A central question for policymakers and professionals in the juvenile justice system—and for society as a whole—is what makes a young person step away from past offending and opt for another path in life? Is it the threat of sanctions, treatment of substance abuse or mental health issues, or is it a slicing away from antisocial peers? Is it a warm and supporting parent or adult or increasing maturity? Is it the treatment the youth receives while in the juvenile justice system?

In one of the most rigorous studies of adolescent offenders to date, the MacArthur Foundation Adolescent Development and Juvenile Justice Research Network, in partnership with numerous federal and state agencies as well as other foundations, has been seeking answers to these and related questions. The Pathways to Desistance study has followed more than 1,300 serious offenders for seven years between ages 16 and 23 (on average). The length of the study and its focus on serious offenders provide those who work with young offenders the most comprehensive and reliable insight into the paths that these adolescents take out of or into future crime.

This brief reports on four key findings:

- The majority of young, serious offenders do not make a career of crime, and the original crime is not a good predictor of future patterns of offending;
- Substance abuse treatment plays an important role in desistance;
- Many juvenile offenders are placed in the most restrictive (and expensive) setting—institutional care—even though it has little effect on subsequent re-arrest;
- The threat of arrest is a deterrent for the most serious adolescent offenders.

The prevalence and severity of crime drop off over time, and the original crime is not a good predictor of future patterns of offending.

Most current law and policy assumes that in the case of juvenile crime, the worst offenders are likely on a path to continued crime. Yet the study's findings offer quite the opposite picture. Both in number of arrests (based on FBI data) and self-reported antisocial activities, ranging from very serious acts such as murder to less serious property crime, a majority of serious offenders are loosening their ties to criminal careers over time.

This brief reports the findings from both self-reported antisocial activity and official re-arrest reports because these two lenses offer a fuller picture of criminal activity over time. Some of the antisocial activities asked about are unlikely to lead to arrest and many things that might produce an arrest are not listed on the self-reported list of antisocial activities. Having two sources of information provides a more complete view of the trajectories of these serious offenders.

The good news is that even after accounting for time incarcerated (which, obviously, limits opportunities for further crimes and if not accounted for would skew the results), the general trend is one of declining antisocial activities over time. Not all the offenders follow the same path, however. There are five identifiable subgroups in the sample, based on a composite score of the youths’ self-reported offenses at various time points over seven years.

Among this group of serious offenders, only about 10% report continued high levels of antisocial acts (see Figure 1, “persisters”). In addition to the 10% who continue at high levels of offending, about one in five are “desisters,” shifting from high levels of offending at the outset to very low levels of offending over the intervening years. Slightly more than one-half start off committing relatively fewer offenses and change little over time (“low-” and “mid-stable”). In contrast, 12% start off committing relatively few offenses but increase their antisocial activities slightly over time (“low rising”). The latter group had not emerged in the original analyses looking at three years of follow-up data, pointing to the value of following youth over longer periods of time.
Unfortunately for practitioners and those seeking to divert youth into more productive paths, it is hard to determine who will continue or escalate their antisocial acts and who will desist. As noted, the original offense—whether a felony assault with a weapon or a property offense—has little relation to the path the youth follows over the next seven years. As Figure 2 shows, a similar mix of groups is seen across all the crime categories.

The overall trend of loosening ties to crime over time holds when examining official records of re-arrest, the second method of tracking youth in the study. Although a majority of the adolescents were re-arrested over the seven-year period, the prevalence and rate of arrest as well as the severity of the charges decreased over time (see Figures 3-5). In about four in ten re-arrests, the most serious charge was a misdemeanor.

Although it is difficult to determine an individual’s future on the basis of the initial crime, other factors do shed light on offending, including substance use, which we discuss next.
Substance use problems exert a strong influence on continued offending. Youth who become involved in the juvenile justice system often share some common risk factors, including mental health problems, developmental immaturity (a lack of self-control, for example), antisocial peers, harsh or lax parenting, and growing up in neighborhoods characterized by poverty, crime, and social disorder.

Substance abuse, however, stands out among the risk factors. The Pathways study finds that youth with a substance use disorder were more likely to continue offending over the seven years and less likely to spend time working or in school than those with no substance use issues. In addition, having a substance use disorder magnified the impact of other risk factors related to continued offending. Having a substance use disorder made things significantly worse.

Level of substance use also contributes to offending in this group. Heavier users are more likely to be arrested than are less frequent users, and this pattern does not change over time (see Figure 6). In other words, greater substance use goes hand in hand with increased offending at each time point. This pattern holds even when accounting for changes in other risk factors.

![Figure 3. Prevalence of arrest declines with time](image)

![Figure 4. The average rate of re-arrest declines](image)

![Figure 5. The severity of crimes diminishes over time](image)

![Figure 6. Heavier substance users are consistently more likely to be arrested than less frequent users](image)

1 = status offense, 2 = misdemeanor, 3 = possession of narcotics (excluding glue and marijuana), 4 = felony, not part 1, 5 = major property felonies, 6 = burglary, 7 = drug felony, 2nd degree sex offense, 8 = felonious assault, felony w/ weapon, 9 = murder, rape, arson

*The same pattern holds for frequency of marijuana use and frequency of "other drug" use. The pattern holds for all seven years for all substances.
in other factors possibly related to offending, such as the quality of a romantic relationship, the amount of time in school or working, or becoming a parent.

There is also some encouraging news. Treating substance use disorder, albeit difficult, can help reduce later re-offending among serious juvenile offenders. However, interventions that curbed re-offending were those that involved family members in the treatment process and that lasted more than three months. Unfortunately, only one-fourth of treatments included family members.

Many juveniles are placed in institutional care even though it has little effect on subsequent re-arrest.

Institutional care is a common placement for serious juvenile offenders. Over the seven years of the study, the persistent offenders spent about half their time in institutions, and even the lowest offending group (see Figure 1) spent about 30% of their time in institutions. Institutional care is the most restrictive, and most expensive, of the rehabilitation options but it is considered by many to be cost-effective in the long run because it is thought to reduce future crimes.

Yet as the study reveals, there is no clear advantage of institutional care over other types of intervention and rehabilitation. Institutional placement seems to have no effect—positive or negative—on the subsequent rate of re-arrest, and longer lengths of stay (exceeding three to six months) in a juvenile facility do not appear to reduce the rate of re-arrest. As Figure 7 reveals, the rate of re-arrest after a stay in an institution is the same for stays between three and twelve months in length. If length of time in an institutional settings was effective at reducing re-arrest, the rate of re-arrests would be expected to decline as the length of time increased. Likewise, if institutional care were somehow harmful, the rates would rise. Neither of these occurs. If longer stays in institutional facilities are not reducing future offending, then it seems questionable whether this use of resources is either justified or politically attractive as a means of achieving public safety benefits.

The length of a particular stay, however, is not the whole story. It is also important to consider what services the youth are provided during their time in the facility and how well the services provided match their needs.

Currently, services are not well matched to identified need. Depending on the setting, nearly two-thirds of youth with a mood or anxiety disorder, for example, did not report receiving mental health services. Likewise, more than one-half of youth with substance use disorders did not report getting drug or alcohol treatment. Improved screening could help target services to need.

In general, public (state-run) facilities do a better job in matching services to particular needs. Youth in state-run facilities with an identified substance use problem were five times more likely to report receiving substance use treatment than
those without a substance problem. Likewise, those with a mental health problem were four times more likely to report receiving mental health treatment than those without a mental health problem. In contrast, in private-sector contracted residential settings there were no differences in service receipt between those with and without substance use or mental health problems. In these settings, the tendency was to provide a similar package of services to everyone.

Other factors in addition to the provision of appropriate services also influence outcomes. We know from this research, for example, that the environment of the institutional setting matters for outcomes after release. In a study of youth perceptions of their experiences in institutional settings, those who reported the settings as well structured, with clear rules and routines, with limited exposure to antisocial peers, and a generally more positive atmosphere reported less antisocial activity in the year after discharge, even after controlling for their individual characteristics that can also affect outcomes (see Figure 8).5

Youth making the transition from residential placement back to the community need a variety of supportive services, and community-based aftercare programs are becoming more widely available for these youth. Early evidence from this study shows that more planning for these aftercare services and contact with aftercare services before release from an institutional setting significantly reduce the odds of re-arrest or return to an institutional setting.6 However, more needs to be done in connecting these adolescents with community services. During the seven years of the study, only 43% of youth participated in a range of community-based services, and they did so very infrequently.

These results suggest that both more community-based care and improved institutional care could help reduce the chance of re-arrest.

The risk of arrest is a more effective deterrent than the severity of punishment.

Although deterrence is one of the foundations of the juvenile justice system, it remains unclear how sanction threats influence adolescent offenders. In theory, an individual should weigh the risk of arrest, the likelihood of conviction, the certainty and severity of the punishment, and prior experiences with arrests in deciding whether to commit a crime. The higher the risk, the less likely a crime. Indeed, juvenile justice policies have increasingly raised the stakes in punishment in hopes of deterring crime.

This study finds, however, that among serious offenders, the certainty of arrest is a greater deterrent than the severity of punishment.7 However, not all of these serious offenders think the same way about the risk and payoffs of future crime. Some serious offenders may be sensitive to the costs of committing a crime while others may not. The study finds that arrest as a deterrent is most effective among those adolescents whose estimate of getting caught falls in the middle of
a spectrum ranging from those who see little chance of getting caught and high rewards for committing a crime, to the opposite, those who see a high risk of getting caught. Therefore, policies that assume a “one size fits all” approach will fail with some offenders. While it is important that adolescents believe that if they do something wrong they’ll be arrested, the findings suggest that bringing the full force of the justice system to bear on them is not cost-effective. More targeted enforcement for those offenders who are unsure about their chances of getting caught will reduce the chances of re-arrest the most.

These findings are just some of the initial results from the Pathways to Desistance study. Ongoing analyses are uncovering more regularities in the lives of these serious offenders, and highlighting positive and negative aspects of the systems working with them. Continued work with these data sets holds the potential for more insights about who these adolescents are, who they become, and what promotes positive changes in their lives.

For more information on Pathways to Desistance, please write to the project coordinator, Carol Schubert, at schubertca@upmc.edu.

1. This decline accounts for the time in an institutional setting and thus unable to commit additional crimes. Therefore, even when accounting for time not in the community, these youth are less likely on any given day to be re-arrested as time passes.


3. Institutional care includes state-run juvenile correctional facilities, private, contracted residential settings, and jails/prisons.


6. Ibid.

Models for Change

Models for Change is an effort to create successful and replicable models of juvenile justice reform through targeted investments in key states, with core support from the John D. and Catherine T. MacArthur Foundation. Models for Change seeks to accelerate progress toward a more effective, fair, and developmentally sound juvenile justice system that holds young people accountable for their actions, provides for their rehabilitation, protects them from harm, increases their life chances, and manages the risk they pose to themselves and to the public. The initiative is underway in Illinois, Pennsylvania, Louisiana, and Washington, and through action networks focusing on key issues, in California, Colorado, Connecticut, Florida, Kansas, Maryland, Massachusetts, New Jersey, North Carolina, Ohio, Texas, and Wisconsin.

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