

# 2040 Forecast Population & Land Use

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## Households and employment

To measure impacts of population and employment growth on the regional transportation network, WCOG applies a conventional [four-step, trip-based travel demand model](#). The model uses household travel characteristics to generate person trips that become the basis for a simulation of transportation activity on the transportation network, which includes transit routes as well as roads. Current and forecast household and employment numbers are geographically allocated to traffic analysis zones (TAZs), which are established using census block information and which are bounded by transportation facilities, usually roads. Then, using the travel demand model, each TAZ's expected trip activity is assigned to (and from) roads and transit routes in the regional transportation network. Transportation planners use these data and the outputs they generate to determine future demand and develop strategies to meet it, as well as to accomplish other regional transportation goals. More information on WCOG's travel demand model can be found by clicking on the following link: [WCOG Regional Travel Demand Model](#).

## Base year 2013

For the purpose of forecasting, *Whatcom Mobility 2040*'s base year is 2013. That year is used because it was also used by Whatcom County and the seven cities as the base year for the updates of their comprehensive plans in 2016. Data used in the development of base year 2013 – which was the work of WCOG, Whatcom County and a consultant – were compiled from a variety of sources, including the U.S. Census Bureau, Washington State Office of Financial Management population estimates, parcel-level data from local governments, and other sources.

## Whatcom County forecast year 2036

The team that developed base year 2013 also extrapolated the demographic and employment data used to create forecast year 2036 for the environmental impact statement prepared in conjunction with Whatcom County's comprehensive plan update. Subsequently, the transportation network in WCOG's travel demand model was updated to include capacity-adding projects currently listed in the regional and state transportation improvement programs through 2021, but only those for which full funding is secure. Projects not fully funded or those currently planned in years beyond 2021 were excluded.

# Whatcom Mobility 2040 horizon year

By federal regulation, metropolitan transportation plans must be updated every five years and address no less than a 20-year planning horizon as of the effective date of the plan. The previous update to WCOG's plan was approved in June 2012, necessitating another update no later than June of 2017. Accordingly, the plan's horizon year could be no earlier than 2037. Because Whatcom County and its constituent cities updated their comprehensive plans in 2016 as required by Washington's Growth Management Act, they used 2036 as their forecast year. That presented WCOG with the opportunity to use the 2036 land-use, population and employment assumptions developed by its members and extrapolate them to 2037 or beyond to establish this plan's horizon year. Since extrapolation would be necessary in any case, WCOG chose to do so through 2040, primarily out of deference to the convention of using decennial years as horizons. The households and employment growth data in *Whatcom Mobility 2040* maintain the forecast distribution established by Whatcom County's land capacity analysis and preferred-alternative scenario for 2036, although at a slightly reduced overall annual growth rate.

(More information on Whatcom County's 2036 comprehensive plan can be found at the following link: [Whatcom County Comprehensive Plan.](#))

**Table 1: Projected Household Population, Households and Employment, 2008-2040**

	Forecast Summary			
	2008	2013	2036	2040
<b>Household Population*</b>	185,774	198,882	268,750	282,204
<b>Total Households</b>	75,048	81,710	112,264	117,792
<b>Total Employment</b>	88,044	83,233	120,284	127,483

\*Population is an estimate based on the household formula from the *2008 North Sound Travel Survey*. The survey reports an average of 2.3 persons per household.

Households and employment are projected to increase by 44 percent and 53 percent, respectively, from 2013 to 2040. Figure 4 illustrates the growth in households and employment by TAZ with respect to the region's network of regionally significant roads. As can also be seen on the maps, the geographic size of TAZs can vary significantly according to their land-use type and population density. Urbanized areas typically have much smaller TAZs than rural areas, where the population is more spread out.

Click on the tabs on the left-hand side of the map to switch between household and employment growth.

#### **Figure 4: Future Households & Employment**

Note how the growth areas for households are far more widespread than those for employment, which tends to be concentrated in and near Bellingham, with smaller concentrations along the Interstate 5 corridor and in Lynden.

Table 2 lists the employment sectors and the number of jobs in each for base year 2013 and the horizon year of 2040, which were applied to the regional travel demand model.

**Table 2: Growth by Employment Type**

Growth by Employment Type			
	2013	2040	% Increase
Education	7,721	10,953	41.9
Finance and Insurance	5,252	9,590	82.6
Services	25,370	39,480	55.6
Government	2,939	4,952	68.5
Manufacturing	8,892	12,510	40.7
Retail	18,863	27,283	44.6
Wholesale	3,749	7,037	87.7
Construction	6,369	9,523	49.5
Telecommunications	2,006	4,049	101.8
Agriculture	1,558	1,574	1.0
Other	367	380	3.5
Mining	147	152	3.4
All Employment	83,233	127,483	53.2

Please visit the Whatcom Mobility 2040 [interactive map collection](#) for more in-depth 2040 maps and analyses.



