

The Effect of Time Since Last Incarceration Spell in Situations of Trust:

A Factorial Vignette Study

by

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## ABSTRACT

Studies on what shapes public perceptions of ex-prisoners are abundant. One omission is the detailed investigation of how perceptions of former inmates might vary by the amount of time since their last incarceration term. More specifically, it remains unknown whether increased length since an ex-prisoner's last incarceration spell is positively linked to higher levels of trust. This study (N = 448) uses a factorial vignette design to test the perceived trustworthiness of former inmates across two hypothetical scenarios. Time since last incarceration spell is used as the independent variables in a series of ordered logistic regression models. The role of gender is also explored. Results show that trust perceptions of ex-prisoners minimally vary by time since last incarceration spell when personal victimization is at risk, but the magnitude is small and shows no clear pattern of declining risk over time. Less support is observed in situations where property victimization is at risk. These findings illustrate the complexity of how people perceive and feel about ex-inmates in situations of trust.

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## **Introduction**

America's experiment with mass incarceration expanded the prison population to unprecedented numbers (Petersilia & Cullen, 2014). With mass incarceration comes the continual exodus of thousands of ex-prisoners, as almost every prison inhabitant will one day return to the community (Travis, 2005). While prison admissions have begun to decline in recent years (Carson & Anderson, 2015), the challenge of reintegrating those previously incarcerated back into society remains a daunting task. Successful reentry rests on a multitude of factors, including stable and meaningful employment, supportive marriage, and access to other prosocial institutions (Laub & Sampson, 2003; Sampson & Laub, 1993). Central to one's attachment to these institutions is the willingness among members of the public to place their trust in individuals who are returning to the community from prison.

Notably absent from the reentry literature is research testing whether trust in ex-inmates varies by the amount of time since their last term of incarceration. Indeed, those who have committed a crime in the past pose a greater risk than those who have not (Kurlychek, Brame, & Bushway, 2006; Nagin & Paternoster, 2000). However, with the process of aging and remaining crime-free, those who have been incarcerated eventually have an offending risk that approximates that of the general population (Kurlychek, Brame, & Bushway, 2007). All else equal, one would expect that an individual who was released from prison seven years ago would pose less risk and would be trusted more than somebody who was released more recently.

This study tests whether trust in former prison inmates is affected by the amount of time since their last incarceration spell. Also of interest in this study is the role gender

plays in the willingness to trust ex-prisoners. These two objectives are accomplished using data from a factorial vignette survey administered to a university-based sample. Participants were given one of two hypothetical scenarios that involved a fellow student who served a prison sentence (experimental condition) and was being placed in a position of trust (e.g., watching an apartment over spring break). The results from this study will not only shed light on factors that influence ex-inmates' ability to form trusting relationships upon release, but will also speak to the broader concern of identifying the barriers to successful reentry that former inmates face.

### **Public perceptions of crime, offenders, and punishment**

Research on public opinion of criminal justice policies, practices, and system-involved individuals is abundant. Prior research has explored a variety of topics, including rehabilitative versus punitive attitudes (e.g., Cullen, Fisher, & Applegate, 2000; Frost, 2010), fear of crime (e.g., Demski & McGlynn, 1999; Lagrange & Ferraro, 1989), and attitudes toward offenders (e.g., Hirshfield & Piquero, 2010; Homant & Kennedy, 1982). However, rehabilitative versus punitive and other related attitudes alone are not strong predictors of attitude towards offenders themselves.

Prior research demonstrates that crime victims, conservatives, and whites typically have less favorable views of offenders. Additionally, those who have higher confidence in the justice system also have less favorable views of offenders (Hirshfield & Piquero, 2010). In a recent meta-analysis, Rade, Desmarais, and Mitchell (2016) found that those with prior interpersonal contact with offenders or ex-offenders report more favorable attitudes. This finding is consistent with the interpersonal contact theory, which states that there is an inverse relationship between greater interpersonal contact and

unfavorable attitudes towards a marginalized or otherwise “undesirable” group (Allport, 1954; Pettigrew, 2008). There also appears to be considerable group-level differences in perceptions of prisoners. Kjelsberg, Skoglund, & Rustad (2017) found that correctional officers hold the most negative views of prisoners, and prisoners report the most positive. College students were also included in the authors’ sample. Nursing majors were found to have more favorable views of prisoners when compared to business majors. Finally, it has been argued that fear of crime partially explains how people think and feel about prisoners and criminal offenders (Haghighi & Lopez, 1998; Flanagan & Caulfield, 1984). Indeed, as fear of crime increases so too does support for punitive policies, perhaps indicating less favorable attitudes towards offenders. However, one study found that fear of crime correlated with only two negative items from their scale—perception of poor character and perception of negative interaction (Chui, Cheng, & Wong, 2013). Overall, these studies demonstrate the related but not identical nature between public perceptions of crime and punishment and attitudes towards offenders themselves.

The relationship between gender and perceptions of the criminal justice system is complex. There is little consensus on the existence of a gender gap in punitive versus rehabilitative attitudes, nor with regard to attitudes toward criminal offenders. Some studies have found that women hold more favorable attitudes towards offenders and are more likely to support rehabilitative practices (Applegate, Cullen, & Fisher, 2002). Other studies report very modest or no gender differences (see Haghighi & Lopez, 1998; Hurwitz & Smithey, 1998). However, it has been established that women are less supportive of capital punishment (Whitehead & Blankenship, 2000). Gender differences in fear of crime is frequently examined. A gender gap is prominent; women are more

fearful of all types of crime (Covington & Taylor, 1991; LaGrange & Ferraro, 1989; Schafer, Huebner, & Bynum, 2006). Women are most fearful of personal victimization, especially of sexual assault (Pain, 2001; Valentine, 1989). Overall, this body of research helps illustrate the complex relationship between gender and perceptions of crime, offenders, and punishment practices. Given the complexity of these relationships, the examination of formerly incarcerated persons in situations of trust with special attention to gender is warranted. More specifically, the gender differences between fear of crime and perceptions of punishment provide reason to believe that differences will also appear in the examination of gender and willingness to trust formerly incarcerated individuals.

### **Employers' willingness to hire individuals with criminal records**

While public and college student samples are often useful, employer-based samples shed light on the consequences of attitudes toward offenders with regard to factors that can potentially influence whether reentry is successful. More specifically, employer studies provide insight into how formerly incarcerated persons are perceived in situations of trust that are practical. Although it is not explicit, the relationship between employer and employee requires some degree of trust. Whether that trust is to be appropriate around customers, handle money or valuable things, perform the duties of the job appropriately, or to simply to be around without fear of harm. However, these formerly incarcerated persons first need to be perceived favorably enough by employers to allow them into such situations that involve trust.

The research in this area has focused on employer willingness to hire former-prisoners, typically operationalized as an individual who has been incarcerated or has prior criminal convictions. Two survey-based studies found that just over 50% of



employers were willing to hire a former-prisoner (Atkin & Armstrong, 2011; Giguere & Dundes, 2002). Older research in this area is inconsistent. For example, one study found that 92% of employers were willing to hire an ex-inmate (Davis, 1980), yet another found that such a willingness was as low as 12% (Albright & Denq, 1996). The most common concerns in hiring a former-inmate is a lack of job training, low interpersonal skills, and employee discomfort that could result from working with someone with a criminal record (Giguere & Dundes, 2002). Employers were least willing to hire individuals convicted of violent, sexual, and/or crimes against children. In contrast, employers expressed greater willingness to hire those convicted of minor drug and alcohol related crimes (Albright & Denq, 1996; Atkin & Armstrong, 2011; Giguere & Dundes, 2002). These studies also revealed that better educated former-prisoners and the presence of government hiring incentives also shaped employers' willingness to an ex-inmate.

Pager and Quillian (2005) found that the employers who participate in these studies will not always “walk the talk.” In other words, there is difference in what employers will say in a survey and what they will actually do when faced with hiring decisions—those with a criminal record are less than half as likely to receive a call back. Similarly, Pager (2003) found that many employers use criminal history to quickly sort through applicants, preferring those without criminal records despite applicants having equal qualifications. The mark of a criminal record is especially salient for African Americans. Pager found that employers demonstrated an apprehension to hiring African Americans with criminal histories.

The scope of hiring studies has expanded to include Hispanics, women, and the online application processes (see Decker, Oritz, Spohn, & Hedberg, 2015; Galgano,

2009; Pager, Bonikowski, & Western, 2009; Uggen, Vuolo, Lageson, Ruhland & Whitham, 2014). Results from these studies consistently demonstrate the deleterious effect that criminal records have on individual employment prospects. This is especially true for African Americans, but less so for Hispanics (Pager et al., 2009) and for women (Decker et al., 2015; Galgano, 2009). Overall, extant research illustrates the challenges those with criminal histories face when seeking gainful employment.

### **Marriage, employment, and desistance from crime**

Perceptions the public and potential employers hold about ex-inmates may be consequential to their successful reintegration into society. Stated differently, the attitudes that others hold about formerly incarcerated persons can either limit or promote the trusting interpersonal relationships that may be necessary in promoting successful re-entry and desistance from crime. Unfavorable attitudes towards former-prisoners are associated with an unwillingness to hire, associate, or build relationships with individuals who are re-entering society after serving a prison sentence (Clear, 2007). While not explicit, trust is an inherent component in the relationships that create social bonds between formerly incarcerated persons and members of the community. While trust is conceptualized differently by various disciplines, it is commonly referred to as the expectation that one can rely on another to follow through on what they say they will do (Rotter, 1990). This could mean following through on economic or emotional stability in a marriage. Scanzoni (1979) contends that trust implies a willingness to put oneself in a position of risk, that “where trust is present, risk-taking or bets on the future are readily incurred” (p. 79). Finally, the most basic level of a trusting relationship may be the expectation that there will be no physical, mental, or otherwise negative repercussions by

partaking in the relationship. Taken altogether, the unwillingness of others to get involved in relationships with formerly incarcerated persons may be due to an unwillingness to accept the risks that come with allowing them into situations and relationships of trust.

The different forms of social exclusion brought on by unfavorable and untrusting attitudes can potentially inhibit ex-inmates from forming social ties that can help facilitate the desistance process. Although aspects of the desistance process are not well understood, research does indicate that healthy marriages and stable employment reduce the odds of recidivism and promote desistance from crime. For example, Sampson and Laub (1993) found that marriage helped facilitate desistance. One man who was included in their sample stated, “Marriage settled me down—a good wife and fine healthy sons” (p. 220). Additionally, Sampson, Laub, & Wimer (2006) found that being married was associated with 35% reduction in the probability of crime (also see Blokland & Nieuwbeerta, 2005; Farrington & West, 1995).

The relationship between employment and recidivism for ex-inmates is less clear. One meta-analysis found that employment-based interventions did not significantly reduce likelihood of re-arrest (Visher, Winterfield, & Coggeshall, 2005). But not all research points to the same conclusions. For example, Uggen (2000) found that employment was inversely associated with re-arrest and self-reported criminal behavior for individuals 27 years and older. However, employment had little impact on those who were 27 and under. Such findings are consistent with other studies showing that employment better initiates desistance for older individuals (Sampson & Laub, 1993). Other studies have found a small, modest impact of employment on recidivism (Drake,

Aos, & Miller, 2009; Raphael, 2010). Although the influence of employment on the desistance process may not be large, the evidence suggests employment should not be ignored.

There are a few processes that marriage, and to a lesser extent employment, are hypothesized to promote that reduce the odds of recidivism. First and foremost, marriage and employment create supportive social bonds that create systems of obligation, support, and control, wherein individuals establish stakes in conformity. In other words, former-inmates have something to lose (e.g., supportive spouse and a good job) if they engage in criminal activity (Hirschi, 1969; Laub & Sampson, 2003). Second, marriage and employment provide former-inmates with structured routines, thus reducing criminal opportunity. Put differently, employment often reduces the amount of time ex-inmates have to engage in unstructured socializing—leisure time that is characterized by a lack of social controls. Marriage can also reduce unstructured socializing by providing ex-inmates with daily obligations and because spouses can be a source of social control (Osgood & Lee, 1993). Finally, marriage and employment can bring forth a type of “cognitive transformation” where an individual decides that it is now time to “get straight” for the sake of their family or work (Giordano, Cernkovich, & Rudolph, 2002). More specifically, marriage and employment signals to the individual that it is time to end one chapter of their life and begin another.

For ex-prisoners to develop strong and supportive social bonds, individuals within the community (i.e., friends, employers, and others who provide social support) must first invest in ex-inmates. Individuals must “take a chance” on these people. More specifically, the bonds with positive others create social capital that may initiate

desistence. Laub and Sampson (1993) describe this relationship in the context of an employer who may “take a chance” on an individual with a criminal record that initiates a return investment in the job, which eventually leads the individual to slow or stop criminal activity (p. 311). Thus, by allowing ex-inmates into both situations and relationships of trust, the reciprocal process of mutual investment may begin. This shared investment may then foster systems of restraint that suppress criminal activity and potentially ensure successful reintegration. Despite all the potential positives of marriage, employment, and other supportive social ties, the public tends to maintain social distance from those who have been incarcerated because they believe these individuals have undesirable qualities, such as mental illness, drug or alcohol addiction, HIV/AIDS, and the like. Indeed, the navigation of the label of “ex-felon” and “ex-convict” proves difficult for many convicted offenders who are returning to the community as many experience varying types of exclusion (LeBel, 2012; Travis, 2002; Winnick & Bodkin, 2008).

### **Offending risk over time**

The general uneasiness expressed by members of the general public toward those who have been incarcerated or convicted of a crime is not totally unwarranted. More specifically, the assumption that ex-inmates carry greater risk of causing potential harm to others than members of the general population is reasonable. Those who have offended in the past are more likely to offend in the future (Nagin & Paternoster, 2000). With that being said, offending risk does not remain stable over time. There are two related, but distinct factors that account for this. First, almost all offenders will eventually desist from crime (Farrington, 1986; Sampson & Laub 1993; Laub & Sampson, 2003). The number

of life course persistent offenders who continue committing crime well into late adulthood is very small (Moffitt, 1993). So, offending risk drops dramatically as individuals with a record of criminal involvement age out of crime (Blokland & Nieuwbeerta, 2005).

The second factor concerns the diminishing salience of prior criminal record on subsequent law breaking as time passes (Bushway et al., 2011). Research supports this declining association. For example, Kurlychek et al. (2006) tested whether old criminal histories predicted future offending and found that the risk of offending declines as the time since the last criminal act increases. Indeed, for those who remained arrest free, their offending risk closely approximated that of the general population. This typically takes around seven years for individuals with violent criminal histories and about four years for those with property related criminal histories (Blumstein & Nakamura, 2009; also see Kurlychek et al., 2007). Similarly, numerous studies have demonstrated that recidivism risk peaks at around the one to two-year mark and then declines (Lattimore & Baker, 1992; Schmidt & Witte, 1988; Visher et al., 1991). Of all those who recidivate within the first three years of release, two thirds of them do so within the first year (Beck & Shipley, 1997; Langan & Levin, 2002). Ultimately, offending risk inevitably declines over time as individuals age and the time since last conviction increases.

### **Current Focus**

Little empirical attention has focused on whether public attitudes towards ex-inmates improves as the length of time since their last term of incarceration increases. All else being equal, an individual who was released seven years ago presents less risk than someone who was released more recently, thus one would expect they would be met with

greater trust by others. This relationship is worthy of examination, especially given the importance that supportive social ties play in promoting desistance and ensuring successful re-entry into the community by ex-prisoners. This study uses a factorial vignette design and a university-based sample to test whether trust in former inmates varies by the amount of time since their last incarceration spell. More broadly, the objective of this study is to gain a better understanding of the effects of incarceration across the life-course and the informal barriers faced by those returning.

## **Methods**

### **Data**

This study uses data from self-administered surveys administered to undergraduate students aged 18 and older at Arizona State University (ASU). Participation in the study was completely voluntarily and the responses by participants were anonymous. Ten classes were surveyed, all of which were entry level introductory courses that were offered during the fall semester of 2017. Six of the ten classes surveyed were held on the Downtown (Phoenix) campus, two classes from the Tempe campus, and two from the West (Glendale) campus. A total of 509 individuals were surveyed (participation rate = 97.6%). While these classes are required for students majoring in criminology and criminal justice, these courses are open to all ASU undergraduates and satisfy general education requirements. The survey took approximately 15 minutes to complete. The research procedures were approved by ASU's institutional review board.

### **Sample**

A majority of the sample was female (66.18% to 33.82%, respectively). In terms of race, 43.91% of the sample were White, 5.67% were African American, 38.45% were

Hispanic, 1.68% were Native American, 3.78% were Asian, and 6.30% self-identified as “other” minority. A little over half the sample was 18 years of age (51.68%), 19.96% were 19, 13.87% were 20, and 14.50% were 21 or over. When compared to the overall student population, the sample has a larger proportion of females and is more racially diverse (Arizona State University, 2017).

Additionally, 8.82% of the sample had been victimized (i.e., assault, robbery, larceny-theft, burglary) in the last year, and 34.87% had contact with the police in the last year (most of which was participant initiated). Slightly more than one-third of the sample (37.82%) lived in a dorm, 25.00% lived in an apartment, 3.36% lived in a condominium, 33.19% lived in a house, and a very small percentage (0.06%) report some other type of living arrangement. This sample is not representative of other populations, so caution should be exercised when attempting to generalize the findings reported below.

## **Design**

This study used factorial vignette methodology. Vignettes allow researchers to place participants in realistic situations and then ask them to report how they would behave. While vignettes have been criticized as being artificial, the methodology is useful in providing snapshots into how people think, feel, and behave in specific situations (Hughes, 1998). Each participant read one of two scenarios (i.e., studying alone with an ex-prisoner or having a former inmate house sit for them) and then responded to questions related to their scenario. This vignette was part of a larger survey that contained one other vignette and set of questions for another research project. The hypothetical scenarios were short and the questions that followed were closed-ended. The survey was constructed in this way to ensure that participants did not end up satisficing or otherwise



not read the scenario carefully due to it being too long or complex (Stolte, 1994). Each scenario represented a different situation of trust that entailed a different type of victimization risk. One scenario placed participants at risk for personal victimization (i.e., studying together scenario) while the other (i.e., house-sitting scenario) involved property victimization. The scenarios are provided in the Appendix.

The scenarios were developed to place participants in situations that required them to trust ex-prisoners. One challenge was that these situations must also be realistic to members of the sample. For example, it would not be helpful to ask college students what they would do in a situation involving hiring of ex-inmates because most students are probably not familiar with making such decisions. Constructing realistic scenarios that sample members could relate to helped them better imagine being in the situation. Indeed, 92.5% of participants who received the studying together scenario reported that they could imagine the situation either “very clearly” or “somewhat clearly.” A similar portion (i.e., 94.5%) of participants who received the house-sitting scenario also reported that they could imagine the situation either “very clearly” or “somewhat clearly.” At the same time, 87.6% of participants who received the studying together scenario reported that the situation was either “very realistic” or “somewhat realistic.” A smaller proportion (i.e., 81.3%) of participants who received the house-sitting scenario reported that the situation was either “very realistic” or “somewhat realistic.”

Each scenario featured one of three experimental conditions (i.e., ex-inmate was released either one year ago, three years ago, or seven years ago) or the baseline condition (i.e., no evidence of prior incarceration). In sum, a 2 x 4 vignette design was employed, with a total of eight versions of the survey. Prior to administering the surveys,

instruments were systematically shuffled, classroom designs varied considerably, and members of the research team did not distribute surveys in a consistent pattern. Balance tests were conducted to assess whether such procedures resulted in near random assignment. One-way analysis of variance (ANOVA) models were estimated whereby demographic characteristics (e.g., age, race, and gender) and additional variables (e.g., prior contact with police and prior victimization) were assessed across the eight experimental groups. The results from the ANOVA models revealed that only 13 of the 84 tests (15.5%) were statistically significant, indicating a difference between groups ( $p$ -value for F-statistic  $< 0.05$ ). However, a small number significant balance tests are expected when many variables are tested (Mutz, Pemantle, & Pham, 2017). It was determined that the scenarios were sufficiently randomized. Accordingly, the regression models presented below do not include control variables.

## **Measures**

### **Dependent variables**

Five dependent variables are used in the study. The variables were constructed to capture various facets of trust in an interpersonal relationship that range from the willingness to accept the risk of having them in your space to feelings of fear and worry. The first outcome measure, *willingness to invite*, is a single survey item: “How likely would it be that you’d ask this person to come over to your place and work on the class project over spring break?” (study together scenario) and “How likely would it be that you’d ask this person to watch your place over spring break?” (house-sit scenario). Responses range from 1 (very unlikely) to 4 (very likely). *Fear of ex-inmate*, which is the second dependent variable, is also a single survey item: “How fearful would you be about

having this person come over to your place on spring break without your roommates around?” (study together scenario) and “How fearful would you be about having this person watch your place during spring break?” (house-sit scenario). Closed-ended responses ranged from “not at all fearful” (coded 1) to “very fearful” (coded 4). The third criterion variable of interest, *inform family/friends*, is a single survey item: “How likely would it be that you’d tell a friend or family member this person was coming over to your place?” (study together scenario) and “How likely would it be that you’d tell a friend or family member this person was watching your place?” (house-sit scenario). The response set ranged from 1 (very unlikely) to 4 (very likely). The fourth dependent measure, *suspicion of theft*, is a single survey item: “If something of yours went missing, you would assume that the person who came over to your place took it?” (study together scenario) and “If something of yours went missing, you would assume the person watching your place took it?” (house-sit scenario). The response set ranged from 1 (strongly disagree) to 4 (strongly agree). Finally, the last criterion variable, *worry about ex-inmate*, is a single item: “How worried would you be about having this person over at your place over spring break?” (study together scenario) and “How worried would you be about having this person watch your place over spring break?” (house-sit scenario). A four-point response set ranging from “not at all worried” (coded 1) to “very worried” (coded 4) was used. Summary statistics for the dependent variables are provided in Table 1.

**Table 1** Summary statistics for dependent variables

	Study together		House sit	
	Mean	SD	Mean	SD
Willingness to invite	2.53	0.84	1.80	0.86
Inform friends/family	3.24	0.94	3.03	1.15
Suspicion of theft	2.78	0.68	3.19	0.65
Worry about ex-inmate	2.11	0.79	2.89	0.84
Fear of ex-inmate	2.13	0.80	2.68	0.84
	Sample size	222	226	

## **Independent variables**

The primary independent variable in this study is time since last incarceration spell. This is a single variable with multiple levels, with the experimental conditions representing different times since last incarceration term. The first condition is a classmate who was released from prison one year ago. The second condition is a classmate who was released from prison three years ago. The final condition is a classmate who was released from prison seven years ago. The different times since last incarceration terms were chosen as manipulations because they represent varying “risk-points” for an ex-inmate. Recidivism studies consistently demonstrate that reoffending risk is the highest within the first year of release (see Huebner & Berg, 2011). After seven years, those who remain arrest free closely mirror the general population in terms of offending risk (Kurlychek et al., 2006, 2007). Three years was chosen as the midway point. It was also chosen because typically studies on recidivism only measure to the three-year mark (e.g. Langan & Levin, 2002). Each experimental manipulation is dummy coded: *one year* (1 = yes, 0 = no), *three years* (1 = yes, 0 = no), or *seven years* (1 = yes, 0 = no). The control condition (i.e., scenarios that included a classmate who had never been incarcerated) serve as the omitted category.

## **Hypotheses and analytic strategy**

This study tests the following hypotheses related to individual willingness to trust ex-inmates:

H<sub>1</sub>. Prior incarceration is inversely related to willingness to trust an individual who was previously incarcerated.

H<sub>2</sub>. As the length of time since last incarceration term increases, participants will report greater willingness to trust an individual who was previously incarcerated.

H<sub>3</sub>. The effect size for prior incarceration on willingness to trust an individual who was previously incarcerated will vary for males and females.

Prior to conducting hypothesis tests, two narrative checks were conducted. Narrative check questions were employed in each version of the survey to ensure that participants read the scenario correctly. The first assess whether the participants recognized whether the classmate in the scenario had been previously incarcerated. The second narrative check asked participants to report where they met the person described in the scenario. The correct answer was in class. A total of 28 participants failed either of the checks and were removed from the study. Listwise deletion was used to deal with missing cases, which yielded a final sample size of 448. Ordered logistic regression models were estimated for each dependent variable. Standardized partial regression coefficients were calculated using SPost (Long & Freese, 2014). Subsample analyses were run for gender using the dichotomized version of the incarceration experimental condition.

## **Results**

To assess whether those who have been previously incarcerated fare worse on trust related outcomes than those who have never been incarcerated, one-way ANOVA models were run for each dependent variable (see Table 2). In the study together scenario, those who received a previously incarcerated classmate scenario were less likely to trust them. Contrary to expectation, participants who received an ex-inmate scenario were more likely to give them the benefit of the doubt if something went missing from their place. This could indicate some degree of social desirability bias or

could also speak to the trustworthiness of participants' frequent visitors to their home. In the house-sitting scenario, results indicate only one statistically significant difference between those who received the ex-inmate classmate and those who did not which was the likelihood of informing friends or family that this previously incarcerated classmate is watching their home. The estimates in Table 2 indicate that participants may be less inclined to trust an ex-inmate when they are alone with them (i.e., study together scenario) relative to instances when they are just in their home (i.e., house-sit scenario). Overall, the results demonstrate mixed support for the first hypothesis ( $H_1$ ). Most importantly, while being previously incarcerated is most often linked to less willingness to trust on the part of the participants, it is not consistent across the two scenarios.

**Table 2** One-way analysis of variance (ANOVA) models for prior incarceration

		Willingness to invite		Inform friends/family		Suspicion of theft		Worry about ex-inmate	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Study together ( <i>n</i> = 222)									
Incarcerated									
Yes		2.453	0.826	3.285	0.908	2.698	0.668	2.233	0.775
No		2.800	0.857	3.100	1.055	3.060	0.652	1.780	0.790
	<i>F</i>		6.70**		1.49		11.52**		13.10**
House sit ( <i>n</i> = 226)									
Incarcerated									
Yes		1.749	0.855	2.942	1.167	3.152	0.669	2.889	0.836
No		1.945	0.848	3.291	1.048	3.291	0.567	2.909	0.845
	<i>F</i>		2.22		3.91*		1.92		0.02

\*  $p < 0.05$ , \*\*  $p < 0.01$



## **Multivariate regression models**

To test the relationship between time since last incarceration spell and trust, ten ordinal logistic regressions were estimated (5 per scenario). Importantly, tests showed that the parallel lines assumption was met for the models presented in Table 3. Looking to the study together subsample (located in the upper-half of table), the Likelihood Ratio  $\chi^2$  statistics are significant for four of the five models, indicating these models provide a better fit than a constant-only model. For the four significant models, a clear pattern of findings is difficult to identify. In the willingness to invite model, all three conditions were significantly different than the control condition. However, the standardized effect sizes for the all three conditions were virtually indistinguishable from one another. Similar patterns of effects were observed in the worry about ex-inmate and fear of ex-inmate models. More specifically, in these models, the effect of incarceration was in the expected direction. However, the magnitude of the effects did not conform to expectations. Finally, one unexpected finding did again emerge—being previously incarcerated reduced the likelihood that participants would suspect them of theft in the event that something was found to be missing from the apartment after the ex-inmate was over studying.

The bottom half of Table 3 features the four ordinal regression models that were estimated using the house sit subsample. Since none of the Likelihood Ratio  $\chi^2$  statistics achieve statistical significance, the parameter estimates from the models equal zero. In sum, the findings from these models do not support the stated hypotheses. Taken altogether, the two sets of analyses do not support the second hypothesis ( $H_2$ ). While time appears to minimally matter, as the length of time since last incarceration spell increases,

participant willingness to trust the ex-inmate does not significantly increase in the expected direction.

**Table 3** Ordered logistic regression models for time since last incarceration spell

Variables	Willingness to invite			Inform friends/family			Suspicion of theft			Worry about ex-inmate			Fear of ex-inmate		
	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test
Study together ( <i>n</i> = 222)															
One year	-0.83 (0.37)	-0.19	-2.25*	0.32 (0.38)	0.08	0.85	-0.94 (0.39)	-0.22	-2.40*	1.24 (0.37)	0.28	3.28**	1.37 (0.39)	0.28	3.57**
Three years	-0.76 (0.37)	-0.18	-2.04*	-0.01 (0.36)	0.00	-0.01	-1.27 (0.40)	-0.30	-3.20**	0.94 (0.38)	0.22	2.46*	1.30 (0.38)	0.28	3.36**
Seven years	-0.83 (0.36)	-0.20	-2.31*	0.64 (.35)	0.16	1.76	-1.02 (.38)	-0.24	-2.64**	1.39 (0.37)	0.33	3.76**	1.24 (0.37)	0.29	3.37**
Likelihood ratio $\chi^2$	7.08**			4.60			11.82**			16.52**			17.10**		
McFadden's R <sup>2</sup>	0.01			0.00			0.03			0.03			0.03		
House sit ( <i>n</i> = 226)															
One year	-0.58 (0.35)	-0.14	-1.65	-0.60 (0.37)	-0.14	-1.63	-0.32 (0.37)	-0.06	-0.88	-0.14 (0.35)	0.00	-0.40	-0.36 (0.35)	-0.09	1.03
Three years	-0.60 (0.35)	-0.14	-1.70	-0.90 (0.36)	-0.21	-2.49**	-0.55 (0.37)	-0.12	-1.48	0.01 (0.34)	0.01	0.02	-0.14 (0.35)	-0.03	-0.39
Seven years	-0.24 (0.35)	-0.06	-0.70	-0.43 (0.36)	-0.10	-1.20	-0.23 (0.37)	-0.06	-0.63	0.11 (0.35)	0.00	0.03	-0.63 (0.35)	-0.02	-0.19
Likelihood ratio $\chi^2$	4.03			6.59			2.26			0.27			1.21		
McFadden's R <sup>2</sup>	0.01			0.01			0.00			0.00			0.00		

Entries are unstandardized regression coefficients (*b*), standard errors in parentheses, standardized partial regression coefficients ( $\beta$ ), and z-tests. Threshold values indicating cut points in latent variables are not shown.

\**p* < 0.05, \*\**p* < 0.01 (two-tailed test).

### **Gender-specific regression models**

Twenty ordinal logistic regressions were estimated in gender specific subsample analyses to test for any gendered effects between prior incarceration and willingness to trust. Looking at the study together subsample in Table 4, Likelihood Ratio  $\chi^2$  statistics are significant for three of the five models for males and four of the five models are significant for females. This indicates that these models provide better fits than constant-only models. Looking at the willingness to invite model, females appear to be less likely to invite the previously incarcerated classmate over to their apartment to study alone. For worry about ex-inmate and fear of ex-inmate, females appear to have more favorable views of their previously incarcerated classmate than men. The standardized effect sizes indicate that women are less likely to fear and worry about ex-inmates than men. However, this difference appears to be relatively small in magnitude. As with the primary analyses, prior incarceration appeared to reduce the suspicion of theft in the event that something went missing during the time the ex-inmate was over studying, for both males and females.

The lower half of Table 4 shows the estimates from the ten ordered logistic regression models for the house sit subsample. Only one the Likelihood Ratio  $\chi^2$  statistics achieves statistical significance (i.e., female subsample for inform friends/family). However, the *z*-score for the incarceration estimate does not achieve significance. The findings from these models do not support the stated hypotheses for gendered effects in the house sit scenario. Overall, the results from both sets of analyses partially support the third hypothesis ( $H_3$ ), that there will be gendered effects in the magnitude of the effect for the incarcerated person manipulation on trust related outcomes.

**Table 4** Ordered logistic regression models for male and female subsample for prior incarceration

Variables	Willingness to invite			Inform friends/family			Suspicion of theft			Worry about ex-inmate			Fear of ex-inmate		
	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test	<i>b</i> (s.e.)	$\beta$	z-test
Study together ( <i>n</i> = 222)															
Males ( <i>n</i> = 72)	-0.28 (0.52)	-0.07	-0.55	0.40 (0.52)	0.09	0.78	-1.52 (0.58)	-0.33	-2.60**	1.97 (0.64)	0.42	3.03**	2.16 (0.70)	0.45	3.10**
Likelihood ratio $\chi^2$	7.16**														
McfAdden's R <sup>2</sup>	0.07														
Females ( <i>n</i> = 150)	-1.14 (0.40)	-0.26	-2.88**	0.30 (0.38)	0.07	0.78	-0.86 (0.40)	-0.20	-2.13*	1.02 (0.39)	0.23	2.59*	1.17 (0.41)	0.26	2.84**
Likelihood ratio $\chi^2$	4.71*														
McfAdden's R <sup>2</sup>	0.02														
House sit ( <i>n</i> = 226)															
Males ( <i>n</i> = 77)	-0.16 (0.50)	-0.04	-0.32	-0.42 (0.51)	-0.10	-0.82	-0.51 (0.53)	0.12	-0.97	-0.04 (0.50)	-0.01	-0.07	-0.80 (0.49)	-0.18	-1.62
Likelihood ratio $\chi^2$	0.93														
McfAdden's R <sup>2</sup>	0.01														
Females ( <i>n</i> = 149)	-0.62 (0.35)	-0.15	-1.78	-0.76 (0.38)	-0.18	-1.99	-0.32 (0.36)	-0.08	-0.88	-0.05 (0.35)	-0.01	-0.15	0.15 (0.36)	0.04	0.43
Likelihood ratio $\chi^2$	0.78														
McfAdden's R <sup>2</sup>	0.01														

Entries are unstandardized regression coefficients (*b*), standard errors in parentheses, standardized partial regression coefficients ( $\beta$ ), and z-tests. Threshold values indicating cut points in latent variables are not shown.

\**p* < 0.05, \*\**p* < 0.01 (two-tailed test).

## Discussion

The results from this study partially support the idea that time since last incarceration spell does matter in situations of trust. However, the relationship between trust and time since last incarceration term does not appear to follow the declining risk of ex-inmates. More specifically, being released seven years ago does not consistently result in higher levels of trust when compared to being released one or three years ago. Overall, the findings were generally in line with theoretical expectation. For example, participants trusted those who had never been incarcerated more than those who had not.

Additionally, gender differences in trust were observed in situations involving an individual with a history of incarceration. Contrary to expectation, prior incarceration was inversely related to suspicion of theft. This is perhaps due to social desirability bias on part of the participants (see Krumpal, 2013).

The two scenarios captured trust in different contexts, one involving personal or bodily victimization and the other being property victimization. It is likely that the concern for personal victimization induces a stronger negative reaction on the part of the participant, causing the differences in regression estimates between the two scenarios. Additionally, while variation in trust did appear between the different times since last incarceration spell tested, the differences between them were small. Such modest differences are probably because participants had difficulty distinguishing the difference between ex-inmates who were released one year ago, three years ago, and seven years ago. Including a wider range of times since last incarceration spell (i.e., 10 years, 20 years, or longer) would likely yield results with more significant differences between

years. That being said, the findings still illustrate the importance of continuing to examine the effect of time since last incarceration spell on perceived trustworthiness.

Moving forward, future research in this area should take into account demographic characteristics of the ex-prisoner. The inclusion of gender, race, and age of the former-inmate depicted in the scenario would be important to assess given the extensive research on the intersection between criminal stigma, gender, and race (see Decker et al., 2015; Galgano, 2009; Pager, 2003). Perhaps including the crime that the individual was convicted of may also influence trust in different situations. As shown in employer studies, individuals convicted of violent crimes and crimes against children are seen as the least desirable applicants (see Albright & Denq, 1996; Atkin & Armstrong, 2011), as such it would be expected that these individuals would fare worse in similar vignette-based studies. Finally, future research should use employer-based samples to test whether times since release matter in terms of hiring ex-inmates. These are but a few of the opportunities for future research in this area.

The findings of this study offer some policy implications. Since the results do not show that trust of the formerly incarcerated increases with time since their last incarceration spell but rather seem to vary by whether someone was in prison, policies should focus on whether one has a prison record. One way of doing so is to reduce the extent to which incarceration history is used in hiring decisions, housing, and education. “Ban the box” initiatives are certainly a good start, but with the evidence that recidivism risk declines with time, sunset clauses can be created that intersect the time since last arrest and age of the individual to a point of low offending risk, at which point a criminal record could not be used in a background check (Bushway & Sweeten, 2007).

There are a few important limitations to this study that are worth noting. First, while vignettes are a useful methodological tool to test causal relationships, they are limited in that they capture behavioral intentions, not actual behavior. Thus, there is no guarantee that individuals respond to hypothetical scenarios as they would behave in their daily lives. In this way, their responses should also be considered hypothetical (Hughes & Huby, 2004). That being said, it is important to note that behavioral intentions, such as the responses given in this study, are highly correlated with actual behaviors (Ajzen, 1991). Additionally, steps were taken in this study to make sure that the scenarios were relatable and realistic to the sample members (i.e., college students). Second, this study made use of a convenience, university-based sample of individuals enrolled in criminology and criminal justice courses. Although the sample was quite diverse in many important ways, the findings do not easily generalize to broader populations. These two limitations should be taken into account when considering the implications of the reported findings.

Ultimately, this study found that time since last incarceration spell sometimes matters for formerly incarcerated persons in situations of trust. However, this relationship is small and conditional on the context in which the formerly incarcerated person is placed. Simply having been incarcerated in the past, regardless of time, remains the most stable predictor of perceived trustworthiness. The results highlight the challenges former prisoners face when establishing informal relationships with others in the community upon release. As thousands of prisoners return each year, research should continue to examine the complex relationship between how people perceive formerly incarcerated individuals in situations of trust.



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APPENDIX A  
VIGNETTE EXAMPLES

Vignette 1: *Study together*

It's spring break at ASU and you're staying in town because you have an important class project that is due shortly after break. Your roommates wished you luck on the project before leaving town on break. A classmate of yours has offered to come over to your place to work on the class project together. You met this person in class at the beginning of the semester and you sit near him in class and talk to him regularly. You even attended a group study session that he attended where he told everyone that he [wasn't leaving town for spring break (Control Condition)] [*had been previously incarcerated in a state prison and released (1 or 3 or 7) years ago.* (Three Experimental Conditions)]

Vignette 2: *House-sit*

It's spring break at ASU and you're going out of town for the week. Since your roommates are also leaving town, you'll need someone to watch your place. A classmate has offered to keep an eye on your place over spring break. You met this person in class at the beginning of the semester and you sit near him in class and talk regularly. You even attended a group study session that he also attended where he told everyone that he [wasn't leaving town for spring break. (Control Condition)] [*had been previously incarcerated in a state prison and released (1 or 3 or 7) years ago.* (Three Experimental Conditions)]



APPENDIX B  
RESULTS FROM BALANCE TESTS

**Table B1** One-way analysis of variance (ANOVA) as balance tests for randomization for study together scenario

	Willingness to invite		Inform family/friends		Suspicion of theft		Worry about ex-inmate		Fear of ex-inmate		Ex-inmate reliability		Costs outweigh benefits	
	F	df	F	df	F	df	F	df	F	df	F	df	F	df
Male	0.58	2	0.43	2	0.10	2	0.06	2	0.01	2	0.46	2	0.99	2
Age	0.19	4	0.56	4	0.33	4	0.24	4	0.21	4	0.55	4	1.14	4
Race	2.58*	6	1.32	6	1.00	6	2.44*	6	2.29*	6	0.77	6	0.94	6
Living Situation	0.32	5	0.76	5	0.10	5	0.39	5	0.30	5	0.28	5	1.77	5
Prior Police Contact	0.73	2	0.11	2	0.22	2	0.09	2	0.03	2	0.07	2	0.05	2
Prior Victimization	0.13	2	0.18	2	0.27	2	0.02	2	0.02	2	0.29	2	0.20	2

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

**Table B2** One-way analysis of variance (ANOVA) as balance tests for randomization for house-sit scenario

	Willingness to invite		Inform family/friends		Suspicion of theft		Worry about ex-inmate		Fear of ex-inmate		Ex-inmate reliability		Costs outweigh benefits	
	F	df	F	df	F	df	F	df	F	df	F	df	F	df
Male	0.97	2	0.93	2	0.05	2	1.91	2	0.58	2	3.94*	2	0.10	2
Age	0.12	4	0.35	4	0.38	4	0.34	4	0.3	4	0.44	4	0.68	4
Race	2.22*	6	2.88**	6	0.86	6	2.75*	6	1.69	6	0.80	6	0.68	6
Living Situation	0.32	5	0.52	5	0.28	5	2.80*	5	2.11	5	0.18	5	0.25	5
Prior Police Contact	0.93	2	0.6	2	0.04	2	0.19	2	0.02	2	3.78*	2	0.25	2
Prior Victimization	12.53***	2	10.88***	2	3.09*	2	5.10**	2	2.96	2	2.32	2	0.82	2

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$