COPEWELL

JOHNS HOPKINS COPEWELL MODEL
MEASURES SUMMARY SHEET

DOMAIN - COMMUNITY FUNCTIONING:

- ***Communications***
  1. Telephone Service
  https://data.census.gov/cedsci/table?q=DP04&tid=ACSDP5Y2020.DP04
  Data Filter: ACS 5-Year Estimates; All counties; No telephone service available
  Data processing Method: Appendix A - Census Data
  2. Internet Service
  https://data.census.gov/cedsci/table?q=s2801&tid=ACSST5Y2019.S2801
  Data Filter: ACS 5-Year Estimates; All counties; With an internet subscription
  Data processing Method: Appendix A - Census Data
  3. Employment Level
  https://data.census.gov/cedsci/table?q=S2301&t=Employment&y=2019
  Data Filter: ACS 1-Year Estimates; All counties; Over 16 in labor force employed
  Data processing Method: Appendix A - Census Data
  4. Business Establishments
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
  Data Filter: ACS 5-Year Estimates; All counties;
  Data processing Method: Appendix A - Census Data
  5. Banking Establishments
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
  Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 522110
  Data processing Method: Appendix A - Census Data
  6. Median Income
  https://data.census.gov/cedsci/table?q=DP03&t=Income%20and%20Poverty&g=0100000US%240500000&tid=ACSDP5Y2020.DP03
  Data Filter: ACS 5-Year Estimates; All counties
  Data processing Method: Appendix A - Census Data
  7. Paid Employees
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000

Data Filter: ACS 5-Year Estimates; All counties

Data processing Method: Appendix A - Census Data

- ***Education***

  8. Colleges, Universities, and Professional Schools

  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000

  Data Filter: ACS 5-Year Estimates; All counties; NAICS code 6113

  Data processing Method: Appendix A - Census Data

  9. Pupil/Teacher Ratio

  https://nces.ed.gov/ccd/elsi/tableGenerator.aspx

  Data Filter: County Data; 2020-21; Teacher/Staff Information; Pupil/Teacher Ratio

  Data processing Method: Appendix A - NCES Data

- ***Food and Water***

  10. Food Environment Index

  https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-factors/health-behaviors/diet-exercise/food-environment-index

  Data processing Method: Appendix A - County Health Rankings

  11. Housing Units Lacking Complete Plumbing Facilities

  https://data.census.gov/cedsci/table?q=B25047&tid=ACSDT5Y2020.B25047

  Data Filter: ACS 5-Year Estimates; All counties

  Data processing Method: Appendix A – Census Data

- ***Government***

  12. County Infrastructure Expenditures

  https://ce.naco.org/?dset=County%20Expenditures&ind=Infrastructure%20Expenditures

  Data processing Method: Appendix A – NACo Data

  13. Justice and Public Safety Expenditures

  https://ce.naco.org/?dset=County%20Expenditures&ind=Infrastructure%20Expenditures

  Data processing Method: Appendix A – NACo Data

- ***Healthcare and Public Health***

  14. Number of Hospital Beds

  https://data.hrsa.gov/data/download

  Data processing Method: Appendix A – HRSA Data

  15. Population with Health Insurance

  https://data.census.gov/cedsci/table?q=S2701&tid=ACSST5Y2020.S2701

  Data Filter: ACS 5-Year Estimates; All counties

  Data processing Method: Appendix A – Census Data

  16. PHAB Accreditation

  https://phaboard.org/accreditation-recognition/accreditation-activity/

  Data processing Method: Appendix A – PHAB Data

17. Healthcare Support
https://data.census.gov/cedsci/table?q=S2401&tid=ACSST5Y2020.S2401
Data Filter: ACS 5-Year Estimates; All counties; Employment in health care support
Data processing Method: Appendix A – Census Data

- **Housing**
  18. Crowding
  https://data.census.gov/cedsci/table?q=housing&tid=ACSST5Y2020.S2501
  Data Filter: ACS 5-Year Estimates; All counties; Occupied housing units/households with over 1 person/room
  Data processing Method: Appendix A – Census Data
  19. Severe Housing Problems
  https://www.countyhealthrankings.org/app/alabama/2022/overview
  Data processing Method: Appendix A – County Health Rankings
  20. Spending on Housing
  https://data.census.gov/cedsci/table?q=CP04&tid=ACSCP5Y2020.CP04
  Data Filter: ACS 5-Year Estimates; All counties; Households spending over 30% of income on housing
  Data processing Method: Appendix A – Census Data

- **Nurturing and Care**
  21. Number of Nursing Homes
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
  Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 623
  Data processing Method: Appendix A - Census Data
  22. Pre-Kindergarten Enrollment in Public School
  https://nces.ed.gov/ccd/elsi/tableGenerator.aspx
  Data Filter: County Data; 2020-21; Enrollments; Enrollment by Grade; Prekindergarten Students [Public School]
  Data processing Method: Appendix A - NCES Data
  https://data.census.gov/cedsci/table?q=enrollments&tid=ACSST1Y2021.S1401
  Data Filter: ACS 5-Year Estimates; All counties; 3-4 years old enrollments
  Data processing Method: Appendix A – Census Data

- **Transportation**
  23. Public Transportation Use
  https://data.census.gov/cedsci/table?q=S0801&tid=ACSST5Y2020.S0801
  Data Filter: ACS 5-Year Estimates; All counties;
  Data processing Method: Appendix A – Census Data

- **Wellbeing**
  24. Fitness and Recreational Sports Centers
     https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000

Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 713940

Data processing Method: Appendix A - Census Data

25. Arts and Entertainment

https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000

Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 71

Data processing Method: Appendix A - Census Data

26. Nearby Parks (community design | access to parks and public elementary schools | number of people living within a half mile of a park | all counties)

https://ephtracking.cdc.gov/DataExplorer/#/

DOMAIN - PREPAREDNESS AND RESPONSE:

27. Recent Hazard Mitigation Plan (Hazard Mitigation Plan Statuses)

https://www.fema.gov/about/openfema/data-sets

Data processing Method: Appendix A - FEMA Data

28. First Responders

https://data.census.gov/cedsci/table?q=s2401&tid=ACSST5Y2020.S2401

Data Filter: ACS 5-Year Estimates; All counties; protective service workers

Data processing Method: Appendix A - Census Data

DOMAIN - PREVENTION AND MITIGATION:

- ***Countermeasures***

  29. Influenza Vaccination Rates

  https://www.countyhealthrankings.org/app/alabama/2022/overview

  Data processing Method: Appendix A - County Health Rankings

  30. Pharmacies Enrolled in EPAP

  https://www.phe.gov/Preparedness/planning/national-plus/Pages/NationalPlus.aspx

- ***Engineered Systems***

  31. Average Age of Housing Stock

  https://data.census.gov/cedsci/table?q=B25035&tid=ACSDT5Y2020.B25035

  Data Filter: ACS 5-Year Estimates; All counties

  Data processing Method: Appendix A - Census Data

  32. Bridges with Structural Deficiencies

  https://www.fhwa.dot.gov/bridge/nbi/no10/county21.cfm

  Data Filter: bridge count poor; bridge count all; all counties

  Data processing Method: Appendix A – DOT Data

DOMAIN - POPULATION FACTORS:

- ***Deprivation***

  33. Persons Living in Poverty

  https://data.census.gov/cedsci/table?q=poverty&tid=ACSST5Y2020.S1701

  Data Filter: ACS 5-Year Estimates; All counties

Data processing Method: Appendix A - Census Data

- ***Inequality***
  34. Gini Index of Income Inequality
  https://data.census.gov/cedsci/table?q=ACSDT1Y2019.B19083&tid=ACSDT1Y2019.B19083&hidePreview=true
  Data Filter: ACS 1-Year Estimates; All counties
  Data processing Method: Appendix A - Census Data

- ***Vulnerability***
  35. Population Under Age 5 or 65 Years of Age or Over
  https://data.census.gov/cedsci/table?q=dp05&tid=ACSDP5Y2020.DP05
  Data Filter: ACS 5-Year Estimates; All counties
  Data processing Method: Appendix A - Census Data
  36. Population with Disability
  https://data.census.gov/cedsci/table?q=population%20with%20disability&tid=ACSST5Y2020.S1810
  Data Filter: ACS 5-Year Estimates; All counties
  Data processing Method: Appendix A - Census Data

DOMAIN - RESOURCES FOR RECOVERY:

  37. Highway, Street, and Bridge Construction
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
  Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 2373
  Data processing Method: Appendix A - Census Data
  38. Architectural, Engineering, and Related Establishments
      https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
  Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 5413
  Data processing Method: Appendix A - Census Data
  39. Construction Establishments
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
  Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 23
  Data processing Method: Appendix A - Census Data
  40. Utility System Construction Establishments
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
  Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 2371
  Data processing Method: Appendix A - Census Data

DOMAIN - SOCIAL CAPITAL AND COHESION:

  41. Civic Organizations
  https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000

Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 813410
Data processing Method: Appendix A - Census Data
42. Voter Participation
https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/VOQCHQ
43. Social Advocacy Organizations
https://data.census.gov/cedsci/table?q=%20CB2000CBP&g=0100000US%240500000
Data Filter: ACS 5-Year Estimates; All counties; 2017 NAICS code 8133
Data processing Method: Appendix A - Census Data

APPENDIX A - Data Collection Methods for Different Data Sources

1. Census Data

    (1) ACS

- Go to the link: https://data.census.gov/cedsci/table?q=DP04&tid=ACSDP5Y2020.DP04
- Build filters based on the filter description of each measure.
- Download the CSV file and open it in Excel
- Clean the FIPS number by inserting a new column and using the function "=RIGHT("select",5)." Save the last five digits of the GEO_ID
- In a new spreadsheet page, copy and paste the new column (five digits of FIPS) to column A and the specific data column to column B. Use "Sort & Filter" > "Filter" if necessary.
- Save the new spreadsheet separately in CSV format.

    (2) County Business Patterns

- Go to the link: https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-factors/health-behaviors/diet-exercise/food-environment-index
- Choose a state, and go to "Downloads" tab to download data in Excel format. Find the sheet which has the data column you are looking for and clean the rest of the data by deleting unnecessary sheets.
- Code in R to select the specific column to create a CSV file where the FIPS values are in column A and the specific data values are in column B.
- Do the same for other states to create a single CSV file with all counties' FIPS and specific values.

2. NCES Data

- Go to the link: https://nces.ed.gov/ccd/elsi/tableGenerator.aspx
- Build filters based on the filter description of each measure.
- Add the FIPS number as a column for the dataset.
- Clean up the format.

3. County Health Rankings

- Go to the link: https://www.countyhealthrankings.org/app/alabama/2022/overview
- Select year
- Select state
- Scroll and download the full Excel file
- Repeat for every state, and save all datasheets in one folder with only the data

4. HRSA Data Warehouse

- Go to the link: https://data.hrsa.gov/data/download
- Select "Area Health Resources Files" and select the most recent "20xx - 20xx County Data"
- Download the "Technical documentation" and check for the "Hospital Beds" variable
- Under source, select "AHA Survey Database" to find the data

5. NACo Data
- Go to the link: https://ce.naco.org/?dset=County%20Expenditures&ind=Infrastructure%20Expenditures
- Click on any county and see detailed information about the state by clicking on "Compare".
- Save the web page as a pdf file and use Adobe tools to transform the pdf file into an excel file.
- Combine data from all states and clean up the format.
- Match the county names with FIPS numbers.

6. PHAB Data
- Go to the link: https://phaboard.org/accreditation-recognition/accreditation-activity/
- Download the excel spreadsheet.
- Match each city or area with its jurisdiction (e.g., state and county).
- Calculate the number of health departments in each state.
- Calculate the national mean *m* of the number of health departments.
- Encoding counties in the state that has a high level (> m) of PHAB Accreditation as 1, otherwise 0.
- If a county has a health department locally, then add one to the original value (e.g., 0 (state level) + 1 (county level) = 1).

7. FEMA Data
- Go to the link: https://www.fema.gov/openfema-data-page/hazard-mitigation-plan-statuses-v1
- Download the CVS file.
- Filter out records (e.g., Mitigation plan status) based on the expiration date (e.g., by 2023.12.01).
- Match the county and the corresponding population cover by each mitigation plan.
- Use the population of the county covered by plans divided by the whole population of the county.
- Clean up the format.

8. DOT Data
- Go to the link: https://www.fhwa.dot.gov/bridge/nbi/no10/county22.cfm
- Save the page as HTML.
- Import HTML to excel file.
- Get county name, bridge counts – poor, bridge counts – all for every county
  - Will have to download multiple HTML files – not all counties are displayed on one page of the website, continue downloading until all counties are accounted for
- Consolidate desired information in one file, divide bridge count – poor / bridge count – all to get percentages.

For additional information, contact Tak Igusa at tigusa1@jhu.edu.