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Assessing the Effect of Social Science Education on Punitive Attitudes

- Education generally reduces punitiveness.
- Social science students are relatively less punitive than non-social science students.
- The liberalization effect of higher education is conditional on the type of education.
- Criminal justice majors are atypical relative to other social science students.
- Social science education can be a powerful agent of social change.

Purpose: One of the most consistent predictors of punitiveness is education, with more educated individuals expressing less punitive sentiments. While much of the earlier research focused on the level of education, some researchers have recently begun to look more closely at the nature of that education such as examining the effect of specific majors on punitiveness. This paper goes even further by also analyzing more broadly the effect of a social science education on punitive attitudes.

Methods: This article presents results from an online survey of 4,000 undergraduate students attending a United States' university. Ordinary least squares analysis is used to examine the effect of majoring in the social sciences on support for punitive criminal justice policies, while controlling for a number of theoretically relevant variables.

Findings: We find that more educated students and those majoring in social science disciplines are generally less punitive than their counterparts. If we are to unburden ourselves of the intricately intermingled economic and social costs of mass incarceration, it will require a re-visioning of how we do justice in America. Social scientists can play a crucial role in this regard through focused research and in educating young people to be critical thinkers and thoughtful citizens.

Keywords:

Punitive attitudes, social science, education, criminal justice policy

1 Introduction

How people come to formulate their attitudes about crime and punishment is currently an important issue as the United States struggles with ever-mounting budgetary pressures that result from an overreliance on

incarceration as the primary means for addressing violent and nonviolent offenders. Over the past forty years, there has been unprecedented growth in incarceration rates with a 500 percent increase in the number of individuals serving sentences in state and federal institutions (Bureau of Justice Statistics (BJS), 1982; BJS, 2016). As a result, the United States leads the world in incarceration rates, with over two million individuals currently behind bars in local jails, state penitentiaries, or federal prisons¹ (Council of Economic Advisors, 2016).

While the most recent statistics on crime data did indicate an increase (3.9 percent) in the number of violent crimes perpetrated in 2015 compared to the previous year (Federal Bureau of Investigation, 2016), this rise should not overshadow the significant decreases in both violent and property crime rates since 2008, with declines of approximately 19-26 percent and 22-23 percent respectively (Pew Research Center, 2016).

Nonetheless, crime appeared to resonate with voters in the 2016 presidential election. According to a public opinion poll conducted after the election, the majority (57 percent) of all voters believed crime has worsened since 2008, with an overwhelming percent (78 percent) of those who voted for Mr. Trump expressing such beliefs (Pew Research Center, 2016). Despite the considerable decreases in violent and property crimes since 2008, the percentage of Americans who worry about crime has reached a 15-year high, with an estimated 53 percent expressing 'a great deal' of concern (David, 2016) and approximately 70 percent believing crime has increased from the level it was a year ago (Swift, 2016).

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These data highlight the importance of understanding the role specific types of education may play in shaping punitive attitudes. Over the last several decades, the United States has largely abandoned rehabilitation as a principal objective of penal policy. Instead, policies steeped in the goals of retribution, deterrence and incapacitation have gained unprecedented popularity. This, however, has come at tremendous social and economic costs. While there is some question as to the extent that public opinion informs public policy, research has suggested that its impact is substantial, particularly for publically salient issues (Burstein, 2003; Monroe, 1998). Thus, if we are to stem this punitive tide and replace it with policies that promote lower crime rates and safer communities, we will need to better understand how and why individuals come to support some crime control strategies rather than others. The university setting is a relevant context for exploring the formulation of personal attitudes and how and to what extent these attitudes may change in response to the unique experiences one is exposed to while in college. Following the lead of previous researchers (Falco & Martin 2012; Mackey & Courtright, 2000; Payne, Time, and Gainey, 2006; Tsoudis, 2000), our research goes beyond simply examining the effect of the level of education and more closely studies how the nature of the education one receives can impact support for punitive sanctions.

2 The context of punitiveness

Financially, the United States has witnessed a 324 percent increase (from \$17 billion to \$71 billion) in state and local correctional expenditures within the relatively short span of approximately thirty years (U.S. Department of Education, 2016). These expenditures include non-institutional (i.e., probation, parole, training of correctional employees, and the administration of correctional agencies) as well as institutional corrections for both adults and juveniles, though institutional operations account for the vast majority (73 percent to 80 percent) of these costs (Vera Institute of Justice, 2012). Additionally, from 1980 to 2016, the Federal Bureau of Prisons (BOP) experienced a substantial increase in annual appropriations (\$330 million to almost \$7.5 billion) and the size of its inmate population, which increased 700 percent (24,640 to almost 200,000) (U.S. Government Accountability Office, 2016). Significant monetary costs at both the federal and state levels are leaving comparatively less funds for such things as crime prevention, economic assistance, educational support, vocational training and other proactive programs that can potentially prevent crime before it occurs rather than reactive approaches that simply respond to crime after the harm has already been inflicted. In fact, in addition to being costly, reactive approaches such as institutionalization are ineffective (at least in terms of changing behavior) as is evidenced by five-year recidivism (reoffending) rates that hover around 75 percent (Bureau of Justice Statistics, 2014).

For some, the financial costs associated with punishing criminal offenders is disturbing under the best of

economic circumstances, however, in the shadow of the recent economic recession and the financial uncertainties that still loom, they are arguably even more problematic. Several states, including California, Illinois, New York and New Jersey, have prison expenditures that exceed one billion dollars (Vera Institute of Justice, 2018). Substantial debt obligations (\$118.17 billion, \$35.55 billion, \$58.32 billion and \$41.84 billion respectively) (Norcross & Gonzalez, 2016) render these costs unsustainable and necessitate a search for more efficient and cost-effective ways of dealing with criminal offenders.

In addition to the monetary costs of what Austin and Irwin (2012) aptly call our 'imprisonment binge,' society has been burdened with hefty social costs associated with punitive criminal justice policies focused on incarceration and characterized by high recidivism rates. These costs have not been equally shared however, as our criminal justice policies have tended to disparately and negatively impact racial minorities and those from lower socioeconomic classes (Alexander, 2010; Reiman & Leighton, 2012). For instance, Blacks and Hispanics are disproportionately represented in the criminal justice system, accounting for 50 percent of the incarcerated population, yet comprising approximately 30 percent of the general population (Council of Economic Advisors, 2016). With escalating incarceration rates, poorer communities have experienced increases in the number of single, female-headed households and an influx of young, mostly minority, males who return from jail or prison stigmatized and with little or no employment opportunities and for whom crime may be a viable alternative (Western & Pettit, 2010).

The number of people in jails and prisons, however, is only one indicator of a punitive justice system. And, there is some evidence that the over-reliance on mass incarceration as the primary strategy for addressing criminality is on the decline, as both the federal government and individual states are now looking for more cost-effective ways of addressing criminal behavior. In fact, since 2007 over half of the U.S. states have developed policies that are aimed at reducing the prison population by reserving prison space for violent and career criminals while relying on alternative correctional strategies (e.g. pretrial release, probation) for less serious offenders. As a result, in 2014 the U.S. experienced the first simultaneous decline in both state and federal prison populations since 1978, reducing the inmate population by 15,000 inmates and bringing the current prison population to its lowest level since 2005 (Pew Charitable Trusts, 2015). Other salient measures of system punitiveness include sentence length, the availability of rehabilitation programs within prison, the existence, use and scope of the death penalty and punishing juvenile offenders as adults. And by all these measures, it is clear that the U.S. criminal justice system still exhibits a great deal of punitiveness.

Due to recent budgetary constraints that have affected federal, state and local governments and the various social costs associated with our current criminal justice policies, the time, then, may be ripe for finding less ex-

pensive and more effective ways of administering punishment within the United States. To do so, however, it will be necessary to overcome public resistance to what will undoubtedly be portrayed and politicized by some as a coddling of criminal offenders. In fact, results from public opinion polls suggest that a majority of Americans support harsher criminal justice practices and are arguably willing to invest more resources in doing so. For example, data from the most recent General Social Survey demonstrate that 56 percent of Americans believe that local court systems are not implementing harsh enough sentences to offenders. Additionally, citizens perceive inadequate spending on criminal justice resources, with approximately 66 percent of Americans believing that the U.S. is not spending enough money on decreasing or stopping rising crime rates and 53 percent indicating that the nation spends 'too little' on law enforcement (Smith, Marsden, Hout, & Kim, 2016). Furthermore, both the Gallup Poll and the General Social Survey found that a majority of Americans (60 and 58 percent, respectively) still support capital punishment (Jones, 2016; Smith et al., 2016). What is not clear from such statistics is whether this support for imposing more severe punishments are rooted in accurate knowledge of current criminal justice practices or whether these positions are formulated in response to sensationalized and stereotypical media representations, political rhetoric or other sources of criminological myths. Social science education, thus, can play a critical role in ensuring that perceptions of crime are rooted in empirical evidence rather than these unreliable sources.

3 Review of the literature

Extant research examining punitive attitudes has focused on the effect of a variety of theoretically derived variables such as media consumption, fear of crime, criminal victimization, racial prejudice, and economic insecurity, as well as numerous demographic variables either as primary predictors or control variables (Butter, Hermanns & Menger, 2013; Roberts & Indermaur, 2007; Roche, Pickett & Gertz, 2016; Steiner, Sarat & Bowers, 1999; Van Kersteren, 2009). Of these demographic variables, education is a consistent predictor of punitiveness. Specifically, those with more education regularly demonstrate less punitiveness than those with lower levels of educational attainment (Kohm, Waid-Lindberg, Weinrath, Shelley & Dobbs, 2012; Shelley, Waid & Dobbs, 2011). While much of the earlier research focused on the *level* of education, generally measured either in years or highest academic degree achieved, more recently some researchers have begun to look more closely at the nature of that education. Specifically, a number of studies have examined whether majoring in criminal justice influences the level of punitiveness an individual expresses. Unfortunately, a clear-cut answer does not emerge from the current literature examining this relationship. For instance, while several studies found that criminology and criminal justice (CCJ) majors were less punitive than non-criminal justice majors (Falco & Martin, 2012; Payne, et al., 2006; Tsoudis, 2000), others

found CCJ majors to be more punitive (Mackey & Courtright, 2000; Shelley et al., 2011). We build upon this latter body of literature by not only looking at differences in punitiveness between CCJ majors and non-CCJ majors but also more broadly examining the effect of education by assessing the influence of the six specific academic colleges within which those majors are located within the university. Specifically, we test whether those who are further along in their education, those studying within the college of social and behavioral sciences, and those majoring in CCJ are less punitive than their counterparts.

This research seeks to address some of the methodological issues that have plagued previous studies. First, many studies in this area have relied on nonrandom samples (i.e., Mackey & Courtright, 2000; Shelley et al., 2011; Tajalli, De Soto & Dozier 2013; Tsoudis, 2000). Nonprobability samples are prone to several weaknesses including sampling bias. In other words, it is unclear that the students who participated in these studies are truly representative of the larger population from which they are drawn. As such, the use of a probability sample in our study intends to significantly improve upon prior research and reduce bias, leading to a sample that is more likely to be representative of the population it is drawn from, and allowing for increased precision in statistical analyses (Alreck & Settle, 2007; Maxfield & Babbie, 2015). Moreover, the use of a probability sample combined with a large sample size ($n=760$) allows us to carry out analyses that are statistically more sound than those conducted in some of the prior research and thereby improving the generalizability of the study results.

Furthermore, the current research improves upon the measurements used to assess punitiveness in prior studies. For instance, several studies have grouped attitudes toward policies concerning adult and juvenile offenders into a single scale (Selke, 1980; Shelley et al., 2011) when real differences may exist in regards to how we punish them (Tsoudis, 2000). The current research addresses this issue by creating two separate indices in order to independently assess attitudes toward adult and juvenile offenders. Furthermore, previous aggregate measures of punitiveness have consisted of a range of issues that may obfuscate genuine levels of punitiveness. For instance, Shelley et al., (2011) used an 11-item scale, which included asking respondents to indicate their level of support for the use of chemical castration for sex offenders. The inclusion of such items in a scale may be problematic as past research demonstrates that different types of offenders and crimes (e.g. child molestation and sexual offenders) tend to elicit exaggerated punitive responses (De Soto & Tajalli, 2016; Rogers & Ferguson, 2011). On the other hand, some respondents may possess a relatively punitive disposition but are uncomfortable declaring such support on a survey, regardless of promises of anonymity or confidentiality. Either way, the nature of this statement may limit the ability to draw any firm conclusions. The current study seeks to overcome this issue through the use of a more general index absent of measures that may arouse extreme sentiments.

Finally, when examining the relationship between majoring in CCJ and punitive attitudes, several studies have failed to identify the specific majors included in the classification of 'non-CCJ majors,' while others have relied on a sample of students drawn from closely related majors or enrolled in courses within the social sciences (i.e. psychology and sociology) and liberal studies (Falco & Martin, 2012; Shelley et al., 2011; Selke, 1980; Tsoudis, 2000). While the argument that, as elective requirements, sampling from these courses may provide representation of diverse majors, analyses limited solely to the dichotomization of 'CCJ' majors and 'non-CCJ' majors, without taking into account the primary educational focus of these 'non-CCJ' majors, does little to expose the relationship between the nature of education and its influence on punitive attitudes. For instance, does education in the 'hard sciences' or STEM programs have a similar effect on punitive attitudes as does an education based on the social sciences? By examining the influence of the different university, academic colleges, we hope to provide more insight into the relationship between punitiveness and the type of education an individual receives. More focused analysis could further demonstrate that the presumed 'liberalizing effect' of education is at least partly conditional on the nature of that education, which would be a significant contribution to the current body of research that examines the relationship between education and punitiveness.

4 Theoretical framework: Education and punitiveness

In a seminal article on the relationship between moral panics and ideology, Chiricos (1996) argues that moral panics are often initiated and sustained by the promulgation of negative ideology. That is, in an effort to mobilize public action in the furtherance of some particular interest, public discourse about the perceived problem misunderstands, misperceives, or distorts the nature and severity of the problem. In fact, Larrain (1983) argued that all ideology is necessarily negative in that in the very least it distorts or exaggerates the universality of the problem. That is, to mobilize public action it is imperative to demonstrate that the problem at hand is salient to many. This tends to be the case when addressing the issue of crime. The media, politicians and other pundits often provide descriptions of the crime problem in the United States that are inaccurate or distorted. Whether it is to advance one's political aspirations by claiming to be the 'law and order' candidate, or whether it is to increase viewership or readership of certain news outlets, representations of crime are not always predicated on empirical evidence. Such representations tend to suggest, explicitly or implicitly, that crime is more widespread than what may actually be true for most people. In the absence of more empirically sound knowledge, it is likely that such portrayals of crime are accepted uncritically and unconditionally by many.

While education has been established as a consistent predictor of punitive attitudes, only recently have scholars began to assess the influence specific majors may have on such sentiments. It is reasonable to expect

that those who are more educated, more informed about social justice issues, and who are encouraged to think about these issues more critically may be less likely to rely on sensationalized and stereotypical media representations of crime and punishment, political rhetoric and other sources of criminological myths and folklore. Criminology majors and other social science majors are believed to have greater knowledge of crime, its prevalence, and its myriad of potential causes, while others may simply rely on individualistic explanations that tend to see crime as little more than a choice that can be deterred by simply increasing the severity of punishment.

While we suspect that CCJ and SBS majors demonstrate less punitiveness due specifically to their increased knowledge on the topic, we also suspect that education, generally, produces less punitiveness. The latter is generally referred to as the 'liberalization effect' of education and suggests that education broadly makes people less conservative in their social and political views (see Feldman & Newcomb, 1969; Hyman & Wright, 1979; Pascarella & Terenzini, 1991 & 2005; Selzincik & Steiberg, 1969).

5 Methodology

Given the reviewed literature and the above theoretical considerations, in this study we test three primary hypotheses:

- 1) Seniors will demonstrate less punitiveness than non-seniors².
- 2) Those whose major is located within the College of Social and Behavioral Sciences will be less punitive than students majoring within other colleges.
- 3) Declared criminology and criminal justice (CCJ) majors will be less punitive than non-CCJ majors.

Each hypothesis is derived from the theoretical expectation that those with more education, measured by the student's academic level and status as a 'senior', and those with greater exposure to and knowledge of criminal and social justice related issues, measured by student's college and major, are less punitive than those who may be less knowledgeable. If true, it seems reasonable to expect seniors, those majoring in social and behavioral sciences' programs and CCJ majors to be more knowledgeable and thus less punitive. The first hypothesis is based on the liberalization effect. Some have suggested the university/college experience generally engenders more liberal attitudes, regardless of the nature of education one receives (Feldman & Newcomb, 1969; Hyman & Wright, 1979; Pascarella & Terenzini, 1991 & 2005; Selzincik & Steiberg, 1969). In regards to punitiveness specifically, the hypothesis is derived from extensive prior research that has found higher educated individuals to have significantly less punitive attitudes than those with less education (Falco & Martin, 2012; Mackey & Courtright, 2000). As for the second hypothesis, we argue that those who have declared majors in more social science based disciplines like socio-

logy, political science, psychology and criminology have greater exposure to and a better understanding of social justice related topics and are therefore less punitive than those in the physical sciences, technology, engineering, and math (STEM) programs and those majoring in business, who generally do not have the same level of engagement with social science content. Regarding the third hypothesis, while consistent with our theoretical framework, it bears reiterating that prior research has found mixed results regarding this relationship, with some studies finding greater punitiveness among criminology students (e.g., Mackey & Courtright, 2000; Shelley et al., 2011) while others finding them to be less punitive (e.g., Falco & Martin, 2012; Payne, et al., 2006; Tsoudis, 2000).

The data for this study were generated by an online survey sent to a random sample of 4,000 undergraduate students who were attending a Southwestern university in the fall of 2013. The 4,000 names were randomly selected from the names of all undergraduate students who were enrolled as full-time, on-campus students (approximately 16,000 students). The randomly selected students were contacted through their university email addresses and were asked to participate in an online survey concerning important societal issues. Subsequently, we received 760 completed surveys, resulting in a completion rate of approximately 19 percent. As is typical in survey research (Lavrakas, 1987; Shelley et al., 2011), females and whites were overrepresented in our sample as were freshmen.

5.1 Dependent variables: Punitiveness

In an attempt to build upon the current body of literature, we also address pointed criticisms of previous research that have employed punitive indices that aggregate attitudes toward criminal justice policies aimed at adults with juvenile specific policies. It is certainly reasonable that individuals may possess substantially different attitudes depending on the target population of the policy. In fact, Tsoudis (2000) found that CCJ majors demonstrate greater punitiveness toward adults than they did toward juveniles. Therefore, in an effort to better disentangle these potential differences, we have two distinct outcome measures: a general measure of punitiveness and a juvenile specific measure. For both measures, respondents were asked to indicate on a scale of one to ten, with one (1) being the least support and ten (10) being most support, how much would you support each of the following proposals. The first, (GENPUN), is an index with a range of 5-50 (Chronbach alpha = 0.74), consisting of the five policies that did *not* explicitly address juveniles:

- 1) Put more police on the streets, even if it means higher taxes
- 2) Make sentences more severe for all crimes
- 3) Limit appeals to death sentences
- 4) Make prisoners work on chain gangs
- 5) Take away television and recreational privileges from prisoners

The second measure (JUV-PUN) is a three-item index with a range of 3-30 (Chronbach alpha = 0.76), which indicates the degree of support for three juvenile specific policies:

- 1) Locking up more juvenile offenders
- 2) Sending repeat juvenile offenders to adult court
- 3) Death penalty for juveniles who murder

5.2 Primary independent variables: Education

We examine the effect of three primary independent variables: (1) student's level of education, (2) student's college, and (3) whether the respondent was a CCJ major. Official institutional data were used for each of these three independent variables. Finally, academic level was determined by the number of academic unit hours completed: freshman (0 - 29 units), sophomores (30 - 59 units), juniors (60 - 89 units), and seniors (90 or more units). We then created a dichotomized variable SENIOR (senior = 1; non-seniors = 0). There are 91 different academic majors housed in six academic colleges at the university under study. College of study was determined by which academic college the respondent's declared major was housed. The six colleges within the university are: the College of Social and Behavioral Sciences (SBS), the College of Arts and Letters (CAL), the College of Education (COE), the College of Engineering, Forestry, and Natural Sciences (CEFNS), the College of Health and Human Services (CHHS), and the College of Business (FCB). For Ordinary Least Square (OLS) regression models, we created dummy variables for each college. In respect to CCJ majors, because we were only interested in specifically comparing CCJ majors with those who are majoring in other fields, we created a dichotomized variable (CCJMAJOR) simply identifying whether the respondent was a declared CCJ major (CCJ major = 1; non-CCJ major = 0).

5.3 Control variables

We also control for a number of relevant demographic variables as identified in prior literature as predictors of punitiveness, including sex, age, race/ethnicity, political ideology as well as two dimensions of crime salience: concern about crime and prior household victimization. Sex is a dichotomized variable, FEMALE (1= female), AGE is a continuous variable measured in years, and RACE/ETHNICITY is based on how the student participants self-identified at the time of their enrollment in the university. For inferential analysis, race/ethnicity was recoded into a number of dummy variables for whites, blacks, Hispanic/Latinos, and 'others.' Based on prior research, we expect females will be less punitive than males and blacks and Hispanics/Latinos will possess less punitive attitudes than whites (Blumstein and Cohen, 1980; Gramsick and McGill, 1994; Rossi and Berk, 1997).

Political conservatism has been identified as one of the primary architects of today's 'culture of control' (Garland, 2001) and prior research has consistently shown conservatives to demonstrate significantly more punitive attitudes than more liberal leaning individuals

(Chiricos et al., 2004; Costelloe, Chiricos & Gertz, 2009, Mackey & Courtright, 2000; Tajalli, et al., 2013). Therefore, we include a measure of political party identification (CONSERVATIVE) as a control variable, which was measured by asking participants if they considered themselves to be: (1) a 'Strong Democrat,' (2) 'Not so strong Democrat,' (3) 'Independent leaning Democrat,' (4) 'Independent,' (5) 'Independent leaning Republican,' (6) 'Not so strong Republican,' or (7) 'Strong Republican.' Higher scores on this measure indicate a more conservative disposition. The authors recognize the limitations of asking respondents to self-identify political party and/or political leanings (conservative/ liberal) as young survey respondents may not necessarily share a common sense of what the various labels mean. Best practice in this regard is to ask respondents to indicate their opinion on a variety of social issues that tend to have traditional conservative/liberal associations (i.e. welfare/public assistance for the poor, health care and the military). However, because the survey was administered just months prior to the 2016 presidential election year, we believed that party identification as a Republican, Inde-

pendent or Democrat was relatively more salient at the time.

Because prior research shows that crime salience is an important predictor of punitive attitudes (Costelloe et al., 2009), we include three measures of crime salience. Two measures pertained to a respondent's concern about crime and one measure assessed prior household victimization. Concern was measured by asking respondents to specify 'On a scale from one (1) to ten (10), with one (1) being NOT AT ALL CONCERNED and ten (10) being VERY CONCERNED, how concerned are you about crime in the U.S (CONCERNUS) and how concerned are you about crime in this state (CONCERNST). Prior household victimization (VICTIM) is a dichotomous variable measured by asking respondents whether they or anyone in their household had been the victim of a crime in the past year (1 = yes).

Table 1 provides a description of each of the variables used in the analyses along with their means, standard deviations and bivariate correlations with the dependent variable, GENPUN.

Table 1: Description of Variables

Variable	Mean	S.D.	<i>r</i> GENPUN		Description
PUNITIVE	36.00	15.40	1.00		R's punitive attitude score (index, alpha = 0.83)
AGE	20.32	3.24	-0.037		R's age
FEMALE	0.65	0.48	0.004		R is female
WHITE	0.69	0.46	0.006		R is white
BLACK	0.03	0.17	-0.065	*	R is black
HISPANIC	0.15	0.36	-0.003		R is Hispanic
OTHER	0.12	0.20	-0.002		R is other race/ethnicity
CONSERVATIVE	4.68	2.41	0.149	**	R's conservatism
CONCERNST	5.92	2.31	0.308	**	R's concern about crime in state
CONCERNUS	6.09	2.17	0.333	**	R's concern about crime in U.S.
VICTIMIZATION	0.31	0.46	0.013		R experienced a household victimization
CCJMAJOR	0.06	0.24	-0.012		R's is CCJ major
SBS	0.27	0.44	-0.137	**	R is in the College of Social & Behavioral Sciences
COLLEGE OF ED	0.25	0.16	-0.040		R is in College of Education
ARTS/ LETTERS	0.12	0.32			R is in College of Arts & Letters
ENGINEERING/FOREST/ NATSCI	0.34	0.47	0.082	*	R is in College of Engineering, Forestry and Natural Sciences
BUSINESS	0.12	0.32	0.096	*	R is in College of Business
HEATH SCIENCE	0.06	0.25	0.095	**	R is in College of Health Sciences
SENIOR	0.22	0.42	-0.075	*	R is a senior

p* < 0.05 *p* < 0.01

6 Analysis and research results

The data are analyzed using ordinary least squares (OLS) regression and the results of the multivariate regression for punitive attitudes toward crime are found in Table 2. Here we present both the unstandardized (*b*) and standardized coefficients (β) for the full sample and for both dependent variables. Looking first at our general measure of punitiveness and examining the demographic variables, we find that among these respondents, age is not statistically significant. However, blacks, and non-

Hispanic 'others' were significantly less punitive than whites. Consistent with the prior literature, conservative students express significantly more punitive attitudes than those who consider themselves more liberal. As for crime salience, concern about crime in the study state and in the United States are both predictive of punitiveness, with those who are more concerned supporting more punitive policies. Prior household victimization was not significantly related to harboring punitive attitudes.

Table 2: Full Sample: OLS regression of general punitiveness and juvenile specific punitiveness on education and control measures

Variable	GENPUN			PUNJUV		
	<i>b</i>	β		<i>b</i>	β	
AGE	-0.09	-0.03		-0.10	-0.05	
FEMALE	-1.63	-0.08	**	-1.18	-0.08	**
ETHNICITY (dummy variable, white)						
BLACK	-5.14	-0.08	**	-2.90	-0.07	**
HISPANIC	-1.21	-0.04		0.38	0.02	
OTHER	-2.01	-0.06	*	1.11	0.05	*
CONSERVATIVE	0.49	0.11	***	0.39	0.14	***
CONCERNST	0.55	0.12	**	0.35	0.12	**
CONCERNUS	1.30	0.26	***	0.52	0.16	***
VICTIMIZATION	0.59	0.03		0.21	0.02	
CCJMAJOR	4.78	0.11	***	-1.32	-0.04	
COLLEGE (dummy variable; SBS)						
EDUCATION	1.01	0.02		-1.30	-0.03	
ARTS AND LETTERS	1.39	0.04		0.03	0.00	
ENGINEERING/FOREST/NATSCI FORESTRY	4.16	0.19	***	1.87	0.13	***
BUSINESS	4.94	0.16	***	3.35	0.16	***
HEALTH SCIENCE	5.39	0.13	***	2.79	0.10	***
SENIOR	-2.03	-0.08	**	-0.59		
Constant	8.70			8.11		
Adjusted R-Square	0.16			0.12		
N	619			622		

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Regarding our primary independent variables, we begin by noting that consistent with hypothesis one, seniors are significantly less punitive than non-seniors while controlling for other key predictors. When examining the other two dimensions of education (college and majoring in CCJ), we also find educational effects on punitiveness, though only one in the direction that was hypothesized. First, looking at the effect of the college where a respondent's major is located, we find that individuals majoring in programs located in engineering, forestry and natural sciences, health sciences and business are significantly more punitive than those majoring in SBS programs, which is consistent with hypothesis two. In fact, when we examine the standard coefficients, we see that they are among the strongest predictors of support for punitive policies, with concern about crime in the United States the only predictor that had a stronger effect. However, it should also be noted that those who are majoring in education and arts and letters were no different in terms of their punitiveness relative to SBS students, which was inconsistent with what hypothesis two predicted. Finally, we find that contrary to hypothesis three, students majoring in criminology and criminal justice are not less punitive than non-majors, and are, in fact, significantly more punitive than non-CCJ majors.

When examining the juvenile-specific dependent variable, we see that there are two notable differences compared to the findings above. First, there is no statistically meaningful difference in punitiveness towards juvenile offenders. Also, CCJ majors are no more supportive of punitive policies when those policies are directed toward juveniles than are non-CCJ majors, which was

somewhat surprising in light of the above result that that indicated that CCJ majors are actually more punitive toward adult offenders. However, when examining the dummy variables for college, those in engineering/forestry, business and health sciences once again proved to be more punitive than their SBS counterparts.

Table 3 summarizes the regression estimates for the effect of education on punitive attitudes for a subsample of seniors only. Theoretically, we should expect attitudes of SBS and CCJ seniors to be noticeably different than their respective counterparts if increased exposure to justice related issues tempers support for punitive policies. However, in regards to non-juvenile specific policies, we find different effects for SBS seniors generally compared to CCJ seniors, specifically. The effect of college is consistent with what was found for the full sample, in that SBS seniors are less punitive than seniors in engineering/forestry, business and health sciences and are not significantly different than their peers in education and arts and letters. Criminology and Criminal Justice seniors were not statistically more punitive than non-CCJ seniors at the .05 alpha level but does reach significance at a more liberal significance level of .10. However, while not statistically significant at the traditional .05 alpha level, there is some reason to believe that this may simply be due to a small sample size of criminology and criminal justice seniors ($n = 48$). When sample sizes are small, only very large effects tend to achieve statistical significance. Therefore, we are careful not to speculate too much about this result. Finally, the effect of education on punitiveness toward juveniles is limited to the finding that business seniors are more punitive than SBS seniors.



Table 3: Seniors Only: OLS Regression of General Punitiveness and Juvenile Specific Punitiveness on Education and Control Measures

Variable	GENPUN			PUNJUV		
	<i>b</i>	β		<i>b</i>	β	
AGE	-0.24	-0.10		-0.10	-0.07	
FEMALE	-2.53	-0.12		-.43	-0.03	
ETHNICITY (dummy variable, white)						
BLACK	-17.17	-0.14	*	-7.03	-0.09	
HISPANIC	-1.31	-0.04		3.79	0.17	*
OTHER	-1.61	-0.04		-.03	0.00	
CONSERVATIVE	0.70	0.16	**	0.66	0.23	*
CONCERNST	1.27	0.28	*	0.26	0.09	
CONCERNUS	.729	0.16		0.48	0.16	
VICTIMIZATION	3.57	0.17	**	1.93	0.14	*
CCJMAJOR	7.09	0.14	*	-1.66	-0.04	
COLLEGE (dummy variable; SBS)						
EDUCATION	-.35	-0.01		-3.29	-0.07	
ARTS AND LETTERS	2.77	0.09		1.43	0.07	
ENGINEERING/FOREST/NATSCI	3.86	0.17	**	.09	0.01	
BUSINESS	7.65	0.24	***	4.72	0.23	*
HEALTH SCIENCE	8.07	0.19	**	-1.13	-0.41	*
Constant	2.37			3.54		
Adjusted R-Square	0.21			0.13		
N	137			139		

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

7 Discussion and conclusion

Previous research has found education to be a strong and consistent predictor of social and political attitudes (Kohm et al., 2012; Shelley et al., 2011). The results of this study do little to dispel this general conclusion, particularly when examining non-juvenile specific policies. In fact, this study finds that the effect of education varies depending on the actual policies that are presented. Namely, the impact of education on punitive attitudes is more evident and consistent when examining non-juvenile specific policies, while there is less consistency, and thus less clarity, regarding juvenile specific policies. Because of this, we largely limit further discussion of the effect of education on punitive policies specific to adult offenders. In regards to attitudes toward adult offenders, then, the results presented above support the following conclusions in terms of our three hypotheses:

- 1) Education, generally conceived, has a liberalization effect when assessing punitiveness toward adults.
- 2) The effect of education on punitiveness is conditioned by the type of education one receives.
- 3) CCJ majors are atypical relative to other social science students when assessing the effect of increased knowledge of criminal and social issues on support for criminal justice policies.

That more educated people are less punitive is generally a valid statement when simply assessing the

effect of the *level* of education on punitiveness. There are two plausible explanations for the correlation between education and punitiveness. The first explanation focuses on what can be termed as an importation effect. This suggests that people who come to higher education already possess a fairly well-developed set of relatively liberal political and social attitudes, which does not change much over the course of their college or university careers. The second explanation looks to the socializing effect of higher education, and suggests that attitudes do indeed change over time due to exposure to education. This is generally referred to as the liberalization effect as described earlier in this paper. The dominant explanation for why students become more liberal with increased exposure to higher education tends to focus on the critical thinking skills that college students are trained to develop and use. With more education and greater knowledge, it may become increasingly untenable for individuals to retain simplistic ideas about the social world. They are encouraged to consider whether such beliefs as 'all welfare recipients are lazy' or 'all criminals are evil' are simply convenient overgeneralizations. Moreover, students are taught to assess such ideas in light of empirical evidence and social theorizing rather than simply whether it comfortably coincides with their own worldview.

However, there is no reason to believe that these two primary explanations, importation and liberalizing, are mutually exclusive as they can both certainly be true. Those who enter higher education can be more liberal



when compared to their non-university attending counterparts, yet still become even more so throughout their educational careers. Due to the lack of a comparison group, we are unable, however, to make any determination about the possibility of a general importation effect. The current study, though, does lend support to the notion of a generalized liberalization effect in that as our first hypothesis suggested it found seniors less punitive than non-seniors, while controlling for academic discipline.

While seniors were less punitive, we would be mistaken to presume that all seniors experience university instruction in the same way. As put forth in hypotheses two and three, we believe that the kind of education one receives is also important. To investigate this more thoroughly, then we examined the effect of education among a sample of seniors only (see table 3). By doing so, we are better able to test whether type of education, above and beyond merely the level of education, is also predictive of punitive attitudes. To put another way, we examine whether the effect of the level of education interacts with the type of education in elevating or decreasing punitiveness.

When more closely scrutinizing the impact of the *nature* of education, an even more nuanced understanding of the impact of education emerges. In fact, we find that seniors, like all respondents have different attitudes toward criminal justice policies, depending on what type of education they are actually receiving. Specifically, those majoring in the social sciences, arts and letters, and education demonstrate less support for more severe policies at least when it comes to non-juvenile offenders. On the other hand, those who major in what can be described as STEM programs (engineering, forestry, and natural sciences and health sciences) as well as business and CCJ majors were more supportive of punitive justice policies. Such findings support the contention that the nature of education is as important, and maybe even more important, than the level of education.

There are generally two prevailing thoughts about the relationship between education and social attitudes. The first argues that this relationship is explained by a process of self-selection. That is, people will be drawn to those disciplines that more closely match their ideological dispositions (Ma-Kellams, Ruiz, Lee & Madu, 2014). The second explanation for the discipline-attitudes link centers on the socialization process that accompanies specific areas of study. That is, different academic disciplines are founded upon a distinct set of domain assumptions, and students within these disciplines will gradually become more oriented toward those value and beliefs (Paz-y-Mino & Espinosa, 2009). One way to better disentangle the relative contributions of self-selection from discipline-specific socialization effects of higher education for a cross-sectional study is to examine differences in the levels of punitiveness for each group across and within academic levels (i.e., freshmen versus seniors). For example, if there is a self-selection effect, in that people with particular beliefs are attracted

to particular types of majors (i.e., more liberal students are attracted to the social sciences), we should find different levels of support for punitive policies among freshmen across the various academic colleges of their chosen majors. An analysis of variance found that besides one notable exception there are no statistical differences in mean level of punitive attitudes across different majors when examining freshmen students, exclusively. In other words, it appears that freshmen come to this university with relatively similar attitudes toward justice related policies and there is no evidence of a process of self-selection, at least among freshmen. The one glaring exception to this result was that freshmen who are majoring in CCJ were significantly more punitive than non-CCJ freshmen. Therefore, that there are few differences among freshmen but clear variation among seniors by academic college suggests that the results of this study are better explained by socialization effects and indicates that the nature of education may be an important determinate of the degree to which individuals will harbor and express punitive sentiments. Contrary to hypothesis three, those majoring in CCJ were not significantly less punitive than those who are majoring in other fields; in fact, when looking at policies aimed at adults, they were even more punitive. While CCJ majors prove to be atypical relative to other SBS students in demonstrating greater levels of punitiveness, it is not altogether surprising in light of prior research that has also found no effect or has found them to be even more punitive than others (Mackey & Courtright, 2000; Shelley et al., 2011). Common explanations for CCJ majors possessing greater support for punitive policies focus on the characteristics of the type of students who are attracted to the criminal justice field. Students who wish to pursue a career in law enforcement, corrections or courts may come to the university possessing a more conservative disposition or may simply support a stringent 'law and order' approach when it comes to addressing criminal offenders. Moreover, a number of previous studies have found CCJ students are not only more punitive but also more ideologically rigid and more authoritarian (Austin & O'Neill, 1985; Lambert, 2004). As just previously noted, the only significant difference in the mean level of punitiveness was that CCJ freshmen were significantly more supportive of more stringent policies than non-CCJ freshmen. This result, then, is consistent with the self-selection hypotheses. In the absence of more informed knowledge of the discipline or the vast variation in CCJ programs, it would be reasonable to presume that many come to such programs believing that they will be receiving an education that is founded on values, beliefs and assumptions about crime and justice that are similar to their own. It is likely a rare situation when a student enters a CCJ program fully aware of the diverse perspectives that inform the study of crime and justice.

That CCJ students potentially come to CCJ programs with more punitive attitudes does not necessarily negate the possibility that CCJ students also become less punitive over time as they become more knowledgeable



about justice issues. To test this possibility fully would require longitudinal data. In the absence of that, we thus examine mean differences between CCJ freshmen and CCJ seniors, finding that the mean level of punitiveness for seniors was 13 points less than freshmen, though the difference was not significant ($p = .07$). The failure to achieve statistical significance at the more traditional level of 0.05, thus, could be due to the small number of CCJ majors in our sample ($n = 48$).

When examining both dependent variables, we are able to see more clearly the relationship between CCJ majors and punitiveness. Here, we found that while there were no significant differences between CCJ majors and others when examining attitudes toward juvenile offenders, CCJ majors were significantly more punitive when exclusively considering non-juvenile specific policies. This finding suggests that the differences in punitive attitudes between CCJ majors and others lie not in their overall punitiveness but specifically in terms of punitiveness towards adults. This is supportive of Tsoudis' (2000) contention that CCJ majors seem to make a clear distinction between punishing adults and punishing juveniles.

That Criminology and Criminal Justice studies is located in the College of Social and Behavioral Sciences is not an inconsequential fact. Because CCJ majors at this university are seemingly different when compared to other social science students in terms of their attitudes toward criminal justice policies, we must then conclude that hypothesis two is only conditionally supported and hypothesis three is not only fully rejected, but it appears that the opposite is true.

In the end, we suggest that these findings are supportive of the notion that higher education, *generally*, tempers attitudes toward criminal justice policies, while majoring in social sciences and other non-STEM programs, *specifically*, results in less punitiveness. In other words, while there seems to be some fairly strong evidence of a liberalizing effect when looking at the level of one's education, it is more precise to say that this effect is conditional on the type of education one receives. Those in what could be considered more 'hard science' disciplines—disciplines that focus less on social justice related issues—demonstrate greater punitiveness relative to those who major in the social and behavioral sciences, while controlling for level of education. We argue that one possible explanation for this finding is that those who are less exposed to criminal and social justice related issues may be more likely to formulate attitudes based on popular images of crime and criminals rather than images supported by empirical evidence. It is also possible, however, that those who possess a more conservative outlook, transfer to other programs or even universities, thereby, reducing the overall punitiveness score of those majoring in the social sciences by attrition rather than by the kind of education they have received.

While the results of this study cannot be generalized beyond the study population, it does contribute to the previous literature by expanding the discourse that examines the effect of education on punitive attitudes by

going beyond simply examining the level of education or simply assessing the punitiveness of CCJ majors relative to all non-CCJ majors. When aggregating the attitudes of all non-CCJ majors, it is possible that important differences are obscured. The current study, therefore, attempted to also assess variations in punitiveness across various academic colleges within the university as well as between CCJ majors and non-majors. In doing so, we are able to discover a more nuanced effect of education on punitiveness.

This study suffers from some notable limitations. First, a 19 percent completion rate is low and thus the possibility of non-response bias is present. We want to emphasize, however, that non-response rates and non-response bias are not synonymous (Groves, 2006; Groves & Peytcheva, 2008). For instance, Groves (2006) conducted a meta-analysis of research estimating non-response bias in thirty studies and concluded that non-response rate, on its own, was a poor predictor of the magnitude of bias. Furthermore, the primary objective of our study is to assess the impact of our independent variables (various measures of education) on individual attitudes toward crime policies. We do not claim to infer specific population values and are thus more concerned with internal validity rather than generalizability.

We are also unable to determine the extent to which the composition of certain cohorts change over time with some students transferring to other majors, academic colleges and/or universities and the degree to which changes are due to the nature of education they were receiving. Future studies would benefit from examining the relationship between the liberalizing effects of education and the content of that education, meaning they should seek to be more discipline specific, and to study levels of punitiveness longitudinally in order to ascertain how these attitudes change over time.

In the end, if we are to unburden ourselves of the intricately intermingled economic and social costs of mass incarceration, it will require a re-visioning of how we do justice in America. This will be no easy task as it will require a change in how we frame the crime problem in the United States, from one that over-emphasizes crime as a matter of choice and individual accountability to a broader framework that also acknowledges the wide range of social, psychological and biological causes of criminal behavior. If successful, however, we will begin to be able to create just criminal justice policies that are effective in protecting communities from criminal behavior. As the results of this study demonstrate, criminologists and other social scientists can play a crucial role in this regard, not only through focused research but also in educating young people to be critical thinkers and thoughtful citizens.

References

- Alexander, M. (2010). *The New Jim Crow: Mass Incarceration in the age of colorblindness*. New York: New Press.

- Alreck, P. & Settle, R. (2007). *The survey research handbook*. (2nd ed.). New York: New York. Irwin Professional Publishing.
- Austin, J. & Irwin, J. (2012). *It's about time: America's imprisonment binge*, (4th ed.). Belmont, CA: Wadsworth Cengage Learning.
- Austin, T. & O'Neill, J. (1985). Authoritarianism and the criminal justice student: A test of the predispositional model. *Criminal Justice Review*, 10 (1), 33-40.
- Blumstein, A., & Cohen, J. (1980). Sentencing of convicted offenders: An analysis of the public's view. *Law & Society Review*, 14(2), 223-261.
- Bureau of Justice Statistics. (1982). *Prisoners 1925-81*. NCJ 85861. Washington, DC: U.S. Department of Justice. Retrieved from: www.bjs.gov/content/pub/pdf/p2581.pdf
- Bureau of Justice Statistics. (2016). *Prisoners in 2015*. NCJ 250229. Washington, DC: U.S. Department of Justice. Retrieved from: www.bjs.gov/content/pub/pdf/p15.pdf
- Bureau of Justice Statistics. (2014). *Recidivism of Prisoners Released in 30 States in 2005: Patterns from 2005-2010-Update*. NCJ 244205. Washington, DC: U.S. Department of Justice. Retrieved from: www.bjs.gov/index.cfm?ty=pbdetail&iid=4986
- Bureau of Justice Statistics. (2012). *State Corrections Expenditures, FY 1982-2010*. NCJ 239672. Washington, DC: U.S. Department of Justice. Retrieved from: www.bjs.gov/content/pub/pdf/scefy8210.pdf
- Burstein, P. (2003). The impact of public opinion on public policy: A review and an agenda. *Political Research Quarterly*, 56(1) 29-40.
- Butter, R., Hermanns, J., & Menger, A. (2013). Simultaneous prediction of punitive and rehabilitation-oriented attitudes towards probation: An ecological approach. *Probation Journal*, 60(1), 24-39.
- Chiricos, T. (1996). Moral panic as ideology: Drugs, violence, race and punishment in America. *Justice with prejudice: Race and criminal justice in America*, 19-48.
- Chiricos, T., Welch, K., & Gertz, M. (2004). Racial typification of crime and support for punitive measures. *Criminology*, 42(2), 358-390.
- Costelloe, M. T., Chiricos, T., & Gertz, M. (2009). Punitive attitudes toward criminals: exploring the relevance of crime salience and economic insecurity. *Punishment & Society*, 11(1), 25-49.
- Council of Economic Advisers. (April, 2016). *Economic Perspectives on Incarceration and the Criminal Justice System*. Executive Office of the President of the United States. Retrieved from: [//obamawhitehouse.archives.gov/sites/default/files/page/files/20160423_cea_incarceration_criminal_justice.pdf](http://obamawhitehouse.archives.gov/sites/default/files/page/files/20160423_cea_incarceration_criminal_justice.pdf)
- David, A. (6 April, 2016). *Gallup Poll: In U.S., Concern About Crime Climbs to 15-Year High*. Retrieved from: www.gallup.com/poll/190475/americans-concern-crime-climbs-year-high.aspx
- De Soto, W., & Tajalli, H. (2016). How do college students in Ukraine and the United States view criminal offenders? *International Journal of Comparative and Applied Criminal Justice*, 40(4), 347-361.
- Falco, D. L., & Martin, J. S. (2012). Examining punitiveness: Assessing views toward the punishment of offenders among criminology and non-criminology students. *Journal Of Criminal Justice Education*, 23(2), 205-232.
- Federal Bureau of Investigation. (2016). *Latest crime statistics release: Increase in violent crime, decrease in property crime*. Retrieved from: www.fbi.gov/news/stories/latest-crime-statistics-released
- Feldman, K. & Newcomb, T. (1969). *The Impact of college on students*. San Francisco: Jossey-Bass.
- Garland, D. (2001). *The Culture of control: crime and social order in contemporary society*. Chicago, IL: University of Chicago Press.
- Grasmick, H. G., & McGill, A. L. (1994). Religion, attribution style, and punitiveness toward juvenile offenders. *Criminology*, 32(1), 23-46.
- Groves, R. (2006). Nonresponse rates and nonresponse bias in household surveys. *Public Opinion Quarterly*, 70(5):646-675.
- Groves, R. & Peytcheva, E. (2008). The impact of nonresponse rates on nonresponse bias: A meta-analysis. *Public Opinion Quarterly*, 72(2): 167-189.
- Hyman, H.H., & Wright, C.R. (1979). *Education's lasting effect on values*. Chicago, IL: University of Chicago Press.
- Jones, J. (25 October, 2016). *Gallup poll: U.S. death penalty support at 60%*. Retrieved from: www.gallup.com/poll/196676/death-penalty-support.aspx
- Kohm, S. A., Waid-Lindberg, C. A., Weinrath, M., Shelley, T. O., & Dobbs, R. R. (2012). The impact of media on fear of crime among university students: A cross-national comparison. *Canadian Journal of Criminology & Criminal Justice*, 54(1), 67-100.
- Lambert, E. (2004). Assessing the crime and punishment views of criminal justice majors: How different are they from other majors? *Criminal Justice Studies: A Critical Journal of Crime, Law, and Society*, 17: 245-57.
- Larrain, J. (1983). *Marxism and Ideology*. London: Macmillan Press.
- Lavrakas, P.J. (1987). *Telephone survey methods*. Los Angeles, CA: SAGE.

- Mackey, D. & Courtright, K. (2000). Assessing punitiveness among college students: A comparison of criminal justice majors with other majors. *Criminal Justice Studies*, 12(4): 423-441.
- Ma-Kellams, C., Ruiz, A.R., Lee, J., & Madu, A. (2014). Not all education is equally liberal: The effects of science education on political attitudes. *Journal of Social and Political Psychology* 2(1): 143-163.
- Maxfield, M., & Babbie, E. (2015). *Research methods for criminal justice and criminology*. (7th ed.). Stamford, CT: Cengage.
- Monroe, A. D. (1998). Public opinion and public policy 1980-1993. *Public Opinion Quarterly*, 62: 6-28.
- Norcross, E., & Gonzalez, O. (2016). *Ranking the states by fiscal condition*. Mercatus Research: George Mason University. Retrieved from: www.mercatus.org/system/files/mercatus-norcross-fiscal-rankings-2-v6.pdf
- Pascarella, E., & Terenzini, P. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Pascarella, E., & Terenzini, P. (2005). *How college affects students (Vol. 2): A third decade of research*. San Francisco: Jossey-Bass.
- Payne, B. K., Time, V., & Gainey, R. R. (2006). Police chiefs' and students' attitudes about the Miranda warnings. *Journal of Criminal Justice*, 34(6), 653-660.
- Paz-y-Mino, G., & Espinosa, A. (2009). Assessment of biology majors' versus nonmajors' views on evolution, creationism, and intelligent design. *Evolution: Education and Outreach*, 2(1) 175-183.
- Pew Charitable Trusts. (17 September, 2015). *State, federal prison populations decline simultaneously for first time in 36 Years*. Public Safety Performance Project. Retrieved from: www.pewtrusts.org/en/research-and-analysis/analysis/2015/09/17/state-federal-prison-populations-decline-simultaneously-for-first-time-in-36-years
- Pew Research Center. (2016). *Voters' perceptions of crime continue to conflict with reality*. Retrieved from: www.pewresearch.org/fact-tank/2016/11/16/voters-perceptions-of-crime-continue-to-conflict-with-reality/
- Reiman, J. & Leighton, P. (2012). *The rich get richer and the poor get prison: Ideology, class and criminal justice*. (10th ed.). New York, NY: Routledge.
- Roberts, L. D., & Indermaur, D. (2007). Predicting punitive attitudes in Australia. *Psychiatry, Psychology & Law*, 14(1), 56-65.
- Roche, S., Pickett, J., & Gertz, M. (2016). The scary world of online news? Internet news exposure and public attitudes toward crime and justice. *Journal of Quantitative Criminology*, 32(2), 215-236.
- Rogers, D. L., & Ferguson, C. J. (2011). Punishment and rehabilitation attitudes toward sex offenders versus nonsexual offenders. *Journal of Aggression, Maltreatment & Trauma*, 20(4), 395-414.
- Rossi, P. & Berk, R. (1997). *Just punishments: Federal guidelines and public views compared*. New York: Aldine De Gruyter.
- Selke, W. (1980). The impact of higher education on crime orientations. *Journal of Criminal Justice*, 8, 175-184.
- Selznick, G. & Steinberg, S. (1969). *The tenacity of prejudice*. New York, NY: Harper and Row.
- Shelley, T. O., Waid, C. A., & Dobbs, R. R. (2011). The influence of criminal justice major on punitive attitudes. *Journal of Criminal Justice Education*, 22(4), 526-545.
- Smith, T.W., Marsden, P., Hout, M., & Kim, J. (2016). *General social surveys, 1972-2016* [machine-readable data file] /Principal Investigator, Tom W. Smith; Co-Principal Investigator, Peter V. Marsden; Co-Principal Investigator, Michael Hout; Sponsored by National Science Foundation. -NORC ed.- Chicago: NORC at the University of Chicago [producer and distributor]. Data accessed from the GSS Data Explorer website at gssdataexplorer.norc.org/trends. This GSS Data Explorer output was created by Martha Roman on 2017-05-17.
- Steiner, B. D., Sarat, A., & Bowers, W. J. (1999). Folk knowledge as legal action: death penalty judgments and the tenet of early release in a culture of mistrust and punitiveness. *Law & Society Review*, 33(2), 461-506.
- Swift, A. (9 November, 2016). *Gallup poll: Americans' perceptions of U.S. Crime problem are steady*. Retrieved from: www.gallup.com/poll/197318/americans-perceptions-crime-problem-steady.aspx?g_source=crime&g_medium=search&g_campaign=tiles
- Tajalli, H., De Soto, W., & Dozier, A. (2013). Determinants of punitive attitudes of college students toward criminal offenders. *Journal of Criminal Justice Education*, 24(3), 339-356.
- Tsoudis, O. (2000). Does majoring in criminal justice affect perceptions of criminal justice? *Journal of Criminal Justice Education*, 11(2), pp. 225-236.
- U.S. Department of Education. (2016). *State and local expenditures on corrections and education: A brief from the U.S. department of education*, Policy and Program Studies Service. Retrieved from: www2.ed.gov/rschstat/eval/other/expenditures-corrections-education/brief.pdf
- U.S. Government Accountability Office. (2016). *Federal prison system: Justice has used alternative to incarceration, but could better measure program outcomes*. Report to Congressional Committees. Retrieved from: www.gao.gov/assets/680/677983.pdf

Van Kesteren, J. (2009). Public attitudes and sentencing policies across the world. *European Journal on Criminal Policy and Research*, 15(1-2), 25-46.

Vera Institute of Justice. (2012). *The price of prisons: What incarceration costs taxpayers*. Retrieved from: www.vera.org/publications/the-price-of-prisons-what-incarceration-costs-taxpayers

Vera Institute of Justice. (2018). *The price of prisons*. Retrieved from: www.vera.org/publications/price-of-prisons-2015-state-spending-trends

Western, B., & Pettit, B. (2010). Incarceration & social inequality. *Daedalus*, 139(3), 8-19.

Endnotes

¹ In the United States, jails hold about 727,000 inmates who are generally either awaiting trial or who have been convicted of less serious offenses and are serving sentences of one year or less, while those in state (about 1.5 million) and federal prisons (about 188,000) are serving longer sentences after being convicted of more serious state or federal crimes (Bureau of Justice Statistics, 2016).

² The category of "senior" is reserved for those students who have earned 90 or more credit hours; the equivalent of approximately 30 classes. Seniors typically graduate within one year of earning the designation of "senior." Non-seniors, therefore, are all students who have earned less than 90 credit hours and thus have less education than the "senior" category.