

## Suicides Outnumber Homicides in Central Indiana

Suicides, homicides, and accidents, (deaths by external or other than natural causes) account for approximately 7 percent of all deaths in Central Indiana. Although accidents are by far the most common form of external death (accounting for 5 percent of all deaths) in the region, suicides are approximately twice as common as homicides.<sup>1</sup>

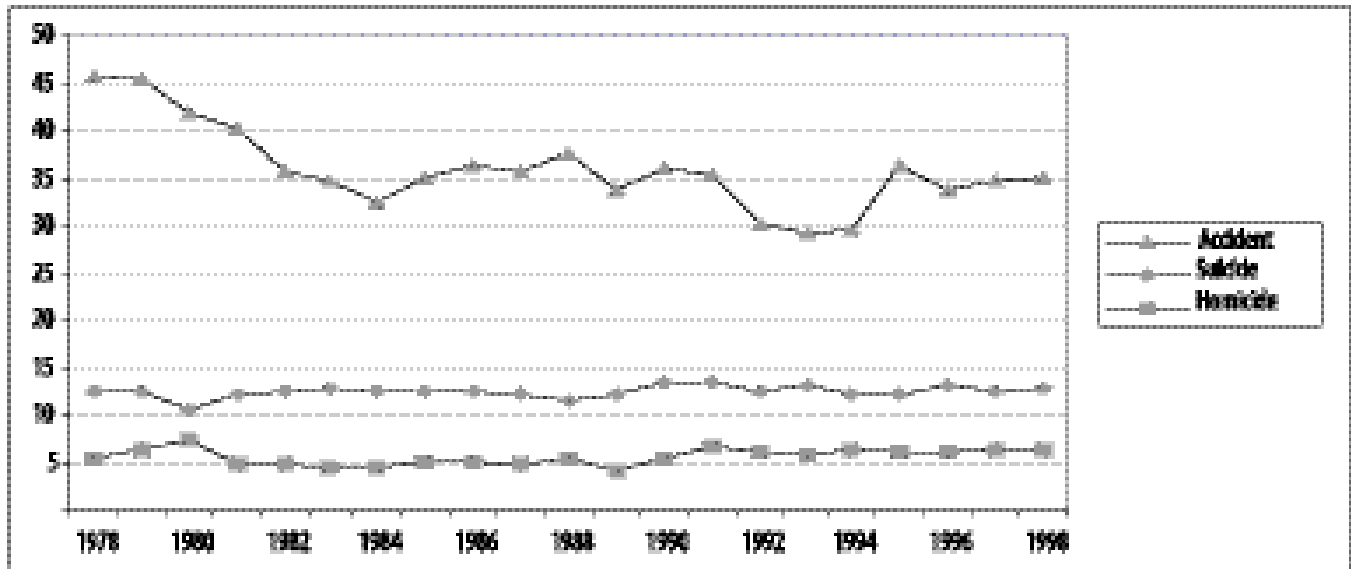
Figure 1 illustrates the rates of suicides, homicides, and accidents in Central Indiana from 1978–98. The only statistically significant change in overall external death rates in the last 20 years in the region has been a decline in accident rates. However, at the national level (not shown in Figure 1), suicides, homicides, and

accidents have all decreased at statistically significant levels.<sup>2</sup>

As illustrated by Figure 2 (see next page), there has been little variation in suicide rates over the last 20 years. In Central Indiana, suicide rates have remained relatively stable and account for only about 2 percent of all deaths. They were at their lowest in 1980 (10.5 deaths per 100,000 people), and highest in 1990 and 1991 at 13.6.<sup>3</sup>

In 1998, the U.S. suicide rate was 11.3 per every 100,000 persons as compared with a Central Indiana rate of 12.9. The Central Indiana suicide rate has exceeded the U.S. rate in all but four of the last 20 years.

Figure 1: External Causes of Death in Central Indiana per 100,000 Persons, 1978–98



Source: Raw data on Indiana deaths by ICD code, 1978-98, obtained from the Indiana Department of Health, Epidemiology Resource Center Data Analysis Team (2000). Unpublished data.

<sup>1</sup> All rates used in this study are crude, not age adjusted, including national data.

<sup>2</sup> Nationally, these changes are significant at the .01 level for accidents and suicides and .05 for homicides, linear regression analysis. The level of significance for changes in Central Indiana accident rates is .01. The levels for changes in suicide and homicide rates in Central Indiana are not significant. For non-Central Indiana, changes in suicide and homicide rates are statistically significant at the .01 level.

<sup>3</sup> All rates are per 100,000 people and will be shown as the rate itself, e.g., 10.5 and not 10.5/100,000.



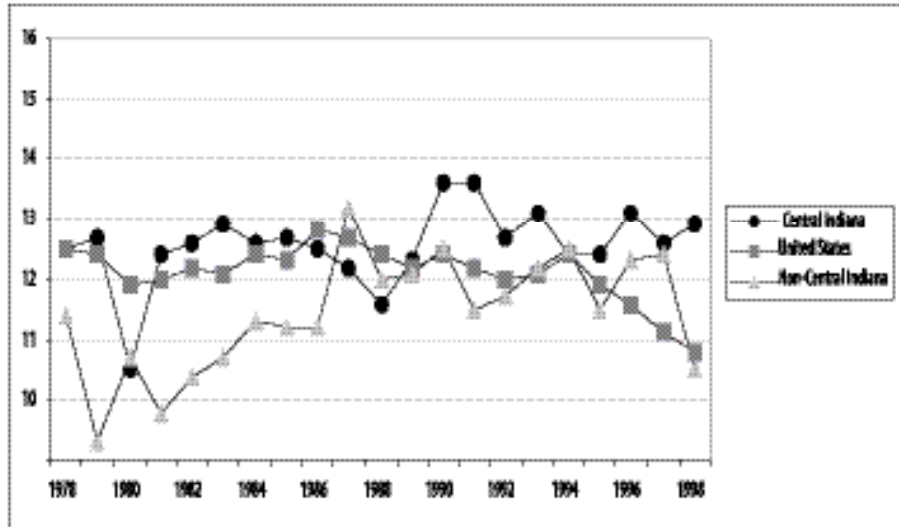
## Suicide Risk Varies with Demographic Differences

The Central Indiana population is 91 percent White and 8 percent Black.<sup>4</sup> Blacks are less likely than Whites to commit suicide—accounting for 6 percent of suicides in 1998. Blacks represented a low of 2.6 percent of all Central Indiana suicides in 1983 and a high of 7.3 percent in 1996, averaging approximately 5 percent of all suicides in the period 1978–98. However, the ratio of Black to White suicides has fluctuated over the last 20 years and showed no clear pattern until 1996.<sup>5</sup> Until that year, the Central Indiana Black suicide rate had been very similar to the U.S. Black suicide rate. However, in 1996, the region's Black suicide rate rose to 11.7, more than double the U.S. rate of 5.7. Since 1996, there has continued to be a significant increase in the Black suicide rate in Central Indiana while White suicide rates have remained stable and similar to U.S. rates for Whites.

A focus on gender finds males much more likely than females to commit suicide. Nationally, males are four times more likely to commit suicide than females,<sup>6</sup> and this ratio is similar in Central Indiana where 81 percent of suicides are males.<sup>7</sup>

In almost every year since 1990, the age group 65 and over has had the highest suicide rate in Central Indiana and in the United States. The over-65 age group accounts for 12 percent of the region's population and 19 percent of the suicides, a rate of 17. U.S. statistics identify a very high-risk group of people 85 years and older, but in Central Indiana, this age group's suicide rate fluctuates compared with the 65–84 age category—sometimes exceed-

Figure 2: Suicide Rates Per 100,000 Persons, Central Indiana, Non-Central Indiana,\* and United States, 1978–98



\* References to non-Central Indiana refer to all of the other 48 counties outside of the 44-county Central Indiana region.

Sources: National Center for Health Statistics. *Vital Statistics of the United States*. (1978–98). Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; annual publications and the Indiana Department of Health.

ing the rate, sometimes below, and in some years, very similar. This high risk is only for males in this age category. Female suicide rates among the elderly are actually lower than their younger female counterparts.

Because age categories do not allow for an assessment of “teenage” (people ages 13–19) suicides, it is difficult to confirm the recent media claims of increasing teenage suicides. Central Indiana cause-of-death data allow for an assessment of suicides for children 14 and under and ages 15–19. The suicide rate for children 14 and under has remained low since 1990 (less than 1). The suicide rate for ages 15–19 was 9 in 1998. The rate has remained fairly stable for children 7–14 years old except for 1994 when the suicide rate was 17. Central Indiana residents between 15–24 years of age (adolescents and young adults as opposed to teenagers) make up 15 percent of the population and 16 percent of suicides.

National-level data for the age categories 5–14 and 15–24 find these rates have remained stable since 1990. A perusal of national teenage suicide rates shows a significant increase between 1960 and the mid 1980s. However, with the exception of an occasional one-year increase, teenage suicide rates have been stable since the mid-1980s, both nationally and in Central Indiana.

Looking at age, race, and gender interactions (1990–98), we can identify the age groups at highest risk for suicide in Central Indiana in each of the four main race/gender groups.

<sup>4</sup> U.S. Census Bureau. (2000). *1990–1999 Annual time series of county population estimates by race and Hispanic origin*. [Online] Available: [http://eire.census.gov/popest/archives/county/co\\_crh2.php](http://eire.census.gov/popest/archives/county/co_crh2.php)

<sup>5</sup> Indiana Department of Health, Epidemiology Resource Center. *Data and Statistics*. [Online] Available: [http://www.in.gov/isdh/dataandstats/data\\_and\\_statistics.htm](http://www.in.gov/isdh/dataandstats/data_and_statistics.htm)

<sup>6</sup> U.S. Public Health Service. (1999). *The Surgeon General's call to action to prevent suicide*. Washington, D.C. [Online] Available: <http://www.surgeongeneral.gov/library/call-toaction/fact1.htm>

<sup>7</sup> Indiana Department of Health, op. cit.



- White males over age 65 have the highest suicide risk of the four groups, at a rate of 43.
- Black males are at highest risk between ages 20–34, at a rate of 34. (The raw number of Black male suicides by age group in Central Indiana is small, which makes rates easily susceptible to change.)
- White females are at their highest risk between the ages of 40–49, at a rate of 7.
- Black females have the lowest suicide risk of the four race/gender groups. They are at highest risk between ages 25–39 at a rate of 5. (In some years, there have been no Black female suicides in Indiana.)

Females of both races have suicide rates much lower than their male counterparts with White females having slightly higher suicide rates than Black females. The highest suicide rates for women of any race in virtually all age categories are significantly lower than male rates. Furthermore, women are not in any of the high-risk suicide categories. No female age category, Black or White, exceeds a suicide rate of 10.

The race/gender/age categories with the highest suicide risk are as follows:

- White males age 65 and over (43)
- Black males ages 20–24 (40)
- White males ages 20–64 (27) (Rates for all White males ages 20–24, 25–39, 40–49, and 50–64 are very similar and average at approximately 27.)
- Black males ages 25–39 (25)

<sup>8</sup> U.S. Department of Justice, Federal Bureau of Investigation. (2000). *Crime in the United States, 1999*. Washington, D.C.: U.S. Government Printing Office.

<sup>9</sup> Fox, J. & Zawitz, M. (2001). *Homicide trends in the United States*. U.S. Department of Justice, Bureau of Justice Statistics. p. 35; [Online] Available: <http://www.ojp.usdoj.gov/bjs/pub/pdf/htius.pdf>

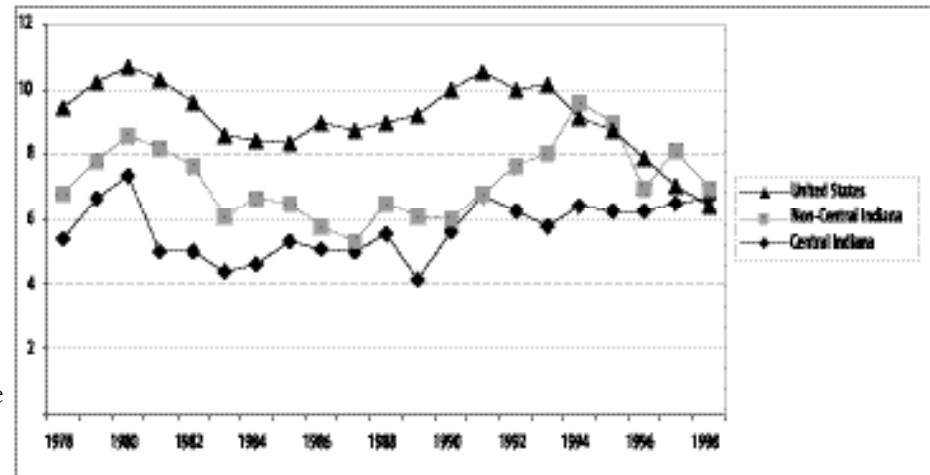
<sup>10</sup> Indiana Department of Health, Epidemiology Resource Center, op. cit.

<sup>11</sup> Population data by age are collected in different categories for the United States as a whole and in Indiana counties. In Central Indiana, to match the Bureau of Justice statistics categories, the age category is 15–24. Nationally, homicide statistics are available for ages 14–17 and 18–24.

<sup>12</sup> Fox, J. & Zawitz, M. (2001). op. cit.

<sup>13</sup> Indiana Department of Health, Epidemiology Resource Center, op. cit.

Figure 3: Homicide Rates per 100,000 Persons, Central Indiana, Non-Central Indiana, and United States, 1978–98



Sources: National Center for Health Statistics and Indiana Department of Health.

### Central Indiana Homicide Trends Are More Stable than National Trends

Until recently, as shown in Figure 3, homicide rates in Central Indiana have fallen well below the U.S. rate—U.S. homicide rates historically have been nearly double Central Indiana rates. But while U.S. homicide rates have declined dramatically in recent years (down to 5.7 per 100,000 persons in 1999; 6.4 in 1998), Central Indiana homicide rates have converged with U.S. rates at a relatively low level.<sup>8</sup> Again, the convergence is due not to a dramatic increase in homicides in Central Indiana, but rather to a dramatic decline in the U.S. homicide rate.

Females in Central Indiana were less likely to be homicide victims than females nationally until 1997 when the homicide rate for Central Indiana females was equal to that of the United States at a rate of 3. By 1998, the homicide rate for females in Central Indiana had surpassed national rates (3.7 for Central Indiana; 3.0 for the nation).<sup>9,10</sup> Overall, male rates have followed a similar trajectory—lower than U.S. rates until 1998 when the rates converged at 9.6. Men account for 64 percent of homicide victims, compared with 80 percent of suicide victims.

Mirroring national trends, the age group most at risk for becoming homicide victims is age 18–24. In 1998, the U.S. homicide rate for this group was 17.4 and the Central Indiana rate was 17.2. However, the U.S. homicide rate for 18–24 year olds has been declining since 1990 while the Central Indiana homicide rate for this group has increased. For Central Indiana, the second highest rate is 11 for ages 25–34, followed by ages 35–49 with a rate of 7.<sup>11,12,13</sup>



## Black Homicide Rate in Central Indiana Is Nearly Double U.S. Rate

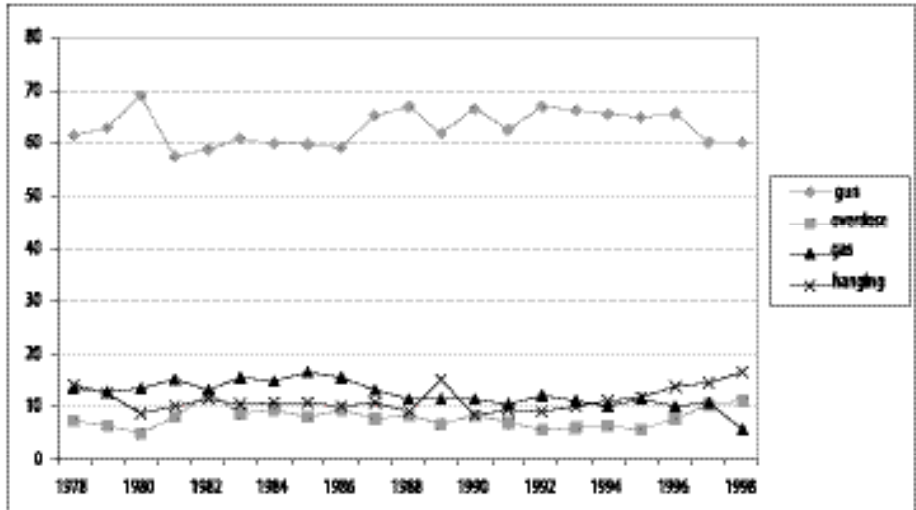
Comparing Central Indiana and U.S. homicide rates, there have been significant changes over the past few years. (Race-, gender-, and age-specific county-level data are available only since 1990, thus demographic subgroup comparisons are limited.) The homicide rates for Blacks in Central Indiana were below the national rates from 1990–93. But by 1994, the homicide rates for Blacks living in Central Indiana were significantly higher than the U.S. rates and this trend has been maintained through 1998. (The U.S. homicide rate for Blacks was 23, and for Black residents of Central Indiana, 44, nearly double the U.S. rate.) While White homicide rates in Central Indiana have remained below the national average since 1990, the gap is narrowing.

By 1998, homicide rates in Central Indiana were highest for the following groups:

- Black males ages 20–24 (a rate of 328<sup>14</sup>)—this is by far the highest homicide rate of any group in Central Indiana
- Black males ages 15–19 (135)
- Black males ages 25–39 (88)
- Black males ages 40–49 (78)
- Black females ages 20–24 (29). The rates for other Black females are similar: ages 15–19 (27), and ages 25–39 (23). (Note that the raw number of Black female homicides by age group in Central Indiana is small, which makes rates easily susceptible to change.)

The highest homicide risk age group for White males is 25–39 (8), and for White females, 40–49 (4). Specific rates for young White women are ages 20–24 (3) and 15–19 (2). All rates for Whites are well below those for Blacks in similar age categories.

Figure 4: Suicide by Method in Central Indiana (Percent of Suicides), 1978–98



Source: Indiana Department of Health, Epidemiology Resource Center.

## Gun Deaths in Central Indiana Are More Often a Result of Suicide than Homicide

Central Indiana suicide method trends are similar to national trends. As illustrated by Figure 4, in 1978–98, guns were the method of death in an average of 63 percent of suicides (and 66 percent of homicides—see Figure 5, next page). Although guns are the most likely weapon of choice in both homicide and suicide, there are far more suicides than homicides, thus the more significant death toll with guns is for suicide. Gun use in suicides peaked in 1980 when 69 percent of all Central Indiana suicides were committed with a firearm. Statistically, since 1978, there has been no significant change in the role of guns as a method of suicide, although Figure 4 shows that this suicide method is near the low point of the 20-year trend, while hanging as a suicide method appears to be increasing.

As illustrated by Figure 5, there has been a statistically significant change in the method of homicide in Central Indiana from 1978–98 reflected in an increasing likelihood that guns are the method of homicide. (Note that this was not the case with suicide—there has been no significant increase in the use of firearms in suicides.)

A further consideration of the role of firearms in external death can be illustrated by the following: Of all gun-related deaths in Central Indiana from 1978–98, 64 percent (4,588) were suicides, 31 percent (2,196) were homicides, and 5 percent (320) were accidents. In Central Indiana, accidental firearm deaths peaked at a rate of .87 in 1995 and have declined since.

<sup>14</sup> In 1998 for Central Indiana, the Indiana Department of Health Epidemiology Resource Center reported 33 Black homicide victims between the ages of 20–24 and U.S. Census statistics showed an estimated population of 10,052 Black males in that age range. This yields a homicide rate for that group of 328. Population numbers for Blacks in Central Indiana are relatively small, and the accuracy of all rates depends upon the accuracy of the statistics used.



### Suicide and Homicide: Policy Implications

As of 1998, overall suicide rates in Central Indiana remain approximately 14 percent higher than the U.S. average and above the overall Indiana average. In addition to a suicide rate that is generally higher than the U.S. rate, some specific populations in Central Indiana are at especially high risk of suicide. By far, the group at highest suicide risk in Central Indiana is elderly White males, followed by young Black males in their twenties, middle-aged White males, and other age categories of Black males. The highest suicide rates for women of either race are lower than almost any of the male rates. Given limited resources, suicide intervention should focus on the elderly White male and young Black male populations in Central Indiana.

In addition to overall higher risk in Central Indiana and risk for subgroups, policy efforts should focus on the exceptionally high suicide rates for Blacks in Central Indiana as opposed to Blacks nationwide—these rates are twice as high as the national average and they are increasing. However, it is important to remember that although suicide rates for Blacks in Central Indiana are higher than national rates, they are typically lower than suicide rates for Whites in Central Indiana.

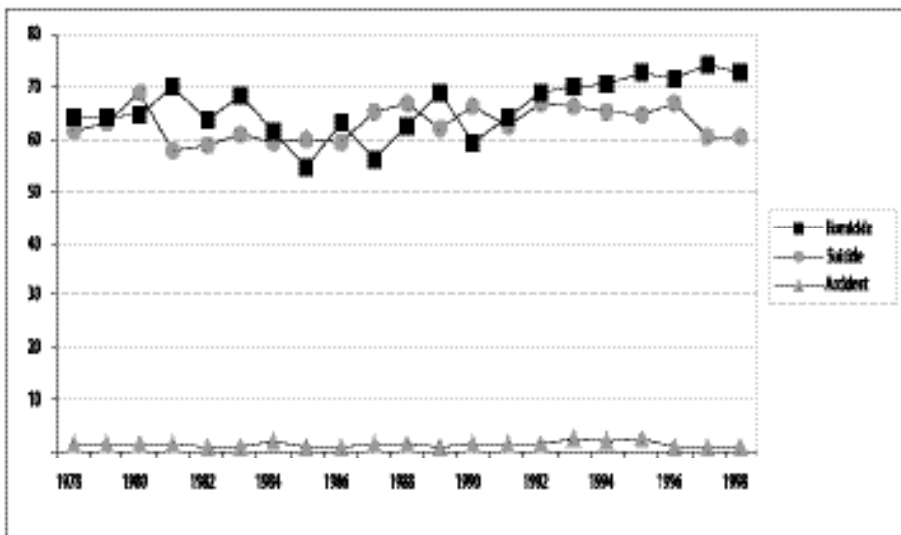
Overall, homicide rates in Central Indiana have converged with U.S. rates after 20 years of being far below the national average, primarily because Central Indiana did not experience the

dramatic increases in homicide that other cities saw from the mid 80s through the early 90s. Therefore, Central Indiana has yet to see the significant declines in homicide experienced by other U.S. cities since 1992. Typically, trends that we do see in Central Indiana and in the state of Indiana overall have lagged three to five years behind those of Chicago, New York, and Los Angeles.

For homicide prevention and intervention, the priority of resources should be targeted toward Black males ages 15–49. In addition to focusing homicide prevention resources on the Black male community in Central Indiana, attention should be paid to homicide rates of Black Central Indiana females. Recognizing that the homicide risk for Black females is highest in the age group 15–39, further research should describe the nature of these homicides and provide solutions such as more resources for prevention of domestic violence.

In addition to identifying trends, this report illustrates that self-inflicted lethal violence is actually much more common than homicide and thus should not be neglected as the target of policy interventions. These interventions would be most effective and efficient if aimed toward specific high-risk groups. Continuing surveillance systems to document trends is a critical first step, particularly when, as illustrated here, there has been significant change in risk for certain demographic groups.

Figure 5:Guns as a Method of Death in Central Indiana (Percent of Each Form of External Death), 1978–98



Note: Statistics are significant at the .05 level, linear regression analysis.  
Source: Indiana Department of Health, Epidemiology Resource Center.



## Central Indiana's Future: Understanding the Region and Identifying Choices

Central Indiana's Future: Understanding the Region and Identifying Choices, funded by an award of general support from Lilly Endowment, Inc., is a research project that seeks to increase understanding of the region and to inform decision-makers about the array of options for improving quality of life for Central Indiana residents. Center for Urban Policy faculty and staff, with other researchers from several universities, are working to understand how the broad range of investments made by households, governments, businesses, and nonprofit organizations within the Central Indiana Region contribute to quality of life. The geographic scope of the project includes 44 counties in an integrated economic region identified by the U.S. Bureau of Economic Analysis.

In Central Indiana, accidents account for more than 70 percent of external deaths, and suicide is nearly twice as common as homicide. While suicide and homicide rates have remained stable in the region for the overall population, analysis by race, age, and gender shows that risk varies dramatically. Policy makers should consider these risk variations when allocating limited public funds for suicide and homicide prevention.

The Center for Urban Policy and the Environment is part of the School of Public and Environmental Affairs at Indiana University—Purdue University Indianapolis. For more information about the Central Indiana Project or the research reported here, contact the center at 317-261-3000 or visit the center's Web site at [www.urbancenter.iupui.edu](http://www.urbancenter.iupui.edu).



*Central Indiana Region*

### Authors

**Kenna Quinet**, faculty fellow, Center for Urban Policy and the Environment, and associate professor of criminal justice, School of Public and Environmental Affairs, Indiana University—Purdue University Indianapolis, and chair, Criminal Justice, Law, and Public Safety Faculty.

**Angelina Bird**, policy analyst, Indiana Family and Social Services Administration, and formerly, research coordinator, Center for Urban Policy and the Environment.

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CENTER FOR URBAN POLICY  
AND THE ENVIRONMENT

342 North Senate Avenue  
Indianapolis, IN 46204-1708  
[www.urbancenter.iupui.edu](http://www.urbancenter.iupui.edu)