U.S. Department of Justice, Office of Justice Programs
National Institute of Justice Final Research Report

Project Title:
Disrupting the Pathways to Gang Violence for Youth of Color
Award Number: 2017-MU-MU-0055

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Project Period: 1/1/2018 to 12/31/2023
Award Amount: $468,740
Report Date: January 1, 2023

Acknowledgements

Land Acknowledgement

We acknowledge the land that we occupy as residents of Multnomah County is unceded

Indigenous land. The Portland Metro area rests on traditional village sites of the Multnomah, Wasco,

Cowlitz, Kathlamet, Clackamas, Bands of Chinook, Tualatin, Kalapuya, Molalla, and many other tribes

who made their homes along the Columbia River creating both permanent communities and seasonal

encampments. Due to the strategic and systemic efforts to annihilate Indigenous peoples from these

lands and history, there are many other tribes and Nations who traditionally lived, hunted and fished in

what is now Multnomah County and Oregon that are not collectively remembered.

We also acknowledge the history of the Portland Metro area as a destination site for the Indian

Relocation Act of 1956, which coerced many Native people to leave their homes on tribal land and

assimilate into the dominant culture. Because of this history, Multnomah County is home to the ninth

largest urban Indian population in the United States. We honor the enduring relationship that exists

between Indigenous peoples and this occupied land.

Settlers from across the globe come to Multnomah County seeking a better way of life.

Multnomah County owes this opportunity to our Black and African siblings whose stolen lives and labor

were used to build the city, county and country that we call home.

This acknowledgment serves to bring awareness to the past and current contributions of

Indigenous and Black peoples, and to highlight the ongoing resilience and solidarity between and among

Indigenous and Black peoples. Multnomah County will continue to work in solidarity to uplift the

collective power, leadership, creativity and wisdom of Indigenous and Black communities in Multnomah

County and beyond. Please take a moment to offer respect and appreciation to the Indigenous peoples

whose traditional homelands and hunting grounds are where we, as residents of Multnomah County,

live, learn, work, play and pray. In remembering these communities, we honor their legacy, their lives and their descendants.

Youth and Men Involved with Gangs

At the core of this study are the lives of Black/African American men who are involved with gangs. The nature of gang involvement makes it oftentimes lethal to talk, let alone talk to researchers. The research team is grateful to the participants, and wants to center the participants who opened the door slightly to let us in and understand what you experience, with the hopes of helping meet your needs. Finally, it is important to acknowledge that often in quantitative analyses, there is chasm between researcher and participant, in that people are reduced to a line of data or a series of variables. It is essential to acknowledge that each line of data in the quantitative analysis is a human, who has, after performing this analysis, lived through a gamut of experiences not contextualized in the analyses. We acknowledge your life, your experience, and value you as subject matter experts.

Department of Community Justice

This study would not have occurred and preserved without the leadership of Department of Community Justice's Director, Erika Preuitt. She established the relationships the project needed to see it through. It is especially important to acknowledge through course of this project, without her guidance and advocacy, this project would not have been successfully completed. Thank you Erika. Next, it is important to acknowledge Jay Scroggin, Adult Services Division Director, for supporting and promoting this project. Appreciation is also owed to the Managers of the Gang Unit through the course of this grant, first to Bryan Smith for helping initialize the study, and then to Travis Gamble for his steady guidance and expertise throughout the course of the project. This study could not have happened without Nate Roberts, Choo Fair, and Thanh Vu, who called, went and picked up, and created an entrée for the qualitative researcher into an extremely closed group. Thank you also to the probation officers in the gang unit, who helped recruit and supported this project, Matt Scott, Kingsley Mgbadigha, and David

Main, and especially Thanh Vu, who dedicated his experience, time, and passion to this project. Finally, thank you to reception staff, Jen Hollings, Michelle Williamson, Crystal Schmidt, Crystal Weise, and Theresa Newton-Abeghe, and the security staff, especially Derwin Boyd, who were welcoming of the participants and helped coordinate the interviews with Dr. Craig.

Collaboration

In order to accomplish the extensive work of this federal research grant, we were supported by a number of agencies and individuals. We want to thank and acknowledge the efforts and willingness to assist us with this work.

Data partners.

Over the course of this federal grant, a number of partners supported the work by providing data or access to data. These data were in addition to the Department of Community Justice data for both youth and adults that the research team could access directly. Our partners included:

- Multnomah County Department of County Assets
- Multnomah County District Attorney
- Oregon Department of Corrections
- United States Probation Office, District of Oregon

Advisory board members.

After establishing a Research Advisory Board in the first year of the federal grant, a number of individuals participated to support the work of the research team. The individuals listed below (listed alphabetically) all attended at least one meeting, while a number of the individuals attended most of the meetings throughout the course of the project.

- Bryan Smith, Multnomah County Department of Community Justice
- Caroline Wong, Multnomah County District Attorney
- Choo Fair, Multnomah County Department of Community Justice

- Craig Prins, Oregon Department of Corrections

- Deena Corso, Multnomah County Department of Community Justice

- Devarshi Bajpai, Oregon Department of Corrections

- Eric Zimmerman, Multnomah County District Attorney

- Erika Preuitt, Multnomah County Department of Community Justice

- Glen Banfield, Multnomah County District Attorney

- Harry Bradshaw, Oregon Youth Authority

- Jay Scroggin, Multnomah County Department of Community Justice

- Jeff Duncan, Department of Corrections

- John Bodden, United States Probation Office, District of Oregon

- Lily Yamamoto, Multnomah County Local Public Safety Coordinating Council

- Lori Nelson, Multnomah County District Attorney's Office

- Marcia Perez, Multnomah County Department of Community Justice

- Melissa Aubin, Oregon District Court

- Neal Japport, Oregon Judicial Department

- Parakram Singh, Multnomah County District Attorney

- Suzanne C. Hayden, U.S. Attorney's Office - District of Oregon

- Thanh Vu, Multnomah County Department of Community Justice

- Tracey Freeman, Multnomah County Department of Community Justice

- Travis Gamble, Multnomah County Department of Community Justice

Research Team Members

This project could not have been conceptualized, implemented, and completed without the

dedication of the people listed below. The research team has been able to engage a number of

individuals in the work since it began, and it is important to acknowledge the work of the first Principal

- Kim Bernard, PhD

- Meagan Zurn, PhD*

- Miltonette Craig, PhD*

- Miranda Sitney, PhD*

- Valerie Adrian, PhD

- Wende Jackson, BA

Introduction

Goals and Objectives

Guided by a life course perspective, this study used a mixed methodological approach (i.e.,

quantitative administrative data and qualitative interviews) to identify the differences in events,

motivations, and experiences related to gang affiliation and the differences across (a) system-

documented, gang-involved individuals, (b) system-documented gang-involved individuals who have

gang-involved family members, and (c) other high-risk youth who are suspected of involvement. The

overall goal of this research was to identify distinct pathways to gang activity that could inform

practitioners and policymakers about useful intervention strategies.

To achieve this, separate and distinct juvenile and adult systems databases were integrated to

create critical linkages between juvenile services data, adult community corrections data, and federal

corrections data. This allowed for the examination of the trajectory of each individual – regardless of

gang system documented gang status – from juvenile services through state adult corrections through

federal adult corrections. It also permitted the investigation into the similarities or differences among

different system-identified groups (i.e., gang involved, suspected gang involved, or no documentation of

gang involvement). Additionally, the inclusion of familial and peer criminal justice records and system

gang identification enabled the study to control for family and peer influences while focusing on how

the father's criminality and gang status might be a risk factor for youth criminal legal involvement and

escalation into the adult system. As a result, this research fills a literature gap about the relationships

between and amongst fathers and sons, and how those relationships transmit both criminogenic and

protective factors that would encourage or discourage gang affiliation and gang activity.

Background and Context

  Multnomah County Department of Community Justice.

  The Department of Community Justice (DCJ) in Multnomah County, Oregon provides supervision

and treatment to youth, adults, and their families. The overall mission of DCJ is to enhance community

safety and reduce criminal activity by holding youth and adults accountable in a fair and just manner,

assisting them to develop skills necessary for success, and effectively using public resources. Because of

the linkage between the juvenile system and the adult system, this project involved both the Adult

Services Division (ASD) and the Juvenile Services Division (JSD). ASD serves on average 6,700 adults

annually, with approximately 300 adults being supervised in the Gang Unit, and JSD annually serves over

1,100 youth in detention, on supervision (both formal and informal), on community monitoring, in

shelter/residential care, and in community-based diversion. Both JSD and ASD work closely with

community members and partners using research and proven methods to promote positive change in

the youth and adults served.

  Impetus for the research proposal.

  For almost thirty years, Portland and Multnomah County have been plagued with gang activity.

In the mid-90s, as a result of the introduction and escalation of gangs within the Portland Metro area

and Multnomah County in general, Portland Police Bureau (PPB) began tracking gang-involved shootings

and assaults, and the Department of Community Justice (DCJ) initiated a gang-specific unit to provide

specialized supervision. In March 2017, when the research proposal was submitted for consideration,

Multnomah County had recently completed a Comprehensive Gang Assessment using the OJJDP model,

which identified at least 133 different gangs operating in the area (Joplin, 2014). The assessment led

system and community leaders to recognize the importance of understanding the mechanisms of gangs

within the Multnomah County context. At the time of the NIJ research proposal, gang activity had not

reached the violence levels of the mid-1990s, but PPB was showing gang-related violence at a nearly 15-

year high and on a trajectory to do so. As a result, gang violence had particularly negative impacts on communities of color, especially the Black/African American communities in Multnomah County, with the majority of juveniles believed to be gang-involved or affiliated being youth of color (about 77%) and male (85%).

It was the pervasiveness of gang violence in the community that brought together DCJ, Multnomah County District Attorney, Oregon Department of Corrections, and Federal Probation to share data to an extent that surpassed all previous efforts. For the first time, researchers would be able to follow the trajectory of each individual gang-affiliated or other high-risk youth from juvenile services through state adult corrections through federal adult corrections. Previous data-sharing efforts in Multnomah County had only included cross-sectional snapshots and other types of aggregate data. While valuable, the most pressing research questions on intergenerational gang violence required a deeper dive with more sophisticated, longitudinal analyses.

There were a few longitudinal research studies that had focused on the life course pathways to violence and gang involvement. These studies had relied heavily on self-reporting with limited administrative data supplementing their models (Levitt & Venkatesh, 2001; Loeber & Ahonnen, 2014; Augustyn, et al., 2014). The abundance of administrative data in this study offers several advantages. First, the analysis could shed light on missed opportunities to disrupt emerging patterns of violence and gang involvement. In particular, youth of color were already having disproportionate contacts with law enforcement and other service systems. In 2016, DCJ data analytics showed that the relative rate index of African American youth for referrals to the juvenile system was 5.47 times more than White youth. This study could ask more critical questions about the timing, delivery, and cultural responsiveness of those system law enforcement contacts.

Second, it was hypothesized that the length of the study window would create large sample sizes that, in turn, would permit rigorous modeling. It was anticipated that approximately 900 high risk

youth engaged in juvenile justice between 2000 and 2010 would be analyzed and followed; however, the sample size used for this study was much larger (n=2,210) and encompassed a wider timespan (2002 to 2017).

Lastly, the inclusion of family information, specifically the fathers' criminal justice records, allowed for clear understanding of the intergenerational transmission of criminogenic factors that might prove to be a risk factor for youth engagement in gangs and escalation further into the youth and adult system. It also allowed for a comparison of the trajectories between youth who do and do not have parents or close family members who are gang-affiliated, and those youth who do. In the end, the impetus for this research was to understand who the youth associated with gangs were, and how their fathers affect not only their criminality, but their gang status.

Gangs in the local context.

To fully understand the backdrop of this study, it is important to understand the context within which this study was conducted: Portland, Oregon. Gangs have maintained a consistent presence in Portland since the 1980's, and the city's street gangs are dominated by social descendants of the LA-born Bloods and Crips sects is a city that has experienced rising gang violence within recent years. As Portland became gentrified, in the early 2000s, gang members and their associated activities were dispersed and pushed out into the east city suburbs. As the gangs were pushed out of the city center by economic forces, they no longer held steady blocks of territory, but lived side by side with rivals in the same neighborhood — occasionally in the same apartment building.

Although other large U.S. cities have recently reported overall higher rates of violence (California Partnership for Safe Communities, 2022), violence in Portland is especially high and is closely tied to gang activity. Street gangs are currently the primary driver behind the city's growing homicide and gun violence incidents. In 2013, PPB had as many as 600 documented gang members in their files, across 114 documented gang sects, and the Bureau estimated around 2,500 Portland gang members in

total (Vanderhart, 2013). Nearly a decade later the numbers were still increasing: Portland's homicide rate leapt a full 207% from January 2019 to June 2021, which is the largest increase among comparable cities, including Atlanta, San Francisco, and Denver (California Partnership for Safe Communities, 2022). More than half of these homicides were fatal shootings involving gang members or gang-affiliated individuals (Bernstein, 2022). In 2021, there were a total of 1,315 shootings, and as of November 2022, there have been 1,195 so far this year (Bernstein, 2022; Portland Police Bureau, 2022).

The elevated significance of gangs in Portland relates to the ways in which law enforcement has negatively impacted the socioeconomic context in a city that has a pronounced legacy of structural inequality and racial discrimination (Moreland, et al., 1993; Semuels, 2016). The street gangs of Portland are predominantly Black/African American in membership, and this demographic composition is driven in part by the pressures of poverty and systemic disinvestment in Black communities (Semuels, 2016). This is in line with research indicating a strong relationship between concentrations of negative structural factors, such as poverty and high violence rates, including injuries and homicide among gang members (Papachristos et al., 2013; Rosenfeld et al., 1999; Sanchez et al., 2022). As Sanchez and colleagues (2022) explained, "there is a bidirectional relationship between gangs being a product of their environment and contributing to such an environment" (p. 75).

The PPB has struggled to provide effective policing solutions to gangs that do not exacerbate the same conditions of inequality. One such effort, a "gang list" maintained by the PPB, was abandoned in 2018 due to its use of inappropriate criteria and lack of transparency. The tool ultimately led to the over-policing of Black Portland communities and the police killing of unarmed individuals pulled over on the pretenses of the list and its criteria (Bernstein, 2017, 2018, 2020; Portland City Auditor, 2018). Such disparate impacts are in line with patterns in other U.S. cities that demonstrate the fragmenting of marginalized neighborhoods and criminalization of entire communities, caused by gang policing tactics (Flores, 2021). Furthermore, the PPB Gun Violence Reduction Team (GVRT) was dismantled in response

to criticism of the racial disparities in enforcement, which took center stage in activists' efforts amid the 2020 Black Lives Matter protests (Bernstein, 2022; Jacquiss, 2020; Sparling, 2022).

While Portland law enforcement agencies search for effective strategies to address gang violence that do not inflict further harm within the communities where these gangs are embedded, residents struggle to contend with the violence and its consequences. In Portland, Black males make up only 3.8% of the population, but are 47.2% of the victims of homicides and shootings (California Partnership for Safe Communities, 2022; U.S. Census Bureau, 2020). This violence primarily victimizes individuals 18 to 44 years of age (78%), relative to only 35% in the population, with the average age being 32.9 years of age (California Partnership for Safe Communities, 2022, U.S. Census Bureau, 2022). The toll of this violence on young adults is clear, with 27% of victims ages 18 to 24 years (California Partnership for Safe Communities, 2022), relative to only 7.9% in the population (U.S. Census Bureau, 2022).

These patterns of violence occur against a backdrop of racial segregation and inequality that acutely impacts Black/African American youth. A local alliance of culturally-specific, community-based organizations, Coalition of Communities of Color, partnered with researchers at Portland State University to document the pronounced challenges faced by Black/African American people (Bates, 2013). As of 2014, they found that Black/African American Portland families averaged less than half of the income of White families in Multnomah County, and Black/African American children faced a poverty rate of nearly 50%. In a city with rapid gentrification, where home ownership serves as the best buffer against forced relocation, only one in three Black/African American families owned their own home, whereas two of every three White families owned theirs (Bates, 2013). Furthermore, Black/African American children were three times more likely than White children to be placed in the foster care system and stayed in that system longer, and more than half of Black/African American youth did not complete high school compared to only one third of White youth who fail to meet that

same milestone (Bates, 2013). These striking disparities that exist in Multnomah County, and specifically in Portland, created a sense of urgency to investigate further this connection, and adopt data driven interventions that could address the needs of Black/African American youth involved in or on the fringe of gang involvement in Portland, Oregon.

Accomplishments

During the five years of this grant project (i.e., original three years of funding plus two one-year no cost extensions), a number of significant accomplishments were achieved. As would be expected, but important to note, each of the accomplishments listed are the result of numerous activities, significant partnerships, and countless research team hours. As the research team, we are proud to identify the following high-level accomplishments during the funding period.

Administrative.

- Staffed a highly qualified research team, including established researchers, graduate students, and consultants.

- Recruited and established a Research Advisory Board that provided guidance throughout the majority of the grant period.

- Prepared and submitted biannual progress reports throughout the life of the grant.

- Presented both quantitative and qualitative papers at the 2022 American Society of Criminology conference in Atlanta, Georgia.

Quantitative Study.

- Secured and merged data sets from the Juvenile Justice Information System, Multnomah County Adult Services Division, Oregon Department of Corrections, Multnomah County District Attorney, and United States Probation, District of Oregon.

- Conducted analyses to answer six quantitative research questions.

- Began preparing a manuscript for publication initially entitled, "Gang-joining and Escalation to Adult Criminal Behavior as a Function of Paternal Gang Membership." Anticipated submission to *Justice Quarterly* by January 31, 2023.

- Began preparing a manuscript for publication initially entitled, "Gang-joining and Escalation to Adult Criminal Behavior as a Function of Adverse Life Events in Childhood and Adolescence." Anticipated submission by March 31, 2023.

- Began preparing a manuscript for publication entitled, "Age-Related Trends between Youth Affiliated with Gangs and Non-Gang Youth." Anticipated submission to *Journal of Gang Research by* January 31, 2023.

Qualitative Study.

- Conducted 36 interviews with young men supervised by the DCJ Gang Unit.

- Completed qualitative coding and analysis of the first phase of 12 interviews with young gang-affiliated men.

- Developed a behavioral model of gang activity based on the qualitative interview data.

- Conducted 12 interviews with staff who supervise or otherwise work with gang-involved youth and adults.

- Completed qualitative coding and analysis of the staff interviews.

- Submitted a manuscript for publication based on those staff interviews entitled "Tools, Terms and Conditions: Comparing Probation Philosophies in the Adult and Youth Contexts." The manuscript was submitted to *Criminal Justice and Behavior* on November 11, 2022.

- Began preparing a manuscript for publication based on the initial interviews with gang members entitled, "Behavioral Model of Gang Activity." Anticipated submission by March 31, 2023.

- Began preparing a manuscript for publication based on individual interviews with individuals being supervised by the DCJ Gang Unit entitled, "We Love Each Other, It's a Family: Affiliation and Social Ties through Gang Members' Lenses." Anticipated submission to *Race and Justice by* March 1, 2023.

Methodology

Overall Approach

This research was designed as a mixed methods approach, integrating quantitative data from separate and distinct juvenile and adult siloed systems and qualitative data from individual interviews with gang-involved young adults.

In general, after all data sources were merged into a single data file, a variety of analyses were conducted for the quantitative study. Coarsened Exact Matching (CEM) was used to create matched samples of youth across three groups: gang documented, gang suspected, and not involved. The analyses included descriptive analyses and group comparisons (i.e., chi-square, Analysis of Variance [ANOVA], and t-tests) and logistic regression modeling.

For the qualitative study, as interviews were conducted, audio recordings were created and then transcribed. The transcribed interviews were uploaded into NVivo qualitative analysis software. Both inductive and deductive coding was applied to all of the transcripts within each sample (i.e., young men supervised by the gang unit, probation staff) and the resulting text was reviewed within codes to identify key themes.

The detailed methodologies used for both the quantitative and qualitative studies are described in the respective sections of this report.

Original Research Questions

Each of the quantitative and qualitative components included a unique set of research questions that drove the data collection and analytic strategy.

Quantitative research questions.

For the quantitative portion of the study, six questions were investigated, with the seventh research question being addressed in a slightly different manner, as is explained in the next section of this report. The original quantitative research questions were:

RQ1.   What aspects of early criminal offending and other problematic behaviors differ between gang affiliated youth, gang affiliated youth with gang-involved parents, and other high-risk youth?

RQ 2.   Are there significant differences in the likelihood of youth escalation into the adult criminal justice system and the Federal Corrections System between gang affiliated youth, gang affiliated youth with gang-involved parents, and other high-risk youth?

RQ 3.   Are there consistent age-related trends in risk as measured by the Juvenile Crime Prevention (JCP) tool? Do those trends vary by gang affiliated youth, gang affiliated youth with gang-involved parents, and other high-risk youth?

RQ 4.   What is the timing of important life events (e.g. school disruption event, child welfare contacts or involvement, first non-criminal referrals, first police referral, treatment provider contacts, youth detention event, etc.) across the life course of justice-involved youth? Does the timing differ between gang affiliated youth, gang affiliated youth with gang-involved parents, and other high-risk youth?

RQ 5.   Does the close proximity of the timing of these life events increase the likelihood of youth escalation into the adult criminal justice system and the Federal Corrections System? Do these predictions differ between gang affiliated youth, gang affiliated youth with gang-involved parents, and other high-risk youth?

RQ 6. How do parental offending and incarceration patterns predict their child's likelihood of becoming gang affiliated and likelihood of escalation into the adult criminal justice system?

RQ 7. How do any of the answers to these research questions vary by youth race, ethnicity, geography, gender, and offenses?

Qualitative research questions.

For the qualitative portion, the main driving inquiry focused on recruitment into gangs, beliefs about gangs, activities while associated with a gang, and desistance from the gang. In addition to understanding the experiences of men under supervision with gang associations, probation officers were interviewed to understand their perspectives of participants' lives. The original qualitative research questions were:

RQ 1. What are the critical transition periods for becoming gang-affiliated, and how are they experienced as an emotional event and/or a deliberate decision? How do these differ between individuals who have no criminal justice system involved family members, individuals with criminal justice involved family members, and individuals with gang-affiliated family members?

RQ 2. What is the relational and emotional experience of recruiting a familial relation to gang affiliation, and what is the relational and emotional experience of being recruited by a familial relation to gang affiliation and gang activities?

RQ 3. What are the motivations for recruiting a familial relation into gang-affiliation, and what are the motivations for allowing oneself to be successfully recruited by a family member?

RQ 4. What are the methods employed by gang-affiliated individuals in recruiting their family

members?

RQ 5. Do the recruiter and recruited have significant or patterned differences in the event and

experience of recruitment into gang-affiliation and gang activities?

RQ 6. Do the recruiter and recruited have significant or patterned differences in their views

and experiences of the criminal justice system?

Institutional Review Board Oversight

Prior to beginning any data collection, the research team prepared and submitted a human subjects research application to the Portland State University (PSU) Institutional Review Board (IRB). The application itemized the quantitative and qualitative approaches, including the subject populations, recruitment, informed consent, data collection methods, risks and benefits, participant privacy, and data confidentiality. The original application was submitted in June 2018 and approval was received in August 2018. Continuation applications were submitted annually throughout the course of the project and amendments were submitted as needed for investigator and methodological changes. Due to this project crossing the time period when the federal Office of Human Research Protections made significant changes to the regulations. As a result, the application materials were also significantly changed by the PSU IRB. In December 2020, when submitting an amendment to the protocol, the research team was directed to resubmit the entire study, including the amended adjustments, on the new application forms. These were submitted in February, then resubmitted in April to account for requested changes. The final approval for that resubmission was granted in April 2021. All IRB applications and approvals are available upon request.

Qualitative Study and Findings

Purpose of Qualitative Investigation

The purpose of launching a qualitative investigation of pathways into gang membership for this grant was to facilitate a rich understanding of the process that an exclusively quantitative approach would not provide. In this study we sought to investigate the primary motivations and decision-making that underlie gang affiliation and involvement, which was not captured in the quantitative portion of this study. The data used in the quantitative analyses was gathered from institutional case management systems. Although accessing information directly from criminal legal institutions can aid in criminal justice inquiries, administrative data often only represents recorded observable events. Quantitative methods cannot provide deep insight into the lives of individuals or communities and the dynamic experiences they undergo. To uncover the interpersonal and social context of events reported in the quantitative analysis, the team launched a series of interviews with individuals who are or have been entangled in the criminal legal system for gang-related crime. Parts of the qualitative portion of the study were conducted parallel to and responsive with the quantitative study, which allowed the research team to obtain a richer understanding of the gang-involvement process and outcomes.

Methodology

Original design and purpose of qualitative study.

An impetus for the Gang Pathways project was the repeated experience of Department of Community Justice (DCJ) field staff and other local law enforcement officials interacting with multiple members of the same family as they came through the criminal legal system. Specifically, those working in the DCJ Gang Unit reported seeing successive generations of relatives come through the unit over the course of several years, sometimes over the course of decades. This trend was particularly glaring when the same last name appeared on dockets and file notes over the course of staff members' personal careers. This led field staff to wonder if there was a familial element to gang activity that was not being

reflected in official understandings of how gangs operated, particularly concerning recruitment into the gang lifestyle.

Gang recruitment is classically understood through the lens of a deviant model of criminal behavior, especially within the literature of juvenile delinquency (e.g., Catalano et al., 2004; Catalano & Hawkins, 1996; De Vito, 2020; Hill et al., 1999; Thornberry et al., 2003). A typical narrative in this model is that a child or adolescent who is poorly attached to family and traditional institutions (e.g., school) is socially vulnerable, and then recruited into the formal membership of a street gang. While this model is still relevant in many cases, if gang membership is passed down within a family, the peer socialization model breaks down. Within a familial membership process, recruitment into a gang could happen much earlier in a child's lifespan. Accordingly, it would be expected that gang involvement would be the result of normal cultural socialization that comes from growing up in such a family, and not one of alienation and deviance. This apparent phenomenon of recruitment within families was the focus of the original study design, which centered on examining and understanding the life course and socialization processes through semi-structured interviews. The original research questions for this component of the study supported that focus (see Methodology section).

First phase of interviews with gang-involved young men.

To investigate the life course of those who become gang-affiliated and to identify key events leading to joining and participating in a gang, a series of qualitative interviews were conducted with individuals being supervised in the DCJ Gang Unit. The research team worked closely with Gang Unit staff to assist with identifying potential participants who were 18 years of age or older. A member of the research team was available at the supervision office for a number of different days. As individuals came in for their supervision meetings, the parole and probation officer (PPO) would inform them briefly about the study and that a researcher was there to tell them more about the opportunity. The researcher would explain the project and had consent forms on hand that they could read through to

decide about participation. If they chose to participate, they were given the choice to do the interview

at that time in that location or to do the interview at another time at an alternative location.

After the individual initially agreed to participate in the interview, the consent form was

reviewed and signed prior to any data collection. The semi-structured interviews followed an IRB-

approved protocol and the interview questions were designed to reflect characteristics of recruitment

and stages of formal membership to an LA-style street gang (see Appendix A). These questions followed

known life course events identified in the literature, but then allowed space for the participant to probe

and describe direct family involvement. Each participant was also asked for permission to audio record

the interview in order to create a full transcript that would be used in the coding and analysis phase.

A total of 12 interviews were conducted over a five-month period (November 2018 to March

2019) and lasted from 19.5 to 55 minutes, with an average length of 33.7 minutes. Of the young men

interviewed nine were African American, two were White, and one was Latino. Each participant was

asked to identify the gang with which they were associated and five identified as members of the

Bloods, one was a member of the Hoovers, two were members of Aryan neo-Nazi gangs, and one was a

member of the Sureños. The other three participants did not identify as gang-affiliated. Perhaps

surprisingly, these final participants proved particularly valuable to the analysis. All three were

supervised in the Gang Unit due to being in close social relationships with many known gang members,

but had always managed to abstain from joining the gangs themselves or participate in gang activity,

and they were under supervision for crimes that were not gang related. Yet, due to their close social

contact with street gangs, they were able to independently corroborate some of the same themes and

trends described by the gang affiliated participants. Most importantly, they were able to describe how

and why they were able to resist joining the gang lifestyle while living with many of the exact same

environmental pressures as those who did, therefore providing a natural comparison group.

Interviews went through an iterative process of thematic qualitative analysis. Transcripts of the conversations were first coded inductively, which allows for themes to present themselves organically and prioritizes the context and meaning of the participants themselves (Corbin & Strauss, 2014). This allows for further analysis to remain grounded and maximize the opportunity for new findings to come to the forefront of the study. Once the qualitative researchers reached a point of thematic saturation, a code book was created that included themes inductively discovered in the first process, themes already identified in interviews with gang-involved individuals, and themes considered important in relevant scholarly literature (Böhm, 2004; Corbin & Strauss, 2014).

Multiple rounds of deductive coding were conducted until the research team was collectively certain that theme saturation had been reached (Creswell & Poth, 2018; Saldaña, 2021). Once this stage was completed, a phase of co-axial coding was done to identify important relationships between themes, questions, and participant characteristics.

Proposed interviews with family member dyads.

The original design of this project included a component to explore the practical and emotional realities of gang socialization and recruitment within the family. The design involved recruiting and interviewing five dyads of older/established and younger/initiated gang members (e.g., father and son), each interviewed as separate individuals and then together as a pair. The interviews were intended to explore the process of introducing younger family members to gang identities and activities. They would also explore themes of resistance to gang initiations and protections from dangerous gang activities. The dyads were to be recruited through the Gang-Impacted Family Team (GIFT). GIFT was established in 2012 as a multi-agency program led by the City of Portland's Office of Violence Prevention that aimed to implement gang suppression efforts by breaking the intergenerational ties that perpetuate gang involvement and violence in the community. Interviewing the dyads as individuals and then together would allow for the cross-analysis of statements and themes, as well as the emergence of any patterns

of normalization of joining a gang or recruiting a younger family member into gang life. As described

below, the initial interview findings did not support the anticipated familial recruitment process, which

resulted in a shift from the original qualitative study approach.

Impact of initial findings and pivot to behavioral/participatory model.

Once interviews began with gang-involved and affiliated men, it became clear that many of the

assumptions underpinning the research design were flawed.

The first assumption, originally suggested by field staff, that recruitment was happening within

families (e.g., from father to son, uncle to nephew), was simply not happening for these participants. In

many cases, participants had little to no relationship with their biological father, as evidenced in the

following interview excerpts:

I just feel like I got in a gang because I was just misunderstood. I didn't have my dad in my life.

And my mom, she's always been a great mother. But, I just feel like she kind of just went a

different way with her new husband. And I just felt like I wasn't part of the family.

It's more or less my family, but my father died when I was eight. So it kind of stirred up

the pot for a lot of things. It kind of scattered me and my siblings in different places.

In some cases, participants had been introduced to their eventual gang by peers, as fit the

traditional model of gang recruitment. In many cases, however, these introductions were through those

to whom they had biological ties, but these relatives were from the participant's same generation.

Typically, these were cousins, but also older brothers. The following quotes exemplify this process:

So my older cousins, then, like, they would, like, bring me around, but they would never let me

indulge in, like-- you know what I mean? Like I'm never going to hold guns. I'm never going to be

doing, like, … sell. … So when I got around the guys my age, um, particularly, my cousin, um, it

started out just kind of like getting high every weekend, you know?

My first cousin, on my dad's side. So, like, you know, he kinda introduced me … that was kinda my way of being from Hoover. You know, I'm like, "Okay … you know, you my blood cousin, you know. Like, can I be under you? Can I be your little homie?" You know. And he was just like, "Yeah … cool." Like, you know, just banging the hood.

None of the participants described being brought into a gang by someone who was from an older generation and from their own household or biological family. Further, when the qualitative researcher asked participants if they had themselves witnessed such a process between father and son or uncle and nephew, they replied they had not.

Even more fundamentally, the assumption that gang membership was a formal process with clear delineations of who was "in" and who was "out" also appeared to be incorrect. As the following excerpts illustrate, participants described a more organic social process that relied alternatively on personal motivations and practical pressures of safety, rather than enforced formal membership:

I was an intelligent kid so I kind of thought I was better than that. Because seeing the kids that were representing gangs, it didn't look too appealing to me. But as time progressed, I don't know, it just kind of grew on me.... But I didn't look up to them per se. But I kind of respected them because they all seem like they had heart and they were more the alpha male types. They were more outspoken…. They're real prideful and they weren't timid, which I was.

It just really came out of just boredom. Like your mentors are gang members, so that's what I'ma be. It's the cool thing. An' that's what happened to, yeah, all my associates because I was never the type to just hang around gang members. I had one year when I was sixteen, and that was … the summer before my junior [year], where I hung around gang members, but they were my cousins, blood cousins, so. That was the only time I really just was around gang members, faithfully. I mean it was fun, stuff we did. We just partied and … drink and hang out with girls and stuff.

It was evident from these conversations that the original study had been built on assumptions that were not aligned with the reality of Portland's street gangs. In response, the research team did two things. The first was to qualitatively analyze the interviews and capture the gang-involved world as described by those who lived in it: the participants. A new model emerged out of this analysis that emphasized behavior within the gang lifestyle, rather than a binary status of group membership. Associated with each level of participation are fairly consistent sets of motivations, feelings, and relationships. This model is fully described later in this report.

The second response made by the research team was to adjust the study design to account for the new model. The dyadic interview design in the original study simply did not fit the reality lived by Portland gang members. The participants made it clear that recruitment was not happening intergenerationally, but intra-generationally. Moreover, the recruitment process was informal and highly personal. There was no reliable way to pair a "recruitee" with their official "recruiter," and forcing such a construct within the bounds of a research project would only yield misleading results.

Given this, the research team decided that the most important question was why the assumptions underlying the original study design were so mismatched with the reality described by gang-involved participants. This was considered particularly relevant as the assumptions were built not from scholarly literature, but from conversations with law enforcement officials and local probation and parole staff within the same city. The modified design aimed to investigate the differences between how individuals understood their pathways in and out of the gang lifestyle, and how the officials and staff who supervise them understood those same pathways.

Interviews with Juvenile and Adult Supervision Staff.

To investigate the narratives of gang pathways among supervision staff, the research team conducted a series of semi-structured interviews. Staff who had previous or current experience working with gang-involved and affiliated individuals were invited to participate. This invitation included parole

and probation officers, managers, and juvenile court counselors. Once initial interviews were conducted,

snowball sampling was used to identify and invite any other staff and community partners who worked

closely with gang-involved and affiliated individuals.

Interviews, which were voluntary and confidential, ranged from 36.75 to 116 minutes, with an

average duration of 60.2 minutes. Ultimately 12 staff members were interviewed between October

2021 and August 2022. Of those staff, five primarily worked with adults and seven focused on working

with youth. Together, this group averaged about nine years of experience in the field. The questions in

these interviews probed how these staff members saw their role in the supervision process, how they

understood the needs of gang-involved individuals, and how they understood the process of joining and

leaving a street gang (Appendix B).

Analysis of the interview transcripts was conducted in the same manner as described above for

the interviews with gang-involved men. The findings from these staff interviews, as well as the findings

from the interviews with gang-involved young men, are presented in the Findings section to follow.

Second Phase of Interviews with Gang-involved Young Men.

As proposed, the qualitative study design would include interviews with 40 gang-affiliated or

involved individuals. This number was chosen to ensure the collection of robust, valid data in the in-

depth interview context (Guest, Namey, & Chen, 2020; Hennink & Kaiser, 2022). Initially, the research

team had some difficulty in recruiting participants to reach the intended sample size due to the sensitive

nature of the topic. The principal investigator also surmised that power dynamics impacted recruitment.

Works on qualitative methods have explained that "the power dynamics in the relationships between

researchers and participants are again influenced and mediated by power dynamics and power

structures in [society]" (Riese, 2019, p. 677). As most of the potential participants were Black/African

American and the research team was all White, reflecting on positionality and the existing system of

social stratification (Mason-Bish, 2019) led to the conclusion that potential participants were hesitant to

speak with team members who did not appear to share their lived experiences. The recruitment plan then pivoted to bringing on another qualitative researcher who also identifies as Black to conduct additional interviews. Research on qualitative methods have discussed pairing researchers and participants based on similarity of cultural background, noting that "insider status" can improve rapport development and encourage participants to be more forthcoming (An & Winship, 2017; May, 2014; Savage, 2016). The research team was confident that such a strategy could generate more interviews, as well as richer data gathered during the interviews.

This approach yielded a total of 24 interviews conducted over a four-month period (September to December 2022). The recruitment was also aided by two Black/African American supervision staff members who had good relationships with current and former supervisees. Interviews lasted from 25 to 78 minutes, with an average length of 48.5 minutes. All participants in the second phase were Black/African American. There were 20 participants total, with four participants returning to speak again about their lived experience. At this point, the research team concluded that the data had reached sufficient "meaning saturation": the point at which new data produces little novel information to address the research question (Glaser & Strauss, 1967; Hennink, Kaiser, & Marconi, 2017). The second-phase interviews are still in the analysis phase.

Findings

      The Behavioral Model of Gang Activity.

As stated previously, it was apparent upon conducting the first phase of interviews with gang-affiliated and involved men that the initial assumptions about how gang membership worked, at least in the local context, was imperfect. Although some of those original assumptions, based on staff input, were reflected in the findings, the ultimate pathways model was informed by distinct perspectives from the participants.

Fortunately, qualitative research is highly responsive to these situations when the correct analytical tools are applied. In this case, it was essential to start with a deeply grounded phase of inductive thematic analysis (Corbin & Strauss, 2014; Glaser & Strauss, 1967). This type of coding deliberately sets aside all previous assumptions on how a social system works, whether from scholarly literature or cultural presumptions of "common sense" (Glaser & Holton, 2004). To do this, the interviews were transcribed and then approached as a primary corpus, and themes and patterns were identified within the context of the conversation and with each other. Only after this avenue was exhausted, and thematic saturation was complete (Corbin & Strauss, 2014; Saldaña, 2021), were scholarly literature and other understandings of street gangs allowed to "speak back" to the reality the participants described to the research team.

What emerged was a nuanced yet consistent cycle of gang-affiliation, gang-alignment, and gang-impacted life for young men who are introduced to and live among Portland's street gangs. This cycle involved both significant external pressures and personal motivations, as well as reliable moments of emotional rupture. The next part of this report describes the phases of this cycle as a general model of entering and exiting the gang lifestyle in Portland.

It is important to note that some of these findings contradict some other models put forward by criminologists to explain gang-affiliation (e.g., Catalano & Hawkins, 1996; De Vito, 2020; Hill et al., 1999; Pyrooz et al., 2013; Wiley et al., 2017). In particular, participants largely described being motivated by social rewards rather than material ones. Broadly speaking, when entering the lifestyle participants described wanting to inspire the respect of their peers and much less time was spent describing making money in any black-market dealing. Similarly, almost all participants who found themselves deeply embedded in the gang lifestyle described being motivated by a social orientation toward their fellow gang members. This was especially true for those who had participated in inter-gang violence. This

suggests that the classic deviance model of gang activity resulting from an individual being socially under-motivated is not the best fit for this local context.

What remains to be seen is how far these distinctions might expand beyond the Portland context. However, as discussed in this section of the report, taking an activity and phase-based approach to gang affiliation allows us to identify many different points of intervention. It also suggests that each point of intervention may come with its own type of appropriate strategy or approach. Ultimately, the findings from interviews with gang-affiliated individuals underlines the reality that living the gang-lifestyle is a nuanced and social process. Interventions will need to be just as nuanced and address social needs and values if they are to succeed.

Participants described multiple phases of gang-affiliation. While none of these individuals specifically named any particular phase, they all described points where their orientation to street gangs and their motivations in relation to them changed. While the specific ages and time spent in these phases were slightly different for each participant, the orientation and motivations were typically very similar to each other. It is these similarities that give us a model that can serve to orient future research, and (most importantly) design effective interventions.

The model is most accurately understood as a cycle. A young boy or man first becomes aware of local street gangs and has generally positive reactions to the concept. Later, a crucial moment happens when the individual comes into contact with gang members in their own social context, usually at social gatherings. This is where they learn the basic social norms of the group and when members of the group acknowledge them. If motivated, the individual can escalate into the full gang lifestyle, usually by taking up activities that inspire confidence, trust, and esteem from other members. If they are sustained and successful in these activities, they will ultimately be recognized as a core member of the street gang.

Eventually, a significant experience, or string of experiences, causes the young man to become disillusioned with the gang lifestyle, particularly those aspects that expose them to violence. These

experiences are typically negative, such as experiencing serious legal consequences for their violence or

witnessing the death of a close friend or relative through gang violence. These experiences can also be

positive, such as the birth of a child or a positive relationship with someone who they want to keep safe

or stay safe for. At this point, the motivation that drove behaviors in the escalation and core member

phases drops away, and the young man (or now fully adult man) begins to de-escalate from violent gang

activities. However, both the positive social ties and the ever-present danger of rival gangs keep the

individual affiliated, often for many years after they have desisted from any significant violent or

criminal gang-related activities. The complete cycle is depicted in Figure 1. Following Figure 1, each of

the six stages will be described in more detail, along with several illustrative quotes.

Figure 1

Behavioral Model of Gang Activity

Admiration.

The first stage of participation described by the participants and verified with qualitative coding is a pre-participation phase, which we have labeled Admiration. At this stage a young boy has a vague, at best, understanding of street gangs or how they operate, but lives in close proximity to them. Participants describe this period as one where they struggle for a sense of belonging and selfhood, and some describe a keen sense of being unsafe. Under these circumstances, they begin to admire older boys in their social context and community. These are usually not fathers or uncles, but older friends, cousins, and sometimes brothers. Often, they are not much older than the participant, being young teenagers, but these older boys have an appeal to the participants. They give the impression that they are tough, seem to have many friends, and, for some, it seems like they are physically safer than the younger boy who is admiring them. For example:

> **I've been around gangs ever since I was little. Very little.** [emphasis added] My mom, she had
> me when she was 16. So when I was about 5 or 6, she was still young … and she was immature
> at the time and families stick together, so my cousins were in gangs. … Like my mom's side were
> Crips. My dad's side were Bloods. … My Crip cousin stayed with me. … our house got shot up
> every day. … It became normal … so I was kind of, like, programmed a little bit.

Contact.

That first stage of Admiration can (but does not have to) gradually and organically escalate into a second stage, which we have termed "contact." Rather than admiring the older boys from afar, the participants began to spend time and share social events with them. Sometimes this contact stage is facilitated by an older friend or family member of a slightly older, but overall similar age. Socialization into the norms of the street gang begins to happen here. The older boys become a model of what it is to be a socially impactful young man. At this point, the participants remembered being concerned mostly with making friends with and belonging to the group. The participants explained that one of the main

benefits of this increased contact with the older boys is that the participants feel safer and less likely to be the target of social and physical aggression.

> Yeah, the good times, going out, having fun, getting drunk, next remembering about it, go and recuperate, eating food. It's pretty much like a family … besides all the guns and all the stuff that goes around it. But it's a family. That's really pretty much what it is. **It's just like how you and your brothers and sisters together and you guys have drinks and do what you guys do, have you guys' get togethers** [emphasis added].

Escalation.

After a period of intensified contact with older gang participants, some boys become motivated to escalate up an implicit and loose social hierarchy, the center of which is what most would recognize as a typical LA-style street gang. To gain admiration from this social group on its own terms, the participants began to take on actions to achieve two main goals: (1) demonstrate that they are tough, both physically and emotionally, and (2) demonstrate that they are willing to act for the benefit of their gang. Concerns about successfully fulfilling a role of masculinity is paramount to this stage, including being attractive to young women. It is this series of motivations that set the participant into a stage of engaging in acts of aggression and criminal violence. Participants were understandably reluctant to provide details of these actions, but the central motivation was to act against rival gangs and to elevate their own gang. Thus, the main factor driving violence in Portland gangs appears to not be money or disciplinary pressure from within a gang, but "inherited" enmity. Actively engaging in this rivalry helps individuals distinguish themselves within their gang, which quickly becomes their primary social group. It is also during this time that they may become a target of violence from rivals. For example:

> Just 'cause I wanna prove myself. Every time anybody join the hood, [popping somebody is] the first thing … that's what it's about. That's what gang banging is about, proving that you the hardest motherfucker out. **You wanna be the hardest person from the hood** [emphasis added].

It doesn't matter who you are. … So if you go after someone who's just doing their

shopping and it's not gonna be the same level of target. … you're not gonna gain the same

respect if you just, you know, kill someone's girlfriend.

Those who escalate their behavior in the gang rivalry for a sustained period of time, will become

a recognized Core Member of the street gang. This is a dangerous point in their lives, as these young

men are most likely to engage in serious violence, be exposed to witnessing serious violence, and/or

become the victims of serious violence from rivals. In direct relation to this exposure to risk and

willingness to do violence, these individuals are at the peak of their social achievement within the

context of their gang. Some individuals remain Core Members for extended periods, but most appear to

begin to de-escalate their participation in gang activity from here when prompted by incidents that

generate weariness and exhaustion.

Disillusion.

Many participants described a period of disillusionment with the social group of the gang and its

purported values. Some participants managed to reach this period of disillusionment without truly

reaching a status of "Core Member." Typically, the disillusionment is experienced after a traumatic

event. Either the participant experienced serious legal consequences for their violence, often in the form

of a prison sentence, or they witnessed the death of someone they were close to through gang-related

violence. At this stage, they experience a serious disconnect between the values of brotherhood and

manhood espoused by the gang, and the actual ability and willingness to follow through with those

promises during a crisis. Participants also experienced dissonance between values of loyalty between

group members and the repeated willingness to put each other in harm's way, often resulting in serious

injury or death. This is a critical juncture, as it was the first time they considered de-escalating their gang

activity. Two participants explained the following:

You find out who led you on, who's really there for you when you go to jail. There's just no way around that. …. **and it ain't all that love no more. It ain't all that support no more** [emphasis added]. It's not all that care. None of that shit there no more.

Even when you're doing what you're supposed to be doing as part of being a member of this gang to the fullest, to the highest ability. That's why I did all that time. Because I did the highest thing you can do for this gang, and I still didn't get none of that loyalty when I went to jail. **So I don't have any illusions about what it really is. I know exactly what it is** [emphasis added].

De-escalation.

Affiliation with a gang is not something participants were able to simply leave. This was often assumed to be due to enforcement of gang membership from other gang members. However, for Portland gangs, this affiliation is difficult to leave due to how rival gangs will continue to target them for violence to raise their social status within their own gang. Participants who were disillusioned with their gang and its values did refrain from participating in the overt acts of aggression against rivals, where it was avoidable. Nevertheless, due to their previous affiliation and activities, they remained a target – many even still felt it necessary to carry a gun for protection. This need for protection and their continued emotional entanglement to the gang as a community of friends meant that they still shared the same spaces and attended the same events as much more active members. Violence was still a regular part of their lives at this point, as it happened all around them and they were sometimes unwillingly swept up into it. For instance:

I had partners where they caught murder charges at 15 years old, doing the rest of their life [emphasis added]. I've been through some really ugly situations. I bless God and I thank God every day that I'm not where they're at now. … So I'm just getting older. **I'm starting to realize life ain't about that shit. It's really not** [emphasis added]. You're in your own little world when

you're gangbanging. That's all you wake up and think about. You don't think about working or

school or none of that. And you just think about that. … It's like, when you're an adult, you focus

on work. That's kind of how it is.

Suspension.

Unwilling or unenthusiastic suspension in a state of gang affiliation is where most of these

participants end up. Even once they are no longer participating in gang activities, their community

remains full of violence fueled by rivalries, and they remain a target for this violence. No amount of

wishing to be out of their gang solves this problem, and leaving their community poses its own dangers

of isolation and poverty.

You know, 'cause I'm in transition right now. You know that word? Kinda like….fighting. … I know

that this is not worth my life. I'm definitely smart enough to know that, and I know that I have

better opportunities than this shit could ever give me, you know? **But at the same time, I'm**

stuck here sometimes. Feel me? It's like a prison. I can't go anywhere…. I can't go anywhere

[emphasis added]. Like, the police see me, [they're] on me. Dudes see me [they're] on me. … So

it's kinda like, it's just hard, just hard to do the right thing.

Supervising individuals who are involved with street gangs should be grounded in an

understanding of how these groups actually operate. Supervision personnel must recognize gangs not as

a system of formal membership, but a series of escalating, self-motivated behaviors. Such an

understanding provides multiple platforms of intervention that could be tailored to the individual under

supervision and their social, physical, and psychological needs at that stage of their gang participation. It

also places emphasis on behavior as the focus of intervention, and should hopefully help avoid

unnecessary labeling or stigmatization.

Parole, Probation, and Juvenile Justice Staff Narratives on Gang Pathways.

As noted above, information gathered from the gang-involved individuals did not align with assumptions of the original study that were based on the perceptions of staff and law enforcement partners. As such, the new design included interviews with staff who supervise (or supervised) youth or adults who had been involved with gang activity. This allowed a deeper understanding of their perspective on the pathways into and out of the gang lifestyle for the people they supervised. The findings are organized to demonstrate four major thematic phenomena identified within the interviews about staff's perspective:

1. Community Safety versus Accountability

2. Interagency Collaboration

3. Pathways into Gang Involvement

4. Barriers to Desisting from Gang Involvement

The first two themes reflect differences in the adult and youth supervision philosophies, while the second two reflect parallel perspectives across those two groups of personnel.

Community Safety versus Accountability.

There was a clear difference between staff who primarily worked with juveniles and those who worked primarily with adults. Those who worked with juvenile clients who were gang-involved or on the path to becoming gang-involved understood the concept of "safety" to include the youth under supervision. Often the safety of the youth was prioritized in their supervision decisions. Similarly, the concept of "accountability" was understood expansively, and included themselves as the staff member, the youth's family, and their social support networks. For example:

I mean, you have those [family members] too that are going to hold me accountable. "You're

not doing this." or "you need to be doing that." And that's appreciated, too. **Because I need to**

be held accountable to be sure I'm doing what I need to be doing, as well [emphasis added].

(Juvenile staff)

Alternatively, staff who worked primarily with adult clients saw their work in terms of holding

their individuals accountable for their actions. They spoke of "community safety" as their primary

responsibility. In this philosophical construction of community supervision, the duty to community

safety acted as a constraint upon how "lenient" or rehabilitative the staff member could act towards any

individual client.

> My approach is that you can't force people to change. … I think we always ought to be having
>
> conversations with our folks that we supervise [to] encourage them to choose something
>
> different from the path that got them in the system. **But I guess, if all else fails, the default is**
>
> **community safety, right?** [emphasis added] So if you have individuals who are not interested, or
>
> who are not ready, and also choose to continue in their criminal behavior, then we have to hold
>
> them accountable. (Adult staff)

Interagency Collaboration.

All staff identified combining resources to manage their caseload. They explained that bringing

in support from other officials, agencies, and organizations made supervision more effective. This

collaboration between agencies and institutions also highlighted a marked difference between the

approach of staff who worked with juveniles and those who worked with adults. Juvenile services staff

relied on collaboration to connect youth and their families to rehabilitation services and material

resources needed to stabilize their lives:

> [The organization has] very comprehensive programs. They have a mentor. They have a family
>
> care manager. They have parent advocates. **And so usually, we work with, not only with the**
>
> **gang kids but also the whole unit family. And so it's almost a whole package deal** [emphasis
>
> added] because when the kids [are] back in the home environment, there are things going on.

And so it's important that we all meet, we all communicate, we all find out what's going on.

(Adult staff)

Staff who worked with adults spoke of collaboration with other agencies only in the context of criminal investigation regarding their clients. For instance:

Another tool that we probably use more than [others is] collaboration with other law enforcement partners, be they federal, state, local. And they have tools that they can use to [help]. **So when we're doing warrant sweeps, we can tap into resources that they have to find out where folks might be** [emphasis added]. They have tools and techniques that are kind of at our disposal when we collaborate. (Adult staff)

Pathways into Gang Involvement.

Although perspectives on community safety, accountability, and collaboration differed, juvenile services staff and adult services staff expressed similar views on how individuals become involved in the gang lifestyle. Staff broadly saw individuals being "pushed" into gangs by economic hardships and difficult family lives, or individuals were "pulled" into gangs through families who were already heavily involved. Staff saw the beginning of gang involvement as a very individual process, and often the result of difficult circumstances. For example:

[As] kids [they were] in the foster care system … [didn't] come from two-parent families, or even one-parent families for that matter. [They were] looking for something to belong to [emphasis added] … for safety. They're looking for a sense of belonging. They're trying to survive. There are those individuals, too, that the gang becomes the lesser of two evils, so they can get protection. (Adult staff)

Staff also spoke of involvement based on preexisting familial connections to gangs. When talking about those who were "pulled" into gang life by their families, staff were more likely to identify uncles and fathers as hypothetical influence, rather than brothers or cousins.

Maybe they had an uncle, or older brother, or even, sometimes, their father was involved in this type of activity, and they grew up [emphasis added]. It was normalized around them, that culture. They grew up in it. And so, to them, it didn't seem like they were really choosing anything. This is just kind of what they grew up with, what they were comfortable with. (Adult staff)

Barriers to Desisting from Gang Involvement.

Staff also had a shared understanding of the barriers their clients faced when trying to desist from the gang lifestyle. They discussed how familiarity with dysfunction creates resistance to desistance. For example, gang-involved youth and adults fear losing one's social group that is established with the lifestyle:

That's their only place where they feel they're fully supported [and safe] [emphasis added]. … there's also the strong connection to have to be with their friends, their peers, their gang members, whatever, also for their own protection, which I do think there's, obviously, valid reasons for that too. (Juvenile staff)

Interestingly, both juvenile and adult staff mentioned modern technology and social media as a factor that prolongs gang affiliation and makes it challenging to leave gang peers behind. They use these channels to "rep" their gangs, as well as insult and provoke rivals, which is also known as "internet banging" (Patton et al., 2013, 2017; Stuart, 2020). Staff explained that this feeds the need to belong and reinforces the positive self-image and bravado that can come from gang affiliation. Three staff members discussed the following:

The allure of the gang is more glorified right now. I think a lot of that has to do with the music, the rap music, [emphasis added] and the kids that are literally chasing [and] moving into the gang world for the purposes of the music, being able to record rap music. … Listening to that

and the glorification of that, which is on the YouTubes and the music and all that other stuff.

(Juvenile staff)

> They see the hip hop world. They have a goal. And in the hip hop world, some of the
> best [artists] were gang members. And so they see this as how they're going to improve their life
> [emphasis added] … And kids are just so immediate gratification, drawn into the sparkles and
> things. (Juvenile staff)

> Are they on social media representing one gang, or talking bad about another?
> … Sometimes, you have individuals who are rappers and artists, and in the songs and the music
> that they do, they [are] banging on wax. But it's not wax anymore. **They're basically gang**
> **banging through their music. They're talking about shootings, and people who've been killed**
> **from the opposition side** [emphasis added]. And they're making fun of people on the other side,
> how people died. (Adult staff)

These findings add to the understanding of probation perspectives that affect the high-risk, high-need population of gang-involved and gang-affiliated youth and adults, as well as the distinctions between those perspectives based on the age of the individuals under supervision. Supervision personnel have shared understandings of the factors that lead to gang affiliation (e.g., family hardships, family member influences) and that prolong gang involvement (e.g., fear of losing criminogenic yet meaningful social ties, the influence of social media). The findings also indicate that, despite these parallel perceptions, they placed different weight on the dual objectives of probation: ensuring compliance and providing encouragement.

Discussion

The qualitative portion of this research did more than enhance the body of gang literature, it managed to correct some very fundamental misperceptions from law enforcement workers about how and why individuals navigate the gang lifestyle in Portland, Oregon. At the start of the project, the

research team was sent to investigate the recruitment process, in particular with the understanding that:

1. Recruitment is a formal process.

2. Membership is a formal status.

3. Recruitment possibly occurs within a nuclear family unit through normal socialization.

Each of these ideas were almost wholly absent from the actual experiences and understanding of gang-involved participants. However, traditional scholarly models of deviance and juvenile delinquency also did not fit the narratives and stories volunteered by the study participants (e.g., Catalano et al., 2004, Catalano & Hawkins, 1996; De Vito, 2020; Hill, et al., 1999; Thornberry et al., 2003). What emerged from the qualitative investigation was a nuanced, complex, and primarily social process. Rather than a path of deviance, the stages of socialization into a LA-style Portland street gang generally align with all the stages and motivations you would expect associated with the developmental life transition from young teenager to emerging adult. The parts of these men's lives that might be understood as "deviant" do not sit within the individuals, but rather, they sit within their environment: with the pressures of poverty and mass over-incarceration surrounding themselves and their families, and with the pressures associated with entering the gang lifestyle (e.g., gang violence).

The main difference between teenagers who do not join violent gangs and these individuals who did appears to be twofold:

1. Those who joined a gang were introduced to social spaces where gang members spent their time, usually by a close peer who was already involved in the gang in some capacity.

2. Those who escalated into participating in the gang lifestyle accepted and embraced the social structure and social norms of the gang once they were introduced.

While these two elements appear to have been critical for those who joined and participated in LA-style Portland gangs, both are themselves related to other systemic legal and extra-legal factors that

these Black/African American men experience from birth. These factors appear to be relative poverty, caregivers who are absent due to over-work or incarceration, and a lack of alternative sources of self-worth and personal fulfillment. When participants asked what may have prevented them from moving into active gang violence, they stated they would have benefited from joining youth sports, social clubs like The Boys and Girls club, and access to more non-gang affiliated role models. When the research team was fortunate enough to speak with a participant who was socially close to gang members, but managed to never join in the gang lifestyle themselves, one of the key characteristics they attributed to being able to abstain was a strong sense of self. A secure sense of self-hood, while it may not prevent all types of criminal behavior or spare someone from poverty, may protect the individual from turning toward rivalrous gang violence in order to establish a socially-reinforced identity. This is not a unique finding in gang studies (Hennigan & Spanovic, 2012; Vigil, 2003; Woo et al., 2015), but its repetition here underscores its importance, particularly in regards to finding effective interventions.

In addition to the external pressures described clearly by study participants, there were more subtle references to issues that these individuals face as young boys and teenagers which should be fleshed out and addressed in future research.

1. What are their early experiences with law enforcement?

2. Where are these individuals living during various points of their entry and participation in their gangs?

Both of these issues were mentioned as formative and alienating processes during participant interviews, but the protocol was not sensitive to these concerns and therefore did not yield sufficient data on these questions. Further coding could clarify these issues, but questions about law enforcement and residential histories should be considered for future investigation.

For the research team, the most important result of the interviews with gang-affiliated young men was that these honest discussions yielded a model that we believe generates new ways to

approach community supervision and violence interventions. Using the model, we can see that there are functional questions at each stage which directly address the pressures, needs, and motivations of the gang-involved person. Questions such as:

- What are the needs of someone in the Disillusionment Phase?

  - How do we help them de-escalate any remaining violent behavior?

  - Are we doing enough to affirm their disillusionment?

  - Do any of our policies or practices keep someone from acting on their disillusionment and leaving violent gang activity?

- How does our system treat someone in the Core Membership Phase?

  - How do we get them to begin to question the social beliefs that lead to gang violence (and move towards disillusionment)?

  - Do any of our policies or practices keep a Core Member stuck in a Core Membership pattern?

- How does our system treat someone stuck in the Suspension Phase?

  - How do we help them from re-escalating into violence?

  - Do any of our policies or practices keep someone in the Suspended Phase?

  - Do any of our policies or practices inadvertently encourage re-escalation into violence?

By approaching gang-involvement as (a) an understandable social process that is fundamentally similar to most social processes and (b) a cycle of motivations and behaviors, policymakers, community-based organizations, and criminal legal system personnel can provide targeted interventions that would address the pressures and needs they currently face. Importantly, this approach may be less stigmatizing as it does not rely on a model of social or individual "deviance" for explanations of behaviors. Moreover, the focus of treatments and interventions can expand away from simplistic notions of whether someone is still a "gang member" or not, and move towards meeting an individual where they are emotionally

and socially in relation to their gang and to the rest of their life. Finally, an ecological understanding of Black/African American men associated with gangs would encourage policymakers, system personnel, and practitioners to move away from trying to manage individual actions of those currently caught in the criminal legal system and use the government's broad policy powers to address the structural root causes of gang violence.

Quantitative Study and Findings

Purpose

The purpose of undertaking the quantitative portion of this study was to investigate the life

trajectories of youth who identify as gang members. Primarily, the foundation of gang research has

centered on longitudinal self-report studies (Esbensen et al., 2001; Thornberry et al., 2003; Pyrooz,

2014) and although there have been studies examining administrative data (Pyrooz et al., 2020), there

have been none with the accessibility to link records from state juvenile systems to adult systems, and

further bolster the data with information from federal data sources. Connecting the databases allowed

researchers to discover who the youth were, who their fathers were, who their family and peers were,

and what were their life experiences, and did any of these factors affect gang membership and

entanglement in the system as either a youth or an adult. Parts of the quantitative model building were

conducted simultaneously and responsive with the qualitative study, which allowed for a deeper

understanding of who the youth were and what they experienced while in the juvenile legal system.

Methodology

Changes in methodology.

Changes to the quantitative methodology were practically and theoretically guided. First, the

original methodology included seven research questions (see Methodology section), there was a

methodological change as it related to the seventh research question. This research question sought to

expand on the previous six research questions, with the intent of understanding the effects of

geography, gender, and specific type offenses. Both geography (i.e., neighborhood) and specific type

offenses (i.e., weapon, drug, and person) were included in the models when theoretically and

statistically appropriate. However, for the gender component, there was a decision made early on in the

project, as some of the first interviews confirmed the established gendered nature of gang membership

and participation (National Gang Center, 2012), and that this was especially true within the Portland,

Oregon context. Specifically, early qualitative interviews indicated that Portland youth who are girls and adult women do not participate in LA-style street gangs the same way boys and men do. As such the original research team decided to focus the study on youth and adults who identify as male.

The next methodological change occurred after the examination of the nature and accessibility of the data, the research team decided to include only youth who had received the State's juvenile risk assessment, which was implemented late 2006. This requirement mostly limited the sample from reaching too far back in time, but we additionally removed a handful of youth whose first criminal referral - and thus entry into the criminal justice system - occurred before 2002, but still had a risk assessment done after they were introduced. The final sample is detailed below (n=2,210).

The last change to the quantitative methodology was influenced by the qualitative portion of this study. During interviews, many participants indicated that they sought to join a gang because they were specifically drawn to and admired others of their own generation who were participating in gang activities, and not because of their fathers' affiliation. They described looking up to and modeling themselves after brothers, cousins, and peers who were part of a gang. Because of this, the research team decided to include same generation and peer variables measuring if there was criminal legal involvement or if they were associated with a gang, in addition to the father criminal legal involvement and gang membership variables.

Procedures.

Data was collected across several administrative databases (see Table 1), including Multnomah County Bureau of Emergency Communications (BOEC), Oregon State Corrections Information System (CIS), Multnomah County Criminal Records Information Management and Exchange System (CRIMES), Oregon County Juvenile Justice Information System (JJIS), Oregon State Law Enforcement Database Systems (LEDS), and Federal Probation and Pretrial Services Automated Case Tracking System (PACTS).

The BOEC database contains emergency calls to 911. For the purpose of this study, it was used for calls for service of shots fired data to create a neighborhood variable.

CIS is the system of record for Oregon state prison, probation, and parole. Its records include custody, case notes, convictions, sentences, sanctions, risk assessments, and other information considered part of the daily business of community supervision or incarceration. For the purpose of this study, it was primarily used to collect adult escalation outcomes.

CRIMES is the case management system used by the office of the Multnomah County District Attorney, and tracks all aspects of criminal investigations reported by law enforcement agencies. The data is maintained and updated via manual entry of cases, and Oregon Judicial Department system downloads. The system includes both juvenile and adult information, and for the purpose of this study, it was primarily used to collect gang membership status.

JJIS is a statewide data collection tool that captures comprehensive information about youth involved with state and county juvenile justice systems, case management system that allows for tracking youth throughout the justice process, and overall planning, development, and evaluation of contracted programs to reduce youth crime. See JJIS's website at https://www.oregon.gov/oya/jjis/Pages/default.aspx for more information about the system. The majority of juvenile related data used in this study came from this system.

LEDS database contains law enforcement records, such as protection orders, stolen property, warrants, criminal histories, and other vital files related to investigations. For the purpose of this study, LEDS was used to collect one adult escalation outcome.

PACTS charts risk needs assessment inventories and accountability, case management and case planning, and generation of reports regarding federal probation. For the purpose of this study, PACTS was used to collect federal probation outcome data.

Table 1

Data Sources for Variables Included

Variable	Data source	Notes
Gang involvement	CIS, JJIS, and CRIMES	CRIMES: gang documentation CIS & JJIS: suspected involvement based on assignment to the gang unit, without CRIMES gang documentation
Arrest as an adult	LEDS	
State probation or prison as an adult	CIS	
Youth correctional facility escalation	JJIS	
Adult state prison	CIS	
Adult federal probation	Federal probation	
Race and ethnicity	JJIS	
Age	JJIS	
Juvenile referral data	JJIS	
Days in detention	JJIS	
Risk assessment score data	JJIS	
Change in risk score	JJIS	
Weapons charge	JJIS	
Person charge	JJIS	
Illegal substance charge	JJIS	
Chronic offender	JJIS	
Neighborhood proxy	BOEC	
Same generation criminal legal involvement	JJIS, CIS	JJIS: same generation family identities JJIS & CIS: criminal legal involvement
Same generation gang involvement	JJIS, DA	JJIS: same generation family identities DA: gang documentation
Peer criminal legal involvement	JJIS, CIS	JJIS: peer identities JJIS & CIS: criminal legal involvement
Peer gang involvement	JJIS, DA	JJIS: peer identities DA: gang documentation
Father criminal legal involvement	JJIS, CIS	JJIS: father identities JJIS & CIS: Criminal legal involvement
Father gang involvement	JJIS, DA	JJIS: father identities DA: gang documentation
Child dependency	JJIS	
Status referral or city violation	JJIS	
Home changes	JJIS	
School disruptions	JJIS	
System contact data	JJIS	

Sample.

For this project, the final population was all youth who identified as male, had a risk assessment, had an adjudicated disposition during 2002-2017, and received their first criminal referral in Multnomah County during 2002-2017 (n=2,210).

Throughout this study, Coarsened Exact Matching (CEM) was used on this sample, matching on either parental gang involvement (RQ6) or youth gang status (RQ2 and RQ5). Matching techniques work by matching youth on demographic characteristics to improve the balance (i.e., a statistical term that can be thought of as "similarity") of the two groups. These techniques systematically eliminate observations that do not have a match to retrospectively control for confounds, reduce bias, and simulate a randomized control trial. CEM was developed to better address the weaknesses inherent in using propensity scores to match groups and is useful for situations in which observational data was collected without pre-assigning participants to treatment and control groups (King & Nielsen, 2018). By creating a balanced sample with identical covariates for matched groups of treatment and control units before estimating effects, rather than afterward as in propensity scores, CEM allows for a more accurate correction of bias and model dependence (Iacus et al., 2012). Additionally, propensity scores require demographics to be predictive of the variable you are attempting to match across, which was not the case in some of our analyses.

In exact matching, a match is created only if youth are identical on all variables. This provides the strongest possible balance improvement, but is usually infeasible because of how strict the identicality requirement is. Coarsened exact matching combines together small or similar groups (e.g., combining all youth age 14 or younger into a single category), and then only requiring matched youth to be identical in these "coarsened" groups. This allows us to find the optimal tradeoff between improved balance and the number of matched youth.

Outcome variables.

The outcomes for this study were: (a) Gang Membership, (b) Escalation into a Youth Commitment Facility or an Adult Prison as a Youth, (c) Any Arrest as an Adult, (d) State Probation or Prison, (e) Any Prison as an Adult, and (f) Any Federal Probation Sentence as an Adult.

Gang involvement. To determine if a youth was involved or associated with a gang, data was cross-checked across two administrative data systems: the Multnomah County District Attorney's (DA) Office and Parole and Probation. Youth were coded as either gang-involved, gang-suspected, or uninvolved. Gang-involved youth were identified by the DA's Office through gang identifiers or by reading the case notes of each individual. Gang suspected youth were not identified by the DA's Office as gang involved, but were part of one of the gang-specific programs run by Parole and Probation. Finally, youth who were not identified in either system were coded as uninvolved.

It is important to clarify that gang status is dependent on when a system personnel identifies the youth as gang involved. Consequently, more than likely this timing does not correspond with the youth's timing, or decision to be in a gang. In fact, current research is shedding light on the process of joining a gang is not an on and off event, rather it is an ambiguous process that may not be linear, and hard to capture. In addition to this being an outcome for research question six, this is also a predictor for the remaining outcome variables.

Escalation as a youth or an adult. This is a dichotomous variable (1=Yes; 0=No) that measures whether the youth had a state felony conviction (to probation or prison) or Federal probation in the State of Oregon as an adult.

Arrest as an adult. This is a dichotomous variable (1=Yes; 0=No) that measures if the youth had a fingerprinted arrest (usually reserved for felonies) as an adult within the State of Oregon.

State probation or prison as an adult. This is a dichotomous variable (1=Yes; 0=No) that measures if the youth ever received a state probation or prison sentence as an adult within the State of Oregon.

Youth correctional facility escalation or adult prison as a youth. This is a dichotomous variable (1=Yes; 0=No) that measures whether the youth entered a commitment facility within the State of Oregon or went to an adult prison as a youth.

Adult state prison. This is a dichotomous variable (1=Yes; 0=No) that measures whether the youth entered prison in the State of Oregon as an adult.

Adult federal probation. This is a dichotomous variable (1=Yes; 0=No) that measures whether the youth entered Federal probation in the State of Oregon as an adult.

Control variables

The variables regressed on the outcomes for this study controlled for individual factors, such as demographics (e.g., race/ethnicity), criminogenic factors, and a neighborhood proxy for violence. Please note, gender was not included in the demographic controls as this study was solely of youth who identify as male. The youth criminogenic control variables include: age of first criminal referral, number of criminal referrals, number of days spent in detention, most detention days within a 3-month period, youth's first risk score, and their change in risk scores between first and last risk assessment.

Demographics.

Race and Ethnicity. A youth's race and ethnicity were determined by combining a youth's race and a youth's ethnicity collected from the state juvenile database. A youth's race is captured in these categories: Asian, Black, White, Native American, and Missing/Unknown. A youth's ethnicity captures whether a youth identifies as Hispanic or Non-Hispanic. Thus, youth who identified as Hispanic and

White were coded as Hispanic and collapsed into one category.[1] In this report, we utilized race only as a dichotomous variable (0=white; 1=youth of color).

Criminogenic factors.

Age of first criminal referral. This is a continuous variable that was computed to represent the age at which the youth received their first criminal police referral or entered into the juvenile legal system for the first time.

Number of criminal referrals. This is a continuous variable that counts the number of criminal referrals the youth before turning 18.

Days in detention. This is a continuous variable that counts the number of days a youth spent in detention over the course of their experience within the juvenile legal system.[2] Note: This does not measure the number of detention stays, as that information was unavailable. Zero indicates that a youth never spent a night in detention.

Risk assessment score. This is an interval level variable that counts a youth risk of reoffending using the State of Oregon's Juvenile Crime Prevention (JCP) tool, which has been the standard youth risk-needs assessment in Oregon since 2006.[3] A youth receives a JCP risk assessment before the youth attends their first court appearance and the State legislation requires an update every 90 days or if they experience a significant life event. The JCP has six scored domains: School, Peer and Other Relationships, Behavior Issues, Family Functioning, Substance Use, and Attitudes/Values/Beliefs. Across these domains, youth receive a risk score of 0-30 points, with low risk youth scoring between 0-5, medium risk youth scoring 6-13 points, and high-risk youth scoring more than 14.

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[1] There were some cases where juvenile detention workers noted Asian ethnicities (e.g., Vietnamese, Japanese, and Chinese), these were retained as Asian American.
[2] Oregon's juvenile justice database records every movement within and outside the detention facility, as such, this project did not have the capacity to research individual detention records to determine if it was a move within a facility versus a move to outside the facility (e.g., release to a community agency or release to the community).
[3] For a detailed history and account of the JCP, please see: https://www.ojdda.org/default.asp?pg=risk#jcp.

Change in risk score. This is a ratio level variable that counts the change in risks for youth. As stated above, youth are required to receive a new assessment every 90 days or if they experience a significant life change. This represents the change in the latest risk score to the most current risk score.

Weapons charge. This is a dichotomous variable (1=Yes; 0=No) that measures if a youth has ever had a weapon charge before turning 18 years old.

Person charge. This is a dichotomous variable (1=Yes; 0=No) that measures if a youth has ever had a charge against another person before turning 18 years old.

Illegal substance charge. This is a dichotomous variable (1=Yes; 0=No) that measures if a youth has ever had a charge related to illegal substances before turning 18. This could include use, possession, manufacturing, or delivery. Illegal substances include heroin, cocaine, marijuana, and restricted pharmaceuticals, such as oxycontin.

Chronic offender. This is a dichotomous (1=Yes; 0=No) variable that measures if the youth is considered to be a chronic offender as defined by the State of Oregon: whether the youth ever had at least three criminal referrals in one year.[4]

Neighborhood proxy. To measure the level of neighborhood violence, data from 911 calls for shots fired were used to categorize neighborhoods into four categories: very high, high, medium, and low. After initial coding[5], youth's address was used to determine the neighborhood level variable. If youth had multiple addresses, the neighborhood with the higher level of calls for service was used.

Familial influences. To understand the level of familial influence, family members were identified using the Juvenile Justice Information System, and from there they were referenced and

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[4] Because of data entry delays, referrals were not counted as separate if they occurred within 72 hours of a previous referral.
[5] The address stemming from the shots fired call was included in a GIS map of Portland, OR neighborhoods. Calls that occurred on July 4th, December 31, and January 1 were not included in this analysis. For each study year, the number of shootings for that year and the previous year were added to determine a neighborhood score. A quartile analysis determined the four categories of very high, high, medium, and low neighborhoods.

verified through state databases and the District Attorney's database system to determine criminal legal

involvement and gang involvement.

Same generation criminal legal involvement. This is a dichotomous variable (1=Yes; 0=No) that

measures whether the youth has a sibling (i.e., full, half-, step-), cousin, who has been involved in the

criminal legal system, defined as any adult or juvenile conviction.

Same generation gang involvement. This is a dichotomous variable (1=Yes; 0=No) that measures

whether the youth has a sibling (full, half-, step-), cousin, who has been system identified as a gang

member.

Peer influences. To understand the level of peer influence, peers were identified using Juvenile

Justice Information System as any noted associated with a relationship of companion, friend, or

neighbor, or with an unspecified relationship and within six years of the youth's age, and from there

they were referenced and verified through state databases and the DA's database system to determine

criminal legal involvement and gang involvement.

Peer criminal legal involvement. This is a dichotomous variable (1=Yes; 0=No) that measures

whether the youth has a peer who has been involved in the criminal legal system, defined as any adult

or juvenile conviction.

Peer gang involvement. This is a dichotomous variable (1=Yes; 0=No) that measures whether the

youth has a peer who has been system identified as a gang member.

Variables of interest.

Father influences. To address one of the main theories that fathers influence their son's

criminality and gang status, fathers were identified using the Juvenile Justice Information System, and

from there they were referenced and verified through state databases and the District Attorney's

database system to determine criminal legal involvement and gang involvement.

Father criminal legal involvement. This is a dichotomous variable (1=Yes; 0=No) that measures whether the youth has a father who has been involved in the criminal legal system, defined as any adult or juvenile conviction.

Father gang involvement. This is a dichotomous variable (1=Yes; 0=No) that measures whether the youth has a father who has been involved in the criminal legal system. Please note there were a small number of fathers who could not be confidently identified as we lacked a birthdate; therefore, these fathers were coded as uninvolved with gangs, as the research team would rather misclassify father's gang status as not involved, versus misclassifying as involved. Youth with no specified father were also considered to have uninvolved fathers for much the same reason.

Life events. There were several life events that were captured in this study. In addition to the types of events, this data was able to capture at what age the event occurred. However, it is important to note that only child dependency cases are complete. Residential and school changes were only captured while the youth was under supervision, and only when the system personnel entered it. As such, there are limitations to this administrative data, but it still should be able to shed light on some of the events that youth are experiencing.

Child dependency. This is a dichotomous variable (1=Yes; 0=No) that measures whether the youth has been involved in a child dependency case. This information was collected from the Juvenile Justice Information System by juvenile system personnel.

Number of child dependencies. This is a continuous variable that counts the number of child dependency cases the youth has been involved in. Note zero represents none.

Status referral or city violation. This is a dichotomous variable (1=Yes; 0=No) that measures whether a youth received a status referral (e.g., runaway, curfew, and truancy) or city violations (e.g.,

minor in possession, unlawful use of marijuana [< 1 oz.], and graffiti).[6] These are not considered to be criminal in nature, and are often issued in the form of a citation or ticket.

Number of status referrals or city violations. This is a continuous variable that counts the number of status referrals (e.g., runaway, curfew, and truancy) and city violations (e.g., minor in possession, unlawful use of marijuana [< 1 oz.], and graffiti).

Home changes. This is a dichotomous variable (1=Yes; 0=No) that measures whether a youth had a home change while under supervision and recorded by system personnel.

Number of home changes. This is a continuous variable that counts the number of home changes recorded by system personnel while under supervision and recorded by system personnel.

School disruptions. This is a dichotomous variable (1=Yes; 0=No) that measures whether a youth had a school disruption (e.g., expelled, withdrawn, or dropped out) recorded by system personnel while under supervision and recorded by system personnel.

Number of school disruptions. This is a continuous variable that counts the number of school disruptions (e.g., expelled, withdrawn, or dropped out) recorded by system personnel while under supervision and recorded by system personnel.

First system contact. This three-category variable that captures the way in which the youth had his first contact with the system: status referral/city violation, dependency, and criminal referral. In

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[6] A full list of status offenses: Behavior Endangers Self/Others, Beyond Parental Control, Runaway, Runaway/Juvenile Out of State, Curfew, Curfew Offense, Curfew Violation, and Truancy. A full list of violations: Attempt Theft By Deception (Mis C < $50), Attempt Theft-3, Attempted C/Uncl Misdemeanor, Boats and Boating Offenses, Careless Driving, Conspiracy Possession of Tobacco By Minor, Discharge, Weapon Across Hwy, Driving Uninsured, Endanger Welfare of Minor-Vio, Fail Report Accident-Driver, Fail, To Obey Police Officer, Fail To Use Seat Belts, Failing To Supervise a Child, Failure to Wear Protect, Headgr/bicycle, Fish & Game Violation, Freq Plc Cntrld Sub Used, Harassment (Vio Treatment), Improp Pos upon or Improp Proc along HWY, Improper Display Valid Sticker, Marijuana < 21 Possession, Attempt to Purchase, or Purchase, Marijuana MIP, Marijuana MIP - Attempt/purchase or acquire/consume, Minor Acceptance/Consumption of Liquor, Minor Enter Lic Prem, Minor Possess/Purchase Liquor, Minor Purchase Tobacco, OpATV Closed-Restric Land, Opr Motor Veh No Drivers Lic, Opr Vehicle or Violate Restrictions, Ped Fail obey Traffic Control Device, Poss Cntrld Sub-SC 5, Poss Cntrld Sub/No Prescription, Poss LT 1 Oz Marijuana, Possession of Tobacco By Minor, Purchase or Possession of Liquor by Minor, Rules of the Road for Drivers, Seizure of Drug Paraphernalia, Unlawful Poss Graffitti Implmt, Unlawful Poss of Marijuana < 1 oz, Unlawful Poss of Marijuana < 1 oz - w/in 1000' School (VIO), Unlawful Possess/Use Inhalant, Unlawfully Applying Graffiti, Unsafe Bicycle on Sidewalk, Viol Bicycle Equip Requirement, and Viol Of Basic Rule.

regressions, status referral/city violation is considered the reference category.

Age of first contact with the System. This is a continuous variable that measures the age in which the first contact with the system occurred.

Number of life events, 0-2. This is a continuous variable that counts the number of the youth's life events (dependencies) that occurred between the ages of 0 and 2.

Number of life events, 3-5. This is a continuous variable that counts the number of the youth's life events (dependencies, status referrals, city violations) that occurred between the ages of 3 and 5.

Number of life events, 6-10. This is a continuous variable that counts the number of the youth's life events (school disruptions, home changes, stays in juvenile detention, dependencies, status referrals, city violations, and criminal referrals) that occurred between the ages of 6 and 10.

Number of life events, 11-13. This is a continuous variable that counts the number of the youth's life events (school disruptions, home changes, stays in juvenile detention, dependencies, status referrals, city violations, and criminal referrals) that occurred between the ages of 11 and 13.

Number of life events, 14-18. This is a continuous variable that counts the number of the youth's life events (school disruptions, home changes, stays in juvenile detention, dependencies, status referrals, city violations, and criminal referrals) that occurred between the ages of 14 and 18.

Total number of events. This is a continuous variable that counts the number of the youth's life events (school disruptions, home changes, stays in juvenile detention, dependencies, status referrals, city violations, and criminal referrals) that occurred between the ages of 0 and 18.

Most life events within a 3-month frame. This is a continuous variable counts the highest number of the youth's life events (school disruptions, home changes, stays in juvenile detention, dependencies, status referrals, city violations, and criminal referrals) that occurred in any continuous three-month time window. This could include only one type of life event or a combination of any and all types of life events.

Data Analysis Plan

To answer the research questions posed by this study, the data analytic plan is listed below and is presented in the order they are presented in the report, not in the numerical order presented in the overall Methodology section earlier in this report.

For research questions one (who are the youth) and four (what were the nature and extent of youth life experiences), we used descriptive statistics (numbers, percentages, and central tendencies). To understand the differences between the groupings, tests of statistical significance were employed, specifically, chi-square, analysis of variance (ANOVA), and *t*-tests.

For research question six, a logistic regression was employed to determine the likelihood of gang membership. Control variables (i.e., youth of color, been involved in a dependency, age of first criminal referral, risk score, and neighborhood), familial and peer variables (i.e., same generation criminal legal involvement and gang identification, and peer criminal legal involvement and gang identification), and father variables (i.e., criminal legal involvement and gang identification) were regressed on the outcome variable was gang membership.

For research question three, a mixed effects model was employed to fit random effects for each youth, with the predictor variable age regressed on the outcome variable JCP score. Several models were tested, representing different hypotheses on how age interacts with JCP score, and the best fitting model is presented. This model was further stratified by gang membership to examine differences between youth.

For research question two, a logistic regression was employed to determine the likelihood of any escalation into the youth or adult system. Control variables (i.e., youth of color, been involved in a dependency, age of first criminal referral, risk score, change in risk score, total number of criminal referrals, youth's chronic offender status, youth's weapon charge history, youth's person charge history, drug charge history, and neighborhood), familial and peer variables (i.e., same generation criminal legal

involvement and gang identification, and peer criminal legal involvement and gang identification), father variables (i.e., criminal legal involvement and gang identification), and youth gang status were regressed on the outcome variable of escalation. A stepwise model was used to reduce the full variable list to a more parsimonious model.

For research question five, there were five different models employed, with all models having the same control variables (i.e., youth of color, been involved in a dependency, age of first criminal referral, risk score, change in risk score, total number of criminal referrals, youth's chronic offender status, youth's weapon charge history, youth's person charge history, drug charge history, and neighborhood), familial and peer variables (i.e., same generation criminal legal involvement and gang identification, and peer criminal legal involvement and gang identification), father variables (i.e., criminal legal involvement and gang identification), and gang status were included. In addition to understand the impact of life events, the life event variables (first system contact; number of system contacts for dependency, status/city violations, home changes, school disruptions; the number of life events across developmental stages [i.e., ages 0-2, 3-5, 6-10, 11-13, 14-18]; and the most events occurred within a three month frame) were regressed on the five outcomes: (1) any arrest as an adult; (2) any state probation or prison as an adult; (3) any escalation to youth authority or adult prison as a youth; (4) any adult prison sentence ever; and (5) any federal probation sentencing. A stepwise model was used to reduce the full variable list to a more parsimonious model for each outcome.

Results

The results combine (and rearrange) the original research questions and are presented to provide an overall picture of who the youth are, especially as it relates to their father's gang status and their gang status in this study. Specifically, the first part of the results present descriptive statistics and the test statistics for youth demographics and criminogenic factors, youth life events (e.g., dependencies, home changes, school disruptions, status and city violation citations, and criminal

referrals), youth life events across the developmental life span, neighborhood effects, familial (e.g.,

same generation relatives and father) and peer effects, and further escalation into State Youth Authority

or any of the adult systems. The descriptive results first present the youth by gang category, and then

the same set of data is presented by the father's gang category, and finally, the father's data is

replicated using only youth with gang documented activities (n = 445). Next, the results present the data

from question three, which examines the differences across the crime curve for the three groups of

youth in this study (e.g., uninvolved with gang activity, suspected of gang activity, and system document

gang activity). Then, for questions two and six, the logistic regression results are presented to

understand what impacts a youth's gang status and their likelihood of escalation into various criminal

legal systems. Finally, the results regarding the impact of life transitions are presented through a series

of logistic regression analyses examining the types of life transitions (dependencies, home changes,

school disruptions) and the timing of those life changes on the likelihood to escalate further into the

system.

Who are the youth?

Youth demographic and criminogenic factors by youth's system identified gang category. The

results representing the youth in this study are presented in Tables 2 through 7. Over half of the youth

in the study were identified as having no affiliation with a gang (n = 1240, 56.1%) (see Table 2). Of the

remaining youth, approximately 24% (n = 525) were identified as suspected of being associated with a

gang and 20% (n = 445) were identified by both systems as being involved with gang activity. Youth with

documented gang activity were more likely to be a youth of color: about 61.1% (n = 272) identified as

African American or Black, X^2 (2, N = 2,210) = 354.18, p = .000.[7] They experienced their first arrest about

three months earlier (M = 14.31, SD = 1.55) than youth who were not associated with gangs (M = 14.67,

SD = 1.66), F(2, 2,207) = 7.89, p = .000, and at the time of the arrest, had a higher first risk score (M =

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[7]A 2x3 Chi-square between youth who identified as White and youth who identified as of color and gang status.

11.89, *SD* = 5.46), than suspected (*M* = 10.50, *SD* = 5.63) or uninvolved youth (*M* = 9.70, *SD* = 5.80), *F*(2, 2,207) = 24.64, *p* = .000. For youth who were not associated with gang activity (*M* = -0.33, *SD* = 5.12) and for those who were suspected (*M* = -0.07, *SD* = 5.28) all experienced a reduction in their risk scores; however, for youth who were involved in gangs, their risk score increased over time (*M* = 1.55, *SD* = 5.70), *F*(2, 2,207) = 21.19, *p* = .000. This is most likely associated with the increased number of juvenile arrests that youth associated with gangs incurred (*M* = 7.00, *SD* = 5.25) when compared to the youth who were suspected *M* = 4.94, *SD* = 4.01) or had no documented involvement with gangs (*M* = 3.92, *SD* = 3.48), *F*(2, 2,207) = 96.28, *p* = .000.

Additionally, youth with documented gang involvement were more likely to be considered a chronic offender (*n* = 202, 45%), or defined has having more than three referrals in one year, than those youth with suspected gang involvement (*n* = 165, 31.4%) or with no gang involvement (*n* = 266, 21.5%), X^2 (2, *N* = 2,210) = 94.46, *p* = .000. And as such, youth associated with gang activity spent about twice as many days in the detention center (*M* = 82.06, *SD* = 87.83) than youth suspected (*M* = 50.10, *SD* = 65.24) or youth with no documented gang activity (*M* = 44.31, *SD* = 56.95), *F*(2, 1,637) = 43.93, *p* = .000.

There was a difference in the types of crimes committed across gang categories. Youth who were associated with gang membership were more likely to be charged with a weapons crime (*n* = 206, 46.3%) and a crime against a person (*n* = 360, 80.9%) when compared to youth not associated with gangs (*n* = 125, 10.1%; *n* = 853, 68.8%; respectively), X^2 (2, *N* = 2,210) = 273.10, *p* = .000 and X^2 (2, *N* = 2,210) = 24.01, *p* = .000, respectively. There were no differences between and among the groups, as it related to illegal use of substances, X^2 (df, *N* = 2,210) = 4.33, *p* = .1154.

Table 2

Youth Demographic and Criminogenic Factors by Youth's System Identified Gang Category

	No involvement		Suspected involvement		Documented involvement		Total		
	1,240	56.1%	525	23.8%	445	20.1%	2,210	100%	
	n/M (Range)	%/SD	n/M (Range)	%/SD	n/M (Range)	%/SD	n/M (Range)	%/SD	Test statistic
Race/ethnicity									
African American/ Black	240	19.4%	208	39.5%	272	61.1%	720	32.6%	X^2=354.18***[a]
Asian/Asian American	51	4.1%	30	5.7%	15	3.4%	96	4.3%	
Latino/a/x	210	16.9%	88	16.8%	123	27.6%	421	19.0%	
Native American	16	1.3%	14	2.7%	3	0.7%	33	1.5%	
Multi-ethnic	11	0.9%	3	0.6%	0	0.0%	14	0.6%	
White	712	57.4%	182	34.7%	32	7.2%	926	41.9%	
Criminogenic factors									
Age at first criminal referral [b]	14.67 (7-18)	1.66	14.58 (7-18)	1.63	14.31 (10-18)	1.55	14.57 (7-18)	1.64	F = 7.89***
First JCP score (0-30) [c]	9.70 (0-26)	5.80	10.5 (0-26)	5.63	11.89 (0-25)	5.46	10.33 (0-26)	5.75	F = 24.64***
Change in JCP score	-0.33 (-26-20)	5.12	-.07 (-17-19)	5.28	1.55 (-20-24)	5.70	.11 (-26-24)	5.33	F = 21.19***
Number of criminal referrals	3.92 (1-29)	3.48	4.94 (1-26)	4.01	7.00 (1-42)	5.25	4.78 (1-42)	4.19	F = 96.28***
Chronic offender (Yes)[d]	266	21.5%	165	31.4%	202	45.4%	633	28.6%	X^2 = 94.46***
Weapons crime charge ever (Yes)	125	10.1%	101	19.2%	206	46.3%	432	19.5%	X^2 = 273.09***
Drug crime charge ever (Yes)	234	18.9%	91	17.3%	100	22.5%	425	19.2%	X^2 = 4.33
Person crime charge (Yes)	853	68.8%	382	72.8%	360	80.9%	1,595	72.2%	X^2 = 24.03***
Total days spent in detention	44.31 (0-429)	56.95	50.10 (0-400)	65.24	82.06 (0-609)	87.83	55.09 (0-609)	69.56	F = 43.93***

[a]This is a 3 x 2 table with race as a dichotomous variable: Person of Color and White. [b]Although Oregon does not allow for youth under 8 years of age to be arrested, there were two youth in the sample who arrested at the ages listed in the bottom range. [c]The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more), and the assessment is mandated to be updated every 90 days or if a youth receives a new criminal referral. [d]According to Oregon Statute, the definition of a chronic offender is a youth with three criminal referrals within one year.

*p<.05. **p<.01. ***p<.000.

Youth life transitions by youth system identified gang category. The results regarding the life events experienced by the youth are presented in Table 3. There were no statistical differences between youth with different gang associations on whether they had been a child in a dependency case, X^2 (2, N = 2,210) = 4.95, p = .08. There was a statistical difference between the number of dependencies youth were involved in, F(2, 2,207) = 4.20, p = .015. Actually, youth who were in the suspected category had the highest average of dependencies (M = 0.37, SD = 0.78), when compared to youth with documented gang activity (M = 0.31, SD = 0.76) and youth with no documented activity (M = 0.27, SD = 0.60).

There were statistical differences in the number of home changes and school disruptions between the youth by gang category (see Table 4). Sixty-eight percent (n = 841) of the youth who had no involvement in gangs had at least one residential change while under supervision, whereas nearly 80% (n = 350) of youth who had documented involvement with gangs had a residential change, X^2 (2, N = 2,210) = 18.52, p = .000. Additionally, youth associated with gangs had nearly one more residential move (M = 2.46, SD = 2.32) than youth not associated with gangs (M = 1.81, SD = 2.02), F(2, 2,207) = 15.32, p = .000. As it relates to a youth experiencing a disruption in school, about 30% of youth with no gang association (n = 365) had at least one school disruption while under supervision. Whereas, 45% (n = 201) of the youth associated with gangs had a school disruption, X^2 (2, N = 2,210) = 36.47, p = .000. There was also a difference in the number of disruptions experienced among youth by their gang association. Youth with no gang involvement, on average, experienced fewer school disruptions (M = 0.40, SD = 0.70) than youth with gang association (M = 0.64, SD = 0.87), F(2, 2,207) = 16.41, p = .000.

Unlike the data on home changes and school disruptions, there were no differences between youth in the frequency and severity of receiving status or city violations. Youth who identified as gang active were more likely to have a status referral or city violation and a higher number of these events. About sixty-six percent (n = 292) of youth with gang association had received either a status referral or a city violation, whereas only 51% (n = 630) of youth with no gang association had received either a status

referral or a city violation, X^2 (2, N = 2,210) = 29.00, p = .000. However, there were no significant differences in the number of status referrals or city violations: Both youth with no gang activity (M = 1.82, SD =3.74) and youth who were suspected (M = 1.82, SD = 3.14) had the same average number of violations, and youth with documented gang involvement had a slightly higher average of violations (M = 1.93, SD = 2.50), F(2, 2,207) = 0.22, p = .80.

The overwhelming majority of youth, regardless of gang category, first entered the system with a criminal referral. Sixty-seven percent of youth with no gang affiliation (n = 832), 62% of suspected youth (n = 326), and 60% of youth (n = 266) with documented gang affiliation entered the system through a criminal referral, X^2 (2, N = 2,210) = 17.20, p = .002. It is important to note that there was a higher than expected number of youth with documented gang activity who entered the system through a status referral or city violation (n = 102, 22.9%), when compared to youth who are suspected (n = 86, 16.4%) and youth with no involvement (n = 201, 16.2%).

There were distinct differences in the age of first contact with the system, the number of life events experienced, and the most events during a three-month period. Youth with no gang involvement, entered the system later than youth with suspected or documented gang activity. Youth with no involvement entered, on average, just after 13 years of age (M = 13.03, SD = 3.98), while youth with documented involvement entered about nine months earlier (M = 12.22, SD = 4.36), F(2, 2,207) = 8.54, p = .000. Youth with gang involvement experienced, on average, about six more life transitions (M = 16.58, SD = 9.84) than youth not involved (M = 10.28, SD = 8.91), F(2, 2,207) = 75.19, p = .000. Moreover, youth involved in gangs experienced a higher number of life transitions within a three-month period (M = 4.85, SD = 2.17), than their non-involved counterparts (M = 3.57, SD = 2.26), F(2, 2,207) = 53.84, p = .000.

Table 3

Youth Life Events by Youth's System Identified Gang Category

	No involvement		Suspected involvement		Documented involvement		Total		
	1,240	56.1%	525	23.8%	445	20.1%	2,210	100%	
	n/M (Range)	*%/SD*	*n/M* (Range)	*%/SD*	*n/M* (Range)	*%/SD*	*n/M* (Range)	*%/SD*	Test statistic
Dependency									
Dependency referral ever (Yes)	255	20.6%	130	24.8%	87	19.6%	472	21.4%	$X^2 = 4.95$
Number of dependency referrals	0.27 (0-5)	0.60	0.37 (0-7)	0.78	0.31 (0-6)	0.76	0.30 (0-7)	0.68	$F = 4.20*$
Residential changes									
Residential change ever (Yes)	841	67.8%	370	70.5%	350	78.7%	1,561	70.6%	$X^2 = 18.52***$
Number of residential changes	1.81 (0-16)	2.02	1.99 (0-13)	2.17	2.46 (0-14)	2.32	1.98 (0-16)	2.13	$F = 15.32***$
School disruptions									
School disruption ever (Yes)	365	29.4%	183	34.9%	201	45.2%	749	33.9%	$X^2 = 36.47***$
Number of school disruptions	0.40 (0-5)	0.70	0.51 (0-7)	0.86	0.64 (0-6)	0.87	0.47 (0-7)	0.78	$F = 16.41***$
Juvenile non-criminal legal involvement									
Status referral/ violation ever (Yes)	630	50.8%	286	54.5%	292	65.6%	1,208	54.7%	$X^2 = 29.00***$
Number of status referrals	1.82 (0-57)	3.74	1.82 (0-26)	3.14	1.93 (0-16)	2.50	1.84 (0-57)	3.38	$F = 0.22$
Events over the life span									
First event									
Dependency	207	16.7%	113	21.5%	77	17.3%	397	18.0%	$X^2 = 17.20**$
Status Violation	201	16.2%	86	16.4%	102	22.9%	389	17.6%	
Criminal Referral	832	67.1%	326	62.1%	266	59.8%	1,424	64.4%	
Age of 1st contact with system	13.03 (0-18)	3.98	12.35 (0-18)	4.51	12.22 (0-18)	4.36	12.70 (0-18)	4.21	$F = 8.54***$
Number of events	10.28 (1-92)	8.92	12.27 (1-61)	9.81	16.58 (1-61)	9.84	12.02 (1-92)	9.63	$F = 75.19***$
Most events within 3 months	3.57 (1-26)	2.26	3.88 (1-14)	2.23	4.85 (1-17)	2.17	3.90 (1-26)	2.29	$F = 53.84***$

$*p<.05.$ $**p<.01.$ $***p<.000.$

The occurrence of life transitions over the developmental childhood periods demonstrated differences early on and later in adolescence (see Table 4). Please remember that life transitions were considered childhood dependencies, home changes, school disruptions, and status or city violations and home changes and school disruptions were only counted if the system personnel documented the change/disruption while the youth was under supervision. Youth with documented gang involvement experienced more life transitions than their suspected or not documented counterparts during the years of 0-2, 11-13, and 14-18. For the first two years of their lives, youth with no gang involvement experienced 0.06 life transitions (SD = 0.27), and youth with documented gang involvement experienced twice as many (M = 0.12, SD = 0.41) life transitions, F(2, 2,207) = 6.26, p = .002. This pattern continues throughout pre-adolescence and becomes more prominent in adolescence. During the years of 11 and 13, youth not associated with gangs experienced 1.39 (SD = 3.06) life transitions and youth associated with gangs experienced just over two life transitions (M = 2.01, SD = 3.73), F(2, 2,207) = 6.22, p = .002. During the high school years, youth with no involvement experienced nearly nine transitions, (M = 8.63, SD = 7.47) and youth with involvement experienced five more transitions, (M = 14.21, SD = 8.16), F(2, 2,207) = 84.31, p = .000. During the early school years and up until age ten, youth who were suspected had the highest rates of life transitions (M = 0.09, SD = 0.38; M = 0.21, SD = 0.58, respectively), with the early years demonstrating a statistically significant difference, F(2, 2,207) = 3.93, p =0.02.

Overall, youth involved in gangs were more likely to experience life transitions, had a higher number of total experienced life transitions, and the most life transitions within a three-month period when compared to youth with no documented involvement. These youth had higher rates of life transitions throughout the majority of their lives, with the highest rates occurring during the high school years.

Table 4

Number of Life Disruptions across Child Developmental Stages by Youth's System Identified Gang Category

Ages	No involvement		Suspected involvement		Documented involvement		Total		F
	1,240	56.1%	525	23.8%	445	20.1%	2,210	100%	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	
	(Range)		(Range)		(Range)		(Range)		*F*
0-2 years	0.06	0.27	0.09	0.36	0.12	0.41	0.08	.32	6.26*
	(0-3)		(0-3)		(0-3)		(0-3)		
3-5 years	0.05	0.23	0.09	0.38	0.06	0.31	0.06	0.29	3.93*
	(0-2)		(0-5)		(0-4)		(0-5)		
6-10 years	0.15	0.51	0.21	0.58	0.18	0.64	0.17	0.56	2.15
	(0-5)		(0-6)		(0-8)		(0-8)		
11-13 years	1.39	3.06	1.61	3.05	2.01	3.73	1.57	3.21	6.22**
	(0-54)		(0-20)		(0-31)		(0-54)		
14-18 years	8.63	7.47	10.27	8.17	14.21	8.16	10.14	8.07	84.31***
	(0-59)		(0-49)		(0-60)		(0-60)		

*$p<.05$. **$p<.01$. ***$p<.000$.

Youth's neighborhood by system identified youth gang category. There were significant differences in the areas where the youth lived (see Table 5). For all three levels of gang involvement, the plurality of youth lived in areas with low levels of calls for shots fired. Nearly half of no involvement (*n* = 582, 49.3%), a little over a third of suspected involvement (*n* = 165, 36.7%), and a little under a third (*n* = 132, 31.1%) lived in low level neighborhoods. Youth with documented gang activity were more evenly distributed throughout the different neighborhoods when compared to youth with no involvement.

Table 5

Youth Neighborhood by Youth's System Identified Gang Category

Calls for shots fired	No involvement		Suspected involvement		Documented involvement		Total		X^2
	1,240	56.1%	525	23.8%	445	20.1%	2,210	100%	
	n	*%*	*n*	*%*	*n*	*%*	*N*	*%*	
Very high level	234	19.8%	65	14.4%	80	18.8%	379	18.4%	79.89***
High level	188	15.9%	115	25.6%	107	25.2%	410	20.0%	
Medium level	176	14.9%	105	23.3%	106	24.9%	387	18.8%	
Low level	582	49.3%	165	36.7%	132	31.1%	879	42.8%	

*p<.05. **p<.01. ***p<.000.

Youth's familial and peer criminal legal and gang involvement by system identified youth gang category. Youth who were associated with gangs had a higher level of father, same generation, and peer criminal legal and gang involvement (see Table 6). Approximately 36% of youth with documented gang involvement (*n* = 162) had a father who had been involved with the criminal legal system, and 20% (*n* = 87) had a father who was gang identified. For youth with no documented involvement, about 20% (*n* = 247) had a father involved in the criminal legal system, and only 4% (*n* = 47) had a father who was gang identified, X^2 (2, *N* = 2,210) = 50.44, *p* = .000; X^2 (2, *N* = 2,210) = 117.05, *p* = .000, respectively.

Nearly half of gang identified youth (*n* = 221, 49.7%) had a cousin, sibling, step-sibling or other same generation family member who was involved in the criminal legal system and 21% (*n* = 93) of these family members were identified as gang-involved. Rates for youth with no documented gang involvement were much lower: only one quarter of them (*n* = 308, 24.8%) had same generation family members who had been involved in the criminal legal system, and only 3% (*n* = 35) had a same generation family member involved in gangs, X^2 (2, *N* = 2,210) = 93.57, *p* = .000; X^2 (2, *N* = 2,210) = 158.26, *p* = .000, respectively.

Across the levels of gang involvement, over half of the sample (*n* = 1,285, 58.1%) had a peer that was involved in the juvenile justice system. For youth involved in gangs, the percentage of peers that are involved in the criminal legal system increased to over three-quarters (*n* = 348, 78.2%), and nearly half

of them (*n* = 219, 49.2%) had peers who were involved in gangs. Whereas, only 8% of youth (*n* = 98) with

no documented gang activity had friends with gang documentation, X^2 (2, *N* = 2,210) = 374.50, *p* = .000.

Overall, youth with documented gang activity had higher levels of paternal, same generation, and peer

involvement in the criminal legal system, and higher levels of gang exposure.

Table 6

Familial and Peer Criminal Legal and Gang Involvement by Youth's System Identified Gang Category

	No involvement		Suspected involvement		Documented involvement		Total		
	1,240	56.1%	525	23.8%	445	20.1%	2,210	100%	
	n	%	*n*	%	*n*	%	*N*	%	X^2
Father involvement									
Criminal legal involvement	247	19.9%	115	21.9%	162	36.4%	524	23.7%	50.44***
Documented gang involvement	47	3.8%	34	6.5%	87	19.6%	168	7.6%	117.05***
Same generation involvement									
Criminal legal involvement	308	24.8%	167	31.8%	221	49.7%	696	31.5%	93.57***
Documented gang involvement	35	2.8%	34	6.5%	93	20.9%	162	7.3%	158.26***
Peer involvement									
Criminal legal involvement	644	51.9%	293	55.8%	348	78.2%	1,285	58.1%	94.38***
Documented gang involvement	98	7.9%	88	16.8%	219	49.2%	405	18.3%	374.50***

*p<.05. **p<.01. ***p<.000.

Youth's escalation by system identified youth gang category. In all areas of escalation, youth

who were associated with gangs were more likely to escalate into the legal system when compared to

youth with no documented involvement and youth with suspected involvement (see Table 7). First,

nearly half of the youth (*n* = 212, 47.6%) in the sample with a documented connection to a gang

escalated to a youth state facility or to an adult facility as a youth. Whereas nearly 20% (*n* = 232) of

youth with no documented involvement escalated as a youth, X^2 (2, *N* = 2,210) = 154.07, *p* = .000. Nearly

three quarters of documented youth (*n* = 324, 72.8%) had an arrest as an adult, while for youth with no

involvement, that percentage was just under half (*n* = 592, 47.7%), X^2 (2, *N* = 2,210) = 82.94, *p* = .000. For

both convictions as an adult and any adult prison sentence, youth with gang involvement were more

likely to experience both of those escalations. Nearly 70% of youth (*n* = 305) with documented gang

involvement had a conviction and 45% (*n* = 200) were sentenced to an adult prison.

These numbers were much lower for youth with no involvement. About one third of the youth

with no involvement (*n* = 437, 35.2%) escalated to an adult conviction, X^2 (2, *N* = 2,210) = 147.43, *p* =

.000, and only 15% of the youth (*n* = 191) received a prison sentence as an adult, X^2 (2, *N* = 2,210) =

158.97, *p* = .000. The most striking difference between the groups was the percentage sentenced to

federal probation. Almost 7% (*n* = 30, 6.7%) of system documented gang youth received a federal

probation sentence, whereas less than one percent (*n* = 8, 0.6%) of uninvolved youth received a federal

probation sentence, X^2 (2, *N* = 2,210) = 60.77, *p* = .000. Overall, youth involved with gangs were more

likely to escalate into every area of the system.

Table 7

Youth Escalation into Youth and Adult Systems by Youth's System Identified Gang Category

	No involvement		Suspected involvement		Documented involvement		Total		
	1,239	56.1%	526	23.8%	445	20.1%	2,210	100%	
	n	%	*n*	%	*n*	%	*N*	%	X^2
Escalation as a youth									
Stat youth authority commitment or adult prison (Yes)	232	18.7%	107	20.4%	212	47.6%	551	24.9%	154.07***
Escalation as an adult									
Adult arrest ever (Yes)	592	47.7%	283	53.9%	324	72.8%	1,199	54.3%	82.94***
Adult conviction ever (Yes)	437	35.2%	229	43.6%	305	68.5%	971	43.9%	147.43***
Adult prison sentence ever (Yes)	191	15.4%	134	25.5%	200	44.9%	525	23.8%	158.97***
Any federal probation ever (Yes)	8	0.6%	8	1.5%	30	6.7%	46	2.1%	60.77***

*p<.05. **p<.01. ***p<.000.

Who are their fathers?

Demographic and criminogenic factors by father's system identified gang category. Only a

small portion of youth (*n* = 168. 7.6%) had a father who was identified as gang involved; however, there

were significant differences in youth based on their father's gang status (see Table 8). Fathers with

documented gang involvement had children who had their first criminal referral about seven and a half

months earlier (*M* = 14.00, *SD* = 1.52) than fathers with no gang involvement (*M* = 14.62, *SD* = 1.64),

t(2,208) = -5.05, *p* = .000. There were no differences in initial risk scores between youth with gang

associated fathers (*M* = 11.01, *SD* = 6.35) and those with fathers with no involvement (*M* = 10.28, *SD* =

5.70), *t*(2,208) = 1.44, *p* = .11. However, youth with fathers not involved in gangs saw an improvement in

their risk scores over the course of their supervision. Specifically, youth with gang associated fathers had

an increase in risk score by one and a half points (*M* = 1.54, *SD* = 6.44) and youth with fathers not

involved in gangs had a decrease in scores (*M* = -0.01, *SD* =5.21), *t*(2,208) = 3.03, *p* = .000.

Youth with gang involved fathers, on average, had two and a half more criminal referrals (*M* =

7.04, *SD* = 5.00) than youth with non-gang involved fathers (*M* = 4.60, *SD* = 4.06), *t*(2,208) = 6.15, *p* =

.000. They were more likely to meet the criteria for chronic offender (*n* = 75, 44.6%) than youth with

non-gang involved fathers, (*n* = 558, 27.3%), X^2 (1, *N* = 2,210) = 22.78, *p* = .000. Finally, on average, youth

with gang involved fathers spent on average 30 more days in detention (*M* = 83.19, *SD* = 81.64) than

youth with fathers not associated with gangs (*M* = 52.36, *SD* = 67.69), *t*(2,208) = 4.40, *p* = .000.

There were differences among the types of crimes committed by youth who had gang involved

fathers, and those who did not. Youth with fathers who have documented gang involvement were more

likely to have a referral with a weapons charge (*n* = 60, 35.7%), X^2 (1, *N* = 2,210) = 30.22, *p* = .000. and a

person crime charge (*n* = 138, 82.1%), X^2 (1, *N* = 2,210) = 9.00, *p* = .003. Youth of both fathers were no

more likely to be charged with an illegal drug charge, X^2 (1, *N* = 2,210) = 0.77, *p* = .380. Overall, youth

who had fathers associated with gangs entered the system earlier, were at a higher risk, had more

serious crimes, and spent longer in detention.

Table 8

Youth Demographics and Criminogenic Factors by Father's System Identified Gang Category

	Father with documented involvement		Father without documented involvement		Total		
	168	7.6%	2,042	92.4%	2,210	100%	
	n/M	*%/SD* (Range)	*n/M*	*%/SD* (Range)	*n/M*	*%/SD* (Range)	Test statistic
Youth gang category							
No involvement	47	28.0%	1,193	58.4%	1,240	56.1%	X^2 = 117.05***
Suspected involvement	34	20.2%	491	24.0%	525	23.8%	
Documented involvement	87	51.8%	358	17.5%	445	20.1%	
Criminogenic factors							
Age at first criminal referral[a]	14.00	1.52 (7-18)	14.62	1.64 (7-18)	14.57	1.64 (7-18)	T = -5.05***
First JCP score (0-30)[b]	11.01	6.35 (0-26)	10.28	5.70 (0-26)	10.33	5.75 (0-26)	T = 1.44
Change in JCP score[c]	1.54	6.44 (-26-19)	-0.01	5.21 (-17-24)	0.11	5.33 (-26-24)	T = 3.03***
Number of criminal referrals	7.04	5.00 (1-28)	4.60	4.06 (1-42)	4.78	4.19 (1-42)	T = 6.15***
Total days spent in detention	83.19	81.64 (0-439)	52.36	67.69 (0-609)	55.09	69.56 (0-609)	T = 4.40***
Chronic offender (Yes)[d]	75	44.6%	558	27.3%	633	28.6%	X^2 = 22.78***
Weapons crime charge ever (Yes)	60	35.7%	372	18.2%	432	19.5%	X^2 = 30.22***
Drug crime charge ever (Yes)	28	16.7%	397	19.4%	425	19.2%	X^2 = 0.77
Person crime charge (Yes)	138	82.1%	1,457	71.4%	1,595	72.2%	X^2 = 9.00**

[a]Although Oregon does not allow for youth under 8 years of age to be arrested, there were two youth in the sample who arrested at the ages listed in the bottom range. [b]The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more), and the assessment is mandated to be updated every 90 days or if a youth receives a new criminal referral. [d]According to Oregon Statute, the definition of a chronic offender is a youth with three criminal referrals within one year.
*p<.05. **p<.01. ***p<.000.

Youth's life transitions by father's system identified gang category. As seen in the previous

section, there were differences in the frequency and severity of life events and disruptions for youth of

fathers involved in gangs and of fathers who were not (see Table 9). Youth of a gang involved father was

more likely to be involved in a dependency, (n = 57, 33.9%), X^2 (1, N = 2,210) = 17.11, p = .000, and had a

been involved in nearly twice as many dependencies (M = 0.51, SD = 0.82), t(2,208) = 3.41, p = .001.

More striking, ninety-one percent (n = 152) of the youth with a gang involved father experienced at least

one residential change while under supervision, X^2 (1, N = 2,210) = 34.51, p = .000. They averaged almost

one and a half more residential changes (M = 3.06, SD = 2.41) than youth with fathers not involved in

gangs (M = 1.89, SD = 2.09), t(2,208) = 6.10, p = .000.

 In spite of the clear differences in dependencies and residential changes for youth, there were

no differences for youth of gang-involved and gang-uninvolved fathers in school disruption and status or

city violations. For both groups of youth, about one third experienced a school disruption, (n = 749,

33.9%), X^2 (1, N = 2,210) = 0.74, p = .391, and they experienced about one half of a school disruption (M

= 0.47, SD = 0.78), t(2,208) = 0.69, p = .492. For status and city violations, both groups diverged

somewhat, but not significantly. Slightly more youth of gang-involved fathers (n = 103, 61.3%) had status

violations than youth of uninvolved fathers (n = 1105, 54.1%), X^2 (1, N = 2,210) = 3.24, p = .072. Similarly,

youth of gang-involved fathers had a slightly higher number of status or city referrals (M = 2.26, SD =

3.46) than youth of fathers not gang-involved (M = 1.81, SD = 3.38), t(2,208) = 1.62, p = .106.

 The results regarding the remaining life events demonstrate stark differences between youth of

fathers who are gang involved, and those who have fathers not involved in gangs. The majority of youth

first entered the system through a criminal referral. Specifically, over half of the youth with gang

involved fathers (n = 93, 55.4%) and nearly two thirds (n = 1,331, 65.2%) of the youth with fathers not

involved in gangs first entered the system with a criminal referral. However, for youth with gang

involved fathers, they disproportionately entered the system next through a dependency (n = 51,

30.4%), when compared to youth with fathers that are not involved in gangs (n = 346, 16.9%), X^2 (1, N =

2,210) = 19.01, p = .000. Youth with fathers involved with gangs entered the system almost two years

earlier (M = 11.01, SD = 4.81) than their counterparts (M = 12.84, SD = 4.12), t(2,208) = -4.80, p = .000.

They also experienced six more life events (*M* = 17.62, *SD* = 10.70) than youth of fathers not involved in gangs (*M* = 11.56, *SD* = 9.39), *t*(2,208) = 7.12, *p* = .000. Finally, youth with gang-documented fathers experienced, on average, one more life disruption (*M* = 4.99, *SD* = 2.34) in a 3 month period than youth with fathers not involved in gangs (*M* = 3.81, *SD* = 2.26), *t*(2,208) = 6.30, *p* = .000. Youth with fathers associated with gangs are likely to enter the system earlier and experience more disruption throughout their lives.

Youth who have gang-involved fathers have a greater number of life disruptions in every developmental stage except preschool (see Table 10). Within the first two years after birth, youth of gang-associated fathers have more life disruptions (*M* = 0.17, *SD* = 0.48), *t*(2,208) = 2.69, *p* = .008. However, during preschool, ages 3 to 5, the difference is neutralized, as all youth have about the same amount of disruptions, (*M* = 0.06, *SD* = 0.29), *t*(2,208) = -0.82, *p* = .935. Starting at kindergarten, youth of gang-identified fathers have significantly more disruptions (*M* = 0.34, *SD* = 1.00) than youth with fathers not involved in gangs (*M* = 0.16, *SD* = 0.50), *t*(2,208) = 2.35, *p* = .020. Throughout middle school and high school, this gap increases with youth of gang-involved fathers experiencing 2.77 (*SD* = 4.34) life disruptions in middle school and 14.27 (*SD* = 8.75) life disruptions during high school. These numbers are significantly higher than youth with fathers not associated with gangs. During middle school, these youth only experienced 1.47 (*SD* = 3.08) life disruptions, *t*(2,208) = 3.77, *p* = .000, and during high school they experienced 9.80 (*SD* = 7.92) life disruptions, *t*(2,208) = 6.41, *p* = .000. Throughout the course of the youth's lives, there are distinct differences in life disruptions by their father's gang designation.

Table 9

Youth Life Events by Father's System Identified Gang Category

	Father with Documented involvement		Father without documented involvement		Total		
	168	7.6%	2,042	92.4%	2,210	100%	
	n/M (Range)	*%/SD*	*n/M* (Range)	*%/SD*	*n/M* (Range)	*%/SD*	Test statistic
Dependency							
Dependency referral ever (Yes)	57	33.9%	415	20.3%	472	21.4%	X^2 = 17.11***
Number of dependency referrals	0.51 (0-4)	0.82	0.29 (0-7)	0.67	0.30 (0-7)	0.68	T = 3.41**
Residential changes							
Residential change ever (Yes)	152	90.5%	1,409	69.3%	1,561	70.6%	X^2 = 34.51***
Number of residential changes	3.06 (0-14)	2.41	1.89 (0-16)	2.09	1.98 (0-16)	2.13	T = 6.10***
School disruptions							
School disruption ever (Yes)	62	36.9%	687	33.6%	749	33.9%	X^2 = 0.74
Number of school disruptions	0.51 (0-14)	0.81	0.47 (0-7)	0.78	0.47 (0-7)	0.78	T = 0.69
Juvenile criminal legal involvement							
Status referral/violation ever (Yes)	103	61.3%	1,105	54.1%	1,208	54.7%	X^2 = 3.24
Number of status referrals	2.26 (0-20)	3.46	1.81 (0-57)	3.38	1.84 (0-57)	3.38	T = 1.62
Events over the life span							
First event							
Dependency	51	30.4%	346	16.69%	397	18.0%	X^2 = 19.01***
Status or Violation	24	14.3%	365	17.9%	389	17.6%	
Criminal Referral	93	55.4%	1,331	65.2%	1,424	64.4%	
Age of 1st contact with system	11.01 (0-18)	4.81	12.84 (0-18)	4.12	12.70 (0-18)	4.21	T = -4.80***
Number of events	17.62 (2-61)	10.70	11.56 (1-92)	9.39	12.02 (1-92)	9.63	T = 7.12***
Most events within 3 months	4.99 (1-15)	2.34	3.81 (1-26)	2.26	3.90 (1-26)	2.29	T = 6.30***

*p<.05. **p<.01. ***p<.000.

Table 10

Number of Life Disruptions across Child Developmental Stages by Father's System Identified Gang Category

Ages	Father with documented involvement		Father without documented involvement		Total		
	168	7.6%	2,042	92.4%	2,210	100%	
	M	*SD*	*M*	*SD*	*M*	*SD*	
	(Range)		(Range)		(Range)		*T*
0-2 years	0.17	0.48	0.07	0.30	0.08	0.32	2.69**
	(0-3)		(0-3)		(0-3)		
3-5 years	0.06	0.26	0.06	0.29	0.06	0.29	0.82
	(0-2)		(0-5)		(0-5)		
6-10 years	0.34	1.00	0.16	0.50	0.17	0.56	2.35*
	(0-8)		(0-5)		(0-8)		
11-13 years	2.77	4.40	1.47	3.08	1.57	3.21	3.77***
	(0-31)		(0-54)		(0-54)		
14-18 years	14.27	8.75	9.80	7.92	10.14	8.07	6.41***
	(0-49)		(0-60)		(0-60)		

*$p<.05$. **$p<.01$. ***$p<.000$.

Youth's neighborhood *Father's System Identified Gang Category.* The number of shots fired within a youth's neighborhood differed by their father's gang category (see Table 11). Youth who had fathers associated with gangs were more evenly dispersed throughout the city. Specifically, these youth lived mostly in neighborhoods with a low level of calls for shots fired ($n = 46$, 28.0%) and a high level of calls for shots fired ($n = 43$, 26.2%). Whereas for youth who had fathers not associated with gangs, they lived predominantly in neighborhoods with a low level of calls for shots fired ($n = 833$, 44.18%), X^2 (3, $N =$ 2,210) = 17.16, $p = .001$.

Table 11

Youth Neighborhood by Father's System Identified Gang Category

Calls for shots fired	Father with documented involvement		Father without documented involvement		Total		X^2
	168	7.6%	2,042	92.4%	2,210	100%	
	n	%	*n*	%	*N*	%	X^2
Very high level	33	20.1%	346	18.3%	379	18.4%	17.16**
High level	43	26.2%	367	19.4%	410	20.0%	
Medium level	42	25.6%	345	18.2%	387	18.8%	
Low level	46	28.0%	833	44.1%	879	42.8%	

*p<.05. **p<.01. ***p<.000.

Youth's familial and peer criminal legal and gang involvement by father's gang category.

Youth with fathers who are associated with a gang, were more likely to have same generation family members, or cousins, step siblings, and siblings (*n* = 95, 56.5%) than youth with fathers not associated with gangs (*n* = 601, 29.4%), X^2 (1, *N* = 2,210) = 52.90, *p* = .000 (see Table 12). Similarly, youth with gang involved fathers were more likely to have same generation family gang members (*n* = 42, 25.0%), than youth with unassociated fathers (*n* = 120, 5.9%), X^2 (1, *N* = 2,210) = 83.57, *p* = .000. The same trend was present in the peer data: youth of associated fathers (*n* = 76, 45.2%) had peers known for gang activity at rate three times that of youth with unassociated fathers (*n* = 329, 16.1%), X^2 (1, *N* = 2,210) = 87.98, *p* = .000. They were also more likely to have peers that had some sort of criminal legal involvement (*n* = 133, 79.2%) than their counterparts (*n* = 1152, 56.4%), X^2 (1, *N* = 2,210) = 33.02, *p* = .000. Generally, youth of associated fathers were more likely to have family members and peers involved in the juvenile or criminal legal system, and more likely that these family members and peers were gang associated.

Table 12

Youth Familial and Peer Criminal Legal and Gang Involvement by Father's System Identified Gang Category

	Father with Documented involvement		Father without documented involvement		Total		
	168	7.6%	2,042	92.4%	2,210	100%	
	n	%	n	%	N	%	X^2
Same generation involvement							
Criminal legal involvement	95	56.5%	601	29.4%	696	31.5%	52.90***
Documented gang involvement	42	25.0%	120	5.9%	162	7.3%	83.57***
Peer involvement							
Criminal legal involvement	133	79.2%	1,152	56.4%	1,285	58.1%	33.02***
Documented gang involvement	76	45.2%	329	16.1%	405	18.3%	87.98***

*p<.05. **p<.01. ***p<.000.

Youth's escalation by father's gang category. Youth who have a father associated with gangs are more likely to escalate further into the system as a youth and as an adult (see Table 13). Almost half of the youth of fathers associated with gang activity (*n* = 79, 47.0%) escalated into either the juvenile or the adult system as a youth, X^2 (1, *N* = 2,210) = 47.41, *p* = .000. Although over half of youth of a father not associated with gangs (*n* = 1082, 53.0%) had an arrest as an adult, that rate for youth of associated fathers increased to 70% (*n* = 117), X^2 (1, *N* = 2,210) = 17.35, *p* = .000. A similar pattern was present in the rates of having a conviction as an adult. Nearly two thirds of the youth with gang associated fathers had a case convicted as an adult (*n* = 106, 63.1%), X^2 (1, *N* = 2,210) = 27.09, *p* = .000. They were also more likely to be sentenced to an adult prison as an adult (*n* = 67, 39.9%), than youth of fathers not associated with gangs (*n* = 458, 22.4%), X^2 (1, *N* = 2,210) = 26.10, *p* = .000. Please note that the numbers were too low to present the data on federal probation without risking the identification of participants. The data on the outcomes for youth demonstrates that youth of gang associated fathers are more likely to become entangled further into the system.

Table 13

Youth Escalation into Youth and Adult Systems by Father's System Identified Gang Category

	Father with documented involvement		Father without documented involvement		Total		
	168	7.6%	2,042	92.4%	2,210	100%	
	n	*%*	*n*	*%*	*N*	*%*	*X²*
Escalation as a youth							
State youth authority commitment or adult prison (Yes)	79	47.0%	472	23.1%	551	24.9%	47.41***
Escalation as an adult							
Adult arrest ever (Yes)	117	69.6%	1,082	53.0%	1,199	54.3%	17.35***
Adult conviction ever (Yes)	106	63.1%	865	42.4%	971	43.9%	27.09***
Adult prison sentence ever (Yes)	67	39.9%	458	22.4%	525	23.8%	26.10***
Any federal probation ever (Yes)[a]	---	---	---	---	---	---	---

[a]Cell sizes are too small to report.

*p<.05. **p<.01. ***p<.000.

Who are gang youth with gang fathers?

Gang-involved youth's demographic and criminogenic factors by father's gang category. There were minimal differences for youth identified with gangs, who had fathers associated with gangs and who had fathers unassociated with gangs (see Table 14). In fact, race proved to be the only difference. There were no gang identified fathers that had gang identified youth who identified as White. This may be because of the focus of this study, and the racialized nature of gangs in general and within the study setting. The qualitative portion of this study (see Qualitative Study and Findings), discussed some of the racialized nature of youth gangs in Portland. More specifically, it is well documented within Oregon, and particularly within in Portland, White supremist gangs recruit primarily adults within the adult prison system. On the other hand, Black/African American gangs recruit youth primarily within social and school settings. Because we built our sample on youth, most gang-identified youth were involved in Black/African American gangs, and it is not a surprise to see that the gang-identified youth involved in

Black/African American gangs are not White. These findings are further supported and explained in the qualitative findings.

Net of the father's status, there were no statistically significant differences between youth who were associated and had fathers who were associated, and the youth who were associated with unassociated fathers. Both groups entered the system shortly after their 14th birthday (M = 14.06, SD = 1.45; M = 14.37, SD = 1.57; respectively), $t(2,208)$ = -1.79, p = .08. Both groups were arrested as a juvenile about seven times (M = 7.00, SD = 5.25), $t(2,208)$ = 0.83, p = .409. Almost half of the youth formally associated with gangs were arrested for a crime involving weapons (n = 206, 45.3%), X^2 (1, N = 2,210) = 3.43, p = .064, and most were arrested for a crime involving a person (n = 360, 80.9%), X^2 (1, N = 2,210) = 0.63, p = .426. However, there was a slight increase in the percentage of youth associated with gangs with unassociated fathers having an arrest for an Illegal drug charge (n = 86, 24.0%) versus youth associated with associated fathers (n = 14, 16.1%), X^2 (1, N = 2,210) = 2.53, p = .112. Although not statistically significant, there were some substantive differences worth noting. System identified youth of associated fathers entered the system with a lower risk score (M = 11.05, SD = 6.29) than youth of unassociated fathers (M = 12.10, SD = 5.22), $t(2,208)$ = -1.44, p = .152. But youth of associated fathers had a greater increase in their risk assessment score (M = 2.24, SD = 6.66) than youth of unassociated fathers (M = 1.39, SD = 5.44), $t(2,208)$ = 1.11, p = .268.

Table 14

System Identified Youth Involved in Gangs Demographics and Criminogenic Factors by Father's System Identified Gang Category

	Father with documented involvement		Father without documented involvement		Total		
	87	19.6%	358	80.4%	445	100%	
	n/M (Range)	*%/SD*	*n/M* (Range)	*%/SD*	*n/M* (Range)	*%/SD*	Test statistic
Race/ethnicity							
White	0	0.0%	32	8.9%	32	7.2%	$X^2 = 8.38$**
Youth of color	87	100%	326	91.1%	413	92.8%	
Criminogenic factors							
Age at first criminal referral[a]	14.06 (11-18)	1.45	14.37 (10-18)	1.57	14.31 (10-18)	1.55	$T = -1.79$
First JCP score (0-30)[b]	11.05 (0-25)	6.29	12.10 (0-24)	5.22	11.89 (0-25)	5.46	$T = -1.44$
Change in JCP score[c]	2.24 (-20-19)	6.66	1.39 (-12-24)	5.44	1.55 (-20-24)	5.70	$T = 1.11$
Number of criminal referrals	7.37 (1-22)	4.48	6.91 (1-42)	5.42	7.00 (1-42)	5.25	$T = 0.83$
Chronic offender (Yes)[d]	44	50.6%	158	44.1%	202	45.5%	$X^2 = 1.17$
Weapons crime charge ever (Yes)	48	55.2%	158	44.1%	206	46.3%	$X^2 = 3.43$
Drug crime charge ever (Yes)	14	16.1%	86	24.0%	100	22.5%	$X^2 = 2.53$
Person crime charge (Yes)	73	83.9%	287	80.2%	360	80.9%	$X^2 = 0.63$
Total days spent in detention	91.25 (0-439)	91.77	79.68 (0-609)	86.76	82.06 (0-609)	87.83	$T = 1.04$

[a]This is a 3 x 2 table with race as a dichotomous variable: Person of Color and White. [b]Although Oregon does not allow for youth under 8 years of age to be arrested, there were two youth in the sample who arrested at the ages listed in the bottom range. [c]The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more), and the assessment is mandated to be updated every 90 days or if a youth receives a new criminal referral. [d]According to Oregon, the definition of a chronic offender is a youth with three criminal referrals within one year.

*p<.05. **p<.01. ***p<.000.

Gang-involved youth's life transitions by father's gang category. The similarities and

differences of life disruptions for youth associated with gangs, as it relates to their father's system

identified gang status, allow insight into what youth identified as gang associated experience (see Table

15). System-identified gang youth with documented system identified gang fathers were more likely to

enter the system through a dependency case (n = 24, 27.6%), X^2 (1, N = 2,210) = 8.18, p = .017, and they

were more likely in general to be involved in a dependency case (n = 26, 29.9%), X^2 (1, N = 2,210) = 7.34,

p = .007. However, there were no differences between these youth by their father's system identified

gang category as to the number of dependency cases they were involved in, t(2,208) = -1.56, p = .122.

When examining residential changes and school disruptions, system-identified gang youth with

gang associated fathers had higher residential instability, whereas youth with fathers not associated

with gangs had higher school disruptions, and there were no differences in their status or city violations.

Just over 90% (n = 79) of youth with gang associations of fathers with gang association experienced at

least one residential change while under supervision, X^2 (1, N = 2,210) = 9.51, p = .002. These youth also

experienced one more residential move (M = 3.34, SD = 2.70) than their counterparts of unassociated

fathers (M = 2.24, SD = 2.18), t(2,208) = 3.59, p = .000. Conversely, system-identified gang youth of

unassociated fathers were more likely to experience a school disruption (n = 173, 48.3%), X^2 (1, N =

2,210) = 7.36, p = .007, and had a higher number of school disruptions (M = 0.68, SD = 0.87), t(2,208) = -

1.99, p = .049. There were no differences in the percentage of system identified gang youth who had

received either a status or city violation (n = 292, 65.6%), X^2 (1, N = 2,210) = .000, p = .982, and the

number of these citations received (M = 1.93, SD = 2.50), t(2,208) = -0.22, p = .824. The similarities in the

status and city violation data may indicate youth associated with gangs, when compared to youth not

involved in gangs, are intensely supervised, rather than informally supervised through status and city

violations.

Table 15

System Identified Youth Involved in Gangs Life Events by Father's System Identified Gang Category

	Father with Documented involvement		Father without documented involvement		Total		
	87	19.6%	358	80.4%	445	100%	
	n/M	%/SD (Range)	n/M	%/SD (Range)	n/M	%/SD (Range)	Test statistic
Dependency							
Dependency referral ever (Yes)	26	29.9%	61	17.0%	87	19.6%	$X^2 = 7.34**$
Number of dependency referrals	0.43	0.77 (0-4)	0.28	0.75 (0-6)	0.31	0.76 (0-6)	$T = 1.56$
Residential changes							
Residential change ever (Yes)	79	90.8%	271	75.7%	350	78.7%	$X^2 = 9.51**$
Number of residential changes	3.34	2.70 (0-14)	2.24	2.18 (0-14)	2.46	2.32 (0-14)	$T = 3.59***$
School disruptions							
School disruptions ever (Yes)	28	32.2%	173	48.3%	201	45.2%	$X^2 = 7.36**$
Number of school disruptions	0.47	0.86 (0-14)	0.68	0.87 (0-6)	0.64	0.87 (0-6)	$T = -1.99*$
Juvenile criminal legal involvement							
Status referral/violation ever (Yes)	57	65.5%	235	65.6%	292	65.6%	$X^2 = 0.00$
Number of status referrals	1.99	2.62 (0-13)	1.92	2.48 (0-16)	1.93	2.50 (0-16)	$T = -0.22$
Events over the life span							
First event							
Dependency	24	27.6%	53	14.8%	77	17.3%	$X^2 = 8.18*$
Status Violation	16	18.4%	86	24.0%	102	22.9%	
Criminal Referral	47	54.0%	219	61.2%	266	59.8%	
Age of 1st contact with system	11.13	4.92 (0-18)	12.48	4.18 (0-18)	12.22	4.36 (0-18)	$T = -2.36*$
Number of events	18.66	9.50 (2-49)	16.08	9.86 (1-61)	16.58	9.84 (1-61)	$T = 2.25*$
Most events within 3 months	5.32	2.06 (2-15)	4.73	2.18 (1-17)	4.85	2.17 (1-17)	$T = 2.37*$

*$p<.05$. **$p<.01$. ***$p<.000$.

Table 16

Number of Life Disruptions Experienced by System Identified Youth Involved in Gangs across Child Developmental Stages by Father's System Identified Gang Category

Ages	Father with documented involvement		Father without documented involvement		Total		
	87	19.6%	358	80.4%	445	100%	
	M	*SD*	*M*	*SD*	*M*	*SD*	
	(Range)		(Range)		(Range)		*t*
0-2 years	0.21	0.55	0.10	0.36	0.12	0.41	-1.76
	(0-3)		(0-2)		(0-3)		
3-5 years	0.02	0.15	0.06	0.33	0.06	0.31	-1.73
	(0-1)		(0-4)		(0-4)		
6-10 years	0.28	0.98	0.16	0.52	0.18	0.64	-1.07
	(0-8)		(0-4)		(0-8)		
11-13 years	2.69	5.12	1.85	3.29	2.01	3.37	1.46
	(0-31)		(0-20)		(0-31)		
14-18 years	15.46	7.18	13.91	8.37	14.21	8.16	1.74
	(2-33)		(0-60)		(0-60)		

*$p<.05$. **$p<.01$. ***$p<.000$.

Finally, there were differences among youth associated with gangs based on their father's gang association in the youth's age of first contact with the system, the number of life disruptions, and the most life disruptions experienced in a three-month period (see Table 16). Youth associated with gangs who have fathers associated with gangs entered the system about a year and four months earlier (*M* = 11.13, *SD* = 4.92) than system identified gang youth with unassociated fathers (*M* = 12.48, *SD* = 4.18), $t(2,208) = -2.36$, *p* = .020. They also experienced about two more life events (*M* = 18.66, *SD* = 9.50), and more overall life events within a three month period (*M* = 5.32, *SD* = 2.06), than system identified gang youth with unassociated fathers (*M* = 16.08, *SD* = 9.86; *M* = 4.73, *SD* = 2.18), $t(2,208) = 2.25$, *p* = .026, $t(2,208) = 2.37$, *p* = .019, respectively. This data reveals that youth associated with gangs, who have fathers also associated with gangs are at a higher risk for certain life disruptions and increased number of life disruptions (i.e., residential and school). However, after further examining the life disruptions across the developmental childhood life course (see Table 16), the data did not demonstrate any

differences between system identified gang youth, as it relates to their father's status. As such, these

results indicate that for youth involved in gangs, there is no one developmental stage that is more

impactful than others. Mitigating life disruptions at any point in the life of youth who are associated

with gangs would be effective.

Gang-involved youth's neighborhood by father's gang category. Where the gang-involved

youth lived was not impacted by their father's gang category (see Table 17). For gang-involved youth of

gang-involved fathers, they were almost equally distributed throughout the varied levels of

neighborhood calls for shots fired. For gang-identified youth of uninvolved gang fathers, the highest

number of youth lived in a neighborhood with low levels of calls for shots fired, (n = 111, 32.7%), X^2 (1, N

= 2,210) = 2.48, p = .479.

Table 17

System Identified Youth Involved in Gangs Neighborhood by Father's System Identified Gang Category

	Father with documented involvement		Father without documented involvement		Total		
	86	20.2%	339	79.8%	425	100%	
Calls for shots fired	n	%	n	%	N	%	X^2
Very high level	19	22.1%	61	18.0%	80	18.8%	2.48
High level	24	27.9%	83	24.5%	107	25.2%	
Medium level	22	25.6%	84	24.8%	106	24.9%	
Low level	21	24.4%	111	32.7%	132	31.1%	

*p<.05. **p<.01. ***p<.000.

Gang-involved youth's familial and peer criminal legal and gang involvement by father's gang

category. Data on the same generation family showed differences in gang involved youth with gang

involved fathers and those with fathers uninvolved in gang activity (see Table 18). System identified

gang youth with fathers involved were more likely to have a same generation family member with at

least one criminal legal involvement (n = 54, 62.1%), X^2 (1, N = 2,210) = 6.66, p = .010. They were also

more likely to have a same generation family member who is associated with gangs (n = 27, 31.0%), X^2

(1, N = 2,210) = 6.72, p = .010. This was not the case for peers: There were no differences in system

identified gang involved youth being connected with peers who have had at least one criminal legal

involvement (n = 348, 78.2%), X^2 (1, N = 2,210) = 2.07, p = .151. However, system identified youth with

fathers who are not gang involved were more likely to have peers that were identified as gang involved

(n = 54, 62.1%), X^2 (1, N = 2,210) = 7.15, p = .007. This finding seems counterintuitive, as it is expected to

see data confirming that youth identified as being involved in a gang with a father also involved would

have peers involved in gangs. This finding suggests that there is a different mechanism occurring that

should be investigated through future investigations.

Table 18

System Identified Youth Involved in Gangs Familial and Peer Criminal Legal and Gang Involvement by Father's System Identified Gang Category

	Father with documented involvement		Father without documented involvement		Total		
	87	19.6%	358	80.4%	445	100%	
	n	%	n	%	N	%	X^2
Same generation involvement							
Criminal legal involvement	54	62.1%	167	46.6%	221	49.7%	6.66**
Documented gang involvement	27	31.0%	66	18.4%	93	20.9%	6.72**
Peer involvement							
Criminal legal involvement	73	83.9%	275	76.8%	348	78.2%	2.07
Documented gang involvement	165	46.1%	54	62.1%	219	49.2%	7.15**

*p<.05. **p<.01. ***p<.000.

Gang-involved youth's escalation by father's gang category. For gang involved youth, there

were no differences in their escalation outcomes based on their father's gang category (see Table 19).

Detailed results about gang involved youth and their escalation outcomes were presented earlier in this

report. It is important to note that, although there were no statistically significant differences between

the youth, in all escalation outcomes, gang-involved youth with gang involved fathers escalated at a

higher percentage than gang involved youth with fathers not involved in gangs.

Table 19

System Identified Youth Involved in Gangs Escalation into Youth and Adult Systems by Father's System Identified Gang Category

	Father with documented involvement		Father without documented involvement		Total		
	87	19.6%	358	80.4%	445	100%	
	n	*%*	*n*	*%*	*N*	*%*	*X²*
Escalation as a youth							
State youth authority commitment or adult prison (Yes)	48	55.2%	164	45.8%	212	47.6%	2.46
Escalation as an adult							
Adult arrest ever (Yes)	66	75.9%	258	72.1%	324	72.8%	0.51
Adult conviction ever (Yes)	62	71.3%	243	67.9%	305	68.5%	0.37
Adult prison sentence ever (Yes)	43	49.4%	157	43.9%	200	44.9%	0.88
Any federal probation ever (Yes)[a]	---	---	---	---	---	---	---

[a]Cell sizes are too small to report

*p<.05. **p<.01. ***p<.000.

What impacts gang status for youth?

After understanding who the youth are, who their fathers are, and especially who are gang identified youth with gang identified fathers, this study aimed to examine what factors might increase the likelihood of a youth receiving a gang identifier. Restated, this section presents the results from the original research question six. As stated in the methodology section, identifying the exact moment in time when a youth becomes a gang member is nebulous, and it is even more difficult to determine this for system personnel. This poses a timing issue to the study, so it is even more important than usual to remember that our models are demonstrating association, not causation. Our use of CEM to create a matched sample between youth with and without a gang identified father at least reduces bias and ensures we are comparing similar groups of youth. See Table 20 for the new sample size and Table 21, which presents the results.

Table 20

Involvement in Gangs: Coarsened Exact Matching of Youth by Father Gang Association

	Youth with a father unassociated with gangs		Youth with a father associated with gangs	
	n	*%*	*n*	*%*
	2,042	92.4%	168	7.6%
Matched youth	1,211		167	
Unmatched youth	831		1	

It is important to address the results concerning race. The results portray that for this sample, when holding all other variables constant, the odds ratio of a youth of color being associated with gangs is 27.56 (95% CI [7.86, 208.50], *p.* = .000). This confirms what is known about youth gangs within Portland, Oregon: When a male youth joins gangs, they are more likely to identify as Black or African American. Most White male youth, who subsequently become involved in gangs do so through the adult prison system and during the developmental phases of emerging adulthood and early adulthood (Blazak, 2009; Decker et al., 2022).

The remaining results, with the exception of one variable, align with literature regarding gangs and the mechanisms of family systems and criminal legal and gang involvement (Decker et al., 2022; Howell et al., 2017). The criminogenic factors that were significantly related to the gang status outcome were a youth being involved in a dependency at any point in their life (*OR* = 0.70, 95% CI [0.52, 0.94], *p.* = .019) and the youth's first risk score (*OR* = 1.07, 95% CI [1.04, 1.09], *p.* = .000). As expected, with each point increase in the risk score[8], the odds of a youth receiving a gang status increased by 7%. Unexpectedly, the results concerning dependencies appeared in the opposite direction, as gang literature indicates that early enmeshment into the system increases the likelihood of a youth's gang status (Kerig & Mendez, 2022; Kubik et al. 2019). This data revealed that, when holding all other

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[8] Low risk (0-5 points); Medium risk (6-13 points); and High risk (greater than 14).

variables constant, with each dependency a youth experienced, they were 30% less likely to receive a

gang status.

Table 21

Logistic Regression Predicting Outcome of being System-identified as Gang-involved for Male Youth

	Full model (n=1,378)			
			Confidence interval	
	OR	*p*	Low	High
Demographics				
Youth of color	27.56	0.000	7.86	208.50
Criminogenic factors				
Been involved in a dependency (Yes)	0.70	0.019	0.52	0.94
Age of first criminal referral	1.06	0.204	0.97	1.16
JCP risk score (range)[a]	1.07	0.000	1.04	1.09
Neighborhood: Calls for shots fired[b]				
Very high level	1.32	0.171	0.89	1.97
High level	1.10	0.629	0.76	1.59
Medium level	1.41	0.075	0.97	2.07
Missing	0.84	0.716	0.29	2.09
Same generation family members				
Criminal legal involvement (Yes)	1.39	0.028	1.04	1.86
Gang involvement (Yes)	2.62	0.000	1.76	3.90
Peer				
Criminal legal involvement (Yes)	0.95	0.773	0.69	1.32
Gang involvement (Yes)	3.73	0.000	2.70	5.19
Fathers				
Criminal legal involvement (Yes)	1.26	0.220	0.87	1.80
Gang involvement (Yes)	2.34	0.000	1.59	3.46
(Intercept)	0.00	0.000	0.00	0.01

Note. AIC = 1387.73, pseudo R^2 =0.185.

[a] The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more). [b]Reference category: Low level of calls for shots fired.

Any gang involvement of same generation family members, peers, and father were the greatest

predictors of a youth's gang status. Having a peer who was gang involved had the largest impact on the

odds ratio of a youth receiving a gang status (*OR* = 3.73, 95% CI [2.70, 5.19], *p. =* .000). The second

greatest impact was having a same generation family member (e.g., sibling, step-sibling, cousin, and

kinfolk) in the household who identified as gang involved (*OR* = 2.62, 95% CI [1.76, 3.90], *p. =* .000), followed by having a father who was identified as gang involved, (*OR* = 2.34, 95% CI [1.59, 3.46], *p. =* .000). It was expected that the data would reveal that any criminal involvement by the youth's social groups would as well be statistically significant. This hypothesis was only supported partially. A youth's odds ratio of an identified gang status was increased by 39% when they had a family member within the same generation involved in the criminal legal system (*OR* = 1.39, 95% CI [1.04, 1.86], *p. =* .028). In the end, the overall results were consistent with literature, with the exception of the effect of being involved in a dependency.

What impacts the age crime curve?

The limited understanding of what impacts a youth's odds ratio of being identified as a gang member confirmed established literature, and raised some questions for future research. In this section, the age crime curve is explored to understand the difference between youth across the different gang statuses and to answer question three of the original research questions. This analysis used a mixed effects model, a statistical technique that can be thought of as fitting individual linear regressions for each youth (known as the random effects) simultaneously with an ordinary linear regression across the entire population of JCP scores (known as the fixed effects). The underlying math leads the similarities between youth to gather in the population-wide fixed effects, while the differences between youth remain in the per-youth random effects.

Please note, most youth in our sample have several JCP scores recorded over their time on supervision, which form a risk trajectory for that youth. The goal for this research question was to synthesize the commonalities between youth trajectories to find the overall patterns among youth. Our assumption is that JCP score is a good proxy for likelihood of delinquent behavior, which we believe to be reasonable as repeated internal validations have shown this to be true.
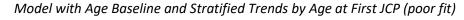
Because the model needed to fit random effects for each youth, only youth with at least three JCPs were included. A small number of youth (n=12) whose first JCP was done at age 11 or before were removed, as they were significantly outside the range of support. This left a sample size of 1,634 youth from the original sample of 2,210.

All models were tested, including the linear and quadratic models, the models that did and did not treat the age of the first JCP as a baseline of zero, and the models that did or did not treat the first JCP score as a baseline of zero. These models represent different hypotheses testing regarding the nature and extent of age-crime trends. First, treating the age of the first JCP as a baseline of zero (i.e., age is measured as the number of years since the first JCP) allowed for the testing of the hypothesis that youth are defined by first entry into the criminal legal system rather than absolute age of the youth. That is, a youth who enters the system at 14 will have a similar trajectory as one who enters at 17. Next, treating the first JCP score as a baseline of zero, or measuring the JCP score as a number of points above or below the first JCP, allows for testing the hypothesis that external circumstances shape a youth's first JCP score, and the meaningful measurement is how much a youth changes from that first score.

It was determined that the best fitting model was a quadratic model with no age or JCP baseline. This is not surprising, as literature would justify treating age or JCP score as baselines that are inconsistent with the generally accepted literature consensus regarding the age crime curve (Farrington, 1986). Note that best fit statistics such as AIC (Akaike Information Criterion) can be used to differentiate between the linear and quadratic models, but the baseline models' fit must be assessed through consistency with the hypothesis that justifies it. For instance, treating age at first JCP as a baseline of zero implies that youth should have similar trends regardless of age at first JCP, and would be shown to be a poor fit if youth starting at different ages had different trend lines – as is the case in Figure 2.

Figure 2

Model with Age Baseline and Stratified Trends by Age at First JCP (poor fit)
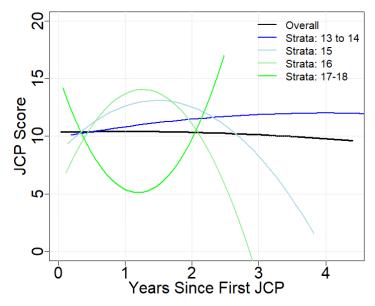

Figure 2 demonstrates the graph of the age baseline model that shows that each age strata of youth have trend lines significantly different from both the overall population trend and each other, which does not support the hypothesis justifying such a model; thus, it is a poor fit.

The chosen model (quadratic age term and no baselines) has this equation:

$$y_{ij} = \beta_0 + \beta_1 x_{ij} + \beta_2 x_{ij}^2 + u_{0j} + u_{1j} x_{ij} + e_{ij}$$

Where y_{ij} is the ith JCP score of the jth youth, x_{ij} is the age of the jth youth at their ith JCP, β_0, β_1, and β_2 are the fixed effect intercept, linear slope, and quadratic slope respectively, u_{0j} and u_{1j} are the random effect intercept and slope respectively, and e_{ij} is the error term. Table 22 presents the model results.

Table 22

Mixed Effects Model for Overall Population Trend of JCP Scores

	Fixed effects coefficients		
	Coefficient	Standard error	*t*-value
Intercept	10.5829	0.1302	81.30***
Age	11.1390	1.1061	10.07***
Age squared	-11.1367	1.0979	-10.14***

*p<.05. **p<.01. ***p<.000.

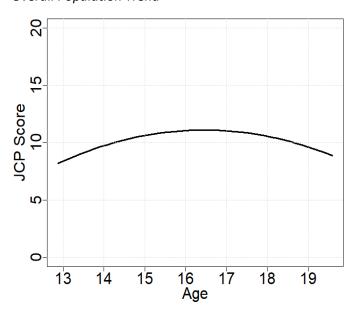Graphing these results provides a visual representation of the overall population trend (Figure 3). Figure 4 demonstrates that this trend is consistent with the stratified trends of youth at different ages.
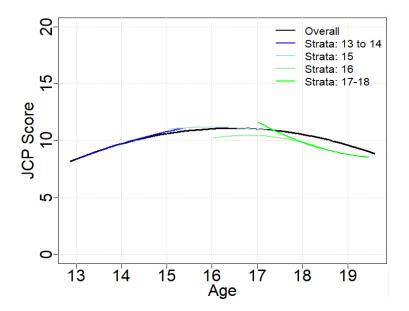
Figure 3

Overall Population Trend

Figure 4

Overall Population Trend and Stratified Trends by Age at First JCP

These results are consistent with the literature consensus on juvenile delinquency, showing the highest rate of delinquent behavior around ages 16-17, followed by a decline as youth age into adulthood (Farrington, 1986; National Institute of Justice, 2014). Even more than most models, it must be stressed that these trends should not be expected to continue beyond the range of support of our data (roughly ages 13 to 19). Indeed, the final strata of youth with first JCP age of 17-18 has the opposite quadratic trend as the other strata, which hints that JCP score does not continue decreasing geometrically with age.

Next, youth was separated by gang membership and ran the model for each group separately (see Table 23). The results demonstrate that there was limited support at age 13 for the suspected and documented groups, so the graph begins at age 14.
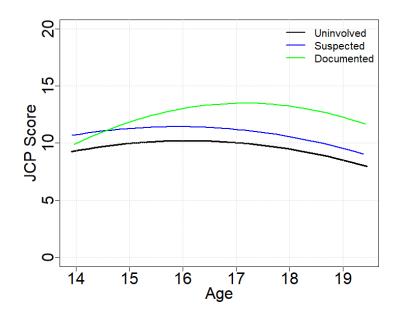
Table 23

Mixed Effects Models for Overall Population Trends of JCP Scores by Gang Membership

| | Fixed effects coefficients | | |
	No involvement	Suspected involvement	Documented involvement
Intercept	9.7112	10.8770	12.6339
Age	9.7479	9.2027	17.6891
Age squared	-9.9578	-9.5625	-16.8946

Finally, Figure 5 relays that youth from all three groups have very similar JCP scores at age 14. The uninvolved and suspected groups had almost identical trends, with the only difference being the suspected group average JCP score is a few points higher at every age. However, the documented group is notably different. JCP scores of documented youth peak significantly higher and about a year later (age 17 instead of age 16). While all three groups have decreasing JCP scores by age 19, documented youth decrease the latest and least, possibly indicative of a higher likelihood of criminal behavior as adults. These results confirm that the age crime curve is present in this sample, but more importantly it demonstrates that youth who are documented as gang members are more likely to desist later, if at all.

Figure 4

Overall Population Trend by Gang Membership

What impacts escalation into the system?

To answer this question, the results from the original research questions two and five are presented. First, to understand what impacts escalation into the system, the results from the original research questions two and five were regressed on various outcomes (e.g., an arrest, adult state prison, adult state probation or prison, and federal probation). Specifically, question two addressed how being identified as a gang member and having a father identified as a gang member contributes to a youth's odds of entering the state commitment facility or the adult prison system as a youth or an adult. Question five addressed the impact of a youth's life events across childhood developmental stages and how the concentration of these events impacts a youth's odds of entering various adult outcomes.

What impacts a youth's escalation as a youth?

Originally the research question contained two elements. First, it was hypothesized that youth who have been identified as gang involved would increase the odds of a youth, *as a youth, escalating* into either a state youth commitment facility or an adult state prison. Finally, it was hypothesized that a youth with a father who has been identified as a gang member would increase the odds of escalation. To enable these analyses, we created a matched sample between gang identified youth, suspected youth, and uninvolved youth. You can see the new sample size below in Table 24.

Table 24

Further System Escalation: Coarsened Exact Matching of Youth Gang Status

	Documented involvement		Suspected involvement		No involvement	
	n	*%*	*n*	*%*	*n*	*%*
	445	20.1%	525	23.8%	1,240	56.1%
Matched youth	440		485		1,077	
Unmatched youth	5		40		163	

For the first part of the question, being identified as a gang member was statistically related to rise to the level of being statistically significant and the findings support this hypothesis (see Table 24).

Youth who were identified as being involved in a gang had a 2.43 times greater odds ratio than youth who were not identified as being involved in a gang (95% CI [1.81, 3.27], *p.* = .000).

The second part of the question regarding the father's influence on escalation as a youth was partially supported. A youth with a father who identified as a gang member was no more likely to escalate than a youth with father not identified as a gang member (*OR* = 1.38, 95 CI [0.88, 2.17], *p.* = .162). However, if a youth had a father who had documented criminal legal involvement, their odds ratio was 1.44 times that of a youth with a father with no documented criminal legal involvement, (95 CI [1.09, 1.91], *p.* = .010). The largest influence on the odds ratio of escalation as a youth, was whether the youth had a family member from the same generation that was gang documented (*OR* = 2.15, 95 CI [1.39, 3.37], *p.* = .001) and if they had a same generation family member that was involved in the criminal legal system (*OR* = 1.86, 95% CI [1.46, 2.36], *p.* = .000). In the end, the second hypothesis was only partially supported, and more importantly, the findings provide a better understanding of how same generation family members play a role in the possible escalation for a youth, *as a youth*, into the juvenile and adult criminal legal system.

Table 25

Logistic Regression Analysis of Escalation as a Youth: Full Model and Stepwise Model

	Full model (n=2,002)				Stepwise			
			Confidence interval				Confidence interval	
	OR	p	Low	High	OR	p	Low	High
Demographics								
Youth of color	0.69	0.001	0.55	0.86	0.72	0.002	0.58	0.89
Criminogenic factors								
Been involved in a dependency (Yes)	0.93	0.635	0.71	1.24				
Age of first criminal referral	1.17	0.000	1.09	1.25	1.15	0.000	1.07	1.23
JCP risk score (range)[a]	1.02	0.106	1.00	1.04	1.02	0.110	1.00	1.04
Change in JCP risk score	1.03	0.011	1.01	1.05	1.03	0.007	1.01	1.05
Total number of criminal referrals	1.21	0.000	1.15	1.28	1.19	0.000	1.14	1.24
Chronic offender (Yes)[b]	0.84	0.311	0.59	1.18				
Received weapons charge ever (Yes)	1.21	0.178	0.92	1.60	1.23	0.139	0.93	1.62
Received person charge ever (Yes)	1.30	0.035	1.02	1.65	1.29	0.037	1.02	1.64
Received drug charge ever (Yes)	1.54	0.001	1.19	1.98	1.53	0.001	1.18	1.97
Total number of days spent in detention	1.00	0.615	1.00	1.00				
Neighborhood: Calls for shots fired[c]								
Very high level	1.31	0.105	0.94	1.81				
High level	1.06	0.695	0.79	1.43				
Medium level	1.33	0.046	1.00	1.76				
Missing	0.96	0.854	0.63	1.44				
Familial influences								
Same generation family members								
Criminal legal involvement (Yes)	1.81	0.000	1.42	2.32	1.86	0.000	1.46	2.36
Gang involvement (Yes)	2.09	0.001	1.34	3.28	2.15	0.001	1.39	3.37
Peer								
Criminal legal involvement (Yes)	1.31	0.022	1.04	1.66	1.30	0.024	1.03	1.64
Gang involvement (Yes)	0.96	0.790	0.69	1.33	0.98	0.891	0.71	1.35
Fathers								

Table 25

Logistic Regression Analysis of Escalation as a Youth: Full Model and Stepwise Model

	Full model (n=2,002)				Stepwise			
			Confidence interval				Confidence interval	
	OR	p	Low	High	OR	p	Low	High
Criminal legal involvement (Yes)	1.38	0.028	1.03	1.83	1.44	0.010	1.09	1.91
Gang involvement (Yes)	1.36	0.181	0.87	2.15	1.38	0.162	0.88	2.17
Youth gang status (Yes)[d]								
Suspected involvement	1.24	0.082	0.97	1.59	1.24	0.075	0.98	1.58
Documented involvement	2.36	0.000	1.75	3.19	2.43	0.000	1.81	3.27
(Intercept)	0.01	0.000	0.00	0.04	0.02	0.000	0.01	0.05

Note. Full model: AIC = 2389.63, pseudo R^2 =0.165. Stepwise model: AIC = 2384.50, pseudo R^2 =0.162.

[a]The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more), and the assessment is mandated to be updated every 90 days or if a youth receives a new criminal referral. [b]According Oregon, the definition of a chronic offender is a youth who three criminal referrals within one year. [c]Reference category: Low level of calls for shots fired. [d]Reference category: No documented gang involvement.

What life events and how do the timing and concentration of those events across the child developmental life impact youth's escalation into various adult systems?

The final research question set out to address was that of the impact of life events on a youth's odds ratio of escalation into various adult systems. It is well documented that what a child experiences across the developmental life stages is connected to their likelihood to not only enter into the juvenile justice system (Howell et al., 2017; Vidal et al., 2017; Widom, 1989), but also escalate in this system (Loeber et al., 2013; Stouthamer-Loeber, 2010). As stated in the *Methodology* section, the escalation outcomes for this research question were: (a) any arrest as an adult; (b) any state probation or prison as an adult; (c) any state youth authority or adult prison as a youth; (d) any adult prison sentence; and (e) any federal probation sentence. To understand the impact of a youth's gang status, a father's gang status, and life events, the models controlled for criminogenic and familial influences (see Methodology for a full description). Because most independent variables in these models were counts with a high degree of skewness, all counts were log transformed. When we say below "each unit change in X

reduced the odds ratio...," understand that we are discussing a unit change in the log odds ratio which is, of course, a non-linear change in the actual number of events.

Any arrest as an adult. The stepwise model supported some of the hypotheses regarding the life events and gang association influences on an arrest as an adult (See Table 26). First, for youth, with each increase in logged life events between the ages of six and ten, the odds of being arrested increased by 50% and portrayed that youth who experience life events during some developmental stages can be at an increased risk for arrest as an adult, (*OR* = 1.50, 95% CI [1.02, 2.24], *p.* = .042). With each increase in the logged life disruptions during 14 and 18 years, their odds of arrest as an adult increased by 152% (*OR* = 2.52, 95% CI [1.82, 3.52], *p.* = .000). The closer the life event is to adulthood the more likely it will impact the odds ratio of being arrested as an adult. As expected experiencing a life transition negatively impacts a youth's life; however, if a youth experienced a high number of life transitions within a three-month frame, it reduced their odds ratio of being arrested as an adult by 64% (*OR* = 0.36, 95% CI [0.23, 0.55], *p.* = .000). Remember, many of the life transitions are only counted while the youth is under supervision, and youth, especially high-risk youth, are most likely to receive the needed services to mitigate their risk of enmeshment into the juvenile system and escalation into the adult system while under supervision. This finding may indicate that if a youth hits a high enough number, the system responds in a quick wrap-around manner; this finding should be investigated further. Finally, the only type of life event that impacted a youth's odds ratio of an arrest as an adult was the logged home changes, with each change increasing the risk by 23% (*OR* = 1.23, 95% CI [1.03, 1.48], *p.* = .026).

For the second part of the overall research question, youth who were identified as being a gang member increased their odds ratio of being arrested as an adult (*OR* = 1.68, 95% CI [1.27, 2.23], *p.* = .000). This supports the hypothesis that being identified as a gang member will increase the likelihood of being arrested as an adult. Additionally, a youth's odds ratio of being arrested as an adult were not impacted by their father's criminality or gang status, in fact, the variables measuring father's criminality

and gang status were not included in the stepwise model. But the odds of being arrested as an adult was influenced by same generation family members' and peer's gang status, but the direction of impact was mixed. Youth who had same generation family members identified as involved in gangs were 65% more likely to be arrested as an adult (OR = 1.65., 95% CI [1.07, 2.59], $p.$ = .027). Interestingly though, youth who had peers who were identified as gang members were 28% less likely to be arrested as an adult (OR = 0.72, 95% CI [0.52. 0.99], $p.$ = .043). Given that this finding does not confirm an established body of literature, this result should be interpreted with caution unless further quantitative and qualitative research can replicate this finding.

Table 26

Logistic Regression of Escalation to Any Arrest as an Adult and Any State Probation or Prison: Full and Stepwise Models

	As an adult: Arrested (n=2,002)								As an adult: Any state probation or prison (n=2,002)							
	Full model				Stepwise				Full model				Stepwise			
			CI				CI				CI				CI	
	OR	p	Low	High	OR	p	Low	High	OR	p	Low	High	OR	p	Low	High
Demographics																
Youth of color	1.06	0.577	0.86	1.31					0.64	0.000	0.51	0.81	0.64	0.000	0.52	0.80
Criminogenic factors																
Age of first criminal referral	1.17	0.001	1.06	1.28	1.17	0.001	1.07	1.27	1.15	0.007	1.04	1.27	1.15	0.00	1.06	1.24
Number of criminal referrals (log)	1.81	0.002	1.25	2.63	1.85	0.000	1.36	2.52	2.55	0.000	1.73	3.78	2.13	0.000	1.57	2.89
Number of days spent in detention (log)	0.97	0.520	0.88	1.07					1.10	0.054	1.00	1.22	1.07	0.144	0.98	1.18
Most detentions within 3-month frame (log)	1.02	0.905	0.71	1.48					0.74	0.120	0.50	1.08	0.65	0.018	0.46	0.93
Risk score (range)[a]	1.01	0.210	0.99	1.03					0.97	0.015	0.95	0.99	0.97	0.009	0.95	0.99
Neighborhood: Calls for shots fired[b]																
Very high level	1.38	0.046	1.01	1.88	1.37	0.044	1.01	1.86	1.28	0.150	0.91	1.78				
High level	1.83	0.000	1.35	2.48	1.87	0.000	1.40	2.52	1.05	0.751	0.77	1.44				
Medium level	0.92	0.549	0.70	1.21	0.93	0.588	0.71	1.21	1.34	0.045	1.01	1.79				
Missing	0.43	0.000	0.28	0.66	0.43	0.000	0.28	0.64	1.18	0.443	0.77	1.81				
Familial influences																
Same generation family members																
Criminal legal involvement	1.17	0.203	0.92	1.49	1.16	0.217	0.92	1.48	1.71	0.000	1.33	2.19	1.70	0.000	1.33	2.17
Gang involvement	1.51	0.074	0.97	2.40	1.65	0.027	1.07	2.59	2.03	0.002	1.29	3.23	2.06	0.002	1.32	3.24
Peers																
Criminal legal involvement	1.13	0.296	0.90	1.42	1.12	0.310	0.90	1.41	1.16	0.218	0.91	1.48				
Gang involvement	0.71	0.038	0.51	0.98	0.72	0.043	0.52	0.99	0.88	0.468	0.63	1.23				

Table 26

Logistic Regression of Escalation to Any Arrest as an Adult and Any State Probation or Prison: Full and Stepwise Models

Fathers																
Criminal legal involvement	0.93	0.622	.071	1.23					1.32	0.062	0.99	1.76	1.34	0.045	1.01	1.77
Gang involvement	1.16	0.539	0.73	1.86					1.24	0.362	0.78	1.99	1.23	0.367	0.78	1.96
Youth gang status[c]																
Suspected involvement	1.15	0.261	0.90	1.46	1.15	0.262	0.90	1.46	1.21	0.133	0.94	1.56	1.22	0.105	0.96	1.56
Documented involvement)	1.73	0.000	1.30	2.32	1.68	0.000	1.27	2.23	2.67	0.000	1.99	3.60	2.48	0.000	1.90	3.26
Life events																
First system contact[d]																
Dependency	1.05	0.878	0.56	1.96					0.92	0.805	0.48	1.77				
Criminal referral	1.07	0.641	0.79	1.46					1.18	0.300	0.86	1.62				
Number of system contacts (log)																
Dependency	1.03	0.935	0.51	2.12					0.82	0.593	0.39	1.70				
Status or city violations	1.01	0.960	0.80	1.26					1.27	0.041	1.01	1.61				
Home changes	1.21	0.077	0.98	1.49	1.23	0.026	1.03	1.48	1.12	0.318	0.90	1.39				
School disruptions	1.16	0.298	0.88	1.52					1.38	0.023	1.05	1.83	1.29	0.060	0.99	1.68
Life events across childhood developmental stages																
0-2 years	1.68	0.236	0.72	4.03					1.75	0.195	0.75	4.14				
3-5 years	0.68	0.334	0.32	1.49					0.58	0.194	0.26	1.31	0.48	0.028	0.25	0.92
6-10 years	1.55	0.078	0.96	2.54	1.50	0.042	1.02	2.24	1.59	0.069	0.97	2.65				
11-13 years	0.85	0.221	0.66	1.10	0.85	0.125	0.69	1.05	0.86	0.262	0.66	1.12				
14-18 years	2.50	0.000	1.57	4.04	2.52	0.000	1.82	3.52	1.80	0.023	1.09	3.00	2.41	0.000	1.80	3.26
Most life events within 3-month frame (log)	0.35	0.000	.022	.056	0.36	0.000	0.23	0.55	0.79	0.330	0.49	1.27				
(Intercept)	0.02	0.000	0.00	0.09	0.02	0.000	0.00	0.08	0.01	0.000	0.00	0.03	0.01	0.000	0.00	0.02

Note. Full model: AIC = 2529.55, pseudo R^2 =0.127. Stepwise model: AIC = 2510.04, pseudo R^2 =0.124.

[a]The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more), and the assessment is mandated to be updated every 90 days or if a youth receives a new criminal referral. [b]Reference category: Low level of calls for shots fired. [c]Reference category: No documented gang involvement. [d]Reference category: Status violation.

Any State Probation or Prison. The next outcome this study examined was whether a youth had any state probation or prison sentence as an adult (see Table 26). The stepwise model portrayed that there were two developmental life stages where life events impacted the odds ratio of receiving any state probation or prison sentence, and the impact had opposite effects. First, with each logged life event that a youth experienced from the ages of three to five decreased the odds ratio of any state probation or prison as an adult (*OR* = 0.48, 95% CI [0.25, 0.92], *p.* = .028). Conversely, with each logged life event that a youth experienced from the ages of 14 to 18 their odds ratio of being sentenced to any state probation or prison as an adult increased by 141% (*OR* = 2.41, 95% CI [1.80, 3.26], *p.* = .000). Nearing significance, it is important to note that with each logged school disruption that a youth experienced increased the odds ratio by 29% for being sentenced to any state probation or prison as an adult (*OR* = 1.29, 95% CI [0.99, 1.68], *p.* = .060).

Next, similar to the findings in the previous research question, being a gang member increased the odds ratio of being sentenced to state probation or prison as an adult by 148% (*OR* = 2.48, 95% CI [1.90, 3.26], *p.* = .000). Also, father's gang status did not impact a youth's odd ratio of being sentenced to state probation or prison as an adult (*OR* = 1.23, 95% CI [0.78, 1.96], *p.* = .367), but if a youth's father had criminal involvement, then it increased the odds ratio of a youth being sentenced to state probation or prison as an adult by 34% (*OR* = 1.34, 95% CI [1.01, 1.77], *p.* = .045). Finally, the stepwise model revealed that having a same generation family involved in the criminal legal system (*OR* = 1.70, 95% CI [1.33, 2.17], *p.* = .000) or a same generation family member identified as gang involved (*OR* = 2.06, 95% CI [1.32, 3.24], *p.* = .002) had a greater impact on the youth's odds of being sentenced to state probation or prison as an adult. The findings indicate that the theme of same generation familial influences appears to influence escalation to state probation or prison as an adult.

Any escalation to youth authority or adult prison as a youth. The results of the logistic regression analysis as to the impact of life events, gang status, and family and friends gang status are

displayed in Table 27. For this outcome, very few life events affected the odds ratio to be sentenced as a youth. First, if a youth experienced a status or a city violation, the youth's odd ratio of escalation decreased by 29% (*OR* = 0.71, 95% CI [0.56, 0.92], *p. =* .008). Remember, status and city violations are incidents that are not allowed to be prosecuted, and these findings indicate a need to research the effect of status and city violations, and if this effect is being driven by one particular type of system, which may be driving the opposite effect. Finally, it is important to note that although each increase in the logged most life events within a three-month frame decreases the risk of escalation as a youth (*OR* = 0.54, 95% CI [0.28, 1.04], *p. =* .067), it was not statistically significant. However, it neared significance and had the same effect as seen in previously reported outcomes, and may triangulate other sources of data on this phenomenon.

When examining the gang and familial criminal legal and gang involvement effects on being sentenced to youth authority or adult prison as youth, few family members influenced that outcome. First, the connection between gang status and life events was not present in this model. For both youth with documented gang activity and for youth suspected of gang activity, the odds did not reach a level of significance. Additionally, father's criminal legal involvement and gang status did not appear in the final stepwise model. The only two that significantly impacted the odds ratio were same generation family criminal legal involvement and peer gang involvement. Youth with family members from the same generation who are involved in the criminal legal system increased their odds ratio of escalation as a youth by 78% (*OR* = 1.78, 95% CI [1.28, 2.48], *p. =* .001). Also, for youth with peers who are identified as involved in a gang, they were 2.06 times more likely to escalate as a youth (*OR* = 2.06, 95% CI [1.34, 3.17], *p. =* .001). The same generation family member influence is consistent with previous findings in this study, but the peer finding should be explored further to determine if having a peer who is identified as gang involved has an additive effect on escalation as a youth.

Table 27

Logistic Regression of Escalation to Youth Authority Commitment Facility or Adult Prison as a Youth and as an Adult: Full and Stepwise Models

	As a youth: Any escalation to youth authority or adult prison (n=2,002)								As an adult: Adult prison sentence ever (n=2,002)							
	Full model				Stepwise				Full model				Stepwise			
			CI				CI				CI				CI	
	OR	*p*	Low	High	*OR*	*p*	Low	High	*OR*	*p*	Low	High	*OR*	*p*	Low	High
Demographics																
Youth of color	0.79	0.153	0.58	1.09	0.76	0.067	0.56	1.02	0.60	0.000	0.46	0.78	0.58	0.000	0.45	0.75
Criminogenic factors																
Age of first criminal referral	0.93	0.364	0.80	1.08					1.09	0.153	0.97	1.23	1.09	0.053	1.00	1.19
Number of criminal referrals (log)	0.84	0.491	0.51	1.38					1.80	0.010	1.15	2.82	1.79	0.001	1.26	2.55
Number of days spent in detention (log)	4.03	0.000	3.39	4.86	4.07	0.000	3.45	4.87	1.14	0.023	1.02	1.28	1.13	0.021	1.02	1.26
Most detentions within 3-month frame (log)	0.99	0.963	0.56	1.75					0.74	0.174	0.47	1.14	0.74	0.152	0.49	1.11
Risk score (range)[a]	0.99	0.526	0.96	1.02					0.99	0.242	0.96	1.01				
Neighborhood: Calls for shots fired[b]																
Very high level	1.01	0.965	0.64	1.60					1.39	0.087	0.95	2.04	1.42	0.069	0.97	2.07
High level	0.90	0.636	0.59	1.38					0.90	0.548	0.63	1.28	0.91	0.592	0.64	1.29
Medium level	1.27	0.258	0.84	1.92					1.63	0.002	1.19	2.24	1.73	0.001	1.27	2.36
Missing	1.28	0.432	0.68	2.38					1.00	0.991	0.58	1.66	1.02	0.932	0.60	1.69
Familial influences																
Same generation family members																
Criminal legal involvement	1.77	0.001	1.26	2.49	1.78	0.001	1.28	2.48	1.31	0.060	0.99	1.72	1.35	0.029	1.03	1.78
Gang involvement	1.36	0.295	0.76	2.44	1.43	0.220	0.81	2.52	1.58	0.055	0.99	2.52	1.61	0.042	1.01	2.54
Peers																
Criminal legal involvement	1.42	0.059	0.99	2.06	1.38	0.076	0.97	1.96	1.19	0.228	0.90	1.59	1.18	0.252	0.89	1.58
Gang involvement	2.22	0.001	1.42	3.50	2.06	0.001	1.34	3.17	0.82	0.311	0.56	1.20	0.85	0.377	0.58	1.22
Fathers																
Criminal legal involvement	1.20	0.350	0.82	1.75					1.29	0.106	0.94	1.76				
Gang involvement	0.91	0.760	0.50	1.65					1.12	0.659	0.67	1.83				

Table 27

Logistic Regression of Escalation to Youth Authority Commitment Facility or Adult Prison as a Youth and as an Adult: Full and Stepwise Models

	As a youth: Any escalation to youth authority or adult prison (n=2,002)								As an adult: Adult prison sentence ever (n=2,002)							
	Full model				Stepwise				Full model				Stepwise			
			CI				CI				CI				CI	
	OR	*p*	Low	High	*OR*	*p*	Low	High	*OR*	*p*	Low	High	*OR*	*p*	Low	High
Youth gang status[c]																
Suspected involvement	0.86	0.445	0.58	1.26	0.85	0.382	0.58	1.23	1.93	0.000	1.43	2.59	1.90	0.000	1.42	2.55
Documented involvement	1.30	0.192	0.88	1.92	1.30	0.158	0.90	1.88	3.93	0.000	2.88	5.39	3.98	0.000	2.93	5.41
Life events																
First system contact[d]																
Dependency	2.08	0.083	0.92	4.85					1.08	0.822	0.54	2.22				
Criminal referral	1.18	0.456	0.76	1.83					1.20	0.310	0.85	1.71				
Number of system contacts (log)																
Dependency	0.50	0.162	0.18	1.30	0.91	0.658	0.59	1.39	0.69	0.379	0.30	1.54	0.70	0.053	0.48	1.00
Status or city violations	0.79	0.117	0.58	1.06	0.71	0.008	0.56	0.92	1.09	0.534	0.84	1.40				
Home changes	1.02	0.875	0.78	1.34					0.92	0.468	0.72	1.16				
School disruptions	0.96	0.814	0.66	1.38					1.80	0.000	1.33	2.43	1.78	0.000	1.34	2.36
Life events across childhood developmental stages																
0-2 years	1.14	0.806	0.40	3.23					1.59	0.314	0.64	3.90				
3-5 years	1.65	0.345	0.58	4.65					0.78	0.582	0.31	1.88				
6-10 years	0.74	0.359	0.39	1.40					1.08	0.775	0.63	1.83				
11-13 years	1.40	0.051	1.00	1.96	1.52	0.000	1.25	1.85	0.94	0.656	0.70	1.25				
14-18 years	1.61	0.172	0.82	3.22	1.47	0.074	0.97	2.24	2.20	0.013	1.20	4.16	1.99	0.000	1.39	2.87
Most life events within 3-month frame (log)	0.56	0.099	0.28	1.11	0.54	0.067	0.28	1.04	0.86	0.607	0.49	1.51				
(Intercept)	0.01	0.000	0.00	0.08	0.00	0.000	0.00	0.01	0.00	0.000	0.00	0.03				

Note. As a Youth full model: AIC = 1231.43, pseudo R^2 =0.483. *As a Youth* Stepwise model: AIC = 1209.73, pseudo R^2 =0.478. *As an Adult* full model: AIC = 1843.79, pseudo R^2 =0.212. *As a Youth* Stepwise model: AIC = 1828.75, pseudo R^2 =0.208.

[a]The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more), and the assessment is mandated to be updated every 90 days or if a youth receives a new criminal referral. [b]Reference category: Low level of calls for shots fired. [c]Reference category: No documented gang involvement. [d]Reference category: Status violation.

Any prison sentenced as an adult. This outcome was chosen to understand the same escalation pattern as the previous outcome, but is designed to determine what happens when this outcome occurs later on in the life trajectory, or as an adult. The stepwise model demonstrated there were few life events across the developmental stages that influenced likelihood of receiving any prison sentence as an adult (see Table 27*)*. Specifically, experiencing a school disruption or a dependency influenced the likelihood of receiving any prison sentence as an adult. With every change in the number of logged school disruptions, a youth's odds ratio of receiving any prison sentence as an adult increased by 78% (*OR* = 1.78, 95% CI [1.34, 2.36], *p.* = .000). Also, if a youth received a childhood dependency, they were less likely to receive any prison sentence as an adult (*OR* = 0.70, 95% CI [0.48, 1.00], *p.* = .053). This result should be interpreted with caution, as this finding contradicts the literature about crossover youth and enmeshment and it was barely at a level of significance. Further research should investigate this inverse relationship. Finally, youth with each increase in logged life events during the ages of 14 to 18, were twice as likely to receive an adult prison sentence (*OR* = 1.99, 95% CI [1.39, 2.87], *p.* = .000). This supports other proximity findings within this study.

For the second part of the research question, a youth's gang status was significantly associated with the likelihood of receiving any prison sentence as an adult. If a youth was gang documented, they were nearly three times more likely to escalate (*OR* = 3.98, 95% CI [2.93, 5.41], *p.* = .000). For youth suspected of being involved in a gang, their odds of escalating increased by 90% (*OR* = 1.90, 95% CI [1.42, 2.55], *p.* = .000). However, fathers were not related to a youth's likelihood of receiving any prison sentence as an adult: It was omitted from the stepwise model. As seen in previous findings, a youth's same generation family criminal legal involvement (*OR* = 1.35, 95% CI [1.03, 1.78], *p.* = .029) and same generation family gang status (*OR* = 1.61, 95% CI [1.01, 2.54], *p.* = .042) increased the youth's odds of being sentenced to adult prison as an adult. As seen in previous results, same generation family members appear to have the greatest impact on escalation.

Any federal probation sentence. A good portion of this project included intensive, physical data

collection regarding federal probation sentencing. As such, it is important to report on the findings

regarding federal probation sentencing. After analysis, the number of youth who ended up in the federal

probation system was small, and reporting about this data was done with caution as not to identify

youth who eventually received federal probation. The results are presented in Table 28 and should be

taken with caution. None of the life event variables significantly influenced either positively or

negatively the outcome of a federal probation sentence. The only finding that was significantly related

to the outcome of federal probation was if the youth was identified as a gang member. Youth

documented as being involved in gangs were 5.16 times more likely to escalate into the federal

probation system (OR = 5.16, 95% CI [2.14, 13.49], *p.* = .000).

Table 28

Logistic Regression of Federal Probation Sentencing

	As an adult: Sentenced to federal probation (n=2,002)							
	Full model				Stepwise			
			Confidence interval				Confidence interval	
	OR	p	Low	High	OR	p	Low	High
Demographics								
Youth of color	2.20	0.10	0.88	5.86	2.14	0.094	0.90	5.42
Criminogenic factors								
Age of first criminal referral	1.23	0.35	0.80	1.89	1.19	0.417	0.78	1.80
Number of criminal referrals (log)	0.76	0.70	0.19	2.96	0.79	0.728	0.21	2.96
Number of days spent in detention (log)	1.06	0.77	0.73	1.53	1.04	0.843	0.72	1.49
Most detentions within 3-month range (log)	0.29	0.09	0.06	1.19	0.29	0.090	0.07	1.18
Risk score (range)[a]	1.05	0.28	0.97	1.13	1.04	0.285	0.97	1.13
Neighborhood: Calls for shots fired[b]								
Very high level	0.99	0.99	0.20	3.71				
High level	1.35	0.58	0.44	3.89				
Medium level	2.29	0.10	0.84	6.28				
Missing	0.54	0.61	0.02	3.70				
Familial influences								
Same generation family members								
Criminal legal involvement	0.91	0.85	0.32	2.30				
Gang involvement	1.01	0.99	0.26	3.20				
Peer								
Criminal legal involvement	1.72	0.29	0.65	4.86				
Gang involvement	0.88	0.82	0.27	2.77				
Fathers								
Criminal legal involvement	0.22	0.06	0.03	0.86	0.26	0.086	0.04	0.99
Gang involvement	0.86	0.82	0.19	2.96	0.98	0.976	.022	3.27
Youth gang status[c]								
Suspected involvement	1.03	0.96	0.25	3.55	1.01	0.990	0.25	3.40
Documented involvement	5.59	0.00	2.21	15.22	5.16	0.000	2.14	13.49

Table 28

Logistic Regression of Federal Probation Sentencing

	As an adult: Sentenced to federal probation (n=2,002)							
	Full model				Stepwise			
			Confidence interval				Confidence interval	
	OR	p	Low	High	OR	p	Low	High
	Life events							
First system contact[d]								
Dependency	0.32	0.40	0.02	4.41	0.29	0.332	0.02	3.56
Criminal Referral	0.43	0.11	0.15	1.21	0.42	0.095	0.15	1.16
Number of system contacts (log)								
Dependency	1.92	0.60	0.12	16.67	2.36	0.476	0.15	19.13
Status or city violations	0.69	0.40	0.28	1.62	0.67	0.369	0.27	1.58
Home changes	1.08	0.83	0.52	2.26	1.12	0.753	0.54	2.34
School disruptions	1.79	0.22	0.71	4.53	1.90	0.172	0.75	4.79
	Life events across childhood developmental stages							
0-2 years	1.17	0.92	0.05	23.19	0.96	0.979	0.05	16.61
3-5 years	1.02	0.99	0.03	20.13	1.01	0.995	0.03	19.35
6-10 years	0.03	0.15	0.00	0.78	0.04	0.158	0.00	0.81
11-13 years	1.19	0.72	0.44	3.14	1.13	0.802	0.43	2.85
14-18 years	2.31	0.42	0.37	19.81	2.62	0.357	0.41	22.57
Most life events within 3-month frame (log)	2.45	0.34	0.39	15.02	1.93	0.475	0.31	11.65
(Intercept)	0.00	0.01	0.00	0.04	0.000	0.01	0.00	0.09

Note. Full model: AIC = 287.08, pseudo R^2 =0.202. Stepwise model: AIC = 278.32, pseudo R^2 =0.183.

[a]The Juvenile Risk Assessment ranges are Low (0-5); Medium (6-13); High (14 or more), and the assessment is mandated to be updated every 90 days or if a youth receives a new criminal referral. [b]Reference category: Low level of calls for shots fired. [c]Reference category: No documented gang involvement. [d]Reference category: Status violation.

What does this mean?

There were several important themes that were uncovered by the results of this study.

Methodological discussion. First, the original study had an additional research question that

examined processes, but within the neighborhood context. Contrary to expectations, youth

neighborhood consistently appears to be a poor predictor in this study. It is possible that neighborhood

simply does not have the impact expected due to factors such as gentrification (despite the attempts to

control for it) or a strong public transit system, or the measurement of neighborhood was simply too poor to be useful due to unreliability in recorded youth addresses or a poor choice of proxy (911 calls of shots fired). That combined with the lack of data collected by local law enforcement, made it incredibly difficult to measure for any meaningful effects of neighborhood on youth's likelihood to enter a gang or escalate further into the system.

Next, as expected, youth with documented gang involvement consistently score higher on all measures related to criminal behavior (more referrals, higher risk scores, earlier age of involvement, etc.). Youth with suspected gang involvement consistently score between youth with no involvement and youth with documented involvement. This is important evidence that confirms our assumptions: our measures of criminal behavior and gang membership appear accurate (at least enough to be useful in aggregate statistical analyses), and it was correct to separate youth with suspected and documented involvement.

Substantive discussion. The results of this study produced a nuanced understanding of these youth's lives, especially as it relates to their fathers. As expected, when fathers were identified as having involvement in gangs themselves, youths were significantly more likely to also become members. Father gang involvement continued to be a strong predictor of youth gang involvement even when controlling for other social relationships (e.g., peers, siblings, cousins), but not as much as same generation and peer influence. Importantly, fathers were not the sole social influence on a youth's decision to join a gang. Peer and same generation family (siblings and cousins) gang involvement were as strong or stronger predictors of a youth's involvement in crime and gangs as were the variables associated with fathers. These results align with both previous research and this study's qualitative findings that youth model gang behavior on other youth at least as often as they model gang behavior in their families (Hashimi et al., 2021). Youths may be drawn to gang affiliation as a way to socialize more frequently with their peers and to fit in with their friends (Decker et al., 2022). It is therefore unsurprising that

same-age social relationships are just as important a draw towards gang life for a youth as is parental

influence.

Similarly, the prediction of gang status by number of dependencies moved in the opposite

direction of what we expected. With each dependency a youth experienced, they were 30% less likely to

receive a gang status. This finding is inconsistent with much of the literature of dependencies, especially

as it relates to maltreatment (Hamoudi et al., 2015; Kerig & Mendez, 2022; Kubik et al., 2019). However,

some research has suggested the need to explore specific subsets of dependency referrals as findings

indicate that certain types of referrals (i.e., neglect and physical abuse) may be more powerful

predictors of juvenile justice involvement (Vidal et al., 2017) and gang status (Hamoudi et al., 2015). Our

results may be a product of not being able to disentangle specific types of dependencies.

Additionally, results demonstrated that the timing of life events was particularly important. The

largest differences between youth with documented involvement and youth with no documented

involvement were found during the developmental ages of 14-18. This finding remained constant when

analyzing the impact of life events on escalation in the form of an adult arrest and probation or prison as

an adult. These results are consistent with the literature illustrating that significant life events

(particularly maltreatment) have the strongest impact on future criminal involvement during

adolescence (Braun, 2015; Livingston, 2008; Vidal et al., 2017). This should be further investigated.

Moreover, the life event analyses found that, after accounting for youth gang status, father gang

membership was not predictive of any of the five types of escalation. On the other hand, gang

membership of same generation family members was predictive of most of them. This seems to indicate

that continued gang activities in adulthood are more likely to be driven by comradery with similar-age

family and peers, and less any paternal relationship. As a result, these findings bolster the understanding

of the importance of kinfolk and other family-like relationships present within the Black/African

American family system as it relates to gang-activity. Programs designed to address the individual need

may not be effective if the youth, emerging adult, or adult is a part of a larger family system. As such, family-based interventions which specifically target groups of same generation families may be especially fruitful for gang desistance programs.

Furthermore, home transitions were one of the most influential of the life events. Residential changes were highest among gang youth and had the largest impact on a future adult arrest. Although the current study could not provide a detailed narrative of specific types of home changes, previous research does show that home disruptions in the form of foster care placements and removal from the home are particularly strong predictors of future involvement in the juvenile justice system (Braun, 2015; Racer, 2019) and gang membership (Howell et al., 2017). Our measure of home transitions may account for these types of disruptions and therefore, provide further support to previous research.

Although it only approached significance, our findings unexpectedly revealed that an increase in the most logged life events during a three-month timeframe reduced risk of escalation as a youth. Previous literature on the factors associated with escalation to youth state probation or closed custody have found that in some instances, these youth have less contact with Child Protective Services for certain types of abuse (e.g., threat of harm; Braun, 2015). However, these findings are mixed.

In the end, the quantitative portion of this study was able to shed the light on who youth are that are system identified as being involved in gang activity, and what is impacting their likelihood to be system identified as a gang member and the likelihood of escalation into the system. Although some of the hypotheses in this report were not supported, it will give policymakers and practitioners a road map to possible interventions and change point.

Limitations

This study had several limitations that prevents it from being generalizable nationally. First, this study was done in a location that is unique to the West Coast, but also unique to the United States. It is strongly encouraged that other jurisdictions, like Seattle, consider replicating this study to understand a fuller context of the gang phenomenon up the I-5 corridor. Next, the qualitative portion was plagued with entrée obstacles, and the short time remaining on the grant period, made it difficult for the qualitative researcher to fully immerse herself into groups and the larger Black community, and perform a detailed rich analysis that is often seen with qualitative research. Also, much of the data come from administrative sources and relied on the system worker to delineate gang status or category. As such, there is no way to detangle when youth considered themselves as a gang member, and no way to detangle the fluidity of the membership. Despite the standard limitations that arise in social science research, this study's applicability far outweigh its limitations.

Expected Applicability

Although the quantitative and qualitative portions of the study provided a discussion about the impact and relevance of the findings, it is important to examine the themes that were present across both studies, practical implications, future research, and next steps.

Themes across Studies

- Neighborhood played an interesting role in this study. Participants from the qualitative portion spoke about the importance gentrification and neighborhoods in their lives, but the quantitative portion showed neighborhoods had no effect on outcomes. Perhaps the lack of findings supports the themes of isolation and displacement found in the participant interviews, the lack of effect could be connected with dislocation of Black/African Americans people from their neighborhoods.

- While fathers proved a significant influence in a youth's gang membership in the quantitative results, that result did not hold true qualitatively. In contrast, both the quantitative and qualitative results found a strong influence of same-generation peers on a youth's gang membership.

- School and home changes appeared as influential in both portions of the study. This was especially true when examining youth with fathers who had different gang categories.

Practical Implications

There were several practical Implications that came from this study.

- This study demonstrated the importance of programming for Black/African American men who are associated with gangs. Specifically, the lack of connection to self and community. Currently, DCJ has focused on the expansion of the *HEAT* (*Habilitation, Empowerment, Accountability Therapy)* curriculum, which is a program designed to help Black/African American men, who are system involved, create and promote the empowerment of self and connection to the Black/African American community. **This program should be maintained, expanded, and available, as culturally-specific programming for all Black/African American men who are under supervision.**

- Interventions that target groups of same generation family members and peers. For almost all of the outcomes, same generation family members had the highest impact. Much of the gang intervention strategies are focused on the individual and not the individual within the system or neighborhood. **It is recommended to expand who receives gang intervention programming to include family systems and peer networks.**

- This study demonstrated that system personnel might not be "in tune" with their supervisees, or understand the complexities of being involved in a gang and then dissenting from a gang. **It is recommended that system personnel grow their**

understanding of the lives of people they supervise. For example, attend community events like *Walk In Your Shoes* that connects justice involved youth with community members to increase awareness about the lives of high risk youth, become a presence at neighborhood associations, and learn how to remove the organizational and personal barriers to help system personnel to view Black/African American supervisees as humans.

- The main point that arose from the qualitative interviews was there was not enough programming to help Black/African American men and their families. At the root of gang violence are structural issues, not individual deficits, and the system response should address the root cause of gang violence. **It is recommended that Multnomah County, especially the City of Portland, invest in the Black/African American community through housing, healthcare access, educational supports, and guaranteed employment or income programs to address the structural root causes of violence within the Black/African American community.**

- The results presented in this report are a starting point for understanding how to address the needs of the Black/African American community throughout Multnomah County. **Results from future findings that stem from the qualitative portion of this study, along with recommendations, should be presented to system leaders and personnel, community based organizations, and community members.**

Future Research

Areas of future inquiry include:

- Connect the qualitative and quantitative results about neighborhoods, and explore the specific impacts of gentrification on the process of gang involvement.

- Explore, expand, and analyze the data regarding status/city violations.

- Explore, expand, and analyze the data regarding dependency, which will be the first topic of the data boards.

- Return to the community and enmesh more to understand the exact programming needs.

Next Steps

Initially, our next steps are to complete the already outlined manuscripts about the following topics: (a) fathers, peers, and same generation family members influence on gang membership and escalation; (b) the age crime curve of gang membership; (c) structural equation modeling of life events on gang membership and escalation; and (d) the behavioral model of gang activity and the impact of affiliation and social ties based on the initial and second rounds of gang member interviews. All manuscripts are expected to be submitted by June 30, 2023.

Next, due to the practical application of this data, it is important for the data to live in the streets, rather than in academia. As such, several presentations are expected to be made throughout the community to policymakers, system leadership, community-based organizations, and community members. More importantly, given that this study was conducted by a county government, it permits this study to live on and expand through a series of data boards.

The future direction of this project, will include the implementation of committee or boards with the following goals and objectives:

- to understand the results of the project;

- to help formulate practical, data driven interventions that can be rapidly implemented;

- to identify missing data and determine if that data can be obtained through collaborations; and

- to identify future research questions rooted in discovery or evaluation.

There will be a series of data boards grouped by systems (i.e., criminal legal system personnel, community-based organizations, and community members), as this will allow each partner to express their unique needs with the data. As this work continues, all partners will be brought together to understand the needs of the Black community as it relates to gang violence. This will be one of the few times that community members and community organizations, especially Black/African American community members and culturally-specific community organizations, are centered when it comes to data needs. This work will continue to use data and research to empower Multnomah County to effectively address violence within Black/African American community.

Artifacts

1. ASC presentation

2. Probation Manuscript

3. Data set containing the variables and data for the sample *n* = 2,210, used for question 1, 2, and 4-6

4. Data set containing the variables and data used for question 3

5. Two participant interview schedules

6. Four additional proposed manuscripts:

   a. fathers, peers, and same generation family members influence on gang membership and escalation (submission expected 1/31/23);

   b. the age crime curve of gang membership (submission expected 2/28/23);

   c. structural equation modeling of life events on gang membership and escalation(submission expected 5/31/23); and

   d. the behavioral model of gang activity and the impact of affiliation and social ties based on the initial and second rounds of gang member interviews (submission expected March 1, 2023).

References

An, W., & Winship, C. (2017). Causal Inference in Panel Data With Application to Estimating Race-of-

Interviewer Effects in the General Social Survey. *Sociological Methods & Research*, *46*(1), 68–102.

https://doi.org/10.1177/0049124115600614

Augustyn, M. B., Thornberry, T. P., & Krohn, M. D. (2014). Gang Membership and Pathways to

Maladaptive Parenting. *Journal of Research on Adolescence*, *24*(2), 252–267.

https://doi.org/10.1111/jora.12110

Bates, L. (2013). Gentrification and Displacement Study: Implementing an Equitable Inclusive

Development Strategy in the Context of Gentrification. *Urban Studies and Planning Faculty

Publications and Presentations*. https://doi.org/10.15760/report-01

Bernstein, M. (2017, September 8). Portland police to halt, purge all gang designations. *The

Oregonian/OregonLive*. Retrieved 2022, from

https://www.oregonlive.com/portland/2017/09/portland_police_to_halt_purge.html.

Bernstein, M. (2018, March 28). Police keep second list to track Portland gang members, new audit

reveals. *The Oregonian/OregonLive*. Retrieved 2022, from

https://www.oregonlive.com/portland/2018/03/police_keep_second_list_to_tra.html.

Bernstein, M. (2020, March 6). Portland police discovered nearly 100 reports still contain gang

designations, despite pledge to purge them in 2017. *The Oregonian/OregonLive*. Retrieved 2022,

from https://www.oregonlive.com/crime/2020/03/portland-police-discovered-nearly-100-reports-

still-contain-gang-designations-despite-pledge-to-purge-them-in-2017.html.

Bernstein, M. (2022, July 16). Gang violence drives surging Portland homicide rate from early 2019 to

mid-2021, study finds. *The Oregonian/OregonLive*. Retrieved July 17, 2022, from

https://www.oregonlive.com/crime/2022/07/gang-violence-drives-surging-portland-homicide-rate-

from-early-2019-to-mid-2021-study-finds.html.

Blazak, R. (2009). The prison hate machine. *Criminology & Public Policy*, *8*, 633.

Bohm, A. (2004). Theoretical Coding: Text Analysis in Grounded Theory A Companion to Qualitative

Research (pp. 270-274): London: Sage Publications.

Braun, M. (2015). *Probability of Oregon foster care children's future involvement with the Oregon Youth

Authority*. Oregon Youth Authority. https://digital.osl.state.or.us/islandora/object/osl:7634

California Partnership for Safe Communities. *Portland Homicide Problem Analysis 2019 - 2021 (2021).*

Retrieved 2022, from https://s3.documentcloud.org/documents/22088275/2022-pdx-problem-

analysis-public-version-1.pdf.

Catalano, R. F., Haggerty, K. P., Oesterle, S., Fleming, C. B., & Hawkins, D. (2004). The importance of

bonding to school for healthy development: Findings from the Social Development Research

Group. Journal of School Health, 74(7), 252-261.

Catalano, R. F. & Hawkins, J. D. (1996). The social development model: A theory of antisocial behavior. In

J. D. Hawkins (Ed.), *Delinquency and crime: Current theories* (pp. 149-197). Cambridge University

Press.

Corbin, J., & Strauss, A. (2014). *Basics of Qualitative Research: Techniques and Procedures for Developing

Grounded Theory*. SAGE Publications.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five

approaches*. Sage publications.

Decker, S. H., Pyrooz, D. C., & Densley, J. A. (2022). *On gangs*. Temple University Press.

De Vito, K. (2020). Seeking a secure base: Gangs as attachment figures. *Qualitative Social Work*, *19*(4),

754–769. https://doi.org/10.1177/1473325019852659

Esbensen, F. A., Winfree Jr, L. T., He, N., & Taylor, T. J. (2001). Youth gangs and definitional issues: When

is a gang a gang, and why does it matter?. *Crime & delinquency*, *47*(1), 105-130.

Flores, V. M. (2021) Challenging Guilt by Association. *CORNELL LAW REVIEW*, *107*.

Glaser, B. G., & Holton, J. (2004). Remodeling Grounded Theory. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, *5*(2), Article 2. https://doi.org/10.17169/fqs-5.2.607

Glaser, B. G. & Strauss, A. L. (1967). The Discovery of Grounded Theory. Strategies for Qualitative Research. Chicago: Aldine.

Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLOS ONE*, *15*(5), e0232076. https://doi.org/10.1371/journal.pone.0232076

Hamoudi, A., Murray, D. W., Sorensen, L., & Fontaine, A. (2015). Self-regulation and toxic stress: A review of ecological, biological, and developmental studies of self-regulation and stress (OPRE Report 2015-30). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Hashimi, S., Wakefield, S., & Apel, R. (2021). Sibling transmission of gang involvement. *Journal of research in crime and delinquency*, *58*(5), 507-544.

Hennigan, K., & Kelber, M. (2012). Gang Dynamics Through the Lens of Social Identity Theory. In *Youth Gangs in International Perspective: Results from the Eurogang Program of Research* (pp. 127–149). https://doi.org/10.1007/978-1-4614-1659-3_8

Hennigan, K., & Spanovic, M. (2012). Gang dynamics through the lens of social identity theory. In *Youth gangs in international perspective* (pp. 127-149). Springer, New York, NY.

Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine (1982)*, *292*, 114523. https://doi.org/10.1016/j.socscimed.2021.114523

Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code Saturation Versus Meaning Saturation: How Many Interviews Are Enough? *Qualitative Health Research*, *27*(4), 591–608. https://doi.org/10.1177/1049732316665344

Hill, K. G., Howell, J. C., Hawkins, J. D., & Battin-Pearson, S. R. (1999). Childhood risk factors for adolescent gang membership: Results from the Seattle Social Development Project. *Journal of Research in Crime and Delinquency*, *36*(3), 300-322.

Howell, J. C., Braun, M. J., & Bellatty, P. (2017). The practical utility of a life-course gang theory for intervention. *Journal of crime and justice*, *40*(3), 358-375.

Jaquiss, N. (2020, June 9). Mayor Ted Wheeler Agrees to Disband the Portland Police Bureau's Gun Violence Reduction Team. *Willamette Week.* Retrieved 2022, from https://www.wweek.com/news/2020/06/09/mayor-ted-wheeler-agrees-to-disband-the-portland-police-bureaus-gun-violence-reduction-team/.

Kerig, P. K., & Mendez, L. (2022) The Role of Trauma in the Developmental Trajectories of Gang-Involved Youth. *Psychology of Gang Involvement*, 51-69.

King, G., & Nielsen, R. (2019). Why Propensity Scores Should Not Be Used for Matching. *Political Analysis*, *27*(4), 435–454. https://doi.org/10.1017/pan.2019.11

Kubik, J., Docherty, M., & Boxer, P. (2019). The impact of childhood maltreatment on adolescent gang involvement. *Child abuse & neglect*, *96*, 104096.

Iacus, S. M., King, G., & Porro, G. (2012). Causal Inference Without Balance Checking: Coarsened Exact Matching. *Political Analysis*, *20*(1), 1--24.

Levitt, S. D., & Venkatesh, S. A. (2001, June). *An analysis of the long-run consequences of gang involvement. Paper presented at the 2001 Harvard Inequality Summer Institute*, Cambridge, MA.

Livingston, M. (2008). Transitions and turning points: Examining the links between child maltreatment and juvenile offending. *Child Abuse & Neglect*, *32*(1), 51-66. https://doi.org/10.1016/j.chiabu.2007.04.011

Loeber, R., & Ahonen, L. (2014). What Are the Policy Implications of Our Knowledge on Serious, Violent, and Chronic Offenders. *Criminology and Public Policy*, *13*, 117.

Loeber, R., Farrington, D.P., & Petechuk, D. (2013). From juvenile delinquency to young adult offending (Report No. 242931). U.S. Department of Justice.

Mason-Bish, H. (2019). The elite delusion: Reflexivity, identity and positionality in qualitative research. *Qualitative Research*, *19*(3), 263–276. https://doi.org/10.1177/1468794118770078

Moreland, K. S., Gisler, J. B., Bellinger, R., Gregory, S., & Asana, D., *The History of Portland's African American Community (1805 to the Present) (1993)*. Portland Bureau of Planning. Retrieved 2022, from https://multco-web7-psh-files-usw2.s3-us-west-2.amazonaws.com/s3fs-public/diversity-equity/documents/portlands_african_american_history_-_albina_community.pdf.

Papachristos, A. V., Hureau, D. M., & Braga, A. A. (2013). The Corner and the Crew: The Influence of Geography and Social Networks on Gang Violence. *American Sociological Review*, *78*(3), 417–447. https://doi.org/10.1177/0003122413486800

Portland City Auditor. *Gang Crime Investigations: Lack of Accountability and Transparency Reduced the Community's Trust in Police (2018)*. Retrieved 2022, from https://www.portlandoregon.gov/auditservices/article/677594.

Portland Police Bureau. *Portland's gang list. Portland, OR.* Oregonian/OregonLive. Retrieved October 1, 2022, from https://projects.oregonlive.com/police/gang-list/.

Pyrooz, D. C. (2014). "From Your First Cigarette to Your Last Dyin' Day": The Patterning of Gang Membership in the Life-Course. *Journal of Quantitative Criminology*, *30*(2), 349–372.

Pyrooz, David C., Scott H. Decker, and Emily Owens. 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): 627-662.

Pyrooz, D. C., Sweeten, G., & Piquero, A. R. (2013). Continuity and Change in Gang Membership and Gang Embeddedness. *Journal of Research in Crime and Delinquency*, *50*(2), 239–271.

Racer, K. (2019). *The OYA feeder system project: Overview of juvenile justice involvement and* adult

    felony convictions among Oregon youth. Oregon Youth Authority. Retrieved 2022, from

    https://www.oregon.gov/oya/Research/2019%20D%20Overview-Criminal-Justice-Involvement.pdf

Riese, J. (2019). What is 'access' in the context of qualitative research? *Qualitative Research*, *19*(6), 669–

    684. https://doi.org/10.1177/1468794118787713

Rosenfeld, R., Bray, T., & Egley, A. (1999). Facilitating Violence: A Comparison of Gang-Motivated, Gang-

    Affiliated, and Nongang Youth Homicides. *Journal of Quantitative Criminology*, *15*, 495–516.

    https://doi.org/10.1023/A:1007548309620

Sanchez, J. A., Decker, S. H., & Pyrooz, D. C. (2022). Gang Homicide: The Road so Far and a Map for the

    Future. *Homicide Studies*, *26*(1), 68–90. https://doi.org/10.1177/10887679211043804

Semuels, A. (2016, July 22). *The Racist History of Portland, the Whitest City in America*. The Atlantic.

    https://www.theatlantic.com/business/archive/2016/07/racist-history-portland/492035/

Saldaña, J. (2021). *The Coding Manual for Qualitative Researchers*. SAGE Publications Inc.

Sparling, Z. (2022, October 7). Portland Police Chief Backs Gun Team, Shotspotter, More Staffing to Curb

    Violence. *The Oregonian/OregonLive*. Retrieved October 2022, from

    https://www.oregonlive.com/crime/2022/10/portland-police-chief-backs-gun-team-

    shotspotter-more-staffing-to-curb-violence.html.

Stouthamer-Loeber, M. (2010). Persistence and desistance in offending. Unpublished report.

    Life History Research Program, University of Pittsburgh, Pittsburgh, PA.

Thornberry, T. P., Lizotte, A. J., Krohn, M. D., Smith, C. A., & Porter, P., K. (2003). Causes and

    consequences of delinquency: Findings from the Rochester Youth Development Study. In T. P.

    Thornberry & M. D. Krohn (Eds.), *Taking stock of delinquency: An overview of findings from*

    contemporary longitudinal studies (11-46). Kluwer Academic/Plenum Publishers.

U.S. Census Bureau. *U.S. Census Bureau QuickFacts: Portland city, Oregon*. (n.d.). Retrieved December

    28, 2022, from https://www.census.gov/quickfacts/fact/table/portlandcityoregon/POP010220

Vanderhart, D. (2013, August 15). The Good Fight: Portland's Gang Wars Are the Most Violent They've

    Been in Almost Two Decades. We Look at the Battle to Turn Things Around. *Portland Mercury*.

    Retrieved 2022, from https://www.portlandmercury.com/news/2013/08/15/10239700/the-good-

    fight.

Vidal, S., Prince, D., Connell, C. M., Caron, C. M., Kaufman, J. S., & Tebes, J. K. (2017). Maltreatment,

    family environment, and social risk factors: Determinants of the child welfare to juvenile justice

    transition among maltreated children and adolescents. *Child abuse & neglect*, *63*, 7-18.

Vigil, J. D. (2003). Urban violence and street gangs. *Annual Review of Anthropology*, 225-242.

Vuong, M. D., Pape, E., Bieberich, C., & Cowan, R. (2018). *Gang Enforcement Patrol: The Police Bureau*

    must show that traffic stops are effective. Portland City Auditor, Audit Services Division.

    https://www.portlandoregon.gov/auditservices/article/677598

Widom, C. S. (1989a). Child abuse, neglect: And violent criminal behavior. Criminology, 27, 251–271.

Wiley, S. A., Carson, D. C., & Esbensen, F. A. (2017). Arrest and the amplification of deviance: Does gang

    membership moderate the relationship?. *Justice Quarterly*, *34*(5), 788-817.

Woo, D., Giles, H., Hogg, M. A., & Goldman, L. (2015). Social psychology of gangs: An intergroup

    communication perspective. *The handbook of gangs*, 136-156.

Appendix A

Participant Interview

NIJ Gang Pathways -Interview Protocol

Recruitment:

When do you remember learning or hearing about gangs?

Who told you these things?

What do you remember thinking about it at the time?

What did you think about people who were in gangs?

Who did you know in your life that was in a gang before you joined your gang?

How did you join your gang?

Who was involved in your recruitment?

What do you remember thinking about it at the time?

Do you recruit new members?

Who do you look for to recruit?

How do you get them to join up?

Beliefs:

When you first heard about gangs, and had just joined your gang, what did you think being a

gang member would be like?

What did you think you would be doing in your gang?

What did you hope to achieve in the gang?

What did you hope to get out of being in your gang?

Was there anything different between what you thought being in a gang would be like, and how

it actually was?

Activities:

How was your experience at school?

Before you joined your gang?

After you joined your gang?

Did you ever come into contact with law enforcement or child protective services?

Before you joined your gang?

After you joined your gang?

What were some of your early responsibilities when you joined your gang?

What was hard for you when you first started?

What was easier for you when you first started?

Exiting:

Do you know anybody who has left their gang?

Would you want to leave your gang?

What might make you want to leave?

If you wanted to, how would you or could you go about leaving your gang?

What do you plan to do next?

Appendix B

Probation Staff Interview

1. How long have you been working with JIIs who are associated with gangs or gang members?

2. When you began working with gang affiliated supervisees, did you receive any special training? Can you describe this training?

3. How would you describe your current caseload?

4. Are there, in your opinion, any special differences between working a Gang Unit caseload and other caseloads? Does/Should it require special training?

5. Are there certain activities or sanctions that are more prevalent/important for the Gang Unit? (Coming from quant findings) What is your supervision philosophy? What is the collaboration with law enforcement like? Is this different than with other caseloads? What are your community partner relationships? Are they different? Are they more or less available to your clients?

6. Do you ever interact with your supervisee's families or members of their community? How do you typically interact? For what reasons? How does that typically go?

7. Do your clients ever need help with addiction/mental illness/trauma? How do you identify this? How are you able to help them?

8. What do you see as the most common struggle for your clients while on supervision? Life in general? Requirements of supervision?

9. What is the most important thing that your clients get from you, as their supervising PPO?

10. What does it look like when supervision isn't going well for one of your clients? Do you have any signs that suggest things are going to go poorly with a client?

11. What does it look like when supervision does go well for one of your clients? Do you have any signs that suggest things are going to go well with a client?

12. Why do your clients get involved with gangs? How long they believe their clients have been gang-involved?

13. How do your clients get involved with gangs?

14. What typically happens to your clients before they get on supervision with you? What does their early time in gangs look like, typically? What is the thing that most likely lands them on your caseload?

15. What are the best services you have available to your supervisees?

16. What services do you think your clients need but you aren't able to offer?