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Central Lane MPO Transportation Planning
CycleLane Smart Phone Application Data Summary
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About the App

The CycleLane smart phone application gathers route choice information from users that voluntarily download and use the app. After downloading the app, users are prompted to fill out a few questions about themselves including their age, gender, and the frequency of riding. After filling out user information the user decides at their discretion to turn the app on at the beginning of their bicycle trip and record their ride, recording a GPS track every 2 seconds for the duration of the trip. Once the user completes their trip they are asked the purpose for that ride before submitting the trip to CLMPO for analysis. The CycleLane App is the first attempt by the CLMPO to use crowd sourcing to gather information of this kind.

The Data

Since 2012 over 4,000 bicycle trips have been recorded by users of the CycleLane app with over 250 people having downloaded the application. These data were not all usable however, and not all of the users logged a trip with the application after downloading the app. After cleaning out bad GPS tracks, duplicate trips, trips not taken within the region, trips that exceeded a reasonable speed (35 mph on a bike, come on!), there are just over 600 trips left to analyze.

Users

A review of users that logged these 600+ trips is shown at right. Over half of the users indicated that they ride daily or several times per week. Nearly half of the users were over 26 years of age, which is surprising in a region with a large number of university students. And the routes were logged mainly by males. The number of total users in each table is slightly different because some users choose not to disclose some information about themselves.

Bicycling Frequency		
How often do you Bike?	Users	%
Daily	6	6%
Several Times per Week	50	49%
Several Time per Month	25	24%
Less than Once Amonth	10	10%
Not Specified	12	12%
Total	103	100%

Age of Users		
Age Cohort	Users	%
0-14	0	0%
15-19	1	1%
20-25	17	18%
26-35	29	31%
36-50	26	28%
51-65	16	17%
65+	4	4%
Total	93	100%

Gender		
Male	Female	Total
69	24	93
74%	26%	100%

Trips by Purpose		
Purpose	Trips	%
Commute	211	34%
Errand	79	13%
Exercise	71	11%
Other	31	5%
School	37	6%
Shopping	45	7%
Social	109	17%
Work-Related	43	7%
Total	626	100%

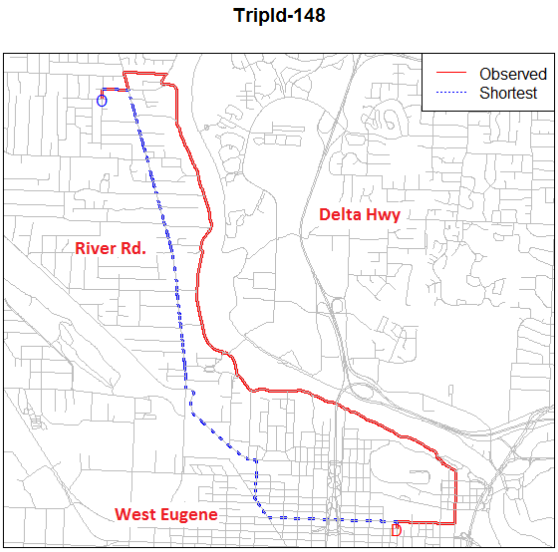
Trips

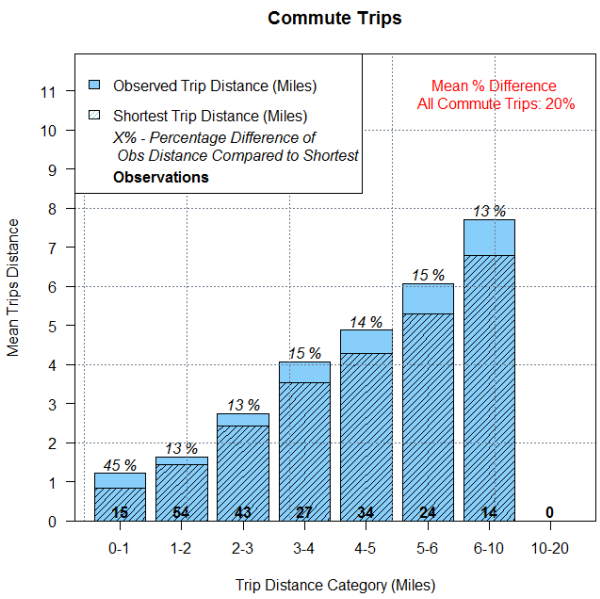
Each trip record has a trip purpose assigned to it by the bicyclist so that differences in route choice preference can be deduced. The number of trips by purpose is presented to the left. For the purposes of this brief summary of the data, only commute trips will be reviewed.

A useful way to look at the route data is to compare a chosen route with the shortest possible path for the same origin and destination. Below is a trip plucked from the data to illustrate this concept. The red route is the observed path generated by a CycleLane user while the dotted blue route is the shortest possible route between the same origin and destination (given

constraints of the road network like one-way restrictions and highway restrictions for bicycles). This particular user chose to avoid the high speed, high volume River Rd. section of the road network and instead use the off-street river bank path to get to their destination in downtown Eugene. In doing so, the user went out of their way by nearly a mile which equates to over 5 minutes of travel time.

On average, for commute trips, CycleLane users traveled 20% farther than they would have had they chosen the shortest possible path. This diversion differs by the distance of the path. For instance for trips where the shortest possible path is less than a mile, the bicyclist travels up to 45% out of their way on average, or about half a mile. For trips between six and ten miles the user only travels 13% farther compared with the shortest possible path, though in real terms this equates to nearly a mile.





More Data Needed

This is a brief (VERY brief) description of a small portion of the data CLMPO has collected on bicyclists in the region (I could go on and on about the data we have collected so far). It is already helping to better understand how our current methods of analysis are lacking and will ultimately be used to update these analyses tools to better account for bicycle travel behavior as the region continues to make important investments into non-motorized infrastructure. But we need more data!! We are reaching out to the public living and biking in the region to use the CycleLane app and log more trips. We are also asking the public to tell your friends about the app and the project so we get a more diverse set of users. We need more female users and we need more users from younger demographics.

Things to remember when you are logging a trip

- Don't take a route you don't normally ride. If your route preference isn't consistent that's okay
- Logging exercise trips is useful, but the more interesting trips are your commute, shopping, and social trips so make sure to log these trips too!
- Logging the same trip every day is less useful than if you log many unique trips. If you only have one path to and from work, CLMPO would be happy with just one or two traces of that trip, but logging that trip day after day for months would not be as useful.
- Trips only within Eugene, Springfield, and Coburg are of use, this is our study region.

So don't hesitate, the wet and cold winter riding season is fast approaching which will make using your CycleLane app less fun. Users that log unique trips between now and December will be eligible to win another gift certificate to one of our great local area bike shops and restaurants.