question as accurately as possible. Be assured that all answers you provide will be anonymous. Please click “Next” to begin.

End of Block: Block 1

Start of Block: Default Block

Q1 Have you ever participated in an Exploring Career Program?

- Yes
- No
- Don't Know

Skip To: Q2 If Have you ever participated in an Exploring Career Program? = Yes
Skip To: Q6 If Have you ever participated in an Exploring Career Program? = No
Skip To: Q6 If Have you ever participated in an Exploring Career Program? = Don't Know

Q2 Which Exploring program did you participate in?

- Arts & Humanities Career Program
 - Aviation Career Program
 - Business Career Program
 - Communications Career Program
 - Engineering Career Program
 - Fire & Emergency Services Career Program
 - Health Career Program
 - Law Enforcement Career Program
 - Law / Government / Public Service Career Program
 - Science Career Program
 - Skilled Trades Career Program
 - Social Services Career Program
 - Don't know
 - Other
-

Q3 How many years did you participate in Exploring?

- Less than 1 year
 - 1 year
 - 2 years
 - 3 years
 - 4 years
 - 5 years
 - Don't know
-

Q4 Is your primary job in the career field of the Exploring program you participated in?

- Yes
 - No
 - Don't know
-

Q5 Is your primary job in the community that hosted the Exploring program you participated in?

- Yes
 - No
 - Don't know
-

Q6 What is your current employment status?

- Employed full time (40 or more hours per week)
 - Employed part time (up to 39 hours per week)
 - Unemployed and currently looking for work
 - Unemployed and not currently looking for work
 - Student
 - Retired
 - Homemaker
 - Self-employed
 - Unable to work
 - Don't know
-

Q7 What was your approximate annual income in 2017, before taxes?

- Less than \$15,000
 - \$15,000 to \$25,000
 - \$25,000 to \$35,000
 - \$35,000 to \$45,000
 - \$45,000 to \$55,000
 - \$55,000 to \$75,000
 - \$75,000 to \$100,000
 - over \$100,000
 - Don't know
-

Q8 How often are you given leadership roles at the organization in which you are employed, or have been employed?

- Never
 - Rarely
 - Sometimes
 - Often
 - Always
-

Q9 How often do you hold leadership positions in your local community?

- Never
 - Rarely
 - Sometimes
 - Often
 - Always
-

Q10 Would you say your own health, in general is...?

- Excellent
 - Good
 - Average
 - Poor
 - Terrible
-

Q11 How would you rate your current physical fitness?

- Excellent
 - Good
 - Average
 - Poor
 - Terrible
-

Q12 How would you describe your mental fitness

- Excellent
 - Good
 - Average
 - Poor
 - Terrible
-

Q13 Did you vote in the 2016 presidential election when Donald Trump and Hillary Clinton were the two main candidates?

- Yes
 - No
 - Not eligible to vote
-

Q14 Have you voted in a local election in the last 12 months?

- Yes
 - No
 - Not eligible to vote
-

Q15 In the past year, have you worked with others in your community to address a problem or improve something?

- Never
 - Almost never
 - Occasionally
 - A moderate amount
 - A great deal
-

Q16

Please indicate the extent to which you agree or disagree with each of the following statement about yourself

I always do what is right

- Strongly disagree
 - Somewhat disagree
 - Neither agree nor disagree
 - Somewhat agree
 - Strongly agree
-

Q17 I fully accept the consequences of choices I make

- Strongly disagree
 - Somewhat disagree
 - Neither agree nor disagree
 - Somewhat agree
 - Strongly agree
-

Q18

I work hard to get ahead

- Strongly disagree
 - Somewhat disagree
 - Neither agree nor disagree
 - Somewhat agree
 - Strongly agree
-

Q19 How important is it to learn something new every day?

- Extremely important
 - Moderately important
 - Neutral
 - Slightly important
 - Not at all important
-

Q21 What is your age?

- 23
 - 24
 - 25
 - 26
 - 27
 - 28
 - other
-

Q22 What is your race? (mark all that apply)

- White
 - Black or African American
 - Hispanic
 - Asian
 - Other
-

Q23 What is your gender?

- Male
 - Female
 - Other
-



Q24 What zip code do you currently live in?

Q25 What is the highest level of education you have completed?

- Less than high school diploma
- High school graduate or equivalent (e.g., GED)
- Some college, no degree
- Trade / Technical / Vocational training
- Associate degree (e.g. AA, AS)
- Bachelor's degree (e.g. BA, BS)
- Graduate degree (e.g. MA, MS, Med)

End of Block: Default Block

APPENDIX B

Pilot Study Invitation and Instructions

Pilot Study Invitation and Instructions
The Social Impact of Public Safety Exploring
Pilot Study Instructions

This survey is being conducted as a pilot test to obtain your feedback for determining the practical usability of this questionnaire as a data collection instrument for a California Baptist University Doctorate of Public Administration (DPA) Dissertation. Your participation and feedback are appreciated. As you complete this survey, understand your data will not be used. The intended outcome of this pilot test is to obtain feedback from you that will help the researcher avoid using a data collection instrument that will not lead to answers that apply to the research. From your feedback, it is anticipated that the questionnaire will be improved upon and enhanced to create a user-friendly, efficient, reliable, and valid instrument for data collection during its use in a doctoral research study. After completing and assessing the survey instrument, please provide feedback via e-mail to xxxxx@xxxxx.xxx

Key points to consider for this review:

1. Are the questions easy to understand? (consider clarity and readability)
2. Can some of the questions be combined? If so, which ones?
3. Are there spelling/grammar/clerical/other errors?
4. Is the correct measurement being used, scale or dichotomous?
5. Are reverse strength/coding an issue?
6. What do you think of the layout of the survey?
7. Is the questionnaire too long, too short, or just right?
8. Do the questions address the intent of the study on measuring prosocial behaviors.
9. Do you see any ethical issues associated with the questionnaire?
10. What do you think would improve the questionnaire?
11. Do you have other observations or comments regarding the questionnaire?

APPENDIX C

Institutional Review Board Approval Letter

RE: IRB Review

IRB No.: 067-1718-EXM

Project: The Social Impact of Public Safety Exploring

Date Complete Application Received: 3/6/18

Principle Investigator: Brian Guzzetta

Faculty Advisor: Mark Kling

College/Department: OPS

IRB Determination: Exempt Application Approved – Student research using deidentified, secondary data collected and provided by Boy Scouts of America Research and Evaluation Department/Learning for Life. Data analysis may begin, in accordance with the submitted and approved protocol.

All future correspondence about this project must include all PIs, Co-PIs, and Faculty Advisors (as relevant) and reference the assigned IRB number.

At the completion of the project, you are to submit a Research Closure Form.

Date: March 6, 2018

APPENDIX D

Memorandum of Understanding



Date: 3/1/2018

To: California Baptist University
From: Diane Thornton, National Director/President

This letter acknowledges that Learning for Life (LFL) is willing to provide certain assistance to Mr. Brian Guzzetta, a candidate in the Doctor of Public Administration program at California Baptist University (CBU), in support of his research project titled *The Social Impact of Public Safety Exploring* as further described in Mr. Guzzetta's IRB application. We understand the purpose of this research is to explore the social impact of participating in LFL's Fire & EMS and Law Enforcement Career Exploring Programs. We understand the research project is expected to be completed by the end of 2018.

Our assistance is conditioned on Mr. Guzzetta's research being conducted under the supervision of Dissertation Chair, Dr. Mark Kling and in the manner described in the IRB application approved by CBU. Further, no publications or public statements about the research project may indicate or suggest that LFL sponsors the research or that Mr. Guzzetta's opinions and conclusions reflect the views or opinions of LFL or any of its officers or directors. We reserve our rights to review all such publications and statements prior to public release, though we will not have the right to edit such publications or statements except to the extent they do not comply with the preceding sentence.

We will provide the following assistance:

- LFL will contact former Explorers to administer a brief online survey.
- LFL will collect and process survey responses.
- LFL will remove all personally identifying information from the survey responses and make the non-personal information available to Brian Guzzetta. All information and data provided by LFL must be used for the sole purpose of Mr. Guzzetta's research and will remain the property of LFL. Such information and data may not be used in the development of any commercial product or sold, leased, transferred, or disclosed to any third party.

Sincerely,

Signature

Dr. Diane E. Thornton
National Director/President