

2025 Claiborne Corridor EPA Study



Claiborne Avenue Alliance Design Studio

with

LSU School of Public Health

Smart Mobility

Urban 3

Saint Hilaire Co.

Collective Form

Claiborne Avenue Alliance Design Studio

Under an EPA air monitoring grant, the Claiborne Avenue Alliance Design Studio has been tasked with presenting a plan for redress and healing of the wounds caused by the building of Interstate 10 through the Treme and 7th Ward communities in New Orleans. This plan calls for developing community consensus around the redevelopment of the Claiborne Corridor. The corridor is the site of the Claiborne Expressway, a hulking piece of infrastructure that has negatively impacted the economic and public health of the adjacent neighborhoods.

Research shows that health is more widely influenced by the social determinants, which are non-medical factors reflecting the conditions in which people are born, grow, work, live, worship, and age, rather than access to health care, lifestyle choices or genetic factors. Numerous studies suggest that they account for between 30-55% of health outcomes. These conditions include a wide set of forces and systems that shape daily life, including economic policies and systems, development agendas, social norms, social policies, and political systems. Addressing differences in the social determinants covers:

- Education,
- Unemployment and job insecurity,
- Working life conditions,
- Food insecurity,
- Housing, basic amenities and the environment,
- Early childhood development,
- Social inclusion and non-discrimination,
- Structural conflict, and
- Access to affordable health services of decent quality.

These factors have the power to influence and accelerate progress toward health equity, a state in which every person can attain their highest level of health.

Additionally, the European Parliament has determined that environmental determinants of health are factors that an individual is exposed to in daily life that negatively affect health. These determinants include

- Air pollution,
- Water quality,
- Extreme temperatures,
- Infectious diseases,
- Floods and droughts,
- Chemicals and microplastics, and
- Noise.

These environmental determinants plague residents of South Louisiana.

Approach

The framework for developing consensus around the redevelopment of the Claiborne Expressway Corridor, is built around the determinants of health. Sadly, the condition of the highway corridor

shows that the adjacent neighborhoods are negatively impacted. As a result, the Alliance collected data to help guide the redevelopment of the expressway's corridor and respond to several questions from community that have persisted over the years . We also needed to develop a way for the community to visualize proposed changes, considering that the highway has been in place for most of the community members' lives.

The following outputs, outcomes and reports reflect the work that was done through the data collection phase to help facilitate planning.

Primary Outputs and Outcomes

- 1) **air monitoring and traffic-associated pollution lesson plans:** *completed July 2025;*
- 2) **deliberative community engagement event:** *first event held April 11, 2025 which included an initial assessment of community's knowledge and feedback acquired through survey and Q&A at event;*
- 3) **free air monitor "lending library":** *ongoing since 2024;*
- 4) **online maps of particulate matter levels and science translation materials:** *live-streamed on [Habitat Air Casting](#) map;*
- 5) **community consensus report:** *to be developed through April 2026;*
- 6) **community buy-in:** *ongoing engagement through 2026;*
- 7) **informed and empowered citizens:** *public health, traffic and economic data presented on April 11, 2025; ongoing delivery of information through 2026 on social media channels;*
- 8) **motivated, skilled and confident students:** *lectures with 40 Xavier students on the history of Treme and the Claiborne Corridor – fall 2024; interview with eight (8) Xavier University students - June 2025; lectures - Pratt Institute students 2024 – 2025; presentation to Homer Plessy Middle School students – February 2024; workshop with STEMHead NOLA elementary and middle school students on traffic-related pollution – July 2025; and*
- 9) **redress for environmental injustice manifesting in community health and healing:** *plan for redress to be completed by June 2026.*
- 10) **deliberative community engagement toolkit:** *ongoing development since August 2024; to be completed by April 2026; elements include tips for giving tours of areas impacted by poor infrastructure decisions; sample policies on gentrification and displacement; board games to understand traffic and driver behaviors; examples of land value and traffic analyses.*

Smart Mobility

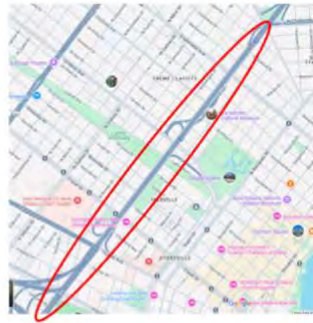
Traffic Analysis

Approach

Smart Mobility was contracted to analyze traffic changes resulting from downsizing the Claiborne Expressway and an alternative for its complete removal. To evaluate these roadway alternatives accurately, the regional transportation model maintained by the New Orleans Regional Planning Commission (NORPC) was updated to better match current traffic data and to account for reduced travel that would result from downsizing.

Two Alternatives Analyzed

Full Removal



LADOT Concept Removing Four Ramps



Method

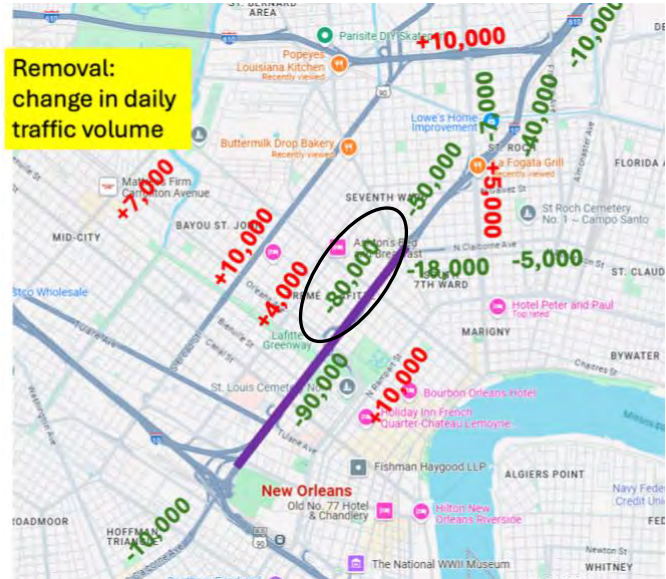
The Claiborne model has been validated with travel speed data collected 24/7 from cellphones and is much more accurate than the NORPC model.

This enhanced model accounts for a 75% reduction in regional vehicle miles traveled (VMT), which is estimated to result from the removal of the Claiborne Expressway based on induced travel research. The other 25% is from factors outside the Dynamic Traffic Assignment (DTA) model, including mode change, trip substitution, and trip elimination.

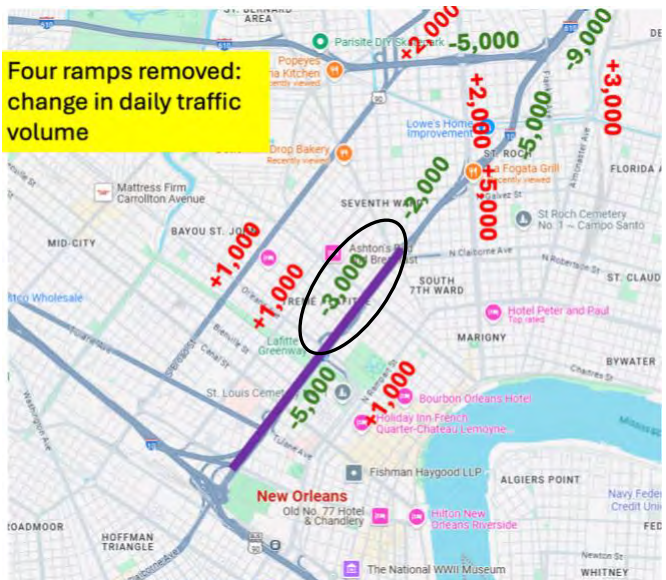
Results

- This study has uncovered other issues with the NORPC model that have been corrected, including pre-Katrina external traffic volume inputs and internal trip estimates that are inconsistent with current commuting data.
- The trip table for the removal alternative has been adjusted so that reduction in the VMT complements the scientific research.
- The model outputs include traffic volumes and speeds for each roadway segment for four time periods. These results will be used to answer questions about "where will the traffic go?" in the event of removal.
- These outputs will also be used in evaluating health impacts along the road segments.

- Full removal would remove 80,000 - 90,000 vehicles per day from Claiborne corridor along with the associated air pollution and noise impacts. This finding is underscored by the changes in the corridor's air quality, which was measured by LSU's team during the 2024 International Longshoremen's Association strike.



- The LADOTD ramp removal concept would have little impact on traffic, air pollution or noise in the Claiborne Expressway area since the traffic volume would be reduced by only 3,000 cars per day.

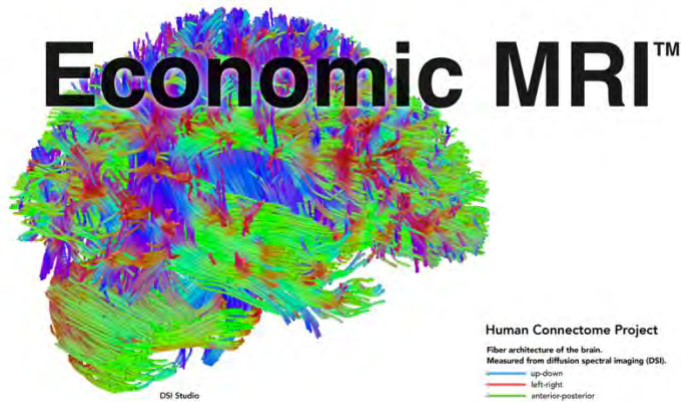


Urban 3

Economic Analysis

Approach

Urban3 provided data analysis and modeling for the Claiborne Avenue Alliance in pursuit of justice for the Tremé and Seventh Ward neighborhoods. The analysis involves visualization of built form using property and land value data to illuminate tax base implications along the Claiborne corridor while taking measure of how the construction of I-10 has led to the loss of housing, businesses, and diminished property values. Urban3's analysis uses property value per acre to quantify economic productivity of a community. Their work re-imagined Claiborne Avenue's streetscapes and the value growth of properties along the corridor without the highway. The analysis informs future redevelopment in the case of downsizing or removal of the elevated expressway to encourage restoration, vibrancy and wealth building.



Method



To understand the impacts of construction of I-10 on property and land values along Claiborne Avenue, parcel-level tax data was utilized to highlight the differences between economic productivity of properties in several neighborhoods along the corridor and the rest of the city. Historical redlining maps were overlaid on parcel-level data to examine how present-day economic productivity corresponds to

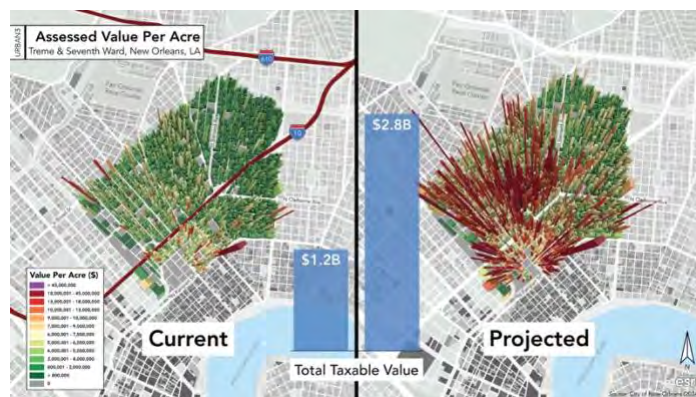
areas that were previously classified under the Home Owners' Loan Corporation (HOLC) grades, revealing the long-term economic impact on property values and neighborhood fiscal health in the city.

Additionally, using historical Sanborn maps, Urban3 has quantified and visualized the loss of the real estate footprint and property values from the demolition along Claiborne Avenue for the construction of the elevated highway. The analysis concludes with a counterfactual scenario of property value productivity along Claiborne Avenue if the highway was never built.



Results

- The Claiborne Expressway cuts through the Treme and Seventh Ward neighborhoods which have been historically redlined. A 0.5-mile buffer around the expressway contains 78% of redlined properties indicating the systemic harm that the community has suffered.
- The analysis revealed that Treme and Seventh Ward have experienced loss of real property and property value. Approximately, a thousand parcels were lost to the highway, and the remaining properties have much lower values per acre as compared to similar neighborhoods like French Quarter, Marigny, and Bywater.
- Projecting the lost value revealed that if the highway was never built, the total taxable value of Treme and Seventh Ward would have been 2.3 times its current taxable value. The highway has induced a \$30M annual loss in property tax revenue from the two neighborhoods.



Collective Form Modeling

Approach

Collective Form has developed a [project website](#), which includes 3D modeling and the ability to accept community feedback through the uploading of comments, drawings, and other types of images to support community engagement efforts. It also features places of interest that can foster community engagement, intergenerational learning and cultural preservation.

Method

Collective Form created an interactive web-based 3D GIS model of the Claiborne Corridor using Mapbox. The platform integrates open-source data for land use, environmental factors, demographics, zoning, and air quality. The site enables users to explore the corridor and engage directly through interactive comment tools and surveys. Additional deliverables included the Environmental Health Survey and the Neighborhood Outreach and Engagement Plan, both designed to strengthen participatory planning and ensure data-informed community feedback.

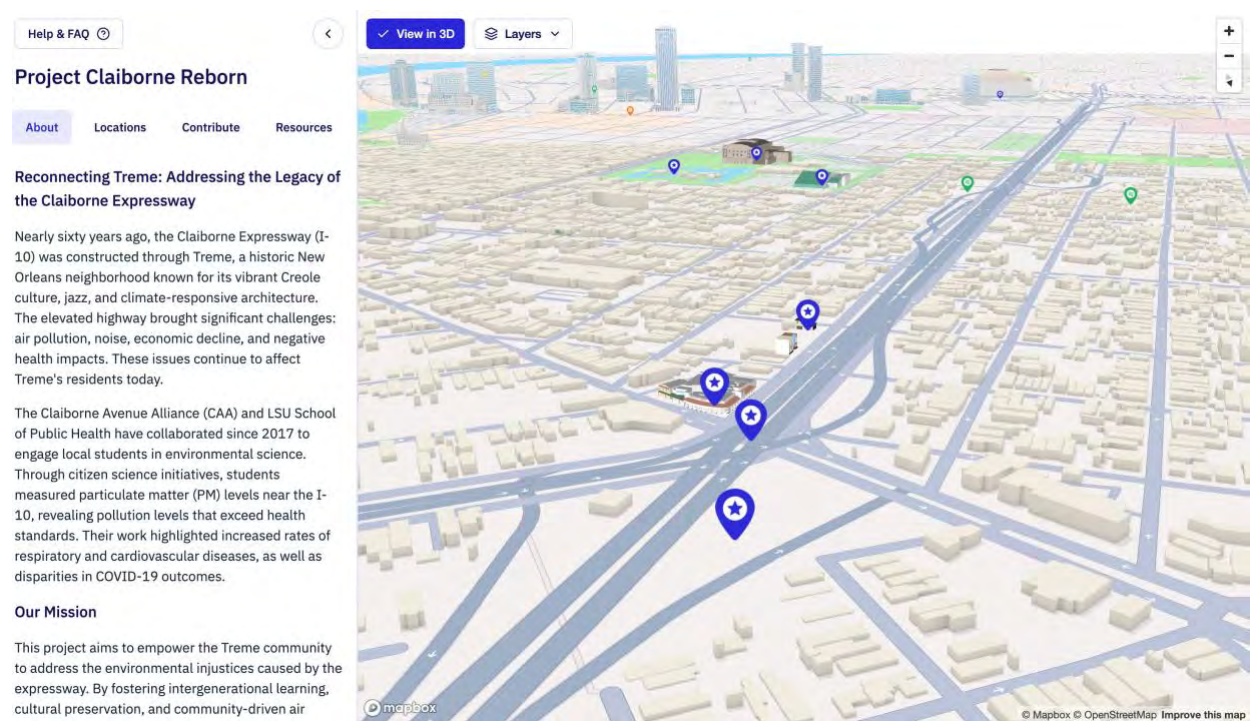
In the coming months, Collective Form's focus will shift toward creating additional 3D models with design alternatives for the corridor. Content refinement will also include the addition of more data layers, including re-enabling the air quality data layer, maps of Smart Mobility's traffic analysis, and Urban 3's economic analysis.

The team will also help to prepare a guide for community engagement to assist with future workshop planning.

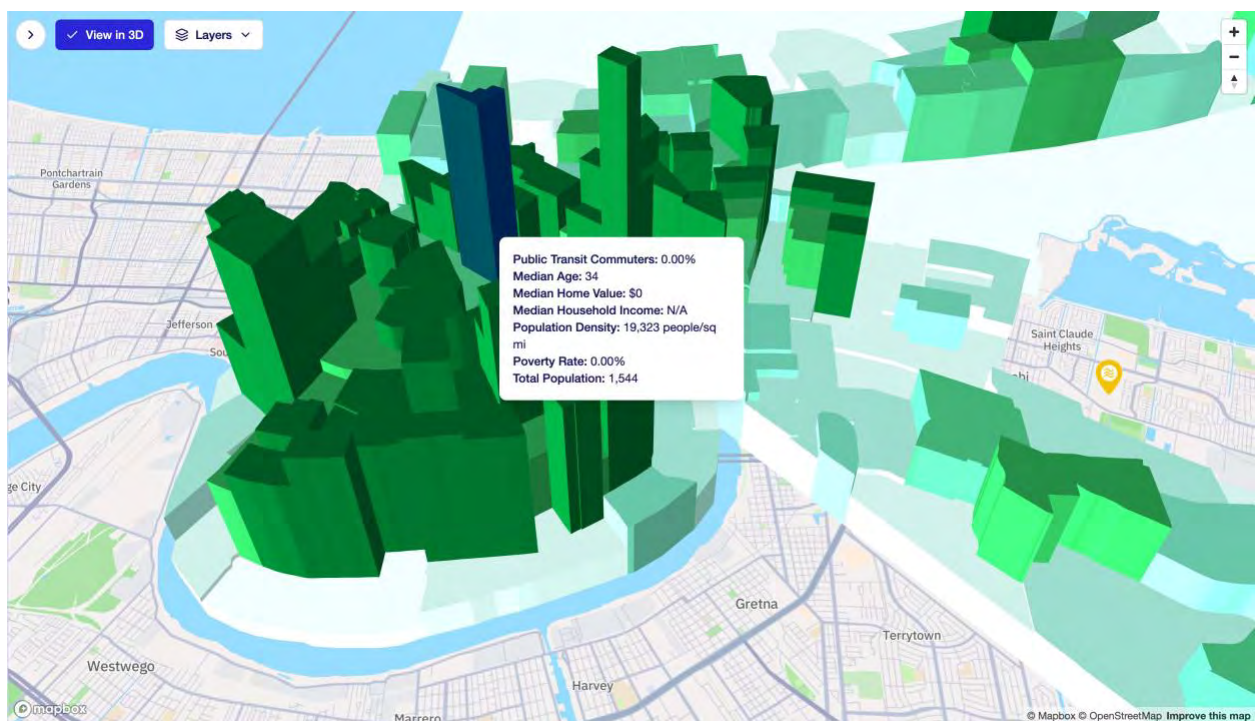
Results

- **Public Platform & Model:** Fully deployed project website and digital twin of the corridor incorporating public health and environmental data.
- **Community Engagement:** Integration of map-based user comment features for participatory input; supported in-person engagement sessions and surveys distributed across Treme and the 7th Ward.
- **Data Collection:** Collected data on land use, zoning, demographics, and environmental factors; the air quality overlay is currently disabled pending legal review.
- **Web Analytics (Dec 2024 – May 2025):** 747 unique visitors, 1,523 total page views, demonstrating sustained regional engagement.

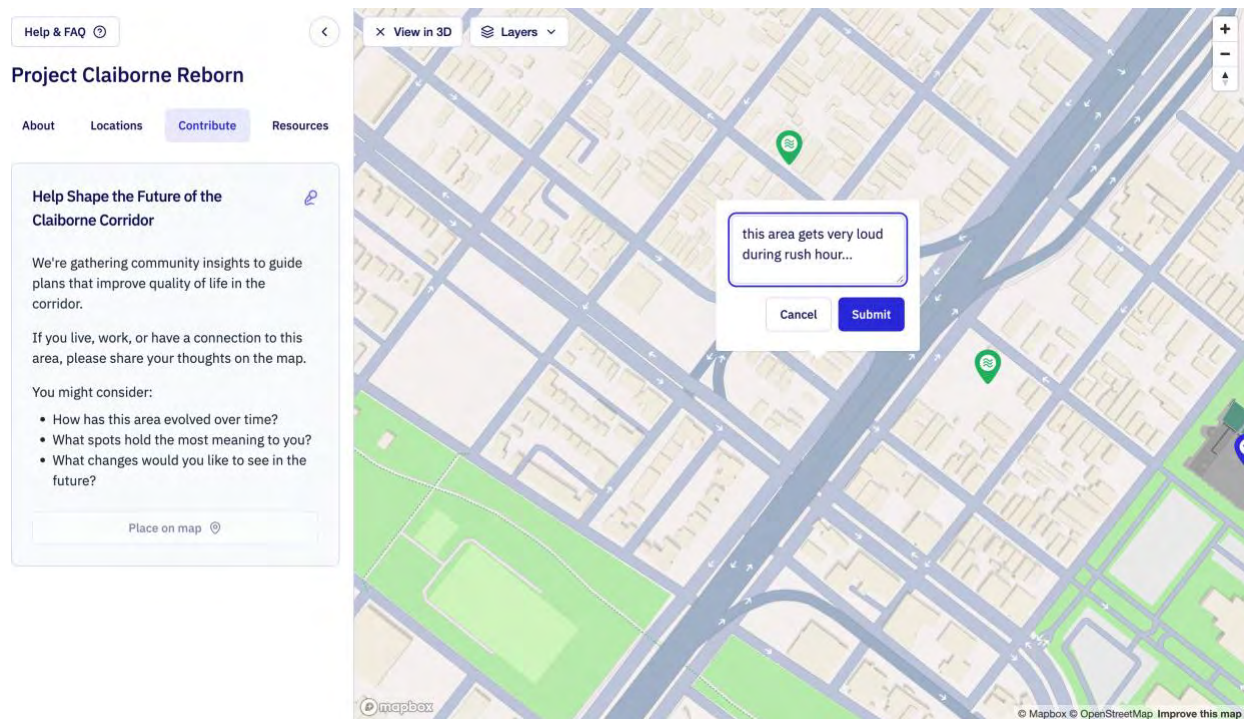
Website Screenshots



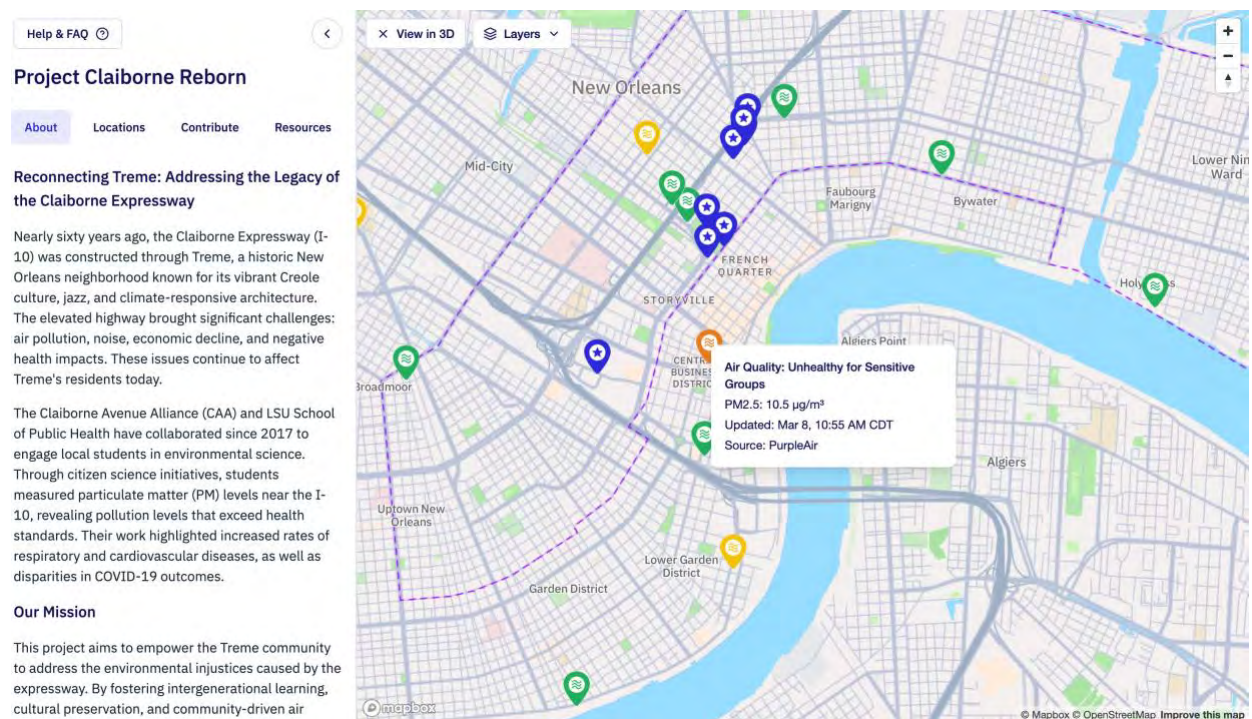
Initial Page Load: Landing interface showing corridor overview.



Census Data Overlay: Demographic data visualization.



Community Comment Interface: Interactive tool for resident feedback.



Air Quality Layer (currently disabled): Map showing potential PM concentration zones.

Saint Hilaire

Photo Documentation

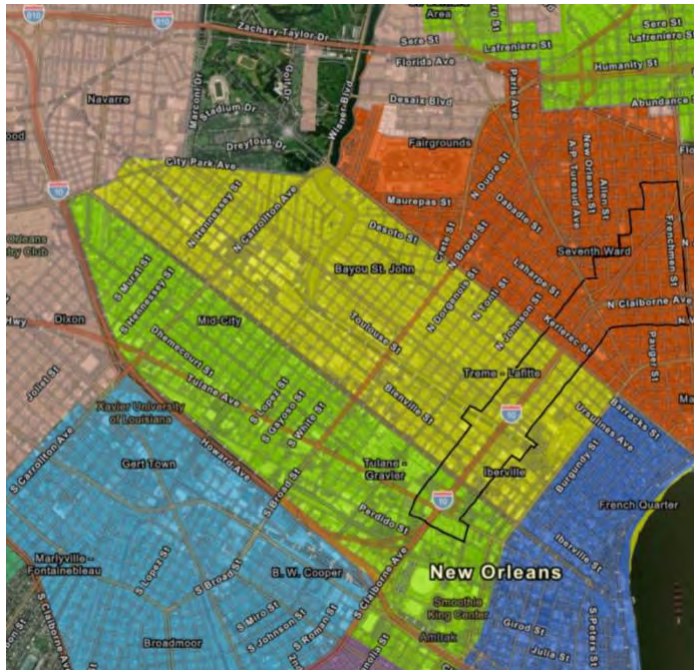
Approach

Approximately 1000 images have been taken by Saint Hilaire Company to document [life](#) and the [physical conditions](#) (<https://saint-hilaire-co.client-gallery.com/gallery/claiborne-avenue-structure>) in the Interstate 10 corridor. The intent is to provide residents and property owners with a true picture of life near the highway to visualize a path forward as we work toward a plan for redress.



Method

Conditions along Claiborne Avenue were photographed block by block from Cleveland Avenue to Elysian Fields Avenue. In addition, a photo survey of the interior residential streets on either side of Claiborne Avenue has been taken in Treme and the 7th Ward. Site photographs of properties where air monitors are located are also part of the survey. The images are continuously culled, edited, and uploaded to an online gallery. Portraits of neighborhood storytellers will be added in 2026.



Results

Development of an online database of infrastructure and social images that's available to researchers, journalists and residents illustrating life and conditions in the Claiborne Expressway Corridor.



APPENDIX

Public Health Outcomes

LSU School of Public Health

State of Evidence: Health Outcomes of Traffic Pollutants

High Confidence

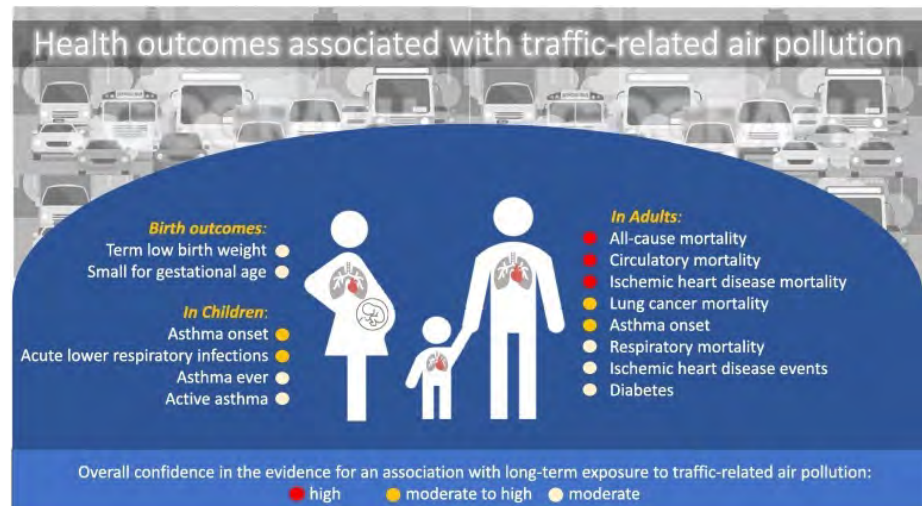
- All-cause mortality
- Cardiovascular deaths

Moderate-to-High Confidence

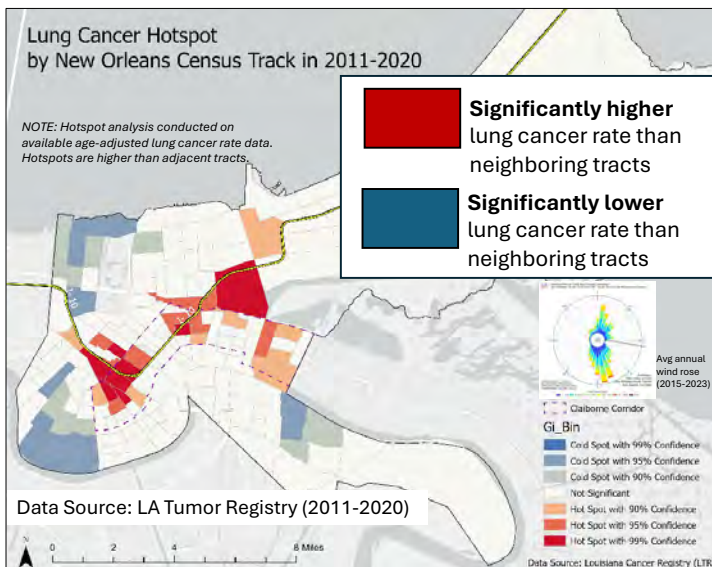
- Lung cancer
- Asthma
- Respiratory Infections

Moderate Confidence

- Cardiovascular Disease
- Adverse Birth Outcomes
- Diabetes



Lung Cancer Hotspots



State of Evidence: Health Outcomes of Traffic Pollutants

High Confidence

- All-cause mortality
- Heart disease deaths

Moderate-to-High Confidence

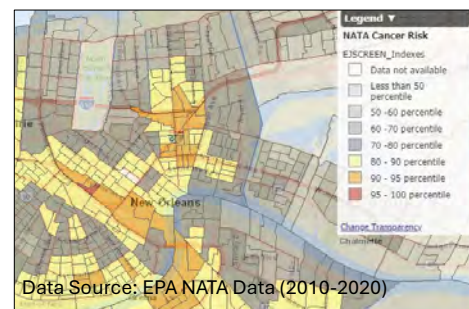
- Lung cancer
- Asthma
- Respiratory infections

Moderate Confidence

- Diabetes
- Adverse Birth Outcomes



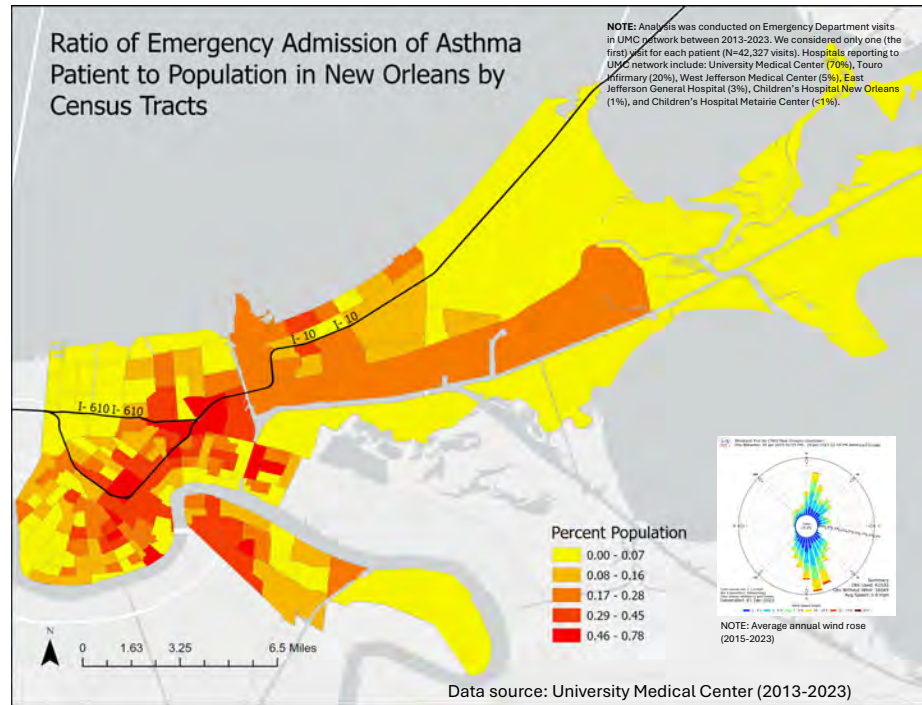
Estimated Cancer Risk



ASTHMA

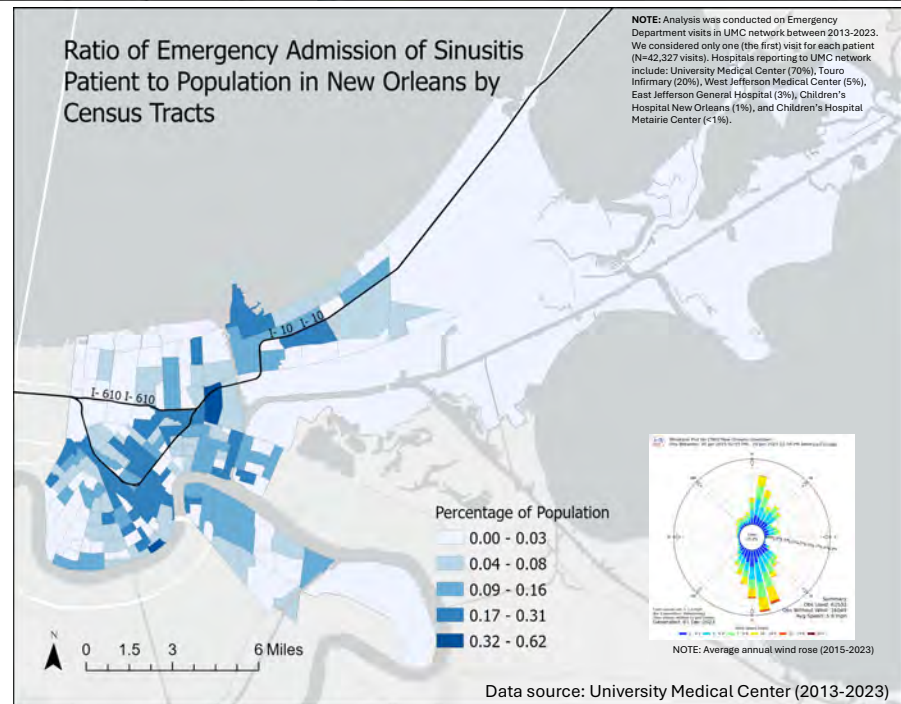
ER Visits

State of Evidence: Health Outcomes of Traffic Pollutants



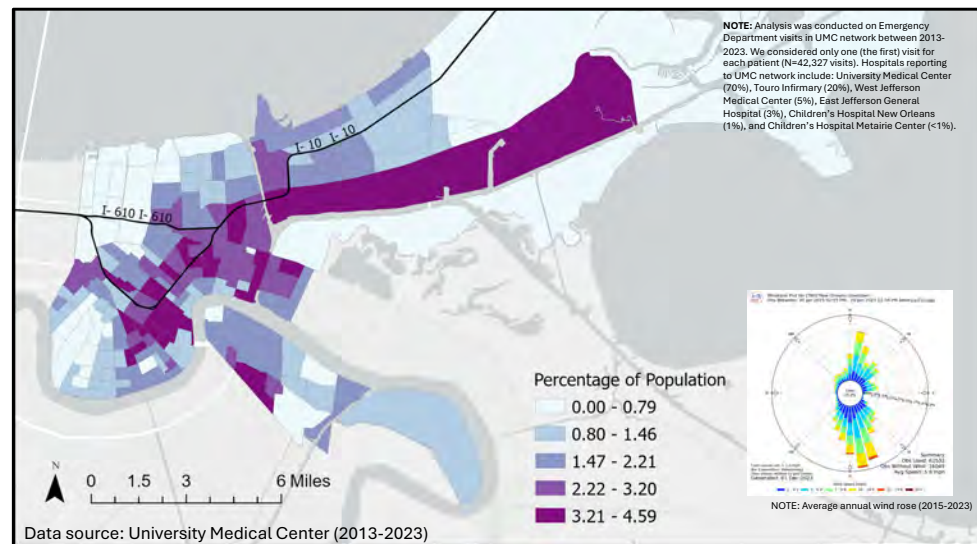
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ER Visits



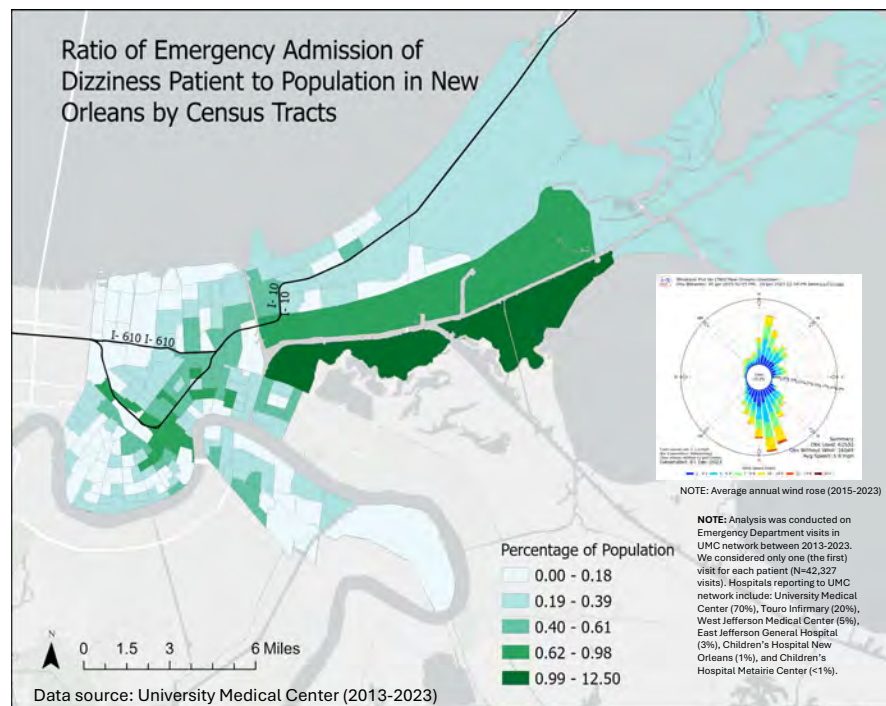
SHORTNESS OF BREATH

ER
Visits



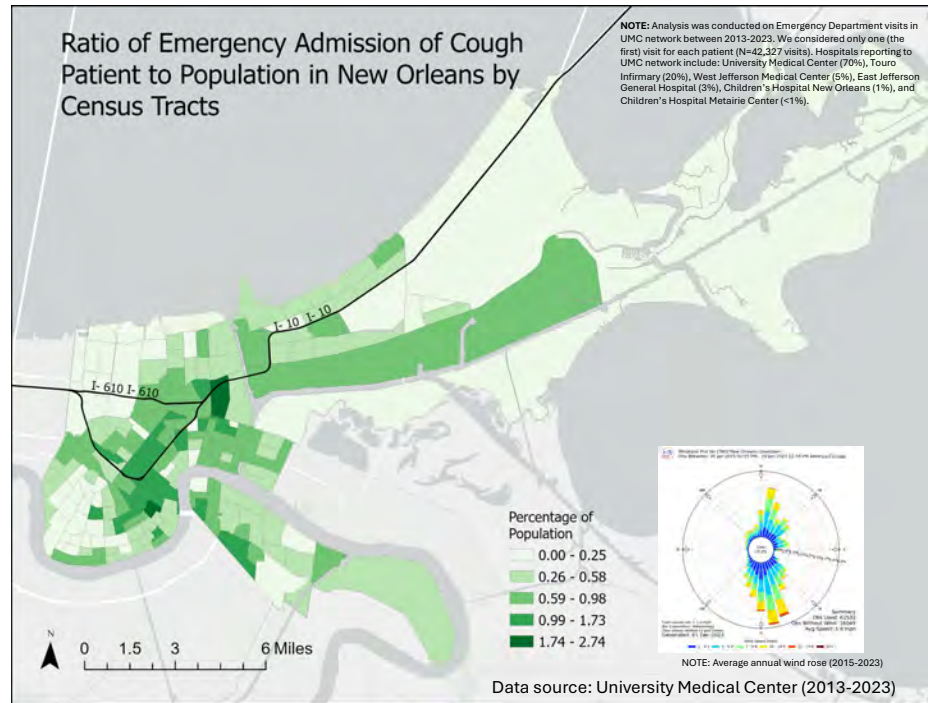
DIZZINESS

ER Visits



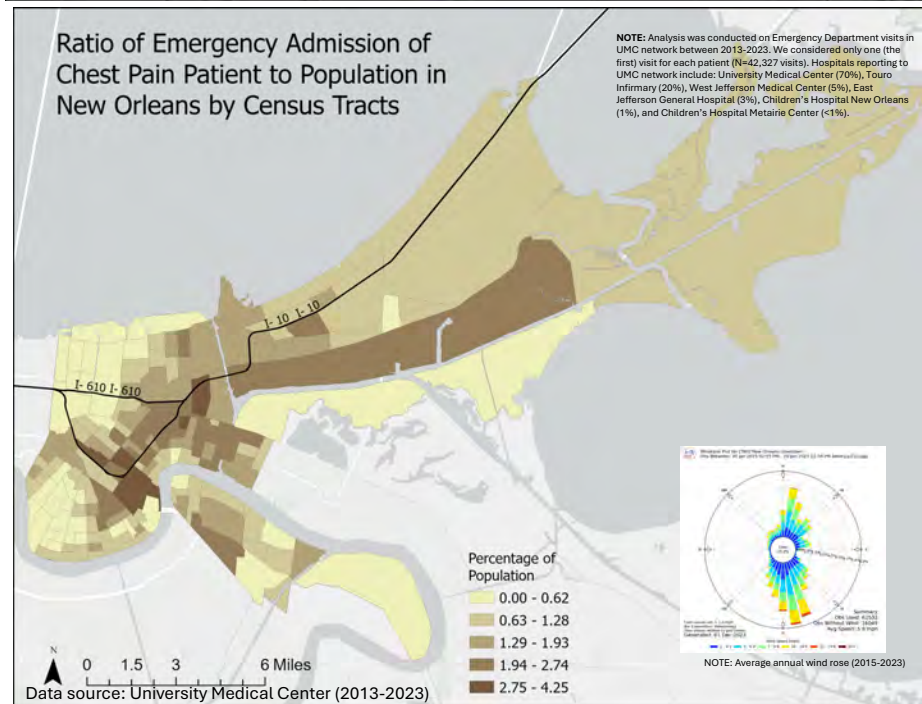
COUGH

ER Visits



CHEST PAIN

ER Visits



Higher ER Visits for Those Nearest the Highway

The further you live from highway, the smaller your chance of going to ER for...

• Chest pain:

- 5 blocks from highway → 2% lower chance of going to ER for chest pain vs. those nearest highway
- 10 blocks → 3% lower
- 20 blocks → 5% lower
- 50 blocks → 11% lower

• Sinus problems (stuffy or painful nose):

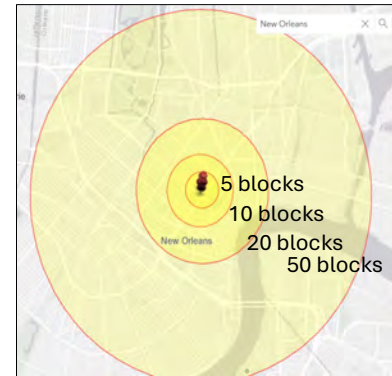
- 5 blocks → 4% lower
- 10 blocks → 8% lower
- 20 blocks → 14% lower
- 50 blocks → 32% lower

• Shortness of breath:

- 5 blocks → 1% lower
- 10 blocks → 2% lower
- 20 blocks → 3% lower
- 50 blocks → 6% lower

• Dizziness:

- 5 blocks → 2% lower
- 10 blocks → 4% lower
- 20 blocks → 7% lower
- 50 blocks → 15% lower



SUMMARY: Exposures

Exposures of greatest potential concern:

- Inhalation of fine particulate matter from air emissions by residents, workers, homeless and children
- Inhalation and ingestion of soil lead by children
- Regular noise pollution impacting residents, workers, children and homeless.



Figure 25. Colonies of the displaced and homeless live underneath the I-10.



Figure 26. Photograph of Veggie Nola, a small shop in operation underneath the I-10 next to the LaFitte Greenway in New Orleans, LA.



Figure 27. Picture of community garden located directly across the street from I-10

SUMMARY: Health Impacts

Traffic-associated health impacts
expected at current hazard levels:

- **Respiratory diseases***
- **Cardiovascular diseases***
- Adverse birth outcomes
- Adverse developmental outcomes
- Immune system diseases
- Cancer
- Deafness
- Stress-associated diseases
- Cognitive and neurological impacts

***Outcomes occurring at rates**

Health Outcome	Crude Prevalence Claiborne Corridor	Crude Prevalence New Orleans
Asthma	29%	20%
COPD	10%	7%
High BP	46%	38%
Coronary HD	8%	6%

Cancer prevalence rates are significantly higher in CBD and Florida/Almonaster vs state rates)

Cerebrovascular Disease

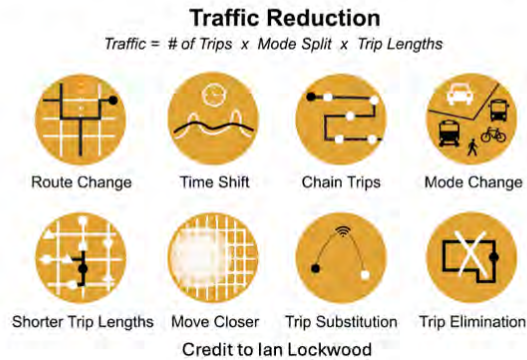


Cardiovascular Disease



Smart Mobility Traffic Analysis

If the Claiborne Expressway is removed where will the traffic go?

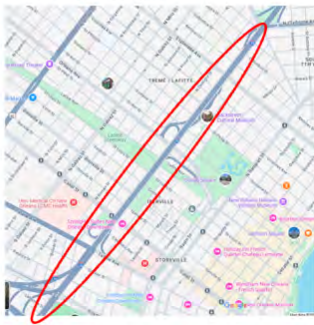


Quantifying Where the Traffic Will Go

- The New Orleans Regional Planning Commission maintains a regional transportation model
- I developed an enhanced version of the model that better matches observed data collected 24/7 from cell phones
- Induced travel research provides a way of estimating the expected reduction in vehicle miles traveled (“VMT”) from removing urban freeway capacity
- The enhanced model accounts for *Route Change* and *Shorter Trips* that combine for $\frac{3}{4}$ of the calculated reduced travel
- Model inputs were adjusted to account for the other $\frac{1}{4}$ of the reduced travel

Two Alternatives Analyzed

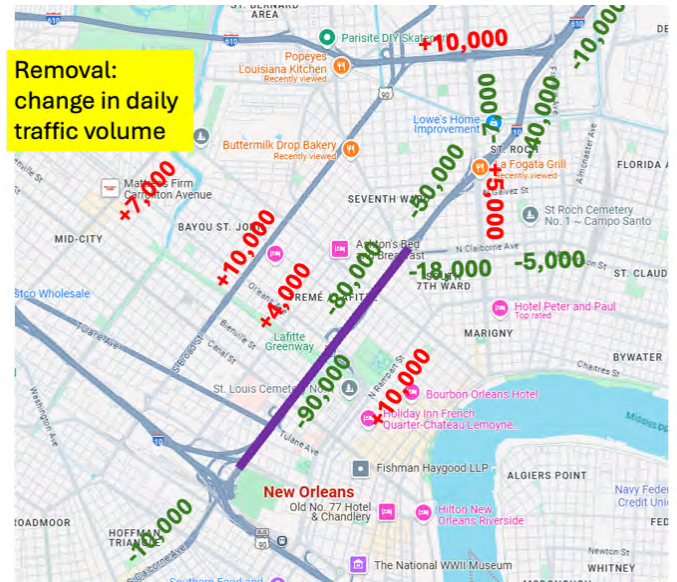
Full Removal



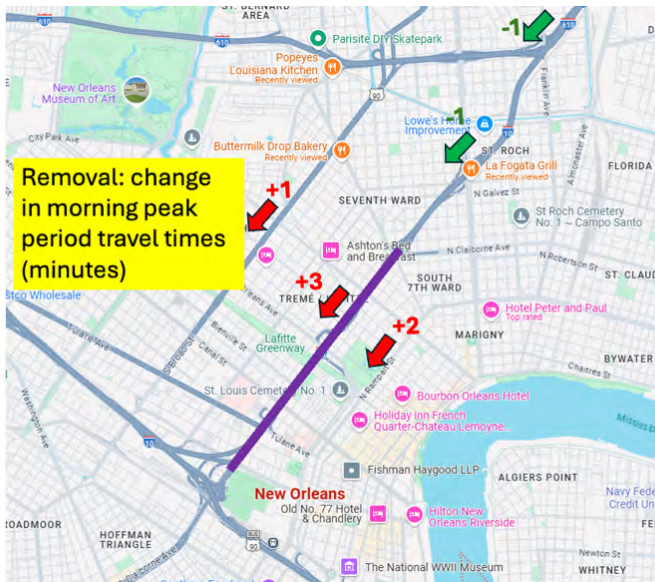
LADOT Concept Removing Four Ramps



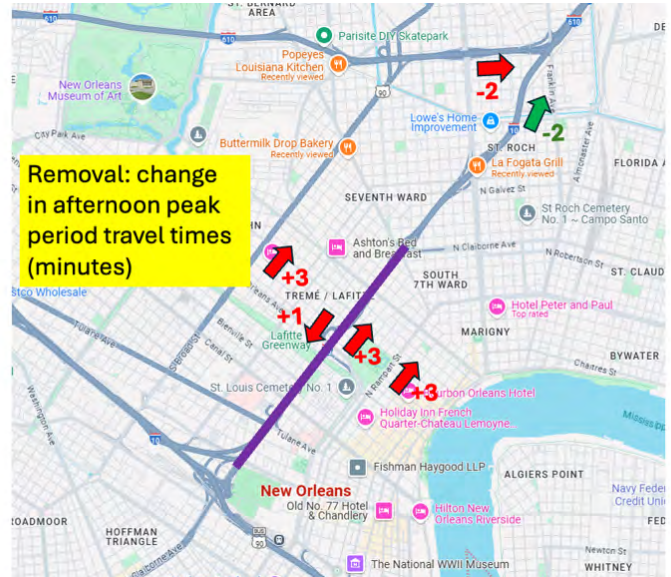
Removal: change in daily traffic volume



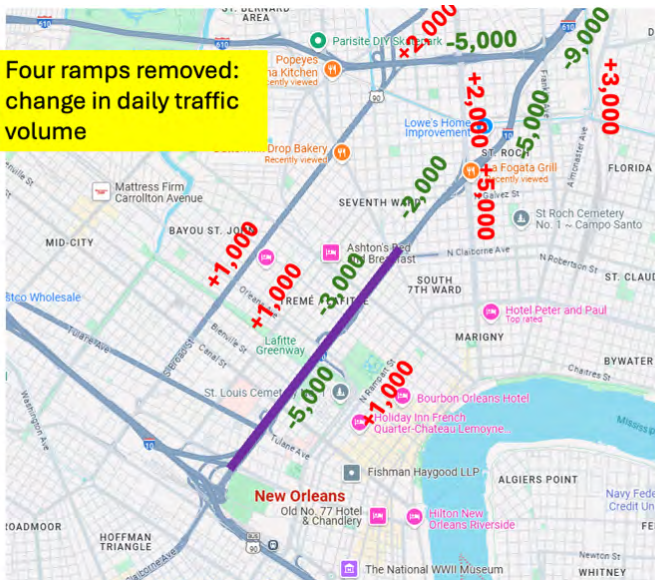
Removal: change in morning peak period travel times (minutes)



Removal: change in afternoon peak period travel times (minutes)

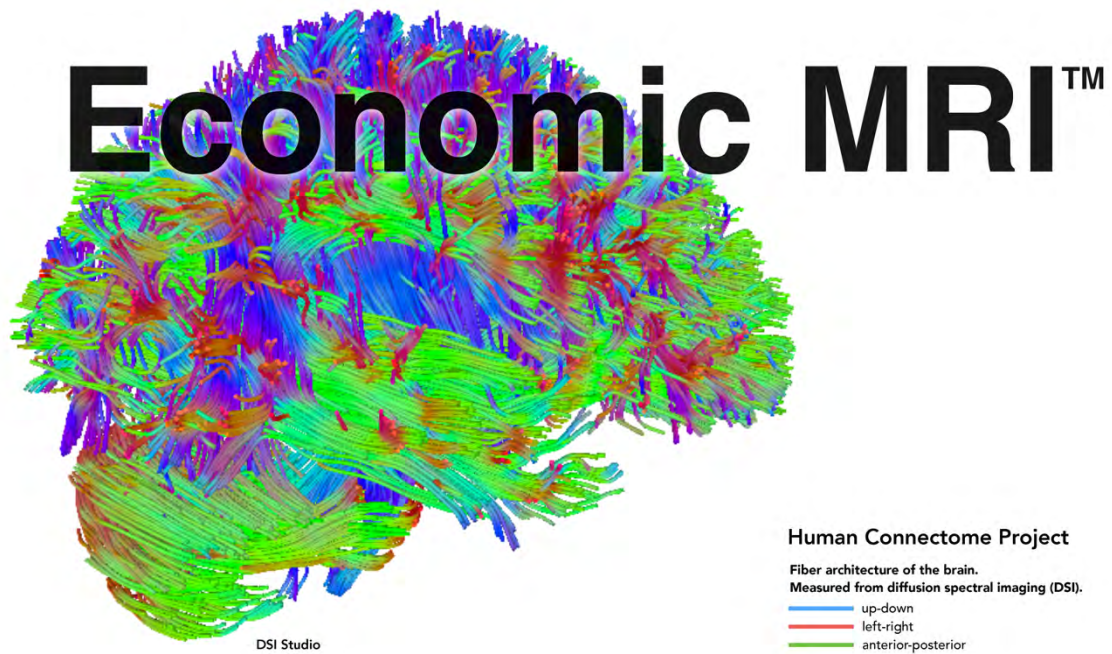


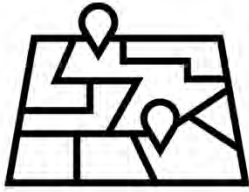
Four ramps removed: change in daily traffic volume



Conclusions

- 1) Full removal would remove 80,000 - 90,000 vehicles per day from Claiborne corridor along with the associated air pollution and noise impacts
- 2) Traffic would be dispersed to parallel streets, and some traffic would "disappear"
- 3) Peak hour travel times would increase by a few minutes on some streets
- 4) Investments in transit could help mitigate the traffic diversion impacts
- 5) The LADOT ramp removal concept would have little impacts on traffic, air pollution or noise in the Claiborne Expressway area

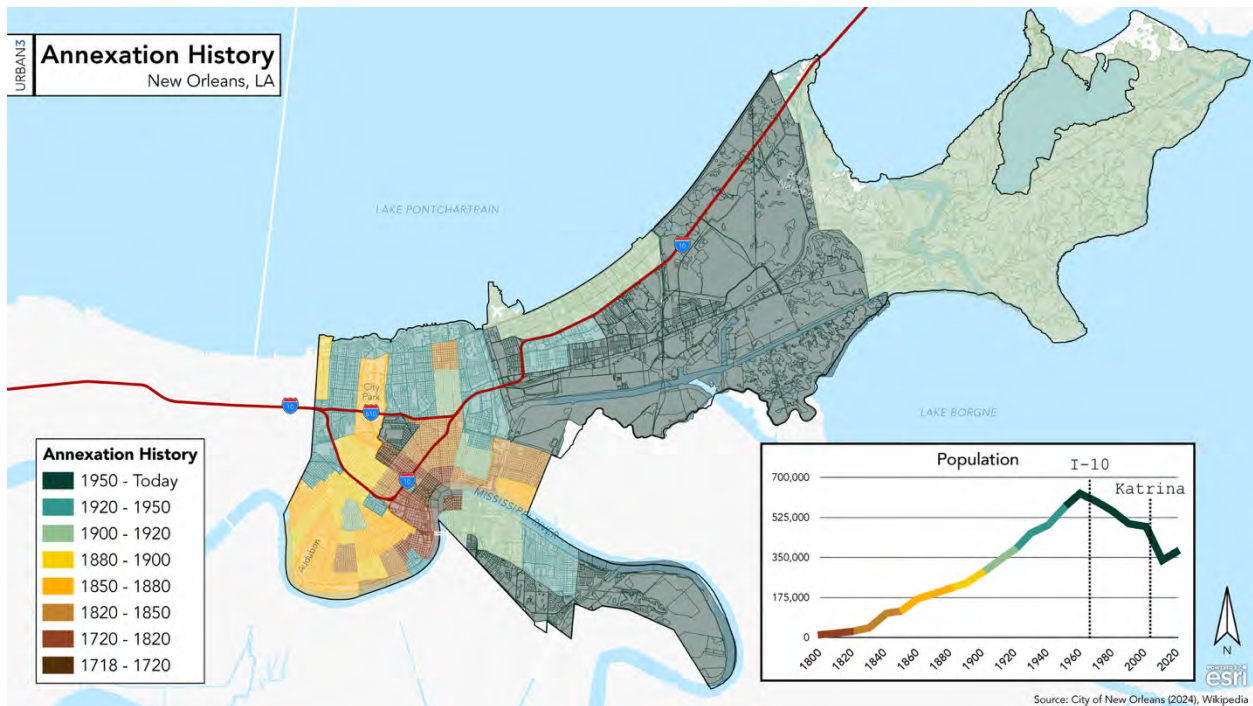




Annexation History

How New Orleans Grew Over Time

URBAN3



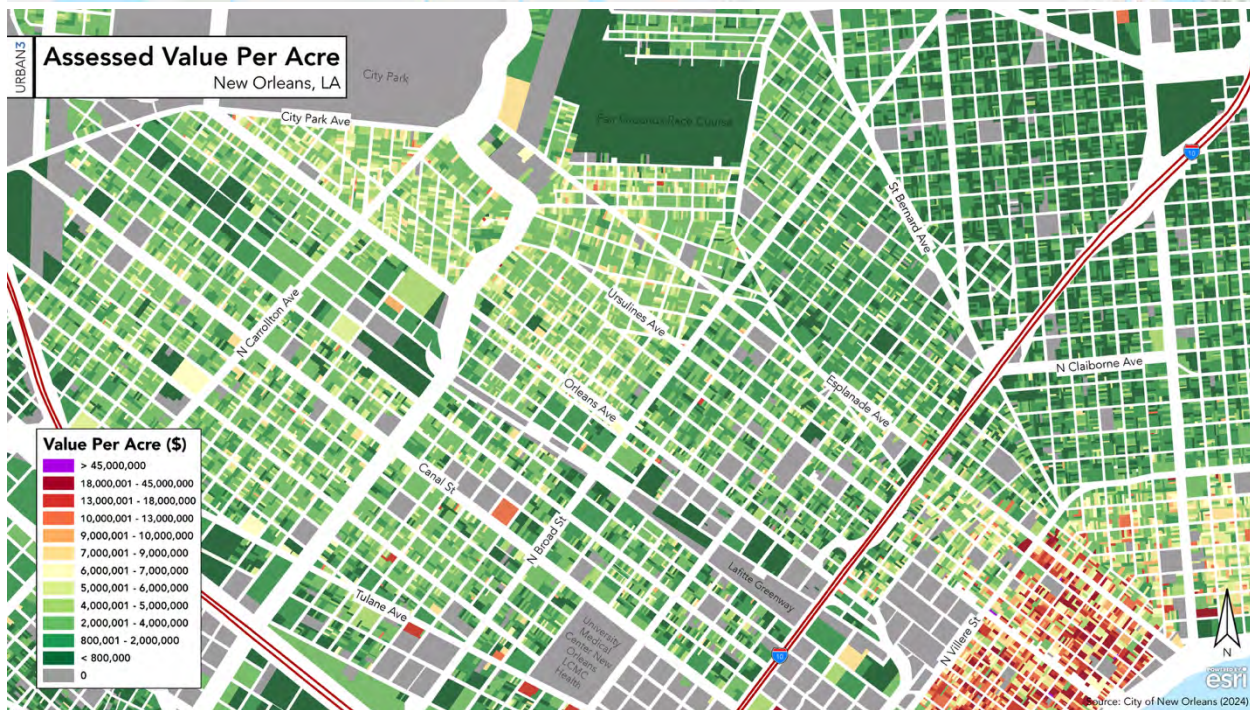


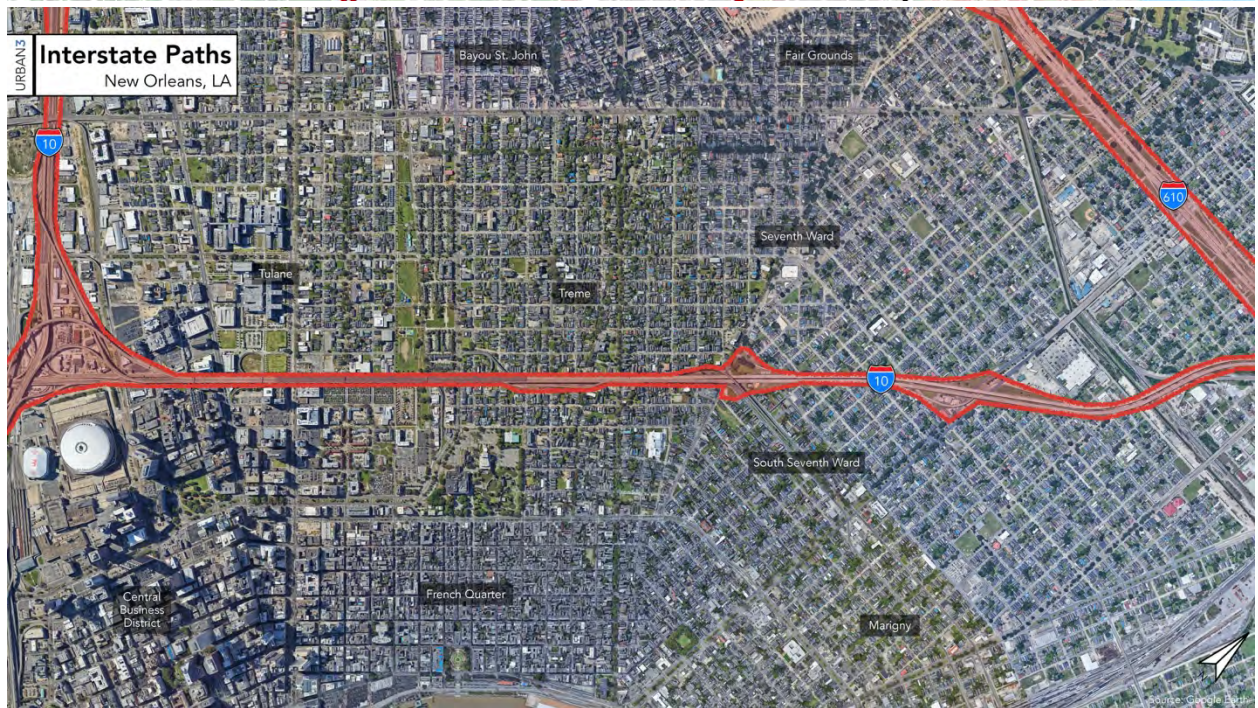
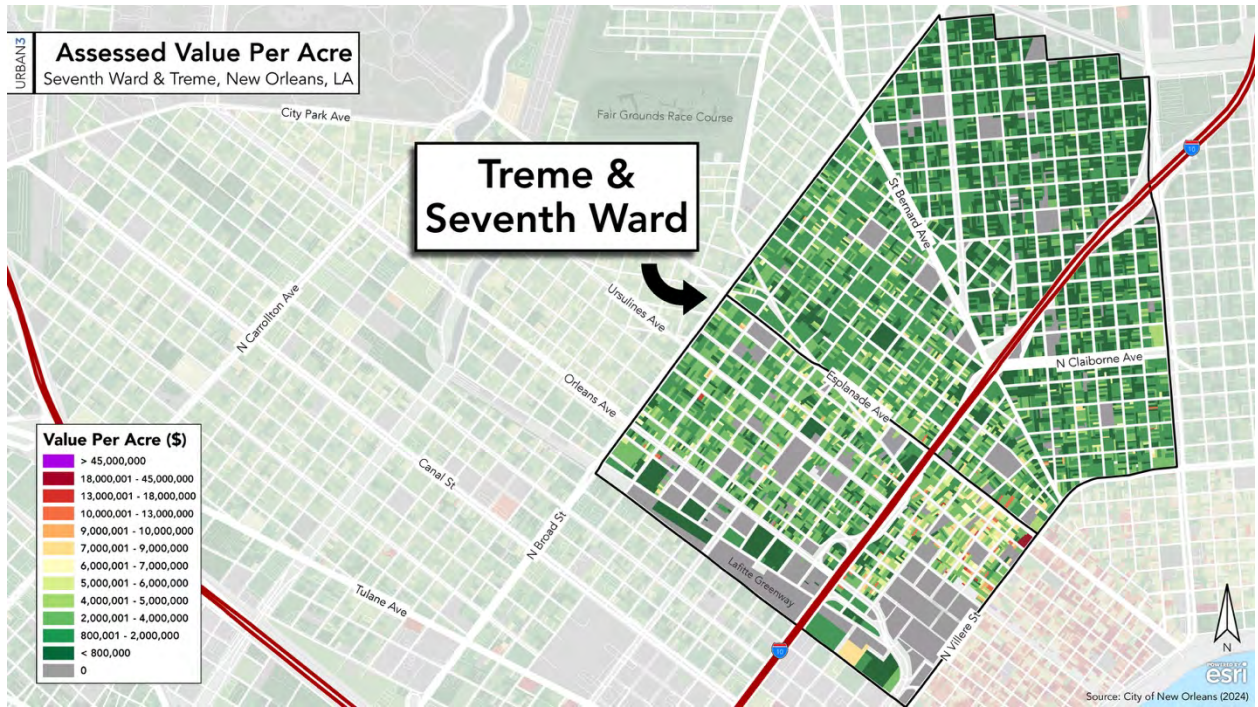
Case Study: Economic MRI®

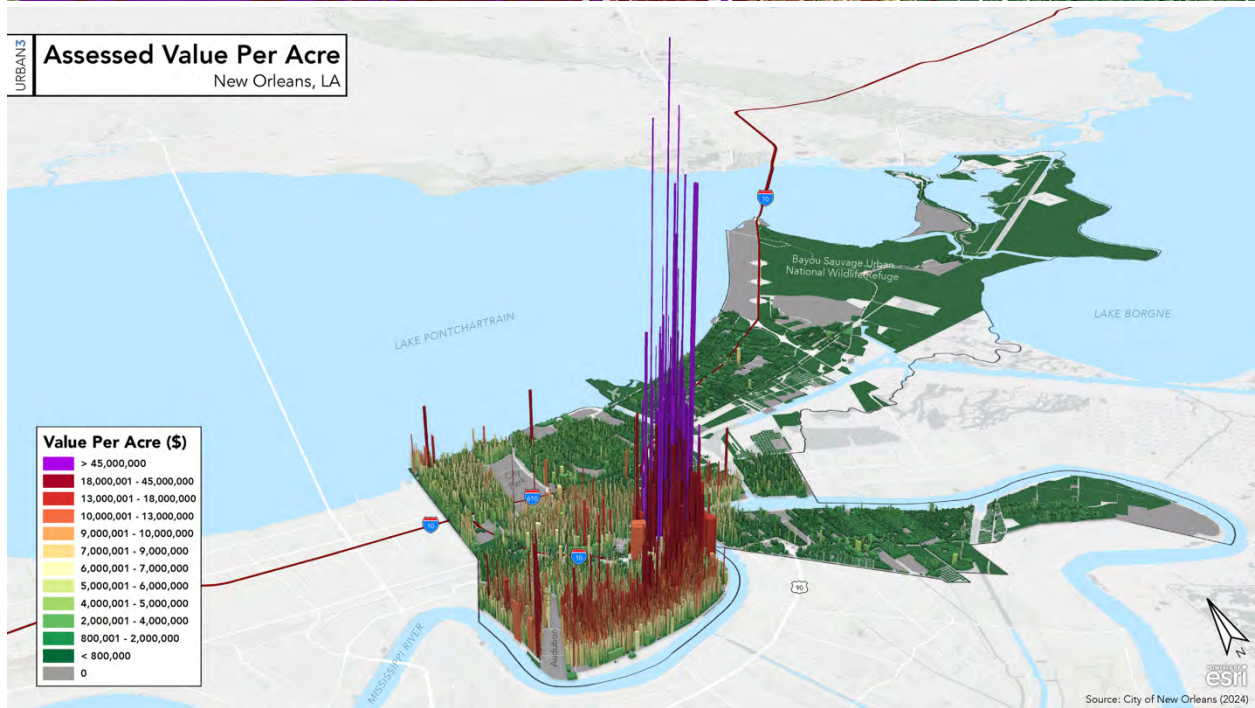
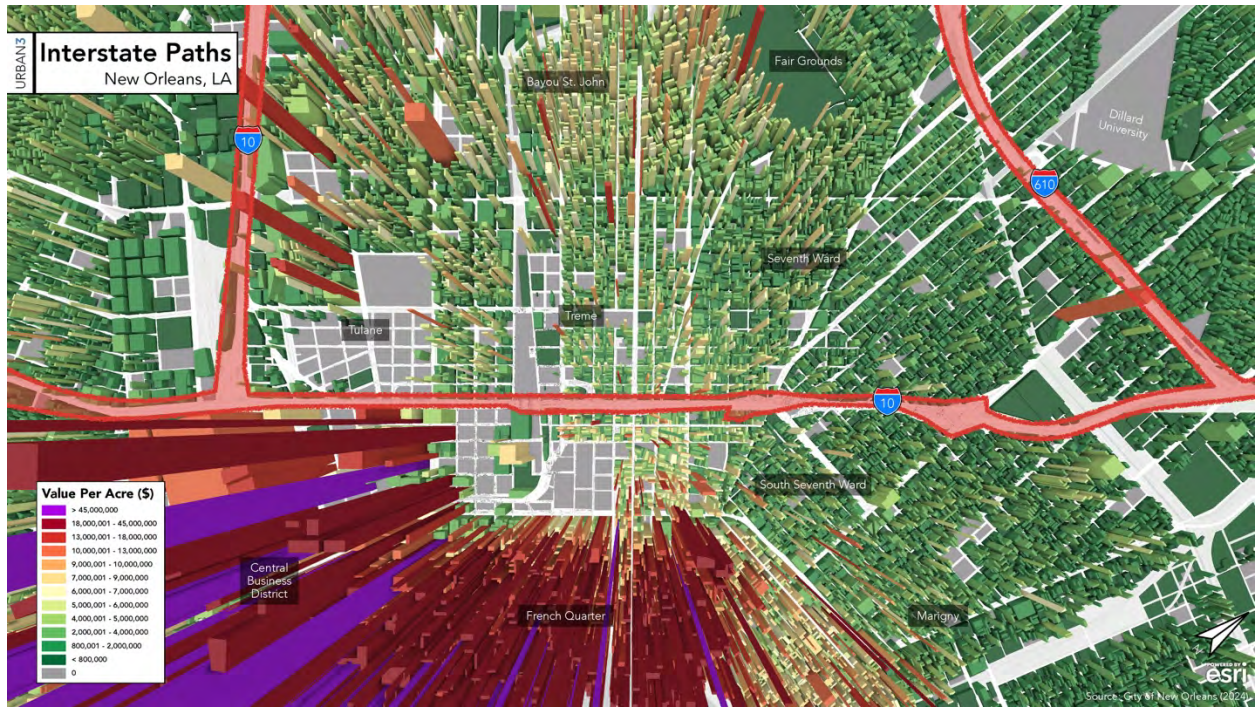
New Orleans, Louisiana

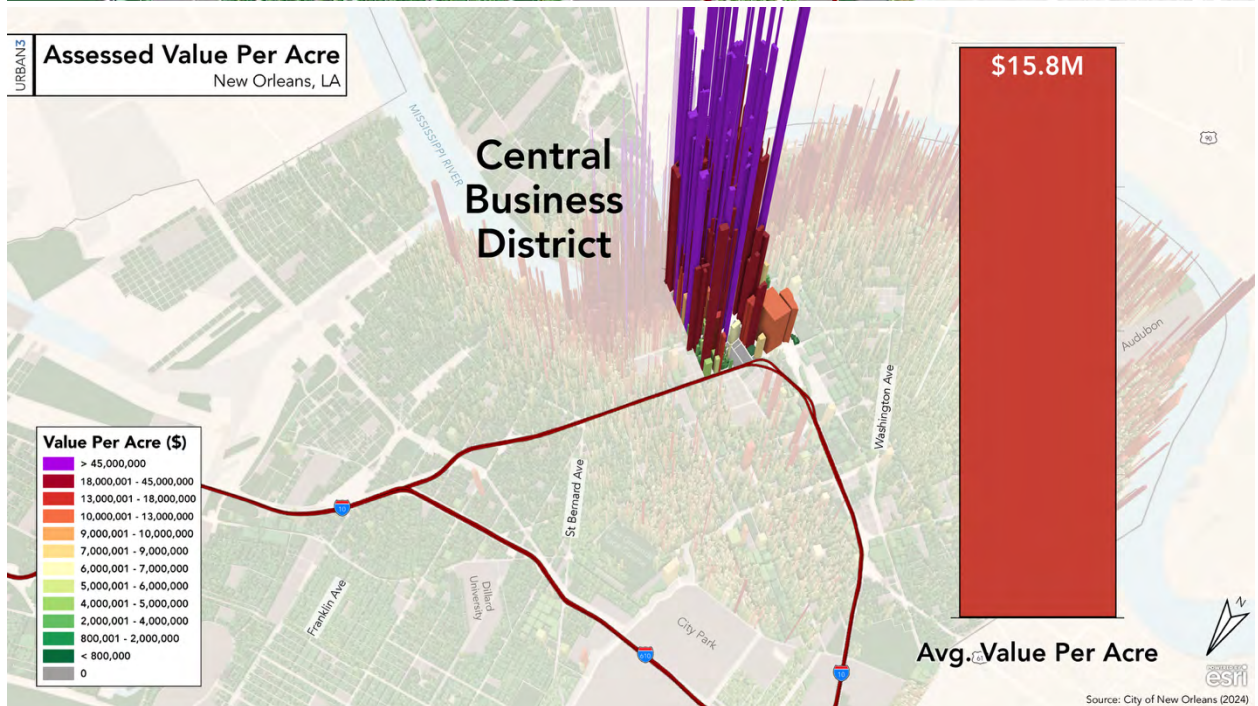
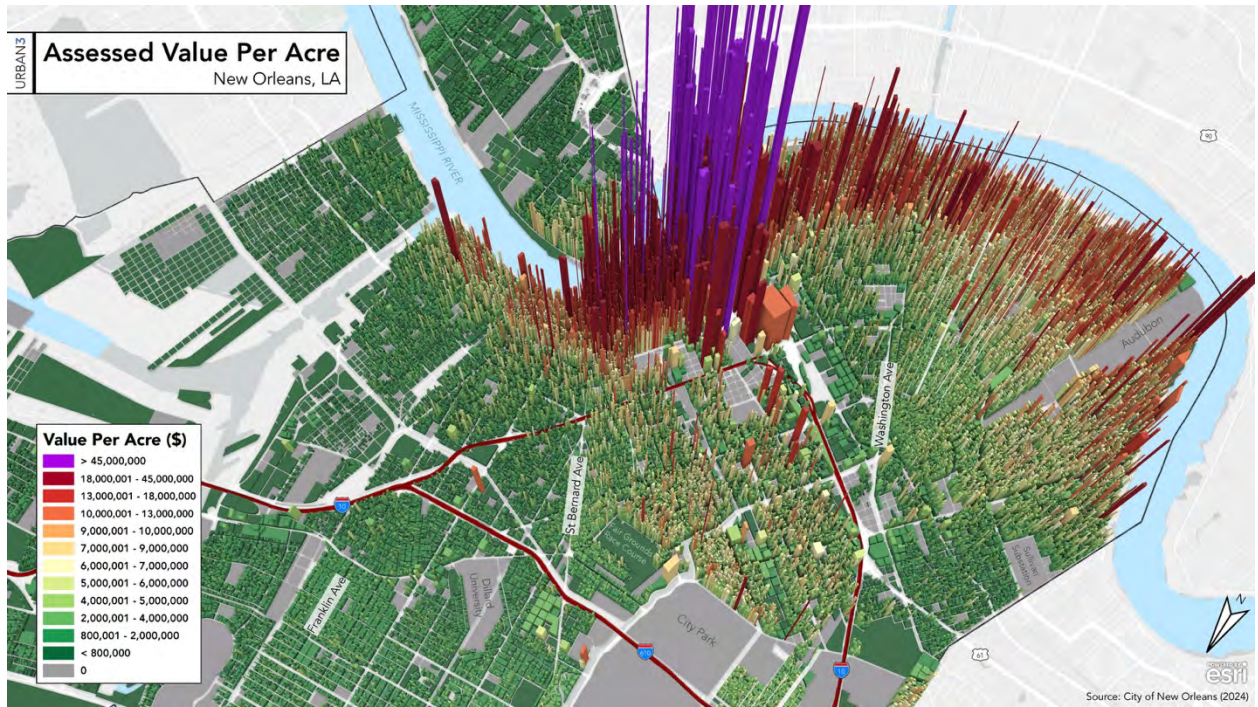
URBAN3

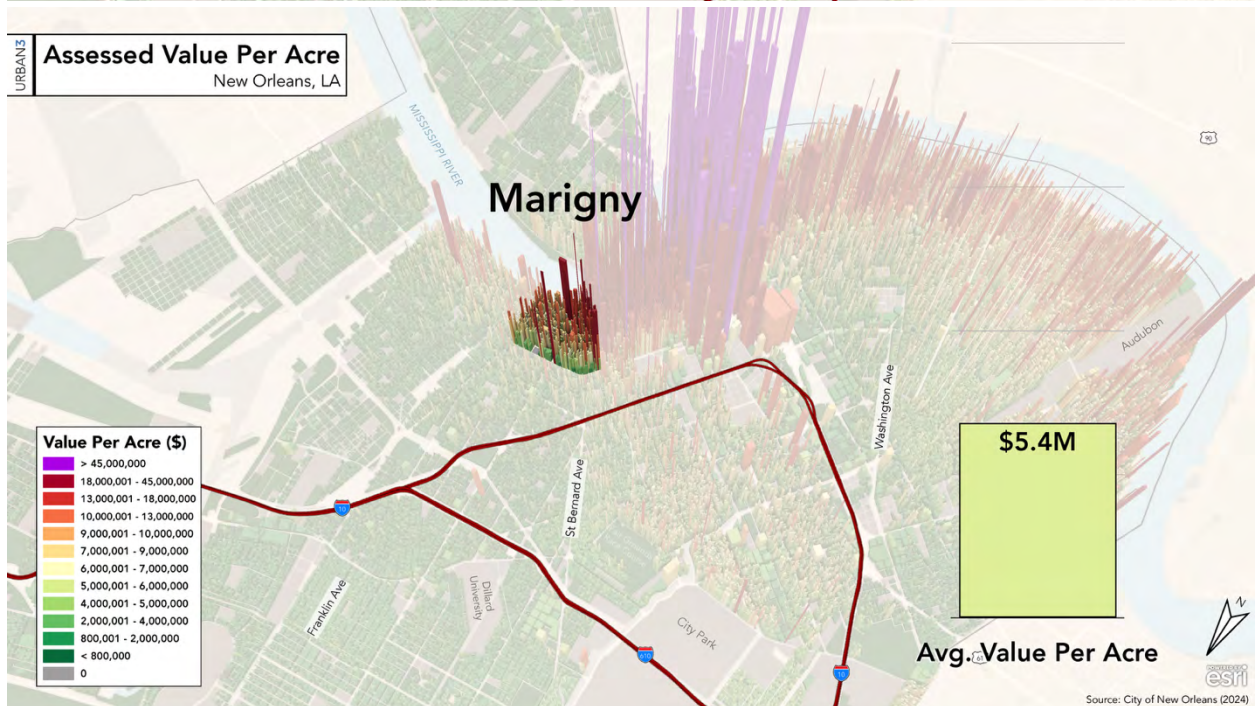
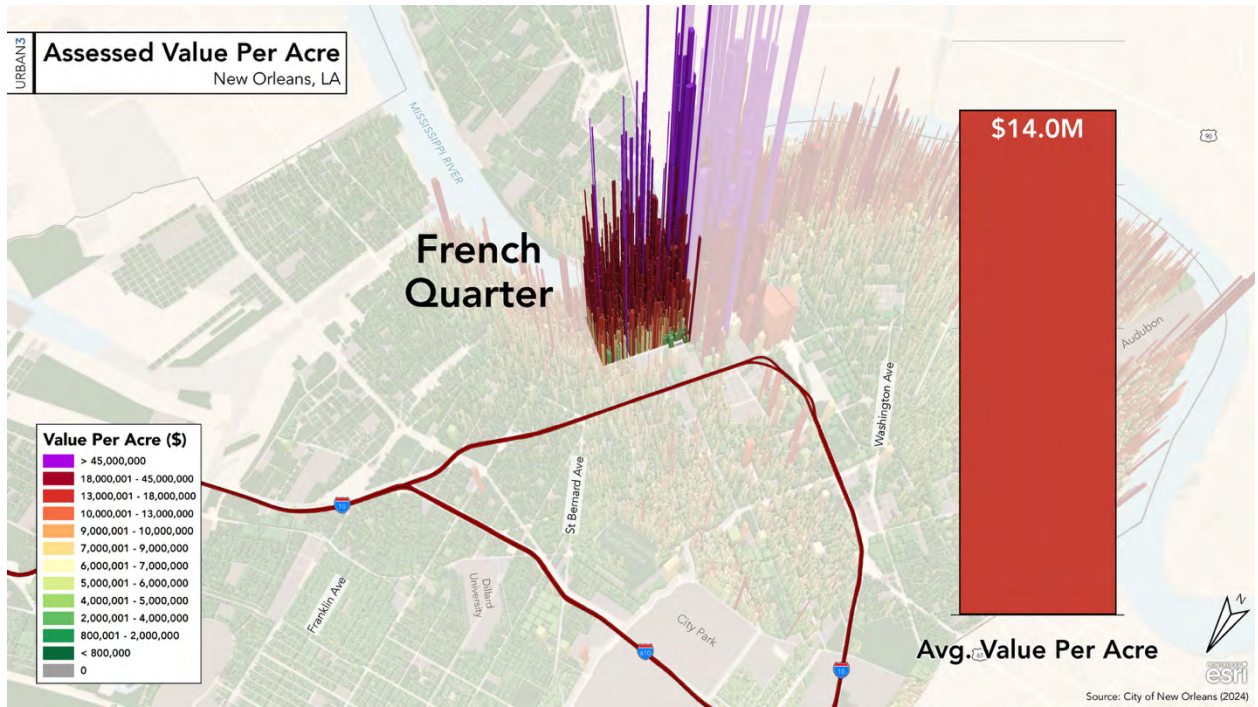


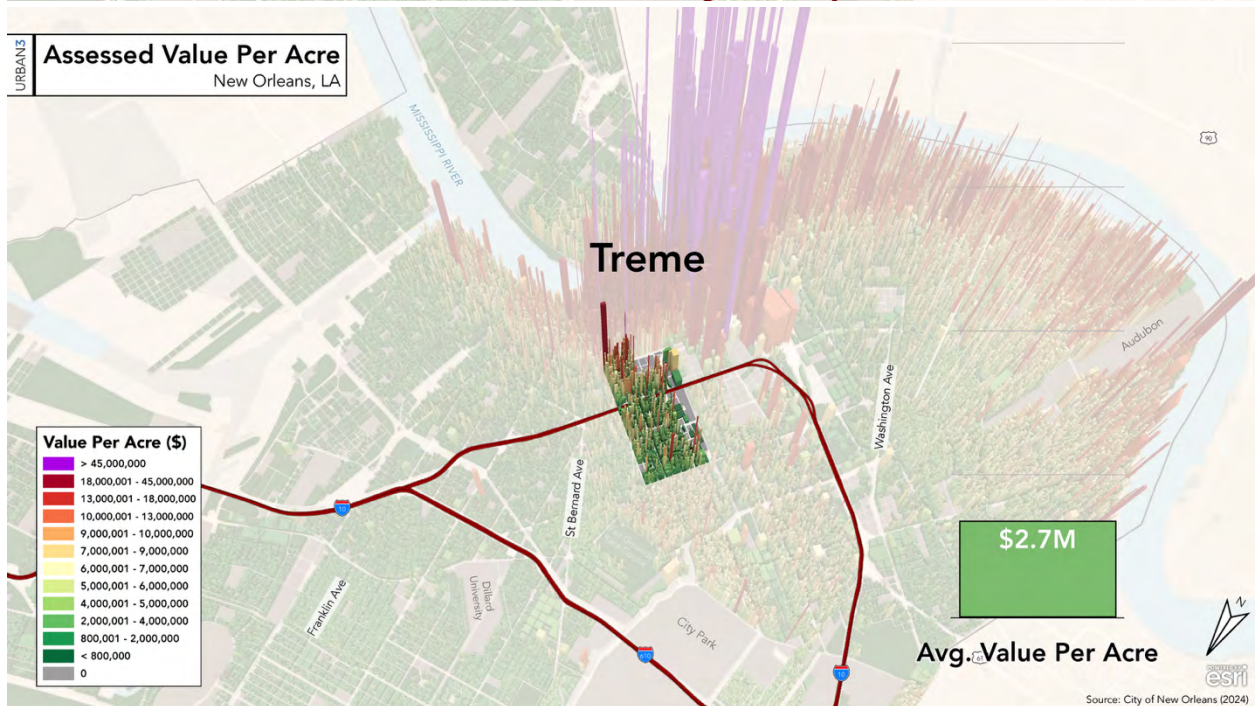
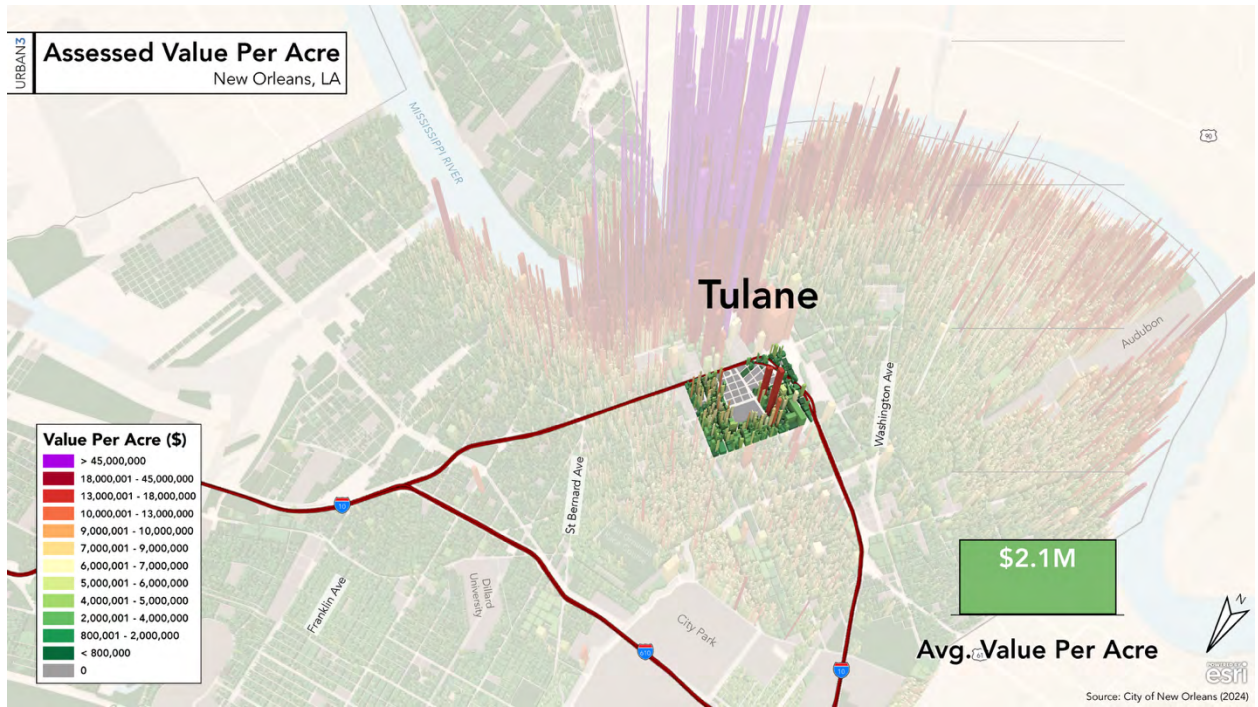


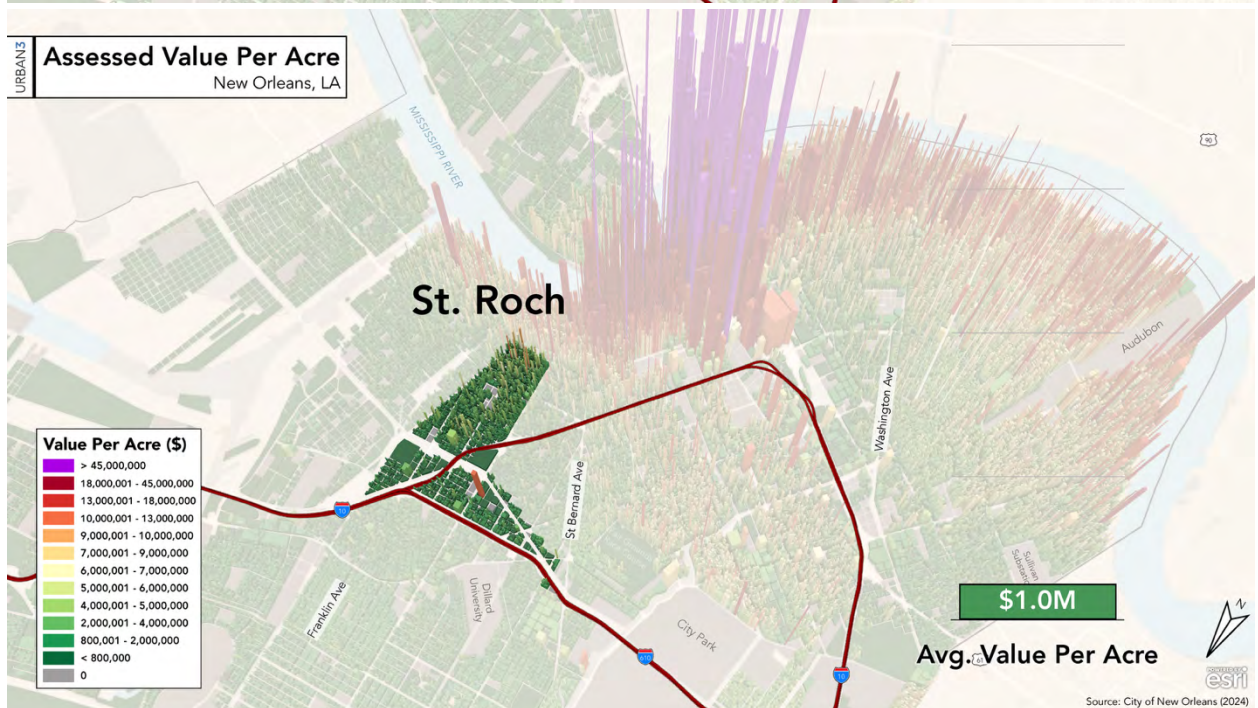
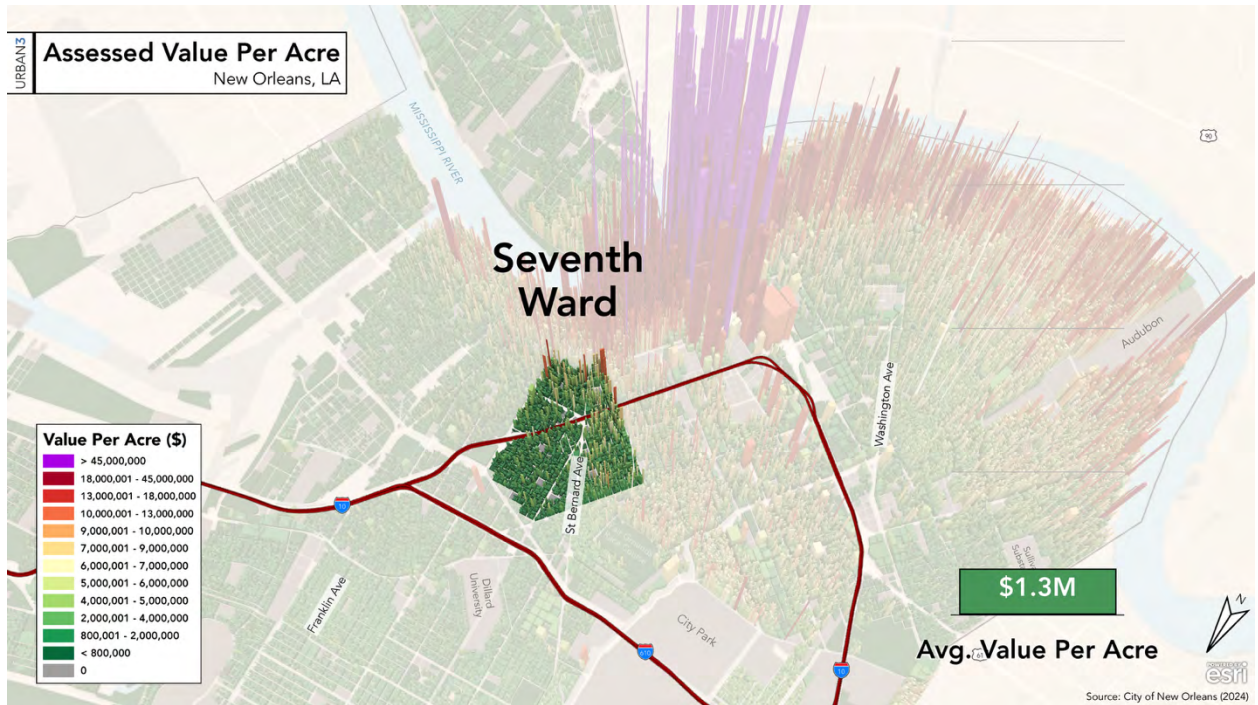


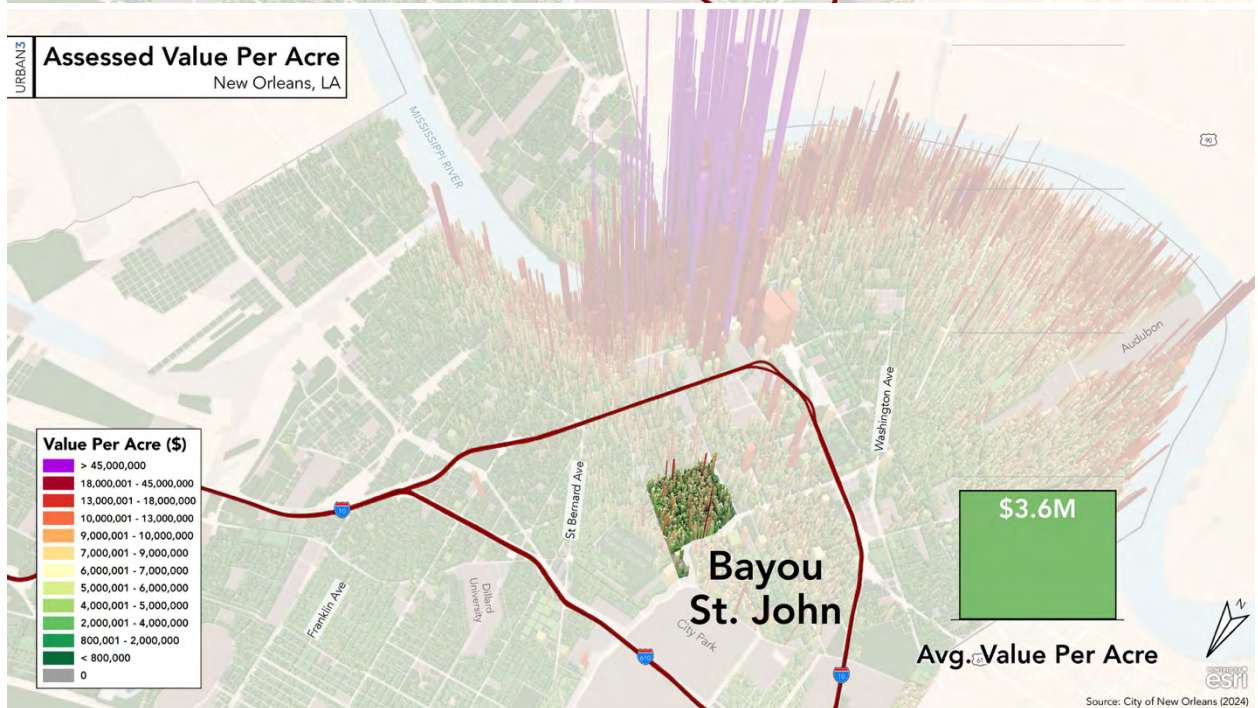
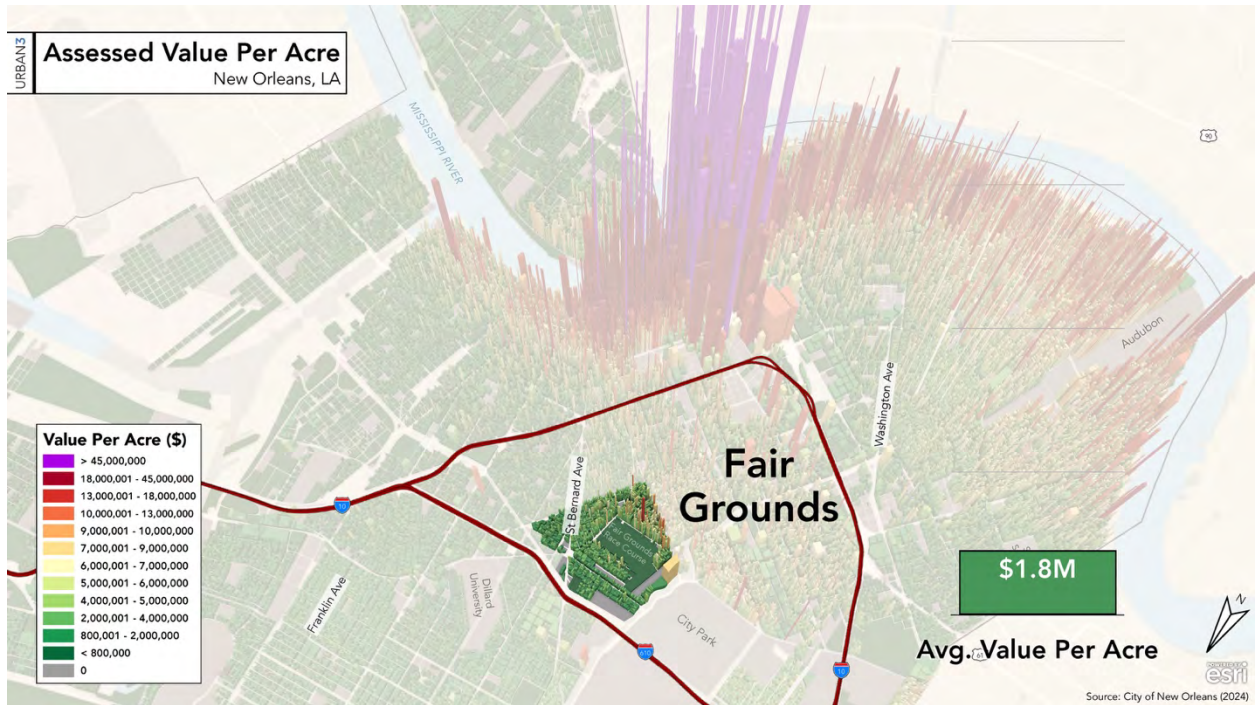


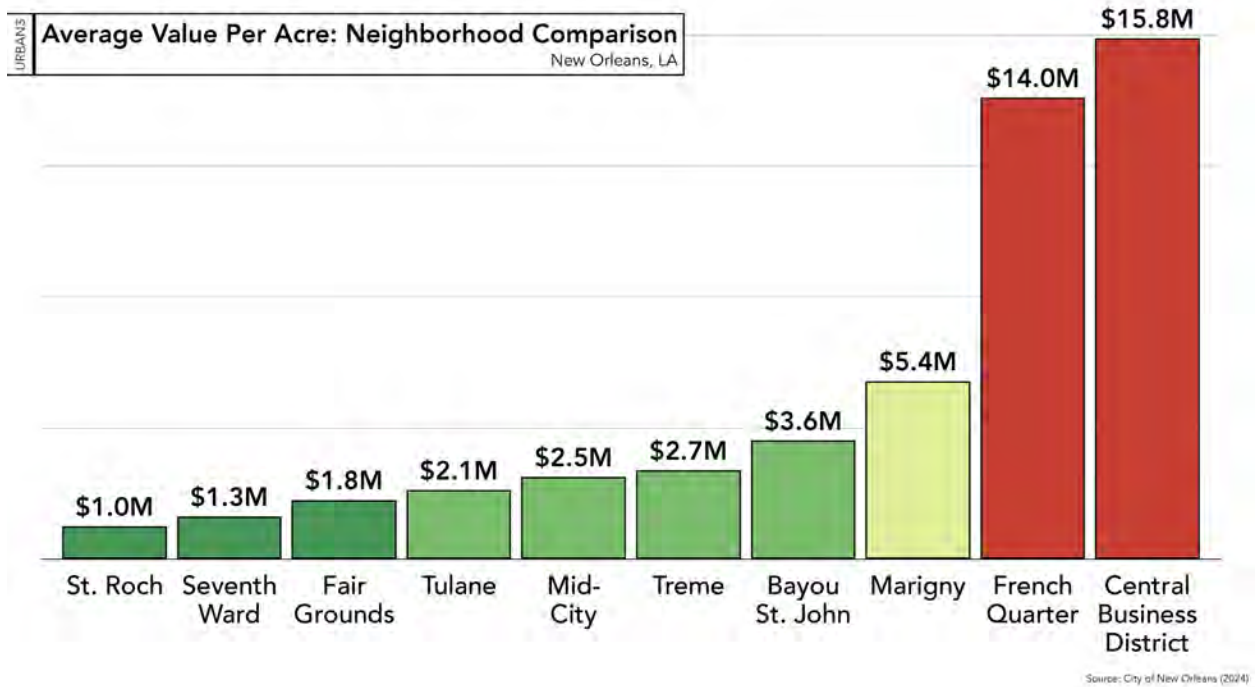
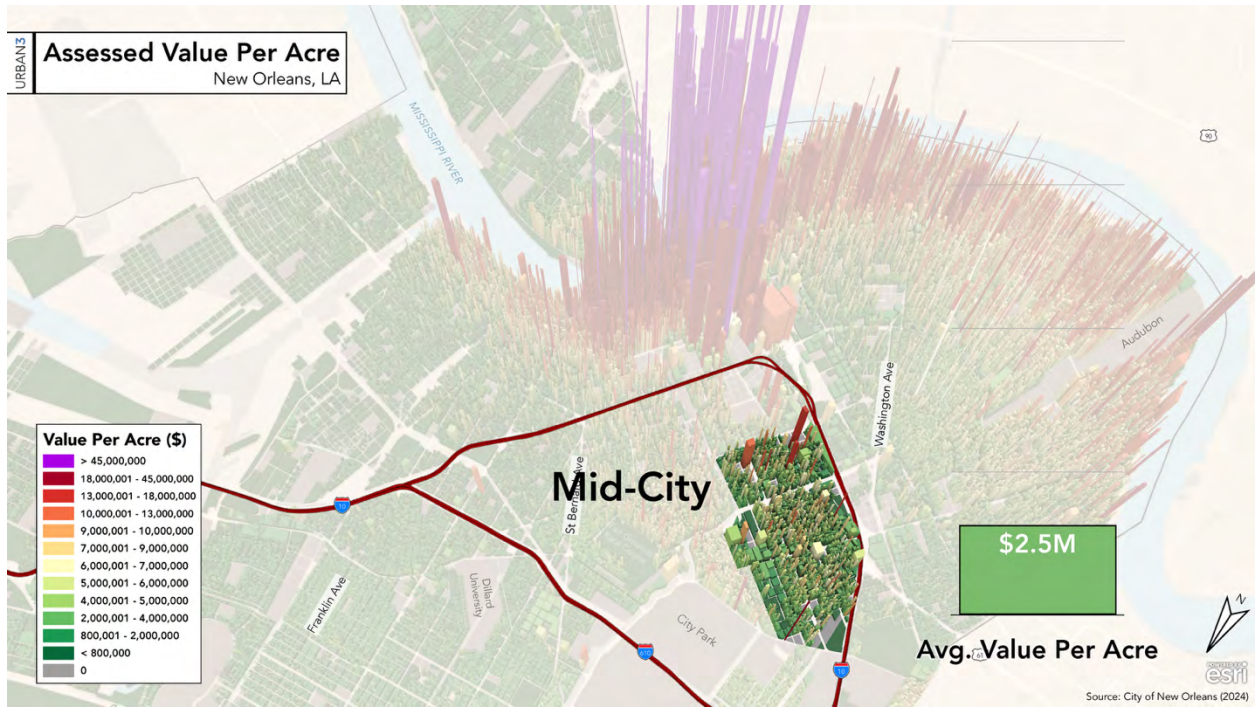


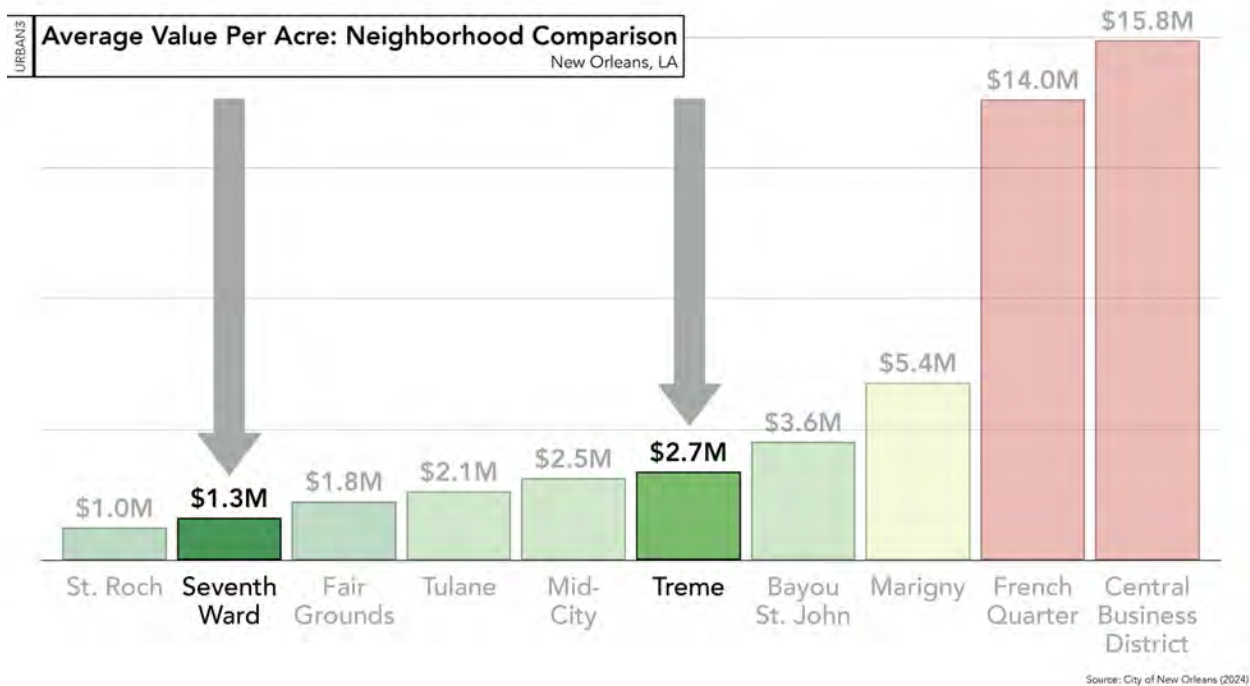






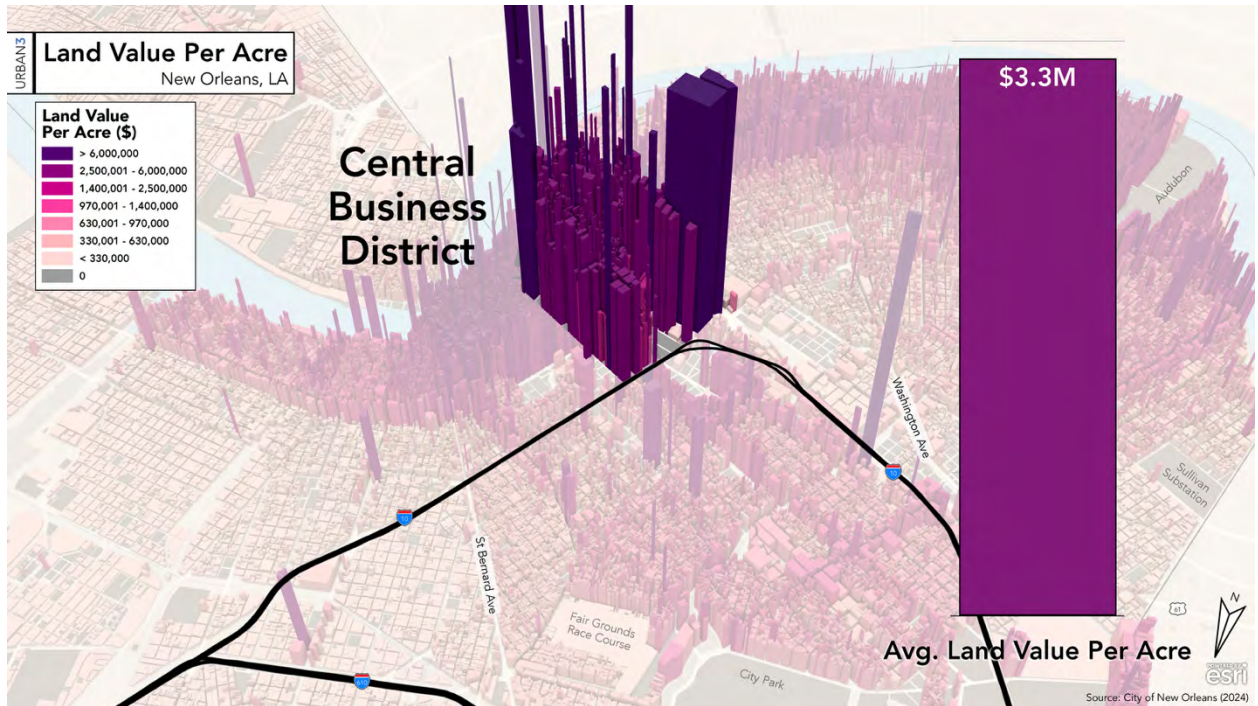
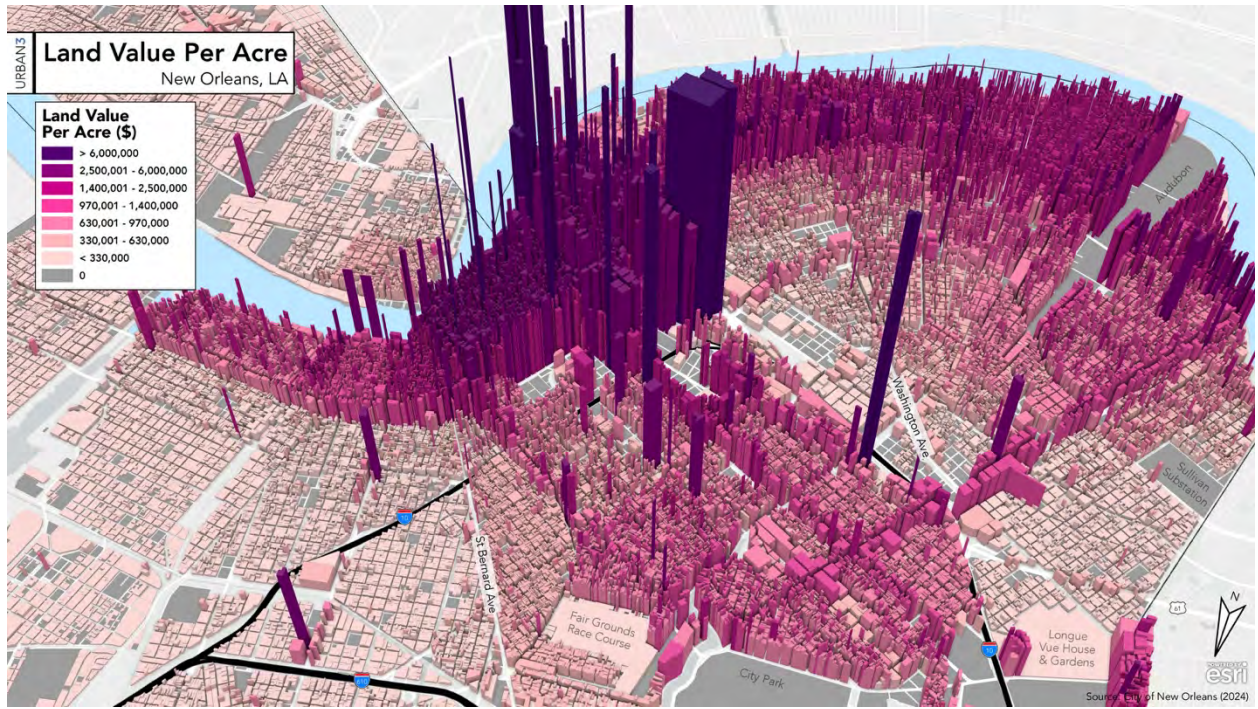


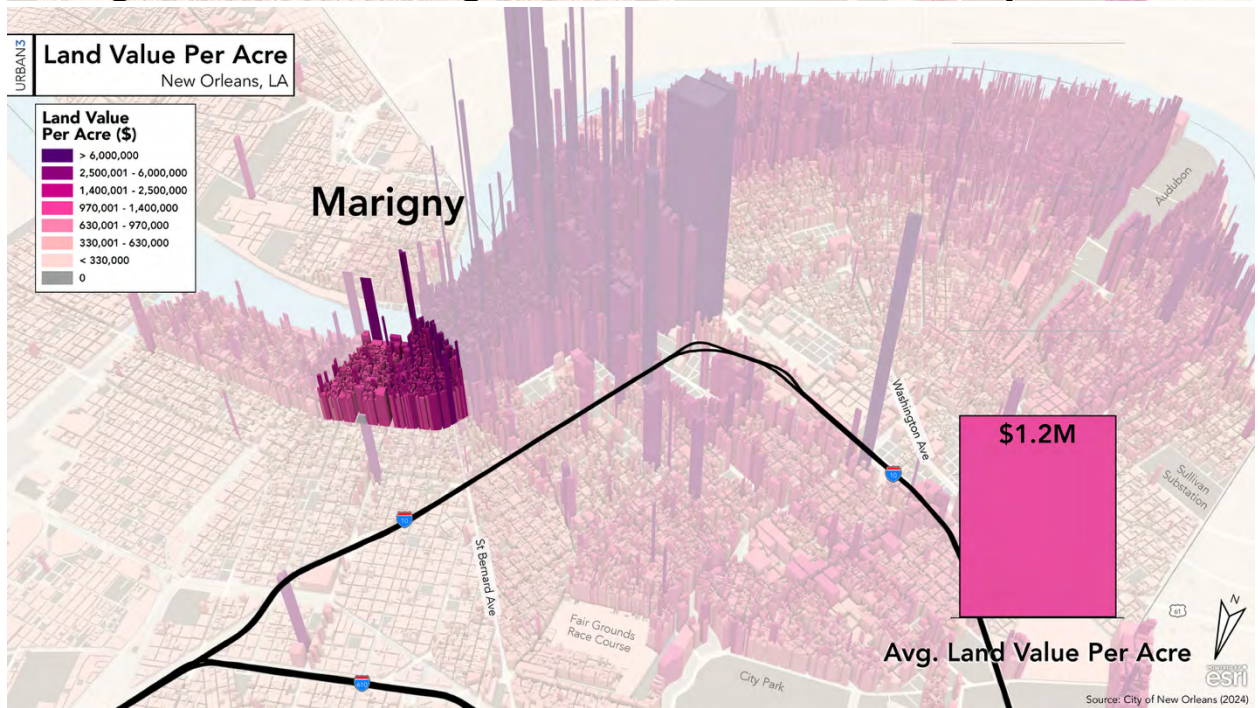
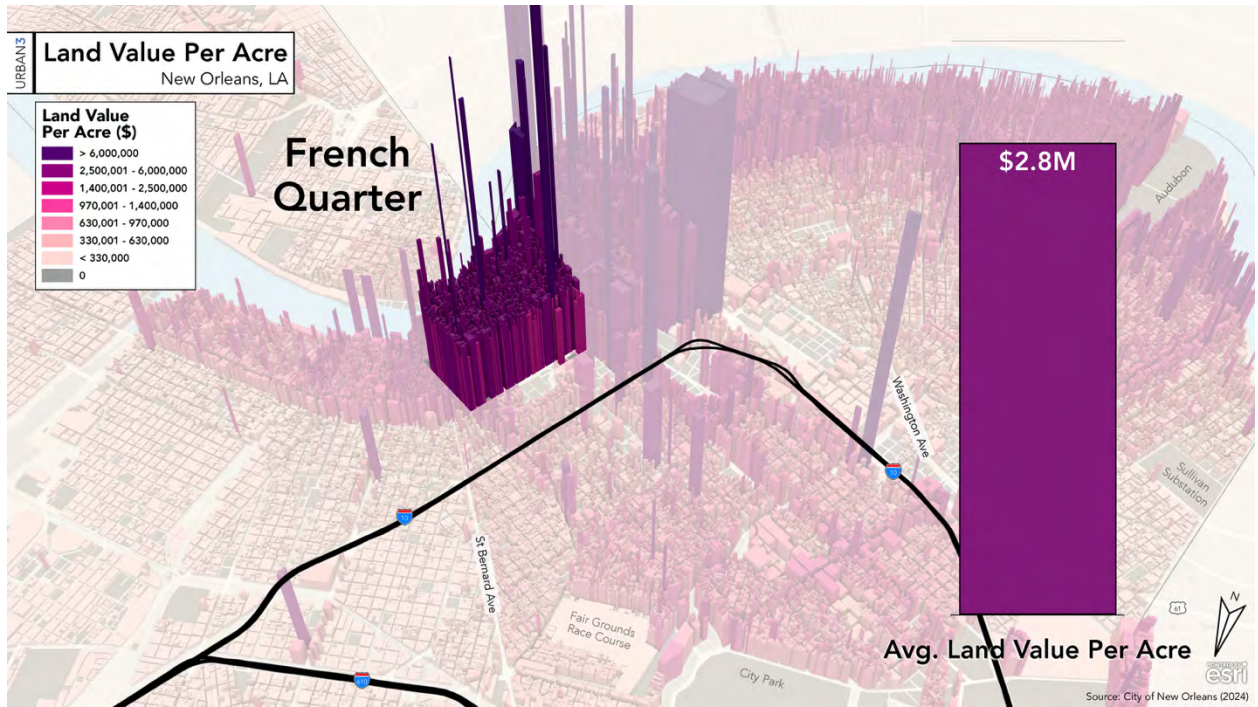


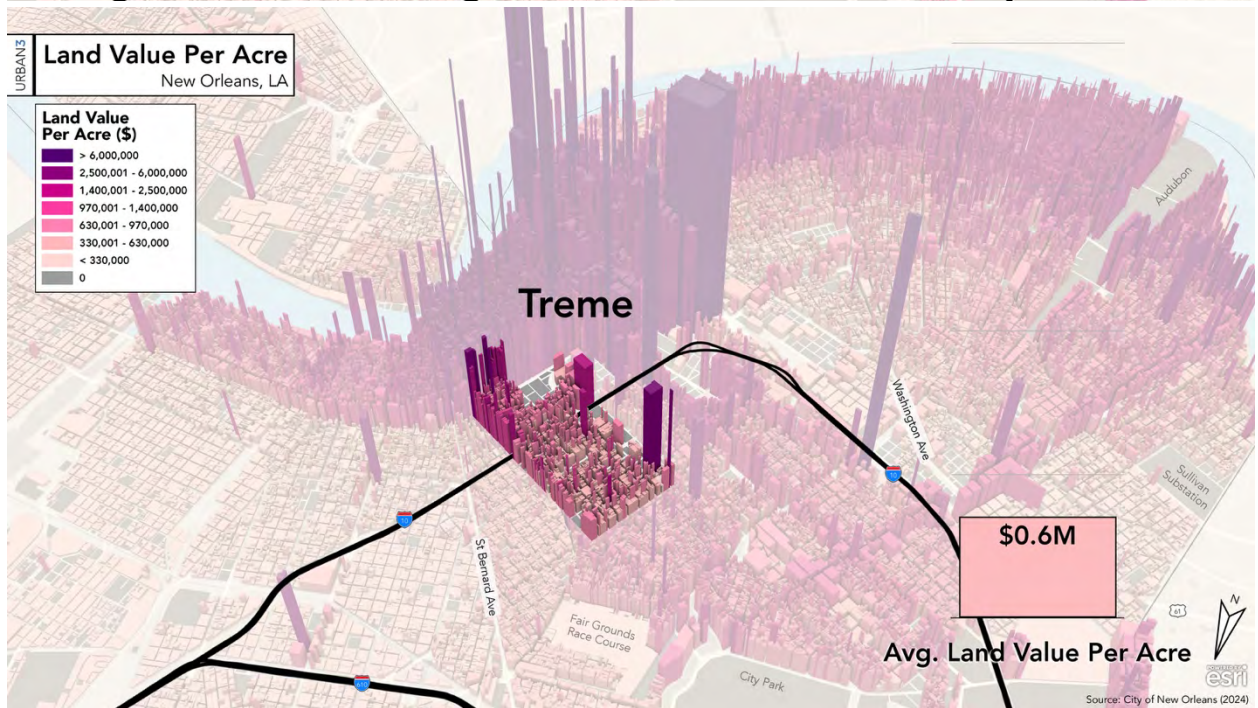
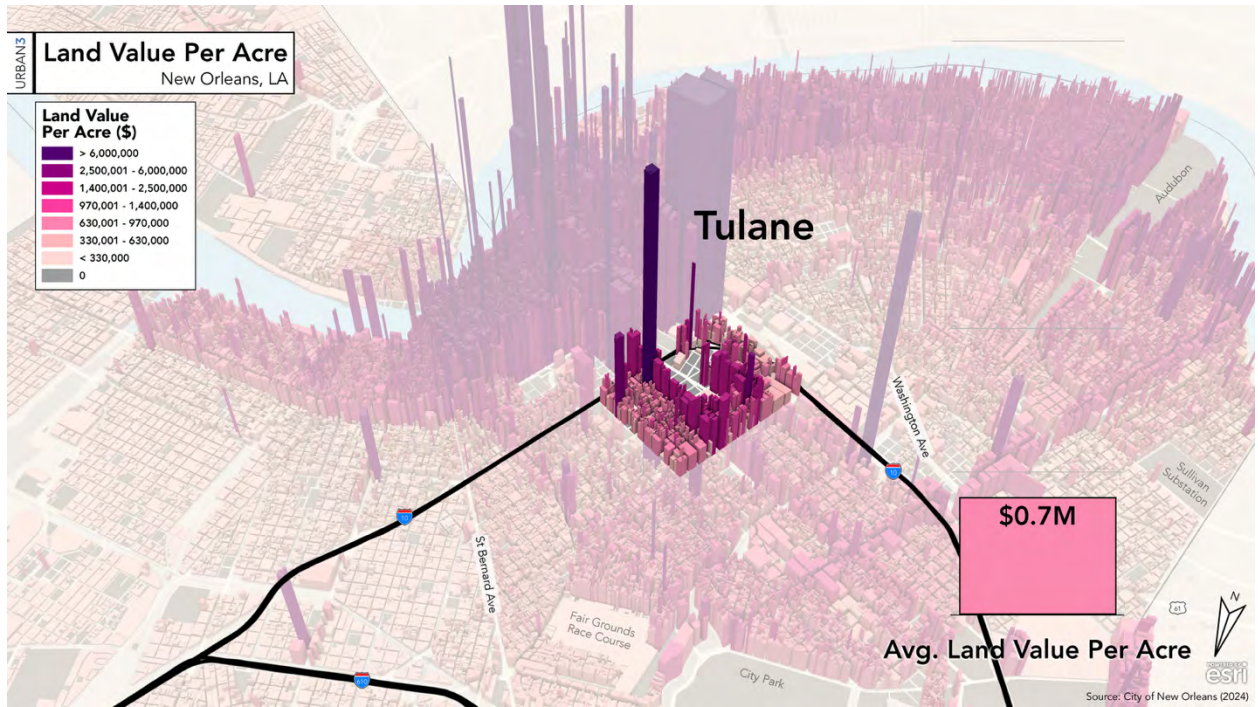


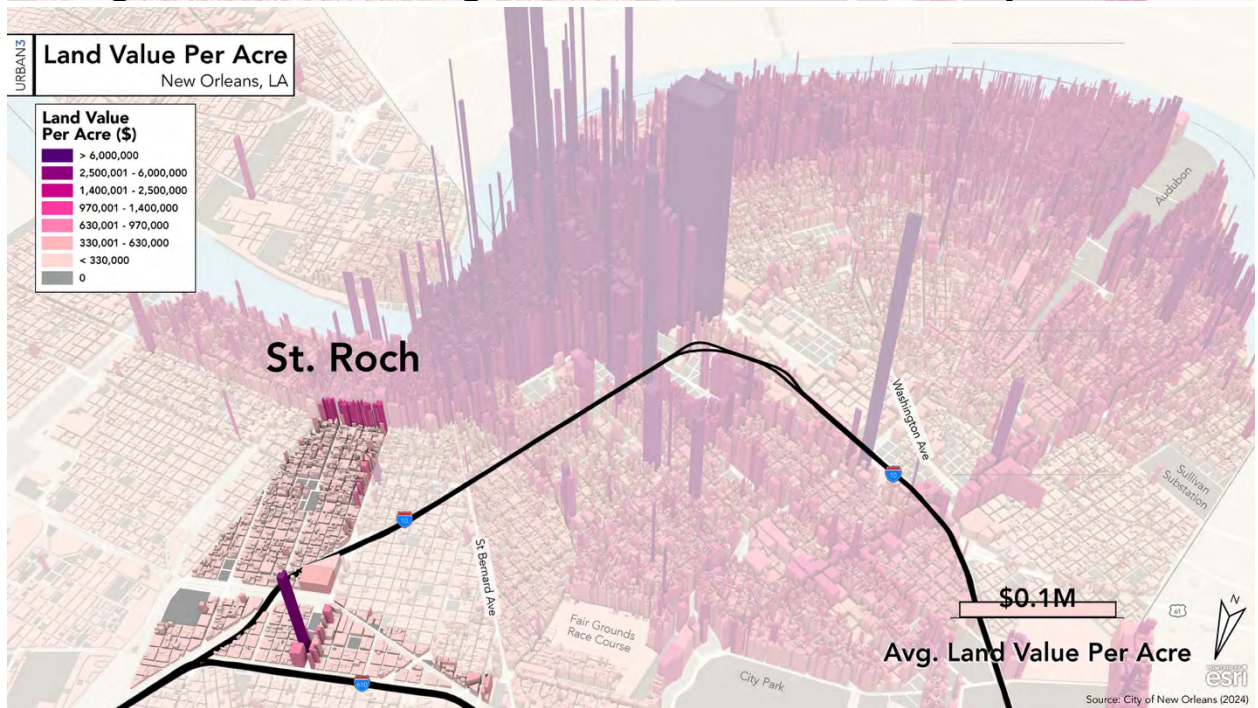
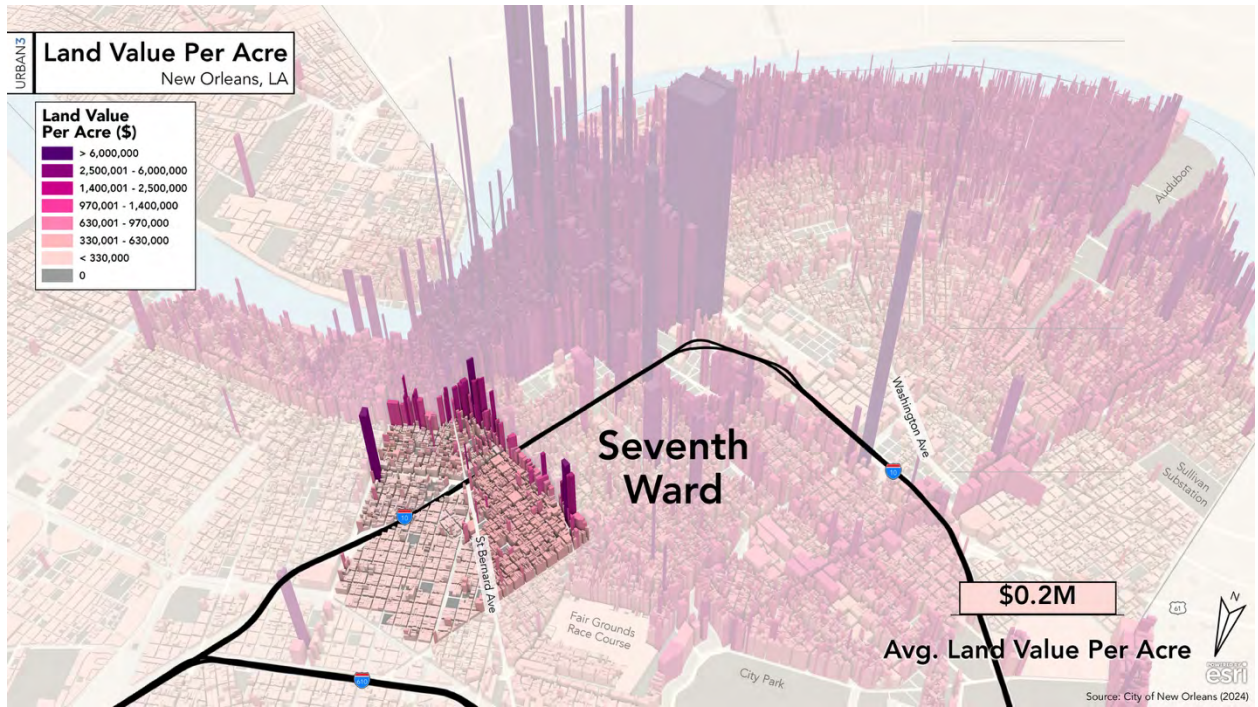
Land Value Per Acre

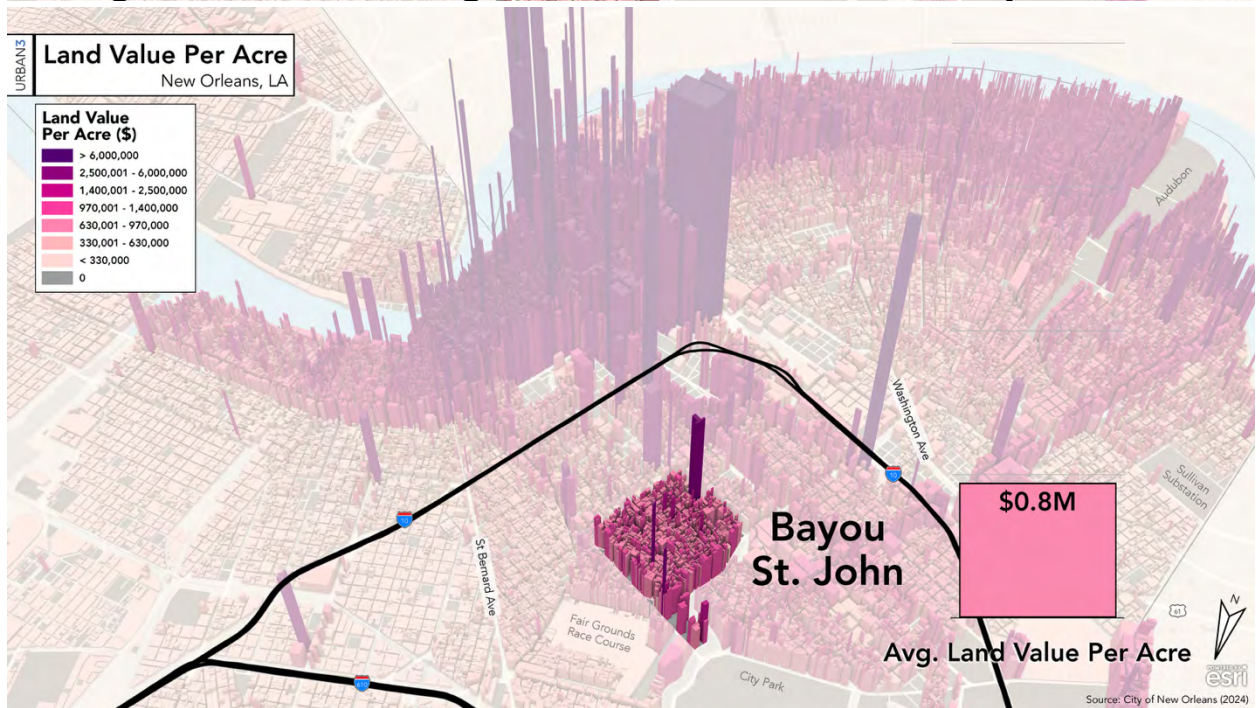
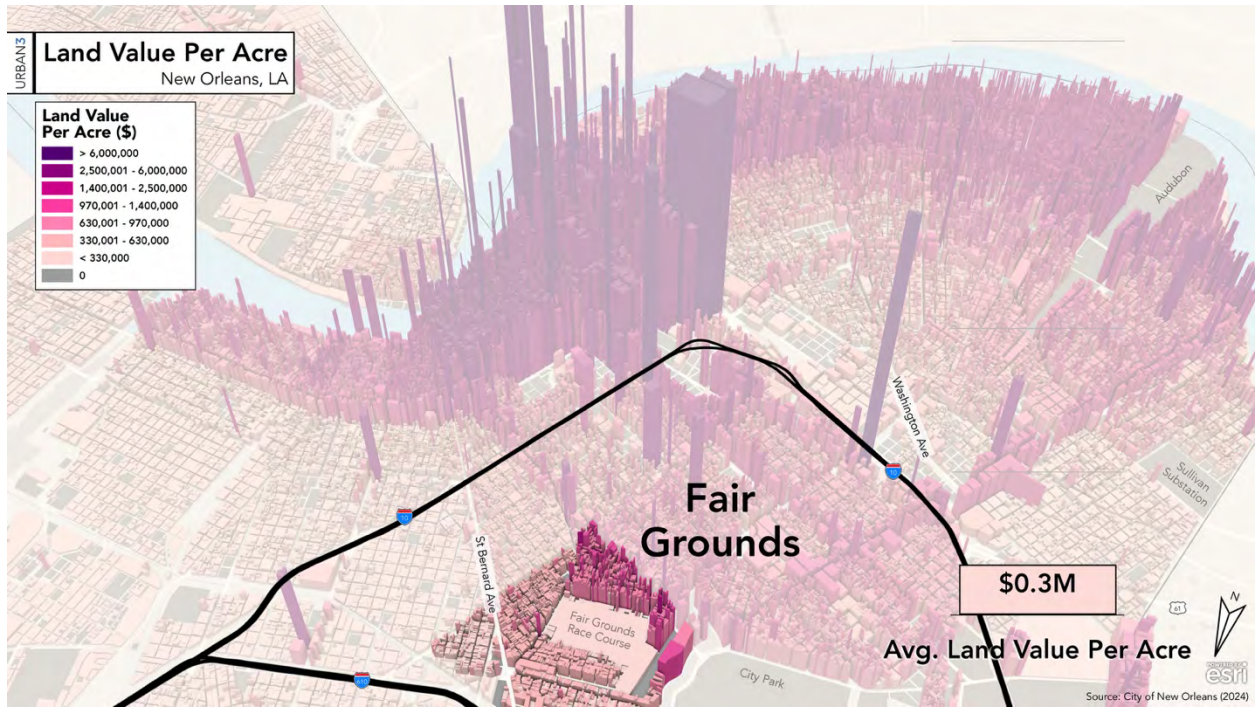
The Economics of Land Use

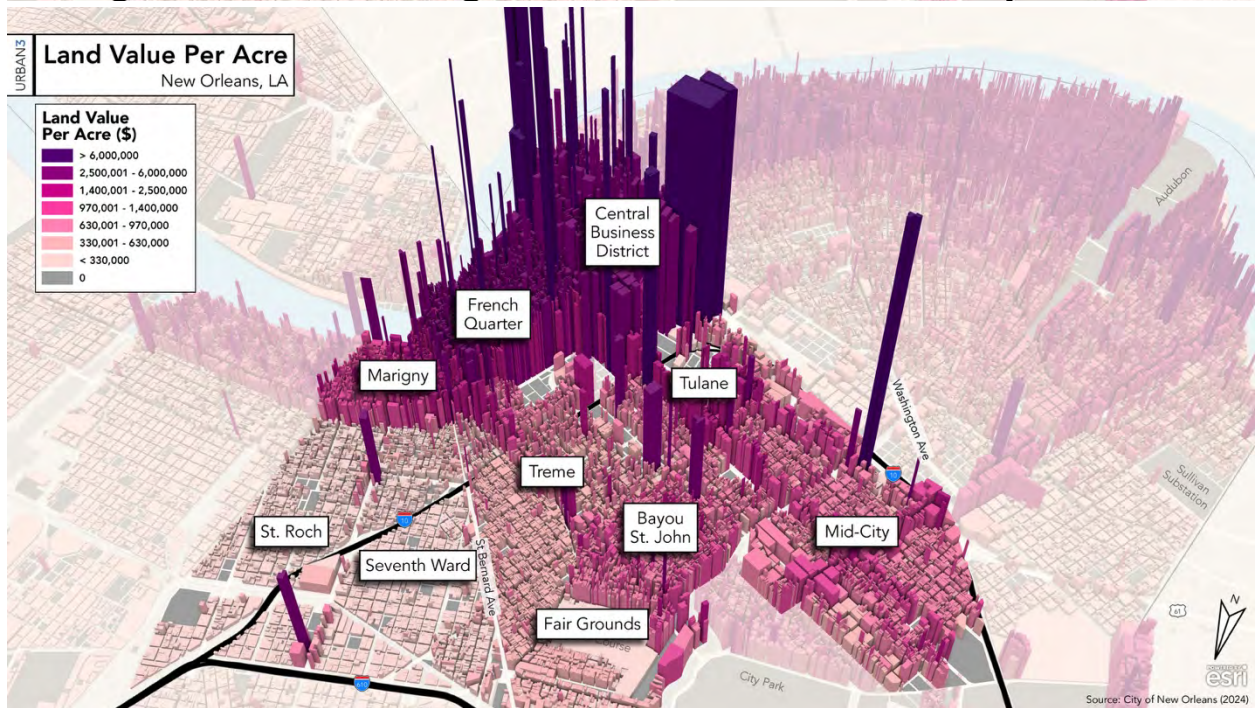
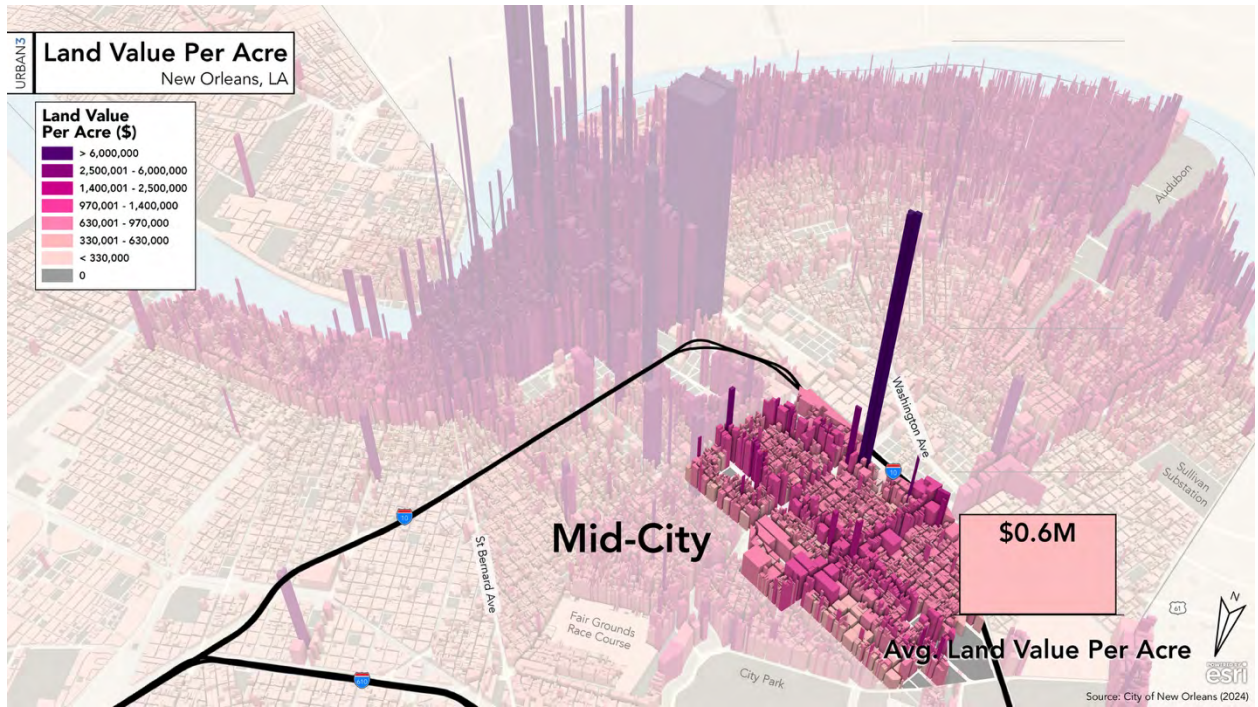




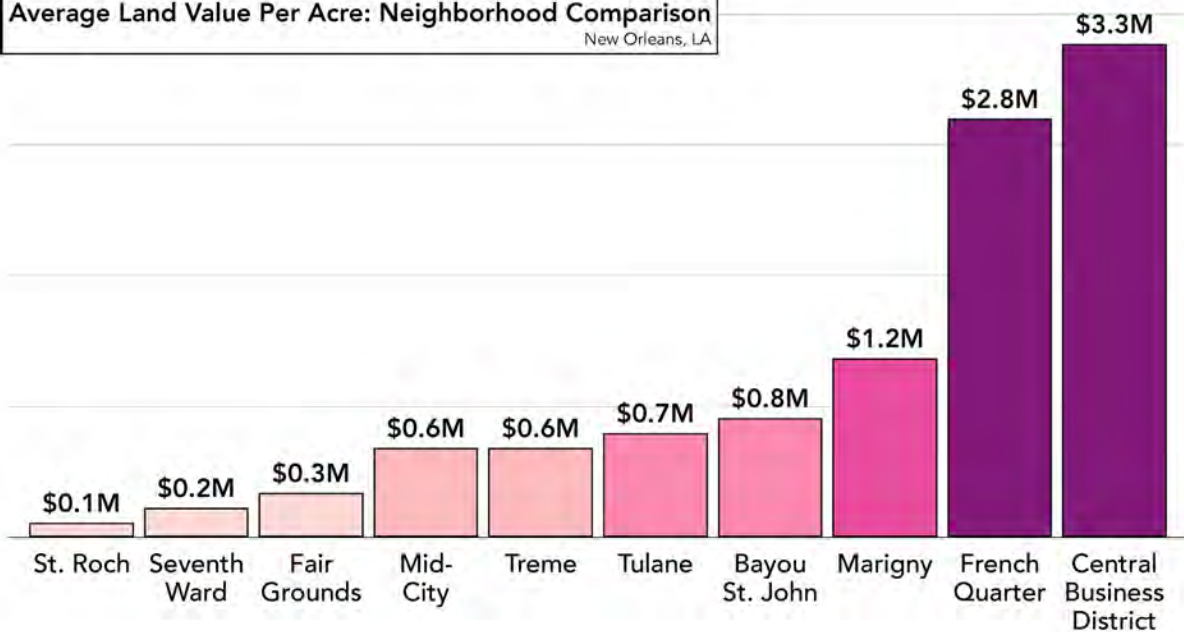






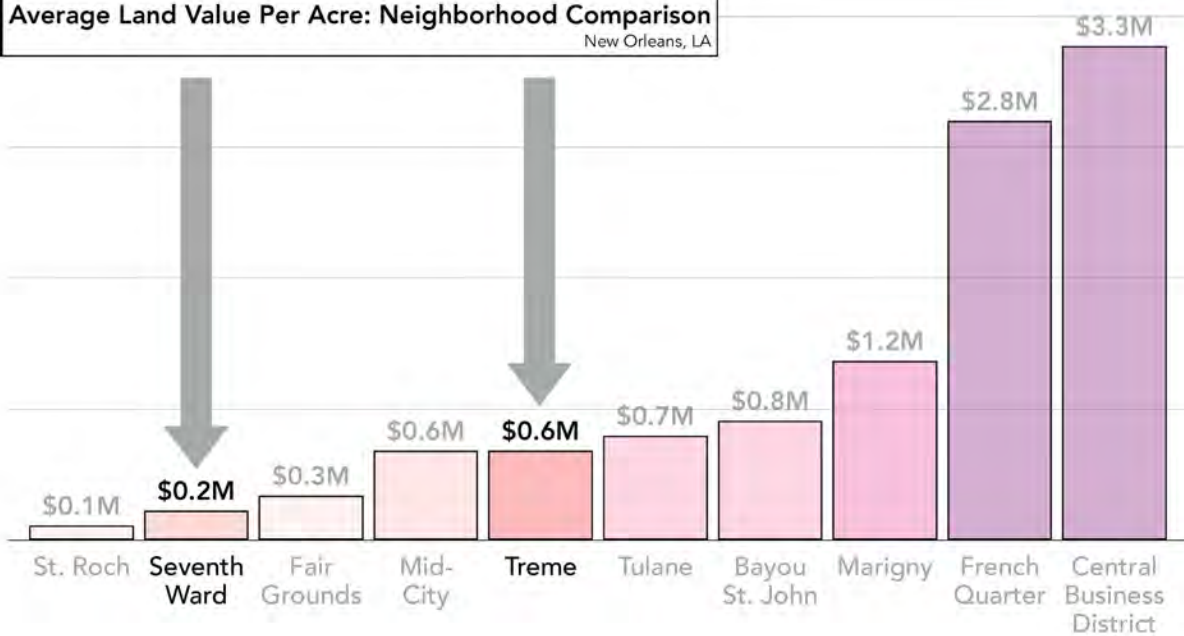


URBANS
Average Land Value Per Acre: Neighborhood Comparison
New Orleans, LA



Source: City of New Orleans (2024)

URBANS
Average Land Value Per Acre: Neighborhood Comparison
New Orleans, LA



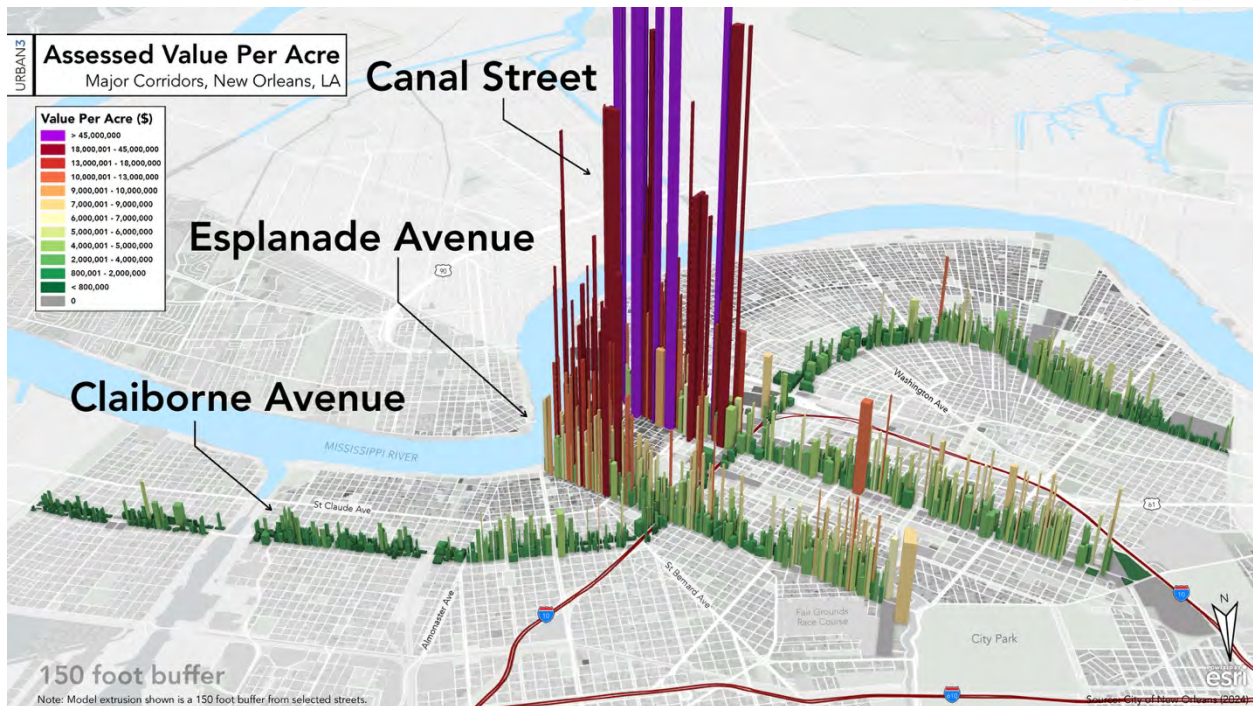
Source: City of New Orleans (2024)

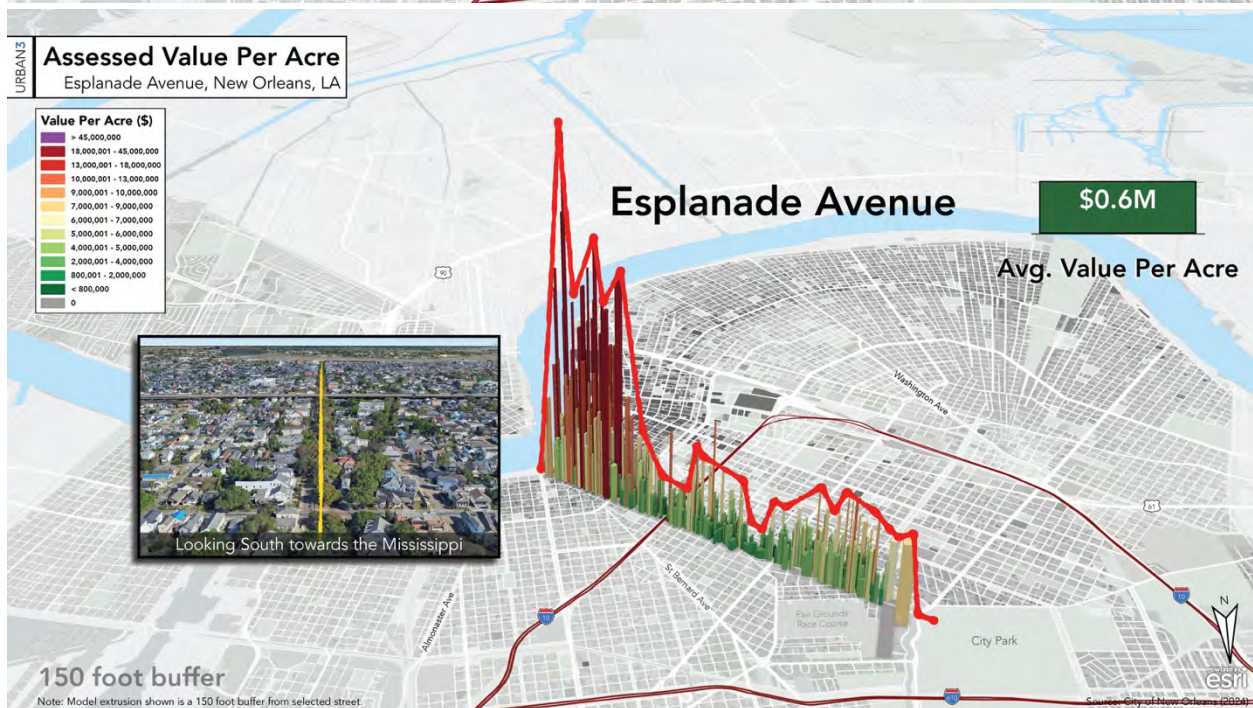
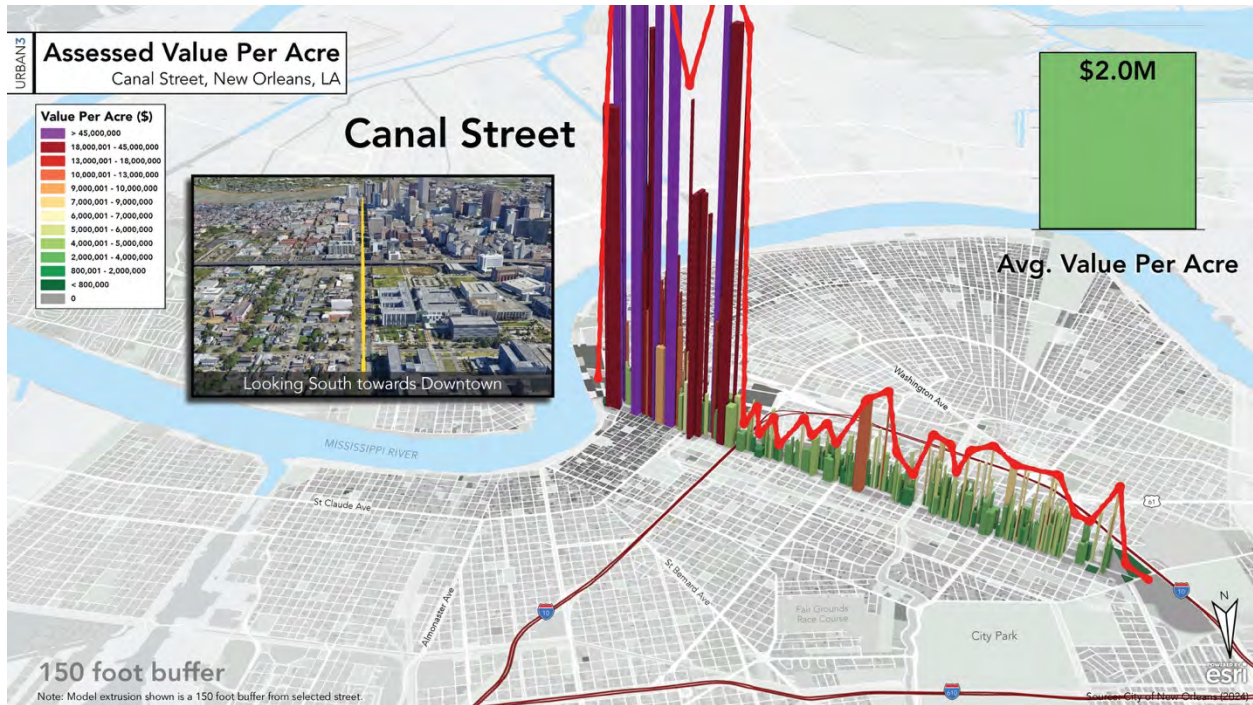


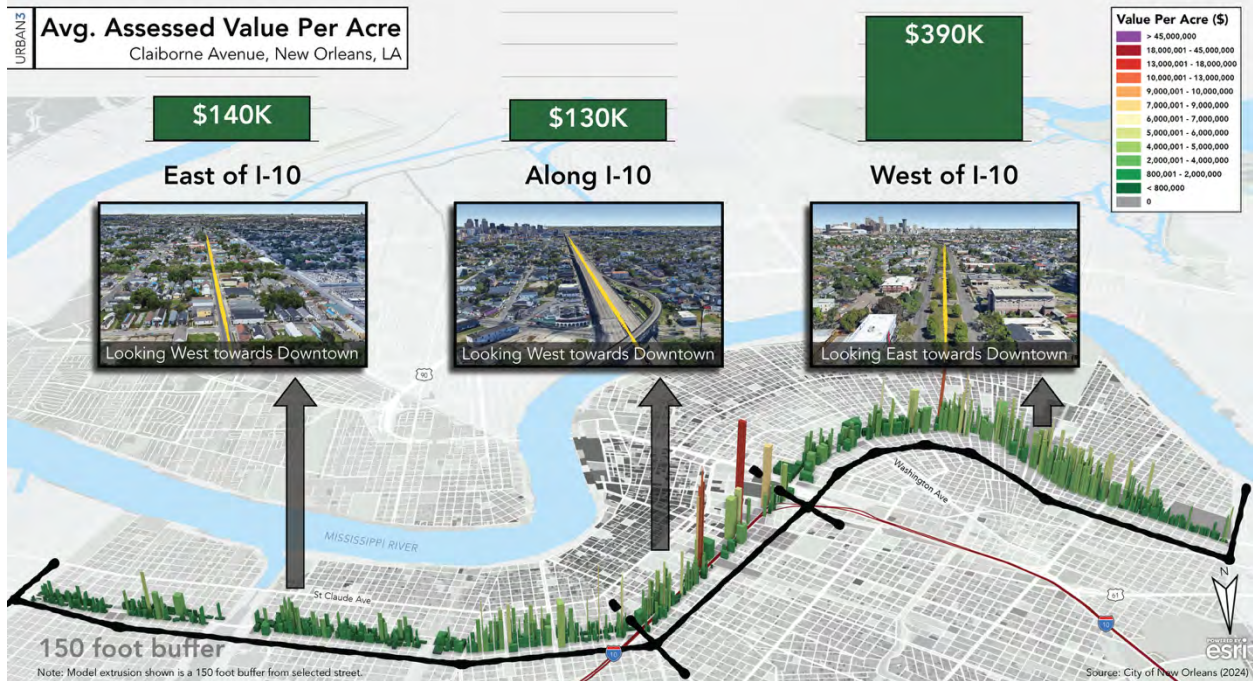
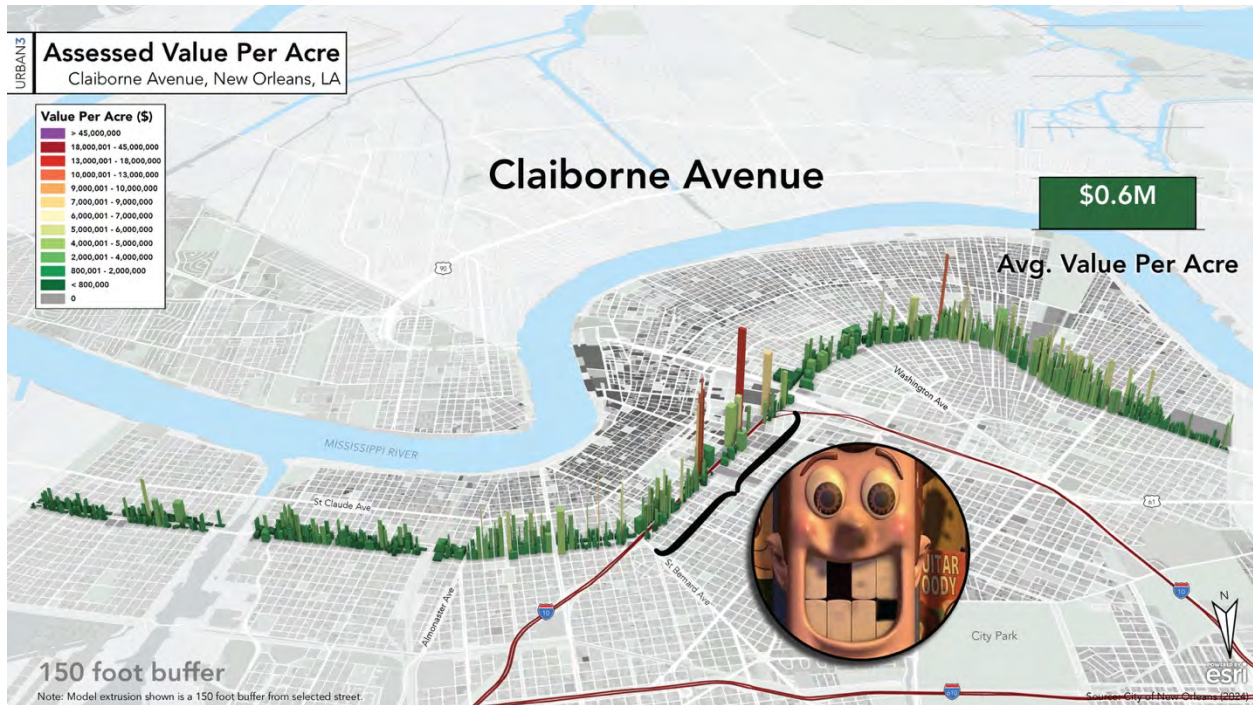
Corridor Analysis

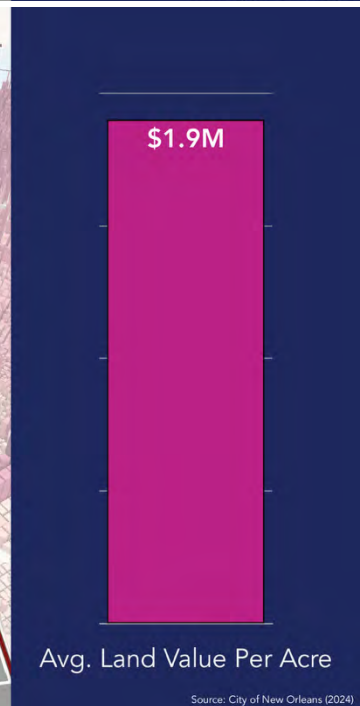
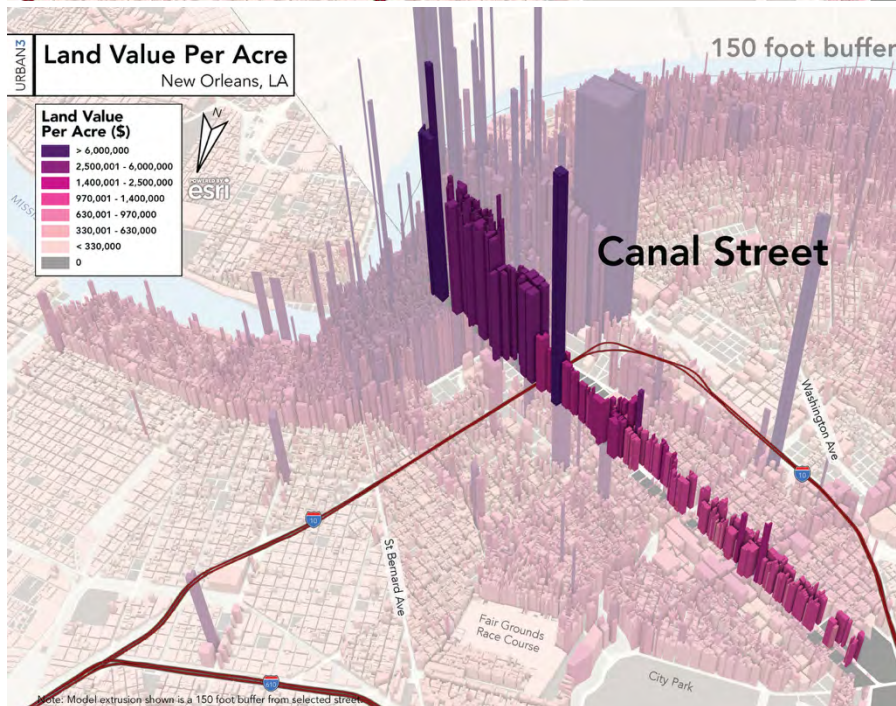
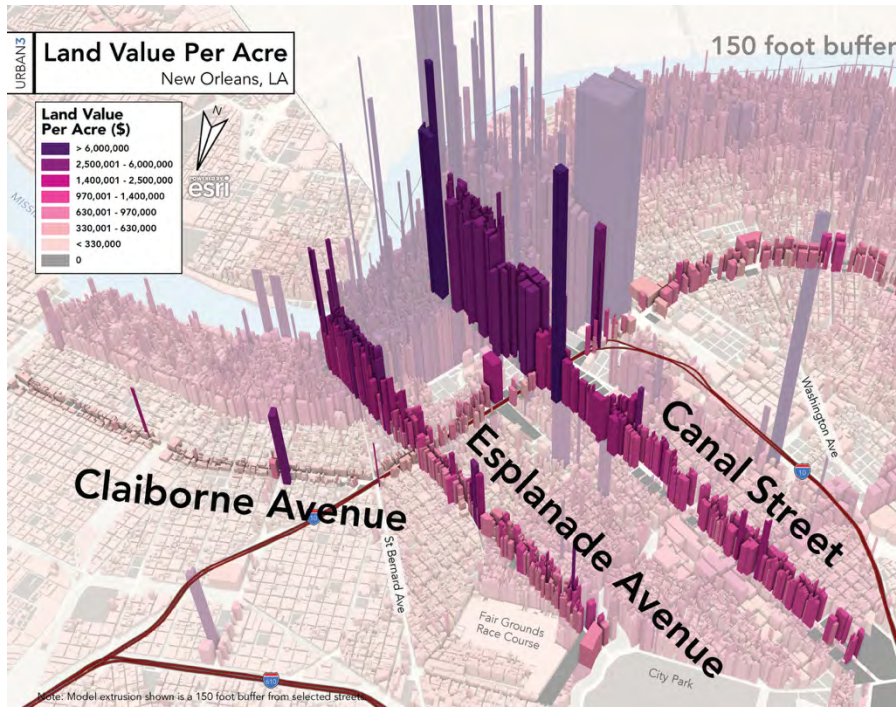
Comparing Values of Canal Street, Esplanade Avenue, and Claiborne Avenue

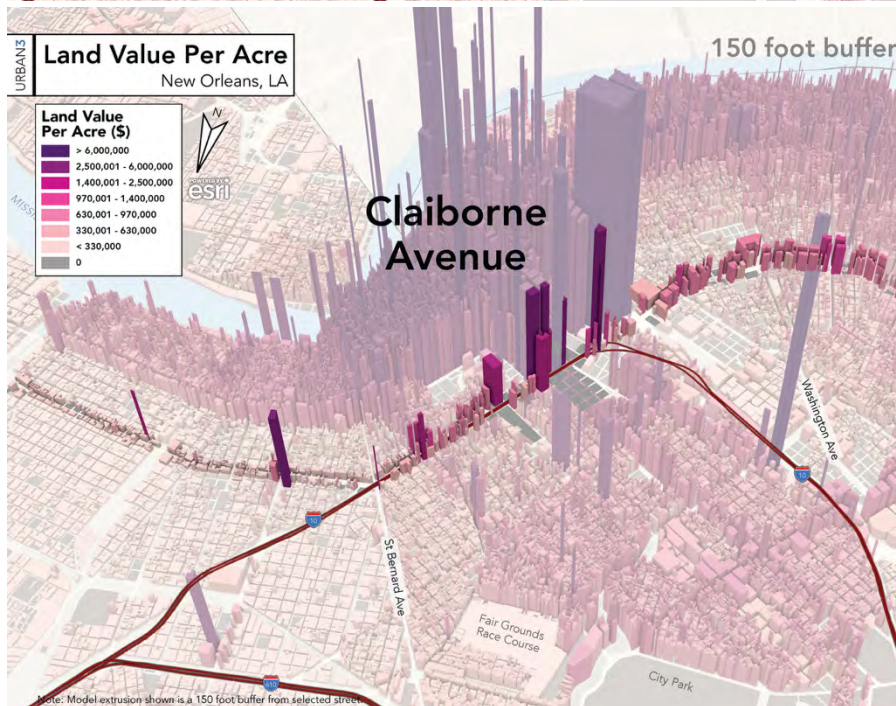
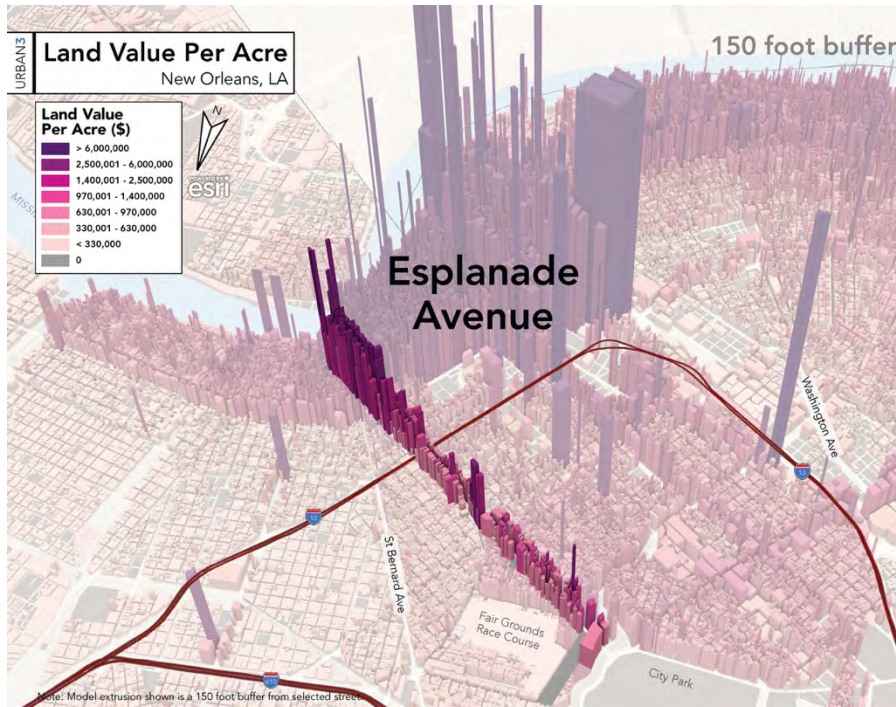
URBAN3

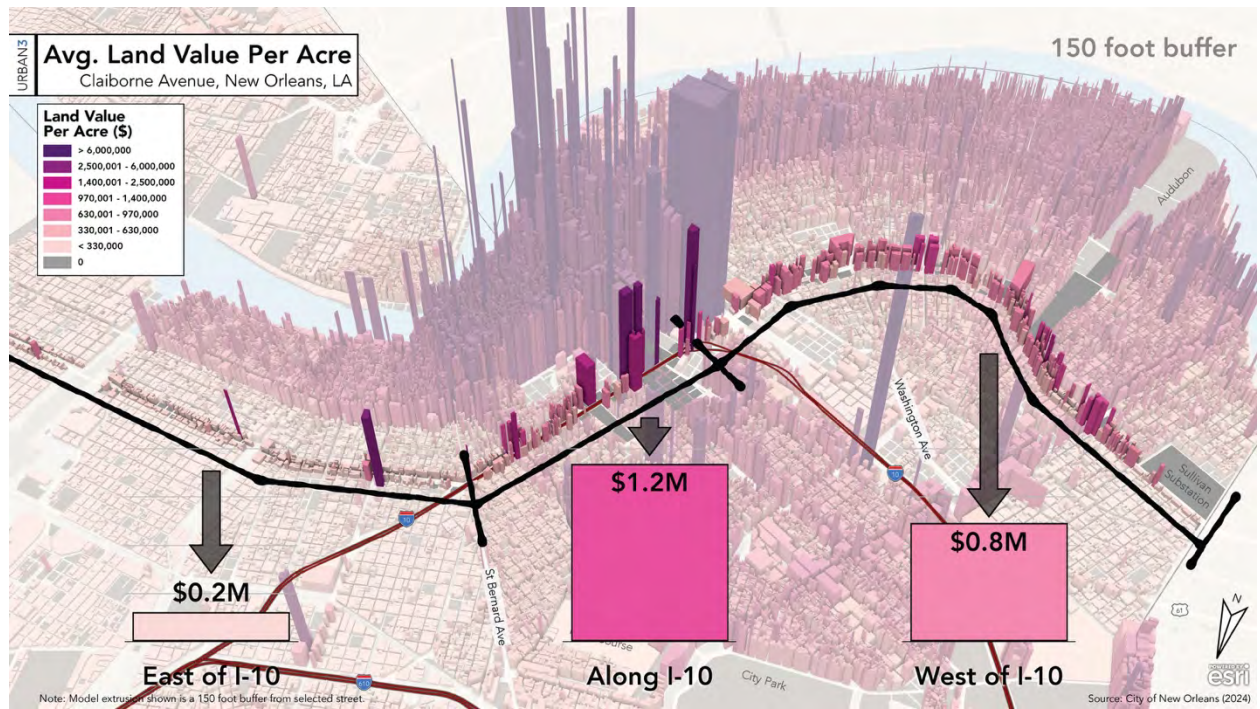






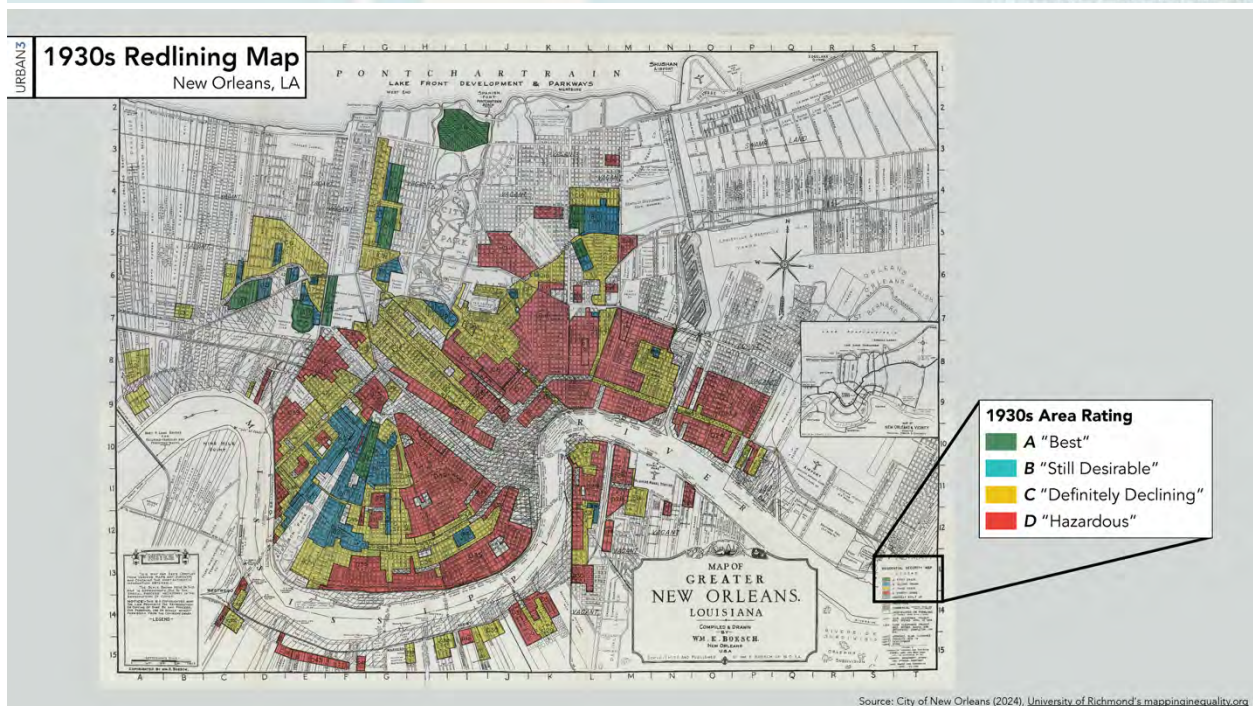
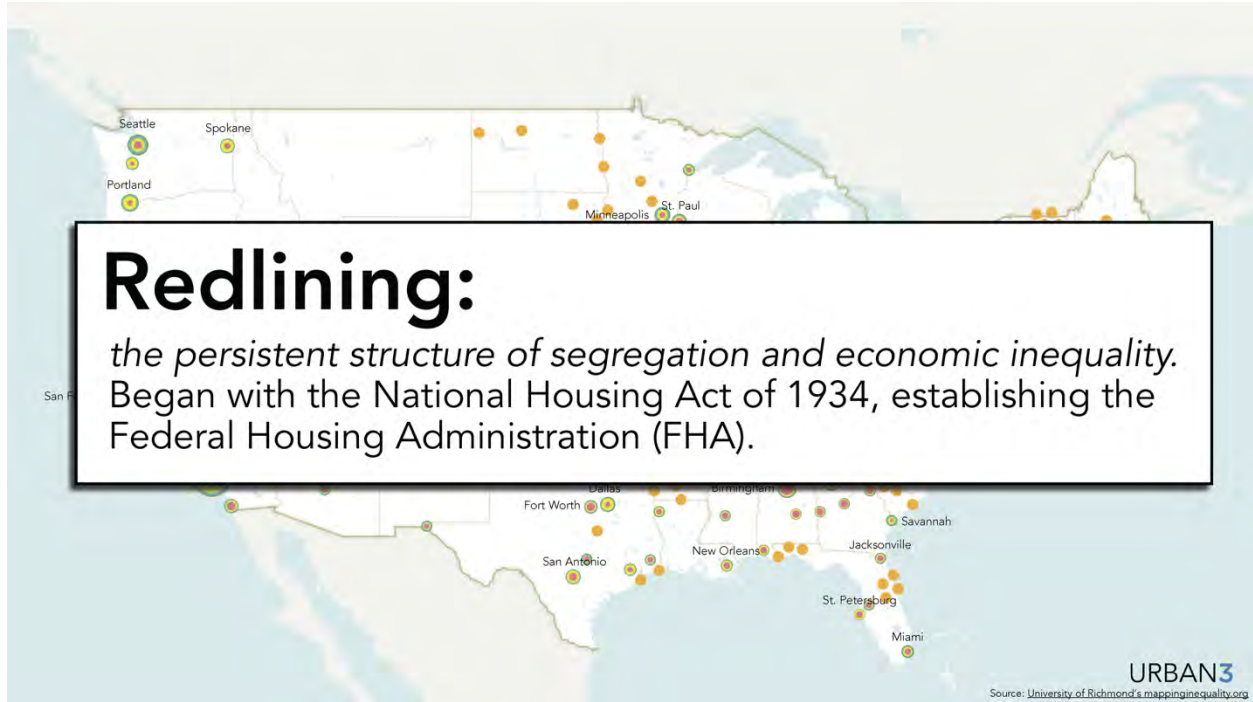






Redlining Analysis

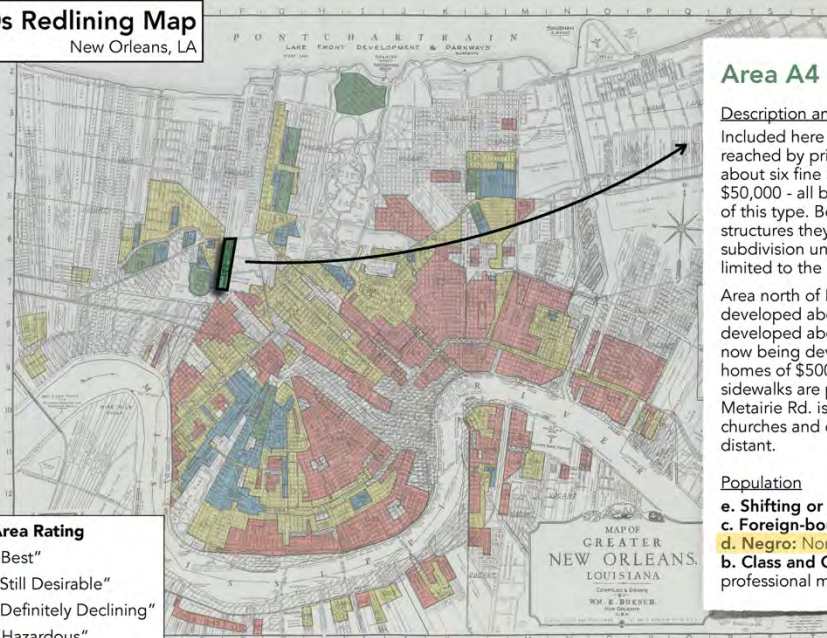
Mapping Historical Inequality



1930s Redlining Map New Orleans, LA

1930s Area Rating

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



Area A4

Description and Characteristics of Area

Included here is a tract of land south of Metairie Rd., reached by private lane, which is improved with about six fine homes ranging from \$10,000 to \$50,000 - all built for home owners, hence no sales of this type. Because of the small number of structures they are not included in the "type" subdivision under 2 above and that detailed data is limited to the portion north of Metairie Road.

Area north of Metairie Rd., includes Dairy Drive, developed about 10 years ago, Bellaire Drive developed about 2 years ago, and Maryland Court now being developed. Restricted to single family homes of \$5000 minimum construction. Streets and sidewalks are paved. Transportation by bus along Metairie Rd. is adequate. Has all utilities. Schools, churches and community business center not far distant.

Population

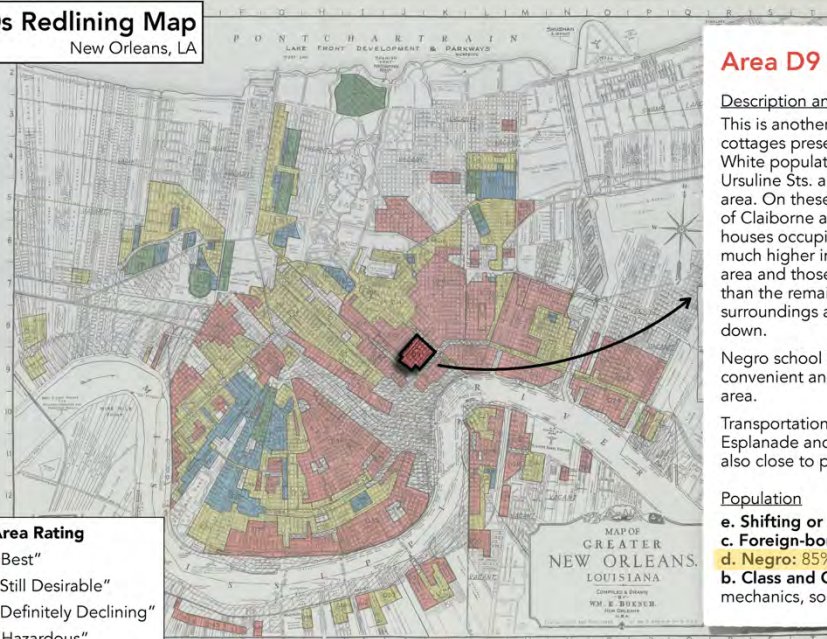
- e. Shifting or Infiltration:** None
- c. Foreign-born families:** None %
- d. Negro:** None %
- b. Class and Occupation:** Executives, business and professional men, some clerical

Source: City of New Orleans (2024), University of Richmond's mappinginequality.org

1930s Redlining Map New Orleans, LA

1930s Area Rating

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



Area D9

Description and Characteristics of Area

This is another area of predominating double cottages presenting a very dilapidated appearance. White population in area lives on Gov. Nicholls and Ursuline Sts. and those are the best streets in the area. On these 2 streets in the first block southeast of Claiborne are located a few nice large single houses occupied by white people of apparently very much higher income than the predominating in the area and those two blocks by themselves rate higher than the remainder of the area. However, surroundings are of such nature as to bring them down.

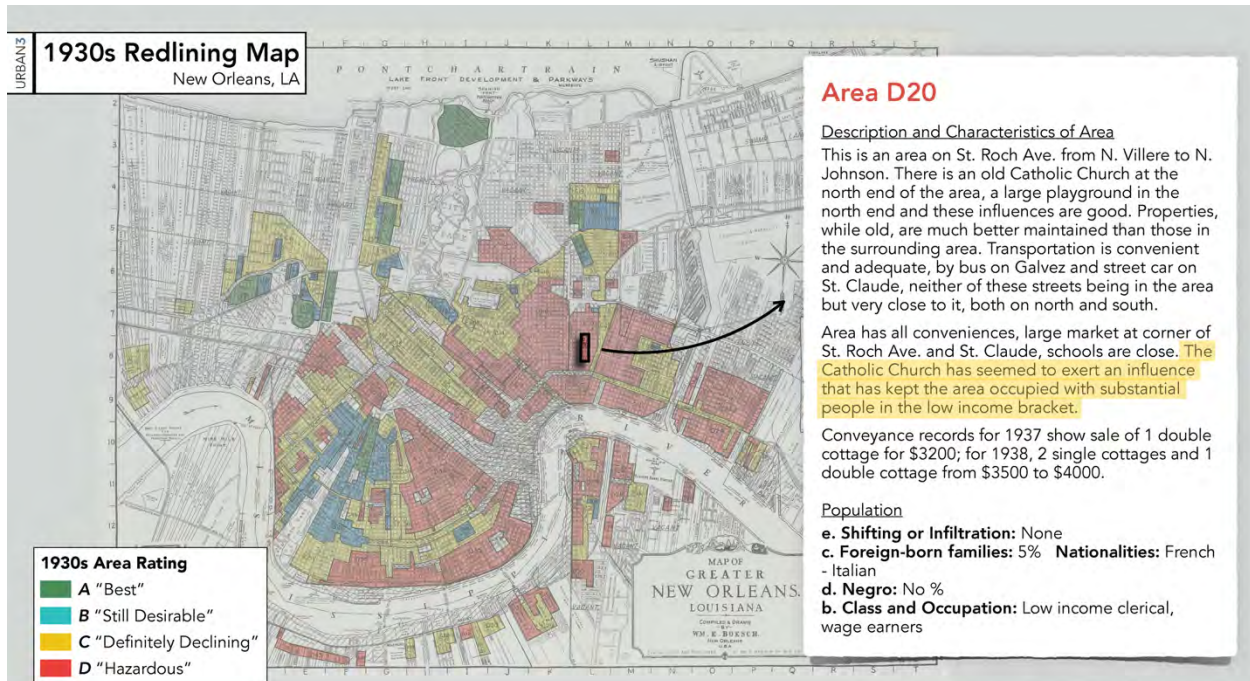
Negro school is located in area, churches are very convenient and stores also scattered throughout area.

Transportation is by bus on N. Claiborne and Esplanade and by street cars on N. Rampart. It is also close to principal business center.

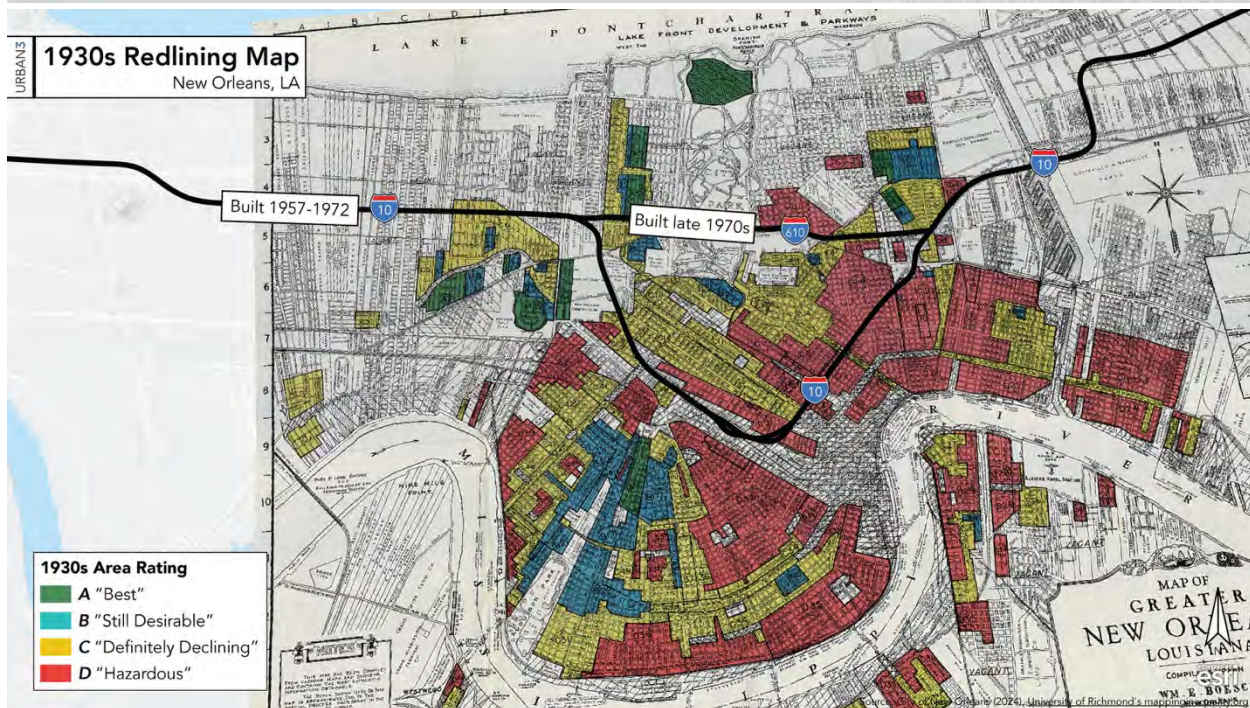
Population

- e. Shifting or Infiltration:** None
- c. Foreign-born families:** 0%
- d. Negro:** 85%
- b. Class and Occupation:** Low class laborers, mechanics, some few better type.

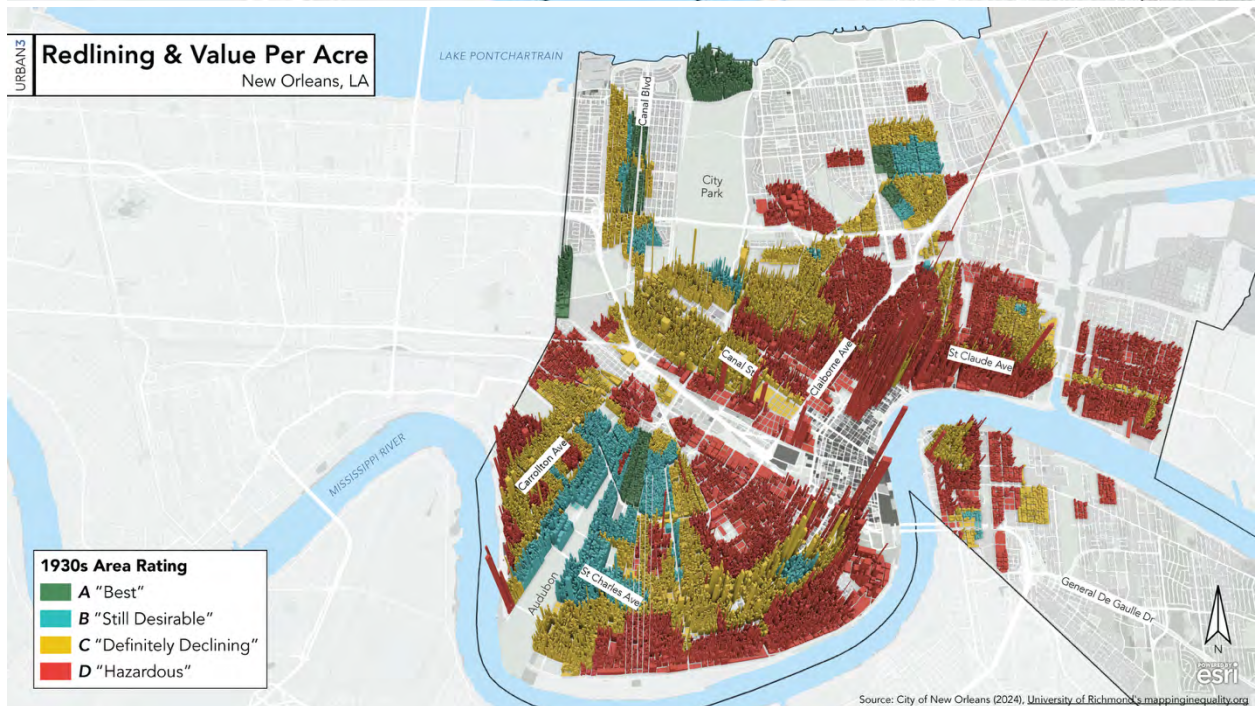
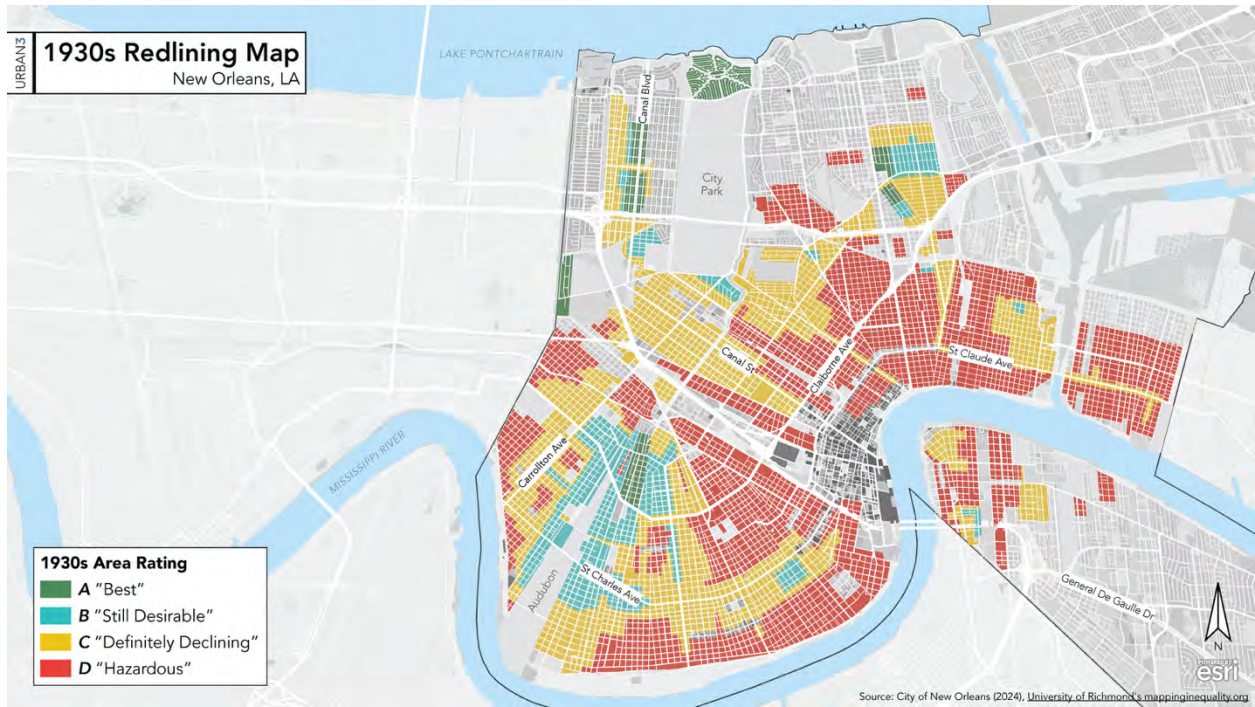
Source: City of New Orleans (2024), University of Richmond's mappinginequality.org

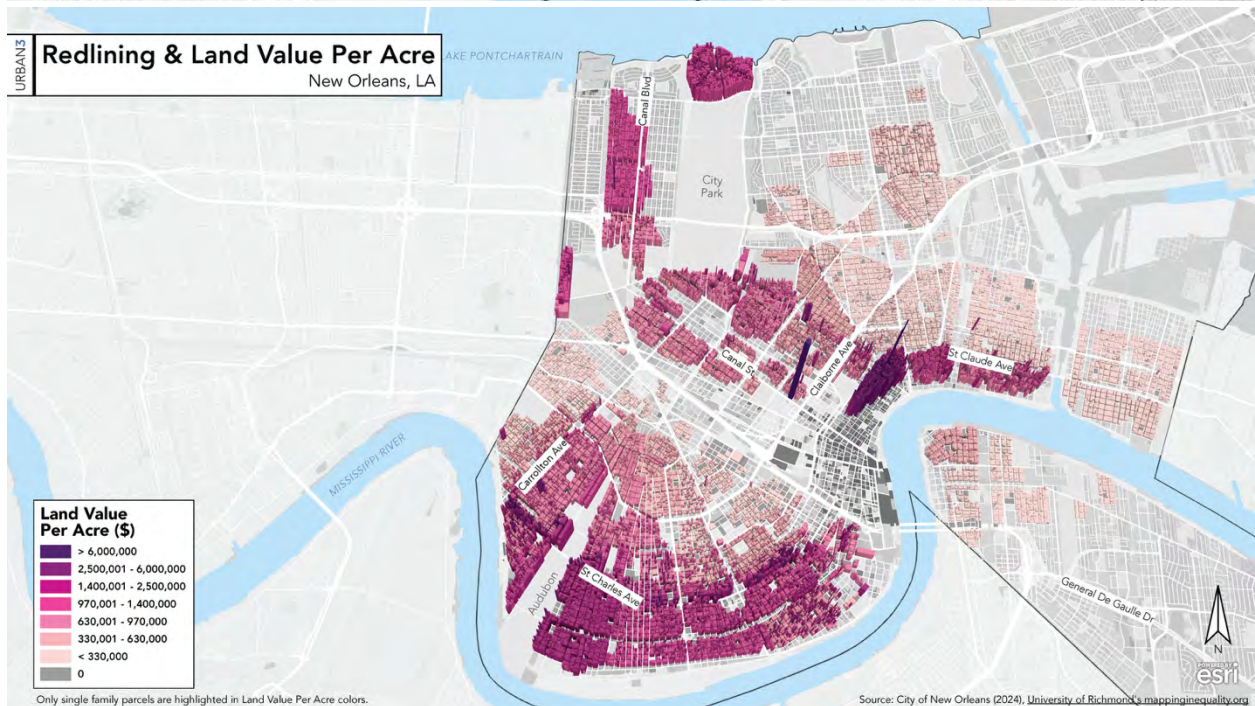
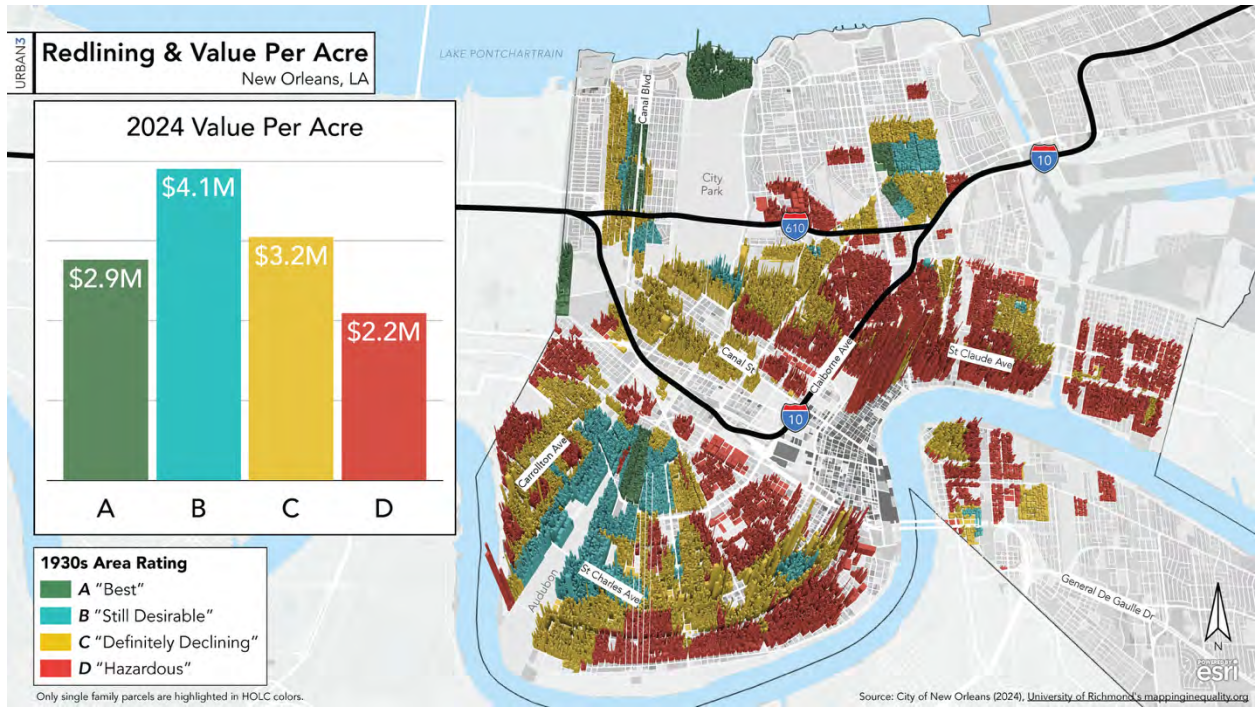


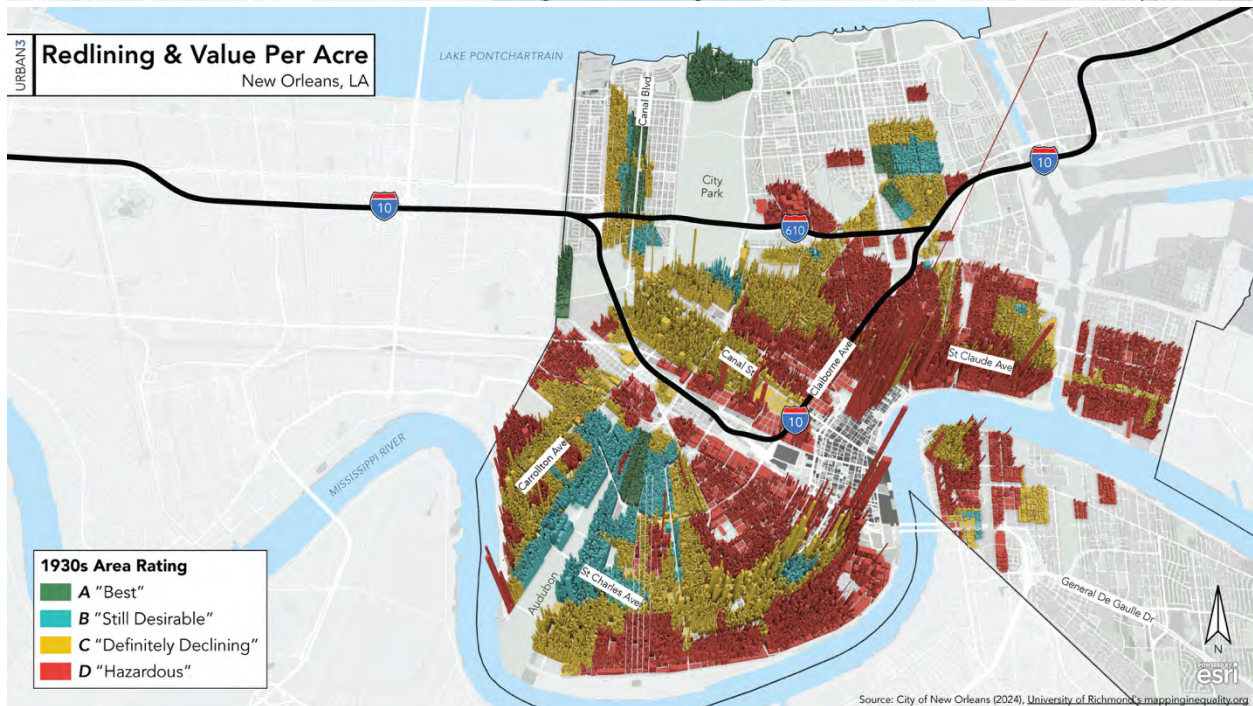
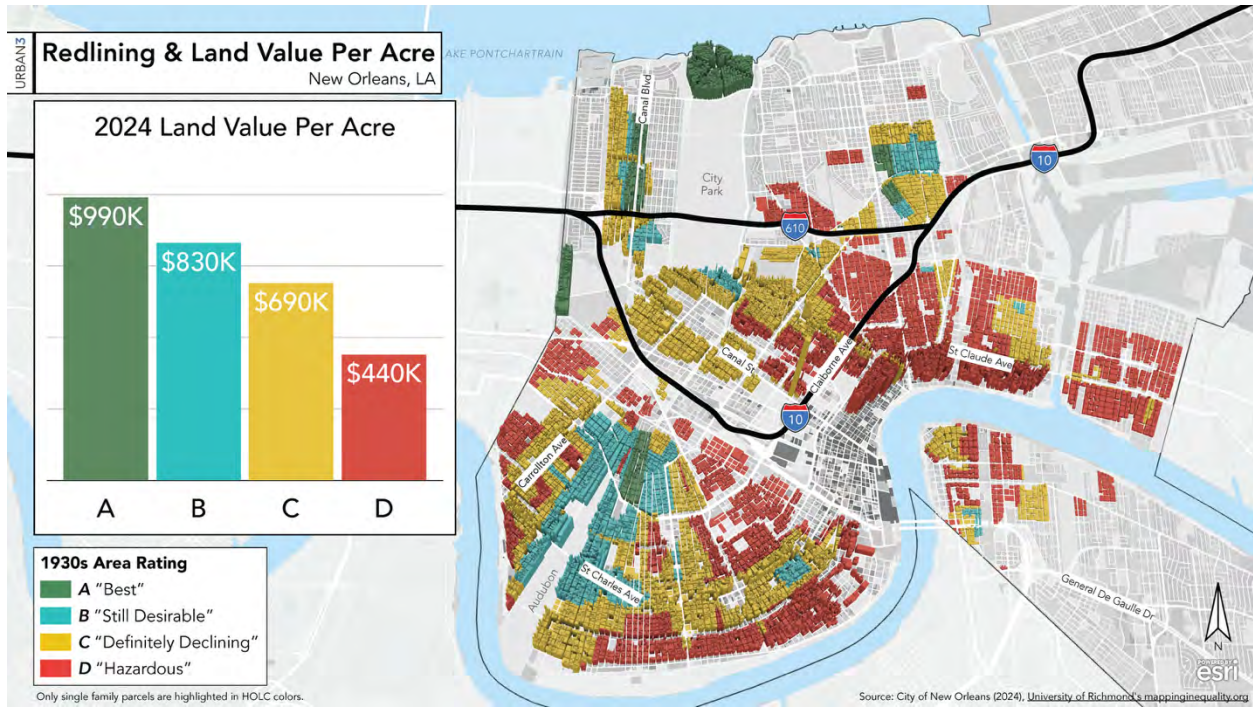
Source: City of New Orleans (2024), University of Richmond's mappinginequality.org

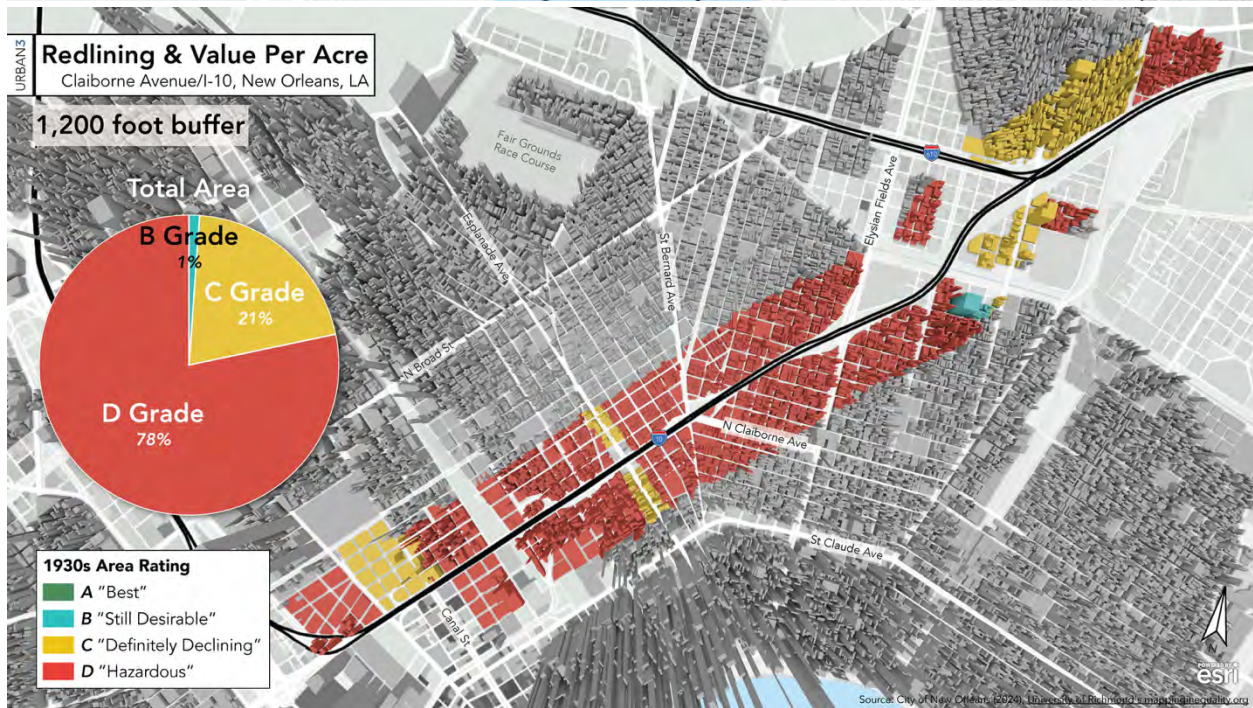
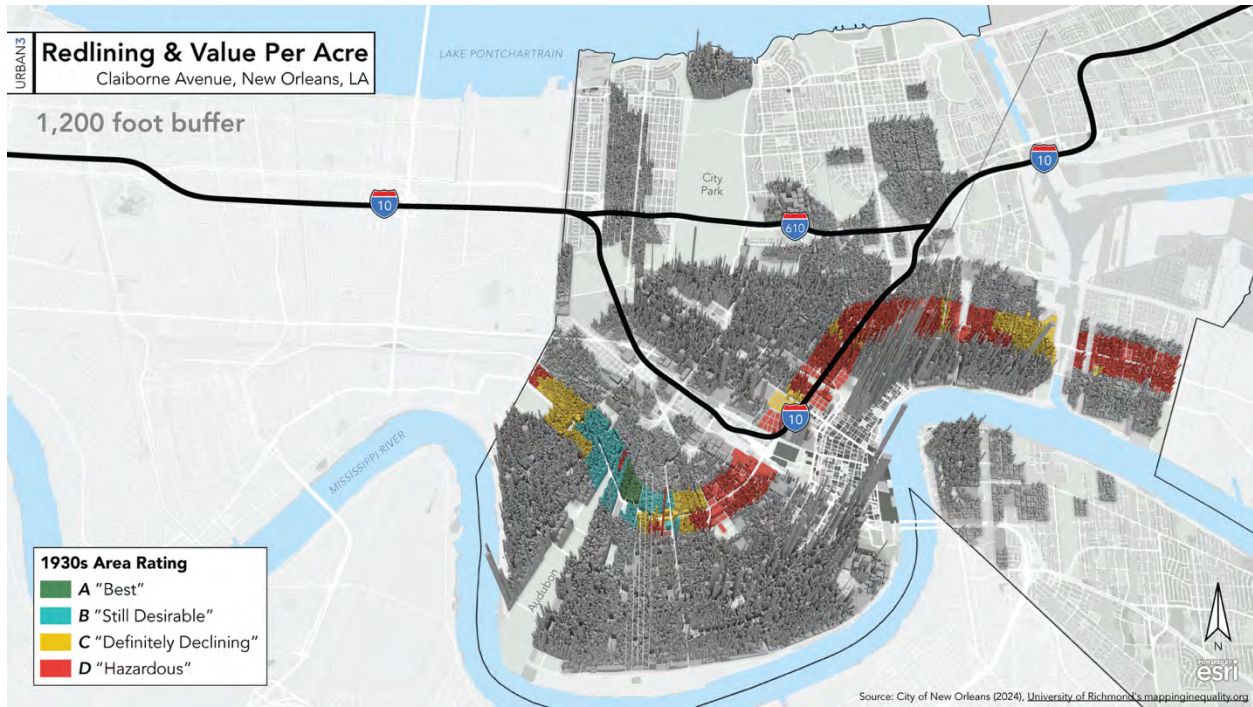


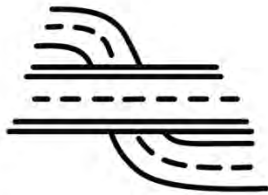
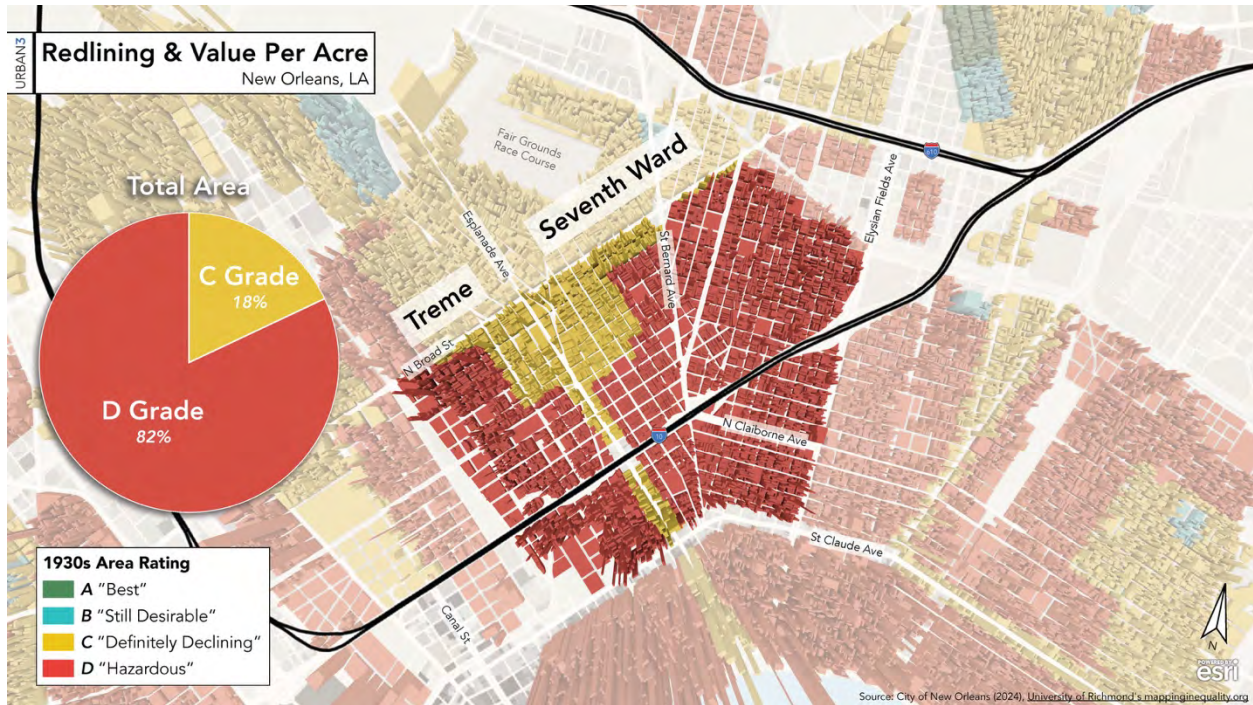
Source: City of New Orleans (2024), University of Richmond's mappinginequality.org





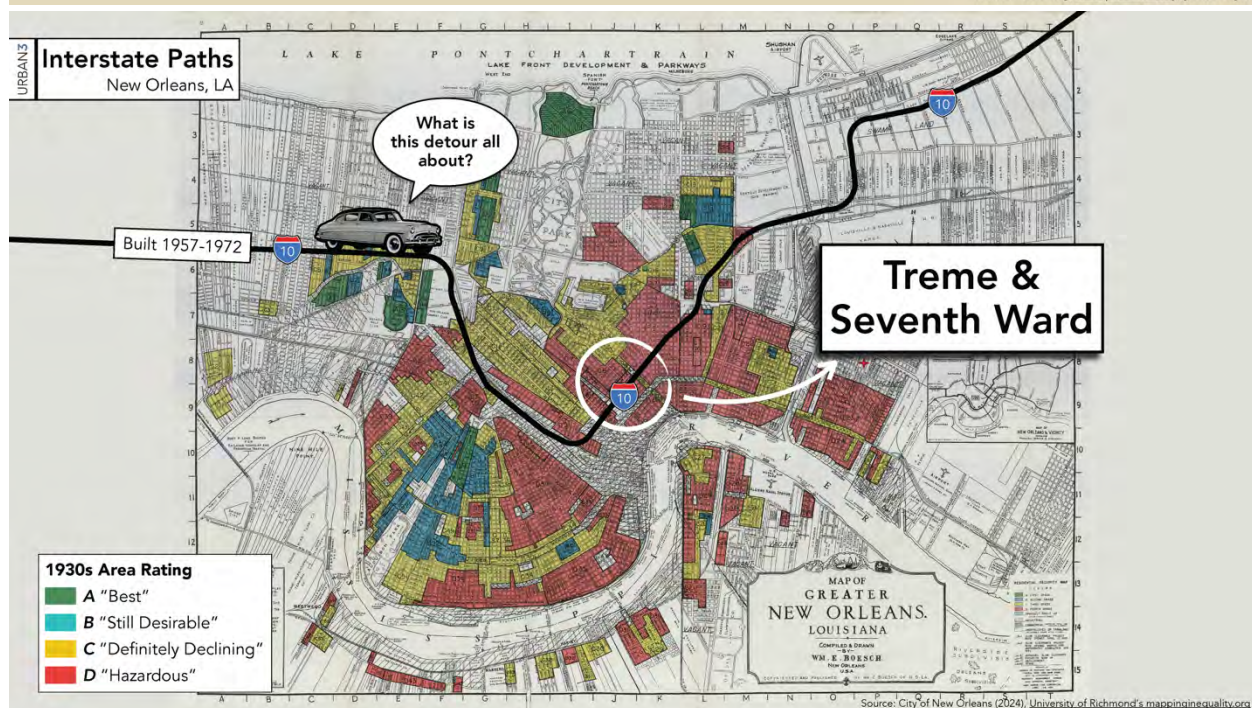
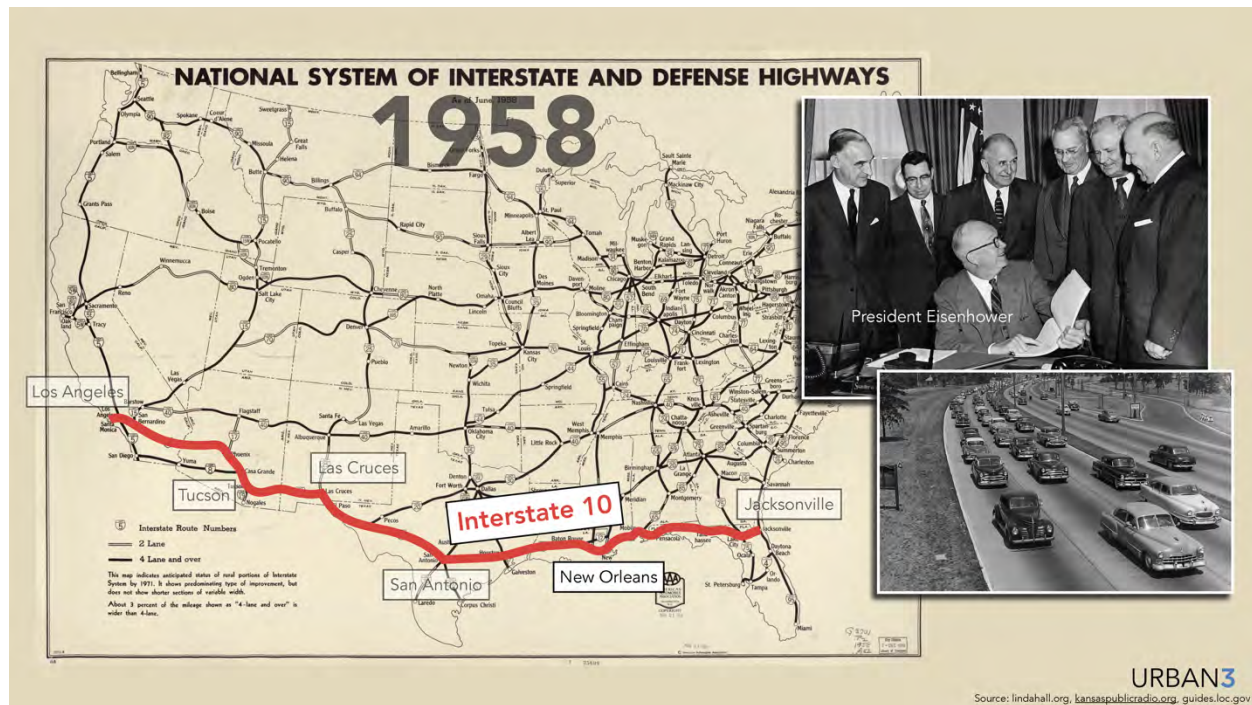


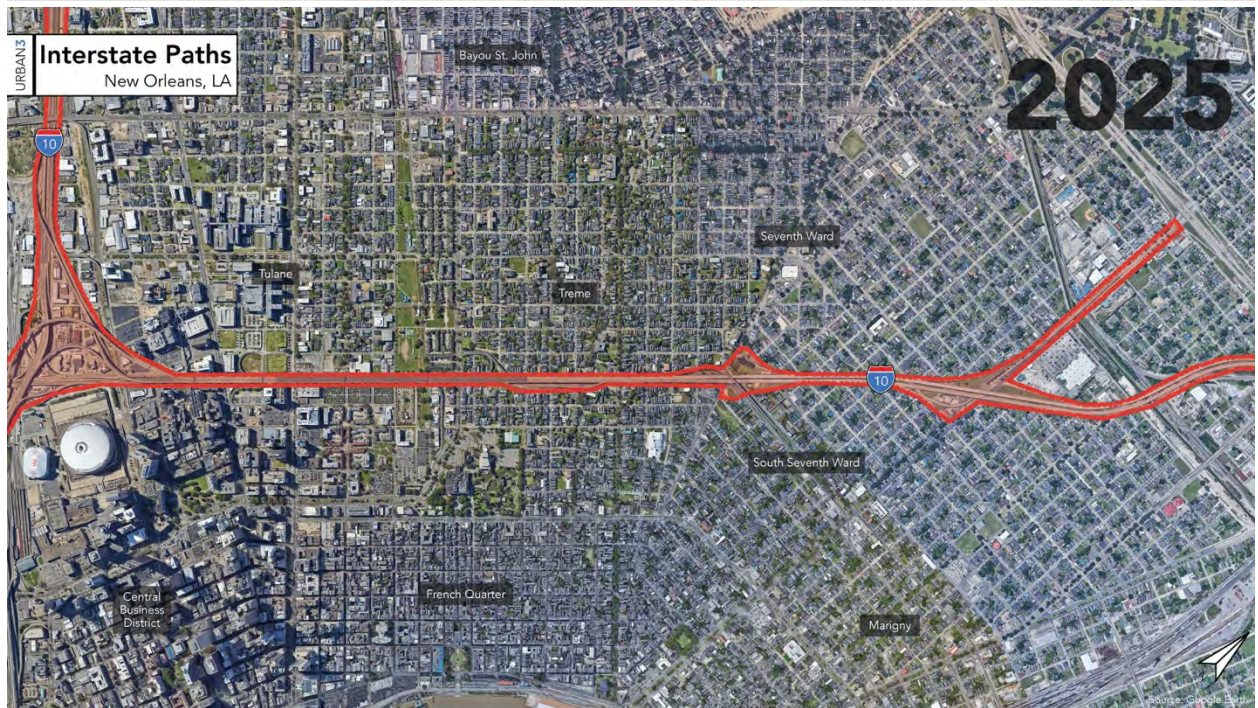
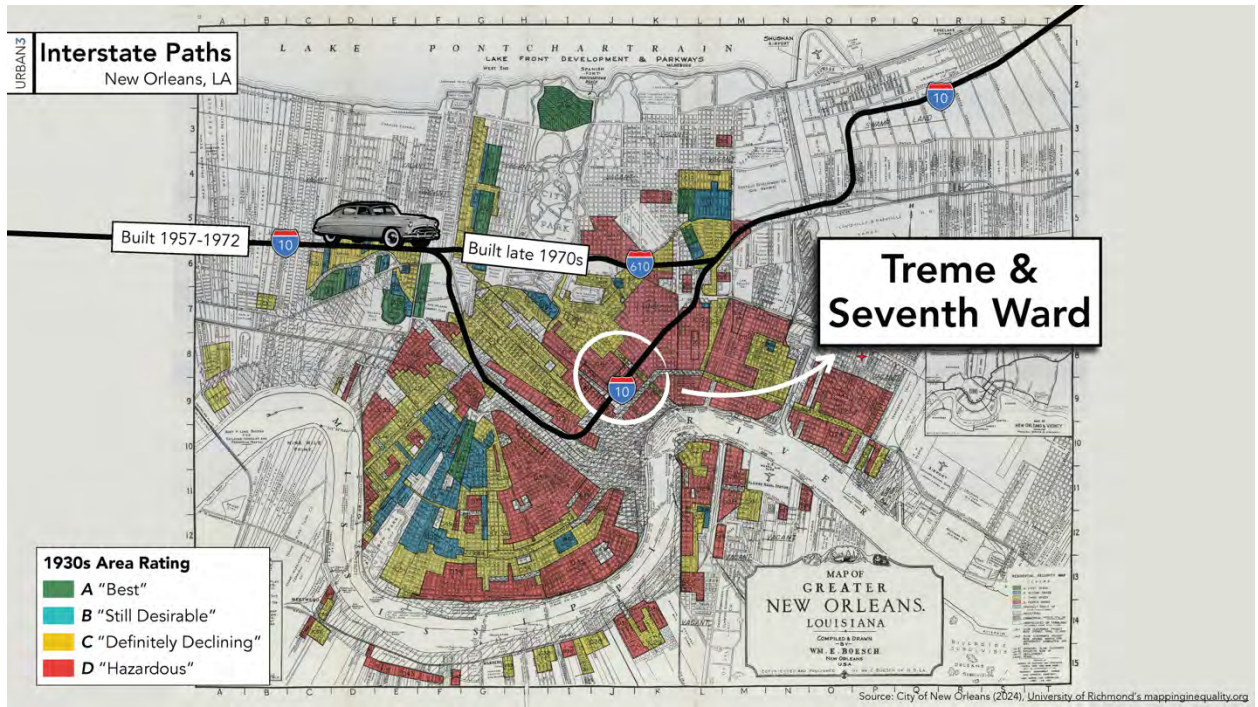


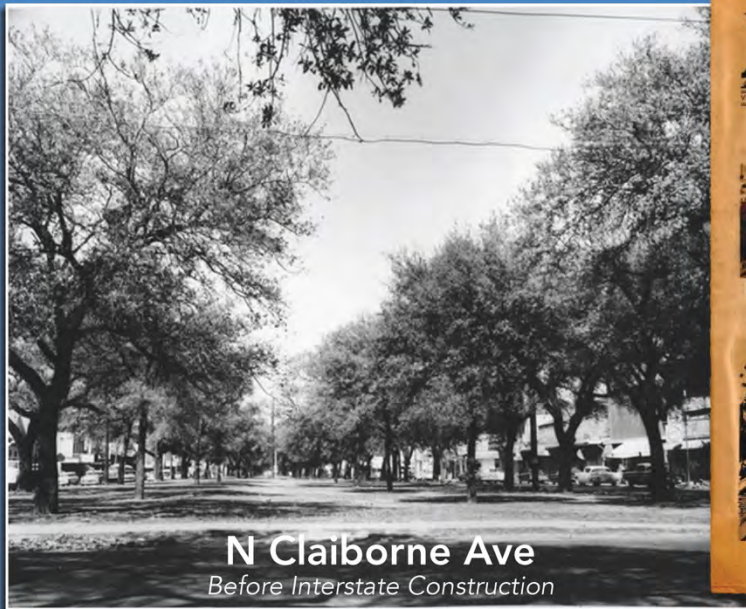


Interstate Highways

History of Interstate Construction in New Orleans







URBAN3

Source: smithsonianmag.com, [royce_duplessis \(instagram\)](https://www.instagram.com/royce_duplessis)

URBAN3

Before & After Interstate Construction

Treme, New Orleans, LA

Before



After



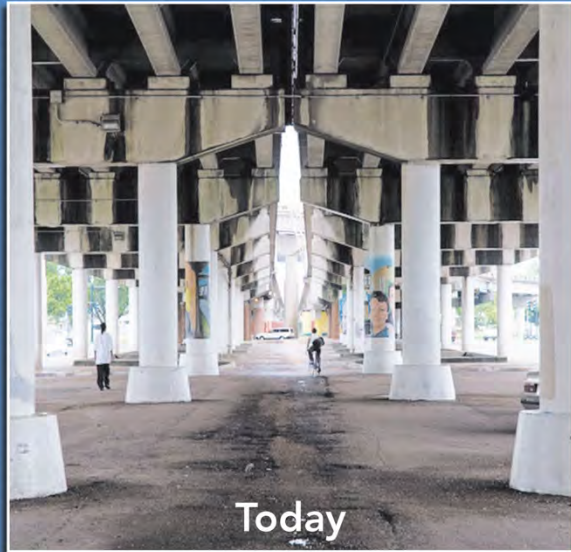
Source: artsandculture.google.com, Google Earth

Before & After Interstate Construction

Treme, New Orleans, LA



1960s



Today

Source: reclaiminggoldwesttroad.org

Before & After Interstate Construction

Treme, New Orleans, LA



1947



Today

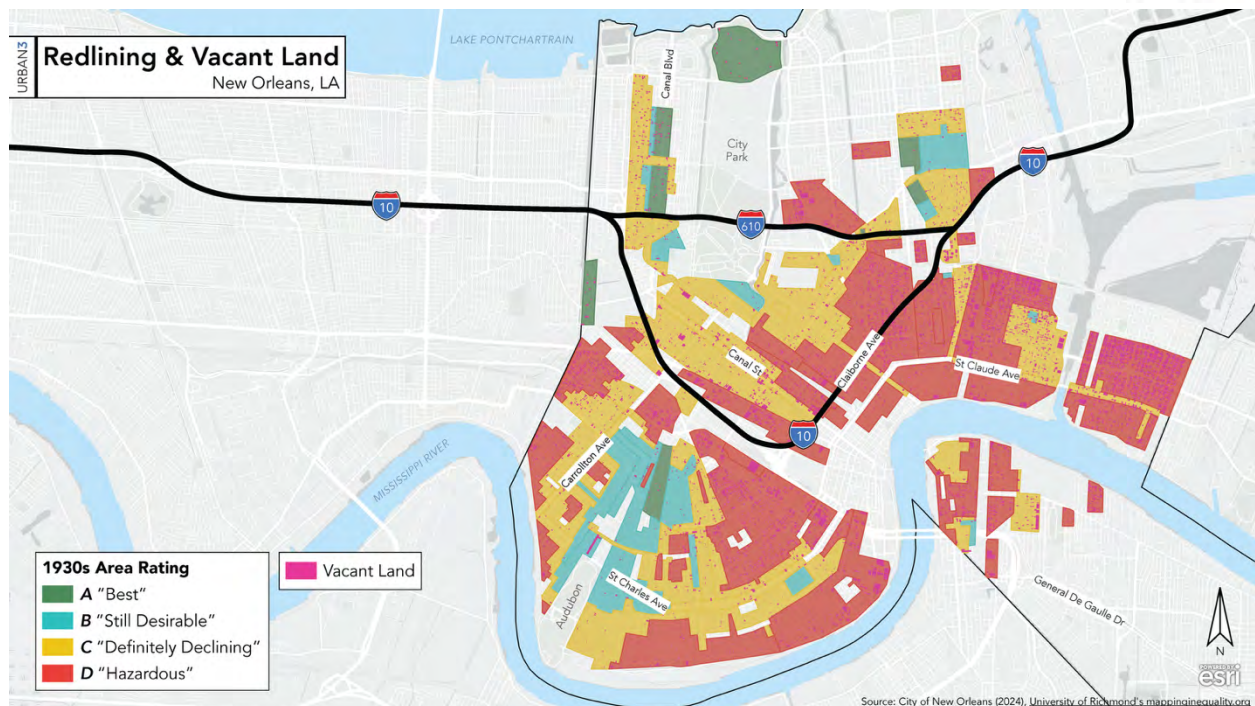
Source: tulanetullebaloo.com, Google Maps

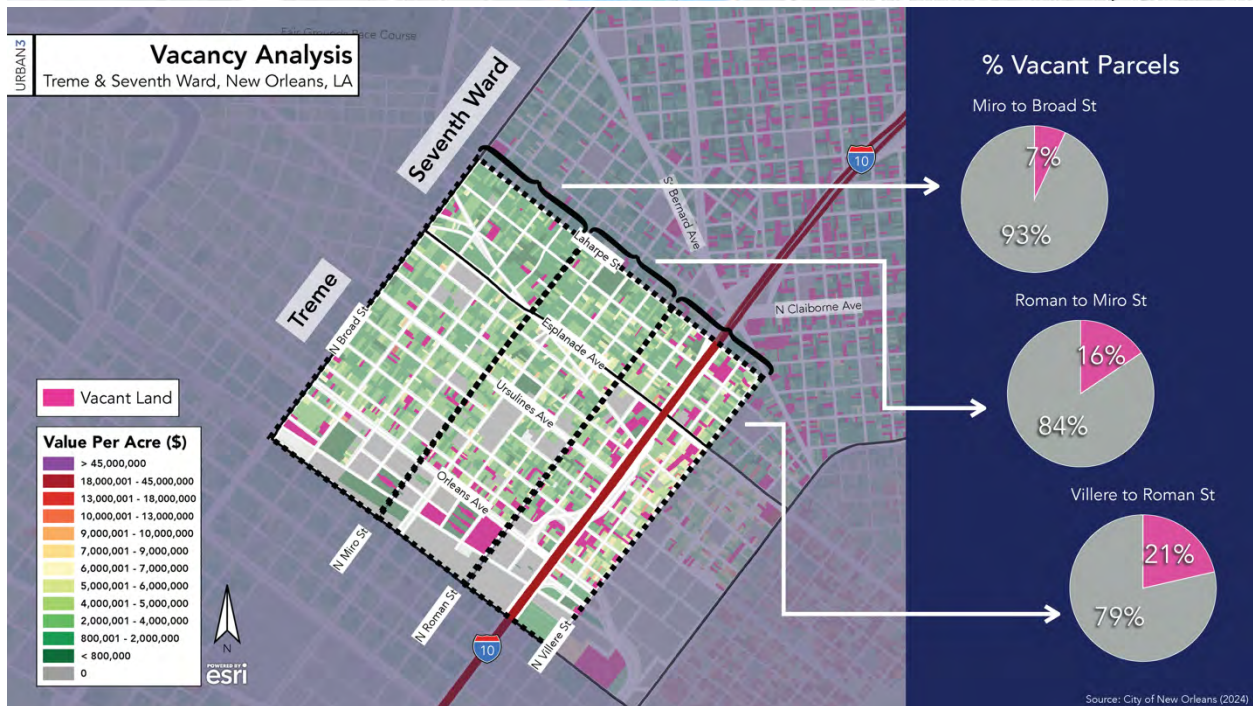
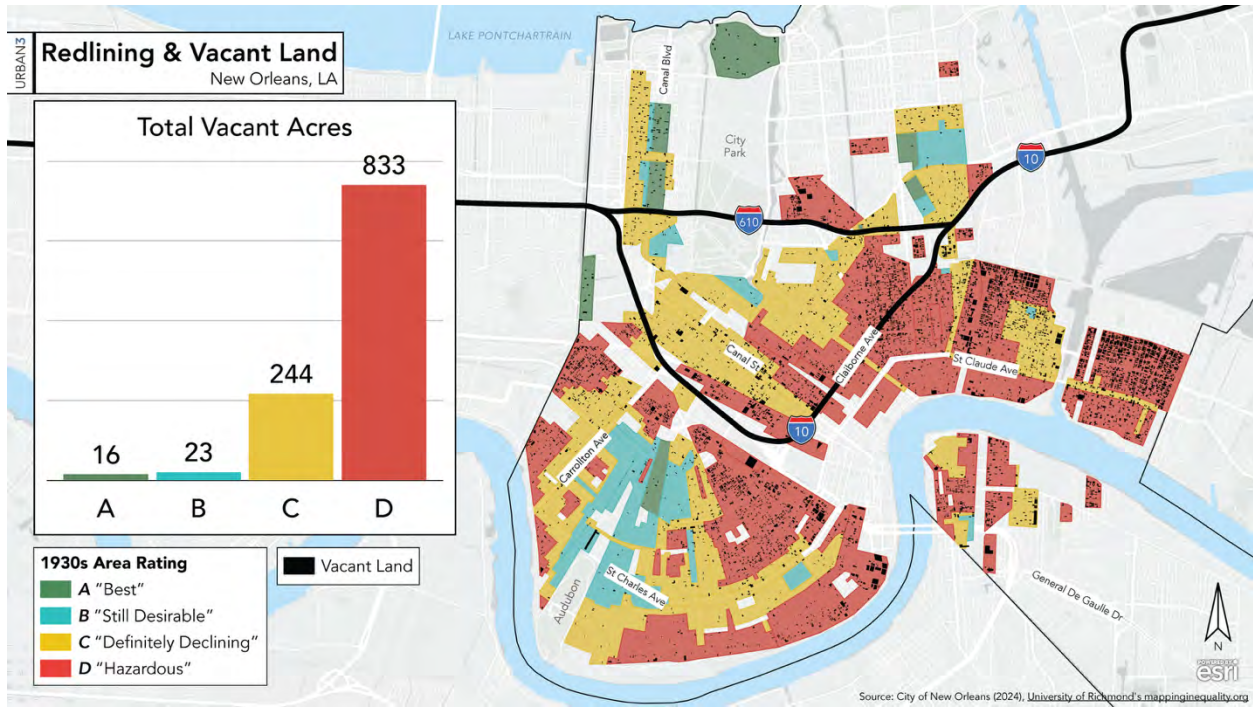


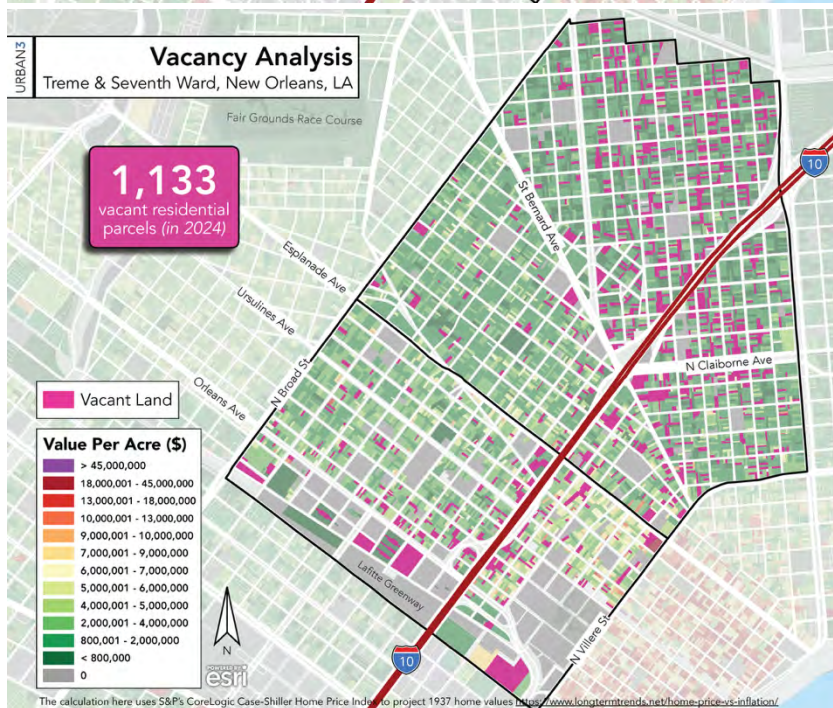
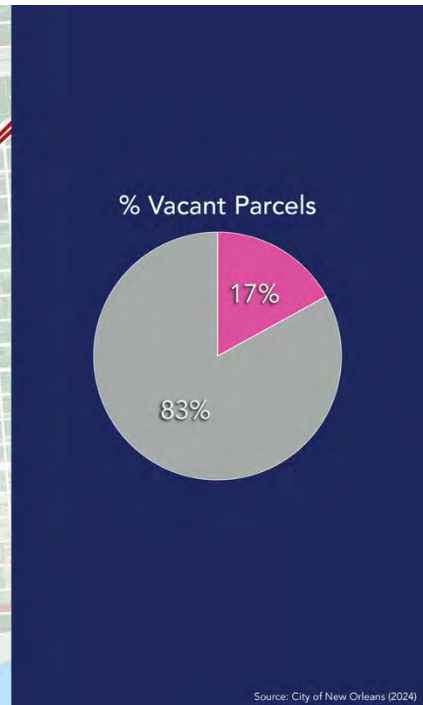
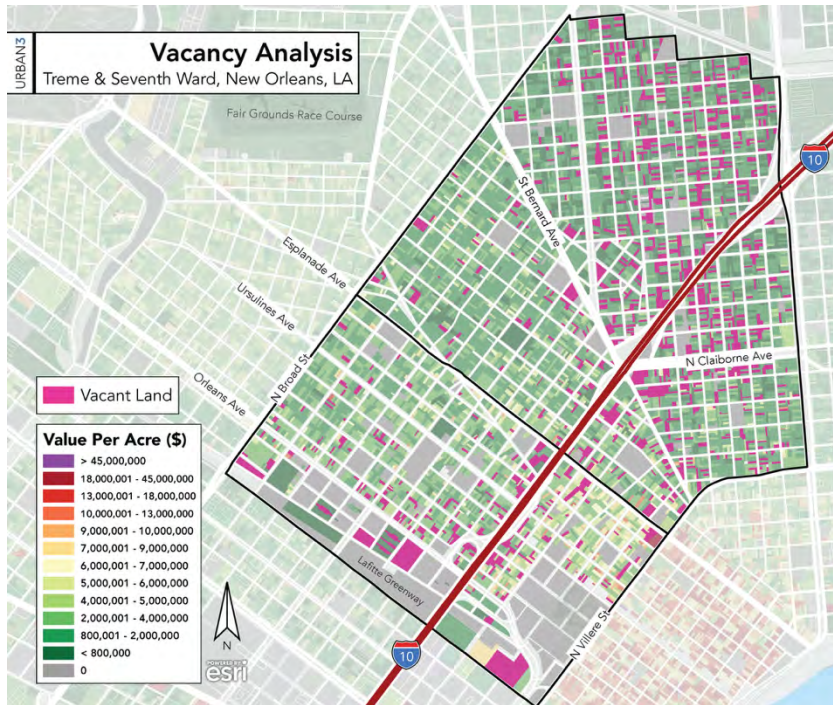
Land Vacancy Economics

The Financial Effects of Vacant Property

URBAN3

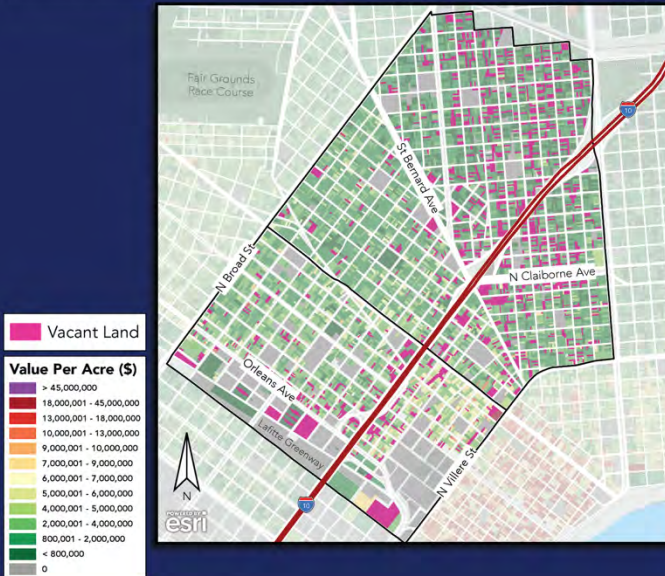






Vacancy Analysis

Treme & Seventh Ward, New Orleans, LA

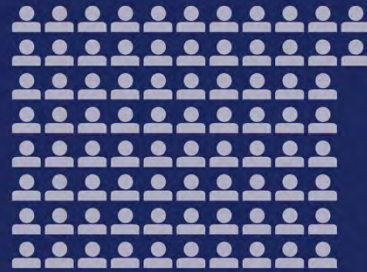


Calculations assume an annual property tax rate of 18 mills.

Source: City of New Orleans (2024), salary.com**\$4.7M**

of lost property taxes annually

=



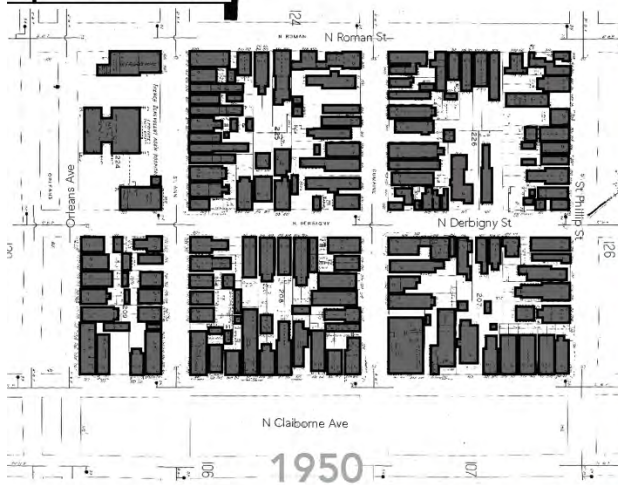
82 school teachers' annual salaries



Historical Analysis

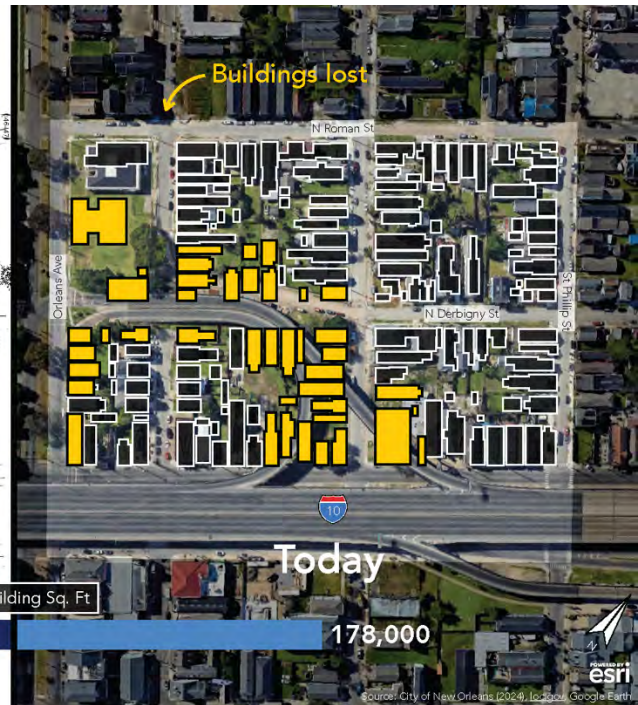
Examples from Late 1800s Sanborn Maps

Impact of I-10 Treme, New Orleans, LA



267,000

Total Building Sq. Ft

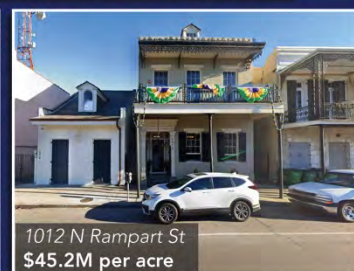
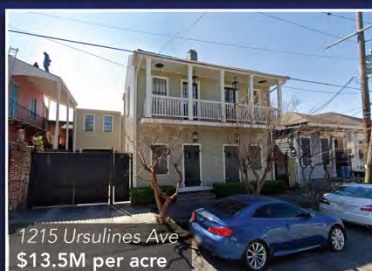
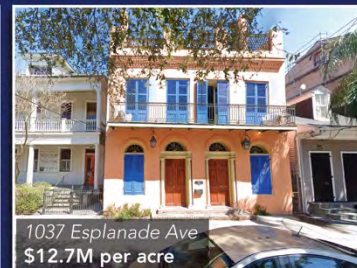


178,000

Today

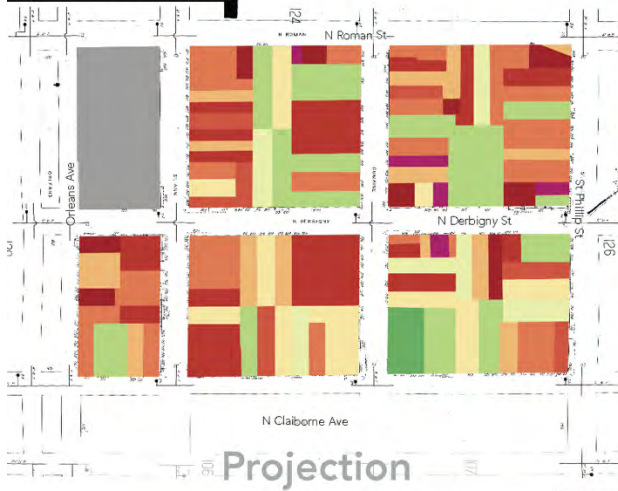
Note: Numbers are estimated based on approximate map tracing.

Neighborhood "Ingredients" Treme, New Orleans, LA



Source: City of New Orleans (2024), Google Maps

URBAN3
Impact of I-10
Treme, New Orleans, LA



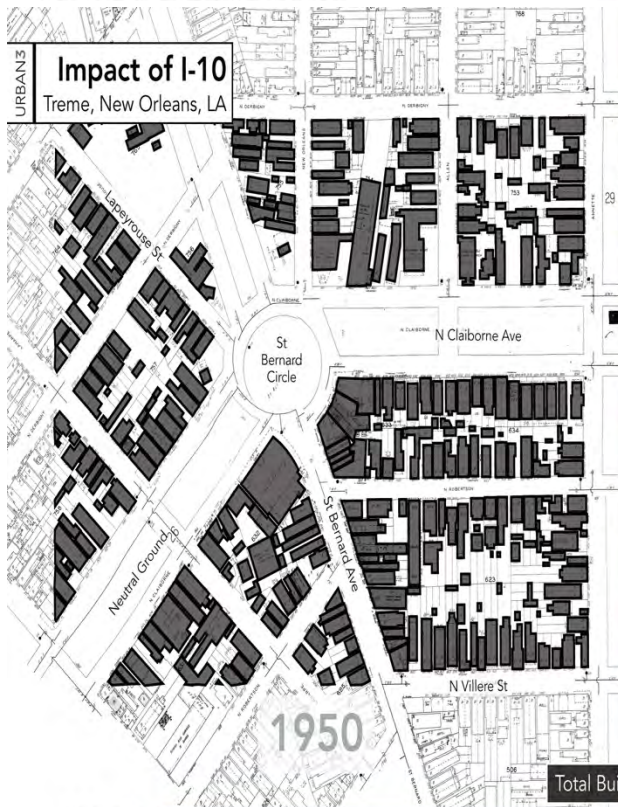
\$68M

2024 Total Value

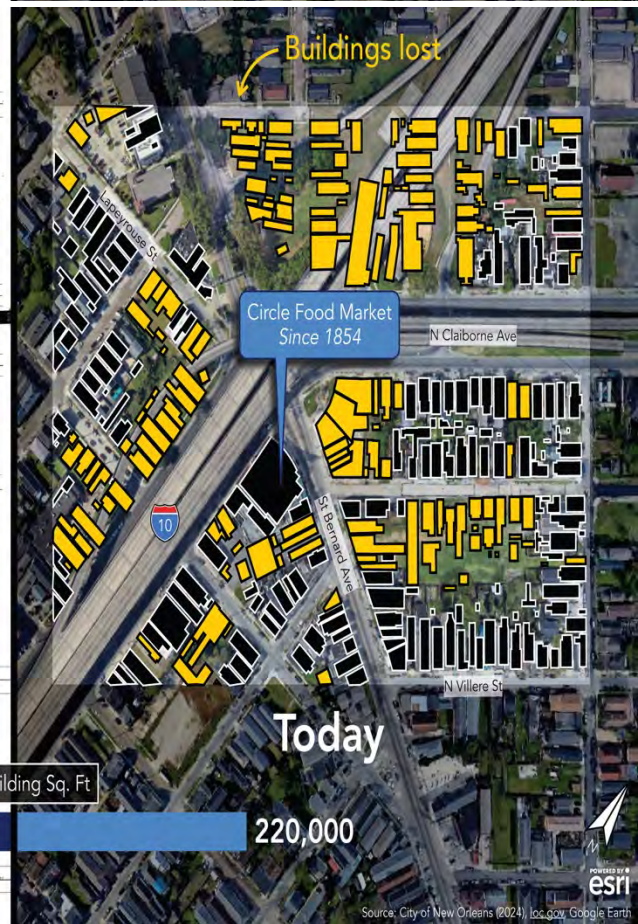


\$15M

Note: Numbers are estimated based on approximate map tracing.



441,000



220,000

Note: Numbers are estimated based on approximate map tracing.

Neighborhood "Ingredients"

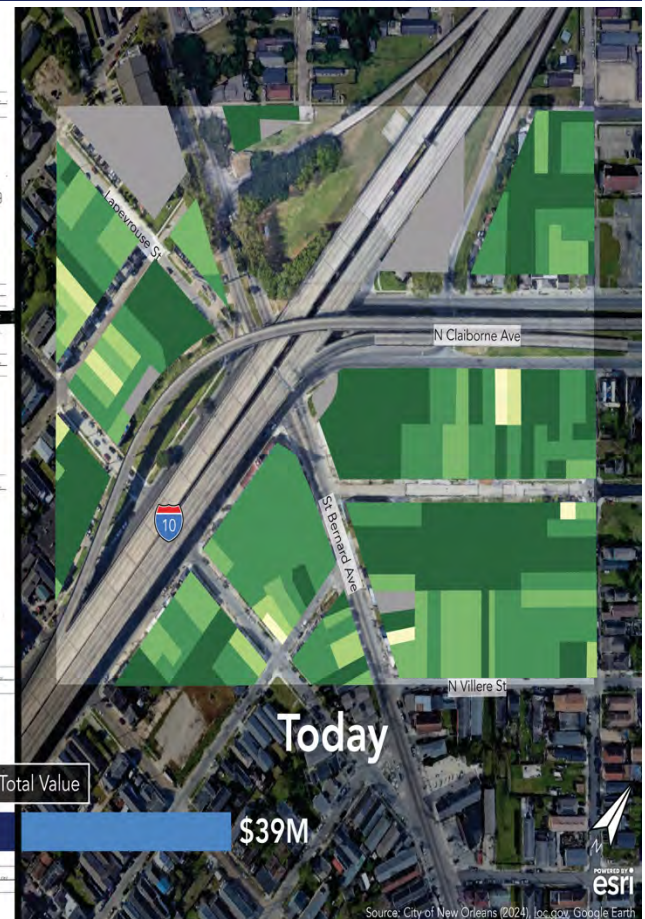
Treme, New Orleans, LA



Source: City of New Orleans (2024), Google Maps, tulanehullabaloo.com, circlefoodmarket.com

Impact of I-10

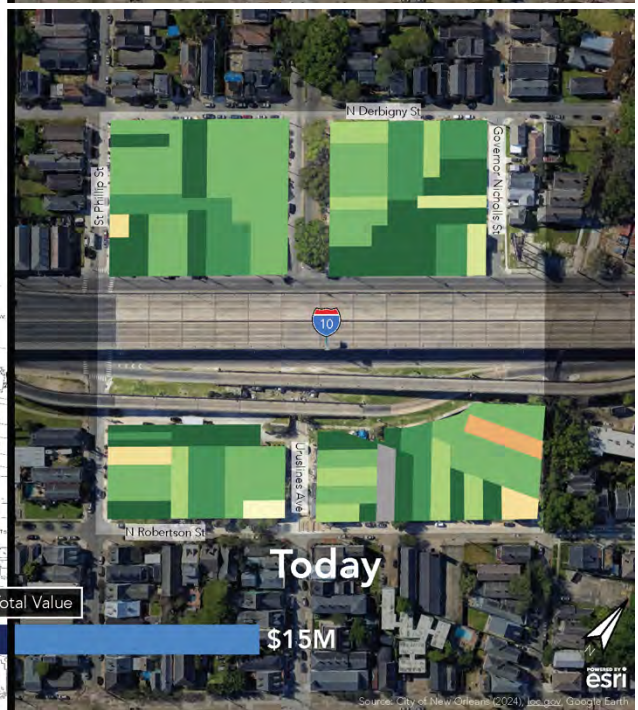
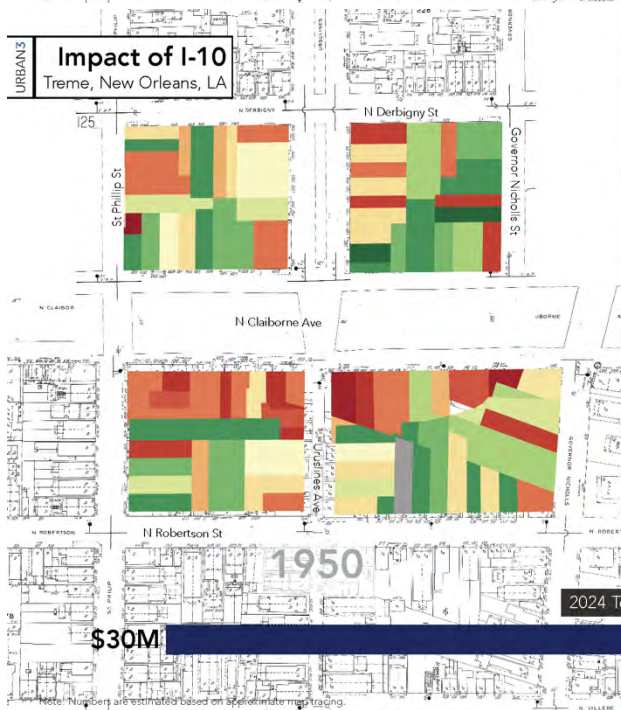
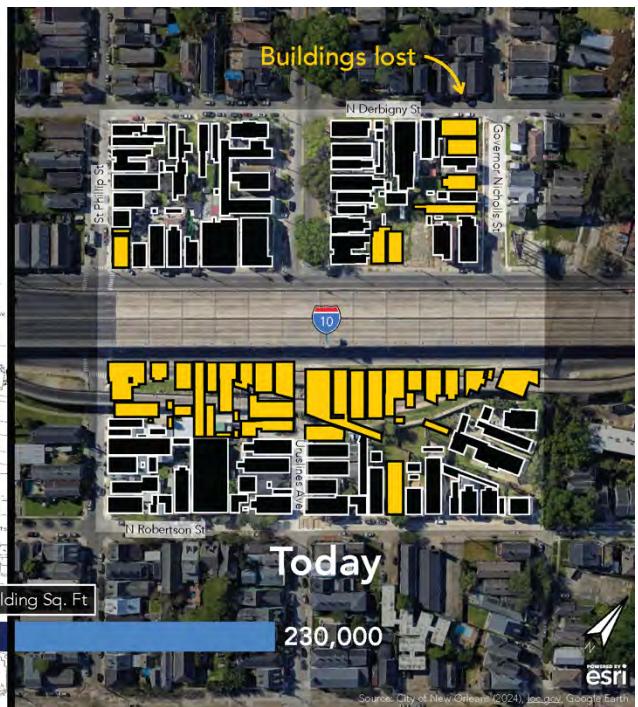
Treme, New Orleans, LA



Note: Numbers are estimated based on approximate map tracing.

Source: City of New Orleans (2024), 102.024, Google Earth





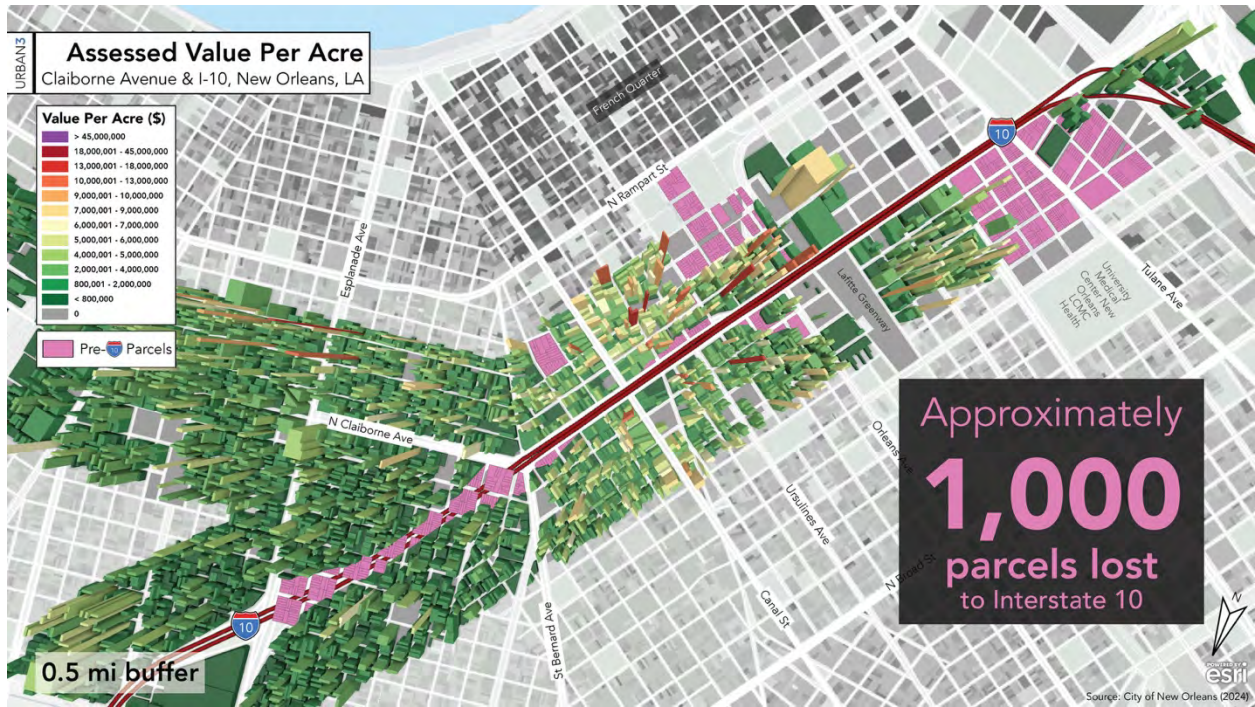


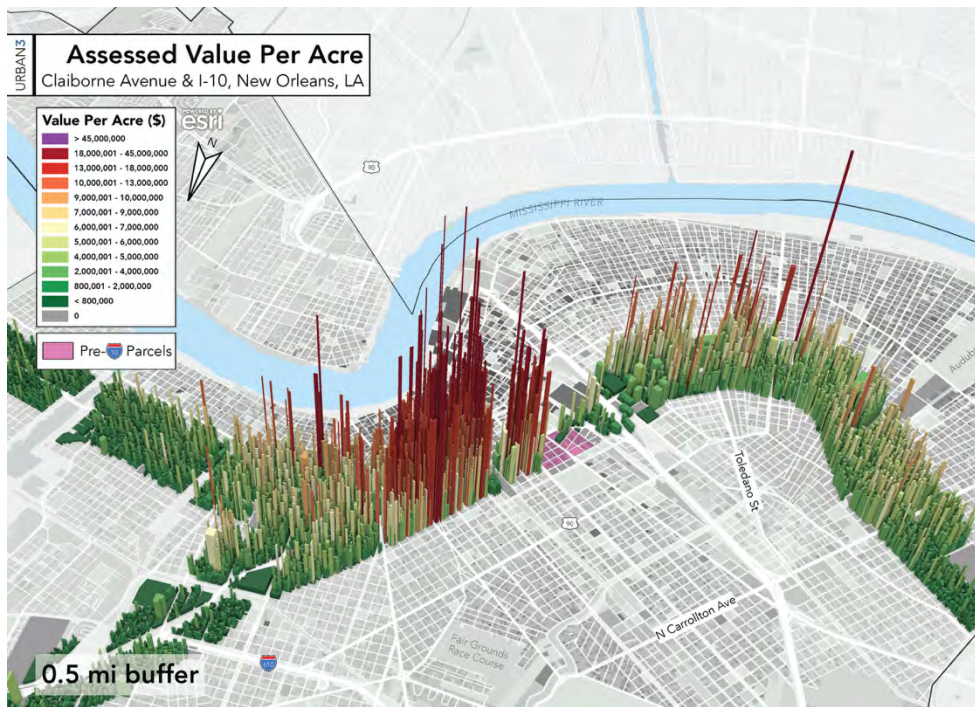
Growth Projections

Mapping Different Future Scenarios

URBAN3





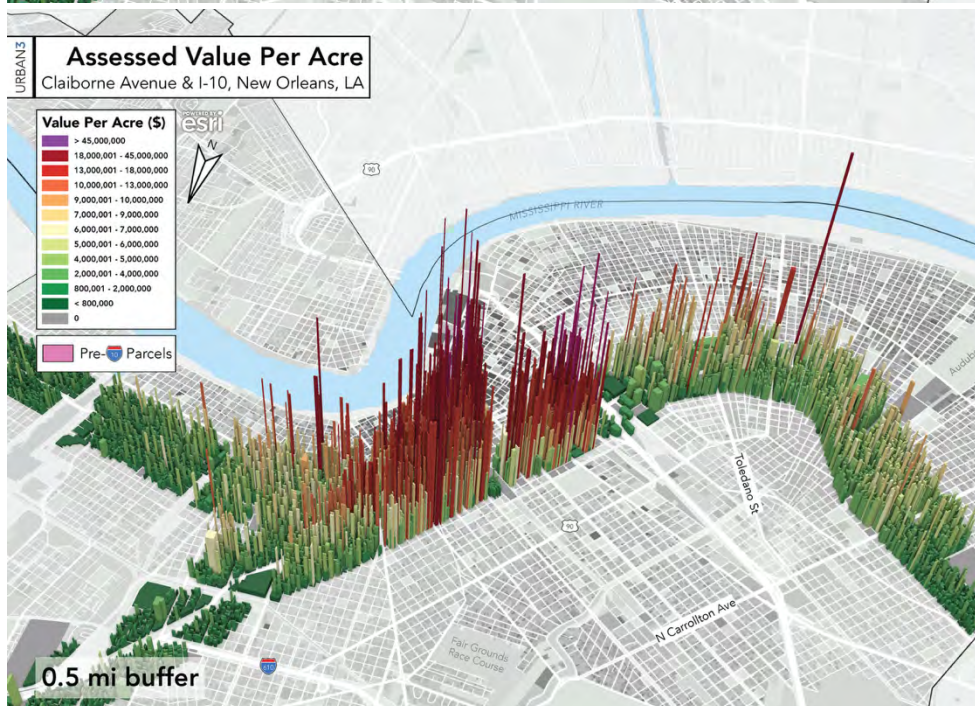


Projected Value
(Without I-10)
+\$1.1B

Current Value
\$3.1B

Total Taxable Value

Source: City of New Orleans (2024)



Re-adding Lost Parcels
+\$0.5B

Projected Value
(Without I-10)
+\$1.1B

Current Value
\$3.1B

Total Taxable Value

Source: City of New Orleans (2024)

