UNIVERSITY OF MIAMI
OFFICE of CIVIC & COMMUNITY ENGAGEMENT

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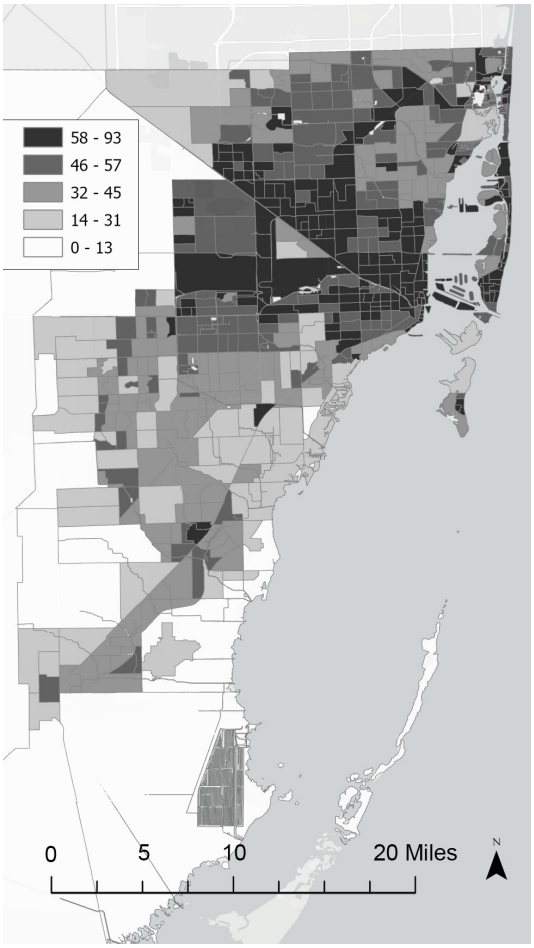
CLIMATE AND EQUITY

Impervious surfaces, such as paved roads and parking lots, cover large portions of major metropolitan areas, including Miami-Dade County. A high concentration of impervious surfaces contributes to the "Urban Heat Island effect," where surfaces absorb and retain heat, increasing already high temperatures. Impervious surfaces also increase the risk of flooding and strain the city's stormwater system during periods of heavy rainfall.

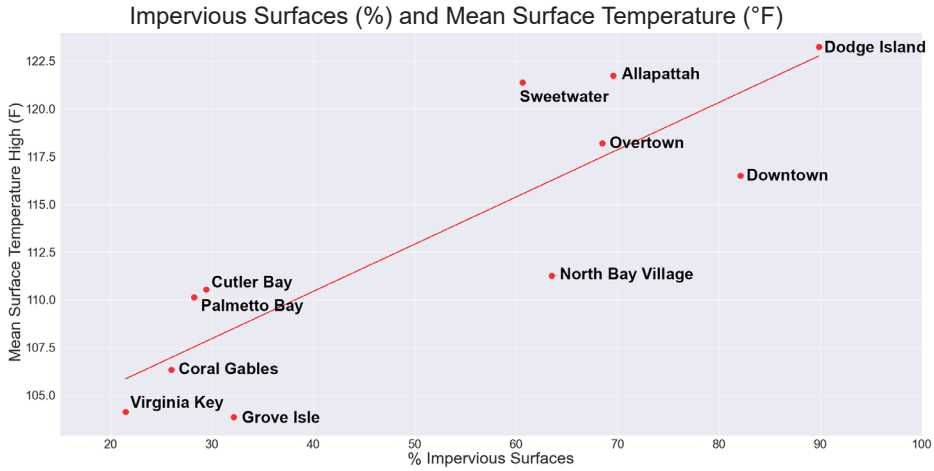
IMPERVIOUS SURFACES (%)



IMPERVIOUS SURFACES (%) AND HEAT

(LEFT) The map shows the percentage of impervious surfaces by census tract. High levels of impervious surfaces are prevalent throughout Miami, with the most extreme examples found in Miami's densely developed downtown central business area.

(BELOW) The line graph below illustrates the relationship between impervious surfaces and surface temperatures. Neighborhoods with the highest percentages of impervious ground also exhibit the highest mean surface temperatures.



Data Source: ESRI, Heat Health Census Tracts, 2021

SCAN QR CODE FOR DATA SOURCE

NEIGHBORHOOD IMPERVIOUS SURFACES COMPARISION

Neighborhoods near the urban core, including Allapattah and Overtown, are among the areas that have the highest concentrations of impervious surfaces. They also tend to have less tree canopy and, as a result, have higher surface temperatures (see prior factsheets).

SCAN FOR FACTSHEET RESOURCE HUB