Executive Summary

Owning your own home is the great American dream and a foundation of stable communities. The Puget Sound region is now the eighth most expensive real estate market in the United States and is becoming more expensive each year. Many working families face significant affordability gaps that make homeownership impossible. The Washington State Housing Finance Commission, in partnership with other public, private and nonprofit institutions, develops and administers educational and financial assistance programs that promote homeownership in Washington State. In response to growing concern about homeownership rates in the Puget Sound area, the WHSFC is considering targeting sub-groups of low and moderate-income populations with particular programs.

This analysis used the 2000 Washington Population Survey to assess the difference in the rates of homeownership for Puget Sound individuals with a household income of 200-400% of the Federal Poverty Level: $16,700-$33,400 for a one-person household and $34,100-$68,200 for a four-person household.

The following five general assumptions were examined and conclusions drawn:
- As household income increases, the rate of homeownership increases. True.
- Married couples with children are more likely to own their homes than are single parents. True.
- Individuals with at least some college education are more likely to own homes than those with no college education. No. There is no significant difference in the rate of ownership between these groups.
- Caucasians are more likely to own homes than are non-Caucasians. No. There is no significant difference in the rate of ownership between these groups.
- Households with three or less members are more likely to own their homes than households with four or more. No. In fact, households with four or more members are more likely to own their homes than households with three members or less.

Based on this analysis, the WSHFC is advised to continue targeting low and moderate-income households with education and down payment assistance and encouraged to develop additional programs targeting single parents and small families.
Introduction

Homeownership is “a deeply held aspiration” of American families and a “significant element of stable communities.” According to Washington State University’s Washington Center for Real Estate Research, “Studies have repeatedly demonstrated that homeowners take more active roles in their communities. They vote more frequently, they are more likely to volunteer in the schools and they invest more in the maintenance and repair of their homes, making their neighborhoods more pleasant and safer, and reinforcing the tax base of their communities.”

Nationally, homeownership is on the rise. However, in Washington State homeownership rates are dropping as shown by the graph Homeownership Rates.

The Puget Sound region is now the eighth most expensive real estate market in the United States and is becoming more expensive each year. While a steady price increase rate of 4-5% is considered a “hot” market, the median price for a single-family home in Washington State rose 5.9% from 1998 to 1999. In the Puget Sound area the market increased dramatically. The median sale price rose 9.9% in King County and 6.0% in Snohomish County. This is consistent with the pattern of sale prices over the past four years as reflected by the figure Median Single Family Home Sale Price.

Many working families face significant affordability gaps that make homeownership impossible. The area median household income has risen in recent years but has not kept pace with home prices. Households earning below median income are becoming increasingly priced out of the market despite increased job opportunities and housing production. In Snohomish

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1 Washington Center for Real Estate Research, Economic Impact of Washington State Bond Cap Programs, 1999, p.4.
3 Seattle Times, March 5-March 12, 2000.
County a family with a household income of $33,000 falls $116,200 short of purchasing the 2001 median-priced home at $202,300. This affordability gap extends to many working people, for example:  

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Typical Annual Income</th>
<th>Household Affordability</th>
<th>Affordability Gap (based on $202,300)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck Driver (light delivery)</td>
<td>$25,000</td>
<td>$58,800</td>
<td>$143,500</td>
</tr>
<tr>
<td>Entry Level Teacher</td>
<td>$27,000</td>
<td>$65,000</td>
<td>$137,300</td>
</tr>
<tr>
<td>Dental Assistant</td>
<td>$33,000</td>
<td>$86,100</td>
<td>$116,200</td>
</tr>
<tr>
<td>Machinists</td>
<td>$39,000</td>
<td>$106,500</td>
<td>$95,800</td>
</tr>
<tr>
<td>Secondary School Teacher</td>
<td>$51,000</td>
<td>$147,400</td>
<td>$54,900</td>
</tr>
<tr>
<td>Electrician</td>
<td>$56,000</td>
<td>$164,400</td>
<td>$37,900</td>
</tr>
</tbody>
</table>

In 2000, the percentage of home sales affordable to low- and moderate-income households reached an all-time low in Snohomish County at 22%, down 16% from the all-time high in 1998. The graph *Percent of Housing Sales Affordable to Low/Moderate Income Households* shows the five-year history of affordable sales in this county.

The Washington State Housing Finance Commission (WSHFC) is a self-sustaining organization that operates at no cost to taxpayers. In partnership with other public, private and nonprofit institutions, WSHFC develops and administers education and financial assistance programs that promote homeownership in Washington State. In response to growing concern about homeownership rates in the Puget Sound area, the WSHFC is considering targeting sub-groups of low- and moderate-income populations with particular education and down-payment assistance programs.

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Because home purchase requires such a substantial capital investment, income is generally accepted as the primary factor determining who rents and who owns. Location is closely intertwined with income as it plays a key role in determining the price of the housing market.

The following five general assumptions will be examined in this report:

- As household income increases, the rate of homeownership increases.
- Married couples with children are more likely to own their homes than are single parents.
- Individuals with at least some college education are more likely to own homes than those with no college education.
- Caucasians are more likely to live in their own homes than are non-Caucasians.
- Households with three or less members are more likely to own their homes than households of four or more.

Study Overview

This study analyzes income, marital status, household size, education, and race as they relate to homeownership, utilizing data from the 2000 Washington State Population Survey (WPS). WPS includes demographic information from 17,967 individuals and 6,726 households. This report focuses on the Puget Sound region (which includes King, Pierce, Thurston, Kitsap, and Snohomish counties). This region of the state was selected to provide for a large enough subset to obtain statistically significant results. While income and housing prices do vary within this region, these five counties can be loosely categorized as the Puget Sound housing market.

Household income as a percentage of the Federal Poverty Level (FPL) was used to identify low and moderate-income households. The Federal Government releases an official income level for poverty annually. Like median income, a household’s total income and the number of family members determine FPL. For 2000 the Federal Poverty Level was calculated as:

<table>
<thead>
<tr>
<th># in Family</th>
<th>Gross Annual Income</th>
<th>Gross Monthly Income</th>
<th>Approx Hr Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$8,350</td>
<td>$696</td>
<td>$4.01</td>
</tr>
<tr>
<td>2</td>
<td>$11,250</td>
<td>$938</td>
<td>$5.41</td>
</tr>
<tr>
<td>3</td>
<td>$14,150</td>
<td>$1,179</td>
<td>$6.80</td>
</tr>
<tr>
<td>4</td>
<td>$17,050</td>
<td>$1,421</td>
<td>$8.20</td>
</tr>
<tr>
<td>5</td>
<td>$19,950</td>
<td>$1,663</td>
<td>$9.59</td>
</tr>
<tr>
<td>6</td>
<td>$22,850</td>
<td>$1,904</td>
<td>$10.99</td>
</tr>
<tr>
<td>7</td>
<td>$25,750</td>
<td>$2,146</td>
<td>$12.38</td>
</tr>
<tr>
<td>8</td>
<td>$28,650</td>
<td>$2,388</td>
<td>$13.77</td>
</tr>
<tr>
<td>Over 8 add for each child +$2,900</td>
<td>+$242</td>
<td>+$1.39</td>
<td></td>
</tr>
</tbody>
</table>

This study considers the homeownership rate for households with incomes 200%-400% of the FPL. For a single person, that is $16,700-$33,400. For a family of four, it is $34,100-$68,200. In the Puget Sound area, annual household incomes of $25,000 are generally considered sufficient to support home purchase.9

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9 Source: Federal Register v.65 n.3, 2/15/2000, pp. 7555-7557. Monthly and hourly data calculated by OCPP.
*Rounded to the nearest dollar. **Assumes a full-time job for a full year (2080 hours).
10 Interview with Dorothy Lengyel, Executive Director of HomeSight, a nonprofit Community Development Corporation in the field of first-time homeownership in King and Snohomish County, Washington.
Of the total WPS population, 5104 live in the Puget Sound region, and 1925 answered the Survey question regarding homeownership. Of this subset, 69.4% (1318) own their homes while 30.6% (582) rent their place of residence.

For the purpose of this report, some of the categories have been consolidated for ease of analysis. Household type is divided into two categories—married and unmarried. Unmarried refers to all households except husband/wife households, non-family households and single-person households. Married refers to husband/wife households. Further, only households with children below the age of 17 were included (in the analysis of marital status and homeownership). Race is divided into the categories of Caucasian and non-Caucasian (which includes Black, American Indian/Alaska Native, Native Hawaiian/other Asian Pacific Islander, and Asian). Highest level of education achieved is divided into the following categories—those individuals who have obtained at least some college education and those who have no more than a vocational certificate.

![Puget Sound Homeownership](image)

Puget Sound Homeownership shows that as household income increases, the rate of homeownership increases.

These results support the Commission’s decision to target low- and moderate-income populations with first-time homebuyer education and down payment assistance. The question remains, though, whether other factors exist that influence whether or not a person owns a home that could aid in narrowing the target audience and providing information to those who need it most. Further analysis of low- and moderate-income households contacted by the WPS will allow the WSHFC to evaluate what secondary factors may influence homeownership.

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11 Based on a two-tailed t-test with a 95% confidence interval.
Marital Status of Households with Children
The 2000 Census found that nation-wide, 77% of married couples with children under the age of 18, 38% of single mothers, and 51% of single fathers owned their homes. In 1990 those figures were 73%, 31% and 45% respectively.\(^\text{12}\)

The WPS results indicate with 99% certainty that there is a higher rate of homeownership in the Puget Sound area among married households with children than un-married households with children. In 2000, 72% of Puget Sound individuals living in low- and moderate-income households with married couples with children lived in their own homes. Those in household with adults, who were not married but lived with children under the age of 17,\(^\text{13}\) single mothers and single fathers, had a homeownership rate of 59%.\(^\text{14}\)

Given this, WSHFC should consider targeting single parents with education and/or down-payment assistance. One method of doing this would be to offer (and publicize) free baby-sitting at first-time homebuyer classes. Another method to encourage homeownership among this group is to provide more low-interest loans to single parents.

Size of Households
The calculation of the Federal Poverty Level considers the size of households. However, some people suggest that household size is still a factor in determining who owns and who rents, even after this adjustment is made. Some anecdotal evidence suggests that large families may have more trouble finding an affordable a home.

The WPS reveals that there is a correlation between household size

\(^\text{13}\) Children under the age of 17, rather than 18, were selected in order to avoid including 18 year-old parents in the sample group. In our professional judgment, there are likely to be significantly fewer parents below the age of 18.
\(^\text{14}\) The Survey included 169 Puget Sound low and moderate income married couples with children under the age of 17 and 77 un-married households with the same characteristics. Results are based on a two-tailed t-test with a 95% confidence interval. Equal variance is not assumed, and the p-value is 0.040.
and the rate of homeownership. However, this relationship is not consistent with the assumption that smaller households are more likely to own than larger households. The graph Puget Sound Homeownership: Household Size shows that the rate of homeownership increases with household size. Since the WPS did not contact an equal number of households for each category of household size, it is necessary to divide the population into small and large households to evaluate the significance of this relationship.

The graph Puget Sound Homeownership: Small and Large Families shows the rate of homeownership for households with three or fewer members and households with four or more members. These results indicate that there is a higher rate of homeownership in the Puget Sound area among low- and moderate-income households with four or more members than households with three or fewer members. In 2000 75% of large families and 59% of small families owned their homes. Therefore, it does not appear necessary for WSHFC to target large households for homeownership. In fact, the Commission may wish to target smaller families.

**Education Level**

A strong correlation exists between education and income. The graph Washington State Homeownership: Education Completed demonstrates that populations with a higher level of education have a higher mean income, even when this income is adjusted for household size. Therefore, it is reasonable to assume that higher levels of education are also correlated with higher rates of homeownership. However, some people believe that within low- and moderate-income brackets, there is still a significant correlation between education and homeownership. The graph Puget

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15 The Survey included 393 Puget Sound individuals living in low and moderate-income households with four or more members and 173 individuals with three or fewer members. Results are based on a two-tailed t-test with a 95% confidence interval. Equal variance is not assumed, and the p-value is 0.000.
Sound Homeownership: Education Level shows a slight difference in the rate of homeownership between the groups sampled by the WPS. However, statistical analysis indicates that there is not a significant difference in the homeownership rate between individuals with at least some college education and those who do not have any college education. Therefore, it does not appear necessary for WSHFC to target populations by education level.

Race
A 1999 report to WSHFC found that minorities constitute just 17% of new homebuyers who attend WSHFC seminars. This has led the organization to question whether it should target minority groups with homebuyer programs. The WPS revealed that there is no statistically significant difference in the rates of homeownership between Caucasians and non-Caucasians in the Puget Sound area. The graph Puget Sound Homeownership: Race shows that the percent of homeowners in the test groups was different, but the difference is not statistically significant. The sharp contrast between this finding and the 1999 report may be a result of the low percentage of minorities in the population. There are fewer minorities in the population, but they are not less likely to own a home.

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16 The Survey included 355 Puget Sound individuals living in low and moderate-income households who have not completed any higher education, and 210 individuals who have. Results are based on a two-tailed t-test with a 95% confidence interval.

17 The Survey included 398 Puget Sound Caucasian individuals living in low and moderate-income households and 168 non-Caucasian individuals. Results are based on a two-tailed t-test and a 95% confidence interval.
Data Constraints & Other Variables to Consider
Since WPS was a telephone survey, households without telephones were excluded. This non-coverage is, however, quite small. Statewide, the percent of households without telephones was less than 4 percent, according to the 1990 U.S. Census. While there exists the risk of systematically missing some people in a telephone survey, most researchers do not consider this to be a serious problem. Another limitation, common to all surveys, is “non-responsiveness.” This term refers to households that refuse to participate in the survey. As in all surveys, there is a potential distortion in the results if the characteristics of non-responding households are systematically different than those of the responding households. This Survey took 30 minutes, so if a particular demographic group was unable to remain on the phone for this amount of time, the data may be skewed. A common practice to compensate for the non-response error is to post-stratify the survey based on known population characteristics, which was done in this project. In evaluating the reliability of the Survey, we must also consider that questions were translated only into English and Spanish, meaning that anyone who does not speak either of these languages would not be able to answer the questions.  

The manner in which data was recorded by WPS created some difficulties in conducting this analysis. The analysis included two of the five regions covered by the Survey. These regions include Pierce, Thurston, Kitsap, Snohomish, and King Counties, and the first three counties arguably have different housing markets than the last two. The Survey calculated each individual’s household income as a percentage of the Federal Poverty Level but did not calculate the household income as a percentage of area median income. Median income is the primary measure of income used by the housing industry and the WSHFC. Both of these factors could have influenced the reliability of the results presented in this report.

This analysis centers on responses to the question: Do you own or rent your home? The Survey “did not ascertain” an answer on the owner/renter question from 3174 respondents in the Puget Sound region, while only four people “refused” to answer. Supposedly the question was asked of everyone. We suspect that the question may not have been asked of some people based on age, but are unable to confirm this.

For the variables analyzed in this report, there are several key data limitations. The Survey collects information on individuals, not households. For the particular questions examined, it would be much more useful to look at households than individuals. An individual’s education level, for instance, may not be a factor in ownership if someone with a different level of education supports him/her. The Survey also cannot differentiate head(s) of household and cannot determine if homeowners are living in their first home or have purchased numerous homes. These would be very interesting variables to consider. In addition, it is not possible to control for when a home was purchased. The Survey respondents may have purchased homes before or after they married or during a previous marriage. They may have had higher or lower incomes when they purchased. They may have received higher education before or after home purchase. Furthermore, there is no way of knowing if renters ever owned a home or if they have any desire to own a home. The data set includes how long an individual has lived in the area, but we did not factor this into our analysis. All of these factors could affect the true variables that influence homeownership.

There are also data limitations created by our inability to subdivide the data set. Just because a person is not married and lives with children does not mean that there is only one adult in the household or that there is no one outside the household supporting the family. This analysis only looked at whether households were married or not married. Individuals who are widowed, divorced, never married or separated could have significantly higher or lower rates of homeownership. Similarly, we considered all non-Caucasians as one group, and there may be different ownership rates among different minority groups.

**Recommendations**
Based on the previous analyses, it is recommended that WSHFC examine the marketing strategies used to promote its programs and recruit participants. The programs should be marketed to communities of all races and education levels rather than those with high proportions of non-Caucasians and high proportions of individuals without any college education. WSHFC should encourage those lenders, real-estate professionals and nonprofit organizations teaching first-time homebuyer classes to provide childcare services during their classes to accommodate single parent households and offer classes on weekends (when single working parents might be more likely to attend). WSHFC can also offer materials to seminar instructors that specifically address the obstacles to homeownership faced by those groups identified in this report as producing low rates of ownership. In addition, WSHFC can consider setting aside some of the $99.2 million in below-market rate loans it makes available to first-time buyers for low-owning groups.\(^{19}\)

Further analysis of the demographics of smaller households (those with three people or less) could help WSHFC better target this group. Are there larger numbers of smaller households in certain counties or neighborhoods? Do specific races comprise a higher proportion of smaller households? An analysis of job types among homeowners and renters might also provide valuable information that would enable WSHFC to better target potential homebuyers.

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