DECOMPOSING THE DOWNWARD TREND IN REFERRALS TO THE OREGON JUVENILE JUSTICE SYSTEM

by

KAITLIN ALHART

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Crime rates fell unexpectedly in the United States in the 1990s and have now been declining for over two decades. This paper takes a closer look at the downward trend in referrals to the Oregon juvenile justice system using county-level data for the period 1998 to 2009. Decomposition of referral rates by the race/ethnicity and gender of the offender, associated offense type, and county of jurisdiction reveals that the drop in referrals is systemic and not readily accounted for by policy shifts shown to impact crime in the existing literature.

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Introduction

Well into the 1990s, experts predicted that crime rates in the United States, which were already at peak levels, would only surge higher in the coming years. Criminologist and political scientist John Dilulio was invited to the White House in 1995, where he advised then president Bill Clinton on the growing threat posed by "superpredators"—remorseless, primarily inner-city kids with "no respect for human life and no sense of the future" (Dilulio 1995). A criminal justice crackdown ensued, but the tide was already turning.

Both adult and juvenile crime rates fell dramatically in the 1990s and have now been in decline for roughly two decades. While this trend was largely unanticipated, numerous explanations have since been advanced. Much of the existing research is focused on the incidence of specific types of crime (see, for example, Blumstein and Rosenfeld 1998; İmrohoroğlu, Merlo, and Rupert 2004; Messner et al. 2007). Levitt (2004) analyzes the most commonly cited theories as to why crime fell in the 1990s and argues that four factors account for virtually the entire downward trend: greater numbers of police, a growing prison population, the end of the crack epidemic, and the delayed effect of the legalization of abortion. He concludes his analysis with the acknowledgement that few, if any, of these factors will continue to influence crime rates in subsequent years. Moreover, he is uncertain as to whether crime will maintain its downward trajectory into the 2000s. The current paper explores the continued drop in crime among Oregon youth by decomposing trends in referrals to the juvenile justice system.

While the superpredator characterization may have been hyperbolic, juveniles are an especially high-risk population. Property and violent crime rates increase over the teenage years, peak around age 17, and subsequently decline (Lochner 2004). The age–crime relationship is well documented and holds for both official and self-reported offending rates. Accordingly, examining trends in juvenile delinquency provides insight into larger crime patterns through the context of a segment of the population at particularly high risk of arrest. In addition, because of the proactive approach of juvenile justice, youth referral rates paint a more complete picture of how behavior and the system response are changing. Adults are not arrested for acting out at work or running away from home; juveniles, on the other hand, may be referred to the justice system both for criminal offenses and activities that are only illegal because of their age. Thus, youth referral trends are also potentially more sensitive to shifting demand for social control.

"Understanding the 'Whys' Behind Juvenile Crime Trends," a multiyear project funded by the Office of Juvenile Justice and Delinquency Prevention (OJJDP), evaluates and identifies the policy implications of a wide range of explanations for the particularly dramatic decrease in juvenile crime during the 1990s (2012). The authors emphasize the role of community risk factors such as high numbers of children born to teen mothers, high percentages of single-parent households, and concentration of poverty. In contrast to Levitt (2004), their findings indicate that increased police staffing and higher incarceration rates only partially fit the patterns of youth crime. Abortion legalization is ruled out entirely as an explanation, while changes in the drug market and the punitive criminal justice response related to the expansion and

subsequent decline of crack use are found to be consistent with trends in serious violent crime by juveniles.

Following the approach exemplified by the “Whys” project, disaggregating crime trends can restrict the list of potential explanations for the patterns observed. If a change in delinquent behavior is notably more pronounced for a particular subset of the youth population or is concentrated in specific geographic areas, then it is possible to identify antecedent or concurrent variation in other factors that may have contributed. The “Whys” report defined plausible factors as those that (1) are expected to have an effect on crime; (2) are sufficiently prevalent or large enough in magnitude to account for a significant fraction of the change in crime; and (3) are distributed across populations, time, and locations in a way that corresponds to the recorded trends (2012). Identifying policy shifts that meet these standards is a necessary first step to guide future quasi-experimental research.

Background on Youth Crime

According to the economic model of crime set out by Becker (1968), criminals are, like anyone else, rational individuals seeking to maximize their own well-being. When deciding whether or not to commit a crime, they consider the relative benefits and costs associated with criminal activity versus participation in the legal labor market. The return to crime is weighed against the probability of apprehension and expected sentence severity. The gains from legal activities, meanwhile, are primarily estimated in terms of the labor market wages earned from legitimate work or the human capital accumulated through education or training—which, in turn, translates to higher future wages.

Lochner (2004) further develops a human capital framework supported empirically by age–crime and education–crime relationships across different offense types. Accumulation of human capital raises the opportunity cost of crime both directly, through time lost, and indirectly, through opportunities and income potentially forgone as a result of incarceration. Accordingly, "unskilled" crime (in contrast to the white-collar variety) will generally decline with age for individuals engaged in work, investment, or crime (i.e. not imprisoned). Crime rates increase with age for adolescents, in Lochner's model, until the age at which those who choose to work typically enter the labor market and begin to rapidly build skills and connections.

For juveniles, choices made in regards to the work–education–crime tradeoff are likely to have lifelong consequences. Understanding the dynamics at play in this decision and the probable effects of available policy tools is, therefore, of particular importance.

Much of the literature on determinants of juvenile crime is focused on the crime-reduction efficacy of deterrence and punishment. Lee and McCrary (2009) find that juvenile criminality is fairly inelastic with respect to the threat of long prison sentences. Consequently, policy reforms that raise the rate at which juveniles are transferred to adult court while, at the same time, increasing adult sentences—enacted in many states in recent decades—have a limited deterrent effect for youth. The authors suggest that juvenile offenders act with a nearsighted perspective, potentially greatly underestimating the risks and punishments associated with their behavior.

Beyond the question of their dubious deterrent value, incarceration and contact with the adult system may actually have negative criminogenic effects. Aizer and Doyle

(2013) find that juvenile incarceration contributes to large reductions in the likelihood of high school completion and considerable increases in the probability of incarceration as an adult. While a causal link has been established between dropping out of high school and subsequent criminal activity, the increased probability of recidivating for incarcerated juveniles is also likely a result of "deviant labeling" and the accumulation of "criminal capital" (Aizer and Doyle 2013).

Bayer, Hjalmarsson, and Pozen (2008) expand on this last concern over the influence that offenders serving time together have on each other's criminal behavior following release. They find strong evidence of reinforcing peer effects in juvenile correctional facilities, whereby interaction with peers who have committed a certain crime increases the likelihood that an individual with a history of committing *the same type of crime* reoffends with that crime. The same type of peer effect is also identified for felony drug offenses in non-residential facilities. In terms of policy, these findings suggest that grouping youth offenders may unintentionally allow them to share expertise that increases returns to future criminal activity (Bayer, Hjalmarsson, and Pozen 2008). The reinforcing dynamic does, however, mean that any reduction in crime will beget further reductions in crime.

Preventative strategies for reducing juvenile delinquency generally aim to build pro-social attitudes and connections or to simply keep youth off the streets. Curfew ordinances—old, yet under-studied policy tools that experienced renewed popularity in the 1990s—fall into the latter category. Juvenile curfews are local statutes that prohibit youth in a specified age range from being in public areas and streets during certain hours. Using data for U.S. cities with 1990 populations greater than 180,000, Kline

(2011) finds that the introduction of these laws reduces arrests of juveniles subject to the curfew by around 10 percent in the five years following enactment. It is worth noting, that as police are unlikely to be able to distinguish perfectly between individuals above and below the curfew age, the American Civil Liberties Union (ACLU) has continually called for the reversal of such ordinances for lowering standards of probable cause.

Education is negatively associated with criminality in the long-term, but the contemporaneous relationship between schooling and crime is also policy relevant. Anderson (2014) exploits variation in minimum dropout age (MDA) laws over time and between jurisdictions to examine whether keeping kids in school keeps them out of trouble. The study shows that increases in the MDA reduce property and violent crime rates among high school-aged youth, primarily via an incapacitation effect. However, the greater presence of delinquents in schools may impose inadvertent costs for other students. Anderson, Hansen, and Walker (2013) find that raising the MDA negatively impacts perceptions of school safety and increases student victimization, particularly for younger students and females.

Having a job may also help kids stay out of the justice system. Youth employment programs seek to reduce crime by keeping juveniles occupied and, more importantly, by developing skills and social bonds to raise the perceived cost of punishment. Such programs have a decidedly mixed track record, but Heller (2015) finds that a low-cost, targeted summer jobs program reduced violent crime by 43 percent over 16 months among disadvantaged high school-age youth in Chicago. While the external validity of the trial is unclear, Heller suggests that the program's inclusion

of an engaged adult mentor and emphasis on the development of soft skills, self-control, and decision-making could be valuable elements for all public programs shifting from remediation to prevention.

One of the commonly suggested means by which employment would actually increase delinquency is if the additional income is spent on drugs and alcohol. A strong relationship has been established between alcohol use and crime, and Carpenter (2007) provides evidence that the link is causal. Zero-tolerance drunk-driving laws, which set the blood alcohol limit for underage youth at 0.00–0.02, have been enacted by every state in the last 20 years. Carpenter finds that these laws reduce property crime rates for males under 21, while an earlier paper shows that zero-tolerance laws reduce binge-drinking for that same demographic (2007; Carpenter 2004). At the same time, policies that restrict access to alcohol or otherwise lower consumption may have the unintended effect of increasing marijuana use (see Crost and Guerrero 2012; DiNardo and Lemieux 1992). Accordingly, marijuana and alcohol are proposed to be economic substitutes. This conclusion has not gone unchallenged; in a study focused exclusively on college students, Williams et al. (2004) finds that higher prices for alcohol decrease marijuana use (see also Pacula 1998).

The current paper evaluates the extent to which policy dynamics commonly proposed in the existing literature on juvenile crime are likely to have factored in the decline in referrals observed in Oregon over the late 1990s and 2000s.

Juvenile Justice in Oregon

Oregon's juvenile justice system is the product of collaboration among layers of independent actors exercising varying degrees of discretion in a multi-stage decision-

making process. Local police agencies are typically the initial point of contact for delinquent youth. Police officers decide whether or not to refer cases to the county juvenile department, based on their own judgment and department policies. Thus, referral rates reflect both offender and law enforcement behavior; meaning that biases resulting from police discretion or patrolling practices affect the analysis of juvenile crime patterns (University of Pennsylvania 2012).

Following referral, it is the county juvenile department which determines how each case should be handled within the system. County authorities are responsible for intake and work jointly with local district attorneys and juvenile courts to reach disposition decisions. They may choose to take no action, resolve a case informally or file a delinquency petition before the juvenile court and move toward adjudication, depending on the seriousness of the referral.

If the juvenile court judge establishes jurisdiction—reaches what would be a guilty verdict in the case of an adult offender—he or she can place the youth under county probation. This option is intended to limit the extent of contact with the justice system and involves formal sanctions, supervision, and rehabilitative programs. If a youth offender fails to meet the requirements of probation or is deemed a serious risk to the community by the juvenile court, he or she is committed to the custody of the state juvenile corrections agency, the Oregon Youth Authority (OYA). OYA parole officers develop case plans and supervise youth after return to the community or through placement in foster care or residential treatment.

Youth tried in adult courts may also be placed in OYA correctional facilities if sentenced before age 20. There are two potential routes by which juvenile cases arrive

in adult court: waiver by juvenile court officials and automatic referral upon arrest for Measure 11 offenses. Measure 11 is discussed in greater detail shortly.

Criminal justice policy and policing practices can be viewed, at least in part, as reflective of relative demand for social control. The juvenile justice system diverges from adult courts and correctional institutions in its decision-making process, alternatives for punishment and rehabilitation of offenders and, accordingly, in its very mandate. However, the extent of this differentiation depends on the prevailing understanding of the relationship between children's developmental status and correspondent degree of responsibility for antisocial behaviors. In a state like Oregon, where political and social views vary widely geographically, there are sure to be significant differences in the policies and practices of the many agencies involved in the juvenile justice process.

Nevertheless, certain broad trends prevail. In a legislative analysis of the evolution of the Juvenile Justice and Delinquency Prevention Act (JJDPA), a law that has both practical and symbolic functions for state systems, Goshe (2013) points to a shift in the political meanings of "protection" and "punishment" in the juvenile justice context. Early versions of the Act reflect a view of youth as susceptible to outside influence and limited in autonomy and culpability. By contrast, the most recent reauthorization of the JJDPA advocates a more punitive, "get tough" approach that paints children as predatory and in need of accountability (Goshe 2013). Evidence of this change at the state level can be seen in revisions of transfer laws by 48 states—of which Oregon is one—between 1992 and 1999, making it easier for juveniles to be tried as adults in criminal court (OJJDP, 2009).

Passed by close to a two-thirds majority of Oregon voters in 1994 and reaffirmed in 2000, Measure 11 imposes mandatory minimum sentences for violent crimes and serious sex offenses ("DOC Research and Statistics"). Murder, assault, rape, and robbery are among the crimes included; the statute does not apply to any drug-related offenses. Youth aged 15 and older charged with Measure 11 crimes are automatically tried in adult court. If convicted, these offenders are placed in an OYA correctional facility until age 25, at which point they are transferred to back to the custody of the Department of Corrections (DOC).

Yet, even as tough-on-crime policies predominate, a countervailing reform movement has arisen which seeks to limit the use of secure confinement and out-of-home placement for at-risk youth. The Baltimore-based Annie E. Casey Foundation's Juvenile Detention Alternatives Initiative (JDAI) has been at the forefront of this effort, emphasizing data-driven analysis of existing practices and the use of objective risk assessments to distinguish high-risk offenders—for whom detention may be appropriate—from low-risk youth who might be better served by community-based alternatives (Multnomah County DCJ). At this time, the JDAI model has been implemented in 250 counties across the U.S (Annie E. Casey Foundation). Notably, these county sites are located both in regions that consistently pioneer progressive policy and law-and-order states like Georgia, Louisiana, and Texas. Multnomah County is one of four funded model sites and was among the earliest JDAI participants, having been affiliated since 1994. Ten other Oregon counties officially adopted the JDAI model in 2005, although they are primarily rural jurisdictions with very small populations.

Oregon is also one of the five states—along with Arizona, Florida, Iowa, and North Carolina—that served as pilot sites for the OJJDP's Disproportionate Minority Contact (DMC) initiative. "Disproportionate minority contact" refers to the overrepresentation of minority youth that has been documented at every stage in the juvenile justice system. The 2002 reauthorization of the JJDPA requires states receiving formula grants to "address juvenile delinquency prevention efforts and system improvement efforts designed to reduce, without establishing or requiring numerical standards or quotas, the disproportionate number of juvenile members of minority groups who come into contact with the juvenile justice system" (Juvenile Justice and Delinquency Prevention Act of 2002).

Three possible explanations for racial and ethnic disparities in contact with the justice system are "differential involvement," "differential selection," and a combination of these two factors. The differential involvement hypothesis holds that minority youth offend at a higher rate than whites and commit the type of crimes—violent crime, for example—that are more likely to result in processing within the criminal justice system (Piquero, 2008). These propensities would also contribute to disproportionately high pre-trial detention, out-of-home placement, and confinement outcomes, relative to white offenders. The differential selection hypothesis, on the other hand, posits that the justice system treats white and minority youth differently. Disparities in treatment may take the form of greater police presence and more intense patrolling in minority neighborhoods, racial profiling, and discrimination by court and correctional officials. Differential selection may be most strongly associated with so-called victimless crime, such as public drunkenness or illegal drug use, where decision

makers within the justice system exercise greater discretion in their response than would be available in the case of an offense like aggravated assault (Piquero, 2008).

Steps taken to reduce racial and ethnic discrepancies in juvenile justice processing in Multnomah County are commonly highlighted in reviews of best practices (Cabaniss et al., 2007; Donnelly, 2015). The strategies implemented there include the development of a racially and ethnically neutral risk assessment instrument, cultural competency training for new police officers, and a sanctions grid that limits disciplinary options based on the youth's risk score and offense severity (Cabaniss et al., 2007).

A recent report by Clackamas County District Attorney John Foote and retired Multnomah County Deputy District Attorney Charles French is highly critical of the public safety impact of Multnomah County's approach to juvenile justice and of the performance of the Oregon system, as a whole (2014). The paper has elicited a strong response within the state's juvenile justice community. French and Foote's interpretation of juvenile justice outcomes is ultimately biased in favor of "mainstream" strategies that place an emphasis on what the state statute terms "early and certain intervention and sanctions." In addition, their analysis overstates the ubiquity and influence of the Casey model in Oregon. Nonetheless, the report raises the question of the extent to which declining arrest and referral rates statewide—and in Multnomah County, in particular—reflect actual reductions in delinquent behavior, as opposed to a growing tendency in some police departments not to enforce certain offenses for which they expect the county juvenile department will take no action (French and Foote 2014). The authors report that 60 percent of Multnomah County juvenile referrals, and 34 percent statewide, are dismissed at intake without any sanctions or supervision imposed.

Disaggregating trends can shed some light on the plausibility of explanations for Oregon's falling referral rate, like the one offered by French and Foote. Descriptive analyses of arrests and referrals to the Oregon juvenile system are published every year in reports largely conducted or commissioned by state agencies, but exploration of the reasons behind the patterns of contact is limited. On the other hand, a few large-scale projects have looked closely at the long-term decline in juvenile crime at the national level. Their findings are far from definitive and, more importantly, do not necessarily apply locally. This paper begins to bridge that gap while also contributing a comparison of referral trends in urban and rural counties which, as far as I can tell, is not featured in the existing analyses of Oregon referral data.

Data and Methodology

In this paper, I focus exclusively on referrals to the juvenile system as an indicator of crime trends. It is important to note that referral rates do not perfectly capture actual delinquent behavior. Arrest rates are a proxy for true crime rates, and arrest does not necessarily translate to referral to the juvenile system. Yet, while law enforcement officers who arrest a minor exercise substantial discretion in deciding whether or not to refer that individual to the county juvenile department, referral rates are strongly correlated with arrests (Feyerherm 2011). Moreover, referral records are the most reliable and comprehensive source of information about youth crime trends that is presently available in Oregon (Feyerherm 2011).

Unless otherwise specified, I calculate referral rates as the total number of referrals recorded for a group of interest divided by the total population of that same group i.e. the number of 12-year-old black males referred to the juvenile system per 1,000 12-year-old black males. Consequently, the values presented in this study are higher than those reported in other publications for which referral rates are estimated in relation to the total youth population. The observed trends, however, are unaffected. I am interested in *relative* rates of contact with the juvenile system; in Oregon, population sizes vary widely across jurisdictions and between racial and ethnic groups.

Oregon county population estimates are obtained from the National Cancer Institute's Survey, Epidemiology, and End Results (SEER) Program. The SEER U.S. Population 1969–2015 dataset is a modification of U.S. Census Bureau records and intercensal time series (for July 1, 2000–2009) of county population estimates by age, race, gender and Hispanic origin.

Referral data comes from the Juvenile Justice Information System (JJIS), a shared information system administered by the State of Oregon through collaboration between the OYA and county juvenile departments. The data used in this paper are counts of referrals received by each county in a given reporting year. An individual juvenile offender may have multiple referrals for different offenses or a single referral that results from several arrests. In addition, an arrest in one year can lead to a referral in the following year.

The county-level counts are grouped by the most serious offense associated with the referral and broken down by the offender's race/ethnicity, gender, and age at the time of referral. Youth ages 10–17 are included. A small number of referrals for which the gender of the offender was unidentified are excluded from the analysis, as are referrals received out of state or on federal or tribal lands. The latter exclusion is made to ensure correspondence with the SEER data, which includes population estimates only for the 36 Oregon counties. After these adjustments, there are a total of 20,736 observations.

The racial groups defined in the JJIS referral data are White, Black, Hispanic, Native American, Asian, and Other/Unknown; whereas the SEER population estimates include White, Black, American Indian and Alaska Native, and Asian/Pacific Islander racial identifications, with Hispanic origin indicated separately. Standardization of racial and ethnic categories is lacking across contemporary data sources, and inconsistencies in reporting are even more problematic between and within datasets compiled at different times. I adopt a solution employed by the JJIS and categorize as Hispanic all population estimates for which the recorded ethnic origin is Hispanic, no

matter the indicated race (JJIS 2009). This is an imperfect conversion that prevents the identification of any disparity between referral rates of specifically non-white Hispanics and white youth. All observations pertaining to a racial group that is not White, Black, or Hispanic are subsequently designated as Other.

In Oregon, Native American youth are referred into the juvenile justice system at disproportionately high rates (Feyerherm 2012). Combining Native American and Asian referrals obscures this disparity, but can be justified in the context of this report for a few reasons. Firstly, the numbers of Native American and Asian youth in Oregon are very small, even in relation to other minority populations. There are, in fact, more referrals in the JJIS data for which the offender's race/ethnicity was identified as other/unknown than referrals for Native American or Asian youth. Additionally, the Native American population is concentrated in a few counties, and as previously noted, tribal lands are excluded from my analysis. Nevertheless, because of the probable variation in referral rates for racial/ethnic groups included in the Other aggregation, I largely restrict the focus of my discussion of crime trends to black and Hispanic youth.

The overarching crime categories included in the JJIS data that I examine are criminal offenses, comprised of felonies and misdemeanors, and noncriminal offenses, which consist of violations and infractions. (Table 7 in the appendix outlines the offenses included in each crime category.) Violations include most status offenses, which are defined as acts that violate the law only because of the offender's status as a minor. Examples include truancy and underage alcohol use. Under Oregon statute, referrals of youth as runaways or beyond parental control are classified as "dependency status" offenses, as is behavior to endanger one's self or others (JJIS 2009). Typically,

those offenses would fall under the “status” reporting category, and not all Oregon counties record dependency offenses.

Referrals are further identified as person or property crimes, with assault comprising the majority of the former category. Person crimes broadly encompass all crimes for which the victim is an individual. Meanwhile property referrals consist of such offenses as robbery, theft, criminal mischief, criminal trespass, burglary, and arson. Violent crimes include assaults, sexual assaults, homicides, robberies, and kidnappings—both committed and attempted. Finally, behavioral referrals are made for such activities as harassment, disorderly conduct, and contempt of court.

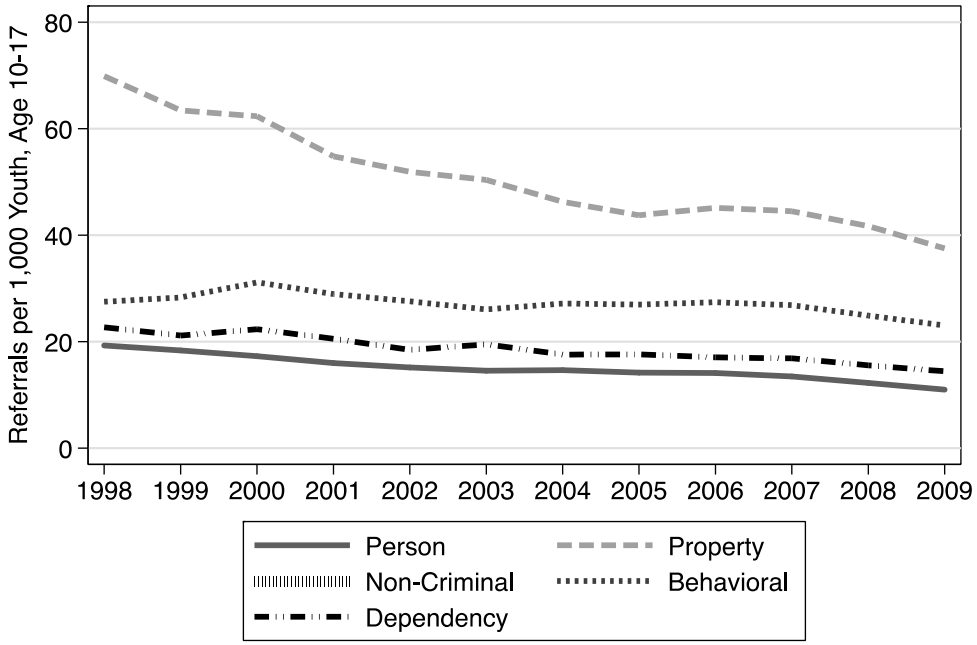
Additional crime categories of interest are offenses involving alcohol, tobacco, marijuana, and other drugs. I do not differentiate between referrals for possession or consumption and those for dealing. This decision reflects, in part, the assumption that police are unable to distinguish perfectly between quantities possessed for personal use versus distribution. Moreover, I am primarily concerned with the broader patterns of enforcement and juvenile involvement with these substances.

This paper will disaggregate changes in rates of contact with the Oregon juvenile system over time by the type of crime associated with the referral. Trends are then compared between urban and rural counties and subsequently broken down by the race/ethnicity and gender of the youth referred. Finally, changes in the presence and extent of disparities in rates of system involvement for minority and white youth are evaluated. The timing and predicted impact of potentially relevant demographic, economic, and policy changes are considered throughout to narrow the list of explanations for the observed patterns.

Analysis

Referral Trends

Figure 1. Changes in Referral Rates for Major Crime Categories, 1998-2009



Between 1998 and 2009, total referrals to the Oregon juvenile system declined steadily from an initial high of 77,005 to 45,887 by the end of the decade.[1] The total per capita referral rate fell from 200 to 117 per 1,000 youth population, age 10–17. In aggregate, this substantial decrease in referrals was consistent for dependency status offenses, misdemeanors, felonies, and violations, if somewhat more pronounced for the latter two crime categories. Figure 1 shows the downward trends in other major groups of offenses. Property referrals declined from a rate of 70 per 1,000 juveniles in 1998 to

[1] Total referrals are calculated as the sum of misdemeanor, felony, violation, and dependency status referrals of youth ages 10-17.

a rate of 38 per 1,000 in 2009. Over that period, the referral rate for noncriminal offenses dropped from a rate of 60 to 31 per 1,000 youth.

Table 1. Percentage Changes in Referral Rates for Specific Categories of Crime

Crime Category	*Percentage change in rate of referral, 1998-2009*
Misdemeanor	-34.42
Felony	-51.15
Violation	-48.38
Dependency Status	-36.40
Person	-42.86
Assault	-35.04
Property	-46.32
Robbery	-39.14
Theft	-39.43
Non-Criminal	-48.34
Behavioral	-16.19
Violent	-41.59
Alcohol	-31.35
Tobacco	-68.30
Marijuana	+118.09
Other Drugs	-64.27

Note: Referral rates calculated per 1,000 youth, aged 10-17.

The magnitude and near universality of the decline in Oregon juveniles' involvement with the justice system is further illustrated by the percentage changes in referral rates, reported in Table 1.[2] Behavioral offenses showed the smallest change in referrals, while still registering a 16 percent decrease. Referral rates for offenses involving tobacco and drugs other than marijuana dropped substantially—by 68 and 64 percent, respectively. At the same time, marijuana-related offenses stand out as the only

[2] It should be noted when considering the magnitude of changes in referral rates for assaults and robberies that the levels of juvenile involvement for those crimes are generally less than 1 per 1,000 population over the period of study.

crime type for which a large increase in referrals was observed, with rates more than doubling for the period from 1998 to 2009.

There is evidence that strict drunk-driving laws can reduce heavy alcohol use, which in turn causes crime. However, in this state, a zero-tolerance implied consent DUI law has been in place for youth under the age of 18 since 1989. To the extent that such laws are likely to reduce property and nuisance crime (e.g. disorderly conduct and vandalism), this effect would have been observed prior to the period of focus for this study. Alcohol- and marijuana-related referrals largely trended in opposite directions for the majority of the 2000s. Still, there were exceptions to this pattern, and there was far from a clear one-to-one tradeoff. Given that past research is divided as to whether alcohol and marijuana are substitute goods, it is difficult to draw any strong conclusions about this dynamic.

Violent crime declined by 42 percent from 1998 to 2009—a substantial change but one on par with the trend for all offense types. Measure 11 was approved in 1994, so the immediate impact of the introduction of mandatory adult prison sentences for youth over 15 on violent offending and referral rates, in general, is not observed. The statute would plausibly reduce juvenile referrals by at least three mechanisms: deterrence of violent crime via the threat of long prison sentences; incapacitation of violent offenders within a growing incarcerated population; and direct referral to adult court upon arrest. Past studies suggest that the deterrent effect may be limited, while direct referral signifies a reduction in contact with the juvenile system without an associated decline in youth crime.

A potentially relevant economic factor over the period of interest is teen joblessness. The youth unemployment rate shot up over the early 2000s, reaching a level of 28 percent in 2003 (State of Oregon Employment Department 2016). Unemployment then fell, while remaining higher than the 1999 rate, before rising to record highs with the onset of the recession in 2008. Teen labor force participation, meanwhile, has been declining rapidly since 2000, from almost 60 percent to less than 40 percent in 2009. In other words, it became increasingly common for teens to neither be working nor looking for a job. If working is associated with reduced involvement in crime, then the decline in referrals would actually have been steeper, absent the youth employment crisis.

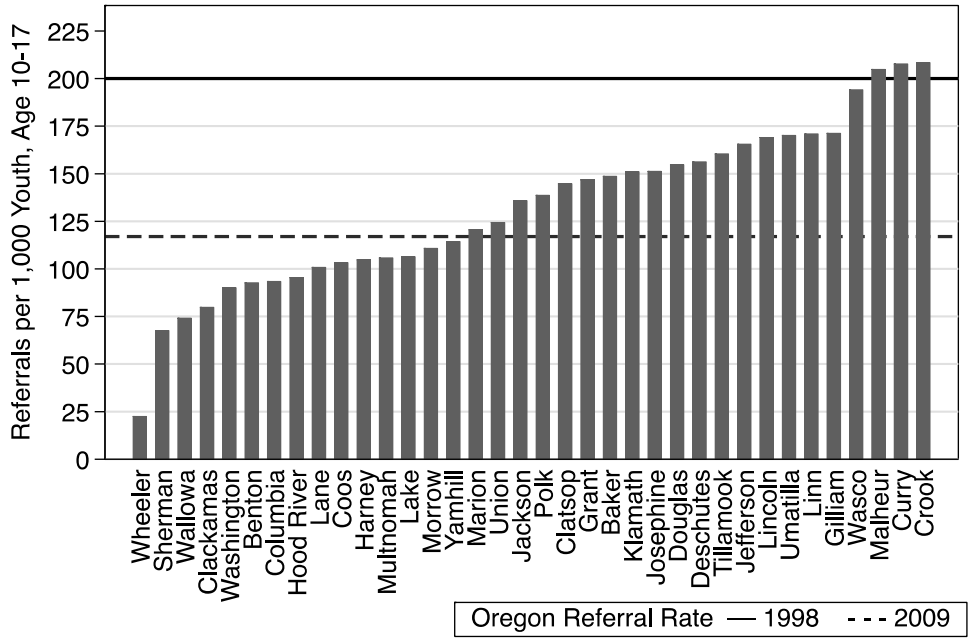
The downward trend in Oregon juveniles' level of contact with the justice system—as measured by referral rates— is evident across disaggregation by race and ethnicity, age, gender, and geography. Still, decomposition reveals that the effects of the decrease in referrals were not evenly distributed among all sectors of the population.

Geographic Breakdown

Theories that seek to explain trends in both adult and juvenile crime commonly emphasize urban risk factors. By and large, Oregon is sparsely populated. One might reasonably expect to see significant differences in both delinquent behavior and patterns of enforcement between the few metropolitan areas and the rest of the state. Yet a comparison of total referral rates for individual counties, as presented in Figure 2, reveals no obvious pattern. Of the five counties reporting the lowest referral rates in 2009, the top three had a combined youth population (age 10-17) of 835. Wheeler County is home to a mere 120 juveniles. In contrast, the two counties with the next

lowest rates of referral are the state's second and third most populous. Accordingly, I take a step back and examine differences in referral trends between Oregon's urban and rural counties, collectively.

Figure 2. Total Referral Rates by County of Jurisdiction (2009)

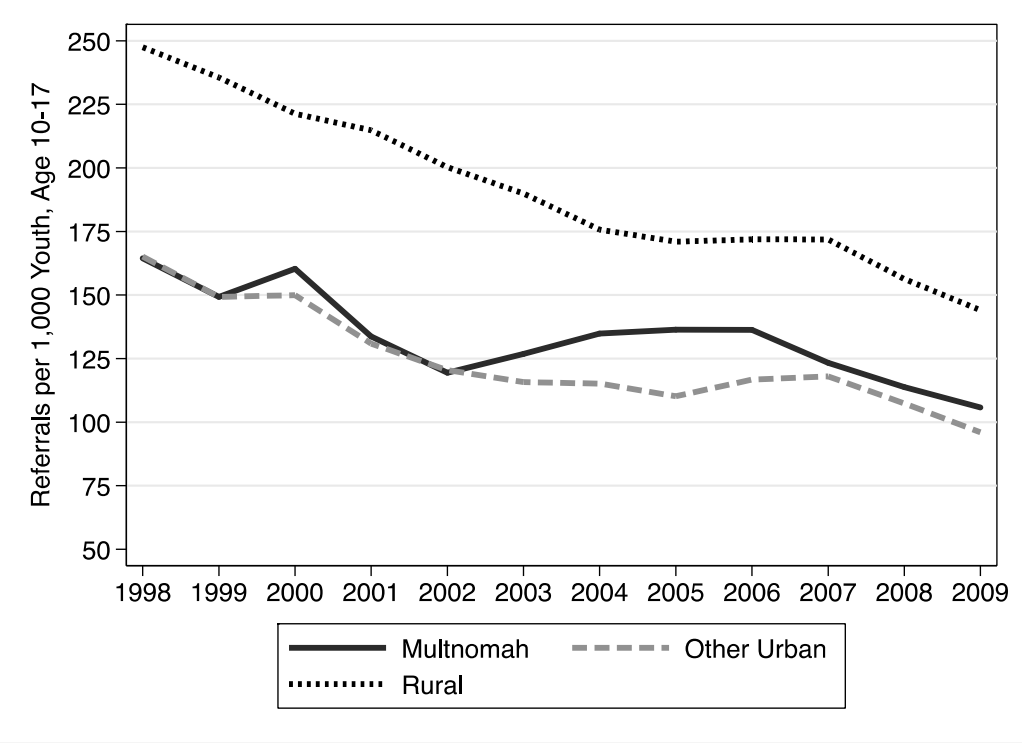


Note: Referral rates are calculated relative to the youth population of the indicated county.

When comparing trends in referrals and population by geography, I define Clackamas, Multnomah, Washington, Lane, and Marion Counties as urban. The first three of these districts, which encompass Portland and its largest suburbs, contain 42 percent of Oregon's juvenile population. Because the city itself lies almost entirely within Multnomah County, I generally report referral rates for that jurisdiction separately. In addition, Multnomah's participation as a pilot site in both the JDAI and DMC initiative ostensibly signals or entails a distinct juvenile justice model. Beyond the vicinity of Portland, Lane and Marion Counties contain the state's second and third

largest metropolitan areas (i.e. Eugene-Springfield and Salem). Taken together, approximately 60 percent of the Oregon youth population resides in these five urban districts, and they are the only counties with total populations (all ages) in excess of 300,000. All other Oregon counties are considered rural for the purpose of this analysis.

Figure 3. Changes in Total Referral Rates for Urban and Rural Counties

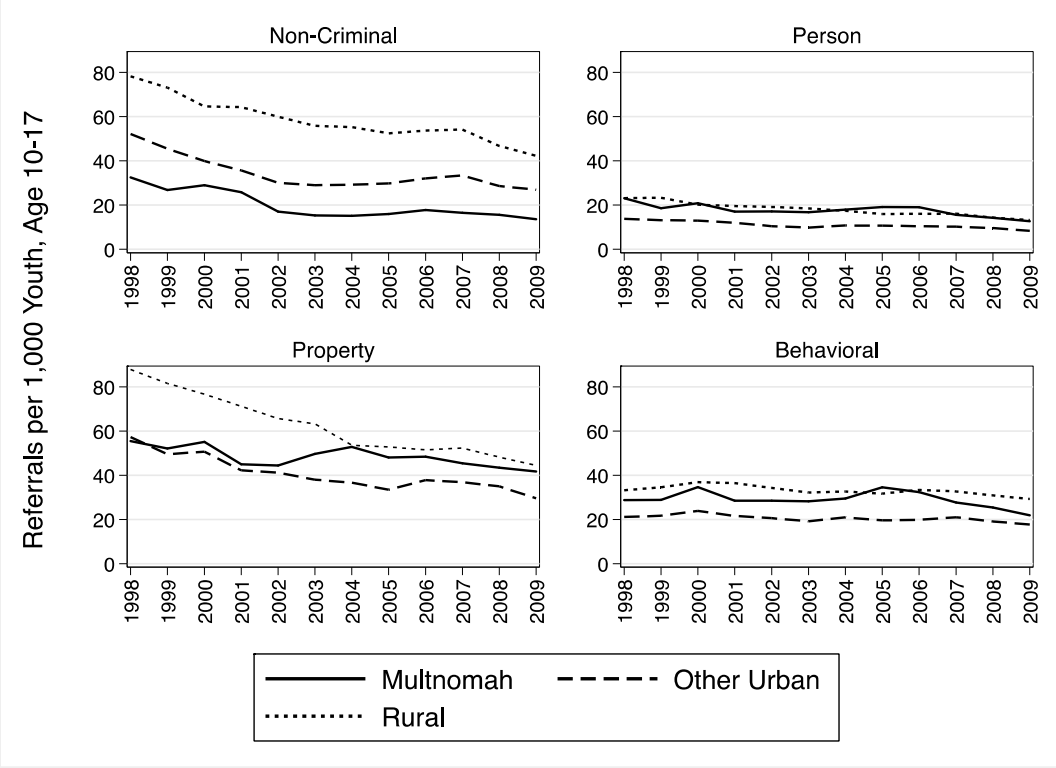


Notes: Referral rates are calculated relative to the total youth population of the indicated county or group of counties. Clackamas, Lane, Marion, and Washington Counties are included in the Other Urban category.

As can be seen in Figure 3, juveniles in Multnomah County are involved in the justice system at similar rates to youth in other urban counties, except over the period from 2002 to 2007. Contrary to what I would have predicted, referral rates were markedly lower in urban counties than rural jurisdictions. In 2009, the number of referrals per 1,000 population in rural counties was 1.36 and 1.5 times that of

Multnomah and other urban counties, respectively. The magnitude of the decline in juvenile involvement in the justice system over the period was, however, strikingly consistent between urban and rural jurisdictions. Total referral rates fell by 42 percent in both geographic groups, while Multnomah County experienced a 36 percent decrease in referrals.

Figure 4. Referral Trends for Major Crime Categories in Urban and Rural Counties

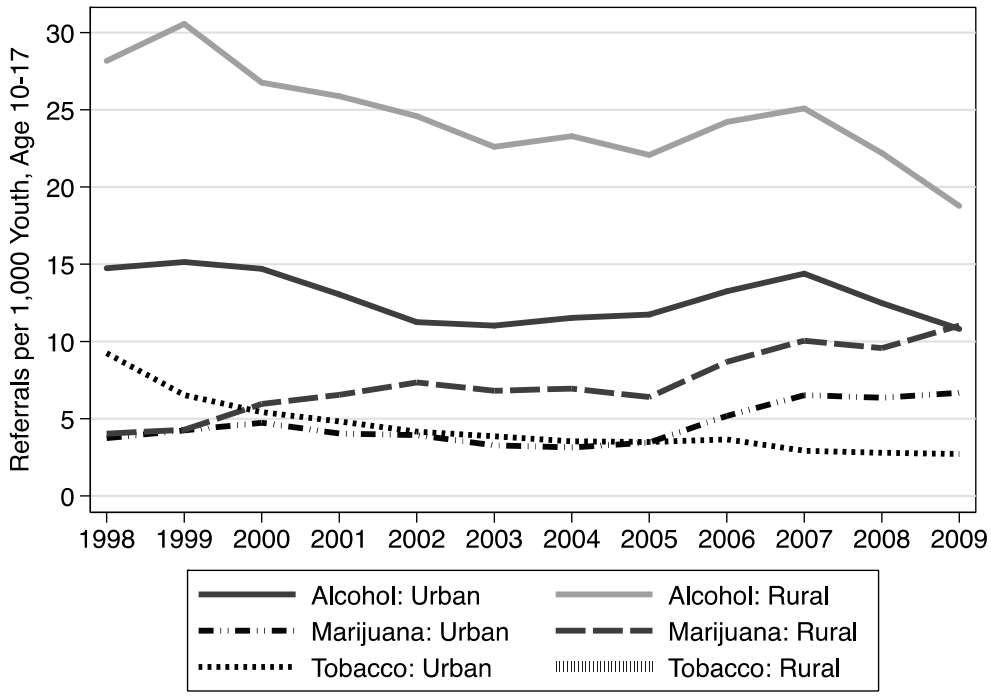


Notes: Referral rates are calculated relative to the total youth population of the indicated county or group of counties. Clackamas, Lane, Marion, and Washington Counties are included in the Other Urban category.

Decomposing referrals by crime type sheds some light on the source of the differential rates of contact in urban and rural jurisdictions. The increase in property crime in Multnomah County, as shown in Figure 4, appears as a likely source of the divergence in that district's and other urban counties' total referral rates in 2002.

Geographic variation in referrals is most striking for noncriminal offenses. Notably, this is the only reporting category in which juveniles are referred at lower rates in Multnomah County than other urban jurisdictions.

Figure 5. Referrals Involving Alcohol, Tobacco, and Marijuana in Urban and Rural Counties



Notes: Urban counties include Multnomah, Clackamas, Lane, Marion, and Washington. Referral rates are calculated relative to the youth population of the indicated group of counties.

Higher levels of system contact in rural counties—for noncriminal offenses, in particular—seem to reflect consistently greater rates of referral for alcohol- and tobacco-related cases from 1998 to 2009 (Figure 5). The rise in referrals for offenses involving marijuana has also been far more dramatic in rural jurisdictions. Rates of marijuana-related system involvement increased by 173 percent in rural Oregon, compared to just 42 percent in Multnomah County and 85 percent in other urban districts (Table 3). The decline in alcohol-related referrals was much more consistent

across all areas, making potential substitution between alcohol and marijuana use appear less plausible or, at least, less significant.

Table 3. Percentage Changes in Referral Rates by Geography, 1998-2009

	Multnomah	*Other Urban*	*Rural*
Misdemeanor	-12.7	-38.0	-36.2
Felony	-57.6	-45.8	-50.8
Violation	-58.1	-48.6	-46.0
Dependency Status	-33.2	-33.4	-39.6
Person	-45.1	-39.2	-42.9
Assault	-20.0	-26.7	-48.9
Property	-24.7	-48.4	-49.3
Robbery	-26.6	-30.4	-60.9
Theft	+1.3	-44.1	-45.7
Non-Criminal	-58.3	-48.4	-46.0
Behavioral	-24.0	-16.0	-11.8
Violent	-42.9	-38.6	-41.4
Alcohol	-32.3	-26.4	-33.4
Tobacco	-81.6	-68.5	-66.0
Marijuana	+42.6	+85.0	+173.3
Other Drugs	-86.6	-54.3	-54.8

Notes: Other urban counties include Clackamas, Washington, Lane, and Marion. Referral rates are calculated relative to the youth population, age 10-17, in the indicated county or group of counties.

A potentially noteworthy policy change is Portland's enactment of a truancy reduction ordinance in October of 1999. The ordinance effectively imposes a curfew during all hours that school is in session, allowing police to detain minors age 7–18 found on public streets or public property (National Gang Center). As can be seen in Figures 3 and 4, referral rates in Multnomah County temporarily increased for all crime types in 2000. In that same year, a smaller rise in referrals is observed in other urban jurisdictions (recall that Portland extends into Clackamas and Washington Counties).

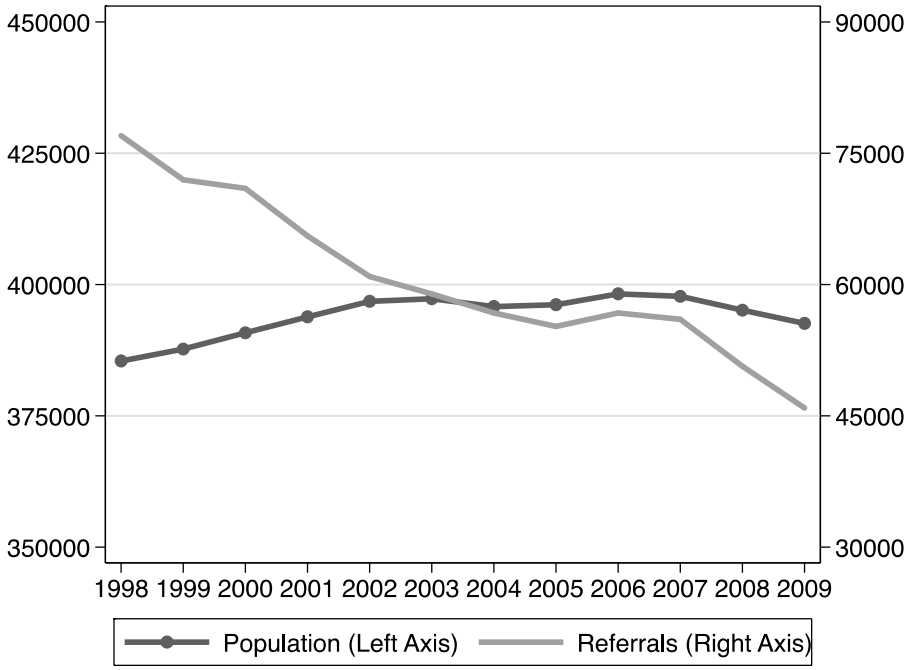
The downward crime trend is uninterrupted in rural counties. While the truancy reduction statute was intended to reduce delinquency in the long run, higher rates of juvenile arrest and referral would be expected in Portland during the initial period of enforcement.

Multnomah County's adoption of the Casey Foundation's JDAI model predates the period of study, and its implementation proceeded gradually. As such, no impact on referral trends directly resulting from associated policy changes can be observed. French and Foote (2014) claim that high dismissal rates of property and drug abuse cases—associated with efforts to limit formal system processing—have increasingly discouraged police from making arrests and referrals for those crimes. I find that the drop in property referrals in Multnomah County was much smaller, in terms of both the absolute and percentage change, compared to the rest of the state. Theft referrals increased slightly from 1998 to 2009, even as they fell by roughly 45 percent elsewhere. However, the decline in system contact for drug-related offenses (not including marijuana) was markedly greater in Multnomah County over the period.

Demographic Trends

The size of Oregon's youth population changed little from 1998 to 2009; a small but steady rise was recorded, followed by a decline in the last two years of the period. There was a transient uptick in both population and referrals in 2006. (Figure 13 in the appendix shows that the number of youth in the highest-risk age groups peaked in 2006 and 2007.) Although rates of involvement of unique individuals cannot be discerned from referral counts, it seems unlikely that a change in the size of the juvenile population was a key factor for the overall decrease in referrals.

Figure 6. Total Youth Population (Age 10-17) vs. Total Referrals to the Juvenile System



Levels of engagement in delinquent behavior increase rapidly with age. In 2009, the proportions of the Oregon youth population comprised of juveniles ages 10 through 17 were roughly equal, while a little more than 70 percent of referrals involved offenders age 15 and older. For that same year, juveniles age 12 and under accounted for less than 10 percent of referrals across all offense categories. 15–17-year-olds, meanwhile, constituted 67 percent of referrals for property crimes and 65 percent of person crimes. Fully one third of the noncriminal cases referred were 17-year-olds, with youth younger than 15 accounting for less than a fifth of offenses reported for that category. This distribution predominately reflects the much higher rate at which high-school-age teens receive referrals for MIPs and the possession and sale of drugs.

Oregon's minimum dropout age is 18 and was unchanged between 1998 and 2009. Therefore, any crime-reduction dynamics associated with raising the MDA were not at play here.

Table 4. Youth Population and Total Referral Rates by Gender

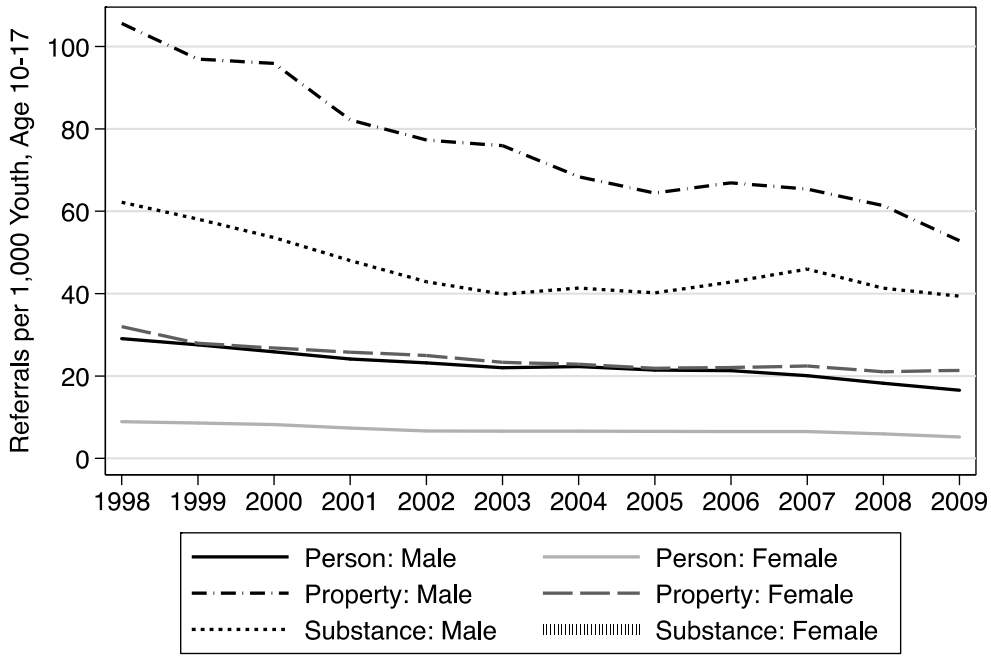
	Population		*Total Referral Rate*	
	Male	*Female*	*Male*	*Female*
1998	198,287	187,133	276.2	118.8
1999	199,422	188,268	259.2	107.7
2000	200,913	189,874	251.9	107.3
2001	202,578	191,260	227.0	102.3
2002	204,065	192,727	208.4	95.3
2003	204,365	192,926	203.2	90.2
2004	203,485	192,309	196.9	86.8
2005	203,554	192,603	188.5	87.4
2006	204,807	193,409	194.2	87.6
2007	204,293	193,442	192.1	86.7
2008	202,538	192,556	173.8	80.2
2009	201,180	191,406	156.7	75.1

Note: The total referral rate includes referrals for misdemeanors, felonies, violations, and dependency status offenses per 1,000 persons age 10-17 of the indicated gender.

Rates of involvement with the justice system also vary greatly by gender. Male juveniles tend to be responsible for a disproportionate amount of crime, and this pattern is reflected in the Oregon data. As should be expected, the relative size of the male and female youth populations remained consistent from 1998 to 2009. Yet, referral rates were significantly higher for male youth than for females across all major crime categories. Over the decade the total referral rate for boys was, on average, 2.2 times that of girls. The differential is largest for felonies; in 2009, boys received felony referrals at a rate of 25 per 1,000 population while that statistic was only 5 per 1,000 for girls. Dependency status offenses, which are primarily runaway cases, represent the

only crime category for which girls are consistently referred to county juvenile departments at higher rates than boys.

Figure 7. Changes in Referral Rates for Select Crime Categories by Gender



Notes: Referral rates are calculated relative to the population of the indicated gender. Substance offenses include referrals for alcohol, tobacco, marijuana, or other drugs.

Figure 7 shows referral rates by gender for person and property crimes in addition to substance-related offenses, which include underage possession or sale of alcohol, tobacco, marijuana, and other drugs. Notably, boys were referred to the justice system for person crimes at a similar rate that girls were referred for property and substance offenses. In absolute terms, property referrals dropped dramatically for boys, from 106 per 1,000 population in 1998 to 53 per 1,000 in 2009. As a result, the ratio of male to female rates of system contact for property crime decreased from 3.3 to 2.5 over the period.

This pattern was not limited to property referrals. While the gender-gap remains wide for virtually all offenses, it diminished over the decade as a result of slightly higher overall rates of decline in referrals to county juvenile departments for boys than for girls. Among those offenses for which referral rates decreased between 1998 and 2009, the percentage change was greater for white males than white females for all but dependency status and tobacco-related offenses (Table 5). The difference was particularly pronounced for behavioral crimes, misdemeanors, and alcohol-related cases. However, this trend was somewhat less consistent for youth belonging to other racial and ethnic groups.

Table 5. Percentage Changes in Referral Rates by Race/Ethnicity and Gender, 1998-2009

	Male				*Female*			
	White	*Black*	*Hispanic*	*Other*	*White*	*Black*	*Hispanic*	*Other*
Misdemeanor	-44.2	-25.0	-33.4	-24.4	-27.2	+10.4	-30.3	-15.8
Felony	-53.9	-65.0	-44.8	-55.3	-49.4	-64.1	-39.2	-65.1
Violation	-49.6	-52.3	-56.2	-32.7	-43.1	-52.4	-50.1	-27.0
Dependency	-32.6	-23.9	-16.4	-23.3	-48.4	-33.2	-21.4	-1.6
Person	-47.8	-51.3	-34.5	-34.4	-45.4	-37.6	-40.1	-47.7
Assault	-60.4	-43.4	+4.2	-59.9	-59.3	-56.4	+624.7	-47.5
Property	-53.9	-37.4	-46.2	-45.5	-37.2	+7.4	-39.2	-27.2
Robbery	-59.2	-44.4	-26.3	-59.9	-8.3	-32.6	-32.4	-66.3
Theft	-51.7	-5.9	-48.1	-43.6	-25.7	+12.2	-32.6	-18.3
Non-Criminal	-49.5	-52.5	-56.2	-32.6	-43.1	-52.4	-49.8	-26.7
Behavioral	-25.8	-40.2	-16.4	-1.8	-6.3	-24.9	-10.5	-11.6
Violent	-47.4	-52.3	-34.1	-33.0	-44.9	-39.9	-38.6	-53.7
Alcohol	-40.4	-28.7	-43.1	-23.5	-10.5	-25.6	+5.4	+19.7
Tobacco	-65.4	-75.3	-80.4	-24.4	-67.7	-72.8	-85.7	-37.3
Marijuana	+97.3	+108.2	+257.2	+235.1	+162.1	+87.5	+362.4	+383.5
Other Drugs	-55.8	-90.9	-76.2	-58.9	-49.7	-89.9	-69.1	-81.1

Note: Referral rates are calculated per 1,000 population, age 10-17, of the indicated race/ethnicity and gender.

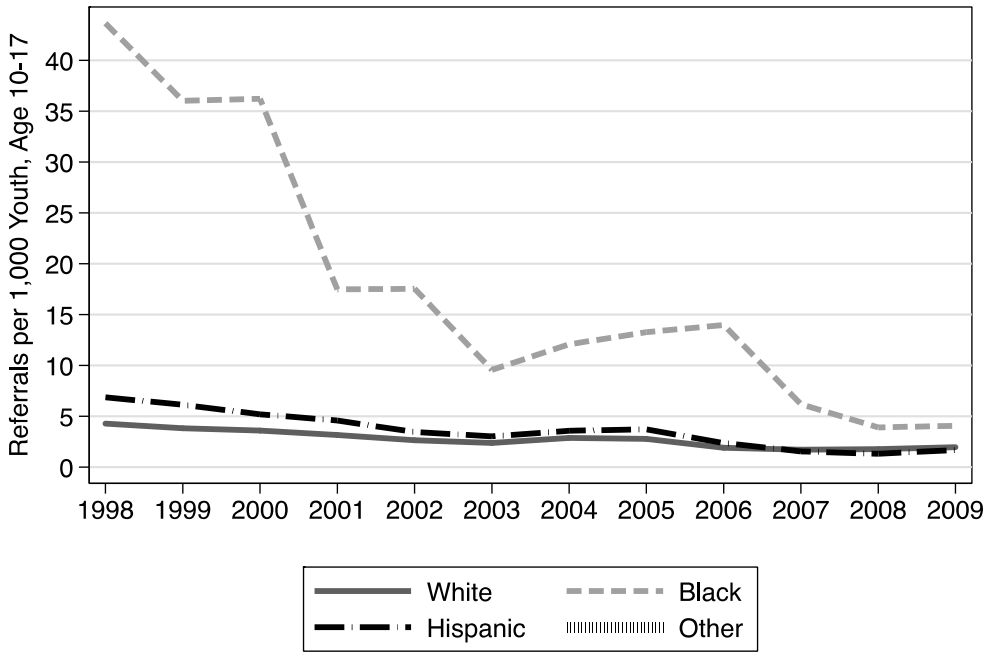
Among Hispanic youth, assaults represent a notable deviation from the general downward trends (Table 5).[3] As the rates at which juveniles of all other races/ethnicities entered into the system for assault decreased substantially over the decade, referrals in that category increased for both Hispanic boys and girls. The rise in marijuana-related referrals was also particularly pronounced for Hispanic juveniles. In 1998, 62 per 1,000 Hispanic males received referrals for offenses involving marijuana. That rate reached 445 per 1,000 in 2009.

As can also be seen in Table 5, felony referral rates decreased by around 65 percent for black juveniles of both genders. Theft referrals, on the other hand, changed little for black males and actually increased for black females. By contrast, rates of contact with the system for theft cases fell by roughly 50 percent and at least 25 percent, respectively, for male and female youth identified as white or Hispanic.

Referral rates for offenses involving drugs other than marijuana dropped by 90 percent for black juveniles. This precipitous decline can be seen in Figure 8. The trend was most pronounced for Multnomah County, where rates fell from 57 drug-related referrals per 1,000 black youth in 1998 to just 5 referrals per 1,000 by 2009. By contrast, youth of all other races were referred to the juvenile system for offenses involving drugs other than marijuana at rates that barely exceeded 5 per 1,000 population over the entire period. In other words, while the drug referral rate for black youth was still double that of white or Hispanic juveniles in 2009, it had been roughly 10 times greater in 1998.

[3] In absolute terms, the number of Hispanic females referred to Oregon county juvenile departments for assault increased from 1 in 1998 to 15 in 2009.

Figure 8. Referral Rates for Offenses Involving Drugs Other Than Marijuana by Race/Ethnicity



Note: Referral rates are calculated relative to the youth population of the indicated race/ethnicity.

One potential explanation for the striking drop in drug referrals of black youth is a shift in enforcement priorities in response to Oregon's meth epidemic. Namely, Portland police might have targeted methamphetamine producers instead of arresting black juveniles for possession crimes. Meth lab incidents were at their peak in the early 2000s; 632 lab incidents were recorded in the state in 2004 alone (Drug Enforcement Agency).[4] As a result, in 2006, Oregon became the first state to require a prescription for medications containing pseudoephedrine and ephedrine, the critical ingredients for cooking meth. Limits had already been tightening on the amount of pseudo/ephedrine that could lawfully be purchased, but Oregon's new approach addressed the problem of "smurfing"—a practice wherein multiple individuals go from store to store buying legal

[4] Meth lab incidents include seizures of labs, "dump sites," or "chemicals and glassware."

quantities of precursors. Even before the smurf law was fully implemented, meth lab incidents fell by 90 percent (DEA). Therefore, local meth production activities were effectively under control in the final years of the period of study. Drug referral rates for Portland's black youth leveled out between 2008 and 2009, but the effect of renewed targeting would likely appear in subsequent years.

Racial and Ethnic Disparities

Oregon's population remains relatively homogeneous, though that is slowly but surely changing. From 1998 to 2009, the white population, age 10-17, decreased by 12 percent while the Hispanic population in that same age group more than doubled. Meanwhile, the black youth population grew by 38 percent over the period, and the number of youth belonging to all other racial and ethnic minorities increased by 26 percent. As a result, 28 percent of the Oregon juvenile population was non-white as of 2009.

Table 6. Youth Population and Total Referral Rates by Race/Ethnicity

	Population				*Total Referral Rate*			
	White	*Black*	*Hispanic*	*Other*	*White*	*Black*	*Hispanic*	*Other*
1998	321,588	8,913	34,703	20,216	193	407	207	200
1999	320,490	9,298	37,073	20,829	179	389	183	195
2000	319,997	9,667	39,675	21,448	170	436	192	226
2001	319,458	9,902	42,628	21,850	156	346	171	230
2002	318,294	10,378	45,853	22,267	142	324	154	237
2003	314,928	10,571	48,990	22,802	136	335	154	219
2004	309,705	10,770	52,127	23,192	131	374	152	181
2005	305,551	11,002	56,013	23,591	127	363	146	178
2006	302,970	11,383	59,770	24,093	129	366	150	184
2007	297,053	11,823	64,140	24,719	128	315	160	159
2008	290,338	12,052	67,657	25,047	117	292	138	156
2009	284,083	12,331	70,731	25,441	107	258	124	139

Note: The total referral rate includes referrals for misdemeanors, felonies, violations, and dependency offenses per 1,000 youth age 10-17 of the indicated race/ethnicity.

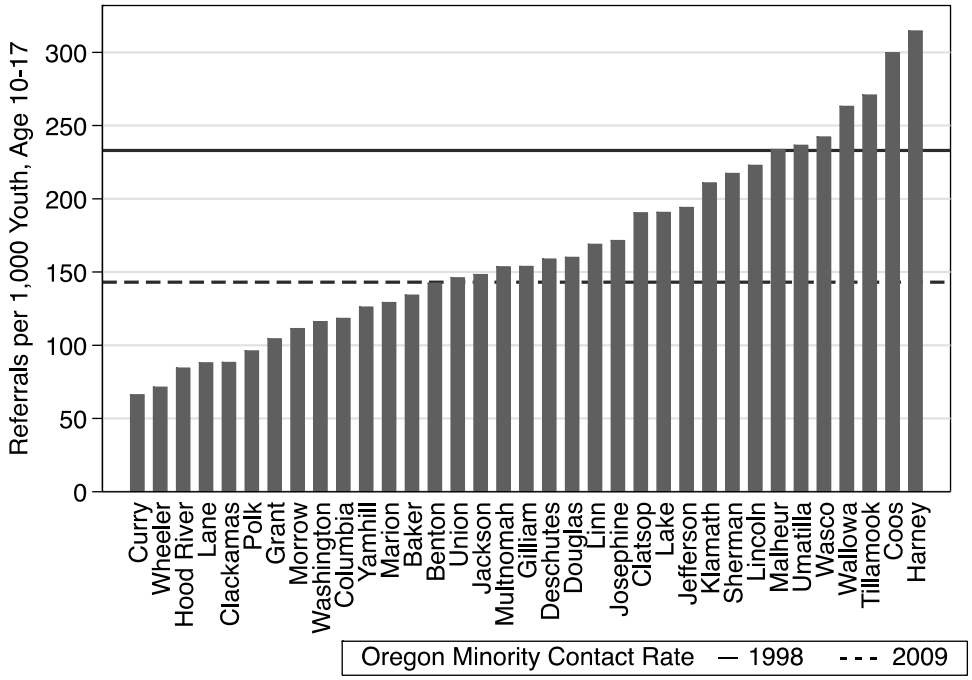
Total referral rates declined for all racial and ethnic groups over the period. The change was greatest for black youth, whose rate of referral for all offenses fell by nearly 60 percent. Nonetheless, black juveniles continued to be in contact with the justice system at far higher rates than white and Hispanic youth. The stark contrast in referral rates for these populations can be seen in Table 6. In 2009, 26 out of every 100 black 10–17-year-olds—more than 1 in 4—were in contact with the juvenile justice system. That same year, 11 out of every 100 white youth and 12 per 100 Hispanic juveniles were referred into the system.

In 2009, 84 percent of the state's black youth population, age 10–17, resided in urban counties—though that number was down from 90 percent in 1998. A little more than 30 percent of the black population was concentrated in Multnomah County alone. The Hispanic population is somewhat more evenly distributed geographically; 64 percent of Hispanic youth in the relevant age group lived in urban counties in the last year of the period.

There was a slightly stronger pattern in minority contact rates by county than was observed for total referral rates. As can be seen in Figure 9, each of the jurisdictions that I classify as urban had minority contact rates below that of the state as a whole. Multnomah County was the only exception and was on par with the Oregon rate. In general, counties with higher total referral rates also reported higher referral rates for minority youth. However, there was no clear relationship between the magnitude of reductions in overall crime and the gains made in reducing racial/ethnic disparities in referral rates. In other words, counties that experienced the largest decreases in referrals

were not more successful at closing the gap in rates of contact for white and minority youth (see Figures 17 and 18 in the appendix).

Figure 9. Rates of Minority Contact with County Juvenile Departments for All Offenses (2009)

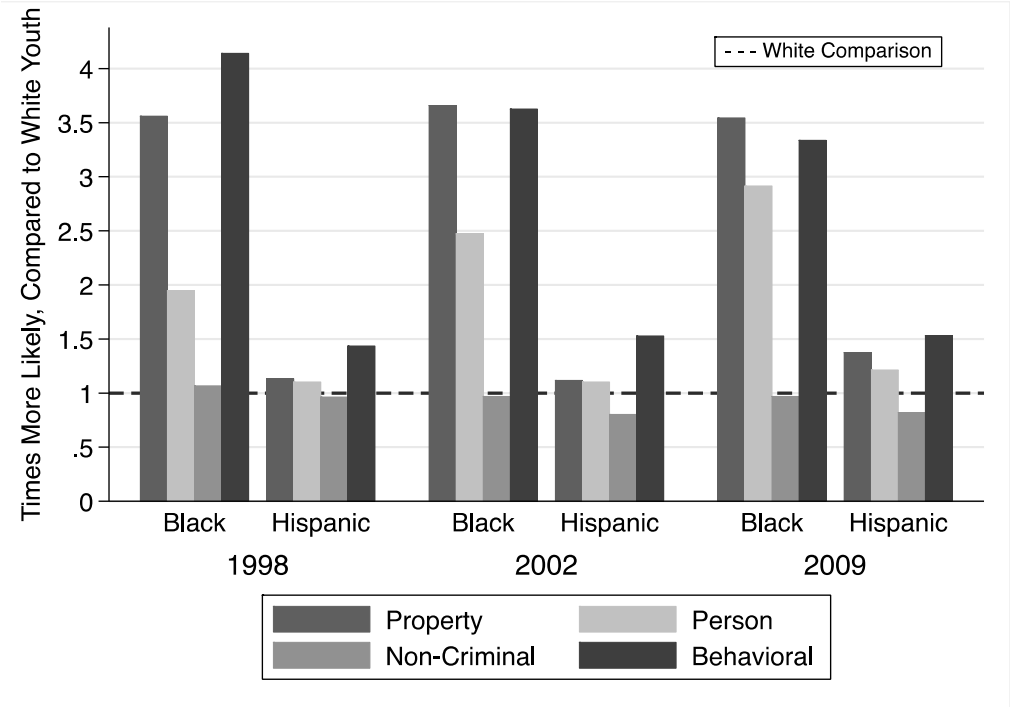


Notes: Crook County had a minority referral rate of 802 per 1,000 youth, age 10–17 (300 total referrals, 374 population). It is excluded from the graph to highlight variation in minority contact rates for all other counties.

The Relative Rate Index (RRI) is the measure employed by the OJJDP to study rates of contact with the justice system across different groups of juveniles. When comparing referral rates between racial/ethnic populations with white youth as the reference category, the RRI is simply the ratio of the minority referral rate to the white rate. If, for example, the RRI for referral of black juveniles is 2.0, this indicates that black youth were twice as likely to have been referred to the system in the given year than white youth. This measure indicates that a disparity exists at the referral stage, but it does not necessarily imply racial bias or provide any insight as to its source.

Even as Oregon's juvenile referral rates have universally declined, Figure 10 shows that the relative rate indices for minority youth actually increased for some crime types between 1998 and 2009. As previously noted, beginning in 2002, states receiving funds under the JJDPA were officially required to demonstrate progress toward reducing disproportionate minority contact. By the RRI measure, the changes in practices that have been undertaken so far have generally not been effective.

Figure 10. Likelihood of Referral to the Juvenile Justice System: Racial/Ethnic Minorities Relative to White Youth, Age 10-17



Note: The 2002 reauthorization of the JJDPA requires states receiving funding to take steps to reduce disproportionate minority contact in their juvenile systems.

The disparity in referral rates for person crimes between black and white youth grew substantially over the entire period from 1998 to 2009. A decline in black juveniles' relative rate of contact for behavioral offenses was recorded but began prior to 2002. Hispanic youth were in contact with the juvenile system at rates closer to those

of white youth, but the differential increased slightly for both property and person crimes between 2002 and 2009. Noncriminal offenses—and violations, more broadly—are the only major group of referrals for which there does not appear to be significant disproportionate minority contact.

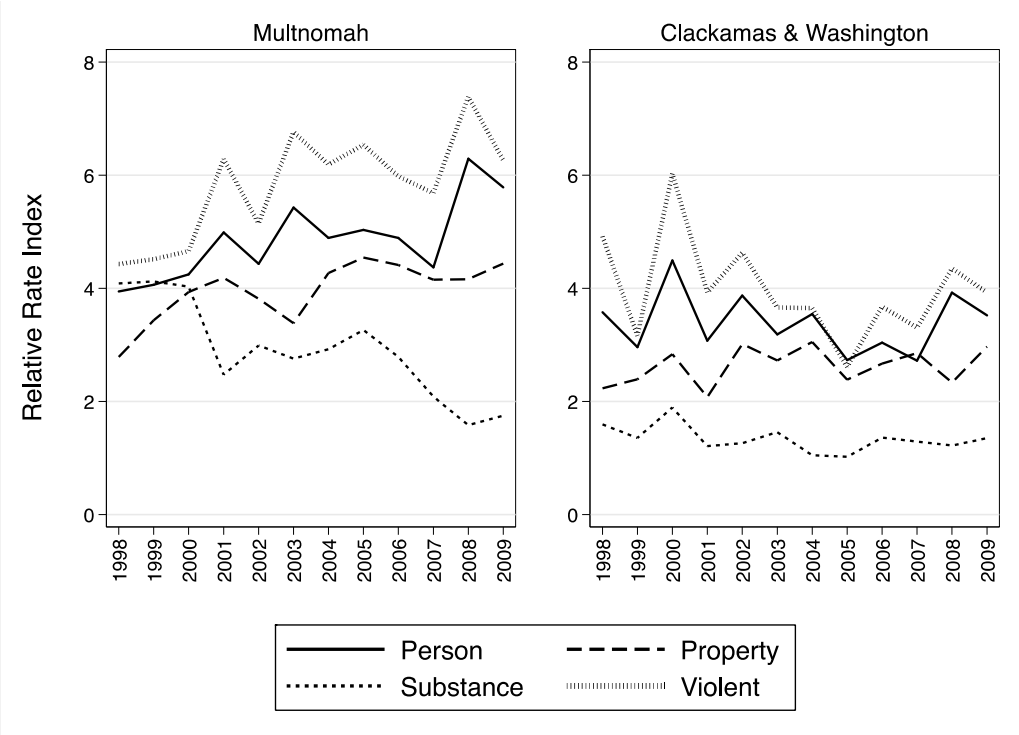
It is not especially surprising to find that the DMC-reduction funding stipulation has not had an immediately apparent impact on racial and ethnic disparities in referral rates in Oregon. Identification and study of DMC is, in itself, a qualifying step towards addressing the problem, and the JJDPA explicitly avoids the establishment of any quotas or numerical benchmarks for delinquency prevention. Since 2006 (the earliest report date), Mississippi is the only state that has faced funding reductions for noncompliance with the DMC mandate (OJJDP).

Multnomah County's efforts to reduce racial and ethnic disparities in the juvenile system are commonly looked to as an example of best practices. Yet, when comparing changes in relative referral rates over time to neighboring urban counties, Multnomah is not a clear success story. On the contrary, black youth were more likely to become involved in the system for person and property offenses in 2009 than they were 10 years prior (Figure 11). The same upward trend was not apparent in Clackamas and Washington Counties—the two jurisdictions which, in the absence of policy differences, could be expected to most closely resemble Multnomah.[5] Black juveniles' relative likelihood of substance-related referral in Multnomah County decreased by more than 50 percent over the period, a pattern driven by the dramatic decline in

[5] It should be noted that Multnomah County's black youth population, age 10–17, is nearly four times larger than that of Washington County. Washington, on the other hand, has a slightly larger Hispanic population. Clackamas is markedly less racially and ethnically diverse.

referrals for offenses involving drugs other than marijuana. In both cases, the largest drop occurred prior to 2002.

Figure 11. Changes in Relative Rate Indices for Black Youth in Portland Counties

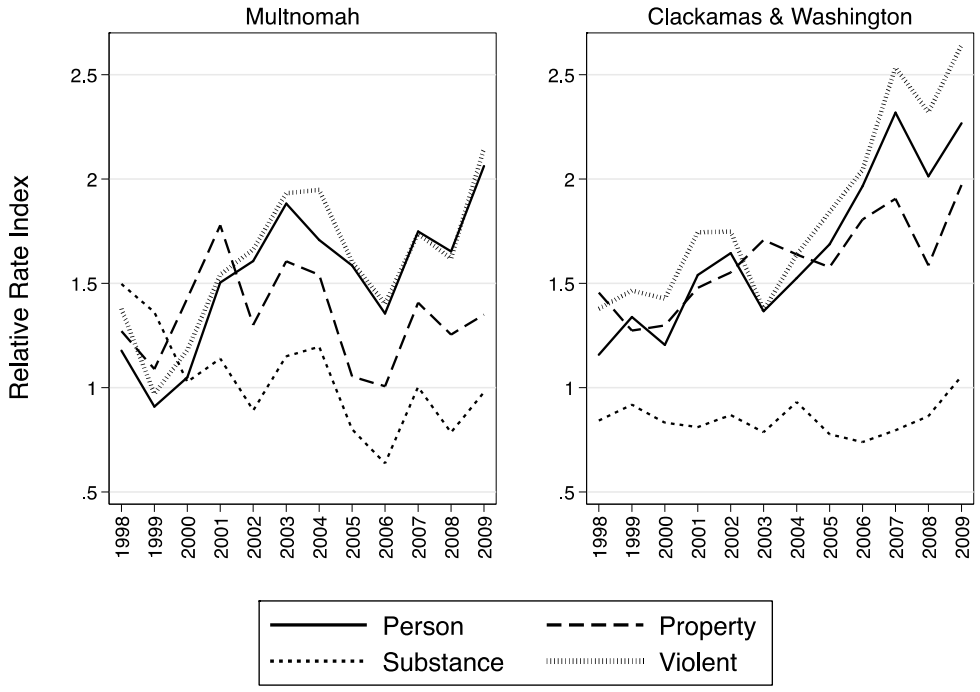


Note: White juveniles, age 10-17, are the comparison group.

Finally, the relative referral rate for person crimes also rose for Hispanic youth over the entire period of interest, but the upward trend was apparent in all three Portland counties (Figure 12). In fact, the change was particularly striking for Clackamas and Washington. In those jurisdictions, Hispanic juveniles were only slight more likely than white youth to become involved in the system for person offenses in 1998; by 2009, they were more than twice as likely to be referred for such cases. Hence, disproportionate minority involvement with the Oregon juvenile system was not reduced over the course of the 2000s. On the contrary, even after compliance with the

DMC initiative was made a condition for funding, disparities in referral rates increased in some cases.

Figure 12. Changes in Relative Rate Indices for Hispanic Youth in Portland Counties



Note: White juveniles, age 10-17, are the comparison group.

As previously noted, relative referral rates do not establish bias in the way that the Oregon system treats minority youth. However, they confirm the need for further research to better understand the nature of the disparity. A beneficial next step would be to determine whether racial and ethnic differences in dispositional outcomes (e.g. dismissal, probation, or detention) are apparent after controlling for charge severity, county of jurisdiction, prior offenses, and as many other offender characteristics as are available. The intent of this analysis would be to learn whether (a) there are persistent gaps in processing of white and minority youth within the system or (b) juveniles of different races/ethnicities are being referred for very distinct crimes. There is some

evidence to support the latter dynamic, given that racial/ethnic disparities were reduced for drug crimes over the 2000s and that the largest differentials remained for assault and robbery. If disproportionate minority contact is driven by the arrest and referral stage, then appropriate solutions would seek to ensure fair and impartial policing or target social, economic, and environmental factors underlying differential involvement in crime.

Conclusion

The rate at which Oregon's youth came into contact with the justice system fell throughout the late 1990s and early 2000s. This trend is part of a larger decline in crime in the United States that has now persisted for more than two decades but for which reasons remain elusive.

Based on the timing of the most plausibly relevant policy shifts, the dynamics commonly cited to explain variation in juvenile crime rates are not at play in Oregon over the period from 1998 to 2009. It is possible that the drop in referrals actually reflects a return to "normal" levels, making the real question why crime rates were so high in the preceding years (Smith 2015). Were this the case, policymakers would be forced to consider that their role in reducing crime has been far more limited than they would like to believe. More importantly, this conclusion would imply that we may not understand the dynamics and possess the policy tools to respond effectively if the downward trend does not continue or reverses.

Ultimately, what continues to be most striking about the drop in crime is its systemic nature. From 1998 to 2009, fewer young people in Oregon came into contact with the justice system for virtually all types of offenses and in all but a few, rural counties. This suggests that the decline in referrals was reflective of a broad reduction in criminal and delinquent activity and not the result of a change in specific behaviors or in system tolerance for certain crimes.

Still, a few trends stand out. The difference in referral rates for boys and girls diminished somewhat over the period of study. One potential explanation for this development is a change in perceptions of gender-appropriate behavior and

punishments. Law enforcement or school officials could be responding increasingly aggressively to misbehavior by girls, making arrests where, in the past, they might have handed out a detention or sent the student home (Smith 2015). Meanwhile, reducing disproportionate minority contact with juvenile justice systems nationwide has been a stated priority for more than two decades but remains perhaps the most stubborn problem confronting policymakers and professionals. Oregon is no exception; racial and ethnic disparities in relative referral rates increased for certain crimes and jurisdictions, even as absolute rates of involvement universally dropped. Further research and, potentially, stronger enforcement of compliance with the DMC initiative are called for. The impact of Multnomah County's neutral risk assessment and police training strategies, in particular, warrants reevaluation.

The most notable exceptions to the overall downward trend in referrals were marijuana-related offenses. Over the course of the 2000s, the rate at which Oregon juveniles entered into the system for cases involving marijuana was on the rise. The increase was especially dramatic in rural counties and among Hispanic youth. Higher referral rates for marijuana could have wider implications for youth crime if juveniles are substituting away from alcohol or drugs that are more strongly associated with violence and other types of offenses. The effect of the recent legalization of recreational marijuana for adults over the age of 21 on drug- and non-drug related referrals of minors will certainly be of interest for future study.

Appendix

Table 7. Crime Categories for Reporting of Juvenile Referrals

	Reporting Category	***Offense Type***
	Criminal	Felony, Misdemeanor
	Non-Criminal	Violation, Infraction
	Dependency	Dependency
Crime Group Category	***Description***	***Reporting Category***
Criminal	Person	Assault
		Homicide Related
		Sex Offense
		Person - Other
	Property	Arson
		Burglary
		Criminal Mischief
		Criminal Trespass
		Robbery
		Theft
		Property- Other
	Controlled Substance/Alcohol	Controlled Substance/Alcohol
	Behavioral	Contempt of Court
		Disorderly Conduct
		Harassment
		Attempted crimes
		Behavioral - Other
	Criminal - Other	
Non-Criminal		Alcohol/MIP
		Curfew
		Possession of <1 ounce
		Motor Vehicle
		Tobacco
		Non-Criminal - Other
Dependency Status		Runaway
		Beyond Parental Control
		Dependency Status - Other
Violent Crime	Assault, sexual assault, homicide-related offenses, kidnapping, and robbery are included in the violent referral category, as are reported attempts to commit the aforementioned crimes.	

Figure 13. Total and Substance-Related Referrals: Breakdown by Offense Type (2009)

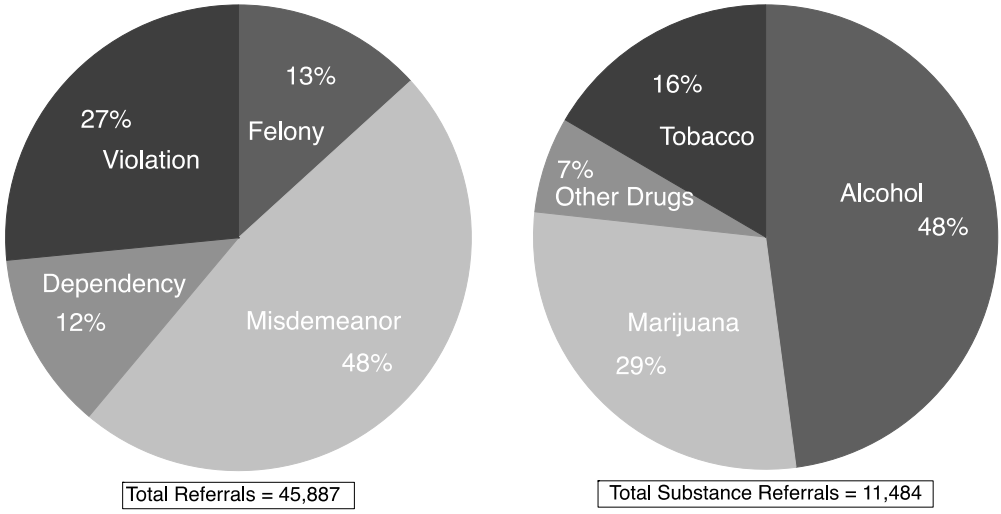


Figure 14. Changes in Referral Rates for Major Offense Types

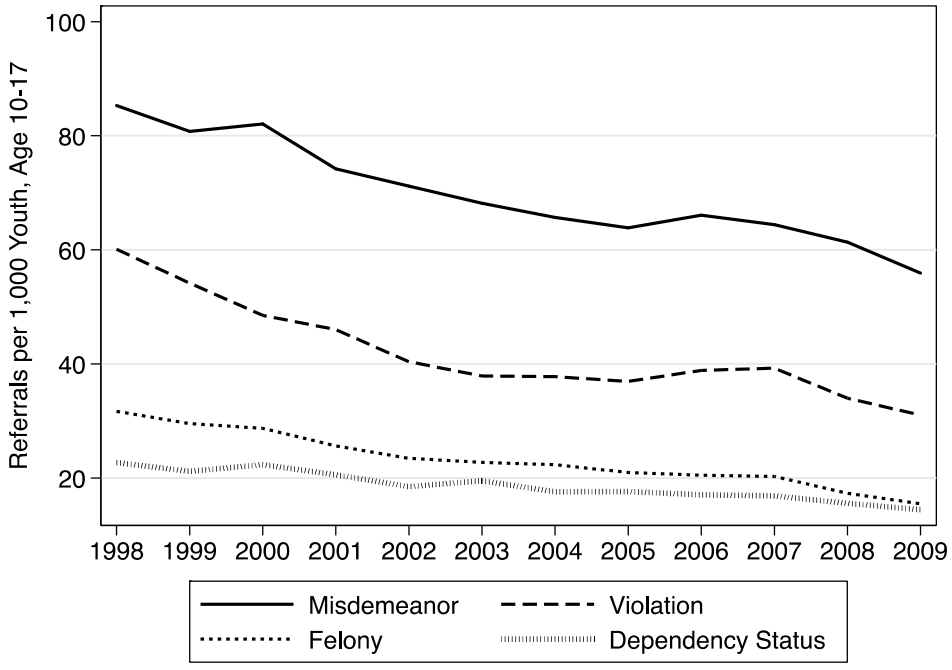


Figure 15. Oregon Youth Population Trends by Age

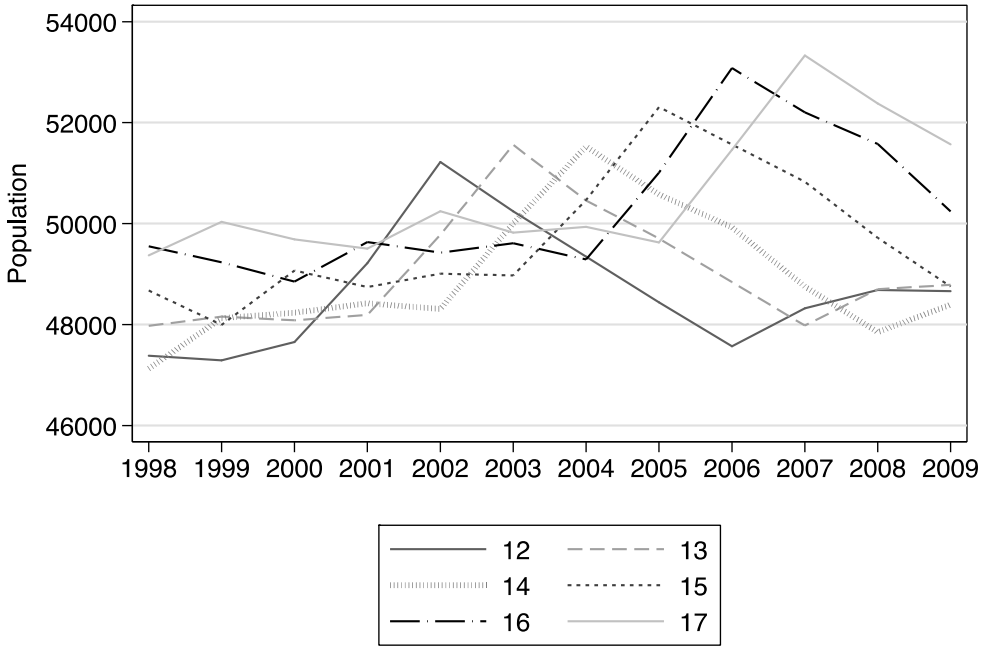


Figure 16. Changes in Minority Referral Rates for Major Offense Types

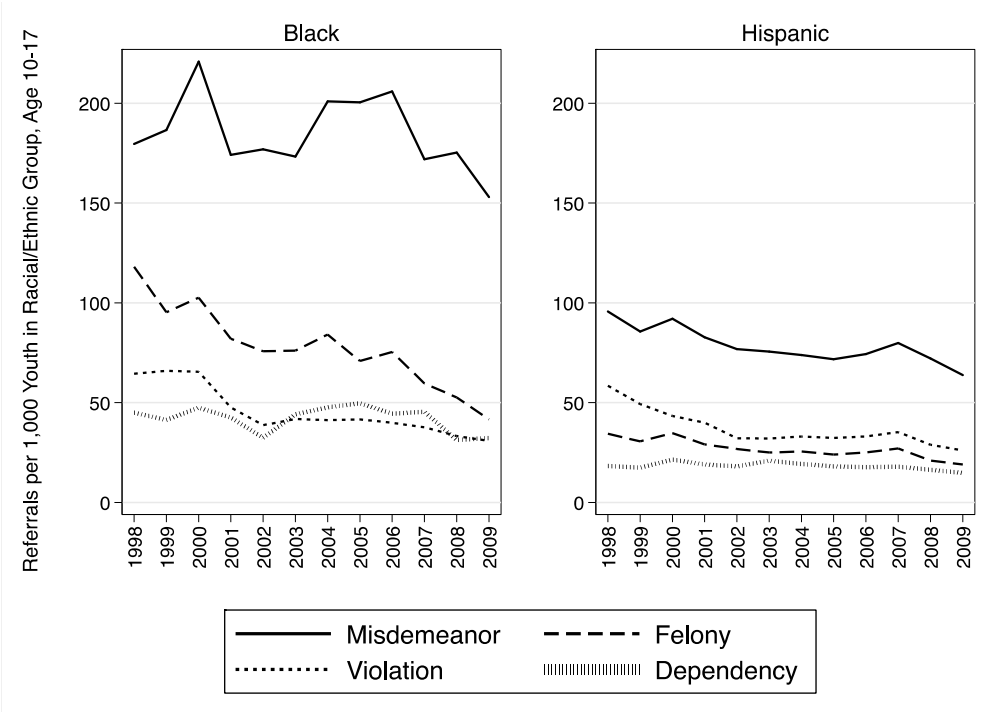
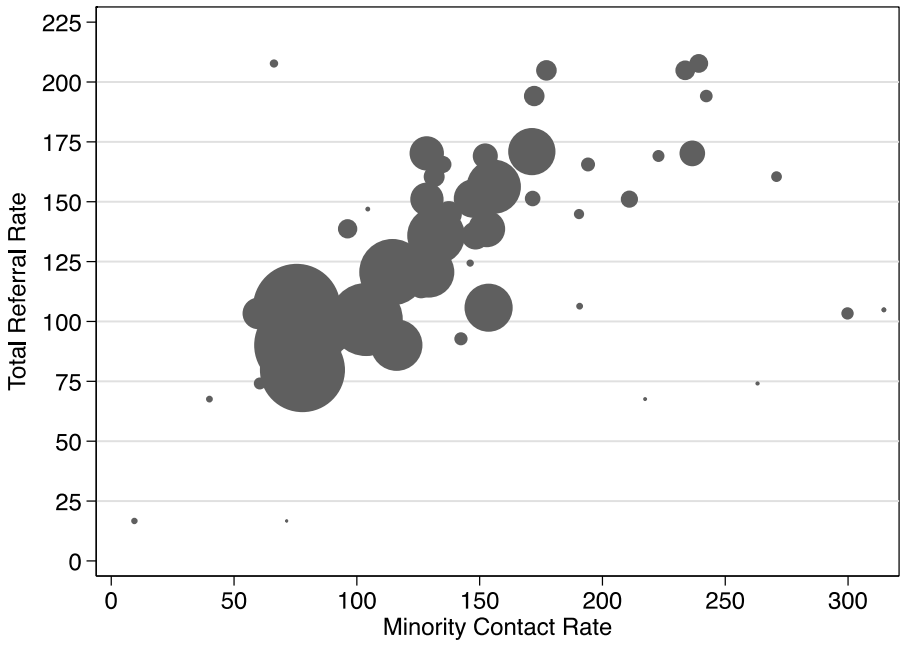
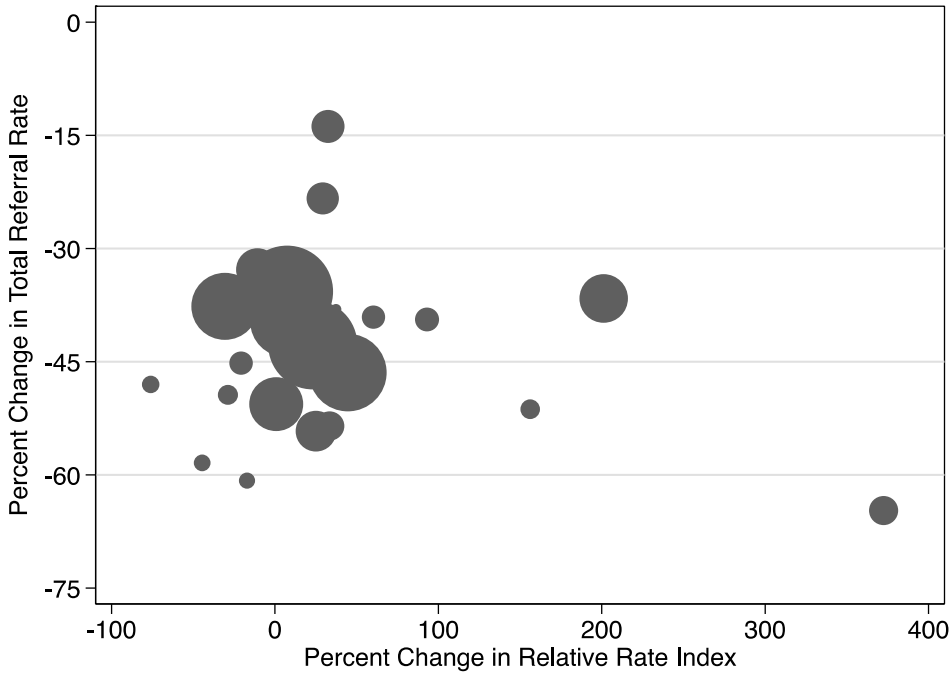


Figure 17. Relationship Between Total and Minority Referral Rates to County Juvenile Departments (2009)



Notes: Weighted by county youth population, age 10-17. The minority contact rate is simply the total referral rate for all non-white youth. Crook County is an outlier and does not appear in the above figure. Its minority contact rate is 802 per 1,000 (compared to a referral rate for white youth of 93 per 1,000).

Figure 18. Relationship Between Percentage Changes in Total and Relative Minority Referral Rates to County Juvenile Departments, 1998-2009



Notes: Weighted by county youth population, age 10-17. The relative rate index is the ratio of minority to white rates of referral. Only counties that experienced declines in total referrals are included; Gilliam, Grant, Harney, Hood River, Sherman, and Wheeler Counties are not shown.

Table 8. Ratio of Minority to White Rates of Referral (RRI)

	Black		*Hispanic*	
	1998	*2009*	*1998*	*2009*
Misdemeanor	2.2	3.1	1.2	1.3
Violation	1.1	1.0	1.0	0.8
Felony	4.1	3.1	1.2	1.4
Dependency	2.0	2.5	0.8	1.1
Assault	4.7	6.0	1.7	5.1
Robbery	10.5	13.0	1.9	2.9
Theft	2.0	3.7	1.1	1.1
Alcohol	0.8	0.8	0.9	0.8
Tobacco	0.8	0.6	0.5	0.2
Marijuana	1.3	1.3	0.5	0.8
Other Drugs	10.2	2.1	1.6	0.9
Total Referrals	2.1	2.4	1.1	1.2

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