

CAPSTONE

Seattle's Green Housing Option: How ADU Production Can Reduce Reliance
on Cars by Increasing Density in Single-Family Zones

Submitted by

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This study identifies the Seattle neighborhoods where accessory dwelling unit (ADU) production would reduce reliance on cars by increasing population density in single-family zones. Increased density would reduce greenhouse gas emissions from work and non-work related travel by providing the consumer base to support expansions to transit and attract local businesses. It identifies Seattle neighborhoods where population density is on the verge of crossing the car-reliance threshold, in addition to identifying the average Walk, Bike and Transit Scores across Seattle's Census block groups to determine the extent of non-car travel options by foot, bike, public transit, and car share programs. This study reveals that density and access to non-car travel options are highest near Seattle's economic hubs: Downtown, Capitol Hill, and University District. Moving toward the perimeter of the city resulted in lower density and less access to non-car travel options, where single-family zoning covers over half of the city. The Seattle neighborhoods where ADU production would shift reliance on cars to utilizing green transit options are Ballard, Greenwood, and Greenlake.

Introduction

The City of Seattle dedicates the majority of residential land use to single-family zoning¹, but with a rapidly growing economy and population the City has recently proposed land use changes in these zones to promote and incentivize the construction of accessory dwelling units (ADUs). Accessory dwelling units can be both attached to (AADUs) or detached from (DADUs) the principal dwelling unit (or main house), and are commonly referred to as mother-in-law apartments or backyard cottages. Though technically legal since 1994 and 2010, respectively, ADUs exist on only 1% of single-family lots due to regulations that greatly limit homeowners and landlords' ability to integrate AADUs or DADUs on their properties.² Conversely, Vancouver, BC has eliminated the barriers Seattle homeowners and landlords face, and have seen construction of ADUs spike, with one in three single-family lots containing ADUs. ADUs increase neighborhood density, therefore increasing access to affordable housing in once-exclusive neighborhoods, and they have the potential to decrease reliance on personal vehicles that account for the majority of greenhouse gas emissions in the city.³ This proposal is included in the latest iteration of Seattle's Comprehensive Plan, a 20-year roadmap for the city's future, containing development plans to meet resident needs and to achieve the goals of the city: racial and social equity, environmental stewardship, community, and economic security and

¹ Rosenberg, Mike. "Rapidly growing Seattle constrains new housing through widespread single-family zoning." *The Seattle Times*. Last modified May 10, 2018. <https://www.seattletimes.com/business/real-estate/amid-seattles-rapid-growth-most-new-housing-restricted-to-a-few-areas/>

² Bertolet, Dan. "Not In Your Backyard: Cottages, In-Law Apartments, and the Predatory Delay of HALA's ADA Rules." *Sightline Institute*. Last modified April 20, 2018. <https://www.sightline.org/2017/04/20/not-in-your-backyard-cottages-in-law-apartments-and-the-predatory-delay-of-halas-adu-rules/>

³ City of Seattle: Office of Sustainability & the Environment. "Seattle releases greenhouse gas inventory." Last modified September 9, 2016. <http://greenspace.seattle.gov/2016/09/seattle-releases-greenhouse-gas-inventory/#sthash.xpic5vd8.dpbs>

opportunity.⁴ Compact, transit-rich, walkable, mixed-use, mixed-income cities are critical ingredients to a sustainable future.

Under Washington's Growth Management Act (GMA) of 1990, counties and large cities must create and regularly update comprehensive plans that identify growth and plan for housing, transportation, public utilities, and other necessary services. Upon the release of the 2016 amendments to Seattle's Comprehensive Plan, the Queen Anne Community Council appealed proposed policy changes loosening the restrictions on the construction of ADUs. According to the community council, the city failed to provide a comprehensive impact study of increased ADU construction and density. After review, the Hearing Examiner sided with the appellant and ordered a full Environmental Impact Statement before these land use changes be put into effect. The EIS has been under way for 2 years, with the final results to be made public late summer or early fall of 2018. Currently, a draft of the EIS is publicly available and indicates that negative impacts would be minimal under the proposed policy changes.⁵ It is likely that regulations related to accessory dwelling units will be reduced and construction incentivized.

When determining future ADU policy changes in Seattle's Comprehensive Plan, the city asserted that the proposed changes did not require completion of an EIS under the Washington State Environmental Policy Act (SEPA), because it would cause no appreciable harm to the environment, called a "determination of non-significance" (DNS). The Hearing Examiner's decision was based on procedural errors and stated that the DNS failed to sufficiently analyze the potential impacts on existing housing and displacement, parking, and public services. This decision fails to recognize the success of ADU production in cities like Vancouver, BC and Portland, Oregon, and perpetuates the aversion to affordable housing in high-to-middle-income

⁴ City of Seattle. "Comprehensive Plan: Managing Growth to Become an Equitable and Sustainable City, 2015-2035." Published November 2017.

⁵ City of Seattle. "Accessory Dwelling Units: Draft Environmental Impact Statement." Published May 10, 2018.

neighborhoods where the majority of residents own their homes. While the EIS may provide additional insight to the impacts of these policy changes, it also serves as a way for homeowners to prevent increased street parking and lower property values from the presence of affordable housing options for renters.⁶

While the EIS analyzes the impacts of these policy changes and produces expected outcomes pertaining to housing and socioeconomics, land use, aesthetics, parking, transportation, public services and utilities, it does not address the question of which Seattle neighborhoods are best suited for increased density through the construction of ADUs. The purpose of this study is to analyze neighborhood infrastructure using Walk, Bike and Transit Scores, census tract data, and spatial analysis to determine which are best suited to accommodate increased population density. Increasing Walk and Bike Scores by increasing population density allows residents the opportunity to opt for a short walk to ride to complete daily errands. Additionally, Bike and Transit Score improvements also provide residents a mode of transport for work and school that reduces reliance on car travel. This study will identify the Seattle neighborhoods where public and self-propelled transportation are readily available and prepared for increased demand by increasing population density through the production of ADUs.

Institutional Background and Policy Proposals

Currently, regulations surrounding ADU construction in Seattle severely limit homeowners' ability to integrate them on their properties, whereas Vancouverites have been

⁶ Bertolet, Dan. "Not In Your Backyard: Cottages, In-Law Apartments, and the Predatory Delay of HALA's ADA Rules." *Sightline Institute*. Last modified April 20, 2018. <https://www.sightline.org/2017/04/20/not-in-your-backyard-cottages-in-law-apartments-and-the-predatory-delay-of-halas-adu-rules/>

adding roughly 1,000 ADUs per year to their single-family neighborhoods.⁷ Vancouver made the crucial policy decisions to stop mandating an off-street parking spot for each ADU, stop requiring the owner to live on-site, allow both an in-law apartment constructed within the main house and a backyard cottage on each lot, and provide great latitude on size, height, and placement of ADUs. By loosening restrictions on ADUs, Vancouver neighborhoods have seen the development of some 27,000 ADUs in total. Portland has also seen a surge in construction of ADUs after imposing similar policies. The city issued about 600 permits in 2016, and by the year's end had roughly 1,900 completed citywide, and increase of about 300 per year since 2015. In contrast, Seattle's current legislation fails to implement any of these policies. As a result, recent ADU production lags well behind Vancouver. In 2016, a year when developers added 6,000 new apartments in the city, Seattle added on 156 ADUs, up from 116 the year before.

Parking Removing the off-street parking requirement for ADUs might increase competition for street parking, but according to the Draft EIS those impacts would be isolated to certain high-traffic neighborhoods and would be fairly minimal. A 2014 study in Portland found that, on average, each ADU generates 0.46 cars parked on the street. Off-street parking quotas make housing more expensive by requiring larger lot sizes and deepen car dependence through decreased density, which are in direct contradiction with two of Seattle's most urgent aspirations for the future.

⁷ Bertolet, Dan. "Not In Your Backyard: Cottages, In-Law Apartments, and the Predatory Delay of HALA's ADA Rules." *Sightline Institute*. Last modified April 20, 2018. <https://www.sightline.org/2017/04/20/not-in-your-backyard-cottages-in-law-apartments-and-the-predatory-delay-of-halas-adu-rules/>

Owner On-Site Removing the owner occupancy requirement is critical to increasing the number of ADUs in Seattle. Seattle's HALA recommended completely removing the owner occupancy requirement because such restrictions hamper ADU production. In addition, the city conducted two community meetings on potential ADU rule changes, and public feedback was nearly 2:1 against owner occupancy rules. Requiring the owner to live on-site removes the 20 percent of Seattle's single-family houses that are rentals from the pool of possible new ADU sites. When compared to typical homeowners, landlords are more likely to have the financial resources and expertise to invest in new ADUs. For many private homeowners, financing is the biggest obstacle to developing an ADU of their own. Investors can play a key role in jump starting ADU production by establishing the design, construction, and finance infrastructure for ADUs in Seattle that will make it easier for homeowners to join in on production. Barring non-resident investors from building ADUs will likely reduce production and stifle the potential for ADUs to alleviate Seattle's housing shortage.

AADUs and DADUs Arguments for allowing only one ADU per lot range from aesthetics to concerns for infrastructure. Removing the rule limiting each lot to one ADU increases density, which improves access to affordable housing in exclusive neighborhoods and decreases reliance on cars by attracting services and business to a growing market. Increasing density in single-family zones will increase demand for public transit and encourage the expansion of public transit systems in residential neighborhoods. Car emissions will be reduced if the city can prioritize housing in neighborhoods near economic hubs and adequately increase transit routes and frequency of stops. Urban infill projects like ADUs typically cost less to serve with infrastructure compared with the alternative scenario of new homes forced out to more

sprawling, suburban locations; urban infill housing lowers per-capita public expenditures on infrastructure.⁸

Design Removing or loosening regulations on the size, height, and design of ADUs prioritizes housing access over aesthetic and “neighborhood character.” One of the primary policy changes to take place is regarding minimum lot size for ADU production. Seattle currently allows ADUs on lots 4,000 square feet or larger, but proposed changes include permitting ADU production on lots 3,200 square feet or larger. This study will determine the increase in the number of parcels permitted to construct ADUs with this policy change.

Reducing Car Trips

Neighborhoods comprised predominantly of single-family homes force residents into heavy reliance on automobiles, and as a result it is no surprise that Seattle’s largest source of greenhouse gas emissions is car travel. Integrating accessory dwelling units into the city’s existing single-family zones could reduce household car reliance by supporting public transit and supplying the consumer base to attract local businesses. Significantly reducing regulation on ADU production allows households in single-family zones to support and improve public transit and build car share membership to reduce the reliance on personal vehicles, and support neighborhood businesses by establishing a consumer base within a reasonably walkable distance.

⁸ Bertolet, Dan. “Not In Your Backyard: Cottages, In-Law Apartments, and the Predatory Delay of HALA’s ADA Rules.” *Sightline Institute*. Last modified April 20, 2018. <https://www.sightline.org/2017/04/20/not-in-your-backyard-cottages-in-law-apartments-and-the-predatory-delay-of-halas-adu-rules/>

As a whole, residential areas in Seattle’s single-family zones have an average density of 4.68 housing units per gross acre, according to city acreage and housing unit estimates (includes housing parcel acres and rights of way, and excludes all other non-residential land uses in single-family zones).⁹ When considering public transit, planners with the Puget Sound Regional Council suggest that local bus lines connecting residential zones with denser urban areas and transit hubs should have a minimum residential density of seven or eight dwelling units per gross acre in service corridors.¹⁰ The service corridor of a bus line is the land within a quarter mile of the route; this is the typical distance a person is willing to walk to catch a bus.¹¹ King County Metro has different regulations for estimating transit-supportive densities in residential areas: service every 15 minutes requires 15 housing units per acre in the service corridor, service every 30 minutes requires 7 housing units per acre in the service corridor, an hourly service requires 4 housing units per acre in the service corridor.¹² While 4.68 housing units per acre is the average of Seattle’s residential zones, the range of housing units varies by neighborhood, and many Seattle communities struggle to meet these benchmarks. If Seattle was able to meet Vancouver’s level of ADU coverage, in which 35 percent of single-family homes have at least one ADU, it would add approximately 42,000 more homes to its single-family zones.

⁹ Morales, Margaret. “Small home, big climate dividends for Cascadia: Adding ADUs into existing neighborhoods could boost walkability, transit, and car shares.” *Sightline Institute*. Last modified July 18, 2018.

<http://www.sightline.org/2018/07/18/small-homes-big-climate-dividends-for-cascadia/>

¹⁰ Puget Sound Regional Council. “Transit-Supportive Densities and Land Uses.” Published February 2015.

<https://www.psrc.org/sites/default/files/tsdluguidancepaper.pdf>

¹¹ Morales, Margaret. “Small home, big climate dividends for Cascadia: Adding ADUs into existing neighborhoods could boost walkability, transit, and car shares.” *Sightline Institute*. Last modified July 18, 2018.

<http://www.sightline.org/2018/07/18/small-homes-big-climate-dividends-for-cascadia/>

¹² Sound Transit. “Regional Transit Long-Range Plan Update: Issue Paper on Regional Land Use and Transit Planning.” Published December 2014.

https://m.soundtransit.org/sites/default/files/documents/pdf/projects/LRPupdate/201412_LandUseTransitPlanningIssuePaper_Final.pdf#page=20

In addition, it has been suggested that building ride share membership has immense potential to reduce personal vehicle ownership. In Seattle, 7 percent of car share service members have shed a private vehicle because of access to shared vehicles. And the impact may be even greater: a larger study of car share users in North America found that 17 percent of members sold at least one personal vehicle after joining the share service. On average, vehicle miles traveled were reduced by 1,000 miles per year by ride share members.¹³ Vancouver, where ADU numbers are high, is home to more than half of the shared cars in the region. At Seattle's current rate of car sharing service membership, the addition of 42,000 ADUs to single-family neighborhoods would add between 8,500 and 10,000 car share memberships to the city. Between 600 and 700 of these individuals would be likely to get rid of their personal vehicles.

Over three quarters of the average US household's annual road travel miles are for daily errands and non-work related travel.¹⁴ By increasing density through urban infill of ADUs, Seattle could build a city where errands are within walking and biking distance. A Puget Sound region-specific study reported that it takes approximately 2,000 households to support a small neighborhood business cluster containing a small convenience grocery or drug store with one or two additional small shops. A slightly larger commercial area covering 30,000 square feet including a mid-sized grocery store and a few other destinations requires closer to 3,300 households. At least half of those households should be located within a quarter mile radius (comfortable walking distance). This suggests that small business clusters thrive best in

¹³Shaheen, Susan; Martin, Elliot; Bansal, Apaar. "Peer-To-Peer Carsharing: Understanding Early Markets, Social Dynamics, and Behavioral Impacts." *Institute of Transportation Studies, Berkeley*. Last modified March 1, 2018. <https://escholarship.org/uc/item/7s8207tb>

¹⁴ Polzin, Steven E., Pisarski, Alan E., Spear, Bruce and Long, Liang. "Commuting in America: The National Report on Commuting Patterns and Trends." *The American Association of State Highway and Transportation Officials*. Published May 2013. http://traveltrends.transportation.org/Documents/B2_CIA_Role%20Overall%20Travel_web_2.pdf

neighborhoods with at least eight households per gross acre, while a grocery store needs a surrounding neighborhood with about 13 households per gross acre. With Seattle's single-family zones averaging just over four and a half households per gross acre, ADUs could help support new and existing local businesses by placing more residents within walking distance of its doors.

A Green Housing Option

The compact size and remarkable energy efficiency of accessory dwelling units makes them a critical component of Seattle's fight against climate change. When compared with a medium-sized single-family home, CO2 emissions are cut by as much as 40 percent over the course of the ADUs lifetime.¹⁵ This goes beyond the benefits of almost any other green building practice, including using green building materials, state of the art insulation, and best practices in building material waste disposal. The Sightline Institute, and the research body at the forefront of the conversation around ADU production in Seattle, found that according to a 2010 Oregon Department of Environmental Quality report:

A typically sized new single-family home (defined as about 2,300 square feet) built to industry standards uses nearly 60 percent more energy than a home approximately half its size over the course of an average 70-year lifespan, from construction to demolition.

¹⁵ Morales, Margaret. "The Forgotten Green Housing Option: Accessory Dwelling Units." *Sightline Institute*. Last modified June 4, 2018. <https://www.sightline.org/2018/06/04/the-forgotten-green-housing-option-accessory-dwelling-units/>

The difference in energy use is almost entirely from reduced energy needs during occupancy, for things such as temperature control and lighting. Reduced material fabrication and transport accounts for a small portion of the energy savings.¹⁶

The same Oregon DEQ report compared energy consumption of an extra-small home (1,149 square feet) constructed according to standard building practices with that of average sized homes (2,262 square feet) constructed according to two popular green building philosophies: high insulation and optimized building material disposal. In both cases, the extra-small home saved significantly more energy than the green homes. Over the course of a typical 70-year lifespan of a home, an extra-small home is responsible for 150 metric tons fewer CO2 emissions than a medium sized high insulation home. That is approximately the emissions from 36 average passenger vehicles over a full year of driving. The small home outperformed the optimized material end of life home by even more, emitting a full 212 fewer metric tons CO2 over the same 70-year lifespan. While the energy saving benefits are even greater in multi-family homes, accessory dwelling units serve as a realistic green housing option in a city mandated for single-family zoning. While housing is scarce, the lack of ADUs doesn't necessarily lead people to live in single-family homes in the region, but instead forces them to just move elsewhere, especially the growing Sunbelt, where homes are not only larger, but consume much more energy because of high cooling costs.

Unfortunately, small housing options are scarce in Seattle and most of the Cascade region. Home sizes have swelled since the 1950s, when the average new single-family home was just below 2,000 square feet with 16 percent of new homes measuring less than 1,000

¹⁶ Morales, Margaret. "The Forgotten Green Housing Option: Accessory Dwelling Units." *Sightline Institute*. Last modified June 4, 2018. <https://www.sightline.org/2018/06/04/the-forgotten-green-housing-option-accessory-dwelling-units/>

square feet. In 1956, the average new home size crossed the 2,000 square foot threshold, with builders adding an average of new 20 square feet per year to new homes since then. Currently, the average home size hovers just under 3,000 square feet. Finally, since 1956 builders have constructed less than 3 percent of new single-family homes under 1,000 square feet, and Seattle has added fewer than 160 single-family homes under 1,000 square feet since 2008. Not only does this steady trend to supersize homes raise prices, but it also severely limits green housing options that benefit the entire community. In Seattle where ADU sizes are constrained to 1,000 square feet or less, suggesting the climate savings of ADUs compared to medium sized new homes would be even greater than in the Oregon DEQ report.

Methodology

The purpose of this analysis is to determine in which Seattle neighborhoods ADU and DADU production would reduce reliance on cars by increasing population density and, therefore, greenhouse gas emissions from work and non-work related travel by providing the consumer base to expand transit and attract local businesses. Walk, Bike, and Transit Scores, census tract and block group data, Seattle land use data, spatial analysis, and statistical analysis will be utilized to identify the neighborhoods in single-family zones with the Walk, Bike and/or Transit Scores and population density capable of supporting these services with the addition of ADUs, and propose that production of ADUs be strategically implemented in those areas to decrease reliance on personal vehicles.

Walk Score The walk score measures the walkability of any address by analyzing walking routes to nearby amenities. Points are awarded based on the distance to amenities in each

category; amenities within a 5-minute walk are awarded maximum points, while distant amenities requiring longer than 30 minutes walking are awarded zero points. Walk score also measures pedestrian friendliness by analyzing population density and road metrics, such as block length and intersection density. Data sources for calculating walk scores include Google, Education.com, Open Street Map, the U.S. Census, Localeze, and places added by the Walk Score community. Walk Scores are as follows:¹⁷

Walk Score®	Description
90-100	Walker's Paradise Daily errands do not require a car.
70-89	Very Walkable Most errands can be accomplished on foot.
50-69	Somewhat Walkable Some errands can be accomplished on foot.
25-49	Car-Dependent Most errands require a car.
0-24	Car-Dependent Almost all errands require a car.

Bike Score Bike Scores measure whether a location is good for biking on a scale of 0 to 100 based on four equally weighted components:

1. Bike lanes

- The Bike Lane Score is based on bike lane infrastructure from Open Street map, and includes all on and off street bike lanes and paths, but does not include infrastructure such as bike parking and sharing. For a given location, the sum of the length of all nearby bike lanes is calculated. A decay function is then applied to each segment. Bike paths are weighted 2X as bike lanes, and 3X as valuable

¹⁷ Walkscore.com. *Walk Score Methodology*. Last modified 2018. <https://www.walkscore.com/methodology.shtml>

as shared infrastructure. This creates a raw value that is normalized to a score of 0 to 100 based on an average of the highest Bike Lane Scores sampled.

2. Hills

- The Hill Score calculated the “hilliness” of a given area. A grade of 10% - 2% is given a score of 0 to 100. The data source used is the National Elevation Data set from the United States Geological Survey.

3. Destinations and connectivity

- Destinations and connectivity measure the network distances to a diverse set of amenities and calculates the connectivity metrics such as average block length and intersection density (similar to Walk Score).

4. Bike commuting mode share

- Bicycle Mode Share accounts for the sociability of biking and areas where infrastructure does not contribute to increased bicycle transportation. A 1 km moving window over the census tract level data is established, and bicycle mode share is normalized from 0 to 10% to a score between 0 and 100.

Bike scores are as follows:¹⁸

Bike Score	Description
90-100	Biker's Paradise Daily errands can be accomplished on a bike.
70-89	Very Bikeable Biking is convenient for most trips.
50-69	Bikeable Some bike infrastructure.
0-49	Somewhat Bikeable Minimal bike infrastructure.

¹⁸ Walkscore.com. *Bike Score Methodology*. Last modified 2018. <https://www.walkscore.com/bike-score-methodology.shtml>

Transit Score The Transit Score algorithm calculates a score for a specific point by summarizing the relative “usefulness” of nearby routes; usefulness is defined by the distance to the nearest stop on the route, the frequency of the route, and type of route. Transit scores are calculated by summing the value of all nearby routes, then normalizing the raw score to generate a score from 0 to 100. The value of the route is defined as the service level (frequency per week) multiplied by the mode weight (heavy/light rail is weighted 2X, ferry/cable car/other are 1.5X, and bus is 1X) multiplied by a distance penalty. The distance penalty calculates the distance to the nearest stop on a route. These scores are then normalized in order to apply the score to varying levels of transit infrastructure across cities. Transit scores are as follows:¹⁹

Transit Score®	Description
90–100	Rider's Paradise World-class public transportation.
70–89	Excellent Transit Transit is convenient for most trips.
50–69	Good Transit Many nearby public transportation options.
25–49	Some Transit A few nearby public transportation options.
0–24	Minimal Transit It is possible to get on a bus.

Walk, Bike, and Transit Score data for the city of Seattle was accessed through Walkscore.com, and contained a point shapefile for the scores of 690 locations evenly spaced throughout the city. To transform this data to the neighborhood level, a city boundary map of Seattle was utilized and accessed through the City of Seattle GIS Portal. I then accessed a

¹⁹ Walkscore.com. *Transit Scores Methodology*. Last modified 2018. <https://www.walkscore.com/transit-score-methodology.shtml>

“neighborhood” shapefile of census block groups from the U.S. Census 2010. Census block groups outside of city limits were clipped, eliminating block groups along the boundary with less than 200 square acres. These block groups were eliminated to avoid error in Walk, Bike, and Transit Scores after interpolating the scores to create one score per type per block group. Once the Seattle boundary and block groups were established, the Natural Neighbor tool was utilized to interpolate Walk, Bike, and Transit Scores across the city. The data was then applied to the specific census block groups, creating one average Walk, Bike, and Transit Score for each block group (Zonal Statistics tool to raster the data and Extract Values to Points tool for localized centroids in each block group). Additional layers included single-family zones and housing parcels with data from the City of Seattle open GIS portal. These steps were completed separately for each score type, creating three separate maps for Walk, Bike, and Transit Scores.

The GIS data produced from the Walk, Bike, and Transit Score maps at the block group level was merged with 2010 U.S. Census data that includes measures of total households, total housing units per block group, and total parcels within single-family zones. Census tracts were then recoded to represent the 29 neighborhoods that make up the city of Seattle. The neighborhood borders coincide with census tract boundaries that closest match the neighborhoods’ geographic shape and size; neighborhood area and population density varies. The neighborhood level map will be used for discussion purposes. The Compare Means function was utilized in SPSS Statistics to average the mean score of the separate transportation types and the number of households per acre for each Seattle neighborhood, census tract, and census block group. Parcel data was then utilized to determine the number of parcels that would become eligible for ADU construction after lot sizes changes were to take effect.

Results and Discussion

Walkability

When considering Walk Scores, walkability refers mainly to the ability of residents to walk to local services and business for frequent errands, rather than relying on a car. Increased Walk Scores allows residents to do the majority of their commuting for daily errands and non-work related travel, which accounts for over three quarters of Americans' travel, by foot to reduce greenhouse gas emissions. Research suggests that a small business cluster requires a consumer base of at least eight households per acre, while a grocery store requires a minimum of 13 households per acre. Considering both Walk Score and neighborhood density, some Seattle neighborhoods have the potential to attract local business with a slight increase in population density through the production of ADUs.

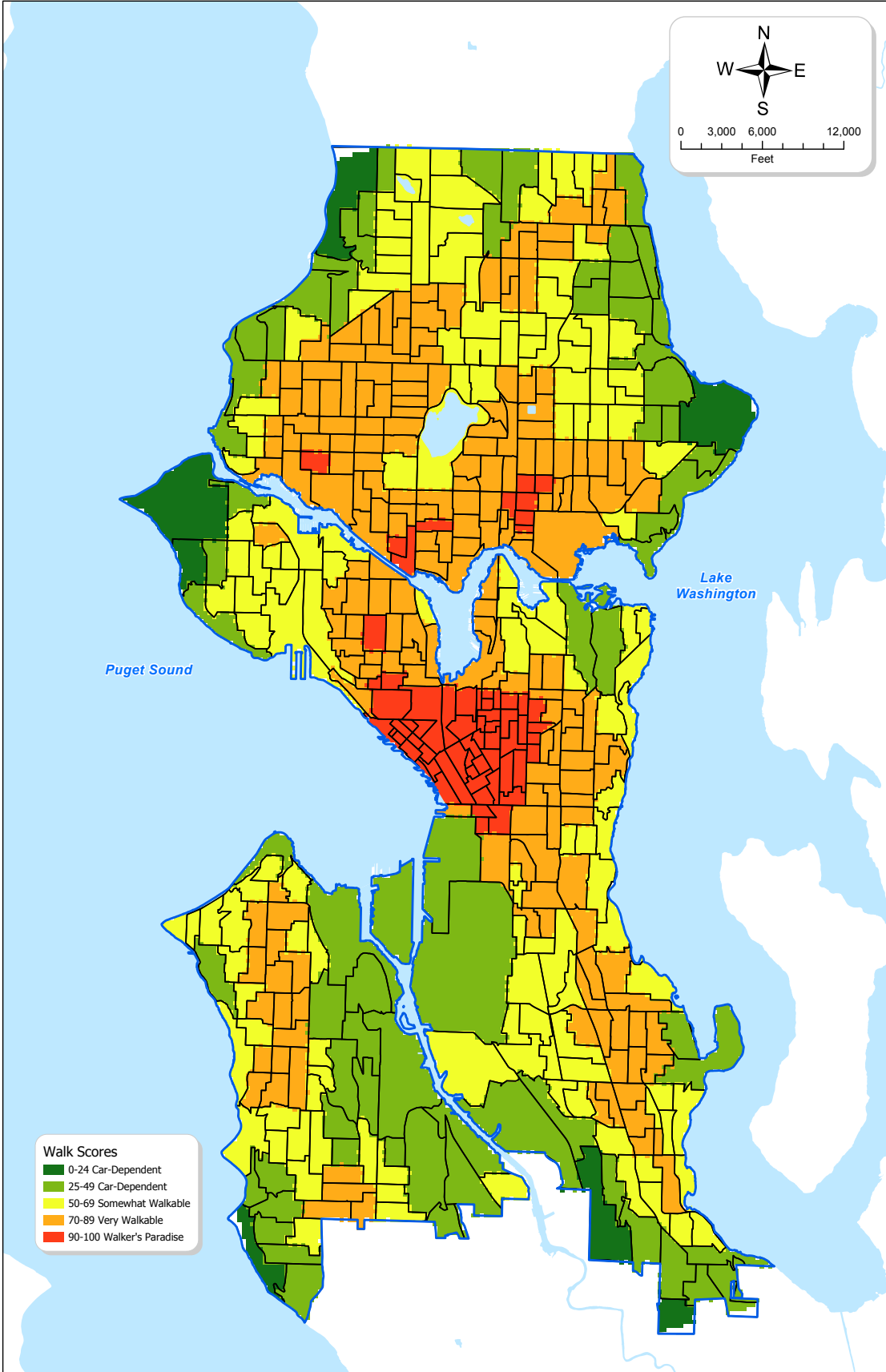
Walkability is generally high throughout the city when compared to both Bike and Transit Scores. The Seattle neighborhoods with the highest Walk Scores (“Walker’s Paradise”) are Downtown, First Hill, Capitol Hill, University District, Fremont, and Queen Anne. These neighborhoods are economic hubs within the city and home to public institutions, such as the University of Washington, that increase population and job density. Of these, the neighborhoods with the most single-family zoning where ADU production is permissible are Capitol Hill, Fremont, and Queen Anne. The production of ADUs in these neighborhoods would continue to increase walk scores by increasing density.

When considering where ADU production would be most likely to increase walkability, and therefore the ability to attract local business within walking distance of their homes, census block groups with Walk Scores of between 25 and 49 should be prioritized because these scores are the car-reliance threshold. There are 70 block groups with Walk Scores within this

range, most of which reside along the border of the city; walkability increases nearest the center of the city, with scores steadily decreasing as we move toward the city's boundary. All Seattle neighborhoods rank within the "Somewhat Walkable" and "Very Walkable" range when census block group scores are averaged across multiple census tracts that make up one neighborhood. In addition to a Walk Score range of 25 to 49, ADU production must also be prioritized in neighborhoods where population density is on the verge of crossing the threshold to support small businesses, discussed later in this section.

While ADU production is desirable in communities with existing high Walk Scores, it is important to promote their construction in areas where increased population density has the potential to attract businesses, services, and expanded transit (increasing Bike and Transit Scores as well). The neighborhoods with the lowest Walk Scores reside along the Seattle border and are primarily concentrated in North Seattle: West Bitter Lake (65.447, 5.866)²⁰ and Ballard (64.268, 7.724), and East Northgate (72.045, 5.728), Magnuson Park (70.874, 4.844), and Laurelhurst (67.520, 3.682). In addition, the number of households per acre in these neighborhoods fall below the threshold capable of supporting small local business clusters. Ballard would see significant improvements in Walk Score and increases in local businesses by a small increase in the number of households per acre, roughly one additional household per acre, through the production of ADUs. South Seattle neighborhoods with low overall Walk Scores and insufficient population density are West Seattle (71.572, 6.828), Fauntleroy (62.491, 4.394), White Center (71.180, 2.838), and Rainier Park (80.822, 4.213). This increase in population density would require minimal changes to the existing neighborhood structure with a multitude of benefits that come from increasing the consumer base of a neighborhood.

²⁰ (Neighborhood Walk Score, Households Per Acre)



Transit Access

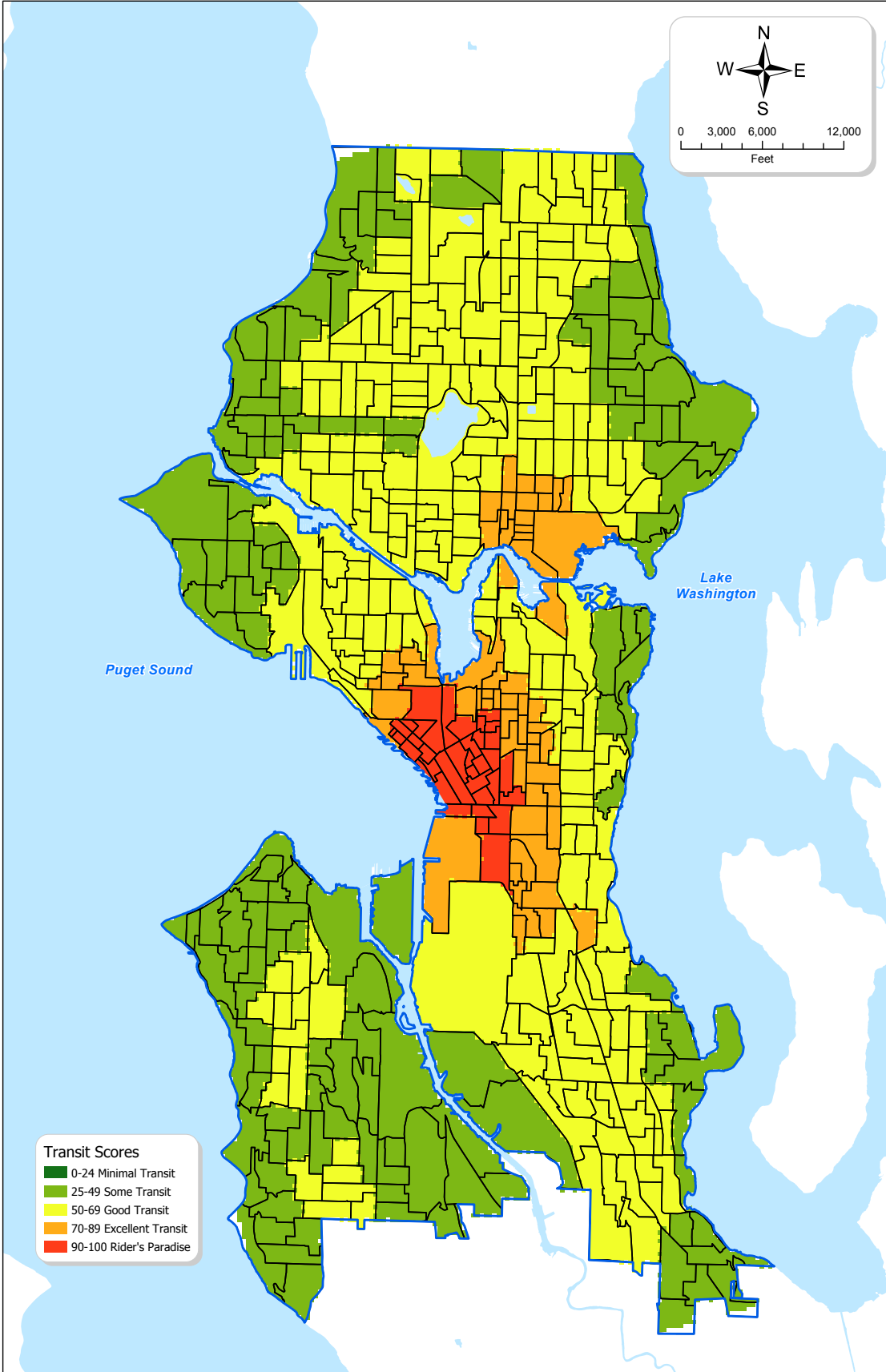
Access to transportation is essential to decreasing reliance on car travel for intercity commuting to jobs and schools. Increasing Walk and Bike Scores will allow residents to opt for a short walk or ride to take care of errands, while increasing transit options, routes and frequency will encourage residents to commute to work via shared transit (public transportation and car shares). Transit options are widespread throughout the city, with large swaths of single-family zones outside of Downtown rating “Good” on the Transit Score scale. Similar to Walk Scores, Transit Scores are lowest around the perimeter of the city. The neighborhoods with the lowest Transit Scores are Bitter Lake (54.228, 5.866)²¹, Northgate (64.609, 5.728), Ballard (59.692, 7.724), Magnolia (51.198, 4.914), Laurelhurst (45.428, 3.682), Madison Park (64.523, 2.196), Alki Beach (62.273, 5.584), White Center (59.571, 2.838), Columbia City (45.901, 4.759) and Rainier Park (59.438, 4.213). These neighborhoods are zoned predominantly, if not entirely, for single-family use and have relatively low population density when compared to high Transit Score neighborhoods. Increasing production of ADUs in these neighborhoods would prevent intercity commuting to work and school by car by providing the ridership necessary to support regular bus service.

When considering where ADU production would be most likely to increase transit options, routes, and frequency, census block groups with population density of between six and eight households per acre should prioritize the construction of ADUs because this score range is the population density required to support a bus service every 30 minutes. Greenhouse gas emissions from cars is the city’s largest source of carbon emissions and subject to decreases in a recent resolution to fight climate change; increasing population density is the only method for

²¹ (Neighborhood Transit Score, Households Per Acre)

creating the consumer base to support increased public transit. Car share programs also have a unique opportunity to expand further in single-family zones to reduce reliance on owning a car, and instead simply renting one when needed; the population density required to attract local businesses also falls within the range required for the bus service every 30 minutes.

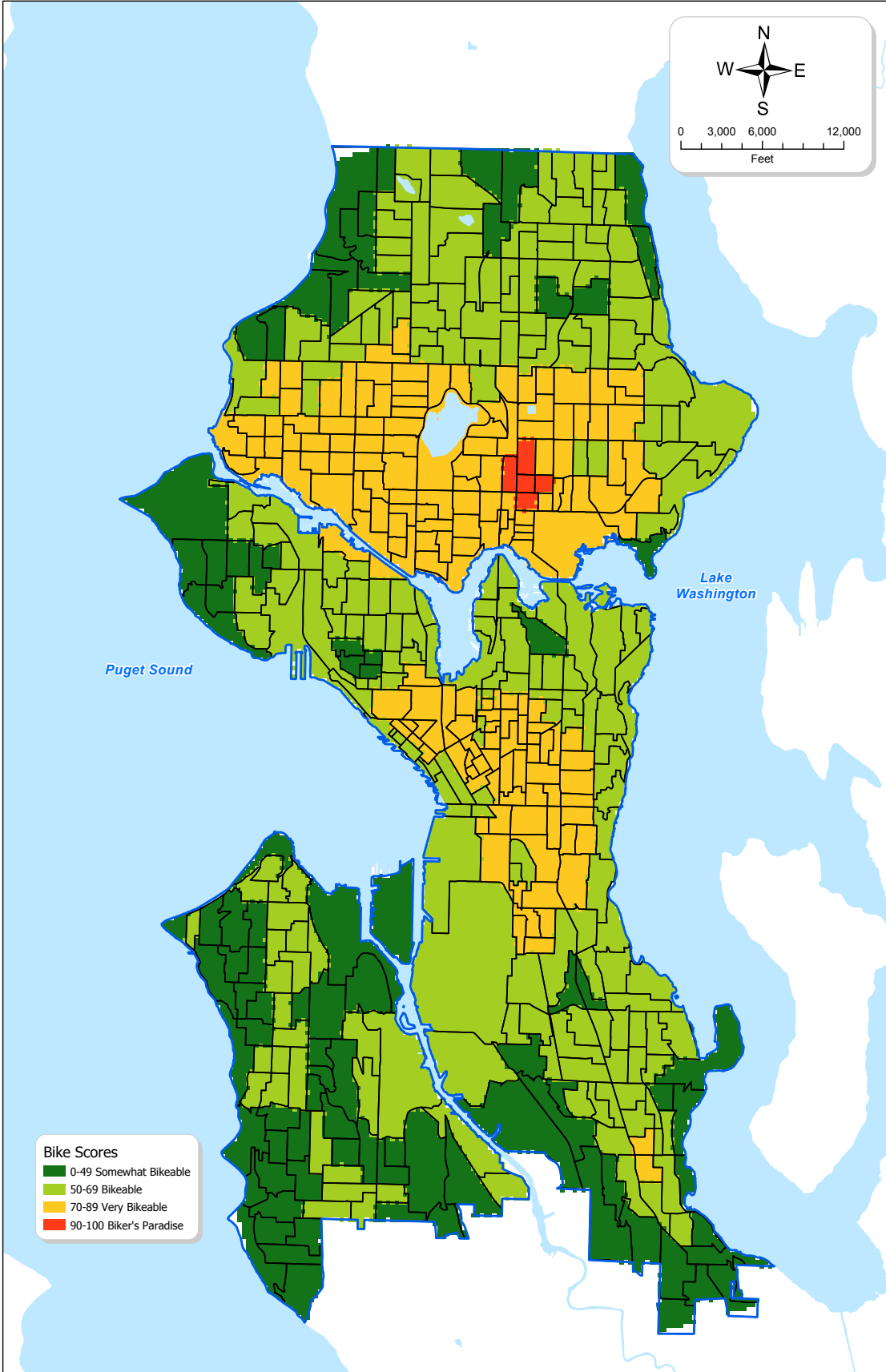
While increasing production of ADUs in areas with “Good” to “Excellent” transit may continue to increase population density and therefore transit options, production should be prioritized in areas that are on the verge of crossing the threshold from car reliance to use of public transit or car share programs. Currently, transit is only rated “Rider’s Paradise” in Downtown; all neighborhoods outside of the city’s economic hub would benefit from increased density when considering access to transit. The neighborhoods requiring a minimal addition of ADUs to boost transit options are Ballard (59.692, 7.724), Greenwood (65.783, 7.583), and Greenlake (52.085, 7.586). The neighborhoods with the lowest Transit Scores also have low population density, and are therefore unable to capitalize on the density benefits of ADU production; many of these neighborhoods would require 100 percent adoption of ADUs, and would still fall below the required population density to support expansions to transit.

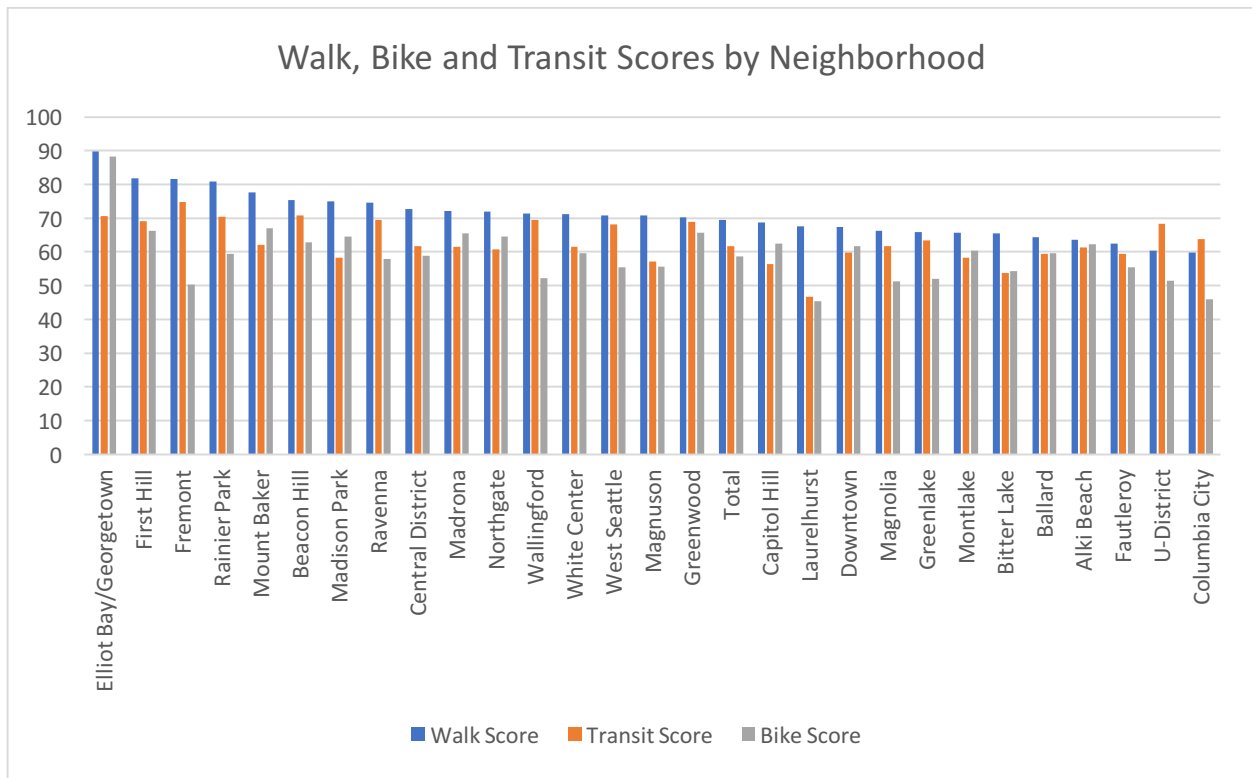


Bikeability

Bike Scores are relatively low throughout the city when compared to both Walk and Transit Scores. The only Seattle neighborhoods considered to be a “Biker’s Paradise” are a portion of Ravenna and University District. In addition, the only neighborhoods considered “Very Bikeable” are Ballard, Fremont, Greenwood, Greenlake, Wallingford, Capitol Hill, First Hill, and Beacon Hill. Outside of these areas, all of which are concentrated around Greenlake and First Hill, respectively, Seattle is considered “Bikeable” and “Somewhat Bikeable”.

While the majority of the city is considered “Bikeable,” several Bike Share programs throughout the city have struggled to attract riders. Seattle has little infrastructure in the form of bike lanes and routes, and when paired with the hills and constant rain of the city, biking is not as practical as these scores make it seem. This is apparent when considering the Seattle initiative for Bike Share programs and construction of bike lanes throughout the city, which failed to significantly increase ridership. Because Bike Scores are generally low, Walk and Transit Scores, coupled with population density, serve as a better indicator for ADU production.





Population Density

Seattle’s single-family zones fall well below the required number of households per acre to support even a small business cluster or grocery store, which require a consumer base of eight and thirteen households per acre at a minimum, respectively, to sustainably operate in the area. While population density (in households per acre) should not be the sole determinant of ADU production in a specific neighborhood, it is a key indicator of the local consumer base and ability to attract business and expand public transit. When considering population density alone, the Seattle neighborhoods closest to population levels capable of supporting business and expansions to public transit are listed below. Level of priority is highest in red, descending in priority to yellow and green.

Report				
Mean				
Neighborhood	Households Per Acre	Walk Score	Bike Score	Transit Score
Bitter Lake	5.86587	65.44724	53.76006	54.22835
Northgate	5.72755	72.04594	60.69802	64.60928
Ballard	7.72439	64.26769	59.43338	59.69186
Greenwood	7.58274	70.23889	68.96191	65.78315
Greenlake	7.58636	65.80436	63.47463	52.08499
Ravenna	8.91302	74.66476	69.47602	57.98208
Magnuson	4.84450	70.87416	57.14028	55.70176
Fremont	6.77722	81.65685	74.79133	50.39910
Wallingford	11.49575	71.35902	69.53108	52.12974
University District	14.20713	60.32174	68.40431	51.52525
Laurelhurst	3.68222	67.52034	46.70200	45.42828
Magnolia	4.91410	66.30879	61.63434	51.19819
Queen Anne	13.36162	59.46335	49.91225	50.81186
Montlake	6.99941	65.62394	58.27047	60.32352
Madison Park	2.19561	74.93756	58.26146	64.52275
Downtown	30.22258	67.35319	59.82596	61.65435
Capitol Hill	27.32831	68.67405	56.30786	62.38726
Madrona	3.89652	72.16394	61.59338	65.55928
First Hill	9.92191	81.80895	69.14252	66.31053
Central District	6.07563	72.69608	61.71689	58.88629
Alki Beach	5.58356	63.58594	61.31277	62.27306
Elliot Bay/Georgetown	8.38528	89.83822	70.62752	88.30275
West Seattle	6.58994	70.87590	68.17420	55.37619
Fauntleroy	4.39384	62.49114	59.41532	55.51834
White Center	2.83774	71.17977	61.47185	59.57125
Beacon Hill	5.53455	75.38232	70.86179	62.88076
Mount Baker	3.45319	77.70618	62.09083	66.92703
Columbia City	4.75924	59.88096	63.70431	45.90124
Rainier Park	4.07939	81.09693	70.48898	59.26612
Total	9.15358	69.55560	61.73356	58.65914

To view a table with the Walk, Bike, and Transit Scores and households per acre by Census Block Group (listed by neighborhood, census tract, and block group), see the Appendix at the end of this report.

The City of Seattle has the opportunity to include an additional 11,526 parcels in those permitted to construct ADUs by reducing the minimum lot size from 4,000 square feet to 3,200 square feet. There are 134,470 lots currently zoned as single-family, regardless of lot size.

Changing ADU lot size regulation to include properties between 3,200 and 3,999 square feet introduces just under 9 percent of single-family lots to potential development of ADUs.

Conclusion

The City of Seattle is heavily invested in reducing regulations on accessory dwelling unit production with the goal of increasing housing options, improving affordability, and reducing greenhouse gas emissions from car travel by increasing neighborhood density and access to goods and services within a reasonable distance. After a comprehensive, two-year environmental impact study, adverse impacts due to reduced regulation of ADUs would be minimal. Positive benefits include improving access to exclusive neighborhoods, increasing neighborhood diversity, reducing reliance on cars for both personal errands and work travel, and overall reductions in greenhouse gas emissions from cars and energy inefficient housing. The purpose of this study, assuming that ADU regulation is reduced, is to determine which neighborhoods would benefit most from ADU production in terms of neighborhood walkability, bikeability, access to public transit or car shares, and increased density to support local businesses using spatial and statistical analysis.

Overall, Walk, Bike, and Transit Scores are highest nearest the center of the city, or the Downtown neighborhood; moving away from Downtown toward the outskirts of the city resulted in lower Walk, Bike, and Transit Scores. Single-family zoning makes up over half of land use in Seattle, resulting in fewer households per acre than necessary to support small local businesses, preventing residents from cutting back on car travel for everyday errands and commuting to work. Everyday errands and non-work related travel account for over three quarters of Americans' car travel, and the City of Seattle has the opportunity to capitalize on

increased neighborhood density to provide the consumer base required for improvements to public transit and attracting local business within walking distance of residents' homes.

While Walk Scores are generally high throughout the city, Bike and Transit Scores vary greatly between and throughout neighborhoods. Scores are generally higher where population density is high, with scores dropping as population density falls. Neighborhoods with an average of five to seven households per acre would benefit most from the increased density provided by ADU production: Bitter Lake, Northgate, Ballard, Greenlake, Greenwood, Fremont, Central District, Alki Beach, West Seattle, and Beacon Hill. Neighborhoods with fewer than five households per acre would require pervasive ADU production, which is not likely at the current rate of production in even the most ADU-friendly cities. Conversely, neighborhoods with over eight households per acre are already at a level that can support improvements to transit with proper funding.

Limitations Census data used in this analysis is from 2010, which may not account for population growth and development in the years since it was collected. With rapid population growth occurring in Seattle, outdated Census data may underestimate the number of households per acre across the city. Seattle's single-family zones have gone through minimal subdivision; the average number of households per acre has remained fairly constant in single-family zones, with the average household size dropping over the course of the last ten years. In addition to concerns of outdated Census data, the neighborhood model dilutes the results of Walk, Bike and Transit Scores and population density on the block group and tract level. More precise measure occurs at the Census Block Group level. To see the Walk, Bike and Transit Score and number of households per acre by neighborhood, Census Tract, and Census Block Group see the table in the Appendix at the end of this report.

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Appendix

Report						
Mean						
Neighborhood	Census Tract	Block Group	Households Per Acre	Walk Score	Bike Score	Transit Score
Bitter Lake	300	1	2.51027	90.78176	68.31141	87.69753
		2	5.76204	39.84976	48.00713	39.16048
		Total	4.13616	65.31576	58.15927	63.42900
	401	1	10.08079	43.65008	29.52205	40.81466
		2	6.60346	45.55759	29.93690	43.81366
		3	11.15956	81.39037	66.80167	57.30690
		Total	9.28127	56.86601	42.08688	47.31174
	402	1	6.66205	61.81051	61.35086	34.38469
		2	2.20050	63.98465	52.22605	56.18532
		3	7.23610	72.95316	61.26058	63.78402
		4	8.03487	70.80914	55.48144	60.16305
		Total	6.03338	67.38936	57.57973	53.62927
	500	1	.73459	24.82396	54.74536	43.25388
		2	3.61178	63.89298	55.78593	62.13261
		3	2.65596	84.60575	64.93079	73.74635
		Total	2.33411	57.77423	58.48736	59.71095
	600	1	2.41700	64.78941	73.33012	52.09045
		2	9.81769	45.24683	61.05003	44.23384
		3	3.15081	61.13292	62.94770	47.21170
		4	2.91158	71.11548	58.07156	58.57993
		5	2.11469	54.05596	49.54815	45.95646
		6	6.98638	78.80267	54.65804	45.88151
		Total	4.56636	62.52388	59.93427	48.99232
		1300	1	6.45959	60.80069	60.33032
	2		10.45065	63.55370	64.89027	51.73869
	3		6.45485	57.71015	60.83105	48.62054
	Total		7.78837	60.68818	62.01721	50.15715
	1400	1	6.16619	51.81884	50.88800	50.68962
		2	3.72403	52.40056	56.58445	48.54599
		3	6.85945	35.02205	36.79828	43.46281
		4	2.01329	50.41296	39.48426	46.16690
		Total	4.69074	47.41360	45.93875	47.21633
	1500	1	3.99017	28.61330	24.37033	42.09288
		2	2.15382	52.54026	57.13272	41.32943
		Total	3.07200	40.57678	40.75153	41.71116
	1600	1	1.51583	64.12119	42.80277	48.24598
		2	3.35258	72.56428	60.37766	51.31205
		3	7.36727	75.53762	67.21657	53.16450
		Total	4.07856	70.74103	56.79900	50.90751
	1701	1	10.52503	81.15467	47.68984	59.92115
		2	7.76579	86.33057	52.47993	61.55467
		3	7.72248	57.75789	56.89481	49.71180
		Total	8.67110	75.08104	52.35486	57.06254

	1702	1	8.02002	85.63334	51.84937	64.69634
		2	5.79203	79.53391	46.99493	60.15491
		3	5.37645	80.23298	51.07019	59.95607
		4	4.76979	89.09218	50.22551	70.86398
		Total	5.98957	83.62310	50.03500	63.91782
	1800	1	6.05326	92.71081	59.35331	76.77044
		2	12.31933	89.70720	49.84621	63.61506
		3	11.13295	91.38751	54.32577	70.01085
		Total	9.83518	91.26851	54.50843	70.13212
	Total	1	5.42790	62.55905	52.04531	54.23082
		2	6.12948	62.93019	52.94269	51.98139
		3	6.91159	69.77304	58.30774	56.69755
		4	4.43238	70.35744	50.81569	58.94347
		5	2.11469	54.05596	49.54815	45.95646
		6	6.98638	78.80267	54.65804	45.88151
		Total	5.86587	65.44724	53.76006	54.22835
	Northgate	100	1	.89752	79.27890	53.43702
2			8.29378	70.27196	61.90119	64.28706
3			7.54326	60.75422	51.75638	48.00449
4			24.61797	68.33836	57.93906	65.51431
5			9.95493	46.75940	32.95852	46.50427
Total			10.26149	65.08057	51.59843	57.45533
200			1	4.21425	77.34641	64.18168
		2	4.39938	71.25775	57.38325	45.77126
		3	3.19936	51.05625	43.13438	43.75480
		4	5.80350	73.58709	56.20440	57.68677
		5	5.52709	93.70977	69.97741	97.02076
		6	4.17031	44.27788	55.17788	39.20563
		Total	4.55231	68.53919	57.67650	58.15108
700		1	16.10645	90.99185	56.95932	62.97821
		2	4.62096	47.48780	51.00818	47.42981
		3	4.96405	36.82685	45.08289	48.65508
		4	4.87686	91.59894	66.77363	99.22639
		Total	7.64208	66.72636	54.95600	64.57237
800		1	3.90265	70.08287	61.18834	52.87244
		2	3.48298	62.41922	57.41483	50.45723
		Total	3.69282	66.25105	59.30158	51.66483
900		1	3.46145	69.59192	61.27861	54.34229
		2	.52388	95.02374	71.20529	83.91649
		Total	1.99267	82.30783	66.24195	69.12939
1000		1	3.97914	97.62728	76.88170	94.40806
		2	2.77570	59.90487	53.09888	51.92844
		Total	3.37742	78.76608	64.99029	73.16825
1100		1	4.24689	64.44309	56.33722	53.60187
		2	3.84779	63.82450	52.98649	51.56314
		Total	4.04734	64.13380	54.66185	52.58250
1200		1	4.22073	42.48969	72.02023	32.72850
		2	8.63317	47.81198	39.65503	47.55723
		3	15.10961	39.29356	40.27021	49.97040
		4	5.22387	61.68830	53.94543	50.74395

		5	9.30890	62.56784	52.65643	50.08904
		Total	8.49926	50.77028	51.70947	46.21782
	1900	1	4.28528	92.03604	73.39245	84.22069
		2	5.45901	88.57740	45.48382	64.84103
		3	4.34963	79.99317	63.97380	66.72939
		Total	4.69798	86.86887	60.95002	71.93037
	2000	1	5.34322	95.01894	81.19554	93.29539
		2	5.75821	92.88051	70.08913	89.26420
		3	5.97794	96.65826	71.77148	98.67476
		Total	5.69312	94.85257	74.35205	93.74478
	2100	1	4.48371	91.64638	78.86900	95.93604
		2	4.67024	94.23417	69.03423	83.58604
		3	5.84540	94.76965	78.71232	93.78787
		Total	4.99979	93.55006	75.53851	91.10332
	2200	1	3.84931	65.66986	72.60435	48.27322
		2	3.97697	56.86070	59.38354	57.59996
		3	1.01136	95.86726	82.54581	97.26132
		4	1.91288	69.35873	68.74966	56.85868
		Total	2.68763	71.93914	70.82084	64.99830
	Total	1	4.91588	78.01860	67.36212	66.75754
		2	4.70351	70.87955	57.38699	61.51682
		3	6.00008	69.40240	59.65591	68.35476
		4	8.48702	72.91429	60.72244	66.00602
		5	8.26364	67.67901	51.86412	64.53802
		6	4.17031	44.27788	55.17788	39.20563
		Total	5.72755	72.04594	60.69802	64.60928
	Ballard	3000	1	6.83744	64.57388	64.16167
2			6.29852	62.26052	55.80313	55.54422
3			6.20366	69.21200	76.82779	60.58119
4			6.76580	47.96149	49.44466	49.52654
Total			6.52636	61.00197	61.55931	54.09366
3100		1	6.33921	53.19135	46.94335	54.26079
		2	6.50582	65.07523	57.88649	59.58828
		3	7.53090	77.38174	60.47688	58.47741
		4	5.81655	70.64225	61.10340	59.47020
		5	1.60809	77.49426	52.06389	53.35936
		Total	5.56011	68.75697	55.69480	57.03121
3200		1	9.44505	71.63603	59.17571	61.30894
		2	13.36245	72.93434	64.26569	60.51253
		3	4.21253	80.21561	68.91328	58.05817
		4	11.01372	78.36240	67.04028	56.99350
		5	6.52470	59.74576	51.85280	52.48725
		6	1.84905	72.57639	62.27317	60.35572
		7	5.96695	63.25730	48.94481	53.35801
		Total	7.48206	71.24683	60.35225	57.58202
3300		1	6.78577	68.09782	51.34064	53.07186
		2	9.24996	47.42159	60.80834	82.18134
		3	14.25297	48.78314	54.94880	58.53180
		4	12.24242	66.72717	67.65403	83.61794
		5	6.68221	73.24847	77.53201	78.44846

	4700	Total	9.84267	60.85564	62.45676	71.17028	
		1	8.52298	25.79448	49.05238	41.06383	
		2	2.93032	64.04742	60.53575	67.49480	
		3	19.02945	61.42953	47.31805	63.93703	
		4	7.13334	64.62192	69.46752	59.34467	
	Total	9.40402	53.97334	56.59343	57.96008		
	Total	1	7.58609	56.65871	54.13475	52.08562	
		2	7.66942	62.34782	59.85988	65.06423	
		3	10.24590	67.40441	61.69696	59.91712	
		4	8.59436	65.66305	62.94198	61.79057	
		5	4.93833	70.16283	60.48290	61.43169	
		6	1.84905	72.57639	62.27317	60.35572	
		7	5.96695	63.25730	48.94481	53.35801	
		Total	7.72439	64.26769	59.43338	59.69186	
Greenwood	2900	1	6.94458	80.80093	80.06768	61.81023	
		2	7.65172	77.38081	82.59113	62.78337	
		3	8.22043	78.21872	83.11266	64.44341	
		Total	7.60558	78.80015	81.92383	63.01233	
	3400	1	7.82753	76.91195	77.91638	75.77220	
		2	8.04751	70.39134	69.59224	84.55315	
		3	6.80465	37.72957	20.49136	45.33652	
		Total	7.55989	61.67762	55.99999	68.55396	
	Total	1	7.38605	78.85644	78.99203	68.79121	
		2	7.84961	73.88608	76.09169	73.66826	
		3	7.51254	57.97415	51.80201	54.88997	
		Total	7.58274	70.23889	68.96191	65.78315	
	Greenlake	2700	1	6.82686	54.81341	52.56937	50.36737
			2	4.37939	57.88520	52.07471	55.41118
3			6.13211	45.71987	45.89507	51.02567	
4			6.09023	70.27296	58.79178	53.37709	
Total			5.85715	57.17286	52.33273	52.54533	
2800		1	8.36604	72.77738	63.98415	56.97392	
		2	8.61830	73.17389	65.94621	57.26385	
		3	10.91881	68.41980	65.50694	56.71774	
		4	7.72047	85.48441	79.35686	82.07996	
		Total	8.90590	74.96387	68.69854	63.25886	
3500		1	7.64292	59.04887	62.80107	59.54902	
		2	7.83931	59.85553	60.20557	57.97338	
		3	3.43561	76.65185	67.59497	70.15938	
		Total	6.30595	65.18542	63.53387	62.56059	
3600		1	6.69659	56.08526	52.94039	41.08689	
		2	14.00751	80.19874	57.41053	42.23581	
		3	7.42783	58.76303	50.59623	39.13193	
		4	16.94385	54.86166	52.36981	39.80910	
		Total	11.26895	62.47717	53.32924	40.56593	
4500		1	5.93527	79.93407	78.41711	50.16775	
		2	6.12172	59.05658	77.03860	45.48843	
		Total	6.02849	69.49532	77.72786	47.82809	
4600		1	.89861	69.53878	82.55347	46.55106	
		2	7.92143	54.88409	71.38216	36.79238	

		3	7.80423	78.66186	72.05756	49.53787
		Total	5.54143	67.69491	75.33107	44.29377
	Total	1	6.06105	65.36630	65.54426	50.78267
		2	8.14794	64.17567	64.00963	49.19417
		3	7.14372	65.64328	60.33015	53.31452
		4	10.25152	70.20634	63.50615	58.42205
		Total	7.58636	65.80436	63.47463	52.08499
Ravenna	2500	1	3.89093	96.45226	71.30411	87.91336
		2	7.22671	66.16733	75.76305	78.88347
		Total	5.55882	81.30979	73.53358	83.39841
	2600	1	7.45543	97.86066	73.53030	100.00000
		2	5.19962	98.14522	79.18749	95.07814
		3	7.10727	59.51222	54.22899	49.27338
		4	5.95488	79.66054	64.38800	54.11047
		Total	6.42930	83.79466	67.83370	74.61550
	3800	1	6.07412	62.07651	47.17345	34.67789
		2	5.70474	65.97794	62.40610	34.66661
		Total	5.88943	64.02722	54.78978	34.67225
	4301	1	5.58118	77.97816	71.20081	50.51653
		2	7.61483	81.90002	69.72630	54.33864
		3	5.21279	35.81474	65.67143	42.12058
		Total	6.13626	65.23097	68.86618	48.99192
	4302	1	18.86452	77.26557	72.15880	48.43026
		2	17.83567	80.80735	82.79638	72.13581
		Total	18.35009	79.03646	77.47759	60.28304
	4400	1	6.04474	57.95342	66.14091	40.55222
		2	8.99989	84.51785	80.36526	49.61131
		3	11.68131	71.25794	70.98955	46.98654
		4	21.07265	75.95325	74.06141	46.40007
		Total	11.94965	72.42062	72.88928	45.88754
	Total	1	7.98515	78.26443	66.91806	60.34838
		2	8.76357	79.58595	75.04076	64.11900
		3	8.00046	55.52830	63.62999	46.12683
		4	13.51377	77.80690	69.22470	50.25527
Total		8.91302	74.66476	69.47602	57.98208	
Magnuson	2400	1	3.75624	61.90535	65.33820	51.02398
		2	8.65661	55.98235	53.97136	49.68237
		3	5.01898	41.53454	53.85447	42.67210
		Total	5.81061	53.14074	57.72134	47.79281
	3900	1	5.10648	98.45242	67.11749	99.87955
		2	4.29943	92.27444	69.76373	93.02314
		Total	4.70295	95.36343	68.44061	96.45135
	4000	1	.58749	85.43718	80.42596	51.71110
		2	4.04578	44.40226	24.73770	32.74562
		Total	2.31663	64.91972	52.58183	42.22836
	4200	1	4.12325	78.56943	56.65171	43.04324
		2	5.06501	67.39513	58.30013	48.31723
		3	4.95712	76.44019	51.73333	52.42755
		4	6.36190	86.42343	50.83757	51.56328
		5	6.15574	61.67318	52.95169	52.33194

	Total	Total	5.33260	74.10027	54.09488	49.53665
	Total	1	3.39337	81.09109	67.38334	61.41447
		2	5.51671	65.01355	51.69323	55.94209
		3	4.98805	58.98736	52.79390	47.54983
		4	6.36190	86.42343	50.83757	51.56328
		5	6.15574	61.67318	52.95169	52.33194
	Total	4.84450	70.87416	57.14028	55.70176	
Fremont	4800	1	6.89027	88.01735	79.56477	48.98508
		2	8.45588	83.66298	73.38955	47.88277
		3	4.55143	77.42071	72.91393	50.50004
		4	7.21130	77.52635	73.29707	54.22852
		Total	6.77722	81.65685	74.79133	50.39910
	Total	1	6.89027	88.01735	79.56477	48.98508
		2	8.45588	83.66298	73.38955	47.88277
		3	4.55143	77.42071	72.91393	50.50004
		4	7.21130	77.52635	73.29707	54.22852
		Total	6.77722	81.65685	74.79133	50.39910
Wallingford	4900	1	12.64570	78.69539	73.89407	49.14135
		2	7.67949	79.66428	81.84866	48.43459
		3	18.50592	71.59447	77.73214	49.01442
		4	13.14535	69.58613	72.99396	53.38537
		5	16.62874	85.19372	88.43960	59.59755
		Total	13.72104	76.94680	78.98169	51.91466
	5000	1	7.35718	66.07169	68.43531	51.71748
		2	9.47123	83.01410	86.48870	55.41716
		3	17.60771	78.51655	85.90456	55.99109
		Total	11.47871	75.86744	80.27619	54.37525
	5100	1	7.85315	83.91374	88.67606	55.14021
		2	6.38443	69.72556	73.01394	51.73600
		3	8.26721	66.48186	70.89006	53.85070
		Total	7.50160	73.37372	77.52669	53.57563
	5200	1	24.46899	80.16946	54.73013	64.45895
		2	14.55290	75.21738	53.84019	49.14476
		3	5.57065	47.84874	54.30707	37.72853
		4	7.82360	37.97596	57.84483	46.64441
		5	18.59470	30.38593	58.08883	43.74306
		Total	14.20217	54.31949	55.76221	48.34394
	5400	1	8.93975	75.50426	77.69754	55.98911
		2	2.85333	76.04350	69.45119	57.55038
		3	8.48503	83.51718	45.57786	50.88486
		4	13.07987	88.06049	50.76688	53.02487
		Total	8.33950	80.78136	60.87337	54.36231
	Total	1	12.25295	76.87091	72.68662	55.28942
		2	8.18828	76.73296	72.92854	52.45658
		3	11.68731	69.59176	66.88234	49.49392
		4	11.34961	65.20752	60.53522	51.01822
		5	17.61172	57.78982	73.26422	51.67031
		Total	11.49575	71.35902	69.53108	52.12974
	University District	5301	1	13.32138	39.19110	50.03356
2			20.93320	70.56483	79.27109	54.16077

		3	22.11118	67.73054	74.34245	55.53974
		4	33.20491	34.78332	45.14496	43.04318
		Total	22.39267	53.06745	62.19801	49.30486
	5302	1	9.77194	53.84149	66.96546	49.82906
		2	.10417	70.62415	79.14997	54.49895
		3	.00311	85.51674	83.92265	59.12931
		Total	3.29307	69.99413	76.67936	54.48577
	Total	1	11.54666	46.51629	58.49951	47.15241
		2	10.51868	70.59449	79.21053	54.32986
		3	11.05715	76.62364	79.13255	57.33452
		4	33.20491	34.78332	45.14496	43.04318
		Total	14.20713	60.32174	68.40431	51.52525
	Laurelhurst	4100	1	7.33712	71.83852	49.50331
2			.41990	72.41944	46.33480	46.40275
3			4.29129	83.30048	73.78119	63.77500
4			4.30556	67.64970	33.98053	46.65342
5			4.59330	53.74463	36.24227	37.76629
6			1.14615	56.16928	40.36988	37.07502
Total			3.68222	67.52034	46.70200	45.42828
Total		1	7.33712	71.83852	49.50331	40.89718
		2	.41990	72.41944	46.33480	46.40275
		3	4.29129	83.30048	73.78119	63.77500
		4	4.30556	67.64970	33.98053	46.65342
		5	4.59330	53.74463	36.24227	37.76629
		6	1.14615	56.16928	40.36988	37.07502
Magnolia	5600	1	4.52087	70.26556	50.62885	50.03443
		2	1.88534	81.74567	83.23743	50.11353
		3	.97928	40.47553	48.99036	38.92745
		4	4.41617	77.56428	51.90964	50.29099
		5	4.43654	72.34573	52.06629	48.33929
		Total	3.24764	68.47935	57.36651	47.54114
	5700	1	.14499	63.23287	48.29804	51.45736
		2	4.89723	80.80437	80.93892	59.17458
		3	3.75248	86.71851	81.89824	54.95663
		4	4.79794	87.81918	84.36813	57.74182
		5	3.92852	89.00237	79.71458	53.88107
		Total	4.18435	83.31274	76.14158	55.22710
	5801	1	10.19552	40.90184	50.50677	44.90282
2		15.10819	40.71294	51.09077	44.75336	
3		7.50163	31.85873	49.47831	46.98211	
4		1.74001	55.83329	61.47673	46.50013	
Total		8.63634	42.32670	53.13814	45.78461	
5802	1	7.95565	69.14030	61.08458	62.49823	
	2	3.36536	47.01775	38.61021	53.02235	
	3	1.24308	65.82017	53.48872	53.84019	
	Total	4.18803	60.65941	51.06117	56.45359	
Total	1	5.70426	60.88514	52.62956	52.22321	
	2	6.31403	62.57018	63.46933	51.76595	

		3	3.36912	56.21823	58.46391	48.67660
		4	3.65137	73.73892	65.91817	51.51098
		5	4.18253	80.67405	65.89043	51.11018
		6	7.58493	92.29913	81.63157	54.15115
		Total	4.91410	66.30879	61.63434	51.19819
Queen Anne	5900	1	4.58432	55.46719	46.82512	51.92667
		2	6.04835	67.54089	59.22878	60.84541
		3	3.21010	67.43979	47.05331	48.52330
		4	7.81482	76.00637	68.57762	63.96085
		5	4.49146	27.35688	37.44255	41.96728
		Total	5.22981	58.76222	51.82548	53.44470
	6000	1	10.72208	66.78969	51.53031	48.61802
		2	4.69805	53.23911	47.40935	47.12862
		3	5.35233	48.27563	47.32899	44.87511
		4	7.09033	70.85852	52.23273	55.09431
		Total	6.96569	59.79074	49.62534	48.92901
	6700	1	10.64096	57.89458	55.48680	56.58607
		2	15.09986	52.51229	47.87063	49.12197
		3	15.46425	64.04073	44.83532	40.57250
		4	8.69662	69.55579	51.89258	38.81088
		Total	12.47542	61.00084	50.02133	46.27286
	6800	1	7.96284	61.50010	42.32819	36.38290
		2	7.24869	41.52372	34.20041	35.70573
		Total	7.60576	51.51191	38.26430	36.04432
	6900	1	9.27102	68.62752	57.26576	56.46613
		2	7.99663	62.15794	75.32184	60.37534
		3	9.19796	63.92819	55.88025	60.21589
		4	10.95163	71.95659	51.93806	59.71671
		Total	9.35431	66.66756	60.10148	59.19352
	7000	1	12.90077	48.94252	39.71904	59.07777
		2	52.13024	38.91753	41.75592	54.42086
		3	23.25497	64.69449	46.27208	48.01329
		4	25.86279	55.86965	31.70525	45.69424
		5	44.74506	62.07517	50.08173	48.44278
		6	18.60445	69.41281	63.62370	57.75383
		Total	29.58305	56.65203	45.52629	52.23380
	Total	1	9.34700	59.87027	48.85920	51.50959
		2	15.53697	52.64858	50.96449	51.26632
		3	11.29592	61.67577	48.27399	48.44002
		4	12.08324	68.84938	51.26925	52.65540
		5	24.61826	44.71603	43.76214	45.20503
6		18.60445	69.41281	63.62370	57.75383	
Total	13.36162	59.46335	49.91225	50.81186		
Montlake	6100	1	6.67428	19.24141	15.43363	37.18915
		2	3.30690	70.54022	51.74244	45.59391
		3	7.39581	91.01440	87.62569	78.23512
		4	7.02686	84.14548	81.62314	73.67421
		Total	6.10096	66.23538	59.10623	58.67310
	6200	1	1.27136	89.45658	89.81976	77.74567
		2	3.51250	94.41842	84.68009	81.30939

		3	2.71402	94.16832	91.12457	78.99097	
		Total	2.49929	92.68111	88.54148	79.34868	
	6400	1	5.90815	43.28167	27.49607	45.28948	
		2	6.28291	50.54080	31.78339	45.26958	
		3	4.85111	62.67580	58.10609	60.98958	
		Total	5.68072	52.16609	39.12852	50.51621	
	6500	1	2.92604	20.80293	23.36961	52.98716	
		2	20.00527	48.14460	45.26236	50.87564	
		3	12.68241	78.35190	63.15128	61.17747	
		Total	11.87124	49.09981	43.92775	55.01343	
	6600	1	2.23289	64.45271	60.51067	55.31622	
		2	18.20071	73.12391	62.32829	60.20929	
		Total	10.21680	68.78831	61.41948	57.76275	
	Total	1	3.80255	47.44706	43.32595	53.70553	
		2	10.26166	67.35359	55.15932	56.65156	
		3	6.91084	81.55260	75.00191	69.84828	
		4	7.02686	84.14548	81.62314	73.67421	
		Total	6.99941	65.62394	58.27047	60.32352	
	Madison Park	6300	1	1.66407	93.15533	79.99892	82.39686
			2	1.24683	89.40395	77.56779	82.40446
3			3.92111	49.78542	31.34478	48.08286	
4			1.95042	67.40552	44.13436	45.20683	
Total			2.19561	74.93756	58.26146	64.52275	
Total		1	1.66407	93.15533	79.99892	82.39686	
		2	1.24683	89.40395	77.56779	82.40446	
		3	3.92111	49.78542	31.34478	48.08286	
		4	1.95042	67.40552	44.13436	45.20683	
		Total	2.19561	74.93756	58.26146	64.52275	
Downtown	7100	1	9.26825	66.10702	70.54595	60.89168	
		2	9.48607	76.24165	60.44027	53.51867	
		Total	9.37716	71.17433	65.49311	57.20518	
	7200	1	8.16305	37.72957	20.49136	45.33652	
		2	29.22007	82.96617	75.06708	75.38816	
		3	76.81864	81.03382	61.43600	61.93678	
		Total	38.06725	67.24319	52.33148	60.88715	
	7300	1	14.73950	30.71000	18.95179	46.09686	
		2	14.50272	14.28176	22.14509	39.61917	
		3	11.62763	29.44768	32.34727	46.24414	
		Total	13.62328	24.81315	24.48139	43.98673	
	8001	1	44.41980	26.42324	48.43618	32.17350	
		2	38.59271	82.65835	76.67543	88.70999	
		3	3.87309	54.42846	50.85823	47.93181	
		4	65.15566	76.19746	50.00965	54.57472	
		5	118.64532	84.24165	77.37032	65.39704	
		Total	54.13732	64.78983	60.66996	57.75741	
	8002	1	42.85463	70.32428	73.74931	69.53847	
		2	29.35630	46.41611	57.08452	45.12616	
		Total	36.10546	58.37020	65.41691	57.33232	
	8100	1	5.93080	31.00739	36.22238	36.81294	
		2	6.41681	60.94576	54.79283	62.75959	

		3	32.49233	88.33672	78.46195	66.99114
		Total	14.94665	60.09662	56.49239	55.52122
	8200	1	9.98100	87.94932	82.51420	58.42057
		2	62.22146	70.98800	57.69257	56.13246
		3	52.15631	75.29549	76.76139	57.18100
		Total	41.45292	78.07760	72.32272	57.24468
	8300	1	26.23079	96.67339	69.73168	96.89417
		2	34.12705	93.78438	68.40215	87.50384
		Total	30.17892	95.22888	69.06691	92.19901
	8500	1	15.76617	96.22231	79.49953	80.01672
		2	12.87727	93.31084	70.67371	80.80855
		3	10.86358	97.46204	85.11404	87.00848
		Total	13.16901	95.66506	78.42909	82.61125
	Total	1	19.70600	60.34961	55.57138	58.46460
		2	26.31116	69.06589	60.33041	65.50740
		3	31.30527	71.00070	64.16315	61.21556
		4	65.15566	76.19746	50.00965	54.57472
5		118.64532	84.24165	77.37032	65.39704	
Total		30.22258	67.35319	59.82596	61.65435	
Capitol Hill	7401	1	52.82968	97.27455	69.86453	99.22784
		2	38.21217	81.61733	60.30772	65.35166
		3	45.83210	74.16673	64.11736	57.72558
		4	48.07252	84.23483	73.99186	79.92104
		Total	46.23662	84.32336	67.07037	75.55653
	7402	1	43.41647	86.04163	81.31712	73.36153
		2	54.75105	78.83572	75.48573	65.66243
		3	78.09741	67.14657	60.88241	72.25790
		Total	58.75497	77.34131	72.56175	70.42729
	7500	1	31.55230	74.04805	64.49894	63.06215
		2	24.84050	43.30014	57.92411	59.58915
		3	30.00467	55.68297	49.40320	60.51907
		4	14.30566	64.49429	54.28571	34.86628
		5	12.53442	69.04716	53.69648	37.61351
		Total	22.64751	61.31452	55.96169	51.13003
	7600	1	13.85105	52.61861	37.07794	47.93090
		2	12.37958	37.44567	26.68831	45.53573
		3	14.33270	22.12509	10.47788	39.62444
		Total	13.52111	37.39646	24.74804	44.36369
	7700	1	5.42417	43.52800	23.10559	45.04556
		2	7.59822	63.68104	58.67222	60.34138
		3	7.15550	35.48087	26.92208	41.65880
		4	16.31812	58.86434	43.12677	48.80273
		Total	9.12400	50.38856	37.95666	48.96212
	7900	1	10.33205	72.33146	61.89063	74.37572
		2	11.45193	87.91265	70.52206	82.37855
		3	14.49014	80.27511	55.71908	75.08638
		4	36.05652	71.46022	53.06218	69.48796
		5	25.23013	86.22777	57.18852	66.24492
		Total	19.51215	79.64144	59.67649	73.51470
	8400	1	26.19002	87.09249	79.65548	79.41971

		2	27.00663	91.26774	70.35758	75.72930
		3	35.59869	87.99845	80.07081	63.63585
		Total	29.59845	88.78623	76.69462	72.92829
	Total	1	26.22796	73.27640	59.63003	68.91763
		2	25.17715	69.15147	59.99396	64.94117
		3	32.21589	60.41083	49.65611	58.64400
		4	28.68820	69.76342	56.11663	58.26950
		5	18.88227	77.63746	55.44250	51.92921
		Total	27.32831	68.67405	56.30786	62.38726
		Madrona	7800	1	.52354	61.29781
2	4.92028			81.53688	63.07427	75.91489
3	6.23338			72.51760	66.23536	71.56060
4	3.90890			73.30347	64.01405	59.29292
Total	3.89652			72.16394	61.59338	65.55928
Total	1		.52354	61.29781	53.04984	55.46872
	2		4.92028	81.53688	63.07427	75.91489
	3		6.23338	72.51760	66.23536	71.56060
	4		3.90890	73.30347	64.01405	59.29292
	Total		3.89652	72.16394	61.59338	65.55928
First Hill	8600	1	10.73129	96.61581	79.33297	86.70959
		2	12.20063	84.85881	65.07601	66.13331
		3	11.24817	85.90711	66.87753	66.95939
		Total	11.39336	89.12725	70.42884	73.26743
	8700	1	6.84885	90.12523	71.33280	72.20642
		2	12.03996	74.12978	63.69877	56.22081
		3	10.95186	83.37031	72.12908	62.91546
		Total	9.94689	82.54177	69.05355	63.78090
	9000	1	8.79411	90.17559	80.81237	74.05000
		2	6.56045	49.28896	53.88064	45.28929
		Total	7.67728	69.73228	67.34650	59.66964
	Total	1	8.79142	92.30554	77.15938	77.65533
		2	10.26701	69.42585	60.88514	55.88113
		3	11.10001	84.63871	69.50330	64.93743
		Total	9.92191	81.80895	69.14252	66.31053
	Central District	8800	1	6.92313	81.58514	60.78898
2			5.14999	79.12505	54.95805	58.01400
3			7.81514	61.96525	51.79549	47.39284
Total			6.62942	74.22515	55.84750	55.66562
8900		1	1.20529	73.57085	66.17712	56.86181
		2	6.73280	43.74784	43.12056	50.60596
		3	7.04695	86.23302	78.20388	70.42503
		4	7.65610	82.64536	76.97413	67.31437
		Total	5.66029	71.54927	66.11892	61.30179
Total		1	4.06421	77.57800	63.48305	59.22592
		2	5.94139	61.43645	49.03931	54.30998
		3	7.43105	74.09914	64.99968	58.90893
		4	7.65610	82.64536	76.97413	67.31437
		Total	6.07563	72.69608	61.71689	58.88629
Alki Beach		9600	1	3.58684	64.29200	61.53884
	2		12.95925	81.37511	69.70364	56.11338

		3	5.47229	82.37371	69.69775	56.64482
		4	7.31142	68.28188	68.33701	60.06214
		5	1.44191	66.17783	49.80508	51.09197
		Total	6.15434	72.50011	63.81646	56.74939
	9701	1	6.76007	56.81435	58.60040	59.56221
		2	11.50121	60.36586	60.02259	61.65073
		3	1.33413	67.02555	60.44352	52.85525
		4	3.89376	72.46632	65.99153	56.55975
		Total	5.87229	64.16802	61.26451	57.65698
		9702	1	4.51777	46.48176	56.61333
	2		4.39935	34.09836	55.02555	45.44526
	3		4.62534	26.60314	47.78530	45.46732
	4		4.42385	26.83931	53.37032	42.37378
	5		3.00266	49.61319	56.76906	53.56275
	Total		4.19379	36.72715	53.91271	47.97718
	9800	1	4.80924	97.48843	75.88248	99.75471
		2	6.34182	97.56395	71.91672	99.99107
		3	5.35252	97.41345	79.83590	96.61380
		4	6.45944	96.78224	71.87556	99.90816
		5	7.89487	16.07650	31.72808	32.65966
		Total	6.17158	81.06491	66.24775	85.78548
	Total	1	4.91848	66.26913	63.15876	68.04708
		2	8.80041	68.35082	64.16712	65.80011
		3	4.19607	68.35396	64.44062	62.89530
		4	5.52212	66.09244	64.89361	64.72596
		5	4.11315	43.95584	46.10074	45.77146
		Total	5.58356	63.58594	61.31277	62.27306
Elliot Bay/Georgetown	9100	1	8.27081	94.06502	79.63686	75.77843
		2	30.84602	90.87090	75.07400	73.67709
		Total	19.55841	92.46796	77.35543	74.72776
	9200	1	31.45278	90.18438	74.66817	95.75682
		2	8.21004	96.88073	76.08755	99.47918
		Total	19.83141	93.53255	75.37786	97.61800
	9300	1	2.20817	98.54302	71.06902	100.00000
		2	.20529	96.26254	68.71943	99.35047
		3	.26869	96.86018	67.54229	100.00000
		Total	.89405	97.22191	69.11025	99.78349
	9900	1	5.22789	94.65353	73.76719	98.76847
		2	2.50137	94.76658	64.87299	99.99690
		3	2.72221	92.48563	83.58200	86.19662
		4	.32484	42.64793	41.88321	42.32625
		Total	2.69408	81.13842	66.02635	81.82206
	Total	1	11.78991	94.36149	74.78531	92.57593
		2	10.44068	94.69519	71.18849	93.12591
		3	1.49545	94.67291	75.56215	93.09831
		4	.32484	42.64793	41.88321	42.32625
		Total	8.38528	89.83822	70.62752	88.30275
	West Seattle	10500	1	7.30919	67.00896	71.61275
2			6.38227	78.87688	78.85152	53.86427
3			5.06336	84.38427	82.03822	50.92712

		4	11.84555	49.12661	46.60214	54.03337		
		5	8.93860	33.50254	49.76986	48.96185		
		Total	7.90780	62.57985	65.77490	52.36026		
	10600		1	4.54555	31.85873	49.47831	46.98211	
			2	9.09514	87.76641	75.71697	53.29081	
			3	9.00673	25.93788	21.79602	38.99145	
			4	5.17214	97.04365	74.16988	91.91690	
			5	1.55383	89.75503	84.69395	72.86003	
			6	7.78128	85.92866	77.27396	52.87705	
			Total	6.19245	69.71506	63.85485	59.48639	
			10701		1	3.20594	85.74079	75.51315
	2	4.21048			79.34058	76.77814	51.73006	
	Total	3.70821			82.54069	76.14565	51.16979	
	10702		1	6.16237	75.37034	70.73843	51.42752	
			2	8.81608	85.35492	82.25032	60.82119	
			3	6.35050	77.01814	73.50350	52.71120	
			Total	7.10965	79.24780	75.49742	54.98664	
	Total		1	5.30576	64.99470	66.83566	50.75845	
			2	7.12599	82.83470	78.39924	54.92658	
			3	6.80687	62.44676	59.11258	47.54326	
			4	8.50885	73.08513	60.38601	72.97513	
			5	5.24622	61.62878	67.23190	60.91094	
			6	7.78128	85.92866	77.27396	52.87705	
			Total	6.58994	70.87590	68.17420	55.37619	
			Fauntleroy	11401		1	6.54446	87.92996
	2	6.15000				24.44828	27.71798	31.73403
	3	4.28464				73.91486	83.79708	55.19883
	Total	5.65970				62.09770	67.34941	51.18892
	11402			1	4.24075	53.38335	36.30973	42.69521
				2	7.25066	72.72308	54.63488	48.94524
3				6.69786	78.36974	58.47194	50.54990	
Total				6.06309	68.15872	49.80552	47.39678	
11500		1		4.15654	44.81786	43.45326	46.54493	
		2		4.94318	40.69296	44.61945	46.92286	
		3		6.09405	54.41970	62.13023	50.58065	
		Total		5.06459	46.64351	50.06765	48.01615	
11600		1		4.89293	64.03501	49.02004	49.17360	
		2		5.43630	52.21049	38.09272	49.73117	
		3		3.95421	32.50133	53.05047	42.00703	
		4		3.00818	77.12531	67.46465	60.18037	
		5		3.26490	89.55574	83.58198	67.64370	
		6		1.34524	89.30498	86.44084	74.61674	
		Total		3.65029	67.45548	62.94178	57.22544	
		12000			1	4.41931	72.82424	72.84257
2	3.84232				80.06390	77.53548	60.70118	
3	3.90397				73.80287	82.22833	76.82073	
Total	4.05520				75.56367	77.53546	73.15902	
12100		1		1.03612	57.16754	62.76217	70.04935	
		2		2.41116	30.53164	13.61938	37.68221	
		Total		1.72364	43.84959	38.19078	53.86578	

	Total	1	4.21502	63.35966	59.15349	59.50869
		2	5.00560	50.11172	42.70332	45.95278
		3	4.98695	62.60170	67.93561	55.03143
		4	3.00818	77.12531	67.46465	60.18037
		5	3.26490	89.55574	83.58198	67.64370
		6	1.34524	89.30498	86.44084	74.61674
		Total	4.39384	62.49114	59.41532	55.51834
White Center	10800	1	.67498	78.23828	69.30732	50.50598
		2	2.66064	63.42591	76.47713	71.27008
		3	4.14362	70.26553	83.38428	73.82263
		Total	2.49308	70.64324	76.38958	65.19956
	10900	1	.49979	78.08371	76.09607	74.34825
		2	.48852	66.86164	78.07735	69.29197
		Total	.49415	72.47268	77.08671	71.82011
	11200	1	1.58957	89.19599	52.11917	56.87349
		2	1.09214	72.87148	50.72507	62.84125
		3	3.72449	61.69877	47.83533	52.52322
		Total	2.13540	74.58875	50.22652	57.41265
	11300	1	1.56281	60.97389	53.01117	52.38247
		2	4.20302	66.73067	66.33890	55.86504
		3	5.70117	78.22217	48.21288	54.40918
		4	4.24864	70.31407	50.71162	52.04284
		5	6.30118	68.45493	46.83777	48.24981
		Total	4.40336	68.93915	53.02247	52.58987
	Total	1	1.08179	76.62297	62.63343	58.52755
		2	2.11108	67.47242	67.90461	64.81708
		3	4.52310	70.06216	59.81083	60.25167
		4	4.24864	70.31407	50.71162	52.04284
		5	6.30118	68.45493	46.83777	48.24981
		Total	2.83774	71.17977	61.47185	59.57125
Beacon Hill	9400	1	18.15052	97.92989	73.94295	100.00000
		2	3.59225	97.65790	73.36466	100.00000
		3	3.67066	83.72410	73.48605	54.93508
		4	9.08603	43.75860	58.87640	47.67506
		5	6.41241	81.98563	67.11272	55.43537
		Total	8.18237	81.01122	69.35656	71.60910
	10001	1	1.40247	60.71134	50.10014	48.03840
		2	2.38030	77.08337	66.80930	55.79607
		3	5.49831	78.90604	64.56720	53.20967
		Total	3.09369	72.23359	60.49221	52.34805
	10002	1	6.69823	69.89288	82.94818	68.52209
		2	8.77442	75.20913	82.24402	64.19617
		3	5.70230	71.82902	83.53648	74.38972
		4	7.91781	91.47832	70.38199	99.18475
		Total	7.27319	77.10234	79.77767	76.57318
	10401	1	3.61039	80.30030	79.62925	59.17109
		2	3.66229	89.65646	80.39647	62.38068
		3	3.31319	61.83540	84.12532	51.85855
		Total	3.52862	77.26405	81.38368	57.80344
	10402	1	2.32606	78.58308	74.45199	55.31580

		2	3.71869	67.01656	69.31336	54.53777
		3	4.30182	48.87240	37.91181	34.53072
		4	4.93827	75.83371	73.17572	55.55737
		Total	3.82121	67.57644	63.71322	49.98542
	Total	1	6.43754	77.48350	72.21450	66.20948
		2	4.42559	81.32468	74.42556	67.38214
		3	4.49726	69.03339	68.72537	53.78475
		4	7.31404	70.35688	67.47804	67.47239
		5	6.41241	81.98563	67.11272	55.43537
		Total	5.53455	75.38232	70.86179	62.88076
Mount Baker	9500	1	3.03985	77.41540	59.92986	54.87418
		2	3.67741	66.24726	58.64756	48.90004
		3	.63028	79.67078	65.64256	55.66013
		4	4.75261	78.28742	67.10298	55.51340
		Total	3.02503	75.40521	62.83074	53.73694
	10100	1	.86149	93.75460	74.08252	99.99948
		2	3.28873	94.78893	66.37562	99.99895
		3	3.25132	76.63234	63.46513	99.38738
		4	6.36224	52.92142	48.98791	31.72369
		5	5.21484	79.63751	54.58335	56.28603
		Total	3.79572	79.54696	61.49891	77.47911
	Total	1	1.95067	85.58500	67.00619	77.43683
		2	3.48307	80.51809	62.51159	74.44949
		3	1.94080	78.15156	64.55385	77.52376
		4	5.55742	65.60442	58.04545	43.61855
		5	5.21484	79.63751	54.58335	56.28603
		Total	3.45319	77.70618	62.09083	66.92703
	Columbia City	10200	1	3.79580	25.55038	55.60405
2			.56812	61.44312	50.37428	40.01675
3			5.37349	59.64955	60.67706	44.80906
4			5.05832	61.85679	43.70742	34.78687
Total			3.69893	52.12496	52.59070	41.19496
10300		1	4.49021	57.00023	70.33640	45.31918
		2	5.83740	61.76149	73.73040	45.04897
		3	4.72124	69.67171	76.29536	48.56765
		4	5.33775	69.36774	71.90295	55.98309
		5	7.65082	72.62767	70.71086	53.41243
		Total	5.60748	66.08577	72.59520	49.66627
Total		1	4.14301	41.27530	62.97022	45.24318
		2	3.20276	61.60230	62.05234	42.53286
		3	5.04737	64.66063	68.48621	46.68835
		4	5.19803	65.61227	57.80519	45.38498
		5	7.65082	72.62767	70.71086	53.41243
		Total	4.75924	59.88096	63.70431	45.90124
Rainier Park		11001	1	5.71551	77.11430	84.40104
	2		6.09220	94.37721	94.13763	75.48195
	3		5.83866	53.19528	54.04504	41.77789
	Total		5.88212	74.89560	77.52790	61.13460
	11002	1	1.16606	73.35189	57.38025	50.95782
		2	6.45394	89.40050	92.58343	71.38745

		3	4.78082	75.84969	49.97822	63.86811	
		Total	4.13361	79.53403	66.64730	62.07113	
	11101	1	9.43059	28.70788	19.50430	40.43499	
		2	3.48691	82.26810	77.59483	52.33666	
		3	5.51369	87.89641	77.61940	51.04213	
		4	4.39801	83.87612	51.99753	52.25158	
		Total	5.70730	70.68713	56.67901	49.01634	
		11102	1	.75986	61.07610	50.41977	41.33989
	2		5.96912	86.31012	53.02498	60.18419	
	3		10.16241	86.29611	54.57116	54.35034	
	4		5.65254	84.73198	53.90502	56.81837	
	Total		5.63598	79.60358	52.98023	53.17320	
	11700		1	3.35838	87.47920	83.39590	65.65926
		2	1.10709	90.90831	90.70989	74.47921	
		3	3.42378	70.29057	71.16663	62.60847	
		4	1.50568	79.19424	73.05508	57.10814	
		Total	2.34873	81.96808	79.58188	64.96377	
		11800	1	.60747	83.25380	73.46036	62.93216
	2		4.06075	80.35144	77.52775	64.28180	
	3		4.25528	84.89668	79.97303	59.21629	
	4		4.44344	79.50056	73.89375	58.28103	
	5		4.83587	90.43736	80.37577	64.27871	
	6		5.71686	90.99940	77.93552	65.74153	
	Total		3.98661	84.90654	77.19436	62.45525	
	11900		1	1.08647	87.90092	80.56190	60.88506
		2	3.40381	87.53875	72.94106	64.65240	
		3	3.61989	86.03122	75.05361	61.73602	
		4	3.01720	90.62821	78.36634	62.68301	
		5	2.32278	89.97040	80.33150	60.79278	
		Total	2.69003	88.41390	77.45088	62.14985	
		26001	1	.19651	89.07502	74.75878	54.27251
	Total		.19651	89.07502	74.75878	54.27251	
	Total	1	2.79010	73.49489	65.48529	55.32821	
		2	4.36769	87.30778	79.78851	66.11481	
		3	5.37065	77.77942	66.05816	56.37132	
		4	3.80337	83.58622	66.24354	57.42842	
		5	3.57932	90.20388	80.35363	62.53574	
		6	5.71686	90.99940	77.93552	65.74153	
		Total	4.07939	81.09693	70.48898	59.26612	
	Total	100	1	.89752	79.27890	53.43702	62.96653
			2	8.29378	70.27196	61.90119	64.28706
			3	7.54326	60.75422	51.75638	48.00449
			4	24.61797	68.33836	57.93906	65.51431
			5	9.95493	46.75940	32.95852	46.50427
			Total	10.26149	65.08057	51.59843	57.45533
			200	1	4.21425	77.34641	64.18168
		2		4.39938	71.25775	57.38325	45.77126
3		3.19936		51.05625	43.13438	43.75480	
4		5.80350		73.58709	56.20440	57.68677	
5		5.52709		93.70977	69.97741	97.02076	

	6	4.17031	44.27788	55.17788	39.20563
		Total	4.55231	68.53919	57.67650
300	1	2.51027	90.78176	68.31141	87.69753
	2	5.76204	39.84976	48.00713	39.16048
	Total	4.13616	65.31576	58.15927	63.42900
401	1	10.08079	43.65008	29.52205	40.81466
	2	6.60346	45.55759	29.93690	43.81366
	3	11.15956	81.39037	66.80167	57.30690
	Total	9.28127	56.86601	42.08688	47.31174
402	1	6.66205	61.81051	61.35086	34.38469
	2	2.20050	63.98465	52.22605	56.18532
	3	7.23610	72.95316	61.26058	63.78402
	4	8.03487	70.80914	55.48144	60.16305
	Total	6.03338	67.38936	57.57973	53.62927
500	1	.73459	24.82396	54.74536	43.25388
	2	3.61178	63.89298	55.78593	62.13261
	3	2.65596	84.60575	64.93079	73.74635
	Total	2.33411	57.77423	58.48736	59.71095
600	1	2.41700	64.78941	73.33012	52.09045
	2	9.81769	45.24683	61.05003	44.23384
	3	3.15081	61.13292	62.94770	47.21170
	4	2.91158	71.11548	58.07156	58.57993
	5	2.11469	54.05596	49.54815	45.95646
	6	6.98638	78.80267	54.65804	45.88151
	Total	4.56636	62.52388	59.93427	48.99232
700	1	16.10645	90.99185	56.95932	62.97821
	2	4.62096	47.48780	51.00818	47.42981
	3	4.96405	36.82685	45.08289	48.65508
	4	4.87686	91.59894	66.77363	99.22639
	Total	7.64208	66.72636	54.95600	64.57237
800	1	3.90265	70.08287	61.18834	52.87244
	2	3.48298	62.41922	57.41483	50.45723
	Total	3.69282	66.25105	59.30158	51.66483
900	1	3.46145	69.59192	61.27861	54.34229
	2	.52388	95.02374	71.20529	83.91649
	Total	1.99267	82.30783	66.24195	69.12939
1000	1	3.97914	97.62728	76.88170	94.40806
	2	2.77570	59.90487	53.09888	51.92844
	Total	3.37742	78.76608	64.99029	73.16825
1100	1	4.24689	64.44309	56.33722	53.60187
	2	3.84779	63.82450	52.98649	51.56314
	Total	4.04734	64.13380	54.66185	52.58250
1200	1	4.22073	42.48969	72.02023	32.72850
	2	8.63317	47.81198	39.65503	47.55723
	3	15.10961	39.29356	40.27021	49.97040
	4	5.22387	61.68830	53.94543	50.74395
	5	9.30890	62.56784	52.65643	50.08904
	Total	8.49926	50.77028	51.70947	46.21782
1300	1	6.45959	60.80069	60.33032	50.11221
	2	10.45065	63.55370	64.89027	51.73869

		3	6.45485	57.71015	60.83105	48.62054
		Total	7.78837	60.68818	62.01721	50.15715
	1400	1	6.16619	51.81884	50.88800	50.68962
		2	3.72403	52.40056	56.58445	48.54599
		3	6.85945	35.02205	36.79828	43.46281
		4	2.01329	50.41296	39.48426	46.16690
		Total	4.69074	47.41360	45.93875	47.21633
	1500	1	3.99017	28.61330	24.37033	42.09288
		2	2.15382	52.54026	57.13272	41.32943
		Total	3.07200	40.57678	40.75153	41.71116
	1600	1	1.51583	64.12119	42.80277	48.24598
		2	3.35258	72.56428	60.37766	51.31205
		3	7.36727	75.53762	67.21657	53.16450
		Total	4.07856	70.74103	56.79900	50.90751
	1701	1	10.52503	81.15467	47.68984	59.92115
		2	7.76579	86.33057	52.47993	61.55467
		3	7.72248	57.75789	56.89481	49.71180
		Total	8.67110	75.08104	52.35486	57.06254
	1702	1	8.02002	85.63334	51.84937	64.69634
		2	5.79203	79.53391	46.99493	60.15491
		3	5.37645	80.23298	51.07019	59.95607
		4	4.76979	89.09218	50.22551	70.86398
		Total	5.98957	83.62310	50.03500	63.91782
	1800	1	6.05326	92.71081	59.35331	76.77044
		2	12.31933	89.70720	49.84621	63.61506
		3	11.13295	91.38751	54.32577	70.01085
		Total	9.83518	91.26851	54.50843	70.13212
	1900	1	4.28528	92.03604	73.39245	84.22069
		2	5.45901	88.57740	45.48382	64.84103
		3	4.34963	79.99317	63.97380	66.72939
		Total	4.69798	86.86887	60.95002	71.93037
	2000	1	5.34322	95.01894	81.19554	93.29539
		2	5.75821	92.88051	70.08913	89.26420
		3	5.97794	96.65826	71.77148	98.67476
		Total	5.69312	94.85257	74.35205	93.74478
	2100	1	4.48371	91.64638	78.86900	95.93604
		2	4.67024	94.23417	69.03423	83.58604
		3	5.84540	94.76965	78.71232	93.78787
		Total	4.99979	93.55006	75.53851	91.10332
	2200	1	3.84931	65.66986	72.60435	48.27322
		2	3.97697	56.86070	59.38354	57.59996
		3	1.01136	95.86726	82.54581	97.26132
4		1.91288	69.35873	68.74966	56.85868	
Total		2.68763	71.93914	70.82084	64.99830	
2400	1	3.75624	61.90535	65.33820	51.02398	
	2	8.65661	55.98235	53.97136	49.68237	
	3	5.01898	41.53454	53.85447	42.67210	
	Total	5.81061	53.14074	57.72134	47.79281	
2500	1	3.89093	96.45226	71.30411	87.91336	
	2	7.22671	66.16733	75.76305	78.88347	

		Total	5.55882	81.30979	73.53358	83.39841
2600	1		7.45543	97.86066	73.53030	100.00000
	2		5.19962	98.14522	79.18749	95.07814
	3		7.10727	59.51222	54.22899	49.27338
	4		5.95488	79.66054	64.38800	54.11047
	Total		6.42930	83.79466	67.83370	74.61550
2700	1		6.82686	54.81341	52.56937	50.36737
	2		4.37939	57.88520	52.07471	55.41118
	3		6.13211	45.71987	45.89507	51.02567
	4		6.09023	70.27296	58.79178	53.37709
	Total		5.85715	57.17286	52.33273	52.54533
2800	1		8.36604	72.77738	63.98415	56.97392
	2		8.61830	73.17389	65.94621	57.26385
	3		10.91881	68.41980	65.50694	56.71774
	4		7.72047	85.48441	79.35686	82.07996
	Total		8.90590	74.96387	68.69854	63.25886
2900	1		6.94458	80.80093	80.06768	61.81023
	2		7.65172	77.38081	82.59113	62.78337
	3		8.22043	78.21872	83.11266	64.44341
	Total		7.60558	78.80015	81.92383	63.01233
3000	1		6.83744	64.57388	64.16167	50.72270
	2		6.29852	62.26052	55.80313	55.54422
	3		6.20366	69.21200	76.82779	60.58119
	4		6.76580	47.96149	49.44466	49.52654
	Total		6.52636	61.00197	61.55931	54.09366
3100	1		6.33921	53.19135	46.94335	54.26079
	2		6.50582	65.07523	57.88649	59.58828
	3		7.53090	77.38174	60.47688	58.47741
	4		5.81655	70.64225	61.10340	59.47020
	5		1.60809	77.49426	52.06389	53.35936
	Total		5.56011	68.75697	55.69480	57.03121
3200	1		9.44505	71.63603	59.17571	61.30894
	2		13.36245	72.93434	64.26569	60.51253
	3		4.21253	80.21561	68.91328	58.05817
	4		11.01372	78.36240	67.04028	56.99350
	5		6.52470	59.74576	51.85280	52.48725
	6		1.84905	72.57639	62.27317	60.35572
	7		5.96695	63.25730	48.94481	53.35801
	Total		7.48206	71.24683	60.35225	57.58202
3300	1		6.78577	68.09782	51.34064	53.07186
	2		9.24996	47.42159	60.80834	82.18134
	3		14.25297	48.78314	54.94880	58.53180
	4		12.24242	66.72717	67.65403	83.61794
	5		6.68221	73.24847	77.53201	78.44846
	Total		9.84267	60.85564	62.45676	71.17028
3400	1		7.82753	76.91195	77.91638	75.77220
	2		8.04751	70.39134	69.59224	84.55315
	3		6.80465	37.72957	20.49136	45.33652
	Total		7.55989	61.67762	55.99999	68.55396
3500	1		7.64292	59.04887	62.80107	59.54902

	2	7.83931	59.85553	60.20557	57.97338
	3	3.43561	76.65185	67.59497	70.15938
	Total	6.30595	65.18542	63.53387	62.56059
3600	1	6.69659	56.08526	52.94039	41.08689
	2	14.00751	80.19874	57.41053	42.23581
	3	7.42783	58.76303	50.59623	39.13193
	4	16.94385	54.86166	52.36981	39.80910
	Total	11.26895	62.47717	53.32924	40.56593
3800	1	6.07412	62.07651	47.17345	34.67789
	2	5.70474	65.97794	62.40610	34.66661
	Total	5.88943	64.02722	54.78978	34.67225
3900	1	5.10648	98.45242	67.11749	99.87955
	2	4.29943	92.27444	69.76373	93.02314
	Total	4.70295	95.36343	68.44061	96.45135
4000	1	.58749	85.43718	80.42596	51.71110
	2	4.04578	44.40226	24.73770	32.74562
	Total	2.31663	64.91972	52.58183	42.22836
4100	1	7.33712	71.83852	49.50331	40.89718
	2	.41990	72.41944	46.33480	46.40275
	3	4.29129	83.30048	73.78119	63.77500
	4	4.30556	67.64970	33.98053	46.65342
	5	4.59330	53.74463	36.24227	37.76629
	6	1.14615	56.16928	40.36988	37.07502
	Total	3.68222	67.52034	46.70200	45.42828
4200	1	4.12325	78.56943	56.65171	43.04324
	2	5.06501	67.39513	58.30013	48.31723
	3	4.95712	76.44019	51.73333	52.42755
	4	6.36190	86.42343	50.83757	51.56328
	5	6.15574	61.67318	52.95169	52.33194
	Total	5.33260	74.10027	54.09488	49.53665
4301	1	5.58118	77.97816	71.20081	50.51653
	2	7.61483	81.90002	69.72630	54.33864
	3	5.21279	35.81474	65.67143	42.12058
	Total	6.13626	65.23097	68.86618	48.99192
4302	1	18.86452	77.26557	72.15880	48.43026
	2	17.83567	80.80735	82.79638	72.13581
	Total	18.35009	79.03646	77.47759	60.28304
4400	1	6.04474	57.95342	66.14091	40.55222
	2	8.99989	84.51785	80.36526	49.61131
	3	11.68131	71.25794	70.98955	46.98654
	4	21.07265	75.95325	74.06141	46.40007
	Total	11.94965	72.42062	72.88928	45.88754
4500	1	5.93527	79.93407	78.41711	50.16775
	2	6.12172	59.05658	77.03860	45.48843
	Total	6.02849	69.49532	77.72786	47.82809
4600	1	.89861	69.53878	82.55347	46.55106
	2	7.92143	54.88409	71.38216	36.79238
	3	7.80423	78.66186	72.05756	49.53787
	Total	5.54143	67.69491	75.33107	44.29377
4700	1	8.52298	25.79448	49.05238	41.06383

	2	2.93032	64.04742	60.53575	67.49480
	3	19.02945	61.42953	47.31805	63.93703
	4	7.13334	64.62192	69.46752	59.34467
	Total	9.40402	53.97334	56.59343	57.96008
4800	1	6.89027	88.01735	79.56477	48.98508
	2	8.45588	83.66298	73.38955	47.88277
	3	4.55143	77.42071	72.91393	50.50004
	4	7.21130	77.52635	73.29707	54.22852
	Total	6.77722	81.65685	74.79133	50.39910
4900	1	12.64570	78.69539	73.89407	49.14135
	2	7.67949	79.66428	81.84866	48.43459
	3	18.50592	71.59447	77.73214	49.01442
	4	13.14535	69.58613	72.99396	53.38537
	5	16.62874	85.19372	88.43960	59.59755
	Total	13.72104	76.94680	78.98169	51.91466
5000	1	7.35718	66.07169	68.43531	51.71748
	2	9.47123	83.01410	86.48870	55.41716
	3	17.60771	78.51655	85.90456	55.99109
	Total	11.47871	75.86744	80.27619	54.37525
5100	1	7.85315	83.91374	88.67606	55.14021
	2	6.38443	69.72556	73.01394	51.73600
	3	8.26721	66.48186	70.89006	53.85070
	Total	7.50160	73.37372	77.52669	53.57563
5200	1	24.46899	80.16946	54.73013	64.45895
	2	14.55290	75.21738	53.84019	49.14476
	3	5.57065	47.84874	54.30707	37.72853
	4	7.82360	37.97596	57.84483	46.64441
	5	18.59470	30.38593	58.08883	43.74306
	Total	14.20217	54.31949	55.76221	48.34394
5301	1	13.32138	39.19110	50.03356	44.47577
	2	20.93320	70.56483	79.27109	54.16077
	3	22.11118	67.73054	74.34245	55.53974
	4	33.20491	34.78332	45.14496	43.04318
	Total	22.39267	53.06745	62.19801	49.30486
5302	1	9.77194	53.84149	66.96546	49.82906
	2	.10417	70.62415	79.14997	54.49895
	3	.00311	85.51674	83.92265	59.12931
	Total	3.29307	69.99413	76.67936	54.48577
5400	1	8.93975	75.50426	77.69754	55.98911
	2	2.85333	76.04350	69.45119	57.55038
	3	8.48503	83.51718	45.57786	50.88486
	4	13.07987	88.06049	50.76688	53.02487
	Total	8.33950	80.78136	60.87337	54.36231
5600	1	4.52087	70.26556	50.62885	50.03443
	2	1.88534	81.74567	83.23743	50.11353
	3	.97928	40.47553	48.99036	38.92745
	4	4.41617	77.56428	51.90964	50.29099
	5	4.43654	72.34573	52.06629	48.33929
	Total	3.24764	68.47935	57.36651	47.54114
5700	1	.14499	63.23287	48.29804	51.45736

		2	4.89723	80.80437	80.93892	59.17458
		3	3.75248	86.71851	81.89824	54.95663
		4	4.79794	87.81918	84.36813	57.74182
		5	3.92852	89.00237	79.71458	53.88107
		6	7.58493	92.29913	81.63157	54.15115
		Total	4.18435	83.31274	76.14158	55.22710
	5801	1	10.19552	40.90184	50.50677	44.90282
		2	15.10819	40.71294	51.09077	44.75336
		3	7.50163	31.85873	49.47831	46.98211
		4	1.74001	55.83329	61.47673	46.50013
		Total	8.63634	42.32670	53.13814	45.78461
	5802	1	7.95565	69.14030	61.08458	62.49823
		2	3.36536	47.01775	38.61021	53.02235
		3	1.24308	65.82017	53.48872	53.84019
		Total	4.18803	60.65941	51.06117	56.45359
	5900	1	4.58432	55.46719	46.82512	51.92667
		2	6.04835	67.54089	59.22878	60.84541
		3	3.21010	67.43979	47.05331	48.52330
		4	7.81482	76.00637	68.57762	63.96085
		5	4.49146	27.35688	37.44255	41.96728
		Total	5.22981	58.76222	51.82548	53.44470
	6000	1	10.72208	66.78969	51.53031	48.61802
		2	4.69805	53.23911	47.40935	47.12862
		3	5.35233	48.27563	47.32899	44.87511
		4	7.09033	70.85852	52.23273	55.09431
		Total	6.96569	59.79074	49.62534	48.92901
	6100	1	6.67428	19.24141	15.43363	37.18915
		2	3.30690	70.54022	51.74244	45.59391
		3	7.39581	91.01440	87.62569	78.23512
		4	7.02686	84.14548	81.62314	73.67421
		Total	6.10096	66.23538	59.10623	58.67310
	6200	1	1.27136	89.45658	89.81976	77.74567
		2	3.51250	94.41842	84.68009	81.30939
		3	2.71402	94.16832	91.12457	78.99097
		Total	2.49929	92.68111	88.54148	79.34868
	6300	1	1.66407	93.15533	79.99892	82.39686
		2	1.24683	89.40395	77.56779	82.40446
		3	3.92111	49.78542	31.34478	48.08286
		4	1.95042	67.40552	44.13436	45.20683
		Total	2.19561	74.93756	58.26146	64.52275
	6400	1	5.90815	43.28167	27.49607	45.28948
		2	6.28291	50.54080	31.78339	45.26958
		3	4.85111	62.67580	58.10609	60.98958
		Total	5.68072	52.16609	39.12852	50.51621
	6500	1	2.92604	20.80293	23.36961	52.98716
		2	20.00527	48.14460	45.26236	50.87564
		3	12.68241	78.35190	63.15128	61.17747
		Total	11.87124	49.09981	43.92775	55.01343
	6600	1	2.23289	64.45271	60.51067	55.31622
		2	18.20071	73.12391	62.32829	60.20929

		Total	10.21680	68.78831	61.41948	57.76275
6700		1	10.64096	57.89458	55.48680	56.58607
		2	15.09986	52.51229	47.87063	49.12197
		3	15.46425	64.04073	44.83532	40.57250
		4	8.69662	69.55579	51.89258	38.81088
		Total	12.47542	61.00084	50.02133	46.27286
6800		1	7.96284	61.50010	42.32819	36.38290
		2	7.24869	41.52372	34.20041	35.70573
		Total	7.60576	51.51191	38.26430	36.04432
6900		1	9.27102	68.62752	57.26576	56.46613
		2	7.99663	62.15794	75.32184	60.37534
		3	9.19796	63.92819	55.88025	60.21589
		4	10.95163	71.95659	51.93806	59.71671
		Total	9.35431	66.66756	60.10148	59.19352
7000		1	12.90077	48.94252	39.71904	59.07777
		2	52.13024	38.91753	41.75592	54.42086
		3	23.25497	64.69449	46.27208	48.01329
		4	25.86279	55.86965	31.70525	45.69424
		5	44.74506	62.07517	50.08173	48.44278
		6	18.60445	69.41281	63.62370	57.75383
		Total	29.58305	56.65203	45.52629	52.23380
7100		1	9.26825	66.10702	70.54595	60.89168
		2	9.48607	76.24165	60.44027	53.51867
		Total	9.37716	71.17433	65.49311	57.20518
7200		1	8.16305	37.72957	20.49136	45.33652
		2	29.22007	82.96617	75.06708	75.38816
		3	76.81864	81.03382	61.43600	61.93678
		Total	38.06725	67.24319	52.33148	60.88715
7300		1	14.73950	30.71000	18.95179	46.09686
		2	14.50272	14.28176	22.14509	39.61917
		3	11.62763	29.44768	32.34727	46.24414
		Total	13.62328	24.81315	24.48139	43.98673
7401		1	52.82968	97.27455	69.86453	99.22784
		2	38.21217	81.61733	60.30772	65.35166
		3	45.83210	74.16673	64.11736	57.72558
		4	48.07252	84.23483	73.99186	79.92104
		Total	46.23662	84.32336	67.07037	75.55653
7402		1	43.41647	86.04163	81.31712	73.36153
		2	54.75105	78.83572	75.48573	65.66243
		3	78.09741	67.14657	60.88241	72.25790
		Total	58.75497	77.34131	72.56175	70.42729
7500		1	31.55230	74.04805	64.49894	63.06215
		2	24.84050	43.30014	57.92411	59.58915
		3	30.00467	55.68297	49.40320	60.51907
		4	14.30566	64.49429	54.28571	34.86628
		5	12.53442	69.04716	53.69648	37.61351
		Total	22.64751	61.31452	55.96169	51.13003
7600		1	13.85105	52.61861	37.07794	47.93090
		2	12.37958	37.44567	26.68831	45.53573
		3	14.33270	22.12509	10.47788	39.62444

		Total	13.52111	37.39646	24.74804	44.36369
7700	1		5.42417	43.52800	23.10559	45.04556
	2		7.59822	63.68104	58.67222	60.34138
	3		7.15550	35.48087	26.92208	41.65880
	4		16.31812	58.86434	43.12677	48.80273
	Total		9.12400	50.38856	37.95666	48.96212
7800	1		.52354	61.29781	53.04984	55.46872
	2		4.92028	81.53688	63.07427	75.91489
	3		6.23338	72.51760	66.23536	71.56060
	4		3.90890	73.30347	64.01405	59.29292
	Total		3.89652	72.16394	61.59338	65.55928
7900	1		10.33205	72.33146	61.89063	74.37572
	2		11.45193	87.91265	70.52206	82.37855
	3		14.49014	80.27511	55.71908	75.08638
	4		36.05652	71.46022	53.06218	69.48796
	5		25.23013	86.22777	57.18852	66.24492
	Total		19.51215	79.64144	59.67649	73.51470
8001	1		44.41980	26.42324	48.43618	32.17350
	2		38.59271	82.65835	76.67543	88.70999
	3		3.87309	54.42846	50.85823	47.93181
	4		65.15566	76.19746	50.00965	54.57472
	5		118.64532	84.24165	77.37032	65.39704
	Total		54.13732	64.78983	60.66996	57.75741
8002	1		42.85463	70.32428	73.74931	69.53847
	2		29.35630	46.41611	57.08452	45.12616
	Total		36.10546	58.37020	65.41691	57.33232
8100	1		5.93080	31.00739	36.22238	36.81294
	2		6.41681	60.94576	54.79283	62.75959
	3		32.49233	88.33672	78.46195	66.99114
	Total		14.94665	60.09662	56.49239	55.52122
8200	1		9.98100	87.94932	82.51420	58.42057
	2		62.22146	70.98800	57.69257	56.13246
	3		52.15631	75.29549	76.76139	57.18100
	Total		41.45292	78.07760	72.32272	57.24468
8300	1		26.23079	96.67339	69.73168	96.89417
	2		34.12705	93.78438	68.40215	87.50384
	Total		30.17892	95.22888	69.06691	92.19901
8400	1		26.19002	87.09249	79.65548	79.41971
	2		27.00663	91.26774	70.35758	75.72930
	3		35.59869	87.99845	80.07081	63.63585
	Total		29.59845	88.78623	76.69462	72.92829
8500	1		15.76617	96.22231	79.49953	80.01672
	2		12.87727	93.31084	70.67371	80.80855
	3		10.86358	97.46204	85.11404	87.00848
	Total		13.16901	95.66506	78.42909	82.61125
8600	1		10.73129	96.61581	79.33297	86.70959
	2		12.20063	84.85881	65.07601	66.13331
	3		11.24817	85.90711	66.87753	66.95939
	Total		11.39336	89.12725	70.42884	73.26743
8700	1		6.84885	90.12523	71.33280	72.20642

	2	12.03996	74.12978	63.69877	56.22081
	3	10.95186	83.37031	72.12908	62.91546
	Total	9.94689	82.54177	69.05355	63.78090
8800	1	6.92313	81.58514	60.78898	61.59003
	2	5.14999	79.12505	54.95805	58.01400
	3	7.81514	61.96525	51.79549	47.39284
	Total	6.62942	74.22515	55.84750	55.66562
8900	1	1.20529	73.57085	66.17712	56.86181
	2	6.73280	43.74784	43.12056	50.60596
	3	7.04695	86.23302	78.20388	70.42503
	4	7.65610	82.64536	76.97413	67.31437
	Total	5.66029	71.54927	66.11892	61.30179
9000	1	8.79411	90.17559	80.81237	74.05000
	2	6.56045	49.28896	53.88064	45.28929
	Total	7.67728	69.73228	67.34650	59.66964
9100	1	8.27081	94.06502	79.63686	75.77843
	2	30.84602	90.87090	75.07400	73.67709
	Total	19.55841	92.46796	77.35543	74.72776
9200	1	31.45278	90.18438	74.66817	95.75682
	2	8.21004	96.88073	76.08755	99.47918
	Total	19.83141	93.53255	75.37786	97.61800
9300	1	2.20817	98.54302	71.06902	100.00000
	2	.20529	96.26254	68.71943	99.35047
	3	.26869	96.86018	67.54229	100.00000
	Total	.89405	97.22191	69.11025	99.78349
9400	1	18.15052	97.92989	73.94295	100.00000
	2	3.59225	97.65790	73.36466	100.00000
	3	3.67066	83.72410	73.48605	54.93508
	4	9.08603	43.75860	58.87640	47.67506
	5	6.41241	81.98563	67.11272	55.43537
	Total	8.18237	81.01122	69.35656	71.60910
9500	1	3.03985	77.41540	59.92986	54.87418
	2	3.67741	66.24726	58.64756	48.90004
	3	.63028	79.67078	65.64256	55.66013
	4	4.75261	78.28742	67.10298	55.51340
	Total	3.02503	75.40521	62.83074	53.73694
9600	1	3.58684	64.29200	61.53884	59.83464
	2	12.95925	81.37511	69.70364	56.11338
	3	5.47229	82.37371	69.69775	56.64482
	4	7.31142	68.28188	68.33701	60.06214
	5	1.44191	66.17783	49.80508	51.09197
	Total	6.15434	72.50011	63.81646	56.74939
9701	1	6.76007	56.81435	58.60040	59.56221
	2	11.50121	60.36586	60.02259	61.65073
	3	1.33413	67.02555	60.44352	52.85525
	4	3.89376	72.46632	65.99153	56.55975
	Total	5.87229	64.16802	61.26451	57.65698
9702	1	4.51777	46.48176	56.61333	53.03678
	2	4.39935	34.09836	55.02555	45.44526
	3	4.62534	26.60314	47.78530	45.46732

	4	4.42385	26.83931	53.37032	42.37378
	5	3.00266	49.61319	56.76906	53.56275
	Total	4.19379	36.72715	53.91271	47.97718
9800	1	4.80924	97.48843	75.88248	99.75471
	2	6.34182	97.56395	71.91672	99.99107
	3	5.35252	97.41345	79.83590	96.61380
	4	6.45944	96.78224	71.87556	99.90816
	5	7.89487	16.07650	31.72808	32.65966
	Total	6.17158	81.06491	66.24775	85.78548
9900	1	5.22789	94.65353	73.76719	98.76847
	2	2.50137	94.76658	64.87299	99.99690
	3	2.72221	92.48563	83.58200	86.19662
	4	.32484	42.64793	41.88321	42.32625
	Total	2.69408	81.13842	66.02635	81.82206
10001	1	1.40247	60.71134	50.10014	48.03840
	2	2.38030	77.08337	66.80930	55.79607
	3	5.49831	78.90604	64.56720	53.20967
	Total	3.09369	72.23359	60.49221	52.34805
10002	1	6.69823	69.89288	82.94818	68.52209
	2	8.77442	75.20913	82.24402	64.19617
	3	5.70230	71.82902	83.53648	74.38972
	4	7.91781	91.47832	70.38199	99.18475
	Total	7.27319	77.10234	79.77767	76.57318
10100	1	.86149	93.75460	74.08252	99.99948
	2	3.28873	94.78893	66.37562	99.99895
	3	3.25132	76.63234	63.46513	99.38738
	4	6.36224	52.92142	48.98791	31.72369
	5	5.21484	79.63751	54.58335	56.28603
	Total	3.79572	79.54696	61.49891	77.47911
10200	1	3.79580	25.55038	55.60405	45.16718
	2	.56812	61.44312	50.37428	40.01675
	3	5.37349	59.64955	60.67706	44.80906
	4	5.05832	61.85679	43.70742	34.78687
	Total	3.69893	52.12496	52.59070	41.19496
10300	1	4.49021	57.00023	70.33640	45.31918
	2	5.83740	61.76149	73.73040	45.04897
	3	4.72124	69.67171	76.29536	48.56765
	4	5.33775	69.36774	71.90295	55.98309
	5	7.65082	72.62767	70.71086	53.41243
	Total	5.60748	66.08577	72.59520	49.66627
10401	1	3.61039	80.30030	79.62925	59.17109
	2	3.66229	89.65646	80.39647	62.38068
	3	3.31319	61.83540	84.12532	51.85855
	Total	3.52862	77.26405	81.38368	57.80344
10402	1	2.32606	78.58308	74.45199	55.31580
	2	3.71869	67.01656	69.31336	54.53777
	3	4.30182	48.87240	37.91181	34.53072
	4	4.93827	75.83371	73.17572	55.55737
	Total	3.82121	67.57644	63.71322	49.98542
10500	1	7.30919	67.00896	71.61275	54.01468

	2	6.38227	78.87688	78.85152	53.86427
	3	5.06336	84.38427	82.03822	50.92712
	4	11.84555	49.12661	46.60214	54.03337
	5	8.93860	33.50254	49.76986	48.96185
	Total	7.90780	62.57985	65.77490	52.36026
10600	1	4.54555	31.85873	49.47831	46.98211
	2	9.09514	87.76641	75.71697	53.29081
	3	9.00673	25.93788	21.79602	38.99145
	4	5.17214	97.04365	74.16988	91.91690
	5	1.55383	89.75503	84.69395	72.86003
	6	7.78128	85.92866	77.27396	52.87705
	Total	6.19245	69.71506	63.85485	59.48639
10701	1	3.20594	85.74079	75.51315	50.60951
	2	4.21048	79.34058	76.77814	51.73006
	Total	3.70821	82.54069	76.14565	51.16979
10702	1	6.16237	75.37034	70.73843	51.42752
	2	8.81608	85.35492	82.25032	60.82119
	3	6.35050	77.01814	73.50350	52.71120
	Total	7.10965	79.24780	75.49742	54.98664
10800	1	.67498	78.23828	69.30732	50.50598
	2	2.66064	63.42591	76.47713	71.27008
	3	4.14362	70.26553	83.38428	73.82263
	Total	2.49308	70.64324	76.38958	65.19956
10900	1	.49979	78.08371	76.09607	74.34825
	2	.48852	66.86164	78.07735	69.29197
	Total	.49415	72.47268	77.08671	71.82011
11001	1	5.71551	77.11430	84.40104	66.14397
	2	6.09220	94.37721	94.13763	75.48195
	3	5.83866	53.19528	54.04504	41.77789
	Total	5.88212	74.89560	77.52790	61.13460
11002	1	1.16606	73.35189	57.38025	50.95782
	2	6.45394	89.40050	92.58343	71.38745
	3	4.78082	75.84969	49.97822	63.86811
	Total	4.13361	79.53403	66.64730	62.07113
11101	1	9.43059	28.70788	19.50430	40.43499
	2	3.48691	82.26810	77.59483	52.33666
	3	5.51369	87.89641	77.61940	51.04213
	4	4.39801	83.87612	51.99753	52.25158
	Total	5.70730	70.68713	56.67901	49.01634
11102	1	.75986	61.07610	50.41977	41.33989
	2	5.96912	86.31012	53.02498	60.18419
	3	10.16241	86.29611	54.57116	54.35034
	4	5.65254	84.73198	53.90502	56.81837
	Total	5.63598	79.60358	52.98023	53.17320
11200	1	1.58957	89.19599	52.11917	56.87349
	2	1.09214	72.87148	50.72507	62.84125
	3	3.72449	61.69877	47.83533	52.52322
	Total	2.13540	74.58875	50.22652	57.41265
11300	1	1.56281	60.97389	53.01117	52.38247
	2	4.20302	66.73067	66.33890	55.86504

		3	5.70117	78.22217	48.21288	54.40918
		4	4.24864	70.31407	50.71162	52.04284
		5	6.30118	68.45493	46.83777	48.24981
		Total	4.40336	68.93915	53.02247	52.58987
	11401	1	6.54446	87.92996	90.53316	66.63390
		2	6.15000	24.44828	27.71798	31.73403
		3	4.28464	73.91486	83.79708	55.19883
		Total	5.65970	62.09770	67.34941	51.18892
	11402	1	4.24075	53.38335	36.30973	42.69521
		2	7.25066	72.72308	54.63488	48.94524
		3	6.69786	78.36974	58.47194	50.54990
		Total	6.06309	68.15872	49.80552	47.39678
	11500	1	4.15654	44.81786	43.45326	46.54493
		2	4.94318	40.69296	44.61945	46.92286
		3	6.09405	54.41970	62.13023	50.58065
		Total	5.06459	46.64351	50.06765	48.01615
	11600	1	4.89293	64.03501	49.02004	49.17360
		2	5.43630	52.21049	38.09272	49.73117
		3	3.95421	32.50133	53.05047	42.00703
		4	3.00818	77.12531	67.46465	60.18037
		5	3.26490	89.55574	83.58198	67.64370
		6	1.34524	89.30498	86.44084	74.61674
		Total	3.65029	67.45548	62.94178	57.22544
	11700	1	3.35838	87.47920	83.39590	65.65926
		2	1.10709	90.90831	90.70989	74.47921
		3	3.42378	70.29057	71.16663	62.60847
		4	1.50568	79.19424	73.05508	57.10814
		Total	2.34873	81.96808	79.58188	64.96377
	11800	1	.60747	83.25380	73.46036	62.93216
		2	4.06075	80.35144	77.52775	64.28180
		3	4.25528	84.89668	79.97303	59.21629
		4	4.44344	79.50056	73.89375	58.28103
		5	4.83587	90.43736	80.37577	64.27871
		6	5.71686	90.99940	77.93552	65.74153
		Total	3.98661	84.90654	77.19436	62.45525
	11900	1	1.08647	87.90092	80.56190	60.88506
		2	3.40381	87.53875	72.94106	64.65240
		3	3.61989	86.03122	75.05361	61.73602
		4	3.01720	90.62821	78.36634	62.68301
		5	2.32278	89.97040	80.33150	60.79278
		Total	2.69003	88.41390	77.45088	62.14985
	12000	1	4.41931	72.82424	72.84257	81.95515
		2	3.84232	80.06390	77.53548	60.70118
		3	3.90397	73.80287	82.22833	76.82073
		Total	4.05520	75.56367	77.53546	73.15902
	12100	1	1.03612	57.16754	62.76217	70.04935
		2	2.41116	30.53164	13.61938	37.68221
		Total	1.72364	43.84959	38.19078	53.86578
	26001	1	.19651	89.07502	74.75878	54.27251
		Total	.19651	89.07502	74.75878	54.27251

	Total	1	7.91869	69.56528	61.91116	59.87246
		2	9.24341	69.96647	62.43715	59.88063
		3	9.66400	68.59898	62.03444	57.88394
		4	9.79734	70.66925	59.94531	57.45309
		5	12.01797	67.22233	59.53907	54.81418
		6	6.13163	75.53013	66.59828	54.18424
		7	5.96695	63.25730	48.94481	53.35801
		Total	9.15358	69.55560	61.73356	58.65914