

Exploring Food Options in South (South Central) Los Angeles

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Abstract

One of the goals of the Community Nutrition Education Services, Inc (CNESINC) is to perform surveys of grocery stores to determine the availability of fresh fruits, fresh vegetables, dairy products, and staple foods for community residents. This exploration was undertaken to establish baseline information in Los Angeles County's Service Planning Area 6 (SPA 6). The specific aim of the project was to determine the number of stores in the specified neighborhood that sold both fresh carrots and oranges. These produce items were chosen because of year-round availability, high nutrient density, economical cost, and typically eaten by community residents.

In the 'mystery shopper' survey of 109 stores in SPA 6, the most striking issue was the decaying, inedible fruits and vegetables on display at 7 stores (15%). Twenty three (21%) of stores surveyed sold the targeted produce. In the follow-up 'mystery shopper' survey of the 23 stores, 9 stores (39%) did not have prices at the point of purchase; 13 stores (57%) did not provide scales for weighing produce; 12(52%) did not accept WIC vouchers; and 13 stores (57%) did not routinely provide receipts at checkout.

In addition to the limited availability of targeted produce, there are some focal points for policy discussions.

Introduction

A report by Zenk et al. (2009) found that residents of low-income neighborhoods have less access to grocery stores and fresh produce than do residents of higher-income areas, and this difference may have a profound impact on health. Based on an analysis of 54 studies published between 1985 and 2008, the University of Minnesota researchers found that neighborhood differences of race, ethnicity and income are primary determinants of health disparities and access to healthy foods. For example, one study found that predominantly African-American neighborhoods had half the number of chain supermarkets as mostly white neighborhoods, while Hispanic neighborhoods had one-third as many grocery stores as white neighborhoods. Three other studies found that obesity risk was lower among residents of neighborhoods with more supermarkets, with two of the studies suggesting a link between access to convenience stores and an

increased obesity risk. Another found that the likelihood that African Americans would meet fruit and vegetable consumption guidelines increased 32 percent with each additional grocery store located in their immediate neighborhood. Based on the analysis, the study authors note that neighborhood disparities in food access can influence residents' diets and obesity risk. To address the disparities, the report's lead author suggests that financial and other incentives be offered to encourage supermarkets to establish outlets in underserved neighborhoods.

One of the goals of the Community Nutrition Education Services, Inc (CNESINC) is to perform surveys of grocery stores to determine the availability of fresh fruits, fresh vegetables, dairy products, and staple foods for community residents. This report is not intended to be comprehensive in scope. It is an initial effort to establish a baseline by which to form an understanding of a specific geographical area. The specific aim was to determine the number of stores in the South Los Angeles neighborhoods that sold both fresh carrots and oranges. These specific produce items were chosen because of their year-round availability, high nutrient density (vitamins A, C, and dietary fiber), economical cost, and among the foods typically eaten by community residents.

Background

Map of South Los Angeles- Please see *Appendix A- 1* for an interpretation of the South (South Central) Los Angeles area (Baldamare, 1994). There does not seem to be any one specific geographical depiction of South (South Central) Los Angeles. The map presented represents a rendition of the area.

A review of newspaper articles that span a 21 year time period is presented to highlight trends relevant to the poverty level, changing demographics, the lack of quality grocery stores and healthy food options.

An article in the Los Angeles Weekly newspaper from 1988 (Cran et al.) noted that at the heart of South Central's [Los Angeles] problems is, quite simply, profound poverty. As many as 230,000 of the community's 630,000 residents-more than one of every three-live at or below the annual poverty threshold \$5,070 per individual or \$15,570 per family of six.

A Los Angeles Times newspaper report 2 years later (Tobar et al., 1990) noted that 45 square mile area of South Los Angeles has long been the heart and souls of the largest black community in the Western United States. But rising property values and gang violence are leading many black families to abandon the neighborhoods where they were born and raised. In the process, South Los Angeles has become one of California's fastest-growing Latino communities. The reporters stated that, "The transformation of South Los Angeles from a segregated black community to a Latino barrio can be both seen and heard." The reporters noted that the changes in demographics had been especially dramatic in South Central Los Angeles, the area bounded roughly by downtown, Crenshaw Boulevard, Imperial Highway and Alameda Street.

The Wave Newspaper (De Gruy, 2009) reported that for more than 20 years, South Los Angeles residents have had to deal with a steady decline of quality grocery stores and a lack of healthy food options. The newspaper reported that some advocates are optimistic that circumstances are changing.

Background data were gathered from Los Angeles County Bilbrew Library’s Black Resources Center and the archives of the Southern California Library for Social Studies and Research. CNES Inc extends our gratitude to the personnel at the 2 organizations for their cooperation and guidance in this effort.

Demographics of South Los Angeles

The Los Angeles County Department of Health divides the county into Service Planning Areas (SPAs). The zipcodes that were included in this study were located within SPA 6(South). In each of the 5 zip codes (Table I), the largest population group is that of Latino persons.

**Table 1: Race/Ethnic Groups
Los Angeles County Service Planning Areas, 2000. SPA 6, South (zipcodes of interest)**

Persons

Zip code*	African American	American Indian	Asian Pacific	Latino	White	2 or more races	Other	Total
90003	18,356	68	152	38,647	481	364	119	58,187
90007	5,561	91	4779	26,199	7,250	959	182	45,021
90011	12,800	155	453	86,291	1,012	381	122	101,214
90037	16,602	121	270	38,388	728	477	105	56,691
90044	39,055	160	382	45,764	993	769	213	87,366

Source: U.S. Census Bureau, 2000 Census Summary File 1.

*A zip code is listed under the community which has the largest portion of the Zipcode.

Key Indicators for Services Planning Areas (Target=SPA 6, South).

Service Planning Area 6: Selected Data from Key Indicators of Health by Service Planning Area, June 20009

In Table 2.1, the poverty-percentage of population with household incomes less than 100% of Federal Poverty Level for SPA 6(South) was among the highest data reported for Los Angeles County at 28.3% for SPA6.

Table 2.1 Demographics: Poverty-percentage of population with household incomes less than 100% of Federal Poverty Level

National	L.A. County	ValleyAntelope	San Fernando	San Gabriel	Metro	West	South	East	South Bay
12.5	16.0	18.0	12.0	12.4	23.8	10.3	28.3	14.0	14.7

Data for SPA6 (South) relevant to the ‘built environment’ indicated the lowest percentage (62.6%) of children 1-17 whose parents say that they can easily get to a park, playground, or other safe place to play.

Table 2.2 Built Environment: Percentage of children 1-17 whose parents say that they can easily get to a park, playground, or other safe place to play (Los Angeles County Health Survey, 2007).

National	L.A. County	ValleyAntelope	San Fernando	San Gabriel	Metro	West	South	East	South Bay
N/A	79.8	80.3	83.9	85.3	69.7	87.5	62.6	85.0	83.1

Data for SPA6 (South) relevant to the ‘built environment’ indicated that the lowest percentage (27.6%) of adults who rate the quality of the fresh fruits and vegetables where they shop as high

Table 2.3 Built Environment: Percentage of adults who rate the quality of the fresh fruits and vegetables where they shop as high (Los Angeles County Health Survey, 2007).

National	L.A. County	ValleyAntelope	San Fernando	San Gabriel	Metro	West	South	East	South Bay
N/A	36.0	36.7	40.4	30.9	36.1	51.6	27.6	30.6	38.3

Data for SPA6 relevant to the ‘health –related quality of life’ indicated that the highest percentage (27.1%) of adults reporting their health to be fair or poor .

Table 2.4 Health- Related Quality of Life. Percentage of adults reporting their health to be fair or poor (Los Angeles County Health Survey, 2007).

National	L.A. County	ValleyAntelope	San Fernando	San Gabriel	Metro	West	South	East	South Bay
13.3	18.5	16.0	15.8	19.4	22.8	7.4	27.1	19.1	17.4

Table 3 describes trends in the key indicators with 95% confidence intervals(CIs) in Service Planning Area 6(South) for the 2005-2007 time period. The 95% CIs represent the variability in the estimate due to sampling; the actual prevalence in the population, 95 out of 100 times, samples, would fall within the range provided. There was a downward trend for adults who were obese (14.1 % vs.10.0%) ; an upward trend for adults who consumed 5+ servings of fruits and vegetables a day (19.4% vs.22.7%) and a slightly downward trend of children grades 5,7 and 8 who are obese(29.0 % vs. 28.9 %). Adults diagnosed with hypertension remained at 29%. There were upward trends for both adults ever diagnosed with high cholesterol (18.3% vs.25.5%) and adults ever diagnosed with diabetes (4.5% vs.4.8%). A downward trend was noted for adults who obtained the recommended amount of exercise each week (61.9% vs.57.3 %).

Table 3: Trend Data: LA County Key Indicators of Health 2009 for SPA 6 (South)
Year(s), percentage (95% confidence interval)

	1997	1999	2002- 2003	2005	2007
Adults ever diagnosed w/hypertension	22.1 (8.9- 5.3)	20.1 (16.8-23.4)	25.1 (21.7-28.6)	29.0 (25.2-32.8)	29.0 (24.3-33.6)
Adults ever diagnosed w/high cholesterol	N/A	11.0 (8.6-13.4)	N/A	18.3 (15.4-21.2)	25.5 (21.0-29.9)
Adults who are obese	8.5 (6.2-10.8)	10.9 (8.0-13.8)	10.3 (7.7-12.9)	14.1 (10.1-18.1)	10.0 (7.0-13.0)
Children grades 5,7,&8 who are obese	N/A	23.0	26.8	29.0	28.9
Adults who	N/A	N/A	56.3	61.9	57.3

obtain recommended amount of exercise each week			(52.0-66.6)	(57.4-66.5)	(51.7-63.0)
Adults ever diagnosed w/ diabetes	4.8 (3.0-6.5)	4.7 (2.9-6.6)	4.1 (2.5-5.7)	4.5 (2.8-6.1)	4.8(3.1-6.5)
Adults who consume 5+ servings of fruits and vegetables a day	N/A	13.2 (10.4-15.9)	17.8 (14.5-21.2)	19.4 (15.8-22.9)	22.7 (18.3-27.0)

Methodology:

The ‘mystery shopper technique’ was utilized. This direct observational method is one in which field workers assume the role of shoppers to collect structured data on the shopping experience as it relates to a certain product offered in the retail setting. The primary author of this paper has been specifically trained in observational skills and the use of detail checklist as a mystery shopper for food product recalls.

Phase 1: The initial mystery shopper visits occurred over 12 consecutive Sundays between February 8, 2009 and April 26, 2009.

- 56 stores in an approximate 3 square mile of the northern area of South Los Angeles (zip codes 9007, 90011 and 90037 were visited (Map A-2). There were 13 streets in the targeted area.
- 53 stores in an approximate 3 square mile of the southern area of South Los Angeles (zip codes 90044 and 90003) were visited (Map A- 3). There were 13 streets in the targeted area.
- 5 stores, as available, on each of the 13 streets noted on the maps (A-2 and A-3) were visited to determine if the 2 targeted produce of fresh carrots and fresh oranges were available. While looking inside of these stores, we were able to observe the cleanliness and overall organization of the store. There was also the opportunity to observe the environment surrounding these stores.

Phase 2: Based on the data from phase I, follow-up mystery shopping was completed on May 31, 2009.

- The mystery shopper visits involved returning to those stores that sold the 2 targeted produce items and purchasing that produce.
- In the 23 follow-up stores, the 5 components of the follow-up process of purchasing the specific produce included; (1) noting the availability of a scale to weight the produce, (2) price availability at the point of purchase, (3) costs per

pound of the targeted produce, (4) availability of receipts at checkout, and (5) whether Women Infant and Children (WIC) vouchers were accepted.

- Stores types are being defined as:
 - (a) National chain
 - (b) Local chain
 - (c) Sole independent food market providing a wide array of foods and products.
 - (d) Corner store(those not marketing a full array of food products/services)

Results:

A total of 109 stores were visited over 12 consecutive Sundays between February 8 and April 26, 2009. The percentage of stores with the specified produce was lowest in Zip code 90044 (1%).

Table 4: Summary of all stores (Phase I)

Location	# of Stores	Zip codes (# of stores)	Zip codes (# of stores/w specific produce)	Zip codes (<i>Store Type</i> w/specific produce)
Northern Area (see Map A-2)	56	9007 (5)	90007 (3)	90007 a(1),b(1),c(1)
		90011 (32)	90011 (6)	90011 c(4), d(2)
		90037 (19)	90037 (7)	90037 b(1),c(5),d(1)
Southern Area (see Map A-3)	53	90003 (36)	90003 (6)	90003 a(1),b(2),c(2),d(1)
		90044 (17)	90044 (1)	90044 d(1)

Stores types are being defined as: National chain (a), Local chain (b), Sole independent market(c); Corner store (d).

The information presented in Table 5 describes general observation (not exhaustive) made from notes after visiting the stores as a ‘mystery shopper.’ It is organized as a way of noting any unique and /or commonalities observed over the 12 Sundays time period.

- Each of the zip codes had a variety of national fast food chains
- 7 stores (among the corner and independent stores) had noticeable decaying fruits and vegetables
- Street vendors selling fruits were noted in at least 3 of the zip codes

- Each zip code had smaller family/ ethnic restaurants especially on the West- to East streets.
- Within the area, fresh fruits and vegetables were available even though in a limited variety especially for the fruits.
- There were canned vegetables sold including carrots, mixed vegetables, sweet potatoes, spinach and turnip greens. These canned vegetables are sources of both vitamins and dietary fiber. The primary concern related to nutrition and chronic diseases is the high sodium/salt and sugar content of the products . Fresh vegetables and depending on their salt content(frozen vegetables) would provide alternatives for people requiring a dietary change.

Table: 5 General Observations of the overall area (number of times recorded)

90003	90044	90007	90011	90037
National fast food chains (n=9)	National fast food chains (n=4)	National fast food chains (n=14)	National fast food chains (n=6)	National fast food chains (n=5)
Noted badly decaying fruits and vegetables in bins(n=2)	Noted badly decaying fruits and vegetables in bins(n=2)		Noted badly decaying fruits and vegetables in bins(n=3)	
		City of Los Angeles' new grocery store project	Farmers Market*	City of Los Angeles garden project
Citrus fruits for sale by street vendors (n=3)	Mangos, citrus fruits , tacos for sale by street vendors (n=2)		Variety of fruits for sale by street vendors (n=3)	
	WIC office	WIC Office		
	WIC only store	WIC only Store		WIC only store
-Restaurant selling both Soul Food and Mexican Food -Several small restaurants- Hispanic	Local hamburger chain	Local hamburger chain	Small ethnic restaurants- Hispanic	-Local hamburger chain -Small ethnic restaurants- Hispanic and Caribbean
Grilling meat on street (n=1)			Grilling meat on street (n=2)	

<p>-Marketing of produce-apples on display at entrance/ to store. -Frutas mural on outside store wall-no fruits inside the store-downsized. -Fast food store advertised “sweet tea” perhaps target marketing</p>			<p>Live poultry market/ butcher on duty</p>	
<p>Fresh vegetables= avocados, cabbage, carrots, tomatoes, potatoes, onions, bell peppers, variety of hot peppers, iceberg lettuce, sweet potatoes, zucchini, cilantro, tomatillos, plantains, radishes</p>	<p>Fresh vegetables= avocados, cucumber, cabbage, carrots, tomatoes, potatoes, onions, bell peppers, variety of hot peppers, tomatillos, plantains</p>	<p>Fresh vegetables = cilantro, carrots, tomatoes, iceberg lettuce</p>	<p>Fresh vegetables= tomatoes, carrots, onions, peppers, avocados</p>	<p>Fresh vegetables= peppers, tomatoes, potatoes, cabbage, carrots</p>
<p>Fresh fruits=oranges, pineapple, lemons, limes, bananas, grapefruit, coconut, apples</p>	<p>Fresh fruits= bananas, lemons, tangerines oranges</p>	<p>Fresh fruits= oranges, grapefruit, apples</p>	<p>Fresh fruits= bananas, oranges</p>	<p>Fresh fruits= bananas, oranges</p>
<p>Canned vegetables= mixed vegetables, mustard greens, turnip greens, sweet potatoes , hominy, corn</p>	<p>Canned vegetables= mixed vegetables, sweet potatoes potatoes, yams, carrots</p>		<p>Canned vegetables= carrots/green peas, sweet potatoes, spinach, mixed vegetables,</p>	<p>Canned vegetables= spinach, mixed vegetables</p>

hot peppers potatoes, yams, tomatoes, carrots,			sweet potatoes, carrots	
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* There are a total of 3 Farmers markets in the South Central Los Angeles area. These remaining 2 are in zip codes 90002 and 90008.

Follow-up purchase procedures for specific produce

In the 23 follow-up stores, the 5 components of the follow-up process of purchasing the specific produce included noting the availability of a scale to weight the produce, prices at the point of purchase, costs per pound, availability of receipt and whether Women Infant and Children (WIC) vouchers were accepted.

Note: in a couple of instances, the specific produce observed during Phase I was not being sold at the time of the follow-up. 26% (n=6) of stores (including independent markets and corner stores) did not have scales.; 39% (9) of stores (including independent markets and corner stores) did not have prices at point of purchase); price for carrots ranged from 27cents per pound(corner store) to 88 cents pound(national chain near major university); prices for oranges ranged from 25 cents per pound (corner stores) to \$1.68 per pound (national chain near a major university); 57% (n=13) of stores did not provided a receipt upon request (including independent markets and corner stores); and 52%(n= 12) did not accept WIC vouchers(including independent markets and corner stores). Almost half (n=11) of the 23 stores did not sell liquor.

Table 6. Follow-Up-5-31-09 (Phase2)

Store Zip code	Scale (Y) (N)	Prices POP (Y) (N)	Cost 1 lb carrots	Cost 1lb Oranges	Receipt given (Y) (N)	WIC (Y)(N)
90007 (a) (L)	Y	Y	.88	1.68	Y	Y
90007 (c) (L)	Y	Y	3/1.00	.47	Upon request	Y
90007 (b) (L)	Y	Y	.33	.27	Y	Y
90037(c) (no-L)	Y	Y	.31	.33	Y	Y
90037 (b)(L)	Y	Y	.40	.31	Y	Y
90037 (d) (no L)	N	N	.50	.30	Upon request	N
90037 (c) (L)	Y	N	Not>	>available	Upon request	N
90037 (c)(L)	Y	N	.44	.49	Upon request	N
90037 (c) (no L)	Y	N	.55 for	.55*	Upon	N

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		(on oranges)	12 oz.		request	
90037 (c) (no L)	Y	Y	.27	.30	Y	Y
90011(d)(no L)	N	N	.69	.35	Upon request	N
90011(d)(L)	N	N	Not available	.49	Upon request	N
90011 (c) (L)	Y	N	.69	.55	Upon request	N
90011 (c) (no L)	Y	Y	.69	.54	Upon request	N
90011 (c) (no L)	Y	Y	.50	.41	Upon request(not itemized)	Y
90011 (c) (no L)	N	Y	.99	.59	Upon request	N Also did not accept food stamps
90003(a)(L)	Y**	Y	.38	.33	Y	Y
90003(b)(L)	Y=100# scale for oranges 4#/\$1.00- had to guess the weight	Y	.25	.35	Y	Y
90003(b)(L)	Y	Y	.29	1.29/3#	Y	Y
90003 (d)(no-L)	N	N	.75	.35	Upon request	N
90003 (c) (L) 90003	Y	Y	.60	.35	Y	Y
90003 (c) (no-L)	Y	Y	.50	.25	Y	N
90044(d)(no-L)	N	Some missing	.69	.50	Upon request	N

Y= yes; N=no. POP= point of purchase. Stores types are being defined as: (a) National chain, (b) Local chain, (c) Sole independent food market; (d) Corner store. L= liquor sold. *poor quality/decaying ** scale advanced about 2 ounces (noted as estimated rate on scale).

Discussion:

The aforementioned results are summarized:

- The Los Angeles County Department of Health divides the county into Service Planning Areas (SPAs). The zip codes that were included in this study were located within SPA 6(South). In each of the 5 zip codes, the largest population group is that of Latino persons
- Trend Data: LA County Key Indicators of Health 2009 for SPA 6 (South)**
between 2005 and 2007.
- There was a downward trend for adults who were obese (14.1 %-10.0%) ; an upward trend for adults who consumed 5+ servings of fruits and vegetables a day (19.4%-22.7%) and a slightly downward trend of children grades 5,7 and 8 who are obese(29.0 %-28.9 %)
 - Adults diagnosed with hypertension remained at 29%
 - There were upward trends for both adults ever diagnosed with high cholesterol (18.3%-25.5%) and adults ever diagnosed with diabetes (4.5%-4.8%). A downward trend was noted for adults who obtained the recommended amount of exercise each week (61.9%-57.3 %).
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- A total of 109 stores were visited over 12 consecutive Sundays between February 8 and April 26, 2009 to determine if fresh carrots and fresh oranges were sold. The percentage of stores with the specified produce was lowest in Zip code 90044 (1%)
 - The most striking issue was the decaying, inedible fruits and vegetables on display at 7 (15%) of the 109 stores
 - In the 23 follow-up stores, the 5 components of the follow-up process to purchase the specific produce included noting the availability of a scale to weight the produce, prices at the point of purchase, costs per pound, availability of receipt and whether Women Infant and Children (WIC) vouchers were accepted
 - In a couple of instances, the specific produce available during the initial mystery shoppers visits were not being sold at the time of the follow-up
 - 26% (n=6) of stores (including independent markets and corner stores) did not have scales at the point of purchase
 - 39% (9) of stores (including independent markets and corner stores) did not have prices at point of purchase
 - Price for fresh carrots ranged from 27cents per pound(corner store) to 88 cents pound(national chain near major university); prices for oranges ranged from 25 cents per pound (corner store) to \$1.68 per pound (national chain near a major university)

- 57% (n=13) of stores did not provide a receipt unless requested (including independent markets and corner stores)
- 52% (n= 12) did not accept WIC vouchers (including independent markets and corner stores).

Policy Issues: research and clarify:

- What are the requirements for scales for weighing produce in grocery stores?
- What are the requirements for receipts at point of purchase?
- What are the requirements for posting prices at point of purchase?
- What are the standards for stores accepting WIC vouchers?
- What are the standards for stores accepting food stamps?
- What are the requirements of 'use by dates' including carrots already bagged in 1# units and other fresh produce?

In addition to the low availability of targeted produce, there are policy concerns that seem to require further clarification. Based on this observational study, the availability of healthy food options for the more than 348,000 residents living within SPA 6 indicate the need for further exploration.

Commentary: Typical Foods-Latino

Elsa Ramirez Brisson, MPH, RD

Food has always intrigued me and ending up as a community based dietitian was not a surprise. What does surprise me is the lack of information on how Mexicans and Mexican Americans shop for food and eat at home. Immigrants find their way into food service jobs either in small restaurants or markets catering to a small sub-group in the community (Ayala, Laraia, Ornelas, & Kepka, 2006). Ayala's study showed that 60% of the "*tiendas*" (markets) had a small assortment of fruits and vegetables. It would be interesting to see a study that shows the distance and location of fruit stands or mobile fruit vendors in the community. Ayala also pointed out an observation that I have had and that is the high percentage of meals cooked and eaten from home. Trips to small markets were as frequent as twice a week. Many immigrant and less acculturated workers are paid weekly and therefore shop weekly at larger stores and supplementing with the neighborhood store during the week.

Collecting information about how Hispanics compare to the population was not possible until the 1990's. In 1988, research provided to the General Accounting office to justify the collection of more precise information was requested. The three dominant Hispanic groups in the United States were and remain: Mexican Americans, Puerto Ricans and Cubans. In 1988, Mexican Americans made up 59% of the population and were concentrated in Texas and California, Puerto Ricans made up 14% living in New York and New Jersey and Cubans primarily in Florida were 5.5% of the Hispanic population. At that time the Hispanic population was approximately 7% of the

population with expectation of growing to 9%. This report and other studies find that there is more intergroup differences in Hispanics than with non-Hispanic groups (General Accounting Office, 1988). Today, the Hispanic population has more than doubled from the 1980 census although the subgroups have remained stable. The Hispanic population has become more mobile and has moved northward into previously homogenous communities. Hispanic women shoppers' especially low income, receiving food stamps and renting vs. owning, shop with the price as a priority instead of health concerns. Often purchasing low cost sweetened beverages over seasonal fresh fruits and vegetables (Bowman, 2006).

Soup or sopas/caldos are the mainstay of Hispanic home cooking especially in Mexico, including seasonal vegetables, chile and tortillas made from corn (Block & Norris, 1995). Interventions that have shown that the reduction of fat can occur easily in this group most likely from using defatted broths for the soups and changing from whole milk products to lower fat ones (Patterson et al., 2003). Studies of various weight women found that activity more than calories are contributing to overweight (Boeckner, Pullen, Walker, & Hageman, 2006). No discussion can occur without mention of acculturation. The most common means of determining acculturation is the use of Spanish and English with those least acculturated using more Spanish and the most acculturated English only (Bermudez & Falcon, 2000). It is more complicated than the maintenance of language as Romero-Gwynn discusses in her theory of the circles of acculturation (Romero-Gwynn et al., 1993). Since 1996, NHANES has been oversampling Mexican Americans and adolescents, this rich data set should provide some new information about how Mexican Americans eat in the next decade. The NHANES acculturation questions include the country of birth for individuals 12 years and older (CDC, 2009). Salsa surpassed catsup as a condiment in the last two decades. How will that show up in national survey data? Will foods from Mexico become the new mainstream?

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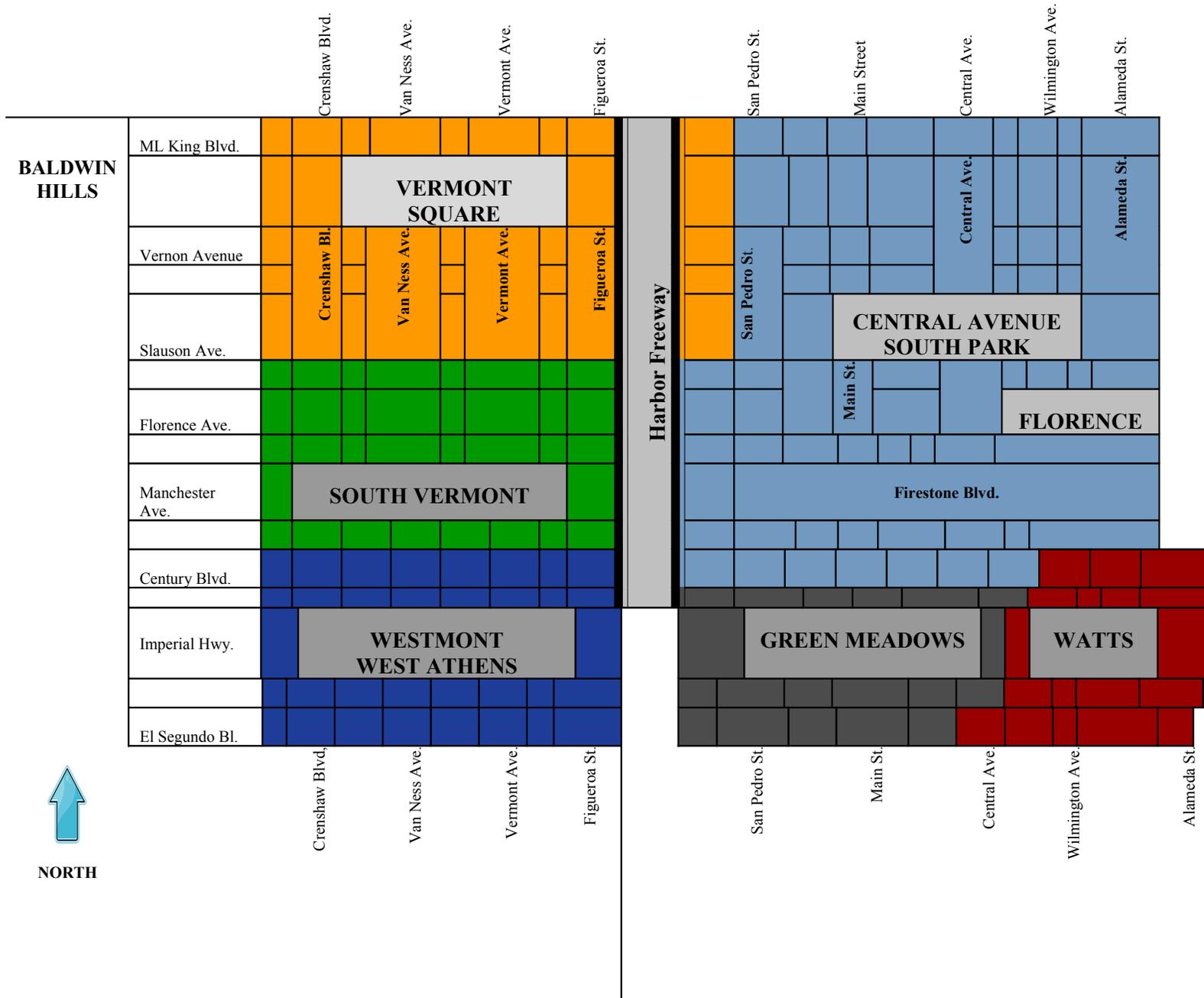
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Appendices

MAP A-1: Historical Overview of South (South Central) Los Angeles



Neighborhoods of South Central Los Angeles. From Marc Baldamare, ed., *The Los Angeles Riots: Lessons for the Urban Future* (Boulder, Colo.: Westview Press, 1994), 21.

MAP A-2: Zip codes=90007; 90011; 90037

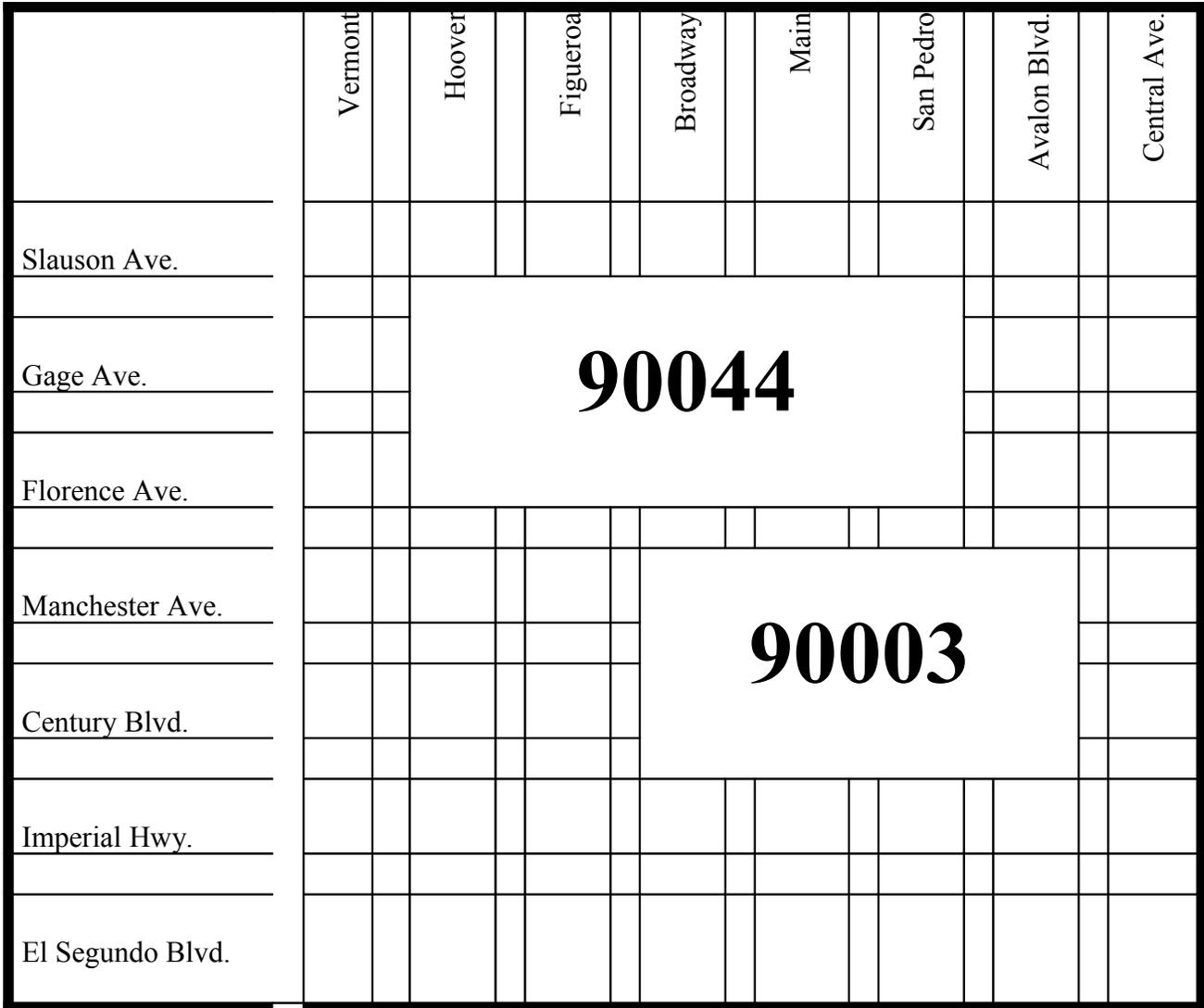
	Vermont	Hoover	Figueroa	Broadway	Main	San Pedro	Avalon Blvd.	Central Avenue
Adams		90007						
Jefferson								
King								
Vernon		90011						
54 th Street								
		90037						

Location of Zip Codes not to scale.



NORTH

MAP A- 3: Zip codes=90003, 90044



Location of Zip Codes not to scale.



NORTH

Community Nutrition Education Services, Inc.

end