CLIMATE ADAPTATION FORUM

Unprecedented Funding for Unprecedented Times:

Demystifying Federal Funds for Climate Resilience

EBC Environmental Business Council of New England, Inc.

UMASS BOSTON Sustainable Solutions Lab

WELCOME

Kelly Knee

Forum Organizer

Executive Director of Ocean Sciences
RPS North America


EBC
Environmental Business Council of New England, Inc.
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MAKING COMPLEX EASY
AECOM
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Known for excellence. Built on trust.
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Science for a healthy planet and safer world
CED
Center for Economic Democracy
clf
conservation law foundation
MACC
BOSTON HARBOR NOW
NOAH
MASS ECAN
Massachusetts Ecosystem Climate Adaptation Network
BSA
BOSTON SOCIETY OF ARCHITECTS/AIA
BSLA
Boston Society of Landscape Architects
CLEAN WATER ACTION | CLEAN WATER FUND
Mass Audubon
Protecting the Nature of Massachusetts

IN REMEMBRANCE

Lauren Sampson

(1991-2022)

Steering Committee Member, Climate Adaptation Forum

Staff Attorney, Lawyers for Civil Rights

FORUM CO-CHAIRS

- **Nasser Brahim,** *Senior Climate Resiliency Specialist*
  Woods Hole Group
- **Carolyn Meklenberg,** *Regional Coordinator, Greater Boston Municipal Vulnerability Program*
  MA Executive Office of Energy & Environmental Affairs
- **Alex Papali,** *Political Director*
  Center for Economic Democracy

INTRODUCTION

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Forum Co-Chair

Senior Climate Resiliency Specialist
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MODERATOR

Carolyn Meklenburg

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Regional Coordinator for Greater Boston
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Access to Federal Funding for Community Resilience

Kasia Hart

Government Affairs Policy Analyst
Metropolitan Area Planning Council

EBC Environmental Business Council of New England, Inc.

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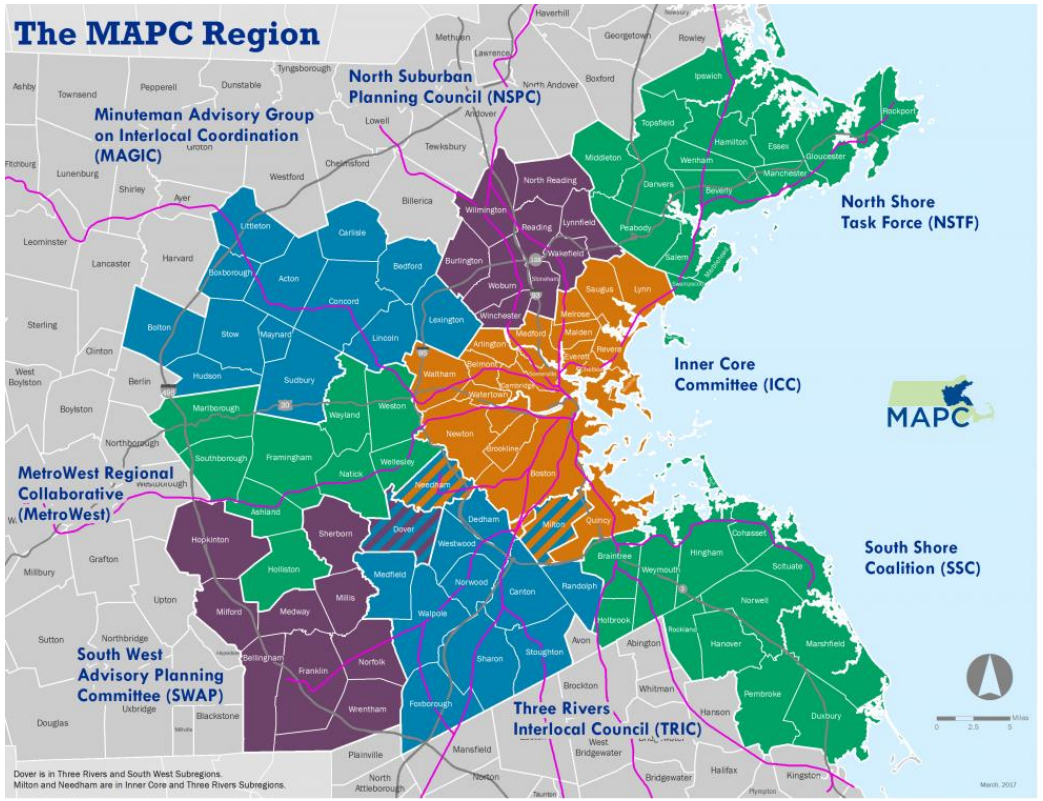
Infrastructure Investment & Jobs Act

Kasia Hart

Metropolitan Area Planning Council

March 4, 2022

MAPC Overview

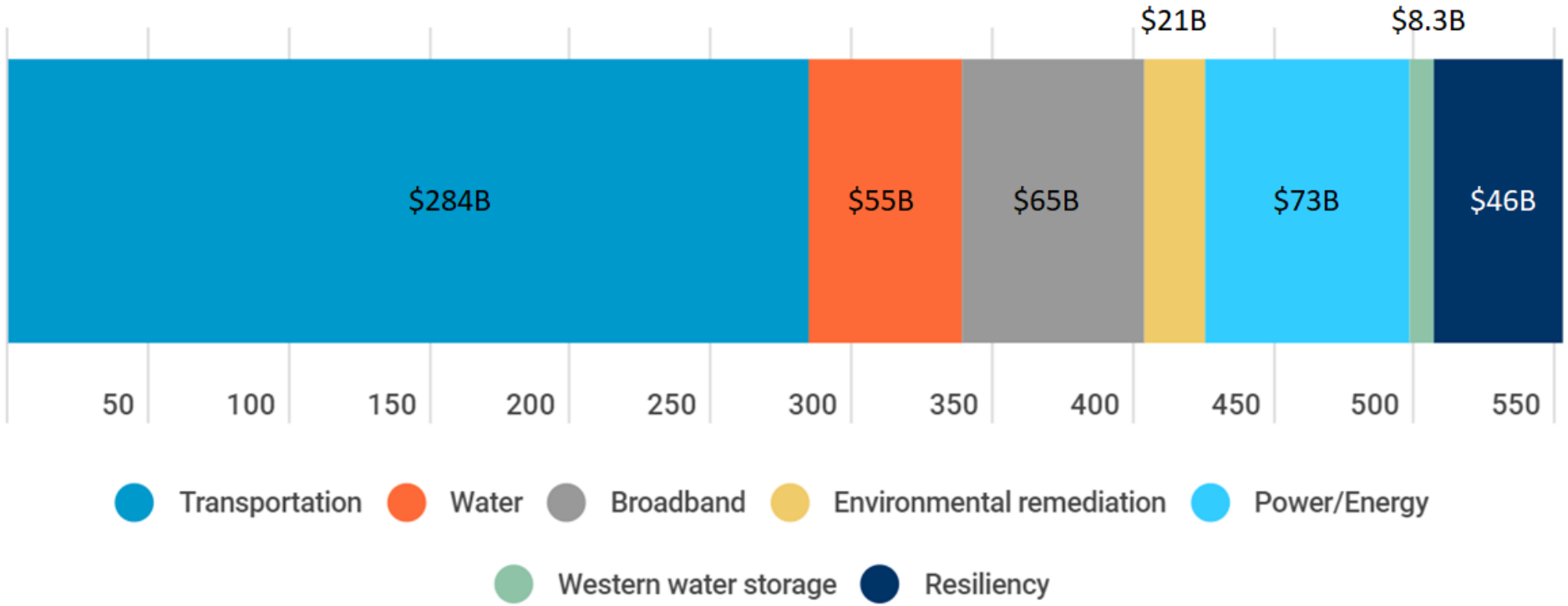


- Regional planning agency that serves the 101 cities and towns of Metro Boston, home to 3.4 million residents
- Mission is to promote smart growth and regional collaboration
- Guided by our recently adopted regional plan, MetroCommon x 2050

IIJA Overview

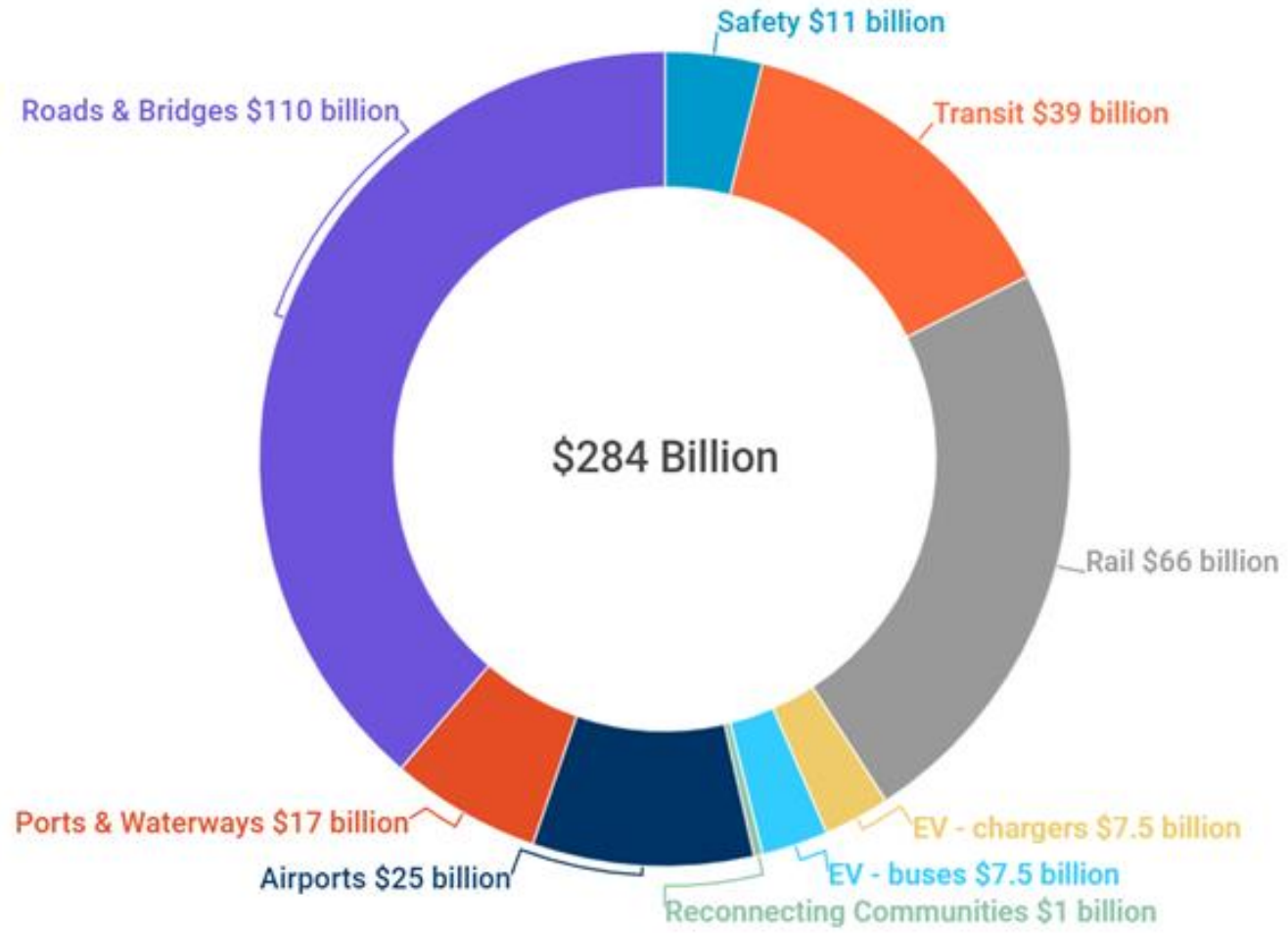
- $1.2T five-year law includes reauthorization of surface transportation and drinking/wastewater legislation, as well as new money for transportation, clean energy, broadband infrastructure, climate resiliency, and more.
  - New funding available totals at approximately $550B
- Funding is generally available through new and existing formula and competitive grant programs

The $550B in new investments include:



Source: National Association of Counties

The $284B in new transportation funding includes:



Source: National Association of Counties

Opportunities for Massachusetts

- Estimated formula funds to Massachusetts over five years include:
  - $5.3B in Federal highway formula funding for highways and bridges
  - $2.8B to improve public transit options
  - $1.1B for water infrastructure improvements
  - $244M for airport infrastructure
  - $107M for transportation resiliency improvements
  - $94M to reduce transportation emissions
  - $63M to expand EV charging infrastructure
- Additional expected funding allocations include:
  - $100M to expand broadband access
  - $15.7M for cyber attack protection
  - $5.8M for wildfire protection
- This does not include opportunities available through new and existing competitive grant programs

Source: White House BIL Massachusetts Fact Sheet

Role of MPOs

- Metropolitan Planning Organizations: federally designated entities that carry out transportation planning for a specific metropolitan area. There are ten MPOs in Massachusetts and three Rural Transportation Organizations that function similarly.
- All federal transportation funding is programmed by MPOs for specific projects, both formula funds and competitive grants.
- MassDOT, MBTA, and RTAs identify the majority of projects for funding that the MPOs review for approval. The MPOs also reserve a subset of funding each year for municipal priorities that cities and towns compete for.
- Since the IIJA contains the Surface Transportation Reauthorization Act, federal transportation funds will continue to be allocated based on this process.
- The greatest opportunity for "additional" funding through the IIJA are the new discretionary grant programs that municipalities, regions, and states will compete for.

Additional Resources

- White House infrastructure bill page: https://www.whitehouse.gov/build/
- Several federal agencies have created webpages specifically for IIJA updates
  - https://www.fhwa.dot.gov/bipartisan-infrastructure-law/
  - https://www.transit.dot.gov/BIL
  - https://www.epa.gov/infrastructure
  - https://www.energy.gov/bipartisan-infrastructure-law
- MAPC is compiling IIJA summaries and resources on our website here: https://www.mapc.org/resource-library/iija/

Thank you!

Kasia Hart, Policy Analyst

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Access to Federal Funding for Community Resilience

Brendan Sweeney

Director of Intergovernmental Affairs
Executive Office of Administration and Finance
Commonwealth of Massachusetts

EBC Environmental Business Council of New England, Inc.

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Commonwealth of Massachusetts

Executive Office for Administration & Finance

Federal Funds Office (FFO)

Coronavirus Local Fiscal Recovery Fund:
Water & Sewer Infrastructure and Climate Resiliency

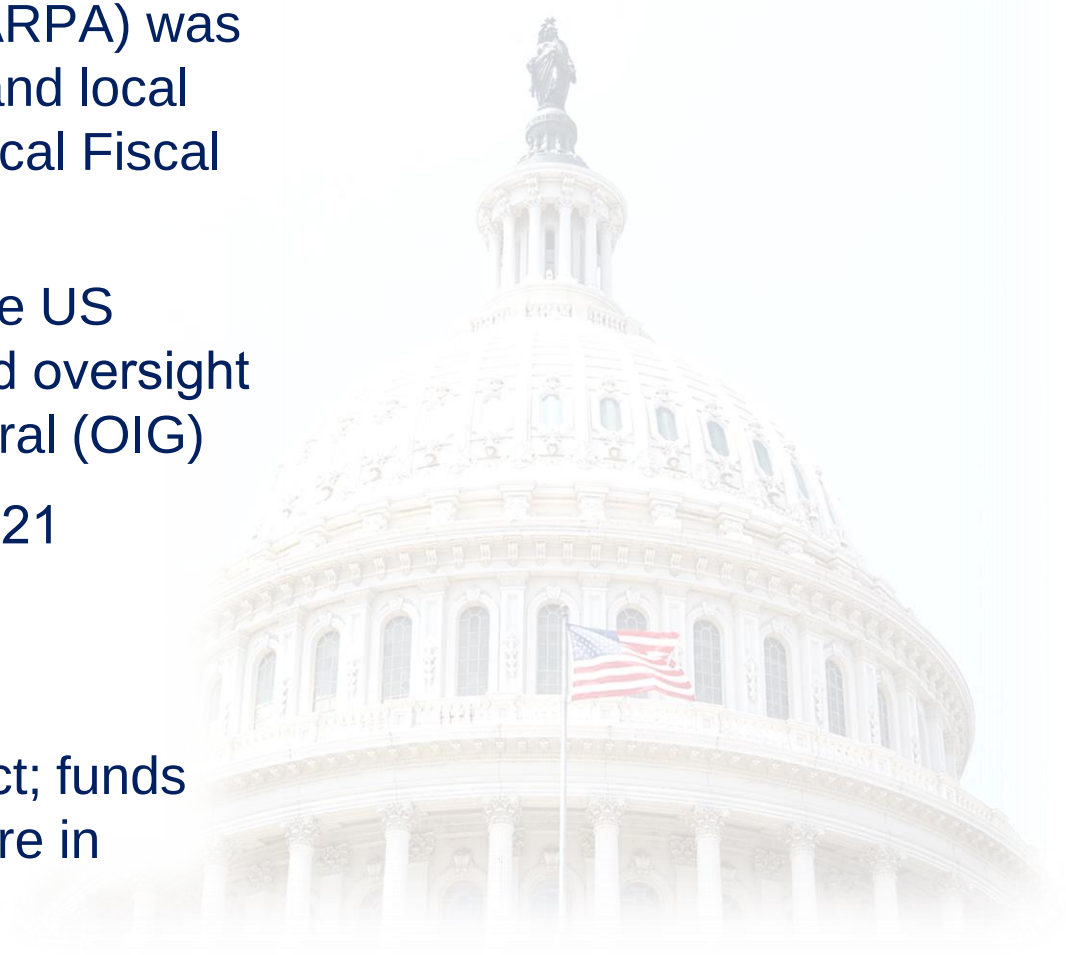
March 2022

All figures subject to change

State and Local Funding from the American Rescue Plan Act (ARPA)

Coronavirus State and Local Fiscal Recovery Funds

- On March 11, 2021, the American Rescue Plan Act (ARPA) was signed into law, appropriating **$350 B** for direct state and local government aid through the Coronavirus State and Local Fiscal Recovery Funds (CSLFRF)
- This program is administered at the federal level by the US Department of the Treasury ("Treasury") with audit and oversight provided by the US Treasury Office of Inspector General (OIG)
- "Interim Final Rule" created by US Treasury in May 2021
- Final Rule issued in January 2022
  - › Final Rule takes effect on **April 1, 2022**
  - › Until April 1, the Interim Final Rule remains in effect; funds used consistently with the IFR while it is in effect are in compliance with the SLFRF program



Water & Sewer Infrastructure and Climate Resiliency

Relevant Highlights from State's $4 Billion Federal COVID-19 Relief Funding Spending Bill

- $100 million to fund grants for water and sewer infrastructure improvements
- $100 million to improve culverts, dams, and other environmental infrastructure
- $90 million for marine port development
- $25 million for greening gateway cities

Overview

Four Key Eligible Use Categories

1. Public Sector Revenues
2. Public Health & Economic Response
3. Premium Pay for Essential Workers
4. Water, Sewer & Broadband Infrastructure

Water & Sewer Infrastructure

Building/Repairing Water and Sewer Infrastructure

- There are opportunities for communities to use CLFRF funding to address necessary resiliency measures to adapt to climate change
- Water and sewer infrastructure projects are eligible under EPA's State Revolving Funds are eligible
  - › Clean Water State Revolving Fund (CWSRF)
  - › Drinking Water State Revolving Fund (DWSRF)
- Final Rule expands eligibility to include lead remediation, stormwater infrastructure (incl. culverts), residential wells, and certain dam and reservoir rehabilitation

Examples of Eligible Projects (CWSRF)

- Construction of publicly owned treatment works
- Projects pursuant to implementation of a nonpoint source pollution management program established under the Clean Water Act (CWA)
- Decentralized wastewater treatment systems that treat municipal wastewater or domestic sewage
- Management and treatment of stormwater or subsurface drainage water
- Water conservation, efficiency, or reuse measures
- Development and implementation of a conservation and management plan under the CWA
- Watershed projects meeting the criteria set forth in the CWA
- Energy consumption reduction for publicly owned treatment works
- Reuse or recycling of wastewater, stormwater, or subsurface drainage water
- Security of publicly owned treatment works

Water & Sewer Infrastructure

Examples of Eligible Projects (DWSRF)

- Facilities to improve drinking water quality
- Transmission and distribution, including improvements of water pressure or prevention of contamination in infrastructure and lead service line replacements
- New sources to replace contaminated drinking water or increase drought resilience, including aquifer storage and recovery system for water storage
- Green infrastructure, including green roofs, rainwater harvesting collection, permeable pavement
- Storage of drinking water, such as to prevent contaminants or equalize water demands
- Purchase of water systems and interconnection of systems
- New community water systems

Water & Sewer Infrastructure

New Eligible Projects Under the Final Rule

- Culvert repair, resizing, and removal, replacement of storm sewers, and additional types of stormwater infrastructure
- Infrastructure to improve access to safe drinking water for individual served by residential wells, including testing initiatives, and treatment/remediation strategies that address contamination
- Dam and reservoir rehabilitation if primary purpose of dam or reservoir is for drinking water supply and project is necessary for provision of drinking water
- Broad set of lead remediation projects eligible under EPA grant programs authorized by the Water Infrastructure Improvements for the Nation (WIIN) Act, such as lead testing, installation of corrosion control treatment, lead service line replacement, as well as water quality testing, compliance monitoring, and remediation activities, including replacement of internal plumbing and faucets and fixtures in schools and childcare facilities

Water & Sewer Infrastructure

Helpful Links

- US Treasury CSLFRF Resources
  - › Final Rule
  - › Overview of the Final Rule
- Overview of State's $4 B COVID-19 Relief Bill
  - › List of Earmarked Funding

Contact Information

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Access to Federal Funding for Community Resilience

Mayor Gary Christenson

City of Malden
Commonwealth of Massachusetts

EBC Environmental Business Council of New England, Inc.

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City of Malden

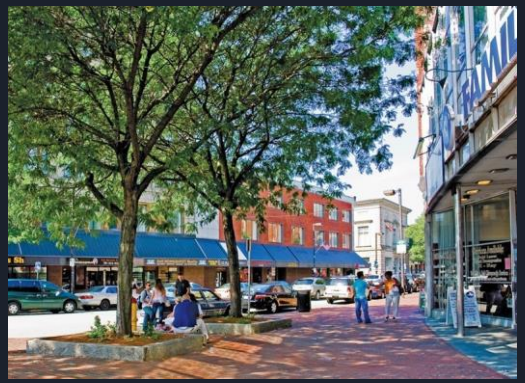
March 4, 2022

Malden Earmarks in the ARPA Bill:

Town Line Brook Floodgate: $50,000 shall be expended for repairs for the Town Line brook floodgate between the cities of Malden and Revere.

Malden Urban Forestry Greening: $100,000 shall be expended to the City of Malden for urban and community forestry greening.

Malden Energy Efficient Street Lighting: $85,000 shall be expended to the City of Malden for the replacement of inefficient 1868 street lighting with energy efficient alternatives.



Bread of Life

Food for the body...Nurture for the soul

eliminating racism
empowering women
ywca

moa
malden overcoming addiction

The
Immigrant
Learning Center

MALDEN
FIRE

Lead Line Replacements

$2M in American Rescue Plan Funding

$3.36M in Community Project Funding (CPF)

Malden River Works

Department of Public Works

Climate Resilience

Use the park to improve climate resilience

- **For flooding from sea level rise:** create a flood resilient Malden River Greenway
- **For flooding from storms:** Use nature-based processes (plants and soils) to hold and filter stormwater
- **For extreme heat:** Increase tree and plant coverage to lower local temperatures

Left to right: Malden River Greenway plan, elevated walkway at Hunter's Point South (NYC), nature-based water management in Toronto. See the full Concept Design Report at maldenriverworks.org.

Partnerships:

MALDEN RIVER WORKS
FOR WATERFRONT EQUITY + RESILIENCE

MIT CEHS

FRIENDS OF THE MALDEN RIVER
Malden • Medford • Everett

MALDEN
SETTLED 1640 • TOWN 1649 • CITY 1882
MYSTIC SIDE

Mystic River
WATERSHED ASSOCIATION

Grants:

Municipal Vulnerability Preparedness Grant: $350,000

State ARPA Funds: $150,000

Community Preservation Act Funds: $200,000

MODERATOR

Alex Papali

Forum Co-Chair

Political Director, Center for Economic Democracy

Federal Investment, Community Resilience, and Equity Justice 40

Samantha Medlock

Senior Counsel, Select Committee on the Climate Crisis, U.S. House of Representatives

EBC Environmental Business Council of New England, Inc.

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March 2022

HOUSE SELECT COMMITTEE ON THE CLIMATE CRISIS

Climate Adaptation Forum: The View from Capitol Hill

Samantha Medlock, SCCC Majority Staff

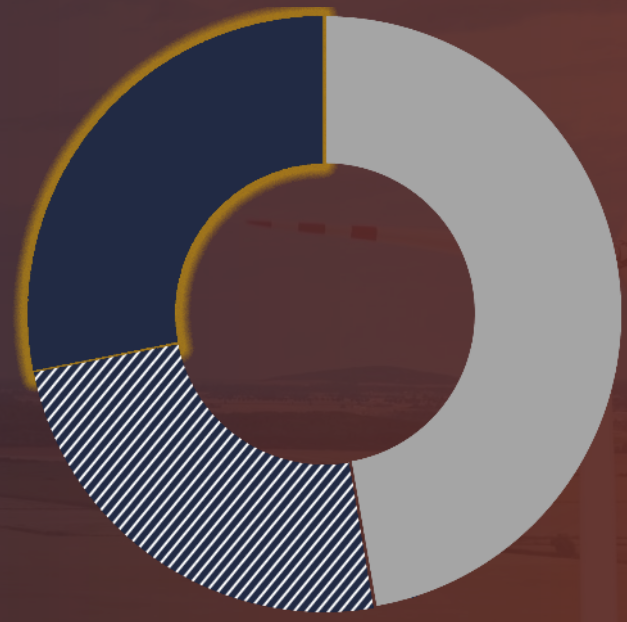
We’ve enacted more than 200 climate policy solutions through the American Rescue Plan, Bipartisan Infrastructure Law, NDAA & More

PROGRESS ON CLIMATE CRISIS ACTION PLAN

March 2022

201 Solutions Turned Into Law

- Strengthening the grid
- Supporting electric vehicles
- Advancing environmental justice
- Strengthening community resilience to floods, drought and wildfires
- Helping military installations reach net-zero and improve preparedness to extreme weather
- Expanding long-duration energy storage



377 *Passed In House*

201 *Signed Into Law*

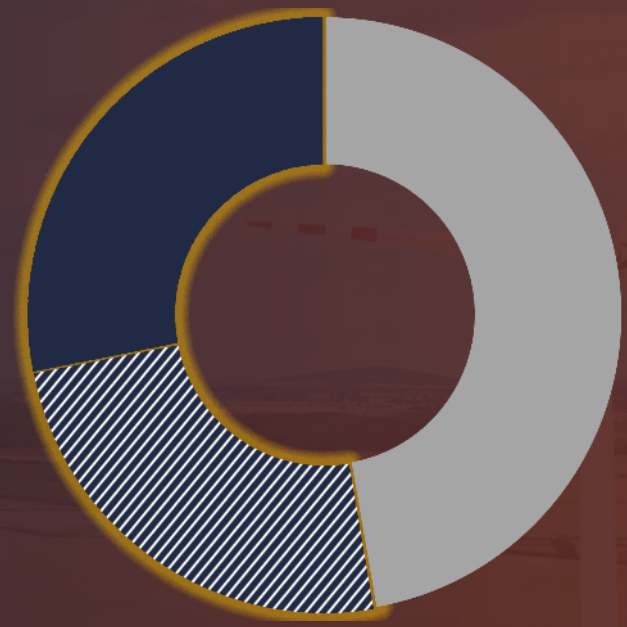
715 *Total Recommendations*

PROGRESS ON CLIMATE CRISIS ACTION PLAN

March 2022

377 Solutions Passed The House

- Expanding tax incentives for resilience retrofits and energy efficiency
- Investing in frontline communities
- Strengthening housing, public buildings and infrastructure against worsening climate impacts
- Helping vulnerable communities access grants and loans for sustainable, resilient economic development



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201 *Signed Into Law*

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EXAMPLES

Bipartisan Infrastructure Law

American Rescue Plan

National Defense Authorization Act

March 2022

American Rescue Plan

Making environmental justice a cornerstone of recovery

The American Rescue Plan invested $100 million for environmental justice grants, including $50 million to increase air quality monitoring, and $50 million to identify and address disproportionate environmental or public health harms and risks in vulnerable populations.

Bipartisan Infrastructure Law

A down payment toward modernized, climate-ready communities

Signed by President Biden in November, the Bipartisan Infrastructure Law includes:

- *Community Climate Resilience*: $1 billion to FEMA for the BRIC program; $500 million in state hazard mitigation revolving loan programs; $466 million for tribal communities.
- *Flood and Coastal Resilience*: $3.5 billion to FEMA for Flood Mitigation Resistance Grants; $5 billion to USACE flood risk reduction programs; more than $1 billion to NOAA; $500 million to NRCS for Watershed and Flood Prevention Operations.
- *Water Infrastructure, Supply, and Drought Resilience*: $8.3 billion to the Department of Interior for water efficiency and recycling programs, rural water projects, and dam safety.
- *The largest investment in clean drinking water in American history*, including $15 billion to replace lead service lines.

Bipartisan Infrastructure Law

A down payment toward modernized, climate-ready communities

- **Ecosystem Restoration and Resilience**: $1.4 billion including funding for stewardship contracts, ecosystem restoration projects, invasive species detection and prevention, and native vegetation restoration efforts.
- **Transportation**: $9 billion to DOT's PROTECT Act Grant Programs.
- **Grid Resilience**: $5 billion to DOE Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency; and $5 billion to DOE Preventing Outages and Enhancing the Resilience of the Electric Grid Grants.
- **Reducing Wildfire Risk**, including funding for hazardous fuels reduction, controlled burning, and community defense resources ($3.3 billion), ecosystem restoration on public and private lands ($2 billion), and burying power lines and building microgrids ($5 billion)

National Defense Authorization Act

Confronting the climate security threat

The bipartisan **FY22 National Defense Authorization Act (NDAA)** includes important climate and resilience provisions that will help military installations reach net-zero on energy, water, and waste by 2035; strengthen military preparedness to the growing threats of wildfire and floods; and expand long-duration energy storage.

Build Back Better Act

Delivering equitable, resilient, clean energy solutions

- Clean energy tax credit extension and expansion for renewable sources
- Civilian Climate Corps and workforce development programs
- Climate and Weather R&D
- Flood and Coastal Climate Resilience
- Technical Assistance to help communities modernize codes and standards
- & More!

March 2022

NEXT STEPS:

Bipartisan Infrastructure Law Implementation
Climate Provisions of the Build Back Better Act

MORE DETAILS:

climatecrisis.house.gov/tracker

Federal Investment, Community Resilience, and Equity Justice 40

Krystal Laymon

Deputy Director for Climate Resilience
Council on Environmental Quality
Executive Office of the President

EBC Environmental Business Council of New England, Inc.

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Federal Investment, Community Resilience, and Equity Justice 40

Justin Schott

Project Manager, Energy Equity Project
Urban Energy Justice Lab, University of Michigan

Energy Equity Project

Climate Adaption Forum

3.4.22

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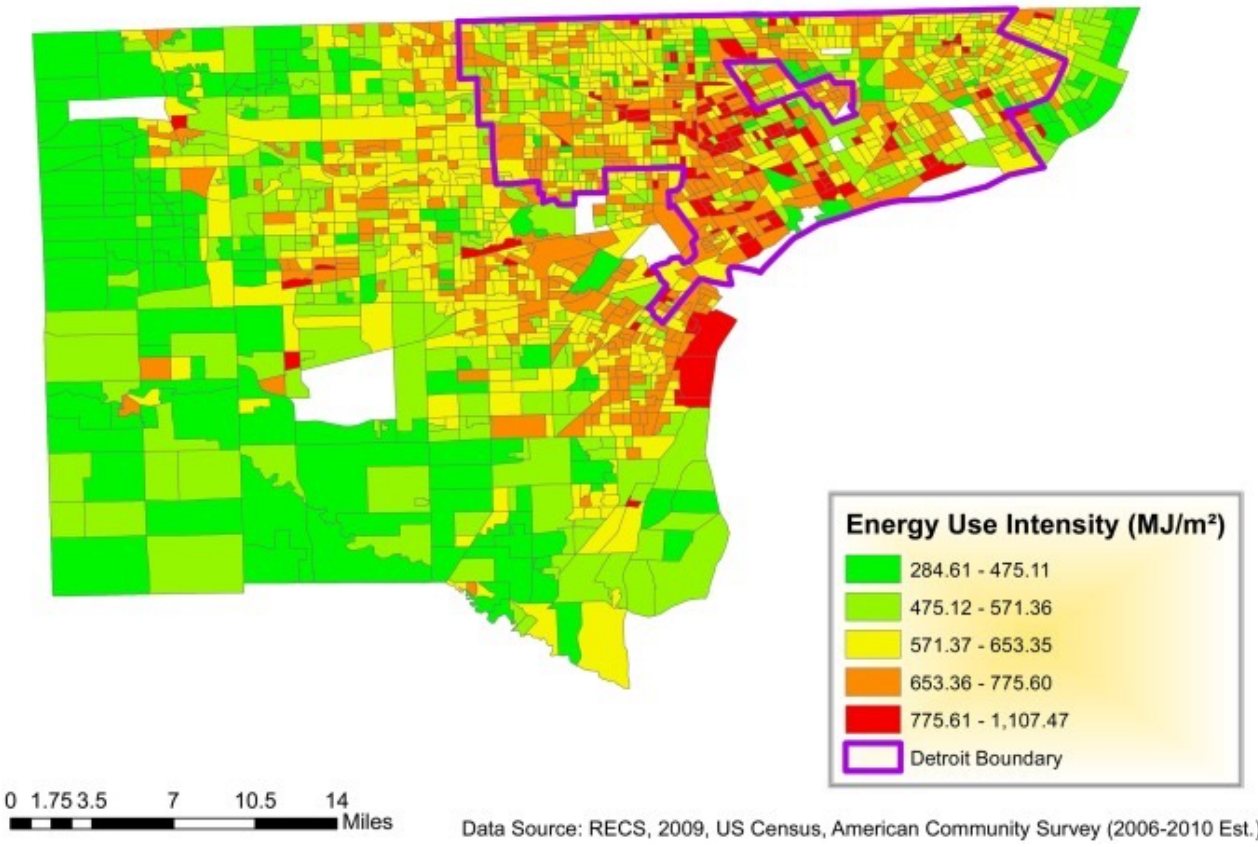
TOWARD A JUST ENERGY SYSTEM



Data Source: RECS, 2009, US Census, American Community Survey (2006-2010 Est.)

Project Team

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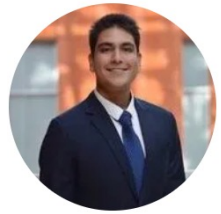

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VISION:

The presence of an equity measurement framework for clean energy programs will improve outcomes for BIPOC, lower-income and frontline environmental justice communities. These communities have historically borne the brunt of environmental harms without partaking in the benefits of more efficient, less polluting, and more affordable forms of energy.

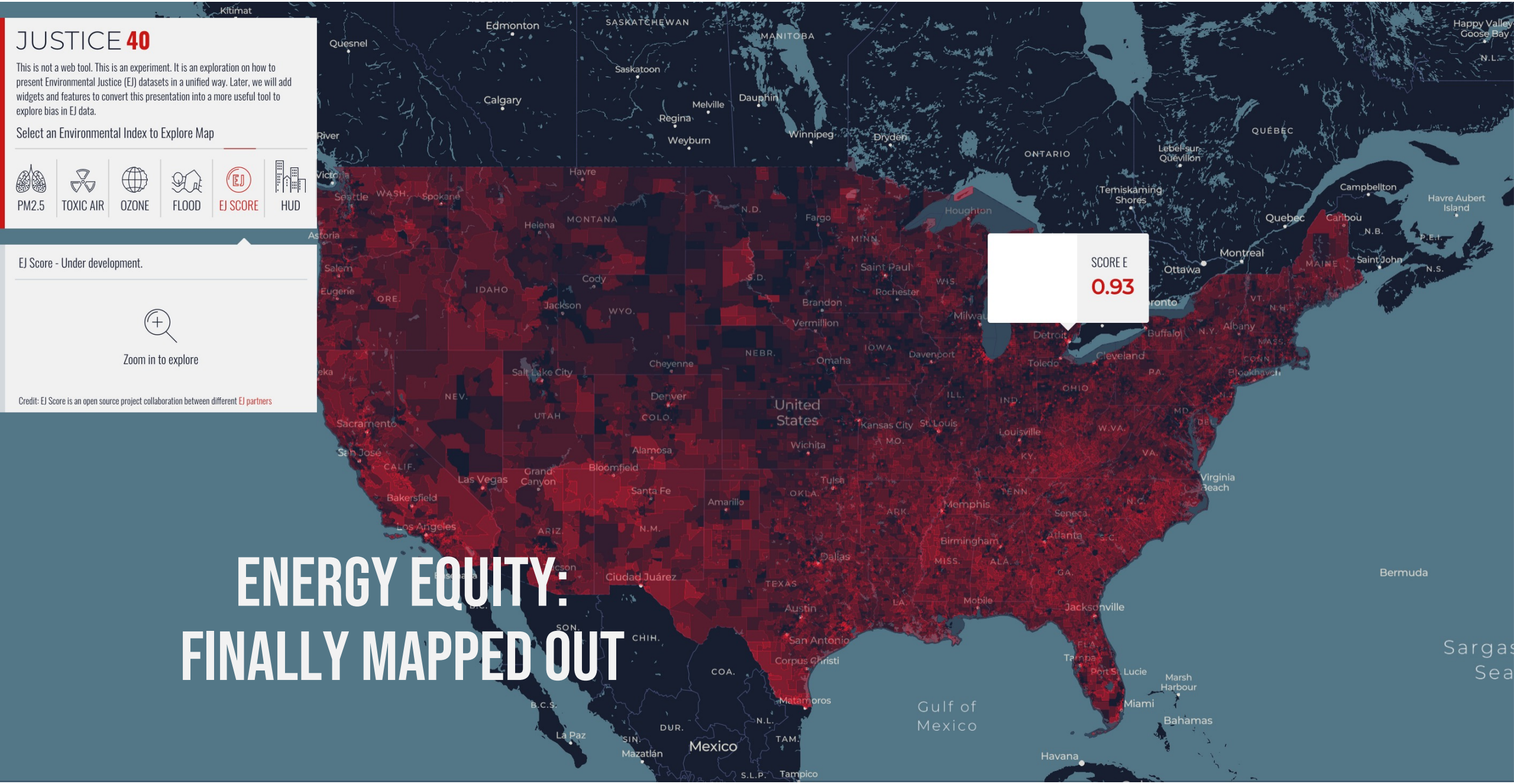
THE FOUR PILLARS OF ENERGY JUSTICE

- Recognition – who is vulnerable, who is privileged, and how?
- Procedural – who is at the table and what voice and power do they have in influencing planning, decision-making, and implementation?
- Distributional – who bears the brunt of the burdens? who benefits and how?
- Restorative – how can we rectify past injustices caused by the energy system and prevent future harms?

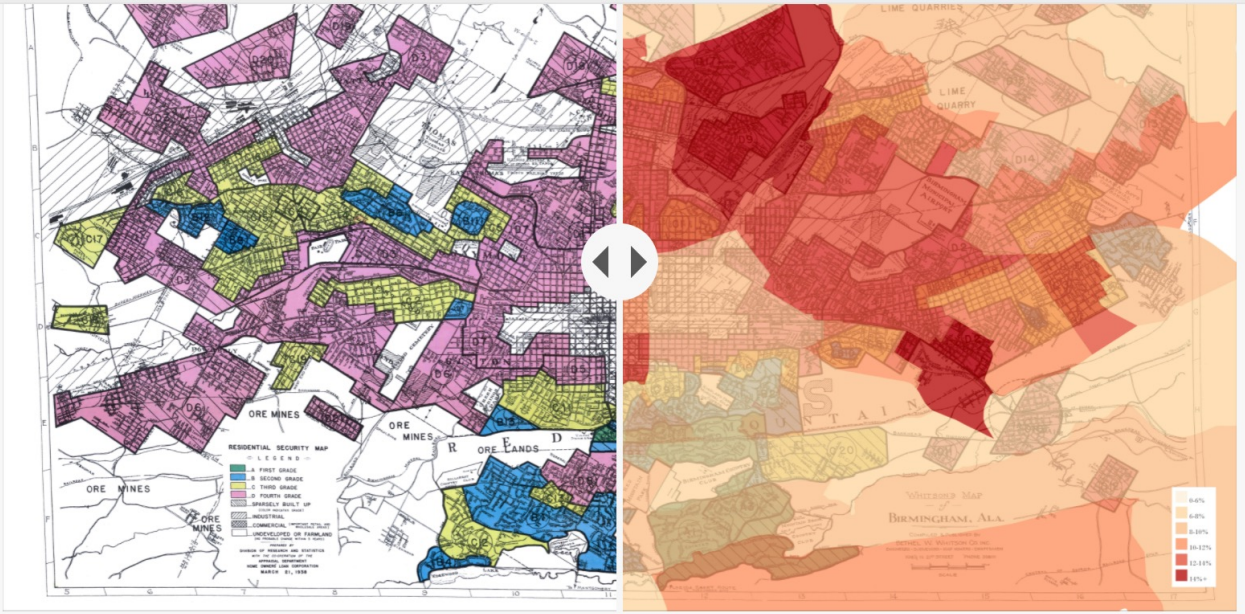
EEP FRAMEWORK

- 10 listening sessions, 400+ participants
- 4 dimensions
- 50 workgroup members
- 12 indices
- 40+ metrics

DIMENSION	INDEX	DESCRIPTION	SAMPLE METRICS
Recognition	***Historical***	Captures historic disinvestment, discrimination, disenfranchisement, and environmental justice burdens that continue to impact present circumstances.	- Proportionate disparities in historic program spending and savings by race, income - Historic presence of toxic facilities / superfund sites / cancer clusters - Anti-equity / anti-clean energy lobbying expenditures - Redlining and housing discrimination
	Identity	Captures demographic, social-economic, and geographic variables that are closely correlated with energy and climate vulnerability and disproportionately high burdens and low benefits from the energy system	- Climate vulnerability score - Housing access / stress - Demographics - Pollution burden - Health measures (e.g. asthma rates) - Economic indicators (e.g. % HH below 50% AMI)
	Security	Captures data that indicate how continuously, safely, and reliably one has access to energy without interruption or compromising other basic needs or comfort.	- Power outage frequency and disparities - Shutoffs / shutoff policies - Arrearages - Energy as human right declarations
	Affordability	Considers rate structures, payment plans, financial assistance, household financial benefits from clean energy programs, and disparities in energy costs among different demographic groups.	- Presence of progressive / lifeline rate structures - Maximum limits on energy burdens - Rate disparities between residential, commercial, industrial - Size of overall safety net (per capita) - % of safety net spent on longterm affordability, vs bill assistance
Procedural	***Procedural***	To what extent are BIPOC, frontline, and low-income residents able to engage in PUC cases, decarbonization planning, and have a meaningful voice in how plan and policies are created and designed. To what extent are they the architects of their energy future?	- Presence / extent of intervenor funding and resources - PUC commissioner selection process and representation - Mandatory equity training for PUC (and utility?) staff - Data disclosure requirements - Utility performance incentives and penalties tied to equity targets
	Access	How easy is it for people to learn about, qualify for, and enroll in programs?	- Multi-lingual ads, program materials, enrollment, and participation - Marketing representing and to BIPOC, frontline audiences - Disparities in participation rates - Financing availability and eligibility requirements - Access for renters - Auto- and co-enrollments, ease of enrollment
Distributive	***Household benefits***	Captures immediate financial and health benefits that participating households receive	- Proportion of high impact programs received by BIPOC, LI, frontline households - % BIPOC households achieving >25% energy savings - Reduction in unhealthy / unsafe housing conditions among BIPOC; improved indoor air quality - Reductions in negative health conditions among BIPOC
	Community benefits	Captures medium- and long-term community level or indirect benefits including health, wealth-building, jobs, and environment	- % of new jobs held by BIPOC, frontline, low-income - % of work for BIPOC-owned businesses; supportive policies - Wages and job quality for BIPOC, disparities - Reduction in heat islands, localized flooding - Improved outdoor air quality - Community health outcomes
Restorative	***Reparations & Accountability***	How do we liberate data and ensure transparency? How do we rectify and compensate for past harms and ensure they are not perpetuated in the future? How do we ensure that all dimensions of equity are considered holistically, with no dimensions ignored?	
	Power to the People	Who owns clean energy and receives the economic and environmental benefits? How do governance structures benefit or harm frontline communities? Who designs the systems? Who are the ultimate decision-makers?	
	Indigenous Sovereignty	How can a just transition promote visibility, healing, and a different relationship with energy? How are we connecting Indigenous justice and environmental justice and elevating the landback movement? How can clean energy & climate programs respect and honor Indigenous Sovereignty and traditional knowledge? How can we ensure that we are not perpetuating the language and practices of colonizers and move beyond a capitalist mindset? How do we measure/evaluate progress towards Indigenous Sovereignty in the realm of energy and climate?	
	Restoring Our Relations	How do are we protecting and restoring ecosystems holistically and not merely transferring impacts to far away sacrifice zones? How can we shift our language and cultural practices to recognize non-human kin? How do we recognize and uplift the right of other species and ecosystems to exist? How can we ensure a habitable planet for future generations?	


JUSTICE 40
This is not a web tool. This is an experiment. It is an exploration on how to present Environmental Justice (EJ) datasets in a unified way. Later, we will add widgets and features to convert this presentation into a more useful tool to explore bias in EJ data.
Select an Environmental Index to Explore Map
PM2.5
TOXIC AIR
OZONE
FLOOD
EJ SCORE
HUD
EJ Score - Under development.
Zoom in to explore
Credit: EJ Score is an open source project collaboration between different EJ partners
SCORE E
0.93
ENERGY EQUITY:
FINALLY MAPPED OUT

GUIDANCE ON INTEGRATING QUALITATIVE INFORMATION



Home Owners' Loan Corporation (HOLC) Redlining Maps vs. Current Energy Burden

Birmingham, Alabama (above) and Dallas, Texas (below)

The solutions for addressing energy insecurity are complex. Accurately identifying the groups most vulnerable to energy insecurities is essential to creating meaningful and effective policy to address the cascading effects of energy insecurity. The **built environment** team at SEEA is actively researching and analyzing metrics to identify energy insecure households and how policy and programs can best support affected communities in the Southeast.

Questions? Contact built environment project managers **Maggie Kelley** or **Will Bryan**.

TOOLS & BEST PRACTICES

EQUITABLE DISTRIBUTION OF INVESTMENTS

Disadvantage by decile (higher percentile = greater disadvantage)	Proportional but not equitable (30% benefits go to 30% most disadvantaged)	Emerging (50% of benefits to top 30%)	Strong (70% of benefit to top 30%)	Exemplary program - corrects for past inequities (90% of benefits to top 30%)
90-100%	10.00%	22.50%	30.00%	40.00%
80-89%	10.00%	17.50%	22.50%	30.00%
70-79%	10.00%	10.00%	17.50%	20.00%
60-69%	10.00%	9.00%	10.00%	10.00%
50-59%	10.00%	8.00%	8.00%	0.00%
40-49%	10.00%	8.00%	6.00%	0.00%
30-39%	10.00%	7.00%	4.00%	0.00%
20-29%	10.00%	7.00%	2.00%	0.00%
10-19%	10.00%	6.00%	0.00%	0.00%
0-9%	10.00%	5.00%	0.00%	0.00%
TOTALS	**100.00%**	**100.00%**	**100.00%**	**100.00%**
TOP 30%	**30.00%**	**50.00%**	**70.00%**	**90.00%**

JUSTICE40 ANALYSES

BUILD BACK BETTER – JUSTICE40 ALIGNMENT

Budget: $555M

J40 Target: $222M (40%)

Actual: $81.9M (14.8%)

Gap: $140.1M

Cells in green align with Justice 40

General Area	Provision	Initial budget	Justice40 Target	Change	Aligns with Justice40
Vehicles	New EV tax credits	$125,000	$75,000	-$50,000	Unlikely
Clean energy	Advanced energy manufacturing (1.)	$105,000	$50,000	-$55,000	Unlikely
Resilience	Various measures - Ag, community,	$105,000	$60,000	-$45,000	Potentially
Clean energy	Loan guarantees	$43,600	$22,500	-$21,100	Unlikely
Financing	Greenhouse Gas Reduction Fund	$29,000	$30,000	$1,000	Yes
Tribal sovereignty	Tribal Loan guarantees	$20,000	$20,000	$0	Yes
Workforce	Civilian Climate Corps	$19,400	$25,000	$5,600	Partially - est 35%
Vehicles	Used EV tax credits	$10,800	$35,000	$24,200	Partially - est 35%
Clean energy	USDA loans and grants	$10,000	$10,000	$0	TBD
Environmental Justice	Lead remediation	$9,000	$45,000	$36,000	Yes
Climate-smart agriculture	Envl Quality Incentives	$9,000	$9,000	$0	Unlikely
Climate-smart agriculture	Regional Conservation Partnership	$7,500	$7,500	$0	Unlikely
Vehicles	EV charging stations	$7,500	$7,500	$0	Unlikely
Vehicles	Advanced manufacturing	$6,500	$6,500	$0	Unlikely
Vehicles	Federal EV fleet - general services	$6,000	$6,000	$0	No
Buildings	Home Owner Management (2.)	$5,890	$30,000	$24,110	Partially - est 35%
Clean energy	DOE investments in frontline	$5,000	$30,000	$25,000	Yes
Vehicles	Replace polluting heavy duty	$5,000	$5,000	$0	Partially - est 35%
Climate-smart agriculture	Conservation Stewardship	$4,100	$4,100	$0	Unlikely
Buildings	Advanced industrial facilities	$4,000	$2,000	-$2,000	Somewhat
Environmental Justice	Electrification for tribal and low-	$3,800	$15,000	$11,200	Yes
Environmental Justice	Environmental and Climate Justice	$3,000	$30,000	$27,000	Yes
Vehicles	Federa EV fleet - USPS	$3,000	$3,000	$0	No
Clean energy	Transmission lines	$2,800	$2,800	$0	Unlikely
Buildings	Residential Electrification (3.)	$2,230	$3,000	$770	Unlikely

THE NEW SCHOOL

Tishman Environment and Design Center

EJ Community Definitions Chart_April2021

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A1 State

	A	B	C	D	E
1	**State**	**Policy**	**Definitional Term**	**Definition Type**	**Policy Type**
2	**ENACTED LEGISLATION**				
3	CA	CA Legislation, SB 535 (2012); AB 1550 (2016)	Disadvantaged community	Threshold: Highest scoring census tracts for cumulative impacts scores = top 25% of census tracts	Redistributive (targets investment of cap and trade funds and enforcement)
4	CT	CT Dep of Energy & Env. Protection (DEEP), HB7008, EJ Law (2020)	EJ community	Threshold: Census block group with at least 30% or more of the population living below 200% FPL or distressed municipalities	Protective (file public participation plan)
5	MA	Climate Law, Bill S.9 (2021)	EJ population	Threshold AND Community ID: AMHHI <65% of state median HH income; >40% minorities; >25% lack English proficiency; may designate geographic portion as an EJ population upon the petition of at least 10 residents	Protective
6	MA	MA EEA Agency EJ Policy (2017)	EJ population	Threshold: AMHHI <65% of state median HH income; >25% minorities; >25% lack English proficiency	Protective, consultations, studies
7	NJ	EJ Law S232 (2020)	Overburdened community	Threshold: >35% low-income households; >40% minority or tribal community; >40% limited English proficiency	Protective, redistributive, permitting decisions
8	WA	The Healthy Environment for All (HEAL) Act, E2SSB 5141	Overburdened community; Highly impacted community	Threshold: Overburdened community where vulnerable populations face combined, multiple environmental harms and health impacts; Highly impacted communities designated by the department of health based on cumulative impact analyses or a community fully or partially on "Indian country"	Protective, enhanced participation, reviews, public health interventions
9	NY	Power NY Act (2011)	EJ area	Threshold: >23.59% low-income or > 51.1% minority in an urban area and 33.8%* in a rural area	Protective, permitting review enhanced
10	VA	VA EJ Act, (2020)	EJ community; Fenceline community	Threshold: Any low-income community or community of color with %> than statewide average; "Fenceline community" area that contains all or part of a low-income or community of color and presents an increased health risk to its residents due to its proximity to a major source of pollution	Protective, reduce adverse impacts in decision making

DEFINING DISADVANTAGED COMMUNITIES IN NY

1 Environmental Burdens and Climate Change Risks: Draft Indicators (20)

Potential Pollution Exposures

- Vehicle traffic density
- Diesel truck and bus traffic
- Particulate Matter (PM2.5)
- Benzene concentration
- Wastewater discharge

Land use and facilities associated with historical discrimination or disinvestment

- Remediation Sites (e.g., NPL Superfund or State Superfund/Class II sites)
- Regulated Management Plan (chemical) sites
- Major oil storage facilities (incl. airports)
- Power generation facilities
- Active landfills
- Municipal waste combustors
- Scrap metal processors
- Industrial/manufacturing/mining land use (zoning)
- Housing vacancy rate

Potential Climate Change Risks

- Extreme heat projections (>90° days in 2050)
- Flooding in coastal and tidally influenced areas (projected)
- Flooding in inland areas (projected)
- Low vegetative cover
- Agricultural land
- Driving time to hospitals or urgent/critical care

DEFINING DISADVANTAGED COMMUNITIES IN NY

1 Population Characteristics and Health Vulnerabilities: Draft Indicators (25)

Income, Education & Employment	Race, Ethnicity & Language	Health Impacts & Sensitivities	Housing, Energy, Communications
• Pct <80% Area Median Income	• Pct Latino/a or Hispanic	• Asthma ED visits	• Pct Renter-Occupied Homes
• Pct <100% of Federal Poverty Line	• Pct Black or African American	• COPD ED visits	• Housing cost burden (rental costs)
• Pct without Bachelor's Degree	• Pct Asian	• Heart attack (MI) hospitalization	• Energy Poverty / Cost Burden
• Unemployment rate	• Pct Native American or Indigenous	• Premature Deaths	• Manufactured homes
• Pct Single-parent households	• Limited English Proficiency	• Low Birthweight	• Homes built before 1960
	• Historical redlining score	• Pct without Health Insurance	• Pct without Internet (home or cellular)
		• Pct with Disabilities	
		• Pct Adults age 65+	
Within this factor, both income metrics have 2x weight	Within this factor, Pct Latino/a and Pct Black have 2x weight		

DEFINING DISADVANTAGED COMMUNITIES IN NY

Region	% Designated DAC
New York City	45%
Long Island	12%
Mid-Hudson	45%
Western NY	32%
Finger Lakes	35%
Capital Region	22%
Central NY	36%
Southern Tier	18%
Mohawk Valley	19%
North Country	15%
Total	**35%**

About 45% of NYC are designated a Geographic DAC.

In rural regions, a smaller share of tracts are designated.

On average (and overall), 35% of tracts are designated

Climate and Economic Justice Screening Tool BETA

The Justice40 Initiative

The tool will provide important information for the Justice40 Initiative. The goal of the Justice40 Initiative is to provide 40 percent of the overall benefits of certain Federal investments in seven key areas to disadvantaged communities. These seven key areas are: climate change, clean energy and energy efficiency, clean transit, affordable and sustainable housing, training and workforce development, the remediation and reduction of legacy pollution, and the development of critical clean water infrastructure.

Read more about the Justice40 Initiative in President Biden's Executive Order 14008 on *Tackling the Climate Crisis at Home and Abroad*.

Climate change

*Communities are **identified as disadvantaged***

IF at or above 90th percentile for expected agriculture loss rate OR expected building loss rate OR expected population loss rate

AND is above 65th percentile for low income AND at or below 20% for higher ed enrollment rate

Clean energy and energy efficiency

*Communities are **identified as disadvantaged***

IF at or above 90th percentile for energy burden OR PM2.5 in the air

AND is above 65th percentile for low income AND at or below 20% for higher ed enrollment rate

Clean transit

*Communities are **identified as disadvantaged***

IF at or above 90th percentile for diesel particulate matter exposure or traffic proximity and volume

AND is above 65th percentile for low income AND at or below 20% for higher ed enrollment rate

Affordable and sustainable housing

*Communities are **identified as disadvantaged***

IF at or above 90th percentile for lead paint AND median home value is at or less than 90th percentile OR at or above the 90th percentile for the housing cost burden

AND is above 65th percentile for low income AND at or below 20% for higher ed enrollment rate

Reduction and remediation of legacy pollution

*Communities are **identified as disadvantaged***

IF at or above 90th percentile for proximity to hazardous waste facilities OR proximity to NPL sites OR proximity to RMP facilities

AND is above 65th percentile for low income AND at or below 20% for higher ed enrollment rate

Critical clean water and waste infrastructure

*Communities are **identified as disadvantaged***

IF at or above 90th percentile for wastewater discharge

AND is above 65th percentile for low income AND at or below 20% for higher ed enrollment rate

Health burdens

*Communities are **identified as disadvantaged***

IF at or above 90th percentile for asthma OR diabetes OR heart disease OR low life expectancy

AND is above 65th percentile for low income AND at or below 20% for higher ed enrollment rate

Training and workforce development

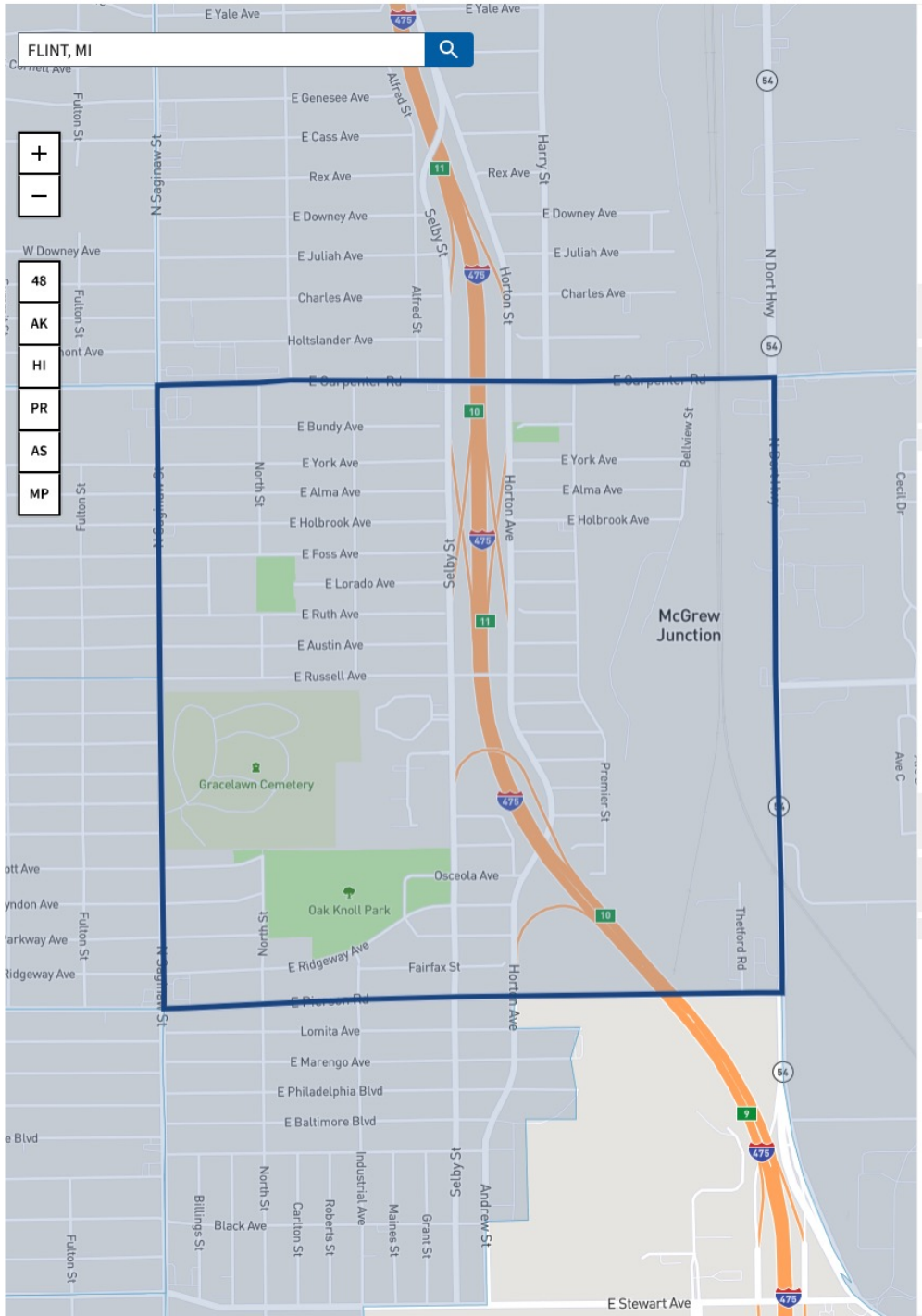
*Communities are **identified as disadvantaged***

IF at or above the 90th percentile for low median income as a percent of area median income OR linguistic isolation OR unemployment OR percent individuals in households at or below 100% Federal poverty level

AND is at or less than 90% for high school degree attainment rate for adults 25 years and older AND at or below 20% for higher ed enrollment rate

Climate and Economic Justice Screening Tool

BETA



Census tract: 26049001700
County: Genesee County
State: Michigan
Population: 1,492

Identified as disadvantaged?

YES

10 of 21 thresholds exceeded

Send feedback

Climate change +

Clean energy and energy efficiency

INDICATOR	PERCENTILE (0-100)
Energy burden Average annual energy costs divided by household income	99th
PM2.5 in the air Fine inhalable particles, 2.5 micrometers and smaller	26th
Low income Household income is less than or equal to twice the federal poverty level	96th
Higher ed enrollment rate Percent of population enrolled in college, university, or graduate school	2%

Clean transportation +

Sustainable housing

INDICATOR	PERCENTILE (0-100)
Housing cost burden Low income households spending more than 30% of income on housing	98th
Lead paint Percentile of number of homes built before 1960 that are not among the most expensive	91st
Low income Household income is less than or equal to twice the federal poverty level	96th
Higher ed enrollment rate Percent of population enrolled in college, university, or graduate school	2%

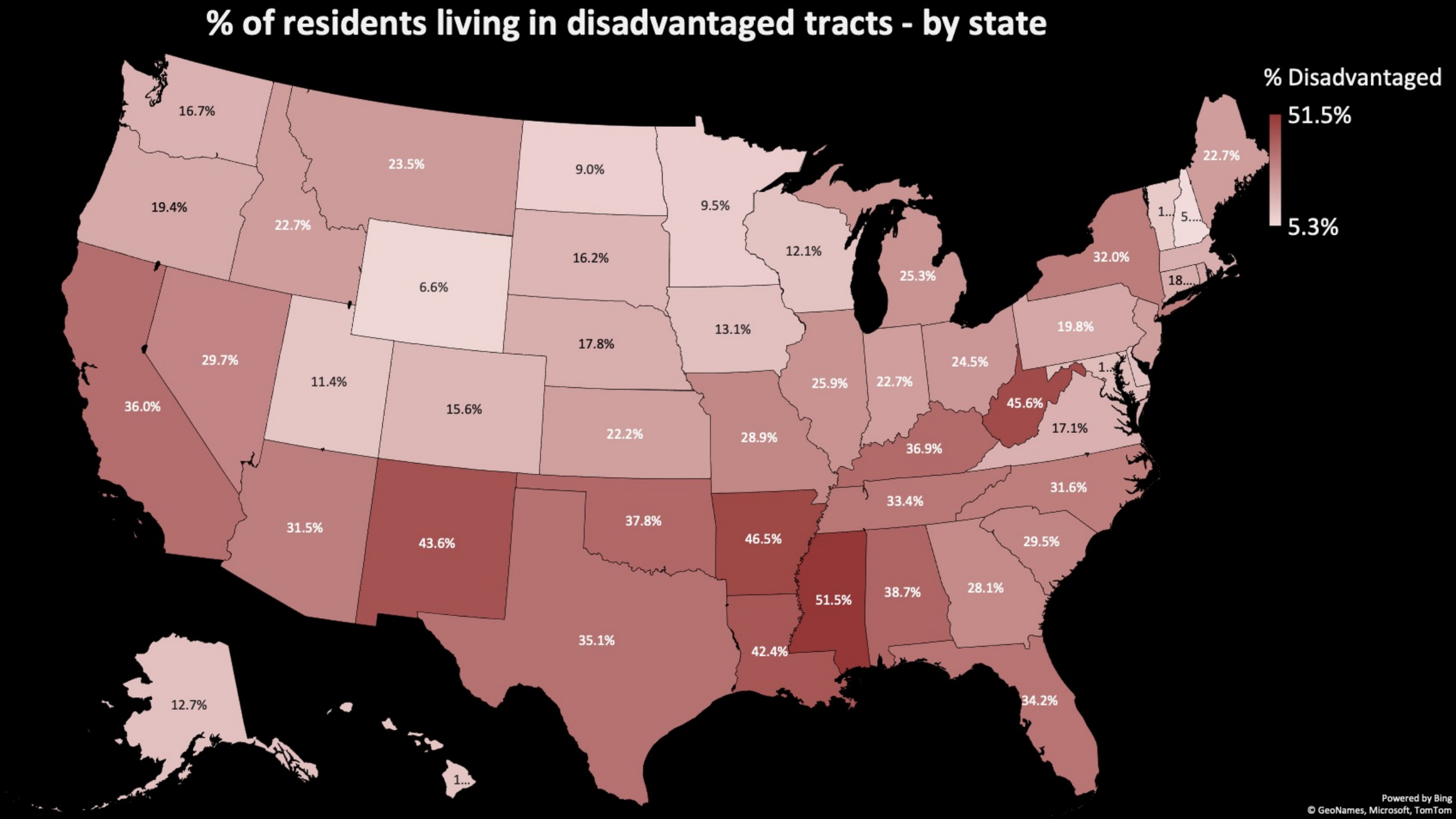
Health burdens

INDICATOR	PERCENTILE (0-100)
Asthma Weighted percent of people who have been told they have asthma	99th
Diabetes Weighted percent of people ages 18 years and older who have diabetes other than diabetes during pregnancy	99th
Heart disease Weighted percent of people ages 18 years and older who have been told they have heart disease	95th
Low life expectancy Average number of years a person can expect to live	97th
Low income Household income is less than or equal to twice the federal poverty level	96th
Higher ed enrollment rate Percent of population enrolled in college, university, or graduate school	2%

Workforce development

INDICATOR	PERCENTILE (0-100)
Linguistic isolation Percent of households where no one over the age 14 speaks English well	12th
Low median income Median income calculated as a percent of the area's median income	96th
Unemployment Number of unemployed people as a percentage of the labor force	99th
Poverty Percent of a tract's population in households where the household income is at or below 100% of the Federal poverty level	96th
High school degree attainment rate Poportion of people ages 25 years or older whose education level is less than a high school diploma	24%
Higher ed enrollment rate Percent of population enrolled	2%

% of residents living in disadvantaged tracts - by state



DC rank by % population	State data	# Disadvantged Tracts	%	# Non-disadvantaged Tracts	%	Population in Disadvantaged tracts	%	Population in Non-DI Tracts	%
	US	23,418	31.6%	50,584	68.4%	93,459,891	28.7%	232,706,396	71.3%
1	Puerto Rico	823	87.1%	122	12.9%	3,186,269	94.1%	200,672	5.9%
2	Mississippi	382	57.5%	282	42.5%	1,539,275	51.5%	1,449,487	48.5%
3	Arkansas	361	52.6%	325	47.4%	1,389,290	46.5%	1,601,381	53.5%
4	West Virginia	246	50.8%	238	49.2%	834,069	45.6%	994,985	54.4%
5	New Mexico	226	45.3%	273	54.7%	912,454	43.6%	1,179,980	56.4%
6	Louisiana	569	49.6%	579	50.4%	1,977,812	42.4%	2,685,804	57.6%
7	Alabama	570	48.3%	611	51.7%	1,880,394	38.7%	2,984,286	61.3%
8	Oklahoma	451	43.1%	595	56.9%	1,482,390	37.8%	2,435,747	62.2%
9	Kentucky	474	42.5%	641	57.5%	1,639,397	36.9%	2,800,807	63.1%
10	California	2,907	36.1%	5,150	63.9%	14,097,906	36.0%	25,045,862	64.0%
11	Texas	2,069	39.3%	3,196	60.7%	9,782,683	35.1%	18,102,512	64.9%
12	Florida	1,482	34.9%	2,763	65.1%	7,050,788	34.2%	13,547,351	65.8%
13	Tennessee	573	38.3%	924	61.7%	2,222,211	33.4%	4,428,878	66.6%
14	New York	1,597	32.5%	3,322	67.5%	6,265,381	32.0%	13,296,105	68.0%
15	North Carolina	742	33.8%	1,453	66.2%	3,211,317	31.6%	6,944,307	68.4%
16	Arizona	494	32.4%	1,032	67.6%	2,175,422	31.5%	4,738,506	68.5%
17	District of Columbia	60	33.5%	119	66.5%	212,238	31.0%	472,260	69.0%
18	Nevada	221	32.2%	466	67.8%	868,635	29.7%	2,054,214	70.3%
19	South Carolina	385	34.9%	718	65.1%	1,460,671	29.5%	3,495,254	70.5%
20	Missouri	478	34.3%	915	65.7%	1,760,868	28.9%	4,329,194	71.1%
21	Georgia	692	35.1%	1,277	64.9%	2,890,663	28.1%	7,406,821	71.9%
22	Illinois	951	30.5%	2,172	69.5%	3,316,183	25.9%	9,505,314	74.1%
23	Michigan	858	30.5%	1,955	69.5%	2,523,158	25.3%	7,434,330	74.7%
24	Ohio	968	32.8%	1,984	67.2%	2,856,571	24.5%	8,785,308	75.5%
25	Montana	71	26.2%	200	73.8%	244,872	23.5%	796,860	76.5%

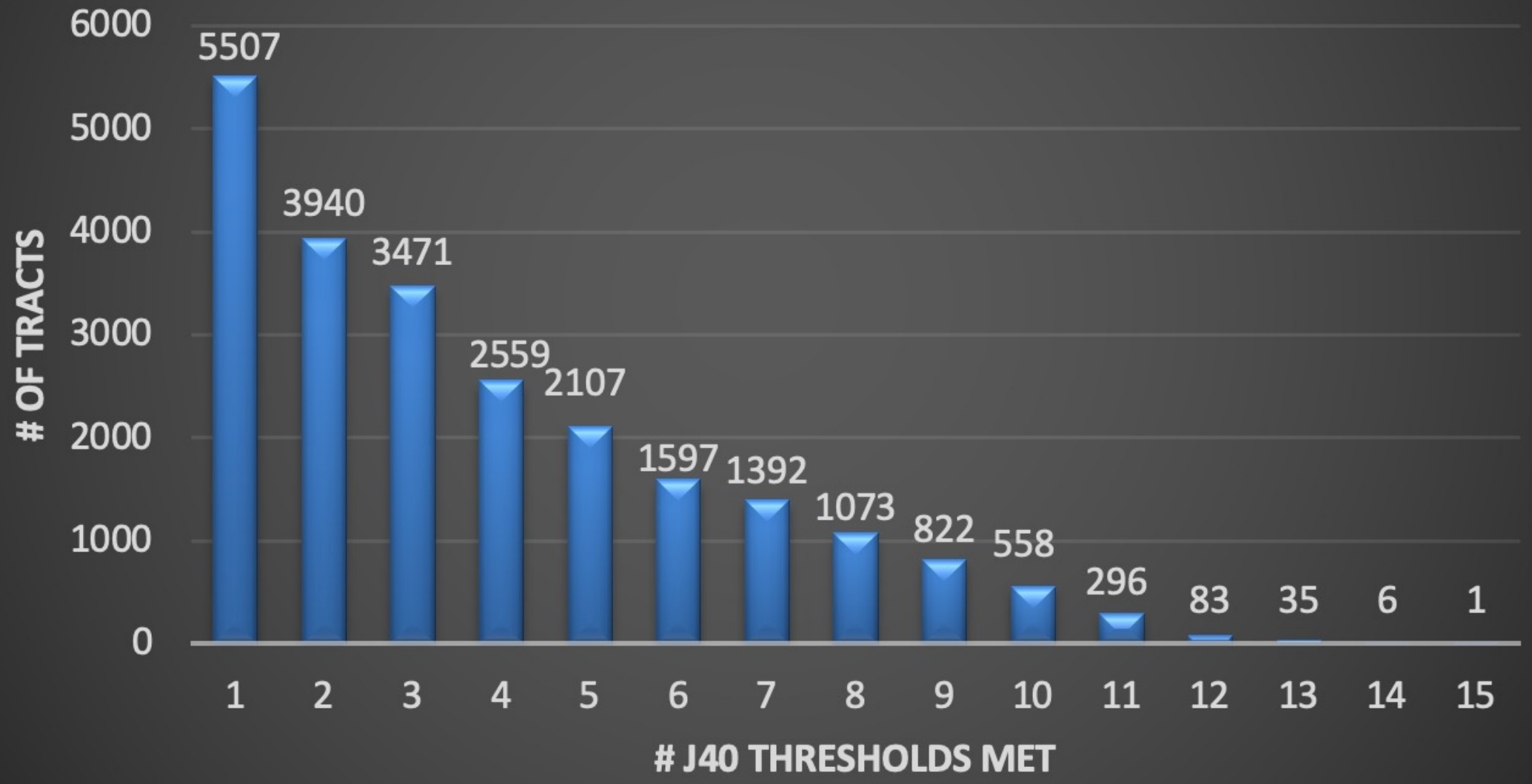
DC rank by % population	State data	# Disadvantged Tracts	%	# Non-disadvantaged Tracts	%	Population in Disadvantaged tracts	%	Population in Non-DI Tracts	%
	US	**23,418**	**31.6%**	**50,584**	**68.4%**	**93,459,891**	**28.7%**	**232,706,396**	**71.3%**
26	Idaho	83	27.9%	215	72.1%	383,480	22.7%	1,304,329	77.3%
27	Maine	100	27.9%	258	72.1%	302,759	22.7%	1,030,054	77.3%
28	Indiana	455	30.1%	1,056	69.9%	1,504,901	22.7%	5,132,525	77.3%
29	New Jersey	492	24.5%	1,518	75.5%	2,000,195	22.5%	6,881,650	77.5%
30	Kansas	204	26.5%	566	73.5%	645,702	22.2%	2,263,074	77.8%
31	Rhode Island	50	20.5%	194	79.5%	211,174	20.0%	845,437	80.0%
32	Pennsylvania	747	23.2%	2,471	76.8%	2,532,045	19.8%	10,259,136	80.2%
33	Oregon	166	19.9%	668	80.1%	792,030	19.4%	3,289,913	80.6%
34	Connecticut	171	20.5%	662	79.5%	650,407	18.2%	2,931,097	81.8%
35	Nebraska	104	19.5%	428	80.5%	339,739	17.8%	1,565,021	82.2%
36	Massachusetts	294	19.9%	1,184	80.1%	1,195,012	17.5%	5,635,181	82.5%
37	Virginia	376	19.7%	1,531	80.3%	1,437,763	17.1%	6,969,576	82.9%
38	Washington	259	17.8%	1,199	82.2%	1,216,474	16.7%	6,077,862	83.3%
39	South Dakota	44	19.8%	178	80.2%	137,749	16.2%	712,205	83.8%
40	Colorado	211	16.9%	1,038	83.1%	860,850	15.6%	4,670,291	84.4%
41	Maryland	246	17.5%	1,160	82.5%	863,765	14.4%	5,139,670	85.6%
42	Delaware	37	17.0%	181	83.0%	124,983	13.2%	824,512	86.8%
43	Iowa	132	16.0%	693	84.0%	409,904	13.1%	2,722,595	86.9%
44	Alaska	30	18.0%	137	82.0%	93,050	12.7%	637,268	87.3%
45	Wisconsin	230	16.3%	1,179	83.7%	696,699	12.1%	5,081,695	87.9%
46	Hawaii	40	11.4%	311	88.6%	162,639	11.4%	1,259,390	88.6%
47	Utah	76	12.9%	512	87.1%	348,047	11.4%	2,697,303	88.6%
48	Vermont	19	10.3%	165	89.7%	65,028	10.4%	559,949	89.6%
49	Minnesota	149	11.1%	1,189	88.9%	527,335	9.5%	5,000,023	90.5%
50	North Dakota	22	10.7%	183	89.3%	67,452	9.0%	684,749	91.0%
51	Wyoming	11	8.3%	121	91.7%	38,667	6.6%	543,169	93.4%
52	New Hampshire	20	6.8%	275	93.2%	71,125	5.3%	1,272,497	94.7%

INDICATOR ASSOCIATIONS WITH DISADVANTAGED TRACTS

Threshold type (# indicators)	% above 90th & DC
Workforce (4)	84.1%
Health (4)	79.4%
Affordable housing (2)	62.1%
Clean & efficient energy (2)	57.2%
Legacy pollution (4)	40.0%
Clean transit (2)	40.2%
Climate (3)	30.6%
AVERAGE (21)	**58.3%**

Threshold (90th percentile)	TYPE	# Tracts	% DC
Linguisitic isolation	Workforce	6734	90.8%
Diabetes	Health	6509	87.8%
Unemployment	Workforce	6213	83.8%
Below 100% federal poverty	Workforce	6125	82.6%
Housing burden	Affordable housing	5928	80.0%
Asthma	Health	5888	79.4%
Low HS attainment	Workforce	5861	79.1%
Energy burden	Clean & efficient energy	5777	77.9%
Life expectancy	Health	5585	75.3%
Heart disease	Health	5553	74.9%
Proximity to RMP sites	Legacy pollution	4170	56.2%
Lead paint	Affordable housing	3274	44.2%
Diesel particulate matter	Clean transit	3064	41.3%
Traffic proximity	Clean transit	2904	39.2%
Superfund sites	Legacy pollution	2887	38.9%
Hazardous waste facilities	Legacy pollution	2869	38.7%
Expected building loss rate	Climate	2797	37.7%
PM 2.5 exposure	Clean & efficient energy	2702	36.4%
Expected population loss rate	Climate	2355	31.8%
Wastewater discharge	Legacy pollution	1929	26.0%
Expected agricultural loss rate	Climate	1644	22.2%

Census tracts by # of J40 thresholds met

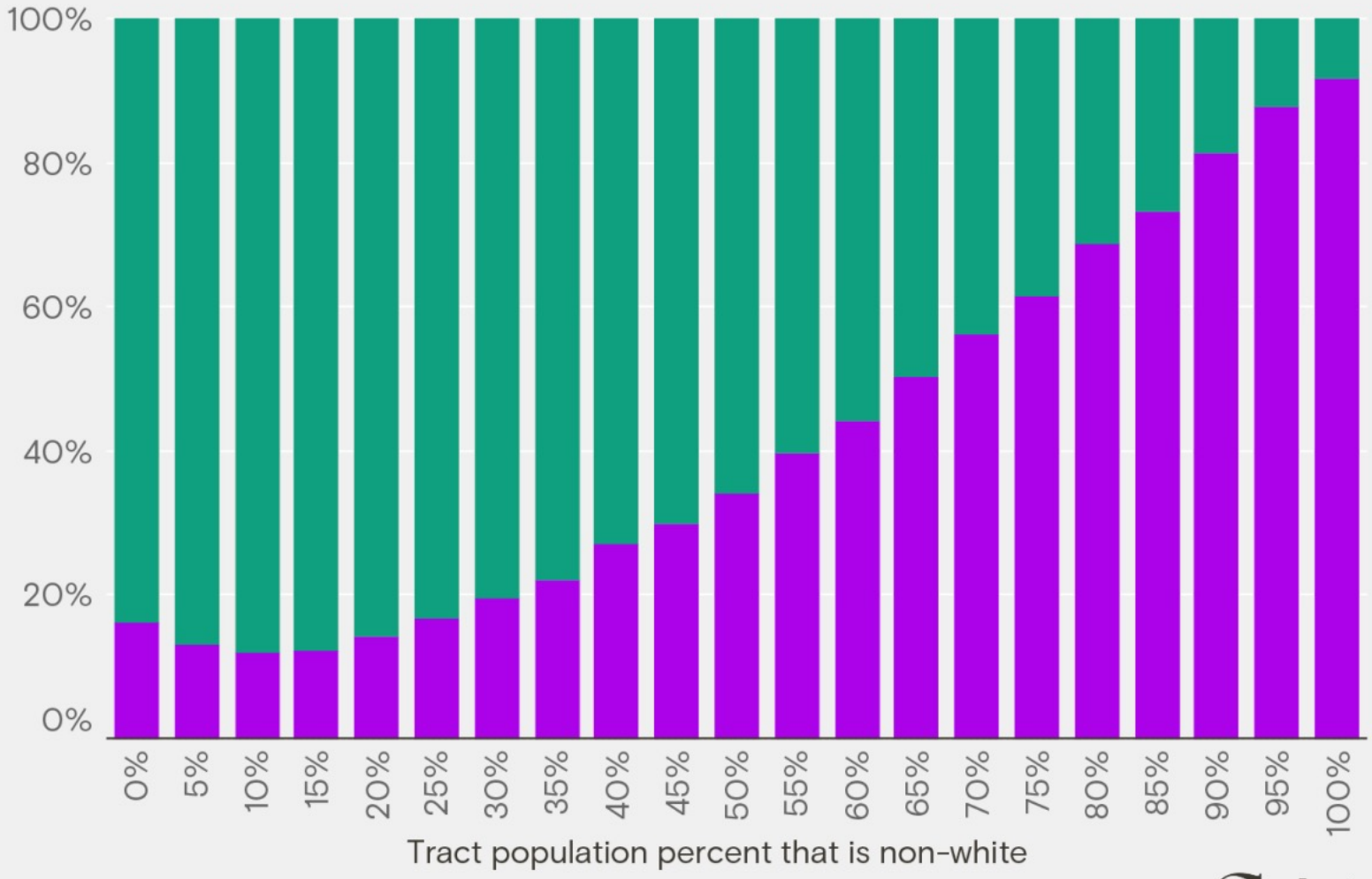


LOW INCOME = DISADVANTAGED

- 23,974 tracts >= 65th percentile for low-income
- 23,469 of those tracts (97.9%) are disadvantaged

Demographic distribution

Percent of census tracts identified as **disadvantaged** and **not disadvantaged** by the White House screening tool



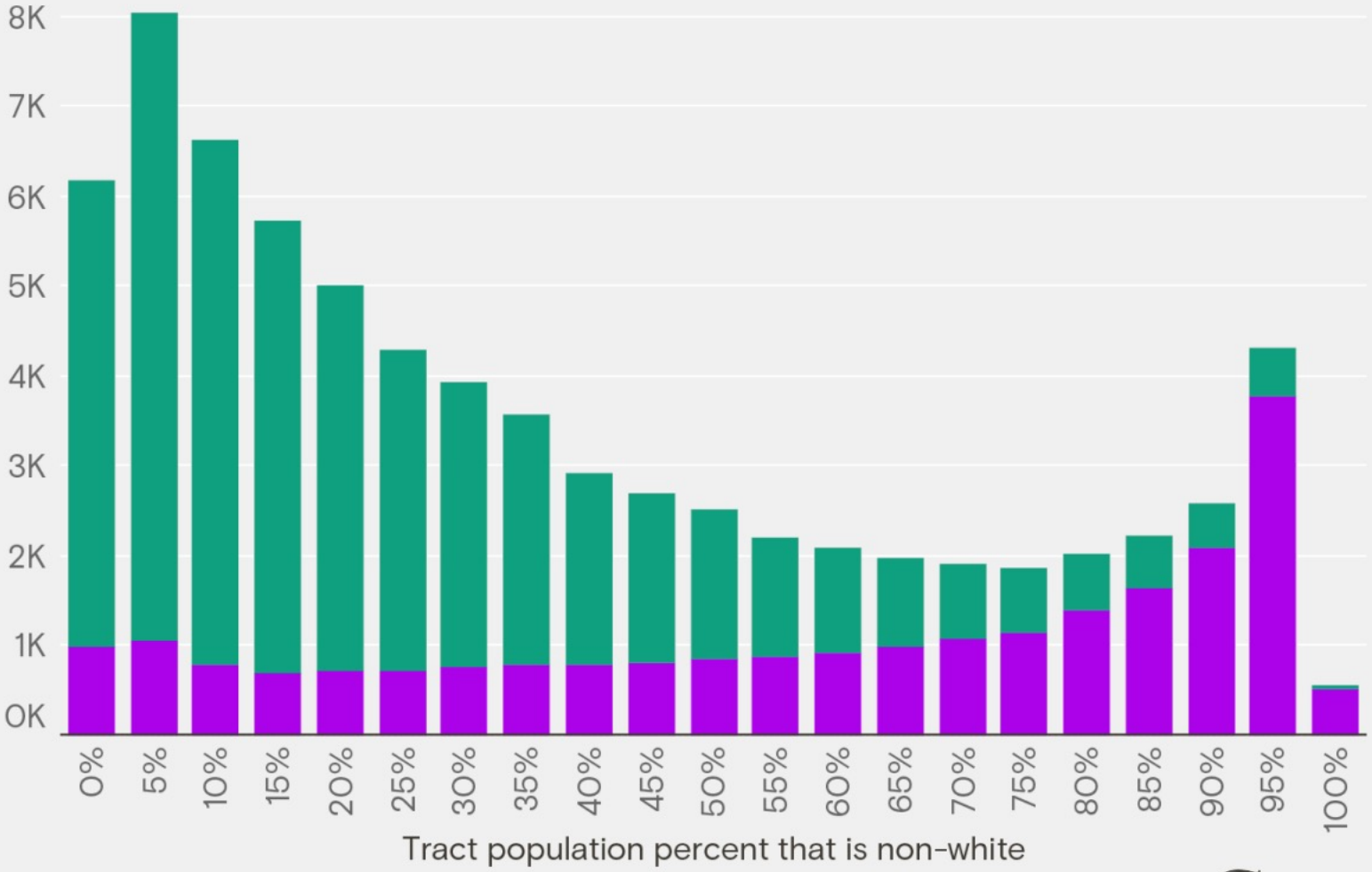
Data source: CEJST / ACS

Grist

Grist / Clayton Aldern

Defining disadvantage

Count of census tracts identified as **disadvantaged** and **not disadvantaged** by the White House screening tool (CEJST)



Data source: CEJST / ACS

Grist

Grist / Clayton Aldern

Analysis of Race/Ethnicity and CalEnviroScreen 4.0 Draft Scores

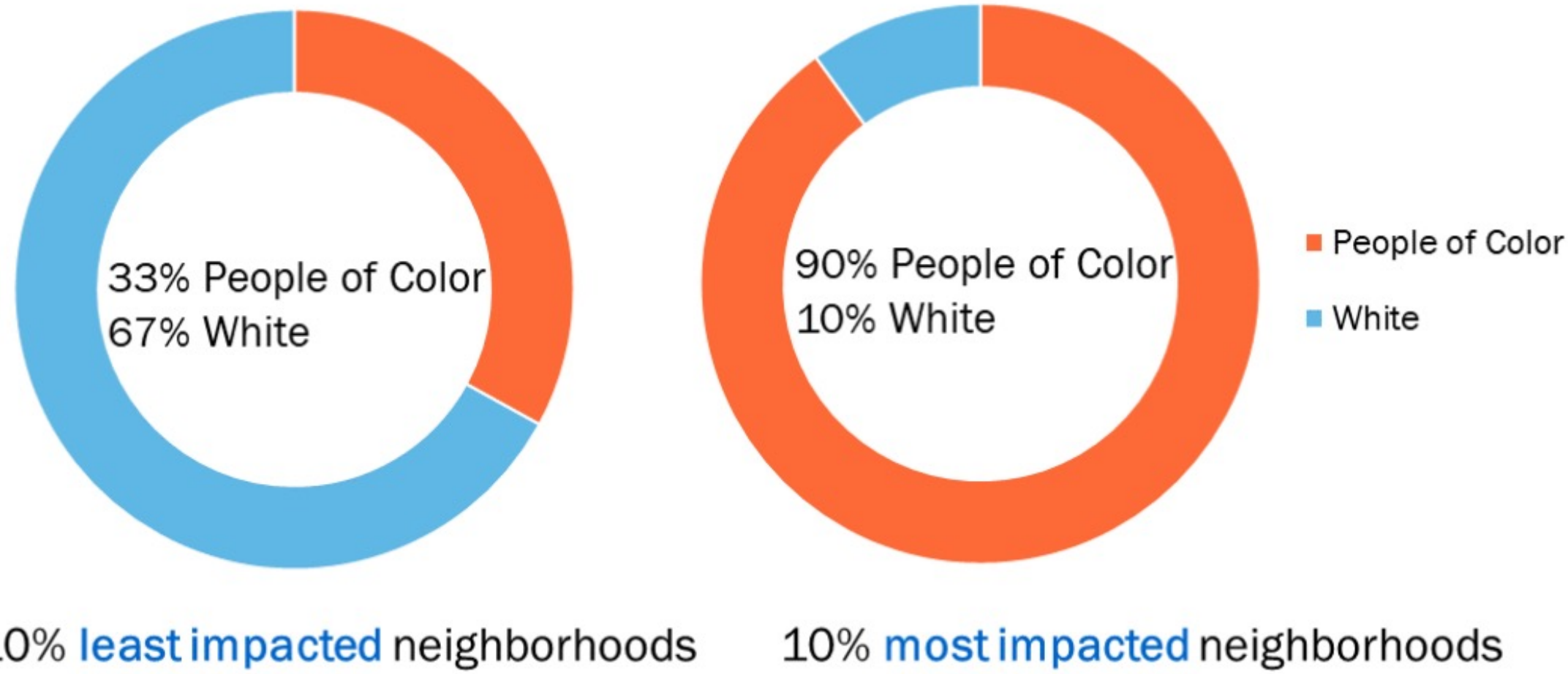
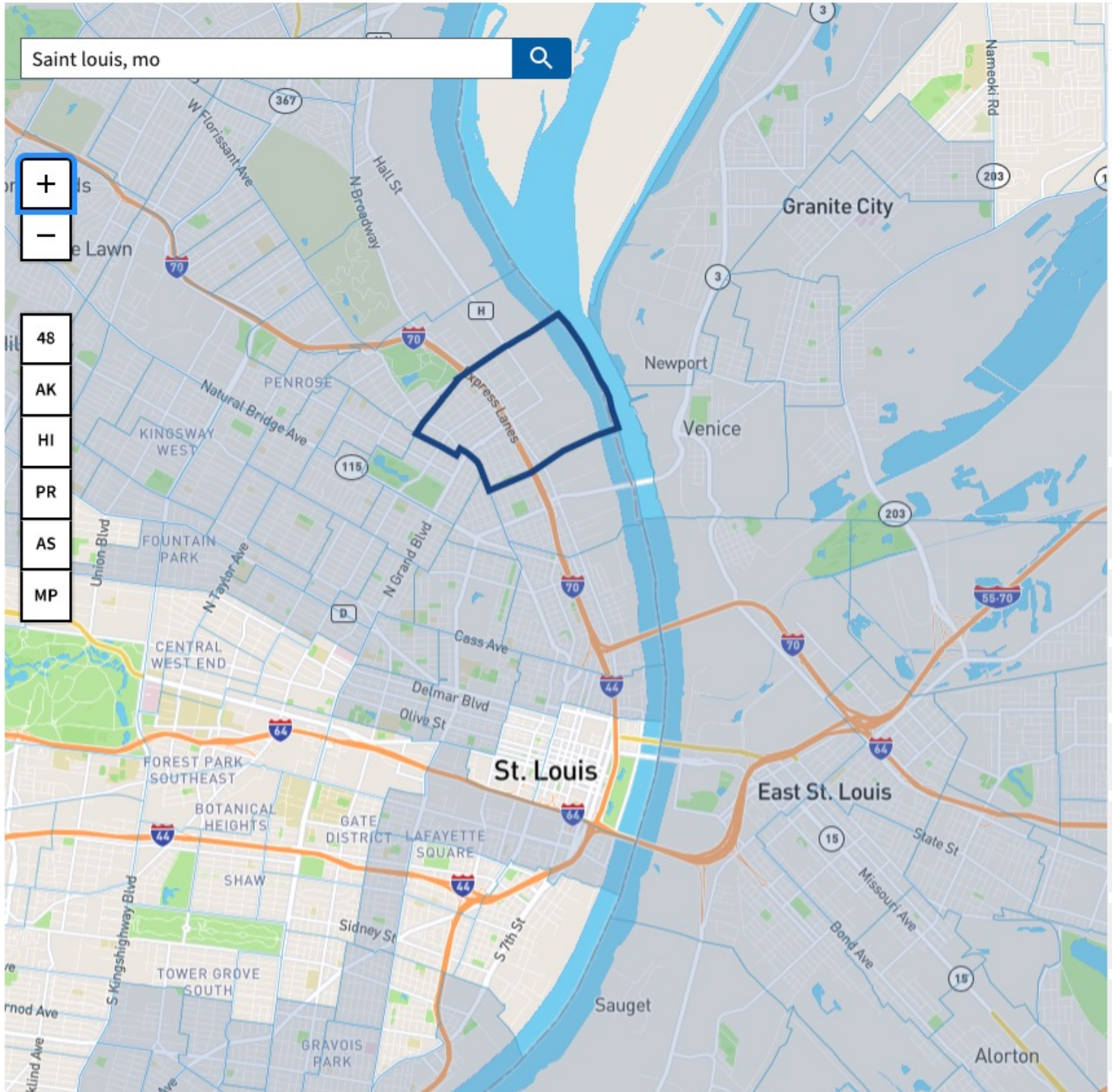


Figure 2. Race in the Least and Most Impacted Census Tracts by Draft CalEnviroScreen 4.0 Decile.

Maximum# thresholds = 15

Census Tract 29510109700, St. Louis, MO



Methodology version 0.1

Census tract: 29510109700
County: St. Louis city
State: Missouri
Population: 2,142

Identified as disadvantaged?

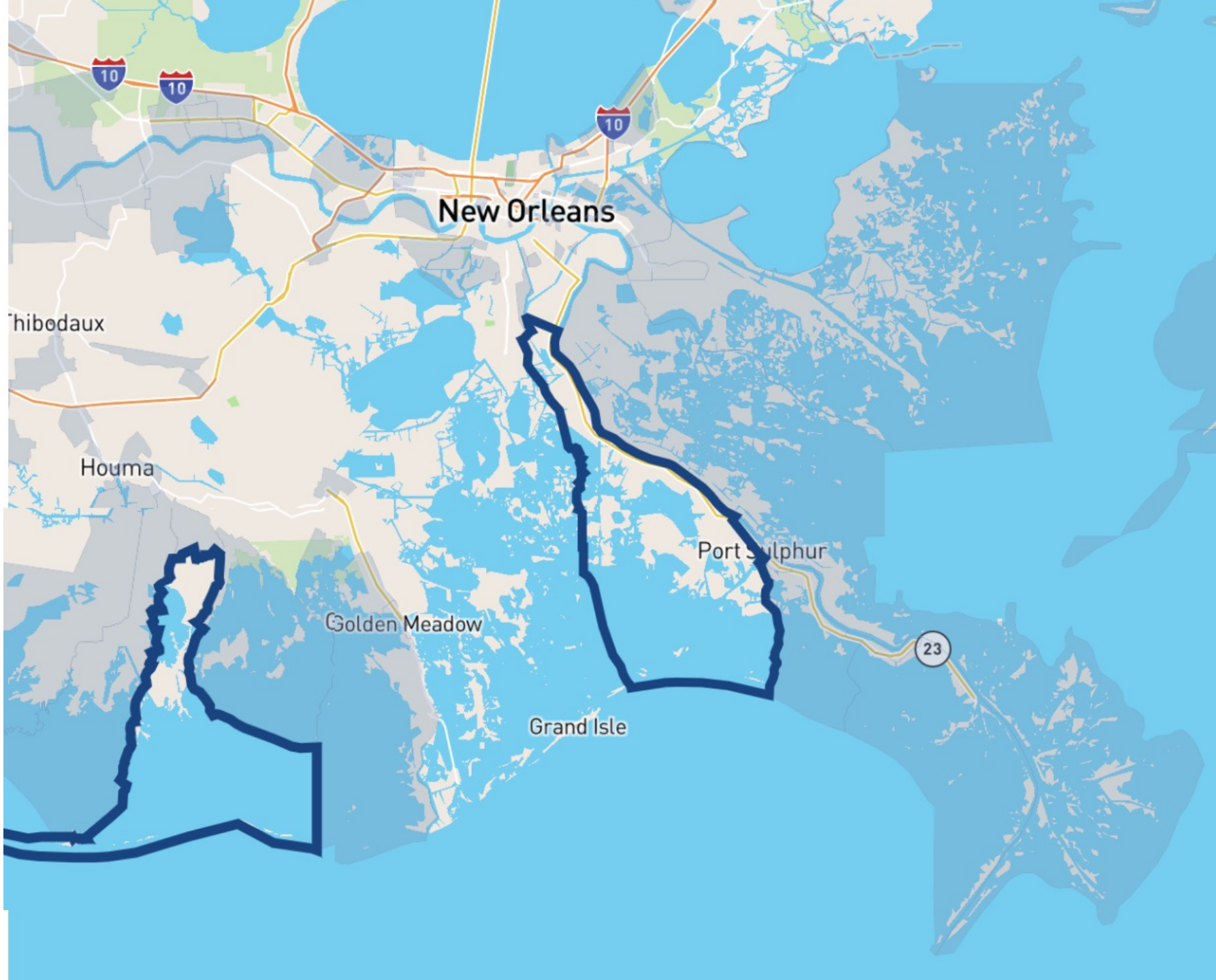
YES

15 of 21 thresholds exceeded

Send feedback

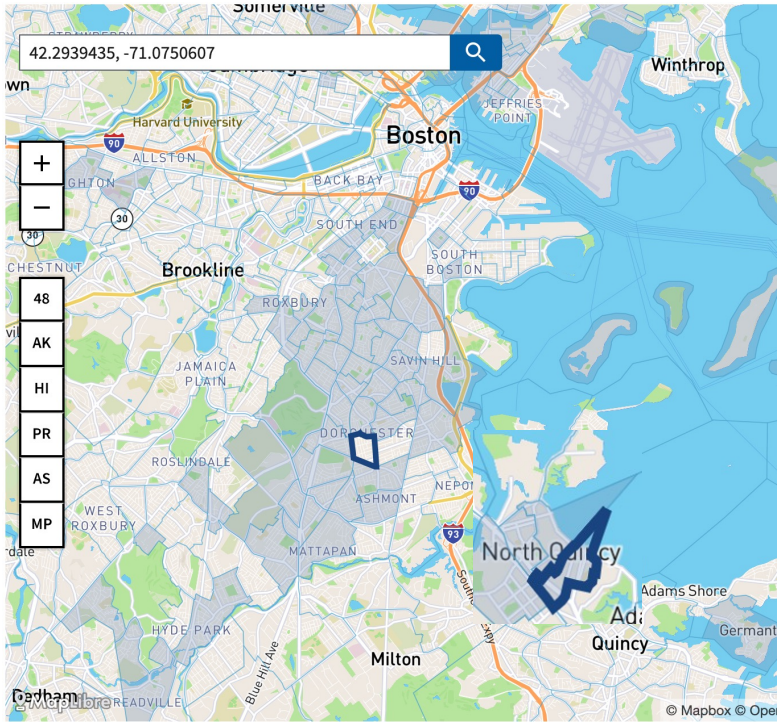
- **Climate change**
- **Clean energy and energy efficiency**
- **Clean transportation**
- **Sustainable housing**
- **Legacy pollution**
- **Clean water and waste infrastructure**
- **Health burdens**
- **Workforce development**

THE DANGER OF BINARY THRESHOLDS



HOW WELL CAN WE DISTINGUISH BETWEEN TRACTS?

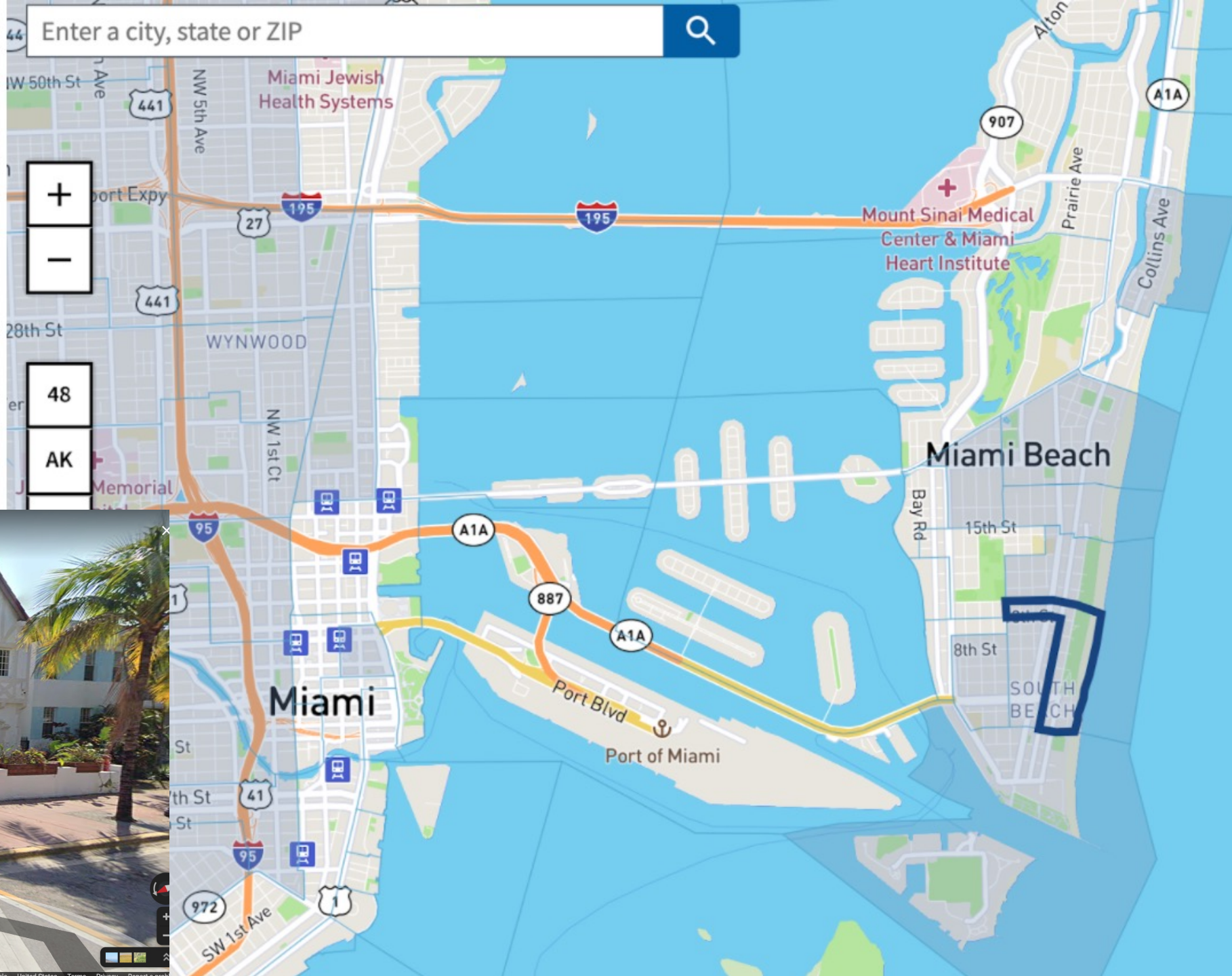
Dorcester = 65% Black, 22% Latinx, 5% white
North Quincy = 41% Asian, 50% white



DORCESTER | NORTH QUINCY

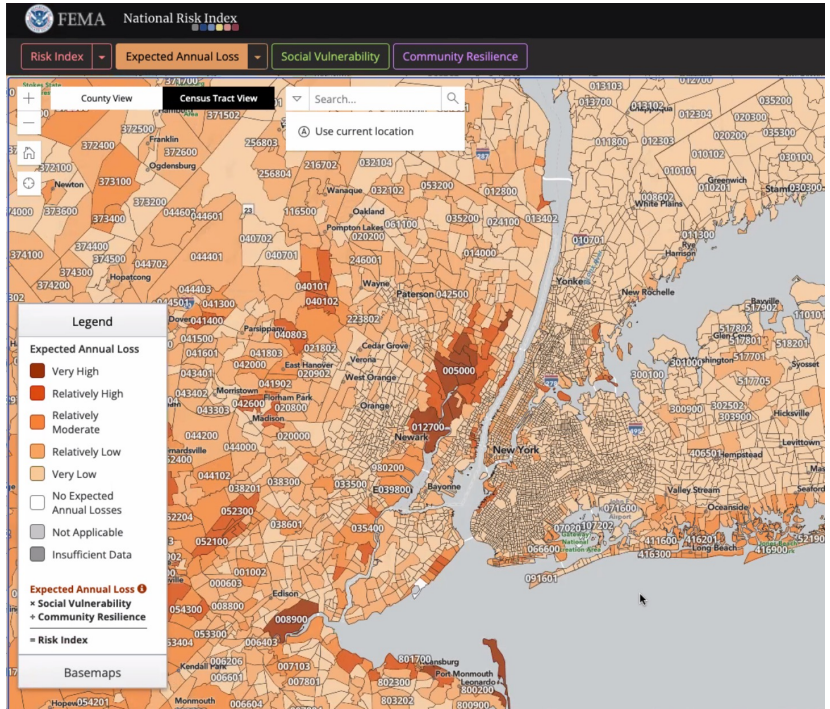
	25025092300	25021417601
Indicator	**Percentile**	**Threshold?**
Low-income	59	48
Higher ed enrollment	5	16
Expected agricultural loss rate	*0*	0
Expected building loss rate	12	42
Expected population loss rate	10	75
Energy burden	86	59
PM 2.5 exposure	13	11
Diesel particulate matter	75	67
Traffic proximity	41	74
Housing burden	**91**	76
Lead paint	88	85
Hazardous waste facilities	84	81
Superfund sites	49	56
Proximity to RMP sites	40	36
Wastewater discharge	2	53
Asthma	97	52
Diabetes	75	34
Heart disease	37	41
Life expectancy	19	60
Linguisitic isolation	87	94
Unemployment	75	68
Below 100% federal poverty	59	67
Low HS attainment	19	20

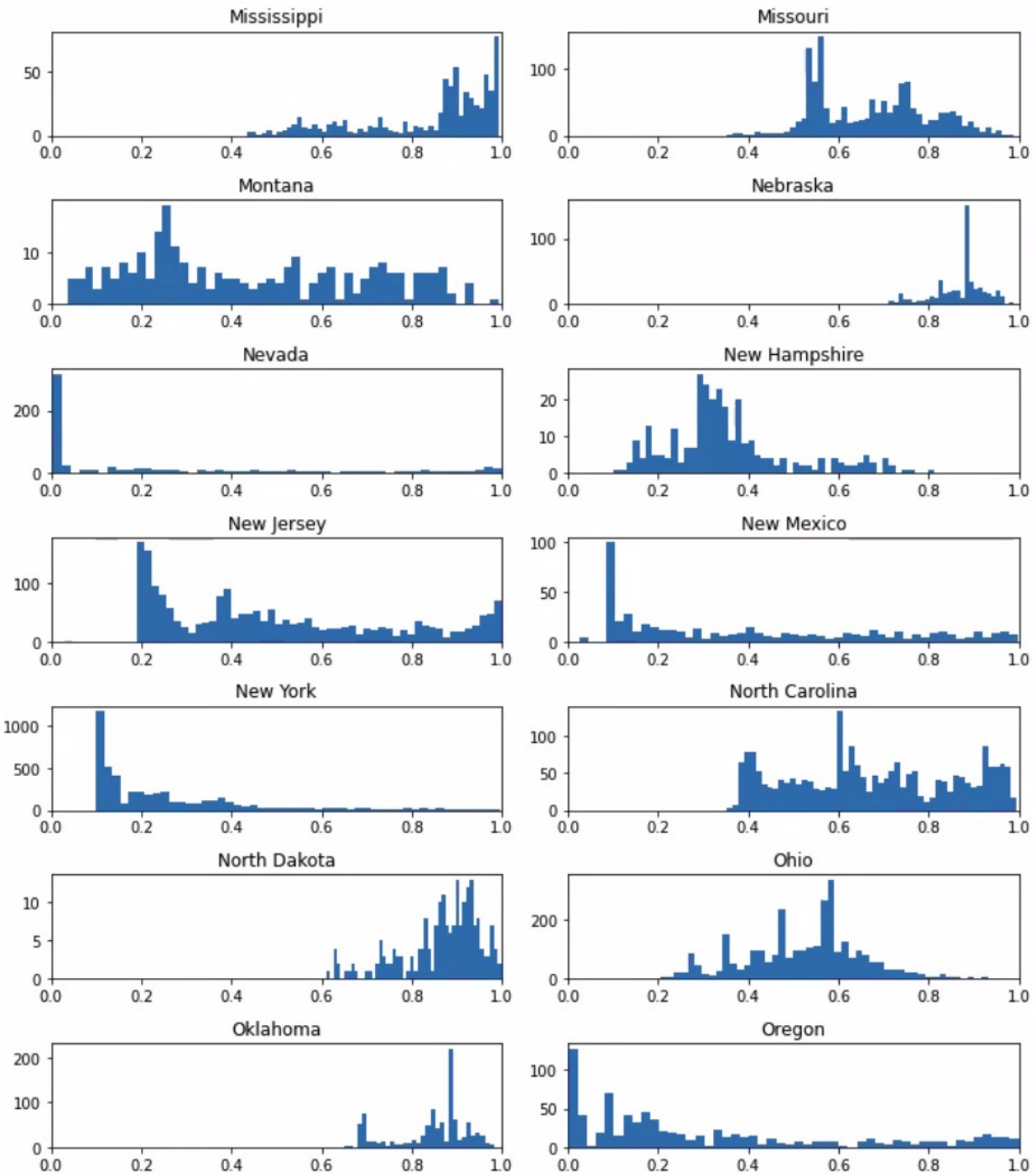
THE NEED FOR GROUNDTRUTHING



EYE-TESTING

E.g. expected Building Loss Histograms

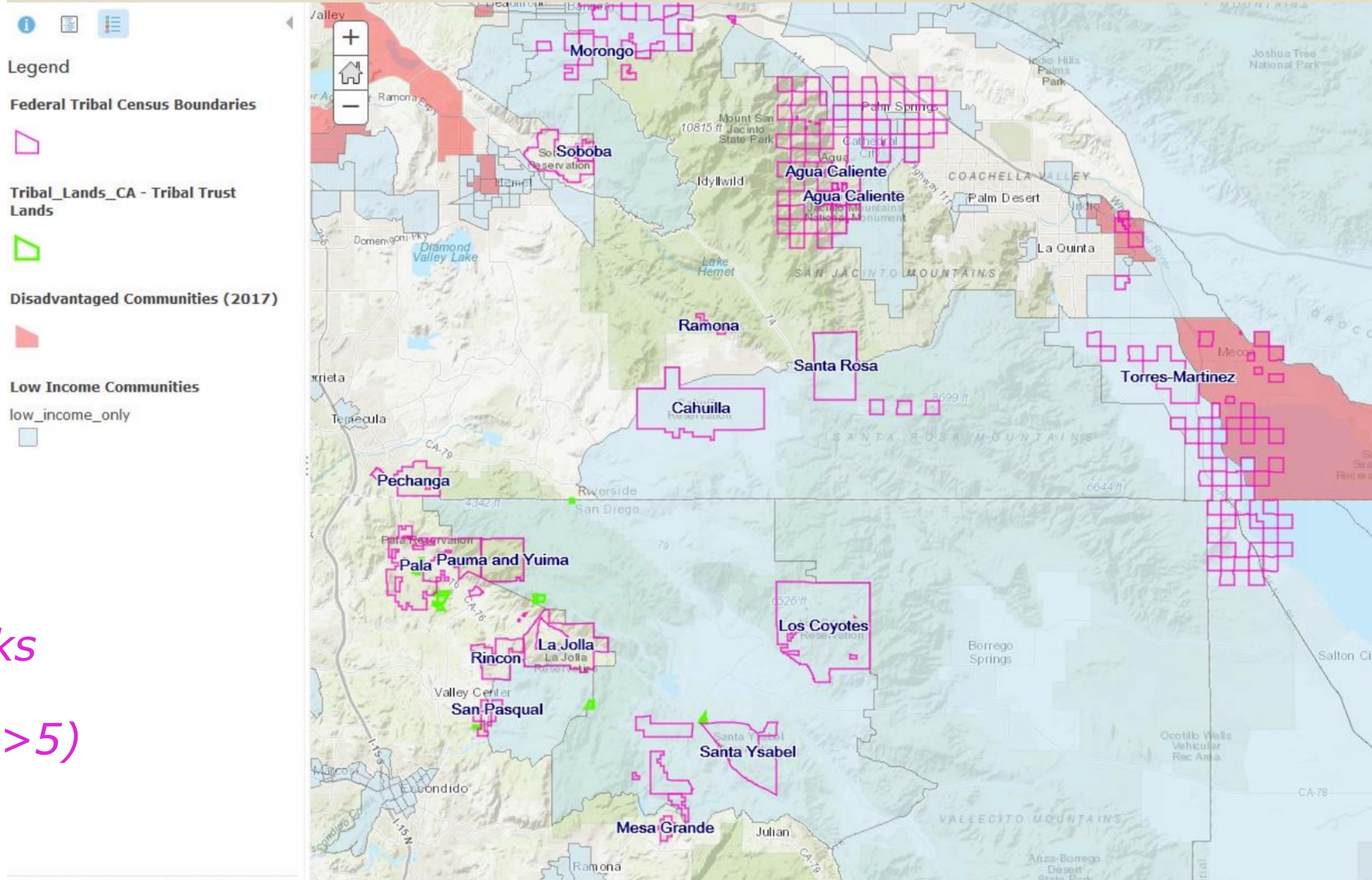




GAPS IN TRIBAL DATA RESULT IN EXCLUSION

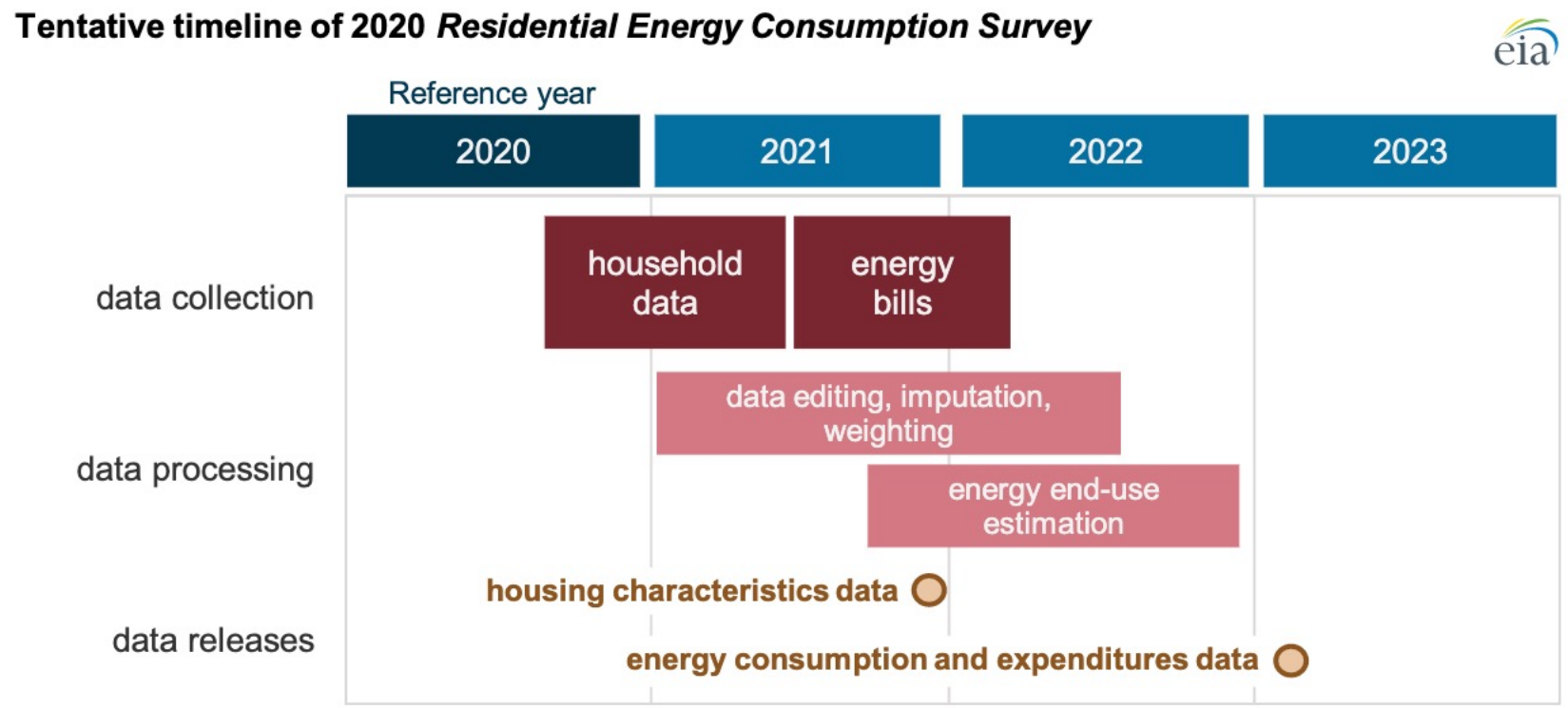
Nationwide, 31,786 tracts have 1+ blanks (average 2; ~2,000 tracts>5)

Map of Disadvantaged Communities, Low-Income Communities & Tribal Boundaries



NEED FOR CONSISTENT AND CURRENT DATA

EIA's upcoming Residential Energy Consumption Survey will collect data from all 50 states



PRIORITY QUESTIONS FOR CEJST BETA

- Address race!
- How were impacted communities consulted in developing the tool and how will they be consulted in improvements to the beta version?
- How will cumulative impacts be addressed?
- How can more nuanced alternatives to the binary threshold be considered?
- How will disadvantaged tracts that are surrounded by non-disadvantaged
- tracts be treated, and vice versa?
- How will the specific thresholds be considered by agencies? Will a tract in the 99th percentile for a climate threshold still receive consideration for J40 investments in clean water and lead remediation?
- **How will communities be empowered to self-certify, particularly where data is lacking? What additional resources will support that process and additional data collection to fill gaps?**

ENERGY EQUITY PROJECT:
RESOURCES

I VISION:

1. **The presence of an equity measurement framework for clean energy programs will improve outcomes for BIPOC, lower-income and frontline environmental justice communities.** These communities have historically borne the brunt of environmental harms without partaking in the benefits of more efficient, less polluting, and more affordable forms of energy.
2. **The framework will be universally applicable**--to any program, any utility, and any municipality.
3. **The framework will use a standard *process*** to assess four forms of equity: i) Recognition, ii) Procedural, iii) Distributive, iv) Restorative

The outcomes generated by the EMF will not be equal, but they will be equitable, mirroring the idea of meeting different needs and starting points.

II) DIMENSIONS OF EQUITY: The four dimensions of equity selected by the Energy Equity Project align with four pillars described in the energy justice literature. We integrate definitions from other authors and add our own particular context below.

i) Recognition: "Recognition justice emphasizes the need to understand different types of vulnerability and specific needs associated with energy services among social groups (especially marginalized communities)."[1] Recognition justice is sometimes referred to as "structural", indicating that factors such as identity and demographics which are largely beyond a household's or community's immediate control play a role in determining distributional outcomes they experience. Recognition both identifies historical disparities and suggests different likelihoods of future experiences and outcomes.

ii) Procedural: "Procedural justice calls for equitable and democratic involvement of all stakeholders in energy decision-making."[1]. Procedural justice concerns who is at the decision-making table, the disparities in people's ability to access decision-making and other procedural spaces, and whether, once at the table, everyone's voice is heard.

iii) Distributional: "Distributional justice concerns unfairness in the process of sharing costs and benefits created by energy development across society."[1] "Distributive or substantive justice is outcome focused, and speaks to whether all share equitably in the benefits and burdens of the energy system."[2] Examples of common energy benefits include direct financial benefits, job creation, business contracts, air quality, health outcomes, resilience to climate impacts.

iv) Restorative: "Restorative justice – any injustice caused by the energy sector should be rectified and be part of preventive and forward-looking action."[3] Restorative justice, as used in

other context such as criminal justice, requires that the part that experienced harm should be rectified to its former position before the harm occurred. A key component of restorative justice, which both brings impacted communities back to a level playing field and prevents future vulnerability, is energy democracy. "Energy democracy is the notion that communities should have a say and agency in shaping and participating in their energy future."[2]

[1] Lee J and Byrne J, 2019. Expanding the Conceptual and Analytical Basis of Energy Justice: Beyond the Three-Tenet Framework. *Front. Energy Res.* 7:99
[2] Initiative for Energy Justice, 2019. Energy Justice Workbook.
[3] M. Hazrati, R.J. Heffron, 2021.Conceptualising restorative justice in the energy Transition: Changing the perspectives of fossil fuels. Energy Research & Social Science, Volume 78.

III) RESOURCES:

Energy Equity Project: www.energyequityproject.com
Contact: Justin Schott, Project Manager
jbschott@umich.edu | 914-261-1907

ACEEEE Publications & Resources: https://www.aceee.org/publications

E4TheFuture's National Standard Practice Manual (NSPM):
https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/

E9 Insight: https://e9insight.com/our-work/

Initiative for Energy Justice: www.iejusa.org

SEEA & TEPRI Energy Equity Action Planner:
https://www.seealliance.org/energy-equity-action-planner/

Department of Energy LEAD Tool (Energy Burdens):
https://www.energy.gov/eere/slsc/maps/lead-tool

EPA EJScreen Tool: https://www.epa.gov/ejscreen

Justice40 Data Submissions:
https://docs.google.com/spreadsheets/d/14Zwja62gbrZErhf70lo-I2ode85O-XZC1NKA7bEV6Bk/edit#gid=1401912419

White House Environmental Justice Advisory Council Justice40 Recommendations:
https://www.epa.gov/sites/default/files/2021-05/documents/whiteh2.pdf

Federal Investment, Community Resilience, and Equity Justice 40

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UMASS BOSTON Sustainable Solutions Lab

Quarterly Climate Adaptation Forum | March 4, 2022

CLOSING REMARKS

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