

Michigan Center on the Demography of Aging (MiCDA)

Geographic Linkages Repository (GLR)

Current Holdings

January 14, 2023

About the Geographic Linkages Repository

MiCDA is partnering with the Health and Retirement Study (HRS), Panel Study of Income Dynamics (PSID) and National Health and Aging Trends Study/National Study of Caregiving (NHATS/NSOC) to make contextual files and related documentation available in the MiCDA Enclave to approved researchers upon request.

The Geographic Linkages Repository (GLR) facilitates linkages at multiple levels of geography (e.g. state, county, tract, zip code) so that researchers can more fully investigate the impact of the environments in which people live and work on later life health, well-being and related inequities.

Citing MiCDA Geographic Linkages Repository Data Sources

By requesting to use data deposited with GLR, you agree to cite any GLR data sources used in your publications and presentations. A list of citations for current holdings in the GLR can be found at micda.isr.umich.edu/micda/linkages.

Datasets in the GLR

Contextual Data Resource (CDR). The Contextual Data Resource (CDR) is a collection of datasets designed to facilitate research on the role of place in shaping health and well-being. CDR includes measures of health care resources, demographic and socioeconomic data, air quality, crime and the food environment. Measures are available at various levels of geography (e.g., census tract, county, metro area, state). More detailed information can be found on the CDR webpage. Subfolders include:

The Area Health Resources Files (AHRF) - The Area Health Resources Files (AHRF) dataset includes information on the number of health care providers by profession and various types of health care facilities derived from medical associations and professional groups. The health professions data provide information on the supply and demographics of health profession such as primary care physicians, total MDs, doctors, dentists, and nurses. The health facilities data include information on types of health facilities and resources such as services providers, personnel, and beds. Data are longitudinal design, and available by county and year. Years covered include 2000-2019 and vary by dataset.

Decennial Census and ACS - The Decennial Census and American Community Survey (ACS) contain demographic and socioeconomic data on the US population and housing. The Census and ACS are collected by the U.S. Census Bureau. The HRS-CDR provides Census data for 1990, 2000, and 2010, and ACS data for 2008-12 and 2012-16 at the State, Metropolitan Statistical Area (MSA), County, and Census Tract levels of analysis.

EPA FAQSD O3 Fused Air Quality - The NO₂ land-use regression model estimate data includes national-scale estimates of NO₂ in the United States. It provides predictions for annual average NO₂ concentrations (ppb) using the land-use regression models. In order to predict NO₂ estimates at the national level, the following input data were used: Fixed-site regulatory monitors, Satellite-derived NO₂ estimates and GIS-derived land-use data.

EPA FAQSD PM 2.5 Fused Air Quality - The Fused Air Quality Surface Using Downscaling (FAQSD) Files is derived from data on Ozone (O₃) and Particulate Matter 2.5 (PM_{2.5}). The data provides predictions for national-scale annual average concentration of O₃ (µg/m³) and

PM2.5 ($\mu\text{g}/\text{m}^3$) in the United States using monitoring data and Community Multiscale Air Quality (CMAQ) output.

Uniform Crime Reporting - The Uniform Crime Reports (UCR) data includes annual counts of offenses including murder, rape, robbery, aggravated assault, burglary, larceny, auto theft, and arson. The crime counts are available at the county level and organized by year, from 1994 to 2014 and 2016. The UCR data is collected from local law enforcement agencies through the Federal Bureau of Investigation (FBI) Uniform Crime Reporting Program and then aggregated, imputed, and distributed by the National Archive of Criminal Justice Data (NACJD).

USDA Food Environment - The USDA Food Environment and Access dataset provides information on geographic variation in access and proximity to grocery stores, restaurant availability and expenditures, food insecurity and assistance, food prices and taxes, and other food-related measures, as well as fine-grained data on food access for various demographic groups. The USDA dataset is derived from two data files: the Food Environment Atlas, which covers states and counties and spans the years from 2000 through 2016, and the Food Access Research Atlas, with measures from 2010 for census tracts.

National Neighborhood Data Archive (NaNDA)

NaNDA is a nation-wide collection of data with measures of the demographic, economic, social and physical environments, generally at the level of Zip Code Tabulation Areas (ZCTA) and Census Tract. A Zip Code to ZCTA crosswalk is included. More detailed information can be found on the [NaNDA webpage](#) and at [OpenICPSR](#).

State Policy & Politics Database (SPPD)

SPPD is a compilation of annual data on state policies and politics that are particularly relevant for population health. The SPPD includes several categories of policies, including labor and economic policies (e.g., minimum wage levels, right to work laws), social safety net policies (e.g., earned income tax credits, SNAP), behavior-related policies (e.g., tobacco taxes, opioid prescribing), as well as the political ideology of the states' government and citizens. Most measures are available annually from 1980 to 2021.

Merging GLR Contextual Files to HRS, PSID and NHATS/NSOC

The table below is an overview of the geographic level at which contextual data can be merged with HRS, PSID and NHATS/NSOC. For specific variable names, formats, and temporal availability please consult the *GLR Geographic Variables Crosswalk*, available in the enclave.

MiCDA GLR Geographic Levels Available for Merging				
	HRS	PSID	NHATS	NSOC
CDR: Area Health Resources Files	State, County	State, County	State, County	State, County
CDR: Decennial Census and ACS	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract
CDR: EPA FAQSD O3 Fused Air Quality	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract
CDR: EPA FAQSD PM 2.5 Fused Air Quality	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract
CDR: Uniform Crime Reporting	State, County	State, County	State, County	State, County
CDR: USDA Food Environment	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract	State, County, Census Tract
NaNDA	State, County, Zip Code, Census Tract	State, County, Zip Code, Census Tract	State, County, Zip Code, Census Tract	State, County, Zip Code, Census Tract
State Policy & Politics Database	State	State	State	State

Some data manipulation may be required to link to other data sets.

Questions

If you have questions about the MiCDA Enclave or Geographic Linkages Repository, please contact Jana Deatrick jlbruce@umich.edu.