WALKING, BICYCLING & PUBLIC SPACE ON MARKET STREET

A PUBLIC SPACE, PUBLIC LIFE STUDY OF SAN FRANCISCO'S MOST IMPORTANT STREET



SAN FRANCISCO PLANNING DEPARTMENT San Francisco Planning Department March 2010

How to read this document

Take it to Market Street to experience the urban environments under study, or use the photos and maps to help situate you.

Colors

The colors selected were inspired by Market Street's red bricks, green trees and occasional blue sky.

In some sections, such as the Ground floor Façade Quality Index (page XX), they are used to denote quality: red being unattractive, blue being attractive. Mostly, however, they are simply to help highlight and contrast key findings.

Street (2009)

Market

uo

Walking, Bicycling & Public Space

Recommendations

Recommendations made throughout the document are in grey text.

Thought clouds

Thought clouds are used to help convey the number of similar responses to specific survey questions (pages xx-xx). The number of mentions corresponds to the size of the text. They were produced using the website: www.wordle.net.



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All the graphs, tables, photos and text in this report are the work of the author, unless otherwise indicated in the text or the endnotes.

Acknowledgements

I would like to thank Neil Hrushowy for his kindness, guidance, intelligence and wisdom. All the people in the City Design Group and in Citywide Planning are also especially to thank for their help in bringing different aspects of this project together. Stephen Shotland, Josh Switzky, Aksel Olsen, Johnny Jaramillo, Andres Power, Mike Webster, Adam Varat, Abigail Keifer, Kate McGee, Scott Dowdie, Gary Chen, and David Alumbaugh are just a few who have helped me feel welcome. I would like to thank Nik Luka, as well as the other professors and colleagues of McGill University's Urban Planning Programme for challenging. Chee Chan is to thank for paving the way in 2007, and for his advice. My fellow intern Alex Makovics was indispensable in his help with data collection, statistical analysis, GIS and humour. Lotta Widengren helped with data collection and inspiration. Megan Wier and Tom Rivard from the San Francisco Health Department contributed to several sections. Lynn Valente wrote the section on her organization People in Plazas. I would like to thank the San Francisco Great Streets Project and the San Francisco Bicycle Coalition. In particular, Andrew Ehrich must be commended for organizing fifteen volunteers including: Jantrue Ting, Jean Walsh, Erin Rice, Vicky Hoover, Lynne Howe, Spike Kahn, Justin Connolly, Chad Armstrong, Mary Allen, Monica Way, Nico Fauchier Magnan, Kelly Faddis, Miriam Sorell, Dawn Kang, Dallas Hayes, Max Tararushkin, Beth Byrne, and Rodney Paul. Artist, John Agoncillo allowed for the use of his photos (indicated in the caption) and retains full rights to all his own work. Nick Elsner and Patrick Rivera from DPW for helping me find information about the 1970s granite bollards. Adam Solorenzo (JC Decaux) and Kenny Kim (San Francisco Chronicle) were helpful in giving information about the newsstand kiosks. The public characters on Market Street are especially to thank because the street is, in many ways, theirs. They are the primary animators and visitors.

For further information about the Better Market Street Project, please contact:

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Office of the Mayor City & County of San Francisco



Gavin Newsom

November 2009

My Fellow San Franciscans:

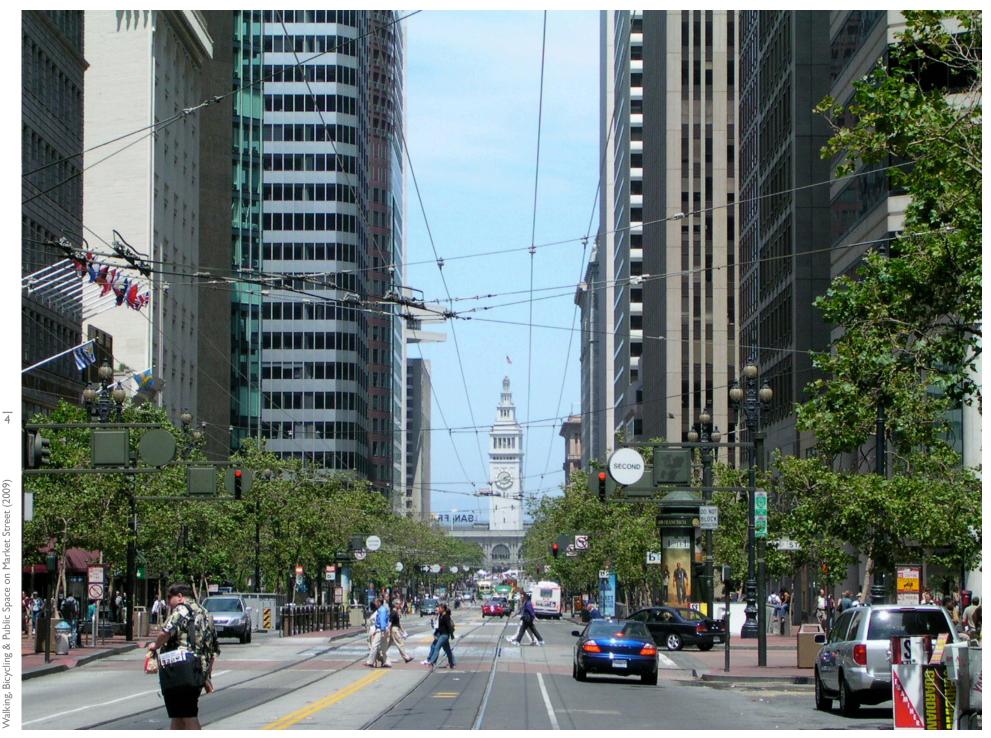
I am pleased to present the "Walking, Bicycling & Public Space on Market Street: A Public Space, Public Life Study of San Francisco's Most Important Street". This is an unprecedented document towards the vision of transforming Market Street to be a great stage for a diversity of positive urban activity.

San Francisco is a walkable city, and Market Street at its center should encourage walking particularly with its wide sidewalks and easy access to transit. This document establishes a baseline set of data regarding public space and public life along Market Street to help determine whether street improvements can encourage greater and more diverse corridor activities. The report will also help us understand other improvements, such as opportunities for people to stop, relax, take in the scene and to become a participant in a more vibrant urban corridor. There will be future data collection focused on pedestrian and bicycling activity, including surveying the opinions of pedestrians. It will be of great benefit to us as we evaluate Market Street to be able to compare the all of this data in determining the best path forward.

Market Street should be one of San Francisco's most important public space, and this document is an excellent beginning. We appreciate your on-going commitment to helping us improve our most important street – Market Street.

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It is possible, through planning decisions, to influence patterns of activities, to create better or worse conditions for outdoor events, and to create lively or lifeless cities."

—Jan Gehl [1]

LEFT LANE

How often a space is used is one thing — more important is how they can be used."

—Jan Gehl^[1]

Market Street can be a great stage for the diversity of San Francisco's urban activity. It already hints at this role, offering tourists and locals a sense of history, place, security, identity, and basic functionality. Where it can improve the most is in affording more opportunities for people to stop, relax, take in the scene and to become a participant in the passing urban scene. Market Streets should be one of San Francisco's most important public spaces, but lacks some fundamental elements typically found in great urban spaces.

Planning and design

Urban planning and design can affect the urban environment through physical interventions. Planners and designers have little direct control over the social interactions that occur in urban environments. Yet, the physical condition of public spaces is one of the factors that influences the types of activities that go on there. By improving the physical conditions of streets, planning and design can help to create more inviting public spaces.

Purpose of this study

The purpose of this study is to establish a baseline set of data regarding public space and public life along Market Street, and to see whether street improvements can encourage greater and more diverse street activities. Future collection of pedestrian and bicycling activity, as well as pedestrian opinion, can be compared to what is found here.

This report blends the results of quantitative data of pedestrian activity and qualitative observations of the experiential qualities of the urban environment.

It is hoped that the information in this report can be useful to the San Francisco Planning Department and to the multi-agency task force charged with the forthcoming redesign of Market Street.

Walking, Bicycling & Public Space on Market Street (2009)

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I.0 THE STUDY

IN THIS SECTION

1.1 Introduction Role of streets Planning and design Purpose of this report

I.2 Study Area

I.3 Methodology

I.I Introduction

San Francisco is a walkable city, and Market Street at its center encourages walking with wide sidewalks and easy access to transit.

According to the 2000 US census, 33% of trips in San Francisco are made by public transit, 10% by foot, and 2% by bike. There is no reason that these three could not combine to reach 50% or more in a short period of time.

Market Street is a vibrant place, where hundreds of thousands of people walk and move. Today, it is primarily a street for movement, with two layers of transit underground, dozens of streetcar and bus lines, taxis, private vehicles, bicycles and pedestrians. Yet it also serves as one of the city's largest public spaces. For many, it is a linear plaza.

Role of streets

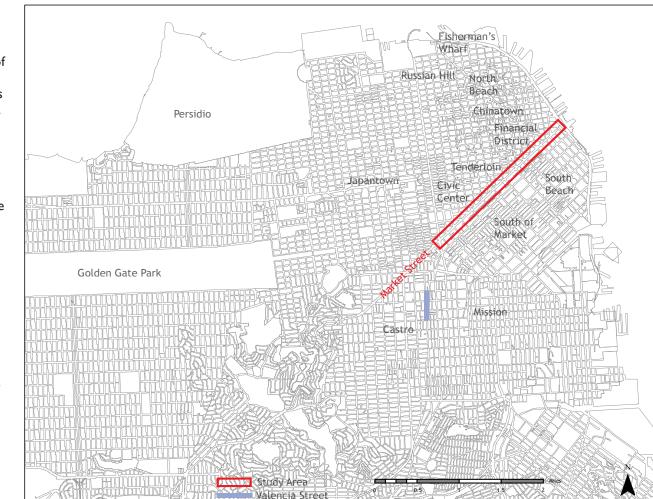
Streets serve three purposes. Streets are generally seen as serving the role of a travel corridor, but also serve as locations for goods and services. They are less often seen as easily accessible public spaces. This is where Market Street has the most potential to improve.

I.2 The Study Area

Market Street is San Francisco's central street. It connects and bisects many districts. Although Market Street continues up toward the Castro, the portion of Market Street considered in this report is limited to the two-mile, relatively flat, section between Van Ness Avenue and Justin Herman Plaza at The Embarcadero. Market Street cuts diagonally though the downtown and connects two grid systems. On the north side, twice as many streets reach Market Street and at approximately 50° and 38° angles. On the south side, fewer streets intersect with Market Street, and do so at 90°. Therefore, the north and south sidewalks make for very different pedestrian experiences, especially at intersections. For the same reason, cyclists also experience Market differently depending on whether they are heading downtown (east) or uptown (west). Although the Study Area has a unified streetscape design, Market Street varies in character.

Valencia Street is also marked on the map and referred to in the study, as data collected there two years ago will be used as a point of comparison.

Throughout this report, the character districts in the map below are referred to regularly, and at times, the Civic Center and Tenderloin districts are combined to be called the "Mid-Market" area. At times, there is considerable overlap between districts, yet the differences between them are clear in terms of the experiential qualities, socio-economic conditions, and in opinions amassed through the pedestrian surveys.



Market Street's character districts



Market Street in San Francisco

Walking, Bicycling & Public Space on Market Street (2009)

I.3 Methodology

Counts of all kinds are at the center of this study. The list of quantified aspects of Market Street includes: open spaces, seating opportunity, pedestrian and cyclist volumes, stationary activity in selected plazas, and age/gender in those same plazas. A short pedestrian survey, with both numerical ratings and open ended questions, also forms a substantial part of the findings.

The content of these pages is also informed by voluntary contributions from public space animators, informal interviews, and contributions from San Francisco's Public Health Department, the County's Transportation Authority, and Department of Public

Data collection timeline

Ground Floor Façade Quality Open Space & Seating Opportunity Collaboration Pedestrian & Bicycle Counts Sationary Activity & Age/Gender Counts Pedestrian Survey



June

Below is a timeline indicating when the different parts of the work was completed in the summer of 2009.

The methodologies used to collect each type of data are recorded in the beginning of each section, and generally follow the methods from previous Public Space, Public Life studies either for the Planning Department or elsewhere.

August

July



Kids run to catch the short light cycle at Drumm and Market.



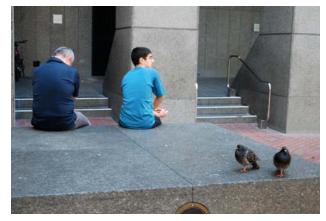
Artists leave their print on Market Street's sidewalks.



Counters and thumbs used to collect pedestrian and bicycle data.



Market Street is a destination for cyclists.



Father and son, pigeon and pigeon share a bench near One Post Plaza.



2.0 PEDESTRIAN MOVEMENT & EXPERIENCE

IN THIS SECTION

2.1 Introduction A pedestrian's basic needs Previous counts

- 2.2 Methodology
- 2.3 Pedestrian Amenities

2.4 Pedestrian Volumes Time of day pedestrian flow Pedestrian flow by side

- 2.5 Comparing to Other Streets
- 2.6 Pedestrian Safety Conditions

2.1 Introduction

San Francisco is a walkable city. Indeed, the 2000 census showed that the city's walking mode share is 10%. This does not include the city's transit users who are pedestrians as soon as they disembark, nor does it include the flocks of tourists, who do most of their sightseeing on foot.

Hundreds of thousands of people walk on Market Street everyday. Its tree-lined environment and wide, red-bricked sidewalks can make for a pleasant experience.

Everybody walks on Market Street. Children and the elderly both come to Market Street. Some of San Francisco's richest finaciers work just above it everyday, alongside the city's most disadvantaged who live right nearby. Tourists, locals, activists and evangelists, pigeons, seagulls, ladybugs, street performers, and disabled people all make trips to Market Street.

Market Street is an easily accessible place with hundreds of destination along its edges and thousands

more just beyond. Yet some walk on Market Street because there is space, a lack of slope, and a coherent, attractive design. At times, Market Street becomes a catch basin for uncomfortable winds and throngs of panhandlers. Yet people flock here to experience the sounds and sights of a busy working city.

A pedestrian's basic needs

Every pedestrian needs a safe place to walk. In urban settings, this means safety from automobiles and safety from crime. These topics are treated in detail in the Survey and Observation sections (pages 51-78) of this report.

Some people walk to access a destination, others just to walk. Both types of pedestrians are found on Market Street. They too have basic needs. These include a place to rest, if their journey is long, or if they are carrying weight. Access to water and bathrooms are also necessary. There are a few bathrooms on Market Street, but drinking fountains are nowhere to be found.

Water fountains should be installed on Market Street. Antiquated fountains, like Lotta's Fountain and the monument celebrating California's joining the Union in 1850 could be reactivated for this purpose.

Previous counts

Three previous pedestrian counts have been done on and near Market Street, but none can be found that systematically count pedestrian traffic through the day and week. The first count on record was done in November 1979, using only one noon-hour, weekday sixminute count to estimate hourly flow. A more recent count was conducted by a Planning Department intern in 1993, but focused on the downtown as a whole. He used 15-minute counts, but was unsystematic. Only four of these counts are on or near Market Street. This data is mapped in Appendix B. In 2006, KOA Corporation performed counts at intersections. Π

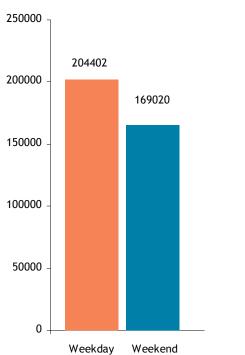
2.2 Methodology

Pedestrian counts were conducted during the summer months on Mondays through Thursdays, and on Saturdays, when the weather was generally nice. See Appendix A for count day weather details.

Counts were taken on both sides of Market Street at or near the middle of the block. Pedestrian flow was recorded between 8AM and 10PM using 10-minute count intervals sometime within the hour. Hourly pedestrian traffic was deduced from these counts.

It is thought that these counts are representative of normal flows on both weekdays and weekend days for this time period as no special events occurred to significantly skew the data. Any event thought to be out of the ordinary was noted at the time of data collection and is reported on the following pages.

Total pedestrian volumes: 8am-10pm



2.3 Pedestrian Volumes

Totalling the seven count sites, approximately 200 000 walk by on a summer weekday between 8AM and 10PM. On weekend days at the same seven sites, almost 170 000 people were counted. Huge numbers of pedestrians use Market Street everyday of the week.



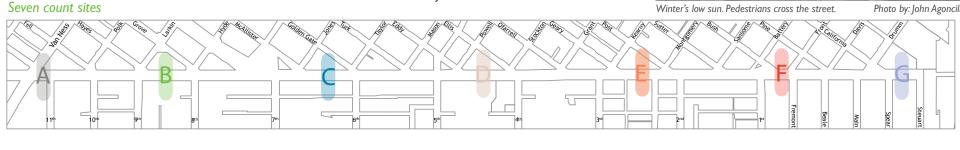
E Feet

2000

Winter's low sun. Pedestrians cross the street.

1000

Photo by: John Agoncillo

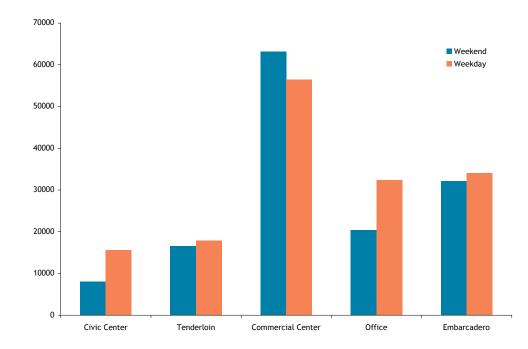


- А Van Ness
- **Civic Center** В
- Tenderloin С
- Powell Retail
- Montgomery Office E
- Battery Office F
- Embarcadero G

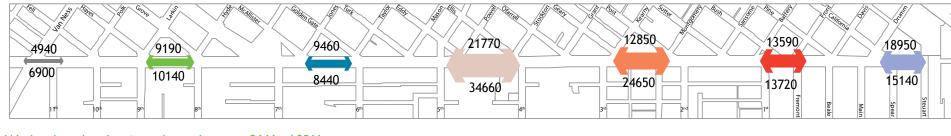
The counts show that pedestrian volumes are almost 5 percent higher on weekdays than on weekends. This is especially true in the Civic Center where weekday volumes are roughly double those on weekends, and in the Office District where weekday volumes are almost 40 percent more than on weekends. The only exception to this is at the Commercial Center, where weekend volumes are higher than on weekdays.

The counts also show that overall, the Commercial Center draws the most pedestrians any day of the week, followed by the Embarcadero and office districts. Considerably lower pedestrian volumes were found between Van Ness Avenue and 5th Street, in the Mid-Market area.

Pedestrian volumes by district between 8AM - 10PM



Weekday total pedestrian volumes between 8AM - 10PM







Time-of-Day Pedestrian Flow

Weekdays

Pedestrian volumes on Market Street vary by the time of day. On weekdays there is a peak at lunch hour and in the PM rush. A smaller peak also exists during the AM rush in the Office district.

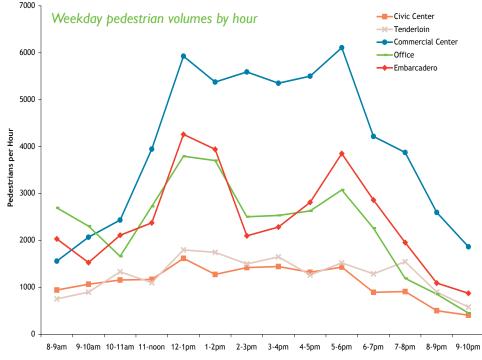
Although pedestrian volumes remain generally lower in the Civic Center and Tenderloin districts, they too peak at noon. In the Commercial Center, pedestrians volumes peak at noon and 5PM, but remains higher than all other districts after 10AM and loses very little traffic during the lull between 2PM and 5PM when the Office and Embarcadero districts see reduced pedestrian activity.

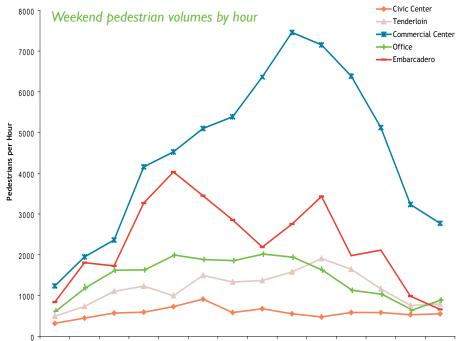


On weekends, Market Street becomes active later in the day, with the exception of the Commercial Center. Market Street does not experience AM and PM peaks in the same way as on weekdays. Instead, the Commercial Center peaks more distinctly in the late afternoon and slowly diminishes in volume toward the evening.

Civic Center volumes are cut by half or more on weekends. Weekends in the Tenderloin see local residents use the street in much the same way. A slight increase is likely because more tourists walk through on weekends. The Tenderloin experiences its peak at 5PM instead of at lunch, like on weekdays.

Close to the Embarcadero, a similar flow pattern is observed on weekends with noon and 5PM peaks. This count area is used heavily by weekend office workers, tourists and residents on Saturdays, many of whom visit the Ferry Plaza Farmer's Market. The 3PM mid-day lull corresponds with the end of the Farmer's Market.





⁸⁻⁹am 9-10am 10-11am 11-noon 12-1pm 1-2pm 2-3pm 3-4pm 4-5pm 5-6pm 6-7pm 7-8pm 8-9pm 9-10pm

Pedestrian flow by side

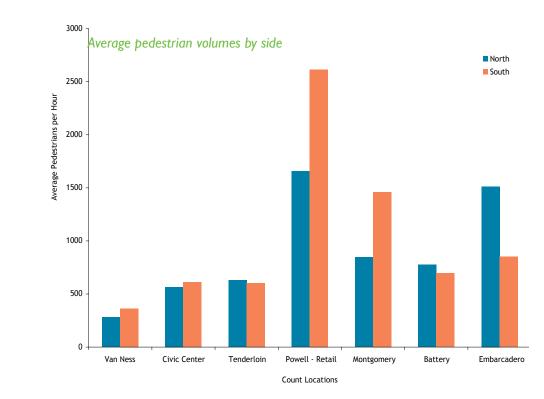
Many factors can influence on which side a pedestrian chooses to walk, including: key destinations, adjacent land uses, and sun access. Because counting took place on both the north and south sides, it is possible to compare them. By determining if one side of Market Street carries significantly more pedestrians throughout the day, we can cross-map this information with other collected data including: major destinations, façade quality, pedestrian connectivity (e.g. Are there more ways to access adjacent streets and buildings?), Ease of use (e.g. Are intersections on one side more difficult or time-consuming to cross?).

The diagram to the right compares the north and south pedestrian flow volumes for each count location. Pedestrian volumes are shown as an average of all hourly counts throughout the day. Weekday and weekend data are combined. The more persistent differences in the data between the north and south sides are at Powell-Retail, Montgomery-Office, and close to The Embarcadero.

The Powell-Retail count site was in front of the Westfield Mall. In this case, the mall acts as the primary generator of higher south side pedestrian volumes. More than 300 stores and restaurants on seven floors makes this San Francisco's most significant urban retail environment.

The Battery-Office count site shows a more curious set of circumstances. Consistent with the findings of the San Francisco Great Streets Project from their analysis of KOA Corporation (2006) — of weekday peak AM, noon, and PM intersection data — more pedestrians use the south side of Market Street. The following reasons are seen as potential contributing factors for this phenomenon:

- Connectivity: the south side has a greater number of pedestrian routes between 1st Street and 3rd Street.
- Façade quality: the south side ground floor is more attractive (page 68-69).
- Destinations: more attractive retail and food.
- Sun: exposure to sun during the PM peak.

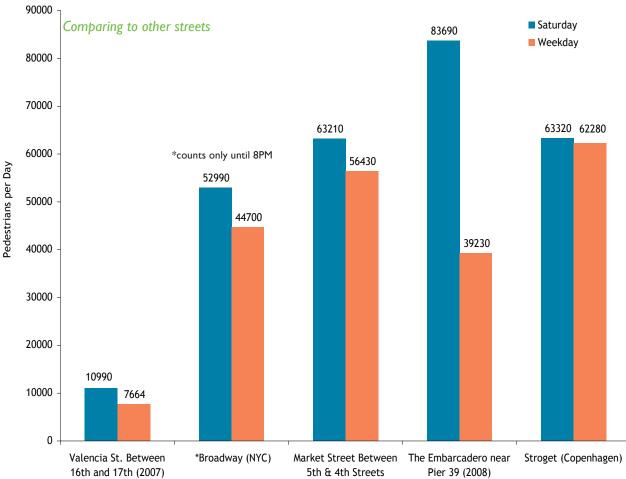


- Safety: shorter crossing distances at intersections.
- Tree canopy: there are more unkept trees on the north side of this block (page 72).

Close to The Embarcadero, there are two main reasons why the north side carries many more pedestrians than the south side. The first is that pedestrians need not cross Steuart Street on the north side. Given the choice, pedestrians are more likely to walk without the threat or hassle of avoiding cars or transit vehicles. Second, and perhaps more significant, the artisans who sell there goods at Justin Herman Plaza spill up Market street toward the California Street cablecar turnaround. These booths draw pedestrians, especially tourists. On weekdays, the difference between north and south pedestrian volumes at the Embarcadero count location is not as significant. In fact, it is common for the south side to be busier at the weekday lunch hour peak (2208 versus 2052 pedestrians per hour). This could be because office workers are limited in their lunch time and are destined for Justin Herman Plaza or the Ferry Building. The tourist

traffic on the north side might slow the lunching office workers, and thus affect their choice. On weekends, the opposite is true. The north side receives more than 150% more traffic than the south.

Further study into the cause of the difference in traffic between the north and south sides of Market Street would be useful in allocating street improvement resources. Moreover, it would be interesting to see if any amelioration of north side pedestrian crossings could alter the disproportionate levels of sidewalk use in the Office district.



The busiest portion of Market Street is on par with two other world city streets: Copenhagen's Strøget, a carfree street, and Broadway Avenue in New York City.

Compared to the counts from Valencia Street in 2007, The Embarcadero in 2008, it is evident that Market Street has both high pedestrian volumes but can also carry more. During the weekends, pedestrians flood to The Embarcadero at greater volumes than they do to Market Street's busiest block; however, Market Street has higher pedestrian volumes than the Embarcadero during the week.

With street improvements, Market Street has the potential to spread pedestrian volumes experienced between 4th Street and 5th Street both east and west, to future vibrant commercial districts.



Waiting for transit on a weekday morning.

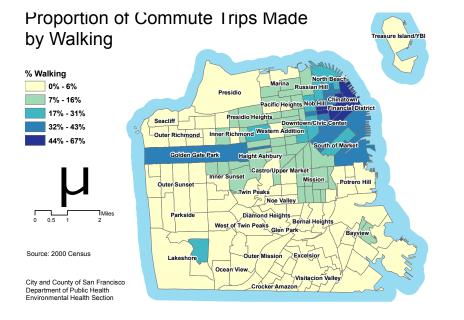


Exhibitionists and Market Street on weekends

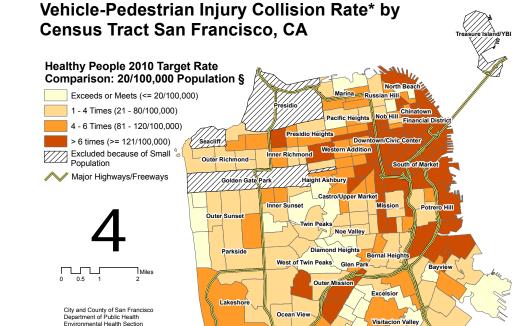


People of all ages come to Market. Photo by: John Agoncillo

2.6 Pedestrian Safety Conditions



San Francisco Department of Public Health Program on Health, Equity and Sustainability



ased on 2001-2005 collision data provided by the California Highway Patrol, Statewide Integrated Traffic Records System (SWITRS) and 2000 population data provided by the S. Census.

J.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office, wember 2000.

Based on the HP 2010 targets of 19 nonfatal pedestrian injuries + 1 pedestrian death per year per 100,000 population.

-By Tom Rivard & Megan Wier, SFDPH

Along Market Street, there are multiple lanes of traffic moving at fast speeds and high pedestrian volumes. This confluence of factors increases the risk for pedestrian injury and death in motor vehicle collisions.

People living in and around Market Street are less likely to own a car compared to the city average. Only 23 percent in the Downtown/Civic Center and 22 percent in the Financial District neighborhoods own cars, compared to 71 percent of San Francisco overall. ^[2]

These communities also have higher proportions of people commuting to work on foot. 58 percent of Financial District residents and 35 percent of Civic Center residents walk to work.^[3]

These communities — with some of the most sustainable transportation behaviors in the city, experience some of the most adverse traffic volume and speed impacts. Traffic flows to and from the freeway through South of Market, across Market Street and onto it in multiple lanes of one-way traffic, often at speeds well above the de facto city speed limit of 25 miles per hour. Previous research on environmental correlates of vehicle-pedestrian collisions shows that traffic volume is a significant predictor,^[4] while injury severity is largely determined by vehicle speed.^[5]

These communities experience among the highest absolute numbers as well as population rates of vehicle-pedestrian injury collisions in the city. For example, 564 vehicle-pedestrian injury collisions occurred in the Downtown/Civic Center neighborhood between 2001-2005.That is more than one-eigth of the just over 4,000 occurring in all of San Francisco³

Specific intersections with high numbers of injuries, or "hotspots," are often targeted for engineering countermeasures (e.g., pedestrian signals). High area-level numbers of pedestrian injury collisions can also be addressed through land use and transportation planning and design, as local area vehicle volumes and speeds are important predictors.

Crocker Amazo

Traffic calming that slows vehicles to less than 20 miles per hour,^[7] street designs that reduce automobile volumes and transportation-land use planning coordination that reduces the need to drive on streets with many pedestrians are important strategies to promote safe, walkable environments.

The San Francisco Department of Public Health contributed to a section on Market Street's noise levels. This can be found on page xx.

THE CYCLING EXPERIENCE ON MARKET STREET



Blocked intersections prevent cyclists as well as pedestrians.



The three-foot legal passing limit is often ignored.



Right turning traffic leave cyclists with little security.



Playing on Market Street.

Photo by: John Agoncillo



Critical Mass is unexpectedly large for most street users.



It is common for bike lanes to be blocked by delivery trucks.



Open spaces are sometimes, but rarely, used for playing.



Conditions are unsafe on the street for children and seniors.



More bike locks would prevent harm to trees.



The bicycle not as an end, but as a means, and sometimes a particularly joyous means, to realizing our vision and

3.0 BICYCLING MOVEMENT & EXPERIENCE

IN THIS SECTION

3.1 Introduction

Bicycling experience Who rides on Market Street? Previous counts

3.2 Methodology

3.3 Bicycle Amenities

3.4 Bicycle Volumes Collisions Time of day bicycle flow

3.5 Comparing Across Modes

3.1 Introduction

Market is an important bicycling street. It is an excellent route to access key downtown locations and also acts as a link to the rest of San Francisco's bicycle network, and the Bay Area's bike-friendly transit systems. Bicycles are extremely visible on Market Street. Not only do hundreds of bicycles flow by every hour, but Market Street is also the center for bike messengers who are found at all the downtown plazas with seating.

Encouraging cycling can help achieve San Francisco's air-quality improvement and CO₂-emissions reduction targets as well as to encourage a more human-scaled street for pedestrians. Bicycles move at lower speeds than automobiles, and are more able to stop and contribute to the public spaces along Market Street.

Bicycling experience

Bicycle riding on Market Street is very common. People ride there because there are few cars, relative to other similar direction streets downtown. There is also a bike lane and "sharrows" that indicate space for cyclists.

Riding on Market Street can be a pleasant experi-

ence, especially when there is space on the roadway and the tree canopy hangs over the curb lane. Yet hazards exist and pose threats to safe cycling. Examples include: motor vehicle collision, air grates large enough for a wheel to fall through, other cyclists and pedestrians, and poor road surfacing.

Even the complete bike lane from Van Ness to 8th Street is often blocked by delivery trucks or cars waiting to pick up or drop off a passenger. On one visit, four cars were blocking the same bike lane within three blocks.

Who rides on Market Street?

All kinds of cyclists on all kinds of bikes, including tandem, recumbent, and power-assist pedal bicycles were observed during the study.

Informal interviews with cyclists showed that Market Street is both an excellent and hazardous place to ride. San Francisco local. Melanie O'Brien, in her mid-thirties said. "The best time to bike on Market is in rush hour. You're safer with a bunch of bikers. The rest of the time the lane gets taken away from you. I would like a steady bike lane." Nick Whitacre is a tenyear veteran of bike messengering and is in his early forties. He says, "The problem is drivers don't know how Market Street works. Most of the problems are with out-of-town drivers." And he adds. "The tracks are dangerous, and some of the grates you can't even ride over."

Previous counts

The only previous bicycle count on record is of two intersections during the PM peak on Market Street, (at 11th Street and 5th Street). The Mid-Market count registered 726 bicyclists per hour. The count at the Commercial Center was 615.

As a base of comparison, According to the 2000 census, 2% of trips in San Francisco are made by bicycle.^[9] The proportion of bicycle use to other streetlevel users is higher on Market Street.

3.2 Methodology

Bicycle counts were conducted using the same schedules, methods, and locations as the pedestrian counts. They were completed during the summer months on Mondays through Thursdays, and on Saturday, when the weather was generally agreeable.

Counts were taken at or near seven mid-block location and on both sides of Market Street. Cyclist flow was recorded between 8AM and 10PM using 10-minute count intervals sometime within the hour to estimate hourly flow. For a map of the count locations, please see page 10.

The one Segway seen on Market Street during the counts was using the same facilities and traveling at a similar speed to cyclists so was counted as a cyclist. Tandem riders were counted as two people, not as one bike.

It is thought that these counts are representative of normal flows on both weekdays and weekend days for this time period as no special events occurred to significantly skew the data. There exists in the data some unusual flows as a result of a tourist group. It is unclear whether this is a daily tour that passes at the same time; regardless, special events and tours do oc-20 cur regularly on Market Street, and the counts in this report show that "regular" flow does include "irregular" peaks. The data should be considered reflective of the current bicycle use on Market Street.



Right-turning cars force cyclists to swerve into moving traffic.



Grates that go in the same direction as wheels are dangerous.

3.3 Bicycle Amenities

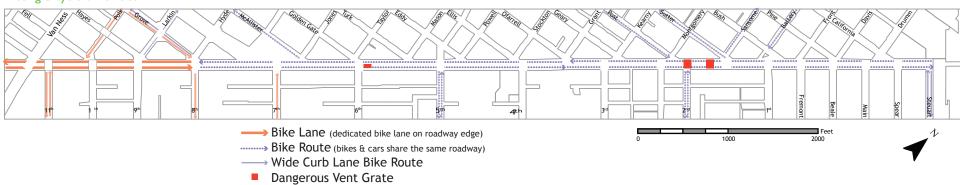
As the counts on the following pages show, Market Street is highly used by cyclists, despite the lack of dedicated bicycle lanes throughout. It offers nearly flat topography, and the opportunity to diagonally cross two intersecting grids.

Market Street above 7th Street has a dedicated bicycle lane by the curb that is shared at times with automobile right turn lanes. This lane is very often blocked by delivery trucks, service vehicles, police cars, and drivers waiting for a passenger in a building or store. Below 7th Street, Market Street cyclists share the curb lane with motorized traffic. This is signified to both cyclists and drivers with "sharrows" roughly once per block.

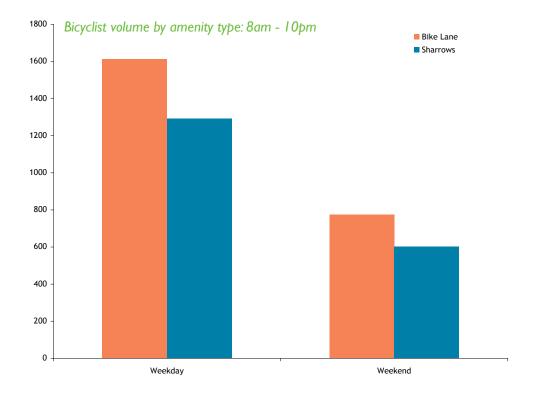
All bike lane amenities stop at intersections, where no bicycle specific amenities exist. This is especially troubling as it forces bicycles to weave through other traffic to reach the intersection.

At three locations in the study area, underground vents have grates at the surface that are hazardous to cyclists. As where most grates do not pose a threat, these three have gaps the size and orientation for a bicycle wheel to easily fall through and get jammed, launching the rider forward. This event was observed near 2nd Street in June.

Finally, the cycling surface, especially in the curb lane, is extremely uneven, resulting in an uncomfortable and a potentially dangerous ride. It likely dissuades riders from choosing Market Street.



Existing bicycle amenities



3.4 Bicycle Volumes

Weekday bicycle volumes are more than double weekend volumes. Moreover, twice as many cyclists were also counted near Van Ness and in the Tenderloin than at the locations below 1st Street.

Where full bicycle lanes exist (in the Civic Center district), there is 10% more bicycle traffic than in the rest of the study area where only sharrows exists. At this stage, it can not be concluded that this difference is caused by the amenities rather than other factors; however, it is worth noting at this stage to compare to later counts should facility improvements be included in future designs.

Collisions

Vehicle-Bicycle collision data (2001-2005) from the San Francisco Department of Public Health indicates that the greatest number of collisions occurs in districts surrounding the Mid-Market area, precisely where there are the greatest volume of cyclists. Attempts to calm vehicular circulation on Market Street would likely encourage safe cycling. See Appendix G.



Weekday bicyclist volumes between 8am - 10pm

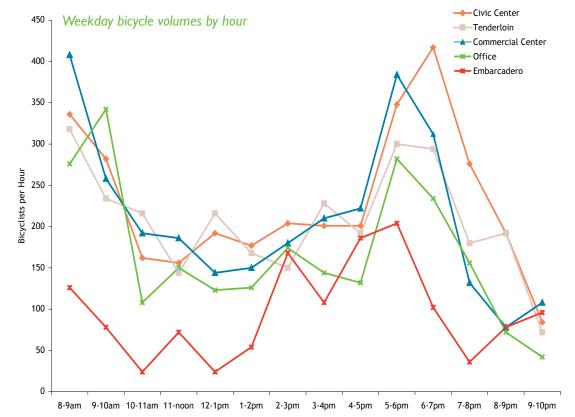
Time-of-day bicycle flow

Weekday

The weekday bike flow on Market Street varies only a little between Van Ness Avenue and the Office district. In this section of the street, bicycles stream toward downtown at the AM Peak, sometimes in clumps of 20 or more cyclists. The data shows that in the morning, cyclists pass through the Commercial Center at almost seven cyclists per minute (414 per hour). By 10AM, most AM Rush Hour cyclists have reached their destinations, but the flow ranges between 60 and 220 bicycles per hour until the PM Peak.

Between 5PM and 7PM, Market Street sees bicycle traffic flow mostly westbound, reaching an peak of nine cyclists per minute (540 per hour) through the Civic Center. By nightfall, bicycle traffic falls to between 40 and 110 cyclists per hour.

Close to The Embarcadero, weekday cyclist volumes follow a different path. The AM and PM peaks are experienced at lower volumes. Several factors may contribute to this effect. The first is that Justin Herman Plaza is a pedestrian environment that does not have a bike lane trough it. Cyclists may chose another route. Also, this area hosts recreational- and touristoriented experiences that are not subject to the peaks and valleys of commuting bicycle flow.





It's common to see 20 or more cyclists at a time in the morning.



Bicycling on Market should be safe for children and seniors.



Fast bike, faster bird.

Time-of-day bicycle flow

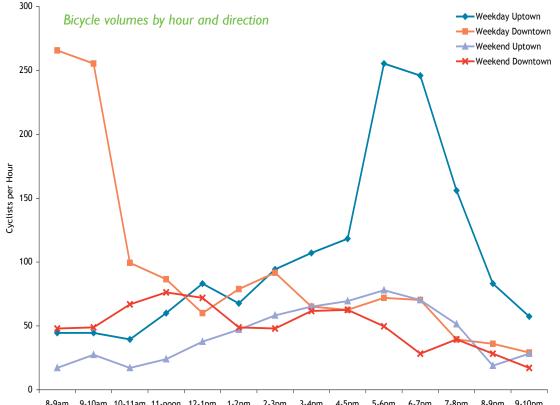
Direction

Because the north and south sides of the Market Street were counted separately, it is possible to account for directional bicycle flow, as more than roughly 90% of cyclists flow with the traffic.

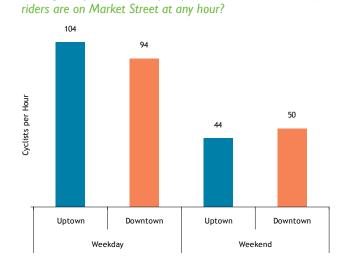
The graph to the right shows large peaks going toward downtown on weekday mornings, and from downtown on weekday evenings.

Also noteworthy is a similar but more moderate phenomenon is apparent on weekends. The eastbound bicycle flow peaks at mid-day and tapers off until evening. Conversely, the westbound flow picks up steadily and reaches its peak by early evening.

The graph below shows that on weekdays, heading west on Market Street is a more commonly chosen route than east, whereas on weekends, the opposite is true. It also shows that average weekday volumes are roughly double weekend volumes.



8-9am 9-10am 10-11am 11-noon 12-1pm 1-2pm 2-3pm 3-4pm 4-5pm 5-6pm 6-7pm 7-8pm 8-9pm 9-10pm



Average bicycle volume by day and direction: How many



Cyclists find little room in the curb lane.



Negotiating space with transit can be dangerous.

3.5 Comparing Across Modes

Market Street's roadway carries hundreds of private vehicles, public transit and cyclists. The seven bicycle flow count sites can be compared to nearby automobile traffic counts for the weekday PM peak. With the exception of Powell, all of the private vehicle counts were done at intersections, so there cannot be a direct comparison; however, the graph below is useful to see where cyclist volumes meet or exceed those of private vehicles.

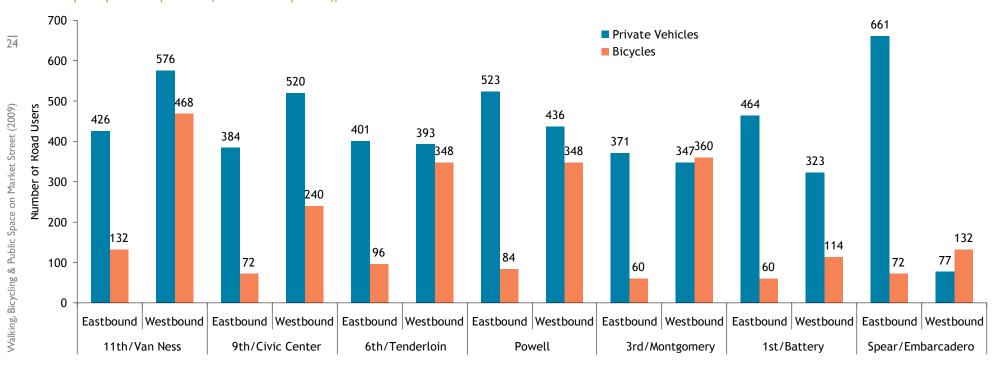
The graph shows only PM peak volumes. During that time, most Market Street cyclists are heading west. There is a more moderate effect for private vehicles between Van Ness Avenue and Powell Street, yet in the Office district, eastbound and westbound auto traffic are almost equal or are even greater going east.

At Van Ness Avenue, 6th Street, Powell Street and 3rd Street, westbound bicycle volumes compare closely to westbound automobile volumes. At Spear Street, westbound cyclist volumes actually exceed private vehicle volumes.

This is highly unusual for a major arterial in North America. If cyclists, pedestrians and transit user volumes are combined, it becomes clear that automobiles (including taxis and delivery vehicles) are truly in the minority on Market Street in terms of moving people.



Cyclists and drivers share the curb lane and slow each other.



Weekday PM peak comparison of vehicle to bicycle traffic on Market Street [10]

Comparing bicycle Volumes on Market Street and Valencia Streets

The graph below shows comparable bike volume data between 2007 and 2008 Public Space, Public Life studies. Valencia Street data is presented as an average of two mid-block bike count locations taken between 16th Street and 18th Street. Market Street data is shown from count sites C an D in the Commercial Center and Office districts. All data shown counts cyclists going in both directions.

The graph below indicates that both streets have high bicycle volumes, rarely going below 75 cyclists

per hour. The data also reveals that Market Street is used more during weekdays, especially during the Peak PM commute; however, cyclists use Valencia Street more on weekends and on weekday evenings. This is likely because Valencia Street is in a dense residential neighborhood and has ground-floor retail and restaurants open on weekends and evenings. Market Street is used more as a commuting street.



Bike messengers offer speedy service and consistent seating.



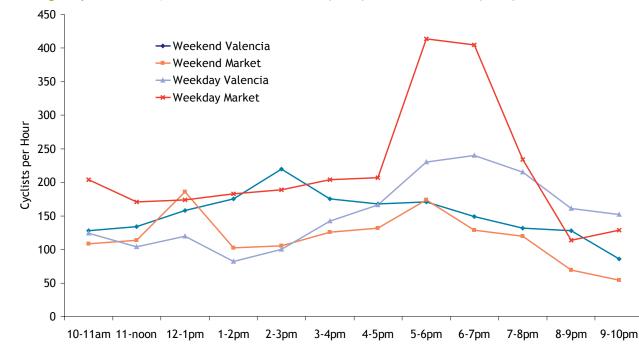
Cyclists are resilient to bumps, cracks and blockages.



Even when traffic and transit are stalled, bikes ride on.

25

Average Bicycle Volumes of Two Blocks on Market Street (2009) and Valencia Street (2007)



Walking, Bicycling & Public Space on Market Street (2009)



"Living cities ... ones in which people interact with one another, are —Jan Gehl^[1]

4.0 STATIONARY ACTIVITY

IN THIS SECTION

4.1 Introduction
4.2 Methodology
4.3 Open Public Spaces
4.4 Available Seating
4.5 Market Street's Plazas
4.6 Plazas in Detail Hallidie Plaza Linear Plaza Yerba Buena Lane One Post Plaza Sansome Street - Crown Zellerbach 525 Market Mechanic's Plaza One California Embarcadero Station

4.7 Mid-Market Plazas 4.8 Age and Gender

4.9 Sunken Plazas

4.1 Introduction

Market Street, because of its wide sidewalks, can be considered a linear plaza. In addition to the 25-35' sidewalks, it has over a dozen formal plazas. Yet Market Street is largely seen as place of movement rather than a place to be, to rest, and to enjoy.

The primary users of Market Street as a plaza are Bay Area locals on breaks from work, and tourists from everywhere on holiday. In short, people come to Market Street because it is close to thousands of offices, convenient to access, has many retail attractions, and has plenty of space.

Measuring quality

The quality of public space can be approximated by the number of people who come to a place and the time spent there. This study did not estimate the length of time people spent in spaces. However, stationary activity was recorded for 12 public or semipublic spaces in the study area. Justin Herman Plaza was not studied.

Variety

Market Street has some variation in public open space, apart from sidewalks, and it normally takes the shape of public or private plazas.

The plazas vary in intensity of use. Hallidie Plaza is incredibly busy all the time, where in others one finds only moderate numbers even on weekdays at noon the busiest hour for stationary activity.

They also vary in the quality and quantity of available seating, green spaces, access to sunlight and food. A few have well-defined, active edges, but most do not. The most successful ones have various "niches," or variations within the larger plaza, but few have such variety.

Improving the public realm

If it is desired to bring more people to Market Street to stay, working with existing plazas is the best place to start. Partnering with their owners if they are private, and learning from ambassadors, police, local vendors and security guards can work wonders to ensure the quality of public spaces.

Places for residents

Market Street's historical transit, the Westfield Mall and perhaps some of its theatres do attract visitors; however, Market Street, it is only a secondary attraction in and of itself. To help make Market Street a world-class destination, it is worth making it destination for local residents to rest, relax and enjoy. Visitors will soon follow.

4.2 Methodology

Stationary activity in plazas

Stationary activity was recorded in twelve plazas or public spaces along Market Street. Activity was recorded six times on both one weekday and one weekend day between 10AM and 9PM for nine of the public spaces. The three mid-Market public spaces were observed only on weekdays. Data collection was completed by taking a "snapshot" of a space or attentively noting its users on a walkthrough. Attention was paid to not double count any portion of a plaza, even in the more complicated study sites such as Hallidie Plaza. Typically this walkthrough required between three and 20 minutes to count and record all stationary activity, depending on the area's size and complexity.

Three of the plazas studied include a sunken portion. Two of these lead to underground transit. Stationary activity in sunken areas was counted separately to see if there was a difference in the uses of these spaces to the street level activities.

Age & gender

The age and gender of pedestrians on Market Street was estimated on the same days as stationary activity. Each study area was recorded eight times on both weekday and weekend days. Age and gender of pedestrians were estimated by observation, noted in one of seven categories (0-6, 7-14, 15-30 women, 15-30 man, 30-64 woman, 30-64 man, and above 64), and recorded for somewhere between five and 10 minutes. Within each study area, a random location was used each time for age and gender counts so no one building or establishment could skew the sample.

Niches and active edge

"Niches," micro-environments within a plaza, and active edge percentages were estimated and counted through observation.

Open space and available seating

Public open spaces and available seating was determined through reading, observation, counting and estimating. The open spaces section benefited from SPUR's January 2009 issue of the *Urbanist*^[13] as well as personal observation. Primary and café seating were simply counted. Secondary seating involved measuring height and width to determine comfortable personal space (approximately 3 feet or 1 meter per person) and appropriate height and depth of seats.

Stationary Activity	Examples found on Market Street				
Standing	Socializing, leaning, stationary in wheelchair, smoking, and talking on cell phones				
Waiting for transport	On streetcar medians, for buses on sidewalks, and in line for cablecars				
Sitting on benches (primary)	The wooden benches in Mechanic's Plaza				
Sitting on café chairs	Moveable chairs outside of cafés, bakeries and restaurants on Market Street				
Sitting on secondary sitting-possibilities	Stairs, planters and bollards in comfortable proportion to the human body (according to the 19 San Francisco Downtown Plan, 12-36 inches high, at least 14 inches deep, and at least 30 inches wide per person)				
Improvised sitting	When people sit on very high objects such as the newspaper dispensers, on street objects no amenable to the human body, or on their own devices such as boxes, skateboards, large bags, milk crates				
Sitting on the ground	Usually against a wall, at the base of a tree, or on the curb; approximately 75 percent of grour sitting is done by homeless people				
Lying down	People lying down on objects or the ground, but who are not inebriated				
Children playing	Skateboarding (not for transport), playing on bikes etc.				
Commercially active	Food vendors, handicrafts & artists booths, and includes active façade with food windows onto the street or plaza, giving away free samples				
Cultural activities	Musical performances, guided tours				
Physical activities	Playing on skateboards and bicycles				

4.3 Open Public Spaces



Open spaces on Market Street

San Francisco's downtown open spaces are crucial to provide places for busy workers to rest and for citizens to engage in passive or active recreational activities in the public realm. They can be meeting points for chance interactions or the stage for organized events.

Location and quality

The map above shows the various sizes and types of publicly accessible open spaces within the study area. There are many in the office district, but few elsewhere along the street. For public spaces to be used as a destination, they have to be close to many origins. This is true for both residents and workers on a lunch break. There are large sections, such as between 5th Street and 7th Street, where open spaces are lacking. Of those plotted on the above map, many are poorly-designed and contain poorly-oriented seating if any at all.

Private and public maintenance

The care that goes into Market Street's public spaces also varies greatly; the people who care for them also differ. At Hallidie Plaza, for example, it is very common to see police officers. At Hallidie and elsewhere, it is common to see ambassadors from the tourist bureau, as well employees of the various business improvement areas. As many of the plazas are privately-owned public open spaces (POPOS), such as the Crown Zellerbach Plaza, full-time staff are on hand to regulate their use, including keeping homeless people away and bicycles neatly racked.

The line between public and private space is blurry. The Art Academy hires security guards to protect students at UN Plaza during the day. Mechanic's Plaza is left to the birds, despite the fact that four nearby food providers benefit from their proximity to the public seating. William H. Whyte has shown that the people who carry out the daily regulation of public space play an essential role. The social skills and initiative of one person can make a place desirable or abandoned. [11] Relationships with these ambassadors should be nurtured to ensure quality social spaces.



Many of Market Street's plazas are privately owned.



The Farmer's Market at UN Plaza attracts locals and visitors.

4.4 Available Seating

Number and type of available seating



Type of Available Seats

- Primary
- Secondary
- 🛑 Café

Number of Available Seats

- 6 -10
- 11 25
- 26 50







The popular cafés have delineated outdoor seating with umbrellas, windblockers, planters and painted, removable walls.

A few high quality secondary seating opportunities exist.



Fire hydrants are the most commonly used street amenity for improvised seating.

Public seating opportunities

Seating provides the opportunity for people to stay in public spaces. Benches are also essential for resting. Seniors, the infirm and children especially need places to stop. Experts in the field recommend seating opportunities every 330 feet (100 meters).^[1] This is not the case on Market Street.

There is a noticeable lack of seating along Market Street. Seating opportunities are concentrated in UN Plaza and along various plazas between 3^{rd} Street and Beale Street. With the exception of UN Plaza, there is very little outdoor seating between Van Ness Avenue and 4^{th} Street. The Tenderloin is particularly underserved in terms of public space and seating.

The lack of seating opportunities is exemplified by the lack of public benches along Market Street, forcing pedestrians to improvise or sit on the ground.





Many existing seating options are unused due to poor location, orientation or are not at human scale. Objects that serve as planters or security devices could be made more comfortable for seating.

Poor Seating Options

Many of the seating opportunities shown on the map on page 28 are of low quality. Many are in the shade during prime sitting hours, are in sunken plazas that cannot be seen from the street, or are poorly proportioned to the human body, either too high or too low to sit comfortably.

Market Street would benefit from more quality seating options that offer "intimacy, and security, a good micro-climate... orientation and a view" agreeable to various groups of street users.^[1]

History of benches on Market

Granite benches were placed along Market Street between 4th and 7th Streets during the 1970s. In the mid-1990s, the benches were removed by the City after complaints from business owners reached mayor Willie Brown. Complainants claimed that homeless people occupying the benches were hurting their business. See page 76 for a discussion on the link between benches and "undesirables" and page 64 for a photo of the granite benches to be used in San Francisco's "Pavement to Parks" projects.

Architectural drawings that show the benches original locations have recently been scanned. Scans are available from the Planning Department's library. "Sitting opportunities must be considered an allimportant factor in evaluating the quality of the public environment in a given area. To improve the quality of the outdoor environment by simple means, it is almost always a good idea to create more and better opportunities for sitting."

—Jan Gehl^[1]



Elderly, families, and business people sit on the ground or on fire hydrants due to lack of public seating options.

4.5 Market Street's Plazas

Choosing a place to stand

Standing and socializing demonstrate a choice to remain in a particular place, because the same socializing could happen elsewhere. Standing for socializing serves as a better indicator of quality of the physical street design than, say, smoking, which has to be done outside. While those who were taking part in cultural or commercial activities were recorded as such, further categorizing the type of standing activities did not take place. Future studies should consider recording types of standing behavior. This may give a better sense of why people choose a place.

Choosing a place to sit

The number of people sitting is a very useful indicator of the quality of a place because it will more likely occur if the external conditions are favorable. If the conditions are not right, then they will move on. The second measure is that if they decide to sit, how long they choose to sit becomes important.



Some spaces are designed with many niches for different types of use. Some like privacy, some like to people watch.

Niches

Successful public spaces have many and a great variety of micro environments. Just look at Union Square, with various types of trees, seats in the sun and shade, cafés chairs, soft and hard surfaces, public art, stairs, monuments and stages each provide a unique staying experience.

Edges

Related to the issue of ground-floor façades (see page xx) is the discussion of edges. Sociologists and psychologists have shown that people prefer to sit and stand at the edge of open spaces. This way, people's backs can be to a wall or tree, and can survey the scene.

Building upon this, if an edge is "active" with doors to the street, café seating, stairs, attractive windows with people inside or available food, then people will more likely spend time along that edge.

The reverse is also true: "if the edge fails, then the space never becomes lively." ^[12] See pages 68-69 for more on active edges.





Tour guides on Market Street explain San Francisco's built history.

Thirteen studied plazas at a glance



Food is an essential factor that brings people to public space.

Name	Control	Sunken Por- tion	Level of use	Niches	Seating Opportunity	% Active edge	Undesired use (see page 76 for more on this topic)
Fox	Private	No	Low	Few	Low	20	Pigeons
Grove & Hyde	Public	No	Medium	Very few	Low	25	Homeless sleep, pigeons
United Nations	Public	No	High	Many	Very high	20	Homeless, begging, birds
Hallidie	Public	Yes	Very high	Many	Medium/Low	30	Begging
Linear	Public	No	Very high	Few	None	80	Begging, Stolen goods sold
Yerba Buena Lane	Public	No	Low	Few	Medium	35	
One Post	Private	Yes	High	Many	High	40	
Sansome Street / Crown Zellerbach	Both	Yes	Medium	Many	Low	30	
525 Market	Private	No	Low	Many	Very high	20	Pigeons
Mechanic's	Public	No	Medium	Some	High	20	Pigeons , homeless sleep
One California	Private	No	Low	Some	High	30	
Embarcadero Station	Public	No	High	Some	Medium	45	



Dancing in the street.

34

Street (2009)

Public

Walking, Bicycling &

Weekdays and weekend days

As with the volumes of pedestrians and cyclists, there are more people engaged in stationary activities on weekdays. However, the difference between weekends and weekdays is not so great for stationary activity when compared to cyclist or pedestrian volumes. The graph to the right demonstrates that the biggest difference is in the number of sitters. Both bench sitting and secondary sitting are much more prevalent on weekdays than on weekends. The more popular weekend activity is waiting for transit. This is mostly because the lines for the Powell Street cablecar – and other types of pleasure and utilitarian transit. Although waiting for transit is an essential part of public spaces,

it is not an indication of choosing to stay.

Playing & physical activity

Neither children nor adults play in any great numbers on Market Street. Market Street is used as a linear park by joggers, but with the great number of intersections and pedestrians, jogging is mostly done early and late in the day.

Occasionally skateboarders and cyclists will play in the plazas, and mostly on weekends.

Installing an outdoor climbing wall or a children's jungle gym in an underused plaza would bring both



Everyone is welcome at the chess table at 5th and Market.

Cultural activities

Cultural activities are few on Market Street. Most take place at the chess tables at 5th Street, or in observing the dancers in Hallidie Plaza. Cultural activities, like music playing, are the best things to animate a space. They stimulate our senses and give an unexpected delight. Spontaneous cultural activities are sensitive to negative stimulus, and are the first to go when background noise levels are too high. See Appendix D for more about People in Plazas and how animators succeed and find challenges on Market Street.

Poll musicians and representatives of the local music industry to get their opinion on what detracts more musicians from playing in San Francisco's busy public places. Work with them to encourage more public performance.

Weekday and weekend stationary activity



Weekday Weekend

Weekday stationary activity

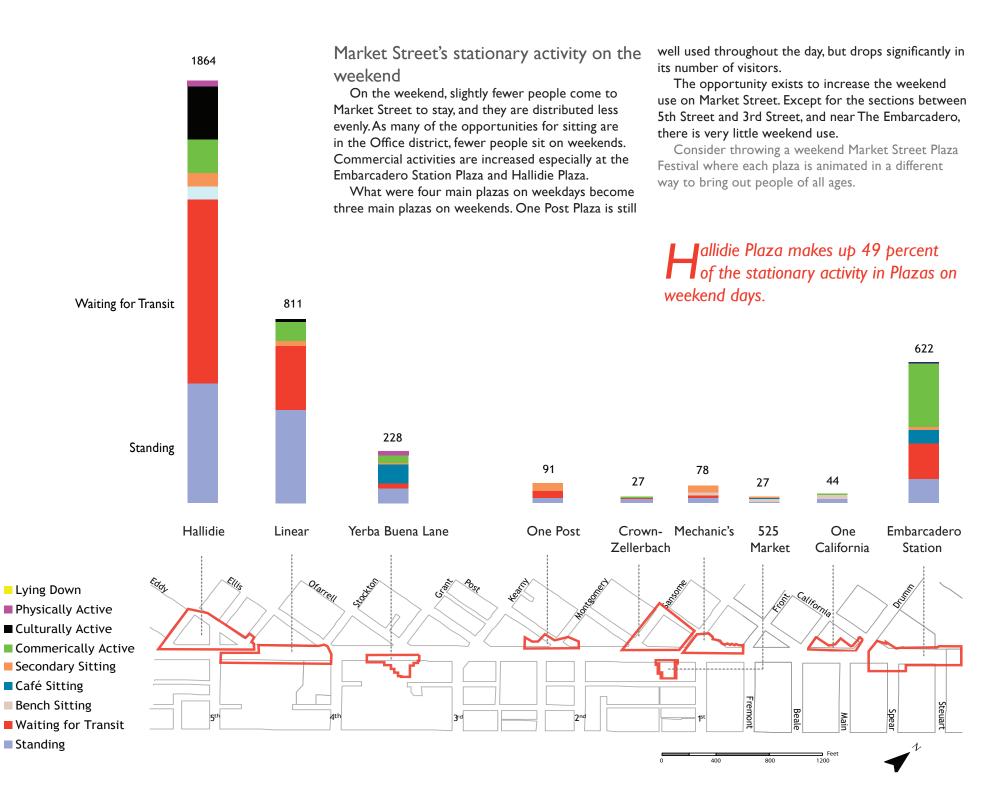
On a weekday, the almost 4000 people counted in "snapshots" of stationary activity on Market Street are more evenly distributed among the plazas than on weekends. Although 36 percent of the stationary activity in Plazas on Market Street happens in one place, Hallidie Plaza, every plaza and public space is animated at all times.

Four main public spaces dominate the recorded stationary activity along lower Market Street, accounting for more than 85% of the stationary activity. Beyond Hallidie Plaza, the "Linear Plaza" between 4th Street and 5th Street on Market, One Post Plaza and the Embarcadero Station Plaza at the California cablecar turnaround are used, on average, almost twice as much as the other five studied. Although the plazas and the studied boundaries of each vary greatly, size does not tell the whole story. For example, One Post Plaza (page 39) has roughly double the use of the Crown Zellerbach Plaza on Sansome Street, but it is less than half the size (page 40).

Almost three times as many people on weekdays than on weekends sit on benches. This is likely because the few benches available are in the Office district (Mechanic's Plaza and 525 Market Plaza), which are highly used during summer lunch hours. The same effect can be seen in secondary seating, where weekdays see four times as many people sit on bollards, planters and monuments.

eekdays see a more even distribution of uses in plazas.







Planned activities inspire curiosity and enjoyment



Spontaneous activities animate spaces and provide delight



Lacking or poorly maintained amenities prevent long stays



Cultural event add variety to public spaces.

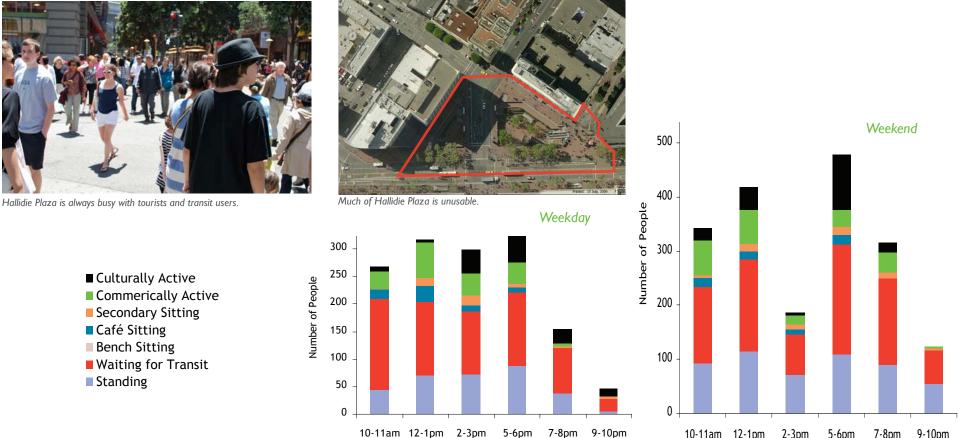


Even the improvised seating is uncomfortable.



Current use suggests where new seating should go.

4.6 Plazas in Detail



10-11am 12-1pm 2-3pm 5-6pm 9-10pm 7-8pm

Hallidie Plaza

Hallidie Plaza is by far the busiest public space on Market Street, and one of the busiest in San Francisco. It is less visited than Pier 39, but more than any other public space or street in Fisherman's Wharf.^[14] On weekdays it is more than triple any other recorded public space on Market Street, and on weekends more than double.

Hallidie Plaza draws a large crowd to take transit, either at the BART/MUNI station underground, buses on Cyril Magnin, or the F-Line streetcar. The biggest weekend draw to Hallidie Plaza is by tourists who take the Powell Street cablecar. Due to the high volumes of transit users, there are also dozens of artisans and other street vendors who add color to the space, as

well as street performers who provide cultural entertainment.

No seating is found at street level, which forces people to lean on railings, sit on the ground and sit on the newsracks.

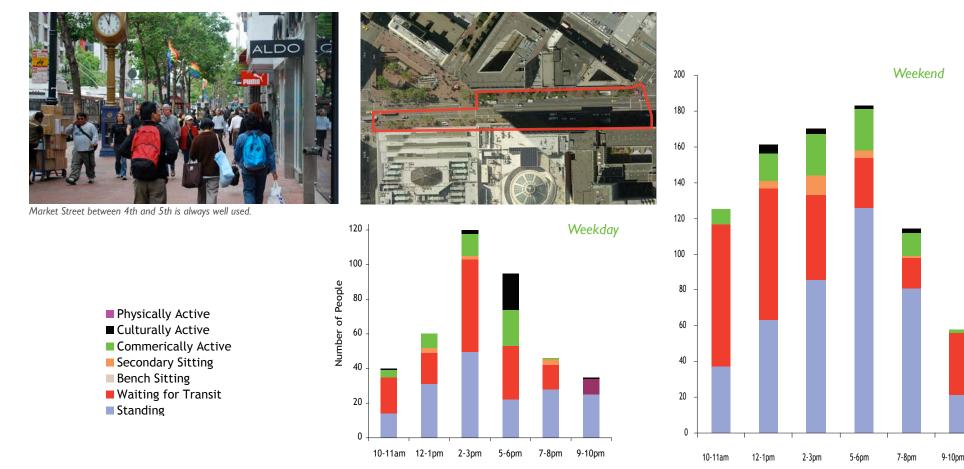
The sunken portion of Hallidie Plaza has a small café and stairs on which to sit. These are highly used during the day but are mostly unused or closed after 6PM. Even though the sunken portion is about 45 percent of the studied area for this plaza, it contains only eight percent of Hallidie's overall use. (See page 50 for more on sunken plazas.)

On the particular Saturday when data was recorded, the 2-3PM time period saw abnormally few visitors

that should not be considered representative of an average Saturday afternoon in the summer.

Hallidie Plaza can benefit from more programming in the sunken portion, and benches designed for uses of medium-length stays. Chess is also a very popular activity. People even play standing on newsracks when seating is unavailable. Chess should be encouraged by procuring 1/2-life sized chess pieces for an underused plaza.

Linear Plaza: Market Street between 4th and 5th



The term "Linear Plaza" comes from the Design Plan Summary Report, authored in 1967, which envisioned the beautification of Market Street as a linear plaza. Although this term applies throughout the study area, the most active portion is between 4th Street and 5th Street.

The main reason that this space is so visited is the Westfield Mall. It has seven stories, and more than 300 stores that attract crowds of shoppers. Many eventually spill onto the sidewalk. Here we find window shopping, artisans selling their wares, people-watching, musical performances, and various other stationary activities in great numbers.

The Linear Plaza has the second highest level of

stationary activity of the recorded plazas along Market Street. Over 50 000 pedestrians use it daily on both weekdays and weekends, many of whom stop to socialize or shop. This is the section of Market Street where survey respondents were most likely to mention congestion.

The mall is also the leading cause of the south side having much higher volumes of stationary activity than the north side. There were, during the study, two large north-side storefront vacancies that contributed to this unevenness.

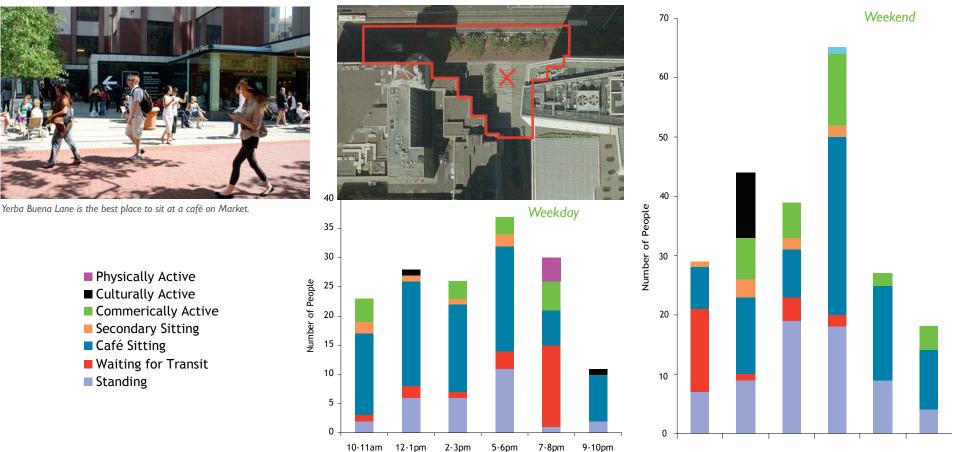
On Saturdays, the eastbound automobile traffic lanes are always congested, slowing transit service and bicycle flow. Saturdays also draw motorcyclists

and drivers who park illegally in the delivery cut outs and play extremely loud music to the detriment of the urban environment.

Should the forced right turn at 6th Street go ahead, as expected in the fall of 2009, it is recommended that intensity of use and the quality of the urban environment along the Linear Plaza be measured alongside bicycle and pedestrian traffic.

Opportunities exist to celebrate the street by drawing attention to its monuments. Space can be found by creatively using the delivery cut outs as temporary exhibition spaces for artists on weekends, and by encouraging pedestrians to venture east and west with program.

Yerba Buena Lane



10-11am 12-1pm 2-3pm 5-6pm 7-8pm 9-10pm



Chicago's "Cloud's Gate" is one of the most interactive public art pieces in the world. There is space for this on Market.

Yerba Buena Lane is the forth-most visited public space on weekends and the sixth-most on weekdays. It benefits from a BART/MUNI entrance, spill-over traffic from the Linear Plaza, two well-used cafés that include up to 30 seats, as well as a pedestrian cut through to the Yerba Buena gardens and Art Center. The rest of the Yerba Buena Lane to the south of the study district includes high-end retail and the nearby convention district and art galleries.

Unlike the rest of Yerba Buena Lane, however, this studied portion that fronts Market Street has very little secondary seating and creative architecture. Other than an artistically treated groundplane and several trees lit from underground pot-lights, this zone is undecorated and poorly used relative to its proximity to the action.

People do congregate in front and at the cafés, but few others linger. Most people just walk by. Considering its proximity to the Westfield Mall and the quality café seating, Yerba Buena Lane is barely used.

The vast open space (marked by the "X" in the map above) calls for a sitable monument like at Mechanic's Plaza, or an interactive permanent art installation like Chicago's "Cloud's Gate." It should be felicitous with the existing design and arts district. This would be a prime, sunny open space where people could sit and watch the steady stream of pedestrians passing by.

Street (2009)

Za

Public

Bicycling &

Walking,

One Post Plaza



The "sitting landscape" is comfortable for many body types.

Lying Down

Culturally Active



days and the fifth busiest on weekends. It is, perhaps, the best spot on Market Street for people watching, as throngs of pedestrians walk past on any day of the week. It has sunny seating close to the sidewalk that makes people watching a popular activity. Few other public open spaces provide any kind of seating that faces the street, as most turn their back to it, or are hidden between two buildings. Not One Post Plaza.

At this "sitting landscape," you can choose to sit in a myriad of ways, on the steps or bollards, up close to the street, or in a quieter niche (see orange color in the graphs above). The choice of seating, either on Market Street or on Post Street offers both sun and shade options at various times of the day. On a summer morning, the Market Street side is sunny; at midday when the sun is at its peak, only a few steps receive direct sun, but are mostly shaded by the McKesson Building to the relief of San Franciscans. In the afternoon, the sun lights the Post Street side of the steps.

10-11am 12-1pm 2-3pm 5-6pm 7-8pm 9-10pm

Weekend

100

80

60

40

20

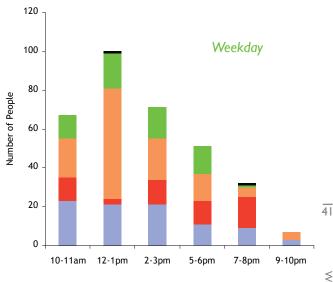
0

Number of People

Trees between the street and the sitting space are neither present, nor missing. The lack goes unnoticed.

One Post Plaza is an example of a very small, yet successful, public space. It sees its peak in the noonhour rush, but is at least somewhat used throughout the day and week. This cannot be said of other public spaces on Market Street.

Another reason it might be considered successful



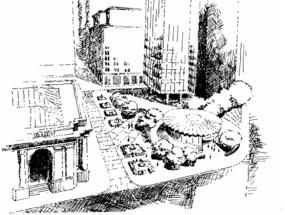
is because it attracts few "undesirables." Even when they do appear, they are lost in a sea of other people walking by. Their presence is barely felt. Also, the seating is just comfortable enough for someone to want to stay for five-to-twenty minutes, but does not afford for longer stays.

On weekdays, the café at street level is well used; the four retail outlets in the sunken portion are less used, and most are closed on weekend days. Overall, the sunken portion of One Post Plaza is used ten times less than the street level. See page 50 for more on sunken plazas.

Sansome Street — Crown Zellerbach Plaza



The weekday lunch crowd sits on the wall to watch the street.



eet (2009)

Public

So

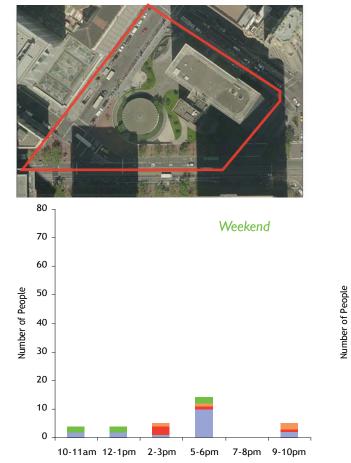
Bicycling

Walkin

1967 Downtown Plan.

Sketch of the Crown-Zellerbach Plaza and Sansome by Richard Hedman,

This public open space (also called One Bush Street) includes the entire Crown Zellerbach property, the sidewalks around, the sidewalk on the northwest corner of Sansome Street and the edge of the busy sidewalk at Sutter Street and Market. In this last portion, a shoe-shiner and an artisan regularly make their wage, as does a flower vendor at the corner of Sansome Street and Bush Street. There is a BART/ MUNI entrance on Sansome Street, just up from which a newsstand kiosk is the only one of its kind that is very well animated (see page 75 for more on newsstands). A tacqueria truck sells food to hungry office workers on weekdays in front of Citygroup Center. This public open space has many of the ingredients



for a vibrant urban environment, and yet it largely fails to live up to its potential.

Except that it is not well used. Given its size, The Crown Zellerbach Plaza is very barely visited. There are very few areas for sitting at a scale comfortable to the human body. The most popular space on the property is along a low wall at the corner of Sansome Street and Market Street where business people meet bicycle couriers and the regular lunch crowd. Other than on weekday lunch hour, it is rare to see more than a few dozen people throughout this space.

One reason that the numbers might be slightly depressed is that the façade of a building on Sansome Street below Bush Street was undergoing renovations at the time of study.

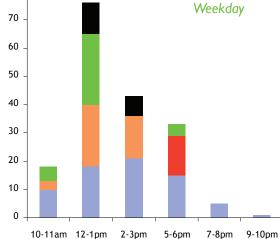
80

The trees around the outside of this plaza consist of willows, cherries and pines that offer a delightful contrast to the sycamores of Market.

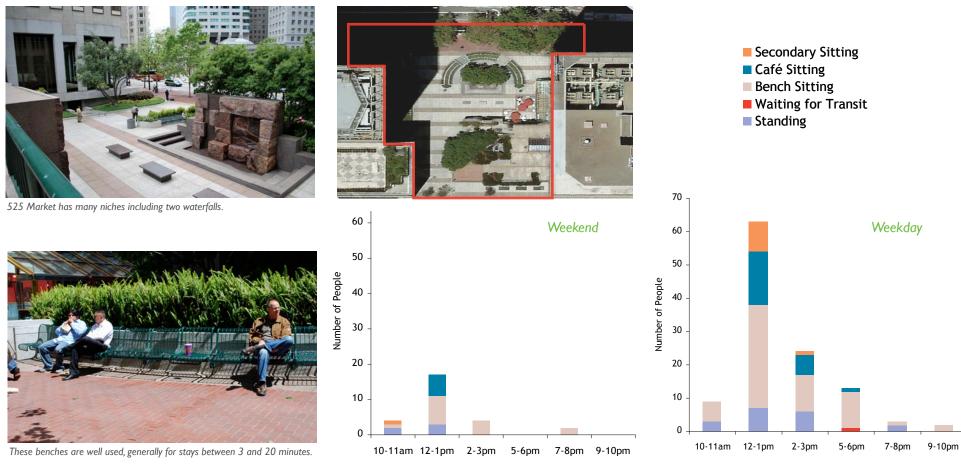
The sunken portion is attractively designed with stone and slate and even a fountain, but it is used almost seven times less than the street portion. SPUR's January 2009 Urbanist recommends seating and food service in this urban garden.[13]

The sketch above shows what could have been: large sitable planters and a narrow Sansome Street where now motorcycle parking clutters the streetscape and spews exhaust onto the sidewalk.





525 Market Plaza



525 Market Plaza is between two buildings and offers a wide variety of seating and staying options. Despite its quality design, it is well-used only at lunch hour on weekdays when the outdoor café chairs reach about half capacity, and benches fill up on sunny days. This plaza offers seating in a semi-circle, half of which faces the street for those who prefer people watching, the other half faces inward. Red granite benches in front of two fountains and planters with ferns help to soften Market Street's financial district. At the back of the seating areas is a set of publicly accessible stairs that lead to an upper lobby, but is almost entirely unused. SPUR's January *Urbanist* that rated Privatelyowned Public Open Spaces (POPOS) ^[13] suggests signage to direct people to this hidden place, and to turn this upper portion into a sun terrace. This whole space is shady most of the day, but in the afternoon this top portion receives some good light. It is unused however, partially due to the fact that seating cannot be found there, nor is there signage leading the passerby to explore this urban niche.

This public space would greatly benefit from Market Street public realm improvements. This space could in itself become a hub for stationary activity in the office district because of its open spaces and variations in seating opportunity.

To set this in motion, 525 Market needs more programming than it currently offers, which is one

concert a month provided through People in Plazas. Please see page 85 for more on People in Plazas.

Signage would be an inexpensive and effective addition.

Mechanic's Plaza



There are usually more pigeons than people in the plaza.



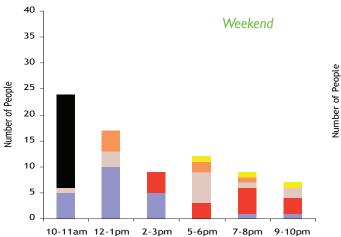
Mechanic's Plaza gets a lot of light and attracts long stays.

44

Mechanic's Plaza is the only publicly-controlled space on Market Street with benches. These benches are at least slightly used most of the day on weekdays and on weekends, and reach peak use at lunch hour on weekdays.

The plaza's main asset, however, is the statue of mechanics at work. It is properly celebrated with seating at its base. Cultural walking tours pass by here as they did on a weekend morning (see 10-11AM in the graph above).

Mechanic's Plaza is more used by tourists and homeless on weekends, and by office workers and bike messengers on weekdays. This is exemplified by the fact that more people lie down and take the F-Line streetcar on weekends. On weekdays — the only



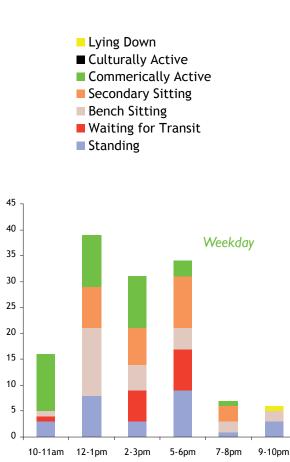
days when the juice bar and cafés are open — more people are commercially active in the studied portion of the plaza, and far more sitters.

One of the best indicators of Mechanic's Plaza's success is the length of the stays it draws. People who use the benches stay longer (to read, chat and listen to music) than at any other place on Market Street, largely because the benches are comfortable, and because this plaza is often sunny.

Throngs of pigeons and the occasional homeless person are the square's only detractors.

For this plaza to become a blue-ribbon small public space, the following actions are recommended in order of ease and perceived importance:

Power wash the monument's seating



• Replace the dead tree where pigeons perch

- Repair or remove the unknown stone object (likely an abandoned water fountain) underneath the aforementioned tree, that is used as a trash bin
- Educate adjacent businesses and the public with signage to not feed pigeons
- Engage local businesses, historical groups and public space activists to take partial stewardship
- Start a "Friends of Mechanic's Plaza" society.
- Coordination with the Crown Zellerbach building owners could help bridge these adjacent public spaces, especially if the recommendations regarding traffic calming on the "Battery Bridge" are headed (see page xx for more details on this recommendation)

One California Plaza



Very few people ever use the seating that faces Market Street.

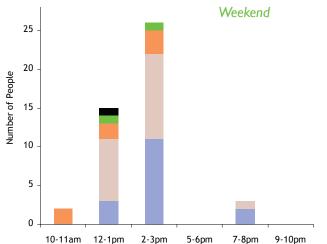


Even on sunny days.

The outdoor portion of One California Plaza is barely used. Despite its prominent location in the financial district, few people sit here even on a weekday. During six snapshots on a weekday, fewer than 100 users were counted; fewer than 50 were counted on a weekend.

The plaza, though, is visually appealing. Large planters provide a habitat to trees that shade the sidewalk, and shrubs that sway in the wind and add a softness to the streetscape. The green stone acts as a strong contrast to Market Street's red bricks. For some of these reasons and for the indoor/outdoor café that faces California Street, SPUR's *Urbanist* magazine gave this "snippet" a rating of "Excellent." ^[13]

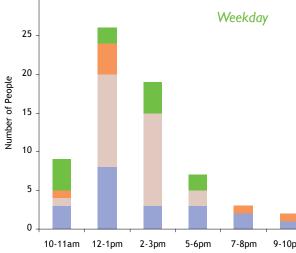




Despite the quality details considered in its design, there are many possible reasons for the Market Street side's lack of use:

- There exists better public spaces nearby.
- The café and view toward the California Street cablecar is both more comfortable to sit at, and more interesting to watch.
- Due to the tall buildings and plantings, there is very little natural light that penetrates to the stone benches.
- This section of Market Street experiences some very strong winds due to the buildings.
- The secondary seating that faces Market Street is uncomfortable, and does not encourage adaptive





30

use. For example, face-to-face conversations are impossible. It is deliberately made uncomfortable for homeless people.

- No secondary sitting faces itself at a distance that would be comfortable for conversation or longer stays of more than one person.
- Because this public space is barely used by office workers or tourists, homeless people regularly park shopping carts here, making more mainstream use less desirable.

Allow more artisan booths to cross Drumm Street. In the long term encourage them to redesign the sitting options at Davis & Market Streets.

Embarcadero Station Plaza



On weekends, tourists wait for the California Street cablecar.



Trees sometimes have a hard time on Market Street.

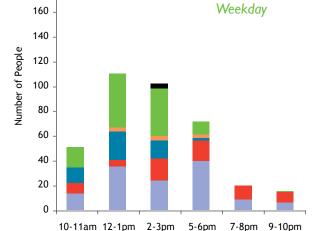
46

Although Justin Herman Plaza was not part of this study, the spill-over effects onto Market Street are considerable, and increasingly so. The open-air market everyday of the week gives credence to Market Street's name.

Tourism has a noticeable effect on this portion of Market Street. Most of the available goods are directed toward tourists' interests, but it is artistic in nature. Best of all, it is most often the artists themselves who sell their goods and animate the street with their colorful wares and conversation. See page 80 for an article in the *San Francisco Examiner* that explains the increase in artisanal selling in Justin Herman Plaza.

Other than commercial activity, and some cultural activities, many people wait here for buses, the F-Line and the cablecar. Cafes are also especially popular



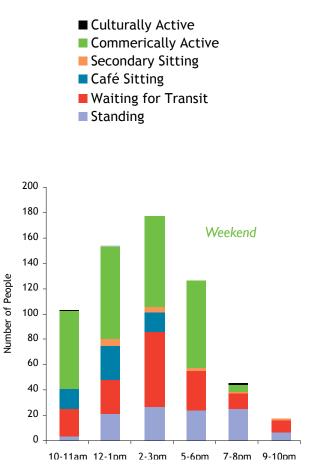


when the sun shines.

Considering the effective mid-block pedestrian volumes, the chart to the right shows that both sides of this plaza are well used on weekdays. This is because office workers use the south side just as much or more to walk to the Ferry Building or Justin Herman Plaza for lunch or as part of their ferry commute. On weekends, mostly the north side is used. This is largely because the commercial activity and cafés are here, and also because pedestrians do not need to cross a street to walk up Market Street.

As in many plazas along Market Street, this plaza is better used by children, seniors and women on the weekends than on the weekdays.

There are very few private vehicles on this portion of Market Street. This makes it a quieter place, and an



easier place for cultural activities, like music, to spring

easier place for cultural activities, like music, to spring up. At weekday PM peak, there are more westbound cyclists than cars. (See page 20 for more on this).

Encourage and license more artisans to sell on the south side, and across Drumm Street. Let Market Street live its name.

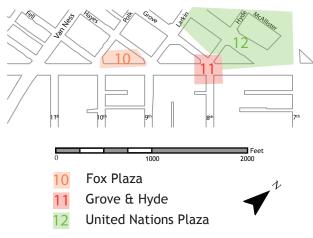
Rounded pedestrian volumes by side and day

Side	Weekdays	Weekends			
North	19000	23000			
South	15000	9000			



4.7 Mid-Market Plazas

Plazas in Mid-Market



Through collaboration with the San Francisco Bicycle Coalition volunteers, and through Andrew Ehrich's leadership, weekday data on three Mid-Market Plazas was collected.

The Civic Center district will undergo a similar study to this one in the coming months, and should have these data and methods to compare to their own.

Fox Plaza

Fox Plaza is a collection of small snippets that front Market Street between Polk Street and Larkin Street. The two largest ones are in front of 1390 Market Street — the office portion of this multi-use building — and in front of the post office at the corner of Larkin Street. In front of 1390 Market Street there are stairs that receive sitters only on days when it is sunny and usually only at noon. There is also a small café that has a few tables and chairs just outside its doors. The open space in front of the post office has one large planter in the middle. The ridge around the planter is not suitable for comfortable sitting, but occasional sunseekers lean against it.

Given the number of potential occupants and officer workers in this building, these snippets are very lightly used. Likely reasons for this include the strong

winds at the base of this building, the lack of sunlight most of the day, the lack of seating, and the fear of crime.

The post office mini-plaza should be rebuilt to include more greenery, better seating, and wind buffers.

Grove & Hyde

At the intersection of Grove Street and Hyde Street is a mini-plaza and a long wall on the south side of Market Street that receives good sun. Despite the large volumes of vehicle traffic that flow in all directions, there is considerable activity on weekdays, where residents of the area come to sit and socialize, and where city-wide residents and tourists come to the Orpheum Theatre in the evenings. This intersection also has a BART/MUNI entrance around which there is no seating, but many people stand. People are frequently found sitting on the ground, here. There is sometimes a newsstand kiosk that is partially activated.

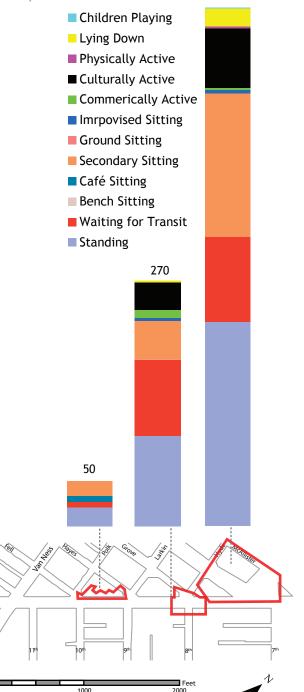
United Nations Plaza

This plaza encompasses three buildings, a monument with excellent seating, a large fountain and steps with seating, a lawn often used for lying down, and hundreds of secondary seating opportunities. The Wednesday farmer's market is the most highly used day of the week at UN Plaza. It is also the only possibility for local residents to get fresh fruits and vegetables as there are no grocery stores in the area.

The rest of the week there is a small café and occasional food stands. Artisans sell here as well. UN Plaza is one of the most highly used public spaces on Market Street during the week, second only to Hallidie Plaza, when compared to all 12 plaza's studied. It is frequented mostly by locals, the lunch crowd, homeless people and tourists, but receives wider visits on Wednesdays.

UN Plaza is power-washed five-times per week at night, which helps regulate the space and prevents dirt buildup. Similar procedures should be put in place for Mechanic's and other plazas.

Weekday



570

Fox Plaza



Hyde & Grove

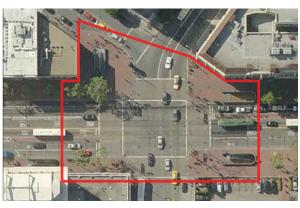


Mostly local residents lean against the wall at this intersection.

United Nations Plaza

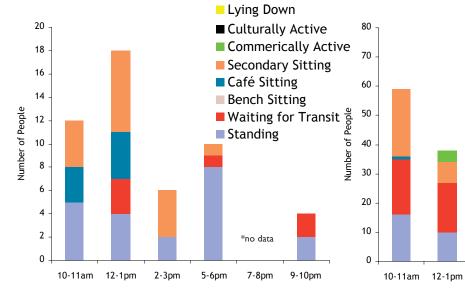


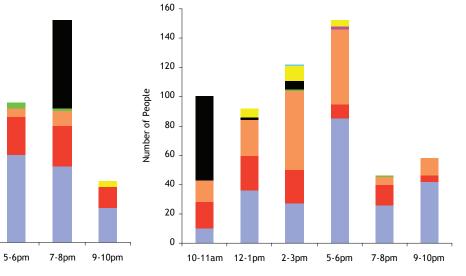




2-3pm







4.8 Age & Gender

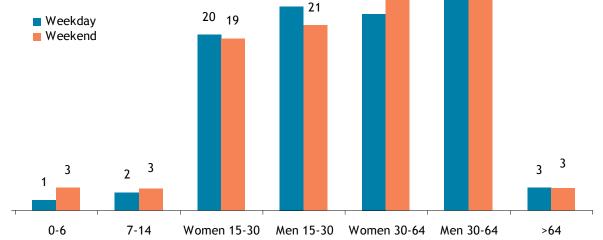
Age and gender data were collected at several places along Market Street on both weekdays and the weekend, therefore allow us to generalize for the whole study area during the daytime. Overall, people walking along Market Street are aged 15-64 (weekday 94 percent; weekend 91 percent). The general trend seen in the graph to the right is that the Market Street population includes higher proportions of children (0-14) and women (30-64) on weekends than on weekdays. On weekdays, when the lower portion of Market Street is mostly frequented by office workers, the population comprised of men aged 15-64 is approximately four percent higher (52 percent versus 48 percent). Similar trends in age and gender composition are found in several of Market Street's plazas, both in and outside of the Office district.

When comparing these findings to San Francisco as a whole, we find that Market Street is visited by higher proportions of people aged 15-64 (93 percent) than the city population (74 percent). Also, the proportion of children and seniors visiting Market Street is 75 percent less than their representation in the San Francisco residential population. The fact that the study area includes major local and regional transit partially explains the difference in demographic compositions.

When comparing our findings to age and gender data from only the six census tracts that surround the study area, we find that the proportion of children and seniors who live nearby are notably higher than the proportion who actually visit Market Street. Also, there are greater proportions of women aged 30-64 who come to Market Street than live in the area. One stark contrast, however, is the relatively high proportion of men aged 35-64 who live near Market Street (33 percent) versus lower proportion of the population visiting Market Street (27 percent). One likely factor might be that many more middle-aged men live in the Tenderloin — and downtown — than women. This is further described in the section "Trends by district."

It should be noted that this data is not directly comparable because the 2007 Claritas data from which the general population age and gender comes, has slightly different age categories.





33 24 San Francisco 21 Nearest tracts to Market Street 17 16 15 14 14 14 11 8 4 3 0-4 5-14 Women 15-34 Men 15-34 Women 35-64 Men 35-64 >64

Age & gender by district

Similarities to the overall trends

The same trends regarding Market Street overall remain when considering age and gender by district. There are few children and seniors on Market Street. There are also fewer women than men. Every district, for which weekday and weekend counts were completed, also shows an increase of women aged 30-64 on the weekends.

Specific trends by district

Some exceptions do apply. Many more young people, both children and between the ages of 15 and 30, were counted in the Commercial Center than in the other Market Street districts. Retail activities are a favorite among young people. Many teenagers in groups and young couples were counted strolling between 3rd Street and 5th Street. Also, counts performed in the Mid-Market area, mostly in the Civic Center district, show a very high number of men aged 30-64. This is consistent with the findings from the pervious page that show higher proportions of men living in the six census tracts closest to the study area; more men in that age group live downtown and especially north of the Mid-Market area than elsewhere in San Francisco.

0-6

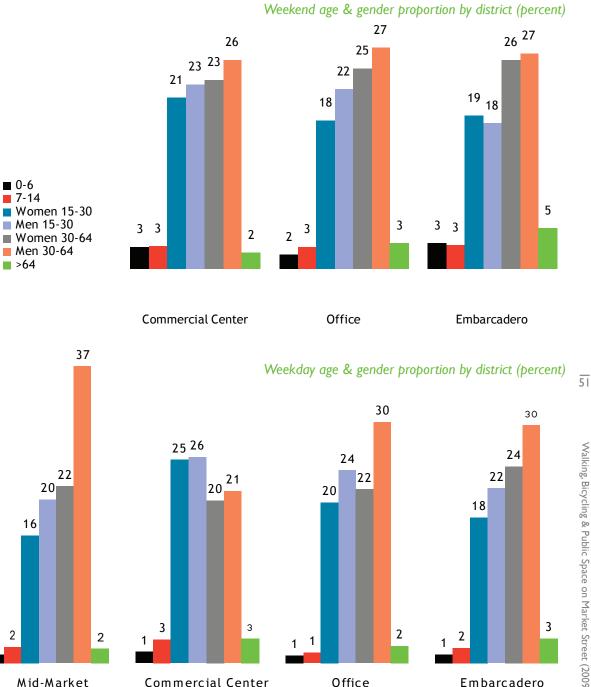
>64

2

Recommendations

Given that the proportion children and seniors is higher in the residential population than the proportion of the population that currently comes to Market Street, public space designers should consider including amenities for these age categories.

For future study, age and gender counts should be completed on both weekends and weekdays in all studied districts even if stationary counts are not performed. As well, age categories for data collection should be selected to match the most recently available census data. This would facilitate more direct comparisons.



4.9 Sunken Plazas

Three sunken plazas exist in the study. Two of which, Hallidie Plaza and One Post Plaza both lead to BART/MUNI trains. The Crown Zellerbach Plaza on Sansome Street is a privately-controlled space, and a security guard is on duty on weekdays to regulate use.

Consistent with William H.Whyte's findings in New York City,^[11] the sunken portions of three Market Street plazas are much less used than at street level. See the graph to the right for exact counts that combine weekdays and weekends.

One Post Plaza has a much smaller sunken area that has four businesses. Only one is open on the weekends. The area is used almost entirely for walking to the BART/MUNI station, but is sometimes used for conversations that take place standing or sitting on the stairs.

The several sunken potions of Hallidie Plaza, which never has more than 50 people, make up only eight percent of the plaza's use. A small café draws sitters until around 6PM when it closes. The rest either sit or stand close to the escalators.

The middle-section of this plaza is almost entirely overrun with pigeons most of the day. Moreover, many of the people who spend more than a few minutes in this sunken portion of the plaza are panhandlers.

The Crown Zellerbach Plaza on Sansome Street has a large sunken portion that uses well-crafted materials and landscaping. It is almost entirely unused except for the occasional mobile phone user, or on sunny days at lunch hour. SPUR *Urbanist* magazine from January 2009^[13] recommends that a café with seating be added to this section.

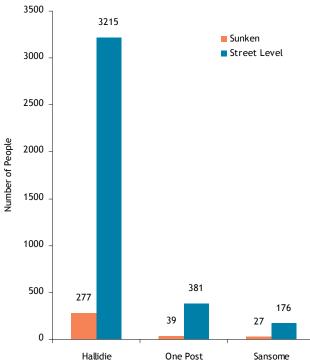
Psychologically, people tend to dislike being looked down upon, and prefer to look down.^[11]

If the sunken portions of the latter two plazas are more programmed with concerts and art installations, stationary activity on all levels will likely increase. At Hallidie Plaza, small commercial booths, I/2-life sized chess sets could be allowed, or café seating extended to the middle level of this plaza.



The sunken café at Hallidie Plaza attracts little sunlight and few sitters. This space could be much better animated.

Comparing use of sunken to street level portions of three plazas on Market Street (total)





Despite the well-chosen materials, Sansome's sunken plaza is rarely used, except for a few visitors on sunny days at lunch.

Approximate sunken portion of total studied area



"Sight lines

are important. If people do not see a space, they will not use it. ... Unless there is a compelling reason, an open space should never be sunk. With two or three notable exceptions, sunken plazas are dead spaces."

--- William H.Whyte

"I love to walk on Market. I used to skip lunch and just walk, that's how much I love it."

— 59 year old male

"It should be more taken care of, if this is the main street." — 26 year old female

5.0 SURVEY FINDINGS

IN THIS SECTION

- 5.1 Introduction
- 5.2 Methodology
- 5.3 Sample Representativeness
- 5.4 Favorite Walking Streets
- 5.5 Purpose of Visit

5.6 Satisfaction

Survey Location Ease of Walking Overall Walking Experience Safety from Vehicles Attractiveness Conditions of the Sidewalk Sidewalk Cleanliness Opportunities to Stop & Relax

5.7 Respondents' Comments

5.1 Introduction

Pedestrian counts are valuable to quantify activity levels on Market Street, but tell us little about the perceptions of street users, their reason for being there, and their satisfaction with their urban experience. The 222 pedestrian intercept surveys conducted for this study shed light on several aspects of the perception of Market Street's quality in the eyes of its users.

Those surveyed were asked to rate their level of satisfaction regarding the physical attractiveness of the pedestrian environment, including questions about sidewalk cleanliness, ease of walking, attractiveness of the street design, the physical conditions of the sidewalk and their personal safety from vehicles.

They were also asked for their reasons for being on Market Street, and to rate their personal safety from other people.

Location of surveys and the number conducted

5.2 Methodology

50 surveys were conducted in each of the pedestrian and bicycle counting points (Tenderloin, Powell, Montgomery and Battery, 25 on either side, for a total of 200 surveys. 22 surveys were later conducted by the San Francisco Great Streets Project in the Civic Center area.

Surveys were conducted Monday through Saturday, with the majority coming on weekdays. Randomness in the survey sampling was attempted by asking every person who walked by, on the half of the sidewalk on which the surveyor was standing. Attention was paid to not use aggressive means in approaching those being surveyed. Surveys took between 5 and 20 minutes.

Satisfaction

Respondents were given a seven-point scale on which to register their level of satisfaction with a number of physical and social qualities of the street, where one represented unsatisfied, seven satisfied, and four represented neither satisfied nor unsatisfied. Values of one-to-three represented some level of dissatisfaction, while values of five-to-seven represented some level of satisfaction on the topic in question.

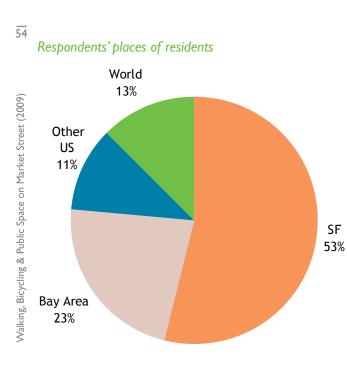
Survey responses on satisfaction were analyzed using a statistical software package using the Chi-square test to verify independence and the Kruskal Wallis to test difference of means.



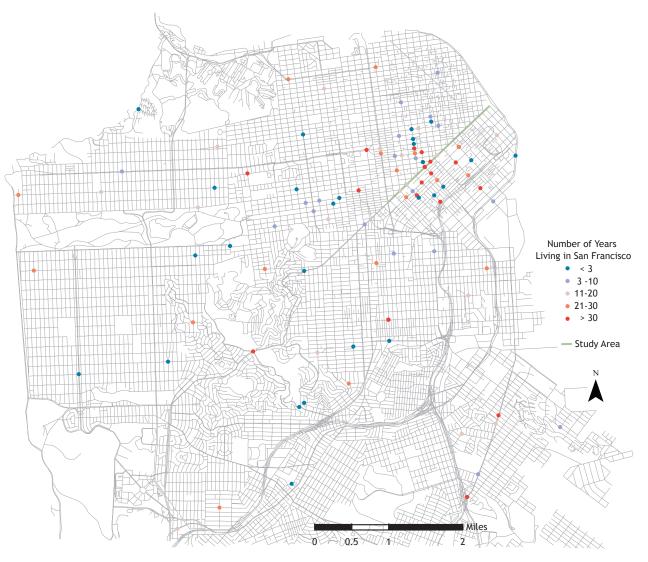
5.3 Sample Representativeness

Place of Residence

Visitors to Market Street span a broad spectrum, from daily office workers, to tourists from Europe or Asia. Their diverse opinions are valuable in that people from other places can share how they perceive San Francisco compares to other cities on the world stage. Yet, people on vacation tend to see the streets through rose-colored glasses, even if they are unprejudiced. Locals are more familiar with the environment and likely have had a greater breadth of experience in the place, yet their opinions about a place may be as much based on hearsay and the media as on their own perception. The sampling strategy used to collect data from pedestrians on Market Street attempted to get as representative a sample as possible of visitors. Their locations of residence are show on the figure below. To the right is a map of San Francisco that indicates the nearest intersection to a resident's home.



San Francisco residents' nearest intersection





Gender

More men than women stopped to complete the survey. This partially corresponds with the slightly higher percentage of pedestrians who are men (see page 48).

Aggressive panhandling and mentally-unstable homeless people appears to have influenced many people's public habits, particularly women, and is especially noticeable in the areas that were perceived to be less safe. It is thought that fewer women stop to answer surveys for this reason.

The 22 surveys conducted in the Civic Center did not record gender.

Age

Of the 215 survey respondents who gave their year of birth, one-quarter were under 30 years old, and one-third are over 50 years old.

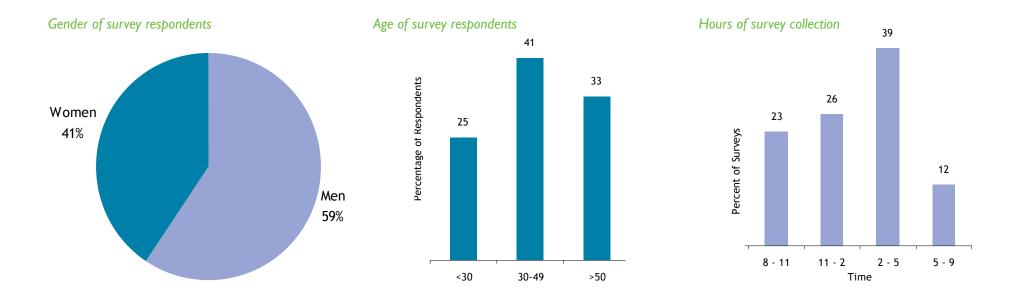
More precise age data regarding visitors to Market Street can be read on pages 48-49.

Time of day

The majority of surveys were conducted during the day between 9AM and 5PM. Some surveys were conducted at night, and these responses do not differ greatly from the daytime ones.

Language

Since the survey was conducted in English, non-English speakers were excluded from the sample. An excluded group that was particularly noticeable was the Chinese population. Many Chinese people declined to answer the survey, and the language barrier was apparent in many cases. Two surveys were conducted in French, both with tourists from France. Ethnicity was not recorded, so it is not known whether ethnic populations are adequately represented in the sample.



5.4 Favorite Walking Street

Respondents were asked, "Which street in San Francisco is your favorite to walk along?" The primary purpose of this question is to set up the series of questions that asked respondents to rate their satisfaction with various street factors. However, the "favorite walking street" question took the most time answer because most respondents paused to think.

Findings

Market Street was named more frequently than any other street, more than one-quarter of the time, and as many as the next three streets combined. As dissatisfied as people may be with certain street qualities, overall, Market is still a street that attracts pedestrians. One caveat is that some respondents may have been influenced by their immediate surroundings; when asked to name a street, a respondent may be more likely to name Market Street because they simply cannot think of another street in the amount of time they feel they have to respond. The surveyor attempted to minimize this bias by encouraging them to take their time.

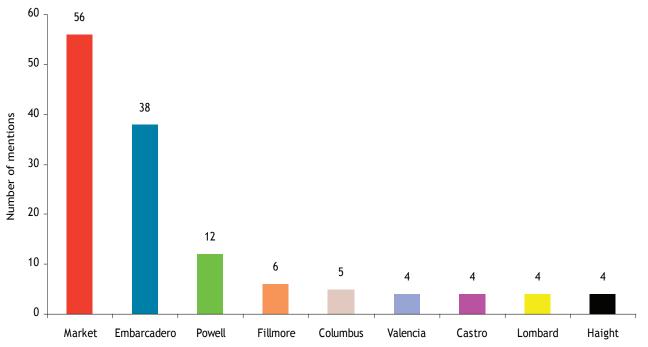
Respondents were then asked, "What about that
 street makes it an attractive place?" This open ended
 question was coded into fifteen, and then four categories represented in the bar graph to the right. Built
 features combine to be the most popular reason to
 like a walking street.

Discussion

Both findings are encouraging in that Market Street appears to be not only well appreciated already, but also because visitors to Market Street find the various factors that go into the built environment attractive. This suggests that people are sensitive to past street improvements on Market Street and should respond favorably to future enhancements.

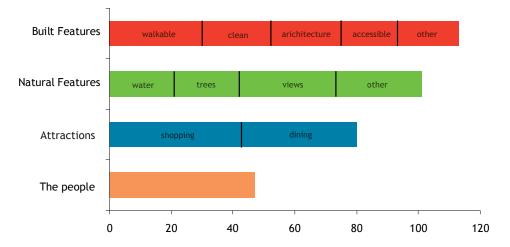
Unlike the studies in other districts, where the retail experience has dominated the response to this question, the emphasis on both built features and on people highlights the multidimensional character of Market Street.

Favorite San Francisco walking streets, named more than three times



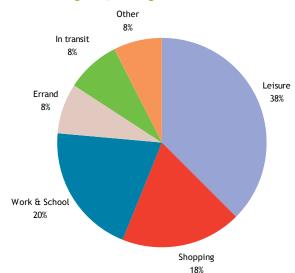
Noteworthy is the concentration of streets in the inner core, with only a handful of responses falling in any of the outer neighborhoods.

Reasons why I like the walking street just named



5.5 Purpose of Visit

Stated reason given for being on Market



Findings

Most people who are on Market Street are there for leisure. Of the 287 responses, 110 people mentioned being on Market Street for leisure (exercise, meeting a friend, pleasure, or dining). This is many more than those who said that they were on Market Street to work or go to school (60), run errands (24), shop (18) for pleasure or necessity, or in transit (23). Multiple reasons were accepted.

Discussion

Regardless, many office workers who use Market Street during the day answered both "work" and "dining" or "shopping."

It should be remembered that only about 20 percent of the people who were asked to do the survey actually stopped. Therefore, it is possible that only those who were not pressed for time were able to stop, and thus their numbers are over-represented in the sample. This includes the 23 percent of people who were not from the Bay Area. Most of these were tourists with more disposable time.

Averages for all of Market Street on a 1 to 7 scale

To what degree are you satisfied with	Mean	Median	Mode
Ease of walking	5.9	6	7
Overall walking experience	5.5	6	6
Safety from vehicles	5.2	6	6
Attractiveness	5.2	5	5
Conditions of the sidewalk	5.1	5	6
Safety from other people	4.9	5	6
Sidewalk cleanliness	4.1	4	4
Opportunities to stop & relax	4.1	4	6

5.6 Satisfaction

Respondents were asked to rate their level of satisfaction of: six physical conditions, one social condition, and their overall walking experience on Market Street.

The findings for these satisfaction questions are discussed in the following pages both in aggregate and individually.

Overall findings

Looking at the averages for all of Market Street, we find that people are most satisfied with their ease of walking, and least satisfied with the opportunities to stop, and the sidewalk's cleanliness.

Generally, the mean satisfaction is quite high compared to previous Public Space, Public Life surveys completed in San Francisco. When the same questions were asked of pedestrians in Valencia Street in 2007, three of the mean responses were below 4.0. On Market Street, none fall below that "neither satisfied nor dissatisfied" mark of 4 out of 7.

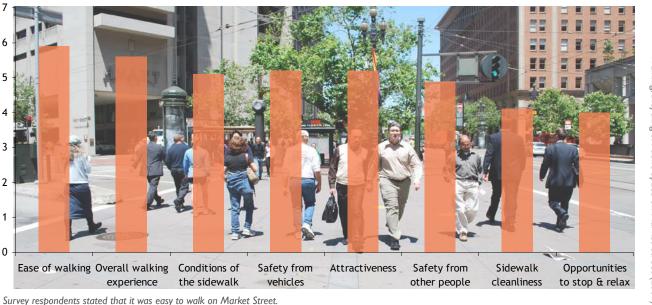
Mean response for all surveys

7

5

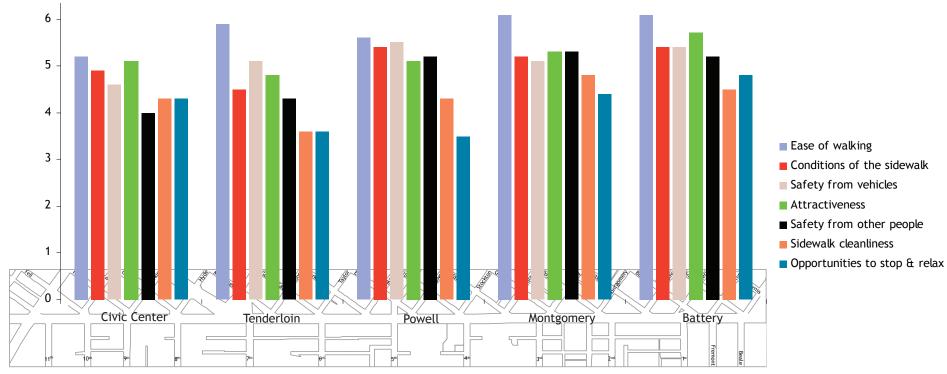
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2



The importance of survey location

Mean of satisfaction (out of seven) for street qualities, by location



Mean by location and results of the Kruskal Wallis test

To what degree are you satisfied with	Mean by location					
	Market Street	Civic Center§	Tenderloin	Powell	Montgomery	Battery
Ease of walking	5.9	5.2	5.9	5.6	6.1	6.1
Overall walking experience on Market Street	5.5	5.2	5.2	5.6	5.6	5.5
Conditions of the sidewalk (maintenance)	5.1**	4.9	4.5	5.4	5.2	5.4
Safety from vehicles	5.2**	4.6	5.1	5.5	5.1	5.4
Attractiveness of the design and materials	5.2***	5.1	4.8	5.1	5.3	5.7
Safety from other people	4.9***	4.0	4.3	5.2	5.3	5.2
Sidewalk cleanliness	4.1**	4.3	3.6	4.3	4.8	4.5
Opportunities to stop, relax and socialize	4.0***	4.3	3.6	3.5	4.4	4.8

***significant at the 99 percent confidence level; ** significant at the 95 percent confidence level; * significant at the 90 percent confidence level.

§ Because only 22 surveys took place in the Civic Center, this district was excluded from both the Chi-square and the Kruskal-Wallis tests. It is listed here, however, to be able to compare the mean response to other districts.

Marking, Bicycling & Public Space on Market Street (2009) Ease of Overall Conditi Safety fr Safety fr Safety fr Sidewal Opport ***significal § Because of to other dist

Findings

Using Chi-square and Kruskal Wallis tests of the respondents' satisfaction, it was found that certain qualities of Market Street are dependent on the location where the survey was conducted. Respondents surveyed in different locations did not rate their satisfaction with the street's attractiveness, their ease of walking, nor their overall walking experience differently. These qualities are independent of survey location.

Most street qualities, however, were dependent on where the survey took place. Safety from vehicles, sidewalk cleanliness, conditions of the sidewalk, places to stop, and safety from other people, were all found to be dependent on survey location. (When the Civic Center was included in Chi-square tests, "ease of walking" was also found to be statistically significant at the 95 percent confidence level.)

Certain street qualities are rated lower in the Mid-Market area, and higher toward the Embarcadero. The responses regarding the conditions of the sidewalk follow this pattern most directly. It was rated worst in the Tenderloin (mean of 4.5), and increasingly better toward the Battery location (mean of 5.4). The same pattern is found is response to satisfaction with attractiveness, although it was not found to be statistically significant. Similar patters, but with minor variations between the Montgomery and Battery locations, were recorded for sidewalk cleanliness and safety from other people. Respondents' dissatisfaction with safety from vehicles also varied by location, but was only statistically significant at the 90% confidence level. Here we find people less satisfied in the Civic Center, the Tenderloin and at Montgomery, with slightly higher mean ratings were given at the Powell and Battery survey locations.

Regarding opportunities to stop, relax and socialize, the mean response was in-the-middle to quite satisfied in the Office district, but decidedly unsatisfied in both the Tenderloin and the Powell area, where the lowest mean of any question was recorded.

Using the Kruskal Wallis test, respondents' satisfaction was analyzed to determine whether the means of the eight qualities were independent of survey location. It was again found that most qualities of Market Street are dependent on the location. Safety from vehicles, sidewalk cleanliness, and the conditions of the sidewalk were all statistically significant at the 95 percent confidence level. Safety from other people, the attractiveness of the street design and opportunities to stop, relax and socialize were statistically significant at the **99** percent confidence interval. The test did not show statistically significant difference of means for ease of walking or for satisfaction with the overall experience. In other words, ease of walking and overall experience are thought to be similar (by different respondents) in all four survey locations.

Discussion

Because the surveys were conducted at several locations along Market Street, we are able to compare responses by these four, and sometimes five, sub-areas. From these findings we can understand which factors are perceived to be consistent throughout the study area, and which are dependent on the local conditions.

Ease of walking was not found to be statistically significant in either test. We can then conclude that it is thought to be fairly easy to walk all along Market Street. Sidewalks are not restrictive or excessively crowded, even in the area around Powell Street that had the highest pedestrian volumes. See page 58 for a more lengthy discussion on ease of walking.

A more significant finding is that respondents' overall walking experience is not greatly affected by survey location. Although people who were surveyed in the Tenderloin were much less satisfied with many other street qualities, when it came to their overall satisfaction with their walking experience, they were pleased. The implications of these findings will be discussed in greater depth on page 65.

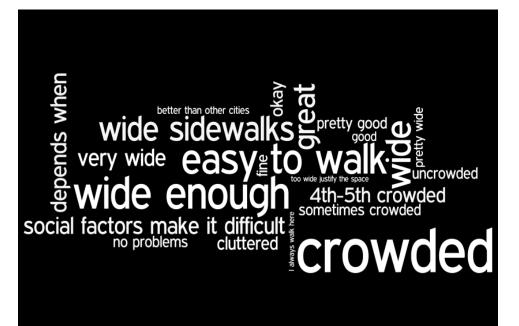
The results from both tests are taken up with regard to each question in the following sections. With the exception of overall satisfaction — which appears at the end — they are presented in order from most satisfied to least satisfied.

To what degree are you satisfied with	Location	Age	Gender	Place of residence	Frequency of visit	Usual distance walked
Ease of walking						
Overall walking experience on Market Street						
Conditions of the sidewalk (maintenance)	***	**		**		
Safety from vehicles	*			**	**	
Attractiveness of the design and materials						
Safety from other people	***			***	*	***
Sidewalk cleanliness	**			**		
Opportunities to stop, relax and socialize	***				*	

Results of the Chi-square tests

***significant at the 99 percent confidence level; ** significant at the 95 percent confidence level; * significant at the 90 percent confidence level.

Ease of Walking



₆₀ Findings

More than 71 percent of respondents gave "ease of walking" a rating of 6 or 7 out of 7 on the satisfaction scale. Ease of walking received the highest mean rating of any question on the survey. It also marks the first time in the San Francisco Planning Department's Public Space, Public Life surveys that a location (in this case, the Montgomery Street and Battery Street Office survey areas) received a mean response at or above 6 out of 7.

Ease of walking was found to be independent of location in both statistical tests. It was also independent of all measured demographic variales, including age, gender and place of residence.

Discussion

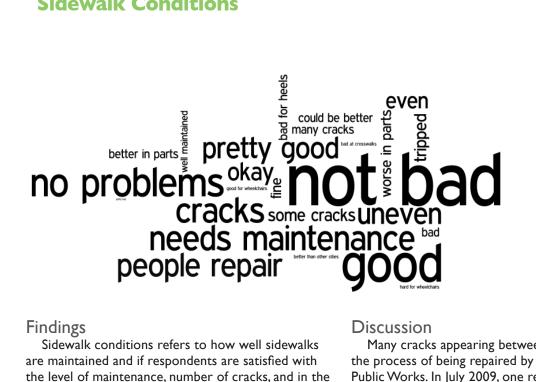
Survey respondent's satisfaction with the ease of walking has everything to do with the width of Market Street's sidewalks. Especially in the Office district, people were very pleased with their ability to walk. Insightful comments included, "I like the fact that you can walk anywhere on the sidewalk and at your own speed. There aren't two streams in either direction," and, "There is too much space; clutter it up more with street cafés."

Respondents also mentioned that Market Street's sidewalks can be quite crowded with pedestrians, especially in certain parts. This was mentioned most frequently at or near the Powell survey location. Of the four main survey locations, Powell received the lowest mean score of 5.6 out of 7. It is likely that the crowdedness between 4th Street and 5th Street is the cause of this result. Crowdedness was also mentioned more often than any other comment in the follow up question, "Why did you rate your satisfaction the way you did?" These results can be seen in the thought cloud above, where the number of mentions corresponds with the size of text.

It has been suggested by experts in the field that if the number of people walking on a sidewalk exceeds 4 people per minute per foot (13 people per minute per meter), "crowding" is felt, [19] where crowding is defined as when the number of people walking on the sidewalk exceeds the number of people it was designed to carry. Market Street's sidewalks between 4th and 5th Streets are as wide as 35 feet, but near subway entrances it can be as little as 8 feet. ^[10] The number of pedestrians on the south side of Market Street in the Powell sub-area peaks at 5136 per hour (85.6 per minute) between 4PM and 5PM on a Saturday. With this mid-block data, we are able to calculate crowdedness. If pedestrians at this time spread themselves over the entire 35-foot sidewalk, the empirical measure for crowdedness is not reached (2.4 people per minute per foot); however, at the subway entrances where the sidewalk bottlenecks, the value reaches 10.7 people per minute per foot, which is more than double the crowdedness coefficient. A slightly lesser degree of crowding is felt at the same place on weekday afternoons (peaking at 5PM with 8.7 people per minute per foot), and near the Montgomery subway station bottleneck on the south side at noon on weekdays (6.3 people per minute per foot).

Due to the fact that vendors set up on the south side sidewalk between 4th and 5th Streets, the 35-foot portion often feels more like 20-feet wide or less. Here, many pedestrians are forced to walk behind the vendors' booths to find space, and even walk on the two-foot space between roadway and the subway entrance.

Should improvements to the public realm include taking up space on the sidewalk, it is recommended that this only happen where considerable space is known to be available, given the pedestrian counts and equations mentioned in this document. It is also recommended that fewer vendor booths be located where the sidewalks are most crowded. They should be spread to the north side of the street (between 4th and 5th), as well as east and west. This might reduce the sense of congestion felt in this area.



are maintained and if respondents are satisfied with the level of maintenance, number of cracks, and in the case of Market Street, the guality of the bricks.

More than 70 percent of respondents rated their level of satisfaction with the conditions of the sidewalk above the mid-point (of 4 out of 7).

By a visual analysis of means by location, respondents were much less satisfied with the conditions of the sidewalk in the Tenderloin (with a mean of 4.5) than in the rest of Market Street (5.2 - 5.4). This was statistically significant in both Chi-square and difference of mean tests for sidewalk conditions across all four locations.

Age was an important factor regarding the satisfaction with the maintenance of the sidewalks. The data suggests that people over the age of 50 were less satisfied with the sidewalk's maintenance.

"I'm disabled and I have to watch where I'm walking. It's not too bad here." —56 year old female visitor from Alaska

Many cracks appearing between the bricks are in the process of being repaired by the Department of Public Works. In July 2009, one repair-worker stated "when these bricks were laid more than 30 years ago, $3/8^{th}$ of an inch expansion joints were included every 100 square feel of brick. That's the standard in sidewalk masonry. The caulking in these expansion joints has worn away over the years." Many of "cracks" that people pointed to on the street during the survey were these expansion joints. A visual survey of these joints reveals that they do not pose a significant danger to the general public as bricks are not coming up. Regardless, they are visible and contributed to people's opinions on this question.

The findings that people over the age of 50 appear less satisfied than the two age categories under 50 suggests older adults are more sensitive to difference in sidewalk conditions. As baby-boomers age, this will be an increasingly significant proportion of the population, and sidewalk conditions, if not kept up, may reduce the attractiveness of walking for seniors.



Despite some cracks, sidewalks are fairly even; skateboarding is common.



Fixing the weathered expansion joints in the sidewalk.



Walking, Bicycling & Public Space on Market Street (2009)

When unrepaired, the expansion joints are a hazard to high-heeled shoes.

Safety From Vehicles



Findings

The survey question asked, "How satisfied are you with your safety from vehicles?" Most people were quite content with their level of safety, with a mean score of 5.2 out of 7. More than 52 percent gave safety from vehicles a satisfaction rating of 6 or 7.

Comparing by survey location, the Chi-square test showed statistical significance at the 90 percent confidence level. Lower satisfaction was registered at the Tenderloin and Montgomery survey locations, and higher at Powell and Battery. The difference of means test confirms this result (at the 95 percent confidence level).

A respondent's place of residence had a statistically significant effect (at the 95 percent confidence level) on their degree of satisfaction with their safety from vehicles. Bay Area locals, and especially those from San Francisco, were much less satisfied with their safety from vehicles than people from other places in the US or the world. 18 percent of San Franciscans were unsatisfied with their safety from vehicles.

Those who visit Market Street more often are also

less satisfied with their safety from vehicles (at the 95 percent confidence level). 23 percent of those who visited "once a day" or "more than once a day" in the last week were unsatisfied with their level of safety, compared to only eight percent for people who visited "several times" or less.

Discussion

People who visit more often (either local or tourists) and residents of San Francisco are considered to be more familiar with Market Street. Indeed, many of the people who visit Market Street live nearby (page 52), and they experience the greatest adverse effects of automobile traffic, be it noise (page 71) or collision. Without being asked directly, eight pedestrian respondents mentioned having a "close call" with a vehicle, five of whom were from San Francisco, and the other three were from Vallejo or Oakland.

Many survey respondents mentioned specific intersections where autombile and pedestrian interactions were problematic. They also reported on the nuisances associated with vehicular traffic including: noise, congestion, blocked crosswalks and air pollution. The loudness of the street demanded that both surveyor and respondent yell in order to be heard.

It is likely that the difference in survey results by location is related to that location's proximity to particularly threatening intersections. Yet, the difference between the mean responses at the various survey locations, although statistically significant, are not huge. In fact, it is possible that the variation has as much to do with the precise survey point chosen on a particular block, and its distance from the roadway or major intersection. In other words, the distance from intersections and roadways was not controlled for when survey location was chosen, and this could be a contributing factor.

Had surveys been conducted closer to street corners, all levels of satisfaction might have been lower. This analysis stems from the number of people who mentioned the width of the sidewalk as part of why it was a safe street on which to walk. However, common sense informs us that very few vehicle-pedestrian collisions happen on sidewalks. They more often happen at intersections and crosswalks. Because the sidewalks respondents were standing on were so wide, people surveyed likely did not think immediately of car traffic at intersections. Had the survey been conducted closer to an intersection, there may have been different results.



The light at Market and Drumm is too short for pedestrians to safely cross.

Attractiveness



Findings

For the purposes of this survey, physical attractiveness refers to the quality of sidewalk materials, lighting, trees and greenery. Respondents were generally satisfied with Market Street's level of attractiveness, and gave it a mean score of 5.2 out of 7. More than 46 percent of respondents gave attractiveness a rating of 6 or 7.

The mean of each survey location increases from the Tenderloin to the Office district, and is statistically significant (with a 99% confidence level) using the Kruskal Wallis difference of means test. The mean rating in Tenderloin for satisfaction with physical attractiveness was 4.8, versus 5.7 at the other end of the surveyed area, almost an full point higher.

Neither age, gender, place of residence nor frequency of visit were considered statistically significant factors in predicting the level of satisfaction in the survey results.

Discussion

Those pedestrians surveyed were generally pleased with the physical attractiveness of the street. Positive responses to the trees, brick sidewalks, historical light fixtures, old street cars and preserved buildings pervaded their answers. Many older residents of the Bay Area also stated that the attractiveness of the street had been improving over the years, most recently with the uniform newspaper boxes.

Despite their general satisfaction with the streetscape, survey respondents asked for an updated design. People wanted to see more and different trees and flowers and other forms of greenery on the street.

One of the main detractors in the Mid-Market area — and indeed throughout the study area — was the number of closed storefronts. This factored into people comments, and is covered in the section on ground floor frontages on page 68-69.



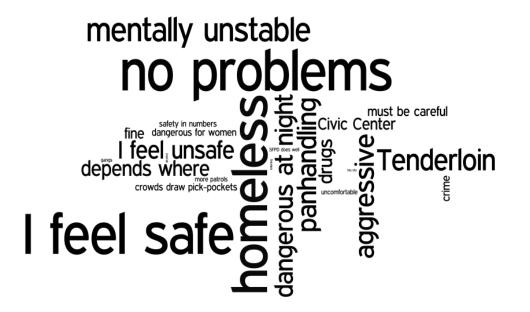
Market Street can be a attractive place. Respondents like the atmosphere.



Market Street can be cluttered and in disrepair.



People love the trees on Market Street, and want to see more green.



Findings

The only question that recorded respondents' opinions regarding Market Street's social environment was, "To what degree are you satisfied with your safety from other people?" The mean response for all surveys was 4.9 out of 7.

Neither respondents' age nor gender was a predictor in their level of satisfaction. A respondent's place of residence was a factor regarding their opinion about safety. The data suggests that visitors from the US or elsewhere were generally more satisfied with their level of safety, than Bay Area residents, and particularly San Francisco residents (which was statistically significant at the 99 percent level).

A proxy for familiarity with Market Street is frequency of visit. Those who hardly visit are satisfied with their safety, while those who visit at least once per day are less satisfied (with a confidence level of 90 percent). This is supported by the finding that people who walk more blocks per visit were also less satisfied with their level of safety from other people. Again, the location of the survey was a statistically significant factor in the results to this question. A visual comparison of means suggests that respondents are much less satisfied with their level of safety from other people in the Tenderloin (mean of 4.3) compared to the rest of the surveyed areas (mean of 5.2 or 5.3). Similarly, the 22 surveys conducted in the Civic Center show a mean of only 4.0 for this question.

Discussion

While neither gender nor age was a predictor of a respondent's level of satisfaction with her sense of personal safety, many people stated that Market Street is not a place where women and children can walk safely by themselves. Many respondents also mentioned that they felt safe during the day, but would not come to Market Street at night. Pedestrians' perceived safety at night time was not otherwise part of these findings as few surveys were conducted after 6PM.

Many people also mentioned that there was a difference between the districts on Market Street.



The presence of the homeless make respondents feel unsafe



A cigarette is purchased in the Civic Center.

Several respondents named the Tenderloin and Civic Center districts, as seen in the thought cloud to the left, as a named district or as "depends where." In these districts, and especially for residents of San Francisco, homelessness, panhandling and mentally unstable people were contributing factors to respondents' level of satisfaction with their personal safety.

Most tourists who visit Market Street do not walk above 5th Street, and if they do, most only do so during the day. This partially explains the fact that visitors were more satisfied with their safety than those who live in the Bay Area, and particularly San Francisco.

Sidewalk Cleanliness



Findings

On average, survey respondents were neither satisfied nor dissatisfied with the sidewalk cleanliness, yet for many it was the most important issue. On one hand, cleanliness received the second-lowest mean rating (4.1 out of 7) on the satisfaction scale of any street quality after "places to stop." On the other hand, compared to a similar survey on Valencia Street, Market Street appears to be rated more highly. The mean response in 2007 when the same question was asked on Valencia Street was 3.7, almost half a point higher.

One of the predictors for respondents' satisfaction of sidewalk cleanliness is their place of residence. This is found to be a statistically significant factor (at the 95 percent confidence level). Visitors from outside of the US were most satisfied with the street's cleanliness, followed by US residents outside of the Bay Area, Bay Area residents were more divided on the issue of cleanliness. Whereas visitors to Market Street were more likely to give a rating of 4 out 7 for cleanliness, Bay Area residents were more likely to be either satisfied or unsatisfied, but not inbetween. So while the mean response for both groups falls close to the midpoint, the distribution of responses is very different.

Findings also differ depending on where the survey was conducted, and this was found to be statistically significant (at the 95 percent confidence level for both the Chi-square and difference of mean tests). Whereas the Montgomery and Battery survey subares received mean ratings of 4.8 and 4.5 out of 7 respectively, visitors to the Tenderloin gave cleanliness there a mean rating of 3.6. These data suggest location is a factor.

Discussion

Market Street can indeed be a dirty place, and many survey respondents mentioned that people urinate on the streets. Another particularly troubling factor for survey respondents was the effect of pigeons. Although their presence is mostly harmless, when their droppings stain the sidewalks and public spaces, people are less likely to use them.



Food left out for the birds on Market Street's sidewalk.

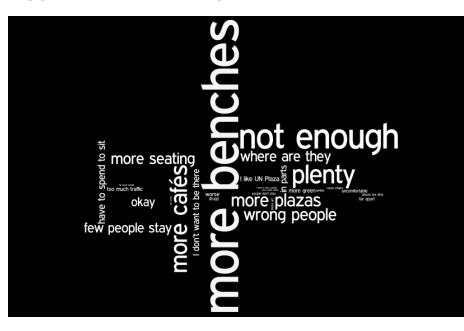
Various cleaning strategies were noticed on Market Street. Late at night, UN Plaza is heavily spray cleaned. During the day, individual street cleaners often walk with brooms and bags to remove even the smallest pieces of garbage. Both of these methods prove effective in managing large and small cleanliness issues.

While conducting one survey, however, a sidewalk sweeping machine came past. It was noticeable how loud it was because both surveyor and respondent had to pause or yell. Second, the respondent in that interview noticed a common occurrence: the machine did not collect garbage or even leaves. It only lightly sprays water and brushed the sidewalk, while adding noise and exhaust to the pedestrian realm.

It is recommended that other cleaning strategies are properly researched and implemented to improve the pedestrian experience. Certain areas, such as Mechanic's Plaza, need a power wash, and gum stains need to be removed from many sidewalk areas.

More public toilets in the Civic Center and the Tenderloin districts would likely help prevent urination and defecation on the streets, both of which were noticed and mentioned by survey respondents.

Opportunities to Stop & Relax





These granite benches used to be on Market Street. They will soon be used in "Pavement to Parks" projects. Photo: Andres Power

Findings

ce on Market Street (2006) street on th Street (2006) cance satisf the two

Respondents to the survey were less satisfied with
 places to stop, relax and socialize than any other
 street quality. It received a mean rating of 4.0 out of 7
 on the satisfaction scale, which is well below Valencia
 Street's mean rating of 4.8 in 2007, a street largely
 devoid of seating.

Comparing by survey location, both the Chi-square and difference of means tests showed statistical significance (at the 99 percent confidence level). The lowest satisfaction was registered at Powell, followed by the Tenderloin, with higher mean values registered in the two Office districts.

44 percent of survey respondents said that they would like to see more seating of some kind, whether it be benches, at monuments or street cafés. Conversely, 9 percent of people said that Market Street was not a place for stopping, staying or sitting, but rather a place for moving.

Discussion

Other than location of survey, there are no statistically significant predictors found in the survey results. In other words, both men and women of all ages and from all places were less satisfied with places to stop, relax and socialize than any other street quality.

It might be surprising that near Powell, survey respondents rated places to stop the lowest of any area, as nearby Hallidie Plaza is the most highly-used plaza on Market Street. It may be thought of as an attraction, but it does not offer any seating, nor is it a place where people stay for very long. Many wait in line for transit, some purchase souvenirs, others will play chess or stand and watch various performances, but respondents do not associate Hallidie Plaza as a place for resting. The Tenderloin was also rated low on the scale and it is likely because of the lack of benches, plazas and café seating on this part of Market Street.

What is striking is the number of people who would like to see more seating. 44 percent of people surveyed said this in response to, "Why did you answer the way you did?" Or, "Do you have any suggestions?" Given these findings, it is likely that people's satisfaction with Market Street will increase with additional public seating.



Without public seating, pedestrians sit on the ground or lean against trash bins.

Overall Walking Experience

Findings

Respondents' satisfaction with overall experience differed little depending on where the survey was located. The range in means between locations was only 0.4, with the Tenderloin receiving a 5.2 out of 7 and the Powell sub-area receiving a 5.6 out of 7.

5.5 out of 7 is the mean response to satisfaction with respondents to the overall walking experience on Market Street. A mean of 5.6 was found for a similar survey conducted along Valencia Street in 2007.

Using a Chi-square test, the only demographic that is statistically significant to overall walking experience is residential location. People living in the Bay Area (including San Francisco residents) have a greater range in their level of overall satisfaction compared to people from other places in the US and elsewhere.

Discussion

The demographic findings by residential location can likely be explained in two ways. First, although both Bay Area locals and visitors were generally satisfied with their walking experience, the local population is more familiar with the sometimes congested walking environment on Market Street. Secondly, the opposite is likely true for visitors. Most were tourists on vacation who were seeing Market Street through rose-colored glasses.

Frequently, respondents would say while rating satisfaction on any of the questions, "It's fine over here, but over there it's bad." Without being prompted, 17 percent of people surveyed mentioned that Market Street had differing characteristics in different sections. It is assumed that all but a few tourists would have recognized that differences exist. Had surveys been done with a smaller group of respondents along all of Market Street, the difference in locations would likely have been even more apparent in survey results.

This pedestrian survey, however, benefits from intercepting respondents going about their daily activities. This gives us insight into how a typical user of *that sub-area* perceives the local environment. What is found regarding overall satisfaction is that people who were surveyed in each section may be dissatisfied with other sections, but were relatively satisfied with their overall experience in their own. Neither the difference of means, nor the Chi-square test were statistically significant for overall satisfaction by location. Thus, the quality of the respondents' overall walking experience was not found to be different across the four sites.

This finding has profound implications for the future of Market Street. The people who choose to walk near each surveyed sub-area are satisfied with their experience, suggesting that any changes to the street will likely disrupt the qualities that lead to satisfaction, be they social or physical.

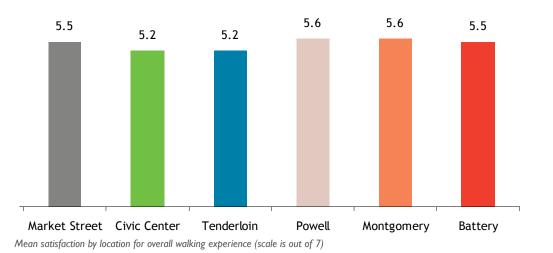
It shows, for example, that people who frequent and visit the Tenderloin during the hours in which the survey was conducted find it to be an overall pleasant experience. Substantial enhancements would likely disrupt social networks, and displace people. These are consequences of which planners and decision-makers should be aware.



Finding where to go next. Many respondents wanted for more street maps.



People's overall walking experience received a mean of 5.5 out of 7.



Walking, Bicycling & Public Space on Market Street (2009)

5.7 Respondents' Comments

A number of questions elicited particularly detailed comments that proved helpful in the analysis. The questions include:

- "Why did you rate your level of satisfaction the way you did?"
- "Is there something that we didn't discuss that contributes to making Market Street an attractive or an unattractive place to walk?"
- "Would you like to add any other comments?"

A more thorough investigation would include categorizing the responses and analyzing patterns and frequencies; unfortunately, time did no allow for this. Transcribed below is a sample of what was said.



Dog's view of Market Street.

Photo by: John Agoncillo

Market has a rich history Emphasize to drivers that there are a lot of people walking Cars make right hand turns block both pedestrians and drivers Allow more street cafés to flow out onto sidewalks Without money, it's hard to find a place to sit We need more community and public space for music and art The trolley cars are great The trees are maturing gradually Any more green in a concrete jungle is going to help At night it's a beautiful amber color Clutter it up more and making it more attractive, it's too easy to walk Mid-Market's first floor commercial is dodgey I used to skip lunch and just walk, that's how much I love it So many cars Pretty bad place to bike, cars seem unwilling to share Homeless cannot go unmentioned, but I don't want to criminalize homelessness There are more street people since the benches were removed Critical mass is exciting and public demonstrations are interesting More maps would be helpful Pigeon droppings makes places to sit less attractive Nice job to let concerts pop up Bring in top notch entertainment theatre It's silly to bring your car, Amtrak to BART was so nice Observance of traffic laws is a major problem It's hard to see where vehicles are coming from I would not walk here just to walk, it's all business Maintain the trees We need wind shields You don't have texture of smaller businesses Shops and venues should stay open later and on weekends Turn the 3rd street that feeds into the intersection into a pedestrian plaza Would be nice if there were amenities for pets It's very noisy Where are the benches? More flowers More distinctive crossings I love to walk on Market Street Cars can handle calming the street



—Jan Gehl^[1]

6.0 OBSERVATIONS

IN THIS SECTION

6.1 Introduction

6.2 Façades Methodology Number of Doors

6.3 Private Vehicles

6.4 Sound & Noise The effect of noise on health

- 6.5 Monuments
- 6.6 Waste
- 6.7 Newspapers
- 6.8 Undesirables
- 6.9 The Battery Street

6.1 Introduction

Measuring walking, bicycling, and staying activity, combined with the analysis of a pedestrian surveys provides valuable data to understand the qualities of urban environments; yet, without proper framing through observation, they may be easily taken out of context.

Certain conditions that play an important role in the urban experience do not fall easily into the categories mentioned above. Thus, several topics are discussed in this section that are considered factors in the pedestrian environment.

Some observations made in the follow pages apply only to a precise location. Often, the pedestrian or cycling experience can be improved by remedying a light signal or the way automobiles interact with other street users at a particular spot. Other times, obstacles to an ideal pedestrian environment are tied to complex problems such as economic issues, poverty, and homelessness.

Form as a factor

Many old cities built in Europe, Asia, the Middle East and Africa east benefit from old centers, where streets do not for a regular street pattern. This is exciting to the pedestrian, as the view changes with every step. It a rare to have the landscape unfold piece-by-piece in North America, as most cities have been built on a regular grid pattern, where streets are often long and straight. Yet, in San Francisco, the hilly terrain interupts the long views one would expect from a street on a grid pattern.

Market Street is an even more outstanding case because it bisects—and connects—two distinct grid patterns. I does have the long views of a long a straight street, but due to its unique form, there is significant potential for a gradual unfolding of the landscape. Market Street's north side has odd intersections. Each one is slightly different from the next. The potential for enhancing these differences cannot be understated. In fact, the key to turning Market Street from San Francisco's most-walked street to one of its most important destinations is in redesigning the North Side intersections to include traffic calming, greenery, monuments, and places to stay.

6.2 Ground Floor Façades

Ground floor façades are an extremely important factor in the quality of the pedestrian environment. The design of ground floor façades significantly impacts the way pedestrians interact with Market Street's buildings and public spaces. At the more active building frontages, there are more people entering and exiting buildings, accessing services and purchasing goods. There is a very wide range in the quality of façades along Market Street, but in general few are attractive and encourage activity. Long stretches of the study area have boarded up ground floors, advertising blocking windows, or other visual obstructions. Yet, some blocks contain small units, many doors and a variety of functions that give the street vibrancy. This makes it convivial to passers-by.

The façade map on the opposing page shows that there are attractive and unattractive façades along all of Market Street, but there are concentrations. The Commercial Center and the south side of the Office district have the highest concentrations of attractive and pleasant façades; conversely, the Mid-Market area has the highest concentration of dull and unattractive façades. It is encouraging to note that four new businesses opened on Market Street during the course of this study, none of which were rated, "dull," and most were pleasant or attractive.

The City should work with the private sector to increase the visual intrigue of these stores and offices, creating specific façades design guidelines.

Methodology

This study used Gehl Architects' ground floor frontages quality index that has been developed in multiple Public Space and Public Life studies, including the recent study of Fisherman's Wharf.^[13] Quality was rated by two independent observers.



ACTIVE / ATTRACTIVE

- Small units, many doors (15-20 per 100m)
- Diversity of Functions
- No closed or passive units
- Interesting relief in frontages
- Quality materials and refined details



DULL

- Large units with few doors (2-5 per 100m)
- Little diversity of functions
- Many closed unitsPredominantly
- unattractive frontages
- Few or no details



PLEASANT

- Relatively small units (10-14 per 100m)
- Some diversity of functions
- Only a few closed or passive units
- Some relief in the façades
- Relatively good detailing

INACTIVE / UNATTRACTIVE

· No visible variation of

Monotonous frontagesNo details, nothing

interesting to look at

doors

function

· Large units with few or no

· Closed and passive façades

And a stand of the stand of the

SOMEWHERE in BETWEEN

• Mixture of units sizes (6-10 unites per 100m)

DEN TREASURES

- Some diversity of functions
- Only a few closed or passive units
- Uninteresting design of frontages
- Somewhat poor detailing

Overall

5%

ATTRACTIVE

17%

PLEASANT

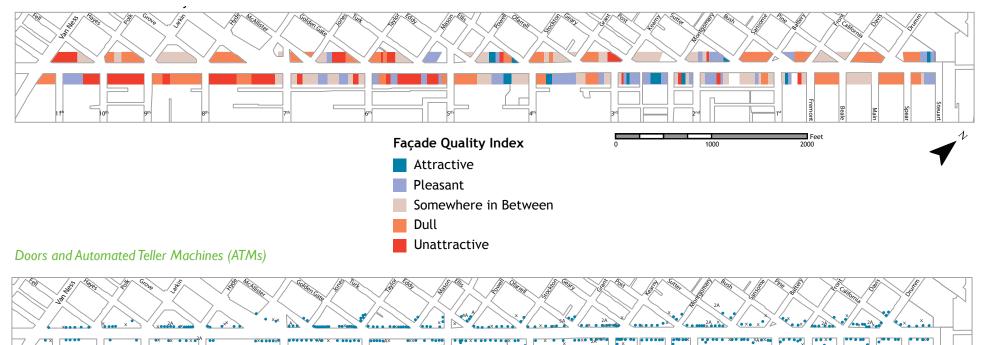
28% SOMEWHERE IN BETWEEN

32%

DULL



Façade quality on Market Street



Number of doors

Along with façade quality, the number of doors can also be an indicator for activity level on a street. On the map above, doors, exit only doors and ATMs are all marked.

Fewer doors are located in the Civic Center compared to all other districts. The most significant gaps are on the south side between Van Ness Avenue and 7th Street. Other areas where doors are not present exist in the Office district, where office buildings were not constructed with ground floor retail. The highest density of ground floor entrances are found around 2nd Street, 3rd Street and 6th Street in the Office and Tenderloin Districts. There are also many doors in the Commercial District.

Art installations will help city fight blight

By Brent Begin Examiner Staff Writer

Door

A ATM

X Exit only door

The City is offering \$500 to individual local artists to fill 19 vacant storefronts in an effort to avoid blight during the recession.

Taking a cue from cities such as New York, San Diego and San Jose, the pilot program will temporarily place original art installations in vacant storefront windows. The first to be filled will be in the mid-Market Street area, followed by Taylor Street in the Tenderloin, Third Street in the Bayview district and 24th Street in the Mission district. "Art in Storefronts" encourages a temporary alternative that will "reinvigorate our neighborhoods and commercial corridors, improve streetscape conditions and safety, and support merchants by increasing foot traffic and instilling community pride," according to a statement from Mayor Gavin Newsom.

As The Examiner reported earlier this month, storefronts emptied the most between September and March, but no notable businesses moved in, according to a San Francisco-based retail broker. As a result, the retail vacancy rate leaped in the past year from 8 or 4 percent to 12 or 13 percent Several incentives to get businesses to move into vacant spaces have been in the works at City Hall for months. Tax breaks, fee waivers and some kind of credit are possibilities, and even a vacancy fee for property owners who fail to fill their spaces is being considered.

The Arts Commission and Triple Base Gallery, a Mission district organization with previous storefront-art experience, will pick the artists. All winners must be San Francisco residents and are encouraged to incorporate the essence of the neighborhood in the final product.

The City sponsored, "Art in Storefronts" project is set to launch in September 2009, and is getting noticed by the media.

6.3 Presence of private vehicles

The presense of private vehicles on Market Street is readily apparent to all pedestrians and cyclists. Automobiles pose long-term and short-term threats to pedestrians through noise, stress and collisions. Other concerns for users of all modes is the common occurrence of blocked intersections.

The most common problem observed on Market Street is blocked intersections and crosswalks. This happens everywhere, but especially at Van Ness Avenue, 4th, 3rd, Montgomery, 1st and Drumm streets. It significantly delays transit, and creates a hazard for pedestrians. The second most common problem is speeding. This is usually across Market Street, but also occurs along it.

At 4th Street and Market Street, autos also have a two-second head start before peds, which is just long enough for them to accelerate into the path of the pedestrians at the busy crosswalk. Many cars get stuck in the middle of the crosswalk causing further congestion, which pedestrians have to walk around. In the worst case scenario, the congestion prevents pedestrians, cyclists, transit and private vehicles from moving through the intersection.

The forced right turns proposed in the recent SAR by the County's Transportation Authority will indeed help improve the urban environment for pedestrians and cyclists; however, the simple act of enforcement of traffic laws could just as well improve the safety and quality of the street.

Enforcement of traffic infractions may significantly affect the quality of the pedestrian experience on Market Street by eliminating the violations that so commonly bring harm or nuisance. Give large penalties to drivers who block intersections, as in New York or London, and increase enforcement of speeding. Consider using the money earned from these measures toward public space improvements.



Weekend blockage at Montgomery is common-place.



The Office district often has blocked intersections.



Weekday clogged intersection: 3rd Street & Market Street.



Approaching 4th Street eastbound: congestion on weekends.

When all traffic is slow there is life in the streets for this reason alone, in contrast to what is found in automobile cities, where the speed of movement automatically reduces the activity level."^[1]

72

o

ry

6.4 Sounds & Noise

Market Street is a loud place. It is difficult in many instances to hear a regular conversation. In Life Between Buildings^[1], Jan Gehl writes, "When background noise exceeds approximately 60 decibels,... it is nearly impossible to have ordinary conversations."

The value of street conversations or musical performances — either by chance or planned — cannot be stressed enough. The level of noise on Market Street affects both the quality of the urban environment and public health. With hearing, we communicate, enjoy music, and are alerted to danger and risks.

Observation indicates that most noise comes from transit vehicles and then private vehicles. The most intense noise originates from emergency vehicles.

Every effort should be made to reduce the level of noise on Market Street for experiential and safety reasons. Vehicle restrictions are a direct way to do this. Should congestion on Market Street be reduced, collaboration with the San Francisco Fire Department in lowering siren volumes could improve the pedestrian experience even more.

The effect of noise on health

-By Tom Rivard & Megan Wier, SFDPH

Noise conditions on Market Street are heavily impacted by the multiple motorized transportation modes that use the street, including private automobiles, delivery trucks, Muni street cars and buses, motorcycles and emergency sirens. Those most acutely experiencing the adverse impacts of noise are pedestrians, cyclists and those living along Market Street.

The SFDPH Traffic Noise map shows that ambient noise levels along Market Street range from 70 – 79 Ldn.^[15]These moderately loud ambient noise levels are intrusive, interfering with basic communication on the street. All new residential uses in areas with noise levels exceeding 60 Ldn in San Francisco require mitigation to address the level of noise indoors.

In addition, sirens and motorcycles along Market Street regularly emit noise in excess of 90 decibels which is highly annoying, intrusive and can potentially

Day-Night Noise Level (Ldn) <55 55 - 59 60 - 64 65 - 69 70 - 74 75 - 79

San Francisco Department of Public Health Program on Health, Equity and Sustainability

0.5

0.125 0.25



Market Street is lounder than Mission Street

Traffic Noise Map 2008

lead to hearing loss with prolonged exposure. These intermittent exposures to high noise levels are also potentially stressful and contribute to significant sleep disturbances among local residents. There is a growing body of evidence that moderate levels of traffic noise negatively impacts on stress and is associated with higher risk for hypertension, blood pressure, and heart disease.^[16] Children exposed to high levels of traffic noise are at increased risk of learning delays.^[17] Traffic noise also contributes to sleep disturbance, annoyance, leading to decreased concentration, increased aggressive behavior, and decreased helping behavior.[18]

The SFDPH routinely responds to residential complaints regarding noise intrusion, stress and sleep disturbance from people living the Tenderloin, South of Market and Chinatown communities.



Market Street is a noisy place,

photo by John Agoncillo

6.5 Trees

Trees are important to give people a sense of nature in the city. They make our streets look lovely. They provide shade on hot days, and — especially important to Market Street — they act as a powerful wind-blocker.

Unkept trees not only detract from the visual quality, but become perches for pigeons.

The map below shows that overall, the tree canopy is good on Market Street, but trees are dead, dying and lacking in many areas. Most of the areas that are lacking are in the Mid-Market and Office districts.

Many of the people surveyed mentioned the trees as one of the most attractive parts of the street, but also said they were poorly kept. Some also said that they wanted to see other kinds of trees. Most mentioned wanted to see more greenery, be it trees, planters or flowers.

Construction and wind are the two most important factors that lead to the destruction of trees on Market Street, but trunks that outgrow their grates, bikes locked to young trees, and being shaken by people certainly cannot help.

The one location where trees are neither present nor lacking is in front of One Post Plaza. Although there are trees nearby, this busy intersection benefits from the sun, and it attracts many sitters because of it.

The city should employ an arborist to decide which trees to heal and which to replace.



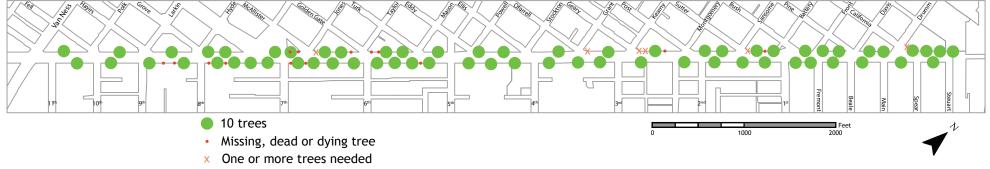
Trees can take a beating by standing next to humans.



Trees on Market Street face graffiti, grates digging in and litter.



Most of the damage to trees is caused by wind or construction.



6.6 Uncelebrated Monuments

Market Street has several unique monuments that help provide a sense of identity and history to the pedestrian realm. With the exception of Mechanic's Plaza, these monuments are uncelebrated. There are no design elements other than a few small plaques that invite the pedestrian to stay, wonder or learn about Market Street's past.

Two of these monuments suggest having once been used as public fountains. Lotta's Fountain (pictured right), is elaborately decorated, yet there is very little description of its origins or purpose. A monument, commemorating California's joining the Union in 1850, stands at the end of Montgomery Street. Both are dry and uncelebrated. Lotta's Fountain is on a traffic island in the middle of busy intersection. Any traffic calming should be combined with a pedestrian-oriented amenities, including generous seating opportunities.

On an understated rectangular prism made of brick hangs a plaque commemorating the The Liberty Bell Slot Machine (pictured bottom right). This sits under a tree near the exit from the Crown Zellerbach garage, near Mechanic's Plaza. Better explaining and celebrating this monument is part of the opportunity for a Battery Street Bridge redesign, discussed on page 77.

An ornate clock (pictured top right) stands in the Commercial Center near Hallidie Plaza. Tourists stop to read the plaque and point out the inner-workings to children. Public benches that face this clock could cement its importance on the "Linear Plazas" lesswalked north side.

Most who know of Robert Frost's poetry would associate him with rural New England; few recognize that he was born in San Francisco. A plaque stands uncelebrated near the California Street cablecar turnaround. This unnamed plaza (in this report title the Embarcadero Station Plaza for lack of a better name) could become Robert Frost Plaza with a proper statue and seating at the very least.

San Francisco has a rich historical preservation tradition that is not currently being played out on Market Street. Many opportunities exist to celebrate several monuments and help Market Street develop a more nuanced identity.



Lotta's Fountain



Plaque dedicated to San Franciscan Robert Frost.

Intriguing time piece.



Liberty Bell Slot Machine monument.

6.7 Dealing with Waste

There is considerable trash on Market Street. Many pedestrians were observed littering, but another contributing factor is the strong wind that blows waste from where it originates to all over the street. This makes the cleaning job that much harder.

Some areas on Market Street benefit from well located and an appropriate number of waste recepticles. Other areas are neglected, or worse, the placement of bins contributes to a cluttered streetscape. Some business owners have responded to the lack of bins by placing buckets or other improvised recepticles near their front doors. From a design perspective, the lack of uniformity in waste recepticles prevents people from easily recognizing and using them.

Another confusing aspect of waste disposal for the average pedestrian is how to recycle. Many of the waste bins do not have recycling receptcles nearby, which encourages pedestrians to throw out recyclable containers. The ones that do have attached recycling amenities are often too small, or not clearly marked. Imperfect waste diversion costs the City more money in the longterm and is environmentally irresponsible.

It is also very common to see bottle collectors on 76 Market Street. They search through garbage cans at all times of the day for refundable products. They reported making between \$3 and \$15 a day; these people go mostly unnoticed by pedestrians and provide the valuable service of higher recycling rates.

Several commercial garbage, recycling and compost bins are left on the sidewalk at busy times. These can emit bad odors and clutter the streetscape to the detriment of the pedestrian environment.

The pedestrian survey indicates that the street's cleanliness should be a priority when planning public realm improvements. Those surveyed rated street cleanliness at a mean of 4.1/7.0 on a satisfaction scale. This is the lowest mean score registered in the survey.



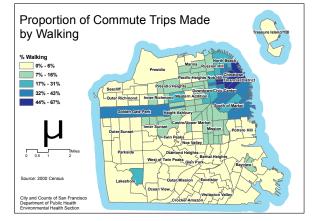
Garbage cans do not have recycling nearby.



Bottle collecting is a common activity on Market Street.



Poorly placed recepticles contribute to a cluttered streetscape



Bottle collectors make around \$3 to \$15 a day.

6.8 Newspaper Distribution

Findings

There are several ways to get news on Market Street. One can pick up a newspaper from the new consolidated boxes, or, in only a few places, a pedestrian can buy a periodical from a person in a kiosk.

Several of the pedestrians surveyed said that Market Street is more attractive with the consolidated newspaper boxes. Observation revealed that the boxes are mostly empty, in which case they are taking up space on the sidewalk that could be used otherwise.

Selling print media from street kiosks is an important urban tradition that has diminished in recent years. A person selling media animates public space, adds color to the streetscape, and offers the opportunity for personal exchange. Print media is an essential element to the public realm by contributing to our collective understanding of the times in which we live.

In 1993, San Francisco contracted JC Decaux to install 10 newsstand kiosks on Market Street, and many others elsewhere throughout the financial district and the city. These remain sadly underused.

Occasionally, like on Sansome Street, there are private contractors who bring the kiosks to life and add an element of visual intrigue to the street. Most kiosks remain closed, or are used by *The San Francisco Examiner* for only a few hours each weekday.

Opportunity

A significant opportunity exists to animate the public spaces around these booths, to increase revenue for the ailing print-media industry, and increase the number of employed persons in San Francisco.

All parties consulted have expressed interest in the opportunity to increase the number of private contractors selling papers on Market Street.

JC Decaux sells the advertising on the newsstand kiosks even when they are not animated but would like to see them enlivened. Adam Solorzano at JC Decaux said about the kiosks, "Our company's stance is the more they're utilized the better." Solorzano recognizes that some remain dormant, and others are used for only a few hours of the day.

The City's contract (which expires in 2016) with JC Decaux stipulates that *The Chronicle* and *The Examiner* have first right to use the kiosks. The contract also specifies that only print media may be sold from them. This has put an end to requests from people wanting to sell "flowers or trinkets," said Solorzano. One exception is that a non-profit in North Beach rents one for the storage of street-cleaning equipment.

The Chronicle's Ken Kim agrees that the kiosks could be better used and contribute to higher sales. He is willing to supply the media to private vendors.

The exceptional ethnography, Sidewalk, about booksellers in Greenwich Village, describes the benefit

of having "public characters" on the sidewalks. They provide priceless "eyes on the street," they give it with personality, keep it in order, call emergency assistance, give directions, protect local businesses and provide a valuable economic and social service: selling readable materials. Paris and New York have book sellers who return to humble homes or shelters at the end of the day, but during the day they bring life to the street.^[20]

The newspaper kiosks are the opportunity to provide jobs to San Francisco's under-employed. Several industrious bottle collectors (mentioned on page 74) expressed serious interest in becoming newspaper kiosk vendors.

The City should coordinate the reinvigoration of Market Street's newsstands by involving interested parties such as JC Decaux, the city's major newspapers, and anti-poverty groups.

Although media vending is prefered, the existing contract could be amended to allow the selling of various goods, aimed at both locals and tourists. This should at least be a consideration in future contracts.

Street redesigns should also consider optimizing the location of advertising kiosks and newsstands to reduce pedestrian flow blockage and maximize the economic viability of selling media.

t (2009)



Sansome Street hosts the ony well-animated newsstand kiosk; here, pedestrians frequently stop to chat, browse or buy.



Several kiosks are used for just a few hours by The Examiner.



Most kiosks are closed all of the time.

6.9 Undesirables

Survey results

If the survey responses regarding satisfaction with safety from other people tells us anything, it is that pedestrian on Market Street feel "unsafe" when they are "uncomfortable." Many respondents mentioned feeling social discomfort due to the unavoidable poverty and homelessness. The presense of "street people" has profound moral and urban design implications.

Firstly, it is important to recognize that homeless people are readily apparent to most pedestrians. Even though there was no survey question on the topic, 52 percent of respondents, both locals and visitors, mentioned homeless people. I7 percent of respondents mentioned noticing drugs or illegal activity.

Although respondents felt uncomfortable around the homeless people on Market Street, several were hesitant to "illegalize homelessness." One respondent stated, "homeless people need a home too," alluding to the fact that the public realm is their home.

Behavior

While observing Market Street for several months, "street people" were never seen causing significant harm to other people, whereas people with visibly higher socio-economic were seen fighting several



UN Plaza is most frequented by people sleeping and engagin in undesirable activity.

Public space use and design

Many privately-owned plazas on Market Street have been designed in such a way as to be uninviting for longer stays, likely with the intention to keep undesirables away. Seating is either non-existant or uncomfortable. As discussed on page 29, Market Street's granite benches were removed in the mid-1990s due to complaints about undesirables from business owners.

William H.Whyte, in his chapter on "undesirables" in his book The Social Life of Small Urban Spaces suggests:

The best way to handle the problem of undesirables is to make a place attractive to everyone else. The record is overwhelmingly positive on this score. With few exceptions, plazas and smaller parks in most central business districts are probably as safe a place as you can find during the times that people use them.^[11]

Indeed, in Market Street's busiest public spaces such as Hallidie Plaza, the Linear Plaza, and One Post Plaza, even when "undesirables" are present, they are barely noticed. Visitors to these plazas are otherwise engaged in shopping, cultural activites or people watching. Moreover, homeless people in thee places were also observed to be more likely to contribute to the public realm through playing music, or holding up humorous signs, rather than sitting or sleeping on the ground.

It is important to note that of the three busy public

spaces where "undesirables" generally go unremarked, only One Post Plaza has available seating. It is important to ask, why is this plaza not overrun with homeless people? Several reasons are thought to be contributing factors. They are listed here:

- There are many people there. It receives good, close to transit, and relatively clean.
- The stair-shaped seating forms a sitting landscape. This attracts people who sit in many different positions and formations, and is good for groups. Stairs are good for sitting but not for lying down. This prevents exessively long stays.
- It is comfortable for people to be in One Post Plaza, yet it is a very busy and visible place. Undesirable activity such as drug dealing or sleeping for more than a quick nap would not be possible here.

Every effort should be made to replicate the attractive of One Post Plaza (clean, sunny, sitting landscape, overtly public) at other plazas on Market Street and elsewhere in San Francisco.



The fear of undesirables has created an uncomfortable public realm for everyone else.



Sitting landscape: providing great seating without attracting undesirables.

6.10 The Battery Street Bridge

Using a similar methodology to the pedestrian and bicyclist counts in this study, pedestrians and automobiles were counted on the very last stretch of Battery Street that intersects with Market Street. This short portion of the street acts as a bridge over the Crown Zellerbach Building's garage exit.

Findings

Far more pedestrians use the last stretch of Battery Street than automobiles. This is especially the case on Weekdays, and very significant on weekdays before the PM peak. On weekends, pedestrian and automobile activity are fairly even. Approximately onehalf of the vehicles on weekends are taxis.

Observation reveals that its current design is primarily for automobiles. The sidewalks are quite narrow and obstructed, whereas the right-of-way for automobiles is wide enough for one vehicle to pass another, even though this would be unneccessary in this short stretch of the road network.

Opportunity

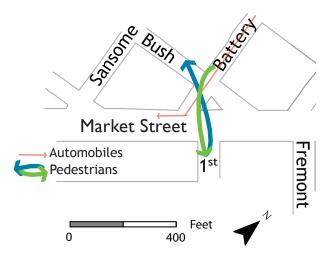
The opportunity exists for placemaking and to redesign the Battery Street Bridge to be more reflective of its usage patterns. Potential actions include:

- Reducing the automobile right of way to one lane and expand the sidewalk, or close it entirely.
- Extend the Market Street brick to this section to signal to drivers that this is a pedestrian space as most pedestrians cross the bridge diagonally.
- Use this area as an open space for moveable chairs, trees, greenspace, and public art.
- Collaborate with local businesses to make this public seating area.
- Peds stream by on market and could be encouraged to stop here.
- Celebrate the Liberty Bell Slot Machine monument, hidden under a tree nearby (See page 73).

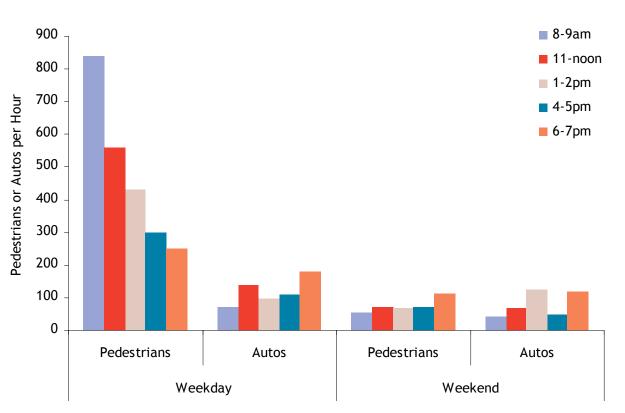


The end of Battery Street is large enough for eight vehicles, but there are never more than two on it at any time. Sidewalks are narrow and obstructed.





Spot count: pedestrian and automobile volumes





7.0 MOVING FORWARD

7.1 Introduction

In this section, findings and suggestions are developed and synthesized several key points. Recommendations on moving forward are made based on the analysis resulting from this study, both quantitative and qualitative.

Push and pull factors

Currently, the experiences of pedestrians and cyclists are exacerbated by social and environmental factors that can cause discomfort and harm. Visitors to Market Street are exposed to the threat of vehicle collision, as well as noise and air pollution associated with motor vehicle traffic. Strong winds, the lack of seating, and blatant social detractors—namely, homelessnes and perceptions of crime—keep people from staying much longer than it it takes for the bus to come. Many of these push factors need to be addressed before Market Street can become a safe and welcoming place to move and stay.

There is real potential to improve Market Street. It already is a unique, beautiful and storied place, and a destination for transit users, shoppers, workers and tourists. Existing strengths must be bolstered as pull factors such as to better celebrate monuments, make crossings easier for the large numbers of pedestrians, and allow the high volumes of bicycles to flow more fluidly. Rather than inventing new spaces, inspire more staying activity by investing in the places that already exist.

A vision for Market Street

Market Street should be a place where locals and visitors alike can go to socialize, express their ideas, or sit quietly and read a book. It should be a place where bicyclists and pedestrians of all ages feel safe and comfortable. Market Street should be a place where everyday activities and easy, and where the public realm offers delight through the unexpected.

Market Street as a marketplace

Market Street could live up to its name. Currently, only 18% of survey respondents said they came to shop. Another 8% said they were there to run an errand. Compared to previous studies, this is quite low. Market Street could be a place where people meet their daily needs, and buy that gift only found at a specialty store or artisinal booth.

Market Street currently exhibits the feeling of an open air market close to The Embarcadero, between 4th Street and 5th Street, and in the Civic Center, especially on Wednesdays. This helps solidify Market Streets identity and presents nodes of activity to be destinations for pedestrians. Market Street as a marketplace should be encouraged as much as possible. Allowing and encouraging more artisans, newsstands, vendors and performers would be key first steps.

Market Street as a nieghborhood

To make Market Street livable for everyone, it should be welcoming for those who live nearby. Given the low car ownership rates, high vehicle-pedestrian collision rates, and high levels on noise in the areas around Market Street, pedestrianization should be a priority in the redesign.

Likewise, age data reveals higher proportions of children and seniors in the census tracts close to the study are than were observed walking on Market Street. Moreover, staying activity is lower on weekends than on weekdays. This indicates that local residents are not using Market Street to satisfy their daily shopping and recreational needs.

Other than UN Plaza's farmer's market, it is difficult to buy fresh food and ingredients on Market Street. No playgrounds and few quality sitting environments invite San Francisco's youngest and oldest citizens. Market Street could be a hotspot for weekend festivals that enliven existing plazas for all ages. Every weekend could be a Cyclovia + Transit, the world's first. Planners and designers should consider the closest residents to Market Street in order to make it a liveable place for everyone.

Conclusion

This study involved collecting and presenting data on pedestrian and bicycling volumes, and stationary activites. It also involed soliciting the opinions of street users on the quality of the pedestrian environment. These aspects of the study serves as the basis for comparison to similar studies in the future of Market Street's public realm.

The study also considers several specific and general conditions that affect the quality experiences for pedestrians and bicyclists on Market Street. Many Recommendations have been made throughout and are hoped to be useful to The San Francisco Planning Depart and all those who care for the development of Market Street.

Method: Density and Intensity of Use

Recommendation: record density of use. Delineate the plazas to be studied as accurately as possible by measuring the space and giving it a square footage. Then it will be easier to compare the popular plazas with the unpopular plazas.

Due to study constraints, the intensity of use was not quantitatively collected, however, through detailed observation it has become clear where stationary activities are centralized. Future studies could include measuring length of stay for a more in-depth understanding of Market Street's public spaces.

Stationary activity: cultural or social activities. Standing and socializing demonstrate a choice to remain in a particular place, because the same socializing could happen elsewhere. Standing for socializing serves as a better indicator of quality of the physical street design than, smoking – which has to be done outside. While those who were talking part in cultural or commercial activities were recorded as such, further categorizing the type of standing activities into ones made by choice may give a better sense of why people choose a place.

TIME OF DAY ON MARKET

There is little staying activity on Market Street at night. Many of the people who are on Market Street at night are moving quickly. Most are accessing transit or exercising. Roughly the same age and gender distribution were counted in the evening, so sample representativeness is maintained.

Gender!!!

It is recommended that for future surveys, both male and female surveyors are employed to see if there is a difference in perception or respondents gender along these lines.

entire city and region runs underfoot. What is lacking are reasons and the environment to stay.

Market Street has the potential to be a world-class street for public

space. People come to work and to walk. Transit that connects the

Market Street as an open air market all year round.

Encourage weekend use, play and children/seniors. Cyclovia with transit.

Vehicle suggestions

To test this theory, future public space, public life surveys should be done both at intersections and far from the traffic at mid-block to compare results.

Many survey respondents mentioned specific intersections that caused problems between pedestrians and drivers. They also reported personal experiences, close calls, and the nuisances associated with vehicle traffic including: noise, congestion, blocked crosswalks and "smog." The loudness of the street demanded that both surveyor and respondent yell in order to be heard.

Future surveys should include an extra question on "comfort with vehicles" or modify the existing question. The prompts for this could include "noise and air quality."

Future surveys should ask if people have had close calls, and or, which intersections are the best. and worst and why.

When you redo it, compare these numbers.

Language

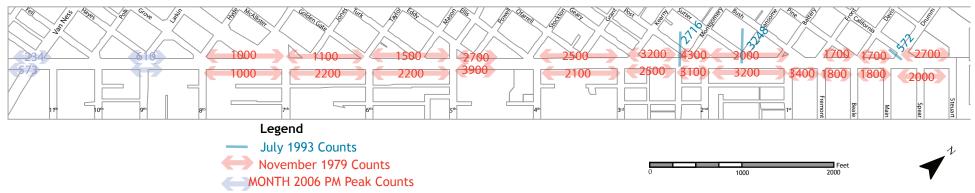
Future work should attempt to have surveys translated, and surveyors able to speak Chinese or Spanish as well as English.

APPENDIX A: WEATHER ON COUNT DAYS

Date in 2009	Observed weather	Temperature (high)	Place and type counted
Monday, June 29	Sunny with a few clouds	69F	Central-Market, stationary
Tuesday, June 30	Sunny	74F	Central-Market, stationary
Wednesday, July 1	Sunny	73F	Lower-Market, stationary
Thursday, July 2	Cloudy at first, then sunny a with few clouds, gusty	70F	Lower-Market, stationary
Tuesday, July 7	Sunny with a few clouds, light wind	67F	Central-Market, ped/bike flow
Wednesday, July 8	Sunny	71F	Central-Market, ped/bike flow
Thursday, July 9	Sunny with a few clouds, light wind	67F	Lower-Market, ped/bike flow
Saturday, July 11	First cloudy, then sunny then cloudy and light rain	70F	All-Market, ped/bike flow, stationary
Tuesday, July 14	Sunny	88F	Lower-Market, ped/bike flow
Saturday, August I	Cold and windy	69F	Lower-Market, ped/bike flow, stationary
Monday, August 3	Foggy in morning, sunny all day	70F	Mid-Market, ped/bike flow, stationary
Tuesday, August 4	No observations recorded	73F	Mid-Market, ped/bike flow, stationary
Saturday, August 8	Sunny, light wind	76F	All-Market, ped/bike flow, stationary

APPENDIX B: BASELINE PEDESTRIAN COUNTS

Market Street: Previous Counts



Previous Counts

The 1979 pedestrian counts were conducted by Parsons Brinckerhoff Quade and Douglas in November for their "Center City Pedestrian Circulation and Goods Movement Study" published in September 1980. Counts were in 6 minute intervals and expanded to one hour

Obtained from Draft Final Report: Market Street Design Planning Study June 1982 DKS Associates.

The 1993 counts were obtained from an intern's notes found in the Planning Department library on the 5th floor of 1660 Mission Street. They were done in 15 minute intervals and expanded to one hour.



Counters and thumbs.

APPENDIX C: JUSTIN HERMAN PLAZA AND MARKET STREET

THE EXAMINER

sidewalks.

quickly as possible.

up as of late.

For

PHOTOS

more *

OF THE BEST

LOCAL NEWS.

AND SPORTS.

OPINIONS

CLICK ON





doorway

In the late 1970s there were as many as 1,000 registered street artists in San Fran-cisco. The rising cost of living, however, forced many vendors out of The City during the 1980s, according to How-ard Lazar, street artist program director for the San Francisco Arts Commission. The number of available art spaces, which have to be at least 10 horizontal feet from NAME: Pamela Muse RESIDENCE: Berkeley TRADE: Makes 'Crystal Muse" heirloom bears

are starting to prove they are committed to

"The art community is something that has endured here despite all the changes in

San Francisco over the years," Wolford said.

"There has to be ongoing efforts to ensure it

intaining that reputation.

"It's as simple as that." Ndoli is not unique, as many artists say it's not worth their time to display only a small portion of their products that the 3-foot by

-foot setup allows. "Justin Herman Plaza is the only area

Dispute arises on definition of 'art'

subject for some who sell their wares on the streets of San Francisco.

While all artists are in agreement that extra spaces in Justin Herman Plaza will help the creative community, some think that more stringent regulation might be in order as well. Jonathan Guilliams, a 23-year-old artist from Pacifica who makes hand-crafted metal coins, said The City should tighten up the criteria that stipulates what "art" is, a move that would

"I think it would be pretty difficult to define what 'art' is, but it would really help the people who are interested in actually creating things," Guilliams said. "You have people here who buy beads and just put them on strings and sell them. That really isn't fair to the artists here who spend long hours each day making their materials.

first time this issue has been raised, according to Howard Lazar of the San Francisco Arts Commission. In the early 1980s, a group of artists petitioned The City to establish rules that require more active participation in creating products.

Francisco voters stipulating that art can be sold publicly, so long that it is predominantly created or significantly altered by the craftsperson, a requirement that is met by the bead-stringers,

especially since there are so many artists selling beads," Lazar said. "Our hands are pretty much tied on these issues because of the voters." - Will Reisman

executive director of the Arts Commission Cancel said that the high cost of living that drove many artists out of San Francisco has not detrimentally affected the overall availability of public art in The City, but adjustments are still necessary to make sure that the cre-

86

the nearest doorway, also diminished because of increased development in The City. As a result, the amount of artists registered with The City hovered at around 400 for more than 25 years, only climbing in the last year to 430 — an increase that's likely the result of art hobbyists losing their jobs, and thus turning into art professionals, said Lazar, who was the chief lobbyist for nine new spaces approved Tuesday. The recent increase has not been lost among local

rial, so it's imperative for Fitzsimmons to get her name in the lottery early, and to set up as

Fitzsimmons is not alone in her rush to

find space. Historically, there have been just 67 spaces available at Justin Herman Plaza,

and with the tumbling economy forcing more part-time artists into full-time professionals

the competition for the top location has heated

artists. "Lately, the amount of people seems to really have exploded down here, especially on the weekends," Fitzsimmons said. "And that's just from 40 extra artists, and with this poor economy, I think we'll continue to see more people join the ranks.'

To help atone for the glut of artists, The City approved the nine new selling spaces for weekend use at Market and Steuart streets a stretch of sidewalk abutting Justin Herman Plaza — a small, but meaningful gesture that shows San Francisco cares about its creative community, Fitzsimmons said. The spaces have been in use on temporary terms since last July.

"I'm totally supportive of the increased amount of space," Fitzsimmons said. "It's a basic fact that Justin Herman is a key to almost all the street artists' livelihoods.'

In San Francisco, there are 474 registered art spaces - sanctioned areas where vendors can sell and showcase their products. All but 67 of those spaces are confined to 3-foot deep by 4-foot wide space restrictions, and are mostly clustered around Fisherman's Wharf

the plaza - 10 feet: Required distance each space must be removed from nearest - 18 inches: Required distance each

pace must be removed from the street

The definition of what "art" is remains a sore

prevent some vendors from selling materials that

aren't personally created.

Guilliams' beef with the bead-sellers isn't the

The petition failed, however, with The City referring to a ruling established in 1975 by San according to Lazar.

"We hear these complaints all the time,

APPENDIX D: PEOPLE IN PLAZAS

That public space is empty, why doesn't anyone use it?



By Lynn Valente

I have been working to activate the public spaces on or near Market Street in downtown San Francisco for eighteen years. My primary activity is producing live music in public plazas, but I have also been involved in covered markets and plaza redesign. I have been on the street almost daily for all of that time and here is what I have learned.

- San Franciscans do not have the culture of congregating in outdoor public spaces for social interaction as they do in many European cities.
- San Francisco weather, even on a sunny day, is often cold and usually windy.
- In the past twenty years outdoor spaces have been planned to discourage staying. Plazas have little or no comfortable seating and hard, flat, un-shaded designs.
- There is nothing going on in most public spaces, both public and private. There is no reason to be there.

When I produce a concert in one of our Market Street plazas the scene changes dramatically. The empty space is now active with 100 - 1000 persons walking through, staying for twenty minutes or so or spending their entire lunch hour there. Workers put the schedule up in their office and get others to attend. Retirees come in from the east bay and plan their day around the event. Developmentally disabled groups are regular audience members. Day care kids enjoy live music. Dancers appear. The value of this program is exemplified by the management companies who are willing, year after year, to sponsor public concerts in their privately owned plaza. But since there is no real attractive seating, tables and chairs, shade or other amenities the crowd quickly disappears as soon as the event is over. When it is windy and cold the crowd is less than half.

A few small changes might slowly begin to turn this around. Private plaza owners should be encouraged by the city to put out tables and chairs, perhaps a few chess tables, a food cart, some shade umbrellas and perhaps a wind screen or outdoor heaters. Creative, cost effective ways to bring more activity to the spaces can be explored. Building security can make sure that there is no illegal activity coming to their space. Public spaces must be managed in the same way.

Most plazas on or near Market Street will benefit from these simple changes. There are, however, a few plazas that will require more help. I have produced more than 100 concerts in two great outdoor city owned public spaces in the mid-Market are that have been failing for many years, with no relief in sight. Drug dealers, substance abusers and gamblers have made the spaces their own, discouraging use by the general population. For these spaces there needs to be on site management, many regular planned events and consistent SFPD foot patrols walking through every 30 minutes until the use of the space changes.

The fixes outlined above will go a long way to begin



R & B on Market Street. People in Plaza's lunch-hour concerts encourages over 100 people to spend time outside.



A Latin jazz quintet gives life to a shady snippet on Market Street.

to foster a town square culture on Market Street. The political will is slowly changing. Creative, energetic minds are at work. There is an unlimited pool of artistic resources. We are not quite there yet, we need to go all in and commit to fostering vibrant, safe and inviting plaza life on our main thoroughfare.

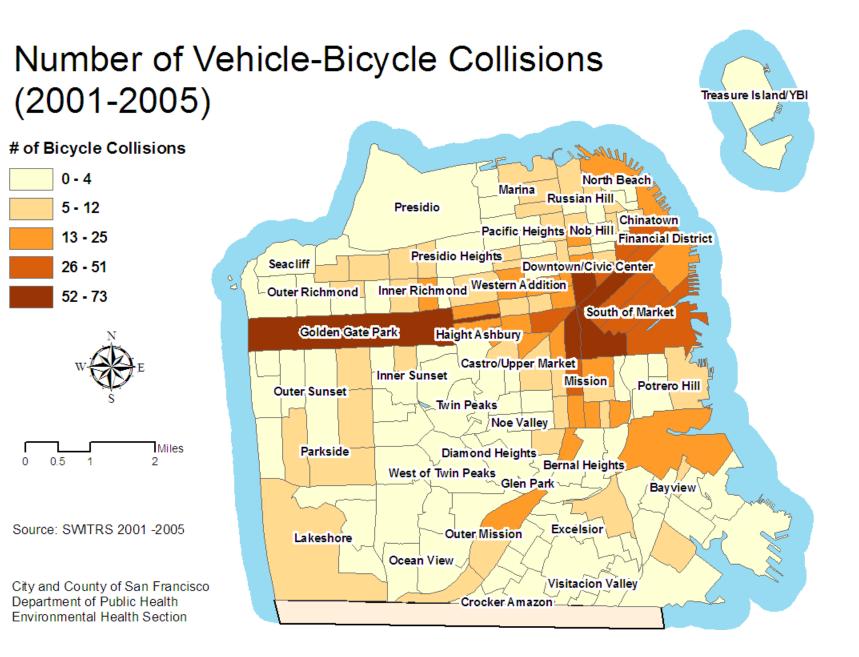
APPENDIX E: HOURLY PEDESTRIAN VOLUMES

Mid-block location between:	Location: N (north) & S (south)	Day type	8-9am	9-10am	10- I I am	II- noon	I2- Ipm	I-2pm	2-3pm	3-4pm	4-5pm	5-6pm	6-7pm	7-8pm	8-9pm	9-10pm
11th & Van Ness	A - N	Weekday	246	276	288	432	468	414	408	300	558	528	354	312	192	168
l 1th & Van Ness	A - N	Weekend	114	90	108	264	192	294	270	246	240	252	168	312	120	264
l I th & Van Ness	A - S	Weekday	306	486	516	372	804	1032	702	756	330	624	336	444	120	72
l I th & Van Ness	A - S	Weekend	114	240	264	162	348	318	258	318	222	108	288	132	276	252
9th and 8th	B - N	Weekday	624	588	456	942	1188	756	912	846	624	756	492	480	210	312
9th and 8th	B - N	Weekend	294	324	504	594	564	894	378	468	420	480	426	588	384	336
9th and 8th	B - S	Weekday	714	786	1056	594	780	354	822	990	1134	960	612	588	486	264
9th and 8th	B - S	Weekend	384	420	720	420	468	786	540	420	420	576	522	720	396	264
7th & 6th	C - N	Weekday	354	486	804	612	792	894	846	906	654	756	612	888	558	300
7th & 6th	C - N	Weekend	162	276	372	558	432	780	744	696	900	972	828	588	414	432
7th & 6th	C - S	Weekday	402	414	528	492	1008	852	654	744	612	768	678	660	342	282
7th & 6th	C-S	Weekend	330	456	732	672	564	714	588	672	678	936	816	576	342	360
5th & 4th	D - N	Weekday	840	1032	1128	1362	1764	2034	2154	1938	2094	2388	1866	1692	846	630
5th & 4th	D-N	Weekend	474	804	1212	1998	1716	2244	2262	2442	2322	2640	2388	2244	888	996
5th & 4th	D - S	Weekday	720	1038	1308	2586	4164	3342	3438	3414	3408	3720	2352	2184	1752	1236
5th & 4th	D - S	Weekend	762	1146	1152	2160	2808	2856	3126	3924	5136	4512	3996	2880	2346	1776
3rd & 2nd	E - N	Weekday	924	888	636	972	1302	1356	1152	1152	1080	1344	756	504	420	360
3rd & 2nd	E - N	Weekend	270	396	708	930	1128	972	1200	996	966	960	612	828	408	462
3rd & 2nd	E - S	Weekday	1890	2028	1392	1842	2604	3030	1944	2046	1908	2484	1590	840	708	348
3rd & 2nd	E - S	Weekend	414	1200	1284	1218	1452	1284	1380	1704	1566	1404	1134	732	486	990
Ist & Fremont	F-N	Weekday	1326	912	756	1362	1728	1290	1134	942	1176	1008	948	576	324	108
Ist & Fremont	F - N	Weekend	216	606	888	744	900	960	504	924	762	480	288	288	336	234
Ist & Fremont	F - S	Weekday	1254	786	540	1278	1956	1728	780	930	1098	1320	1230	468	264	90
Ist & Fremont	F - S	Weekend	396	240	420	426	564	606	690	468	648	456	282	276	108	144
Spear & Stewart	G - N	Weekday	1068	768	1332	1242	2052	2046	1332	1362	1716	1644	1962	1056	816	552
Spear & Stewart	G - N	Weekend	570	1188	1248	2304	2880	2460	2256	1980	1992	2616	1194	1656	636	444
Spear & Stewart	G - S	Weekday	966	762	780	1134	2208	1896	768	924	1098	2208	900	900	276	324
Spear & Stewart	G - S	Weekend	270	618	480	966	1152	990	600	210	762	816	786	456	348	216
		8th]] 7 ^{zh}	6*		5 th			34		2 nd	1:1	Fremont	Main	Spear	Steuart

APPENDIX F: HOURLY BICYCLIST VOLUMES

Mid-block loca- tion between:	Location: N (north) & S (south)	Day type	Direction	8-9am	9-10am	10- I I am	- noon	I2- Ipm	I-2pm	2-3pm	3-4pm	4-5pm	5-6pm	6-7pm	7-8pm	8-9pm	9-10pm
11th & Van Ness	A - N	Weekday	Uptown	48	42	24	48	120	54	156	96	108	264	468	288	102	60
11th & Van Ness	A - N	Weekend	Uptown	36	48	12	30	36	72	60	102	96	120	108	24	24	36
I I th & Van Ness	A - S	Weekday	Downtown	306	288	84	120	48	132	102	78	102	132	72	84	90	36
I I th & Van Ness	A - S	Weekend	Downtown	36	72	48	90	36	48	96	102	96	36	24	12	66	60
9th and 8th	B - N	Weekday	Uptown	24	36	84	72	120	96	84	162	114	240	222	120	132	36
9th and 8th	B - N	Weekend	Uptown	30	54	24	30	60	54	42	78	66	60	30	84	12	12
9th and 8th	B - S	Weekday	Downtown	294	198	132	72	96	72	66	66	78	60	72	60	60	36
9th and 8th	B - S	Weekend	Downtown	84	78	96	132	60	36	66	108	60	36	12	48	12	12
7th & 6th	C - N	Weekday	Uptown	30	60	24	30	84	84	114	90	132	348	402	300	108	90
7th & 6th	C - N	Weekend	Uptown	18	30	0	30	84	60	78	66	78	84	84	72	24	12
7th & 6th	C - S	Weekday	Downtown	384	456	192	126	120	132	84	108	60	96	96	36	42	60
7th & 6th	C - S	Weekend	Downtown	42	96	108	72	132	72	36	54	72	96	42	60	72	24
5th & 4th	D - N	Weekday	Uptown	30	24	48	66	48	90	78	156	174	348	228	108	54	84
5th & 4th	D - N	Weekend	Uptown	12	12	48	30	24	30	60	66	66	72	114	48	24	66
5th & 4th	D - S	Weekday	Downtown	378	234	144	120	96	60	102	54	48	36	84	24	24	24
5th & 4th	D - S	Weekend	Downtown	66	24	60	96	132	42	36	66	48	96	18	60	18	6
3rd & 2nd	E - N	Weekday	Uptown	42	24	36	42	114	102	120	90	120	360	234	168	54	54
3rd & 2nd	E - N	Weekend	Uptown	12	0	0	24	24	60	72	18	36	42	30	48	24	36
3rd & 2nd	E - S	Weekday	Downtown	288	504	72	60	24	66	90	72	78	60	60	48	12	12
3rd & 2nd	E - S	Weekend	Downtown	54	18	0	24	60	36	30	30	54	24	24	12	6	18
lst & Fremont	F - N	Weekday	Uptown	42	78	36	144	84	30	72	84	30	96	114	72	66	6
lst & Fremont	F - N	Weekend	Uptown	12	24	36	12	24	30	48	60	54	36	36	24	0	36
Ist & Fremont	F - S	Weekday	Downtown	180	78	72	54	24	54	66	42	36	48	60	24	12	12
lst & Fremont	F - S	Weekend	Downtown	24	36	108	48	72	36	12	60	24	36	42	72	24	0
Spear & Stewart	G - N	Weekday	Uptown	96	48	24	18	12	18	36	72	150	132	54	36	66	72
Spear & Stewart	G - N	Weekend	Uptown	0	24	0	12	12	24	48	66	90	132	90	60	24	0
Spear & Stewart	G - S	Weekday	Downtown	30	30	0	54	12	36	132	36	36	72	48	0	12	24
Spear & Stewart	G - N	Weekend	Downtown	30	18	48	72	12	72	60	12	84	24	36	12	0	0

APPENDIX G: BICYCLE COLLISION DATA



ENDNOTES

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