



A Quantitative Examination of Crime: Reported Incidents at Land-Grant Higher Education Institutions versus Reported Societal Incidents

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Abstract

This study investigates differences in reported criminality between land-grant higher education institutions and society for the period encompassing 2001-2010. Using analysis of variance (ANOVA) and a stratification of reported incidents of campus crime (per the Clery Act) versus societal crime, statistically significant outcomes were observed for the crime categories of cumulative crime, robbery, sex crimes, assault crimes, burglary, and motor vehicle theft. Within the contexts of campus safety and campus security, the outcomes of this study reiterate the uniqueness of campus criminality among land-grant higher education settings.

Keywords: campus crime; campus safety; Clery Act; higher education; land-grant

Notions of Crime

Crime is defined by society via the legislative process and governmental authority (McElreath, et al., 2013). Crime permeates all societal venues, and accommodates both serious and minor infractions which transgress expressed laws representing felonies and misdemeanors, respectively (McElreath, et al., 2013). No locale is impervious to the effects of criminality. Crime may exist anywhere, and anyone may become the victim of crime (McElreath, et al., 2013). These notions are applicable for both general society and institutions of higher education. Incidents of moral turpitude exist among collegiate settings just as they do within society. Respectively, the 1966 and 2007 campus shootings at the University of Texas and Virginia Tech shocked society and dissolved any beliefs that academic settings were riskless locations with respect to the potential lethality of felony crimes. Typically, such incidents may occur with speed, surprise, and violence (Doss, et al., 2017b). Certainly, lesser infractions, representing

misdemeanor crimes, such as jaywalking or vandalism, occur among collegiate settings just as they do within society.

Clery Act

The Clery Act resulted from a heinous 1986 crime at Lehigh University (Ramirez, 2009). Jeanne Clery, an undergraduate student, was raped and killed inside her dormitory (Ramirez, 2009). After her death, it was learned that a violent history existed within the university setting, but the details were not disseminated openly (Ramirez, 2009). A total of 38 crimes had occurred within the preceding three years (Ramirez, 2009). These events were the catalysts for parental activism which resulted in the crafting and passing of the Crime Awareness and Campus Security Act of 1990 (Clery Act) (Ramirez, 2009). This legislation affects comprehensively the American system of higher education. The Clery Act mandates that higher education institutions report publicly their respective incidents of crime that occur within campus boundaries (Nobles, 2012). The Clery Act only shows incidents that occurred internally within the campus environment, but not externally within the society that surrounds the higher education institution (Nobles, 2012). Given such exclusions among publicly available crime report, some arguments exist that inaccurate perceptions may exist regarding the overall safety and crime levels of higher education institutions (Nobles, 2012).

Theoretical Framework

The notions of crime and the Clery Act are salient aspects of campus safety and security. From the perspective of campus safety and security, the theoretical framework for this study is adapted from Maslow's Hierarchy Needs. The hierarchy represents progressive humans needs through time (Montana & Charnov, 2008). Fulfillment of the lowest needs is a requisite condition for satisfying the higher needs of the hierarchy (Montana & Charnov, 2008). Specifically, the second hierarchical level, dealing with safety and security needs, represents the theoretical foundation for this article. The security need is necessary after satisfying physiological needs (Montana & Charnov, 2008). If someone is unsafe, then progression to the succeeding hierarchical level is impossible (Montana & Charnov, 2008). The fulfilling of safety needs is necessary for the accomplishing of self-actualization (Montana & Charnov, 2008). Given these notions, safe campus settings are essential to facilitate learning among students, to facilitate safe work settings for personnel and visitors, and to promote the final, eventual achieving of self-actualization.

Relevant Literature

National studies of higher education crime were reflected in the reviewed literature. A 1994 study examined correlates of criminality regionally using 546 U.S. institutions of higher education (Sloan, 1994). All 50 states were represented within the accumulated data set (Sloan, 1994). The methodology involved descriptive methods, regression, and factor analysis (Sloan, 1994). The study showed high consistency among reported incidents of theft and burglary among the examined campuses (Sloan, 1994). Essentially, this outcome suggested that most campus criminality reflected theft incidents, but not necessarily events involving substantial violence (Sloan, 1994). Considerations of setting exhibited a significant relationship with total criminality,

crimes of violence, and offenses involving drugs or drinking (Sloan, 1994). Minority status exhibited some relationship with crimes of violence, drug and drinking incidents, and vandalism, but not with cumulative criminality or incidents involving drugs and drinking (Sloan, 1994). Considerations of academics exhibited some relationship with theft and burglary, and showed an inverse relationship with violence (Sloan, 1994).

Another state perspective involves a 2009 study that examined Virginia's higher education institutions (Barnes, 2009). This study examined 69 institutional campus law enforcement agencies among public higher education institutions in Virginia (Barnes, 2009). The purposes and inquiries of the study were to examine various facets of reported criminality and correlates of crime (Barnes, 2009). The outcomes of the study showed that campus criminality is unique for campuses, that alcohol is a substantial contributor to institutional criminality, and that the majority of reported crime events involves property crime (Barnes, 2009).

Campus safety has been examined as cases among the states and nationally. Regarding a state perspective, a 2013 study examined criminality among 34 higher education institutions in Missouri, four of which were research universities (Han, 2013). The examined period examined correlates of campus crime between the years 2006 and 2008 (Han, 2013). Measures of criminality included instances of "murder/non-negligent manslaughter, sex offenses—forcible, sex offenses—non-forcible, robbery, aggravated assault, burglary, motor vehicle theft, arson, illegal weapons possession (arrest), drug law violations (arrest), and liquor law violations (arrest)" (Han, 2013, p. 4). Using t-tests, correlation, and descriptive methods, it was shown that the most prevalent forms of Missouri's campus criminality were burglary and violations of drug and liquor laws (Han, 2013). Minority status and gender were not shown to be significantly correlated with criminality among Missouri's higher education campuses (Han, 2013).

A 2012 study examined higher education criminality from the perspective of geospatial location (Nobles, Khey, & Lizotte, 2012). This study investigated the case of a southeastern university by analyzing a total of 49,120 arrests throughout the period between 2003 and 2007 (Nobles, Khey, & Lizotte, 2012). Using regression, the study showed that campus arrests had a greater chance of occurring during the fall on Saturdays, primarily in conjunction with home football games, instead of other weekdays or during the spring (Nobles, Khey, & Lizotte, 2012). It was also argued that the Clery Act does not satisfy its "goal of transparency" for reporting crime among higher education settings because it portrays an inaccurate view of victimization chances (Nobles, Khey, & Lizotte, 2012). This perspective excludes criminal events that occur externally and nearby campus boundaries, but not within the boundaries of the academic setting [Nobles, Khey, & Lizotte, 2012, p. 1149]. Because such events are excluded (despite having the potential of affecting campuses and students), a "false sense of security" may be created for "campus residents and their families" [Nobles, Khey, & Lizotte, 2012, p. 1151]. Thus, greater attentiveness and analysis are necessitated regarding the external influences of criminality with respect to their influences toward stronger portrayals of campus safety (Nobles, Khey, & Lizotte, 2012).

Among higher education settings, a 2014 study examined higher education criminality from economic perspectives (Crouse, 2014). The study examined 2,860 observations that were obtained from 260 higher education institutions throughout the period encompassing the years

between 2000 and 2010 (Crouse, 2014). Using regression, the study examined potential interaction among police, enrollment, college, residential status, urbanization, and region with respect to overall crime within the higher education domain (Crouse, 2014). The outcomes of the study showed that for any “1% increase” of policing, the quantities of crimes tend to decrease by approximately -1.405% (Crouse, 2014, p. 65]. Regarding enrollment, any “1% increase in enrollment” tends to generate increased crime quantities by approximately 0.29% (Crouse, 2014, p. 65].

A 2017 study examined the interaction between certain types of societal criminality and enrollment among an array of land-grant institutions of higher education (Doss, et al., 2017a). Specifically, using regression and a 0.05 significance level, it was shown that statistical significance existed between societal aggravated assault and enrollment, but no statistical significance existed between societal sex crime and enrollment (Doss, et al., 2017a). The study encompassed the period between 2000 and 2010, and examined a total of 99 land-grant higher education institutions (Doss, et al., 2017).

Although the preceding studies provided some insight regarding facets of campus crime, they shed little light upon the differences that may exist between the criminality of general society and its corresponding institutions of higher education. However, Nobles (Nobles, Khey, & Lizotte, 2012) indicated the need for improved Clery reporting to accommodate characteristics of societal criminality that may affect higher education settings. Given these notions, this study examines the potential differences between societal criminality and campus criminality.

This study continues the lineage of articles that examine criminality within the context of the higher education domain. Recommendations for additional research within the preceding studies comprised the motivational basis for this study. Based on the reviewed literature, campus safety involves two considerations: 1) instances of criminality originating internally that affect higher education settings and 2) instances of criminality originating externally that affect higher education settings. Given these notions, Noble advocates additional consideration of external crime and its effects regarding Clery reporting aspects of academic institutions (Nobles, Khey, & Lizotte, 2012). Based on this recommendation, this study investigates whether a statistically significant difference exists between reported incidents of campus crime versus reported incidents of societal crime.

Materials and Methods

Data Sets

The data sets represented aggregate values of criminality for both land-grant institutions and society for the period encompassing the years 2001 through 2010. This period was selected because it represented the initial period of the twenty-first century for which data was readily available. Thus, this study represents a historical examination of crime among higher education settings versus societal criminality. Data sets for this study were obtained from two primary sources: Campus Safety and Security Database of the U.S. Department of Education (DOE) and the Uniform Crime Reports (UCR) archive of the Federal Bureau of Investigation (FBI). Data obtained from the DOE consisted of reported institutional crimes reflecting yearly campus

incidents of robbery, sex crimes, assault crimes, burglary, and motor vehicle theft at each campus included within the data set for this study. These individual campus report values were integrated to generate aggregated yearly quantities for each crime category. These items represented societal aggregate values annually for the crime categories of cumulative crime, robbery, sex crimes, assault crimes, burglary, and motor vehicle theft. With respect to societal crime values, commensurate annual categories were obtained from the UCR database and used in their aggregate form herein.

Research Question and Hypotheses

The primary research question examined within this study was: What is the difference between society and land-grant higher education institutions regarding annually aggregated incidents of reported criminality? Investigating this question necessitated the use of various hypotheses. The null hypotheses consisted of the following items:

H_{0,1}: No statistically significant difference exists between annually reported aggregates of crimes among higher education settings versus annually reported aggregates of crimes within society.

H_{0,2}: No statistically significant difference exists between annually reported aggregates of robbery crimes among higher education settings versus annually reported aggregates of robbery crimes within society.

H_{0,3}: No statistically significant difference exists between annually reported aggregates of sex crimes among higher education settings versus annually reported aggregates of sex crimes within society.

H_{0,4}: No statistically significant difference exists between annually reported aggregates of assault crimes among higher education settings versus annually reported aggregates of assault crimes within society.

H_{0,5}: No statistically significant difference exists between annually reported aggregates of burglary crimes among higher education settings versus annually reported aggregates of burglary crimes within society.

H_{0,6}: No statistically significant difference exists between annually reported aggregates of motor vehicle theft crimes among higher education settings versus annually reported aggregates of motor vehicle theft crimes within society.

The secondary inquiry examined the following notion: What is the potential strength of relationship between reported incidents of crime among higher education institutions versus reported societal incidents of crime? This question was applied to each of the preceding stratifications of campus versus society with respect to the crime categories of cumulative crime, robbery, sex crimes, assault crimes, burglary, and motor vehicle theft.

Population and Sample

The population and sample for this study represented a national amalgamation of land-grant universities that comprise the U.S. higher education system. Land-grant institutions of higher education were chosen as the population for examination because they have a common heritage, possess similar missions, and exist throughout the higher education system. The Smithsonian Institution indicates that a cumulative amount of 105 land-grant institutions exist within the U.S. higher education system (Smithsonian Institution, 2017). This overall group of educational institutions represented the population ($N = 105$) for the study. However, the DOE data source contained data only for the 50 states, but not any of the U.S. territories. Because of this absence, territorial land-grant entities were excluded from this study. Given the exclusion of territorial institutions, a total of 99 entities ($n = 99$) formed the sample within this study.

Scope and Limitations

The scope of this study represented a national examination of criminality involving land-grant institutions of higher education versus societal criminality within the 50 states. Thus, it has generalization potential within the American higher education system. The considered period encompassed the years 2001 through 2010. Although state institutions were incorporated within this study, territorial institutions were excluded within the analyses.

Reliability and Validity

Government sources were the origins of the data sets used within this study thereby enhancing reliability. Specifically, data showing criminality among higher education institutions was obtained from the Campus Safety and Security Database sponsored and maintained by the U.S. Department of Education. Data reflecting societal criminality was obtained from the Uniform Crime Reports database sponsored and maintained by the Federal Bureau of Investigation. The data sets were aggregated from reported instances of campus crimes that were reported annually among each separate higher education institution per the Clery Act. With respect to validity, the accumulated data is assumed to be a truthful portrayal of campus crime at each of the considered institutions of higher education.

Analytical Methods

The methodology for this study consisted of one-way, two-tailed analysis of variance (ANOVA). The significance level was .05 ($\alpha = .05$) for all hypothesis tests. The Omega-squared method was used to calculate effect size in conjunction with hypothesis testing.

Variables

Among the tested hypotheses, the dependent variable for this study represented crime status. For each of the tested hypotheses, the independent variable consisted of the societal versus campus incidents of crime for each of the examined crime categories. The crime categories

consisted of cumulative crime, robbery, sex crimes, assault crimes, burglary, and motor vehicle theft.

Results and Findings

Demographic findings for the land-grant institutions are given within Table 1:

Table 1

Crime at Higher Education Institutions

| Descriptor | Cumulative | Robberies | Sex Crimes | Assaults | Burglary | Motor Vehicle Theft |
|--------------------|------------|-----------|------------|----------|----------|---------------------|
| Mean | 4,614 | 265 | 333 | 337 | 3,210 | 469 |
| Standard Deviation | 558.07 | 38.57 | 30.39 | 41.27 | 450.37 | 114.28 |

Demographic findings for society are given within Table 2:

Table 2

Societal Crime

| Descriptor | Cumulative | Robberies | Sex Crimes | Assaults | Burglary | Motor Vehicle Theft |
|--------------------|------------|-----------|------------|-----------|-----------|---------------------|
| Mean | 21,357,490 | 419,547 | 92,163 | 854,756 | 2,170,836 | 1,100,297 |
| Standard Deviation | 991,227.34 | 24,198.77 | 3,099.24 | 36,739.88 | 33,184.04 | 198,186.37 |

All of the tested hypotheses showed statistically significant outcomes. Hypothesis testing outcomes are presented within Table 3.

Table 3

Hypothesis Testing Outcomes.

| Crime Type | F | F-Critical | p-value | Effect Size |
|---------------------|-----------|------------|-----------|-------------|
| Cumulative | 4,640.51 | 4.41 | 3.56E-23* | 0.9961 |
| Robbery | 3,002.09 | 4.41 | 1.76E-21* | 0.9940 |
| Sex Crimes | 8,778.43 | 4.41 | 1.16E-25* | 0.9979 |
| Assaults | 5,408.35 | 4.41 | 9.03E-24* | 0.9966 |
| Burglary | 42,660.92 | 4.41 | 7.83E-32* | 0.9995 |
| Motor Vehicle Theft | 307.96 | 4.41 | 9.08E-13* | 0.9447 |

Note: *Level of significance = .05 ($\alpha = .05$).

Each of the null hypotheses was rejected. Therefore, the analytical outcomes suggest that statistically significant differences exist between reported incidents of societal cumulative crime and campus cumulative crime, societal robbery and campus robbery, societal sex crimes and campus sex crimes, societal assaults and campus assaults, societal burglary and campus burglary, and societal motor vehicle theft and campus motor vehicle theft.

Discussion and Commentary

All of the tested hypotheses showed statistical significance. Thus, statistically significant outcomes occurred regarding societal versus campus incidents of cumulative crime, robbery, sex crimes, assault crimes, burglary, and motor vehicle theft. These findings supplement the arguments of Barnes (2009) regarding the uniqueness of campus crime and contribute toward satisfying the calling of Nobles, Khey, & Lizotte (2012) regarding a stronger understanding of external, societal criminality with respect to campus settings. Although higher education campuses are reflections of the society from which their residents are taken, the outcomes of this study suggest that their criminality is unique and differs from societal criminality.

Such notions may be considered from the demographic characteristics of higher education settings. Typically, one goes to college early in life to prepare for some type of occupational future. Thus, in general, higher education settings represent a chronological subset of society with respect to human age. The age characteristics of collegiate settings are weighed toward younger individuals who have relatively little life experience. However, society is comprised of all age demographics ranging from juvenile children to elderly adults experiencing their retirement years. Crimes within society may affect old and young alike ranging from juvenile incidents of shoplifting by minor children to incidents of financial fraud against senior citizens to swindle their savings and investments that were accrued over an entire lifetime. Such forms of criminality would be unexpected typically within higher education settings since most traditional students may range between 18 and 22 years of age. Given such notions, the findings of this study must be taken with a grain of salt. The data sets reflecting societal criminality did not segregate crimes based upon age categories. Instead, all reported crime was included within the aggregate values.

The data incorporated herein are no better than the individual reports gleaned from the participating institutions where the incidents occurred. Although presumed truthful, no guarantee exists that some incidents may not have been embellished, incorrectly categorized, or downplayed at the original sites before uploading to federal databases occurred. Additionally, much criminal activity within American society is unreported (Myers, 1980; Skogan, 1977). Thus, this study accommodates no estimates regarding unreported criminality. Reported criminality represents a thumbnail portrait of underlying issues that are unrevealed to law enforcement entities. The lack of completely accurate reporting exists for a variety of reasons. For instance, crime may not be reported because the victim may feel humiliated or embarrassed (Riedel & Welsh, 2016). In some cases, victims may fear retribution by offenders if the crime is reported (Riedel & Welsh, 2016). Other reasons include the opinion that reporting criminality is ineffective and that it may result in a negative public image (Day, 2015).

This study may also be considered from the perspective of public health. Crimes of violence are acknowledged as public health concerns (Dahlberg & Mercy, 2009). Higher education institutions are expected to be reasonably safe areas for individuals to work, study, and visit (Troxel & Doss, 2010). Within the context of student personnel theory, all decisions within the academic setting must contribute toward enhancing the best interests of students. Given these notions, when crafting security plans, higher education administrators may address campus safety operationally, tactically, and strategically. Administrators may render decisions that enhance safety and security. Examples include the use of security patrols to the use of emergency call boxes located tactically within campus settings (Doss, Glover, Goza, & Wigginton, 2015; Zacharie, 2009). Through such resources, administrators may attempt to curtail violence toward improving organizational public health within the academic setting.

One may also consider this study in the terms of transparency and responsibility with respect to campus safety. Dealing with criminality and enhancing campus safety is not solely the responsibility of academic administration among higher education campuses. Although leaders and administrators are certainly responsible for campus safety and are accountable to stakeholders, individuals and groups within the campus environment may also attempt to better security and safety. Throughout American society, external to college campuses, an array of neighborhood watch programs existed as safety and security measures among various communities (McElreath, et al., 2014). Higher education institutions are also communities wherein individuals work, learn, and live. Similar to external neighborhood watches, campuses may initiate some type of internal community watch programs among residential areas or class spaces to complement efforts of local campus police or security forces. Another approach may be to craft some form of partnership between the campus and the local community. For instance, during the 1990s, the Community-Campus partnership for Health was established for the goal of facilitating cooperativeness between campuses and communities, ranging from civic issues to health-related partnerships (Kecskes, 2006).

Time is rife with change. Although this study provides a period perspective of criminality, societal and technological change eventually influences the crimes that appear among campus settings. Each generation that experiences the halls of higher education has its own temptations and crimes. After all, speakeasies and automobile alcohol dispensaries operated illegally among or near collegiate settings during the Great Depression, but are now relegated to the pages of history (Funderburg, 2014). During modern times, cybercrime represents a new, emerging form of criminality that affects higher education settings within the virtual domain. Thus, any attempts to deter crime and maintain societal order among higher education settings must be adaptable and flexible to accommodate change through time.

Conclusions and Recommendations

This study provides some insight regarding societal versus campus criminality that supplements the existing literature. Future research may examine additional scenarios from the perspective of regression analysis or correlation to investigate the potential interactions and strengths of relationships between reported incidents of campus crime versus institutional enrollment or reported incidents of societal criminality versus institutional enrollment. These approaches may be examined from both enterprise and academic program perspectives.

Although this study examined land-grant institutions, additional studies may examine other institutional types, such as faith-based institutions, sea-grant institutions, Native American institutions, historically black colleges and universities (HBCUs) or any other academic specialty.

Future research may also consider the emergency management and policy aspect of campus safety. Given this notion, this study may be considered with respect to the emergency management cycle (EMC). The EMC is a reflexive, cyclical entity that accommodates phases of preparedness, mitigation, response, and recovery with respect to managing disasters (McElreath, et al., 2014). All institutions of higher education must enact some type of plan with respect to managing incidents that endanger the higher education setting. Given the outcomes of this study, higher education institutions may examine emergency management policies, plans, and programs that prioritize certain types of events that may have a greater chance of occurring among collegiate and university settings. The literature review showed that campus criminality is unique for each higher education environment (Barnes, 2009). Thus, identified threats may vary among higher education institutions. Basically, all higher education institutions must have some strategic plan for deterring criminality and enhancing campus safety.

Within this study, aggregate values for a superset of higher education institutions were incorporated within the analyses. No stratification of urban versus rural institutions was considered herein. Thus, among future research endeavors, differences between urban and rural institutions may be considered with respect to types and categories of reported criminality. Additionally, this study did not consider campus criminality with respect to geography. Future studies may examine reported incidents of criminality by segregating higher education institutions via their respective locations.

Another perspective of this study involves strategic management within the context of higher education institutions. Universities and colleges exercise some type of planning processes whereby strategic plan(s) may be crafted (Allen & Baker, 2012). Cumulative strategic plans may address campus safety issues (Rowley & Sherman, 2004). Similarly, strategic planning occurs among municipalities that incorporates aspects of public safety (Bryson, 2011). Given these notions, from a practical standpoint, higher education institutions may consider some type of strategic venture with their corresponding state or municipality to mutually contribute toward crime abatement and enhanced safety.

This study accommodated only a decade representing the opening of the twenty-first century. Although a decade of data is sufficient for a period study, future studies may expand the range of years examined analytically. It is recommended that future endeavors repeat this study using a greater range of years when data sets become available.

This study examined only the potential of differences between societal criminality and reported enrollment values. Future studies may examine whether differences exist between crimes reported within the campus versus enrollment. Additional studies may also investigate whether any interaction exists between certain forms of criminality versus enrollment.

The advent and proliferation of modern technologies heralded the committing of new types of criminality – cybercrimes. However, this study only examined crime from the context of

physical reality. Typically, motivations that underlie crime in physical reality also contribute toward the committing of crime in the virtual environment (Doss, Henley, & McElreath, 2013a; 2013b). Given these notions, it is recommended that future studies examine whether reported incidents of cybercrime have interaction with institutional enrollment.

The ethnicities of both the perpetrators and the victims were absent from the examined data set. Thus, this study did not consider any aspect of domestic versus international students as either the perpetrators or victims of crime. This study also did not incorporate any considerations of the perceptions of international students regarding criminality among higher education settings. Future studies may examine some stratification of domestic versus international students with respect to incidents of crime that occur internally within the collegiate setting or externally.

References

- Allen, J. & Baker, J. (2012). Building an institution worthy of its history: The Evergreen strategic plan at Widener University. *Planning for Higher Education, 40*(2), 48-58.
- Barnes, C. (2009). *Examining campus crime at Virginia's colleges and universities*. Doctoral dissertation. Richmond, VA: Virginia Commonwealth University.
- Bryson, J.M. (2011). *Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement* (4th ed.). San Francisco, CA: Jossey-Bass.
- Crouse, J. (2014). An economic analysis of campus crime and policing in the United States: An instrumental variables approach. *European Scientific Journal, 10*, 50-73.
- Dahlberg, L. & Mercy, J. (2009). History of violence as public health issue. *AMA Virtual Mentor, 11*(2), 167-172.
- Day, R.E. (2015). *Crime and the disabled*. Morrisville, NC: Lulu Press.
- Doss, D., Glover, W., Goza, R., & Wigginton, M. (2015). *The foundations of communication in criminal justice systems*. Boca Raton, FL: CRC Press.
- Doss, D., Henley, R., & McElreath, D. (2013a). The Arizona border with Mexico: A Pearson correlation coefficient analysis of U.S. border crossing data versus U.S. reported cybercrime incidents for the period of 2001-2011. *International Journal of Social Science Research, 1*(2013), 17-27.
- Doss, D., Henley, R., & McElreath, D. (2013b). The California-Mexican border: Investigating Pearson correlation coefficient outcomes representing U.S. border crossing data versus U.S. reported cybercrime incidents for the period of 2001-2011. *Mustang Journal of Law and Legal Studies, 4*(2013), 17-28
- Doss, D.A., Lackey, H., McElreath, D., Gokaraju, B., Tesiero, R., Jones, D., & Lusk, G. (2017a). Quantitatively assessing reported crime versus enrollment among selected higher education institutions. *Universal Journal of Educational Research, 5*(10), 1678 - 1683.
- Doss, D.A., Lackey, H., McElreath, D., Jones, D., Goza, R., & Sheffield, J. (2017b). Revisiting violence in rural academic settings: A school killing impacting Livingston High School and considerations of policy and programs. *Journal of Studies in Social Sciences, 16*(2), 155-191.
- Funderburg, J.A. (2014). *Bootleggers and beer barons of the prohibition era*. Jefferson, NC: McFarland & Company.

- Han, S. (2013). Frequency and correlates of campus crime: Missouri public post-secondary institutions. *International Journal of Education Policy & Leadership*, 8, 1-14.
- Kecskes, K. (2006). Behind the rhetoric: Applying a cultural theory lens to community-campus partnership development. *Michigan Journal of Community Service Learning*, 2006, 5-14.
- McElreath, D., Doss, D., Jensen, C., Wigginton, M., Nations, R., Van Slyke, J., & Nations, J. (2014). *Foundations of emergency management*. Dubuque, IA: Kendall-Hunt.
- McElreath, D.H.; Doss, D.A., Jensen, C.J., Wigginton, M., Kennedy, R., Winter, K.R., Mongue, R.E., Bounds, J., & Estis-Sumerel, J.M. (2013). *Introduction to Law Enforcement*. Boca Raton, FL: CRC Press.
- McElreath, D., Jensen, C., Wigginton, M., Doss, D., Nations, R., & Van Slyke, J. (2014). *Introduction to homeland security*. (2nd ed.). Boca Raton, FL: CRC Press.
- Montana, P.J. & Charnov, B.H. (2008). *Management*. (4th ed.). Hauppauge, NY: Barron's.
- Myers, S.L. (1980). Why are crimes underreported? What is the crime rate? Does it really matter? *Social Science Quarterly*, 61(1), 23-43.
- Nobles, M.R., Fox, K.A., Khey, D.N., & Lizotte, A.J. (2012). Community and campus crime: A geospatial examination of the Clery Act. *Crime and Delinquency*, 59, 1131-1156
- Ramirez, C.A. (2009). *FERPA clear and simple: The college professional's guide to compliance*. San Francisco, CA: Jossey-Bass.
- Riedel, M. & Welsh, W. (2016). *Criminal violence: Patterns, explanations, and interventions*. (4th ed.). New York, NY: Oxford University Press.
- Rowley, D.J. & Sherman, H. (2004). *Academic planning: The heart and soul of the academic strategic plan*. Lanham, MD: The University Press of America.
- Skogan, W.G. (1977). Dimensions of the dark figure of unreported crime. *Crime & Delinquency*, 23, 41-50.
- Sloan, J. (1994). The correlates of campus crime: An analysis of reported crimes on college and university campuses. *Journal of Criminal Justice*, 22, 51-61.
- Smithsonian Institution. (2017). *Campus and community*. Retrieved from: <http://www.festival.si.edu/2012/campus-and-community/Smithsonian>
- Troxel, S. & Doss, D. (2010, February). *American violence: A consideration of school violence and the Virginia Tech murders*. Presented to the annual meeting of the Association of Criminal Justice Sciences, San Diego, CA.
- Zacharie, M. (2009). Intelligent OkiKoSenPBX1 security patrol robot via network and map-based route planning. *Journal of Computer Science*, 5(1), 79-85.

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