

4.5 Economics

Transportation projects can change access, travel patterns, property conditions, jobs, and tax base, all of which can affect the local and regional economy. This analysis evaluates potential localized and regional effects of the Center City Connector. The local economy surrounding the project area is represented by the Seattle Center City downtown area and the regional economy is represented by the city and four-county region (King County, Snohomish County, Pierce County, and Kitsap County).

To define the local economy, projections of population and economic growth for Seattle were obtained from PSRC; PSRC uses Forecast Analysis Zones (FAZ), which are geographic areas that align with US Census tract boundaries. Each FAZ can contain from one to nine census tracts. The local study area for the City Center Connector is spread across four FAZs: 6010 (Seattle Central Business District), 6020 (Denny Regrade), 6123 (South Lake Union/Seattle Center), and 5825 (Industrial District), as shown on Figure 4.5-1.

The local study area includes major employment centers, tourist attractions, retail businesses, and hotels that generate trips to and from the area. Major employers include Amazon, the Bill and Melinda Gates Foundation, the City of Seattle, Westlake Center, regional medical centers, and other businesses in the commercial core of Seattle. Also, in the study area, tourist attractions include the Seattle Center, Seattle Art Museum, Seattle Aquarium, the waterfront, Westlake Center, and Pike Place Market.

Between 2000 and 2010, the study area’s population growth rate was twice that of Seattle and the four-county region (Table 4.5-1). This trend is expected to continue between 2010 and 2040 but at a slower average annual growth rate.

Applicable Regulations

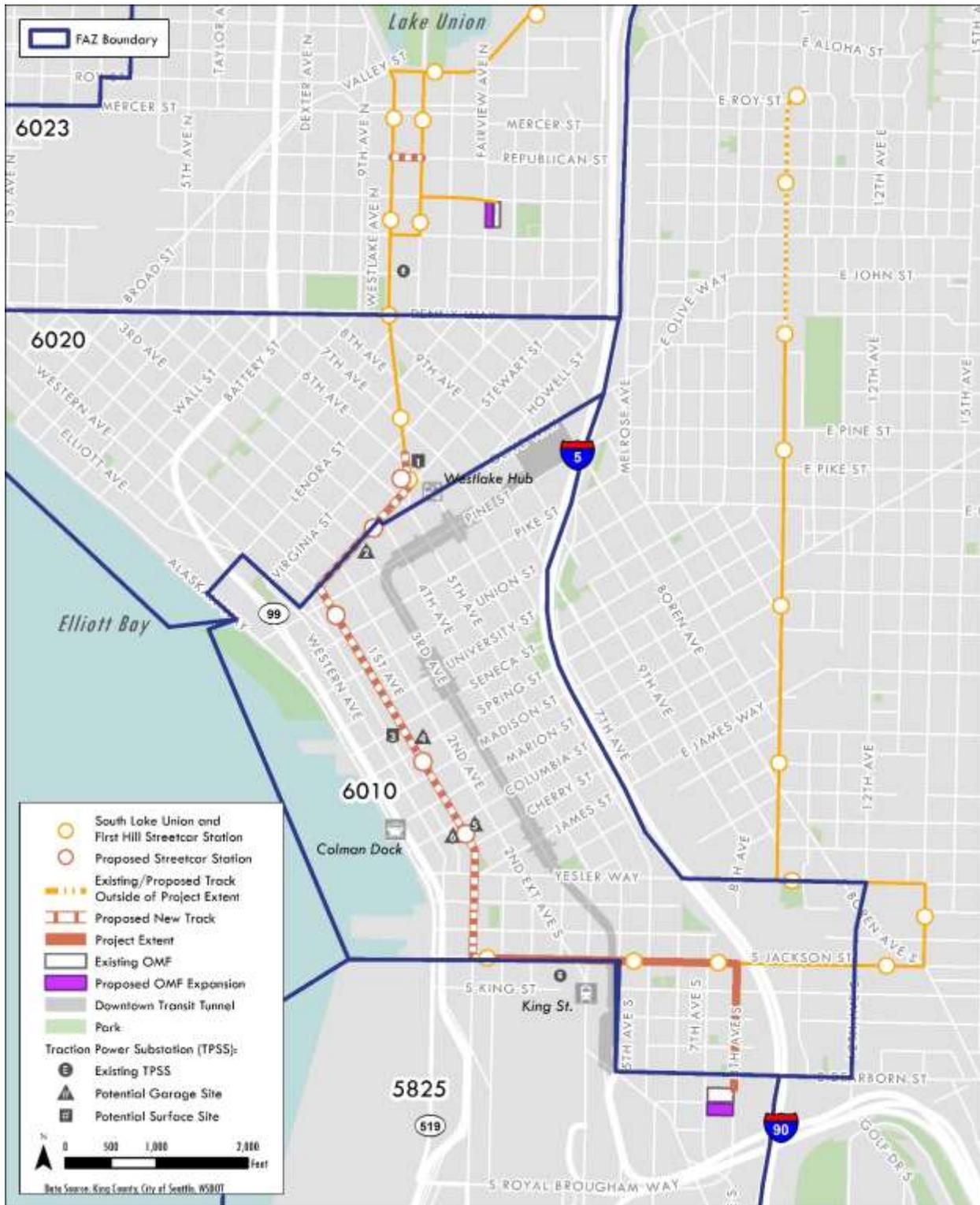
Under CEQ, NEPA regulations (40 CFR 1508.14) require an analysis of social and economic impacts in EA-level documents. Executive Order 12898 and other Environmental Justice regulations requires an economic analysis if a transportation project is likely to have a substantial adverse effect on a large segment of the economy or cause the loss of more than 10 percent of the permanent jobs within the study area. Projects that displace homes or businesses and change travel patterns, travel times, parking, land use, and access control also require analysis.

Table 4.5-1 Historical and Projected Population

Area				Average Annual Growth Rate	
	2000	2010	2040	2000-2010	2010-2040
Study Area	35,990	47,055	86,038	2.7%	2.0%
Seattle	563,554	608,863	735,782	0.8%	0.6%
Four-County Region	3,275,847	3,690,942	5,037,633	1.2%	1.0%

Source: PSRC (2014).

Figure 4.5-1 Center City Connector FAZ Area Map



As shown in Table 4.5-2, between 2000 and 2010, the study area’s average annual household growth rate was over three times higher than that of Seattle or the four-county region. The annual household growth rate in the study area is expected grow at a slower average annual growth rate when compared to more recent housing trends but is still expected to be higher than that of Seattle or the four-county region.

Table 4.5-1 Historical and Projected Household Data

Area	Number of Households			Average Annual Growth Rate	
	2000	2010	2040	2000-2010	2010-2040
Local Study Area	19,276	28,304	47,142	3.9%	1.7%
Seattle	258,589	283,575	348,313	0.9%	0.7%
Four-County Region	1,282,984	1,454,695	2,059,991	1.3%	1.2%

Source: PSRC (2014).

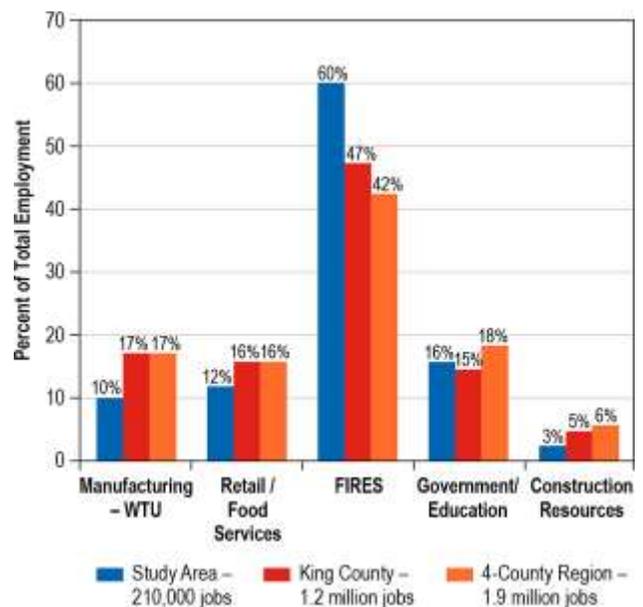
Employment data from the PSRC is divided into five sectors: (1) manufacturing/warehousing, transportation, and utilities [WTU]; (2) retail/food services; (3) financial, insurance, and real estate/services [FIRES]; (4) government/education; and (5) construction resources.

Total employment in the study area is projected to increase from approximately 210,000 jobs in 2010 to approximately 340,000 jobs in 2040, an increase of 130,000 jobs (62 percent increase).

The FIRES sector has the largest share of total employees, accounting for approximately 60 percent of employment in 2010 (see Figure 4.5-2). The next largest sector is government/education, which accounted for 16 percent of employment. The FIRES sector is forecast to increase its share of total jobs in the study area by 7 percent by 2040 (see Figure 4.5-3).

The largest decline in share of jobs is forecast within the government/education sector, which is projected to decrease by 6 percent compared with 2010.

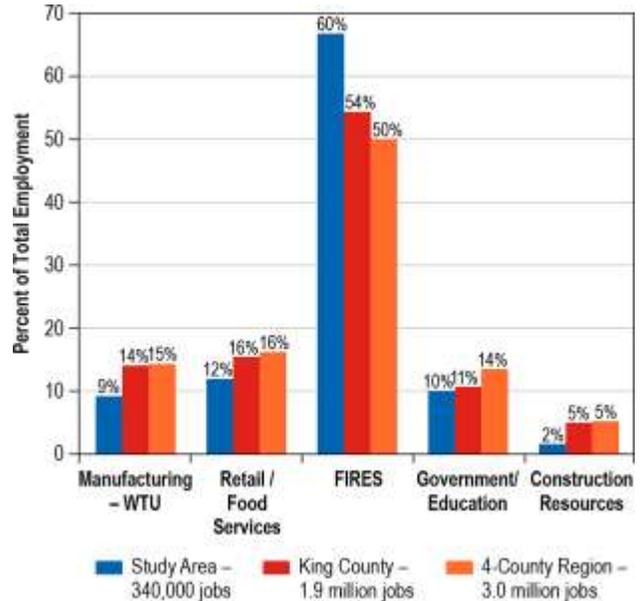
Figure 4.5-2 Percent of Total Employment by Industry Sector (2010)



Although the unemployment trends of Seattle and the state generally reflect the movement of the national unemployment rate, both Seattle and the state have a lower rate than the nation as a whole. Figure 4.5-4 shows the high unemployment rates of 2009 in Seattle, the state, and the United States, and the recovery through 2014.

Median household income in Seattle is slightly higher than the state and national median. According to the U.S. Bureau of Census, estimated median household income in Seattle was approximately \$63,470 in 2012. Median household income was \$59,374 in the state and \$51,107 nationally in 2012. Income levels in Seattle, the state, and the nation have increased by 39, 40, and 22 percent, respectively, when compared to levels reported in the 2000 Census.

Figure 4.5-3 Percent of Total Employment by Industry Sector (2010)



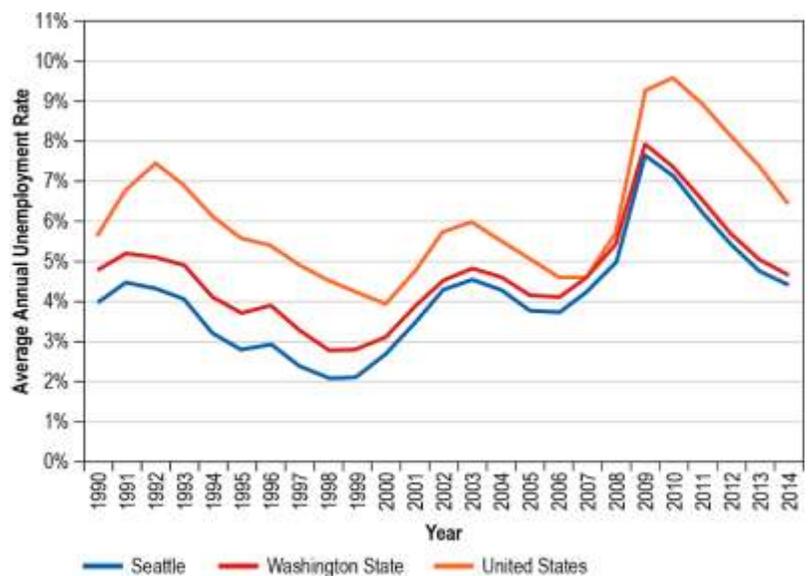
4.5.1 Impacts

4.5.1.1 No Build Alternative

The No Build Alternative would not result in economic impacts. Residents, employees, and visitors in the downtown core would not benefit from the interconnected transportation network that would be provided by the City Center Connector. The additional employment and income associated with new jobs created by the operation of the Center City Connector would not be realized.

No new economic activity that generally accompanies a large construction project, such as direct and indirect jobs and employment income, would ensue. Businesses and residents would also not experience the temporary increase in congestion and delays, traffic diversions, noise, dust, and roadway closures along the corridor and side streets that accompany a construction project.

Figure 4.5-4 Unemployment Rates (1990-2014)



4.5.1.2 Locally Preferred Alternative

Operational Impacts

The LPA would have beneficial effects on the local and regional economies: (1) it would expand the reach and convenience of existing transit investments to facilitate economic exposure and activities between local and regional commercial centers and (2) it would increase connectivity between potential employees and employers and (3) it would bring additional jobs to the City of Seattle. The LPA would leverage City and regional transportation partner investments by linking the Westlake and King Street intermodal hubs at the north and south ends of the downtown area, which is consistent with long-term economic development strategies for Seattle and the region. Additionally, the higher frequency of streetcars north of the Westlake Intermodal Hub along Westlake and Terry Avenues to Republican Street would benefit the business community, workers, and residents in the South Lake Union area by making it easier to reach downtown Seattle destinations. Similarly, the higher frequency of streetcars in the Chinatown-International District to Eighth Avenue S would increase accessibility to and visibility of this business district.

The LPA would benefit residents, employees, and visitors with increased connectivity and additional transportation options to major employment centers, retail shops, and tourist attractions in the study area and to other local and regional areas. It would provide connections with other modes at one of the three transportation hubs: Westlake Intermodal Hub, Colman Dock Intermodal Hub, and King Street Intermodal Hub.

In addition, the Center City Connector line would add 22 full-time employees to the streetcar network, as identified in Table 4.5-3. The increased earnings from the additional jobs would result in positive economic impacts on the local economy, both through direct hiring to fill transit jobs and indirectly as the new transit workers spend their earnings in the local economy, which would create additional consumer demand and jobs to meet that demand.

Table 4.5-3 Employment Estimates from Operations

Positions	Number of FTE
Supervisors	1
Maintenance Workers	3
Operators	18
Total FTE	22

FTE = full-time equivalent

The project would increase the capacity to move people within the corridor. However, the road modification to exclusive-transit lanes for the LPA would reduce roadway capacity for other vehicles on First Avenue, Stewart Street and Olive Way. The dispersion would be absorbed by adjacent roadways while still maintaining acceptable traffic flow. Some left-turn restrictions would limit the ability of vehicles to turn from First Avenue, but these changes are not anticipated to result in negative economic impacts because residents, employees, and visitors would still easily access their destinations. The reduction of on-street parking would not affect businesses substantially because there is ample off-street parking along the corridor and nearby,

and restrictions are already in place limiting the duration of and the hours of the day that on-street parking is available (see Section 4.1.6, Parking, for more detail).

Construction Impacts

Construction of the project would temporarily increase congestion and noise, reduce on-street parking, and temporarily change access for businesses and residents in the area. Although pedestrian access to businesses would be maintained and two lanes of traffic would be open at all times (except for nights and some weekend work), retail sales at some businesses could fluctuate when construction requires access to their businesses to be modified. See Section 4.1 for mitigation measures for traffic and reduction of parking, and see Section 4.5 for noise mitigation measures during construction.

For most track segments, construction duration would be less than 8 months and would be limited to typical construction hours (generally 7 a.m. through 7 p.m. where residences are found and up to 10 p.m. outside of residential areas). An exception to this would be Segment 4 (Westlake), where construction hours would be limited to evenings and weekends. This would also extend the construction period for Westlake compared to the other segments, but because it would occur during non-weekday business hours, construction impacts on adjacent businesses would be reduced. Activities associated with the construction period may cause short-term fluctuation in business activity; however, following construction, no long-term negative effects on the Seattle economy from these construction periods is expected. The detour route planned around Pioneer Square construction may result in additional evening peak-hour congestion on Alaskan Way, which may affect travel times for commuters, freight, and labor along this route.

A potential benefit from the project would be a temporary increase in local jobs and income resulting from construction spending. Expenditures during construction would result in demand for construction materials and construction jobs. These construction expenditures are considered direct effects, which would lead to indirect effects as the output of firms in other industries increases to supply the demand for inputs to the construction industry. In addition, wages paid to workers in construction trades or supporting industries would be spent on other goods and services and provide benefit to the economy, both locally and, to a lesser degree, regionally.

To determine the additional benefits to the local economy related to construction spending, multipliers developed by the Washington State Office of Financial Management were applied to the project cost. A project's effect on a region depends on the source of project funding. Only "new" federal dollars that would not be present in the local economy were it not for the construction of the Center City Connector project were included. Funds from local or regional sources were considered transfers that would have been spent on other economic activities. The direct construction expenditure for the Center City Connector is estimated to be \$64.5 million (2013 dollars). This includes costs for the trackway, the single-track on Republican Street, and the OMF expansion(s). For this analysis, an input-output model created by the Washington State Office of Financial Management estimates that 454 jobs would be created by construction spending associated with the project (Washington State Office of Financial Management, 2014). In addition, third-party betterment agreements, such as upgrading utilities during construction, which are not included in this cost, may result in additional construction employment opportunities beyond those reported above.

4.5.2 Mitigation Measures

Only beneficial economic impacts have been identified during operation; therefore, no mitigation measures are proposed.

To minimize negative impacts on businesses during construction, SDOT will work directly with affected businesses and develop a business mitigation plan. At a minimum, the plan will include:

- Provide signage alerting potential customers that businesses are open during construction and clearly marked detours as appropriate.
- Provide the public with construction updates, alerts, and schedules through informational meetings, a project website, and other forms of communication.
- Develop a promotion and marketing plan to help affected businesses maintain their customer base during construction.
- Maintain access to each business and parking areas as much as possible during construction and coordinate with businesses during times where access might be limited.
- Coordinate construction activities with other capital improvement projects to minimize construction impacts and competing needs for detour routes.
- Implement parking and access mitigation strategies described in Section 4.1.7.4, Parking.