

4. Analysis of Needs

The need for bicycle and pedestrian facilities was established in two ways, through a public involvement process and with demographic analysis. Each of these are discussed in detail.

A. PUBLIC INVOLVEMENT

Public input was gathered at two open houses in November, 1998 and April, 1999. Additionally, the Draft Plan was offered for public comment in May, 1999. The Appendix includes details of public input.

In November, the public was asked to rank several issues on a scale of 1-5, 5 being most important, 1 being least important. Although the results cannot be treated scientifically, the sum of the responses for each issue show the community values as related to bicycle and pedestrian issues.

Table 2
Public Response

Score	Issue	Priority
164	Developing new bike routes	1
147	Walkable Communities	2
143	Bicycle education programs	3
143	Off-street bicycle routes	4
142	Bicycle support facilities (racks, etc...)	5
142	Pedestrian "friendly" zones	6
137	Connecting existing bike routes	7
130	Setting standards for bike safety	8
128	Intermodalism (bikes, pedestrians, transit, etc...)	9
105	Sidewalk development	10

The categories identified above are not mutually exclusive; rather several are related. For example, although sidewalk development ranked lowest, it is inevitably tied to the issue of creating walkable communities, ranked second.

Needs can also be established by summarizing individual comments. The conflict between automobile drivers and cyclists was by far the most cited response. More specifically, the lack of driver recognition of walkers and cyclists was cited as a major problem. A second major comment was the absence of resources available to cyclists, including physical resources, such as trails, as well as printed information about rules and safe riding. A third major comment referred to the condition of the roadways for biking. People cited the general lack of shoulders, and presence of manholes, drainage grates and gravel on the roadways as common impediments to biking.

The public was also asked to give their top pedestrian concerns. The responses focused on several issues. As with bicycle concerns, the most cited issue was the conflict between

pedestrians and drivers. People felt that automobile drivers had no recognition of the rights of a pedestrian, and that this attitude tended to make walking unsafe. Specific driver actions cited include autos turning right at intersections, autos not stopping at crosswalks, and excessive speed. Other issues were raised pertaining to the width of streets and the length of time it takes to cross, as well as the time allowed by traffic signals. A third major theme evident in the public comments is the condition of sidewalks. The public cited the general disrepair and inconsistency of the pavement as a barrier to pedestrian connections. The presence of snow on the sidewalks, and the lack of snow removal, was also a deterrent to pedestrians. Comments from the public open house are attached in the Appendix.

B. DEMOGRAPHIC ANALYSIS

As part of the determination of need, a demographic analysis was conducted. The table below shows a comparison of both Logan and the Logan Urbanized Area to other cities and urbanized areas in the state. Although this study does not explicitly address the needs of the City of Logan, it is important to note the higher percentage of people walking or biking to work within the city as compared to outside of the city (only 5% of walkers and 1% of bicyclists come from outside the city).

**Table 3
Journey to Work Census Data**

Place	% Walk to Work	% Bike to Work
Logan	8%	3%
Sandy	9%	2%
Moab	12%	5%
Provo	14%	2%
Logan Urbanized Area	5%	2%
Ogden Urbanized Area	1%	.04%
Salt Lake Urbanized Area	2.5%	.05%

* Source: 1990 Census Journey to Work, rounded up to nearest %

Two conclusions can be drawn from the above table; (1) most of the people who walk or cycle to work live within the city limits of Logan, and (2) more people bike or walk to work in the LUA than in any other Urbanized Area in Utah. One possible explanation for these statistics is the concentration of particular segments of the population that are most likely to walk or cycle to work/school. These segments include school-aged children, households below the poverty level, households with no vehicle, and most importantly, college students.

Data was taken from the 1990 Census conducted by the U.S. Census Bureau. It is suspected that because population distribution patterns have not changed dramatically in Cache County from the 1980 to the 1990 Census, it can be assumed that the distribution shown here, although not entirely up to date, reflects similar conditions to existing. It is

important to note, however, that Utah State University growth is not captured in this data. (Conversation with Mark Tuescher, Cache Countywide Planning, March 26, 1999) These patterns will help determine the most effective connections for bicycles throughout the study area. They will also help determine areas of heavy pedestrian use. Each segment of the population, as relates to the demand for bicycle and pedestrian facilities, is described below. The distribution of each population segment is shown in Figure 5.

- General population

The distribution of the general population reflects the distribution of the general need for bicycle and pedestrian facilities. Where higher concentrations of people and automobiles exist, there is a greater likelihood of congestion, and hence the need for mode choices.

- School Aged Children (K-12)

There are two reasons for examining the distribution of school aged children. First, some children will regularly ride bicycles or walk to school, increasing the need for facilities. Second, special attention given to these areas will likely increase the safety of bicycle and foot travel by designating safe bike and walking routes and alerting drivers to their presence.

- College Students

College students are perhaps the largest single group of cyclists and pedestrians, and as such, the bicycle and pedestrian plan should address their geographic concentration.

- Households below the poverty level

Households below the poverty level are less likely to have a private vehicle and are more likely to need bicycle and pedestrian facilities.

- Zero-Vehicle ownership households

Households with no vehicle are more likely to use alternate modes of transportation.

The concentration of these groups reinforces the high percentage of people who walk or bike to work in the Logan Urbanized Area, and most specifically in the City of Logan.

From this demographic analysis, the following two planning strategies were taken:

- 1) Since it is evident that the opportunities in Logan are currently being explored by cyclists and walkers, the primary emphasis should be on education programs with a secondary emphasis on developing new facilities.
- 2) Since it is evident that the availability of bicycle and pedestrian modes weakens away from the core area of Logan City, the primary emphasis for areas outside Logan City should be on developing facilities while simultaneously promoting education, marketing programs, and increased bicycle/pedestrian opportunities.

C. FUTURE CONDITIONS

As the LUA continues to grow, so will traffic congestion. The provision of bicycle and pedestrian facilities will help promote the use of alternative modes of transportation and the idea of intermodalism to help ease congestion and improve air quality.

Congestion data was obtained from the new CMPO Travel Demand Forecasting Model and reflects countywide conditions. The following information is based on the existing transportation system (transit and highway) and traffic volumes projected for the year 2020.

Roadway segments that will operate at LOS "F" , or failure of the roadway to accommodate traffic, include the following:

North-South

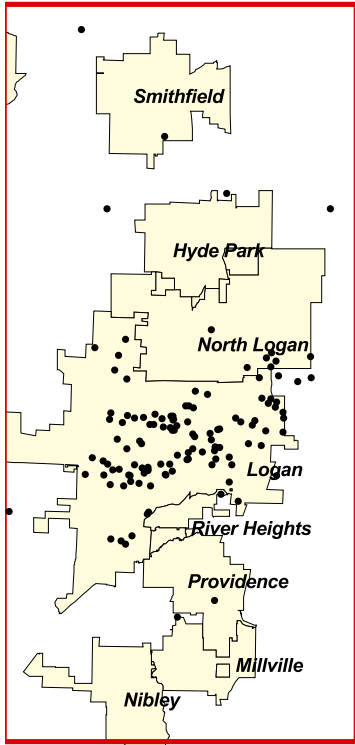
1000 West:	200N to 600N
US- 91:	SR-165 to 1400N
100 East:	400s to 400N
100 West:	400 N to 600 N
200 East:	Center to 1400N
400 East:	River Heights to Center St.
400 East	1400N to 2000N
600 East	Boulevard to 500N
800 East	1400N to 1800N

East-West

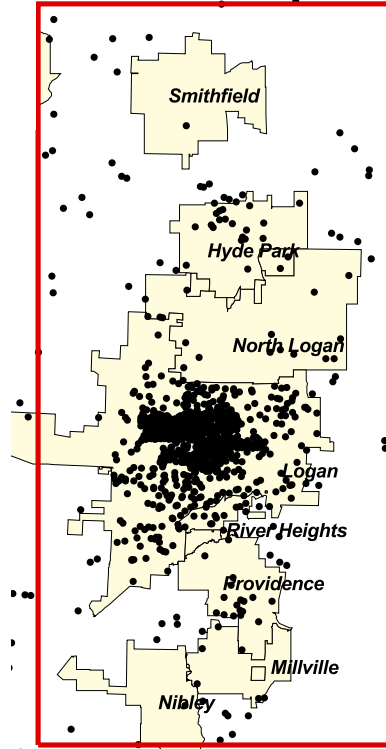
200 North	300W to US-91
1400 North	600W to US-91
Center:	US-91 to Boulevard
Boulevard	
1000 North:	400W to US-91

Some of these streets will be upgraded to improve the Level of Service in the future. As these streets are upgraded, pedestrian and bicycle concerns should be identified accommodated and incorporated in improvement.

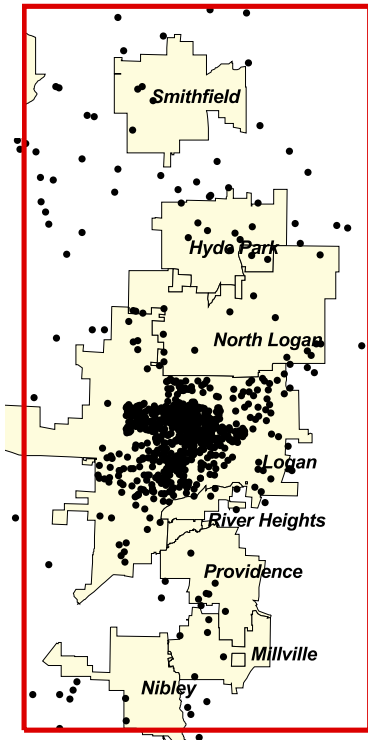
Households with No Vehicle
1 dot = 20



College Students
1 dot = 20



Households Below the Poverty Level
1 dot = 20



School Aged Children
1 dot = 20

