



TECHNICAL DOCUMENTATION AND INSTRUCTIONS FOR USE

Miami Affordability Project | MAP

December 2020

Overview

The Miami Affordability Project (MAP) is an interactive online map providing data on the distribution of affordable housing, housing needs, demographic profiles, and environmental resiliency in greater Miami. The intent is to provide an open-access tool for planners, developers, community groups, climate policy professionals, and scholars of urban issues to better understand local housing needs and encourage data-driven affordable housing planning and analysis.

This technical documentation is for the third phase of MAP and will be updated as we complete future releases of this tool with expanded functionality and additional and updated data. This most recent update expands on MAP's affordable housing content to offer data showing the relationship between housing and sea-level rise projections in order to provide a more complete understanding of Miami's built context and environmental challenges.

MAP is led by the University of Miami's Office of Civic and Community Engagement and supported by JPMorgan Chase, with additional support from the Jessie Ball duPont Fund. Software development is by the University of Miami's Institute for Data Science and Computing.

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How the MAP works

The platform features seven different datasets— Subsidized Housing, Census Tracts, Section 8 Data, Communities, Historic Properties, Boundaries, and Resiliency —represented as layers. These layers can be turned on or off the visual display and filtered for analysis.

- **SUBSIDIZED HOUSING** - Data on subsidized multifamily rental housing
 - Assisted Housing encompasses units that received a subsidy (federal, state, or local) for the construction or rehabilitation of the unit. These units have requirements for the level of affordability for the units. Public Housing is a property managed by a public housing authority.
- **COMMUNITIES**- Parcel-level data including lot size, land use, and ownership information for several submarkets in Miami
- **CENSUS TRACTS** - Housing and demographic data at the census-tract level.
- **SECTION 8 DATA**- Data on Miami-Dade County's Section 8 Housing Choice Voucher Program
- **HISTORIC PROPERTIES** - Contains historically significant sites in several Miami neighborhoods
- **BOUNDARIES**- Local municipal boundaries, from Commission Districts to Community Redevelopment Areas
- **RESILIENCY** – Data related to sea-level rise and flood risk, including ground elevation, FEMA flood zones, sea-level rise projections, and storm surge projections

Basic Functionality

Click the **Layers** button at the top left of the screen to display the available data layers.

Click on a tab (Subsidized Housing, Census Tracts, Section 8 Data, Communities, Historic Properties, Boundaries and Resiliency) to display the selection options available for that dataset.

To display features (e.g. affordable housing developments, census tracts or parcels, municipal boundaries, flood zone), activate a filter either by checking the radio button or check box next to the filter, and the map will automatically update to show the selected criteria. Additional modifications to a selected data point can be made directly within the list of options and the map will automatically update.



To clear the data on a particular layer to begin a new search, click the “clear layer” option at the top of the layer field. If more than one filter is selected, the map will only display those features that meet ALL the selected criteria.

To view the attributes of a particular feature, click the feature on the map and a pop-up box will appear, displaying all available data for that feature.

To reset the map to its default state with no filters or data categories activated, click the “clear map” button located on the vertical menu on the left side of the interface.

Datasets and Layers

All of the datasets were compiled from publicly available data sources. The data is provided here as a public service; charging for its use, or redistribution without permission, is prohibited.

Subsidized Housing Layer

The Subsidized Housing Layer consists of two principal datasets - Assisted Housing and Public Housing. Assisted Housing developments include all subsidized multi-family rental housing in South Florida. This encompasses all the units that received a subsidy, whether federal, state, or local, for the construction or rehabilitation of the unit(s) and which have requirements or regulations that determine the level of affordability of the units. Project-based Section 8 units could be included in this data. The dataset was compiled from two principal sources: University of Florida’s Shimberg Center for Housing Studies and Miami-Dade County’s Department of Public Housing and Community Development (PHCD). Additional data came from the Florida Housing Finance Corporation, Miami-Dade County Property Appraiser, the City of Miami Community and Economic Development Department, and the Miami-Dade County Public Housing and Community Development’s Housing Affordability Tracker.

To create the Assisted Housing dataset, the datasets were merged, and developments were matched based on name and address. Year Built and Owner information were crosschecked with the Property Appraiser’s dataset based on address. Since each dataset included different types of information, only those developments that appeared in each dataset have all the available data. Those that only appeared in one or two datasets are therefore incomplete. In some cases, data were incomplete within a dataset for a variety of reasons, and in some cases, there may be errors. We attempted to resolve discrepancies that appeared in certain cases but did not attempt to verify all the information in each dataset. Therefore, users should take caution and verify any information related to a particular development of interest. More detailed information about this data source is available in Appendix A.

Shimberg Center for Housing Studies at the University of Florida

The Shimberg Center for Housing Studies at the University of Florida maintains a clearinghouse for data on housing affordability. The Center compiles data from HUD, Florida Housing Finance Corporation, and local housing authorities, and provides it in Excel spreadsheets for download through their website. The data used for this map is updated annually and includes all rental units funded through HUD mortgage assistance and rental assistance, Section 8 project-based units, Low-Income Housing Tax Credits, state HOME, SAIL, and Local Housing Finance Authority bonds. The data in MAP from the Shimberg Center was downloaded in August 2020.



Miami-Dade County Public Housing and Community Development Department

Miami-Dade County funds the development and rehabilitation of rental units through its HUD entitlement funds (CDBG, HOME, and NSP) as well as through its own Documentary Surtax Program. The data available in this layer include the type of project, the type of funding source, and the funding amount. The data in MAP are current as of 2020. The Public Housing dataset contains all the housing developments publicly owned and operated by Miami-Dade County. The data also includes projects documented in the Housing Affordability Tracker. This tool was created by the University of Miami's Office of Civic and Community Engagement in collaboration with PHCD to track progress towards developing its goal of 14,000 affordable and workforce housing units that are currently in the various stages of development.

Census Tracts Layer

The Census Tracts Layer contains data maps and filters at the census tract-level that help inform neighborhood analysis. The housing, demographic, and housing cost data is from the American Community Survey (ACS), which is an annual survey of households conducted by the U.S. Census Bureau and is the most complete source for demographic information in the United States.

Five-year averaged data is the most reliable for small geographies, so tract-level data were downloaded using the Summary File Retrieval Tool for the 2014-2018 timeframe. MAP contains census tract-level data for Miami-Dade, Broward, and Palm Beach Counties. A complete list of indicators and sources is available in Appendix B.

Communities Layer

The Communities Layer provides information about property ownership and land use at a neighborhood level. The Miami-Dade County Property Appraiser maintains a database of all parcels in the County including lot size, land use, and ownership information. The Communities Layer was constructed by merging parcel boundaries downloaded from the Miami-Dade County Geographic Information Systems (GIS) Open Data portal with data from the Florida Department of Revenue, which tracks ownership information.

The parcels data in MAP is current as of July 2020; users should verify information for any particular property by visiting the Miami-Dade County Property Appraiser website. The method for determining neighborhood boundaries varies by neighborhood. MAP contains interactive parcel-level data for Liberty City, Little Haiti, Overtown, Allapattah, Little Havana, Miami Gardens, and South Dade.

Section 8 Data

The Section 8 Layer contains Section 8 data at the census block level for Miami-Dade County. The Section 8 information was provided by Miami-Dade County's Department of Public Housing and Community Development and is current as of May 2020.



Historic Properties Layer

The Historic Layer contains a list of historically significant sites throughout Miami, including Liberty City, Little Haiti, Overtown and other neighborhoods. The data was compiled from the City of Miami Historic Preservation Office and the Miami-Dade County Property Appraiser.

Boundaries Layer

The Boundaries Layer contains local government boundaries for Miami-Dade County, including all of Miami's 34 municipalities, 13 Miami-Dade County Commission Districts, 5 City of Miami Commission Districts, and 14 Community Redevelopment Areas. Boundaries were downloaded from the Miami-Dade County GIS portal in August 2019.

Resiliency Layer

The Resiliency Layer, new to MAP as of December 2020, contains a series of datasets that showcase the current flood risk of Miami-Dade County and allow users to understand the projected impact that these climate-related risks could have on the County's affordable housing stock.

The Elevation dataset, acquired from the Miami-Dade County Open Data Hub, illustrates the ground elevation of properties in the County with a geographic reference to the North American Vertical Datum of 1988 (NAVD88). It is a digital elevation map (DEM) created by the United States Geological Survey (USGS) at a resolution of 5x5 foot grids created using light detection and ranging (LiDAR) technology.

The FEMA Flood Zones display areas of the County that have been designated most vulnerable to flooding in projected 100 and 500-year storm events by the Federal Emergency Management Agency (FEMA). The Special Flood Hazard Area (SFHA) is comprised of "A" and "V" flood zones and is defined as the area that could be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year (also referred to as 100-year storm). "A" zones are typically mapped at lower elevations and have a 1% annual chance of flooding. "V" flood zones also have a 1% annual chance of flooding and are mapped along coastlines putting them at additional risk of storm waves. The "X" shaded areas have a low to moderate chance of flooding (.2%, or 500-year storm). The dataset was created by FEMA and was acquired through Miami-Dade County Open Data Hub.

The Sea Level Rise (SLR) layer illustrates the projected increase of the sea surface level as a consequence of global warming over the next 100 years. The inundated areas represent locations where ground elevation would fall below projected sea levels. The projections were created with data from the Southeast Florida Regional Climate Change Compact's 2019 Unified Sea Level Rise Projections, using the projected high curve estimates of sea-level rise and the tidal datum and mean higher-high water (MHHW) as acquired from NOAA. The SLR and MHHW values are referenced to NAVD88. The Storm Surge level projections were estimated based on the path of Hurricane Andrew in 1992 to display the impact of a similar weather phenomenon if it were to occur at present and future sea level heights. Original surge values were collected from NOAA with a reference of surge heights to NAVD88.



Appendix A: Subsidized Housing Dataset

Development Type	Type of development
Development Name	Name of the development
Street Address	Street address of property
City	City
Zip Code	Zip Code
Housing Program(s)	All funding programs
Funding Source	Funding agencies
Total Units	Total number of units in development
Assisted Units	Number of units with rent and/or income restrictions
Population Served	Populations served
Description	Project description
Affordability Start Date	Year beginning affordability restrictions
Year Built	Year structure was built/finished
Owner Type	Owner corporation type (non-profit, for-profit, etc.)
Overall Year of Subsidy Expiration	Latest expiration date of all funding program restrictions
Developer Information	Name, address and phone number of developer
Owner Information	Name, address and phone number of owner
<=35% AMI Units	Units available for tenants at <=35% of the Area Median Income
40-50% AMI Units	Units available for tenants at 40-50% of the Area Median Income
55-60% AMI Units	Units available for tenants at 55-60% of the Area Median Income
65-80% AMI Units	Units available for tenants at 65-80% of the Area Median Income
>80% AMI Units	Units available for tenants at >80% of the Area Median Income
0 BR Rent	Average rent for a 0 bedroom unit
1 BR Rent	Average rent for a 1 bedroom unit
2 BR Rent	Average rent for a 2 bedroom unit
3 BR Rent	Average rent for a 3 bedroom unit
4+ BR Rent	Average rent for a 4 bedroom unit
Average Rent/FMR	Average rent of project unit(s) as a percent of the HUD Fair Market Rent
HC 9% Funding Year	Year 9% tax credits were awarded
HC 4% Funding Year	Year 4% tax credits were awarded
SAIL Funding Year	Year SAIL funds were awarded
State Bonds Funding Year	Year MMRB funds were awarded



State HOME Funding Year	Year MMRB funds were awarded
HUD Rental Assistance Current Contract Start Date	Start date of currently active Rental Assistance contract
Section 202 Capital Advance Funding Year	Year of final mortgage endorsement or original construction of HUD's Section 202 Capital Advance Program for the Elderly
Section 202 Direct Loan Funding Year	Year of final mortgage endorsement or original construction of HUD's Section 202 Direct Loan Program for the Elderly
Section 811 Funding Year	Year of final mortgage endorsement or original construction of HUD's Section 811 Supportive Housing for Persons with Disabilities
Section 236 Funding Year	Year of final mortgage endorsement or original construction of HUD's Section 236 mortgage
Rental Assistance/RD Funding Year	Funding year of Rental Assistance contract
Section 515 Funding Year	Year of RD Section 515 direct loan closing
Section 514/516 Funding Year	Year of RD Section 514/516 loan closing
HC 4% Expiration Year	Expiration year of affordability restrictions tied to LIHTC4%
HC 9% Credit Expiration Year	Expiration year of affordability restrictions tied to LIHTC 9%
SAIL Expiration Year	Expiration year of affordability restrictions tied to SAIL funding
State Bonds Expiration Year	Expiration year of affordability restrictions tied to State bonds
State HOME Expiration Year	Expiration year of affordability restrictions tied to State HOME funding
HUD Rental Assistance Expiration Year	HUD Rental Assistance units contract expiration year
HUD Use Agreement Expiration Year	Other HUD funding program restrictions expiration year
Section 236 Expiration Year	Expiration year of HUD's Section 236 mortgage
Local Bonds Maturity Year	Expiration year of affordability restrictions tied to Local Bonds
REAC Score	Physical inspection score from HUD's Real Estate Assessment Center (REAC). http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/reac/aboutreac
Inspection Date	Date of last REAC inspection
Date Source(s)	Original source



Appendix B: American Community Survey Definitions¹

I. Census Tracts: Housing Characteristics Data Fields

Total Housing Units	Total number of housing units in the specified area. Table DP04
Occupied Housing Units	Number of occupied housing units. Table DP04
% Occupied Housing Units	Number of occupied housing units divided by the total number of housing units. Table DP04
Vacant Housing Units	Number of units that are vacant or seasonally occupied. Table DP04
% Vacant Housing Units	Number of vacant/seasonally occupied units divided by the number of total housing units. Table DP04
Owner Occupied Housing Units	Number of housing units, which are occupied by the unit owner. Table DP04
% Owner Occupied Housing Units	Number of units occupied by the unit owner divided by the total number of occupied units. Table DP04
Renter Occupied Housing Units	Number of units occupied by renters. Table DP04
% Renter Occupied Housing Units	Number of renter-occupied units divided by the total number of occupied units. Table DP04
Owner Occupied Housing Units with a Mortgage	Number of owner-occupied units, which are mortgaged. Table DP04
% Owner Occupied Housing Units with a Mortgage	Number of owner-occupied units, which are mortgaged divided by the total number of owner-occupied units. Table DP04
Median Number of Rooms	Median number of rooms per housing unit for all units in the selected area. Table DP04
Overcrowded	Number of housing units occupied by more than 1 person but less than 1.6 persons per room. Table B25014
% Overcrowded	Number of overcrowded housing (1.01-1.5 persons per room) units divided by the total number of occupied housing units. Calculated using values from Table B25014
Severely Overcrowded	Number of housing units occupied by more than 1.5 persons per room. Table B25014

¹ Adapted from the American Community Survey 2015 Subject Definitions.



% Severely Overcrowded	Number of severely overcrowded (1.5+ persons per room) housing units divided by the total number of occupied housing units. Calculated using values from Table B25014
Owner Occupied Overcrowded	Number of overcrowded (1.01-1.5 persons per room) owner-occupied housing units occupied by more than one person per room. Table B25014
% Owner Occupied Overcrowded	Number of overcrowded (1.01-1.5 persons per room) owner-occupied housing occupied by more than one person divided by the total number of housing units. Calculated using values from Table B25014
0 Bedrooms	Number of housing units with 0 bedrooms. Table DP04
% 0 Bedrooms	Number of housing units with 0 bedrooms divided by the total number of housing units. Table DP04
1 Bedroom	Number of housing units with 1 bedroom. Table DP04
% 1 Bedroom	Number of housing units with 1 bedroom divided by the total number of housing units. Table DP04
2 Bedrooms	Number of housing units with 2 bedrooms. Table DP04
% 2 Bedrooms	Number of housing units with 2 bedrooms divided by the total number of housing units. Table DP04
3 Bedrooms	Number of housing units with 3 bedrooms. Table DP04
% 3 Bedrooms	Number of housing units with 3 bedrooms divided by the total number of housing units. Table DP04
4 or More Bedrooms	Number of housing units with 4 bedrooms. Table DP04
% 4 Bedrooms	Number of housing units with 4 bedrooms divided by the total number of housing units. Table DP04
Lacking Complete Plumbing Facilities	Number of occupied housing units lacking complete plumbing facilities. Table DP04
% Lacking Complete Plumbing Facilities	Number of occupied housing units lacking complete plumbing facilities divided by the number of occupied housing units Table DP04
Lacking Complete Kitchen Facilities	Number of occupied housing units lacking complete kitchen facilities. Table DP04
% Lacking Complete Kitchen Facilities	Number of occupied housing units lacking complete kitchen facilities. Table DP04
Median Year Structure Built	Median year that housing structures were built in the selected geographic area. B25035
% Built 2010 to present	Percentage of housing units built 2020 to present. Table B25035
Built 2010 to present	Number of housing units built 2010 to present divided by the number of housing units
% Built 1990 to 2009	Percentage of housing units built between 1990 to 2009. Table B25035
Built 1990 to 2009	Number of housing units built between 1990 to 2009 divided by the number of housing units



% Built 1970 to 1989	Percentage of housing units built between 1970 and 1989. Table B25035
Built 1970 to 1989	Number of housing units built between <u>1970 and 1989</u> divided by the number of housing units
% Built 1950 to 1969	Percentage of housing units built between 1950 and 1969. Table B25035
Built 1950 to 1969	Number of housing units built between 1950 and 1969. divided by the number of housing units
% Built 1940 to 1949	Percentage of housing units built between 1940 and 1949. Table B25035
Built 1940 to 1949	Number of housing units built between 1940 and 1949 divided by the number of housing units
Built 1939 or Earlier	Number of housing units built by 1939 or earlier divided by the number of housing units
% Built 1939 or Earlier	Percentage of housing units built by 1939 or earlier. Table B25035



II. Census Tracts: Housing Costs Characteristics Data Fields

Median Monthly Housing Costs	Median monthly housing costs for both owner and renter occupied units. Table B25105
Median Household Income	Median household income in the past 12 months (in 2012 inflation-adjusted dollars). Table B19013
Median Owner Income	Median household income in the past 12 months for owner households. Table B25119
Median Renter Income	Median household income in the past 12 months for renter households. Table B25119
Median Monthly Owner Costs	Median monthly housing costs for owner occupied units. Costs include: payment for mortgages, real estate taxes, various insurances, utilities, fuels, mobile home costs, and condominium fees. Table B25088
Median Monthly Renter Costs	Median monthly housing costs for renter occupied units. "Gross Rent" includes: The amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else). Table B25064
Median Monthly Owner Costs as a Percentage of Household Income	Median monthly housing costs for all occupied units as a percent of household income. Table B25105
Cost-Burdened Owner-Occupied Housing Units	Aggregate number of owner-occupied housing units paying more than 30% of income in housing cost. Table B25106
% Cost-Burdened Owner-Occupied Housing Units	Number of owner-occupied housing units paying more than 30% of income in housing cost divided by total number of owner-occupied households. Table DP04
Cost-Burdened Owner-Occupied Housing Units with a Mortgage	Aggregate number of owner-occupied housing units with a mortgage paying more than 30% of income in housing cost. Table DP04
% Cost-Burdened Owner-Occupied Housing Units with a Mortgage	Number of owner-occupied housing units with a mortgage paying more than 30% of income in housing cost divided by total number of owner-occupied households
Cost-Burdened Owner-Occupied Housing Units without a Mortgage	Aggregate number of owner-occupied housing units with no mortgage paying more than 30% of income in housing cost. Table DP04



% Cost-Burdened Owner-Occupied Housing Units without a Mortgage	Number of owner-occupied housing units with no mortgage paying more than 30% of income in housing cost divided by total number of owner-occupied households.
Cost-Burdened Renter Housing Units	Number of renter-occupied housing units paying more than 30% of income in housing cost. Table DP04
% Cost-Burdened Renter Housing Units	Number of renter-occupied housing units paying more than 30% of income in housing cost divided by total number of owner-occupied households



III. Census Tracts: Demographic Characteristics Data Fields

Population	Total population of the selected area. Table DP05
Hispanic Population	Number of persons of Hispanic origin. Table DP05
% Hispanic Population	Number of persons of any race and Hispanic or Latino origin divided by the total population. Table DP05
White Population	Number of persons of White ethnicity. Table DP05
% White Population	Number of White or Caucasian persons not of Hispanic ethnicity, divided by the total population. Table DP05
Black Population	Number of Black or African American persons, not of Hispanic origin. Table DP05
% Black Population	Number of Black or African American persons not of Hispanic ethnicity, divided by the total population. Table DP05
Foreign Born	Number of persons born outside the U.S. Table DP02
% Foreign Born	Number of persons who were not U.S. citizens at birth divided by the total population. Table DP02
Number Persons with Disabilities	<p>Number of persons who report anyone of the six disability types. Table B18101.</p> <ul style="list-style-type: none"> • Hearing difficulty - deaf or having serious difficulty hearing (DEAR). • Vision difficulty - blind or having serious difficulty seeing, even when wearing glasses (DEYE). • Cognitive difficulty - Because of a physical, mental, or emotional problem, having difficulty remembering, concentrating, or making decisions (DREM). • Ambulatory difficulty - Having serious difficulty walking or climbing stairs (DPHY). • Self-care difficulty - Having difficulty bathing or dressing (DDRS). • Independent living difficulty - Because of a physical, mental, or emotional problem, having difficulty doing errands alone such as visiting a doctor's office or shopping (DOUT).
% Number Persons with Disabilities	Number of persons who report anyone of the six disability types divided by the population. Table S1810
Number of Households with Someone 65 or Over	Number of households with at least one member 65 years old or older. Table DP02
% Number of Households with Someone 65 or Over	Number of households with at least one member 65 years old or older divided by the total number of households. Table DP02
Number of Households with Someone 18 or Under	Number of households with at least one member 18 years or younger. Table DP02



<p>% Number of Households with Someone 18 or Under</p>	<p>Number of households with at least one member 18 years or younger divided by the total number of households. Table DP02</p>
<p>Number of Limited English-Speaking Households</p>	<p>Number of households in which no one 14 and over speaks English only, or speaks a language other than English at home and speaks English "very well." Table DP02</p>
<p>% Number of Limited English-Speaking Households</p>	<p>Number of households in which no one 14 and over speaks English only, or speaks a language other than English at home and speaks English "very well," divided by total number of households. Table DP02</p>
<p>Number of Households with Income Less than \$15,000 Per Year</p>	<p>Number of households with income less than \$15,000 in the past 12 months, including wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income (in 2015 inflation-adjusted dollars). This is an aggregate of households making less than \$10,000 and the ones making \$10,000 and \$14,999. Table DP03</p>
<p>% Number of Households with Income Less than \$15,000 Per Year</p>	<p>Percentage of households with income less than \$15,000. This number was generated from the following: (Relevant number of households/Total number of households) *100. Calculated from Table DP03</p>
<p>Number of Households with Income \$15,000 to \$34,999 Per Year</p>	<p>Number of households with income \$15,000 - \$34,999 in the past 12 months, including wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income (in 2015 inflation-adjusted dollars). Table DP03</p>
<p>% Number of Households with Income \$15,000 to \$34,999 Per Year</p>	<p>Percentage of households with income \$15,000 - \$34,999. This number was generated from the following: (Relevant number of households/Total number of households) *100. Calculated from Table DP03</p>
<p>Number of Households with Income \$35,000 to \$49,999 Per Year</p>	<p>Number of households with income \$35,000 - \$49,999 in the past 12 months, including wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income (in 2015 inflation-adjusted dollars). Table DP03</p>



% Number of Households with Income \$35,000 to \$49,999 Per Year	Percentage of households with income \$35,000 - \$49,999. This number was generated from the following: (Relevant number of households/Total number of households) *100. Calculated from Table DP03
Number of Housing Units with No Vehicle Available	Number of households with no vehicle available. Table DP03
% Number of Housing Units with No Vehicle Available	Number of households with no vehicle available divided by the total number of households. Table DP03
Median Household Income	Median household income in the past 12 months (in 2015 inflation-adjusted dollars). Table B19013
Aggregate Household Income	Sum of household income for all households in the past 12 months in the selected area (in 2015 inflation-adjusted dollars). Table B19025
% Persons Living Below Poverty Line	Percentage of persons with income below the poverty line for the last 12 months. Table B17001



Appendix C: Section 8 Datasets

Number of Section 8 Housing Units	Total number of Section 8 housing units
Average Number of Bedrooms	Average number of Section 8 bedrooms
Average Family Size	Average family size of Section 8 household
Average Contract Rent	Average contract rent
Average Monthly Payment	Average monthly tenant payment
Average Tenant Percentage of Contract Rent	Average percentage of the total tenant payment
Average Total Years in Program	Average total years in the Section 8 program
Number of Units Passing Inspection	Total number of Section 8 housing units passing inspection
Number of Units Failing Inspection	Total number of Section 8 housing units failing inspection
Number of People in Units Failing Inspection	Total number of people in Section 8 housing units failing inspection
Number of People in Section 8 Units	Total number of people in Section 8 housing units
Percentage of Units Passing Inspection	Percent of in units failing inspection
Percentage of People in Units Failing Inspection	Percent of people in units failing inspection



Appendix D: Communities Dataset

Street Address	Street address of property
City	City where property is located
Zip Code	Zip Code where property is located
Folio	Folio number assigned to the parcel by the County Appraiser
Owner	Name of owner
Mailing Address Zip Code	Zip Code of owner mailing address
Ownership	Private or publicly owned land
DOR Primary Land Use	DOR Code - Primary Land Use code
Land Use	Primary land use categories
Bedrooms	Number of bedrooms
Bathrooms	Number of bathrooms
Stories	Number of floors in the building
Living Units	Number of units in the building
Actual Size (Sq. Ft.)	Total of all measured areas within the subject property
Lot Size (Sq. Ft.)	Lot size in square feet
Year Built	Year structure was built/finished
Elevation	Number of feet above sea level
# of Units	Number of units in the building
# of Bedrooms	Number of bedrooms in unit
Flood Zone	Flood Zone Designation as defined by FEMA

Department of Revenue (DOR) - Primary Land Use Codes

66 - VACANT RESIDENTIAL: EXTRA FEA OTHER THAN PARKING
81 - VACANT RESIDENTIAL: VACANT LAND
101 - RESIDENTIAL - SINGLE FAMILY: 1 UNIT
303 - MULTIFAMILY 10 UNITS PLUS: MULTIFAMILY 3 OR MORE UNITS
407 - RESIDENTIAL - TOTAL VALUE: CONDOMINIUM - RESIDENTIAL
410 - RESIDENTIAL - TOTAL VALUE: TOWNHOUSE
508 - COOPERATIVE - RESIDENTIAL: COOPERATIVE - RESIDENTIAL
802 - MULTIFAMILY 2-9 UNITS: 2 LIVING UNITS
803 - MULTIFAMILY 2-9 UNITS: MULTIFAMILY 3 OR MORE UNITS
1066 - VACANT LAND - COMMERCIAL: EXTRA FEA OTHER THAN PARKING
1081 - VACANT LAND - COMMERCIAL: VACANT LAND
1111 - STORE: RETAIL OUTLET
1209 - MIXED USE-STORE/RESIDENTIAL: MIXED USE - RESIDENTIAL
1713 - OFFICE BUILDING - ONE STORY: OFFICE BUILDING



1913 - PROFESSIONAL SERVICE BLDG: OFFICE BUILDING
1943 - PROFESSIONAL SERVICE BLDG: HEALTH CARE
2111 - RESTAURANT OR CAFETERIA: RETAIL OUTLET
2512 - REPAIR SHOP/NON-AUTOMOTIVE: REPAIRS – NON-AUTOMOTIVE
2719 - AUTOMOTIVE OR MARINE: AUTOMOTIVE OR MARINE
2865 - PARKING LOT/MOBILE HOME PARK: PARKING LOT
3215 - ENCLOSED THEATER/AUDITORIUM: ENTERTAINMENT
4066 - VACANT LAND - INDUSTRIAL: EXTRA FEA OTHER THAN PARKING
4081 - VACANT LAND - INDUSTRIAL: VACANT LAND
4132 - LIGHT MANUFACTURING: LIGHT MFG & FOOD PROCESSING
4236 - HEAVY INDUSTRIAL: HEAVY IND OR LUMBER YARD
4731 - MINERAL PROCESSING: MINERAL PROCESSING
4837 - WAREHOUSE TERMINAL OR STG: WAREHOUSE OR STORAGE
7065 - VACANT LAND - INSTITUTIONAL: PARKING LOT
7144 - RELIGIOUS - EXEMPT: RELIGIOUS
7241 - EDUCATIONAL/SCIENTIFIC - EX: EDUCATIONAL - PRIVATE
7503 - CHARITABLE - EXEMPT: MULTIFAMILY 3 OR MORE UNITS
7742 - BENEVOLENT - EXEMPT: CLUB OR HALL - PRIVATE
7758 - BENEVOLENT - EXEMPT: YMCA - YWCA
7950 - LITERARY - EXEMPT: CULTURAL - LITERARY
8040 - VACANT GOVERNMENTAL: MUNICIPAL
8047 - VACANT GOVERNMENTAL: DADE COUNTY
8066 - VACANT GOVERNMENTAL: EXTRA FEA OTHER THAN PARKING
8080 - VACANT GOVERNMENTAL: VACANT LAND - GOVERNMENTAL
8081 - VACANT GOVERNMENTAL: VACANT LAND
8099 - VACANT GOVERNMENTAL: STATE
8348 - BOARD OF PUBLIC INSTRUCTION: BOARD OF PUBLIC INSTRUCTION
8647 - COUNTY: DADE COUNTY
8786 - STATE: TRUSTEE II FUND
8799 - STATE: STATE OF FLORIDA
8898 - FEDERAL: FEDERAL
8940 - MUNICIPAL: MUNICIPAL
9016 - LEASEHOLD INTEREST: LEASEHOLD INTEREST
9163 - UTILITY: UTILITY
9751 - PVT PARK -REC AREA -ROADWAY: COMMON AREA
9862 - CENTRALLY ASSESSED: RAILROAD ASSESSMENT
1229 - MIXED USE-STORE/RESIDENTIAL: MIXED USE - COMMERCIAL
7081 - VACANT LAND - INSTITUTIONAL: VACANT LAND
8240 - PRIVATE PARK



Appendix E: Historic Properties Dataset

Name	Name of site
Address	Street address of property
Year Built	Year structure was built/finished
Local Historic Site Designation	Whether the site has been designated as historic by a local authority
Description	Description of the site
Image	Photograph of the site
Citation	Source material



Appendix F: Boundaries Dataset

Community Redevelopment Area (CRA) Boundaries	Miami-Dade County Community Redevelopment Areas boundaries
Miami-Dade County Commission Districts	Miami-Dade County Board of County Commissioner District boundaries
City of Miami Commission Districts	City of Miami Commission District Boundaries
Municipalities	Municipal Boundaries for the 34 municipalities within Miami-Dade County

CRA Boundaries

MIDTOWN MIAMI
SOUTH MIAMI
BEACH CITY
NARANJA LAKES
7TH AVENUE CORRIDOR
FLORIDA CITY
NORTH MIAMI BEACH
WEST PERRINE
NW 79TH STREET
OPA-LOCKA
NORTH MIAMI
SOUTHEAST OVERTOWN/PARK WEST
OMNI
HOMESTEAD

Miami-Dade County Commission Districts

DISTRICT 1
DISTRICT 2
DISTRICT 3
DISTRICT 4
DISTRICT 5
DISTRICT 6
DISTRICT 7
DISTRICT 8
DISTRICT 9
DISTRICT 10
DISTRICT 11
DISTRICT 12
DISTRICT 13



City of Miami Commission Districts

DISTRICT 1
DISTRICT 2
DISTRICT 3
DISTRICT 4
DISTRICT 5

Municipalities

AVENTURA
BAL HARBOUR
BAY HARBOR ISLANDS
BISCAYNE PARK
CORAL GABLES
CUTLER BAY
DORAL
EL PORTAL
FLORIDA CITY
GOLDEN BEACH
HIALEAH
HIALEAH GARDENS
HOMESTEAD
INDIAN CREEK VILLAGE
KEY BISCAYNE
MEDLEY
MIAMI BEACH
MIAMI GARDENS
MIAMI LAKES
MIAMI SHORES
MIAMI SPRINGS
NORTH BAY VILLAGE
NORTH MIAMI
NORTH MIAMI BEACH
OPA-LOCKA
PALMETTO BAY
PINECREST
SOUTH MIAMI
SUNNY ISLES BEACH
SURFSIDE
SWEETWATER
UNINCORPORATED MIAMI-DADE
VIRGINIA GARDENS
WEST MIAMI



Appendix G: Housing Resiliency Dataset

<p>FEMA flood zones</p>	<p>Geographic areas designated by FEMA to possess varying flood risk. These maps are used by FEMA to determine insurance rates for the Federal Flood Insurance Rate Maps.</p> <p>The Special Flood Hazard Areas (SFHA) are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. The zones within the SFHA are shown on this map.</p> <p><u>Flood Zone A</u> = Geographic area that has a 1% annual flood risk; we grouped within this designation AE, A1-A30, AH, AO, AR and A99.</p> <p><u>Flood Zone V</u> = Coastal geographic area that has a 1% of annual flood risk; we grouped within this designation VE and V1-V30.</p> <p><u>Flood Zone X</u> = Undetermined or low-flood risk geographic area</p> <p>Data Source: MIAMI-DADE COUNTY OPEN DATA HUB</p>
<p>Elevation</p>	<p>Ground elevation as rendered by the United States Geological Survey's (USGS) Digital Elevation Model (DEM). The DEM is a 3D computer graphic presentation of elevation data.</p> <p>DATA SOURCE: MIAMI-DADE COUNTY OPEN DATA HUB</p>
<p>Sea level rise projections</p>	<p>Trending increase of the sea surface level as an outcome of global warming. The yearly projections display the increasing severity of its impact on Miami-Dade County.</p> <p>The tidal surface based on NAVD88 was calculated with the Mean Higher High Water (MHHW) for the months of August-September of 2019 in Virginia Key. We selected Virginia Key because it is the most representative tide station in the region. The compiled values that we used to calculate the MHHW came from NOAA's Tides & Current website. A high-resolution digital elevation model (DEM) layer created by the United States Geological Survey (USGS) identifies areas on land that could be inundated from rising sea levels.</p> <p>The sea level rise projections are based on the Southeast Florida Regional Climate Change Compact's 2019 Unified Sea Level Rise Projection 'High' projections to present a worst-case scenario.</p> <p>Data sources: NOAA, Southeast Florida Regional Climate Change Compact</p>
<p>Storm surge projections</p>	<p>Rising water resulting from hurricane winds and low pressure during extreme storm events. Hurricane Andrew's storm surge values were used as reference to illustrate the resulting coastal flooding that could emerge from a similar storm at different projected time horizons. The 10-year projections display the increasing severity of its impact associated with the projected sea level rise in Miami-Dade County. Original surge values from NOAA, surge heights referenced to NAV88.</p>



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