

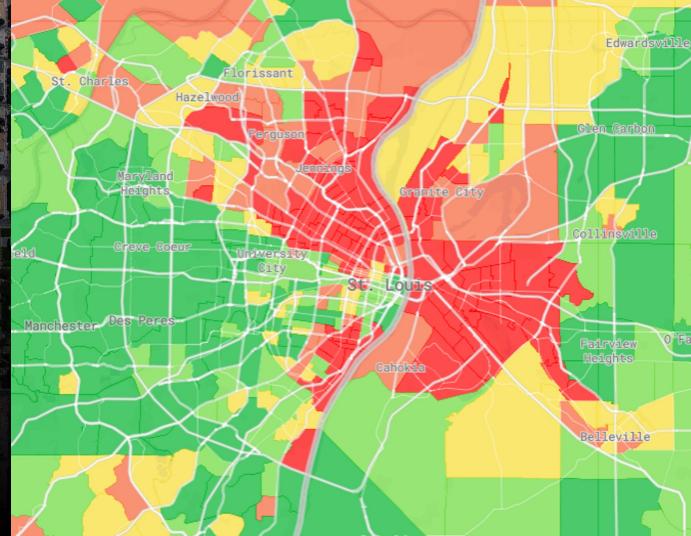
# **User Manual**

CNTR4growth

in Mastercard Center for Inclusive Growth

mastercardcenter.org

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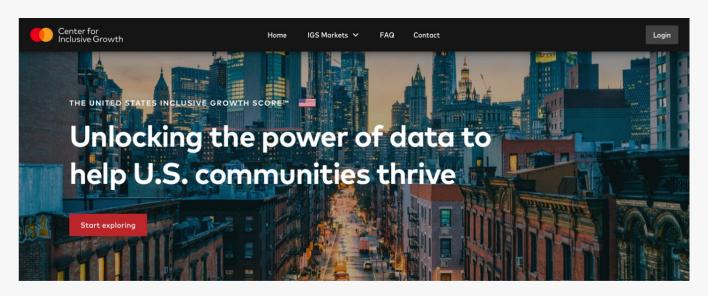
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### Inclusive Growth Score<sup>TM</sup> Overview

The <u>Inclusive Growth Score</u> is a public-access tool that measures economic health and inclusion of census tracts across the U.S. using 18 key metrics. The Score is a percentile rank, ranging from 0-100, with the average score at 50. It provides local planners, governments and impact investors with a clear, simple view of social and economic indicators for any census tract in the United States.





Access the Platform: https://inclusivegrowthscore.com/



### Inclusive Growth Score Overview

The Inclusive Growth Score provides local planners, governments and impact investors with a clear, simple view of social and economic indicators for any census tract in the United States.

# IGS offers data-driven insights that help planners and investors:

- Uncover and prioritize opportunities for revitalization
- Build a case for investments for inclusive economic development initiatives
- Track changes to the economic health of communities over time and benchmark against other regions

### IGS supports decisions addressing:

- Economic Development, including QOZs and non-QOZs
- COVID-19 Response, Recovery, and Resiliency measuring 'pre-existing conditions' to help prioritize aid
- Socioeconomic inequities produced by discriminatory practices such as redlining and affordable housing

# IGS insights can be leveraged to support data-driven decisions in economic development of underserved communities by helping:



### Secure investments in underserved communities

Non-profit real estate investors in a mid-west city used the Inclusive Growth Score™ to build the case for a \$40M investment in the downtown core of their city. One of the investments in this project will be a grocery store in a Qualified Opportunity Zone's food desert.

The Inclusive Growth Score™ grounds social impact goals in quantifiable measures to instill confidence in investors and bring capital to overlooked communities.



### Build local data assets for regional development

A think tank in a large northeastern city is using the Inclusive Growth Score™ as a model for a city-specific public-private data platform. The framework of the Inclusive Growth Score™ as well as its data sources are the building blocks of data-driven efforts to support local, minority-owned businesses.

The Inclusive Growth Score™ is used as a building block for local data assets to drive communityoriented progress.



### Bolster grant applications for communities inneed

A mid-Atlantic city used the Inclusive Growth Score™ metrics to submit a datadriven grant application focusing on scalable disaster resilience in the most vulnerable areas. The grant provides \$1M to build a disaster prep system within one year to resolve the weakest point in the system response.

The Inclusive Growth Score™ is a one-stop source for research and essential data to secure funding and promote action for the communities in greatest need.

# Methodology - Overview

The Inclusive Growth Score is composed of three pillars, broken down into Inclusion & Growth:

Inclusive Growth Score  2 YOY change		METRIC TYPES	
		Inclusion 40 Level of access to key resources and assets	Growth  Level of change in performance over time
PILLARS	Place Housing, infrastructure, and the built environment	<ul> <li>Acres of Park Land</li> <li>Affordable Housing</li> <li>Internet Access</li> <li>Travel Time to Work</li> </ul>	Net Occupancy     Residential Real Estate Value
	\$ Economy  Susiness growth, jobs, and spending	<ul> <li>Minority/Women-Owned Businesses</li> <li>Labor Market Engagement Index</li> <li>Commercial Diversity</li> </ul>	<ul> <li>New Businesses<sup>†</sup></li> <li>Spend Growth<sup>†</sup></li> <li>Small Business Loans</li> </ul>
	Community  Economic and social conditions	<ul> <li>Gini Coefficient</li> <li>Early Education Enrollment</li> <li>Female Above Poverty</li> <li>Health Insurance Coverage</li> </ul>	<ul> <li>Personal Income</li> <li>Growth in Spending per Capita<sup>†</sup></li> </ul>



# Metric Definitions and Sources | PLACE

Housing, infrastructure, and the built environment

**Growth Metric | | Inclusion Metric** 

Metric	Definition	Source
Net Occupancy	Percentage growth in population of renter and owner-occupied housing units	ACS 5-Year, Table B25008
Residential Real Estate Value	Percentage growth of value of residential real estate	ACS 5-Year, Table B25082
Acres of Park Land	Percentage of designated tract land area that is park land	Trust for Public Land, PAD-US
Affordable Housing	Percentage of renter and owner-occupied housing units where monthly costs are lower than 30 percent of income	ACS 5-Year, Table B25106
Internet Access	Percentage of households with an internet subscription	ACS 5-Year, Table B28011
Travel Time to Work	Percentage of workers with travel time to work under 35 minutes	ACS 5-Year, Table B08303



# Metric Definitions and Sources | **ECONOMY**

Business growth, jobs, and spending

**Growth Metric | | Inclusion Metric** 

Metric	Definition	Source
New Businesses	Percentage growth of net new businesses based on anonymized and aggregated location data	Mastercard†
Spend Growth	Percentage growth of spending based on anonymized and aggregated indexed transaction data	Mastercard†
Small Business Loans	Percentage growth of the number of small business loans	Federal Financial Institutions Examination Council (FFIEC)
Minority/Women Owned Businesses	Percentage of Minority or women-owned businesses out of all businesses	Commercial Data Provider, Mastercard
Labor Market Engagement Index	Index representing the combined employment, labor force participation, and percentage with bachelor's degree	Housing and Urban Development (HUD)
Commercial Diversity	Percentage of business types represented as a percentage of total possible business types	POI Provider

# Metric Definitions and Sources | COMMUNITY

### Economic and social conditions

**Growth Metric | | Inclusion Metric** 

Name	Definition	Source
Personal Income	Percentage growth of per capita income	ACS 5-Year, Table B19301
<b>Growth in Spending Per Capita</b>	Percentage growth of average spend per person based on anonymized and aggregated indexed transaction data	Mastercard†
Gini Coefficient	Gini coefficient of income inequality (lower coefficient denotes lower inequality) represented through a percentage	ACS 5-Year, Table B19083
Early Education Enrollment	Percentage of population under the age of five enrolled in early education programs	ACS 5-Year, Tables B14001, B01001
Female Above Poverty	Percentage of females living above the poverty	ACS 5-Year, Table B17001
Health Insurance Coverage	Percentage of the eligible population with health insurance coverage	ACS 5-Year, Table B27020

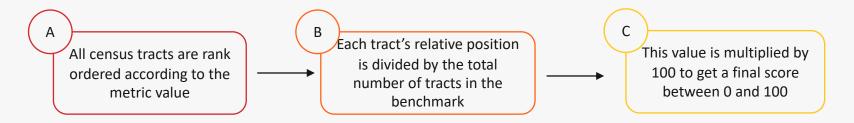
### **Data Sources**

- Mastercard Mastercard is a leading global payments & technology company that connects consumers, businesses, merchants, issuers & governments around the world. The Inclusive Growth Score includes insights based on Mastercard's anonymized and aggregated transaction data
- Leading POI (point of interest) data providers for firmographic data POI providers have vital information on owner diversity and commercial diversity not publicly available or present in Mastercard's aggregated and anonymized transaction data
- **TPL** The Trust for Public Land (TPL) is a U.S. nonprofit organization with a mission to "create parks and protect land for people, ensuring healthy, livable communities for generations to come."
- PAD The U.S. Geological Survey Protected Areas Dataset (PAD) is America's official national inventory of U.S. terrestrial and marine protected areas that are dedicated to the preservation of biological diversity and to other natural, recreation and cultural uses, managed for these purposes through legal or other effective means. The Inclusive Growth Score limits PAD location that are Open Access, used to supplement the Trust for Public Land dataset.
- **HUD** The United States Department of Housing and Urban Development (HUD) is a Cabinet department in the Executive branch of the United States federal government. The Inclusive Growth Score uses HUD's Labor Force Engagement Index.
- ACS The American Community Survey (ACS) is the premier source for information about America's changing population, housing and workforce. The Inclusive Growth Score uses several data points from ACS including percentage of affordable housing and internet access.
- **FFIEC** The Federal Financial Institutions Examination Council (FFIEC) is a formal U.S. government interagency body composed of five banking regulators that is "empowered to prescribe uniform principles, standards, and report forms to promote uniformity in the supervision of financial institutions". The Inclusive Growth Score leverages a metric on the change in number of business loans.



# Methodology - Calculations

**Inclusion metrics** are calculated by rank-ordering all census tracts according to the metric value relative to a user selected base (benchmark):



Score formula for Tract X, Metric A, with State Benchmark:

Inclusion Score = 
$$\frac{A}{B} \frac{Tract X, Metric A's rank}{Total \# of tracts in Tract X's State} \times 100$$



## Methodology - Calculations

- **Growth metrics** are calculated using a **weighted average** of the ranking in the base year (2017) and the ranking in the recent year, with both rankings calculated using the methodology in the previous slide.
- This helps account for magnitudes of growth based on each census tract's unique 'starting point' beginning with IGS's starting year, and enables a measure of relative improvement.

$$Growth = \frac{1}{3} * Rank \ for \ Base \ Year + \frac{2}{3} Rank (\frac{Recent \ Year - Prior \ Year}{Prior \ Year})$$

# Methodology - Calculations

The overall **Inclusive Growth Score** is calculated using an average of averages:

1 For each of the three pillars (Place, Economy, and Community), the corresponding six metrics are averaged:

$$Pillar Score = \frac{\sum Six Metric Scores}{6}$$

2 Each of the pillars are then averaged to get to the final score:

$$Inclusive\ Growth\ Score\ =\ \frac{Place\ Score + Economy\ Score + Community\ Score}{3}$$

<u>Note</u>: All scores are percentiles and therefore on a scale from 0 to 100, with the average percentile as 50. These percentiles are based on relative performance to the "Compare With" geography chosen (e.g. USA, State, Urban-Rural Continuum)



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# Methodology - Benchmarking



Within the platform, the 'Compare With' functionality enables **three calculations of the Score: USA, State, Urban – Rural.** The Score ranks a given census tract in comparison to the selected benchmark: across the country, within the same state, and the same level of urbanization as measured by the USDA Urban-Rural Continuum\*

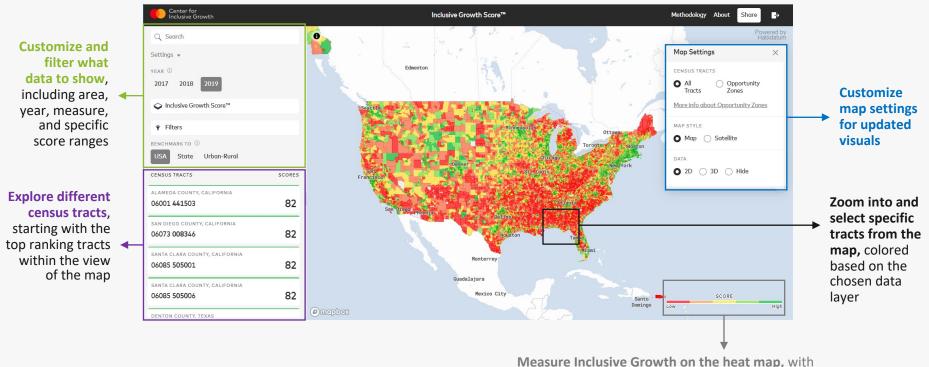
Benchmark	Question Answered	When to Use
USA	How does a community compare to the rest of the USA?	The USA Benchmark provides overall view of economic health, with less specificity and nuance than more localized/focused benchmarks
State	How does a community compare to the rest of the state?	The State Benchmark helps inform prioritization and context for state-level policy and initiatives. The State Benchmark may be less appropriate for communities that are not comparable or similar to others in the state, for example a larger urban community within an otherwise more rural state
Urban-Rural	How does a community compare to areas of similar urbanicity, per the USDA's Urban-Rural Continuum*?	The Urban-Rural Benchmark provides the most focused and 'like-for-like' benchmark with regard to population size and metro designation

\*The USDA Urban – Rural Continuum is a scale of 1 through 9 measuring the population size and metro designation of each county in the US.

- 1: Metro Counties in metro areas of 1 million population or more,
- 2: Metro Counties in metro areas of 250,000 to 1 million population,
- 3: Metro Counties in metro areas of fewer than 250,000 population,
- 4: Nonmetro Urban population of 20,000 or more, adjacent to a metro area
- 5: Nonmetro Urban population of 20,000 or more, not adjacent to a metro area
- 6: Nonmetro Urban population of 2,500 to 19,999, adjacent to a metro area
- 7: Nonmetro Urban population of 2,500 to 19,999, not adjacent to a metro area
- 8: Nonmetro Completely rural or less than 2,500 urban population, adjacent to a metro area
- 9: Nonmetro Completely rural or less than 2,500 urban population, not adjacent to a metro area



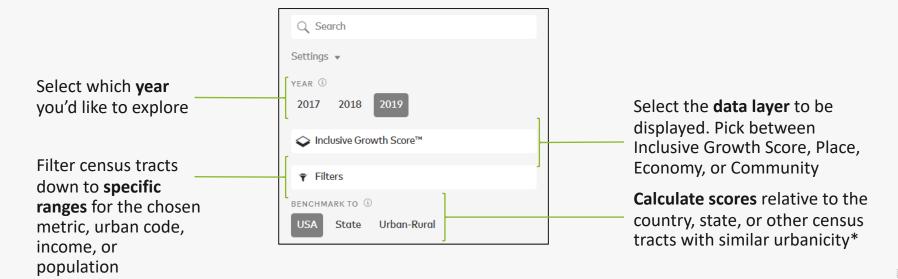
Welcome to the landing page of the Inclusive Growth Score where you can customize, filter, and explore census tracts in more detail.



in green

lower ranking tracts in red and higher ranking tracts

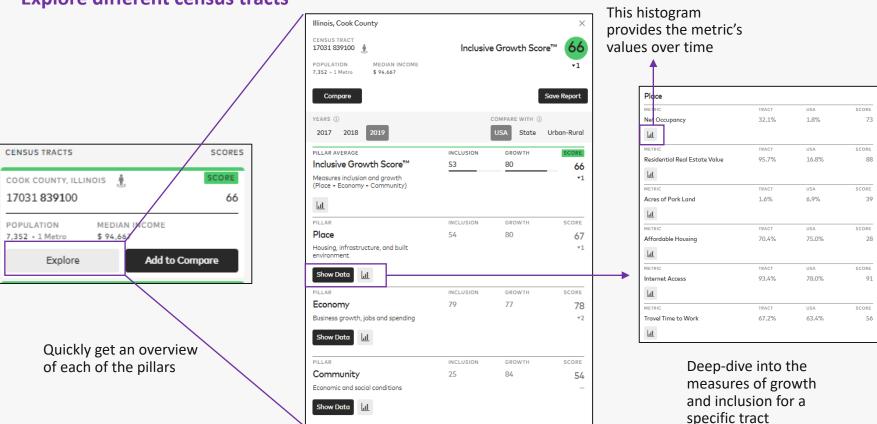
### Customize and filter what data to show





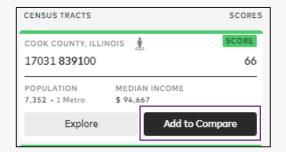
<sup>\*</sup>Within the platform, the 'Compare With' functionality enables three calculations of the Score: USA, State, Urban – Rural. The Score ranks a given census tract benchmarked to census tracts across the country, within the same state, and the same level of urbanization as measured by the USDA Urban-Rural Continuum. See <a href="Menchmarking Methodology">Benchmarking Methodology</a> for more details

**Explore different census tracts** 



# **Compare different census tracts**

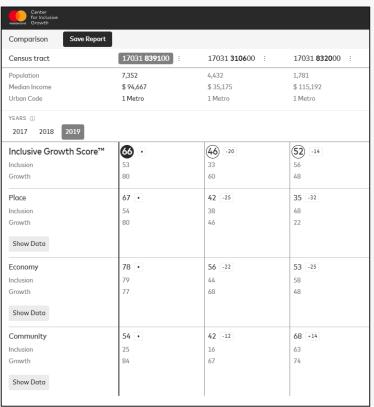
Select up to 5 tracts or groupings of tracts to Compare by clicking on 'Add to Compare'



2 Click into 'Compare X Tracts' to dive into the comparison



Easily customize years and comparison points, and 'Save Report' to get a PDF version of the results broken out by all 18 metrics





# Looking at *groupings* of tracts

1 Select multiple tracts together by holding down the 'ctrl' key in order to see the average scores across those census tracts



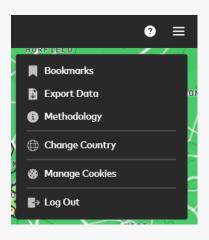
2 Click into the group (using the white arrow) and rename





# **Exporting Data**

Go to the hamburger menu and select 'Export Data'



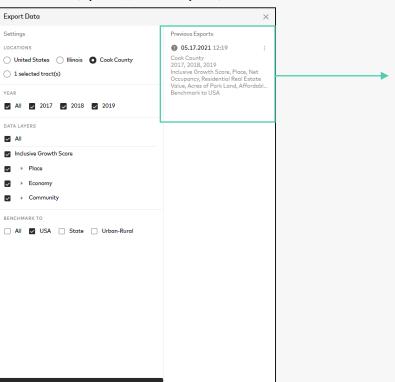
The software will default to export the current settings, which can be customized by clicking 'Settings'

Export Data	×
LOCATIONS	Cook County
TIME	2017-2019
DATA LAYERS	All
BENCHMARK TO	USA
EXPORT FILE	XLSX
Settings	Export



## **Exporting Data**

Customize which locations, years, data layers, and benchmarks to export



View all previous exports, with the ability to export again

# Troubleshooting

### Export taking too long?

### Perform Export on Ranking screen

- 1) Reload IGS app page
- 2) Click on any Census tract (Postcode sector)



1) Click on Hamburger menu —> Export data



Click on Export



Done!

Export process will take much less time from now

### Export an unfinished Export again

- 1) Reload IGS app page
- 2) Click on Hamburger menu —> Export data



1) Click on Settings



- 1) Click on (...) dots at your unfinished Export
- 2) Click on Export Again



Done!

Export process will take much less time from now



# **Inclusive Growth Score** | Grant Application for Disaster Preparedness



### **Background**

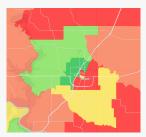
A multi-state team focusing on the smart-transformation of cities leveraged the Inclusive Growth Score to **apply for a disaster relief grant** and illustrate the need for targeted disaster relief in the most under-served communities. The grant application highlighted Durant, Oklahoma, which has been hit by two natural disasters in the past five years. The Inclusive Growth Score **reflected differences in the levels of inclusion and growth within the communities there.** 



### **Process**

Durant is made up of five census tracts that are divided by the I69 highway. As visualized below, there appear to be differences in Durant across I69, where the western side of the city seems to be experiencing greater commercial growth with high income inequality.

Total Inclusive Growth



New Businesses



Gini Coefficient





### **Outcomes and Value Driven**

The team utilized IGS to help identify where disaster relief preparedness is most needed through investigating inclusivity using 18 metrics and easily comparing them across cities. With IGS, existing differences that exacerbate disaster impact in cities like Durant can be addressed through datainsights driven advocacy for grants, funding, policy, and action.



### 1. Where and when?

Focus in on a specific city, state or ZIP code using the search bar on the top left, or zoom in on the map to the area of interest.

We can also select a specific year (2017, 2018, or 2019). Note, the Inclusive Growth Score is updated annually, beginning in 2017, but based on data availability the temporality of each of the measures varies

### 2. Which measures?

Determine which parts of the Inclusive Growth Score are of interest and begin by selecting those metrics, pillars, or metric types. The starting metrics for investigation can be the measures that relate to your specific issue/area of work, or simply the measures that pop out as the strongest or weakest in your community.

Reference the metric details <u>section</u> of the manual.

### 3. Compared to what?

Determine which type of geography you want to benchmark your area of interest to by selecting the appropriate option under 'Compare To'.

Reference the benchmarking <u>section</u> of the manual.

Additionally, determine which census tracts you want to compare to each other for a side-by-side view.

Reference the navigation <u>section</u> of the manual.



Look out for thought starters with the light bulb icon!



## Analysis Walkthrough

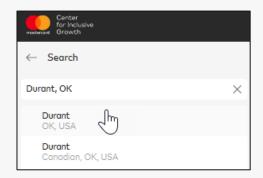
With a place-based approach to economic development, begin your analysis at the census tract level in your community

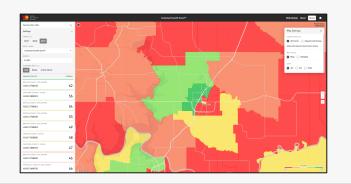
### 1. Where and when?

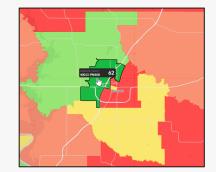
We are specifically interested in Durant, OK, in 2019 so we can start by searching for that city:

What we see initially is the Inclusive Growth Score by tract for Durant, with the left side panel displaying top ranked tracks on screen:

There is a clear separation on either side highway I-69 in Durant. We can click into the highest ranking tract to see what's driving the score:









- From a geo-spatial view, what could be driving disparities? Do zoning laws, geographicbased policies, transportation barriers, and other infrastructure boundaries help explain any disparities in growth and inclusion in your community?
- What other surrounding areas could be helpful to look at to get a holistic view?



## Analysis Walkthrough

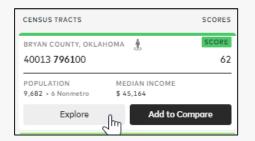
Begin an exploration by matching your priorities with relevant measures as well as investigating extremes

### 2. Which measures?

While the Inclusive Growth Score is the default view, we can easily dive into any of the 18 metrics. In Durant, we can start with the overall Score given the stark differences between tracts:



We see here the overall score, but to get a detailed view into individual metrics, we can also select 'Explore' for an individual or a group of census tracts. We want to understand what is driving the score of 62 (which was relatively high) in this census tract:



We then see each of the pillars and metrics that provide indications of an area's inclusive growth. This reveals that the Economy pillar is performing especially well, whereas the Community pillar is quite low in contrast.





- How do each of the three Pillars compare and which is the strongest?
- How does Inclusion vary from Growth and what's driving that?
  - Do these disparities align with the local understanding of these communities? Why or why not?



## Analysis Walkthrough

Determine the relevant benchmark and comparison in order to understand relative measures of equity and access

### 3. Compared to what?

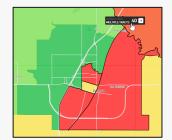
The benchmark is the geography relative to which the ranks are calculated. Given we want to understand disaster preparedness relative to the rest of the country, we leave the benchmark at 'USA':

USA State Urban-Rural

With this benchmark, we can now choose different census tracts to see how their scores compare to one another. For Durant, we want to group the tracts on either side of the highway and compare the groupings to see what is driving the divide:



In order to capture all tracts east of the highway instead of a single one, we select multiple census tracts and look at that group as one to compare back to the west side:





- Comparing to the rest of the US is most helpful for nationwide programs, whereas the state benchmark is most helpful for state-specific programs. However, the urban-rural benchmark is often the most effective in comparing similar census tracts given it is based on urbanicity and compares similarly populated tracts. What is the most relevant benchmark for your analysis/question?
- How did your hypothesis on differences and similarities between census tracts and relative rankings of each census tract align or differ from the data?

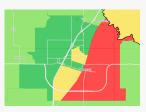


Total Inclusive Growth



- There is a clear disparity in the overall levels of inclusion and growth between the east and west sides of the highway (white line)
- When looking at the pillars side-by-side, Place and Economy are much stronger for the west side than the east side, while Community is more similar, indicating what the relative strengths are for each

New Businesses



- New businesses are opening faster on the west side, falling in the 91<sup>st</sup> percentile of growth across the USA, compared 14<sup>th</sup> percentile for the east side
- This presents evidence that **economic growth may be concentrated in the west side** of Durant, OK, with the east side trailing behind and requiring more assistance in the case of a disaster

Gini Coefficient



- Income inequality, as measured by the Gini Coefficient, varies substantially east to west. Eastern Durant has slower economic growth and fewer resources, but shares those more equally among its residents.
- The disparity in income inequality and other Inclusion metrics on the eastern and western sides of the city underscore the imbalance in Durant and need for greater disaster preparedness in the eastern half of the city

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# Analysis Walkthrough

While not exhaustive, the following questions and considerations are a good starting point for any analysis using the Inclusive Growth Score:

### Questions

- Which measures are most **relevant to my use case**, and which tell the most compelling story?
- How do different measures interact with one another?
- What is the most meaningful benchmark (USA, State, Urban-Rural) to rank my census tracts of interest?
- How can I leverage year-over-year trends in the Inclusive Growth Score to understand how my community is changing?
- ☐ How can I use IGS to support existing initiatives or propose new investments based on the current state of my community?
- What other measures can I pull in to supplement the analysis?

### **Considerations**

- Contextualizing a census tract by looking at the performance of surrounding census tracts can tell a powerful story. For example, one specific census tract may have a high IGS, driven by economic factors, but if all surrounding tracts rank poorly, that can indicate broader issues around inclusion.
- Looking at each specific measure can help illustrate exactly what strengths and weaknesses a specific community has and what areas need to be addressed
- It's important to recognize areas where **the data available** may not accurately reflect the community. For example, Mastercard aggregated and anonymized transaction data may provide limited insight in an area that is largely cash-based
- These 18 metrics are representative of important components, and represent Center for Inclusive Growth theory of economic change, but are not exhaustive. Other measures can be looked at depending on the use-case.



# **Partnerships & Questions**



Question or comments? Reach out to us at inclusivegrowthscore@mastercard.com.

If your organization is interested in building upon the Inclusive Growth Score or incorporating the data into your work, we'd love to hear from you, too.