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The Food Landscape in Burien, Washington

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Connecting communities to healthy food.





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The Food Landscape in Burien, Washington

The following assessment was conducted to gain an understanding of the City of Burien’s existing food environment. As the City of Burien examines and develops local policies, regulations and programs related to food access, this report can be used to further identify areas of community need and/or interest.

The following GIS (geographic information system) assessment was conducted to gain an understanding of where food retailers (e.g., supermarkets, convenience stores, farmers markets) are located in the community, identify areas where residents have limited access to healthy food options, and consider the role of socio-economic characteristics that influence how and where a person or household purchases food.

Definition of Food Access: Ensuring that “healthy, high-quality, culturally appropriate options [are] available and affordable wherever people reach for food and drinks—in supermarkets, corner stores, restaurants, childcare centers, schools, after-school programs, healthcare facilities, and workplaces.” Linda Shak, Leslie Mikkelsen, and Sana Chehimi [*Recipes for Change: Healthy Food in Every Community*](#) (2010)

Policy tools and strategies for addressing the food access issues identified in this assessment are available in the University of Washington Northwest Center for Livable Communities’ *Food Access Planning and Policy Guide*. For consistency, this assessment uses the same definitions and refers the *Food Access Planning and Policy Guide* when appropriate.

This assessment looks at three general components of healthy food access:

- Location and types of food retailers
- Proximity of food retailers to residential areas and schools
- Socio-economics of food choice

At the end of this report, you will find recommendations for conducting additional analyses that go beyond the elements addressed in this baseline assessment.

Urban Food Link will work with City of Burien, SvR Design Company, the Northwest Center for Livable Communities, and Collins Woerman to review the key findings in this assessment to evaluate appropriate policy recommendations that allow for increased healthy food options.

A note about the maps:

The maps included in this report, with exception of Maps 1 and 2, were specifically developed for each of the King County cities that received a Communities Putting Prevention to Work (CPPW) Healthy Eating Active Living grant from Public Health – Seattle & King County (PHSKC). Due to data availability and limitations as well as the funding available for assessment, it is worth noting several points:

- Each of the CPPW-funded cities is receiving the same set of maps. Maps 3-6 are zoomed to the city level and Maps 7-8 are provided at the county level.
- Food retailers were identified by the PHSKC public health permit database from March 2011. This database was then cross-referenced with the state Department of Social and Health Services' database of establishments accepting food stamps. Businesses were then categorized by type of food retailer. Food retailer definitions are based on classifications by the U.S. Department of Agriculture's (USDA's) Food and Nutrition Service, the federal agency overseeing the Supplemental Nutrition Assistant Program (SNAP), commonly known as the food stamp program.
- In accordance with research done by the Seattle Children's Research Institute, "fast food restaurant" is defined as an establishment in which food is paid for before it is served and there is no waiter service. Fast food restaurants were identified by locating known national or regional chains and by conducting online research to identify local, independently-owned fast food restaurants.
- The maps display supermarkets for all of King County; however, other food retailers (i.e. convenience stores, small grocery stores) are provided only at the city level due to the extensive data processing required.
- The American Community Survey 2009 and 2010 U.S. Census data will be released in the coming months (Summer 2011). Maps such as Map 6 should be updated to provide a more accurate portrayal of the community demographics and its relation to the food landscape. The assessment provides recommendations of socio-economic characteristics that are commonly associated with food insecurity and access.

The maps will be provided to the cities as jpps and pdfs. Each city will also receive the data used in the assessment so they can make modifications and do further analysis. Urban Food Link and SvR Design will work with each city determine an appropriate timeline for providing the data.

Maps provided for each city include:

Map #	Title
1	Adult Obesity by Health Planning Area, King County, Washington, 5-year Average, 1994-1998
2	Adult Obesity by Health Planning Area, King County, Washington, 5-year Average, 2004-2008
3	Location of Food Retailers and Current Land Use
4	Proximity to Supermarkets (¼, ½ and 1 mile walking distances)
5	Poverty Rates and Location of Food Retailers
6	Proximity of Schools to Food Retailers (¼ and ½ mile walking distances)
7	# of SNAP (food stamp) Recipients in 2008 by Census Tract in King County, Washington
8	# of WIC Clients in June 2010 by Zip Code and WIC Authorized Retailers in King County, WA

Key Findings of Burien's Food Landscape

This assessment of the social, economic and physical dimensions of the Burien's food landscape reveals several key findings:

- **Burien's adult (18 years and older) obesity rate is 18.8%, and 59.4% are either overweight or obese.** These figures are comparable to King County's rates of 19.8% and 59.4%. (Behavioral Risk Factor Surveillance System; Public Health—Seattle & King County (2004-2008).
- **Over three quarters of the city's land base is more than one half mile from a supermarket.** Due to the current urban form, where retailers cluster along 1st Avenue Southwest and the downtown corridor, residents not living near these areas must travel more than one half mile to a supermarket from their home.
- **There are low-income areas in Burien that are not within feasible walking distance (i.e. more than one half mile) of a supermarket.** They include: the neighborhood directly south of Lake Burien, the multiple-family residential area along Ambaum Boulevard SW northwest of downtown, the area west of SR-509 and the area near the intersection of Ambaum and 168th Street S.
- **Low-income residential areas in recently annexed north Burien that are not within walking distance of a supermarket include:** north of 128th Street S between Ambaum and SR-509 and east of Des Moines Memorial Drive between 128th Street S and 124th Street S.
- **There are two and one half times as many fast food restaurants and convenience stores** to the number of supermarkets, small grocery stores and produce vendors combined.
- Over one third of the city's fast food restaurants and nearly half of the convenience stores are **within one half mile of a school.**
- In 2008 there were **over 8,300 people residing in the census tracts located within, or partially within, Burien enrolled in SNAP**, the federal food stamp program. This number has likely increased with the economic downturn of the past several years.



As demonstrated in the maps that follow, the city's built environment—the physical form of the city which includes the street and land use patterns—influences where food resources are located and how residents are able to access them. As a result, some people can more easily access healthy food, while other people are required to travel further by foot, bike, bus or car to reach food, particularly fresh food. The key findings above and the supporting information that follows in this assessment can help to guide community members and decision makers, grounding the development of policy that seeks to address these issues.

Health in the City of Burien and King County

While our health is influenced by personal decisions, it is also shaped by the places we live, work and play. Unfortunately, not all King County residents have the same food options available that allow them to make healthy choices. In some areas, the closest food retailers are convenience stores and fast foods that typically do not offer healthy foods. Or, the transit lines and sidewalks provide poor street connections between supermarkets and residential areas. In King County there has been an overall increase of obesity and chronic diseases in past decade; some areas in the county have had a higher increase than others.

When compared to the 15 most populous metropolitan counties, King County's health inequities are among the worst in the nation. According to Public Health—Seattle & King County:¹

- 54% of King County adults are overweight or obese, 20% are obese, and 5.4% have been diagnosed with diabetes.
- Diabetes prevalence and mortality rates for African Americans in King County are among the highest in the nation—the third highest diabetes rate (12%) among the 15 largest U.S. metropolitan counties.
- 85% of adolescents in grades 8, 10, and 12 do not meet physical activity recommendations.
- Obesity is at least twice as high among high school students who are African American, American Indian/Alaska Native, Hispanic/Latino, or Native Hawaiian/Pacific Islander compared to white high school students.

According to the health planning area (HPA) in which Burien is located,² the adult (18 years and older) obesity rate is 18.8%, which is comparable to King County's obesity rate of 19.8%. In addition, 59.4% of adults are overweight or obese. Diabetes prevalence among adults over age of 18 is 5.6% (comparable to King County's overall rate of 5.4%). Maps 1 and 2 provide a comparison of adult obesity rates in King County from 1994-1998 to 2004-2008 averages.³

As noted in the *Food Access Planning and Policy Guide* and supported by national research, in communities where healthy food options like fresh fruits and vegetables are available, residents have better diets and lower rates of obesity and diet-related chronic disease. It is critical to understand where and what types of foods are available within a community in order to improve the options available to residents.

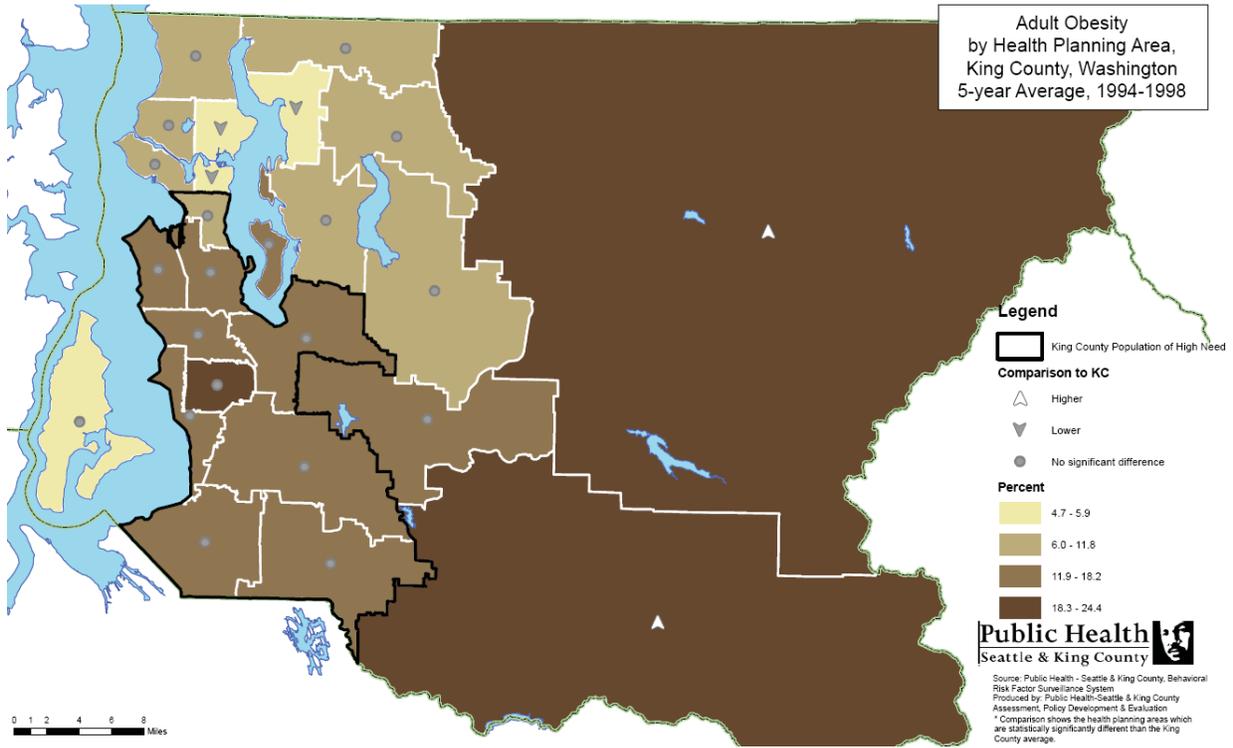
¹ Behavioral Risk Factor Surveillance System; Public Health—Seattle & King County (2004-2008). More countywide health data and maps are available at

<http://www.kingcounty.gov/healthservices/health/partnerships/cppw/kcprofile.aspx>

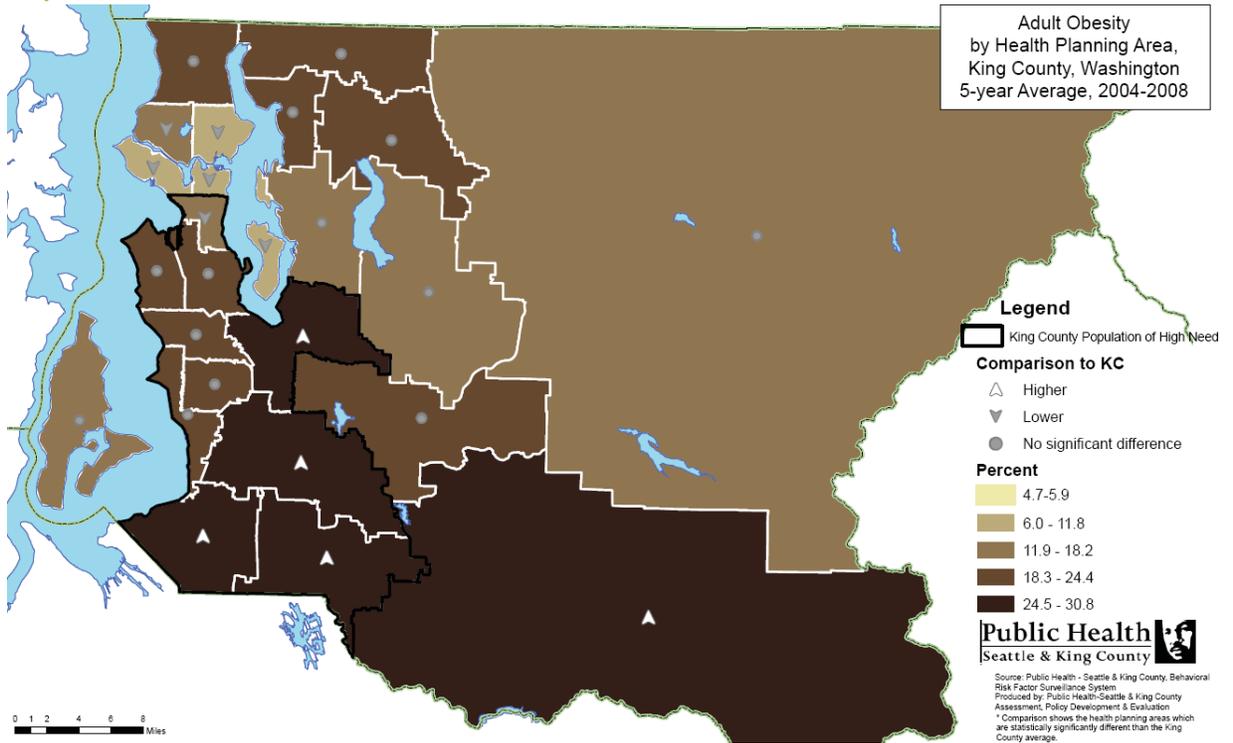
² Burien is in the Burien & Des Moines/Normandy Park health planning area (HPA).

³ Health planning areas (HPAs) geographic boundaries are comprised of one or more zip codes.

Map 1



Map 2



Locations and Types of Food Retailers

Residents' healthy food choices depend in part on the types and prevalence of food retailers in their community. In the City of Burien, there are the following types of food businesses:⁴

Business Type	#
Convenience stores	28
Farmers market	1
Fast food restaurants	36
Fruit and vegetable stand	2
Mobile vendors	16
Other food retail (e.g., drugstore, warehouse)	5
Restaurants ⁵	92
Small grocery ⁶	13
Specialty (i.e., bakery)	5
Supermarket	8

Map 3 displays the food retailers in the city where people can purchase food for their daily food intake. This category includes businesses in which people primarily purchase food, often to be prepared, to meet their daily food needs. It does not include sit-down restaurants.

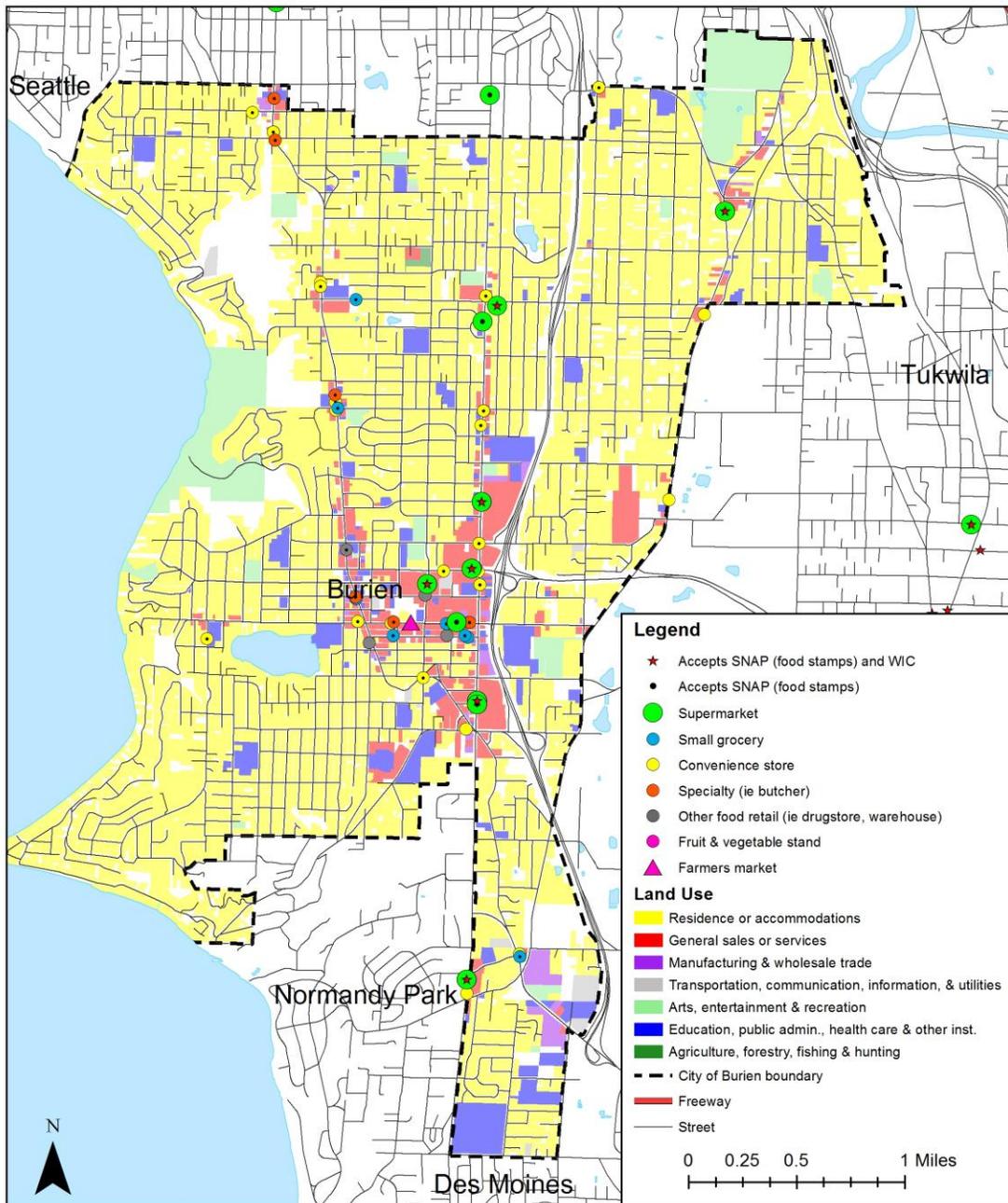
Over three quarters of the city's land base is more than one half mile from a supermarket. Food retailers in Burien are primarily located along 1st Avenue South and in the downtown area along 152nd Street Southwest. In addition to supermarkets clustered near the downtown area, there are several other food retailers such as specialty shops and small grocery stores serving ethnic communities. Food retailers along Ambaum Boulevard Southwest are mostly convenience stores and small grocery stores. There is also a supermarket (Boulevard Park Thriftway) located in the recently annexed area at Des Moines Memorial Drive and 120th Street South.

⁴ Based on establishments with a public health permit (Public Health – Seattle & King County; March 2011). See box "A note about the maps" on page 3.

⁵ Primarily businesses with waiter service but also includes coffee shops, ice cream shops, cafes, bars, taverns and eating establishments in hotels, casinos and clubs such as golf courses.

⁶ A small grocery store sells primarily staple foods and the annual foods sales are below \$2 million.

Location of Food Retailers and Current Land Use in Burien, WA*



Sources: City of Burien, Public Health- Seattle & King County, King County GIS Center, Washington State Dept. of Social and Health Services and Dept. of Health.

*Food retailers identified by public health permit database (March 2011) and DSHS food stamp retailer database (April 2011). Land use categories based on American Planning Association's Land Based Classification Standards for function.

Made possible by funding from the Department of Health and Human Services and Public Health - Seattle & King County.



While Map 3 shows the location of food retailers, it is also important to consider how much easier it is for residents to buy less healthy food options rather than healthy options. This important measure of food choice considers the ratio of food retailers that offer no, very minimal options of, fresh fruits, vegetables and other healthy foods compared to those retailers in which fruits and vegetables are readily available.

A Retail Food Environment Index (RFEI) compares the relative amount of these two categories by dividing the total number of fast food restaurants and convenience stores in an area by the total number of supermarkets, small grocery stores and produce vendors (produce stands and farmers markets) in that same area.⁷ The resulting number describes how much easier it is for residents to find and purchase food at retailers selling less healthy options than it is to do the same thing at retailers selling healthy food choices.

$$\text{RFEI} = \frac{\text{Fast food restaurants} + \text{Convenience stores}}{\text{Supermarkets} + \text{Grocery stores} + \text{Fruit/vegetable stands} + \text{Farmers markets}}$$

In the City of Burien there are over two and half times as many fast food restaurants and convenience stores to the number of supermarkets, small grocery stores and produce vendors combined. The calculation below shows there 64 establishments with very limited healthy options compared to 24 establishments that have healthy options available.

City of Burien RFEI = 2.67

$$\frac{36 \text{ Fast food restaurants} + 28 \text{ Convenience stores}}{8 \text{ Supermarkets} + 13 \text{ Grocery stores} + 2 \text{ Fruit/vegetable stands} + 1 \text{ Farmers markets}}$$

⁷ Businesses categorized according to public health permit classifications and USDA’s categorization of businesses accepting food stamps.

Proximity of Food Retailers to Residential Areas and Schools

The following set of maps show where food retailers are located in relation to residential areas, schools and other land uses. Map 4 shows areas that are within feasible walking distances from a supermarket; areas outside of the one half mile buffer are not considered to be within reasonable walking distance to supermarkets.⁸ Supermarkets (i.e., full service stores with annual food sales of more than \$2 million) were used as a proxy since they typically have a wide range of affordable and nutritious foods.⁹

Proximity of Food Retailers to Residential Areas

Proximity of where residents live to supermarkets alone to do not determine if an area has low food access. In recent years the term “food desert” has become an increasingly common way to describe areas that do not have easy access to supermarkets (i.e., within walking distance in cities or a reasonable driving distance in rural areas) *and* are in low-income communities.^{10,11} While Map 4 identifies areas within feasible walking distances from supermarkets, Map 5 then identifies low-income areas using 2000 U.S. Census data.¹² Areas that have higher poverty rates (as of 1999) and that fall outside of the one half mile buffer are considered areas with *low food access*. Since the 2010 U.S. Census and the recent American Community Survey data were not available at the time of this assessment, it is highly recommended that maps are updated to reflect the current state of the community.¹³

In Burien, supermarkets are located mainly along the 1st Avenue SW commercial corridor and downtown; therefore, the immediately adjacent residential areas can more easily

⁸ While some food desert studies have used one mile as a measure for feasible walking distance, we believe the distance is too far in considering the groceries one would carry from a store. The planning field often uses a 10 minute walk or quarter to half mile as a reasonable walking distance as acceptable. The buffer is determined by the street network rather than a Euclidean or “bird’s eye” distance from a supermarket.

⁹ Future mapping analysis may consider other healthy retail options such as small grocery stores, farmers markets and produce stands.

¹⁰ Sarah Treuhaft and Allison Karpyn. *Grocery Gap: Who has Access to Healthy Food and Why it Matters*. Policylink and The Food Trust, 2010. Available at:

<http://www.policylink.org/site/apps/nlnet/content2.aspx?c=IkIXLbMNJrE&b=5136581&ct=8079863>.

¹¹ USDA Economic Research Service. *Access to Affordable and Nutritious Food—Measuring and Understanding Food Deserts and Their Consequences: Report to Congress*. Washington, DC: U.S. Department of Agriculture, 2009. Available at: <http://www.ers.usda.gov/Publications/AP/AP036/>.

¹² Various measures have been used to define low-income areas in food desert studies. The USDA uses a poverty rate of 40 percent or higher of an area with people living below 200% of the federal poverty level. The federal Healthy Food Finance Initiative, a partnership between the Treasury Department, Health and Human Services, and the USDA, uses 20% or above. Available at <http://www.ers.usda.gov/data/fooddesert/about.html#Defined>.

¹³ In addition to poverty rates, population density should be considered to determine “low access” areas. While some areas may have high poverty rates, there may be areas with low population density (e.g. industrial areas and airports) in which identifying the area as “low access” would be misleading. The Healthy Food Finance Initiative applies the following density measure for a community to qualify as “low access:” at least 500 people and/or at least 33 percent of the census tract’s population must reside more than one mile from a supermarket or large grocery store (for rural census tracts, the distance is more than 10 miles).

access fresh foods available at supermarkets. **There are several low-income areas in Burien that are not within feasible walking distance (i.e. more than one half mile) of a supermarket.** They include: the neighborhood directly south of Lake Burien, the multiple-family residential area along Ambaum Boulevard Southwest northwest of downtown, the area east of SR-509 and the area near the intersection of Ambaum and 168th Street South. The closest food sources for these communities are convenience stores and/or fast food restaurants. In recent annexed area of North Burien, there are several residential areas north of 128th Street South between Ambaum and SR-509 that also had higher poverty rates (20-39%) in 1999. The neighborhood east of Des Moines Memorial Drive between 128th Street South and 124th Street South had even higher poverty rates (above 40%), and are located more than one half mile from a supermarket.

This initial analysis focuses on the more common factors that impact residents' access to food and does not consider vehicle ownership, public transit availability, geography (e.g., hills), street/sidewalk network and conditions, and other healthy food resources that influences a person's physical access to healthy foods.

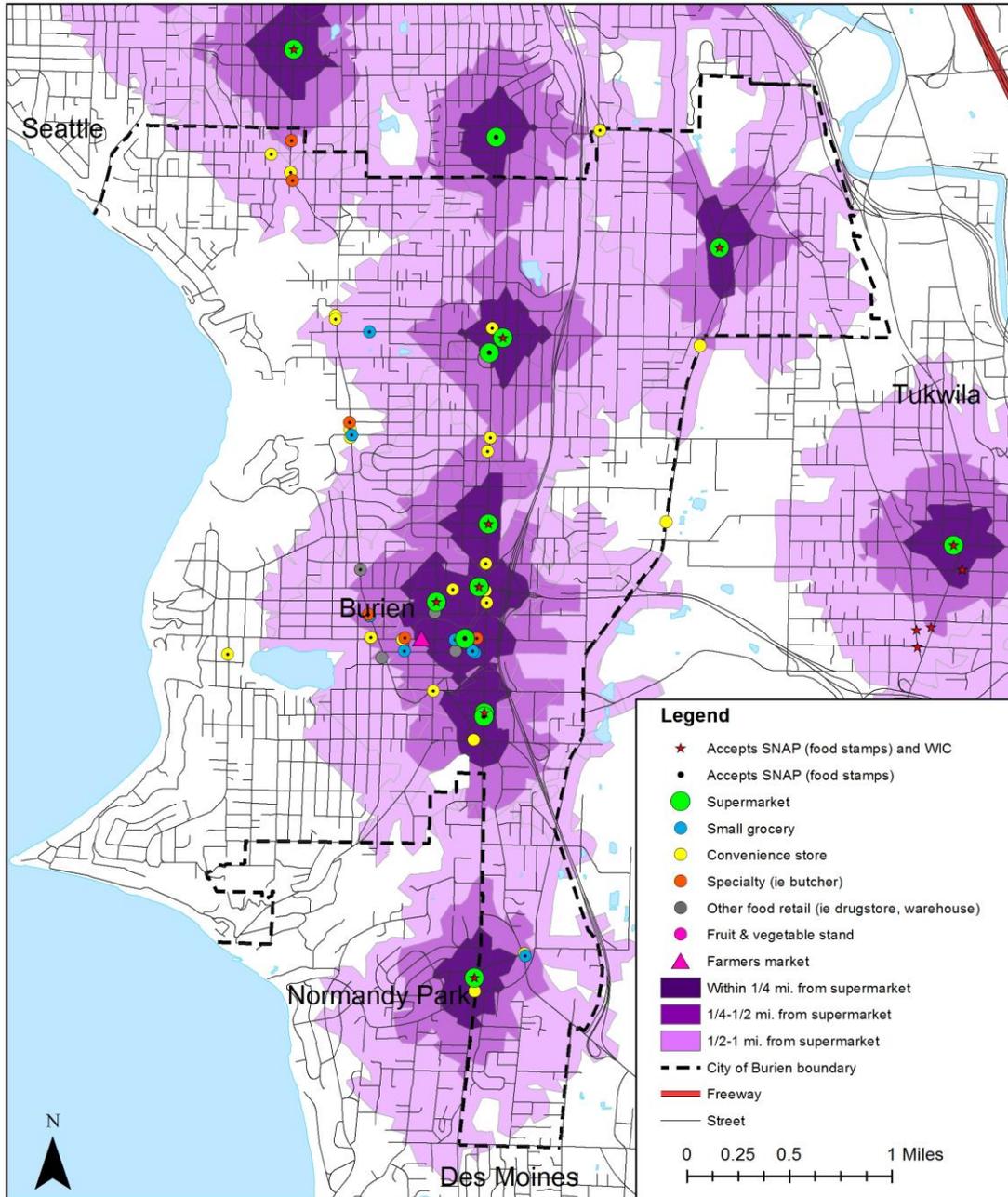
Proximity of Food Retailers to Schools

In Map 6, a one half mile buffer was used around schools to identify areas where convenience stores and fast food restaurants are within walking distances of schools. When located within a few blocks of schools, these types of food retailers, who sell a larger proportion of low-nutrient foods, may contribute significantly to poor snacking and overall energy and caloric intake of youth.¹⁴

In Burien there are three fast food restaurants and one convenience store located within a quarter mile of a school. When the distance is increased to a half mile, **there are fifteen fast food restaurants and thirteen convenience stores, primarily by Highline High School and JFK High School.** This is over one third of fast food restaurants and nearly half of the convenience stores located within the city.

¹⁴ Kelley E. Borradaile, Sandy Sherman, Stephanie S. Vander Veur, Tara McCoy, Brianna Sandoval, Joan Nachmani, Allison Karpyn, and Gary D. Foster. [*Snacking in Children: The Role of Urban Corner Stores.*](#) Pediatrics (2009) 124: 1293-1298.

Proximity to Supermarkets in Burien, WA



Sources: Public Health- Seattle & King County, King County GIS Center, Washington State Dept. of Social and Health Services and Dept. of Health.

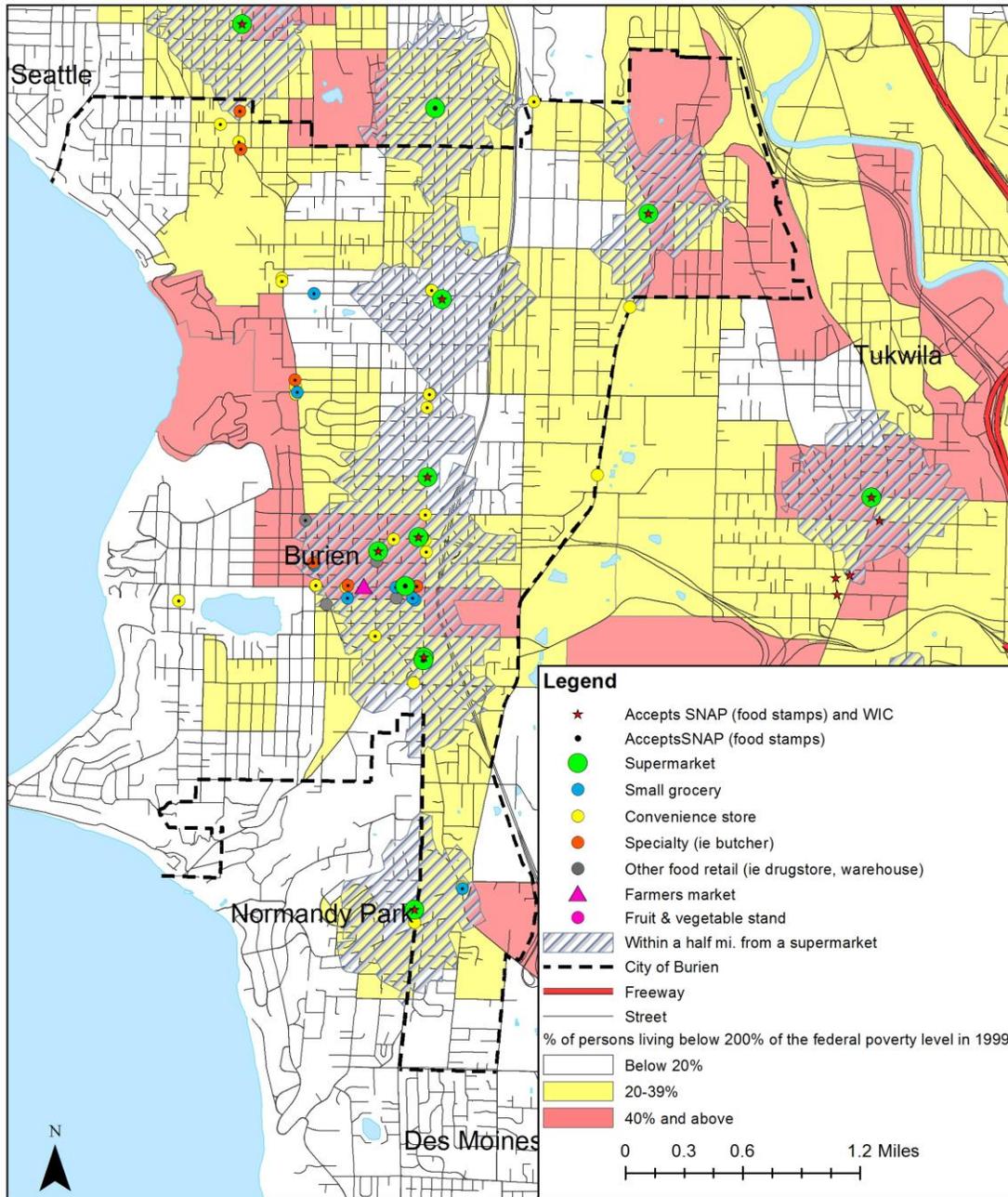
*Food retailers identified by public health permit database (March 2011) and DSHS food stamp retailer database (April 2011). Land use categories based on American Planning Association's Land Based Classification Standards for function.

Made possible by funding from the Department of Health and Human Services and Public Health - Seattle & King County.



Map 5

Poverty Rates (in 1999) and Food Retailers to Schools in Burien, WA



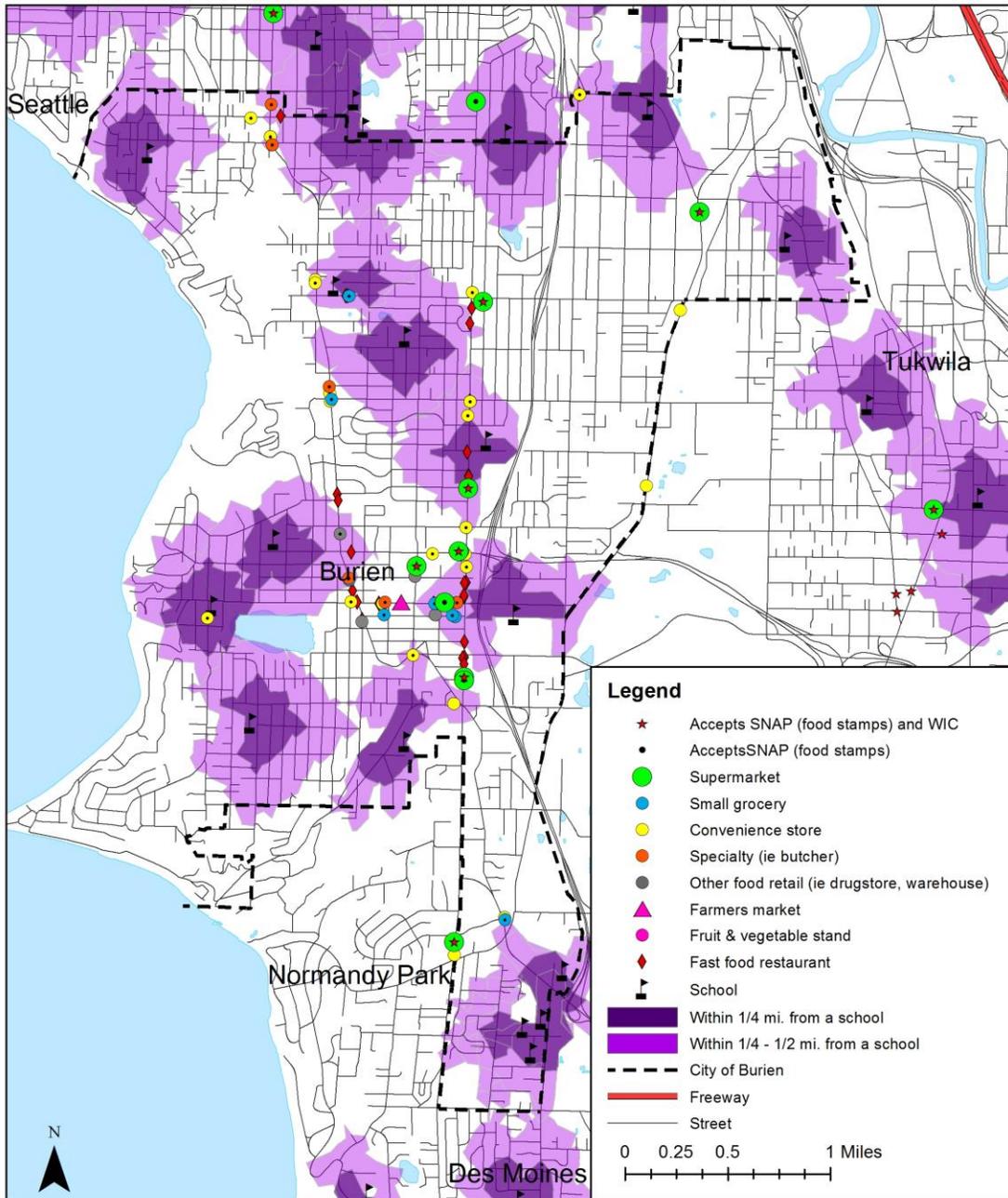
Sources: Public Health - Seattle & King County, King County GIS Center, U.S. Census 2000, Washington State Dept. of Social and Health Services and Dept. of Health.

*Food retailers identified by public health permit database (March 2011) and DSHS food stamp retailer database (April 2011).

Made possible by funding from the Department of Health and Human Services and Public Health - Seattle & King County.



Proximity of Food Retailers to Schools in Burien, WA



Sources: Public Health- Seattle & King County, King County GIS Center, Washington State Dept. of Social and Health Services and Dept. of Health.

*Food retailers identified by public health permit database (March 2011) and DSHS food stamp retailer database (April 2011).

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Economics of Food

Another factor influencing healthy food access is the cost and/or affordability of food. In King County, many households report that they experience a lack of access at all times to enough food for all household members to lead an active, healthy life, referred to as *food insecurity*.¹⁵ In King County, approximately 13.4% of residents are food insecure (the state rate is 14.8% and the national rate is 16.6%) and the average cost of a meal is \$2.77 (the state rate is \$2.59 and the national rate is \$2.54).^{16,17}

There are two federal food assistance programs available to assist individuals and households who are food insecure. The Supplemental Nutrition Assistance Program (SNAP, commonly referred to as food stamps) and the Women, Infants, and Children (WIC) program assist low-income families and their children to purchase food through an electronic benefits transfer (EBT) card or a WIC check. Stores licensed to accept SNAP and WIC are reimbursed fully for customer purchases using these payment methods. **Currently there are 47 retailers in Burien licensed to accept food stamps and five authorized to accept WIC** (Maps 1-6 display locations that accept SNAP and WIC).¹⁸

In 2008 there were **over 8,300 people enrolled in the food stamp program (SNAP)** residing in the census tracts located within, or partially within, Burien (see Map 7).¹⁹ These numbers reflect only the number of resident enrolled in the federal food assistance programs and *not* total number of residents who may be eligible.

Food businesses' sales play an important role in a city's daily commerce. The variety and type of food establishments available in a jurisdiction could lead to potential sales, or leakage, spent outside of Burien. Food purchased for at-home and away from home consumption is a significant portion of Burien residents' annual expenditures. Based on 2002 Bureau of Labor Statistics Consumer Expenditure Surveys and 2000 U.S. Census data, the University of Wisconsin-Milwaukee's Employment and Training Institute (ETI) estimated that **residents spent 39% of their annual expenditures on food purchased for preparation, or "at home," and 15% on food away from home, or "eating out"** (see Table A).²⁰

¹⁵ M. Nord, M. Andrews, and S. Carlson, S. Household Food Security in the United States, 2006. Economic Research Report No. (ERR-49) (November 2007).

¹⁶ Map the Meal Gap, Feeding America (2011). Available at <http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx>.

¹⁷ The methodology for determining the cost of the meal is based on the USDA Thrifty Food Plan which outlines a "market basket" of food items meeting a person's basic dietary, nutritional needs for a week.

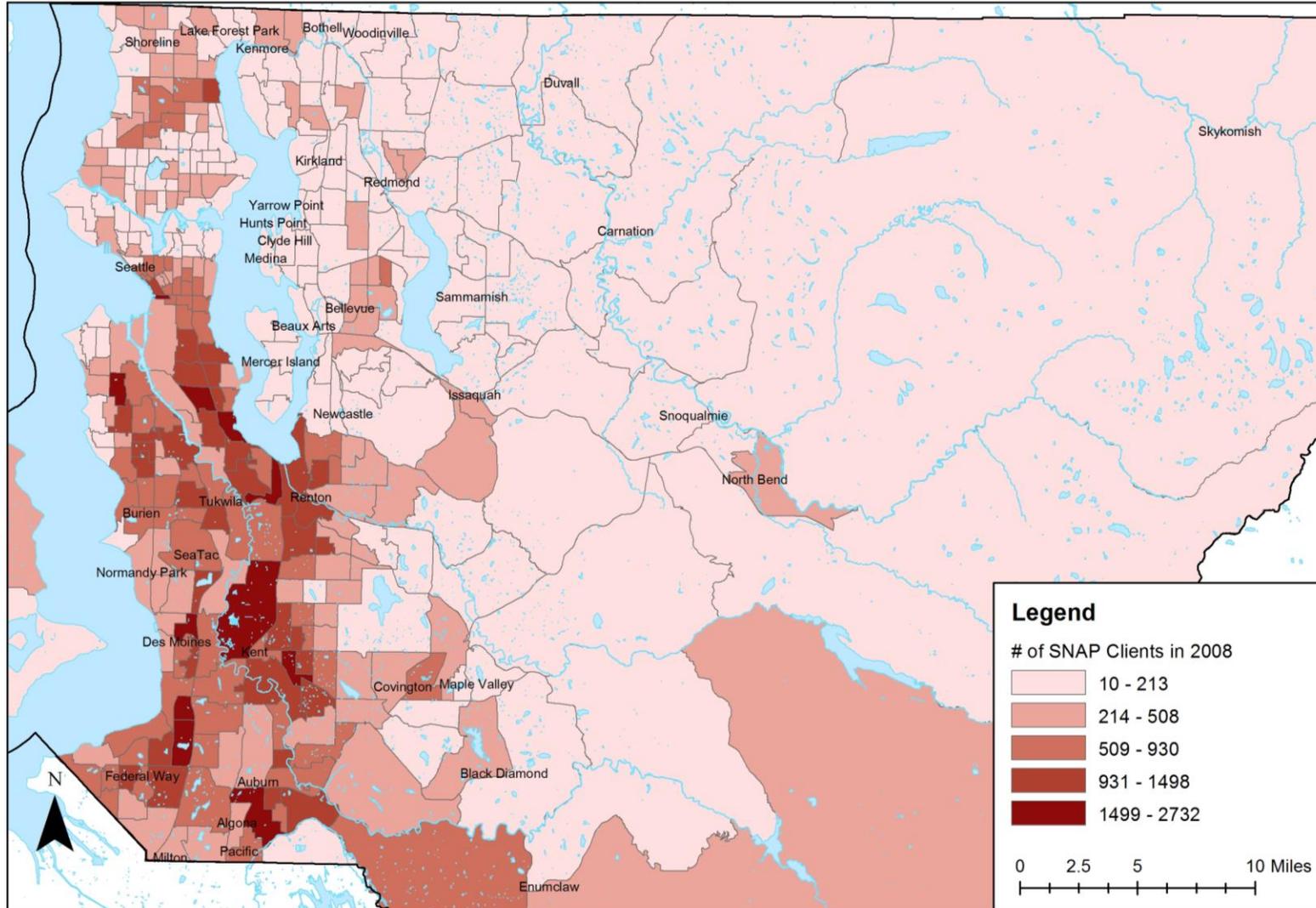
¹⁸ In February 2011 there were 175 WIC authorized retailers in King County.

¹⁹ Washington State Department of Social and Human Services (2008).

²⁰ ETI Purchasing Power Profiles have not been updated for more recent CEX or Census data. Available at <http://www4.uwm.edu/eti/PurchasingPower/purchasing.htm>.

Map 7

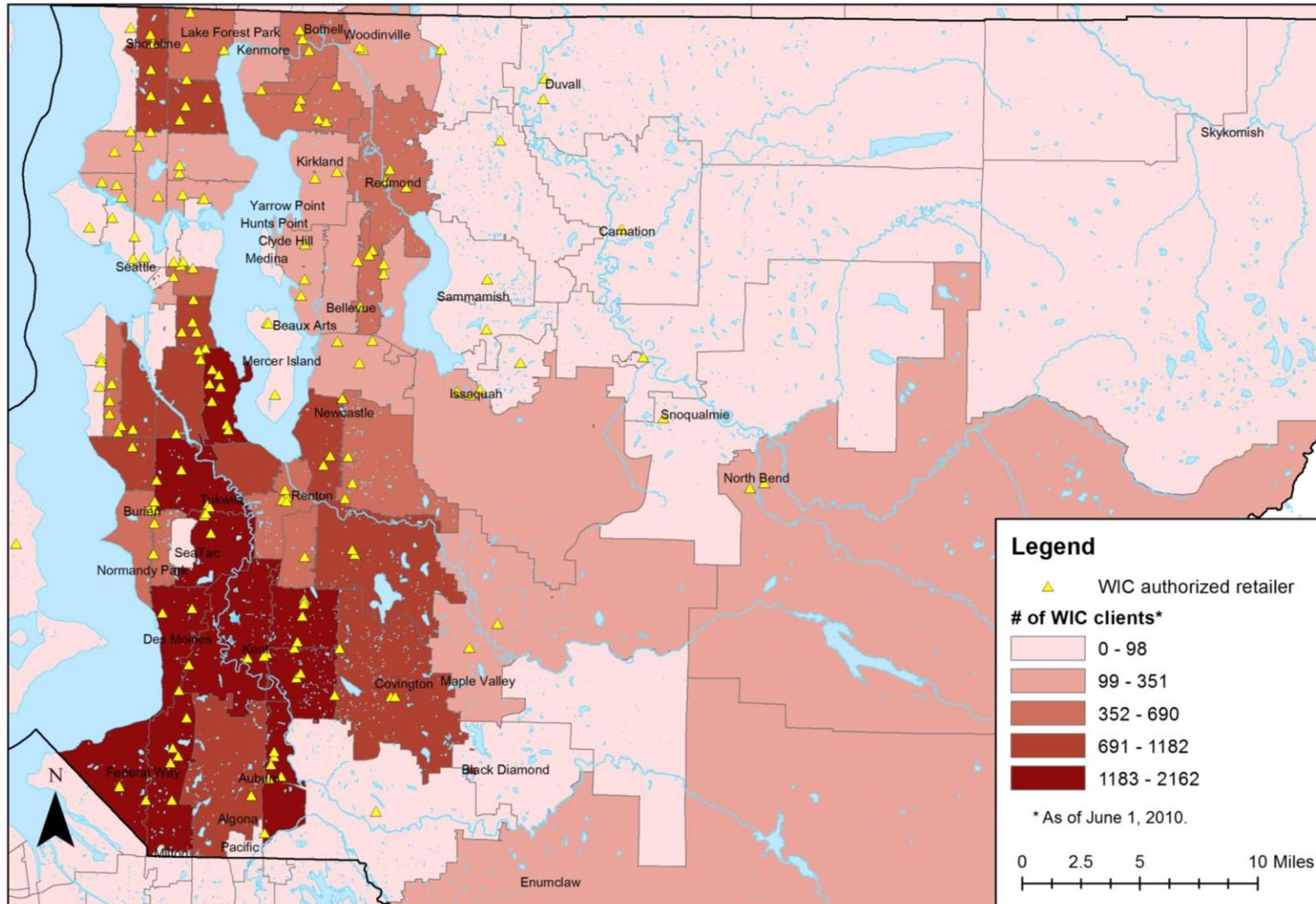
of SNAP (Food Stamp) Recipients by Census Tract in 2008 in King County, WA



Sources: Public Health- Seattle & King County, King County GIS Center, U.S. Census, Washington State Dept. of Social and Health Services.

Made possible by funding from the Department of Health and Human Services and Public Health - Seattle & King County.

of WIC Clients by Zipcode* and WIC Authorized Food Retailers in King County, WA



Sources: Public Health- Seattle & King County, King County GIS Center, U.S. Census, Washington State Dept. of Health.

Made possible by funding from the Department of Health and Human Services and Public Health - Seattle & King County.

URBAN FOODLINK Created May 2011 by Urban Food Link

Table A

Purchasing Profile for CPPW-Funded Cities²¹

City	Zip code	Population	Area	Food at Home			Food Away from Home			Total Purchasing Power (16 categories)	
				2000 Census	Square miles	Est. annual expenditures	Expenditures/ sq. mile	% of total purchasing power	Est. annual expenditures	Expenditures/ sq. mile	% of total purchasing power
Burien	98146	25,593	4.44	\$37,516,503	\$8,449,663	39%	\$14,287,685	\$3,217,947	15%	\$97,151,199	\$21,880,901
	98148	9,533	3.37	\$15,220,622	\$4,516,505	39%	\$5,790,756	\$1,718,325	15%	\$39,129,443	\$11,611,111
	98166	20,163	5.96	\$33,826,255	\$5,675,546	37%	\$13,928,035	\$2,336,919	15%	\$91,273,215	\$15,314,298
	98168	30,412	9.03	\$42,723,806	\$4,731,318	40%	\$15,598,990	\$1,727,463	14%	\$107,835,916	\$11,941,962
Des Moines	98148	9,533	3.37	\$15,220,622	\$4,516,505	39%	\$5,790,756	\$1,718,325	15%	\$39,129,443	\$11,611,111
	98198	33,807	7.44	\$48,648,760	\$6,538,812	38%	\$18,877,289	\$2,537,270	15%	\$126,915,139	\$17,058,486
Federal Way	98001	25,495	17.95	\$38,344,502	\$2,136,184	38%	\$15,249,252	\$849,541	15%	\$102,119,010	\$5,689,081
	98003	42,614	12	\$64,403,278	\$5,366,940	39%	\$24,115,554	\$2,009,630	15%	\$164,772,204	\$13,731,017
	98023	47,500	10.25	\$72,871,405	\$7,109,405	38%	\$29,133,645	\$2,842,307	15%	\$194,298,655	\$18,955,966
Kent	98030	n/a									
	98031	64,181	15.59	\$95,590,697	\$6,131,539	39%	\$36,236,945	\$2,324,371	15%	\$247,974,534	\$15,906,000
	98032	28,756	16.65	\$43,898,692	\$2,636,558	39%	\$16,890,879	\$1,014,467	15%	\$113,190,480	\$6,798,227
	98042	38,249	30.71	\$58,563,148	\$1,906,973	37%	\$23,774,806	\$774,171	15%	\$158,181,919	\$5,150,828
Redmond	98052	50,138	18.81	\$87,221,301	\$4,636,964	35%	\$40,849,766	\$2,171,705	16%	\$249,802,412	\$13,280,298
	98053	31,050	32.37	\$53,110,371	\$1,640,728	35%	\$24,330,606	\$751,641	16%	\$153,326,918	\$4,736,698
	98074	n/a									
SeaTac	98148	9,533	3.37	\$15,220,622	\$4,516,505	39%	\$5,790,756	\$1,718,325	15%	\$39,129,443	\$11,611,111
	98158	n/a									
	98168	30,412	9.03	\$42,723,806	\$4,731,318	40%	\$15,598,990	\$1,727,463	14%	\$107,835,916	\$11,941,962
	98188	22,269	9.79	\$34,856,863	\$3,560,456	39%	\$13,305,681	\$1,359,109	15%	\$89,541,575	\$9,146,228
	98198	33,807	7.44	\$48,648,760	\$6,538,812	38%	\$18,877,289	\$2,537,270	15%	\$126,915,139	\$17,058,486
Snoqualmie	98065	3,710	21.25	\$6,001,740	\$282,435	37%	\$2,472,552	\$116,355	15%	\$16,282,867	\$766,253

²¹ University of Wisconsin-Milwaukee Employment and Training Institute, 2004. Available at <http://www4.uwm.edu/eti/PurchasingPower/purchasing.htm>.

Additional Analysis

This report provides an initial analysis of the existing food landscape in the City of Burien by looking at the social, economic, and physical dimensions of the City's food landscape and focusing on those common factors that impact residents' access to healthy food. Each city is unique and has different community needs and interests, data availability and staff capacity; therefore, each city may want to investigate other elements of healthy food access for a more in-depth analysis. Additional GIS analysis related to the food landscape may include, but are not limited to:

- **Transit support of the food landscape:** Transit lines, schedules and location of bus stops showing the accessibility and connectivity of public transit to and from food retailers to where people live and work.
- **Physical barriers in the food landscape:** Geography and land uses showing steep hills, waterways, bridges, highways and large land tracts (e.g., airports) that create additional physical access barriers.
- **Opportunities to improve the food landscape:** Community food resources such as community gardens, schools gardens, publicly-owned vacant land (for potential community garden sites), urban farm sites, food banks, soup kitchens and nutrition education programs in which people access and/or learn about healthy food.
- **Socio-economic conditions of people living within the food landscape:** Characteristics such as income, ethnicity, vehicle ownership, employment, and education have been shown to influence food security and access in communities. Further analysis of data available by the University of Wisconsin-Milwaukee Employment and Training Institute may reveal retail sales leakage (neighborhoods are underserved by retail establishments or where residents purchase many of their goods outside the neighborhoods) or surplus. Understanding spending habits of residents by their household size, type, and income levels will be particularly helpful in determining appropriate strategies to support existing food retailers or attract new food retailers.
- **Policies to support the food landscape:** Reviewing local policy and regulatory framework (e.g., food policy councils, food charters, school food policy, local plan-making, zoning regulations, design regulations and other standards) will likely help understanding any land-use related gaps and barriers identified in the assessment.²²

²² The *Food Access Policy and Planning Guide* provides recommendations for elements to consider when undertaking a policy scan.

GIS Data Sources

Data	Details Available	Source
% of persons living below 200% federal poverty level	2000 Census data by block group	U.S. Census Bureau
Farmers markets	Days and hours in operation	King County Department of Natural Resources & Parks (2010)
Food retailers with public health permits	Type of health permit (i.e., grocery, meat/seafood, etc.)	Public Health—Seattle & King County (March 2011)
Food retailers accepting food stamps	Includes business type categorization	WA Dept. of Social and Health Services (April 2011)
Food retailers accepting WIC checks		WA Dept. of Health (February 2011)
Health Planning Areas (HPAs)	Health risk data at the HPA level: <ul style="list-style-type: none"> • Diabetes prevalence • Percent overweight and obese (adult age only) 	Public Health—Seattle & King County (2008)
Land use	Coded according to American Planning Association's Land-Based Classification Standards	City of Burien
School sites	Public and private Level (e.g., elementary)	King County GIS
Street network		King County GIS
SNAP client count	Number of SNAP clients (i.e., food stamp) by census tract in 2008	WA Dept. of Social and Health Services (2008)
WIC client count	Number of WIC clients by ZIP code as June 1, 2010	WA Dept. of Health (2010)