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Job Satisfaction, Personality Traits, Resilience, and Education Level Among Rural Police Officers

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Abstract

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MS, Rowan University, 1996

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BA, Rutgers University, 1988

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Abstract

Police agencies struggle with police officer attrition, resulting in agencies needing to hire new officers. This process is costly and results in unwise decision-making by police officers due to inexperience, excessive use of force, and ultimate distrust of police by civilians. Job satisfaction can diminish attrition and excessive use of force and increases both prudent decision-making and civilian trust. The characteristics of personality traits, education level, and resilience contributing to job satisfaction were addressed in the current study using a nonexperimental predictive correlational design. An online assessment of the Big Five traits, resilience, and job satisfaction, in addition to a question on education level, was used in this correlational design study. Responses from a nonprobability convenience sample of 47 participants from three rural police agencies in the western United States were collected. Multiple regression analysis was used to analyze the data. Results indicated extroversion to be a significant predictor of job satisfaction. Findings from this study contributed to positive social change by identifying characteristics and factors that contribute to job satisfaction in law enforcement that can result in police officer retention, prudent decision-making, decreased use of force, and increased civilian trust.

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Dedication

This study is dedicated to Hunter, Reed, and Brian. Thank you for everything!

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Chapter 1: Introduction to the Study

Law enforcement officers are responsible for maintaining public safety and well-being. These responsibilities have accompanying stressors (Christopher et al., 2020). Because of the high levels of stress associated with police work, law enforcement officers are not always able to fulfill these responsibilities without negative repercussions. Some repercussions for officers are psychological problems, substance misuse, inefficiency, unwise decision-making, and excessive use of force (Demirkol & Nalla, 2018; McCanlies et al., 2018; Ryu et al., 2020; Stogner et al., 2020; Viglione, 2018). Negative effects for law enforcement agencies include attrition, an inexperienced force due to attrition, increased recruitment and training costs, and civilian distrust (Crowl, 2017; Desmond et al., 2016). Community repercussions are civilian distrust of law enforcement, failure to report crime, and refusing to rely on law enforcement (Agrahari & Kotnala, 2018; Allisey et al., 2013; Crowl, 2017; Desmond et al., 2016; Garner et al., 2018; Miller, 2015). Researchers have sought to identify characteristics and factors that may contribute to officers' inability to cope with work stress because the negative consequences have grave effects on both society, officers, and law enforcement agencies (Agrahari & Kotnala, 2018; Allisey et al., 2013; Garner et al., 2018; Miller, 2015).

Law enforcement officers are exposed to stressors that increase the risk of their using excessive force (Christopher et al., 2020). Other repercussions from exposure to these stressors are psychological problems, substance misuse, and attrition (Christopher et al., 2020; Wareham et al., 2015). Implications of officers with compromised functioning are risks to public safety and public health (Christopher et al., 2020). Recruiting and training new officers is costly (Hilal & Litsey, 2020). Recruitment, screening, background checks, medical and psychological

evaluations, and administrative costs are some agency expenses. Retention expenditures consist of overtime and continued training, which impacts productivity and quality of service. Indirect costs of attrition include an inexperienced force, lack of social networks, and decreased morale (Wareham et al., 2015).

There is little information about patterns and rates of attrition in U.S. law enforcement. There is also a lack of information regarding the different types of agencies (rural, suburban, urban, municipal, county, state, small, medium, large, extra large, and super) and their attrition levels. Current research does not delineate retention benchmarks, an important indicator of agency efficacy (Wareham et al., 2020)

Job satisfaction, or contentedness in one's job (Spector, 1985), is an integral part of job productivity and retention in law enforcement officers (McCanlies et al., 2018; Ryu et al., 2020; Stogner et al., 2020). Lack of job satisfaction is related to poor job performance, mental and physical health problems, and employee turnover (Demirkol & Nalla, 2018; Viglione, 2018). Police officers lacking job satisfaction may experience impaired physical and mental health and have poor job performance, consisting of poor decision-making, using excessive force, and lacking organizational commitment (Agrahari & Kotnala, 2018; Allisey et al., 2013; Garner et al., 2018; Miller, 2015). Repercussions for police departments include attrition, inefficiency, staff with compromised ability to make prudent decisions, and officers who use excessive force (Desmond et al., 2016). These repercussions can also impact civilian trust in and reliance on law enforcement (Crowl, 2017; Desmond et al., 2016), resulting in lower civilian engagement through failure to report crime, perpetuation of cynicism about police, and refusal to rely on

police (Agrahari & Kotnala, 2018; Allisey et al., 2013; Desmond et al., 2016; Flexon et al., 2016; Garner et al., 2018; Miller, 2015).

Researchers have found that personality traits influence job satisfaction for various professionals, including teachers (Astrauskaite et al., 2011; Ouellette et al., 2018; Paleksić et al., 2017; Zurlo et al., 2016) and medical personnel (Barr, 2018; Kisten & Kluyts, 2018; Ntantana et al., 2017). However, little is known about the influence of personality traits on job satisfaction in law enforcement populations. Exploring the relationship between personality traits and job satisfaction in law enforcement may provide information that illuminates trait predisposition for job satisfaction, which impacts job performance. This information may also inform recruitment practices that better identify personnel suitable for police work, resulting in officers exhibiting conduct that may potentially increase civilian engagement and increase confidence in and reliance on police.

Education level has been found to also impact job satisfaction (McGrandle, 2019; Paoline et al., 2015). However, there is little research on education level and job satisfaction among law enforcement, and the results from extant research are mixed. There is also a dearth of research on resilience as a characteristic that may moderate some of stress law enforcement officers experience. Lastly, there is a lack of research on these variables in combination.

In Chapter 1, I introduce the overall study focus, followed by a brief discussion of the literature that informed the present study. This is followed by presentations of the research problem, the study focus, research questions and hypotheses, the theoretical framework, and the nature of the study. Study assumptions, limitations, and delimitations, significance, and a summary complete the chapter.

Study Background

Recruitment strategies that identify personal suitability for police work are important for agency efficiency and efficacy (Annell et al., 2015; Inzunza, 2016). Specifically, recruits who are intelligent, loyal, and adaptable can become officers with good job performance, fewer health issues, and greater job longevity (Agrahari & Kotnala, 2018; Allisey et al., 2013). Additionally, recruits must have the ability to accept organizational rules while remaining stable under the pressure of job stressors. Inzunza (2016) stated that recruitment criteria should focus on the recruits' existing beliefs about requirements to do a good job in law enforcement. Recruitment assessments evaluate both cognitive and personal domains. However, little attention is paid to the impact of personal factors as contributors to job satisfaction and job performance (Annell et al., 2015; Inzunza, 2016). Police officers who lack job satisfaction may experience impaired physical and mental health and have poor job performance, reflecting poor decision-making, using excessive force, and lacking organizational commitment (Agrahari & Kotnala, 2018; Allisey et al., 2013; Garner et al., 2018; Miller, 2015). These aspects of police conduct lessen civilian engagement, as shown through failing to report crime, cynical views of policing, and refusing to rely on police (Desmond et al., 2016; Flexon et al., 2016). Repercussions of impaired physical and mental health, poor job performance, poor decision-making, and attrition for police departments include inefficiency, staff with compromised ability to make prudent decisions, and officers who use excessive force (Desmond et al., 2016). Officers without job satisfaction also tend to retire early or seek other employment (Agrahari & Kotnala, 2018). Because of frequent turnover, agencies must assume the cost for recruiting and training new officers (Desmond et al. 2016; Garner et al., 2018).

Problem Statement

Police agencies face a variety of issues, with civilian distrust and excessive use of force at the forefront. Police treatment of civilians impacts how civilians think of themselves as citizens (Meares, 2017). Police work requires self-regulation, prudent decision-making, and adaptive coping to navigate the stressors of this work (Owens et al., 2018). Agencies with officers who can navigate these work stressors will have work forces that can meet the demands of the job. Kahneman (2011) suggested that experienced individuals act with automaticity, or expedient efficiency, resulting in accurate assessment and resolution of situations. Experienced officers tend to use less force and make sagacious decisions (Desmond et al., 2016). However, high attrition rates plague law enforcement agencies, resulting in agencies with inexperienced police officers who tend to make unwise decisions and use excessive force. Officer use of excessive force has also been linked to job frustration and psychological disturbances (Yakam, 2019).

Hilal and Litsey (2020) stated that seeking specific qualities in recruits can diminish turnover in agencies and called for a greater focus on the components of job satisfaction and on robust recruiting and screening to mitigate attrition. Information regarding qualities that diminish turnover is important because it provides an understanding of inherent traits that may predispose individuals to having job satisfaction. Implications of job dissatisfaction are low performance such as poor decision-making, excessive use of force, and attrition (Chapman, 2012; Garner et al., 2018; Miller, 2015). These aspects of police conduct lessen civilian engagement through failure to report crime, perpetuation of cynicism about police, and refusal to rely on police (Desmond et al., 2016; Flexon et al., 2016).

Education level has also been explored as an influence on job satisfaction (McGrandle, 2019; Paoline et al., 2015). Results of research on education level and job satisfaction are mixed, and little exists regarding job satisfaction. Despite the dearth of research on the impact of personality traits on job satisfaction among police, Demir (2018) and Stogner et al. (2020) posited that traits such as positive coping skills and resilience have positive outcomes for police officers in navigating job stressors. To date, there is a lack of research exploring the characteristics that contribute to job satisfaction among law enforcement officers. These characteristics may include the ability to make wise decisions and the appropriate use of force. They may also help to preserve agency workforces. There is a need to identify the factors and characteristics suitable for police work through exploring the relationships among the Big Five traits, education level, and resilience and job satisfaction.

Purpose of the Study

The purpose of this nonexperimental predictive correlational study was to explore the relationships between the Big Five personality traits, education level, resilience, and job satisfaction in rural law enforcement officers. Multiple regression was used to analyze the data. Results from this investigation provided information regarding the relationship of each trait dimension and job satisfaction in law enforcement, suggesting trait predisposition for job satisfaction. A second study goal was to investigate whether predictive relationships exist between the Big Five personality traits in combination with education level and resilience and job satisfaction.

These variables were the focus of the present study because they have previously been identified as related to job satisfaction in general. However, they have not been studied in

combination with the Big Five personality traits. Selecting police force applicants with particular traits may contribute to job satisfaction, retention, fewer mental and physical health problems for officers, less use of excessive force, and greater civilian trust of law enforcement.

Research Questions and Hypotheses

The following questions and hypotheses were addressed in this study:

RQ1 (correlational): Is there a predictive relationship between law enforcement officers' neuroticism as measured by the Big Five Inventory-10 (BFI-10) and job satisfaction as measured by the Brief Index of Affective Job Satisfaction (BIAJS)?

$H1_0$: There is no predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H1_a$: There is a predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ2 (correlational): Is there a predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H2_0$: There is no predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H2_a$: There is a predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ3 (correlational): Is there a predictive relationship between law enforcement officers' extraversion as measured using the BFI-10 and job satisfaction as measured by the BIAJS?

$H3_0$: There is no predictive relationship between law enforcement officers' extraversion as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H3_a$: There is a predictive relationship between law enforcement officers' extraversion as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ4: (correlational): Is there a predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H4_0$: There is no predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H4_a$: There is a predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ5: (correlational): Is there a predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H5_0$: There is no predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H5_a$: There is a predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ6: (correlational): Is there a predictive relationship between education level and job satisfaction as measured by the BIAJS?

$H6_0$: There is no predictive relationship between education level and job satisfaction as measured by the BIAJS.

$H6_a$: There is a predictive relationship between education level and job satisfaction as measured by the BIAJS.

RQ7 (correlational): Is there a predictive relationship between resilience and job satisfaction as measured by the Brief Resilience Scale (BRS) and job satisfaction as measured by the BIAJS?

$H7_0$: There is no predictive relationship between resilience and job satisfaction as measured by the BRS and job satisfaction as measured by the BIAJS.

$H7_a$: There is a predictive relationship between resilience and job satisfaction as measured by the BRS and job satisfaction as measured by the BIAJS.

RQ8 (correlational): Does the subset of the Big Five factors, education level, and resilience contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS?

$H8_0$: One or more of the subset of the Big Five factors, education level, and resilience do not contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS.

$H8_a$: One or more of the subset of the Big Five factors, education level, and resilience do contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS.

Theoretical Framework

The theoretical framework for this study was Judge et al.'s (1998) dispositional theory of job satisfaction. This theory is based on personality as an influence on components of organizational functioning, inclusive of job satisfaction. It offers justification for job satisfaction as a result of personality traits that are similar to the organization's. Using this theory helped to

provide insights on which personality characteristics, in combination with education level and resilience, are predictive for job satisfaction in law enforcement.

Nature of the Study

Quantitative methodology—specifically, multiple regression analysis—was used for data analysis to determine whether there is a predictive relationship between personality traits, education level and resilience and job satisfaction. Multiple regression analysis is appropriate for determining the relationship between personality traits and job satisfaction because it assesses the relationship between variables (Warner, 2013). The goal of using a nonexperimental predictive correlational design in the present study was to investigate the relationship between personality traits and job satisfaction, level of education and job satisfaction, and resilience and job satisfaction. Because there was no manipulation of variables, these data collection and analysis approaches as well as the use of a nonexperimental predictive correlational design were appropriate for assessing the relationship between the variables.

Assumptions

There were several assumptions associated with this study. I assumed there may be a limited number of officers interested in participating due to the voluntary aspect of the study. I assumed that participation was voluntary. Also, I assumed that all participants would answer the questions honestly. Because of using a survey format, I assumed that all invited participants would respond (voluntary aspect), and prohibitions to further question participants would be study limitations. Additionally, I assumed that the variables of the Big Five traits, education level, resilience, and job satisfaction would be measurable. I assumed the instruments used in

this study (the BFI-10, the BRS, and the BIAJS) are valid and reliable. The psychometric properties for these instruments are discussed in Chapter 3.

Scope and Delimitations

The scope of this study was an investigation of the relationships among the Big Five traits, education level, resilience, and job satisfaction among law enforcement. The theoretical framework for this study was limited to Judge et al.'s (1998) dispositional theory of job satisfaction. The target population for this study was law enforcement officers in a western U.S. state. Nonprobability convenience sampling was used to recruit law enforcement officers from various departments in these agencies. Study participants may not be representative of all law enforcement officers working in agencies in the United States, which may limit the generalizability of the study results. Because of this sample being from an agency in a western U.S. state, participants' perspectives may differ from those of officers in other agencies.

Limitations

This study had several limitations. First, this study was conducted in three small agencies in a western U.S. state. As a result, study results may have limited generalizability to other agencies. Other limitations included the sampling approach and participant availability. Participants were limited to individuals who were available and who had time to complete a self-report survey. Limitations of a self-report instrument include threats to internal validity. Participants may provide inaccurate or exaggerated responses in order to reflect social desirability bias (Frankfort-Nachmias et al., 2015). To prevent response bias, a distractor question was inserted into the survey after three target questions, in keeping with guidance from Delis et al. (2000), Peterson et al. (1954), and Snodgrass and Corwin (1988). The questionnaire

contained close-ended questions to prevent researcher bias, as suggested by Thomas (2003). I did not investigate factors other than the stated variables that may contribute to job satisfaction.

Significance

Findings from the present study contributed to existing research on law enforcement officer job satisfaction by providing information regarding the relationship between personality traits and job satisfaction and education level and resilience and job satisfaction. This information is important because it sheds light on characteristics that contribute to job satisfaction in law enforcement. Individuals with the traits identified in this study may be more predisposed to being satisfied in their work.

Knowing the relationship between personality traits and job satisfaction can assist in creating changes in police recruitment. Officers who have job satisfaction use less force, have increased prudent decision-making, have good health, and remain in their positions (Agrahari & Kotnala, 2018; Allisey et al., 2013). These factors could positively impact police performance and civilian relationships with police. Results from this study may lead to positive social change by informing recruitment standards and processes. Changes in recruitment processes may result in enhanced job satisfaction and performance as well as enhanced civilian appraisal of police and civilian reliance on police.

Summary

Job satisfaction in law enforcement has been associated with prudent decision-making, use of appropriate force, and organizational commitment resulting in retention (Annell et al., 2015; Inzunza, 2016). Other factors that can contribute to increased job satisfaction include personality traits, education level, and resilience (McCanlies et al., 2018; Ryu et al., 2020;

Stogner et al., 2020). Distinguishing factors that contribute to job satisfaction may reduce the hiring of officers who engage in unwise decision-making, decrease use of excessive force, and increase organizational commitment and retention. Identifying characteristics suitable for police work may have the added benefits of increasing civilian trust and reliance on police. Indications for potential social change consistent with and bounded by the study include increased civilian reliance on police, fewer tensions between civilians and police potentially resulting in enhanced societal well-being.

In Chapter 2, I discuss research that illustrates the independent variables (the Big Five traits, education level, and resilience) and the dependent variable (job satisfaction). I also discuss the dispositional theory of job satisfaction as the present study's theoretical framework. Additionally, I provide synthesis of the extant literature.

Chapter 2: Literature Review

Job satisfaction is an important aspect of good job performance and retention (Crowl, 2017; Desmond et al., 2016). Job satisfaction also influences civilian perception of law enforcement as a result of job performance. When officers lack job satisfaction, they might perform poorly, have health problems, make poor decisions, use excessive force, and might leave the agency (Demirkol & Nalla, 2018; Viglione, 2018). These repercussions are costly for agencies and result in inexperienced forces due to attrition. Inexperienced officers are at risk for poor job performance due to compromised functioning, which can also result in harm to the community. Job satisfaction is a psychological construct based on one's appraisal of extrinsic and intrinsic factors (Meng, 2020; Unanue et al., 2017). However, a variety of factors compose the framework for individual perception, which impacts job satisfaction (Van Thielen et al., 2018; White et al., 2010).

One significant deficit in the existing research on job satisfaction in law enforcement populations is the lack of knowledge on the relationship between personality traits and job satisfaction. Knowing the relationship between personality and job satisfaction can provide information that illuminates trait predisposition for job satisfaction, which impacts job performance. Positive job performance can potentially increase civilian engagement and increase confidence in and reliance on police.

The purpose of the present study was to explore the relationship between the Big Five traits, education level, resilience, and job satisfaction in rural law enforcement through the theoretical lens of the dispositional theory of job satisfaction. The variables investigated were the Big Five traits (agreeableness, openness to experience, extraversion, neuroticism, and

conscientiousness), education level, and resilience and the relationships of each of these traits with job satisfaction.

This chapter is a review of the literature related to the study topic. I begin by detailing the literature search strategy and discussing the study's theoretical framework. I then discuss studies on the Big Five theory of personality, and job satisfaction with subtopics of personality traits, education level, and resilience in relation to job satisfaction. The chapter ends with a summary.

Literature Search Strategy

I used multiple databases to conduct a thorough review of the literature, including PsycINFO, PsycARTICLES, ProQuest Central, and ProQuest Criminal Justice. Keywords included job satisfaction, personality traits, appraisals, and police/law enforcement. Combinations of keywords were as follows: personality traits; attraction–selection–attrition model and job satisfaction; police and personality; police and job satisfaction; job satisfaction and appraisals. The literature review included peer-reviewed articles ranging from 2014 to 2020. I also included seminal research consisting of both peer-reviewed articles and books.

Dispositional Theory of Job Satisfaction

The theoretical base for this study was Judge et al.'s (1998) dispositional theory of job satisfaction. This theory addresses individual dispositions as influences on job satisfaction. It offers justification that job satisfaction is a result of certain distinct dispositions affiliated with each individual. Inherent tendencies predispose individuals to particular levels of job satisfaction regardless of the job (Judge et al., 1998; Judge & Larsen, 2001;). The dispositional theory of job satisfaction is based on the understanding that job satisfaction is both cognitive and affective. Judge and Larsen (2001) posited that "personality traits influence the affective process and

predispose individuals to punishment and reward and aversive and incentive motivation" (p. 76), thereby impacting job satisfaction. Researchers including Judge et al. (2002), Judge and Larson (2001), Judge and Locke (1993), and Watson and Slack (1993) have asserted that disposition can influence job satisfaction. Using the dispositional theory of job satisfaction requires measuring characteristics of personality (Staw & Ross, 1985). The Big Five factor theory is useful in this process and can help to explain tendencies in perspectives and behaviors (Staw et al., 1986, Staw & Cohen-Charash, 2005). Contributors to job satisfaction in law enforcement have been studied, but not in combination with the Big Five factors.

The Big Five Personality Model

As early as 1884, Sir Francis Galton investigated personality as a means to identify the causes of differences in behavior (Goldberg, 1990; Michell, 2021). Galton posited that individual character is measured by conduct. His lexical categorization of individual characteristics influenced later personality researchers such as Allport and Odbert (1936), who asserted that trait names should include a psychological component in addition to conduct. Cattell (1969) followed this research and submitted 35 personality traits as explanations for differences in behavior. Subsequent research ranged in the number of individual personality traits. Peabody (1967) described three, Digman (1989) described five, Thurstone (1949) reported nine, and Norman (1967) outlined 2,800 traits. Later researchers such as Eysenck (1967), Goldberg (1993), and Costa et al. (1986) settled on five traits: openness to experience, agreeableness, extraversion, neuroticism, and conscientiousness. Neuroticism is sometimes represented by its opposite, emotional stability (Goldberg, 1993).

Judge et al. (2006) further defined these traits as follows:

- Conscientiousness, which has three facets: achievement orientation, dependability, and orderliness. Achievement orientation is demonstrated by hard work and persistence. Dependability consists of behaviors that are responsible and careful. Orderliness contains planful and organized actions. Conscientiousness is related to self-control as well as the need for achievement, order, and persistence.
- Neuroticism, defined as having negative mood, anxiety, irritability, depression, fear, and somatic issues. Individuals high in neuroticism are likely to be affected by negative life events (Judge et al., 2006).
- Extraversion, referring to sociability, with individuals high in extraversion demonstrating gregariousness and outgoingness. These individuals are active, assertive, and adventurous. They tend to experience positive emotions, are more likely than neurotic individuals to be in leadership roles and have a greater number of close friends.
- Openness, which refers to philosophical and intellectual interests (Judge et al., 2014). It is the ability to make sense of one's surroundings and to desire variety (Ramicic & Bonarini, 2019). These individuals appreciate learning new things and are willing to meet new people and have new experiences (Jankowska et al., 2019; Judge et al., 2014).
- Agreeableness, which refers to nonconformity, imagination, and autonomy. Individuals with this trait demonstrate warmth, kindness, altruism, and cooperation (Law et al., 2019). Individuals who are agreeable are selfless (Rapp et al., 2019).

The Big Five personality model comprises these five traits and provides a framework for understanding individuals' perceptions and behaviors.

Personality traits have been shown to be relatively stable over time. Elkins et al. (2017) found stability in personality traits from adolescence to early adulthood (ages 15 to 24 years). Conscientiousness was the only trait that increased with age. Allemand and Martin (2016) and Klimstra et al. (2013) found similar results in their studies. Personality traits remained stable from adolescence through middle adulthood. Conscientiousness declined slightly in old age. Klimstra et al. cited personality changes in old age are possibly due to the differences in life demands and tasks in old age.

Harris et al. (2016) also found personality to be stable over time. Using data from the Scottish Mental Survey of 1947, Harris et al. compared personality and other aspects (dependability and well-being) in a cohort sample ranging in time from childhood to older age. The original assessment was conducted on all of the children born in Scotland in 1936. In 1947, these children's teachers (N = 70,805) assessed the personality characteristics of level of conscientiousness, self-confidence, perseverance, moods stability, originality, and desire to excel. Harris et al. concluded that these characteristics were similar to contentiousness in the Big Five and assessed for all of them using conscientiousness as a singular definition. In 2013, Harris et al. were able to assess the remaining and interested participants from the original sample by administering the same personality inventory questionnaire booklet to students via phone. Results based on this self-report survey, which included the survey and phone interviews, showed mood stability and consciousness were stable over time. These findings on trait stability suggest that exploring the relationship between personality traits with job satisfaction in police

officers to determine if there are traits that are better suited to police work might be informative. Given the stability of traits, it may be informative to explore the relationship of personality traits with job satisfaction in police to determining if there are traits that are better suited to police work.

Examining the Big Five traits can shed light on behaviors. The traits have been used in studies on job satisfaction. Judge et al. (2014) asserted that the Big Five traits comprise baseline tendencies of behavior and perception. Geukes et al. (2017) found personality traits impact perception, affect, and behaviors within social settings. Chen et al. (2013) asserted that personality traits comprise and influence features of cultures. Personality traits can also predict success and failure (Moffitt et al., 2011; Ozer & Benet-Martínez, 2006; Roberts et al., 2007).

Relevant to the present study's focus, the Big Five traits have also been extensively used to study job satisfaction. Findings from these studies have shown which factors positively and negatively impact job satisfaction, as illustrated by the studies discussed in the next section. This body of research supports using the Big Five personality model for the current study. The model addresses individual tendencies that have been shown to relate to job satisfaction. As such, information that emerges from using this model may predict traits that contribute to job satisfaction in law enforcement.

The Big Five and Job Satisfaction

As noted, the Big Five personality model has been extensively used to study job satisfaction. The professions studied range from bank workers (Attiq et al., 2017; Ward, 2019) to lifeguards (Chang et al., 2017). Of note, most of the extant research on the Big Five and job satisfaction among law enforcement officers dates to the 1980s and earlier. As such, I expanded

the scope of the studies reviewed to encompass occupations other than law enforcement in which these factors have been studied more recently.

Although not conducted on police officers, findings from these studies reflect the role of the Big Five personality factors on job satisfaction in professions that have many similar aspects to policing and, as such, may relate to job satisfaction in this population. Of note is that most of the research reviewed did not encompass the variables of education level or resilience and their possible impact on job satisfaction, which was a focus in the present study. Because of this, comparing these elements between the reviewed studies to the present study was often not possible. I do discuss findings reflecting similar variables where appropriate.

Of the five factors, neuroticism consistently shows negative correlations to job satisfaction in the extant research. Put simply, individuals who exhibited lower levels of this personality factor were found to be more satisfied with their jobs in almost every study I reviewed. The studies discussed in this section on the Big Five and job satisfaction (Bui, 2017; Chang et al., 2017; Eason et al., 2015; Elfstrand Corlin & Kazemi, 2017; Hatamian et al., 2019; Mróz & Kaleta, 2016; Perera et al., 2018; Ranasinghe & Hemantha, 2016; Rogers-Sharer, 2015; Steel et al., 2019; Therasa & Vijayabanu, 2015; Törnroos et al., 2019; Ward, 2019; Washington, 2019; Yang & Hwang, 2014) are recapped in Table 1. This information can inform hiring and retention protocols. Although the studies discussed in this section were not conducted on police officers, the findings could suggest how the Big Five personality factors may relate to job satisfaction in this population. Also, of note is that of the five factors, neuroticism consistently showed negative correlations to job satisfaction, a finding I discuss in more detail in the section summary.

Chang et al. (2017) found that a relationship exists between personality traits and job satisfaction among lifeguards. Attiq et al. (2017) also found personality traits impacted job satisfaction among nongovernment organization workers, bank employees, and telecom workers.

Table 1

Big Five Findings

Study	Study methodology, *N*, sample characteristics	Study focus	Findings	Limitations
Bui (2017)	Multiple regression analysis of Big Five traits on job satisfaction; *N* = 7,662 employed young, middle-aged, & older adults.	Impact of personality traits on job satisfaction with age	Job satisfaction was positively correlated with agreeableness, conscientiousness & extraversion, negatively correlated with neuroticism. young employees, personality traits had significant impact both positively & negatively on job satisfaction. Openness had no impact.	Self-report, United Kingdom (U.K.)
Chang et al. (2017)	Hierarchical regression analysis; *N* = 529 (404 men, 125 women)	Impact of personality traits on job satisfaction in lifeguards	All five traits impacted job satisfaction. Those with high levels of education & low levels of neuroticism had high levels of job satisfaction.	Self-report, in Taiwan, predominately male sample
Eason et al. (2015)	Independent *t* tests, quasihierarchical stepwise regression & analysis, Pearson's coefficient; *N* = 202 (68 men, 134 women)	Impact of Big Five & job satisfaction in athletic trainers	Agreeableness & openness had moderate positive relationships with job satisfaction, extraversion & conscientiousness had weak positive relationships with job satisfaction, & neuroticism had a moderate negative relationship with job satisfaction.	Limited career scope, more females

Study	Study methodology, *N*, sample characteristics	Study focus	Findings	Limitations
Elfstrand et al. (2017)	Regression analysis; *N* = 322, 97% female	Relationship of Big Five traits & job satisfaction among elder care nurses	Agreeableness was positively associated with job satisfaction, conscientiousness & openness had weak correlations with job satisfaction. Neuroticism was strongly negatively correlated with job satisfaction.	Nonprobability sample, outside of the United States (U.S.)
Hatamian et al. (2019)	Pearson's coefficient, regression analysis; 240 Iranian middle-aged and older employees in various jobs	Explored relationship between job satisfaction & personality traits	Positive relationship between extraversion, openness, & conscientiousness & job satisfaction. No correlation between neuroticism or agreeableness with job satisfaction	Results not generalizable to U.S., used convenience sample, narrow subject age
Mróz & Kaleta (2016)	Regression analysis; *N* = 137 (124 women, 13 men)	Relationship between Big Five traits, job satisfaction, emotional labor, & work engagement	Conscientiousness, extraversion, agreeableness, & openness predicted job satisfaction. Neuroticism had a negative correlation with job satisfaction.	Mostly women, small sample size, cultural specificity.
Perera et al. (2018)	Structural equation modeling, latent profile analysis, & comparative profile examinations; *N* = 574 (512 female)	Relationship between Big Five & efficacy, engagement, & job satisfaction in teachers	Neuroticism correlated with low job satisfaction high extraversion & low conscientiousness had slightly above levels of agreeableness & openness which correlated with having high levels of job satisfaction.	Large number of women, not generalizable to the U.S.

Study	Study methodology, *N*, sample characteristics	Study focus	Findings	Limitations
Ranasinghe & Hemantha (2016)	Pearson's *r*, regression analysis; 229 Sri Lankan teachers (102 men, 127 women)	Explored relationship between Big Five traits & job satisfaction	Weak negative correlation between neuroticism & job satisfaction, strong positive correlations between extroversion, openness, & conscientiousness, average positive with agreeableness & job satisfaction	Results not generalizable, self-report
Rogers-Sharer (2015)	Multiple regression; 96 employees of large U.S. corporations	Explored perceptions of job insecurity, conscientious-ness, neuroticism & job satisfaction	Conscientiousness—no significant impact on job satisfaction Neuroticism—significant predictor of job satisfaction	Sample: higher education faculty & engineers, sample only contained participants with time to participate Self-report measure
Steel et al. (2019)	Meta-analysis; 33,792 employees from U.S., U.K., & Australia	Explored relationship between Big Five traits, job satisfaction, & life satisfaction	Neuroticism strong negative impact of job satisfaction, all other traits positive correlation with job satisfaction	Length of study, job type not described
Sundstrom et al. (2016)	MANOVA; 284 U.S. employees (training & development & other)	Explored relationship between Big Five traits & job satisfaction	Extroversion positively correlated with job satisfaction, neuroticism negatively associated with job satisfaction, no correlations with conscientiousness, agreeableness, openness & job satisfaction	Results not generalizable, focus on training & development workers, 36% male

Study	Study methodology, *N*, sample characteristics	Study focus	Findings	Limitations
Therasa & Vijayabanu (2015)	Meta-analysis; 6 studies on Big 5 & job satisfaction	Explore relationship between Big Five & job satisfaction, demographics & psychological capital & job satisfaction	Studies found neuroticism negatively correlated with job satisfaction other traits positively correlated with job satisfaction, education positively correlated with job satisfaction	Limited generalizability —6 studies, meta-analysis
Törnroos et al. (2019)	Hierarchical regression; 22,787 U.K. households	Explore relationship between Big 5, job satisfaction, personality & job fit	Traits impact job satisfaction; openness & neuroticism had greatest impact, personal traits correlates to job trait	Small job sample (25 vocations), not generalizable outside of U.K., small BFI inventory used (15-item)
Ward (2019)	Cronbach's alpha, multiple regression; 106 bank workers in southern U.S.	Explore relationship between Big Five, job satisfaction & work history	Conscientiousness related to but not predictive of job satisfaction, all other traits had no impact on job satisfaction	Limited population (due to region), limited job type
Washington (2019)	ANOVA; forensic psychologists ($N = 49$	Compare learning modes, assess influence of personality on job satisfaction	No significant relationships found between personality & job satisfaction	Limited population, results not generalizable
Yang & Hwang (2014)	Multiple regression; 360, 251 = salespeople in Taiwan financial sector	Explore impact of personality traits on job satisfaction & performance	Extroversion had positive impact on job satisfaction, other traits had nonsignificant impact	Results not generalizable to U.S. Limited due to population & job type

Note. MANOVA = multivariate analysis of variance; ANOVA = analysis of variance.

The Impact of Personality Traits on Adults

Bui (2017) studied the impact of personality traits on job satisfaction among young, middle aged, and elderly adults (N = 7,662) in the United Kingdom using data from the British Household Survey Panel on social and economic factors. Fifteen psychological items related to the Big Five traits were analyzed using three control variables (age, gender, and marital status), which will not be controlled in the present study. Results from this study demonstrated that openness had no significant impact on job satisfaction. However, there was significant relationships between the other traits and job satisfaction. Job satisfaction was positively correlated with agreeableness, conscientiousness and extraversion, all $p < 0.01$, and negatively correlated with neuroticism, $p < 0.01$. Bui found in young employees, personality traits had significant impact, both positive and negative, on job satisfaction.

In summary, Bui's (2017) results suggest relationships between all personality traits, with the exception of openness, and job satisfaction. Bui's study was conducted in the United Kingdom, which limits generalizing its results to the present study. Results from Bui's study also have limited applicability to the present study due to the controlled variables (age, gender, and marital status), which were not controlled in the present study.

The Interplay Between Personality Traits and Frontline Staff Job Satisfaction

Elfstrand Corlin and Kazemi (2017) investigated job satisfaction from the perspective of the interplay between personality traits and how frontline staff in Sweden related to geriatric nursing home residents. Study participants took the Mini International Personality Inventory, which uses a 7-point Likert-type scale to assess the Big Five traits. Multiple regression analysis showed that staff who scored high on neuroticism experienced less job satisfaction. A limitation

in this study is that Elfstrand Corlin and Kazemi did not identify the theoretical basis of their research. Also, the study setting (Sweden) limits generalizing its results to populations in other countries. Their finding that high neuroticism may impact job satisfaction in a service career again suggests that neuroticism, among all of the variables, is likely a key determinant in job satisfaction and a factor to consider in selecting and retaining employees.

Personality Congruence and Job Satisfaction

Törnroos et al. (2019) focused on personality congruence between individuals and their environments among employed adults, 18 years of age and older. The researchers noted that while it is known that personality congruence is important to job satisfaction, its impact on job satisfaction is not well understood. Törnroos et al. studied 22,787 individuals among 25 occupational groups using data from the British Household Panel Survey and the U.K. Household Longitudinal Study. Job satisfaction was explored with one question using a 7-point Likert scale. Personality traits were measured with a 15-item questionnaire, also using 7-point Likert scales. Theoretical bases were Holland's vocational type theory and Schneider's attraction–selection–attrition model. Age and gender were controlled, and participants were grouped according to occupation (Törnroos et al., 2019).

Hierarchical regression showed modest differences in Big Five traits across all occupational groups (Törnroos et al., 2019). The relationship between neuroticism and job satisfaction was weak, very weak, or weakly negative. Törnroos et al. (2019) found that job satisfaction levels were higher when the individual's personality matched the organizational personality. Limitations in Törnroos et al. include little occupational diversity in their sample. Another limitation the researchers identified was not distinguishing among occupations and

personality traits among these occupations. While they did control for age and gender, Törnroos et al. did not address other demographic variables such as education level or resilience, all of which may impact job satisfaction and were studied in the present research project.

Impact of Personality Traits and Job Satisfaction in Teachers

Ranasinghe and Hemantha (2016) investigated how Big Five personality traits might impact job satisfaction among male and female teachers. The study sample was 229 Sri Lankan teachers (102 men, 127 women). Using regression analysis, Ranasinghe and Hemantha found strongly positive relationships and strong impacts of the Big Five personality traits on job satisfaction among male and female teachers alike. Specifically, there was a weak negative correlation between neuroticism and job satisfaction (r = –.017) for male teachers (R = .971) and for female teachers (r = –.074, R = .921; Ranasinghe & Hemantha, 2016). Extraversion was r = –437 for males and r= –.399 for females. Conscientiousness was r = –.543 (males) and r = –.217 (females). Openness was r = –.026 for males and r = –.419 for females. In addition, Ranasinghe and Hemantha found an average relationship between agreeableness and job satisfaction (r = –.009 for males and r= –.009 for females). Relevance of this study to the present research is limited by its setting (Sri Lanka), which limits generalizability to populations outside of Sri Lanka. While Ranasinghe and Hemantha did not analyze other factors that could contribute to job satisfaction, they did analyze trait differences between genders, which were not addressed in the present study. This study is limited by its specificity of population, lacking generalizability to the United States. Also, this study was separated by gender, which was not addressed in the present study. Finally,

Ranasinghe and Hemantha did not investigate all of the variables that were addressed in the present study.

The Relationships Between Gender, Personality Traits, and Job Satisfaction

Eason et al. (2015) explored the relationships between personality traits and job satisfaction among collegiate athletic trainers ($N = 202$; 68 men, 134 women) in the United States and found a negative correlation between neuroticism and job satisfaction. Salary and education levels were controlled in this study. Participants completed an internet-based questionnaire with three sections: demographics, job satisfaction, and the BFI. Independent *t* tests were conducted to determine gender differences; quasihierarchical stepwise regression and analysis of variance (ANOVA) were used to determine the relationships between demographics and job satisfaction and between job satisfaction and Big Five factors.

Eason et al. (2015) found higher neuroticism levels among women overall. There were moderate positive relationships between agreeableness and openness and job satisfaction. Extraversion and conscientiousness had weak positive relationships with job satisfaction, and neuroticism had a moderate negative relationship with job satisfaction. Eason et al. concluded that assessing personality traits in students pursuing athletic training might better guide these students in their careers. This study suggests relationships between some traits and job satisfaction, but Eason et al. did not address all of the variables explored in the present study.

Impact of Personality Traits in Training Personnel

Sundstrom et al. (2016) found extraversion and emotional stability (the opposite of neuroticism) positively correlated with job satisfaction in a sample of training and development personnel in the United States. Sundstrom et al. collected data on the personality traits of 284

training and development personnel and administered an online questionnaire with items measuring age, gender, and a multi-item measure of personality using the Personal Style Inventory and a one-item measure of job satisfaction.

Sundstrom et al. (2016) identified study limitations including its design, the potential introduction of bias by both researchers and participants, using a one-item measure for job satisfaction, and the narrow population studied. Sundstrom et al. further noted that responses from the Optimism scale measure may not be generalizable to other measures. These results illustrate traits associated with training and development personnel. These results are not generalizable to law enforcement, and this study lacks explorations of the variables explored in the present study.

The Impact of Personality Traits and Job Task Impact on Job Satisfaction

Perera et al. (2018) also explored the relationships among the Big Five personality traits and other variables (teacher self-efficacy and teacher engagement) and job satisfaction in teachers. Researchers administered the Mini-IPIP to 574 Australian teachers and used the Brief Job Satisfaction Measure II to measure job satisfaction. The authors used structural equation modeling, latent profile analysis, and comparative profile examinations for data analyses. They found teachers having high levels of neuroticism had low levels of job satisfaction. Teachers having high extraversion, low conscientiousness, and high levels of the other four traits had high levels of job satisfaction. Perera et al. identified study limitations including the lack of males in the population and the need to study culturally and linguistically different populations.

Perera et al.'s (2018) study provides information that adds to the literature proposing that personality impacts job satisfaction. However, the results are not generalizable to populations in

the United States. Perera et al. did not describe the setting type—suburban, urban, or rural—which may have impacted their results. This study was also focused on a personality profile that contained aspects of teacher efficacy and work engagement not relevant to the present study.

The Impact of Job Stress and Personality Traits on Lifeguards

Chang et al. (2017) found similar influences of neuroticism on job satisfaction. These researchers explored the relationships between personality traits and job satisfaction and job stress among Chinese lifeguards. They also explored demographic variables (education level, swimming ability, age, and gender). Chang et al. found that all five personality traits impacted job satisfaction. Additionally, lifeguards with high education levels and low neuroticism levels had high levels of job satisfaction with a standardized coefficient of 0.092, $p < 0.05$.

Chang et al.'s (2017) results are not generalizable because of the difference in population from that in the United States. Chang et al. also mentioned cultural implications regarding specific job tasks and their value as being not relevant to jobs in the United States. This study does provide some information regarding education level as impacting job satisfaction. Chang et al. also addressed job stress, a variable not addressed in the present study.

Work Engagement and Personality Traits in Service Workers

Mróz and Kaleta (2016) explored the relationships among personality traits, job satisfaction, and other variables (emotional labor and work engagement) in 137 service workers in Poland. The sample consisted of 90.5% females and 9.5% males. The researchers administered a Polish version of the NEO-Five-Factor Inventory (NEO-FFI) to measure personality traits and the Satisfaction Job Scale to measure job satisfaction. Using regression analysis, Mróz and Kaleta found that conscientiousness, extraversion, agreeableness, and

openness predicted job satisfaction. Neuroticism had a negative correlation with job satisfaction with a standardized coefficient of –0.092, $p < 0.05$. Limitations of this study include its overrepresentation of females, its small sample size, and its cultural specificity. Mróz and Kaleta defined their population as having inherent traits due to gender. They posited high levels of neuroticism in their population due to the large number of females in their sample. Mróz and Kaleta asserted that Polish culture approximates the masculine pole in Hofstede's masculinity–femininity cultural dimension and that this facet of Polish culture creates a condition for females of needing to connect with others. The researchers further asserted that neurotic individuals demonstrate a need for engaging with others.

Mróz and Kaleta's (2016) statement that Polish females tend to be neurotic and need engagement with others because they live in a male culture is culturally biased and may make generalizability to the United States difficult. Another limitation of this study is in the variety of service jobs included in the sample. Mróz and Kaleta suggested limiting future studies to a single profession. Findings from this study informed the body of literature related to the present study and the gap addressed in the present study. However, the study limitations create issues regarding the applicability of the results to populations containing more males and populations in the United States. Additionally, while police are public servants, they do not provide services in the same manner as restaurant workers or other service workers do.

The Interplay Between Personality, Life Satisfaction, and Job Satisfaction

Steel et al. (2019) conducted a meta-analysis to find correlations between Big Five traits, job satisfaction, and life satisfaction. Results were consistent with most of the existing literature demonstrating neuroticism and extraversion as the strongest influences on job satisfaction.

Participants were 33,792 individuals from the United States, the United Kingdom, and Australia, with an average of 331.29 people per sample. Results for the NEO-FFI showed that neuroticism, $p = –.26$, was negatively correlated with job satisfaction. Extraversion, $p = .23$, conscientiousness $p = .20$, agreeableness, $p = –.16$, and openness, $p = .04$, were positively correlated with job satisfaction. Results from Eysenck's personality questionnaire demonstrated similar results. Eysenck's personality inventory indicated neuroticism to be the strongest negative influence on job satisfaction. Limitations of this study are its lengthy duration and lack of discreet job description contained in the sample. Steel et al.'s results are consistent with research supporting the notion that neuroticism negatively influences job satisfaction. The researchers did not address education level or resilience, which were addressed in the present study.

The Relationship Between Personality, Psychological Capitol, and Job Satisfaction

Therasa and Vijayabanu (2015) also conducted a meta-analysis to discern the relationships between the Big Five, demographic variables, psychological capital, and job satisfaction. Exploring research on a variety of occupations in India, the researchers found a correlation between the Big Five and job satisfaction. Additionally, all demographic variables (gender, tenure, education, marital status, and education level) influenced job satisfaction. However, results differed between demographic variables. Conclusions from this study demonstrated relationships between all the variables and job satisfaction. Specifically, neuroticism was negatively correlated with job satisfaction as –.29. Additionally, all of the demographic variables, inclusive of education level, had positive relationships with job satisfaction. These results informed the present study and pointed to a gap that the present study addressed by exploring relationships between education level, the Big Five, and job satisfaction

by proposing that personality characteristics impact job satisfaction. However, Therasa and Vijayabanu also did not include all of the variables examined in the present study.

The Impact of Personality Traits, Job Performance, and Job Satisfaction

Notably, Yang and Hwang's (2014) results regarding neuroticism as a negative influence on job satisfaction differ from findings in other studies. Yang and Hwang examined the impact of personality traits on job satisfaction and job performance among Taiwanese financial sector employees. Using a 5-point Likert scale for job satisfaction and the BFI, Yang and Hwang sought to identify personality traits associated with job satisfaction. Results showed that extraversion was the most positive influential trait on job satisfaction. The other Big Five factors were found to be nonsignificant regarding job satisfaction. The results from this study informed the present study by suggesting that particular personality traits are suited for certain types of work, resulting in job satisfaction. However, this study leaves a gap due to the culture of the population and for its finding of neuroticism as having no impact on job satisfaction.

Yang and Hwang's (2014) research contributed to the present study by describing relationships between personality traits and job satisfaction. However, the researchers did not elucidate other variables that may influence these results such as education level or resilience. This study is also limited by its scope of population and its differences in job description with law enforcement. Results are not generalizable to populations other than collegiate athletic trainers and do not provide information on the relationships among education level and resilience in combination with personality traits and job satisfaction.

The Impact of Personality Traits and Job Satisfaction in Workers

Hatamian et al. (2019) explored the relationships between personality traits and job satisfaction among middle-aged and elderly workers in a variety of vocations in Iran. Using convenience sampling, the researchers surveyed 240 employees to discern the relationships among the Big Five traits, psychological empowerment, and job satisfaction. Study participants were administered the short version of the NEO-FFI, the Psychological Empowerment Instrument, and the Job Satisfaction Survey. Pearson's coefficient and regression analysis were used in data analysis. Results indicated positive relationships between extraversion, openness, and conscientiousness and job satisfaction. Neuroticism and agreeableness had no significant correlation with job satisfaction (Hatamian et al. (2019).

Hatamian et al.'s (2019) findings corroborate Yang and Hwang's (2014) regarding agreeableness and neuroticism as having no significant relationship with job satisfaction. The results are not generalizable to other countries and to populations other than middle-aged and elderly individuals. Hatamian et al. did not note the population demographics (education level or resilience) and how these results rest in the context of existing literature. They also did not describe occupations in the sample. Hence, extrapolating results to vocation type was challenging for these researchers. These omissions do not address the impact of other variables on job satisfaction. Hatamian et al.'s findings informed the present study by suggesting correlations between personality traits and job satisfaction; however, Hatamian et al. did not investigate all of the variables explored in the present study.

The Interplay Between Personality and Job Satisfaction Among Bankers

Ward (2019) also found no impact of neuroticism on job satisfaction. Ward examined Big Five traits, work history, age, and job satisfaction among southern U.S. regional bank employees ($N = 106$). Analysis showed that conscientiousness was related to job satisfaction but did not predict it. The other Big Five traits, including neuroticism, had no impact on job satisfaction. These results contradict previous findings of other traits having a relationship with job satisfaction. This study was limited in its type of job. Ward suggested conducting further research in other areas of the United States to increase generalizability.

The Impact of Personality and Job Insecurity on Job Satisfaction

Rogers-Sharer (2015) examined the impact of conscientiousness, neuroticism, and job insecurity on job satisfaction using a purposive sample consisting of engineers and higher education faculty ($N = 96$). The results showed that conscientiousness had no significant impact on job satisfaction, $R = .22$. Neuroticism was a significant predictor of job satisfaction, $R^2 = .12$. While these results contribute to the existing literature, there are several limitations. First, Rogers-Sharer used self-report measures. Second, the sample comprised individuals who had time to participate in the study. Third, Rogers-Sharer used only two traits from the Big Five model, thus not measuring any impact of the other three traits on job satisfaction.

The Interplay Between Personality, Socioeconomic Factors, and Job Satisfaction

Washington (2019) explored the impact of learning models, personality traits, and socioeconomic factors on job satisfaction using a sample of 49 forensic psychologists. Data were gathered using the NEO-FF-3; ANOVA was used for data analysis. Results showed that

personality traits had no significant influence on job satisfaction, $p = 0.374$. A limitation of this study is Washington's use of a self-report measure.

The results of this research on populations other than law enforcement support the notion that personality traits influence job satisfaction to some degree and largely support neuroticism as negatively correlated with job satisfaction. All of the studies were quantitative. Most of these studies were conducted outside of the United States. Distinctly, there is a gap in the literature regarding the Big Five traits and job satisfaction among law enforcement in the United States. This gap was addressed in the present study by examining the relationships between the Big Five traits, education level, resilience, and job satisfaction among police officers in three agencies located in the western United States.

The Influence of Personality Traits on Job Satisfaction in Police

There are few studies on job satisfaction in law enforcement using the Big Five. Khizar et al. (2016) investigated the correlations between the Big Five traits and job satisfaction in Pakistani police in a quantitative study. The researchers administered the NEO-FF to assess personality traits and the Job Satisfaction Survey to assess job satisfaction. The Pearson product-moment correlation coefficient was used to determine correlations among the variables. Results showed that neuroticism and openness were negatively correlated with job satisfaction. Extraversion, agreeableness, and conscientiousness were positively correlated with job satisfaction.

Summary of Findings From Research on the Big Five and Job Satisfaction

Overall, the results of research on the Big Five and job satisfaction support the notion that personality traits influence job satisfaction to some degree. See Table 1 for a summary of these

studies. Of note, most researchers found a negative correlation between neuroticism and job satisfaction. Also of note is the wide range of professions that have been studied in recent years and the lack of recent research on the Big Five traits and job satisfaction among law enforcement officers in the United States. The only relatively current study on these factors is Khizar et al.'s (2016), which was conducted in Pakistan. I addressed this research gap by conducting the present study, which also helped to extend the knowledge base by adding the other variables with the Big Five traits of education level and resilience in examining the relationship between the Big Five traits and job satisfaction among police officers in the United States.

I next discuss research on education level and resilience and their relationships with job satisfaction. These variables were the focus in the present study because they have been previously identified as related to job satisfaction. However, they have not been studied in combination with the Big Five personality traits. Selecting applicants with particular personality traits may contribute to officers who are suitable for police work, have job satisfaction, good job performance, fewer mental health problems, and lower attrition levels.

Job Satisfaction and Education Level

Current research on education level and job satisfaction does not address the relationships among the Big Five traits, education level, and job satisfaction. Exploring these relationships in the present study contributed to the research on factors impacting job satisfaction and shed light on any relative contributions of personality traits and education level and job satisfaction, thus informing hiring and retention policies and practices in law enforcement. Results regarding education level and job satisfaction are mixed. Brady and King (2018) explored the influence of personal factors (years of experience and education level) and operational factors (job stress and

work–family conflict) and organizational factors (burnout and collegial support) and job satisfaction in Texas police chiefs. Brady and King explored the influence of personal factors (11 variables, including years of experience and education level), operational factors (job stress and work–family conflict), and organizational factors (burnout and collegial support) and job satisfaction in 315 Texas police chiefs. The researchers used the Texas Chiefs of Police Panel Project survey for data collection. To measure job satisfaction, Brady and King used the Job Satisfaction Scale (Spector, 1985). This instrument is a five-item survey with responses on a 5-point Likert scale for each item. The variable of education level was categorized as dichotomous, with 0 = less than a bachelor's degree and 1 = bachelor's degree or more education. Brady and King also treated military experience as a dichotomous variable, with 0 = no experience and 1 = with experience. Demographics consisted of 47.3% of chiefs who held a bachelor's degree and 23.2% with military experience.

Data analysis consisted of several processes. First, Brady and King (2018) conducted univariate analysis to determine the distribution of the dependent variable together with the personal, operational, and organizational variables. They then conducted a series of bivariate analyses (Pearson's *r* and independent samples *t* tests) to discern significant relationships between work-related elements associated with job satisfaction. To distinguish the factors influencing job satisfaction, Brady and King used an ordinary least squares regression model because of job satisfaction being a continuous variable. They also conducted multivariate analyses using an additive model to explore personal and work-related factors affecting job satisfaction. All of the variables for personal characteristic combined accounted for only 7.5% of the variance (Brady & King, 2018). Further, the findings showed that work-related factors

contributed to job satisfaction while personal factors did not. Of interest, Brady and King identified education level as a factor in hiring but as not having an impact on job satisfaction in this population.

Brady and King's (2018) findings on the relationships between job satisfaction and the variables of education level and years of service helped to inform the present study's focus. This study provided some information related to education level and job satisfaction. However, Brady and King did not explore the relationships of the Big Five and resilience with job satisfaction in addition to education level, which was investigated in the present study.

Paoline et al. (2015) examined the impact of education level on officers' job satisfaction, views of management, and role orientation. The researchers compared officers with no college, some college, and bachelor's degrees and impact on job satisfaction. They also explored degree type and job outlook. Paoline et al. administered a three-item job satisfaction survey to 2,109 patrol officers. They used logistical regression for data analysis, controlling for sex, race, experience, prior military experience, and department. Using high school education level as a reference category, Paoline et al. found that officers with bachelor's degrees or higher were less satisfied with their jobs than officers with a high school education. Officers with some college were more satisfied with their jobs than those with degrees, but less satisfied than officers with high school only. Forty-five percent of the officers had voluntarily obtained degrees prior to entering the police force (Paoline et al., 2015).

A key limitation in this study was that Paoline et al. (2015) only studied patrol officers. The researchers noted that officers with some college-level education or with college degrees may be less satisfied with patrol work than their high school-only educated counterparts due to

task type. Because Paoline et al. controlled for military experience, there were no findings regarding this variable's impact on job satisfaction, suggesting a gap in the research that findings from the present study helped to address. Also, unlike Paoline et al., other types of officers were addressed in the present study, which shed additional light on the relationship between education and law enforcement occupation.

McGrandle (2019) hypothesized that employees with higher education levels (bachelor's degree or above) would have the greatest levels of job satisfaction. However, analysis results indicated otherwise. McGrandle's findings are consistent with Brady and King (2018) and Paoline et al. (2015), who also found that education level impacted job satisfaction and that higher education levels were associated with lower job satisfaction.

Public service is defined as having interest in and commitment to serving the public, reflected in traits such as civic duty, compassion, social justice, and self-sacrifice (McGrandle, 2019). Additionally, public service includes the desire to impact public policies (McGrandle, 2019). Information from this study helped to inform the present study's focus on examining the impact of education level on job satisfaction among police officers. They are public servants and therefore may embody the associated motivations for public service McGrandle (2019) identified in her study. McGrandle suggested that employees with high education levels may have low job satisfaction levels because they are not impacting public policy

Schudde and Bernell (2019) examined the role of education level and nonwage employment outcomes (job satisfaction, benefits, employment history, unemployment history) using data from the U.S. Department of Labor's National Longitudinal Survey of Youth (1979 cohort), which surveyed individuals born between 1980 and 1984. This data set comprised

survey results from the Armed Services Aptitude Battery, postsecondary transcripts, and geocodes (representations of geographic locations such as ethnic composition and income and education levels) and codes for college attended. The sample consisted of individuals who attended college (N = 3,488), broken down by age.

Schudde and Bernell (2019) controlled for socioeconomic status, gender, race/ethnicity, and family structure (highest degree earned by parents) and conducted data analysis using multivariate regression to examine how outcomes varied across educational attainment levels. They also used Wald tests to compare the overall influence of educational attainment on job satisfaction, employment history, and unemployment history. Results showed that higher education levels were positively correlated with job satisfaction throughout the sample. However, there was no significant relationship between education and jobs satisfaction among college attendees. The majority of respondents who had attended college did not earn bachelor's degrees.

Schudde and Bernell's (2019) study is limited due to its narrow scope of respondent work experience levels (individuals at the beginning of their careers) and its narrow scope of generalizability (adults who graduated college between 2000 and 2005). In addition, the influence of education on job satisfaction could be explained by the controlled factors. Finally, these results suggest a relationship; causality was not determined.

Ueno and Krause (2018) examined the impact of education level and perceived job progress on job satisfaction. The researchers used data from the National Longitudinal Study of Adolescence to Adult Health survey, which assesses health and attainment outcomes and the factors contributing to them in the United States. Survey data were collected via interviews in

four waves. Wave 1 interviews of middle school students began in 1994; Ueno and Krause used data from Wave 4 interviews of respondents ages 24 to 34 years (n = 14,504) who were new to the workforce. Job satisfaction was assessed with one question with responses on a 5-point Likert scale. Education categories were less than high school, high school, associate degree, bachelor's degree, and graduate degree. Using multivariate regression analysis, Ueno and Krause found that education level impacted job satisfaction. Specifically, the higher the education level, the lower the job satisfaction. Ueno and Krause noted that the study's timing may have impacted the results because the population was transitioning from school to the workforce at the time. Another limitation was its narrow sample, consisting of individuals who were in middle school in 1994. Hence, the results are not generalizable to other populations. This study also did not address the variables examined in the present study.

Fetai et al. (2015) evaluated the determinants of job satisfaction by exploring individual and job characteristics among 2,000 employed individuals in Moldavia. Participants were asked one question with a 5-point response scale to assess job satisfaction. Results showed that education positively impacted job satisfaction. Respondents with master's degrees in business and doctorates in philosophy had the highest job satisfaction levels. Limitations in this study include lack of generalizability of the results, the specificity of the sample, and the lack of explorations of variables in the present study: personality traits and resilience as they relate to job satisfaction.

Ilies et al. (2019) explored the impact of education on job satisfaction and other variables (financial literacy, proactive healthy behaviors, job fit, life satisfaction, and health satisfaction). The researchers based their study on the bottom-up theories of life satisfaction (see Diener &

Emmons, 1984, and Schmidtke & Heller, 2004). Using data from the Longitudinal Internet Studies panel, Ilies et al. collected data from 4 consecutive years using a probability sample of households in the Netherlands, $N = 3{,}011$ to $N = 9{,}669$ (54% female, median age 43.49 years in 2009). The instruments included a five-item measure of job satisfaction. Education was measured on a scale using categories defined by the Dutch Central Bureau of Statistics (1 = primary school, 2 = intermediate secondary education, 3 = higher secondary education 4 = intermediate vocational setting, 5 = higher vocational education, 6 = university education; Ilies et al., 2019). The study authors tested their hypotheses using cross-sectional analyses.

Findings indicated that education contributed to increased job satisfaction but that this relationship was mediated by person–job fit, $\beta = .25$, $p < .001$. Ilies et al. (2019) noted that individuals may be drawn to certain jobs. None of the extant research explores the relative contributions of personality traits, education level, resilience, and job satisfaction, which were examined in the present study.

Job Satisfaction and Resilience

Resilience has been defined as a predisposition to positive engagement and affect (Block, 1961; Block & Kremen, 1996). In recent years, the definition has expanded to include adaptability in overcoming negative experiences that include both appraisals and positive modifications to navigate these experiences (Ryff & Singer, 2003; Garrido-Hernansaiz et al., 2020; Yao & Hsieh, 2019). Resilient individuals demonstrate psychological health, positive outlooks, and control over their work (Ghandi et al., 2017; Srivastava & Madan, 2020). Research examining the relationship between resilience and job satisfaction has shown resilience to be positively correlated to job satisfaction. However, there is a lack of research on the relationships

among personality traits, education level and resilience and job satisfaction. Exploring these relationships will address the gap in the current literature and may provide information to inform law enforcement agency practices.

Maurya and Agarwal (2018) examined the relationships among demographic characteristics, perceptions of supportive leadership, mental health, and job satisfaction in police from a large state in India. The nonprobability sample consisted of 203 participants (144 men, 47 women). Maurya and Agarwal administered a survey that included an assessment of mental health divided into two sections: psychological distress (10 items) and psychological well-being (10 items). All responses were based on a 5-point Likert scale. The researchers assessed job satisfaction using the Job Satisfaction Scale.

Analysis for job satisfaction was conducted using *t* tests to explore the differences in levels of mental health, supportive leadership, and demographics. The nature of the relationships among these variables was analyzed thorough computation of correlation. Finally, Maurya and Agarwal (2018) used hierarchical regression to explore the mediating effects of mental health on job satisfaction. Results indicated that psychological well-being (resilience) positively correlated with job satisfaction, $p = .45$ for men and $p = .28$ for women. Psychological distress (resilience absence) was negatively correlated with job satisfaction, $p = –.18$ for men and $p = .11$ for women. Study limitations included using a nonprobability sample, which may have introduced bias, the lack of representativeness, and the inability to estimate sampling error. Also, the results are not generalizable to populations other than Indian populations from large and populated areas. Finally, these results do not reflect an exploration of the Big Five, education level, resilience, and job satisfaction.

Demir (2018) explored the relationships among burnout, psychological capital, stress, anxiety, job involvement, and job satisfaction using a sample of 335 Turkish teachers from one school district with 27 schools. The sample consisted of 203 males and 132 females. Demir defined psychological capital as a person's positive psychological state having four components: hope, optimism, self-efficacy, and resilience. The Psychological Capital Scale, Stress Scale, Anxiety Scale, Burnout Scale, Job Satisfaction Scale, and Job Involvement Scale were used to collect the data.

Using path analysis and structural equation modeling, Demir (2018) found psychological capital to be positively correlated with job satisfaction, $p = 0.263$. Limitations of this study include Demir's assessment of all four components of psychological capital as one variable. Hence, resilience alone was not assessed. Also, this study is limited by its sample being outside of the United States and its being predominantly male. Demir also did not assess the impact of resilience alone on job satisfaction and did not investigate the variables of the Big Five, education level, resilience, and job satisfaction.

Srivastava and Madan (2020) also examined the relationship between resilience and job satisfaction. Additionally, they examined the relationships among other variables (trust, political skills, organizational identification) and job satisfaction and whether these variables mediated the relationship between resilience and job satisfaction using a sample ($N = 272$) of private sector bank managers in a large city in India. Srivastava and Madan used the Career Satisfaction Scale to measure job satisfaction. The instrument has a 5-point Likert scale response format (Greenhaus et al., 1990). They also used the BRS, which contains three negative items and three positive items (Smith et al., 2008). The researchers controlled for gender, age, marital status, and

work experience. Data analysis consisted of assessing bivariate correlations and regression analysis. Results showed that resilience was positively correlated with job satisfaction, $r = .24$, $p < .001$. Additionally, trust, political skills, and organizational identification were found to reinforce resilience ,strengthening the positive relationship of resilience-job satisfaction (Srivastava & Madan, 2020). Limitations of this study include its geographic location (India) and using only private sector employees. These restrictions make results not generalizable to civil servants (police) in the United States. Also, Srivastava and Madan used a self-report measure and a cross sectional design. The variables explored in the present study—personality traits, education level and resilience and job satisfaction—were also not explored in this study.

Ghandi et al. (2017) examined the relationships among resilience, job stress, job satisfaction, and turnover intention among school counselors in India ($N = 207$). Resilience was measured with the Resilience Scale, consisting of 25 items on a 5-point Likert scale that measured various aspects of resilience (empowerment, confidence, sense of support, positive acceptance of change, resistance to negative effects, and pragmatic problem solving; Connor & Davidson, 2003). Job satisfaction was measured with the Rutherford et al. (2009) questionnaire. This instrument consists of four items with 5-point Likert scales (Rutherford et al., 2009). Path analysis results indicated resilience had a significant impact on job satisfaction, $r = 0.56$. Study limitations include its population, making results not generalizable to populations different from Indian school counselors, and its use of a self-report measure. In addition, Ghandi et al. did not provide detailed descriptions of the instruments, the population, and the methodology, nor did they explore the relationships among personality factors and education level in combination with resilience and job satisfaction, which were addressed in the present study.

Easterly and Myers (2018) explored the relationship between personal resilience, career development, and job satisfaction using a purposefully selected sample of middle and high school agriscience teachers ($N = 892$) from four U.S. states, chosen to represent geographic diversity. The authors based the study on the resilience theories of Henderson and Milstein, Hoopes and Kelley, and Connor. They administered the Personal Resilience Questionnaire, which consists of 70 questions with responses based on a 6-point Likert scale. Sections contain 10 questions for each construct. Easterly and Myers created a separate instrument to measure professional development. Data analysis consisted of backwards stepwise regression to determine if resilience was a predictor of personal development and job satisfaction. Results indicated that as positivity (a component of resilience) increased, job satisfaction increased (Easterly & Myers, 2018). Easterly and Myers found two of the five resilience characteristics to be positively correlated with teacher job satisfaction, $r = .76$, Pearson r above .50. The overall resilience measured for the four subscales was 68.9 for positive toward the world and positive for self, 73.1 for focused, and 60.8 for an organized personal resilience characteristic on a scale of 0–100. This study was limited by the population of agriscience teachers and the focus of agricultural diversity as a parameter. Also, Easterly and Myers did not explore the relationships among the Big Five, education level, resilience, and job satisfaction.

Shukshina et al. (2019) investigated the relationship between teachers' hardiness (resilience) and job satisfaction and teachers' professional relationships in an inclusive education framework. The researchers based their study on Akopov's theory of social psychology in education and Maddi et al.'s hardiness theory. Hardiness, according to this theory, is defined as a personality disposition characterized by a person's ability to withstand stressful situations by

maintaining internal balance, contributing to positive well-being (Shukshina et al., 2019). Using a sample of 118 secondary school teachers in a city in Russia, Shukshina et al. conducted interviews to identify teachers' work characteristics in inclusive education. They also administered a hardiness test and a job satisfaction assessment and used an interactive internet-based program for collecting, storing, and processing, and analyzing data. Results indicated a statistically significant relationship between resilience and job satisfaction, $p < 0.05$.

There are several limitations to Shukshina et al.'s (2019) study. First, the results are not generalizable to a population other than the sample. Second, the authors did not describe their instruments or data analysis in detail. They also did not list limitations or specify the sample parameters. There was no mention of researcher bias prevention or coding process/themes given the qualitative nature of the interview or evidence that the researchers followed this protocol. These results may not be reliable due to these limitations. Additionally, Shukshina et al. did not explore resilience and relative contributions of the Big Five, education level, resilience, and job satisfaction, all explored in the present study.

Polat and Iskender (2018) examined the relationships between resilience and other variables (demographics, job burnout, organizational commitment, and organizational climate) and job satisfaction among 581 teachers from three provinces in Turkey. The researchers created a personal information form to collect demographic information (age, experience, gender, and grade level taught). They assessed resilience using a Turkish version of the Resilience Scale for Adults, which contains 33 items assessing six factors: structured style, planned future, family cohesion, perception of self, social competence, and social resources (Friborg et al., 2005). Polat and Iskender reported free scoring in the original version of the instrument: high scores were

indications of high resilience in this study. Job satisfaction was assessed using a Turkish teacher version of the Job Satisfaction Scale. Pearson's correlation coefficients were used to examine the relationship between teachers' resilience levels and job satisfaction, burnout, organizational commitment, and perception of organizational climate. Findings showed a significant relationship between teachers' resilience and job satisfaction, $r = .24$.

These findings are not generalizable to populations in the United States. In addition, these results may not be applicable to law enforcement. A noticeable difference in this study from the present investigation is that Polat and Iskender did not address the relationships between the Big Five, education level, resilience, and job satisfaction.

Ainsworth and Oldfield (2019) explored individual and contextual resilience and their impact on job satisfaction and other variables (burnout and well-being) among 174 teachers in the United Kingdom. The researchers administered a demographic questionnaire and also used the teacher-reported Job Satisfaction Scale to measure job satisfaction. To assess resilience, they used the Teacher Burnout Scale, and the World Health Organization's WHO-5 survey of well-being to examine seven contextual and eight individual resilience factors. Data analysis consisted of regression analysis. Using bootstrapping, Ainsworth and Oldfield found $R^2 = 0.73$ for job satisfaction. All resilience factors significantly predicted job satisfaction, $p < 0.05$. Study limitations included the sample and location, which made the results ungeneralizable to different populations. Additionally, Ainsworth and Oldfield did not explore the variables of personality traits, education level, resilience, and job satisfaction, which were the focus of the present study.

Summary

Existing research lacks a significant focus on factors contributing to job satisfaction in law enforcement. Specifically, there has been little exploration of the specific variables that were the focus of the present study: the Big Five, education level, resilience, and job satisfaction. None of the studies included in this literature view focused on these variables in combination. I filled this gap in the present study by exploring these relationships through multiple regression analysis.

In Chapter 3, I discuss the study rationale, the research design, and the methodology, including descriptions of the sampling strategy and population. I also explain data gathering methods. Lastly, I delineate the ethical concerns for this study.

Chapter 3: Research Method

Investigating the relationships among the Big Five personality traits, education level, resilience, and job satisfaction among law enforcement officers in a western U.S. state was the focus in this study. The intended outcome was to better understand the characteristics that influence job satisfaction in law enforcement to predict characteristics that are suited for law enforcement work. Chapter 3 is a discussion of the rationale for the study, the research design, the sampling strategy, and the population. Also included is information on data collection and analysis and ethical considerations. The chapter ends with a summary.

Research Design and Rationale

Correlational studies are appropriate for exploring the relationships between independent and dependent variables without manipulating the independent variables (Johnson & Christensen, 2004). In the present study, the independent variables of Big Five traits, education level, and resilience were not manipulated, requiring a nonexperimental design. The study purpose was to examine the relationships of three independent variables—the Big Five traits, education level, and resilience—and the dependent variable of job satisfaction. Correlational studies contain observations of the independent variable that are compared to the observations of the dependent variable (Steinberg, 2004). A nonexperimental predictive correlational design is appropriate for this purpose and is consistent with quantitative research.

There were two sets of independent variables in this study. The first independent variables were continuous and were the Big Five traits of openness, conscientiousness, agreeableness, and neuroticism. The second independent variables were categorical: education

level (high school, associate degree, bachelor's degree, or graduate degree) and resilience, which was continuous. Job satisfaction, the dependent variable, was continuous.

I used a nonexperimental predictive correlational design to examine the relationships among the Big Five traits, education level, resilience, and job satisfaction among law enforcement. Data on these variables were collected via survey. As noted in Steinberg (2004), surveys are used to explain a population's characteristics and perceptions. This research design was appropriate for the present study because it focuses on the relationships among variables, allows for determining the strength and direction of the relationships, enables prediction of future events from present information, and has actual application (Frankfort-Nachmias et al., 2015). Also, this design was appropriate due to the brevity and simplicity of data collection method. Using the online survey platform SurveyMonkey (https://www.surveymonkey.com/), I was able to download data to a spreadsheet that could be transferred to SPSS. An online survey requires participants to complete all questions, preventing them from skipping items. This design choice is consistent with research designs needed to advance knowledge in this discipline because it is used to explore the relationships among variables that have not been previously explored, which could provide information potentially leading to more successful outcomes for both civilians and law enforcement.

Methodology

Population

The target population for this study was currently employed law enforcement officers in three law enforcement agencies in a western U.S. state. The population of Agency 1 consisted of

69 sworn officers. The population of Agency 2 consisted of 15 sworn officers. The population of Agency 3 consisted of 66 sworn officers. Data on ethnicity are unavailable.

Sampling and Sampling Procedures

Nonprobability convenience sampling was used to identify participants for this study. The study's sampling frame consisted of all currently employed officers in the three agencies who responded to the solicitation. Participants were recruited from current employment rosters of the three police agencies.

Power, or the probability of rejecting the null hypothesis, is one aspect to consider when selecting sample size (Frankfort-Nachmias et al., 2015). Sample size strongly impacts power (Frankfort-Nachmias et al., 2015). It is important to ensure that the study has sufficient power while also setting the false negative rate at an acceptable level (Frankfort-Nachmias et al., 2015). Eighty percent is deemed an acceptable power level in behavioral research. I conducted an a priori G*Power estimation to determine the sample size required to reveal statistically significant effects for the present study. The G*Power tool calculates the necessary sample size for a multiple regression test (Faul et al., 2009). The calculation assumed the following: α error probability = 0.05, power (β – 1 error probability) = 0.80, number of predictors = 7, and effect size $f^2 = 0.15$ (medium effect size, from Cohen, 1988). The total sample size required to identify statistically significant effects for the present study was 55 (see Faul et al., 2009).

Procedures for Recruitment, Participation, and Data Collection

I obtained approval from the Walden University's institutional review board (IRB; #04-26-21-0373165) to conduct this study and recruit participants. Permission to recruit law enforcement officers and sheriffs was received from the chiefs and the county sheriff of the each

of the agencies. The agency chiefs and sheriff also granted me permission to send survey invitations to officers via email. This email contained the survey link. All of the sworn officers who were listed on current employment rosters of these three agencies were invited to participate in the study via an emailed invitation that contained a link to the survey. The email introduced the study and described its purpose. This announcement also contained eligibility contact information for those officers who wished to participate.

Participation in this study was voluntary. There was no compensation for participation. All participants were informed of their right to withdraw their consent or decline to participate. Participants received an email containing a direct link to the survey on SurveyMonkey. Access to the demographic questionnaire on education level and the informed consent form was also via the SurveyMonkey link. Explanation of the study was located on the SurveyMonkey website, which participants had to accept in order to access the survey. The online survey took approximately 20 min to complete. Participants had to acknowledge that they had read and agreed to participate in the study in order to proceed. They were informed that completing the survey implied their consent. Personal and identifying information were not collected.

Instructions on obtaining the study results were included on the informed consent form. The participants were informed that there would be no follow-up questions or need to contact them after they completed the survey. I emailed a summary of the results to the chiefs and sheriff of each agency to disseminate to interested officers via email.

Data were collected using the following instruments: a demographic survey with one question on education level (see Appendix A), the Big Five-10 (BFI-10), the Brief Resilience Scale (BRS), and the Brief Index of Affective Job Satisfaction (BIAJS). The BFI-10, BRS, and

BIAJS are free and may be reproduced and used for noncommercial research and educational purposes without written permission. Distribution must be only to the participants engaged in the research or enrolled in the educational activity.

Data collected were transferred to SPSS for analysis and storage per Walden University requirements. All data were downloaded to password-protected secure files. All copies of data were stored in a folder on my password-protected computer to which only I have access. Files were backed up on a password-protected hard drive.

Instrumentation and Operationalization of Constructs

The variables in this study were measured using an online assessment. This approach measured Big Five traits, resilience, education level, and job satisfaction.

Big Five-10

The BFI-10 (Rammstedt & John, 2007) was used to assess the Big Five personality traits: extraversion, agreeableness, conscientiousness, emotional stability, and openness. The BFI-10 is a 10-item scale based on the 44-item Big Five Inventory (John et al., 1991). Test–retest correlations indicate acceptable reliability. Correlations with other Big Five instruments, correlations between self and peer ratings, and associations with sociodemographic variables suggest good validities of the BFI-10 scores. Several studies have demonstrated acceptable reliability estimates for the BFI-10. Rammstedt and John (2007) demonstrated test–retest correlations between r = .65 (Openness) and r =.79 (Extraversion) over a period of 6–8 weeks among a sample of U.S. students. Comparable results were found among German students for the German BFI-10. Rammstedt and John (2007) found correlations ranging from r = .08 to r = .13 (low) among the Big Five scales in all samples. Findings of factor analyses indicated simple-

structure of the items with considerable loadings on the convergent factor (average .64) and minimal secondary loadings on the four other factors (average .08; Rammstedt & John, 2007). Results also indicated considerable convergent and discriminant validity with the NEO-PI-R Domain and Facets scales. Rammstedt and John reported average correlation between self-reports and peer reports of $r = .44$.

Brief Resilience Scale

Smith et al. (2008) created the BRS to measure aspects of resilience and tested the measure on four samples. Sample 1 consisted of 128 undergraduate students, Sample 2 consisted of 64 undergraduate students, Sample 3 consisted of 112 cardiac rehabilitation patients, and Sample 4 consisted of 50 women who either had fibromyalgia ($n = 20$) or were healthy controls ($n = 30$). The BRS was administered to each of these four samples through nonidentical questionnaires. These questionnaires assessed a range of resilience-related constructs, other personal characteristics, coping styles, social relationships, and health-related outcomes with responses ranked on a 5-point Likert scale. Smith et al. used statistical analyses to assess the BRS's factor structure, reliability, and validity. Internal consistency was examined using Cronbach's alpha. Test–retest reliability was examined using the intraclass correlation for absolute agreement. Convergent validity was assessed by zero-order (no controls) correlations between the BRS and the other measures. Discriminant predictive validity was assessed by partial correlations, with health-related outcomes controlling for other predictors. In addition, Smith et al. compared mean BRS scores across samples and subgroups using independent samples *t* tests.

Smith et al. (2008) administered the BRS twice in two samples. The instrument was found to have a test–retest reliability of .69 with Sample 2. There was a total of 48 participants from Sample 2. Test–retest reliability was .62 for 61 participants from Sample 3. The results for each sample revealed a one-factor solution accounting for 55% to 67% of the variance. The BRS demonstrated good internal consistency with Cronbach's alpha ranging from .80 to .91. Criterion validity was good, and convergent validity was consistent with the correlation direction and magnitude of other similar well-established instruments (Fung, 2020). The Big Five-10, BRS, and BIAJS were appropriate for use in the present study because they measure the Big Five traits, resilience, and job satisfaction. These instruments are free and accessible.

Brief Index of Affective Job Satisfaction

Thompson and Phua (2012) developed the BIAJS based on Brayfield and Rothe's (1951) Index of Job Satisfaction. The BIAJS consists of seven items, four of which are distractor items to obscure the content being measured. Responses are ranked on a 5-point Likert scale. Thompson and Phua surveyed 1,500 business managers in Hong Kong and 1,500 business managers in Australia. The samples were drawn from the same population of managers from trade and chamber of commerce directories. The instrument was one dimensional with uniform factor loadings accounting for two thirds of the variance for the whole sample and for subsamples. Item total correlations ranged from .54 to .74. Corrected item-total correlations ranging across samples (Thompson & Phua, 2012). Cronbach's alpha was between .81 and .83. The instrument had internal consistency and reliability. The test–retest correlations were .57, $p <$ .01 (Thompson & Phua, 2012).

The BIAJS has a demonstrated internal consistency reliability of .81 (Thompson & Phua, 2012). Criterion-related validity was examined for the ability to predict a range of individual-level variables associated with job satisfaction. Thompson and Phua (2012) tested individual-level variable correlations with criterion variables than have been associated with job satisfaction from existing literature. Each criterion variable of the BIAJS was found to be within ranges of correlations found in other studies (Thompson & Phua, 2012).

Threats to Validity

There may be threats to the present study's external and internal validities. A threat to external validity may be the sample representativeness (Frankfort-Nachmias et al., 2015) as it was mostly male making results not generalizable to other populations. In the present study, selection bias impacted external validity as results may be generalizable to small agencies in western states. This restricted the study findings from being completely representative of the target population, making inferences based on the findings challenging. Additionally, the study setting was rural and differed from nonrural areas due to the presence of some pockets of suburbanization in housing and commerce. Therefore, the results may not be generalizable to areas lacking these suburban pockets of housing and commerce.

The threat to internal validity consisted of confounding variables. Confounding variables can introduce a misrepresentation to the relationships among the independent variables and the dependent variable due to the presence of extraneous factors (Frankfort-Nachmias et al., 2015). Examples of confounding variables not explored that may influence this study's results are definitions of education not included in the variable definition such as training and other factors such as peer and/or family support, and workplace conditions. The impact of these variables was

not examined. Also, using self-report instruments may have impacted internal validity as participants may have provided exaggerated responses that reflected social desirability bias.

Data Collection and Analysis

SPSS software was used for cleaning and analyzing the data. Identifying information was removed prior to data analysis. Data were downloaded to a spreadsheet for visual examination and then transferred to SPSS for analysis. Data were visually analyzed, and entries with missing information were excluded from data analysis. Data were entered into SPSS for descriptive and inferential statistical analyses. Descriptive statistics included means, range of scores, and standard deviation. Data were displayed via tables and charts.

The analytic strategy was multiple regression analysis. Multiple regression analysis is a multivariate statistical technique that assesses the relationships between continuously distributed independent variables and one continuously distributed dependent variable (Richardson, 2015; Steinberg, 2004). Multiple regression was selected because allows for predicting the dependent variables based on the value of two or more of the independent variables (Frankfort-Nachmias et al., 2015). Specifically, it explained the relationships among the Big Five traits, education level, resilience, and job satisfaction. It also allowed for determining the variance and the impact of each of the variables on the total variance.

This research design is consistent with those that increase knowledge on characteristics suitable for law enforcement work. Conducting this study addressed the gap in the literature in examining the Big Five traits in combination with education level, resilience, and job satisfaction. Study findings provided an understanding of the influence of and relationships

among Big Five traits, education level, and resilience on job satisfaction among law enforcement officers in three police departments in a western U.S. state.

Research Questions

RQ1 (correlational): Is there a predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H1_0$: There is no predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H1_a$: There is a predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ2 (correlational): Is there a predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H2_0$: There is no predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H2_a$: There is a predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ3 (correlational): Is there a predictive relationship between law enforcement officers' extraversion as measured using the BFI-10 and job satisfaction as measured by the BIAJS?

$H3_0$: There is no predictive relationship between law enforcement officers' extraversion as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H3_a$: There is a predictive relationship between law enforcement officers' extraversion as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ4: (correlational): Is there a predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H4_0$: There is no predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H4_a$: There is a predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ5 (correlational): Is there a predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H5_0$: There is no predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H5_a$: There is a predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

RQ6: (correlational): Is there a predictive relationship between education level and job satisfaction as measured by the BIAJS?

$H6_0$: There is no predictive relationship between education level and job satisfaction as measured by the BIAJS.

$H6_a$: There is a predictive relationship between education level and job satisfaction as measured by the BIAJS.

RQ7 (correlational): Is there a predictive relationship between resilience as measured by the Brief Resilience Scale (BRS) and job satisfaction as measured by the BIAJS?

$H7_0$: There is no predictive relationship between resilience as measured by the BRS and job satisfaction as measured by the BIAJS.

$H7_a$: There is a predictive relationship between resilience and job satisfaction as measured by the BRS and job satisfaction as measured by the BIAJS.

RQ8 (correlational): Does the subset of the Big Five factors, education level, and resilience contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS?

$H8_0$: One or more of the subset of the Big Five factors, education level, and resilience do not contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS.

$H8_a$: One or more of the subset of the Big Five factors, education level, and resilience do contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS.

Definition of Variables

Independent Variables

Continuous Variables—Big Five Traits

The Big Five traits are as follows: conscientiousness, neuroticism, extroversion, openness, and agreeableness. All were measured by the BFI-10 through self-report. This instrument contains 10 items on a 5-point Likert scale.

Continuous Variable-Resilience

Resilience is the predisposition for positive engagement and affect. This variable was measured by the BRS through self-report. This instrument contains six items based on a 5-point Likert scale.

Categorical Variable—Education Level

For this study, education level was defined as having a high school diploma or equivalent, an associate degree, a bachelor's degree, or a graduate degree. Education level was measured through a self-report response to one question: What is your education level? Finally, resilience was a continuous variable, defined as having a predisposition to positive engagement and affect, adaptability in overcoming negative experiences, and a positive outlook. The BRS contains six items with responses on a 5-point Likert scale.

Dependent Variable

The dependent variable of job satisfaction was defined as being content with one's work. This variable was measured by the BIAJS through self-report. This instrument has four items with responses on 5-point Likert scale.

Instrument Administration

The online assessment was administered via SurveyMonkey. The chief of police in each department was emailed a link to the survey to disseminate to police officers. The assessment began with a consent to participate. As noted in Stenton and Pascoe (2004), an online assessment allows for collecting data from a large sample. An online assessment is also inexpensive and permits simple distribution and collection of data by one researcher in a short amount of time. Disadvantages of an online assessment include the self-report aspect, which relies on the participants' honesty. Also, email delivery of the request to participate may result in lower response rates. I included police officers in all three departments to compensate for a possible lower response rate.

Data Analysis Plan

The Big Five traits, resilience, and job satisfaction items were scored using a 5-point Likert scale. The total scores for each instrument were categorized on a spreadsheet for analysis. The independent variables were the total score for each of the scales: Big Five traits, education level, and resilience. The dependent variable was the total score for the BIAJS job satisfaction scale. Multiple regression analysis was used to explore the relationship between the Big Five traits, education level, and resilience (the independent variables) and job satisfaction (the dependent variable). Summary data and statistical analysis are presented in Chapter 4.

Ethical Procedures

This study was a nonexperimental predictive correlational design with quantitative analysis of data obtained from law enforcement officers in a western U.S. state. Consent was obtained from the agencies with written permission obtained through letters to the agency chiefs and the deputy sheriff granting permission to conduct the study. Prior to data collection and analysis, this study was subject to review by Walden University's IRB. Participant recruitment and data gathering commenced after IRB approval.

Protection of Privacy

To protect the privacy and confidentiality of the research participants and to ensure their anonymity, all identifying information was removed from the data during collection. Participants were randomly assigned numbers. Data files were created for this study and will be maintained in a password-protected file for a minimum of 5 years, at which time the data will be destroyed. IRB approval was obtained prior to data collection. There were no ethical issues related to conflict of interest.

Participant privacy were protected by not asking personal questions and by using an online assessment, which protected anonymity. Only summary data were presented in discussions of data analysis and findings. IRB approval was obtained prior to the onset of data collection. The IRB process ensured that the study complied with U.S. research regulations and Walden University's ethical procedures.

Summary

Chapters 1 and 2 provided background information for this study. Chapter 3 contained information describing the instruments that were used, data collection, and data analysis to answer the research questions. Chapters 4 and 5 present the results and study conclusions.

Chapter 4: Results

The purpose of this study was to measure the relationship between the Big Five traits, education level, resilience, and job satisfaction among rural police officers working in a western U.S. state. Specifically, I explored the extent to which the Big Five personality traits, resilience, and educational level predicted job satisfaction among police officers working for three rural law enforcement agencies in a western U.S. state. Job satisfaction was the dependent variable. Personality, resilience, and educational level were the independent or predictor variables. The intended outcome was to better understand the characteristics that influence job satisfaction in law enforcement personnel, with the aim of predicting characteristics that are suited for law enforcement work.

This chapter contains five sections and a summary. It begins with detail on the research questions and hypotheses, followed by discussions on data collection, instrumentation, and data screening. The study results follow these discussions. The chapter ends with a summary.

Research Questions and Hypotheses

There were eight research questions (RQs). RQ1 through RQ7 refer to correlations and predictive relationships between each of the seven potential predictor variables (i.e., five personality traits, resilience, and educational level) and job satisfaction. RQ8 asks if the combination of all seven potential predictor variables (i.e., the full model) explains a statistically significant amount of job satisfaction. The potential predictor variable is the heading for the following detail on each research question.

Neuroticism

RQ1 (correlational): Is there a predictive relationship between law enforcement officers' neuroticism as measured by the Big Five Inventory-10 (BFI-10) and job satisfaction as measured by the Brief Index of Affective Job Satisfaction (BIAJS)?

$H1_0$: There is no predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H1_a$: There is a predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

Conscientiousness

RQ2 (correlational): Is there a predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H2_0$: There is no predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H2_a$: There is a predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

Extraversion

RQ3 (correlational): Is there a predictive relationship between law enforcement officers' extraversion as measured using the BFI-10 and job satisfaction as measured by the BIAJS?

$H3_0$: There is no predictive relationship between law enforcement officers' extraversion as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H3_a$: There is a predictive relationship between law enforcement officers' extraversion as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

Agreeableness

RQ4: (correlational): Is there a predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H4_0$: There is no predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H4_a$: There is a predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

Openness to Experience

RQ5 (correlational): Is there a predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS?

$H5_0$: There is no predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

$H5_a$: There is a predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.

Educational Level

RQ6: (correlational): Is there a predictive relationship between education level and job satisfaction as measured by the BIAJS?

$H6_0$: There is no predictive relationship between education level and job satisfaction as measured by the BIAJS.

$H6_a$: There is a predictive relationship between education level and job satisfaction as measured by the BIAJS.

Resilience

RQ7 (correlational): Is there a predictive relationship between resilience and job satisfaction as measured by the Brief Resilience Scale (BRS) and job satisfaction as measured by the BIAJS?

$H7_0$: There is no predictive relationship between resilience and job satisfaction as measured by the BRS and job satisfaction as measured by the BIAJS.

$H7_a$: There is a predictive relationship between resilience and job satisfaction as measured by the BRS and job satisfaction as measured by the BIAJS.

Predicting Variability

RQ8 (correlational): Does the subset of the Big Five factors, education level, and resilience contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS?

$H8_0$: One or more of the subset of the Big Five factors, education level, and resilience do not contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS.

$H8_a$: One or more of the subset of the Big Five factors, education level, and resilience do contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS.

Data Collection

Procedures as Projected

There were no discrepancies between the data collection procedures outlined in Chapter 3 and the actual data collection process. Data were collected from May 2021 through August 2021.

Participants completed an online survey through SurveyMonkey consisting of items measuring job satisfaction, personality, resilience, and educational level. These variables are described further in the Instrumentation section in this chapter.

Sampling

The theoretical population, target population, or population of interest includes all of the subjects of theoretical interest to the researcher, is the larger group from which a sample is drawn, and is the group to which the researcher would like to generalize the findings (O'Sullivan et al., 2017). For the present study, the population of interest consisted of law enforcement officers who were employed with law enforcement agencies in a western U.S. state at the time of this study. In 2020, the subject state had 830 sworn police officers in 45 agencies and approximately 804 sheriffs in 55 agencies. This population was appropriate for addressing the study purpose because, although police officers who work in rural settings face distinct challenges compared to police officers who work in urban settings, the corresponding sociocognitive characteristics that influence job satisfaction in law enforcement and predict characteristics that are best suited for law enforcement work may not differ.

The portion of the population of interest that researchers can access is the sampling frame or accessible population (O'Sullivan et al., 2017). In the present study, the accessible population comprised three agencies in two rural communities near my city of residence that I could access to obtain permission to survey the officers. Combined, the agencies employed a total of 150 sworn police officers at the time of this study.

Recruitment

After approval from Walden University's IRB to conduct this study, I obtained permission to recruit law enforcement officers from the chiefs and deputy sheriff of local law enforcement agencies. The agency chiefs also granted permission to send survey invitations to officers via email. All of the sworn officers who were listed on current employment rosters of these three local police agencies were recruited via an emailed invitation that included the link to the survey. Data were collected via the SurveyMonkey online platform.

The officers constituted a nonprobability purposive sample. This was appropriate because it is a selection strategy that focuses on specific individuals; in this case, currently employed sworn law enforcement officers. The final sample of 47 police officers represented 1% of the target population of the state's police officers. Although U.S. Census data provide some demographic information on the officers, officers' demographic information was not collected in this study to protect their confidentiality. Therefore, comparisons for establishing the extent to which the sample represented the population were not conducted.

Officers from all three agencies volunteered to participate. Table 2 shows the breakdown of response rates and participant percentages from the three agencies. The 47 officers approximated the estimated 55 participants projected from power analysis (based on $\alpha = 0.05$, power = 0.80, number of predictors = 7, and a small effect size $f^2 = 0.15$; Cohen, 1988). Overall, the response rate was 31%, which is typical for online surveys Porter, n.d.).

Table 2

Distribution of Participating Officers From Sampled Agencies

Agency	Total officers	Male	Female	Participants	Response rate
1	69 (100%)	63 (91%)	6 (9%)	39 (56%)	56%

2	15 (100%)	15 (100%)	0 (0%)	2 (13%)	13%
3	66 (100%)	59 (89%)	7 (11%)	6 (9%)	9%
Total	150			47	31%

The next section describes the instrumentation used in this study to help readers put the results into context. Data analysis results follow this section.

Instrumentation

The officers took a survey that was the compilation of three well-validated surveys. I describe each briefly next to help readers interpret the descriptive statistics in this chapter.

Job Satisfaction

Job satisfaction was measured with Thompson and Phua's (2012) BIAJS. This survey uses a 5-point Likert scale of agreement (1 = *strongly disagree*, 5 = *strongly agree*). For job satisfaction, four main survey questions are presented along with three distracter items; the latter were included to help attenuate variance but were excluded from analysis. Each officer's job satisfaction score was calculated as the average of the numeric values of their responses to the four measures. Therefore, in the results presented in this chapter, job satisfaction scores fall in the same 5-point range as the Likert scale, with higher numeric scores reflecting higher levels of jobs satisfaction.

Personality

The Big Five personality traits of extraversion, agreeableness, conscientiousness, openness to experience, and neuroticism were measured with Rammstedt and John's (2007) BFI-10. This shortened version presents two items for each of the five traits. The phrase "I see myself as someone who is . . ." starts each item. Responses are measured on a 5-point Likert scale of

agreement (1 = *strongly disagree*, 5 = *strongly agree*). Five numeric responses are reverse scored as 1R, 3R, 4R, 5R, and 7R. Each officer's score on each trait was then calculated as the average of the numeric values of the paired responses per trait (i.e., extraversion: Items 1R and 6, agreeableness: Items 2 and 7R, conscientiousness: Items 3R and 8, neuroticism: Items 4R and 9, and openness to experience: Items 5R and 10). Therefore, in the results presented in this chapter, personality scores fall in the same 5-point range as the Likert scale, with higher numeric scores reflecting stronger expressions of the indicated trait.

Resilience

Resilience was measured with Smith et al.'s (2008) BRS. Responses are measured on a 5-point Likert scale of agreement (1 = *strongly disagree*, 5 = *strongly agree*). There are six items on the BRS. Three numeric responses are reverse scored as 2R, 4R, and 6R. Each participant's resilience score is then calculated as the average of their numeric values of their responses to the six items. Therefore, in the results presented in this chapter, resilience scores fall in the same 5-point range as the Likert scale, with higher numeric scores reflecting stronger resilience.

Educational Level

The final variable of interest, educational level, was measured categorically as four levels (high school diploma, associate degree, bachelor's degree, and graduate degree). However, because of the small numbers of officers with associate and graduate degrees, the educational categories were collapsed into a dichotomous dummy-coded educational level measure (0 = high school diploma and associate degree, 1 = bachelor's and graduate degrees) for entry into the regression.

Data Screening

The data were downloaded from SurveyMonkey and screened for missing data points; there were none. To establish whether the variables on the ratio or continuous measurement scale met the assumptions of parametric statistical tests (Tabachnick & Fidell, 2019), they were further screened for normality, homoscedasticity, and outliers, followed by screening the bivariate pairs of variables for linearity. The data did not show any substantial or systematic departures from statistical normality. Therefore, group differences were examined with parametric ANOVA tests and associations were examined with Pearson correlations. The educational level variable was measured categorically (e.g., high school diploma); its association with agency was examined with a nonparametric chi-square test of independence. Results of further screening for evidence that the data met the assumptions of multiple regression are presented in the Assumption Tests subsection in this chapter. Percentages were rounded to whole numbers and may not add up to precisely 100%. Reliability was established with Cohen's alpha statistics. Data were analyzed with SPSS Version 28. Statistical significance was set at

$\alpha = .050$.

Results

Officers from three law enforcement agencies volunteered to participate. I ran two tests to establish whether the data from the officers at the three agencies showed nonsignificant differences and could be combined for further analysis. The continuous variables (i.e., job satisfaction, the five personality traits, and resilience) were compared across agencies with a multivariate analysis of variance (MANOVA) test. The categorical variable of educational level was cross-tabulated with agency with a chi-square test of independence. This section shows the

results of these two comparisons, which indicated that data from the three agencies could be combined for further analysis.

MANOVA

A MANOVA test was run because it is a multivariate test for simultaneously examining several related variables. This test was appropriate to the context of comparing the related variables of job satisfaction, the five personality traits, and resilience to see if they varied across the three agencies because the variables were all related in that each participating officer provided data on all of the measures. MANOVA was also used instead of a series of univariate ANOVA tests because it takes intercorrelations among the variables into account. The MANOVA null hypothesis is that the population mean vectors are equal: H_0: $\mu_1 = \mu_2 = \mu_3 = \ldots \mu_k$.

The data met the MANOVA assumption of the equality of covariances, Box's $M = 37.60$, $F(28, 2372) = 1.04$, $p = 0.408$. The hypothesis that the population mean vectors were equal was retained, Wilks's $\Lambda = 0.71$, $F(14, 76) = 0.99$, $p = .463$, $p\eta^2 = .16$. The between-subjects effects in Table 3 show the comparison of values across the different agencies for each variable. The *F* and *p* columns show that data from the different agencies did not differ statistically. Based on this result, it was deemed appropriate to combine data from the three agencies. The associated means are shown in Appendix B.

Table 3

Tests of Between-Subjects Effects of Agency on Continuous Variables

Dependent variable	Sum of squares (SS)	*df*	*MS*	*F*	*p*	$p\eta^2$
Extraversion	4.31	2	2.15	1.77	.182	.07

Agreeableness	0.82	2	0.41	0.35	.706	.02
Conscientiousness	0.58	2	0.29	0.74	.483	.03
Neuroticism	0.67	2	0.33	0.39	.678	.02
Openness to experience	3.57	2	1.79	2.01	.146	.08
Job satisfaction SS	2.09	2	1.04	1.07	.351	.05
Resilience SS	0.43	2	0.21	0.91	.411	.04

Chi-Square Test of Independence

Because both of the variables, agency and educational level, were measured categorically, a chi-square test of independence was planned. However, sample size was variable (13 officers had high school diplomas, four held associate degrees, 25 held bachelor's degrees, and five held graduate degrees). Therefore, the four education levels were collapsed into two levels (0 = high school diploma or associate degree, 1 = bachelor's or graduate degree) to increase sample size. Results of the chi-square test of independence showed that the association between agency and educational level was not significant, $\chi^2(2, N = 47) = 4.27$, $p = .118$, making it appropriate to combine data from the three different agencies. The null hypothesis was retained and the data were deemed appropriate to combine for subsequent analyses.

Descriptive Statistics

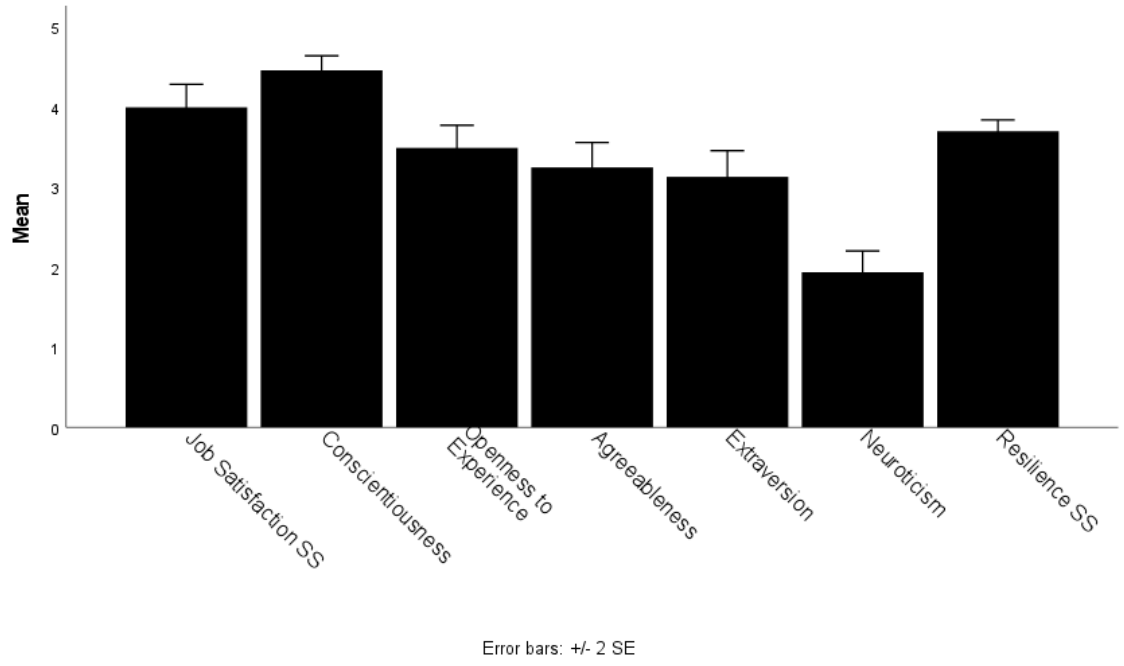
Job Satisfaction, Personality, and Resilience

Job satisfaction, personality, and resilience were all measured on the 5-point Likert scale of agreement. The corresponding means are shown in Figure 1 to ease comparisons. Job satisfaction, the dependent, criterion, or predicted variable of this study is shown on the left side of Figure 1. The five personality traits are shown side by side next. Of these, conscientiousness

had the highest mean and neuroticism had the lowest mean. The resilience mean was approximately comparable to job satisfaction.

Figure 1

Job Satisfaction, Personality, and Resilience Means



Note. SS = sum of squares.

Table 4 shows the associated descriptive statistics for the continuous variables illustrated in Figure 1. Job satisfaction is shown in the first column. To the right are the statistics for the five personality traits, listed in descending order (conscientiousness, openness to experience, agreeableness, extraversion, and neuroticism). Resilience statistics are shown in the column on the far right.

Table 4

Descriptive Statistics for Continuous Variables

Statistic			Personality traits					
		JS	C	O	A	E	N	R
Mean (*SE*)		3.99 (0.14)	4.45 (0.09)	3.48 (0.14)	3.24 (0.16)	3.13 (0.16)	1.93 (0.13)	3.69 (0.07)
95% CI	LB	4.27	3.20	2.93	3.70	2.80	1.66	3.55
	UB	4.64	3.77	3.55	4.28	3.46	2.20	3.83
5% trimmed *M*		4.08	4.50	3.51	3.25	3.13	1.85	3.72
Mdn.		4.25	4.50	3.50	3.50	3.00	1.50	3.71
Variance		0.97	0.39	0.92	1.14	1.25	0.83	0.23
Std. deviation		0.99	0.62	0.96	1.06	1.12	0.91	0.48
Minimum		1.25	3.00	1.50	1.00	1.00	1.00	2.57
Maximum		5.00	5.00	5.00	5.00	5.00	5.00	4.29
Range		3.75	2.00	3.50	4.00	4.00	4.00	1.71
IQR		1.25	1.00	1.50	2.00	2.00	1.00	0.71
Skewness		–1.15	–0.95	–0.08	–0.20	0.18	1.31	–0.51
Kurtosis		0.75	–0.09	–0.79	–0.90	0.85	1.84	–0.47
Cronbach's α		0.88	0.34	0.43	0.53	0.62	0.62	0.74

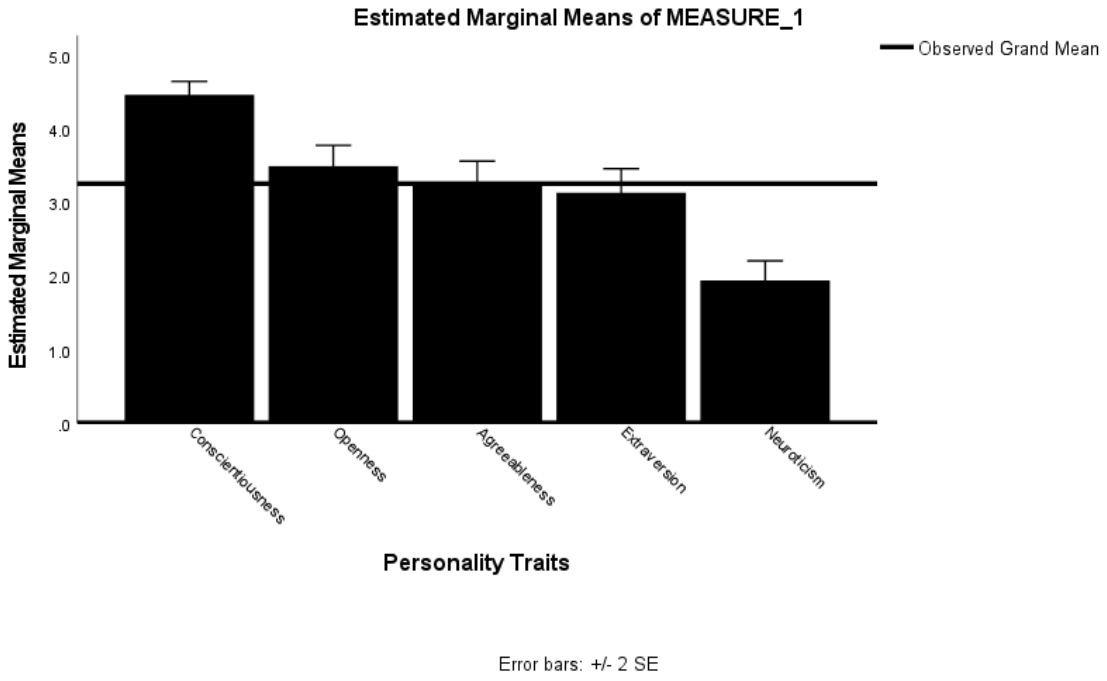
Note. JS = job satisfaction; C = conscientiousness; O = openness to experience; A = agreeableness; E = extraversion; N = neuroticism; R = resilience; 95% CI = 95% confidence interval of the mean; LB = lower bound of the 95% CI; UB = upper bound of the 95% CI; IQR = Interquartile range. Skew standard error = 0.35. Kurtosis standard error = 0.68.

Mean job satisfaction fell in the agree range on the Likert scale. Thirty-eight (81%) of the 47 officers agreed or strongly agreed with job satisfaction statements, one officer (4%) reported a neutral score, and seven (15%) officers disagreed or strongly disagreed with job satisfaction

statements. Variation in mean values across the personality traits ranged 2.5 points between conscientiousness and neuroticism, as shown in Figure 2.

Figure 2

Personality Means, N = *47 officers*



The conscientiousness mean reflected the Likert response of *strongly agree* (based on 44 officers who agreed or strongly agreed, 94%, and three officers who were neutral, 6%). In contrast, the neuroticism mean reflected the Likert response of *disagree* (based on 38 officers who strongly disagreed or disagreed, 81%; six officers who were neutral, 14%; and three officers who agreed or strongly agreed, 6%). Means for openness to experience, agreeableness, and extraversion were close to one another in value and fell in between the highest and lowest means; responses tended to be more normally distributed and ranged from *strongly agree* to *strongly disagree*.

To determine if the differences in personality means were statistically significant, a repeated measures ANOVA test was run. Results showed that the difference between conscientiousness and neuroticism means was statistically significant (Wilks's $\Lambda = .14$, $F(4, 45) = 65.63$, $p < .001$). The null hypothesis was rejected. The effect of different personality traits was very strong ($p\eta^2 = .86$). Significant differences would not impact aggregate analyses. They were run to understand more about the relationships going into the regression, such as interactions. It is standard to compare different groups before combining them (Warner, 2013). If there were significant differences between agencies, one would not want to combine them. In addition, one would not want to combine different data sources that could potentially hide significant differences by canceling them out. Also, if there are substantially different relationships among the variables revealed by data from different sources, one would want to know about it. This is the point of research.

Lastly, in Table 4, the resilience mean reflected the Likert response of *agree*. This was based on 41 officers who agreed or strongly agreed, 88%; three officers who were neutral, 6%; and three officers who disagreed or strongly disagreed, 6%.

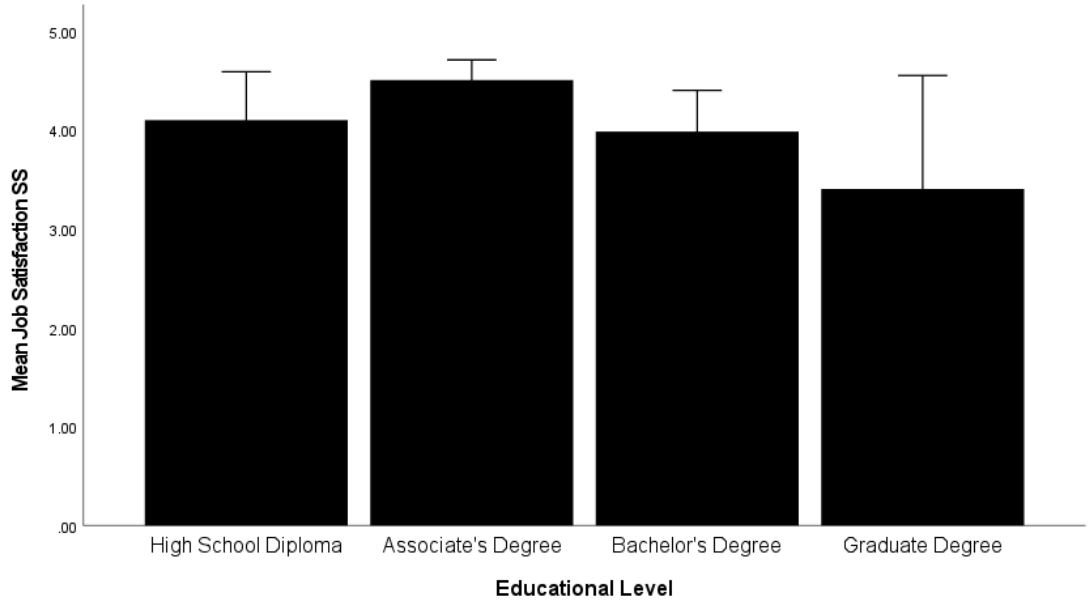
Job Satisfaction and Educational Level

Figure 3 illustrates job satisfaction means by educational level. The highest mean emerged among four officers who held associate degrees ($M = 4.50$, $SD = 0.20$). The other three means tended to be close in value (13 officers who had high school diplomas: $M = 4.10$, $SD = 0.88$; 25 officers who held bachelor's degrees: $M = 3.98$, $SD = 1.04$; and five officers who held graduate degrees: $M = 3.97$, $SD = 0.98$).

A one-way ANOVA was run to determine if the differences in means were statistically significant. ANOVA results showed that the differences among job satisfaction means across educational level were not statistically significant, $F(3, 43) = 1.00$, $p = .402$. The null hypothesis was retained.

Figure 3

Job Satisfaction Means by Educational Level



Note. Error bars: +/–2 standard error. SS = sum of squares.

These statistics described the sample and provided evidence that combining the data from the three agencies for further analysis was appropriate. The following sections present statistics that specifically pertain to addressing the research questions. The research questions were addressed systematically in several steps.

Correlation Matrix

The first step in addressing the research questions was to generate and inspect the correlations between job satisfaction and the continuous variables. The Pearson correlation

matrix in Table 5 presents two sets of values, correlation coefficients above the blank diagonal and coefficients of determination below it. Significance is denoted by asterisks.

Table 5

Pearson Correlation Matrix of Job Satisfaction, Personality, and Resilience

Statistic		Personality traits					
	JS	C	O	A	E	N	R
Job satisfaction summated scale (SS)		.26	.26	–.05	.41**	–.09	.25
Conscientiousness	7%		.22	.10	.38**	–.06	.10
Openness to experience	7%	5%		–.19	.24	–.03	.09
Agreeableness	< 1%	< 1%	4%		.14	–.19	.03
Extraversion	17%	14%	5%	< 1%		.15	–.03
Neuroticism	< 1%	< 1%	< 1%	3%	2%		–.54**
Resilience SS	6%	< 1%	< 1%	< 1%	< 1%	29%	

Note. JS = job satisfaction; C = conscientiousness; O = openness to experience; A = agreeableness; E = extraversion; N = neuroticism; R = resilience. The values above the blank diagonal are correlation coefficients.

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

**Correlation is significant at the 0.01 level (2-tailed). The values below the blank diagonal are coefficients of determination.

The top row shows that job satisfaction had large to medium correlations with extraversion, conscientiousness, openness, and resilience. The correlation between job satisfaction and neuroticism was small and inverse. Extraversion showed medium correlations with conscientiousness and openness and somewhat smaller correlations with agreeableness and neuroticism. The correlation between neuroticism and resilience was inverse and very large but otherwise resilience had small correlations with personality traits.

Regression Assumptions Tests

In this regression, the independent or predictor variables were personality, resilience, and educational level. The dependent or predicted variable was job satisfaction. Before running the regressions, the data were screened to ensure that they met the assumptions of multiple regression, of which there are several.

Adequate Sample Size

First, a rule of thumb for regression sample size is at least 20 participants for every independent variable in the analysis (Warner, 2013). There were 47 officers in the current study and seven independent variables (conscientiousness, openness, agreeableness, extraversion, neuroticism, resilience, and educational level). Thus, the sample size to number of variables ratio was such that a valid multiple regression could be run on these data with only two predictors.

Linear Relationships Between Predicted and Predictor Variables

Second, multiple linear regression requires linear relationships between independent and dependent variables. The linearity assumption was checked for all independent–dependent variable pairs with visual inspection of individual scatter plots with superimposed lines of best fit (not shown). Relationships were linear, indicating that the data met this assumption.

Univariate Normality

Third, data for each measure of interest were screened for univariate normality. Skew and kurtosis statistics (see Table 4) met Warner's (2013) ±2 criterion for normality. Significance tests of the normality assumption were run by generating *z* scores (dividing skew and kurtosis statistics by their respective standard errors) to identify any measures that fell outside the

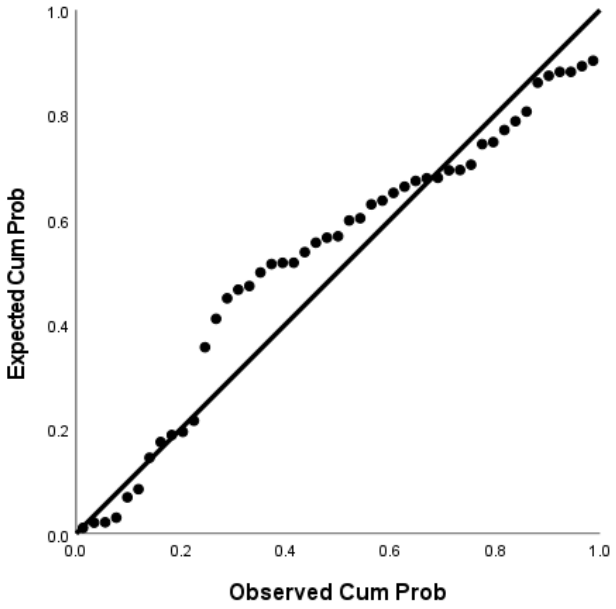
criterion of $z = 3.29$, $p < .001$ (Tabachnick & Fidell, 2019). Skew and kurtosis z scores fell well within the criterion of $z = 3.29$, indicating that the data met this assumption.

Normal Distribution of Residuals

Fourth, the data were screened to establish that the difference or error between observed data points and those predicted by the regression (i.e., regression residuals) were normally distributed with visual inspection of the normal P–P plot and the plot of the standardized residuals and predicted values (Warner, 2013), shown in Figures 4 and 5, respectively. Visual inspection of plots verified absence of outliers, homoscedasticity, and normal distribution of residuals. Leverage values were all less than .20 and Cook's distances were all well under the value of 1, further verifying the absence of data points with undue influence. Thus, the data met this assumption.

Figure 4

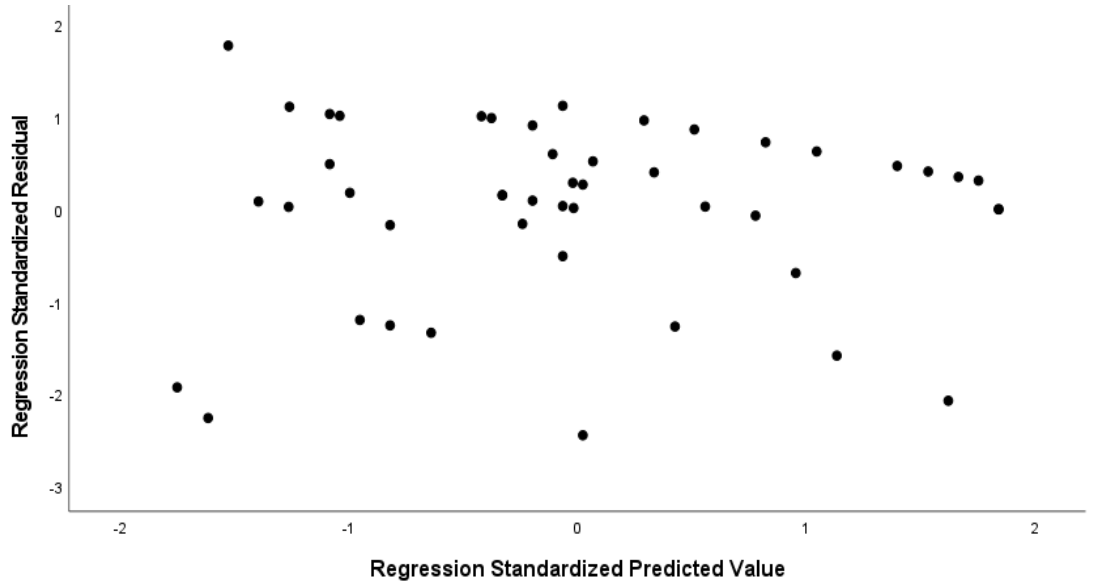
Normal P–P Plot of the Standardized Residual Plotted Against the Normal Curve



Note. Cum Prob = cumulative probability. Dependent variable: job satisfaction summated scale.

Figure 5

Scatter Plot of Standardized Residuals Plotted Against Standardized Predicted Values



Note. Dependent variable: job satisfaction summated scale.

Multivariate Normality

Fifth, data were screened for multivariate normality by generating and inspecting Mahalanobis distances to identify data points that occurred substantially beyond the swarm of data points in multivariate space (Tabachnick & Fidell, 2019). Using the chi-square distribution, a data point identified participants as multivariate outliers if whose chi-square statistic was a value of 10.60 or greater (was based on the critical chi-square value for two predictors at p = .005; Tabachnick & Fidell, 2019). None of the officers emerged as multivariate outliers. Thus, the data met this assumption.

Absence of Collinearity and Multicollinearity

Sixth, the multiple regression assumption that predictor variables are uncorrelated with one another (i.e., two predictors do not show collinearity or multiple predictors do not show

multicollinearity) was verified using three criteria. One, the intercorrelations among predictors in Table 5 indicated that multicollinearity was not an issue, based on Hair et al.'s (2010) criterion that no correlation between predictors is $r = .70+$. Two, the tolerance statistics (T) in Table 6 are large. Tolerance statistics reflect the proportion of variance in the listed predictor that is not shared with other predictors already in the regression (Tabachnick & Fidell, 2019). Large tolerance values are indications that any relationship between a listed predictor and job satisfaction was unaffected by its relationships with the other predictors. Tolerance statistics range from 0–1. The variable with $T = 0$ cannot add new predictive information to the regression. The variable with $T = 1$ is completely uncorrelated with the other predictor variables in the regression. Tolerances that are substantially larger than zero are evidence that the predictor variable contains new information that is not already provided by the other predictor variables. Three, variance inflation factors (*VIF*; calculated with the formula 1/T) reiterate tolerance information but on a different scale: When *VIF* is greater than 10, multicollinearity is present (Tabachnick & Fidell, 2019). To meet the absence of multicollinearity assumption, tolerance statistics ought to be $> .20$ and $VIF < 10$.

Table 6

Regression Coefficients From Regressing Job Satisfaction

Model	Unstandardized coefficients		Standardized coefficients	*t*	*p*	Correlations		Collinearity statistics	
	β	*SE*	Beta			*r*	*pr*	*T*	*VIF*
Constant	4.11	.24		17.07	<.001				
ConscientiousCEN	0.13	.24	.08	0.55	.585	.26	.08	.80	1.23
OpennessCEN	0.13	.15	.13	0.88	.384	.26	.14	.83	1.19
AgreeablenessCEN	–0.12	.13	–.12	–0.84	.403	–.05	–.13	.86	1.16
ExtraversionCEN	0.33	.14	.37	2.27	.029	.41	.34	.72	1.37
NeuroticCEN	–0.21	.18	–.19	–1.11	.275	–.09	–.17	.64	1.54
ResilienceCEN	0.26	.35	.12	1.16	.067	.14	–.12	.63	1.58
Education	–0.19	.31	–.09	–0.60	.554	–.15	–.09	.81	1.22

Note. CEN = centered variables; education = education level (dichotomous). The statistics *r* and *pr* are zero-order and partial correlations, respectively. *T* = tolerance and *VIF* = variance inflation factor are collinearity statistics.

Absence of Autocorrelation

Seventh, the data met the multiple linear regression assumption of little or no autocorrelation, Durbin-Watson $d = 1.94$. Durbin-Watson tests that the residuals are independent of one another.

Results of Multiple Regression

Analysis Steps

Regression analysis involved four steps. In the first step, correlations among the variables to be entered into the regression were generated and examined (see Table 5). This step was to ensure that there were enough adequately sized correlations to justify regression and to identify

multicollinearity (i.e., correlations between predictor variables that were large enough to introduce redundancy into the regression).

In the second step, the continuous predictor variables of personality and resilience were centered around their respective means. Centering helps when interpreting regression results. After centering a predictor variable for this analysis, its regression coefficient beta quantified the change in job satisfaction for each one-unit change in the predictor starting from the predictor's average value, holding all of the other variables constant. In addition, due to small numbers of officers with associate and graduate degrees, the educational categories were collapsed into a dichotomous dummy-coded educational level measure so that education could be included in regression analyses (0 = high school diploma and associate degree, 1 = bachelor's and graduate degrees).

A regression was run in the third step to test two sets of hypotheses. The first set tested the null prediction that the full regression model (i.e., all of the predictors in combination) did not improve the ability to predict job satisfaction over simply using the job satisfaction mean of 3.99 (see Table 4) as the predictor. This null hypothesis was H_0: $R^2 = 0$. The second set tested the null prediction that for each predictor, the slope of the regression line is something other than zero (i.e., is not horizontal). This null hypothesis was H_0: $\beta = 0$. Unstandardized regression coefficients beta showed the weights of each predictor and were used to generate the regression formula. In contrast, standardized beta coefficients showed the relative contribution of predictors through direct comparison (Hair et al., 2010). The full model with all seven potential predictor variables was run to address RQs 1–7, and the generated variance in job satisfaction explained by the model (R^2) was used to address RQ8.

In the fourth step of the regression analysis, the regression formula was used to calculate predicted values of job satisfaction. Predicted values were then illustrated in a regression results double cross (see Figure 6) to show the specific impacts of quantifiable changes in predictor variables on job satisfaction.

The following regression results start with tabular regression results, followed by Illustrated regression results and the answers to the research questions. The results of testing the data for regression assumptions (assumptions tests) are presented last. Tabular results, illustrated results, and RQ answers were presented first because they were of central interest. Assumptions are presented last because, although they provide important validation that the data met the multiple assumptions of regression, they were not of central interest.

Tabular Regression Results

Full Model. RQ8 asked about the role of the entire set of predictors or the effect of the full model on job satisfaction. To address this question, job satisfaction was regressed onto all of the predictor variables. Results showed that the regression model explained 25% of the variance in job satisfaction ($R^2 = .25$) but that this amount did not quite reach statistically significance, $F(7, 39) = 1.82$, $p = .112$. The null hypothesis that H_0: $R^2 = 0$ was retained. Table 6 shows the regression coefficients. The p values in Table 6 show that extraversion emerged as a significant predictor and resilience showed a strong trend toward significantly predicting job satisfaction. Therefore, hypotheses pertaining to the slope of each predictor's regression line as something other than zero (H_0: $\beta = 0$) was rejected for extraversion and retained for the other predictors.

Reduced Model. Based on the full model's p values, the model was respecified as a reduced model by regressing job satisfaction into extraversion and resilience. Results showed

that the regression model of extraversion and resilience explained 17% of the variance in job satisfaction (R^2 = .17) and that this was a statistically significant amount, $F(2, 44) = 4.58$, p = .016. The null hypothesis that H_0: $R^2 = 0$ was rejected. The regression line for predicting job satisfaction from extraversion and resilience among police officers was: predicted job satisfaction = 3.99 + 0.364 (extraversion) + 0.126 (resilience).

Illustrated Regression Results

This section is a discussion of the results of the fourth step of the regression analysis in which the reduced model was used to generate predicted values of job satisfaction that were then illustrated as a regression results double cross (see Figure 6). To generate predicted values of job satisfaction predicted by the regression formulas, whole number values for extraversion and resilience were entered into the regression formula. The whole numbers stood for the following: 0 = average; 1 = one unit above average, 2 = two units above average, 3 = three units above average, –1 = one unit below average, –2 = two units below average, and –3 = three units below average. Because centering involved subtracting the mean from a data point, the value of the average became 0 and the unit refers to *X* number of values above or below 0 (i.e., the mean). The whole number units of 1, 2, and 3 were chosen to illustrate how increases and decreases in extraversion and resilience influenced job satisfaction by order of magnitude.

The schematic in Figure 6 shows that the predicted values fell into four quadrants. Quadrant A refers to officers who reported above-average resilience but below-average extraversion. Quadrant A officers are resilient introverts who can be described as tough, silent types. Quadrant B refers to officers who reported below-average extraversion as well as below-average resilience. Quadrant B officers can be described as sensitive introverts. Quadrant C

refers to officers who reported above-average resilience as well as above-average extraversion. Quadrant C officers are resilient extraverts who can be described as tough and outgoing. Quadrant D refers to officers who reported below-average resilience but above-average extraversion. Quadrant D officers are sensitive extraverts who can be described as outgoing but more defeatist or resigned.

Figure 6

Regression Results Double Cross Showing Values Predicted From the Regression Model

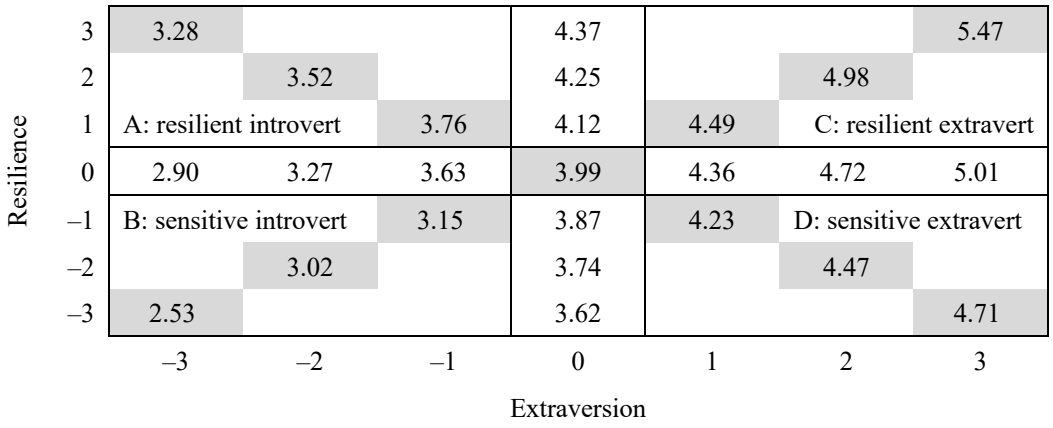


Figure 6 illustrates the predicted values as a regression results double cross consisting of two overlapping crosses. One cross is white and upright. It consists of two planks: a column or vertical plank in the middle of the illustration between left and right and above 0 (Extraversion), and a row or horizontal plank in the middle of the illustration between top and bottom at 0 (Resilience). The other cross is gray and tilted 45º. It lists values in gray-colored cells that radiate from the center on the diagonals.

In the middle or intersection of the two crosses, the gray-colored cell shows the intercept or constant. This is the predicted level of job satisfaction for officers who have average

extraversion and average resilience. That is, officers of average resilience and of extraversion had a predicted job satisfaction score of 3.99.

The cells on the horizontal plank of the white cross show the predicted values of job satisfaction ranging from below-average to above-average extraversion, holding resilience constant at zero (i.e., average resilience). The values increase in value from 2.90 to 5.01. This indicates that job satisfaction increased as extraversion increased.

The cells on the vertical plank of the white cross show the predicted values of job satisfaction ranging from below-average to above-average resilience, holding extraversion constant at zero (i.e., average extraversion). These values also increase in value, ranging from 3.62 to 4.37. This indicates that job satisfaction increased as resilience increased.

Values in the gray cells radiating out from the constant of 3.99 on the diagonals on Figure 6 show how the regression model predicted changes in job satisfaction as levels of extraversion and resilience changed. In Quadrant A, job satisfaction values decrease from 3.76 to 3.28 as they radiate out from the center to the upper left-hand corner of Figure 6. The decrease predicts decreasing job satisfaction among resilient introverts as resilience increases but extraversion decreases. In Quadrant B, satisfaction values also decreased from 3.51 to 2.53 as they radiated out from the center to the lower left-hand corner. They fell lower than Quadrant A values, predicting the lowest values of job satisfaction among sensitive introverts as both resilience and extraversion decrease.

On the right-hand side of Figure 6, there is a different set of predictions. In Quadrant C, predicted job satisfaction values increase to their highest values on the regression results double cross illustration. As they radiate to the upper right-hand corner on Figure 6, they range from

4.49 up to 5.47. These strong increases suggest that as both extraversion and resilience increase among resilient extraverts, job satisfaction increases commensurately. Finally, in Quadrant D, predicted job satisfaction values also increase as they radiate into the lower right-hand corner from 4.25 up to 4.71. These increases suggest that job satisfaction increases among sensitive extraverts as extraversion increases, despite lower levels of resiliency. The higher values predicted by the reduced regression model suggested that extraversion influenced job satisfaction more than resilience.

Answers to the Research Questions

Table 7 lists the eight hypotheses associated with the eight research questions and the decision about the null hypotheses for each. These decisions were based on the two regressions. Null hypotheses for RQ3 (extraversion) and RQ7 (resilience) were rejected in the reduced model. The others were retained in the full model.

However, recall that the decision for RQ8 (variance in job satisfaction explained) was to retain the null hypothesis in the full model. This was because RQ8 cited all of the potential predictors and the complete set of predictors fell short of significance in the full model. However, the combination of extraversion and resilience in the reduced model explained a significant amount of the variance in job satisfaction. Correspondingly, the regression null hypothesis for variance (R^2) was rejected in the reduced model.

Table 7

Results of Testing Research Questions

Research question	Null decision
Neuroticism $H1_0$: There is no predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS.	Retain
Conscientiousness $H2_0$: There is no predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.	Retain
Extraversion $H3_0$: There is no predictive relationship between law enforcement officers' extraversion as measured by the BFI-10 and job satisfaction as measured by the BIAJS.	Reject
Agreeableness $H4_0$: There is no predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.	Retain
Openness $H5_0$: There is no predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS.	Retain
Education level $H6_0$: There is no predictive relationship between education level and job satisfaction as measured by the BIAJS.	Retain
Resilience $H7_0$: There is no predictive relationship between resilience and job satisfaction as measured by the BRS and job satisfaction as measured by the BIAJS.	Reject
Variability in job satisfaction $H8_0$: The subset of the Big Five factors, education level, and resilience do not contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS.	Retain

Note. BFI-10 = Big Five Inventory-10; BIAJS = Brief Index of Affective Job Satisfaction; BRS = Brief Resilience Scale.

Summary

The purpose of this study of police officers working in rural settings was to measure their levels of job satisfaction and identify factors that predicted their levels of job satisfaction. Seven

potential predictors were tested (five personality traits, resilience, and educational level) in full and reduced multiple regression models to address the eight research questions. The total of 47 officers from three agencies approximated the estimated 55 participants projected from power analysis; an ANOVA and a chi-square test of independence showed that the data from all three agencies could be safely combined for further analyses. Descriptive statistics showed that means of job satisfaction and five of the six continuous predictors reflected agreement; the exception was neuroticism, whose mean reflected disagreement. The full regression model, which included all seven of the potential predictors, explained 25% of job satisfaction but this amount was not statistically significant. So, the model was respecified as a reduced model with extraversion and resilience as predictors, which explained a statistically significant 17% of job satisfaction. The reduced model was used to generate predicted values of job satisfaction, which showed that job satisfaction increased as extraversion increased regardless of levels of resilience. Moreover, the combination of above-average resilience and above-average extraversion predicted the highest levels of job satisfaction whereas the combination of below-average resilience and below-average extraversion predicted the lowest levels of job satisfaction.

In Chapter 5, I discuss interpretation of the findings and limitations of the study. I will also discuss recommendations for future study, and implications. Finally, I will also discuss the impact for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to measure rural police officers' levels of job satisfaction and identify factors that predicted their levels of job satisfaction. Participants were invited to complete an online survey that consisted of survey items measuring job satisfaction, personality, educational level, and resilience. Seven possible predictors were tested (five personality traits, resilience, and educational level) in full and reduced multiple regression models to address the eight research questions. The total of $N = 47$ officers from three agencies approximated the estimated 55 participants projected from power analysis. SPSS was used for data analysis.

Results from an ANOVA and a chi square test of independence showed that the data from all three agencies could be safely combined for further analyses. Results of descriptive statistics showed that means of job satisfaction and five of the six continuous predictors reflected agreement. Neuroticism was the exception, whose mean reflected disagreement, $SE = 1.93$. The full regression model included all seven of the potential predictors and explained 25% of job satisfaction, but this amount was not statistically significant, $p = .112$. Hence, the model was respecified as a reduced model with extraversion and resilience as predictors, $p = .016$, which explained a statistically significant 17% of job satisfaction, $p = .016$. The reduced model was used to generate predicted values of job satisfaction, which showed that job satisfaction increased as extraversion increased regardless of levels of resilience. Interestingly, the combination of above-average resilience and above-average extraversion predicted the highest levels of job satisfaction whereas the combination of below-average resilience and below-average extraversion predicted the lowest levels of job satisfaction.

Job satisfaction was measured with the BIAJS (Thompson & Phua, 2012). This survey uses a 5-point Likert scale of agreement (1 = *strongly disagree*, 5 = *strongly agree*). Four survey questions are presented along with three distracter items; the latter are included to help attenuate variance but are excluded from analysis. Each officer's job satisfaction score was calculated as the average of the numeric values of his or her responses to the four measures. Job satisfaction scores fell in the same 5-point range as the Likert scale, with higher numeric scores reflecting higher levels of job satisfaction.

The Big Five personality traits (extraversion, agreeableness, conscientiousness, openness to experience, and neuroticism) were measured with the 10-item short version of the Big Five Inventory (BFI-10; Rammstedt & John, 2007). This version presents two items for each of the five traits. The phrase "I see myself as someone who is . . ." begins each item. Responses were measured on a 5-point Likert scale of agreement (1 = *strongly disagree*, 5 = *strongly agree*). Five numeric responses are reverse scored (indicated by the capital letter R: 1R, 3R, 4R, 5R, and 7R). Each officer's score on each trait was then calculated as the average of the numeric values of the paired responses per trait (extraversion: Items 1R and 6, agreeableness: Items 2 and 7R, conscientiousness: Items 3R and 8, neuroticism: Items 4R and 9, and openness to experience: Items 5R and 10). Personality scores fell in the same 5-point range as the Likert scale, with higher numeric scores reflecting stronger expressions of the indicated trait.

Resilience was measured with the Br (BRS; Smith et al., 2008). BRS responses are measured on a 5-point Likert scale of agreement (1 = *strongly disagree*, 5 = *strongly agree*). There are six items on the Resilience scale. Three numeric responses are reverse scored (indicated by the capital letter R: 2R, 4R, and 6R). Each participant's resilience score is

calculated as the average of their numeric values of their responses to the six items. Resilience scores fell in the same 5-point range as the Likert scale, with higher numeric scores reflecting stronger resilience.

The final variable, educational level, was measured categorically as four levels (high school diploma, associate degree, bachelor's degree, and graduate degree). Because of the small numbers of officers with associate and graduate degrees, the educational categories were collapsed into a dichotomous dummy-coded educational level measure (0 = high school diploma and associate degree, 1 = bachelor's and graduate degrees) for entry into the regression.

Interpretation of Findings

Analysis and Interpretation of RQ1

RQ1 asked, Is there a predictive relationship between law enforcement officers' neuroticism as measured by the BFI-10 and job satisfaction as measured by the BIAJS? Analysis of the data showed a small and inverse correlation between neuroticism and job satisfaction, $r = –.09$, $p = .275$. There was no significant relationship between neuroticism and job satisfaction. This result confirms the results of some studies that have previously examined the relationship between neuroticism and job satisfaction. Yang and Hwang (2014) explored the impact of personality traits on job satisfaction and job performance among Taiwanese financial sector employees. Their findings showed that neuroticism (the opposite of emotional stability) had no impact on job satisfaction.

Yang and Hwang (2014) administered a modified version of Costa and McCrae's (1992) BFI. The BFI consists of five dimensions with 20 items. Responses are based on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The higher the average score, the

more inclined the respondent is to the trait. The BFI-10, which differs from Yang and Hwang's instrument and contains fewer items measuring personality, was used in the present study. A longer version of the instrument may yield different results by capturing more details about traits.

A different instrument to measure job satisfaction was also used in the present study. Yang and Hwang (2014) used a job satisfaction scale based on Lawler and Porter (1967) and Organ (1988), which included three items for intrinsic domains and three items for extrinsic domains. The higher the average score, the higher the job satisfaction. Separate intrinsic and extrinsic domains of job satisfaction were not examined in the present study.

Like the present study, Yang and Hwang (2014) used multiple regression for data analysis. However, Yang and Hwang reported that their large number of parameters may have restricted their model by having insufficient identifiability and resulted in a large chi-square goodness of fit index, which could have increased the likelihood of falsely rejecting the null hypothesis. The present study did not have these parameter restrictions. Another salient difference between Yang and Hwang and the present study is the population. Consistent with the majority of research on job satisfaction, Yang and Hwang's study was conducted outside of the United States, and the researchers did not explore the other variables in the present study.

Another study in which neuroticism did not impact job satisfaction is Hatamian et al.'s (2019) exploration of the relationships between personality traits and job satisfaction among adults in Iran, $N = 240$. Hatamian et al. explored the relationships among the Big Five traits, psychological empowerment, and job satisfaction. Study participants were administered the short version of the NEO Five Factor Inventory (NEO-FFI), the Psychological Empowerment

Instrument, and the Job Satisfaction Survey. The NEO-FFI is a 60-item measure with responses on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. There are five subscales with six facets. The Job Satisfaction Survey is a 36-item scale with nine facets comprising four items each. The nine facets are pay, promotion, supervision, fringe benefits, performance-based rewards, operating procedures, coworkers, nature of work, and communication. The total score is computed from all items examining aspects of the job. Responses have six choices per item, ranging from "strongly disagree" to "strongly agree." Half of the items are reverse scored because they are written in both directions (Hatamian et al., 2019.

The instruments in the present study differed from the instruments in Hatamian et al. (2019), which could account for result differences. Facets of each personality trait were not examined in the present study; instead, I examined whether the traits were present. In addition, the aspect of job satisfaction was not explored in the present study, which was examined in Hatamian et al. with the Job Satisfaction Survey. Rather, I explored whether participants were satisfied in the present study instead of exploring aspects of their work that contributed to job satisfaction.

Pearson's coefficient and regression analysis were used in Hatamian et al.'s (2019) data analysis. Hatamian et al. did not mention participant occupations in their sample, unlike the present study, which focused on only police officers. Including vocations other than law enforcement may have caused different results in Hatamian et al. versus the present study due to differences in job tasks. Hatamian et al. also used specific age ranges (middle aged, elderly). Parameters for respondent ages were not explored in the present study. Hence, information regarding age and job satisfaction is not reflected in the present study.

Contrastingly, some research has shown that neuroticism can impact job satisfaction. Bui (2017) explored to what extent the Big Five traits impacted job satisfaction among men and women and different age groups in the United Kingdom. Bui used data from the British Household Panel Survey, a nationally representative survey consisting of more than 5,000 households. The respondents represented various employment areas and job types, including private firms, central and local government, the National Health Service, armed forces, higher education, nationalized industries, and nonprofit organizations.

Bui (2017) used the short version of the BFI to measure the independent variables of personality. This instrument is a 15-item measure with responses ranging from 1 (*does not apply*) to 7 (*applies perfectly*). The dependent variable of job satisfaction was examined using items that reflected employee satisfaction (nature of work, pay, job security, hours worked; Bui, 2017). Answers ranged from 1 (*not satisfied at all*) to 7 (*completely satisfied*).

The focus of Bui's (2017) analysis differed from that in the present study, which did not focus on aspects of work that contribute to job satisfaction. Bui also controlled for age, gender, and marital status. These variables were not examined in the present study, nor were they controlled for. Hence, the impact of these variables in the present study is unknown.

Results of hierarchical regression analysis in the entire U.K. sample in Bui (2017) showed that neuroticism was negatively correlated with job satisfaction, which differs from the present study's results. However, in the present study, the impact of neuroticism on job satisfaction was not significant. A reason for this could be the present study's sample size, which was significantly smaller than the sample in Bui's study. Also, Bui used an existing data set from a longitudinal study. Longitudinal studies allow for repeated measures of a variable at different

times. This method allows for new occurrences and changes in variables (Warner, 2013). The present study was not longitudinal. Hierarchical regression method allowed adding variables to the model in different steps to see which predictor variables have power (Warner, 2013). In the present study, I conducted a MANOVA with all of the predictor variables instead of individual regressions for each predictor variable. This strategy was chosen to minimize the potential for a Type 1 error.

Törnroos et al. (2019) also found a negative correlation between neuroticism and job satisfaction in their study. Törnroos et al. examined whether personality impacted occupation choice and if the fit between personality and job choice impacted job satisfaction. Using data from the U.K. Household Longitudinal Survey, which has a 15-item, 7-point Likert scale instrument, Törnroos et al. explored 25 vocations with 22,787 individuals. The researchers controlled for age and gender.

The present study's results disconfirmed Törnroos et al.'s (2019) results. One reason may be Törnroos et al.'s use of existing data. Also, using a longitudinal survey could account for differences in results noted earlier in the repeated measure of a variable over time. In the present study, I used the BFI-10, a short-item measure to assess personality traits, whereas Törnroos et al. used a 15-item measure. A longer measure for personality could have shown different results. Also, Törnroos et al. stated that they explored 25 occupational groups, which reflects a broad observation rather than a specific one. Only one occupational group was explored in the present study.

Törnroos et al. (2019) also found that the more an employee is similar to others in the occupation, especially regarding the trait of neuroticism, the more job satisfaction the employee

has. Personality traits in relation to others in the occupation were not examined in the present study. Employees' job satisfaction as a function of job tasks was also not measured.

Another study that found neuroticism impacting job satisfaction is Chang et al.'s (2017) exploration of the relationships between personality traits and job satisfaction and job stress among Chinese lifeguards. Chang et al. also explored demographic variables (education level, swimming ability, age, and gender). Analysis showed that Chinese lifeguards with low levels of neuroticism and high education had high job satisfaction. Chang et al. also explored swimming ability, age, and gender and their impact on job satisfaction, which were not explored in the current study. Chang et al.'s study was also conducted outside of the United States, which differs from the current study and limits the generalizability of the results to other settings.

Chang et al. (2017) surveyed 529 Chinese lifeguards using a four-part questionnaire. The first part collected information regarding gender, age, educational background, and if the participants were swimmers or nonswimmers. The second part of the questionnaire examined personality with a 25-item survey with five items for each personality trait. The third part measured job stress, and the final part of the questionnaire measured job satisfaction (Chang et al. 2017). To measure job stress, the researchers created a job stress scale that measured workload (eight items), work obstruction (seven items), and professional conflicts (five items). All items had responses based on a 5-point Likert scale. Responses ranged from *strongly agree* to *strongly disagree*.

The job satisfaction survey was based on Greenhaus et al.'s (1990) measure of career developmental satisfaction scale. This instrument has five questions with a 5-point Likert scale. Responses range from *strongly agree* to *strongly disagree* (Chang et al., 2017).

The instrument Chang et al. (2017) used differed from the one used in the present study. The present study focused on examining job satisfaction with direct questions addressing the level of satisfaction for each item. Chang et al.'s instrument measured job satisfaction as a function of job stress. Personality in Chang et al. was measured based on Horng's (2009) personality scale and a review of the literature in the field.

Chang et al.'s (2017) survey contained 25 items with five questions for each of the Big Five traits. The BIAJS (Thompson & Phua, 2012), a short survey with four questions and three distractor items, was used in the present study. BIAJS responses are based on a 5-point Likert scale, with higher numeric scores reflecting higher levels of jobs satisfaction. The shorter instrument may have limited the insight into trait impact on job satisfaction (Warner, 2013).

Another difference from the present study is in the type of data analysis. Chang (2017) used hierarchical regression for data analysis. As previously stated, hierarchical regression allows the researcher to add variables to the model in different steps to see which predictor variables have power (Warner, 2013). The present study used multiple linear regression. The variables were not evaluated separately. Variables were not controlled in the present study. Control variables confirm or refute relationships (Warner, 2013).

Additionally, job type in the present study differed from Chang et al.'s (2017) study. Stressors experienced by lifeguards are different from those of law enforcement. Finally, the most salient difference between the present study and Chang et al. is culture. Chang et al. reported that culture impacts aspects of job performance and satisfaction, which may explain why the present study differs from Chang et al.

Analysis and Interpretation of RQ2

RQ2 asked, Is there a predictive relationship between law enforcement officers' conscientiousness as measured by the BFI-10 and job satisfaction as measured by the BIAJS? Analysis showed no statistically significant relationship between conscientiousness and job satisfaction, $r = .26$, $p = .585$. The conscientiousness mean reflected the Likert response of *strongly agree* (based on 44 officers who agreed or strongly agreed, 94%, and three officers who were neutral, 6%).

The present study disconfirms the results of Mróz and Kaleta (2016), who surveyed Polish service workers regarding personality, work engagement, emotional labor, and job satisfaction. Results indicated that conscientiousness was positively correlated with job satisfaction, $p = 0.055$. In Mróz and Kaleta, personality traits were measured by a Polish version of the NEO-5 Inventory, consisting of five scales with 12 items each (total 60 items). Respondents are asked to what extent they agreed with each item. Responses are based on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = s*trongly agree*. Mróz and Kaleta measured job satisfaction with the Job Satisfaction Scale, a five-item scale measuring cognitive aspects of job satisfaction. Responses are based on a 7-point Likert scale ranging from 1 = *completely disagree* to 7 = *absolutely agree*. Data analysis consisted of Pearson's correlation to discern the relationship between the variables and linear regression.

Differences between the present study and Mróz and Kaleta (2016) include using a population outside of the United States, as was done in the latter study. Mróz and Kaleta stated that Polish culture is individualistic but restrained. Aspects of culture were not explored in the present study. Additionally, Mróz and Kaleta's sample was largely female and the researchers

controlled for gender. Gender's impact on job satisfaction was not examined in the present study. If gender had been controlled, the results may have been different. Also, Mróz and Kaleta acknowledged aspects of service jobs that explained some of the relationships among variables. Variables such as emotional labor or work engagement were not addressed in the present study, which could have impacted the results related to conscientiousness and job satisfaction.

Bui (2017) also found conscientiousness to be correlated with job satisfaction. Using a 15-item instrument related to the Big Five, Bui explored personality's impact on job satisfaction using existing data from a longitudinal study, controlling for age, gender, and marital status. The present study reflected a cross-sectional method, and data were collected at one point in time to assess conscientiousness and job satisfaction. Cross-sectional studies do not allow for conclusions of causation (Frankfort-Nachmias et al., 2015). This type of study design is also susceptible to nonresponse (Warner, 2013). Characteristics of the nonresponders may differ from the responders. The present study had 47 respondents out of a total 155 officers invited. Also, because all variables were measured simultaneously, the results show differences but not changes in relationships (Warner, 2013).

Age, gender, and marital status were not controlled in the present study, which may account for result differences between this study and Bui (2017). Controlling for certain variables limits the impact of confounding variables and can increase internal validity of the study (Warner, 2013). Enhanced internal validity helps determine the correlational relationships between variables (Warner, 2023). Also, the present study's findings may differ from Bui's findings because Bui was conducted outside of the United States. Hence, cultural differences could have impacted the results (Tarhini et al., 2017).

Chang et al. (2017) also found conscientiousness to impact job satisfaction in Chinese lifeguards. As previously stated, Chang et al. used hierarchical regression, which, as Frankfort-Nachmias et al. (2015) explained, allows researchers to add variables in steps to explore their power in the model as well as determine how the variables are entered into the model. The present study used linear regression, which determines the relative influence of a predictor variable on a dependent variable in identifying outliers (Warner, 2013). However, multiple regression does not account for false data. For example, officers who responded to the present study may have higher job satisfaction than those who did not respond.

Also, as previously stated, Chang et al. (2017) was conducted outside of the United States. Chang et al. stated that culture impacts job perception, including perceptions of job satisfaction. I did not examine culture and its impact on jobs satisfaction, which could account for result differences.

Analysis and Interpretation of RQ3

RQ3 asked, Is there a predictive relationship between law enforcement officers' extraversion as measured using the BFI-10 and job satisfaction as measured by the BIAJS? Analysis results showed a significant relationship between extroversion and job satisfaction, r = .41, p = .029. These results confirm those in Ranasinghe and Hemantha (2016), who examined personality and job satisfaction in teachers in Sri Lanka. Ranasinghe and Hemantha found a strong positive correlation between extroversion and job satisfaction, with extroversion explaining 85.3% of the variance in job satisfaction among men and 64.9% of the variance for women. Results for the total sample were r = .856, p = .000.

Ranasinghe and Hemantha (2016) used the BFI to assess personality. This instrument evaluates 44 characteristics with five trait domains. Responses are on a 5-point Likert scale with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The present study confirmed Ranasinghe and Hemantha's results. However, Ranasinghe and Hemantha also explored efficacy and engagement, which were not investigated in the present study. Hence, the impact of these variables on job satisfaction is unaccounted for in the present study. However, because teachers and police both deal with the public, exploring this aspect of job tasks could shed more light on why extroversion may impact job satisfaction in these vocations.

Ranasinghe and Hemantha (2016) measured job satisfaction using the short form of the Minnesota Satisfaction Questionnaire (MSQ). This instrument has 20 items assessing both intrinsic and extrinsic satisfaction. Responses are based on a 5-point Likert scale ranging from 1 (*very satisfied*) to 5 (*very dissatisfied*). The sum of all item responses measures job satisfaction. Ranasinghe and Hemantha conducted Pearson's correlations to determine relationships between variables and regression for extroversion's impact on job satisfaction. Intrinsic and extrinsic job satisfaction were not explored in the present study; hence, information regarding these aspects is missing from the present study.

Steel et al. (2019) also found extroversion to be correlated with job satisfaction in workers in the United States, the United Kingdom, and Australia. Results demonstrated a correlation between extroversion and job satisfaction, $p = .23$. The present study confirms these results. Steel et al. conducted a metanalysis of 912 published studies and books up to 2017. Of these, personality was measured by a variety of instrument. Steel et al. computed the weighted mean correlations. They also corrected the correlations for unreliability of measures for

individual studies and calculated the sampling error at the aggregate level. They used the average reliability for the personality measures for job satisfaction.

Steel et al. (2019) did not distinguish between job type. However, due to the large number of studies examined, results would be generalizable to a large population. Meta-analyses can be susceptible to the methodology used in the individual studies (Warner, 2013). The present study was not a meta-analysis; therefore, this was not a limitation. Also, Steel et al. did not elucidate the job satisfaction instruments in their analysis but instead stated that some studies had one question about job satisfaction. Despite these differences, results similar to Steel et al. were found in the present study, which could be due to the similarity in personality inventories, which are all based on the five factor model.

In contrast, the present study's results disconfirm those in Bui's (2017) examination of personality and its impact on job satisfaction. Bui collected data from the BHPS conducted in 2005 in which 7,662 participants were employed in various jobs. Bui controlled for age, gender, and marital status. Personality was measured as a component of the BHPS and was a version of the BFI-Short, a 15-item measure for examining the Big Five traits. Responses are on a 7-point scale ranging from 1 = *does not apply* to 7 = *applies perfectly*. Job satisfaction was measured through four aspects of work: nature of work, pay, job security, and hours worked. Responses were based on a 7-point scale, with 1 = *not satisfied* and 7 = *completely satisfied*. The present study's results disconfirmed Bui's results, possibly because of differences in methodology: the present study was a cross-sectional design; Bui was a longitudinal design. Further, I did not control for variables that could impact the differences in the results by not accounting for confounding variables that may impact job satisfaction. Also, aspects of job satisfaction in Bui

were not examined in the present study. Rather, I asked about job satisfaction without reducing it to components that may be a part of job satisfaction.

Analysis and Interpretation of RQ4

RQ4 asked, Is there a predictive relationship between law enforcement officers' agreeableness as measured by the BFI-10 and job satisfaction as measured by the BIAJS? Study results showed that there was not a significant relationship between agreeableness and job satisfaction, $r = –.05$, $p = .403$. This finding confirms the results of Hatamian et al. (2019), who examined personality and job satisfaction among middle aged and elderly employees, $N = 240$, in a city in Iran. Hatamian et al. used the NEO-FFI, a 60-item measure, to assess personality and the Job Satisfaction Survey to measure job satisfaction. Responses ranged from 1 = *strongly disagree* to 5 = *strongly agree* on both measures. Psychological empowerment was also measured, and Pearson's coefficient and regression were used for data analysis (Hatamian et al., 2019). The findings showed that agreeableness had no impact on job satisfaction. Hatamian et al.'s study had a limited scope for age as variables and did not examine job type, which differs from the present study.

A similarity between Hatamian et al. (2019) and the present study is the use of the personality inventory. I used a shorter version of the NEO-FFI, but this instrument, as well as the one used by Hatamian et al., measures the same personality traits. However, I did not examine job satisfaction by age. Exploring personality traits and job satisfaction by age might yield different results. Examining if agreeableness is necessary to job tasks could shed light on its impact on job satisfaction. It is important to note that Hatamian et al. was conducted outside of the United States, limiting the generalizability to the United States.

Mróz and Kaleta (2016) had similar results in their exploration of the relationships between personality, emotional labor, work engagement, and job satisfaction. Mróz and Kaleta conducted a cross sectional study using a self-report survey of 137 Polish service workers. The present study has similarities to that study in its cross sectional design. Using a cross sectional design allows for data collection at one moment in time (Warner, 2013). Self-report measures were also used in both studies. Results could be similar due to participant bias in self-selection. Participants who completed the surveys in both studies may be more agreeable than individuals who did not participate.

The present study's results confirm Mróz and Kaleta's (2016) results. I sought to find relationships between agreeableness and job satisfaction, which was the aim of Mróz and Kaleta's study. Another reason for the confirmation could be related to job type. Service workers may have job tasks similar to law enforcement as civil servants. Potential correlations could be due to personality types that are drawn to work in service. I did not examine emotional labor or work engagement, which could serve as component to job satisfaction but is unknown in the present study.

The present study's results disconfirm the results in Perera et al.'s (2018) study of teachers. Perera et al. found agreeableness to be correlated with job satisfaction in a predominantly female sample of 547 Australian teachers. They administered the Mini-IPI, a 20-item inventory of personality traits based on a 5-point Likert scale. Perera et al. also examined work engagement and emotional labor, which I did not.

One reason for the difference in results is the instruments used for data collection. The Mini-IPI consists of 20 items to measure personality traits. The instrument in the present study

consisted of 10 items with two items for each trait. Longer surveys tend to have lower completion rates, which means they have higher nonresponse bias than shorter surveys (Kost & Correa de Rosa, 2018). A short survey for measuring personality was used in the present study, which could account for difference in results due to a greater completion rate.

Another study that showed a relationship between agreeableness and job satisfaction is Ranasinghe and Hemantha (2016), who found positive correlations with agreeableness and job satisfaction. As previously noted, Ranasinghe and Hemantha used the short form of the MSQ to assess job satisfaction. This instrument is a self -report survey consisting of 20 questions on aspects of job satisfaction: job aspects, pay, promotion opportunities, supervision, and coworker. The MSQ uses a 5-point Likert rating, with 1 = *very dissatisfied* and 5 = *very satisfied*.

The present study used the BIAJS, which did not measure aspects of job satisfaction measured in Ranasinghe and Hemantha's (2016) study. This difference in measures for job satisfaction could account for result differences in the present study because I examined different domains of job satisfaction. I also used a different measure for personality than Ranasinghe and Hemantha, who used a 44-item survey. As previously mentioned, longer surveys have fewer completion rates than short studies (Kost & Correa de Rosa, 2018), which may be a reason for result differences.

Ranasinghe and Hemantha's (2016) study was also conducted outside of the United States. Hence, cultural dissimilarities could impact results. These researchers also examined job satisfaction by gender, which I did not. Therefore, there is no information on the impact of gender in the present study. Additionally, because I did not evaluate gender, the gender of the participants in the present study is unknown and may influenced the results.

Analysis and Interpretation of RQ5

RQ5 asked, Is there a predictive relationship between law enforcement officers' openness as measured by the BFI-10 and job satisfaction as measured by the BIAJS? Analysis showed no significant relationship between openness and job satisfaction, $r = .26$, $p = .348$. The present study confirms the findings of Sundstrom et al. (2016), who examined personality in training and development employees. Sundstrom et al. explored personality traits, career satisfaction, and job fit to discern whether these employees differed from employees in other jobs. Results showed that openness did not impact job satisfaction.

Sundstrom et al. (2016) used archival data spanning 14 years assessing over 95,000 individuals in the United States. Participants were administered an online survey consisting of the Personal Style Inventory, demographic items, and a one-item measure of job satisfaction. Personality was measured on a 5-point scale with responses ranging from 1 = *When the future is uncertain, I tend to anticipate positive outcomes* to 5 = *When the future is uncertain, I tend to anticipate problems.* Job satisfaction was measured on a 5-point scale with responses ranging from 1 = *I am fully satisfied with my job* to 5 = *I am not very satisfied with my job*. Sundstrom et al. used multiple regression for data analysis. I used multiple regression but did not use archival data. In addition, Sundstrom et al. used a large sample while I did not.

Sundstrom et al. (2016) used a one-item measure for job satisfaction. The BIAJS was used in the present study, which consists of four items about enjoyment and enthusiasm, which divides the category of job satisfaction into other elements rather than just asking if the respondent is satisfied. Sundstrom et al. also controlled for age and gender, while I did not. Therefore, the impact of gender and age is unknown in the present study.

In contrast to these findings, Khizar et al. (2016) found openness to be negatively correlated with job satisfaction. Khizar et al. explored personality traits, gender, occupational stress, and job satisfaction among 300 senior police officers in a city in Pakistan. As noted, the present study disconfirms these results. Officers in Khizar et al. were provided with a demographic survey, the NEO-FFI, and the Job Satisfaction Survey. As previously noted, the NEO-FFI and the Job Satisfaction Survey are longer versions of personality and job satisfaction assessments, respectively. I used shorter instruments, which could account for result differences.

In addition, the number of participants in Khizar et al. (2016) was much larger than in the present study, and Khizar et al. surveyed senior officers. I did not distinguish between officers' ranks. Khizar et al. used Pearson's coefficient to determine the relationships between variables. Another difference between Khizar et al. and the present study is culture. Khizar et al.'s results are not generalizable to a population outside of Pakistan, which may also account for results differences. I also did not explore the impact of age and occupational stress, which Khizar et al. did. Hence, their impact on job satisfaction in the present study is unknown.

Törnroos et al. (2019) also found openness to positively contribute to job satisfaction. Törnroos et al. explored personality and its impact on job satisfaction by collecting information from two longitudinal studies, the BHPS and the Understanding Society U.K. Longitudinal Study. Törnroos et al. used data from 2005 and 2012 that included 15,415 participants. Inclusion criteria for that study included being employed and between 16–65 years of age. There were no participants in the present study under age 18 years, which could explain result differences. Also, the participant sample was large in Törnroos et al. and small in the present study.

Measures in Törnroos et al. (2019) differed from those in the present study. In Törnroos et al., job satisfaction was measured with one question: "All things considered, how satisfied are you with your job overall?" Responses ranged from 1= *not satisfied* to 7 = *completely satisfied*. The one-question assessment can explain differences in results. A four-item measure of job satisfaction was used in the present study, and items were not qualified by "All things considered . . . ," which could explain some variation of rating job satisfaction against "all things."

Törnroos et al. (2019) measures personality with a 15-item instrument on the five factor traits. Each trait was assessed with three questions each with responses ranging from 0 = *does not apply at all* to 7 = *applies to me perfectly*. This response scale also differs from the Likert scale used in the present study, which asks the participant to agree or disagree in varying strengths. The responses in Törnroos et al. assumed that the participants knew if the statement applied to them, which is different than agreeing with it. Törnroos et al. also controlled for age and gender; I did not, which could have impacted the results in the present study and could account for differences between them and Törnroos et al.'s.

Analysis and Interpretation of RQ6

RQ6 asked, Is there a predictive relationship between education level and job satisfaction as measured by the BIAJS? The present study's results showed no significant relationship between education level and job satisfaction, $r = –.15$, $p = .554$. ANOVA results showed that the differences among job satisfaction means across educational levels were not statistically significant, $F(3, 43) = 1.00$, $p = .402$. These results confirm the findings of Brady and King (2018), who explored personality and job satisfaction in 315 municipal Texas police chiefs. Brady and King examined 23 variables in personal, operational, or organizational categories,

including years of work experience, education level, job stress, work–family conflict, burnout, and collegial support and job satisfaction. The Texas Chiefs of Police Panel Project survey was used for data collection between September 2015 and July 2016.

Brady and King (2018) used a five-item scale (Hopkins, 1983) to measure job satisfaction with responses on a 5-point Likert scale. The items are "I find work stimulating and challenging," "I find a sense of worthwhile accomplishment in my work," "I find opportunities for personal growth and development in my job," "I like the kind of work I do very much," and "I enjoy nearly all the things I do on my job very much" (Hopkins, 1983). Responses range from 1 = *strongly disagree* to 5 = *strongly agree*. Higher values represent higher levels of job satisfaction.

Brady and King (2018) categorized the education level variable as dichotomous, with 0 = less than a bachelor's degree and 1 = bachelor's degree or more education. Military experience was also treated as a dichotomous variable, with 0 = no experience and 1 = with experience. In all, 24% (n = 76) of the 316 cases had missing information on at least one variable.

Brady and King (2018) conducted univariate analysis to determine the distribution of the dependent variable together with the variables, using a series of bivariate analyses (Pearson's r and independent samples t tests) to discern significant relationships between work-related aspects associated with job satisfaction. They used an ordinary least squares regression model because of job satisfaction being a continuous variable to determine factors influencing job satisfaction. To explore personal and work-related factors affecting job satisfaction, they conducted multivariate analyses using an additive model.

All of the variables for personal characteristic combined accounted for only 7.5% of the variance (Brady & King, 2018). The findings showed that work-related factors contributed to job satisfaction while personal factors did not. Interestingly, Brady and King (2018) identified education level as a factor in hiring but as not having an impact on job satisfaction in this population.

The present study confirms these findings. The present study also was conducted with police. In addition, I used regression analyses, which is similar to one of the steps in Brady and King's (2018) study. I did not examine 23 predictor variables related to job satisfaction, and I also did not study municipal police chiefs. Rather, the present study's participants consisted of all sworn officers in a rural agency. Municipal police chiefs may have a distinct experiences from officers in general.

Another study on education level and job satisfaction in police was conducted by Paoline et al. (2015). The independent variables were education level and college major. In addition to job satisfaction, the other dependent variables in their study were views on management, role orientation, and job type. Analysis showed that education did impact job satisfaction. Specifically, higher education levels resulted in lower levels of job satisfaction. Paoline et al. justified this finding by positing that more educated officers may find patrolling unsatisfying.

The present study's findings disconfirm these results. However, patrol officers only or job tasks were not examined in the present study, which may explain result differences. In addition, the present study had one dependent variable. Having more than one dependent variable can confound the impact of each on the dependent variables (Price et al., 2019).

In Paoline et al. (2016), job satisfaction was measured by responses to the statement "I would not consider taking another job," "I like my job better than the average police officer does," and "I find real enjoyment in my job." These items were reverse coded. Responses for items in this study were measured on a 4-point Likert type scale (1 = *agree strongly*, 2 = *agree somewhat*, 3 = *disagree somewhat*, 4 = *disagree strongly*). Education was measured as no college, some college, and bachelor's degree or higher. The categories for education in the present study differed from Paoline et al. and used high school as a reference category. Paoline et al. used a section of the Assessing Police Use of Force Policy and Outcomes Project containing a 116-item survey that assesses a variety of use of force, organizational climate, occupational culture, and background characteristics. On each index, higher values correspond to officers' stronger endorsement of the characteristic being measured.

Another difference between the current study and Paoline at al. (2015) is that the latter study controlled for military service. The present study did not control for military service. Hence, military service in combination with education may impact job satisfaction, but this information is unknown. I did not explore these aspects. Therefore, their impact on job satisfaction in combination with education level may explain results differences. Finally, Paoline et al. used logistic regression; I used linear regression. As noted in (Price et al., 2019), linear regression provides a continuous output while logistic regression provides discreet output. Discrete data are the type of data that have clear spaces between values. Continuous data are data that fall in a constant sequence. Hence, interpretation of results when these two types of data are used differs.

Studies on vocations other than law enforcement had interesting results. McGrandle (2019) found that federal employees with higher education levels (bachelor's degree or above) had low levels of job satisfaction. McGrandle (2019) used data from the Public Service Employee Survey in Canada for 2008, 2011, and 2014 to explore gender, age, visible minority status versus nonvisible minority status, training, job fit/skills, and promotion opportunities as well as education level on job satisfaction. Job satisfaction was measured on 5-point Likert scale as a response to the question "Overall, I like my job." All variables were reported on a 0–1 scale. A four-item measure to determine job satisfaction was used in the present study. Different instruments for job satisfaction may not capture the same perceptions from respondents. Using terms such as "overall" suggests that participants compare their satisfaction to undefined aspects that contribute to the overall perception.

McGrandle (2019) found that education level did not impact job satisfaction. The present study confirms these results. McGrandle controlled for salary. The present study has no information on salary. McGrandle was conducted outside of the United States, which could serve to explain differences between it and the present study. Further, McGrandle did not study police officers.

Another study conducted in the public sector is Schudde and Bernell's (2019) exploration of the role of education level and nonwage employment outcomes (job satisfaction, benefits, employment history, unemployment history). Results from this study differs from McGrandle's (2019). Schudde and Bernell used data from the U.S. Department of Labor's National Longitudinal Survey of Youth (1979 cohort), which surveyed individuals born between 1980 and 1984. The sample consisted of individuals who attended college (N = 3,488), broken down by

age. This data set comprised survey results from the Armed Services Aptitude Battery, postsecondary transcripts, and geocodes (representations of geographic locations such as ethnic composition and income and education levels) and codes for college attended.

Socioeconomic status, gender, race/ethnicity, and family structure (highest degree earned by parents) were controlled in Schudde and Bernell (2019). Data analysis was conducted using multivariate regression to examine how outcomes varied across educational attainment levels. They also used Wald tests to compare the overall influence of educational attainment on job satisfaction, employment history, and unemployment history. Results showed that higher education levels were positively correlated with job satisfaction throughout the sample. The majority of respondents who had attended college did not earn bachelor's degrees. There was no significant relationship between education and jobs satisfaction among college attendees.

The present study confirms some of Schudde and Bernell's (2019) results regarding college attendees. There are several differences between the present study and Schudde and Bernell. Job type and other variables such as employment history and unemployment history may have impacted the results of Schudde and Bernell's study. Also, Schudde and Bernell controlled for gender, race/ethnicity, and family structure (highest degree earned by parents), which I did not. Schudde and Bernell focused only on people at the beginning their careers and people who were in middle school in 1994. Hence, the population is specific, limiting the generalizability of the results.

Fetai et al. (2015) also found that education level impacted job satisfaction. Specifically, people with higher levels of education had higher levels of job satisfaction. Fetai et al. explored individual and job characteristics among 2,000 employed individuals in Moldavia by conducting

interviews with one question on job satisfactions. Responses were on a 5-point Likert scale. Data were analyzed using an ordered probit model. Results showed that employees with higher education had higher job satisfaction than employees with lower education. Employees with master's or doctoral degrees had the highest job satisfaction (Fetai et al., 2015).

The result from the present study disconfirm Fetai et al.'s (2015), possibly due to a variety of factors. First, Fetai et al. was conducted outside of the United States. Second, job type was not specified. Data collection was through an interview, which may have impacted responses because multiple choice surveys have limited response selections. Fetai et al. also explored variables—pay, work conditions, job security, and experience—which were not explored in the present study. Perhaps examining what type of aspects of education relate to job satisfaction would shed more light on how education impacts job satisfaction. This information would add to the body of knowledge on education and job satisfaction rather than illustrating if education impacts job satisfaction

Analysis and Interpretation of RQ7

RQ7 asked, Is there a predictive relationship between resilience and job satisfaction as measured by the BRS and job satisfaction as measured by the BIAJS? Analysis showed no significant relationship between resilience and job satisfaction. However, there was a strong trend, $r = .14$, $p = .67$. The resilience mean reflected the Likert response of "agree." This was based on 41 officers who agreed or strongly agreed, 88%; three officers who were neutral, 6%; and three officers who disagreed or strongly disagreed, 6%. The results showed a strong trend and partially confirmed results of some studies.

These results in the present study disconfirm the results of Maurya and Agarwal (2018). Maurya and Agarwal examined the relationship between demographic characteristics, perceptions of leadership support, mental health, and job satisfaction among police in India, N = 203, males = 144, females = 47. The Mental Health Assessment was used to measure mental health. This instrument contains 10 items on psychological distress and 10 items on psychological well-being, measured with a 5-point Likert scale. Job satisfaction was measured with the Job Satisfaction Scale. Analysis consisted of t tests to explore the differences in mental health, supportive leadership, and demographics. Hierarchical regression was used to examine the effects of mental health on job satisfaction. Results demonstrated that psychological well-being (resilience) had positive correlations with job satisfaction, p = .45 for men, p = .28 for women. Psychological distress (resilience absence) was negatively correlated with job satisfaction, p = –.18 for men, p = .11 for women (Maurya & Agarwal, 2018).

Maurya and Agarwal (2018) used nonprobability sampling, which could introduce bias and influence generalizability. In addition, this study lacked representativeness. The present study disconfirms Maurya and Agarwal's findings, which may be due to differences in study locations. Job tasks may differ due to culture. Maurya and Agarwal (2018) also did not explore personality or education level. In addition, the instruments for data collection instruments differed, which could impact results. To measure resilience, Maurya and Agarwal evaluated both psychological distress and well-being. The instrument in the present study measured resilience only rather than distress.

The present study also disconfirms Demir (2018), who found psychological capital, defined by Demir as a person's positive psychological state having four components—hope,

optimism, self-efficacy, and resilience—to be positively correlated with job satisfaction, p = 0.263. Demir explored the relationships among burnout, psychological capital, stress, anxiety, job involvement, and job satisfaction. The sample consisted of 335 Turkish teachers, 203 males and 132 females, from one school district with 27 schools.

Demir (2018) used the Psychological Capital Scale and Job Satisfaction Scale. Responses were on a 5-point Likert-type scale with responses ranging from 1 (*I strongly disagree*) to 5 (*I strongly agree*). Path analysis and structural equation modeling were used for data analysis. The presents study differs from Demir's in the use of instruments. The Psychological Capital Scale is an instrument measuring a variety of aspects of psychological capital, with resilience being one aspect. Hence, the impact of resilience alone is unclear. Demir differs from the present study in which resilience was explored as a variable by itself. In addition, the Job Satisfaction Scale measures a variety of facets related to a job that are then combined for job satisfaction. I explored if participants were satisfied with their jobs but not as a sum of other aspects. These differences can account for study result dissimilarities.

To measure job satisfaction, Demir (2018) used a global measure of job satisfaction assessing one's judgment about aspects of one's job rather than a facet measure. Demir's (2018) study was conducted outside of the United States and explored teaching rather than law enforcement. It is challenging to generalize results to police because job tasks differ.

Another study demonstrating resilience impacts job satisfaction is Srivastava and Madan (2020), who explored resilience, political skill, trust, and organizational identification and their relationship with job satisfaction. Additionally, Srivastava and Madan examined if the variables mediated the relationship between resilience and job satisfaction. The sample consisted of 272

bank managers in a city in India. To measure job satisfaction, Srivastava and Madan used the Career Satisfaction Scale, a five-item measure with responses ranging on a 5-point Likert-like scale from *strongly disagree* to *strongly agree*. The BRS was used to measure resilience. This instrument is a six-item measure (three negative and three positive items), with options of 5 = *strongly agree to* 1 = *strongly disagree*. Bivariate correlation showed that resilience had a positive association with career satisfaction ($r = .24$, $p < .001$).

Srivastava and Madan (2020) controlled for age, gender, marital status, and work experience. Data analysis was conducted using bivariate correlations and regression analysis. Results demonstrated resilience was positively correlated with job satisfaction, $r = .24$, $p < .001$ and trust, political skills, and organizational identification were found to reinforce resilience, strengthening the positive relationship of resilience–job satisfaction (Srivastava & Madan, 2020).

The present study's finding disconfirm these results. One reason for this difference could be using the BIAJS in the present study. The BIAJS consists of seven items, four of which are distractor items to obscure the content being measured. Responses are ranked on a 5-point Likert scale. Srivastava and Madan (2020) was conducted outside of the United States and confirmed Demir's (2018) results, another study conducted in India. Also, job types and instruments differed. Demir also explored mediating effects of variables, which I did not.

In a U.S.-based study, Easterly and Myers (2018) explored the relationship between personal resilience, career development, and job satisfaction using a purposefully selected sample of middle and high school agriscience teachers ($N = 892$). Teachers were selected from four U.S. states for geographic diversity. Easterly and Myers administered the Personal

Resilience Questionnaire, which consists of 70 questions with responses based on a 6-point Likert scale. Each section contains 10 questions for each construct. Easterly and Myers created a separate instrument to measure professional development.

Easterly and Myers (2018) analyzed data using backward stepwise regression to determine if resilience was a predictor of personal development and job satisfaction. The results showed that as positivity (a component of resilience) increased, job satisfaction increased (Easterly & Myers, 2018). Two of the five resilience characteristics were positively correlated with teacher job satisfaction, r =.76, Pearson r above .50. The overall resilience measure for the four subscales was 68.9 for positive toward the world and positive for self, 73.1 for focused, and 60.8 for an organized personal resilience characteristic on a scale of 0–100. I used the BIAJS, which is a shorter measure and does not separate resilience into subscales.

Ainsworth and Oldfield (2019) conducted a study in the United Kingdom on individual and contextual resilience and their impact on job satisfaction and other variables (burnout and well-being) among teachers, N = 174. Measurements consisted of a demographic questionnaire and the teacher-reported Job Satisfaction Scale to measure job satisfaction. Resilience was measured with the Teacher Burnout Scale and the World Health Organization's WHO-5 survey of well-being in order to examine seven contextual and eight individual resilience factors.

Ainsworth and Oldfield (2019) used regression analysis for data analysis. Using bootstrapping, Ainsworth and Oldfield found $R^2 = 0.73$ for job satisfaction. All resilience factors significantly predicted job satisfaction, $p < 0.05$. The present study disconfirms Ainsworth and Oldfield's results, which may be due to the population (United Kingdom), the instruments, the data analysis, and job type. In addition, different variables were explored in each study.

Analysis and Interpretation of RQ8

RQ8 asked, Does the subset of the Big Five factors, education level, and resilience contribute to predicting the variability in job satisfaction as measured by the BFI-10, the BRS, and the BIAJS? Job satisfaction was regressed onto all of the predictor variables. Results showed that the regression model explained 25% of the variance in job satisfaction ($R^2 = .25$) but that this amount did not quite reach statistically significance, $F(7, 39) = 1.82$, $p = .112$. The null hypothesis that H_0: $R^2 = 0$ was retained. The p values show that extraversion emerged as a significant predictor and resilience showed a strong trend toward significantly predicting job satisfaction. None of the previous research focused on the subset of the Big Five traits, education level, and resilience in combination with job satisfaction.

Limitations of the Study

There are several limitations in the present study. The first is the voluntary nature of the survey. All individuals who were invited to participate did not participate. Secondly, this study was conducted in small agencies in a western U.S. state. Therefore limiting generalizability to other populations. The sampling approach and participant availability were also limitations. Participation was limited to individuals who were available and had time to complete a self-report survey. Self-report instruments can include threats to internal validity, another limitation. Participants may provide inaccurate or exaggerated responses in order to reflect social desirability bias (Frankfort-Nachmias et al., 2015). This issue is salient especially because these agencies have a chain of command. Because the surveys were distributed by the chiefs (at their requests), participants may have underreported or denied the behavior being examined.

The findings in this study are different from what was expected in light of the extant literature. However, new queries have emerged for future research. Possible reasons the present study findings did not meet the expected findings include the population type. This sample population predominantly consisted of men. There is no information on what the findings would be with an even number of men and women or with a sample composed of mostly women. Lastly, this study focused on rural police officers. However, I did not explore the different departments such as patrol, detectives, or officers in administrative positions.

Recommendations

This research could be conducted with a larger sample that includes other states. It is possible that rural agencies in other states would provide more information on the traits beneficial to rural law enforcement. The research could also be conducted in other settings where challenges are different (urban, suburban). Urban and suburban settings have different issues (job tasks, stressors, civilian population differences) than rural settings. These differences can be reflected in job tasks and impact decision-making and use of force. These traits may differ from those in the present study. It would be helpful to discern if there are differences in traits that are beneficial for rural, suburban, and urban settings. Information from other settings may contribute to the existing body of the knowledge.

Also, a qualitative design could allow for different questioning related to job satisfaction. A qualitative design would add contexts and meanings that are not captured in a self-report multiple choice survey (Van't Riet et al., 2001). Another recommendation is to conduct a study using a mixed methods design. A mixed methods study design could provide statistical

information that explains why the participants answered the way they did, and these results could be compared to answers from an interview.

Also, conducting a study that notes other variables such as years of job experience and/or previous military service and previous work, including if officers have worked in settings other than rural ones, in addition to the variables in the present study may provide more in-depth information on job satisfaction. An exploration of factors contributing to job satisfaction among the different departments in the agency may reveal different results because job tasks differ, as well as other factors that may impact job satisfaction. Additionally, separating participants by rank may prove beneficial in revealing job satisfaction that depends on agency hierarchy. However, in the present study, exploring job satisfaction by rank may have compromised confidentiality because the agencies are small.

It also may be beneficial to explore gender as it pertains to job satisfaction in law enforcement in combination with the variables in the present study. Other aspects of personality may demonstrate different results as well. Self-esteem, self-efficacy, emotional stability, and locus of control compose a broad personality construct, which contributes to how an individual perceives their personality traits, resilience, and job satisfaction (Bramante, 2015; Deany et al., 2016). Finally, it may be beneficial to conduct a longitudinal study with these variables in combination with prudent decision-making and lack of use of force to see if the factors explored have impact in the performance of police work over time.

Dispositional Theory of Job Satisfaction

Judge et al.'s (1998) dispositional theory of job satisfaction is based on personality as an influence on components of job functioning, inclusive of job satisfaction. This theory was chosen

for this study because it offers justification for job satisfaction as a result of personality traits that are similar to the organization's. This theory provides insights into which personality characteristics, in combination with education level and resilience, are predictive for job satisfaction in law enforcement. This theory suggests that people have inherent dispositions that direct them to having a certain level of satisfaction. The dispositional theory of job satisfaction proposes that job satisfaction and personality are closely related.

Judge et al.'s (1998) dispositional theory of job satisfaction directed the exploration of the variables measured in the present study. The goal of this study was to explore the relationships between the Big Five traits, education level, resilience, and job satisfaction. This purpose was important because existing research indicated that personality, education level, and resilience impacts job satisfaction in a variety of vocations.

The independent variables in this study were examined because researchers have suggested that personality, inclusive of the Big Five traits, education level, and resilience, impacts job satisfaction. The variables provided insights into whether specific personality traits, education level, and resilience and their combination impact job satisfaction among rural law enforcement officers. For instance, the study results showed extraversion to be the only significant variable impacting job satisfaction. This confirms some existing research regarding extroversion and disconfirms other research in that no other variables were found to impact job satisfaction in the present study. However, the results of this study point to the need for continued research on factors impacting job satisfaction in law enforcement. The present study's results regarding the significance of extroversion and relationships that were not significant (neuroticism, conscientiousness, agreeableness, and openness), education level, and resilience

add to the existing literature on job satisfaction in law enforcement. The results align with the dispositional theory of job satisfaction, which proposes that personality impacts aspects of job satisfaction due to personality and job fit.

Implications for Positive Social Change

Positive social change is the transformation processes that enhance societal well-being (Stephan et al., 2016). This study addressed a gap in the research by exploring the relationships between the Big Five traits, education level, resilience, and job satisfaction in law enforcement. Finding that extroversion was the only significant relationship with job satisfaction adds to the existing knowledge and provides additional information to existing research. The nonsignificant findings suggest that further research is needed to study the relationships between personality, education level, resilience, and job satisfaction because the results are incongruous. Research has demonstrated that personality, education level, and resilience impact job satisfaction.

Findings from the present study promote social change by offering information that may explain job satisfaction in order to find ways to increase it. Benefits of this information could contribute to improved physical and mental health, superior job performance, prudent decision-making, retention for police departments, and appropriate use of force (Desmond et al., 2016). Researchers should continue to explore factors contributing to job satisfaction in law enforcement. Understanding the relationships between these variables may contribute to recruitment and hiring practices in law enforcement agencies. Perhaps controlling for demographic variables and exploring personality traits in combination with resilience would provide a greater understanding of the psychological components most suitable for police work.

Conclusion

The recent climate between police and civilians has been fraught with conflict (Lee & Lee, 2021; Madon & Murphy, 2021). Components of these conflicts are partly individual and partly relational. Being able to adaptively cope with job stressors and engage healthily with civilians not only contributes to job satisfaction but also to the ability to increase societal well-being. Recognizing and addressing the needs of police as a result of their work demands is an important aspect in making positive social change. Acknowledging the influence of personality traits and other factors on job satisfaction is a beginning to fomenting this change. Enhancing service person and civilian relationships can create an interdependent system of functioning that is mutually beneficial.

An implication of this study is the provision of information that can inform individual, agency, and societal improvements especially in rural settings. Individual officers may benefit from having traits that predispose them to police work. Individual civilians may benefit from decreased conflict with and increased trust in police. Agencies can benefit by needing fewer resources and time for the recruitment, hiring, and training of police. Selecting applicants who have trait and characteristic predispositions for job satisfaction and providing training that enhances these traits and characteristics may result in a police force that is experienced and satisfied. Results include retention, wise decision-making, appropriate use of force, and trust of police by civilians. Increased civilian trust can lead to enhanced civilian engagement and reliance on police (Owens et al., 2018). Results can include reflexive relationships between police and civilians, enhancing societal well-being.

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Appendix A: Demographic Question

Please select your education level from the following:

(1) High school or equivalent
(2) Associate degree
(3) Bachelor's degree
(4) Graduate degree

Appendix B: Statistics From Comparing Agencies

Variables	Agency	*M*	*SD*	*n*
Extraversion	1	3.30	1.12	31
	2	2.00	1.41	2
	3	2.89	1.02	14
	Total	3.12	1.12	47
Agreeableness	1	3.32	1.17	31
	2	2.75	1.06	2
	3	3.14	0.84	14
	Total	3.24	1.06	47
Conscientiousness	1	4.51	0.58	31
	2	4.00	1.41	2
	3	4.39	0.62	14
	Total	4.45	0.62	47
Neuroticism	1	1.90	0.96	31
	2	1.50	0.00	2
	3	2.07	0.85	14
	Total	1.93	0.91	47
Openness to experience	1	3.48	1.02	31
	2	4.75	0.35	2
	3	3.321	0.77	14
	Total	3.489	0.96	47
Job satisfaction SS	1	4.02	1.02	31
	2	3.00	2.12	2
	3	4.07	0.71	14
	Total	3.99	0.98	47
Resilience SS	1	3.74	0.42	31
	2	3.92	0.30	2
	3	3.56	0.60	14
	Total	3.69	0.48	47

Note. SS = sum of squares.