

Minding Our P's and Q's

Using LODES Data to Explore the Impact of the
Paycheck Protection Program

2021 Local Employment Dynamics (LED)
Partnership Virtual Workshop
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Presented by

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Overview

- Historical Relationship between GCWIB and DataNgin Consulting LLC
- Roots of the Current Project
- Sensitizing Questions and Our Approach
- Assumptions
- Some Observations from the Project
- Why This Work Matters
- Next Steps

Historical
Relationship
Between
GCWIB
and DataNgine
Consulting LLC

- Southern Greenville Initiative (2010)
- Skilled Trades Grant Development (2013)
- SC Works Greenville Education and Workforce Summit (2013, 2014)
- High School Equivalency Diploma Accessibility (HSED) Act (2014)
- Greenville Data Collaborative (2014-2015)
- State Workforce Development Board Transportation Grant (2017)
- SIPBRA Grant Development (2018)
- Mobilize 4 Mobility Initiative (2019)

Roots of the Current Project

- **After the U.S. Congress passed the landmark CARES Act spending legislation, the Small Business Administration was authorized to establish what became known as the Paycheck Protection Program**
 - Due to questions raised about implementation of the PPP, Small Business Administration (SBA) released transaction level data for loans in excess of \$150 but suppressed the actual loan values
 - Eleven news organizations and the Center for Public Integrity filed suit in federal court to obtain ALL transaction level data including exact loan amounts from SBA
- **After an initial delay, SBA provided a data release for not only for the both the PPP and EIDL programs**
 - Transaction data provided for PPP, EIDL and EIDL-Advance programs
 - Variables inclusive of business name, business address, characteristics of the applicant, estimated number of workers impacted, loan amount, six-digit NAICS code, lender, and congressional district
- **Based on the relationship between the Greenville Workforce Development Board, DataNgin was contracted to explore what could be done with the newly available transaction data to inform region-wide workforce development initiatives**

Project Sensitizing Questions

Questions #1

- How can the data from the nearly 12M CARES Act related transactions be made more usable across different geographic units?

Question #2

- What data sources, if any, related to workforce development can be merged with the 12M CARES Act transaction data to operationalize “impact”?

Assumptions

#1: Geography matters due to complexity of jurisdictional boundaries and spatial autocorrelation

#2: Although the zip codes are a convenient geographic unit of analysis, they are inadequate for in substantive analyses to assess impact

- They are administrative units subject to arbitrary change
- They are span multiple jurisdiction boundaries in arbitrary ways
- They have limited relevance to workforce or economic development decision making

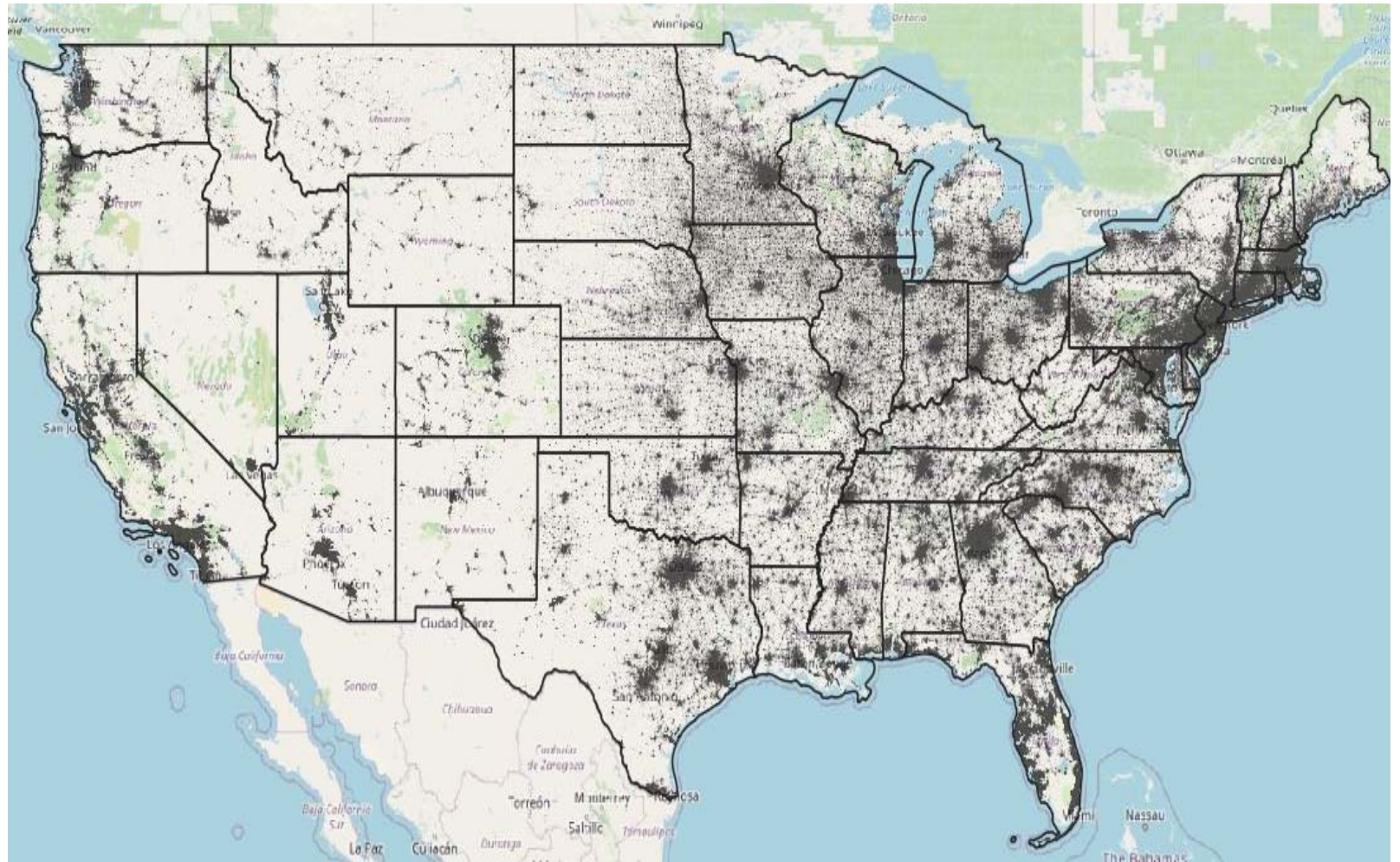
#3: Because geography matters and zip codes are inappropriate, the most effective analytic approach would incorporate had to incorporate a spatial component (GIS)

Our Approach to the Data

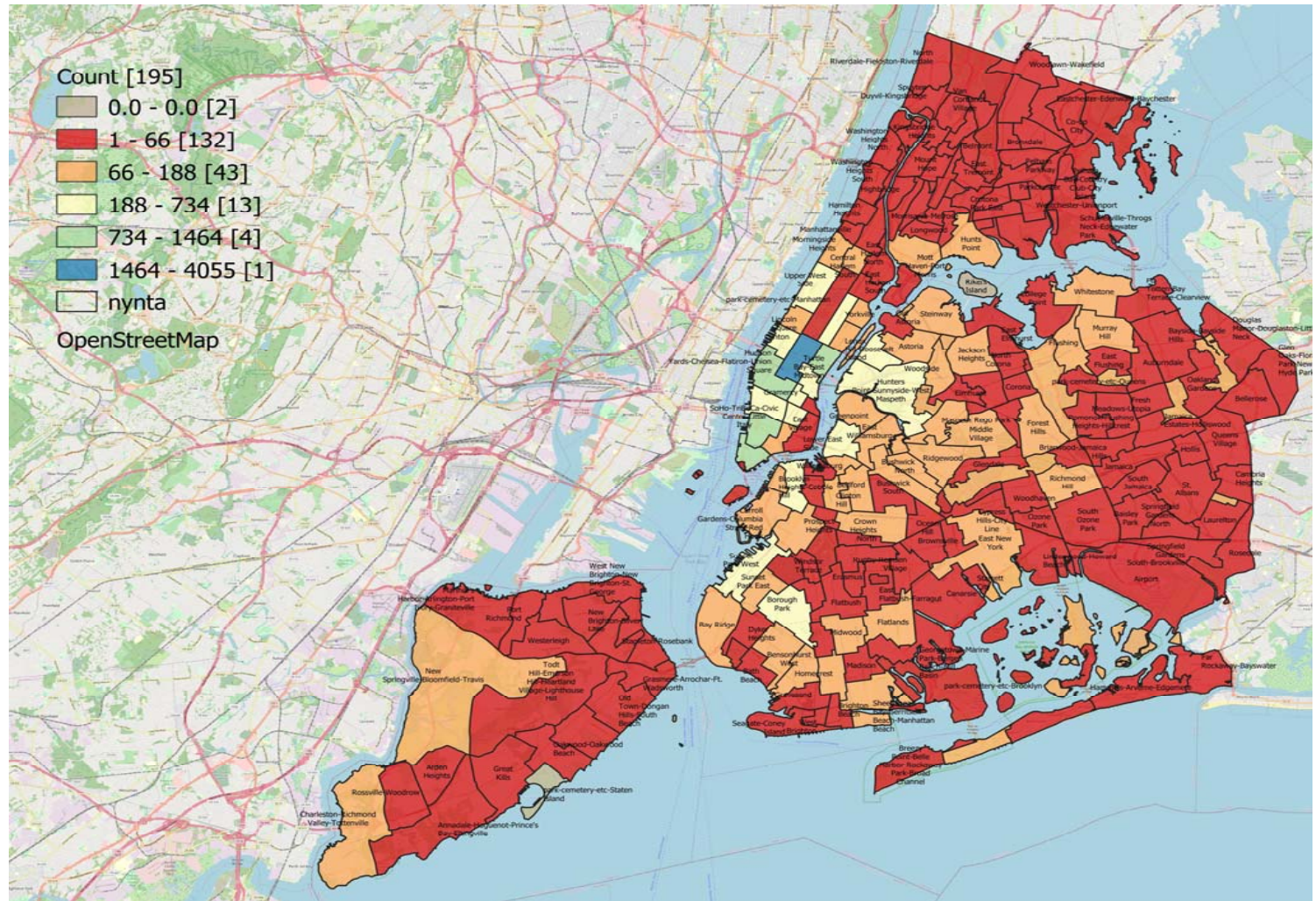
- **Geocode each valid address of provided in each of the three transaction datasets made available**
 - PPP
 - EIDL
 - EIDL-Advance
- **Create spatial joins to existing boundary files to allow aggregation of data at different levels of geographic specificity**
 - LODES crosswalk file
 - PUMA boundaries
 - Economic areas boundaries (BEA)
 - Local geography (councils of government, WIOA regions, county planning areas, school districts,)
- **Use geoids in spatially joined data to create unique datasets designed to transaction data aggregated to different levels of geography, e.g., WIOA boundaries, PUMAs, council districts, block groups**
 - LODES
 - ACS PUMS


National Mapping of Paycheck Protection Program Loans

(as of December 1, 2020)



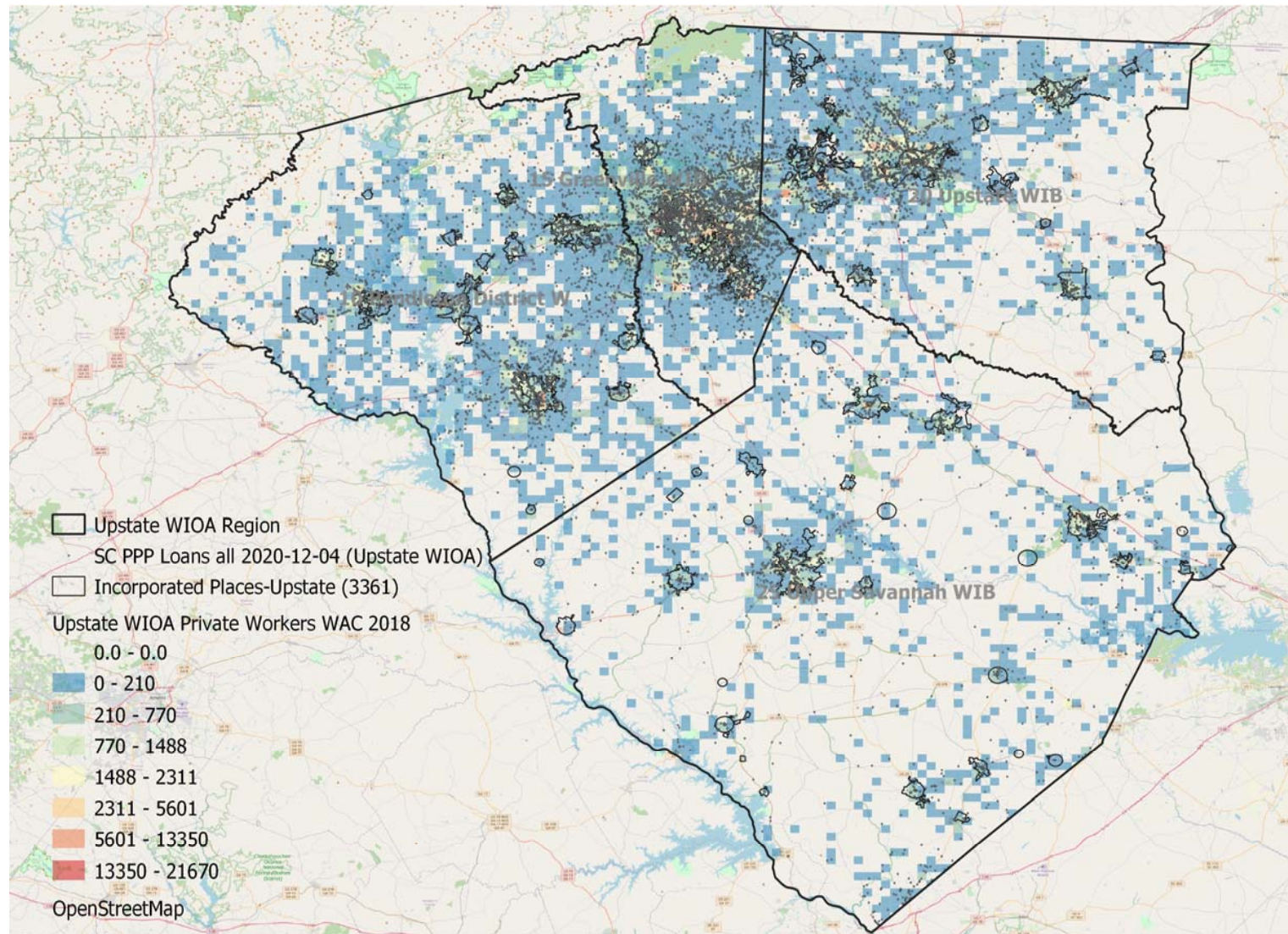
NYC PPP Transactions Mapped to Neighborhood Boundaries (as of December 1, 2020)



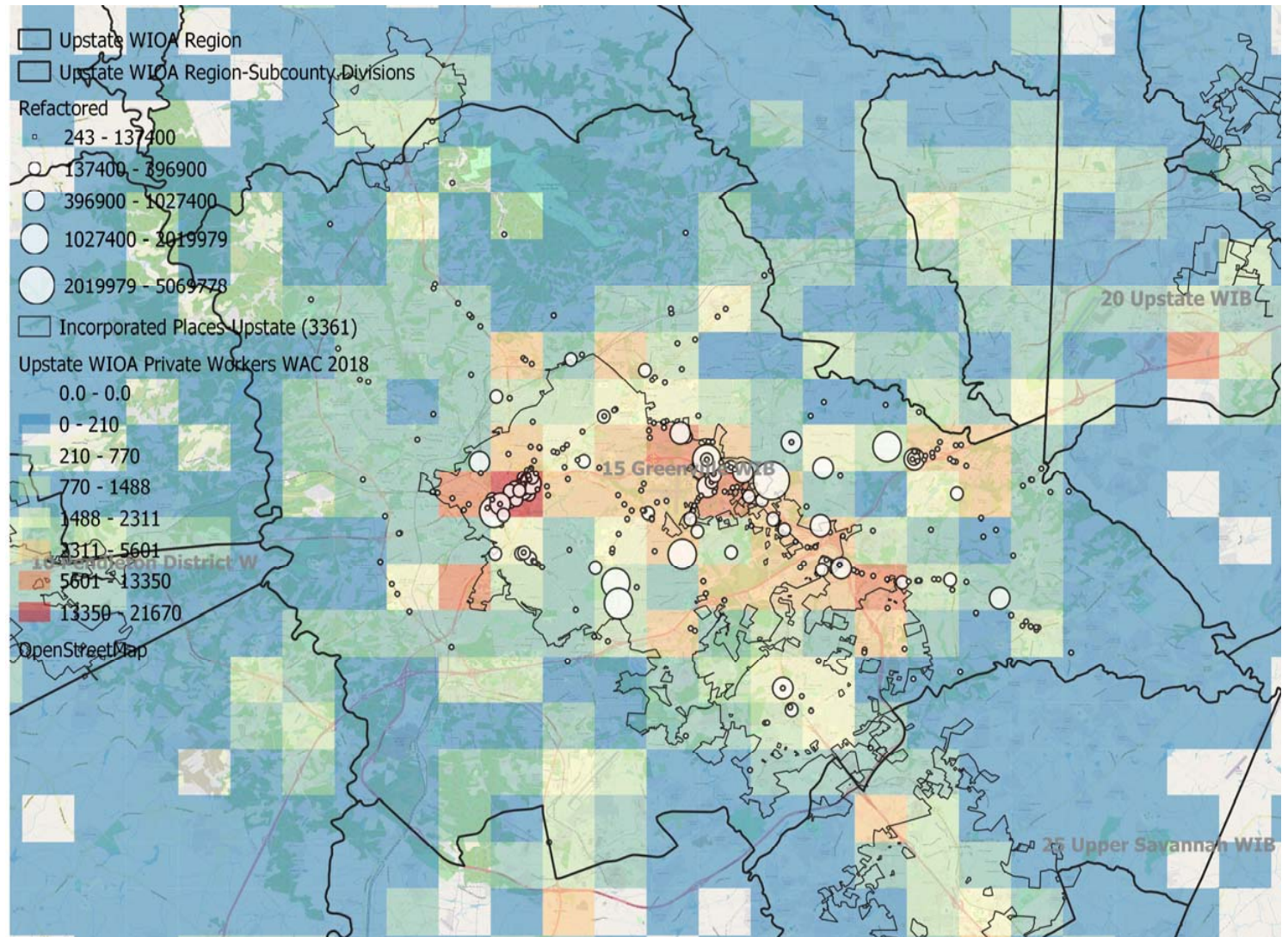


Examples that Use LODES Data

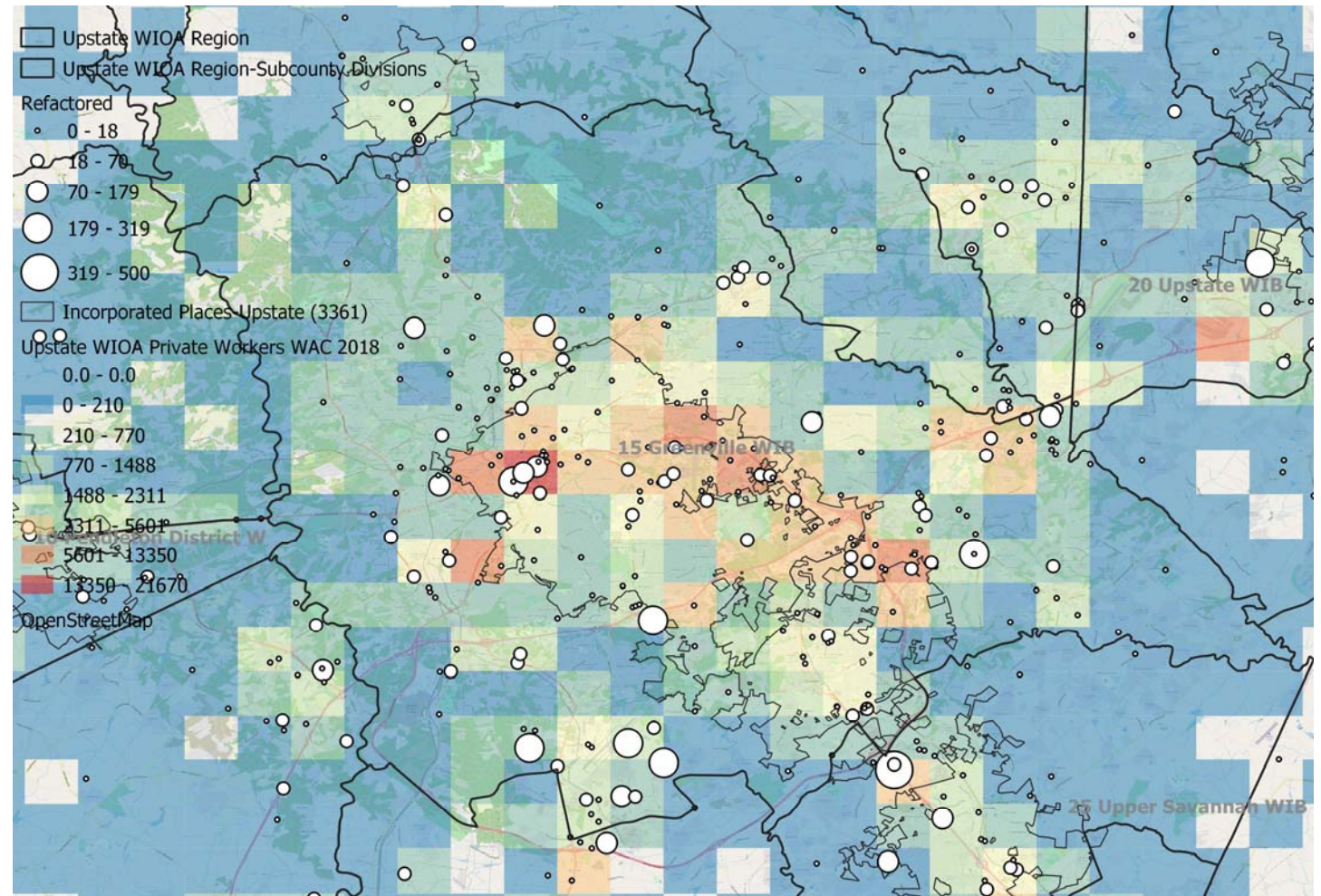
Total Count of Workers by Work Area and Density of PPP Loan Transactions, Upstate WIOA Region



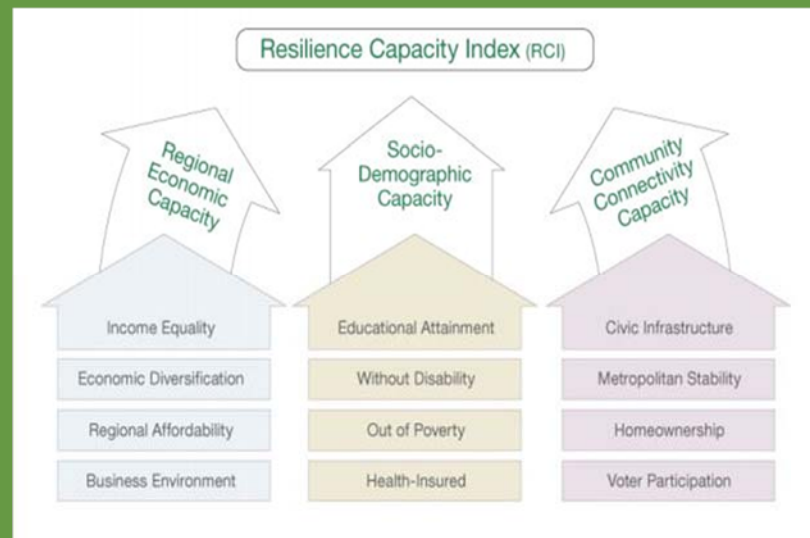
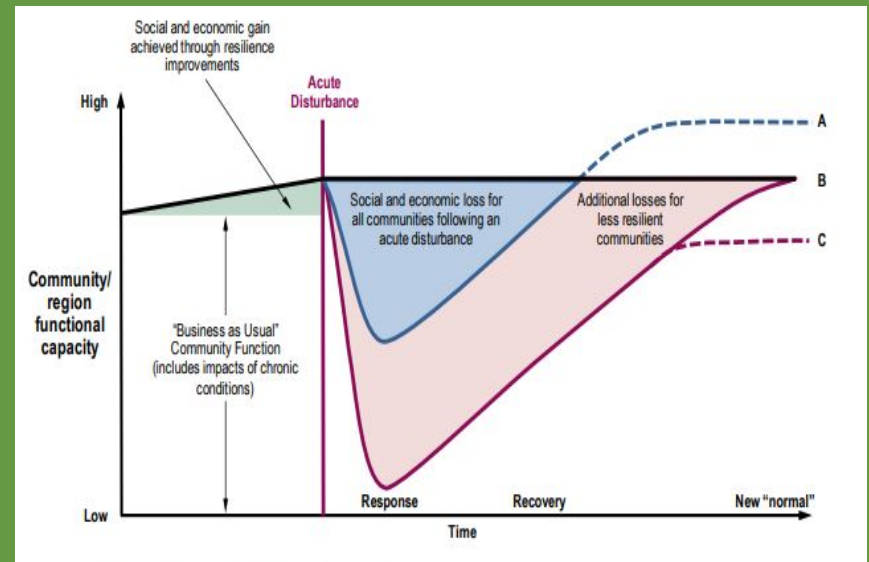
Distribution of PPP Transactions by Loan Amount for NAICS 72, Accommodations and Food Sector, by Total Work Area Employment Concentration in Central Greenville County



Distribution of Workers Reported as Impacted by PPP Transactions for NAICS 31-32, Manufacturing Sector, by Total Work Area Employment Concentration in Central Greenville County



Why This Work Matters



Next Steps

- **Include all CARES Act funding streams**
 - Statewide
 - Federal
 - EIDL
 - EIDL Advance
- **Systematic assessment of industries (Six-digit NAICS)**
- **Refine the metrics**
 - Weighting of PPP variables for comparability across geography
 - Exploration of time as a variable
 - Addition of estimates from other sources, e.g., ACS PUMS
- **Identification of “funding deserts”**
 - How much funding received pre-COVID dollars
 - CDFI Funding dollars
 - CDBG
 - How much funding received as a result of COVID
 - What options for pandemic recovery
- **Move beyond descriptive statistics**



Questions
&
Answers



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