

Access to Affordable Food in New Hampshire

Carsey Institute research shows which New Hampshire communities lack access to affordable food and suggests ways that policymakers and nonprofits could combat food insecurity.

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Lack of access to affordable, healthful food in inner cities and rural areas has emerged as a pressing policy issue in recent decades. The recession has made it even more difficult for families to afford the food they need. A clear public health issue, the situation presents communities with both challenges and opportunities for change.

The Geography

Researchers at the Carsey Institute have been studying access to food in New Hampshire for the past several years.¹ Although New Hampshire is a relatively prosperous state—ranking 8th in the nation in per capita income in 2011—it is also relatively rural, with a public transportation system that limits a family's ability to reach distant grocery stores. Moreover, there are pockets of lower-income people throughout the state, so the high ranking on per capita income can be misleading.

The first major Carsey Institute study of food access in New Hampshire, conducted in late 2009 with a grant from the Endowment for Health, focused on (a) the geographic distribution of grocery stores and other food outlets, (b) a household survey asking about the availability of food, and (c) dietary-related health conditions.

An uneven distribution of full-service grocery stores was found. Full-service stores are concentrated in areas of high population density and along major transportation corridors. They are lacking in the north and in the more rural areas of central and western New Hampshire. That unevenness, coupled with limited public transportation in remote areas, presents a challenge for families.

We also looked at food outlets such as convenience stores and food banks, which largely follow the grocery-store distribution pattern. Some areas are served exclusively by convenience stores, which do not stock fruit and vegetables to the extent that grocery stores do. Although there are relatively few areas of New Hampshire with such limited food access that they are labeled “food deserts,” for some families, the only store within five miles is a convenience store. Examples include towns east of the White Mountain National Forest,

southwest of Route 89, and the area between Routes 89 and 93. In much of Coös County, the western portions of the state north of Hanover, and areas west of Manchester, there are no food establishments at all.

Plumbing the Data

We found that areas with low access to healthful foods had higher rates of dietary-related illness—obesity, diabetes, coronary heart disease, high blood pressure, high cholesterol, myocardial infarction, and stroke. At the aggregate geographic level, we can't conclude that food access is causally related to those illnesses, but the patterns we observed are suggestive of a relationship. The most striking pattern was the high prevalence of illness in the northern portion of the state, the same area with the least access to full-service food outlets.

Our survey, designed to replicate the U.S. Department of Agriculture (USDA) measurement of food insecurity, defined insecurity as the lack of “consistent, dependable access to enough food for active, healthy living.”² A household was considered food insecure if it reported three or more conditions on the USDA's 18-item scale of food insecurity, which includes worrying that food will run out before the household has money to buy more, not being able to afford to eat balanced meals, skipping or cutting the size of meals because of lack of money, and not eating for a whole day.

We found that 13 percent of New Hampshire households were food insecure at the time of the survey. (See “Percent of Households Reporting Three or More Food-Insecure Conditions.”) That rate was substantially higher than the 2008 USDA rate and likely reflects the impact of the recession.

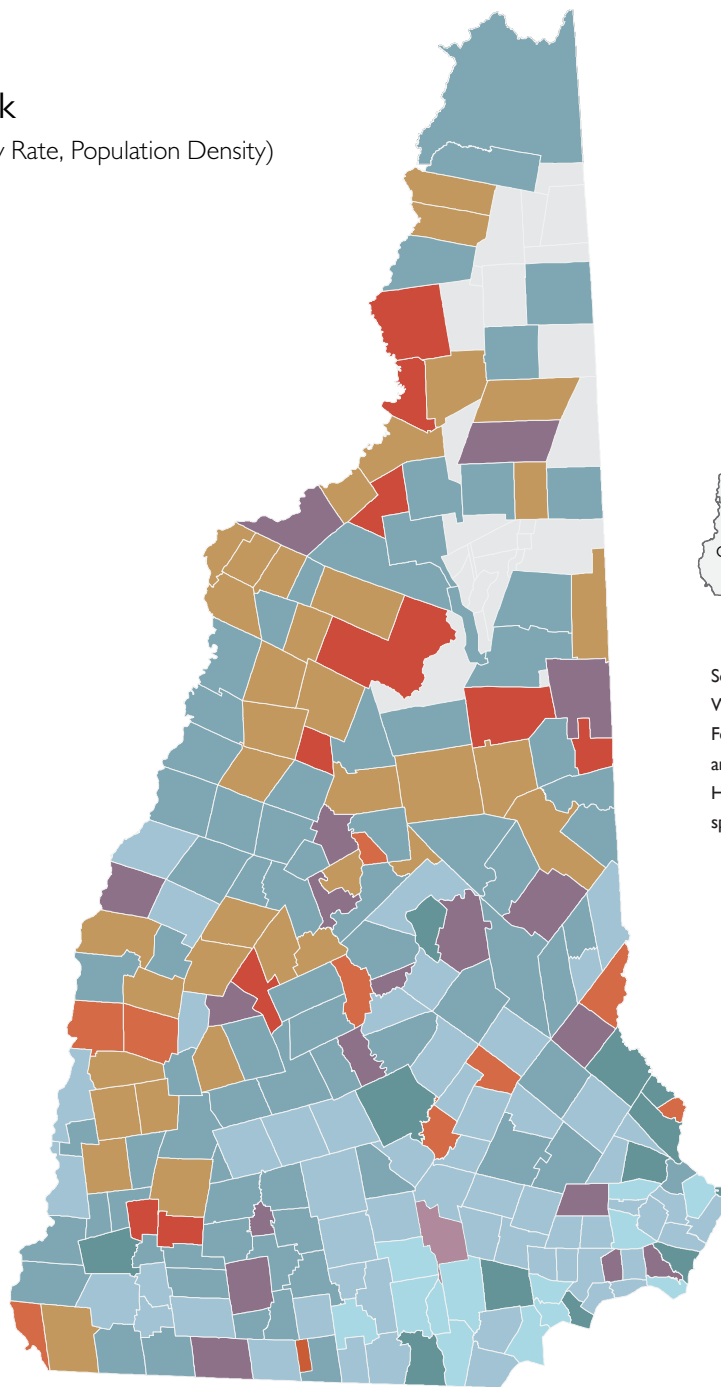
We were able to calculate county-specific rates as well. As with the distribution of food outlets, there was considerable variation in food insecurity across the 10 counties, ranging from about 5 percent of households to roughly 20 percent of households. Coös, the most rural county, had a high percentage of food insecurity, but not just because it is rural. Additional factors are important in food insecurity,

Variation in Risk for Food Insecurity in NH Cities and Towns, 2010

Food Insecurity Risk

(Families Below the Poverty Rate, Population Density)

- Highest risk
(10% and greater, 2–99)
- High risk
(10% and greater, 100–499)
- High risk
(5%–10%, 2–99)
- Moderate risk
(5%–10%, 100–499)
- Moderate risk
(10% or greater, 500–3292)
- Low risk
(5%–10%, 500–3292)
- Lowest risk
(Less than 5%, 2–99)
- Lowest risk
(Less than 5%, 100–499)
- Lowest risk
(Less than 5%, 500–3292)



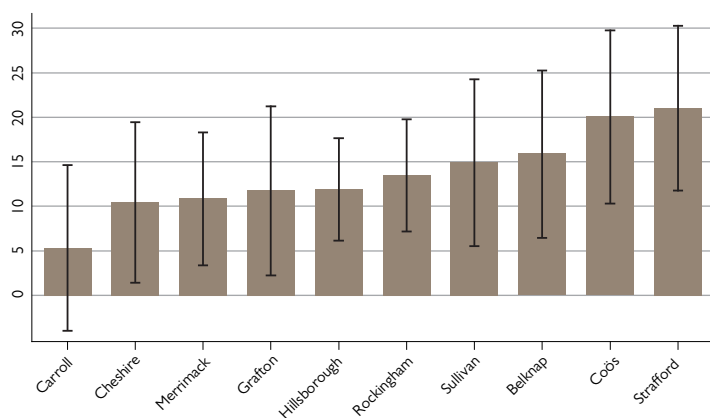
Source: Barbara Wauchope and Sally Ward, "Mapping Food Insecurity and Food Sources in New Hampshire Cities and Towns" (Children's Alliance of New Hampshire and Carsey Institute Brief, spring 2012, Durham, New Hampshire).

as indicated by Strafford County, which is less rural but has some lower-income areas and a dearth of retail food outlets in its western and northern reaches.

To look more closely at food insecurity at the household level, we also asked questions about demographic and socioeconomic

characteristics, the proximity to grocery stores, and transportation availability. Two findings from a regression analysis predicting food insecurity were that lower-income families and those living a greater distance from a grocery store were more likely to experience problems obtaining adequate food. The results establish a link between

Percent of Households Reporting Three or More Food Insecure Conditions, by County



Margins of Error indicated in black, 95% confidence level.

Source: Nena Stracuzzi and Sally Ward, "What's for Dinner? Finding and Affording Healthy Foods in New Hampshire Communities" (Carsey Institute Issue Brief no. 21, spring 2010, Durham, New Hampshire).

food access and food insecurity, confirming what was possible only as speculation from the mapping of food establishments.

The second Carsey Institute study was an attempt to dig deeper into the community-level experience of food access and food insecurity. Although we were able to document variations across the 10 counties in the first study, we wanted to get a picture at the community level, since families are likely to rely on resources in the community where they live if they are experiencing problems with food and hunger. This second study was designed to provide information for the Children's Alliance of New Hampshire, which is focusing on initiatives to improve children's nutrition and to end childhood hunger in the state. We used the findings of the first study to estimate the likelihood of families experiencing food insecurity in New Hampshire's 234 towns and cities.

We decided to use 2010 data on poverty and population density for each community because the first study showed that two important correlates of food insecurity were household income and distance from a grocery store. Poverty and population density are indirect but close proxies for these measures. As with the first study, we found considerable variation in the likelihood of food insecurity across the state's communities. There are many low-density towns and pockets of serious poverty. (See "Variation in Risk for Food Insecurity.") When both those factors are taken into account, 57 of the 234 towns and cities were found to be at high risk or the highest risk for food insecurity. It is important to note that we estimated risk for food insecurity rather than the actual experience of food insecurity, in part to identify areas where efforts to address child hunger might be most needed.

Additionally, the study provided information about extra resources available to families. Public food programs (such as school lunch programs, the federal Women, Infants and Children [WIC] program, and food pantries) were found in most towns across the state, but their concentration mirrors that of retail food outlets.

In sum, New Hampshire does not have food deserts by conventional standards, but there are regions in which families are challenged to get access to affordable, adequate food. Although pub-

lic programs try to fill the void, the rural character of some New Hampshire areas and the lack of public transportation make it hard.

Looking ahead, opportunities lie in economic development efforts and special incentives that might encourage retail food outlets to locate where there is currently a deficit. The "eat local" movement also provides strategies for enhancing access—for example, by finding ways to increase and publicize farm food outlets, farmers markets, and community gardens.³

Although New Hampshire as a whole has relatively low food insecurity, it has many families in want. In a struggling economy, the safety net provided by public programs such as Supplemental Nutrition Assistance Program and WIC is vital. And combining a variety of approaches—increasing the number of food outlets, using economic incentives, continuing to develop and expand public food programs in areas of demonstrated need—can ensure that more people are helped.

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Endnotes

- 1 Nena Stracuzzi and Sally Ward, "What's for Dinner? Finding and Affording Healthy Foods in New Hampshire Communities" (Carsey Institute Issue Brief no. 21, spring 2010, Durham, New Hampshire); Barbara Wauchope and Sally Ward, "Mapping Food Insecurity and Food Sources in New Hampshire Cities and Towns" (Children's Alliance of New Hampshire and Carsey Institute Brief, spring 2012, Durham, New Hampshire).
- 2 Mark Nord, Margaret Andrews, and Steven Carlson, *Household Food Security in the United States, 2008* (Washington, DC: Economic Research Service, USDA, 2009), <http://www.ers.usda.gov/publications/err-economic-research-report/err83.aspx>.
- 3 See <http://www.foodsolutionsne.org/> and <http://www.locavorenetwork.com/>.