MAPPING UNSHELTERED HOMELESSNESS IN INDIANAPOLIS

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INTRODUCTION

On Wednesday, January 25, 2017, students from Indiana University-Purdue University Indianapolis—with the help of researchers from the IU Public Policy Institute and the Coalition for Homelessness Intervention and Prevention (CHIP)—conducted a survey and count of Indianapolis residents who were experiencing homelessness at that time. Though the majority of individuals by this count were staying in some type of emergency shelter or transitional housing, the count identified 124 unsheltered individuals. This report analyzes the distribution of unsheltered homeless people in Indianapolis and their proximities to shelter, transportation, and other resources throughout the city. It finds that the majority of unsheltered people were located in the downtown area—in close proximity to parks and bus routes, but not always close to rivers or shelters. In particular, much of the unsheltered population was distributed to the south and west of the main cluster of shelters. This may be an indication that physical shelter locations are not accessible to everyone who might use their services. The study does not analyze the quantity or quality of services like bus transportation or shelter services, but it does provide meaningful information about the distribution of unsheltered people in relation to those services.

BACKGROUND & SUMMARY STATISTICS

In order to conduct a thorough count of the homeless population in Indianapolis, homeless count planners joined with outreach workers to identify locations of both known and possible homeless camps throughout the city. Students conducting the survey were accompanied by outreach workers to each of these locations, where they counted individuals they encountered and surveyed them about their life experiences and service needs. Counts and survey responses were recorded on tablets on an individual basis, along with the latitude and longitude coordinates of the surveyor's location when submitting the survey. This allows the approximate locations of unsheltered individuals to be analyzed spatially. In addition, respondents could elect to answer a series of demographic and life experience questions, allowing for further analysis of their service needs.

Based on these survey results, a few characteristics of Indianapolis's unsheltered homeless population can be presented. Of the 124 individuals identified as unsheltered, 73% were male and 64% were white. An additional 31% were Black, with the remaining 5% being some other race. Overall, only 3 individuals identified themselves as Hispanic, and the average age of respondents was 44.8 years old. Among those who responded to the survey, the average time spent in homelessness was 1,368 days, but responses ranged from 1 day to 30 years. One-third of respondents were experiencing homelessness for the first time, but over one-fourth had experienced homelessness four times or more. Overall, the unsheltered population was roughly split between staying in homeless camps (41%) and staying in streets or parks (48%). Only 11% did not fall into one of these two groups, with the majority of these staying in a vehicle on the night of the count.

METHODOLOGY

The core data source for this analysis was the homeless count survey results. Survey locations were identified based on known locations of homeless individuals spread throughout Marion County. In addition to these locations, survey teams traveled throughout the county looking for unsheltered individuals. Because of these efforts, the survey results are likely similar in geographic distribution to the true nature of homelessness in Indianapolis. However, it was not possible for survey teams to search every abandoned home or public area; thus, it is likely that the final results underestimate the total number of unsheltered individuals in Indianapolis.

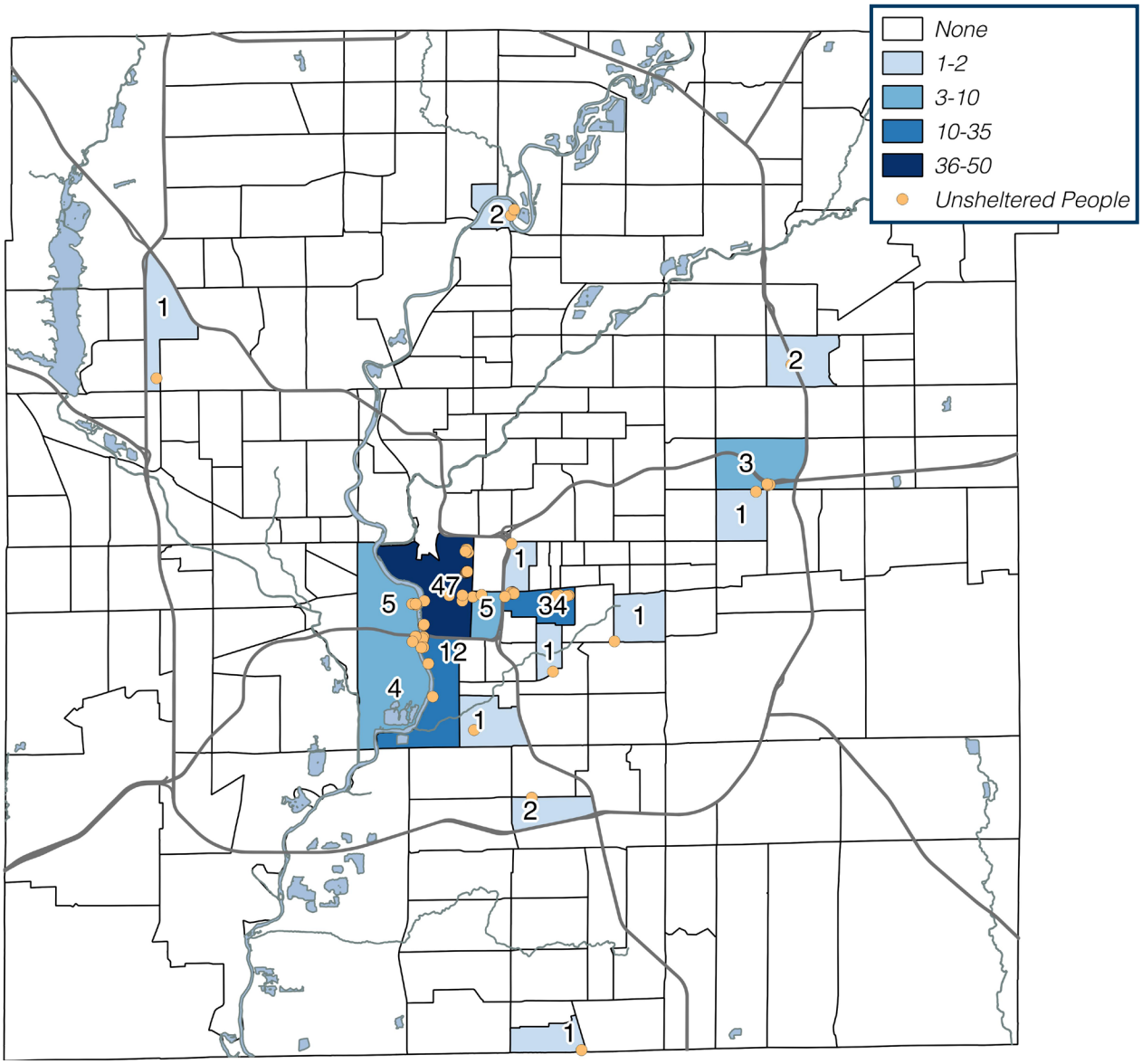
Using the longitude and latitude coordinates recorded by tablets at the time of survey administration, information about survey respondents was displayed on a Marion County map using Geographic Information Systems software. Because tablets tracked the locations where surveys were administered, the mapping results do not in all cases correspond to the location where the survey respondent planned to spend the night. Surveys were conducted throughout the evening, from around 5 to 10 pm, so some individuals likely traveled to a different location to spend the night. However, the analyzed locations provide meaningful information about where people experiencing homelessness stay or travel throughout the day.

In addition to the core location data, several other sources of information were used. Park, river, railroad, road, abandoned housing, and neighborhood map layers were obtained from IndyGIS. In addition, census tract and county information was obtained from IndianaMAP. Lastly, homeless count organizers provided a list of shelters and service locations that were associated with the homeless count; these addresses formed the basis for the shelter and service provider analysis within the report. Based on the combination of all of these data sources, geospatial analysis tools were used to measure distances, count totals, and illustrate the density of unsheltered individuals throughout the county. Analysis results are presented in two parts: distribution maps and distance analysis.

DISTRIBUTION MAPS

The following series of maps illustrate the distribution of people experiencing homelessness in comparison to neighborhood boundaries, rivers, parks, shelters, bus routes, and abandoned housing. Overall, the vast majority of the identified unsheltered homeless population is in the downtown area. Figure 1 shows the distribution and counts of the unsheltered population throughout Marion County by census tract. As the map demonstrates, very few unsheltered individuals occupy census tracts outside of the downtown area. In fact, only three census tracts have more than five unsheltered individuals.

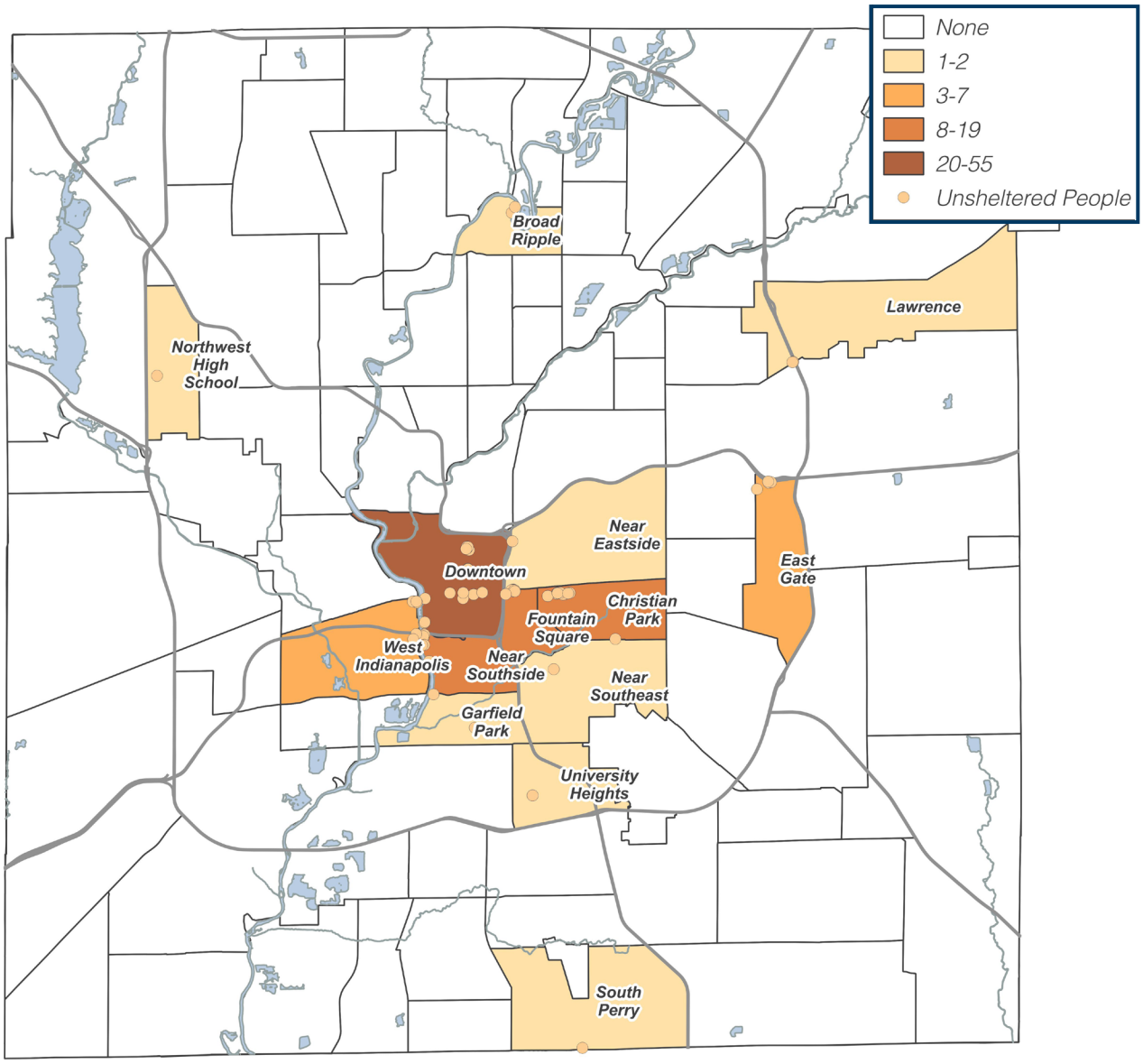
FIGURE 1. Unsheltered Homeless Population, Marion County by Census Tract



NEIGHBORHOODS

In Indianapolis, many community development and social services agencies target their services to specific neighborhoods. Thus, neighborhoods may be a more useful lens than census tracts for analyzing the locations of unsheltered people. Figure 2 demonstrates that downtown Indianapolis has by far the largest number of identified unsheltered individuals, followed by Christian Park, Fountain Square, and Near Southside. Very few unsheltered individuals were found outside of the core central city area on the night of the count, but four were identified in the Eastgate neighborhood just inside of 465.

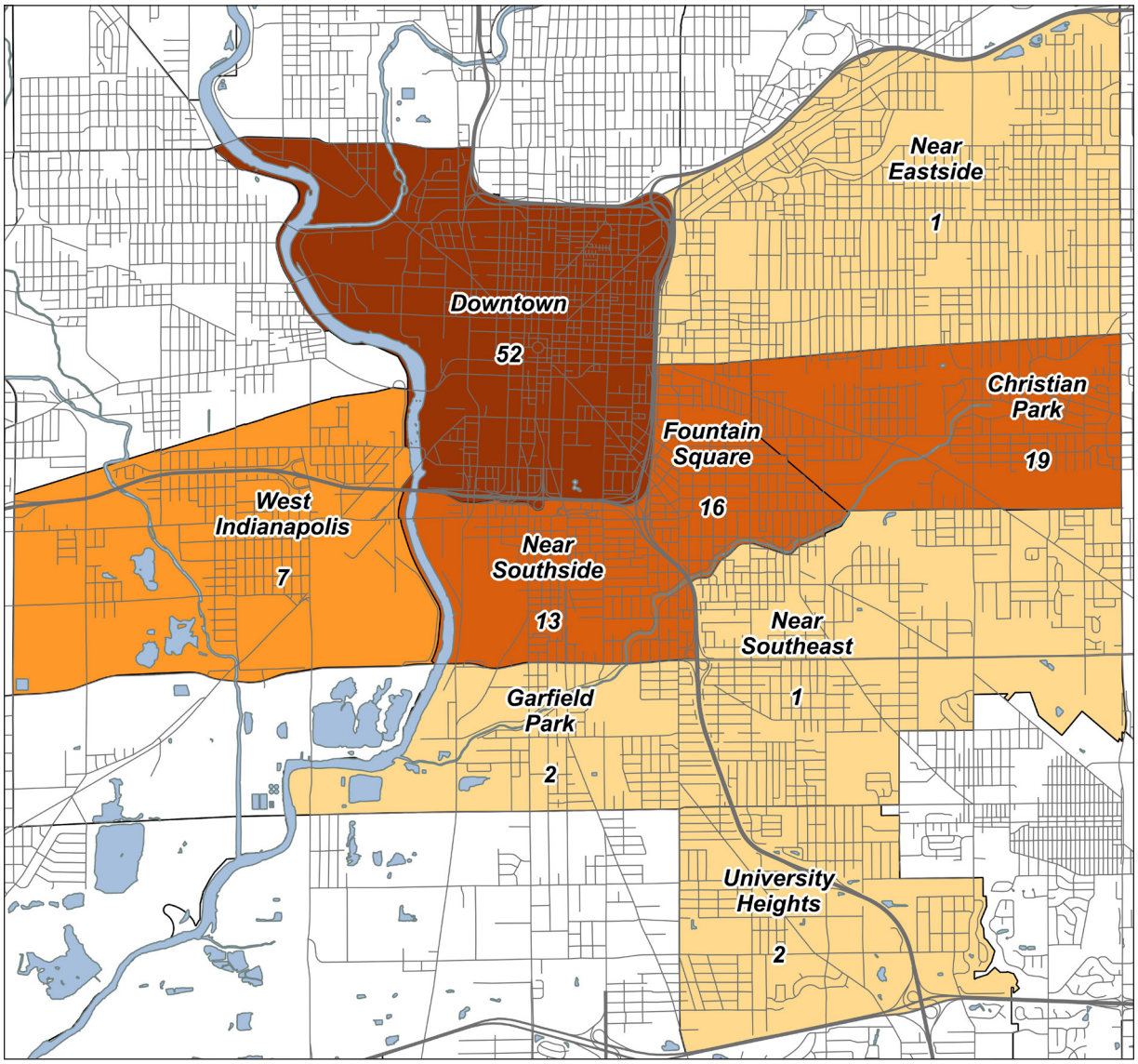
FIGURE 2. Distribution of Unsheltered Population by Neighborhood[1]



1. *Neighborhood boundary file from: IndyGIS (2016). Indy Neighborhood Boundaries. Accessed at Open Indy: data.indy.gov*

A closer view of the unsheltered population by neighborhood in the central Indianapolis area is shown in Figure 3. This map demonstrates that in many cases, unsheltered people are not located in the center of neighborhoods; rather, they are often on the edges of neighborhoods, as seen in West Indianapolis, Near Southside, Fountain Square, and Christian Park. This is perhaps due to the prominence of interstates, railroads, parks, and rivers—places where people experiencing homeless may be able to find shelter or private space—as dividing lines for neighborhoods.

FIGURE 3. Unsheltered Population by Neighborhood in Central Indianapolis[2]

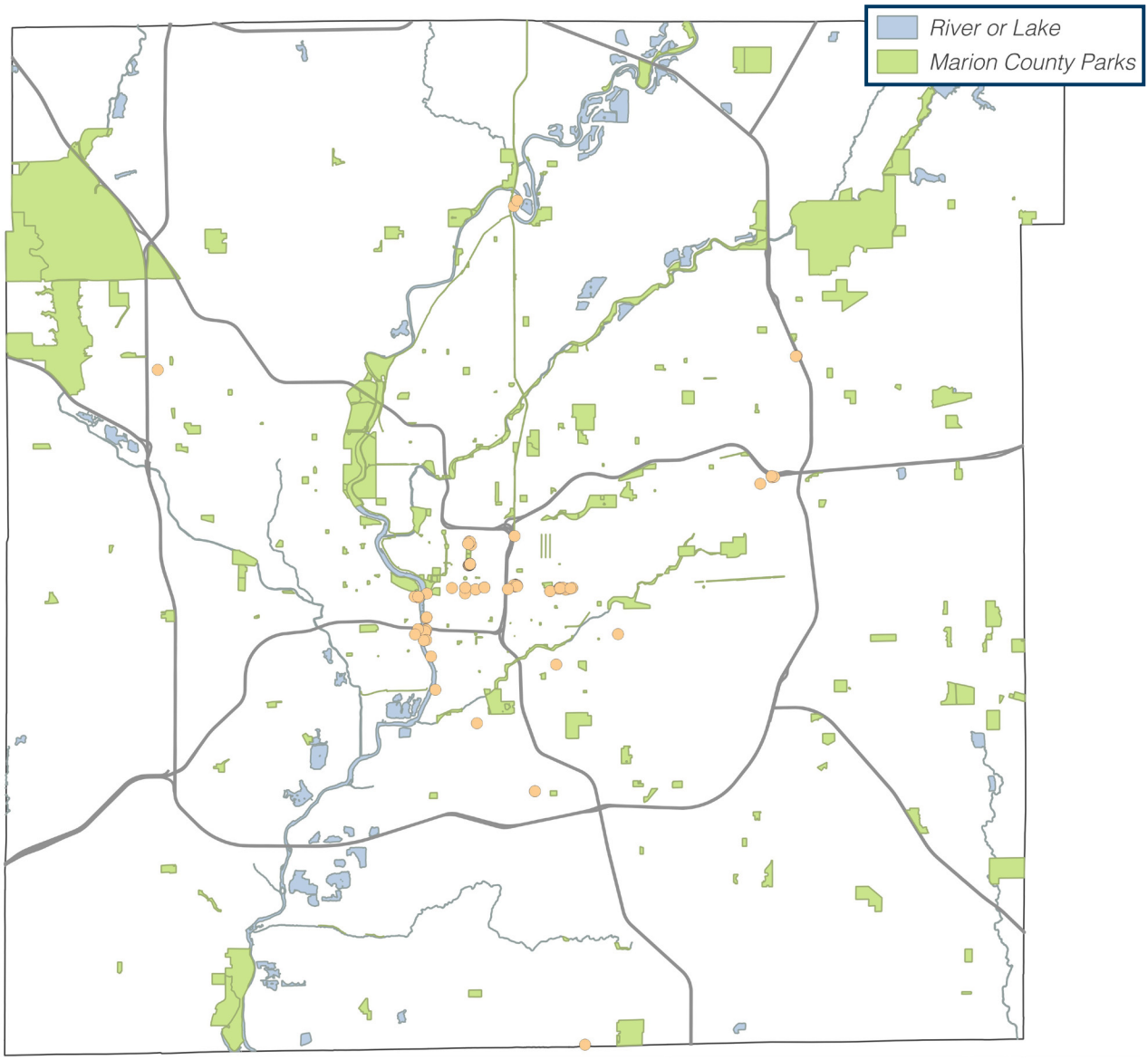


2. *Neighborhood boundary file from: IndyGIS (2016). Indy Neighborhood Boundaries. Accessed at Open Indy: data.indy.gov*

RIVERS & PARKS

Figure 4 provides a closer look at the distribution of unsheltered homeless population in comparison to natural features throughout the county. In general, people in the downtown area are clustered together, either along the White River or along major north/south and east/west corridors.

FIGURE 4. Unsheltered Population with Marion County Rivers and Parks[3]

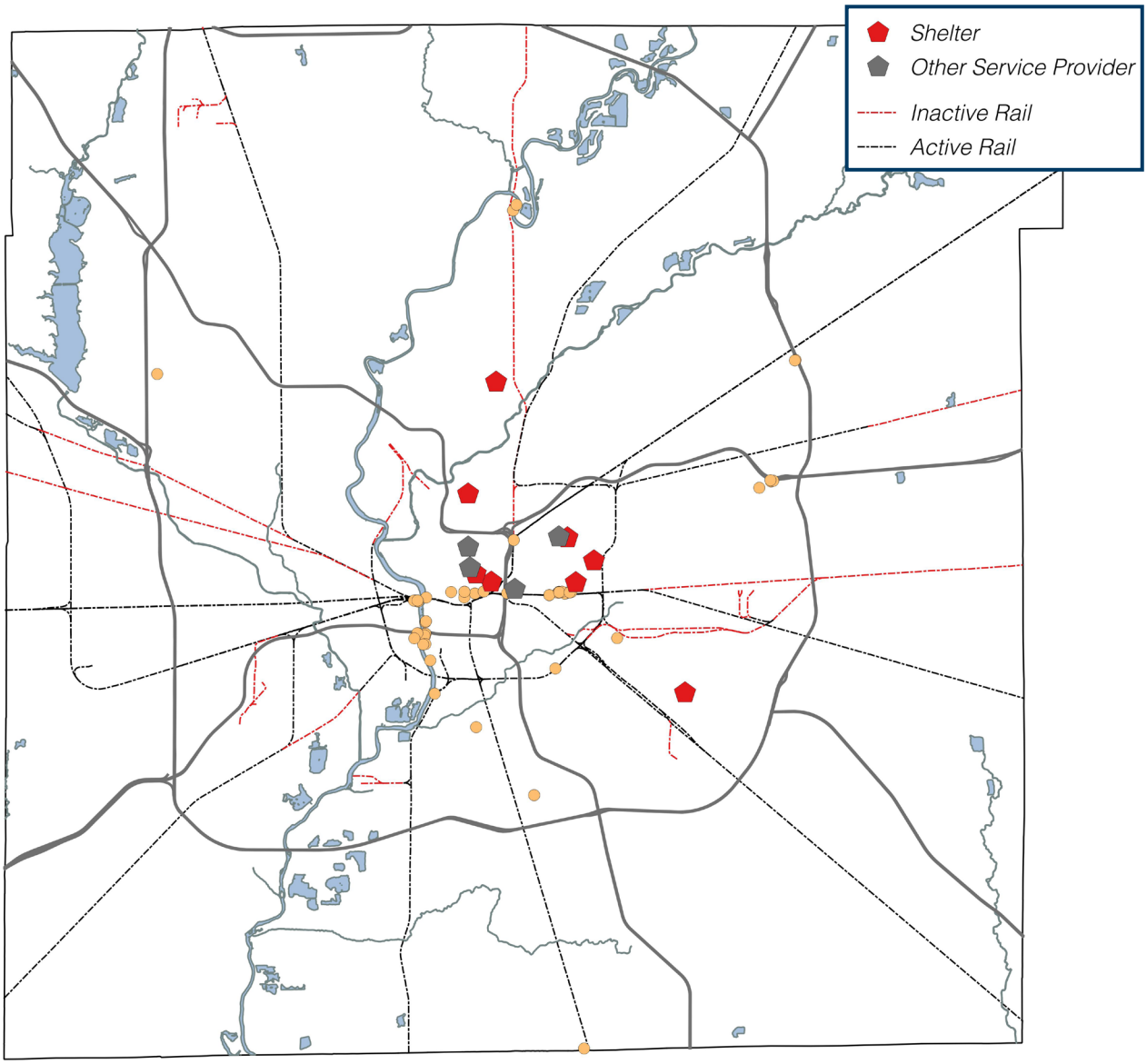


3. *Parks file from: IndyGIS (2017). Indianapolis Parks. Accessed at Open Indy: data.indy.gov*

SHELTERS

Figure 5 shows the distribution of unsheltered people in comparison with a few key shelters and service providers that were included in the homeless count. Though the majority of shelters shown here are in fairly close proximity to the unsheltered population, the general distribution of homeless shelters is not the same as the unsheltered population. In particular, no shelters are located near the White River, and several shelters are located north of downtown, where no unsheltered individuals were identified. This may be an indication that physical shelter locations are not accessible to everyone who might use their services.

FIGURE 5. Distribution of Unsheltered People and Homeless Shelters

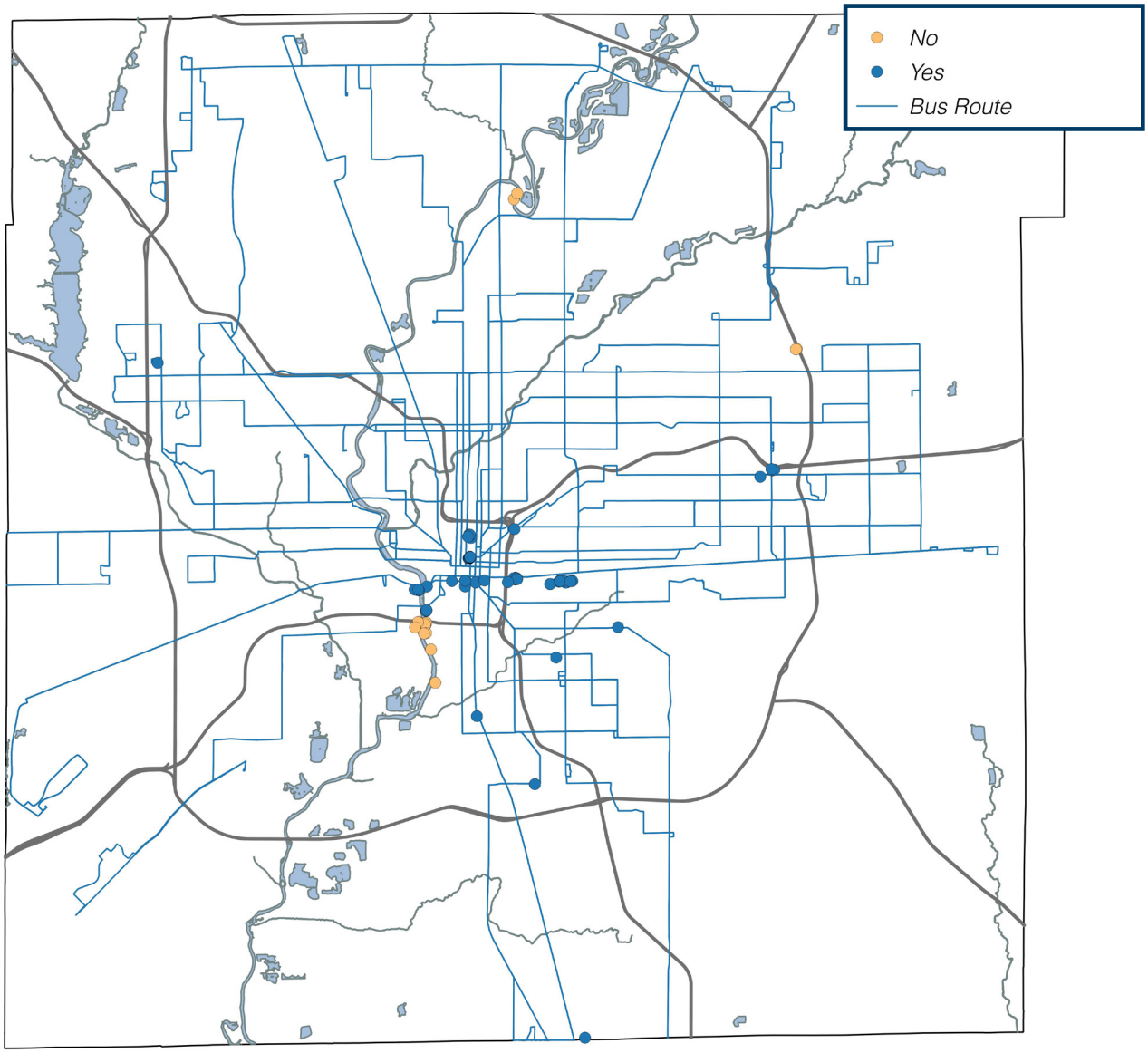


BUS ROUTES

Bus passes are a common resource provided by shelters and homeless services organizations. For those who may not be able to afford a vehicle in a car-centric city like Indianapolis, buses can provide a cheap alternative means of transportation. Thus, analyzing the locations of bus routes in comparison to the unsheltered population in Indianapolis may be a good way of measuring whether buses are being routed to the populations that need them. Overall, 103 of the 124 unsheltered people in Indianapolis were within a quarter mile of a bus route at the time of the homeless count, as shown in Figure 6. As the figure demonstrates, the majority of unsheltered people who were not within a short walk of a bus route were near the White River just southwest of downtown. Additional unsheltered individuals were in Broad Ripple and Lawrence. Even in these places, all unsheltered people in Marion County were within a half mile of a bus route.

FIGURE 6. Unsheltered People by Proximity to Bus Routes[4]

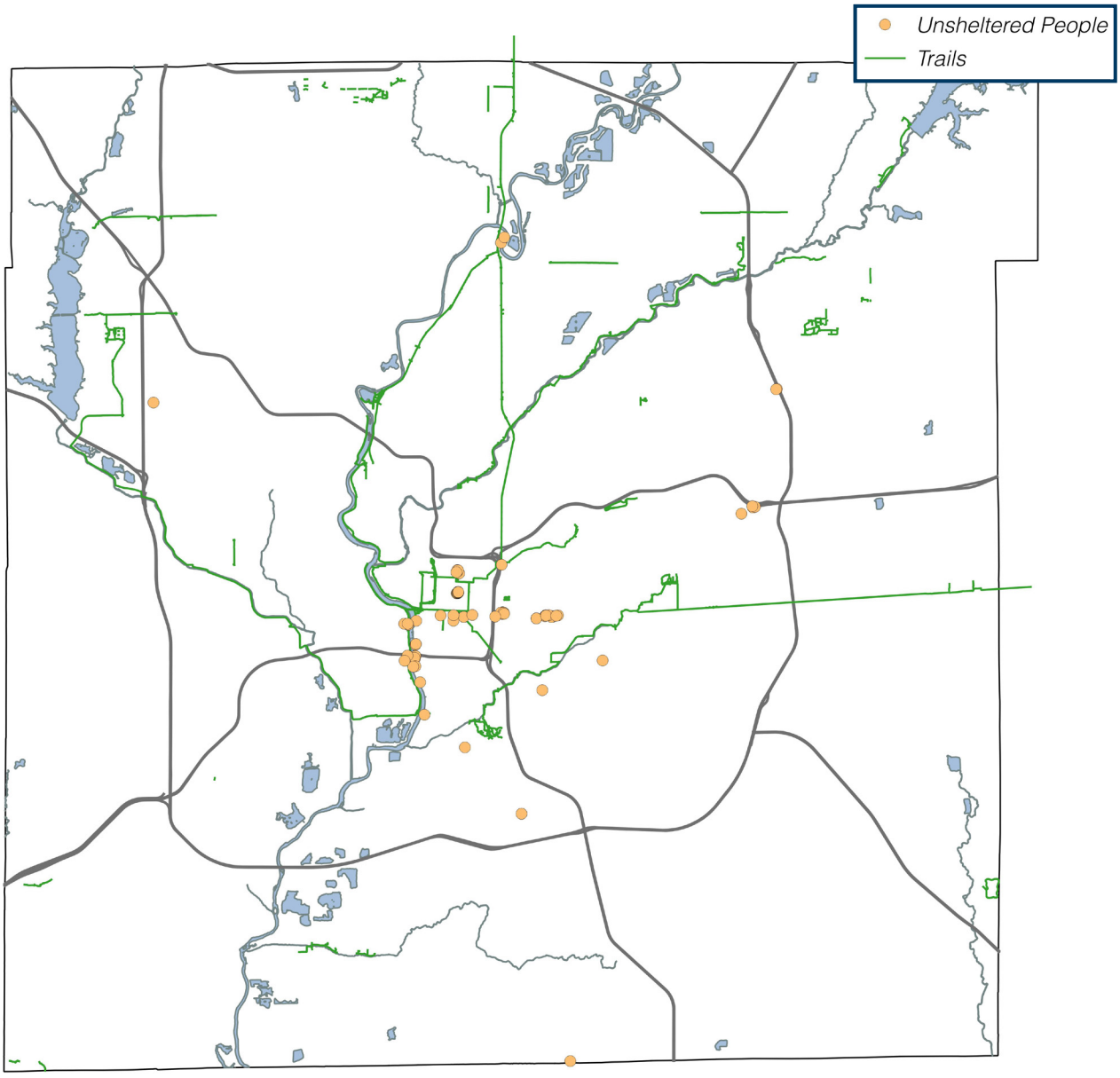
Within 1/4 mile of Bus Route



4. *Bus route file from: IndyGIS (2016). IndyGo Bus Routes. Accessed at Open Indy: data.indy.gov*

Some of the people who are not within a quarter mile of a bus route are within walking distance of a trail. Figure 7 shows the locations of trails throughout Indianapolis, specifically highlighting trails in the downtown and Broad Ripple areas. As this map demonstrates, many of the individuals along the White River who are not within close walking distance of bus routes are near walking or biking trails of some kind.

FIGURE 7. Unsheltered People in Comparison to Trails[5]

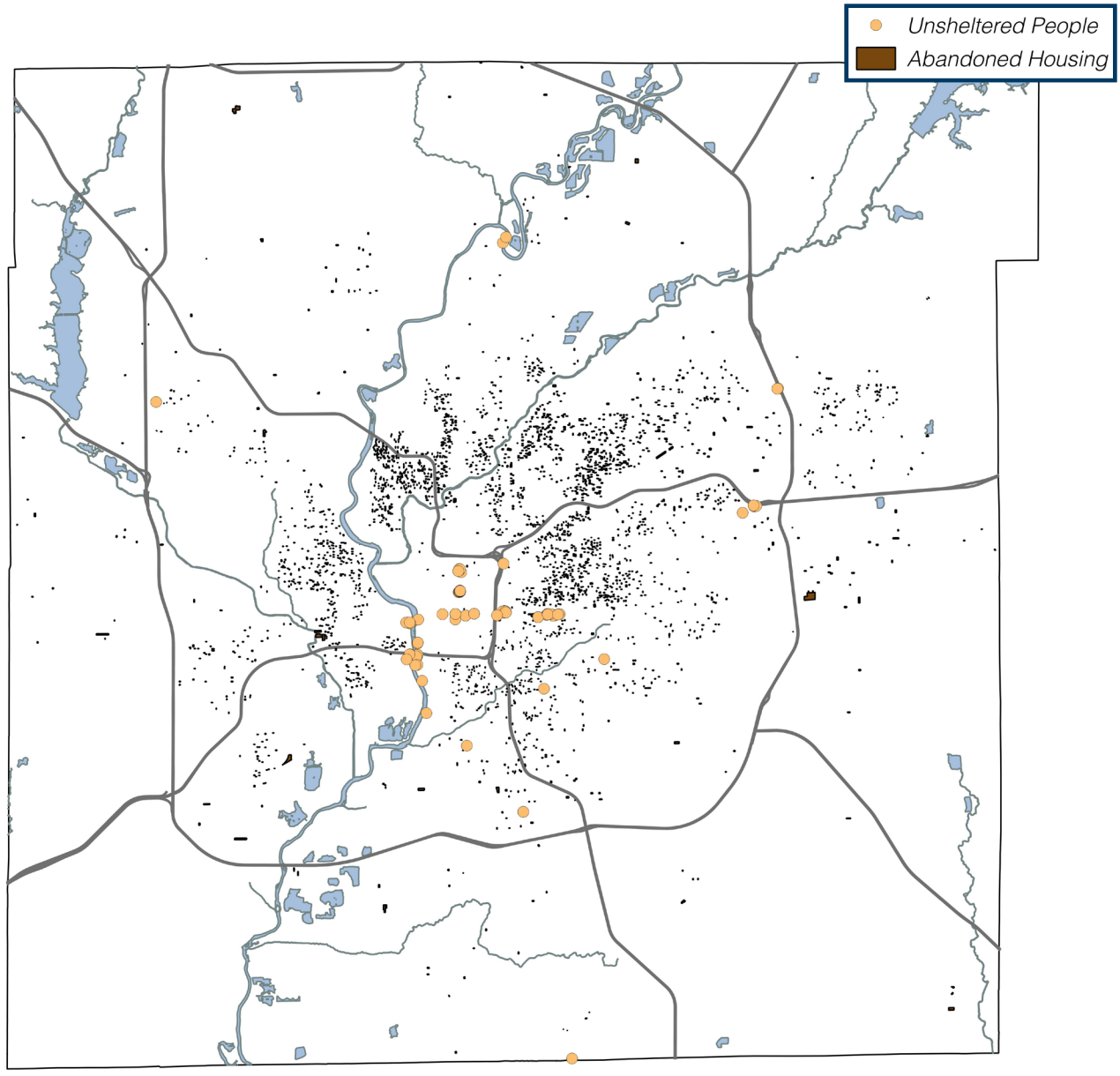


5. *Trail file from: IndyGIS (2016). Trails. Accessed at Open Indy: data.indy.gov*

ABANDONED HOUSING

Figure 8 shows the distribution of unsheltered individuals in comparison to abandoned homes across the city. Overall, abandoned properties are most concentrated in areas where the count did not identify many unsheltered people. However, though attempts were made to identify people staying in abandoned houses, it is possible that many of these people were missed in the survey process. Thus, there may be additional unsheltered people in the areas east and north of downtown where abandoned housing is most prevalent.

FIGURE 8. Distribution of Abandoned Housing and Unsheltered People[5]

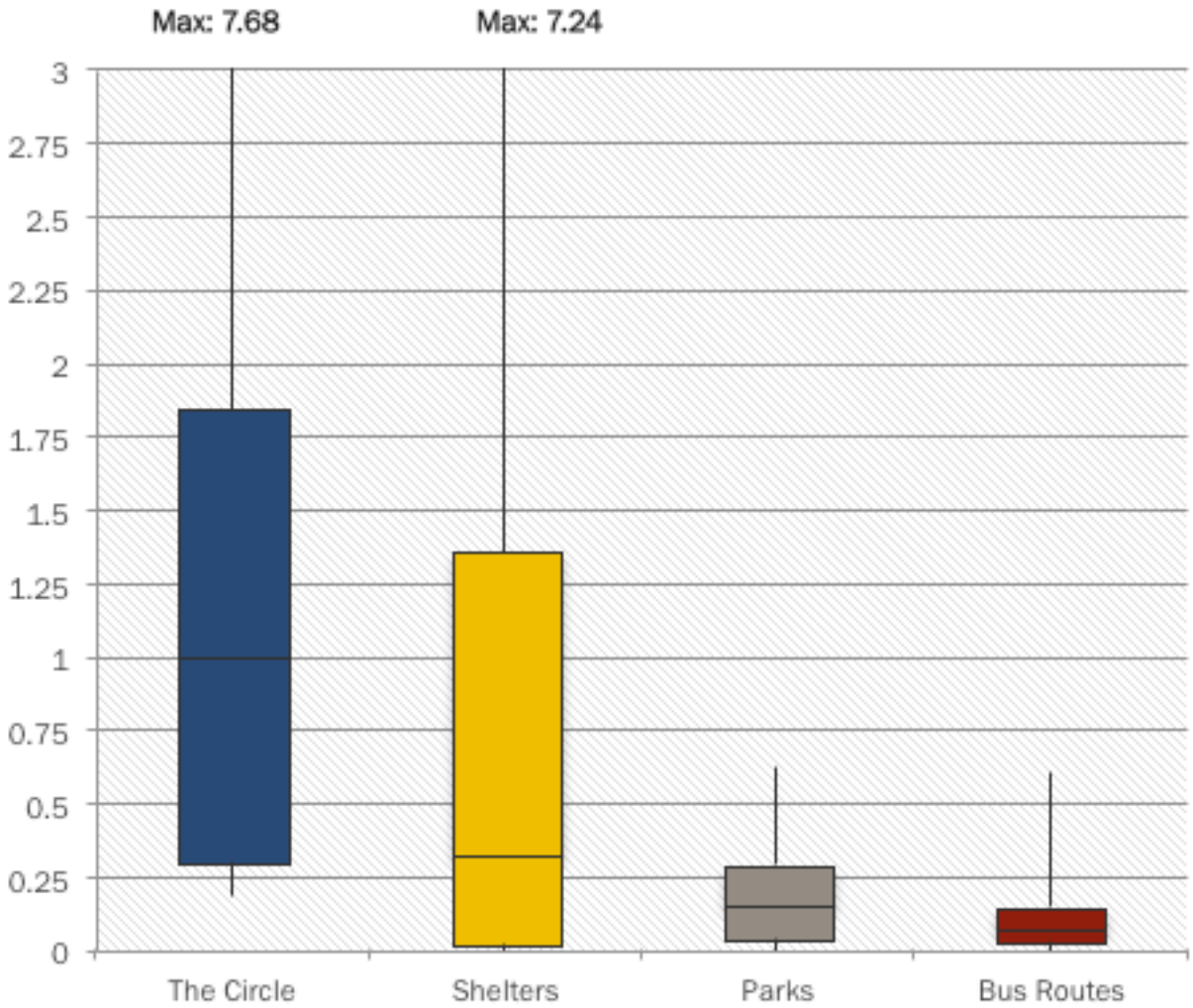


6. *Abandoned housing file from: IndyGIS (2016). Abandoned Housing in Indianapolis and Marion County, Indiana as of May 2016. Accessed at Open Indy: data.indy.gov*

DISTANCE ANALYSIS

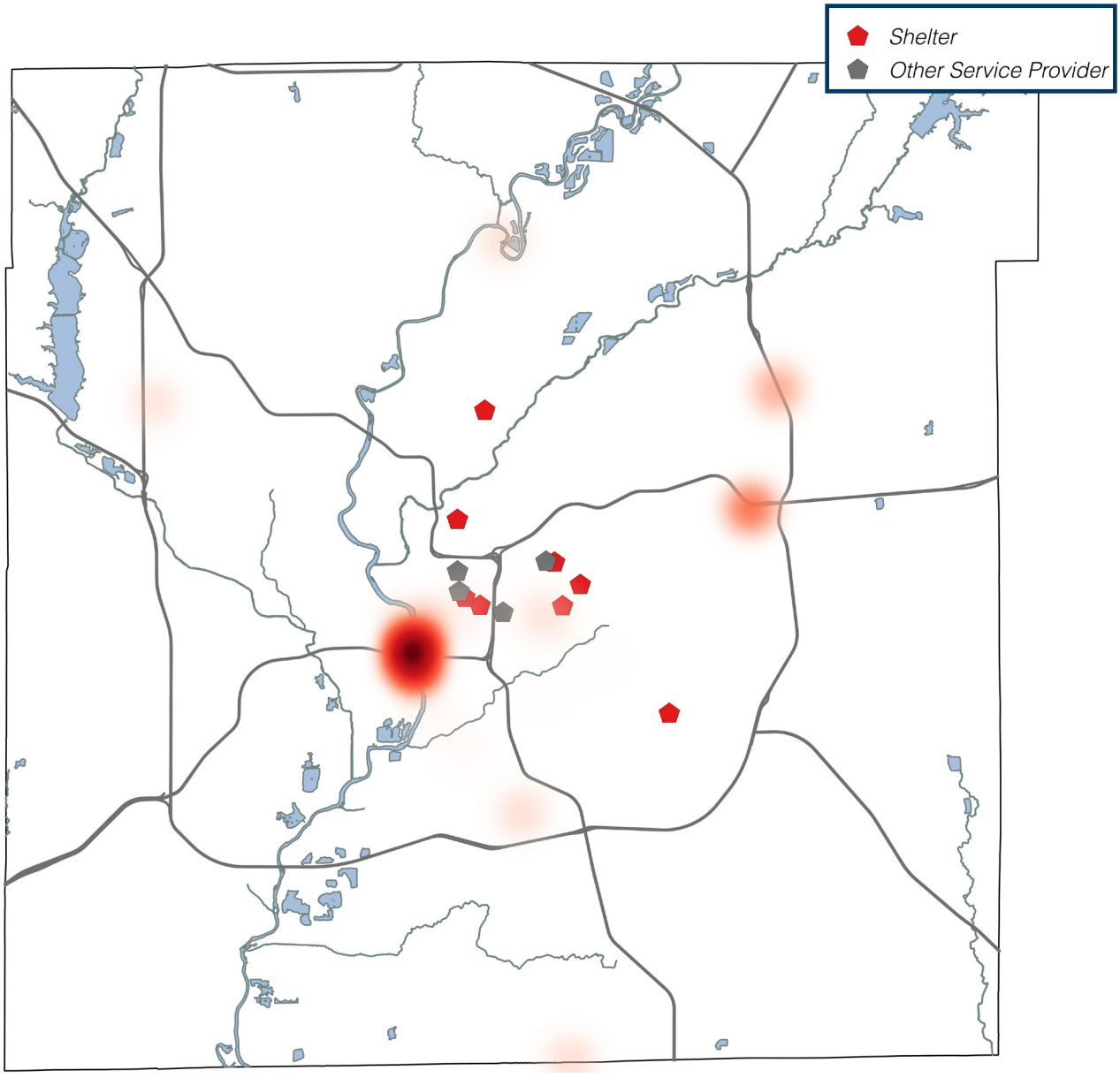
Lastly, QGIS was used to identify the distance between each unsheltered person and the nearest river, shelter, park, and bus route. While all unsheltered people were less than .7 miles away from the closest park and bus route, many individuals were much farther away from shelters. Figure 9 displays boxplots of the distance from people to three types of amenities, with distance from Monument Circle for comparison. Of the 124 unsheltered individuals, just under half were within one mile of Monument Circle. In comparison, the distance to shelters, parks, and bus routes was much shorter. The median distance of an unsheltered person to a shelter or service provider was 0.33 miles, but more than a quarter were more than 1.36 miles away. In comparison, the median distance to a park was .15 miles, and the median distance to a bus route was .07 miles. No unsheltered person was more than .63 miles from a park or bus route.

FIGURE 9. Boxplots of Distance to Nearest Amenities in Miles



Of course, this is partly explained by the fact that there are more bus routes and parks in Indianapolis than there are shelters and homelessness service providers. Because of this, there are areas of Marion County with significant homeless populations that are not near shelters or service providers. However, mapping analysis indicates that the distribution of shelters throughout the county may not match the distribution of unsheltered individuals. This is illustrated visually by Figure 10, which shows a heat map of unsheltered people, weighted by distance to the nearest shelter or service provider. The largest gap displayed on this map is by the White River to the southwest of downtown.

FIGURE 10. Heat Map of Unsheltered People by Distance From Shelters



CONCLUSION

As the preceding maps and statistics demonstrated, the unsheltered homeless population in Indianapolis is quite diverse. It includes people from ages 20 to 69 and individuals with varying degrees of experience in homelessness. Though most of these people are located in camps in the downtown area, several are scattered in locations across Marion County. While many shelters are located in close proximity to unsheltered individuals, a few are in areas with low populations of unsheltered individuals. However, the point-in-time count may have missed people staying in abandoned houses, which are particularly dense just outside the central Indianapolis area.

In general, these maps demonstrate that unsheltered people are often located at the edges of neighborhoods, where rivers, interstates, or railroads may create natural divisions and places to set up camp. Many areas with high homeless populations have no physical shelter or service provider nearby. These places may be hidden from the public eye, but they are generally not far from bus routes and transportation corridors; the vast majority of unsheltered people are staying within a quarter mile of a bus route or trail.

Finally, it should be noted that these maps under-represent the scope of homelessness in Indianapolis. The unsheltered population is only a small portion of the homeless population in Indianapolis; unsheltered people made up just 7% of the Indianapolis homeless population in January 2017.[7] Furthermore, as discussed previously, this analysis applies only to those individuals who were found and surveyed on the night of the point-in-time count. Many individuals throughout the city were likely missed in this effort—such as those in abandoned housing—and the unsheltered population fluctuates seasonally throughout the year. As outreach work continues in Indianapolis and the point-in-time count continues over time, new patterns may be discovered that change our understanding of the spatial distribution of homelessness throughout Indianapolis.

7. *Teal, S. & Littlepage, L. (2017). 2017 Homeless Count at Highest Level Since 2014. Indiana University Public Policy Institute.*

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