



Skagit 2045 Regional Transportation Plan



Environmental Justice and Equity Analysis





January 2021

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1 Introduction

Environmental Justice principles are considered in Regional Transportation Plans to protect minority populations and low-income populations from disproportionate adverse effects of plans, programs, policies, and activities funded by the U.S. Department of Transportation. By accepting federal funds through the Federal Highway Administration and Federal Transit Administration, SCOG and any recipients of federal funds through SCOG must incorporate Environmental Justice into their transportation plans, programs, policies, and activities.

The concept of Environmental Justice was first promulgated by [Executive Order No. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Poverty Populations](#). While related, this order is distinct from Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin.

Investment in transportation projects can have both positive and negative impacts on the surrounding area. Negative impacts can include creating barriers within communities, restricting access to public facilities, safety risks, as well as environmental impacts such as noise, water pollution and reduced air quality. On the other hand, transportation projects can reduce travel times, increase mobility and accessibility, and support the local economy.

SCOG has performed an analysis of the planned and illustrative projects of the Skagit 2045 Regional Transportation Plan to estimate their impacts on protected Environmental Justice communities.

Skagit 2045 Regional Transportation Plan Public Involvement and Policy Direction

Public engagement and participation in the Skagit 2045 Regional Transportation Plan update process was guided by a specifically developed Public Involvement Plan. Outreach activities and processes implemented through the Public Involvement Plan are outlined in Appendix B of the Skagit 2045 Regional Transportation Plan. Public input from interested parties, including minority and low-income populations, was sought after through Environmental Justice stakeholder meetings. Members of these meetings identified the priorities of roadway safety and transit access to destinations to inform this analysis.

Skagit 2045 outlines six regional transportation priorities, as well as policies to provide accessibility and mitigate undue burdens on vulnerable populations. This Environmental Justice analysis seeks to promote the following policies outlined in the Regional Transportation Plan:

- **Regional Transportation Plan Policy 1.7** Provide accessibility to the regional transportation system through user-friendly connections by ensuring that intermodal facilities are not designed and constructed in isolation. In particular, ensure that the urban area has interconnected opportunities for safe and convenient non-motorized modes.
- **Regional Transportation Plan Policy 6.3** The development of new transportation routes and improvements to existing routes shall minimize adverse social, economic and environmental impacts and costs.

2 Data and Methodology

Demographic Data

In 2020, SCOG updated the Skagit County Regional Demographic Profile. Based on data from the Decennial Census and American Community Survey five-year estimates, this document identifies protected populations in Skagit County at the Census block or tract level. SCOG uses the analysis from the Demographic Profile to identify geographic areas with relatively high concentrations of Environmental Justice populations.

The key demographic groups used in this Environmental Justice and Equity Analysis of the Regional Transportation Plan are defined as:

Minority: A person was considered a minority if they self-identified as: American Indian, Alaska Native, Asian, Black, Hawaiian, Pacific Islander, Hispanic or Latino. In 2010, 23% of Skagit County's population identified as a minority. Any Census block having 10 or more persons and with more than 23% of its population describing itself as other than non-Hispanic White is considered a minority block for the Environmental Justice analysis.

Poverty: Any person whose household income is below the federal poverty level. According to the 2014-2018 American Community Survey estimates, 12.8% of Skagit County's population was below the federal poverty level. Any Census tract with more than 12.8% of its population below the poverty level was considered a low-income tract for the Environmental Justice analysis.

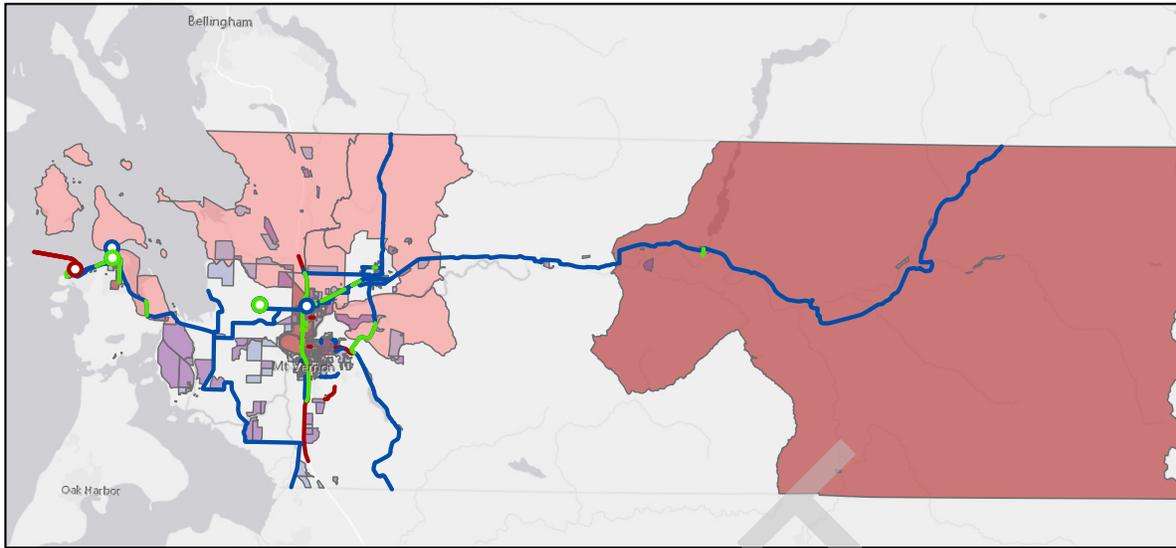
The Skagit County Regional Demographic Profile summarizes the data for Environmental Justice protected populations at two geographies, as designated by the Census Bureau: blocks and tracts. Information regarding minority status is obtained in the Decennial Census so it is available at the smaller Census block geography. Information regarding poverty is obtained in the American Community Survey five-year estimates. Larger analysis geography (Census tracts) is necessary to have reasonable confidence in the results, because it is based on a sample of the population.

Skagit 2045 Regional Transportation Plan Project Data

This analysis is based on the geographic location of the projects included primarily in the planned and illustrative portions of the Skagit 2045 Regional Transportation Plan at the time of its draft release for public comment. Any Census block or tract that was within 100 feet of a project was considered to be impacted by the programming in the Plan.

Spatial analysis was performed to determine how many of the projects included in the RTP are within 100 feet of an Environmental Justice block or tract. This helps identify spatial patterns of transportation investment decisions and how they impact populations. However, this analysis does not determine whether protected populations are benefitted or disproportionately burdened by specific projects. A project-level Environmental Justice analysis is needed to make this determination, which is conducted by project sponsors closer to project implementation. Map 1 shows the location of the Skagit 2045 RTP projects in proximity to identified Environmental Justice areas.

Skagit 2045 Projects and Environmental Justice Communities



Legend

- | | |
|------------------------|----------------------------------|
| ● Funded Project | Minority Census Blocks |
| ● Planned Project | Percent Minority Population 2010 |
| ● Illustrative Project | 23.3 - 35% |
| — Funded Project | 35% and above |
| — Planned Project | Low-Income Census Tracts |
| — Illustrative Project | Percent in Poverty 2014 to 2018 |
| | 12.8% - 19.1% |
| | 19.2% and above |

Source: Skagit Council of Governments, US Census Bureau, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



Map 1. Skagit 2045 Projects and Environmental Justice Communities

The following sections outline findings from the Environmental Justice analysis. Stakeholders in the Skagit 2045 planning process identified two major issues as priorities to Environmental Justice communities: safety, and access to destinations through transit. These two priorities are included as separate topics. Finally, a spatial analysis was conducted to analyze the distribution of funding for prioritized planned and illustrative projects.

3 Findings

3.1 Safety

Roadway Crashes 2015-2019

Stakeholders in the Skagit 2045 planning process identified roadway safety as one of the most important issues for Environmental Justice communities in the Skagit region. Washington state crash data from 2015-2019 was obtained and analyzed to better understand the relationship between crashes and EJ communities.

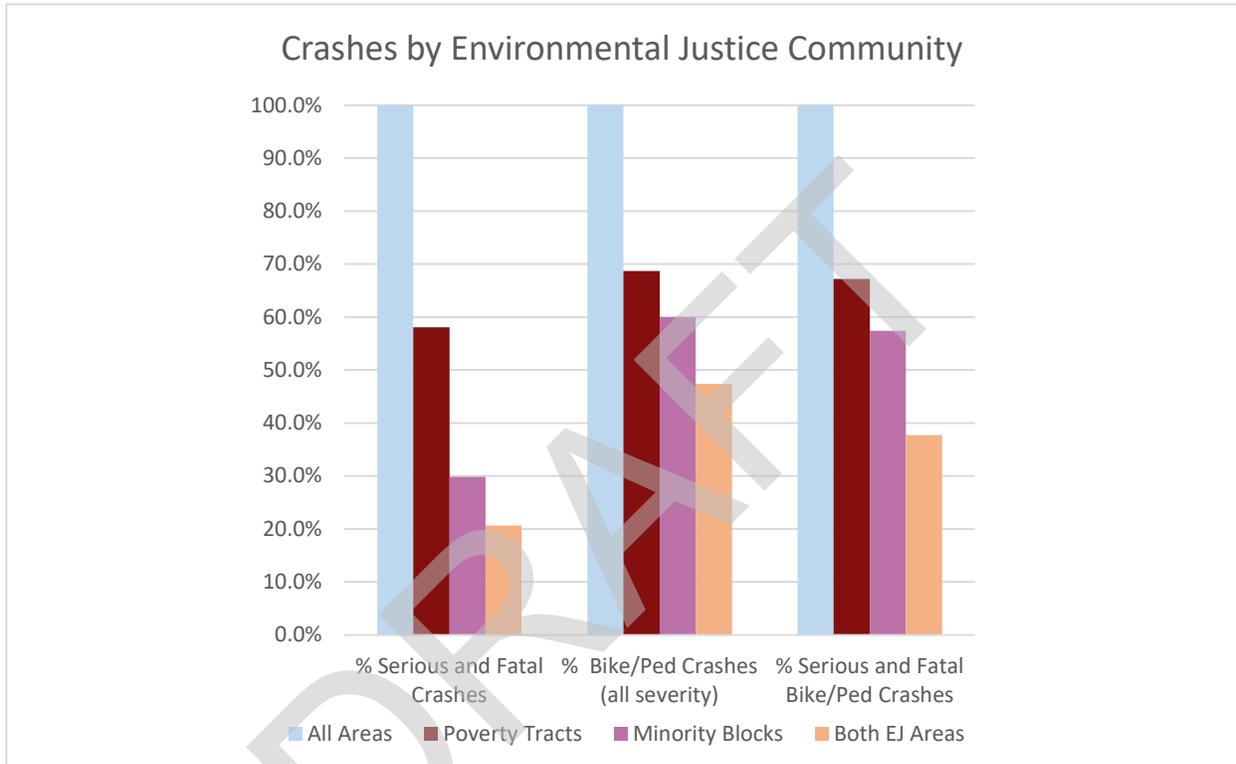
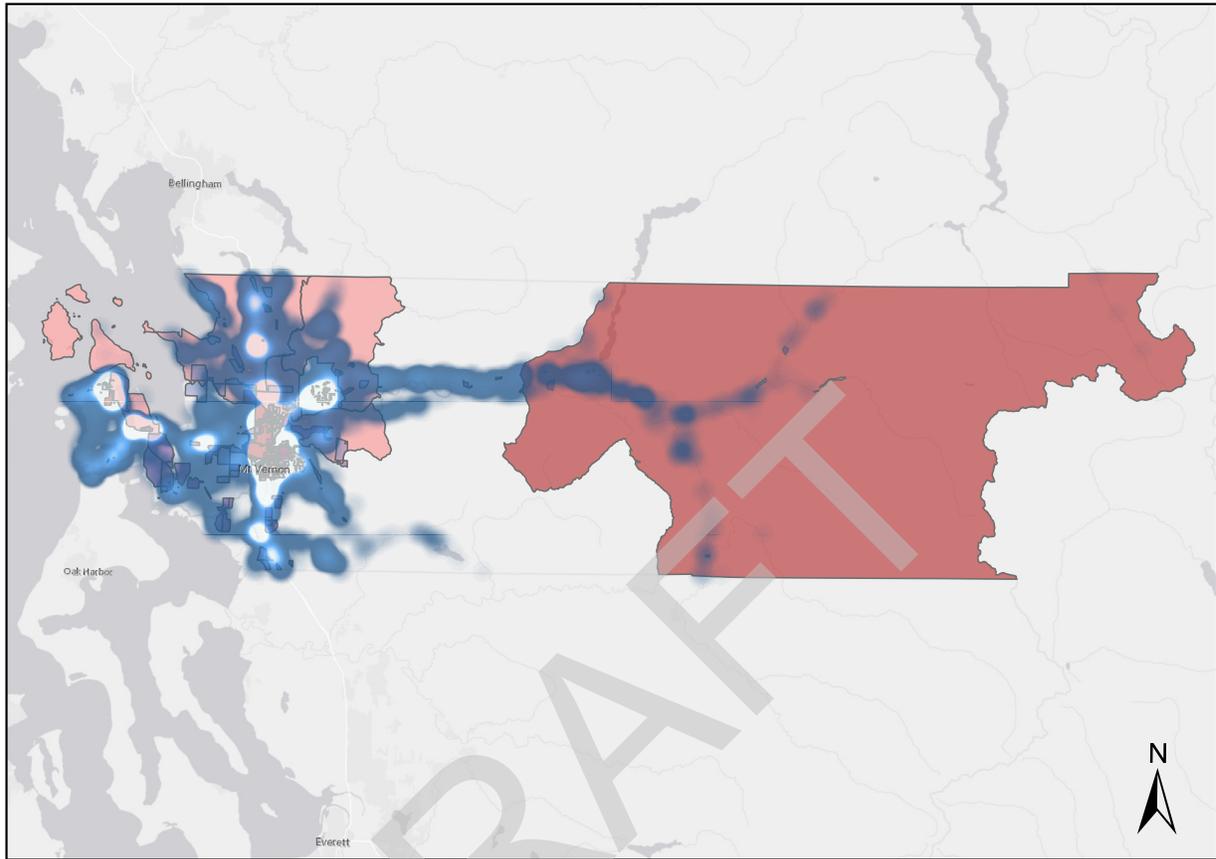


Chart 1. 2015-2019 Crashes in Proximity to Environmental Justice Communities

Over the past five years of vehicle crashes in Skagit County, crashes have appeared to concentrate around urban areas which also are home to high percentages of low income residents and people of color.

From 2015 to 2019, approximately 6.6 crashes occurred per centerline mile of roadway. This increased to 8.39 crashes per centerline mile of roadway in low-income areas, and 13.59 crashes per centerline mile in high minority areas. Chart 1 above illustrates the disproportionately high rate at which crashes involving non-motorized system users occur in Environmental Justice communities. Map 2 illustrates the concentration of crash hot spots in proximity to these communities.

2015-2019 Crashes In Proximity to Environmental Justice Communities Skagit County, WA



Legend

Minority Census Blocks

Percent Minority Population 2010

23.3 - 35%

35% and above

Low-Income Census Tracts

Percent in Poverty 2014 to 2018

< 19.2%

19.2% and above

2015-2019 Crashes

Sparse

Dense

Cartographer: Katie Bunge

Date: 12/11/2020

Data Sources: Washington State Department of Transportation, U.S. Census Bureau, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community.

Map 2. 2015-2019 Crashes in Proximity to Environmental Justice Communities

Skagit 2045 Safety Investments

Many of the projects included in the planned and illustrative lists of the Skagit 2045 Regional Transportation Plan include safety components which aim to reduce the rate of vehicle crashes on public roads. These projects were analyzed for their proximity to Environmental Justice communities. Particularly in the case of crashes involving non-motorized system users, it is assumed that safety projects on roadways would benefit the residents of the communities where the projects occur. However, a specific project-level assessment is needed to accurately reflect all benefits and burdens.

In all, 30 planned or illustrative projects were identified to have a safety component in the Skagit 2045 Regional Transportation Plan. Two of these projects were excluded from the analysis, as they reflect vessel replacements on the Washington State Ferry system. These replacements were not found to be in proximity to Environmental Justice communities, but are noted for their regional and statewide significance. In addition, alternative modes of travel to private vehicle travel, such as transit, were prioritized by Environmental Justice stakeholders during the planning process. These projects are included as illustrative in Skagit 2045, as funding has not been identified as reasonably available for them.

Out of 28 projects with safety components included in the planned and illustrative sections of the Skagit 2045 RTP project list, 21 were found to be in proximity to minority Census blocks. 15 out of 28 were found to be in proximity to low income Census tracts. Funding amounts were estimated for each project based on their year of expenditure cost. As shown in Chart 2 below, the vast majority of funding for safety-related projects included in the Skagit 2045 RTP is invested in Environmental Justice communities. The funding amounts for the Washington State Ferry vessel replacements exceed \$1 billion, and were not included in this analysis. While the ferries are not in physical proximity to Environmental Justice communities in Skagit County, they have been identified as a priority by EJ stakeholders.

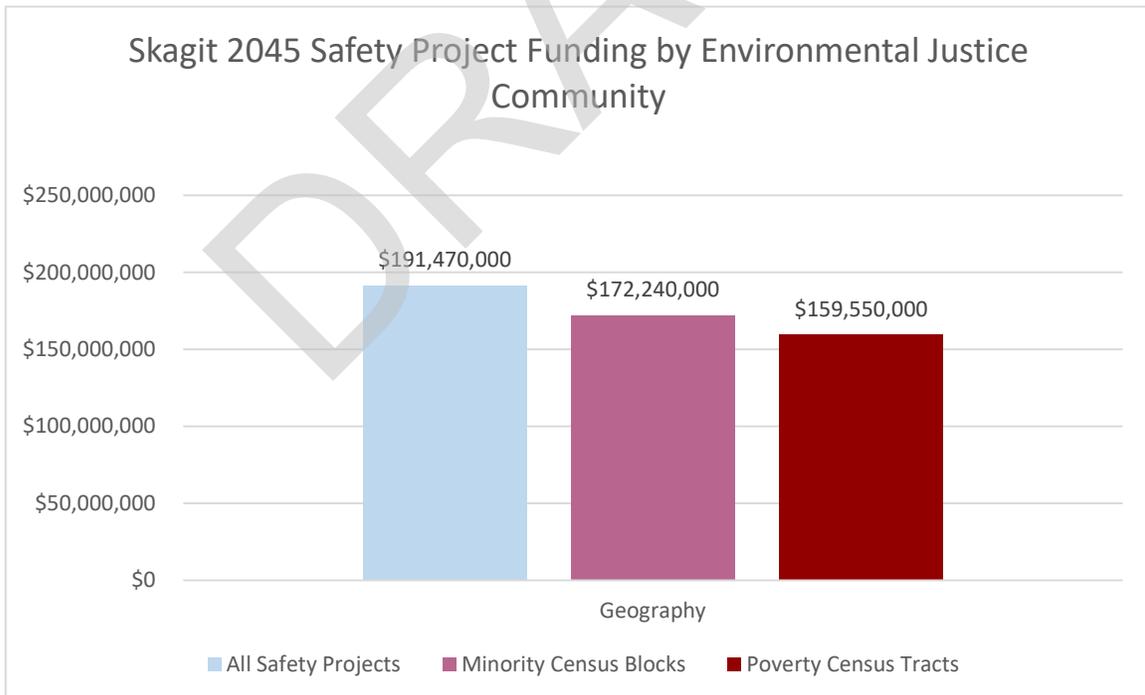


Chart 2. Funding for Safety Projects by Environmental Justice Community

3.2 Transit

Access to Destinations

Stakeholders in the Skagit 2045 planning process identified transit access to destinations as a significant barrier for Environmental Justice communities. These destinations may include health and service centers, job centers, and cultural centers. Through the Environmental Justice analysis process, staff identified a technological need for software to better analyze transit accessibility. Baseline accessibility information for a few key regional destinations is provided in this analysis, although more tools are needed in order to understand the specific impacts of future transit investments on these locations.

Seven destinations were selected for the accessibility analysis based on stakeholder feedback. These included Tribal centers located in Skagit County, Skagit Valley College, the Community Action East County Resource Center, and Sea Mar Womens' Clinic. Travel time isochrones were generated based on existing Skagit Transit route data, for a 5 pm evening weekday commute. The number of households within 60 minutes of walking/riding transit was estimated for each destination based on demographic information from the SCOG travel demand model. Access to jobs was also generated from each isochrone.

Chart 3 below shows 2018 baseline and forecast 2045 households within a 60-minute walking and transit trip from each destination.

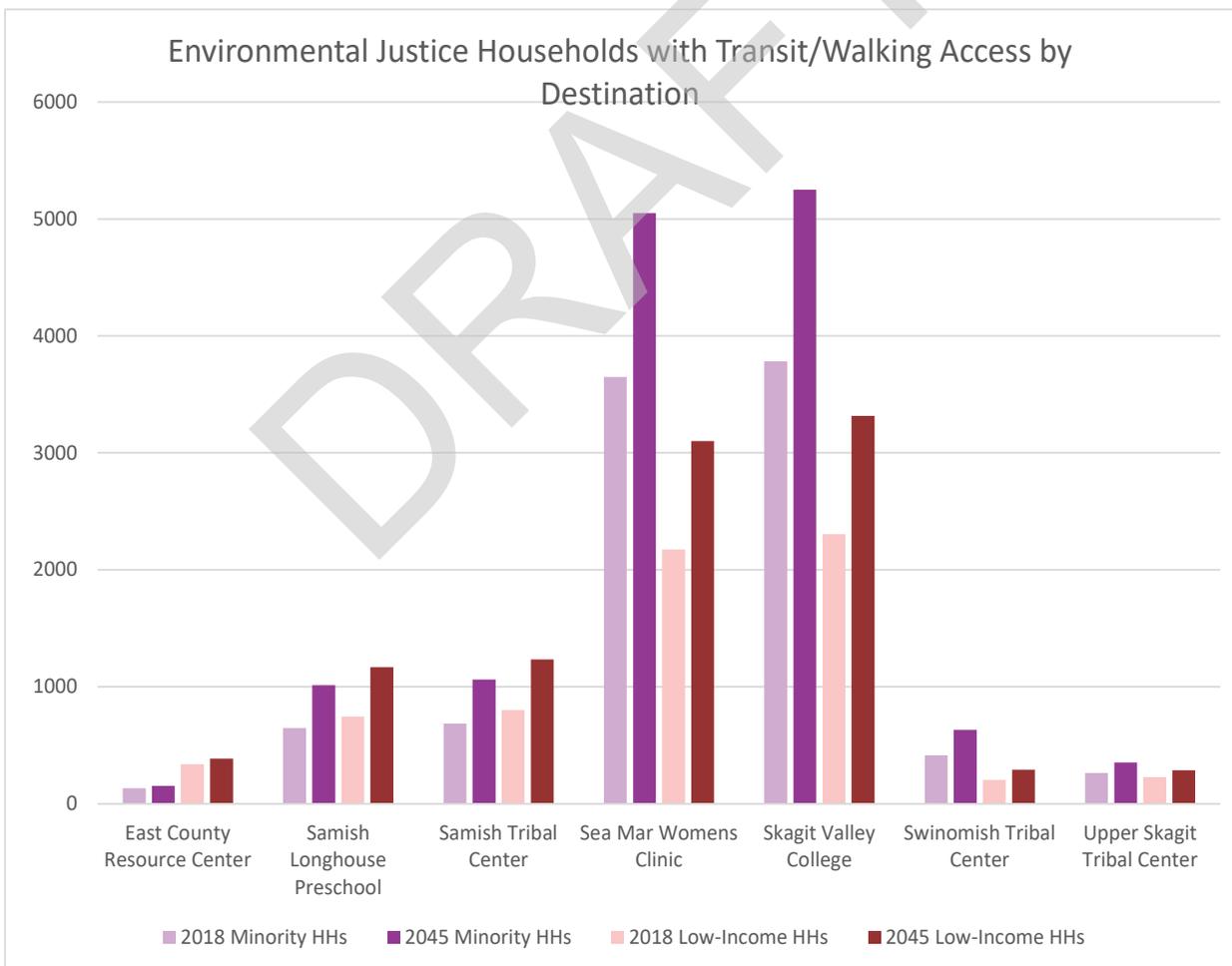


Chart 3. Environmental Justice Households with Transit/Walking Access by Destination

2018-2045 Household Access by Destination

In 2018, using the existing Skagit Transit route network and schedule, an estimated 9,572 minority households have transit access (within a 60 minute walking/transit trip) to at least one identified destination; this is about 18.3% of all households with access. Assuming that future population growth occurs at the same demographic rates identified in the Skagit County Regional Demographic Profile, an additional 3,943 minority households will have access. The overall percentage of minority households with access to key destinations would drop slightly to 17.9%.

In terms of low-income households, assuming that poverty levels remain consistent with observed levels and that population growth occurs at existing demographic rates, low income households with transit access to destinations would increase from 6,794 households to 9,778 households. These households account for around 12.9% of all households with transit access to key destinations. These forecasts do not account for future changes in transit routing or scheduling. Skagit Transit has identified many planned improvements, particularly in the East Skagit County area, which would improve access to destinations such as the East County Resource Center. An expansion of this analysis would be to project these route changes on the future land use scenario used in the 2045 SCOG travel demand model.

2018-2045 Employment Access by Destination

Access to employment is estimated to increase between 2018 and 2045 as countywide employment grows. Chart 4 below illustrates the projected change in employment access by destination, given no route or schedule changes by Skagit Transit. Access to jobs from the Upper Skagit Tribal Center in particular is expected to increase in future years as the SWIFT Center becomes more utilized. In all, around 29.2% more jobs, around 22,100 jobs total, are expected to be within a 60-minute transit and walking trip of a key destination by 2045. Map 3 illustrates the travel time isochrones of key destinations.

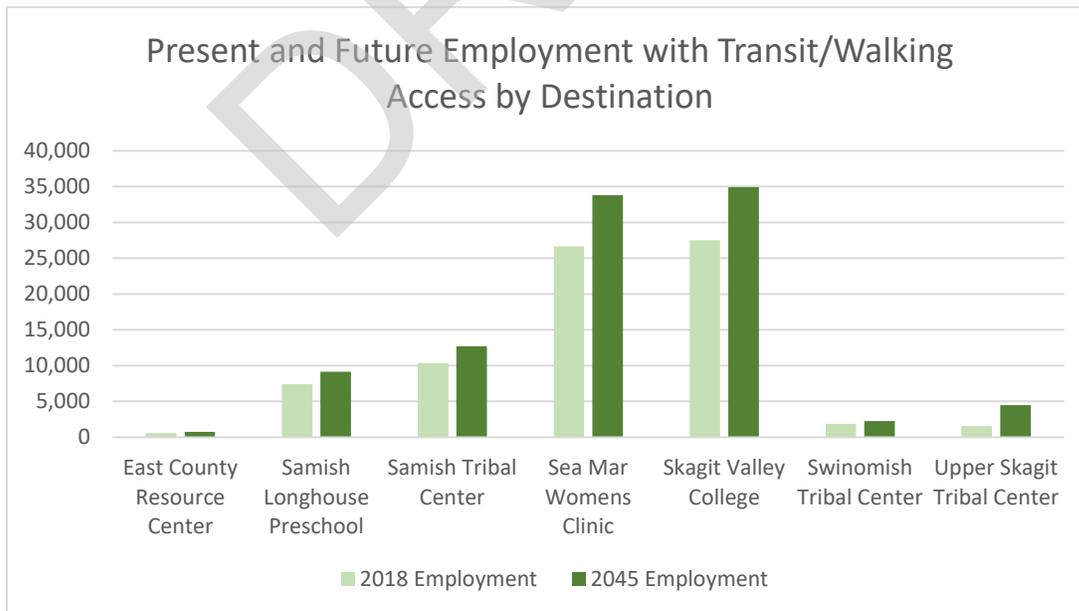
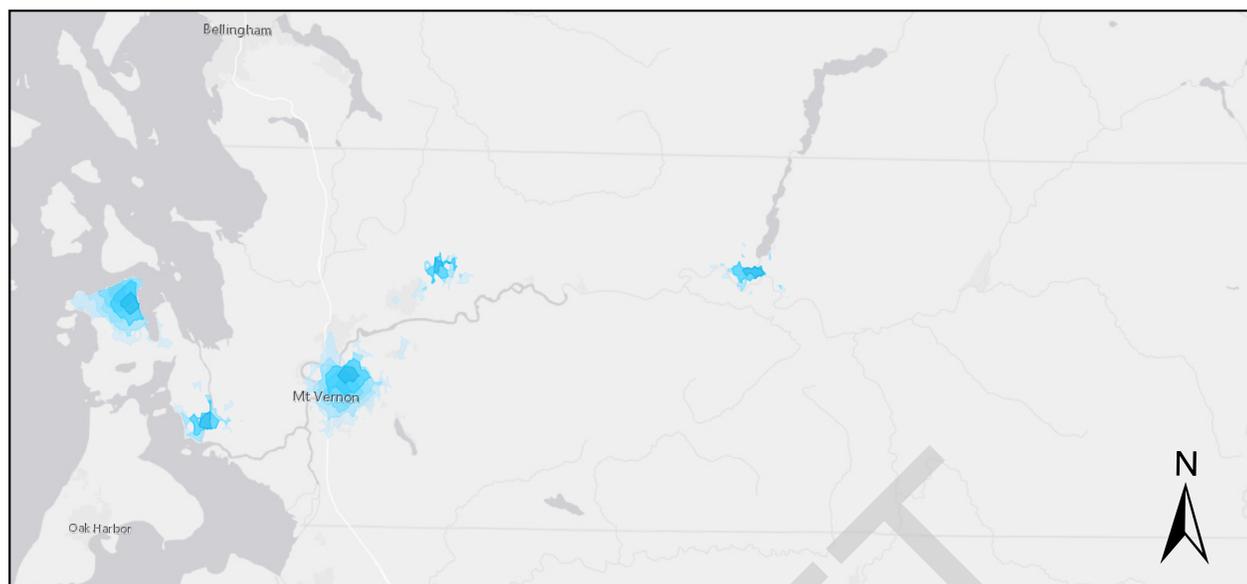


Chart 4. 2018-2045 Employment within Transit/Walking Access by Destination

Areas within 1 Hour Transit Trip of Key Destinations



Source: Skagit Council of Governments, US Census Bureau, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Map 3. Areas within 1 Hour Transit Trip of Key Destinations (Isochrones)

Future Service Changes

Although not reflected in this accessibility analysis, Skagit Transit has many projects included in the Skagit 2045 Regional Transportation Plan which will lead to future service changes. These include completion of the Maintenance, Operations, and Administration facility at the Port of Skagit, as well as fleet expansion projects.

In particular, service changes for East Skagit County are anticipated in the near future. These include changing the existing 717 route to a deviated fixed route service which would circulate around the Concrete area and related housing developments outside the Town of Concrete, and would increase frequency of service. This area in particular is identified as an Environmental Justice geography within Skagit County.

Service changes are also anticipated between Concrete, Sedro-Woolley, and Mount Vernon with updated limited stop routing between Concrete and Mount Vernon. This would reduce travel times for transit trips along SR 20, and access to destinations is expected to increase as a result.

Finally, the completion of the Skagit Transit Maintenance, Operations, and Administration facility at the Port of Skagit may result in service changes to the 615 and 513 routes, which serve the areas between Mount Vernon, La Conner, and Burlington. Increase in bus frequency on these routes is expected to improve transit access for identified Environmental Justice communities in these areas.

3.2 Project Impacts

Project Proximity to Environmental Justice Geographies

The Skagit 2045 Regional Transportation Plan planned and illustrative projects, excluding Washington State Ferry projects, were assessed for proximity to Environmental Justice Minority blocks and Low-Income tracts.

While less than 50% of funded projects were located in proximity to Minority groups, this reflects 3 out of 7 total projects. Conversely, 31 of 51 planned projects are located in proximity to Minority groups.

Overall, projects included in the Regional Transportation Plan tended to be in proximity to an identified Environmental Justice Low-Income tract. Of the 51 planned projects in Skagit 2040, 42 of these projects were located in proximity to a Low-Income tract.

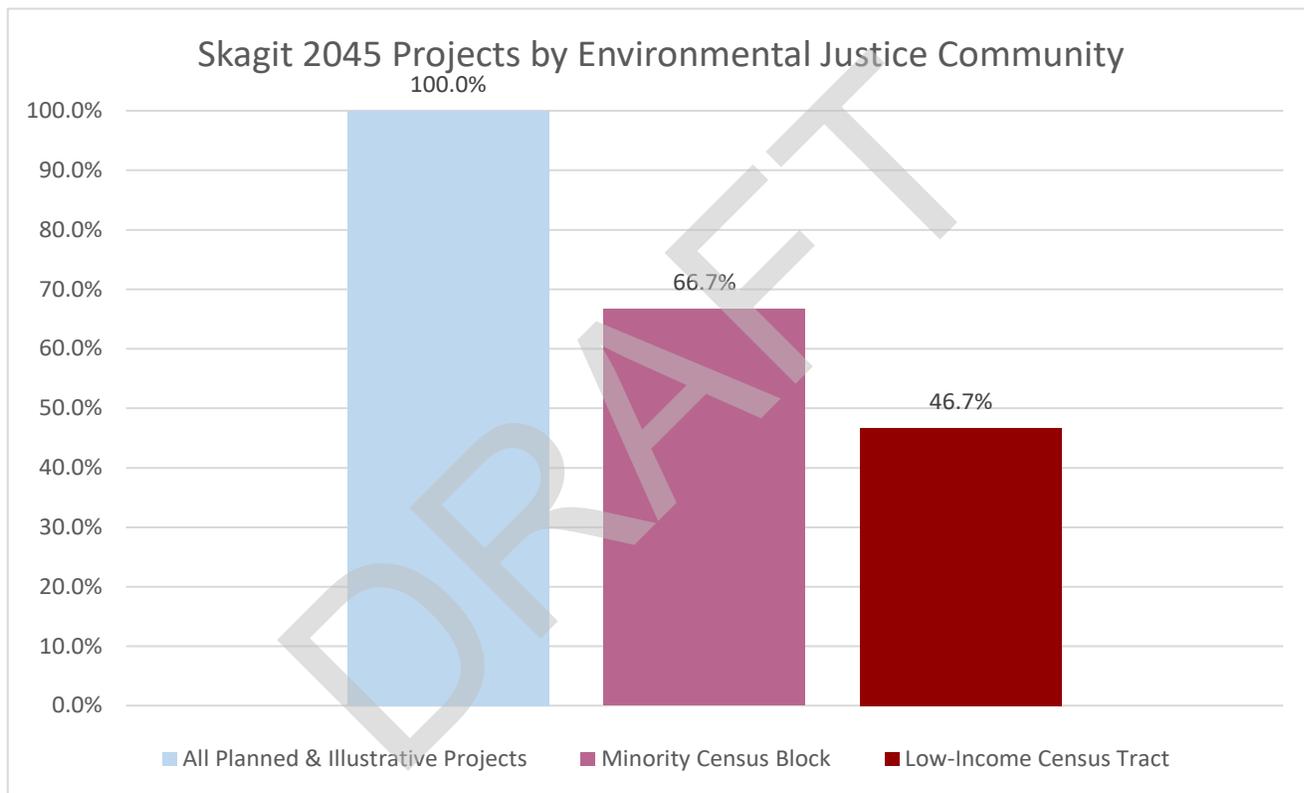


Chart 5. Skagit 2045 Planned and Illustrative Projects by Proximity to Environmental Justice Communities

Skagit 2045 Project Investments and Environmental Justice Groups

Total planned and illustrative investments (excluding Washington State Ferry projects) were linked to projects identified through the proximity analysis. Overall, nearly 65% of project funding was allocated for projects in low-income Census tracts, and nearly 73% for projects in Census blocks with high concentrations of minority residents.

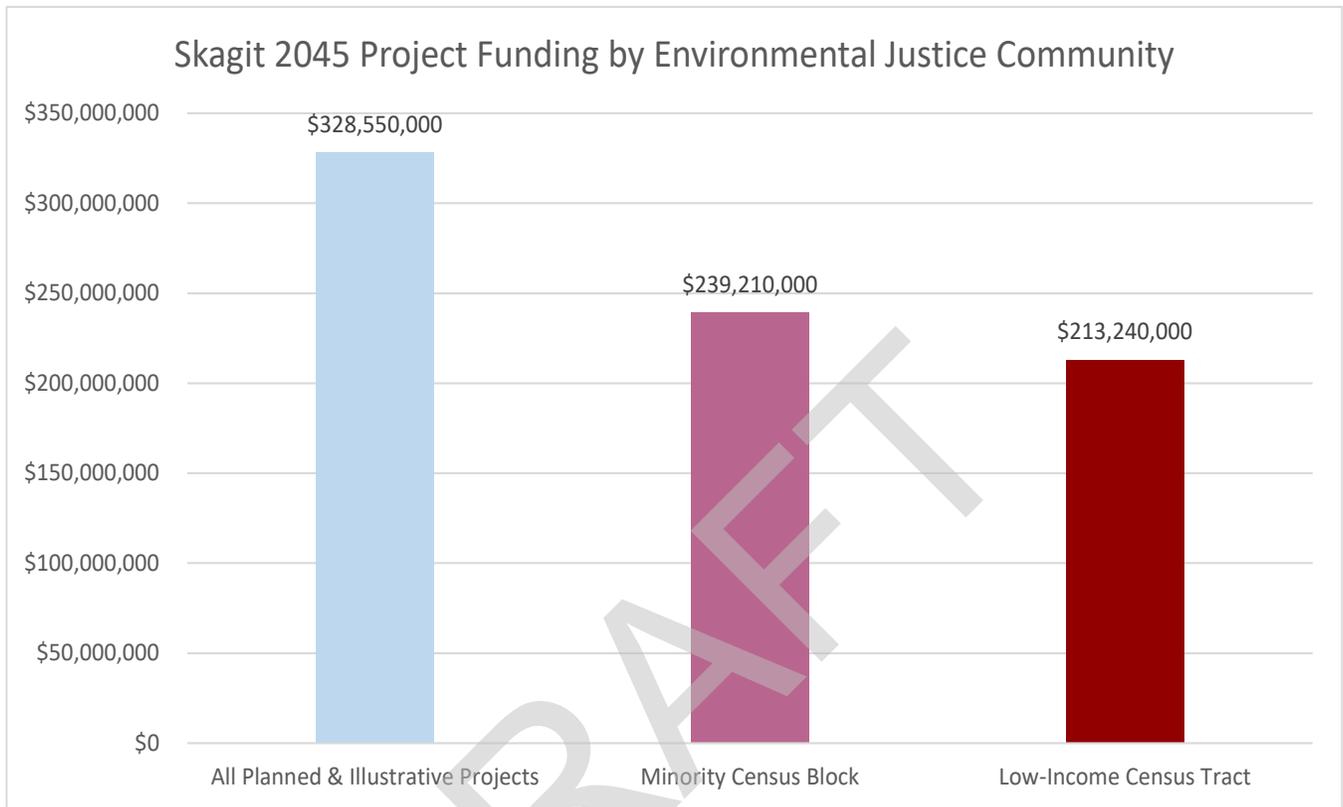


Chart 6. Skagit 2045 Planned and Illustrative Project Funding by Environmental Justice Community

3.3 Potential RTP Benefits and Burdens

As outlined in the Skagit 2045 Regional Transportation Plan, implementation of its funded and planned projects is anticipated to create regionwide benefits, and to help meet the six regional transportation priorities. In regards to identified Environmental Justice Minority and Low-Income geographies, these benefits are expected to be distributed equally well. In terms of the collective impact of projects programmed in the Regional Transportation Plan, the projects appear not to create a disproportional adverse effect or burden on Environmental Justice communities. Some overall findings include:

- There is much work to be done to address the existing systemic transportation barriers and challenges for Environmental Justice communities. While projects may not create a new adverse effect or burden for these communities, barriers such as transit access and roadway safety must be overcome through intentional future planning and programming decisions.
- Improvements in transit service are more likely to benefit Minority and Low-Income Census areas which are already served by fixed-route transit. Improvements in bus frequency or routing changes are expected to increase access to jobs and services, along with land use decisions such as concentrating households and employment in urban centers.
- The total number of transportation improvements and projects forecasted in the Skagit 2045 Regional Transportation Plan is relatively evenly split between Environmental Justice Minority and non-Environmental Justice Minority areas, and most projects and expected investments are located in Low-Income Census tracts or Minority blocks.
- A large number of pedestrian safety and non-motorized projects is expected to improve opportunities for vulnerable populations to use alternative modes of transportation, and improve system efficiency and safety for all. Most projects with safety outcomes are expected to occur in minority and low-income areas, which experience a disproportionately high rate of crashes and crashes involving non-motorized users.
- It is important to note that financial investments in a specific geography do not promise a benefit to that area. A project-level analysis is needed in each instance to determine the full benefits and burdens of the project.

3.4 Next Steps

Future Expansions and Explorations for this Analysis

- Consider incorporating other vulnerable populations into equity analyses, such as youth, elderly, disabled, and households without vehicles.
- Build capacity for measuring the impacts of transportation investments on a system-wide level through methods such as accessibility indexes or regional travel demand modeling.
- Coordinate with Skagit Transit to better understand future transit investment priorities, and how these may impact Environmental Justice and Equity groups across the Skagit Region.

Skagit Council of Governments Equity and Environmental Justice Resources:

[2020 Skagit Council of Governments Title VI Plan](#)
[Skagit Coordinated Public Transit - Human Services Transportation Plan](#)
[Skagit Council of Governments Public Participation Plan](#)
[Skagit Council of Governments Demographic Profile](#)

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