

Worksheet 3: *Making Comparisons*

It would be interesting to compare the median family income (MFI) map (an indicator of poverty levels) and the land surface temperature (LST) map (an indicator of environmental conditions) that we have already examined to get an idea of where the people most at risk from urban heat live in Marion County. (It is important to realize that there are many other measures of social-economic status aside from median income). There are also environmental factors other than surface temperature that influence vulnerability. But this comparison of temperature and income would be a good start on investigating more about the problem of urban heat problems.

Once we have decided what to compare—in this case the arrangement of income and temperature—there are two steps involved in making a comparison of maps.

Step One: Use comparable maps

1. Information contained on the maps must be for the same *study area*. For example, a map that has information for a state cannot be compared with a map that has information for the entire country.
2. Maps of the same study area must contain information for the same *unit areas*. For example, a state map that has information by counties cannot be compared with a map that has information by townships.

Question: Are the LST and the MHI Maps comparable? What makes you say so? Enter your answer in the space below:

Step Two: Compare the arrangements

Once the arrangements to be compared have been determined, and comparable maps showing these arrangements have been secured, the actual comparison can be made. To do this, similarities and differences between the arrangements on the maps must be described.

Task 1: Use a marker to place circles on the MHI Map where there are clusters of low income. Are there areas in the county where both low income and high temperature are clustered? Mark these areas as A, B, C...on the MHI map.

Task 2: Use a marker to place an X on the MHI Map where high income households are clustered. Are there areas in the county where both high income and high temperature are clustered? Mark these areas with a 1, 2, 3...on the MHI map.

Task 3: Are there areas in the city where both low income and low temperature are clustered? Use a marker to place check marks on the MHI Map where those areas are located.

Task 4: Write a short paragraph (5 to 6 sentences) summarizing the information obtained from comparing the two maps.