J40 DACs Data Documentation

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By U.S. Department of Energy Office of Economic Impact and Diversity

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Summary

Title and Description

Dataset Title: DOE Working Justice40 Disadvantaged Communities (DACs) 2022

Brief Description: Data used to define the U.S. Department of Energy working definition of disadvantaged communities as pertaining to EO 14008, or the Justice40 Initiative. The dataset provides the 36 inputs to the index at the census tract level as well as the classification of each census tract as disadvantaged or not disadvantaged.

Spatial Extent and Resolution: United States of America, Census Tracts
Temporal Resolution: Snapshot

Licensing & Attribution **Public License**

Type: NA
Data Provided By – U.S. Department of Energy Office of Economic Impact and Diversity
Source Link – www.energy.gov/justice40
Email Address – j40groupmailbox@hq.doe.gov

Brief Description of Methodology

The spatial unit used to define geographic communities is the census tracts. In many locations, a census tract is akin to a neighborhood. In more rural locations, a census tract may comprise an entire county. To identify the census tracts that could be considered DACs, the raw data is processed in four main steps:

1. For each census tract, we calculated the percentile values for each of the 36 indicators.
2. We summed the percentiles across the indicators to create a score for each tract. Each indicator is given equal weight. The final scores for each tract could range from 0 to 36, where 36 would represent the largest disadvantage.
3. Based on the score, we select up to the 20 percent of census tracts in each state that have the highest scores. This ensures that every state is represented.
4. To ensure wealthier locations are not inadvertently included, DAC eligibility is further restricted based on income. A census tract selected in step 3 is identified as a DAC if at least 30% of households:
    a. are at or below 200% of Federal Poverty Level and/or
    b. are considered low-income households by the Department of Housing and Urban Development (HUD), defined as making 80% of area median income.

Refer to the methodology described on www.energy.gov/justice40

Data Sources and Definitions

Data Sources Description

The method relies on 36 indicators collected from various sources. This section describes the data sources and variables that form the raw data used to compute whether a census tract is considered disadvantaged. The short variable name is the name that can be used in shapefile fields.

I. American Community Survey (ACS) 5 year estimates, 2015-2019

- **Publisher** – U.S. Census Bureau
- **Contact Name/Email** – Call the Census Bureau Customer Service Center at 1- 800-923-8282 or 301-763-INFO (4636.) https://ask.census.gov/support/case
- **Public Access Level** – public
- **Homepage** – https://www.census.gov/programs-surveys/acs
- **Last Update** – 2020
- **Update Frequency** – annual

Data Dictionary

Short Variable Name	Description
GEOID	Census tract FIPS code; Unique ID for census tract.
POPULATION	Population of census tract
UNINSURPCT	Percent of population without health insurance coverage
UNEMPPCT	Percent of civilian labor force reported as unemployed
DISABLPCT	Percent of the non-institutionalized population with any disability
INCPLMBPCT	Percent of occupied housing units without complete plumbing
SNGLPNTPCT	Proportion of family households with children under age 18 with only one parent
MOBILHMPCT	Percent of total population in mobile homes
NONGRIDPCT	Percent of households that use a fuel other than grid-connected gas or electricity or solar energy as their main heat source
LESSHSPCT	Percent of total population, age 25 and older, whose reported education is short of a high school diploma
LOWINCFPCT	Percent of total population reported at or below 200% of the Federal Poverty Level
LONGCOMPCT	>30 min commute
NOCARPCT	Percent of total population with no vehicle available.
RENTPCT	Proportion of occupied housing units not occupied by property owners

Data Sources Description Continued

2. Longitudinal Employer-Household Dynamics (LEHD) Survey

- **Publisher** – U.S. Census Bureau Center for Economic Studies
- **Contact Name/Email** – Keith A. Bailey CES.Local.Employment.Dynamics@census.gov
- **Public Access Level** – public
- **Homepage** – https://lehd.ces.census.gov/data/
- **Last Update** – 2018
- **Update Frequency** – approximately every two years

Data Dictionary

Short Variable Name	Description
COUNTY	County Name
STATEABB	state name abbreviation
COUNTYFIPS	County FIPS code
CBSA	Core based statistical area code (CBSA is micropolitan and metropolitan statistical areas combined)
CBSANAME	Core based statistical area name
STATEFIPS	State FIPS code

3. Environmental Justice Screening Tool (EJScreen)

- **Publisher** – U.S. Environmental Protection Agency
- **Contact Name/Email** – https://www.epa.gov/ejscreen/forms/contact-us-about- ejscreen
- **Public Access Level** – public
- **Homepage** – https://gaftp.epa.gov/EJSCREEN/
- **Last Update** – 2020
- **Update Frequency** – annual

Data Dictionary

Short Variable Name	Description
LINGISOPCT	Percent of households (interpreted as individuals) where no one in the household speaks English well
OVER64PCT	Percent of total population over age 64
PRE1960PCT	Percent of housing units built before 1960 (lead paint indicator)
DSLPM	EJ Index for Diesel particulate matter level in air
CANCER	EJ Index for Air toxics cancer risk
PTRAF	EJ Index for Traffic proximity and volume (PTRAF)
PWDIS	EJ Index for Indicator for major direct dischargers to water
PNPL	EJ Index for Proximity to National Priorities List (NPL) sites (PNPL)
PRMP	EJ Index for Proximity to Risk Management Plan (RMP) facilities (PRMP)
PTSDF	EJ Index for Proximity to Treatment Storage and Disposal (TSDF) facilities
PM25	EJ Index for PM2.5 level in air (PM25)

Data Sources Description Continued

4. Census Tract - City Place Relationship Table

- **Publisher** – Proximity One
- **Contact Name/Email** – http://proximityone.com/contact.htm
- **Public Access Level** – public
- **Homepage** – http://proximityone.com/tract_place.htm
- **Last Update** – 2010
- **Update Frequency** – none described, likely will update with 2020 census boundaries in near future

Data Dictionary

Short Variable Name	Description
CITY	City name

5. Low-Income Energy Affordability Data (LEAD) Tool

- **Publisher** – U.S. Department of Energy Office of Energy Efficiency and Renewable Energy
- **Contact Name/Email** – **LEAD.Tool@ee.doe.gov**
- **Public Access Level** – public
- **Homepage** – https://www.energy.gov/eere/slsc/maps/lead-tool
- **Last Update** – 2018
- **Update Frequency** – approximately every 3-4 years

Data Dictionary

Short Variable Name	Description
ENERGYBRDN	Annual average energy burden based on average annual housing energy costs divided by the average annual household income

6. Current Employment Statistics (CES)

- **Publisher** – U.S. Bureau of Labor Statistics
- **Contact Name/Email** – https://data.bls.gov/forms/ces.htm?/ces/contact.htm
- **Public Access Level** – public
- **Homepage** – https://www.bls.gov/ces/data/
- **Last Update** – 2018
- **Update Frequency** – annual

Data Dictionary

Short Variable Name	Description
FOSSEMPLMT	Percent of total civilian jobs in the fossil energy sector
COALEMPLMT	Percent of total civilian jobs in the coal sector

Data Sources Description Continued

7. Electric Emergency Incident and Disturbance Report (Form OE-417), from Jan. 2017-Dec. 2020

- **Publisher** – U.S. Department of Energy Office of Electricity National Energy Technology Laboratory
- **Contact Name/Email** – OE417@hq.doe.gov
- **Public Access Level** – public
- **Homepage** – https://www.oe.netl.doe.gov/oe417.aspx
- **Last Update** – 2021
- **Update Frequency** – approximately bi-monthly

Data Dictionary

Short Variable Name	Description
OUTAGECNT	Number of power outage events that occurred for all census tracts in each county from 2017-2020
OUTAGEDUR	Average duration of power outage events (in minutes) that occurred for all census tracts in each county from 2017-2020

8. Food Access Research Atlas Data

- **Publisher** – U.S. Department of Agriculture (USDA),
- **Contact Name/Email** – Alana Rhone, 202-694-5622, alana.y.rhone@usda.gov
- **Public Access Level** – public
- **Homepage** – https://www.ers.usda.gov/data-products/food-access-research- atlas/
- **Last Update** – 2019
- **Update Frequency** – approximately every 5 years

Data Dictionary

Short Variable Name	Description
FOODSRTPCT	Share of neighborhood without access to affordable or good-quality fresh food (Percentage who live within 1/2 mile (urban) or 10 miles (rural) of supermarket

Data Sources Description Continued

9. Housing and Transportation Affordability Index (H+T® Index)

- **Publisher** – Center for Neighborhood Technology (CNT)
- **Contact Name/Email** – Preeti Shankar, pshankar@cnt.org
- **Public Access Level** – public
- **Homepage** – https://htaindex.cnt.org/download/
- **Last Update** – 2016
- **Update Frequency** – unknown

Data Dictionary

Short Variable Name	Description
JOBACCESS	Job Access Score (0-10) (negative value enters the index)
HOUSEBRDN	Housing Costs % Income for the Regional Typical Household
TRNSPTBRDN	Transportation Costs % Income for the Regional Typical Household

10. Indicators of Broadband Need Map

- **Publisher** – U.S. Department of Commerce National Telecommunications and Information Administration (NTIA)
- **Contact Name/Email** – nbam@ntia.gov
- **Public Access Level** – public
- **Homepage** – https://broadbandusa.ntia.doc.gov/resources/data-and-mapping
- **Last Update** – 2021
- **Update Frequency** – as new data become available

Data Dictionary

Short Variable Name	Description
NOINTPCT	Percent of Households with no internet access

11. USA Parks geodatabase

- **Publisher** – ESRI
- **Contact Name/Email** – https://www.esri.com/en-us/contact#c=us&t=0
- **Public Access Level** – public
- **Homepage-** https://www.arcgis.com/home/item.html?id=578968f975774d3fab79fe56c8c90941
- **Last Update** – 2020
- **Update Frequency** – annual

Data Dictionary

Short Variable Name	Description
GREENSPACE	Count of parks per census tract (negative value enters the index)

Data Sources Description Continued

12. Continuum of Care GIS Tools, 2019

- **Publisher** – U.S. Department of Housing and Urban Development
- **Contact Name/Email** – https://www.hudexchange.info/contact-us/
- **Public Access Level** – public
- **Homepage** – https://www.hudexchange.info/programs/coc/gis-tools/
- **Last Update** – 2020
- **Update Frequency** – annual

Data Dictionary

Short Variable Name	Description
HOMELESPCT	Representative of homeless population; calculated using total number of Sheltered and Unsheltered Population per sq. km

13. LMISD - All Block Groups, Based on 2011-2015 ACS

- **Publisher** – Department of Housing and Urban Development (HUD
- **Contact Name/Email** – https://www.hudexchange.info/contact-us/
- **Public Access Level** – public
- **Homepage** – https://www.hudexchange.info/programs/acs-low-mod-summary- data/acs-low-mod-summary-data-block-groups-places/
- **Last Update** – 2016
- **Update Frequency** – unknown, appears to be infrequent

Data Dictionary

Short Variable Name	Description
LOWINCAPCT	Percent of total population considered low income based on area median income

Data Sources Description Continued

14. National Risk Index (NRI), 2020

- **Publisher** – U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA)
- **Contact Name/Email** – FEMA-NRI@fema.dhs.gov
- **Public Access Level** – public
- **Homepage** – https://www.fema.gov/flood-maps/products-tools/national-risk- index
- **Last Update** – 2021
- **Update Frequency** – approximately annual

Data Dictionary

Short Variable Name	Description
EAL_NPCTL	Expected annual loss of life (fatalities and injuries) from 18 different climate hazards