

The Relationship Between College-Educated Officers and Their Self-Efficacy on Performance: A Quasi-Experiment

Hieu PHAN¹, Andre CAMP²

¹*Dr. Hieu Phan, Ed.D., University of the Incarnate Word, San Antonio, United States, drphan@sbcglobal.net*

²*Dr. Andre Camp, DBA, Detroit Police Department, Detroit, United States, andre@comcast.net*

ABSTRACT: This quasi-experimental study aimed to examine by statistical analysis the relationship between college-educated police officers and their self-efficacy in the performance of their duties, whether it is patrol, investigations, research/planning, etc. Previous research has provided mixed perspectives on the benefits of a college education and police officers' levels of job effectiveness and performance. The purpose of the study is two-fold: (1) to determine if there is a causal correlation between an officer's level of education and their self-efficacy, and (2) to ascertain whether or not officers believe a college degree made a difference in them being more effective on the job. Findings from this study indicated a moderately positive level of significance from police officers with a college education as having a higher level of self-efficacy than police officers without a college education. The study findings provide insight into police officers' ability to resolve conflicts, communication skills, emotional intelligence, and critical thinking. This case study suggests that possessing a college degree may improve crucial aspects of field performance, including using a lower level of physical force and receiving fewer complaints and disciplinary actions than officers of the same experience without a degree. Policing in the 21st Century has evolved as a solemn profession, and officers are held to higher standards and accountability. The investigators theorized that many police departments place a greater value on educated officers because of the changing nature of law enforcement and the cultural diversity needs of citizens in the community.

KEYWORDS: Police, Police Education, Education, Self-Efficacy, Self-Effectiveness, Self-Perceived Effectiveness, Police Training, Perception, Training, College Educated Officers

Introduction

According to Paoline, Terrill, and Rossler (2015), aggressive patrol tactics in the community have created significant concerns among citizens, including outright distrust of police officers. According to Weichselbaum (2015), widespread misconduct in local police departments has increased federal response to neglect and abuse of power claims. The Justice Department mandated police reform in several police departments across the country to minimize discriminatory policing, unjustifiable shootings, civil rights violations, and mistreatment of prisoners (Weichselbaum 2015). In order to offset these concerns, there must be a maturing of the core culture and values driving public operations, as well as expectations for American law enforcement to change significantly and meet current issues (Ramirez 2009). The major components of this change include training, education, organizational design, and leadership (Ramirez 2009).

Adequate training of new police officers is vital to law enforcement agencies because it reduces officer fatality rate, lessens citizen complaints, lowers wrongful death lawsuits, and enhances officers' self-confidence in their decisions (Dominey & Hill 2010). According to Vega and Eligon (2014), with deep tension rising between police and the community, it is increasingly important for city officials to hire police officers with integrity, good judgment, and education to build public trust. Supporters of higher education for police officers opine that college-educated officers better understand the complexities of policing than do officers without a college degree (Paoline, Terrill, & Rossler 2015). "Policing is one of the few occupations where danger is imminent, and police officers have to react to an unknown danger that is presented to them (Roberts, Herrington, Jones, White, & Day 2016). Dominey and Hill (2010) posited that academy recruits should emerge from training with the ability to communicate and effectively provide quality service to the public. Police officers must receive extensive training in many aspects of law enforcement work, including state and federal laws, customer service, driving, firearms, evidence handling, defensive tactics, and handcuffing. Effective training enhances individuals' abilities to perform a job or task and creates a strong belief in their capability and self-confidence.

Literature Review

Police and Education

According to Hilal, Densley, and Zhao (2013), Minnesota is the only state requiring aspiring law enforcement officers to have an associate's degree before entering the police academy. Hilal et al. (2013) noted that policing is the only human service profession that does not require a college degree as a prerequisite for entry, unlike nursing, social work, and teaching, which require a baccalaureate degree before hiring. Hilal et al. (2013) examined 627 Minnesota police officers' attitudes toward higher educational requirements before joining the police force. The findings indicated that 30% of aspiring police officers feel a college degree should be a prerequisite to entering the profession.

Police departments formed partnerships with local universities to develop programs catered to a career in law enforcement (Macvean & Cox 2012). Police departments nationwide believe that increasing academic standards would decrease police applicants and diminish the number of qualified candidates (Telep 2011). Telep (2011) noted that increased educational standards would strongly impact police officers' performance and attitudes. Higher education influences the abuse of authority and encourages moral behavior (Rydberg & Terrill, 2010; Telep 2011). Bond (2014) observed that law enforcement officials are reluctant to change higher educational standards for aspiring police officers. According to Bond (2014), higher education is essential to police officers' performance and productivity.

Higher education enhances the following qualities on the job:

- Quality in performance level
- Problem-solving skills
- Quality writing skills
- Superior communication skills
- Decrease citizens' complaints
- Experience with technology
- Innovative thinking
- Minimal disciplinary action
- Promotions
- Awareness of cultural diversity
- Personal growth (maturity)
- Adaptability

Paterson (2011) noted higher education enhances several characteristics and improves police officers' accountability. In Jenkins and DeCarlo's (2014) study, authors suggested that college-educated police officers are rated higher on their performance evaluation than police officers without a college education. The study conducted by

PHAN & CAMP: *The Relationship Between College-Educated Officers and Their Self-Efficacy on Performance: A Quasi-Experiment*

police executives also indicated an increase in college-educated officers in the last 20 years. Improving police professionalism through educational requirements benefits criminal justice institutions (Patterson 2011). Police supervision, vital to the performance and attitude of any law enforcement agency, should produce a positive change for all regular members (Jenkins & DeCarlo, 2014). In Chapman's (2012) study on 511 police officers' use of force, researchers proclaim that personal attributes are considered a significant component in using force in minority communities. Chapman (2012) indicated that understanding each variable might assist law enforcement with preventative methods for using force. A significant relationship between education and the use of force showed that officers with education used less force upon arrest (Chapman 2012).

Self-Efficacy and Work Performance

Cherian and Jacob (2013) noted that overall self-efficacy positively influences employees' performances. According to Cavazotte, Moreno, and Bernardo (2013), self-efficacy is crucial in promoting goal achievement. Yakin and Erdil (2012) suggested that people with high self-efficacy are satisfied with the work environment and are competent in solving difficult problems when they occur. Individuals with high self-efficacy are more likely to obtain a favorable outcome through persistence while gaining fulfillment from their jobs (Yakin & Erdil, 2012). According to Cherian and Jacob (2013), employees' incomes are not the only source of satisfaction but represent employment stability. Self-efficacy and motivation are positive factors for quality service in the workplace (Cherian & Jacob 2013). Personal values that enhance job performance can bolster confidence in employees (Cherian & Jacob 2013). Ashwini's (2013) survey of 100 male and female police officers exploring occupational self-efficacy and job satisfaction based on gender revealed no significant difference in job performance among men and women. The study used a purposive sampling technique, implying that female police officers are well-prepared for police work.

Self-Efficacy and Motivation

Managers have a difficult time trying to motivate and inspire employees to increase work performance (Van Der Roest et al. 2011). Management must find innovative ways to build confidence and motivate employees; there is no blueprint on how to motivate subordinates (Van Der Roest et al. 2011). According to Fortenbery (2015), motivating police officers is difficult because they become jaded by dealing with the worst people in society. The routine aftermath of violent crimes can also make police officers desensitized to personal goals and goals of the organization (Fortenbery 2015). Fortenbery (2015) noted that management must take the initial steps in motivating police officers by having a positive attitude. Supervision is vital to how police officers interact, communicate, and perform their duties (Brain 2008). Brain (2008) noted that police officers are motivated by a sense of fairness within the department, and allowing an equal opportunity for advancement is critical to work performance. Madonna and Philpot's (2013) survey of 135 college students from a southeastern liberal arts university indicated a weak to moderate relationship between self-efficacy and motivation. Students were administered the Motivated Strategies for Learning Questionnaire. The study findings revealed limited information on student satisfaction and motivational and learning strategies predicting self-efficacy.

Self-Efficacy and Academic Success

A strong correlation exists between the achievement of goals and self-efficacy (Kandemir 2014). In Kandemir's (2014) study on achievement goals consisting of 513 students, he found that several personality traits significantly influence academic self-efficacy. Perceived academic self-efficacy is considered to impact students' educational performances and

careers (Abd-Elmotalieb & Saha 2013). According to Mattern and Shaw (2010), a student's self-efficacy is not always a predictor of his or her performance or the skills he or she has. York, Gibson, and Rankin (2015) measured academic success by using job performance intrinsic and extrinsic rewards. Extrinsic success included job promotion, job advancements, and increased salary (York, Gibson, & Rankin 2015). Employee satisfaction and goal setting are included as intrinsic rewards (York et al. 2015). Nilsen (2009) noted that self-efficacy and academic success are elevated by a person experiencing success. Personal success must be challenging to inspire self-efficacy and motivation (Nilsen 2009). York et al. (2015) conducted a grounded theory study on academic success examining K-12 educators, psychologists, and sociologists in the field of education. The study revealed that comprehension and grades were not always indicators of intellectual growth.

Theoretical Framework

The theoretical foundation for this study was influenced by Albert Bandura's self-efficacy theory, a social cognitive theory introduced by Albert Bandura, constructivism theory developed by Jean Piaget, and andragogy theory advanced by Malcolm Shepherd Knowles. This study proposed to capture self-efficacy and college education related to performance in the law enforcement community. The theories presented are learning theories regarding how students develop knowledge and problem-solving. Self-efficacy assessments tailored to domains of functioning and task demands identify patterns of strengths and limitations in perceived capability (Bandura 2006). Self-efficacy is concerned with perceived capability. According to Bandura (2006), this refined assessment increases predictability and provides guidelines for tailoring programs to individual needs. Bostrom (2005) noted that some social scientists believe a college education influences police officers' effectiveness. Individuals with high confidence in their capabilities approach complicated tasks as challenges requiring mastery rather than threats that need avoiding (Bandura 1994). According to Bandura (1994), the most successful way of creating a high sense of efficacy is through mastering experiences. According to Smith, Jayasuriya, and Hammer (2008), people with low self-efficacy have low expectations and aspirations. The theoretical framework presented incorporated the relationship between self-efficacy and education. The theories are similar because they promote learning through understanding and personal experiences.

Data and Methodology

This quantitative, quasi-experimental design aimed to examine the relationship between self-efficacy and education level for 162 patrol officers in southeastern Michigan by statistical analysis. The study was designed to employ two individual police departments to show whether there is a statistically significant difference in self-efficacy and educational level. The general problem is that although research findings concluded that self-efficacy significantly influences performance (Beattie et al. 2016; Emich 2012; Lunenburg 2011; Stajkovic & Luthans 1998), police departments continue to disregard this critical factor in establishing hiring criteria for recruits. The specific problem is that the effect on self-efficacy determined by hiring persons for local police departments near Detroit, Michigan, with lower educational levels versus college education, is still being determined. The survey instrument used in this study is the General Self-Efficacy Scale, designed by Ralf Schwarzer to measure self-efficacy. The General Self-Efficacy scale is a 10-question psychometric scale designed to assess optimistic self-beliefs. Researchers validated the GSE scale on adult populations in over 33 countries (Schwarzer & Jerusalem 1995). According to Schwarzer and Jerusalem (1995), the GSE scale measures the ability to cope with stressful life events.

PHAN & CAMP: *The Relationship Between College-Educated Officers and Their Self-Efficacy on Performance: A Quasi-Experiment*

Presentation of Descriptive Characteristics of Participants

Table 1 displays frequency counts for the number of officers in each group. There were 76 officers in the no-college group (49.4%) and 78 in the college group (50.6%). The population for this study included police officers from Police Department 1 and Police Department 2, both located in southeastern Michigan. One hundred sixty-two total participants consented to participate.

Most participants from both departments were male, at 92.5% and 96%, respectively. Though gender was skewed, it is not abnormal for the occupation. Therefore, the results of this study can be transposed to other police departments since gender skewing is expected. Ages ranged between 20 years old and 38 years old. Younger patrol officers came from Police Department 1. All participants in this study worked street patrol, with the majority having more than two years of street patrol experience. Their differing educational requirements explain the disparity in ages between departments. Participants' time in service and age was eliminated to secure the participants' identity in the study. Also removed from this study to ensure the total confidentiality of the participants was the coding of educational levels. The coding of educational levels would have increased a breach of confidentiality from participants in Police Department 2.

Table 1: Frequency Counts for Educational Group (N = 154)

Officer Group	n	%
No College Degree	76	49.4
College Degree	78	50.5

Data Analysis Procedures

Data were collected from two police departments located in southeastern Michigan. The target number of completed surveys was 160, with each police department completing 80 surveys based on obtaining a 95% confidence level and a 5% confidence interval. One hundred and sixty-two surveys were collected for the current study. Surveys were collected from three separate opportunities within each department at the end of the roll call. Once surveys were collected, each participant's mean score was calculated. A statistical analysis was completed to analyze if there was a relationship between educational attainment and the level of self-efficacy expressed on the survey for both police departments. The researchers numerically coded questionnaires, with 1 representing police officers with no college and 2 representing police officers with college.

Organization of Data Analysis

Initially, data were gathered for 162 patrol officers. Based on two sets of boxplots (Figure 1), eight self-efficacy scores were considered outliers and were, therefore, removed from the sample. This left the final sample size to be $N = 154$. The General Self-Efficacy Scale determined participants' self-efficacy scores on a 4-point Likert-type scale questionnaire. In the case of this study, the predictor variable is the fact of college education or no college education, termed education status, of each officer. The criterion variable is the GSE scores of the police officers. The outliers were participants who scored extremely high or exceptionally too low. There were eight univariate outliers in the study. The vertical axis on the boxplot represents participants' self-efficacy scores.

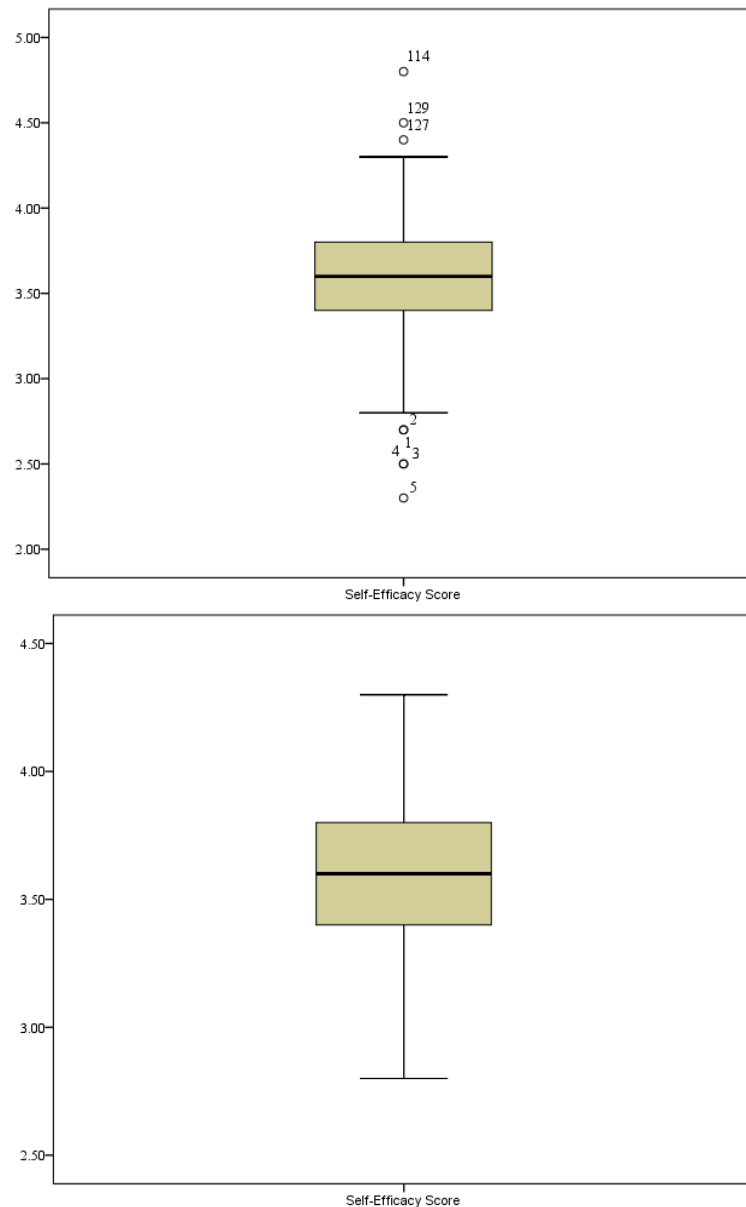


Figure 1: Boxplots of self-efficacy scores before and after removing univariate outliers

Research Question and Associated Hypotheses

This quantitative, quasi-experimental design aimed to examine by statistical analysis the relationship between self-efficacy and education level for 154 patrol officers in southeastern Michigan. The study was guided by one research question and two relevant hypotheses:

RQ1: Does a significant statistical relationship exist between a police officer's level of education and the officer's self-efficacy, as measured by the Generalized Self-Efficacy Survey?

H₀1: There is no statistically significant relationship between police officers' level of education and police officers' self-efficacy.

H_A1: There is a statistically significant relationship between police officers' level of education and police officers' self-efficacy.

Analysis of Data

A *t-test* for independent means with an accompanying eta coefficient (Pearson correlation between a nominal variable and a continuous variable) was calculated and presented in Table 2 to answer this research question. The eta coefficient was included as a measure of the

PHAN & CAMP: *The Relationship Between College-Educated Officers and Their Self-Efficacy on Performance: A Quasi-Experiment*

strength of the relationship between the officer's level of education and his or her level of self-efficacy. Levene's test for equality of variances was insignificant ($F = 2.09, p = .15$), suggesting that the assumption was met. Inspection of the table found college-educated officers to have significantly higher levels of self-efficacy at the $p = .001$ level. In addition, the relationship between the two variables ($\eta = .42, p = .001$) was also significant. This combination of findings supported the alternative hypothesis (Table 2).

Table 2:
t-Test for Independent Means Comparing Self-Efficacy Scores Based on Education (N = 154)

SCORE	GROUP	n	M	SD	η	t	p
Self-Efficacy					.42	5.67	.001
	No College Degree	76	3.44	0.32			
	College Degree	78	3.71	0.27			

Note. Levene's Test for Equality of Variances: $F = 2.09, p = .15$

Since the overall analysis demonstrated positive support for the alternate hypothesis that education level and perceived self-efficacy are related, further analysis was performed. The histogram below compares the mean score of each question for each department. As depicted in Figure 2, per question, the two departments compared to each other after removing the outlier. However, questions 9 and 10 have more variance than any other. For those two, the non-college cohort scored considerably lower than the college group compared to the other questions. However, this comparison is simply an informal observational analysis. According to Schwarzer and Jerusalem (1995), the validity and reliability of the GSE scale were tested in over 25 countries. The reliability obtained in the samples from 23 nations yielded Cronbach's alphas ranged from .76 to .90, with the majority averaging .80.

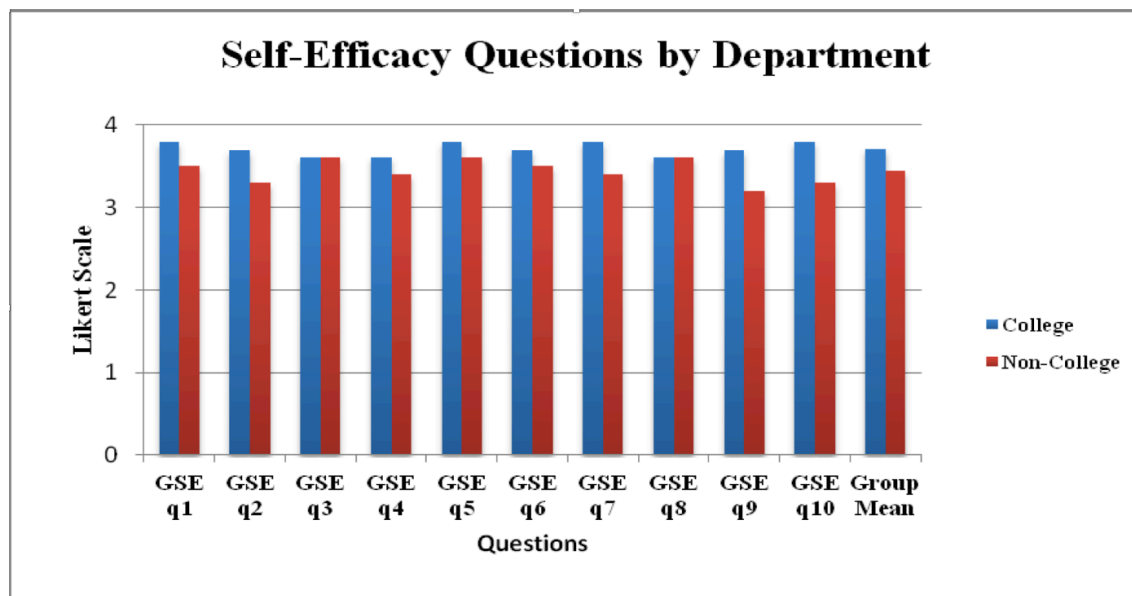


Figure 2. Self-efficacy questions by department

The GSE survey was normalized and tested for reliability and validity as one survey, not by each individual question. Consequently, the reliability and validity of each question are not assured with formal statistical analyses. Surveys are validated as a whole product, not each question. One cannot assume each question is also validated in and of itself. There may be confounding effects upon individual questions simply because of the order they are in or based upon subjects placing assumptions on questions. By separating questions out, that interaction is no longer present, which may influence the variability and reliability of the question and survey as a whole.

Summary

The findings of this study indicated that college-educated police officers have a higher level of self-efficacy than police officers with no college education. The analysis suggests that police officers with a college education demonstrate a high level of self-efficacy than a police officer who has no college. The study results do not imply that police officers without a college degree are incapable of performing the duties of a police officer. Although this study may suggest that police officers with a college education are well prepared to perform various tasks, having a college education may also be independent of specific dimensions of police performance. Police officers should exhibit a high standard of ethics, whether a college education is obtained or a high school diploma. Police officers' integrity and moral standards are questioned by the citizens and community they serve. Police departments nationwide will have to show more transparency and accountability to gain the community's trust. This study may also promote additional training for aspiring police officers. Continued research into the effects of higher education on the performance of police officers may lead to greater knowledge and understanding necessary to improve police service.

Conclusions

This quantitative, quasi-experimental design aimed to examine by statistical analysis the relationship between self-efficacy and education level for 154 patrol officers in southeastern Michigan. This study targeted two police departments located in southeastern Michigan. Previous research has provided mixed thoughts on the benefits of college education and police officers' job satisfaction and performance levels. The findings of this study indicated a positive level of significance from police officers with a college education having a higher level of self-efficacy than police officers without a college education. The alternative hypothesis for this study was supported. Additional research is recommended concerning examining police officers' perceived job satisfaction, views of top management, or role orientation. Study results suggest a need to examine race, age, gender, and time in service for police officers' level of self-efficacy. The average time in service of greater than two years reduces the threat to the relationship between self-efficacy and education.

References

- Abd-Elmoteleb, M., and Saha, S. K. 2013. "The Role Of Academic Self-Efficacy as a Mediator Variable Between Perceived Academic Climate and Academic Performance." *Journal of Education and Learning*, 2(3), 117-129. doi: <https://doi.org/10.5539/jel.v2n3p117>.
- Ashwini, B. P. 2013. "A Study on Occupational Self Efficacy and Job Satisfaction Among Men and Women Police." *Indian Social Science Journal* 2(1) 14-25. Retrieved from: <https://www.questia.com/library/journal/1P3-3169641211/a-study-on-occupational-self-efficacy-and-job-satisfaction>.
- Bandura, A. 1994. "Self-Efficacy." In V. S. Ramachaudran (Ed.), *Encyclopedia of Human Behavior*, Vol. 4, pp. 71-81. New York, NY: Academic Press.

PHAN & CAMP: *The Relationship Between College-Educated Officers and Their Self-Efficacy on Performance: A Quasi-Experiment*

- Bandura, A. 2006. "Guide for Constructing Self-Efficacy Scales." In F. Pajares & T. Urdan (Eds.), *Self-Efficacy Beliefs of Adolescents*, Vol. 5, pp. 307-337. Greenwich, CT: Information Age Publishing.
- Beattie, S., Woodman, T., Fakehy, M., and Dempsey, C. 2016. "The Role of Performance Feedback on the Self-Efficacy-Performance Relationship." *Sport, Exercise, and Performance Psychology* 5(1): 1-13. doi: <http://dx.doi.org/10.1037/spy0000051>.
- Bond, M. 2014. "How Education Impacts Police Performance." *In Public Safety*. Retrieved from <http://inpublicsafety.com/2014/07/how-education-impacts-police-performance/>.
- Bostrom, M. D. 2005. "The Influence of Higher Education on Police Officer Work Habits." *The Police Chief* 72(10). Retrieved from <http://www.policchiefmagazine.org>.
- Brain, F. 2008. "Motivation: "Rethinking the Supervisor's Role." *Law and Order*. Retrieved from <http://www.hendonpub.com/>.
- Cavazotte, F., Moreno, V., and Bernardo, J. 2013. "Transformational Leaders and Work Performance: The Mediating Roles of Identification and Self-Efficacy." *BAR - Brazilian Administration Review* 10(4): 490-512. doi: <https://doi.org/10.1590/S1807-76922013000400007>.
- Chapman, C. 2012. "Use of Force in Minority Communities is Related to Police Education, Age, Experience, and Ethnicity." *Police Practice & Research* 13(5): 421-436. doi: 10.1080/15614263.2011.596711.
- Cherian, J., and Jacob, J. 2013. "Impact of Self-Efficacy on Motivation and Performance of Employees." *International Journal of Business & Management* 8(14): 80-88. doi: <https://doi.org/10.5539/ijbm.v8n14p80>.
- Dominey, J., and Hill, A. 2010. "The Higher Education Contribution to Police and Probation Training: Essential, Desirable, or an Indulgence?" *British Journal of Community Justice* 8(2): 6-18.
- Emich, K. J. 2012. "Transpersonal Efficacy: How Efficacy Perceptions of Single Others Influence Task Performance." *Human Performance* 25(3): 235-254. doi:10.1080/08959285.2012.683906.
- Fortenberry, J. 2015. "Improving Motivation and Productivity of Police Officers." *FBI Law Enforcement Bulletin*. Retrieved from <https://leb.fbi.gov>.
- Hilal, S., Densley, J., and Zhao, R. 2013. "Cops in College: Police Officers' Perceptions on Formal Education." *Journal of Criminal Justice Education* 24(4): 461-477. doi:10.1080/10511253.2013.791332.
- Jenkins, M., and DeCarlo, J. 2014. "Educating Police Executives in a New Community Problem-Solving Era." *FBI Law Enforcement Bulletin*. Retrieved from: <https://leb.fbi.gov/2014/may/educating-police-executives-in-a-new-community-problem-solving-era>.
- Kandemir, M. 2014. "Predictors of Approach/Avoidance Achievement Goals: Personality Traits, Self-Esteem and Academic Self-Efficacy." *International Online Journal of Educational Sciences*, 6(1), 91-102. doi:10.15345/iojes.2014.01.010.
- Lunenburg, F. C. 2011. "Self-Efficacy in the Workplace: Implications for Motivation and Performance." *International Journal of Management, Business, and Administration* 14(1). Retrieved from <http://nationalforum.com>.
- Macvean, A., and Cox, C. 2012. "Police Education in a University Setting: Emerging Cultures and Attitudes." *Policing: A Journal of Policy & Practice* 6(1): 16-25. doi: <https://doi.org/10.1093/police/par060>.
- Madonna, J. S., and Philpot, V. D. 2013. "Motivation and Learning Strategies, and Academic and Student Satisfaction in Predicting Self-Efficacy in College Seniors." *Quarterly Review of Distance Education* 14(3): 163-168.
- Mattern, K. D., and Shaw, E. J. 2010. "A Look Beyond Cognitive Predictors of Academic Success: Understanding the Relationship Between Academic Self-Beliefs and Outcomes." *Journal of College Student Development* 51(6): 665-678. Retrieved from <http://search.proquest.com/docview/807531659?accountid=35812>.
- Nilsen, H. 2009. "Influence on Student Academic Behavior Through Motivation, Self-Efficacy and Value-Expectation: An Action Research Project to Improve Learning." *Issues in Informing Science & Information Technology* 6545-6556.

- Paoline, E. A., Terrill, W., and Rossler, M. T. 2015. "Higher Education, College Degree Major, and Police Occupational Attitudes." *Journal of Criminal Justice Education* 26(1): 49-73. doi:10.1080/10511253.2014.923010.
- Paterson, C. 2011. "Adding Value? A Review of the International Literature on the Role Of Higher Education in Police Training and Education." *Police Practice & Research* 12(4): 286-297. doi:10.1080/15614263.2011.563969.
- Ramirez, S. 2009. "9/11: The Need for an American Law Enforcement Transformation." *Law Officer Magazine*. Retrieved from <http://www.lawofficer.com>.
- Rydberg, J., and Terrell, W. 2010. "The Effects of Higher Education on Police Behavior." *Police Quarterly*. Retrieved from <https://www.academia.edu>.
- Roberts, K., Herrington, V., Jones, W., White, J., and Day, D. 2016. "Police Leadership in 2045: The Value of Education in Developing Leadership." *Policing: A Journal Of Policy & Practice* 10(1): 26-33. doi:10.1093/police/pav045.
- Schwarzer, R., and Jerusalem, M. 1995. "Generalized self-efficacy scale." In J. Weinman, S. Wright, and M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37).
- Smith, R., Jayasuriya, R., Caputi, P., and Hammer, D. 2008. "Exploring the Role of Goal Theory in Understanding Training Motivation." *International Journal of Training & Development* 12(1): 54-72. doi:10.1111/j.1468-2419.2007.00295.
- Stajkovic, A. D., and Luthans, F. 1998. "Self-Efficacy and Work Related Performance: A Meta-Analysis." *Psychological Bulletin* 124(2): 240-261. <https://doi.org/10.1037/0033-2909.124.2.240>.
- Telep, C. W. 2011. "The Impact of Higher Education on Police Officer Attitudes Toward Abuse of Authority." *Journal of Criminal Justice Education* 22(3): 392-419. doi:10.1080/10511253.2010.519893.
- Van Der Roest, D., Kleiner, K., and Kleiner, B. 2011. "Self-Efficacy: The Biology of Confidence." *Culture & Religion Review Journal* 2011(1): 26-35.
- Vega, T., and Eligon, J. 2014. "Deep Tensions Rise to Surface after Ferguson Shooting." *The New York Times*. Retrieved from <http://www.nytimes.com>.
- Weichselbaum, S. 2015. "Policing the Police." *The Marshall Project*. Retrieved from <https://www.themarshallproject.org>.
- Yakin, M., and Erdil, O. 2012. "Relationships Between Self-Efficacy and Work Engagement and the Effects on Job Satisfaction: A Survey on Certified Public Accountants." *Procedia Social and Behavioral Science* (58): 370-378. doi: <https://doi.org/10.1016/j.sbspro.2012.09.1013>.
- York, T., Gibson, C., and Rankin, S. 2015. "Defining and Measuring Academic Success." *Practical Assessment, Research & Evaluation* 20(5). DOI: <https://doi.org/10.7275/hz5x-tx03>.