

The New Jersey Childhood Obesity Study

New Brunswick Food Environment Maps

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About the Study

The New Jersey Childhood Obesity Study, funded by the Robert Wood Johnson Foundation, aims to provide vital information for planning, implementing and evaluating interventions aimed at preventing childhood obesity in five New Jersey municipalities: Camden, Newark, New Brunswick, Trenton, and Vineland. These five communities are being supported by RWJF's New Jersey Partnership for Healthy Kids program to plan and implement policy and environmental change strategies to prevent childhood obesity.

Effective interventions for addressing childhood obesity require community specific information on who is most at risk and on contributing factors that can be addressed through tailored interventions that meet the needs of the community.

Using a comprehensive research study, the Center for State Health Policy at Rutgers University is working collaboratively with the State Program Office for New Jersey Partnership for Healthy Kids and the five communities to address these information needs. The main components of the study include:

- A household survey of 1700 families with 3 -18 year old children
- De-identified heights and weights data from public school districts
- Assessment of the food and physical activity environments using objective data

Data books and maps based on the results of the study are being shared with the community coalitions in the five communities to help them plan their interventions.

In This Chartbook...

The maps in this chartbook describe the food environment in New Brunswick in terms of access to supermarkets, smaller grocery stores, convenience stores, and limited service restaurants. Research shows that when residents have access to healthy food outlets, they tend to eat healthy.

- Food environment maps were created using geo-coded commercially available data of food outlets (InfoUSA, 2008 and Trade Dimensions, 2008) in New Brunswick and in a 1 mile buffer area around New Brunswick.
- Using the commercial data and additional investigation, food outlets were classified into different categories based on their likelihood of carrying healthy choices: supermarkets carry most healthy choices; smaller grocery stores carry fewer healthy choices; convenience stores and limited service restaurants are likely to carry mostly unhealthy choices.
- Access to different types of food outlets was computed at the census block group level based on concentration of stores / restaurants per unit area and is reported as food outlet densities.
- Food outlet density maps are compared with Census 2000 data to visualize accessibility of healthy food s in neighborhoods with different characteristics.

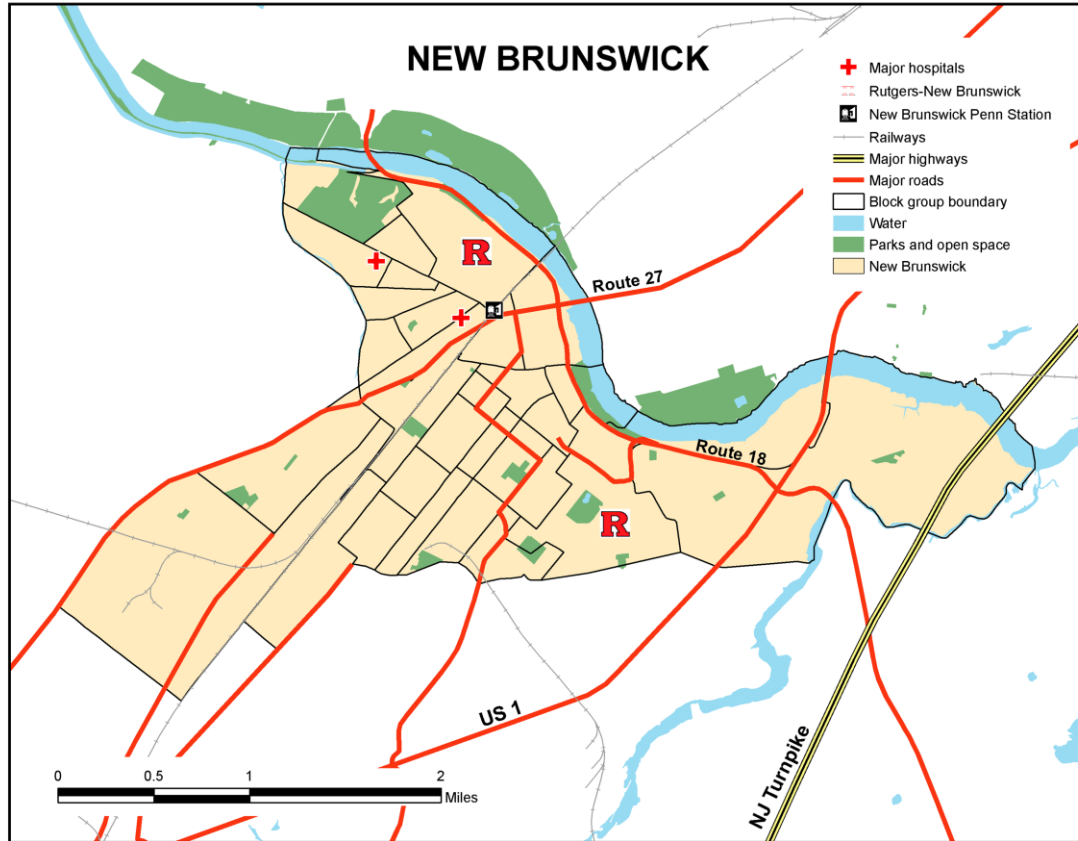
Data Sources:

- InfoUSA food outlet 2008 data**
- Trade Dimensions food outlet 2008 data**
- Census 2000 data**
- New Jersey Department of Education 2008-2009 data**

CSHP New Brunswick food outlet 2008 data (Updated August 2010)

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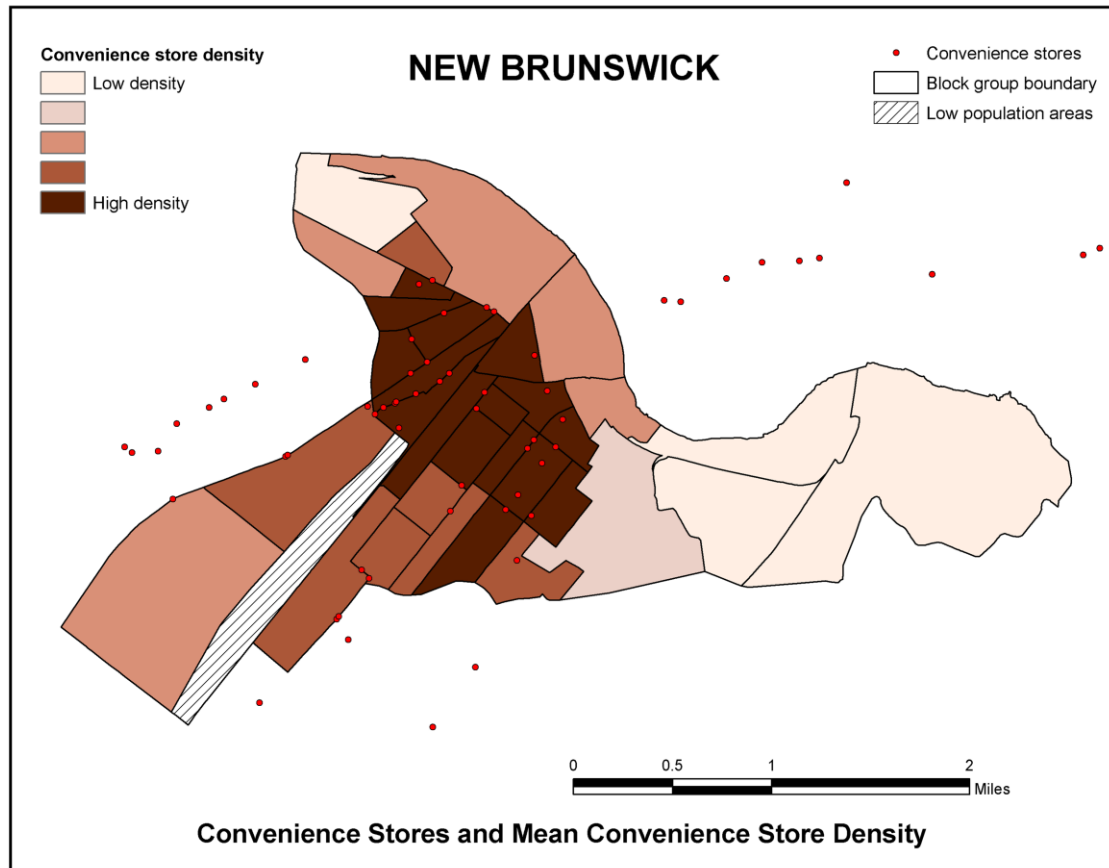
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City of New Brunswick and major landmarks.

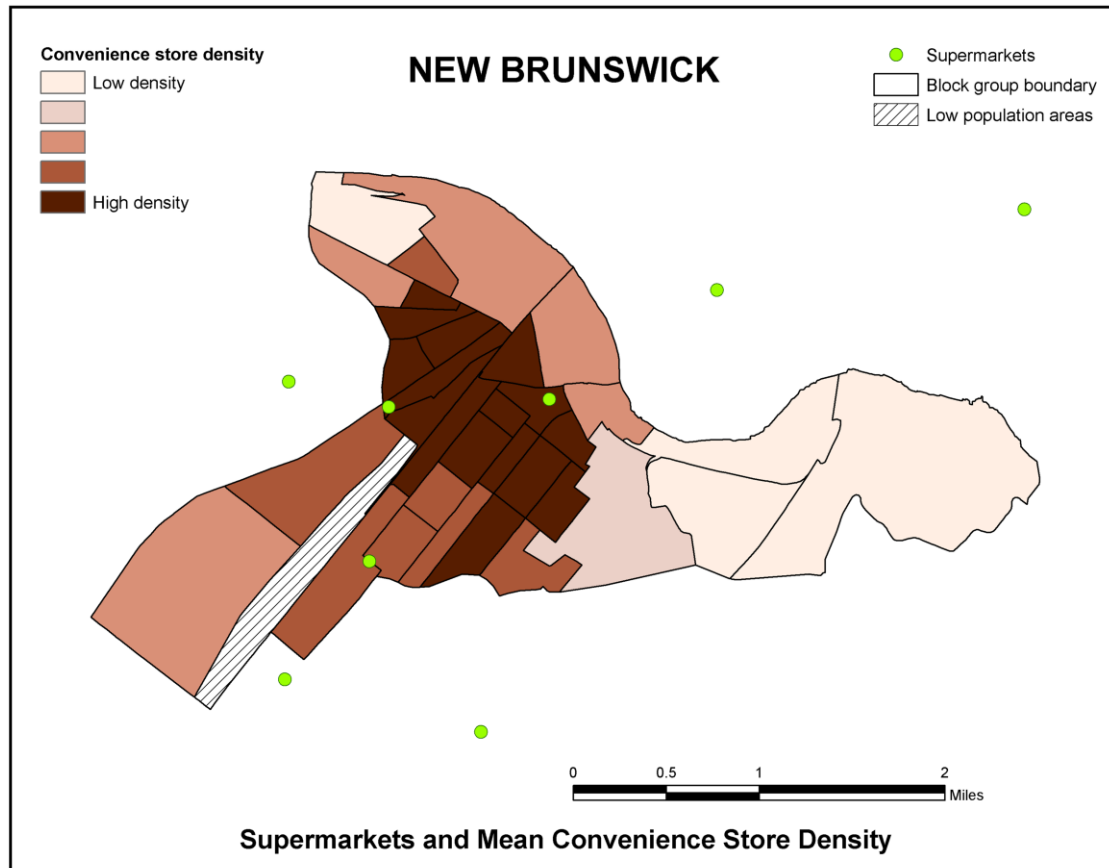
Food Outlet Densities at Block Group Level



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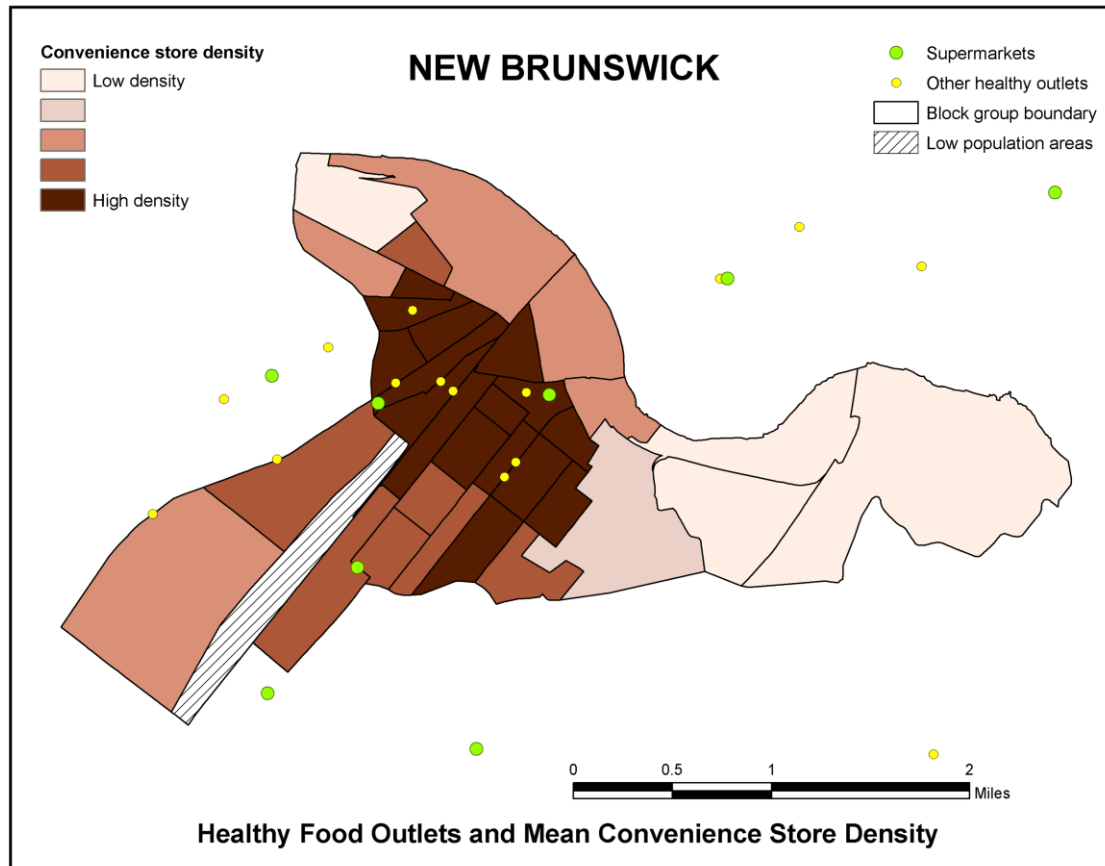
The map shows convenience store densities at the block group level. Convenience stores (red dots) in New Brunswick and within a 1 mile buffer of city boundaries are mapped. Block groups with darker colors have higher access to convenience stores.



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Supermarkets (green dots) in and around New Brunswick overlaid on a map of convenience store densities at census block group level. Block groups with darker shades represent areas with higher access to convenience stores.

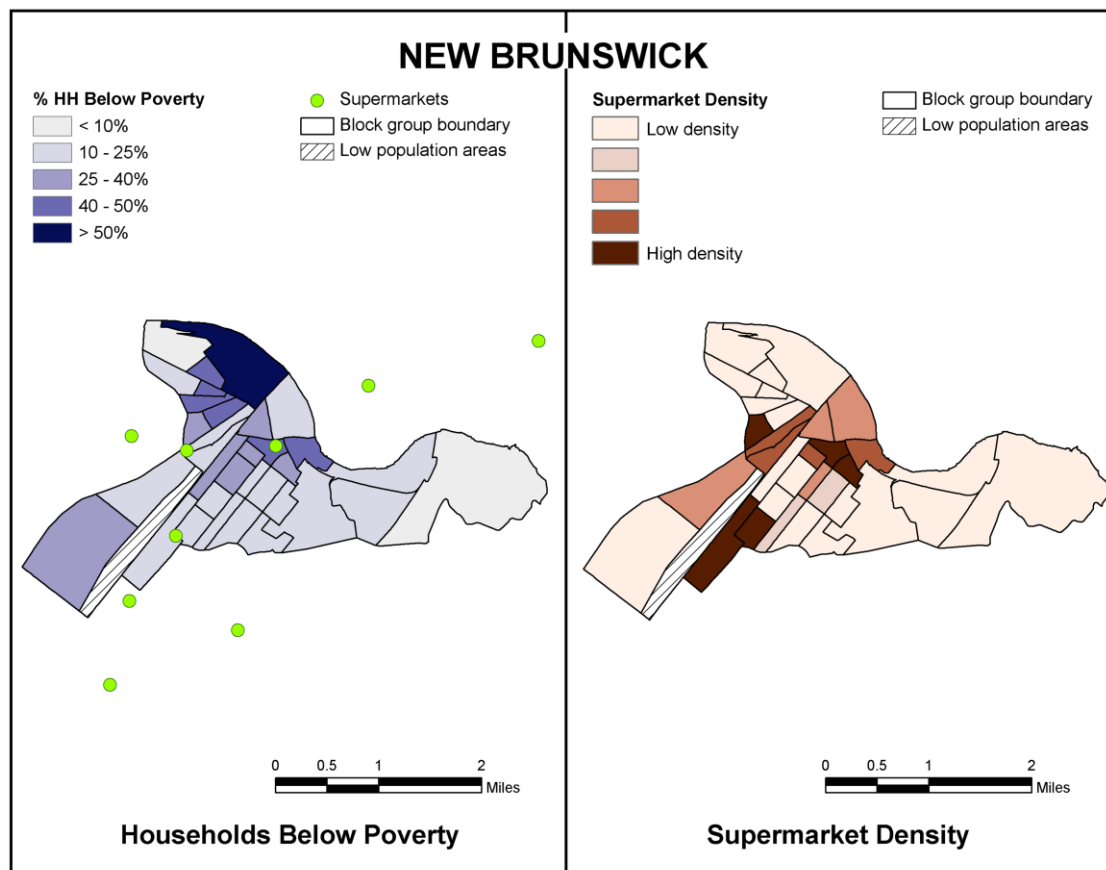


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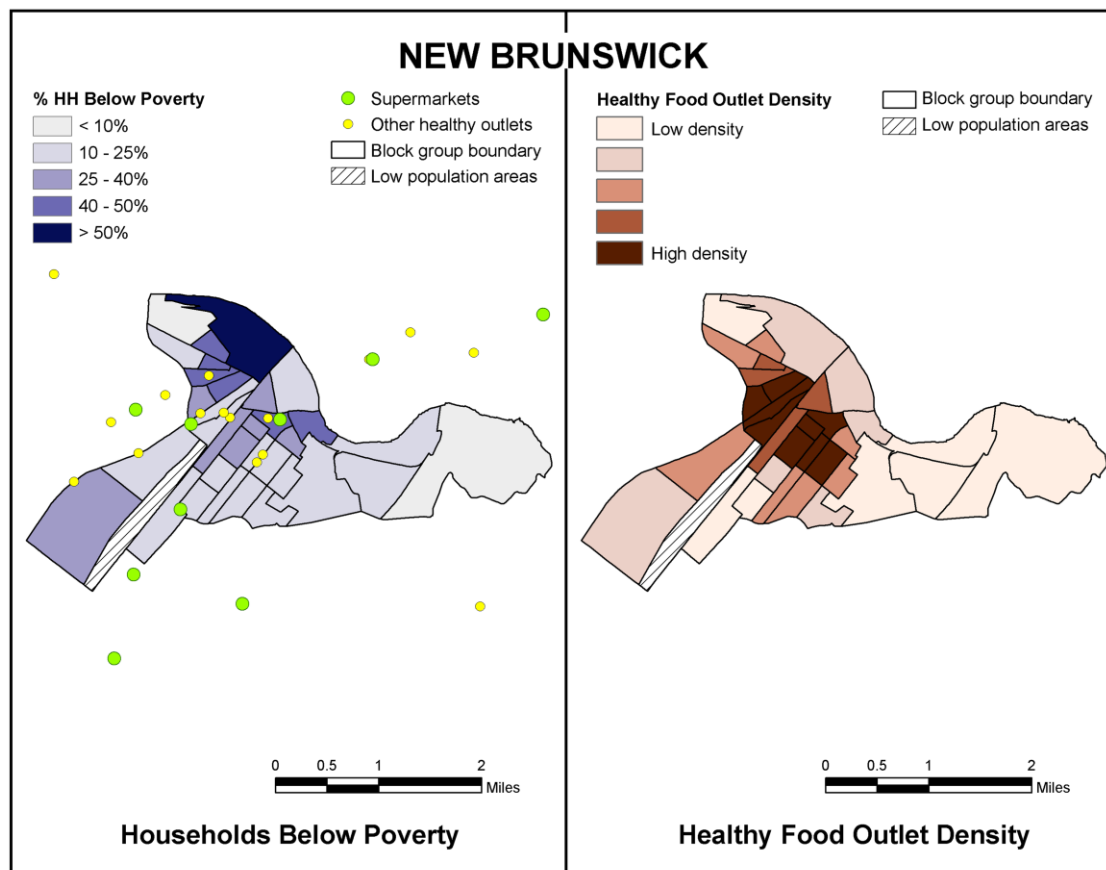
Supermarkets (green dots) and other healthy food outlets (yellow dots) such as smaller grocery stores in and around New Brunswick overlaid on a map of convenience store densities at census block group level. Block groups with darker shades represent areas with higher access to convenience stores.

% Households Below Poverty Level and Food Outlet Densities



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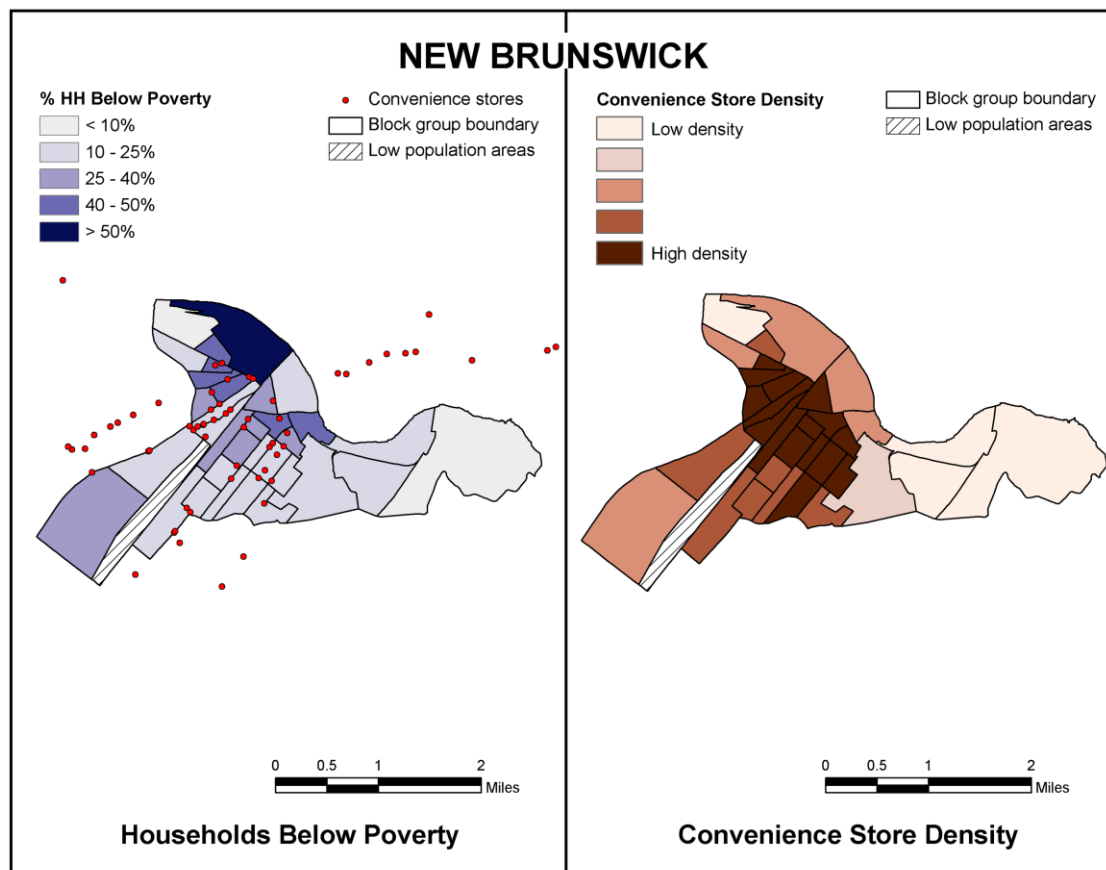
On the left, block groups in darker colors (blue) show higher percentage of households below poverty level. The green dots represent supermarket locations. Supermarket densities are shown on the right; the darker the shade of the block group, the higher the access to supermarkets.



CSHP New Brunswick food outlet 2008 data (Updated August 2010)

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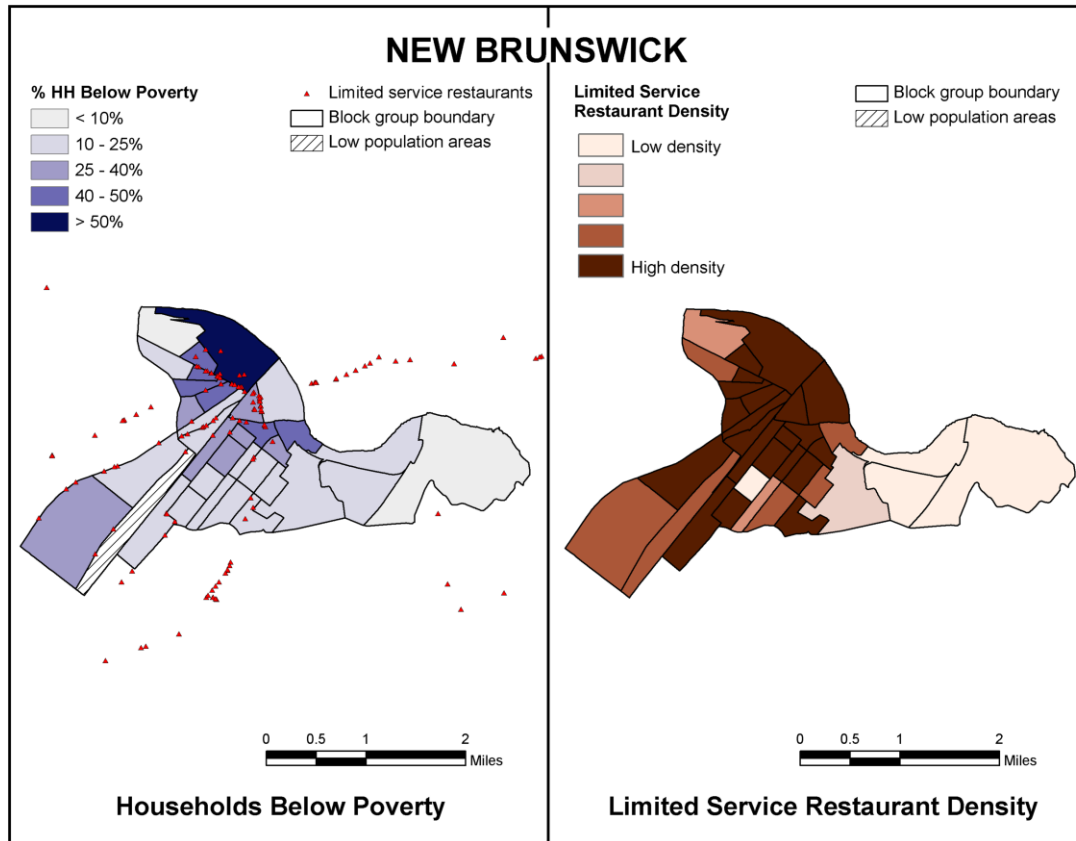
On the left, block groups in darker colors (blue) show higher percentage of households below poverty level. The green and yellow dots represent healthy food outlet (supermarket and smaller grocery store) locations. Healthy food outlet densities are shown on the right; the darker the shade of the block group, the higher the access to healthy food outlets .



CSHP New Brunswick food outlet 2008 data (Updated August 2010)

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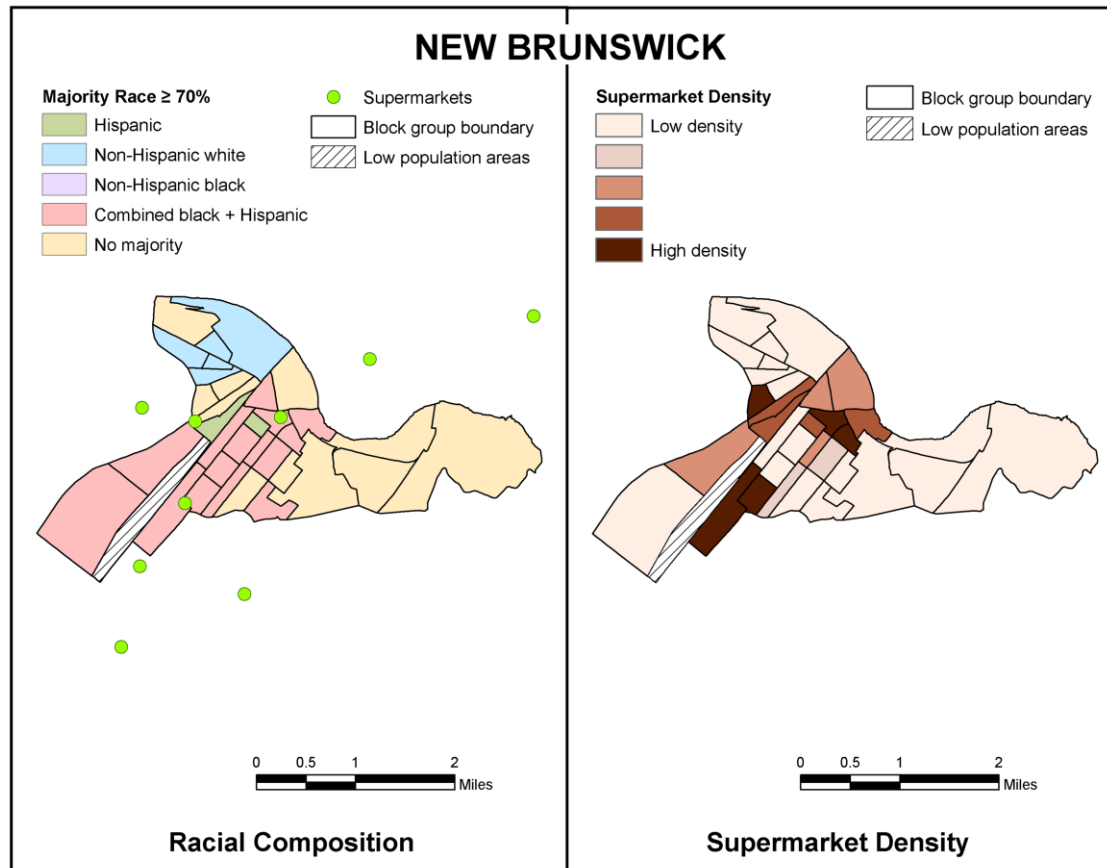
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CSHP New Brunswick food outlet 2008 data (Updated August 2010)

On the left, block groups in darker colors (blue) show higher percentage of households below poverty level. The red triangles represent limited service restaurants (fast food outlets). Limited service restaurant densities are shown on the right; the darker the shade of the block group, the higher the access to limited service restaurants.

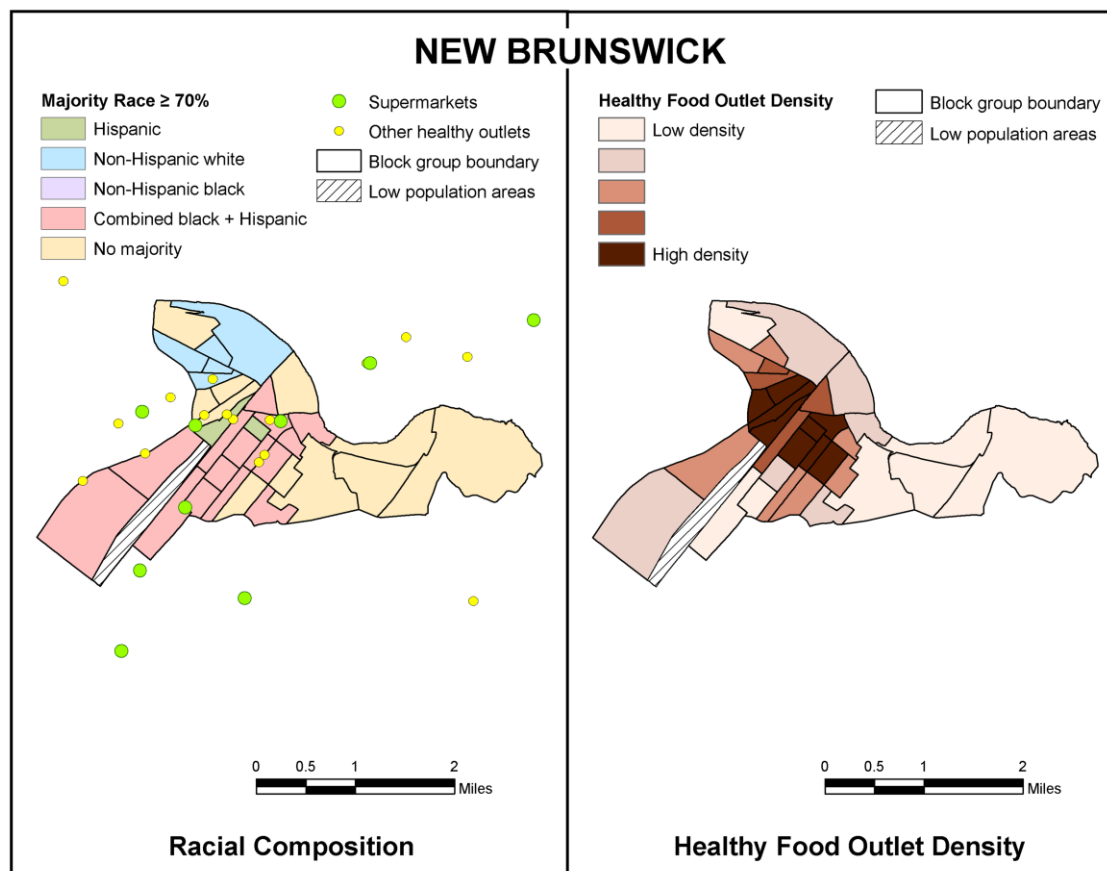
Neighborhood Level Race / Ethnicity and Food Outlet Densities



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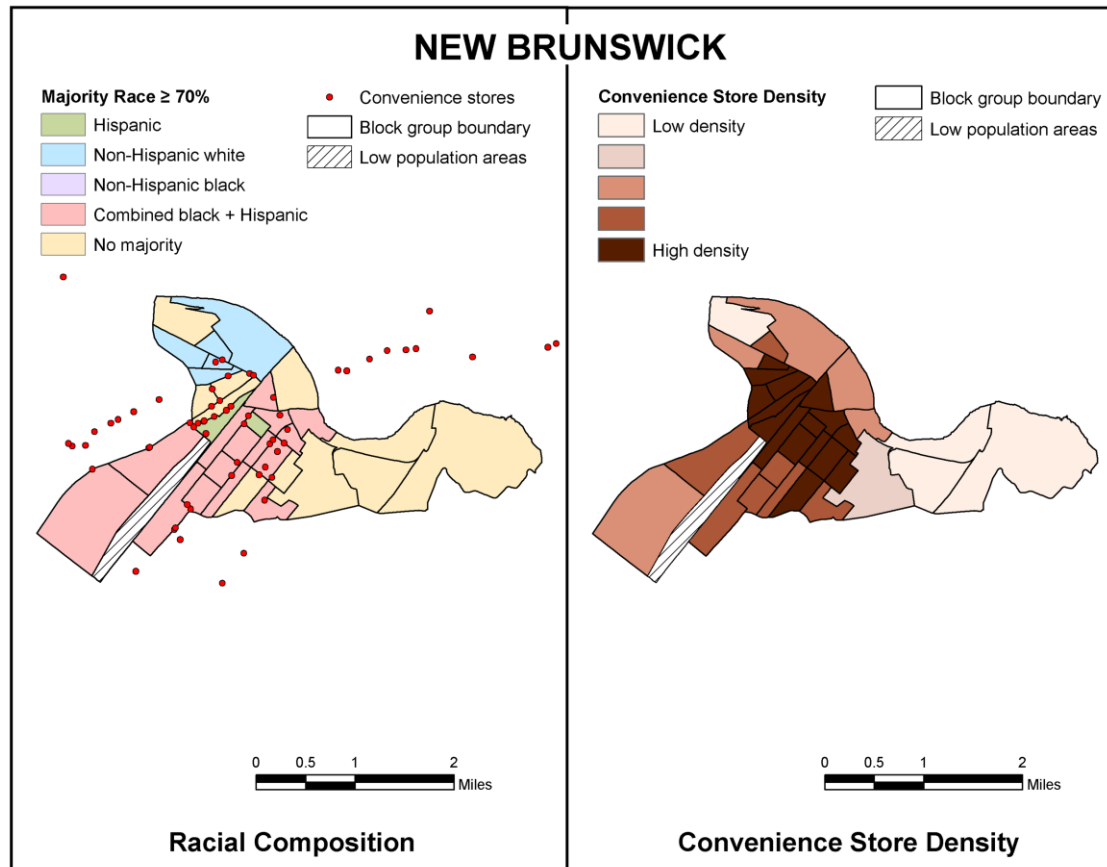
On the left, majority racial composition of block groups is depicted in different colors. The green dots represent supermarket locations. Supermarket densities are shown on the right; the darker the shade of the block group, the higher the access to supermarkets.



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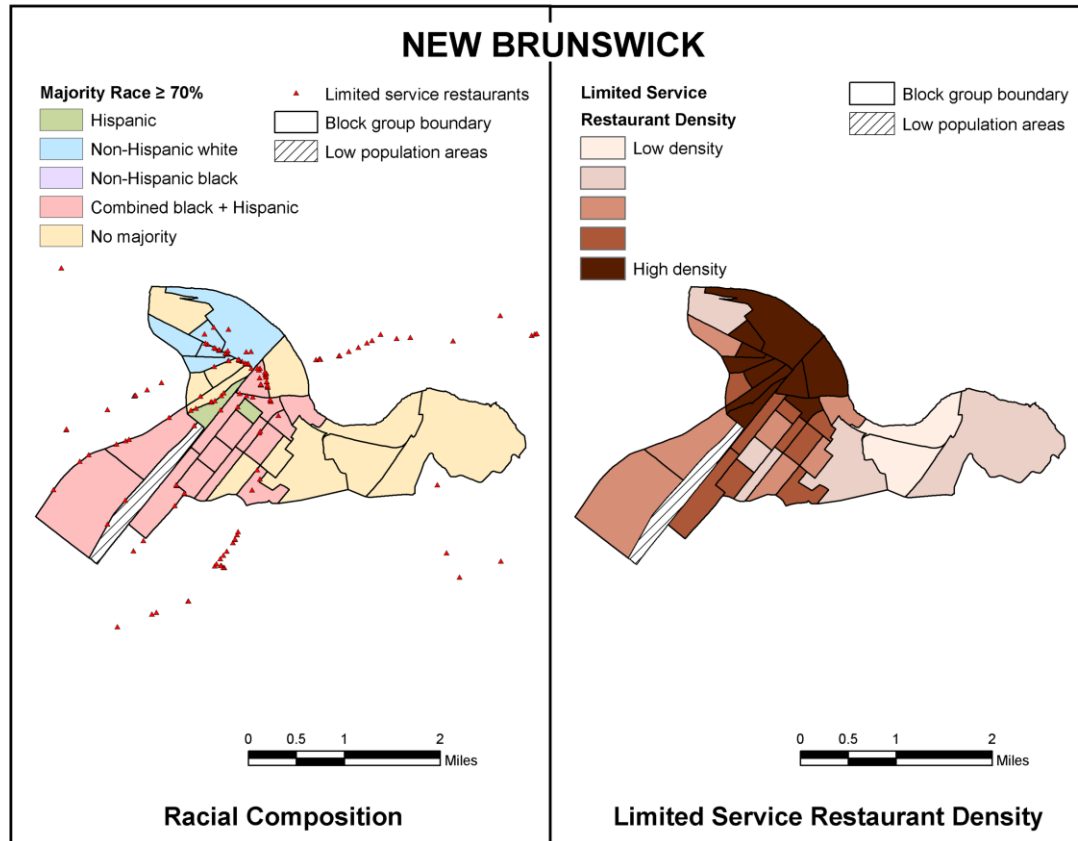
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On the left, majority racial composition of block groups is depicted in different colors. The green and yellow dots represent healthy food outlet (supermarket and smaller grocery store) locations. Healthy food outlet densities are shown on the right; the darker the shade of the block group, the higher the access to healthy food outlets.



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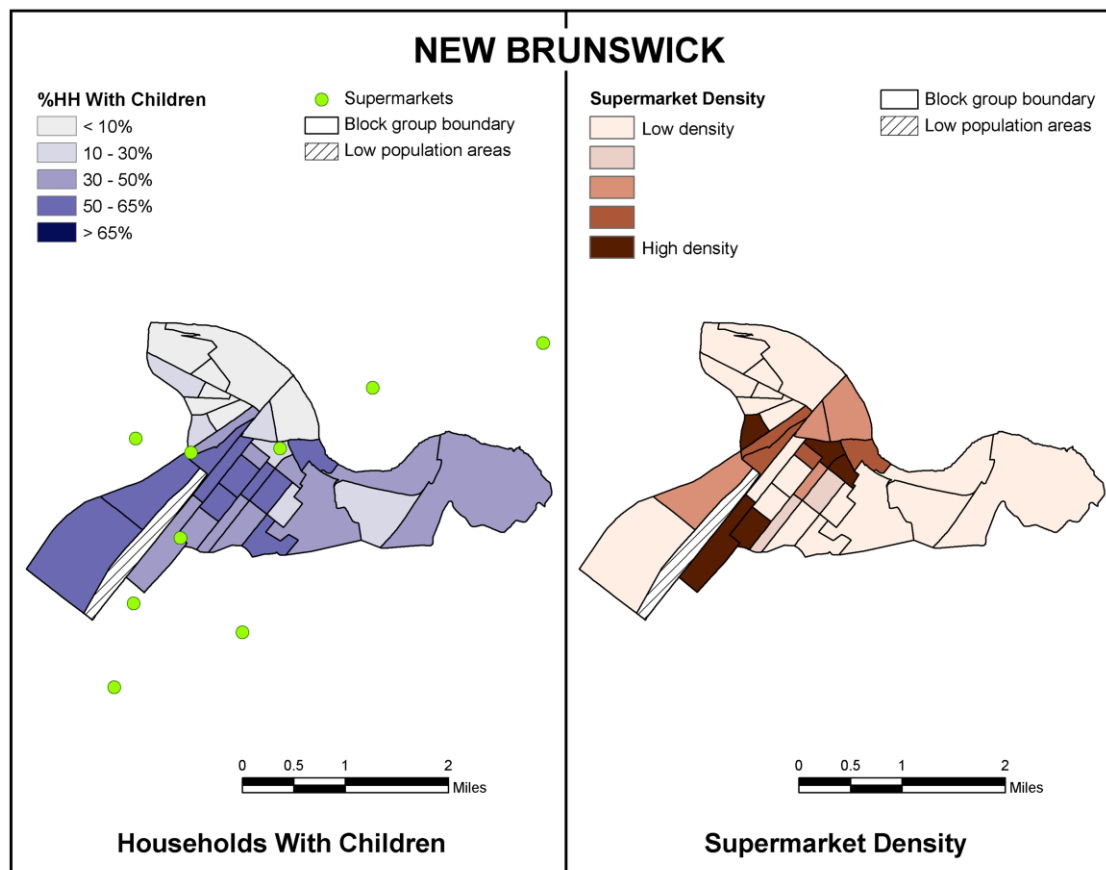
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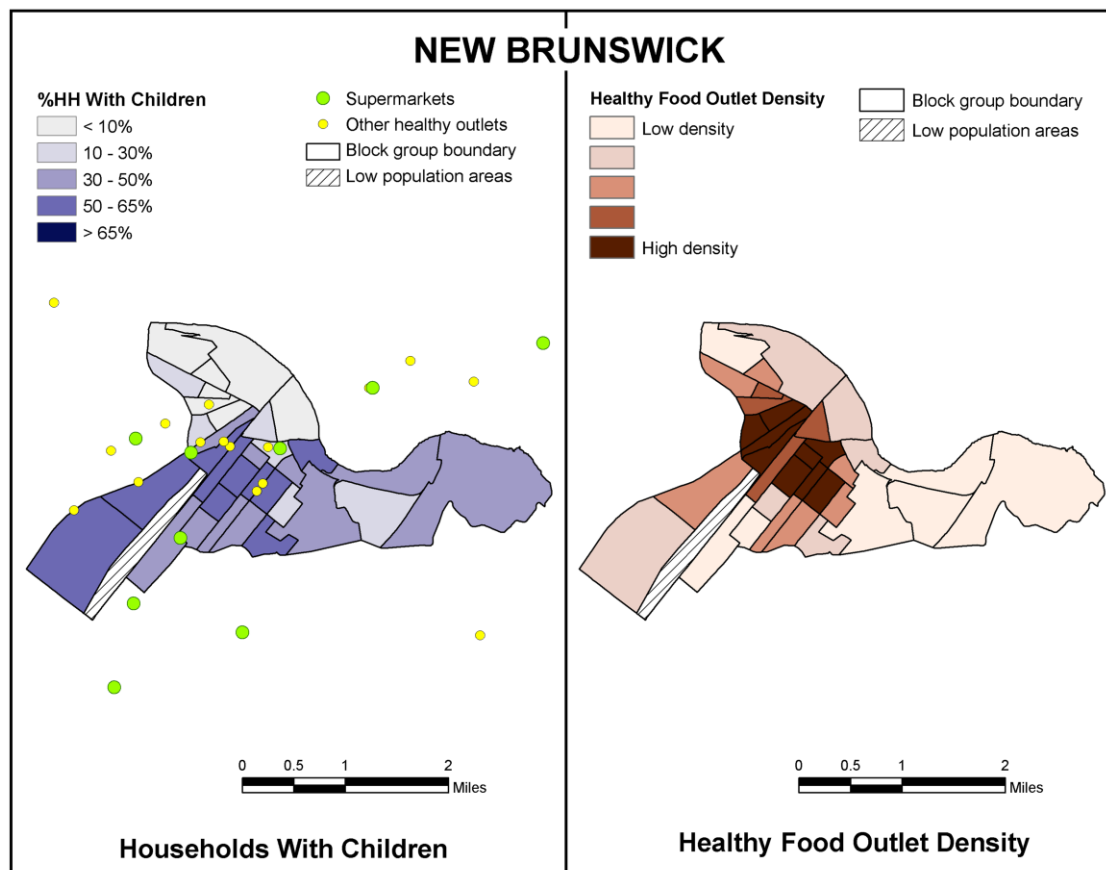
% Households with Children and Food Outlet Densities



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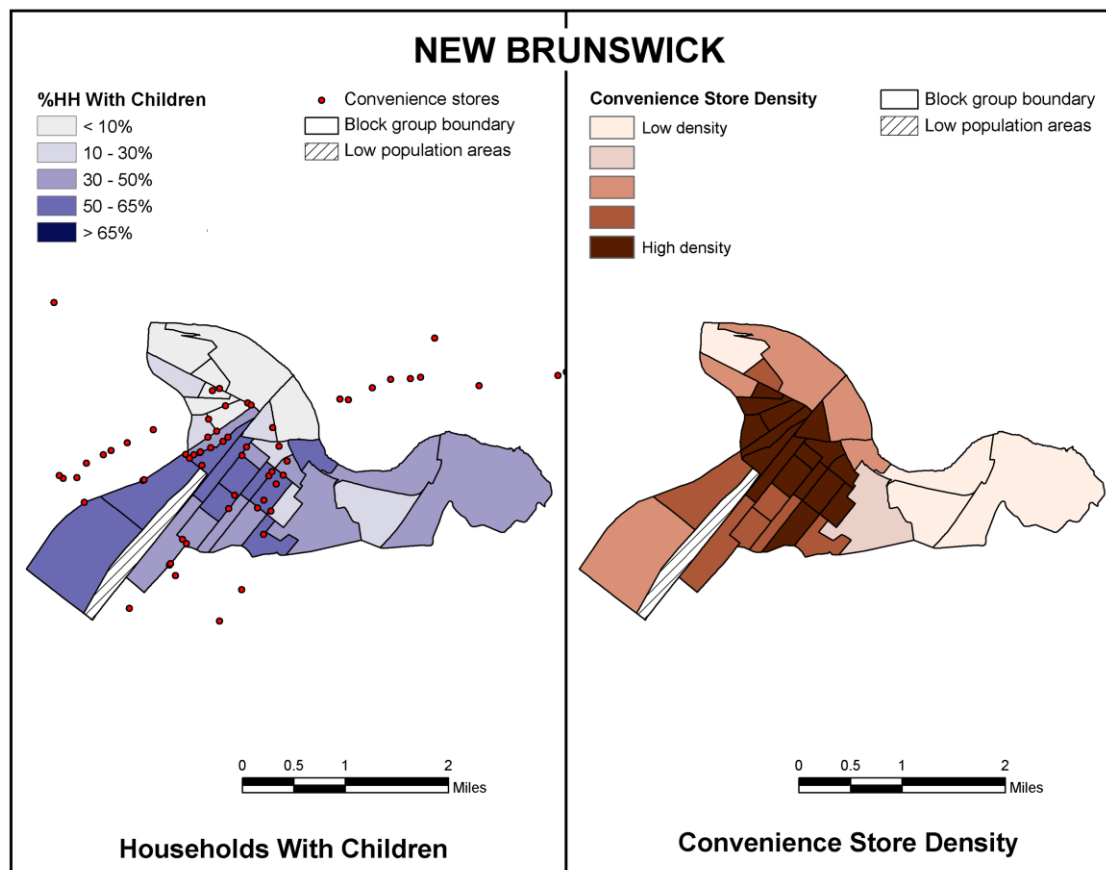
On the left, block groups in darker colors (blue) show higher percentage of households with children. The green dots represent supermarket locations. Supermarket densities are shown on the right; the darker the shade of the block group, the higher the access to supermarkets.



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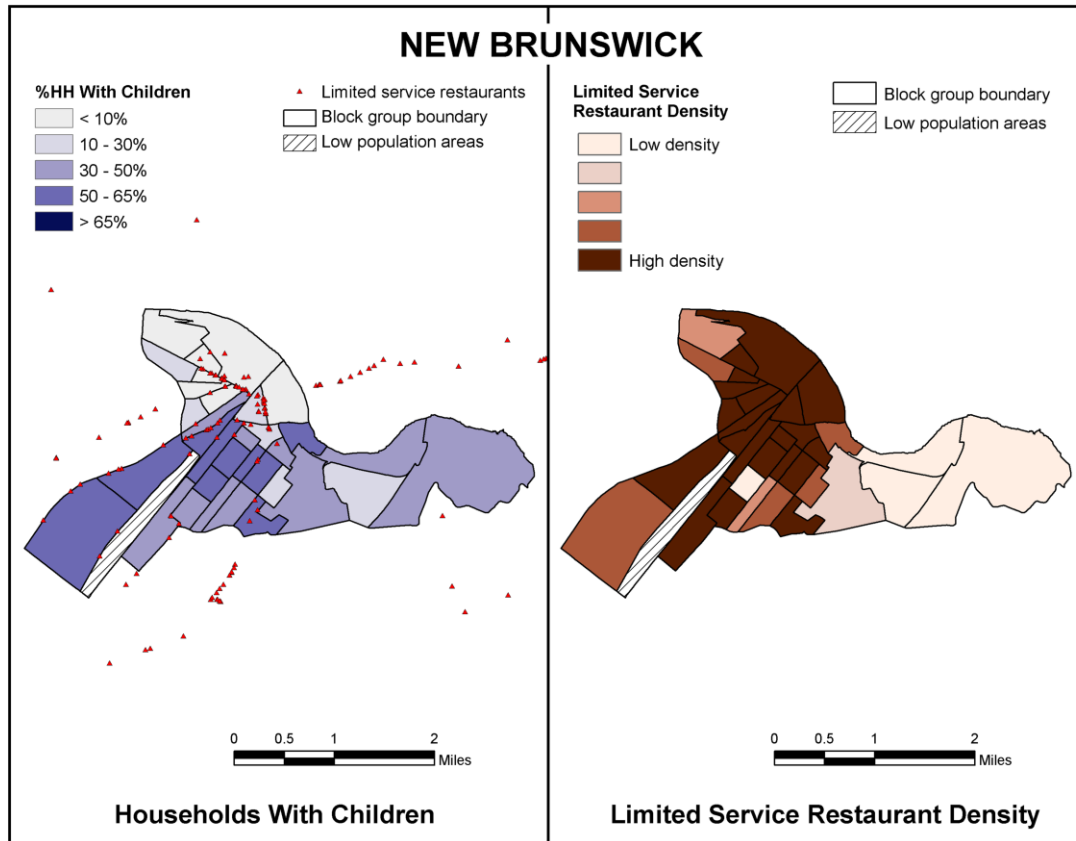
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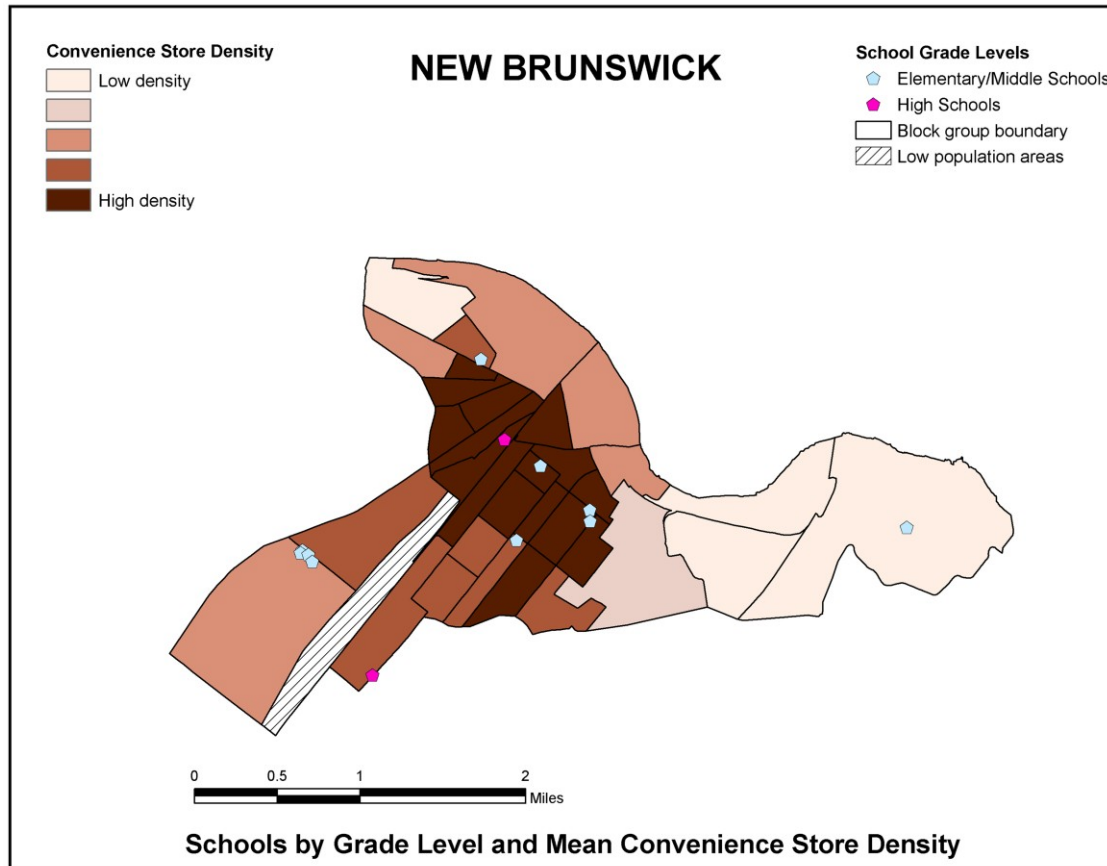
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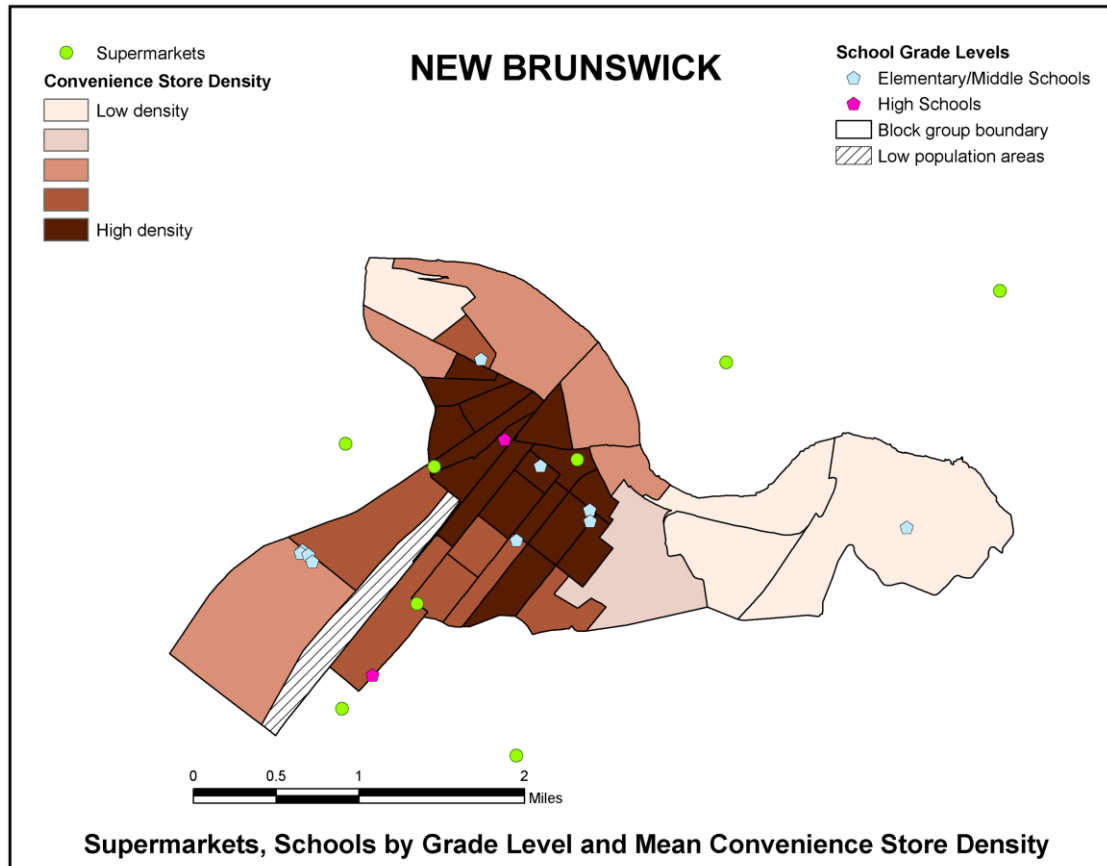
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Schools By Grade Level and Neighborhood Food Outlet Densities



CSHP New Brunswick food outlet 2008 data (Updated August 2010)

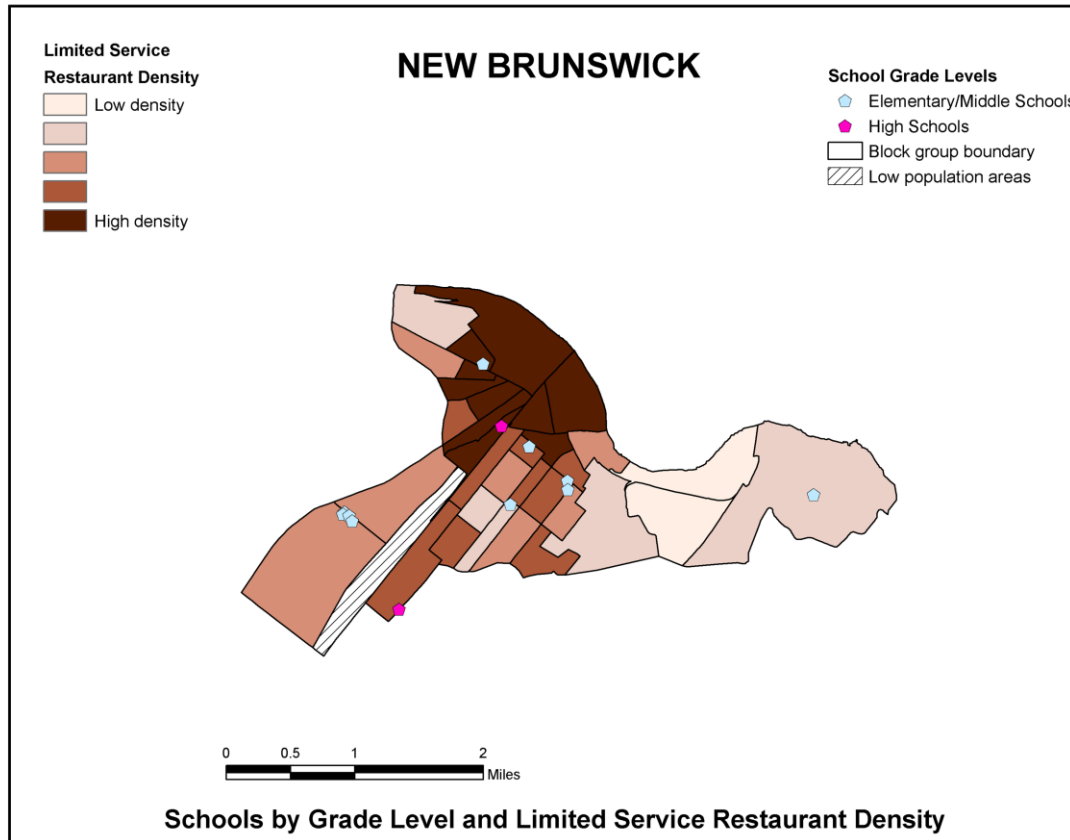
New Brunswick public schools by grade level overlaid on a map of convenience store densities at census block group level. Block groups with darker shades represent areas with higher access to convenience stores.



CSHP New Brunswick food outlet 2008 data (Updated August 2010)

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New Brunswick public schools by grade level and supermarkets overlaid on a map of convenience store densities at census block group level. Block groups with darker shades represent areas with higher access to convenience stores.



CSHP New Brunswick food outlet 2008 data (Updated August 2010)

New Brunswick public schools by grade level overlaid on a map of limited service restaurant (fast food) density at census block group level. Block groups with darker shades represent areas with higher access to limited service restaurants.

Next Steps

- As part of the New Jersey Childhood Obesity Study we have also conducted a household phone survey.
- The results from the survey related to children's BMI, health behaviors, parental perceptions of environments will be linked to the food environment data presented in the preceding maps.
- Using the survey and food environment data, we will be able to address questions such as:
 - ✓ What aspects of the food environment are associated with childhood obesity?
 - ✓ How are environmental characteristics associated with eating behaviors?
 - ✓ How important are perceptions of the environment as compared to actual neighborhood characteristics in contributing to childhood obesity? To eating behaviors?
 - ✓ How do these relationships differ among various socio-demographic groups (e.g., gender, race-ethnicity, social class)?