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THE EXPANSION OF IN-N-OUT BURGER

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By

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ABSTRACT

THE EXPANSION OF IN-N-OUT BURGER

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In-N-Out Burger is a famous burger chain store in the Southwestern United States. This study analyzes the diffusion of In-N-Out Burger, from its origins in Baldwin Park, California in 1948 to over four Western states (California, Nevada, Arizona, and Utah) at the end of 2010. In-N-Out has become known for its unique business model, which separates it from better known competitors, like McDonald's The site location model used by In-N-Out has likewise differed greatly from the hierarchical diffusion model used by industry leader McDonald's. This analysis finds that In-N-Out Burger diffused in a largely contagious fashion. In-N-Out has also pursued a site location strategy that has favored sites close to major highways but far from other In-N-Out restaurants. In-N-Out also appears to favor locations with higher populations of white people, and neighborhoods with higher than average income.

Chapter 1

INTRODUCTION

1.1 The culture of fast food

"Food offers one of the oldest and most evocative systems of cultural identification; defining ethnic, regional, racial, and spiritual differences throughout America."

(Carney, 1995)

Fast food today is considered to be part of Western culture, or more precisely, American culture. For example, McDonald's has become one of the most famous fast food brands in the world. The "golden arches" are not only the trademark of the company, but they have also become a symbol of American culture. There are many kinds of fast food, such as pizza, tacos, fried chicken, hot dogs, pancakes, and some sandwiches. However, hamburgers are usually the first item that comes to people's mind when they think of fast food.

The history of fast food can be traced back to the early twentieth century. According to Jakle (1982), the development of fast food restaurants began in cafes or tearooms during the 1920s. Those shops, usually located near major highways, and operated by farm women, provided drinks and light meals to serve travelers. During the 1930s, many standardized food shops, called "diners," opened to serve factory workers and later

tourists on highways. These roadside stands became more popular and finally brought on a restaurant revolution. Howard Johnson was an early pioneer, combining a soda fountain and a dining room into a roadside restaurant format that become known as a "coffee shop." He opened 130 highway coffee shops, half of them franchised stores owned by local people in the 1940s. He built his stores with high visibility, and made them easy to recognize. Howard Johnson became the prototype for fast food stores. After World War II, as the American economy boomed, these roadside restaurants evolved into both drive-ins and outdoor walk-ups. Some featured both indoor and outdoor service for a diverse group of customers. During the 1950s, Howard Johnson's formula for success was copied by other enterprising restaurateurs, who in turn established America's most famous fast food chains, including McDonald's, Burger King, Kentucky Fried Chicken (KFC), and others.

Fast food restaurants are not just a convenient way to dine or hangout, but represent a range of business philosophies that are copied well beyond the fast food industry. Therefore a study of In-N-Out, a chain that is uniquely successful, may provide insight and guidance for other retail site location efforts. Business philosophies contain many criteria, for example, how they sell their product, how they distinguish themselves from others, or how they expand their markets. There are many different ways for fast food companies to boost income and cut costs. McDonald's, the most famous worldwide fast

food company, has a special sales method of combining their food with toys to attract children. The company earns more money from parents because the children want to collect a whole series of toys. KFC focus almost solely on chicken products. Only recently have they begun to offer grilled chicken, in addition to their traditional fried offering. Their limited product line makes them different from most other fast food companies, which offer a variety of types of meat, and a broad menu.

One of the most remarkable strategies in the fast food industry is franchising. It provides fast food companies with an opportunity to gain a larger share of the market. At the same time, franchising requires that companies relinquish some control over the individual stores operated by local franchisee. Still, franchising has become the most common way for those fast food companies to operate, exchanging licensing for commission fees. Franchising provides a total solution to individuals hoping to open a store, especially for those who have no experience in the industry. Franchises provide the product materials, preparation instructions, and the design of the restaurant. In fact, most companies have standardized steps so their franchisees can follow the company's mandate and provide the same products and services everywhere.

There are both good and bad aspects to franchising. Although the company could expand very quickly as the franchisees open in different places, their reputation may be

destroyed by careless local operators. Hence, those fast food companies may face a dilemma in operating strategy. Swart and Donno (1981) discussed how Burger King, which James McLamore opened in Miami in 1954, operated the restaurant without a traditional kitchen so that any businessman with no previous food experience could be successful. However, Burger King faced a problem with franchise owners. Due to the lower prices set by the company, the individual owners could not generate enough business to support their expenses. As a result, the franchise stores chose not to sell their burgers at the same price as the company-owned stores. This damaged the reputation of Burger King because the customer always expects to get the same product with the same quality and price as they do when they buy food from a company owned store. Hence, some fast food companies do not believe in franchising. One of those is In-N-Out Burger.

1.2 In-N-Out Burger

Restaurants & Institutions magazine ("In-N-Out Burger" 2005) rated In-N-Out Burger as the most famous burger chain store in the Western states. Established in 1948 in Baldwin Park, California, In-N-Out Burger currently has more than 250 stores, and it is still expanding. Its primary customer's base ranges from ages 18 to 65, and the food quality has been rated as number one (Silver 1999). Unlike other fast food companies

who have many franchisees, In-N-Out Burger remains a family-owned company.

The Snyder family, who founded In-N-Out Burger, has some different operating philosophies. For example, In-N-Out Burger is not willing to pay more money to buy a so-called "better location"; instead, if they could sell the same number of hamburgers, they would only choose the lower-priced location (Paris 1989). The family owns all the stores for the purpose of controlling the quality of food. The menu is very simple and has not changed much from opening day, making the restaurant fairly easy to franchise; however, In-N-Out Burger refuses to do just that. In addition, traditional location studies have stated that it is better to keep the shortest distance from the customer to the supplier (ReVelle 2005). However, In-N-Out Burger has not expanded that much to fit its customers or markets. Instead, In-N-Out Burger is a company whose customers are willing to drive more than ten miles to buy a hamburger (Paris 1989). Since they have not expanded too rapidly, they do not have to close any under-performing stores and worry about revenue ("In-N-Out Burger" 2005).

This is a unique way to operate a fast food chain, especially when compared with other nationwide or worldwide burger companies. One of the reasons they opened new stores was for their employees' benefits. According to Perman (2008), Harry and Esther Snyder never tried to build a huge chain of burger stores. However, they wanted to give

their employees more stable lives. They provide better salaries and more benefits than other fast food companies. In-N-Out Burger's employees can always be promoted after working for a long period of time. The Snyder family wanted to provide their senior workers some chances to become managers after working a couple of years. Hence, they needed to open more stores to provide more positions.

The location strategies of In-N-Out Burger were also designed to maintain good relationships with their suppliers. One example serves as an indicator of the strength of these relationships is in 1978, the headquarters of In-N-Out Burger in Baldwin Park burned down. Because the warehouse was also destroyed in the fire, the company found that they were immediately without items to supply their burger stores. Unwilling to compromise on quality, they would not turn to alternative sources for their food. They were faced with a significant challenge. However, thanks to the excellent relationship they had built with their partners, their suppliers trucked potatoes, buns, hamburger meat and other necessary supplies directly to the stores until In-N-Out Burger could rebuild their warehousing facilities.

Though it is a comparatively small chain store, In-N-Out Burger's good reputation allows it to compete successfully with other, larger burger chains such as McDonald's, Burger King, and Wendy's. Despite its regional scope, In-N-Out Burger is still ranked

number forty-four by QSR magazine ("2010 QSR 50" 2011) on the 2010 Top 50 Quick Service Restaurant List with those nationwide chain stores. This demonstrates that In-N-Out Burger already has acquired its reputation throughout the whole country. Consequently, it would be interesting and worthwhile to study this special burger chain store, especially from a geographic perspective. In this research, I will use several methods to analyze the development of In-N-Out Burger with special focus on their site location strategies.

1.3 Research statement

The major purpose of this study is to uncover and characterize the site location strategies employed by In-N-Out Burger, and two primary research methodologies are employed.

First, the diffusion of In-N-Out Burger is analyzed so that it may be placed into a typology of diffusion styles. Carstensen (1986) studied the expansion of McDonald's from 1955 to 1978 and found that chain to have largely followed a hierarchical diffusion strategy. There is no research has made serious efforts to analyze the spatial diffusion of In-N-Out Burger. As a result, I argue that In-N-Out Burger has the same type of diffusion as McDonald's in this study, since both of them are famous fast food companies. Hence, I

assume that In-N-Out Burger opens a new store in a different region or state as a center, and then diffuses inside that region or state.

This study also analyzes the specific site location strategies used by In-N-Out Burger. Without franchising, and given the success of this company, their site location strategies are especially interesting. Some factors have been described in the book of Perman (2008) but without a deeper review. Hence, the following criteria are examined:

 a. **Traffic**: What site location strategies does In-N-Out Burger pursue with regard to highways?

 b. **Distance**: How does In-N-Out Burger manage the trade areas of each outlet, so that they may manage competition within the chain?

 c. **Demographic**: Does In-N-Out Burger target a certain demographic?

Chapter 2

LITERATURE REVIEW

Diffusion theory and location analysis are two important methods used in this study to understand the expansion of In-N-Out Burger stores. The diffusion theory concerns the spread of a target through space and time; it can characterize how In-N-Out Burger stores spread. In addition, the diffusion style can be classified into different phases by time and site location strategies. Therefore, some empirical studies regarding expansion phases are also reviewed. Location analysis is a simple way to uncover background data of selected places by analyzing different factors. It tells the geographical story of a business that might not be found in other disciplines. Finally, the development of In-N-Out Burger is also reviewed to acquire some important data for this study.

2.1 Diffusion theory

The diffusion theory was developed during the quantitative revolution of the 1960s. With the emphasis on scientific research methods, including a variety quantitative methodologies were created in order to analyze spatial patterns. A number of other statistical techniques, including variable analysis were adopted by geographers to allow them to better explain and predict a variety of phenomena.

Diffusion theory can be traced back to Torsten Hagerstrand. In his remarkable research, he analyzed how "innovation" spread in south Sweden (Hagerstrand 1952). In short, his study focused on how a new concept (an "innovation") was passed from a core area (a city) to rural areas (villages). He classified the diffusion in four stages. First, in the city, new concepts evolve or are invented. In this stage, there are huge differences between the city and villages. Second, the new concept is passed on to those villages, and a few of them accept it, narrowing the differences between the city and villages. In the third stage, more villages accept the new idea, and the rate of new acceptance grows faster. Finally, in the fourth stage, the new concept has been accepted in most areas, and as a result, the rate of new acceptance slows. This idea can be applied to many phenomena, such as new fashions, new merchandise, new business, new diseases, or even new immigrants.

Hagerstrand interpreted the diffusion as waves, passed to different places through time. Morrill explained the idea more clearly in his study:

> Wave-like diffusion phenomena are rather different and indeed more interesting. In a true diffusion process, the loci of action are themselves expanding in space and time, rather like an impact wave, out from an origin, as from a rock dropped into the water......The analogy of waves to human spatial phenomena is, of course, indirect and imperfect, but the study of waves can provide useful insights and interpretations of spatial diffusion. (Morrill 1968)

In his study, Morrill used statistical methods to calculate what the wave looked like.

When the distance moved further from the center, the probability of acceptance dropped.

Moreover, there was not only one wave but different waves from other places. The first

wave came from the center, and then passed on to other places. Therefore, there were

other waves that came from those first impacted places and passed even further

(strengthening the first wave). Figure 2.1 displays how the wave passed through time.

Morrill also mentioned a situation such that two different waves from two places meet in

a middle place. If those two waves are alike, then the power would be increased;

otherwise, the waves would be weakened. Besides, there might be barriers, either

physical or artificial, that may affect the influence of the wave. For example, there might

be mountains or rivers blocking the spread of the information, or some local codes

limiting the acceptance of the innovation.
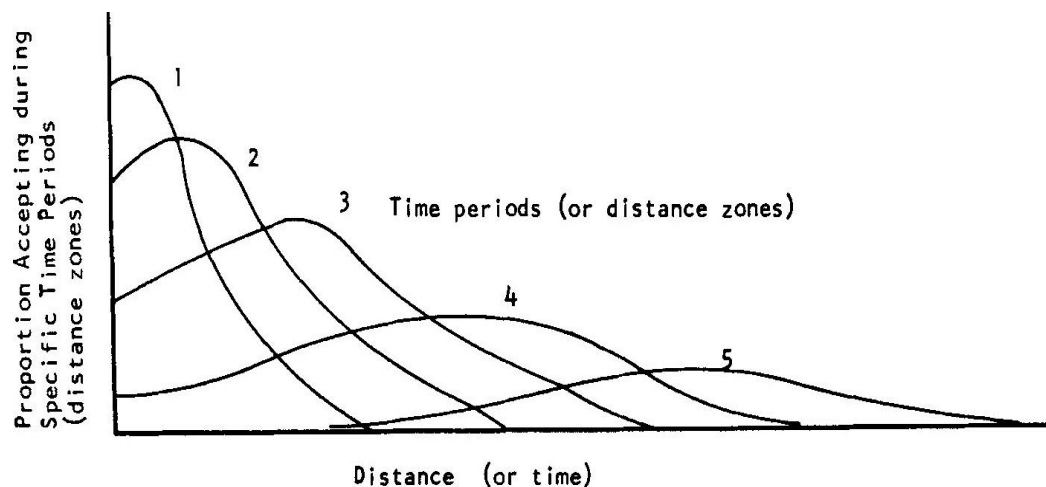
Figure 2.1. Changing Form of a Single Wave (Morrill 1968)

Diffusion theory grew more sophisticated and a typology developed. The two major types of diffusion that emerged were contagious and hierarchical diffusion (Hudson 1969). The "innovation wave" is one example of contagious diffusion, in which the "neighborhood effect" of clustered growth is produced. The new idea is diffused by neighborhood and passed through nearby places. Hagerstrand made the first attempt to build a model to calculate the process of diffusion: the Monte Carlo diffusion model. He tried to use probability and distance to approach actual diffusion. He divided the study area in 5 x 5 km^2 grids and called it "the mean information field." This is an example of an applied quantitative method used to solve a geographic issue. Cliff, Ord, Haggett and Versey (1981) used a simple plot to explain this type of diffusion (Figure 2.2). It could be (A) expanded to the outside from a center, (B) moved toward one direction, or (C) combined both ways. The diffusion happened only in those places (neighborhoods) that were closer to the center.
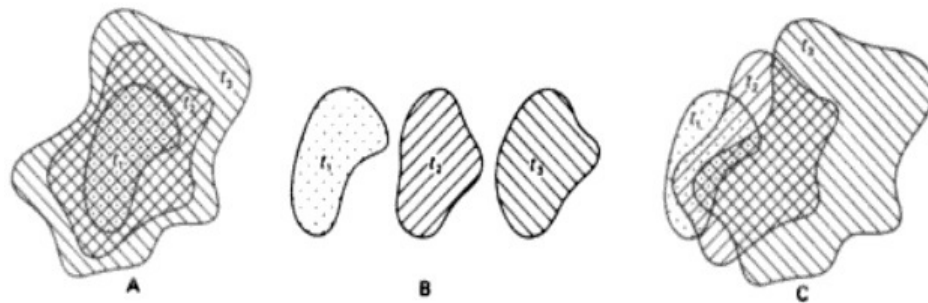
Figure 2.2. Types of Spatial Diffusion (Cliff et al. 1981)
(A) Expansion diffusion. (B) Relocation diffusion. (C) Combined diffusion
The term t_i denotes time period.

The other major diffusion pattern follows a hierarchical pattern. Hudson (1969)

explained this model as a frequent pre-cursor to or complement of contagious diffusion

which also came from Hagerstrand:

> A closer analysis shows that the spread along the initial "frontier" is led through
> the urban hierarchy. The point of introduction in a new country is its primate city;
> sometimes some other metropolis. Then centers next in rank follow it. Soon,
> however, this order is broken up and replaced by one where the neighborhood
> effect dominates over the pure size succession. (Hagerstrand 1966 and Hudson
> 1969)

Cliff et al. (1981) presented a good example. A new idea may first come from a

middle-level city, say San Francisco, and then be passed to the local level. Mean while,

this new idea not only spreads into local villages around San Francisco, but also to an

upper level, such as a regional capital like New York. In the third step, the idea spreads

from the upper-level urban to other middle-level cities, such as Chicago and New Orleans.

After those big cities accept the new idea, they pass it to their vicinities as well. In this

model, the new idea is not only spread into the original local area, but more likely jumps

into other middle-level places after the upper level has spread it. This model is diffused

by hierarchical level regardless of the distance from the original place. Hudson (1969)

argued that this concept of diffusion fits into the central place theory because the new

idea would be accepted by large centers (with a higher level) first. Those small centers

would have to wait until the message is exposed by high-order places. Figure 2.3 displays

the four stages of hierarchical diffusion.
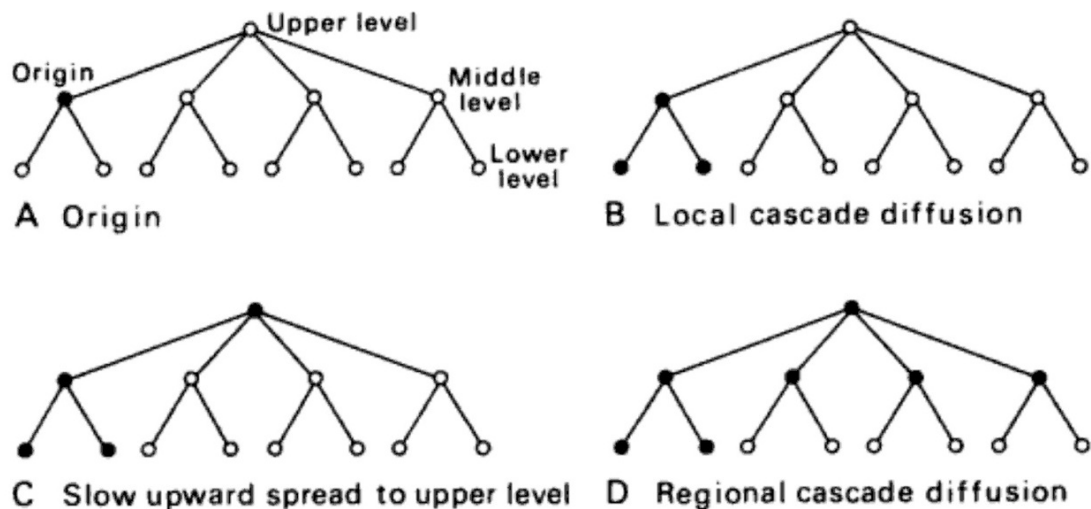
Figure 2.3. Hierarchical Diffusion (Cliff et al. 1981)
(A) Begins at a middle level, then spreads down to a lower level
(B) By local cascade diffusion to villages in its vicinity
(C) Spreads to an upper level, such as a regional capital
(D) Downward spread over the entire area by a regional cascade process

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In addition to the two traditional ideas of diffusion theory, Hudson (1969) mentioned a third generalization (compared with those two before) of diffusion theory. This theory has no spatial-based nature but associates the spread with time. Researchers used an S-shaped curve to describe this kind of diffusion (Figure 2.4). Hudson argued that the diffusion happens through time and will be limited by the adopters (which may be the population). Hence, Hudson rejected the original hierarchical diffusion theory because there was a conflict from the limitation of adopters. Moreover, he proposed a new model that is consistent with both the geometry and the hierarchical order structure of the urban system, and which can fit into an S-shaped curve.
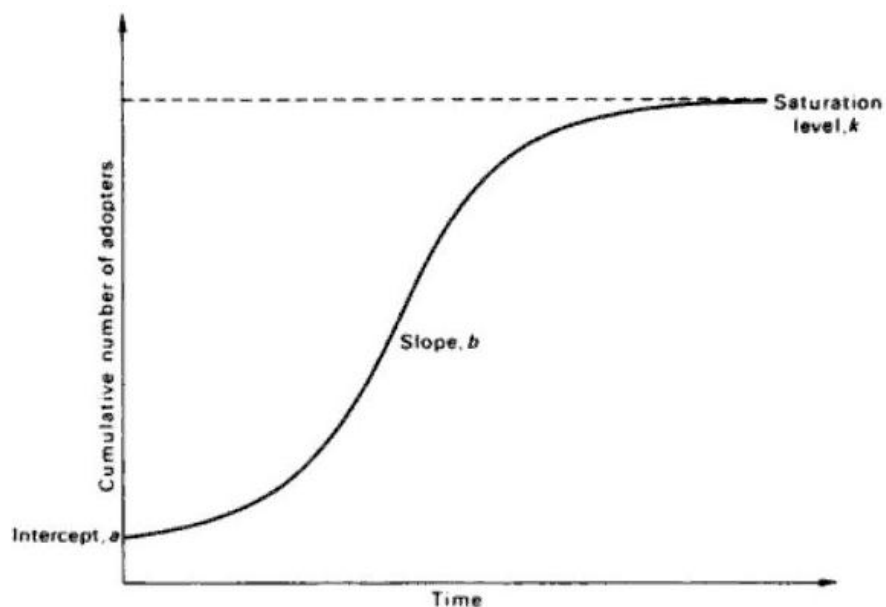
Figure 2.4. Logistics Diffusion Curve (Cliff et al. 1981)

However, Alves (1974) disagreed with Hudson. He summarized Hudson's model as

follows:

> …The model implies a decreasing exponential distribution in number or accepting
> centers with increasing distance from the telling center. This is analogous to the
> mean information field in contagion diffusion and could be considered a
> macro-level neighborhood effect. (Alves 1974)

And he argued that:

> Hudson's model predicts that a hierarchical diffusion continues until all units have
> adopted. There is no mechanism postulated by which the diffusion could die out
> for reasons inherent in the diffusion process (I shall call these self-limiting
> mechanisms) and not by reason of a limited number of adopters. (Alves 1974)

Alves (1974) cited from Morrill's (1970) point that there are reasons of self-limitation in

contagion diffusion which should also be applicable in Hudson's model. First, the new

innovation may lose its value when passed through time or space; since it may take a

while to spread, it may lose the original value as a creator. Second, there might be other

innovations that replace the old one so that the old one loses its value when passed on. If

these things happen before the diffusion reaches the saturation level K (Figure 2.4), then

the diffusion will stop, which implies that the model is not valid.

Beaumont and Keys (1980) had different opinions. They thought Alves's argument

demonstrated that it is possible to have a logistic-growth pattern under certain conditions

in a hierarchical system with diffusion, and these conditions are just a special case of a

general model of hierarchical diffusion. They argued that both Hudson and Alves thought

each center will pass the information to all the centers of the next lowest order in each time period, which means the acceptance probability equals one. However, they used some equations to prove that the probability of acceptance decreases as the message progresses down the hierarchy. They concluded that only a special case of a central-place system could be a pure hierarchical diffusion process leading to the logistic growth of cumulative adopters.

The studies of diffusion theory were focused on building models and calculating formulas or equations. Geographers have tried to approach the real situation by modeling the diffusion, as Hagerstrand (1952) first did, on the "mean information field." They used statistical methods such as counting the probability of accepted or rejected rates. Alves and Morrill (1975) looked at the nature of some formulations of diffusion theory and noted that there were some disadvantages when applying probabilistic models. Due to the complexity of the individual decision process, it is difficult to understand and recognize all factors related to the phenomena, not to mention include them in the model or equation. Alves and Morrill concluded that:

> Geographical diffusion theory has to its credit the emphasis on physical space, often neglected in other fields. But the space through which phenomena diffuse is not just physical, and any attempt to consider it in this simplistic way will give misleading results. Space has social, economic, and political components which are becoming increasingly more important. (Alves and Morrill 1975)

Today, diffusion theory has been applied not only to geographical studies, but also to economic, sociological, and epidemiological studies (Cliff et al. 1981). Although building models or developing formulas is not the main focus of the theory anymore, those concepts of diffusion theory are still a good framework to understand the development of a phenomenon or the spread of a new idea. For example, Carstensen (1986) used GIS methods to analyze the growth and diffusion of McDonald's restaurants by gathering the data and analyzing the cartographic outputs. The study is not limited by the space (location) but also included some other factors. Hence, the advantages of diffusion theory (identifying how it spread) and the greater understanding of social or economic background (recognizing where it spread) of the research areas can make this study more significant.

2.2 Expansion phases

The development of a chain store does not happen in one day. It takes time as well as space to come to reality. Some scholars have studied the development of superstores in the United Kingdom. Davies and Sparks (1989) cited the work of Dawson (1984) in their research. After a wide-ranging review of superstore development in Europe, Dawson concluded there are four phases in the growth of superstores as follows: (1) origin and

innovation phase, (2) diffusion and establishment phase, (3) rapid growth phase, and (4) public policy control phase. Jones (1982) provided his own four stages as pioneer, speculative, partnership, and opportunist.

Basically, the process is as the follows: At beginning, some companies started to establish superstores, and after they became popular, more companies were willing to take the risk to build even more. However, with an increasingly saturated market, it was hard to earn enough profits. As a result, those companies had to cooperate with each other. Finally, it was difficult for newcomers who wanted to participate in the business to have opportunities. If they did not find some new ways to acquire profits, they were likely to fail.

The difference between Dawson and Jones is their focus. Dawson concentrated on the spatial components, while Jones looked at the planning systems. Davies and Sparks (1989) commented that these models are useful in understanding and categorizing the development at a very general level. By classifying those steps, it revealed the actual situation and let the result become understandable. They also classified the development into four phases: innovatory (1962-1969), consolidation (1970-1972), resistance (1972-1980), and renewed development (1980-1986).

Understanding the development phases is very important because through different

stages, a company may have different business management strategies. However, that understanding must be based on the availability of the data. Davies and Sparks (1989) conducted an excellent analysis because they found new data that included not only successful cases, but also some that failed. They provided a more accurate analysis of the expansion, marking their study sound.

2.3 Location analysis

Location analysis is a traditional way to study issues regarding spatial distribution. Plenty of location studies have been done for different retail chain stores or similar chain businesses, such as superstore retailing in England (Davies 1989), Chinese service providers (such as banking, accounting, and computer distribution) in Los Angeles (Zhou 1998), restaurant location dynamics in Atlanta (Pillsbury 1987), and so on. There also have been some studies about the fast food industry. For example, Kalnins and Mayer (2004) have done a study of pizza restaurants' failure rates and, in addition to the study done by Swart and Donno (1981), about Burger King.

Location becomes a great issue when considering business activities in geography. The importance of "location, location, and location" (Dickinson 1981; Jones and Simmons 1987; Pillsbury 1987, and Brown 1989) cannot be overstated. Although there

are many other factors that may influence the success of a retail store, location is still a very crucial indicator. Location theory can be traced back to Thünen (1826) when he proposed an ideal theoretical pattern of location distribution by assuming different business activities will tend to cluster with each other. Hence, in order to find the best site for different business activities, it is important to analyze certain criteria of the backgrounds of locations. This idea affected many studies, especially in regional and economic geography where the consequences derived from different locations have been discussed.

The study of location can be very simple. ReVelle and Eiselt (2005) cited from Domschke and Drexl's (1985) idea that the location issue is concerned with four components: facilities, customers, the space where the facilities and customers are located, and some indications about their relationship. Facilities are those new places where new businesses might open, and customers are pre-existing fixed locations. These two are easy to define or find out. However, the relationships are not. Hence, most of the studies have focused on those indications. ReVelle and Eiselt (2005) provided three important assumptions to simplify the research process. First, all customers want to find the nearest provider; second, all supply conditions are the same; and third, all customers are rational. As a result, the studies of locations become clearer.

Graff (1998) researched the site location strategies of Wal-Mart and Kmart. He found that Wal-Mart and Kmart, both large discount retailers, have different strategies for targeting customers. Graff compared the site location strategy used to place both Wal-Mart and Kmart superstores. He argued that Wal-Mart is more successful than Kmart because Wal-Mart has a better expansion strategy, especially with regard to efficiencies created by their warehousing and logistics operations. Wal-Mart's success could be partly traced to the efficiencies it through the clever placement of its warehouses; and the small-to-medium markets it favored. Only later did Wal-Mart modestly enter big-city markets, an expansion strategy that can be characterized as "reverse hierarchical diffusion". K-Mart on the other hand subcontracted much of its warehousing operation and sought to enter medium to large city markets in a more traditional hierarchical diffusion expansion strategy.

Location analysis has become more popular with the use of GIS, with the exercise of spatial models and related data analysis. Location analysis can find some better locations and be applied into spatial estimate processes (Lindquist 2002). With the assumptions of previous studies and the support of technology, this thesis will examine the background of In-N-Out Burger locations and focus on the space where facilities and customers are located. As a result, the strategies of its expansion will be clearer.

2.4 The fast food restaurants and In-N-Out Burger

Fast food is a convenient way for people to eat; moreover, the price is cheaper than more formal restaurants. Roark (1985) said that hamburger stores were the most important subtype of fast food, and they had the widest and most uniform distribution of any other fast food. Whether it is true or not, there are many chain hamburger stores all over the world. In addition, certain kinds of fast food may carry more information behind then, for example, representing different cultures.

Pillsbury studied restaurant location. In the fast food section of the study, he mentioned that "chicken and fish are important dietary mainstays within the black subculture which has generally perceived chicken as a better food value than hamburgers." (Pillsbury 1987) Although it is hard to judge if this statement is true or not, certain types of fast food restaurants have different targets to whom they sell. For example, a taco is more likely for Mexican people or those who love Mexican food. Another example is pizza, which usually is sold to a group of people. Since the volume is great, it is hard to finish a 10-inch pizza by oneself. Besides, packaging can also be a hint to the difference between fast food restaurants. Some stores have family value meals, which provide more food at a discounted price, or snack meals for a light volume of food with a lower price. These differences make fast food restaurants unique and allow them to have loyal

consumers.

The development of In-N-Out Burger is very interesting. The second In-N-Out Burger store opened in Covina, California, in 1951. In-N-Out Burger remained a relatively small burger chain in Southern California until the 1970s. They had 18 restaurants when Harry Snyder died in 1976. His son, Rich Snyder, led In-N-Out Burger for another twenty years. They experienced a period of rapid growth and expanded to over 90 stores. In 1992, the first store outside of Southern California was opened in Las Vegas, Nevada. In 2000, the first Arizona store was opened in Lake Havasu City. Four years later, they opened another store in Northern Nevada. In 2008 (another four years), they went to Utah. At present, they have more than 250 stores, and there are rumors that they are planning to go to Dallas, Texas.

In-N-Out Burger did not expand at a stable rate. From 1948 to 1976 (almost 30 years), they opened only 18 stores. However, 10 years later, they had grown to 32 stores in 1986. Within another five years, Rich Snyder doubled the size. At the end of 1990, In-N-Out Burger had 64 stores. Later on, the growth rate was around 10 stores per year. The 80th store opened in Las Vegas in 1992. Before the death of Rich Snyder at the end of 1993, In-N-Out Burger opened the 93rd store in Fresno, California. The chain reached its 100th store in 1994 in Gilroy, California. In 1996, it had 116 stores. One of the more

remarkable stores is the 119th, which opened in 1997 in Westwood, California, next to the

campus of University of California, Los Angeles. It was the first store that was not close

to a highway. At the end of 1999, when Guy Snyder, brother of Rich Snyder, passed away,

the company had 140 stores. Although the company had been through a lot of leadership

difficulties, In-N-Out Burger maintained the same growth rate. The 200th store was

opened in 2005 in Temecula, California. Another breakthrough happened when a

restaurant opened in Washington City, Utah, as the 215th store in April 2008. Utah is the

fourth state where In-N-Out Burger has located.

At the end of 2010, In-N-Out Burger had 252 stores in California, Arizona, Nevada,

and Utah. Besides, they are planning to open new stores in Texas in 2011. The detailed

numbers of In-N-Out Burger's store locations are shown in Table 2.1. Furthermore, Map

2.1 shows their distribution.

Table 2.1. Number of In-N-Out Burger Stores

Location			Numbers of stores
California	Northern		53
	Central		16
	Southern	Los Angeles Area	66
		Inland Empire	28
		Orange County	22
		San Diego Area	16
		Subtotal	132
	Subtotal-California		201
Arizona			27
Nevada	Northern		3
	Las Vegas		13
Utah			8
Total			252

*Data collected at the end of 2010.

Map2.1. In-N-Out Burger Distribution

Arizona: 27

Utah: 8

Las Vegas (Nevada): 13

Northern Nevada: 3

Central California: 16

Southern California: 132

Northern California: 53

Legend

In-N-Out Burger

Interstates Freeway

0 25 50 100
Miles

Mapping: Po Chun Rich Lee

Data Sources:
In-N-Out stores: In-N-Out website (http://www.in-n-out.com)
Background: ESRI US Street Map

Salt Lake City
Ogden
Layton
West Jordan

Phoenix
Casa Grande
Tucson
Flagstaff

North Las Vegas
Las Vegas
Henderson
Yuma

Reno

Sacramento
Elk Grove
Stockton
Modesto
San Jose
Santa Cruz
Salinas
San Francisco
Santa Rosa

Bakersfield
Clovis
Fresno

Palmdale
Apple Valley
Victorville
Ontario
Riverside
Los Angeles
Long Beach
Oceanside
San Diego
Santa Barbara
Santa Maria

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Chapter 3

RESEARCH DATA AND METHOD

The methodology for this study largely centers on a spatial analysis of the location trends for In-N-Out Burger stores. The first step was data acquisition and collection, followed by a preliminary data analysis of the spatial pattern of the collected data. The second step involved map and table construction focused on the growth of In-N-Out Burger. The expansion of In-N-Out Burger is discussed in this step and the development of the chain is placed into one of several historical phases. In the third step, advanced analysis is applied to the data through GIS. In this step, census data are joined to provide a statistical measure of the concentration of In-N-Out Burger locations. Lastly, the data are interpreted and an explanation offered to provide some deeper geographic perspective. The whole process is shown in Figure 3.1 below.

Data Collection: In-N-Out Burger Stores data, 1950-2000 Census data, Highway data, McDonald's data, Mapping data → **Input** → **Data process:** Geo-Coding, Mapping, Spatial join, Table join, Analyzing, Statistical calculating → **Output** → **Analysis result:** Tables, Maps, Comparison → **Discussion:** Results, New findings, Suggestions
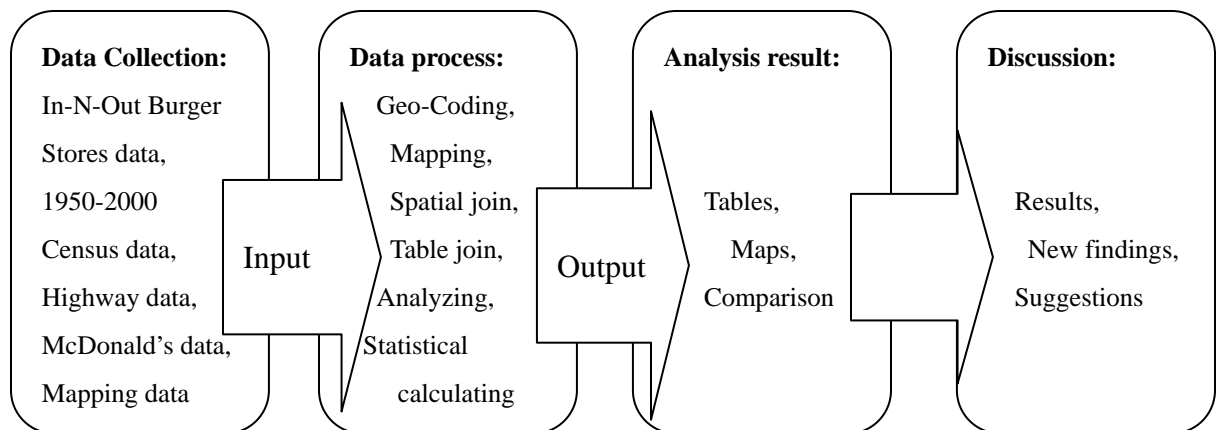
Figure 3.1. Research Flowchart

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3.1 Data collection

My data consists of all In-N-Out Burger addresses, U.S. census data, McDonald's locations in Los Angeles County, and ESRI U.S. map data. The address data of In-N-Out Burger was downloaded from the official website (city, address, zip code, county, and order of store opening). The census data was acquired from the U.S. Census Bureau. This study uses census data by tracts for In-N-Out Burger locations from 1950 to 2000. Census data- including population, race, and income for all years, and education level for 1990 and 2000- was downloaded by tract. McDonald's data- which contains address, city, and zip code- were gathered from the Los Angeles County Department of Public Health. The U.S. map files were provided by ESRI, the leading mapping software company. ESRI supplied street information and general mapping data regarding the study area, including California, Nevada, Arizona, and Utah.

3.2 Preliminary data analysis

Since the data were acquired from different sources, a preliminary processing and analysis were required prior to the processing of the data for analyses. All of the data were converted into two formats, shape file (shp) or database file (dbf), in the following steps. First, the address and zip code of locations data were reviewed and checked to fix

typos and errors, and then they were geo-coded by obtaining longitude and latitude from

Google Maps.

The year each In-N-Out Burger store was founded was then entered into the database. Some restaurants had no date associated with their opening, and those stores were put into a different dataset. That dataset placed each store in chronological order by store number, which corresponds to the order of their opening. As a result, stores were placed into one of 17 groups based on year and/or store opening order. Those groups are listed in Table 3.1 below.

Table 3.1. Groups of Years

Year Opened	Number of Stores	Year Opened	Number of Stores
1948~1951	2	2000~2001	20
1952~1976	16	2002~2003	23
1977~1989	38	2004	14
1990~1991	23	2005~2006	7
1992	13	2007	8
1993	7	2008	18
1994~1995	16	2009	8
1996~1998	24	2010	12
1999	3	Total	252

In order to review the differences by regions, these In-N-Out Burger locations were put into 10 different groups by the In-N-Out Burger Location Guide. Those regions are

the Los Angeles Area, Orange County, the Inland Empire Area, the San Diego Area,

Central California, Northern California, The Las Vegas Area, Northern Nevada, Arizona,

and Utah. A table (Appendix) was constructed in a database format that contains all the

revised data, which was then imported into the GIS software. Next, the table was

converted into shapefile format with proper projection for further analysis. A total of 252

In-N-Out Burger stores were mapped. Moreover, In-N-Out Burger locations were also

classified into decades by year opened for census data extraction. An additional 298

McDonald's restaurants were also mapped to provide a figure ground or control by which

the In-N-Out Burger locations could be more fully considered.

There are two usages for census data in this research. First, the census tract data

provides basic demographic information about the neighborhood in which each In-N-Out

Burger was located. Hence, all the census data were processed into tables in database

format first, and then were sorted by census tracts. The details of those tables of census

data created in this step are described in Table 3.2. All of them were imported into GIS

software for further analysis too.

Table 3.2. Tables of Census Data

Census Year	Places	Census Year	Places
1950	Los Angeles County	1980	California
1960		1990	California and Nevada
1970		2000	California, Nevada, Arizona, and Utah

3.3 Diffusion analysis

An important component of this thesis is a diffusion analysis of In-N-Out Burger locations. To understand the evolution of In-N-Out Burger's site location strategy, some charts were built to display the growth of In-N-Out Burger through time. The first chart is the total growth of In-N-Out Burger from 1950 to 2010. It provides the initial impression of the development. The second chart displays the growth by different regions, which offers a useful comparison of rate differentials between regions. Next, a ratio of new stores opening to the total number of stores in 2010 was calculated for each era and each region, and then listed in the third chart. Last, abstracted from previous results, another chart was built by the group of years when 25%, 50%, 75% and 100% of stores were opened in different regions up to 2010. It tells the order of regional development, and the result was used to classify different phases in the next step.

The second step is a diffusion analysis by spatial data. In-N-Out Burger stores were

divided into four groups by year opened as four phases, and then a map was made to indicate the diffusion process. Moreover, to point out the trend of where those new stores were located, a detailed map was made with 10 groups of years. Those 10 groups were abstracted from the original 17 groups of years because some of them have no significant difference from previous groups. Hence, this detailed map is good evidence of the diffusion process of In-N-Out Burger.

After those charts and maps were compared, a deeper statistical analysis was done to help quantitatively characterize the diffusion strategy employed by In-N-Out Burger. According to Carstensen (1986), there are two methods to verify the diffusion type. One is the population change of where new stores located and the other is the change of mean distance from the original location. If the diffusion hierarchical, new stores will tend to be opened in big cities such as New York, Chicago, or Houston during the early stages of expansion, and only later will stores be opened in smaller cities as market saturation occurs in the largest cities. The size of city can be represented by the population. Hence, if In-N-Out diffused hierarchically, one would expect the population of cities with In-N-Out Burger store to be among the upper echelons of the urban hierarchy, and then open in smaller cities and towns later. If on the other hand, In-N-Out diffused contagiously, the earliest stores will be found in cities and town neighboring the original

Baldwin Park store, and only later would they open in more distant locations.

Another test is done by calculating the change of mean distance between the original store and all other stores opened later. Since the contagious diffusion occurs outward from the original place, the mean distance between all stores and the original store will increase over time. The concept is illustrated in Figure 3.2, the average distance $(\bar{D})$ between the original store to other stores in stage 1 is $\bar{D_1} = \frac{(a+b+c+d)}{4}$, which is smaller than the average distance in stage 2 $(\bar{D_2} = \frac{(a+b+c+d+e+f+g)}{7})$. As those new stores open further away, the average distance will become greater $(\bar{D_{n+1}} > \bar{D_n})$.
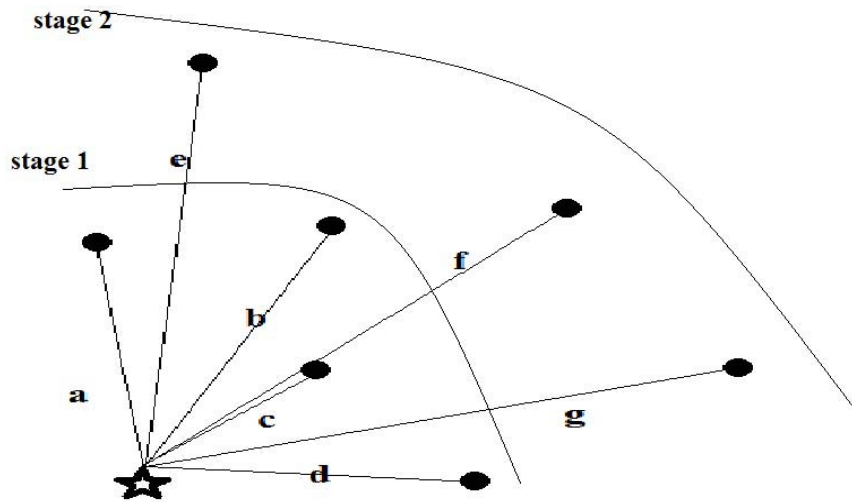
Figure 3.2. Average Distance of Contagious Diffusion

On the other hand, if the diffusion occurs in a hierarchical fashion, the average

distance will generally be greatest in the early stages, because the largest cities (New

York, Houston, Chicago, and Los Angeles) are, in alignment with Central Place Theory,

the most dispersed.   As stores open in cities further down the urban hierarchy, then the

average distance between each store will decrease. Figure 3.3 illustrates this idea. The

average distance $(\overline{D})$ between the original store in Los Angeles and other stores in New

York, Philadelphia, Detroit, Chicago, Dallas, Houston, San Antonio, San Diego, and San

Jose in stage 1 is $\overline{D_1} = \frac{(a+b+c+d+e+f+g+h+i)}{9}$. The average distance in later stages will be

calculated between other points in figure 3.3 and Los Angeles, which will be smaller than

$\overline{D_1}$ since most of those other points are located between (or inside of) those big cities in

stage 1.
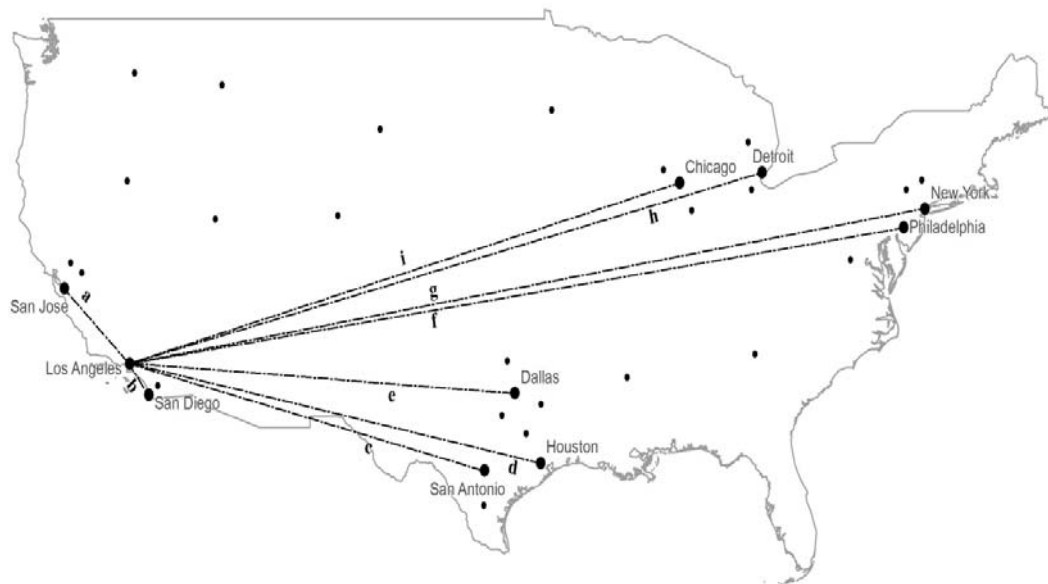
Figure 3.3. Average Distance of Hierarchical Diffusion

In the statistical analysis step, the mean distance of In-N-Out Burger was calculated. The distance between the original store, which is located in Baldwin Park, California to all others stores was computed by GIS software using each stores latitude and longitude coordinates. They were placed into stages using the 17 groups of years discussed above. The results are discussed below.

3.4 Location background analysis

To obtain more ideas and information about where an In-N-Out Burger restaurant may be located, a GIS-based spatial data analysis was done in this step. GIS- which has been defined as a computerized database for coding, storing, and retrieving information tied to a geographic coordinate system or set of places (Bromley 1993)- is a great tool to apply.

Three different criteria analyzed in this step were traffic, distance, and census data. The first two are known characteristics of In-N-Out Burger locations. Perman (2008) stated that In-N-Out Burger intended to open those restaurants close to highways, because significant traffic may bring more business. In addition, In-N-Out Burger keeps certain distances between each store for the purpose of eliminating competition between those stores.

The traffic criterion was validated by calculating the percentage of In-N-Out Burger stores located within a half-mile or one mile from three types of highways. Buffered highway data including interstate highway, state/county/U.S. highway, and local highway were made, and then joined with In-N-Out Burger locations by their spatial relationship. The result was placed in a table for indication.

The distance criterion was verified by calculating the minimum, average, and maximum shortest distance among all In-N-Out Burger locations. This function was also applied to McDonald's locations in Los Angeles County as well for comparison.

The census data criterion has two parts to analyze: first to find out the differences between In-N-Out Burger and McDonald's in Los Angeles County and then to check those differences among In-N-Out Burger by time. A spatial join was made to add the statistical data- 2000 census data- into In-N-Out Burger locations and McDonald's locations in Los Angeles County to display where they opened new stores. Differences were found and listed in a table for further explanation. Moreover, In-N-Out Burger locations were also joined with the historical census data by their first year opened. The application of spatial join function is summarized in Table 3.3 below. Those criteria of differences from first analysis were reviewed in historical census data to see if there were any changes or not.

Table 3.3. Abstracted Census Data

Census Year	In-N-Out Burger	Number of stores	Number of tracts	Places	notes
1950	1st and 2nd	2	2	Los Angeles County	
1960	N/A				*
1970	3rd to 18th	16	16		
1980	19th to 56th	38	38	California	New stores opened in that period of time
1990	57th to 142nd	86	86	California and Nevada	
2000	143rd to 252nd	110	107	California, Nevada, Arizona, and Utah	

* Due to the limitation of data, stores opened during the 1960s were not analyzed with 1960 census data, but instead were analyzed with 1970 census data.

3.5 Final analysis

Data comparison and interpretation were done in the final research stage. All the results from previous analyses were put together for a deeper examination. In this step, those results were cross-compared with each other in order to make the conclusion sound. All the results are discussed in later chapters.

Chapter 4

RESULTS

One purpose of this research was to discover how In-N-Out Burger diffused outward

from its heart in Baldwin Park. The results of this research reject the first hypothesis that

In-N-Out Burger's diffusion type is the same as McDonald's hierarchical diffusion.

Instead, the results illustrate that In-N-Out Burger diffused in a contagious way. A

secondary goal of this research was to discover the parameters used by In-N-Out Burger

to locate stores. After mapping the stores through time and extracting the census data

from adjacent neighborhoods, it has become clear that In-N-Out Burger exercises certain

preferences when In-N-Out Burger opens a new store. In short, In-N-Out Burger intends

to open new stores close to highways, far from other In-N-Out Burger store, and located

in areas with higher populations of white people, lower populations of black people, and

higher income.

4.1 The diffusion of In-N-Out Burger

In the diffusion analysis, I analyzed the site location tendencies of In-N-Out Burger

and divided it into four phases, 1948 to 1991, 1992 to 1999, 2000 to 2007, and 2008 to

2010. In-N-Out Burger seems to have used different site location strategies during these

stages.

4.1.1The growth of In-N-Out Burger

It is easier to understand the development of In-N-Out Burger through charts. Figure

4.1 shows the growth of the chain from 1950 to 2010. The growth speed, which is

represented by the slope of the line, was low from 1950 to 1980, and changed

significantly from 1990 to 2010. The chart shows that In-N-Out Burger grew slowly

before 1990. Abrupt changes in slope also indicate that there might have been changes in

development strategy at those points.
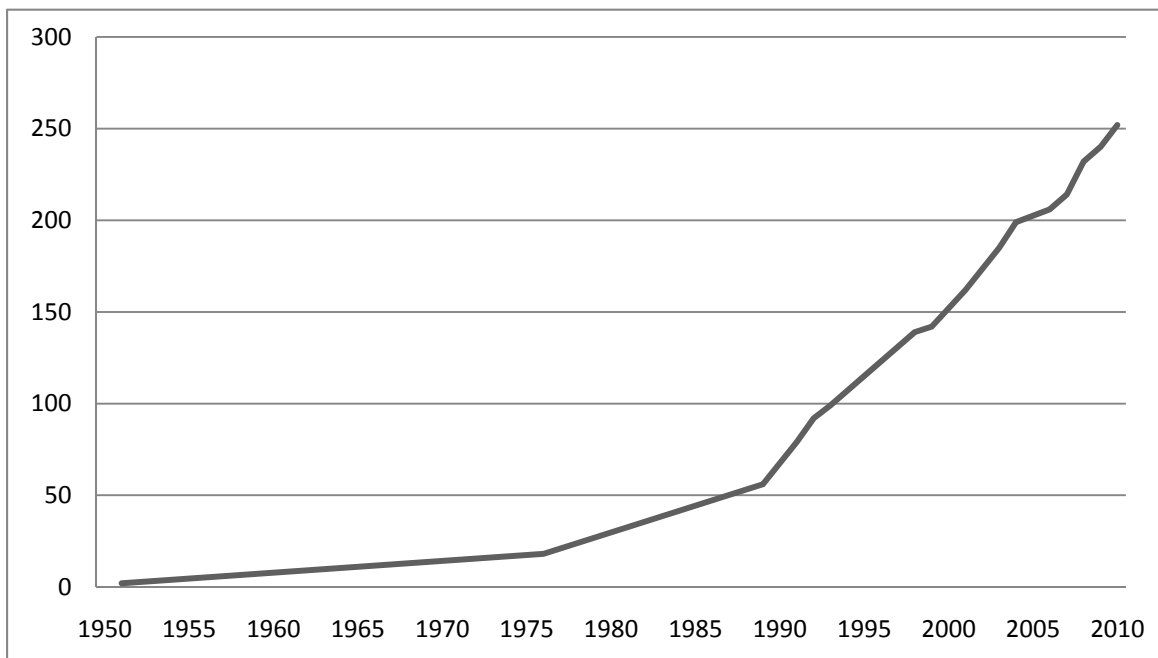
Figure 4.1. The Growth of In-N-Out Burger

A detailed growth trend in different regions by year is plotted in Figure 4.2. The chart tells when the growth had sped up or slowed down, and when those regions first had an In-N-Out Burger store. For example, the growth in the Los Angeles Area was slow but kept growing until 1990, where upon the rate of growth sped up until 2003, and then slowed down again. In fact, In-N-Out Burger has not opened any new stores in the Los Angeles Area since 2008. However, the growth in Northern California has been different, growing rapidly from 1993 and maintaining a high growth rate in the first decade of the new century. The same rates applied both in Arizona and Utah. The growth rates for other places such as, Orange County, the Inland Empire Area, the San Diego Area, Las Vegas, and Central California were less dramatic. The expansion in Northern Nevada has been modest. After three stores opened in 2004, no new stores opened. These findings were used to characterize the various expansion phases.
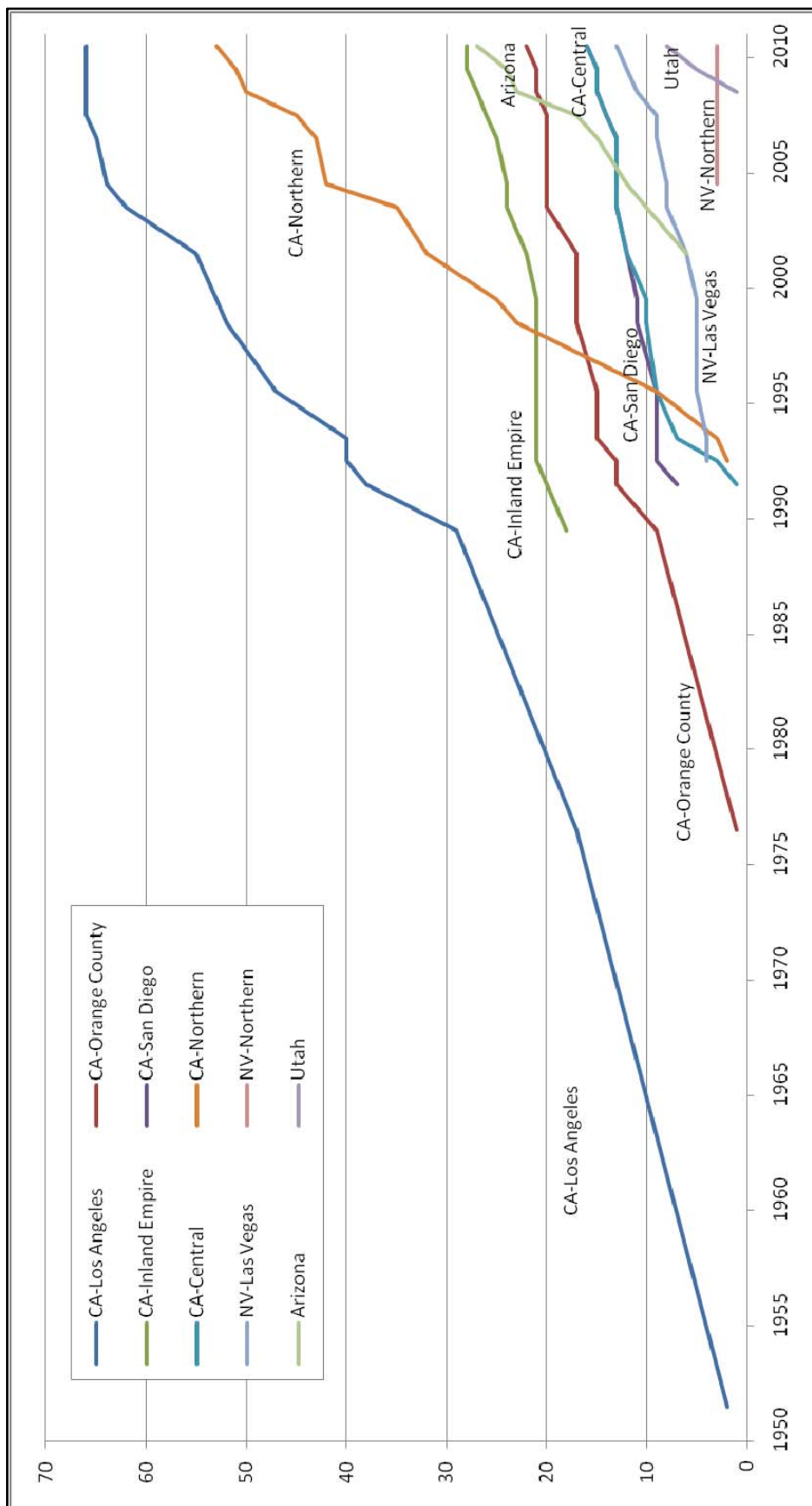
Figure 4.2. The Growth of In-N-Out Burger by Regions

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4.1.2 The growth phases of In-N-Out Burger

It is important to find the years with the most change in the development of In-N-Out Burger to classify the growth phases. A percentage count is shown in Table 4.1. The highest and second-highest new-store-opened percentage is marked as well. This table shows the important development years of each region. For example, 64.29% of the stores were opened in the Inland Empire Area in 1979 to 1989, and 7.14% in both 1990 to 1991 and 2002 to 2003. The chart shows that In-N-Out Burger has focused on different regions to open new stores in different years. By finding the trend of the highest percentage changed through the years, it is easy to understand that the development was started in Southern California, including the Los Angeles Area, Orange County, the Inland Empire Area, and the San Diego Area from 1948 to 1990, and moved north. Las Vegas was the first place where In-N-Out Burger opened stores outside of California, which happened in 1992. Furthermore, Central California and Northern California were developed during 1993 to 1998. After 2000, In-N-Out Burger went to Arizona and other regions, especially Utah, where half of the stores in the state were opened in 2009.

Table 4.1. The Percentage of In-N-Out Burger Stores Opened by Year(s)

Region \ Year(s)	1948~1951	1952~1976	1977~1989	1990~1991	1992	1993	1994~1995	1996~1998	1999	2000~2001	2002~2003	2004	2005~2006	2007	2008	2009	2010 (%)
CA-Los Angeles	3.03	22.73	18.18	13.64	3.03	0.00	10.61	7.58	1.52	3.03	10.61	3.03	1.52	1.52	0.00	0.00	0.00
CA-Orange County		4.55	36.36	18.18	0.00	9.09	0.00	9.09	0.00	0.00	13.64	0.00	0.00	0.00	4.55	0.00	4.55
CA-Inland Empire			64.29	7.14	3.57	0.00	0.00	0.00	0.00	3.57	7.14	0.00	3.57	3.57	3.57	3.57	0.00
CA-San Diego				43.75	12.50	0.00	0.00	12.50	0.00	6.25	6.25	0.00	0.00	6.25	6.25	0.00	6.25
CA-Central				6.25	12.50	25.00	12.50	6.25	0.00	12.50	6.25	0.00	0.00	6.25	6.25	0.00	6.25
CA-Northern					3.77	1.89	11.32	26.42	3.77	13.21	5.66	13.21	1.89	3.77	9.43	1.89	3.77
NV-Las Vegas					30.77	0.00	7.69	0.00	0.00	7.69	15.38	0.00	7.69	0.00	15.38	7.69	7.69
NV-Northern												100.00	0.00	0.00	0.00	0.00	0.00
Arizona										22.22	14.81	7.41	11.11	7.41	22.22	3.70	11.11
Utah															12.50	50.00	37.50
All Regions	0.79	6.35	15.08	9.13	5.16	2.78	6.35	9.52	1.19	7.94	9.13	5.56	2.78	3.17	7.14	3.17	4.76

Highest %   Second Highest %

**Calculation based on total 252 stores in 2010

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Table 4.2 is an abstracted table from Table 4.1. It shows in which group of years

In-N-Out Burger opened 25%, 50%, 75%, and 100% of stores up to 2010. This also tells

which group of years is important and might be a turning point. For example, more than

50% of the stores were opened before 1990 in the Los Angeles Area and Orange County.

Those groups of years that show more frequently in this table were pulled out to divide

the development into phases. Three intervals were determined, to be more significant:

between 1991 and 1992, 1999 and 2000, and 2007 and 2008.

Table 4.2. In-N-Out Burger Stores Opened by Percentage

	25%	50%	75%	100%
CA-Los Angeles	1952-1976	1990-1991	1996-1998	2007
CA-Orange County	1977-1989	1990-1991	1996-1998	2010
CA-Inland Empire	1977-1989		1992	2009
CA-San Diego	1990-1991	1992	2000-2001	2010
CA-Central	1993	1994-1995	2000-2001	2010
CA-Northern	1996-1998	2000-2001	2004	2010
NV-Las Vegas	1992	2002-2003	2008	2010
NV-Northern	2004			
Arizona	2002-2003	2005-2006	2008	2010
Utah	2009	2009	2010	2010
All Regions	1990-1991	1996-1998	2004	2010

4.1.3 The contagious diffusion by spatial data

It is easier to see the diffusion on a map than it is through tables. Map 4.1 shows the diffusion trend. The data were classified into four stages. In stage 1, from 1948 to 1991, In-N-Out Burger stayed mainly in Southern California, especially in the Los Angeles Area. In stage 2, from 1992 to 1999, In-N-Out Burger opened stores in Las Vegas and Northern California. In stage 3, from 2000 to 2007, In-N-Out Burger opened more stores in Northern California and opened stores in Arizona. In stage 4, from 2008 to 2010, In-N-Out Burger opened stores in Utah and added more in Arizona.

The map of these four stages shows that In-N-Out Burger spread to different areas by moving outward, rather than jumping to different states or to other metropolitan regions in the United States. This is evidence that the diffusion type of In-N-Out Burger is not hierarchical, but more of a contagious type. In addition, Map 4.2 also provides a more detailed idea of where In-N-Out Burger opened new stores in 10 different years. The development started at Southern California and went north, including Northern California and Las Vegas, and then toward the east, in Arizona and Utah. This proves that the diffusion of In-N-Out Burger has exhibited the classic "neighborhood effect," which passes to neighboring areas from a center.

Map4.1. In-N-Out Burger in Four Phases

Legend

Phases
- 1 ●
- 2 ●
- 3 ○
- 4 ○

Freeway

States

Data Sources:
In-N-Out stores: In-N-Out website (http://www.in-n-out.com)
Background: ESRI US Street Map

Mapping: Po Chun Rich Lee

Miles
0 25 50   100

Utah

Arizona

Nevada

California

47
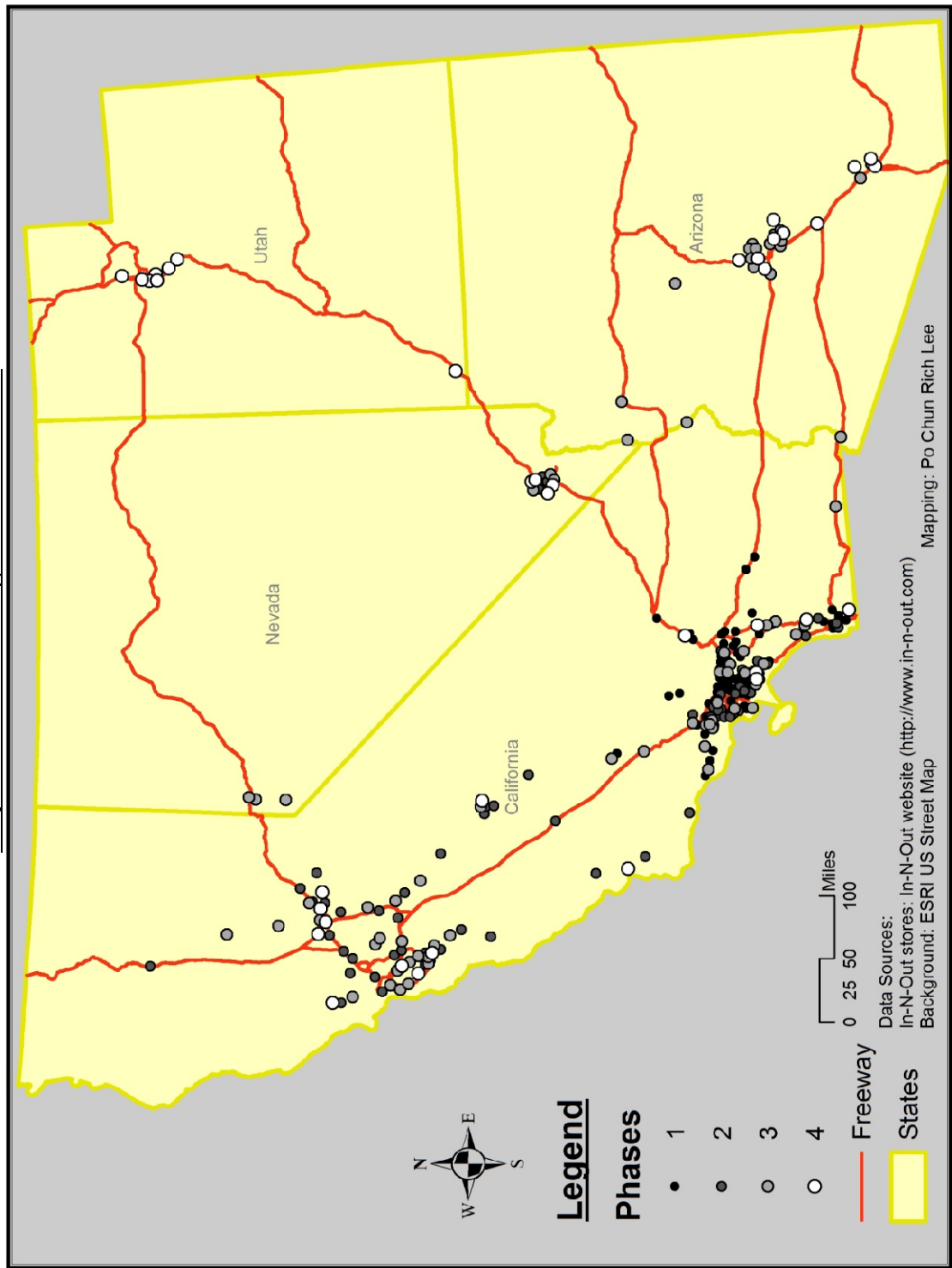
Map4.2. Development of In-N-Out Burger by Years

1992

1991

1989

1976

2004

2001

1998

1995

2010

2008

Legend

·   In-N-Out Store

—— Interstate Highway

States

Data Sources:
In-N-Out stores: In-N-Out Burger website
Background: ESRI US Street Map
Mapping: Po Chun Rich Lee

N
W   E
S

Miles

0   250   500
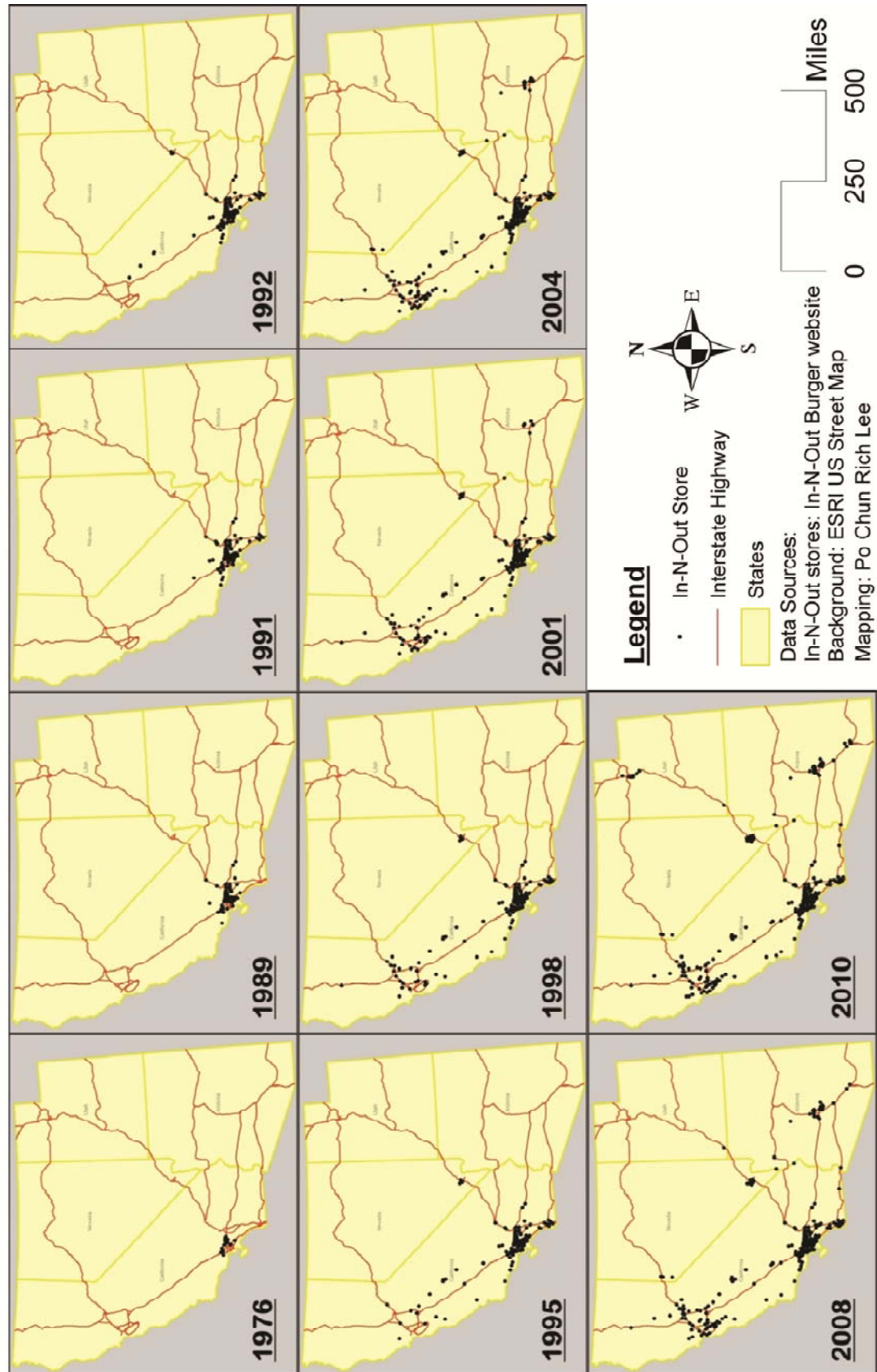
4.1.4 The contagious diffusion by statistical data

An analysis of the site location strategies pursued by In-N-Out provides solid evidence to test the first hypothesis. According to the typologies elaborated above, if the diffusion hierarchical, the new stores will be placed in locations with large populations for a period of time, then stores will begin to be located in cities with smaller populations. The calculation was based on the sum of populations in census tracts that had at least one In-N-Out Burger store. If the census tract had more than one store, then the population was weighted by the number of stores.

The total populations (Figure 4.3) went from a few thousand in 1950 to more than 600,000 in 2000, which means the acceptors are few in the early stages and become more in later stages. Though there was a general increase in the average size of cities hosting an In-N-Out Burger, this was due in large part to the proximity of Los Angeles to the original Baldwin Park store. Other large cities, such as San Francisco and Las Vegas now also have In-N-Out Burger, and therefore demonstrate some degree of what might be called regionally contained hierarchical diffusion; the fact that no In-N-Out Burger can be ordered in New York City, Chicago or Houston, is proof enough to undermine any notion of hierarchy in the In-N-Out Burger diffusion.

More conclusive proof of In-N-Out Burger's contagious diffusion is provided by the mean distance calculations describe above. Figure 4.4 shows the mean distance calculated by GIS software by latitude and longitude. The average distance grew significantly, which means $\overline{D_{n+1}} > \overline{D_n}$. It proves that the diffusion of In-N-Out Burger has not been hierarchical case but contagious. The average distance between stores increases dramatically after 1990, when In-N-Out Burger began aggressively opening new stores outside of Southern California. The analysis of this data has made it necessary to reject the hypothesis stating that In-N-Out diffused hierarchically.
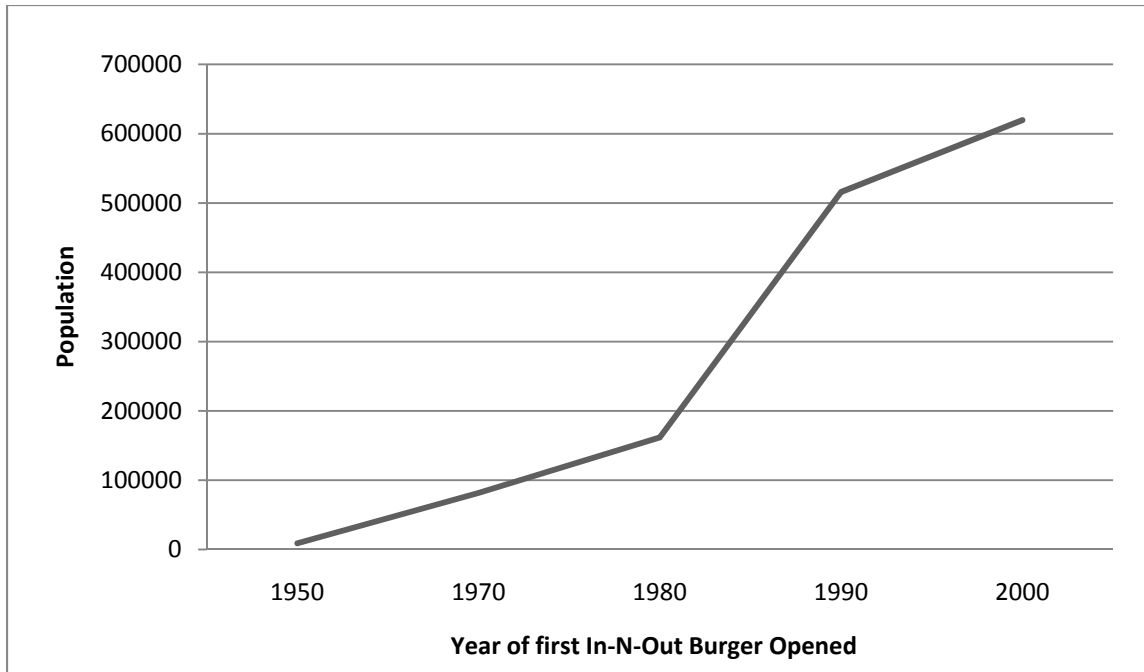
Figure 4.3. Population of Adopters of In-N-Out Burger
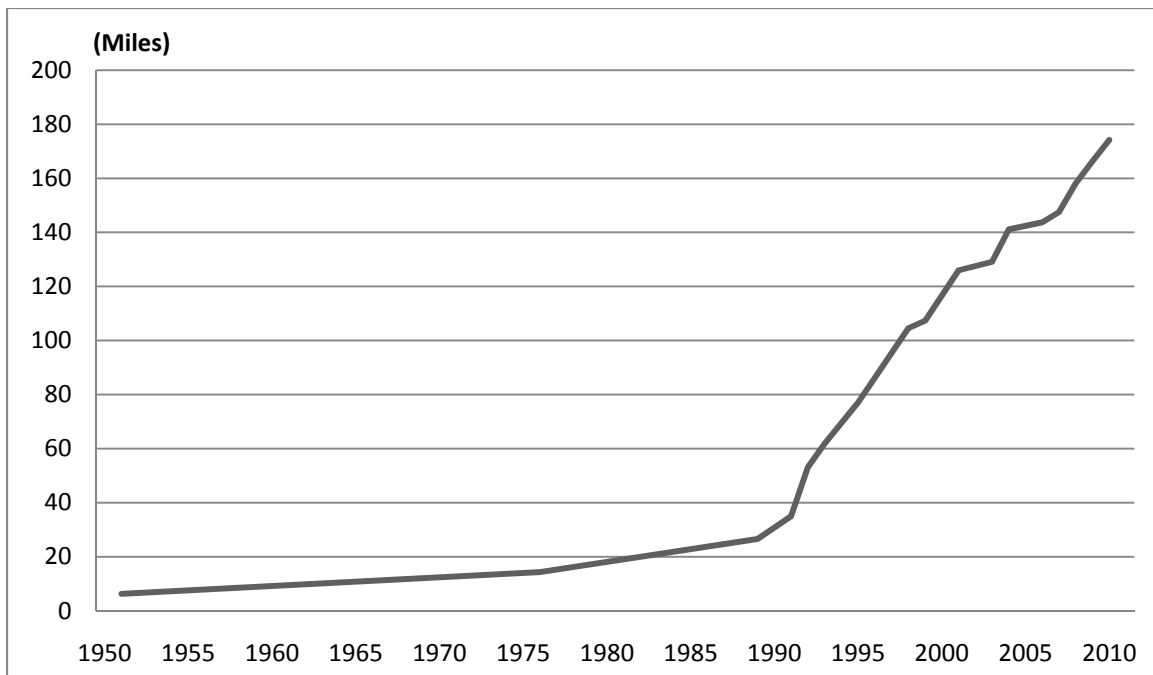
Figure 4.4. Average Distance of Each In-N-Out Burger Restaurant from Baldwin Park, California

4.2 Background of In-N-Out Burger locations

The final component of this study was an analysis of the site location factors that appear to have been used by In-N-Out Burger as this company expanded. Three criteria were used in the analysis: traffic, intra-chain competition, and demographics. The results of this analysis suggest that first, In-N-Out Burger prioritized highway locations, presumably to leverage sales to motorists on longer trip. Second, minimizing competition within the chain seems to have been a priority that increased the distance between each store beyond what other fast food chain appear to be comfortable with. Third, the company appears to prefer to open stores in neighborhoods that have higher than average percentages of white people, higher than average education levels, and higher than average income.

4.2.1 In-N-Out Burger locations vs. traffic

One of In-N-Out Burger's location strategies is to open in a place with significant traffic. Hence, this study argues that those restaurants should be close to highways. There are three types of highways, interstate, state/county/U.S. routes, and local highways. All of these have been analyzed with a buffer range of 0.5 mile and 1 mile. The results are listed in Table 4.3. Within 0.5 mile buffers, 35.71% of In-N-Out Burger stores are close to

interstate highways; more than 80% are close to interstate highway and state/county/U.S. routes; and almost 90% are close to all types of highways. The high percentage of In-N-Out Burger stores located close to highways is providing evidence that a primary factor in the location of In-N-Out Burger stores is highway traffic. Less than 10% of In-N-Out Burger stores are in what one might think of as a truly residential neighborhood; far from any types of highways.

Table 4.3. In-N-Out Burger Locations Close to Highways

Types of Highway	Buffered Range	Number of In-N-Out Burger	Percentage (%)
Interstate	0.5 Mile	90	35.71
	1 Mile	102	40.48
State Route County Route U.S. Route	0.5 Mile	211	48.02
	1 Mile	223	48.01
Local Highway	0.5 Mile	226	5.95
	1 Mile	235	4.76

4.2.2 The nearest distance between In-N-Out Burger stores

The location of In-N-Out Burger stores with respect to fellow In-N-Out Burger is another element of this chain's site location philosophy worth analyzing. To do this, the locations of industry leader, McDonald's were mapped to provide a baseline comparison. The nearest distance between stores was calculated for each chain in Los Angeles County.

The minimum of nearest distance between In-N-Out Burger stores is 1.1096 miles, but

for McDonald's this figure is less than one third of that at 0.0351 miles. The result is

shown on Table 4.4, which suggests that another important component of the company's

site location strategy is not to open too close to other In-N-Out Burger stores.

Table 4.4. Nearest Distance of In-N-Out Burger and McDonald's (miles)

	Location	Minimum	Mean	Maximum
In-N-Out Burger	Los Angeles County	1.1096	3.395	8.9095
McDonald's	Los Angeles County	0.0351	1.1563	7.4306
In-N-Out Burger	All	1.1095	8.00452	106.7452

4.2.3 Demographic background between In-N-Out Burger and McDonald's

In-N-Out Burger also seems to prefer a demographic profile for neighborhoods

selected to receive a store that is different from its competitors. In order to abstract the

specifics of demographic background, neighborhood characteristics for places hosting an

In-N-Out Burger were compared with similar characteristics for neighborhoods hosting a

McDonald's in Los Angeles County. The results are listed in Table 4.5. In-N-Out Burger

seems to prefer to locate stores in locations with a higher percent of white persons (54.5%

on average) and lower average black population (4.9%), than McDonald's whose average

neighborhood is 48% white population and 10.4% black. In terms of education level, the

census tracts hosting In-N-Out Burger stores, as a group, have on average 77.2% people with at least high school degrees. McDonald's neighborhoods on the other hand have on average only 69.4% with a high school diploma. Similarly, income levels between each group of neighborhoods. The median household income near a typical In-N-Out Burger location is $50,098 in 2000, while McDonald's is only $42,567. This analysis shows that the location strategy of In-N-Out Burger is different from McDonald's. In-N-Out Burger focuses on those places with higher white populations, lower black populations, a higher education level, and higher income than the industry leader, McDonald's. In order to know if this preference has changed from the first day or not, a deeper study of those factors has been performed in the next analysis.

Table 4.5. Demography of In-N-Out Burger and McDonald's in Los Angeles County

	Population (Density)	White (%)	Black (%)	Hispanic (%)	High School and Above (%)	BA / BS and Above (%)	Household Income ($)	
							Mean	Median
In-N-Out Burger	264,486 (1543.182)	54.5	4.9	37.1	77.2	27.2	62,881	50,098
McDonald's	1,376,864 (4526.478)	47.4	10.7	46.3	69.1	22.7	57,344	42,440
McDonald's (Weighted)	1,465,421 (4463.528)	48	10.4	45.8	69.4	22.8	57,546	42,567

4.2.4 Historical demographic background of In-N-Out Burger

Race, education level, and income have been chosen as important elements of In-N-Out Burger's site location strategies. The final analysis is to examine those elements in historical census data to see if site location trends have changed from 1948 or not. Table 4.6 lists the changes of those factors in different census years. Due to the data comparability, the full historical analysis could only consider the population data with white and black percentages and median household income. The result demonstrates that the percentage of black persons in neighborhoods containing In-N-Out Burger stores has boon relatively low since 1950. Consider that in the 1950 census data, out of the 4,151,687 residents of Los Angeles County, 93.4% were white, and 5.2% were black. This is a pretty low percentage, yet in census tracts hosting an In-N-Out Burger less than one-tenth of one percent were black. This trend has not changed much over the decades. According to the 1980 census data, California had 76.988% whites and 7.684% blacks, but census tracts with an In-N-Out Burger had on average only 3.52% blacks, a small trend toward the statewide average.

Table 4.6. Historical Demography of In-N-Out Burger

	Number of Tracts	Population	White (%)	Black (%)
1950	2	9,100	99.23	0.088
1970	16	81,714	97.73	0.45
1980	38	161,854	82.43	3.52
1990	86	515,904	78.90	3.71
2000	107	609,287	70.15	4.29
2000 (Weighted)	110	619,624	69.71	4.25

The median household income of census tracts hosting an In-N-Out Burger was also

analyzed. Table 4.7 illustrates the changes in income criteria through the years. The

comparison was done by calculating the average median household income of those

census tracts containing at least one In-N-Out Burger store and the county or state that

they are located, and then computed the ratio. Those ratios over 100% suggest that

In-N-Out Burger prefers to locate stores in areas with median household incomes that are

higher than the county wide averages. It appears that people in middle class

neighborhoods are most likely to be able to enjoy a short ride to eat In-N-Out Burger.

Table 4.7. Comparison of Median Household Income

	Number of Tracts	Median Household Income ($)	Located place	Average Median Household Income ($) of Located place	Ratio
1950	2	2,928	L.A. County	3,118	94%
1970	16	10,624	L.A. and Orange County	9,508	112%
1980	38	19,741	California	18,243	108%
1990	86	37,945	California and Nevada	33,405	114%
2000	107	54,854	California,	44,590	123%
2000 (Weighted)	110	54,489	Nevada, Arizona, and Utah		122%

Over all, race and income have been two of In-N-Out Burger's site location strategies since the very beginning years and had not changed until now.

Chapter 5

DISCUSSION

In-N-Out Burger has been a wildly successful restaurant chain. As such, an analysis of their site location strategies may shed some light on how other burger chains might craft their site location strategies. Although In-N-Out Burger does not believe in franchising, the company still expanded step by step to four different states. Unlike McDonald's, the diffusion of In-N-Out Burger has been contagious type; the chain stores spread from a central place to neighbors. Furthermore, In-N-Out Burger intends to open new stores at locations that are close to highways, far from other In-N-Out Burger stores, with a higher-than-average white population, and higher-than-average income. Those elements represent the background of In-N-Out Burger, and some of them are worthy of study in future research. The results of this study are discussed below, and some additional suggestions are provided as well.

5.1 The diffusion story

In-N-Out Burger started in Baldwin Park, California, and grew outward in a contagious diffusion pattern. This type of diffusion focuses on the neighborhood areas more than other big cities. As a result, the company could better leverage its reputation

for quality by word-of-mouth advertising. In contagious diffusion, the speed at which the

innovation moves out is slower than what happens during hierarchical diffusion. That is

the reason why when McDonald's had opened at least one store in each continental state

by the end of 1978, In-N-Out Burger had only 30 stores in Southern California. There is a

huge difference between In-N-Out Burger and McDonald's because they have different

management philosophy. However, the way that In-N-Out Burger has choose, to diffuse

contagiously, may help their expansion later.

The expansion of In-N-Out Burger happened in four phases. Unlike the superstores

in the United Kingdom, the growth of In-N-Out Burger has not faced a resistance period.

Instead, starting from the second phase (1992 to 1999), the growth of In-N-Out Burger

was faster than before. Compared to the four phases that Davies and Sparks (1989)

studied, In-N-Out Burger seems to have had its innovatory and consolidation time from

1948 to 1991, and then kept growing. The developing phases were classified by the new

places where In-N-Out Burger went. Table 5.1 tells the story of its expansion. There is

another event that worth noting is that In-N-Out Burger opened two warehouses other

than the original one in Baldwin Park. Those two are Las Vegas, Nevada in 1992, and

Tracy, California in 1996. The Vegas distribution center serves not only those stores

located in Las Vegas in early years, but also those stores opened in Utah later. The Tracy

distribution center serves those stores in Northern California and Northern Nevada as well. Those distribution centers helped the expansion of In-N-Out Burger in phases III and IV. However, due to the paucity of data for those distribution centers, few conclusions can be reached about the effect of warehousing strategies used by In-N-Out Burger.

Table 5.1. The Growth Rate in Four Phases

	Phase I	Phase II	Phase III	Phase IV
Year	1948~1991	1992~1999	2000~2007	2008~2010
Years	43	8	8	3
New stores	79	63	72	38
Growth Rate (New Stores/Years)	1.837	7.875	9	12.667
New Places	Southern California	Las Vegas, Northern California	Arizona, Northern Nevada	Utah

The finding of expansion phases can be compared to other fast food companies, not only to McDonald's, but also to other similar sized fast food companies, such as Five Guys Burger form Washington DC. Like In-N-Out Burger, Five Guys Burger also claims to make fresh burgers when the customer orders. Besides, Five Guys Burger even provides customized hamburgers and free peanuts. The main difference between In-N-Out Burger and Five Guys Burger is that Five Guys Burger has franchises. It will be

a good topic to compare those two burger companies and then find differences in future research.

Another use of these findings is to compare them with the future development of In-N-Out Burger. Although the growth rate was slow before 1991, it had increased to more than 10 stores per year after 2008. It will be worthwhile to see if the growth rate changes in the future and what state In-N-Out Burger will enter next. In fact, Perman (2008) mentioned that In-N-Out Burger is going to open a new store in Texas in 2011. If so, that will be a breakthrough for In-N-Out Burger because it will skip New Mexico, interrupting its contiguous diffusion. In-N-Out Burger may have to change its management philosophy to open a new store in Texas. Where will they located? Will they open another distribution center? A new store in Texas will be a new phase for In-N-Out Burger, an interesting case study not only from a business viewpoint but also a geographical one as well.

5.2 Background of locations

In the background section, this study has found that In-N-Out Burger has certain preferences in opening new stores. Since those criteria contain some sensitive fields, such as ethnicity, the results should be understood in a proper way. Zhou (1998) did a research

on Chinese services such as banks and computer services, and concluded that "ethnic enclaves are often not only the main residential areas for ethnic populations, but also the prime locations for their businesses." (Zhou 1998) For example, Chinese supermarkets are usually found in Chinese-concentrated areas. Due to the specialties of the services they provide, it is obvious that they intend to cluster in the area where the specific ethnic groups live. However, it is hard to tell if this is also the case with the distribution of In-N-Out Burger restaurants.

The geographical preferences of In-N-Out Burger are understandable, but it is necessary to further discuss the demographic preferences. As a fast food company, In-N-Out Burger wants to take advantage of significant traffic, so more than 80 percent of its stores are located within one mile of interstate highways and state/county/U.S. highways. This is a good location strategy. In addition, In-N-Out Burger avoids unwanted competition between its stores because they keep a minimum distance from each other of 1.1096 miles in Los Angeles County and 1.1095 miles for all other locations. This strategy is useful to prevent competition between stores and to make sure profits are enough to support running each store.

The demographic backgrounds of In-N-Out Burger stores have shown that In-N-Out Burger prefers to open a store in areas with a higher white population, a lower black

population, and with higher average income. It is not proper for this research to conclude that In-N-Out Burger is a company that prefers to sell hamburgers to white and high-income customers. However, the results from this study show that it is a good start in reviewing this strategy, especially from a cultural approach. It is impossible to judge a culture's preference by statistical factors, but with more observations from fieldwork and deeper qualitative interviews, the outline can still be abstracted. Hence, deeper research related to the fast food culture in the U.S. from a cultural geography approach is needed for future studies.

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APPENDIX: In-N-Out Burger Locations

Order	City	Address	State	Zip	Longitude	Latitude	Years	Region
1	Baldwin Park	13850 Francisquito Ave.	CA	91706	-117.974	34.068	1948	Los Angeles Area
2	Covina	1371 N. Grand Ave.	CA	91724	-117.873	34.105	1951	Los Angeles Area
3	La Verne	2098 Foothill Blvd.	CA	91750	-117.766	34.113		Los Angeles Area
4	West Covina	15610 San Bernardino Rd.	CA	91790	-117.936	34.090		Los Angeles Area
5	Pasadena	2114 E. Foothill Blvd.	CA	91107	-118.107	34.150		Los Angeles Area
6	Azusa	324 S. Azusa Ave.	CA	91702	-117.907	34.118		Los Angeles Area
7	La Puente	15259 E. Amar Rd.	CA	91744	-117.951	34.038		Los Angeles Area
8	Pomona	1851 Indian Hill Blvd.	CA	91767	-117.720	34.078		Los Angeles Area
9	North Hollywood	5864 Lankershim Blvd.	CA	91605	-118.382	34.177		Los Angeles Area
10	Panorama City	13651 Roscoe Blvd.	CA	91402	-118.431	34.222		Los Angeles Area
11	Hacienda Heights	14620 E. Gale Ave.	CA	91745	-117.987	34.019		Los Angeles Area
12	San Fernando	11455 Laurel Canyon Blvd.	CA	91342	-118.452	34.277		Los Angeles Area
13	Temple City	10601 E. Lower Azusa Rd.	CA	91780	-118.038	34.092		Los Angeles Area
14	Norwalk	14330 Pioneer Blvd.	CA	90650	-118.082	33.901		Los Angeles Area
15	Diamond Bar	21133 Golden Springs Dr.	CA	91789	-117.843	34.001		Los Angeles Area
16	Tujunga	6225 Foothill Blvd.	CA	91042	-118.267	34.241		Los Angeles Area
17	Santa Ana	815 N. Bristol St.	CA	92703	-117.885	33.752		Orange County
18	Woodland Hills	19920 Ventura Blvd.	CA	91364	-118.567	34.172	1976	Los Angeles Area
19	Garden Grove	9032 Trask Ave.	CA	92844	-117.972	33.767		Orange County
20	Rosemead	4242 N. Rosemead Blvd.	CA	91770	-118.073	34.084		Los Angeles Area
21	Ontario	2235 Mountain Ave.	CA	91761	-117.668	34.033		Inland Empire Area
22	Fontana	9855 Sierra Ave.	CA	92335	-117.435	34.075		Inland Empire Area
23	Rancho Cucamonga	8955 Foothill Blvd.	CA	91730	-117.610	34.106		Inland Empire Area
24	Anaheim	600 S. Brookhurst St.	CA	92804	-117.958	33.825		Orange County
25	Corona	450 Auto Center Dr.	CA	92882	-117.613	33.882		Inland Empire Area
26	San Bernardino	190 Bungalow Ct.	CA	92410	-117.300	34.102		Inland Empire Area
27	Arcadia	420 N. Santa Anita Ave.	CA	91006	-118.031	34.145		Los Angeles Area
28	Laguna Niguel	28782 Camino Capistrano	CA	92675	-117.674	33.545		Orange County
29	Hesperia	13704 Main St.	CA	92345	-117.378	34.427		Inland Empire Area
30	Torrance	730 W. Carson St.	CA	90502	-118.289	33.831		Los Angeles Area
31	San Bernardino	1065 E. Harriman Pl.	CA	92408	-117.262	34.067		Inland Empire Area
32	Placentia	825 W. Chapman Ave.	CA	92870	-117.879	33.874		Orange County
33	Pomona	2505 Garey Ave.	CA	91766	-117.749	34.026		Los Angeles Area
34	Ontario	1891 E. G St.	CA	91764	-117.611	34.069		Inland Empire Area
35	Northridge	9858 Balboa Blvd.	CA	91325	-118.502	34.250		Los Angeles Area
36	La Habra	2030 E. Lambert Rd.	CA	90631	-117.924	33.925		Orange County
37	Westminster	6292 Westminster Blvd.	CA	92683	-118.019	33.759		Orange County
38	Costa Mesa	594 W. 19th St.	CA	92626	-117.923	33.644		Orange County
39	Pedley	6634 Clay St.	CA	92509	-117.466	33.967		Inland Empire Area
40	Lakewood	5820 Bellflower Blvd.	CA	90713	-118.125	33.861		Los Angeles Area
41	Camarillo	1316 Ventura Blvd.	CA	93010	-119.053	34.217		Los Angeles Area
42	Buena Park	7926 Valley View St.	CA	90620	-118.028	33.847		Orange County
43	Lancaster	2021 W. Avenue I	CA	93536	-118.167	34.705		Los Angeles Area
44	Moreno Valley	23035 Hemlock Ave.	CA	92557	-117.260	33.942		Inland Empire Area
45	Upland	1837 Foothill Blvd.	CA	91786	-117.686	34.107		Inland Empire Area

Order	City	Address	State	Zip	Longitude	Latitude	Years	Region
46	Riverside	7467 Indiana Ave.	CA	92504	-117.403	33.936		Inland Empire Area
47	Santa Fe Springs	10525 Carmenita Rd.	CA	90670	-118.047	33.940		Los Angeles Area
48	Norco	1810 Hamner Ave.	CA	92860	-117.561	33.908		Inland Empire Area
49	Pico Rivera	9070 Whittier Blvd.	CA	90660	-118.083	34.001		Los Angeles Area
50	Thousand Palms	72265 Varner Rd.	CA	92276	-116.401	33.816		Inland Empire Area
51	Indio	82043 Hwy. 111	CA	92201	-116.233	33.714		Inland Empire Area
52	Hemet	2885 W. Florida Ave.	CA	92545	-117.002	33.747		Inland Empire Area
53	Newhall	25220 N. The Old Road	CA	91321	-118.565	34.377		Los Angeles Area
54	Lake Elsinore	331 Railroad Canyon Rd.	CA	92532	-117.298	33.664		Inland Empire Area
55	West Los Angeles	9245 W. Venice Blvd.	CA	90034	-118.394	34.026		Los Angeles Area
56	Barstow	2821 Lenwood Rd.	CA	92311	-117.083	34.850		Inland Empire Area
57	Lemon Grove	7160 Broadway	CA	91945	-117.043	32.744	1990	San Diego Area
58	Newbury Park	1550 Newbury Rd.	CA	91320	-118.914	34.184		Los Angeles Area
59	Orange	3501 E. Chapman Ave.	CA	92869	-117.816	33.788		Orange County
60	Long Beach	4600 Los Coyotes Diagonal	CA	90815	-118.140	33.791		Los Angeles Area
61	Vista	2010 Hacienda Dr.	CA	92081	-117.285	33.185		San Diego Area
62	Temecula	27700 Jefferson Ave.	CA	92590	-117.159	33.515		Inland Empire Area
63	Tustin	3020 El Camino Real	CA	92782	-117.793	33.723		Orange County
64	West Covina	2940 E. Garvey Ave.	CA	91791	-117.883	34.071		Los Angeles Area
65	Bakersfield	2310 Panama Ln.	CA	93307	-118.982	35.296		Central California
66	City of Industry	17849 E. Colima Rd.	CA	91748	-117.915	33.991		Los Angeles Area
67	Irvine	4115 Campus Dr.	CA	92612	-117.841	33.650		Orange County
68	Mira Mesa	9410 Mira Mesa Blvd.	CA	92126	-117.122	32.918		San Diego Area
69	Pacific Beach	2910 Damon Ave.	CA	92109	-117.219	32.809		San Diego Area
70	National City	500 Mile of Cars Way	CA	91950	-117.107	32.660		San Diego Area
71	Kearny Mesa	4375 Kearny Mesa Rd.	CA	92111	-117.149	32.820		San Diego Area
72	Hesperia	17069 Bear Valley Rd.	CA	92345	-117.291	34.471		Inland Empire Area
73	El Cajon	1541 N. Magnolia Ave.	CA	92020	-116.962	32.820		San Diego Area
74	Huntington Park	6000 Pacific Blvd.	CA	90255	-118.225	33.987		Los Angeles Area
75	Torrance	24445 Crenshaw Blvd.	CA	90505	-118.328	33.803		Los Angeles Area
76	Ventura	2070 Harbor Blvd.	CA	93001	-119.273	34.268		Los Angeles Area
77	Fullerton	1180 S. Harbor Blvd.	CA	92832	-117.924	33.860		Orange County
78	Simi Valley	2600 Stearns St.	CA	93063	-118.691	34.283		Los Angeles Area
79	Palmdale	142 E. Palmdale Blvd.	CA	93550	-118.128	34.579		Los Angeles Area
80	Las Vegas	2900 W. Sahara Ave.	NV	89102	-115.181	36.145	1992	Las Vegas
81	Las Vegas	51 N. Nellis Blvd.	NV	89110	-115.062	36.161		Las Vegas
82	Fresno	5106 W. Shaw Ave.	CA	93722	-119.883	36.809		Central California
83	Fresno	4302 N. Blackstone Ave.	CA	93726	-119.789	36.796		Central California
84	Rancho Cucamonga	12599 Foothill Blvd.	CA	91739	-117.531	34.106		Inland Empire Area
85	Sherman Oaks	4444 Van Nuys Blvd.	CA	91403	-118.449	34.152		Los Angeles Area
86	Las Vegas	4888 Dean Martin Dr.	NV	89103	-115.182	36.101		Las Vegas
87	Carmel Mountain	11880 Carmel Mountain Rd.	CA	92128	-117.078	32.981		San Diego Area
88	Las Vegas	4705 S. Maryland Pkwy.	NV	89119	-115.138	36.104		Las Vegas
89	Carlsbad	5950 Avenida Encinas	CA	92008	-117.325	33.125		San Diego Area
90	Modesto	3900 Pelandale Ave.	CA	95356	-121.067	37.699		Northern California

Order	City	Address	State	Zip	Longitude	Latitude	Years	Region
91	Merced	1579 Martin Luther King Jr. Way	CA	95340	-120.482	37.298		Northern California
92	Redondo Beach	3801 Inglewood Ave.	CA	90278	-118.362	33.892		Los Angeles Area
93	Fresno	2657 S. Second St.	CA	93706	-119.770	36.705	1993	Central California
94	Laguna Niguel	27380 La Paz Rd.	CA	92677	-117.707	33.565		Orange County
95	Kettleman City	33464 Bernard Dr.	CA	93239	-119.959	35.986		Central California
96	Tracy	575 Clover Rd.	CA	95376	-121.434	37.762		Northern California
97	Foothill Ranch	26482 Towne Centre Dr.	CA	92610	-117.669	33.682		Orange County
98	Atascadero	6000 San Anselmo Rd.	CA	93422	-120.684	35.497		Central California
99	Salinas	151 Kern St.	CA	93905	-121.641	36.680		Central California
100	Gilroy	641 Leavesley Rd.	CA	95020	-121.564	37.024	1994	Northern California
101	Stockton	2727 W. March Ln.	CA	95219	-121.346	37.985		Northern California
102	Hollywood	7009 Sunset Blvd.	CA	90028	-118.342	34.098		Los Angeles Area
103	Vacaville	170 Nut Tree Pkwy.	CA	95687	-121.961	38.367		Northern California
104	Las Vegas	1960 Rock Springs Dr.	NV	89128	-115.247	36.196		Las Vegas
105	La Mirada	14341 Firestone Blvd.	CA	90638	-118.025	33.882		Los Angeles Area
106	Visalia	1933 S. Mooney Blvd.	CA	93277	-119.314	36.313		Central California
107	Santa Clarita	28368 Sand Canyon Rd.	CA	91387	-118.423	34.423		Los Angeles Area
108	Goleta	4865 Calle Real	CA	93111	-119.791	34.443		Central California
109	Auburn	130 Grass Valley Hwy.	CA	95603	-121.075	38.902		Northern California
110	Burbank	761 N. First St.	CA	91502	-118.316	34.186		Los Angeles Area
111	Studio City	3640 Cahuenga Blvd.	CA	90068	-118.360	34.135		Los Angeles Area
112	Downey	8767 Firestone Blvd.	CA	90241	-118.124	33.936		Los Angeles Area
113	Rohnert Park	5145 Redwood Dr.	CA	94928	-122.714	38.361		Northern California
114	Long Beach	6391 E. Pacific Coast Hwy.	CA	90803	-118.111	33.758		Los Angeles Area
115	Milpitas	50 Ranch Dr.	CA	95035	-121.922	37.426		Northern California
116	Elk Grove	9188 E. Stockton Blvd.	CA	95624	-121.391	38.424	1996	Northern California
117	Westchester	9149 S. Sepulveda Blvd.	CA	90045	-118.397	33.954		Los Angeles Area
118	San Ramon	2270 San Ramon Valley Blvd.	CA	94583	-121.977	37.779		Northern California
119	Westwood	922 Gayley Ave.	CA	90024	-118.448	34.063		Los Angeles Area
120	Pinole	1417 Fitzgerald Dr.	CA	94564	-122.311	37.989		Northern California
121	Alhambra	1210 N. Atlantic Blvd.	CA	91801	-118.135	34.106		Los Angeles Area
122	Rancho Cordova	2475 Sunrise Blvd.	CA	95670	-121.269	38.615		Northern California
123	San Diego	3102 Sports Arena Blvd.	CA	92110	-117.205	32.752		San Diego Area
124	Pleasanton	6015 Johnson Dr.	CA	94588	-121.908	37.700		Northern California
125	Fairfield	1364 Holiday Ln.	CA	94534	-122.065	38.257		Northern California
126	Napa	820 W. Imola Ave.	CA	94559	-122.276	38.281		Northern California
127	Davis	1020 Olive Dr.	CA	95616	-121.738	38.541		Northern California
128	Mission Valley	2005 Camino Del Este	CA	92108	-117.143	32.770		San Diego Area
129	Mountain View	1159 N. Rengstorff Ave.	CA	94043	-122.093	37.421		Northern California
130	Sunnyvale	604 E. El Camino Real	CA	94087	-122.025	37.361		Northern California
131	Sacramento	3501 Truxel Rd.	CA	95834	-121.504	38.637		Northern California
132	Roseville	1803 Taylor Rd.	CA	95661	-121.259	38.758		Northern California
133	Santa Ana	3361 S. Bristol St.	CA	92704	-117.885	33.701		Orange County
134	Van Nuys	7930 Van Nuys Blvd.	CA	91402	-118.448	34.215		Los Angeles Area
135	Long Beach	7691 Carson Street	CA	90808	-118.085	33.831		Los Angeles Area

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136	Santa Maria	1330 S. Bradley Rd.	CA	93454	-120.419	34.937		Central California
137	Redding	1275 Dana Drive	CA	96003	-122.348	40.585		Northern California
138	Anaheim Hills	5646 E. La Palma Ave	CA	92807	-117.792	33.859		Orange County
139	Placerville	3055 Forni Road	CA	95667	-120.833	38.720		Northern California
140	Culver City	13425 Washington Blvd.	CA	90292	-118.446	33.991	1999	Los Angeles Area
141	Mill Valley	798 Redwood Hwy.	CA	94941	-122.516	37.897		Northern California
142	San Jose	5611 Santa Teresa Blvd.	CA	95123	-121.860	37.249		Northern California
143	Lake Havasu	81-101 London Bridge Rd.	AZ	86403	-114.351	34.475	2000	Arizona
144	Ontario	4310 E. Ontario Mills Parkway	CA	91764	-117.557	34.068		Inland Empire Area
145	Bakersfield	5100 Stockdale Hwy.	CA	93309	-119.059	35.355		Central California
146	Scottsdale	7467 E. Frank Lloyd Wright Bl	AZ	85257	-111.919	33.637		Arizona
147	Chico	2050 Business Ln.	CA	95928	-121.807	39.724		Northern California
148	Avondale	1525 Dysart Road	AZ	85323	-112.341	33.447		Arizona
149	Livermore	1881 N Livermore Ave	CA	94550	-121.773	37.700		Northern California
150	Henderson	1051 W. Sunset Road	NV	89014	-115.034	36.063		Las Vegas
151	San Pedro	1090 N. Western Ave.	CA	90732	-118.316	33.736		Los Angeles Area
152	Mountain View	53 W. El Camino Real	CA	94040	-122.074	37.381		Northern California
153	Chandler	7050 W. Ray Road	AZ	85226	-111.964	33.320		Arizona
154	San Francisco	333 Jefferson St.	CA	94133	-122.419	37.808		Northern California
155	Mesa	1650 S. Stapley	AZ	85204	-111.806	33.383		Arizona
156	Union City	32060 Union Landing Blvd.	CA	94587	-122.066	37.599		Northern California
157	Glendale	310 N. Harvey Drive	CA	91206	-118.228	34.149		Los Angeles Area
158	San Jose	2950 E. Capitol Expressway	CA	95148	-121.810	37.327		Northern California
159	Daly City	260 Washington Street	CA	94015	-122.472	37.688		Northern California
160	Phoenix	21001 N. Tatum Blvd.	AZ	85050	-111.976	33.677		Arizona
161	Turlock	3071 Countryside Dr.	CA	95380	-120.882	37.521		Central California
162	Oceanside	4605 Frazee Rd	CA	92057	-117.299	33.238		San Diego Area
163	Oxnard	381 W. Esplanade	CA	93030	-119.179	34.235	2002	Los Angeles Area
164	Chandler	2790 W. Chandler	AZ	85224	-111.892	33.306		Arizona
165	Las Vegas	9240 S. Eastern Ave.	NV	89123	-115.118	36.021		Las Vegas
166	Inglewood	3411 W. Century Blvd.	CA	90301	-118.332	33.946		Los Angeles Area
167	Chino	3927 Grand Avenue	CA	91710	-117.718	33.997		Inland Empire Area
168	Pittsburg	4550 Delta Gateway Blvd.	CA	94565	-121.837	38.005		Northern California
169	Peoria	8285 W. Bell Rd.	AZ	85382	-112.233	33.637		Arizona
170	Laguna Hills	24001 Avenida De La Carlota	CA	92653	-117.708	33.613		Orange County
171	Santa Clarita	26401 Bouquet Canyon Rd.	CA	91350	-118.539	34.426		Los Angeles Area
172	Glendora	1261 S. Lone Hill	CA	91741	-117.829	34.116		Los Angeles Area
173	Fresno	8010 N. Blackstone Ave.	CA	93720	-119.790	36.852		Central California
174	Glendale	119 Brand Blvd.	CA	91204	-118.255	34.146		Los Angeles Area
175	Corona	2305 Compton Ave.	CA	92881	-117.536	33.844		Inland Empire Area
176	Santa Clara	3001 Mission College Blvd.	CA	95054	-121.979	37.392		Northern California
177	Phoenix	19407 N. 27th Avenue	AZ	85027	-112.117	33.662		Arizona
178	Porter Ranch	19901 Rinaldi St.	CA	91326	-118.568	34.276		Los Angeles Area
179	Moorpark	856 New Los Angeles Ave.	CA	93021	-118.865	34.280		Los Angeles Area
180	Huntington Beach	18062 Beach Blvd.	CA	92648	-117.989	33.700		Orange County

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181	Laughlin	2058 Casino Dr.	NV	89029	-114.575	35.161		Las Vegas
182	Orange	2585 N. Tustin Ave.	CA	92865	-117.836	33.832		Orange County
183	Roseville	10309 Fairway Dr.	CA	95678	-121.282	38.790		Northern California
184	Prescott	3040 Hwy. 69	AZ	86301	-112.410	34.552		Arizona
185	San Marcos	583 Grand Ave.	CA	92078	-117.179	33.136		San Diego Area
186	Reno	8215 S. Virginia	NV	89511	-119.778	39.454	2004	Northern Nevada
187	Carson Valley	957 Topsy Lane	NV	89705	-119.775	39.109	2004	Northern Nevada
188	Sparks	280 Pyramid Way	NV	89431	-119.753	39.536	2004	Northern Nevada
189	Brentwood	5581 Lone Tree Way	CA	94513	-121.748	37.961		Northern California
190	Millbrae	11 Rollins Rd.	CA	94030	-122.382	37.601		Northern California
191	Manteca	1490 E. Yosemite Avenue	CA	95336	-121.192	37.798		Northern California
192	Paradise Valley	12413 N. Tatum Blvd.	AZ	85032	-111.980	33.599		Arizona
193	Oakland	8300 Oakport St.	CA	94601	-122.201	37.739		Northern California
194	Fremont	43349 Pacific Commons Blvd.	CA	94538	-121.973	37.504		Northern California
195	Tempe	920 E. Playa Del Norte	AZ	85281	-111.925	33.435		Arizona
196	Van Nuys	7220 Balboa Blvd.	CA	91406	-118.501	34.202		Los Angeles Area
197	Lodi	2625 W. Kettleman Ln.	CA	95242	-121.308	38.116		Northern California
198	Morgan Hill	895 Cochrane Road	CA	95037	-121.655	37.152		Northern California
199	City of Industry	21620 Valley Blvd.	CA	91789	-117.835	34.028		Los Angeles Area
200	Temecula	30697 Temecula Pkwy.	CA	92592	-117.123	33.476	2005	Inland Empire Area
201	Kingman	1770 E. Beverly Ave.	AZ	86409	-114.037	35.219		Arizona
202	Petaluma	1010 Lakeville St.	CA	94952	-122.621	38.235		Northern California
203	Yuma	1940 E. 16th St.	AZ	85365	-114.600	32.699		Arizona
204	Las Vegas	5690 Centennial Center Blvd.	NV	89149	-115.257	36.265		Las Vegas
205	Gilbert	2449 S. Market St.	AZ	85296	-111.744	33.306		Arizona
206	Canoga Park	6841 N. Topanga Canyon Blvd.	CA	91303	-118.606	34.195		Los Angeles Area
207	Tucson	3711 E. Broadway Blvd.	AZ	85716	-110.914	32.222	2007	Arizona
208	Northridge	8830 Tampa Ave.	CA	91324	-118.553	34.231		Los Angeles Area
209	Lebec/Tejon Ranch	5926 Dennis McCarthy Dr.	CA	93243	-118.948	34.984		Central California
210	Marana	8180 Cortaro Rd	AZ	85743	-111.093	32.355		Arizona
211	El Centro	2390 E. 4th St.	CA	92243	-115.553	32.772		San Diego Area
212	Murrieta	39697 Avenida Acacias	CA	92563	-117.179	33.573		Inland Empire Area
213	Sacramento	2900 Del Paso Rd.	CA	95834	-121.526	38.656		Northern California
214	Yuba City	1375 Sunsweet Blvd.	CA	95993	-121.637	39.136		Northern California
215	Washington City	832 W. Telegraph St.	UT	84780	-113.523	37.128	2008	Utah
216	Tustin	2895 Park Ave.	CA	92782	-117.827	33.695		Orange County
217	Sacramento	4600 Madison Ave.	CA	95841	-121.357	38.661		Northern California
218	Mesa	1859 S. Signal Butte Rd.	AZ	85209	-111.600	33.382		Arizona
219	Chandler	2910 E. Germann Rd.	AZ	85249	-111.790	33.278		Arizona
220	Clovis	382 N. Clovis Ave.	CA	93612	-119.701	36.837		Central California
221	Las Vegas	3882 Blue Diamond Rd.	NV	89139	-115.191	36.041		Las Vegas
222	San Leandro	15575 Hesperian Blvd.	CA	94579	-122.130	37.687		Northern California
223	Casa Grande	873 N. Promenade Pkwy.	AZ	85294	-111.682	32.880		Arizona
224	Menifee	30296 Haun Rd.	CA	92584	-117.175	33.681		Inland Empire Area
225	West Sacramento	780 Ikea Court	CA	95605	-121.550	38.592		Northern California

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226	Las Vegas	9610 W. Tropicana Ave.	NV	89147	-115.302	36.100		Las Vegas
227	Chula Vista	1725 Eastlake Pkwy.	CA	91915	-116.964	32.628		San Diego Area
228	Phoenix	34850 N. Valley Pkwy.	AZ	85086	-112.130	33.801		Arizona
229	Folsom	225 Placerville Rd.	CA	95630	-121.113	38.646		Northern California
230	Mesa	1342 S. Alma School Rd.	AZ	85210	-111.858	33.390		Arizona
231	Woodland	2011 Bronze Star Dr.	CA	95776	-121.728	38.670		Northern California
232	Phoenix	9585 W. Camelback Rd.	AZ	85037	-112.266	33.508		Arizona
233	Victorville	15290 Civic Drive Rd.	CA	92394	-117.322	34.521	2009	Inland Empire Area
234	North Las Vegas	6880 N. 5th St.	NV	89084	-115.135	36.284	2009	Las Vegas
235	Orem	350 E. University Pkwy.	UT	84057	-111.686	40.273	2009	Utah
236	Draper	12191 South Factory Outlet Dr.	UT	84020	-111.890	40.529	2009	Utah
237	West Jordan	7785 Jordan Landing Blvd.	UT	84084	-111.986	40.610	2009	Utah
238	Tucson	1979 E. Ajo Way	AZ	85713	-110.941	32.178	2009	Arizona
239	American Fork	601 West Main St.	UT	84003	-111.815	40.377	2009	Utah
240	San Jose	550 Newhall Dr.	CA	95110	-121.921	37.348	2009	Northern California
241	Oro Valley	11545 N. Oracle Rd.	AZ	85755	-110.938	32.417	2010	Arizona
242	Tucson	7111 E. Broadway Blvd.	AZ	85710	-110.840	32.221	2010	Arizona
243	North Las Vegas	2765 E. Craig Rd.	NV	89030	-115.112	36.240	2010	Las Vegas
244	Riverton	12569 S. Crossing Dr.	UT	84096	-111.985	40.523	2010	Utah
245	West Valley City	3715 S. Constitution Blvd.	UT	84119	-111.958	40.691	2010	Utah
246	Redwood City	949 Veterans Blvd.	CA	94063	-122.228	37.491	2010	Northern California
247	Escondido	1260 W. Valley Parkway	CA	92029	-117.102	33.115	2010	San Diego Area
248	Centerville	475 N. 700 West	UT	84014	-111.889	40.922	2010	Utah
249	Santa Rosa	2131 County Center Dr.	CA	95401	-122.725	38.461	2010	Northern California
250	Arroyo Grande	1170 W. Branch St.	CA	93420	-120.600	35.128	2010	Central California
251	Costa Mesa	3211 Harbor Blvd.**	CA	92626	-117.920	33.688	2010	Orange County
252	Pheonix	2770 W. Peoria Ave.**	AZ	85029	-112.120	33.582	2010	Arizona