Jackson Square
Hyde Square
Sustainable Development Project

Existing Conditions Report
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Overview of Presentation

- Sustainability Framework

- Social/Community
    - JP Target Area Demographics
    - Transportation Assessment
    - Housing Demand

- Economics
    - Commercial Mix
    - Development of New Parcels

- Environment
    - Brownfields Assessment
    - Environment & Health Assessment

- Sustainability Opportunities

- Next Steps

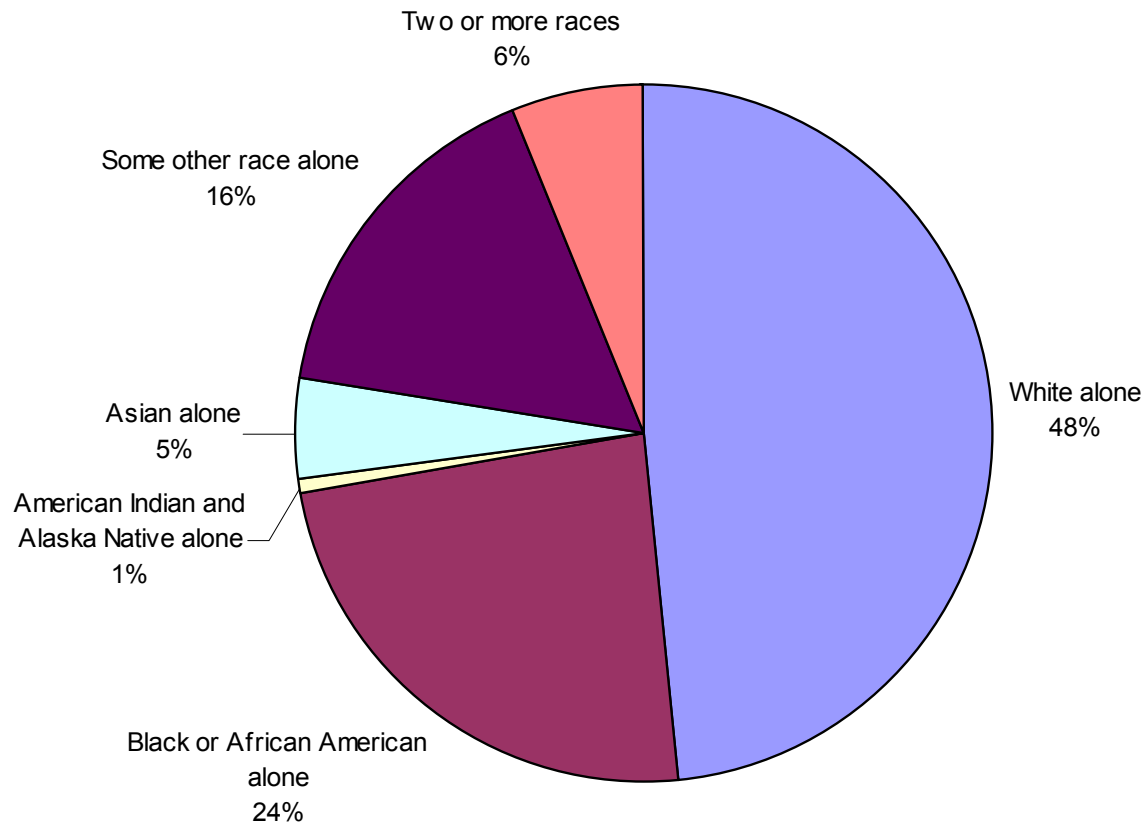# Social/Community

Demographics
Transportation
Housing

JP Demographic Overview

- Population of JP: 38,215
- 48% male, 52% female
- 32% married; 51% never married
- Average household size: 2.5
- Unique demographic characteristics of JP:
    - Diverse ethnic mix
    - Large percent of family households
    - Young population
    - Large percent of recent immigrants

Diverse Ethnic Mix in JP

32% of individuals are of Hispanic/Latino origin

JP Racial/Ethnic Breakdown

Two or more races
6%

Some other race alone
16%

Asian alone
5%

American Indian and
Alaska Native alone
1%

White alone
48%
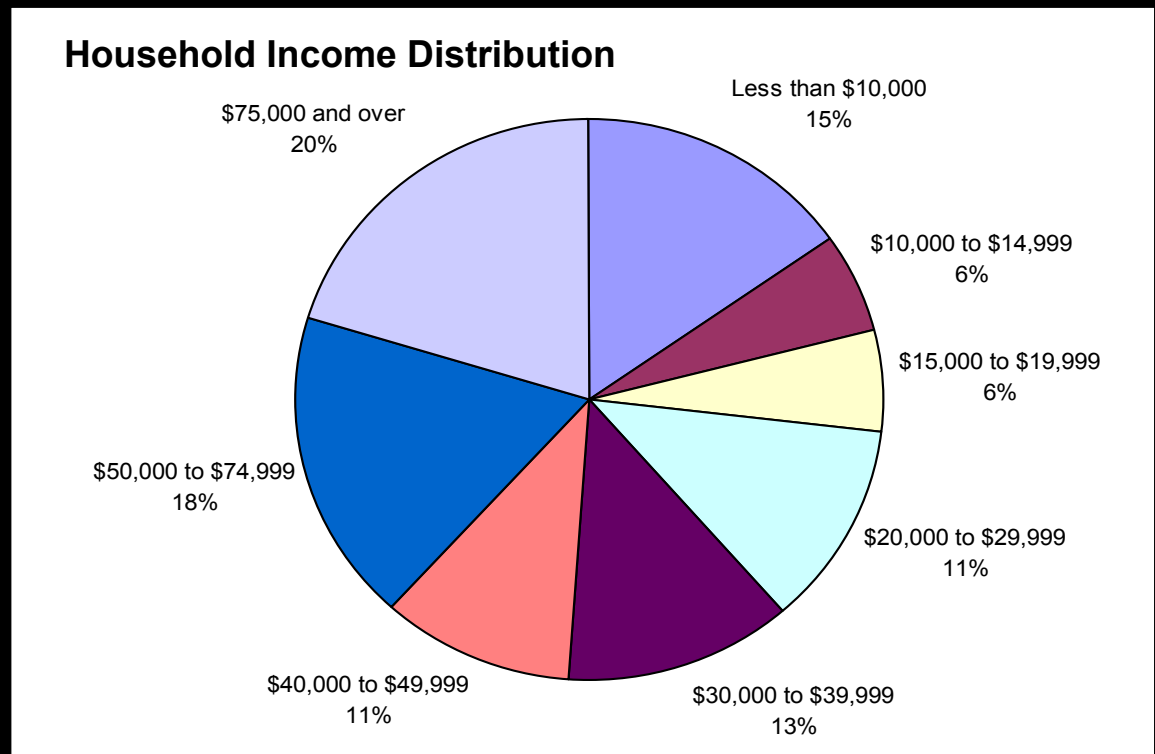
Black or African American
alone
24%

Lower Income Households in JP

JP has lower-income households than Boston or Massachusetts

•JP Median Household Income: $38,744

•Boston Median Household Income: $39,629

•Massachusetts Median Household Income: $50,502

Approximately 50% of the households in JP earn less than $40,000 annually

Household Income Distribution

- Less than $10,000 — 15%
- $10,000 to $14,999 — 6%
- $15,000 to $19,999 — 6%
- $20,000 to $29,999 — 11%
- $30,000 to $39,999 — 13%
- $40,000 to $49,999 — 11%
- $50,000 to $74,999 — 18%
- $75,000 and over — 20%

JP is a Young Community

Approximately 1/3 of the population is less than 24 years old.

Age Distribution in JP & Boston
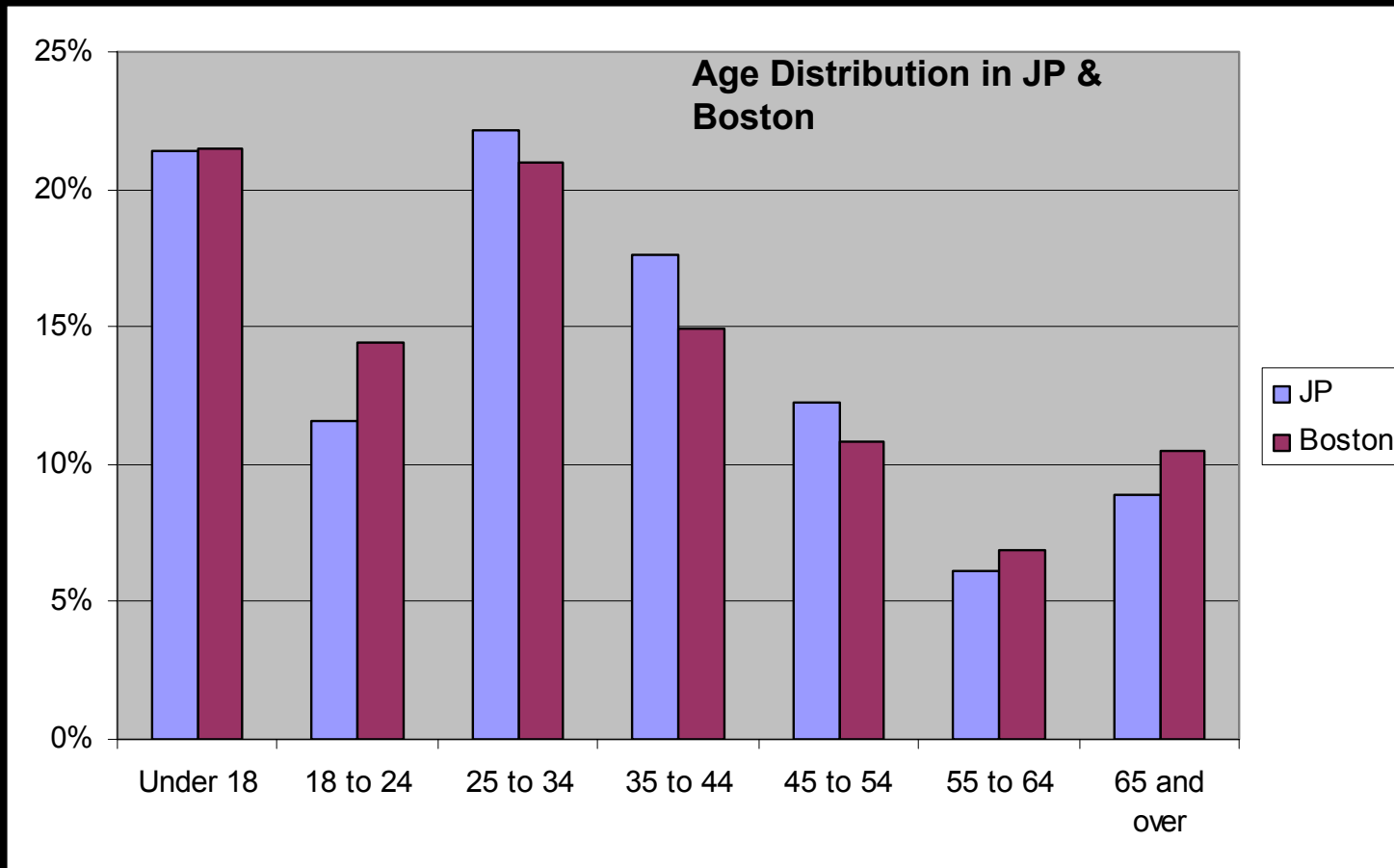
JP is Family-Oriented

JP Household Types

In group quarters
6%

In nonfamily households
29%

In family households
65%
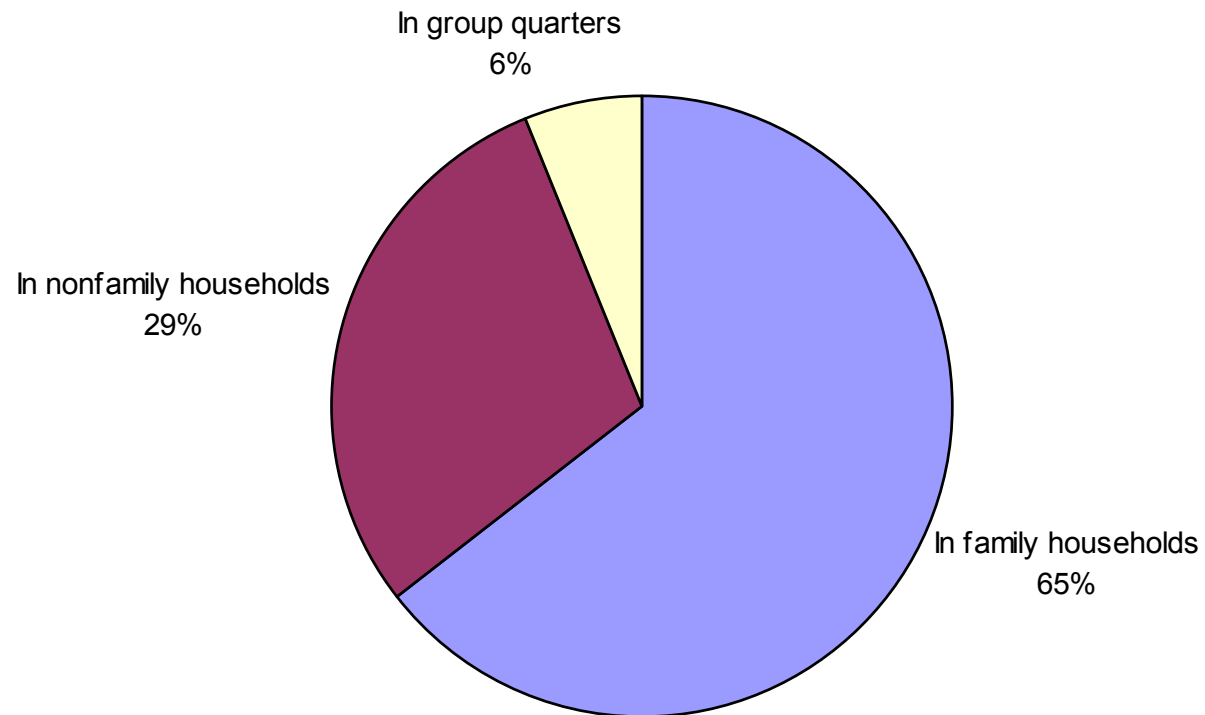
One-Quarter of Population is Foreign-Born

Place of Birth for Foreign-Born
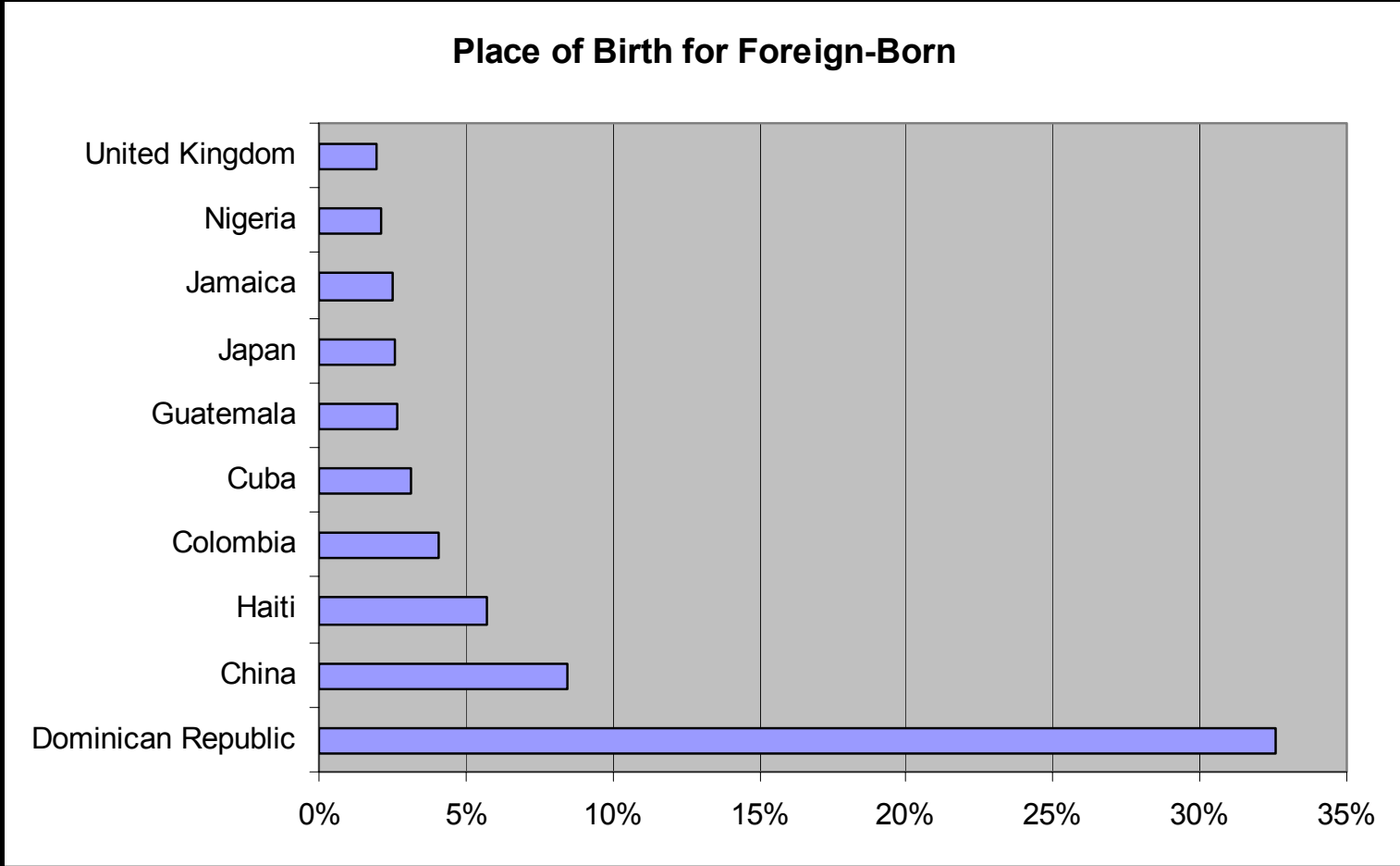
Abundance of New Immigrants

As of the 2000 Census, 40% of the foreign-born population in JP had been in the US 10 years or less.

Auto Trips High
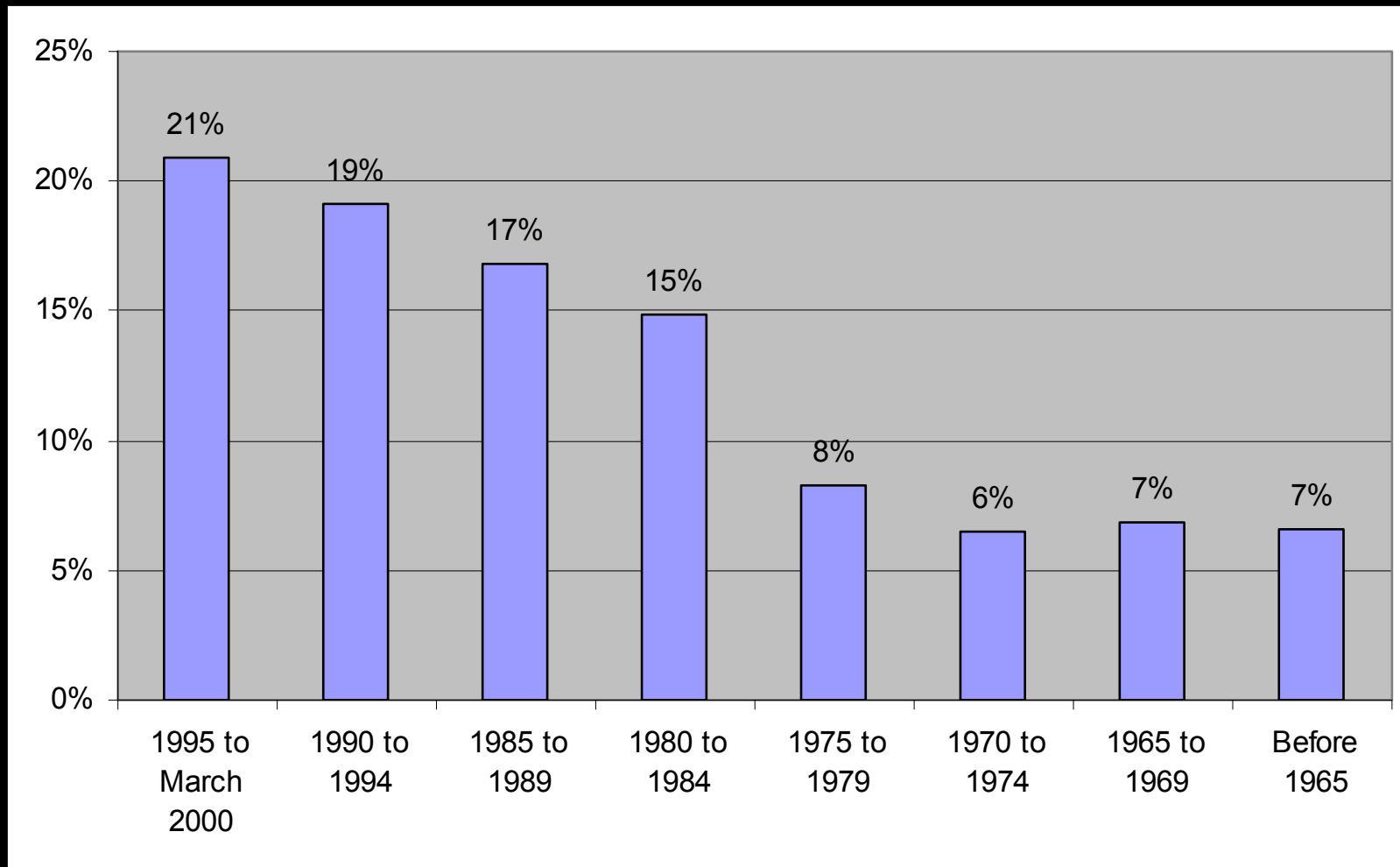## Considering transit coverage and neighborhood size

Trips and mode share

Origin or Destination	% of Trips	Roxbury			% of Trips	Jamaica Plain/Mission Hill		
		Auto	Transit	Walk/Bike		Auto	Transit	Walk/Bike
Within neighborhood	34%	30%	7%	63%	30%	30%	3%	68%
Core area	8%	43%	57%	0%	8%	37%	63%	0%
Rest of Boston	33%	69%	23%	8%	32%	63%	29%	8%
Inner communities	17%	85%	15%	0%	19%	81%	18%	1%
Outer communities	8%	95%	5%	0%	11%	92%	8%	0%

Source: Central Transportation Planning Staff (CTPS) data as reported in *Boston Transportation Fact Book and Neighborhood Profiles* (Boston Transportation Department, 2002). The "core area" includes Downtown and Back Bay. "Rest of Boston" is the city limits, not including the neighborhood itself and the core area.

High % of households without vehicle

Number of vehicles by percentage of households

4 Vehicles 1%

5 Vehicles 1%

3 Vehicles 3%

2 Vehicles 15%

0 Vehicles 36%

1 Vehicle 44%
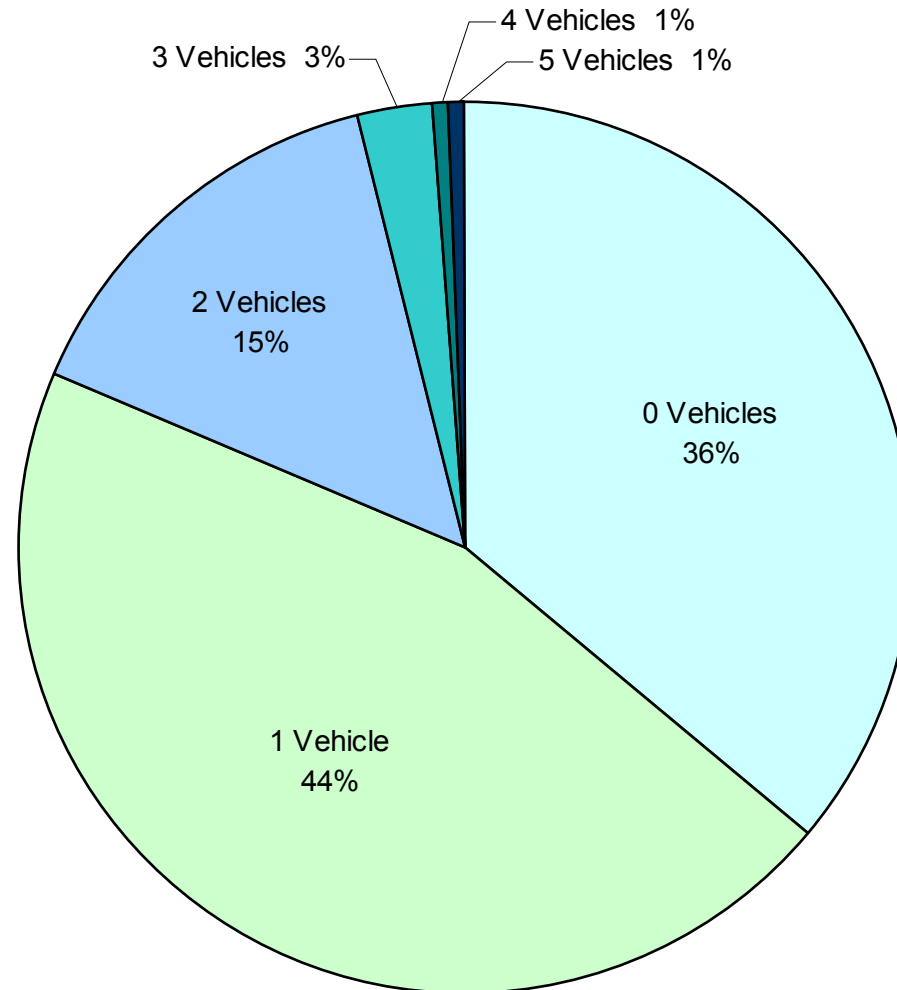
Within ½ mile of Jackson Sq.

Traffic Congestion

- Congestion on Columbus (30-45,000 veh/day)
  and Centre (~16,000)
- Cut-through traffic on neighborhood streets
- High demand for parking (a low intensity use of space)

Holes in transit service

- 13,000 pass/day at Jackson Sq Station
- Holes in
  service
  - Spatial
  - Frequency
  - Time of
    day

Pedestrian & Bicycle Issues

Assets

- Southwest corridor
- Short walking/biking distances

Liabilities

- Security and safety
- No road space for bikes on major roads
- Lack of secure bicycle parking
- Lack of bicycle system connectivity
- Poor walking environment and amenities near station
- Columbus Ave

Housing Vacancy Rates are Low

- Only 5% vacancy rate in Boston and JP

Status of Housing Units - Boston vs. JPNDC target area

Total Housing Units
Vacant Housing Units
Occupied Housing Units

Source: US Census 2000

Boston City: 251,935 / 12,407 / 239,528
JPNDC: 15,532 / 838 / 14,694
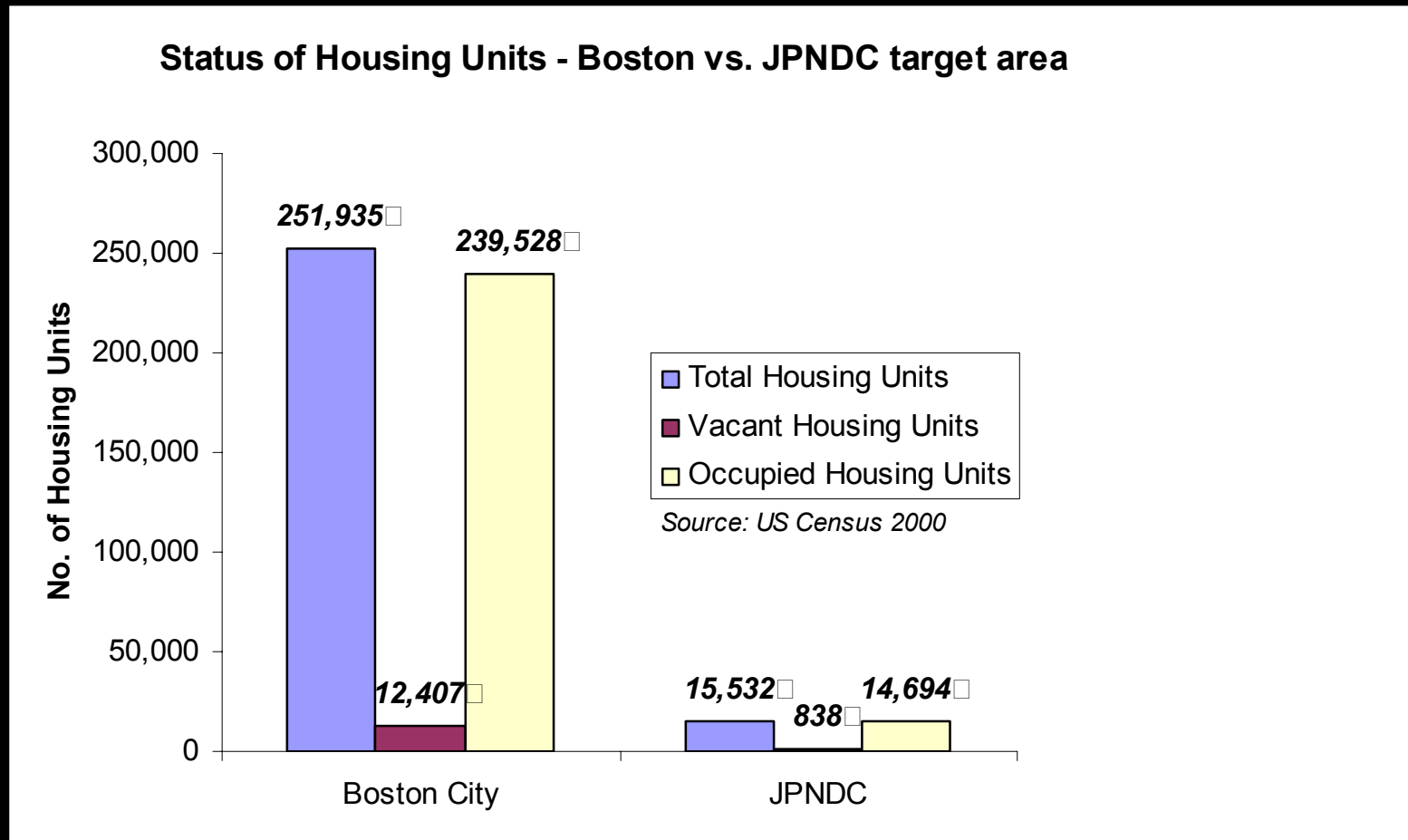
Older Housing Units

- Over 50% of housing units in JPNDC Target Area were built in 1939 or earlier

Age of Housing Units in JPNDC Target Area
(Number and Percentage, 2000)

Source: US Census 2000
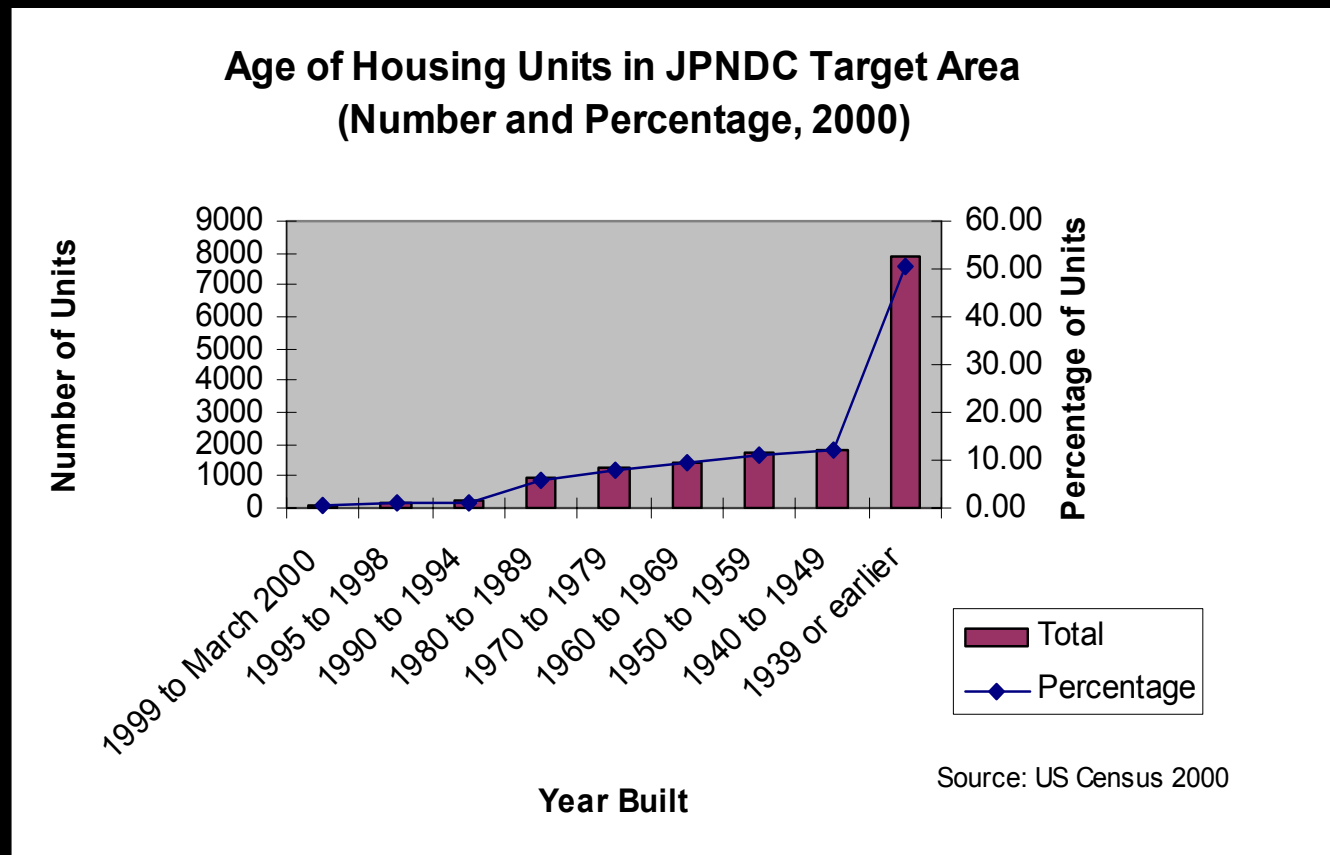
Small Household Size in JP

- 78% of households consist of 1, 2, or 3 persons
- 1 and 2 person households make up 62% of all households

Source: US Census 2000
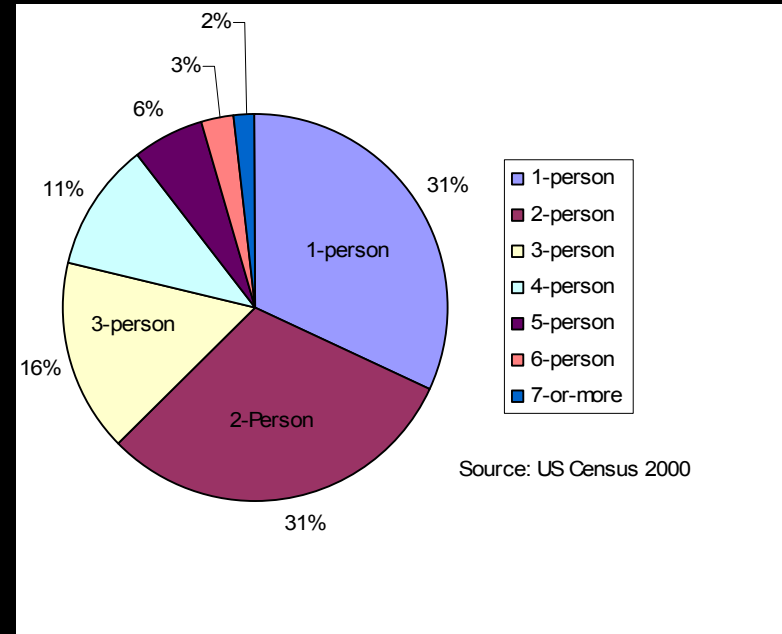
Most Homebuyers in JP are from small households

- 77% of all homebuyer applications in JP and Roxbury are generated by 1, 2, and 3 person households

No. of Homebuyer Applications in Jamaica Plain and Roxbury per HH Size and Target Income

Source: HUD 2003, JPNDC 200
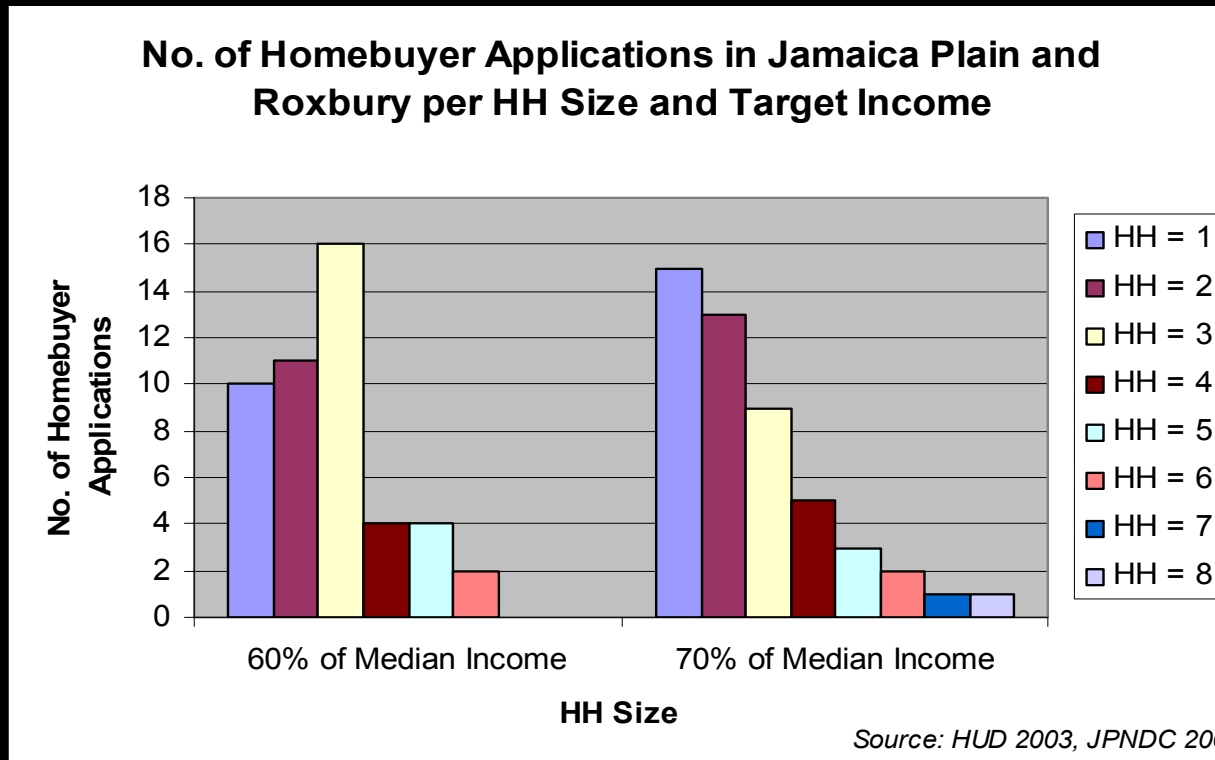
JPNDC Waiting List – Most demand for 2 BR units

- 51% of housing units are 1 BR and 25% are 2 BR
- However, the waiting list indicates that demand for 2BR is greater: 39% demand for 1BR vs. 41% demand for 2 BR

JPNDC Total No. of Units and Waiting List Information

Source: JPNDC 2003
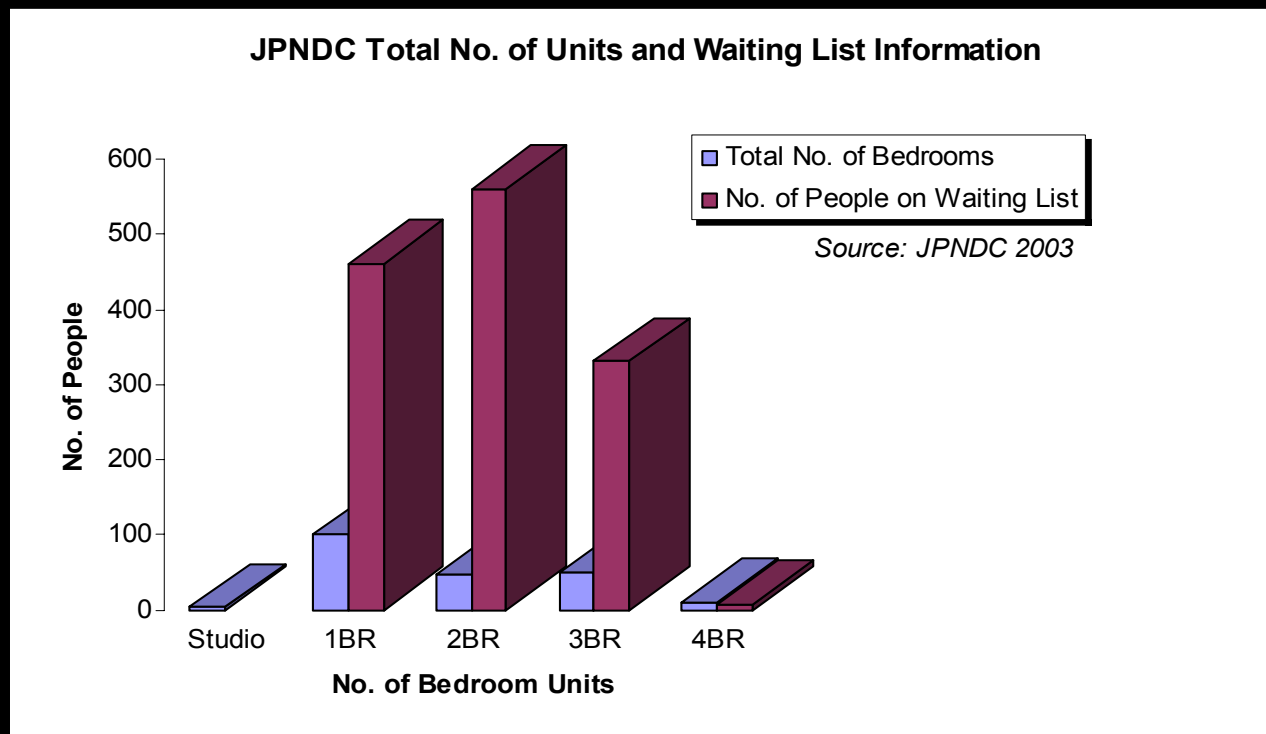
Sustainability Challenges

- Older housing stock
- Not enough supply to meet demand
- Disconnect between supply and demand of 1, 2, 3 bedroom housing

Economics

Commercial Mix
Development of New Parcels

Heavily Retail Commercial Mix

- 444,000 square feet of commercial and institutional space
- District is 98% occupied
- Of the approximately 124 establishments, 78% are retail

Summary of Uses

Pie chart labels:
- Manufacturing, Construction, Misc., 3, 2%
- Vacant, 3, 2%
- Institutional, 20, 16%
- Other Service, 2, 2%
- Retail & Services, 99, 78%
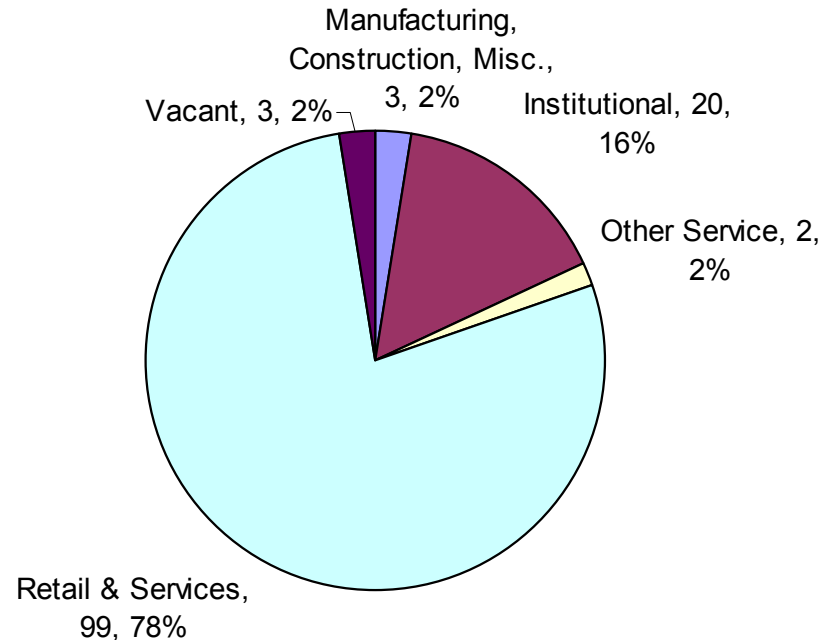
Large Concentration of Convenience Goods

Share of Retail & Service GLA

Personal Service
14%

Professional Service
10%

Convenience Goods
37%

Food Service
15%

Comparison Goods
24%

Strong Businesses, Industries/Clusters

- Food/food service – 35% of retail/service
- Personal care – 11% of retail/service
- Financial/insurance/real estate – 13% of retail/service
- Businesses serving Latino customer base
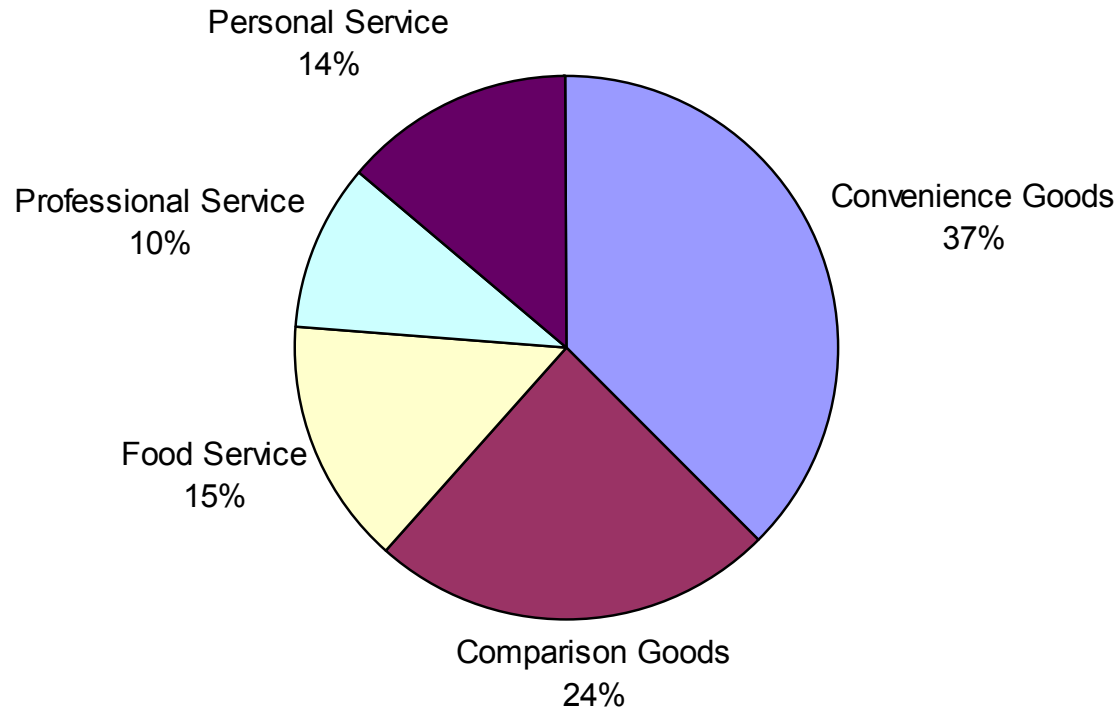
Comparison to US Shopping Centers

Rank	Business Type	Hyde/Jackson Square
1	Restaurant with liquor	7 full-service restaurants; 1>5000 sq. ft.
2	Women's ready-to-wear	Yes, 1 large includes men
3	Family wear	2 children's and 2 men's clothing
4	Supermarket	Yes, full-scale
5	Family shoes	Yes, 2
6	Medical and dental	Yes, health center, medical and dental offices
7	Discount department store	No, 1 small 99 cent store
8	Unisex hair salon	Yes, 2
9	Bank	Yes, 2
10	Furniture	Yes, 1 rental
11	Cards and gifts	Yes, 1 party goods store
12	Restaurant without liquor	Yes, several limited service/take-out
13	Women's specialty	Yes, 1 bridal
14	Jewelry	No, 1 repair
15	Dry cleaner	Yes, 1
16	Women's hair salon	Yes, several
17	Cosmetics/beauty supplies	Yes, 1
18	Drugstore/pharmacy	Yes, available at supermarket
19	Nail salon	Yes, 1
20	Sandwich shop	Yes, 3

Development of the New Parcels

Potentially Divergent Customer Markets

Current Shopper Profile

- Shop outside the district for comparison goods
- Price and quality conscious
- Latinos from surrounding neighborhoods

Target Shopper Profile

- Latinos from Boston and New England
- Mixed income, urban, educated, alternative, arts-oriented residents from Greater Boston
- Residents of surrounding neighborhoods

Diverse Business Development Values

- Support locally-owned independent businesses
- Support businesses that serve diversity of JP
- Create quality jobs for local residents
- Strengthen Latino businesses
- Support businesses that have history, reputation, and involvement in JP

Top Potential Uses for New Development Parcel

- Entertainment
- Restaurant
- Art supply/craft/ hobby store
- Health club/fitness
- Ice cream parlor
- Photocopier/printer
- Department store/furniture store/home décor

Opportunities for New Uses

Comparison to US Shopping Centers:

➤ Entertainment, fitness centers, function, social

➤ Hobby/special interest/sporting goods

- General merchandise stores

- Building materials/hardware

- Drugs, health & beauty

- Jewelry

Typical Anchor Tenants

Potential economic engines for new development:

- Office supplies
- Cinema
- Restaurant with liquor
- Junior Department Store
- Discount Department Store
- Family wear
- Sporting Goods
- Books
- Drugstore/pharmacy

Detailed Tenant Information

We currently have the following information

for the top potential uses:

- Gross leasable area averages

- Sales per square foot averages

- Rent per square foot averages

	Gross Leasable Area			Sales Per Square Foot			Rent per Square Foot		
	Lower Decile	Median	Upper Decile	Top 10%	Median	Top 2%	Top 10%	Median	Top 2%
Entertainment (Cinema)	10,633	24,517	59,903	$115.67	$60.57	$153.09	$14.74	$8.72	$22.95

JP Total Purchasing Power

- Within ½ mile of Jackson Square T
  - Median Household Income: $29,955
  - Number of Households: 6,299
  - ***Purchasing Power: $188,686,545**

- Within one mile of Jackson Square T
  - Median Household Income: $32,845
  - Number of Households: 33,875
  - ***Purchasing Power: $1,112,624,375**

* Capture rate of JP businesses will adjust this number

Capture Rate within ½ Mile of Jackson
Purchasing Power: $188,686,545

	Estimated Expenditures by JP	25% Capture Rate	50% Capture Rate	75% Capture Rate
Food at home	$ 22,008,706	$ 5,502,177	$ 11,004,353	**$ 16,506,530**
Food away from home	$ 15,923,872	$ 3,980,968	**$ 7,961,936**	$ 11,942,904
Apparel & services	$ 13,694,026	**$ 3,423,507**	$ 6,847,013	$ 10,270,520
Entertainment	$ 3,892,782	**$ 973,196**	$ 1,946,391	$ 2,919,587
Personal care products & services	$ 3,306,975	$ 826,744	**$ 1,653,488**	$ 2,480,231
Household furnishings & equipment	$ 9,813,842	**$ 2,453,461**	$ 4,906,921	$ 7,360,382

Capture Rate within 1 Mile of Jackson
Purchasing Power: $1,112,624,375

	Estimated Expenditures by JP	5% Capture Rate	10% Capture Rate	15% Capture Rate
Food at home	$ 22,008,706	$ 1,100,435	**$ 2,200,871**	$ 3,301,306
Food away from home	$ 15,923,872	$ 796,194	**$ 1,592,387**	$ 2,388,581
Apparel & services	$ 13,694,026	**$ 684,701**	$ 1,369,403	$ 2,054,104
Entertainment	$ 3,892,782	**$ 194,639**	$ 389,278	$ 583,917
Personal care products & services	$ 3,306,975	**$ 165,349**	$ 330,698	$ 496,046
Household furnishings & equipment	$ 9,813,842	**$ 490,692**	$ 981,384	$ 1,472,076

Sales Leakage within ½ Mile

*Total estimated sales leakage = $11,661,047

Retail Type	Estimated Expenditures by JP Residents	Estimated Sales in JP	Estimated Sales Surplus/(Leakage)
Food at home (supermarkets)	$22,008,706	$29,991,599	$7,982,893
Food away from home (restaurant w liquor)	$15,923,872	$9,883,505	($6,040,367)
Apparel & Services	$13,694,026	TBD	TBD
Entertainment fees & admissions	$3,892,782	$0	($3,892,782)
Personal care products & services	$3,306,975	$2,156,865	($1,150,109)
Household furnishings & equipment	$9,813,842	$1,849,767	($7,964,075)

*This computation is in progress

Sustainability Challenges

- Finding the balance between strengthening existing clusters and diversifying the commercial district
- Meeting the needs of the current customer profile and appealing to the target customer profile
- Compromising between the identified uses for the new development and the economically viable uses
- Achieving the business development values while creating economically sustainable uses
- Ensuring the new uses are environmentally sustainable

Environment

Brownfields Assessment
Environment & Health
Assessment

Brownfields

Brownfields: Existing Conditions Analysis for Relevant Parcels

- Nature and extent of contaminants (known or potential)
- Public health risks from contaminants
- Status of any assessment and/or remediation efforts
- Remediation options/costs; reuse limitations
- Information gaps

MBTA Parcels 69, 70, 71, A

- High levels of petroleum hydrocarbons in soil and groundwater
- Tetra- and tri- chloroethylene in groundwater
- 8 tanks underground tanks still on property
- Phase I complete, Phase II to be completed before RFP for property
- Remediation estimate: $1M - $3.3M

MBTA Parcel "Grassy Knoll"

- No record of environmental issues
- Concern: Pre-1962 auto repair use

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NSTAR Parcel

- 2002:150 gallon oil spill, remediation complete
- Concern: Possible pre-1962 auto use

City of Boston Parcels 1540/1542 Columbus Avenue

- No record of environmental issues
- Concern: Extensive history of automobile use

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Urban Edge Parcel 1542 Columbus Avenue

- 2002: Oil, petroleum and arsenic spill
- Phase II assessment completed

City of Boston Parcel DPW Yard 282 Highland Avenue

- 2003: Petroleum spill
- In default of DEP assessment/remediation timelines
- Concern: groundwater flows toward Columbus Avenue

Urban Edge Parcel 41 Amory Street

- 2002: Hazardous material spill

(BenzA etc.)

- Phase II assessment complete
- Concern: abuts MBTA parcels, high petroleum levels found along property line, groundwater flows toward MBTA parcels

Mordy Levin Parcels 55-75 Amory Street

- 1995: Oil spill, remediation complete
- 2000: Oil spill, Phase II complete
- Use limitation: Maintain pavement
- Concern: Parcel abuts MBTA properties, high levels of petroleum found along property line, groundwater flows toward MBTA parcels

Brownfields - Potential Health Risks

- *Limited* Phase I Assessments
  - Oil/Petroleum
  - Tetrachloroethylene
  - Trichloroethylene (TCE)
  - Polycyclic Aromatic Hydrocarbons
  - Arsenic
  - Lead

- *Potential* Health Risks
  - Cancer, Birth Defects, Nerve, Liver & Kidney Damage, Auto-Immune Disorders
- Better estimate from Phase II Assessments

Tree Cover / Urban Forestry

- **Trees in the Urban Environment**
  - Mitigate air quality problems
  - Shade & heat regulation in summer
  - Energy efficiency for surrounding buildings
  - Provide "Sense of Place"

- **Jackson Square is barren**
  - Missing link between "green" neighborhoods
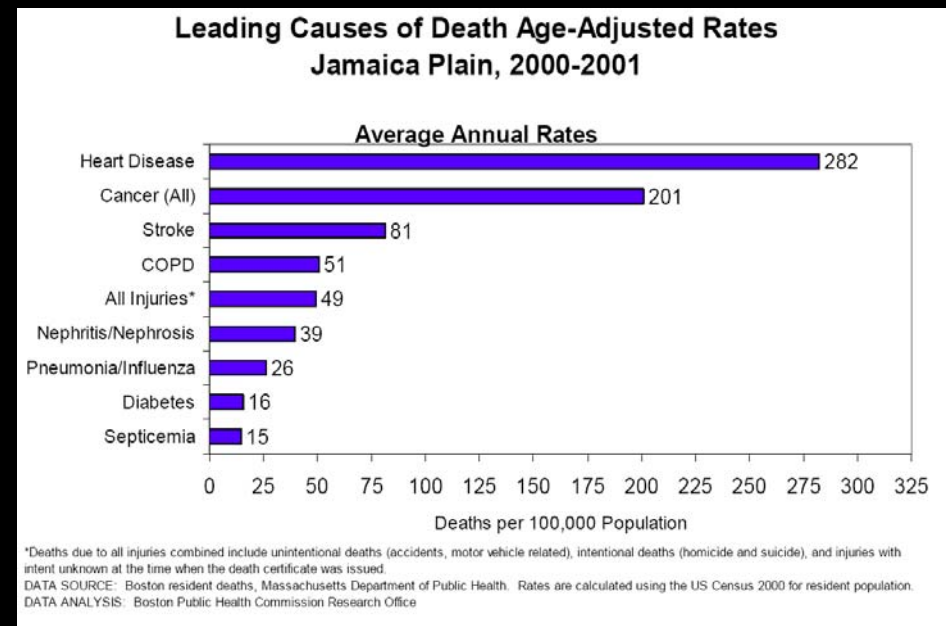
Open Space & Built Environment

- Greater JP & Roxbury well endowed with Public Open Space
  - Southwest Corridor
  - Small neighborhood parks
- Most significant OS resources ~1 mile from Jackson Square
  - Franklin Park, Jamaica Pond, Arnold Arboretum

Open Space & Built Environment

Public Health Implications

- 50% of Jamaica Plain, 72% of Roxbury adult residents at risk for health problems due to lack of exercise
- Top 3 Causes of death – all have physical inactivity as a risk factor
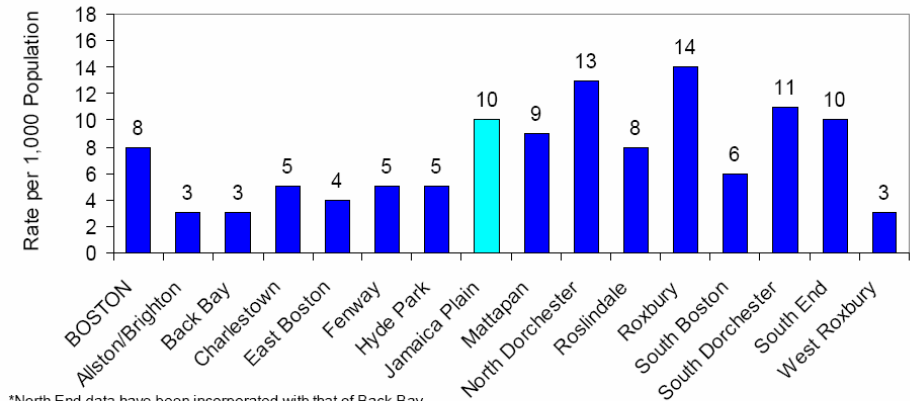 - Heart Disease
  - Cancer
  - Stroke

Leading Causes of Death Age-Adjusted Rates
Jamaica Plain, 2000-2001

Average Annual Rates

Cause	Deaths per 100,000 Population
Heart Disease	282
Cancer (All)	201
Stroke	81
COPD	51
All Injuries*	49
Nephritis/Nephrosis	39
Pneumonia/Influenza	26
Diabetes	16
Septicemia	15

*Deaths due to all injuries combined include unintentional deaths (accidents, motor vehicle related), intentional deaths (homicide and suicide), and injuries with intent unknown at the time when the death certificate was issued.
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health. Rates are calculated using the US Census 2000 for resident population.
DATA ANALYSIS: Boston Public Health Commission Research Office

Air Quality
Asthma

- JP & Roxbury Childhood Asthma rates and rising
- Risk factors and spatial distribution indicate an Environmental Justice issue
- Indicator of general air quality and EJ issues

Asthma Hospitalization Average Annual Rates
Children Under Age 5 by Neighborhood,* Boston, 1998-2001

Rate per 1,000 Population

Neighborhood	Rate
BOSTON	8
Allston/Brighton	3
Back Bay	3
Charlestown	5
East Boston	4
Fenway	5
Hyde Park	5
Jamaica Plain	10
Mattapan	9
North Dorchester	13
Roslindale	8
Roxbury	14
South Boston	6
South Dorchester	11
South End	10
West Roxbury	3

*North End data have been incorporated with that of Back Bay.
DATA SOURCE: 1998-2001 Acute Case Mix, Massachusetts Division of Health Care Finance and Policy. Rates are calculated using the US 2000 Census for resident popualation by zip code.
DATA ANALYSIS: Boston Public Health Commission Research Office

Air Quality
Outdoor

- Primary local source: Vehicular emissions (diesel exhaust)

- Jackson Square AQ monitoring reveals no "red flags"
  - MBTA buses converted to CNG
  - 100/400 school buses retrofitted
  - No major trucking hubs

- However, there is plenty of traffic, and no amount of pollution is "good"

Air Quality
Indoor

- Primary local source: Housing stock
- Asthma triggers
  - Mold & moisture
  - Pets & pests
  - Inadequate ventilation
  - Tobacco smoke
- Existing programs
  - Construction & maintenance guidelines

Environment & Health Sustainability

Priority Challenges

- Brownfields Risks

- Air Quality and Asthma

- Access to Open Space / Physical Activity

- Tree Cover / Linking the neighborhoods

Sustainability Opportunities
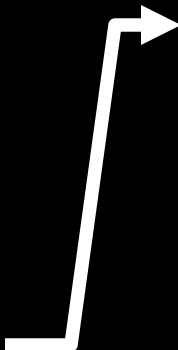### For Jackson Square Redevelopment

Principles

- Create Economically Viable Development

- Maintain or Improve Environmental Conditions & Public Health

- Respond to Community Needs & Desires

Goals

- Effective Remediation of Brownfield Parcels

- Appropriate Re-Use of Parcels

- Integration of Redevelopment with Surrounding Neighborhoods

Opportunities

- Green and Healthy Building
- Housing focus on 1/2/3 BR units
- Capitalize on transit & bike/ped resources
- Minimize contribution to vehicular emissions and traffic
- Improvements to transportation system to accommodate new development and decrease auto mode-share
- Identify business types that will succeed financially
- Identify economic engine(s) or economic draws
- Target diverse markets
- Ensure addition of quality jobs to the community
- Integrate business development values into business recruitment strategy
- industrial ecology practice – cooperative sourcing and waste management among the clusters of similar businesses
- "Connect" JP & Roxbury
- Provide Quality Open Space and Recreational Facilities
- Integrate Urban Forestry Values into Redevelopment

Next Steps

- Transportation
  - Further data collection (police reports)
  - Determine transportation and parking requirements/regulations
  - Explore MBTA service change process
  - Determine transportation facility/amenities options, best practices, and feasibility for new development

- Housing
  - Explore Green Building options
  - Investigate best practices in terms of sustainable housing

- Economic
  - Complete retail demand and sales leakage analysis
  - Determine requirements for sales, rent, square footage, demographics, parking, etc. for each use type
  - Interview leasing agents
  - Map competition of potential new uses
  - Create potential/recommended business mix
  - Create roadmap for business recruitment strategies
  - Identify environmentally-friendly business practices

Next Steps

- Brownfields
  - Investigate funding sources for remediation (Including for green remediation, other public and private sources, potentially responsible parties)
  - Provide best practice options for remediation effort

- Environment & Health
  - Further data collection, analysis
  - Continue to identify existing resources and programs
  - Identify and refine opportunities for improving sustainability
  - Develop proposals in response to sustainability opportunities
  - Estimate quantitative and qualitative benefits of proposals