

Bay Area Neighborhood Commercial Districts: A Pilot Study

Abby Thorne-Lyman - Sarah Treuhaft
CP 225 - Spring 2003

Research Questions

- How does business mix vary among neighborhood commercial districts?
- What neighborhood characteristics (demographic and physical factors) might be related to the business mix?
- What hypotheses for further study can be generated by looking at neighborhood retail through this analysis?

Study Neighborhoods

San Francisco Neighborhoods:

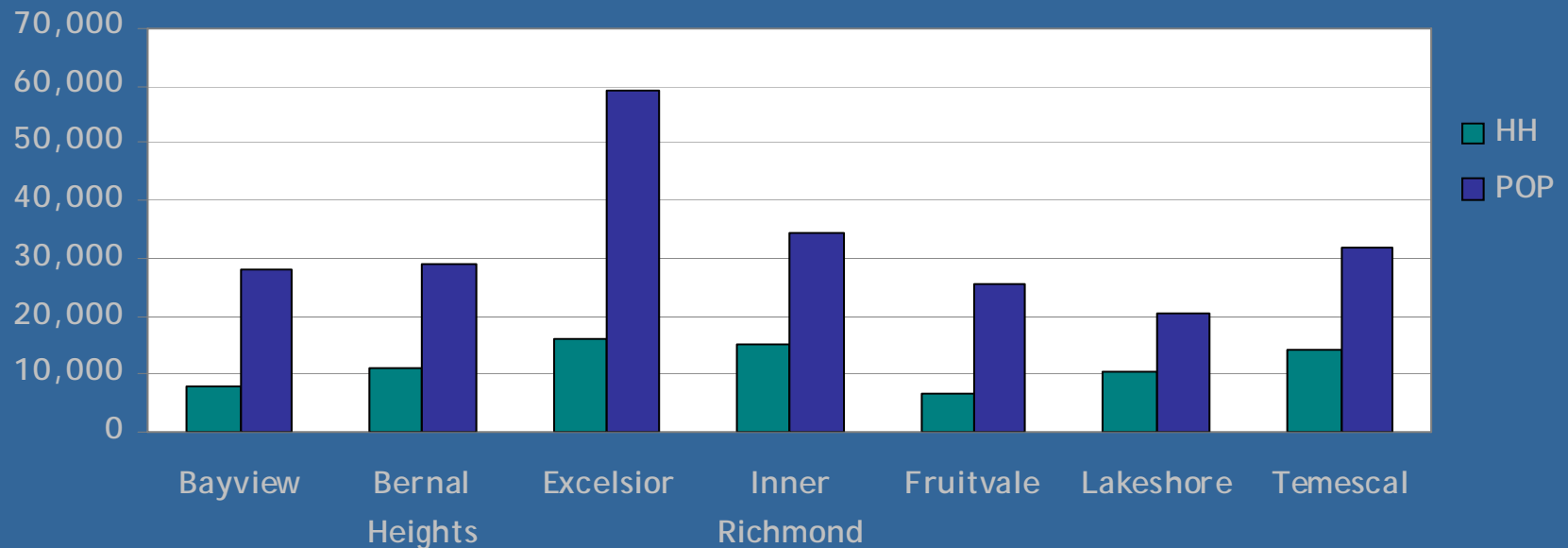
- Bayview - *Third Street, Evans to Williams*
- Bernal Heights - *Cortland Avenue, Bennington to Folsom*
- Excelsior - *Mission Street, Silver to Geneva*
- Inner Richmond - *Clement Street, Arguello to Park Presidio*

Oakland Neighborhoods

- Fruitvale - *International Boulevard, 29th to 42nd*
- Lakeshore - *Lakeshore Drive, Lake Park to Mandana*
- Temescal - *Telegraph Avenue, 51st to 36th*

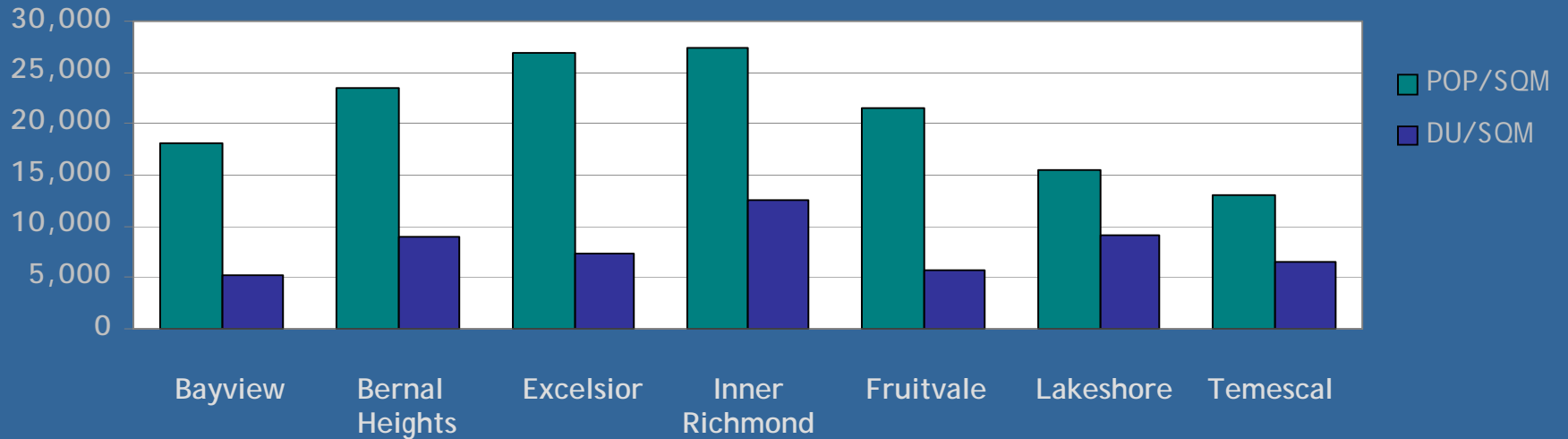
Neighborhood Characteristics: Population

Population and Households, 2000



Neighborhood Characteristics: Density

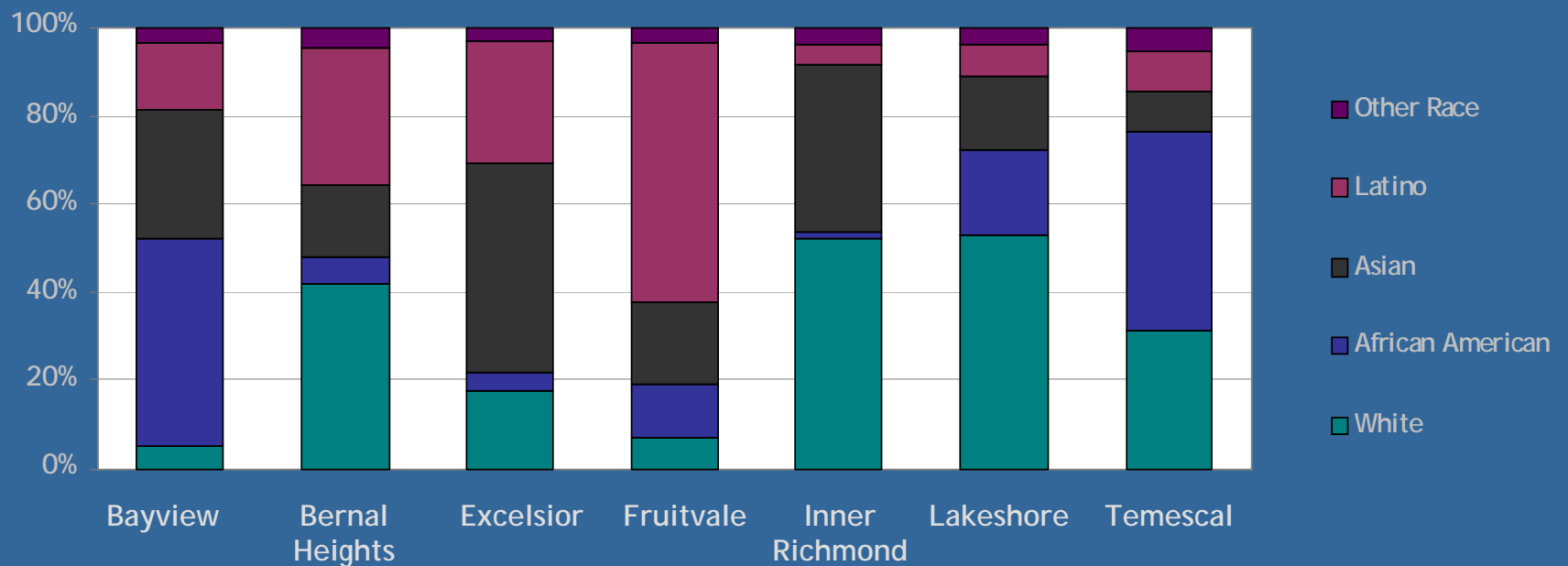
Population and Housing Density, 2000



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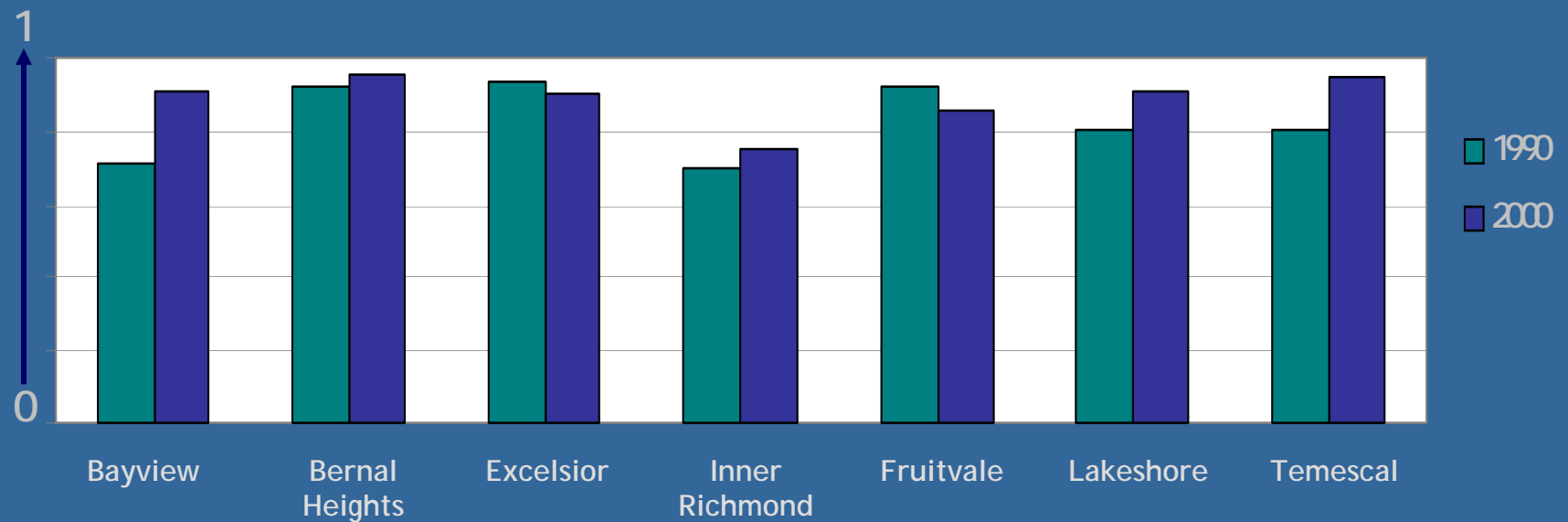
Neighborhood Characteristics: Race/Ethnicity

Racial/Ethnic Mix by Neighborhood, 2000



Neighborhood Characteristics: Race/Ethnicity

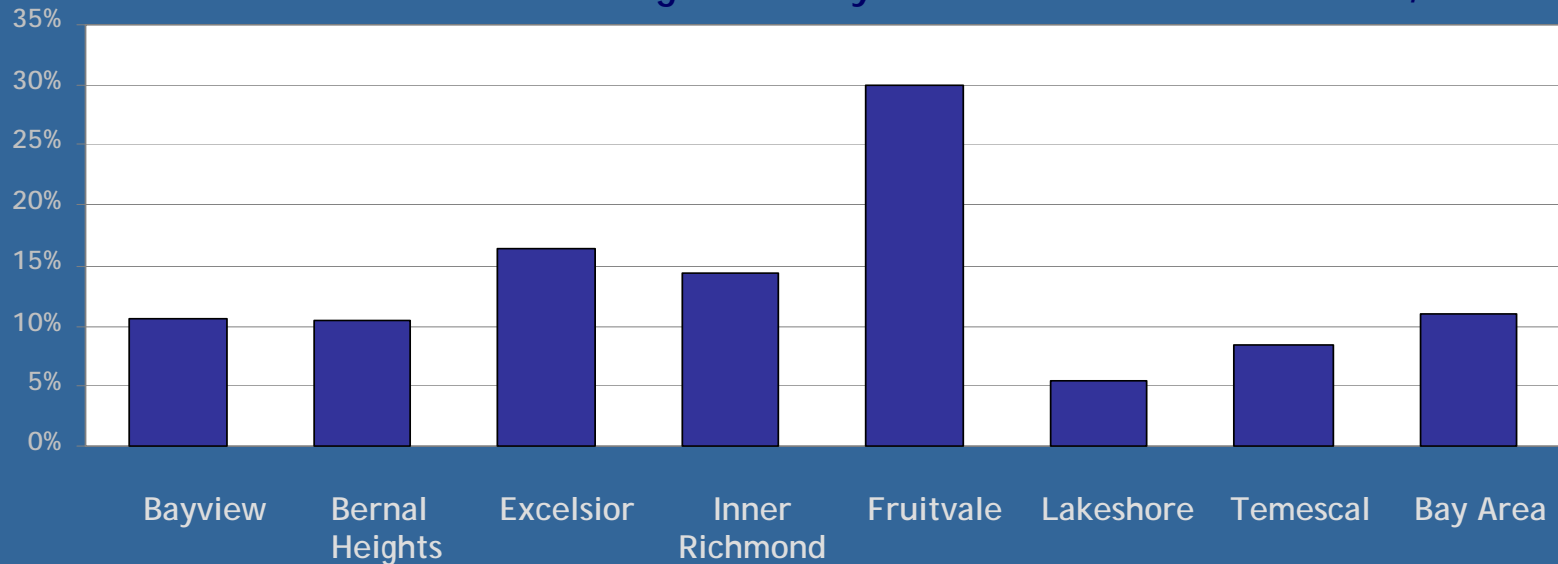
Diversity Index for Race*, 2000



* The Diversity Index ranges from 0 to 1, with 1 being "perfectly" diverse (all races/ethnicities are equally represented)

Neighborhood Characteristics: Recent Immigrants

Residents that Came from a Foreign Country Within the Past Ten Years, 2000



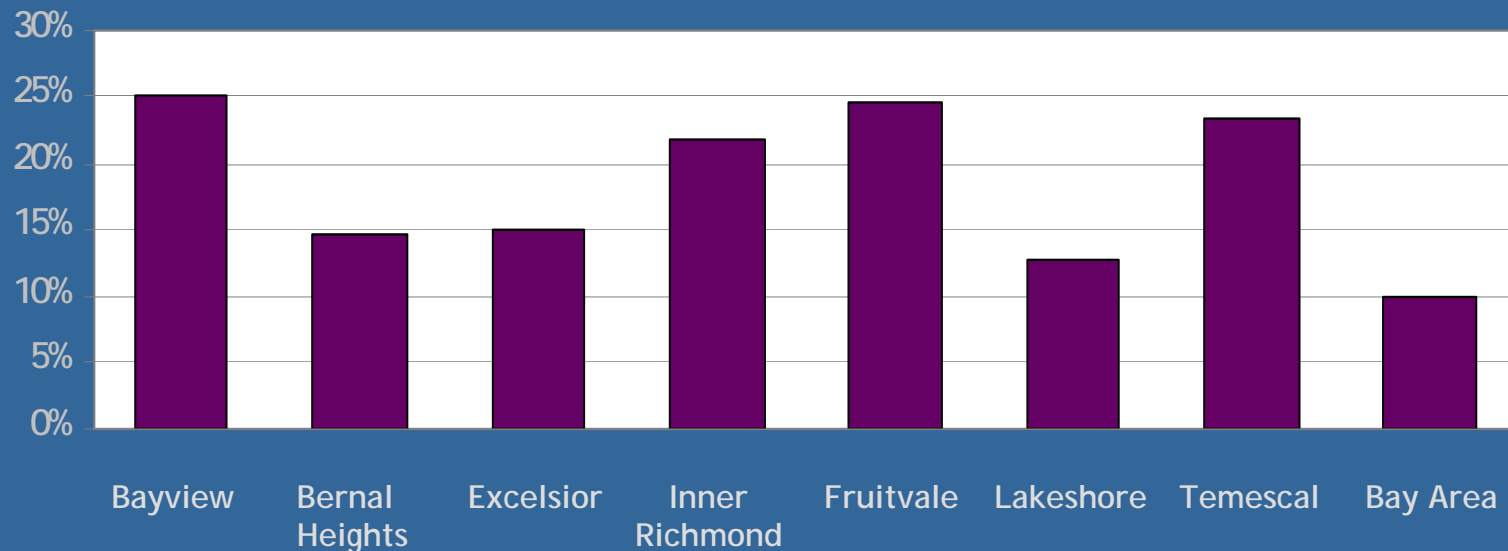
Neighborhood Characteristics: Lot Size

Average Lot Size, in Acres



Neighborhood Characteristics: Vehicle Ownership

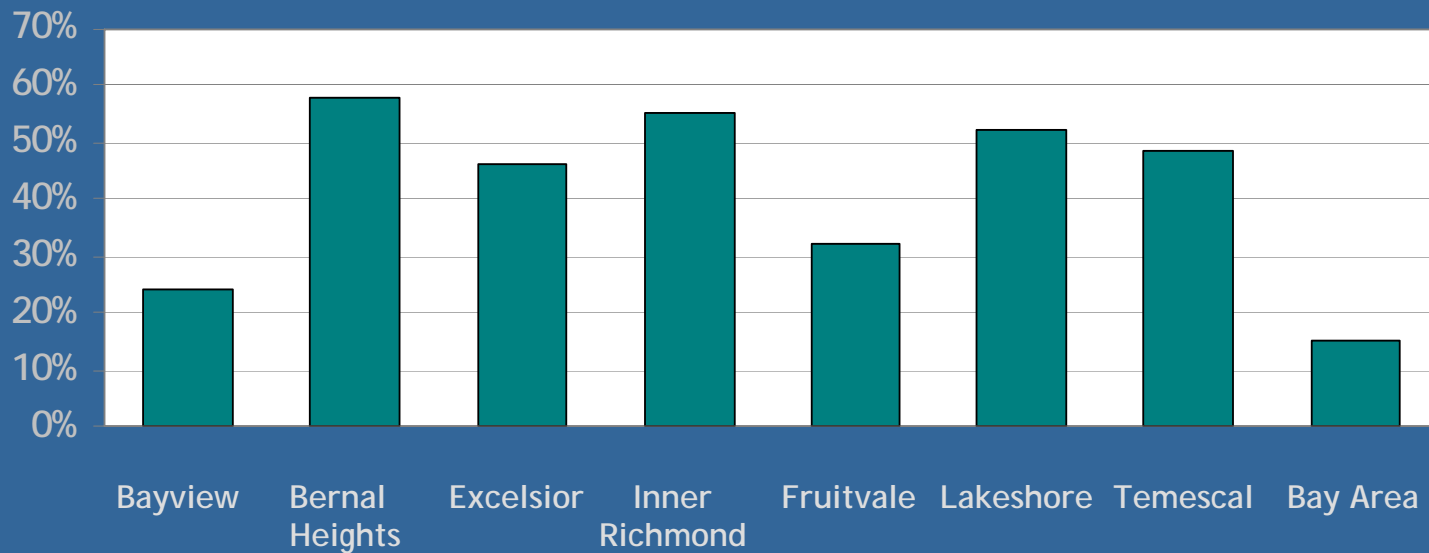
Percent of Households Without Vehicles, 2000



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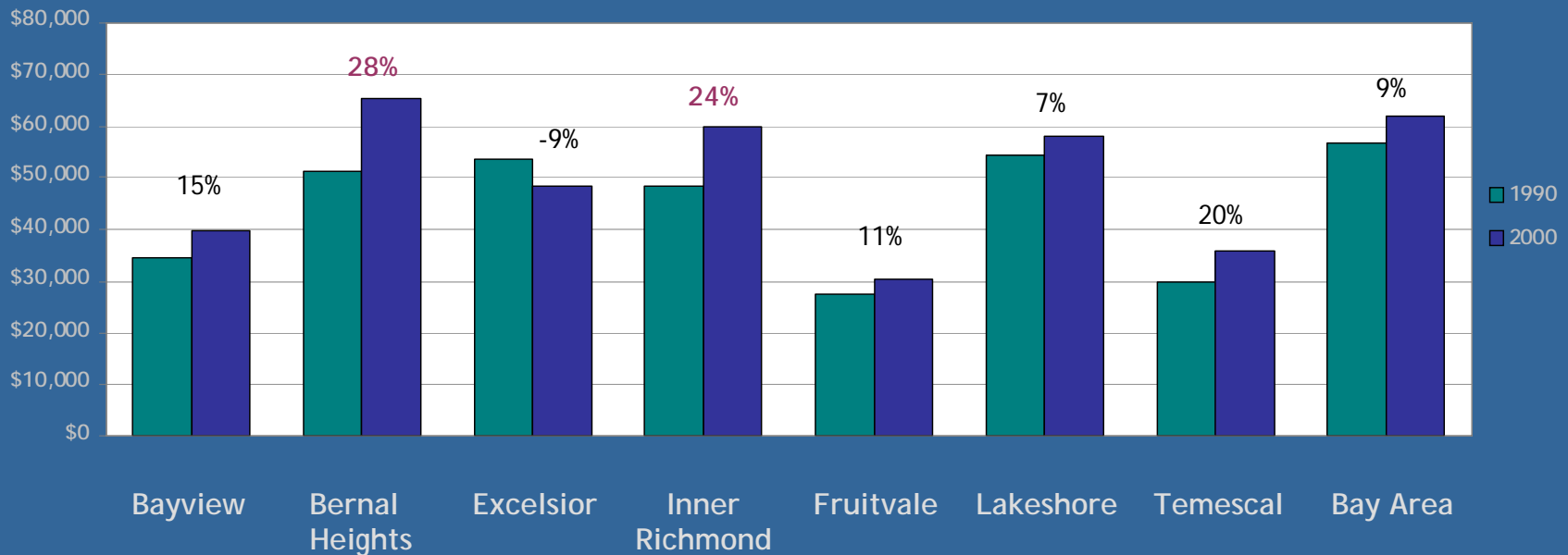
Neighborhood Characteristics: Age of Housing Stock

Housing Built pre-1939



Indicators of Neighborhood Stability: Income

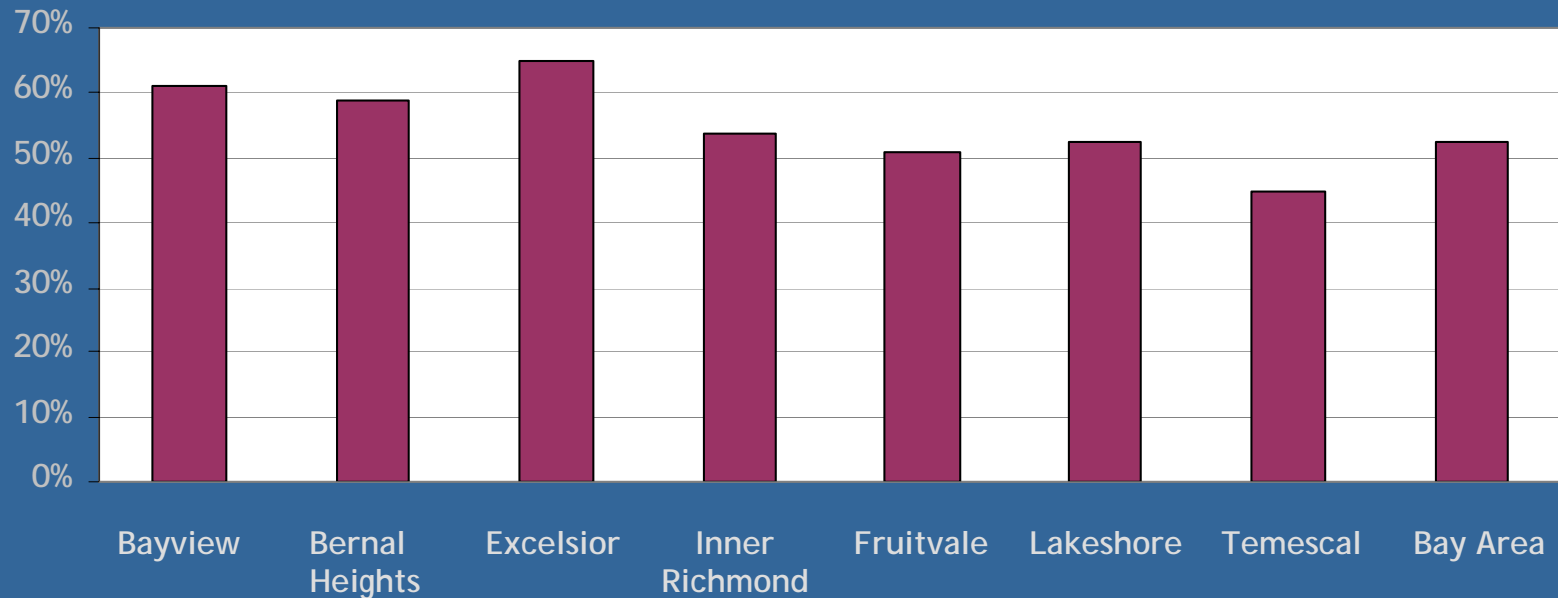
Change in Median Household Income, 1990-2000*



**1990 figures were adjusted for inflation*

Indicators of Neighborhood Stability: Migration

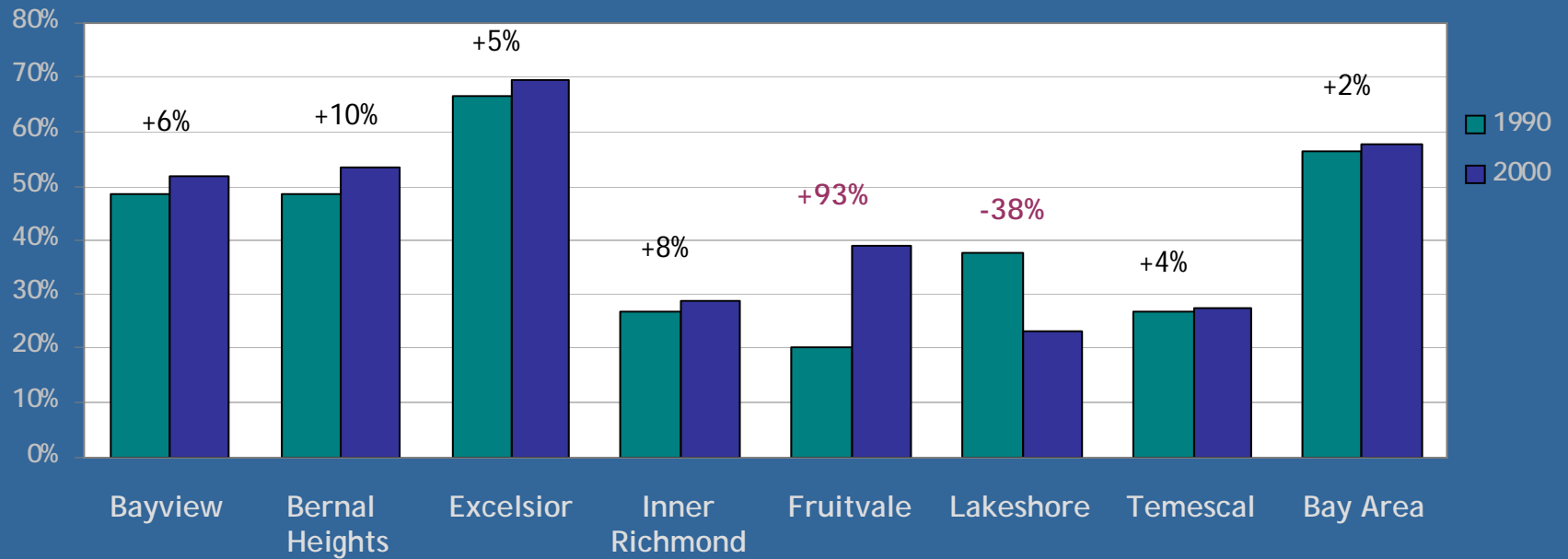
Percent of Residents Living in the Same House 5 Years Previous, 2000



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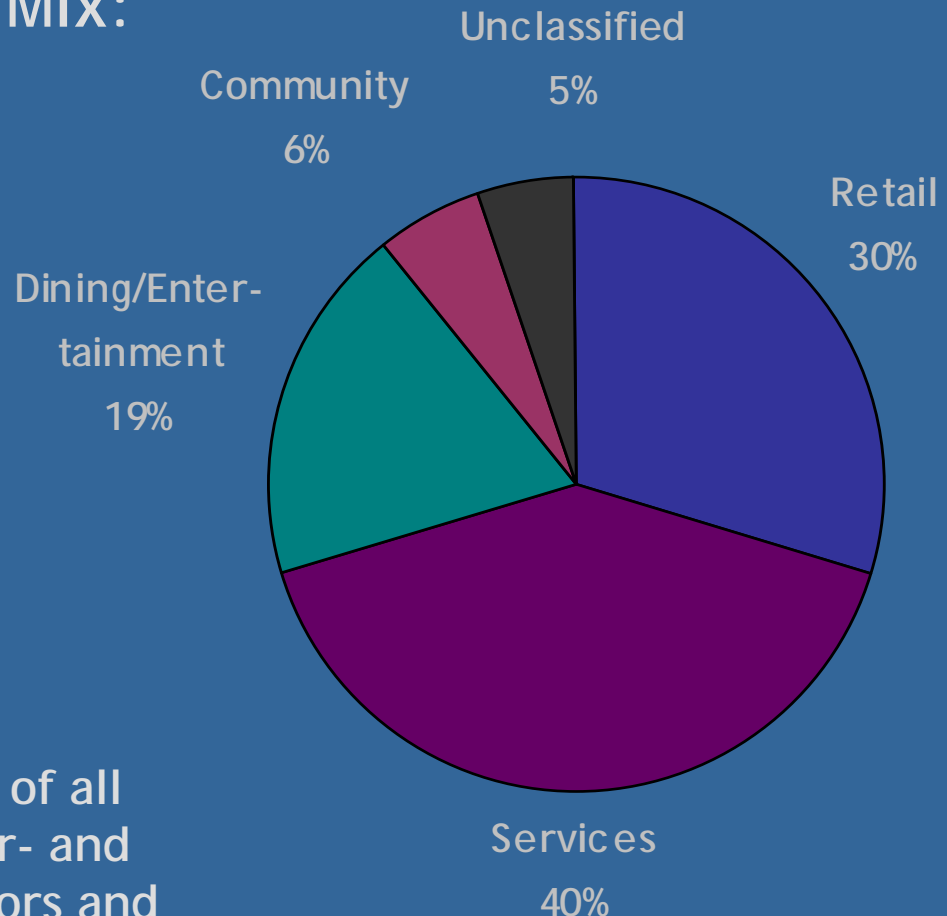
Indicators of Neighborhood Stability: Change in Tenure

Change in Home Ownership, 1990-2000



Neighborhood Business Mix: Overview

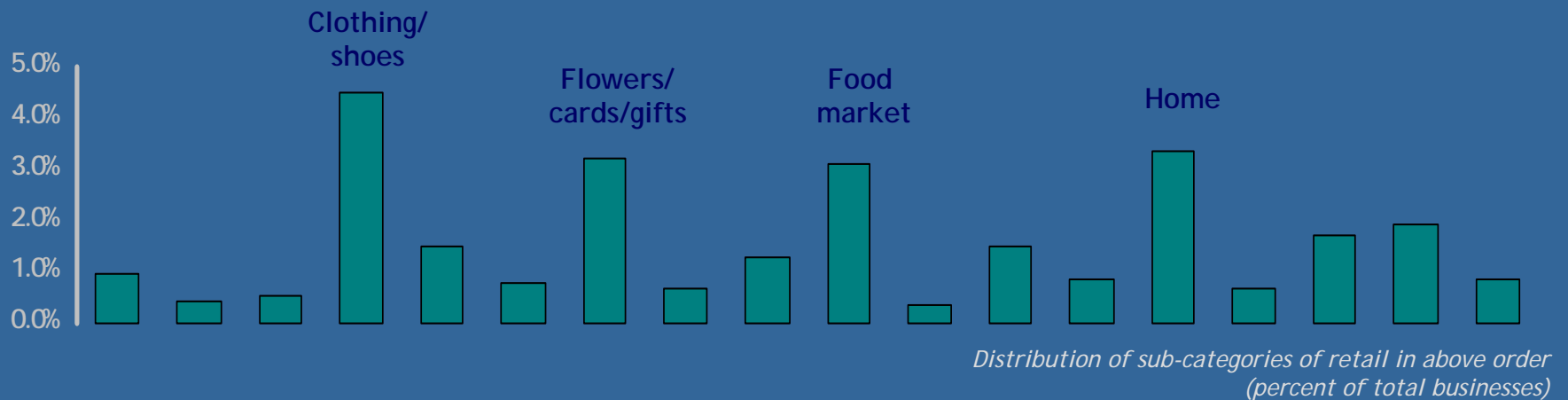
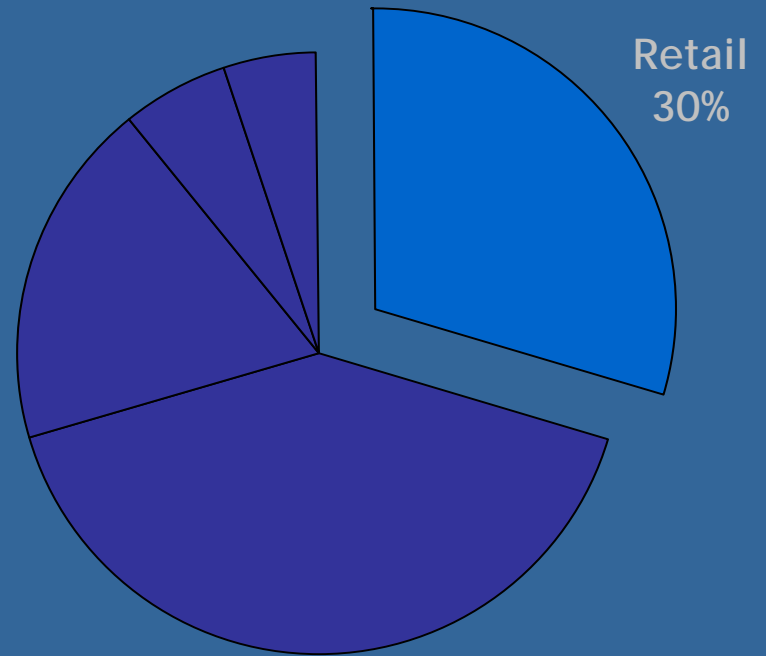
- 1165 businesses
- 4 sectors:
 - retail
 - services
 - dining/entertainment
 - community organizations
 - plus “unclassified”
- We compared individual neighborhood mix to the mix of all neighborhoods to look at over- and under-representation of sectors and types of businesses within sectors



Neighborhood Business Mix: Retail

Sub-categories:

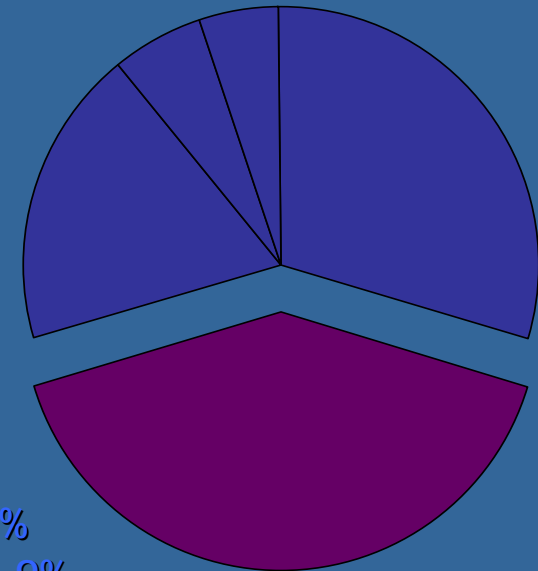
- Auto sales 0.9%
- Bookstores/newsstands 0.4%
- Cellular 0.5%
- Clothing/shoes 4.5%
- Electronics 1.5%
- Ethnic Market 0.8%
- Flowers/cards/gifts 3.3%
- Food Market 3.2%
- Hardware 0.7%
- Hobby/Craft 1.3%
- Home 3.1%
- Jewelry 0.3%
- Liquor 1.5%
- Music 0.9%
- Pharmacy 0.7%
- Produce 1.7%
- Used/thrift/discount 1.9%
- Video 0.9%



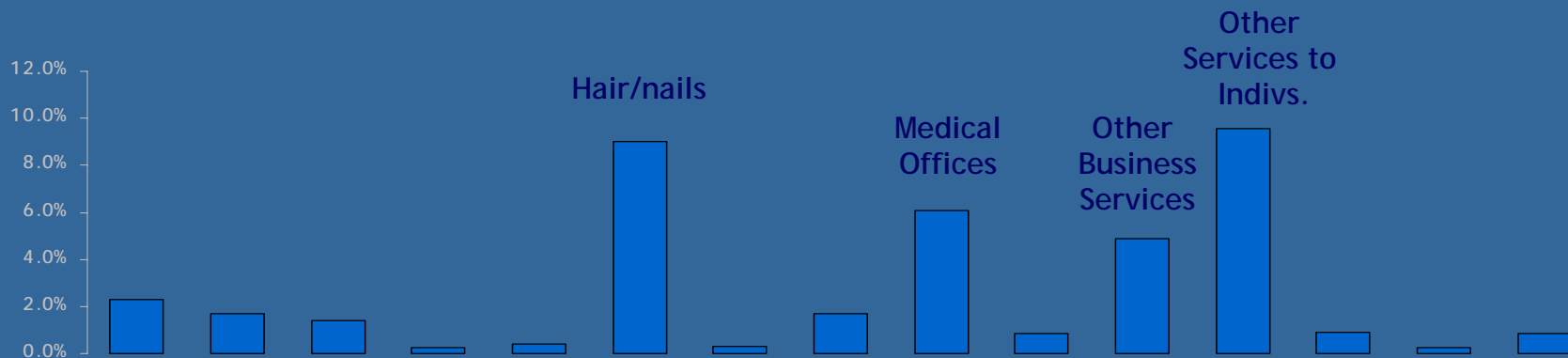
Neighborhood Business Mix: Services

Sub-categories:

- Auto repair 2.3%
- Bank 1.7%
- Check cashing/
money wiring 1.4%
- Copy shop 0.3%
- Gas station 0.4%
- Hair/nails/
beauty salon 9.0%
- Hotel/Motel 0.3%
- Laundry/dry cleaning 1.7%
- Medical offices 6.1%
- Photo 0.9%
- Other services to business 4.9%
- Other services to individuals 9.5%
- Repair shops (other than auto) 0.9%
- Storage 0.3%
- Travel agency 0.9%



Services
40%



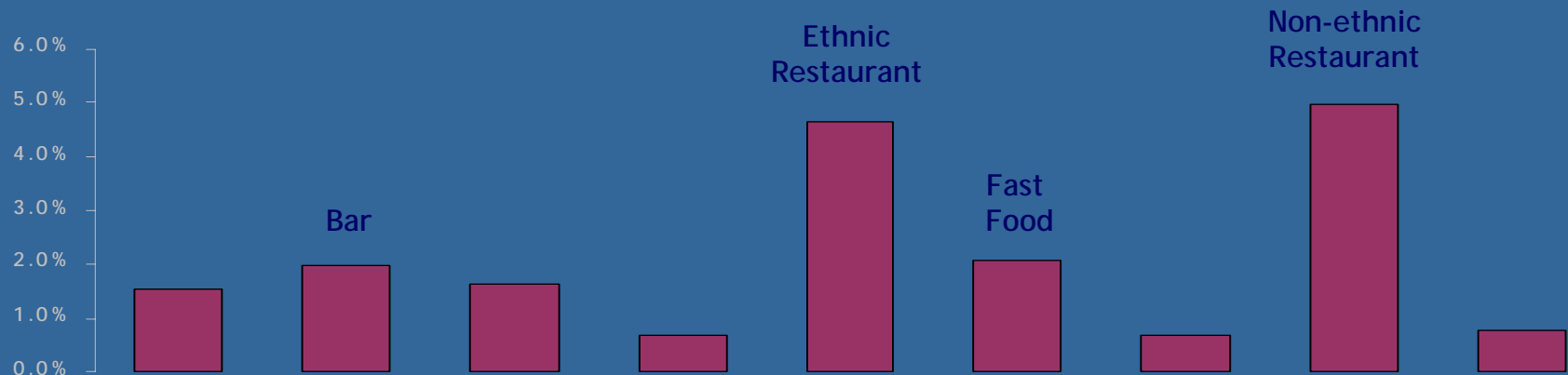
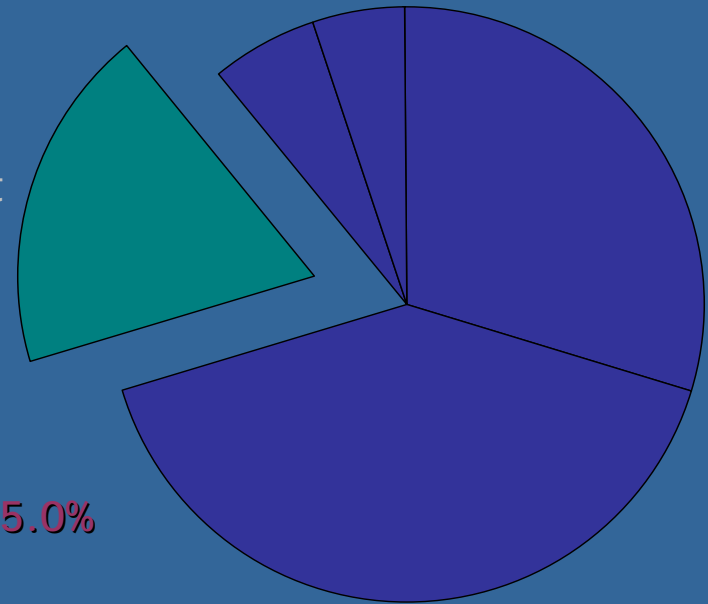
*Distribution of sub-categories of services in above order
(percent of total businesses)*

Neighborhood Business Mix: Dining/Entertainment

Sub-categories:

- Bakery/bagels 1.5%
- Bars 2.0%
- Café 1.6%
- Deli 0.7%
- Ethnic restaurant 4.6%
- Fast Food 2.1%
- Ice cream/candy 0.7%
- Non-Ethnic Restaurant 5.0%
- Physical fitness 0.8%

Dining/
Entertainment
19%

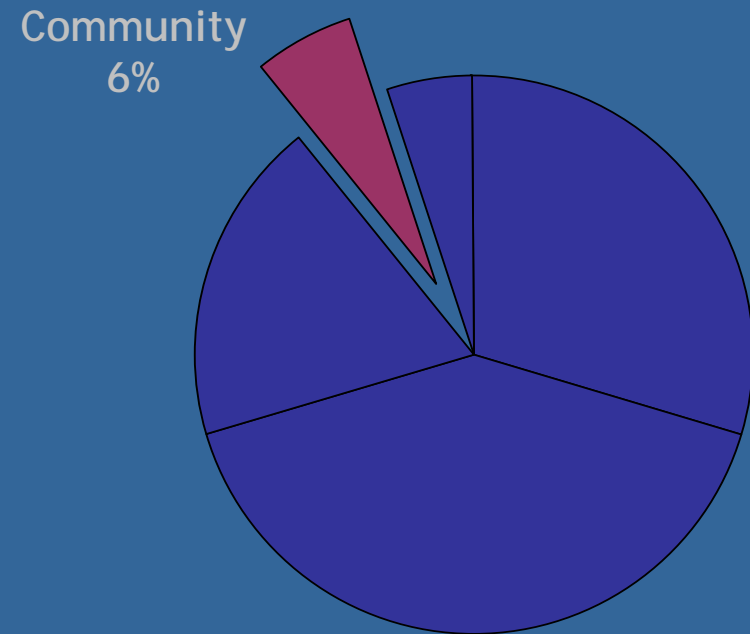


*Distribution of sub-categories of dining/entertainment in above order
(percent of total businesses)*

Neighborhood Business Mix: Community Organizations

Sub-categories:

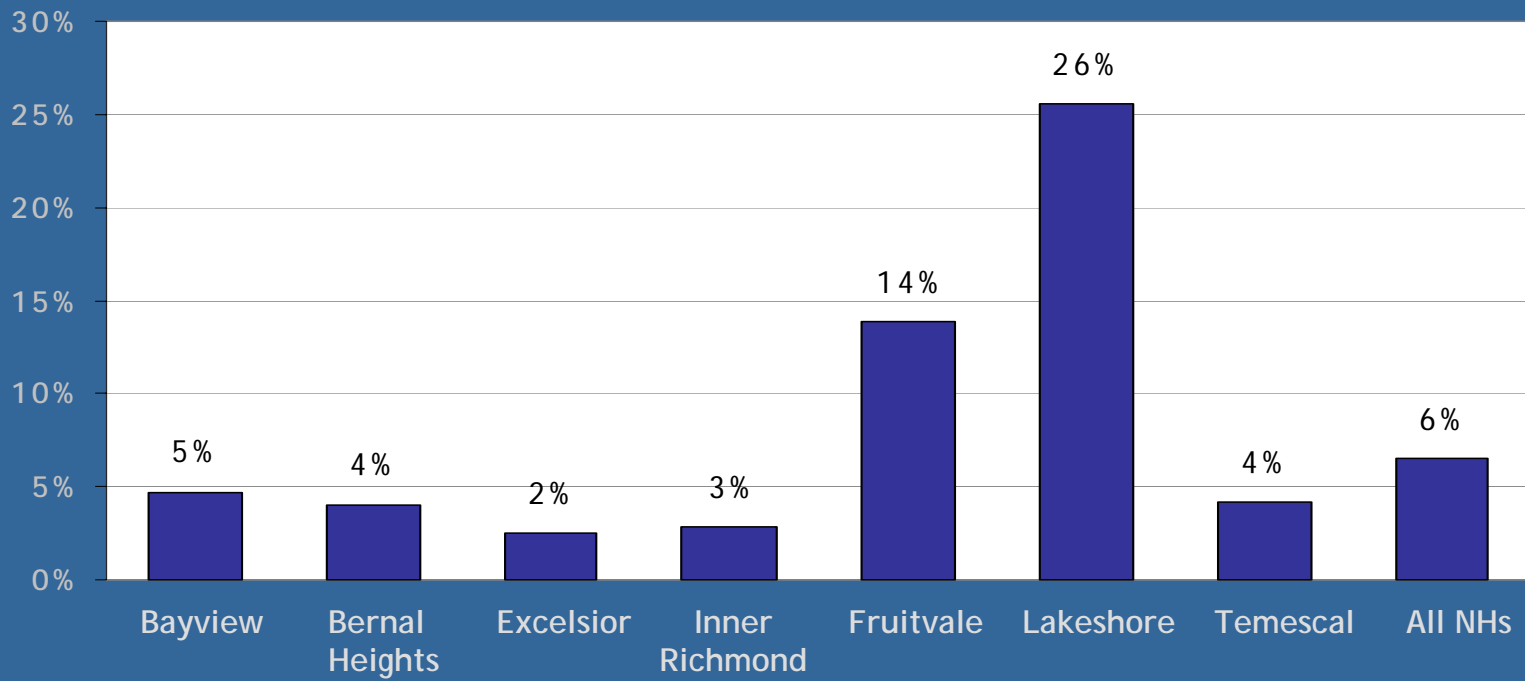
- Civic/religious 3.9%
- Education/training 0.7%
- Youth-serving (school, library, youth center) 1.3%



Distribution of sub-categories of community (percent of total businesses)

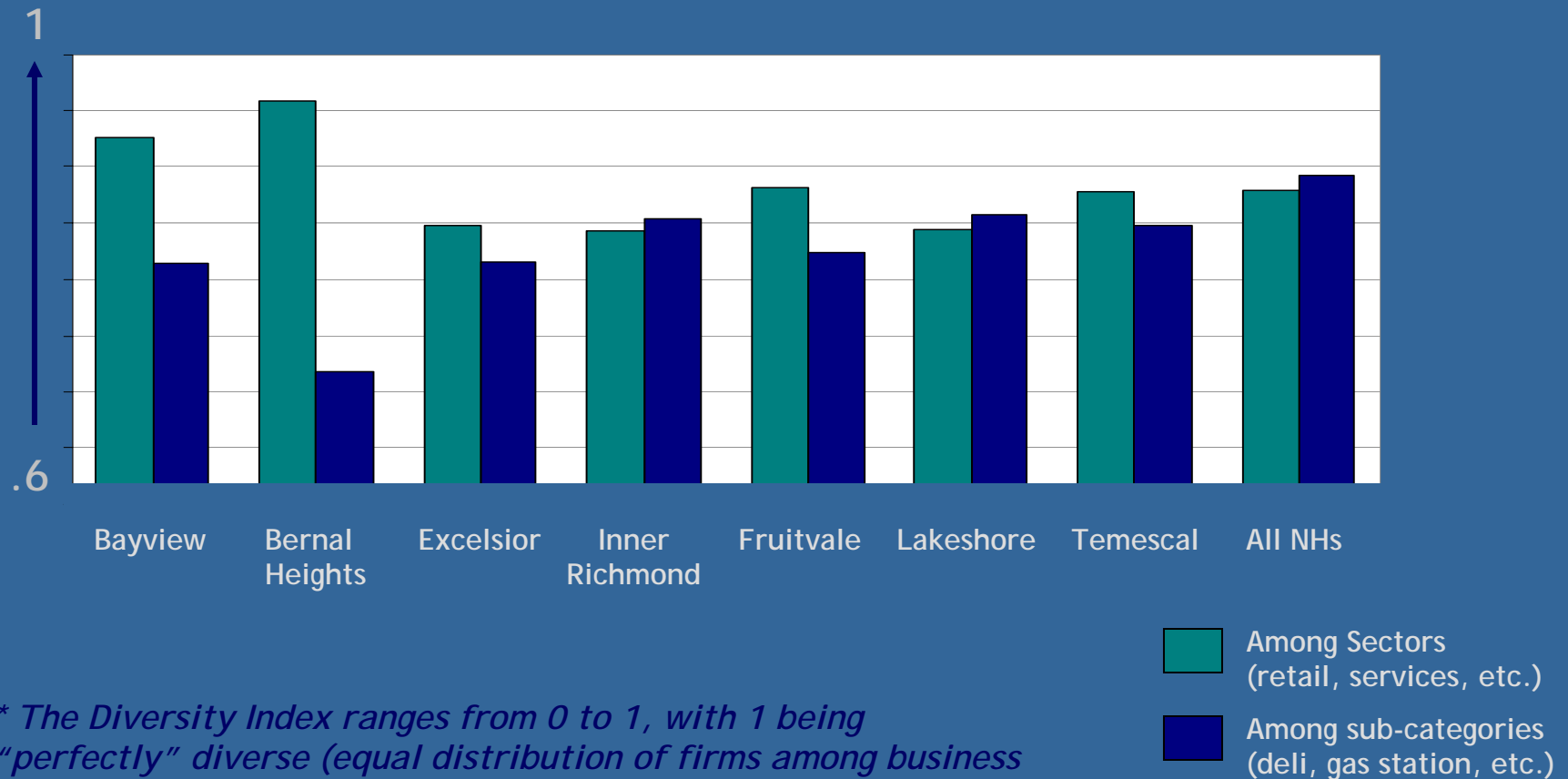
Neighborhood Business Mix: Chain Stores

Percent of Businesses that are Chains or Franchises



Neighborhood Business Mix: Diversity of businesses

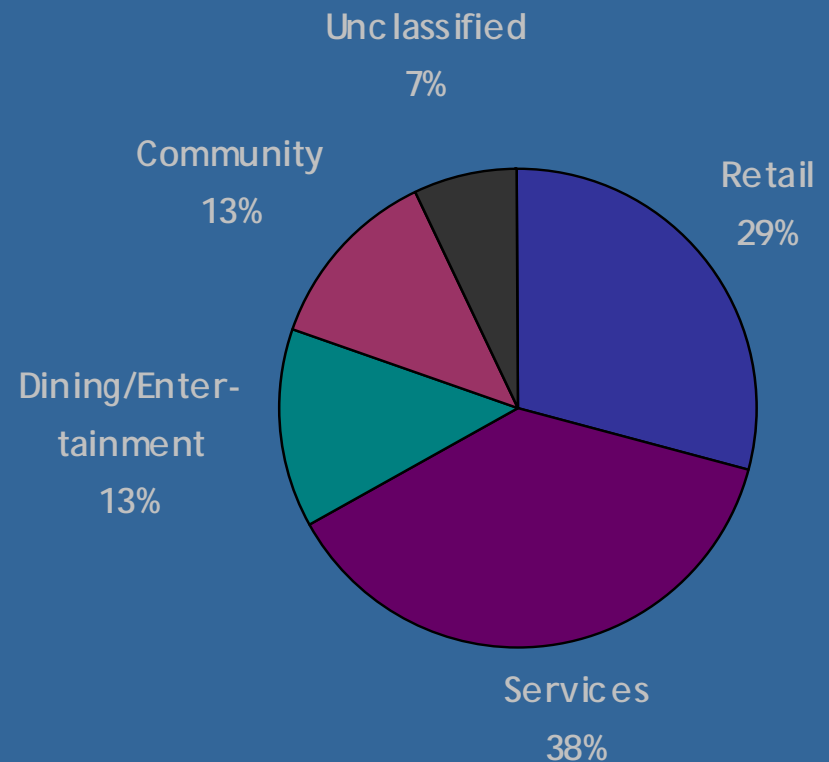
Diversity Index*



* The Diversity Index ranges from 0 to 1, with 1 being "perfectly" diverse (equal distribution of firms among business types)

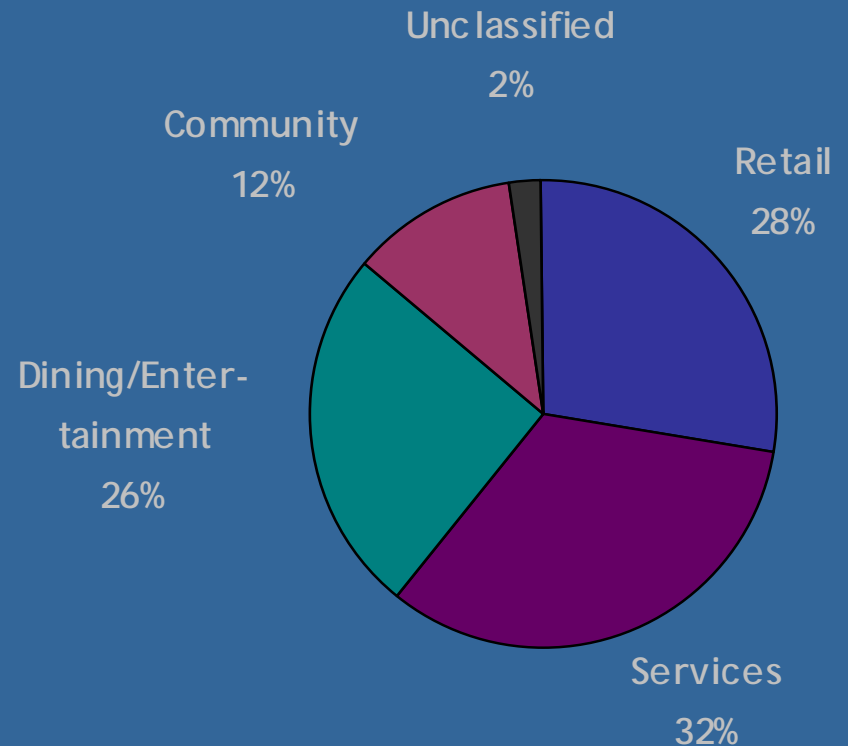
Neighborhood Business Mix: Bayview

- 126 businesses
- No major supermarket
- Over-represented in liquor stores (7 of 17 total for all NHs in study)
- Highest proportion of community organizations
- Under-represented in dining/entertainment establishments (sector-wide and most smaller categories)



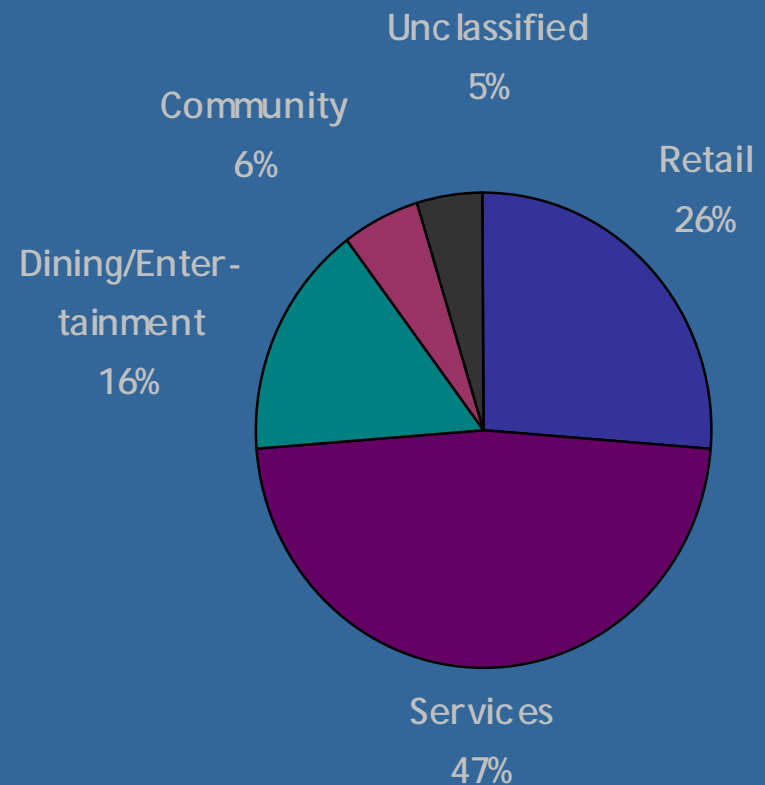
Neighborhood Business Mix: Bernal Heights

- 43 businesses (smallest sample)
- No major supermarket
- High proportions of dining/entertainment establishments and community organizations
- Few “undesirable” uses
- Little retail diversity - no clothing, electronics, pharmacy, etc.
- Potential clustering in flowers/cards/gifts and beauty salons



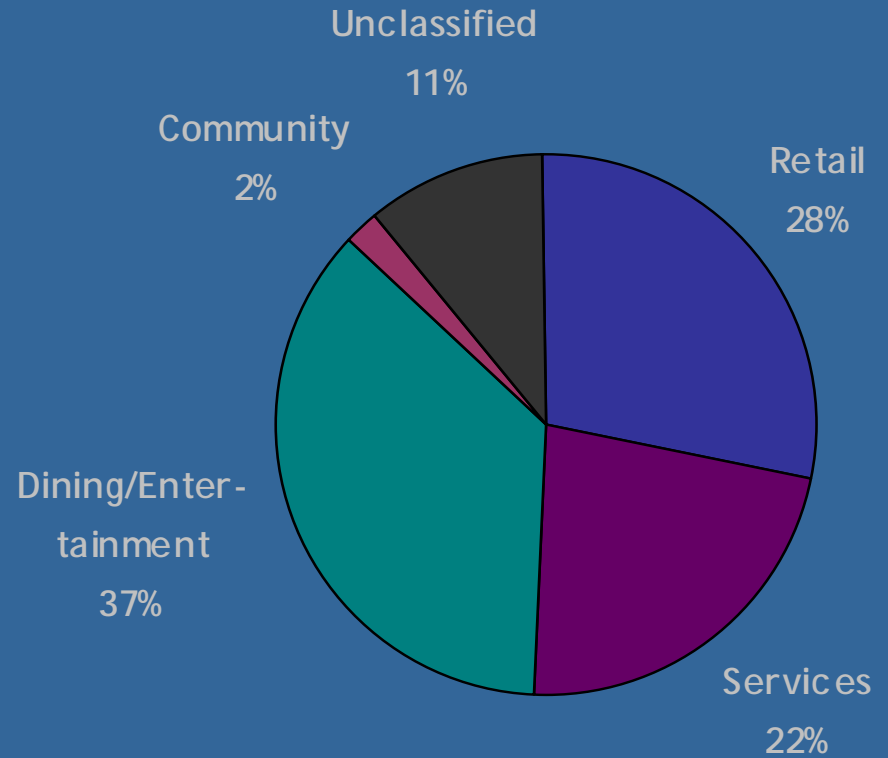
Neighborhood Business Mix: Excelsior

- 289 businesses
- Major supermarket and pharmacy
- Largest proportion of services - especially services to businesses and individuals
- High Diversity Index ranking
- Under-represented in retail and dining/entertainment
- Not a high proportion of ethnic restaurants



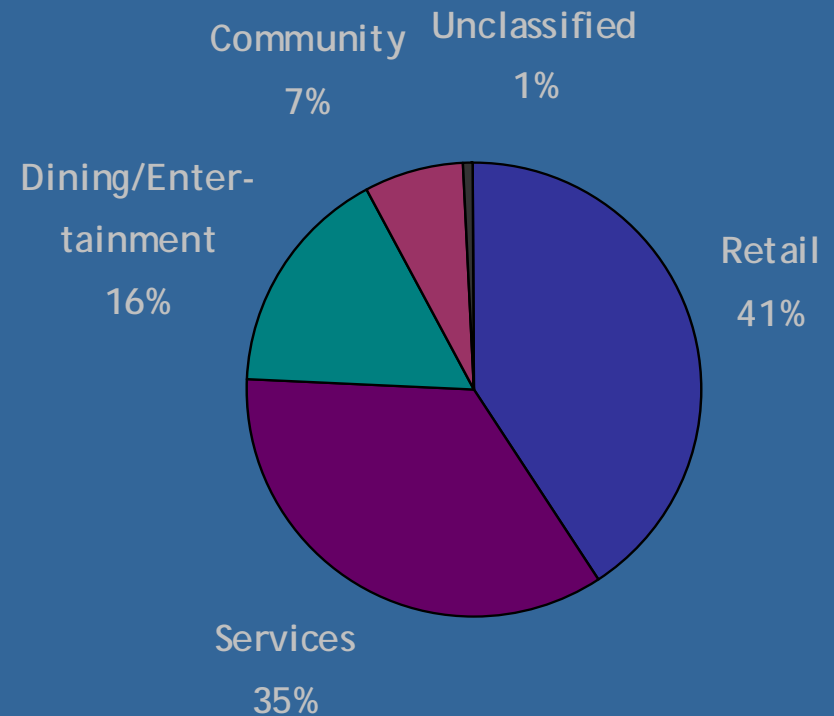
Neighborhood Business Mix: Inner Richmond

- 289 businesses
- No major supermarket
- Over-represented in restaurants (14.2% of businesses) - especially Asian restaurants
- Also over-represented in food markets, ethnic food markets and medical offices
- Under-represented in community organizations



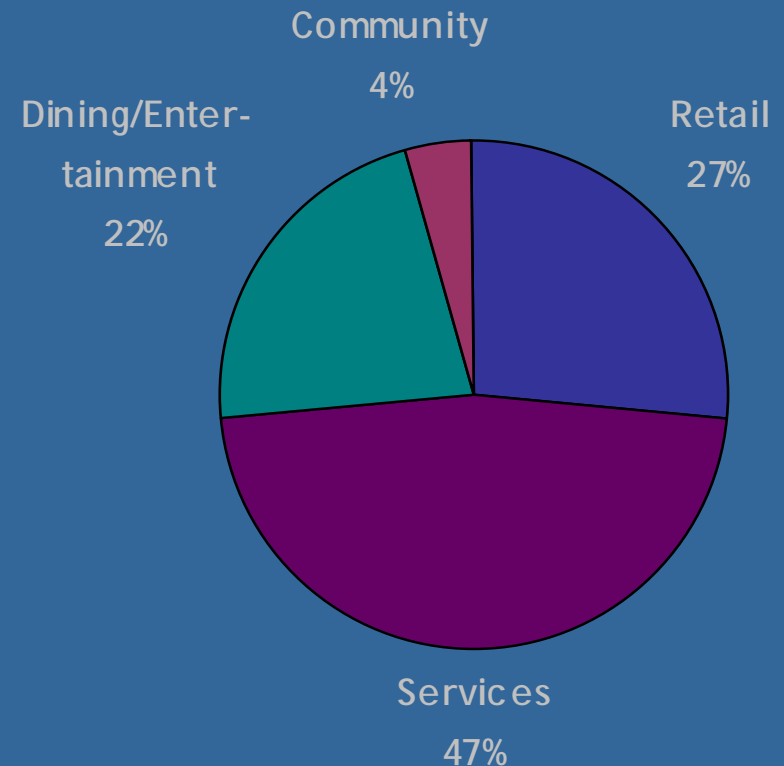
Neighborhood Business Mix: Fruitvale

- 152 businesses
- No major supermarket
- High proportion of retail, primarily because of over-representation in clothing/shoe stores
- High proportion of “undesirable” uses, no video stores or pharmacies
- High proportion of ethnic and fast food restaurants relative to other neighborhoods



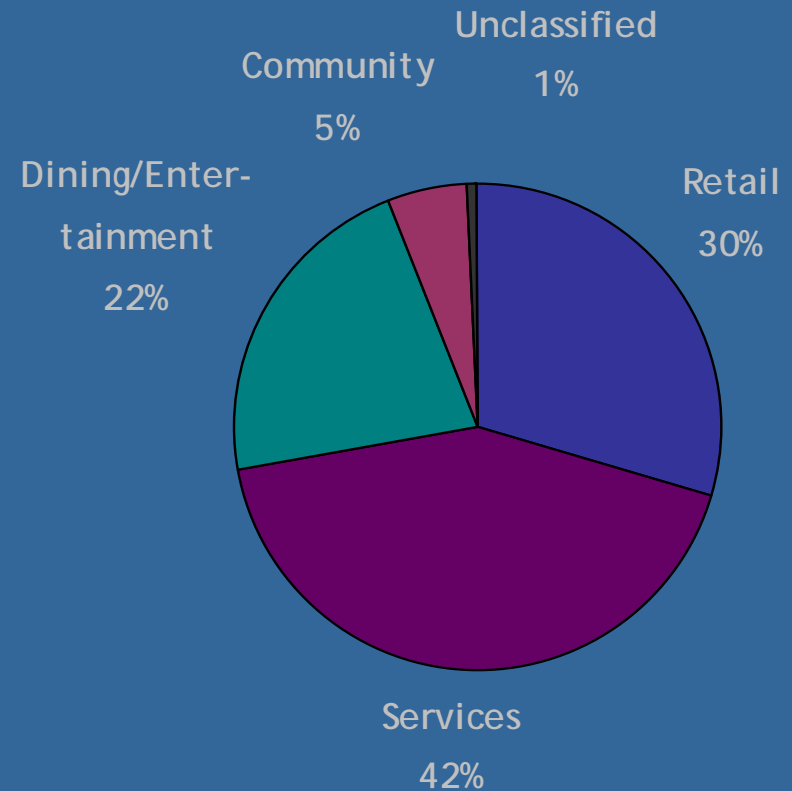
Neighborhood Business Mix: Lakeshore

- 98 businesses
- Major supermarket and pharmacy
- High proportion of services (due to beauty salons, laundromats, and business services)
- Few restaurants and no ethnic restaurants, but lots of other forms of eating/drinking establishments
- High Diversity Index



Neighborhood Business Mix: Temescal

- 168 businesses
- Two major pharmacies, no supermarket on corridor - but there is one nearby (51st and Broadway)
- High proportion of restaurants, bars, fast food and video stores
- High concentration of used/thrift/discount retail stores



Neighborhood Retail Analysis:

Methodology

- The Index compares each retail category to the overall retail mix
- An Index of 1 is a perfectly represented area, over 1 is over-represented in that retail category
- Correspond the Index with another factor, such as income, by ranking neighborhoods by this factor

The Index Measure:

Count of x-type businesses in Neighborhood 1

Count of total x-type businesses in all neighborhoods

Count of all businesses in Neighborhood 1

Count of total businesses in all neighborhoods

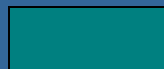
Neighborhood Retail Analysis:

Does income influence selected neighborhood businesses?

Concentration of Firms, Ranked by Neighborhood Income						
<i>Median HH Income</i>	<i>Liquor Stores</i>	<i>Auto Repair</i>	<i>Check Cashing or Money Wiring</i>	<i>Other Repair</i>	<i>Used, Discount, or Thrift</i>	
<i>Fruitvale</i>	\$30,392	1.4	2.8	3.4	2.8	1.4
<i>Temescal</i>	\$35,922	0.8	0.8	0.4	1.3	2.8
<i>Bayview</i>	\$39,642	3.8	1.0	1.7	0.0	1.3
<i>Excelsior</i>	\$48,439	0.7	1.2	1.0	0.4	0.4
<i>Lakeshore</i>	\$58,122	0.7	0.9	0.7	2.2	0.0
<i>Inner Richmond</i>	\$59,977	0.2	0.1	0.0	0.7	0.7
<i>Bernal Heights</i>	\$65,351	0.0	0.0	0.0	0.0	0.0
<i>Total Businesses</i>		17	27	16	11	22



Over-represented



Under-represented



Evenly Represented

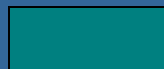
Neighborhood Retail Analysis:

Does food availability vary with income?

Concentration of Food-Related Businesses, Ranked by Neighborhood Income					
	<i>Median HH Income</i>	<i>Ethnic Market</i>	<i>Food Market</i>	<i>Fast Food</i>	<i>Produce</i>
<i>Fruitvale</i>	\$30,392	0	0.8	1.9	1.1
<i>Temescal</i>	\$35,922	0	0.6	1.7	0.0
<i>Bayview</i>	\$39,642	0	1.0	0.4	1.4
<i>Excelsior*</i>	\$48,439	0.9	1.2	1.2	1.2
<i>Lakeshore*</i>	\$58,122	0	1.0	1.5	0.6
<i>Inner Richmond</i>	\$59,977	3.1	1.1	0.0	1.2
<i>Bernal Heights</i>	\$65,351	0	1.5	1.1	1.4
Total Businesses		9	37	24	20
*Supermarket in neighborhood					



Over-represented



Under-represented



Evenly Represented

Neighborhood Retail Analysis:

How does the type and amount of financial services vary with income?

Concentration of Finance Services by Income			
	Median HH Income	Check Cashing or Money Wiring	
		Bank	Bank
<i>Fruitvale</i>	\$30,392	3.4	0.8
<i>Temescal</i>	\$35,922	0.4	1.0
<i>Bayview</i>	\$39,642	1.7	1.4
<i>Excelsior</i>	\$48,439	1.0	0.6
<i>Lakeshore</i>	\$58,122	0.7	1.8
<i>Inner Richmond</i>	\$59,977	0.0	1.0
<i>Bernal Heights</i>	\$65,351	0.0	1.4
Total Businesses		16	20



Over-represented



Under-represented



Evenly Represented

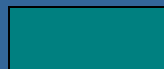
Neighborhood Retail Analysis:

Does the age of neighborhood structures affect types of businesses?

Concentration of Firms by Housing Built Before 1939						
	<i>% Pre-1939 Housing</i>	<i>Chain</i>	<i>Business Services</i>	<i>Medical Office</i>	<i>Non-Ethnic Restaurants</i>	<i>Ethnic Restaurants</i>
<i>Bayview</i>	23.9%	0.5	1.9	0.0	1.1	0.7
<i>Fruitvale</i>	32.0%	1.8	0.1	0.4	0.3	1.4
<i>Excelsior</i>	46.2%	0.4	1.3	1.0	1.0	0.6
<i>Temescal</i>	48.6%	1.6	0.9	0.9	1.6	0.6
<i>Lakeshore</i>	52.4%	3.3	1.7	0.5	0.6	0.0
<i>Inner Richmond</i>	55.3%	0.4	0.7	2.1	1.1	1.9
<i>Bernal Heights</i>	58.1%	0.6	0.0	0.0	0.9	1.0
<i>Total Businesses</i>		89	57	71	58	54



Over-represented



Under-represented



Evenly Represented

Neighborhood Retail Analysis:

Does foreign immigration affect mix of business types?

Concentration of Firms by Percent of New Immigrants since 1990

	<i>% New Immigrants</i>	<i>Retail*</i>	<i>Dining/ Entertain ment*</i>	<i>Clothing/ Shoes</i>	<i>Music</i>	<i>Ethnic Market</i>	<i>Produce</i>	<i>Check Cashing/ Money Wiring</i>
<i>Lakeshore</i>	5.3%	0.5	1.2	1.1	1.2	0.0	0.6	0.7
<i>Temescal</i>	8.5%	0.3	1.2	0.5	0.7	0.0	0.0	0.4
<i>Bernal Heights</i>	10.4%	1.3	1.3	0.0	0.0	0.0	1.4	0.0
<i>Bayview</i>	10.6%	1.0	0.7	0.7	0.9	0.0	1.4	1.7
<i>Inner Richmond</i>	14.5%	1.4	1.2	0.5	0.8	3.1	1.2	0.0
<i>Excelsior</i>	16.5%	1.2	0.8	0.7	0.8	0.9	1.2	1.0
<i>Fruitvale</i>	29.9%	0.8	0.9	3.4	2.3	0.0	1.1	3.4
Total Businesses		345	222	52	10	9	20	16

* Larger sectors of classification



Over-represented



Under-represented



Evenly Represented

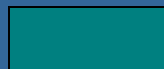
Neighborhood Retail Analysis:

Does vehicle ownership affect the mix of business types?

Concentration of Firms by Percent of Residents without a Car								
	% without a car	Gas Station	Auto Repair	Other Repair	Auto Sales	Physical Fitness	Hardware	Clothing and Shoes
<i>Lakeshore</i>	12.8%	4.8	0.9	2.2	0.0	4.0	0.0	1.1
<i>Bernal Heights</i>	14.7%	0.0	0.0	0.0	0.0	6.0	0.0	0.0
<i>Excelsior</i>	15.2%	1.6	1.2	0.4	1.8	0.0	0.0	0.7
<i>Inner Richmond</i>	21.8%	0.0	0.1	0.7	0.7	0.4	1.0	0.5
<i>Temescal</i>	23.6%	0.0	0.8	1.3	0.0	1.5	3.5	0.5
<i>Fruitvale</i>	24.7%	1.5	2.8	2.8	2.1	0.0	1.0	3.4
<i>Bayview</i>	25.0%	0.0	1.0	0.0	0.8	1.0	1.2	0.7
<i>Total Businesses</i>		5	27	11	11	9	8	52



Over-represented



Under-represented



Evenly Represented

Neighborhood Retail Analysis:

Does the age of neighborhood structures affect types of businesses?

Concentration of Firms by Percent Home Ownership				
	<i>% Home Ownership</i>	<i>Hardware Stores</i>	<i>Home Stores</i>	<i>Laundry/Dry Cleaning</i>
<i>Lakeshore</i>	23.2%	0	0.7	2.4
<i>Temescal</i>	27.5%	3.5	1.0	1.7
<i>Inner Richmond</i>	28.8%	1.0	0.9	0.4
<i>Fruitvale</i>	39.1%	1.0	0.6	0.0
<i>Bayview</i>	51.6%	1.2	1.0	0.9
<i>Bernal Heights</i>	53.2%	0	1.5	2.7
<i>Excelsior</i>	69.6%	0	1.3	1.0
Total Businesses		8	36	20



Over-represented



Under-represented



Evenly Represented

Conclusions:

Business Categories with Evidence of Clustering

- Clothing and Shoes
- Flowers, Cards, and Gifts
- Home
- Auto Repair
- Hair, Nails, and Beauty
- Other Business Services
- Other Services to Individuals
- Medical Offices
- Restaurants

Conclusions:

Questions to Pursue with Further Analysis

- Is there a significant correlation between food provision and income?
- Do business services tend to locate in neighborhoods with newer buildings?
- Are banks negatively correlated with check cashing and money wiring services?
- What is the preferred demographic area for chain stores, if any?
- Is there a positive correlation between home stores and home ownership, or are other factors important as well?