**Supplementary Appendix**

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**Methodological Transparency Appendix**

The purpose of this appendix is to provide supplemental information concerning study methodology to foster transparency in research, as with the policy of *Justice Quarterly*. The methods section of the article is thus reproduced here with supplemental information concerning sampling, measurement, and analysis.

***Data***

 Three waves of interview-based survey data—including one pre-release and two post-release interviews—are used to examine gang embeddedness among 802 males who participated in the LoneStar Project (Decker and Pyrooz 2021). The data are publicly archived with mixed public-use and restricted access as part of ICPSR’s National Archive of Criminal Justice Data (<https://www.icpsr.umich.edu/web/NACJD/studies/37859>). Study protocols were approved by the Institutional Review Board at Arizona State University (STUDY00001971).

 The sampling frame consisted of 15,644 state prisoners scheduled for release from the largest release unit in Texas. This regional release unit was responsible for 75% of all releases in Texas, though everyone with a sex offense, released from administrative segregation, and on electronic monitoring was released from this unit, partially limiting the representativeness of the study.

A weekly list was provided by the executive services office from which disproportionate stratified random sampling was used to invite voluntary participation in the study. Consistent with the purpose of the LoneStar Project, people who were classified by correctional authorities as maintaining non-zero levels of gang affiliation (confirmed, suspected, and ex-gang affiliates) were oversampled by a factor of five. Sampling weights are not used in this study owing to (1) gang status-partitioned analyses and unweighted estimates reduce sampling variance, and (2) official and survey reports of gang affiliation strongly overlap and variation in the sampling rate approaches exogeneity (Pyrooz, Decker, and Owens 2020; Solon, Haider, and Wooldridge 2015).

The rate of response among those selected for participation was 61%, while the rate of cooperation among those contacted and invited to participate was 94%, both of which are consistent with comparable studies (e.g., Schubert et al. 2004). Correctional policy prohibited the provision of incentives at the pre-release interview, but compensation in the form of Walmart gift cards was offered at the post-release interviews.

 The pre-release interview, Wave 1, occurred between April and December 2016 in two prison units. The first was a release unit where study participants were transferred prior to leaving custody, where 95% of interviews were conducted. Respondents had been housed in 72 different prison units within 10 days of study enrollment. The second was an administrative segregation unit, where the remaining 5% of interviews were conducted owing to correctional policy concerning gangs and high-custody level prisoners; all of these individuals were released from the first unit. Fifty-two trained interviewers affiliated from universities associated with the LoneStar Project used computer assisted personal interviewing in both settings.

Post-release interviews occurred about two and 10 months after release, constituting Waves 2 and 3, beginning in May 2016 and concluding February 2018. Geographic distribution of former prisoners across Texas required computer assisted telephone interviewing, although face-to-face interviews were conducted if study participants were reincarcerated at the target date. The retention rates for Waves 2 and 3 were 66.3% (*n* = 532) and 64.1% (*n* = 514), and 78% completed at least one post-release interview. These retention rates are on par with prior large, longitudinal prisoner reentry studies in Texas and elsewhere (Lattimore and Visher 2020; Visher and La Vigne 2020).

 Interviewing former prisoners is critical to understanding reentry, but it is well known that this a hard-to-reach population (Western et al. 2016). The potential for nonignorable bias in longitudinal research is high. The concern is that estimates of gang embeddedness and its correlates are biased in the observed data to the extent that high risk individuals are excluded, such as active and former gang members.

Prior research using the LoneStar Project data found no statistical differences in retention rates between gang and non-gang members (Clark et al. 2020). Further, there were no differences in pre-release levels of gang embeddedness between the retained and attrited subsamples after adjusting for age, Black race, Hispanic ethnicity, educational attainment, and fatherhood. There were no post-release pooled-wave (*d*=.106, *p*=.179) or single wave (Wave 2: *d*=.034, *p*=.627; Wave 3: *d*=.127, *p*=.066) differences in pre-release gang embeddedness scores. Substantively similar results were obtained when comparing pre-release gang embeddedness scores by gang status, though retained respondents *without* a gang history scored higher than attrited respondents at Wave 3 (*d*=.182, *p*=.007). Given the direction of the association, and overall low gang embeddedness scores for never gang members, the risk of bias is minimal.

Of the 622 retained study participants, 68% were interviewed at both post-release waves, 15% at Wave 2 only, and 17% at Wave 3 only. The analytic sample includes 1,632 person-wave interviews.[[1]](#footnote-1)

Information about pre- and post-release interview operational procedures associated with the LoneStar Project are well-documented. Mitchell and colleagues (2018) and Fahmy and colleagues (2019) provide a complete description of pre-release and post-release research design and data collection procedures, respectively.

***Gang Embeddedness***

 The outcome of interest concerns dynamic immersion within enduring deviant networks, drawing on the broader concept of criminal embeddedness (Hagan 1993; Pyrooz, Sweeten, and Piquero 2013). Embeddedness involves several time-varying dimensions, including gang associations, behaviors, influences, and positioning, which cut across prison and community life. I construct a scale of gang embeddedness using a mixed graded response model, derived from item response theory (IRT), based on seven items repeated at each of the three waves of data collection. Consistent with the conceptualization of gang embeddedness, these items were administered to all respondents irrespective of gang status.

In IRT the observed response patterns to the items are assumed to be driven by theta, θ, a normally distributed unidimensional latent construct, which is consistent with the measurement of gang embeddedness in the extant literature. Since the items used to tap embeddedness consist of unequal polytomous categories, *k*, a mixed graded response model is warranted (Samejima 1969; Samejima, Van der Linden, and Hambleton 1997), an extension of the two-parameter logistic model generated using maximum likelihood estimation. The model estimates discrimination parameters, *a*, for *j* items and location parameters, *b*, for *k*-1 response categories on θ for each *j* item. The *a* parameters represent the strength of the association to θ and the contribution of item *j* to the scale. The seven items, with recall periods over the last six months or since the last interview, include:

* *Position* in a gang (*a*=2.36): 0 = “no position”, 1 = “affiliate, but not a member” (*b*=1.05), 2 = “just a member” (*b*=1.48), 3 = “a top person” or “a leader” (*b*=2.09);
* *Attacked/threatened* someone as part of a/your gang (*a*=3.69): 0 = “never,” 1 = “monthly or less than monthly” (*b*=1.86), and 2 = “weekly or more” (*b*=2.45);
* *Symbols* such as flashing gang signs or wearing gang colors (*a*=3.72): 0 = “never”, 1 = “less than monthly” (*b*=1.66), and 2 = “monthly or more frequently” (*b*=2.03);
* *Contact* with a/your gang (*a*=2.48): 0 = “never”, 1 = “about monthly contact” (*b*=0.93), and 2 = “about weekly contact” (*b*=1.98);
* *Friends* who are members of a gang (*a*=2.36): 0 = “none”, 1 = “a few” (*b*=0.55), 2 = “half” (*b*=1.32), 3 = “most” (*b*=1.75), and 4 = “all” (*b*=2.56);
* *Importance* of a/your gang to you (*a*=4.14): 0 = “none”, 1 = “some” (*b*=1.16), 2 = “a lot” (*b*=1.59), and 3 = “total” (*b*=1.93);
* *Influence* on gang activities, decisions, and politics (*a*=3.97): 0 = “none”, 1 = “some” (*b*=1.25), 2 = “a lot” (*b*=1.75), and 3 = “total” (*b*=2.36).

The model was estimated across pooled waves of retained study participants and scores were generated using an empirical Bayes estimator and standardized to a mean of 0 and standard deviation of 1.[[2]](#footnote-2)

***Theoretical Variables***

*Imprisonment and Reentry*

 To test hypotheses derived from deprivation and exportation perspectives I compare levels of gang embeddedness at pre- and post-release interviews. First, a *linear trend* variable is created. Wave 1, or the pre-release interview, is coded 0, and Waves 2 and 3 are coded 1 and 2, respectively, to capture the direction, sign, and significance of any change in gang embeddedness and fix the model constant to the pre-release interview. Second, since the functional form of the reentry/embeddedness may not be linear, two dummy variables are used to distinguish between the post-release periods, *proximal reentry* (Wave 2 = 1; Waves 1 and 3 = 0) and *distal reentry* (Wave 3 = 1; Waves 1 and 2 = 0); Wave 1, or the pre-release interview, is used as the reference category. Finally, supplemental analyses pooled the post-release interviews together, testing whether gang embeddedness is higher in Waves 2 and 3 (=1) than in Wave 1 (=0).

*Gang Status*

Continuity and change in gang embeddedness with prisoner reentry is expected to be moderated by gang status. While gang status is dynamic in the life course, for the purposes of this study, I focus on gang status at the pre-release interview. Self-nomination was used to measure gang status, a method commonly used in gang research and found to be valid in community and institutional settings (Decker et al. 2014; Esbensen et al. 2001; Maxson et al. 2012; Pyrooz, Decker, and Owens 2020). All respondents were asked whether they had ever been in a gang and whether they were in a gang while incarcerated. Those who responded “yes” were later queried about their current gang status. Respondents who reported they had never been in a gang were recorded as *non-gang members* and respondents who reported that they were in a gang while incarcerated but have since left were recorded as *former gang members*. Respondents who reported that they were in a gang while incarcerated and have not left were recorded as *active gang members*. These measures are coded dichotomously (focal category=1, reference category=0) and mutually exclusive, with non-gang members serving as the reference category.

*Gang Organizational Structure*

 The organizational structure of the groups with which people affiliate is also expected to moderate the relationship between prisoner reentry and gang embeddedness. A four-part typology of gang organizational structure was determined based on a combination of official and survey data to distinguish instrumental-rational and informal-diffuse gangs among respondents who reported having affiliated with a gang while incarcerated. It bears mention that the overlap between self-reports and official records of the name of the gang with which a person was affiliated comported 86 percent of the time (Pyrooz, Decker, and Owens 2020).

The Security Threat Group Management Office in the Texas Department of Criminal Justice is responsible on an ongoing basis for identifying and classifying groups of prisoners in state custody that pose a threat to the prison system. They differentiate between STGs and cliques. At the time of baseline data collection 12 gangs were designated as STGs. Correctional personnel indicated that this was based on a group’s history and propensity for violence, centralized organizational structure, and threat posed to prison operations. An additional distinction is made among the 12 STGs. Seven of the gangs are believed to pose an elevated threat level due to their enhanced organizational structure, warranting placement of confirmed affiliates in administrative segregation (Aryan Brotherhood of Texas, Aryan Circle, Barrio Azteca, Hermanos de Pistoleros Latinos, Mexikanemi, Raza Unida, and Texas Syndicate), while the other five do not (Bloods, Crips, Partido Revolucionario Mexicanos, Texas Chicano Brotherhood, and Texas Mafia).[[3]](#footnote-3) These distinctions lead to two parts of the gang typology based on self-reporting an affiliation with one of these 12 groups: *STG: high organizational structure* and *STG: low organizational structure*.

The next part of the typology pertains to cliques. At the time of baseline data collection, there were 67 gangs designated as cliques that, while disruptive and require monitoring, did not meet all three criteria of STGs. Survey measures inquiring about the locus of gang influence—street only, prison only, or both—were presented to respondents who self-identified as having a history of gang affiliation. While nearly everyone (98%) with an STG affiliation (of both types) claimed their gang was active in both settings, there was considerable variation among those with a clique affiliation. Fifty-eight percent of affiliates of prison-oriented cliques indicated that their gang was only active in prison, while 41% indicated it was active on the street and in prison. None of the affiliates of street-oriented cliques indicated that their group was active only in prison; 66% indicated street-only while the 35% indicated both contexts. These distinctions lead to the final two parts of the typology based on self-reporting an affiliation with one of these cliques: *Clique: prison-oriented* and *Clique: street-oriented*.

 Of the four gang classifications, the survey data showed that 15% of the gang subsample self-reported affiliating with high organizational structure STGs, 17% with low organizational structure STGs, 15% with prison-oriented cliques, and 7% with street-oriented cliques. Empirical validation of this typology was presented by Pyrooz and Decker (2019), who outlined the 38 gangs represented in the data that fell within each classification. Based on multi-level modeling nesting people within gangs, they found substantial heterogeneity in the communicative, expressive, instrumental, and profit-generation features across the gangs, but that the typological “scheme we use[d] to classify gangs accounts for nearly all of the variation between gangs” and “avoid[s] the need to rely on multilevel modeling” of group clustering (120). Given the object of the current study, the four-part typology is optimal to test the organizational structure hypothesis.

*Control Variables*

 In-prison and post-release factors are included as control variables. Baseline self-reported sociodemographic factors include *age* in years at the time of release, racially *Black*, ethnically *Hispanic*, *educational attainment* in years, and *father* to any living children. An indicator of *street-only membership* in a gang was used to partition individuals who never claimed gang membership while incarcerated (i.e., typically adolescence-only gang involvement) from those who did and those who have never been in a gang. Criminal justice factors include the count of *prior arrests*, whether the conviction resulting in incarceration was *violent*, number of years in *time served* for the current sentence, the number of *prison spells* in Texas, and season of *release* (spring [reference], summer, or fall) to adjust possible for period effects. Together, sociodemographic and criminal justice controls variables address time- or rank-order stable heterogeneity that could alter the conclusions of the study, such as differential experiences in incarceration. Time-varying factors are also included, such as whether someone was *reincarcerated* at the post-release interview and the demeaned *days elapsed* between interviews. The specter of unobserved heterogeneity also exists, though tempered to some degree by rather short intervals between observations.

***Analytic Strategy***

Three waves of panel data are used to examine continuity and change in gang embeddedness during the transition from prison to the community. Mixed effects modeling is used to correct for non-independence since people are nested within waves. Random intercepts give each respondent his own constant, or gang embeddedness score, at the Wave 1 pre-release interview. Gang embeddedness is regressed on linear and dummy variables of interview waves, controlling for time- stable and varying factors. These regressions are repeated for (1) the items in the embeddedness scale, (2) a moderator of baseline imprisonment gang status, and (3) a moderator of gang organizational structure. The moderation analyses are estimated in the full sample using multiplicative interactions and separately to condition estimates on the subsamples (reported in the Supplementary Appendix). Combined, these findings provide evidence on Hypotheses 1, 2, and 3. Maximum likelihood estimation is used in all models and robust standard errors are reported. The outcome is standardized, as are all non-binary independent variables, allowing for the interpretation of coefficients as standard deviation unit differences in gang embeddedness. All models were reestimated using generalized structural equation modeling to confirm the reliability of statistical significance.[[4]](#footnote-4) All analyses were conducted in Stata 17.0.

**References**

Clark, Kendra J., Meghan M. Mitchell, Chantal Fahmy, David C. Pyrooz, and Scott H. Decker. 2020. “What If They Are All High-Risk for Attrition? Correlates of Retention in a Longitudinal Study of Reentry from Prison.” *International Journal of Offender Therapy and Comparative Criminology*. https://doi.org/10.1177/0306624X20967934.

Decker, Scott H., and David C. Pyrooz. 2021. *Gangs on the Street, Gangs in Prison: Their Nature, Interrelationship, Control, and Re-Entry, Texas, 2016-2018*. Vol. 37859. Ann Arbor, MI: Inter-University Consortium for Political and Social Research. https://doi.org/10.3886/ICPSR37859.v1.

Decker, Scott H., David C. Pyrooz, Gary Sweeten, and Richard K. Jr Moule. 2014. “Validating Self-Nomination in Gang Research: Assessing Differences in Gang Embeddedness across Non-, Current, and Former Gang Members.” *Journal of Quantitative Criminology* 30 (4): 577–98. https://doi.org/10.1007/s10940-014-9215-8.

Esbensen, Finn-Aage, L. Thomas Winfree, Ni He, and Terrance J. Taylor. 2001. “Youth Gangs and Definitional Issues: When Is a Gang a Gang, and Why Does It Matter?” *Crime & Delinquency* 47 (1): 105–30. https://doi.org/10.1177/0011128701047001005.

Fahmy, Chantal, Kendra J. Clark, Meghan M. Mitchell, Scott H. Decker, and David C. Pyrooz. 2019. “Method to the Madness: Tracking and Interviewing Respondents in a Longitudinal Study of Prisoner Reentry.” *Sociological Methods & Research*, September, 0049124119875962. https://doi.org/10.1177/0049124119875962.

Hagan, John. 1993. “The Social Embeddedness of Crime and Unemployment.” *Criminology* 31 (4): 465–91.

Lattimore, Pamela K., and Christy A. Visher. 2020. “Considerations on the Multi-Site Evaluation of the Serious and Violent Offender Reentry Initiative.” In *Handbook on Moving Corrections and Sentencing Forward*, edited by Pamela K. Lattimore, Beth M. Huebner, and Faye S. Taxman, 312–35. Routledge.

Maxson, Cheryl L., Charlotte E. Bradstreet, Danny Gascón, Julie Gerlinger, Jessica Grebenkemper, Darin Haerle, Jacob Kang-Brown, et al. 2012. *Gangs and Violence in California’s Youth Correctional Facilities: A Research Foundation for Developing Effective Gang Policies*. Irvine, CA: Department of Criminology, Law and Society, University of California, Irvine.

Mitchell, Meghan M., Kallee McCullough, Jun Wu, David C. Pyrooz, and Scott H. Decker. 2018. “Survey Research with Gang and Non-Gang Members in Prison: Operational Lessons from the LoneStar Project.” *Trends in Organized Crime*, March, 1–29. https://doi.org/10.1007/s12117-018-9331-1.

Pyrooz, David C., and Scott H. Decker. 2019. *Competing for Control: Gangs and the Social Order of Prisons*. Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/9781108653473.

Pyrooz, David C., Scott H. Decker, and Emily Owens. 2020. “Do Prison Administrative and Survey Data Sources Tell the Same Story? A Multi-Trait, Multi-Method Examination with Application to Gangs.” *Crime & Delinquency* 66 (5): 627–62. https://doi.org/https//:10.13140/RG.2.2.18751.36005.

Pyrooz, David C., Gary Sweeten, and Alex R. Piquero. 2013. “Continuity and Change in Gang Membership and Gang Embeddedness.” *Journal of Research in Crime and Delinquency* 50 (2): 239–71. https://doi.org/10.1177/0022427811434830.

Samejima, Fumiko. 1969. “Estimation of Latent Ability Using a Response Pattern of Graded Scores.” Psychometrika Monograph Supplement 17. Richmond, VA: Psychometric Society.

Samejima, Fumiko, Wim J Van der Linden, and Ronald K Hambleton. 1997. “Graded Response Model.” In *Handbook of Modern Item Response Theory*, 85–100. New York: Springer-Verlag.

Schubert, Carol A., Edward P. Mulvey, Laurence Steinberg, Elizabeth Cauffman, Sandra H. Losoya, Thomas Hecker, Laurie Chassin, and George P. Knight. 2004. “Operational Lessons from the Pathways to Desistance Project.” *Youth Violence and Juvenile Justice* 2 (3): 237–55. https://doi.org/10.1177/1541204004265875.

Solon, Gary, Steven J. Haider, and Jeffrey M. Wooldridge. 2015. “What Are We Weighting For?” *Journal of Human Resources* 50 (2): 301–16.

Visher, Christy A., and Nancy La Vigne. 2020. “Returning Home: A Pathbreaking Study of Prisoner Eentry and Its Challenges.” In *Handbook on Moving Corrections and Sentencing Forward*, edited by Pamela K. Lattimore, Beth M. Huebner, and Faye S. Taxman, 278–311. Routledge.

Western, Bruce, Anthony Braga, David Hureau, and Catherine Sirois. 2016. “Study Retention as Bias Reduction in a Hard-to-Reach Population.” *Proceedings of the National Academy of Sciences* 113 (20): 5477–85. https://doi.org/10.1073/pnas.1604138113.

## Figure S1. Predicted gang embeddedness values at pre- and post-release interviews by baseline imprisonment gang status

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |

*Note*: Wave 2 and 3 interviews occurred around 2 and 10 months post-release. Values for embeddedness are derived from linear predictions of pre-release gang status partitioned two-level models (active: *n*=98, *n*\**w*=245; former: *n*=165, *n*\**w*=432; never: *n*=359, *n*\**w*=955)with waves nested within persons fixing control variables (age, racially black, ethnically Latino, educational attainment, father, street-only membership, prior arrests, violent conviction, years imprisoned, number of prison spells, season of release, reincarceration, and time elapsed between waves) at mean values.

## Table S1. Mixed effects maximum likelihood estimates of gang embeddedness, full sample

|  |  |  |  |
| --- | --- | --- | --- |
|   |   | Model 1: Trend | Model 2: Wave |
|  |  |
|  |  |  *b* | (rse) |  *p*  |  *b* | (rse) |  *p*  |
| Theoretical Variables |  |  |  |  |  |  |
|  | Linear Trend | -.239 | (.024) | .000 |  |  |  |
|  | Wave 2 |  |  |  | -.142 | (.044) | .001 |
|  | Wave 3 |  |  |  | -.498 | (.049) | .000 |
| Control Variables |  |  |  |  |  |  |
|  | Age1 | -.024 | (.003) | .000 | -.024 | (.003) | .000 |
|  | Black | .278 | (.079) | .000 | .279 | (.079) | .002 |
|  | Hispanic | .165 | (.071) | .019 | .166 | (.071) | .019 |
|  | Education1 | -.028 | (.017) | .096 | -.028 | (.017) | .092 |
|  | Father | .070 | (.067) | .297 | .069 | (.067) | .303 |
|  | Street-only member | -.250 | (.083) | .003 | -.250 | (.083) | .003 |
|  | Prior arrests1 | .007 | (.006) | .234 | .007 | (.007) | .241 |
|  | Violent conviction | -.022 | (.070) | .752 | -.024 | (.070) | .731 |
|  | Years imprisoned1 | .005 | (.006) | .350 | .005 | (.006) | .367 |
|  | Prison spells1 | -.007 | (.020) | .733 | -.007 | (.020) | .711 |
|  | Summer release | -.022 | (.076) | .771 | -.026 | (.076) | .730 |
|  | Fall release | -.043 | (.085) | .611 | -.049 | (.085) | .564 |
|  | Reincarcerated | .295 | (.119) | .013 | .350 | (.120) | .004 |
|  | Days elapsed1 | -.001 | (.000) | .010 | -.001 | (.000) | .004 |
| Constant | .069 | (.091) | .449 | .046 | (.091) | .616 |
| Random effect |  |  |  |  |  |  |
|  Constant SD (rse) | .582 (.032) | .582 (.032) |
| Persons |  |  622 |  |  |  622 |  |
| Person-Waves |   | 1632 |  |   | 1632 |   |

*Abbreviations*: *b* = y standardized coefficient;(rse) = robust standard error; *p*=p-value; 1mean centered, SD=standard deviation

## Table S2. Mixed effects maximum likelihood estimates of post-release linear, pooled, proximal, and distal reentry associations with gang embeddedness by full sample and gang status partitioned samples

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Construct | Position | Attacks | Symbols | Contact | Friends | Importance | Influence |
|  |  | *b* (rse) | *b* (rse) | *b* (rse) | *b* (rse) | *b* (rse) | *b* (rse) | *b* (rse) | *b* (rse) |
| *Full Sample* |  |  |  |  |  |  |  |  |
|  | Linear Trend | -.239 (.024)\* |  .073 (.020)\* | -.023 (.006)\* | -.011 (.009) | -.130 (.014)\* | -.226 (.023)\* | -.003 (.017) | -.095 (.015)\* |
|  | Waves 2 & 3 v. Wave 1 | -.288 (.040)\* |  .227 (.032)\* | -.035 (.010)\* |  .011 (.017) | -.186 (.025)\* | -.299 (.041)\* |  .056 (.029)\* | -.137 (.025)\* |
|  | Wave 2 v. Wave 1 | -.142 (.044)\* |  .319 (.039)\* | -.028 (.012)\* |  .042 (.022) | -.133 (.030)\* | -.188 (.049)\* |  .116 (.034)\* | -.101 (.028)\* |
|  | Wave 3 v. Wave 1 | -.498 (.049)\* |  .098 (.043)\* | -.045 (.011)\* | -.032 (.018) | -.260 (.028)\* | -.458 (.046)\* | -.030 (.034) | -.188 (.030)\* |
|  | Wave 3 v. Wave 2 | -.356 (.047)\* | -.221 (.053)\* | -.016 (.011) | -.074 (.024)\* | -.126 (.031)\* | -.270 (.048)\* | -.146 (.038)\* | -.087 (.027)\* |
| *Active Gang*  |  |  |  |  |  |  |  |  |
|  | Linear Trend | -.647 (.089)\* |  .107 (.074) | -.122 (.035)\* | -.097 (.052) | -.263 (.061)\* | -.521 (.097)\* | -.172 (.090) | -.486 (.077)\* |
|  | Waves 2 & 3 v. Wave 1 | -.771 (.112)\* |  .210 (.108) | -.212 (.056)\* | -.093 (.086) | -.392 (.086)\* | -.639 (.152)\* | -.035 (.135) | -.775 (.107)\* |
|  | Wave 2 v. Wave 1 | -.442 (.112)\* |  .577 (.128)\* | -.210 (.061)\* | -.023 (.100) | -.333 (.097)\* | -.396 (.179)\* |  .199 (.145) | -.717 (.110)\* |
|  | Wave 3 v. Wave 1 | -1.37 (.198)\* | -.436 (.161)\* | -.215 (.068)\* | -.221 (.104)\* | -.501 (.131)\* | -1.09 (.202)\* | -.476 (.186)\* | -.885 (.160)\* |
|  | Wave 3 v. Wave 2 | -.924 (.207)\* | -1.01 (.197)\* | -.004 (.064) | -.198 (.113) | -.167 (.143) | -.690 (.225)\* | -.675 (.188)\* | -.168 (.153) |
| *Former Gang* |  |  |  |  |  |  |  |  |
|  | Linear Trend | -.156 (.052)\* |  .234 (.056)\* | -.020 (.011) |  .003 (.015) | -.116 (.028)\* | -.220 (.048)\* |  .047 (.036) | -.082 (.030)\* |
|  | Waves 2 & 3 v. Wave 1 | -.127 (.090) |  .548 (.085)\* | -.023 (.019) |  .066 (.034)\* | -.148 (.050)\* | -.279 (.090)\* |  .143 (.061)\* | -.082 (.051) |
|  | Wave 2 v. Wave 1 |  .024 (.106) |  .670 (.104)\* | -.010 (.022) |  .126 (.048)\* | -.087 (.059) | -.165 (.109) |  .199 (.074)\* | -.017 (.060) |
|  | Wave 3 v. Wave 1 | -.356 (.104)\* |  .367 (.116)\* | -.042 (.022) | -.022 (.030) | -.238 (.053)\* | -.452 (.092)\* |  .058 (.074) | -.181 (.059)\* |
|  | Wave 3 v. Wave 2 | -.380 (.110)\* | -.303 (.140)\* | -.032 (.022) | -.148 (.050)\* | -.151 (.055)\* | -.287 (.097)\* | -.141 (.085) | -.163 (.063)\* |
| *Non-Gang* |  |  |  |  |  |  |  |  |
|  | Linear Trend | -.178 (.025)\* |  .056 (.017)\* |  .001 (.000) |  .007 (.007) | -.103 (.015)\* | -.155 (.023)\* |  .018 (.012) | -.009 (.009) |
|  | Waves 2 & 3 v. Wave 1 | -.233 (.043)\* |  .102 (.023)\* |  .008 (.004)\* |  .018 (.011) | -.147 (.029)\* | -.212 (.040)\* |  .044 (.021) |  .003 (.015) |
|  | Wave 2 v. Wave 1 | -.132 (.048)\* |  .098 (.028)\* |  .014 (.007)\* |  .023 (.016) | -.100 (.036)\* | -.134 (.046)\* |  .056 (.027) |  .025 (.019) |
|  | Wave 3 v. Wave 1 | -.362 (.048)\* |  .106 (.035)\* |  .000 (.000) |  .013 (.014) | -.206 (.030)\* | -.313 (.046)\* |  .030 (.025) | -.024 (.017) |
|  | Wave 3 v. Wave 2 | -.230 (.045)\* |  .008 (.043) | -.014 (.007)\* | -.010 (.020) | -.105 (.034)\* | -.179 (.047)\* | -.026 (.031) | -.048 (.019)\* |

*Note*: Wave 2 and 3 interviews occurred around 2 and 10 months post-release. The estimates are derived from two-level models (full sample: *n*=622, *n*\**w*=1,632; active: *n*=98, *n*\**w*=245; former: *n*=165, *n*\**w*=432; never: *n*=359, *n*\**w*=955), where waves are nested within persons, adjusting for pre-release control variables (age, racially black, ethnically Latino, educational attainment, father, street-only membership, prior arrests, violent conviction, years imprisoned, number of prison spells, season of release, reincarceration, and demeaned time elapsed between waves).

## Table S3. Mixed effects maximum likelihood estimates of post-release linear, pooled, proximal, and distal reentry associations with gang embeddedness by gang type partitioned samples

|  |  |  |
| --- | --- | --- |
|  |  | Construct |
|  |  | *b*  | (rse) | *p* value |
| *STG: high org* |  |  |  |
|  | Linear Trend | -.064 | (.071) | .367 |
|  | Waves 2 & 3 v. Wave 1 | .060 | (.112) | .596 |
|  | Wave 2 v. Wave 1 | .213 | (.124) | .088 |
|  | Wave 3 v. Wave 1 | -.228 | (.147) | .122 |
|  | Wave 3 v. Wave 2 | -.441 | (.148) | .003\* |
| *STG: low org* |  |  |  |
|  | Linear Trend | -.156 | (.076) | .038\* |
|  | Waves 2 & 3 v. Wave 1 | -.084 | (.116) | .471 |
|  | Wave 2 v. Wave 1 | .110 | (.126) | .384 |
|  | Wave 3 v. Wave 1 | -.369 | (.154) | .016\* |
|  | Wave 3 v. Wave 2 | -.479 | (.150) | .001\* |
| *Clique: prison-oriented* |  |  |  |
|  | Linear Trend | -.563 | (.078) | .000\* |
|  | Waves 2 & 3 v. Wave 1 | -.758 | (.114) | .000\* |
|  | Wave 2 v. Wave 1 | -.527 | (.128) | .000\* |
|  | Wave 3 v. Wave 1 | -1.136 | (.167) | .000\* |
|  | Wave 3 v. Wave 2 | -.609 | (.182) | .000\* |
| *Clique: street-oriented* |  |  |  |
|  | Linear Trend | -.160 | (.108) | .139 |
|  | Waves 2 & 3 v. Wave 1 | -.112 | (.172) | .514 |
|  | Wave 2 v. Wave 1 | .067 | (.182) | .714 |
|  | Wave 3 v. Wave 1 | -.373 | (.218) | .087 |
|  | Wave 3 v. Wave 2 | -.440 | (.196) | .025\* |

*Note*: Wave 2 and 3 interviews occurred around 2 and 10 months post-release. The estimates are derived from two-level models (STG: high org. *n*=92, *n*\**w*=214; STG: low org. *n*=103, *n*\**w*=268; Clique: prison-oriented. *n*=96, *n*\**w*=242; Clique: street-oriented. *n*=43, *n*\**w*=108), where waves are nested within persons, adjusting for pre-release control variables (age, racially black, ethnically Latino, educational attainment, father, street-only membership, prior arrests, violent conviction, years imprisoned, number of prison spells, season of release, reincarceration, and demeaned time elapsed between waves).

1. The original person-wave sample of 1,668 was reduced by 36 due to missing data on gang embeddedness items as a result of partial interviews (*n* \* *w*=34) or respondent refusals (*n* \* *w*=2). [↑](#footnote-ref-1)
2. Consistent with prior research, these items were positively and strongly associated. A polychoric correlation matrix revealed inter-item correlations ranging 0.55 to 0.82 and a mean of 0.71 across 21 correlations. [↑](#footnote-ref-2)
3. Gang designations can change. The Texas Mafia, while still classified as an STG, was downgraded in 2015 and no longer placed in segregation. Ultimately, the task of classifying, upgrading, and downgrading groups is the responsibility of Texas’s Security Threat Group Management Office. [↑](#footnote-ref-3)
4. While GSEM offers the advantage of simultaneous rather than two-stage estimation of the measurement and structural models, its disadvantage is the inability to report standardized coefficients and thus the substantive significance of the coefficients, as well as goodness of fit statistics. In all instances the sign and significance for the two-stage estimations were substantively equivalent to the GSEM estimations. [↑](#footnote-ref-4)