

# Moving to Seattle?

## A Guide to the Different Neighborhoods in the Emerald City

### 1. Introduction

#### 1.1 Background

Seattle is located in the Pacific Northwest and it is the largest city in the state of Washington. It is home to a number of large corporations, national sports teams, and recognized universities and colleges. Seattle is also one of the fastest growing metropolitan cities, due to the booming economy and high job growth. The Seattle housing market has also increased in tandem with the economy as it is becoming more expensive than ever to live in this seaport city. People from all around the world relocate to Seattle to pursue higher education and career advancement. They will undoubtedly rent or buy property in this metropolis if they plan to relocate to the area.

Moving to a new city and adapting to a new place can be overwhelming. Generally, people look for the same elements in choosing a place of residence such as affordability and location. The dwelling should be within the individual's budget and it should also be in close proximity to desirable amenities. In order to make a thorough evaluation of an appropriate place to reside, it is necessary to comparing the pros and cons of nearby neighborhoods.

#### 1.2 Problem

There are over 80 neighborhoods in Seattle. Each neighborhood is unique with its own characteristics and attributes. Someone who is not familiar with this region in the Pacific Northwest may find it difficult to determine the right place to reside in if they relocate to the area. While there are a considerable number of factors to take into account when choosing a place to live, this report will only review some of those factors such as the cost of the residence, crime rate in the neighborhood, and accessibility to public transportation. This report aims to help people choose an ideal location for renting or buying property in Seattle.

#### 1.3 Interest

There are three main stakeholder groups that would be interested in the findings of this report. The three groups consist of people that are considering purchasing a home in the Seattle area, those that are planning to rent housing in Seattle, and investors that intend to buy real estate in this city. Tourists that plan on visiting this area may also find some value in this project.

## 2. Data Acquisition

### 2.1 Data Sources

#### House Price Data

Link: <https://www.zillow.com/research/data/>

The house price data was obtained from Zillow. Zillow uses the ZHVI to determine the value of houses in a particular location. The ZHVI (Zillow Home Value Index) is a measure of the typical home value in a given region and housing type. It reflects the value for homes in the 35<sup>th</sup> to 65<sup>th</sup> percentile range. The ZHVI data will be used to evaluate the average cost of purchasing a one-bedroom house in each of Seattle's neighborhoods. In addition, a bubble plot will be created from the Zillow historical data to show the rise of home prices in each neighborhood. Below is an example of part of the dataset.

	RegionName	9/30/2015	9/30/2016	9/30/2017	9/30/2018	9/30/2019	\
312	Adams	355639.0	414813.0	480721.0	541996	495651	
429	Admiral	333341.0	378045.0	439491.0	497728	468253	
689	Alki	371816.0	423292.0	488989.0	533493	500375	
706	Arbor Heights	363980.0	392612.0	439486.0	489120	470015	
712	Atlantic	399879.0	460523.0	534057.0	608267	628734	
	9/30/2020						
312		499511					
429		481106					
689		522274					
706		508474					
712		634278					

#### Walk Score and Transit Score

Link: <https://www.walkscore.com/WA/Seattle>

The walk score and transit score were obtained from the WalkScore website. The walk score is a measure of the walkability of a given location. The walkability is determined by the proximity to nearby amenities and whether most errands can be accomplished by walking. The transit score is a measure of a location's accessibility to public transit. This score takes into account nearby transit routes based on frequency, type of route, and distance to the nearest stop on the route. The walk score and transit score for each Seattle neighborhood will be used to create choropleth maps to indicate the rank of each area. Below is an example of part of the dataset.

	Rank	RegionName	Walk Score	Transit Score	Bike Score	Population
0	72	Alki	51	35	61	6,644
1	83	Arbor Heights	38	43	32	5,056
2	16	Atlantic	84	72	83	6,449
3	13	Ballard	89	54	88	17,010
4	3	Belltown	98	99	75	14,163

### Crime Data

Link: <https://data.seattle.gov/Public-Safety/SPD-Crime-Data-2008-Present/tazs-3rd5>

The crime data and statistics were collected from the Seattle Police Department website. The crime type, location, and date are all recorded in the SPD database, which can be accessed by the public. A bar chart showing the neighborhoods with the highest crime rate will be created from the SPD crime data. Below is an example of part of the dataset.

	Offense Start DateTime	Offense Parent Group \
0	2020-02-05 10:10:00	DRUG/NARCOTIC OFFENSES
1	2020-02-03 08:00:00	LARCENY-THEFT
2	2020-02-02 20:30:00	ROBBERY
3	2020-02-05 01:17:00	DESTRUCTION/DAMAGE/VANDALISM OF PROPERTY
4	2020-02-04 22:41:00	DESTRUCTION/DAMAGE/VANDALISM OF PROPERTY
	MCP	
0	MAGNOLIA	
1	ROOSEVELT/RAVENNA	
2	ROOSEVELT/RAVENNA	
3	MAGNOLIA	
4	NORTH BEACON HILL	

### Number of Coffeeshops

Link: <https://developer.foursquare.com/places>

The number of coffeeshops in each neighborhood were retrieved by accessing the Foursquare API. An account is required in order to access the API. A bubble plot for the number of coffeeshops within walking distance of each neighborhood will be created from the Foursquare data.