# Characterizing Audience and Traffic Flow at Rincon Park and Brannan Street

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May 2005

# Outdoor Exploratorium
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**PURPOSE**

Brannan Street Wharf is one of the potential sites being considered by the Exploratorium to permanently locate some of its Outdoor Exploratorium exhibit collection. The Port of San Francisco is developing this site as one in its series of parks that line the Embarcadero by the Bay and is interested in having Exploratorium exhibits at this park to give it its unique character, distinct from the other parks along the Embarcadero.

Construction of Brannan Street Wharf will begin in late 2005 and will not be completed until late 2007. Once built, they hope that it will be used by the surrounding community as well as by passer-bys and eventually passengers who disembark from the cruise ships docked at a nearby terminal. It is unclear when the nearby high-rises will be completed and when the residential characteristics of the place will change, although a community review board has been formed to advise the design and development of Brannan Street Wharf. The Port and other organizations are still in negotiation for permission and funding for a cruise terminal in the area.

During construction, the Outdoor Exploratorium team will need a place to prototype its exhibits, which includes collecting visitor feedback. We, therefore, need to find a surrogate that is a close approximation to the physical conditions at the future Brannan Street site. Rincon Park, another one of the Port's parks along the Bay, seems to be an ideal candidate, located just half a mile northwest along the Embarcadero. See the map in Figure 1.

**Figure 1. Map of Brannan Street and Rincon Park**




However, for Rincon Park to be a good substitute, we also need to determine if the people who come to Rincon, and whom we would be observing and interviewing as part of formative evaluation, are similar to the people who currently frequent Brannan Street. In addition, we need to characterize the traffic flow at Rincon Park to identify the best times and places to do formative evaluation at this site.

This observational study was conducted to:

- characterize the people who frequent the Brannan Street Wharf area, who will make up a part of the visitor audience for our exhibits. Although there will eventually be additions to this visitor group from the residential high-rises and possibly the cruise terminal, we believe that the people who currently frequent Brannan Street will continue to do so once the Wharf is built.
- characterize the people who frequent Rincon Park, who will be giving us feedback on our exhibits before Brannan Street Wharf is completed.
- compare groups of passer-bys at Brannan Street and Rincon Park to determine if there are any groups that are not represented at Rincon but are at Brannan Street. If there is, then we would need to find another way of soliciting feedback from this subgroup.
- identify the best times to do formative evaluation and the best spots to place our exhibits to maximize visitation to our prototypes while at Rincon Park.

We looked for these categories of visitors in this study:

- Age Group
- Type of Group, more specifically if they were in a multi-generational, peer (adult), individual (adult) group.
- Activity, including walking, running, sitting, etc.

These dimensions were chosen because they can be determined through observation, as opposed to interview, and may impact how we develop our exhibits.

**METHOD**

- We collected data at both Brannan Street and Rincon Park at the same times. One evaluator sat and observed at Brannan Street, while her counterpart observed at Rincon Park.
- At Brannan Street, the evaluator drew an imaginary line from the street to where she was sitting and took notes on every third person who crossed that imaginary line.
- At Rincon Park, the procedure was more complicated because the evaluator had to observe a plaza. See Figure 2. This required that she watch 4 imaginary lines that together cover the plaza. She observed every third person who crossed any one of those lines, unless that person was already observed previously.

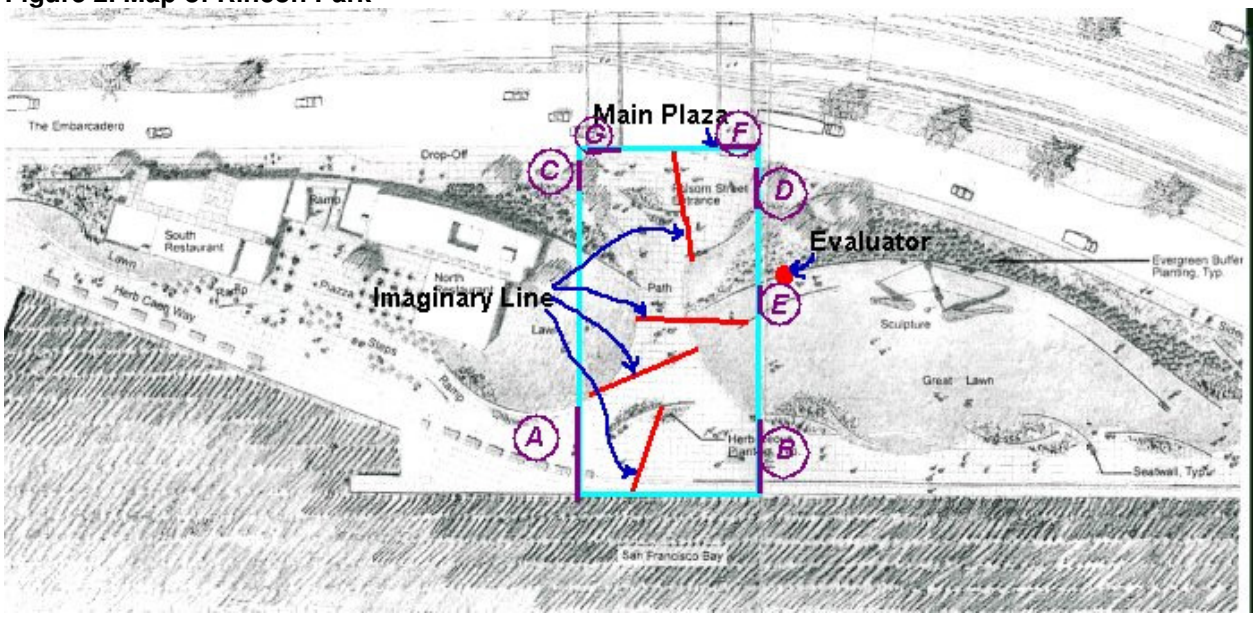
- Each evaluator noted the individual's
  - Age Group (under 8-years, child, teenager, adult, senior)
  - Type of Group they were traveling with (multi-generational, peer, individual). We did not observe any child or teenager along or with just their peers.
  - Gender (male or female)
  - Activity they were engaged in (walking, running, biking, rollerblading, being carried by an adult or in a stroller, other)
  - Direction of travel. For Brannan Street, the evaluator noted if the person was coming from the southeast or from the northwest. The evaluator at Rincon Park noted where the person entered and exited the plaza, indicated by the circled letters in Figure 2.

  She also guessed at the person's race, but this proved too difficult, and the data were never analyzed.

  Finally, the evaluator took notes on whether or not the individual had Giants paraphernalia during game day, which may indicate that s/he is attending the Giants ballgame scheduled for that day. When possible[1], she also made observations that she thought were interesting to note (e.g. whether or not the individual was using an electronic device like a walkman or a cell phone, was carrying shopping bags likely to or from the Farmer's Market, or was dressed in business attire.)
- At Rincon Park, the evaluator would walk around the park once an hour and note where people were had stopped, for example, where people were sitting, lying down, or simply standing still. She only noted people who were stationary when she passed them. These data would give us an idea of where people tend to spend more time and complement our data on passer-bys.

[1] Sometimes the traffic was so busy that we would opt to forego these more miscellaneous observations.

**Figure 2. Map of Rincon Park**




- We collected data during these times to cover the various conditions that can impact traffic flow and audience:

| Day | Date | Times | Notes |
|---|---|---|---|
| Friday | April 29, 2005 | 8:30am – 11:30am<br>12:00pm – 5:30pm<br>6:00pm – 7:30pm | No ballgame at nearby SBC Park |
| Friday | May 6, 2005 | 5:00pm – 7:30pm | Night game at SBC Park (starting at 7:15pm) |
| Saturday | May 7, 2005 | 9:00am – 11:30am<br>12:00pm – 5:30pm<br>6:00pm – 7:30pm | Farmer's Market (8am – 2pm)<br>Day game at SBC Park (starting at 1:05pm) |

## RESULTS

### *Brannan Street*

<u>The people at Brannan Street</u>

- Total number of people observed

| **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|
| <u>N</u> = 348 | <u>N</u> = 214 | <u>N</u> = 821 |

- Age Group

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Under 8** | 4 (1.1%) | 4 (1.9%) | 16 (1.9%) |
| **Child** | 1 (0.3%) | 6 (2.8%) | 21 (2.6%) |
| **Teen** | 1 (0.3%) | 16 (7.5%) | 27 (3.3%) |
| **Adult** | 318 (91.4%) | 185 (86.4%) | 728 (88.7%) |
| **Senior** | 24 (6.9%) | 2 (0.9%) | 29 (3.5%) |
| **No Data** | 0 (0%) | 1 (0.5%) | 0 (0%) |
| **Total** | 348 (100%) | 214 (100%) | 821 (100%) |

A large majority of the people who pass through Brannan Street are adults. There is a slightly larger percentage of children and teens when there is a baseball game at nearby SBC Park, but they remain in the minority (less than 10%). Graphs showing age group composition over time can be found in Appendix A.

- Type of Group

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Individual** | 221 (63.5%) | 54 (25.2%) | 241 (29.4%) |
| **Peer** | 102 (29.3%) | 101 (47.2%) | 423 (51.5%) |
| **Multi-generational** | 19 (5.5%) | 59 (27.6%) | 157 (19.1%) |
| **No Data** | 6 (1.7%) | 0 (0%) | 0 (0%) |
| **Total** | 348 (100%) | 214 (100%) | 821 (100%) |

On a weekday, when there is no ballgame scheduled, the majority of the people are alone. But, during game days, the percentage of people who comes to the area with other people, either peers or family, almost doubles. A minority of the people who come through Brannan Street, come as part of a multi-generational group (i.e., adults with children). Graphs showing group type over time can be found in Appendix A.

- Gender

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Male** | 209 (60.1%) | 131 (61.2%) | 475 (57.9%) |
| **Female** | 135 (38.8%) | 80 (37.4%) | 343 (41.8%) |
| **No Data** | 4 (1.1%) | 3 (1.4%) | 3 (0.4%) |
| **Total** | 348 (100%) | 214 (100%) | 821 (100%) |

More men than women come through the area. See Appendix A for graphs showing gender composition over time.

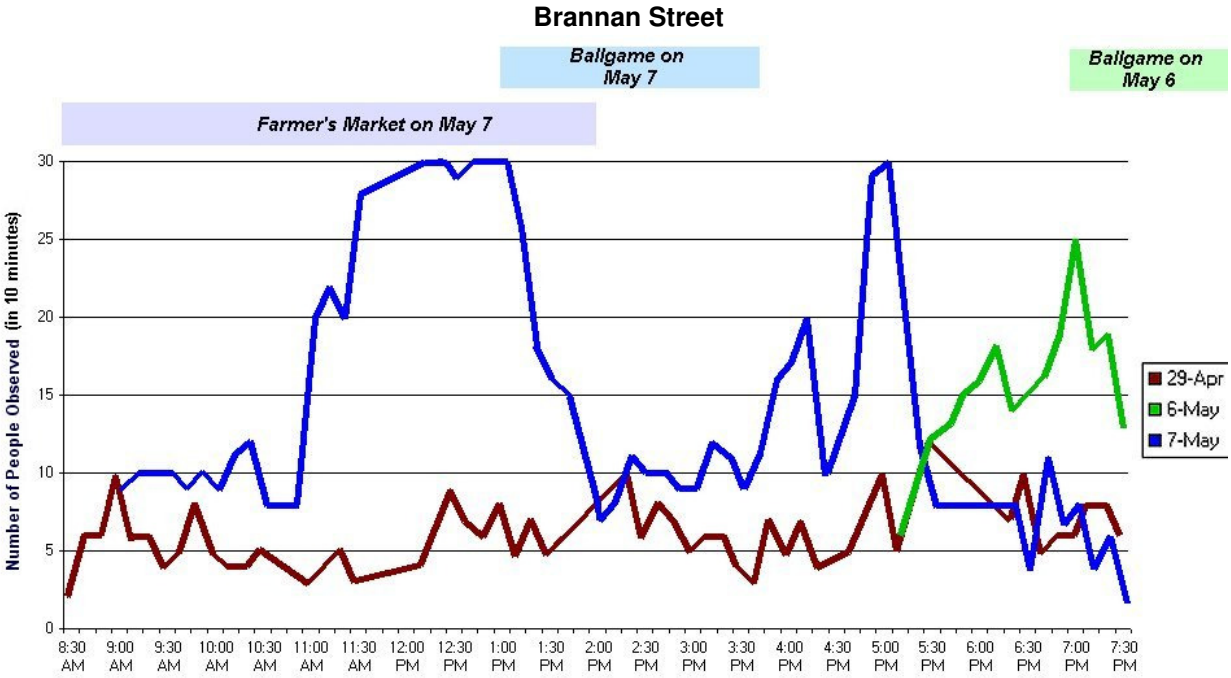
- Activity

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Walk** | 167 (48%) | 185 (86.4%) | 653 (79.5%) |
| **Bike** | 81 (23.3%) | 11 (5.1%) | 60 (7.3%) |
| **Run** | 81 (23.3%) | 13 (6.1%) | 76 (9.3%) |
| **Rollerblade** | 10 (2.9%) | 1 (0.5%) | 12 (1.5%) |
| **In Stroller** (or otherwise carried) | 2 (0.6%) | 0 (0%) | 3 (0.4%) |
| **Others** (e.g., skateboard, scooter) | 3 (0.9%) | 0 (0%) | 2 (0.2%) |
| **No Data** | 4 (1.1%) | 4 (1.9%) | 15 (1.8%) |
| **Total** | 348 (100%) | 214 (100%) | 821 (100%) |

On a weekday, when there is no baseball game scheduled, nearly half the people in the area are pedestrians, and the other half are either running or biking. However, during game days, the number of people walking to and from the game overshadows the other people participating in other types of activities at Brannan Street. Appendix A includes graphs showing people's activities over time.

The traffic pattern

- Throughput




We note that at times the traffic became too overwhelming especially during game time for the observer to reliably note every third person. Therefore, the traffic volume has an artificial ceiling, and the maximum is not representative of the actual maximum throughput.

In general, when there is no game at SBC Park, the traffic tends to be fairly light, consisting of commuters and people exercising and walking about. However, about one to one and a half hours before the scheduled start of a game, Brannan Street becomes very crowded with people heading southeast to the game. Likewise, for about an hour close to the end of the game, the area again becomes very busy, this time with people heading northwest away from SBC Park.

- Direction of travel

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **To the Southeast** | 163 (46.8%) | 188 (87.9%) | 454 (55.3%) |
| **To the Northwest** | 185 (53.2%) | 25 (11.7%) | 366 (44.6%) |
| **No Data** | 0 (0%) | 1 (0.5%) | 1 (0.1%) |
| **Total** | 348 (100%) | 214 (100%) | 821 (100%) |

Looking at the following graphs (Figure 3, Figure 4 and Figure 5), we note that there is no dominant direction of travel except before and after a game with people going towards or away from SBC Park, which is southeast of the Brannan Street site.

**Figure 3. Direction of Travel at Brannan Street (4/29/2005, 8:30am - 7:30pm. No game at SBC Park)**

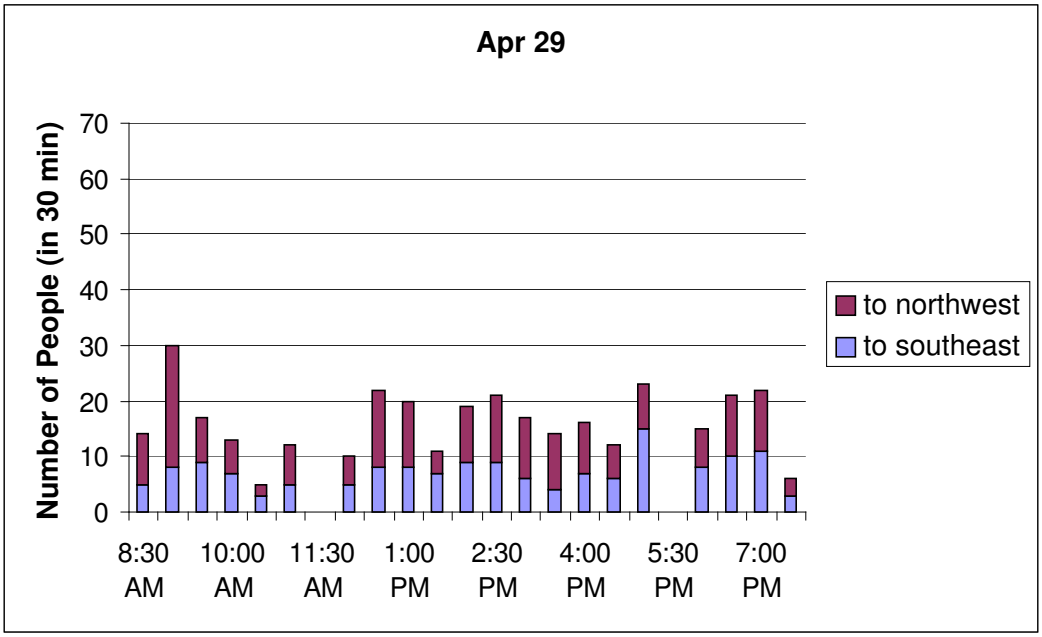


**Figure 4. Direction of Travel at Brannan Street (5/6/2005, 5pm - 7:30pm. Ballgame at 7:15pm)**

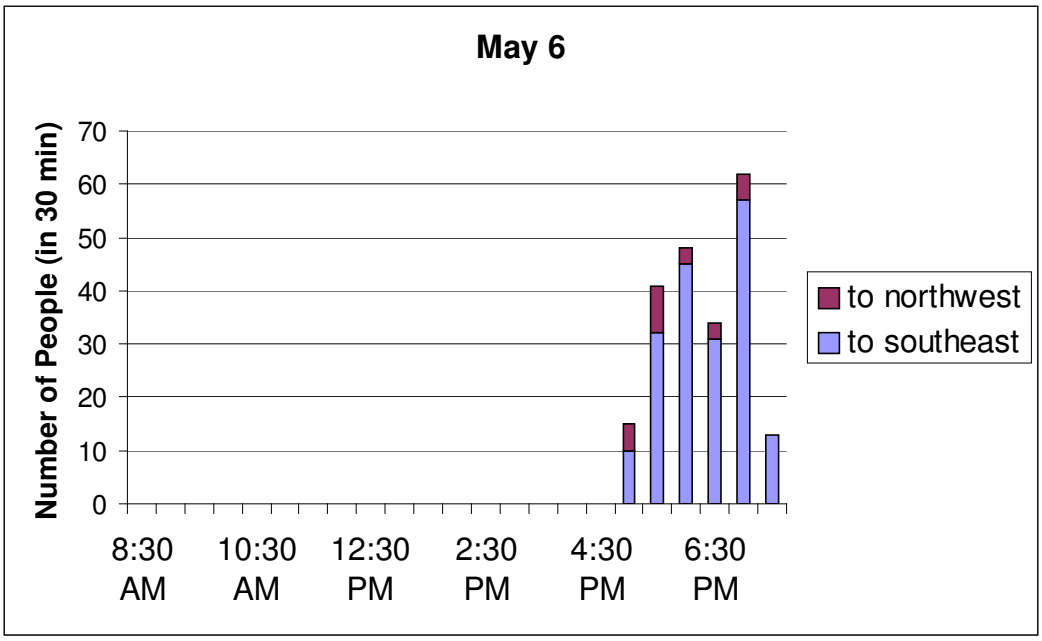
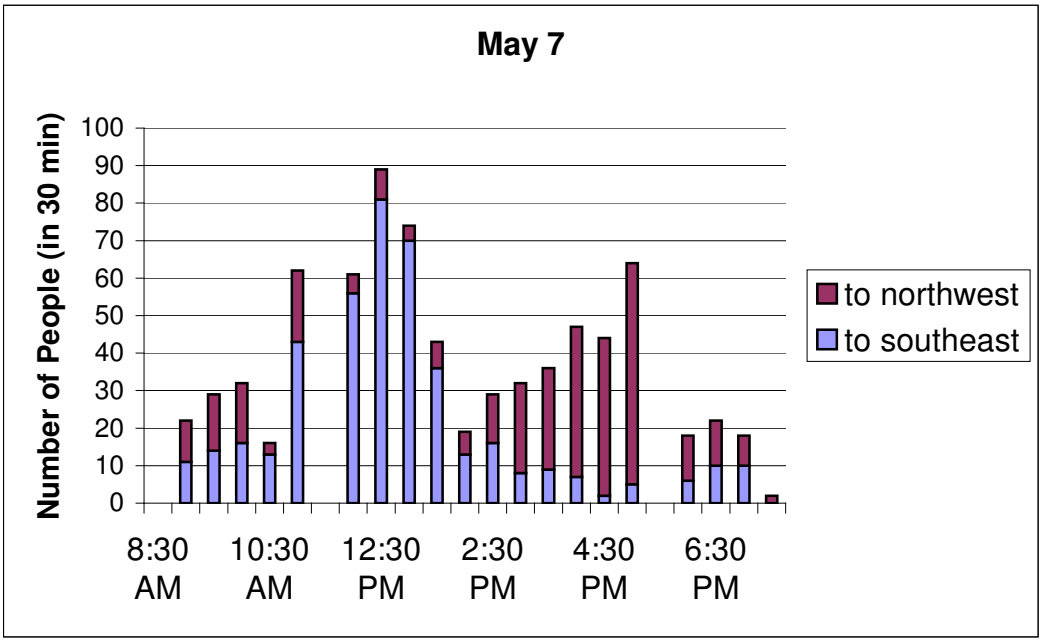



**Figure 5. Direction of Travel at Brannan Street (5/7/2005, 9am - 7:30pm. Ballgame at 1:05pm)**



***Rincon Park***

The people at Rincon Park

- Total number of people observed

| **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|
| N = 386 | N = 119 | N = 489 |

- Age Group

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Under 8** | 1 (0.3%) | 2 (1.7%) | 14 (2.9%) |
| **Child** | 0 (0%) | 2 (1.7%) | 10 (2%) |
| **Teen** | 1 (0.3%) | 3 (2.5%) | 15 (3.1%) |
| **Adult** | 369 (95.6%) | 104 (87.4%) | 436 (89.2%) |
| **Senior** | 13 (3.4%) | 8 (6.7%) | 13 (2.7%) |
| **No Data** | 2 (0.5%) | 0 (0%) | 1 (0.2%) |
| **Total** | 386 (100%) | 119 (100%) | 489 (100%) |

A large majority of the people who visit or pass through Rincon Park are adults. As with Brannan Street, there is a slightly larger percentage of children and teens when there is a baseball game at nearby SBC Park and/or on a weekend day, but they remain in the minority (less than 10%). Graphs showing age group composition over time can be found in Appendix A.

- Type of Group

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Individual** | 244 (63.2%) | 46 (38.7%) | 139 (28.4%) |
| **Peer** | 123 (31.9%) | 50 (42%) | 257 (52.6%) |
| **Multi-generational** | 19 (4.9%) | 19 (16%) | 84 (17.2%) |
| **No Data** | 0 (0%) | 4 (3.4%) | 9 (1.8%) |
| **Total** | 386 (100%) | 119 (100%) | 489 (100%) |

On a weekday, when there is no ballgame scheduled, the majority of the people at Rincon Park are alone. During game days and/or on weekend days, more people are with peers or family. Appendix A includes graphs showing group type over time.

- Gender

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Male** | 228 (59.1%) | 76 (63.9%) | 267 (54.6%) |
| **Female** | 156 (40.4%) | 43 (36.1%) | 215 (44%) |
| **No Data** | 2 (0.5%) | 0 (0%) | 7 (1.4%) |
| **Total** | 386 (100%) | 119 (100%) | 489 (100%) |

Like at Brannan Street, there are more men than women at Rincon Park. See Appendix A for graphs showing gender composition over time.

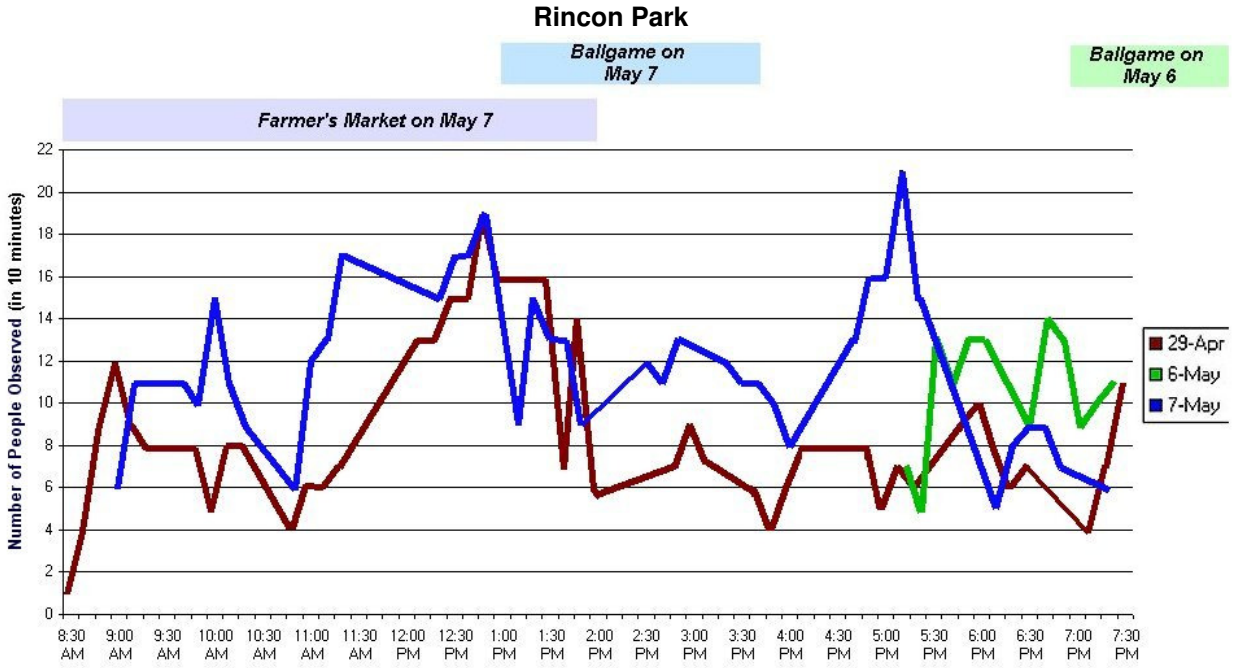
- Activity

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **Walk** | 259 (67.1%) | 86 (72.3%) | 385 (78.7%) |
| **Bike** | 51 (13.2%) | 13 (10.9%) | 33 (6.7%) |
| **Run** | 61 (15.8%) | 17 (14.3%) | 49 (10%) |
| **Rollerblade** | 7 (1.8%) | 1 (0.8%) | 12 (2.5%) |
| **In Stroller** (or otherwise carried) | 1 (0.3%) | 0 (0%) | 7 (1.4%) |
| **Others** (e.g., skateboard, scooter) | 5 (1.3%) | 2 (1.7%) | 2 (0.4%) |
| **No Data** | 2 (0.5%) | 0 (0%) | 1 (0.2%) |
| **Total** | 386 (100%) | 119 (100%) | 489 (100%) |

A majority of the people in the area are pedestrians.

The traffic pattern

- Throughput




Again, there were times when there were so many people passing through Rincon Park that it was hard to count every third person who crossed one of our imaginary lines. Therefore, the maximum shown in the graph above does not necessarily reflect the maximum throughput. It is here to give a sense of how the traffic volume varies over time.

The traffic to and from SBC Park does reach Rincon Park, half a mile to the northwest. We saw a larger number people about one to two hours before the scheduled start of the game heading towards the stadium and coming from the ballgame around and after the game's finish; some were wearing or carrying Giants paraphernalia.

Also, the spike in traffic from 12:30pm to 1:30pm represent people, likely from the nearby office buildings, who come to Rincon Park during their lunchtime.

- Direction of travel

| | **4/29/2005** (no ballgame) | **5/6/2005** (ballgame at 7:15pm) | **5/7/2005** (ballgame at 1:05pm) |
|---|---|---|---|
| **To the Southeast** | 157 (40.7%) | 67 (56.3%) | 191 (39.1%) |
| **To the Northwest** | 198 (51.3%) | 37 (31.1%) | 275 (56.2%) |
| **To the City** (crossing at Folsom St.) | 28 (7.3%) | 15 (12.6%) | 9 (1.8%) |
| **No Data** | 3 (0.8%) | 0 (0%) | 14 (2.9%) |
| **Total** | 386 (100%) | 119 (100%) | 489 (100%) |

There is no dominant direction of travel except on game days. Again, a large majority of the people are headed southeast before and then northwest after the ballgame. (See Appendix A.) Figure 6, Figure 7, Figure 8 and Figure 9 give a sense of the traffic flows at Rincon Park.

We also note that most people walk (or bike or run) along the Bay and not along the Embarcadero side of Rincon Park.

**Figure 6. Direction of Travel at Rincon Park** (4/29/2005, 8:30am - 7:30pm. No game at SBC Park) The width of the lines gives a very rough indication of the relative traffic volume along that path.

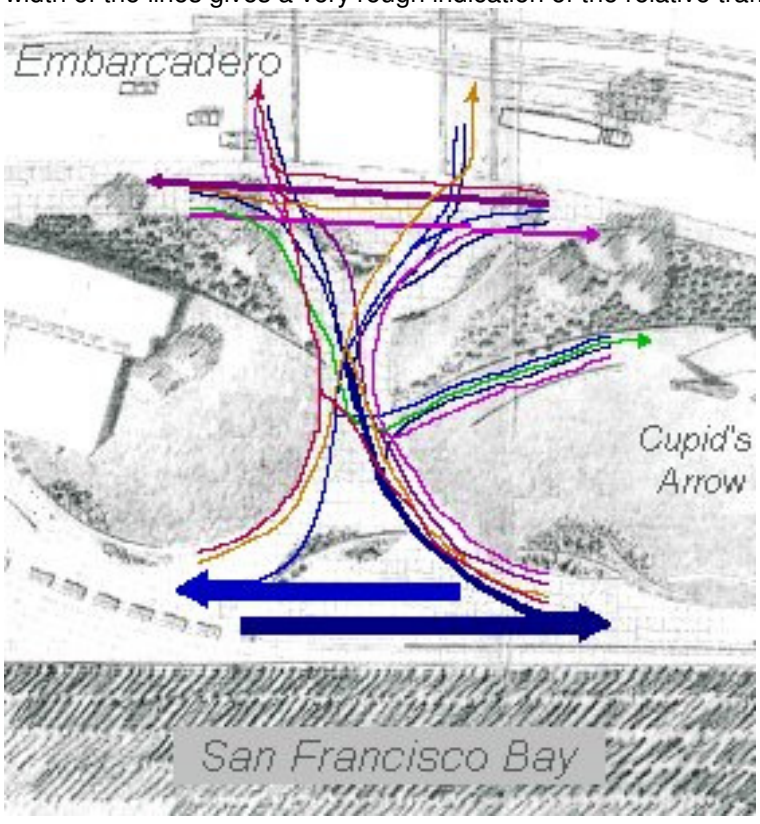


**Figure 7. Direction of Travel at Rincon Park- Evening** (5/6/2005, 5pm – 7:30pm. Ballgame at 7:15pm) The width of the lines gives a very rough indication of the relative traffic volume along that path. Note: there was a giant cherry picker at the entrance to the gravel path that leads to Cupid's Arrow on this day that may have dissuaded people from taking this path.

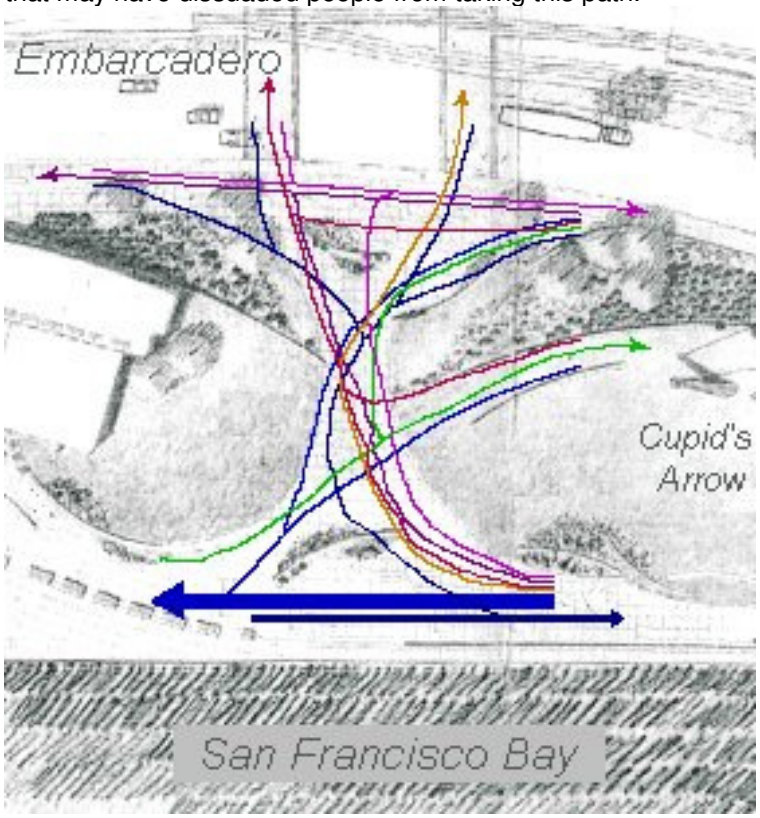


**Figure 8. Direction of Travel at Rincon Park- Morning to Early Afternoon** (5/7/2005, 9am - 2pm. Ballgame at 1:05pm) The width of the line gives a very rough indication of the relative traffic volume along that path. Note: there was a giant cherry picker at the entrance to the gravel path that leads to Cupid's Arrow on this day that may have dissuaded people from taking this path.

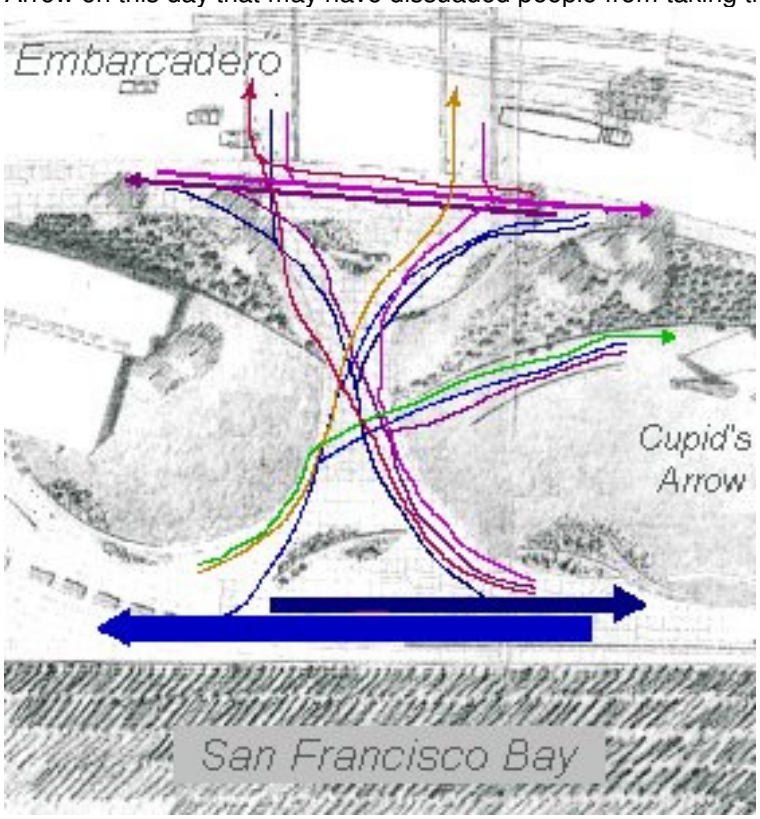
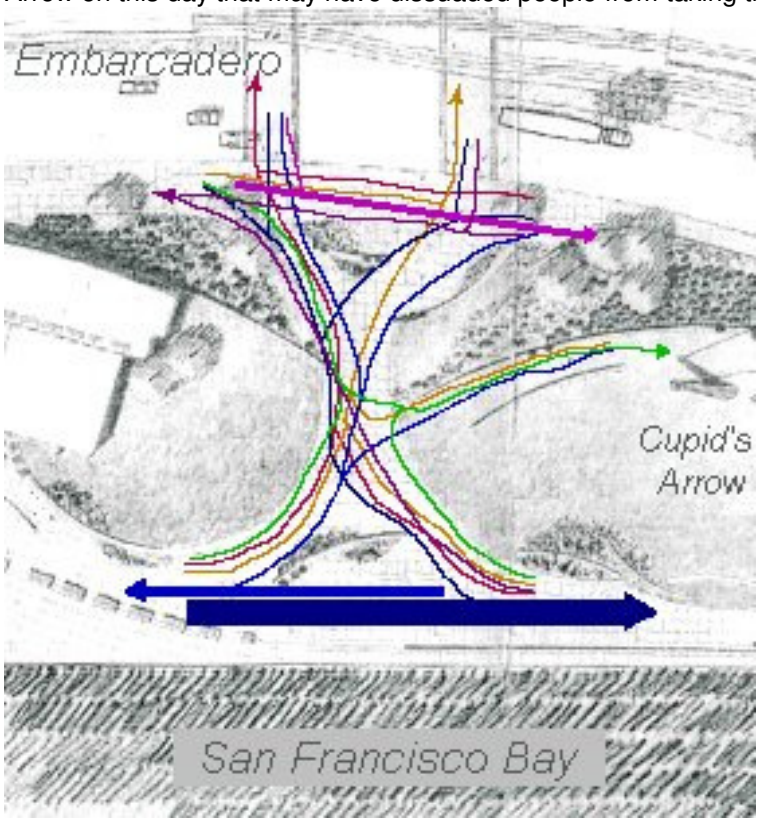


**Figure 9. Direction of Travel at Rincon Park- Afternoon to Evening** (5/7/2005, 2pm – 7:30pm. Ballgame at 1:05pm) The width of the line gives a very rough indication of the relative traffic volume along that path. Note: there was a giant cherry picker at the entrance to the gravel path that leads to Cupid's Arrow on this day that may have dissuaded people from taking this path.




Areas where people stop

The evaluator at Rincon Park walked around the site about once an hour and noted where people were sitting, standing, lying down, or had otherwise stopped. Figure 10, Figure 11, and Figure 12 show where the people paused at Rincon Park. This data may indicate where people tend to spend time at this site and inform where we place exhibits, especially those that require more focused attention, for formative evaluation. Maps showing the pattern in the morning, afternoon, and evening separately can be found in Appendix B.

In general, people stop on the Bay side of Rincon Park. Some people sit or lounge on the grassy area near Cupid's Arrow and the lawn just to the south. People also tend to pause at the northwestern tip of Rincon Park, closest to the Ferry Building.

**Figure 10. Where people stop– April 29, 2005.** Each dot represents one individual.

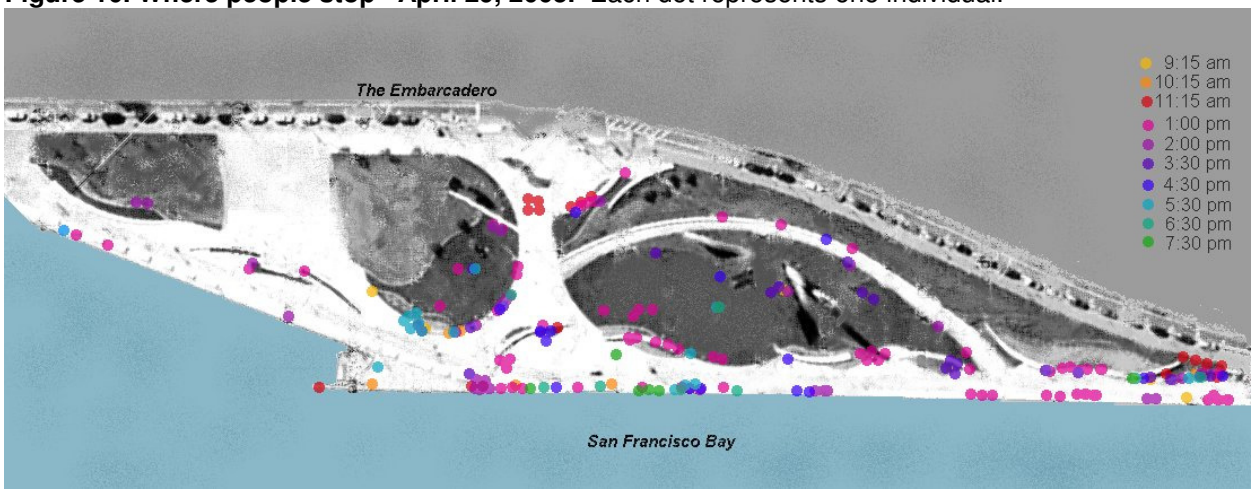
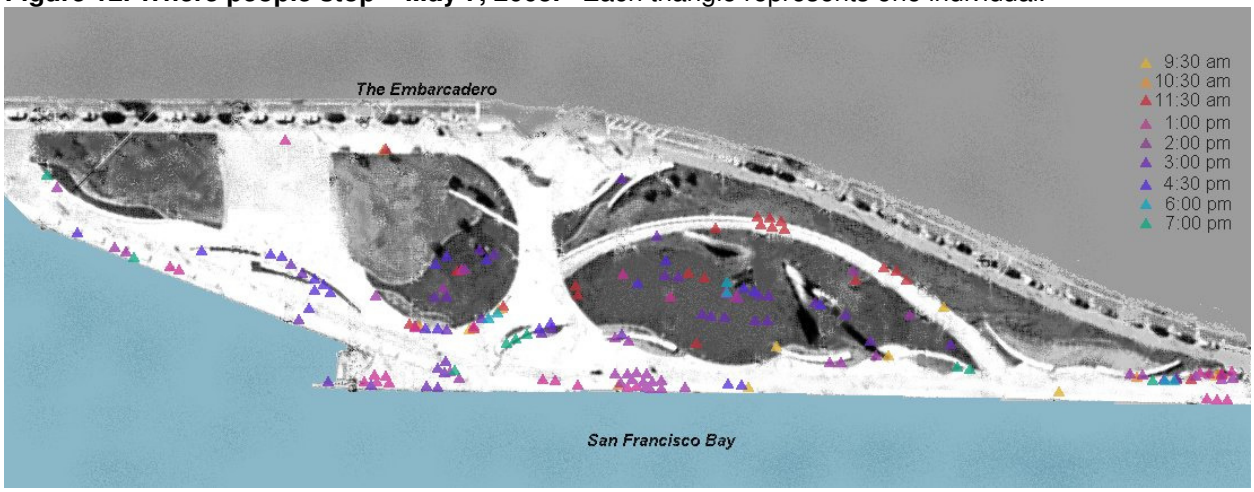



**Figure 11. Where people stop – May 6, 2005** (evening). Each square represents one individual.




**Figure 12. Where people stop – May 7, 2005.** Each triangle represents one individual.



### *Comparing Brannan Street to Rincon Park*

Do the audience differ between the two sites?

We ran a set of Chi-square tests to see if there is a difference in the people who frequent Brannan Street and Rincon Park. The details of these tests can be found in Appendix B. In summary, we found that there is no difference between Rincon Park and Brannan Street for the weekend day when there was a game at SBC Park.

However, we did detect a difference in age groups for the weekday when there was no game. There is slightly more adults (18-60) who pass through Rincon Park, but adults make up more than 90% of the people at *both* Rincon and Brannan Street. Therefore, we do not believe that this difference should affect selection for our formative evaluation studies.

We also found that the activities of the people who pass through the two sites are different; there are significantly less pedestrians at Brannan Street (48%) compared to Rincon Park (67%). Currently, Brannan Street has more bicyclists and runners, who may not be as inclined to stop at exhibits. We will need to pay particular attention to whether or not people biking or running will stop when we do our formative evaluations at Rincon.

We found a significant difference along all dimensions except gender (age group, group type, and activities) for our evening observation. This was on May 6, a Friday when a ballgame was scheduled at nearby SBC Park. Rincon Park, therefore, may not be as representative of Brannan Street during these times.

Despite differences we detected, we note that we did not observe a type of audience who came by Brannan Street that was not represented at Rincon Park.

## SUMMARY

We found that the people who come by Brannan Street and Rincon Park are typically adults (more likely men than women), either by themselves or with other adults. They are usually walking, though during the week about half the people who pass by Brannan Street are riding their bikes or running.

Brannan Street sees substantial foot traffic during Giants' home games at nearby SBC Park as does Rincon Park. Rincon Park also sees many more people during lunchtime. Although some people do come to Brannan Street to sit and eat lunch, currently this site does not see a spike in visitation during lunchtime similar to that at Rincon. (It is unclear if this will change after Brannan Street Wharf is completed, since it is not as close to the financial district as Rincon Park and will be situated in a residential as opposed to a commercial neighborhood.)

Our observations indicate that the visitation to Rincon Park is highest:

- About 1 to 2 hours before a midday game during a weekend
- Around lunchtime during the week (on a sunny day), mostly office workers
- Up to 1 hour after the end of a ballgame at SBC Park, again for a midday game during a weekend

Furthermore, most people walk along the bay with much fewer people walking along the Embarcadero side of Rincon Park.

We also found that some people do stop at Rincon Park, some to have lunch, read, talk with each other, look at the Bay, rest after exercising, take photographs and take in the sights, sleep or sun-bathe. Most people pause along the Bay side of the park instead of along the Embarcadero.

This study's findings suggest that Rincon Park can be a good surrogate site to collect visitor feedback while Brannan Street Wharf is under construction. We did not detect any differences between the people who visit Rincon Park and Brannan Street for the weekend day we observed. We did, however, detect some differences between the people who visit on weekdays (i.e., more bicyclists and runner at Brannan Street, and more adults, 18-60, particularly office workers at Rincon Park). As we move forward with formative evaluation, we will need to consider these differences in how we build our exhibits and conduct our evaluations. For example, we may need to think about whether our exhibits can or should attract and engage visitors who are moving very quickly through a space. Given that Rincon Park may not attract the residential audience hoped for at Brannan Street, we will need to find the appropriate format and mechanism to solicit feedback from the Citizens Advisory Board assembled for the Brannan Street development project as representatives of the residents that will use the park once built.

## ACKNOWLEDGEMENTS

The authors would like to thank Fay Dearborn, Mary Kidwell, Adam Klinger, and Heather Posner for collecting the data for this study, and Fay Dearborn for entering the data.

This material is based upon work supported by the National Science Foundation under Grant number 0104478. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

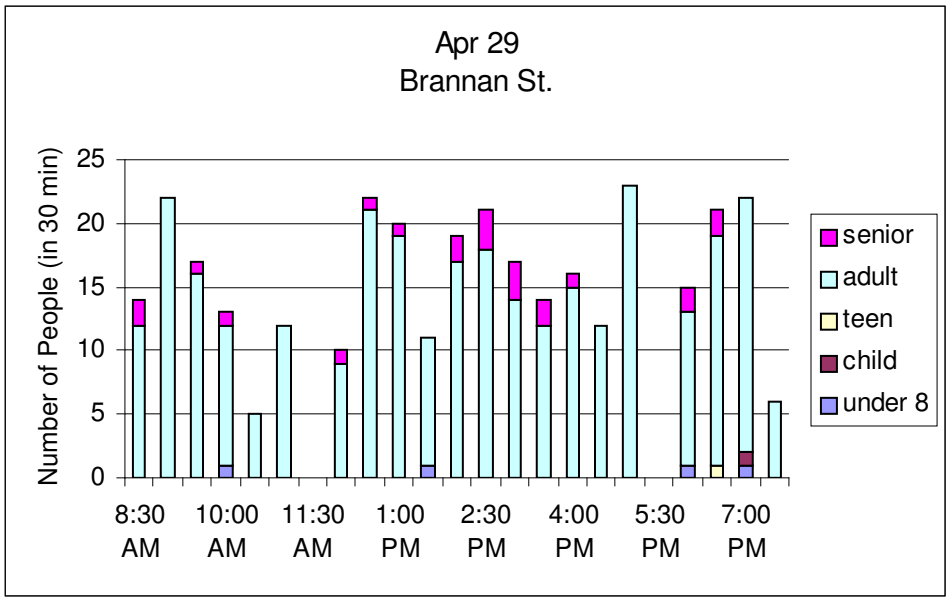


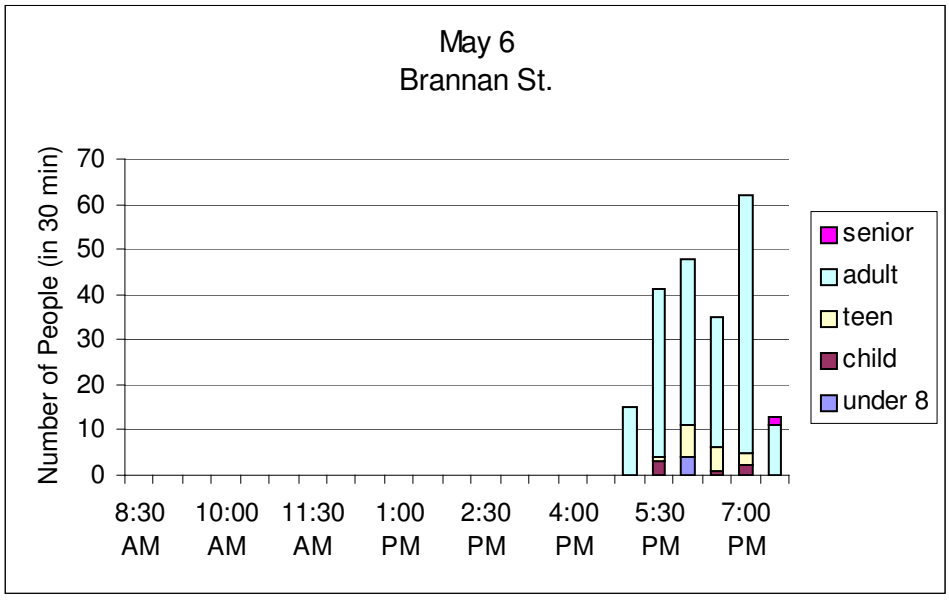
## APPENDIX A

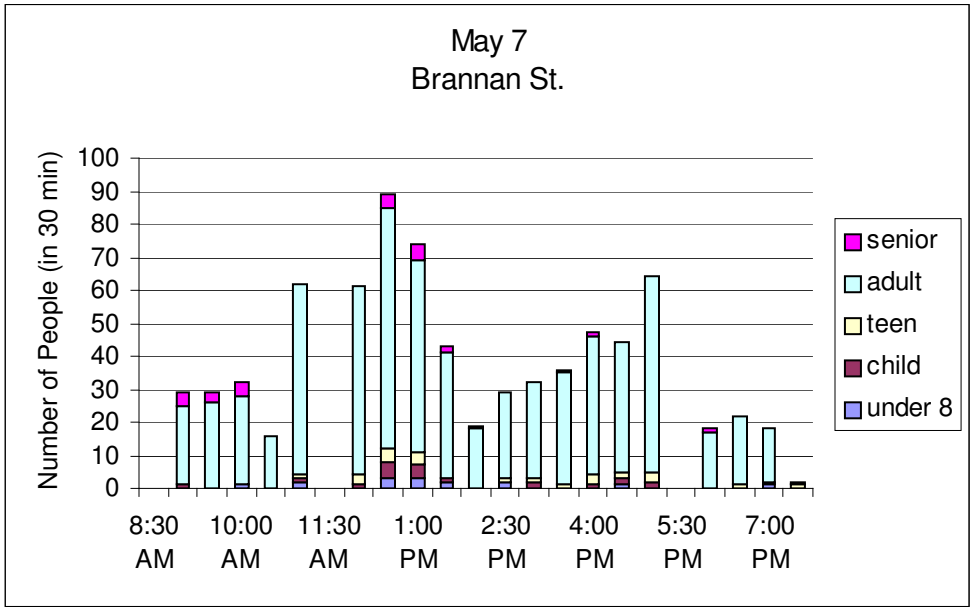
***Characteristics of People at Brannan Street and Rincon Park (Observations of people moving through the area)***

Brannan Street Audience

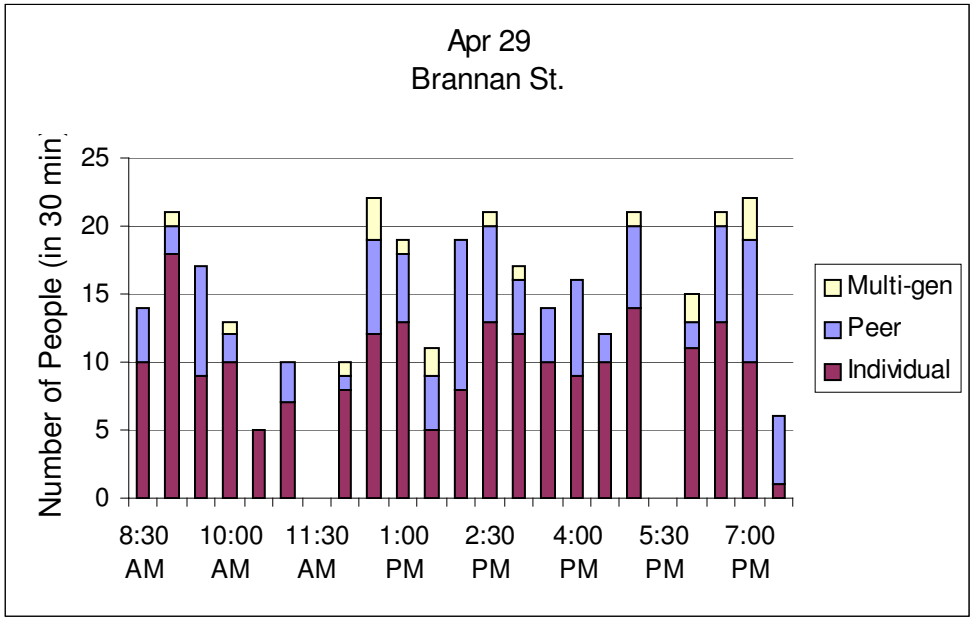
- Age Group at Brannan Street

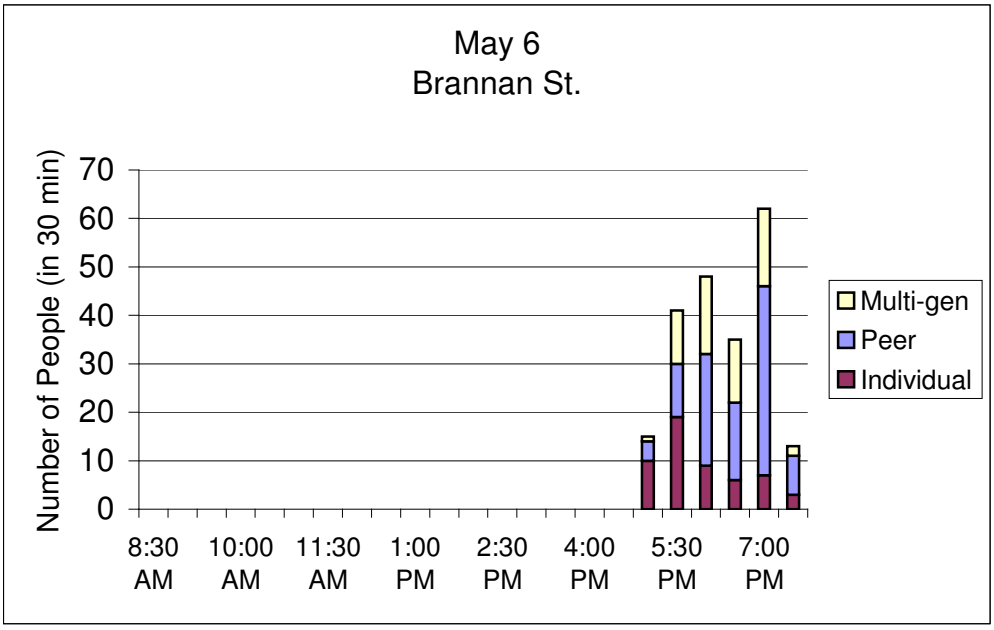


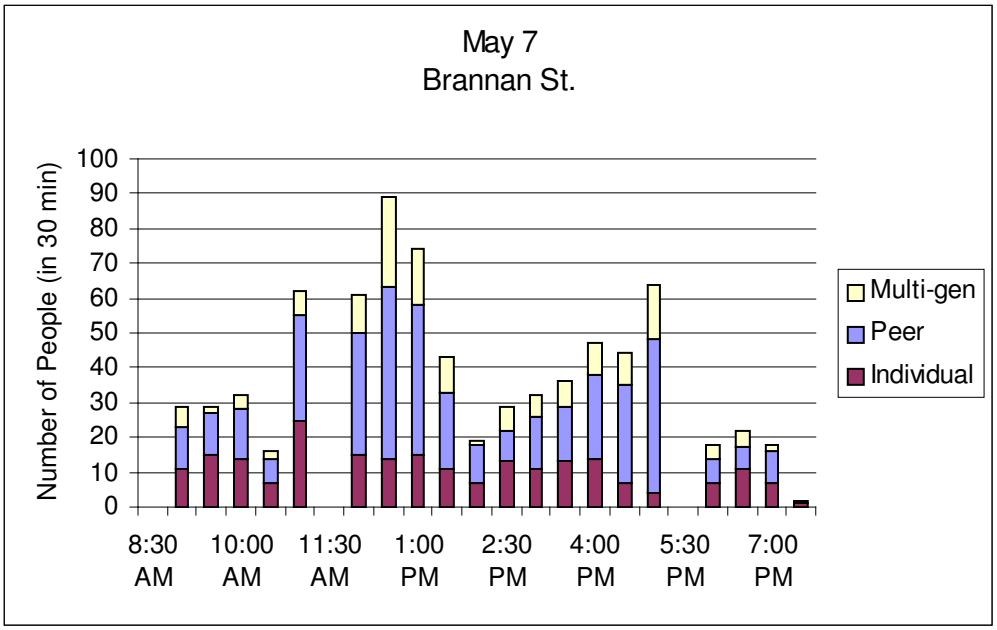





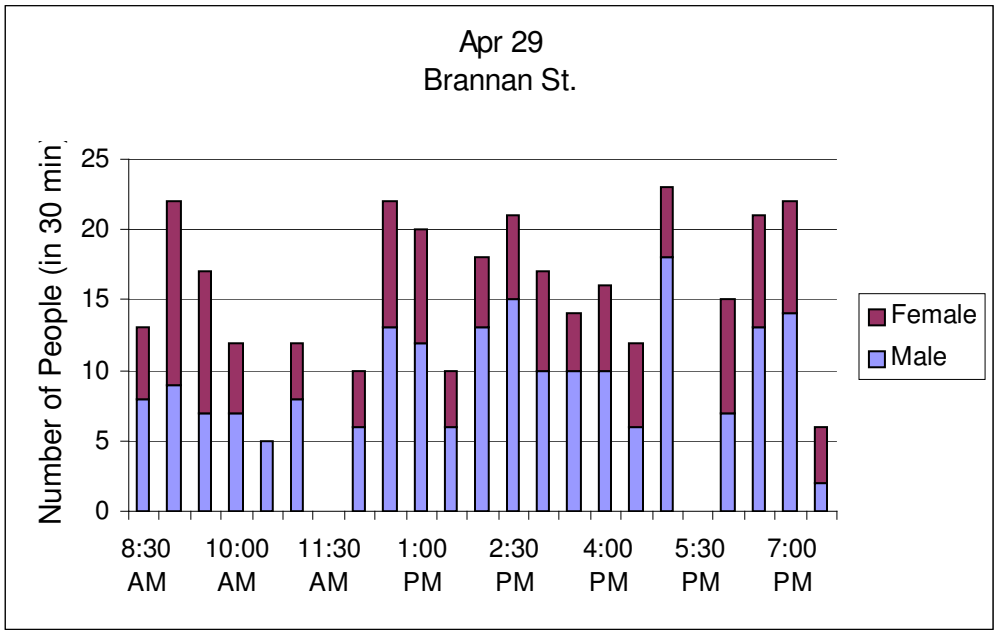

- Type of Group at Brannan Street

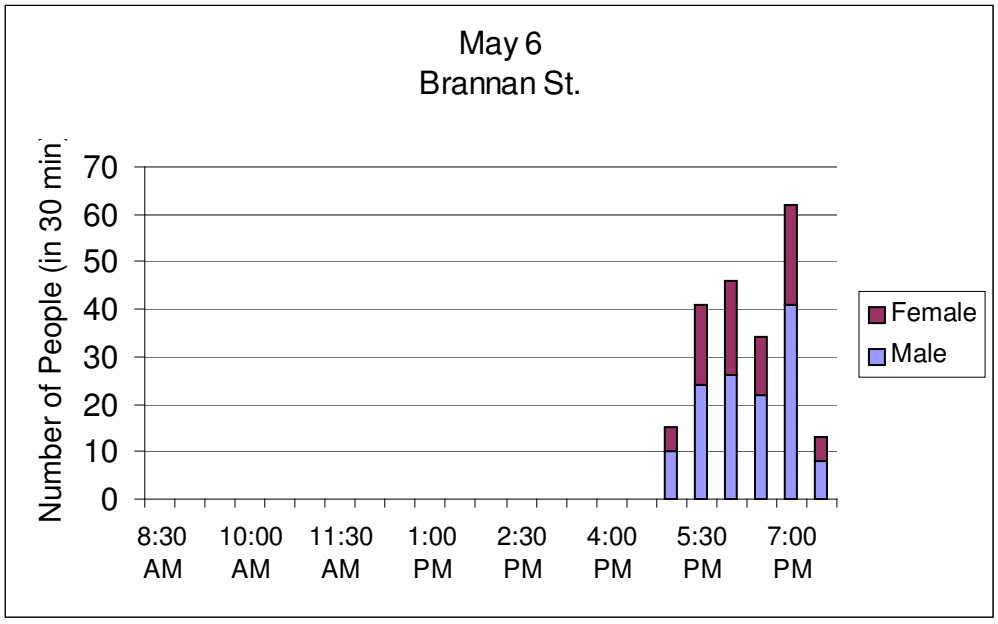


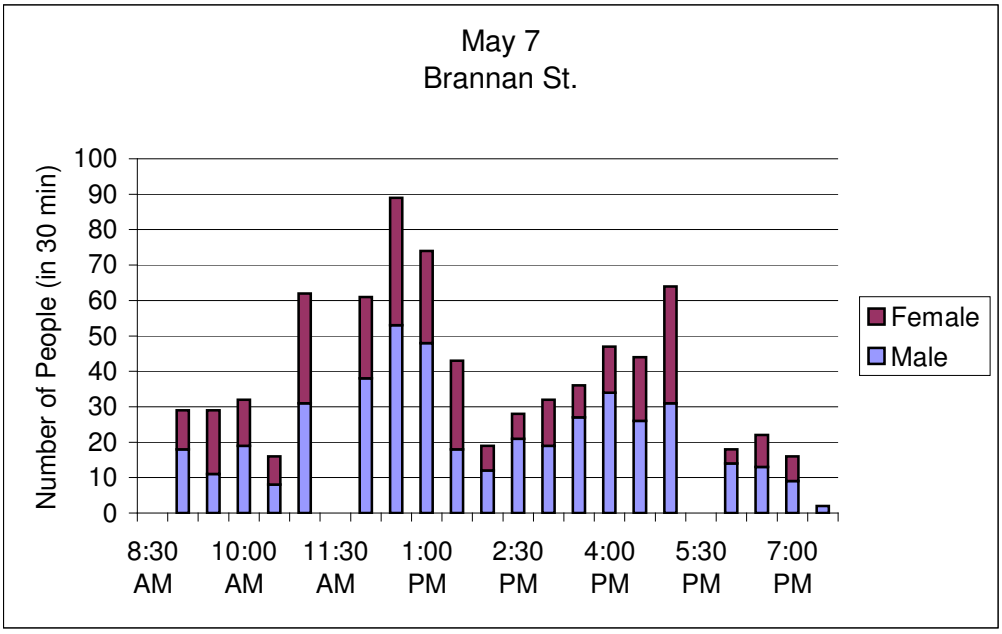

May 6
Brannan St.
Number of People (in 30 min)
70
60
50
40
30
20
10
0
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Multi-gen
Peer
Individual


May 7
Brannan St.
Number of People (in 30 min)
100
90
80
70
60
50
40
30
20
10
0
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Multi-gen
Peer
Individual

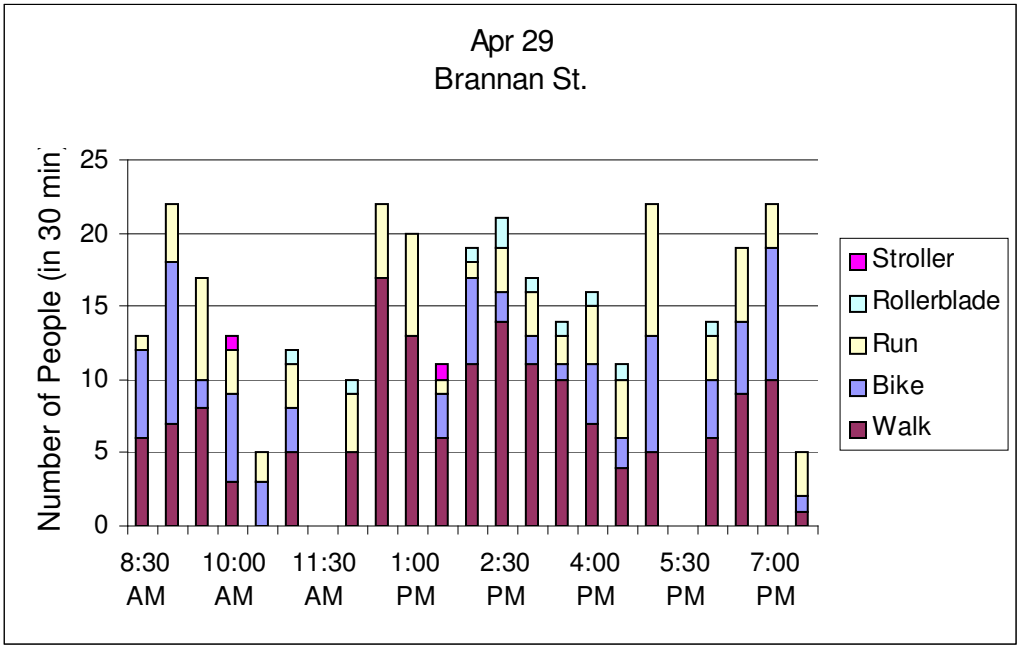
- Gender at Brannan Street

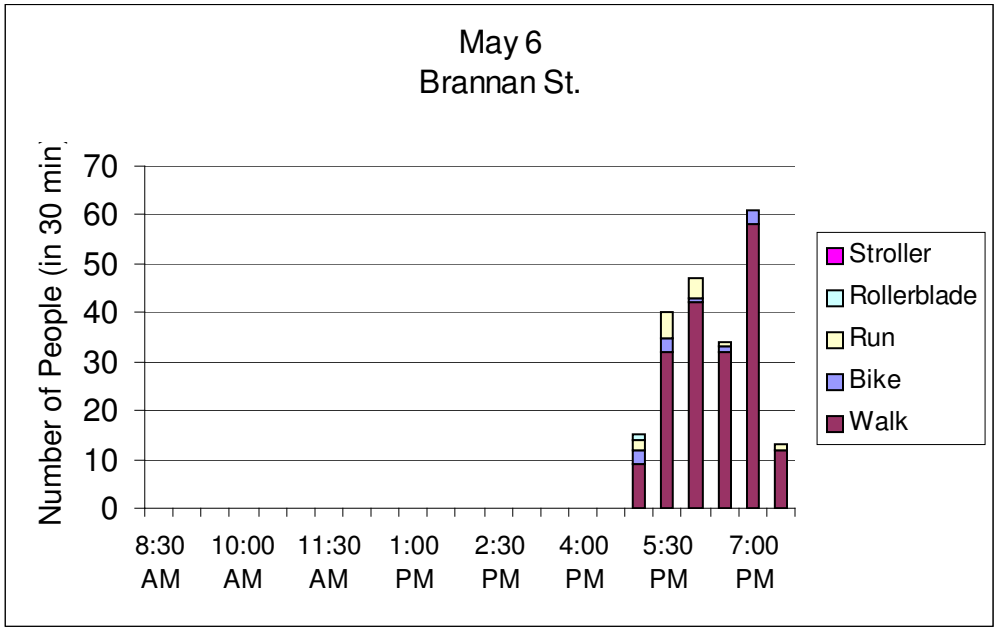


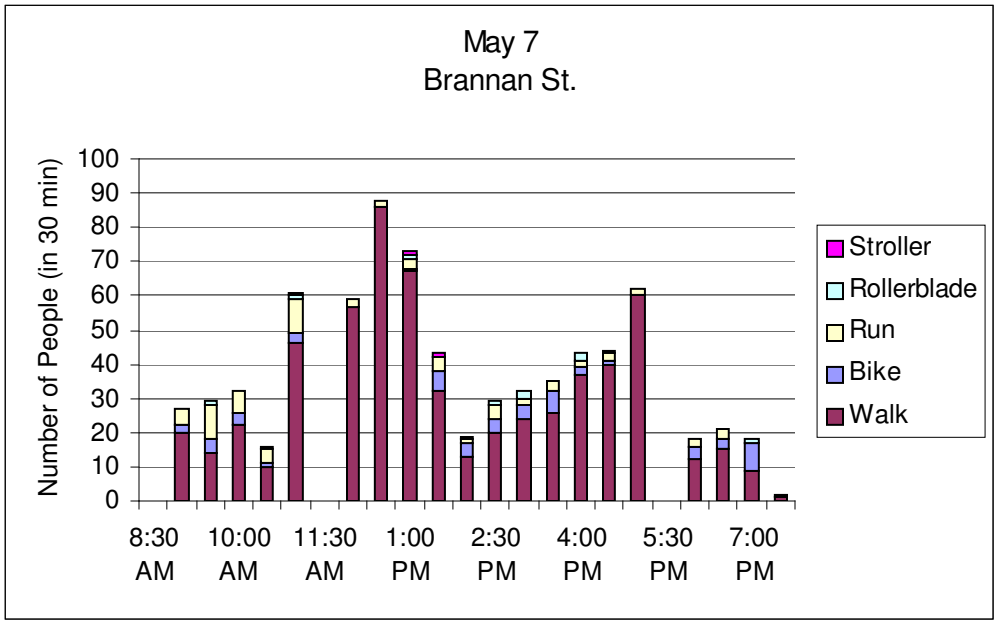






- Activity at Brannan Street

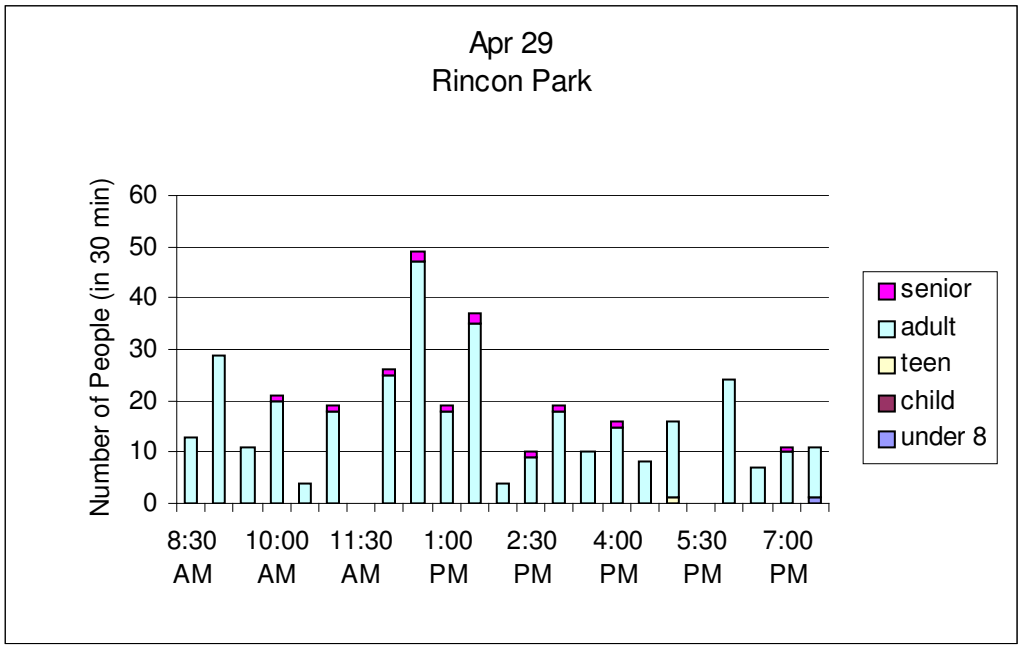


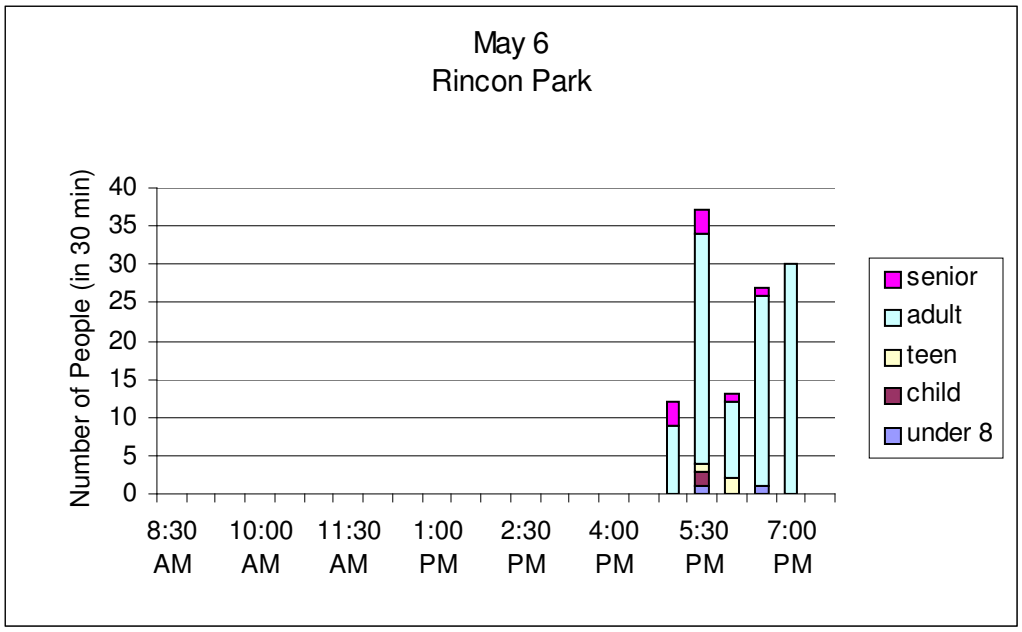

May 6
Brannan St.
Number of People (in 30 min)
70
60
50
40
30
20
10
0
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Stroller
Rollerblade
Run
Bike
Walk

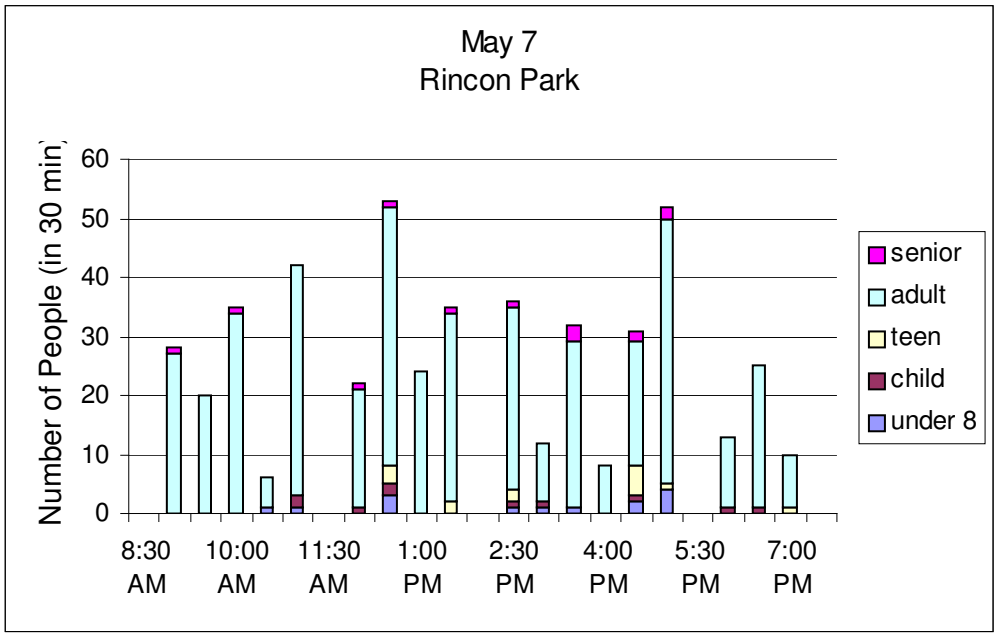

May 7
Brannan St.
Number of People (in 30 min)
100
90
80
70
60
50
40
30
20
10
0
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Stroller
Rollerblade
Run
Bike
Walk

Rincon Park Audience

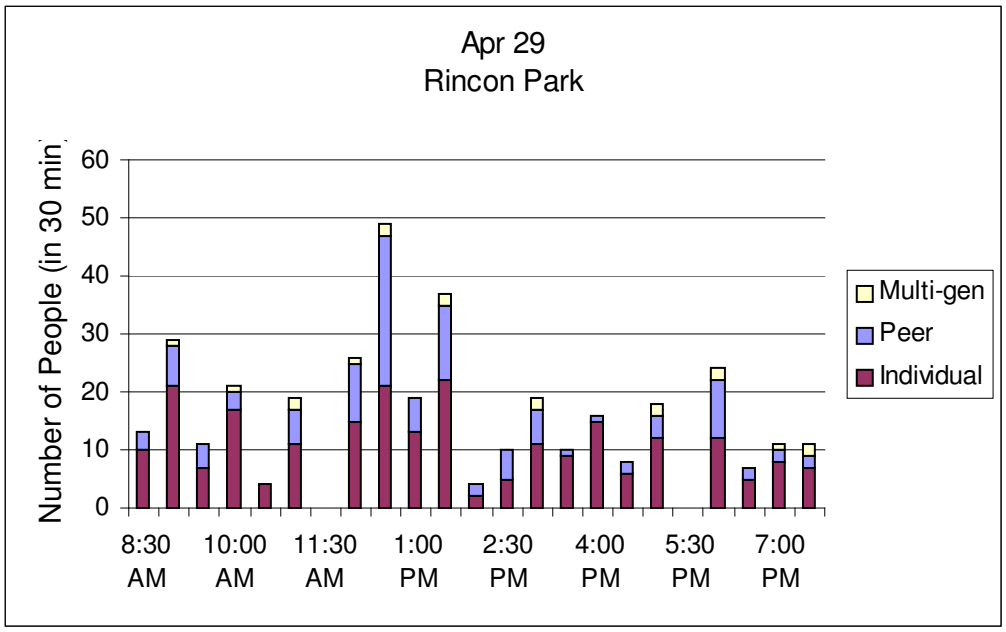
- Age Group at Rincon Park

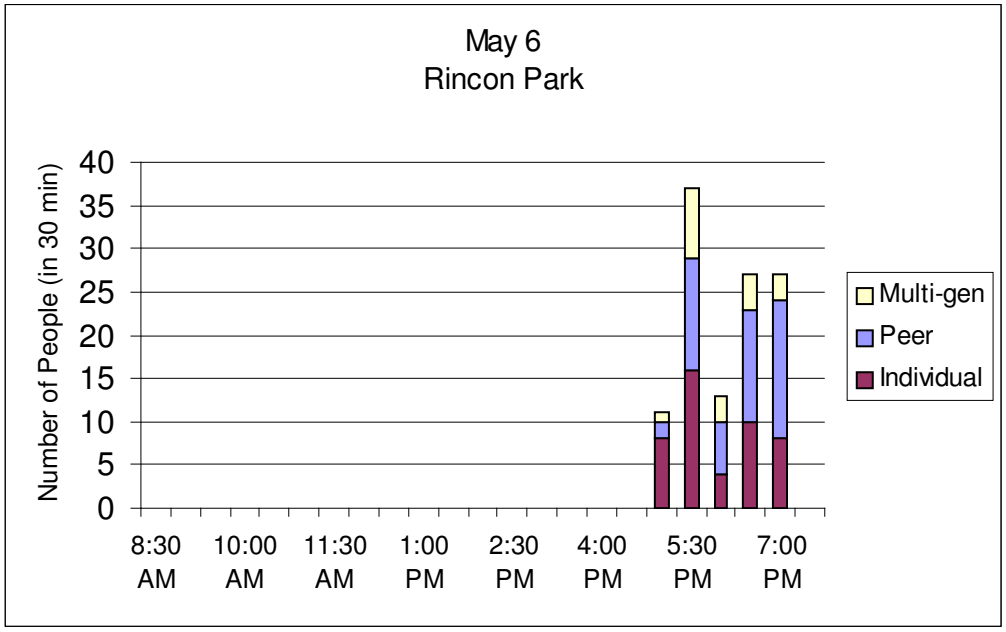


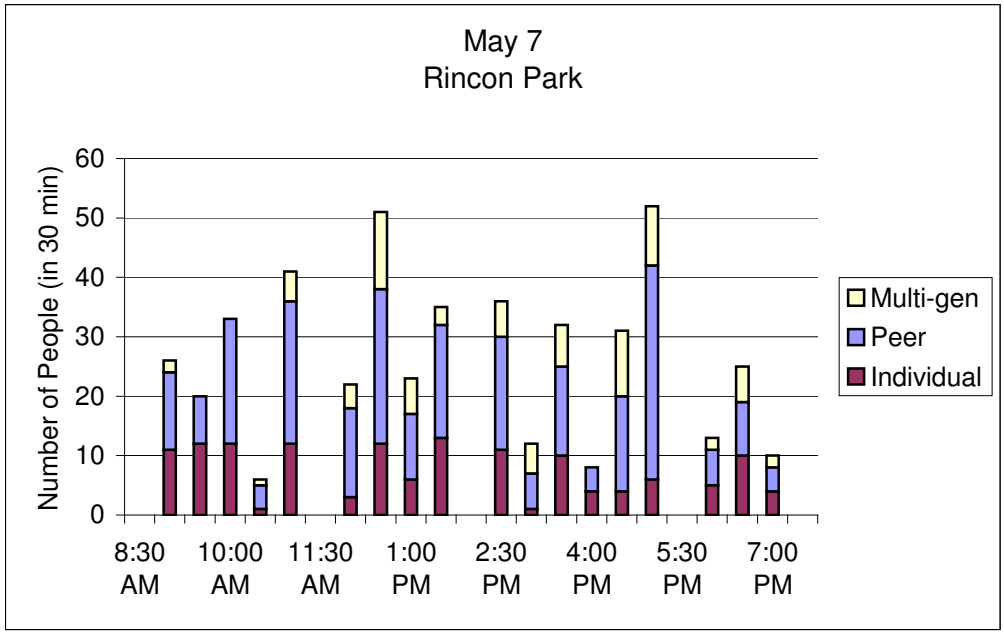





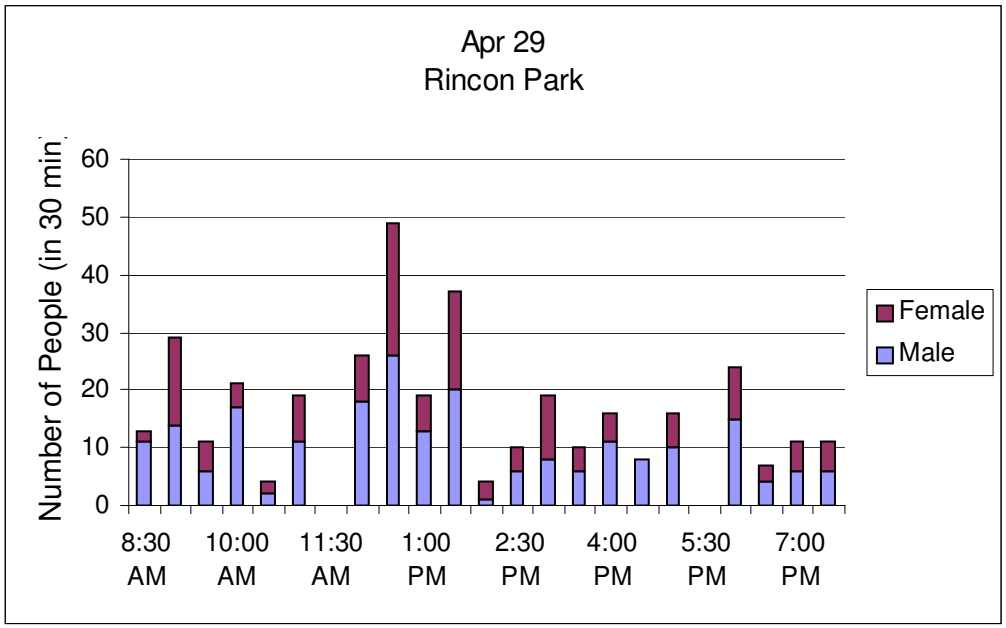

- Type of Group at Rincon Park

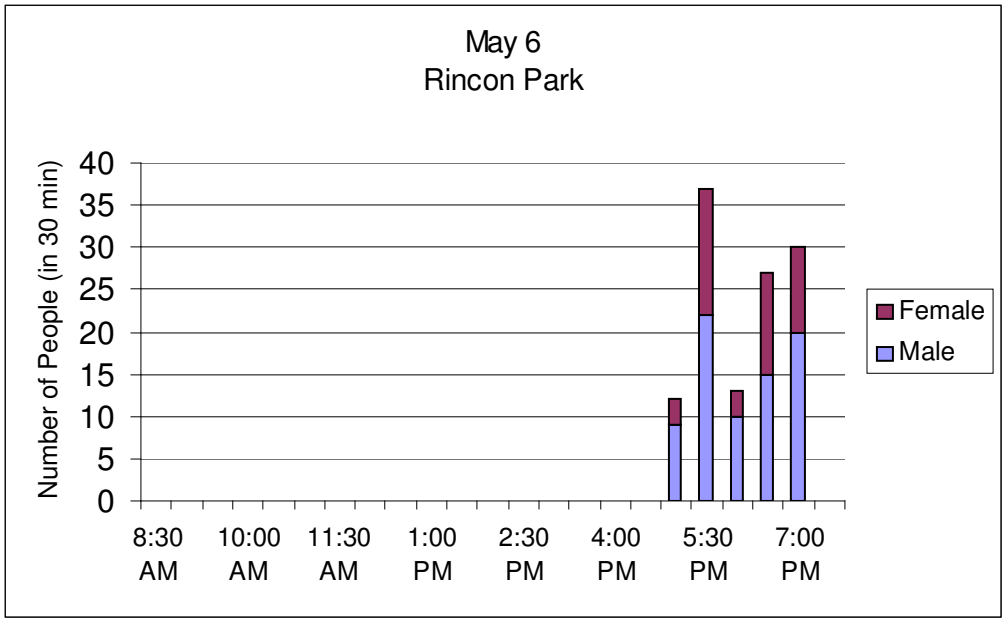


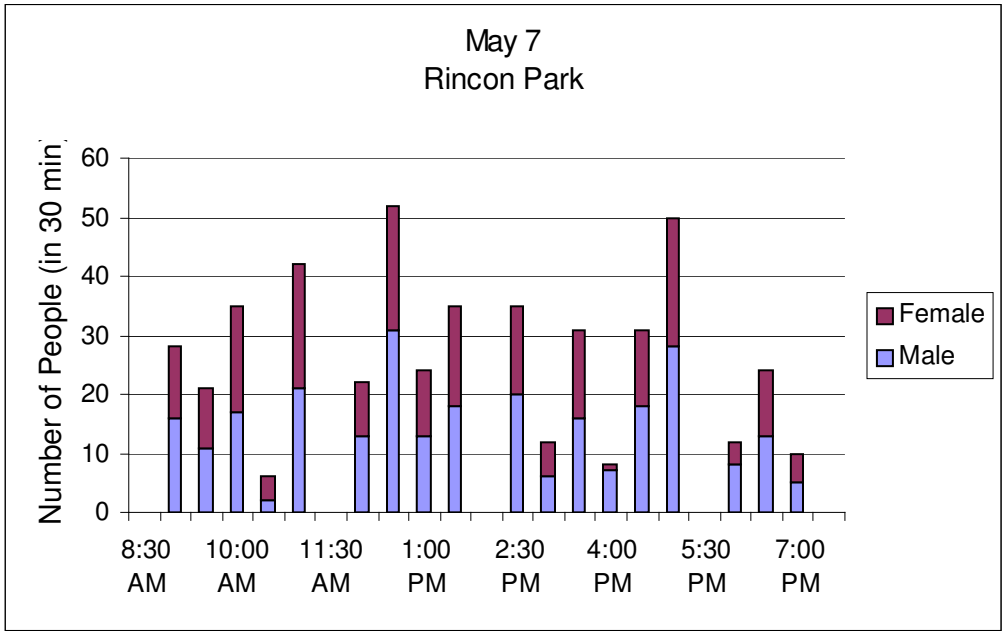

May 6
Rincon Park
Number of People (in 30 min)
0
5
10
15
20
25
30
35
40
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Multi-gen
Peer
Individual


May 7
Rincon Park
Number of People (in 30 min)
0
10
20
30
40
50
60
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Multi-gen
Peer
Individual

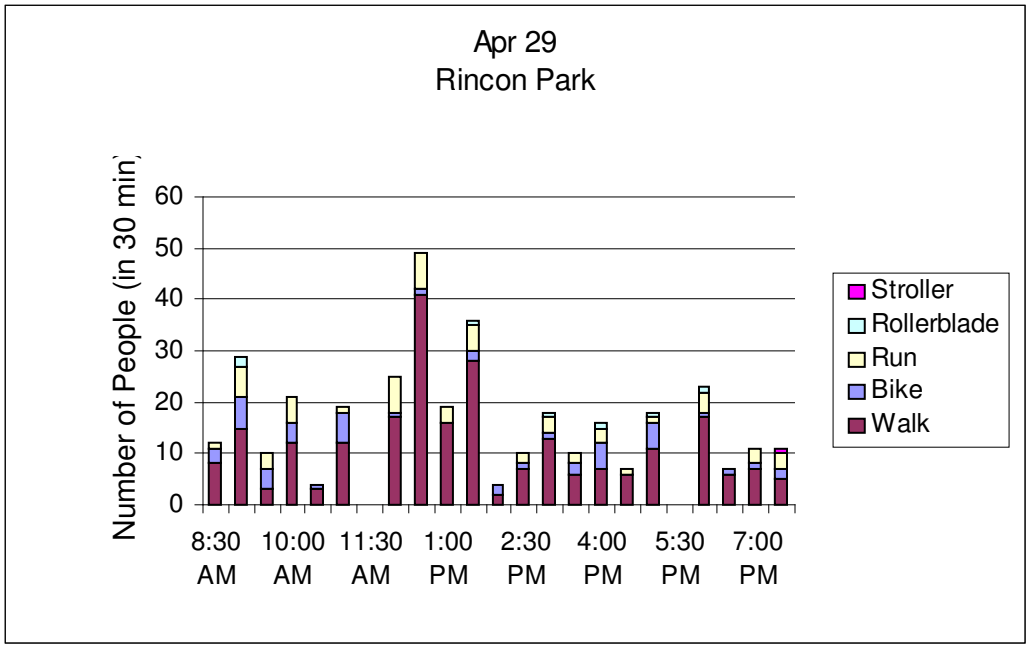
- Gender at Rincon Park

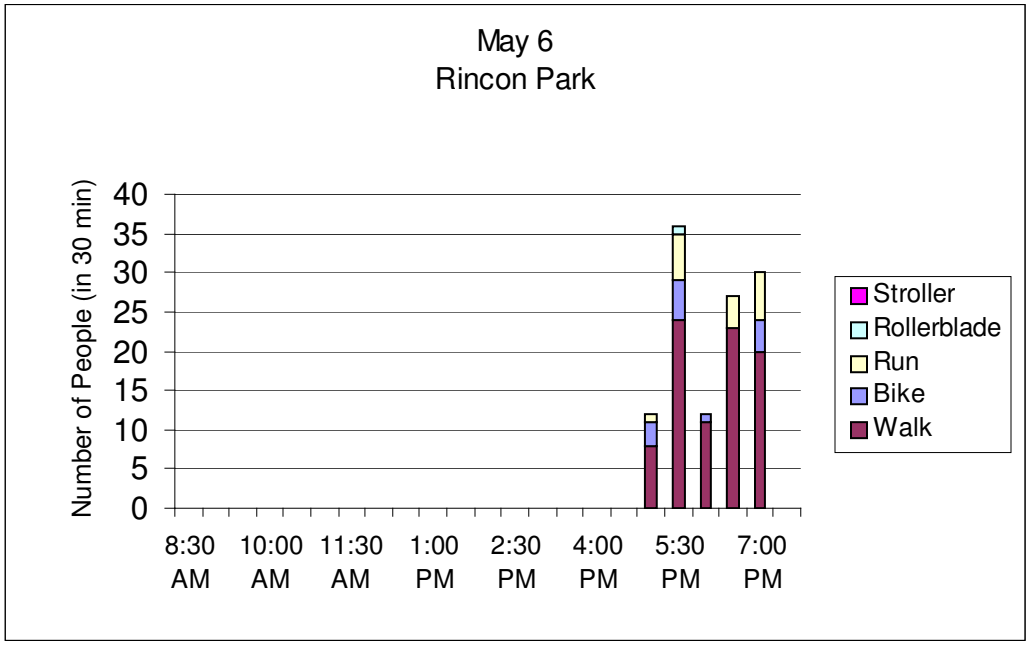


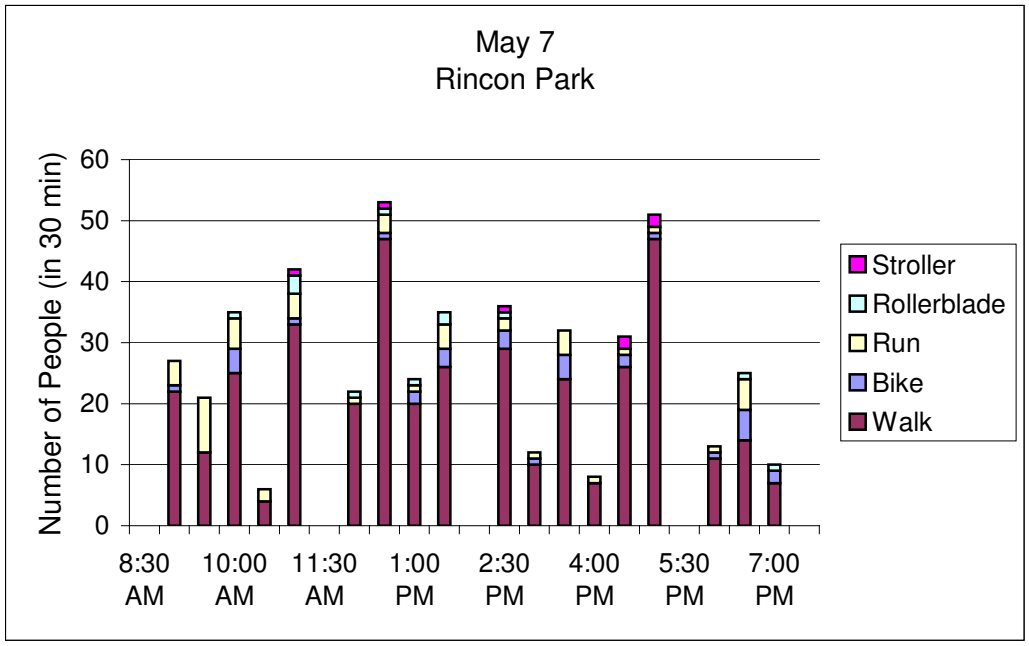






- Activity at Rincon Park




May 6
Rincon Park
Number of People (in 30 min)
0
5
10
15
20
25
30
35
40
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Stroller
Rollerblade
Run
Bike
Walk


May 7
Rincon Park
Number of People (in 30 min)
0
10
20
30
40
50
60
8:30 AM
10:00 AM
11:30 AM
1:00 PM
2:30 PM
4:00 PM
5:30 PM
7:00 PM
Stroller
Rollerblade
Run
Bike
Walk

## APPENDIX B

### *Maps of where people are stopping at Rincon Park*

- April 29, 2005

**Figure 13. Map of where people stopping - April 29, 2005 (morning)**

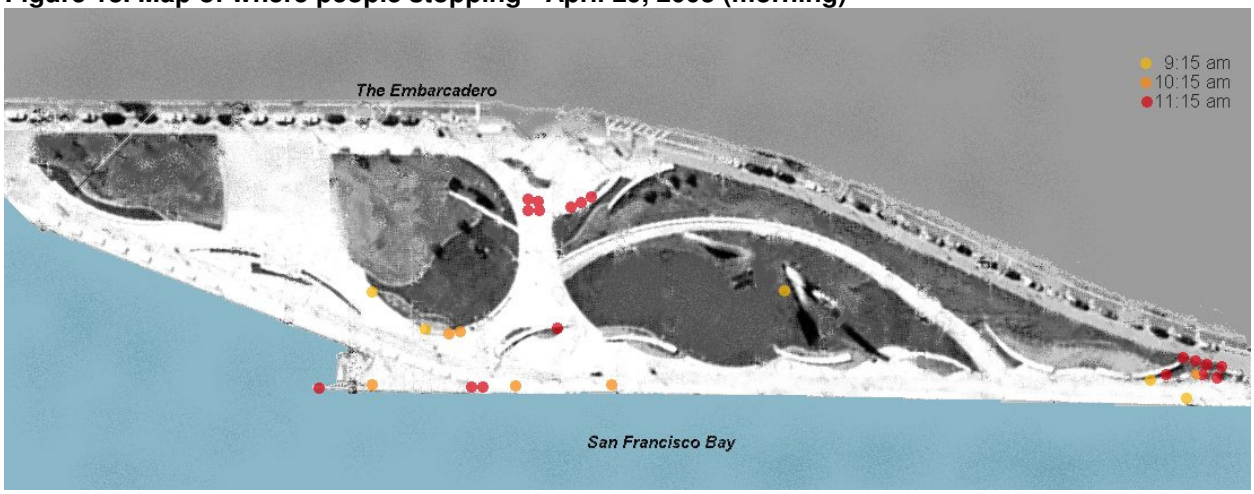



**Figure 14. Map of where people stopping - April 29, 2005 (afternoon)**

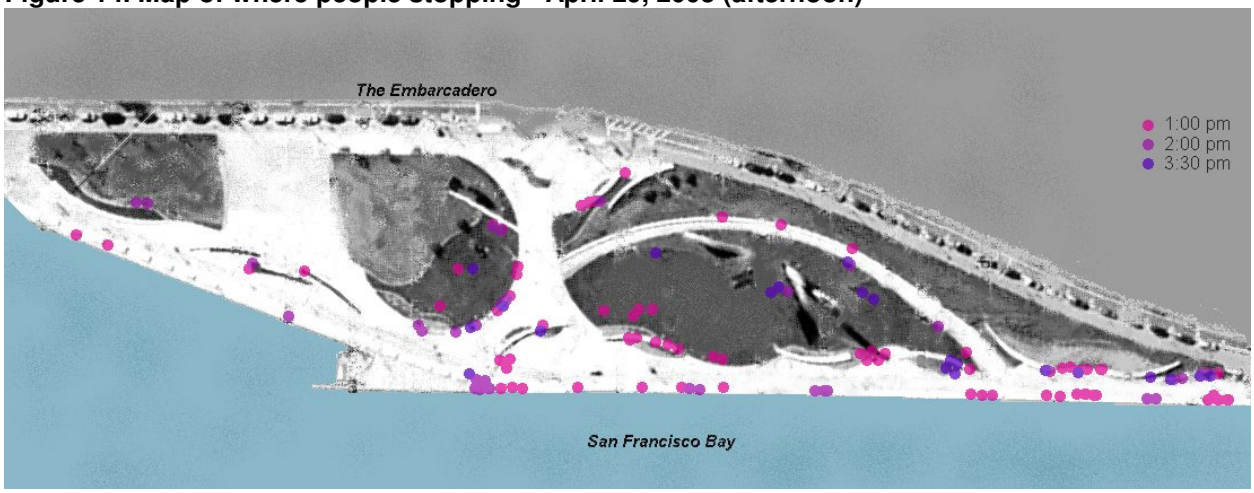
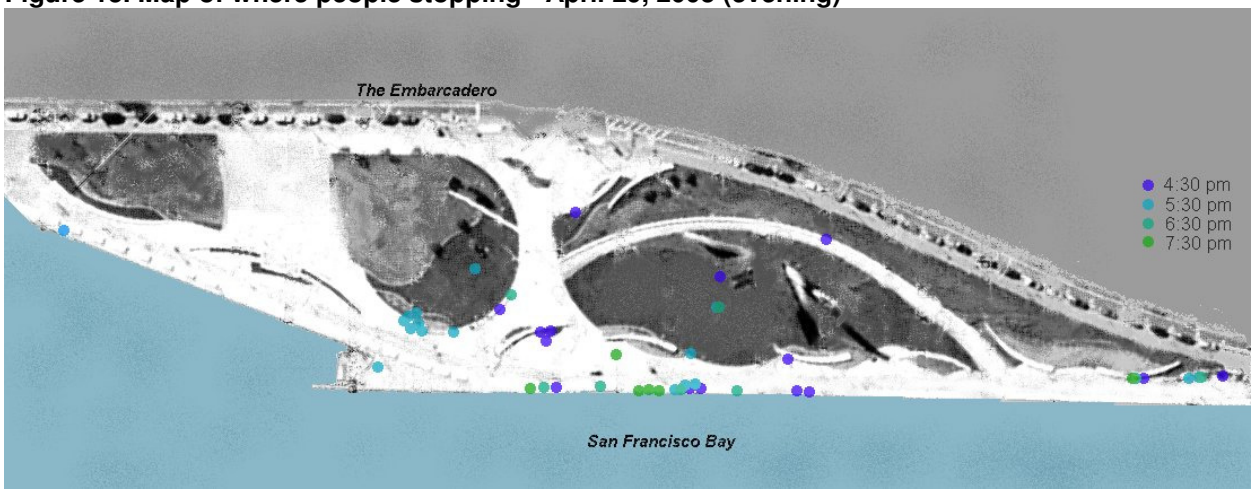


**Figure 15. Map of where people stopping - April 29, 2005 (evening)**




- May 7, 2005

**Figure 16. Map of where people stopping - May 7, 2005 (morning)**

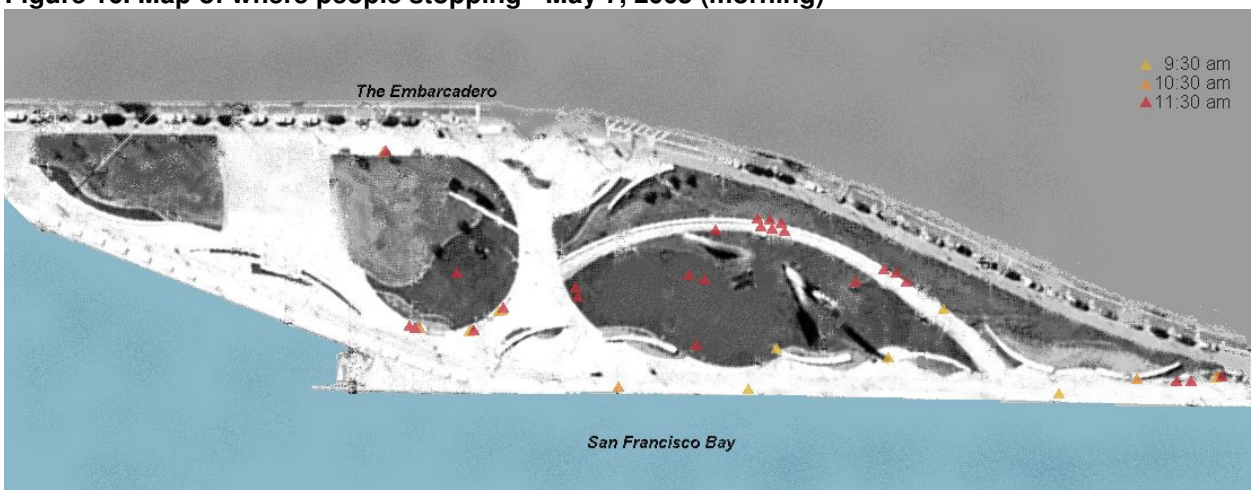


**Figure 17. Map of where people stopping - May 7, 2005 (afternoon)**

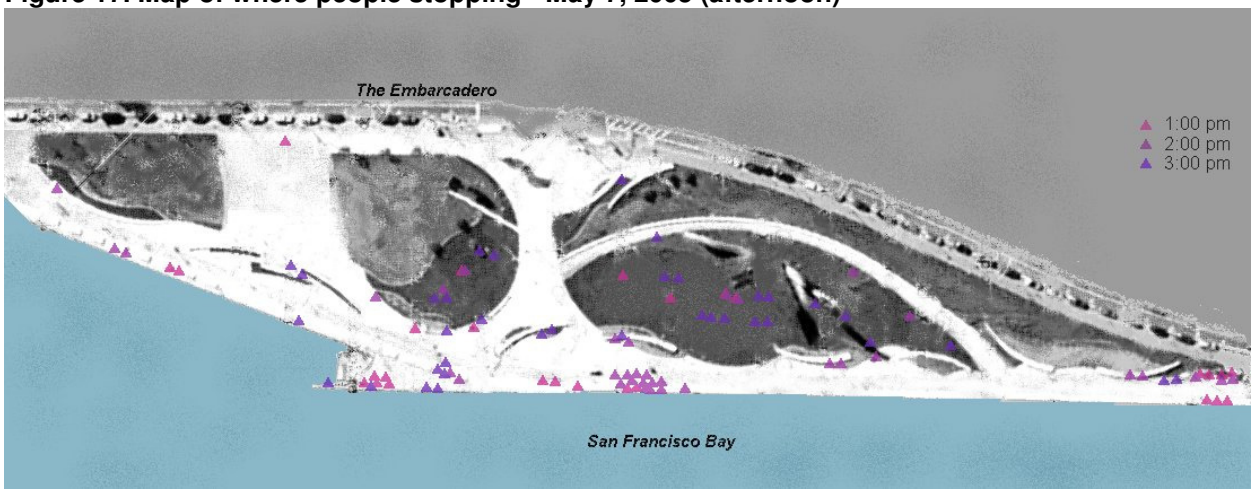



**Figure 18. Map of where people stopping - May 7, 2005 (evening)**



## APPENDIX C

***Comparisons between the people who pass by Brannan Street and Rincon Park***

- Age Group
  - April 29, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Under 8, Children and Teens** | 6 | 2 | 8 |
| **Adults** | 318 | 369 | 687 |
| **Seniors** | 24 | 13 | 37 |
| **Total** | 348 | 384 | 732 |

We found a significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 2, $\underline{N}$ = 732) = 7.30, $\underline{p}$ = .026 < .05

  - May 6, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Under 8, Children and Teens** | 26 | 5 | 31 |
| **Adults** | 186 | 104 | 290 |
| **Seniors** | 2 | 8 | 10 |
| **Total** | 214 | 117 | 331 |

We found a significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 2, $\underline{N}$ = 331) = 13.8, $\underline{p}$ = .001 < .05

  - May 7, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Under 8, Children and Teens** | 64 | 39 | 103 |
| **Adults** | 728 | 436 | 1164 |
| **Seniors** | 29 | 13 | 42 |
| **Total** | 821 | 488 | 1309 |

We found no significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 2, $\underline{N}$ = 1309) = .750, $\underline{p}$ = .687 > .05

- Type of Group
  - April 29, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Individual** | 221 | 244 | 465 |
| **Peer** | 102 | 123 | 225 |
| **Multi- generational** | 19 | 19 | 38 |
| **Total** | 342 | 386 | 728 |

We found no significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 2, N = 728) = .440, p = .803 > .05

  - May 6, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Individual** | 54 | 46 | 100 |
| **Peer** | 101 | 50 | 151 |
| **Multi- generational** | 59 | 19 | 78 |
| **Total** | 214 | 115 | 329 |

We found a significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 2, N = 329) = 9.44, p = .009 < .05

  - May 7, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Individual** | 241 | 139 | 380 |
| **Peer** | 423 | 257 | 680 |
| **Multi- generational** | 157 | 84 | 241 |
| **Total** | 821 | 480 | 1301 |

We found no significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 2, N = 329) = .683, p = .711 > .05

- Gender
  - April 29, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Male** | 209 | 228 | 437 |
| **Female** | 135 | 156 | 291 |
| **Total** | 344 | 384 | 728 |

We found no significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 1, N = 728) = .144, p = .704 > .05

  - May 6, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Male** | 131 | 76 | 207 |
| **Female** | 80 | 43 | 123 |
| **Total** | 211 | 119 | 330 |

We found no significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 1, N = 330) = .103, p = .748 > .05

  - May 7, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Male** | 475 | 267 | 742 |
| **Female** | 343 | 215 | 558 |
| **Total** | 818 | 482 | 1300 |

We found no significant difference in the age of people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 1, N = 1300) = .885, p = .347 > .05

- Activity
  - April 29, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Walk** | 167 | 259 | 426 |
| **Bike** | 81 | 51 | 132 |
| **Run** | 81 | 61 | 142 |
| **Other Activities** | 15 | 13 | 28 |
| **Total** | 344 | 384 | 728 |

We found a significant difference in the activities of the people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 3, N = 728) = 27.5, p = .000 < .05

  - May 6, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Walk** | 185 | 86 | 271 |
| **Bike** | 11 | 13 | 24 |
| **Run** | 13 | 17 | 30 |
| **Other Activities** | 1 | 3 | 4 |
| **Total** | 210 | 119 | 329 |

We found a significant difference in the activities of the people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 3, N = 329) = 13.7, p = .003 < .05

  - May 7, 2005

| | Brannan Street | Rincon Park | Total |
|---|---|---|---|
| **Walk** | 653 | 385 | 1038 |
| **Bike** | 60 | 33 | 93 |
| **Run** | 76 | 49 | 125 |
| **Other Activities** | 17 | 10 | 27 |
| **Total** | 806 | 477 | 1283 |

We found no significant difference in the activities of the people who come through Rincon Park and Brannan Street; $\chi 2$ (df = 3, N = 1283) = .337, p = .953 > .05