NEW MULTIPLE- SCALE TECHNIQUE FOR THE ASSESSMENT OF RELATIVE FLOOD VULNERABILITY

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B.S., Sudan University of Science and Technology, 2006

A Thesis

Submitted in Partial Fulfillment of the Requirements for the

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THESIS APPROVAL

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AN ABSTRACT OF THE THESIS

Mohamed Mahgoub, for the Master of Science degree in Geography, presented on 18 July 2014 at Southern Illinois University Carbondale.

TITLE**: NEW MULTIPLE- SCALE TECHNIQUE FOR THE ASSESSMENT OF RELATIVE FLOOD VULNERABILITY**

MAJOR PROFESSOR: Dr. Jonathan Remo

In this study new, a flood vulnerability (FLV) indices using socio-economic and loss-estimation parameters from Hazus-MH were created to relatively assess flood vulnerable among Illinois's jurisdictions. Hazus-MH is nationally standardized software program developed by Federal Emergency Management Agency (FEMA) that estimates the potential economic losses and limited social impacts for a select suite of natural hazards. Here we defined FLV as combined function of potential building-related-economic losses and socioeconomic factors. The Hazus-MH loss estimation software and FEMA's 100-year regulatory floodplain were used to estimate flood building-related-economic losses. To assess the relative differences in the potential socioeconomic consequences of flooding among Illinois jurisdictions, social vulnerability (SoV) indices were calculated using six socioeconomic indicators available within Hazus-MH's demographic database.

Total estimated the building-related-flood exposure within the 100-year floodplain in Illinois was estimated to be ~ $190.25 billion (2006 dollars). The city of Chicago and the adjoining counties were estimated to have the greatest flood exposure. These counties accounted for approximately 65% of the total flood exposure located within Illinois's 100-year floodplains.

The estimation of total building-related-flood loss within the 100-year floodplain was $ 18.03 billion (2006 dollars). The FLV assessment results indicated that urban and suburban communities are relatively more resilient to flooding. This is likely due to the availability of preventative resources such as well-constructed buildings to resist flood damages, existence of good levee systems, land use regulation for flood-prone site, and evacuation programs. While more rural, river communities in southern Illinois tend to be more vulnerable to flood because they lack the "preventative resource" found in Illinois's urban and suburban communities. Exceptions to the more flood resilient urban and suburban communities were found in poor urban jurisdictions located in southern Cook County. These communities tended have some of the highest SoV scores in the state. However, these communities generally had only minor to moderate to flood exposure suggesting there elevated FLV was largely driven by their SoV scores. In addition to southern Cook County in northeastern Illinois, SoV analysis results indicate that there were clustering of relatively high-social vulnerability in counties adjacent to Cook, Du Page and Will. Jurisdictions in Southern Illinois with elevated FLV were located in Alexander, Pulaski, Williamson, and Saline Counties. Properly understanding and relatively assessing flood vulnerability can lead to a more complete and informative flood hazard assessment. This cannot be accomplished without taking into consideration the two main elements of flood vulnerability, economic losses and SoV. The SoV indices provide an experimental foundation for comparing spatial disparity within a SoV context across a large and diverse geographic area such as the State of Illinois. Flood and social vulnerability indices can be a useful approach in flood-risk planning and mitigation efforts. Moreover, the SoV score could be used as a measurement tool to prioritize high socially vulnerable areas which are more in need

of assistance, while those areas with low social vulnerability scores might be expected to be more self-sufficient at mitigating their flood risk or recovering from a flood disaster.

DEDICATION

I would like to dedicate this work to God- who gave me both the opportunity and ability to complete this work; my wife Samah, and my nieces, Reema and Rana. I would also like to dedicate this work to my parents, Mona and Abdel-Hamid who sacrificed, and support me to pursue an education. Lastly, I would like to thank my sister Mervate. Thank you all for your love and encouragement.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF EQUATIONS

CHAPTER 1

INTRODUCTION

1.1 Background

Vulnerability, the possibility of harm, provides a means for understanding the fundamental interactions between social and environmental factors that determine hazardous event or disaster's impact on a community (O'Keefe et al., 1976). Loss from a flood depends not only on the economic losses, but includes the socio-economic conditions and preparedness of a given community (Cutter 1996). Vulnerability explains not only the different impacts of stressors to a community, but also defines the capability of the community to handle the stresses during a catastrophic episode (Emrich and Cutter, 2011).

The social vulnerability indices (SoV) represent an approach for recognizing populations that are at high level of social vulnerability. There is general consensus among social scientists regarding the major factors that influence social vulnerability. These factors include limited communication between citizens and government agencies, reduced social capital (i.e. social networks, connections, and customs), and density of infrastructure (Cutter et al., 2003). One of most prevalent social vulnerability indicators is the Social Vulnerability Index (SoVI) developed by the Hazard and Vulnerability Research Institute at the University of South Carolina. In this study, we make the distinction between general SoV indices and Cutter et al. (2003) Social Vulnerability Index (SoVI) because "SoVI" is copy righted by Professor Susan Cutter and the University of South Carolina. SoVI was developed in 2003 in order to give researchers the ability to quantify the magnitude of the social vulnerability to environmental hazards. SoVI

empirically measures the differences in levels of social vulnerability and compares these differences across states and regions (Cutter et al. 2003).

The purpose of this study is to create a flood vulnerability index (FLV) using the socio-economic and loss-estimation parameters within in Hazus-MH to relatively assess the flood vulnerability of Illinois's communities. Special emphasis in this study is place on the development of SoV index using the demographic data within Hazus-MH in order to relatively assess difference in the socioeconomic conditions between jurisdictions which may help explain differences in flood vulnerability. This study is intended to assist planners and decision makers in Illinois to help identify and relatively assess the flood vulnerability among its jurisdictions so appropriate mitigating activities can be undertaken to reduce the flood vulnerability throughout the state. In addition, it is hoped the framework developed here can serve as a model from which to screen flood vulnerability over a large geographic areas with diverse flood hazards and community types elsewhere throughout the U.S.

To help communities assess and address their natural hazard risk, the Federal Emergency Management Agency (FEMA) developed Hazus-MH. This software package has the capability to identify and quantify the economical, physical, and social impacts of natural disasters including earthquakes, floods, and hurricanes (Scawthorn et al., 2006). One of the advantages of using Hazus-MH to assess potential flood losses and socioeconomic impacts is its infrastructure and demographic databases. These databases allow for regional assessment of flood hazards throughout the U.S. without the onerous task of developing such comprehensive databases (FEMA 2009). While Hazus-MH does not calculate a SoV index, it has the socioeconomic data which can be potentially used to calculate such index. Therefore, Hazus-MH has the ability to

provide the information needed to assess flood vulnerability across the state of Illinois and elsewhere in the United States.

1.2 Problem Statement

This study focuses on flood vulnerability in Illinois. In order to assess flood vulnerability we face two major challenges. Frist, historical development in floodplains within Illinois has caused increased flood exposure and consequently, flood losses. Historically, people have preferred to be by bodies of water and take it as a place for living and commerce. This pattern of development has continued resulting in ever increasing in flood exposure. For example, in the U.S. floodplains make up only seven percent of the nation's total land area and it is estimated that there are more than eight million households located on floodplains (Kron, 2002).

The second problem is that flood risk and community vulnerability assessments are generally lacking, leading to improper decision making and often little to no mitigation effort. In general, the amount of effort that residents put into planning and mitigation activities often reflects the significance of the problems to the community's members. However, many citizens are not aware of their vulnerability to hazards or do not consider it as an important issue within their community (Scheuer et al., 2011).

1.3 Research Questions

The following questions guided research presented in this thesis:

i- Can Hazus-MH and its output / data be used to identify and relatively assess flood vulnerability?

ii- Which communities / location in Illinois have the greatest potential flood exposure and losses within the FEMA mapped 100-year floodplain?

iii- Where are the most flood vulnerable locations in Illinois and how does this differ from communities with the greatest flood exposure?

1.4 Hazus-MH Flood-Loss Modeling Framework

Hazus-MH software is a GIS based (ESRI's ArcGIS) risk assessment tool for estimating potential losses from hurricanes, floods, and earthquakes (Scawthorn et al., 2006). The Hazus-MH methodology for flood-loss estimation begins with importing a digital elevation model (DEM) and data needed to define the flood's water-surface elevations (WSEL) for a given river or stream reach. In Hazus-MH, the data that can be used to define a river or stream reach's WSELs for a given flood are discharge data, discharge data and WSELs or a flood inundation map. The DEM in combination with data delineating a flood's WSELs for a given river or stream reach is used to produce a flood depth grid (FDG; raster map). The FDG is calculated by subtracting the WSELs for a given river or stream reach from the DEM to estimate inundation depths across the study region (FEMA 2009).

Once the flood hazard is parameterized, the next steps are to quantify flood exposure, flood losses, and social impacts related to the modeled flood scenario. Flood exposure is assessed by identify at risk buildings and critical facilities such as fire stations, government buildings, schools, water treatment facilities, and police station located with the area of inundation. This is generally accomplished using Hazus-MH updatable building infrastructure and critical facility databases and the FDG. Hazus-MH calculated the flood losses using estimates of depth damage function in order to estimate potential damages to buildings. The

inputs required to estimate building damage are: (1) building occupancy type, (2) building type, (3) foundation type, (4) square footage, (5) first floor height, and (6) the average depth of inundation across the census block where the building is located. The output of using the depth-damage function is an estimate of replacement cost for particular buildings (FEMA, 2009). Demographic data within Hazus-MH (e.g., income level, age, sex and race) are used to assess the number of people likely to evacuate and the percentage of the evacuation population which will likely require sheltering (Figure 1.1). Once the flood exposure, flood losses, and social impacts have been modeled in Hazus-MH the results from these analyses can be used to assess flood vulnerability.

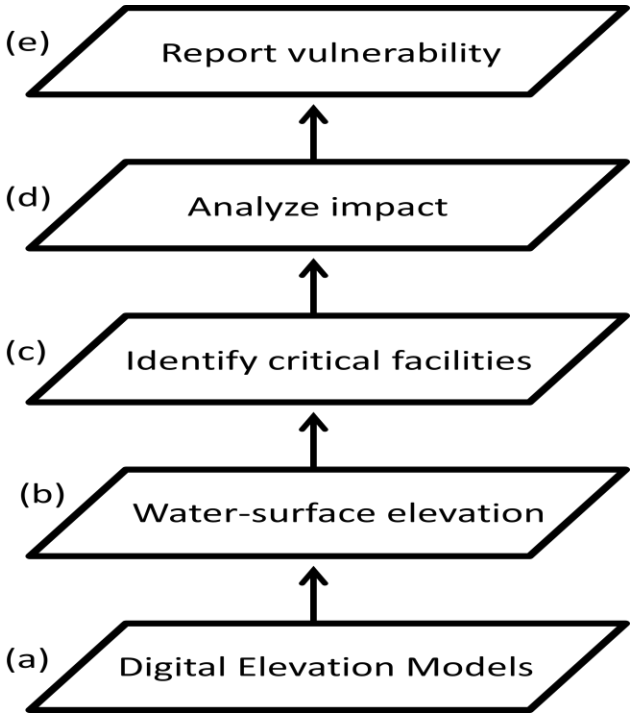

Figure 1.1 Illustration of how Hazus-MH estimates loss; (a) digital elevation model DEM or equivalent topographic information; (b) water-surface elevation; (c) identification of critical facilities; (d) analysis of the economic and social impact; and (e) vulnerability report (after Scawthorn et. al 2006.)

CHAPTER 2

LITRATURE REVIEW ON THE COMPONENTS OF FLOOD VULNERABILITY

2.1 Background

Vulnerability to flood refers to the magnitude of harm when flood disasters occur. Communities are vulnerable to flood due to three main reasons: exposure, lack of resilience, and susceptibility (Balica et al., 2009; Hufschmidt 2011; Willroth et al., 2011). The structure of vulnerability is the notion that any system at any scale is a function of exposure, susceptibility of that system to perilous situations, and the resilience of the system to recuperate from the impacts of those situations or adapt to them (Smit and Wandel 2006). Susceptibility to floods due to exposure is integration with the community capability or incapability to be resilient in order to cope with or adapt to the extent of that situation (Balica et al., 2012). Understanding each aspect may help to describe the vulnerability of different systems through identifying certain actions to diminish it. The literature review below is organized into six sections: section one,discusses the exposure to flood; section two explains flood resilience; section three explores the flood susceptibility; section four discussed SoVI ; section five discusses flood vulnerability; and section six reviews past attempts to quantify flood vulnerability.

2.2 Flood Exposure

The three major contributing factors to flood damages and flood vulnerability are exposure, resilience, and susceptibility (Figure 2.1; Gorthman and Reusswing, 2006). Exposure can have many definitions based on the methods that are used to quantify it. Exposure is usually described in terms of values of property included places where floods can occur. The parameters associated with this definition includes the number of people affected, number of buildings

inundated, building contents damaged, inventory damaged, and crop damage (Balica et al., 2009). However, a more complete definition of exposure is provided by Messner and Meyer (2006). Messner and Meyer (2006) definition of exposure includes two major components of exposure, place and flood characteristic, each with their own indicators of flood risk. The first components of flood exposure is place and includes indicators such as location within the floodplain, elevation, type of flood and magnitude (i.e., return periods) of a flood. These indicators provide information regarding the probability of a flood (i.e. flood frequency) and the likelihood of inundation. The second category is the physical characteristics of a flood. The indicators include velocity, duration, and inundation depth. These characteristics indicate the magnitude and frequency of a given flood. Overall, exposure indicators give detailed information about the potential flood (Figure 2.1; Gorthman and Reusswing, 2006).

The second factor of exposure is sensitivity to flooding. Sensitivity to flooding can be defined as the contribution of socio-ecological system and it can be measured using indicators such as population density, infrastructure, and economic value of building and infrastructure located within flood-prone regions. Therefore, exposure and sensitivity combined define potential damage or loss (Figure 2.1), (Gorthman and Reusswing, 2006).

The third factor of exposure is adaptation. This factor depicts the capability of a population to alleviate some of the potential damages associated with flood. Adaptation is usually attained through amendments in the social or the economic system in order to react to current or expected floods and their impacts (Figure 2.1; McCarthy et al., 2001).

Exposure and sensitivity are inseparable properties of a community. They rely on the direct effect of different characteristics of a specific community. Adaptive capacity refers to the

process of adaptation over time through structural bases of environmental stress (Smit and Wandel 2006). Adaptation is a key concept, if exposure indicates the risk of flooding then resilience refer to the people's capacity to reduce the impacts through many forms of adaptation. Therefore, community that encounter flood risk may take further steps in order to (1) mitigate flood risk through physical ways, and (2) to minimize the secondary effects of flooding through livelihood diversification, relocation of at risk individuals, and free access to the public health service (after Roger 2003).

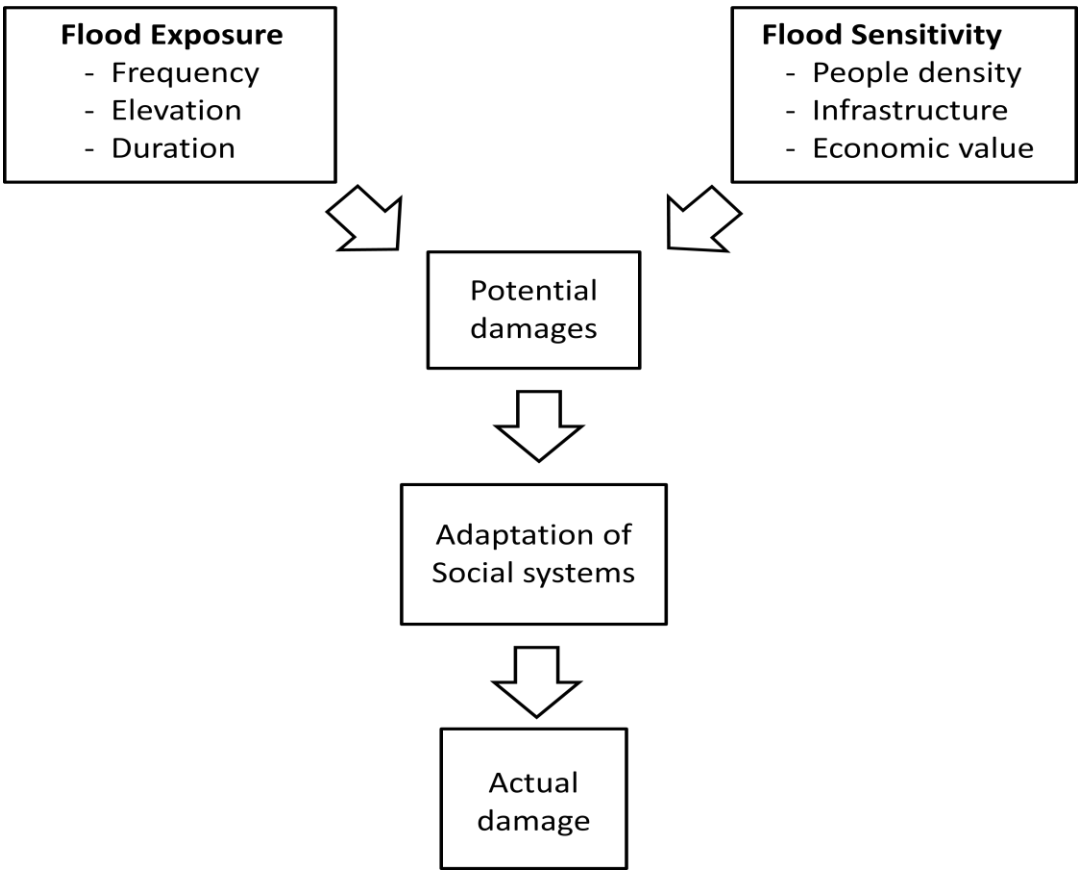

Figure 2.1 Factors of potential and actual flood damages (after Gorthman and Reusswing, 2006)

2.3 Flood Resilience

Flood resilience has been defined by Holling et al. in (1973) as "a measure of persistence of systems and their ability to absorb change and disturbance and still maintain the same relationships between populations and state variables". Resilience is the ability of a community and society to react and mitigate hazards. It includes the effects of disasters when they happen, the implementation of reformation activities to minimize social perturbation and the alleviation of the effects on future disasters (Bruneau et al., 2003). According to Gersonius (2008) resilience is a concept that usually used in several fields such as, economics, ecology, and engineering. However, in the context of flooding, resilience is defined as the ability of a community or society that is potentially exposed to flooding, to adapt by resisting the hazard in order attain and maintain compatible level of structure and functioning. This is determined when the social system is able to organize itself to increase their ability for learning from previous disasters. This will lead to better responses to future flooding and promote mitigation efforts which will reduce the risk measures. All communities are at risk, however, the vulnerability captures the probable damages that can be anticipated in the case of an event, therefore after each flooding event, the community (or social system) becomes resilient and gives alerts to minimize the vulnerability to the future flood events (Balica et al., 2012).

Due to the complexities that arise in quantifying resilience, the methods that are used to model flood resilience vary greatly and ultimately introduce changes in the way that resilience can be defined (Cutter and Finch, 2008). Cutter et al., (2010) have categorized that resilience into four components. The first component is social resilience, which measures the differences in social capacity both within and between communities. The second component is economic

resilience, which captures the economic dynamism of society such as housing capital, business size and impartial incomes. The third component is institutional resilience, which include the traits that are related to mitigation plans and prior disaster occurrences. Infrastructural resilience is the fourth component. Resilience is fundamentally an evaluation of society response and ability to recover (i.e., healthcare facilities and sheltering; Cutter et.al 2010).

A less academic approach to defining resilience has been taken by the U.S. Department of Homeland Security (DHS). The DHS defines resilience to any natural hazard as the community's ability to limit damages to infrastructure, mitigate the outcome of a hazardous event and the community's ability to recover to its pre-event state. However, in order to achieve resiliency a set of indicators for measuring baseline features of communities must be established from which to measure a community's resiliency (Cutter et al., 2010).

2.4 Flood Susceptibility

Susceptibility as a concept was defined by Pennig-Rowselland and Chatterton in 1977 as "the relative damageability of property and materials during flood or other hazardous event". The intergovernmental panel on climate change (IPCC) (2001), discussed susceptibility as the level to which a community is affected, either negatively or beneficially. Susceptibility also includes the magnitude of flood damages, and the mitigation set in place to decrease the impacts of the flood such as flood hazard maps (Balica et al., 2012).

Susceptibility is connected to the social vulnerability in context of flood damage, particularly the awareness and preparedness of community's concerning the risk that they live with (prior the flood). Furthermore, institutions are involved and play an important role in

mitigating and decreasing the impact of the hazard, and presence of the potential measures such as, flood risk maps to be a useful guidance during floods (Balica et al., 2012).

Susceptibility indicators provide general information that embraces the social and economic relations, population with special needs and institutional development (Blaikie et al., 1994; Watts and Bohle 1993). Regarding social and economic relations, susceptibility indicators contribute to the determination of relative effect of floods on particular elements at risk. For instance, the influence of flood exposure and characteristics (i.e. inundation depth and flood duration) on building structure is the main issue of damage analysis, in order to identify the types of building that feature similar susceptibilities (Messner and Meyer 2006). Certainly, this makes sense, because buildings that made from wood are more susceptible to floods than those buildings made from cement, on the other hand, buildings with one floor usually face greater damage than buildings with several floors. An enormous amount of research has been achieved, concerning the vulnerability of social framework in terms of susceptibility in a wider concept, and many indicators presented in this context. Firstly, awareness and readiness indicators for societies reflect the awareness and readiness of endanger people at risk for dealing with perilous events, for instance, the number of household with insurance against flood damages (Messner and Meyer 2006). Secondly, the ability of social framework regarding the impact of flood is always associated to socioeconomic indicator and provides general information about the community such as poverty, age, and ethnicity (Hewitt, 1997). Social susceptibility also relates to coping indicators with capabilities of performers to cope with flood events (Cutter, 1989).

Communities expect science to help decrease susceptibility for many environmental events and threats and for the most part, science has succeeded. However susceptibility is a part

of realism, especially when representing environmental threats such as flooding (Wolfgang, 1999). Using resilience, susceptibility, and exposure as a vulnerability approach helps in providing basic elements for hazard, risk and disaster mitigation policies. It consolidates the constructs of risk (exposure, resilience, susceptibility) and improves the effectiveness of mitigation (Cutter, 2003).

2.5 Social Vulnerability and Social Vulnerability Index (SoVI)

Social vulnerability refers to "the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist, or recover from the impact of hazards" (Wisner et al., 2004). Cutter and her research group have created an index from which to assess social vulnerability known as SoVI (Social Vulnerability Index). The SoVI is based on the assumption that vulnerability is a societal issue and can therefore measure that society's ability to resist or recover from a hazard (Cutter et al., 2003). It includes all major factors surrounding vulnerability such as race, age, and gender, as well as community growth rates and economic vitality. Educational equality, percentage of disabled residents, and percentage of non-native English speaking residents have also been identified as key variables in predicting social vulnerability (Cutter et al., 2010). SoVI combines these factors with the complex interaction between mitigation and risk (Figure 2.2). It also includes the community's social fabric; the community's previous exposure and experience with the hazard (Cutter et al., 2003). This structuring of the modeling allows for relative comparisons of risk while incorporating the temporal forcing that mitigation and risk has on vulnerability (Cutter et al., 2003).

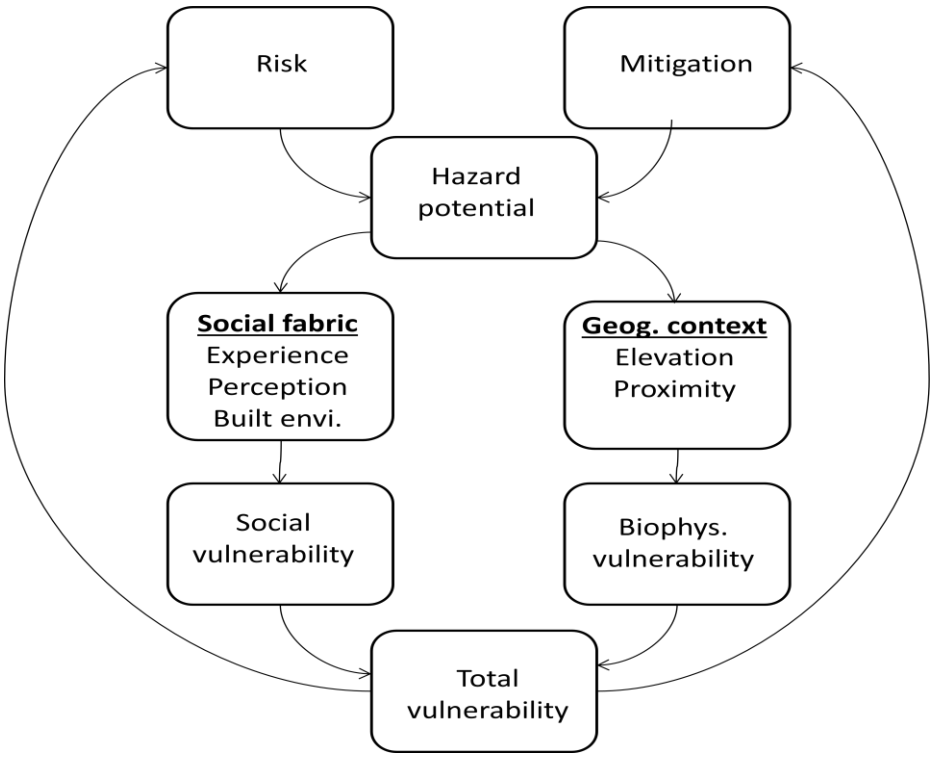

Figure 2.2 Shows the component of social vulnerability, which includes the interaction of risk with mitigation the outcomes of this reaction is to produce the hazard potential. The social fabric includes communities and the ability of those communities to recover from disaster and the adaptations to the hazards, which are influenced by economic condition within a community. The social and biophysical vulnerabilities react to produce overall place vulnerability (after Cutter et al., 2003).

The factors controlling SoV were selected through the use of statistical correlations and a principal component analysis. The user can then create a predictive model through an additive-a priori algorithm that assigns a score to the area based on its vulnerability (Cutter et al., 2003); the higher the score, the more vulnerable the area. However, there may be weaknesses to this approach. While there are no scale effects on the implementation of the SoVI, there seems to be a bias in the locations where it is used (Schmidtelein et al., 2008). Also, while the algorithm

shows no significant variation in results with different combinations of variable selection, the results derived are largely based on the construction of the indices used (Schmidtelein et al., 2008). However, any changes made to the statistical base of the SoVI should be done with both knowledge of the area and knowledge of new assumptions being added with the statistical changes being made. Without an understanding of the way that the SoVI works and the assumptions it makes, accurate reports and proper mitigation cannot occur.

More recently, Cutter et al., (2013) in cooperation with the US Army Corps of Engineers (USACE), studied the ability to integrate SoVI into federal flood-risk management and USACE civil works planning. Cutter et al., 2013 chose specific area as a study region, in addition, they downscale the original (SoVI) variables into eight different variation metrics using prepositional factorial analysis (PCA). This variation of SoVI is known as SoVI "light". Cutter et al., 2013 also utilized a series of formulation to be compared with the original SoVI; this comparison is allowed to test the statistical sensitivity and spatial distribution of all downscaled variables. The outcomes of this study showed the possibility to create simplified versions of SoVI for individual places.

2.6 Vulnerability to Flooding

Vulnerability is one of those concepts that appear to dare unanimity usage (Roger 2003). Cutter (1996) explained an assortment of functional definitions that had been attributed to the concept up to the 1990s based on disciplinary directions. Dowing et al. (1999) for instance, explained vulnerability as a result of loss (from 0 to 100 percent) coming from possibly damaging phenomenon. Adger (1999) gave another definition of vulnerability as "the exposure of groups or individuals to stress as a result of social and environmental change, where stress

refers to unexpected changes and disruption to livelihoods". Hence, the significant work of Blaikie et al., (1994), illustrated vulnerability as features of individuals or community in terms of their ability to cope with, resist, and recover from the impact of natural hazards. Certainly, Adger (2000) delivered another close definition for vulnerability, which is the existence or lack of ability to handling shocks and strains to the subsistence. However, there are different outcomes between those who see vulnerability in terms of variations in exposure to hazards and those who focus on variations in community's ability to cope with hazards. More recently, vulnerability to flood defined as measure of region's susceptibility to flood (Wu et al., 2002). In this study, social and flood vulnerability defined as a conjunction of two distinctive forms of vulnerabilities socioeconomic and physical. Socioeconomic vulnerability includes a combination measure of population income in the study region and social variables such as age and race (resilience of community), while physical flood vulnerability consider only building loss estimates.

Vulnerability assessments have been studied to better understand the potential damage. Conventionally, they concentrate on the natural hazards and who and what are exposed (Cutter 2001). Recently, vulnerability assessments have been used to investigate economic, political and social conditions that influence the capability of societies to cope with or adapt to hazard (Cutter 1996). Bender et.al (2002) explained the development of vulnerability assessment techniques in the U.S. They studied the physical, economic, and social design requirement for vulnerability analysis in a watershed. There are various studies that have discussed contemporary vulnerability to flooding through different societies worldwide in terms of natural disaster perspective in order to understand exposure and the number of population and properties affected (Roy et al., 2001; Nirupama and Simonovic, 2007). However, a number of researchers have studied the socioeconomic sides of flooding vulnerability (Enarson and Scanlon, 1999; Oswald and

Simonovic, 1997). More recently, conceptual framework on social vulnerability has acquired prominence in the literature. Social framework is associated with the characteristics that effect individuals or community's capacity or incapacity to expect, cope with and recover from any exterior stress such as the impact of floods (Blaikie et al., 1994; Kelly and Adger, 2000; Montz and Evans, 2001). Cutter et al., (2000) reported a procedure for assessing vulnerability spatially, by using biophysical and social indicators. Their outcomes indicated that the most biophysically vulnerable locations do not constantly have a spatial interact with the most vulnerable communities.

Figure 2.3 illustrates the inter-linkages of vulnerability, as it relates floods to exposure, susceptibility, and resilience. As described in the previous sections, vulnerability involves different elements of risk and different characteristics of floods before, during, and after the flood occurrence. Susceptibility deals with the geophysical factors of flood characteristics before the flood event occurs such as frequency and proximity. Exposure contains the economic factors that give the community the capability to cope before and during the flood episode. Resilience is a social factor that involves coping during the flood event as well as recovery capacities after the flood (UNSECO-IHE, 2011).

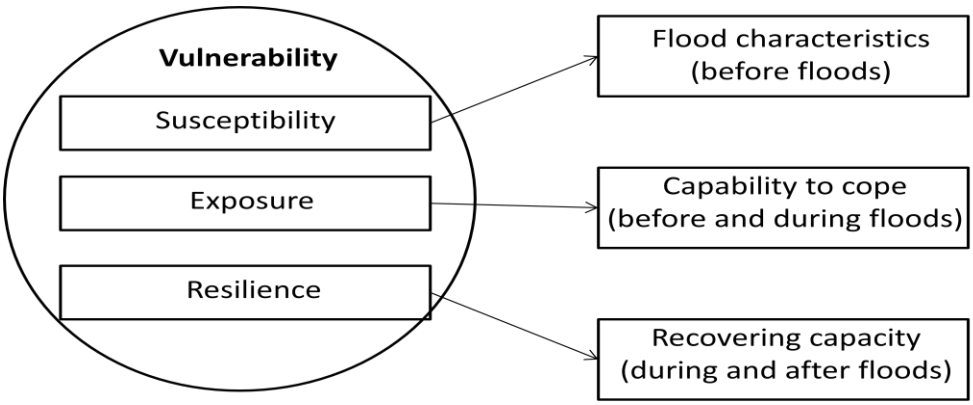

Figure 2.3 Characteristics and factors of vulnerability (after UNSECO-IHE, 2011).

2.7 Overview Flood Vulnerability Assessment Methodologies

Historically, flood "vulnerability" assessments were perceived to provide technical guidance for the reduction of economic losses from floods (Parker et al., 1987; Penning-Rowsell et al., 1992; D'ercole, 1994; Leone et al., 1996; Blong, 2003). These analyses were undertaken in the USA and United Kingdom in the 1970s (Foster, 1976; Penning-Rowsell and Chatterton, 1977). During the same period of time several research groups, such as the Flood Hazard Research Center at Middlesex University, London, were beginning to work on the socioeconomic components of flood vulnerability analyses.

Since the 1970s, there have been several socioeconomic flood vulnerability assessment tools developed. For example, Balica et al. (2009) created a quantitative flood vulnerability index based on eleven indicators which were divided into four different components of vulnerability for urban floods. The calculated flood vulnerability index also used sub-indices; the human index, which include the social impact of flood, and the physical index, which include the economic impact of flood. The indicators used in this methodology aimed to measure the flood damages at three different spatial scales: urban areas, river basins, and sub catchments. The methodology developed differentiates features at each spatial scale, allowing more detailed analyses and understanding of local indicators. Balica et al. (2009) noted that the main weakness of their study was the accuracy of data. The final results of this study were ranked from 0 to 1 representing low to high flood vulnerability respectively between the different spatial scales.

Barroca et al. (2006) developed a web based software tool called Vulnerability Tool (www. daywater.h2o.net/) that was aimed to organize and allow the user the choice of which vulnerability indicators to use. These indicators were structured in several categories in order to provide functional vulnerability analyses. The authors identified the indicators based on expert

reports, scientific literature, and research project reports at the local level. Then, the indicators were organized in to five principal models. The final goal of this method was to provide information about numerous aspects of flood vulnerability and determine the relationship between indicators. Barroca et al. (2006) help enhance vulnerability assessment by choosing indices that are backed up by local data. However, Barroca et al. (2006) software does not provide any visual interpretation of the data. This is problematic because maps are crucial in understanding data with spatial relationships.

Other studies have quantified flood vulnerability based on different types of indicators such as geophysical parameters (Chakraborty et al., 2005) or social behaviors (Werritty et al., 2007). In addition, studies have varied in the way they define vulnerability. Some define it only as resilience (Werritty et al., 2007), while others only characterize exposure (Blong, 2003) or susceptibility (Carter, 2005). However, as discussed above (Section 2.1), all of these are factors that affect flood vulnerability. Based on the literature review, it is evident that there are a variety of ways which have been attempted to measure and quantify the social vulnerability aspect of flood disasters. Several indices have been created to quantify or qualify these aspects. Due to multidimensional nature of social and spatial characteristics of flood vulnerability several indices have been created to quantify or qualify these aspects.

CHAPTER 3

METHODOLOGY

The purpose of this study was to identify and evaluate the relative flood vulnerability among Illinois jurisdictions. The flood vulnerability of Illinois jurisdictions were assessed and relatively ranked using a FVI. The FVI was comprised of a flood-loss index (FLI) and a SoV index. Flood exposure and losses for the FLI were estimated using the Federal Emergency Management Agency (FEMA) Hazus-MH flood software package, in combination with FEMA's Flood Rate Insurance Maps (FIRM) or Digital Flood Rate Insurance Maps (DFRIM). Demographic data within Hazus-MH was used to create SoV indices in order to quantify and assess the features of a community's population relative to its flood vulnerability.

3.1 Data Source

This section identifies the geospatial, hydrologic, historic-flood loss, and jurisdictional boundary data sources used to in the flood vulnerability analysis (Table 1.3).

Table 3.1 Data Sources

Data Type	Sources
Geospatial Data	USGS National Elevation Dataset (2013).
Jurisdictional Boundaries	U.S. Census (2010).
Hydrologic Features	USGS National Hydrology Dataset (2012)
Digital Flood Rate Insurance Maps	FEMA Map Data Service Center
Flood Rate insurance Maps	Illinois State Water Survey's (ISWS's; 1996)

3.1.1 FEMA'S FIRM and DFIRM Maps

In order to model flood losses, a 100-year floodplain data layer for the State of Illinois was compiled. This layer was collected form two main sources: 1) FEMA's flood Insurance rate maps (FIRMs) and 2) the digital version (GIS generated) of the flood insurance rate maps (DFIRM). FIRMs and DFRIMs are the official maps of a community that are designated as special flood hazard areas and have a 1% chance in any given year to be inundated (FEMA, 2010). In this study, the FIRMs were used where the DFIRMs were unavailable. Both maps are recognized as critical tools for flood-risk management at the Federal, state, and local levels (Kaveckis, et al. 2006).

3.1.2 Digital Elevation Models

For the flood-loss modeling performed in this study, a 1/3-arc- second (10 m cell size) DEMs were employed. These DEMs were acquired from the United State Geologic Survey's (USGS) National Elevation Dataset (NED) website (USGS 2013).

3.1.3 Hazus-MH Infrastructure and Demographic Databases

Inventories within Hazus-MH include population, demographic, and infrastructure data. The demographic data contain information such as age, income, and gender. These demographic data were compiled from the 2000 U.S. census. Infrastructure data consists of general building stock, essential facilities, critical facilities, transportation networks, and utility lines. Hazus-MH provides national-level database of essential facilities, critical facilities, transportation networks, and utility lines and a data model of building inventory (general building stock, [GBS]) for users that do not have the time or assets to create their own databases. The Hazus-MH GBS are data models based on property insurance data, experts' knowledge and tax records (FEMA 2011).

Enhancing Hazus-MH's default inventory requires more detailed dataset for more realistic flood-loss estimates. However, compiling such a detailed data set for the State of Illinois was beyond the scope of this study. In previous studies, Hazus-MH has been shown to be accurate enough for coarse regional assessment of flood losses (Scawthorn et al., 2006; Remo et al., 2012).

3.2 Flood-Loss Modelling in Hazus-MH

For this study, a Hazus-MH level 1 flood-loss assessment within the 100-year floodplain was performed for each county and incorporated jurisdiction in Illinois. This model scenario represents an unrealistic flood scenario in which all streams and rivers in Illinois experience exactly the 100-year flooding at the same time. As such, the flood-loss estimates presented here should be considered a standardized estimate of building related-flood losses which allows for a relative comparison of flood losses between Illinois jurisdictions and not a "realistic" flood scenario.

The flood exposure and losses were calculated for building-related losses only. Building related-losses include building inventory damage, building damage, and commercial inventory damage. The Hazus-MH aggregate GBS inventory was used for the exposure and loss estimation. This inventory was developed using US Census Bureau data and Dun and Bradstreet Company's 2006 Means Square Foot Costs. The Dun and Bradstreet's Means Square Foot Costs is a nationally recognized reference on building construction costs (FEMA, 2010). The flood-loss estimates presented here do not include damage to infrastructure (i.e., roads, bridges, etc.), economic, or agricultural losses. Furthermore, these flood loss estimates are based on full replacement costs which are the estimated cost to replace the damaged portion of a building (FEMA, 2011).

3.2.1 Defining Flood Hazard in Hazus-MH

To define the location of potential flood inundation, a flood-depth grid was created using Enhance Quick Look (EQL) tool within Hazus-MH. In order to create a flood-depth grid, Hazus-MH requires a polygon layer which shows the extent of inundation and DEM which shows the topography of the floodplain. The FIRM or digital version DFIRM maps were used in each county to define and delineate extends of inundation for the (i.e., 100-year flood boundary). A 1/3 arc-second DEM was used to represent floodplain topography.

3.3 Flood Vulnerability Analysis

One of the major aims for this study was to quantify and assess the relative flood vulnerability. The flood vulnerability analyses of Illinois counties and jurisdictions were ranked using flood-loss and social vulnerability metrics. The vulnerability of a jurisdiction was calculated relative to the vulnerability of all the other jurisdictions in Illinois. This ranking scheme was performed to help quantify and identify high-priority jurisdictions for decision makers in order help prioritize mitigation efforts.

3.3.1 PCA Analysis for the Determine Social-Vulnerability-Indices Parameters

The aim in constructing a social vulnerability index in this study was to investigate the spatial patterns of social vulnerability and explore the flood vulnerable locations in Illinois. U.S. census data that was already available within Hazus-MH's demographic database were used to estimate social vulnerability. For this study, 13 censuses parameters commonly use to asses social vulnerability were evaluated for use in a SoV index (Table 3.2).

Table 3.2 Descriptions for the 16 social vulnerability index input variables.

Census Parameters	Description
POPU16O65	Total number of people under 16 and over 65 years of age
QNONWHIT	Total number of non-white in the population
QWHITE	Total number of white in the population
QINC0-20	Total number of households with income $0-$20K
QINC20-40	Total number of households with income $20-$40K
QINC40-60	Total number of households with income $40-$60K
QINC60-100	Total number of households with income $60-$100K
QINCOV100	Total number of households with income over $100K
QOWNOCC	Total owner occupied units
QRENOCC	Total renter occupied units
QVACHO	Total vacant homes
QPOPCOIN	Total number in the population working in commercial industry
QPOPININ	Total number in the population working in industrial industry
QHOUSE	Total number of homes owned
QVACHOUSE	Total number of vacant houses
QRENHOUSE	Total number of homes rented

A principal component analysis (PCA) was performed using SPSS version 19 to reduce the number of potential social-vulnerability parameters to a minimum of parameters based on inter-correlated variables. The use of PCA as a reductionist technique allows for a sturdy and consistent set of parameters to evaluate any variations in overall vulnerability. The PCA technique, also facilitate replication of the parameters, therefor making data combination more effective (Cutter et al 2003). Of the 16 original potential parameters, 6 parameters which explained of 75.7% of the variance were selected to create the social vulnerability indices (Table 3.3, Appendix A).

Table 3.3 Vulnerability components with eigenvalues, the percentage variance described by the components and the primary census variables based on a principal component analysis.

Factor	Eigenvalue	% of variance	Primary census Variables
Age	2.843	21.7	Percent under 16 years of age and percent over 65 years of age
Race (Non-white)	1.942	14.9	Percent of non-white people
Race (white)	1.634	13.0	Percent of white people
Socioeconomic status	1.365	10.5	Percent of families earning $0- $20K
Socioeconomic status	1.323	10.2	Percent of families earning $20-$40 K
Socioeconomic status	0.738	5.4	Percent of families earning $40-$60 K

3.3.2 Formulation of SoV Index

The formulation of the SoV index is based on the six variables from the PCA with the most explanatory power was selected to create the social vulnerability indices. Based on work from Cutter et al. (2003) and Wood et al. (2010), a positive directionality was given to all SoV variables that are considered as increasing vulnerability while a negative directionality was given to all variables that are considered as decreasing vulnerability (Table 3.4). Due to the directionality in these SoV parameters and the challenges which this directionality creates in model development, two SoV indices were constructed.

SoV_1 index is an additive model was four parameters that were positively correlated with vulnerability were simply summed to create the score (Equation 1). For SoV_2 index all six

parameters where used. The positive and negative parameters were summed to create the SoV_2 score (Equation 2).

$$SoV_1 \text{ Score} = \text{POPU16 O65} + \text{Non-white POPU} + \text{INC0-20K} + \text{INC20-40K} \quad \text{(Eq. 1)}$$

$$SoV_2 \text{ Score} = \text{POPU 16 O65} + \text{Non-white POPU} - \text{White POPU} + \text{INC0-20K} + \text{INC20-40K} - \text{INC40-60K} \quad \text{(Eq. 2)}$$

Table 3.4 Social vulnerability concepts and variables (after Cutter et al., 2003 and Wood, et al. 2010).

Parameter Type	**Description**	**Increases (+) or Decreases (-) social vulnerability**
Age	Old and young populations may need assistance evacuating due to difficulties in mobility and lower incomes.	Elderly (+) Youth (+)
Income	Higher income families have a better ability to absorb, prepare, and recover from disasters than lower income families. For this study $40,000-$60,000 considered high income.	High income(-) Low income (+)
Race	Racial inequalities and language barriers affect access to public service and mitigation efforts.	Non-white (+) White (-)

3.3.3 Physical Flood Dimensions and Formulation of Flood Vulnerability Index

Differences in socioeconomic factors can impact flood loss and the ability of a social group to recover from a flood disaster. This produces variations in vulnerability within geographic regions and communities (Ngo, 2001; Burton and Cutter, 2008; Cutter et.al 2013). For this study, the flood vulnerability of Illinois's jurisdictions was quantified using a FVI. Hazus-MH was used to develop the parameters for the FVI. These parameters included socioeconomic exposure, flood exposure, and flood losses for areas located within the 100-year floodplain.

3.3.3.1 Spatial Parameterization of Census Block Results to Jurisdictional Level

The minimum spatial scale at which Hazus-MH calculates flood exposure and losses is the census block level. In order to assign the exposure and flood estimates to a particular jurisdiction, the spatial join tool within ArcMap was performed. The join tool summed flood -exposure and -loss estimates from the census blocks that were either fully or partly contained within each jurisdiction's boundaries. This allowed the loss ratios to be attributed to their specific jurisdictions.

3.3.3.2 Calculation of Flood Loss Ratio

The estimates of flood loss and exposure were calculated to create a flood-loss ratio ($Loss_{ratio}$; Equation 3). The purpose of the computed loss ratio was to normalize flood-loss estimation parameter. Thus, a relative comparison between the urban jurisdictions with large values of flood exposure and rural jurisdictions with small value of flood exposure could be made.

$$Loss_{ratio} = \frac{Flood_{loss}}{Flood_{exposure}}$$

(Eq. 3)

3.3.3.3 Calculation of Area Weighted Correction Factors

A floodplain area weighting factor was calculated in order to take into account the overlap of census blocks which fall outside a jurisdictional boundary into consideration. This was done using (Equation 4); where, FP_{wf} is the floodplain area weighting factor, JD_{area} is the total area of the jurisdiction, and FP_{area} is the 100-year floodplain area.

$$FP_{wf} = \frac{JD_{area}}{FP_{area}}$$

(Eq.4)

The floodplain area weighting factor was multiplied by the jurisdiction's loss ratio in order to calculate the weighted-flood-loss ratio ($WLoss_{Ratio}$), using (Equation 5).

$$WLoss_{Ratio} = Loss_{Ratio} \times FP_{wf}$$

(Eq.5)

3.3.4 Indexing of SoV and FLI

The general indexing formula that was used to index the county *Loss $_{Ratio}$*, (*FLI*) the jurisdictional $WLoss_{Ratio}$ (*WFLI*) and SoVs is shown in Equation 6, where I $_{min}$ *and I* $_{max}$ are the minimum and maximum values of the indicators for all the counties or jurisdictions respectively, and I_i is the actual value of the indicator for a specific Ith county or jurisdiction (Wu et al. 2002). This ranks the values from 0-1.

$$I_i = \frac{I_i - I_{min}}{I_{max} - I_{min}}$$

(Eq.6)

3.3.5 Calculation of the FVIs Score

The indexed county *FLI* and the jurisdictional *WFLI* were added to their corresponding SoV_1 and SoV_2 scores to create flood scores (FS) for each county or jurisdiction. (Equation 7 through 10).

$$FS_{1\ county} = FLI + SoV_1$$

(Eq.7)

$$FS_{1\ jurisdiction} = WFLI + SoV_1$$

(Eq. 8)

$$FS_{2\ county} = FLI + SoV_2$$

(Eq.9)

$$FS_{2\ jurisdiction} = WFLI + SoV_2$$

(Eq. 10)

The FS_1 and FS_2 were then indexed (FS_{i1} and FS_{i2}) using Equation 6 so each county or jurisdiction could be ranked by flood vulnerability relative to other Illinois counties and jurisdictions.

3.6 Relative Flood and Social Vulnerability Score

Z-scores were calculated for each county or jurisdiction's SoV and FS in order to rigorously qualify their relative social and flood vulnerability (Equation 11 and 12).

$$z = \frac{SoV_{i1\ or\ 2} - \mu}{\sigma} \quad \text{(Eq.11)}$$

$$z = \frac{FS_{i1\ or\ 2} - \mu}{\sigma} \quad \text{(Eq.12)}$$

Where: SoV_1 and SoV_2 is the actual social vulnerability score and FS_1 and FS_2 is the actual flood score for i th county or jurisdiction, μ is the mean of the county or jurisdictional flood and σ is the standard deviation the flood scores. The z-scores were used to assign the relative flood vulnerability description to each jurisdiction (Tables 3.5 and 3.6).

Table 3.5 Relative flood vulnerability description for the z or standard score

***z* – Score Range**	**Relative Flood Vulnerability Description**
5.0 to 1.6	High
1.9 to 0.6	Elevated
0.5 to -0.5	Average
-0.6 to -3.0	Low

Table 3.6 Relative Social vulnerability description for the z or standard score

***z* – Score Range**	**Relative Flood Vulnerability Description**
4.56 to 1.67	High
0.65 to 1.18	Elevated
-0.56 to 0.64	Average
-1.33 to -0.14	Low

CHAPTER 4

RESULTS

The results are organized into three sections. The first section presents the Hazus-MH exposure, flood-loss modeling results and the flood-loss ratio calculations. The second section presents the results from the two social vulnerability models (SoV_1 and SoV_2) developed for this study and provides a comparison between these social vulnerability assessment methodologies. The third section presents the flood vulnerability models (FVI_1 and FVI_2), the ranking of Illinois's jurisdictions flood vulnerability and a comparison of the FVI_1 and FVI_2 results.

4.1 Flood Exposure

The total estimation for the building related flood exposure within the 100-year floodplain in Illinois was estimated to be $190.25 billion (2006 dollars). The northeast corner of Illinois is estimated to have the highest flood exposure. This area includes Cook, Will, Kane, Du Page, Lake, and McHenry counties (Figure 4.1). These counties account for $120.92 billion or 65% of the total estimation of flood exposure in Illinois (Appendices A and B). Nine out of the top ten jurisdictions with the greatest estimates of flood exposure are also located within these six counties (Figure 4.2; Appendices C and D).

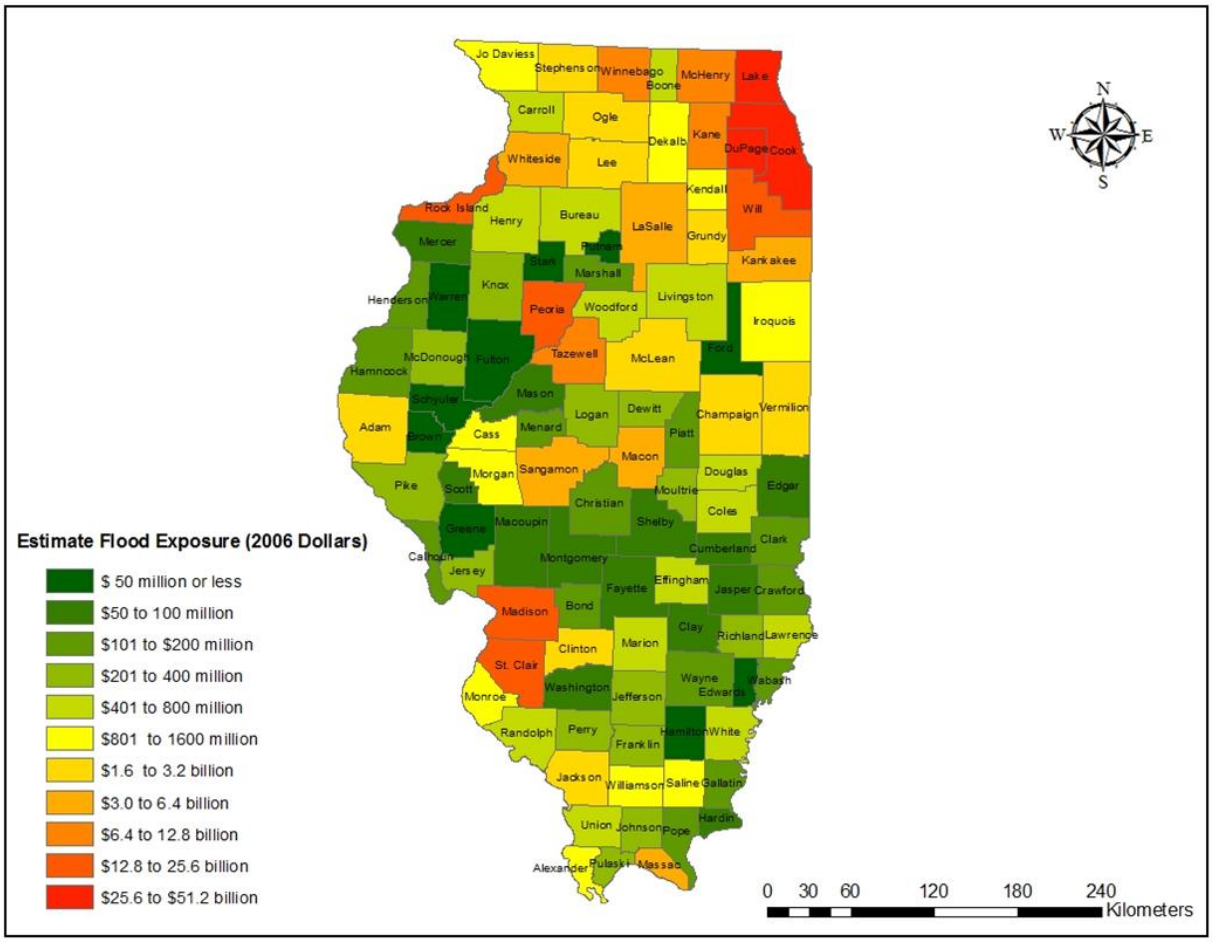

Figure 4.1 Estimated county flood exposures within the 100-year floodplain.

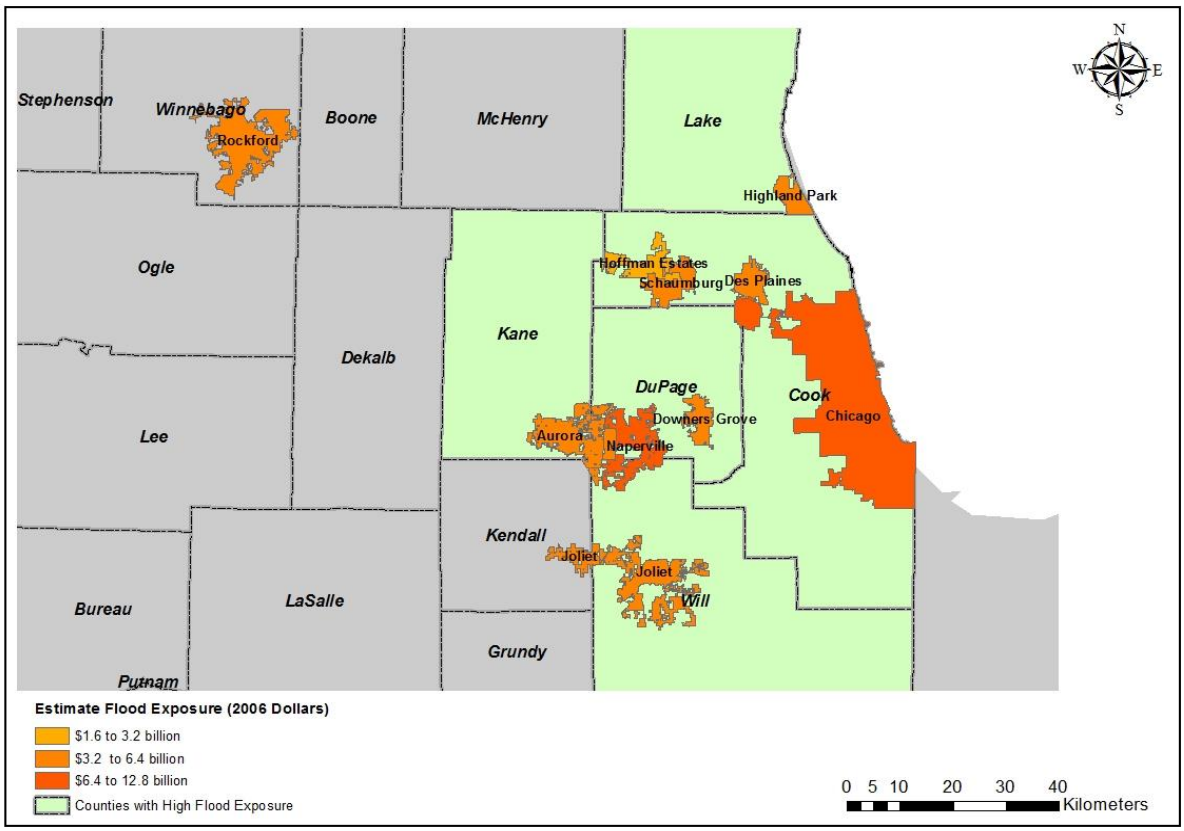

Figure 4.2 The ten jurisdictions with the largest estimates of flood exposure.

4.2 Flood Losses

Flood-loss estimations were performed for 100-year floodplains using Hazus-MH throughout the State of Illinois at the county and jurisdictional levels. The estimation of total building-related flood-losses on 100-year floodplains was $ 18.03 billion. At the county level, loss ranged from $2.39 million in Ford County up to $3.27 billion in Cook County (Figure 4.3). At the jurisdictional level, flood loss ranged from a minimum of $1,000 in Bondville Village located in Champaign County, up to $950 million in the City of Chicago (Appendices C and D). The greatest flood losses were generally located in and around the City of Chicago.

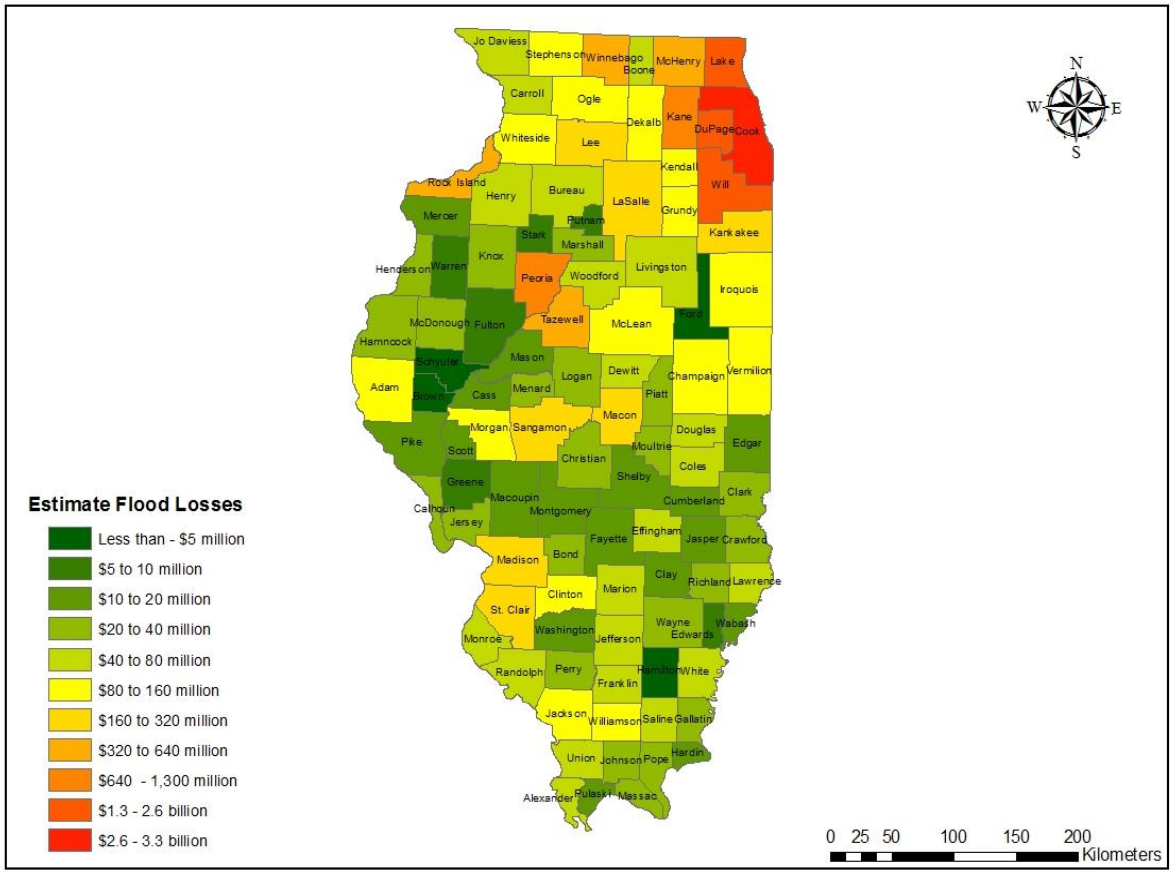

Figure 4.3 Estimated county flood losses within 100-year floodplain.

4.3 Flood Loss Ratios

In order to normalize the flood losses between counties and jurisdictions with varying levels of exposure, flood-loss ratios were calculated. The range in county flood-loss ratio was from 0.02 in Brown County to 0.30 in Peoria County. The average county flood-loss ratio was 0.10. (Figure 4.4, Appendices A and B). At the jurisdictional level, the average floodplain-weighted flood-loss ratio was 0.01. The jurisdictional floodplain weighted flood-loss ratios ranged from near zero in Phoenix to 1.00 in Gulf Port (Figure 4.5, Appendices C and D).

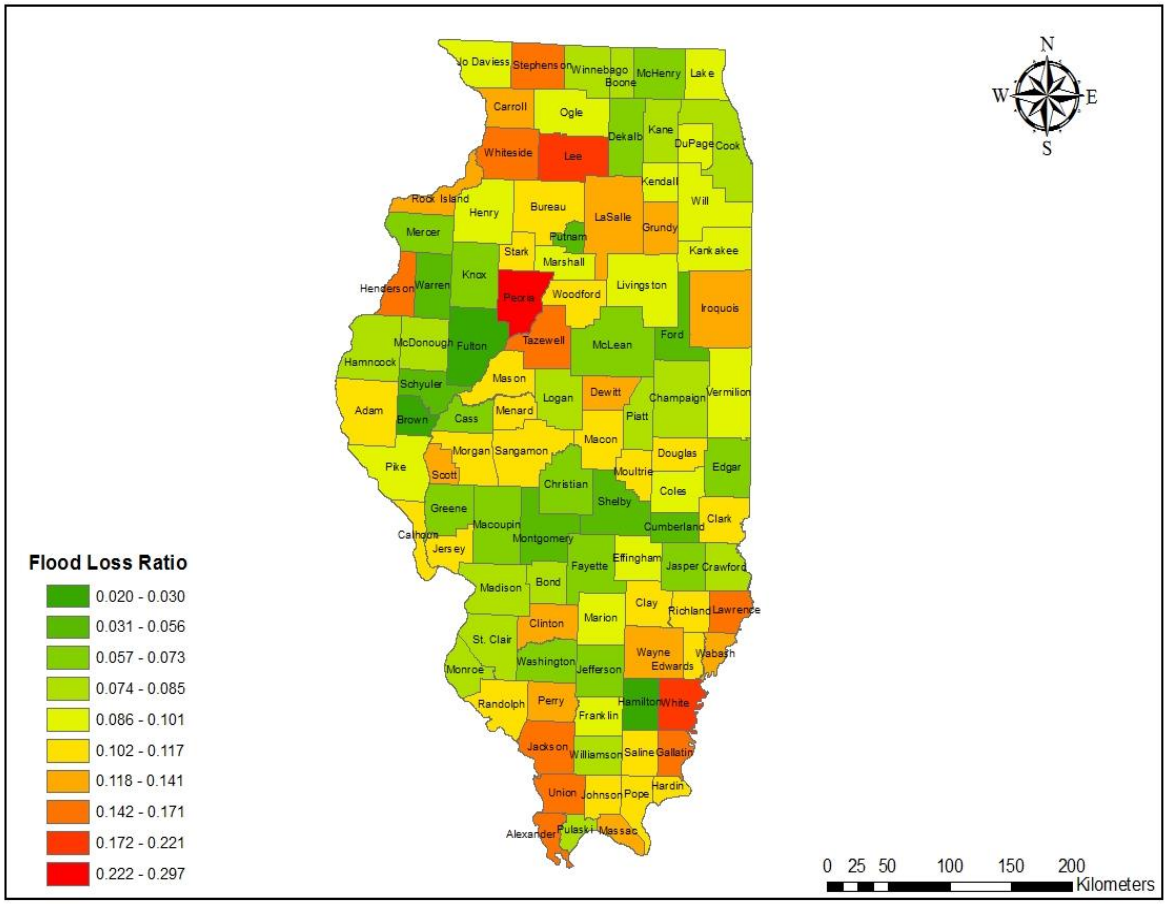

Figure 4.4 County flood-loss ratios; flood-loss ratio is the estimated flood losses divided by the flood exposure in each county's 100-year floodplain.

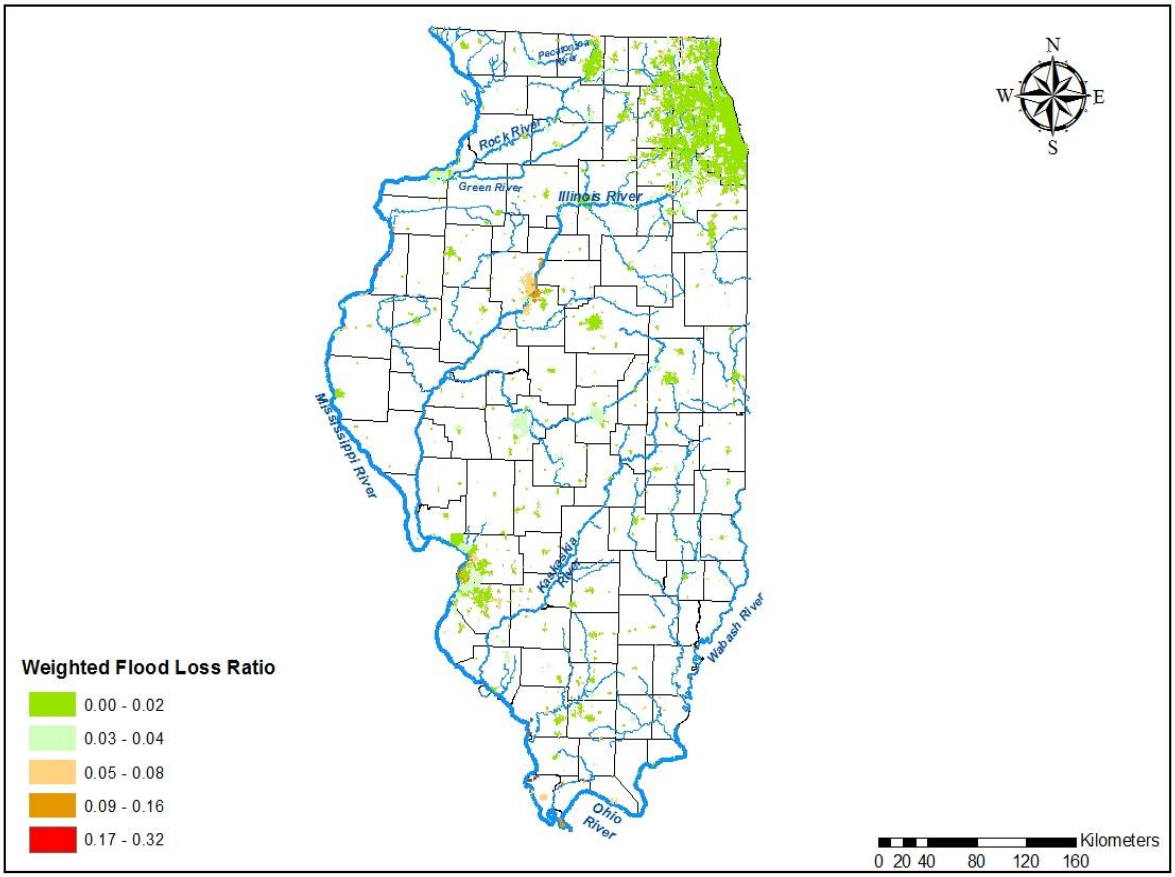

Figure 4.5 Jurisdictional floodplain weighted flood-loss ratios. Flood-loss ratio is the estimated flood losses divided by the flood exposure in each jurisdiction's 100-year floodplain.

4.4 SoV_1 Results

At the county level, the SoV_1 scores ranged from 0.0 to 1.0 with an average of 0.23. The least socially vulnerable county was Brown and Alexander County identified as being the most socially vulnerable (Figure 4.6 SoV_1; Appendix B). At the jurisdictional level, the SoV_1 scores ranged from 1.00 to 0.18 with an average score of 0.51. The least social vulnerable jurisdiction was the Village of Standard in Putnam County while the villages of Robbins and Ford Heights in Cook County identified as the most socially vulnerable jurisdictions (Appendix D).

4.5 SoV_2 Results

At the county level, the SoV_2 scores ranged from 1.00 to 0.00 with an average of 0.36. The least socially vulnerable county was Ford. Alexander County identified as being the most socially vulnerable county (Figure 4.6 SoV_2; Appendix C). At the jurisdictional level, the SoV_1 scores ranged from 1.00 to 0.00 with an average score of 0.35. The least social vulnerable jurisdiction was Chatsworth in Livingston County and Venice in St. Clair County was identified as the most socially vulnerable jurisdiction (Appendix E).

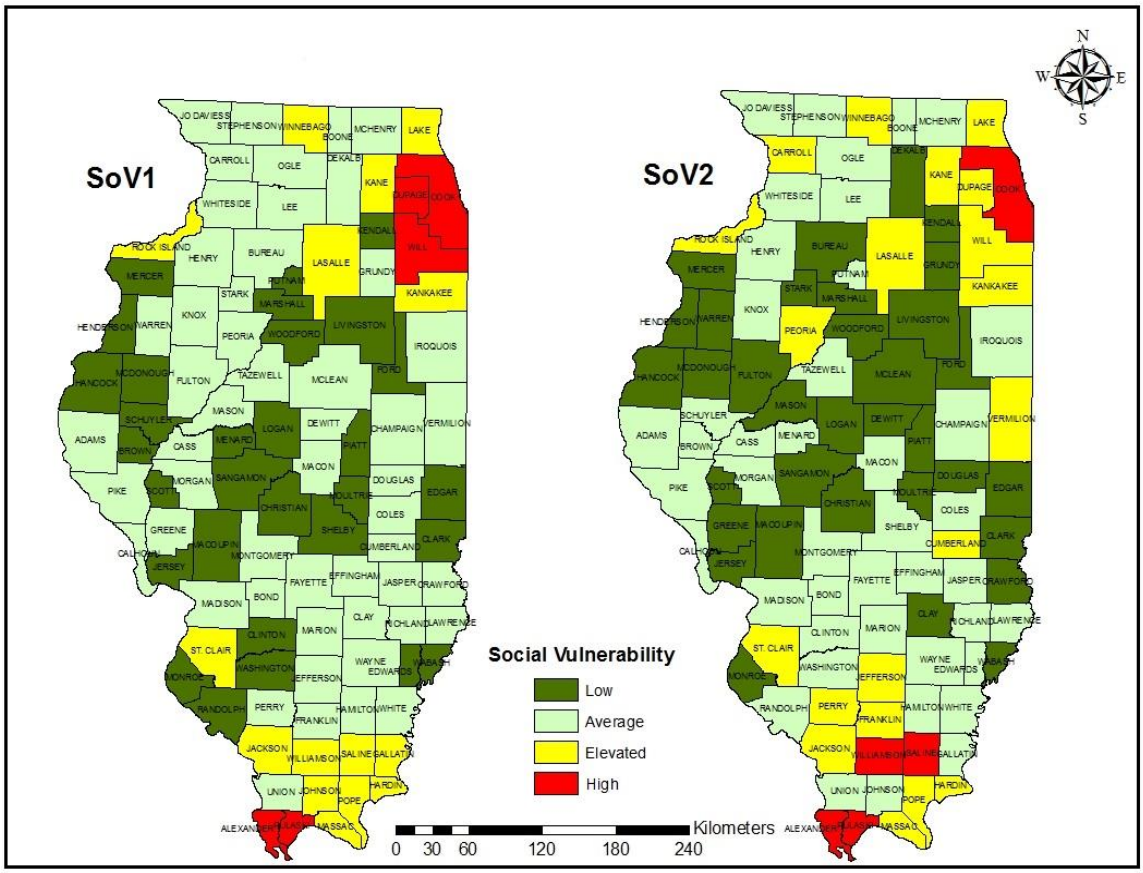

Figure 4.6 Social vulnerability rating for the 102 counties in Illinois. The rating is based on categorical representation (low, average, elevated, and high).

4.6 Comparison of SoV_1 and SoV_2

In order to compare the social vulnerability assessment between SoV_1 and SoV_2, a linear regression was performed. At both the county and jurisdictional levels, the $SoVI_1$ and $SoVI_2$ were positively correlated with R^2 values of 0.85 and 0.83 respectively and P-value (= 0) which means both SoV_1 and SoV_2 produced relatively similar results. (Figures 4.7 and 4.8).

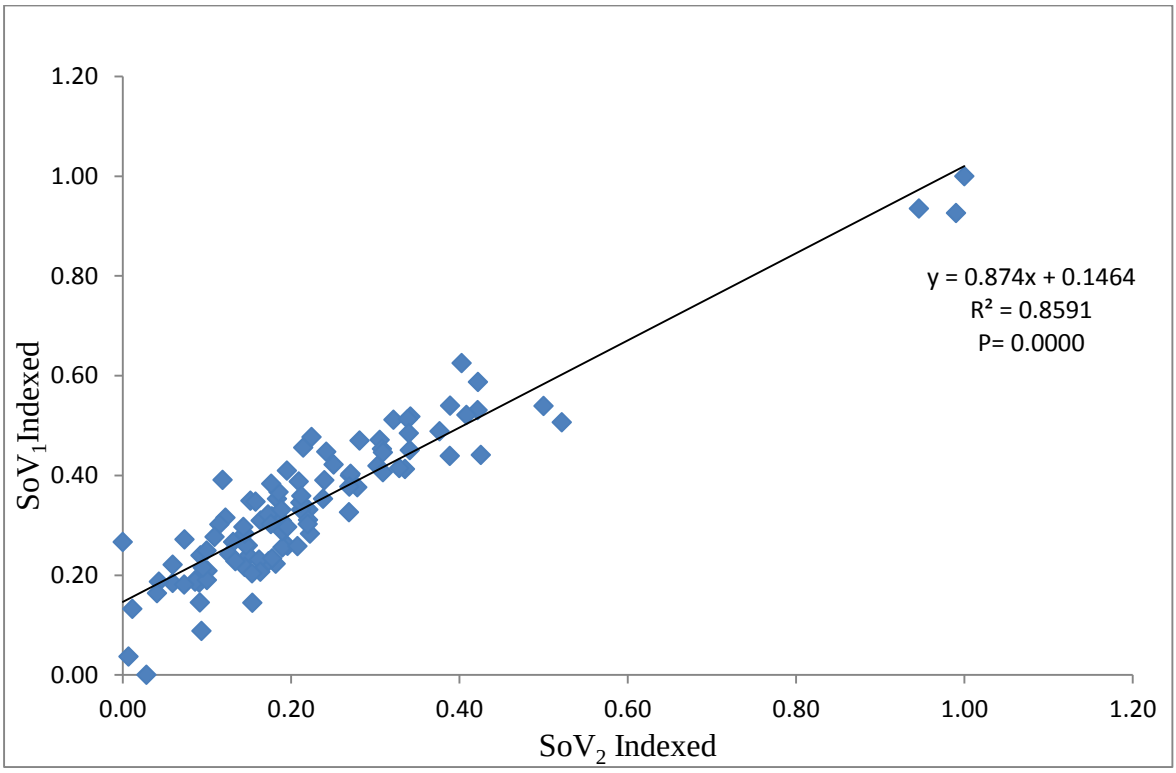

Figure 4.7 Comparison of SoV_1 and SoV_2 at the county level.

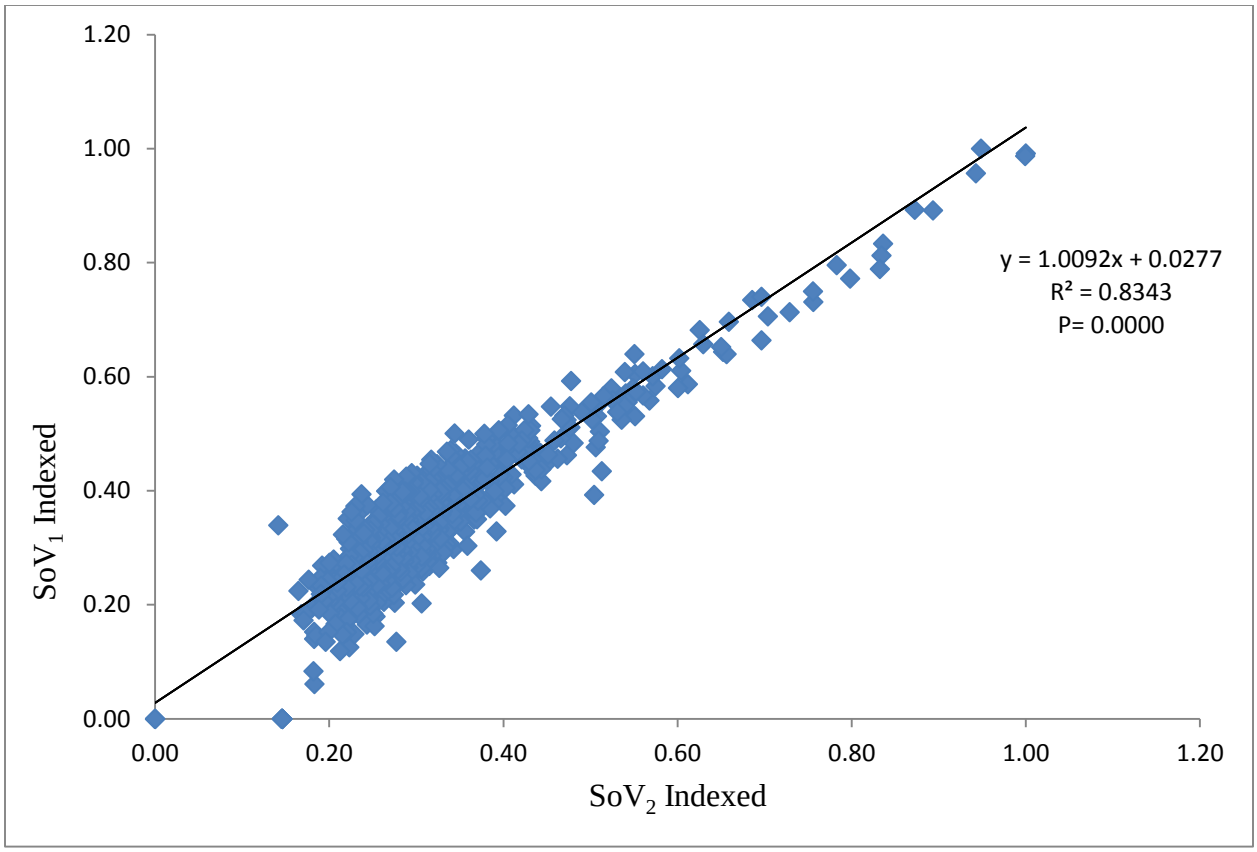

Figure 4.8 Comparison of SoV_1 and SoV_2 at the jurisdictional level.

4.7 SoV_1 and SoV_2 Indices Sensitivity Analysis

In order to assess the SoV_1 and SoV_2 indices sensitivity to each models parameter, a sensitivity analysis was performed. The sensitivity analyses results for SoV_1 indicate that the percentage of the population with income >$40,000, percentage of the population which was non-white people, and percentage of the population which white had the largest effect on a county's or jurisdiction's the social vulnerability score (±26%, ±22%, and ±17% change in SoV_1 , respectively; Table 4-1). The sensitivity analyses results for SoV_2 indicate that percentage of population which is white and percentage of population with incomes between $20,000 and

$40,000 had the largest effect on a county's or jurisdiction's the SoV score (±50% and ± 17% Table 4-2) Although the other parameters used to assess vulnerability had a lesser effect on the SoV_1 and SoV_2 scores, the size of change observed was large enough to potential change the jurisdictions categorical vulnerability rating (i.e., high, average, or low).

Table 4.1 SoV_1 sensitivity analyses results for four SoV parameters. The representation for all indicators as follow: 1) old and young population ratios; 2) non-white population ratios; 3) and 4) were percentage of the population with an income range between in $0-$20,000 and $20,000-$40,000, respectively.

Average SoV_1 Score	Indicator	Average SoV2 Score Without Indicator	Percent Change	MAX	MIN	STDEV
0.36	1	0.29	-7%	0.52	0.28	0.07
0.36	2	0.54	50%	0.59	0.28	0.06
0.36	3	0.33	8%	0.76	0.28	0.08
0.36	4	030	17%	0.69	0.23	0.08

Table 4.2 SoV_2 sensitivity analyses results for all six SoV parameters. The representation for all indicators as follow; indicator 1 old and young population ratios, indicator 2 white population ratios, indicator 3 non-white population ratios, indicators 4, 5, and 6 are percentage of the population with an income range between $0-$20,000, $20,000- $40,000 and $40,000-$60,000, respectively

Average SoV_2 Score	Indicator	Average SoV_2 Score Without Indicator	Percent Change	MAX	MIN	STDEV
0.23	1	0.23	0%	-0.35	-1.06	0.11
0.23	2	0.27	17%	0.71	0.20	0.08
0.23	3	0.28	22%	-0.28	-0.80	0.09
0.23	4	0.24	4%	-0.11	-0.83	0.11
0.23	5	0.24	4%	-0.18	-0.91	0.12
0.23	6	0.29	26%	0.12	-0.70	0.13

.

4.8 FV_1 Results

At the county level, the FV_1 scores ranged from 0.00 to 1.95 with an average of 0.71. The least flood vulnerable county was Brown. Pulaski County was identified as being the most vulnerable (Figure 4.8 FV_1; Appendix B). At the jurisdictional level, the FV_1 scores ranged from 0.01 to 1.23 with an average score of 0.36. The least flood vulnerable jurisdiction was Boulder Hill in Kendall County and Gulfport in Henderson County identified as the most flood vulnerable jurisdiction (Appendix D).

4.9 FV_2 Results

At the county level, the FV_2 scores ranged from 0.20 to 1.89 with an average score of 0.82. The least flood vulnerable county was Ford County. Pulaski County was identified as being the most vulnerable (Figure 4.8 FV2; Appendix E). At the jurisdictional level, the FV_2 scores ranged from 0.00 to 1.69, with a mean of 0.62. The least flood vulnerable jurisdiction was Chatsworth Town in Livingston County and Gulfport in Henderson was again identified as the most flood vulnerable jurisdiction (Appendix E)**.**

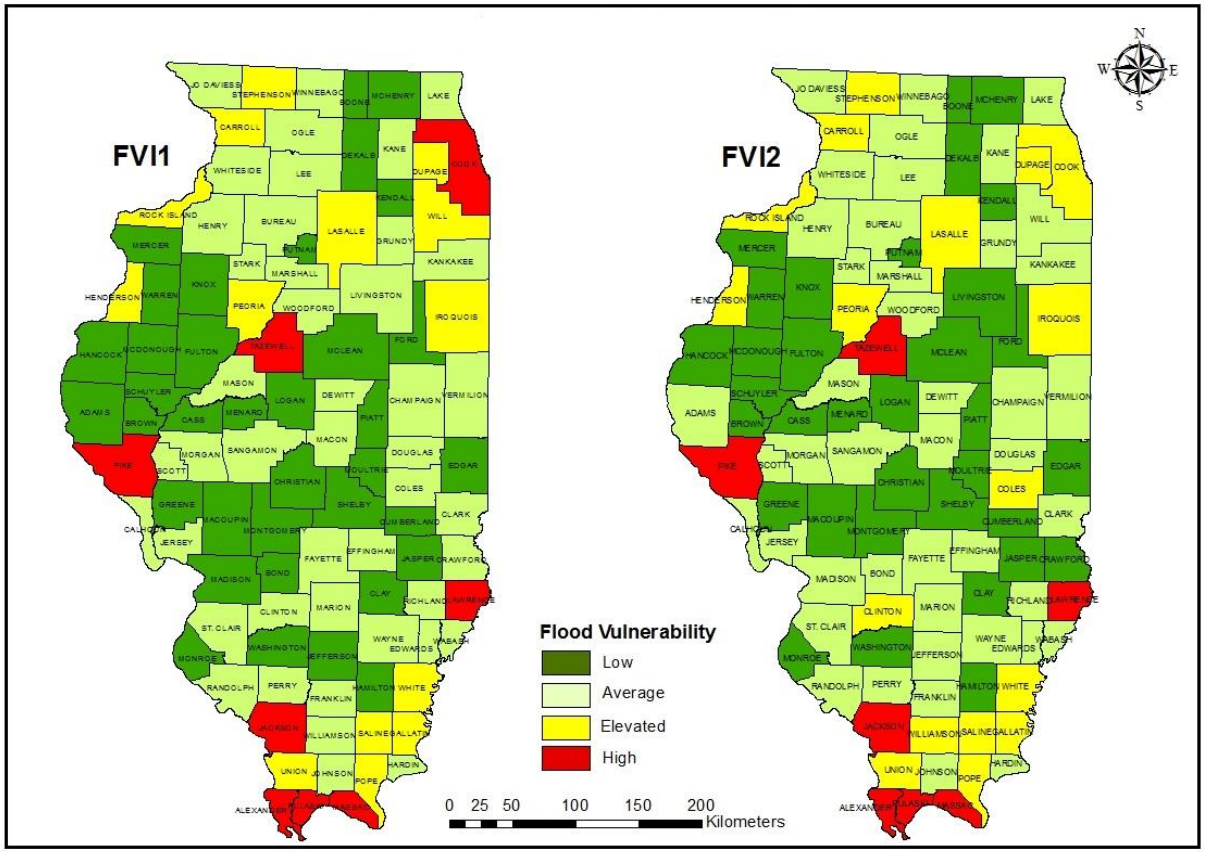

Figure 4.9 Flood vulnerability rating for the 102 counties in Illinois. The rating is based on categorical representation (low, average, elevated, and high).

4.10 Identification of Illinois's Most Flood Vulnerable Jurisdictions

Although there are notable differences between the FV1 and FV2 ratings for each of the jurisdictions, the jurisdictions with the 10 highest flood vulnerability ratings were the same using either indices (Tables 4.1 and 4.2). The highest flood vulnerability scores and vulnerability ratings occur in the rural communities located along the Illinois, Ohio, Wabash, and Mississippi rivers as well as southern Cook County (Figure 4.9). The majority of jurisdictions with high social vulnerability ratings are located in southern Cook County.

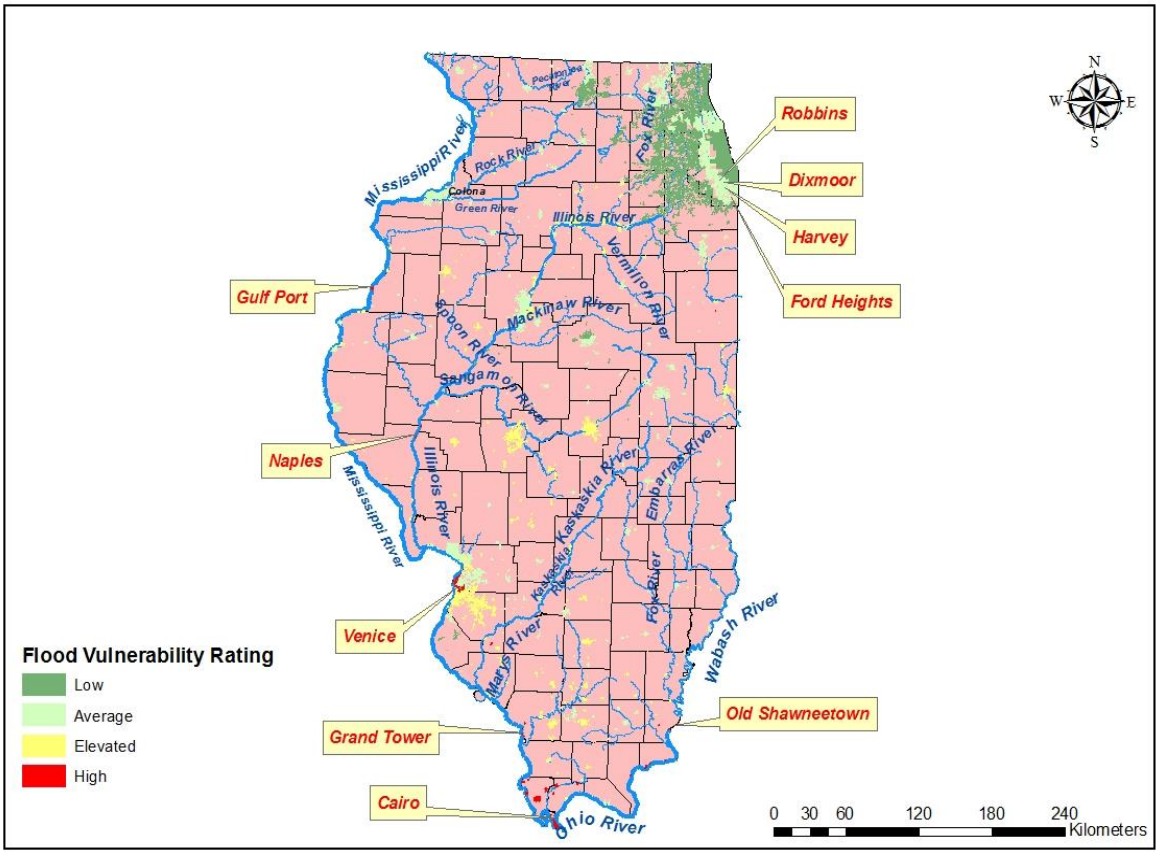

Figure 4.10 The highest flood vulnerability jurisdictions with FEMA's Specific Flood Zone Area (100-year floodplain).

Table 4.3 The top ten (FV_1) most flood vulnerable jurisdictions in Illinois.

Town /City	**Rank**	**Total Losses ($1000)**	**Total Exposure ($1000)**	**Loss Ratio**	**SoV_1 Index**	**Flood Score**	**Flood Vulnerability Index (FV_1)**	**Flood Vulnerability Rating**
Gulf Port	1	23,623	6,130	0.26	0.23	1.46	1.23	High
Naples	2	14,922	3,537	0.24	0.18	1.27	1.09	High
Grand Tower	3	56,050	11,316	0.20	0.36	1.44	1.08	High
Robbins	4	263,879	10,118	0.04	1.00	2.03	1.03	High
Ford Heights	5	116,017	3,642	0.03	1.00	2.03	1.03	High
Venice	6	3,147	49	0.02	0.95	1.91	0.96	High
Harvey	7	553,413	18,345	0.03	0.94	1.90	0.96	High
Dixmoor	8	54,085	3,528	0.07	0.89	1.83	0.94	High
Old Shawneetown	9	18,152	2,756	0.15	0.34	1.28	0.94	High
Cairo	10	213,521	18,817	0.09	0.69	1.61	0.93	High

Table 4.4 The top ten (FV_2) most flood vulnerable jurisdictions in Illinois.

Town/City	Rank	Total Losses ($1000)	Total Exposure ($1000)	Loss Ratio	SoV_2 Index	Flood Score	Flood Vulnerability Index (FV_2)	Flood Vulnerability Rating
Gulf Port	1	23,623	6,130	0.26	0.29	1.79	1.49	High
Naples	2	14,922	3,537	0.24	0.19	1.43	1.24	High
Grand Tower	3	56,050	11,316	0.20	0.41	1.81	1.40	High
Robbins	4	263,879	10,118	0.04	0.99	2.69	1.69	High
Ford Heights	5	116,017	3,642	0.03	0.99	2.67	1.69	High
Venice	6	3,147	49	0.02	1.00	2.69	1.69	High
Harvey	7	553,413	18,345	0.03	0.96	2.58	1.63	High
Dixmoor	8	54,085	3,528	0.07	0.89	2.43	1.54	High
Old Shawnee town	9	18,152	2,756	0.15	0.34	1.51	1.17	High
Cairo	10	213,521	18,817	0.09	0.73	2.21	1.47	High

4.11 Comparison of Flood Vulnerability Model Results

In order to assess the relationship between FV_1 and FV_2, a simple linear regression was performed. At both the county level and jurisdictional level, the FV_1 and FV_2 were positively correlated with R^2 values of 0.95 and 0.80 respectively and P-value (= 0). These values indicate that both FV_1 and FV_2 are highly correlated because the same data and similar methodologies used to construct these indices (Figures 4.10 and 4.11).

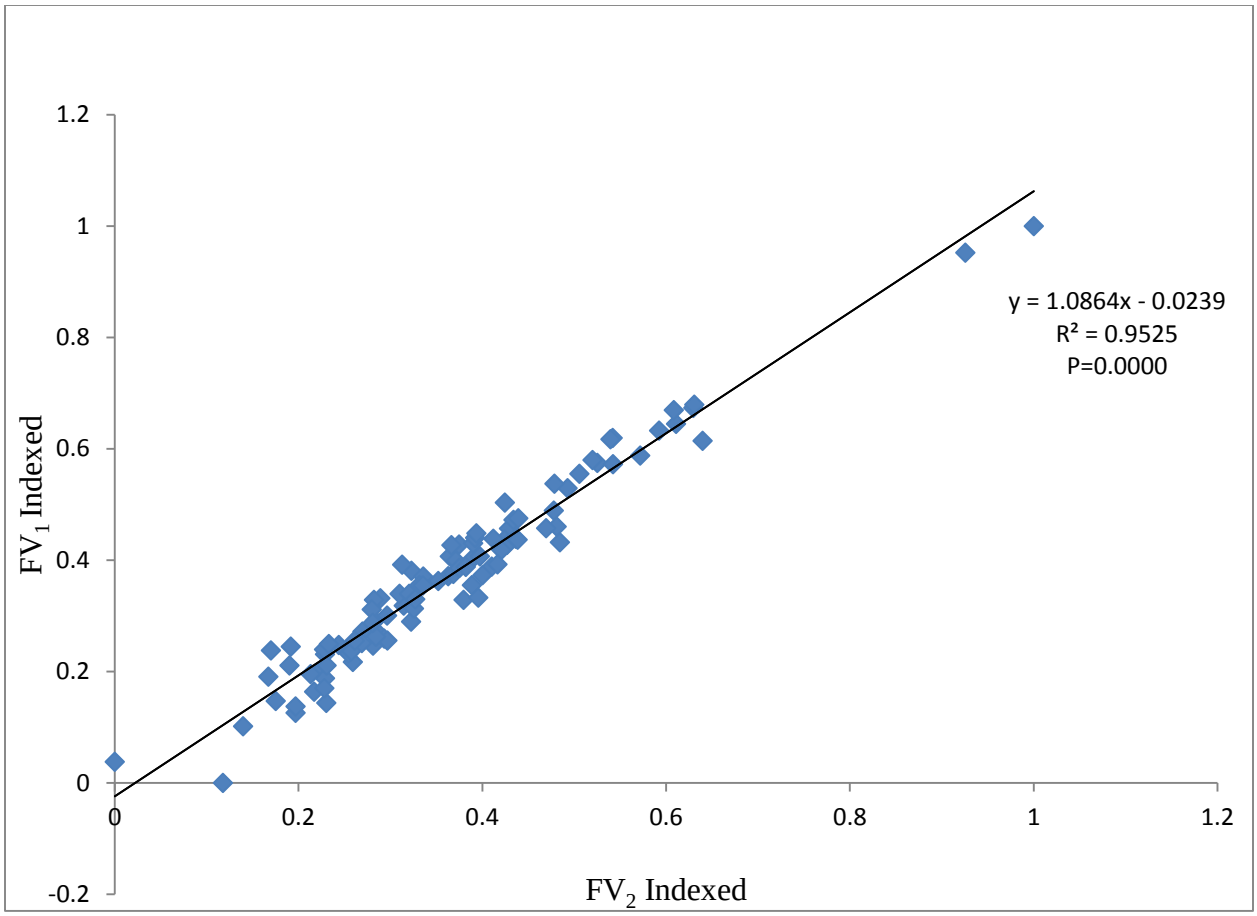

Figure 4.11 Comparison of the county level FV_1 and FV_2.

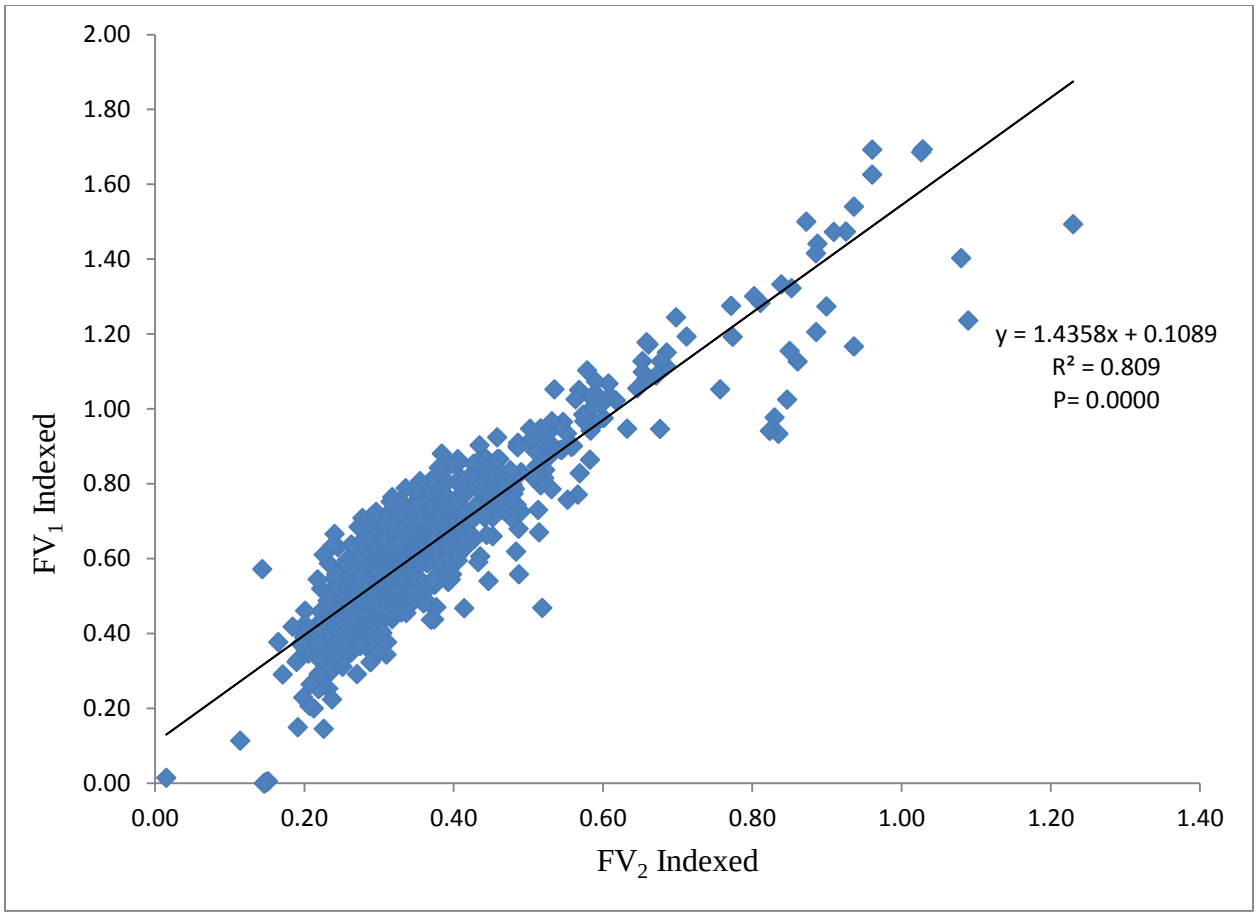

Figure 4.12 Comparison of FV_1 and FV_2 at the jurisdictional level.

CHAPTER 5

DISCUSSION

To properly assess a community's flood vulnerability both the social and economic elements of flood vulnerability must be assessed. Flood vulnerability is a measurement of exposure, susceptibility, and resilience of any community at risk of flooding (Balica et al., 2012). The flood vulnerability approach applied in this study allows for relative comparisons to be made at two scales of government, the county and jurisdiction level. The flood vulnerability comparison is intended to provide decision makers access to a more complete flood-risk assessment to aid flood-mitigation activities.

5.1 Social Vulnerability

At county level, both SoV_1 and SoV_2 indicate that Alexander, Cook, and Pulaski Counties were the three most vulnerable in Illinois. In Cook County alone, 50% of Illinois's population that lives in poverty (low income) resides in this county. In addition, most of those living in poverty in Cook County are minorities (Heartland Alliance International, 2014). There was some discrepancy between the qualitative ratings between SoV_1 and SoV_2 incidences. For example, in addition to Alexander, Cook, and Pulaski Counties SoV_1 indicated Dupage and Will counties as having high vulnerability where SoV_2 indicated Williamson and Saline County as having high vulnerability (Figure 4.6). Similar discrepancies were also noted in the jurisdictions SoV index rankings. These discrepancies are attributed to small differences in the SoV scores created by the differing formulation and are discussed in the SoV sensitivity assessment below.

Comparisons of the SoV created for this study are highly correlated and produce similar results (Figures 4.7 and 4.8). However, the reliability of social vulnerability indices for the

realistic quantification of a population's vulnerability to a natural hazard is largely unknown due to a lack of a readily available vulnerability metric which is suitable for model validation (Tate, 2012; 2013). Here a sensitivity analysis were performed to better understand which decisions in the SoV index construction process have the greatest influence the SoV score and consequently qualitative SoV ranking. The sensitivity analyses results support the results of previous studies that the income and race play significant role in determining the socially vulnerable communities (e.g., Cutter et al., 2003; Zahran et al., 2008; Cutter et al., 2013). Floods are known to be more harmful to people with low income and minorities because they are less likely have the ability to recover after the flood and are less likely to be aware of disaster risk (Zahran et al., 2008).

The sensitivity analysis indicated positively correlated social vulnerability indicators, white population ratio and higher income (>$40,000 to $60,000) significantly influenced the SoV_1 scores. Removal of these parameters in the SoV_2 formulation seemed to decrease the importance of race (non-white population) and increase the importance of low income in the SoV_2 scores and consequently the social vulnerability ranking (Tables 4-1 and 4-2). As such, the more racially diverse Chicago collar counties (Dupage and Will) were scored as less vulnerable than the less racially diverse (more percentage of the population white) but poorer (on average by house hold income) southern Illinois Counties (Saline and Williamson). While the difference in SoV scores for the same jurisdictions were substantial enough to affect their categorical vulnerability rating direct comparison between the SoV score suggest either SoV formulation is robust enough to provide a reasonable assessment of a counties or jurisdictions relative vulnerability (Figures 4.7 and 4.8).

5.2 Flood Vulnerability

The flood vulnerability analysis performed in this study suggests that more urban counties in Illinois are generally more resilient to flooding. This is likely due to these communities being more affluent on average. Southern Illinois counties and jurisdictions which were considered most vulnerable to flooding included Pulaski County which scored the highest with in the entire state as well as Alexander and Jackson counties. These areas are impacted by floods on the Ohio, Mississippi, and Cache River rivers. In addition, the poverty rates (as defined by the US Census Bureau) in these counties are high (Heartland Alliance International, 2014). Pike County also scored high in it relative flood vulnerability. This attributed to its location which is bounded by both the Mississippi and Illinois rivers (Figure 4.9).

Depending on the SoV index employed, Cook County received a rating of either elevated or high flood vulnerability. The SoV_1 index only included parameters that were positively correlated with vulnerability (percentage of population under 18 and over 65, percentage of population which is non-white, and percentage of the population with an income range between \$0-\$20,000 and \$20,000- \$40,000) and resulted in a high vulnerability score in Cook County. SoV_2 used both positively and negatively correlated parameters (percentage of population which is white and percentage of population with an income >\$40,000) resulting in a flood vulnerability score that was only elevated. This difference in the qualitative flood vulnerability rating is attributed to the sensitivity of the FLV methodology to SoV index parameterization and underscores that the FLV assessment results presented in this study are meant to be a relative guide and not an absolute quantification of a counties or jurisdictions flood vulnerability.

The assessment here provides the information from which to assess which parameterization is driving a particular FLV score or the jurisdictions relative ranking. For example, the jurisdictional flood vulnerability analyses revealed southern Cook County communities of Robbins, Dixmoor, Harvey, and Ford Heights were identified as being among the most flood vulnerable jurisdictions in Illinois (Table 4.4). The SoV analyses reveal these jurisdictions have the highest SoV scores in the state of Illinois and have significantly higher SoV scores than most of the other "high" rated flood vulnerable jurisdictions. However, review of the these jurisdictions flood-loss ratios reveal flood losses in these communities will likely be relatively low to other jurisdictions with "high" flood vulnerability. These results suggest Robbins, Dixmoor, Harvey, and Ford Heights high-social vulnerability are driving their elevated flood vulnerability. Flood mitigation practitioners and decision makers can use the foundation information from the FLV index and qualitative flood vulnerability rating to better target mitigation efforts or employ different mitigation tools. For example, in jurisdictions such as Robbins, Dixmoor, Harvey, and Ford Heights their low flood-loss ratios suggest only a few structures are vulnerable to flooding. For these jurisdictions, focused flood mitigation efforts such as voluntary buyouts of just a few buildings may reduce or remove their jurisdictions flood vulnerability. In contrast, Gulf Port which has a flood-loss ratio (near one) suggests nearly the entire jurisdiction is at risk for flooding. In this case a structural mitigation such as construction of a levee or enhancement of an existing levee maybe needed to reduce the communities flood vulnerability.

The information provided in this study is likely useful for informing programs such as the Cook County Needs Assessment Project. It has been proposed this program target communities for economic development (The Department of Planning and Development of the Bureau of

Economic Development, 2013). The FLV analysis performed here can provide insight into which communities are in most need of economic development and provide an assessment of a communities flood exposure. This information can help decision makers select the communities best suited for such projects.

5.3 Uncertainty Flood-Loss, Social Vulnerability, and Flood Vulnerability Estimation

Uncertainty in the flood-loss estimates using Hazus-MH can be categorized into three main areas of concern. The first concern is the use of the national infrastructure datasets to represent the building inventory. The national datasets provided by Hazus-MH are coarse estimations of inventory values for a specific county or jurisdiction. Moreover, the inventories of infrastructure datasets are only provided at the census block level instead of real locations of buildings. The second concern is that the damage estimates are evenly distributed through each census block. This assumption can result in over or under estimation of flood losses depending on the actual geographic distribution of buildings relative the flood hazard. The third concern is associated with the mathematical functions within the software code. At the census block level, there were small amounts of buildings per area. This causes the flood model output to become more susceptible to rounding errors when the damage analysis is performed (FEMA, 2011). However, previous studies have shown that the average estimated loss made using Hazus-MH general building stock database for study regions of a county or large is up to 50% greater than estimates using individual structural data (Remo et al., 2012). Therefore, it is important to note that flood exposure and loss estimate values shown in this study should be taken as approximate estimates useful for relative, comparative assessment. Additionally, the flood model represents a worst case scenario in which all rivers experience 100-year flooding at the exact same time. As such the flood losses that are produced in this study should be perceived as a standardized

estimate of building related-flood losses which allows for a comparison between Illinois jurisdictions and not a realistic estimate of flood losses.

In the methodology applied in this study, a weighting scheme was not performed for SoV indices, because there is no justifiable supportive theory; nothing that fundamentally specified that an individual or set of indicators are less or more substantial in describing community vulnerability (Cutter et.al 2013). In spite of that, an argument could be made that some indicators could be more suitable to use than others in order to better inform decision makers on specific aspects of social vulnerability. This is an area of future research for flood vulnerability screening effort such as the one undertaken in this study.

In this study, indices were constructed based on an additive approach because of the relationship that variables identified as important by the PCA have with flood vulnerability. For example, it is assumed here that because the percentage of non-white and white individuals in a community have a positive and negative correlation with flood vulnerability respectively, that the best approach for this data set is to simply add and subtract the SoV variables accordingly. However, there is no agreed upon way to construct a SoV index and Tate (2012) demonstrates that each method has its strengths and weaknesses. Therefore, although this study may not be best for exact quantification of flood vulnerability, however it does provide a relative assessment that risk management can use to identify areas that are more vulnerable to flooding and potentially identify where mitigation funds would best be invested.

CHAPTER 6

CONCLUSION

Flood vulnerability (FLV) indices using the socio-economic and loss-estimation parameters from Hazus-MH were created to relatively assess flood vulnerable among Illinois's jurisdictions. FLV was defined in this study as combined function of potential building-related-economic losses and socioeconomic factors. Hazus-MH loss estimation software and FEMA's 100-year regulatory floodplain were employed used to estimate building-related-economic loss. To assess the relative differences in the potential socioeconomic consequences of flooding among Illinois jurisdictions, social vulnerability (SoV) indices were calculated at the county and jurisdictional level, using six socioeconomic indicators available within Hazus-MH's demographic database.

The FLV assessment results suggest urban and suburban communities are relatively more resilient to flooding. This is attributed to the availability of preventative resources such as well-constructed buildings to resist flood damages, existence of more robust levee systems, proper enforcement of land use regulation for flood-prone site, and evacuation programs. The results from this analysis suggest river communities in southern Illinois tend to be more vulnerable to flood because they lack the "preventative resource" found in Illinois' urban and suburban communities. Exceptions to this generalization were poor urban jurisdictions located in southern Cook County. These jurisdictions had some of the highest SoV scores in the state. However, these communities generally had only minor to moderate to flood exposure. This suggests there elevated FLV was largely driven by their SoV scores. In addition to jurisdictions located in southern Cook County, the SoV analysis indicated that there was clustering of relatively high-

social vulnerability in adjacent Du Page and Will counties. Jurisdictions in Southern Illinois with elevated FLV scores were located in Alexander, Pulaski, Williamson, and Saline Counties.

Vulnerability assessments are the core for pre-flood planning, damage evaluations, and the subsequent disaster responses. Identifying vulnerable communities requires not only the examination of all potential loss and damage, but also the recognition of the human aspects involved. The vulnerability values produced at the jurisdictional level allow tailored planning to occur on a local scale. The social vulnerability indices presented in this study exemplifies comprehensive snapshot of social vulnerability by identifying the most affected people within the community to disaster, in particular flooding.

The SoV indices employed here provide an experimental foundation for comparing spatial disparity within a social vulnerability context across widespread geographic locations in the State of Illinois. It can be a useful approach in flood risk planning and mitigation efforts. Moreover, the SoV scores could be used as a measurement tool to prioritize high socially vulnerable areas for suitable assistance, while those areas with low social vulnerability scores would have little or lessened attention.

The combination of the flood loss and social vulnerability modeling results to compute flood vulnerability scores were suitable for assessing relative differences in flood vulnerability at both the county and jurisdictional levels. They are suitable because they gave insightful knowledge by defining areas that expose to flooding and the social structures of these areas, therefore, beneficial efforts to reduce vulnerability. Moreover, the flood loss and social vulnerability models afford the chance to change the way in which flood risk managers is communicated to the public. However, dealing with minorities and poor population is the main

barrier that must be vanquish, if the risk management system become more socially inclusive by explain to those group of population their roles and capability of management in order to deal cope with natural hazard like flooding.

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APPENDICES

Appendix A- Principal Component Analyses Results for all 13 parameters

Total Variance Explained

		Initial Eigenvalues			**Extraction Sums of Squared Loadings**		
	Component	Total	% of Variance	Cumulative %	**Total**	**% of Variance**	**Cumulative %**
Per_Popless16Gre65	1	4.223	23.461	23.461	**4.223**	**23.461**	**23.461**
Per_NonWhite	2	2.083	11.574	35.034	**2.083**	**11.574**	**35.034**
Per_WhitePop	3	1.858	10.324	45.359	**1.858**	**10.324**	**45.359**
Per_Inc0to20	4	1.706	9.477	54.835	**1.706**	**9.477**	**54.835**
Per_Inc20to40	5	1.336	7.425	62.260	**1.336**	**7.425**	**62.260**
Per_Inc40to60	6	1.250	6.947	69.207	**1.250**	**6.947**	**69.207**
Per_Inc60to100	7	.957	5.319	74.526			
Per_Over100	8	.739	4.108	78.633			
Per_Own	9	.658	3.658	82.291			
Per_Rent	10	.648	3.599	85.889			
Per_Households	11	.545	3.026	88.915			
Per_Vacant	12	.452	2.513	91.428			
Per_PopWorkIn	13	.406	2.256	93.684			
Per_PopWorkC	14	.356	1.979	95.663			

Per_AveRent	15	.325	1.806	97.469
Per_AveValue	16	.266	1.477	98.946

Appendix B – County Flood Vulnerability (FV_1), Exposure, Loss, and Social Vulnerability (SoV_1) Results

County	Rank	Total Losses ($Thousands)	Total Exposure ($Thousands)	Loss Ratio	Loss Index	Social Vulnerability Score	Social Vulnerability (SV1)	Flood Score	Flood Vulnerability Index	Z-Score	Flood Vulnerability Rating
Adam	1	62,760	1,250,687	0.05	0.38	-0.65	0.19	0.55	0.28	-0.54	Low
Alexander	2	47,259	514,943	0.092	0.81	-0.04	1.00	1.81	0.93	3.73	High
Bond	3	22,422	417,784	0.054	0.41	-0.67	0.13	0.56	0.29	-0.50	Low
Boone	4	53,275	1,157,111	0.046	0.33	-0.62	0.24	0.55	0.28	-0.53	Low
Brown	5	2,787	199,793	0.014	0	-0.78	0.00	0.00	0.00	-2.42	Low
Bureau	6	63,944	918,857	0.07	0.58	-0.65	0.18	0.76	0.39	0.16	Average
Calhoun	7	25,446	369,473	0.069	0.57	-0.64	0.18	0.76	0.39	0.16	Average
Carroll	8	55,102	620,678	0.089	0.78	-0.57	0.27	1.06	0.54	1.18	Elevated
Cass	9	9,009	218,739	0.041	0.28	-0.66	0.17	0.45	0.23	-0.90	Low
Champaign	10	129,091	2,428,948	0.053	0.41	-0.62	0.23	0.63	0.32	-0.28	Average
Christian	11	26,482	558,042	0.047	0.35	-0.72	0.09	0.44	0.22	-0.93	Low
Clark	12	20,945	311,985	0.067	0.55	-0.72	0.05	0.64	0.33	-0.23	Average
Clay	13	8,154	186,236	0.044	0.31	-0.64	0.13	0.51	0.26	-0.70	Low
Clinton	14	125,158	1,526,415	0.082	0.71	-0.69	0.14	0.84	0.43	0.43	Average
Coles	15	63,272	872,438	0.073	0.61	-0.61	0.25	0.85	0.43	0.46	Average

Cook	16	2,083,241	48,241,319	0.043	0.3	-0.08	0.95	1.25	0.64	1.83	High
Crawford	17	20,712	407,300	0.051	0.38	-0.64	0.19	0.57	0.29	-0.47	Average
Cumberland	18	8,696	296,730	0.029	0.16	-0.62	0.21	0.37	0.19	-1.15	Low
Dekalb	19	79,029	2,077,660	0.038	0.25	-0.66	0.17	0.42	0.22	-0.98	Low
Dewitt	20	39,728	500,449	0.079	0.68	-0.67	0.15	0.83	0.42	0.40	Average
Douglas	21	49,060	614,340	0.08	0.68	-0.67	0.15	0.83	0.43	0.42	Average
DuPage	22	1,631,352	29,002,176	0.056	0.44	-0.41	0.49	0.94	0.48	0.78	Elevated
Edgar	23	11,418	265,402	0.043	0.3	-0.68	0.14	0.45	0.23	-0.90	Low
Edwards	24	6,333	87,194	0.073	0.61	-0.69	0.14	0.73	0.37	0.07	Average
Effingham	25	54,294	971,669	0.056	0.44	-0.64	0.19	0.63	0.32	-0.27	Average
Fayette	26	15,182	347,442	0.044	0.31	-0.58	0.28	0.58	0.30	-0.45	Average
Ford	27	2,454	73,540	0.033	0.2	-0.76	0.03	0.23	0.12	-1.64	Low
Franklin	28	38,283	661,039	0.058	0.46	-0.56	0.31	0.76	0.39	0.17	Average
Fulton	29	32,337	676,302	0.048	0.35	-0.68	0.15	0.50	0.25	-0.72	Low
Gallatin	30	22,508	252,293	0.089	0.78	-0.53	0.32	1.12	0.57	1.38	Elevated
Greene	31	10,951	213,887	0.051	0.39	-0.66	0.17	0.55	0.28	-0.55	Low
Grundy	32	121,045	1,636,133	0.074	0.62	-0.65	0.18	0.80	0.41	0.31	Average
Hamilton	33	5,267	150,445	0.035	0.22	-0.58	0.29	0.50	0.25	-0.73	Low

Hamncock	34	26,991	567,135	0.048	0.35	-0.71	0.11	0.45	0.23	-0.89	Low
Hardin	35	10,408	209,748	0.05	0.37	-0.53	0.31	0.71	0.36	0.00	Average
Henderson	36	28,105	295,751	0.095	0.84	-0.72	0.08	0.93	0.48	0.75	Elevated
Henry	37	55,052	890,576	0.062	0.5	-0.63	0.21	0.71	0.36	-0.01	Average
Iroquois	38	83,534	1,037,055	0.081	0.69	-0.58	0.27	0.96	0.49	0.85	Elevated
Jackson	39	135,938	1,481,687	0.092	0.81	-0.47	0.43	1.23	0.63	1.76	High
Jasper	40	12,400	279,945	0.044	0.32	-0.63	0.20	0.53	0.27	-0.63	Low
Jefferson	41	37,294	852,953	0.044	0.31	-0.60	0.22	0.55	0.28	-0.54	Low
Jersey	42	35,922	533,381	0.067	0.55	-0.74	0.05	0.61	0.31	-0.33	Average
Jo Daviess	43	61,592	1,128,217	0.055	0.42	-0.65	0.18	0.61	0.31	-0.36	Average
Johnson	44	24,399	397,182	0.061	0.49	-0.54	0.32	0.82	0.42	0.38	Average
Kane	45	547,572	12,334,825	0.044	0.32	-0.47	0.42	0.74	0.38	0.10	Average
Kankakee	46	176,315	3,362,419	0.052	0.4	-0.50	0.39	0.78	0.40	0.22	Average
Kendall	47	106,392	1,892,498	0.056	0.44	-0.72	0.08	0.52	0.27	-0.63	Low
Knox	48	27,906	632,251	0.044	0.31	-0.64	0.19	0.50	0.26	-0.71	Low
Lake	49	1,550,859	29,955,350	0.052	0.39	-0.49	0.39	0.78	0.40	0.24	Average
LaSalle	50	259,924	3,078,438	0.084	0.73	-0.54	0.32	1.05	0.54	1.16	Elevated
Lawrence	51	54,086	523,136	0.103	0.93	-0.56	0.29	1.23	0.63	1.77	High

Lee	52	52,720	915,264	0.058	0.45	-0.66	0.17	0.63	0.32	-0.29	Average
Livingston	53	70,800	1,162,255	0.061	0.49	-0.72	0.09	0.58	0.30	-0.45	Average
Logan	54	28,440	589,349	0.048	0.36	-0.72	0.09	0.45	0.23	-0.89	Low
Macon	55	188,411	2,787,620	0.068	0.56	-0.63	0.21	0.77	0.39	0.19	Average
Macoupin	56	15,193	363,000	0.042	0.29	-0.69	0.12	0.42	0.21	-1.00	Low
Madison	57	203,198	4,170,924	0.049	0.36	-0.65	0.16	0.55	0.28	-0.56	Low
Marion	58	40,956	773,040	0.053	0.41	-0.60	0.24	0.66	0.34	-0.19	Average
Marshall	59	25,731	413,025	0.062	0.5	-0.68	0.13	0.64	0.33	-0.26	Average
Mason	60	19,483	269,579	0.072	0.61	-0.63	0.23	0.81	0.42	0.35	Average
Massac	61	35,922	417,460	0.086	0.75	-0.48	0.39	1.16	0.59	1.52	High
McDonough	62	30,597	608,024	0.05	0.38	-0.78	0.01	0.38	0.20	-1.11	Low
McHenry	63	504,915	10,926,596	0.046	0.34	-0.62	0.21	0.56	0.28	-0.53	Low
McLean	64	116,759	2,838,260	0.041	0.28	-0.66	0.16	0.45	0.23	-0.90	Low
Menard	65	16,270	308,168	0.053	0.4	-0.68	0.14	0.55	0.28	-0.55	Low
Mercer	66	13,364	335,265	0.04	0.27	-0.73	0.06	0.34	0.17	-1.25	Low
Monroe	67	50,162	901,754	0.056	0.43	-0.75	0.03	0.48	0.24	-0.80	Low
Montgomery	68	7,658	358,261	0.021	0.08	-0.64	0.20	0.27	0.14	-1.49	Low
Morgan	69	78,196	1,074,431	0.073	0.61	-0.67	0.17	0.77	0.39	0.20	Average

Moultrie	70	19,918	390,147	0.051	0.39	-0.74	0.07	0.44	0.23	-0.91	Low
Ogle	71	114,325	1,895,410	0.06	0.48	-0.61	0.24	0.72	0.37	0.03	Average
Peoria	72	366,096	4,406,315	0.083	0.72	-0.55	0.34	1.03	0.53	1.07	Elevated
Perry	73	22,208	433,956	0.051	0.39	-0.62	0.23	0.61	0.31	-0.34	Average
Piatt	74	28,226	476,863	0.059	0.47	-0.75	0.04	0.51	0.26	-0.68	Low
Pike	75	33,265	335,952	0.099	0.88	-0.55	0.30	1.19	0.61	1.64	High
Pope	76	22,022	308,871	0.071	0.6	-0.53	0.33	0.93	0.48	0.76	Elevated
Pulaski	77	15,055	141,110	0.107	0.96	-0.04	0.95	1.95	1.00	4.22	High
Putnam	78	7,359	213,529	0.034	0.21	-0.70	0.11	0.33	0.17	-1.29	Low
Randolph	79	60,982	975,461	0.063	0.5	-0.68	0.14	0.65	0.33	-0.21	Average
Richland	80	32,029	486,319	0.066	0.54	-0.65	0.17	0.72	0.37	0.01	Average
Rock Island	81	245,138	3,423,820	0.072	0.6	-0.49	0.38	0.99	0.51	0.94	Elevated
Saline	82	81,471	1,146,432	0.071	0.59	-0.47	0.42	1.02	0.52	1.03	Elevated
Sangamon	83	297,282	4,006,378	0.074	0.63	-0.71	0.10	0.73	0.37	0.05	Average
Schuyler	84	3,543	92,464	0.038	0.25	-0.73	0.07	0.33	0.17	-1.31	Low
Scott	85	13,065	156,629	0.083	0.72	-0.78	0.01	0.73	0.38	0.07	Average
Shelby	86	13,779	356,301	0.039	0.26	-0.70	0.14	0.37	0.19	-1.15	Low
St.Clair	87	192,340	3,630,146	0.053	0.41	-0.53	0.34	0.75	0.38	0.12	Average

Stark	88	8,893	120,980	0.074	0.62	-0.67	0.15	0.77	0.40	0.21	Average
Stephenson	89	124,722	1,385,062	0.09	0.79	-0.58	0.28	1.06	0.54	1.18	Elevated
Tazewell	90	339,886	3,083,568	0.11	1	-0.64	0.19	1.19	0.61	1.62	High
Union	91	56,220	738,742	0.076	0.65	-0.63	0.21	0.86	0.44	0.50	Elevated
Vermilion	92	109,370	1,772,588	0.062	0.5	-0.55	0.30	0.80	0.41	0.32	Average
Wabash	93	16,919	195,930	0.086	0.75	-0.71	0.09	0.85	0.44	0.48	Elevated
Warren	94	11,296	312,464	0.036	0.23	-0.67	0.15	0.38	0.20	-1.11	Low
Washington	95	17,197	363,617	0.047	0.35	-0.70	0.10	0.46	0.23	-0.87	Low
Wayne	96	18,820	250,118	0.075	0.64	-0.62	0.21	0.86	0.44	0.49	Average
White	97	34,729	454,831	0.076	0.65	-0.58	0.26	0.92	0.47	0.70	Elevated
Whiteside	98	81,425	1,287,521	0.063	0.51	-0.65	0.17	0.69	0.35	-0.08	Average
Will	99	1,168,113	21,292,130	0.055	0.42	-0.39	0.51	0.95	0.48	0.80	Elevated
Williamson	100	88,769	1,613,931	0.055	0.43	-0.48	0.39	0.83	0.42	0.40	Average
Winnebago	101	346,477	7,820,046	0.044	0.32	-0.53	0.33	0.66	0.34	-0.19	Average
Woodford	102	62,637	945,203	0.066	0.54	-0.71	0.30	0.64	0.33	-0.25	Average

Appendix C – County Flood Vulnerability (FV_2), Exposure, Loss, and Social Vulnerability (SoV_2) Results

County	Rank	Total Losses ($Thousand)	Total Exposure ($Thousands)	Loss Ratio	Loss Index	Social Vulnerability Score (SoV_1)	Social Vulnerability (SoV_2)	Flood Score	Flood Vulnerability (FV_2)	Z-Score	Flood Vulnerability Rating
Adam	1	62,760	1,250,687	0.05	0.38	0.47	0.35	0.69	0.29	-0.48	Average
Alexander	2	47,259	514,943	0.09	0.81	0.83	1.00	1.81	0.95	3.46	High
Bond	3	22,422	417,784	0.05	0.41	0.48	0.35	0.76	0.33	-0.24	Average
Boone	4	53,275	1,157,111	0.05	0.33	0.47	0.39	0.66	0.27	-0.58	Low
Brown	5	2,787	199,793	0.01	0.00	0.44	0.31	0.27	0.04	-1.99	Low
Bureau	6	63,944	918,857	0.07	0.58	0.42	0.24	0.80	0.36	-0.10	Average
Calhoun	7	25,446	369,473	0.07	0.57	0.46	0.32	0.88	0.40	0.18	Average
Carroll	8	55,102	620,678	0.09	0.78	0.55	0.49	1.25	0.62	1.48	Elevated
Cass	9	9,009	218,739	0.04	0.28	0.46	0.33	0.59	0.23	-0.84	Low
Champaign	10	129,091	2,428,948	0.05	0.41	0.45	0.30	0.69	0.29	-0.49	Average
Christian	11	26,482	558,042	0.05	0.35	0.40	0.18	0.54	0.20	-1.01	Low
Clark	12	20,945	311,985	0.07	0.55	0.42	0.20	0.79	0.35	-0.13	Average
Clay	13	8,154	186,236	0.04	0.31	0.43	0.19	0.57	0.22	-0.92	Low
Clinton	14	125,158	1,526,415	0.08	0.71	0.44	0.29	0.97	0.46	0.51	Elevated
Coles	15	63,272	872,438	0.07	0.61	0.50	0.42	1.00	0.47	0.60	Elevated

Cook	16	2,083,241	48,241,319	0.04	0.30	0.79	0.93	1.24	0.61	1.45	Elevated
Crawford	17	20,712	407,300	0.05	0.38	0.43	0.27	0.64	0.26	-0.67	Low
Cumberland	18	8,696	296,730	0.03	0.16	0.54	0.46	0.62	0.24	-0.75	Low
DeKalb	19	79,029	2,077,660	0.04	0.25	0.42	0.25	0.48	0.16	-1.24	Low
Dewitt	20	39,728	500,449	0.08	0.68	0.44	0.29	0.94	0.44	0.39	Average
Douglas	21	49,060	614,340	0.08	0.68	0.42	0.25	0.92	0.43	0.34	Average
Du Page	22	1,631,352	29,002,176	0.06	0.44	0.58	0.54	0.98	0.46	0.53	Elevated
Edgar	23	11,418	265,402	0.04	0.30	0.41	0.23	0.52	0.19	-1.10	Low
Edwards	24	6,333	87,194	0.07	0.61	0.46	0.38	0.92	0.43	0.34	Average
Effingham	25	54,294	971,669	0.06	0.44	0.51	0.41	0.84	0.38	0.06	Average
Fayette	26	15,182	347,442	0.04	0.31	0.51	0.42	0.71	0.30	-0.42	Average
Ford	27	2,454	73,540	0.03	0.20	0.30	0.00	0.20	0.00	-2.22	Low
Franklin	28	38,283	661,039	0.06	0.46	0.55	0.49	0.93	0.43	0.35	Average
Fulton	29	32,337	676,302	0.05	0.35	0.44	0.29	0.61	0.24	-0.77	Low
Gallatin	30	22,508	252,293	0.09	0.78	0.52	0.42	1.19	0.59	1.29	Elevated
Greene	31	10,951	213,887	0.05	0.39	0.42	0.24	0.62	0.25	-0.74	Low
Grundy	32	121,045	1,636,133	0.07	0.62	0.42	0.26	0.86	0.39	0.10	Average
Hamilton	33	5,267	150,445	0.04	0.22	0.50	0.42	0.59	0.23	-0.83	Low

Hancock	34	26,991	567,135	0.05	0.35	0.41	0.24	0.56	0.21	-0.96	Low
Hardin	35	10,408	209,748	0.05	0.37	0.57	0.51	0.89	0.41	0.21	Average
Henderson	36	28,105	295,751	0.10	0.84	0.40	0.19	1.03	0.49	0.70	Elevated
Henry	37	55,052	890,576	0.06	0.50	0.47	0.35	0.83	0.37	0.00	Average
Iroquois	38	83,534	1,037,055	0.08	0.69	0.51	0.42	1.10	0.53	0.94	Elevated
Jackson	39	135,938	1,481,687	0.09	0.81	0.58	0.53	1.34	0.67	1.80	High
Jasper	40	12,400	279,945	0.04	0.32	0.48	0.35	0.66	0.27	-0.60	Low
Jefferson	41	37,294	852,953	0.04	0.31	0.53	0.43	0.76	0.33	-0.25	Average
Jersey	42	35,922	533,381	0.07	0.55	0.40	0.18	0.74	0.32	-0.32	Average
Jo Daviess	43	61,592	1,128,217	0.06	0.42	0.48	0.37	0.78	0.34	-0.19	Average
Johnson	44	24,399	397,182	0.06	0.49	0.52	0.43	0.91	0.42	0.28	Average
Kane	45	547,572	12,334,825	0.04	0.32	0.53	0.45	0.76	0.33	-0.25	Average
Kankakee	46	176,315	3,362,419	0.05	0.40	0.56	0.52	0.89	0.41	0.21	Average
Kendall	47	106,392	1,892,498	0.06	0.44	0.40	0.21	0.63	0.25	-0.72	Low
Knox	48	27,906	632,251	0.04	0.31	0.45	0.31	0.60	0.24	-0.80	Low
Lake	49	1,550,859	29,955,350	0.05	0.39	0.53	0.45	0.83	0.37	0.01	Average
LaSalle	50	259,924	3,078,438	0.08	0.73	0.57	0.52	1.24	0.62	1.46	Elevated
Lawrence	51	54,086	523,136	0.10	0.93	0.52	0.41	1.35	0.68	1.84	High

Lee	52	52,720	915,264	0.06	0.45	0.47	0.34	0.78	0.34	-0.19	Average
Livingston	53	70,800	1,162,255	0.06	0.49	0.37	0.17	0.63	0.26	-0.69	Low
Logan	54	28,440	589,349	0.05	0.36	0.34	0.11	0.44	0.14	-1.36	Low
Macon	55	188,411	2,787,620	0.07	0.56	0.50	0.39	0.95	0.44	0.41	Average
Macoupin	56	15,193	363,000	0.04	0.29	0.43	0.24	0.53	0.20	-1.05	Low
Madison	57	203,198	4,170,924	0.05	0.36	0.49	0.37	0.73	0.31	-0.36	Average
Marion	58	40,956	773,040	0.05	0.41	0.52	0.42	0.83	0.37	-0.01	Average
Marshall	59	25,731	413,025	0.06	0.50	0.42	0.23	0.73	0.31	-0.35	Average
Mason	60	19,483	269,579	0.07	0.61	0.43	0.28	0.86	0.39	0.12	Average
Massac	61	35,922	417,460	0.09	0.75	0.57	0.52	1.27	0.63	1.56	High
McDonough	62	30,597	608,024	0.05	0.38	0.32	0.06	0.41	0.13	-1.46	Low
McHenry	63	504,915	10,926,596	0.05	0.34	0.46	0.32	0.65	0.26	-0.65	Low
McLean	64	116,759	2,838,260	0.04	0.28	0.41	0.23	0.49	0.17	-1.20	Low
Menard	65	16,270	308,168	0.05	0.40	0.45	0.30	0.69	0.29	-0.50	Low
Mercer	66	13,364	335,265	0.04	0.27	0.39	0.18	0.45	0.15	-1.34	Low
Monroe	67	50,162	901,754	0.06	0.43	0.40	0.19	0.62	0.25	-0.74	Low
Montgomery	68	7,658	358,261	0.02	0.08	0.45	0.31	0.37	0.10	-1.61	Low
Morgan	69	78,196	1,074,431	0.07	0.61	0.48	0.37	0.96	0.45	0.46	Low

Moultrie	70	19,918	390,147	0.05	0.39	0.41	0.25	0.61	0.24	-0.79	Low
Ogle	71	114,325	1,895,410	0.06	0.48	0.48	0.37	0.83	0.38	0.02	Average
Peoria	72	366,096	4,406,315	0.08	0.72	0.54	0.46	1.17	0.57	1.21	Elevated
Perry	73	22,208	433,956	0.05	0.39	0.55	0.49	0.86	0.39	0.12	Average
Piatt	74	28,226	476,863	0.06	0.47	0.38	0.18	0.63	0.26	-0.69	Low
Pike	75	33,265	335,952	0.10	0.88	0.51	0.41	1.29	0.64	1.63	High
Pope	76	22,022	308,871	0.07	0.60	0.57	0.52	1.11	0.54	0.99	High
Pulaski	77	15,055	141,110	0.11	0.96	0.79	0.94	1.89	1.00	3.75	High
Putnam	78	7,359	213,529	0.03	0.21	0.50	0.40	0.60	0.24	-0.79	Low
Randolph	79	60,982	975,461	0.06	0.50	0.45	0.31	0.80	0.36	-0.10	Average
Richland	80	32,029	486,319	0.07	0.54	0.50	0.39	0.92	0.43	0.33	Average
Rock Island	81	245,138	3,423,820	0.07	0.60	0.58	0.55	1.14	0.55	1.09	Elevated
Saline	82	81,471	1,146,432	0.07	0.59	0.61	0.59	1.18	0.58	1.24	Elevated
Sangamon	83	297,282	4,006,378	0.07	0.63	0.43	0.26	0.88	0.40	0.16	Average
Schuyler	84	3,543	92,464	0.04	0.25	0.44	0.28	0.52	0.19	-1.08	Low
Scott	85	13,065	156,629	0.08	0.72	0.37	0.14	0.85	0.39	0.09	Average
Shelby	86	13,779	356,301	0.04	0.26	0.46	0.36	0.56	0.21	-0.96	Low
St. Clair	87	192,340	3,630,146	0.05	0.41	0.54	0.46	0.86	0.39	0.10	Average

Stark	88	8,893	120,980	0.07	0.62	0.37	0.16	0.76	0.33	-0.23	Average
Stephenson	89	124,722	1,385,062	0.09	0.79	0.50	0.39	1.17	0.57	1.20	Elevated
Tazewell	90	339,886	3,083,568	0.11	1.00	0.47	0.34	1.33	0.67	1.77	High
Union	91	56,220	738,742	0.08	0.65	0.49	0.37	1.00	0.48	0.62	Elevated
Vermilion	92	109,370	1,772,588	0.06	0.50	0.53	0.45	0.94	0.44	0.40	Average
Wabash	93	16,919	195,930	0.09	0.75	0.40	0.21	0.94	0.44	0.40	Average
Warren	94	11,296	312,464	0.04	0.23	0.41	0.21	0.43	0.14	-1.39	Low
Washington	95	17,197	363,617	0.05	0.35	0.44	0.29	0.62	0.25	-0.73	Low
Wayne	96	18,820	250,118	0.08	0.64	0.46	0.31	0.94	0.44	0.39	Average
White	97	34,729	454,831	0.08	0.65	0.47	0.34	0.97	0.46	0.51	Elevated
Whiteside	98	81,425	1,287,521	0.06	0.51	0.46	0.31	0.81	0.36	-0.05	Average
Will	99	1,168,113	21,292,130	0.06	0.42	0.57	0.51	0.93	0.43	0.36	Average
Williamson	100	88,769	1,613,931	0.06	0.43	0.63	0.62	1.05	0.50	0.79	Elevated
Winnebago	101	346,477	7,820,046	0.04	0.32	0.55	0.49	0.80	0.35	-0.10	Average
Woodford	102	62,637	945,203	0.07	0.54	0.41	0.41	0.76	0.33	-0.25	Average

Appendix D– Jurisdictional Flood Vulnerability (FV_1), Exposure, Loss, and Social Vulnerability (SoV_1) Results

Town/City	Rank	Total Exposure ($Thousands)	Total Losses ($Thousands)	Loss Ratio	Weighted Flood Loss Ratio	Social Vulnerability Index (SoV_1)	Flood Score	Flood Vulnerability Index (FV_1)	Z-Score	Flood Vulnerability Rating
Gulf Port	1	23,623	6,130	0.26	1.00	0.23	1.46	1.23	6.26	High
Naples	2	14,922	3,537	0.24	0.91	0.18	1.27	1.09	5.25	High
Grand Tower	3	56,050	11,316	0.20	0.72	0.36	1.44	1.08	5.18	High
Robbins	4	263,879	10,118	0.04	0.03	1.00	2.03	1.03	4.81	High
Ford Heights	5	116,017	3,642	0.03	0.03	1.00	2.03	1.03	4.79	High
Venice	6	3,147	49	0.02	0.01	0.95	1.91	0.96	4.32	High
Harvey	7	553,413	18,345	0.03	0.02	0.94	1.90	0.96	4.32	High
Dixmoor	8	54,085	3,528	0.07	0.04	0.89	1.83	0.94	4.15	High
Old Shawnee town	9	18,152	2,756	0.15	0.60	0.34	1.28	0.94	4.15	High
Cairo	10	213,521	18,817	0.09	0.24	0.69	1.61	0.93	4.07	High
East St. Louis	11	15,064	1,397	0.09	0.07	0.84	1.74	0.91	3.95	High
Ullin	12	30,257	4,038	0.13	0.29	0.61	1.51	0.90	3.88	High
Madison	13	4,960	208	0.04	0.10	0.78	1.67	0.89	3.80	High
McClure	14	27,349	3,813	0.14	0.55	0.34	1.22	0.89	3.78	High
Bellwood	15	544,250	36,159	0.07	0.05	0.83	1.72	0.89	3.78	High

Phoenix	16	2,910	2	0.00	0.00	0.87	1.74	0.87	3.69	High
East Cape Girardeau	17	43,557	6,117	0.14	0.55	0.31	1.17	0.86	3.61	High
Pulaski	18	8,580	429	0.05	0.12	0.73	1.58	0.85	3.55	High
Gorham	19	20,789	3,098	0.15	0.50	0.35	1.20	0.85	3.53	High
Maunie	20	12,587	1,697	0.13	0.53	0.32	1.16	0.85	3.50	High
Markham	21	167,637	3,251	0.02	0.01	0.83	1.67	0.84	3.45	High
Cleveland	22	50,900	11,020	0.22	0.57	0.26	1.10	0.84	3.42	High
Russellville	23	145,951	20,382	0.14	0.55	0.28	1.11	0.83	3.38	High
Liverpool	24	17,905	2,743	0.15	0.60	0.22	1.05	0.82	3.34	High
Stone Park	25	263,522	8,551	0.03	0.06	0.76	1.57	0.81	3.25	High
Country Club Hills	26	448,357	10,038	0.02	0.00	0.80	1.60	0.80	3.19	High
Burnham	27	24,065	1,986	0.08	0.08	0.70	1.47	0.77	2.98	High
Hazel Crest	28	548,374	27,089	0.05	0.02	0.76	1.53	0.77	2.97	High
Woodland	29	40,743	6,067	0.15	0.45	0.31	1.06	0.76	2.86	High
Dolton	30	160,963	6,736	0.04	0.01	0.70	1.42	0.71	2.54	High
Riverdale	31	41,129	239	0.01	0.00	0.70	1.39	0.70	2.43	Average
Joppa	32	11,269	1,641	0.15	0.13	0.55	1.24	0.69	2.35	Average
South Holland	33	658,654	53,246	0.08	0.03	0.65	1.34	0.68	2.34	Average

De Pue	34	27,728	3,051	0.11	0.15	0.52	1.20	0.68	2.29	Average
Bath	35	30,440	3,326	0.11	0.33	0.35	1.03	0.68	2.28	Average
Maywood	36	46,319	6,362	0.14	0.01	0.66	1.33	0.67	2.24	Average
Calumet Park	37	46,404	651	0.01	0.00	0.66	1.32	0.66	2.17	Average
Forest Park	38	28,769	4,193	0.15	0.03	0.63	1.28	0.66	2.15	Average
Sun River Terrace	39	23,676	1,612	0.07	0.05	0.60	1.26	0.66	2.15	Average
Blue Island	40	443,531	5,179	0.01	0.00	0.65	1.30	0.65	2.11	Average
Melrose Park	41	639,176	29,197	0.05	0.02	0.63	1.28	0.65	2.11	Average
Karnak	42	15,278	1,191	0.08	0.23	0.42	1.06	0.65	2.06	Average
Chillicothe	43	316,785	76,660	0.24	0.36	0.27	0.90	0.63	1.96	Average
Fairmont City	44	41,223	1,262	0.03	0.04	0.57	1.19	0.62	1.85	Average
Freeport	45	312,667	35,522	0.11	0.06	0.55	1.16	0.61	1.80	Average
Fairmont	46	126,234	4,706	0.04	0.01	0.60	1.21	0.61	1.79	Average
Farmersville	47	3,711	76	0.02	0.00	0.60	1.20	0.60	1.74	Average
Dowell	48	28,515	2,471	0.09	0.25	0.35	0.95	0.60	1.72	Average
Meredosia	49	143,985	17,859	0.12	0.30	0.29	0.89	0.60	1.70	Average
Preston Heights	50	131,939	5,844	0.04	0.02	0.57	1.17	0.59	1.69	Average
Savanna	51	163,882	22,589	0.14	0.18	0.41	1.00	0.59	1.66	Average

Olympia Fields	52	397,422	27,498	0.07	0.02	0.57	1.16	0.59	1.65	Average
Rock Island	53	525,429	30,558	0.06	0.05	0.54	1.13	0.59	1.64	Average
Hillside	54	13,513	1,390	0.10	0.00	0.58	1.17	0.58	1.61	Average
Joliet	55	3,383,948	319,478	0.09	0.04	0.54	1.12	0.58	1.61	Average
Rome	56	153,828	24,636	0.16	0.31	0.27	0.86	0.58	1.60	Average
East Hazel Crest	57	19,636	4,800	0.24	0.03	0.55	1.13	0.58	1.58	Average
Sauk Village	58	229,474	11,024	0.05	0.03	0.54	1.12	0.58	1.56	Average
Northlake	59	420,341	16,712	0.04	0.01	0.56	1.14	0.58	1.55	Average
Matteson	60	631,258	23,898	0.04	0.02	0.55	1.13	0.57	1.54	Average
Spring Bay	61	80,071	9,692	0.12	0.38	0.19	0.76	0.57	1.51	Average
Park City	62	250,142	11,979	0.05	0.03	0.54	1.11	0.57	1.50	Average
Winslow	63	51,870	9,958	0.19	0.38	0.19	0.75	0.57	1.49	Average
Beardstown	64	7,865	277	0.04	0.00	0.56	1.12	0.56	1.47	Average
North Chicago	65	917,037	32,023	0.03	0.01	0.55	1.11	0.56	1.44	Average
Murphysboro	66	263,365	43,027	0.16	0.12	0.44	1.00	0.56	1.43	Average
Florence	67	7,369	991	0.13	0.30	0.25	0.80	0.55	1.39	Average
Chicago	68	4,956,782	384,644	0.08	0.01	0.54	1.09	0.55	1.39	Average
Rock Island Arsenal	69	14,420	232	0.02	0.04	0.51	1.06	0.55	1.35	Average

Richton Park	70	394,537	10,008	0.03	0.01	0.54	1.08	0.55	1.34	Average
Chicago Heights	71	346,819	23,173	0.07	0.02	0.53	1.07	0.54	1.32	Average
Marine	72	6,300	408	0.06	0.25	0.30	0.84	0.54	1.32	Average
Broughton	73	1,779	132	0.07	0.06	0.48	1.01	0.54	1.27	Average
Posen	74	186,964	6,220	0.03	0.02	0.52	1.05	0.53	1.24	Average
Villa Grove	75	104,853	16,262	0.16	0.25	0.28	0.82	0.53	1.24	Average
Skokie	76	44,991	837	0.02	0.00	0.53	1.06	0.53	1.24	Average
Lenzburg	77	5,979	303	0.05	0.15	0.37	0.90	0.53	1.20	Average
Cahokia	78	136,922	4,447	0.03	0.05	0.47	1.00	0.53	1.20	Average
South Beloit	79	370,307	48,934	0.13	0.10	0.43	0.95	0.53	1.20	Average
Peoria	80	1,854,500	163,149	0.09	0.05	0.48	1.00	0.52	1.18	Average
Colp	81	8,343	411	0.05	0.02	0.51	1.03	0.52	1.18	Average
East Peoria	82	1,147,012	187,346	0.16	0.20	0.32	0.84	0.52	1.18	Average
Flossmoor	83	454,500	21,773	0.05	0.02	0.51	1.03	0.52	1.17	Average
Lawrenceville	84	58,663	7,480	0.13	0.09	0.43	0.94	0.52	1.15	Average
Kaskaskia	85	1,965	121	0.06	0.24	0.28	0.80	0.52	1.15	Average
Calumet City	86	492,892	29,048	0.06	0.02	0.50	1.02	0.52	1.13	Average
Olmsted	87	7,771	917	0.12	0.08	0.44	0.95	0.52	1.13	Average

Watseka	88	543,007	48,359	0.09	0.16	0.36	0.87	0.52	1.13	Average
Washington Park	89	5,293	142	0.03	0.01	0.50	1.02	0.51	1.12	Average
La Grange	90	14,449	154	0.01	0.00	0.51	1.03	0.51	1.11	Average
Alhambra	91	5,775	451	0.08	0.28	0.24	0.75	0.51	1.11	Average
Fairview Heights	92	102,354	1,559	0.02	0.00	0.51	1.02	0.51	1.09	Average
Evanston	93	346,639	9,103	0.03	0.00	0.51	1.02	0.51	1.09	Average
Urbana	94	402,677	22,203	0.06	0.01	0.50	1.01	0.51	1.08	Average
Junction	95	12,360	511	0.04	0.16	0.35	0.85	0.51	1.06	Average
Franklin Park	96	956,124	28,529	0.03	0.01	0.49	0.99	0.50	1.04	Average
Lynwood	97	202,189	4,470	0.02	0.03	0.48	0.98	0.50	1.03	Average
Wheeling	98	2,120,162	121,307	0.06	0.05	0.44	0.93	0.49	0.94	Average
Freeman Spur	99	8,439	1,369	0.16	0.18	0.31	0.80	0.49	0.94	Average
Hamburg	100	29,257	6,404	0.22	0.27	0.22	0.70	0.49	0.92	Average
Kampsville	101	24,665	2,639	0.11	0.18	0.31	0.80	0.49	0.92	Average
Grand Detour	102	30,432	3,269	0.11	0.18	0.31	0.79	0.49	0.91	Average
Bush	103	6,282	336	0.05	0.02	0.47	0.96	0.49	0.91	Average
Danville	104	937,651	58,546	0.06	0.02	0.47	0.95	0.49	0.91	Average
Eldorado	105	152,347	17,467	0.11	0.14	0.35	0.83	0.49	0.91	Average

Tamms	106	56,654	4,161	0.07	0.09	0.39	0.88	0.48	0.90	Average
Pearl	107	7,680	888	0.12	0.17	0.31	0.80	0.48	0.89	Average
Broadview	108	124,692	5,630	0.05	0.01	0.47	0.95	0.48	0.88	Average
Bensenville	109	1,289,884	90,676	0.07	0.03	0.45	0.93	0.48	0.88	Average
Park Forest	110	20,939	624	0.03	0.00	0.48	0.96	0.48	0.88	Average
Aroma Park	111	204,831	21,598	0.11	0.20	0.28	0.76	0.48	0.87	Average
Olive Branch	112	57,562	4,211	0.07	0.13	0.35	0.83	0.48	0.86	Average
North Pekin	113	64,025	8,585	0.13	0.23	0.25	0.72	0.48	0.86	Average
Peoria Heights	114	358,458	26,672	0.07	0.19	0.28	0.76	0.48	0.84	Average
Rochelle	115	522,105	39,504	0.08	0.08	0.40	0.87	0.48	0.84	Average
Homewood	116	337,937	24,462	0.07	0.01	0.47	0.94	0.48	0.84	Average
Hurst	117	19,306	2,031	0.11	0.12	0.36	0.83	0.47	0.82	Average
East Moline	118	425,420	26,054	0.06	0.08	0.39	0.86	0.47	0.80	Average
Metropolis	119	227,375	22,713	0.10	0.13	0.34	0.81	0.47	0.79	Average
Bolingbrook	120	1,961,985	82,830	0.04	0.03	0.44	0.91	0.47	0.79	Average
Hanover Park	121	452,068	12,834	0.03	0.01	0.46	0.93	0.47	0.78	Average
Round Lake Beach	122	720,441	45,510	0.06	0.03	0.44	0.90	0.47	0.77	Average
Aurora	123	3,802,884	162,795	0.04	0.01	0.45	0.92	0.46	0.76	Average

River Forest	124	119,667	5,960	0.05	0.03	0.44	0.90	0.46	0.75	Average
Chandler Ville	125	41,563	2,485	0.06	0.14	0.32	0.78	0.46	0.74	Average
Belknap	126	6,408	174	0.03	0.07	0.39	0.85	0.46	0.74	Average
Dallas City	127	13,539	1,761	0.13	0.17	0.29	0.75	0.46	0.73	Average
Champaign	128	739,849	12,200	0.02	0.00	0.46	0.92	0.46	0.72	Average
Ellisville	129	3,766	327	0.09	0.07	0.39	0.85	0.46	0.72	Average
Glenwood	130	117,689	5,481	0.05	0.02	0.43	0.89	0.46	0.72	Average
Stickney	131	1,966	82	0.04	0.00	0.45	0.91	0.46	0.71	Average
Kankakee	132	1,236,423	109,752	0.09	0.03	0.43	0.89	0.46	0.70	Average
Thebes	133	8,946	774	0.09	0.12	0.33	0.79	0.45	0.68	Average
Westchester	134	657,458	34,934	0.05	0.03	0.43	0.88	0.45	0.68	Average
Central City	135	21,386	3,188	0.15	0.12	0.33	0.79	0.45	0.68	Average
Pontoosuc	136	17,695	1,657	0.09	0.19	0.26	0.72	0.45	0.67	Average
Sumner	137	38,342	3,626	0.09	0.17	0.28	0.74	0.45	0.67	Average
Mundelein	138	1,647,964	46,987	0.03	0.01	0.44	0.90	0.45	0.66	Average
Waukegan	139	1,355,831	94,689	0.07	0.02	0.43	0.88	0.45	0.65	Average
Cave-In-Rock	140	7,688	237	0.03	0.02	0.43	0.87	0.45	0.64	Average
Mill Shoals	141	9,654	882	0.09	0.18	0.27	0.72	0.45	0.63	Average

Belvidere	142	356,507	26,173	0.07	0.05	0.39	0.84	0.45	0.63	Average
Schiller Park	143	728,284	25,283	0.03	0.03	0.42	0.87	0.45	0.62	Average
Keyesport	144	21,438	2,474	0.12	0.15	0.29	0.74	0.45	0.62	Average
Glendale Heights	145	962,944	34,172	0.04	0.01	0.44	0.88	0.44	0.61	Average
Paderborn	146	10,483	1,289	0.12	0.18	0.26	0.71	0.44	0.61	Average
Oquawka	147	20,135	1,617	0.08	0.10	0.34	0.78	0.44	0.61	Average
Harrisburg	148	555,562	40,410	0.07	0.06	0.38	0.83	0.44	0.60	Average
Scott AFB	149	122,661	13,278	0.11	0.10	0.34	0.78	0.44	0.59	Average
West Peoria	150	96,555	10,707	0.11	0.03	0.41	0.85	0.44	0.59	Average
Hutsonville	151	53,079	5,469	0.10	0.12	0.32	0.76	0.44	0.59	Average
New Haven	152	27,561	3,119	0.11	0.14	0.30	0.74	0.44	0.59	Average
Addison	153	977,828	49,111	0.05	0.01	0.43	0.87	0.44	0.59	Average
Carbondale	154	441,011	25,496	0.06	0.03	0.41	0.85	0.44	0.57	Average
Sterling	155	68,820	2,730	0.04	0.01	0.42	0.86	0.44	0.57	Average
Galesburg	156	290,325	10,538	0.04	0.01	0.43	0.87	0.44	0.56	Average
Brook port	157	17,803	1,324	0.07	0.01	0.43	0.87	0.44	0.56	Average
Sauget	158	17,057	60	0.00	0.00	0.43	0.87	0.44	0.55	Average
Evansville	159	13,030	3,299	0.25	0.18	0.26	0.69	0.44	0.55	Average

Carrier Mills	160	50,721	1,307	0.03	0.01	0.43	0.86	0.43	0.54	Average
Villa Park	161	515,390	62,518	0.12	0.02	0.41	0.84	0.43	0.53	Average
Oakbrook Terrace	162	353,646	30,601	0.09	0.03	0.41	0.84	0.43	0.53	Average
Lincolnshire	163	811,931	96,473	0.12	0.09	0.34	0.78	0.43	0.53	Average
Dongola	164	43,443	5,452	0.13	0.09	0.34	0.77	0.43	0.52	Average
Lansing	165	616,854	27,310	0.04	0.01	0.42	0.85	0.43	0.51	Average
Rankin	166	7,368	573	0.08	0.03	0.40	0.83	0.43	0.51	Average
Willowbrook	167	314,303	14,525	0.05	0.02	0.40	0.83	0.43	0.48	Average
Alsip	168	378,903	5,820	0.02	0.00	0.42	0.85	0.43	0.47	Average
Round Lake Park	169	235,854	16,817	0.07	0.06	0.36	0.79	0.42	0.46	Average
Zion	170	514,314	20,648	0.04	0.02	0.40	0.83	0.42	0.46	Average
Crestwood	171	418,242	22,170	0.05	0.02	0.41	0.83	0.42	0.45	Average
Media	172	735	25	0.03	0.00	0.42	0.84	0.42	0.44	Average
Maeystown	173	1,058	17	0.02	0.00	0.42	0.84	0.42	0.44	Average
Muddy	174	16,843	970	0.06	0.10	0.32	0.74	0.42	0.43	Average
New Boston	175	17,762	1,510	0.09	0.15	0.26	0.68	0.42	0.41	Average
Rockford	176	3,746,453	130,965	0.03	0.01	0.40	0.82	0.42	0.40	Average
Sidney	177	91,038	12,175	0.13	0.17	0.25	0.66	0.41	0.39	Average

Bureau Junction	178	9,751	872	0.09	0.23	0.18	0.60	0.41	0.39	Average
Morton Grove	179	150,638	12,051	0.08	0.02	0.40	0.81	0.41	0.38	Average
Browning	180	10,632	322	0.03	0.09	0.32	0.73	0.41	0.38	Average
Hennepin	181	17,896	936	0.05	0.04	0.38	0.79	0.41	0.37	Average
Oak Brook	182	1,095,037	85,667	0.08	0.03	0.38	0.79	0.41	0.36	Average
Rosemont	183	126,732	1,864	0.01	0.00	0.41	0.81	0.41	0.35	Average
Carmi	184	206,132	15,976	0.08	0.04	0.37	0.78	0.41	0.35	Average
Westmont	185	733,272	23,852	0.03	0.00	0.40	0.81	0.41	0.35	Average
Caseyville	186	281,158	12,896	0.05	0.06	0.35	0.76	0.41	0.34	Average
Streator	187	432,302	46,048	0.11	0.05	0.36	0.76	0.41	0.34	Average
Equality	188	31,218	2,601	0.08	0.07	0.34	0.75	0.41	0.33	Average
Pleasant Hill	189	80,923	7,055	0.09	0.00	0.40	0.81	0.41	0.33	Average
London Mills	190	24,038	2,454	0.10	0.15	0.25	0.66	0.41	0.33	Average
Round Lake Heights	191	113,667	9,549	0.08	0.02	0.39	0.79	0.41	0.33	Average
Nelson	192	22,745	1,478	0.06	0.12	0.28	0.69	0.41	0.33	Average
Des Plaines	193	2,281,897	146,877	0.06	0.03	0.37	0.78	0.40	0.32	Average
La Grange Park	194	90,946	8,122	0.09	0.02	0.38	0.78	0.40	0.31	Average
Long Lake	195	316,275	18,553	0.06	0.11	0.29	0.69	0.40	0.31	Average

Hainesville	196	285,228	11,139	0.04	0.06	0.34	0.74	0.40	0.30	Average
Worth	197	56,289	4,638	0.08	0.01	0.40	0.80	0.40	0.28	Average
West Chicago	198	460,352	11,250	0.02	0.01	0.39	0.79	0.40	0.27	Average
Elgin	199	2,499,630	144,636	0.06	0.02	0.38	0.77	0.40	0.27	Average
Lyons	200	95,656	4,645	0.05	0.02	0.37	0.77	0.40	0.27	Average
Marion	201	828,383	42,939	0.05	0.02	0.37	0.77	0.40	0.27	Average
Deer Grove	202	6,390	510	0.08	0.09	0.31	0.71	0.40	0.27	Average
Buda	203	1,975	55	0.03	0.00	0.39	0.79	0.40	0.26	Average
Ottawa	204	385,634	44,840	0.12	0.06	0.34	0.73	0.40	0.25	Average
Riverside	205	220,607	11,502	0.05	0.04	0.36	0.75	0.39	0.25	Average
Keithsburg	206	19,568	1,134	0.06	0.12	0.27	0.67	0.39	0.25	Average
Channel Lake	207	250,854	18,883	0.08	0.15	0.24	0.63	0.39	0.24	Average
Andalusia	208	103,574	13,590	0.13	0.13	0.26	0.66	0.39	0.24	Average
Holiday Hills	209	91,482	5,316	0.06	0.12	0.27	0.66	0.39	0.24	Average
Carbon Cliff	210	125,635	8,156	0.06	0.08	0.32	0.71	0.39	0.24	Average
Prophetstown	211	53,215	6,185	0.12	0.09	0.30	0.69	0.39	0.24	Average
Moline	212	1,241,567	103,981	0.08	0.06	0.33	0.73	0.39	0.23	Average
Carlyle	213	110,363	11,739	0.11	0.06	0.33	0.72	0.39	0.22	Average

Bay View Gardens	214	46,188	5,890	0.13	0.09	0.30	0.69	0.39	0.22	Average
Ingalls Park	215	9,618	401	0.04	0.00	0.39	0.78	0.39	0.22	Average
Jonesboro	216	78,452	13,428	0.17	0.02	0.37	0.76	0.39	0.22	Average
Milford	217	26,617	2,051	0.08	0.04	0.35	0.74	0.39	0.22	Average
Vernon Hills	218	1,232,411	77,909	0.06	0.03	0.36	0.75	0.39	0.21	Average
Charleston	219	324,310	27,818	0.09	0.05	0.34	0.73	0.39	0.21	Average
Sleepy Hollow	220	83,419	3,607	0.04	0.02	0.37	0.75	0.39	0.21	Average
Beach Park	221	749,166	33,807	0.05	0.01	0.38	0.76	0.39	0.20	Average
Walnut	222	63,445	6,414	0.10	0.06	0.33	0.71	0.39	0.20	Average
St. Francisville	223	8,944	931	0.10	0.09	0.30	0.69	0.39	0.20	Average
Nebo	224	14,334	520	0.04	0.07	0.32	0.71	0.39	0.20	Average
River Grove	225	227,334	11,272	0.05	0.04	0.34	0.73	0.39	0.19	Average
North Riverside	226	127,848	10,356	0.08	0.04	0.35	0.73	0.39	0.19	Average
Round Lake	227	426,008	18,074	0.04	0.03	0.36	0.74	0.39	0.19	Average
Elmhurst	228	844,800	45,741	0.05	0.01	0.38	0.76	0.39	0.19	Average
Orient	229	7,259	586	0.08	0.06	0.33	0.72	0.39	0.19	Average
Marissa	230	21,273	474	0.02	0.06	0.32	0.71	0.39	0.19	Average
Bridgeview	231	26,949	715	0.03	0.00	0.38	0.77	0.39	0.19	Average

Como	232	37,122	3,098	0.08	0.12	0.27	0.65	0.39	0.19	Average
Kewanee	233	164,714	7,946	0.05	0.00	0.38	0.77	0.39	0.19	Average
Carol Stream	234	1,593,004	61,277	0.04	0.02	0.37	0.75	0.38	0.18	Average
Mount Vernon	235	293,496	11,596	0.04	0.01	0.37	0.75	0.38	0.18	Average
Sparta	236	86,978	9,885	0.11	0.04	0.34	0.72	0.38	0.18	Average
Carpentersville	237	604,206	23,945	0.04	0.01	0.37	0.76	0.38	0.18	Average
Park Ridge	238	680,627	20,208	0.03	0.00	0.38	0.76	0.38	0.18	Average
Tonica	239	50,075	4,033	0.08	0.04	0.34	0.73	0.38	0.18	Average
East Dubuque	240	122,687	17,210	0.14	0.11	0.28	0.66	0.38	0.18	Average
Sparland	241	30,646	2,871	0.09	0.12	0.26	0.64	0.38	0.18	Average
Genoa	242	82,575	4,329	0.05	0.03	0.36	0.74	0.38	0.17	Average
Lombard	243	819,300	43,255	0.05	0.01	0.37	0.75	0.38	0.17	Average
Centreville	244	16,304	84	0.01	0.00	0.38	0.76	0.38	0.17	Average
Valley City	245	3,237	137	0.04	0.10	0.28	0.66	0.38	0.17	Average
North Utica	246	108,610	15,493	0.14	0.10	0.28	0.66	0.38	0.16	Average
Montgomery	247	517,345	29,013	0.06	0.04	0.35	0.73	0.38	0.16	Average
Pittsburg	248	2,229	42	0.02	0.00	0.38	0.76	0.38	0.16	Average
Galatia	249	51,856	3,418	0.07	0.05	0.33	0.71	0.38	0.16	Average

Rosiclare	250	34,550	1,568	0.05	0.03	0.35	0.73	0.38	0.16	Average
Greenfield	251	15,735	943	0.06	0.02	0.36	0.74	0.38	0.15	Average
Harrison	252	25,716	482	0.02	0.00	0.38	0.76	0.38	0.15	Average
Mendota	253	423,403	20,195	0.05	0.02	0.36	0.74	0.38	0.15	Average
Harvard	254	169,540	3,195	0.02	0.00	0.38	0.76	0.38	0.14	Average
Johnston City	255	47,097	3,708	0.08	0.06	0.32	0.70	0.38	0.14	Average
Prospect Heights	256	1,138,418	46,477	0.04	0.03	0.35	0.73	0.38	0.14	Average
Kingston Mines	257	14,824	1,338	0.09	0.14	0.24	0.62	0.38	0.13	Average
Morris	258	838,962	79,416	0.09	0.06	0.32	0.70	0.38	0.13	Average
Itasca	259	226,787	20,774	0.09	0.04	0.33	0.71	0.38	0.13	Average
Royalton	260	13,655	724	0.05	0.03	0.34	0.72	0.38	0.13	Average
Holiday Shores	261	183,937	17,876	0.10	0.14	0.24	0.62	0.38	0.13	Average
Orangeville	262	31,208	3,368	0.11	0.14	0.24	0.61	0.38	0.12	Average
Oregon	263	241,674	16,733	0.07	0.05	0.33	0.71	0.38	0.12	Average
Fox Lake	264	1,414,750	119,919	0.08	0.10	0.27	0.65	0.38	0.11	Average
Port Barrington	265	203,433	12,745	0.06	0.12	0.25	0.63	0.37	0.11	Average
Jacksonville	266	501,672	32,905	0.07	0.04	0.34	0.71	0.37	0.11	Average
Milan	267	283,463	14,478	0.05	0.05	0.33	0.70	0.37	0.11	Average

Hoffman Estates	268	2,806,864	69,023	0.02	0.01	0.37	0.74	0.37	0.11	Average
Manlius	269	23,492	2,681	0.11	0.10	0.28	0.65	0.37	0.11	Average
Mettawa	270	860,690	57,066	0.07	0.05	0.32	0.70	0.37	0.11	Average
El Paso	271	1,580	46	0.03	0.00	0.37	0.75	0.37	0.11	Average
Crossville	272	50,402	3,157	0.06	0.06	0.31	0.68	0.37	0.11	Average
Cissna Park	273	46,071	2,681	0.06	0.06	0.31	0.68	0.37	0.10	Average
Schaumburg	274	3,511,249	90,478	0.03	0.00	0.37	0.74	0.37	0.10	Average
Glenview	275	798,213	38,384	0.05	0.01	0.36	0.74	0.37	0.09	Average
Arlington Heights	276	1,146,959	23,467	0.02	0.00	0.37	0.74	0.37	0.09	Average
Bridgeport	277	55,316	3,238	0.06	0.07	0.31	0.68	0.37	0.09	Average
Belleville	278	452,258	25,654	0.06	0.02	0.35	0.73	0.37	0.08	Average
Waltonville	279	878	26	0.03	0.00	0.37	0.74	0.37	0.08	Average
New Bedford	280	11,907	1,089	0.09	0.06	0.31	0.68	0.37	0.08	Average
Grantfork	281	30,622	1,600	0.05	0.13	0.24	0.61	0.37	0.08	Average
Salem	282	293,886	18,403	0.06	0.03	0.35	0.72	0.37	0.08	Average
Lisle	283	1,911,364	165,160	0.09	0.06	0.31	0.68	0.37	0.08	Average
Pawnee	284	81,615	18,248	0.22	0.10	0.27	0.64	0.37	0.08	Average
Rolling Meadows	285	1,116,373	54,815	0.05	0.01	0.36	0.73	0.37	0.07	Average

New Canton	286	33,106	2,658	0.08	0.01	0.36	0.73	0.37	0.07	Average
Golconda	287	29,026	2,507	0.09	0.01	0.36	0.73	0.37	0.07	Average
Roxana	288	45,148	5,149	0.11	0.15	0.22	0.59	0.37	0.07	Average
Collinsville	289	512,125	30,101	0.06	0.04	0.32	0.69	0.37	0.07	Average
Elizabethtown	290	20,027	747	0.04	0.03	0.34	0.71	0.37	0.07	Average
Decatur	291	2,128,030	156,499	0.07	0.05	0.32	0.69	0.37	0.07	Average
Mascoutah	292	166,336	17,739	0.11	0.10	0.27	0.64	0.37	0.06	Average
Niles	293	405,881	25,389	0.06	0.01	0.36	0.73	0.37	0.06	Average
Woodstock	294	1,395,349	27,779	0.02	0.00	0.36	0.73	0.37	0.05	Average
Greenview	295	7,491	203	0.03	0.01	0.36	0.72	0.37	0.05	Average
Hillview	296	20,244	669	0.03	0.04	0.33	0.70	0.37	0.04	Average
Omaha	297	6,633	576	0.09	0.11	0.25	0.62	0.37	0.03	Average
Gurnee	298	1,280,696	85,193	0.07	0.02	0.34	0.71	0.36	0.03	Average
Newton	299	38,951	2,426	0.06	0.00	0.36	0.72	0.36	0.03	Average
Elkville	300	27,637	1,450	0.05	0.02	0.34	0.71	0.36	0.03	Average
Seaton	301	9,064	421	0.05	0.02	0.34	0.70	0.36	0.02	Average
Wonder Lake	302	227,153	26,662	0.12	0.11	0.26	0.62	0.36	0.02	Average
Bannockburn	303	362,640	4,922	0.01	0.00	0.36	0.72	0.36	0.02	Average

Northfield	304	467,698	18,566	0.04	0.03	0.33	0.69	0.36	0.02	Average
Galena	305	170,375	12,973	0.08	0.04	0.33	0.69	0.36	0.00	Average
Louisville	306	7,110	1,141	0.16	0.03	0.33	0.69	0.36	0.00	Average
Zeigler	307	35,317	2,367	0.07	0.02	0.34	0.69	0.36	0.00	Average
Channahon	308	633,686	76,369	0.12	0.10	0.26	0.61	0.36	0.00	Average
Crest Hill	309	365,218	21,253	0.06	0.02	0.34	0.70	0.36	-0.01	Average
Washburn	310	80,907	8,144	0.10	0.07	0.28	0.64	0.36	-0.01	Average
Mount Prospect	311	1,198,059	30,332	0.03	0.00	0.35	0.71	0.36	-0.01	Average
Downers Grove	312	2,600,744	160,183	0.06	0.02	0.34	0.70	0.36	-0.02	Average
Browns	313	9,562	542	0.06	0.14	0.22	0.58	0.36	-0.02	Average
Streamwood	314	416,238	22,820	0.05	0.01	0.35	0.71	0.36	-0.03	Average
Dwight	315	240,102	16,365	0.07	0.05	0.30	0.66	0.35	-0.03	Average
St. David	316	14,209	1,058	0.07	0.02	0.34	0.69	0.35	-0.03	Average
Damiansville	317	16,990	929	0.05	0.03	0.33	0.68	0.35	-0.04	Average
Mount Carroll	318	119,412	12,358	0.10	0.04	0.31	0.66	0.35	-0.04	Average
Jewett	319	2,119	72	0.03	0.01	0.34	0.70	0.35	-0.04	Average
Bloomington	320	902,913	36,338	0.04	0.01	0.35	0.70	0.35	-0.05	Average
Biggsville	321	16,974	1,416	0.08	0.09	0.26	0.61	0.35	-0.05	Average

Lebanon	322	47,764	1,782	0.04	0.02	0.33	0.69	0.35	-0.05	Average
Chicago Ridge	323	431,340	14,334	0.03	0.01	0.34	0.70	0.35	-0.05	Average
Naperville	324	7,367,822	309,360	0.04	0.01	0.34	0.69	0.35	-0.05	Average
Thornton	325	23,606	1,700	0.07	0.01	0.35	0.70	0.35	-0.05	Average
Winnetka	326	673,986	13,602	0.02	0.02	0.33	0.68	0.35	-0.05	Average
Prairie du Rocher	327	30,200	2,428	0.08	0.06	0.29	0.64	0.35	-0.05	Average
Leland Grove	328	97,453	6,768	0.07	0.04	0.32	0.67	0.35	-0.05	Average
Albers	329	43,313	3,316	0.08	0.08	0.27	0.62	0.35	-0.06	Average
Herrin	330	210,599	14,362	0.07	0.01	0.34	0.69	0.35	-0.06	Average
Martinsville	331	28,681	2,581	0.09	0.03	0.32	0.67	0.35	-0.06	Average
Leaf River	332	32,089	3,978	0.12	0.10	0.25	0.60	0.35	-0.06	Average
Mason City	333	14,809	37	0.00	0.00	0.35	0.70	0.35	-0.07	Average
Carrollton	334	25,127	2,116	0.08	0.02	0.33	0.68	0.35	-0.07	Average
Bradford	335	22,827	2,627	0.12	0.08	0.27	0.62	0.35	-0.07	Average
O'Fallon	336	769,272	36,949	0.05	0.01	0.34	0.69	0.35	-0.07	Average
McCook	337	5,308	794	0.15	0.04	0.31	0.66	0.35	-0.07	Average
Northbrook	338	1,128,365	42,717	0.04	0.01	0.34	0.69	0.35	-0.07	Average
Wood Dale	339	126,488	6,824	0.05	0.02	0.33	0.68	0.35	-0.07	Average

Palatine	340	2,222,256	51,598	0.02	0.01	0.34	0.69	0.35	-0.07	Average
Anna	341	230,855	10,789	0.05	0.00	0.34	0.69	0.35	-0.08	Average
Henry	342	26,169	3,204	0.12	0.06	0.29	0.64	0.35	-0.08	Average
Belgium	343	32,244	2,238	0.07	0.05	0.30	0.65	0.35	-0.08	Average
Toulon	344	16,218	750	0.05	0.01	0.33	0.68	0.35	-0.08	Average
Highland Park	345	1,505,011	89,911	0.06	0.02	0.32	0.67	0.35	-0.08	Average
Momence	346	90,805	2,521	0.03	0.01	0.34	0.69	0.35	-0.09	Average
Clinton	347	116,296	16,443	0.14	0.04	0.31	0.66	0.35	-0.09	Average
Greenup	348	19,511	902	0.05	0.01	0.34	0.69	0.35	-0.09	Average
LaSalle	349	81,576	4,629	0.06	0.02	0.33	0.68	0.35	-0.10	Average
Normal	350	1,090,545	29,535	0.03	0.00	0.34	0.69	0.35	-0.10	Average
West Frankfort	351	128,434	8,257	0.06	0.04	0.31	0.65	0.34	-0.10	Average
Lake Bluff	352	408,422	15,071	0.04	0.01	0.34	0.68	0.34	-0.10	Average
Oak Lawn	353	932,028	38,823	0.04	0.01	0.33	0.68	0.34	-0.11	Average
Pistakee Highlands	354	160,202	12,732	0.08	0.10	0.24	0.59	0.34	-0.11	Average
Elk Grove Village	355	885,874	23,377	0.03	0.00	0.34	0.69	0.34	-0.11	Average
Burr Ridge	356	1,047,655	48,435	0.05	0.01	0.33	0.68	0.34	-0.11	Average
Bradley	357	303,100	12,773	0.04	0.01	0.34	0.68	0.34	-0.11	Average

Jerome	358	78,253	3,426	0.04	0.00	0.34	0.68	0.34	-0.11	Average
East Brooklyn	359	10,143	908	0.09	0.08	0.27	0.61	0.34	-0.11	Average
Spring Valley	360	230,151	25,448	0.11	0.05	0.29	0.64	0.34	-0.11	Average
Brookfield	361	223,899	16,048	0.07	0.02	0.32	0.67	0.34	-0.12	Average
Palestine	362	39,235	2,656	0.07	0.06	0.28	0.63	0.34	-0.12	Average
Crete	363	321,377	6,371	0.02	0.00	0.34	0.68	0.34	-0.12	Average
Kincaid	364	8,447	580	0.07	0.01	0.34	0.68	0.34	-0.12	Average
Lake Catherine	365	136,493	7,167	0.05	0.10	0.24	0.59	0.34	-0.12	Average
West City	366	3,787	83	0.02	0.00	0.34	0.68	0.34	-0.12	Average
Bartonville	367	342,185	20,195	0.06	0.08	0.26	0.60	0.34	-0.12	Average
Long Grove	368	1,347,639	47,922	0.04	0.02	0.32	0.67	0.34	-0.12	Average
Third Lake	369	151,778	6,405	0.04	0.07	0.27	0.61	0.34	-0.12	Average
New Athens	370	33,600	1,524	0.05	0.07	0.27	0.62	0.34	-0.12	Average
Coal City	371	14,923	267	0.02	0.01	0.33	0.67	0.34	-0.13	Average
Grayslake	372	1,574,465	96,860	0.06	0.03	0.31	0.65	0.34	-0.13	Average
Justice	373	275,358	7,854	0.03	0.01	0.33	0.67	0.34	-0.13	Average
Hoopeston	374	51,761	1,915	0.04	0.01	0.33	0.67	0.34	-0.13	Average
Riverwoods	375	425,002	30,841	0.07	0.05	0.30	0.64	0.34	-0.14	Average

Du Quoin	376	103,210	8,083	0.08	0.02	0.32	0.66	0.34	-0.14	Average
Forest Lake	377	89,827	5,506	0.06	0.03	0.31	0.64	0.34	-0.14	Average
North Aurora	378	307,177	9,728	0.03	0.01	0.33	0.67	0.34	-0.14	Average
Ste. Marie	379	6,810	397	0.06	0.03	0.31	0.65	0.34	-0.14	Average
Willowbrook	380	836,492	49,586	0.06	0.02	0.32	0.66	0.34	-0.14	Average
Brussels	381	12,739	717	0.06	0.03	0.31	0.65	0.34	-0.14	Average
Riverton	382	68,425	7,068	0.10	0.09	0.25	0.59	0.34	-0.15	Average
Millington	383	49,842	4,515	0.09	0.12	0.22	0.56	0.34	-0.15	Average
Swansea	384	444,365	24,808	0.06	0.02	0.32	0.66	0.34	-0.15	Average
Lockport	385	1,216,773	73,036	0.06	0.04	0.30	0.63	0.34	-0.15	Average
Elmwood Park	386	137,751	7,068	0.05	0.01	0.33	0.67	0.34	-0.15	Average
Peru	387	359,970	23,791	0.07	0.02	0.31	0.65	0.34	-0.15	Average
St. Jacob	388	19,349	803	0.04	0.08	0.26	0.60	0.34	-0.16	Average
Wamac	389	27,987	2,735	0.10	0.05	0.29	0.62	0.34	-0.16	Average
Clarendon Hills	390	175,406	6,457	0.04	0.00	0.34	0.67	0.34	-0.16	Average
Hamilton	391	81,709	3,985	0.05	0.11	0.23	0.57	0.34	-0.16	Average
Mazon	392	15,965	471	0.03	0.01	0.33	0.66	0.34	-0.16	Average
East Dundee	393	241,403	43,651	0.18	0.04	0.30	0.63	0.34	-0.16	Average

Hillsdale	394	60,835	1,893	0.03	0.10	0.24	0.57	0.34	-0.17	Average
McLeansboro	395	3,557	41	0.01	0.00	0.33	0.67	0.34	-0.17	Average
Hardin	396	92,574	4,947	0.05	0.04	0.29	0.63	0.34	-0.17	Average
Chrisman	397	28,349	1,989	0.07	0.02	0.32	0.65	0.34	-0.17	Average
Fox Lake Hills	398	151,209	10,326	0.07	0.09	0.25	0.58	0.34	-0.17	Average
Hillcrest	399	32,317	251	0.01	0.01	0.33	0.67	0.34	-0.17	Average
Midlothian	400	550,849	18,471	0.03	0.01	0.32	0.65	0.33	-0.17	Average
Lincoln	401	270,084	10,608	0.04	0.01	0.33	0.66	0.33	-0.18	Average
Darien	402	1,354,975	78,495	0.06	0.01	0.32	0.66	0.33	-0.18	Average
Centralia	403	114,359	6,188	0.05	0.03	0.31	0.64	0.33	-0.18	Average
Hinsdale	404	683,417	37,693	0.06	0.01	0.33	0.66	0.33	-0.18	Average
Hampton	405	28,570	2,697	0.09	0.05	0.28	0.62	0.33	-0.18	Average
Diamond	406	18,818	242	0.01	0.00	0.33	0.66	0.33	-0.19	Average
Shiloh	407	206,303	12,841	0.06	0.03	0.30	0.64	0.33	-0.19	Average
Cordova	408	30,439	3,385	0.11	0.07	0.26	0.59	0.33	-0.19	Average
Rockwood	409	12,777	691	0.05	0.10	0.24	0.57	0.33	-0.19	Average
Buffalo Grove	410	2,126,328	120,420	0.06	0.02	0.32	0.65	0.33	-0.19	Average
Shorewood	411	573,051	43,762	0.08	0.04	0.29	0.62	0.33	-0.19	Average

Frankfort	412	1,332,088	90,463	0.07	0.03	0.30	0.63	0.33	-0.19	Average
Rock Falls	413	153,540	7,569	0.05	0.01	0.32	0.65	0.33	-0.19	Average
DeKalb	414	682,449	30,939	0.05	0.01	0.32	0.65	0.33	-0.20	Average
Byron	415	112,746	7,662	0.07	0.03	0.30	0.63	0.33	-0.20	Average
Lake Forest	416	1,242,388	38,861	0.03	0.01	0.32	0.65	0.33	-0.20	Average
Dixon	417	375,388	25,275	0.07	0.03	0.30	0.63	0.33	-0.20	Average
Steeleville	418	56,857	2,177	0.04	0.02	0.31	0.64	0.33	-0.20	Average
Pearl City	419	56,567	3,505	0.06	0.06	0.27	0.60	0.33	-0.20	Average
Sims	420	3,814	195	0.05	0.00	0.33	0.66	0.33	-0.20	Average
Shelbyville	421	23,977	1,413	0.06	0.02	0.31	0.64	0.33	-0.20	Average
Wilmette	422	498,554	18,256	0.04	0.01	0.33	0.66	0.33	-0.20	Average
Colona	423	176,600	10,661	0.06	0.05	0.28	0.61	0.33	-0.20	Average
Dalzell	424	10,262	180	0.02	0.00	0.33	0.66	0.33	-0.21	Average
Libertyville	425	1,440,811	74,974	0.05	0.03	0.30	0.63	0.33	-0.21	Average
Willow Springs	426	302,501	12,031	0.04	0.04	0.29	0.62	0.33	-0.21	Average
Elmwood	427	9,446	268	0.03	0.01	0.32	0.65	0.33	-0.21	Average
Bushnell	428	2,195	58	0.03	0.00	0.33	0.66	0.33	-0.21	Average
Island Lake	429	599,594	30,412	0.05	0.06	0.27	0.60	0.33	-0.21	Average

South Roxana	430	23,799	795	0.03	0.06	0.27	0.60	0.33	-0.22	Average
Arthur	431	134,516	6,577	0.05	0.04	0.29	0.62	0.33	-0.22	Average
University Park	432	187,440	2,501	0.01	0.00	0.33	0.66	0.33	-0.22	Average
Abingdon	433	14,101	890	0.06	0.00	0.32	0.65	0.33	-0.22	Average
Woodridge	434	1,239,583	93,962	0.08	0.02	0.30	0.63	0.33	-0.22	Average
Plainfield	435	1,021,780	54,114	0.05	0.03	0.29	0.62	0.33	-0.23	Average
Geneseo	436	125,051	13,586	0.11	0.04	0.29	0.61	0.33	-0.23	Average
Georgetown	437	10,437	734	0.07	0.00	0.33	0.65	0.33	-0.23	Average
Granite City	438	178,099	2,197	0.01	0.01	0.32	0.65	0.33	-0.23	Average
Steger	439	102,550	3,697	0.04	0.01	0.32	0.64	0.33	-0.23	Average
New Baden	440	40,492	3,958	0.10	0.02	0.30	0.63	0.33	-0.23	Average
Lake Villa	441	744,370	19,092	0.03	0.02	0.31	0.63	0.33	-0.24	Average
Roanoke	442	58,702	2,003	0.03	0.01	0.31	0.64	0.33	-0.24	Average
Ridgway	443	9,882	801	0.08	0.03	0.29	0.62	0.33	-0.24	Average
Pekin	444	281,160	28,472	0.10	0.06	0.27	0.59	0.33	-0.24	Average
Hawthorn Woods	445	1,002,926	30,415	0.03	0.01	0.31	0.64	0.33	-0.24	Average
De Soto	446	45,165	4,165	0.09	0.03	0.30	0.62	0.33	-0.24	Average
Lake Holiday	447	194,458	20,805	0.11	0.08	0.24	0.57	0.33	-0.24	Average

Marseilles	448	90,577	11,438	0.13	0.04	0.29	0.61	0.33	-0.24	Average
Reynolds	449	27,784	4,114	0.15	0.07	0.26	0.58	0.32	-0.25	Average
Farmington	450	14,829	596	0.04	0.01	0.32	0.64	0.32	-0.25	Average
Glen Ellyn	451	365,730	17,744	0.05	0.01	0.32	0.64	0.32	-0.25	Average
Bryant	452	13,802	400	0.03	0.01	0.32	0.64	0.32	-0.25	Average
Claremont	453	17,046	1,088	0.06	0.05	0.27	0.59	0.32	-0.25	Average
Wheaton	454	1,429,401	56,698	0.04	0.01	0.32	0.64	0.32	-0.25	Average
Bedford Park	455	68,012	1,189	0.02	0.00	0.32	0.64	0.32	-0.26	Average
Lakemoor	456	343,367	20,641	0.06	0.06	0.26	0.59	0.32	-0.26	Average
Benton	457	51,589	2,835	0.05	0.00	0.32	0.64	0.32	-0.26	Average
Divernon	458	37,491	4,605	0.12	0.06	0.27	0.59	0.32	-0.26	Average
Pontoon Beach	459	266,391	6,105	0.02	0.04	0.28	0.61	0.32	-0.26	Average
Chemung	460	8,788	333	0.04	0.00	0.32	0.64	0.32	-0.27	Average
Hartford	461	26,491	1,055	0.04	0.07	0.25	0.58	0.32	-0.27	Average
Quincy	462	875,287	45,202	0.05	0.01	0.31	0.63	0.32	-0.27	Average
Palos Hills	463	886,762	23,230	0.03	0.01	0.31	0.64	0.32	-0.27	Average
Oak Forest	464	789,197	42,859	0.05	0.02	0.30	0.62	0.32	-0.27	Average
Greenwood	465	34,908	2,234	0.06	0.03	0.29	0.61	0.32	-0.27	Average

Pontiac	466	332,181	21,127	0.06	0.03	0.29	0.61	0.32	-0.27	Average
Bloomingdale	467	1,101,828	55,168	0.05	0.01	0.31	0.63	0.32	-0.27	Average
Petersburg	468	40,032	4,147	0.10	0.07	0.25	0.57	0.32	-0.27	Average
Inverness	469	818,201	16,032	0.02	0.01	0.31	0.63	0.32	-0.28	Average
Lake of the Woods	470	60,769	4,462	0.07	0.04	0.28	0.60	0.32	-0.28	Average
Lakewood	471	270,818	10,723	0.04	0.02	0.30	0.62	0.32	-0.28	Average
Seatonville	472	12,956	1,010	0.08	0.04	0.28	0.60	0.32	-0.28	Average
Bluffs	473	28,176	1,708	0.06	0.05	0.27	0.59	0.32	-0.28	Average
South Wilmington	474	5,690	191	0.03	0.00	0.32	0.64	0.32	-0.29	Average
Mill Creek	475	6,560	375	0.06	0.06	0.26	0.58	0.32	-0.29	Average
Muncie	476	8,629	478	0.06	0.05	0.26	0.58	0.32	-0.29	Average
Mattoon	477	140,632	3,148	0.02	0.00	0.32	0.64	0.32	-0.29	Average
Lake Zurich	478	1,305,481	31,280	0.02	0.01	0.31	0.63	0.32	-0.29	Average
Oakland	479	35,460	2,046	0.06	0.03	0.29	0.61	0.32	-0.29	Average
Winchester	480	9,057	1,603	0.18	0.05	0.27	0.59	0.32	-0.30	Average
North Barrington	481	1,000,388	33,572	0.03	0.03	0.29	0.61	0.32	-0.30	Average
Robinson	482	180,883	3,587	0.02	0.00	0.32	0.63	0.32	-0.30	Average
Alton	483	85,968	3,466	0.04	0.02	0.30	0.61	0.32	-0.30	Average

Wayne	484	246,394	6,456	0.03	0.01	0.31	0.62	0.32	-0.30	Average
Eldred	485	12,464	477	0.04	0.07	0.25	0.57	0.32	-0.30	Average
Bartlett	486	861,036	34,571	0.04	0.01	0.31	0.62	0.32	-0.30	Average
Saybrook	487	16,157	2,148	0.13	0.09	0.23	0.54	0.32	-0.30	Average
Wauconda	488	1,001,708	44,362	0.04	0.04	0.28	0.60	0.32	-0.31	Average
Carterville	489	94,713	1,979	0.02	0.00	0.32	0.63	0.32	-0.31	Average
Norwood	490	30,149	1,604	0.05	0.00	0.32	0.63	0.32	-0.31	Average
Gibson City	491	2,689	42	0.02	0.00	0.32	0.63	0.32	-0.31	Average
Tilton	492	43,067	2,728	0.06	0.00	0.32	0.63	0.32	-0.31	Average
Potomac	493	14,072	923	0.07	0.03	0.28	0.60	0.32	-0.31	Average
Bourbonnais	494	765,948	7,697	0.01	0.00	0.31	0.63	0.32	-0.31	Average
Erie	495	85,315	4,790	0.06	0.06	0.25	0.57	0.31	-0.32	Average
Princeville	496	63,936	1,856	0.03	0.01	0.31	0.62	0.31	-0.32	Average
Romeoville	497	837,544	14,755	0.02	0.01	0.31	0.62	0.31	-0.32	Average
Bonnie	498	5,265	167	0.03	0.01	0.30	0.61	0.31	-0.32	Average
Newman	499	25,910	2,100	0.08	0.04	0.27	0.59	0.31	-0.33	Average
East Carondelet	500	4,028	64	0.02	0.05	0.27	0.58	0.31	-0.33	Average
Western Springs	501	130,971	4,019	0.03	0.00	0.31	0.62	0.31	-0.33	Average

Kenilworth	502	202,106	8,898	0.04	0.00	0.31	0.62	0.31	-0.33	Average
Springerton	503	2,080	13	0.01	0.00	0.31	0.62	0.31	-0.33	Average
Westville	504	35,527	1,221	0.03	0.00	0.31	0.62	0.31	-0.33	Average
Vienna	505	60,908	1,799	0.03	0.01	0.30	0.61	0.31	-0.33	Average
Symerton	506	587	14	0.02	0.00	0.31	0.62	0.31	-0.34	Average
Glencoe	507	248,145	9,604	0.04	0.01	0.30	0.61	0.31	-0.34	Average
Hickory Hills	508	229,881	4,888	0.02	0.00	0.31	0.62	0.31	-0.34	Average
Springfield	509	1,745,775	129,710	0.07	0.05	0.26	0.58	0.31	-0.34	Average
Forrest	510	50,917	2,517	0.05	0.02	0.29	0.60	0.31	-0.34	Average
Macomb	511	353,783	22,185	0.06	0.02	0.29	0.60	0.31	-0.34	Average
Antioch	512	640,053	24,873	0.04	0.02	0.29	0.60	0.31	-0.35	Average
Creve Coeur	513	17,533	882	0.05	0.04	0.28	0.59	0.31	-0.35	Average
Valier	514	6,711	329	0.05	0.01	0.30	0.61	0.31	-0.35	Average
Venetian Village	515	221,408	8,519	0.04	0.06	0.25	0.56	0.31	-0.35	Average
Wayne City	516	13,244	186	0.01	0.00	0.31	0.62	0.31	-0.35	Average
Limestone	517	41,501	2,369	0.06	0.00	0.31	0.62	0.31	-0.35	Average
Hanover	518	46,240	3,772	0.08	0.04	0.27	0.58	0.31	-0.36	Average
Adeline	519	18,486	732	0.04	0.00	0.31	0.61	0.31	-0.36	Average

Radom	520	1,318	33	0.03	0.00	0.31	0.62	0.31	-0.36	Average
Lacon	521	65,146	8,542	0.13	0.08	0.23	0.53	0.31	-0.37	Average
Barrington	522	816,975	22,163	0.03	0.01	0.30	0.61	0.31	-0.37	Average
Tower Lakes	523	374,985	12,074	0.03	0.02	0.29	0.59	0.31	-0.37	Average
Mahomet	524	276,096	26,841	0.10	0.05	0.26	0.57	0.31	-0.37	Average
St. Libory	525	19,612	363	0.02	0.00	0.30	0.61	0.31	-0.37	Average
Golden Gate	526	1,482	118	0.08	0.02	0.29	0.60	0.31	-0.37	Average
Stillman Valley	527	6,057	173	0.03	0.00	0.31	0.61	0.31	-0.37	Average
Coal Valley	528	242,777	9,636	0.04	0.02	0.29	0.60	0.31	-0.37	Average
Lake in the Hills	529	1,062,731	38,024	0.04	0.01	0.29	0.60	0.31	-0.37	Average
Edinburg	530	48,694	4,629	0.10	0.05	0.26	0.57	0.31	-0.37	Average
Amboy	531	67,320	3,367	0.05	0.01	0.30	0.61	0.31	-0.37	Average
Huntley	532	332,686	13,235	0.04	0.02	0.29	0.60	0.31	-0.37	Average
Richmond	533	177,422	13,887	0.08	0.04	0.26	0.57	0.31	-0.37	Average
Tinley Park	534	1,163,434	38,134	0.03	0.01	0.29	0.60	0.31	-0.37	Average
Trout Valley	535	44,618	37	0.00	0.00	0.31	0.61	0.31	-0.38	Average
South Elgin	536	632,792	28,797	0.05	0.01	0.29	0.60	0.31	-0.38	Average
Lake Barrington	537	968,458	30,860	0.03	0.03	0.28	0.59	0.31	-0.38	Average

Iuka	538	3,258	88	0.03	0.00	0.31	0.61	0.31	-0.38	Average
Thayer	539	26,284	3,279	0.12	0.06	0.25	0.55	0.31	-0.38	Average
Thompsonville	540	6,716	251	0.04	0.00	0.31	0.61	0.31	-0.39	Average
Oneida	541	20,654	147	0.01	0.00	0.30	0.61	0.31	-0.39	Average
Havana	542	39,304	2,947	0.07	0.03	0.28	0.58	0.31	-0.39	Average
Seneca	543	74,714	3,966	0.05	0.03	0.27	0.58	0.30	-0.39	Average
Monee	544	65,109	1,051	0.02	0.00	0.30	0.61	0.30	-0.39	Average
Forsyth	545	195,902	8,576	0.04	0.02	0.29	0.59	0.30	-0.39	Average
Deerfield	546	824,788	44,274	0.05	0.01	0.29	0.60	0.30	-0.39	Average
South Barrington	547	458,464	8,587	0.02	0.01	0.30	0.60	0.30	-0.39	Average
Fults	548	1,228	38	0.03	0.12	0.18	0.49	0.30	-0.40	Average
Monticello	549	256,515	9,964	0.04	0.03	0.28	0.58	0.30	-0.40	Average
Indian Head Park	550	244,713	9,611	0.04	0.01	0.29	0.59	0.30	-0.40	Average
Mount Carmel	551	98,947	8,592	0.09	0.04	0.27	0.57	0.30	-0.40	Average
Green Oaks	552	493,033	17,453	0.04	0.01	0.29	0.60	0.30	-0.40	Average
Lemont	553	442,169	17,960	0.04	0.02	0.29	0.59	0.30	-0.40	Average
Forreston	554	33,672	1,100	0.03	0.01	0.30	0.60	0.30	-0.40	Average
Grandwood Park	555	275,998	4,269	0.02	0.00	0.30	0.60	0.30	-0.40	Average

Albany	556	21,363	1,919	0.09	0.04	0.26	0.56	0.30	-0.41	Average
Kildeer	557	764,882	22,278	0.03	0.01	0.29	0.59	0.30	-0.41	Average
Morrison	558	159,078	10,733	0.07	0.05	0.25	0.56	0.30	-0.41	Average
St. Joseph	559	97,031	8,450	0.09	0.05	0.25	0.55	0.30	-0.41	Average
Nashville	560	34,142	1,424	0.04	0.01	0.29	0.60	0.30	-0.41	Average
Nauvoo	561	5,895	181	0.03	0.04	0.26	0.57	0.30	-0.41	Average
La Harpe	562	17,249	597	0.03	0.01	0.30	0.60	0.30	-0.41	Average
McNabb	563	8,338	820	0.10	0.04	0.26	0.56	0.30	-0.42	Average
Algonquin	564	853,963	42,899	0.05	0.01	0.29	0.59	0.30	-0.42	Average
Gilman	565	27,939	717	0.03	0.01	0.29	0.60	0.30	-0.42	Average
Warrenville	566	558,084	24,521	0.04	0.02	0.28	0.58	0.30	-0.42	Average
Fayetteville	567	8,752	899	0.10	0.02	0.28	0.58	0.30	-0.42	Average
Columbia	568	177,720	8,579	0.05	0.07	0.23	0.53	0.30	-0.42	Average
Nokomis	569	30,443	1,839	0.06	0.01	0.29	0.59	0.30	-0.42	Average
Junction City	570	10,891	487	0.04	0.02	0.28	0.58	0.30	-0.43	Average
Countryside	571	211,773	3,634	0.02	0.00	0.30	0.60	0.30	-0.43	Average
Manteno	572	209,974	3,128	0.01	0.00	0.29	0.59	0.30	-0.43	Average
Kangley	573	8,289	857	0.10	0.03	0.27	0.57	0.30	-0.43	Average

Gilberts	574	106,111	6,515	0.06	0.05	0.25	0.55	0.30	-0.43	Average
Beckemeyer	575	7,426	538	0.07	0.00	0.30	0.60	0.30	-0.43	Average
Orland Hills	576	268,963	8,172	0.03	0.01	0.29	0.59	0.30	-0.44	Average
Earlville	577	201,079	21,343	0.11	0.02	0.28	0.58	0.30	-0.44	Average
South Jacksonville	578	75,046	3,918	0.05	0.01	0.29	0.58	0.30	-0.44	Average
Palos Heights	579	629,712	32,028	0.05	0.01	0.28	0.58	0.30	-0.44	Average
Cary	580	452,655	22,080	0.05	0.01	0.29	0.59	0.30	-0.44	Average
Sycamore	581	437,902	15,180	0.03	0.01	0.29	0.58	0.30	-0.44	Average
Silvis	582	51,911	2,138	0.04	0.00	0.30	0.59	0.30	-0.45	Average
Mulberry Grove	583	15,883	924	0.06	0.00	0.29	0.59	0.30	-0.45	Average
Greenville	584	49,648	3,680	0.07	0.01	0.29	0.58	0.30	-0.45	Average
Fairfield	585	15,132	870	0.06	0.00	0.29	0.59	0.30	-0.45	Average
Germantown	586	60,513	2,424	0.04	0.02	0.28	0.57	0.30	-0.45	Average
Wheeler	587	4,342	58	0.01	0.01	0.29	0.59	0.30	-0.45	Average
Thawville	588	4,075	189	0.05	0.01	0.29	0.59	0.30	-0.46	Average
Highland	589	165,766	3,981	0.02	0.02	0.28	0.57	0.29	-0.46	Average
Carthage	590	96,976	5,138	0.05	0.01	0.29	0.58	0.29	-0.46	Average
Frankfort Square	591	401,245	15,031	0.04	0.02	0.28	0.57	0.29	-0.46	Average

Oakwood Hills	592	239,523	10,289	0.04	0.02	0.28	0.57	0.29	-0.46	Average
Wilmington	593	487,499	32,487	0.07	0.04	0.25	0.55	0.29	-0.47	Average
Smithton	594	76,984	6,139	0.08	0.05	0.24	0.53	0.29	-0.47	Average
Colfax	595	37,832	1,865	0.05	0.02	0.27	0.56	0.29	-0.47	Average
Cambria	596	10,522	496	0.05	0.00	0.29	0.59	0.29	-0.47	Average
Hillsboro	597	40,224	787	0.02	0.02	0.28	0.57	0.29	-0.47	Average
Hull	598	33,119	1,899	0.06	0.00	0.29	0.59	0.29	-0.47	Average
Gardner	599	28,624	494	0.02	0.01	0.29	0.58	0.29	-0.47	Average
Iroquois	600	16,900	1,969	0.12	0.07	0.22	0.52	0.29	-0.47	Average
Gages Lake	601	138,073	11,536	0.08	0.02	0.27	0.56	0.29	-0.47	Average
Wadsworth	602	479,520	24,168	0.05	0.02	0.27	0.56	0.29	-0.48	Average
Warsaw	603	23,755	822	0.03	0.04	0.26	0.55	0.29	-0.48	Average
Pierron	604	7,224	353	0.05	0.01	0.28	0.57	0.29	-0.48	Average
Canton	605	112,616	6,961	0.06	0.01	0.28	0.57	0.29	-0.48	Average
North City	606	12,023	2,450	0.20	0.02	0.27	0.57	0.29	-0.48	Average
Allenville	607	6,059	445	0.07	0.05	0.24	0.53	0.29	-0.48	Average
Durand	608	72,770	4,699	0.06	0.06	0.24	0.53	0.29	-0.48	Average
Paris	609	63,467	2,530	0.04	0.01	0.28	0.57	0.29	-0.48	Average

Orland Park	610	1,675,350	46,906	0.03	0.01	0.28	0.58	0.29	-0.48	Average
Rantoul	611	641	3	0.00	0.00	0.29	0.58	0.29	-0.48	Average
McHenry	612	572,373	28,053	0.05	0.01	0.28	0.57	0.29	-0.48	Average
Energy	613	43,653	2,399	0.05	0.00	0.29	0.58	0.29	-0.48	Average
Johnsburg	614	477,176	38,119	0.08	0.06	0.23	0.52	0.29	-0.48	Average
Hettick	615	8,808	205	0.02	0.00	0.29	0.58	0.29	-0.49	Average
Oswego	616	508,145	27,764	0.05	0.02	0.28	0.57	0.29	-0.49	Average
New Lenox	617	815,642	30,411	0.04	0.01	0.28	0.57	0.29	-0.49	Average
Winthrop Harbor	618	319,815	12,115	0.04	0.04	0.25	0.54	0.29	-0.49	Average
Palos Park	619	399,377	13,635	0.03	0.01	0.28	0.58	0.29	-0.49	Average
Rochester	620	141,867	10,222	0.07	0.04	0.25	0.54	0.29	-0.49	Average
Morton	621	380,433	29,332	0.08	0.02	0.27	0.56	0.29	-0.49	Average
Cherry Valley	622	416,033	15,113	0.04	0.04	0.25	0.54	0.29	-0.49	Average
Elwood	623	29,006	821	0.03	0.01	0.28	0.57	0.29	-0.49	Average
Avon	624	14,124	704	0.05	0.01	0.28	0.57	0.29	-0.49	Average
Sullivan	625	50,208	990	0.02	0.00	0.29	0.58	0.29	-0.50	Average
Olney	626	111,920	5,874	0.05	0.00	0.29	0.58	0.29	-0.50	Average
Farmer City	627	37,214	3,097	0.08	0.05	0.24	0.53	0.29	-0.50	Average

Litchfield	628	49,313	223	0.00	0.00	0.29	0.58	0.29	-0.50	Average
Mokena	629	940,134	29,030	0.03	0.01	0.28	0.57	0.29	-0.50	Average
Spring Grove	630	407,007	32,807	0.08	0.01	0.28	0.57	0.29	-0.50	Average
Fulton	631	100,322	6,584	0.07	0.03	0.26	0.55	0.29	-0.50	Average
Grafton	632	94,908	13,513	0.14	0.05	0.24	0.53	0.29	-0.51	Average
Vandalia	633	36,456	1,054	0.03	0.02	0.26	0.55	0.29	-0.51	Average
Ruma	634	28,112	1,479	0.05	0.02	0.27	0.56	0.29	-0.51	Average
Heyworth	635	54,206	4,840	0.09	0.03	0.26	0.55	0.29	-0.51	Average
Poplar Grove	636	30,626	1,251	0.04	0.01	0.28	0.56	0.29	-0.51	Average
Bluford	637	2,638	72	0.03	0.00	0.29	0.57	0.29	-0.51	Average
St. Charles	638	877,148	44,451	0.05	0.01	0.28	0.56	0.29	-0.51	Average
Oglesby	639	59,311	4,623	0.08	0.01	0.28	0.56	0.29	-0.51	Average
Princeton	640	159,824	6,800	0.04	0.00	0.28	0.57	0.29	-0.52	Average
Raymond	641	15,762	1,065	0.07	0.01	0.27	0.56	0.29	-0.52	Average
Atwood	642	7,639	553	0.07	0.02	0.26	0.55	0.29	-0.52	Average
Virginia	643	34,772	1,077	0.03	0.01	0.28	0.57	0.29	-0.52	Average
Downs	644	50,297	12,521	0.25	0.10	0.18	0.47	0.29	-0.52	Average
West Dundee	645	380,773	14,782	0.04	0.01	0.28	0.56	0.29	-0.52	Average

Wenonah	646	3,826	45	0.01	0.00	0.28	0.57	0.29	-0.52	Average
Penfield	647	1,295	90	0.07	0.04	0.25	0.53	0.29	-0.53	Average
Menominee	648	36,609	850	0.02	0.01	0.28	0.57	0.29	-0.53	Average
Bellevue	649	175,955	8,585	0.05	0.01	0.28	0.56	0.29	-0.53	Average
Sandoval	650	9,514	280	0.03	0.00	0.28	0.57	0.29	-0.53	Average
Barrington Hills	651	699,277	26,620	0.04	0.02	0.27	0.55	0.28	-0.53	Average
Deer Park	652	237,237	6,178	0.03	0.00	0.28	0.57	0.28	-0.53	Average
Stonefort	653	6,675	371	0.06	0.06	0.22	0.51	0.28	-0.54	Average
Marengo	654	272,239	6,156	0.02	0.01	0.27	0.56	0.28	-0.54	Average
Batavia	655	653,892	20,247	0.03	0.00	0.28	0.56	0.28	-0.54	Average
Roselle	656	710,214	44,498	0.06	0.01	0.27	0.55	0.28	-0.54	Average
East Alton	657	30,655	1,311	0.04	0.02	0.27	0.55	0.28	-0.54	Average
Sandwich	658	114,443	5,702	0.05	0.01	0.27	0.55	0.28	-0.54	Average
Winfield	659	496,618	16,325	0.03	0.01	0.27	0.55	0.28	-0.54	Average
Loves Park	660	963,992	32,844	0.03	0.01	0.27	0.56	0.28	-0.54	Average
Machesney Park	661	855,778	39,595	0.05	0.02	0.26	0.54	0.28	-0.55	Average
Pingree Grove	662	56,890	2,452	0.04	0.02	0.26	0.55	0.28	-0.55	Average
Lake Summerset	663	86,236	2,734	0.03	0.03	0.26	0.54	0.28	-0.55	Average

Beecher	664	208,181	4,555	0.02	0.00	0.28	0.56	0.28	-0.55	Average
Crystal Lawns	665	65,811	1,703	0.03	0.01	0.28	0.56	0.28	-0.55	Average
Crystal Lake	666	834,835	34,261	0.04	0.01	0.28	0.56	0.28	-0.56	Average
Wenona	667	15,299	428	0.03	0.01	0.27	0.55	0.28	-0.56	Average
Christopher	668	22,616	948	0.04	0.00	0.28	0.56	0.28	-0.56	Average
La Moille	669	12,037	634	0.05	0.03	0.25	0.54	0.28	-0.56	Average
Prestbury	670	260,902	9,838	0.04	0.02	0.26	0.54	0.28	-0.56	Average
Dupo	671	124,723	3,020	0.02	0.02	0.26	0.54	0.28	-0.56	Average
Tallula	672	11,072	450	0.04	0.01	0.27	0.55	0.28	-0.56	Average
Campton Hills	673	1,460,916	34,945	0.02	0.01	0.27	0.55	0.28	-0.56	Average
Hampshire	674	369,969	12,592	0.03	0.01	0.27	0.55	0.28	-0.56	Average
Tuscola	675	168,265	5,841	0.03	0.02	0.26	0.54	0.28	-0.57	Average
Pinckneyville	676	81,165	5,402	0.07	0.02	0.26	0.54	0.28	-0.57	Average
Bethalto	677	199,530	5,879	0.03	0.01	0.27	0.55	0.28	-0.57	Average
Chester	678	101,309	3,434	0.03	0.00	0.28	0.55	0.28	-0.58	Average
Capron	679	21,009	260	0.01	0.00	0.28	0.56	0.28	-0.58	Average
Broadlands	680	5,688	212	0.04	0.03	0.25	0.52	0.28	-0.58	Average
Auburn	681	50,193	4,499	0.09	0.02	0.26	0.54	0.28	-0.58	Average

Merrionette Park	682	100,272	1,689	0.02	0.00	0.27	0.55	0.28	-0.58	Average
Tiskilwa	683	5,519	85	0.02	0.00	0.28	0.56	0.28	-0.58	Average
Godfrey	684	446,567	15,299	0.03	0.01	0.26	0.54	0.28	-0.59	Average
Freeburg	685	96,866	8,774	0.09	0.02	0.25	0.53	0.28	-0.59	Average
Pleasant Plains	686	52,732	1,569	0.03	0.02	0.26	0.54	0.28	-0.59	Average
Boulder Hill	687	75,346	3,857	0.05	0.00	0.28	0.55	0.28	-0.59	Average
Lewistown	688	46,997	762	0.02	0.00	0.28	0.55	0.28	-0.60	Average
Grant Park	689	21,928	479	0.02	0.00	0.27	0.55	0.28	-0.60	Average
Washington	690	387,483	25,710	0.07	0.01	0.26	0.54	0.28	-0.60	Average
Golf	691	27,900	2,194	0.08	0.03	0.24	0.52	0.28	-0.60	Average
Clay City	692	26,868	1,270	0.05	0.02	0.26	0.53	0.28	-0.60	Average
Wood River	693	154,252	8,267	0.05	0.02	0.25	0.53	0.28	-0.60	Average
Trenton	694	62,025	6,518	0.11	0.03	0.25	0.53	0.28	-0.60	Average
Dayton	695	20,930	718	0.03	0.01	0.27	0.54	0.28	-0.60	Average
Okawville	696	69,358	1,864	0.03	0.01	0.27	0.54	0.27	-0.60	Average
Maroa	697	7,522	33	0.00	0.00	0.27	0.55	0.27	-0.60	Average
Sugar Grove	698	369,799	10,315	0.03	0.01	0.27	0.54	0.27	-0.61	Average
Effingham	699	222,894	8,463	0.04	0.00	0.27	0.54	0.27	-0.61	Average

Toluca	700	20,127	276	0.01	0.01	0.26	0.54	0.27	-0.61	Average
Eureka	701	226,941	9,167	0.04	0.01	0.26	0.54	0.27	-0.61	Average
Lena	702	31,625	316	0.01	0.00	0.27	0.55	0.27	-0.61	Average
The Galena Territory	703	223,696	4,628	0.02	0.00	0.27	0.54	0.27	-0.62	Average
Lyndon	704	10,976	1,238	0.11	0.05	0.22	0.50	0.27	-0.62	Average
Sherman	705	59,902	3,833	0.06	0.02	0.25	0.53	0.27	-0.62	Average
Rosewood Heights	706	92,645	3,354	0.04	0.00	0.27	0.54	0.27	-0.62	Average
Maple Park	707	60,483	1,332	0.02	0.02	0.25	0.53	0.27	-0.62	Average
Taylorville	708	84,785	4,960	0.06	0.05	0.22	0.50	0.27	-0.62	Average
Humboldt	709	12,968	339	0.03	0.00	0.27	0.54	0.27	-0.62	Average
Fox River Grove	710	257,288	10,984	0.04	0.02	0.25	0.53	0.27	-0.63	Average
Neoga	711	17,831	121	0.01	0.00	0.27	0.54	0.27	-0.63	Average
Garden Prairie	712	19,581	1,195	0.06	0.03	0.24	0.51	0.27	-0.63	Average
Minooka	713	252,811	23,043	0.09	0.02	0.25	0.52	0.27	-0.63	Average
Hopedale	714	35,198	3,326	0.09	0.05	0.22	0.50	0.27	-0.63	Average
Rossville	715	24,070	1,450	0.06	0.03	0.24	0.51	0.27	-0.63	Average
Sheridan	716	55,257	2,953	0.05	0.02	0.25	0.52	0.27	-0.64	Average
Hamel	717	3,099	36	0.01	0.04	0.23	0.50	0.27	-0.64	Average

Pana	718	26,427	1,863	0.07	0.01	0.26	0.53	0.27	-0.64	Average
South Chicago Heights	719	37,890	1,027	0.03	0.00	0.27	0.54	0.27	-0.64	Average
Wyanet	720	7,639	655	0.09	0.03	0.24	0.51	0.27	-0.65	Average
Valmeyer	721	53,109	1,553	0.03	0.04	0.23	0.50	0.27	-0.65	Average
Williamsville	722	46,948	1,095	0.02	0.00	0.27	0.53	0.27	-0.65	Average
Prairie Grove	723	253,741	8,776	0.03	0.01	0.26	0.53	0.27	-0.65	Average
Lakewood Shores	724	156,338	8,307	0.05	0.03	0.24	0.51	0.27	-0.65	Average
Homer Glen	725	1,680,825	55,951	0.03	0.01	0.26	0.53	0.27	-0.66	Average
Alvan	726	10,737	649	0.06	0.02	0.25	0.51	0.27	-0.66	Average
Crescent City	727	20,392	1,366	0.07	0.02	0.25	0.51	0.27	-0.66	Average
Manito	728	3,671	519	0.14	0.01	0.26	0.53	0.27	-0.66	Average
Goofy Ridge	729	16,413	1,567	0.10	0.04	0.23	0.50	0.27	-0.66	Average
Spaulding	730	58,706	3,656	0.06	0.04	0.23	0.49	0.27	-0.67	Average
Mapleton	731	2,967	13	0.00	0.00	0.27	0.53	0.27	-0.67	Average
Lexington	732	21,743	1,860	0.09	0.01	0.26	0.52	0.27	-0.67	Average
Plano	733	117,662	8,736	0.07	0.02	0.25	0.51	0.26	-0.68	Average
Indianola	734	5,507	454	0.08	0.02	0.24	0.50	0.26	-0.68	Average
Elvaston	735	4,039	146	0.04	0.01	0.26	0.52	0.26	-0.68	Average

Ashland	736	38,173	1,746	0.05	0.02	0.24	0.51	0.26	-0.68	Average
Roscoe	737	361,487	13,655	0.04	0.02	0.24	0.51	0.26	-0.69	Average
Altona	738	26,729	765	0.03	0.01	0.25	0.51	0.26	-0.69	Average
Lovington	739	23,447	201	0.01	0.00	0.26	0.52	0.26	-0.69	Average
Burlington	740	68,459	1,172	0.02	0.00	0.26	0.52	0.26	-0.69	Average
Old Mill Creek	741	129,715	3,396	0.03	0.01	0.25	0.52	0.26	-0.69	Average
Union	742	164,312	5,455	0.03	0.01	0.25	0.51	0.26	-0.70	Average
Danvers	743	12,343	349	0.03	0.00	0.26	0.52	0.26	-0.70	Average
Kingston	744	89,461	4,401	0.05	0.03	0.23	0.49	0.26	-0.70	Average
Mount Zion	745	220,782	10,716	0.05	0.01	0.25	0.51	0.26	-0.71	Average
Ripley	746	7,164	485	0.07	0.04	0.22	0.48	0.26	-0.71	Average
Geneva	747	458,428	15,823	0.03	0.01	0.25	0.51	0.26	-0.71	Average
Yorkville	748	457,174	26,130	0.06	0.00	0.25	0.51	0.26	-0.72	Average
Millstadt	749	81,287	2,993	0.04	0.00	0.26	0.51	0.26	-0.73	Average
Twin Grove	750	101,427	1,852	0.02	0.00	0.25	0.51	0.26	-0.73	Average
Gladstone	751	8,405	580	0.07	0.02	0.24	0.49	0.26	-0.73	Average
Edwardsville	752	332,038	7,051	0.02	0.01	0.24	0.50	0.26	-0.73	Average
Staunton	753	17,027	562	0.03	0.00	0.26	0.51	0.26	-0.74	Average

Dunlap	754	13,739	237	0.02	0.00	0.26	0.51	0.26	-0.74	Average
Sammons Point	755	26,617	1,228	0.05	0.01	0.24	0.50	0.26	-0.75	Average
Wataga	756	22,536	2,494	0.11	0.05	0.20	0.46	0.26	-0.75	Average
New Milford	757	87,784	7,738	0.09	0.03	0.22	0.48	0.25	-0.75	Average
Port Byron	758	27,733	1,864	0.07	0.01	0.24	0.50	0.25	-0.75	Average
Big Rock	759	153,392	7,635	0.05	0.03	0.23	0.48	0.25	-0.75	Average
Carbon Hill	760	13,999	270	0.02	0.01	0.24	0.50	0.25	-0.75	Average
Flat Rock	761	1,038	13	0.01	0.00	0.25	0.51	0.25	-0.75	Average
Oakford	762	6,407	233	0.04	0.01	0.25	0.50	0.25	-0.75	Average
Waterloo	763	172,964	4,117	0.02	0.01	0.25	0.50	0.25	-0.76	Elevated
Lomax	764	3,127	65	0.02	0.02	0.23	0.49	0.25	-0.76	Elevated
Rapids City	765	41,176	4,967	0.12	0.02	0.24	0.49	0.25	-0.76	Elevated
Cedarville	766	49,582	1,420	0.03	0.01	0.25	0.50	0.25	-0.77	Elevated
Chatham	767	307,680	14,575	0.05	0.01	0.24	0.49	0.25	-0.77	Elevated
Hebron	768	51,001	439	0.01	0.00	0.25	0.50	0.25	-0.77	Elevated
Dalton City	769	38,524	566	0.01	0.01	0.24	0.49	0.25	-0.77	Elevated
Tovey	770	772	4	0.01	0.00	0.25	0.50	0.25	-0.77	Elevated
Somonauk	771	44,842	1,598	0.04	0.00	0.25	0.50	0.25	-0.78	Elevated

Roseville	772	21,184	74	0.00	0.00	0.25	0.50	0.25	-0.78	Elevated
Ashmore	773	26,132	2,307	0.09	0.03	0.22	0.47	0.25	-0.78	Elevated
Palmer	774	5,365	173	0.03	0.00	0.25	0.50	0.25	-0.78	Elevated
Sheffield	775	7,460	555	0.07	0.02	0.23	0.48	0.25	-0.79	Elevated
Teutopolis	776	31,696	617	0.02	0.00	0.25	0.50	0.25	-0.79	Elevated
Mitchell	777	26,546	319	0.01	0.00	0.25	0.49	0.25	-0.79	Elevated
Lindenhurst	778	328,995	8,490	0.03	0.01	0.24	0.49	0.25	-0.79	Elevated
Ashkum	779	12,885	248	0.02	0.01	0.24	0.49	0.25	-0.79	Elevated
Livingston	780	2,196	50	0.02	0.00	0.25	0.49	0.25	-0.79	Elevated
Timberlane	781	14,501	200	0.01	0.00	0.25	0.49	0.25	-0.80	Elevated
Elburn	782	81,127	2,197	0.03	0.01	0.24	0.49	0.25	-0.80	Elevated
Olivet	783	10,854	228	0.02	0.00	0.25	0.49	0.25	-0.80	Elevated
Rockton	784	86,356	3,631	0.04	0.02	0.22	0.47	0.25	-0.80	Elevated
Thomson	785	12,335	344	0.03	0.00	0.24	0.49	0.25	-0.80	Elevated
Peotone	786	73,545	3,342	0.05	0.01	0.23	0.48	0.25	-0.81	Elevated
Bartelso	787	23,830	1,620	0.07	0.04	0.21	0.45	0.25	-0.81	Elevated
McCullom Lake	788	20,116	302	0.02	0.00	0.25	0.49	0.25	-0.81	Elevated
Ashton	789	5,711	54	0.01	0.00	0.25	0.49	0.25	-0.81	Elevated

Le Roy	790	26,869	1,256	0.05	0.01	0.24	0.49	0.25	-0.82	Elevated
Pecatonica	791	79,432	3,210	0.04	0.02	0.23	0.47	0.25	-0.82	Elevated
Manhattan	792	152,766	5,319	0.03	0.01	0.24	0.48	0.25	-0.82	Elevated
Catlin	793	62,425	762	0.01	0.00	0.24	0.49	0.24	-0.82	Elevated
Elkhart	794	21,602	502	0.02	0.01	0.23	0.48	0.24	-0.82	Elevated
Braidwood	795	47,105	234	0.00	0.00	0.24	0.49	0.24	-0.82	Elevated
Shabbona	796	50,050	112	0.00	0.00	0.24	0.49	0.24	-0.83	Elevated
Towanda	797	43,020	3,537	0.08	0.02	0.22	0.47	0.24	-0.83	Elevated
Fairbury	798	34,908	1,538	0.04	0.00	0.24	0.48	0.24	-0.83	Elevated
Camargo	799	13,092	797	0.06	0.03	0.21	0.46	0.24	-0.83	Elevated
Altamont	800	23,628	775	0.03	0.00	0.24	0.48	0.24	-0.84	Elevated
Exeter	801	4,980	297	0.06	0.02	0.22	0.47	0.24	-0.84	Elevated
Lake Camelot	802	53,772	1,087	0.02	0.00	0.24	0.48	0.24	-0.84	Elevated
Carlinville	803	56,696	5,405	0.10	0.01	0.23	0.47	0.24	-0.84	Elevated
Watson	804	21,041	1,537	0.07	0.01	0.23	0.47	0.24	-0.84	Elevated
Apple Canyon Lake	805	136,818	813	0.01	0.00	0.24	0.48	0.24	-0.85	Elevated
Williamsfield	806	21,802	834	0.04	0.00	0.24	0.48	0.24	-0.85	Elevated
Stonington	807	4,806	41	0.01	0.00	0.24	0.48	0.24	-0.85	Elevated

Ringwood	808	77,083	2,000	0.03	0.00	0.24	0.48	0.24	-0.85	Elevated
Marshall	809	23,953	908	0.04	0.00	0.24	0.48	0.24	-0.86	Elevated
Volo	810	106,712	5,088	0.05	0.02	0.22	0.46	0.24	-0.86	Elevated
Troy	811	132,605	1,387	0.01	0.01	0.23	0.47	0.24	-0.86	Elevated
Virgil	812	48,174	1,546	0.03	0.03	0.21	0.45	0.24	-0.87	Elevated
Jerseyville	813	29,783	520	0.02	0.00	0.24	0.47	0.24	-0.87	Elevated
Arenzville	814	7,516	167	0.02	0.01	0.23	0.47	0.24	-0.87	Elevated
Kirkland	815	77,437	4,164	0.05	0.03	0.20	0.44	0.24	-0.87	Elevated
Elsah	816	48,136	3,065	0.06	0.01	0.22	0.46	0.24	-0.88	Elevated
Lily Lake	817	146,022	4,378	0.03	0.00	0.23	0.47	0.24	-0.88	Elevated
Ladd	818	7,255	55	0.01	0.00	0.24	0.47	0.24	-0.88	Elevated
Mechanicsburg	819	13,724	619	0.05	0.03	0.20	0.44	0.24	-0.88	Elevated
Loami	820	24,890	1,323	0.05	0.01	0.22	0.46	0.24	-0.88	Elevated
Bishop Hill	821	2,442	12	0.00	0.00	0.24	0.47	0.24	-0.89	Elevated
Royal	822	1,944	126	0.06	0.01	0.23	0.46	0.24	-0.89	Elevated
Mackinaw	823	6,524	161	0.02	0.00	0.23	0.47	0.23	-0.89	Elevated
Cortland	824	6,685	229	0.03	0.00	0.23	0.47	0.23	-0.90	Elevated
Aviston	825	14,970	776	0.05	0.01	0.23	0.46	0.23	-0.90	Elevated

Breese	826	131,445	5,482	0.04	0.02	0.21	0.45	0.23	-0.90	Elevated
Moweaqua	827	11,752	311	0.03	0.01	0.23	0.46	0.23	-0.91	Elevated
Long Point	828	2,742	86	0.03	0.00	0.23	0.46	0.23	-0.91	Elevated
Grayville	829	6,020	600	0.10	0.02	0.21	0.45	0.23	-0.91	Elevated
Makanda	830	42,014	4,158	0.10	0.01	0.22	0.45	0.23	-0.91	Elevated
Buckner	831	10,103	379	0.04	0.01	0.22	0.45	0.23	-0.91	Elevated
Banner	832	10,807	543	0.05	0.05	0.19	0.42	0.23	-0.91	Elevated
Kappa	833	2,434	158	0.06	0.00	0.23	0.46	0.23	-0.91	Elevated
South Pekin	834	213	6	0.03	0.00	0.23	0.46	0.23	-0.91	Elevated
Long Creek	835	210,066	8,316	0.04	0.01	0.22	0.45	0.23	-0.92	Elevated
Milledgeville	836	31,794	4,067	0.13	0.01	0.22	0.45	0.23	-0.92	Elevated
Deer Creek	837	5,486	77	0.01	0.00	0.23	0.45	0.23	-0.95	Elevated
De Land	838	9,253	583	0.06	0.03	0.20	0.42	0.23	-0.95	Elevated
Knoxville	839	19,383	1,262	0.07	0.01	0.22	0.45	0.23	-0.95	Elevated
Langleyville	840	5,660	292	0.05	0.00	0.23	0.45	0.23	-0.96	Elevated
Simpson	841	32,054	1,617	0.05	0.04	0.18	0.41	0.23	-0.96	Elevated
Steward	842	5,733	50	0.01	0.00	0.22	0.45	0.22	-0.96	Elevated
Stoy	843	2,652	109	0.04	0.02	0.21	0.43	0.22	-0.98	Elevated

Mineral	844	3,091	108	0.03	0.01	0.21	0.44	0.22	-0.98	Elevated
Maryville	845	81,026	2,525	0.03	0.02	0.20	0.42	0.22	-0.98	Elevated
Nason	846	1,819	26	0.01	0.00	0.22	0.44	0.22	-0.98	Elevated
Hume	847	12,197	133	0.01	0.00	0.22	0.44	0.22	-0.98	Elevated
Newark	848	58,029	939	0.02	0.00	0.22	0.44	0.22	-0.99	Elevated
Bull Valley	849	224,645	3,250	0.01	0.00	0.22	0.44	0.22	-0.99	Elevated
Williamson	850	1,794	11	0.01	0.02	0.20	0.42	0.22	-1.00	Elevated
Carlock	851	23,037	831	0.04	0.02	0.20	0.42	0.22	-1.00	Elevated
Little York	852	9,696	75	0.01	0.00	0.22	0.44	0.22	-1.00	Elevated
Mansfield	853	17,081	562	0.03	0.00	0.22	0.44	0.22	-1.00	Elevated
Argenta	854	13,397	637	0.05	0.00	0.21	0.43	0.22	-1.01	Elevated
Glen Carbon	855	2,282	45	0.02	0.01	0.21	0.43	0.22	-1.01	Elevated
Plattville	856	29,898	622	0.02	0.01	0.20	0.42	0.22	-1.01	Elevated
Lisbon	857	38,626	1,105	0.03	0.01	0.21	0.42	0.22	-1.01	Elevated
Blue Mound	858	28,090	389	0.01	0.00	0.22	0.43	0.22	-1.02	Elevated
Sherrard	859	53,176	502	0.01	0.01	0.21	0.43	0.22	-1.02	Elevated
Ivesdale	860	5,871	232	0.04	0.02	0.20	0.42	0.22	-1.02	Elevated
Hinckley	861	30,102	684	0.02	0.01	0.21	0.42	0.21	-1.04	Elevated

Loraine	862	4,228	224	0.05	0.00	0.21	0.42	0.21	-1.05	Elevated
Vergennes	863	1,733	175	0.10	0.01	0.20	0.41	0.21	-1.08	Elevated
Brooklyn	864	5,000	1,000	0.20	0.21	0.00	0.21	0.21	-1.10	Elevated
Ridott	865	10,746	387	0.04	0.04	0.17	0.37	0.21	-1.13	Elevated
Troy Grove	866	7,113	183	0.03	0.01	0.19	0.40	0.20	-1.13	Elevated
Leland	867	23,642	315	0.01	0.00	0.20	0.40	0.20	-1.14	Elevated
Hollowayville	868	7,387	273	0.04	0.01	0.19	0.39	0.20	-1.14	Elevated
Parkersburg	869	4,541	263	0.06	0.00	0.20	0.40	0.20	-1.15	Elevated
Bethany	870	20,237	714	0.04	0.01	0.19	0.39	0.20	-1.15	Elevated
Fisher	871	59,536	2,028	0.03	0.01	0.19	0.39	0.20	-1.15	Elevated
Forest City	872	3,141	59	0.02	0.00	0.20	0.39	0.20	-1.18	Elevated
Millbrook	873	13,323	577	0.04	0.00	0.19	0.39	0.20	-1.21	Elevated
Sadorus	874	16,819	400	0.02	0.01	0.18	0.37	0.19	-1.21	Elevated
Cherry	875	13,223	676	0.05	0.02	0.17	0.36	0.19	-1.22	Elevated
Bement	876	10,954	190	0.02	0.00	0.19	0.38	0.19	-1.26	Elevated
Congerville	877	8,834	861	0.10	0.01	0.18	0.36	0.18	-1.35	Elevated
Lost Nation	878	23,195	1,175	0.05	0.00	0.17	0.34	0.17	-1.40	Elevated
Hudson	879	7,701	83	0.01	0.00	0.16	0.33	0.16	-1.49	Elevated

Kenney	880	544	84	0.15	0.01	0.15	0.30	0.15	-1.51	Low
La Rose	881	614	40	0.07	0.00	0.15	0.29	0.15	-1.51	Low
Hodgkins	882	3,365	44	0.01	0.00	0.15	0.29	0.15	-1.52	Low
Ina	883	40,230	432	0.01	0.00	0.15	0.29	0.15	-1.53	Low
Saunemin	884	4,349	49	0.01	0.00	0.15	0.29	0.15	-1.53	Low
Niantic	885	195	7	0.04	0.00	0.15	0.29	0.15	-1.53	Low
Galva	886	170	6	0.04	0.00	0.15	0.29	0.15	-1.53	Low
Chatsworth	887	336	1	0.00	0.00	0.15	0.29	0.15	-1.55	Low
Standard	888	43,544	92	0.00	0.00	0.14	0.28	0.14	-1.54	Low
Alorton	889	3,000	500	0.17	0.11	0.00	0.11	0.11	-1.50	Low
Mound City	890	5,000	1,000	0.20	0.01	0.00	0.01	0.01	-1.53	Low

Appendix E – Jurisdictional Flood Vulnerability (FV_2), Exposure, Loss, and Social Vulnerability (SoV_2) Results

Town/City	Rank	Total Exposure ($Thousands)	Total Losses ($Thousands)	Loss Ratio	Weighted Flood Loss Ratio	Social Vulnerability Index (SoV_2)	Flood Score	Flood Vulnerability Index (FV_2)	Z-Score	Flood Vulnerability Rating
Gulf Port	1	23,623	6,130	0.26	1.00	0.29	1.79	1.49	3.91	High
Naples	2	14,922	3,537	0.24	0.91	0.19	1.43	1.24	2.75	High
Grand Tower	3	56,050	11,316	0.20	0.72	0.41	1.81	1.40	3.50	High
Robbins	4	263,879	10,118	0.04	0.03	0.99	2.69	1.69	4.81	High
Ford Heights	5	116,017	3,642	0.03	0.03	0.99	2.67	1.69	4.78	High
Venice	6	3,147	49	0.02	0.01	1.00	2.69	1.69	4.81	High
Harvey	7	553,413	18,345	0.03	0.02	0.96	2.58	1.63	4.51	High
Dixmoor	8	54,085	3,528	0.07	0.04	0.89	2.43	1.54	4.13	High
Old Shawneetown	9	18,152	2,756	0.15	0.60	0.34	1.51	1.17	2.44	High
Cairo	10	213,521	18,817	0.09	0.24	0.73	2.21	1.47	3.82	High
East St. Louis	11	15,064	1,397	0.09	0.07	0.83	2.31	1.47	3.82	High
Ullin	12	30,257	4,038	0.13	0.29	0.59	1.86	1.27	2.92	High
Madison	13	4,960	208	0.04	0.10	0.80	2.24	1.44	3.68	High
McClure	14	27,349	3,813	0.14	0.55	0.39	1.60	1.21	2.61	High
Bellwood	15	544,250	36,159	0.07	0.05	0.81	2.23	1.42	3.56	High

Phoenix	16	2,910	2	0.00	0.00	0.89	2.39	1.50	3.94	High
East Cape Girardeau	17	43,557	6,117	0.14	0.55	0.34	1.47	1.13	2.26	High
Pulaski	18	8,580	429	0.05	0.12	0.71	2.04	1.32	3.14	High
Gorham	19	20,789	3,098	0.15	0.50	0.39	1.55	1.15	2.39	High
Maunie	20	12,587	1,697	0.13	0.53	0.29	1.32	1.03	1.80	High
Markham	21	167,637	3,251	0.02	0.01	0.79	2.12	1.33	3.19	High
Cleveland	22	50,900	11,020	0.22	0.57	0.21	1.15	0.93	1.39	High
Russellville	23	145,951	20,382	0.14	0.55	0.25	1.23	0.98	1.59	High
Liverpool	24	17,905	2,743	0.15	0.60	0.20	1.14	0.94	1.43	Average
Stone Park	25	263,522	8,551	0.03	0.06	0.73	2.01	1.28	2.97	Average
Country Club Hills	26	448,357	10,038	0.02	0.00	0.77	2.07	1.30	3.05	Average
Burnham	27	24,065	1,986	0.08	0.08	0.66	1.86	1.19	2.56	Average
Hazel Crest	28	548,374	27,089	0.05	0.02	0.75	2.03	1.28	2.93	Average
Woodland	29	40,743	6,067	0.15	0.45	0.36	1.41	1.05	1.93	Average
Dolton	30	160,963	6,736	0.04	0.01	0.71	1.90	1.19	2.56	Average
Riverdale	31	41,129	239	0.01	0.00	0.74	1.98	1.24	2.79	Average
Joppa	32	11,269	1,641	0.15	0.13	0.60	1.76	1.15	2.37	Average
South Holland	33	658,654	53,246	0.08	0.03	0.64	1.76	1.11	2.20	Average

De Pue	34	27,728	3,051	0.11	0.15	0.58	1.71	1.13	2.26	Average
Bath	35	30,440	3,326	0.11	0.33	0.37	1.32	0.95	1.45	Average
Maywood	36	46,319	6,362	0.14	0.01	0.64	1.73	1.09	2.09	Average
Calumet Park	37	46,404	651	0.01	0.00	0.70	1.87	1.17	2.47	Average
Forest Park	38	28,769	4,193	0.15	0.03	0.68	1.86	1.18	2.49	Average
Sun River Terrace	39	23,676	1,612	0.07	0.05	0.61	1.69	1.08	2.05	Average
Blue Island	40	443,531	5,179	0.01	0.00	0.65	1.75	1.10	2.14	Average
Melrose Park	41	639,176	29,197	0.05	0.02	0.66	1.78	1.13	2.26	Average
Karnak	42	15,278	1,191	0.08	0.23	0.49	1.55	1.05	1.94	Average
Chillicothe	43	316,785	76,660	0.24	0.36	0.35	1.29	0.95	1.45	Average
Fairmont City	44	41,223	1,262	0.03	0.04	0.58	1.61	1.02	1.79	Average
Freeport	45	312,667	35,522	0.11	0.06	0.58	1.61	1.04	1.85	Average
Fairmont	46	126,234	4,706	0.04	0.01	0.63	1.70	1.07	2.00	Average
Farmersville	47	3,711	76	0.02	0.00	0.58	1.56	0.98	1.58	Average
Dowell	48	28,515	2,471	0.09	0.25	0.45	1.47	1.01	1.75	Average
Meredosia	49	143,985	17,859	0.12	0.30	0.43	1.45	1.02	1.78	Average
Preston Heights	50	131,939	5,844	0.04	0.02	0.60	1.63	1.03	1.84	Average
Savanna	51	163,882	22,589	0.14	0.18	0.53	1.60	1.07	2.02	Average

Olympia Fields	52	397,422	27,498	0.07	0.02	0.56	1.52	0.96	1.51	Average
Rock Island	53	525,429	30,558	0.06	0.05	0.57	1.58	1.01	1.71	Average
Hillside	54	13,513	1,390	0.10	0.00	0.61	1.64	1.03	1.83	Average
Joliet	55	3,383,948	319,478	0.09	0.04	0.54	1.48	0.94	1.43	Average
Rome	56	153,828	24,636	0.16	0.31	0.33	1.19	0.86	1.08	Average
East Hazel Crest	57	19,636	4,800	0.24	0.03	0.64	1.74	1.10	2.15	Average
Sauk Village	58	229,474	11,024	0.05	0.03	0.56	1.52	0.97	1.54	Average
Northlake	59	420,341	16,712	0.04	0.01	0.57	1.53	0.97	1.55	Average
Matteson	60	631,258	23,898	0.04	0.02	0.57	1.56	0.98	1.62	Average
Spring Bay	61	80,071	9,692	0.12	0.38	0.27	1.10	0.83	0.92	Average
Park City	62	250,142	11,979	0.05	0.03	0.61	1.66	1.05	1.92	Average
Winslow	63	51,870	9,958	0.19	0.38	0.23	1.00	0.77	0.66	Average
Beardstown	64	7,865	277	0.04	0.00	0.61	1.64	1.03	1.81	Average
North Chicago	65	917,037	32,023	0.03	0.01	0.53	1.43	0.90	1.24	Average
Murphysboro	66	263,365	43,027	0.16	0.12	0.47	1.36	0.90	1.23	Average
Florence	67	7,369	991	0.13	0.30	0.27	1.03	0.76	0.60	Average
Chicago	68	4,956,782	384,644	0.08	0.01	0.55	1.48	0.93	1.39	Average
Rock Island Arsenal	69	14,420	232	0.02	0.04	0.55	1.52	0.97	1.54	Average

Richton Park	70	394,537	10,008	0.03	0.01	0.52	1.42	0.89	1.20	Average
Chicago Heights	71	346,819	23,173	0.07	0.02	0.56	1.51	0.96	1.49	Average
Marine	72	6,300	408	0.06	0.25	0.38	1.28	0.89	1.20	Average
Broughton	73	1,779	132	0.07	0.06	0.59	1.64	1.05	1.93	Average
Posen	74	186,964	6,220	0.03	0.02	0.57	1.53	0.97	1.54	Average
Villa Grove	75	104,853	16,262	0.16	0.25	0.32	1.11	0.79	0.72	Average
Skokie	76	44,991	837	0.02	0.00	0.54	1.44	0.90	1.26	Average
Lenzburg	77	5,979	303	0.05	0.15	0.43	1.30	0.87	1.11	Average
Cahokia	78	136,922	4,447	0.03	0.05	0.52	1.46	0.93	1.39	Average
South Beloit	79	370,307	48,934	0.13	0.10	0.48	1.38	0.90	1.25	Average
Peoria	80	1,854,500	163,149	0.09	0.05	0.51	1.42	0.90	1.26	Average
Colp	81	8,343	411	0.05	0.02	0.53	1.44	0.91	1.27	Average
East Peoria	82	1,147,012	187,346	0.16	0.20	0.38	1.21	0.84	0.96	Average
Flossmoor	83	454,500	21,773	0.05	0.02	0.48	1.29	0.82	0.86	Average
Lawrenceville	84	58,663	7,480	0.13	0.09	0.50	1.44	0.94	1.42	Average
Kaskaskia	85	1,965	121	0.06	0.24	0.13	0.60	0.47	-0.70	Average
Calumet City	86	492,892	29,048	0.06	0.02	0.55	1.50	0.95	1.46	Average
Olmsted	87	7,771	917	0.12	0.08	0.43	1.22	0.80	0.77	Average

Watseka	88	543,007	48,359	0.09	0.16	0.46	1.38	0.93	1.36	Average
Washington Park	89	5,293	142	0.03	0.01	0.39	1.06	0.67	0.21	Average
La Grange	90	14,449	154	0.01	0.00	0.43	1.16	0.73	0.48	Average
Alhambra	91	5,775	451	0.08	0.28	0.37	1.26	0.89	1.20	Average
Fairview Heights	92	102,354	1,559	0.02	0.00	0.50	1.35	0.85	1.00	Average
Evanston	93	346,639	9,103	0.03	0.00	0.49	1.31	0.82	0.88	Average
Urbana	94	402,677	22,203	0.06	0.01	0.52	1.41	0.89	1.18	Average
Junction	95	12,360	511	0.04	0.16	0.39	1.21	0.82	0.87	Average
Franklin Park	96	956,124	28,529	0.03	0.01	0.54	1.46	0.92	1.32	Average
Lynwood	97	202,189	4,470	0.02	0.03	0.55	1.50	0.95	1.45	Average
Wheeling	98	2,120,162	121,307	0.06	0.05	0.47	1.30	0.83	0.93	Average
Freeman Spur	99	8,439	1,369	0.16	0.18	0.32	1.05	0.73	0.46	Average
Hamburg	100	29,257	6,404	0.22	0.27	0.17	0.73	0.56	-0.30	Average
Kampsville	101	24,665	2,639	0.11	0.18	0.30	0.98	0.68	0.25	Average
Grand Detour	102	30,432	3,269	0.11	0.18	0.33	1.06	0.73	0.49	Average
Bush	103	6,282	336	0.05	0.02	0.53	1.44	0.91	1.28	Average
Danville	104	937,651	58,546	0.06	0.02	0.53	1.43	0.90	1.25	Average
Eldorado	105	152,347	17,467	0.11	0.14	0.45	1.35	0.90	1.23	Average

Tamms	106	56,654	4,161	0.07	0.09	0.39	1.13	0.74	0.54	Average
Pearl	107	7,680	888	0.12	0.17	0.27	0.89	0.62	-0.02	Average
Broadview	108	124,692	5,630	0.05	0.01	0.46	1.25	0.79	0.72	Average
Bensenville	109	1,289,884	90,676	0.07	0.03	0.45	1.24	0.79	0.74	Average
Park Forest	110	20,939	624	0.03	0.00	0.48	1.30	0.81	0.85	Average
Aroma Park	111	204,831	21,598	0.11	0.20	0.34	1.12	0.77	0.67	Average
Olive Branch	112	57,562	4,211	0.07	0.13	0.40	1.20	0.80	0.78	Average
North Pekin	113	64,025	8,585	0.13	0.23	0.28	0.99	0.71	0.37	Average
Peoria Heights	114	358,458	26,672	0.07	0.19	0.34	1.10	0.76	0.61	Average
Rochelle	115	522,105	39,504	0.08	0.08	0.45	1.28	0.83	0.94	Average
Homewood	116	337,937	24,462	0.07	0.01	0.49	1.33	0.84	0.95	Average
Hurst	117	19,306	2,031	0.11	0.12	0.40	1.20	0.80	0.77	Average
East Moline	118	425,420	26,054	0.06	0.08	0.41	1.18	0.77	0.67	Average
Metropolis	119	227,375	22,713	0.10	0.13	0.40	1.21	0.81	0.82	Average
Bolingbrook	120	1,961,985	82,830	0.04	0.03	0.42	1.14	0.73	0.46	Average
Hanover Park	121	452,068	12,834	0.03	0.01	0.46	1.23	0.77	0.66	Average
Round Lake Beach	122	720,441	45,510	0.06	0.03	0.45	1.24	0.79	0.75	Average
Aurora	123	3,802,884	162,795	0.04	0.01	0.46	1.26	0.79	0.75	Average

River Forest	124	119,667	5,960	0.05	0.03	0.45	1.23	0.78	0.70	Average
Chandlerville	125	41,563	2,485	0.06	0.14	0.39	1.18	0.79	0.76	Average
Belknap	126	6,408	174	0.03	0.07	0.47	1.34	0.87	1.09	Average
Dallas City	127	13,539	1,761	0.13	0.17	0.37	1.17	0.80	0.78	Average
Champaign	128	739,849	12,200	0.02	0.00	0.49	1.31	0.82	0.88	Average
Ellisville	129	3,766	327	0.09	0.07	0.48	1.34	0.87	1.09	Average
Glenwood	130	117,689	5,481	0.05	0.02	0.43	1.18	0.75	0.57	Average
Stickney	131	1,966	82	0.04	0.00	0.55	1.47	0.92	1.35	Average
Kankakee	132	1,236,423	109,752	0.09	0.03	0.49	1.33	0.84	0.98	Average
Thebes	133	8,946	774	0.09	0.12	0.36	1.09	0.73	0.48	Average
Westchester	134	657,458	34,934	0.05	0.03	0.47	1.29	0.82	0.86	Average
Central City	135	21,386	3,188	0.15	0.12	0.42	1.23	0.82	0.88	Average
Pontoosuc	136	17,695	1,657	0.09	0.19	0.28	0.94	0.66	0.16	Average
Sumner	137	38,342	3,626	0.09	0.17	0.32	1.03	0.71	0.38	Average
Mundelein	138	1,647,964	46,987	0.03	0.01	0.44	1.18	0.74	0.53	Average
Waukegan	139	1,355,831	94,689	0.07	0.02	0.45	1.23	0.78	0.69	Average
Cave-In-Rock	140	7,688	237	0.03	0.02	0.49	1.32	0.84	0.96	Average
Mill Shoals	141	9,654	882	0.09	0.18	0.22	0.76	0.54	-0.38	Average

Belvidere	142	356,507	26,173	0.07	0.05	0.46	1.28	0.82	0.89	Average
Schiller Park	143	728,284	25,283	0.03	0.03	0.46	1.24	0.79	0.74	Average
Keyesport	144	21,438	2,474	0.12	0.15	0.37	1.14	0.77	0.67	Average
Glendale Heights	145	962,944	34,172	0.04	0.01	0.44	1.18	0.74	0.52	Average
Paderborn	146	10,483	1,289	0.12	0.18	0.29	0.95	0.66	0.17	Average
Oquawka	147	20,135	1,617	0.08	0.10	0.38	1.11	0.74	0.50	Average
Harrisburg	148	555,562	40,410	0.07	0.06	0.45	1.26	0.81	0.84	Average
Scott AFB	149	122,661	13,278	0.11	0.10	0.36	1.07	0.71	0.39	Average
West Peoria	150	96,555	10,707	0.11	0.03	0.50	1.37	0.87	1.11	Average
Hutsonville	151	53,079	5,469	0.10	0.12	0.35	1.07	0.72	0.41	Average
New Haven	152	27,561	3,119	0.11	0.14	0.38	1.17	0.78	0.71	Average
Addison	153	977,828	49,111	0.05	0.01	0.45	1.22	0.77	0.66	Average
Carbondale	154	441,011	25,496	0.06	0.03	0.41	1.13	0.72	0.42	Average
Sterling	155	68,820	2,730	0.04	0.01	0.47	1.28	0.81	0.82	Average
Galesburg	156	290,325	10,538	0.04	0.01	0.51	1.38	0.87	1.10	Average
Brookport	157	17,803	1,324	0.07	0.01	0.49	1.33	0.83	0.95	Average
Sauget	158	17,057	60	0.00	0.00	0.51	1.36	0.85	1.04	Average
Evansville	159	13,030	3,299	0.25	0.18	0.25	0.86	0.61	-0.08	Average

Carrier Mills	160	50,721	1,307	0.03	0.01	0.53	1.44	0.90	1.25	Average
Villa Park	161	515,390	62,518	0.12	0.02	0.43	1.17	0.74	0.54	Average
Oakbrook Terrace	162	353,646	30,601	0.09	0.03	0.47	1.27	0.81	0.83	Average
Lincolnshire	163	811,931	96,473	0.12	0.09	0.30	0.89	0.59	-0.15	Average
Dongola	164	43,443	5,452	0.13	0.09	0.43	1.23	0.80	0.80	Average
Lansing	165	616,854	27,310	0.04	0.01	0.47	1.27	0.80	0.80	Average
Rankin	166	7,368	573	0.08	0.03	0.42	1.17	0.74	0.53	Average
Willowbrook	167	314,303	14,525	0.05	0.02	0.37	1.03	0.65	1.03	Average
Alsip	168	378,903	5,820	0.02	0.00	0.51	1.36	0.85	0.80	Average
Round Lake Park	169	235,854	16,817	0.07	0.06	0.44	1.24	0.80	0.34	Average
Zion	170	514,314	20,648	0.04	0.02	0.40	1.10	0.70	0.88	Average
Crestwood	171	418,242	22,170	0.05	0.02	0.48	1.30	0.82	0.88	Average
Media	172	735	25	0.03	0.00	0.49	1.31	0.82	0.85	Average
Maeystown	173	1,058	17	0.02	0.00	0.48	1.29	0.81	0.21	Average
Muddy	174	16,843	970	0.06	0.10	0.34	1.01	0.67	0.05	Average
New Boston	175	17,762	1,510	0.09	0.15	0.29	0.92	0.64	0.67	Average
Rockford	176	3,746,453	130,965	0.03	0.01	0.45	1.23	0.77	0.22	Average
Sidney	177	91,038	12,175	0.13	0.17	0.30	0.97	0.67	-0.71	Average

Bureau Junction	178	9,751	872	0.09	0.23	0.14	0.61	0.47	0.48	Average
Morton Grove	179	150,638	12,051	0.08	0.02	0.43	1.16	0.73	0.65	Average
Browning	180	10,632	322	0.03	0.09	0.40	1.17	0.77	0.27	Average
Hennepin	181	17,896	936	0.05	0.04	0.39	1.07	0.68	0.46	Average
Oak Brook	182	1,095,037	85,667	0.08	0.03	0.42	1.14	0.73	0.86	Average
Rosemont	183	126,732	1,864	0.01	0.00	0.48	1.30	0.82	0.77	Average
Carmi	184	206,132	15,976	0.08	0.04	0.45	1.25	0.80	0.65	Average
Westmont	185	733,272	23,852	0.03	0.00	0.45	1.22	0.77	0.12	Average
Caseyville	186	281,158	12,896	0.05	0.06	0.35	1.01	0.65	0.60	Average
Streator	187	432,302	46,048	0.11	0.05	0.42	1.18	0.76	0.24	Average
Equality	188	31,218	2,601	0.08	0.07	0.36	1.04	0.68	1.09	Average
Pleasant Hill	189	80,923	7,055	0.09	0.00	0.52	1.38	0.87	-0.13	Average
London Mills	190	24,038	2,454	0.10	0.15	0.26	0.86	0.59	0.12	Average
Round Lake Heights	191	113,667	9,549	0.08	0.02	0.38	1.03	0.65	-0.07	Average
Nelson	192	22,745	1,478	0.06	0.12	0.29	0.90	0.61	0.57	Average
Des Plaines	193	2,281,897	146,877	0.06	0.03	0.43	1.18	0.75	1.02	Average
La Grange Park	194	90,946	8,122	0.09	0.02	0.49	1.34	0.85	0.00	Average
Long Lake	195	316,275	18,553	0.06	0.11	0.31	0.93	0.62	0.25	Average

Hainesville	196	285,228	11,139	0.04	0.06	0.37	1.05	0.68	1.03	Average
Worth	197	56,289	4,638	0.08	0.01	0.50	1.36	0.85	-0.30	Average
West Chicago	198	460,352	11,250	0.02	0.01	0.33	0.89	0.56	0.15	Average
Elgin	199	2,499,630	144,636	0.06	0.02	0.38	1.04	0.66	0.59	Average
Lyons	200	95,656	4,645	0.05	0.02	0.44	1.19	0.76	0.59	Average
Marion	201	828,383	42,939	0.05	0.02	0.44	1.19	0.75	-0.36	Average
Deer Grove	202	6,390	510	0.08	0.09	0.27	0.82	0.54	1.02	Average
Buda	203	1,975	55	0.03	0.00	0.51	1.36	0.85	0.46	Average
Ottawa	204	385,634	44,840	0.12	0.06	0.40	1.12	0.73	0.38	Average
Riverside	205	220,607	11,502	0.05	0.04	0.40	1.11	0.71	-0.18	Average
Keithsburg	206	19,568	1,134	0.06	0.12	0.28	0.86	0.58	0.18	Average
Channel Lake	207	250,854	18,883	0.08	0.15	0.30	0.97	0.66	0.04	Average
Andalusia	208	103,574	13,590	0.13	0.13	0.30	0.93	0.63	-0.39	Average
Holiday Hills	209	91,482	5,316	0.06	0.12	0.25	0.79	0.54	0.49	Average
Carbon Cliff	210	125,635	8,156	0.06	0.08	0.39	1.12	0.73	0.21	Average
Prophetstown	211	53,215	6,185	0.12	0.09	0.34	1.02	0.67	0.37	Average
Moline	212	1,241,567	103,981	0.08	0.06	0.39	1.09	0.71	0.34	Average
Carlyle	213	110,363	11,739	0.11	0.06	0.38	1.08	0.70	0.82	Average

Bay View Gardens	214	46,188	5,890	0.13	0.09	0.43	1.23	0.81	0.21	Average
Ingalls Park	215	9,618	401	0.04	0.00	0.40	1.07	0.67	0.80	Average
Jonesboro	216	78,452	13,428	0.17	0.02	0.47	1.27	0.80	0.64	Average
Milford	217	26,617	2,051	0.08	0.04	0.43	1.20	0.77	0.00	Average
Vernon Hills	218	1,232,411	77,909	0.06	0.03	0.36	0.98	0.62	0.21	Average
Charleston	219	324,310	27,818	0.09	0.05	0.37	1.04	0.67	-0.07	Average
Sleepy Hollow	220	83,419	3,607	0.04	0.02	0.35	0.96	0.61	0.12	Average
Beach Park	221	749,166	33,807	0.05	0.01	0.38	1.03	0.65	0.58	Average
Walnut	222	63,445	6,414	0.10	0.06	0.41	1.16	0.75	-0.05	Average
St. Francisville	223	8,944	931	0.10	0.09	0.31	0.93	0.61	0.27	Average
Nebo	224	14,334	520	0.04	0.07	0.37	1.05	0.68	0.60	Average
River Grove	225	227,334	11,272	0.05	0.04	0.43	1.18	0.76	0.85	Average
North Riverside	226	127,848	10,356	0.08	0.04	0.46	1.27	0.81	-0.19	Average
Round Lake	227	426,008	18,074	0.04	0.03	0.33	0.91	0.58	0.39	Average
Elmhurst	228	844,800	45,741	0.05	0.01	0.42	1.13	0.71	0.30	Average
Orient	229	7,259	586	0.08	0.06	0.38	1.07	0.69	0.60	Average
Marissa	230	21,273	474	0.02	0.06	0.41	1.17	0.76	-0.02	Average
Bridgeview	231	26,949	715	0.03	0.00	0.37	0.99	0.62	0.50	Average

Como	232	37,122	3,098	0.08	0.12	0.37	1.10	0.74	0.85	Average
Kewanee	233	164,714	7,946	0.05	0.00	0.48	1.29	0.81	-0.01	Average
Carol Stream	234	1,593,004	61,277	0.04	0.02	0.36	0.98	0.62	0.56	Average
Mount Vernon	235	293,496	11,596	0.04	0.01	0.44	1.19	0.75	0.25	Average
Sparta	236	86,978	9,885	0.11	0.04	0.38	1.06	0.68	0.17	Average
Carpentersville	237	604,206	23,945	0.04	0.01	0.39	1.05	0.66	0.70	Average
Park Ridge	238	680,627	20,208	0.03	0.00	0.46	1.24	0.78	1.15	Average
Tonica	239	50,075	4,033	0.08	0.04	0.50	1.38	0.88	0.37	Average
East Dubuque	240	122,687	17,210	0.14	0.11	0.36	1.06	0.71	-0.33	Average
Sparland	241	30,646	2,871	0.09	0.12	0.25	0.81	0.55	0.17	Average
Genoa	242	82,575	4,329	0.05	0.03	0.38	1.04	0.66	-0.10	Average
Lombard	243	819,300	43,255	0.05	0.01	0.35	0.95	0.60	0.39	Average
Centreville	244	16,304	84	0.01	0.00	0.42	1.13	0.71	-0.29	Average
Valley City	245	3,237	137	0.04	0.10	0.27	0.83	0.56	0.32	Average
North Utica	246	108,610	15,493	0.14	0.10	0.35	1.05	0.70	0.04	Average
Montgomery	247	517,345	29,013	0.06	0.04	0.36	0.99	0.63	0.52	Average
Pittsburg	248	2,229	42	0.02	0.00	0.44	1.18	0.74	0.53	Average
Galatia	249	51,856	3,418	0.07	0.05	0.41	1.15	0.74	0.41	Average

Rosiclare	250	34,550	1,568	0.05	0.03	0.41	1.12	0.72	0.99	Average
Greenfield	251	15,735	943	0.06	0.02	0.49	1.33	0.84	0.98	Average
Harrison	252	25,716	482	0.02	0.00	0.50	1.34	0.84	0.47	Average
Mendota	253	423,403	20,195	0.05	0.02	0.42	1.15	0.73	0.10	Average
Harvard	254	169,540	3,195	0.02	0.00	0.38	1.03	0.65	0.20	Average
Johnston City	255	47,097	3,708	0.08	0.06	0.36	1.03	0.67	0.39	Average
Prospect Heights	256	1,138,418	46,477	0.04	0.03	0.41	1.12	0.71	0.37	Average
Kingston Mines	257	14,824	1,338	0.09	0.14	0.34	1.04	0.71	0.31	Average
Morris	258	838,962	79,416	0.09	0.06	0.38	1.07	0.69	-0.16	Average
Itasca	259	226,787	20,774	0.09	0.04	0.33	0.92	0.59	0.85	Average
Royalton	260	13,655	724	0.05	0.03	0.47	1.28	0.81	0.08	Average
Holiday Shores	261	183,937	17,876	0.10	0.14	0.30	0.94	0.64	-0.69	Average
Orangeville	262	31,208	3,368	0.11	0.14	0.20	0.67	0.47	0.25	Average
Oregon	263	241,674	16,733	0.07	0.05	0.38	1.06	0.68	0.05	Average
Fox Lake	264	1,414,750	119,919	0.08	0.10	0.32	0.95	0.63	-0.42	Average
Port Barrington	265	203,433	12,745	0.06	0.12	0.24	0.77	0.53	0.38	Average
Jacksonville	266	501,672	32,905	0.07	0.04	0.40	1.11	0.71	0.37	Average
Milan	267	283,463	14,478	0.05	0.05	0.39	1.10	0.71	-0.05	Average

Hoffman Estates	268	2,806,864	69,023	0.02	0.01	0.36	0.98	0.61	0.04	Average
Manlius	269	23,492	2,681	0.11	0.10	0.32	0.95	0.63	-0.34	Average
Mettawa	270	860,690	57,066	0.07	0.05	0.30	0.85	0.55	-0.84	Average
El Paso	271	1,580	46	0.03	0.00	0.26	0.70	0.44	0.73	Average
Crossville	272	50,402	3,157	0.06	0.06	0.43	1.22	0.79	0.54	Average
Cissna Park	273	46,071	2,681	0.06	0.06	0.41	1.15	0.74	0.19	Average
Schaumburg	274	3,511,249	90,478	0.03	0.00	0.39	1.06	0.67	0.19	Average
Glenview	275	798,213	38,384	0.05	0.01	0.39	1.06	0.67	0.09	Average
ArlingtonHeights	276	1,146,959	23,467	0.02	0.00	0.38	1.03	0.64	0.61	Average
Bridgeport	277	55,316	3,238	0.06	0.07	0.41	1.17	0.76	0.15	Average
Belleville	278	452,258	25,654	0.06	0.02	0.38	1.04	0.66	0.17	Average
Waltonville	279	878	26	0.03	0.00	0.39	1.06	0.66	0.06	Average
New Bedford	280	11,907	1,089	0.09	0.06	0.35	0.98	0.64	-0.10	Average
Grantfork	281	30,622	1,600	0.05	0.13	0.28	0.88	0.60	0.63	Average
Salem	282	293,886	18,403	0.06	0.03	0.44	1.20	0.76	0.05	Average
Lisle	283	1,911,364	165,160	0.09	0.06	0.34	0.98	0.64	-0.02	Average
Pawnee	284	81,615	18,248	0.22	0.10	0.31	0.93	0.62	0.14	Average
Rolling Meadows	285	1,116,373	54,815	0.05	0.01	0.38	1.04	0.66	0.66	Average

New Canton	286	33,106	2,658	0.08	0.01	0.45	1.22	0.77	0.32	Average
Golconda	287	29,026	2,507	0.09	0.01	0.41	1.10	0.70	-0.84	Average
Roxana	288	45,148	5,149	0.11	0.15	0.17	0.61	0.44	0.07	Average
Collinsville	289	512,125	30,101	0.06	0.04	0.35	0.99	0.64	0.83	Average
Elizabethtown	290	20,027	747	0.04	0.03	0.46	1.27	0.81	0.28	Average
Decatur	291	2,128,030	156,499	0.07	0.05	0.38	1.06	0.69	0.20	Average
Mascoutah	292	166,336	17,739	0.11	0.10	0.34	1.01	0.67	0.50	Average
Niles	293	405,881	25,389	0.06	0.01	0.43	1.17	0.74	0.13	Average
Woodstock	294	1,395,349	27,779	0.02	0.00	0.39	1.04	0.65	0.57	Average
Greenview	295	7,491	203	0.03	0.01	0.44	1.19	0.75	-0.16	Average
Hillview	296	20,244	669	0.03	0.04	0.33	0.92	0.59	-0.63	Average
Omaha	297	6,633	576	0.09	0.11	0.22	0.71	0.48	-0.16	Average
Gurnee	298	1,280,696	85,193	0.07	0.02	0.34	0.92	0.59	0.62	Average
Newton	299	38,951	2,426	0.06	0.00	0.45	1.21	0.76	0.68	Average
Elkville	300	27,637	1,450	0.05	0.02	0.45	1.22	0.77	0.50	Average
Seaton	301	9,064	421	0.05	0.02	0.42	1.16	0.74	0.00	Average
Wonder Lake	302	227,153	26,662	0.12	0.11	0.31	0.93	0.63	-0.50	Average
Bannockburn	303	362,640	4,922	0.01	0.00	0.30	0.82	0.51	-0.02	Average

Northfield	304	467,698	18,566	0.04	0.03	0.35	0.97	0.62	0.54	Average
Galena	305	170,375	12,973	0.08	0.04	0.42	1.17	0.74	0.46	Average
Louisville	306	7,110	1,141	0.16	0.03	0.42	1.14	0.73	0.01	Average
Zeigler	307	35,317	2,367	0.07	0.02	0.36	0.99	0.63	-0.65	Average
Channahon	308	633,686	76,369	0.12	0.10	0.22	0.70	0.48	0.01	Average
Crest Hill	309	365,218	21,253	0.06	0.02	0.36	0.99	0.63	0.04	Average
Washburn	310	80,907	8,144	0.10	0.07	0.33	0.97	0.63	0.23	Average
Mount Prospect	311	1,198,059	30,332	0.03	0.00	0.40	1.08	0.68	0.17	Average
Downers Grove	312	2,600,744	160,183	0.06	0.02	0.38	1.05	0.66	0.20	Average
Browns	313	9,562	542	0.06	0.14	0.32	0.98	0.67	-0.17	Average
Streamwood	314	416,238	22,820	0.05	0.01	0.35	0.93	0.59	0.21	Average
Dwight	315	240,102	16,365	0.07	0.05	0.37	1.04	0.67	0.82	Average
St. David	316	14,209	1,058	0.07	0.02	0.47	1.28	0.81	-0.05	Average
Damiansville	317	16,990	929	0.05	0.03	0.35	0.96	0.61	0.49	Average
Mount Carroll	318	119,412	12,358	0.10	0.04	0.41	1.14	0.73	0.45	Average
Jewett	319	2,119	72	0.03	0.01	0.43	1.15	0.72	-0.06	Average
Bloomington	320	902,913	36,338	0.04	0.01	0.36	0.97	0.61	0.24	Average
Biggsville	321	16,974	1,416	0.08	0.09	0.35	1.03	0.68	-0.40	Average

Lebanon	322	47,764	1,782	0.04	0.02	0.31	0.84	0.54	0.06	Average
Chicago Ridge	323	431,340	14,334	0.03	0.01	0.37	1.01	0.64	-0.41	Average
Naperville	324	7,367,822	309,360	0.04	0.01	0.31	0.84	0.53	0.05	Average
Thornton	325	23,606	1,700	0.07	0.01	0.38	1.01	0.64	-0.33	Average
Winnetka	326	673,986	13,602	0.02	0.02	0.32	0.87	0.55	-0.19	Average
Prairie du Rocher	327	30,200	2,428	0.08	0.06	0.31	0.89	0.58	-0.57	Average
Leland Grove	328	97,453	6,768	0.07	0.04	0.27	0.77	0.50	-0.07	Average
Albers	329	43,313	3,316	0.08	0.08	0.31	0.92	0.61	0.52	Average
Herrin	330	210,599	14,362	0.07	0.01	0.43	1.17	0.74	0.21	Average
Martinsville	331	28,681	2,581	0.09	0.03	0.38	1.05	0.67	0.12	Average
Leaf River	332	32,089	3,978	0.12	0.10	0.32	0.97	0.65	0.52	Average
Mason City	333	14,809	37	0.00	0.00	0.44	1.18	0.74	0.47	Average
Carrollton	334	25,127	2,116	0.08	0.02	0.42	1.15	0.73	0.21	Average
Bradford	335	22,827	2,627	0.12	0.08	0.35	1.02	0.67	-0.03	Average
O'Fallon	336	769,272	36,949	0.05	0.01	0.36	0.98	0.62	0.56	Average
McCook	337	5,308	794	0.15	0.04	0.42	1.17	0.75	0.10	Average
Northbrook	338	1,128,365	42,717	0.04	0.01	0.38	1.03	0.65	0.00	Average
Wood Dale	339	126,488	6,824	0.05	0.02	0.36	0.98	0.62	-0.16	Average

Palatine	340	2,222,256	51,598	0.02	0.01	0.35	0.94	0.59	0.43	Average
Anna	341	230,855	10,789	0.05	0.00	0.43	1.15	0.72	-0.10	Average
Henry	342	26,169	3,204	0.12	0.06	0.32	0.93	0.60	0.06	Average
Belgium	343	32,244	2,238	0.07	0.05	0.35	0.99	0.64	0.25	Average
Toulon	344	16,218	750	0.05	0.01	0.40	1.08	0.68	-0.22	Average
Highland Park	345	1,505,011	89,911	0.06	0.02	0.33	0.90	0.57	0.11	Average
Momence	346	90,805	2,521	0.03	0.01	0.38	1.03	0.65	0.17	Average
Clinton	347	116,296	16,443	0.14	0.04	0.37	1.03	0.66	0.71	Average
Greenup	348	19,511	902	0.05	0.01	0.46	1.24	0.78	0.09	Average
LaSalle	349	81,576	4,629	0.06	0.02	0.37	1.02	0.64	0.17	Average
Normal	350	1,090,545	29,535	0.03	0.00	0.39	1.05	0.66	0.23	Average
West Frankfort	351	128,434	8,257	0.06	0.04	0.38	1.05	0.67	-0.28	Average
Lake Bluff	352	408,422	15,071	0.04	0.01	0.33	0.89	0.56	0.30	Average
Oak Lawn	353	932,028	38,823	0.04	0.01	0.41	1.10	0.69	-0.30	Average
Pistakee Highlands	354	160,202	12,732	0.08	0.10	0.27	0.83	0.56	-0.03	Average
Elk Grove Village	355	885,874	23,377	0.03	0.00	0.37	0.98	0.62	-0.45	Average
Burr Ridge	356	1,047,655	48,435	0.05	0.01	0.31	0.83	0.52	0.53	Average
Bradley	357	303,100	12,773	0.04	0.01	0.44	1.18	0.74	0.09	Average

Jerome	358	78,253	3,426	0.04	0.00	0.38	1.03	0.65	-0.51	Average
East Brooklyn	359	10,143	908	0.09	0.08	0.26	0.77	0.51	-0.33	Average
Spring Valley	360	230,151	25,448	0.11	0.05	0.30	0.85	0.55	0.46	Average
Brookfield	361	223,899	16,048	0.07	0.02	0.42	1.15	0.73	-0.42	Average
Palestine	362	39,235	2,656	0.07	0.06	0.28	0.81	0.53	-0.09	Average
Crete	363	321,377	6,371	0.02	0.00	0.36	0.96	0.61	0.32	Average
Kincaid	364	8,447	580	0.07	0.01	0.41	1.11	0.70	-0.32	Average
Lake Catherine	365	136,493	7,167	0.05	0.10	0.27	0.82	0.55	0.16	Average
West City	366	3,787	83	0.02	0.00	0.39	1.05	0.66	0.07	Average
Bartonville	367	342,185	20,195	0.06	0.08	0.33	0.97	0.64	-0.66	Average
Long Grove	368	1,347,639	47,922	0.04	0.02	0.27	0.75	0.48	-0.61	Average
Third Lake	369	151,778	6,405	0.04	0.07	0.25	0.74	0.49	0.09	Average
New Athens	370	33,600	1,524	0.05	0.07	0.34	0.99	0.64	-0.50	Average
Coal City	371	14,923	267	0.02	0.01	0.30	0.81	0.51	-0.20	Average
Grayslake	372	1,574,465	96,860	0.06	0.03	0.33	0.91	0.58	0.13	Average
Justice	373	275,358	7,854	0.03	0.01	0.38	1.04	0.65	0.03	Average
Hoopeston	374	51,761	1,915	0.04	0.01	0.37	1.00	0.63	-0.65	Average
Riverwoods	375	425,002	30,841	0.07	0.05	0.26	0.74	0.48	0.44	Average

Du Quoin	376	103,210	8,083	0.08	0.02	0.42	1.14	0.72	-0.36	Average
Forest Lake	377	89,827	5,506	0.06	0.03	0.30	0.85	0.54	-0.05	Average
North Aurora	378	307,177	9,728	0.03	0.01	0.36	0.97	0.61	0.03	Average
Ste. Marie	379	6,810	397	0.06	0.03	0.36	0.99	0.63	0.19	Average
Willowbrook	380	836,492	49,586	0.06	0.02	0.39	1.05	0.67	0.19	Average
Brussels	381	12,739	717	0.06	0.03	0.41	1.12	0.71	0.40	Average
Riverton	382	68,425	7,068	0.10	0.09	0.32	0.94	0.63	0.00	Average
Millington	383	49,842	4,515	0.09	0.12	0.22	0.71	0.49	-0.60	Average
Swansea	384	444,365	24,808	0.06	0.02	0.35	0.97	0.61	-0.05	Average
Lockport	385	1,216,773	73,036	0.06	0.04	0.33	0.93	0.60	-0.13	Average
Elmwood Park	386	137,751	7,068	0.05	0.01	0.38	1.03	0.65	0.11	Average
Peru	387	359,970	23,791	0.07	0.02	0.39	1.08	0.69	0.28	Average
St. Jacob	388	19,349	803	0.04	0.08	0.30	0.89	0.59	-0.16	Average
Wamac	389	27,987	2,735	0.10	0.05	0.36	1.01	0.65	0.13	Average
Clarendon Hills	390	175,406	6,457	0.04	0.00	0.41	1.09	0.69	0.28	Average
Hamilton	391	81,709	3,985	0.05	0.11	0.31	0.93	0.62	-0.01	Average
Mazon	392	15,965	471	0.03	0.01	0.26	0.72	0.46	-0.76	Average
East Dundee	393	241,403	43,651	0.18	0.04	0.29	0.82	0.53	-0.42	Average

Hillsdale	394	60,835	1,893	0.03	0.10	0.30	0.89	0.60	-0.13	Average
McLeansboro	395	3,557	41	0.01	0.00	0.47	1.26	0.79	0.74	Average
Hardin	396	92,574	4,947	0.05	0.04	0.34	0.96	0.62	-0.03	Average
Chrisman	397	28,349	1,989	0.07	0.02	0.37	1.00	0.64	0.05	Average
Fox Lake Hills	398	151,209	10,326	0.07	0.09	0.25	0.77	0.51	-0.50	Average
Hillcrest	399	32,317	251	0.01	0.01	0.36	0.98	0.62	-0.03	Average
Midlothian	400	550,849	18,471	0.03	0.01	0.37	1.01	0.64	0.07	Average
Lincoln	401	270,084	10,608	0.04	0.01	0.38	1.02	0.64	0.09	Average
Darien	402	1,354,975	78,495	0.06	0.01	0.34	0.91	0.58	-0.22	Average
Centralia	403	114,359	6,188	0.05	0.03	0.33	0.90	0.57	-0.23	Average
Hinsdale	404	683,417	37,693	0.06	0.01	0.33	0.90	0.57	-0.25	Average
Hampton	405	28,570	2,697	0.09	0.05	0.34	0.96	0.62	-0.03	Average
Diamond	406	18,818	242	0.01	0.00	0.29	0.78	0.49	-0.60	Average
Shiloh	407	206,303	12,841	0.06	0.03	0.33	0.91	0.58	-0.19	Average
Cordova	408	30,439	3,385	0.11	0.07	0.28	0.82	0.54	-0.36	Average
Rockwood	409	12,777	691	0.05	0.10	0.30	0.89	0.59	-0.15	Average
Buffalo Grove	410	2,126,328	120,420	0.06	0.02	0.31	0.85	0.54	-0.39	Average
Shorewood	411	573,051	43,762	0.08	0.04	0.26	0.73	0.47	-0.69	Average

Frankfort	412	1,332,088	90,463	0.07	0.03	0.27	0.77	0.49	-0.59	Average
Rock Falls	413	153,540	7,569	0.05	0.01	0.40	1.09	0.69	0.30	Average
DeKalb	414	682,449	30,939	0.05	0.01	0.36	0.96	0.61	-0.08	Average
Byron	415	112,746	7,662	0.07	0.03	0.34	0.94	0.60	-0.11	Average
Lake Forest	416	1,242,388	38,861	0.03	0.01	0.31	0.83	0.52	-0.45	Average
Dixon	417	375,388	25,275	0.07	0.03	0.38	1.04	0.67	0.19	Average
Steeleville	418	56,857	2,177	0.04	0.02	0.38	1.03	0.66	0.14	Average
Pearl City	419	56,567	3,505	0.06	0.06	0.33	0.94	0.61	-0.04	Average
Sims	420	3,814	195	0.05	0.00	0.40	1.08	0.68	0.23	Average
Shelbyville	421	23,977	1,413	0.06	0.02	0.36	0.98	0.62	-0.01	Average
Wilmette	422	498,554	18,256	0.04	0.01	0.33	0.89	0.56	-0.28	Average
Colona	423	176,600	10,661	0.06	0.05	0.34	0.98	0.63	0.04	Average
Dalzell	424	10,262	180	0.02	0.00	0.34	0.93	0.58	-0.19	Average
Libertyville	425	1,440,811	74,974	0.05	0.03	0.29	0.82	0.53	-0.44	Average
Willow Springs	426	302,501	12,031	0.04	0.04	0.25	0.71	0.46	-0.76	Average
Elmwood	427	9,446	268	0.03	0.01	0.38	1.01	0.64	0.06	Average
Bushnell	428	2,195	58	0.03	0.00	0.39	1.05	0.66	0.17	Average
Island Lake	429	599,594	30,412	0.05	0.06	0.31	0.88	0.57	-0.23	Average

South Roxana	430	23,799	795	0.03	0.06	0.29	0.83	0.54	-0.38	Average
Arthur	431	134,516	6,577	0.05	0.04	0.41	1.14	0.73	0.46	Average
University Park	432	187,440	2,501	0.01	0.00	0.32	0.85	0.53	-0.42	Average
Abingdon	433	14,101	890	0.06	0.00	0.45	1.20	0.75	0.59	Average
Woodridge	434	1,239,583	93,962	0.08	0.02	0.30	0.84	0.53	-0.41	Average
Plainfield	435	1,021,780	54,114	0.05	0.03	0.27	0.76	0.49	-0.62	Average
Geneseo	436	125,051	13,586	0.11	0.04	0.33	0.93	0.60	-0.12	Average
Georgetown	437	10,437	734	0.07	0.00	0.40	1.07	0.67	0.21	Average
Granite City	438	178,099	2,197	0.01	0.01	0.38	1.02	0.64	0.07	Average
Steger	439	102,550	3,697	0.04	0.01	0.29	0.78	0.49	-0.61	Average
New Baden	440	40,492	3,958	0.10	0.02	0.39	1.07	0.68	0.25	Average
Lake Villa	441	744,370	19,092	0.03	0.02	0.30	0.83	0.53	-0.44	Average
Roanoke	442	58,702	2,003	0.03	0.01	0.34	0.92	0.58	-0.18	Average
Ridgway	443	9,882	801	0.08	0.03	0.31	0.85	0.55	-0.35	Average
Pekin	444	281,160	28,472	0.10	0.06	0.30	0.85	0.55	-0.31	Average
De Soto	446	45,165	4,165	0.09	0.03	0.38	1.04	0.66	0.18	Average
Woodstock	294	1,395,349	27,779	0.02	0.00	0.39	1.04	0.65	0.57	Average
Lake Holiday	447	194,458	20,805	0.11	0.08	0.27	0.81	0.54	-0.39	Average

Marseilles	448	90,577	11,438	0.13	0.04	0.34	0.96	0.62	-0.03	Average
Reynolds	449	27,784	4,114	0.15	0.07	0.34	0.99	0.65	0.10	Average
Farmington	450	14,829	596	0.04	0.01	0.39	1.06	0.67	0.19	Average
Glen Ellyn	451	365,730	17,744	0.05	0.01	0.34	0.91	0.57	-0.25	Average
Bryant	452	13,802	400	0.03	0.01	0.42	1.13	0.71	0.40	Average
Claremont	453	17,046	1,088	0.06	0.05	0.31	0.88	0.57	-0.23	Average
Wheaton	454	1,429,401	56,698	0.04	0.01	0.33	0.88	0.55	-0.32	Average
Bedford Park	455	68,012	1,189	0.02	0.00	0.37	1.00	0.63	0.03	Average
Lakemoor	456	343,367	20,641	0.06	0.06	0.26	0.75	0.49	-0.60	Average
Benton	457	51,589	2,835	0.05	0.00	0.36	0.97	0.61	-0.06	Average
Divernon	458	37,491	4,605	0.12	0.06	0.35	0.98	0.64	0.06	Average
Pontoon Beach	459	266,391	6,105	0.02	0.04	0.32	0.91	0.58	-0.18	Average
Chemung	460	8,788	333	0.04	0.00	0.37	0.98	0.62	-0.03	Average
Hartford	461	26,491	1,055	0.04	0.07	0.31	0.89	0.58	-0.19	Average
Quincy	462	875,287	45,202	0.05	0.01	0.36	0.99	0.62	0.00	Average
Palos Hills	463	886,762	23,230	0.03	0.01	0.39	1.05	0.66	0.16	Average
Oak Forest	464	789,197	42,859	0.05	0.02	0.31	0.85	0.54	-0.38	Average
Greenwood	465	34,908	2,234	0.06	0.03	0.29	0.81	0.52	-0.47	Average

Pontiac	466	332,181	21,127	0.06	0.03	0.36	0.98	0.62	0.00	Average
Bloomingdale	467	1,101,828	55,168	0.05	0.01	0.33	0.91	0.57	-0.24	Average
Petersburg	468	40,032	4,147	0.10	0.07	0.32	0.93	0.61	-0.08	Average
Inverness	469	818,201	16,032	0.02	0.01	0.28	0.75	0.47	-0.68	Average
Lake of the Woods	470	60,769	4,462	0.07	0.04	0.27	0.75	0.49	-0.62	Average
Lakewood	471	270,818	10,723	0.04	0.02	0.26	0.71	0.45	-0.77	Average
Seatonville	472	12,956	1,010	0.08	0.04	0.32	0.89	0.57	-0.23	Average
Bluffs	473	28,176	1,708	0.06	0.05	0.33	0.93	0.61	-0.09	Average
South Wilmington	474	5,690	191	0.03	0.00	0.33	0.88	0.55	-0.32	Average
Mill Creek	475	6,560	375	0.06	0.06	0.27	0.78	0.51	-0.50	Average
Muncie	476	8,629	478	0.06	0.05	0.26	0.75	0.49	-0.60	Average
Mattoon	477	140,632	3,148	0.02	0.00	0.44	1.17	0.73	0.50	Average
Lake Zurich	478	1,305,481	31,280	0.02	0.01	0.29	0.79	0.50	-0.57	Average
Oakland	479	35,460	2,046	0.06	0.03	0.37	1.02	0.65	0.11	Average
Winchester	480	9,057	1,603	0.18	0.05	0.39	1.09	0.70	0.33	Average
North Barrington	481	1,000,388	33,572	0.03	0.03	0.25	0.68	0.44	-0.83	Average
Robinson	482	180,883	3,587	0.02	0.00	0.45	1.22	0.76	0.63	Average
Alton	483	85,968	3,466	0.04	0.02	0.34	0.94	0.60	-0.12	Average

Wayne	484	246,394	6,456	0.03	0.01	0.26	0.70	0.44	-0.81	Average
Eldred	485	12,464	477	0.04	0.07	0.24	0.71	0.47	-0.70	Average
Bartlett	486	861,036	34,571	0.04	0.01	0.26	0.72	0.46	-0.76	Average
Saybrook	487	16,157	2,148	0.13	0.09	0.30	0.89	0.59	-0.13	Average
Wauconda	488	1,001,708	44,362	0.04	0.04	0.31	0.87	0.56	-0.30	Average
Carterville	489	94,713	1,979	0.02	0.00	0.42	1.11	0.70	0.33	Average
Norwood	490	30,149	1,604	0.05	0.00	0.34	0.90	0.56	-0.27	Average
Gibson City	491	2,689	42	0.02	0.00	0.40	1.08	0.68	0.23	Average
Tilton	492	43,067	2,728	0.06	0.00	0.45	1.20	0.75	0.58	Average
Potomac	493	14,072	923	0.07	0.03	0.34	0.94	0.60	-0.10	Average
Bourbonnais	494	765,948	7,697	0.01	0.00	0.37	1.00	0.62	0.00	Average
Erie	495	85,315	4,790	0.06	0.06	0.32	0.92	0.60	-0.10	Average
Princeville	496	63,936	1,856	0.03	0.01	0.33	0.89	0.56	-0.30	Average
Romeoville	497	837,544	14,755	0.02	0.01	0.31	0.84	0.53	-0.44	Average
Bonnie	498	5,265	167	0.03	0.01	0.35	0.96	0.61	-0.07	Average
Newman	499	25,910	2,100	0.08	0.04	0.27	0.77	0.50	-0.56	Average
East Carondelet	500	4,028	64	0.02	0.05	0.29	0.81	0.53	-0.44	Average
Western Springs	501	130,971	4,019	0.03	0.00	0.30	0.80	0.50	-0.55	Average

Kenilworth	502	202,106	8,898	0.04	0.00	0.29	0.77	0.48	-0.63	Average
Springerton	503	2,080	13	0.01	0.00	0.29	0.78	0.49	-0.60	Average
Westville	504	35,527	1,221	0.03	0.00	0.37	0.98	0.62	-0.03	Average
Vienna	505	60,908	1,799	0.03	0.01	0.35	0.96	0.61	-0.08	Average
Symerton	506	587	14	0.02	0.00	0.30	0.80	0.50	-0.56	Average
Glencoe	507	248,145	9,604	0.04	0.01	0.27	0.73	0.46	-0.73	Average
Hickory Hills	508	229,881	4,888	0.02	0.00	0.34	0.92	0.57	-0.22	Average
Springfield	509	1,745,775	129,710	0.07	0.05	0.26	0.75	0.49	-0.62	Average
Forrest	510	50,917	2,517	0.05	0.02	0.38	1.04	0.66	0.15	Average
Macomb	511	353,783	22,185	0.06	0.02	0.30	0.81	0.52	-0.48	Average
Antioch	512	640,053	24,873	0.04	0.02	0.30	0.83	0.53	-0.42	Average
Creve Coeur	513	17,533	882	0.05	0.04	0.20	0.58	0.38	-1.11	Average
Valier	514	6,711	329	0.05	0.01	0.33	0.89	0.56	-0.28	Average
Venetian Village	515	221,408	8,519	0.04	0.06	0.29	0.84	0.55	-0.35	Average
Wayne City	516	13,244	186	0.01	0.00	0.34	0.91	0.57	-0.25	Average
Limestone	517	41,501	2,369	0.06	0.00	0.20	0.55	0.34	-1.26	Average
Hanover	518	46,240	3,772	0.08	0.04	0.37	1.03	0.66	0.16	Average
Adeline	519	18,486	732	0.04	0.00	0.29	0.79	0.50	-0.57	Average

Radom	520	1,318	33	0.03	0.00	0.36	0.97	0.61	-0.09	Average
Lacon	521	65,146	8,542	0.13	0.08	0.32	0.93	0.61	-0.05	Average
Barrington	522	816,975	22,163	0.03	0.01	0.29	0.79	0.50	-0.57	Average
Tower Lakes	523	374,985	12,074	0.03	0.02	0.25	0.69	0.44	-0.83	Average
Mahomet	524	276,096	26,841	0.10	0.05	0.29	0.82	0.53	-0.40	Average
St. Libory	525	19,612	363	0.02	0.00	0.38	1.03	0.65	0.10	Average
Golden Gate	526	1,482	118	0.08	0.02	0.25	0.70	0.45	-0.80	Average
Stillman Valley	527	6,057	173	0.03	0.00	0.32	0.85	0.54	-0.40	Average
Coal Valley	528	242,777	9,636	0.04	0.02	0.34	0.93	0.59	-0.17	Average
Lake in the Hills	529	1,062,731	38,024	0.04	0.01	0.28	0.76	0.48	-0.64	Average
Edinburg	530	48,694	4,629	0.10	0.05	0.33	0.93	0.60	-0.11	Average
Amboy	531	67,320	3,367	0.05	0.01	0.37	0.99	0.62	-0.01	Average
Huntley	532	332,686	13,235	0.04	0.02	0.27	0.73	0.46	-0.73	Average
Richmond	533	177,422	13,887	0.08	0.04	0.24	0.70	0.45	-0.77	Average
Tinley Park	534	1,163,434	38,134	0.03	0.01	0.32	0.87	0.55	-0.34	Average
Trout Valley	535	44,618	37	0.00	0.00	0.30	0.81	0.51	-0.51	Average
South Elgin	536	632,792	28,797	0.05	0.01	0.31	0.85	0.54	-0.39	Average
Lake Barrington	537	968,458	30,860	0.03	0.03	0.26	0.72	0.46	-0.73	Average

Iuka	538	3,258	88	0.03	0.00	0.28	0.76	0.48	-0.66	Average
Thayer	539	26,284	3,279	0.12	0.06	0.26	0.75	0.49	-0.59	Average
Thompsonville	540	6,716	251	0.04	0.00	0.42	1.11	0.70	0.33	Average
Oneida	541	20,654	147	0.01	0.00	0.39	1.05	0.66	0.15	Average
Havana	542	39,304	2,947	0.07	0.03	0.31	0.86	0.55	-0.35	Average
Seneca	543	74,714	3,966	0.05	0.03	0.30	0.84	0.54	-0.38	Average
Monee	544	65,109	1,051	0.02	0.00	0.33	0.89	0.56	-0.30	Average
Forsyth	545	195,902	8,576	0.04	0.02	0.30	0.82	0.52	-0.46	Average
Deerfield	546	824,788	44,274	0.05	0.01	0.28	0.77	0.49	-0.63	Average
South Barrington	547	458,464	8,587	0.02	0.01	0.24	0.64	0.40	-1.00	Average
Fults	548	1,228	38	0.03	0.12	0.15	0.53	0.38	-1.11	Average
Monticello	549	256,515	9,964	0.04	0.03	0.32	0.87	0.56	-0.30	Average
Indian Head Park	550	244,713	9,611	0.04	0.01	0.27	0.73	0.46	-0.73	Average
Mount Carmel	551	98,947	8,592	0.09	0.04	0.31	0.86	0.56	-0.31	Average
Green Oaks	552	493,033	17,453	0.04	0.01	0.28	0.75	0.47	-0.67	Average
Lemont	553	442,169	17,960	0.04	0.02	0.28	0.77	0.49	-0.61	Average
Forreston	554	33,672	1,100	0.03	0.01	0.42	1.13	0.71	0.38	Average
Grandwood Park	555	275,998	4,269	0.02	0.00	0.32	0.85	0.53	-0.40	Average

Albany	556	21,363	1,919	0.09	0.04	0.25	0.71	0.46	-0.74	Average
Kildeer	557	764,882	22,278	0.03	0.01	0.23	0.64	0.41	-0.97	Average
Morrison	558	159,078	10,733	0.07	0.05	0.37	1.03	0.67	0.19	Average
St. Joseph	559	97,031	8,450	0.09	0.05	0.32	0.92	0.60	-0.13	Average
Nashville	560	34,142	1,424	0.04	0.01	0.34	0.92	0.58	-0.20	Average
Nauvoo	561	5,895	181	0.03	0.04	0.25	0.72	0.46	-0.73	Average
La Harpe	562	17,249	597	0.03	0.01	0.30	0.81	0.51	-0.50	Average
McNabb	563	8,338	820	0.10	0.04	0.36	1.01	0.65	0.10	Average
Algonquin	564	853,963	42,899	0.05	0.01	0.28	0.75	0.48	-0.66	Average
Gilman	565	27,939	717	0.03	0.01	0.36	0.97	0.61	-0.06	Average
Warrenville	566	558,084	24,521	0.04	0.02	0.28	0.77	0.49	-0.59	Average
Fayetteville	567	8,752	899	0.10	0.02	0.26	0.72	0.46	-0.75	Average
Columbia	568	177,720	8,579	0.05	0.07	0.24	0.71	0.47	-0.68	Average
Nokomis	569	30,443	1,839	0.06	0.01	0.35	0.94	0.59	-0.15	Average
Junction City	570	10,891	487	0.04	0.02	0.40	1.09	0.69	0.29	Average
Countryside	571	211,773	3,634	0.02	0.00	0.35	0.93	0.58	-0.18	Average
Manteno	572	209,974	3,128	0.01	0.00	0.36	0.97	0.61	-0.05	Average
Kangley	573	8,289	857	0.10	0.03	0.31	0.86	0.55	-0.34	Average

Gilberts	574	106,111	6,515	0.06	0.05	0.18	0.53	0.35	-1.25	Average
Beckemeyer	575	7,426	538	0.07	0.00	0.41	1.11	0.70	0.33	Average
Orland Hills	576	268,963	8,172	0.03	0.01	0.31	0.84	0.53	-0.43	Average
Earlville	577	201,079	21,343	0.11	0.02	0.35	0.96	0.61	-0.07	Average
South Jacksonville	578	75,046	3,918	0.05	0.01	0.35	0.94	0.59	-0.14	Average
Palos Heights	579	629,712	32,028	0.05	0.01	0.31	0.84	0.53	-0.40	Average
Cary	580	452,655	22,080	0.05	0.01	0.29	0.79	0.50	-0.57	Average
Sycamore	581	437,902	15,180	0.03	0.01	0.29	0.79	0.50	-0.55	Average
Silvis	582	51,911	2,138	0.04	0.00	0.34	0.91	0.57	-0.24	Average
Mulberry Grove	583	15,883	924	0.06	0.00	0.35	0.94	0.59	-0.15	Average
Greenville	584	49,648	3,680	0.07	0.01	0.31	0.84	0.53	-0.44	Average
Fairfield	585	15,132	870	0.06	0.00	0.43	1.16	0.73	0.45	Average
Germantown	586	60,513	2,424	0.04	0.02	0.30	0.81	0.52	-0.48	Average
Wheeler	587	4,342	58	0.01	0.01	0.32	0.87	0.55	-0.33	Average
Thawville	588	4,075	189	0.05	0.01	0.36	0.96	0.60	-0.10	Average
Highland	589	165,766	3,981	0.02	0.02	0.32	0.87	0.55	-0.33	Average
Carthage	590	96,976	5,138	0.05	0.01	0.42	1.13	0.71	0.39	Average
Frankfort Square	591	401,245	15,031	0.04	0.02	0.28	0.78	0.50	-0.58	Average

Oakwood Hills	592	239,523	10,289	0.04	0.02	0.28	0.78	0.49	-0.59	Average
Wilmington	593	487,499	32,487	0.07	0.04	0.28	0.79	0.51	-0.51	Average
Smithton	594	76,984	6,139	0.08	0.05	0.24	0.69	0.45	-0.78	Average
Colfax	595	37,832	1,865	0.05	0.02	0.36	0.99	0.63	0.03	Average
Cambria	596	10,522	496	0.05	0.00	0.40	1.07	0.67	0.21	Average
Hillsboro	597	40,224	787	0.02	0.02	0.31	0.84	0.53	-0.41	Average
Hull	598	33,119	1,899	0.06	0.00	0.34	0.90	0.57	-0.26	Average
Gardner	599	28,624	494	0.02	0.01	0.36	0.98	0.62	-0.03	Average
Iroquois	600	16,900	1,969	0.12	0.07	0.21	0.63	0.42	-0.91	Average
Gages Lake	601	138,073	11,536	0.08	0.02	0.31	0.85	0.54	-0.36	Average
Wadsworth	602	479,520	24,168	0.05	0.02	0.23	0.63	0.40	-1.00	Average
Warsaw	603	23,755	822	0.03	0.04	0.27	0.76	0.49	-0.62	Average
Pierron	604	7,224	353	0.05	0.01	0.29	0.79	0.50	-0.56	Average
Canton	605	112,616	6,961	0.06	0.01	0.36	0.97	0.61	-0.06	Average
North City	606	12,023	2,450	0.20	0.02	0.25	0.69	0.44	-0.82	Average
Allenville	607	6,059	445	0.07	0.05	0.23	0.68	0.45	-0.80	Average
Durand	608	72,770	4,699	0.06	0.06	0.25	0.73	0.48	-0.66	Average
Paris	609	63,467	2,530	0.04	0.01	0.29	0.80	0.51	-0.53	Average

Orland Park	610	1,675,350	46,906	0.03	0.01	0.29	0.79	0.50	-0.57	Average
Rantoul	611	641	3	0.00	0.00	0.26	0.69	0.43	-0.87	Average
McHenry	612	572,373	28,053	0.05	0.01	0.34	0.93	0.58	-0.18	Average
Energy	613	43,653	2,399	0.05	0.00	0.40	1.07	0.67	0.21	Average
Johnsburg	614	477,176	38,119	0.08	0.06	0.23	0.69	0.46	-0.76	Average
Hettick	615	8,808	205	0.02	0.00	0.42	1.14	0.72	0.41	Average
Oswego	616	508,145	27,764	0.05	0.02	0.26	0.71	0.45	-0.77	Average
New Lenox	617	815,642	30,411	0.04	0.01	0.26	0.72	0.45	-0.77	Average
Winthrop Harbor	618	319,815	12,115	0.04	0.04	0.26	0.72	0.47	-0.71	Average
Palos Park	619	399,377	13,635	0.03	0.01	0.28	0.77	0.48	-0.64	Average
Rochester	620	141,867	10,222	0.07	0.04	0.29	0.81	0.52	-0.46	Average
Morton	621	380,433	29,332	0.08	0.02	0.31	0.85	0.54	-0.38	Average
Cherry Valley	622	416,033	15,113	0.04	0.04	0.27	0.76	0.50	-0.58	Average
Elwood	623	29,006	821	0.03	0.01	0.30	0.81	0.51	-0.51	Average
Avon	624	14,124	704	0.05	0.01	0.30	0.80	0.51	-0.53	Average
Sullivan	625	50,208	990	0.02	0.00	0.35	0.95	0.59	-0.14	Average
Olney	626	111,920	5,874	0.05	0.00	0.33	0.88	0.55	-0.33	Average
Farmer City	627	37,214	3,097	0.08	0.05	0.23	0.66	0.43	-0.86	Average

Litchfield	628	49,313	223	0.00	0.00	0.36	0.98	0.61	-0.05	Average
Mokena	629	940,134	29,030	0.03	0.01	0.26	0.71	0.45	-0.80	Average
Spring Grove	630	407,007	32,807	0.08	0.01	0.24	0.64	0.41	-0.98	Average
Fulton	631	100,322	6,584	0.07	0.03	0.33	0.92	0.59	-0.17	Average
Grafton	632	94,908	13,513	0.14	0.05	0.17	0.49	0.32	-1.35	Average
Vandalia	633	36,456	1,054	0.03	0.02	0.33	0.90	0.57	-0.22	Average
Ruma	634	28,112	1,479	0.05	0.02	0.33	0.89	0.56	-0.27	Average
Heyworth	635	54,206	4,840	0.09	0.03	0.29	0.80	0.51	-0.51	Average
Poplar Grove	636	30,626	1,251	0.04	0.01	0.26	0.70	0.44	-0.81	Average
Bluford	637	2,638	72	0.03	0.00	0.40	1.07	0.67	0.21	Average
St. Charles	638	877,148	44,451	0.05	0.01	0.29	0.78	0.50	-0.58	Average
Oglesby	639	59,311	4,623	0.08	0.01	0.37	1.02	0.64	0.08	Average
Princeton	640	159,824	6,800	0.04	0.00	0.37	1.00	0.63	0.02	Average
Raymond	641	15,762	1,065	0.07	0.01	0.30	0.83	0.52	-0.45	Average
Atwood	642	7,639	553	0.07	0.02	0.29	0.81	0.52	-0.49	Average
Virginia	643	34,772	1,077	0.03	0.01	0.39	1.04	0.66	0.14	Average
Downs	644	50,297	12,521	0.25	0.10	0.20	0.64	0.44	-0.84	Average
West Dundee	645	380,773	14,782	0.04	0.01	0.30	0.81	0.51	-0.51	Average

Wenonah	646	3,826	45	0.01	0.00	0.25	0.66	0.41	-0.95	Average
Penfield	647	1,295	90	0.07	0.04	0.27	0.76	0.49	-0.62	Average
Menominee	648	36,609	850	0.02	0.01	0.36	0.97	0.61	-0.05	Average
Bellevue	649	175,955	8,585	0.05	0.01	0.35	0.96	0.60	-0.10	Average
Sandoval	650	9,514	280	0.03	0.00	0.40	1.07	0.67	0.20	Average
Barrington Hills	651	699,277	26,620	0.04	0.02	0.23	0.62	0.39	-1.04	Average
Deer Park	652	237,237	6,178	0.03	0.00	0.26	0.69	0.44	-0.85	Average
Stonefort	653	6,675	371	0.06	0.06	0.35	1.00	0.65	0.13	Average
Marengo	654	272,239	6,156	0.02	0.01	0.34	0.93	0.59	-0.17	Average
Batavia	655	653,892	20,247	0.03	0.00	0.26	0.71	0.44	-0.81	Average
Roselle	656	710,214	44,498	0.06	0.01	0.28	0.77	0.49	-0.60	Average
East Alton	657	30,655	1,311	0.04	0.02	0.40	1.09	0.69	0.29	Average
Sandwich	658	114,443	5,702	0.05	0.01	0.31	0.86	0.54	-0.37	Average
Winfield	659	496,618	16,325	0.03	0.01	0.26	0.71	0.45	-0.77	Average
Loves Park	660	963,992	32,844	0.03	0.01	0.35	0.94	0.59	-0.15	Average
Machesney Park	661	855,778	39,595	0.05	0.02	0.31	0.86	0.55	-0.35	Average
Pingree Grove	662	56,890	2,452	0.04	0.02	0.21	0.57	0.37	-1.17	Average
Lake Summerset	663	86,236	2,734	0.03	0.03	0.33	0.90	0.58	-0.21	Average

Beecher	664	208,181	4,555	0.02	0.00	0.33	0.88	0.55	-0.32	Average
Crystal Lawns	665	65,811	1,703	0.03	0.01	0.32	0.88	0.55	-0.33	Average
Crystal Lake	666	834,835	34,261	0.04	0.01	0.28	0.76	0.48	-0.66	Average
Wenona	667	15,299	428	0.03	0.01	0.31	0.83	0.53	-0.44	Average
Christopher	668	22,616	948	0.04	0.00	0.35	0.94	0.59	-0.16	Average
La Moille	669	12,037	634	0.05	0.03	0.24	0.66	0.42	-0.90	Average
Prestbury	670	260,902	9,838	0.04	0.02	0.22	0.61	0.39	-1.07	Average
Dupo	671	124,723	3,020	0.02	0.02	0.35	0.95	0.60	-0.11	Average
Tallula	672	11,072	450	0.04	0.01	0.32	0.87	0.55	-0.34	Average
Campton Hills	673	1,460,916	34,945	0.02	0.01	0.24	0.64	0.40	-0.99	Average
Hampshire	674	369,969	12,592	0.03	0.01	0.27	0.73	0.46	-0.75	Average
Tuscola	675	168,265	5,841	0.03	0.02	0.36	0.98	0.62	-0.01	Average
Pinckneyville	676	81,165	5,402	0.07	0.02	0.33	0.90	0.57	-0.24	Average
Bethalto	677	199,530	5,879	0.03	0.01	0.33	0.90	0.56	-0.27	Average
Chester	678	101,309	3,434	0.03	0.00	0.36	0.97	0.61	-0.07	Average
Capron	679	21,009	260	0.01	0.00	0.36	0.96	0.60	-0.11	Average
Broadlands	680	5,688	212	0.04	0.03	0.23	0.66	0.43	-0.89	Average
Auburn	681	50,193	4,499	0.09	0.02	0.32	0.88	0.56	-0.31	Average

Merrionette Park	682	100,272	1,689	0.02	0.00	0.42	1.13	0.71	0.38	Average
Tiskilwa	683	5,519	85	0.02	0.00	0.30	0.81	0.51	-0.53	Average
Godfrey	684	446,567	15,299	0.03	0.01	0.32	0.86	0.54	-0.36	Average
Freeburg	685	96,866	8,774	0.09	0.02	0.28	0.78	0.50	-0.56	Average
Pleasant Plains	686	52,732	1,569	0.03	0.02	0.30	0.81	0.52	-0.49	Average
Boulder Hill	687	75,346	3,857	0.05	0.00	0.32	0.85	0.53	-0.42	Average
Lewistown	688	46,997	762	0.02	0.00	0.37	0.99	0.62	-0.01	Average
Grant Park	689	21,928	479	0.02	0.00	0.33	0.89	0.56	-0.30	Average
Washington	690	387,483	25,710	0.07	0.01	0.36	0.97	0.61	-0.05	Average
Golf	691	27,900	2,194	0.08	0.03	0.27	0.75	0.48	-0.65	Average
Clay City	692	26,868	1,270	0.05	0.02	0.26	0.72	0.46	-0.76	Average
Wood River	693	154,252	8,267	0.05	0.02	0.33	0.91	0.58	-0.20	Average
Trenton	694	62,025	6,518	0.11	0.03	0.32	0.88	0.56	-0.30	Average
Dayton	695	20,930	718	0.03	0.01	0.33	0.90	0.57	-0.27	Average
Okawville	696	69,358	1,864	0.03	0.01	0.34	0.93	0.58	-0.18	Average
Maroa	697	7,522	33	0.00	0.00	0.22	0.58	0.37	-1.16	Average
Sugar Grove	698	369,799	10,315	0.03	0.01	0.23	0.61	0.39	-1.07	Average
Effingham	699	222,894	8,463	0.04	0.00	0.30	0.82	0.51	-0.50	Average

Toluca	700	20,127	276	0.01	0.01	0.34	0.93	0.58	-0.18	Average
Eureka	701	226,941	9,167	0.04	0.01	0.35	0.95	0.60	-0.12	Average
Lena	702	31,625	316	0.01	0.00	0.32	0.85	0.53	-0.42	Average
The Galena Territory	703	223,696	4,628	0.02	0.00	0.33	0.90	0.56	-0.27	Average
Lyndon	704	10,976	1,238	0.11	0.05	0.22	0.63	0.42	-0.94	Average
Sherman	705	59,902	3,833	0.06	0.02	0.24	0.67	0.43	-0.89	Average
Rosewood Heights	706	92,645	3,354	0.04	0.00	0.41	1.09	0.68	0.27	Average
Maple Park	707	60,483	1,332	0.02	0.02	0.24	0.67	0.43	-0.90	Average
Taylorville	708	84,785	4,960	0.06	0.05	0.20	0.59	0.39	-1.06	Average
Humboldt	709	12,968	339	0.03	0.00	0.23	0.62	0.39	-1.07	Average
Fox River Grove	710	257,288	10,984	0.04	0.02	0.24	0.65	0.41	-0.95	Average
Neoga	711	17,831	121	0.01	0.00	0.38	1.01	0.64	0.06	Average
Garden Prairie	712	19,581	1,195	0.06	0.03	0.20	0.57	0.37	-1.14	Average
Minooka	713	252,811	23,043	0.09	0.02	0.28	0.78	0.50	-0.57	Average
Hopedale	714	35,198	3,326	0.09	0.05	0.21	0.62	0.41	-0.98	Average
Rossville	715	24,070	1,450	0.06	0.03	0.28	0.77	0.50	-0.57	Average
Sheridan	716	55,257	2,953	0.05	0.02	0.16	0.45	0.29	-1.50	Elevated
Hamel	717	3,099	36	0.01	0.04	0.33	0.93	0.60	-0.12	Elevated

Pana	718	26,427	1,863	0.07	0.01	0.25	0.69	0.44	-0.84	Elevated
South Chicago Heights	719	37,890	1,027	0.03	0.00	0.24	0.65	0.41	-0.96	Elevated
Wyanet	720	7,639	655	0.09	0.03	0.26	0.72	0.46	-0.72	Elevated
Valmeyer	721	53,109	1,553	0.03	0.04	0.24	0.68	0.44	-0.84	Elevated
Williamsville	722	46,948	1,095	0.02	0.00	0.26	0.70	0.44	-0.85	Elevated
Prairie Grove	723	253,741	8,776	0.03	0.01	0.28	0.77	0.48	-0.63	Elevated
Lakewood Shores	724	156,338	8,307	0.05	0.03	0.26	0.74	0.47	-0.69	Elevated
Homer Glen	725	1,680,825	55,951	0.03	0.01	0.24	0.64	0.41	-0.98	Elevated
Alvan	726	10,737	649	0.06	0.02	0.28	0.77	0.49	-0.60	Elevated
Crescent City	727	20,392	1,366	0.07	0.02	0.34	0.93	0.59	-0.16	Elevated
Manito	728	3,671	519	0.14	0.01	0.26	0.71	0.45	-0.79	Elevated
Goofy Ridge	729	16,413	1,567	0.10	0.04	0.23	0.67	0.43	-0.87	Elevated
Spaulding	730	58,706	3,656	0.06	0.04	0.22	0.62	0.41	-0.98	Elevated
Mapleton	731	2,967	13	0.00	0.00	0.32	0.85	0.53	-0.42	Elevated
Lexington	732	21,743	1,860	0.09	0.01	0.25	0.69	0.43	-0.86	Elevated
Plano	733	117,662	8,736	0.07	0.02	0.25	0.69	0.44	-0.83	Elevated
Indianola	734	5,507	454	0.08	0.02	0.26	0.73	0.47	-0.72	Elevated
Elvaston	735	4,039	146	0.04	0.01	0.34	0.92	0.58	-0.20	Elevated

Ashland	736	38,173	1,746	0.05	0.02	0.24	0.67	0.43	-0.89	Elevated
Roscoe	737	361,487	13,655	0.04	0.02	0.23	0.64	0.41	-0.98	Elevated
Altona	738	26,729	765	0.03	0.01	0.28	0.77	0.49	-0.61	Elevated
Lovington	739	23,447	201	0.01	0.00	0.38	1.02	0.64	0.06	Elevated
Burlington	740	68,459	1,172	0.02	0.00	0.25	0.68	0.43	-0.88	Elevated
Old Mill Creek	741	129,715	3,396	0.03	0.01	0.20	0.55	0.35	-1.23	Elevated
Union	742	164,312	5,455	0.03	0.01	0.27	0.73	0.46	-0.73	Elevated
Danvers	743	12,343	349	0.03	0.00	0.31	0.84	0.53	-0.45	Elevated
Kingston	744	89,461	4,401	0.05	0.03	0.24	0.66	0.43	-0.88	Elevated
Mount Zion	745	220,782	10,716	0.05	0.01	0.29	0.80	0.51	-0.53	Elevated
Ripley	746	7,164	485	0.07	0.04	0.22	0.62	0.40	-0.99	Elevated
Geneva	747	458,428	15,823	0.03	0.01	0.24	0.64	0.41	-0.97	Elevated
Yorkville	748	457,174	26,130	0.06	0.00	0.28	0.75	0.47	-0.69	Elevated
Millstadt	749	81,287	2,993	0.04	0.00	0.33	0.88	0.55	-0.34	Elevated
Twin Grove	750	101,427	1,852	0.02	0.00	0.23	0.63	0.40	-1.03	Elevated
Gladstone	751	8,405	580	0.07	0.02	0.32	0.88	0.56	-0.29	Elevated
Edwardsville	752	332,038	7,051	0.02	0.01	0.20	0.56	0.36	-1.20	Elevated
Staunton	753	17,027	562	0.03	0.00	0.36	0.95	0.60	-0.12	Elevated

Dunlap	754	13,739	237	0.02	0.00	0.29	0.77	0.48	-0.63	Elevated
Sammons Point	755	26,617	1,228	0.05	0.01	0.28	0.76	0.48	-0.64	Elevated
Wataga	756	22,536	2,494	0.11	0.05	0.25	0.72	0.47	-0.69	Elevated
New Milford	757	87,784	7,738	0.09	0.03	0.26	0.72	0.46	-0.72	Elevated
Port Byron	758	27,733	1,864	0.07	0.01	0.28	0.77	0.49	-0.61	Elevated
Big Rock	759	153,392	7,635	0.05	0.03	0.23	0.64	0.41	-0.95	Elevated
Carbon Hill	760	13,999	270	0.02	0.01	0.20	0.55	0.35	-1.24	Elevated
Flat Rock	761	1,038	13	0.01	0.00	0.32	0.85	0.54	-0.40	Elevated
Oakford	762	6,407	233	0.04	0.01	0.33	0.90	0.56	-0.28	Elevated
Waterloo	763	172,964	4,117	0.02	0.01	0.32	0.86	0.54	-0.38	Elevated
Lomax	764	3,127	65	0.02	0.02	0.23	0.63	0.40	-1.00	Elevated
Rapids City	765	41,176	4,967	0.12	0.02	0.27	0.75	0.47	-0.67	Elevated
Cedarville	766	49,582	1,420	0.03	0.01	0.32	0.87	0.54	-0.36	Elevated
Chatham	767	307,680	14,575	0.05	0.01	0.22	0.60	0.38	-1.10	Elevated
Hebron	768	51,001	439	0.01	0.00	0.34	0.91	0.57	-0.23	Elevated
Dalton City	769	38,524	566	0.01	0.01	0.31	0.84	0.53	-0.42	Elevated
Tovey	770	772	4	0.01	0.00	0.18	0.50	0.31	-1.41	Elevated
Somonauk	771	44,842	1,598	0.04	0.00	0.31	0.84	0.53	-0.43	Elevated

Roseville	772	21,184	74	0.00	0.00	0.34	0.91	0.57	-0.23	Elevated
Ashmore	773	26,132	2,307	0.09	0.03	0.29	0.80	0.51	-0.52	Elevated
Palmer	774	5,365	173	0.03	0.00	0.20	0.54	0.34	-1.29	Elevated
Sheffield	775	7,460	555	0.07	0.02	0.18	0.51	0.32	-1.35	Elevated
Teutopolis	776	31,696	617	0.02	0.00	0.31	0.82	0.52	-0.48	Elevated
Mitchell	777	26,546	319	0.01	0.00	0.32	0.85	0.54	-0.39	Elevated
Lindenhurst	778	328,995	8,490	0.03	0.01	0.25	0.67	0.42	-0.92	Elevated
Ashkum	779	12,885	248	0.02	0.01	0.26	0.71	0.45	-0.79	Elevated
Livingston	780	2,196	50	0.02	0.00	0.21	0.57	0.36	-1.19	Elevated
Timberlane	781	14,501	200	0.01	0.00	0.29	0.79	0.50	-0.58	Elevated
Elburn	782	81,127	2,197	0.03	0.01	0.22	0.60	0.38	-1.11	Elevated
Olivet	783	10,854	228	0.02	0.00	0.33	0.89	0.56	-0.31	Elevated
Rockton	784	86,356	3,631	0.04	0.02	0.27	0.75	0.48	-0.64	Elevated
Thomson	785	12,335	344	0.03	0.00	0.21	0.56	0.35	-1.23	Elevated
Peotone	786	73,545	3,342	0.05	0.01	0.25	0.68	0.43	-0.87	Elevated
Bartelso	787	23,830	1,620	0.07	0.04	0.28	0.78	0.50	-0.54	Elevated
McCullom Lake	788	20,116	302	0.02	0.00	0.31	0.84	0.53	-0.45	Elevated
Ashton	789	5,711	54	0.01	0.00	0.24	0.65	0.41	-0.97	Elevated

Le Roy	790	26,869	1,256	0.05	0.01	0.29	0.79	0.50	-0.56	Elevated
Pecatonica	791	79,432	3,210	0.04	0.02	0.29	0.81	0.51	-0.50	Elevated
Manhattan	792	152,766	5,319	0.03	0.01	0.21	0.58	0.37	-1.17	Elevated
Catlin	793	62,425	762	0.01	0.00	0.38	1.01	0.63	0.03	Elevated
Elkhart	794	21,602	502	0.02	0.01	0.31	0.84	0.53	-0.42	Elevated
Braidwood	795	47,105	234	0.00	0.00	0.27	0.72	0.45	-0.78	Elevated
Shabbona	796	50,050	112	0.00	0.00	0.28	0.74	0.46	-0.73	Elevated
Towanda	797	43,020	3,537	0.08	0.02	0.26	0.71	0.45	-0.78	Elevated
Fairbury	798	34,908	1,538	0.04	0.00	0.30	0.80	0.50	-0.56	Elevated
Camargo	799	13,092	797	0.06	0.03	0.22	0.61	0.39	-1.05	Elevated
Altamont	800	23,628	775	0.03	0.00	0.33	0.89	0.56	-0.30	Elevated
Exeter	801	4,980	297	0.06	0.02	0.24	0.67	0.43	-0.89	Elevated
Lake Camelot	802	53,772	1,087	0.02	0.00	0.23	0.62	0.39	-1.05	Elevated
Carlinville	803	56,696	5,405	0.10	0.01	0.27	0.73	0.46	-0.73	Elevated
Watson	804	21,041	1,537	0.07	0.01	0.27	0.74	0.47	-0.68	Elevated
Apple Canyon Lake	805	136,818	813	0.01	0.00	0.32	0.86	0.54	-0.37	Elevated
Williamsfield	806	21,802	834	0.04	0.00	0.39	1.06	0.67	0.19	Elevated
Stonington	807	4,806	41	0.01	0.00	0.24	0.64	0.40	-1.00	Elevated

Ringwood	808	77,083	2,000	0.03	0.00	0.28	0.75	0.47	-0.69	Elevated
Marshall	809	23,953	908	0.04	0.00	0.33	0.87	0.55	-0.35	Elevated
Volo	810	106,712	5,088	0.05	0.02	0.20	0.56	0.36	-1.20	Elevated
Troy	811	132,605	1,387	0.01	0.01	0.26	0.69	0.44	-0.84	Elevated
Virgil	812	48,174	1,546	0.03	0.03	0.18	0.51	0.33	-1.31	Elevated
Jerseyville	813	29,783	520	0.02	0.00	0.26	0.71	0.45	-0.81	Elevated
Arenzville	814	7,516	167	0.02	0.01	0.37	1.01	0.63	0.04	Elevated
Kirkland	815	77,437	4,164	0.05	0.03	0.28	0.78	0.50	-0.55	Elevated
Elsah	816	48,136	3,065	0.06	0.01	0.13	0.35	0.22	-1.80	Elevated
Lily Lake	817	146,022	4,378	0.03	0.00	0.20	0.53	0.34	-1.30	Elevated
Ladd	818	7,255	55	0.01	0.00	0.26	0.70	0.44	-0.84	Elevated
Mechanicsburg	819	13,724	619	0.05	0.03	0.25	0.71	0.46	-0.75	Elevated
Loami	820	24,890	1,323	0.05	0.01	0.30	0.81	0.51	-0.50	Elevated
Bishop Hill	821	2,442	12	0.00	0.00	0.29	0.78	0.49	-0.60	Elevated
Royal	822	1,944	126	0.06	0.01	0.19	0.53	0.33	-1.31	Elevated
Mackinaw	823	6,524	161	0.02	0.00	0.23	0.62	0.39	-1.05	Elevated
Cortland	824	6,685	229	0.03	0.00	0.19	0.52	0.33	-1.33	Elevated
Aviston	825	14,970	776	0.05	0.01	0.23	0.63	0.40	-1.01	Elevated

Breese	826	131,445	5,482	0.04	0.02	0.26	0.73	0.46	-0.73	Elevated
Moweaqua	827	11,752	311	0.03	0.01	0.28	0.76	0.48	-0.65	Elevated
Long Point	828	2,742	86	0.03	0.00	0.35	0.94	0.59	-0.17	Elevated
Grayville	829	6,020	600	0.10	0.02	0.18	0.49	0.31	-1.39	Elevated
Makanda	830	42,014	4,158	0.10	0.01	0.21	0.57	0.36	-1.17	Elevated
Buckner	831	10,103	379	0.04	0.01	0.17	0.48	0.30	-1.44	Elevated
Banner	832	10,807	543	0.05	0.05	0.15	0.44	0.29	-1.49	Elevated
Kappa	833	2,434	158	0.06	0.00	0.24	0.64	0.40	-1.00	Elevated
South Pekin	834	213	6	0.03	0.00	0.15	0.40	0.25	-1.67	Elevated
Long Creek	835	210,066	8,316	0.04	0.01	0.29	0.77	0.49	-0.62	Elevated
Milledgeville	836	31,794	4,067	0.13	0.01	0.25	0.69	0.43	-0.86	Elevated
Deer Creek	837	5,486	77	0.01	0.00	0.27	0.72	0.45	-0.76	Elevated
De Land	838	9,253	583	0.06	0.03	0.22	0.61	0.40	-1.03	Elevated
Knoxville	839	19,383	1,262	0.07	0.01	0.26	0.70	0.44	-0.82	Elevated
Langleyville	840	5,660	292	0.05	0.00	0.36	0.97	0.61	-0.06	Elevated
Simpson	841	32,054	1,617	0.05	0.04	0.06	0.21	0.15	-2.16	Elevated
Steward	842	5,733	50	0.01	0.00	0.21	0.56	0.35	-1.24	Elevated
Stoy	843	2,652	109	0.04	0.02	0.21	0.57	0.36	-1.19	Elevated

Mineral	844	3,091	108	0.03	0.01	0.15	0.42	0.27	-1.61	Elevated
Maryville	845	81,026	2,525	0.03	0.02	0.21	0.57	0.37	-1.16	Elevated
Nason	846	1,819	26	0.01	0.00	0.31	0.83	0.52	-0.47	Elevated
Hume	847	12,197	133	0.01	0.00	0.15	0.41	0.26	-1.65	Elevated
Newark	848	58,029	939	0.02	0.00	0.27	0.73	0.46	-0.74	Elevated
Bull Valley	849	224,645	3,250	0.01	0.00	0.22	0.60	0.38	-1.12	Elevated
Williamson	850	1,794	11	0.01	0.02	0.18	0.51	0.33	-1.33	Elevated
Carlock	851	23,037	831	0.04	0.02	0.25	0.67	0.43	-0.88	Elevated
Little York	852	9,696	75	0.01	0.00	0.23	0.62	0.39	-1.06	Elevated
Mansfield	853	17,081	562	0.03	0.00	0.25	0.68	0.43	-0.89	Elevated
Argenta	854	13,397	637	0.05	0.00	0.15	0.40	0.25	-1.68	Elevated
Glen Carbon	855	2,282	45	0.02	0.01	0.17	0.46	0.29	-1.50	Elevated
Plattville	856	29,898	622	0.02	0.01	0.21	0.59	0.37	-1.13	Elevated
Lisbon	857	38,626	1,105	0.03	0.01	0.24	0.66	0.42	-0.93	Elevated
Blue Mound	858	28,090	389	0.01	0.00	0.32	0.87	0.54	-0.36	Elevated
Sherrard	859	53,176	502	0.01	0.01	0.23	0.61	0.39	-1.07	Elevated
Ivesdale	860	5,871	232	0.04	0.02	0.21	0.59	0.38	-1.12	Elevated
Hinckley	861	30,102	684	0.02	0.01	0.24	0.65	0.41	-0.98	Elevated

Loraine	862	4,228	224	0.05	0.00	0.12	0.32	0.20	-1.91	Elevated
Vergennes	863	1,733	175	0.10	0.01	0.15	0.42	0.26	-1.62	Elevated
Brooklyn	864	5,000	1,000	0.20	0.21	0.00	0.21	0.21	-1.25	Elevated
Ridott	865	10,746	387	0.04	0.04	0.18	0.53	0.35	-1.21	Elevated
Troy Grove	866	7,113	183	0.03	0.01	0.21	0.56	0.35	-0.74	Elevated
Leland	867	23,642	315	0.01	0.00	0.27	0.73	0.46	-0.90	Elevated
Hollowayville	868	7,387	273	0.04	0.01	0.25	0.67	0.43	-0.97	Elevated
Parkersburg	869	4,541	263	0.06	0.00	0.24	0.65	0.41	-1.06	Low
Bethany	870	20,237	714	0.04	0.01	0.23	0.62	0.39	-1.01	Low
Fisher	871	59,536	2,028	0.03	0.01	0.23	0.63	0.40	-1.78	Low
Forest City	872	3,141	59	0.02	0.00	0.13	0.36	0.23	-1.13	Low
Millbrook	873	13,323	577	0.04	0.00	0.22	0.59	0.37	-2.14	Low
Sadorus	874	16,819	400	0.02	0.01	0.08	0.23	0.15	-1.33	Low
Cherry	875	13,223	676	0.05	0.02	0.19	0.51	0.33	-1.35	Low
Bement	876	10,954	190	0.02	0.00	0.19	0.52	0.32	-0.93	Low
Congerville	877	8,834	861	0.10	0.01	0.24	0.66	0.42	-1.50	Low
Lost Nation	878	23,195	1,175	0.05	0.00	0.17	0.46	0.29	-1.11	Low
Hudson	879	7,701	83	0.01	0.00	0.22	0.60	0.38	-2.79	Low

Kenney	880	544	84	0.15	0.01	0.00	0.01	0.01	-2.80	Low
La Rose	881	614	40	0.07	0.00	0.00	0.00	0.00	-2.80	Low
Hodgkins	882	3,365	44	0.01	0.00	0.00	0.00	0.00	-2.80	Low
Ina	883	40,230	432	0.01	0.00	0.00	0.00	0.00	-2.81	Low
Saunemin	884	4,349	49	0.01	0.00	0.00	0.00	0.00	-2.81	Low
Niantic	885	195	7	0.04	0.00	0.00	0.00	0.00	-2.81	Low
Galva	886	170	6	0.04	0.00	0.00	0.00	0.00	-2.81	Low
Chatsworth	887	336	1	0.00	0.00	0.00	0.00	0.00	-0.24	Low
Standard	888	43,544	92	0.00	0.00	0.34	0.91	0.57	-0.23	Low
Alorton	889	3,000	500	0.17	0.11	0.00	0.11	0.11	-0.25	Low
Mound City	890	5,000	1,000	0.20	0.01	0.00	0.01	0.01	-0.24	Low

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Bachelor of Science, Survey Engineering, September 2006

Thesis Title:

New Multiple-Scale Technique for the Assessment of Relative Flood Vulnerability

Major Professor: Jonathan Remo