



Department of  
Environmental  
Conservation

# Climate Justice Working Group Draft DAC Criteria Update

July 20, 2021

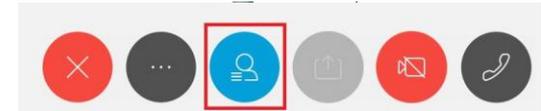
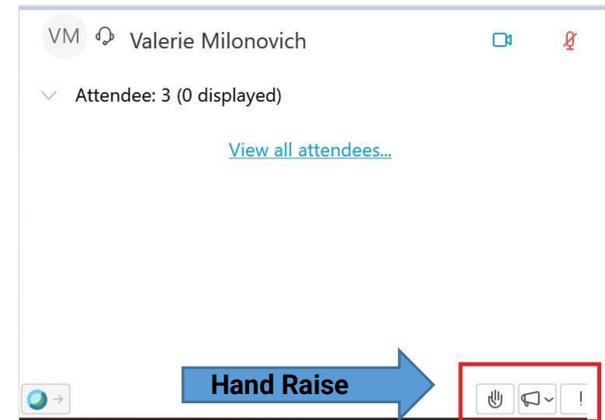
# Meeting Procedures

## Before beginning, a few reminders to ensure a smooth discussion:

- Working Group Members should be on mute if not speaking.
  - If using phone for audio, please tap the phone mute button.
  - If using computer for audio, please click the mute button on the computer screen (1<sup>st</sup> visual).
- Video is encouraged for Working Group members, particularly when speaking.
- In the event of a question or comment, please use the hand raise function (2<sup>nd</sup> visual). Click the participant panel button (3<sup>rd</sup> visual) for the hand raise function. Rosa or Alanah will call on members individually, at which time please unmute.



You'll see  when your microphone is muted



# Welcome and Roll Call



# Agenda

- Introductions
- CAC Update
- DAC Criteria Timeline
- Considered Indicators
- Draft Scenario
- Next Steps



Slide reflects version presented during meeting; final dates and agenda TBD



|   |   |  |  |
|---|---|--|--|
| <p><b>Optional 1-hr map review</b></p> <p>Individual Work:</p> <ul style="list-style-type: none"> <li>Review draft scenarios</li> <li>Review slides from last two meetings (with Indicator List)</li> </ul> | <p><b>CJWG July 20</b></p> <p>Meeting Agenda:</p> <ul style="list-style-type: none"> <li>Timeline to public comment period</li> <li>Annual review process</li> <li>Preview Considered Indicators doc</li> <li>Discuss draft scenarios</li> </ul> <p>CAC meeting July 22</p> | <p><b>CJWG July 27</b></p> <p>Meeting Agenda:</p> <ul style="list-style-type: none"> <li>Prep for Indicators vote (discuss Considered Indicators)</li> <li>Zoom into single scenario together</li> <li>Discuss/prioritize revisions</li> </ul> | <p>Individual Work</p> <ul style="list-style-type: none"> <li>Review revised draft scenarios</li> <li>Review Considered Indicators doc to prepare for vote</li> </ul> <p>ILLUME revise scenarios &amp; re-post - optional review with ILLUME</p> |
|---|---|--|--|



|  |  |  |   |
|--|--|--|---|
| <p><b>CJWG Aug 11</b></p> <p>Meeting Agenda:</p> <ul style="list-style-type: none"> <li>Consensus on Draft Indicator List (<i>not a vote</i>)</li> <li>Discuss revised scenarios</li> <li>For public DEC share draft outline/plan comment period?</li> </ul> | <p><b>CJWG Aug 18 or 19?</b></p> <p>Meeting Agenda:</p> <ul style="list-style-type: none"> <li>Prepare to vote for scenarios</li> <li>Prioritize final revisions</li> <li>Preview documentation</li> <li>DEC share draft outline/plan for public comment period?</li> </ul> <p>ILLUME revise scenarios &amp; re-post - optional review with ILLUME</p> <p>CAC meeting Aug 23 (tentative)</p> | <p><b>CJWG Aug 26?</b></p> <p><i>Optional</i> meeting or individual review:</p> <ul style="list-style-type: none"> <li>Review draft scenarios before vote</li> <li>Review documentation</li> <li>Review public comment plan/outline</li> </ul> | <p><b>In-Person CJWG</b></p> <ul style="list-style-type: none"> <li>Vote on indicator list</li> <li>Vote for scenario(s) to post for public comments</li> <li>Prepare for public meetings and comment period</li> </ul> <p>September:<br/>Post scenarios for public comment<br/>Participate in public meetings<br/>Start 120-day comment period</p> |
|--|--|--|---|

# Work Ahead – DAC Criteria

## Individual

Engage with maps  
Review Considered  
Indicators

## Meetings

July 20, July 27, 1<sup>st</sup>  
August meeting  
In-person August and  
September meetings  
for voting

## Consensus & Voting

Draft Indicator List  
Scenario(s) to post to public  
comment\*

# Indicators for Draft Scenarios

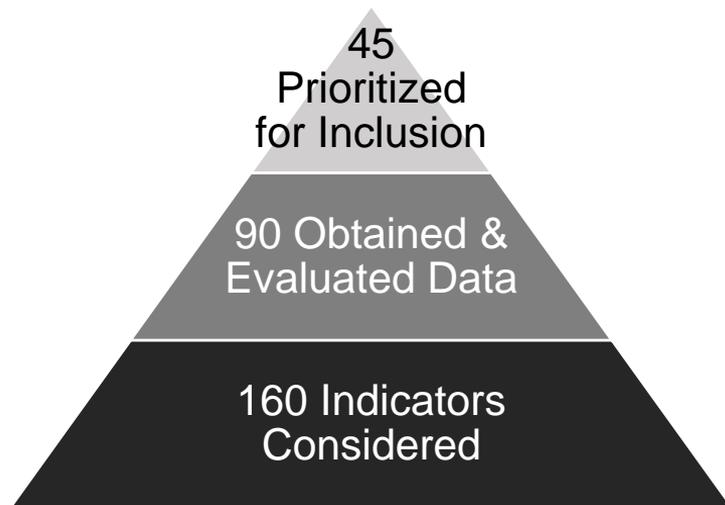


# Inclusion Considerations

Inclusion decisions consider:

- Data coverage & granularity
- Data quality (e.g., measurement or sampling error)
- Modeled vs. directly-collected or measured data
- Correlations
- Technical guidance (e.g., DEC, DOH, DOS)

So far, we obtained & evaluated data for 90+ indicators  
(a) on their own, and (b) in combination



# Annual Update Process

Document what CJWG and staff team want to improve  
(future data collection or advanced analysis)

Additional data needs may emerge from public comment –  
Save time/budget to address

CJWG can recommend annual process to review and improve  
indicators (*← what do you recommend?*)



# Our ask of you for indicators document

## What it is:

Lists everything we've discussed so far

Special heat vulnerability section

Will be part of Technical Documentation

## Next steps:

Review document before next meeting

Provide questions or comments if you like



# Indicator Framework

## Community Burdens and Potential Risks

Potential  
Pollution  
Exposures

Land use  
associated with  
historical  
discrimination or  
disinvestment

Potential  
Climate  
Change Risks

## Population Vulnerabilities

Socio-  
demographics

Health Impacts &  
Burdens

Housing,  
Mobility,  
Communications



# Community Burdens and Potential Risks: Indicators in Current Scenario

## Potential Pollution Exposures

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

## Land use associated with historical discrimination or disinvestment

- Historical redlining score
- 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)
- Utility/waste 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



# Population Vulnerabilities: Indicators in Current Scenario

## Sociodemographics

- Pct <80% Area Median Income
- Pct <100% of Federal Poverty Line
- Pct without Bachelor's Degree
- Unemployment rate
- Pct Single-parent households
- Pct Latino/a or Hispanic
- Pct Black or African American
- Limited English Proficiency

## Health Impacts & Burdens

- Asthma ED visits
- COPD ED visits
- Heart attack (MI) hospitalization
- Pct without Health Insurance
- Pct with Disabilities
- Pct Adults age 65+

## Housing, Mobility, Communications

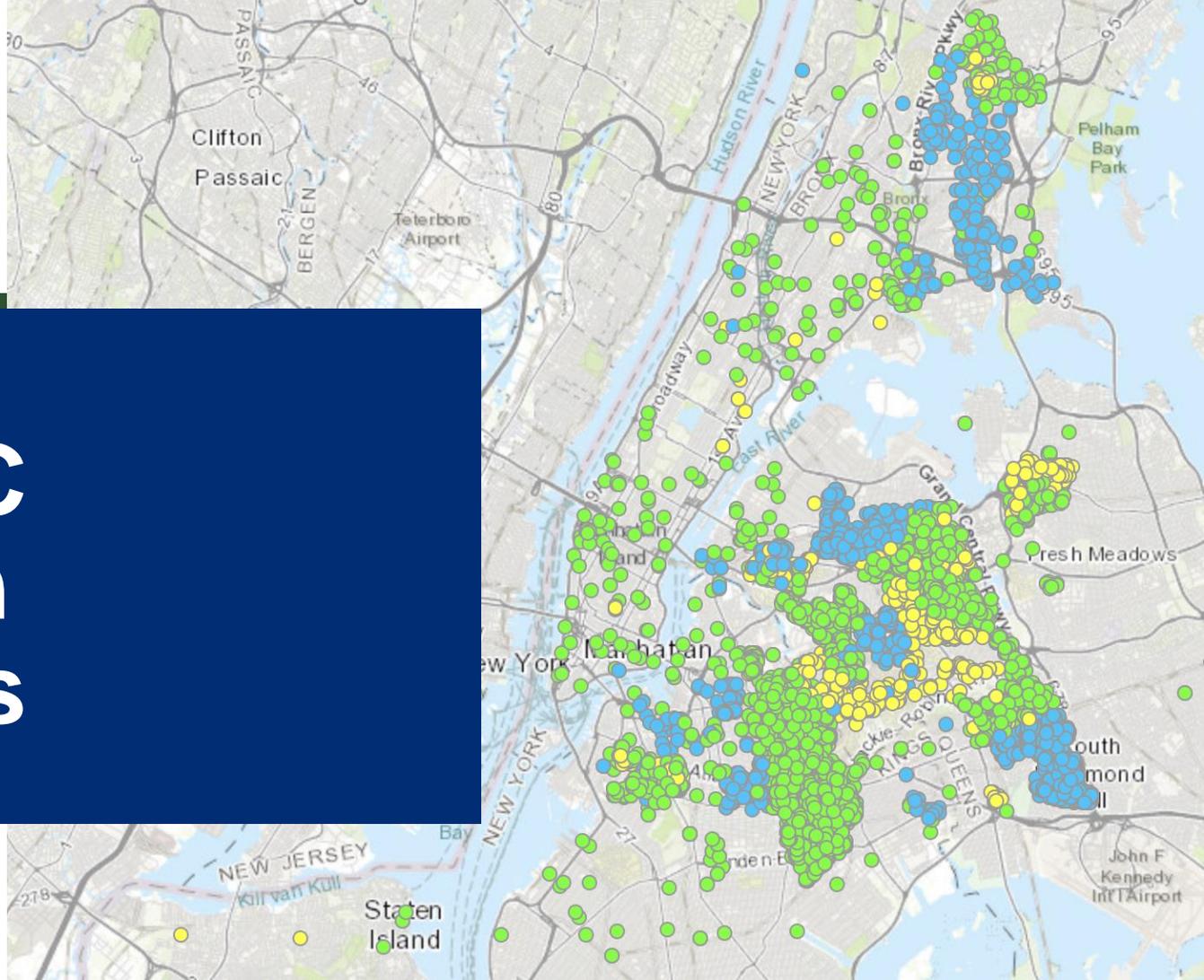
- Pct Renter-Occupied Homes
- Housing cost burden (rental costs)
- Energy Poverty / Cost Burden
- Manufactured homes
- Homes built before 1960\*
- Percent without private vehicle
- Pct without Internet (home or cellular)

NOTE: Future data will include Low Birthweight births and Premature Deaths

\*Proxy for lead-based paint risk. We may assess alternatives.

# Go to Considered Indicators

# Draft DAC Definition Scenarios



# Groundtruthing

While we can show you the nitty gritty, you don't need to review all the details of the methodology. You'll see the differences in our scenarios.

With your feedback, we can make small methodological changes to make sure your feedback is incorporated into the draft scenarios.



# Early maps to get your reaction to big things

Map tool includes a short form for submitting comments on individual tracts

When you select one or more tracts in the map, the "Selected Census Tract Details" table will update to show key metrics for those tracts

**INSTRUCTIONS**

1. Click on a tract in the map.
2. Fill out form
3. Click the "SUBMIT" button. Try clicking the button again if the website does not open.
4. Close the website window and ...

**Name**

**Tract Number**

**Should be a DAC?**  
 Yes  
 No

**Brief Explanation**

**Statewide Averages**

|               |          |
|---------------|----------|
| Burden Pctl   | 40       |
| Vuln Pctl     | 48       |
| Median Income | \$74,317 |
| % BIPOC       | 45%      |
| Redline Score | 3.0      |
| % PEJA        | 47%      |



**Selected Census Tract Details**

| Tract              | Is a DAC? | Burden Percentile | Vulnerability Percentile | Median Income   | % BIPOC    | Redline Score | % PEJA      |
|--------------------|-----------|-------------------|--------------------------|-----------------|------------|---------------|-------------|
| 36061022102        | NON-DAC   | 73                | 54                       | \$96,154        | 79%        | 4.0           | 100%        |
| 36061022800        | DAC       | 72                | 69                       | \$70,650        | 85%        | 4.0           | 100%        |
| 36061023000        | DAC       | 73                | 79                       | \$36,124        | 92%        | 4.0           | 100%        |
| <b>Grand Total</b> |           | <b>73</b>         | <b>67</b>                | <b>\$67,643</b> | <b>85%</b> | <b>4.0</b>    | <b>100%</b> |

Note: Draft maps exclude 138 census tracts (2.8%) with very low population because Vulnerabilities data is missing/unreliable; they can be scored separately on the basis of Burdens alone.



**Department of  
Environmental  
Conservation**

## % Region Designated DAC

| Region         |     |
|----------------|-----|
| New York City  | 44% |
| Long Island    | 12% |
| Mid-Hudson     | 34% |
| Western NY     | 32% |
| Finger Lakes   | 31% |
| Capital Region | 22% |
| Central NY     | 31% |
| Southern Tier  | 21% |
| Mohawk Valley  | 24% |
| North Country  | 13% |
| Grand Total    | 33% |

Percent of tracts **within** a region that are a DAC

22% of tracts in the Capital Region are designated DACs

These two tables will help you assess whether we're covering regions appropriately.

When we eventually have more than one scenario, you'll be able to compare the breakouts by region. For now, the question to ask yourself here is whether your region breakdown feels right to you.

## DAC Designation by Region

| Region         | % of NY Tracts | % of NY DACs |
|----------------|----------------|--------------|
| New York City  | 44%            | 58%          |
| Long Island    | 12%            | 5%           |
| Mid-Hudson     | 11%            | 11%          |
| Western NY     | 7%             | 7%           |
| Finger Lakes   | 6%             | 6%           |
| Capital Region | 6%             | 4%           |
| Central NY     | 4%             | 4%           |
| Southern Tier  | 3%             | 2%           |
| Mohawk Valley  | 3%             | 2%           |
| North Country  | 2%             | 1%           |
| Grand Total    | 100%           | 100%         |

Percent of DACs in a region vs the total % of tracts in that region

Long Island has 12% of the state's tracts but 5% of the DAC tracts

Simple set of statistics for comparing scenarios. Currently we have:

- Burden and Vulnerability percentile scores
- Median income
- % BIPOC
- Redline score
- % PEJA

Is there anything else you'd like to see when comparing high-level scenario stats?

For the % agreement table:

- Look at agreement between DAC scenarios + your "groundtruthed" list
- Understand, through your comments, what indicators are more important to you
- Check whether our data/indicators capture the types of things you care about

DACs vs Non-DACs - Statewide Averages

|               | DAC      | Non DAC  | Grand Total |
|---------------|----------|----------|-------------|
| Burden Pctl   | 46       | 37       | 40          |
| Vuln Pctl     | 63       | 41       | 48          |
| Median Income | \$48,198 | \$87,307 | \$74,317    |
| % BIPOC       | 70%      | 32%      | 45%         |
| Redline Score | 3.3      | 2.8      | 3.0         |
| % PEJA        | 83%      | 29%      | 47%         |

Comparison of attributes of tracts that are designated DACs in this scenario

DAC census tracts have a higher vulnerability health score than non-DAC census tracts

% Agreement with Responses

|                                 |     |   |
|---------------------------------|-----|---|
| % Agreement                     | 77% | Percent agreement based on groundtruthing input   |
| % Agreement (Should NOT be DAC) | 54% | % agree that it should be a DAC = <b>Overlap of when WG member says it's a DAC and scenario says it's a DAC</b>               |
| % Agreement (Should be DAC)     | 94% | % agree that it should not be a DAC = <b>Overlap of when WG member says it is NOT a DAC and scenario says it is NOT a DAC</b> |

# Go to Tableau

Note: Draft maps exclude 138 census tracts (2.8%) with very low population because Vulnerabilities data is missing/unreliable; they can be scored separately on the basis of Burdens alone.



# Timeline & Next Steps



# Next Steps

# Details on Approach If Interested



# Review: Combining Data

Group Indicators into Factors



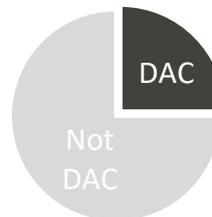
Combine Factors into Components



Calculate Statewide & Regional Scores



Designate DACs based on their relative score



# Some decisions move things more than others

## Designation Threshold

(High-scoring tracts to designate as DACs – e.g., top third?)



[https://www.clrp.cornell.edu/q-a/272-excavator\\_certification.html](https://www.clrp.cornell.edu/q-a/272-excavator_certification.html)

## Factor Importance

(Relative importance of exposures vs. climate, etc.)



<https://compactequip.com/excavators>

## Indicators

(With ~40 indicators, changing one doesn't shift much)



Photo by Andres Siimon on [Unsplash](#)

## Indicator Weights

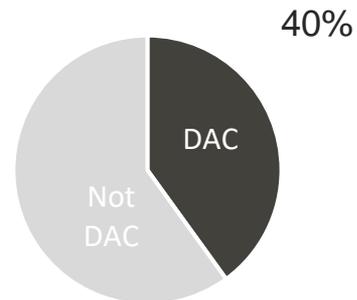
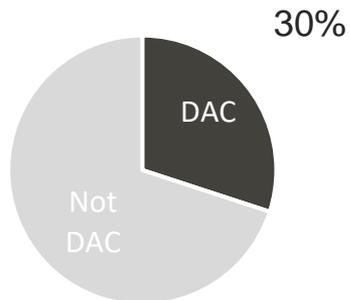
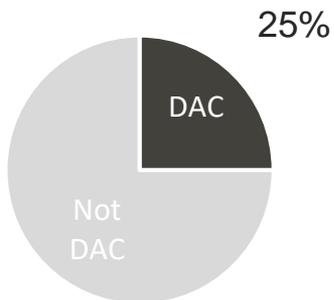
(With highly-correlated indicators, weights don't shift results much)



Photo by Anaya Katlego on [Unsplash](#)

# Critical Question for CJWG: Share of DACs

In general, what share of communities (census tracts) should be designated as DACs?



We've discussed the idea of "leave no DAC behind", but we need to operationalize this as the final % will be an arbitrary number.

# Designation Threshold Across Regions

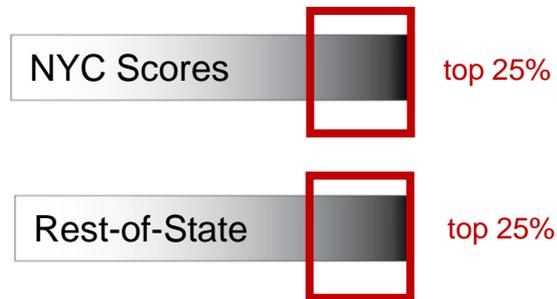
## Statewide Score

How each community ranks (on all of the data) within the **entire** state



## Regional Scores

How each community ranks (on all of the data) in NYC and Rest-of-State separately



About 1/3 designated

Designate communities that score in either top 25% statewide OR regionally



Department of  
Environmental  
Conservation

# Some decisions move things more than others

## Designation Threshold

(High-scoring tracts to designate as DACs – e.g., top third?)



[https://www.clrp.cornell.edu/q-a/272-excavator\\_certification.html](https://www.clrp.cornell.edu/q-a/272-excavator_certification.html)

## Factor Importance

(Relative importance of exposures vs. climate, etc.)



<https://compactequip.com/excavators>

## Indicators

(With ~40 indicators, changing one doesn't shift much)



Photo by Andres Siimon on [Unsplash](#)

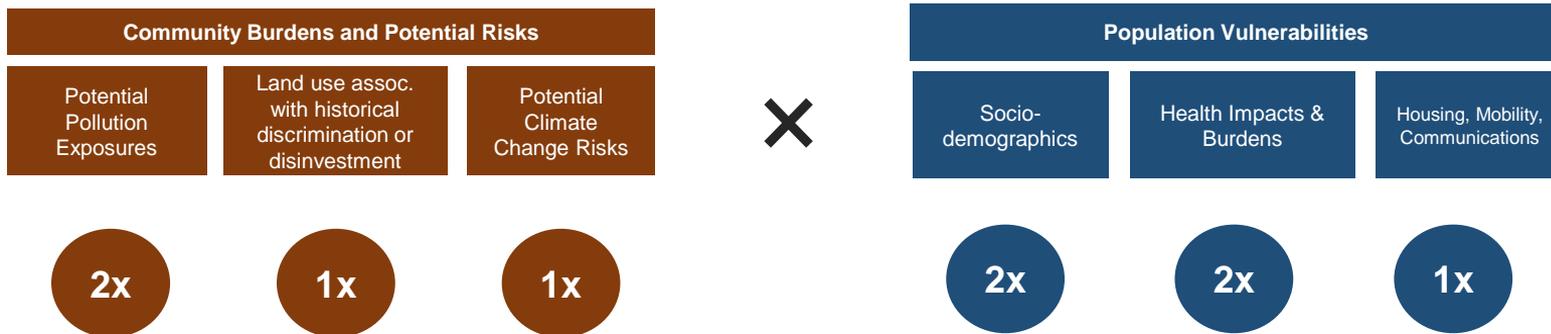
## Indicator Weights

(With highly-correlated indicators, weights don't shift results much)



Photo by Anaya Katlego on [Unsplash](#)

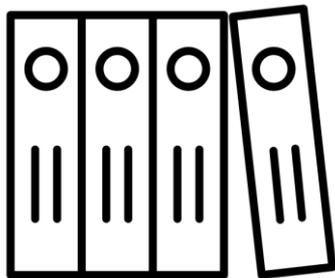
# Starting point for Factor Importance



Note: Since Burdens and Vulnerabilities are multiplied, they have equal weight, regardless of how you weight things within them.



# Indicator Limitations



Documentation (for public comment) will discuss:

- Indicators/data we **considered** but did not pursue, and why
- Data limitations, including Census (e.g., not specific enough to race/ethnicity), public health data (e.g., limited data @ sub-county level), and more
- Recommendations for future/additional community-level data (e.g., migration)
- Potential for periodic indicator review/updates

# Legislation allows for continuous improvement

We are cataloging recommendations for data to gather, if possible, and consider in the future.

