

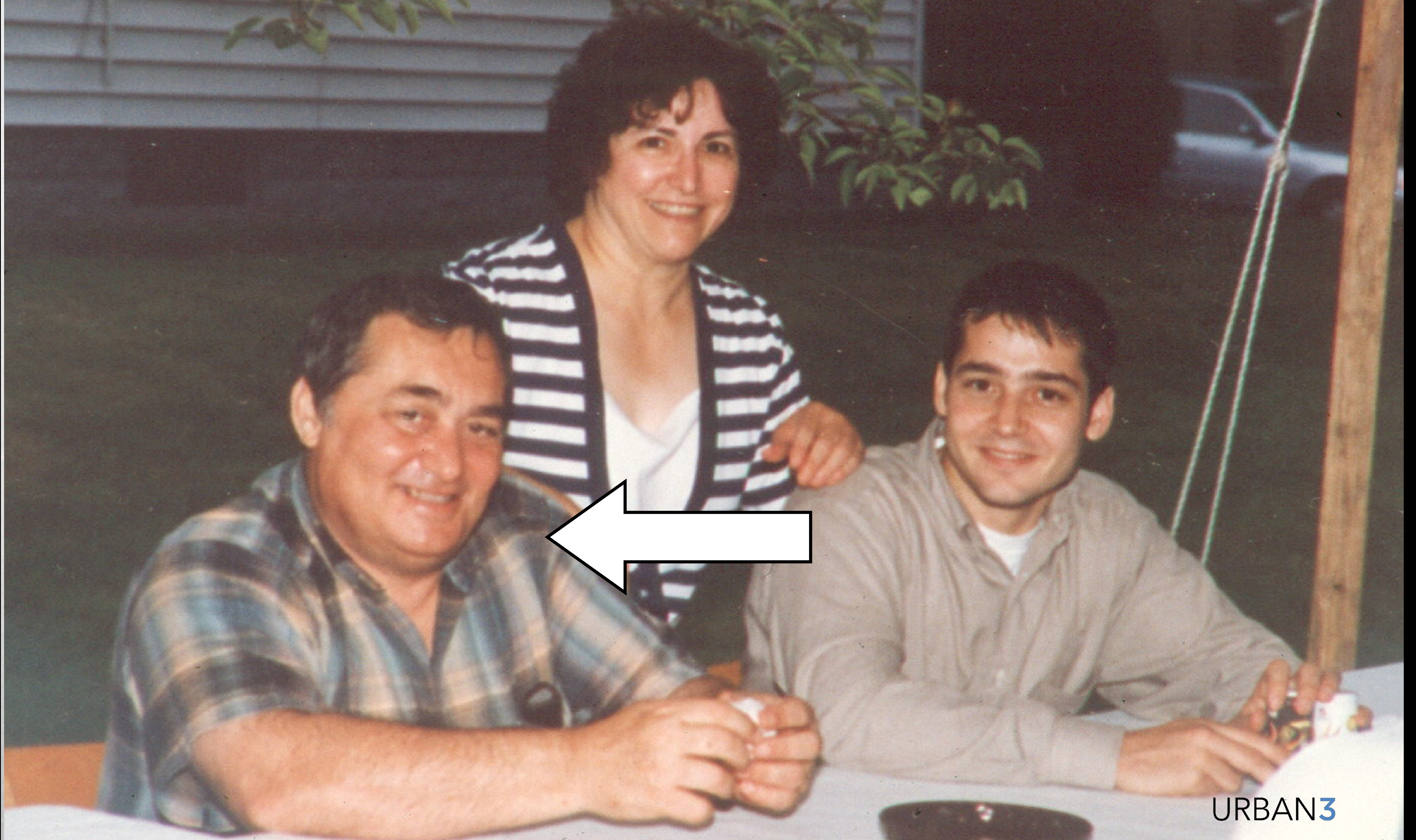


URBAN³

Economics of Community Design

Joliet, Illinois

Value per acre map of Auckland,
New Zealand









Asheville's de facto motto was:

“That will never work here - don't even try.”



Julian Price

1941 - 11/19/2001

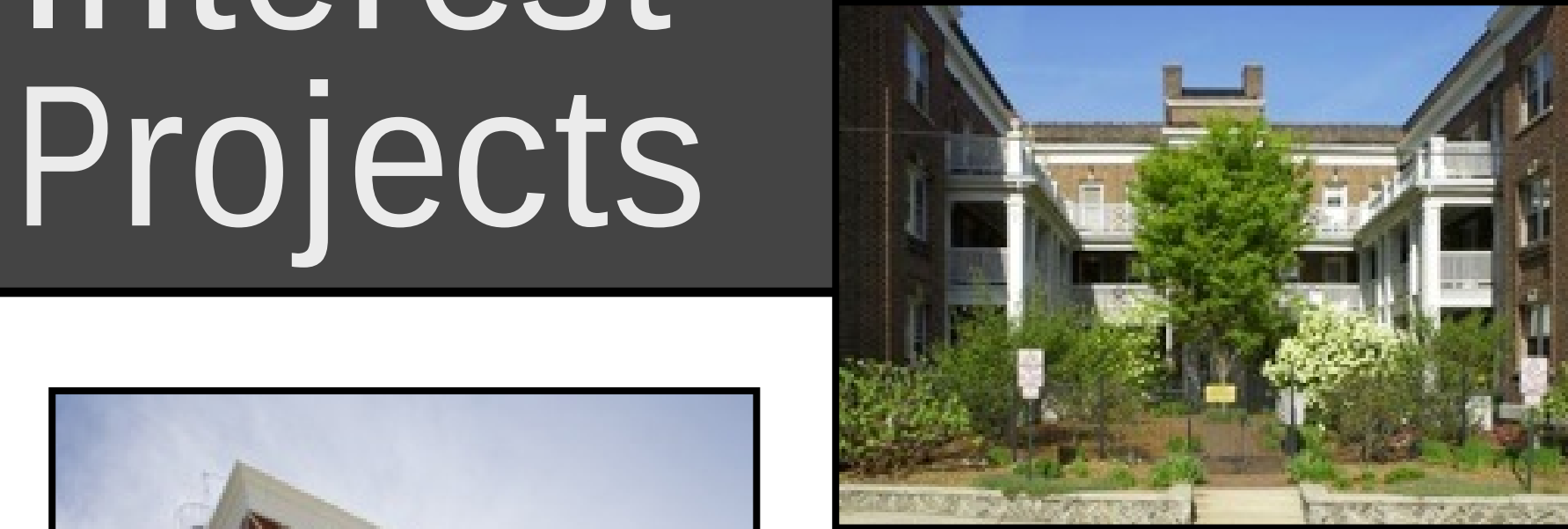


the Alternative Reading Room

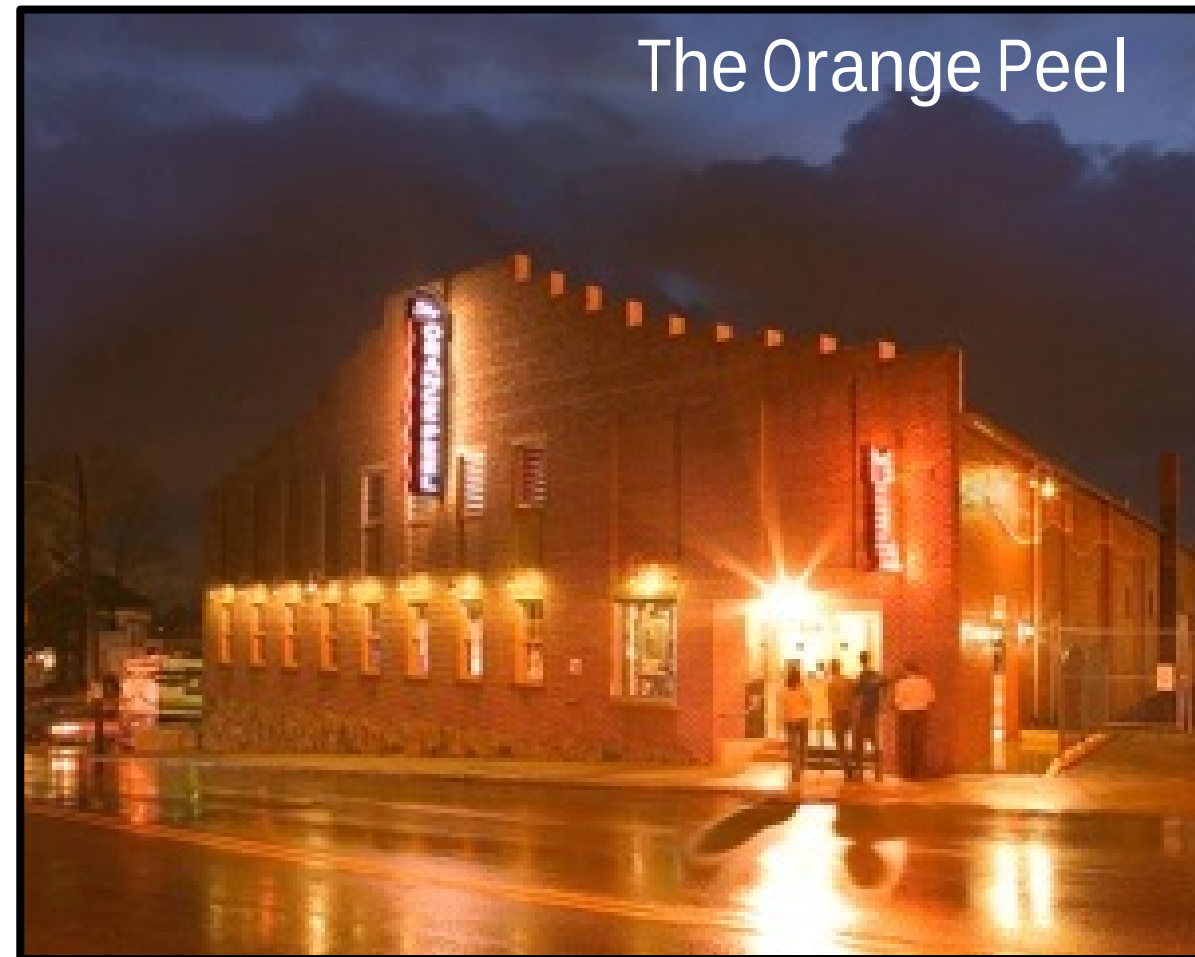
The Mountain Xpress



the Dogwood Fund



51 Biltmore



The Orange Peel



Salsa's & Zambras

City Seeds

URBAN³



Downtown benches

YWCA

The Public Service Building



The Laughing Seed

Public Interest Projects



In God we trust;
everyone else,
bring data.

Mayor Michael Bloomberg





Incorporate (in'kôrpə,rāt)

VERB

Constitute (a company, city, or other organization) as a legal corporation.

Source: Oxford Dictionary

A photograph of Joe Biden and Stephen Colbert on the set of the Late Show. Joe Biden is seated on the left, wearing a dark suit and a blue and white striped tie. Stephen Colbert is seated on the right, wearing a dark suit and glasses, with his hands clasped. They are both looking at each other. The background is a cityscape at night, with lights visible. A blue mug with the 'Late Show' logo is on the table between them.

“The United States is the
largest **corporation**
in the world.”

Joe Biden

United States Vice President

Late Show: 12/6/2016

URBAN3

Source: U.S. Code Title 28: Part VI, Chapter 176, Subchapter A: §302(15)A

Asheville Is 7x >

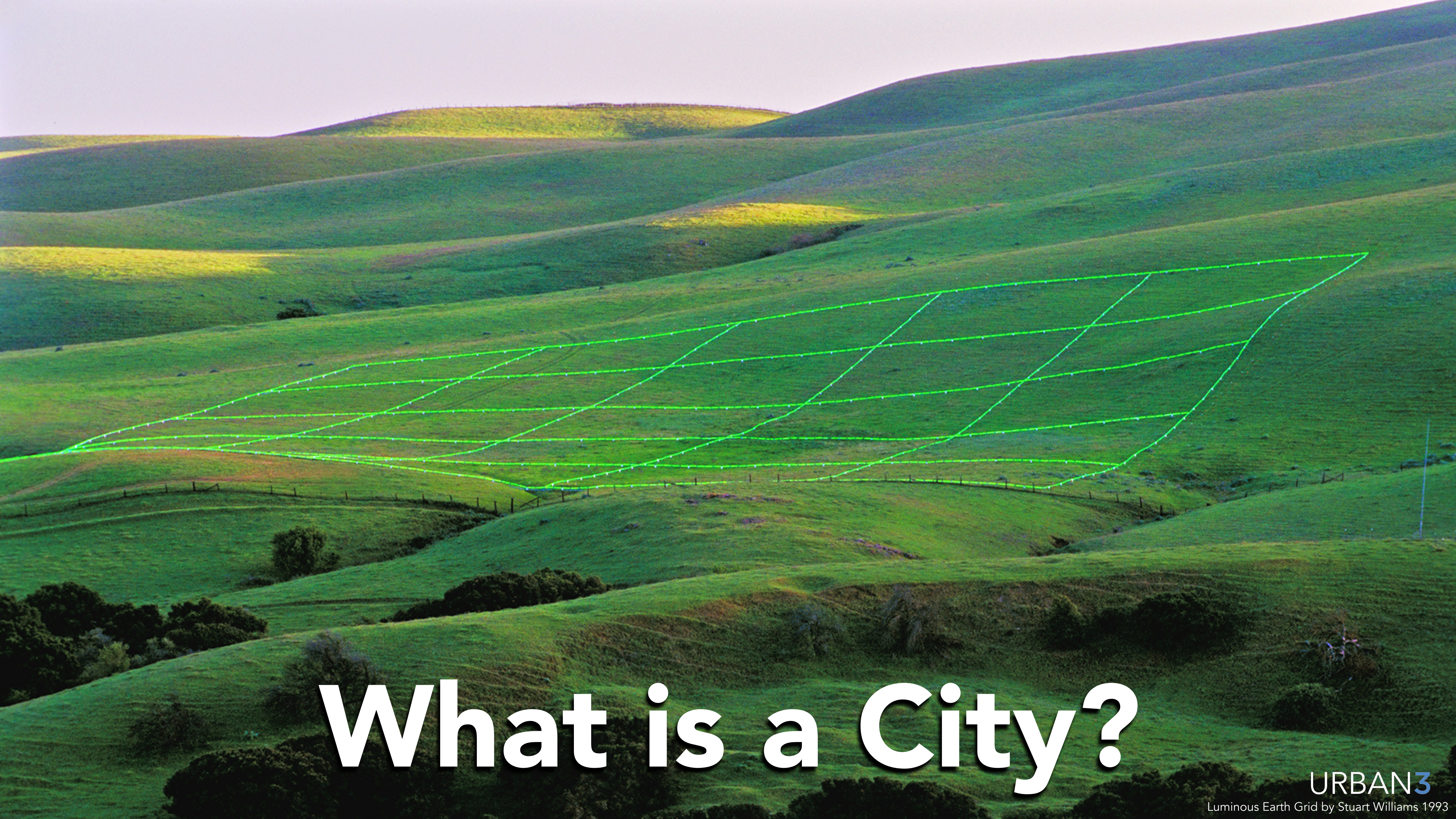
*Life is a game.
Money is how we keep score.*
- Ted Turner



What is a City?

URBAN³

Photo Source: James Harrison



What is a City?

URBAN³

Luminous Earth Grid by Stuart Williams 1993

Land Production





For 40 years this building remained vacant..... its tax value in 1991 was just over **\$300,000**



Today the building is valued at over **\$11,000,000**

An increase > **3500%**

in **15 years**

The lot is less than **1/5 acre**

Asheville Walmart

Total Tax Value:
\$20M



Downtown Building

Total Tax Value:
\$11M

Land Consumed (Acres)



Total Property Taxes Per Acre



City Sales Taxes Per Acre



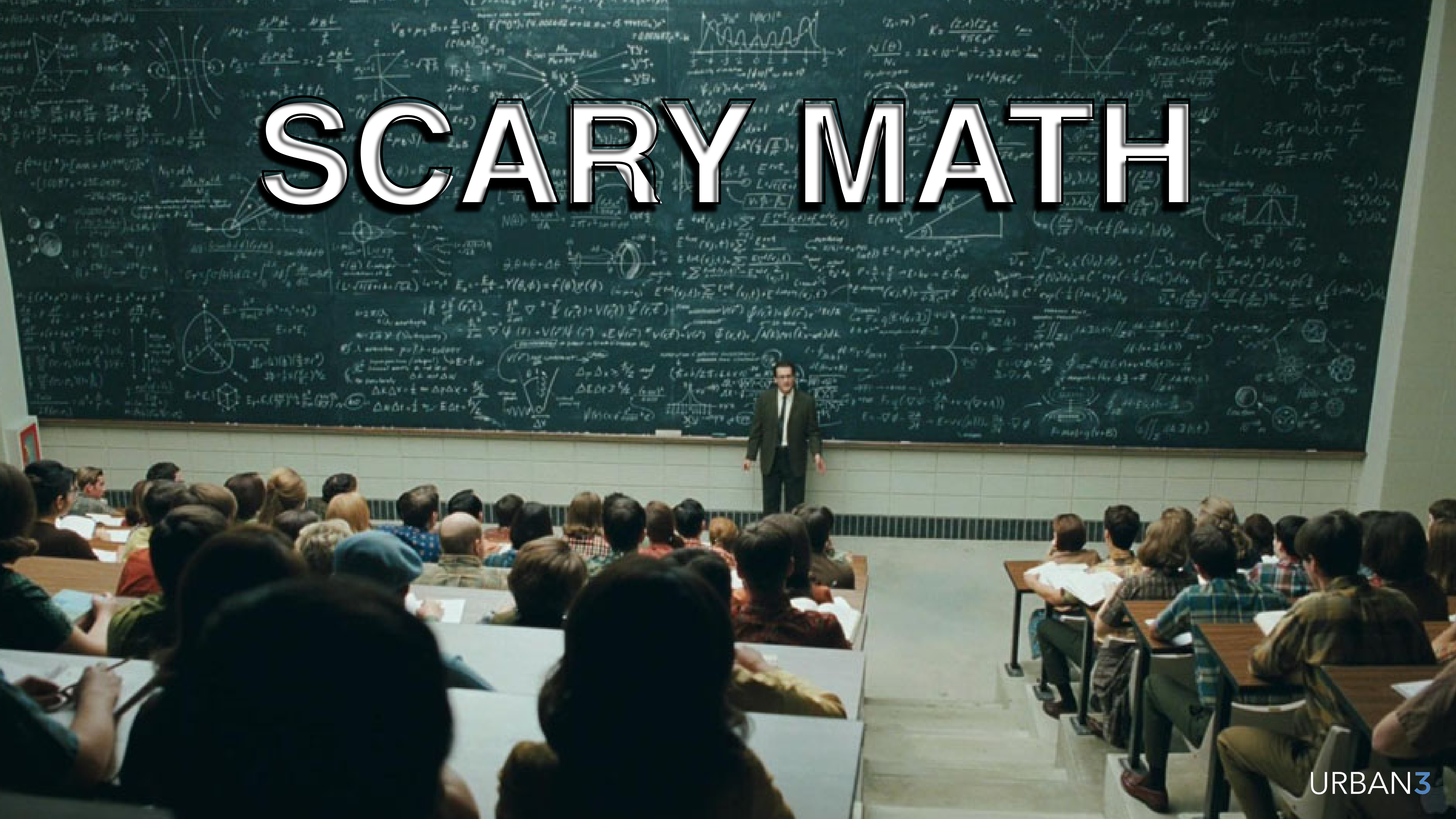
Residents Per Acre



Jobs Per Acre



SCARY MATH



How do we compare cars?

Miles per tank



1955 BMW Isetta

Rolls-Royce Phantom
Drophead

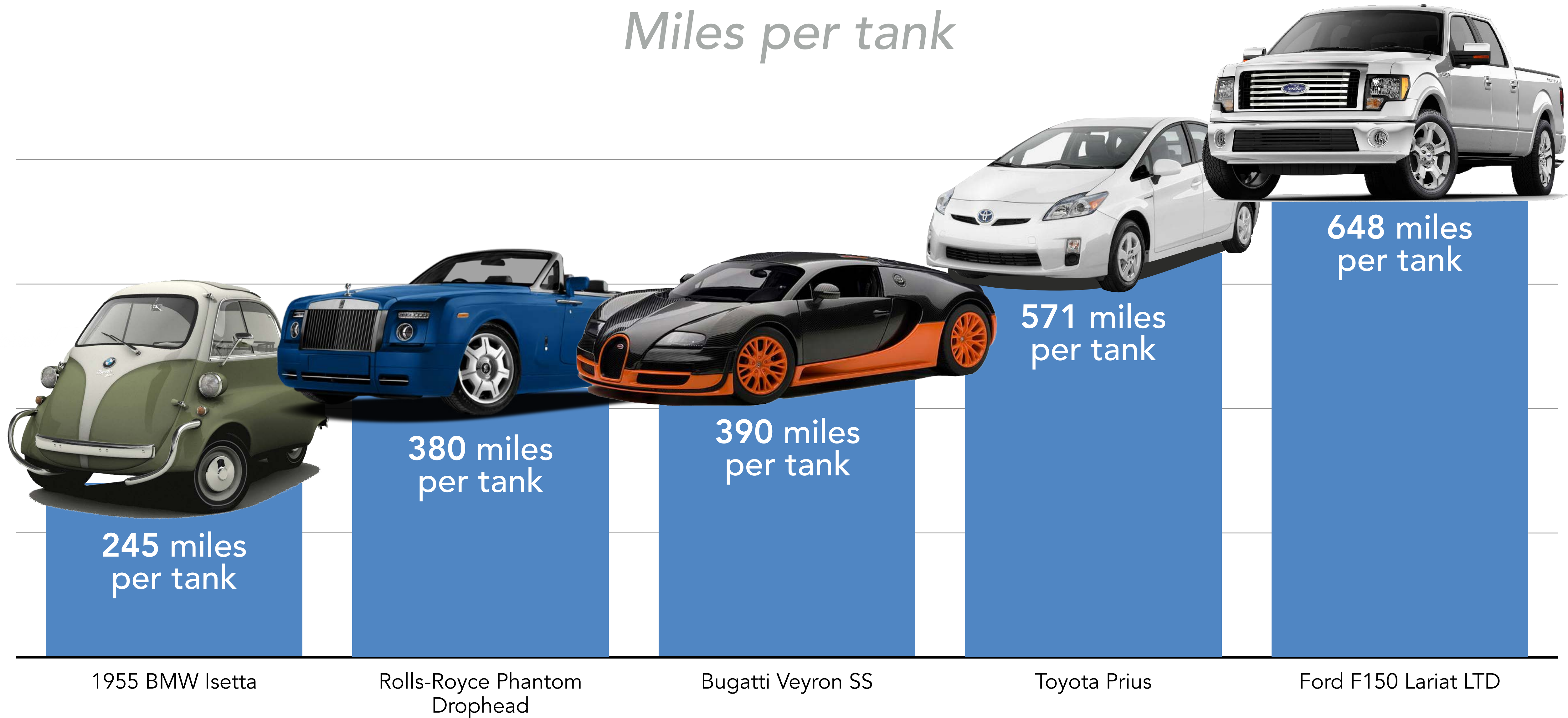
Bugatti Veyron SS

Toyota Prius

Ford F150 Lariat LTD

How do we compare cars?

Miles per tank



How do we compare cars?

Miles per gallon



50/70 mpg



11/18 mpg



8/14 mpg



51/48 mpg



13/18 mpg

1955 BMW Isetta

Rolls-Royce Phantom
Drophead

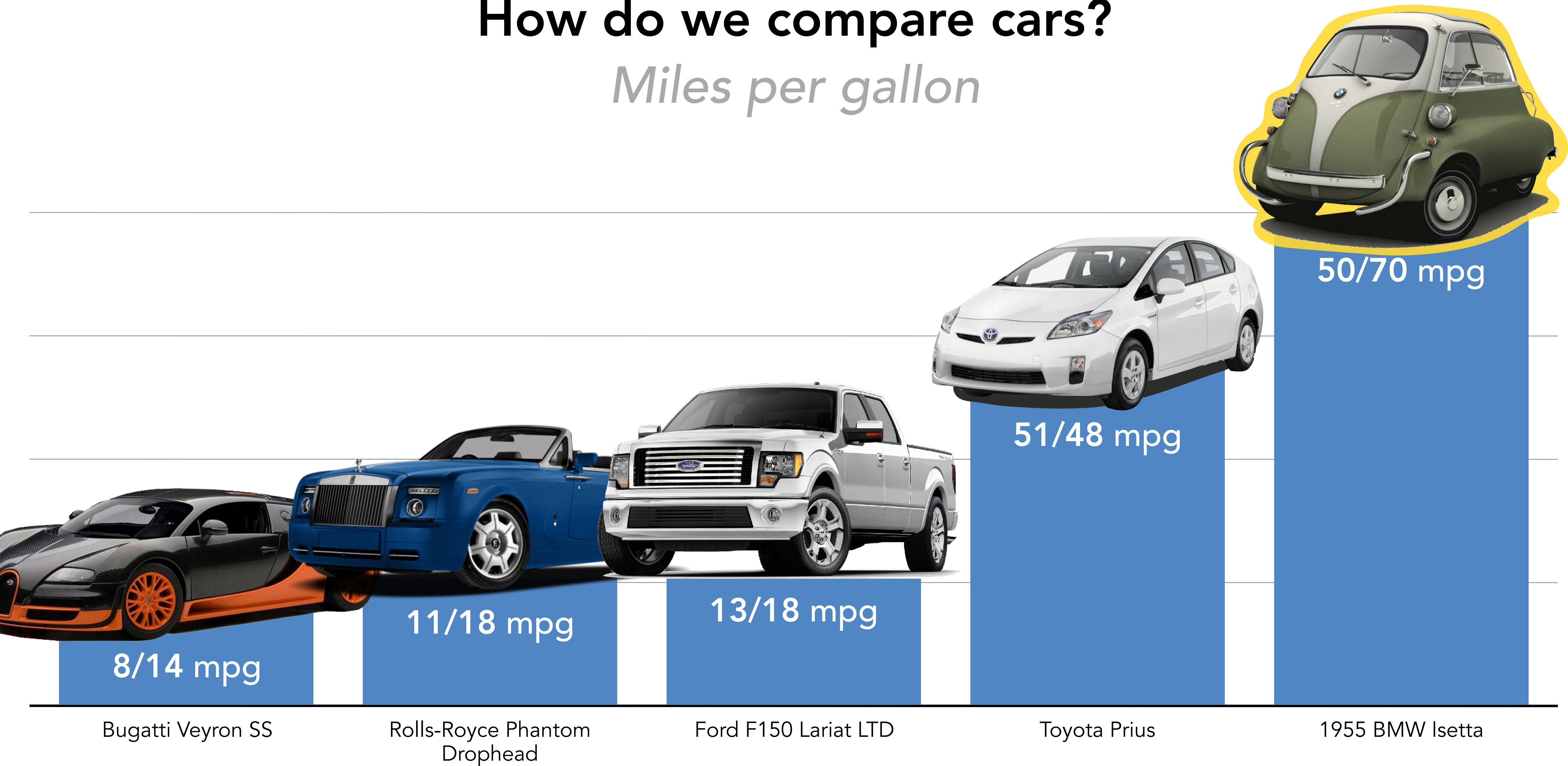
Bugatti Veyron SS

Toyota Prius

Ford F150 Lariat LTD

How do we compare cars?

Miles per gallon



URBAN3

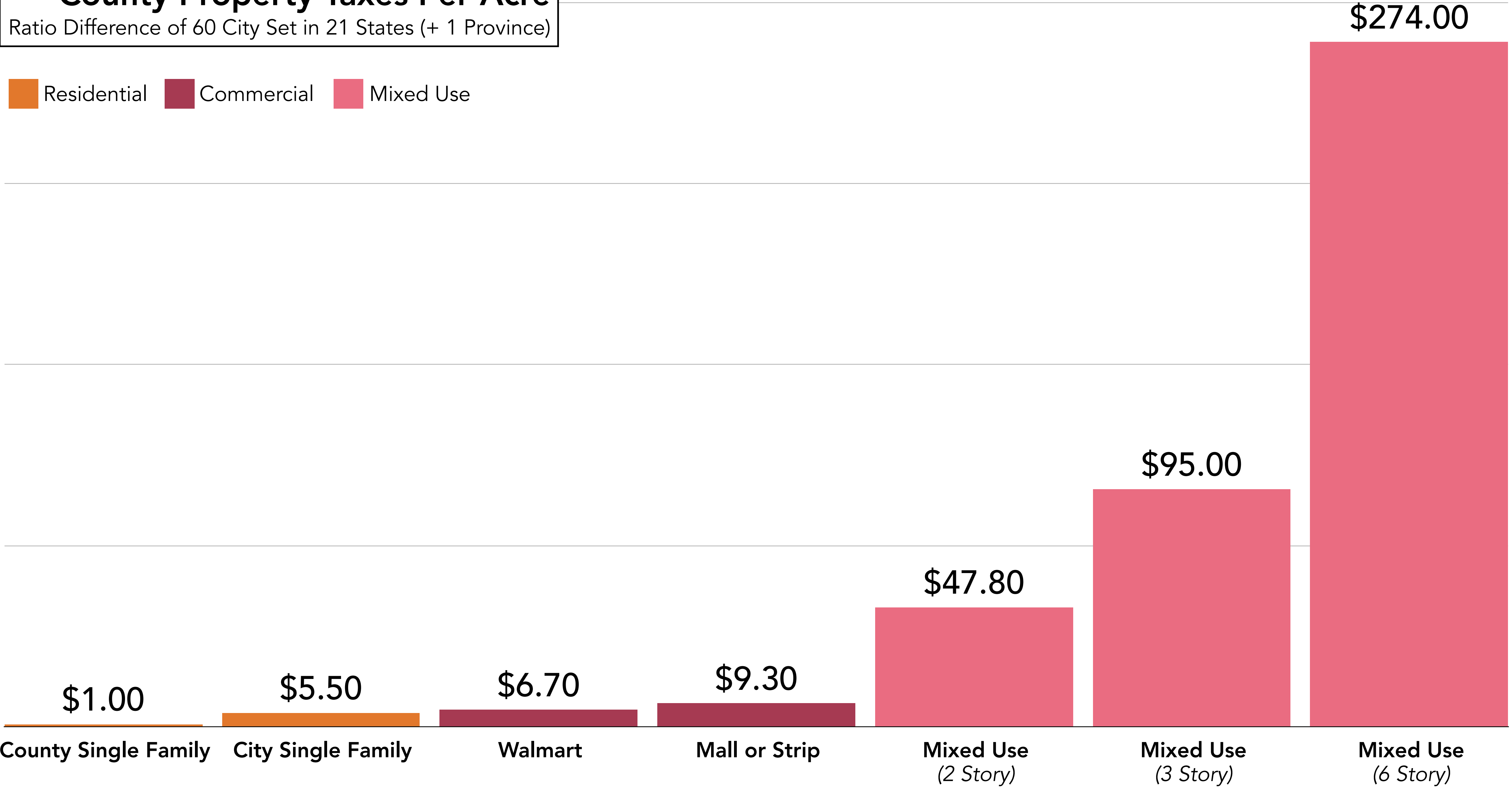
County Property Taxes Per Acre

Ratio Difference of 60 City Set in 21 States (+ 1 Province)

Residential

Commercial

Mixed Use



International Association of Assessing Officers

80th International Conference

Sacramento, CA

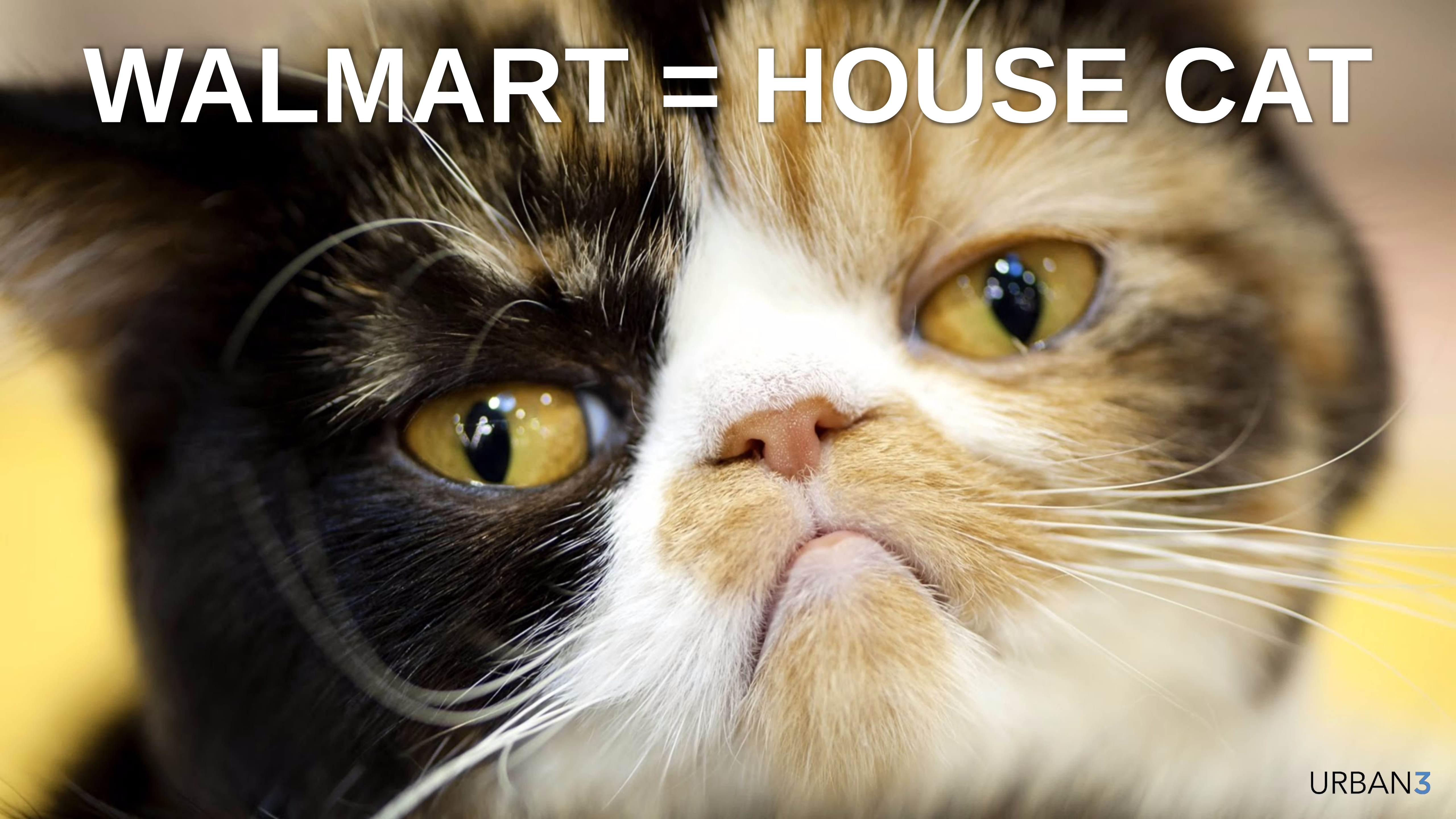
August 26, 2014



Charles Terrell, CMI
Director of Property Tax



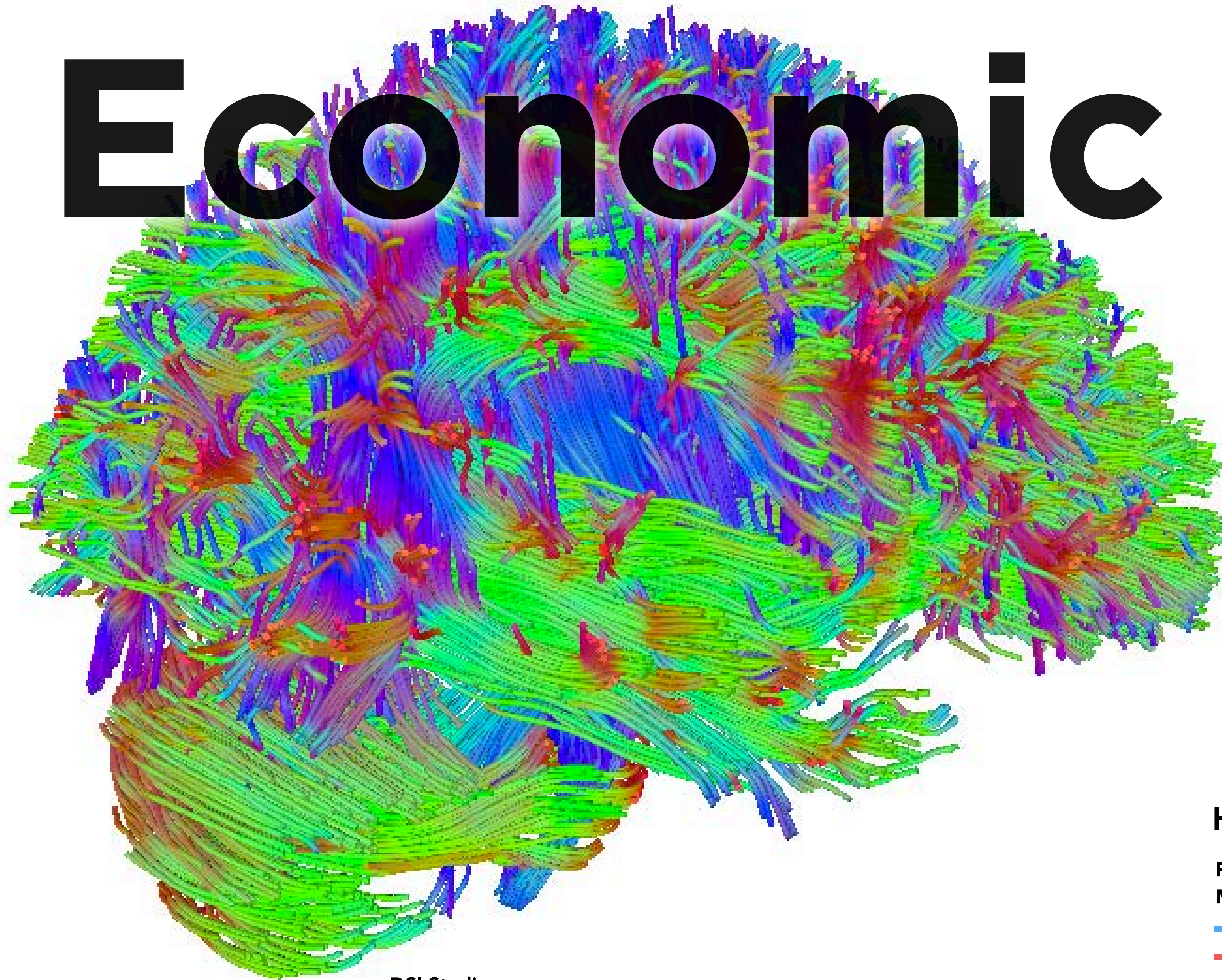
WALMART = HOUSE CAT



Question:

**But why don't people
see that?**

Economic MRI™



DSI Studio

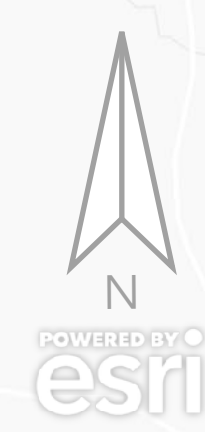
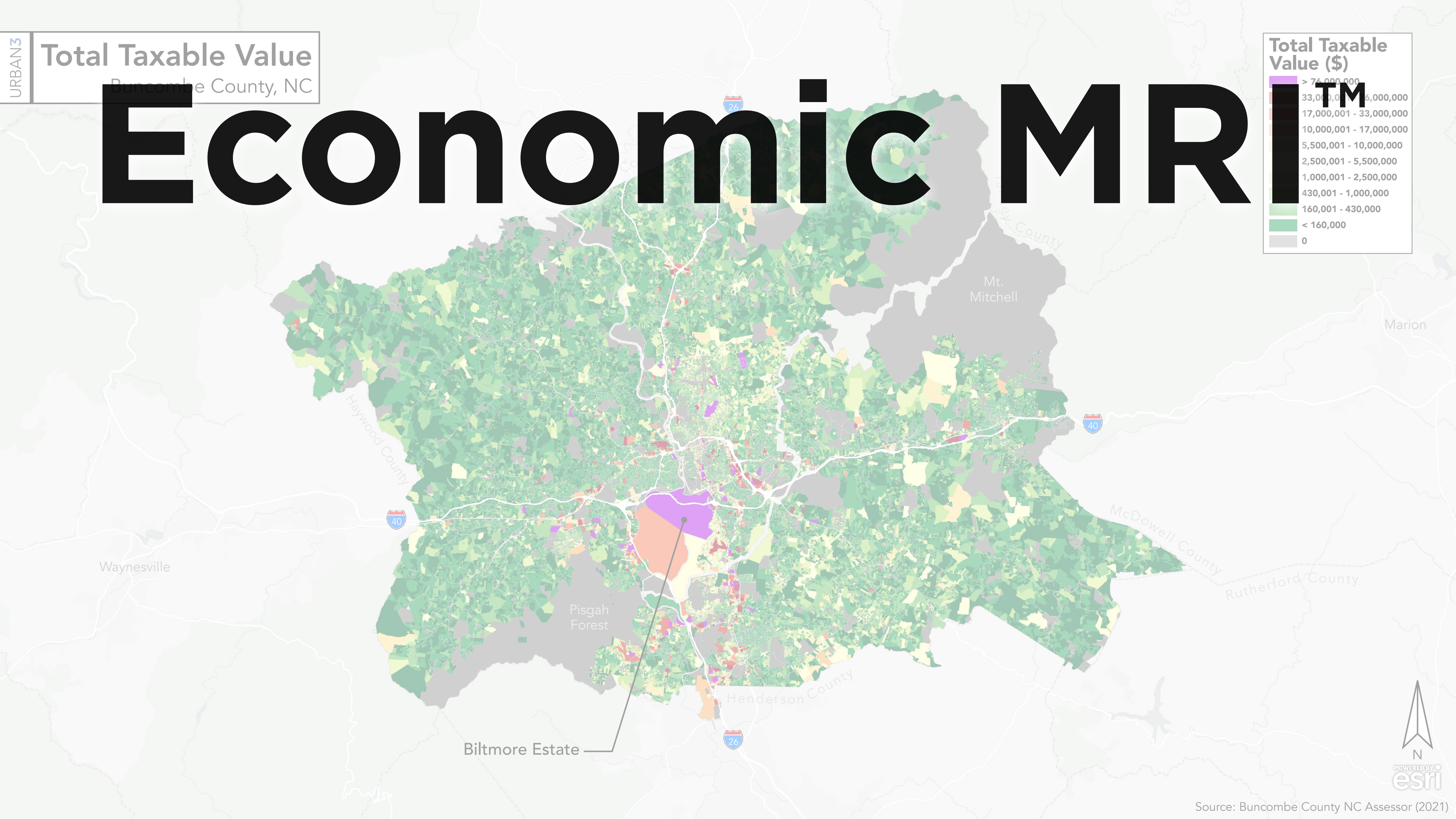
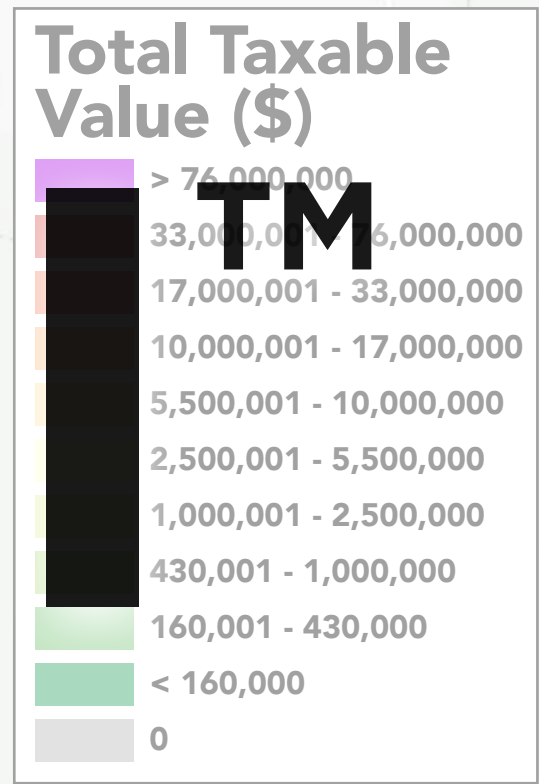
Human Connectome Project

Fiber architecture of the brain.
Measured from diffusion spectral imaging (DSI).

— up-down
— left-right
— anterior-posterior

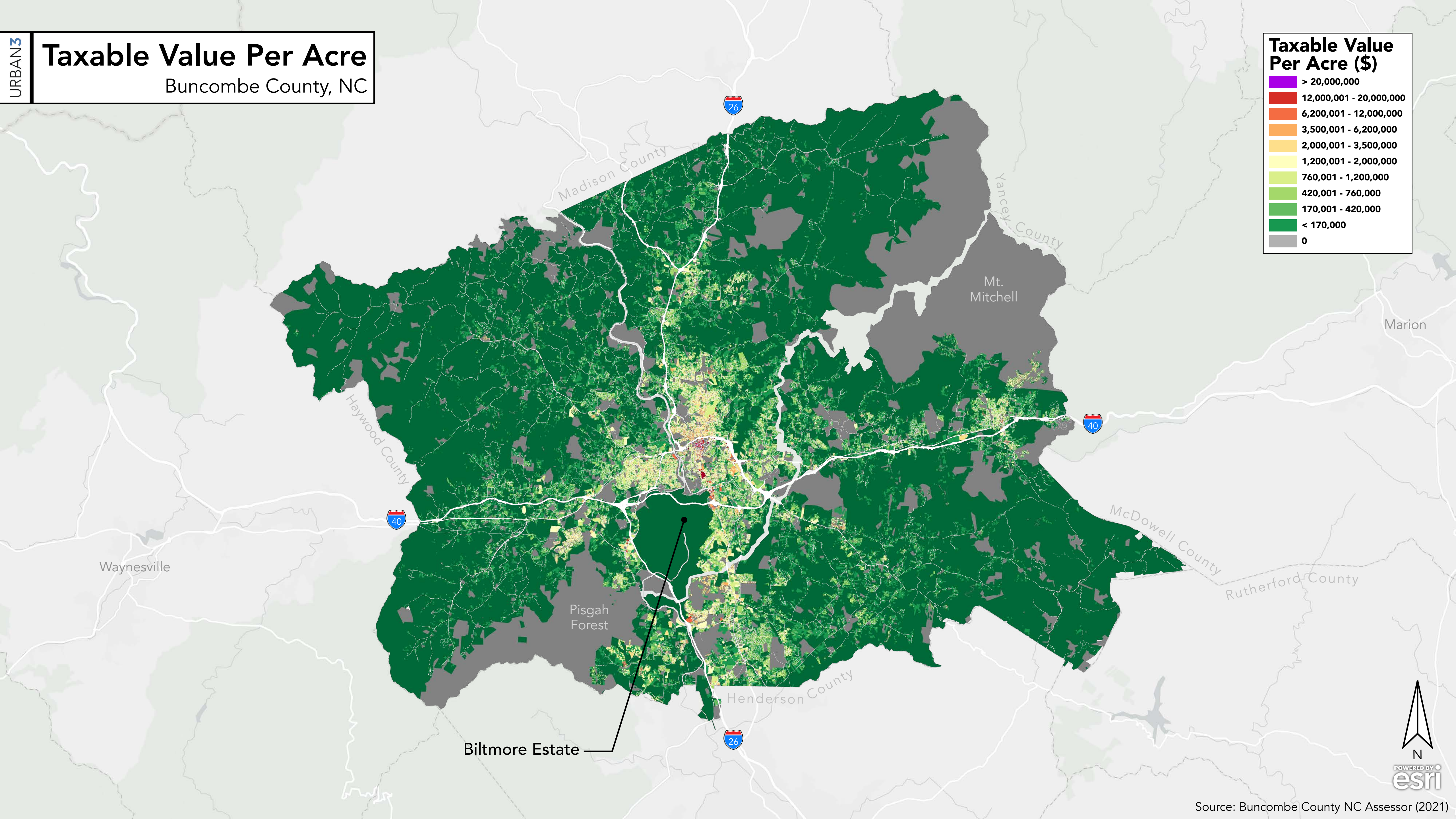
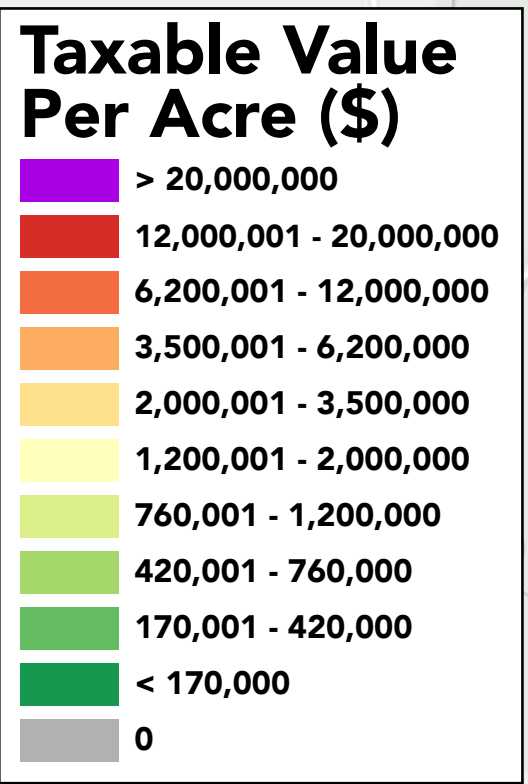
URBAN3

Economic MRI™



Taxable Value Per Acre

Buncombe County, NC



Waynesville

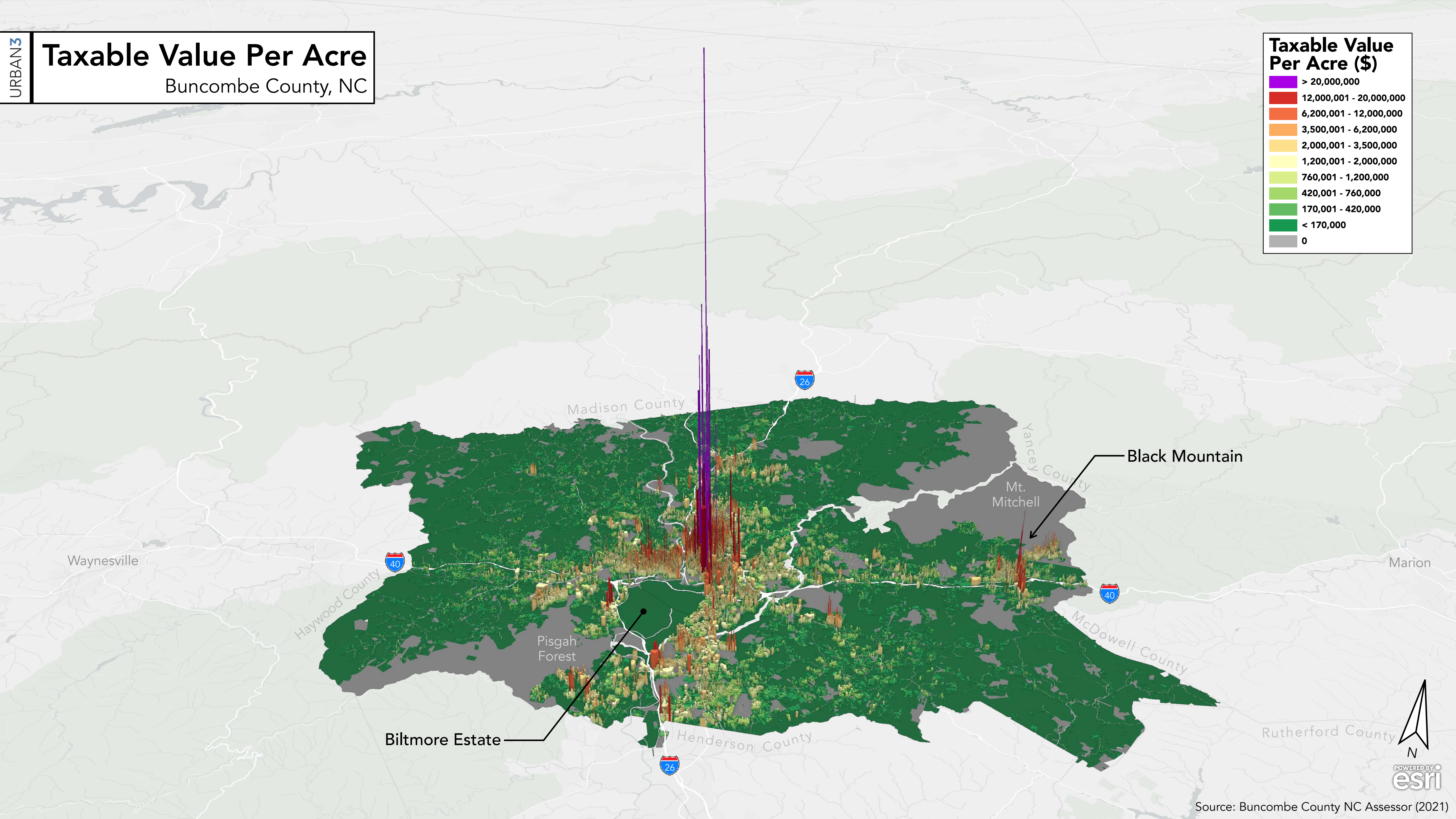
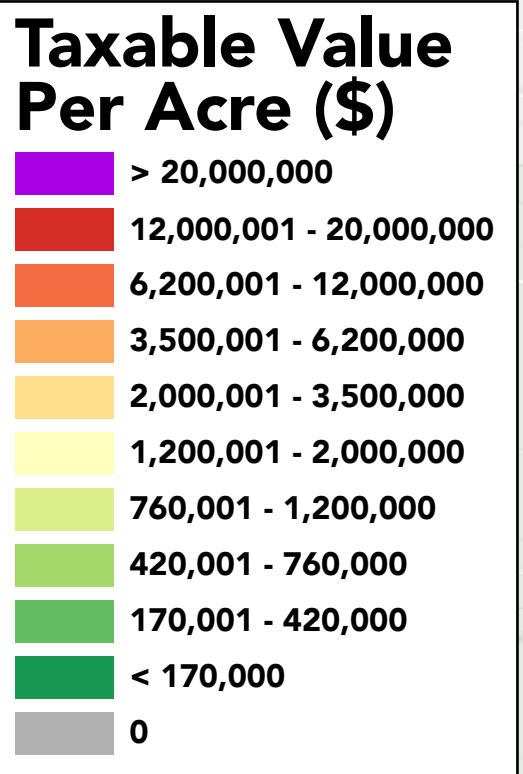
Biltmore Estate



URBAN3

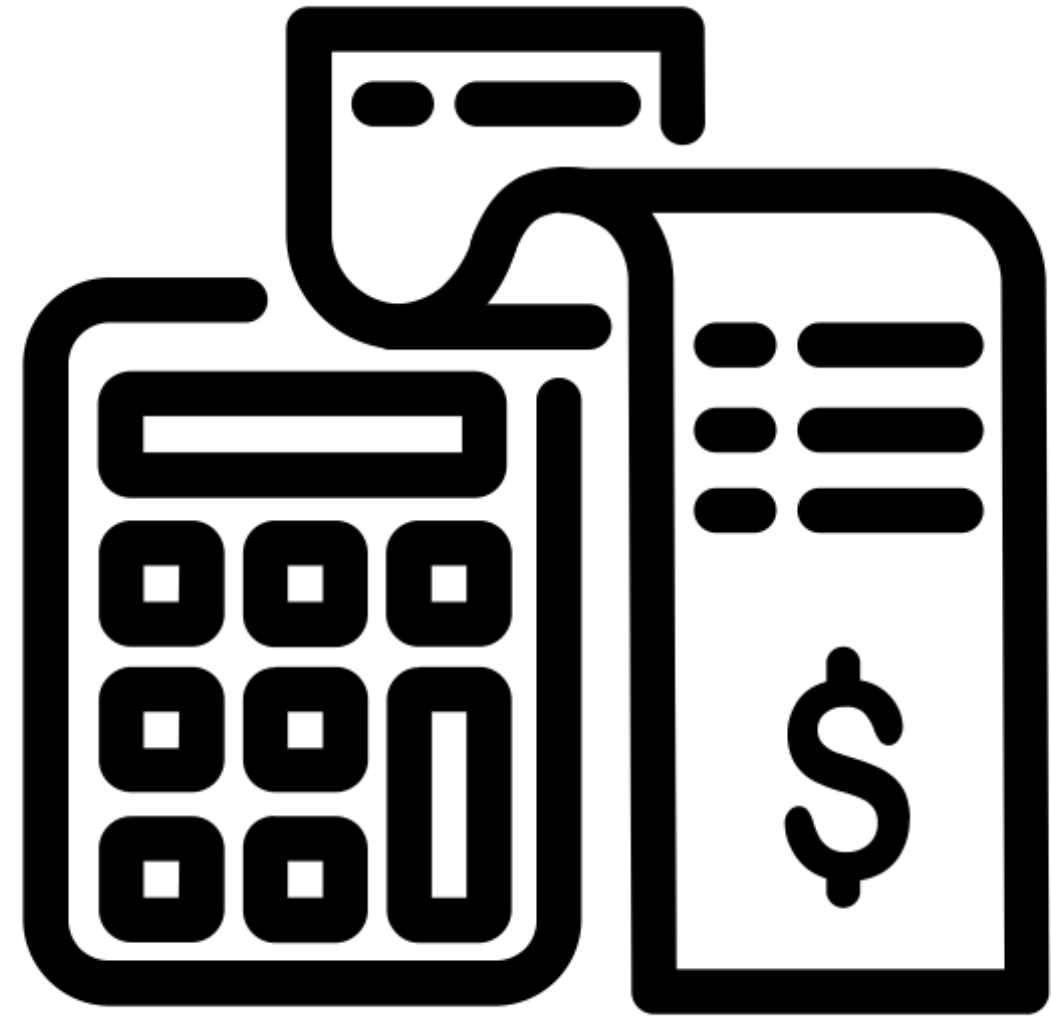
Taxable Value Per Acre

Buncombe County, NC



*Greetings
from*





Tax Systems

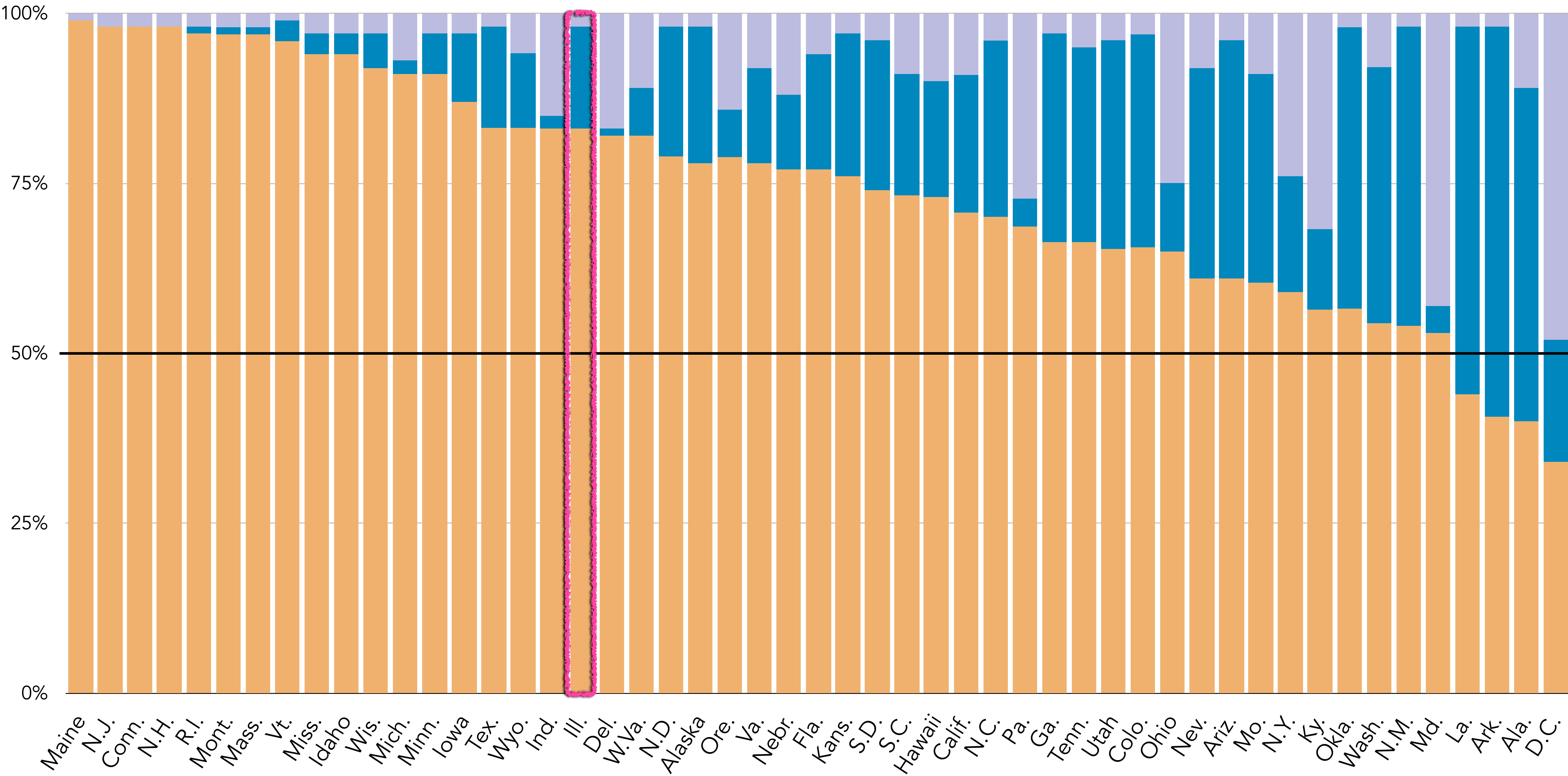
How Your Services are Funded

URBAN3

Local Tax Revenue Sources

United States

- Income & Other
- Sales Tax
- Property Tax



wikiHow Your Taxes Work

Illinois

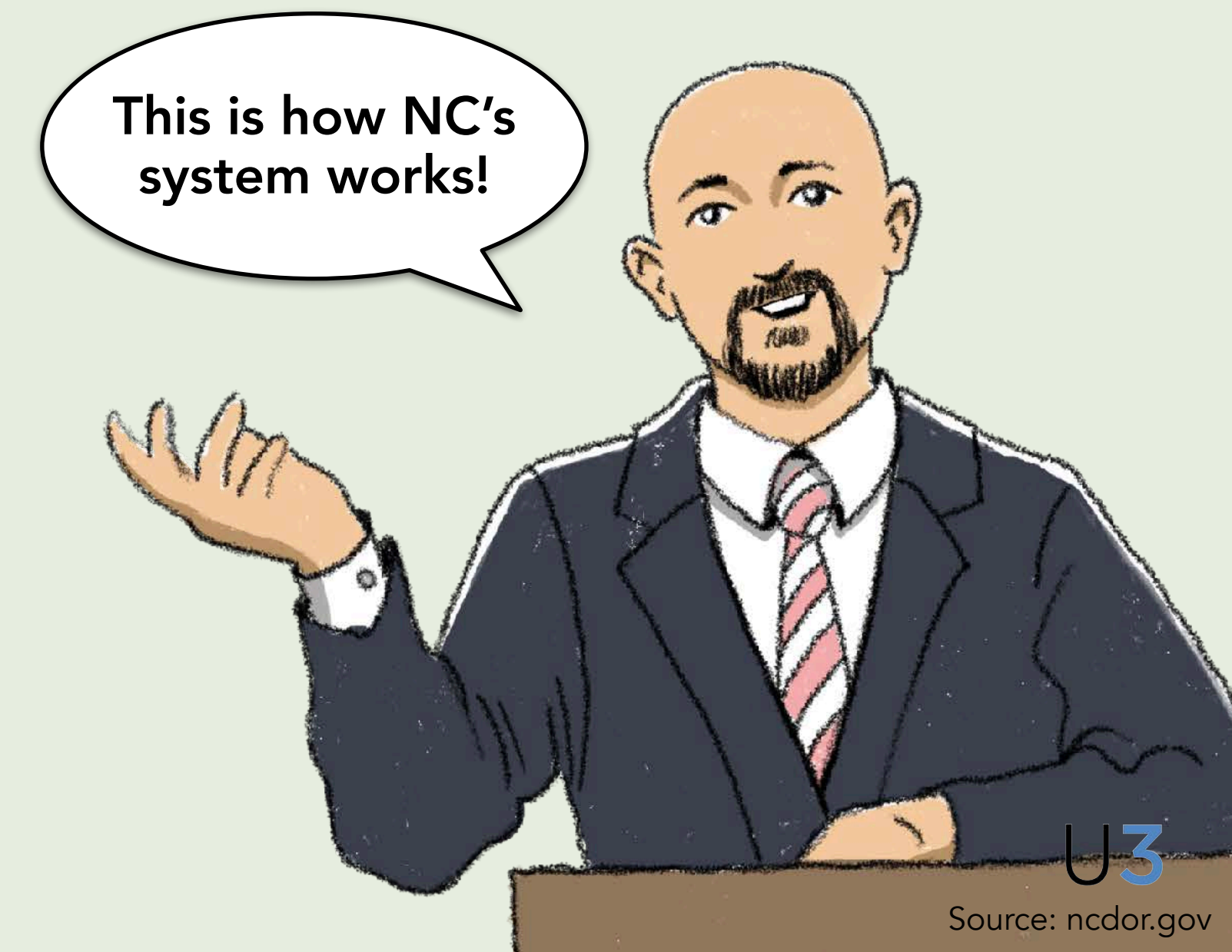


A reference for
North Carolinians!





$$\text{Market Value} - \frac{\text{Exemptions}}{\text{Taxable Value}} \times \frac{\text{Mill Rate}}{\text{Total Tax Bill}}$$





Market Value

-

Exemptions

X

Assessment

Rate

=

Assessed Value

X

Equalization Factor¹

=

Equalized
Assessed Value

X

Tax Rate

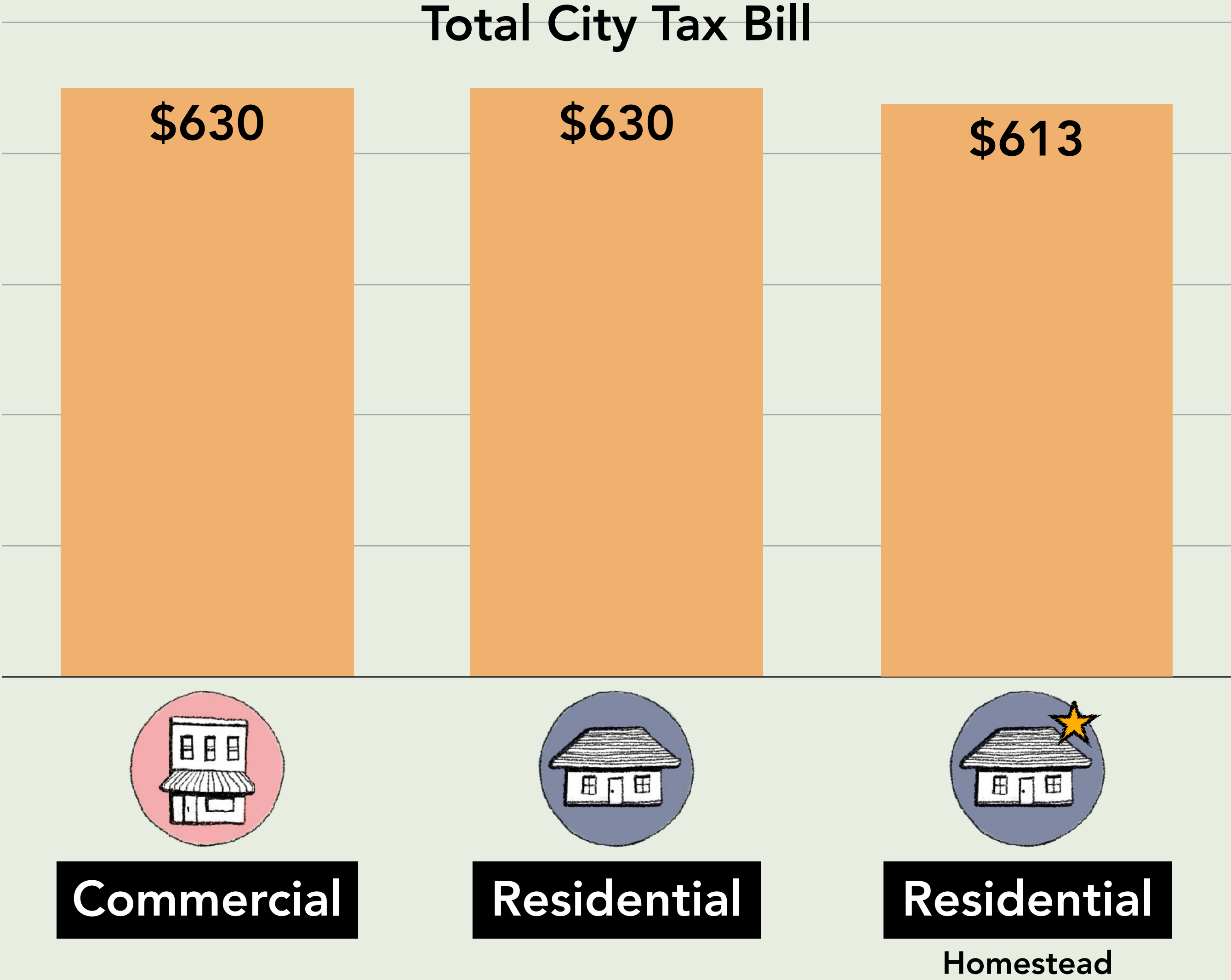
=

Total Tax Bill

This is how the Illinois system works!



¹In 2024, equalization factor was 1 for both Will and Kendall Counties. It ensures all property is assessed at 1/3rd of market value.

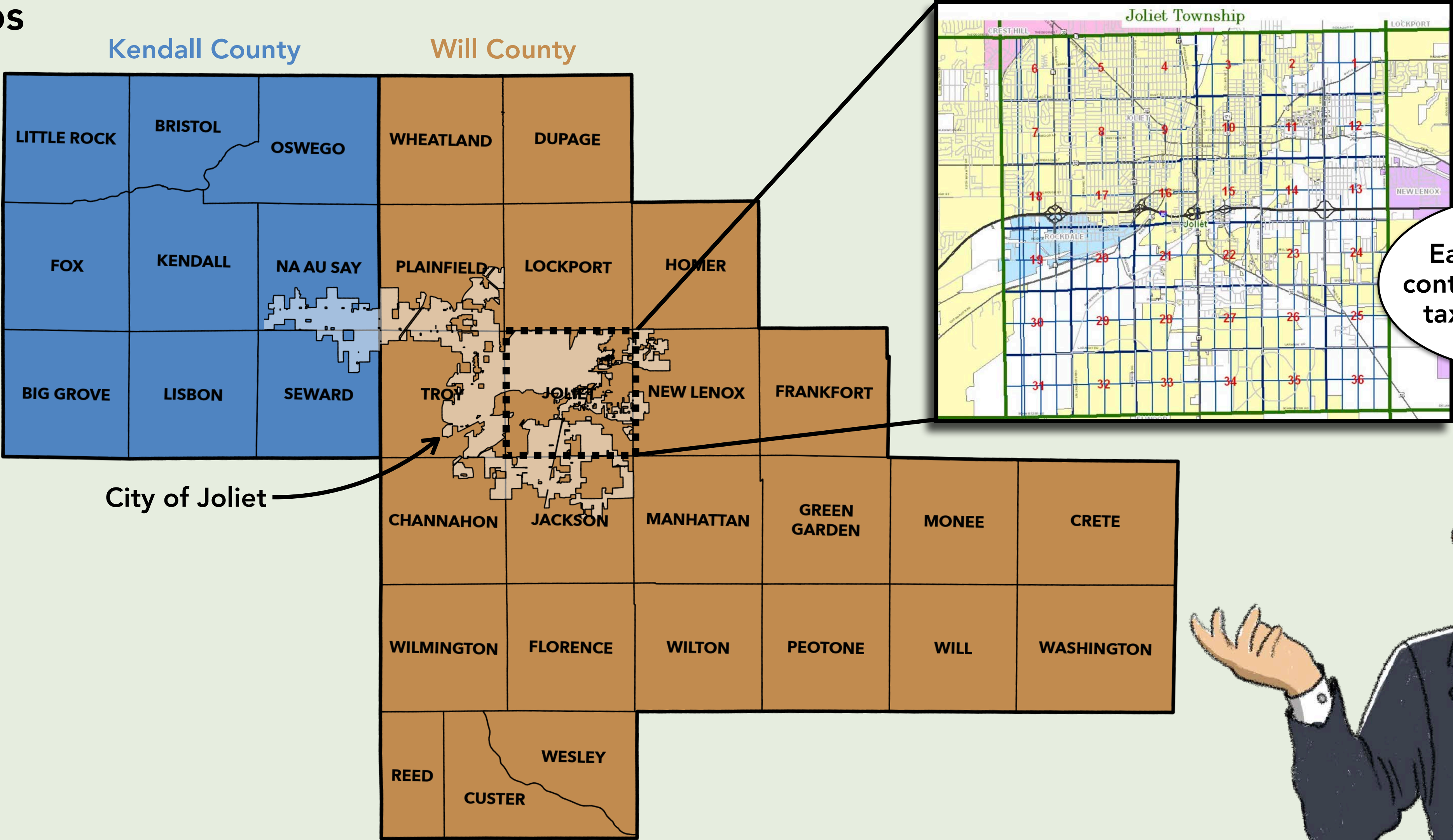


This is how the Illinois system works!



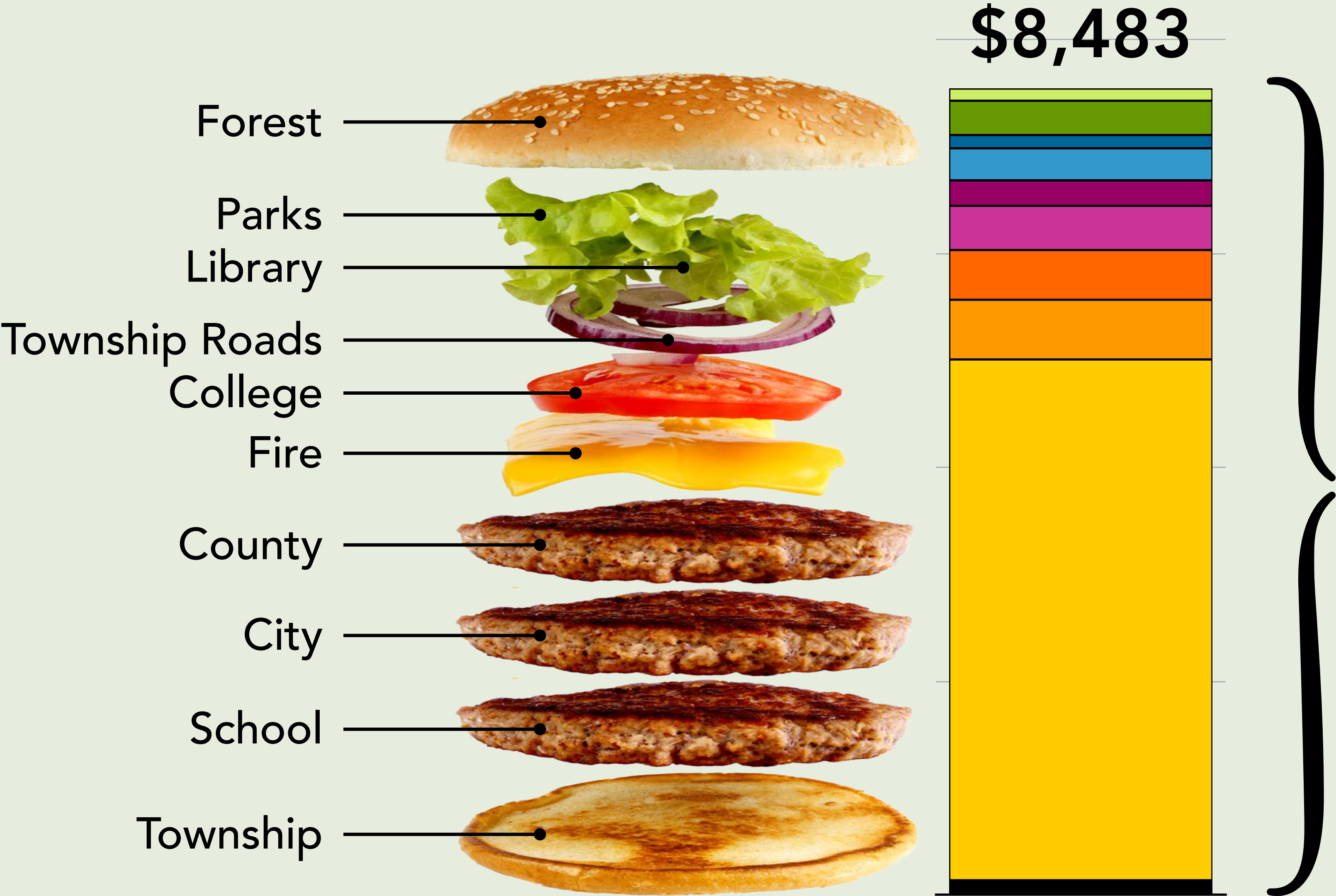


Townships



Each township contains dozens of taxing districts.



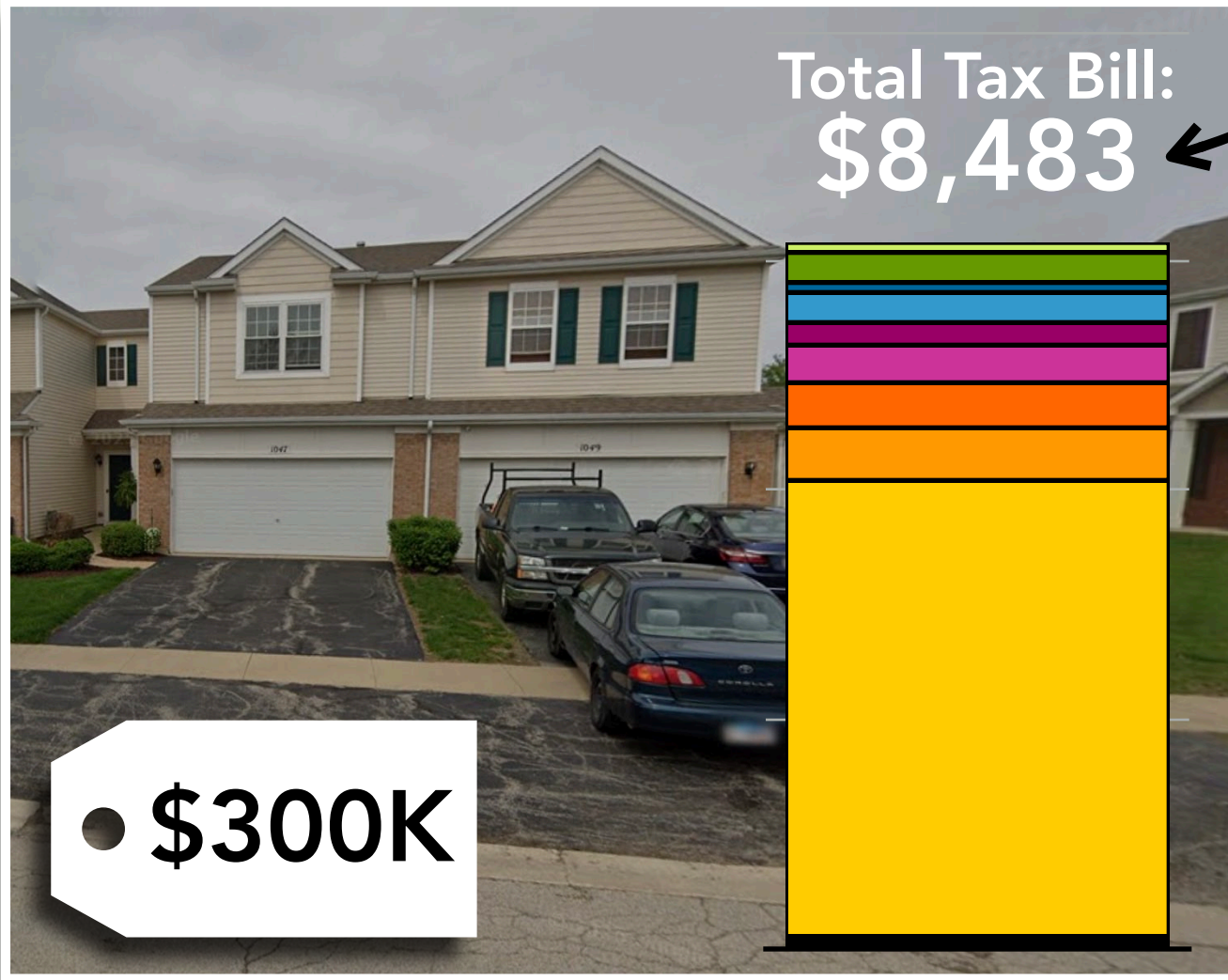
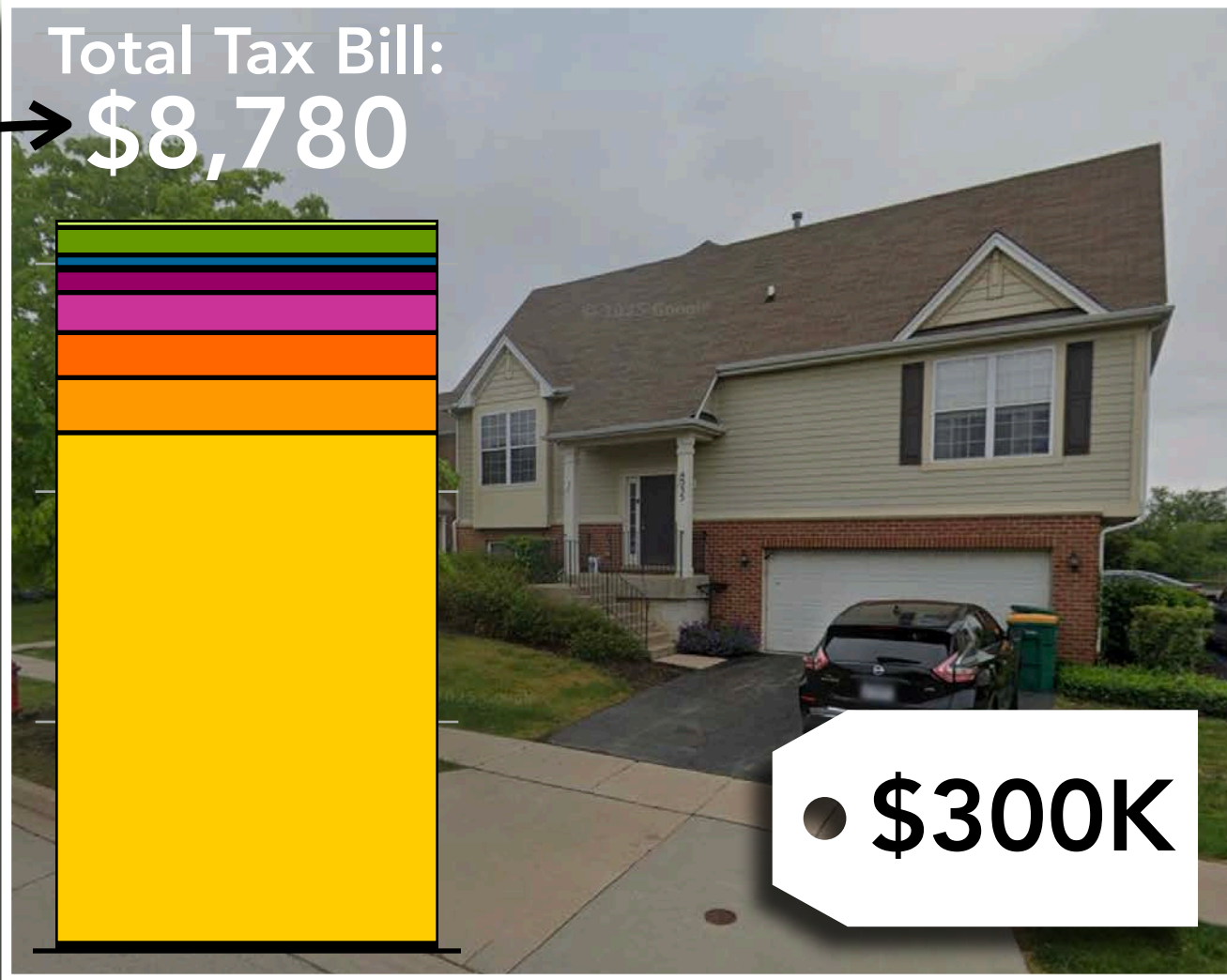
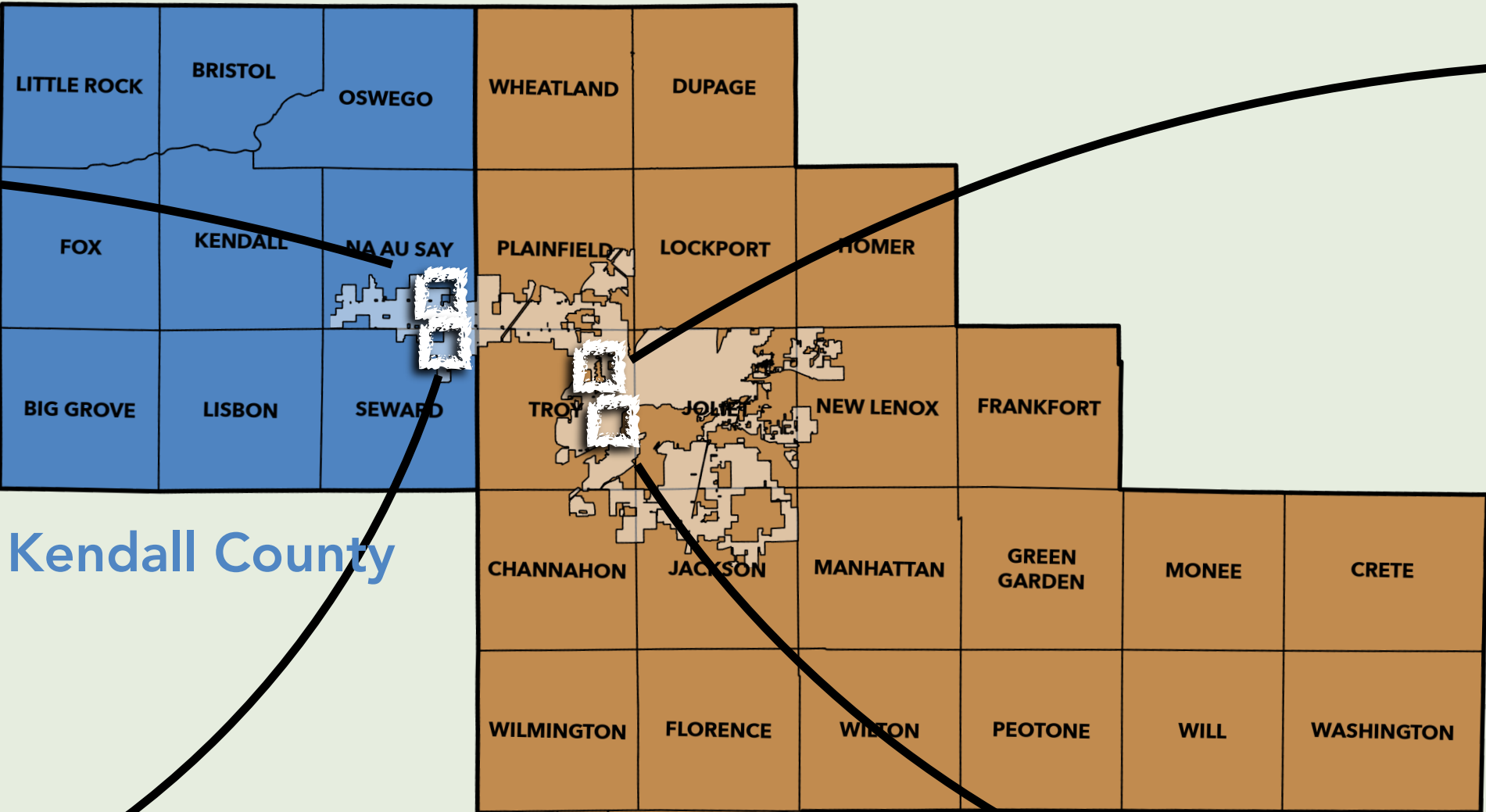
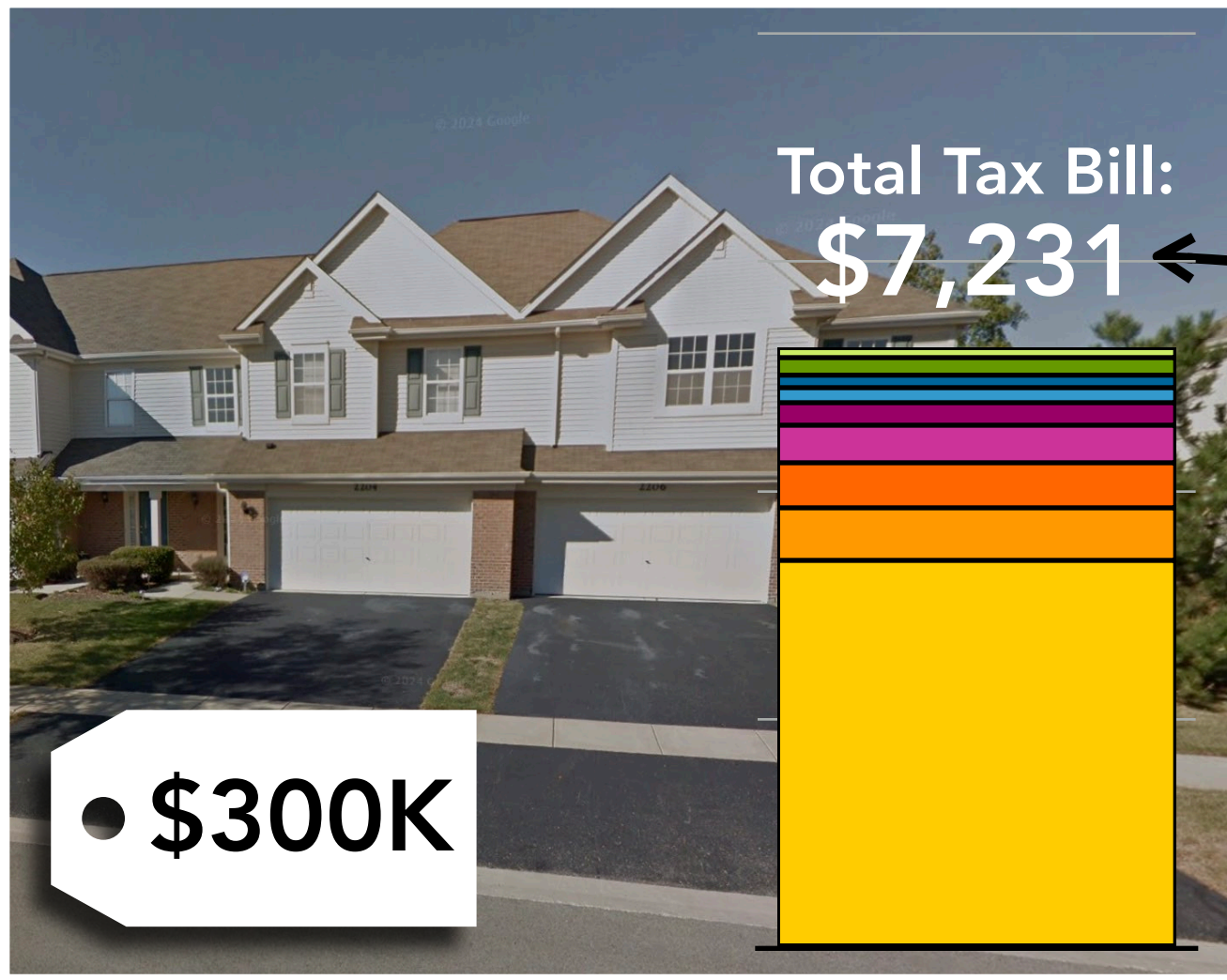


Tax bill elements vary depending on a property's location.

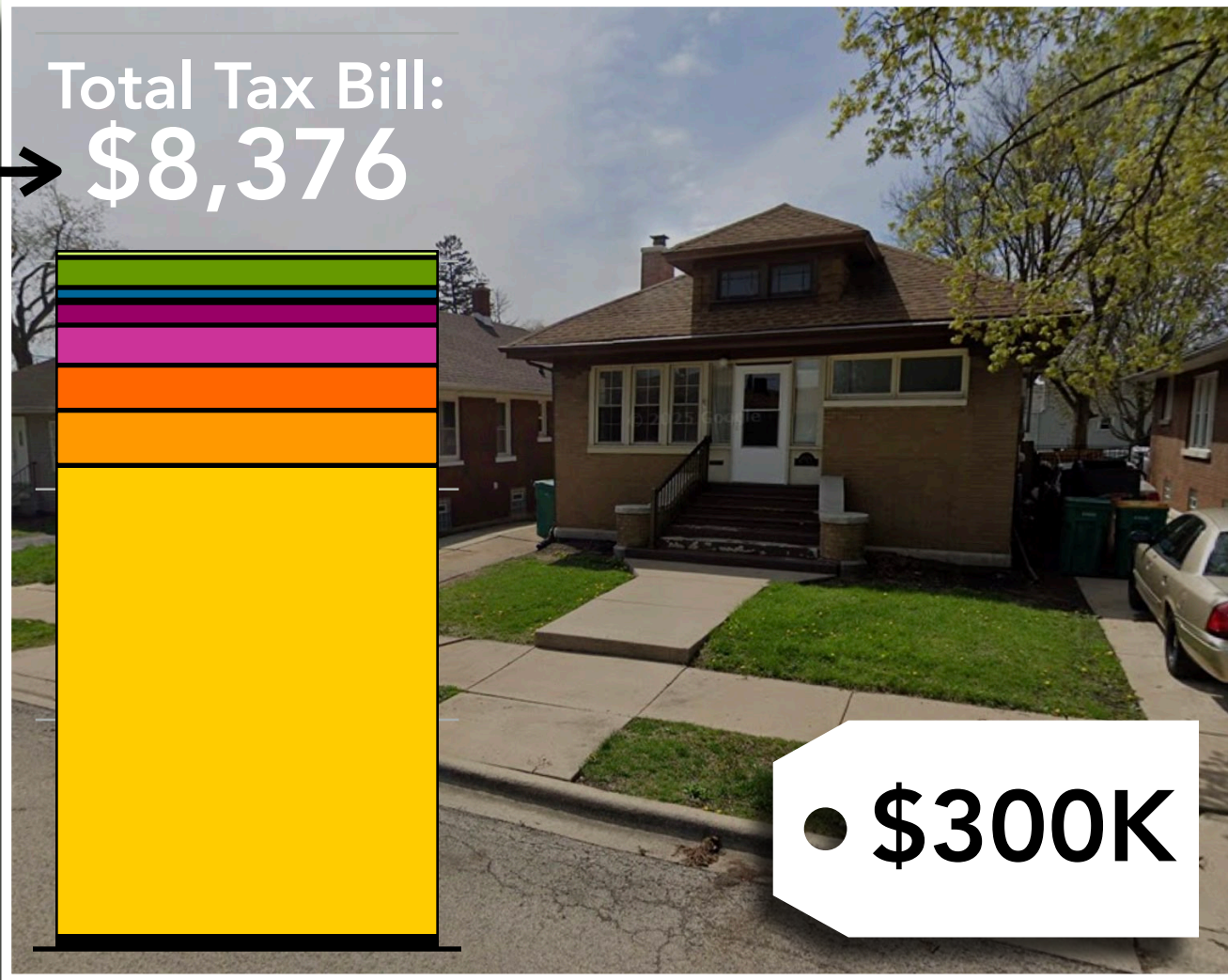


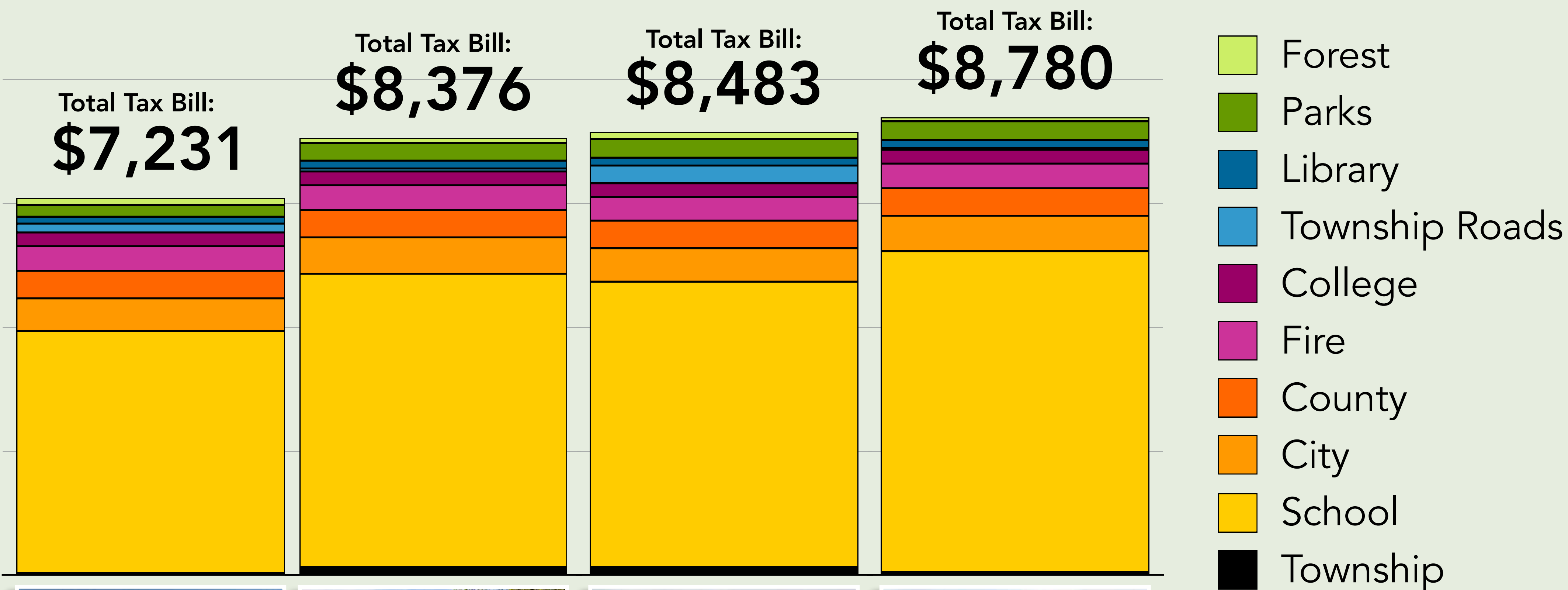
wikiHow Your Taxes Work

Illinois



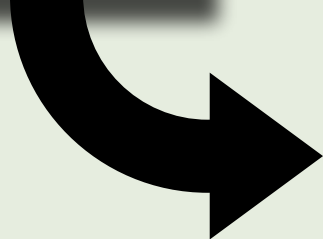
- Forest
- Parks
- Library
- Township Roads
- College
- Fire
- County
- City
- School
- Township





4 properties
valued at

• \$300K



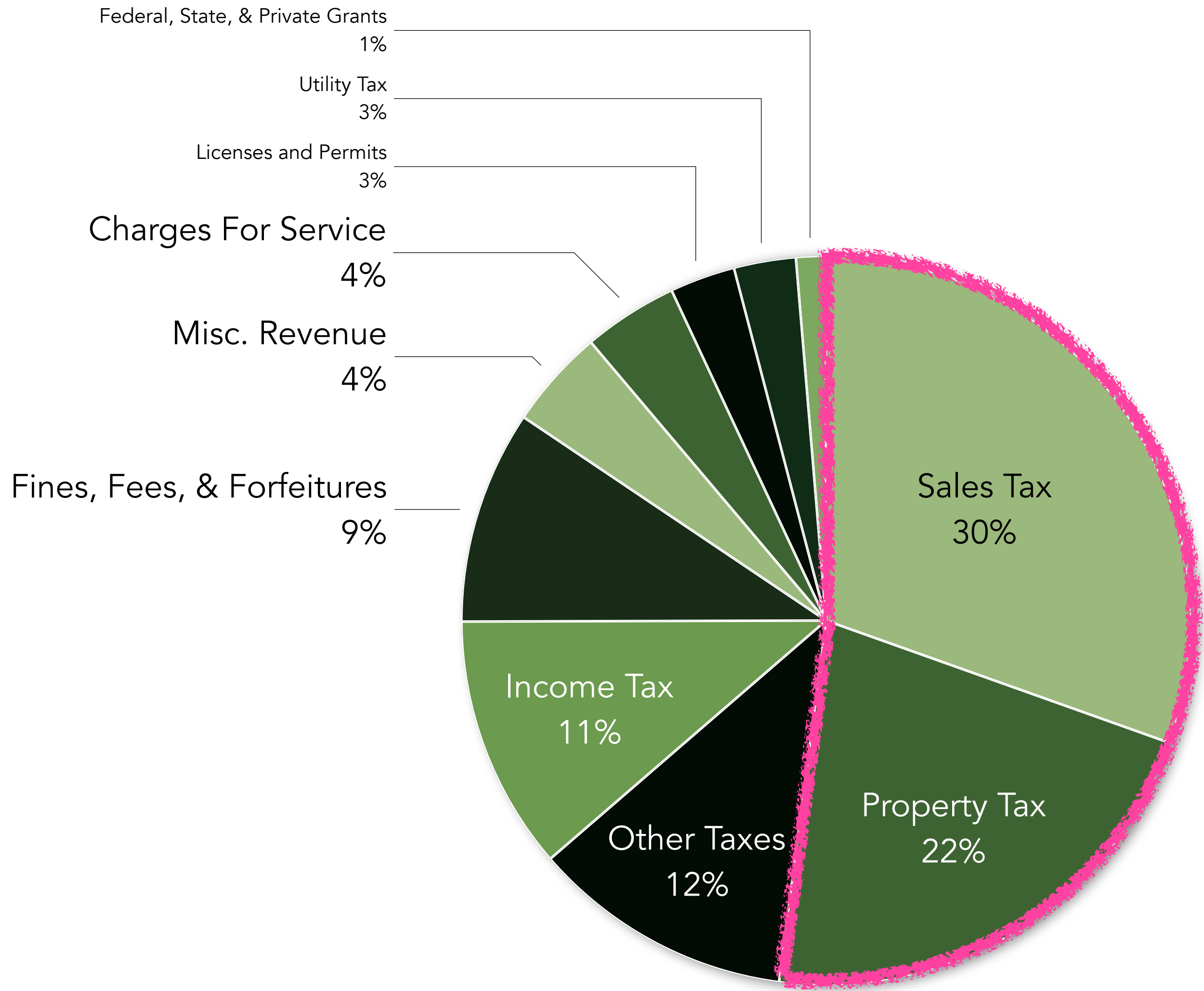


Budget

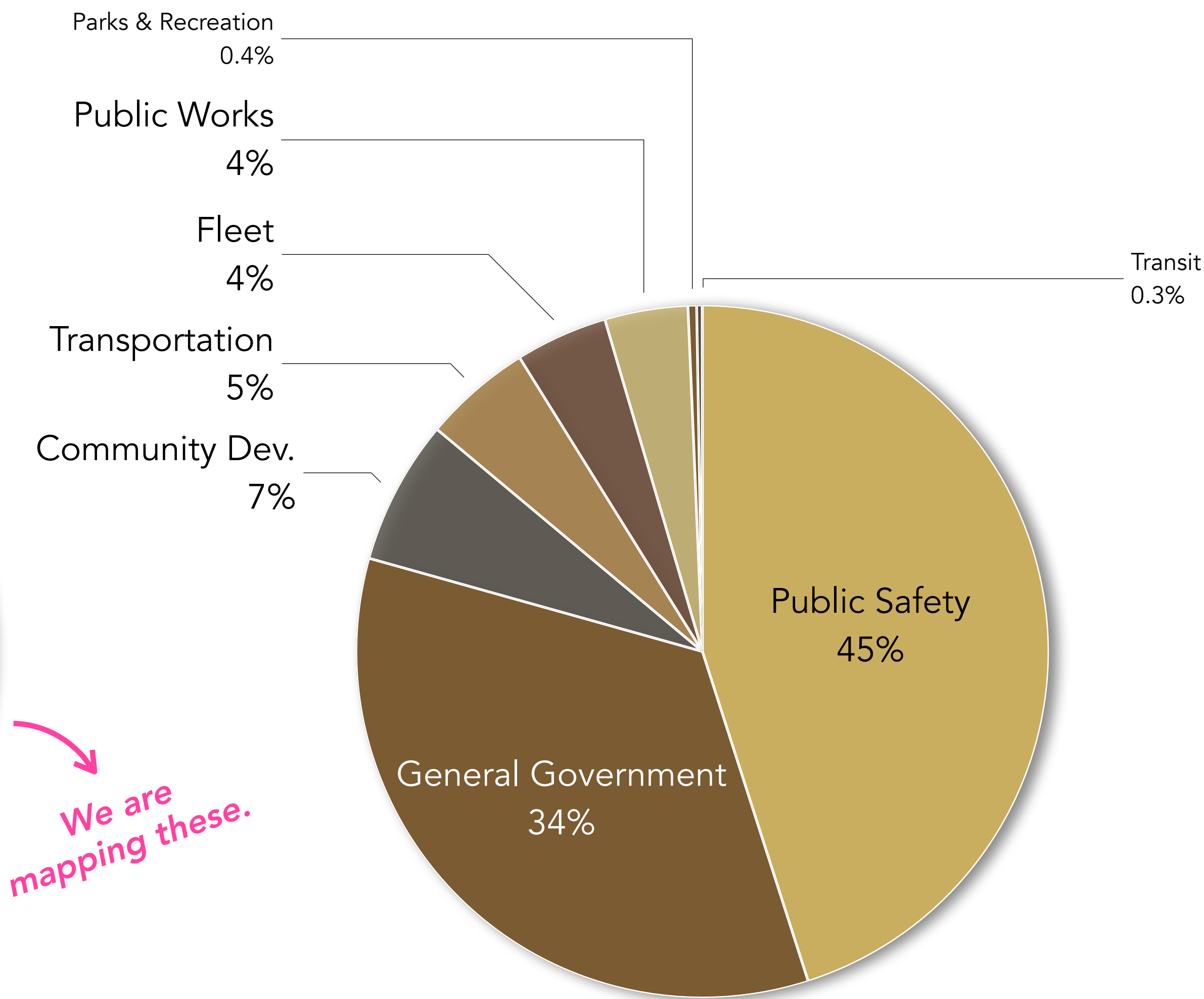
Your City by the Numbers

General Fund: Flow of Funds FY 2024

Joliet, IL

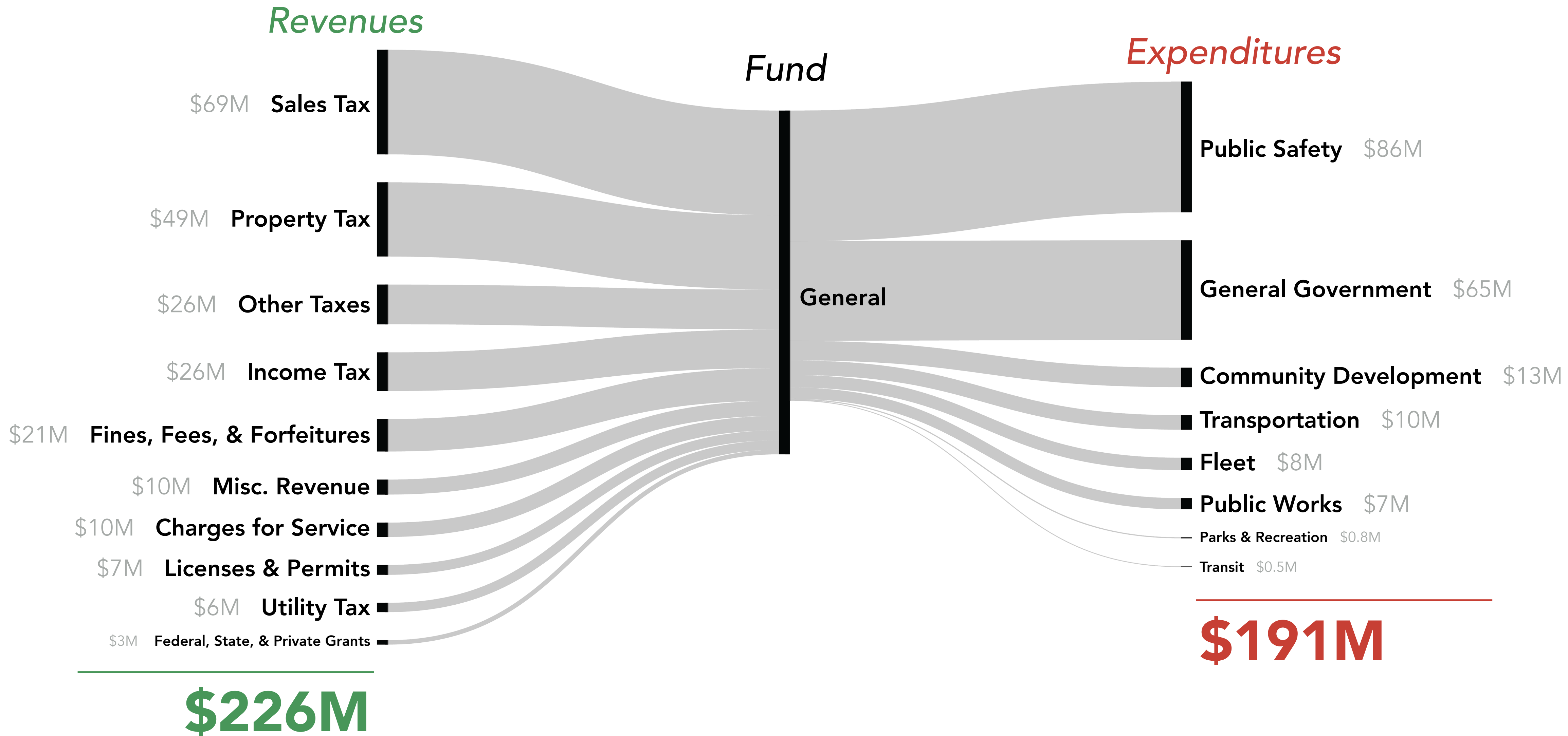


Revenues: **\$226M**



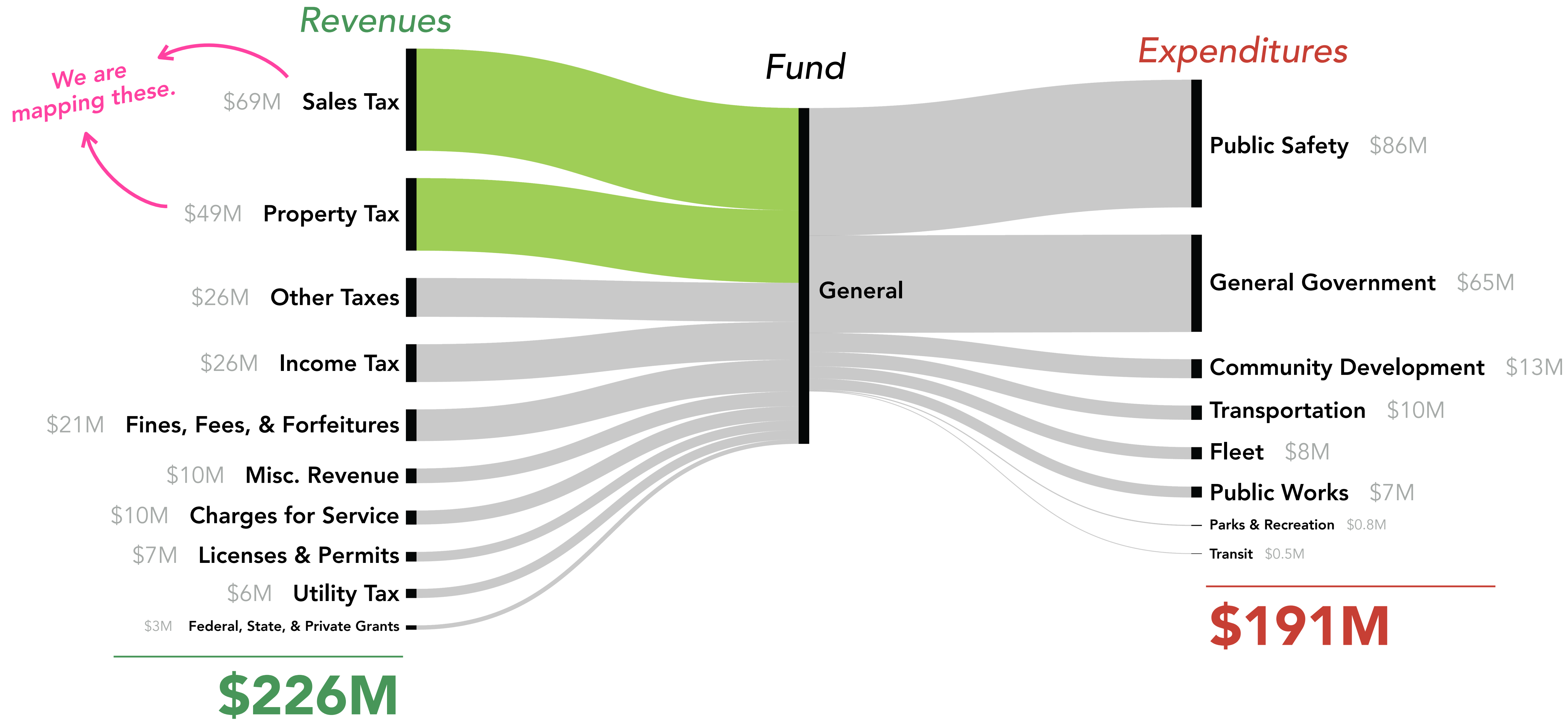
We are mapping these.

Expenditures: **\$191M**



General Fund: Flow of Funds FY 2024

Joliet, IL



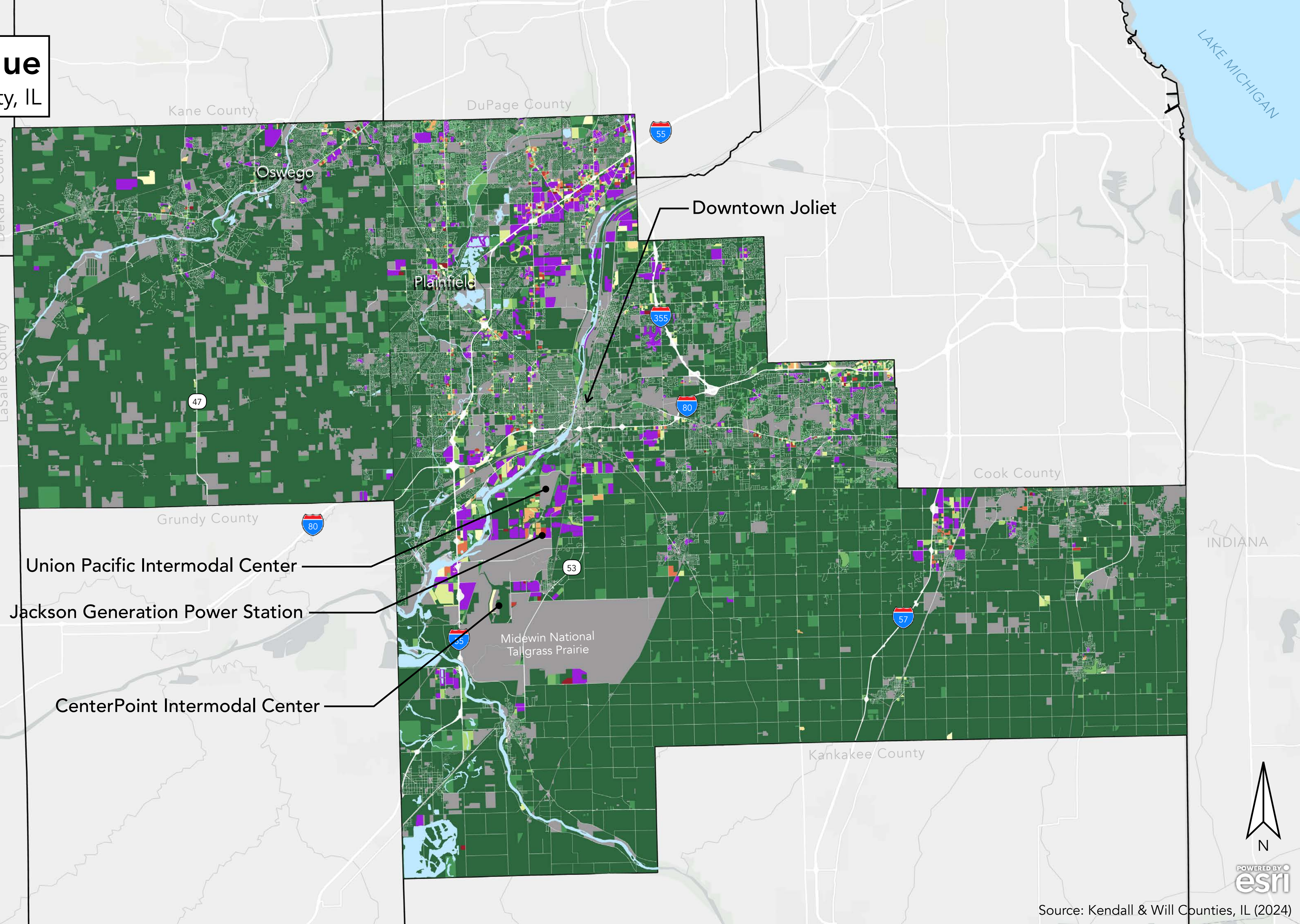
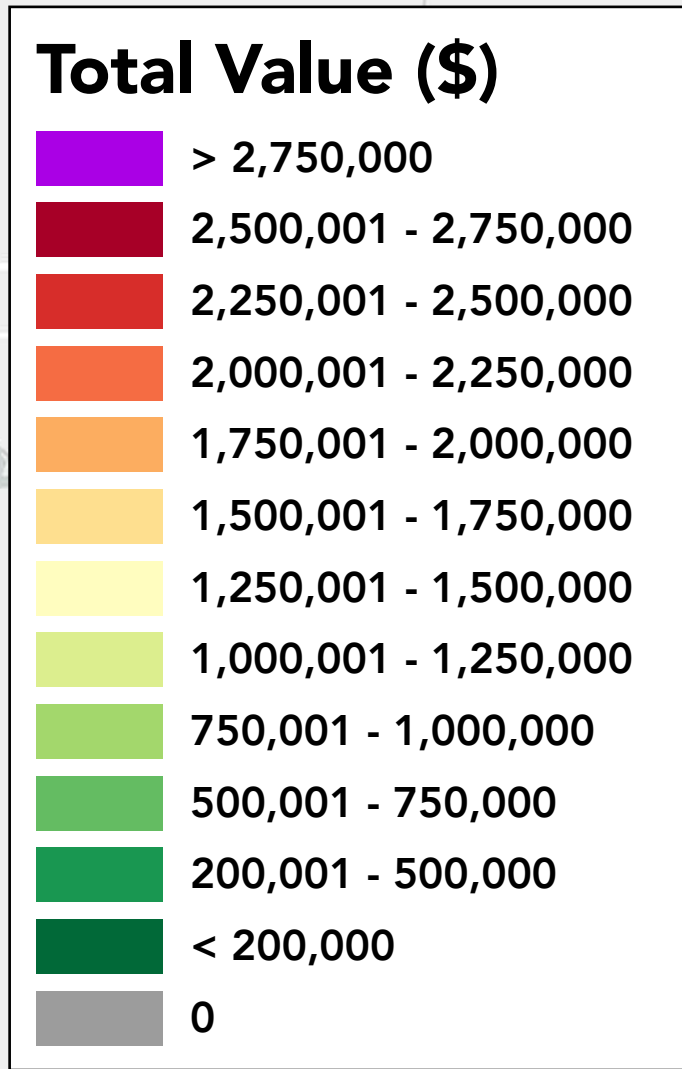


Case Study: Economic MRI®

Joliet, Illinois

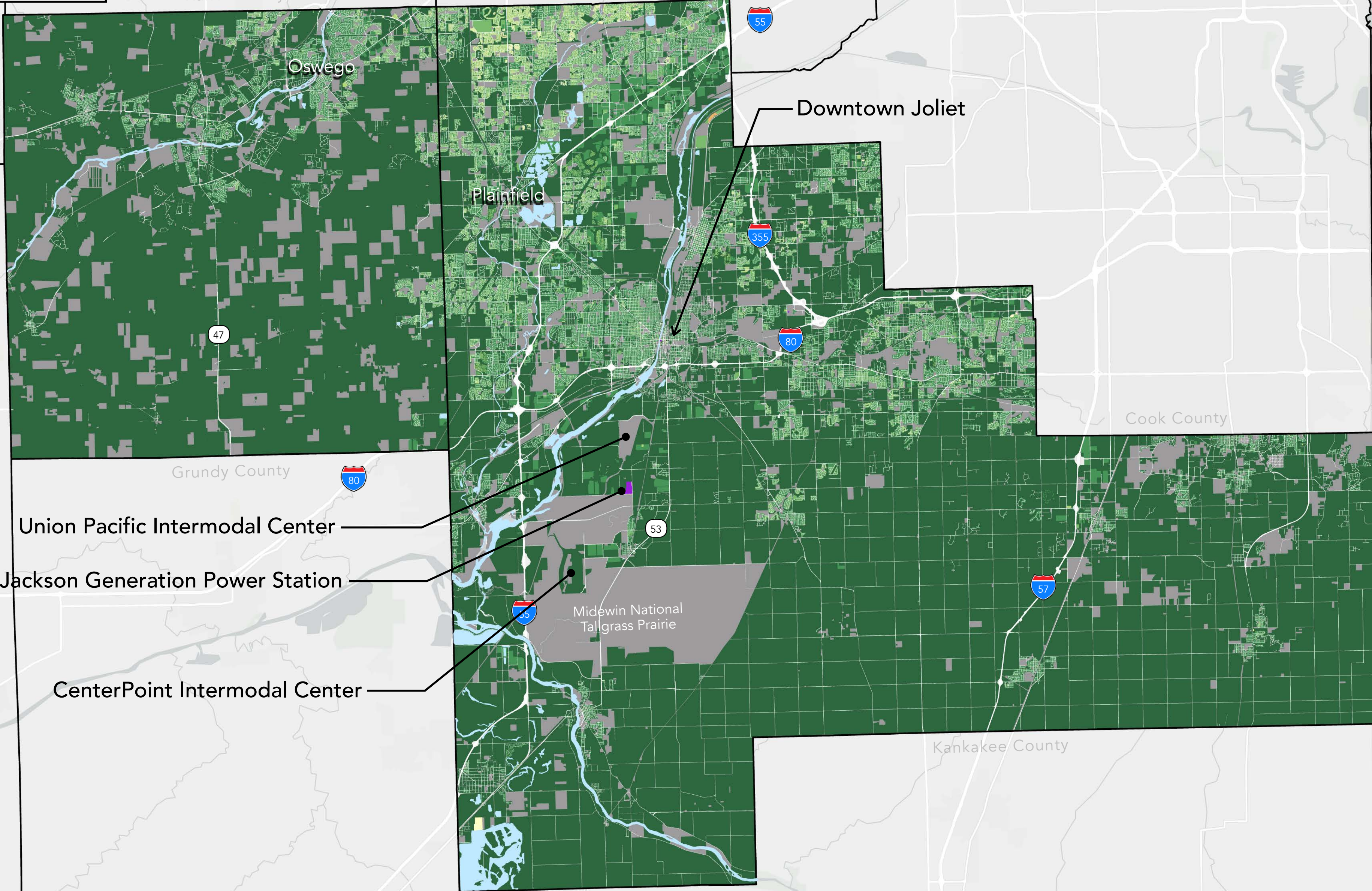
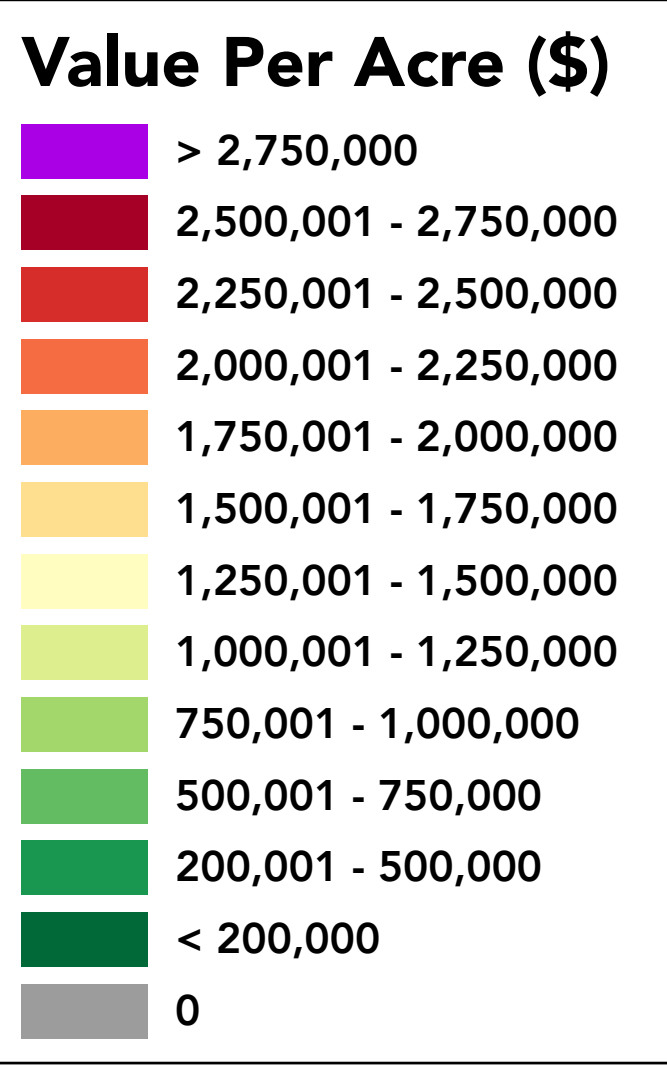
Total Assessed Value

Kendall County & Will County, IL



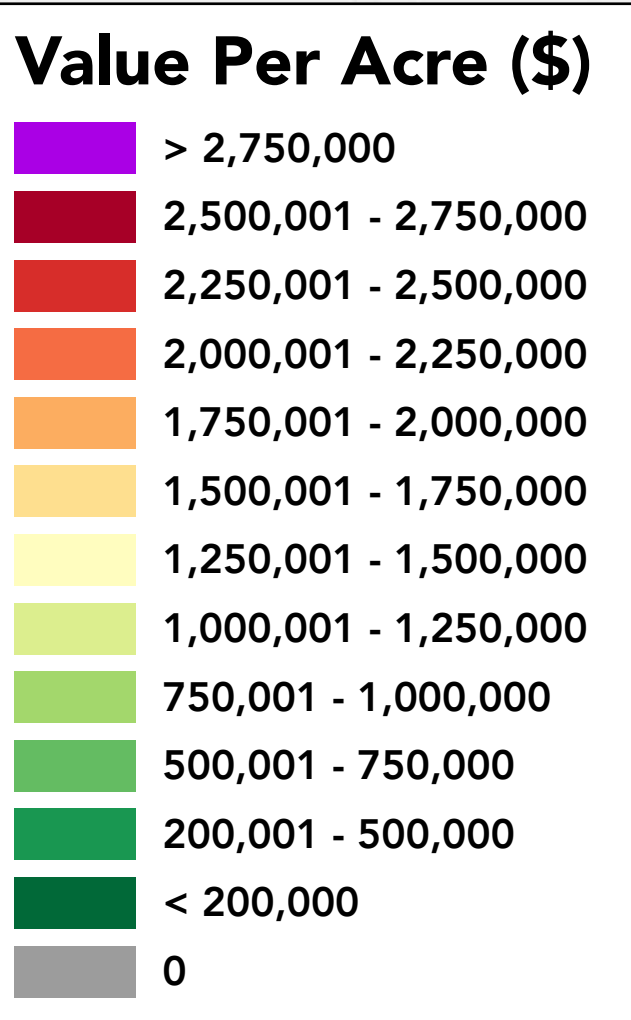
Assessed Value Per Acre

Kendall County & Will County, IL



Assessed Value Per Acre

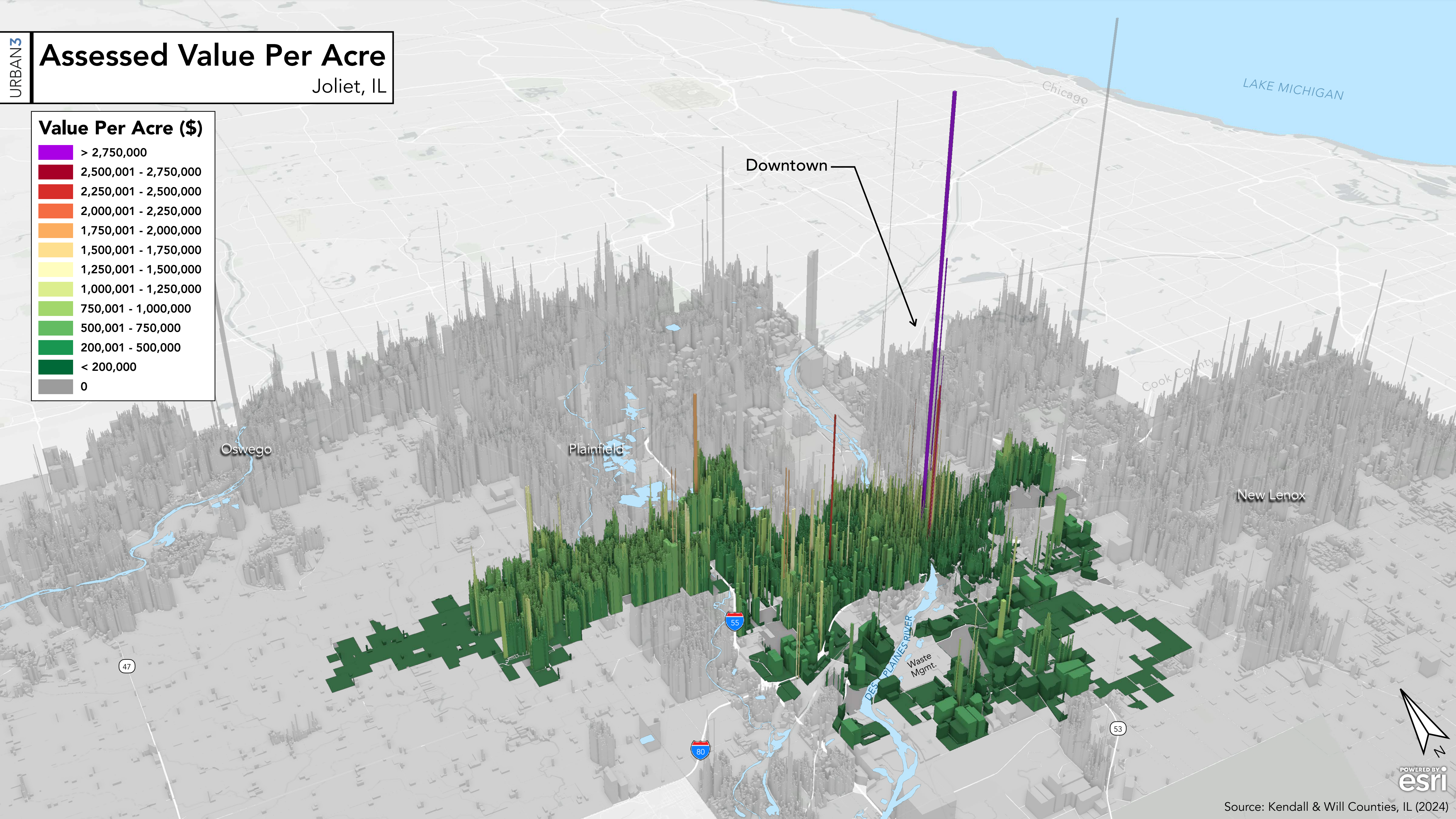
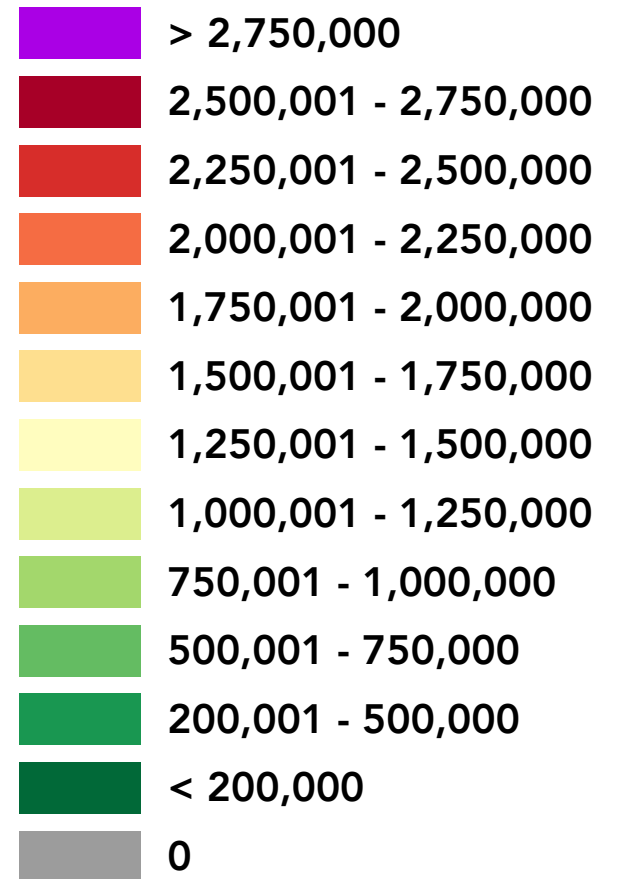
Kendall County & Will County, IL



Assessed Value Per Acre

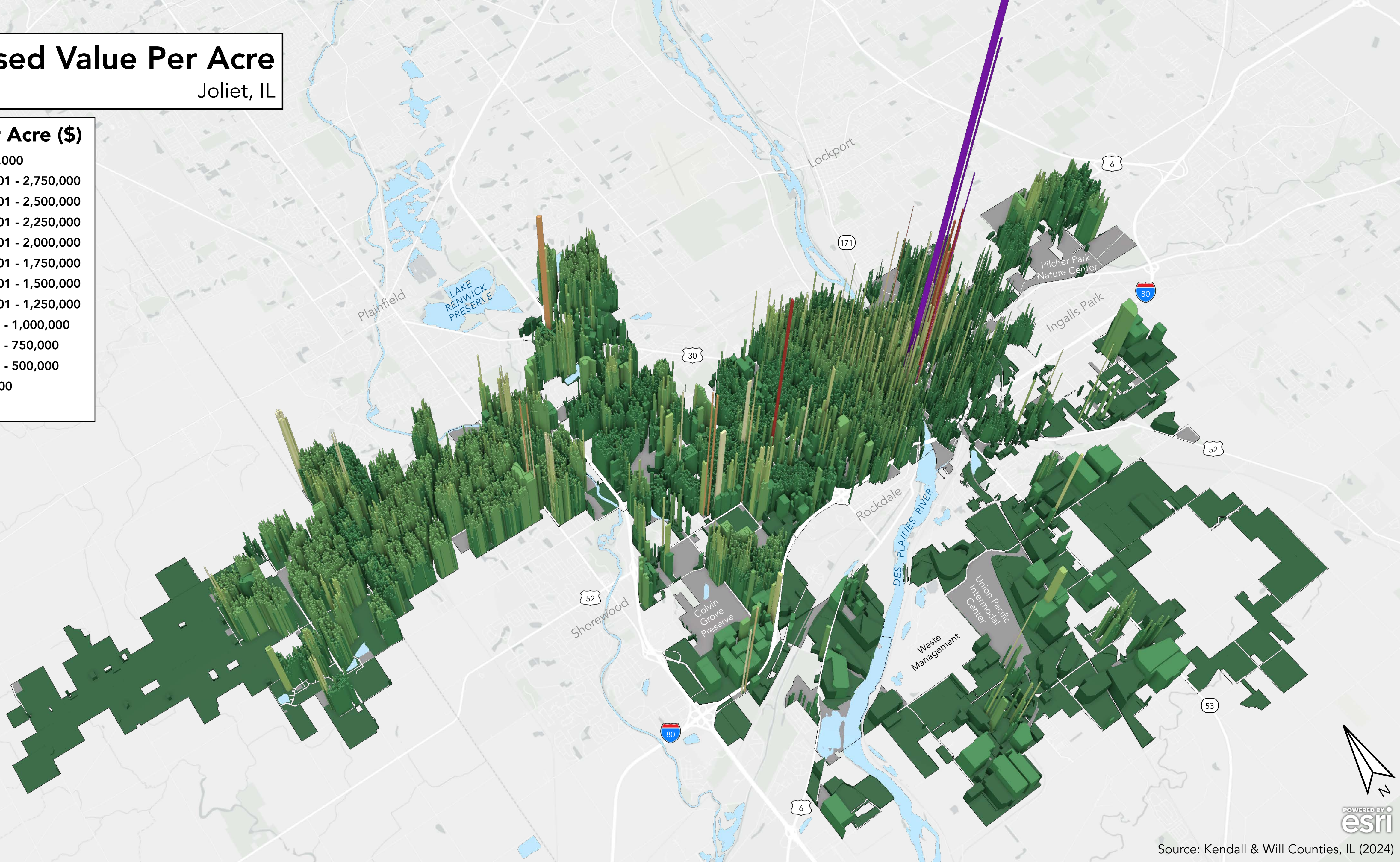
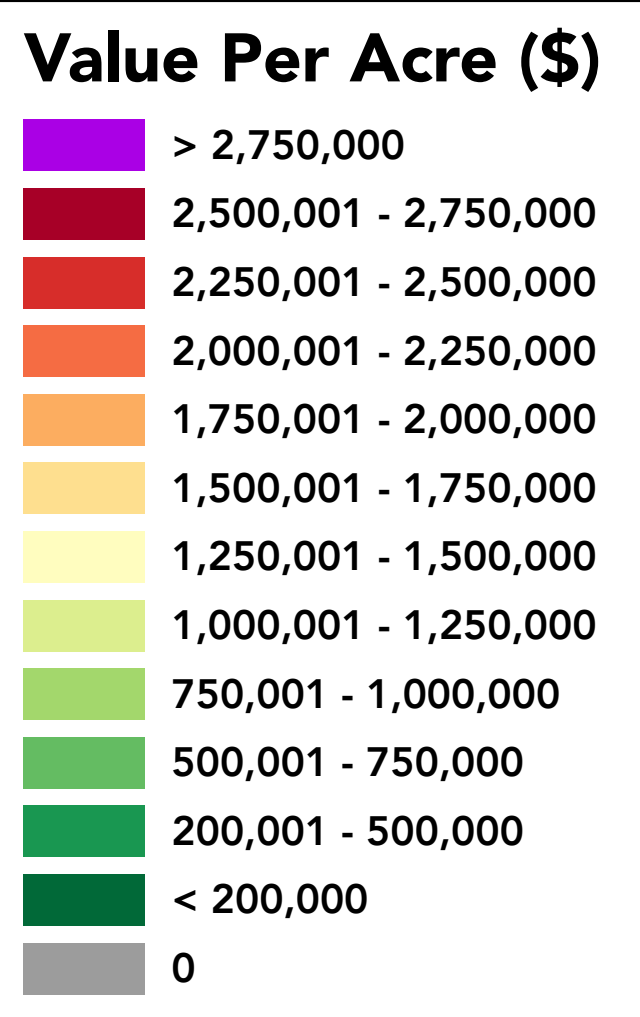
Joliet, IL

Value Per Acre (\$)



Assessed Value Per Acre

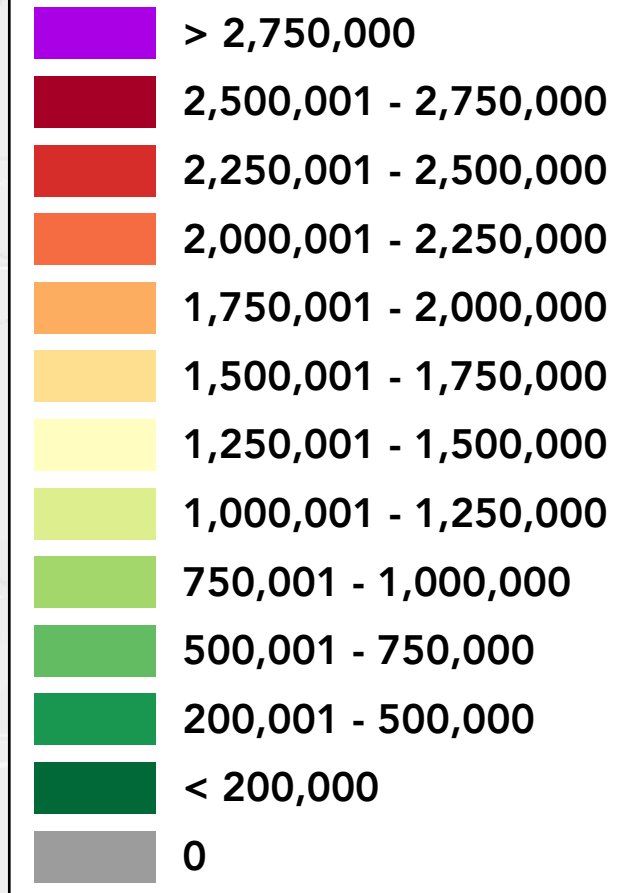
Joliet, IL



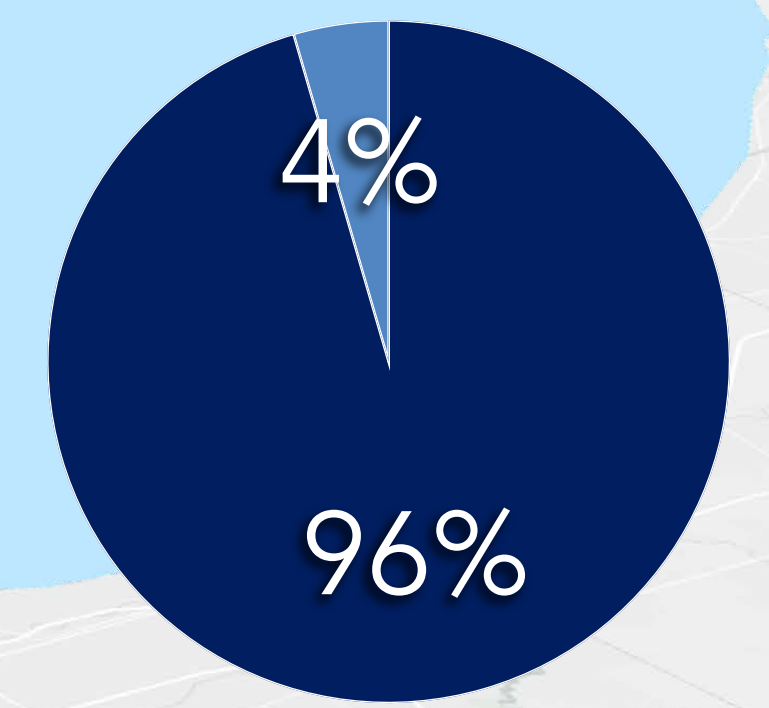
Productivity Ratio

City of Joliet to Kendall County & Will County, IL

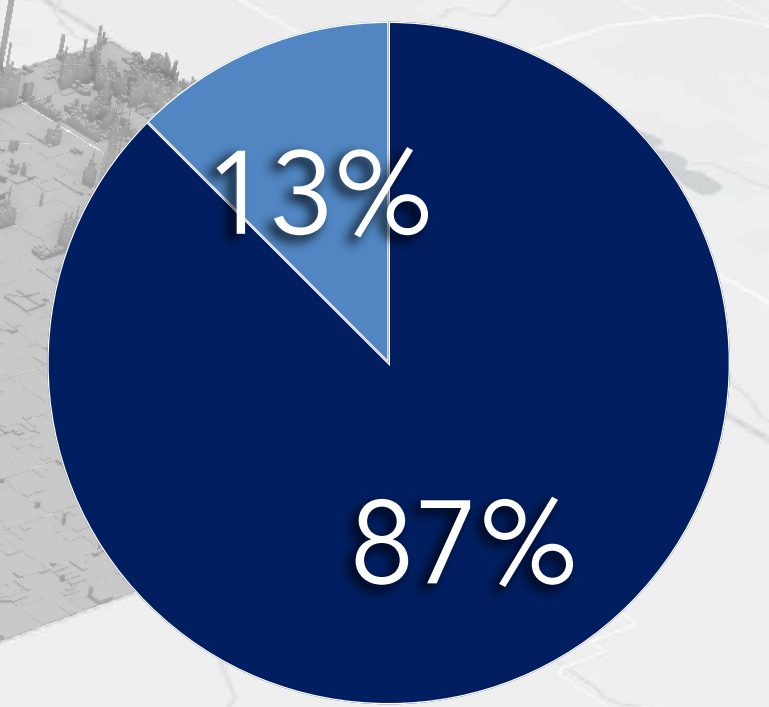
Value Per Acre (\$)



Taxable Acres



Total Value



County City

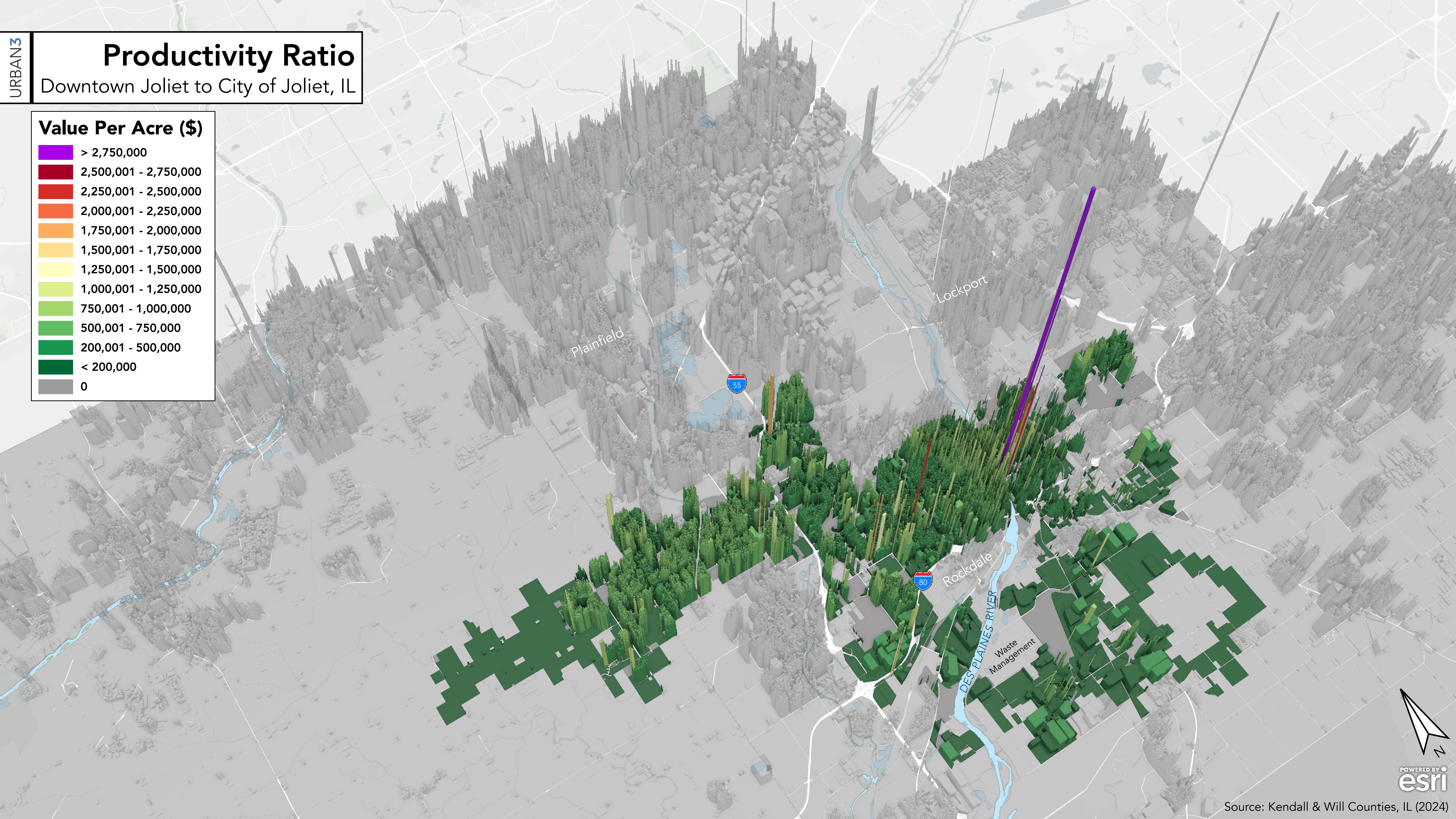
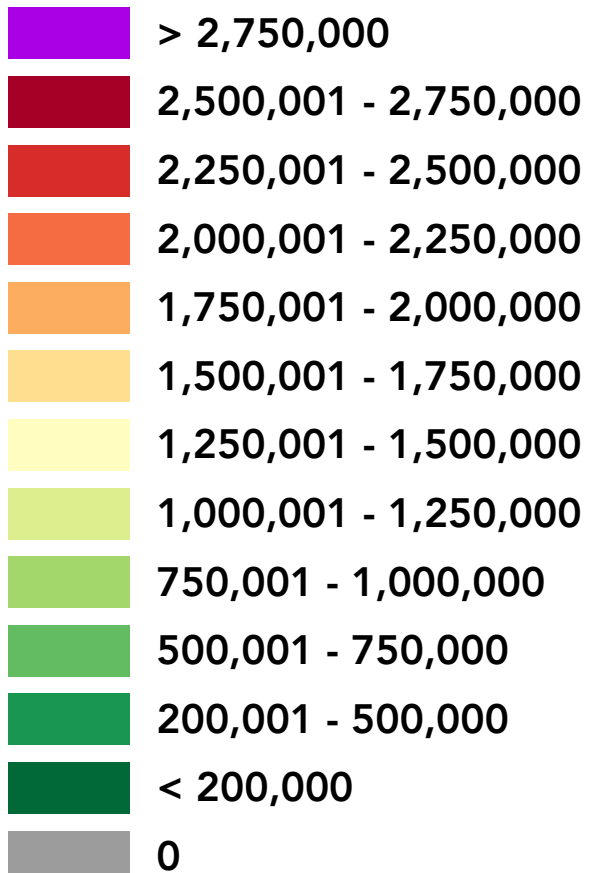
2.8x

Joliet's taxable value is **2.8 times greater** than the amount of County area it takes up.

Productivity Ratio

Downtown Joliet to City of Joliet, IL

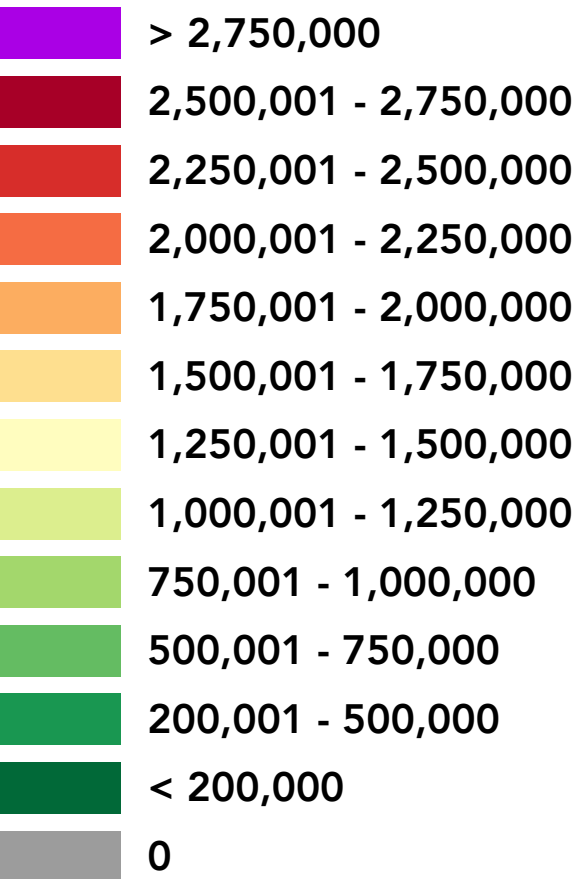
Value Per Acre (\$)



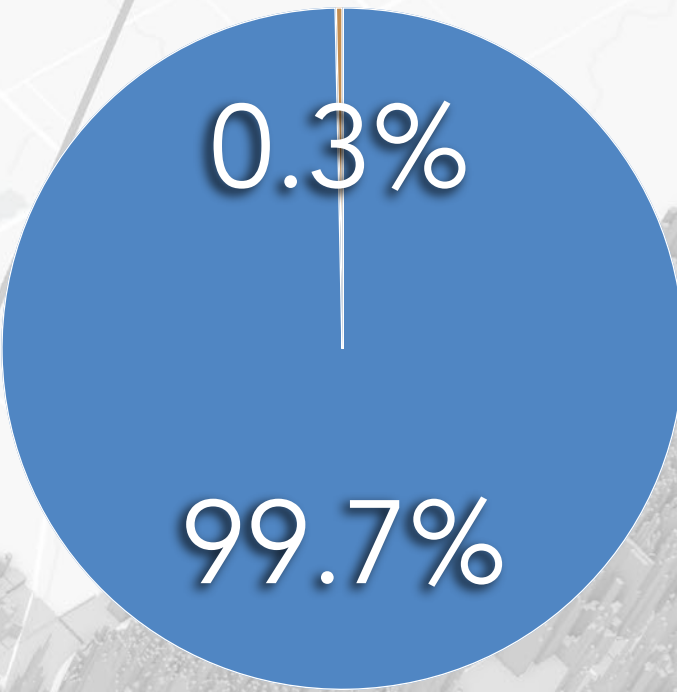
Productivity Ratio

Downtown Joliet to City of Joliet, IL

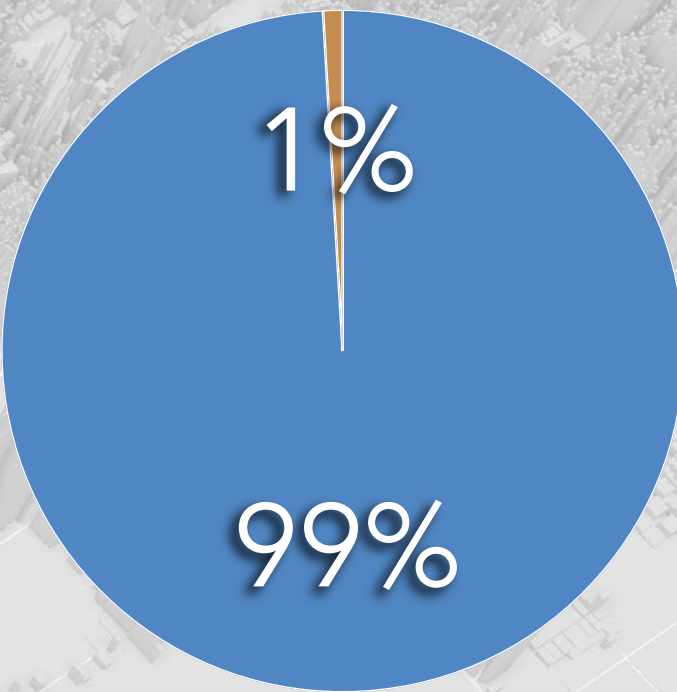
Value Per Acre (\$)



Taxable Acres



Total Value



● City ● Downtown

2.8x

Downtown Joliet's taxable value is **2.8 times greater** than the amount of City area it takes up.



Productivity Ratio

Downtown Joliet to City of Joliet, IL

With Harrah's



2.8x

Downtown Joliet's taxable value is **2.8 times greater** than the amount of City area it takes up.

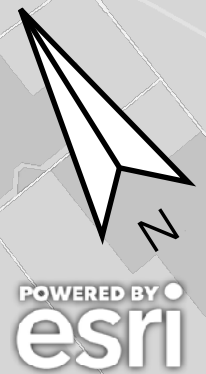
Without Harrah's



1.7x

Downtown Joliet's taxable value is **1.7 times greater** than the amount of City area it takes up.

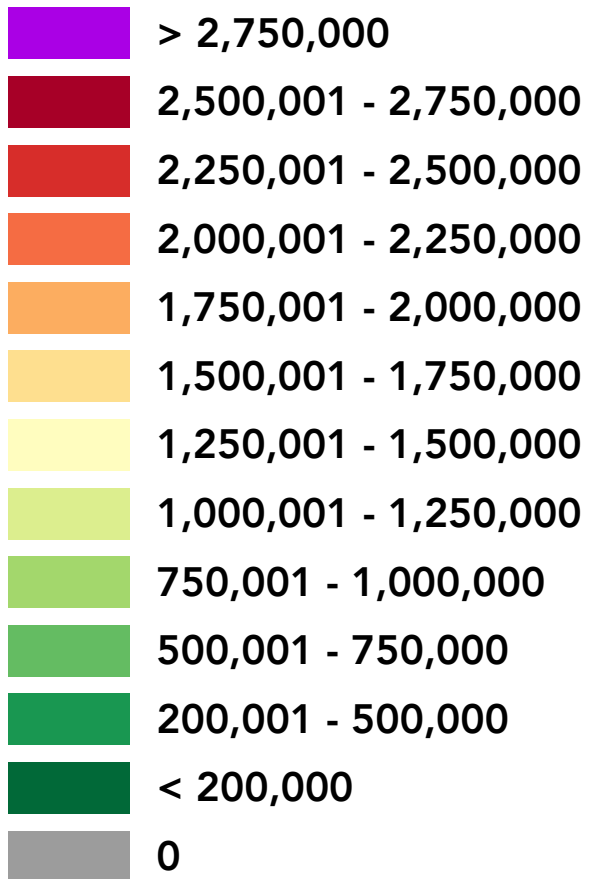
Value Per Acre (\$)	
	> 2,750,000
	2,500,001 - 2,750,000
	2,250,001 - 2,500,000
	2,000,001 - 2,250,000
	1,750,001 - 2,000,000
	1,500,001 - 1,750,000
	1,250,001 - 1,500,000
	1,000,001 - 1,250,000
	750,001 - 1,000,000
	500,001 - 750,000
	200,001 - 500,000
	< 200,000
	0



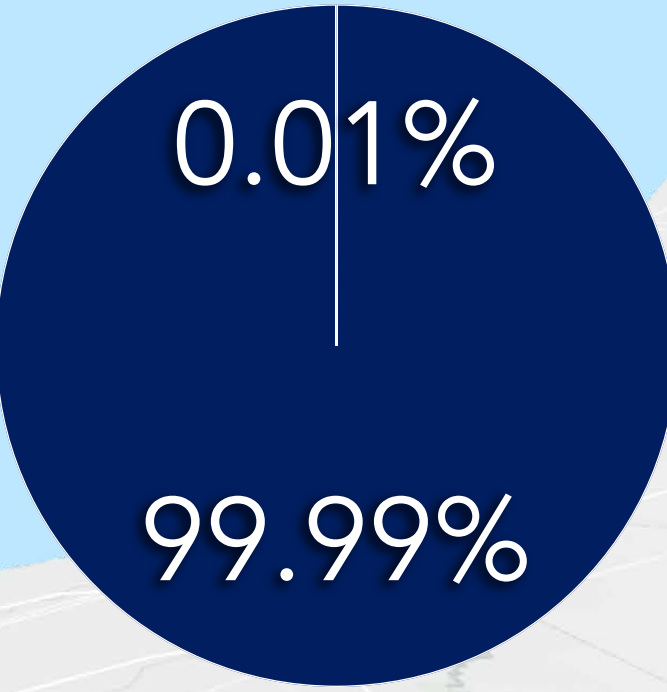
Productivity Ratio

Downtown Joliet to Kendall & Will County, IL

Value Per Acre (\$)



Taxable Acres



Total Value



● County ● Downtown

Downtown Joliet

91 acres
Area

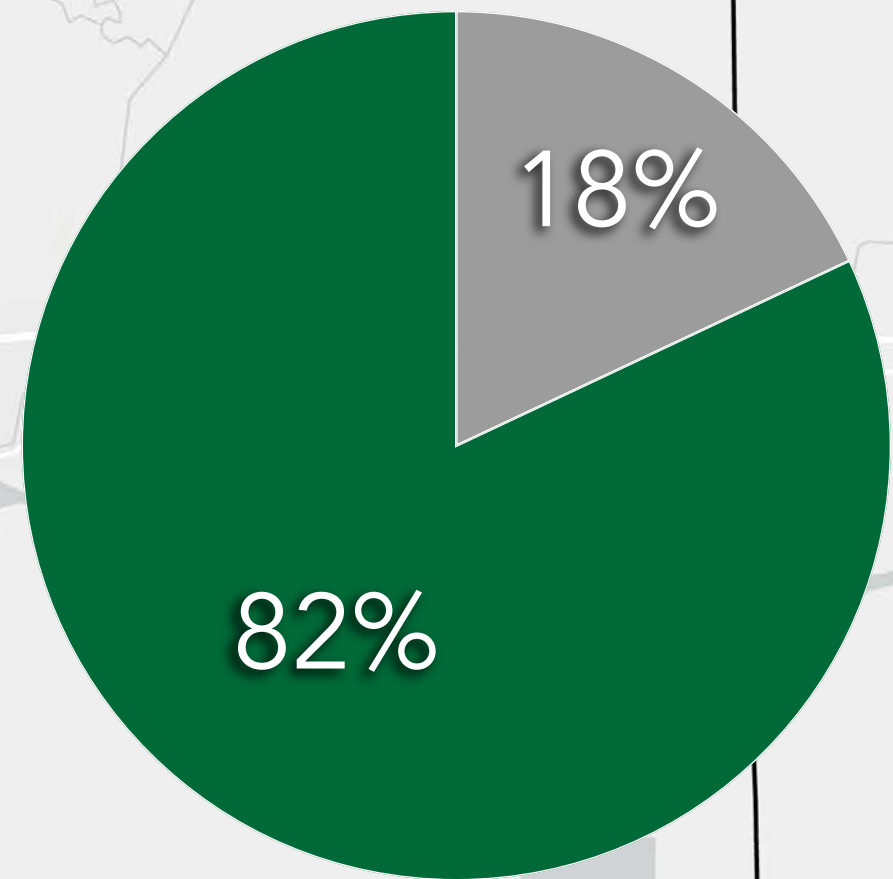
\$41M
Total Value

7.9x

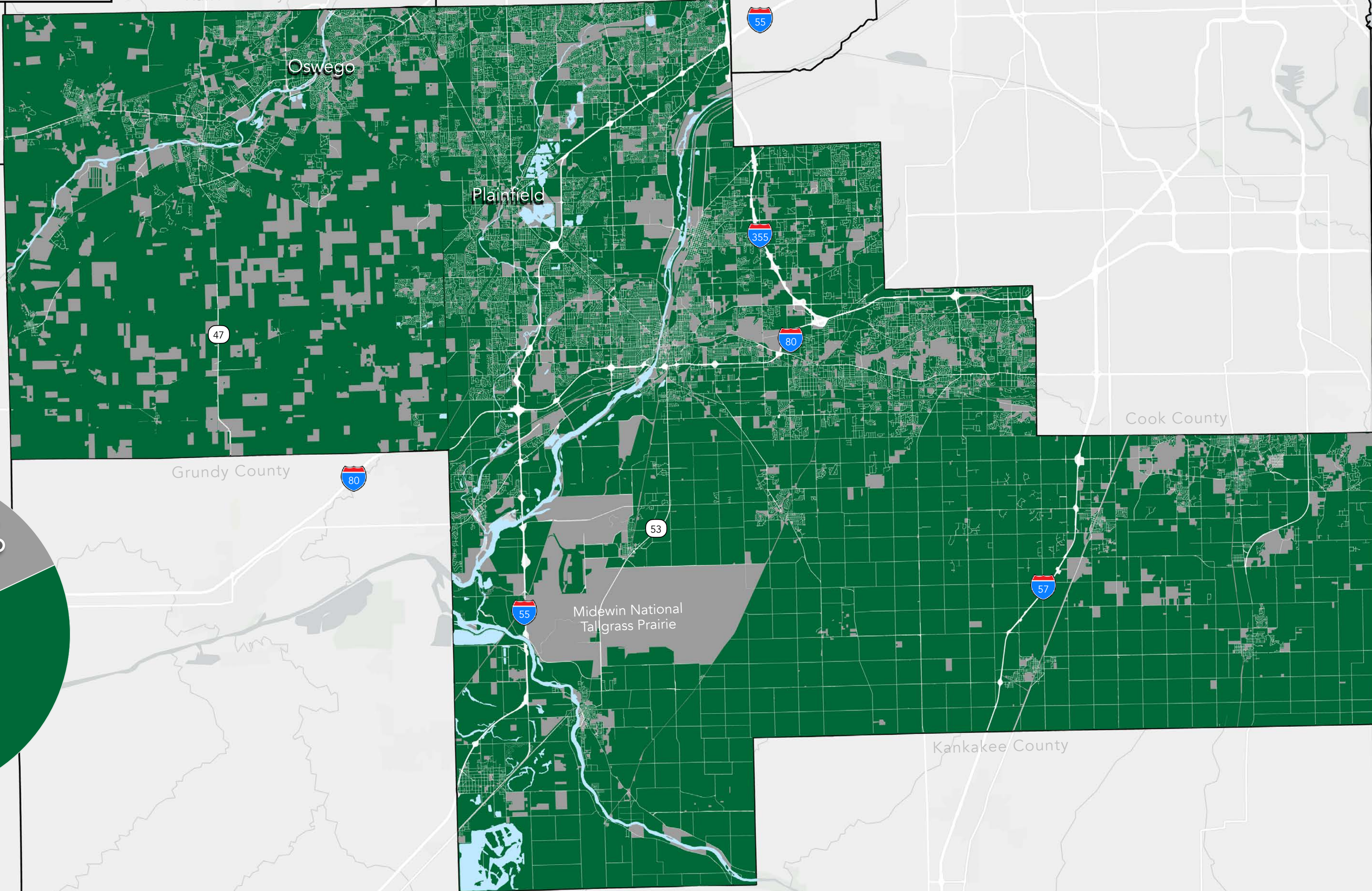
Downtown Joliet's taxable value is **7.9 times greater** than the amount of County area it takes up.

Taxable vs. Exempt Land

Kendall County & Will County, IL

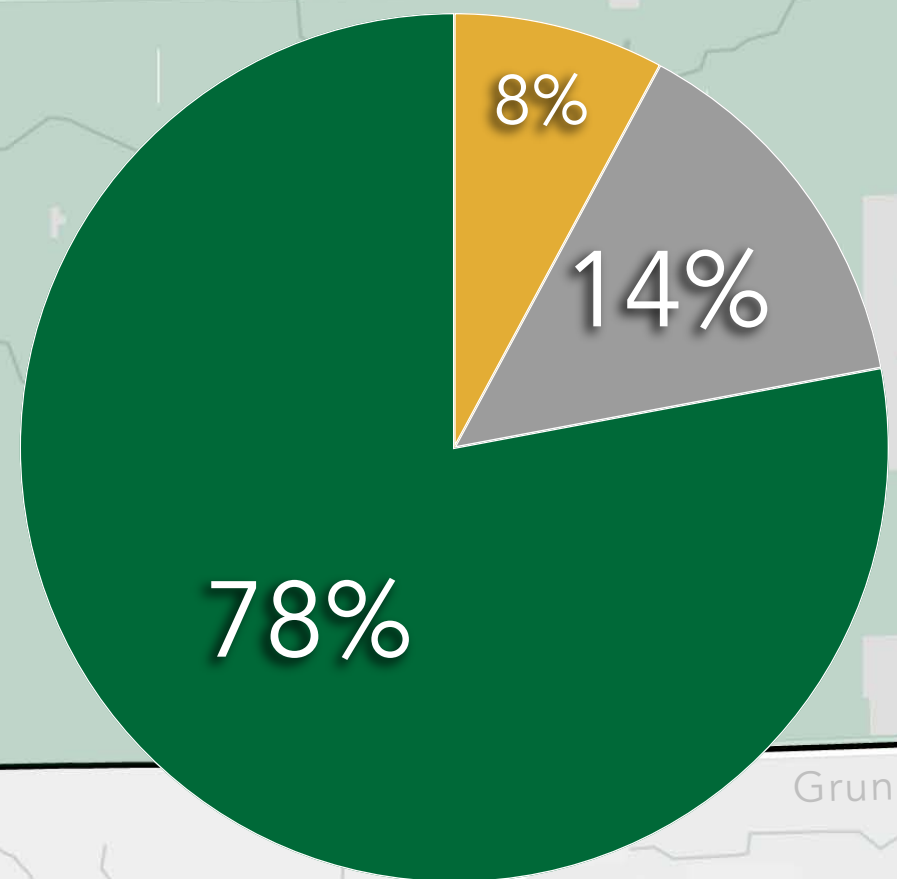


- Exempt
- Taxable



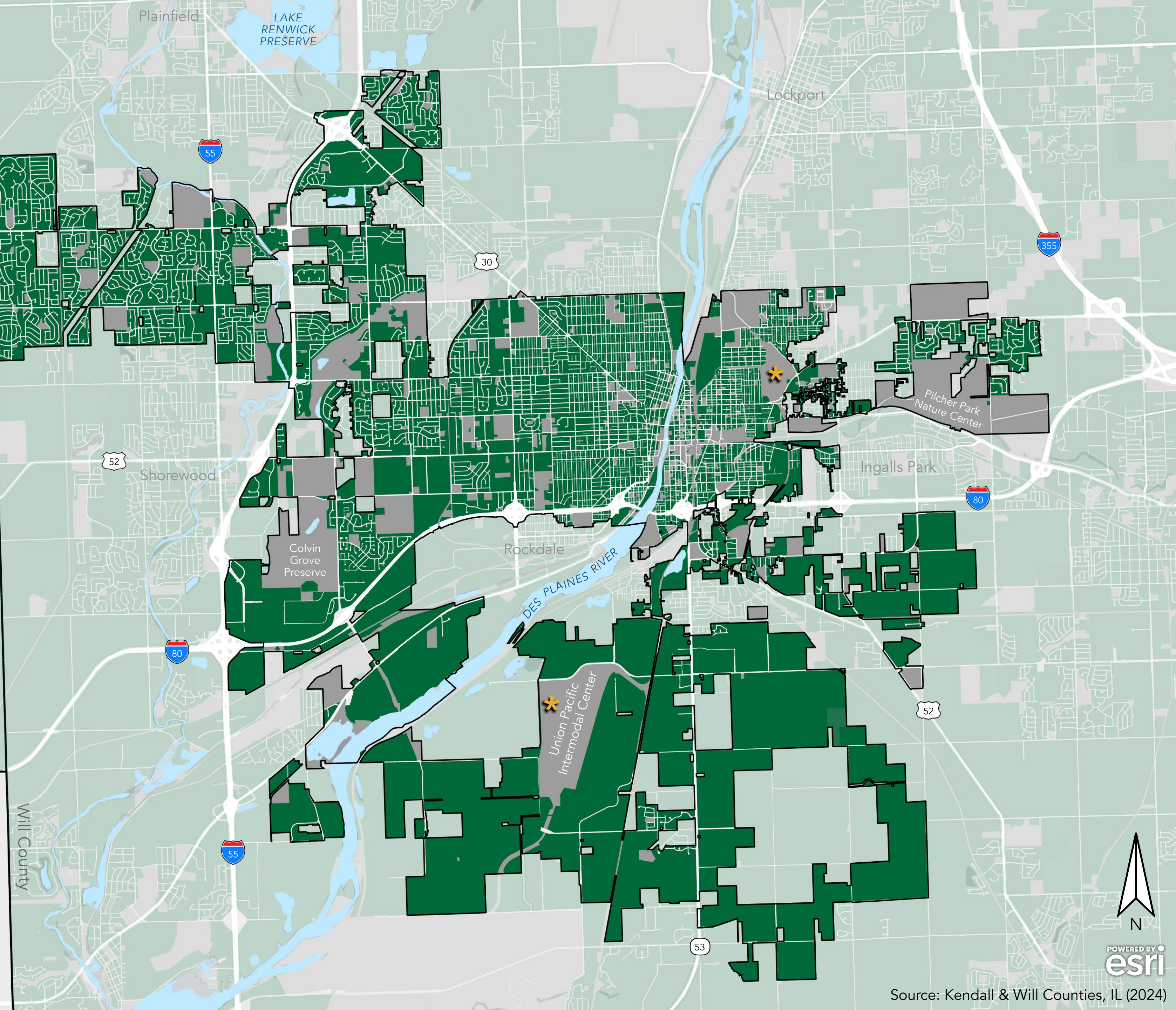
Taxable vs. Exempt Land

Joliet, IL



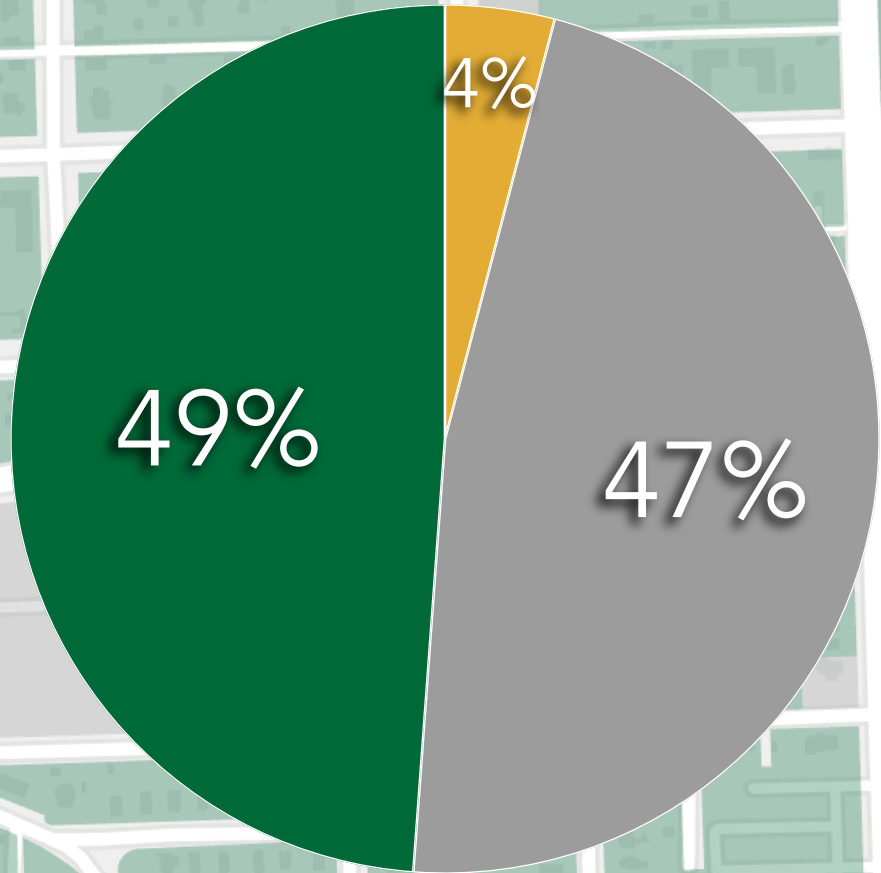
- Railroad
- Exempt
- Taxable

*Highlighted parcels are taxed through different entities and not by the City of Joliet.



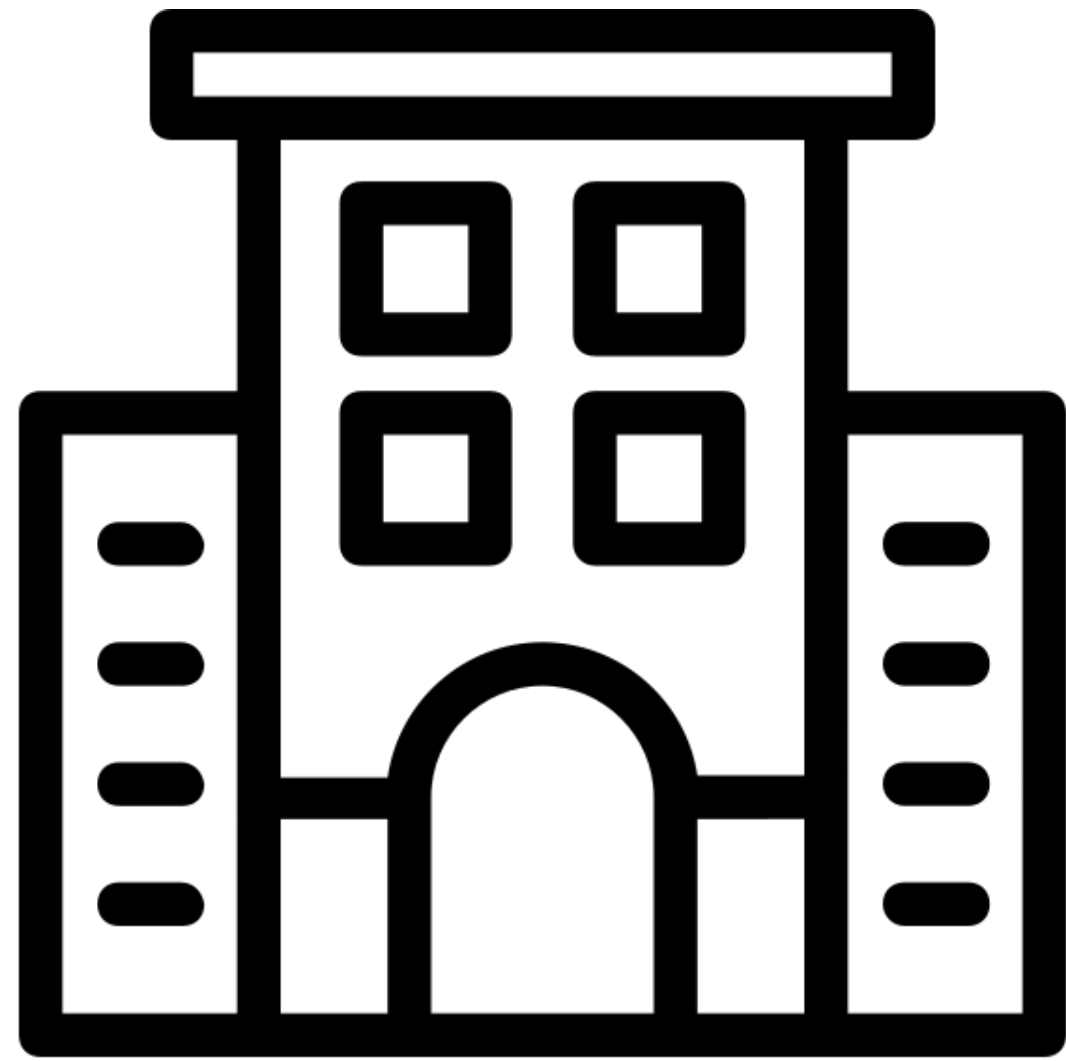
Taxable vs. Exempt Land

Downtown Joliet, IL



- Baseball Stadium
- Exempt
- Taxable





Land Use Types

Local Samples of Buildings and Developments

Value Per Acre: Walmarts

Joliet, IL



Walmart (1401 Illinois Rte 59)
\$0.2M per acre



Walmart (2424 W Jefferson St)
\$0.2M per acre

Walmart Average
\$0.2M per acre

Land Use Type:

Residential

Residential Typologies

Anywhere, USA

Missing Middle Housing
(as defined by Opticos)



Low Density
Detached Single Family Homes

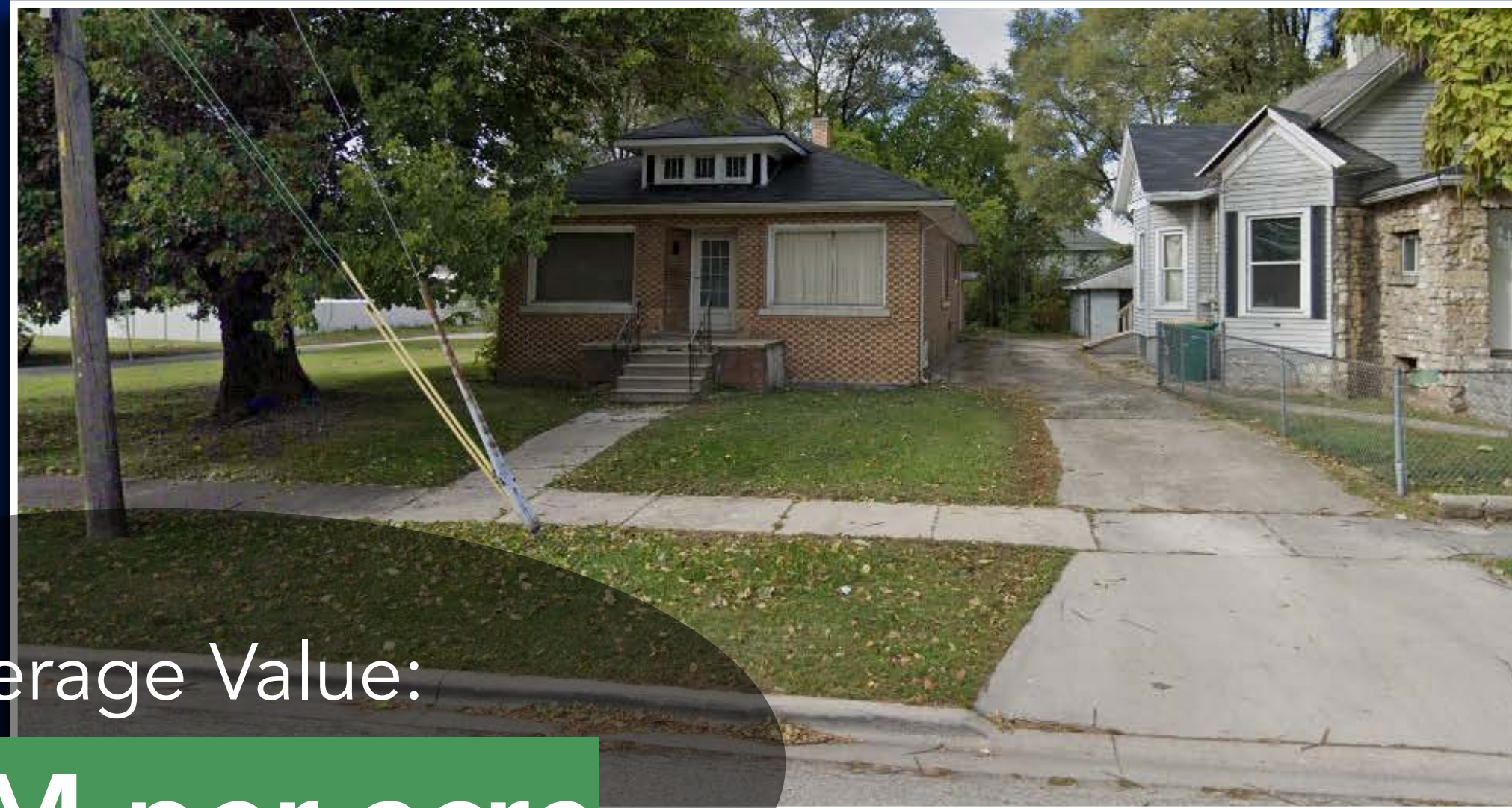
Gentle Density
Duplexes, Triplexes, Fourplexes

Medium Density
Row Townhouses/Condominiums

High Density
Apartments, Condominiums

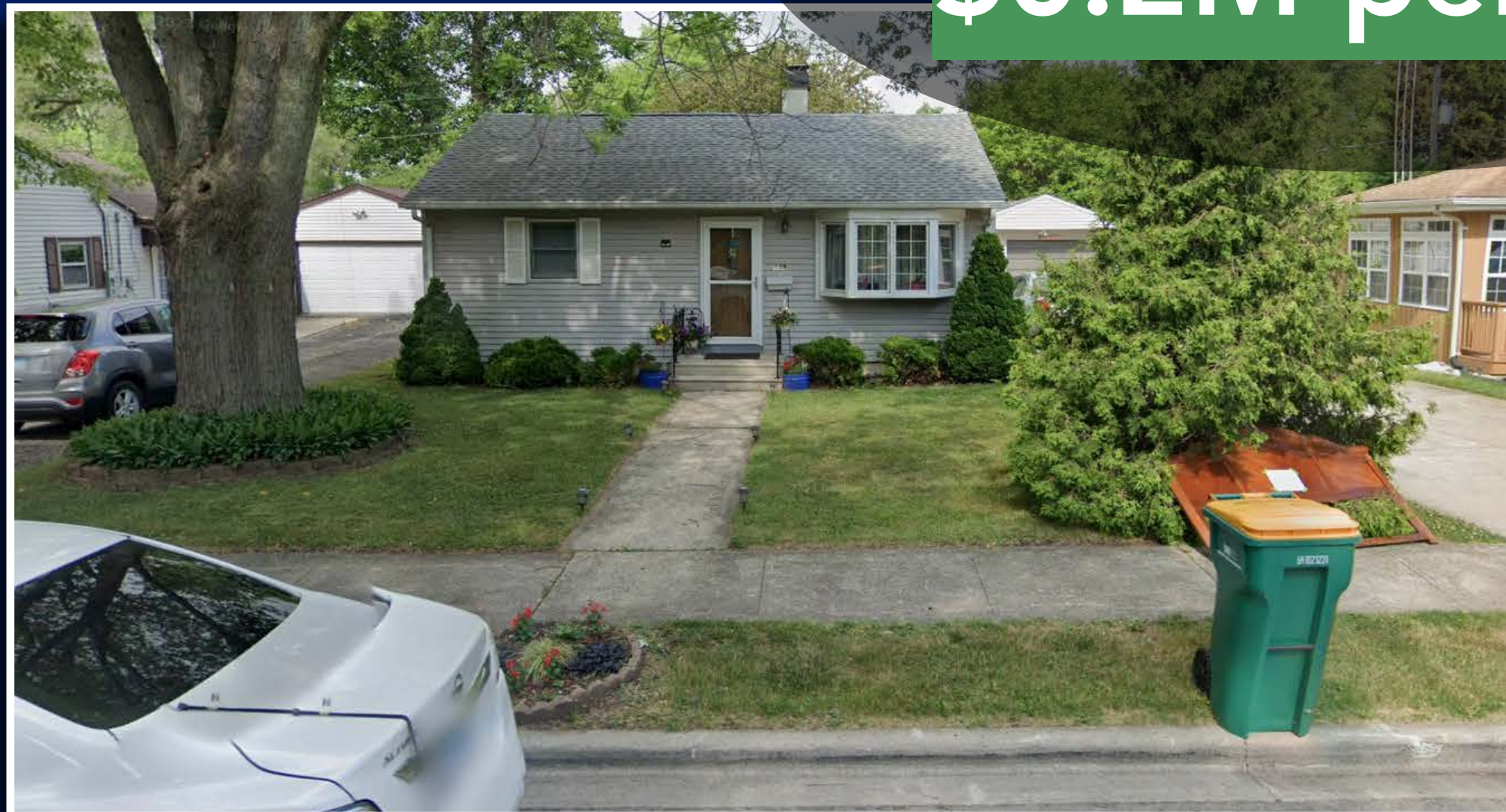
Value Per Acre: Single Family Residential

Joliet, IL



Average Value:

\$0.2M per acre



Walmart Average
\$0.2M per acre

Value Per Acre: Missing Middle Residential

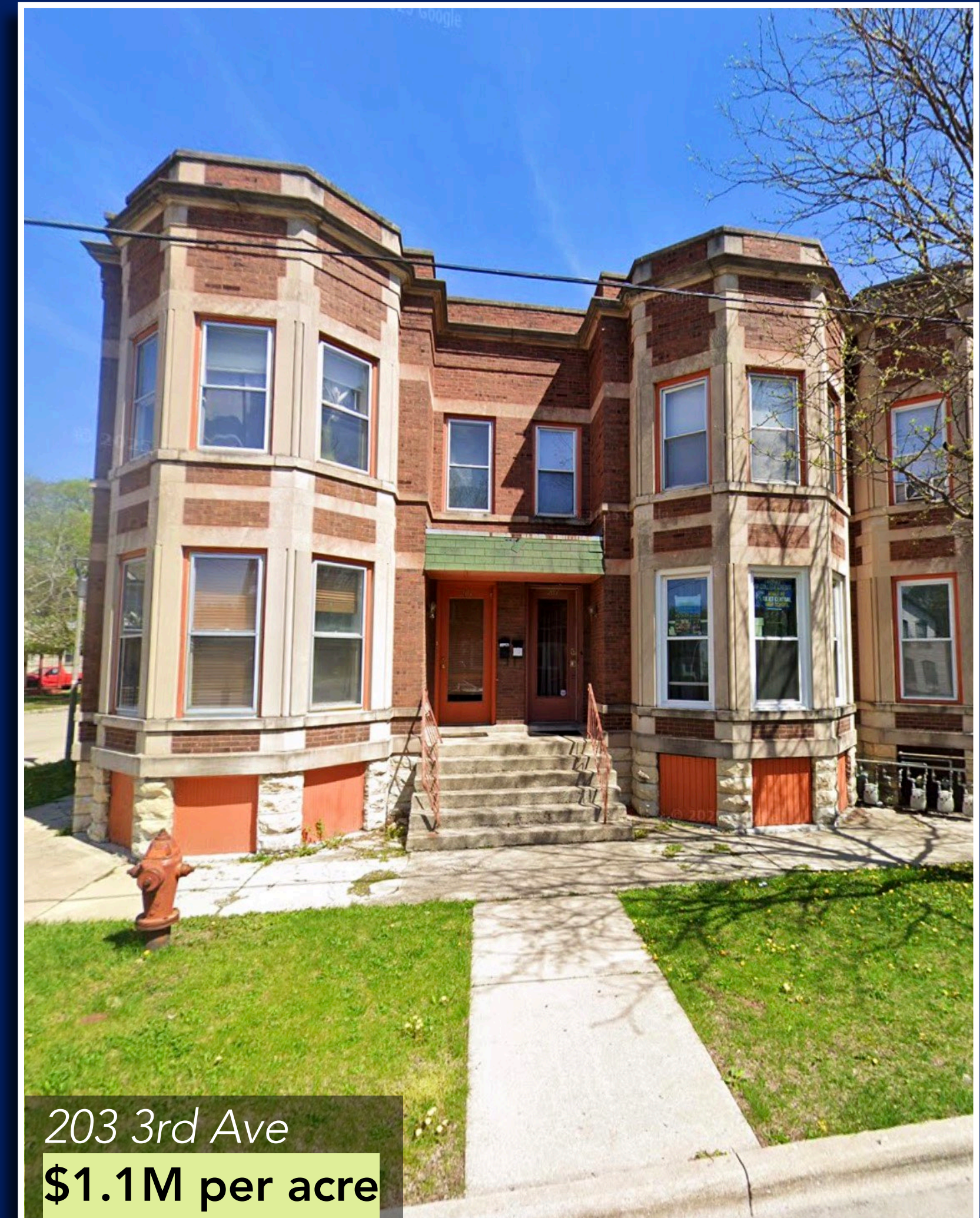
Joliet, IL



Walmart Average
\$0.2M per acre

Value Per Acre: Missing Middle Residential

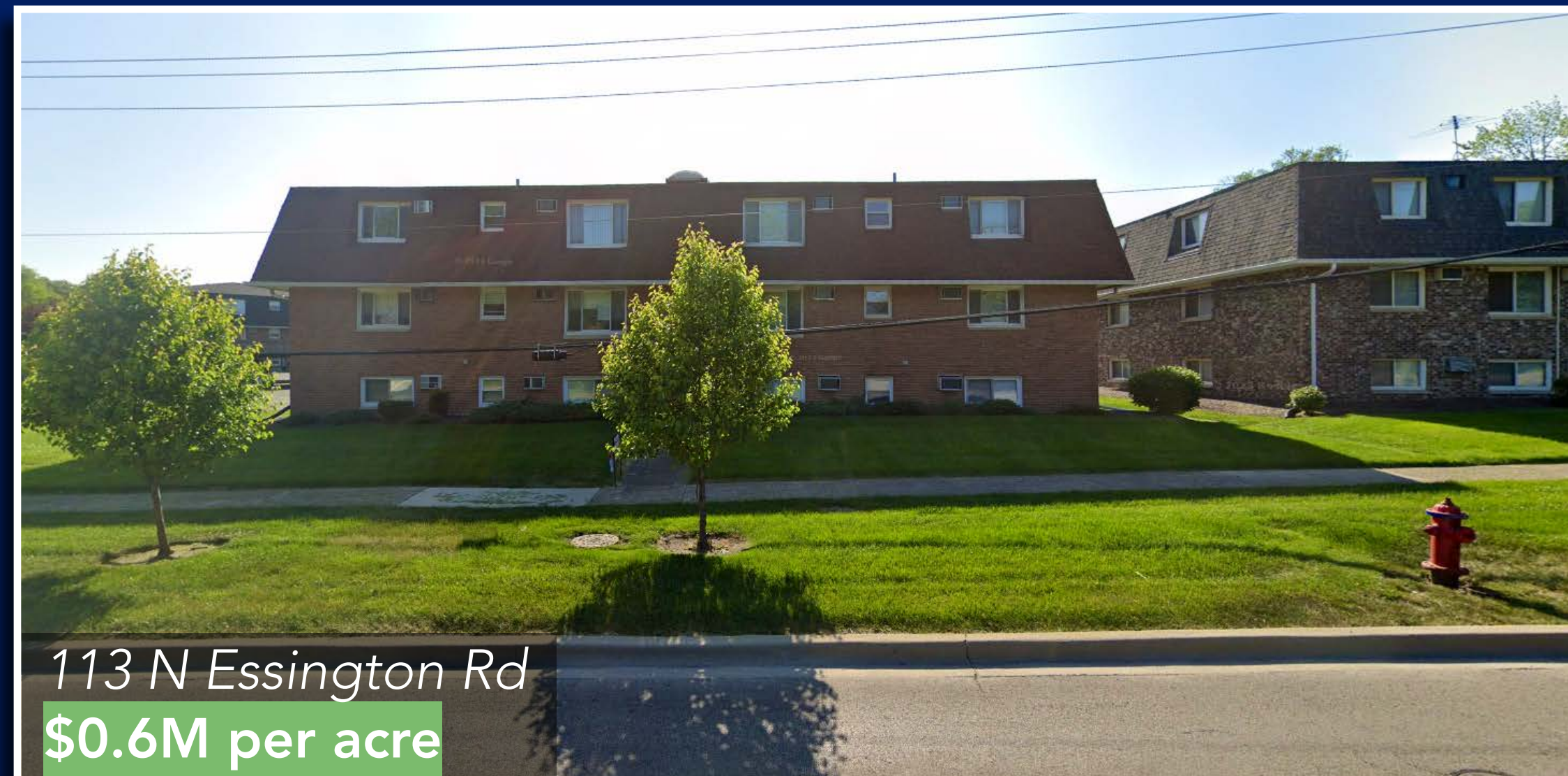
Joliet, IL



Walmart Average
\$0.2M per acre

Value Per Acre: Multifamily Residential

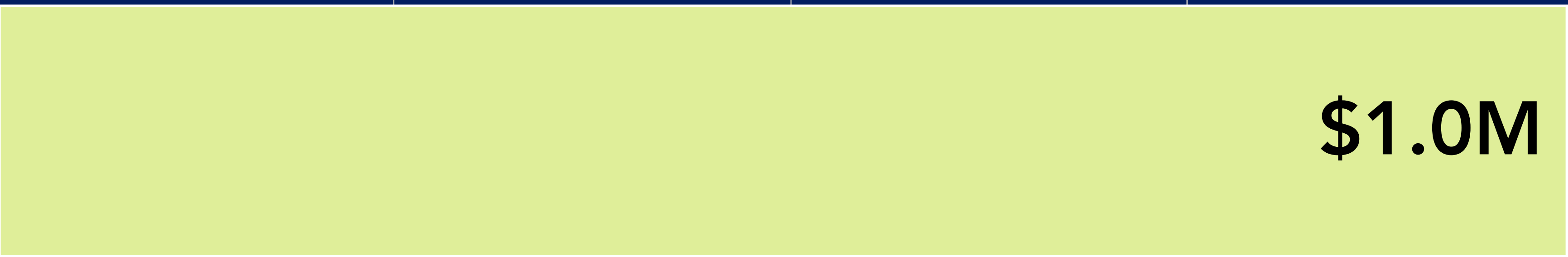
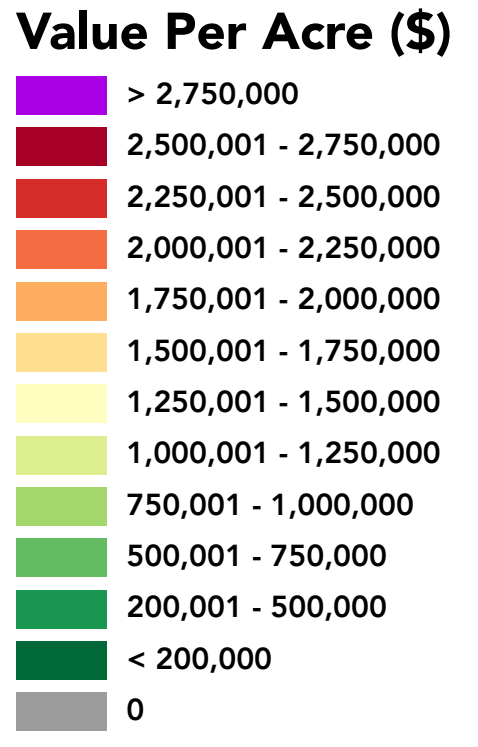
Joliet, IL



Walmart Average
\$0.2M per acre

Comparison of Average Value Per Acre for Residential Properties

Joliet, IL



Walmart Average
\$0.2M per acre

Land Use Type:

Commercial

Value Per Acre: Big Box Commercial

Joliet, IL



Walmart Average
\$0.2M per acre

Value Per Acre: Mall

Joliet, IL



Walmart Average
\$0.2M per acre



Value Per Acre: Commercial Centers

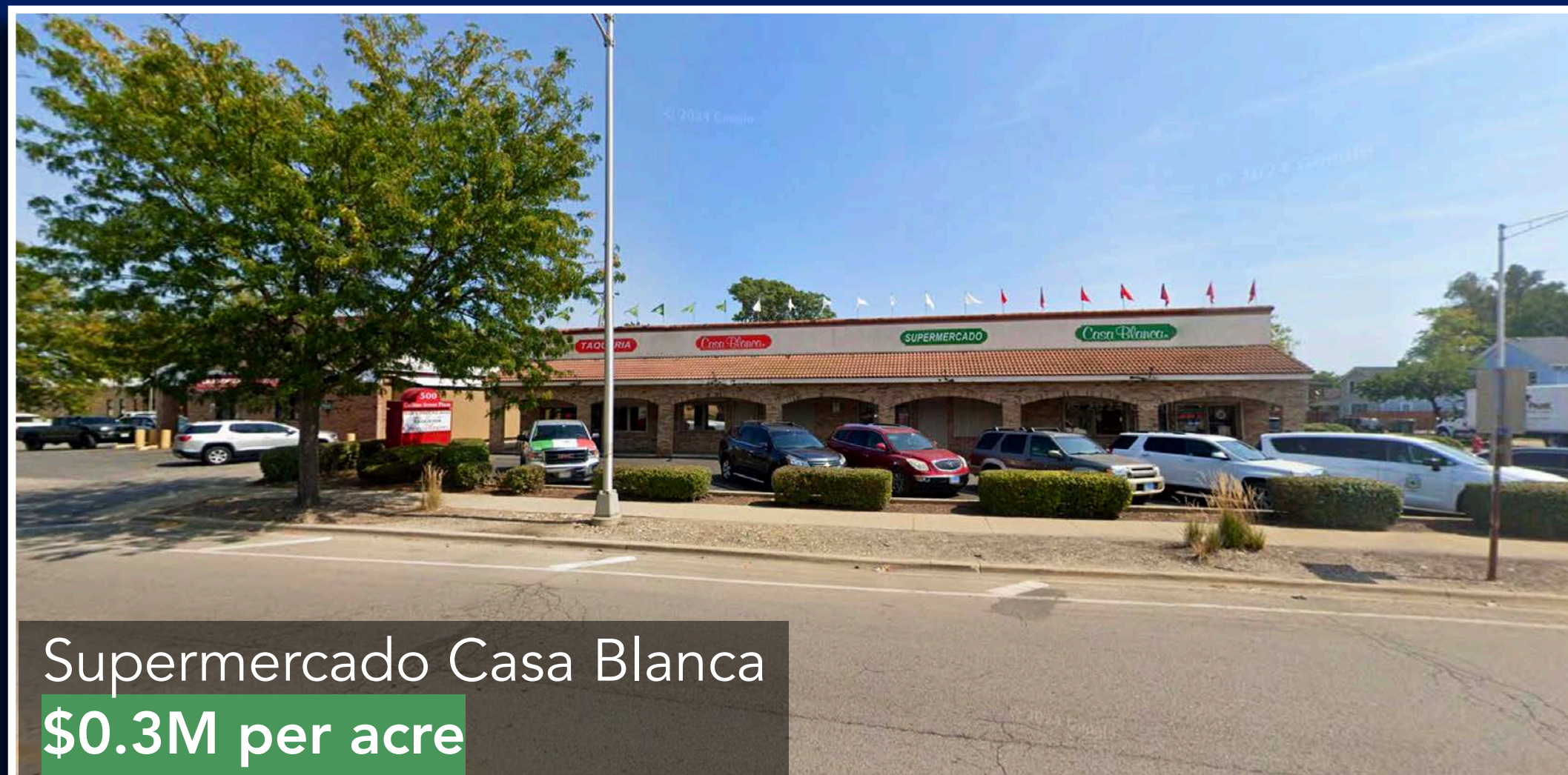
Joliet, IL



Walmart Average
\$0.2M per acre

Value Per Acre: Small-Scale Commercial

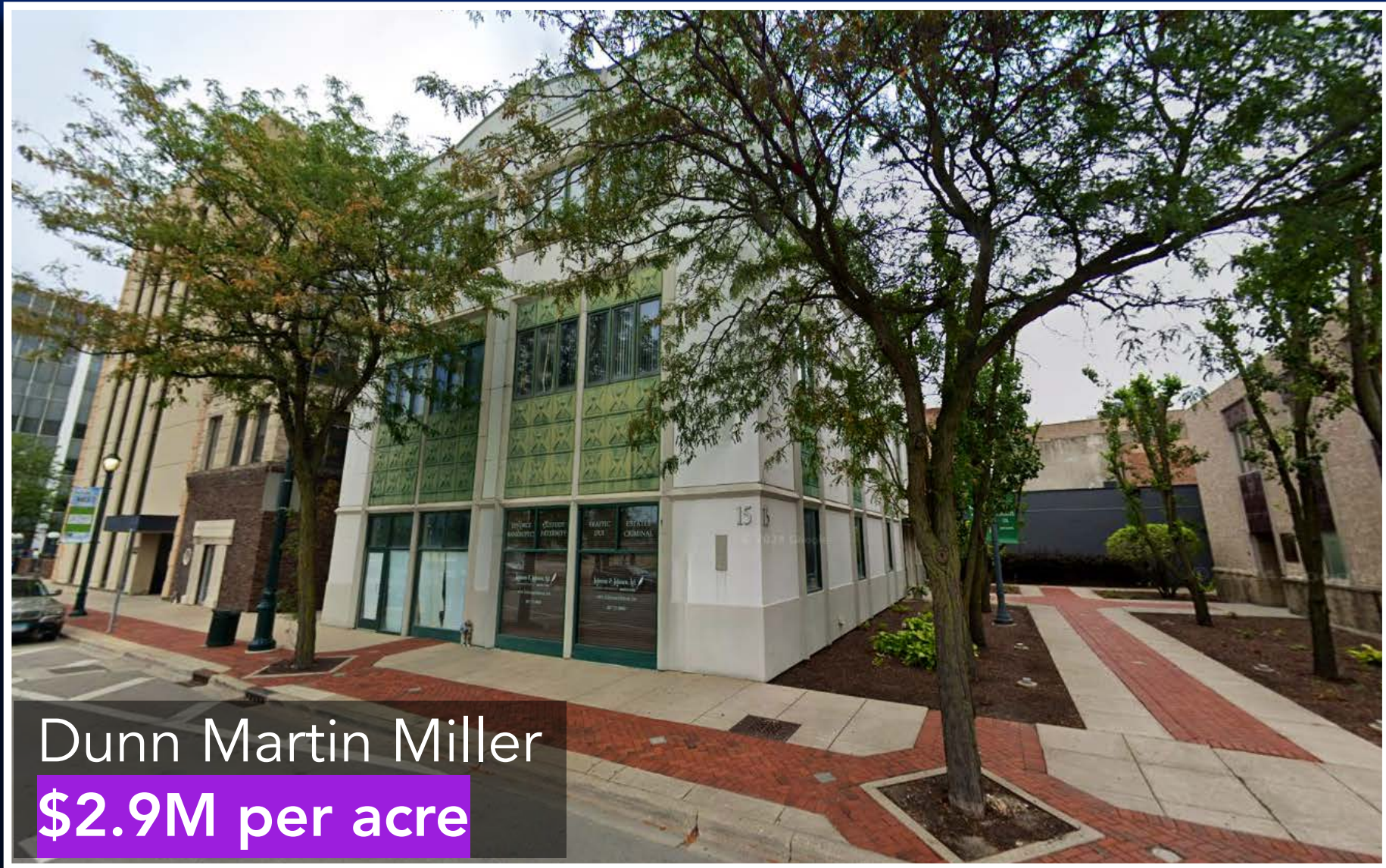
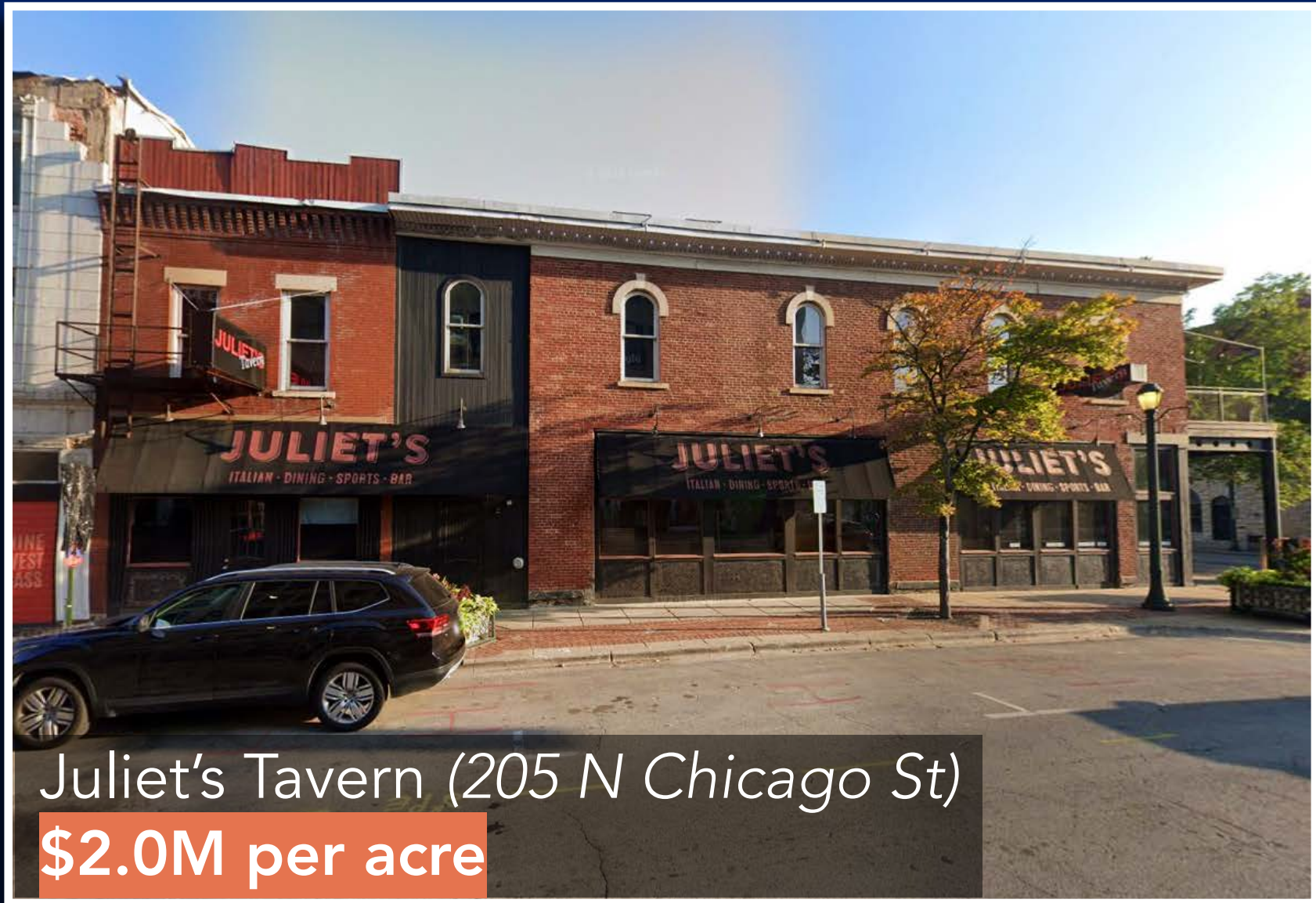
Joliet, IL



Walmart Average
\$0.2M per acre

Value Per Acre: Downtown Commercial

Joliet, IL

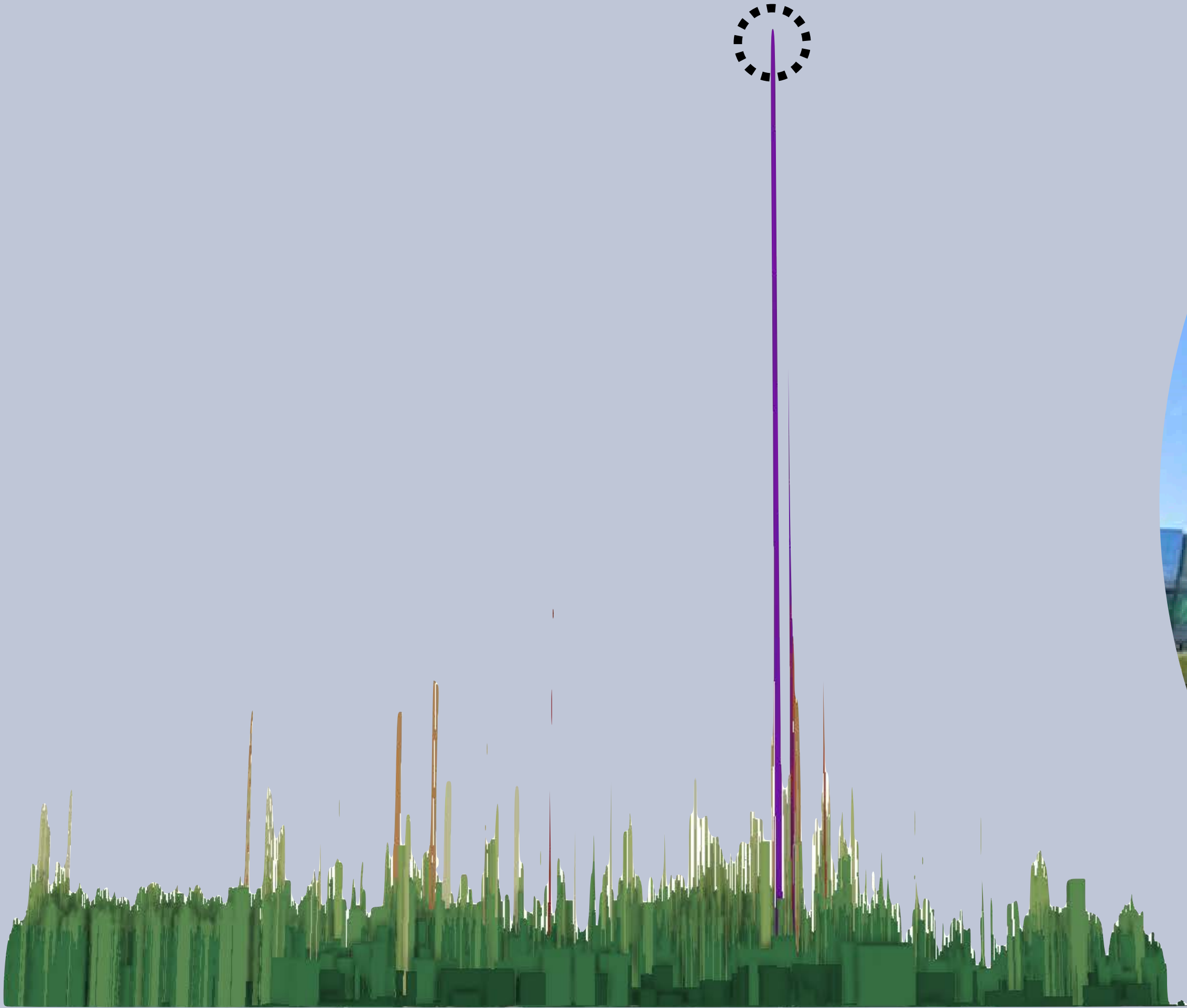


Walmart Average
\$0.2M per acre

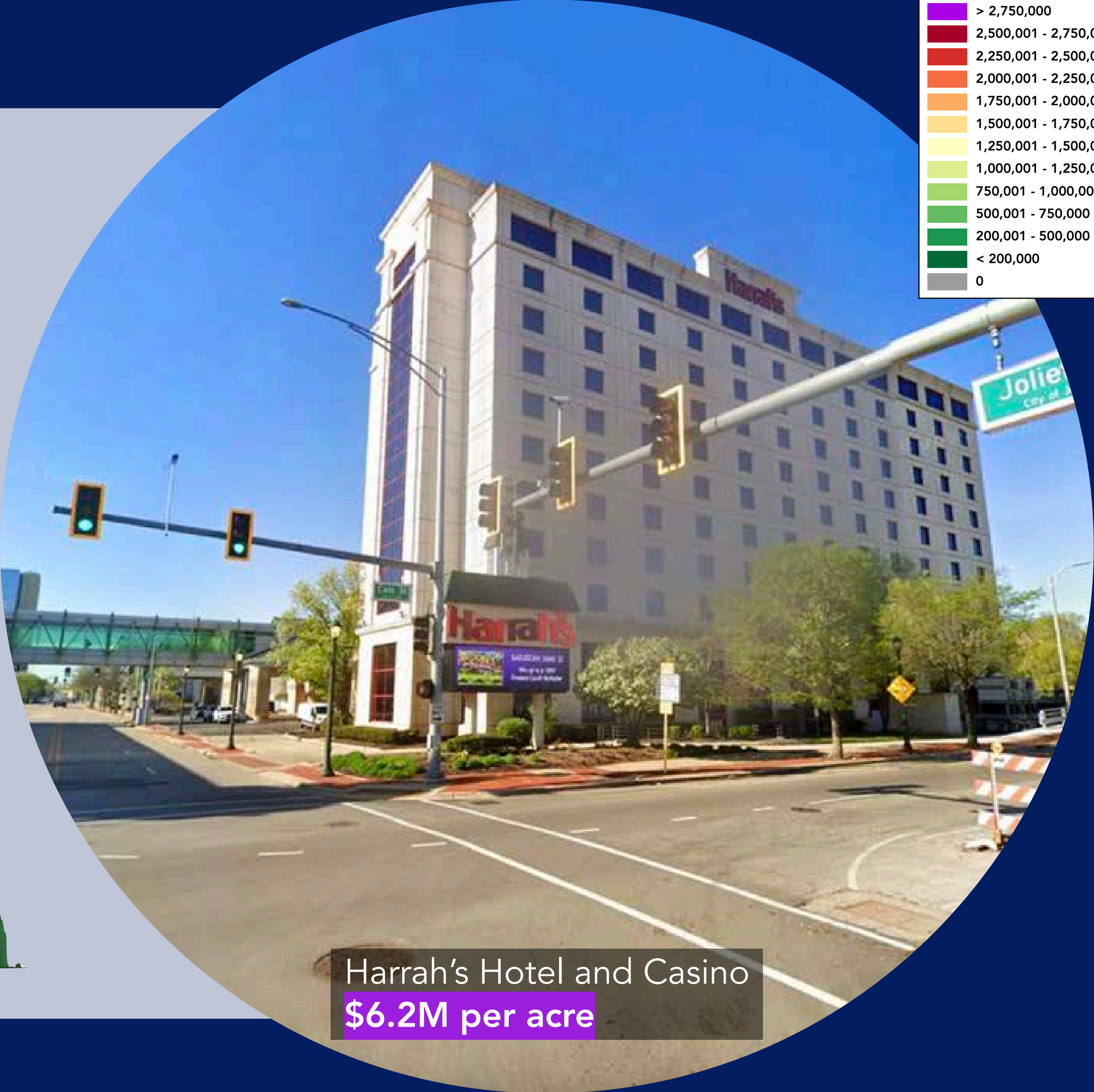
Value Per Acre: Peak Parcel

Joliet, IL

Value Per Acre (\$)	
	> 2,750,000
	2,500,001 - 2,750,000
	2,250,001 - 2,500,000
	2,000,001 - 2,250,000
	1,750,001 - 2,000,000
	1,500,001 - 1,750,000
	1,250,001 - 1,500,000
	1,000,001 - 1,250,000
	750,001 - 1,000,000
	500,001 - 750,000
	200,001 - 500,000
	< 200,000
	0



Joliet looking North

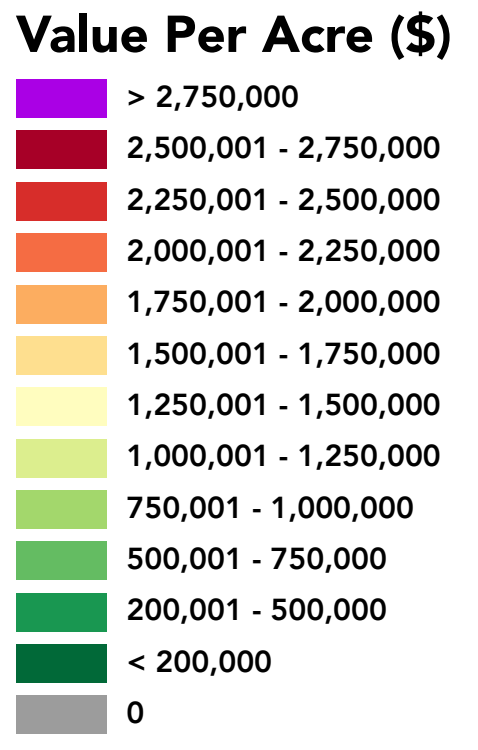


Harrah's Hotel and Casino
\$6.2M per acre

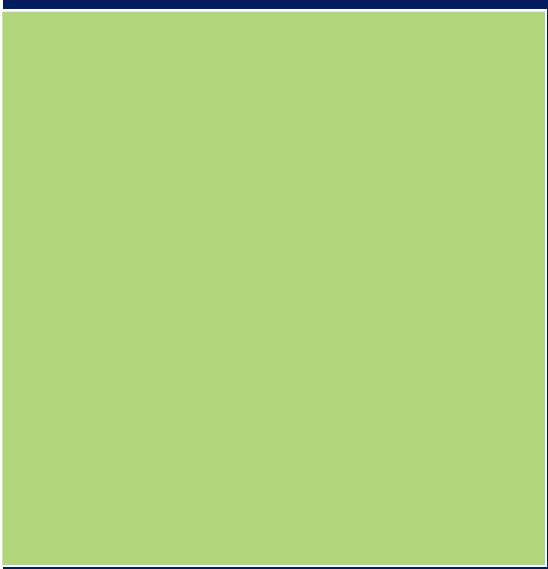
Walmart Average
\$0.2M per acre

Comparison of Average Value Per Acre for Commercial Properties

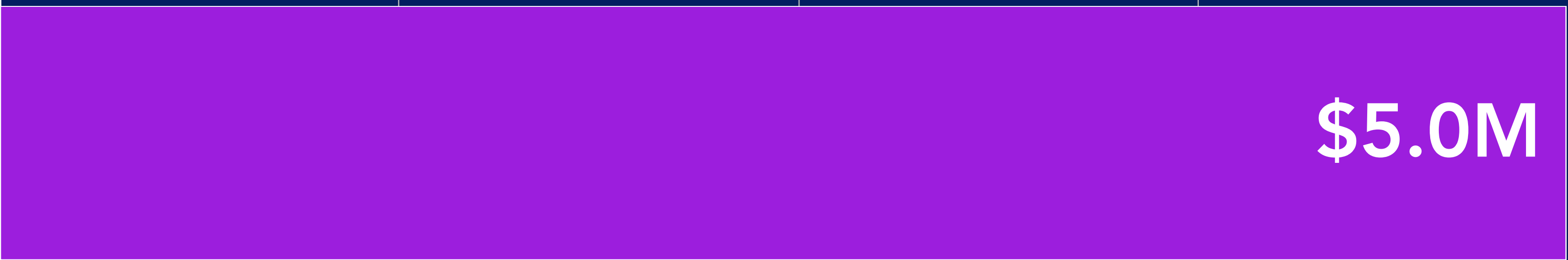
Joliet, IL



\$0.2M



\$0.8M



\$5.0M

Walmart Average
\$0.2M per acre

Land Use Type:

Industrial

Value Per Acre: Lower Intensity Industrial

Joliet, IL

Retail Packaging Outlet
\$0.3M per acre

Recycled Rubber Mulch Products
\$0.1M per acre

DES PLAINES RIVER

Dekalb St

S Des Plaines St

Allen St

Walmart Average
\$0.2M per acre





Value Per Acre: Medium Intensity Industrial

Joliet, IL

Vista Woodworking
\$0.1M per acre

Advantage Components Inc
\$0.7M per acre

Sunbelt Rentals Industrial Services
\$0.2M per acre

LeafFilter Gutter Protection
\$0.4M per acre

Brock Industrial Services
\$0.3M per acre

Epoxy Depot Chicago
\$0.3M per acre

Walmart Average
\$0.2M per acre

Value Per Acre: Higher Intensity Industrial

Joliet, IL

Unis Fulfilment
\$0.1M per acre

Centerpoint Way

Home Depot
Distribution Center
\$0.2M per acre

Eagle Foods/
Saddle Creek
\$0.2M per acre

Amazon Warehouse
\$0.2M per acre

Walmart Fulfilment Center
\$0.2M per acre

Harbor Freight Tools
Distribution Center
\$0.2M per acre

Walmart Average
\$0.2M per acre



Value Per Acre: Higher Intensity Industrial

Joliet, IL



IKEA Distribution Center
\$0.2M per acre

SRC Logistics
\$0.2M per acre

Ace Hardware Warehouse,
DHL Supply Chain
\$0.2M per acre

W Laraway Rd

Chicagoland Speedway



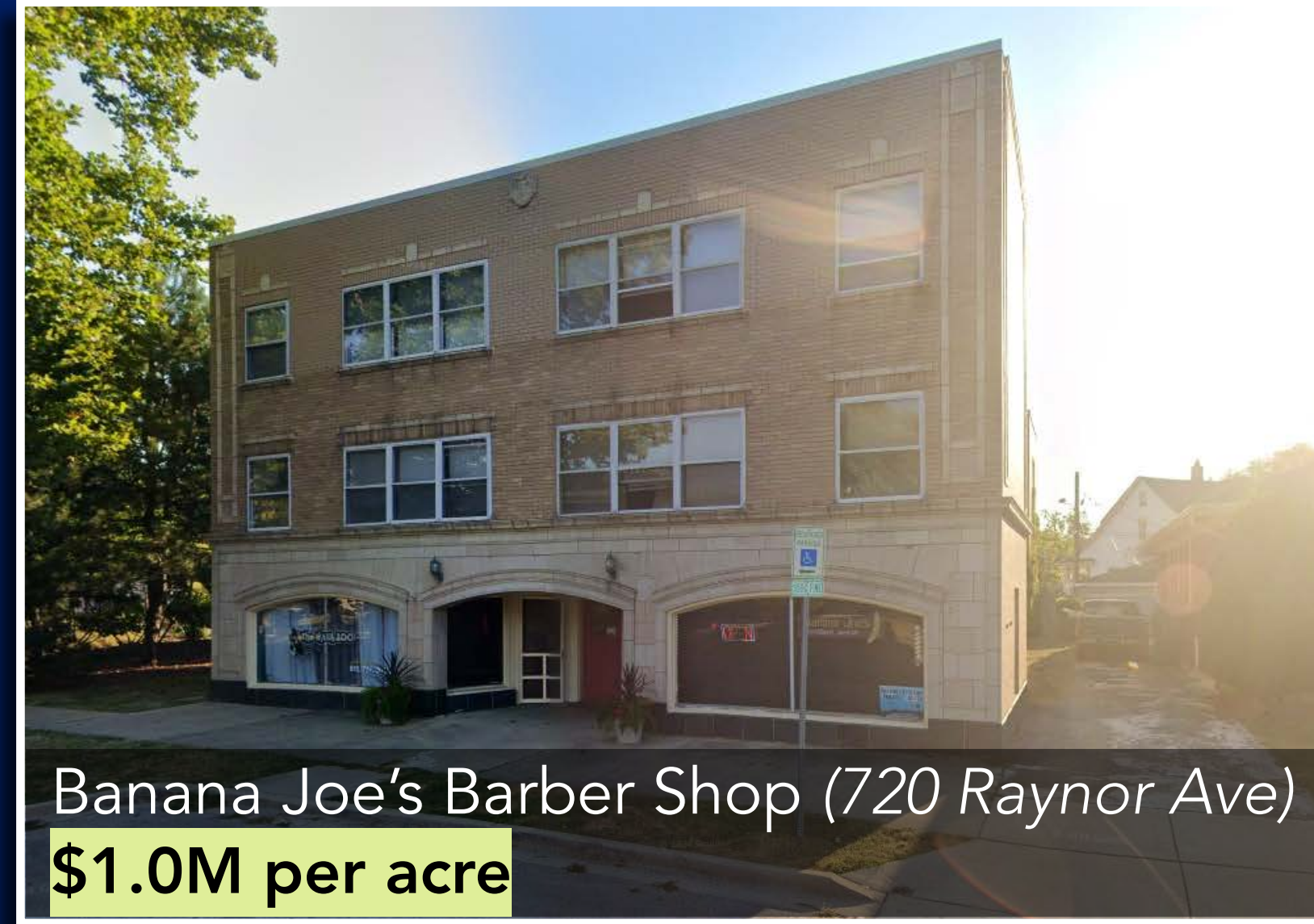
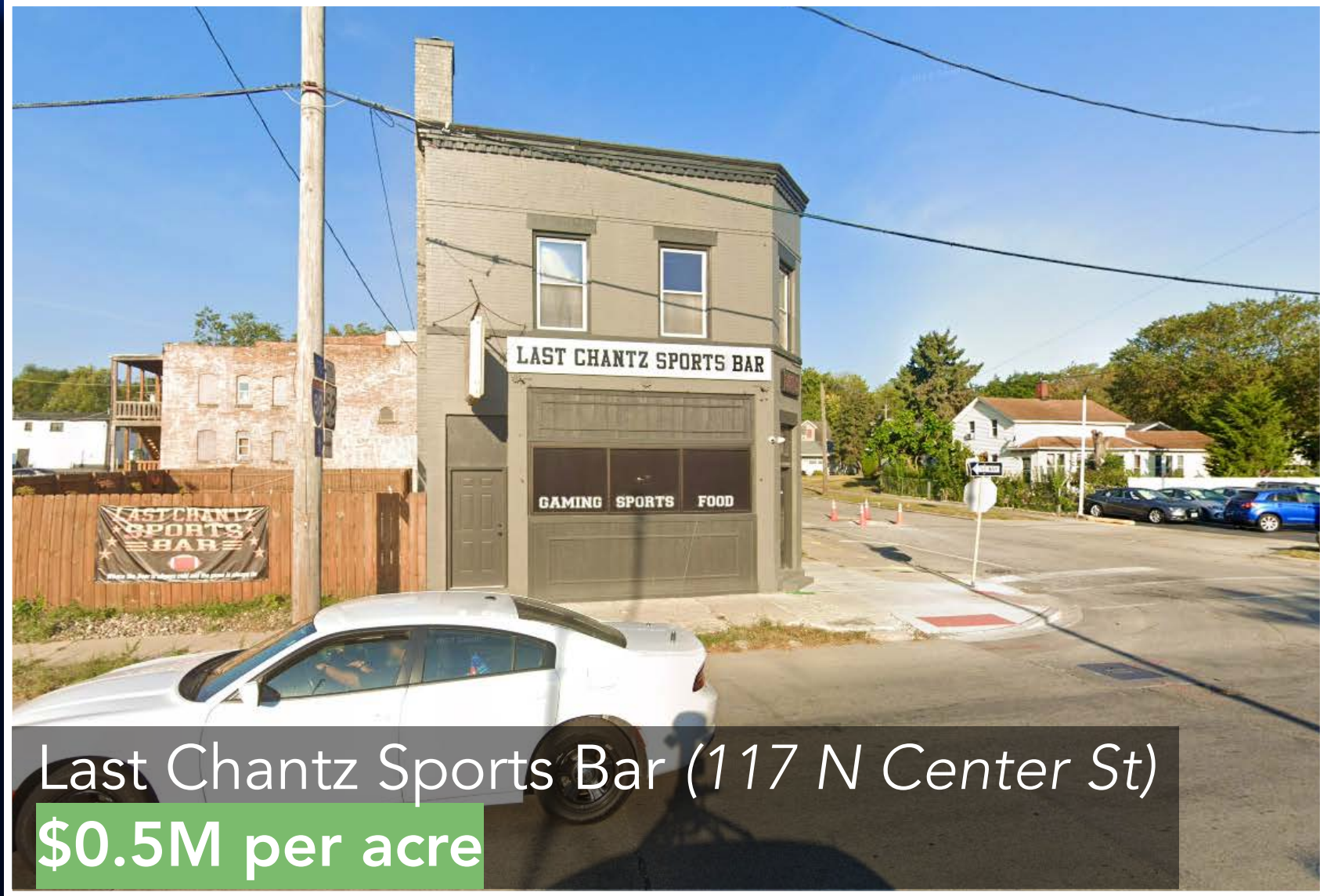
Walmart Average
\$0.2M per acre

Land Use Type:

Mixed Use

Value Per Acre: Mixed Use

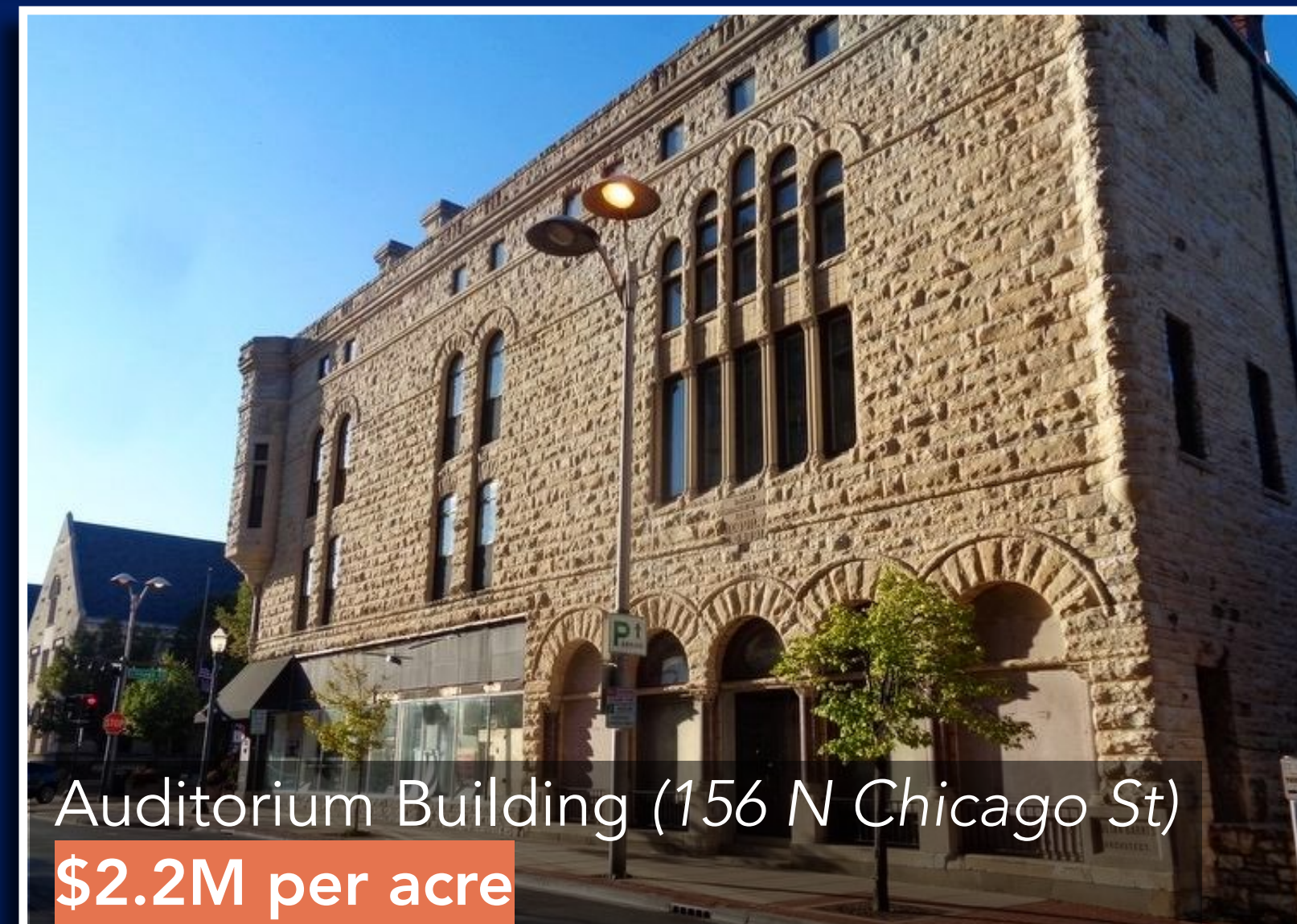
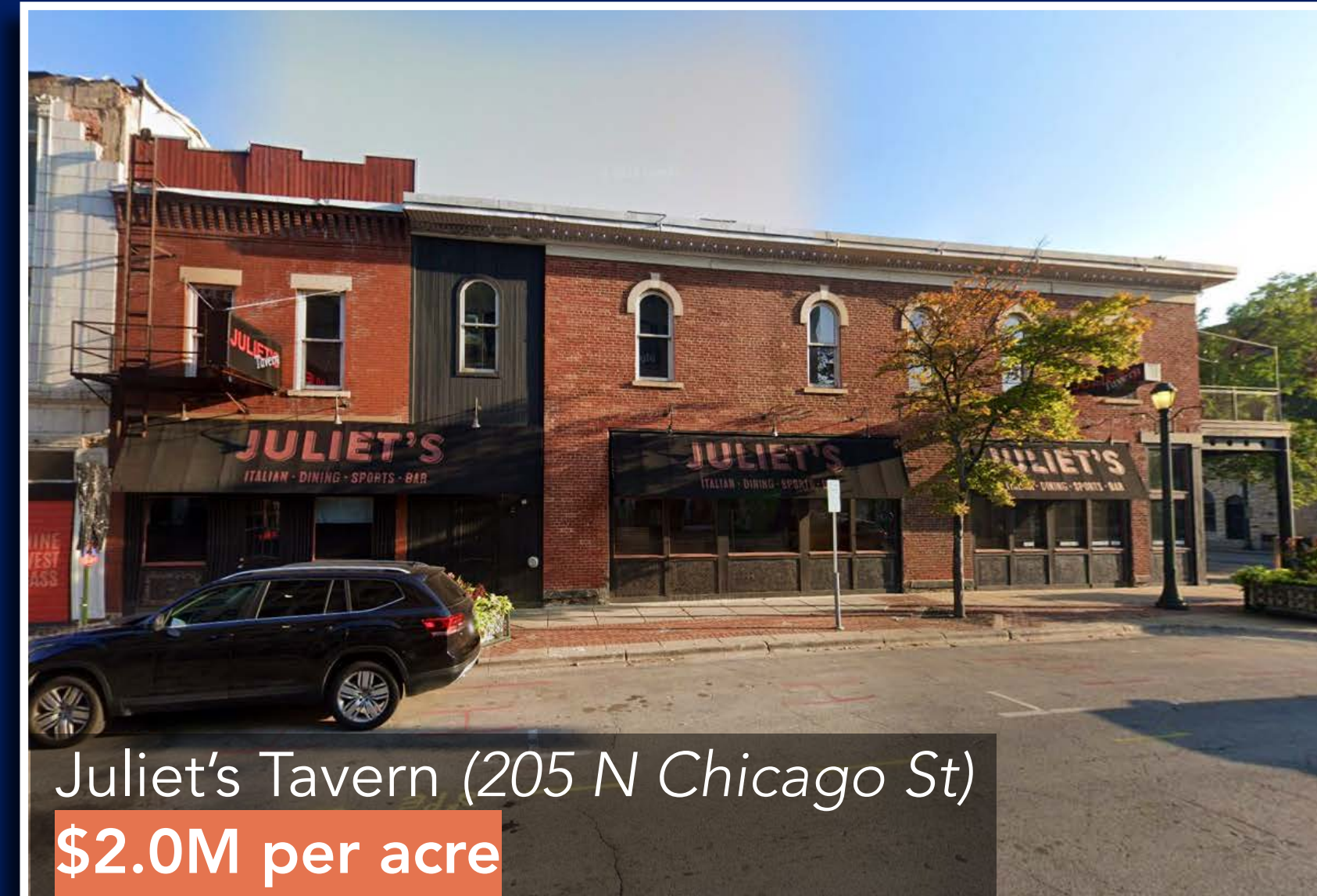
Joliet, IL



Walmart Average
\$0.2M per acre

Value Per Acre: Mixed Use

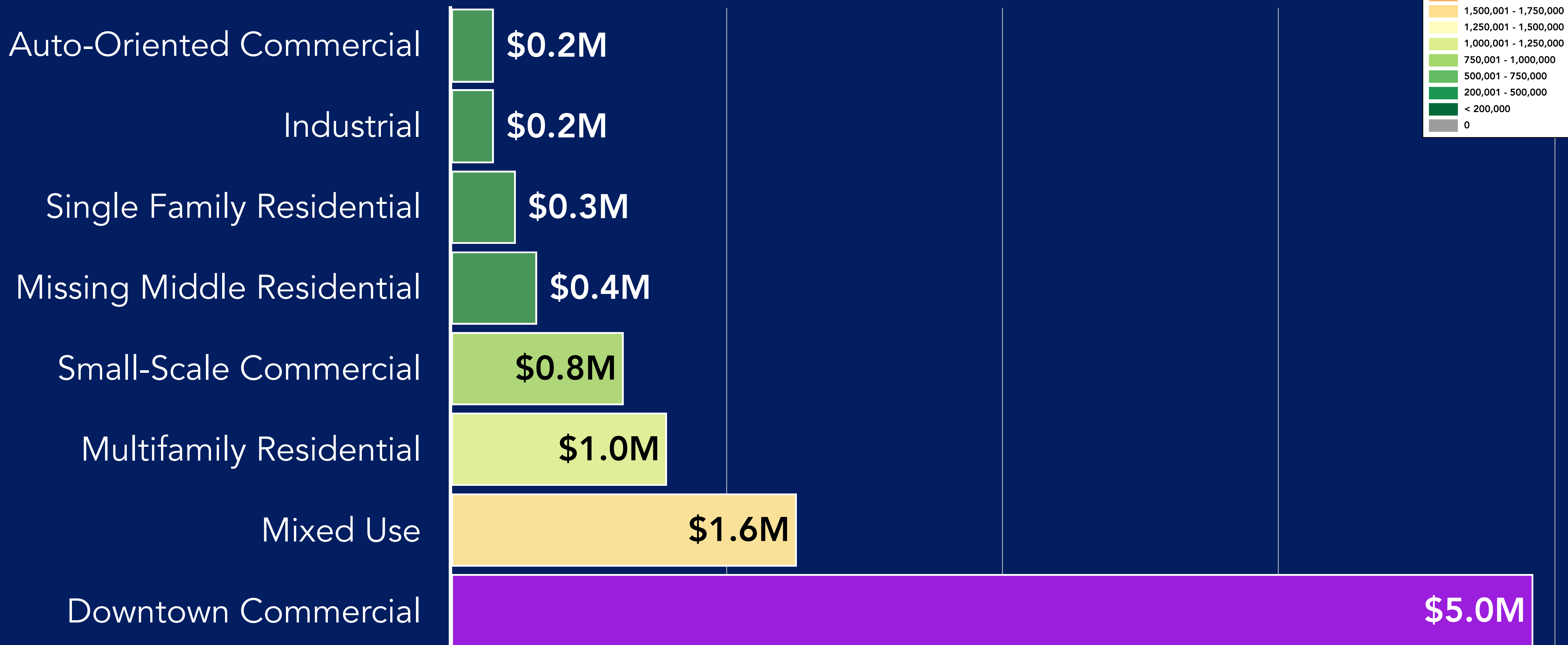
Joliet, IL



Walmart Average
\$0.2M per acre

Comparison of Average Value Per Acre for All Types of Properties

Joliet, IL



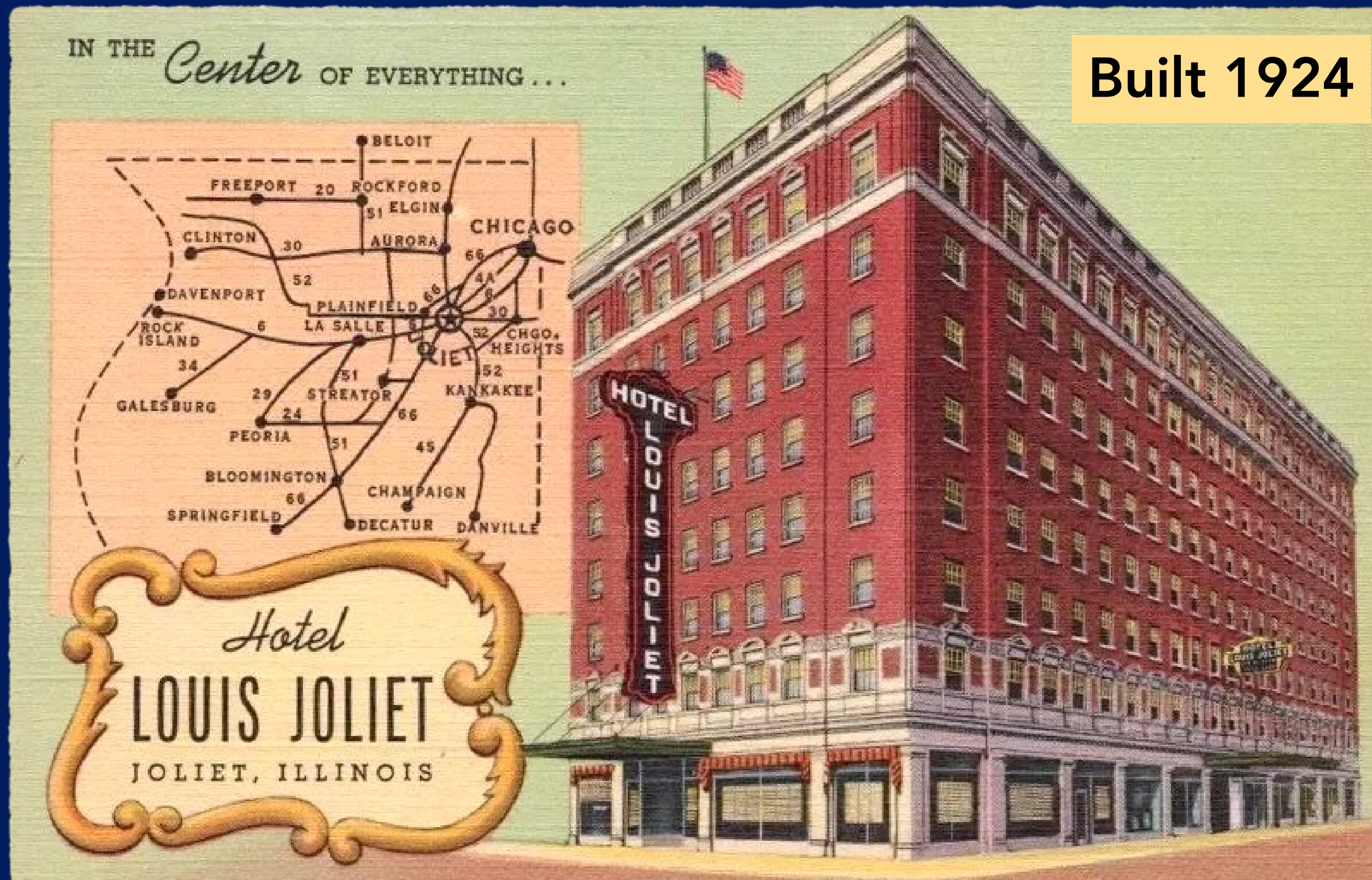
Walmart Average
\$0.2M per acre

A Closer Look:

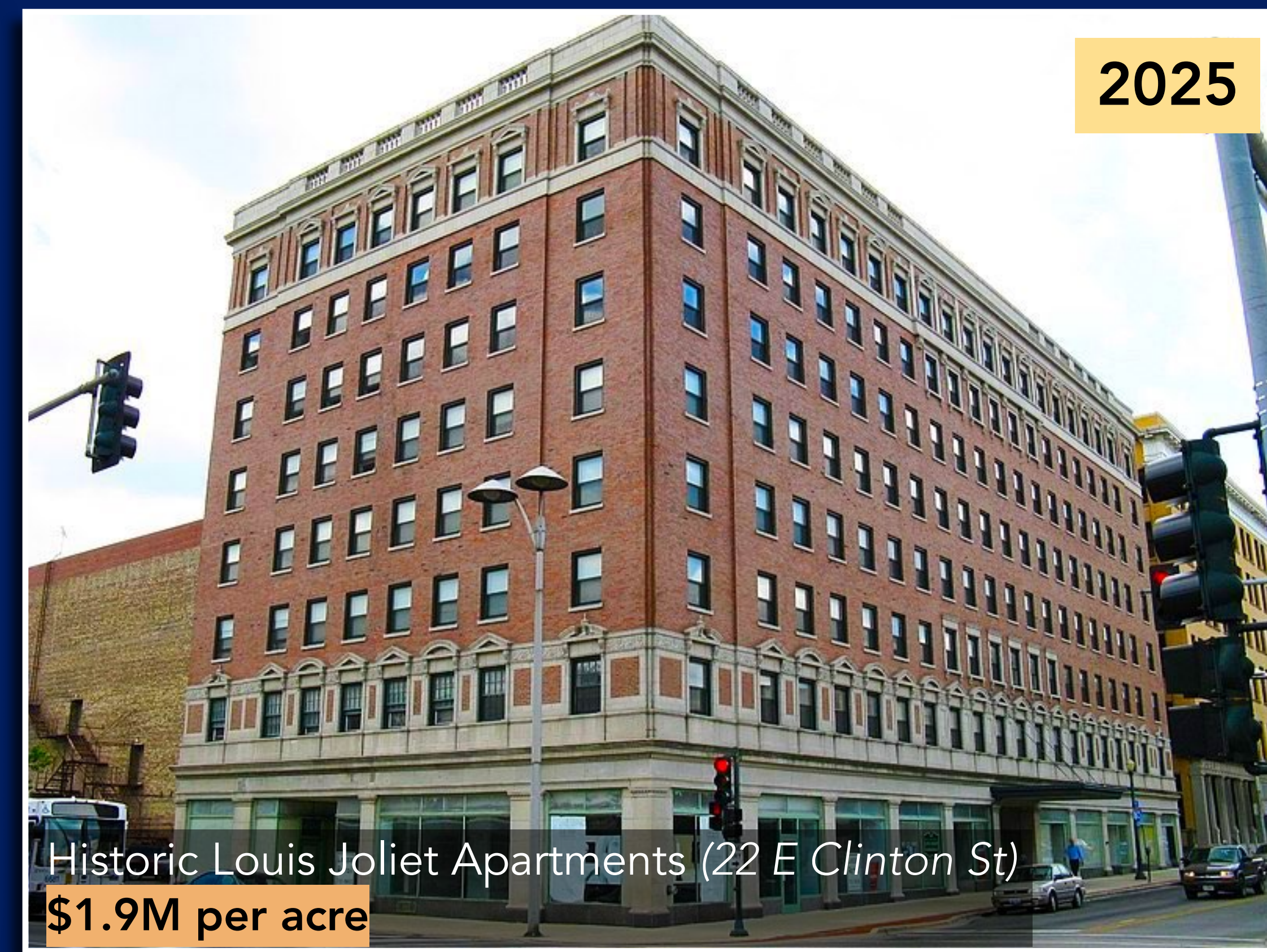
A Lasting Value

Value Per Acre: Historic Buildings

Joliet, IL



Built 1924



2025

Walmart Average
\$0.2M per acre

Value Per Acre: Historic Buildings

Joliet, IL

Opened
1926



2025



Rialto Square Theater (102 N Chicago St)
\$1.8M per acre

Walmart Average
\$0.2M per acre

Value Per Acre: Historic Buildings

Joliet, IL



Built 1891

Auditorium Building
\$2.2M per acre



Built 1910

Woodruff-Morris Building
\$1.6M per acre



Built 1919

Bays Professional Center
\$4.1M per acre

Walmart Average
\$0.2M per acre

A Closer Look:

Scale & Use Comparison

Total Value: Scale & Use Comparison

Joliet, IL



Bays Professional Center



Walmart (W Jefferson St)

Same total value —
different footprint!



\$0.9M

0.2 acres



x 4.5

=

\$4.2M



21 acres

Parcels are shown to scale.

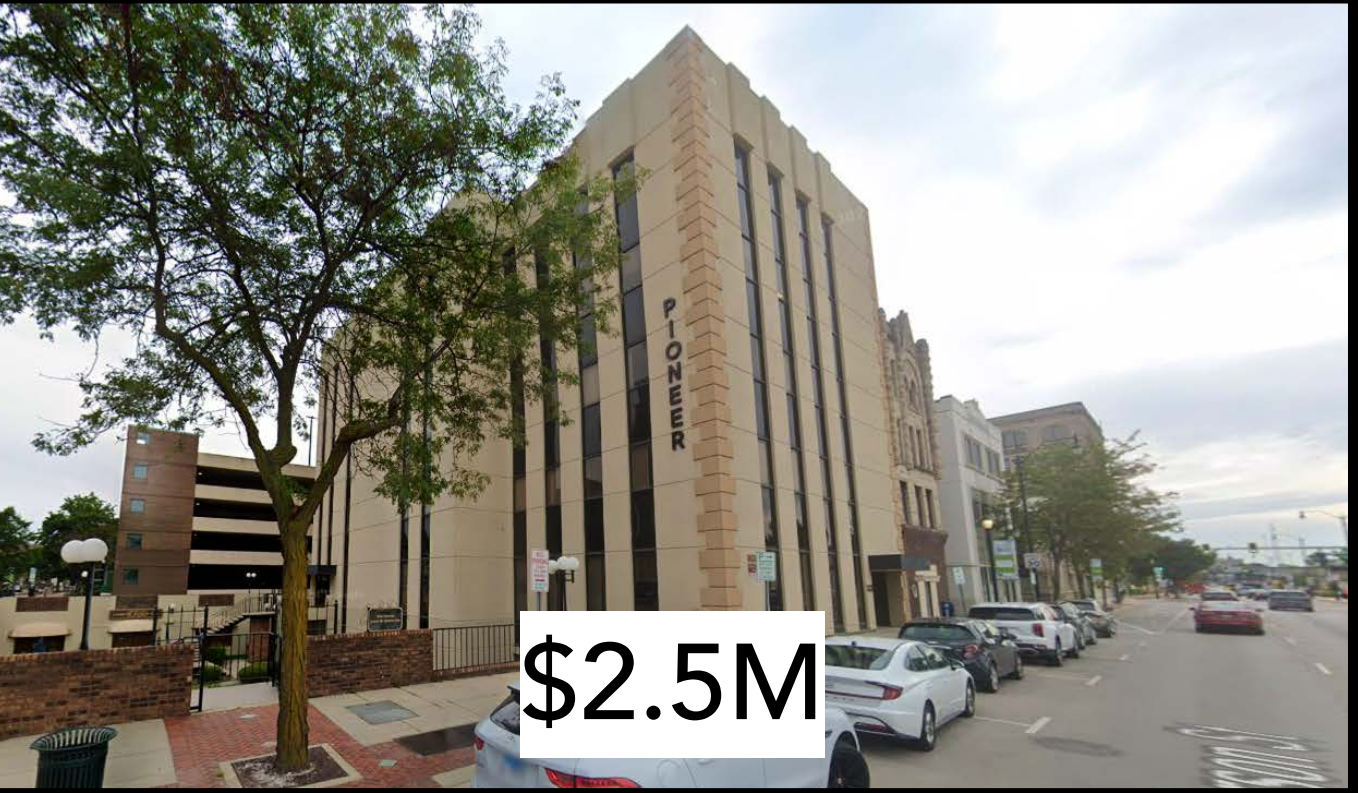
Source: Kendall & Will Counties, IL (2024), Google Maps

A Closer Look:



The Brady Bunch!

Joliet, Illinois: Value Per Acre Examples by Building Type

	LOWER DENSITY	MEDIUM DENSITY	HIGHER DENSITY
RESIDENTIAL	 \$0.2M	 \$0.7M	 \$1.9M
COMMERCIAL	 \$0.2M	 \$0.8M	 \$2.5M
MIXED USE	 \$1.6M	 \$2.0M	 \$4.1M

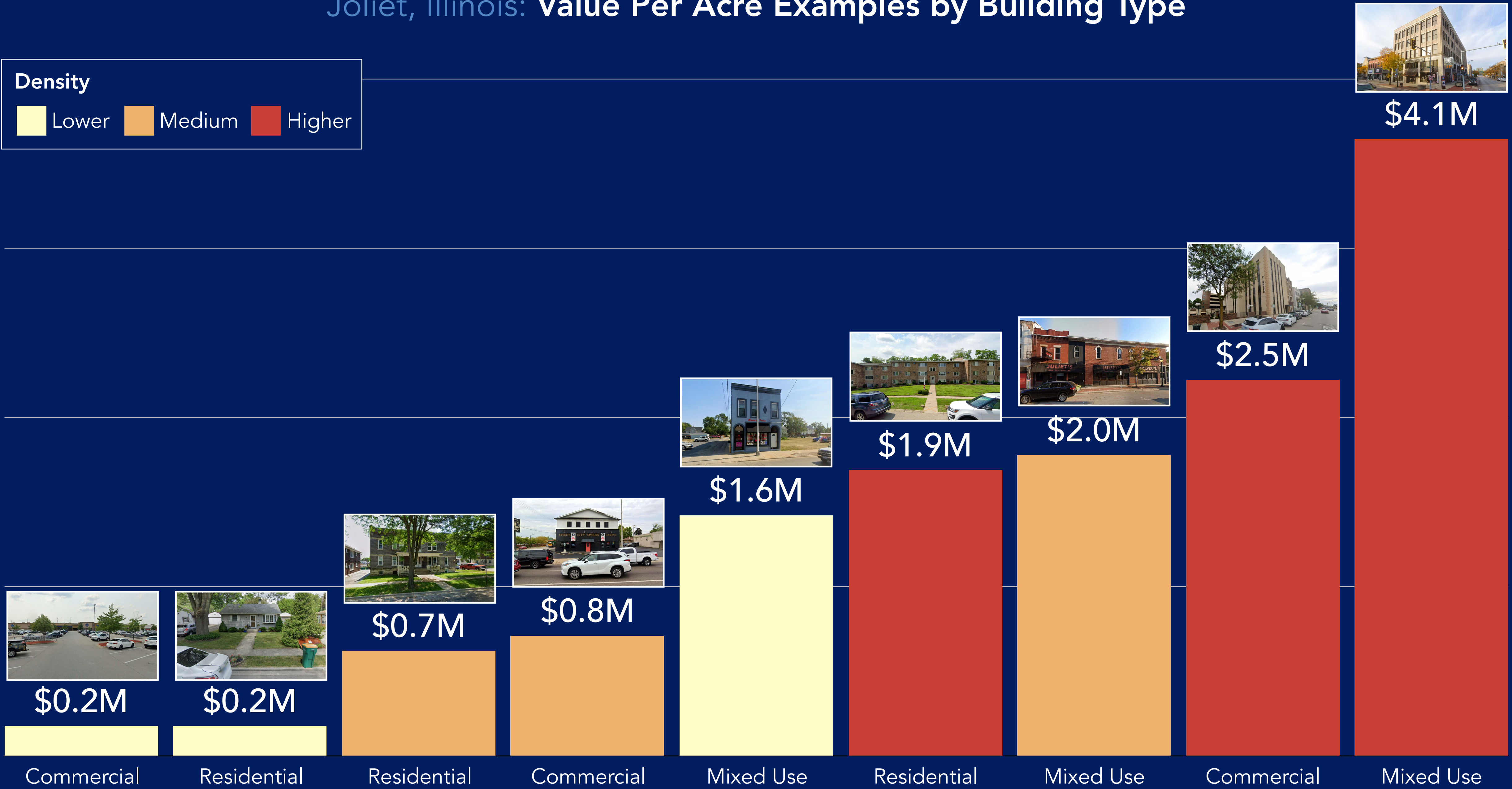
Joliet, Illinois: Value Per Acre Examples by Building Type

Density

Lower

Medium

Higher





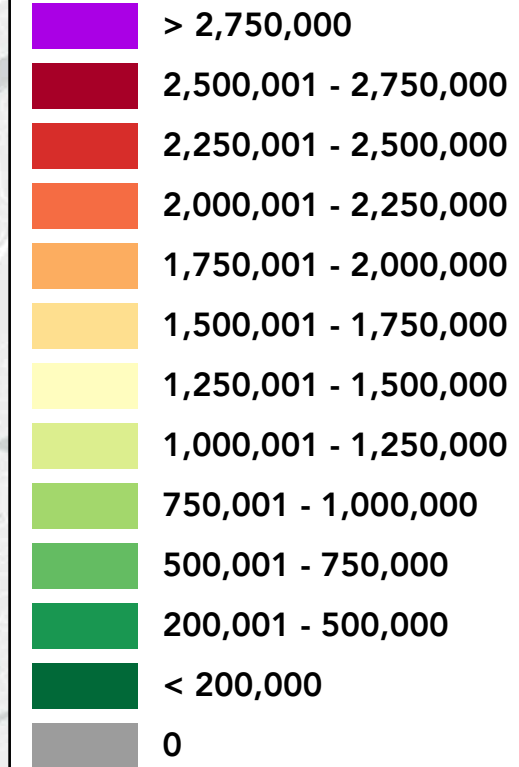
Land Uses in the Model

Reconnecting the Tax Model with On-Street Examples

Assessed Value Per Acre

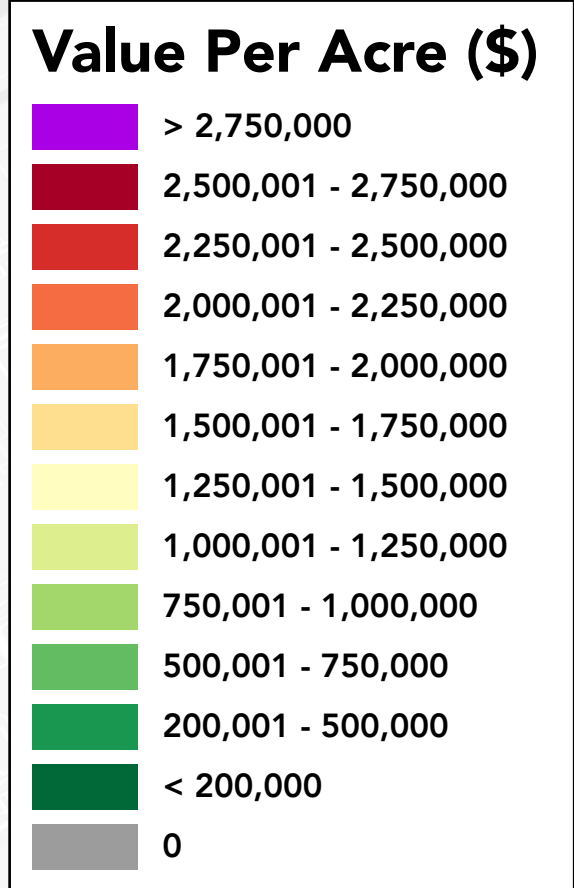
Joliet, IL

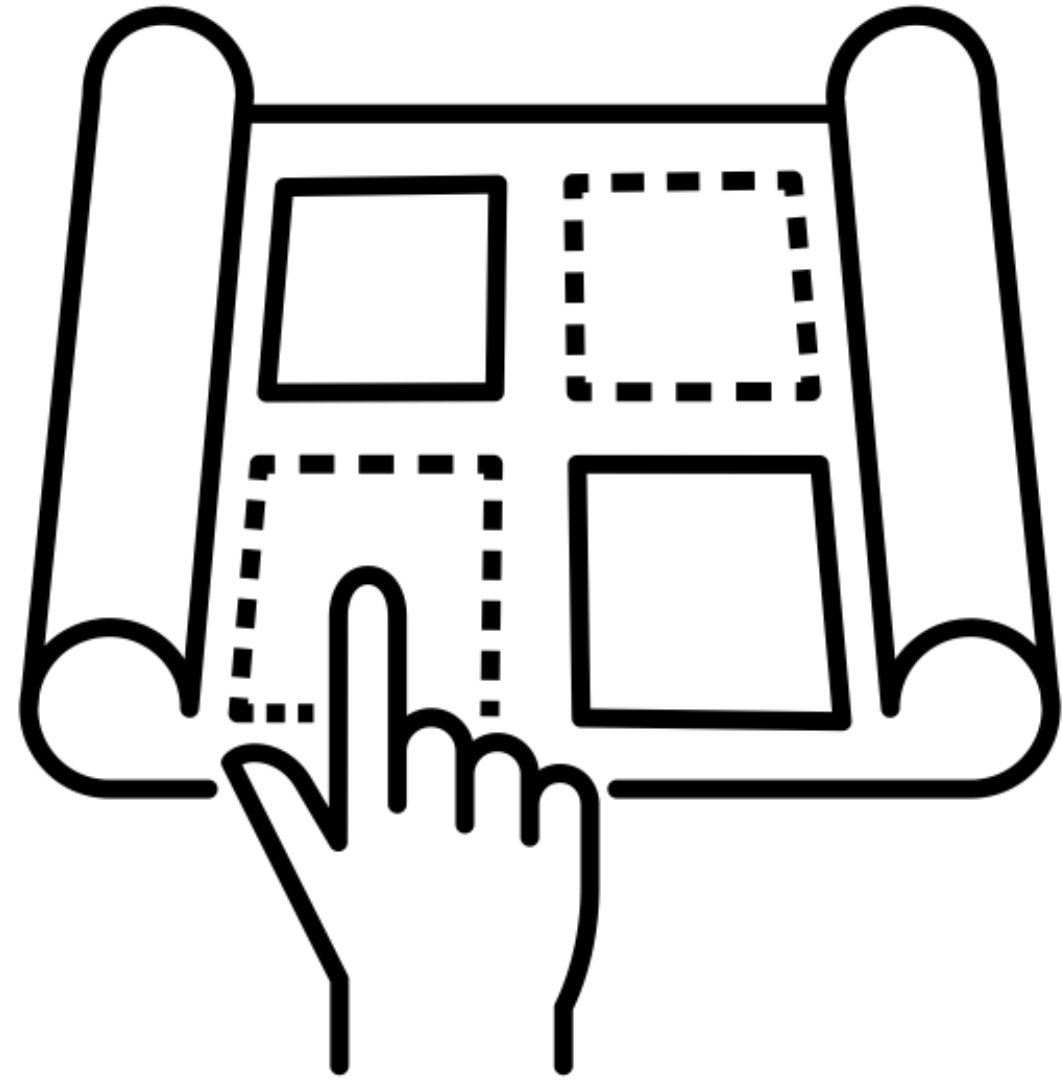
Value Per Acre (\$)



Assessed Value Per Acre

Downtown Joliet, IL

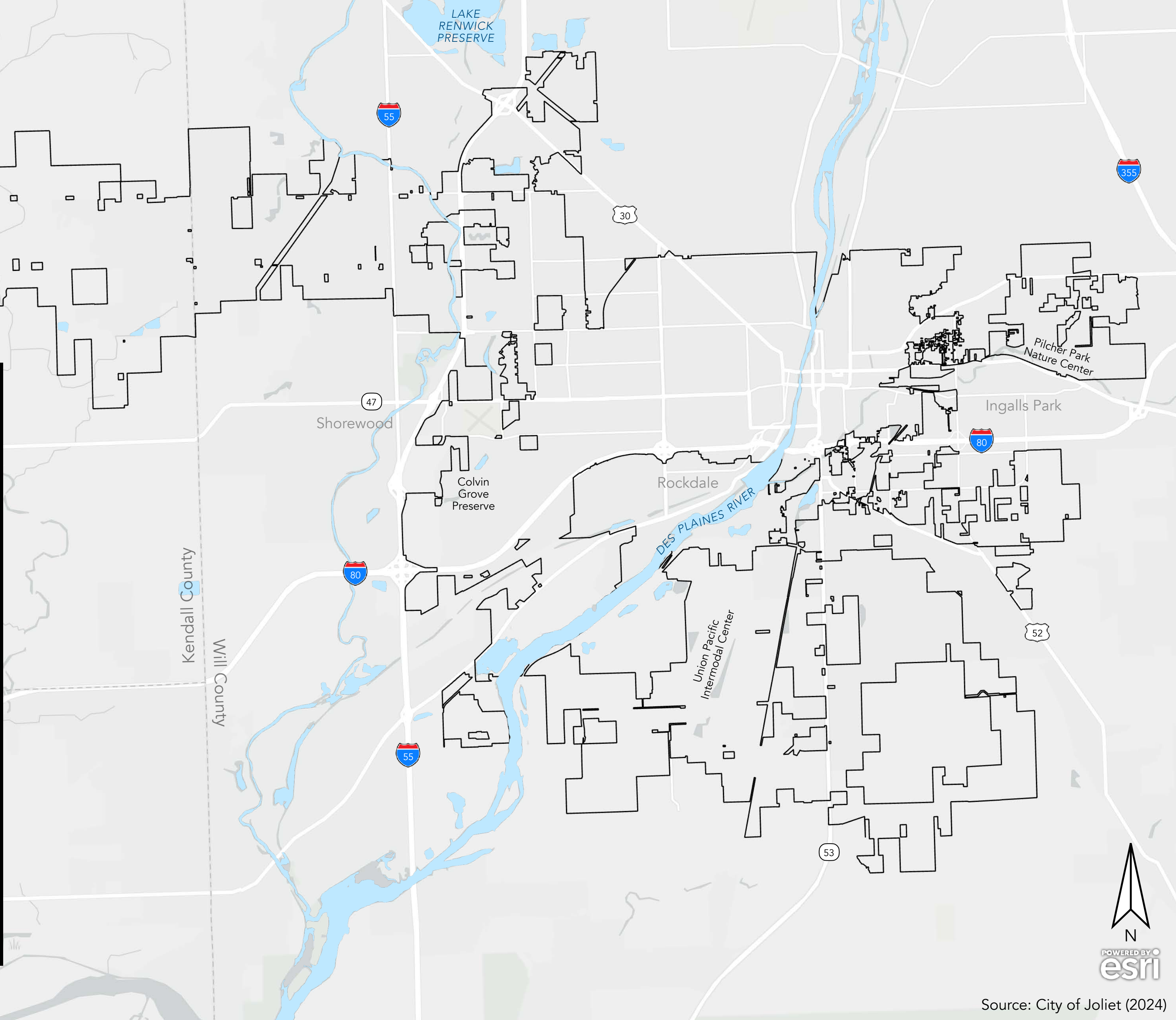
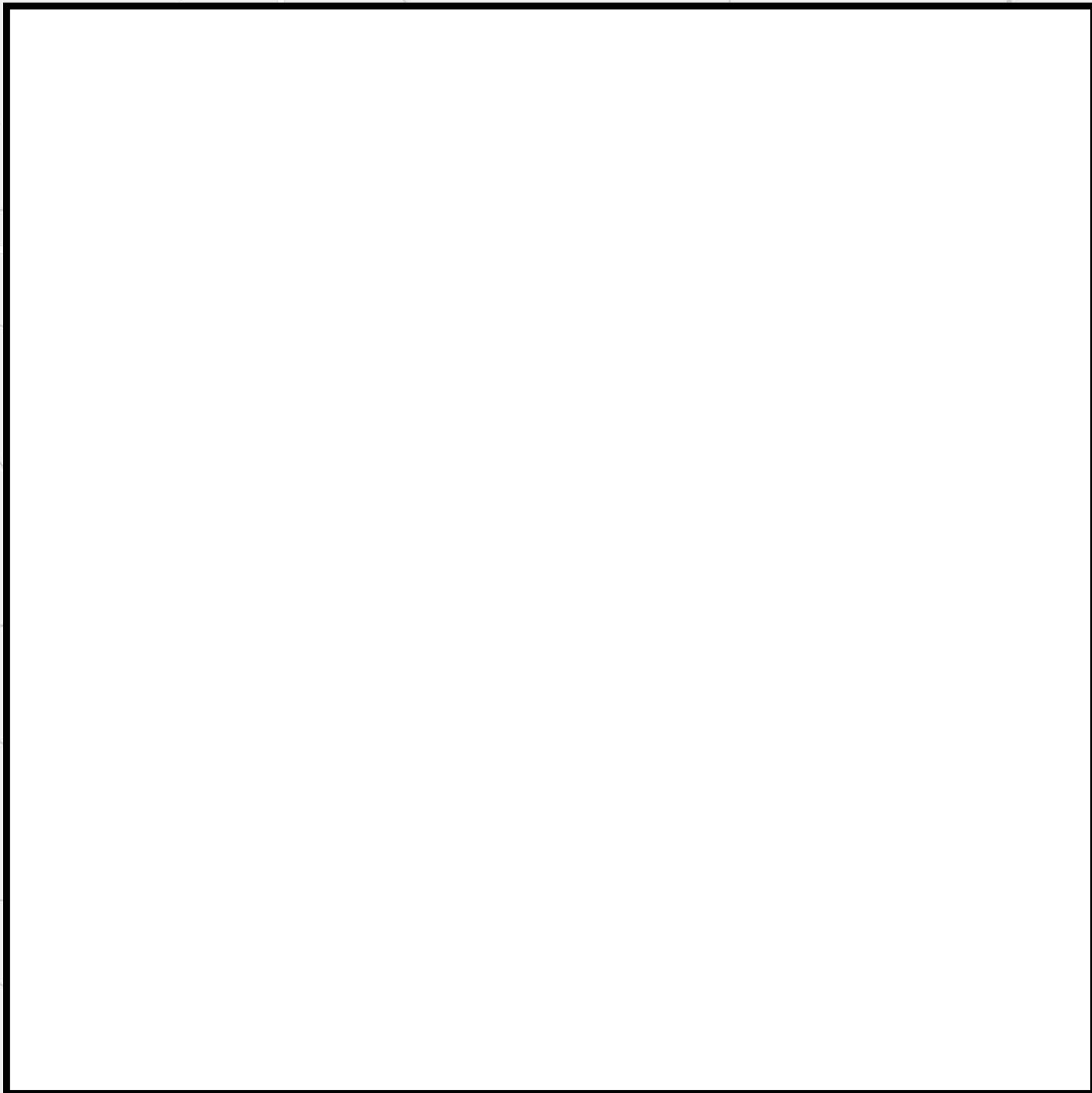




Zoning

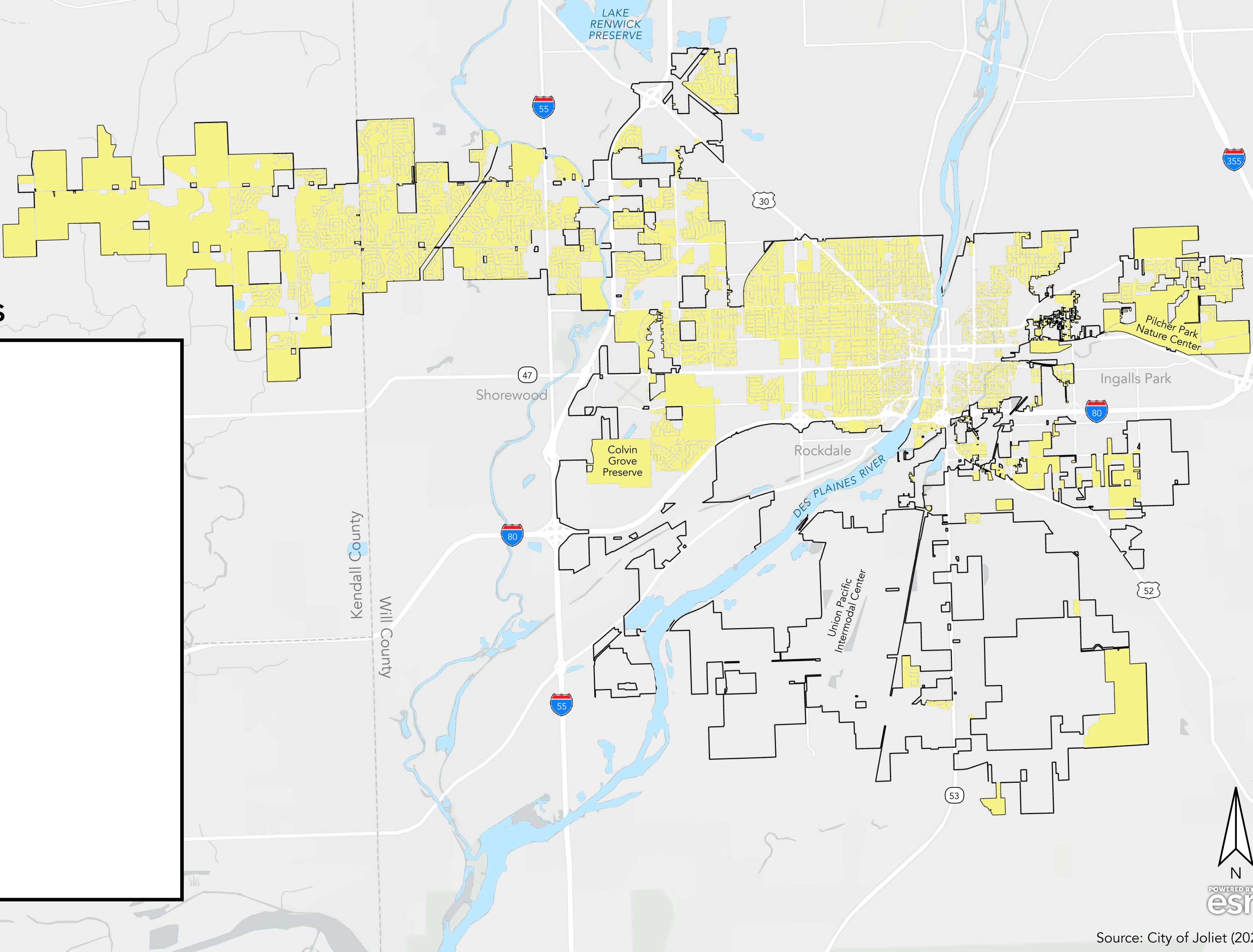
How Zoning Affects Fiscal Productivity

38,000 Acres



38,000 Acres

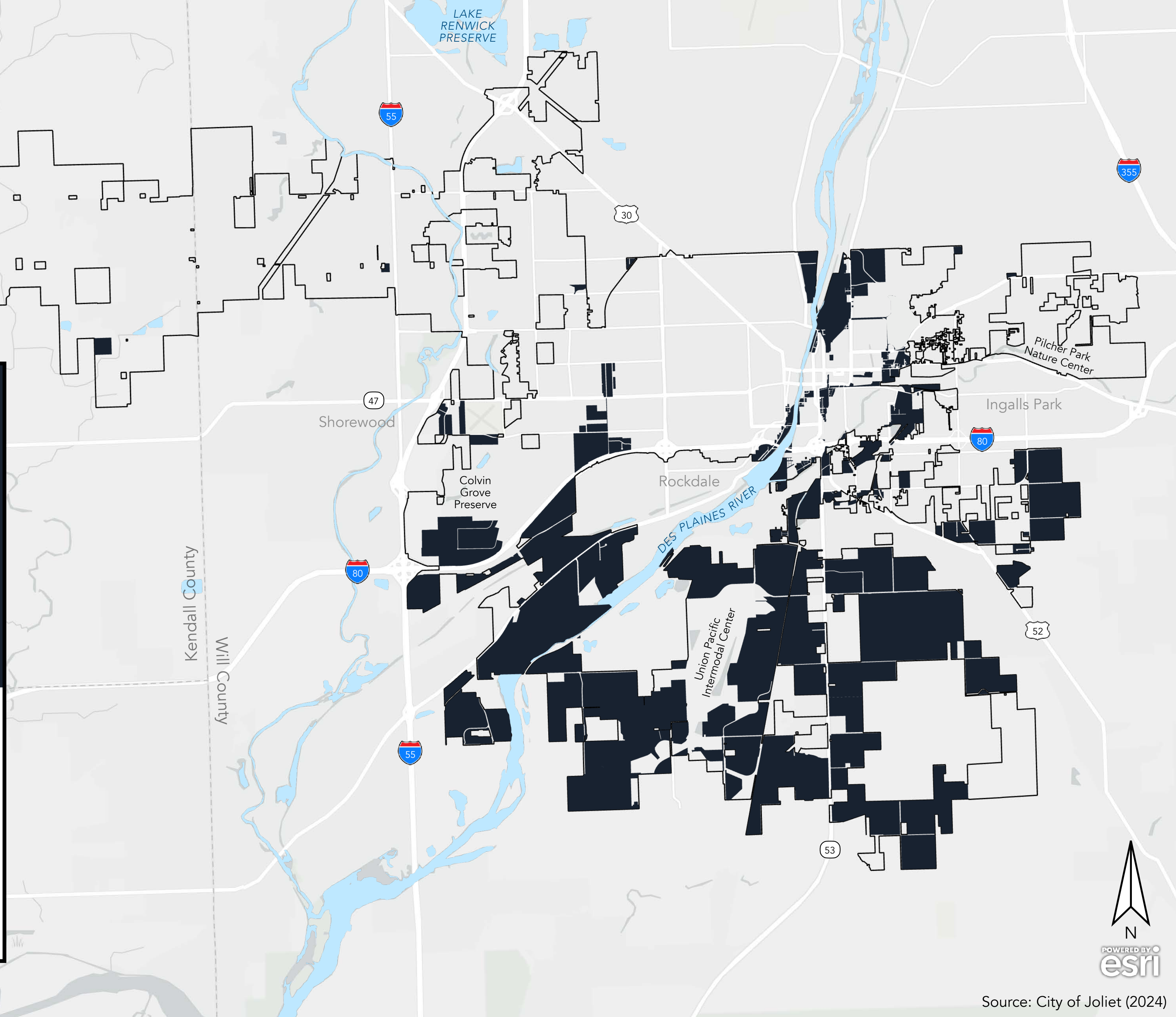
Single Family
17,600 (46%)



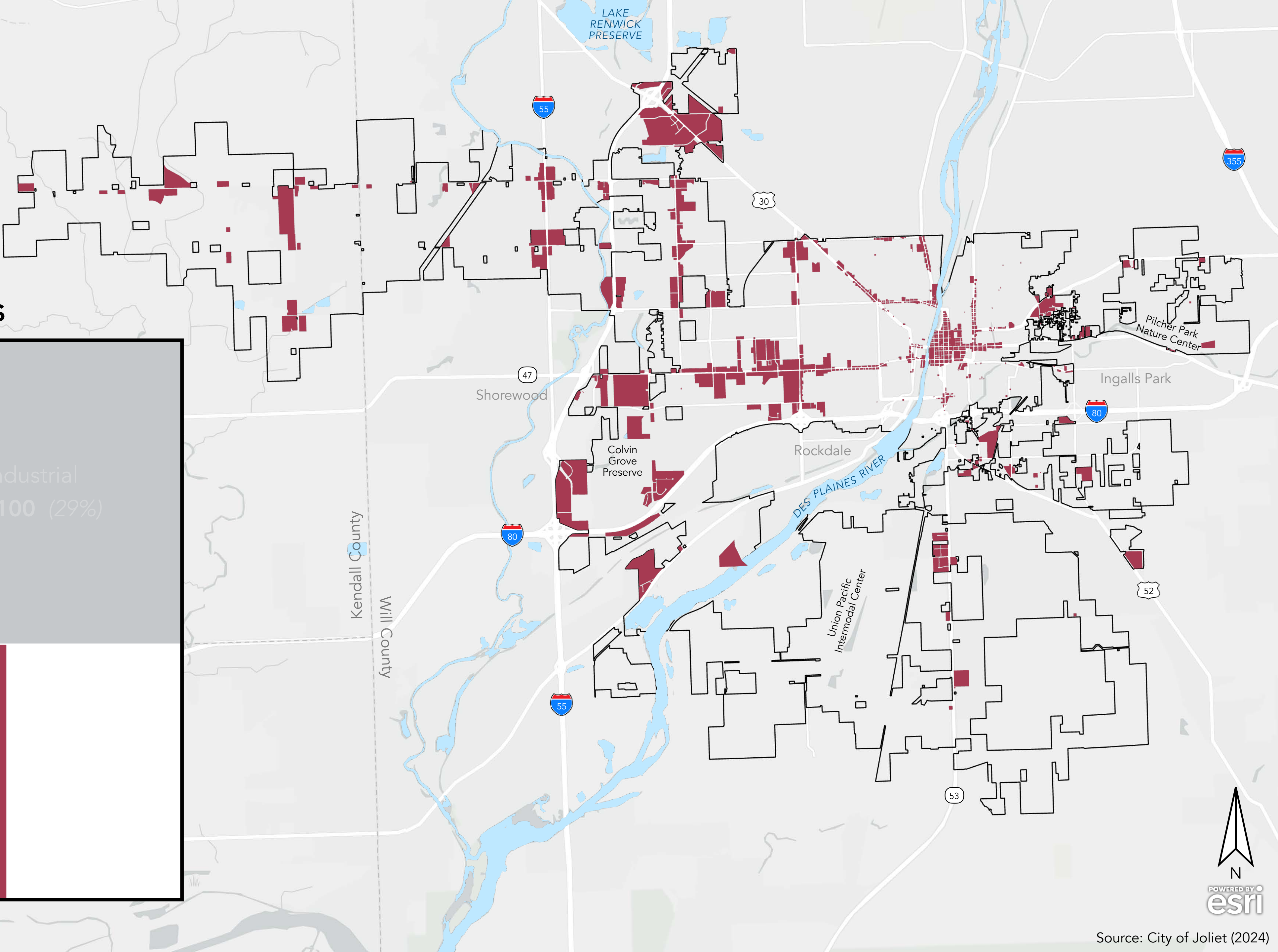
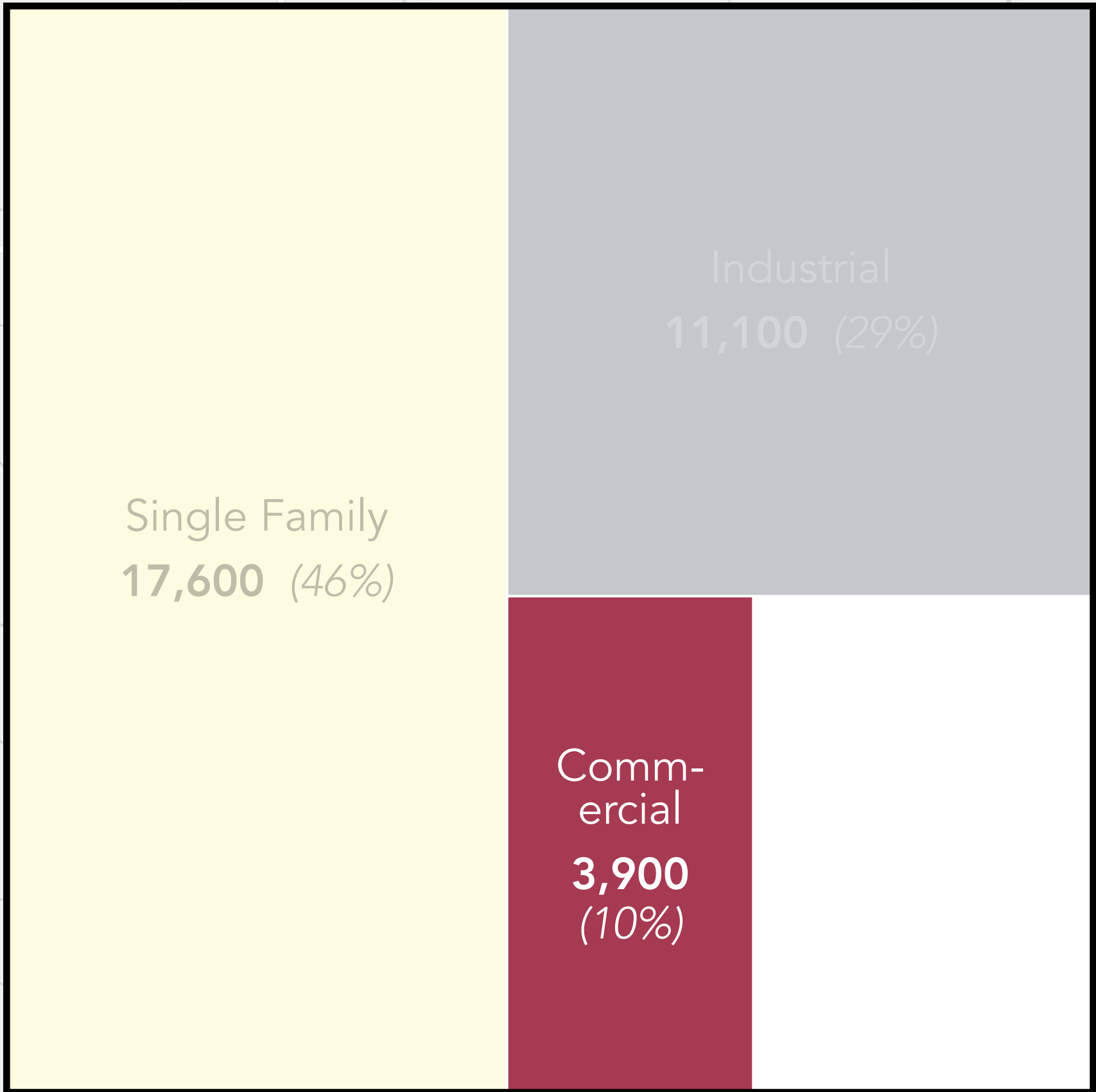
38,000 Acres

Industrial
11,100 (29%)

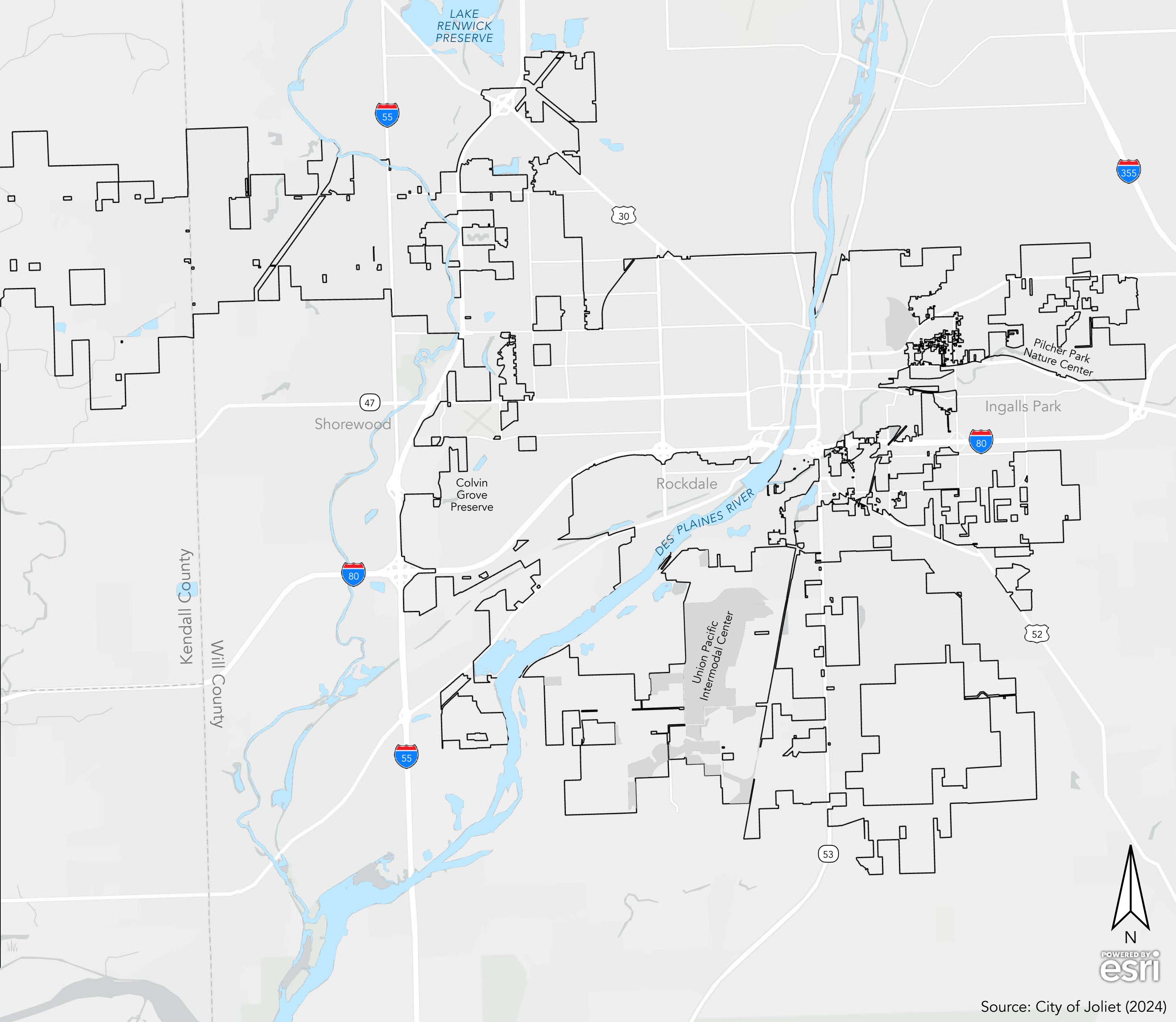
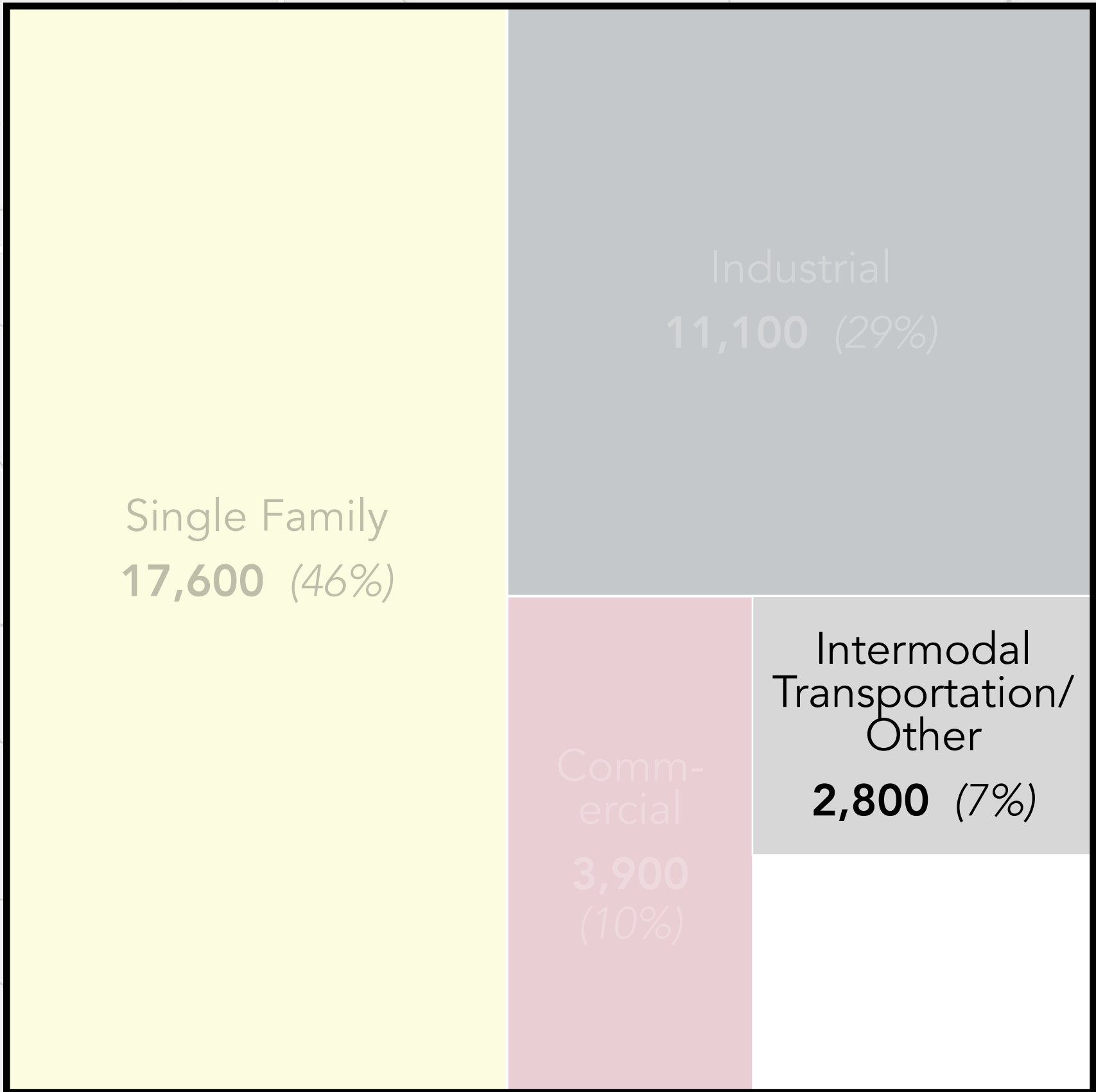
Single Family
17,600 (46%)



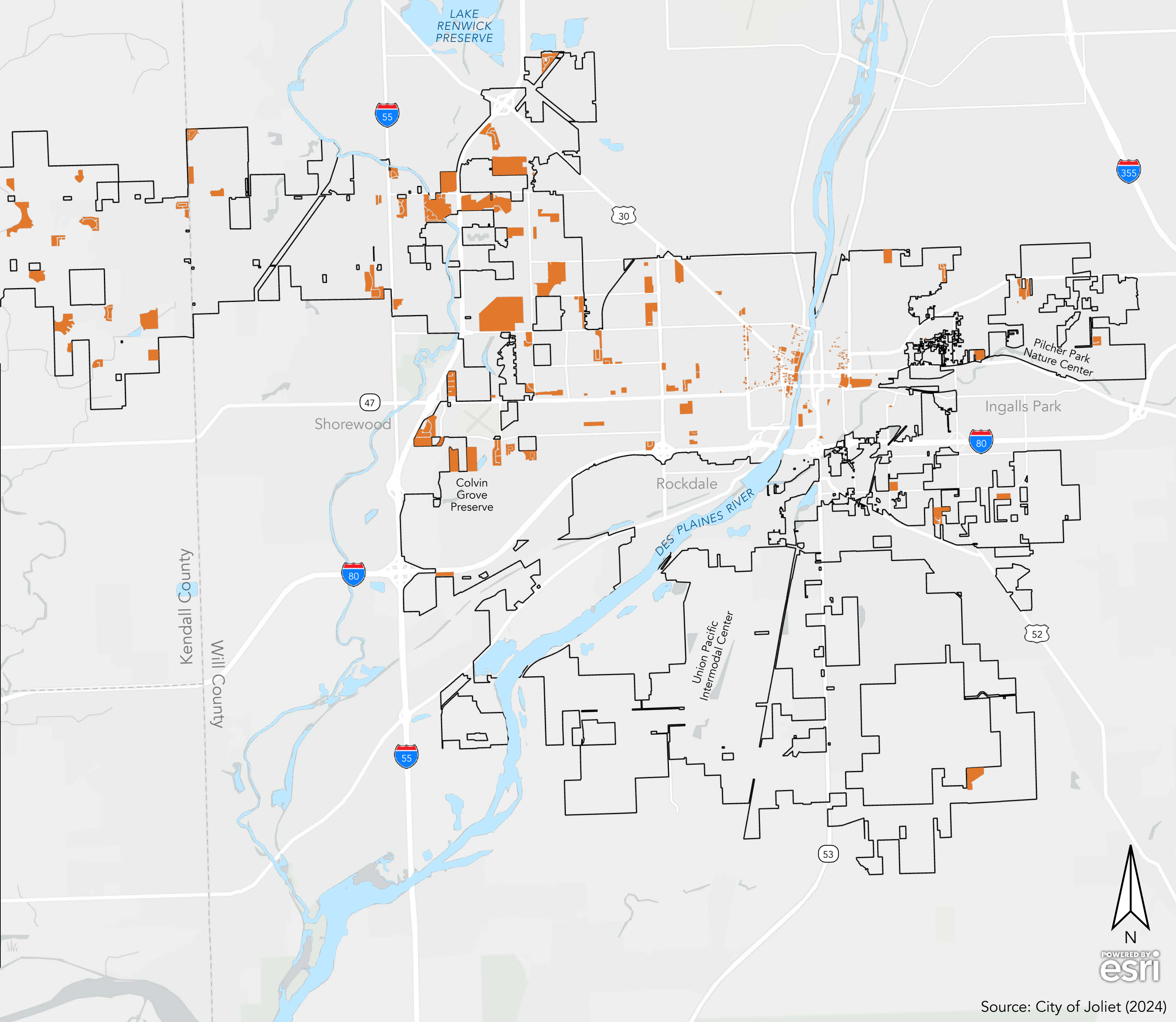
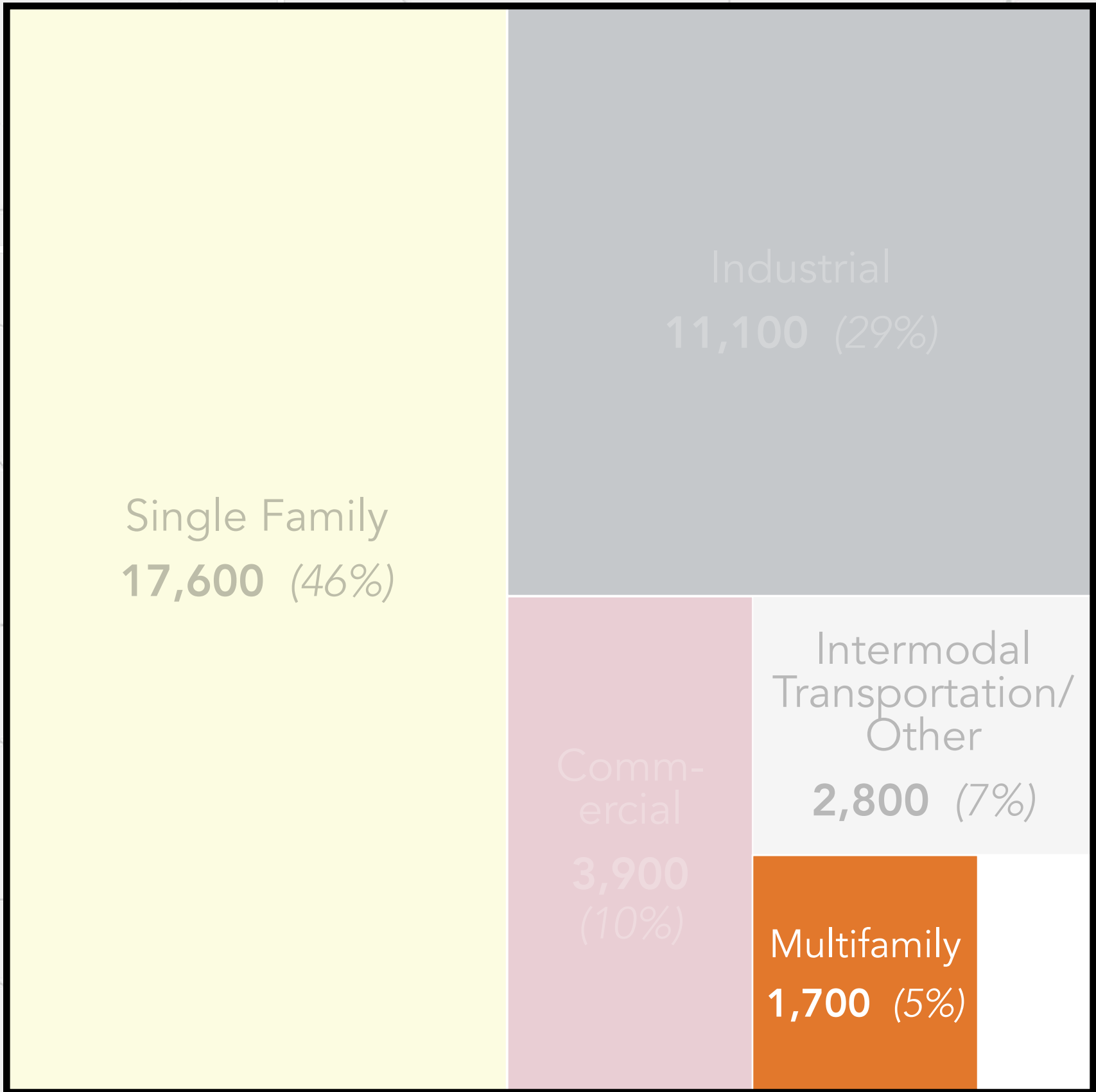
38,000 Acres



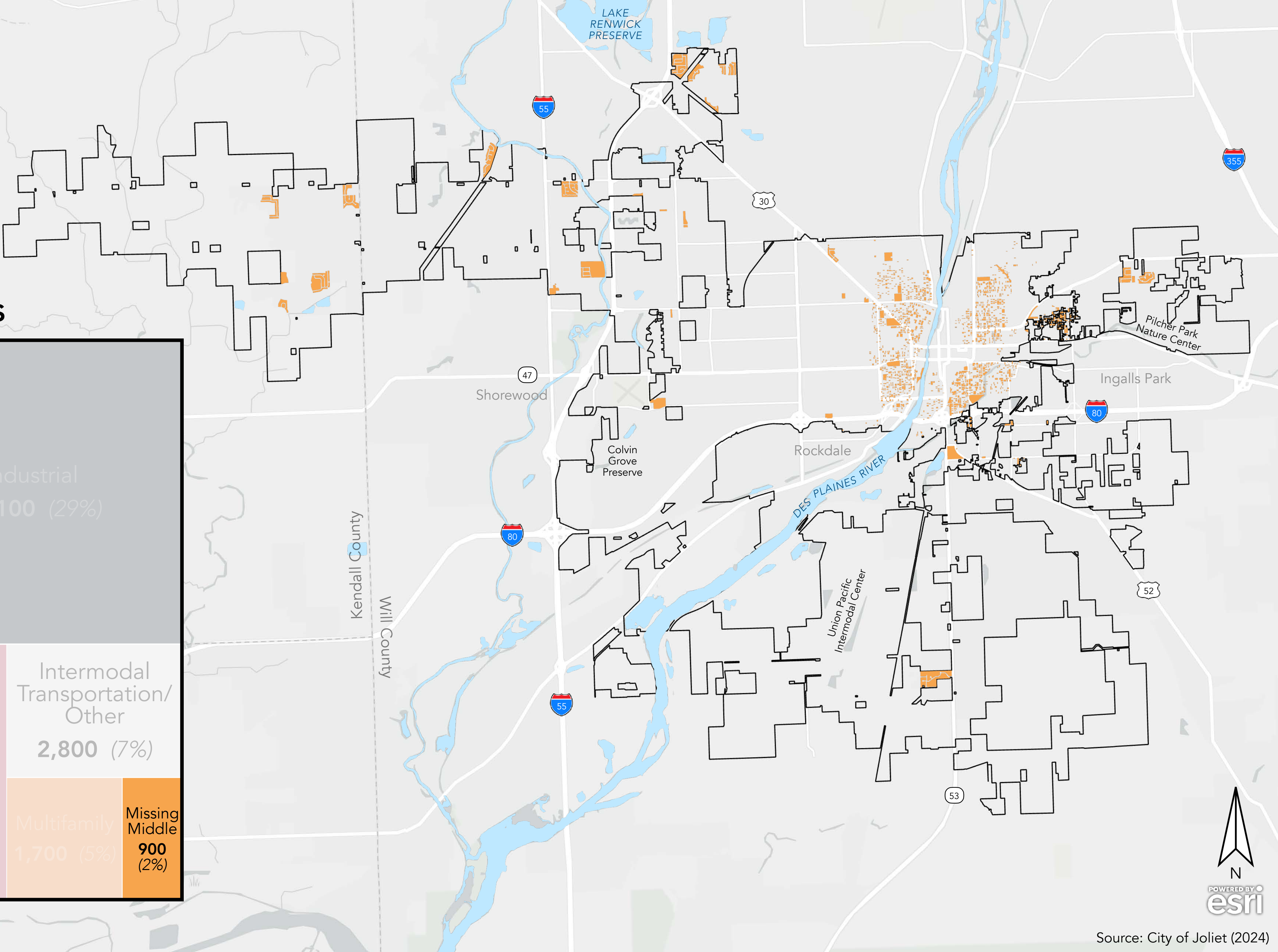
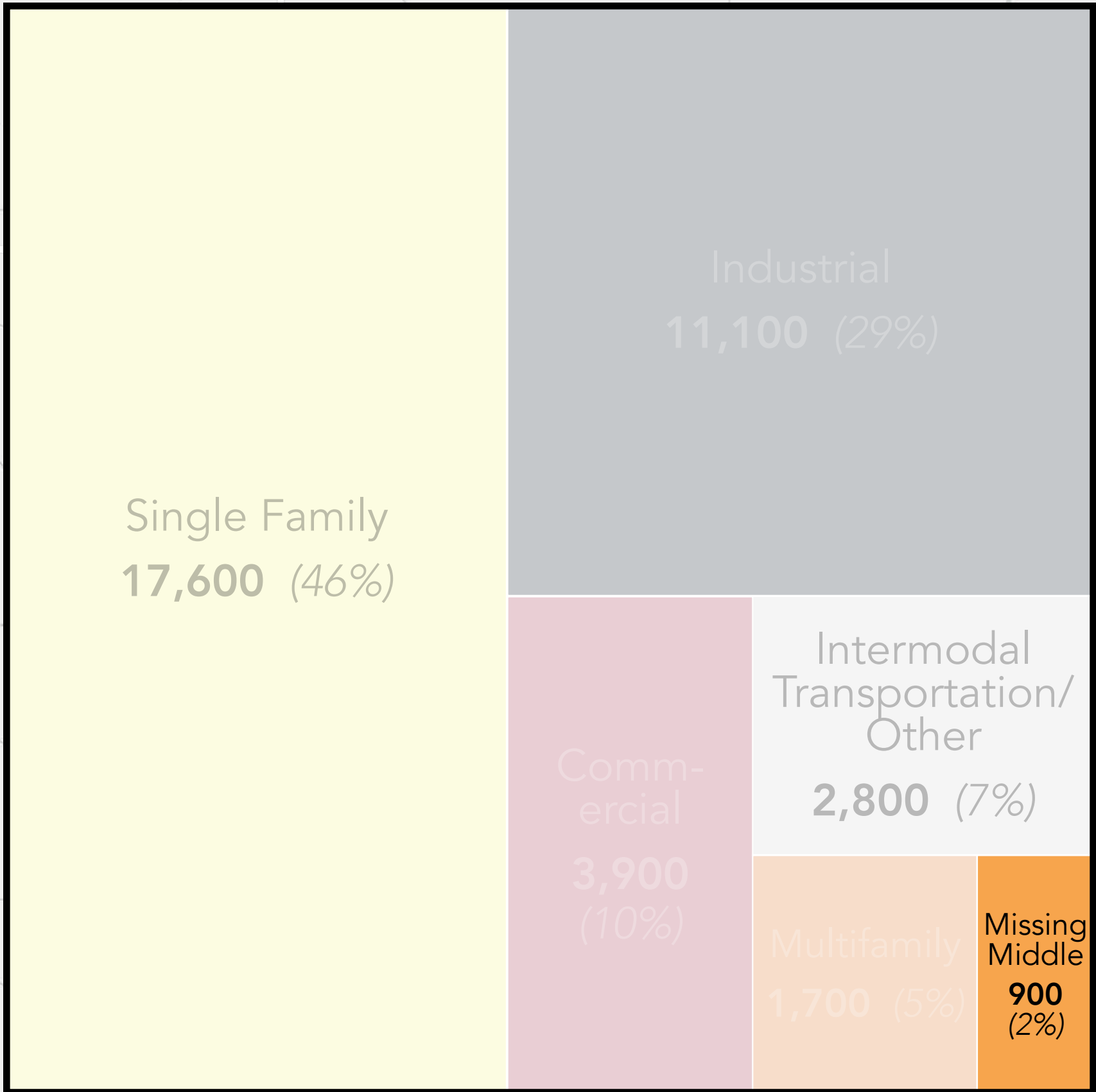
38,000 Acres



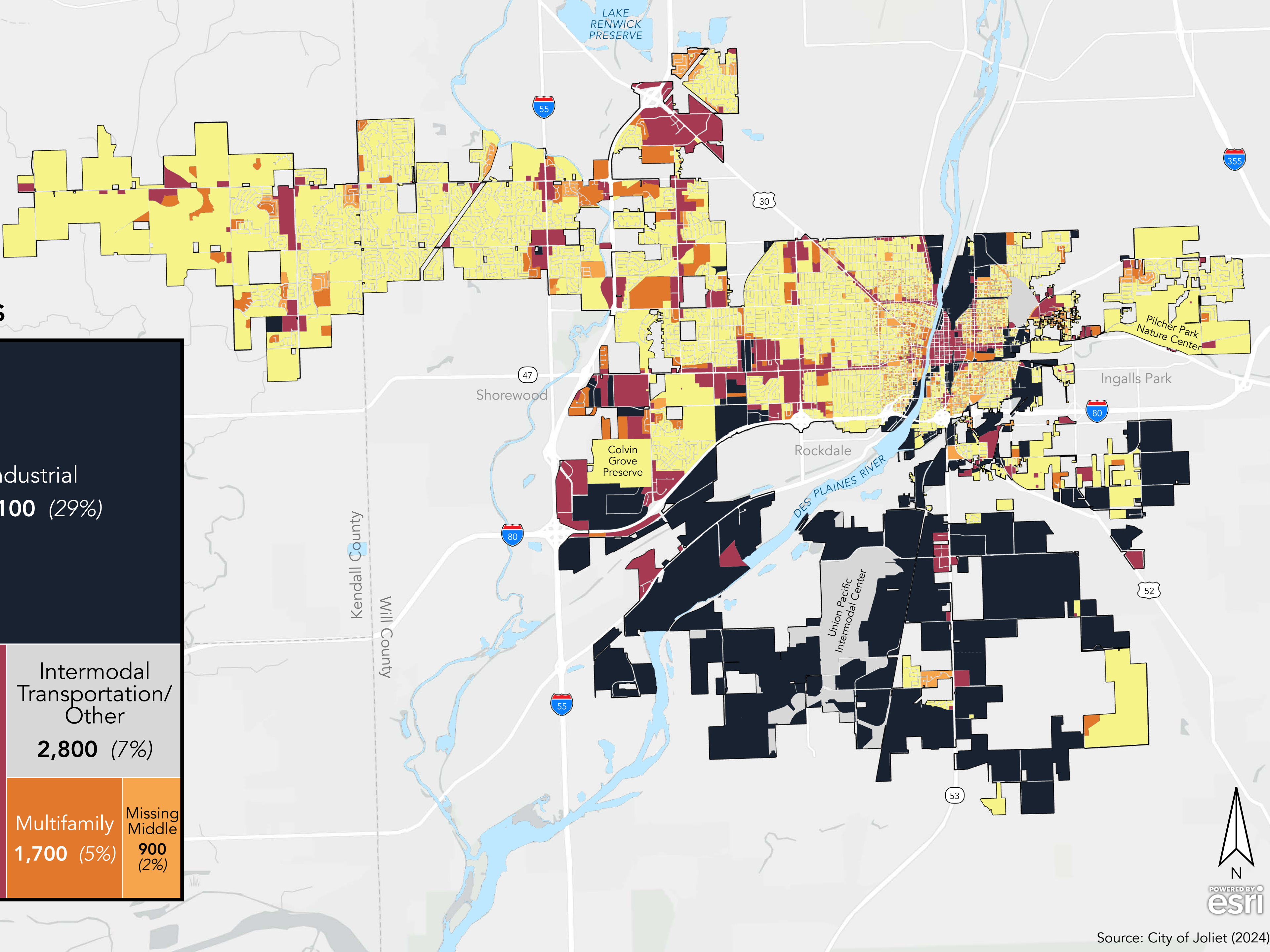
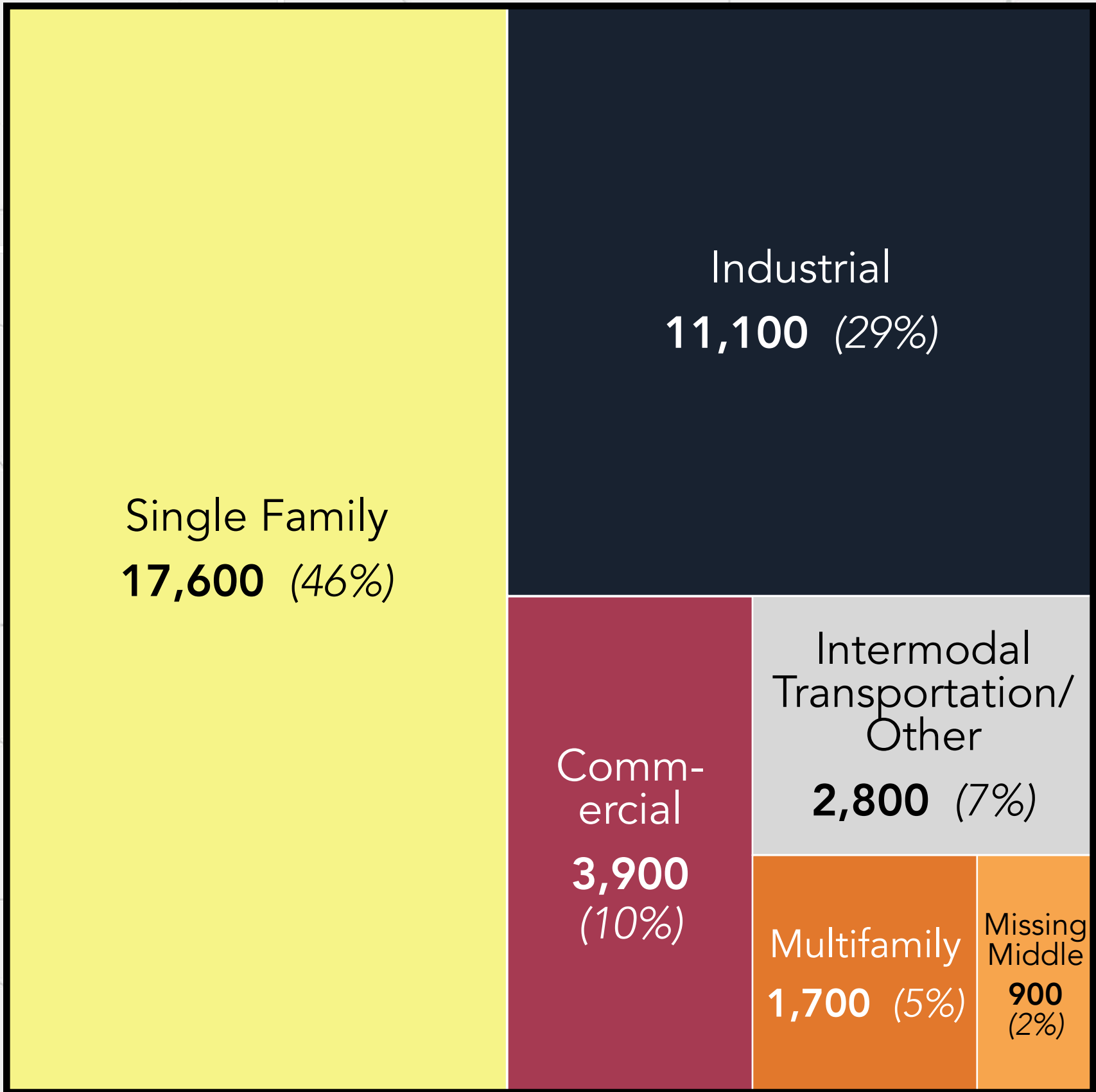
38,000 Acres



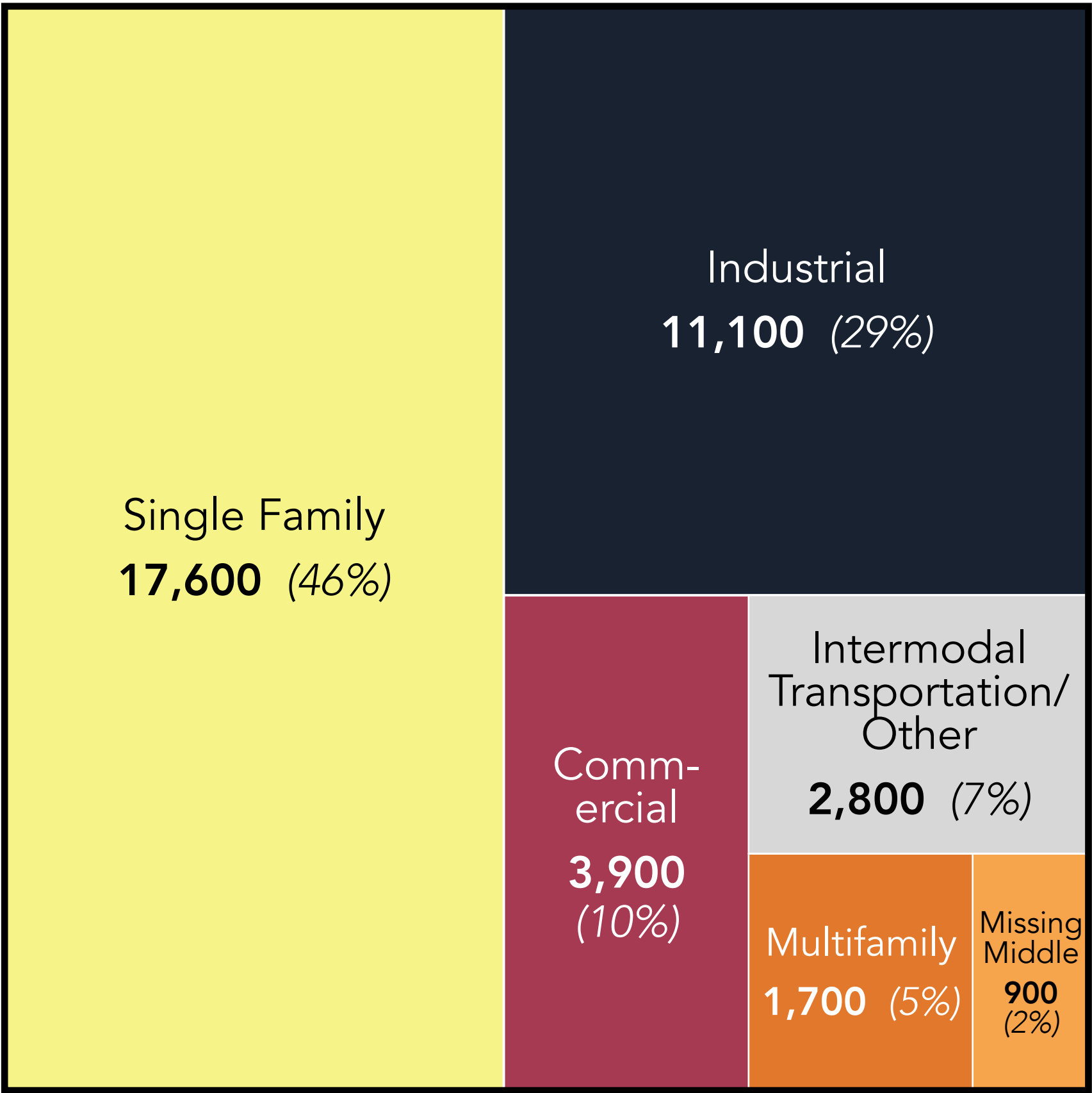
38,000 Acres



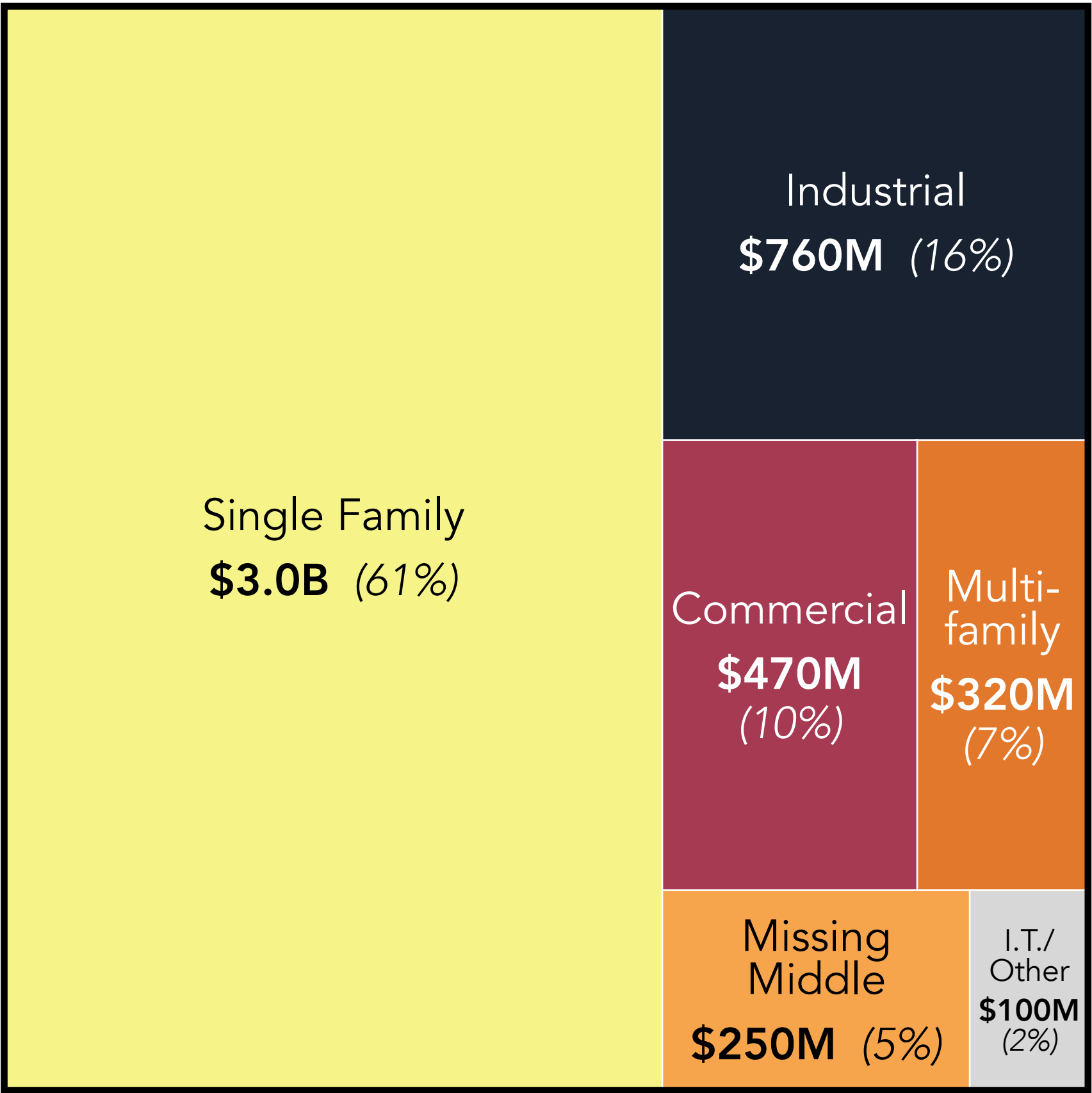
38,000 Acres



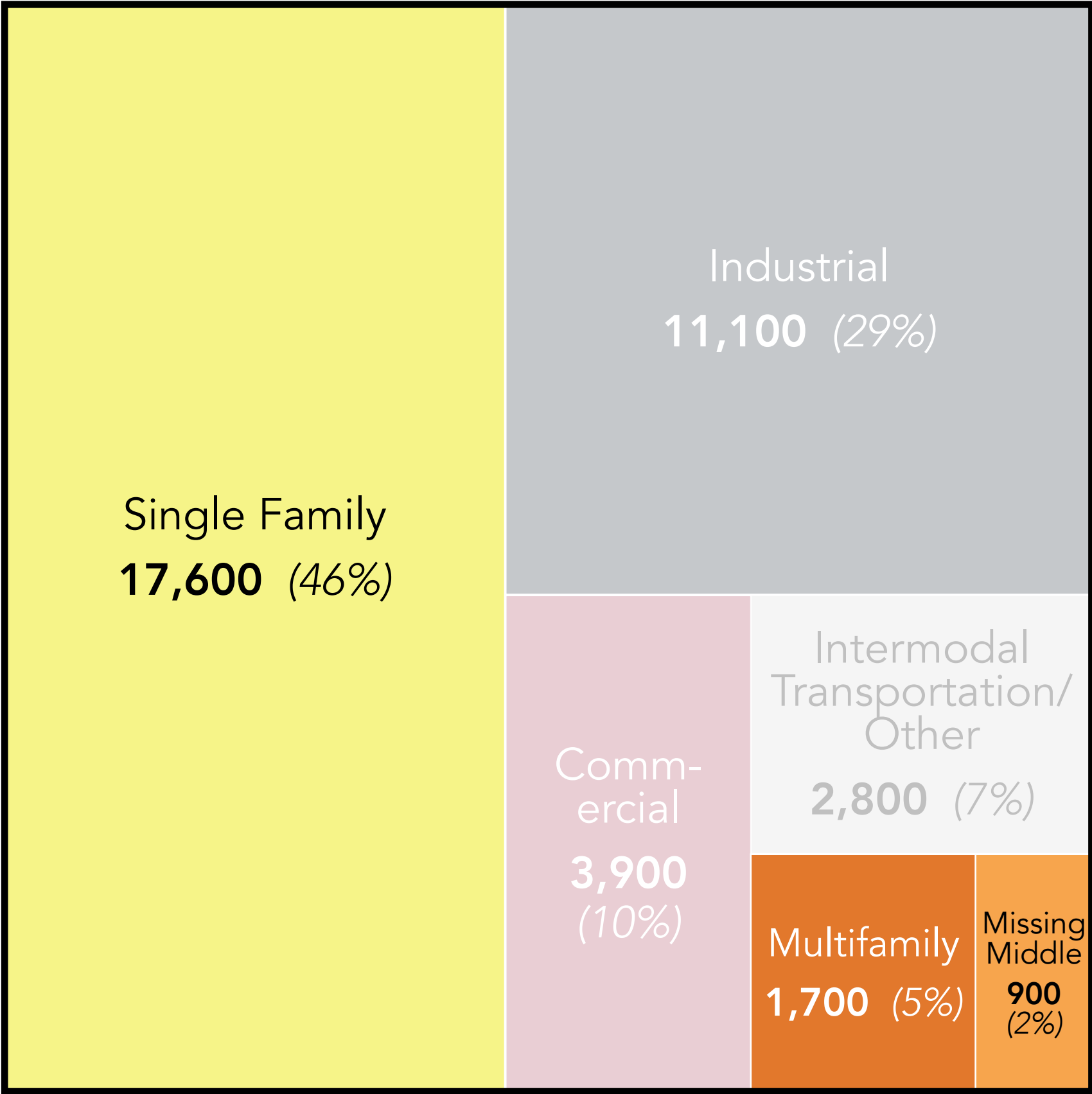
38,000 Acres



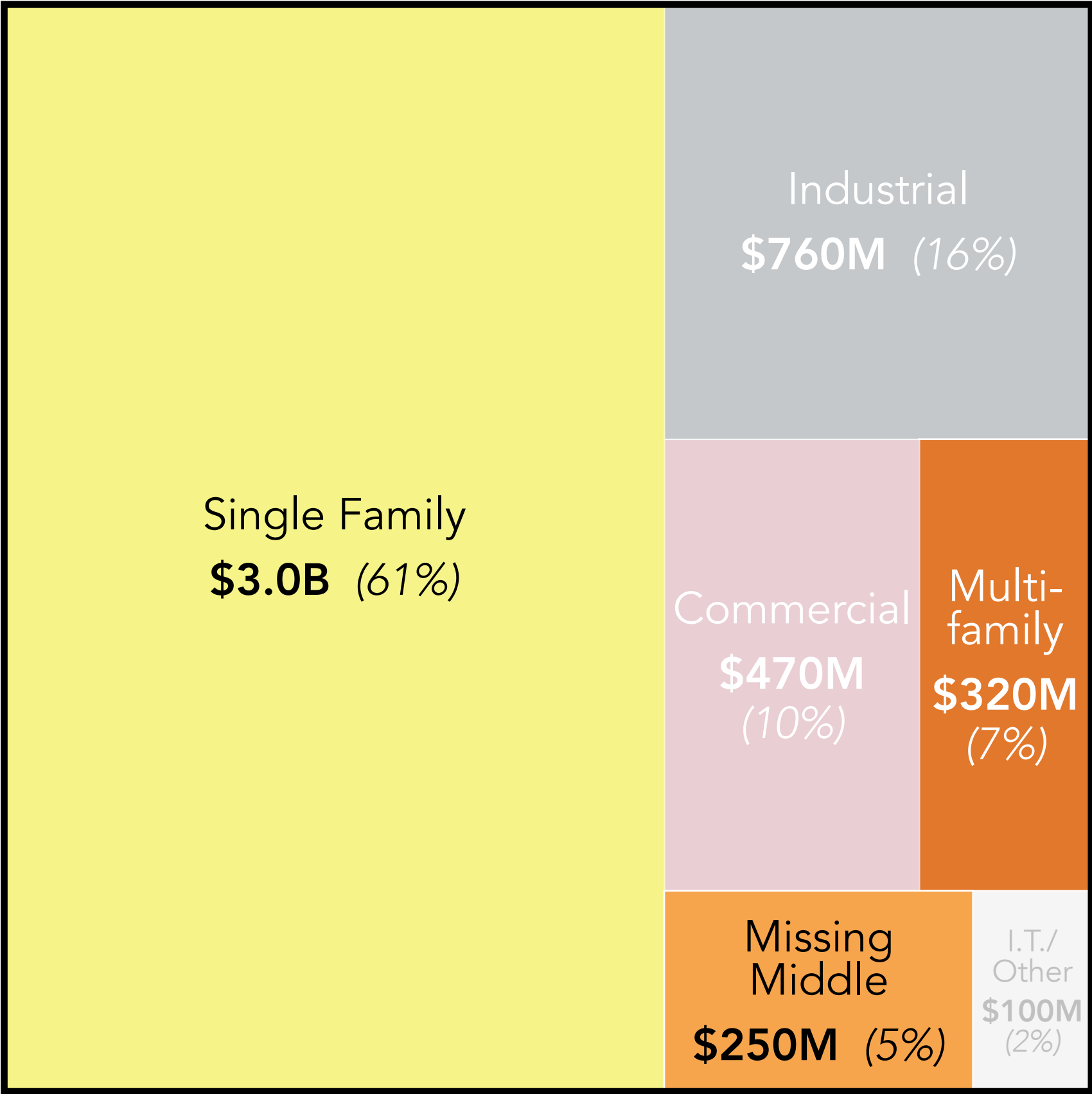
\$4.9B Value



38,000 Acres



\$4.9B Value



Zoning & Value of Residential Properties

Joliet, IL

Acres

Value



Single Family
17,600 (46%)

1.3x

Single Family
\$3.0B (61%)



Multifamily
1,700 (5%)

1.4x

Multi-family
\$320M
(7%)



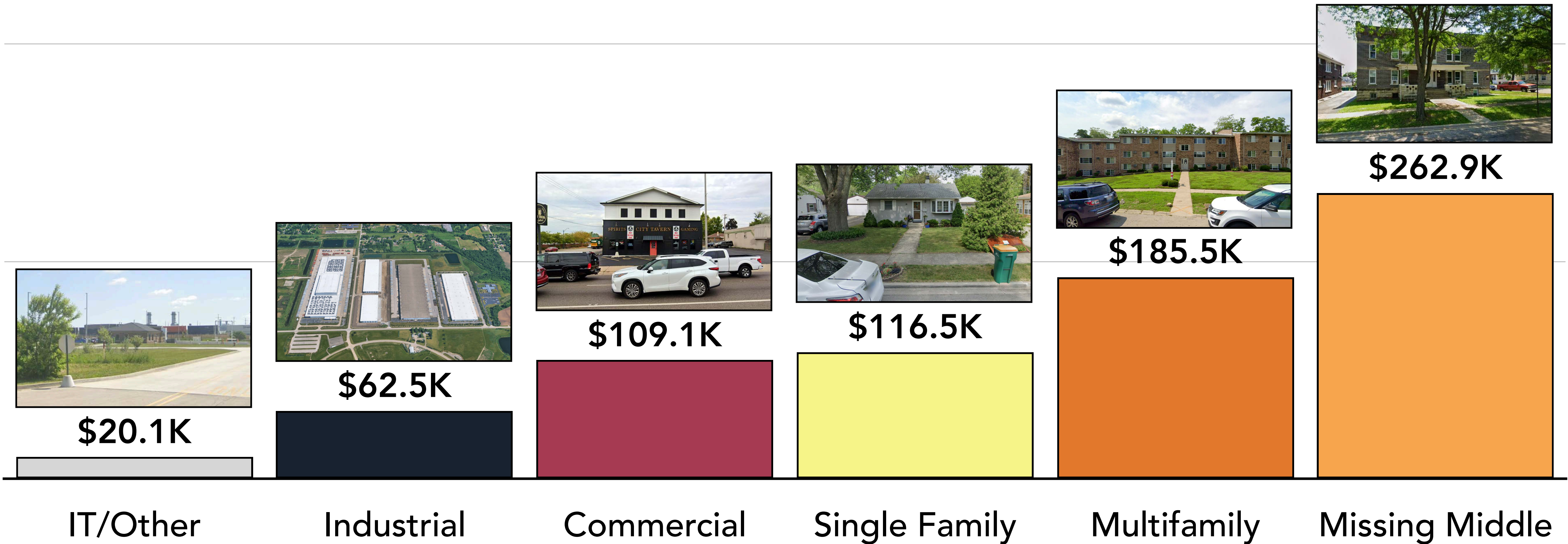
Missing Middle
900
(2%)

2.5x

Missing Middle
\$250M (5%)

Average Value Per Acre by Zoning

Joliet, IL



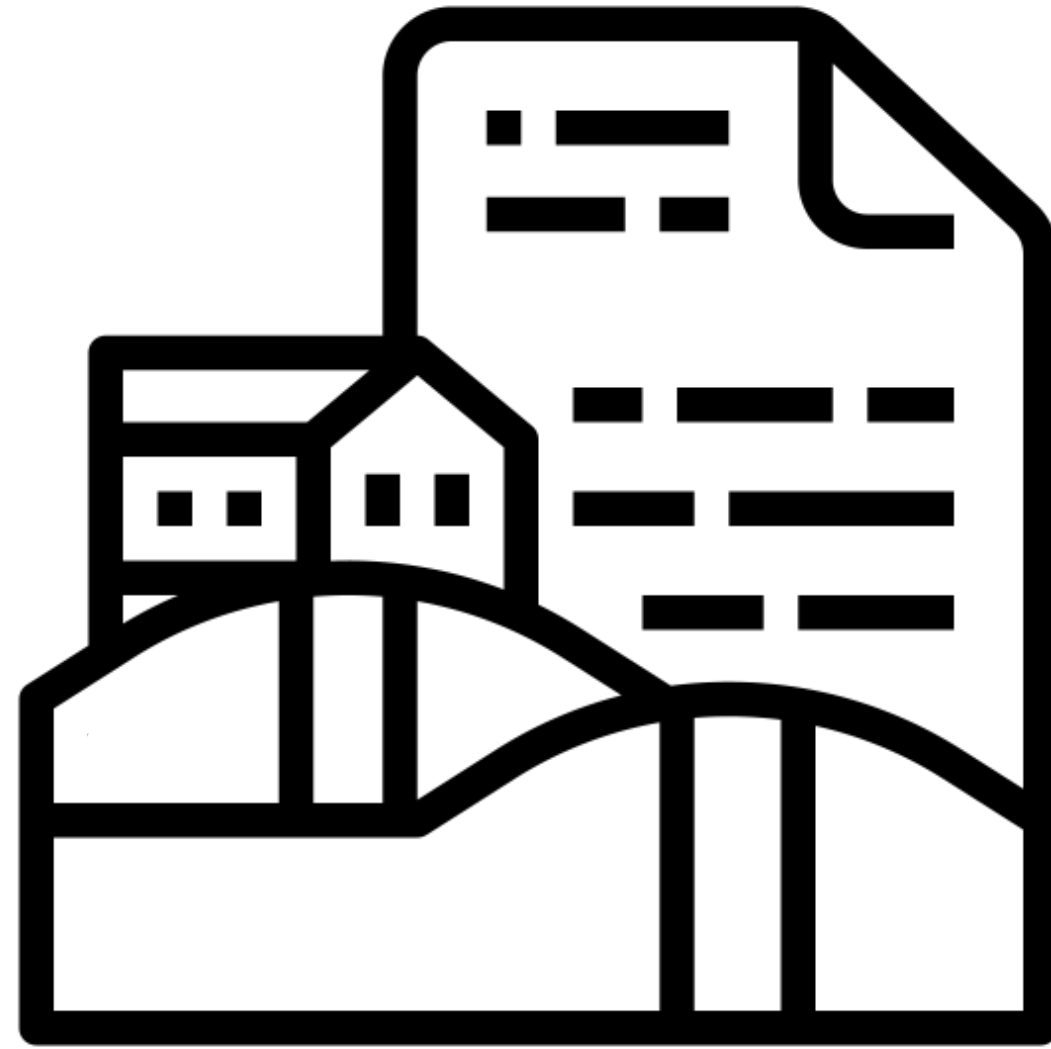
Median Value Per Acre by Zoning

Joliet, IL



Note: These averages include vacant properties.

Source: City of Joliet (2024)

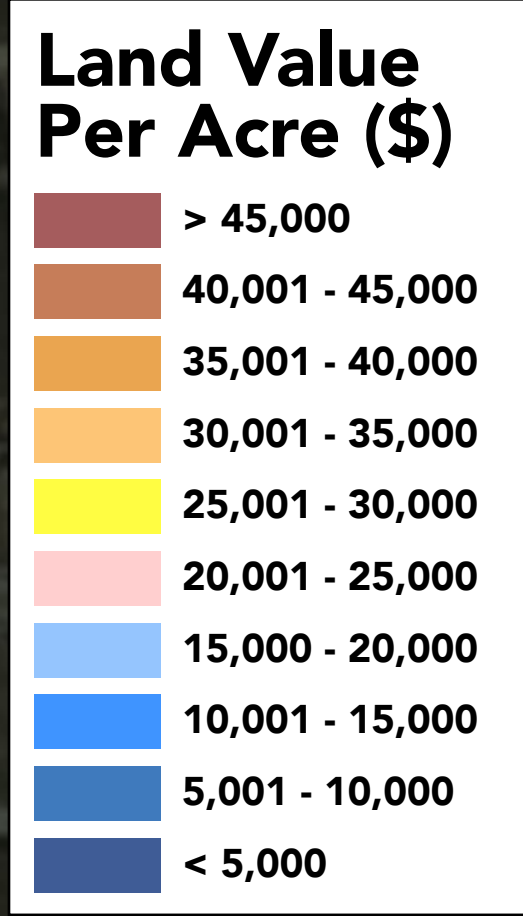


Land Value Per Acre

The Economics of Land Use

Land Value Per Acre

Cheyenne, WY



Dell Avenue

FAIR+EQUITABLE
AUGUST 2019 | VOLUME 17 | NUMBER 7
A publication of IAAO on appraisal and appraisal management, within the property assessment industry.

DON'T CUT ME OFF!

USING POST-VALUATION DATE EVIDENCE IN APPRAISALS | **8**

INSIDE

IAAO CONFERENCE SESSION HIGHLIGHTS
 Available session topics are vast and wide for 2019. | **17**

HIGHEST AND BEST USE
 TEGoVA extends Highest and Best Use value to encompass Hope Value | **28**

Tax Code

4444
747444

4444
747444

International Association of Assessing Officers

Curriculum Training



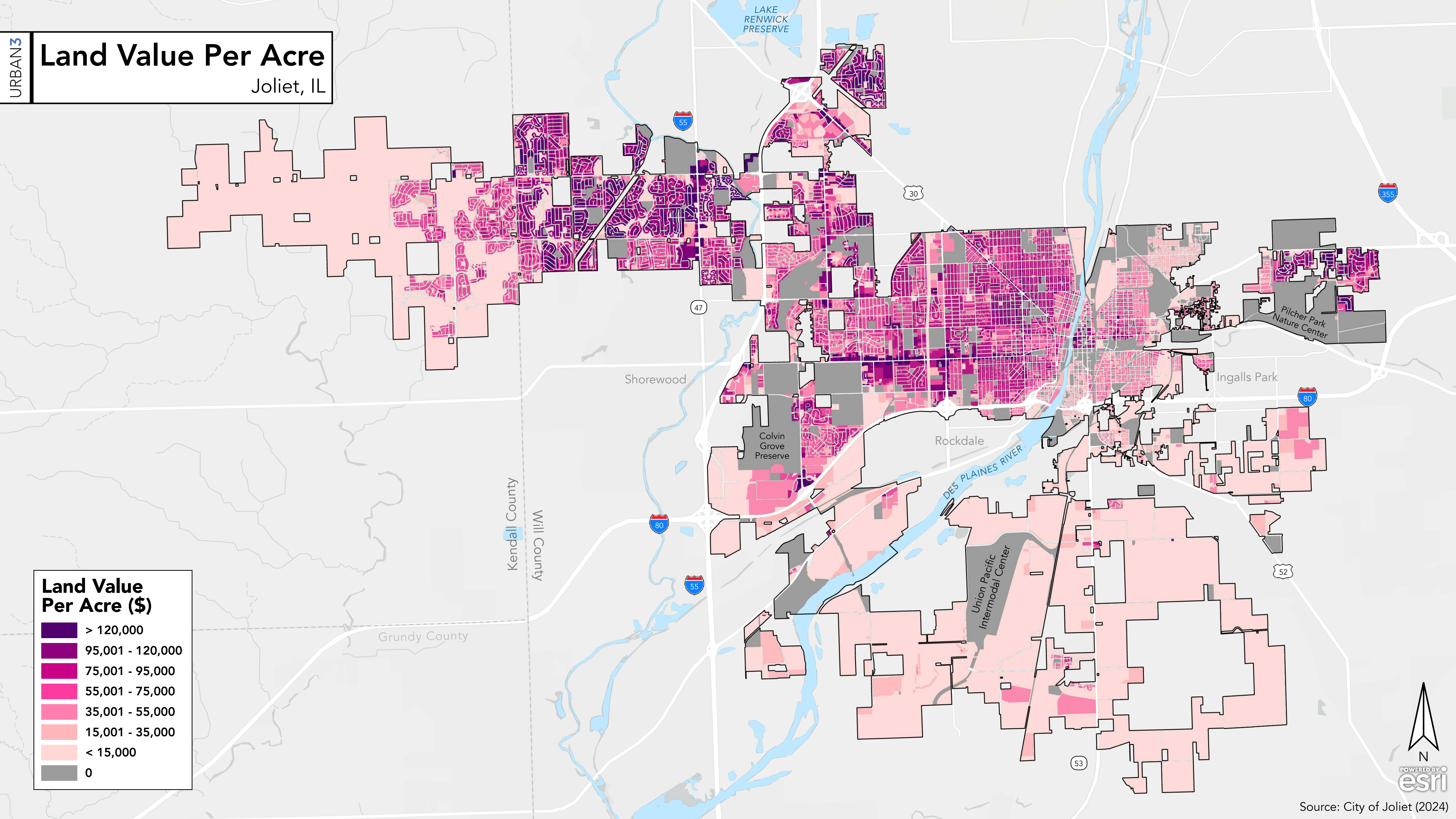
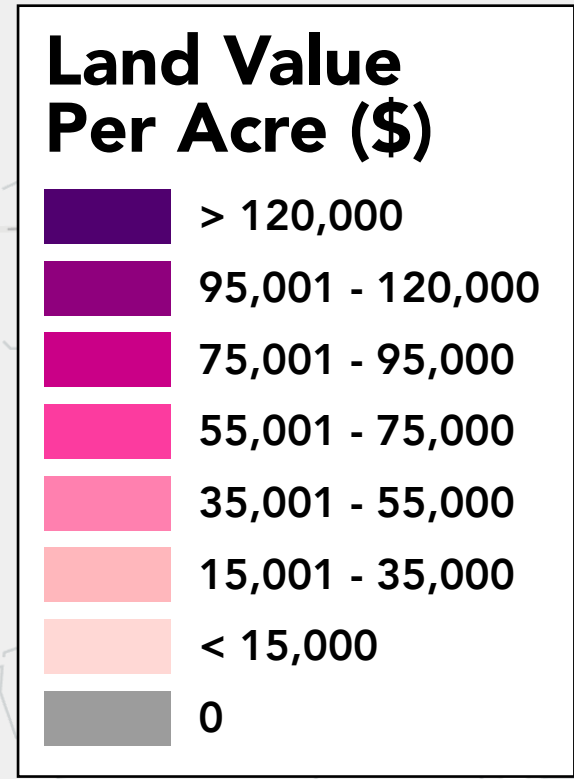


MARKET FORCES

URBAN3

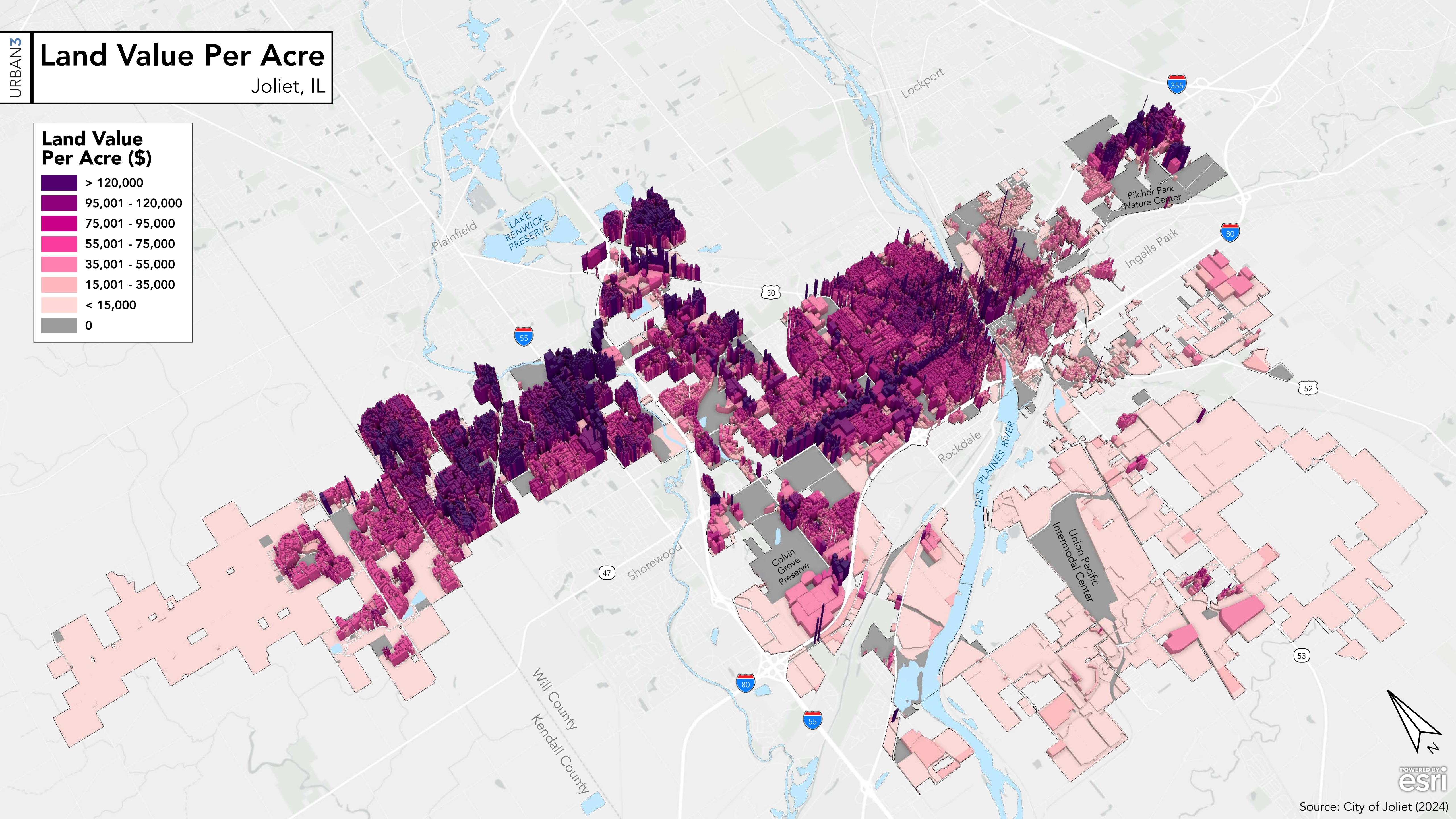
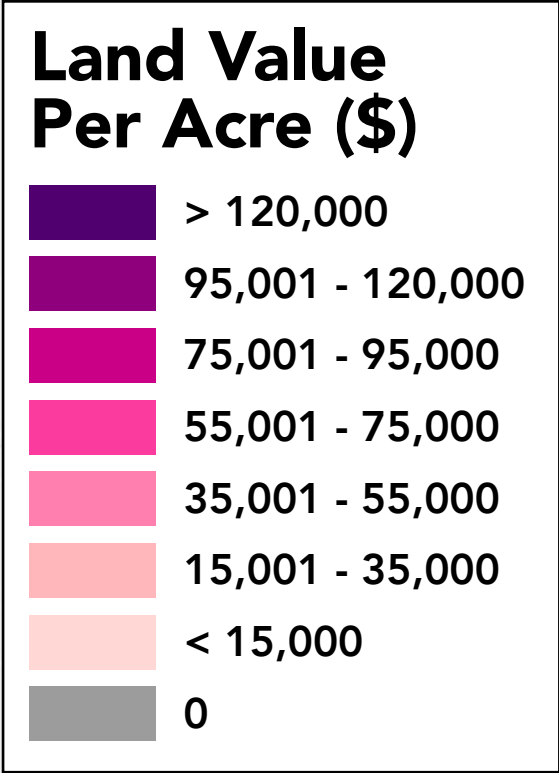
Land Value Per Acre

Joliet, IL



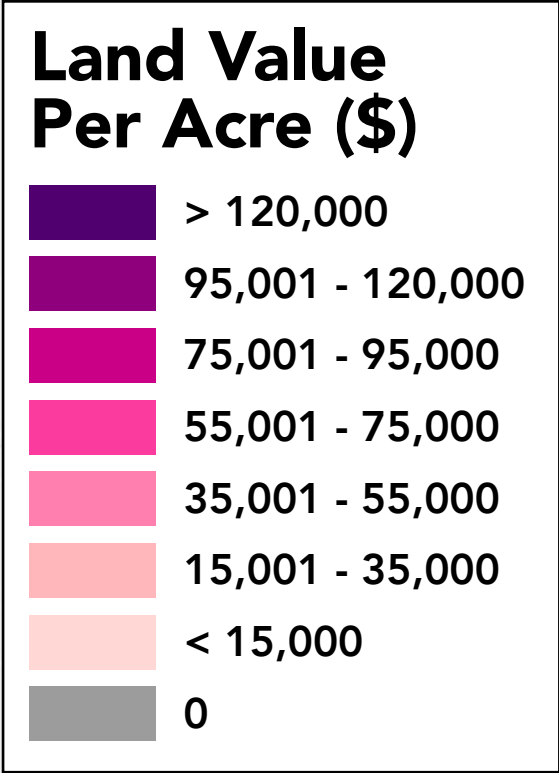
Land Value Per Acre

Joliet, IL



Land Value Per Acre

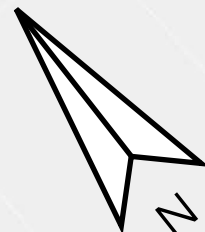
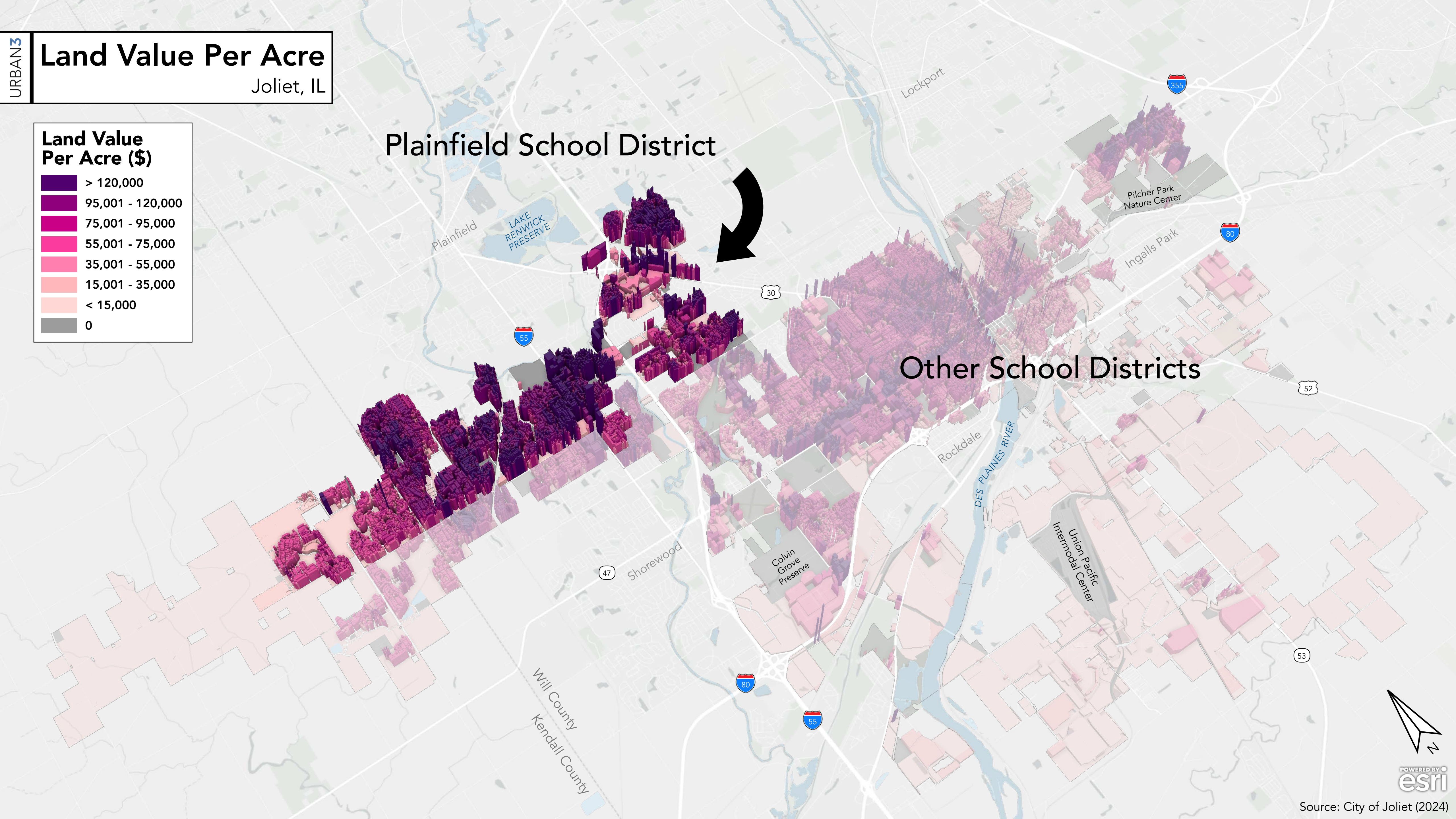
Joliet, IL



Plainfield School District

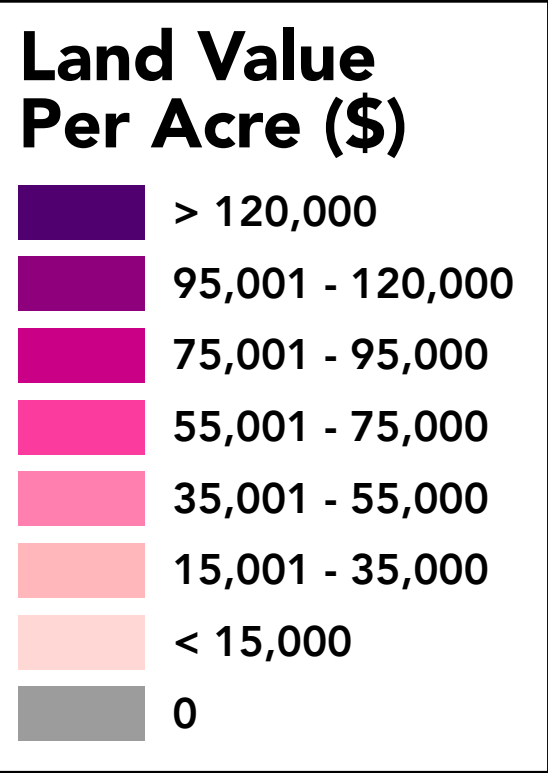


Other School Districts



Land Value Per Acre Comparison

School Districts in Joliet, IL



\$55.3K

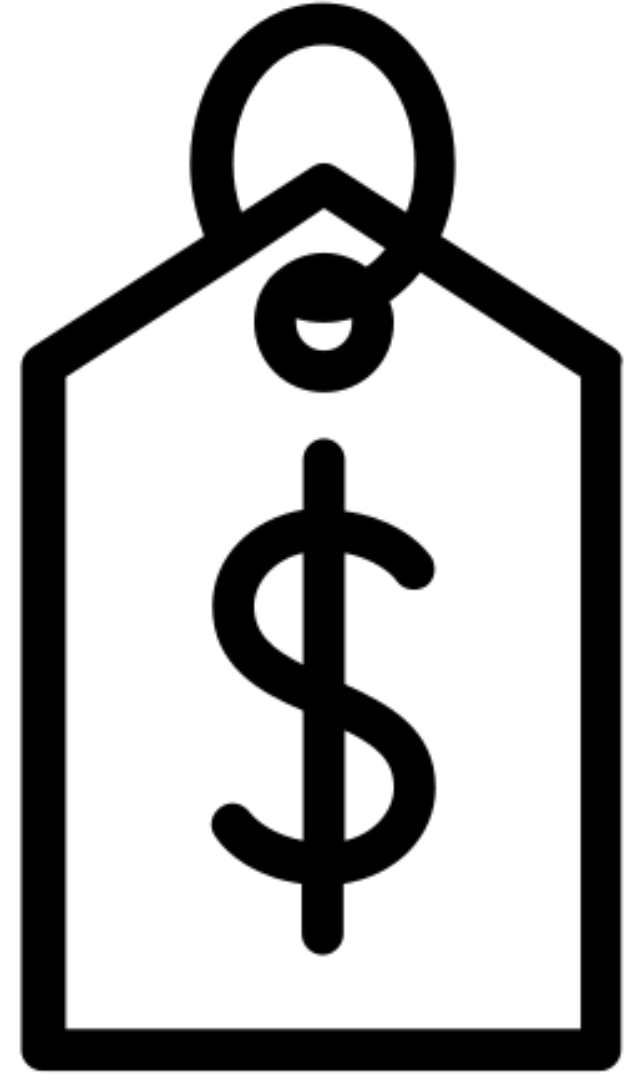
\$33.8K

Plainfield

All Others

School District
Avg. Land Value*

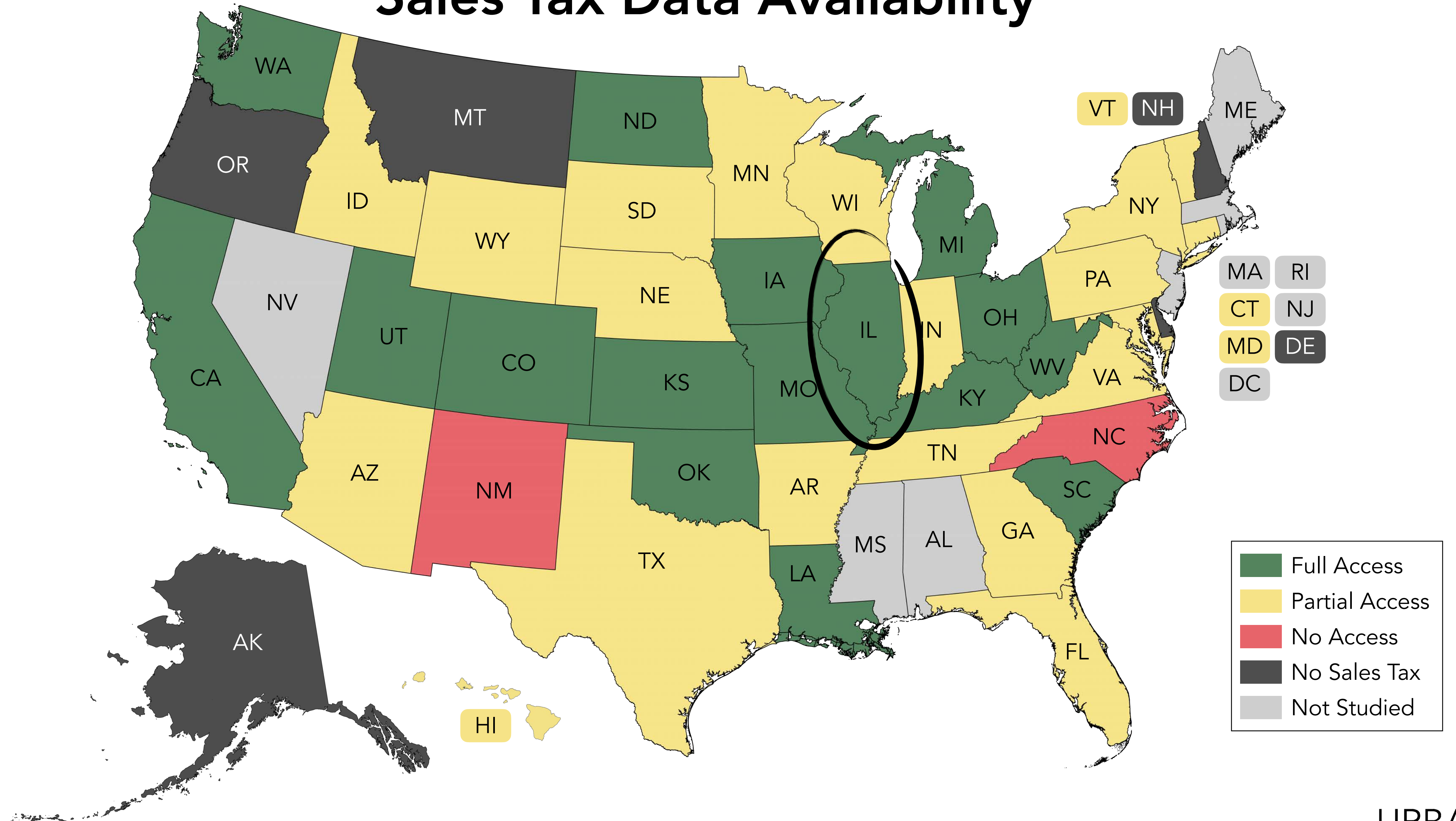
*Average land Value Per Acre is calculated using residential parcels only.



Sales Tax Analysis

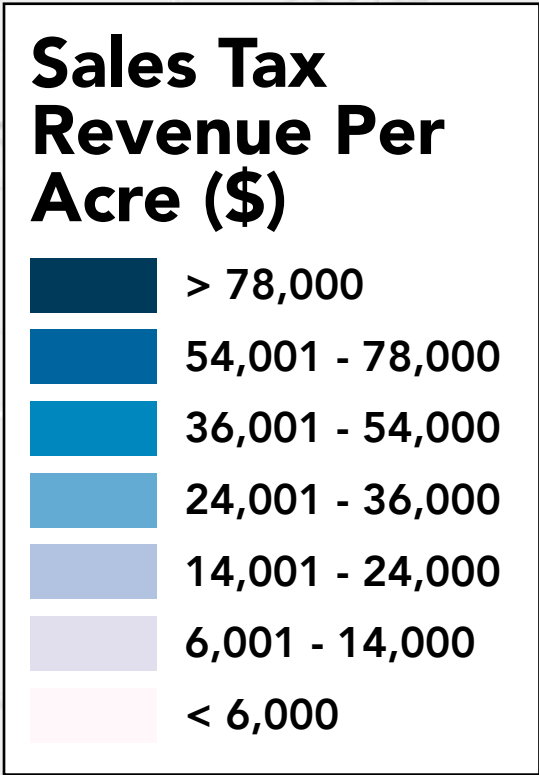
Mapping Sales Tax Revenue

Sales Tax Data Availability

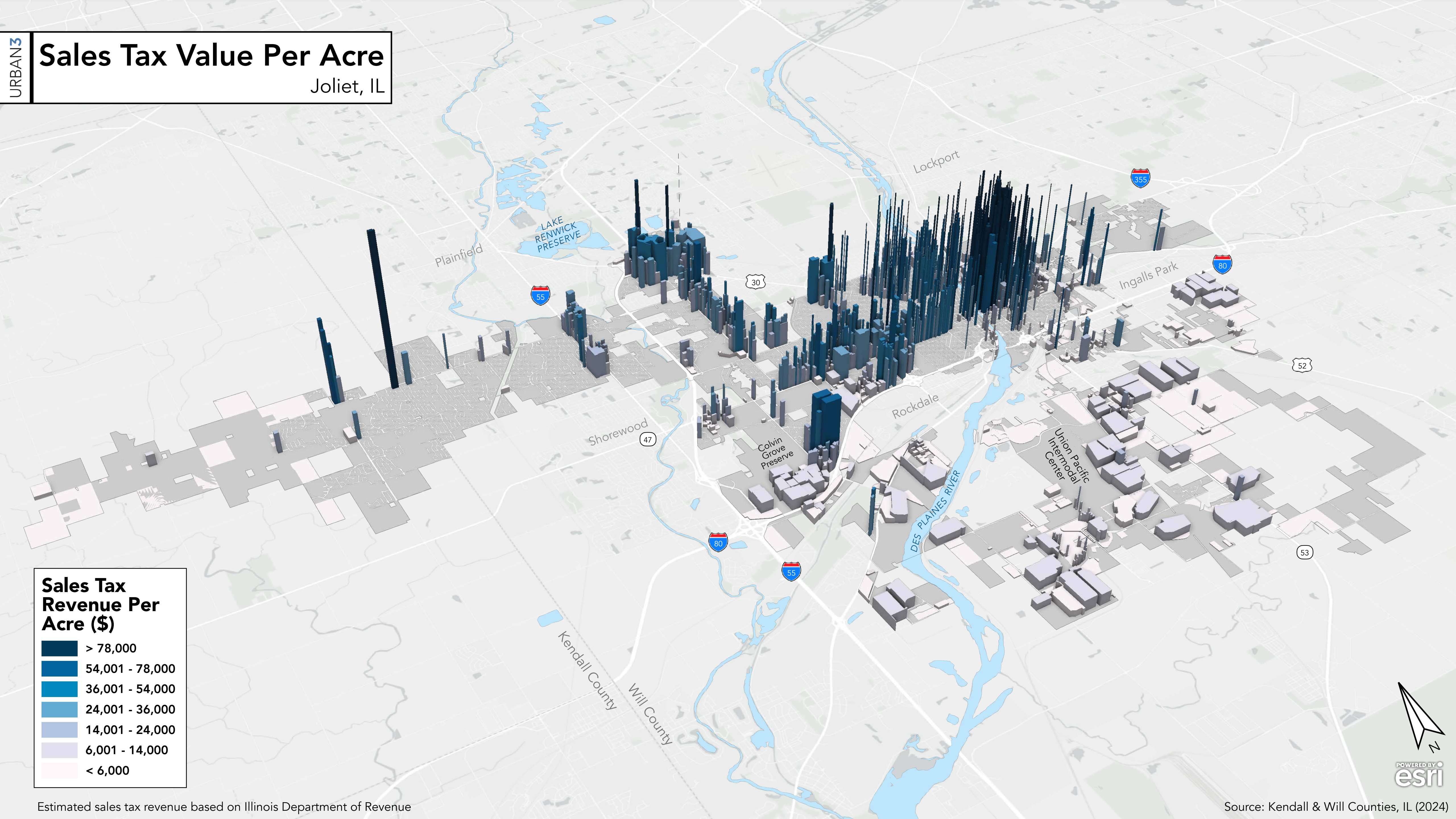


Sales Tax Value Per Acre

Joliet, IL



Estimated sales tax revenue based on Illinois Department of Revenue

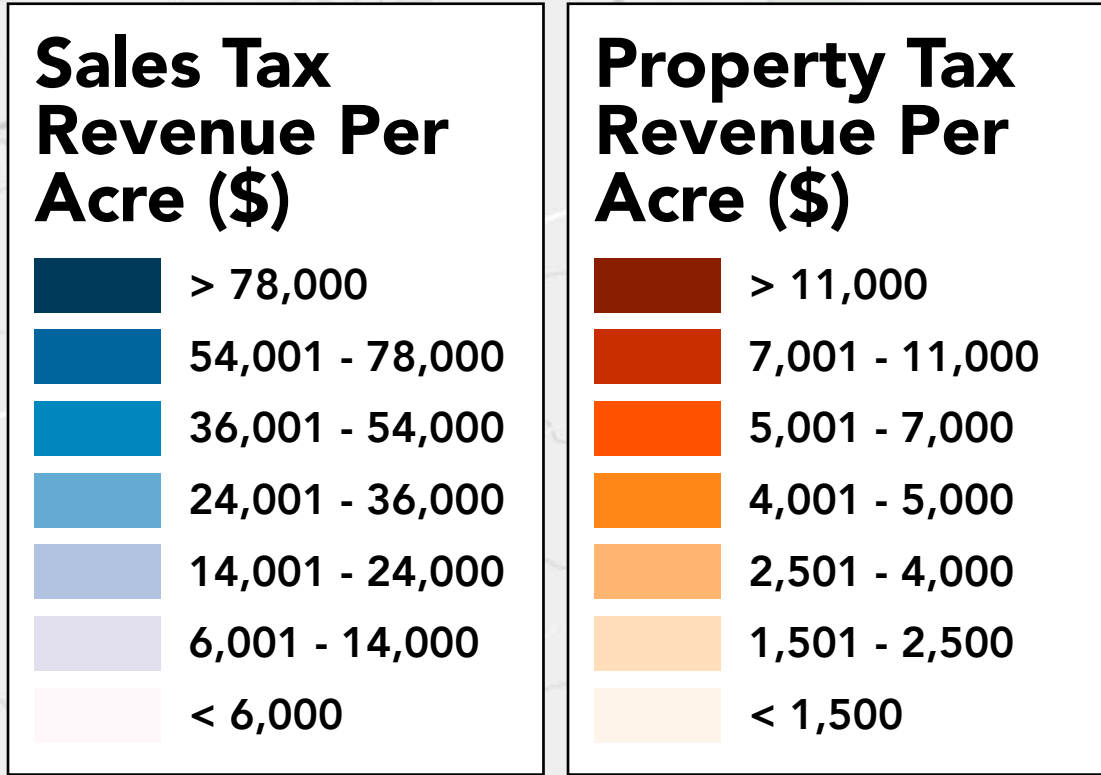
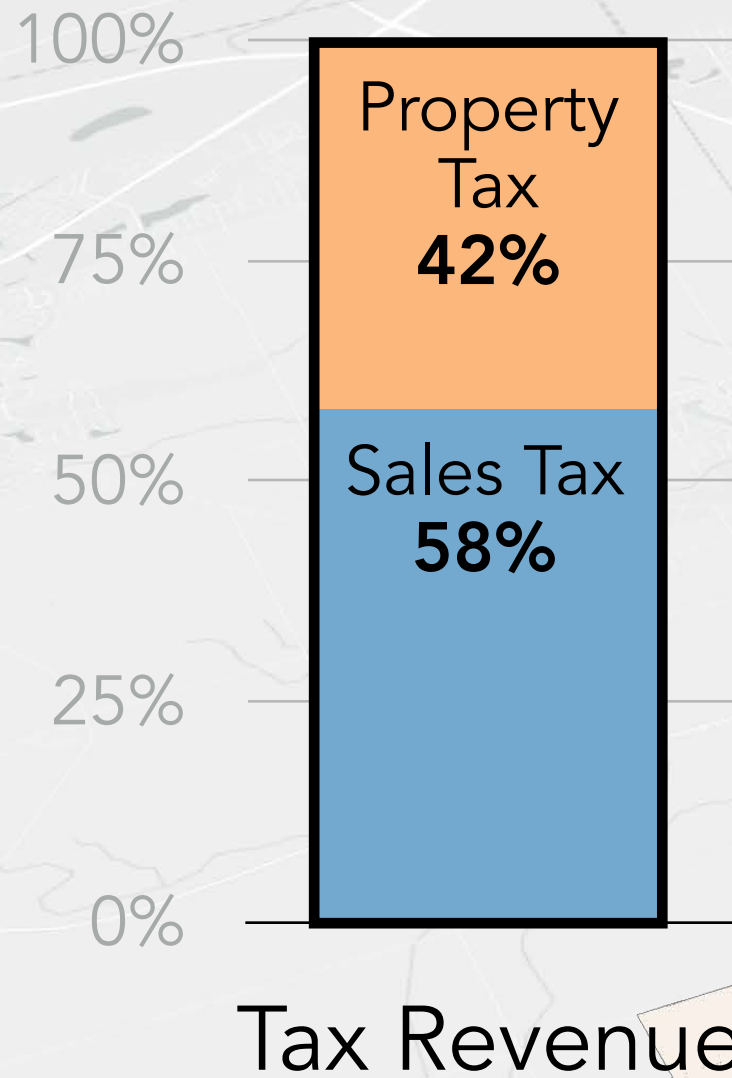


Source: Kendall & Will Counties, IL (2024)

Sales & Property Tax Value Per Acre

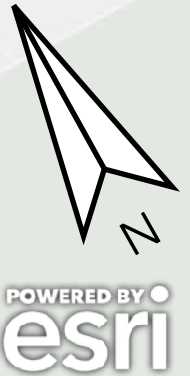
Joliet, IL

3D extrusion is proportional to amount of revenue generated by sales & property combined



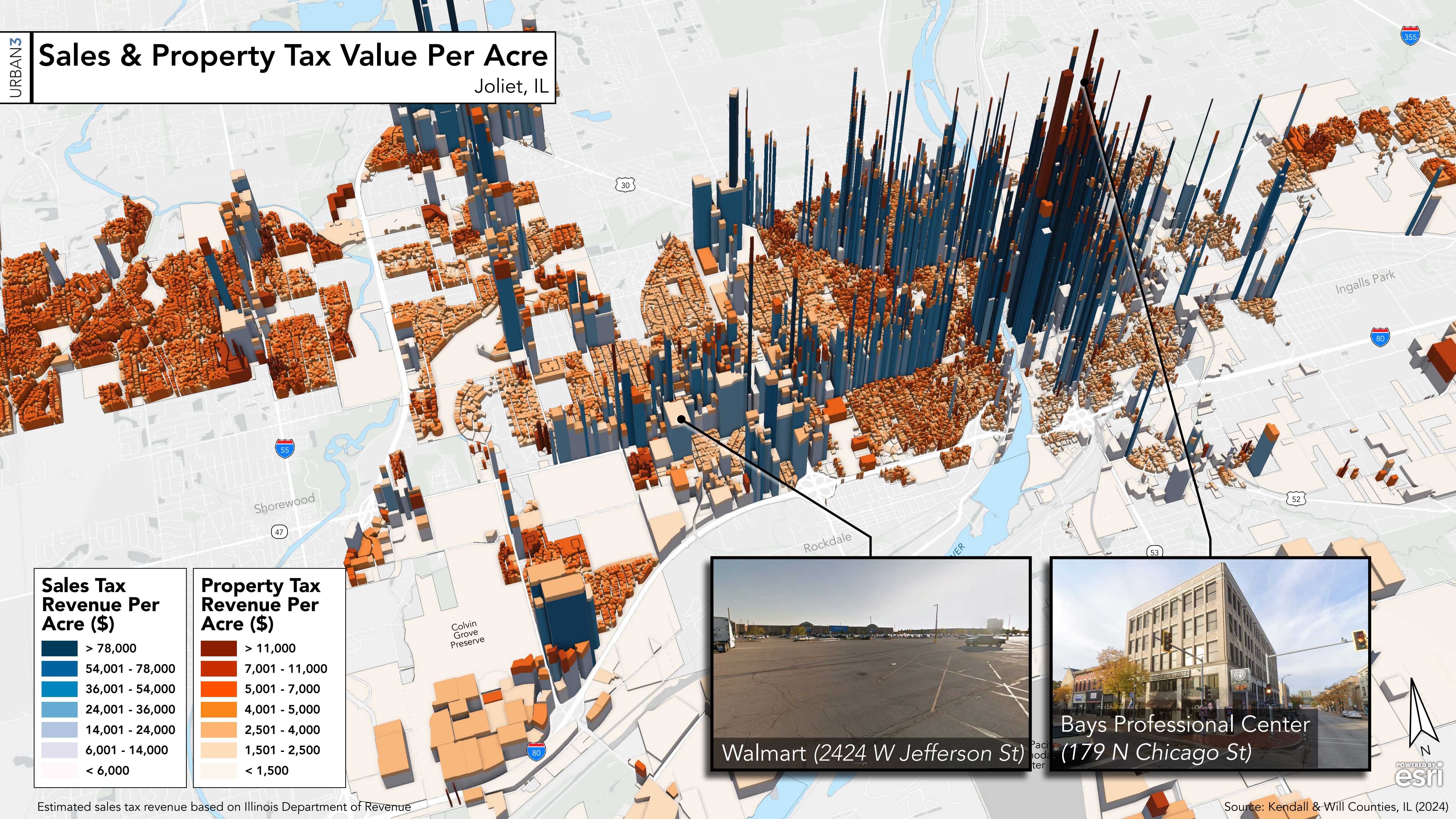
Estimated sales tax revenue based on Illinois Department of Revenue

Source: Kendall & Will Counties, IL (2024)



Sales & Property Tax Value Per Acre

Joliet, IL



Sales Tax Revenue Per Acre (\$)

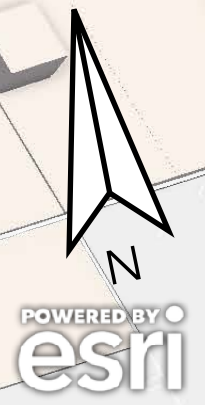
> 78,000
54,001 - 78,000
36,001 - 54,000
24,001 - 36,000
14,001 - 24,000
6,001 - 14,000
< 6,000

Property Tax Revenue Per Acre (\$)

> 11,000
7,001 - 11,000
5,001 - 7,000
4,001 - 5,000
2,501 - 4,000
1,501 - 2,500
< 1,500

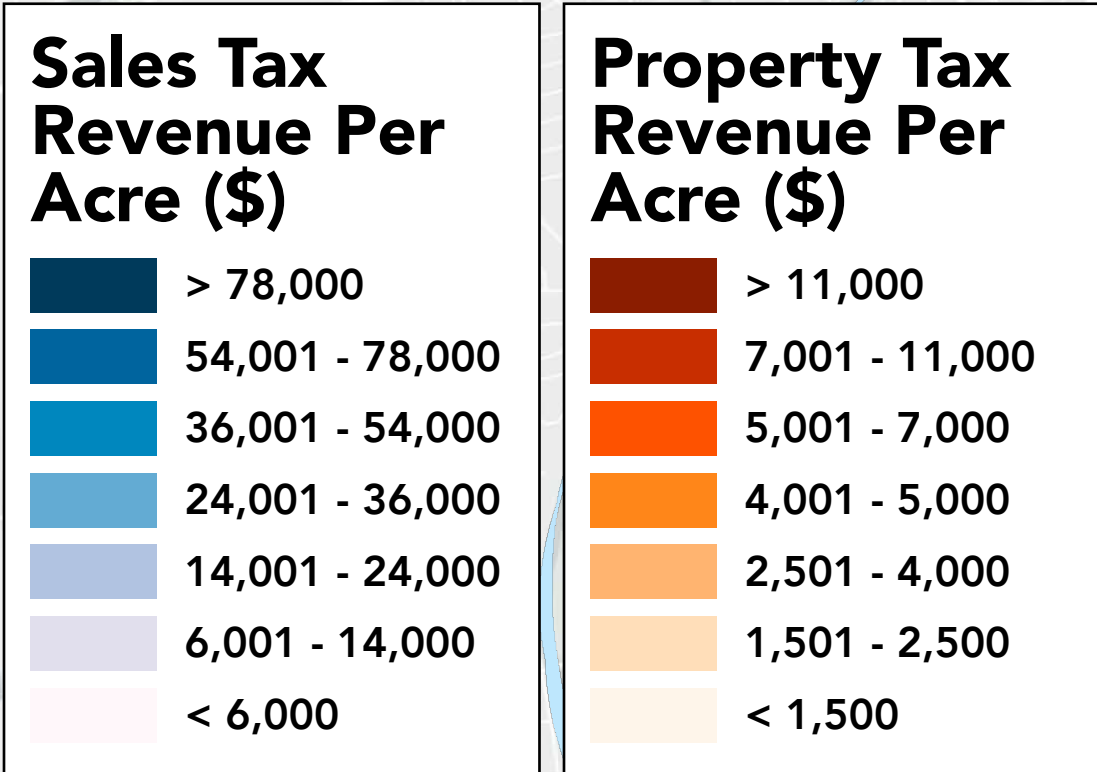
Estimated sales tax revenue based on Illinois Department of Revenue

Source: Kendall & Will Counties, IL (2024)



Sales & Property Tax Value Per Acre

Joliet, IL



Estimated sales tax revenue based on Illinois Department of Revenue

Source: Kendall & Will Counties, IL (2024)



Comparing Sales Tax Productivity

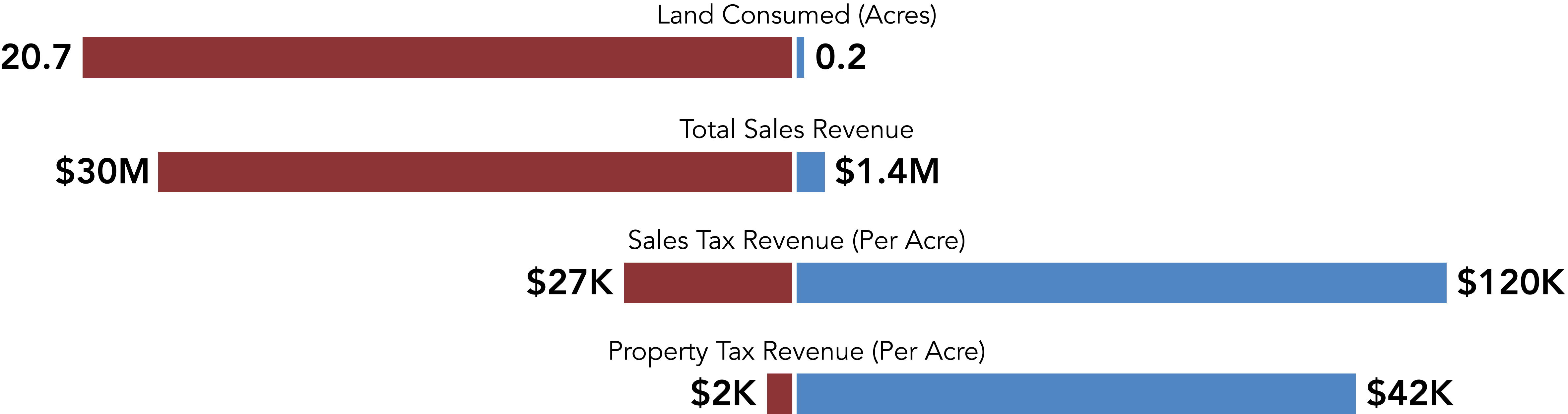
Joliet, IL



Walmart (W Jefferson St)



Bays Professional Center (N Chicago St)





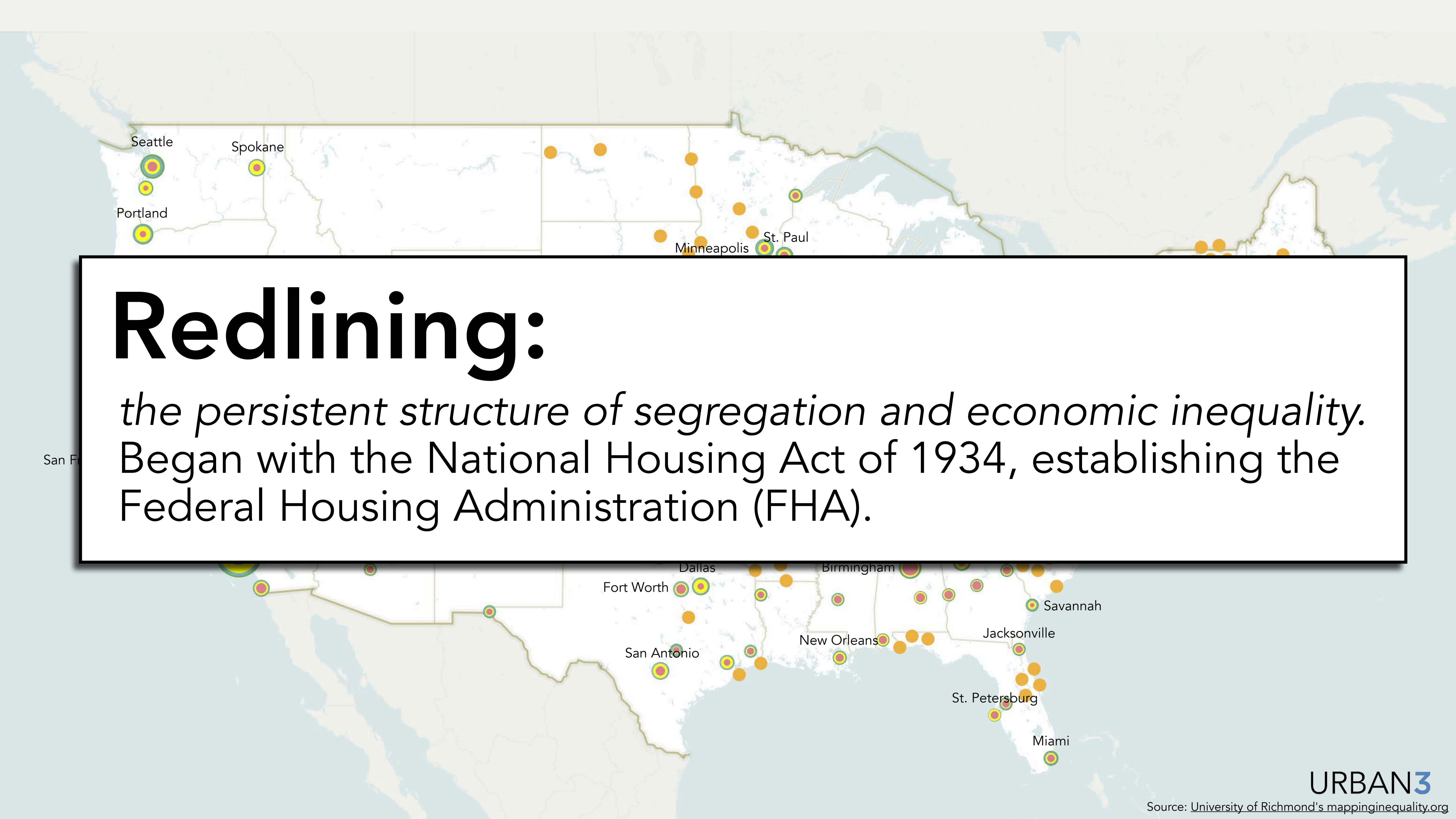
WELL

ISN'T THAT SPATIAL



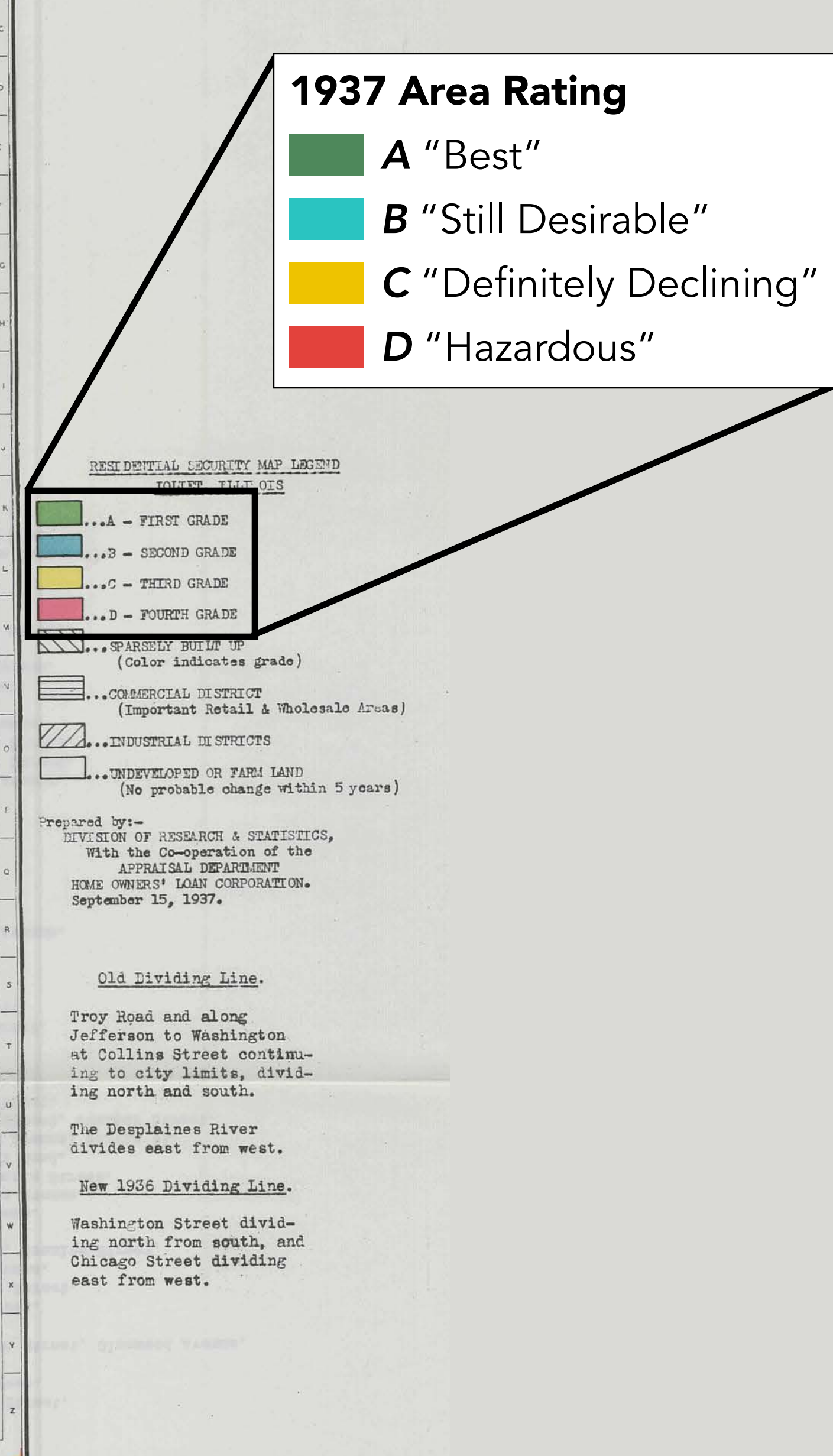
Redlining Analysis

Mapping Historical Inequality



Redlining:

the persistent structure of segregation and economic inequality.
Began with the National Housing Act of 1934, establishing the Federal Housing Administration (FHA).



D "Hazardous"

	...A - FIRST GRADE
	...B - SECOND GRADE
	...C - THIRD GRADE
	...D - FOURTH GRADE

... SPARSELY BUILT UP
(Color indicates grade)

...COMMERCIAL DISTRICT
(Important Retail & Wholesale Areas)

 INDUSTRIAL DISTRICTS

☐...UNDEVELOPED OR FARM LAND
(No probable change within 5 years)

Prepared by:-
DIVISION OF RESEARCH & STATISTICS,
With the Co-operation of the
APPRAISAL DEPARTMENT
HOME OWNERS' LOAN CORPORATION.
September 15, 1937.

Old Dividing Line.

Troy Road and along
Jefferson to Washington
at Collins Street continu-
ing to city limits, divid-
ing north and south.

The Desplaines River
divides east from west.

New 1936 Dividing Line.

Washington Street divid-
ing north from south, and
Chicago Street dividing
east from west.

Legacy of Redlining

Joliet, IL

Cathedral Area (Area A-1)

Clarifying Remarks

Vacant lots are in fair demand in this area. On Campbell and Wilcox is a brick apartment of 20 units, well kept up. Around Raynor and Mason are 3 brick apartments from 5-8 units, well kept up. And there are several 2 unit brick and a few frame interspersed throughout the area. [...]

Inhabitants

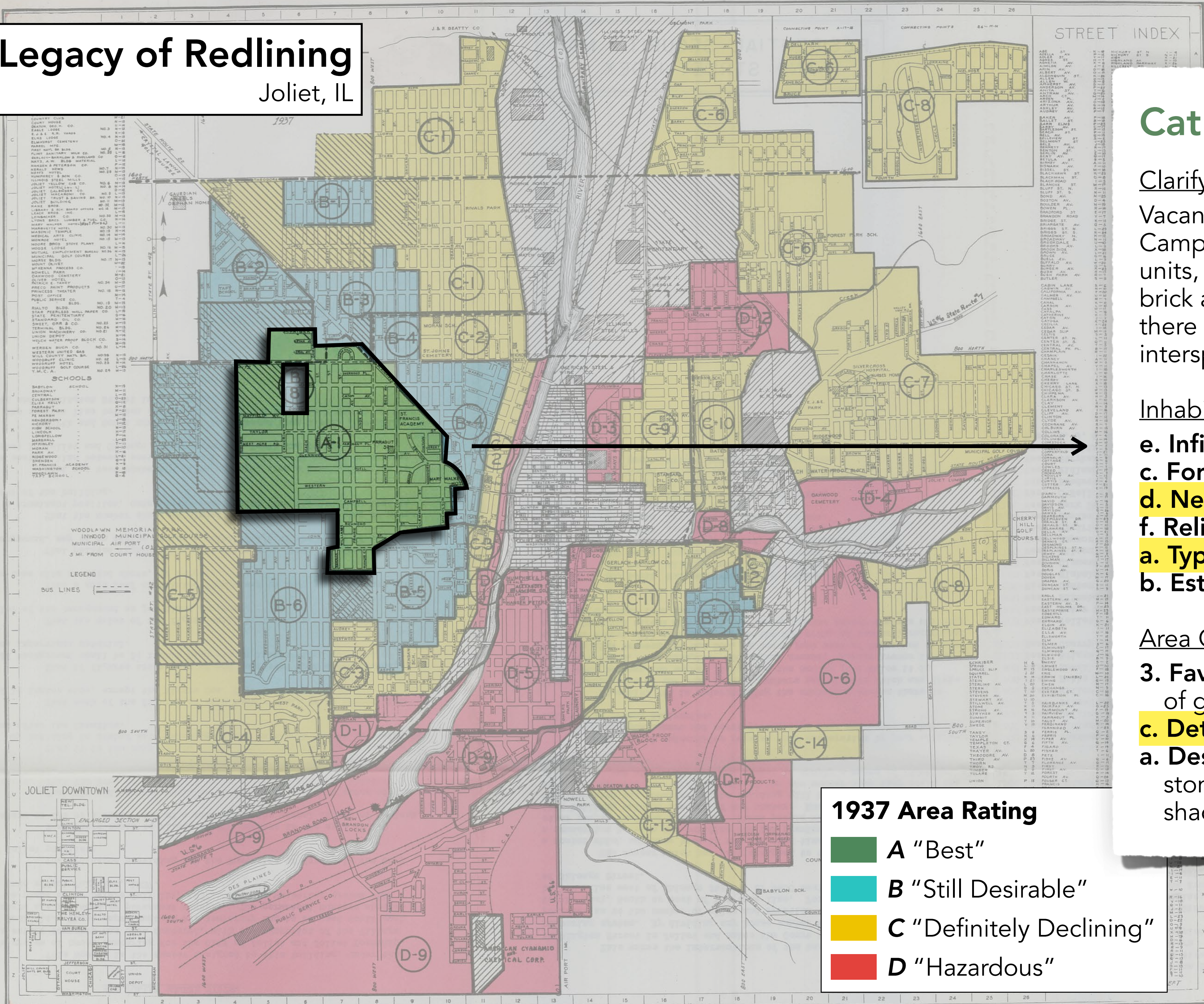
- e. Infiltration of: No
- c. Foreign-born families: Mixed ; 2
- d. Negro: None ; 0
- f. Relief families: No
- a. Type: Business, professional, & clerks
- b. Estimated Annual Family Income: \$2500-3000

Area Characteristics

- 3. Favorable influences: Farragut School, and trend of growth in this area, and west.
- c. Detrimental influences: None.
- a. Description of Terrain: Level, clay, gravel and stone. Rolling land east of Wilcox with many old shade trees.

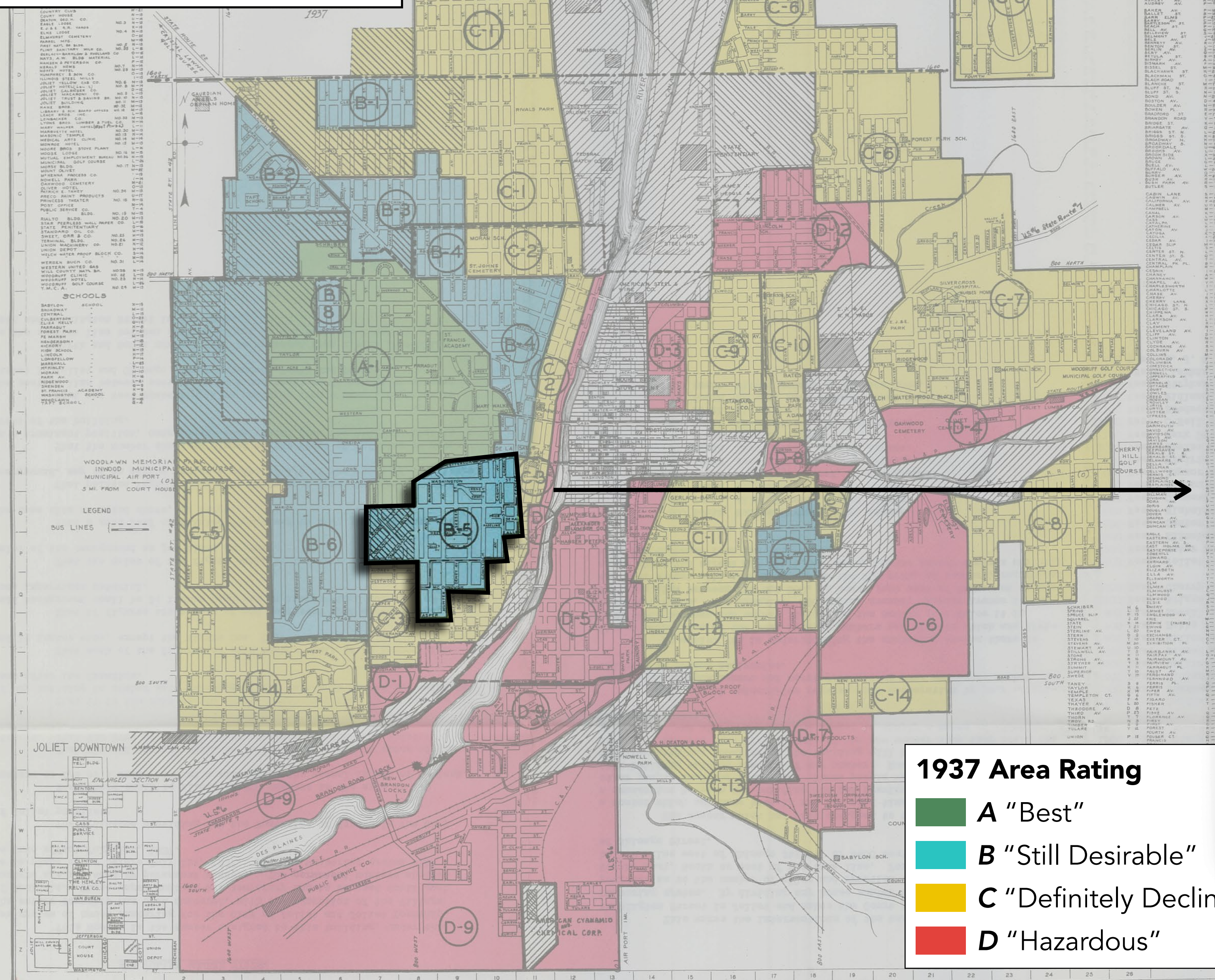
1937 Area Rating

- A "Best"
- B "Still Desirable"
- C "Definitely Declining"
- D "Hazardous"



Legacy of Redlining

Joliet, IL



1937 Area Rating

- A "Best"
- B "Still Desirable"
- C "Definitely Declining"
- D "Hazardous"

St. Pat's (Area B-5)

Clarifying Remarks

The extreme western section of area bounded by Wheeler and Rayner, Morgan and Marion is new subdivision (8 years old) and is the only part of entire area not paved. This section is under development and is restricted, being best available section of area close in. New construction is mostly in this section of area on extreme west now marked "sparsely settled."

Inhabitants

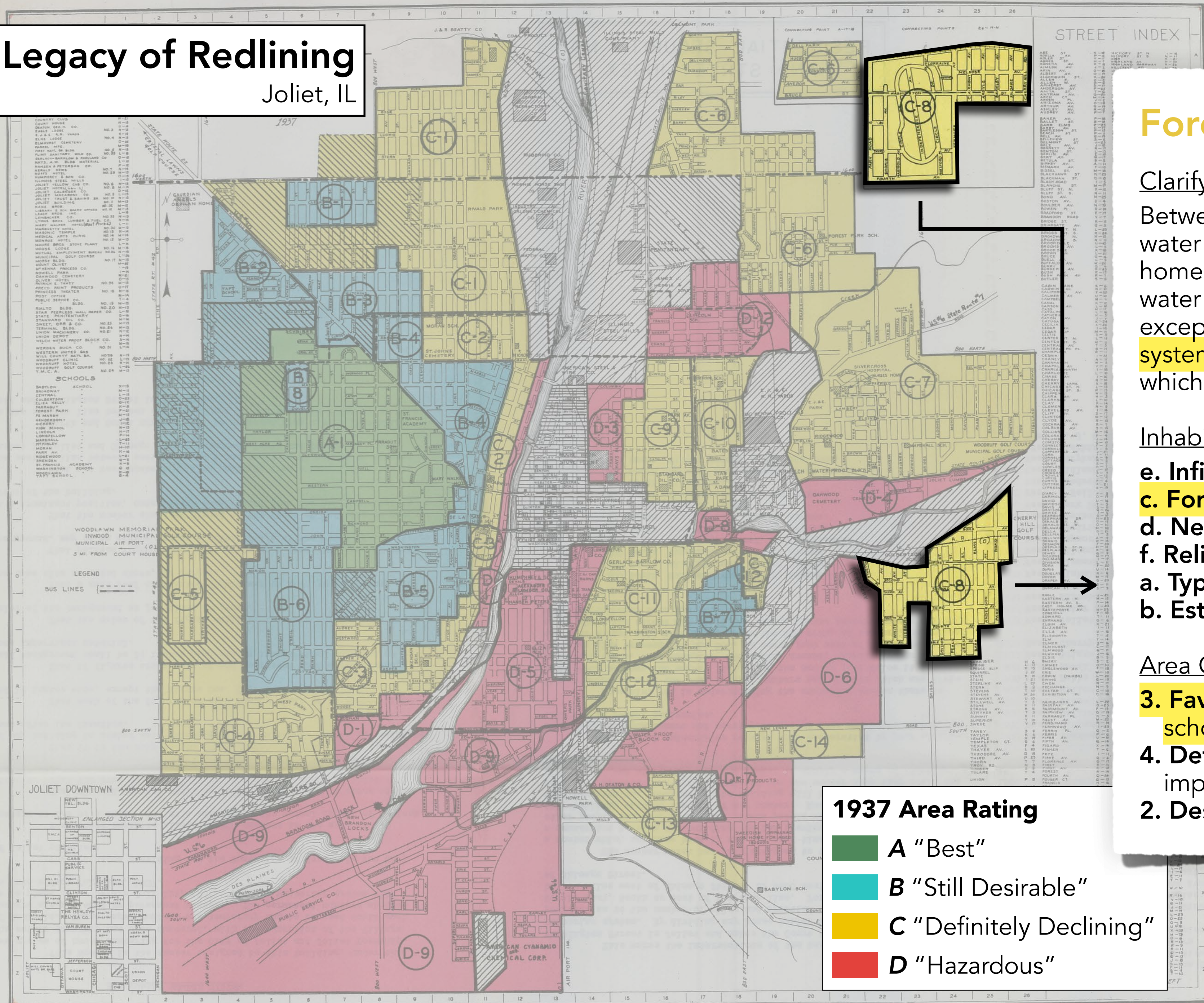
- e. Infiltration of: No
- c. Foreign-born families: Few ; 5
- d. Negro: No ;
- f. Relief families: Few
- a. Type: Mixed, clerks, business, professional, mechanics, etc.
- b. Estimated Annual Family Income: \$2250

Area Characteristics

- 4. **Detrimental influences:** North of Washington to Jefferson from Garfield to Wilcox is a cemetery. Proximity to industrial district. Canal to east.
- 2. **Description of Terrain:** Level — a gradual rise from Center Street to Hunter — a ravine runs along Emmett and Washington to Hunter.

Legacy of Redlining

Joliet, IL



Forest Park (Area C-8)

Clarifying Remarks

Between Briggs, east side of Peel, they have own water and sewerage system, also a few dozen homes on Hibbard Street have own sewerage and water system. Otherwise, with a few private owner exceptions, area is without public water or sewerage system except from Clairmont to Cherry Hill Road which has own water and sewerage system. [...]

Inhabitants

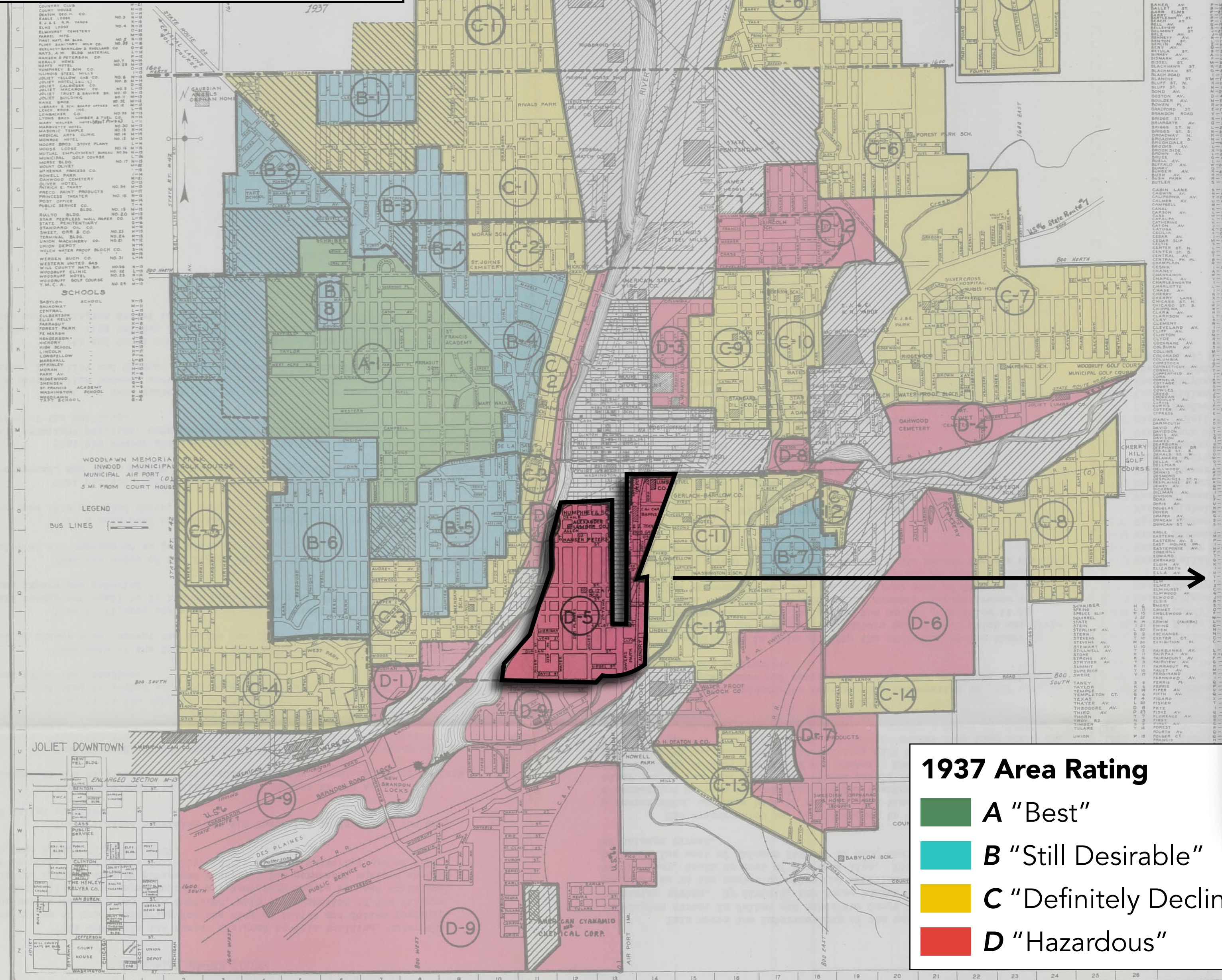
- e. Infiltration of: No
- c. Foreign-born families: Italians and mixed ; 5
- d. Negro: None ;
- f. Relief families: Yes
- a. Type: Laborers
- b. Estimated Annual Family Income: \$800

Area Characteristics

- 3. Favorable influences: None, except good schools.
- 4. Detrimental influences: Lacking in public improvements and building restrictions.
- 2. Description of Terrain: Level, high and dry.

Legacy of Redlining

Joliet, IL



Southside Area (Area D-5)

Clarifying Remarks

Some homes on Ottawa and Eastern Avenue have been converted into rooming houses and apartments. Italians predominate from Water to Chicago Street south of McDonough and have built some good brick homes in the past 12 years.

Colored people are scattered throughout the entire area. The only paved streets in area are Ottawa, and Eastern Avenue and Chicago Street to city limits on south. Known as 6th Ward.

Inhabitants

- e. Infiltration of: Yes
- c. Foreign-born families: Italians and mixed ; 60
- d. Negro: Yes ; 20
- f. Relief families: Many
- a. Type: Laborers
- b. Estimated Annual Family Income: \$900

Area Characteristics

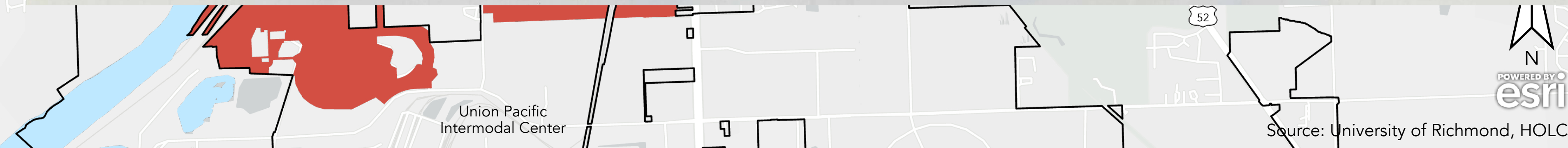
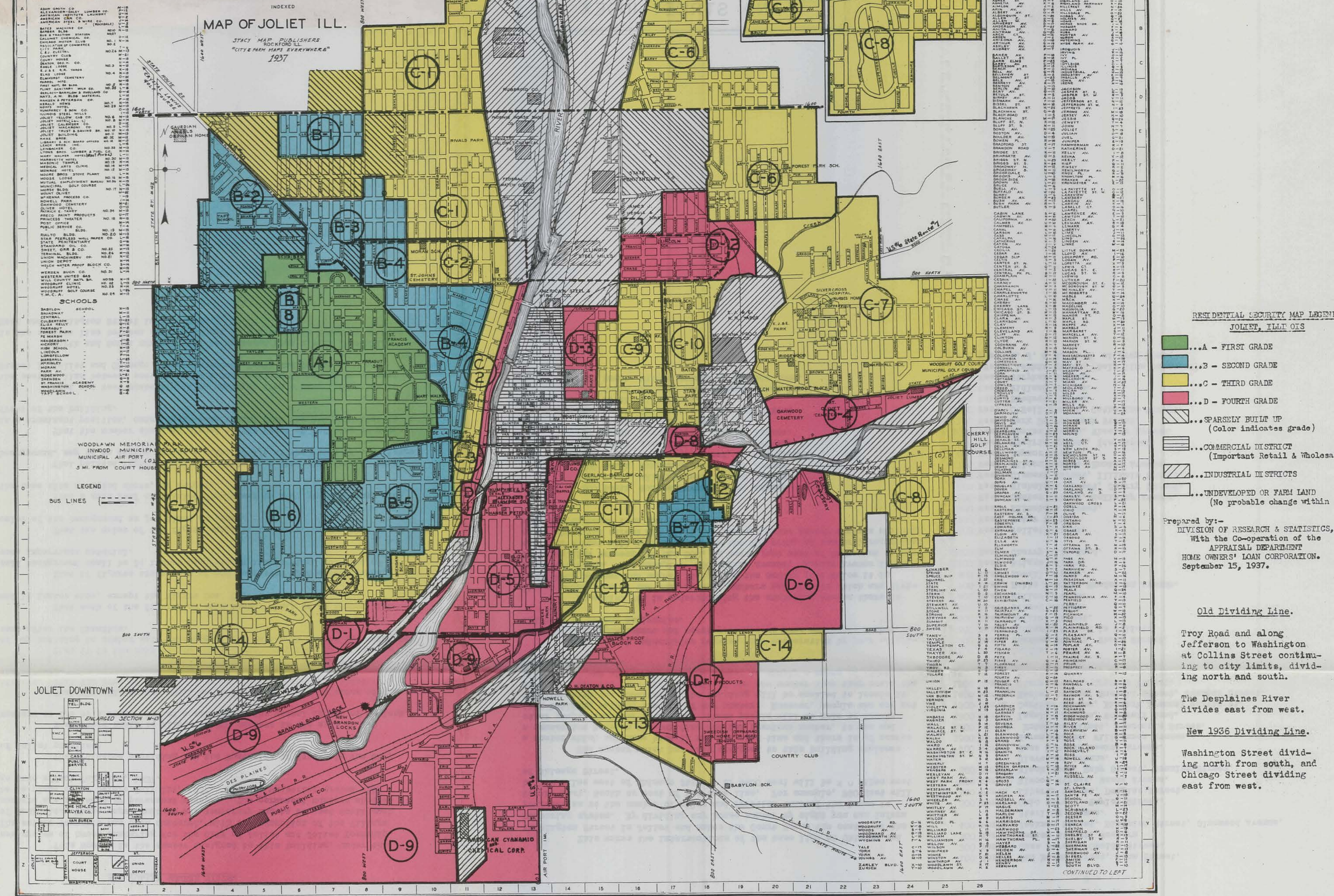
- 3. Favorable influences: None.
- 4. Detrimental influences: Colored, industries, railroads, Lowland south of McDonough.
- 2. Description of Terrain: Level.

Legacy of Redlining

Joliet, IL

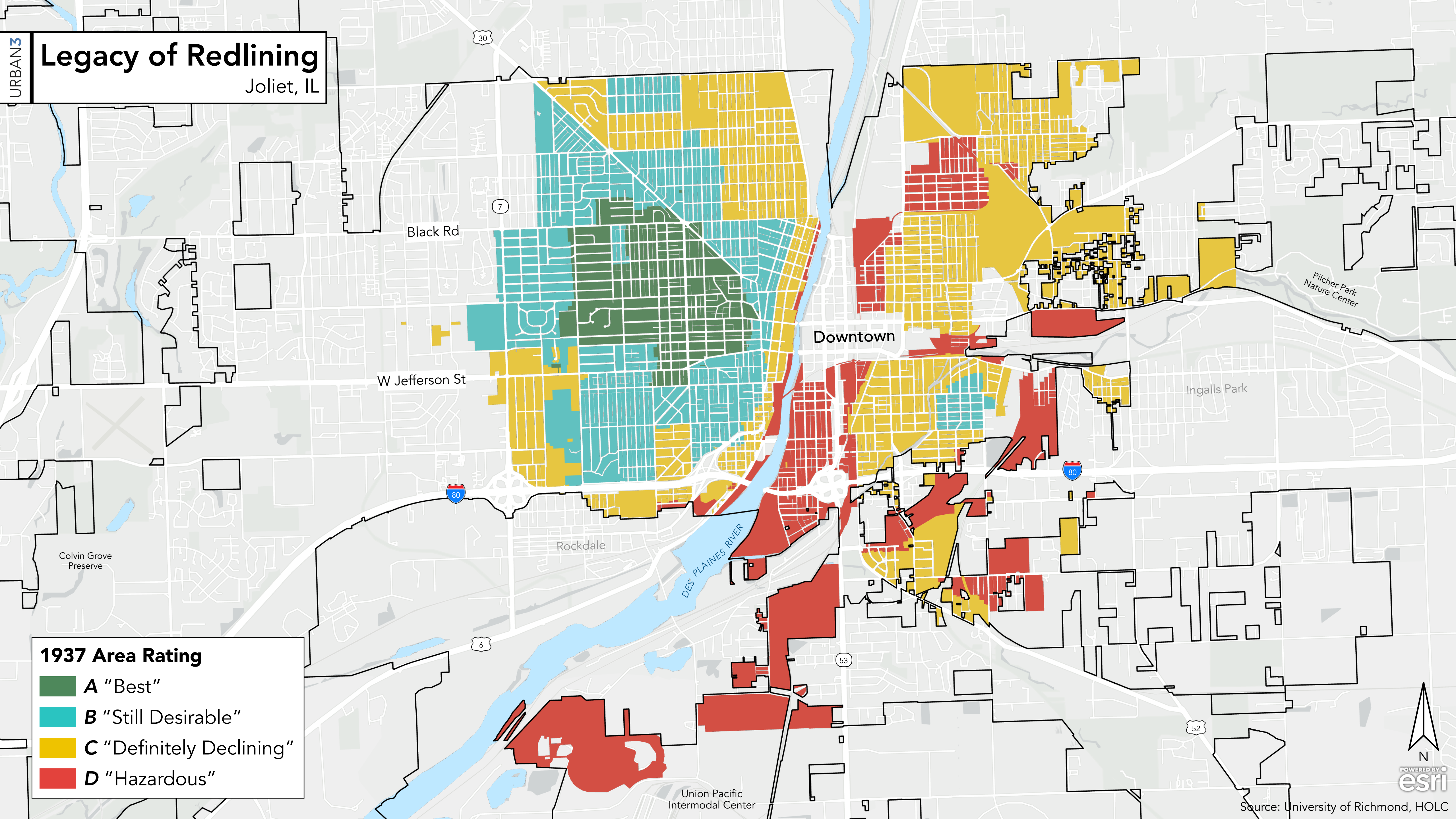
1937 Area Rating

- **A "Best"**
- **B "Still Desirable"**
- **C "Definitely Declining"**
- **D "Hazardous"**



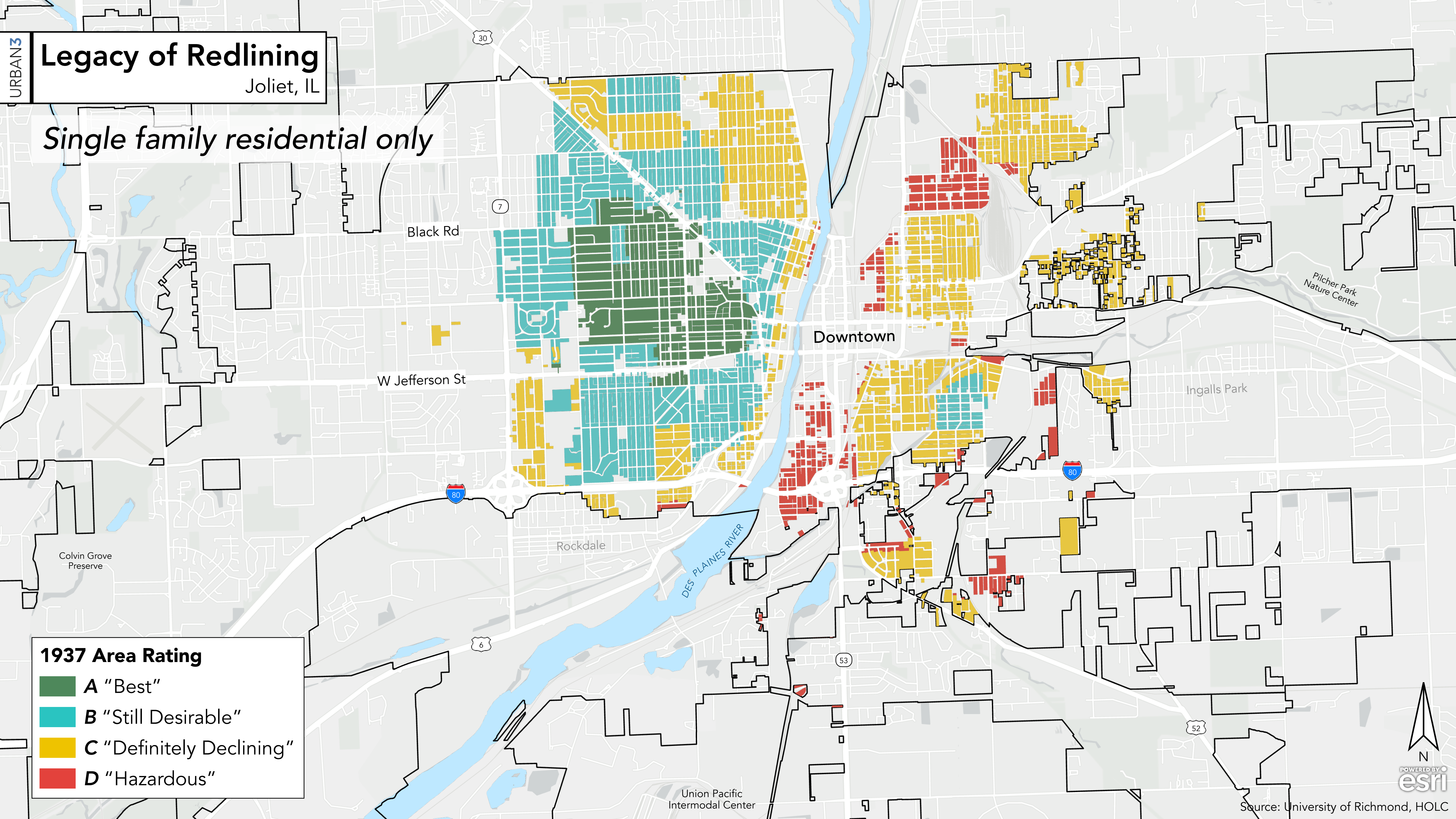
Legacy of Redlining

Joliet, IL



1937 Area Rating

- A** "Best"
- B** "Still Desirable"
- C** "Definitely Declining"
- D** "Hazardous"



URBAN3

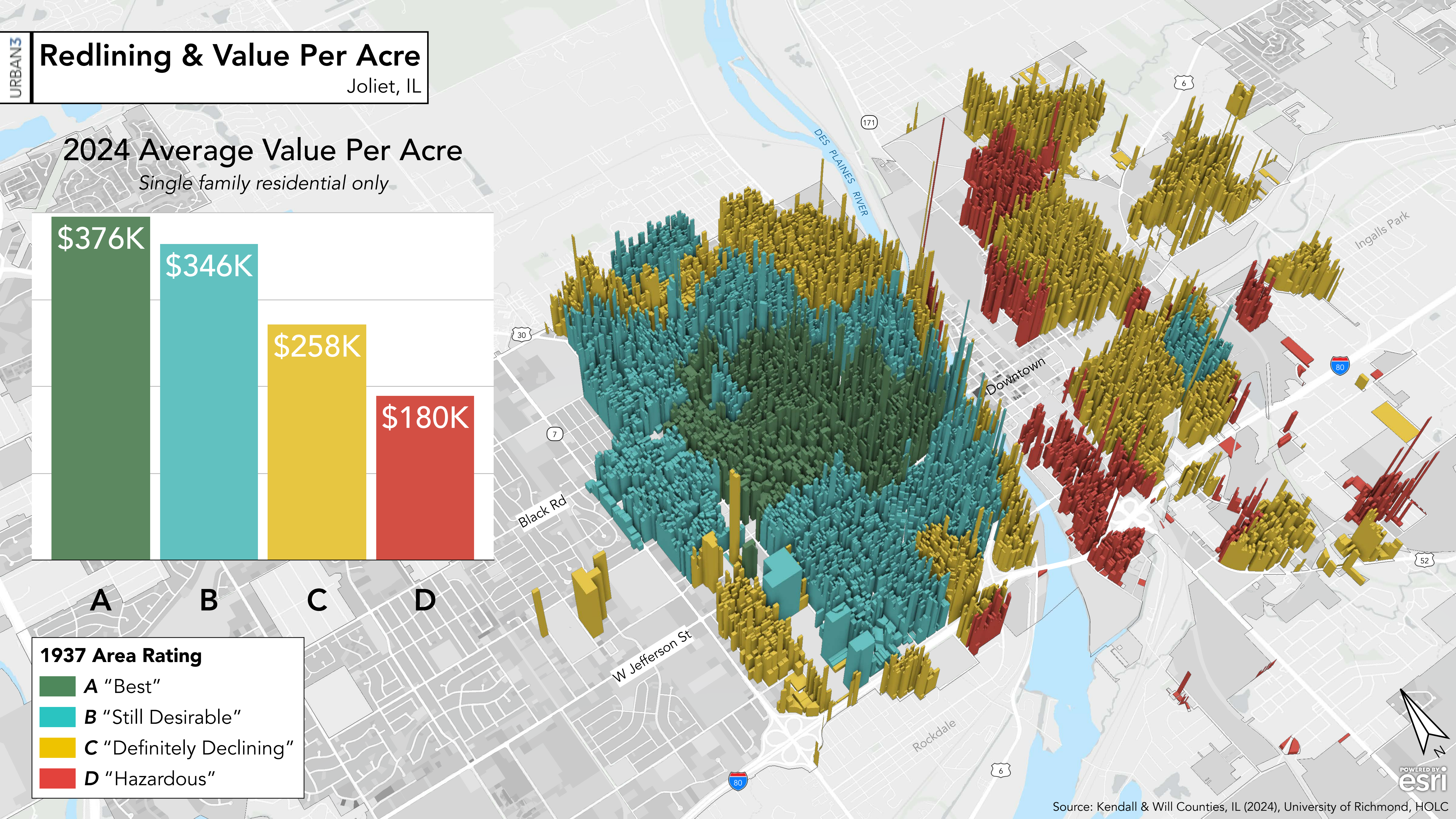
Legacy of Redlining

Joliet, IL

Single family residential only

1937 Area Rating

- **A** "Best"
- **B** "Still Desirable"
- **C** "Definitely Declining"
- **D** "Hazardous"

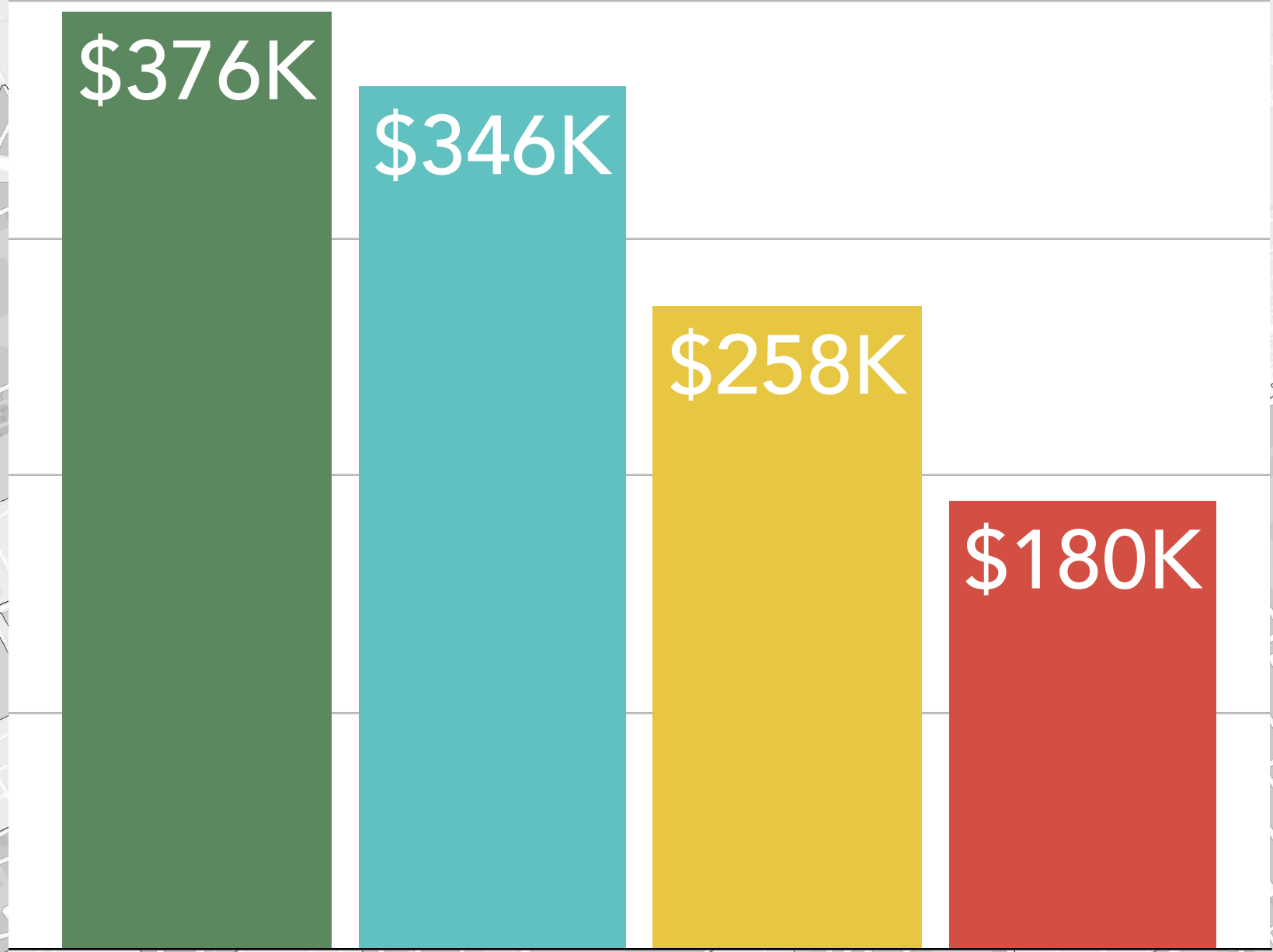


Redlining & Value Per Acre

Joliet, IL

2024 Average Value Per Acre

Single family residential only

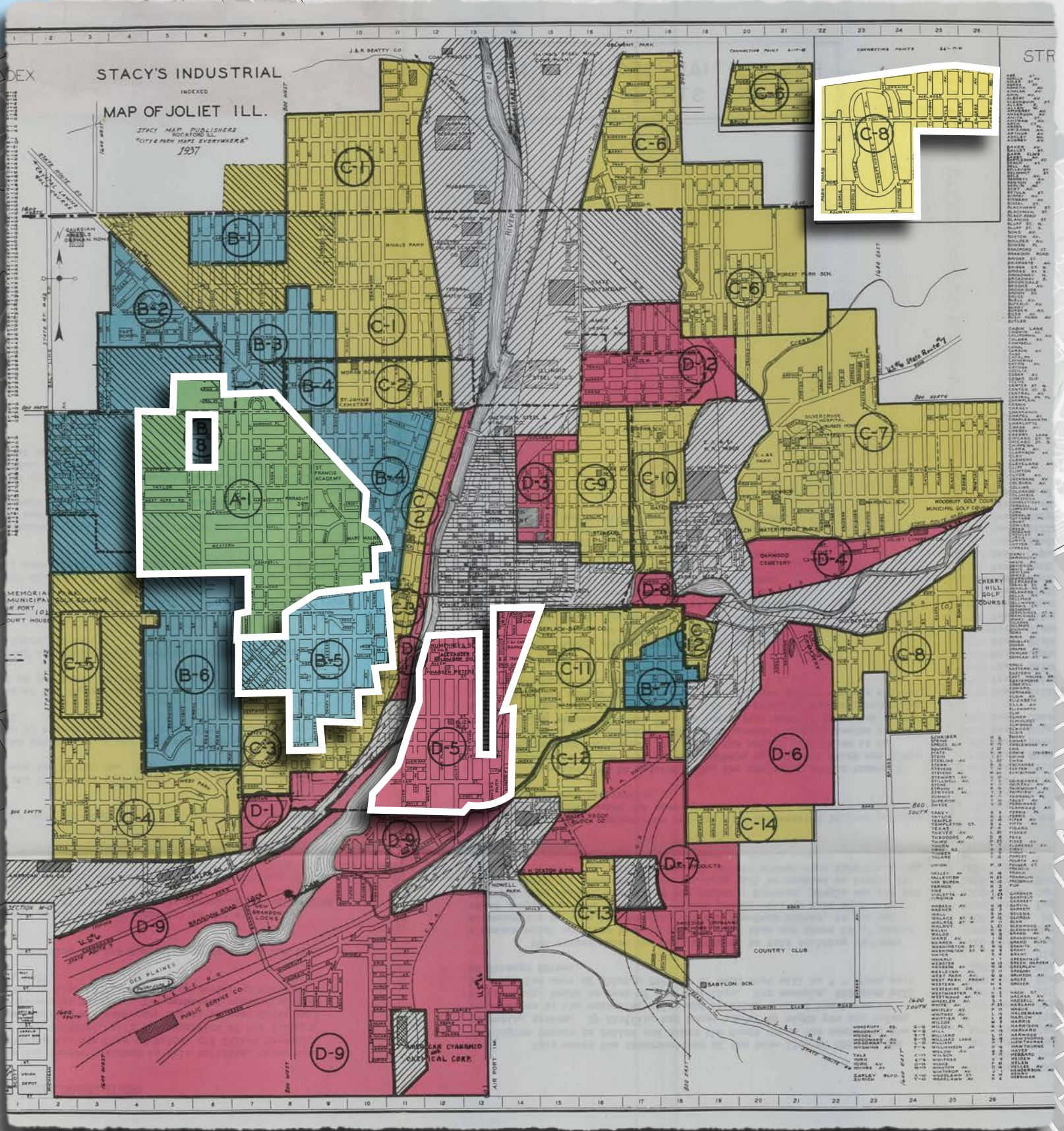


1937 Area Rating

- A "Best"
- B "Still Desirable"
- C "Definitely Declining"
- D "Hazardous"

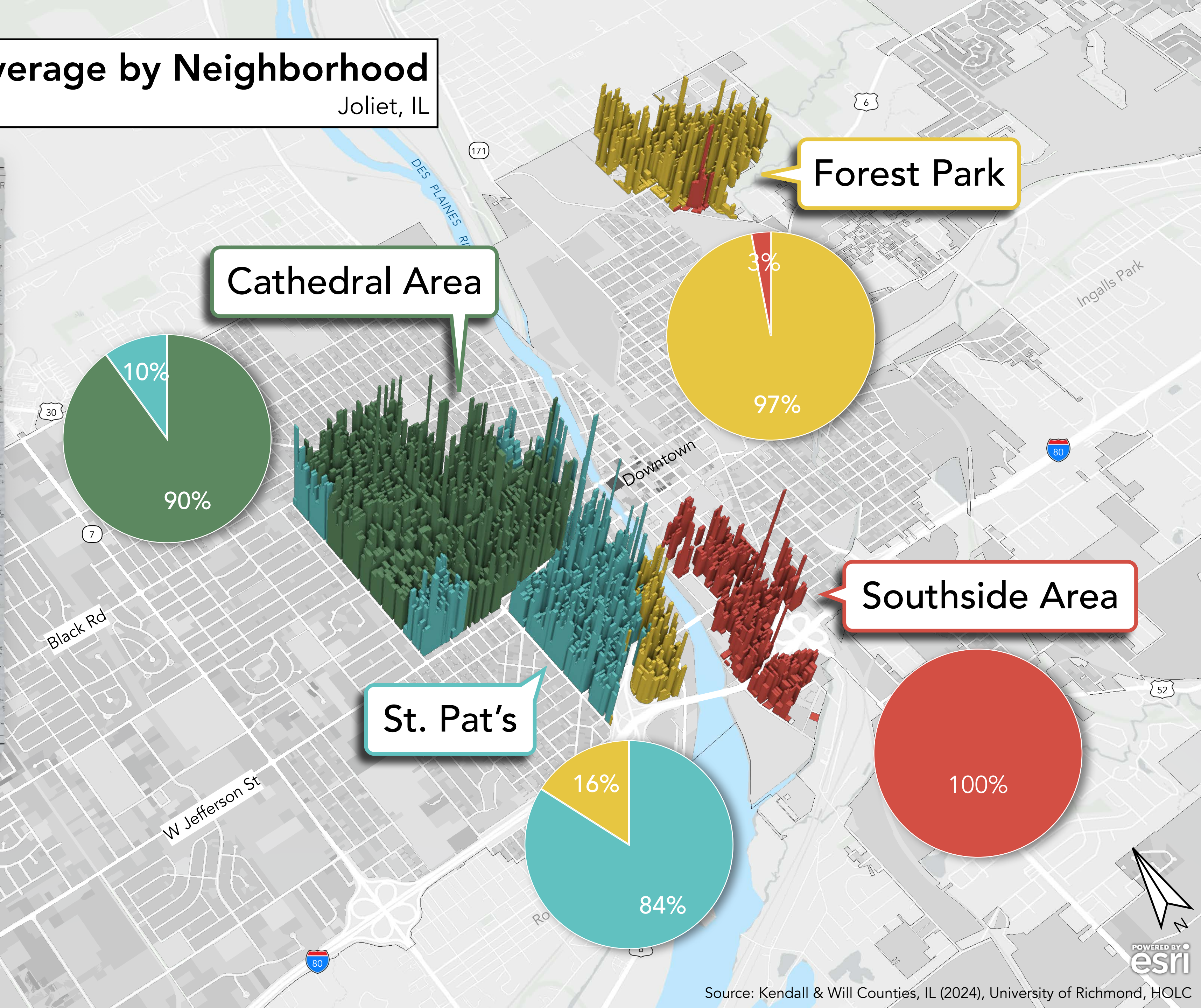
Redlining Grade Land Area Coverage by Neighborhood

Joliet, IL



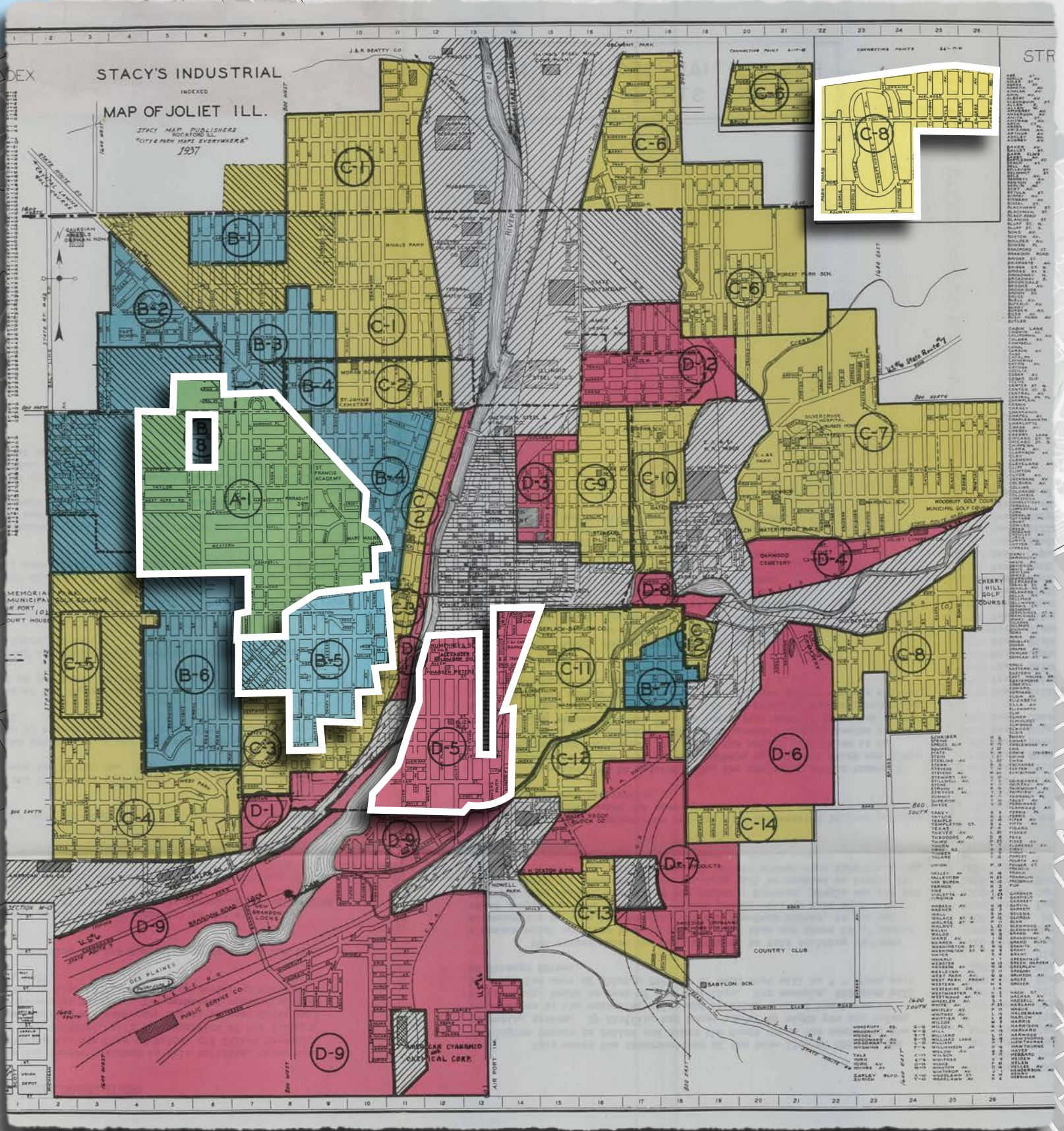
1937 Area Rating

- **A** "Best"
- **B** "Still Desirable"
- **C** "Definitely Declining"
- **D** "Hazardous"



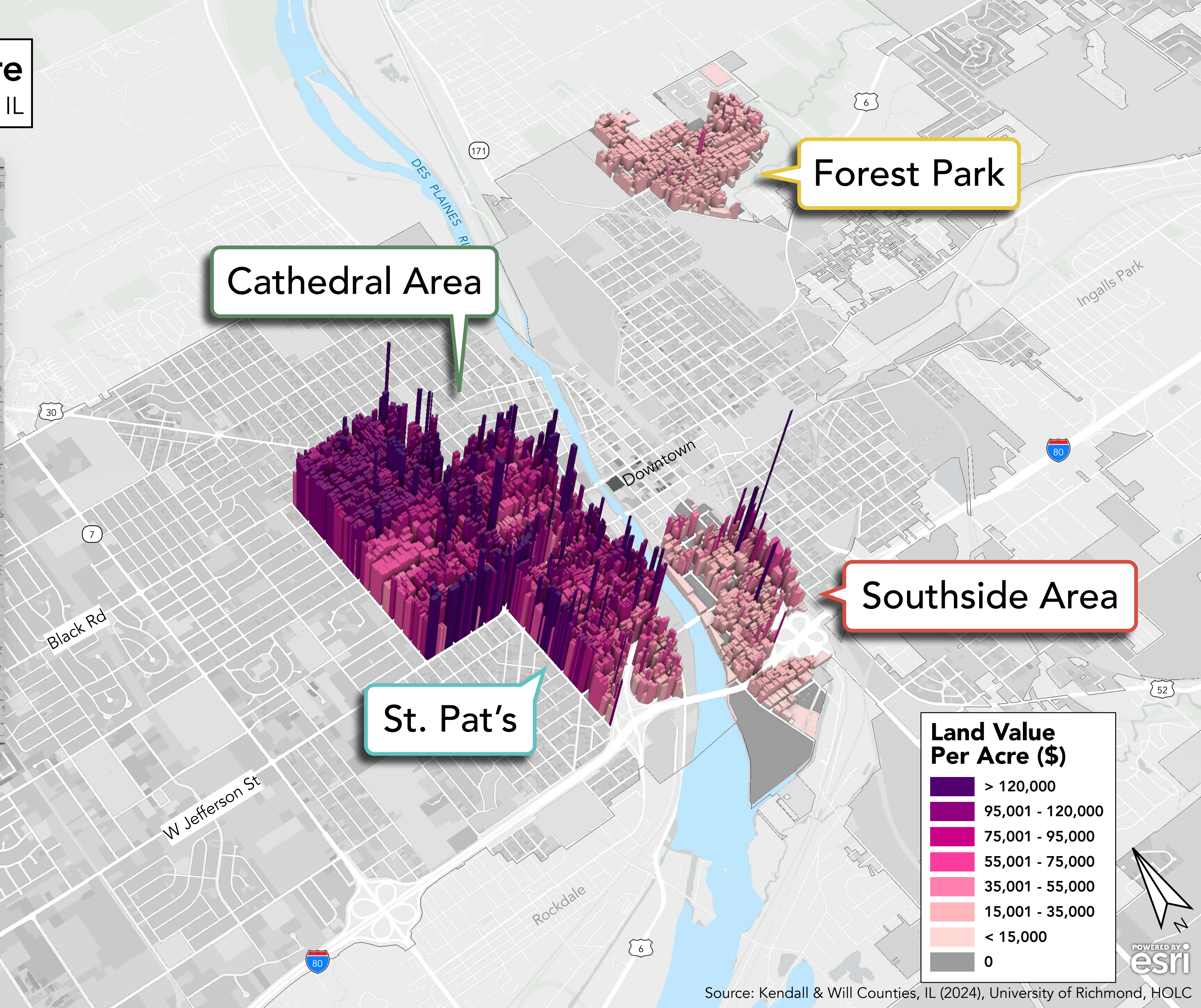
Redlining & Land Value Per Acre

Joliet, IL



1937 Area Rating

- **A** "Best"
- **B** "Still Desirable"
- **C** "Definitely Declining"
- **D** "Hazardous"

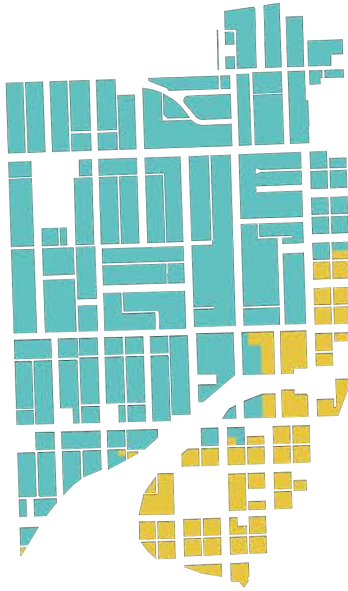
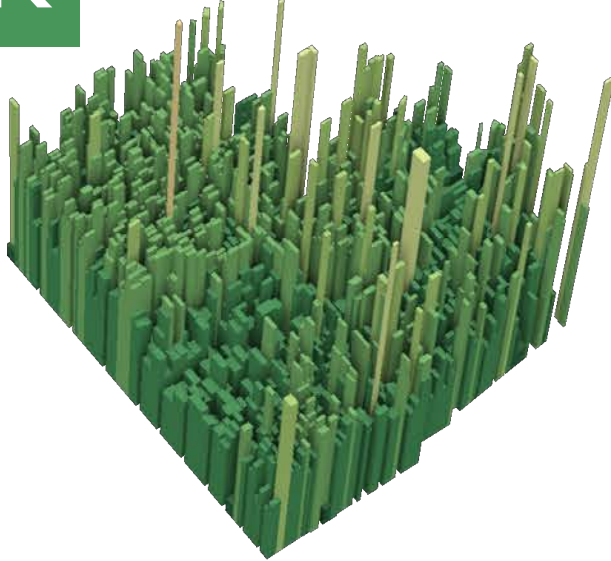
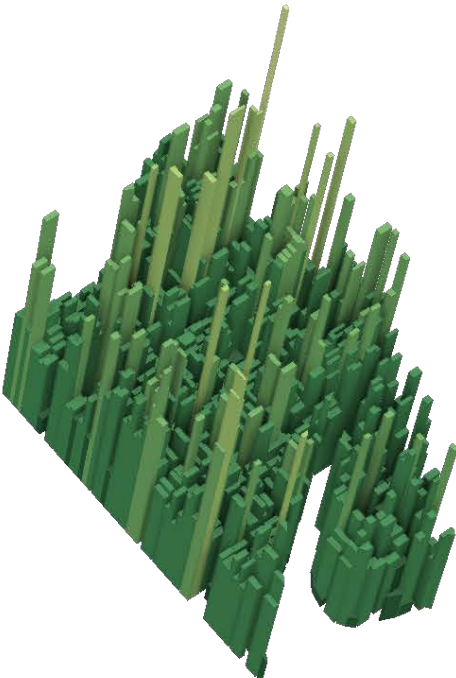
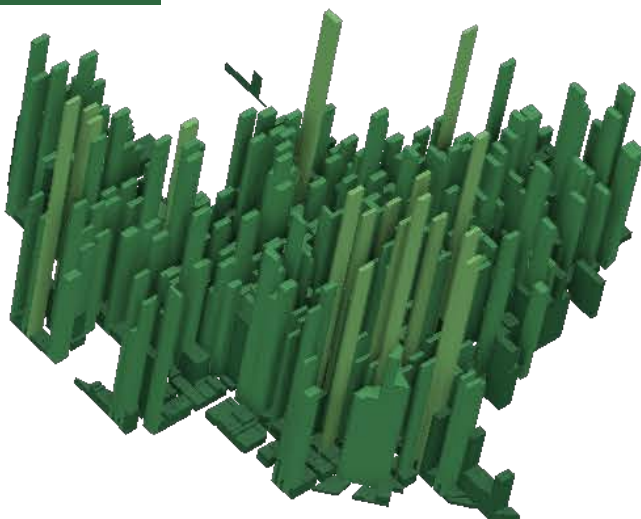
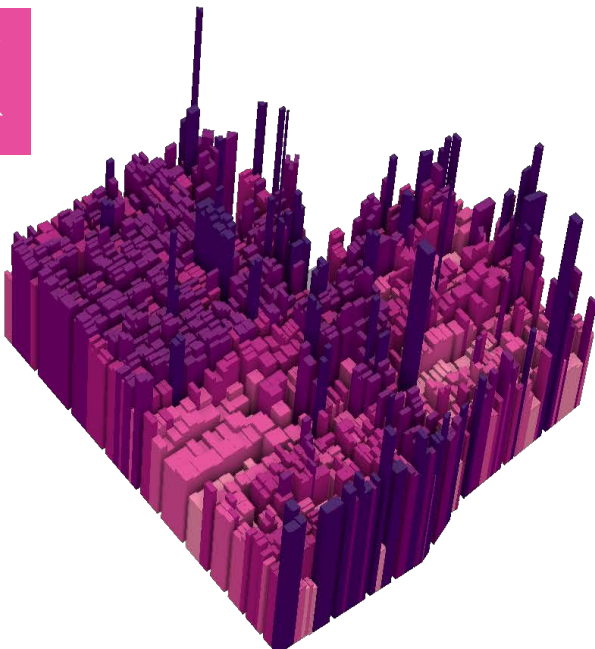
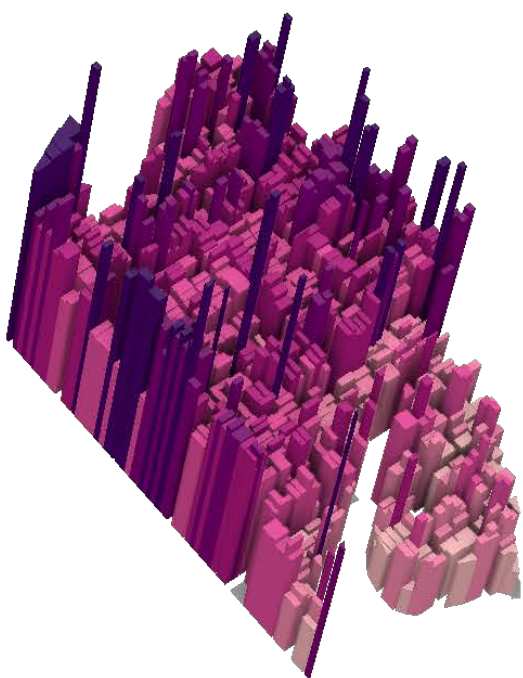
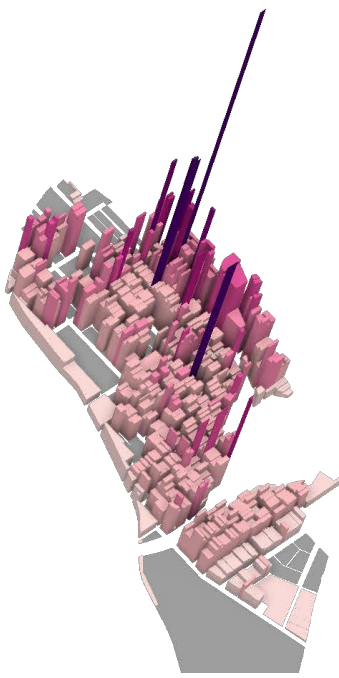
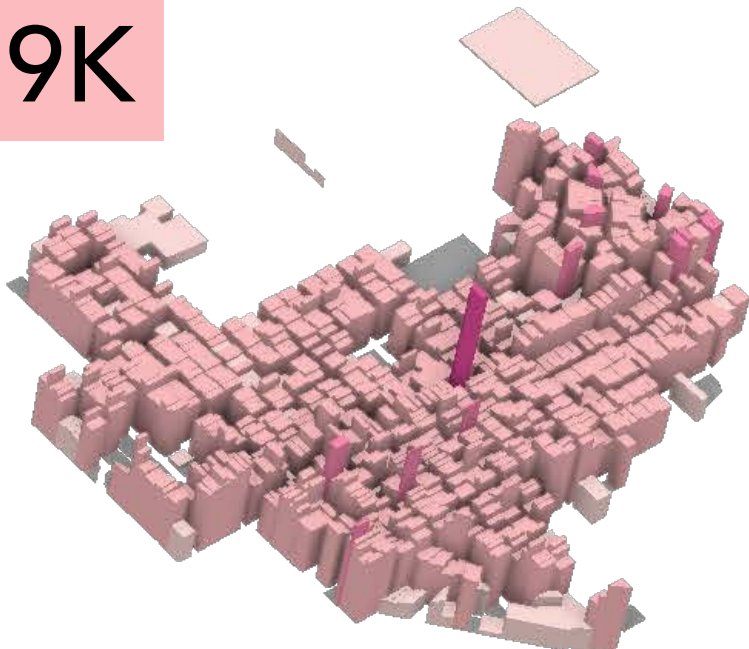


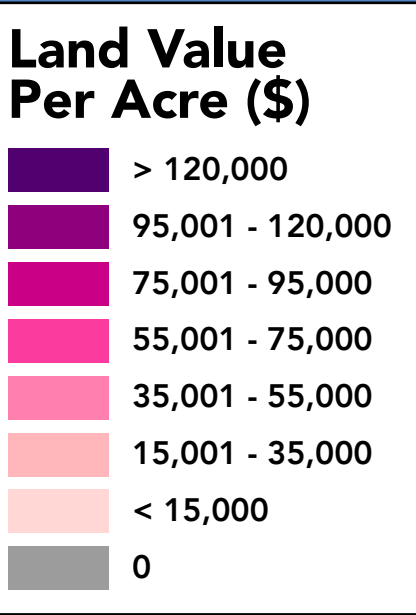
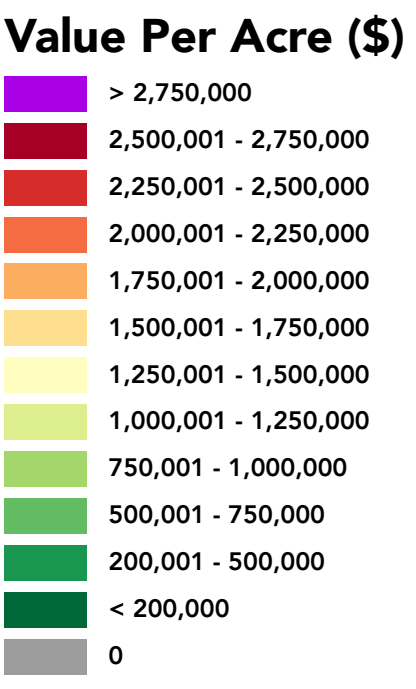
Land Value Per Acre (\$)

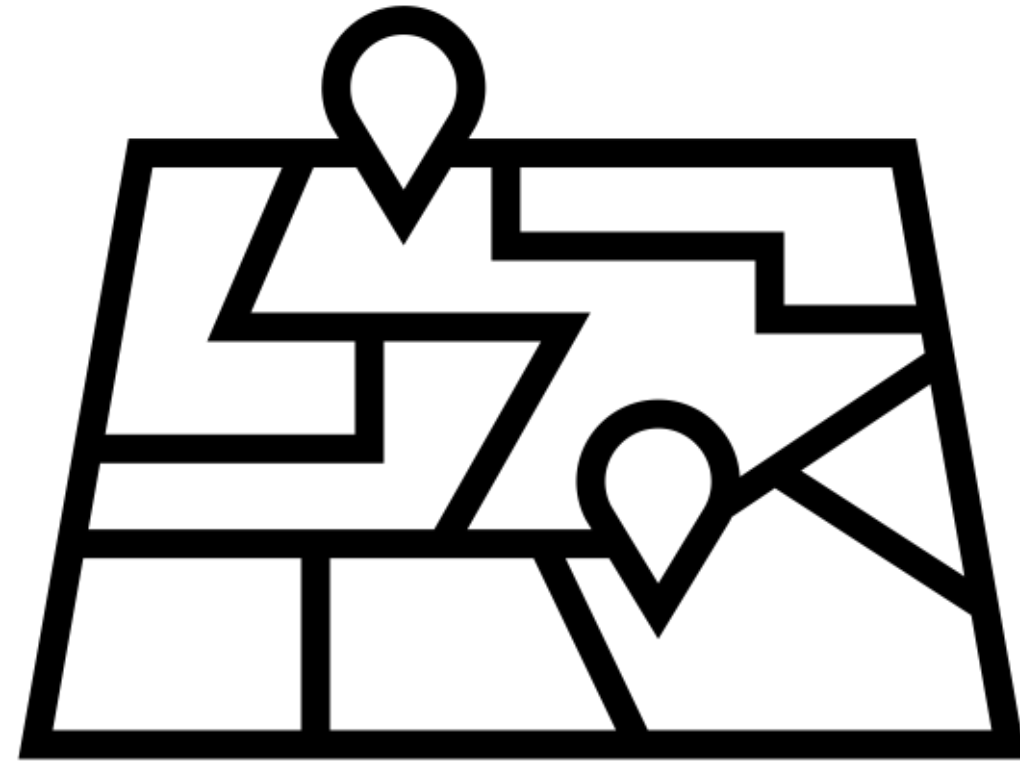
- > 120,000
- 95,001 - 120,000
- 75,001 - 95,000
- 55,001 - 75,000
- 35,001 - 55,000
- 15,001 - 35,000
- < 15,000
- 0

Legacy of Redlining: Neighborhood Comparisons

Joliet, IL

	Cathedral Area	St. Pat's	Southside Area	Forest Park
Primary 1937 Redlining Map Grade	"Best" 	"Still Desirable" 	"Hazardous" 	"Definitely Declining" 
Average Value Per Acre	\$403K 	\$308K 	\$164K 	\$139K 
Average Land Value Per Acre	\$81K 	\$66K 	\$26K 	\$19K 





Annexation History

Comparative Spatial Modeling of Economic Change



Chicago Tribune

25c

February 12th, 1989

137th Year—No. 11 © 1983 Chicago Tribune 7 Sections C



Joliet arms itself for expansion

“You have to stay 10 to 12 years ahead of yourself. It takes that long for annexation to pay off.

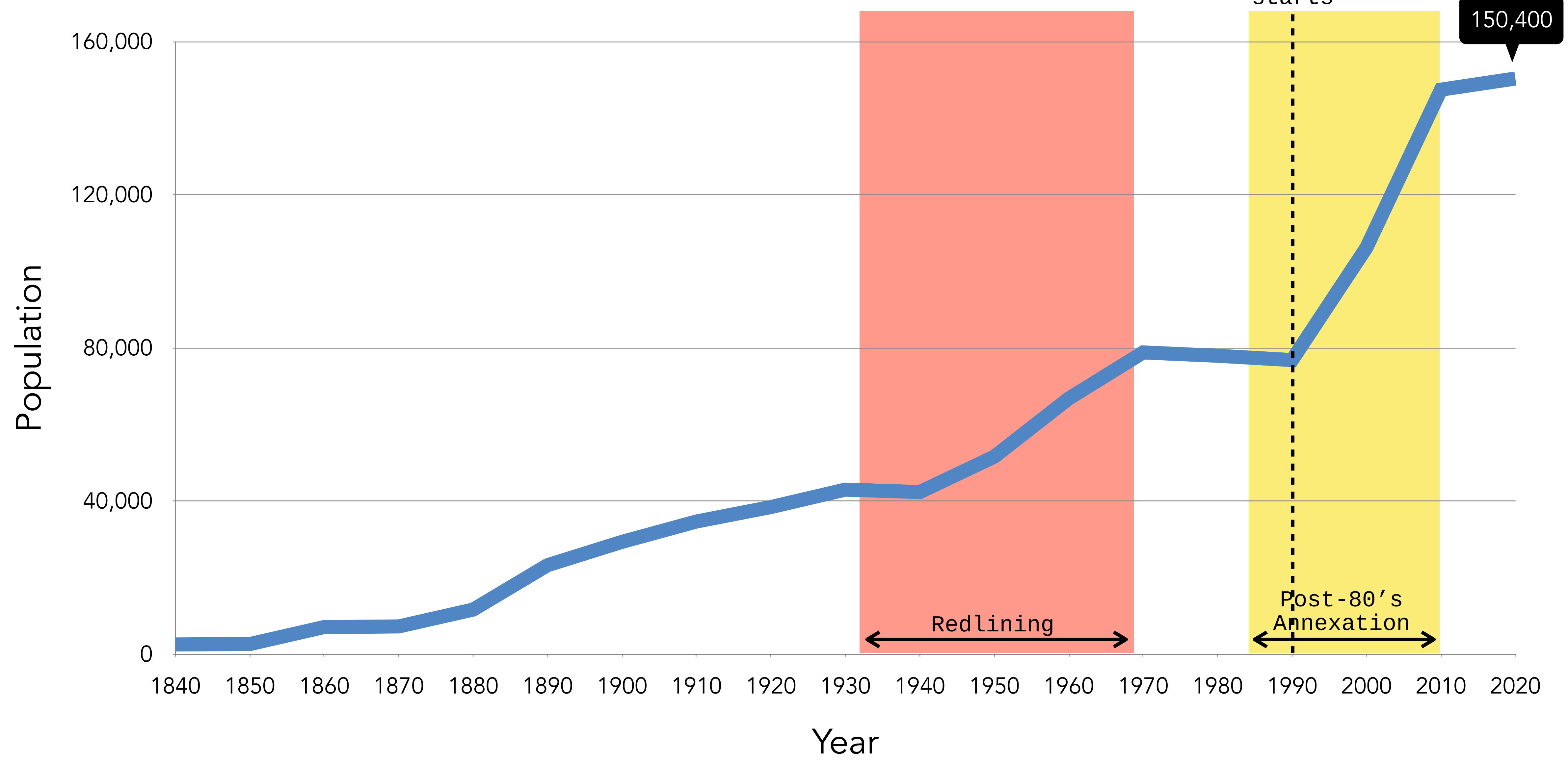
It will cost us about \$4 million, one time, to extend water and sewer service into the (newly annexed 550-acre) area, and we expect the return to be \$3 million to \$4 million a year (in increased tax revenue).

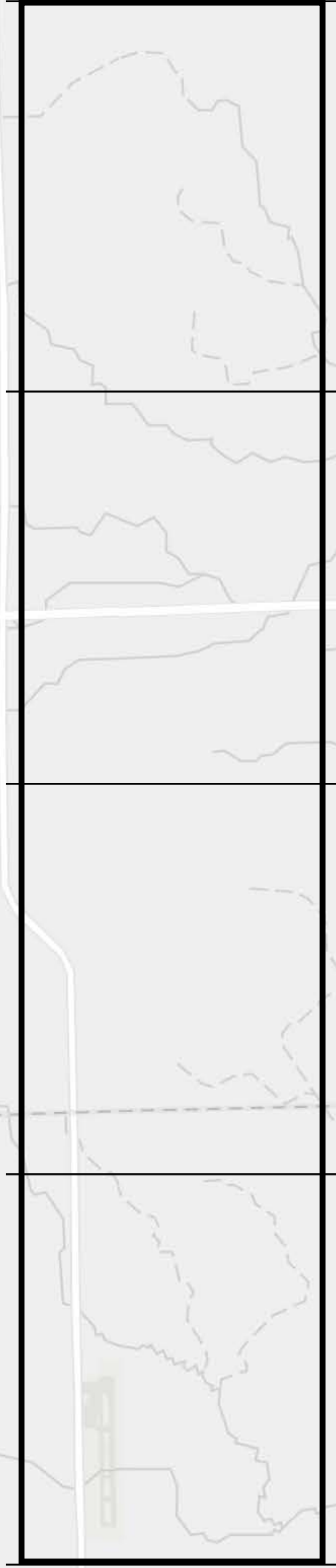
It's good business, just good planning.”

That's \$4.7M/sq.mi., or \$13M/sq.mi. in today's dollars.

— John Mezera, *City Manager*

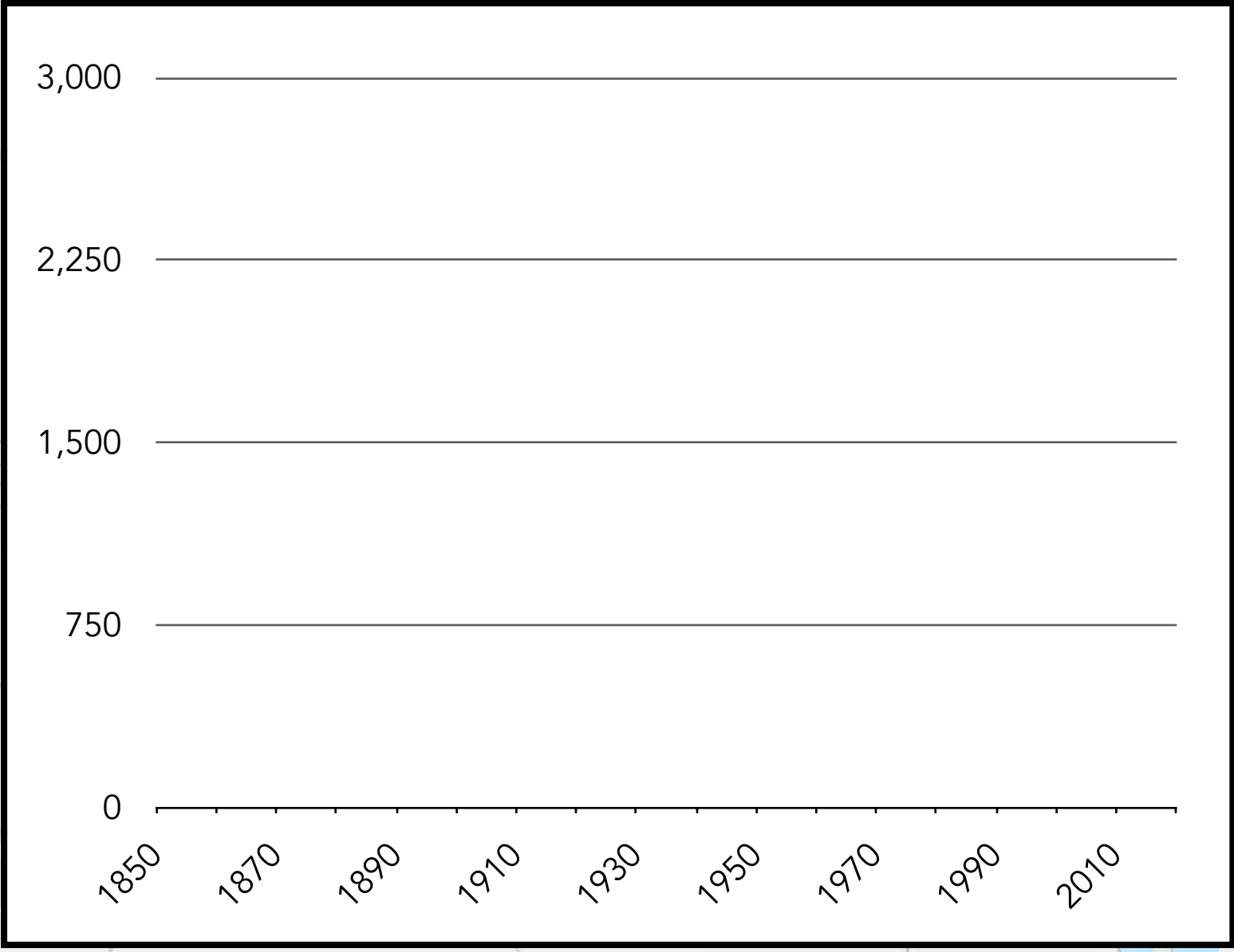




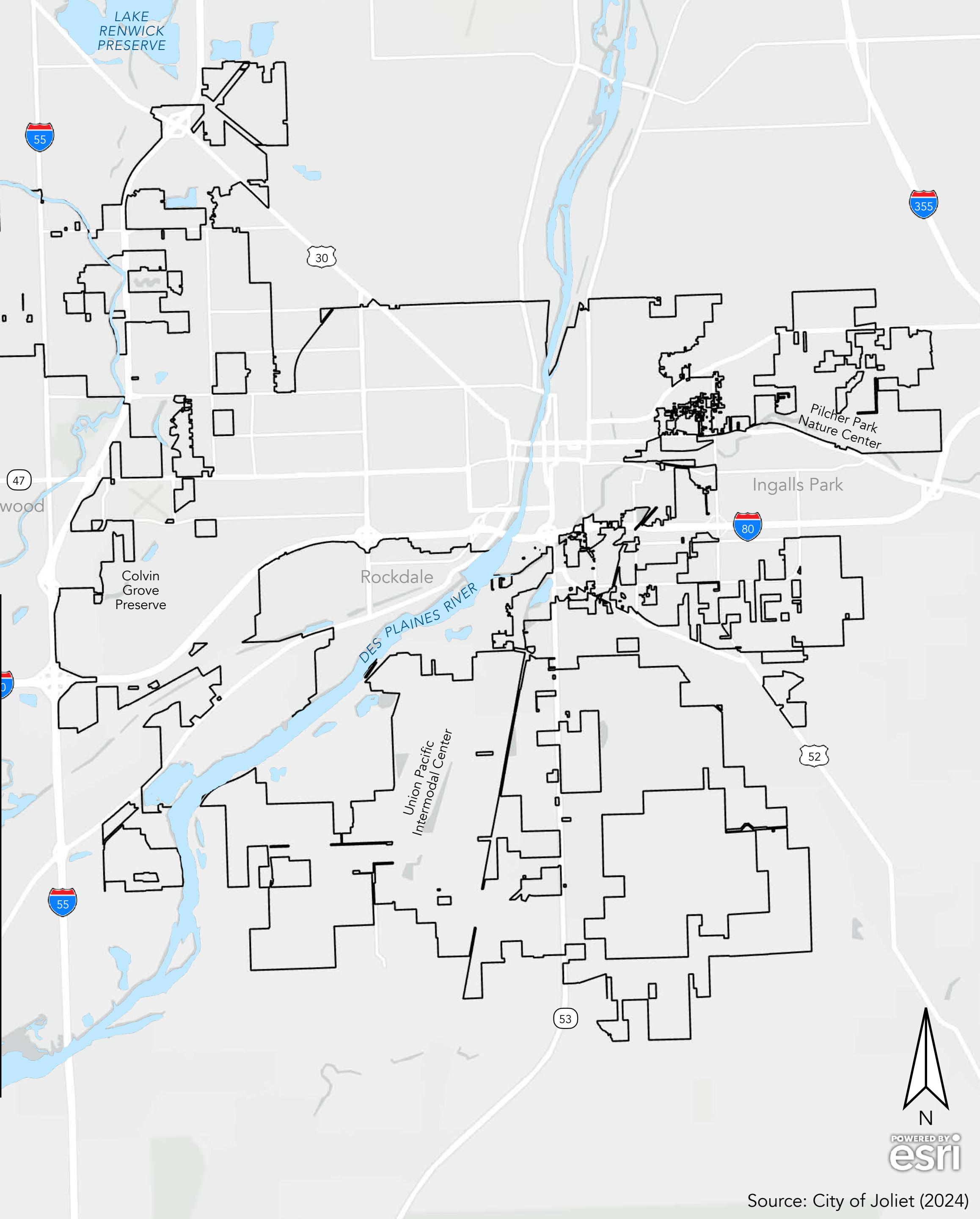


Population Density

(people per sq. mi)

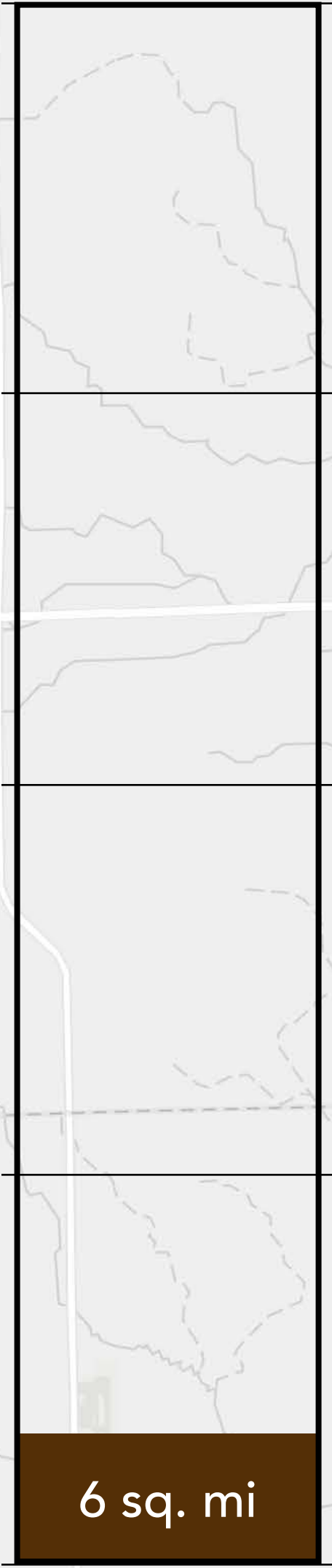


Total Land Area: 69 Sq. Mi



Annexation History

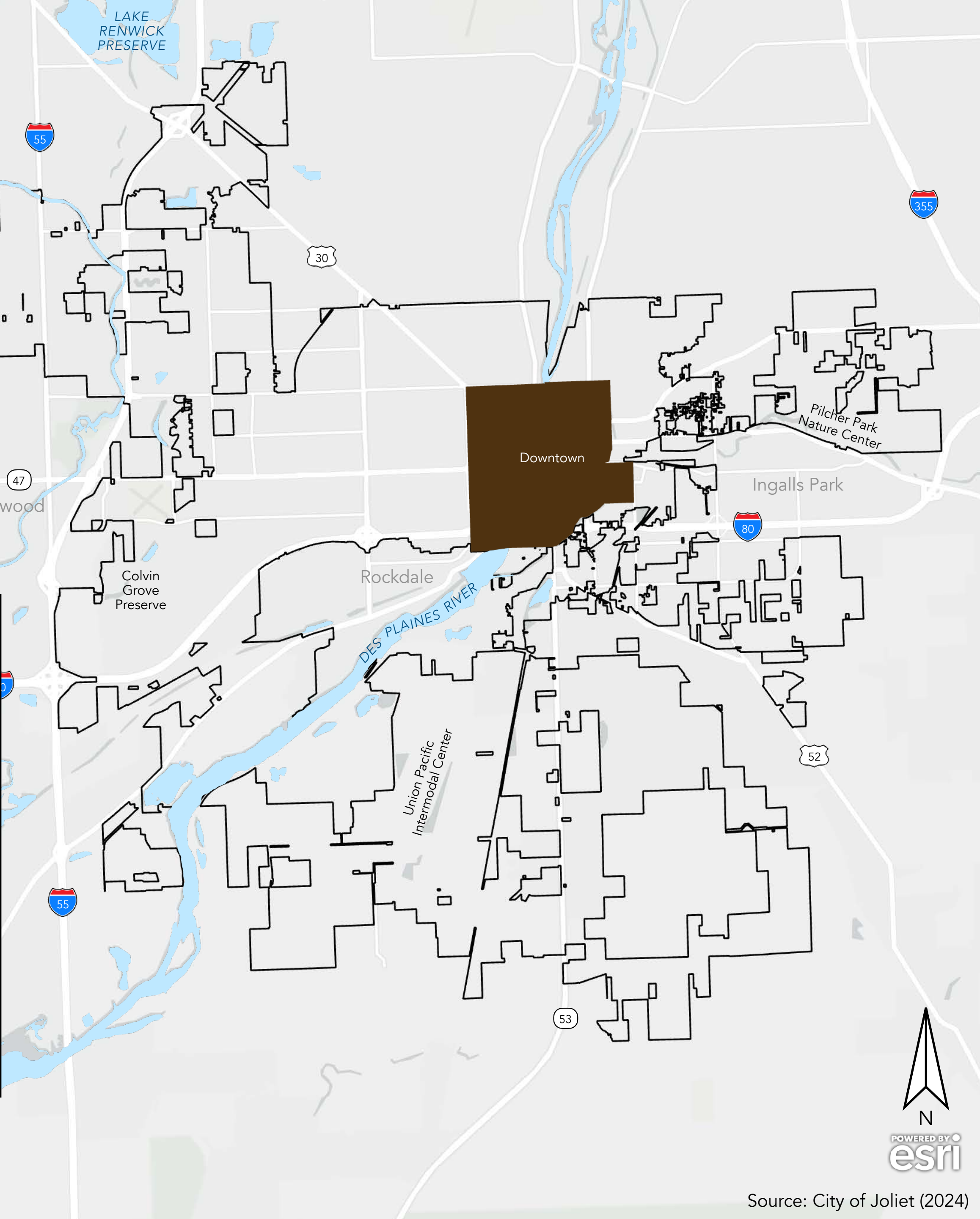
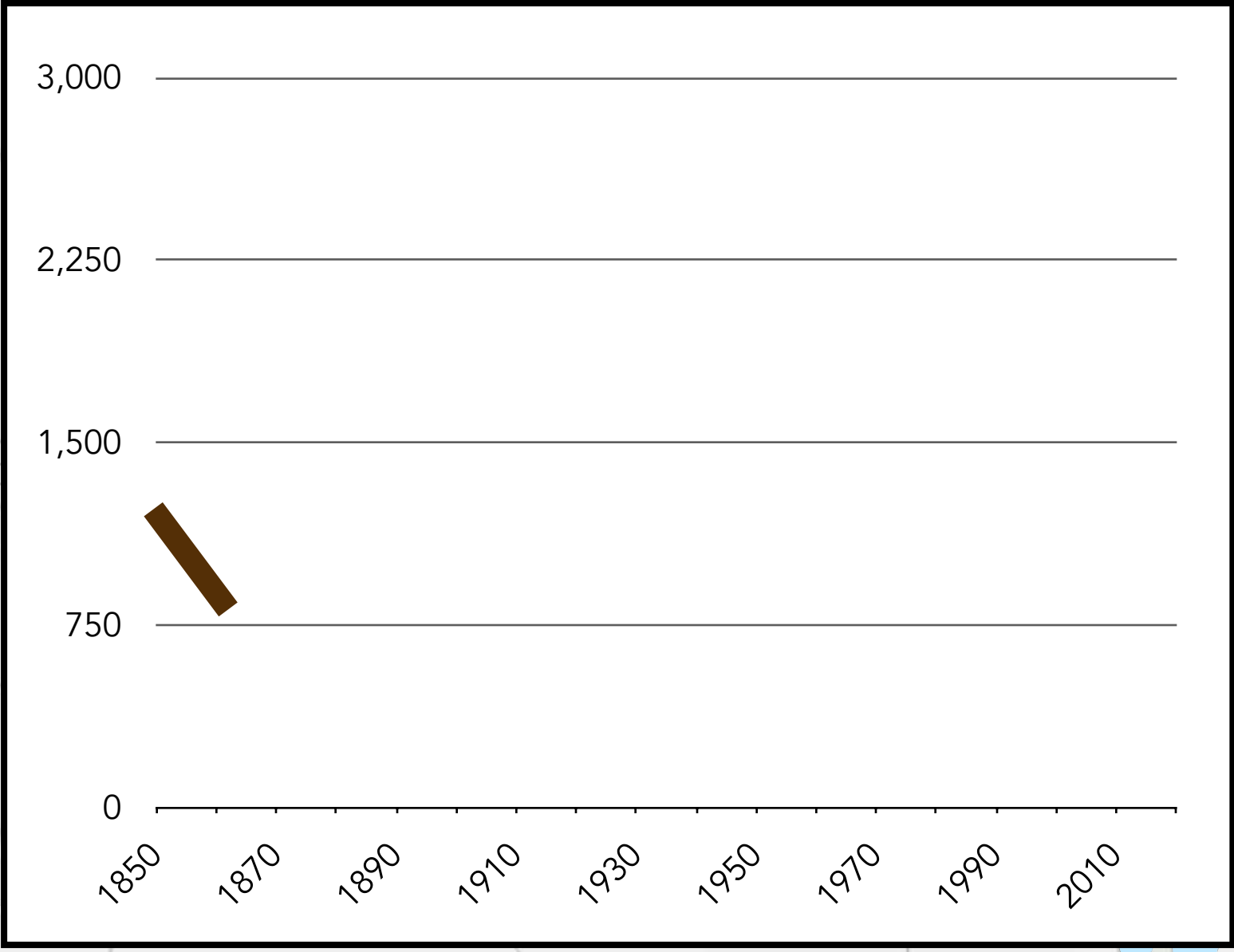
Joliet, IL



1852-1860 6 sq. mi 8%

Total Land Area: 69 Sq. Mi

Population Density



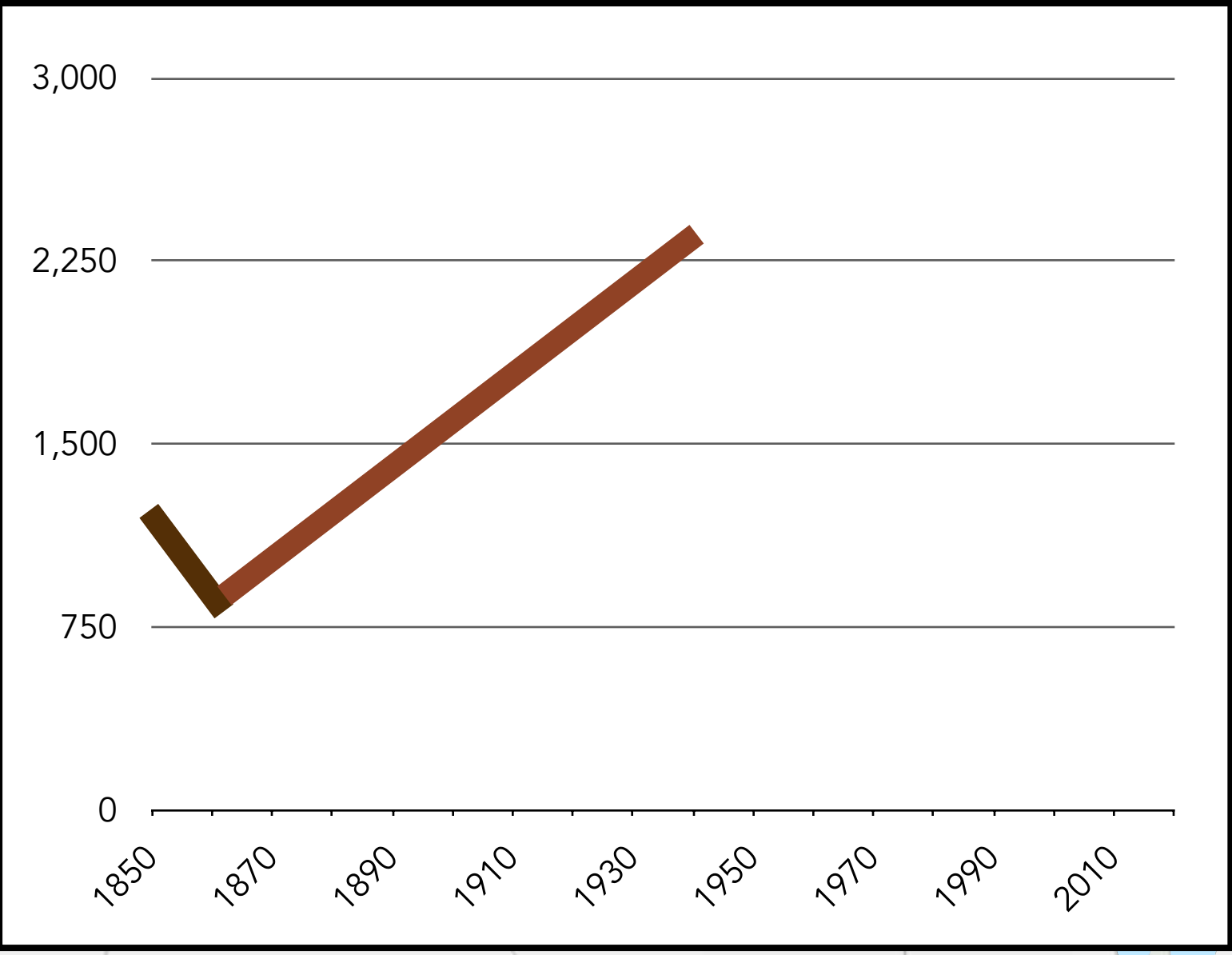
URBAN3

Annexation History

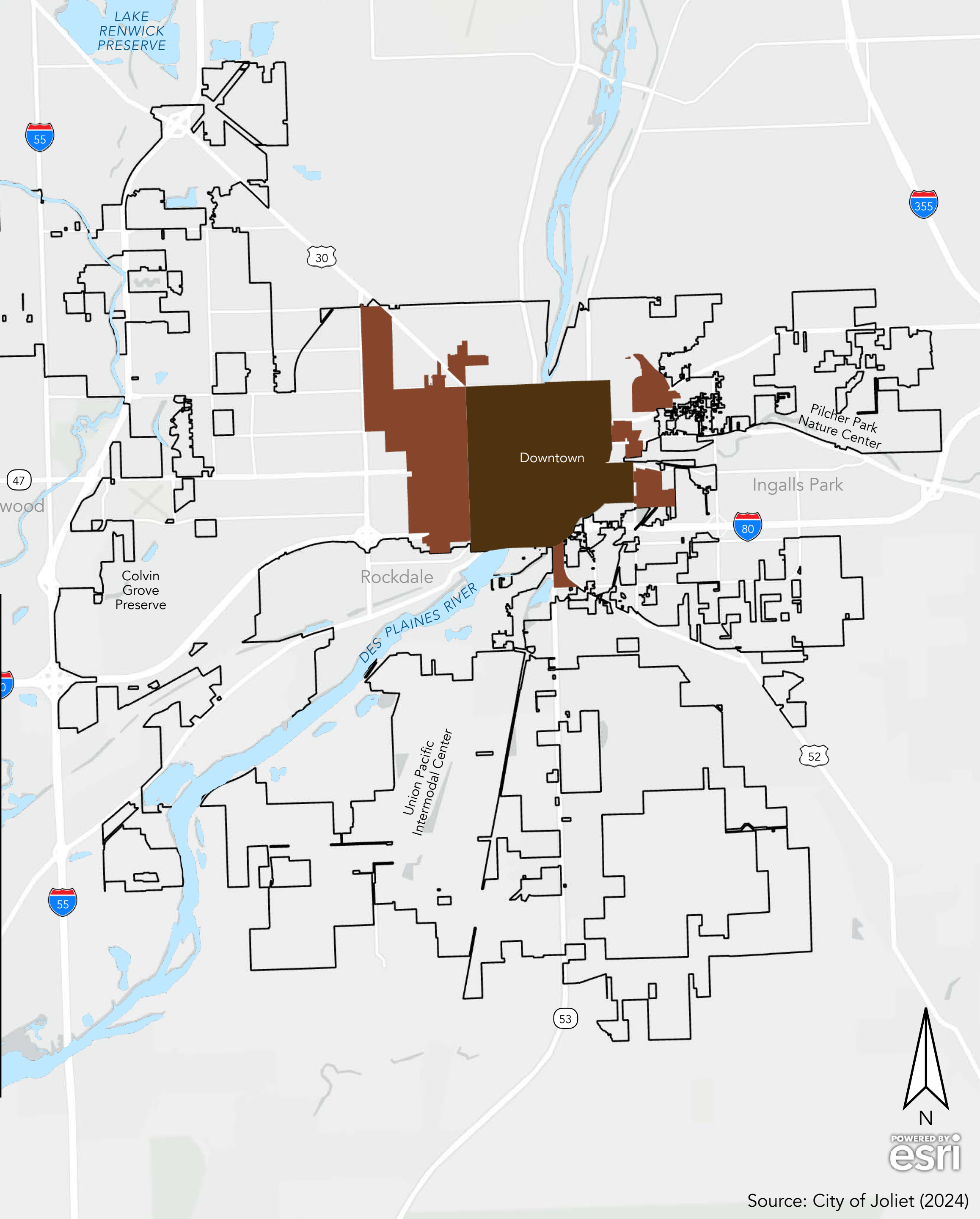
Joliet, IL



Population Density



Total Land Area: 69 Sq. Mi



Annexation History

Joliet, IL

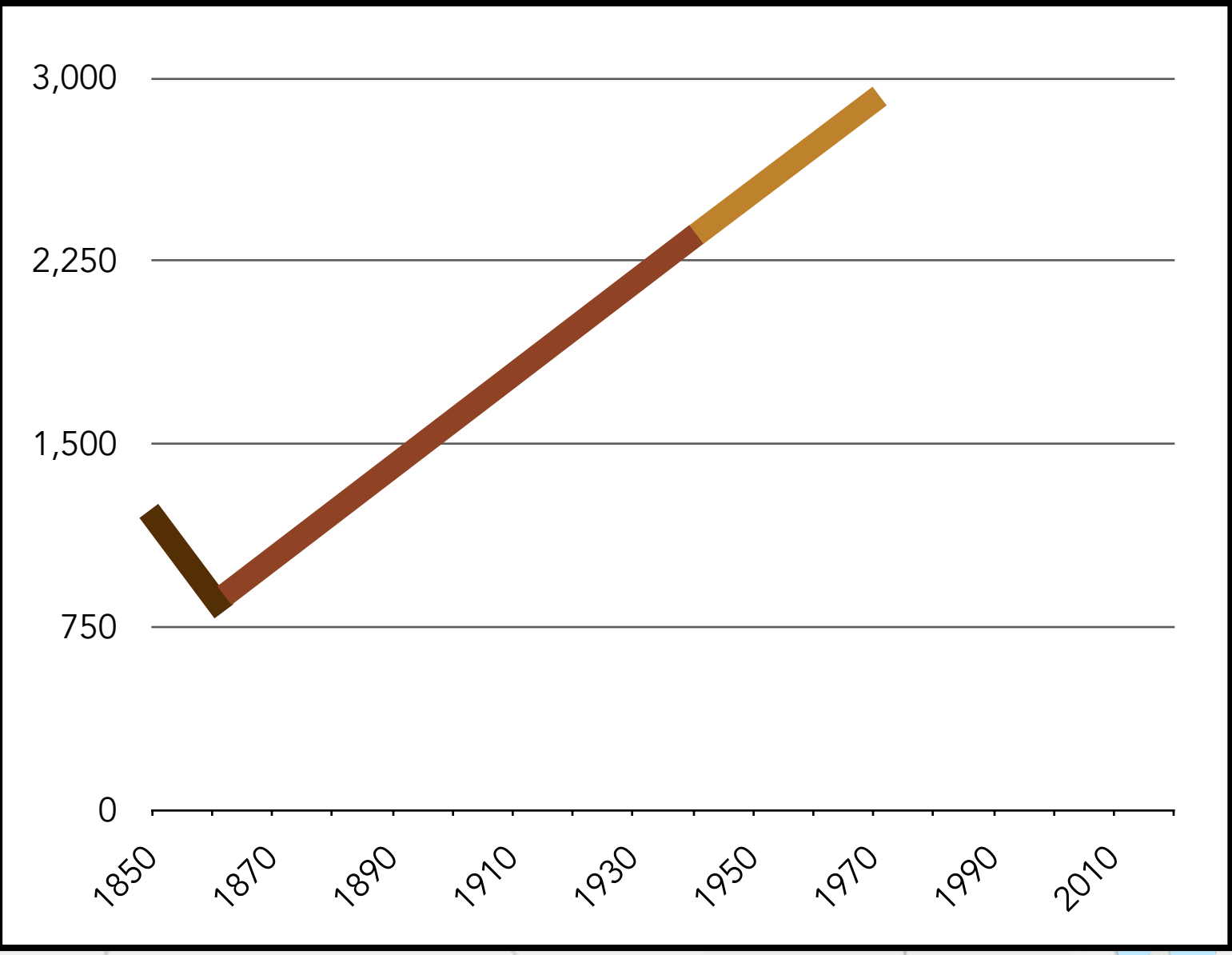


1941-1970
1861-1940
1852-1860

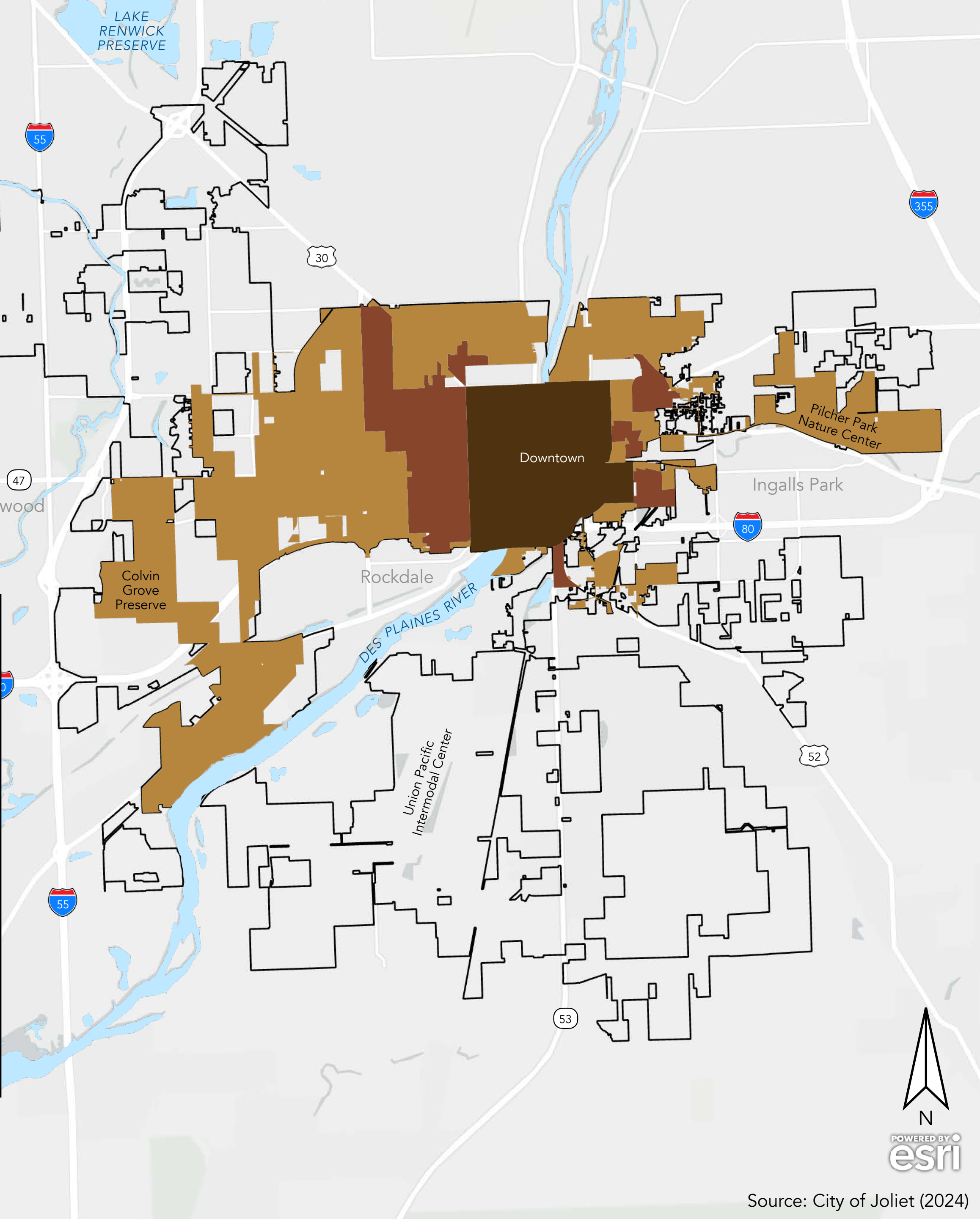
13 sq. mi
3 sq. mi
6 sq. mi

19%
4%
8%

Population Density



Total Land Area: 69 Sq. Mi

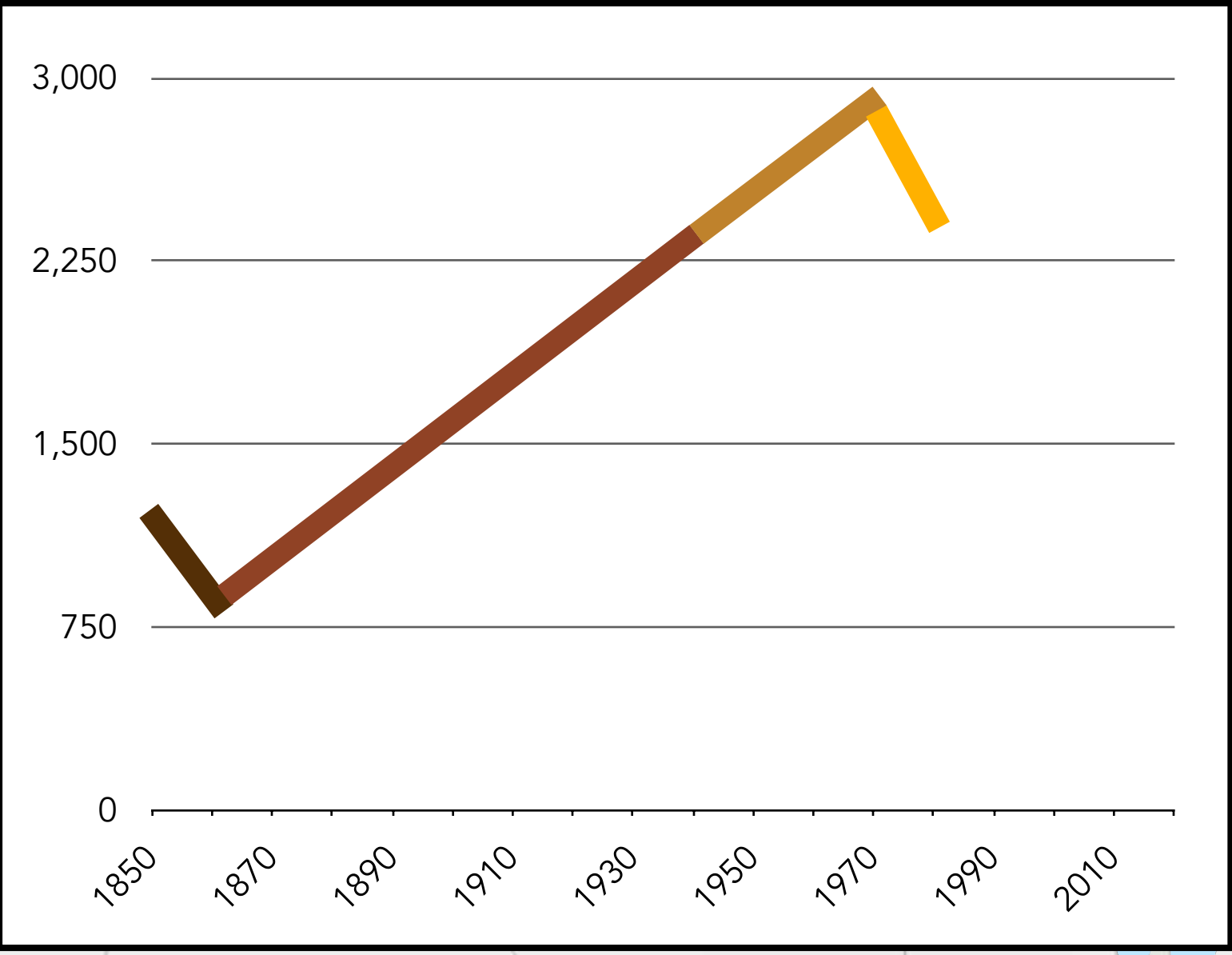


Annexation History

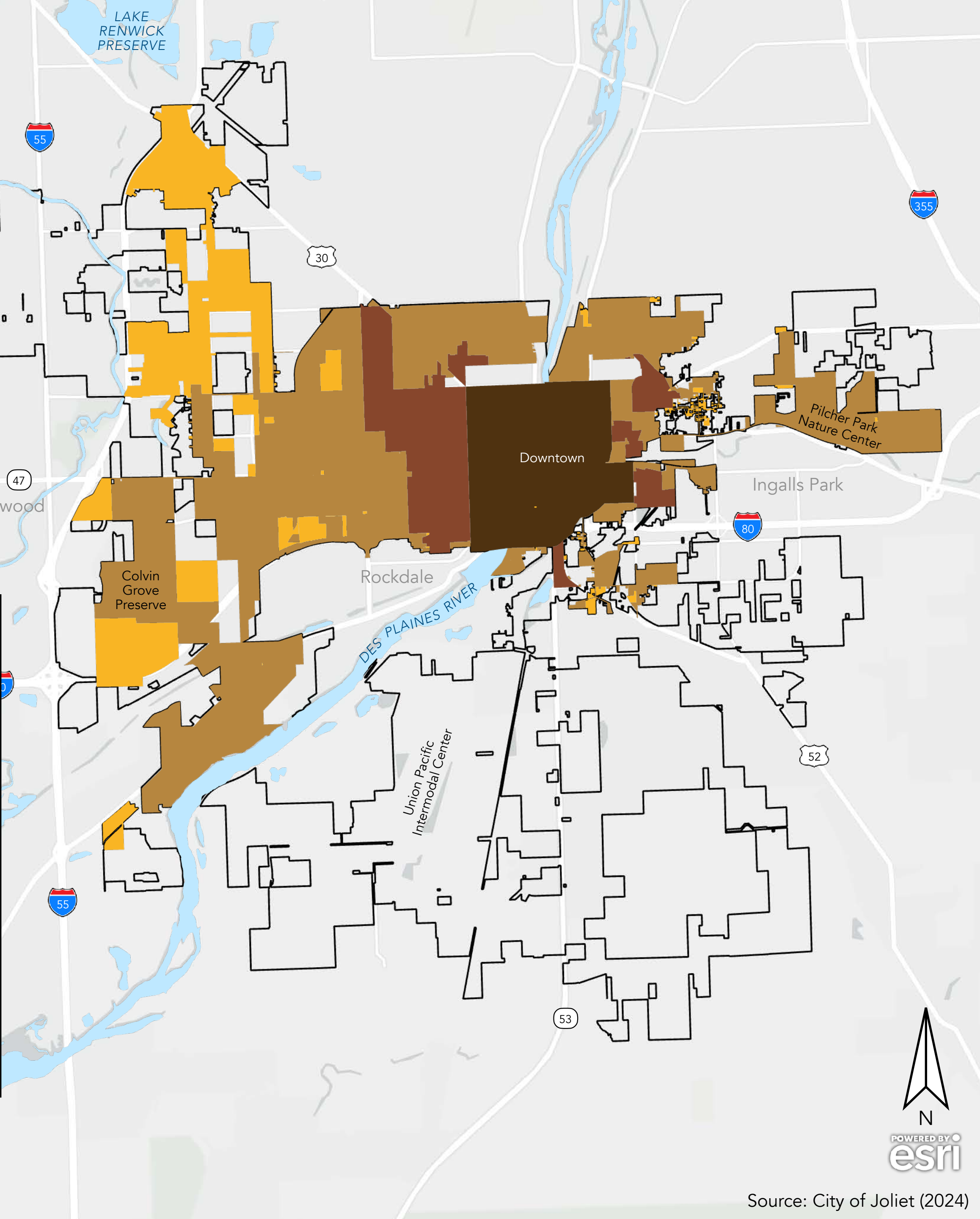
Joliet, IL



Population Density



Total Land Area: 69 Sq. Mi



Annexation History

Joliet, IL

1981-1990

6 sq. mi

7%

1971-1980

5 sq. mi

7%

1941-1970

13 sq. mi

19%

1861-1940

3 sq. mi

4%

1852-1860

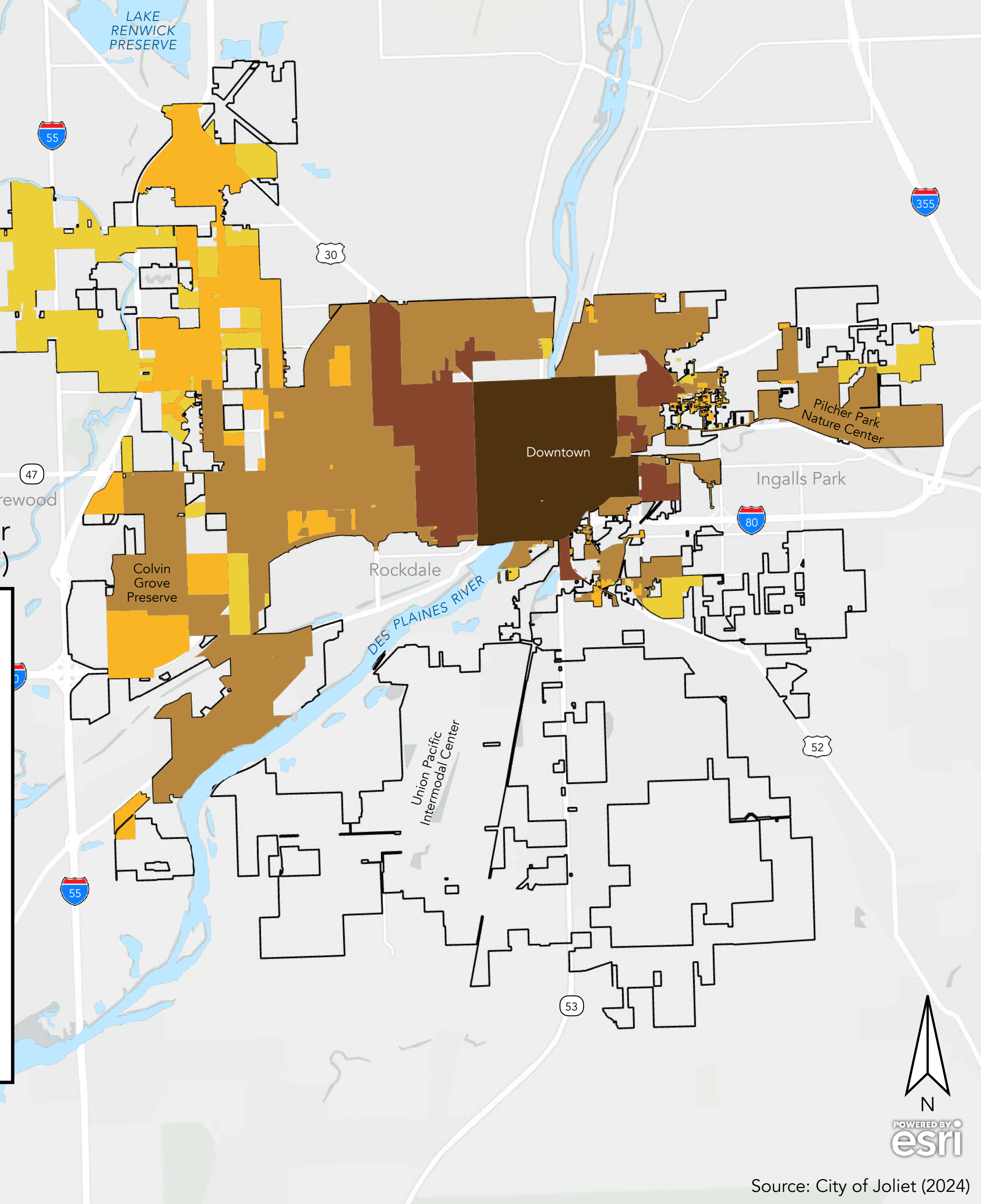
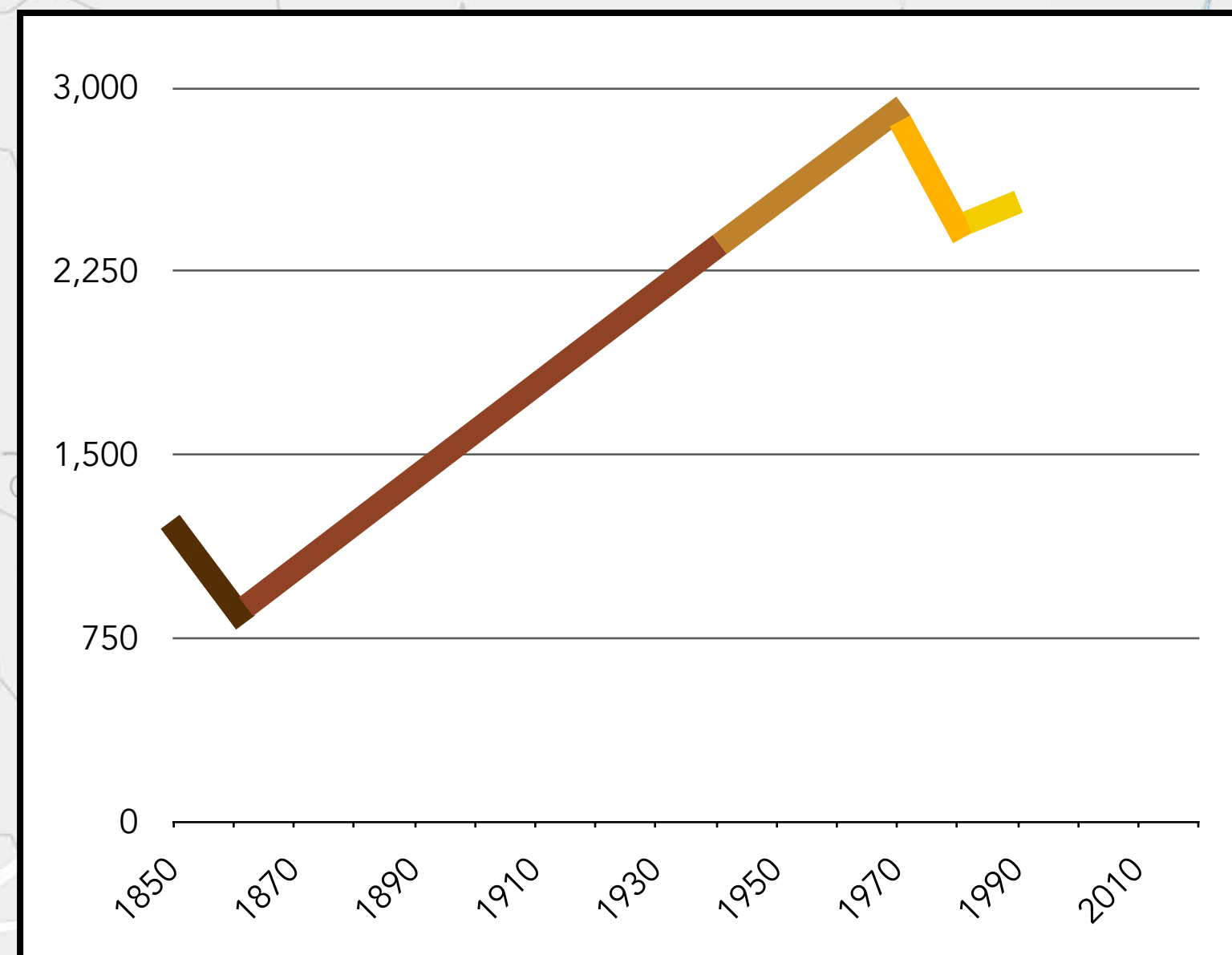
6 sq. mi

8%

Total Land Area: 69 Sq. Mi

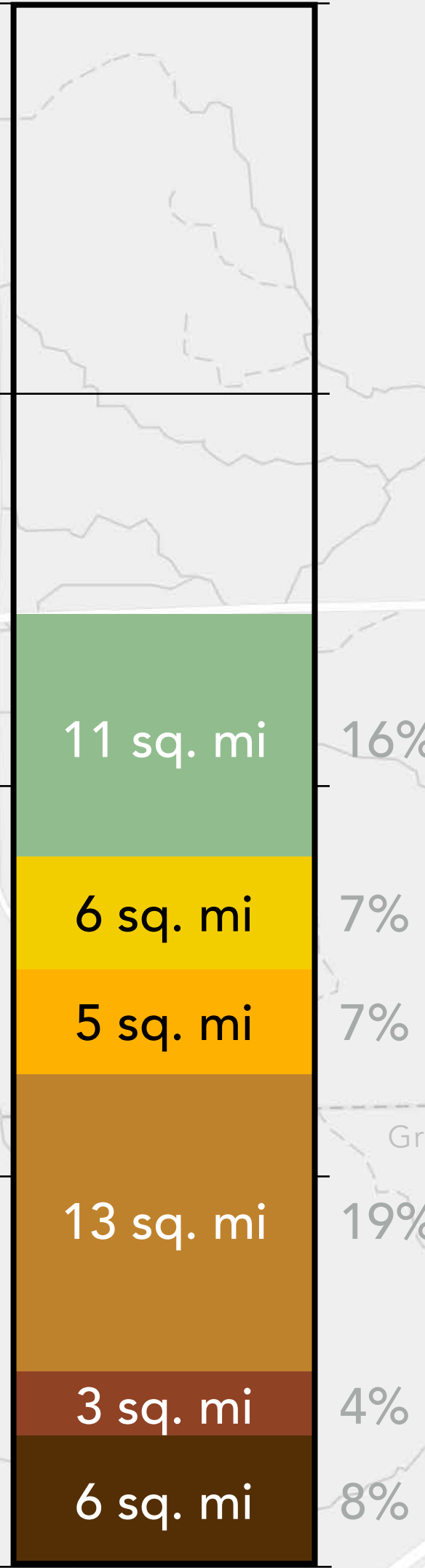
Population Density

(people per sq. mi)

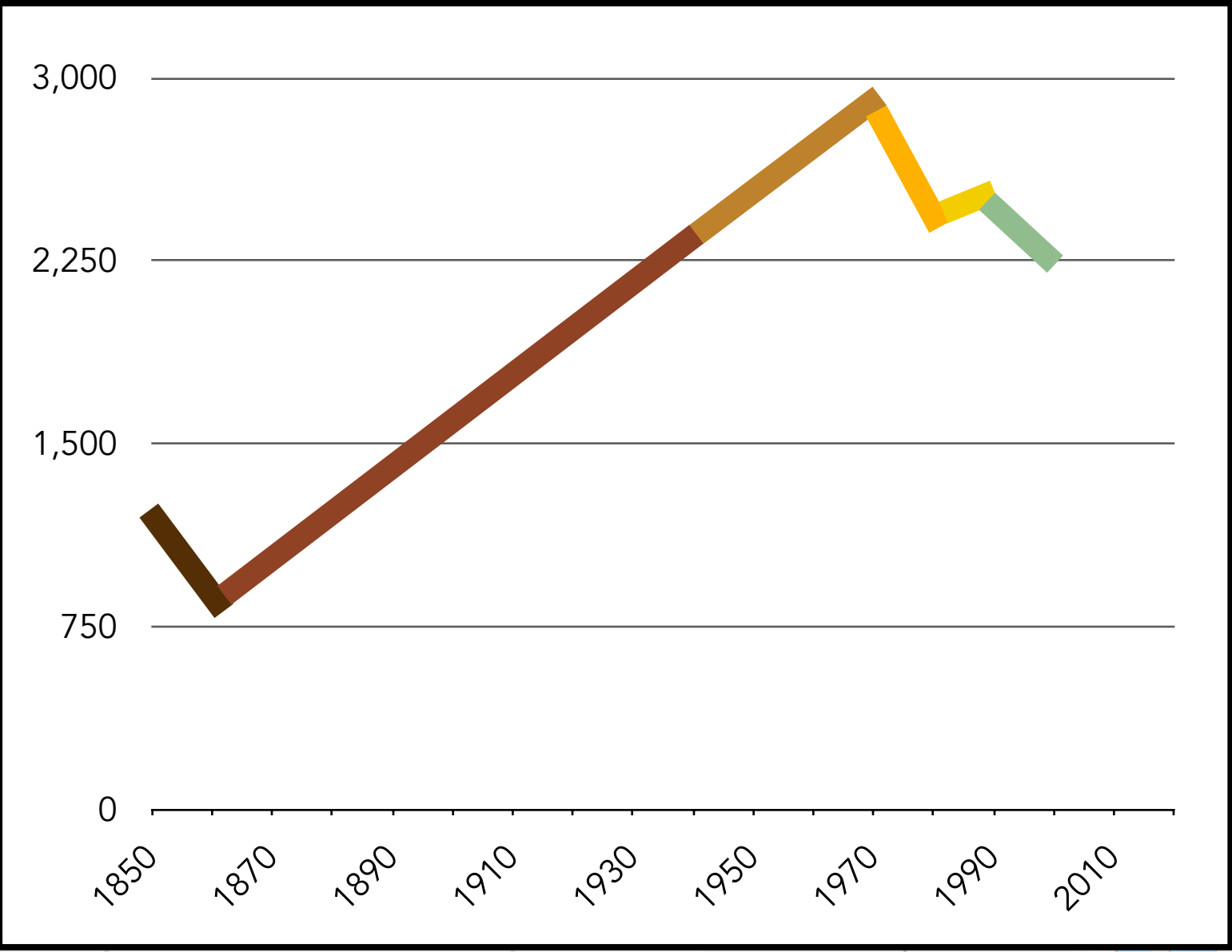


Annexation History

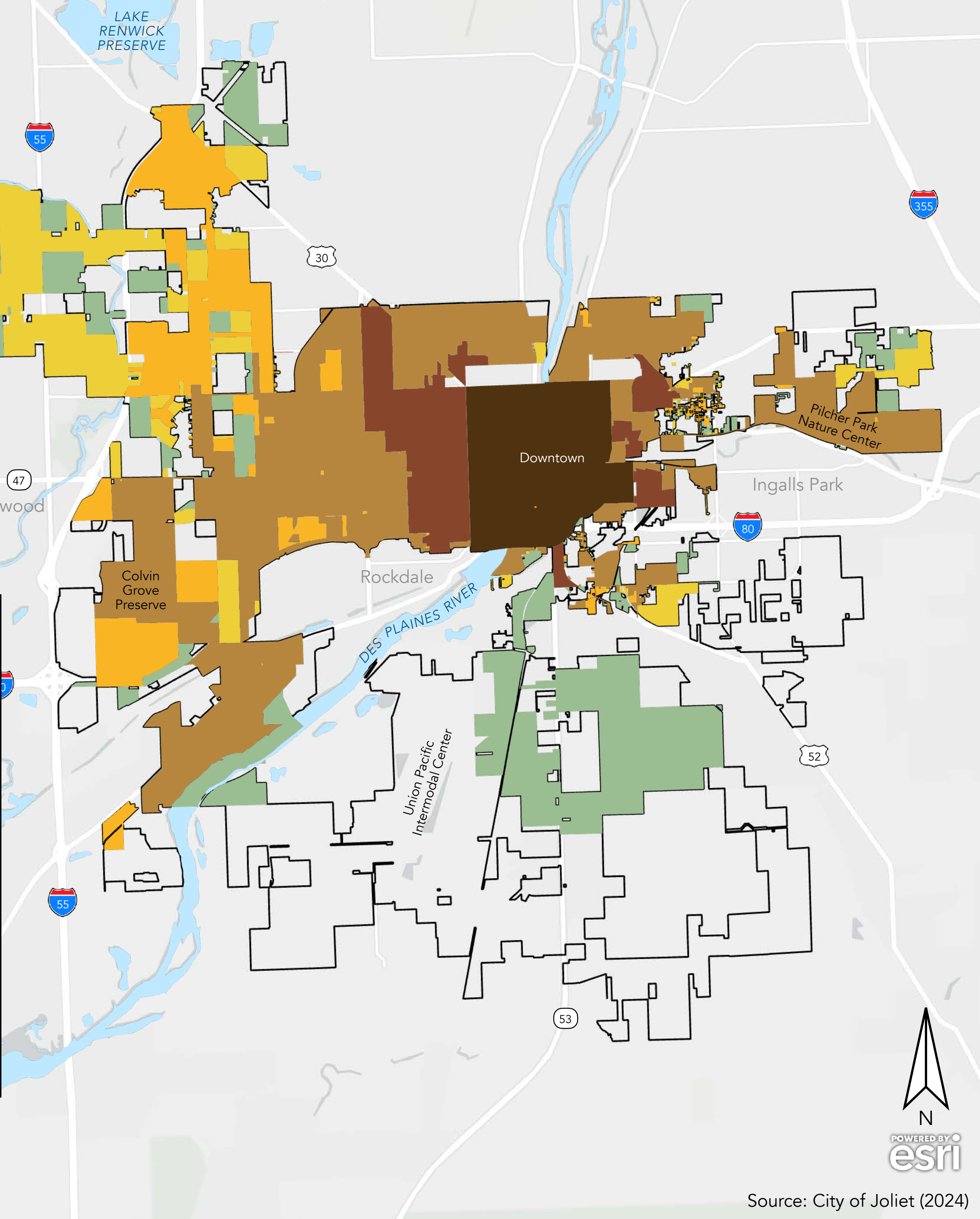
Joliet, IL



Population Density



Total Land Area: 69 Sq. Mi



Annexation History

Joliet, IL

2001-2010

24 sq. mi

34%

1991-2000

11 sq. mi

16%

1981-1990

6 sq. mi

7%

1971-1980

5 sq. mi

7%

1941-1970

13 sq. mi

19%

1861-1940

3 sq. mi

4%

1852-1860

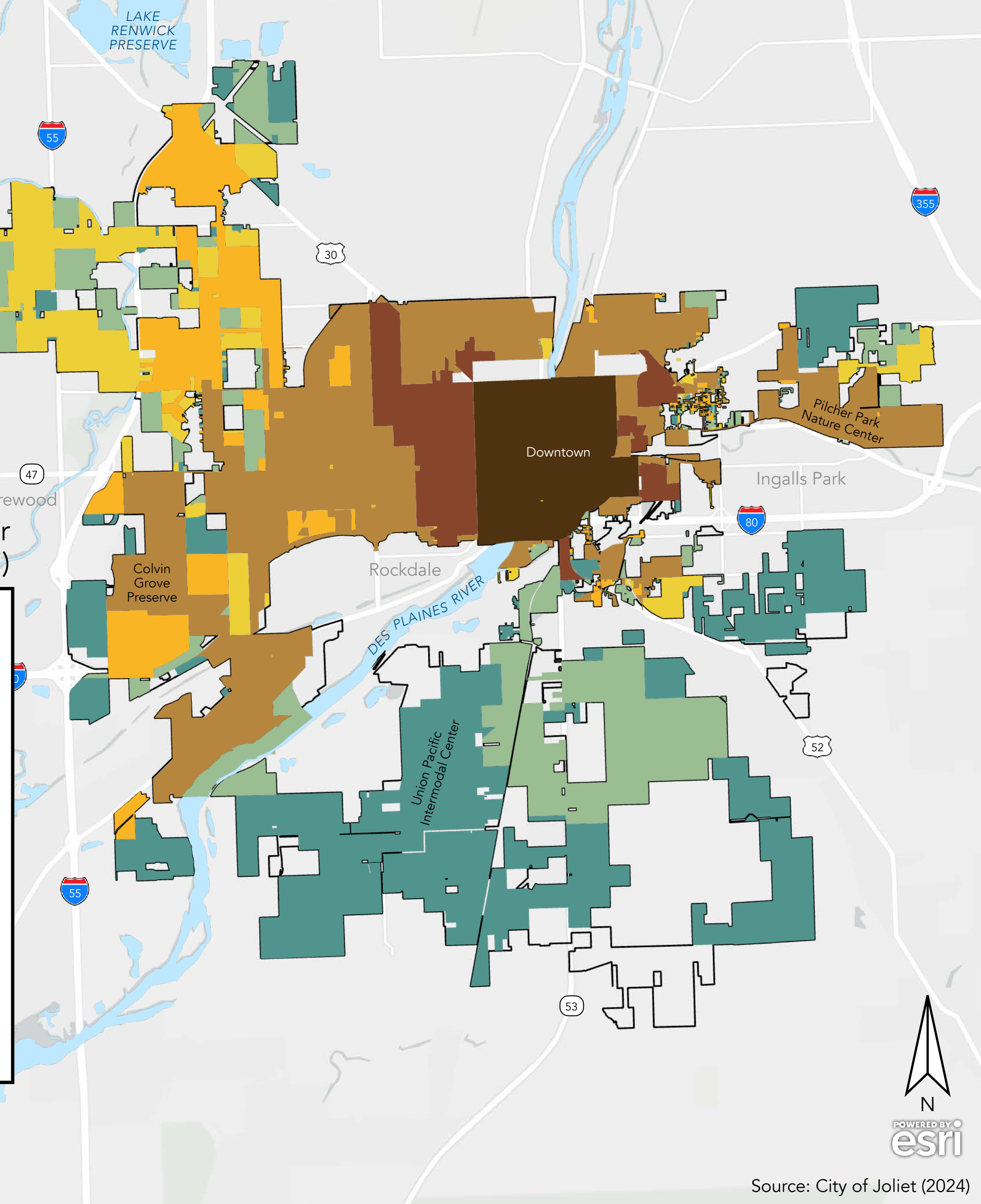
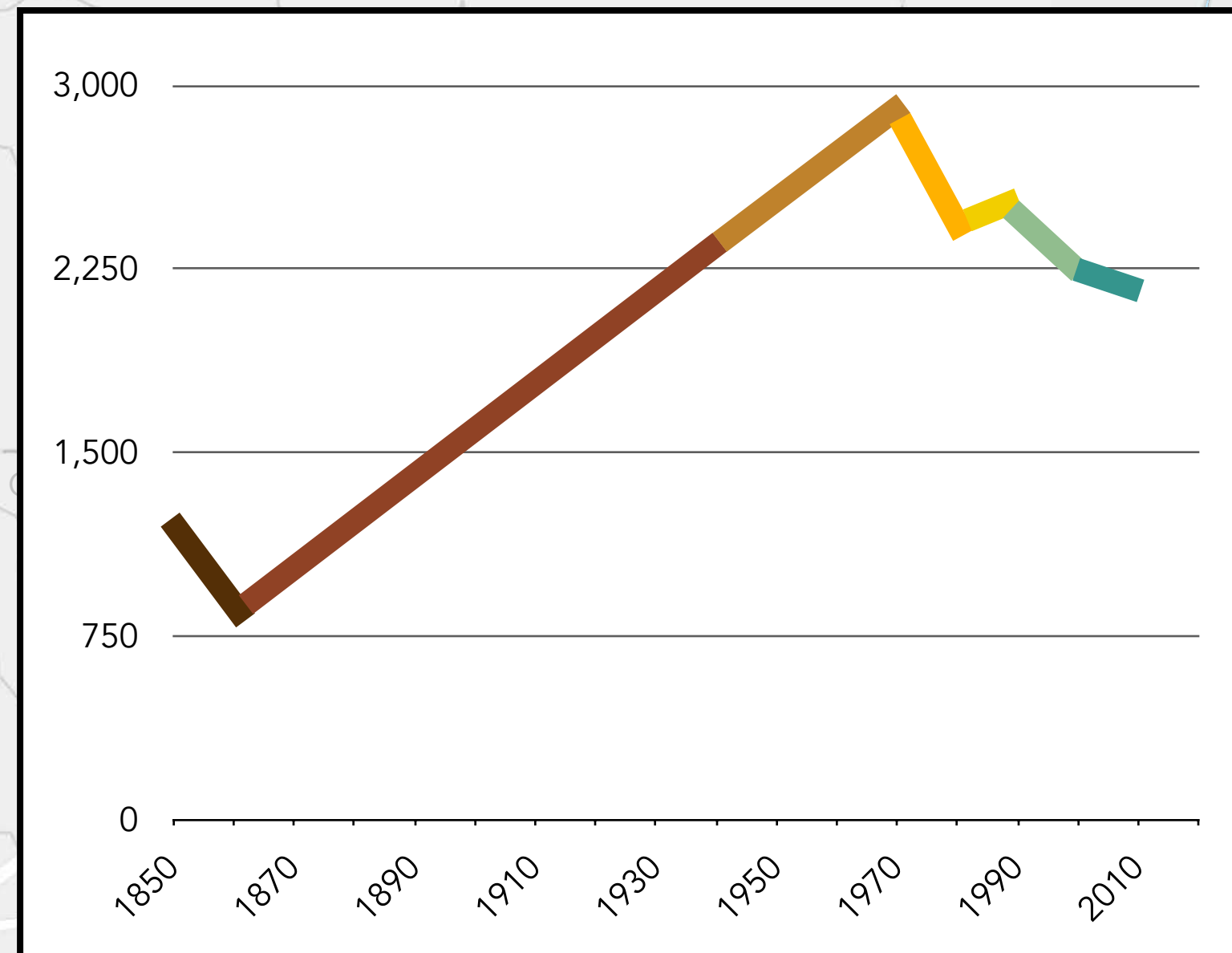
6 sq. mi

8%

Total Land Area: 69 Sq. Mi

Population Density

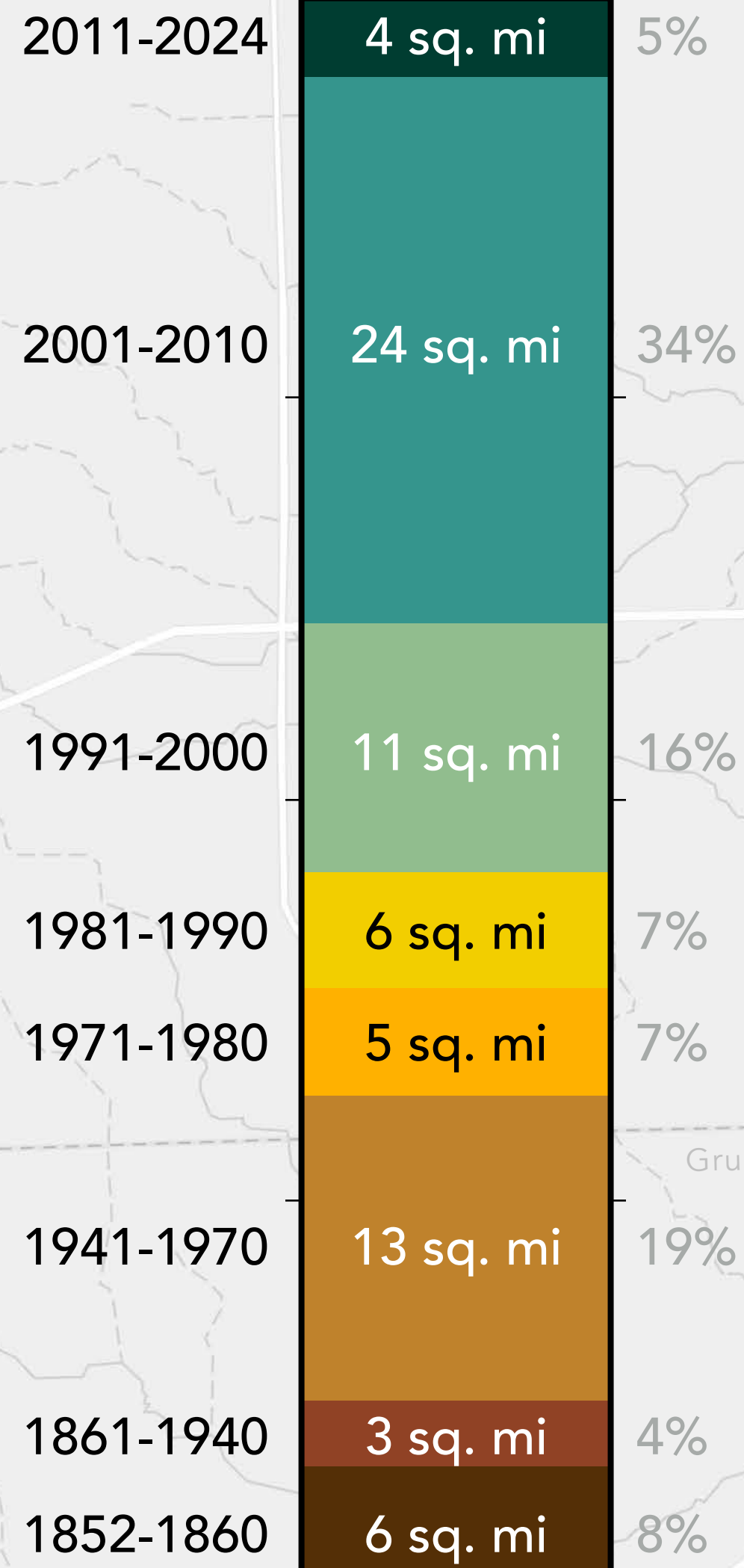
(people per sq. mi)



POWERED BY
esri

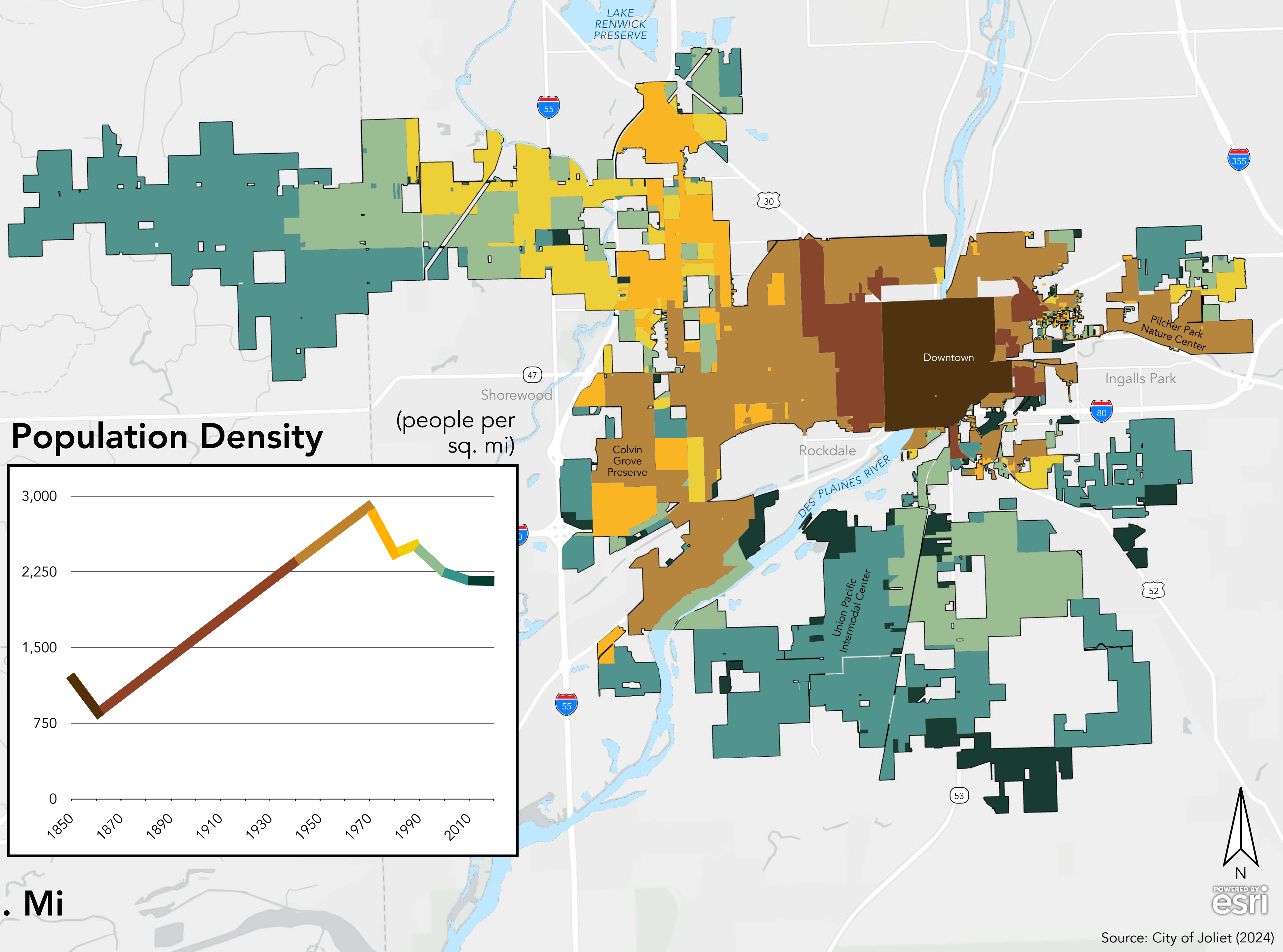
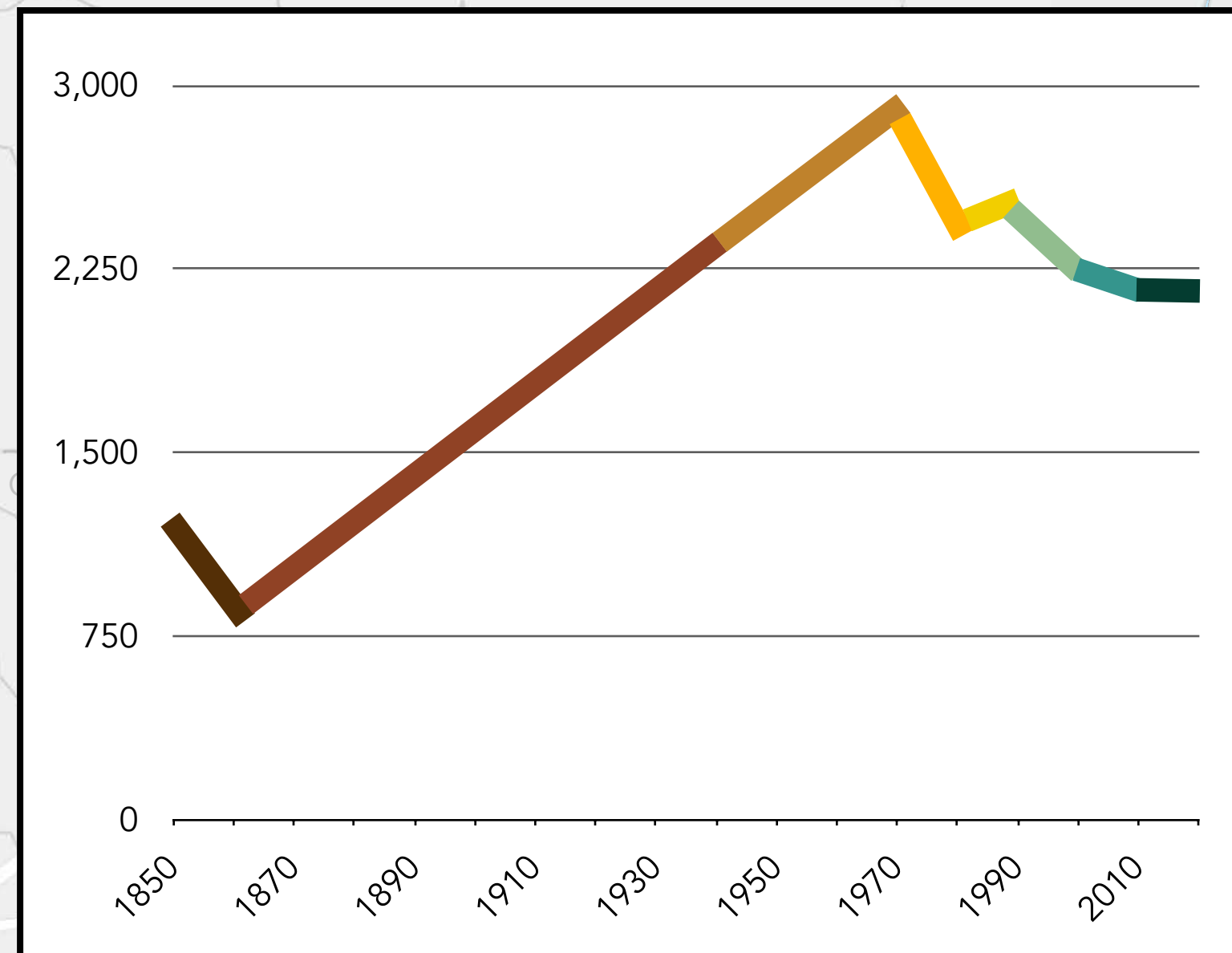
Annexation History

Joliet, IL



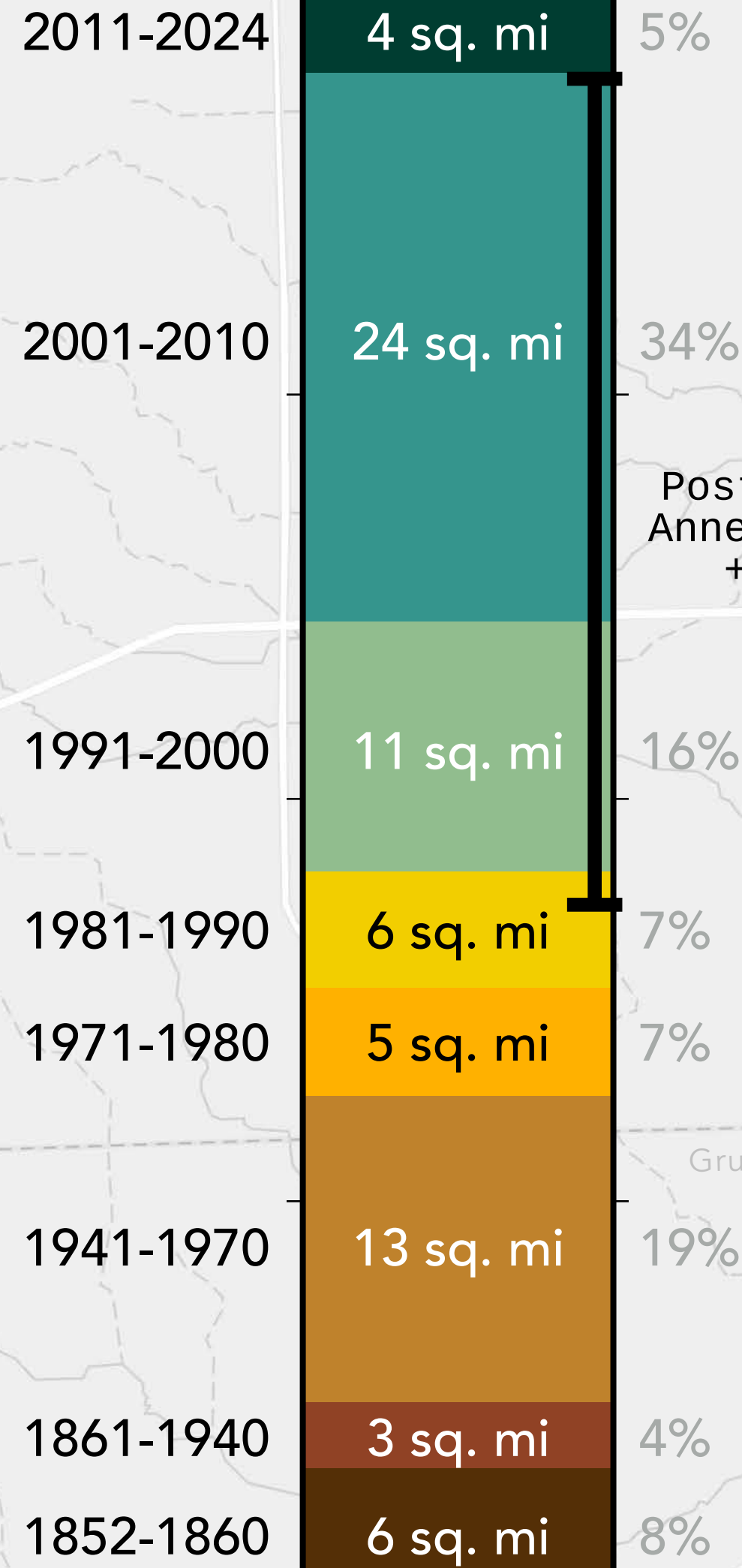
Total Land Area: 69 Sq. Mi

Population Density



Annexation History

Joliet, IL

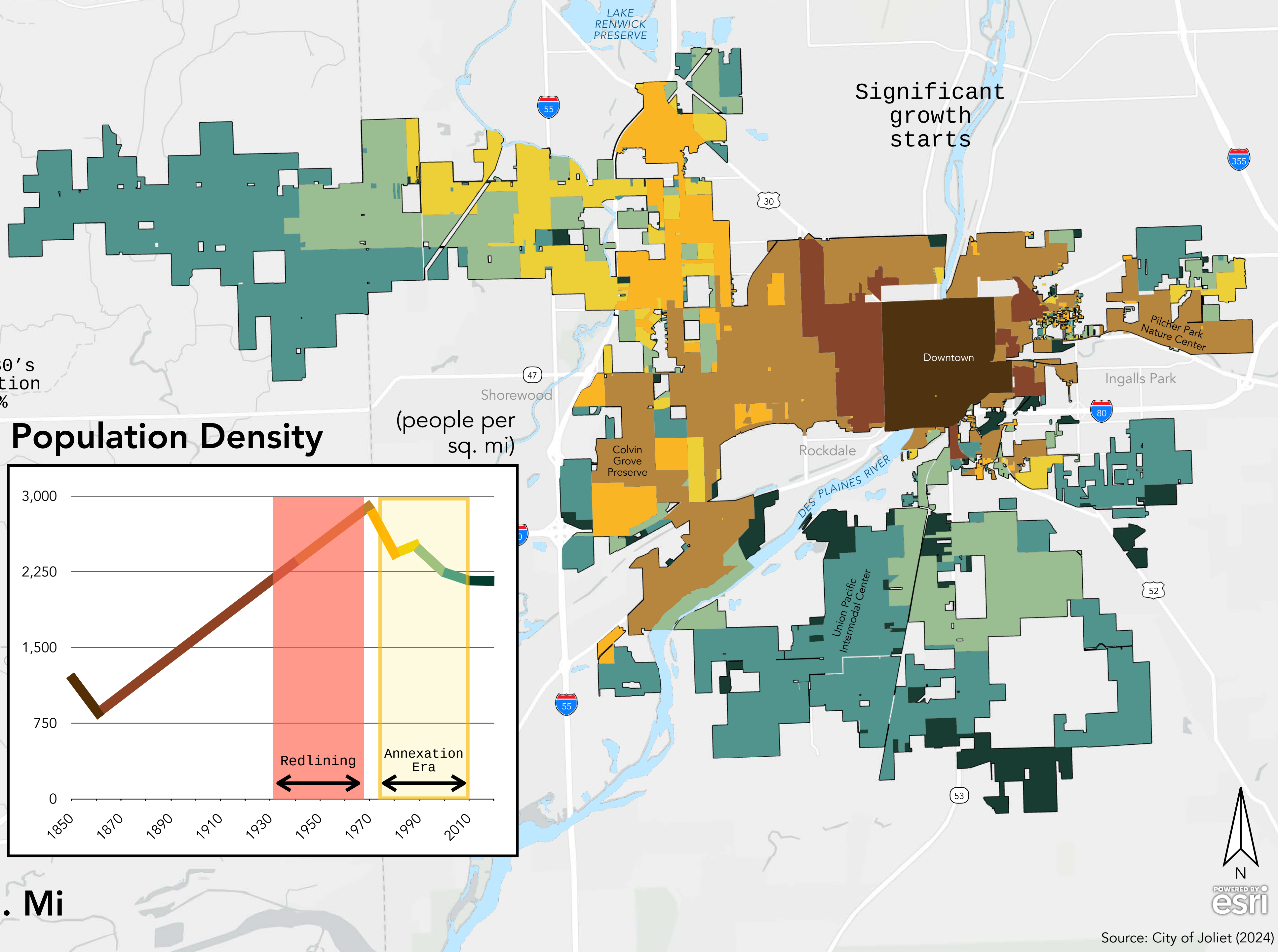
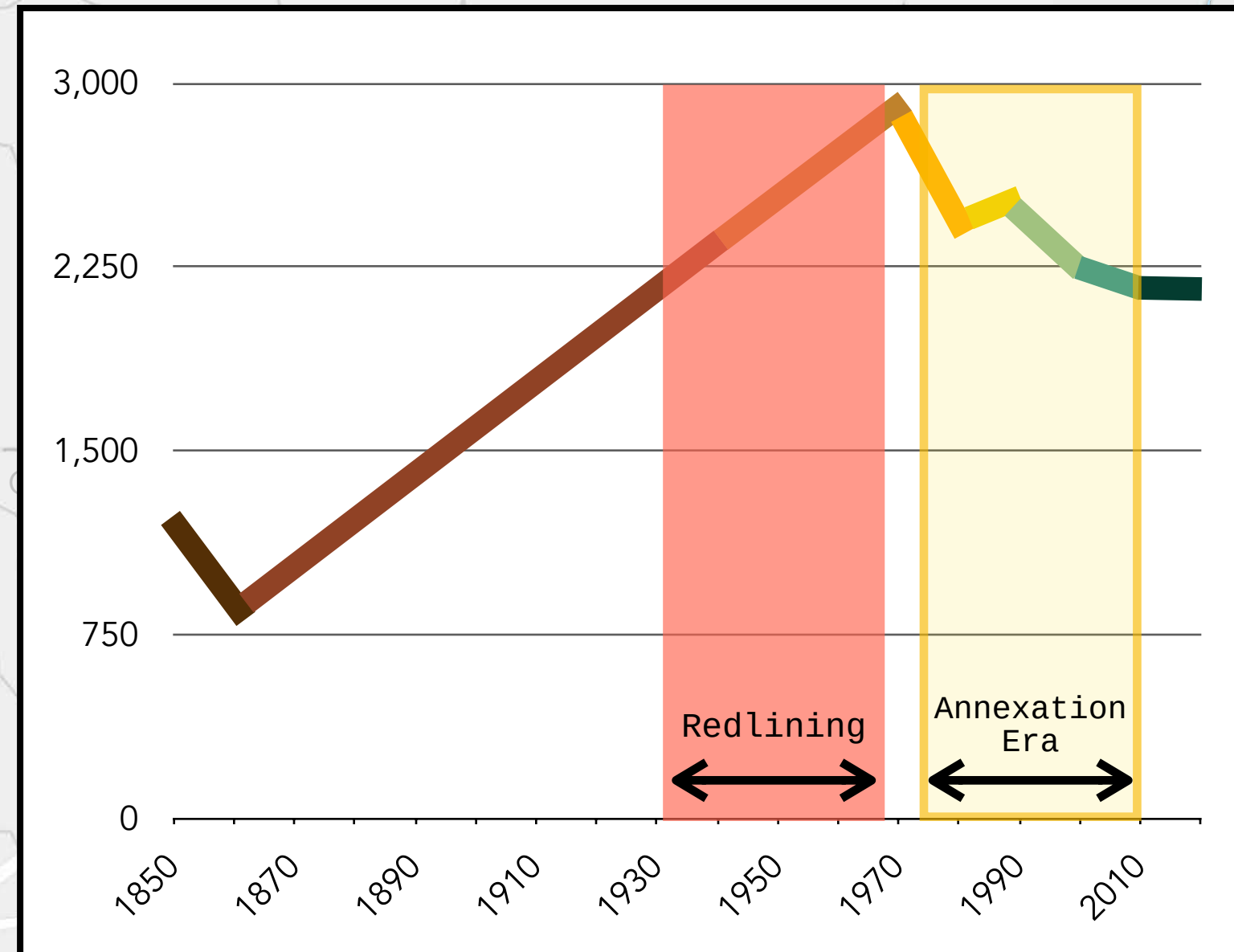


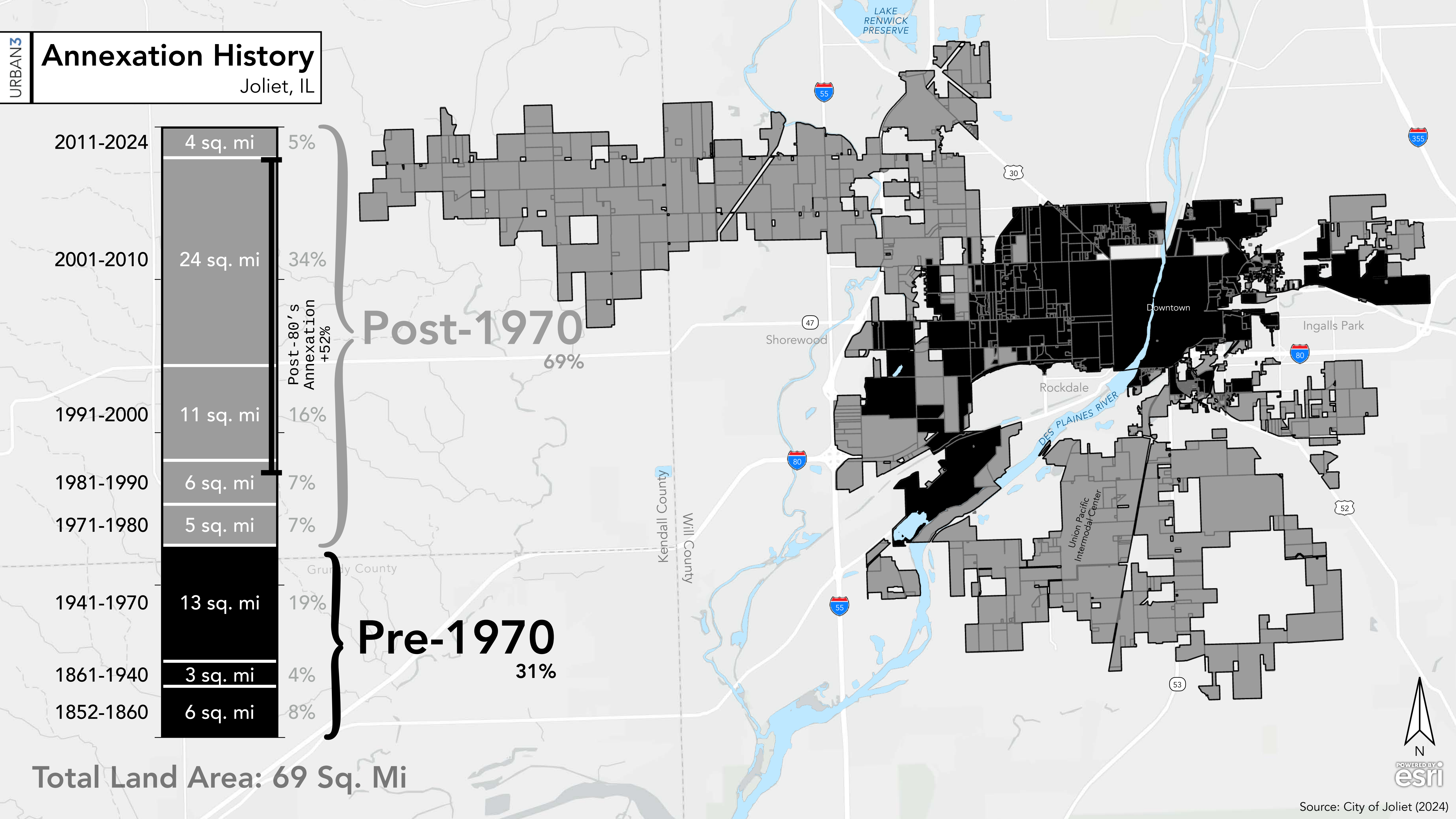
Total Land Area: 69 Sq. Mi

Post-80's
Annexation
+52%

Population Density

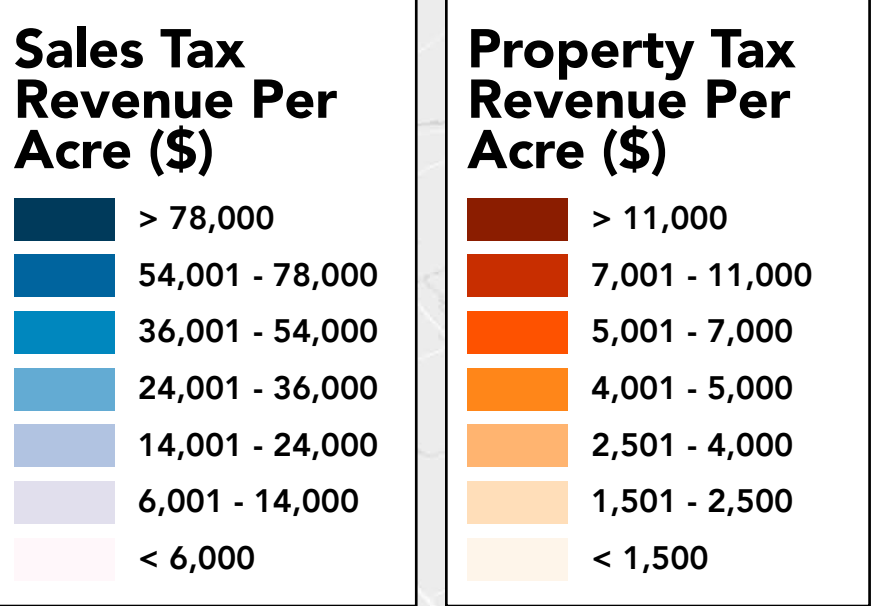
(people per
sq. mi)





Annexation History

Joliet, IL



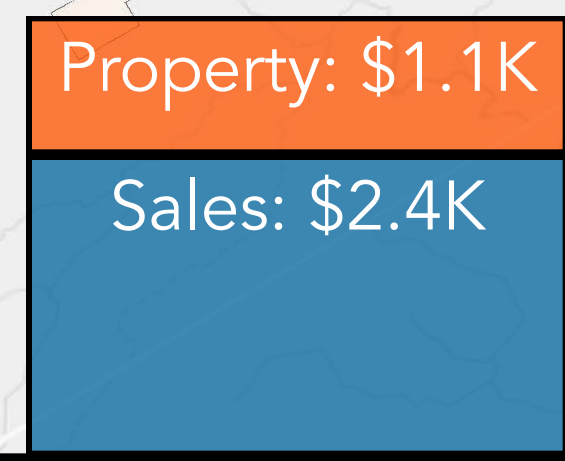
\$16.1K



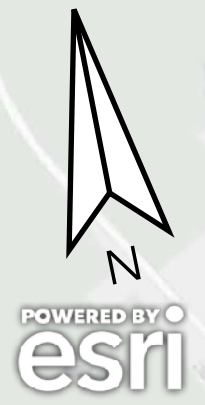
Pre-1970 City Area

2024 Tax Revenue Per Acre

\$3.5K

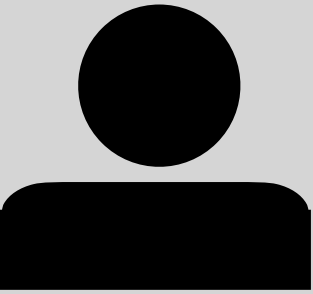
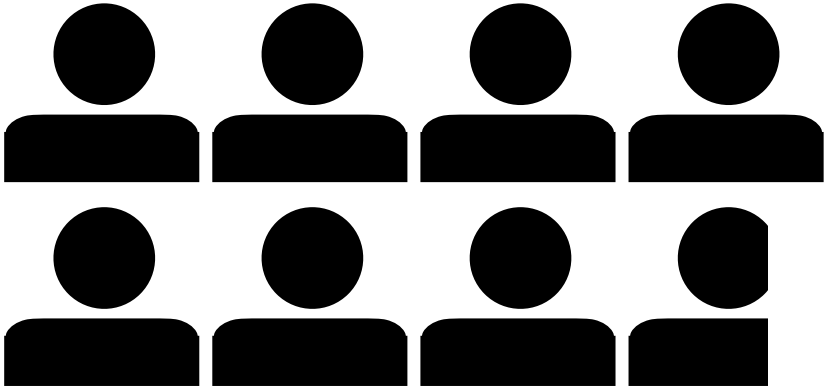
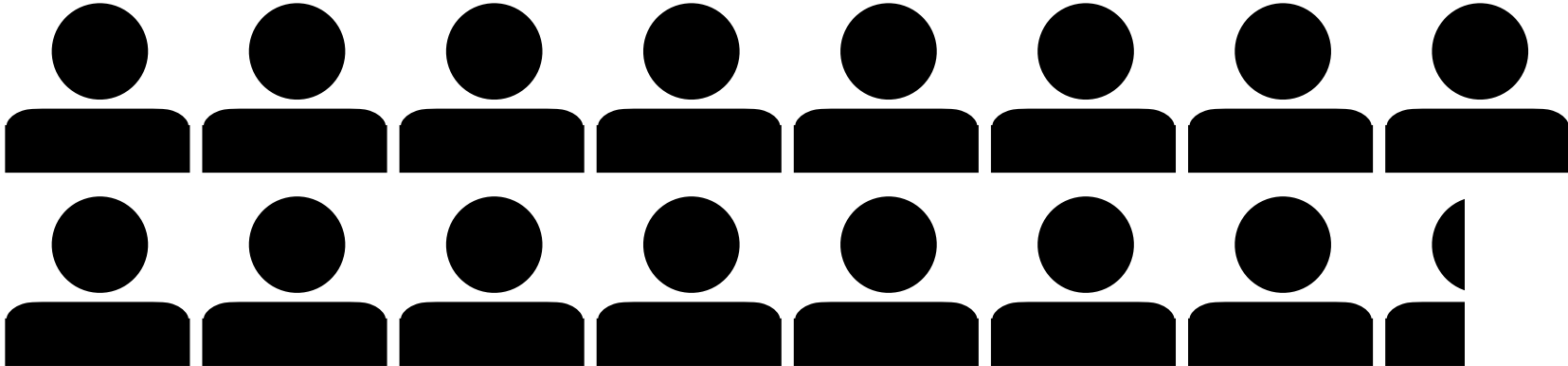
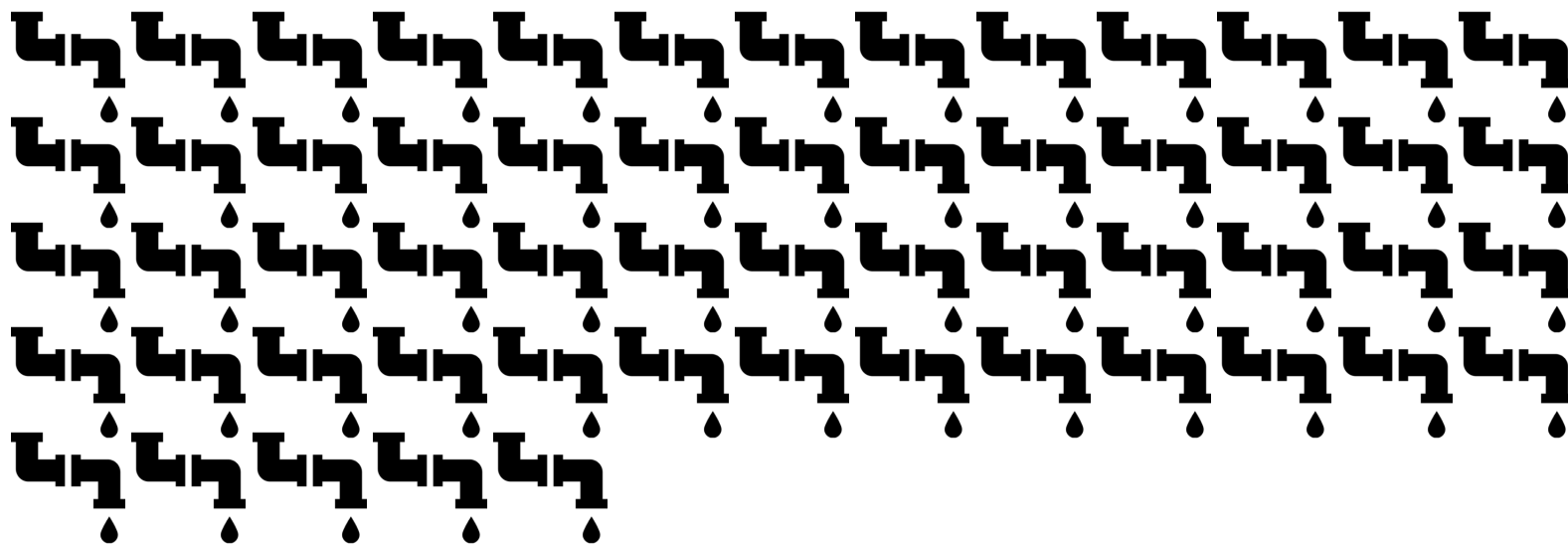
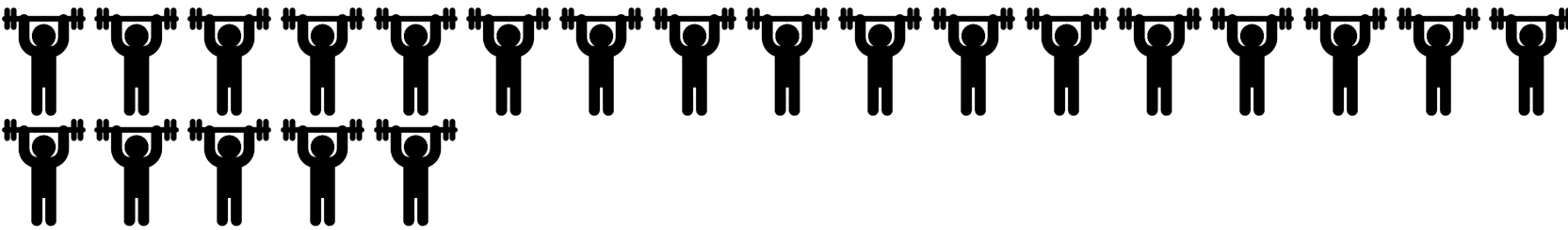
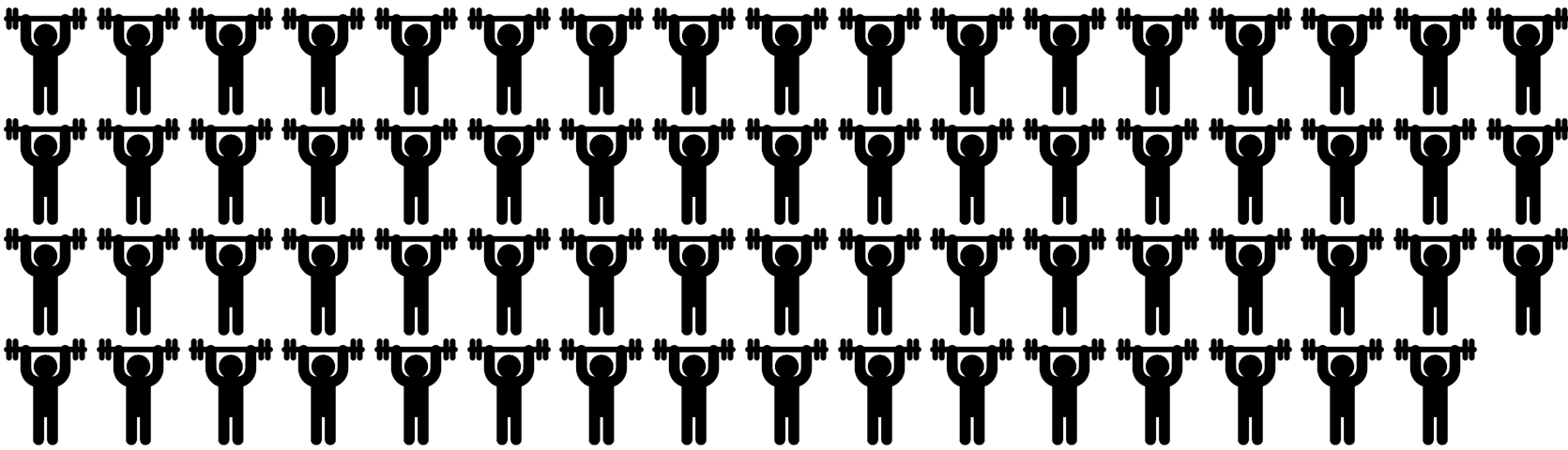


Post-1970 City Area



Sewer System Change Over Time

Joliet, IL

	1970	2020	Change
Population  = 10,000 people	79,000 	150,400 	1.9x
Miles of Force Main  = 10 miles	240 	570 	2.4x
Lift Stations  = 1 lift station	22 	67 	3.0x



Count your balls and strikes.

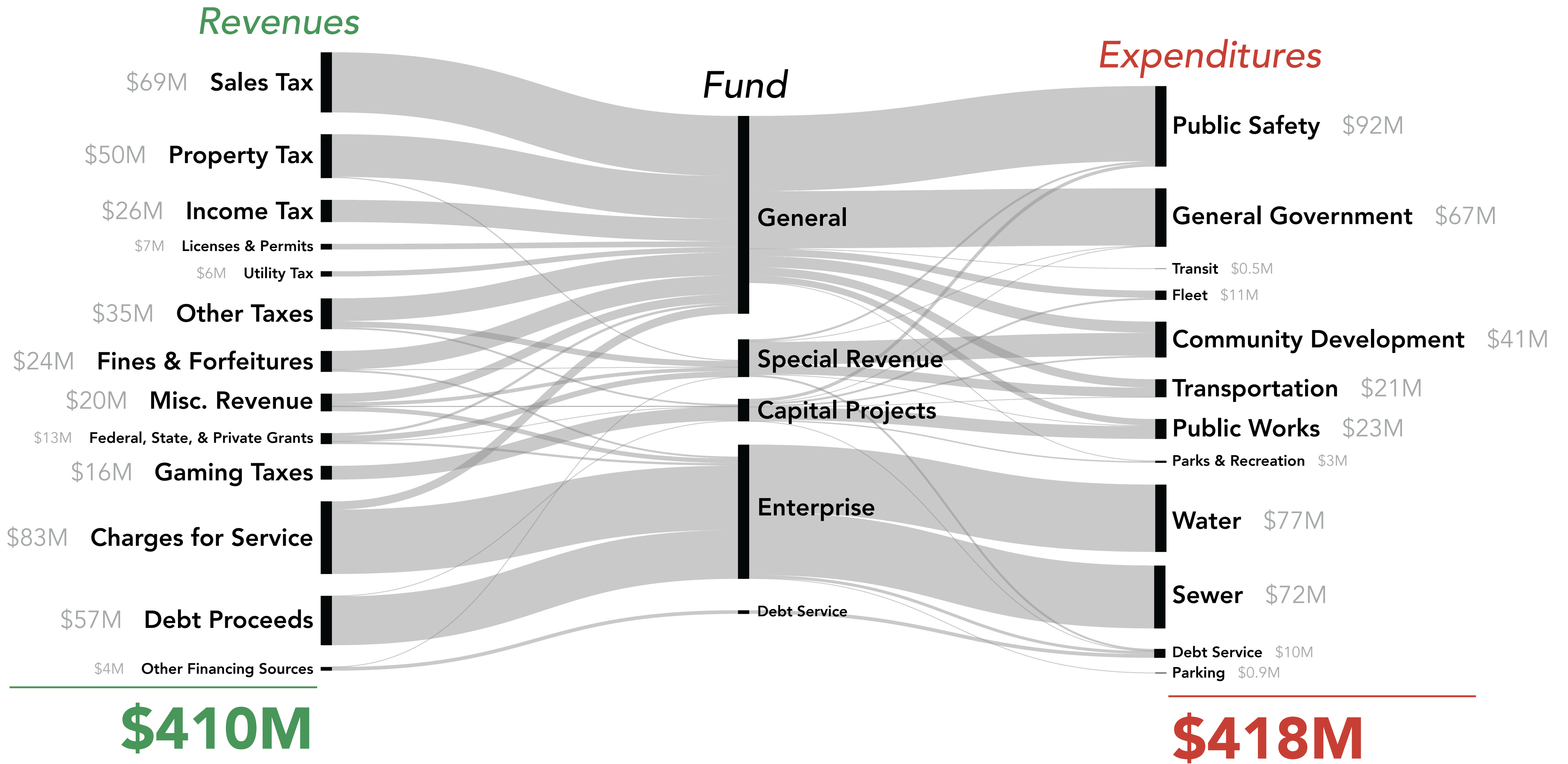
URBAN3

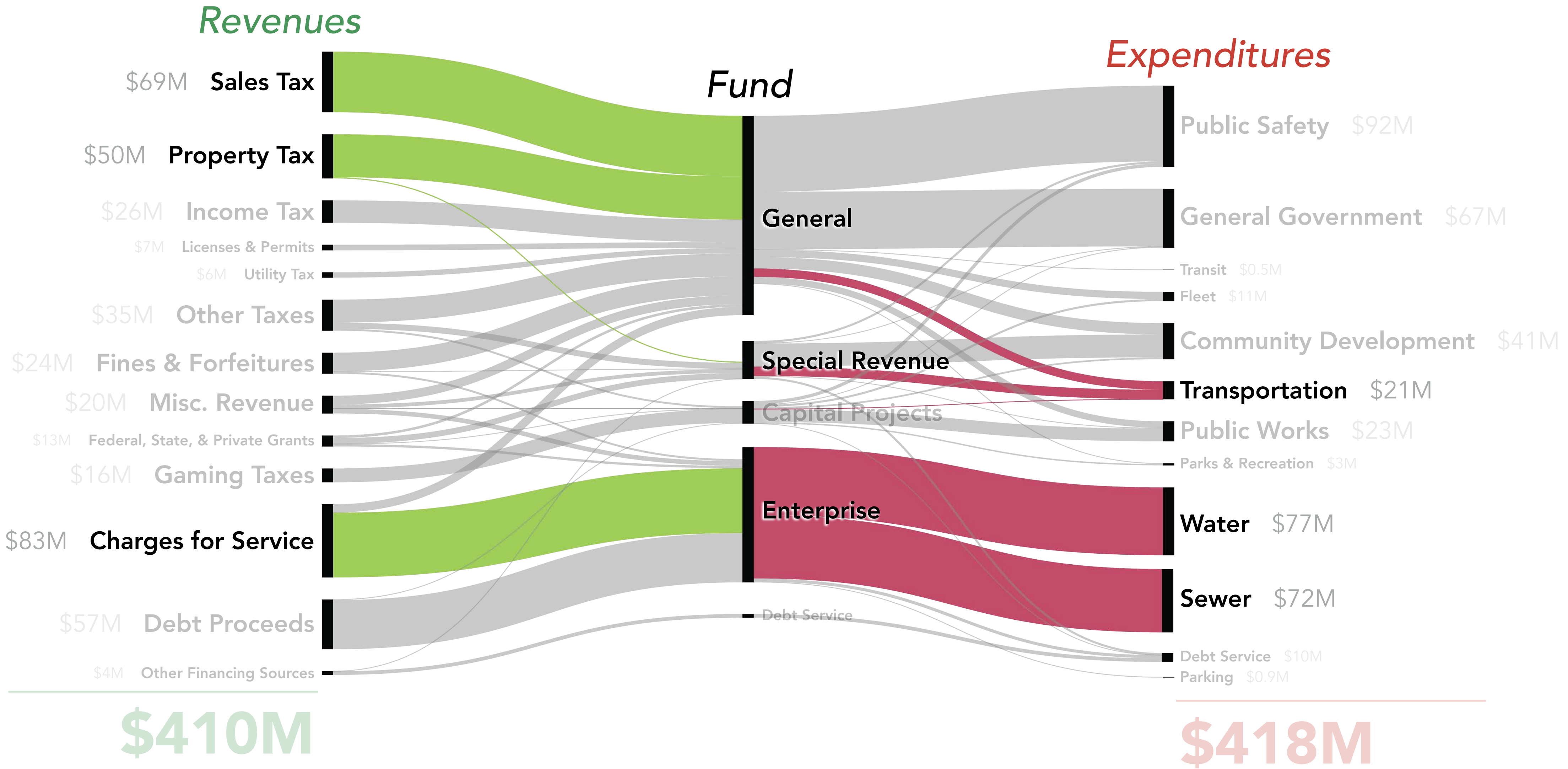
Source: kansascity.com



Fiscal Review

Annualized Infrastructure Costs





Assets

According to the Municipal Finance Standards (ACFR)

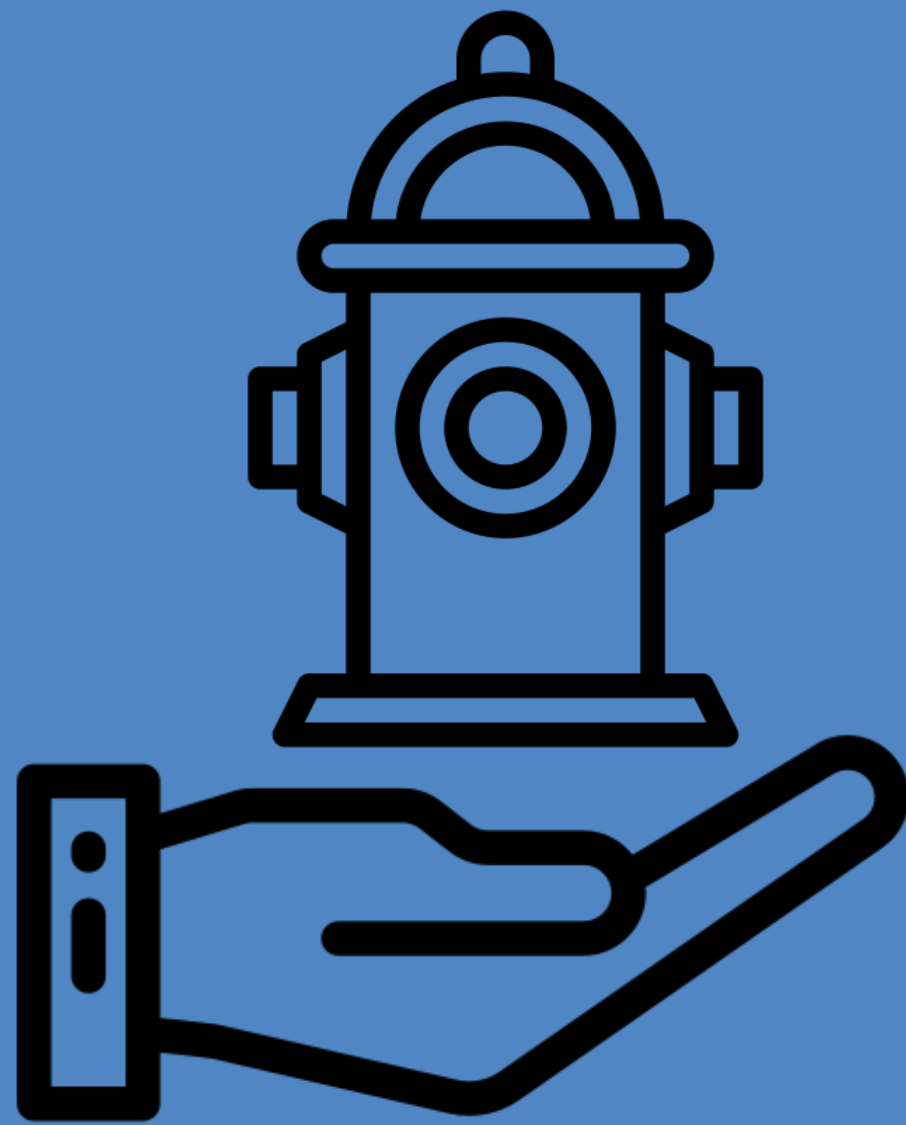


Liabilities



Lifecycle Cost

How much do
you have?



How long will
it last?



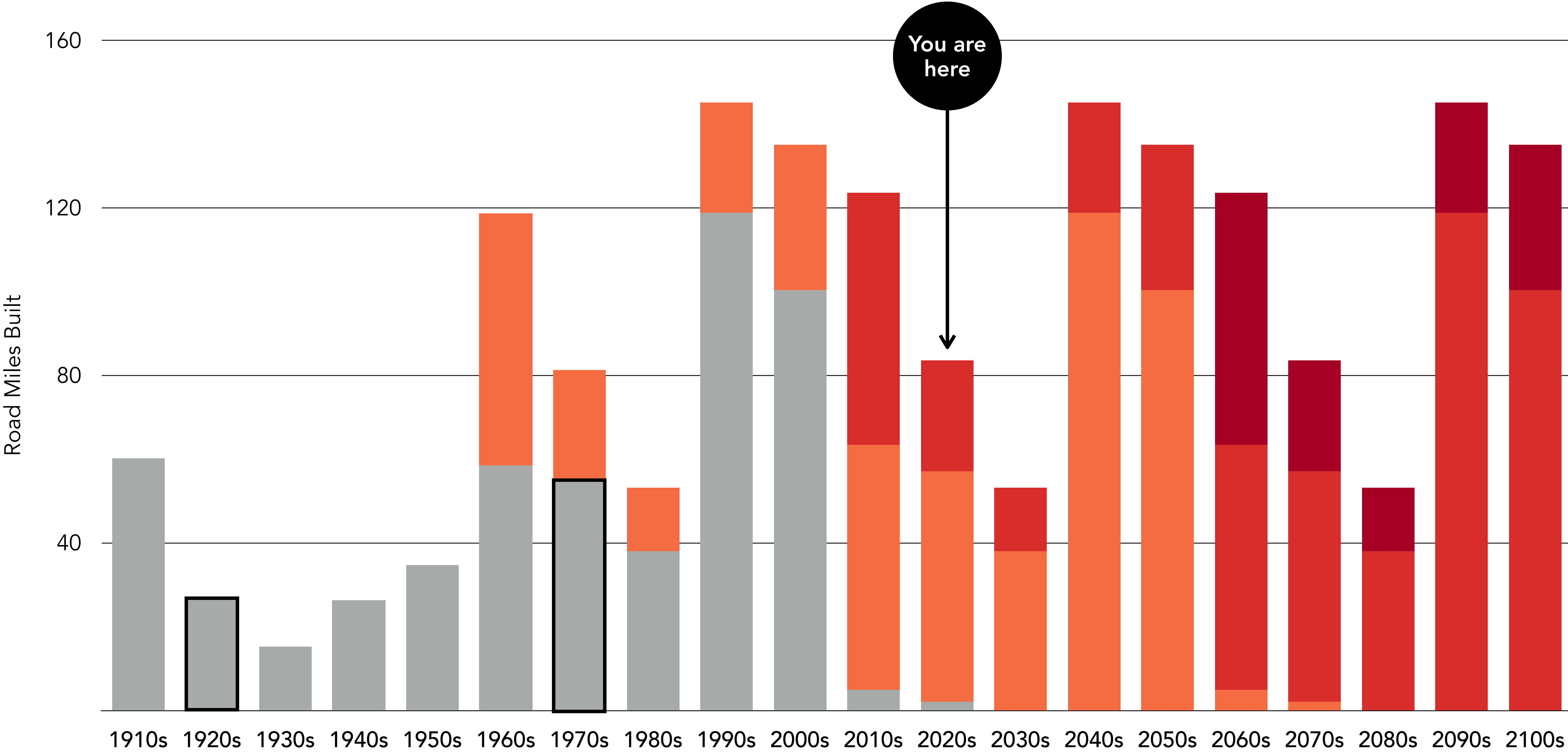
What will it cost to
maintain & replace?



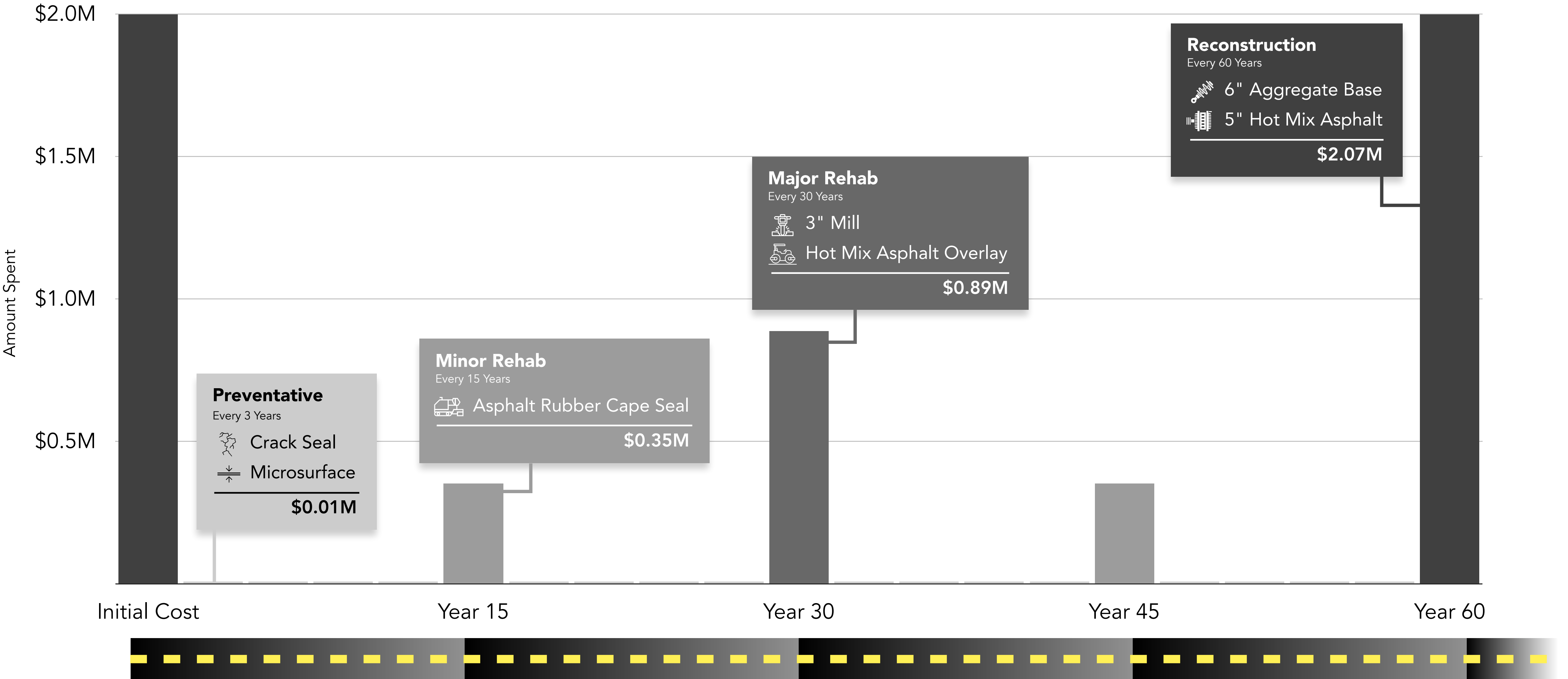
Road Maintenance Load and Rebuild Schedule*

Joliet, IL

Initial Build Rebuild 1 Rebuild 2 Rebuild 3

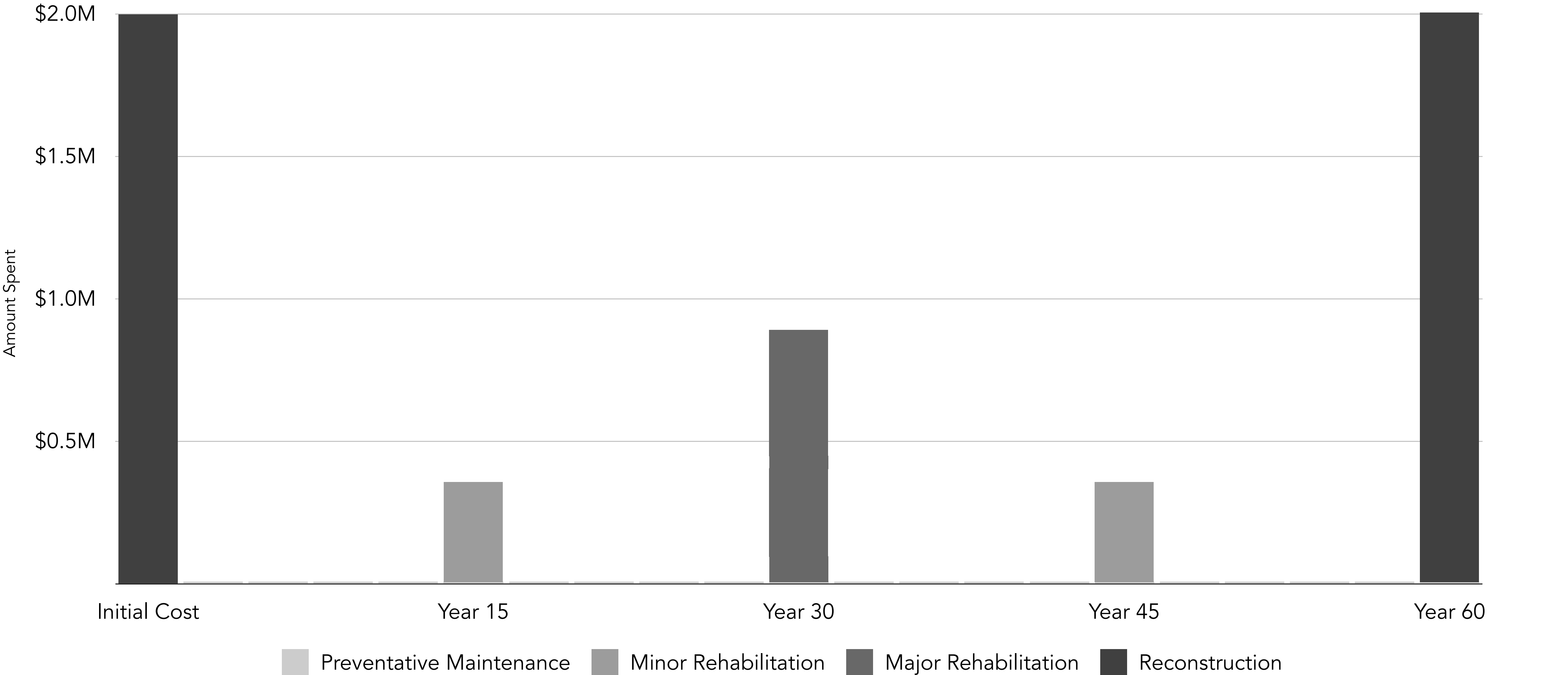


Lifecycle Cost of a Road (Per Lane Mile)



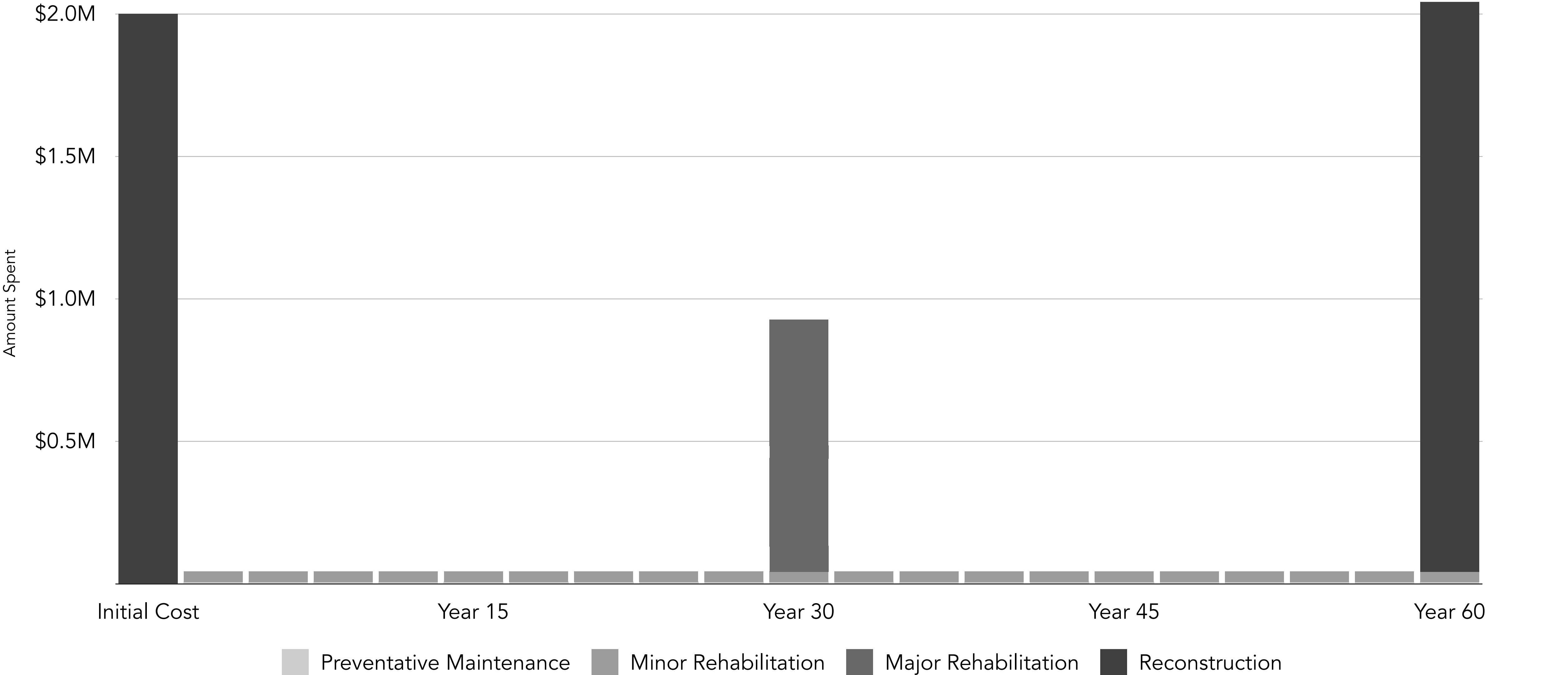
Note: Example does not account for inflation

Lifecycle Cost of a Road (Per Lane Mile)



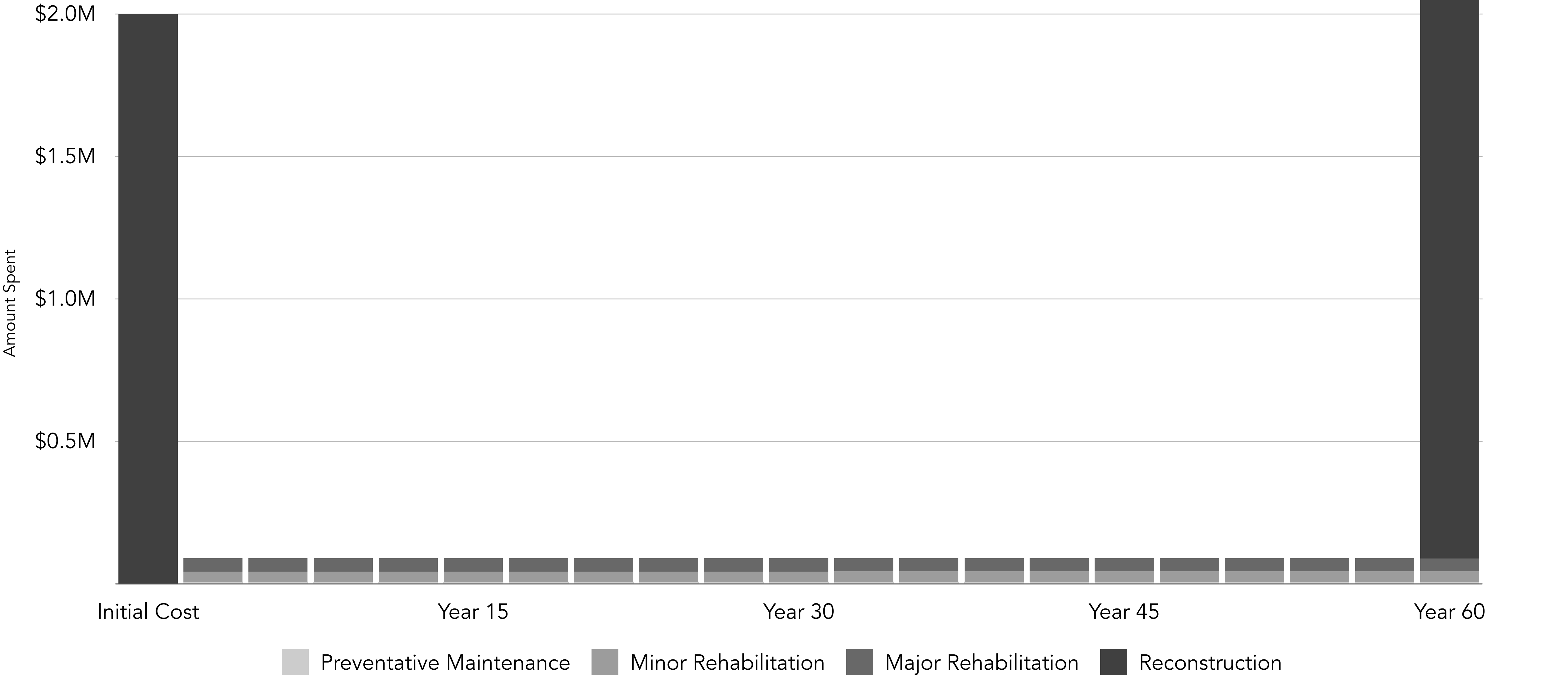
Note: Example does not account for inflation

Lifecycle Cost of a Road (Per Lane Mile)



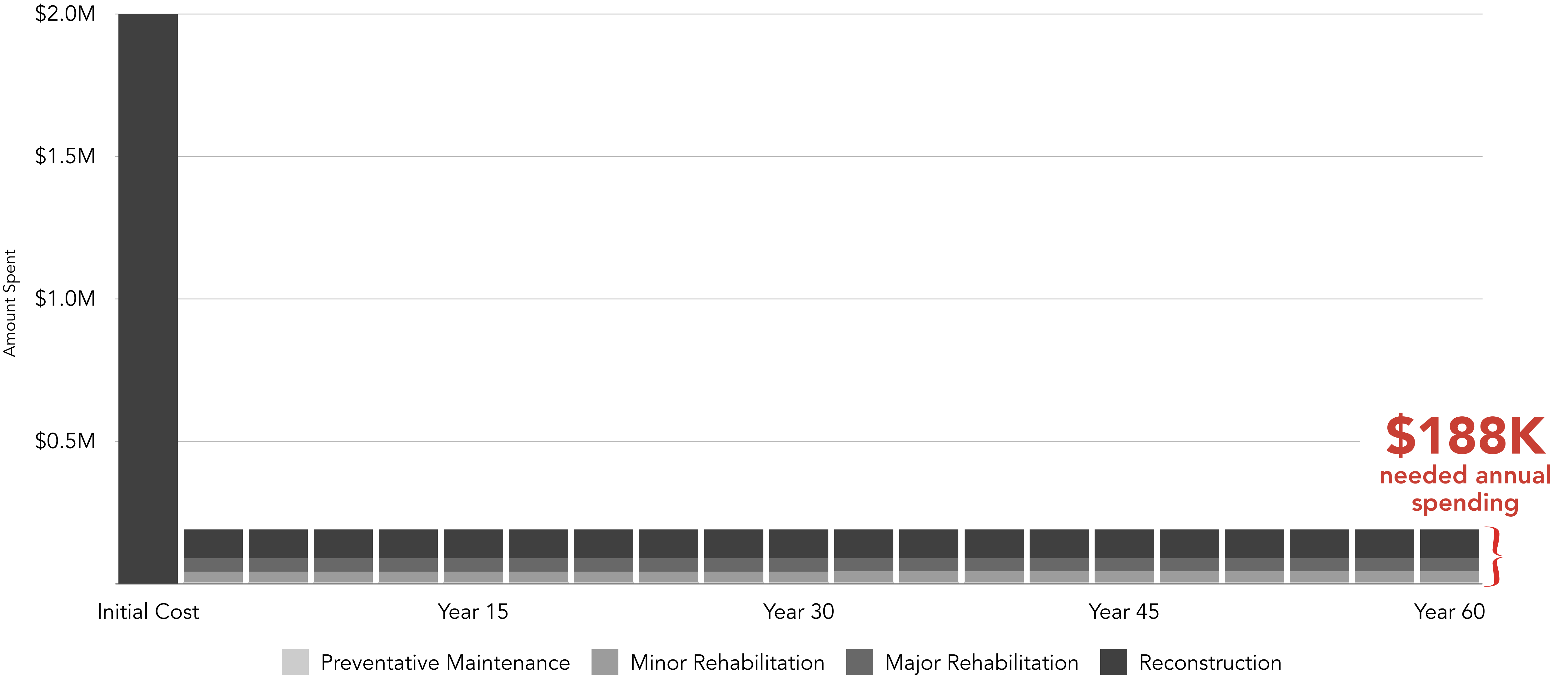
Note: Example does not account for inflation

Lifecycle Cost of a Road (Per Lane Mile)



Note: Example does not account for inflation

Lifecycle Cost of a Road (Per Lane Mile)

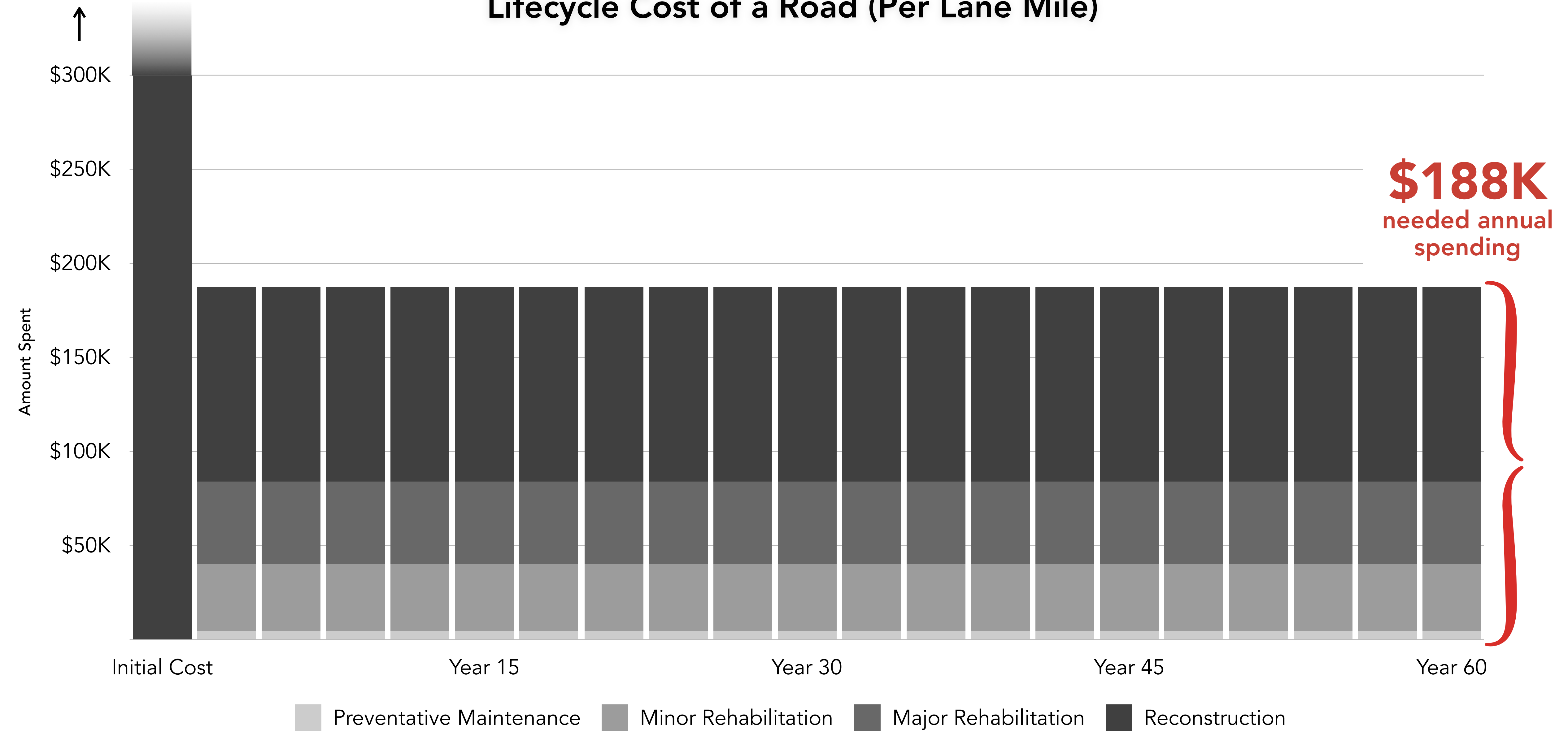


\$188K
needed annual
spending

Preventative Maintenance Minor Rehabilitation Major Rehabilitation Reconstruction

Note: Example does not account for inflation

Lifecycle Cost of a Road (Per Lane Mile)



URBAN3

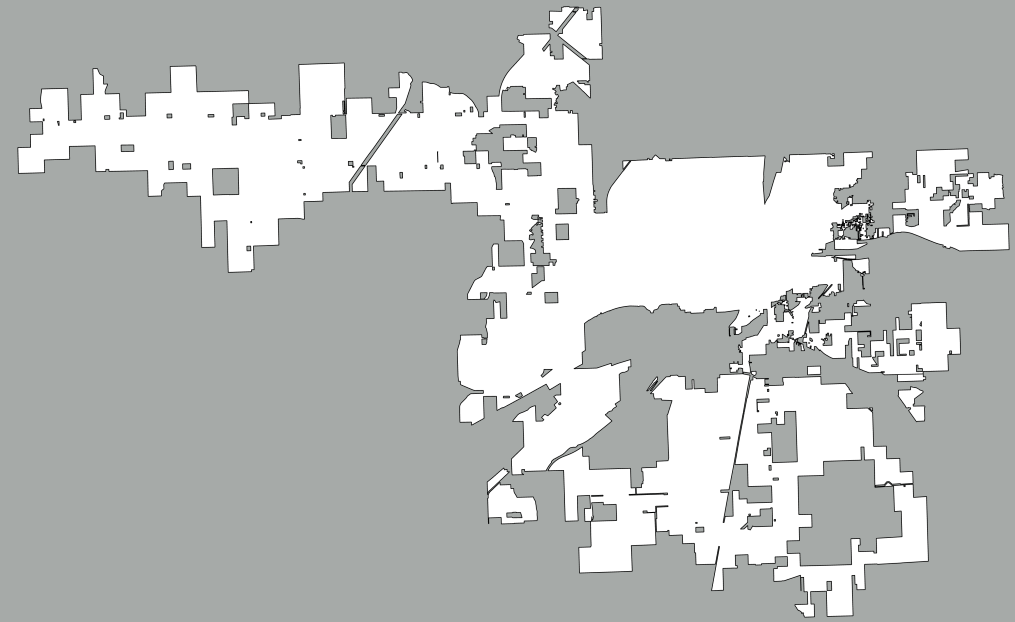
Note: Example does not account for inflation



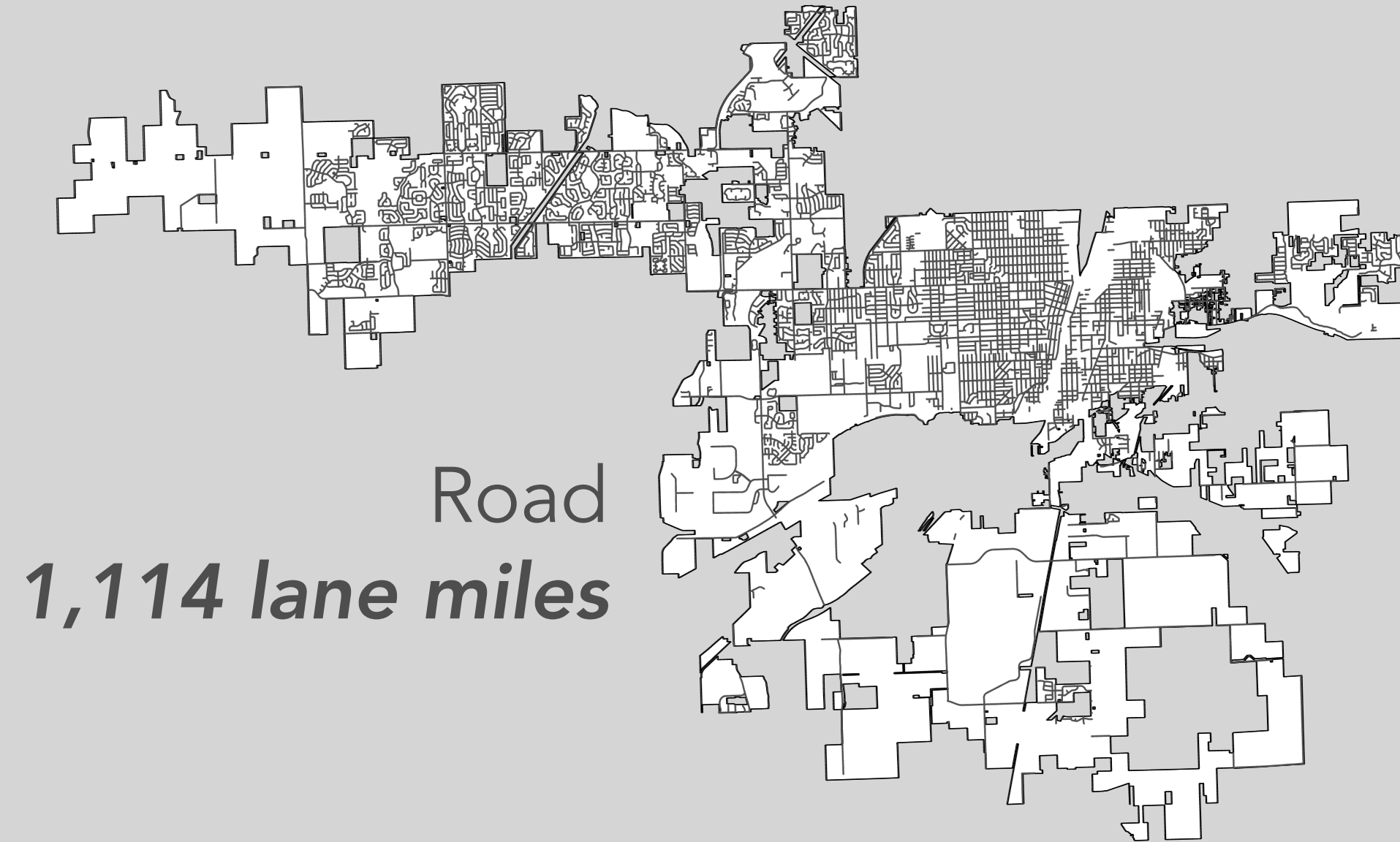
A ROAD IS FOREVER

Infrastructure Types

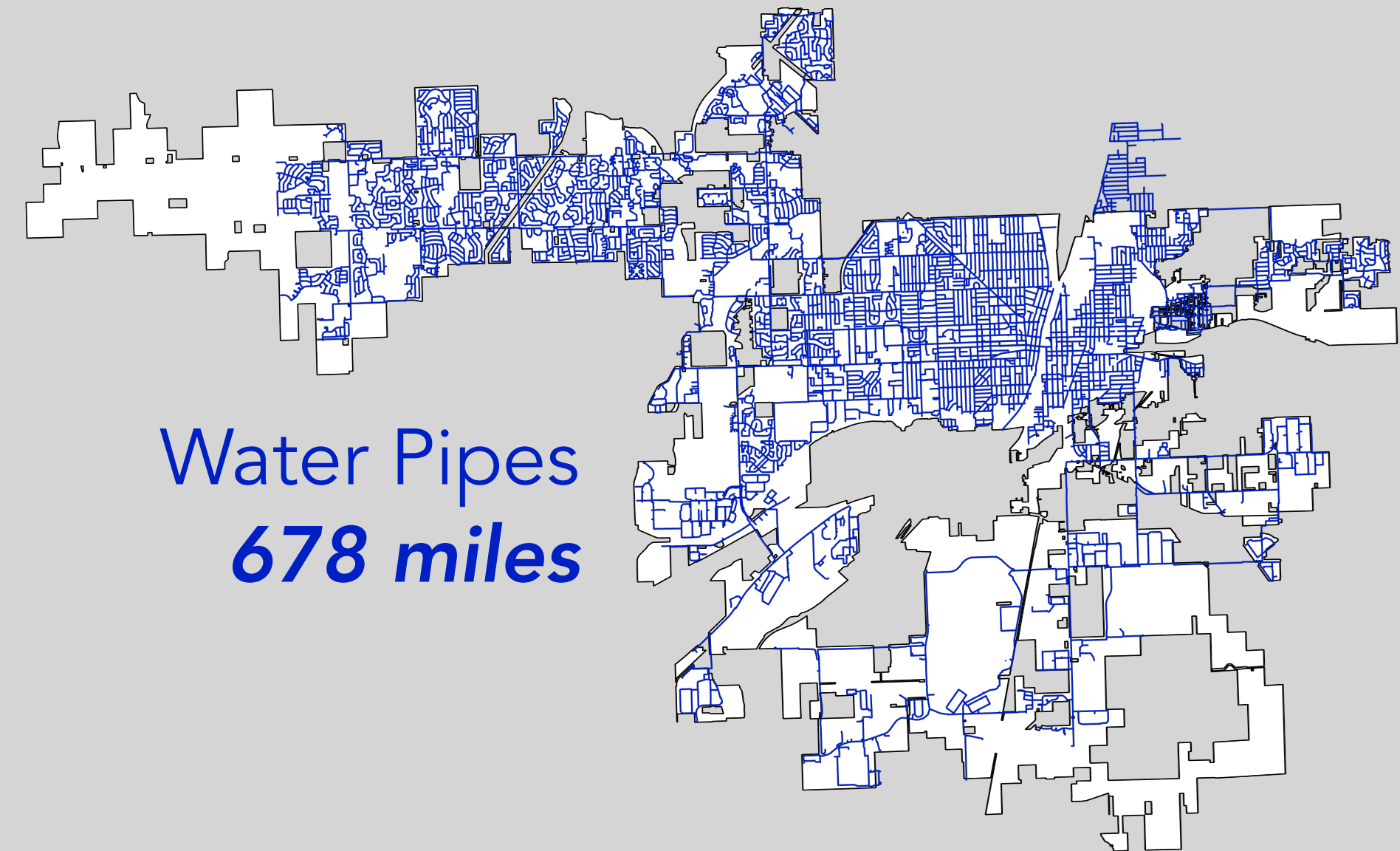
Joliet, IL



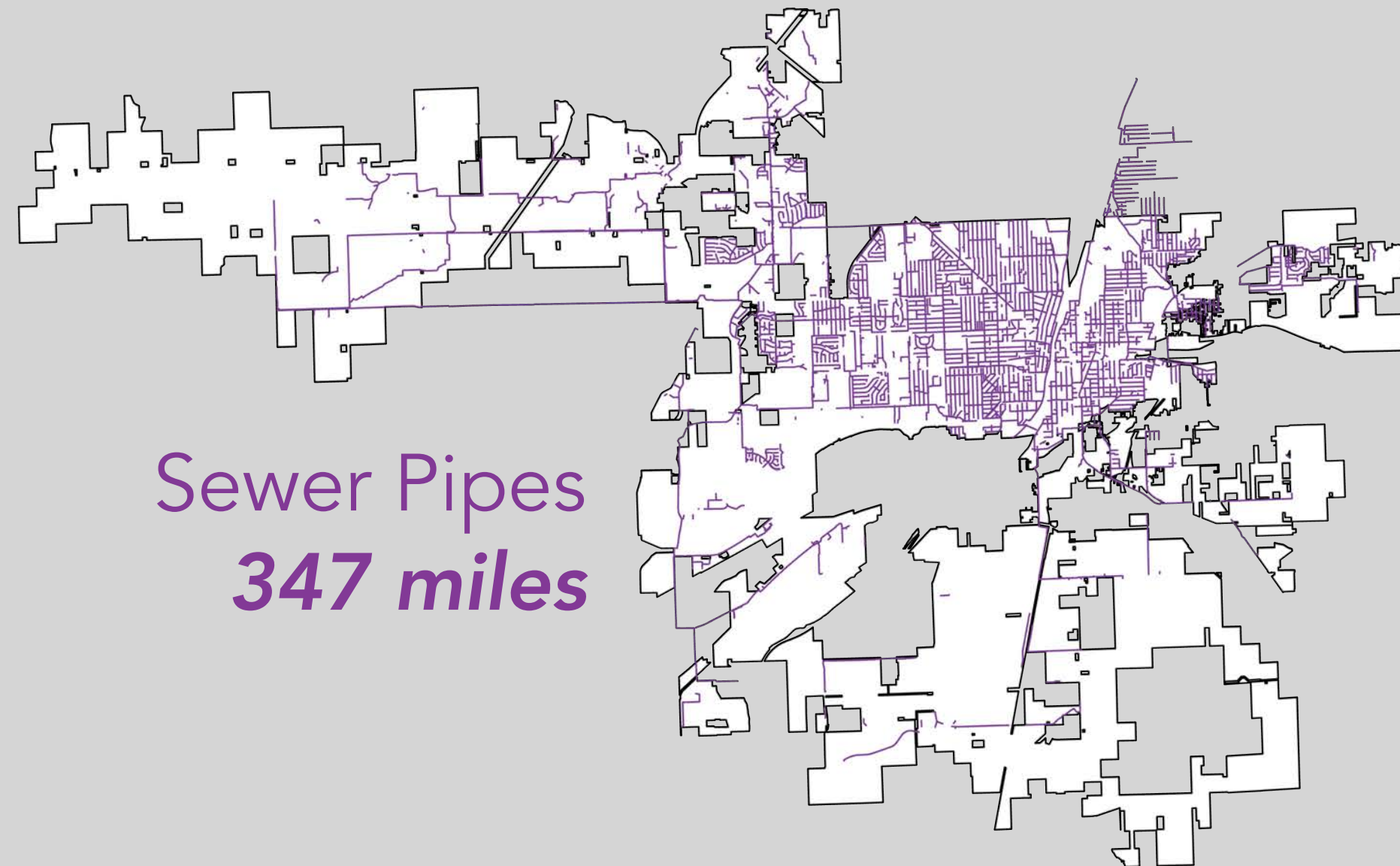
85 sq. mi
served



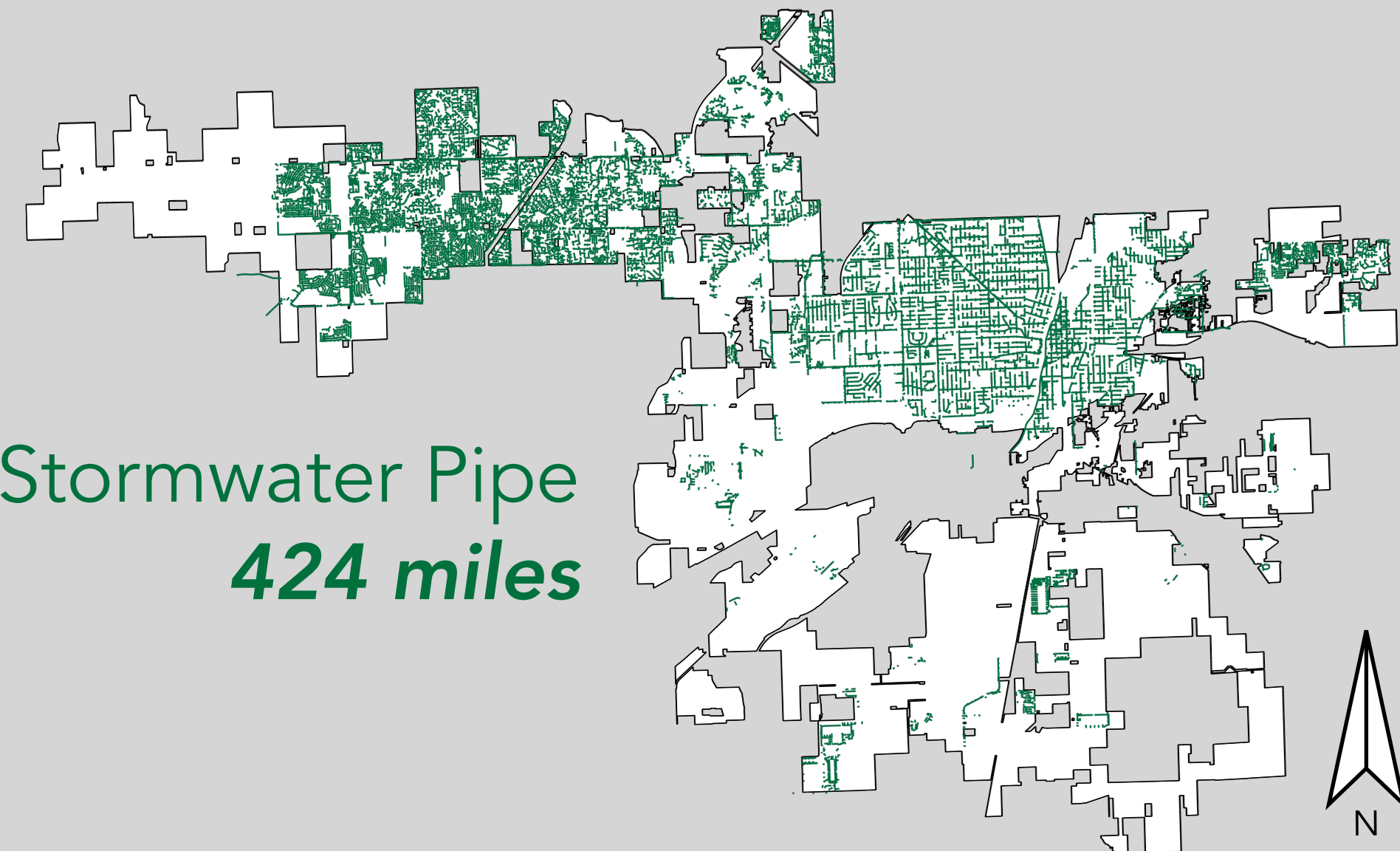
Road
1,114 lane miles



Water Pipes
678 miles



Sewer Pipes
347 miles



Stormwater Pipe
424 miles

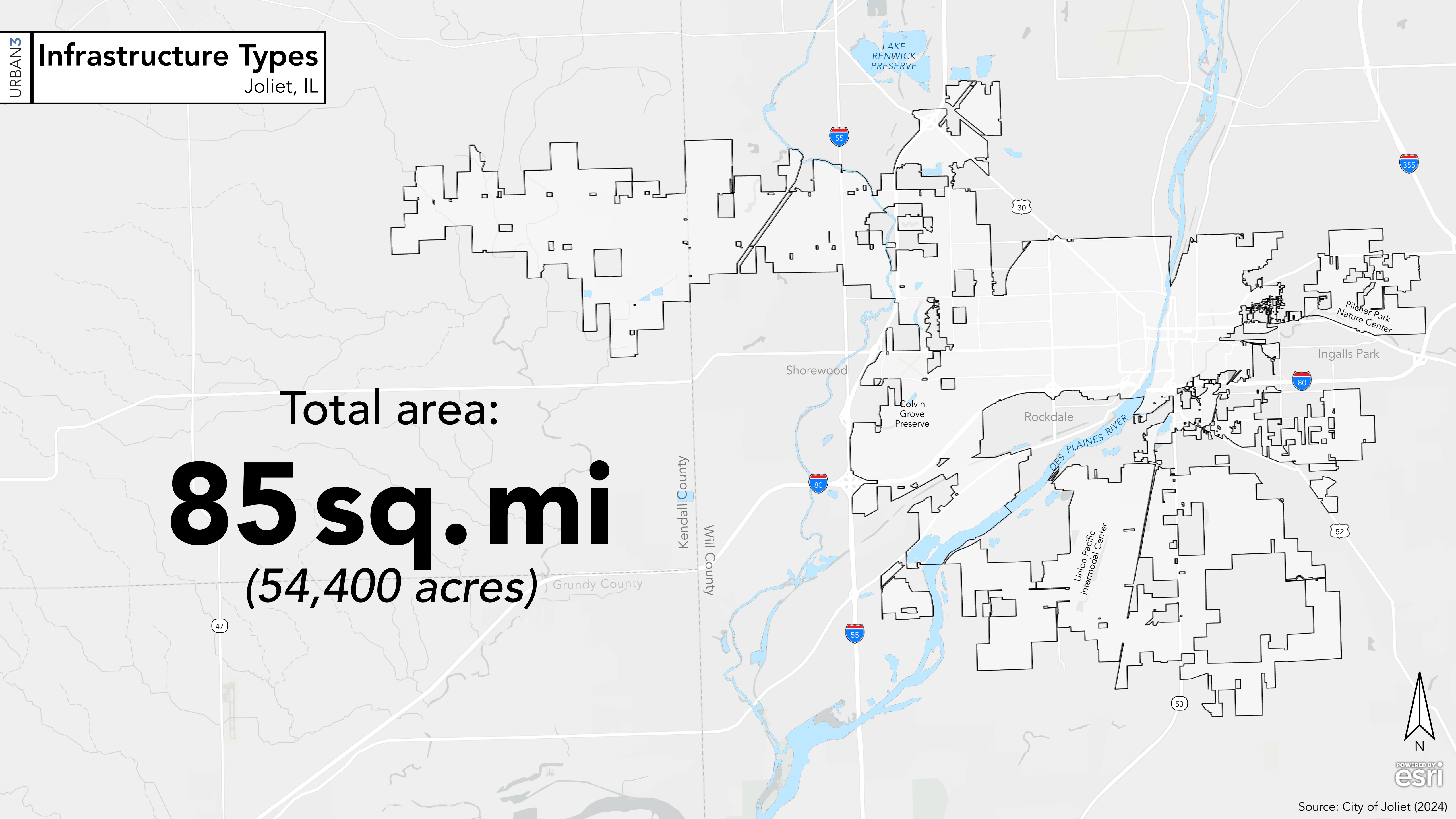


Infrastructure Types

Joliet, IL

Total area:

85 sq. mi
(54,400 acres)



Infrastructure Length

Joliet, IL

424 miles of stormwater pipes to
Cameron, MO

347 miles of sewer pipe to
Bucklin, MO

659 mile two-lane road to
El Dorado, KS

678 miles of water pipe to
Wichita, KS



Road

Water Pipe

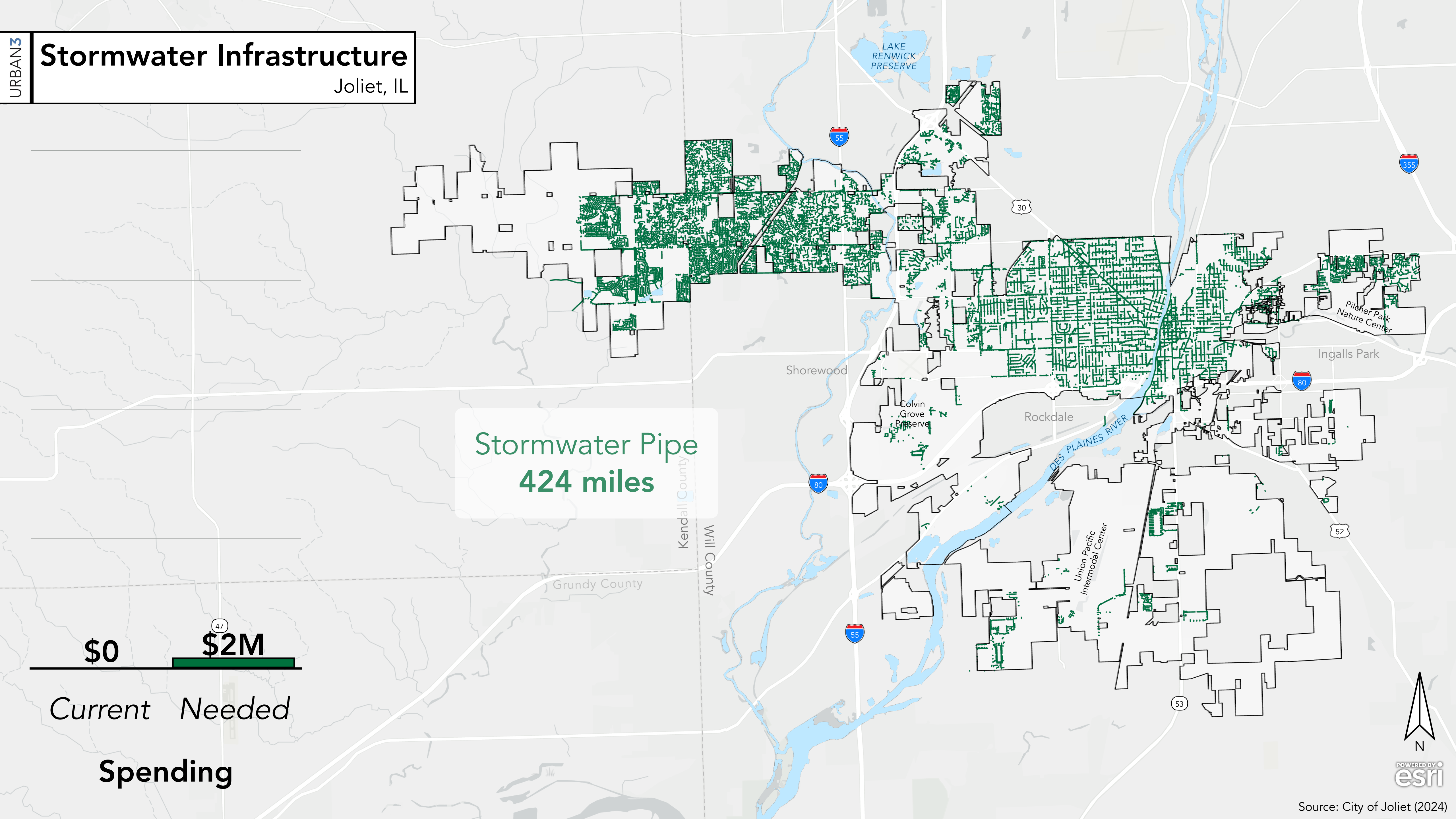
Sewer Pipe

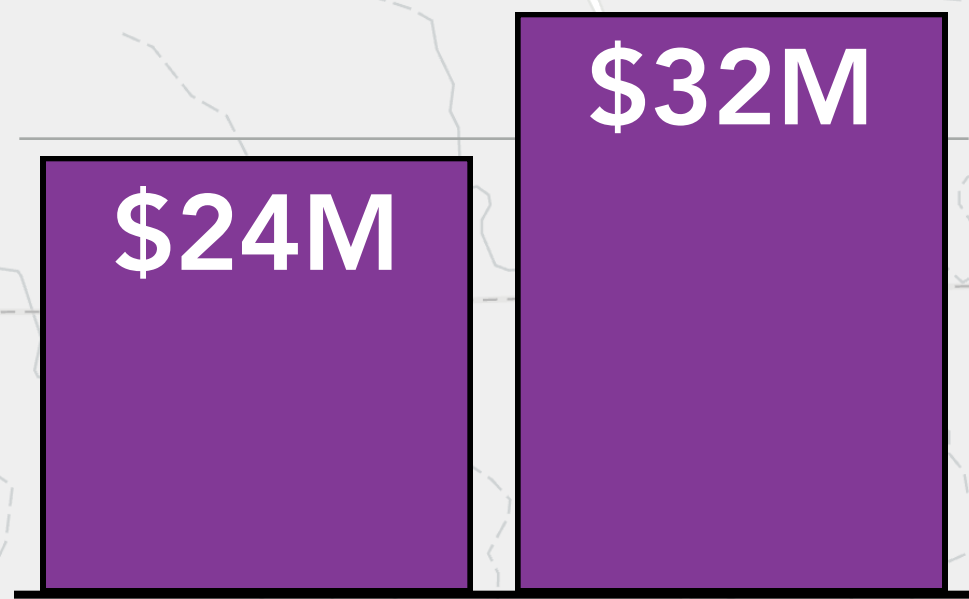
Stormwater Pipe

URBAN3

Stormwater Infrastructure

Joliet, IL

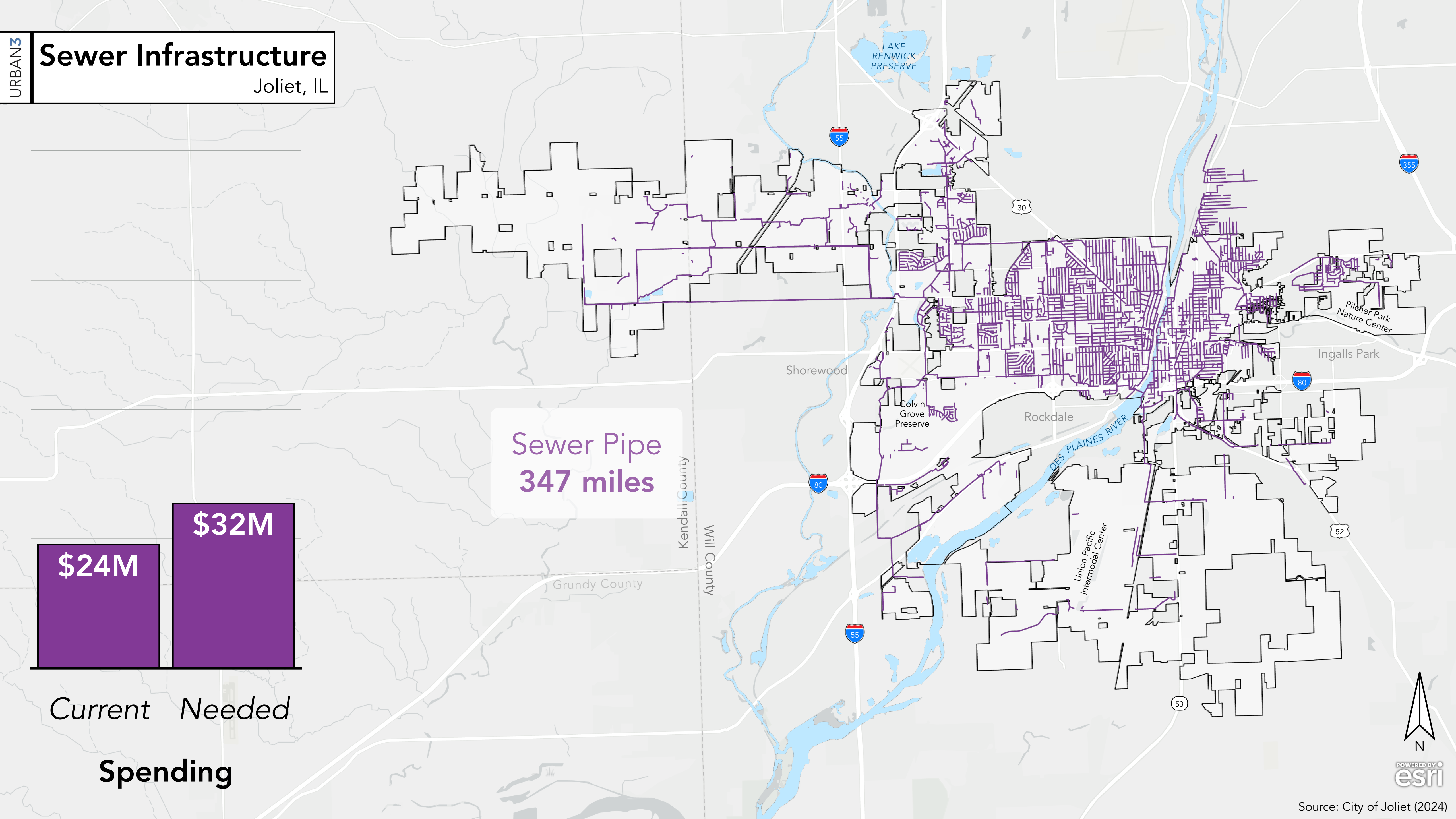


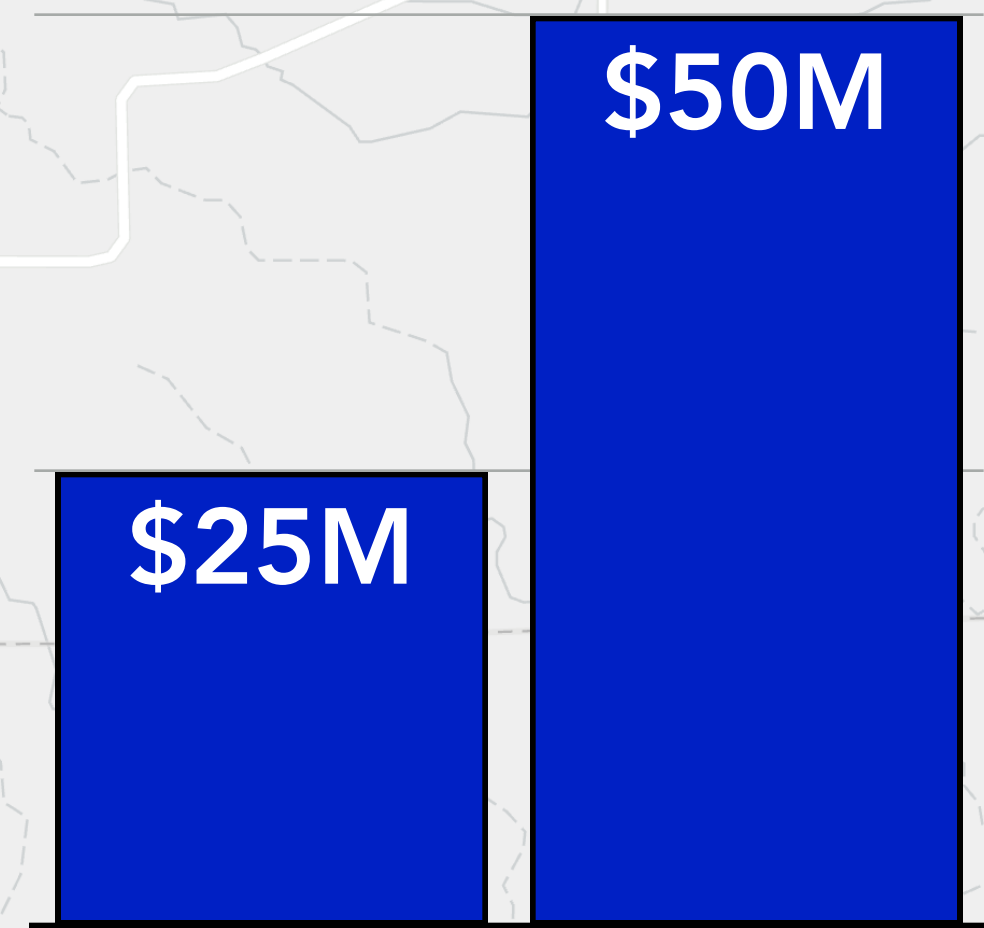


Current Needed

Spending

Sewer Pipe
347 miles

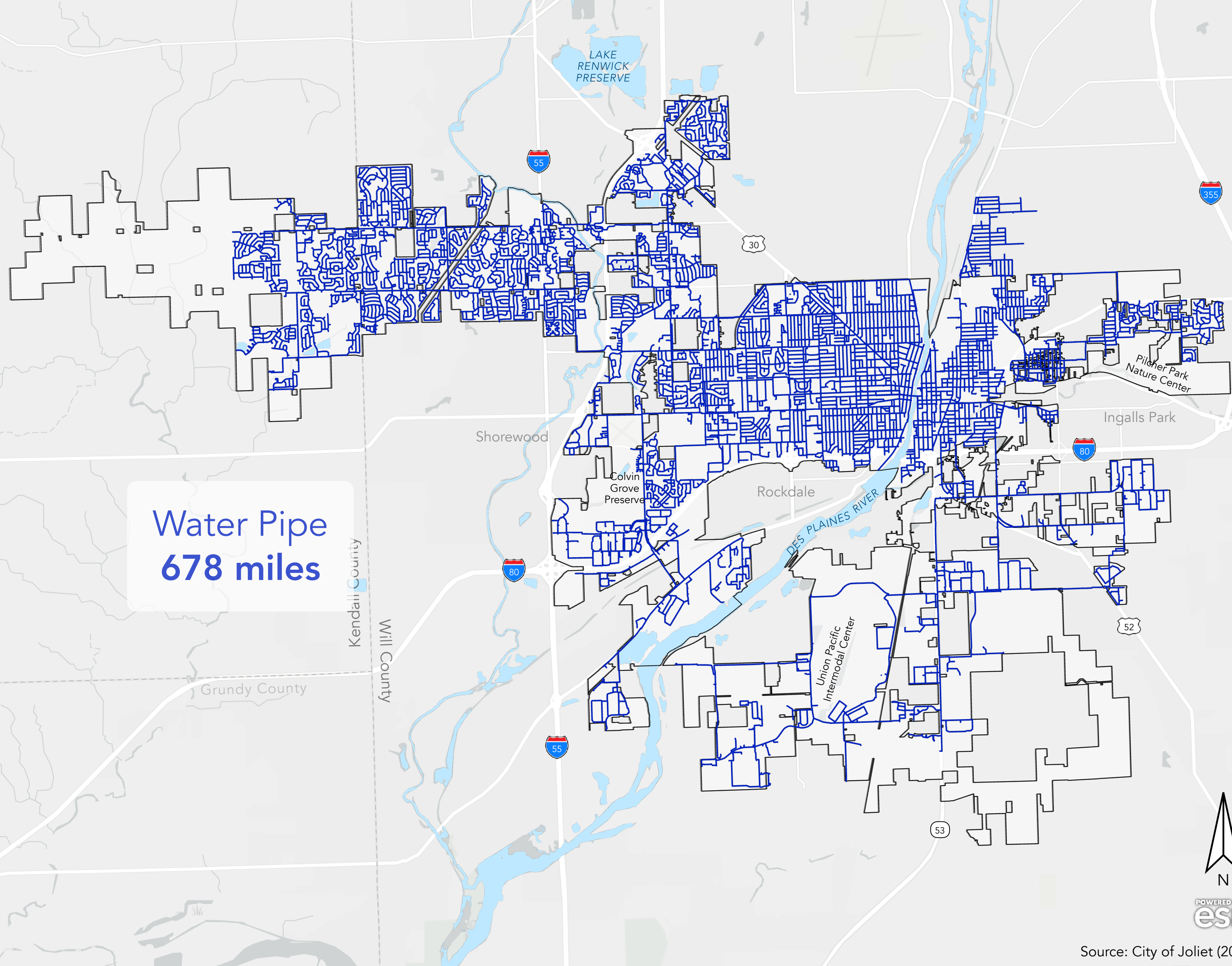




Current Needed

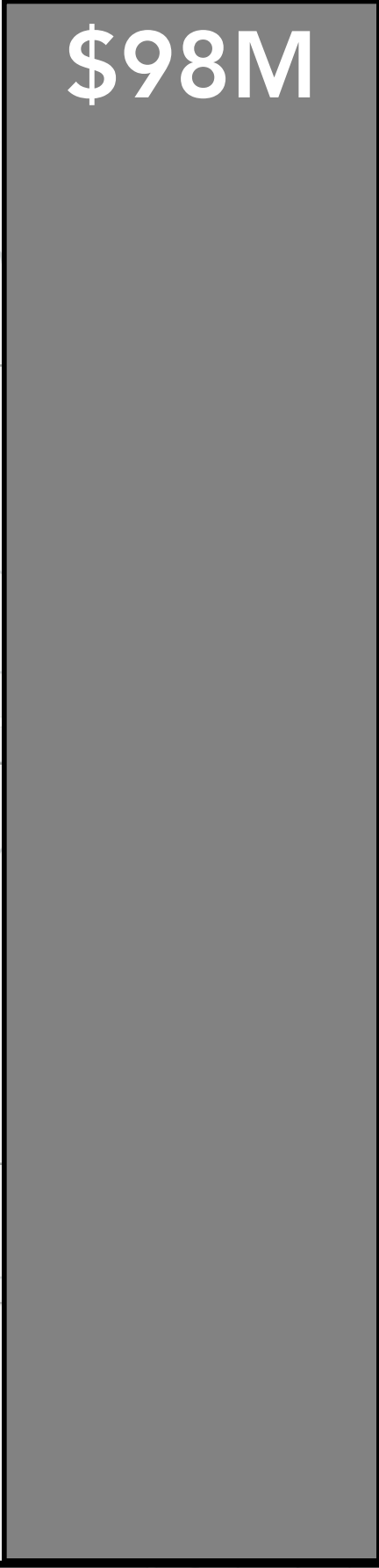
Spending

Water Pipe
678 miles



Transportation Infrastructure

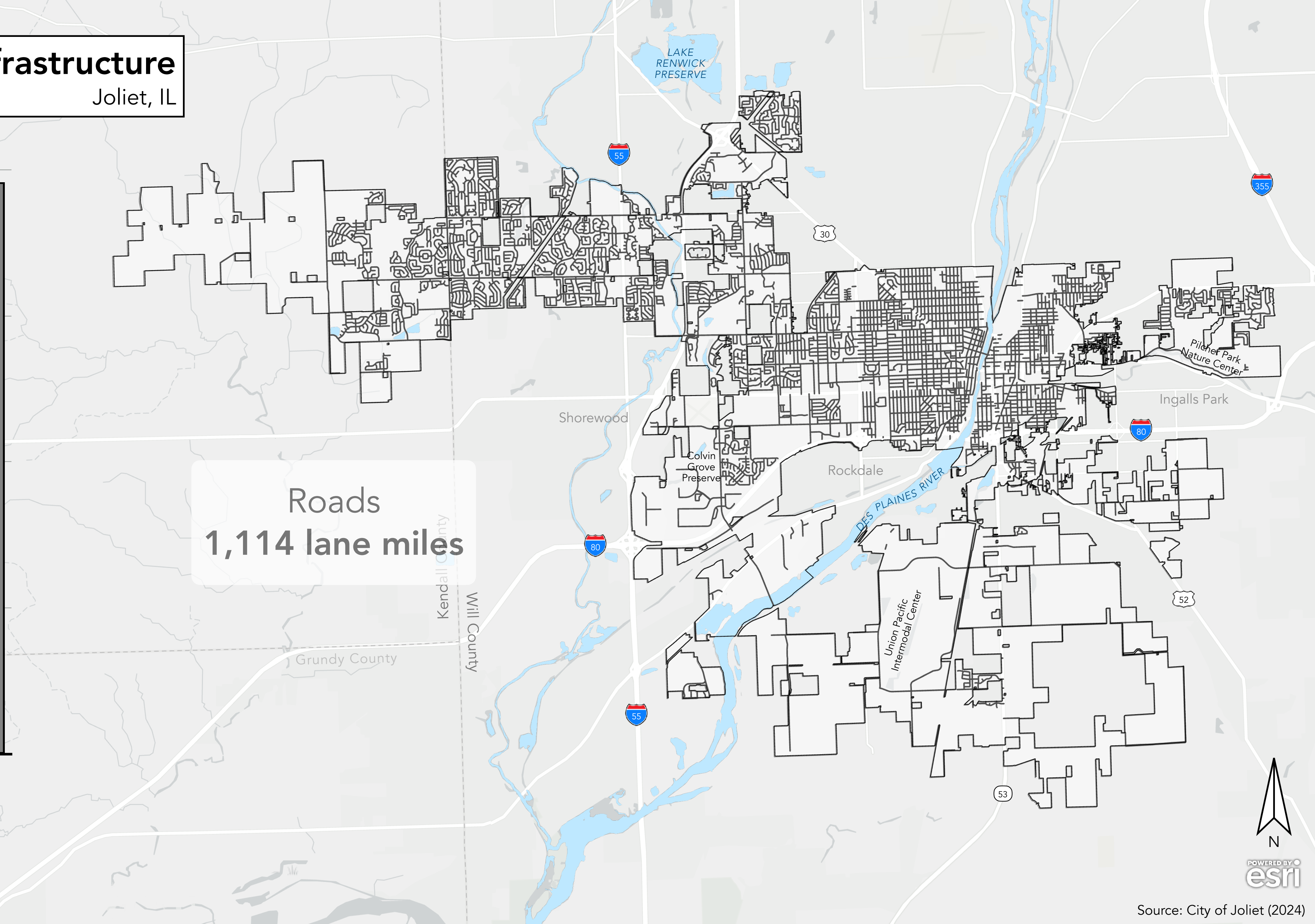
Joliet, IL



Roads
1,114 lane miles

Current Needed

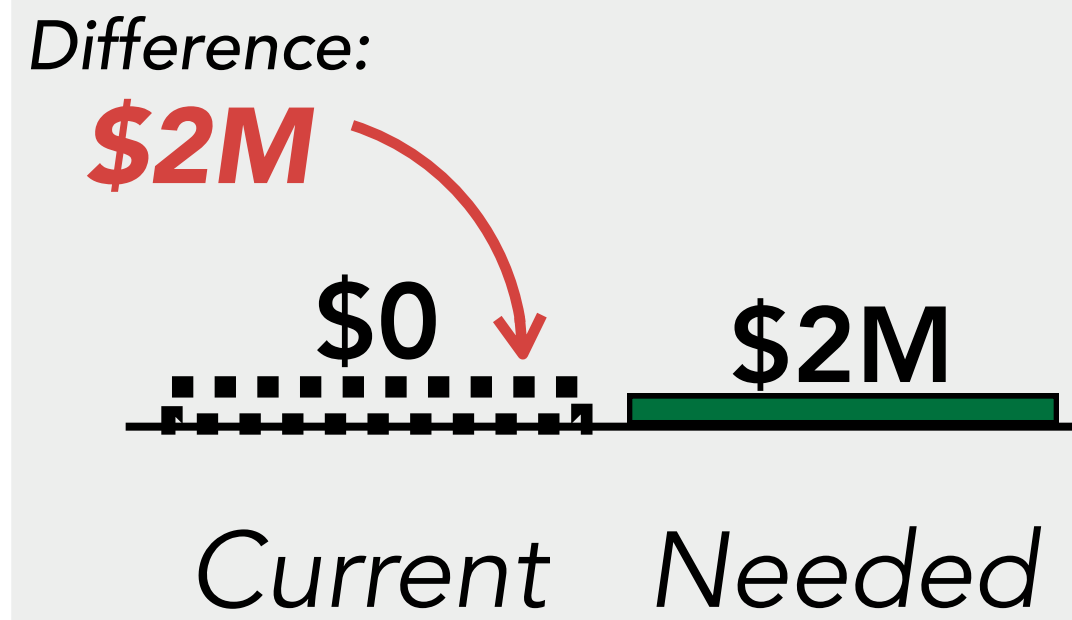
Spending



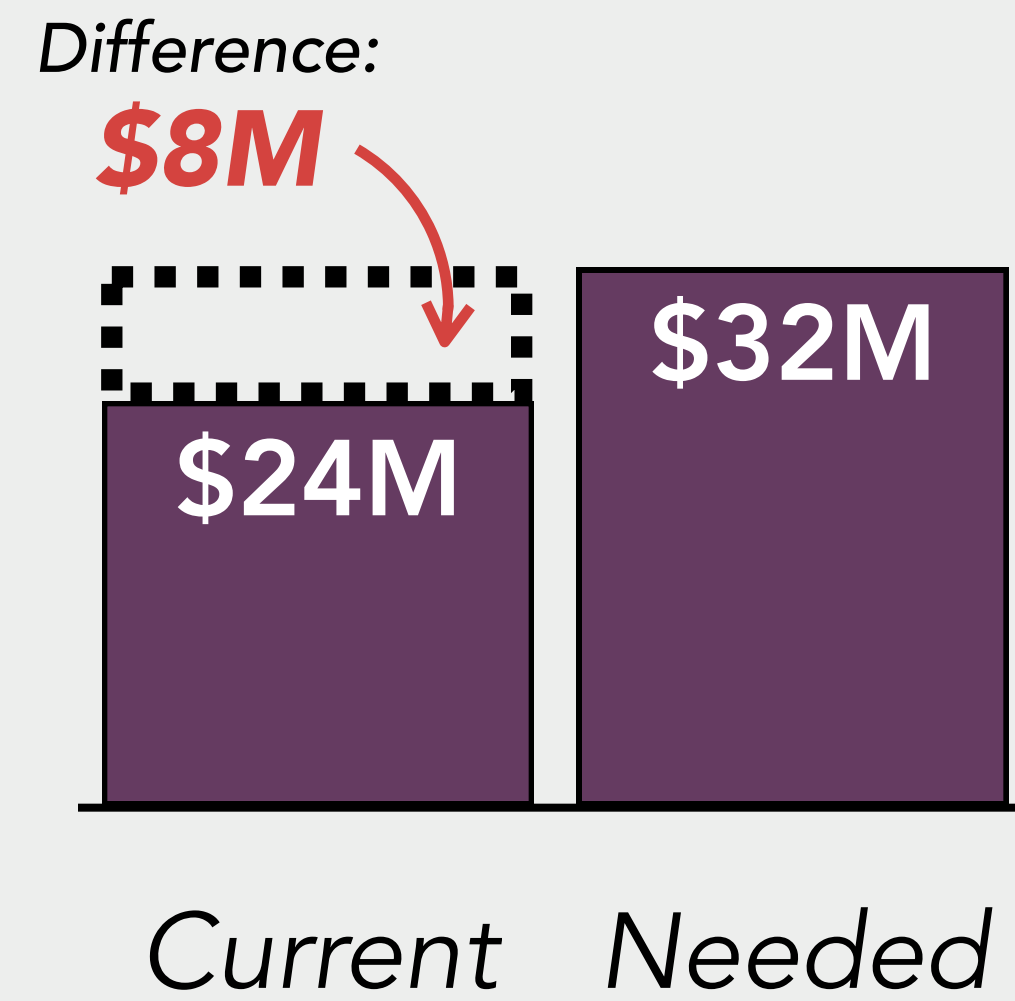
Lifecycle Costing of Infrastructure

Joliet, IL

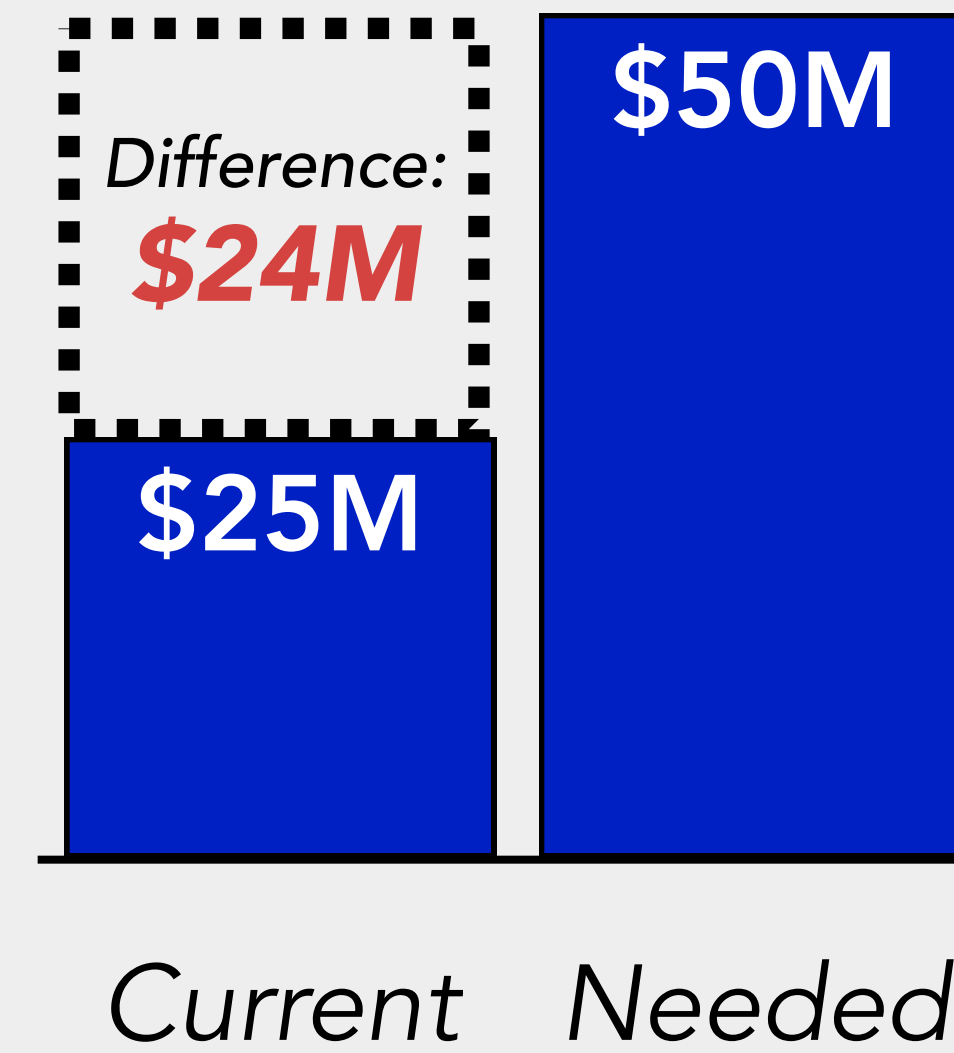
Stormwater



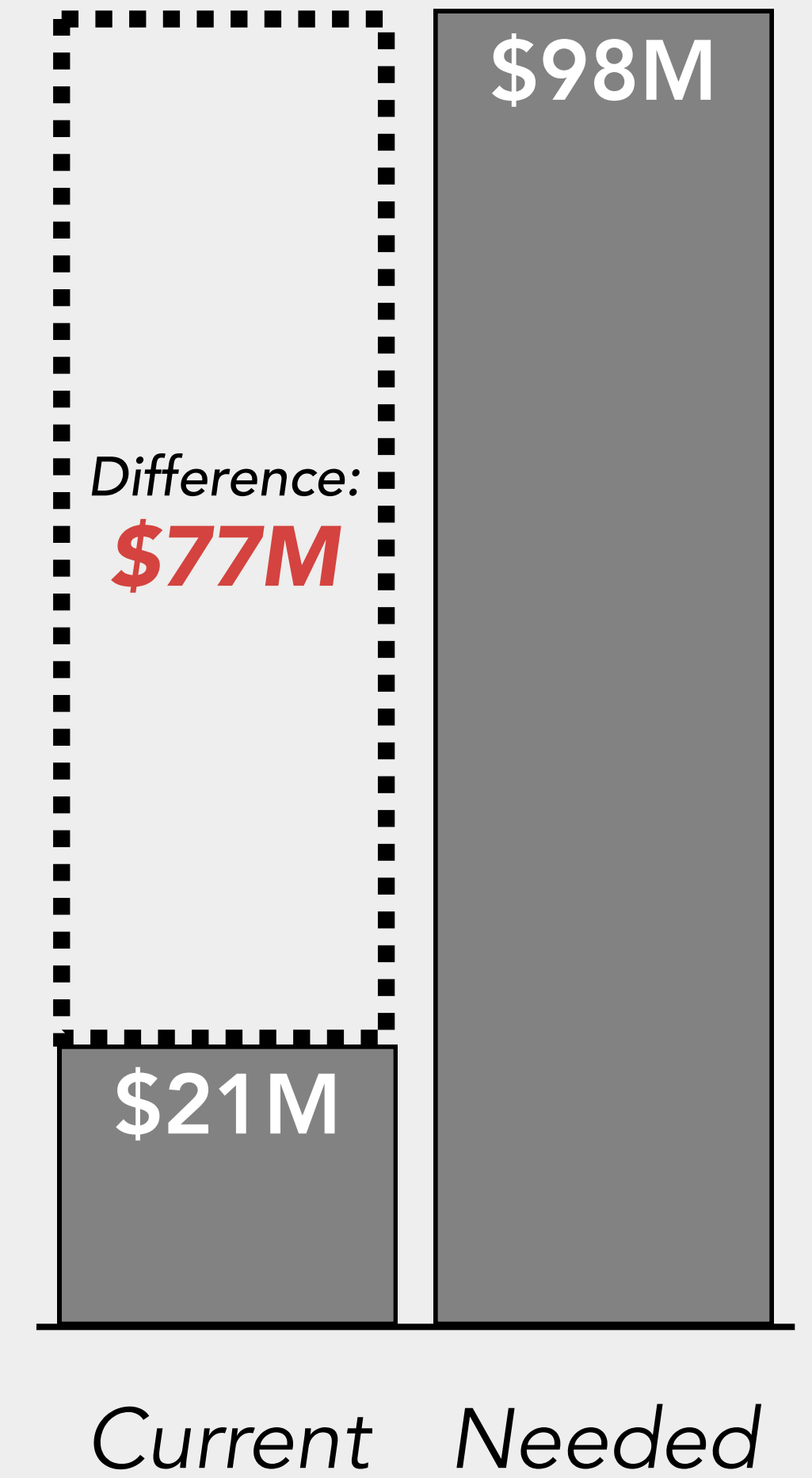
Sewer



Water



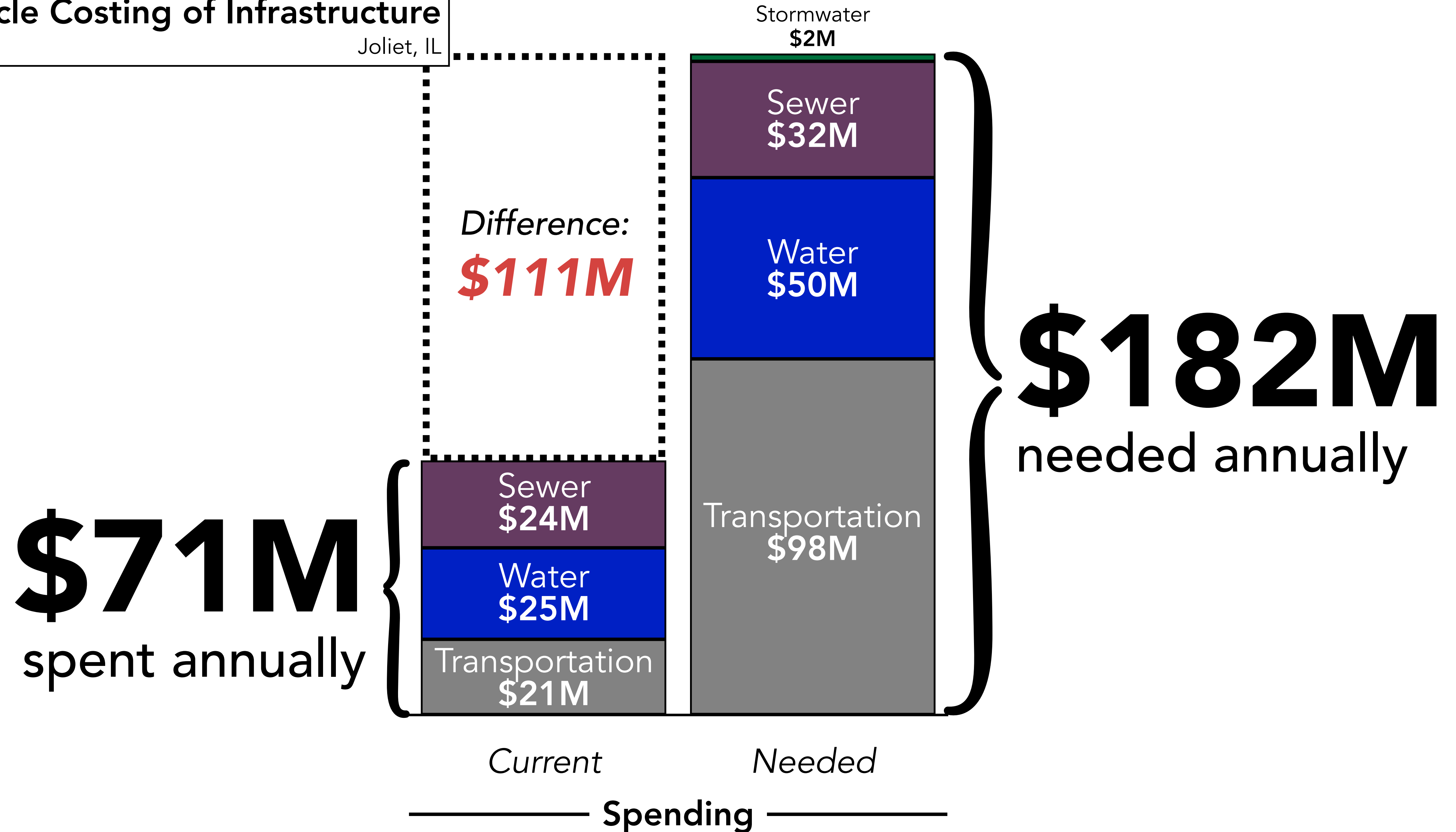
Transportation



Spending

Lifecycle Costing of Infrastructure

Joliet, IL





Return on Investment

Comparing Revenues & Costs of Infrastructure

Revenue Per Acre

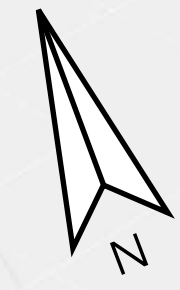
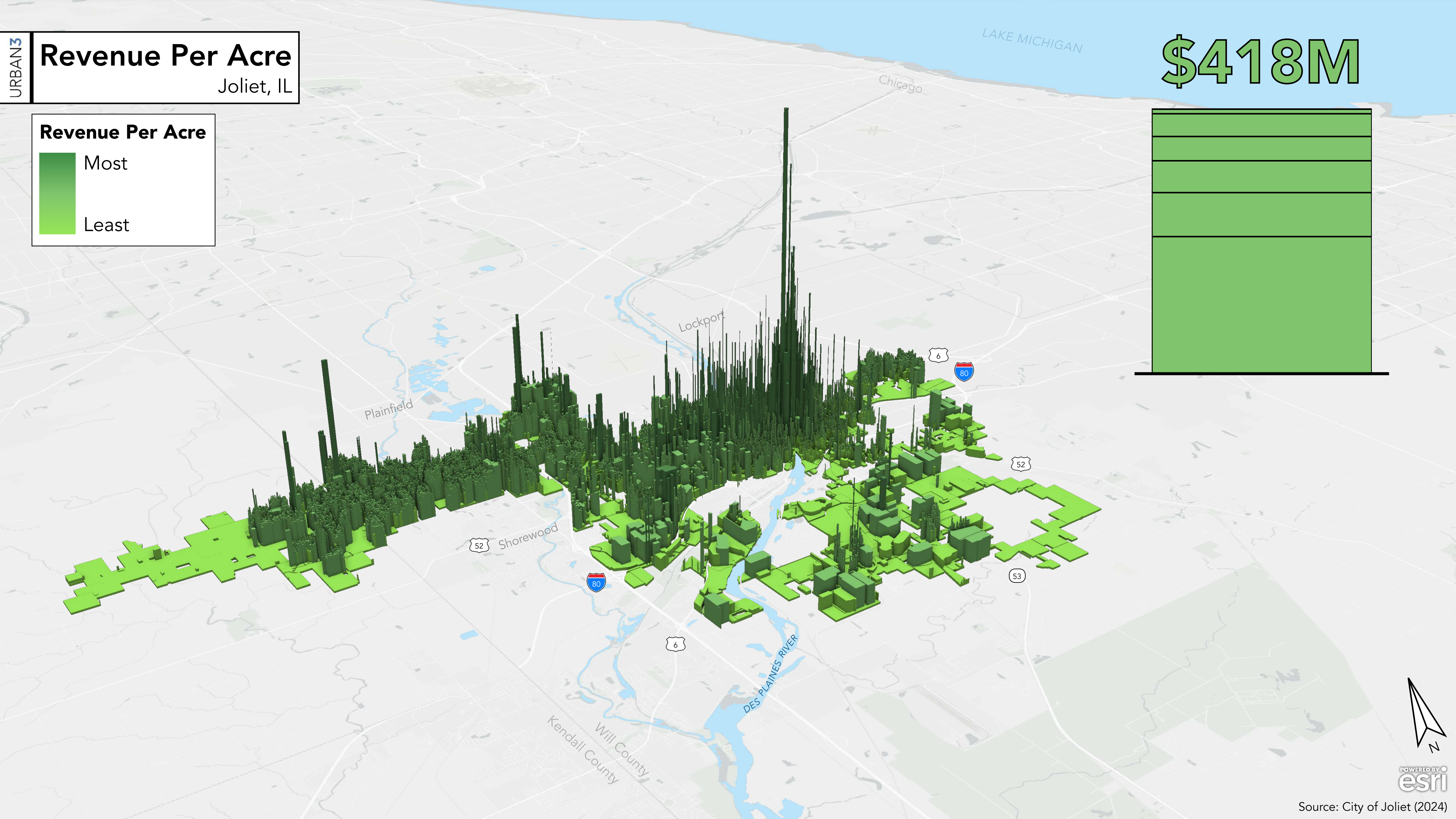
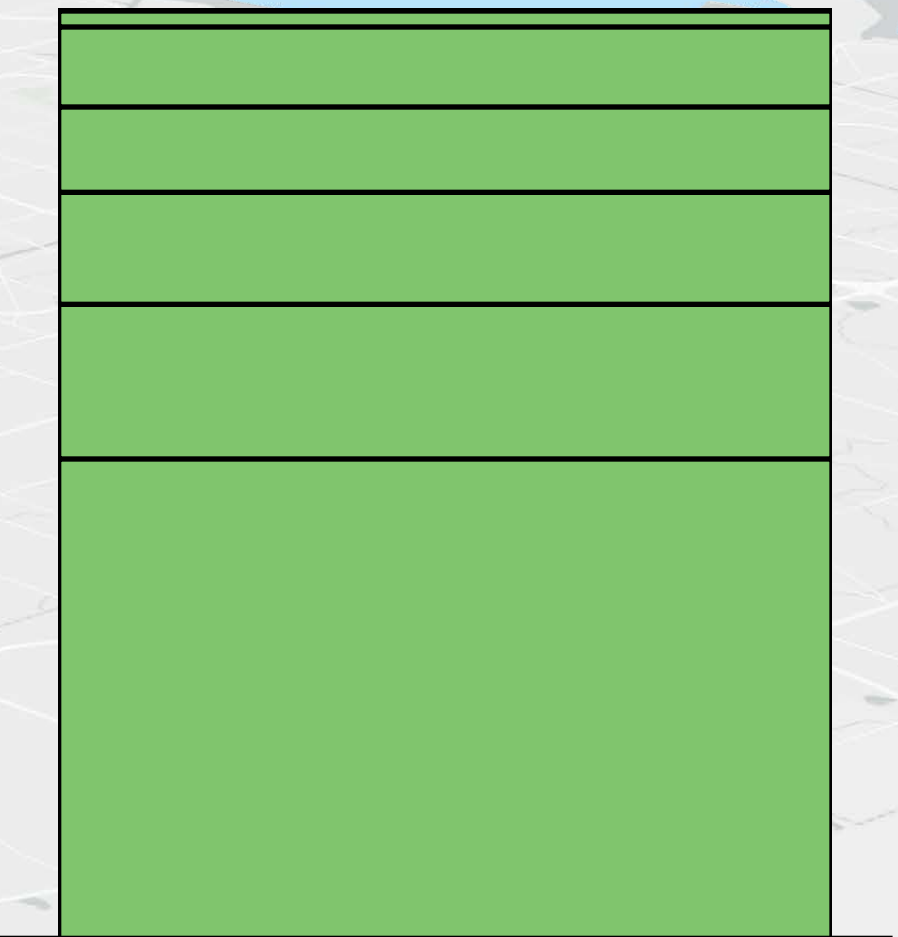
Joliet, IL

Revenue Per Acre

Most

Least

\$418M



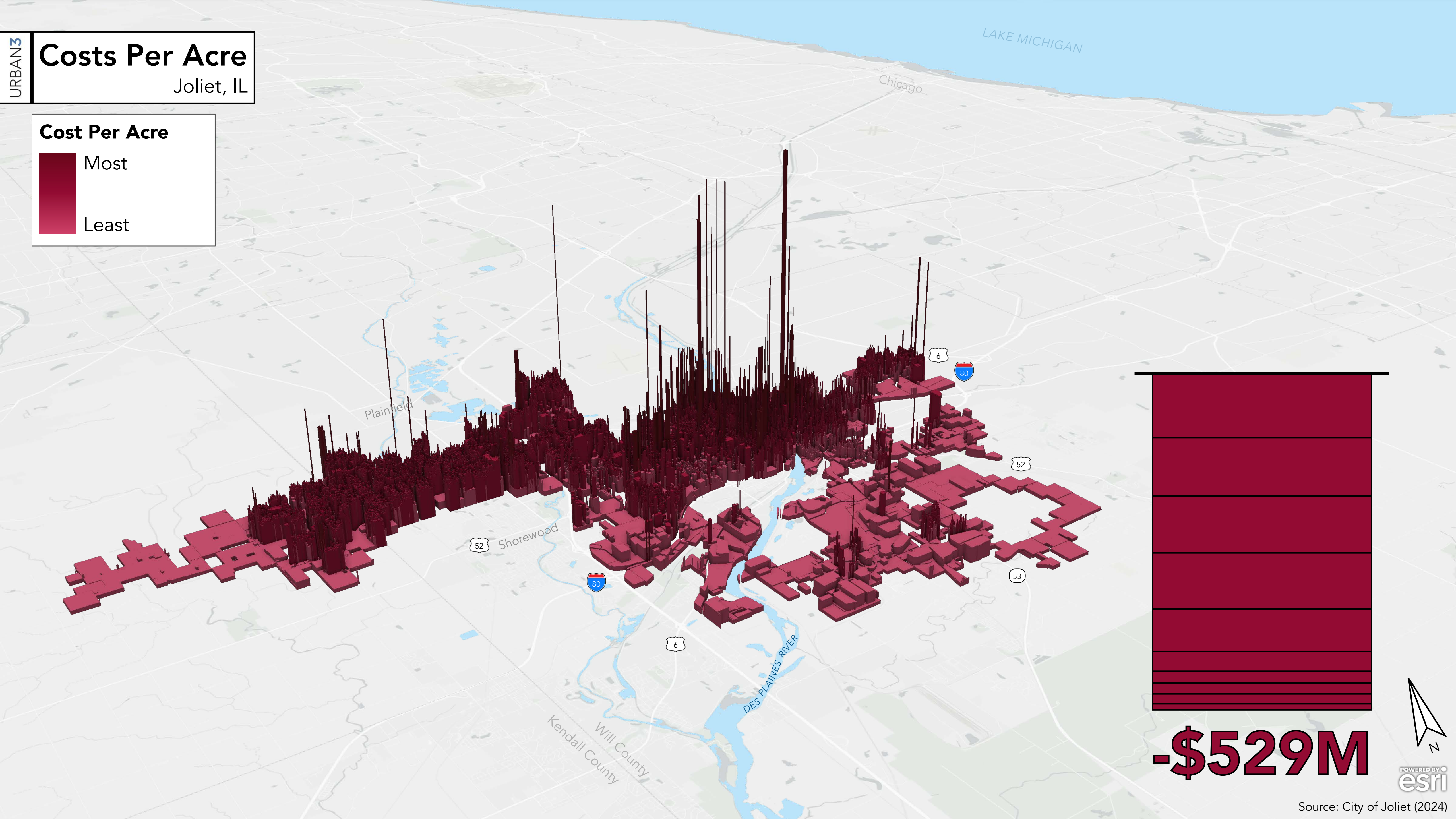
Costs Per Acre

Joliet, IL

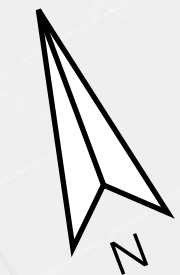
Cost Per Acre

Most

Least



-\$529M



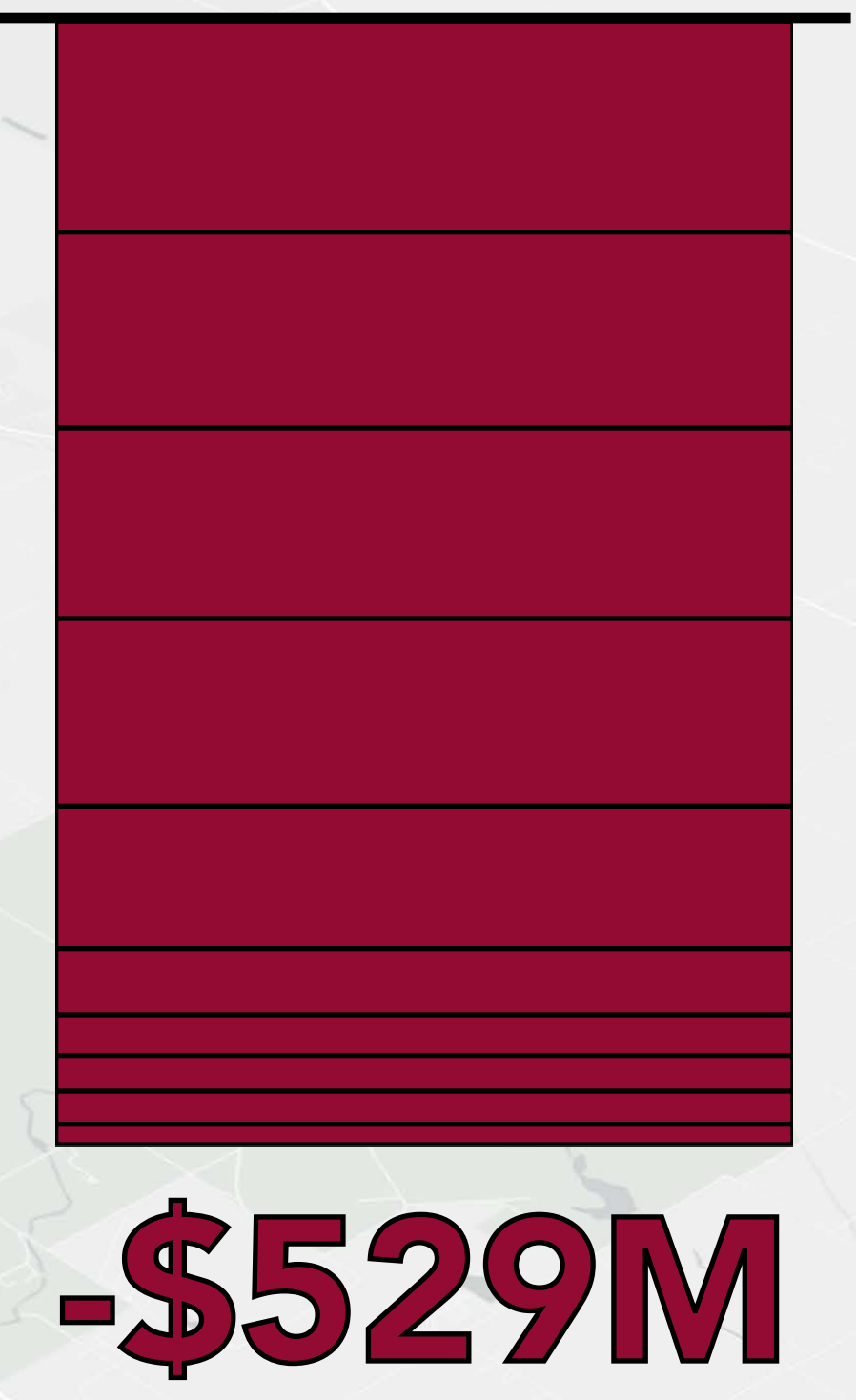
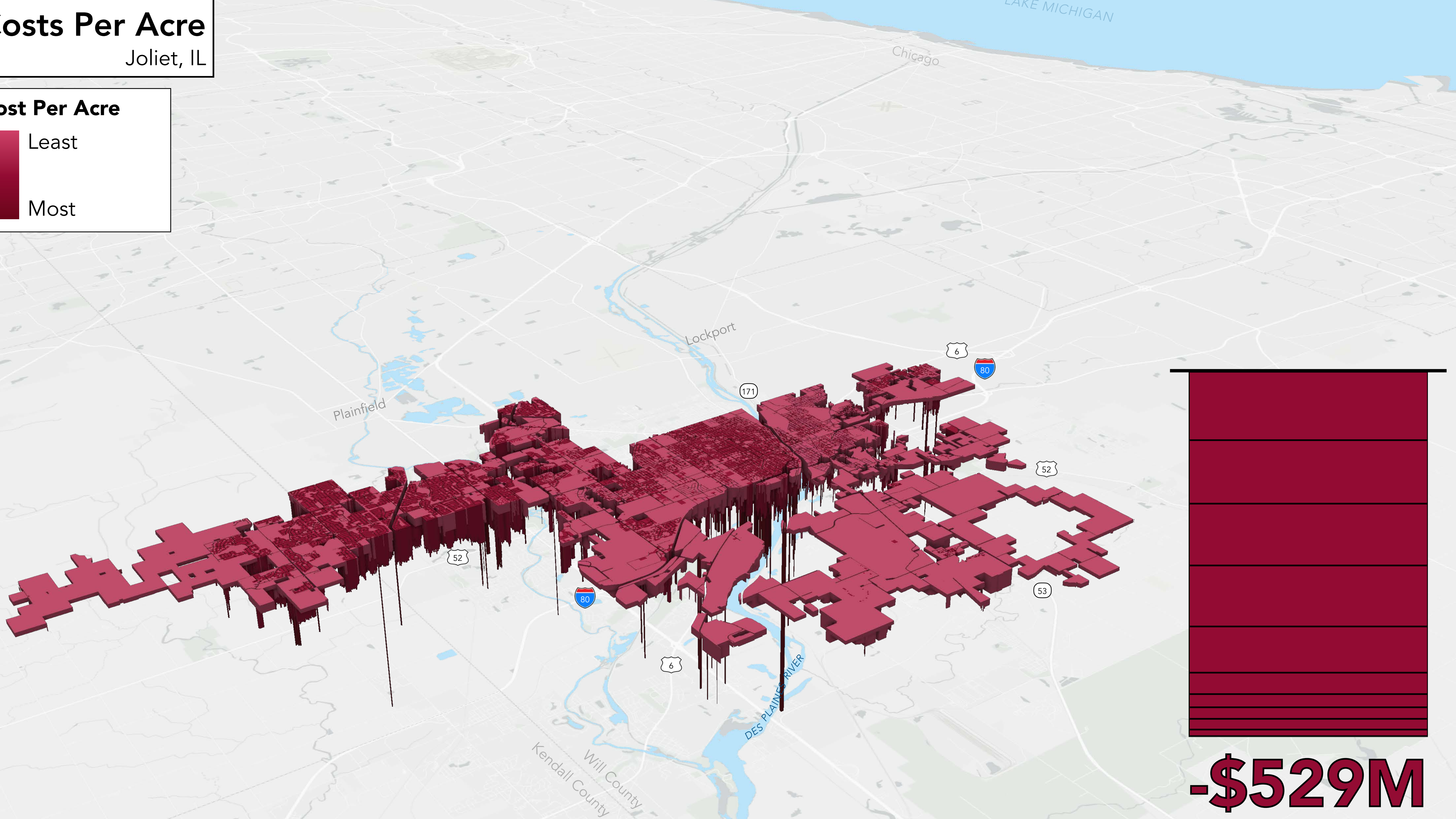
Costs Per Acre

Joliet, IL

Cost Per Acre

Least

Most



Costs Per Acre

Joliet, IL

Revenue Per Acre

Most

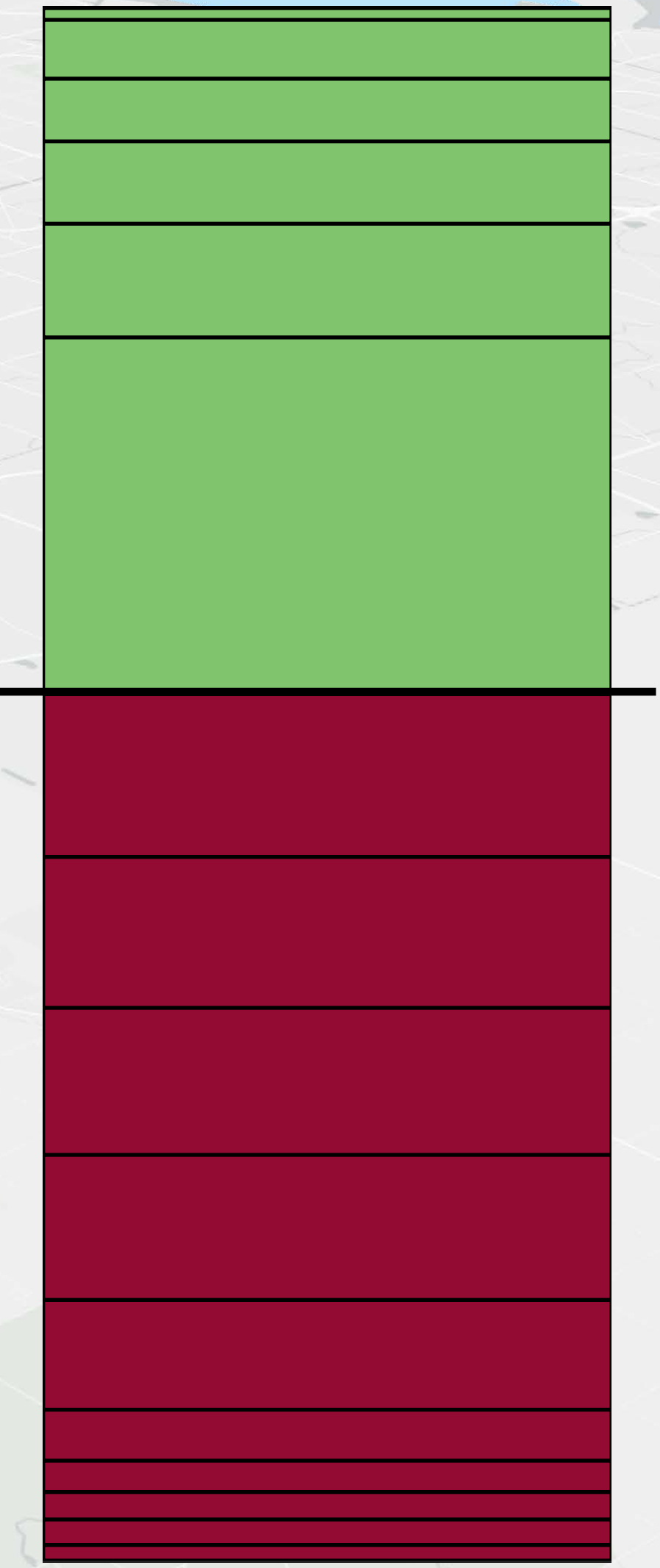
Least

Cost Per Acre

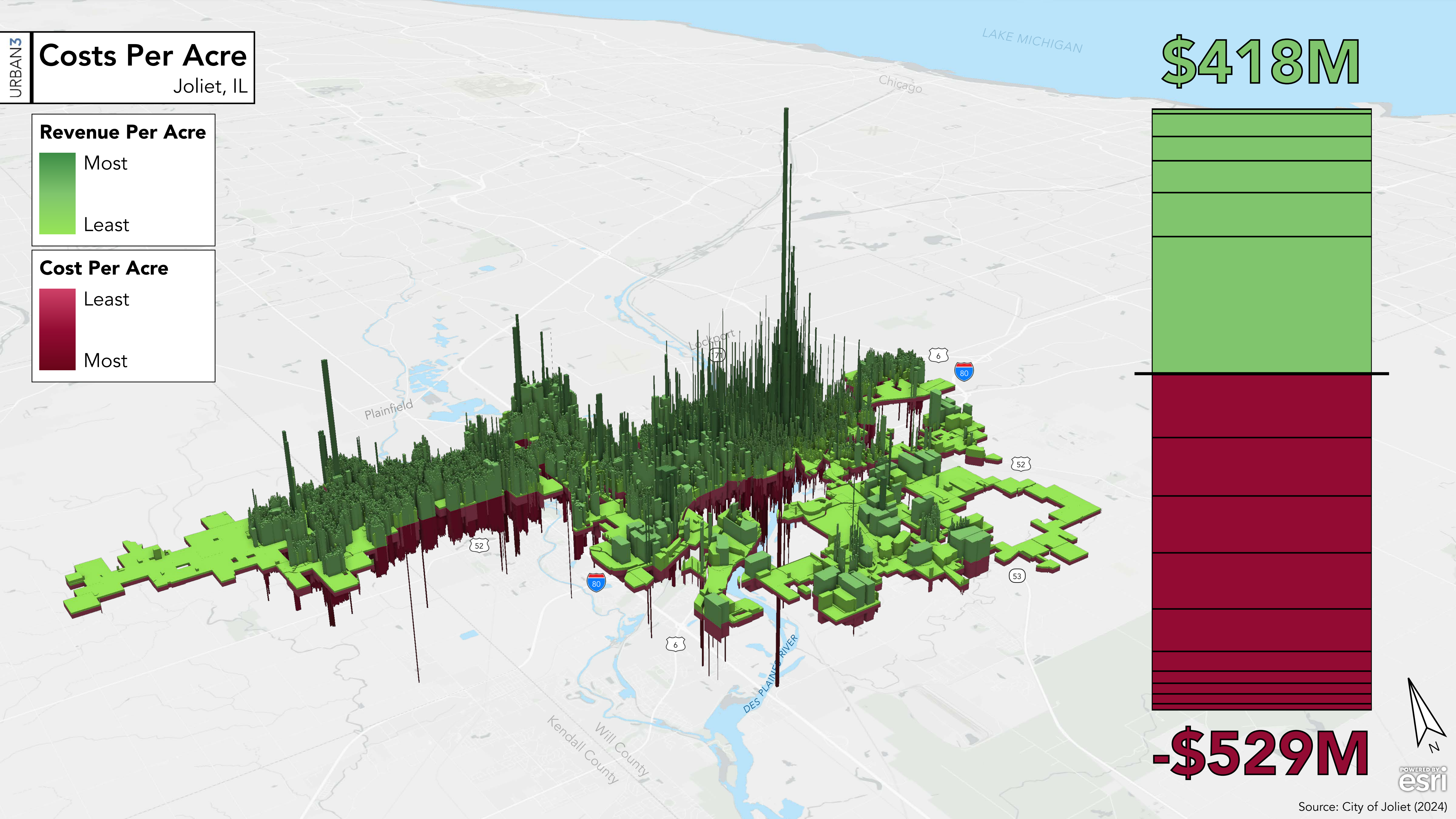
Least

Most

\$418M



-\$529M



Revenue & Costs Per Acre

Joliet, IL

Downtown

\$418M

-\$529M

Revenue Per Acre

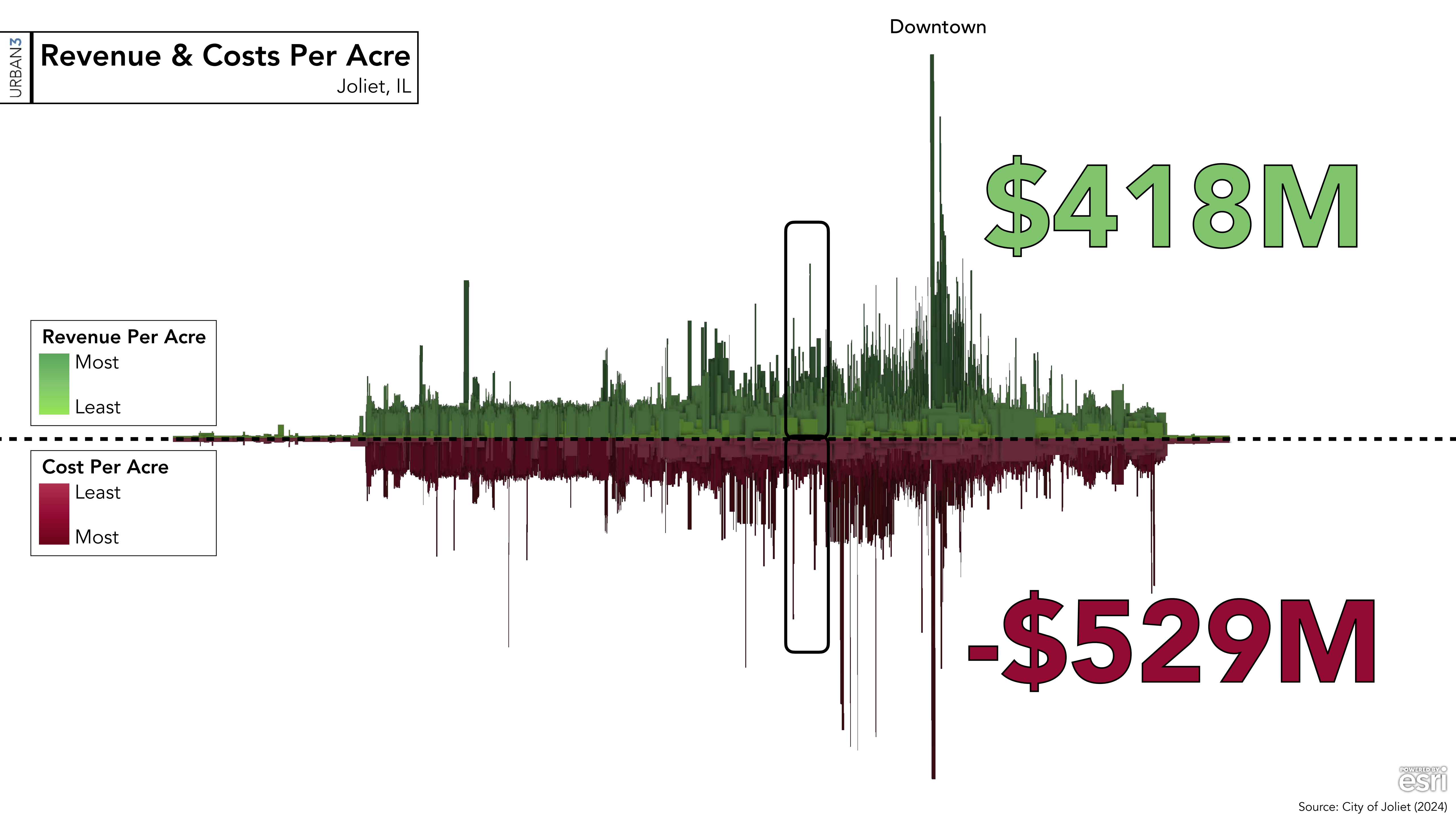
Most

Least

Cost Per Acre

Least

Most



Net Revenues & Costs Per Acre

Joliet, IL

Net Positive Per Acre

Most

Least

Net Negative Per Acre

Least

Most

Downtown

Net Position:

-\$111M

Net Revenues & Costs Per Acre

Joliet, IL

Net Positive Per Acre

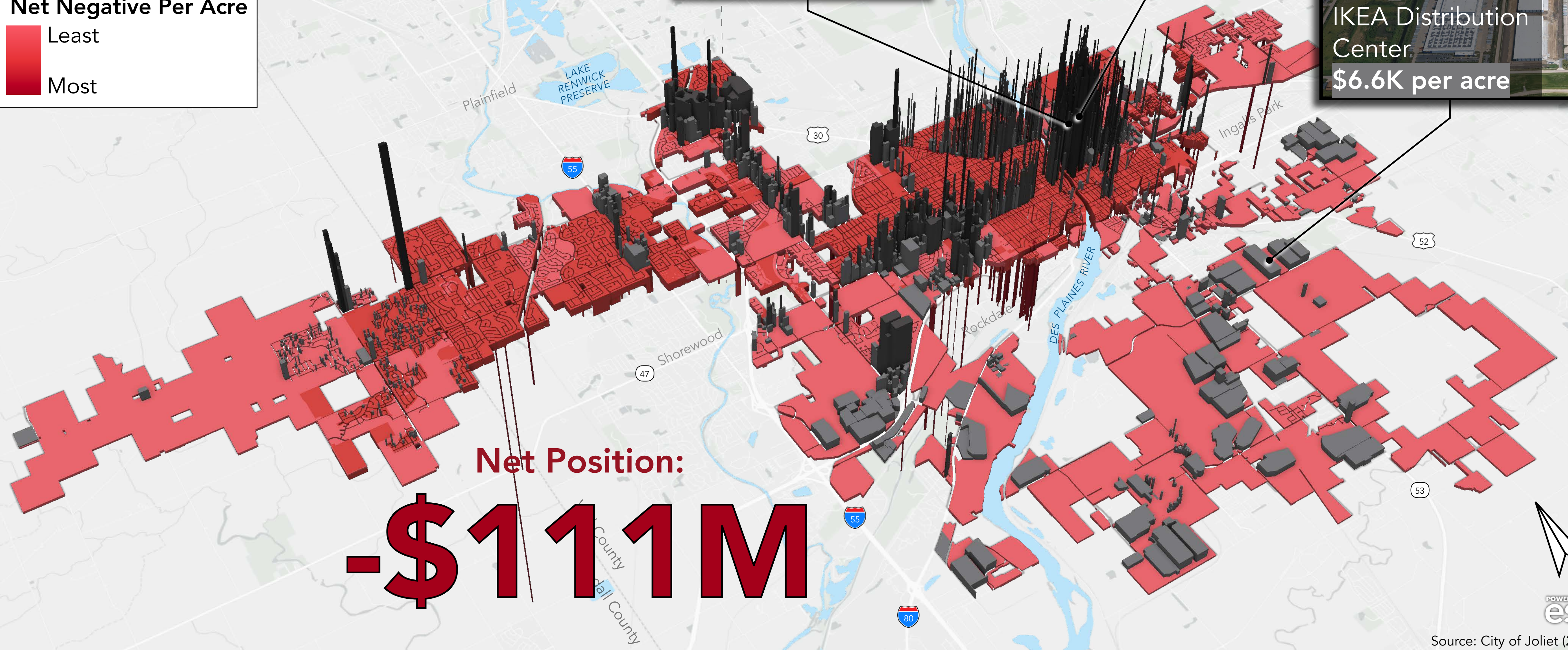
■ Most

■ Least

Net Negative Per Acre

■ Least

■ Most



Net Revenues & Costs Per Acre

Joliet, IL



Net Positive Per Acre

Most

Least

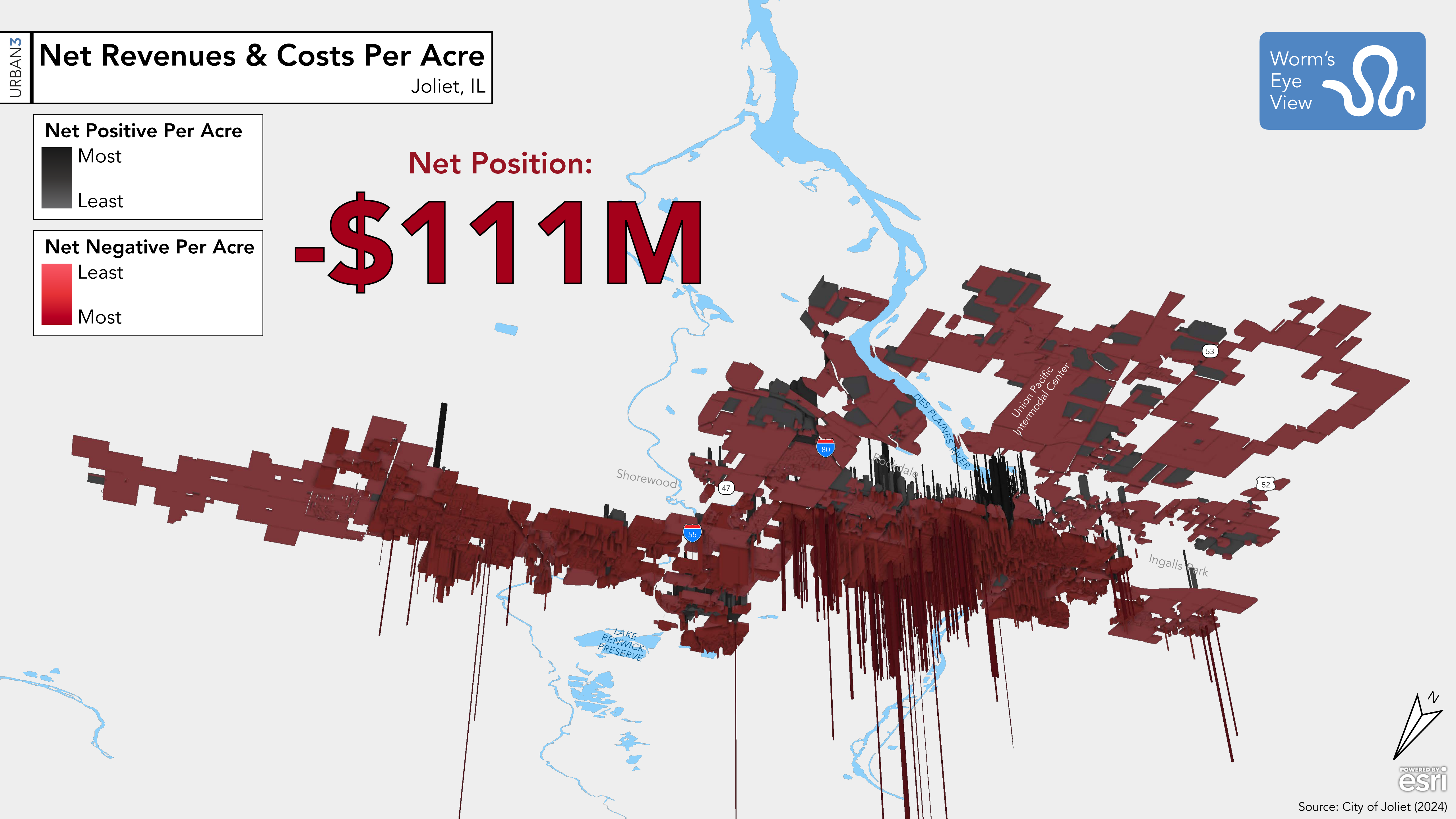
Net Negative Per Acre

Least

Most

Net Position:

-\$111M



Net Revenues & Costs Per Acre

Joliet, IL

Net Positive Per Acre

■ Most

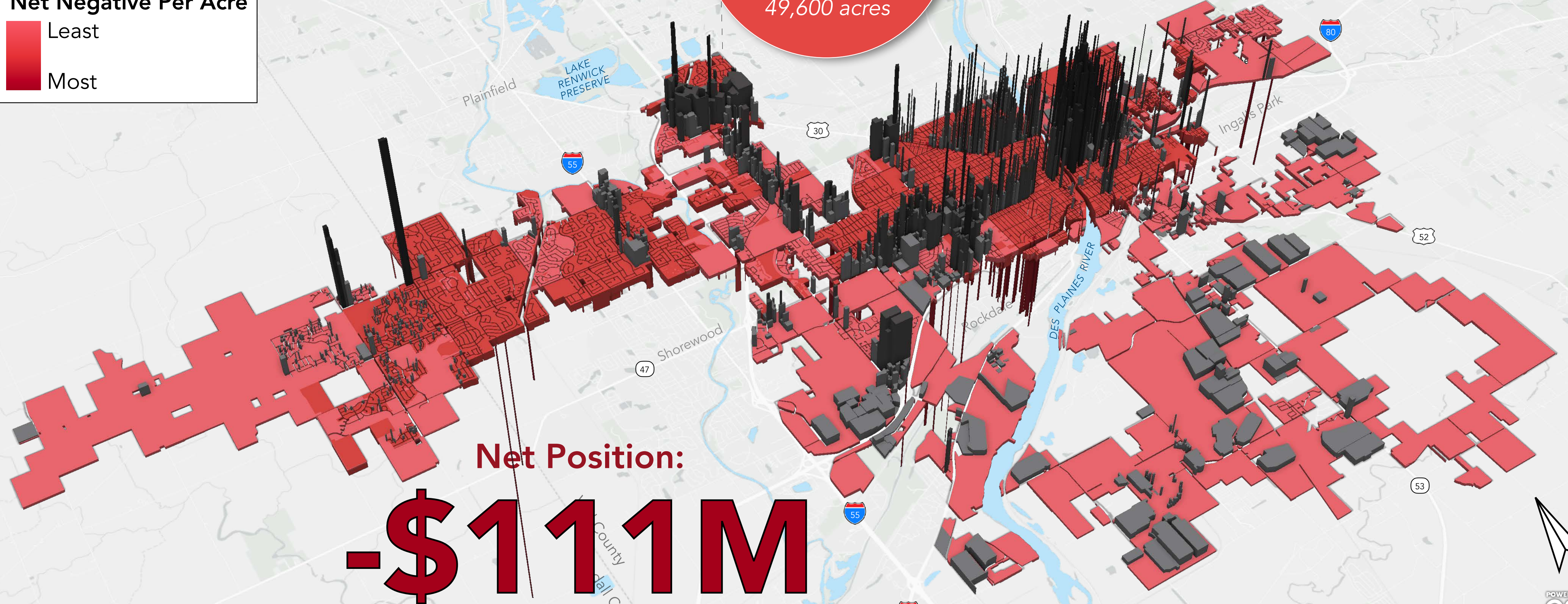
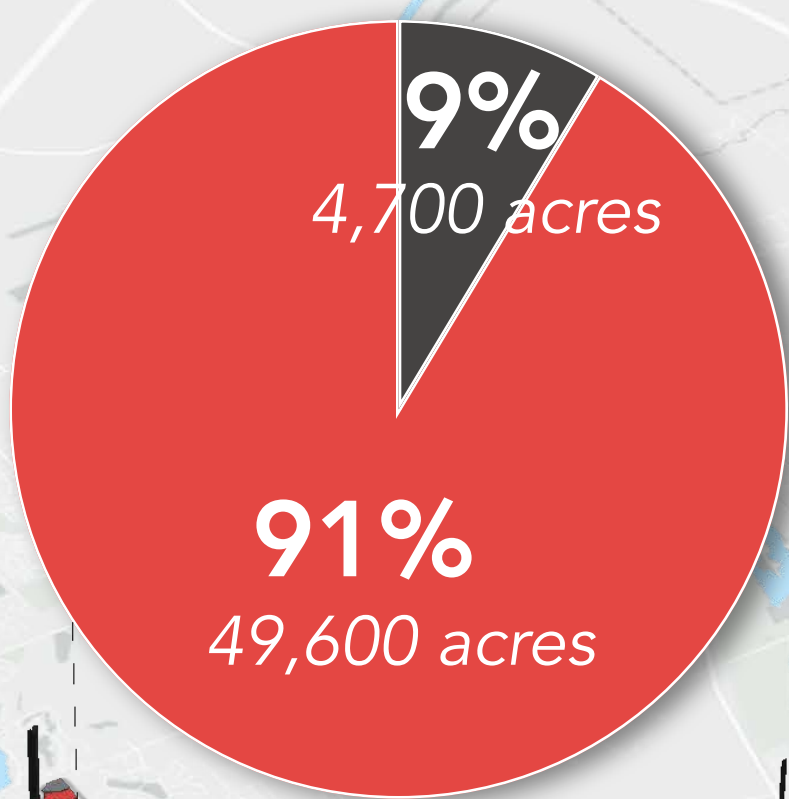
■ Least

Net Negative Per Acre

■ Least

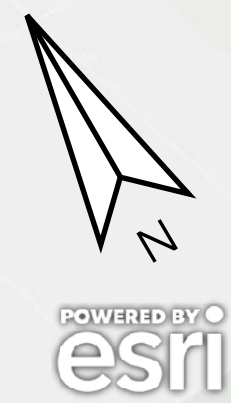
■ Most

Land Area



Net Position:

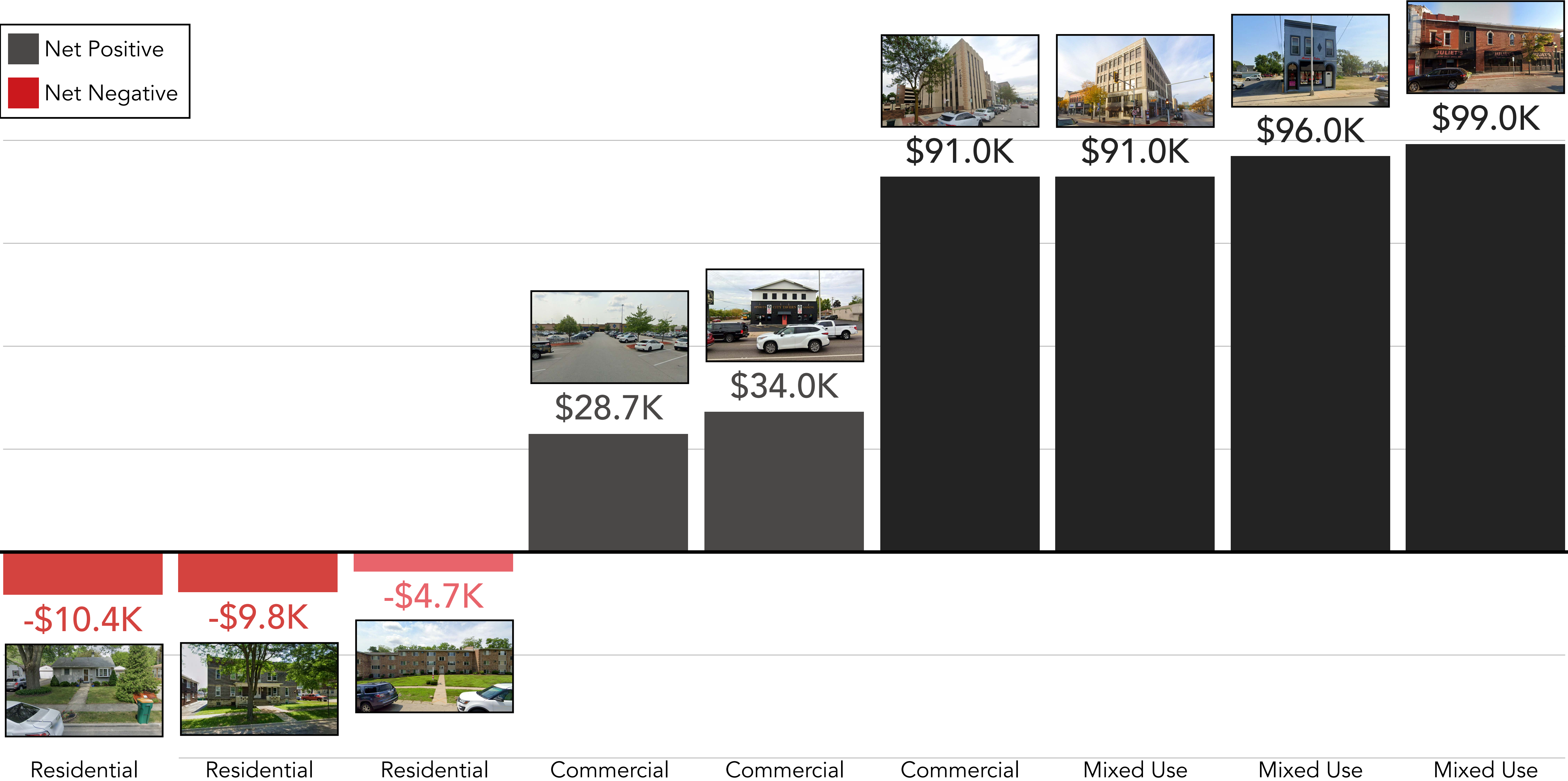
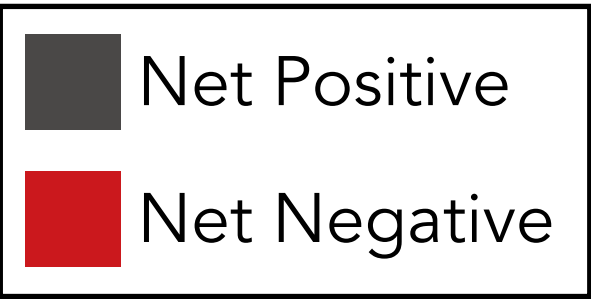
-\$111M

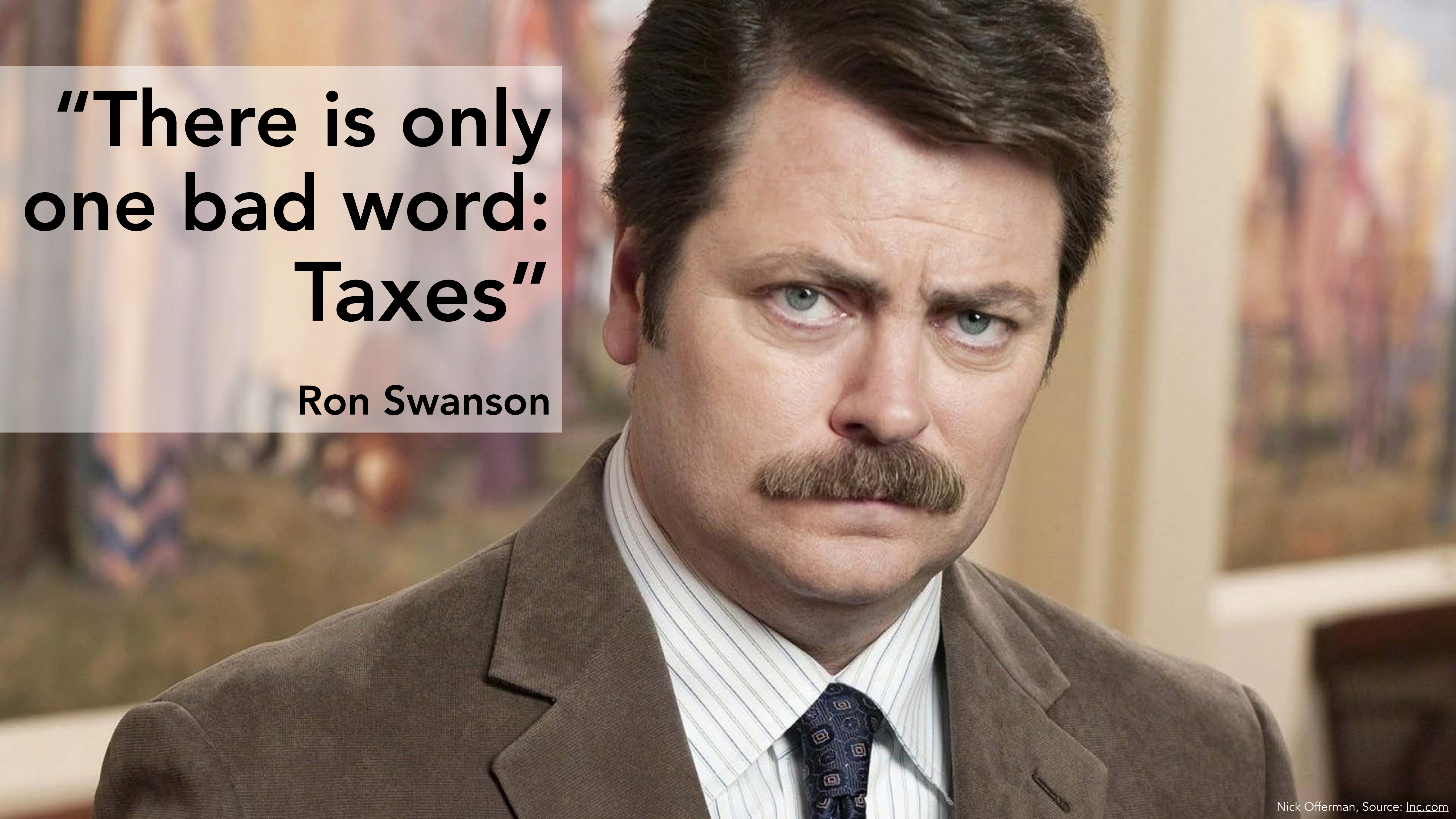


Joliet, Illinois: Net Infrastructure Revenue Per Acre by Building Type

	LOWER DENSITY	MEDIUM DENSITY	HIGHER DENSITY
RESIDENTIAL	 -\$10.4K	 -\$9.8K	 -\$4.7K
COMMERCIAL	 \$28.7K	 \$34K	 \$91K
MIXED USE	 \$96K	 \$99K	 \$91K

Joliet, Illinois: Net Infrastructure Revenue Per Acre by Building Type

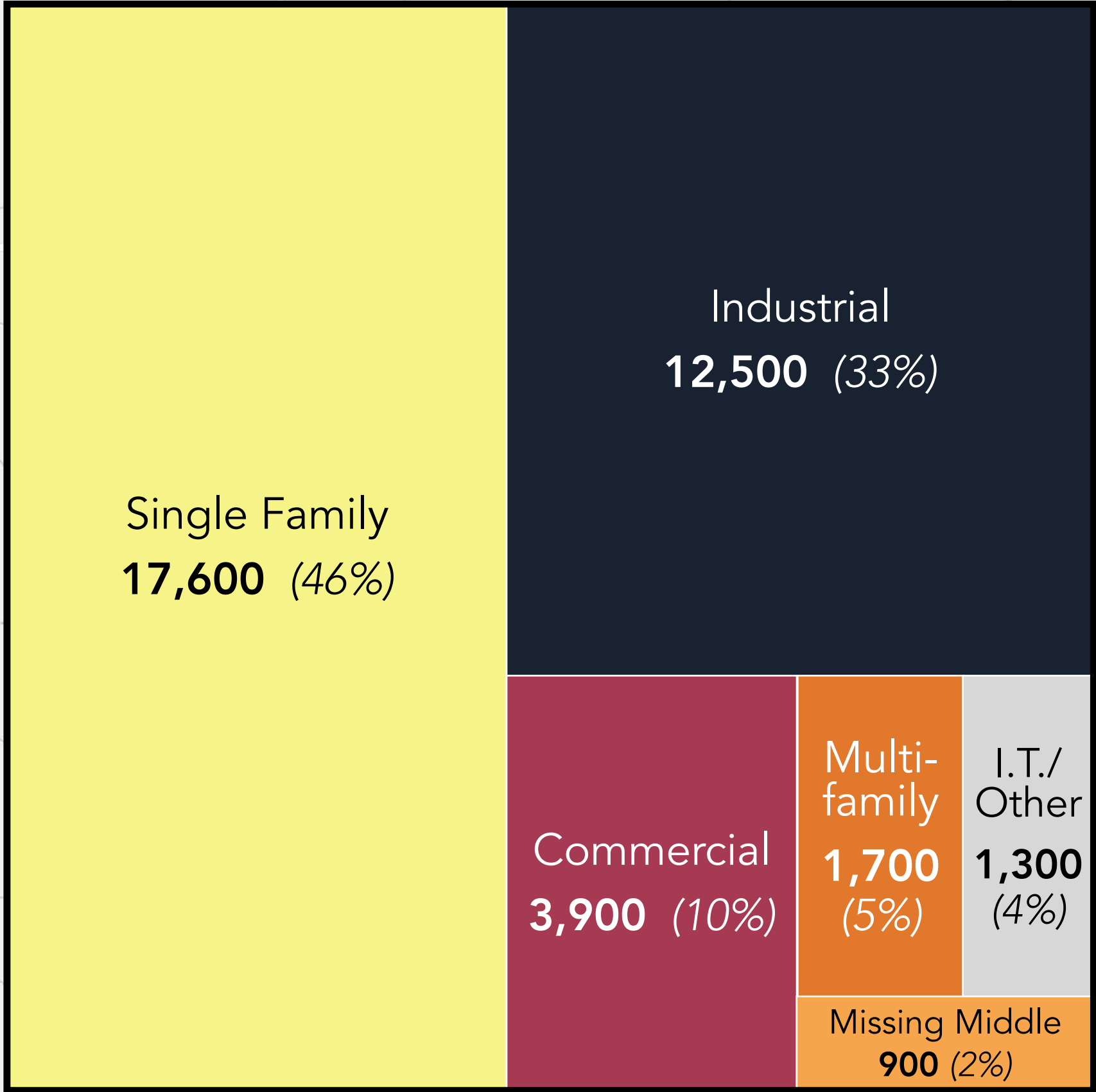




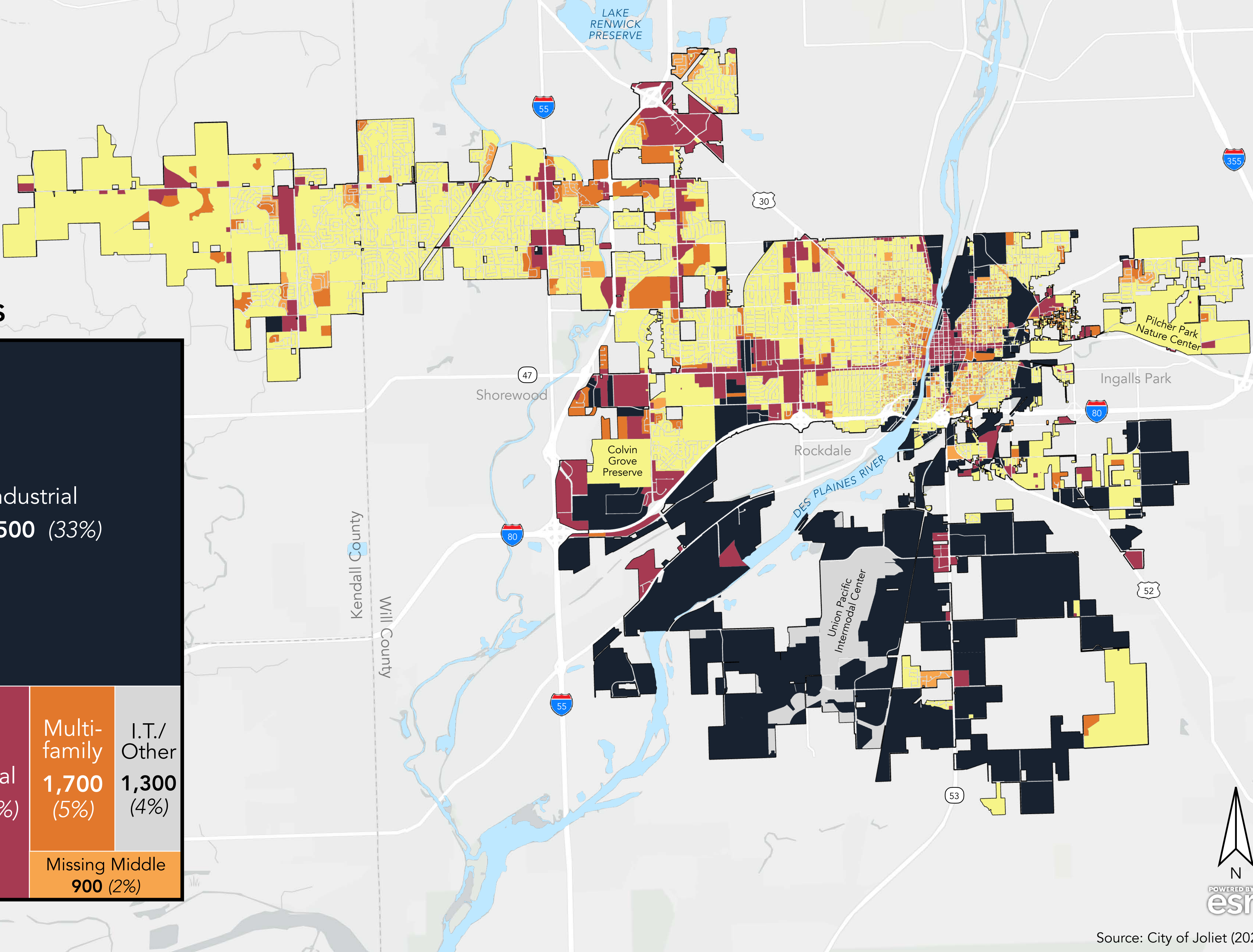
**"There is only
one bad word:
Taxes"**

Ron Swanson

40,000 Acres



I.T. = Intermodal Transportation





\$4.5B



\$8.2B

URBAN³

Source: Google Earth, municipalflags.com, chicagobusiness.com, eBay.com



\$4.5B



\$1.9B

URBAN3

Source: Google Earth, municipalflags.com, sports.yahoo.com, eBay.com



=



\$4.5B

\$1.9B

URBAN3

Source: Google Earth, municipalflags.com, eBay.com



What you can do:

**Know your costs and
consequences.**

Net Revenues & Costs Per Acre

Joliet, IL

Net Positive Per Acre

■ Most

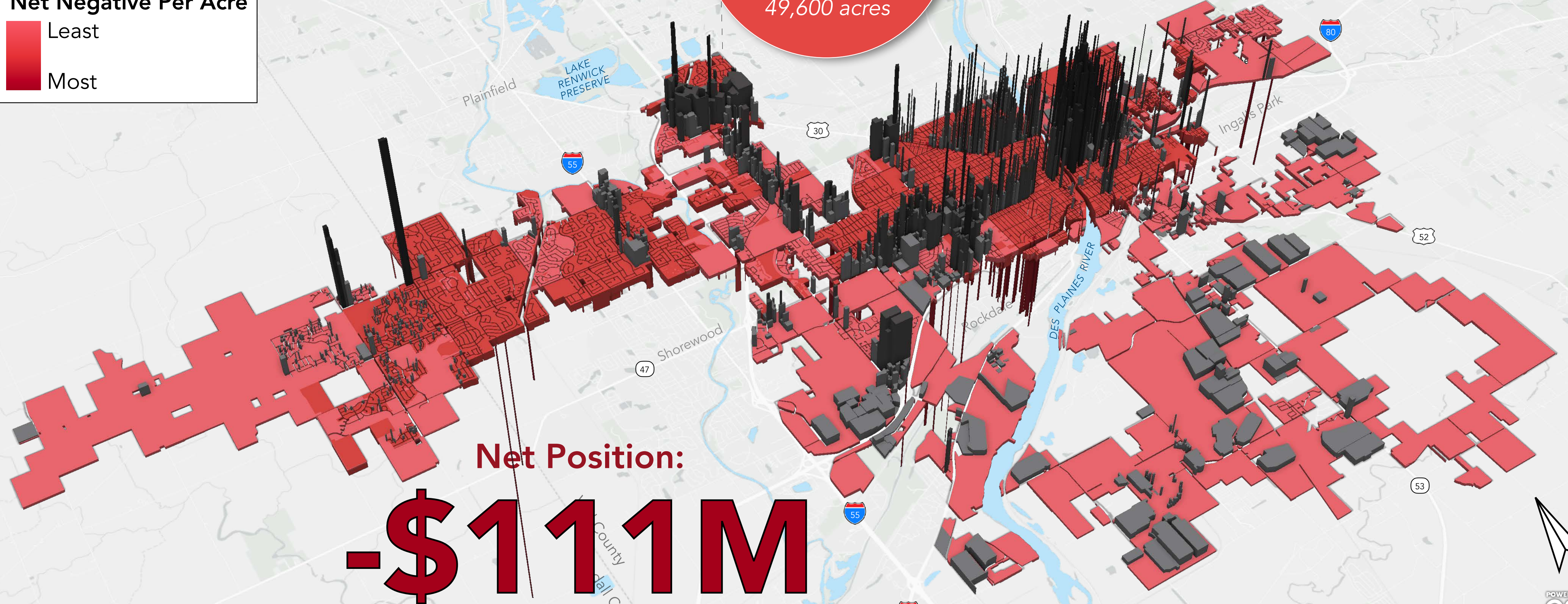
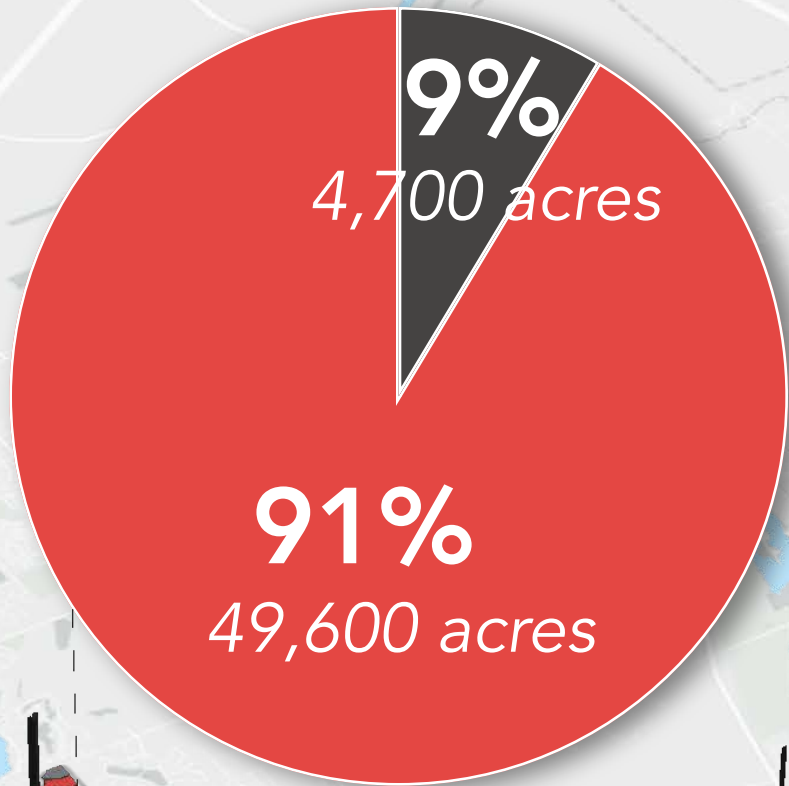
■ Least

Net Negative Per Acre

■ Least

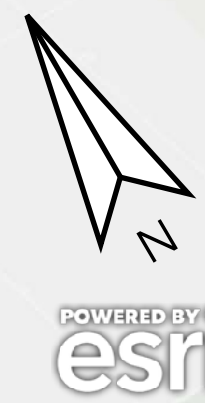
■ Most

Land Area

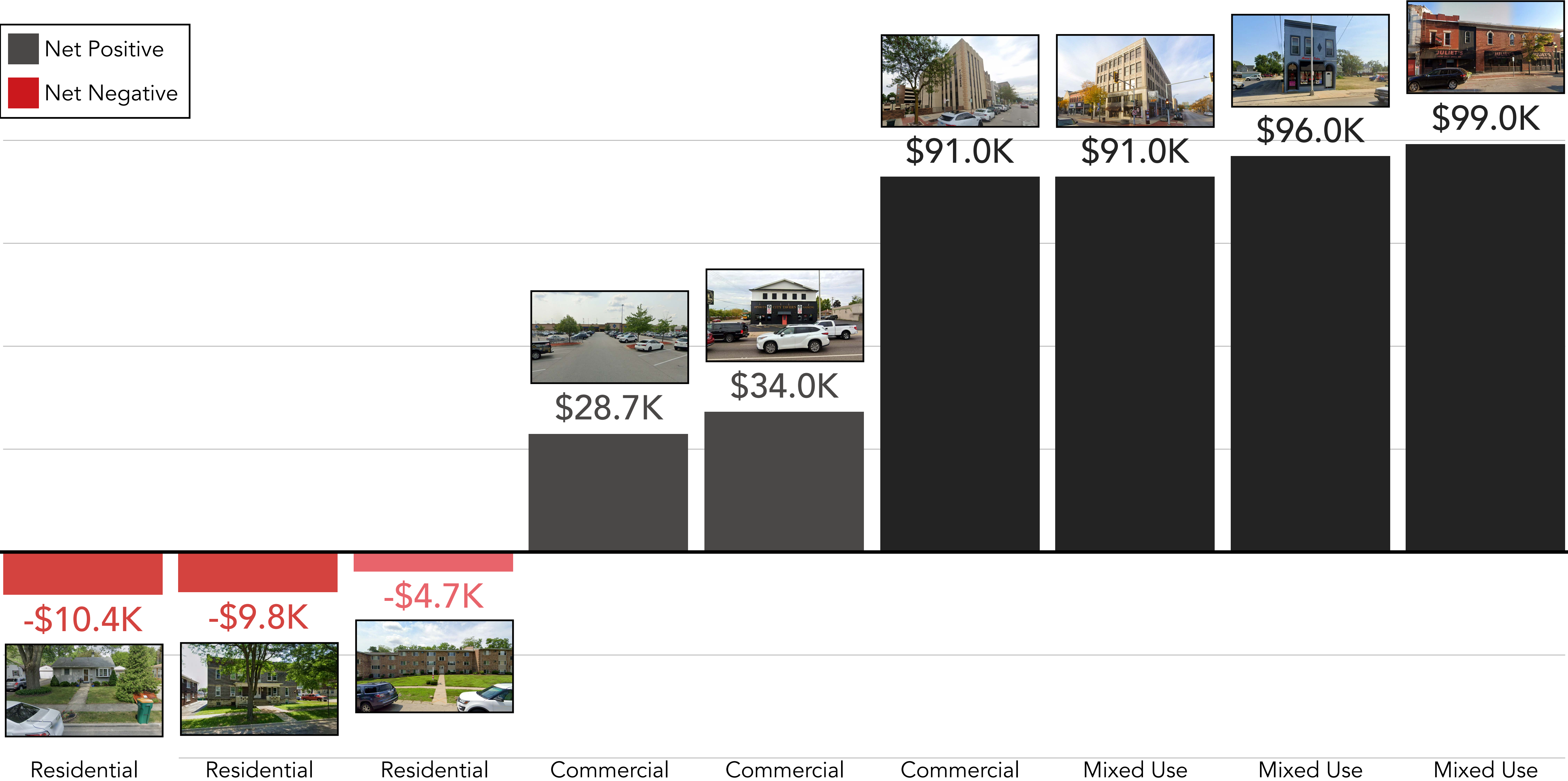
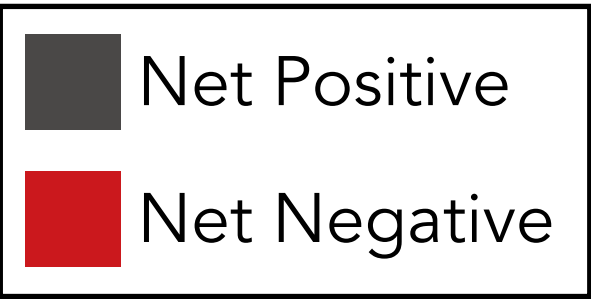


Net Position:

-\$111M



Joliet, Illinois: Net Infrastructure Revenue Per Acre by Building Type

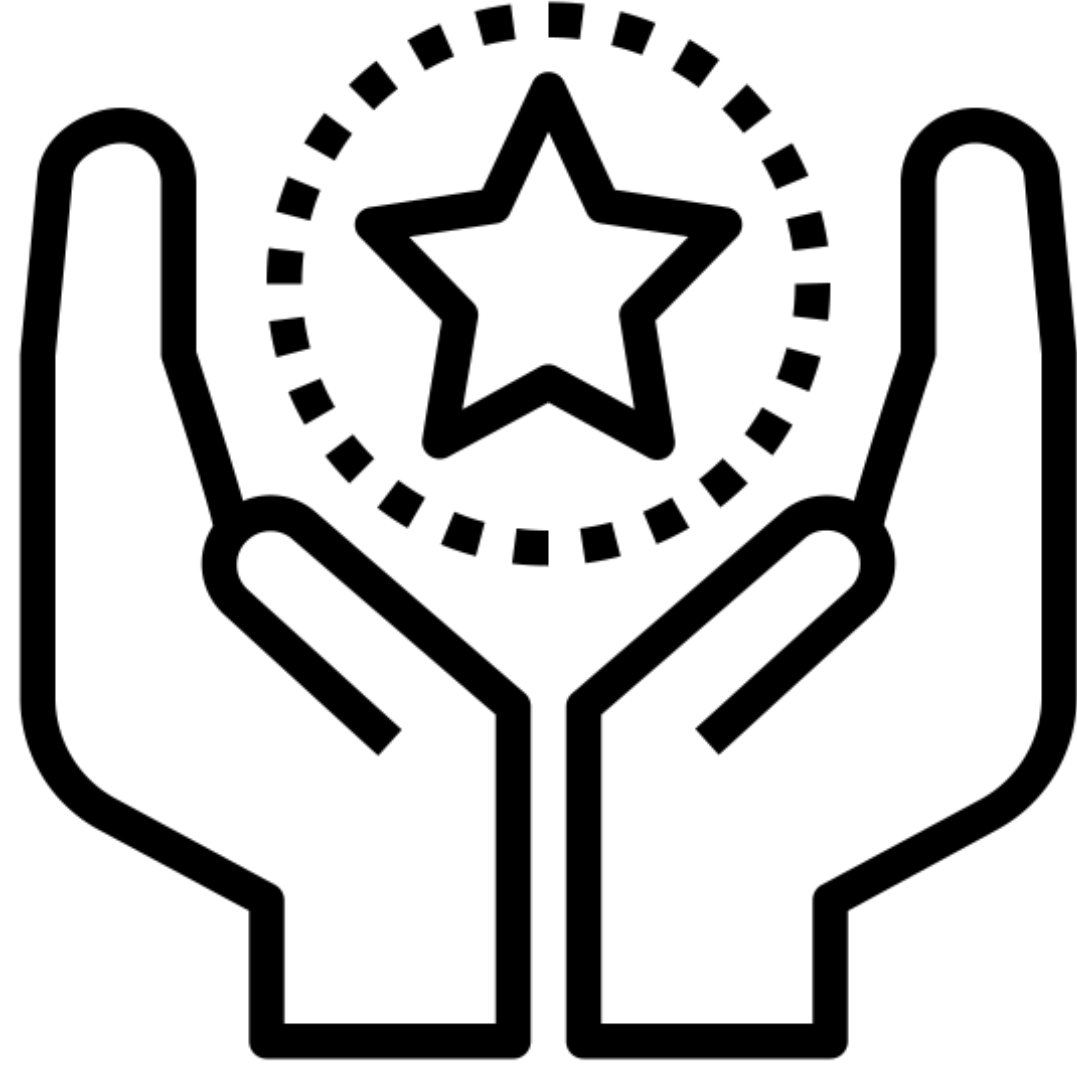




How can we help?

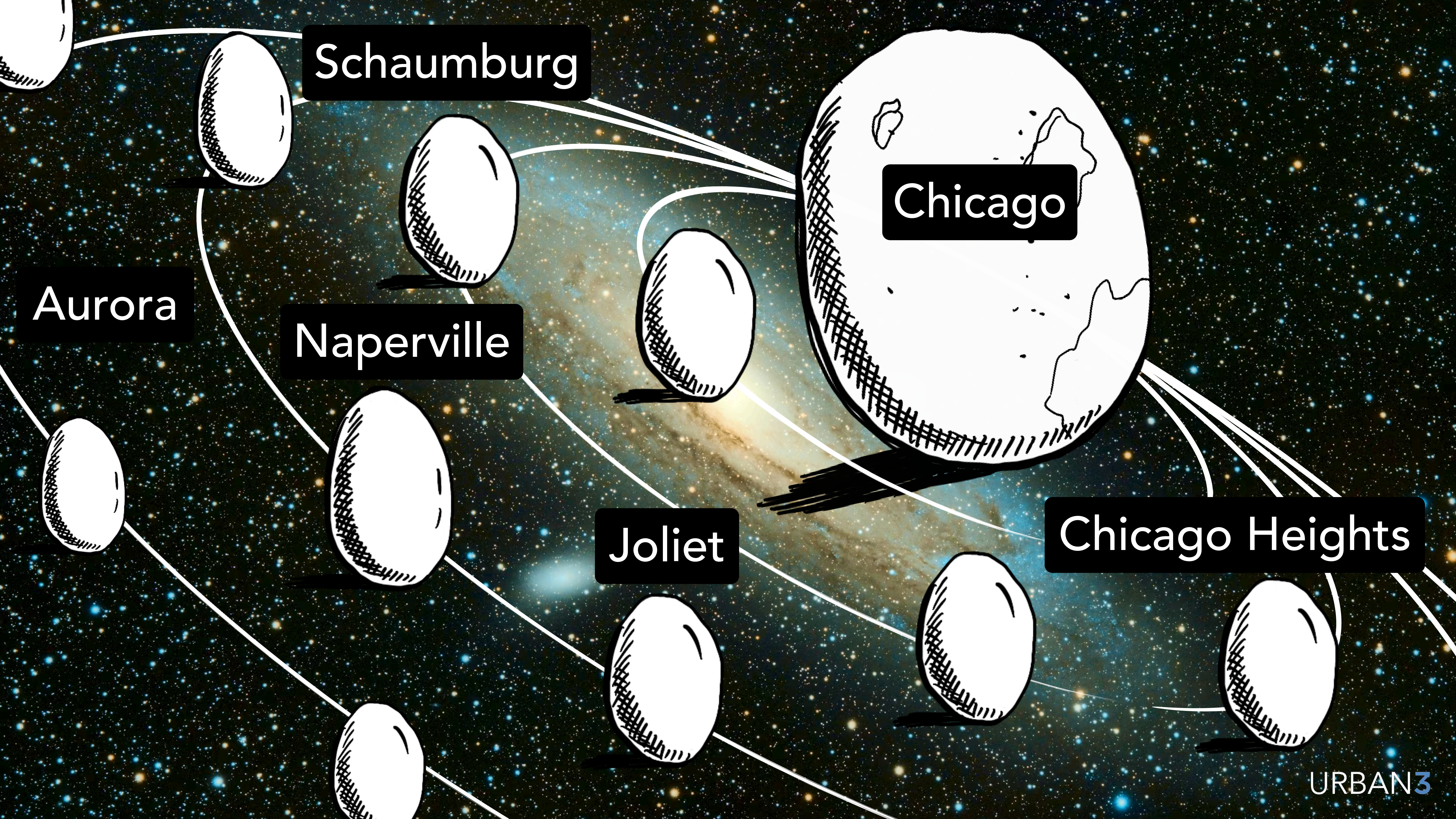
But Jake, she didn't pay her taxes.

THE ORPHANAGE OWES \$5K IN PROPERTY TAXES!



Okay, so now what?

Main Takeaways



Schaumburg

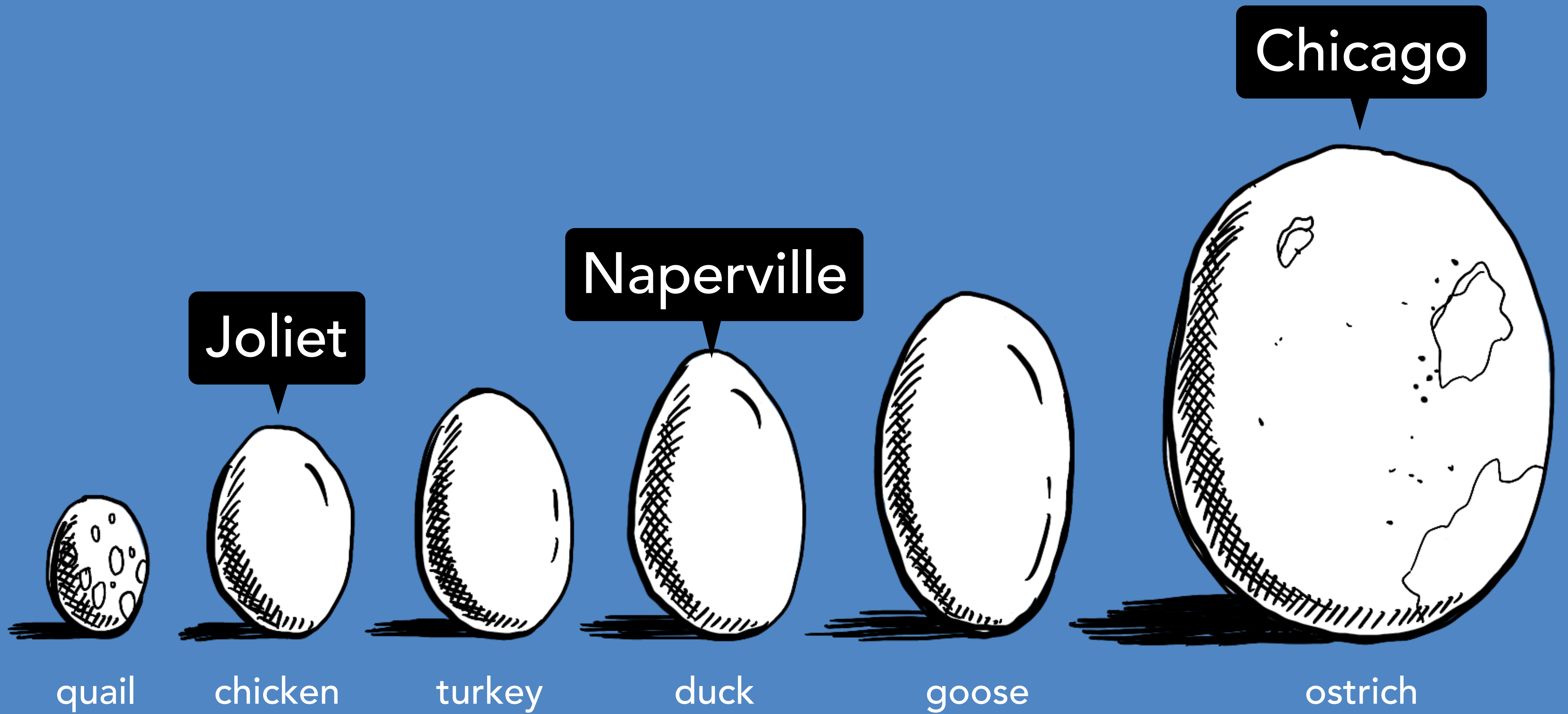
Chicago

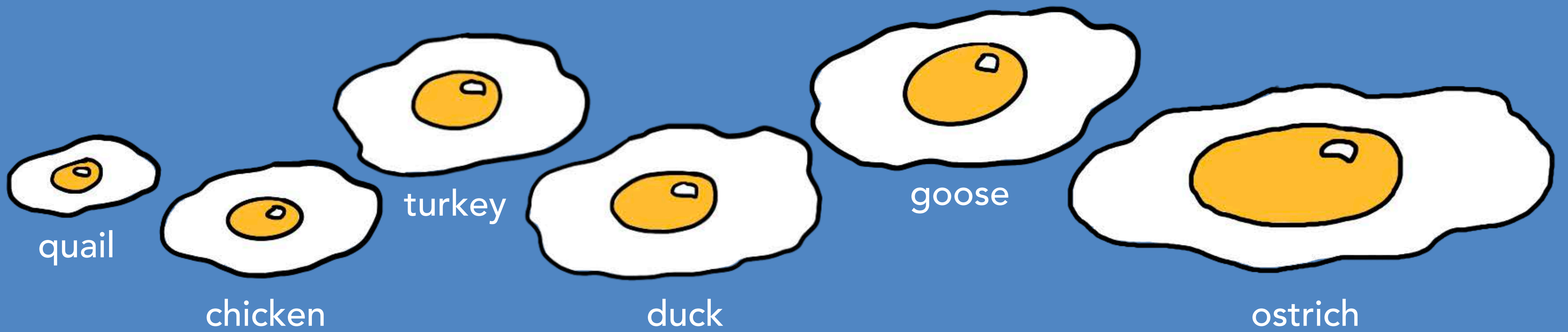
Aurora

Naperville

Joliet

Chicago Heights

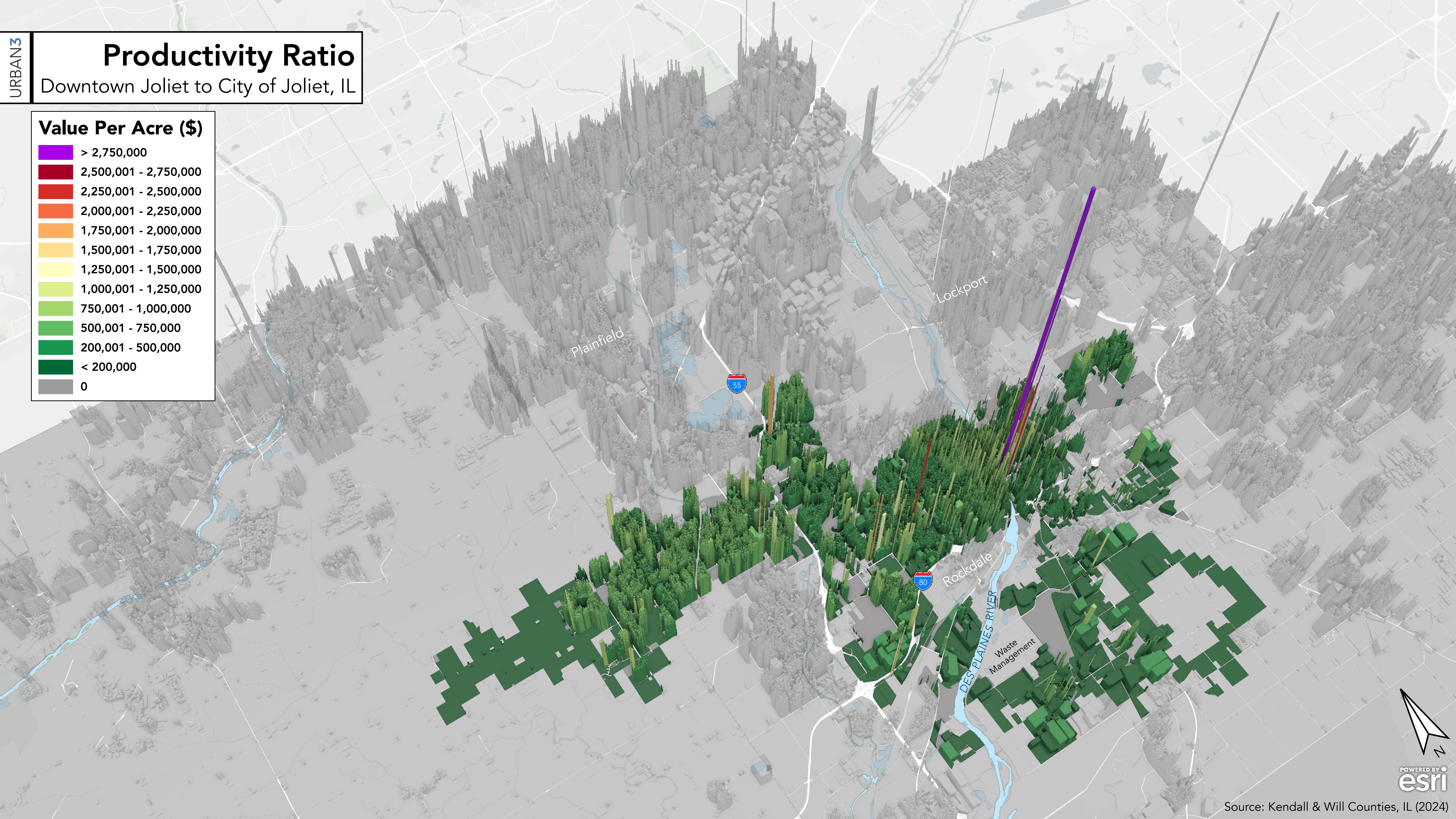
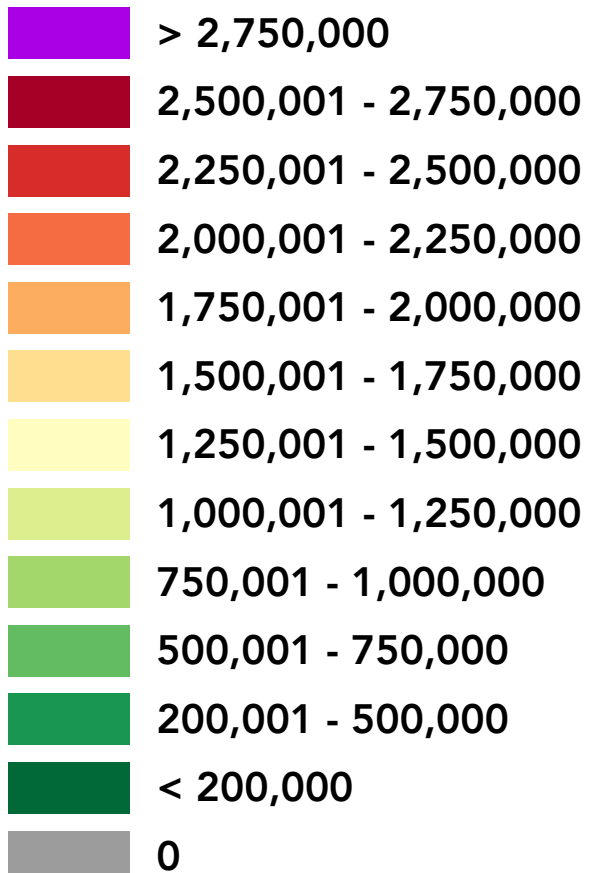




Productivity Ratio

Downtown Joliet to City of Joliet, IL

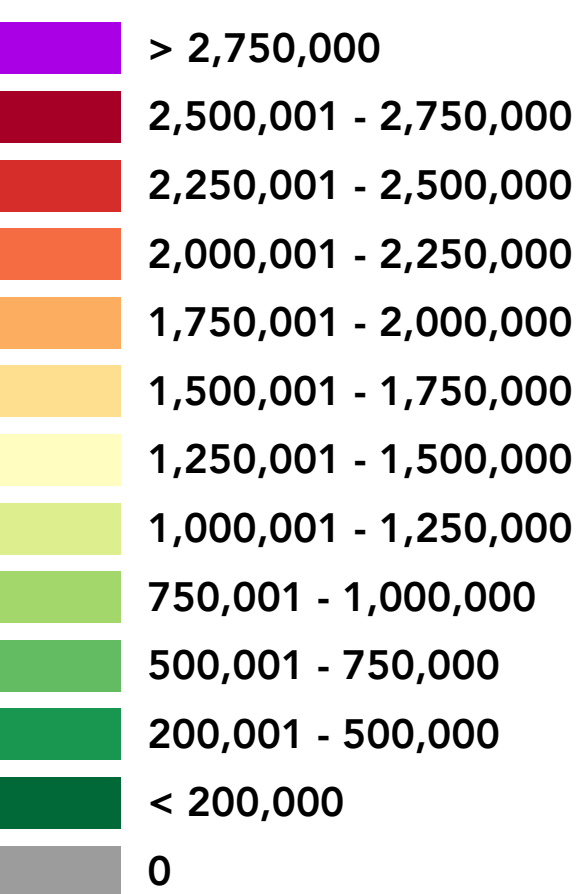
Value Per Acre (\$)



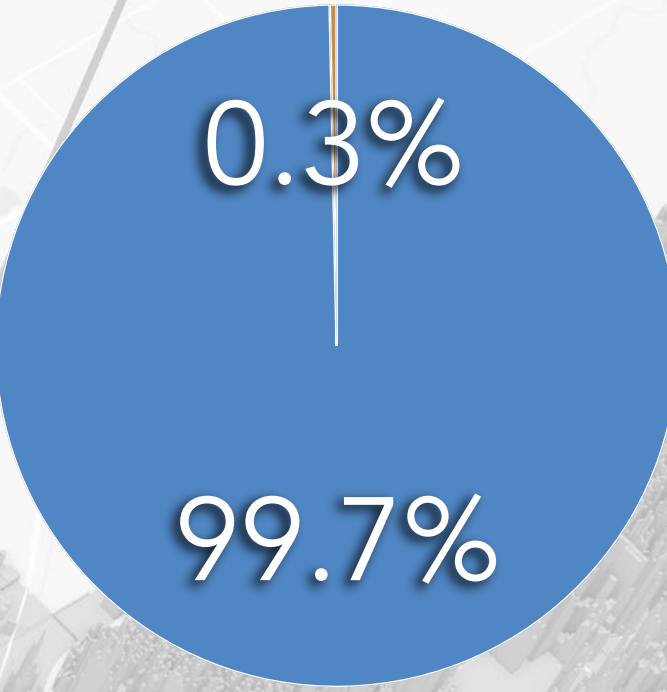
Productivity Ratio

Downtown Joliet to City of Joliet, IL

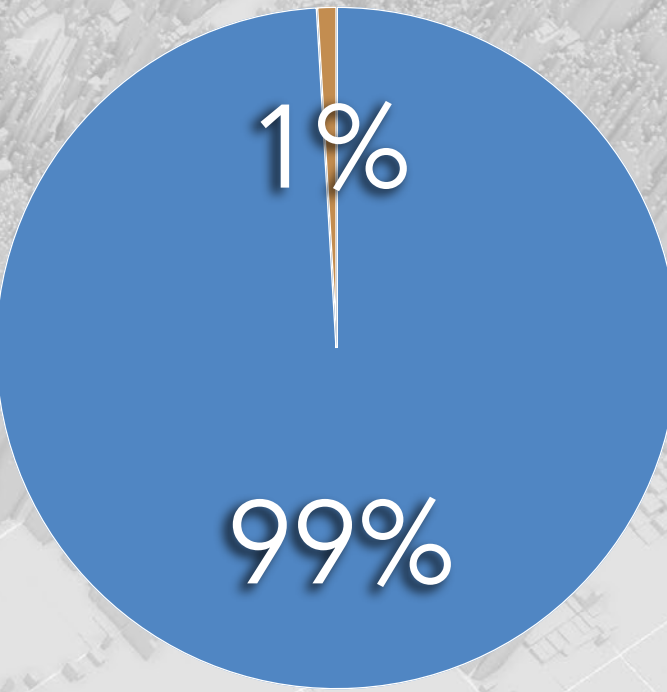
Value Per Acre (\$)



Taxable Acres



Total Value



● City ● Downtown

2.8x

Downtown Joliet's taxable value is **2.8 times greater** than the amount of City area it takes up.

Productivity Ratio

Downtown Joliet to City of Joliet, IL

With Harrah's



2.8x

Downtown Joliet's taxable value is **2.8 times greater** than the amount of City area it takes up.

Without Harrah's



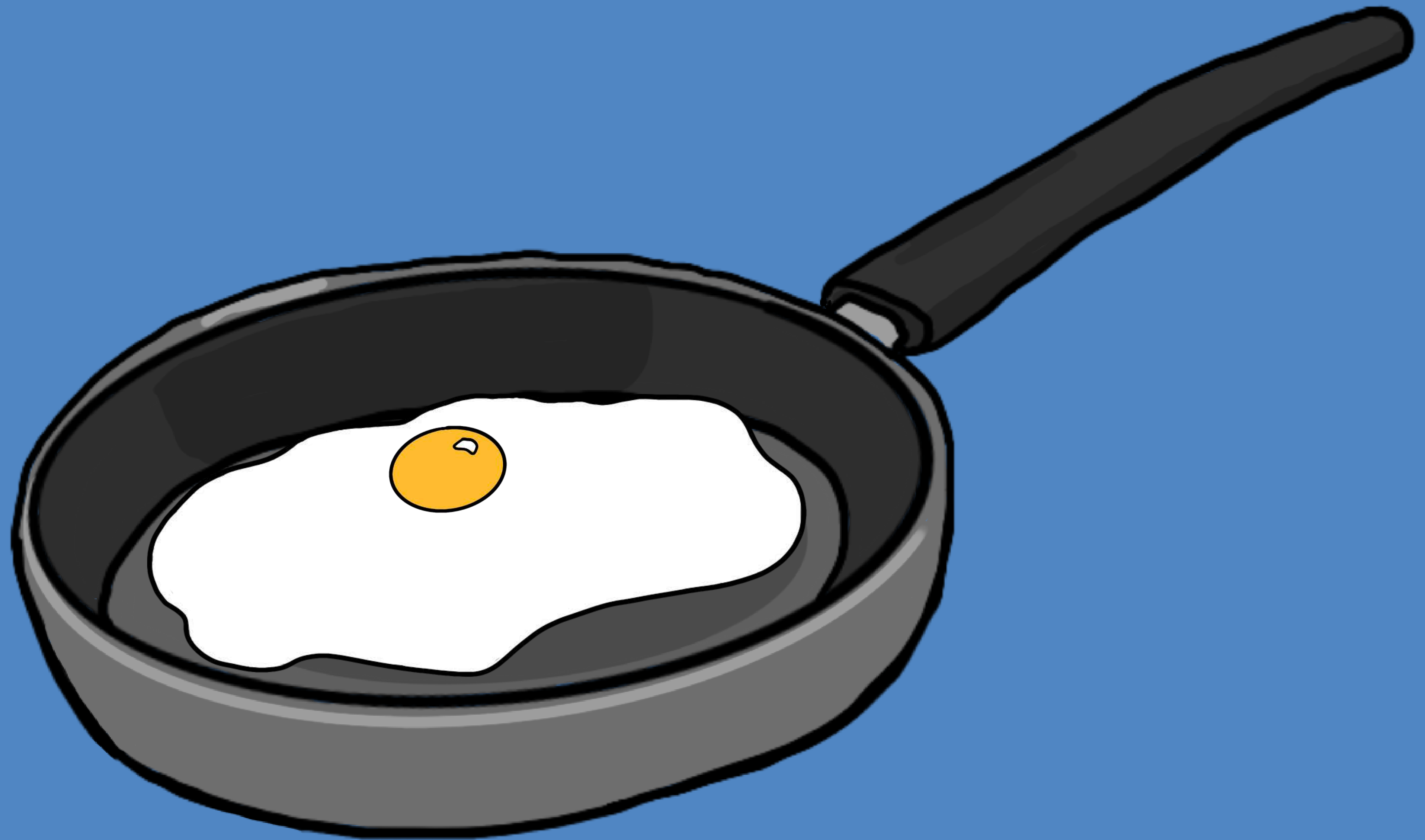
1.7x

Downtown Joliet's taxable value is **1.7 times greater** than the amount of City area it takes up.

Value Per Acre (\$)

	> 2,750,000
	2,500,001 - 2,750,000
	2,250,001 - 2,500,000
	2,000,001 - 2,250,000
	1,750,001 - 2,000,000
	1,500,001 - 1,750,000
	1,250,001 - 1,500,000
	1,000,001 - 1,250,000
	750,001 - 1,000,000
	500,001 - 750,000
	200,001 - 500,000
	< 200,000
	0





DOWNTOWN



THE REST

SHOOT FOR 6X

URBAN3

Image source: tasteofhome.com

What you can do:

Build your core!
Shoot for 6x.

Productivity Ratio

Downtown Joliet to City of Joliet, IL

Without Harrah's



Without Harrah's



\$25M



\$85M



Current*
*Without Harrah's

Hypothetical

Total Downtown Value

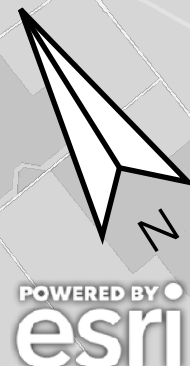
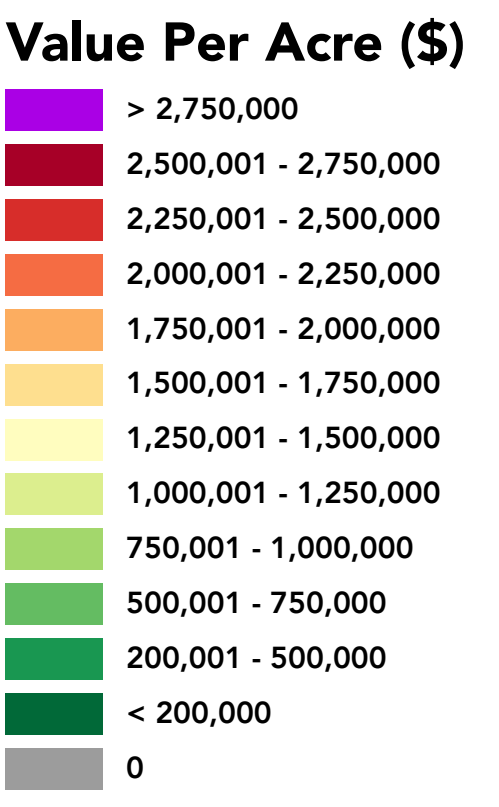
1.7x

Downtown Joliet's taxable value is **1.7 times greater** than the amount of City area it takes up.

The 6x productivity model image is conceptual.

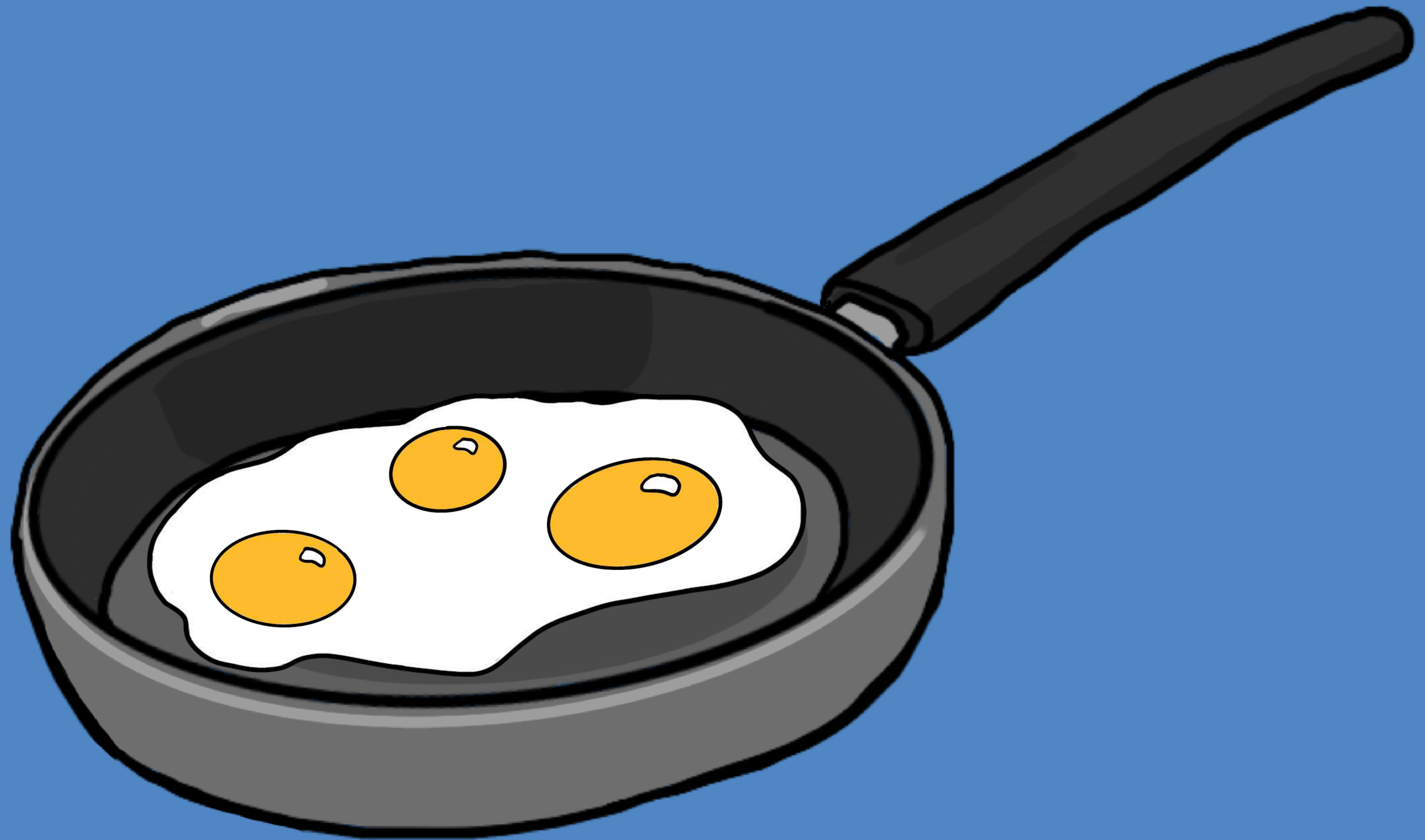
6.0x

If Downtown Joliet's taxable value was **6 times greater** than the amount of City area it took up.



What you can do:

Think of other yolks.



Net Revenues & Costs Per Acre

Joliet, IL

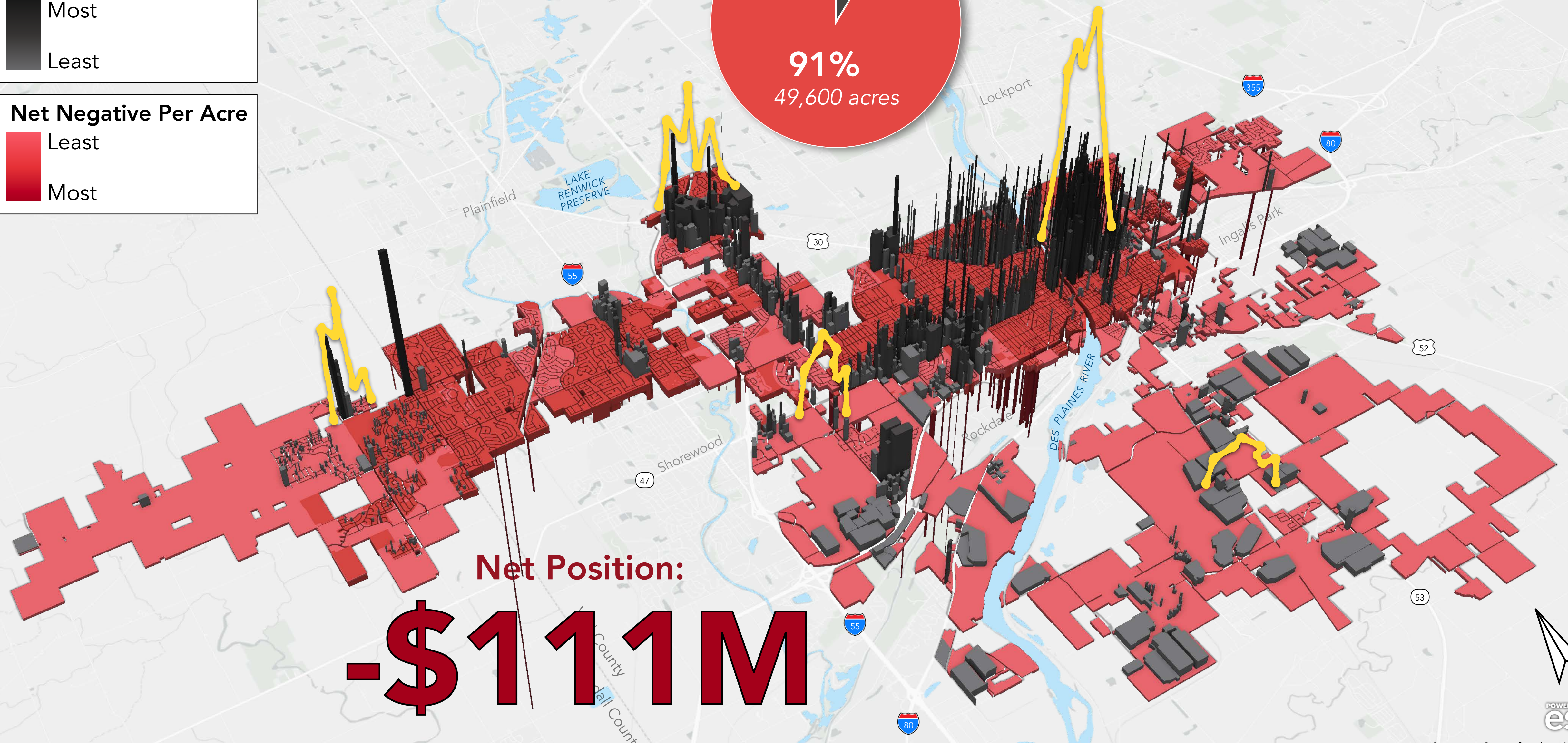
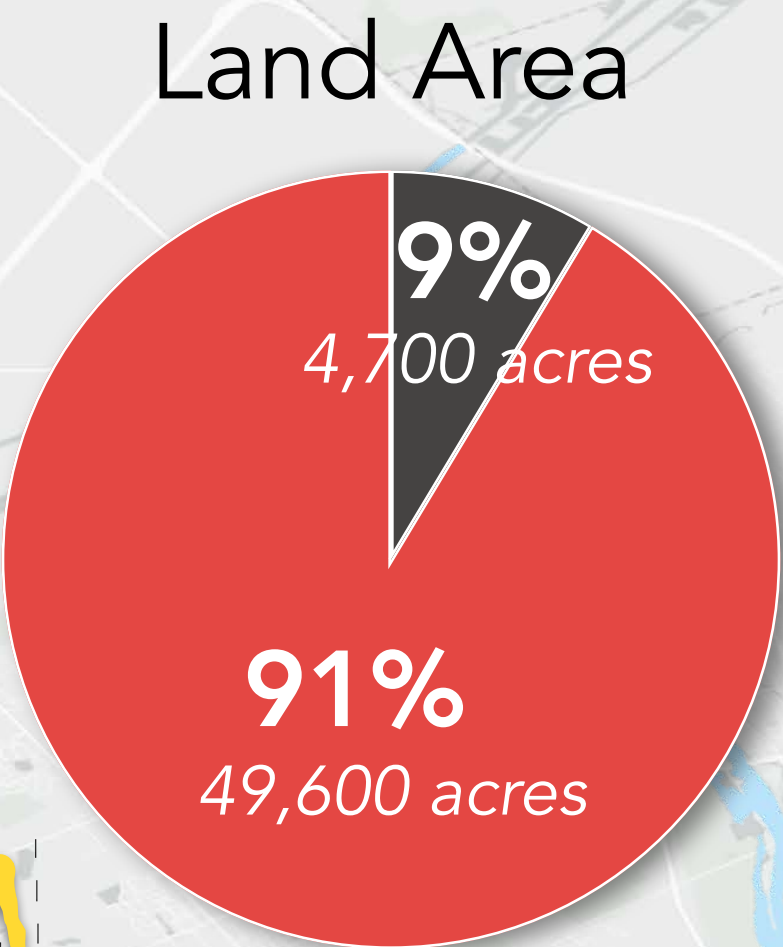


Net Positive Per Acre

Most
 Least

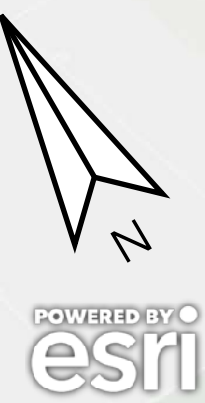
Net Negative Per Acre

Least
 Most



Net Position:

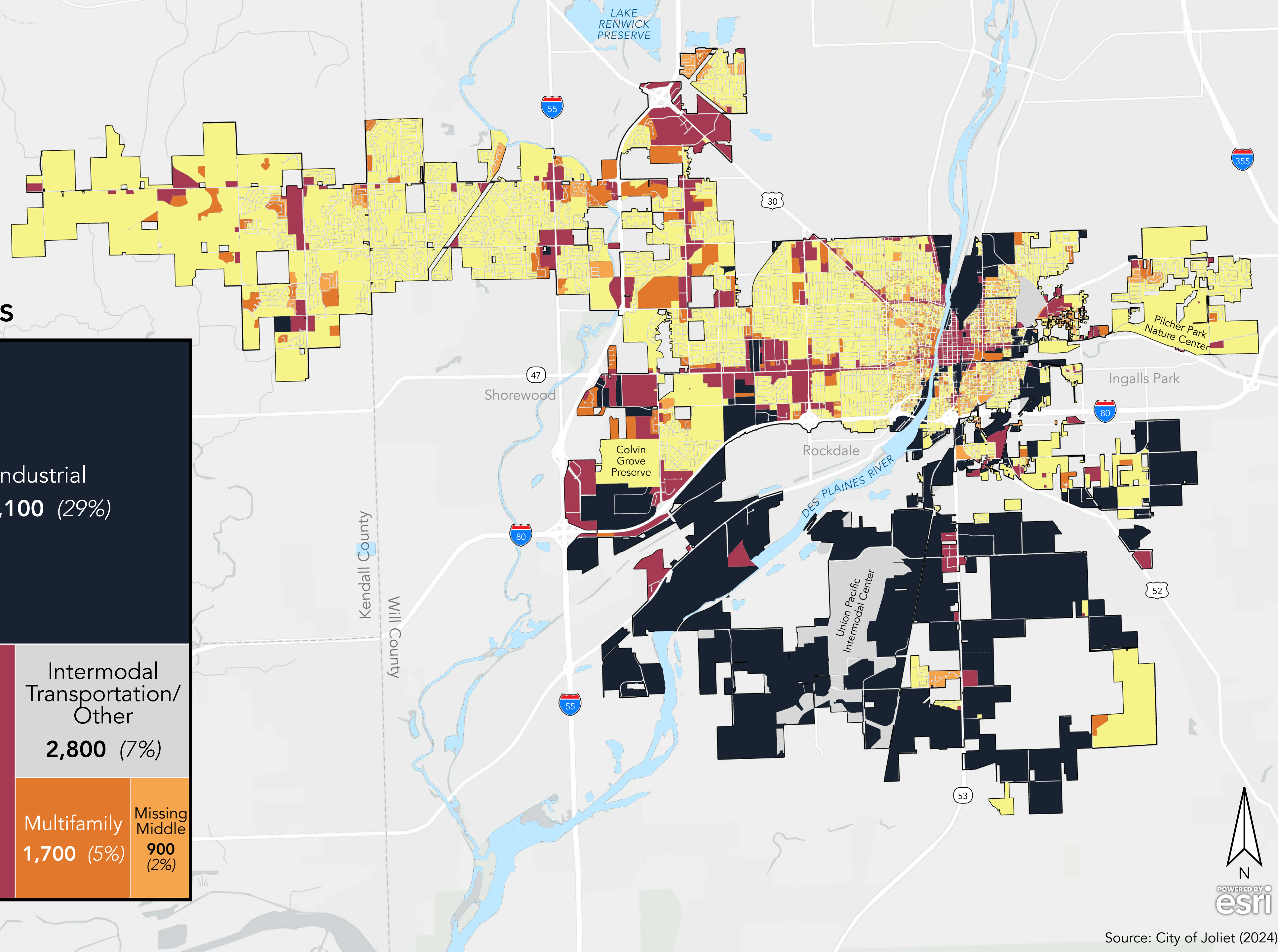
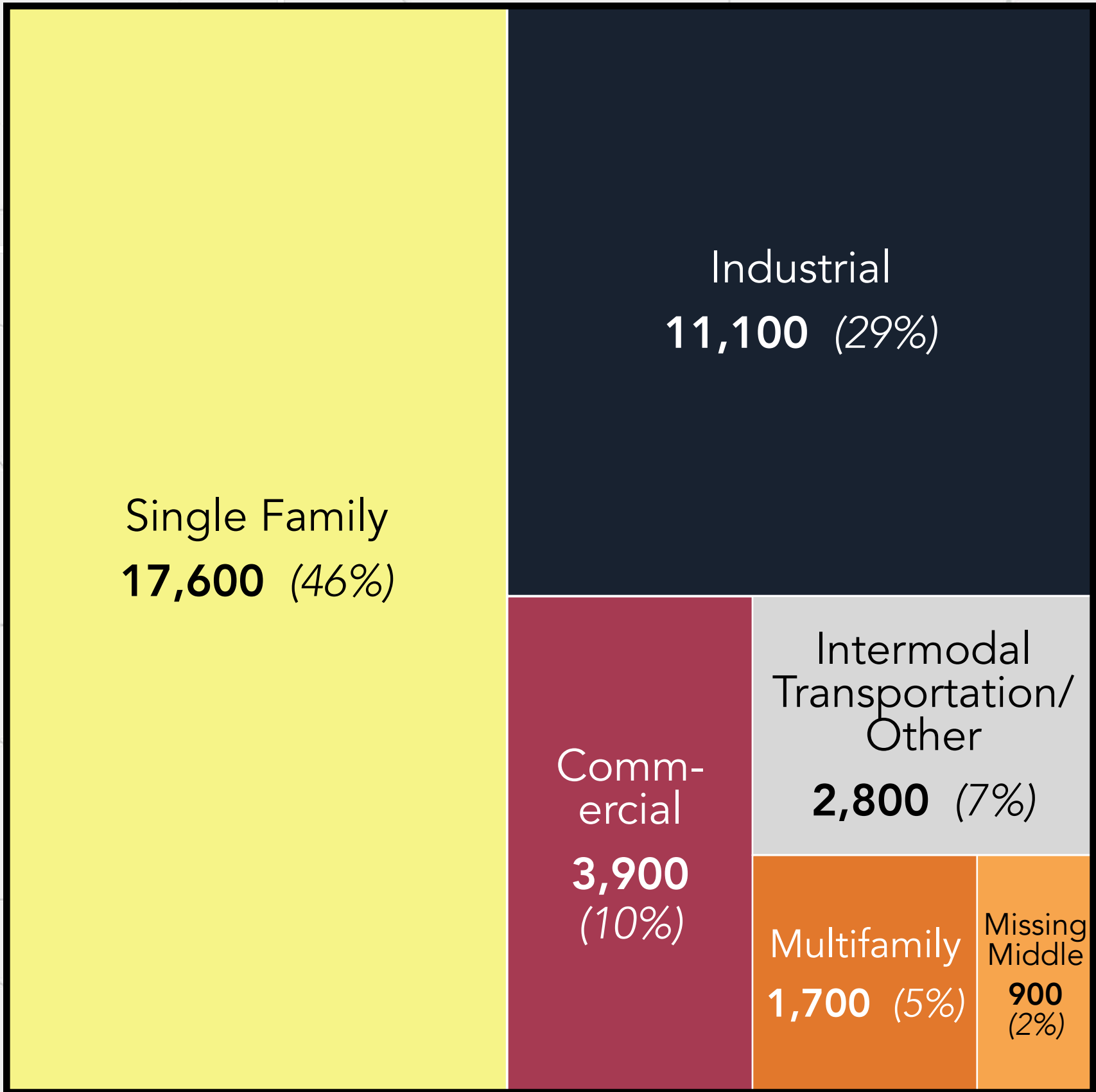
-\$111M



What you can do:

**Diversify your land
use portfolio.**

38,000 Acres



Joliet, Illinois: Net Infrastructure Revenue Per Acre by Building Type

	LOWER DENSITY	MEDIUM DENSITY	HIGHER DENSITY
RESIDENTIAL	 -\$10.4K	 -\$9.8K	 -\$4.7K
COMMERCIAL	 \$28.7K	 \$34K	 \$91K
MIXED USE	 \$96K	 \$99K	 \$91K

Source: Kendall & Will Counties, IL (2024), City of Joliet (2024), Google Maps

What you can do:

**Come to grips with your
annexation pattern.**

Annexation History

Joliet, IL

2011-2024 4 sq. mi 5%

2001-2010 24 sq. mi 34%

1991-2000 11 sq. mi 16%

1981-1990 6 sq. mi 7%

1971-1980 5 sq. mi 7%

1941-1970 13 sq. mi 19%

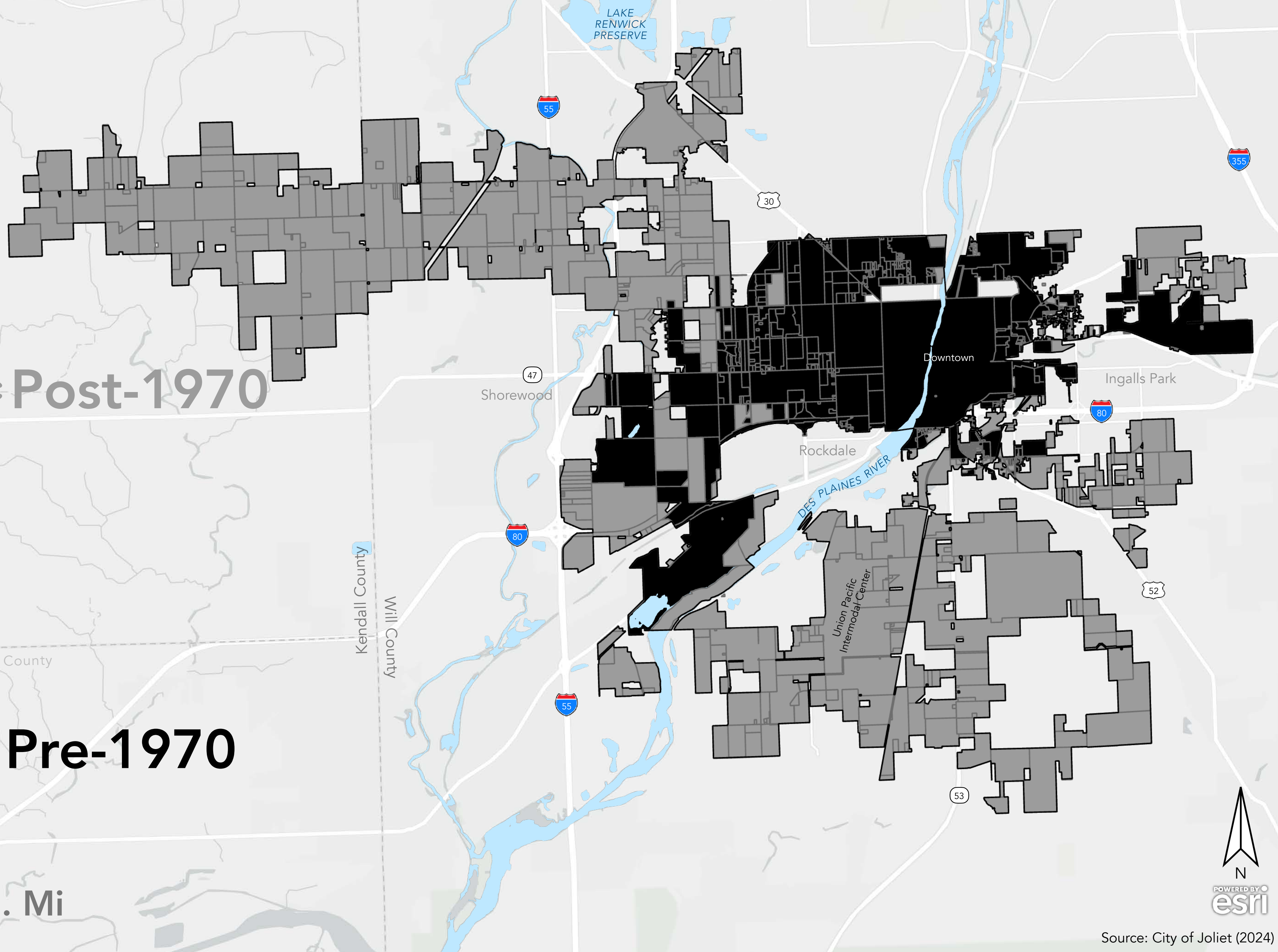
1861-1940 3 sq. mi 4%

1852-1860 6 sq. mi 8%

Post-1970

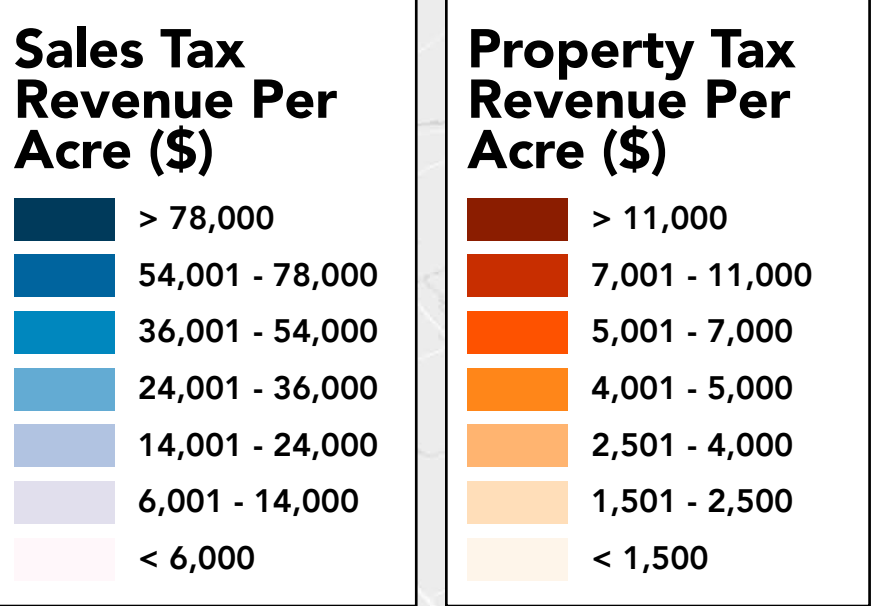
Pre-1970

Total Land Area: 69 Sq. Mi

POWERED BY
esri

Annexation History

Joliet, IL



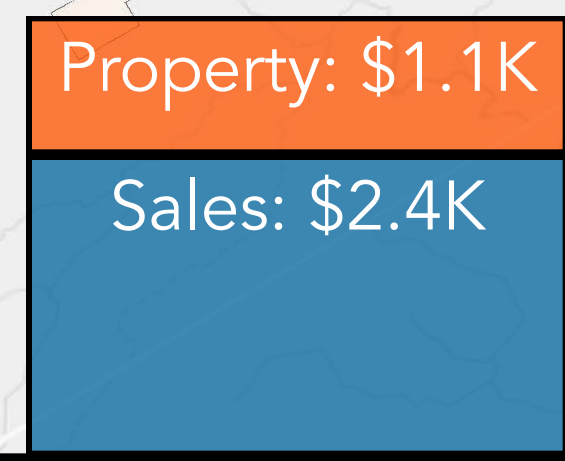
\$16.1K



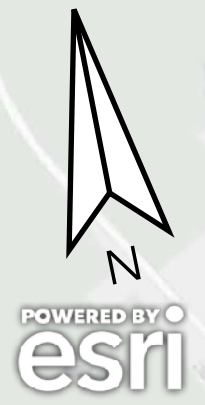
Pre-1970 City Area

2024 Tax Revenue Per Acre

\$3.5K



Post-1970 City Area

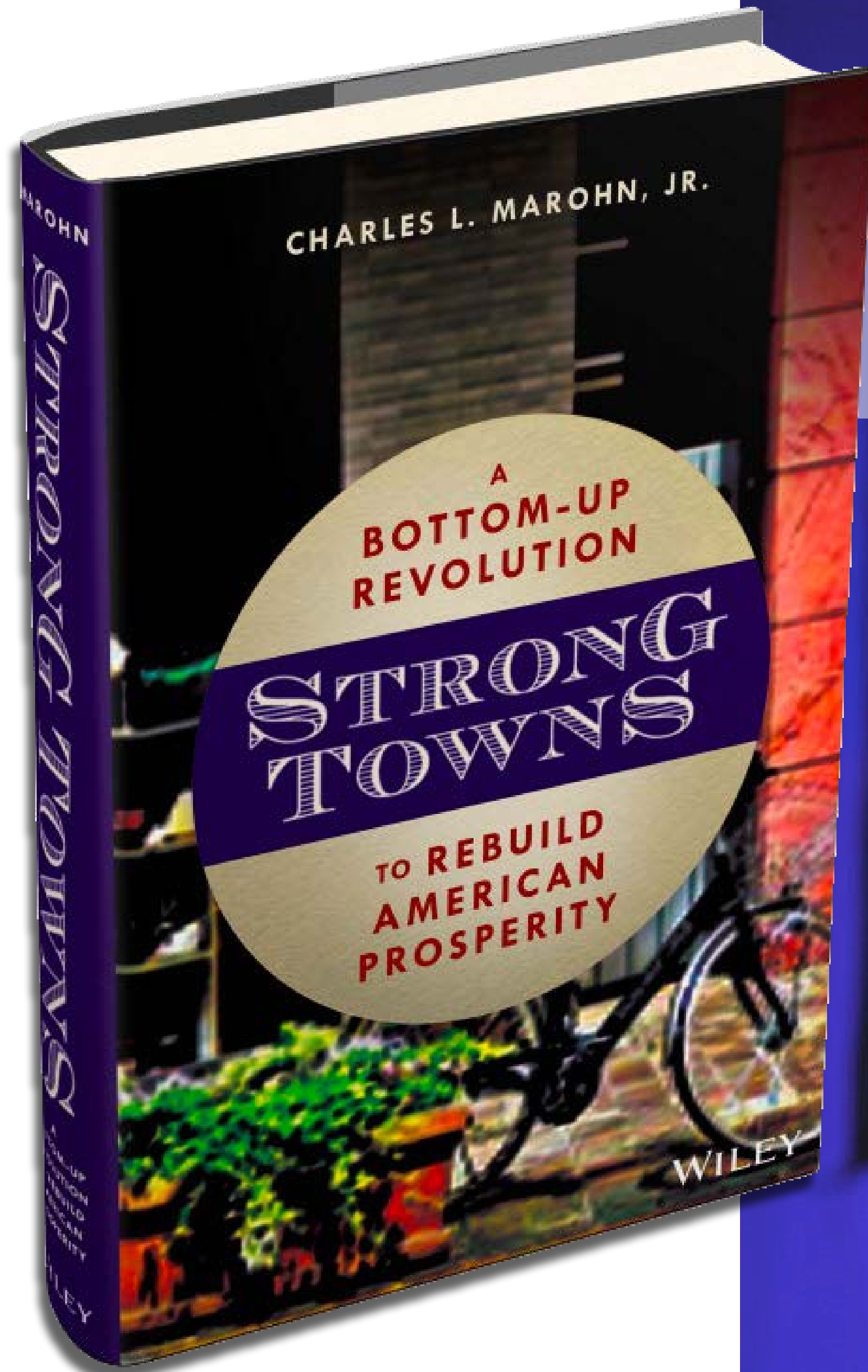




Hit it!

Joliet
Jake

**IT'S 52 MILES TO CHICAGO,
YOU GOT A FULL TANK OF GAS,
HALF A PACK OF CIGARETTES, IT'S DARK, AND
YOU'RE WEARING SUNGLASSES.**



Read this book!





DO THE
MATH

