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Pierce County Needs Assessment Project[1]

Pierce County
Community Connections

mdc
making a difference in community

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Executive Summary

Founded fifty years ago, the *Division of Governmental Studies and Services* (DGSS) is jointly sponsored by WSU Extension and the College of Arts and Sciences to serve the University's land grant mission. DGSS links the resources of the University for public benefit through applied social science research, program evaluation research, technical assistance and training for government entities and non-profits throughout the Northwest. DGSS has extensive experience in program evaluation, survey research and community engagement.

The Pierce County Department of Community Connections (CC) and Making a Difference in Community (MDC) contracted with DGSS to help conduct *needs assessment* research in the City of Tacoma and surrounding Pierce County. Pierce County Community Connections (CC) serves as a link for low-income individuals within the county to a variety of services, including early childhood education, drug and violence prevention programs, and energy assistance. Additionally, the department offers an array of programs for the elderly and individuals with disabilities and focuses on initiatives aimed at decreasing homelessness and developing low-income housing (CC, n.d.). Making a Difference in Community is a non-profit organization in Pierce County that provides services for low-income and homeless families with the intent to develop programs that promote self-sufficiency and help to alleviate poverty (MDC, n.d.). Organization representatives asked for assistance in order to obtain information from low-income residents regarding their perceptions of services available, accessibility of services, services utilized and desired services. In order to conduct the needs assessment, DGSS researchers worked with Pierce County staff to develop and implement a targeted survey of residents to assess knowledge and opinions of services available to low-income individuals. An exemplar of that questionnaire is attached to this report as an appendix. The assessment included areas of inquiry developed in collaboration with Pierce County staff to assure that the information collected would be useful for future planning and assessment of program goals.

The survey was administered in collaboration with the partners, and was initiated with distribution by CC and MDC in the Summer of 2014. Hard-copy surveys were distributed to various service locations operated by Pierce County or partner agencies in order to target low-income residents. A total of 3,440 survey questionnaires were handed out, and 921 completed individual surveys were received through this process. Several "composite" responses representing aggregated input from a number of individuals were also received. Although they could not be used in the primary data analysis, it is possible to compare those aggregated responses to the mean or patterns of responses from individuals, and that is done for some questions. DGSS performed data entry, data quality assurance testing and analysis of survey results, a detailed discussion of which follows in this report, and which will be presented by DGSS to Boards of Community Services Block Grant recipients in Pierce County in the Spring of 2015.

The survey was designed to assess the use of services, population access to services and the various issues faced by low-income households in Pierce County to determine in more detail

the needs of this population. Components of the survey comprise three main topic areas: demographics, utilization of services and ease of access. The survey also included some questions regarding housing and homelessness, how information on access to services is received and an assessment of respondents' current financial situation compared to a year ago. The aggregate demographic data reveal that the majority of respondents were female, Caucasian and non-Hispanic or Latino and the primary language spoken in their homes is English. Most respondents had no children living within their household and reported a monthly income in the range of 0 to $999 (51.9%). Many respondents (42.9%) stated that earned income or wages was a source of income for their households. In terms of important services, the majority of respondents stated affordable housing (62.1%) and affordable dental care (52.7%) were most important for improving their situation. Strong percentages also indicated subsidized housing (42.6%), assistance with paying rent (45.3%), food assistance (48.9%), cash assistance (35.4%) and help finding a job (35%) were most important to improving their situation. Although many respondents indicated that several services were most important to improving their situation, the majority of respondents are *not using* the services they indicated were important. Only a few services were utilized by a majority of respondents: food assistance (63.2%), medical insurance (65%), and dental insurance (52.9%). Similarly, these three services were reportedly the easiest services to access. For many services, large percentages of respondents indicated they were hard to access, including affordable housing (36.4%), subsidized housing (44.7%), help finding housing (38.6%), and loan programs for homebuyers and homeowners (44.5%). Respondents indicated a number of factors were important to making it easier to access services. The majority of respondents indicated that an easy application process (51.1%), timely communication from staff (52.4%), convenient scheduling from service agencies (51.8%), shortened wait times (51.6%), being treated with respect (66.1%) and knowledgeable staff (63.5%) were most important for making it easier to access services.

Statistical comparisons also reveal several significant differences between groups or types of respondents in opinions regarding importance of services, use of services and opinions regarding ease of access. For instance, Tacoma residents indicated a number of services were more important than county residents for improving their situation. Some of the services rated more important by Tacoma residents include affordable housing, subsidized housing, assistance with rent, help finding housing, emergency shelter, and help finding a job. Residents outside of Tacoma rated only one service significantly more important than Tacoma residents, pre-school education. There were also significant differences between Tacoma residents and respondents that reside outside of Tacoma and the utilization of homeless services, help finding housing, temporary housing, emergency shelter and public transportation. Lastly, Tacoma residents rated help paying utility bills, preschool education and developmental screening for children significantly *harder to access* than residents outside of Tacoma. Residents outside of Tacoma rated job training and public transportation significantly *harder to access.*

As is the case with respondent area of residence groups, there are also several significant observed differences associated with the primary language of the respondent household.

Households which report speaking primarily a language other than English rated a number of services significantly more important to improving their situation than did English-speaking respondent households. Some of these services include: subsidized housing, loan programs for homebuyers and homeowners, emergency shelter, nutrition education, cash assistance, English language courses, adult education/GED, pre-school education and parenting skills classes. There is also a significant relationship between primary language of the household and use of senior services and English language classes. In terms of ease of access, English households indicated help finding housing, help paying utility bills and senior services were *harder to access* than non-English households.

Significant differences in opinions regarding importance, ease of access and use of services also exist between groups identified based on the source of income for households. Households receiving guaranteed benefits as their source of income rated many services more important that those receiving earned income/wages. For example, affordable housing, subsidized housing, assistance with rent, help finding housing, help paying utility bills, food assistance, cash assistance and veteran services were rated significantly more important by households with guaranteed benefits. Households earning wages/steady income rated preschool education, parenting skills classes and loan programs for homebuyers and homeowners significantly more important to improving their situation. There are also significant differences between these households and their utilization of assistance with rent, help paying utility bills, senior services and public transportation. There is a strong and statistically significant difference between households receiving wages/steady income and those receiving guaranteed benefits and cash assistance. Lastly, households receiving wages/steady income report cash assistance, developmental disability services, help applying for social security benefits, mental health services and senior services are significantly *harder to access* than those receiving guaranteed benefits.

Regression analysis reveals that several variables significantly predict opinions regarding importance of services and use of services; however, the importance of many of these variables depends on the type of services being examined. For instance, increased monthly income is associated with rating all categories of services less important, but county residency only impacts the importance of two types of services: housing and employment. County resident respondents rate these services less important than Tacoma residents. Age impacts 4 service categories, but not in the same manner. Age is negatively associated with employment and education services (older individuals rate services less important), while it is positively associated with transportation and other services (older individuals rate these services more important).

Interestingly, the variables that predict importance of services do not always predict the use of these same services. While regression analysis illustrates that the predictors for the importance and use of these services are the same (county residency and monthly income), only one variable that predicts importance of employment services also predicts the use of these services. In the case of employment, county residency, income, age, number of people in the

household and source of income all predict the importance of these services, but only county residency and primary language of the household explain the use of these services. County residents are less likely to use employment services compared to Tacoma residents while non-English households are less likely to utilize these services than English households. While income is a significant predictor of importance of services for every service type, it only explains the use of two services: housing and other services.

The survey data will provide CC and MDC with valuable information regarding the use of services among low-income residents in Pierce County, opinions regarding importance of services and the accessibility of these services. The survey data reveals a number of services are viewed as very important to survey respondents, yet many services are not utilized by respondents. While the explanation for this seemingly contradictory result is not contained within the data, it will help CC and MDC understand which services are needed and may need more public awareness to encourage utilization. The survey data also reveal several significant group differences in opinions regarding importance of services, use of services and opinions regarding access. These data will help different service providers within Pierce County understand how to address the needs of their target populations. While it is clear that a number of services are potentially not being fully utilized by the low-income population of Pierce County, the survey data reveal that many services are important for helping to alleviate poverty within the county. Respondents clearly identify several services that would help improve their situation which will help CC and MDC in determining how to best meet the needs of low-income residents within the county.

Introduction

This report details the process and findings of the project to conduct a high-confidence needs assessment for low-income residents in Pierce County administered by the Division of Governmental Studies and Services (DGSS) at Washington State University in collaboration with Pierce County Community Connections and Making a Difference in Community. The assessment involved a self-administered survey distributed throughout a variety of service agencies within Pierce County in order to evaluate the needs of low-income residents within the county. Following this introductory section, this report will discuss the methodology and findings of the needs assessment.

Pierce County is located in northwestern Washington State and benefits from diverse geography that includes the Puget Sound and the Cascade Mountain Range. It also includes Mount Rainier, the highest point in Washington State. With an approximate population of 819,743, Pierce County is the second most populated county in Washington. The county has an area of 1,806 square miles (1,670 land, 130 water) that consists of a mixture of urban and rural settings, including the city of Tacoma (the county seat), several small towns, some farms and timberland. The county is also demographically diverse; the largest racial/ethnic groups are Caucasian (69%), Hispanic (9.9%), Black (7.3%) and Asian (6.4%) (U.S. Census). According to the U.S. Census, the percentage of individuals living below the poverty line from 2009 to 2013 in Pierce County is 12.4, which is lower than the Washington State poverty level of 13.4%. While lower than the percentage of poverty for Washington State, great disparities in percentage of poverty for different population groups exist based on race and ethnicity. For instance, the percentage of individuals living in poverty in 2009 for Pierce County was 12.3%; however, only 10.1% of non-Hispanic Caucasians were below the poverty-level while 21.9% of Hispanics, 21% of Blacks, 11.3% of Asians and 26.3% of other individuals fell below the poverty line (U.S. Census). Additionally, 14.7% of the population speak a language other than English at home (U.S. Census). This geographic and demographic diversity means that addressing poverty within Pierce County can be rather difficult due to the fact that individuals living in poverty within the county are highly dispersed in rural and urban settings and comprise a number of different racial/ethnic and linguistic groups.

In 2014, Pierce County Community Connections and Making a Difference in the Community received grant funding from the U.S. Department of Health and Human Services through the Community Services Block Grant (CSBG). CSBG provides funding to various organizations, both governmental and nongovernmental, to alleviate poverty within communities (‘About community services block grants, n.d.). Recipients of this grant are required to conduct a needs assessment. Community Connections and MDC then subcontracted with Washington State University’s Division of Governmental Studies and Services to help conduct the needs assessment within the county.

Methodology

DGSS worked extensively with the Pierce County Department of Community Connections to develop survey questions to assess low-income resident perceptions of community issues and services available in Pierce County. While the percentage of households under the poverty line are lower in Pierce County than the Washington State average, great disparities exist among the various racial/ethnic groups living within the county. Demographic differences clearly align with great differences between individuals and populations living in poverty in Pierce County and, as will be explained, required a sophisticated research design with a distribution plan that had the best potential of reaching a representative sample of Pierce County residents living in poverty and utilizing Pierce County services. Because low-income individuals in Pierce County are highly dispersed in rural and urban areas, comprise a number of different racial/ethnic and linguistic groups and not all members of the population currently receive services, the methodological design for this project was designed to obtain the most representative sample possible of the target population (low-income residents in Pierce County). To achieve these goals, 3,440 questionnaires were distributed at various service locations operated by partner agencies or Pierce County and made available in 6 languages: English, Spanish, Vietnamese, Cambodian, Russian and Korean. Of the surveys distributed, 2,482 were in English, 500 in Spanish, 114 in Vietnamese, 106 in Cambodian, 102 in Russian and 136 in Korean. Pierce County staff determined distribution of questionnaires per points of service based on population demographics for each area.

Of the 3,440 surveys sent out, 921 individual surveys were completed which equates to a 27.3% response rate. 813 of these surveys were completed in English (32.8% response rate), while 48 Spanish surveys (9.6% response rate), 12 Cambodian surveys (11.3% response rate), 17 Vietnamese surveys (14.9% response rate), 14 Korean surveys (10.3% response rate) and 9 Russian surveys (8.8% response rate) were completed. However, it should be noted that 26 individuals indicated the dominant language of the household was bilingual with English being one of the two dominant languages. Most of these individuals indicated their household spoke primarily English and Spanish (14); however, other respondents indicated the household spoke English/Khmer (2) and English/Korean (2). It should also be noted that several "aggregated response" questionnaires were received from minority populations. Each such questionnaire represents the combined (or average) responses of a number of individuals. While not useful for statistical assessment or most of the analyses reported herein and therefore not included in the overall survey results, those aggregate responses do offer a limited opportunity to know more about the populations they represent.

Findings and Observations:

Aggregated response questionnaires

DGSS researchers received some aggregated foreign language survey questionnaires for groups of individuals in the following languages: Cambodian, Korean and Vietnamese. While

these aggregated surveys cannot be included in the deeper analysis of individual survey responses, they do provide an opportunity for brief assessment of these key groups prior to conducting a more extensive analysis of individual survey responses. A Pierce County service agency quantified aggregated survey results of 326 Korean individuals on a single questionnaire that was collected between March of 2014 and June 2014. Of this group, 70% were female and 156 of these respondents were between the ages of 65 to 74 years. 165 of these respondents indicated there was 1 individual living in the household. 90% have lived in Pierce County for 5 or more years and half (50%) reported their highest level of education completed was some high school. Only 50 of these individuals indicated anyone in the household had a diagnosed disability and the majority (55%) reported that most of their income came from SSA. 244 of these Korean respondents made up to $1,459 a month and 90% reported that their situation was somewhat worse compared to last year. In terms of the importance of services for improving their situation, most rated affordable housing, subsidized housing and assistance with rent as most important while preschool education, parenting skills classes, help to meet personal care needs were least important. These individuals apparently stated in the aggregate that services were "3" in terms of ease of access which was rated on a scale of 1 (hard to access) and 5 (easy to access). These individuals indicated affordable housing, subsidized housing, assistance paying rent, and help finding housing were hard to access.

Aggregated responses were also received for Vietnamese individuals. One aggregate survey each was completed for 18 to 54 year old respondents (34) and those 55 years and older (67). Of these individuals, average responses to each question were reported. For instance, the average length of time living in Pierce County for 18 to 54 year olds was 6.7 years while the average was 12.5 years for those 55 and older. Approximately 58% (39) of participants 55 years and older were male, while approximately 64% (22) those 18 to 54 years old were female. In terms of important services, the average response of those 55 years and older identified affordable housing, subsidized housing, assistance with paying rent, free shuttle service, public transportation, legal help and senior services as most important. Those participants 18 to 54 years old indicated subsidized housing and food assistance were most important. When considering ease of access, the average response for those 55 years and older was that services were hard to access. This included assistance with paying rent, loan programs for homebuyers and homeowners, temporary housing, emergency shelter and homeless services. The 18 to 54 year old group indicated that free shuttle services, help to meet personal needs, cash assistance and job training were hard to access.

Lastly, 2 groups of aggregated responses were submitted on single questionnaires for Cambodian households (one for those under 60 and one for those over 60). Both of these groups indicated they have lived in Pierce County for over 30 years. These groups had between 3 and 5 individuals in their household. Most 60 years and older had no schooling while those under 60 completed some high school. For both of these groups, it appears that most indicated that services were either "4" or "5" in importance for improving their situation. For instance, both groups indicated that affordable housing, subsidized housing, assistance paying rent and help

paying rent were most important. Those 60 and under stated free shuttle service and public transportation were most important (5 on the scale), while those 60 and older rated these services a "4". These groups were also most likely to indicate that they did not use most services and most were rated as either "1" or "2" on ease of access (1 is hard to access, while 5 is easy to access). Both groups indicated that affordable housing, loan programs for homebuyers and homeowners, help finding housing and temporary housing were hard to access. Those 60 and over indicated that subsidized housing, assistance paying rent, and help with minor home repairs were hard to access, while those 60 and under rated these services a "2". While these aggregated responses give some insight into opinions regarding services for these groups, a more thorough analysis of individual survey responses will provide insight into opinions regarding services in Pierce County. As will be seen, many of these responses, in terms of importance and ease of access, will be supported by the individual survey responses.

Individual survey analysis

Demographic Information

921 Pierce County residents completed individual survey questionnaires. The majority of survey respondents were female (65.7%), Caucasian (68.5%), and non-Hispanic or Latino (85.9%). Approximately one third of respondents (32.5%) were between 30 to 39 years of age and many indicated their highest level of education completed is high school graduate (20.2%). The majority of respondents indicated the primary language spoken in the household is English (84.8%) and nearly half of the participants have lived in Pierce County over 20 years (40.7%). On the question of household size, participants reported only one individual living in their household (26.3%), or no children in the household from 0 to 5 years (66%) or six to 17 years old (64%). Many respondents indicated one individual between 18 to 59 years (39.3%) and no individuals 60 or older (75.5%) resided in the household.

Just over half of respondents reported a monthly income of 0 to $999 (51.9%), while a majority reported that one individual in the household was employed full-time (72.6%) and that one individual was employed part-time (81.3%). A strong percentage of participants indicated the source of income for their home was earned income or wages (42.9%). However, sources of income for households also included SSI (22.5%), Social Security Disability (17%), TANF (17.6%), and Social Security (14.1%). The majority of respondents also indicated one individual within the household was unemployed (78.3%). Survey participants were also asked to compare their household's current financial situation to a year ago; the largest percentage indicated their financial situation was about the same (45.7%). Most respondents stated that no members of the household had ever served in the U.S. Armed Forces (77.6%).

Table 1: Respondent Demographics	
Age	30 to 39 years old (32.5%)
Sex	Female (65.7%)
Race	Caucasian (68.5%)
Ethnicity	Non-Hispanic (85.9%)
Education	High School Graduate (20.2%)
Primary Language	English (84.8%)
Lived in Pierce County	20 years or more (40.7%)
Number of Individuals in Household	1 (26.3%)
Income	0 to $999 (51.9%)
Employed Full-Time	1 (72.6%)
Employed Part-Time	1 (81.3%)
Number of Individuals Unemployed	1 (78.3%)
Source of Income for Household	Earned Income or Wages (42.9%)
N=921	

Participants were asked if anyone in the household had a diagnosed disability. While the largest group of respondents indicated NO (59%), close to half of the respondents (41%) stated someone in their household had a diagnosed disability. Of those respondents who stated that someone in the household had a diagnosed disability, 24.8% indicated there is a disabled veteran in the household and 71.2% indicated an individual in the household had a physical disability. 63.9% of these participants stated that there was someone in the household with a mental health disability. Participants also indicated that individuals in the household had developmental disabilities (11.2%), intellectual disabilities (14.7%), Autism (13.6%), Cerebral Palsy (4.2%), Down Syndrome (1.2%), other developmental disabilities including ADD, ADHD, Alzheimer's and PTSD (45.4%), blind or visually impaired (15.2%), and deaf or hard of hearing (15.8%).

Services important to you and your family

Survey participants were asked to rate on a scale from 1 (least important) to 5 (most important) the importance of a range of services that might be important to helping improve their situation. The majority of respondents indicated affordable housing (62.1%) and affordable dental care (52.7%) were most important. Additionally, respondents also indicated with a rating of five that the following types of services were most important to them: subsidized housing (42.6%), assistance with paying rent (45.3%), help paying utility bills (38.3%), food assistance (48.9%), cash assistance (35.4%), help finding a job (35%), and affordable medical care (49.2%). Respondents indicated that many services were least important, including help with minor home repairs or weatherizing their home, temporary housing, emergency shelter and homeless services. Figures 1 through 3 below illustrate respondent opinions regarding the importance of a variety of services.

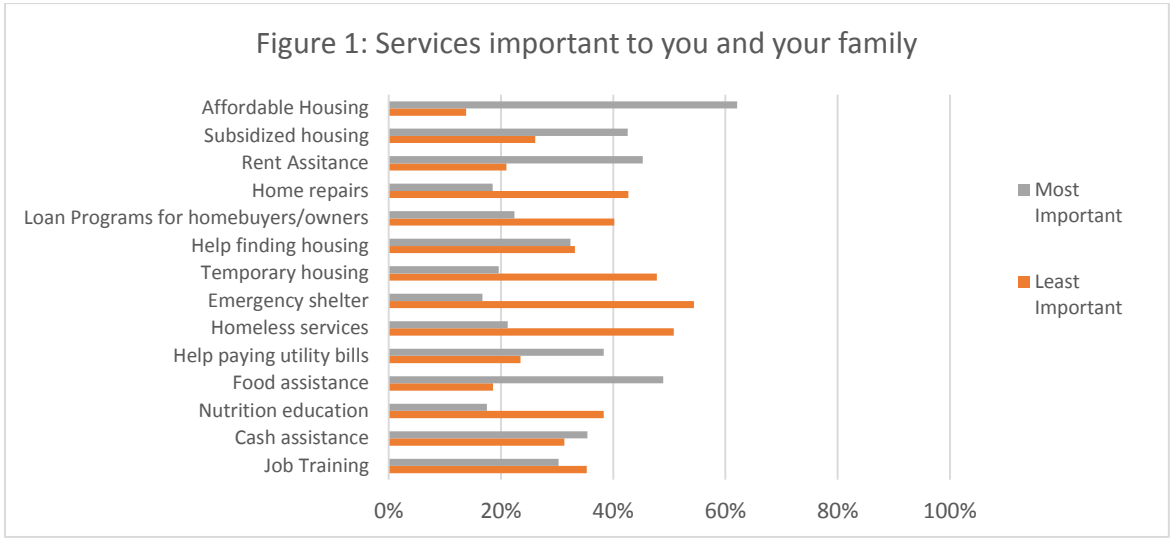


Figure 1: Services important to you and your family
Affordable Housing
Subsidized housing
Rent Assitance
Home repairs
Loan Programs for homebuyers/owners
Help finding housing
Temporary housing
Emergency shelter
Homeless services
Help paying utility bills
Food assistance
Nutrition education
Cash assistance
Job Training
0%
20%
40%
60%
80%
100%
Most Important
Least Important

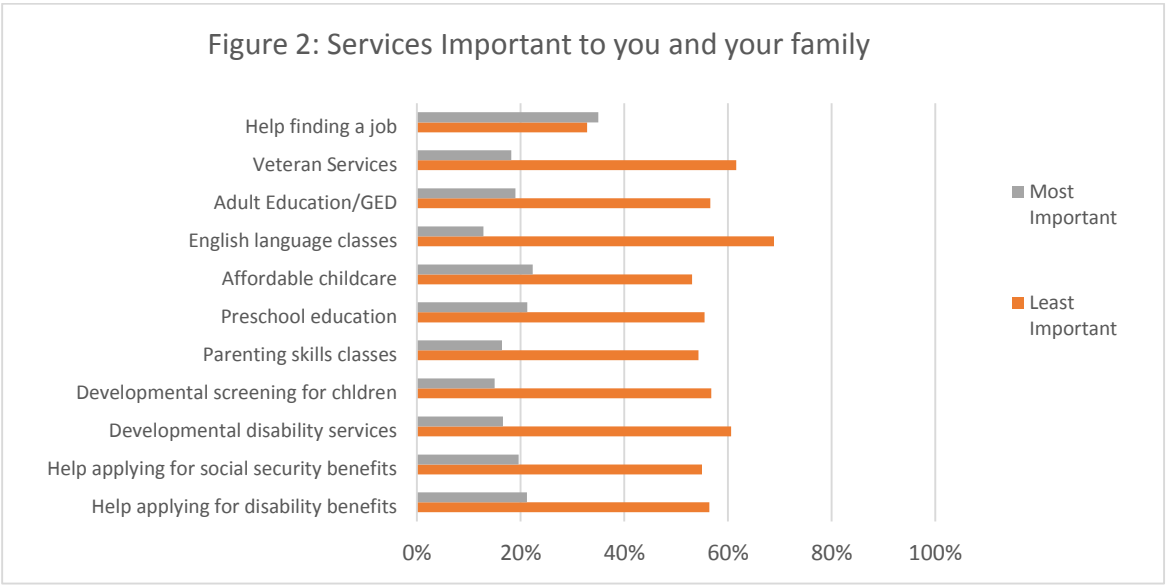


Figure 2: Services Important to you and your family
Help finding a job
Veteran Services
Adult Education/GED
English language classes
Affordable childcare
Preschool education
Parenting skills classes
Developmental screening for chldren
Developmental disability services
Help applying for social security benefits
Help applying for disability benefits
0%
20%
40%
60%
80%
100%
Most Important
Least Important

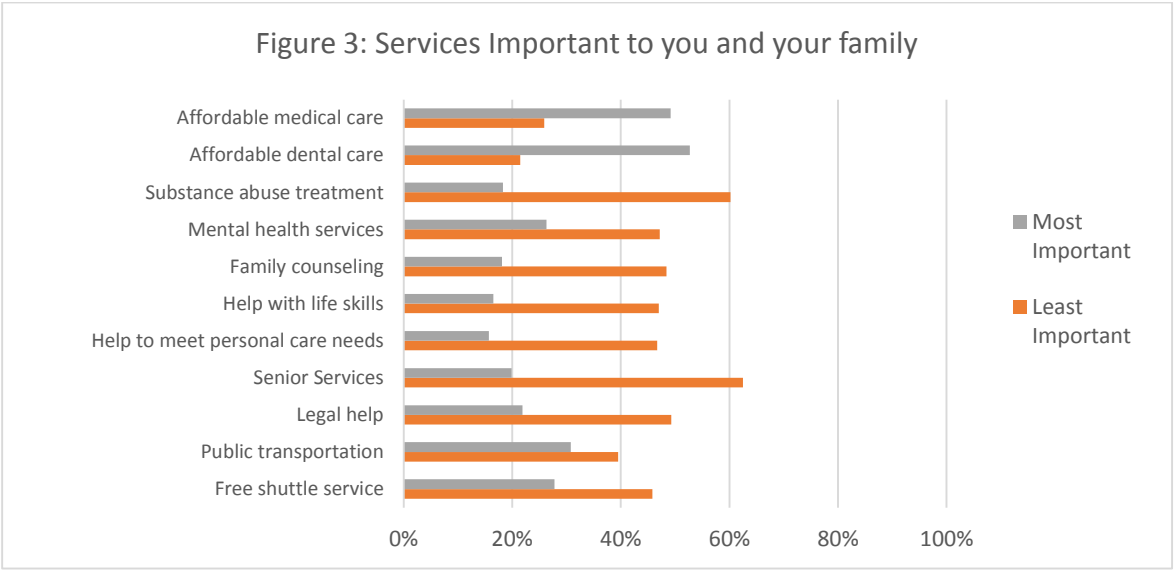


Figure 3: Services Important to you and your family
Affordable medical care
Affordable dental care
Substance abuse treatment
Mental health services
Family counseling
Help with life skills
Help to meet personal care needs
Senior Services
Legal help
Public transportation
Free shuttle service
0%
20%
40%
60%
80%
100%
Most Important
Least Important

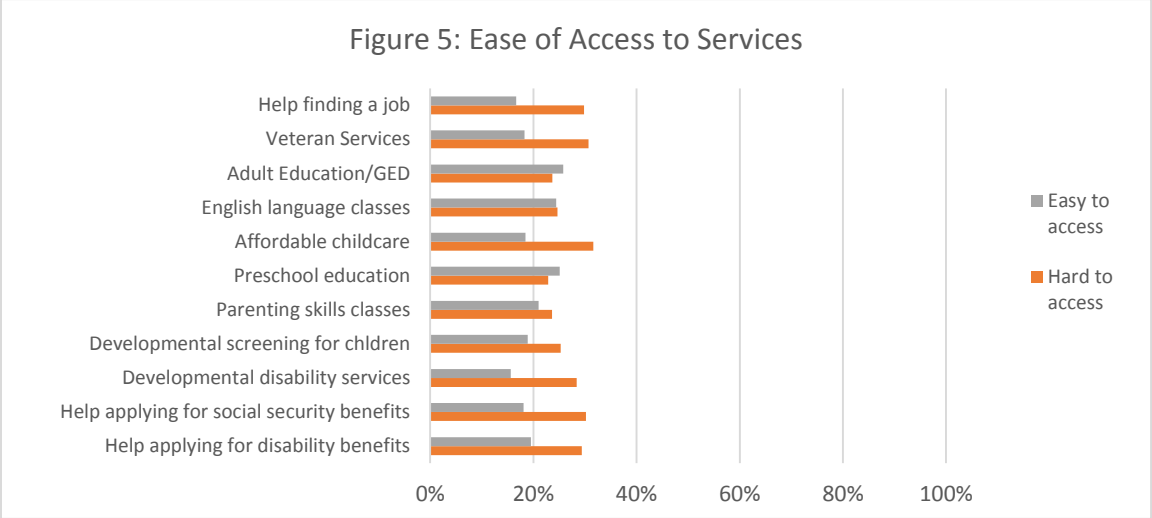
Services your household receives

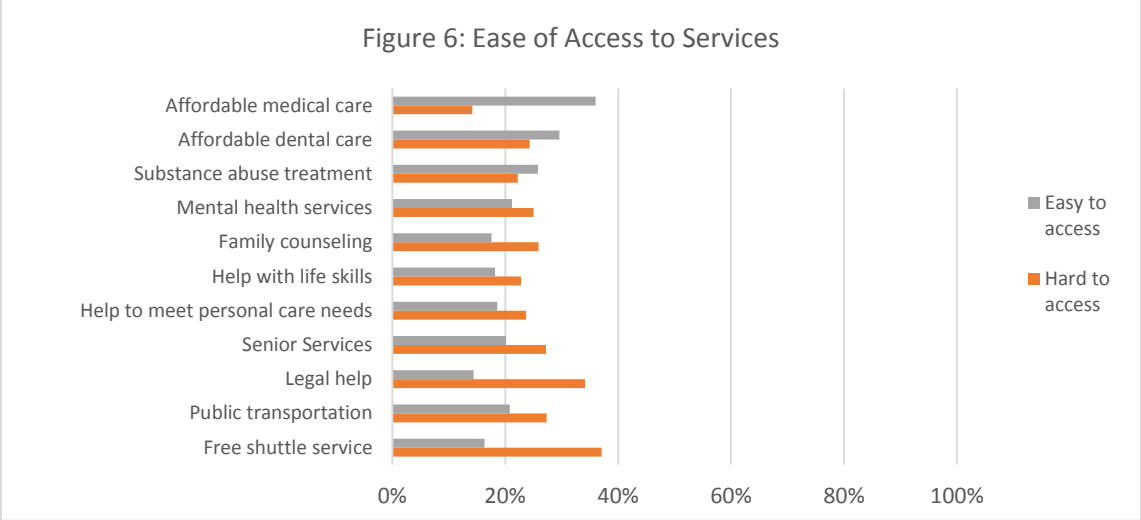
In addition to rating the importance of services, respondents were asked which services their household receives and the ease of access for each of these services. The majority of respondents reported not using a variety of the services, including affordable housing, subsidized housing assistance with paying rent, homeless services and other services (See Table 2 Below). However, 25.7% of respondents report utilizing affordable housing services, 21% say they received assistance with rent, 24.6% received help paying utility bills, 21.4% indicate they utilized cash assistance, and 25.7% utilize public transportation. Additionally, a majority of households received food assistance (63.2%), medical insurance (65%) dental insurance (52.9%) and many report receiving legal help (34.1%).

Table 2: Services the household receives

Affordable Housing	25.7%	***Affordable Childcare***	12.5%
Subsidized Housing	19.6%	***Preschool Education (Head Start)***	15.6%
Assistance with Paying Rent	21%	***Parenting Skills Classes***	9.2%
Help with Minor Home Repairs	7.1%	***Developmental Screening for Children***	10%
Loan Programs for homebuyers/owners	6.7%	***Developmental Disability Services***	9.3%
Help Finding Housing	15.8%	***Help Applying for Social Security Benefits***	15.2%
Temporary Housing	10.5%	***Help Applying for Disability Benefits***	15.3%
Emergency Shelter	11.1%	***Medical Insurance***	65%
Homeless Services	14.8%	***Dental Insurance***	52.9%
Help Paying Utility Bills	24.6%	***Substance Abuse Treatment***	15%
Food Assistance	63.2%	***Mental Health Services***	20.8%
Nutrition Education	13%	***Family Counseling***	10.4%
Cash Assistance	21.4%	***Help with Life Skills***	10.6%
Job Training	12.6%	***Help to Meet Personal Care Needs***	11.1%
Help Finding a Job	16.5%	***Senior Services***	11.8%
Veteran Services	13.5%	***Legal Help***	12.3%
Adult Education/GED	12%	***Public Transportation***	25.7%
English Language Classes	7.2%	***Free Shuttle Services***	12.7%

In terms of ease of access, respondents indicated that many services were hard to access. For instance, significant percentages of respondents stated that affordable housing (36.4%), loan programs for homebuyers and homeowners (44.6%), help finding housing (38.6%), and temporary housing (38.7%) were difficult to access. Medical insurance was identified as the easiest to access of the listed services, with the hardest to access being subsidized housing (44.7%), and loan programs for homebuyers and homeowners (44.5%). The easiest services to access were food assistance (39%), medical insurance (36%), and dental insurance (29.6%).





Respondents were asked to rate the importance of several factors to make it easier to access services. They were given a variety of options, including physical location of organizations providing services, centralized intake (applying for all assistance in one place), and easy application processes, among several others. Nearly all of the factors included were rated very important by most respondents with the exception of *service agencies' staff understanding my culture*, which the largest percentage rated as least important (33.4%). For instance, physical location of organizations (38.4%), availability of information about services through different media (33.4%), availability of information about services in different locations (31.8%), centralized intake (44.8%), assistance from a staff member to navigate available benefits (42.2%), access to computer and internet (41%), and understandable explanation of available benefits (47.1%) were rated by many respondents as most important. A small majority of respondents indicated that easy application process (51.1%) and timely communication from staff (52.4%), convenient scheduling from service agencies (51.8%), and shortened wait times

(51.6%) were important, with a higher percentage indicating that being treated with courtesy and respect (66.1%) and knowledgeable staff (63.5%), were most important.

Housing and Homelessness

Many respondents reported that their home was in good shape and needed no repairs (44.3%). Very few people reported that their house was in such poor condition that it was unsafe (3.6%). 34% of people reported that within the last 12 months, they had to choose between paying rent and paying for other basic needs. This is higher than people who were unable to pay property taxes on the home (3.2%), stayed in emergency shelter or transitional housing (12.4%), shared housing with another household to prevent being homeless (18%), moved due to high housing costs (10.8%), people who were homeless for a week or less (8.3%), people who had to move multiple times (11.6%), people who were homeless for more than a week (17.6%), or people who were evicted from their home (6.3%). However, a majority of respondents indicated that one of these situations had happened within the last 12 months (61.7%).

Many people reported that they have never been homeless (49.3%), while 12.1% indicated that they are currently homeless. The most common reason for homelessness was lack of employment (33.9%), with some other common reasons being inability to pay rent or eviction (31.9%), family break-up (26.4%), and drugs and/or alcohol (23.2%). Many participants stayed with family or friends during homelessness (40.3%), while some lived outside or in their car (25.6%), or in a shelter (20.6%).

Services used by you and your family

Almost all participants indicated that they or someone in their family are covered by health insurance (91.1%). The most common reason for not having health coverage was that participants did not know what their options were (67.1%). Some also felt they needed help with the application (45.3%). Of people who indicated that they used food assistance services in the past 12 months (20.4%), the majority of those participants used food stamps (66.5%) and many utilized food banks (37.6%).

Of the respondents who are unemployed, most indicated thinking that all the listed resource options for help finding a job would be very useful. This included training for a specific job (47.7%), resume writing (43.4%), interview skills (40.5%), transportation (43.3%), and computer skills (42.5%). The resource which participants found the least useful was language skills (37.5%).

As mentioned previously, the majority of respondents indicated they have no children in their household from 0 to 5 years old (66%) or 6 to 17 years old (64%). In regards to concerns for children in the household, most individuals had no worries about children in their household (58.6%), had no worries about their child's weight and eating habits (95.4%), that their child was overweight (97.3%) or underweight (99.1%), or other concerns (92%). 482 (56.5%) participants indicated that they did not use any childcare in the last 12 months. The single largest group of respondents who did use childcare utilized a grandparent (15.1%). Other childcare used was licensed childcare (11.4%) or another relative or neighbor (10.7%). Approximately one-third of participants indicated that they would take parenting classes if offered (33.7%, 293).

Most people did not regularly use the bus (49.6%), and few people reported that they currently ride the bus (16.9%). The most common reason people do not use the bus was that they prefer to use a car (52.7%). The vast majority of people did not use Paratransit or other free bus services (88.3%). Of people who did use free bus services, Pierce Shuttle (35%), and Paratransit Services (33.1%) were most commonly used.

The majority of participants (60%) say their benefits have not been reduced in the past year. Of those whose benefits did reduce, it was mostly due to increased earnings (21.7%), reasons they did not know (24.1%), or other reasons (28.2%).

Group Comparisons

While the descriptive analysis above provides excellent information regarding opinions of services among all respondents, it is important to analyze differences between groups in order to determine if and how perceptions of services differ. In the following section, we conduct statistical comparisons based on residence (Tacoma residents/County residents and Cross-over residents), primary language of the household (English/Non-English households), and source of income for the household (Wages/Earned Income, Guaranteed Benefits, and Other Income). These groups are compared in terms of how they rate importance of services, the services they utilize and their perceptions regarding the ease of access for these services. These tests can reveal whether certain groups rate some services more important than others, whether there is a difference in use of services depending on group, and whether some groups feel services are harder to access.

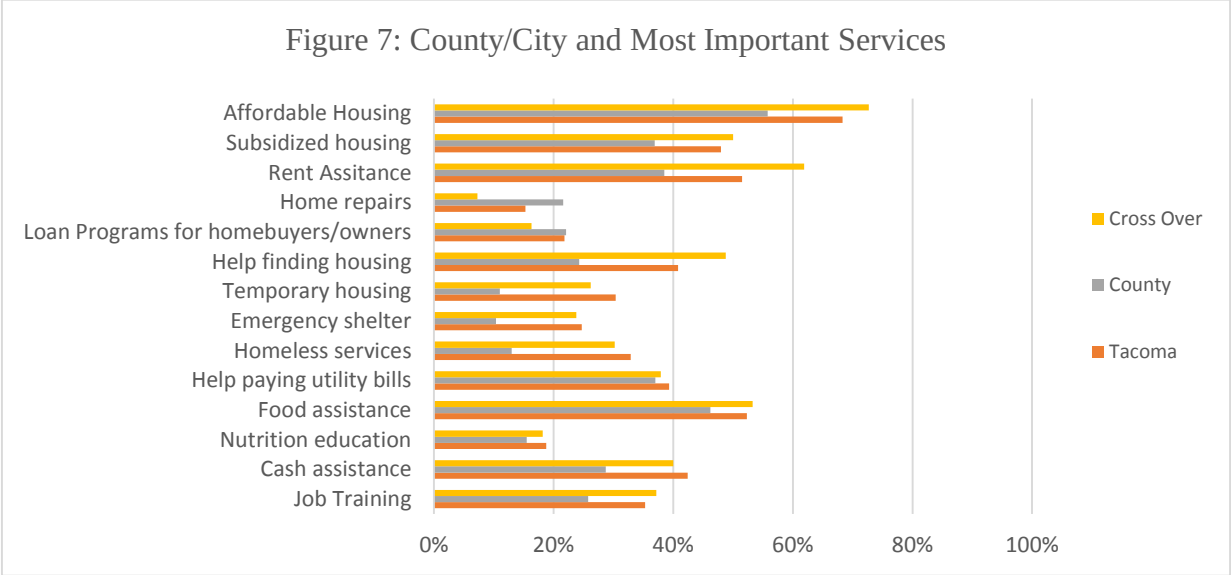
Each statistical test is conducted after a brief examination of descriptive differences between the groups. Statistical comparisons can reveal whether any descriptive differences are statistically significant. The tests tell us whether the differences we see are due to chance (not statistically significant) or whether the differences are larger than we would expect if they were based solely on chance (statistically significant). The test chosen to analyze whether significant differences exists, depends on the nature of the dependent and independent variables, such as whether the variables are normal, continuous or categorical. When conducting these tests, researchers will report the test statistic and the p-value. Test statistics will differ depending on the test utilized. For instance, Mann Whitney U tests use a U test (U =) while Chi-Square tests use a Chi-Square statistic (χ^2 =). In order to determine whether there is a significant difference between groups, the p-value reported with the test statistic is utilized. P-values that are .05 or lower are considered statistically significant.

For each of the statistical comparisons below, we report the test statistic and the p-value for each service that features a statistical difference between groups. When appropriate (depending on the test conducted), we interpret whether the difference is significant and the direction of the relationship. In other words, for some tests, such as Mann-Whitney U tests, we can state that the relationship is significant AND that one specific group rated the service *more important.* In terms of understanding the results, the p-value shows whether the difference is significant and how much that difference could be due to chance. A lower p-value means that there is less likelihood that the difference is due to chance. For instance, a p-value of .05 indicates that the likelihood of the difference being due to chance alone is 5%, while a p-value of .01 indicates that the likelihood of the difference being due to chance is 1%.

City/County Residents and Importance of Services

Analysis reveals some interesting differences between Pierce County residents located in zip codes within Tacoma, those located in zip codes outside of Tacoma, and those in zip codes which are covered by both the City of Tacoma and service agencies in Pierce County. Of the 921 individuals who completed a survey, 319 (37.2%) were located with the City of Tacoma, 492 (57.4%) are located outside of Tacoma, and 46 (5.4%) were located in zip codes that crossed both Tacoma and Pierce County services. As can be seen in the table below, residents in zip codes located entirely in Tacoma and those that cross both Tacoma and Pierce County services are more likely to state that affordable housing is most important (205 or 68.3% and 32 or 72.7% respectively), than those residents located outside of Tacoma (253 or 55.8%). These residents were also more likely to state that assistance paying rent, food assistance, and subsidized housing were more important services than survey participants located entirely outside of Tacoma. While there are some important differences that are revealed with these comparisons, it is important to note that in terms of most important services, most respondents seem to rate services quite similarly.

Figure 7: County/City and Most Important Services



Several Mann Whitney U tests[2] were conducted to determine if there were any significant differences in rating the importance of services based on the residence of respondents. The

[2] The statistical test conducted depends on the nature of the independent and dependent variables. Mann Whitney U tests are used to conduct statistical group comparisons for one independent variable with 2 levels (County/Tacoma) and an ordinal dependent variable (variables with levels that can be ordered, such as from smallest to largest). Multiple Mann-Whitney U tests with a Bonferroni Correction can be used to compare multiple groups. Multiple Mann-Whitney U tests with Bonferroni Correction was chosen rather than a Kruskal-Wallis test

Mann-Whitney U test compares rank orderings between groups. It allows researchers to determine if there is a significant difference in rank orderings between groups and compare the mean ranks in order to determine which group is higher or lower. In terms of importance of services, we can utilize the mean ranks to determine if one group rated a service more or less important than another. For all analyses utilizing Mann Whitney U tests we present the test statistic, the p-value, and depending on which questions are being examined, whether the service was rated *more important, less important, harder to access or easier to access* by a particular group.

Three Mann Whitney U tests were conducted comparing city and county residents, city and cross-over residents and county and cross-over residents. These tests revealed that there are no significant differences in how city and cross-over residents rate the importance of services. However, several significant differences exist between city and county residents and the importance of services. Interestingly, these tests revealed that Tacoma residents rated a number of services significantly more important than county residents. The following services were rated significantly *more important* by city residents in comparison to county residents: affordable housing ($U = 58751.500$, $p < .01$), subsidized housing ($U = 51914.000$, $p < .01$), assistance with paying rent ($U = 53972.500$, $p < .01$), help finding housing ($U = 49057.000$, $p < .01$), temporary housing ($U = 42118.000$, $p < .01$), emergency shelter ($U = 47766.000$, $p < .01$), homeless services ($U = 44720.500$, $p < .01$), food assistance ($U = 61219.000$, $p < .05$), cash assistance ($U = 52618.000$, $p < .01$), job training ($U = 55174.000$, $p < .01$), help finding a job ($U = 54837.500$, $p < .01$), English language classes ($U = 57606.000$, $p < .05$), help applying for social security services ($U = 57584.000$, $p < .05$), substance abuse treatment ($U = 56601.000$, $p < .01$), mental health services ($U = 57495.000$, $p < .01$), help with life skills ($U = 54875.000$, $p < .01$), help with personal care needs ($U = 55486.000$, $p < .01$), public transportation ($U = 55467.000$, $p < .01$) and free shuttle service ($U = 58633.500$, $p < .05$). The only service County residents significantly rated as *more important* than Tacoma residents was pre-school education.

There were also several statistically significant differences between county and cross-over residents in their rating of importance of services. Similarly to Tacoma residents, residents in cross-over zip codes rated a number of services significantly *more important* than county residents. These services include: affordable housing ($U = 7934.000$, $p < .05$), subsidized housing ($U = 6985.500$, $p < .01$), assistance with paying rent ($U = 6903.500$, $p < .01$), help finding housing ($U = 6226.500$, $p < .01$), temporary housing ($U = 5515.500$, $p < .01$), emergency shelter ($U = 6151.500$, $p < .01$), homeless services ($U = 5731.000$, $p < .01$), cash assistance ($U = 7972.500$, $p < .01$), job training ($U = 7581.000$, $p < .05$), help finding a job ($U = 7429.000$, $p < .01$), and adult education/GED ($U = 7202.500$, $p < .01$).

In other words, these tests reveal that City of Tacoma residents and cross-over residents rate the importance of services similarly; no significant differences exist between these groups

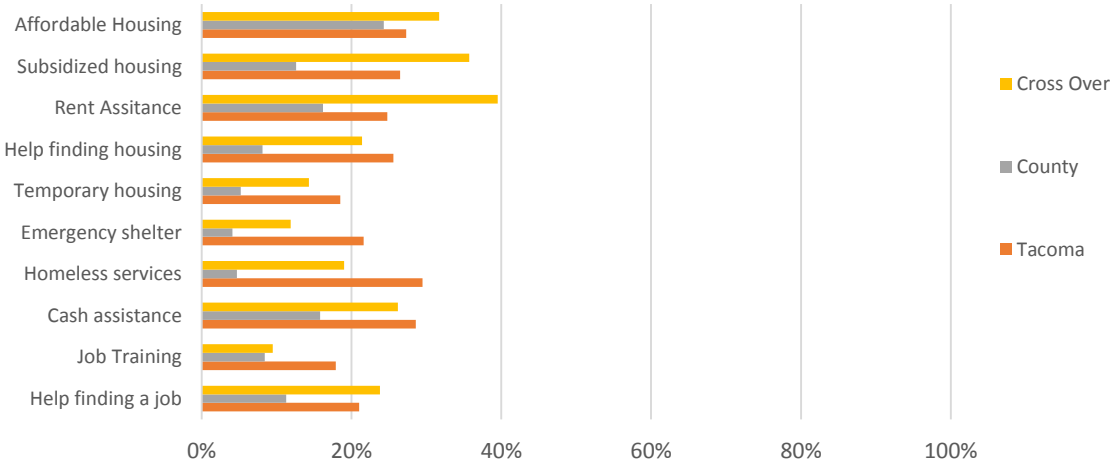
which would allow for comparison of all groups simultaneously due to the similarities between Tacoma and Cross-Over residents.

and how they rate services. Several significant differences exist between county residents and those residents in Tacoma and cross-over zip codes. City of Tacoma residents and cross-over zip codes rate several services significantly *more important* than county residents.

County/City and Use of Services

Examining services which respondents state their households receive reveals interesting differences between respondents within Tacoma and those outside of the City of Tacoma. While substantial similarities exist in the utilization of affordable housing, there seem to be differences between residents in Tacoma and those outside of Tacoma in receiving home services, emergency shelter, temporary housing and help finding housing. For instance, 29.5% (83) of residents in Tacoma and 4.7% (21) outside Tacoma receive homeless services. Only 8.1% (36) of participants outside of Tacoma receive help finding housing, while 25.6% (72) of residents within Tacoma receive this service. Interestingly, a higher percentage of residents in zip codes that cover both the City of Tacoma and Pierce County (17, 39.5%) have received rent assistance, compared to 24.8% (70) of Tacoma residents and 16.2% (71) of individuals outside of Tacoma. These residents were also more likely to receive subsidized housing assistance (15, 35.7%), than residents in Tacoma (76, 26.5%) and those entirely outside of Tacoma (55, 12.6%).

Figure 9: Services used by County/City



Similar to rating the importance of services, Chi-square tests again reveal that there are very few significant differences between Tacoma residents and cross-over residents in use of services. Chi-square tests are used for independent and dependent variables that are nominal/categorical (they cannot be ordered in any meaningful way). They inform researchers whether a difference exists between groups, but do not provide any information regarding which group is statistically different or the direction of the relationship. In other words, we can say that a difference exists, but we cannot state where that difference occurs (whether a group uses a

service more or less than what would be expected due to chance alone). Comparing three or more groups complicates this test because we cannot determine which groups are statistically different. Additionally, the Chi-Square Test does not reveal the strength of the relationship. Researchers utilize Cramer's V to determine whether the relationship is weak, moderate or strong. [3] Weak associations indicate that the differences are small and provide little help in predicting the dependent variable (use of services) while stronger differences indicate better prediction. For all analyses utilizing Chi-Square Tests, we compare only two groups in order to provide information on which groups are different. Again, we cannot determine where the difference exists so we cannot state statistically whether one group utilizes a service more or less than what would be expected. We also report the test statistic, the p-value and the Cramer's V value. This information, in addition to our written interpretation of results, provides information on which services feature a significant difference between groups and the strength of these differences.

The Chi-Square Tests reveal that Tacoma residents and cross-over residents only significantly differed on their use of two services: assistance with rent ($\chi^2 = 4.120$, Cramer's V = .113 $p < .05$) and substance abuse treatment ($\chi^2 = 5.631$, Cramer's V = .134, $p < .01$). However, the relationship is very weak. Due to the similarities between city and county residents, only the differences between City and County residents was examined in-depth for significant differences.

There are several significant differences between city and county residents and utilization of services. However, several of these differences were rather weak, including subsidized housing ($\chi^2 = 22.292$, Cramer's V = .176 $p < .01$), assistance with rent ($\chi^2 = 8.080$, Cramer's V = .106 $p < .01$), food assistance ($\chi^2 = 4.750$, Cramer's V = .080, $p < .01$), cash assistance ($\chi^2 = 16.967$, Cramer's V = .153 $p < .01$), job training ($\chi^2 = 14.702$, Cramer's V = .143 $p < .01$), help finding a job ($\chi^2 = 12.607$, Cramer's V = .132 $p < .01$), adult education ($\chi^2 = 3.922$, Cramer's V = .074 $p < .01$), preschool education ($\chi^2 = 11.908$, Cramer's V = .128 $p < .01$), help applying for disability ($\chi^2 = 5.723$, Cramer's V = ..089 $p < .05$), medical insurance ($\chi^2 = 6.534$, Cramer's V = .094, $p < .01$), dental insurance ($\chi^2 = 7.282$, Cramer's V = .100 $p < .01$), substance abuse treatment ($\chi^2 = 8.912$, Cramer's V = .112 $p < .01$), mental health services ($\chi^2 = 25.626$, Cramer's V = .189 $p < .01$), help with life skills ($\chi^2 = 5.838$, Cramer's V = .090, $p < .05$), help to meet personal care needs ($\chi^2 = 14.373$, Cramer's V = .142, $p < .01$), and legal help ($\chi^2 = 9.716$, Cramer's V = .116, $p < .01$).

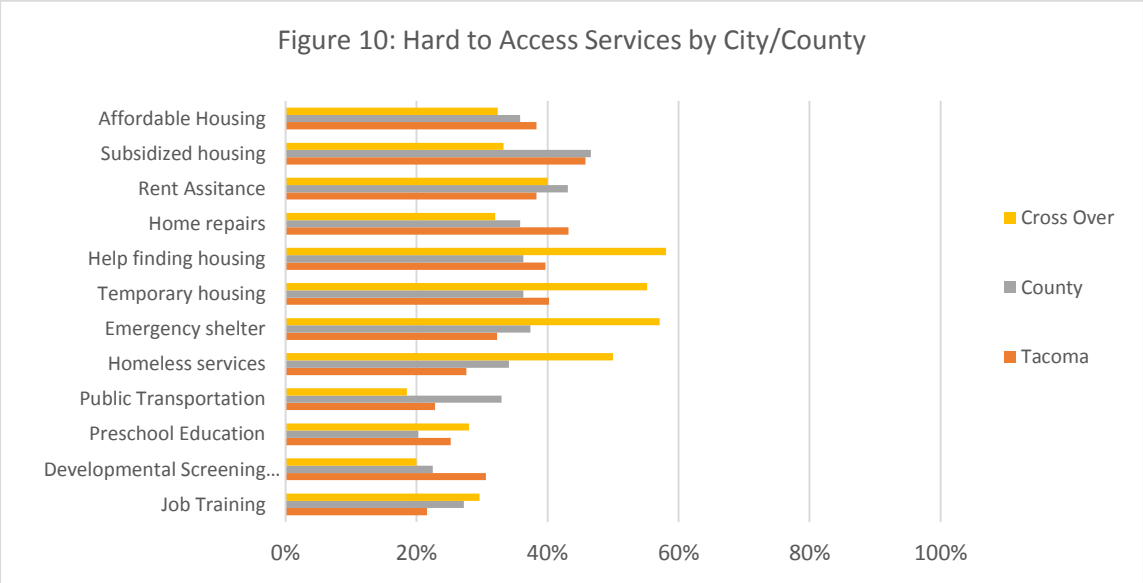
Analysis reveals that there is a strong statistical difference between city and county residence and their utilization of homeless services ($\chi^2 = 86.193$, Cramer's V = .345 $p < .01$). There is a moderate difference between city and county residents and their use of help finding housing ($\chi^2 = 41.300$, Cramer's V = .239 $p < .01$), temporary housing ($\chi^2 = 32.692$, Cramer's V = .213, $p < .01$), emergency shelter ($\chi^2 = 54.259$, Cramer's V = .274, $p < .01$), and public transportation ($\chi^2 = 32.892$, Cramer's V = .213, $p < .01$). While chi-square testing does show

[3] Cramer's V measures strength of relationships between variables. Scores under .20 are considered weak,.20 to.25 are moderate, .25 to .30 are moderately strong and .30 and above are strong.

that statistically significant differences exist between county and city residents and their use of several services, the weakness of these relationships illustrate that these differences are minimal. The services with a moderate or strong association, as demonstrated by Cramer's V, indicate much stronger differences between these groups and use of services.

County/City and Ease of Access

In terms of whether services are difficult to access, most respondents, whether located within the City of Tacoma or other areas of Pierce County, indicated most services were difficult to access. In fact, for many of the services listed, there is not a lot of difference between the percentages of these respondents that indicated these services were hard to access. For instance, similar percentages of these respondents rated affordable housing as hard to access: 38.3% (75) in Tacoma, 35.8% (83) in Pierce County and 32.4% (11) of individuals in zip codes that cover both Tacoma city limits and Pierce County. The services with the largest difference between these geographic groups are help finding housing, temporary housing and emergency shelter. 58.1% (18) of participants in cross-over zip codes indicated help finding housing was hard to access, while only 39.7% (71) in Tacoma and 36.3% (69) of those entirely outside of Tacoma found this service hard to access. Residents in cross over zip codes were also more likely to state that emergency shelter was hard to access (16, 57.1%), while 32.3% (54) in Tacoma and 37.4% (65) of those outside of Tacoma indicated this service was hard to access.

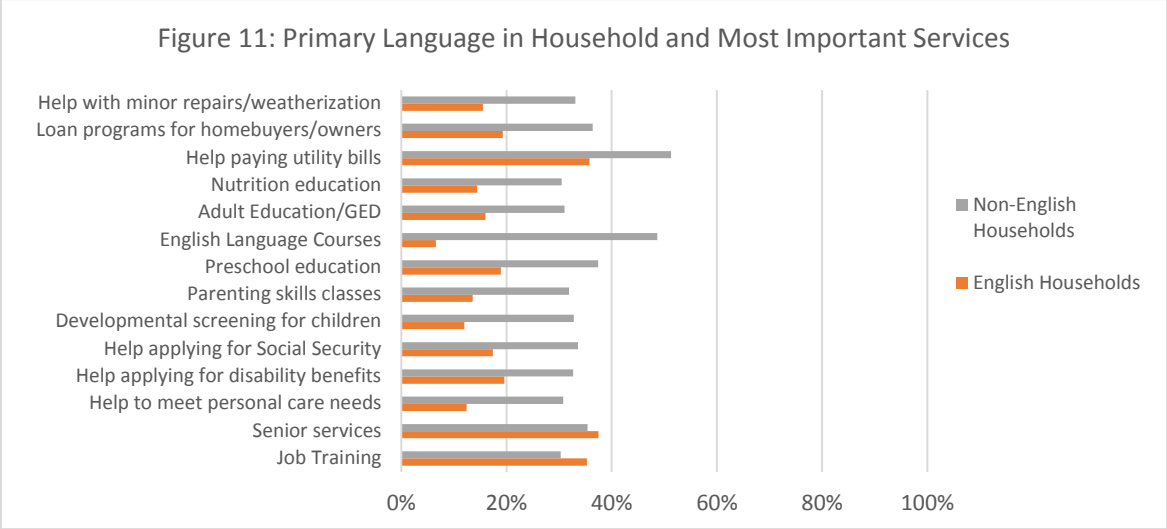


Mann Whitney U tests were conducted in order to determine if any of these differences were statistically significant. The analysis revealed very few significant differences between County and City residents and how they rated ease of access. Tacoma residents rated the following services *harder to access* than county residents: help paying utility bills ($U = 18618.000$, $p < .01$), preschool education ($U = 11828.500$, $p < .05$), and development screening for children ($U = 11020.500$, $p < .05$). County residents rated job training ($U = 13660.000$, $p <$

.05) and public transportation (U = 16913.5000, p < .05) *harder to access* than Tacoma residents. For the most part, Tacoma city residents and cross-over residents rated ease of access similarly. Only two services were rated significantly different by these respondents. Cross over residents rated emergency shelter (U = 1623.000, p < .01) and homeless services (U = 2038.000, p < .0) significantly *harder to access* than residents in Tacoma.

Primary Household Language and Importance of Services

Due to the demographics of Pierce County, it is important to analyze whether differences exist in reported access to and opinions of services depending on the primary language of the household. This information can provide opportunities to determine whether and how services could be improved for non-English language groups. Respondents were initially asked an open-ended question regarding the primary language spoken in the household. The information provided by respondents was re-coded into a dichotomous variable for primarily English households (1) and Languages other than English (2). As mentioned, the majority of households reported that their primary language was English (733, 84.8%) and 131 (15.2%) indicated the dominant language of the household was another language. In terms of importance of services, similar percentages of English and non-English households rated several services "5" or most important, including affordable housing (426 or 61.6% and 74 or 62.2% respectively), assistance paying rent (297, 44.4% and 54, 46.2%) and help finding housing (218, 32.5% and 38, 32.5%). However, the analysis also reveals several differences between households and their reported importance of services depending on primary language. Non-English households were more likely to report help paying utility bills as most important. 51.3% (60) of non-English households indicated that paying utility bills is most important, while only 35.8% (244) of English-speaking respondents stated this service was most important. 30.5% (36) of non-English households and 14.4% (96) of English households indicated nutrition education is one of the most important services to them. Households who predominately spoke a language other than English were also more likely to state adult education/GED services were most important when compared to predominately English households (36, 31% and 106, 16% respectively). Nearly half of non-English households (58, 48.7%) stated English language courses are most important, while only 6.6% (44) of English households indicated these services were most important.

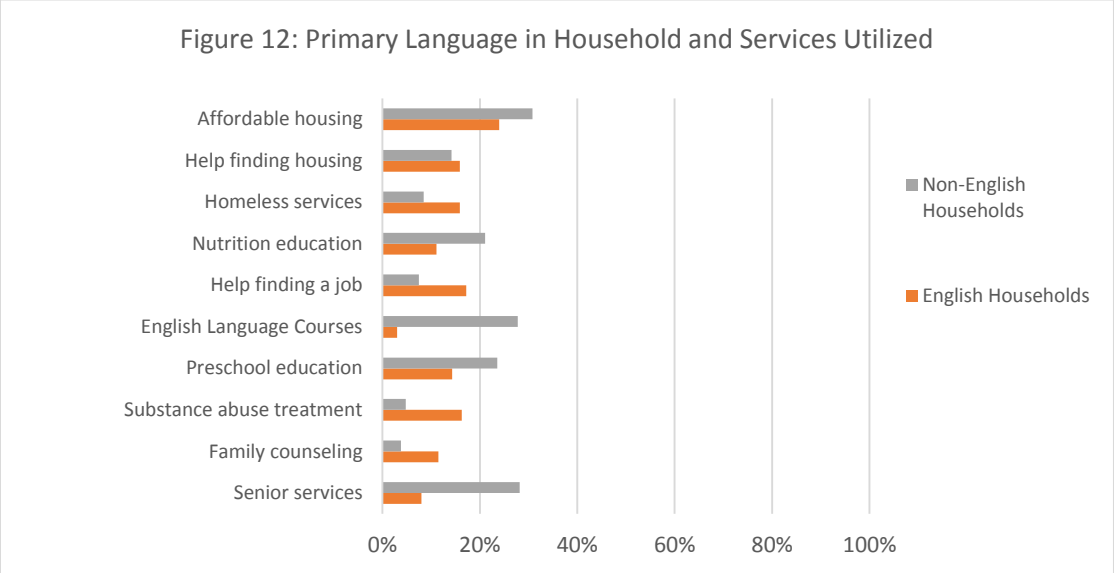


The information provided above suggests that importance of services differs depending on the primary language of the household. The results of Mann-Whitney U tests reveal that English and non-English households differ significantly in their rating of subsidized housing ($U = 34293.000$, $p < .05$), helps with minor repairs and weatherization (28053.000, $p < .01$), loan programs for homebuyers and homeowners ($U = 29339.000$, $p < .01$), emergency shelter ($U = 33500.000$, $p < .05$), help paying utility bills (33410.000, $p < .01$), nutrition education ($U = 28695.000$, $p < .01$), cash assistance ($U = 35334.000$, $p < .05$), adult education/GED classes ($U = 30102.000$, $p < .01$), English language classes ($U = 15167.500$, $p < .01$), affordable childcare ($U = 32509.000$, $p < .01$), pre-school education ($U = 29465.000$, $p < .01$), parenting skills classes ($U = 29412.000$, $p < .01$), developmental screening for children ($U = 30767.000$, $p < .01$), developmental disability services ($U = 31964.500$, $p < .01$), help applying for social security services ($U = 29761.000$, $p < .01$), help applying for disability benefits ($U = 32487.000$, $p < .01$), affordable medical care ($U = 32217.500$, $p < .01$), affordable dental care ($U = 34978.000$, $p < .05$), help with life skills ($U = 32680.500$, $p < .01$), help to meet personal care needs ($U = 31164.500$, $p < .01$), senior services ($U = 28194.000$, $p < .01$), legal help ($U = 29219.000$, $p < .01$), free shuttle service ($U = 33423.000$, $p < .05$). Non-English households rated the importance of all of the above services significantly *higher* than English households.

Primary Household Language and Use of Services

When examining services which households are currently receiving, the services utilized by predominately English households and Non-English households seem substantially similar. Similar percentages of these households utilized affordable housing, subsidized housing, assistance with rent and help with minor repairs/weatherization. However, it is clear that some differences exist. For instance, 21.1% (21) of Non-English households utilize nutrition education and only 11.1% (74) of English households utilize these same services. Predominately English households are more likely to use help finding a job (115, 17.2%). Non-English

households are more likely to utilize English language classes and Preschool education services. One of the most prominent reported differences that exists between these two groups is access to senior services; 28.2% (31) of non-English households access these services compared to only 8% (54) of English households.

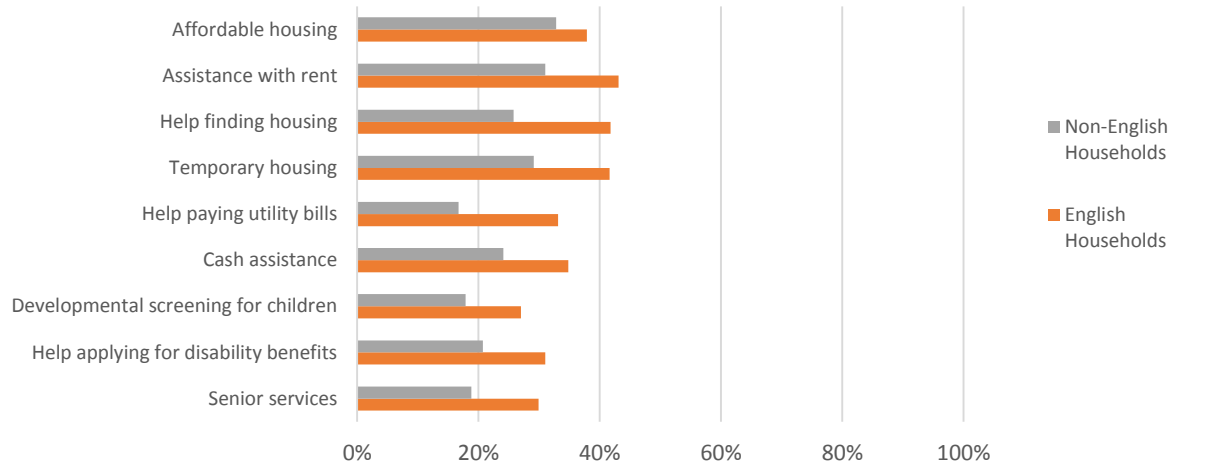


In order to determine whether any significant differences in use of services existed between English and non-English households, chi-square tests were conducted. Chi-square tests revealed that there is no significant difference between these households and use of services for most services. However, significant differences exist between English and non-English households and the use of homeless services ($\chi^2 = 3.946$, $p < .05$), nutrition education ($\chi^2 = 8.617$, $p < .01$), help finding a job ($\chi^2 = 6.578$, $p < .05$), English language classes ($\chi^2 = 97.748$, $p < .01$), pre-school education ($\chi^2 = 5.993$, $p < .01$), substance abuse treatment ($\chi^2 = 9.500$, $p < .01$), family counseling ($\chi^2 = 5.635$, $p < .05$), personal care needs ($\chi^2 = 4.496$, $p < .05$), and senior services ($\chi^2 = 39.501$, $p < .01$). Further analysis reveals that most of these differences are weak. For instance, differences between primary language of household and utilization of homeless (Cramer's V = .071, $p < .05$), nutrition education (Cramer's V = .105, $p < .01$), help finding a job (Cramer's V = .092, $p < .05$), preschool education (Cramer's V = .088, $p < .05$), substance abuse treatment (Cramer's V = .111, $p < .01$), family counseling (Cramer's V = .085, $p < .05$), and personal care needs (Cramer's V = .076, $p < .05$) are weak. However there is a moderately strong relationship between English and non-English households and utilization of senior services (Cramer's V = .225, $p < .01$) and a very strong relationship between these households and use of English language classes (Cramer's V = .353, $p < .01$).

Primary Language of Household and Access to Services

In regards to perceived ease of access for these services, some interesting differences exist depending on the primary language of the household. For instance, 41.8% (145) of predominately English households indicated help finding housing is hard to access while 25.8% (16) of Non-English households stated these services were hard to access. Households who speak primarily English were significantly more likely to state temporary housing is hard to access (136, 41.6%), compared to 29.1% (16) of households who primarily speak another language. English households were also more likely to state help applying for disability benefits (99, 31%) and senior services (89, 29.9%) were hard to access.

Figure 13: Primary Language in Household and Accessing Services



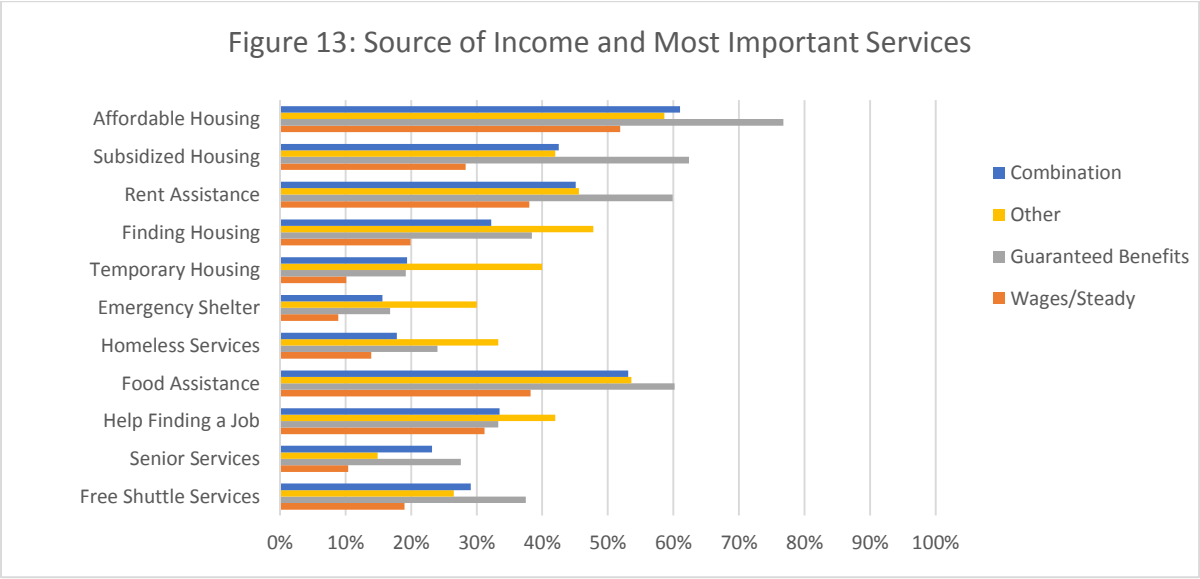
Mann Whitney U tests were again conducted to determine whether any significant differences exist in rating the ease of accessing services between English and non-English households. The analysis reveals that most services were not rated significantly different by these households. However, English households significantly rated help finding housing ($U = 8826.500$, $p < .05$), help paying utility bills ($U = 9822.000$, $p < .01$), and senior services ($U = 7485.000$, $p < .01$) as *harder to access* than non-English households.

Source of Income and Importance of Services

Lastly, the analysis reveals some interesting differences in opinions regarding services depending on source of income. Respondents were asked to identify all sources of income that had been used by anyone in their home during the past year, such as earned income (wages), SSI, VA benefits, investment income, as well as others. In order to examine the impact of income sources on opinions regarding services, these income sources were sorted into four separate income categories: Wages/Steady income (earned income, self-employment income, worker's compensation, unemployment and pension); Guaranteed Benefits (SSI, Social Security

Disability, VA Benefits, Social Security, TANF); Other (relatives, friends, partners, child support, investment income and Earned Income Tax Credit); and Combination (multiple income types). Descriptive analysis on the new income categorization reveals that 199 respondents reported receiving wages as their source of income, 231 reported receiving guaranteed benefits, 73 reported sources in the other category, and 285 reported a combination of sources of income.

There does appear to be some interesting differences in rating of most important services for respondents and their families based on income type. For instance, 51.9% (98) of respondents with Wages/Steady income indicated that affordable housing is most important while 76.8% (162) of those with Guaranteed Benefits, 58.6% (41) of those with Other income and 61% (161) of those receiving a combination of income sources indicated this was most important. Additionally, 28.3% (52) of those with Wages/Steady income indicated subsidized housing was most important, compared to 62.4% (131) of those receiving Guaranteed Benefits, 42% (29) of those with Other income and 42.5% (107) of those with a combination of income indicated this service was most important. In fact, individuals in households receiving Guaranteed Benefits seem more likely to rate several services as most important in comparison to other respondents, including assistance with rent, subsidized housing, assistance with rent, food assistance, and senior services. Households with Other income seem to rate emergency shelter, temporary housing, homeless services, help finding job and help finding housing as more important than other groups.



In order to determine whether any of these differences are statistically significant, Mann Whitney U tests were utilized to compare Wages/Steady Income and Guaranteed Benefits,

Wages/Steady Income/Other and Guaranteed Benefits/Other Income.[4] Mann Whitney U tests comparing Wages/Steady Income to the other sources of income reveal several significant differences depending on wage type. Individuals who reported that their households received Guaranteed Benefits rated several services significantly more important than those households receiving solely Wages/Steady Income. The following services were rated significantly *more important* for improving their situation by respondents with Guaranteed Benefits: affordable housing ($U = 14955.000$, $p < .01$), subsidized housing ($U = 11896.500$, $p < .01$), assistance with paying rent ($U = 14251.500$, $p < .01$), help finding housing ($U = 14245.500$, $p < .01$), temporary housing ($U = 15562.500$, $p < .05$), emergency shelter ($U = 15736.000$, $p < .05$), homeless services ($U = 15267.000$, $p < .01$), help paying utility bills ($U = 15068.500$, $p < .01$), food assistance ($U = 14714.000$, $p < .01$), nutrition education ($U = 15702.500$, $p < .05$), cash assistance ($U = 13019.500$, $p < .01$), veteran services ($U = 15551.000$, $p < .01$), developmental disability services ($U = 15824.500$, $p < .05$), help applying for social security services ($U = 15461.000$, $p < .01$), help applying for disability services ($U = 14372.500$, $p < .01$), affordable medical care ($U = 17075.500$, $p < .05$), affordable dental care ($U = 17384.000$, $p < .05$), mental health services ($U = 14348.5000$, $p < .01$), help with life skills ($U = 15434.000$, $p < .01$), help to meet personal care needs ($U = 13300.000$, $p < .01$), senior services ($U = 15179.500$, $p < .01$), legal help ($U = 16452.500$, $p < .05$), public transportation ($U = 13416.000$, $p < .01$), and free shuttle service ($U = 14741.500$, $p < .01$). Three services were rated significantly *more important* by households receiving Wages: preschool education ($U = 15881.000$, $p < .01$), parenting skills classes ($U = 16699.500$, $p < .05$) and loan programs for homebuyers and homeowners ($U = 14764.000$, $p < .01$).

Only 2 services were rated significantly *more important* by houses receiving Wages/Steady income in comparison with those receiving Other income: help with minor repairs/weatherization ($U = 5293.500$, $p < .05$) and loan programs for homebuyers and homeowners ($U = 5170.000$, $p < .05$). In contrast, eleven services were rated significantly *more important* by households receiving Other income in comparison with those receiving Wages/Steady income: subsidized housing ($U = 5170.000$, $p < .05$), help finding housing ($U = 4556.500$, $p < .01$), temporary housing ($U = 4593.000$, $p < .01$), emergency shelter ($U = 4725.500$, $p < .01$), homeless services ($U = 5070.000$, $p < .05$), food assistance ($U = 5051.500$, $p < .01$), cash assistance ($U = 4542.000$, $p < .01$), help applying for social security services ($U = 5252.000$, $p < .05$), help applying for disability benefits ($U = 5152.500$, $p < .05$), mental health services ($U = 5351.500$, $p < .05$), help to meet personal care needs ($U = 5184.000$, $p < .05$), and public transportation ($U = 4920.500$, $p < .01$).

There were relatively few statistically significant differences between households receiving Guaranteed Benefits and those receiving only Other income. Households receiving

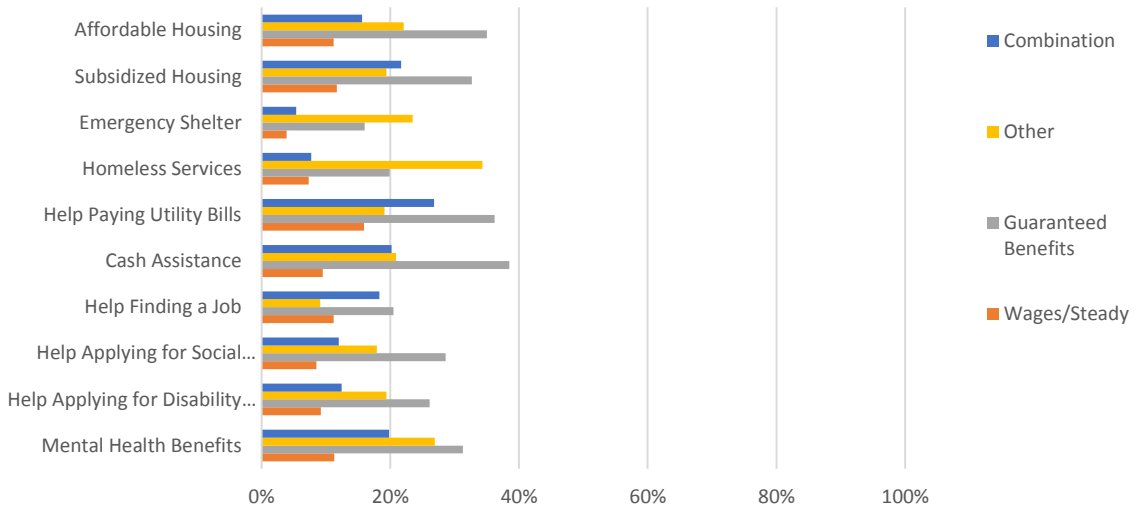
[4] For the purposes of these comparisons, only households reporting one type of income source were included. Descriptive analysis reveals very little difference between households receiving a combination of income and other households.

Other income rated temporary housing (U = 5828.000, p < .05) significantly *more important* than those receiving Guaranteed Benefits. Affordable housing (U = 6007.000, p < .01), subsidized housing (U = 5691.500, p < .01), help with minor repairs/weatherization (U = 5540.500, p < .05) and senior services (U = 5632.000, p < .01) were rated significantly *more important* by households receiving Guaranteed Benefits in comparison to those receiving Other income.

Source of Income and Use of Services

There are also some reported differences in the use of several services based on income type. Those households receiving Guaranteed Benefits reported using affordable housing and subsidized housing more than the other two groups. 37.6% (76) of households with Guaranteed Benefits reported utilizing affordable housing, compared to 20.6% (37) of those with Wages/Steady Income, 23.5% (16) of those with Other income, and 21.8% (57) with Combination income. 35% (72) of these households also reported utilizing subsidized housing while 11.2% (20) of households with Wages/Steady Income, 22.1% (15) of households with Other income, and 15.6% (40) with Combination income utilized these services. There are also differences between the three income categories in utilization of assistance with rent, emergency shelter, homeless services, food assistance, cash assistance, applying for Social Security services, applying for disability benefits, mental health services, and senior services.

Figure 14: Source of Income and Utilization of Services



Wages/Steady Income and Guaranteed Benefits Comparison

Chi-square tests comparing the three main income source types and access to services reveal that for a number of these services there is a statistically significant relationship. However, chi-square tests comparing more than two groups does not tell us for which groups

there is a statistically significant difference. In order to determine which groups are significantly different, separate chi-square tests comparing Wages/Steady income and Guaranteed Benefits, Wages/Steady income and Other income, and Guaranteed Benefits and Other income were conducted.[5] Beginning with the comparison of Wages/Steady income and Guaranteed Benefits, chi-square tests reveal that there is a statistically significant difference between these income categories and the use of 23 services. However, Cramer's V reveals that for most of these services the relationship is very weak. These services include the following: affordable housing ($\chi^2 = 13.312$, Cramer's V = .187, $p < .01$), help with minor repairs/weatherization ($\chi^2 = 4.439$, Cramer's V = .109, $p < .01$), help finding housing ($\chi^2 = 7.883$, Cramer's V = .145, $p < .01$), temporary housing ($\chi^2 = 11.085$, Cramer's V = .171, $p < .01$), emergency shelter ($\chi^2 = 14.955$, Cramer's V = .199, $p < .01$), homeless services ($\chi^2 = 12.600$, Cramer's V = .182, $p < .01$), help finding housing ($\chi^2 = 5.972$, Cramer's V = .126, $p < .05$), veteran services ($\chi^2 = 9.437$, Cramer's V = .158, $p < .01$), adult education/GED ($\chi^2 = 3.944$, Cramer's V = .102, $p < .05$), preschool education ($\chi^2 = 8.438$, Cramer's V = .149, $p < .01$), developmental disability services ($\chi^2 = 9.945$, Cramer's V = .162, $p < .01$), medical insurance ($\chi^2 = 4.644$, Cramer's V = .110, $p < .05$), help with life skills ($\chi^2 = 3.687$, Cramer's V = .099, $p < .05$), help with personal care needs ($\chi^2 = 14.071$, Cramer's V = .193, $p < .01$), and free shuttle service ($\chi^2 = 10.905$, Cramer's V = .170, $p < .01$).

There were also several significant differences between households with Wages/Steady income and those receiving Guaranteed Benefits which Cramer's V revealed to be a moderate association: assistance with rent ($\chi^2 = 23.492$, Cramer's V = .249, $p < .01$), help paying utility bills ($\chi^2 = 20.371$, Cramer's V = .229, $p < .01$), help applying for disability benefits ($\chi^2 = 17.860$, Cramer's V = .219, $p < .01$), mental health services ($\chi^2 = 21.910$, Cramer's V = .242, $p < .01$), senior services ($\chi^2 = 20.047$, Cramer's V = .229, $p < .01$), and public transportation ($\chi^2 = 16.421$, Cramer's V = .208, $p < .01$). There is a moderately strong relationship between Wages/Steady income and Guaranteed Benefits and subsidized housing ($\chi^2 = 29.479$, Cramer's V = .277, $p < .01$), help applying for social security benefits ($\chi^2 = 24.613$, Cramer's V = .256, $p < .01$), and food assistance ($\chi^2 = 25.223$, Cramer's V = .333, $p < .01$). Lastly, the utilization cash assistance features a strong statistically significant difference between households receiving Wages/Steady income and Guaranteed Benefits ($\chi^2 = 42.972$, Cramer's V = .253, $p < .01$).

Wages/Other Income Comparison

Comparisons between households receiving Wages/Steady income and households receiving Other income reveal very few significant differences between these households and utilization of services. Two services reveal a strong statistical difference between these households: emergency shelter ($\chi^2 = 22.461$, Cramer's V = .302, $p < .01$) and homeless services ($\chi^2 = 28.588$, Cramer's V = .341, $p < .01$). One service featured a moderately strong difference, temporary housing ($\chi^2 = 16.294$, Cramer's V = .257, $p < .01$). The following services featured a

[5] Combination income was not included in order to specifically examine the impact of income source on use of services.

statistically significant differences between these households, but these relationships were weak or very weak: subsidized housing ($\chi^2 = 4.723$, Cramer's V = .139, $p < .05$), help finding housing ($\chi^2 = 7.295$, Cramer's V = .172, $p < .01$), food assistance ($\chi^2 = 7.103$, Cramer's V = .167, $p < .01$), cash assistance ($\chi^2 = 5.751$, Cramer's V = .153, $p < .05$), help applying for social security benefits ($\chi^2 = 4.397$, Cramer's V = .134, $p < .05$), help applying for disability benefits ($\chi^2 = 4.762$, Cramer's V = .134, $p < .05$), mental health services ($\chi^2 = 8.957$, Cramer's V = .134, $p < .01$), help with personal care needs ($\chi^2 = 4.100$, Cramer's V = .130, $p < .05$), and public transportation ($\chi^2 = 6.106$, Cramer's V = .157, $p < .05$).

Guaranteed Benefits/Other Income Comparison

Comparisons between households with Guaranteed Benefits and households with Other income reveal some significant differences between these households and utilization of some services. However, the relationships are weak. The following services featured a weak relationship between Guaranteed Benefits and Other income and utilization of services: affordable housing ($\chi^2 = 4.499$, Cramer's V = .129, $p < .05$), subsidized housing ($\chi^2 = 3.921$, Cramer's V = .120, $p < .05$), assistance with rent ($\chi^2 = 4.253$, Cramer's V = .126, $p < .05$), homeless services ($\chi^2 = 5.817$, Cramer's V = .147, $p < .05$), help with utility bills ($\chi^2 = 6.890$, Cramer's V = .158, $p < .01$), cash assistance ($\chi^2 = 6.950$, Cramer's V = .159, $p < .01$), help finding a job ($\chi^2 = 4{,}440$, Cramer's V = .129, $p < .05$), veteran services ($\chi^2 = 6.731$, Cramer's V = .158, $p < .01$), developmental disability services ($\chi^2 = 4.093$, Cramer's V = .124, $p < .05$), help with life skills ($\chi^2 = 4.054$, Cramer's V = .157, $p < .05$) and senior services ($\chi^2 = 6.468$, Cramer's V = .154, $p < .05$).

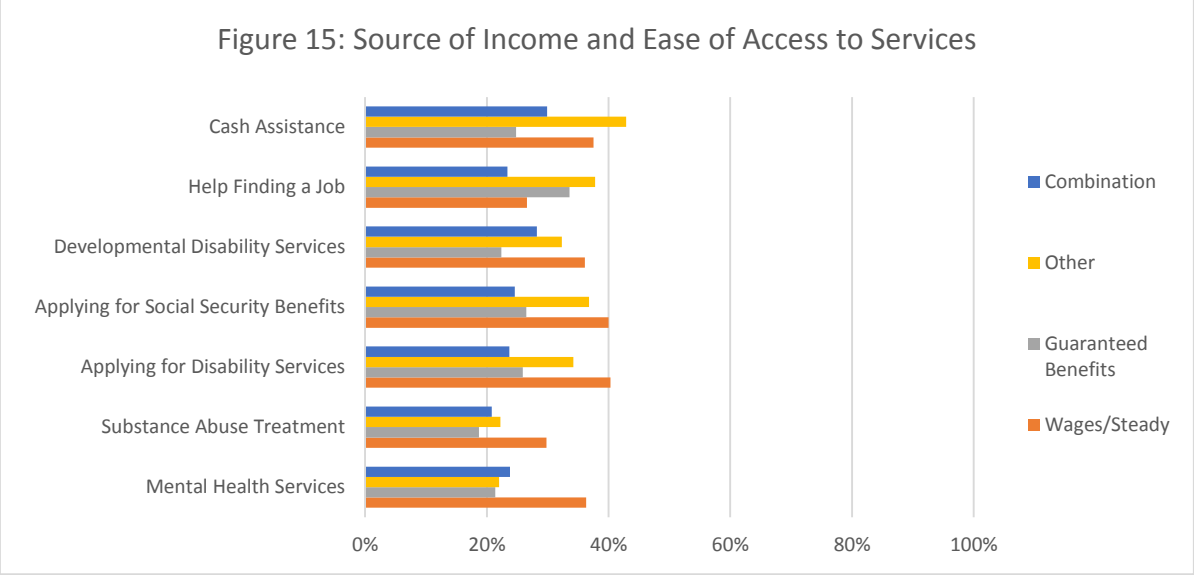
In summary, chi-square analyses reveal several significant differences in use of services associated with respondent's source of income. Most of these differences were weak indicating these differences are rather small. However, there are a number of moderate to strong relationships between income sources and use of services. For instance, significant differences exists between households receiving Wages/Steady income and households with Guaranteed Benefits and utilization of subsidized housing, assistance with rent, help paying utility bills, food assistance, cash assistance, help applying for social security benefits, help applying for disability services, mental health services senior services and public transportation. There were also significant differences between households receiving Wages/Steady income and those receiving Other income and utilization of temporary housing, emergency shelter and homes services. The association between type of income and use of services for these services are moderate to strong which indicates that these differences are much stronger.

Source of Income and Access to Services.

Lastly, there seems to be some differences in opinions regarding ease of access of services based on income type. Focusing on the percentage of respondents that rated services *hard to access,* more households with Wages/Steady income reported help applying for social security benefits was hard to access (30 or 40%) compared to the other income categories (30 or

26.5% with Guaranteed Benefits, 36.8% (14) with Other income and 24.6% (28) with combination income). A higher percentage of these households also rated mental health services and help applying for disability services harder to access than other households.

A higher percentage of households with Other income indicated that help finding a job was hard to access (14 or 37.8%) than households receiving Wages/Steady income (21 or 26.6%), Guaranteed Benefits (39 or 33.6%), or Combination income (29 or 23.4%). Less households with Guaranteed Benefits indicated cash assistance was hard to access (31 or 24.8%) than households with Wages/Steady income (30 or 37.5%), Other income (18 or 42.9%) and Combination income (40 or 29.9%). In fact, households with Guaranteed Benefits were less likely to rate several services as hard to access than the other two income categories, including screening for developmental disabilities, applying for Social Security services, and applying for disability benefits.



Mann Whitney U tests reveal that very few of these differences are statistically significant. However, households receiving Wages/Steady Income rated five services significantly *harder to access* than households receiving Guaranteed Benefits: cash assistance ($U = 3845.000$, $p < .01$), developmental disability services ($U = 2875.000$, $p < .05$), help applying for social security benefits ($U = 3337.000$, $p < .05$), mental health services ($U = 3846.500$, $p < .05$) and senior services ($U = 3385.500$, $p < .05$). There are no statistically significant differences between households receiving Wages/Steady income and those receiving Other income in their rating of access to services. Only two significant differences exist between households with Guaranteed Benefits and those with Other income in their opinions regarding ease of access to services. Respondents in households receiving Other income indicated cash assistance ($U =$

1868.000, $p < .01$) and help applying for social security benefits ($U = 1652.500$, $p < .05$) were *harder to access* than those in households receiving Guaranteed Benefits.

In summary, the statistical comparisons reveal several significant differences between groups in importance of services, use of services and opinions regarding access. For instance, Tacoma residents significantly rated several services more important than county residents. Several statistical differences also exist depending on primary language of the household and source of income. This information suggests that services needed vary significantly by group and it would be beneficial to consider these differences in need and access when attempting to address the needs of low income populations within Pierce County.

Regression Analysis of Importance of Services

In order to more fully examine the factors that impact utilization of services and opinions regarding the importance of these services, regression analyses are conducted.[6] Due to the fact that opinions regarding services may vary depending on the type of services being examined, Pierce County officials were asked to organize similar services into distinct categories for analysis. Of the 36 services contained in the original questionnaire, 6 service categories were created: Housing, Employment, Education, Health, Transportation and Other.[7] To conduct regression analysis of each of these service categories, a single dependent variable was created for each service category by adding together all individual services that comprise the category. For instance, the service category "housing" includes affordable housing, subsidized housing, assistance with paying rent, help with home repairs, loan programs for homebuyers and homeowners, help finding housing, temporary housing, emergency shelter, homeless services, and help paying utility bills. A single dependent variable for Importance of Housing was created by adding all individual responses to the above services. Since importance of services was originally rated on a 5 point Likert scale from 1 (least important) to 5 (most important), the possible scores for the combined dependent variable range from 10 to 50. OLS regression is conducted to examine whether any variables significantly predict importance of services.

Negative Binomial Regression and Utilization of Services

The same process utilized to examine importance of services is also used to examine utilization of services by survey respondents. As mentioned, to conduct regression analysis of each of these service categories, a single dependent variable was created for each service category by adding together all individual services that comprise the category. Respondents were asked whether they used a variety of services, which was coded either yes (1) or no (0). For Housing Services Used, responses to all 10 services were added and a single variable was

[6] Due to fewer respondents answering ease of access questions, regression analyses are not conducted for access to services.

[7] For a complete list of the service categories, please see the appendix.

created with individual responses ranging from 0 to 10. The newly created dependent variable, Housing Services Used, is simply a count of how many housing services are utilized by respondent households. Since the dependent variable is a count variable and the data contains a large amount of variance, negative binomial regression is used to ascertain the impact of the independent variables on the dependent variables of interest.

The following independent variables are included for further analysis: race/ethnicity, primary language, residency, monthly income, age, number of people in the household, number of children in household and source of income. Monthly income, age, number of people in household and number of children in household are continuous variables. Race/ethnicity (Caucasian is the reference category), residency (Tacoma is the reference category), primary language (English is the reference category) and source of income (wages/steady income is the reference category) are categorical variables included in the analysis.[8] The regression analyses for importance of each category of service are conducted below.

Each regression analysis is followed by a table that reports the regression results. For the OLS regression analyses, standard research protocol requires reporting the coefficient (B), the standard error (SE(B)), the test statistic (t value), the r-square and the adjusted r-square. Test statistics that reveal statistical significance (in the tables, t-values with asterisks) indicate that the variable significantly predicts importance of service ratings. The coefficient reveals how much impact that particular variable has on the dependent variable. For continuous variables, such as monthly income, the coefficient reveals how much change results in the ratings of importance (in terms of units) when the value of the independent variable changes. Categorical variables compare differences between that particular group and the reference category. The coefficient reveals how much difference there is between that group and the reference category in rating of services (in terms of units). For each variable, the reference category is included. Lastly, the r-square and the adjusted r-square provide information on how much information in the dependent variable is explained by the model (all the variables included in the analysis). Researchers use the adjusted r-square to determine the predictive power of the model because it is less sensitive to the inclusion of multiple variables (r-square tends to go up when more variables are included in the model).

For negative binomial regression on use of services, we report the standard error (B(SE)), the Odds Ratio, the test statistic (Wald Chi-Square), the -2ll value and Chi-Square of the overall model. As with OLS regression, significant variables include asterisks by test statistic (Wald Chi-Square). The odds ratio reveals the impact of the dependent variable on the independent variable. For continuous variables, the odds ratios can be used to determine the percentage increase or decrease in services based on a change in the independent variable. For categorical variables, it is utilized to determine how much more or less that group uses a range of services compared to the reference category. For our analysis, we include the full regression results (as

[8] Race/ethnicity was recoded from 2 separate questions: Which best describes your race and are you Hispanic or Latino. The new variable included 4 categories: Caucasian, African American, Hispanic and Other/Multiple.

good research practice), but provide written interpretation of these results in terms of the overall impact on the dependent variable.

Importance of Housing Services Regression Analyses

While the group comparisons provided ample information on differences that exist within Pierce County based on certain demographics, regression analysis of housing services indicate that residence (county versus City of Tacoma) and income play a role in how the importance of services are evaluated. As mentioned, housing services included affordable housing, subsidized housing, rent assistance, home repairs, loan programs, help finding housing, temporary housing, emergency shelter, homeless services and help paying utility bills. This model shows that residence (County versus City of Tacoma) and monthly income significantly predict importance of housing services. As can be seen in Table 2 below, County respondents (those who do not reside in zip codes within Tacoma or that cross over both Tacoma and county services) rate importance of housing services 4.032 units *lower* than Tacoma residents (-4.032, $t = -4.176$, $p < .01$) holding all other variables constant. In other words, County residents rate housing services less important than Tacoma residents. Monthly income also has a negative impact on the rating of importance of services. Higher monthly income is associated with rating the importance of services lower: a one unit increase in monthly income results in a .002 unit decrease in importance of housing services (-.002, $t = -7.264$, $p < .01$). While this model points to two variables that significantly impact opinions regarding importance of services, our model only explains 18.1% of variation in our dependent variable (Adjusted R Square = .181). In other words, these variables only predict 18.1% of variation in opinions regarding importance of services. This indicates that there are other factors that impact how respondents rate the importance of housing services.

Table 2: Importance of Housing Services Regression Analysis

Variable	***B***	**SE (B)**	**t**
African American	2.486	.070	1.593
Hispanic	1.830	.053	1.034
Race Other	1.560	.052	1.110
Primary Language (English Reference)	1.946	.063	1.174
County Residents (Tacoma Reference)	-4.032	-.186	-4.176**
Cross-Over Residents (Tacoma Reference)	3.345	.058	1.348
Monthly Income	-.002	-.334	-7.265**
Age	.026	.037	.762
Number of People in Household	.312	.075	1.322
Number of Children in Household	.480	.070	1.176
Guaranteed Benefits (Wages Reference)	.413	.017	.305
Other Income (Wages Reference)	.721	.021	.422
Combination Income (Wages Reference)	1.169	.053	.975
R Square	.203		
Adjusted R Square	.181		
F	9.161**		

Significant at .05 level = *
Significant at .01 level = **

Further lending support to the importance of residence and monthly income to housing services, the negative binomial regression of housing services utilized also finds these two variables significantly predict how many housing services are used. Interestingly, monthly income is again significant for predicting use of housing services ($\chi^2 = 15.750$, $p < .01$). However, the effect size of monthly income on housing services is very small indicating that an increase in monthly income has a miniscule impact on increases in housing services utilized. County residency is also a significant predictor of housing services used; county residents use less housing services than Tacoma residents ($\chi^2 = 20.426$, $p < .01$). In fact, analyzing the use of housing services, Tacoma residents utilize these services 80% more than county residents.

Table 3: Housing Services Utilized Regression Analysis

Variable	***B(SE)***	**Odds Ratio**	**Wald Chi-Square**
African American	.343 (.2614)	1.257	1.257
Hispanic	.186 (.2537)	1.204	.536
Race Other	.266 (.1826)	1.305	2.125
Primary Language (English Reference)	-.126 (.2297)	.301	.301
County Residents (Tacoma Reference)	-.591 (.1308)	.554	20.426**
Cross-Over Residents (Tacoma Reference)	.207	1.230	.524
Monthly Income	.000 (5.4491E-5)	1	15.750**
Age	.008	1.008	3.199
Number of People in Household	-.021 (.037)	.979	.329
Number of Children in Household	.046 (.0537)	1.047	.729
Guaranteed Benefits (Wages Reference)	.337 (.1824)	1.401	3.422
Other Income (Wages Reference)	.406 (.2273)	1.501	3.198
Combination Income (Wages Reference)	.158 (.1709)	1.171	.857
-2LL	-784.100		
χ^2	88.181**		

Significant at .05 level = *
Significant at .01 level = **

Importance of Employment Services

The regression analysis of importance of employment services also finds several variables that significantly impact how respondents rate importance of these services. Employment services included job training and help finding a job. Five variables are found to significantly predict the rating of importance of employment services: county residency, monthly income, age, number of people in household, and receiving guaranteed benefits. Again, county respondents rate importance of employment services lower than Tacoma residents (-.817, t = -2.869, p < .01) holding all other variables, constant. Monthly income is also negatively associated with importance of employment services. A one unit increase in monthly income is associated with a .001 decrease in employment service employment (-.001, t = -5.912, p < .01). The results reveal that age and receiving guaranteed benefits also have an inverse relationship on importance of these services. A one unit increase in age is associated with a .029 unit decrease in importance of employment services (-.029, t = -2.990, p < .05). Households receiving guaranteed benefits rate employment services *lower* than households receiving wages/steady income (-.876, t = -2.206, p < .05). Lastly, the number of people in the household increases the importance of services: for every unit increase in the number of people in the household, importance of services increases .089 units (.089, t = 1.331, p < .05). This model only explains 10.7% of variation in rating of employment services (Adjusted R Square = .107). Again, this indicates that there are other factors that impact how respondents rate the importance of housing services.

Table 4: Importance of Employment Services Regression Analysis

Variable	***B***	**SE (B)**	**t**
African American	.653	.065	1.487
Hispanic	-.084	-.009	-.166
Race Other	.073	.008	.175
Primary Language (English Reference)	.705	.078	1.449
County Residents (Tacoma Reference)	-.817	-.126	-2.869**
Cross-Over Residents (Tacoma Reference)	-.817	-.018	.415
Monthly Income	-.001	-.267	-5.912**
Age	-.029	-.141	-2.990*
Number of People in Household	.089	.070	1.331*
Number of Children in Household	-.033	-.019	-.341
Guaranteed Benefits (Wages Reference)	-.876	-.122	-2.206*
Other Income (Wages Reference)	-.434	-.040	-.842
Combination Income (Wages Reference)	-.128	-.019	-.364
R Square	.130		
Adjusted R Square	.107		
F	5.522**		

Significant at .05 level = *
Significant at .01 level = **

Employment Services Utilized

Interestingly, most variables that significantly predict the importance of employment services, do not significantly predict the use of employment services. The regression analysis of employment services utilized found only two variables that significantly predict the use of these services: primary language and residency. Again, county residents are less likely to use these services than Tacoma residents ($\chi^2 = 24.448$, $p < .01$). In fact, Tacoma residents are over 2.5 times more likely to use these services. Lastly, non-English households are also less likely to use employment services ($\chi^2 = 5.142$, $p < .05$). English households are 2.5 times more likely to use these services compared to non-English households.

Table 5: Employment Services Utilized Regression Analysis

Variable	***B***	**Exp(B)**	**Wald Chi-Square**
African American	.080 (.2993)	1.084	.072
Hispanic	.226 (.3987)	1.254	.337
Race Other	.436 (.2976)	1.546	2.145
Primary Language (English Reference)	-.937 (.4126)	.392	5.152*
County Residents (Tacoma Reference)	-1.009 (.2180)	.364	21.448**
Cross-Over Residents (Tacoma Reference)	.360 (.3975)	1.434	.822
Monthly Income	.000 (8.9635E-5)	1	2.777
Age	.002 (.0075)	1.002	.057
Number of People in Household	-.013 (.0493)	.987	.067
Number of Children in Household	.053 (.0516)	1.055	1.058
Guaranteed Benefits (Wages Reference)	.217 (.3099)	1.243	.492
Other Income (Wages Reference)	-.383	.682	.789
Combination Income (Wages Reference)	.346	1.414	1.551
-2LL	-318.096		
χ^2	43.762**		

Significant at .05 level = *
Significant at .01 level = **

Importance of Education Services

The following services are included in education services: adult education/GED, English language classes, preschool education, parenting skills classes, and nutrition education. The regression analysis indicates that four variables significantly impact how respondents rate importance of education services: primary language, monthly income, age, number of people in the household, and income source. Households whose primary language is not English rate the importance of education services 4.111 units higher than English households (4.111, $t = 4.599$, $p < .01$). Households who receive a combination of income sources rate the importance of education services 1.265 units higher than those receiving wages/steady income (1.265, $t = 1.967$, $p < .05$). A one unit increase in the number of people living in the household is associated with a .287 predicted increase in importance of education services (.287, $t = 2.326$, $p < .05$). Age (-.054, $t = -2.976$, $p < .01$) and monthly income (.000, $t = -2.763$, $p < .01$) are negatively correlated with importance of education services. This model only explains 14.5% of variation in rating of employment services (Adjusted R Square = .145). Again, this indicates that there are other factors that impact how respondents rate the importance of housing services.

Table 6: Importance of Education Services Regression Analysis

Variable	***B***	**SE (B)**	**t**
African American	.865	.047	1.087
Hispanic	1.297	.070	1.380
Race Other	.493	.030	.643
Primary Language (English Reference)	4.111	.245	4.599**
County Residents (Tacoma Reference)	-.012	-.001	-.023
Cross-Over Residents (Tacoma Reference)	.321	.011	.260
Monthly Income	.000	-.124	-2.763**
Age	-.054	-.140	-2.976**
Number of People in Household	.287	.121	2.326*
Number of Children in Household	.231	.072	.180
Guaranteed Benefits (Wages Reference)	.244	.018	.337
Other Income (Wages Reference)	-.180	-.009	-.190
Combination Income (Wages Reference)	1.265	.104	1.967
R Square	.166		
Adjusted R Square	.145		
F	7.709		

Significant at .05 level = *
Significant at .01 level = **

Education Services Utilized[9]

Two of the variables that predict importance of education services also are significant predictors of use of these services: primary language of the household and number of people in the household. Non-English households utilize these services *more* than English households; non-English households utilize these services 1.5 times more than English households (a little over 50% more than English households) ($\chi^2 = 4.029$, $p < .05$). Number of people in the household also increases the use of these services: for every unit increase in the number of people in the household, use of services increases about 4.6% ($\chi^2 = 5.213$, $p < .05$). Additionally, number of children in the household impacts the amount of education services used. For every unit increase in the number of children in the household, the use of education services increases approximately 6.6% ($\chi^2 = 5.263$, $p < .05$).

[9] Poisson regression is used to examine use of education services because goodness of fit measures indicated it was a better model for this particular dependent variable.

Table 7: Education Services Utilized Poisson Regression Analysis

Variable	***B***	**Exp(B)**	**Wald Chi-Square**
African American	.383 (.2222)	1.466	2.968
Hispanic	.328 (.2301)	1.388	2.031
Race Other	.132	1.388	2.031
Primary Language (English Reference)	.445 (.2215)	1.560	4.029*
County Residents (Tacoma Reference)	.076 (.1436)	1.079	.282
Cross-Over Residents (Tacoma Reference)	-.363 (.3965)	.695	.840
Monthly Income	.000001185 (4.5679E-5)	1	.067
Age	-.009 (.0052)	.991	3.328
Number of People in Household	.046 (.0202)	1.047	5.213*
Number of Children in Household	.064 (.0278)	1.066	5.263*
Guaranteed Benefits (Wages Reference)	-.041 (.2066)	.960	.039
Other Income (Wages Reference)	.145 (.2471)	1.156	.050
Combination Income (Wages Reference)	.038 (.1701)	1.039	.050
-2LL	-458.306		
χ^2	32.102**		

Significant at .05 level = *
Significant at .01 level = **

Importance of Transportation Services

Two services, public transportation and free shuttle service, were included in transportation services. The regression analysis of importance of transportation services finds five variables that significantly predict variation in rating importance of these services: income, age and source of income for the household. As with the other services, an increase in income is associated with rating the importance of transportation services lower (.000, t = 3.315, p < .01). Age is also positively correlated with rating of transportation services. A one unit increase in age produces a .037 unit increase in importance of transportation services (.037, t = 3.588, p < .01). All three major sources of income rate importance of services more highly than households receiving wages/steady income. Household receiving guaranteed benefits rate importance of transportation services .902 units higher than households with wages/steady income (.902, t = 2.167, p < .05). Households receiving other income rate importance of these services 1.147 units higher (1.147, t = 2.129, p < .05), while those with a combination of income sources rate importance of services .915 units hither than households receiving only wages/steady income (.915, t = 2.468, p < .05). The model only predicts 10% of the variation in importance of transportation services (Adjusted R Square = .100).

Table 8: Importance of Transportation Services Regression Analysis

Variable	***B***	**SE (B)**	**t**
African American	-.281	-.027	-.608
Hispanic	.631	.060	1.172
Race Other	.530	.057	1.210
Primary Language (English Reference)	.223	.024	.439
County Residents (Tacoma Reference)	-.556	-.083	-1.875
Cross-Over Residents (Tacoma Reference)	.572	.033	.781
Monthly Income	.000	-.151	-3.315**
Age	.037	.171	3.588**
Number of People in Household	-.030	-.023	-.436
Number of Children in Household	-.116	-.063	-1.166
Guaranteed Benefits (Wages Reference)	.902	.121	2.167*
Other Income (Wages Reference)	1.147	.103	2.129*
Combination Income (Wages Reference)	.915	.132	2.468*
R Square	.122		
Adjusted R Square	.100		
F	5.593**		

Significant at .05 level = *
Significant at .01 level = **

Use of Transportation Services

While several variables significantly predict importance of transportation services, only three variables significantly predict the use of these services: residency, age and combination income. County residents are also less likely to utilize transportation services in comparison to Tacoma residents ($\chi^2 = 9.087$, $p < .01$). Tacoma residents utilize these services 1.7 times *more* than county residents. Age is positively correlated with the use of transportation services. For every unit increase in age, the use of transportation services increases 1.4% ($\chi^2 = 5.457$, $p < .05$). Households receiving income from a combination of sources are also more likely to utilize transportation services; combination income households use these services 1.7 times *more* than Tacoma residents ($\chi^2 = 4.391$, $p < .05$).

Table 9: Transportation Utilized Regression Analysis

Variable	***B***	**Exp(B)**	**Wald Chi-Square**
African American	.229 (.2611)	1.258	.770
Hispanic	.058 (.3608)	1.060	.026
Race Other	.190 (.2670)	1.209	.504
Primary Language (English Reference)	-.223 (.3251)	.800	.470
County Residents (Tacoma Reference)	-.555 (.1842)	.574	9.087**
Cross-Over Residents (Tacoma Reference)	.196 (.3993)	1.216	.241
Monthly Income	-.0000053 (7.1605E-5)	1	.548
Age	.014 (.0061)	1.014	5.457*
Number of People in Household	.007 (.0425)	1.008	.031
Number of Children in Household	-.033 (.0698)	.967	.224
Guaranteed Benefits (Wages Reference)	.522 (.2819)	1.685	3.425
Other Income (Wages Reference)	.470 (.3537)	1.600	1.768
Combination Income (Wages Reference)	.544 (.2597)	1.723	4.391*
-2LL	-403.324		
χ^2	34.327**		

Significant at .05 level = *
Significant at .01 level = **

Importance of Other Services

Other services includes the following services: help applying for social security benefits, help applying for disability services, senior services, legal help, cash assistance, and food assistance. The regression analysis of importance of other services indicates 4 variables significantly predict variation in rating the importance of these services: race, primary language, monthly income, and age. Income is again associated with rating the importance of these services lower (.001, t = -6.327, p < .01). Age is also again positively correlated with rating of these services. A one unit increase in age produces a .074 unit increase in importance of other services (.074, t = 3.374, p < .01). Households whose primary language is not English rate the importance of other services 2.607 units higher than English households (2.607, t = 2.387, p < .05), while individuals in the race/other category rate the importance of these services 1.871 units higher than Caucasians (1.871, t = 1.997, p < .05). The model predicts 16.6% of the variation in importance of other services (Adjusted R Square = .166).

Table 10: Importance of Other Services Regression Analysis

Variable	***B***	**SE (B)**	**t**
African American	.929	.040	.939
Hispanic	-.769	-.034	-.671
Race Other	1.871	.092	1.997*
Primary Language (English Reference)	2.607	.127	2.387*
County Residents (Tacoma Reference)	-.471	-.032	-.736
Cross-Over Residents (Tacoma Reference)	2.276	.076	1.804
Monthly Income	-.001	-.283	-6.327**
Age	.074	.157	3.374**
Number of People in Household	.170	.059	1.151
Number of Children in Household	-.152	-.038	-.722
Guaranteed Benefits (Wages Reference)	1.232	.075	1.380
Other Income (Wages Reference)	2.054	.082	1.751
Combination Income (Wages Reference)	1.203	.080	1.520
R Square	.187		
Adjusted R Square	.166		
F	8.798**		

Significant at .05 level = *
Significant at .01 level = **

Use of Other Services[10]

Most of the variables that significantly predict opinions regarding importance of other services also predict utilization of these services. In the case of utilization of these services, monthly income, age, race and source of income are significant predictors. As with other services, while monthly income is significant its impact on the utilization of services is extremely small ($\chi^2 = 37.820$, $p < .01$). Age is positively associated with utilization of other services; a one unit increase in age produces a 1% change in utilization of other services. Race is also a significant predictor of use of these services; individuals in the race/other group are 1.2 times more likely to utilize other services as compared to Caucasians. Lastly, individuals receiving guaranteed benefits are 1.4 times more likely to utilize these services than households receiving wages/steady income ($\chi^2 = 7.256$, $p < .01$).

[10] Poisson regression used because goodness of fit measures indicated it was the best model.

Table 11: Other Services Utilized Regression Analysis

Variable	***B***	**Exp(B)**	**Wald Chi-Square**
African American	.203 (.1178)	1.225	.112
Hispanic	-.025 (.1565)	.975	.026
Race Other	.249 (.1106)	1.283	5.086*
Primary Language (English Reference)	.021 (.1322)	1.022	.026
County Residents (Tacoma Reference)	-.126 (.0810)	.881	2.434
Cross-Over Residents (Tacoma Reference)	.059 (.1831)	1.061	.104
Monthly Income	.000 (3.9040E-5)	1	37.820**
Age	.010 (.0028)	1.010	13.308**
Number of People in Household	.005 (.0175)	1.005	.086
Number of Children in Household	.013 (.0271)	1.013	.215
Guaranteed Benefits (Wages Reference)	.319 (.1183)	1.375	7.256**
Other Income (Wages Reference)	.144 (.1534)	1.155	.883
Combination Income (Wages Reference)	.166 (.1129)	1.181	2.167
-2LL	-745.695		
χ^2	123.750		

Significant at .05 level = *
Significant at .01 level = **

Importance of Health Services

Lastly, regression analysis was conducted for health services. The regression analysis indicates that two variables significantly predict opinions regarding importance of health services; however, it is important to note that by far this model as the lowest ability to predict variation in importance of these services. The model only predicts 4.2% of the variation in importance of health services (Adjusted R Square = .042). Due to this very low ability to predict variation in importance of these services, these results should be approached with caution. Several services were included within health care services: affordable medical insurance, affordable dental insurance, substance abuse treatment, mental health services, family counseling, help with life skills, help to meet personal care needs, developmental screenings for children, and developmental disability services. Descriptive analysis shows that many health services, particularly medical insurance and dental insurance, were most utilized by respondents which could help explain why these variables do not seem to explain much variation in rating these services. However, the analysis suggests some differences in rating of services based on income and source of income for the household. Households receiving a combination of income rated the importance of health services 2.532 units higher than households that relied only on wages/steady income (2.532, $t = 2.519$, $p < .05$). In other words, these households are associated with rating health services more important than households receiving wages/steady income. Again, income is associated with rating health services less important (-.001, $t = -4.017$, $p < .01$).

Regression analysis is unable to be conducted for use of health services. Each attempt at a more thorough analysis failed to produce a model that could significantly explain the use of

these services. It is clear that importance and use of these services are determined by other factors that cannot be fully assessed with the available data.

Table 12: Importance of Health Services Regression Analysis

Variable	***B***	**SE (B)**	**t**
African American	-1.168	-.037	-.786
Hispanic	-.017	-.001	-.010
Race Other	.597	.021	.427
Primary Language (English Reference)	2.046	.071	1.231
County Residents (Tacoma Reference)	-1.293	-.064	-1.350
Cross-Over Residents (Tacoma Reference)	-.309	-.006	-.133
Monthly Income	-.001	-.193	-4.017**
Age	-.006	-.009	-.174
Number of People in Household	.264	.067	1.209
Number of Children in Household	-.144	-.026	-.459
Guaranteed Benefits (Wages Reference)	1.327	.058	.996
Other Income (Wages Reference)	1.723	.052	1.011
Combination Income (Wages Reference)	2.532	.122	2.519*
R Square	.067		
Adjusted R Square	.042		
F	2.700**		

Significant at .05 level = *
Significant at .01 level = **

In summary, the regression analyses of importance of services reveal a number of variables that significantly predict importance of services. The variables that are most important depend on the types of services being analyzed. The only variable that significantly predicts the importance of each type of service is income. For each type of service, higher monthly income is associated with lower importance. However, it should also be noted that the impact of this variable on the rated importance of each service is rather small. Age is the next variable that predicts importance of most service categories; age is a significant predictor in 4 out of 6 service categories. However, the impact of age depends on the service category being examined. Age is associated with decreased importance of employment and education services, but predicts higher importance scores for transportation and other services. Source of income is a significant predictor in 4 out of 6 service categories: employment, health, transportation and other services. For employment services, guaranteed benefits results in lower importance, while combination income is associated with higher health importance scores. Guaranteed benefits, other income and combination income produce higher importance scores for transportation services than wages/steady income. Primary language of a household only predicts importance of services for two service categories: education and other. For each of these types of services, Non-English households are associated with higher importance scores. Residency also only predicts

importance of service for two service categories: employment and housing services. Interestingly, for each of these services, county residency predicts lower importance scores. While the variation in importance explained by each analysis is rather low (and very low for health services), these analyses do point to some very important variables that predict importance of services. Further analysis is needed to determine how and why these variables predict importance of these various services.

In terms of utilization of services, the variables that impact importance do not always significantly predict the use of these services. Only housing importance and utilization are significantly predicted by the same two variables: county residency and income. Monthly income only significantly predicts the utilization of housing and other services. In both cases, the impact of monthly income is very small. Age is also only a significant predictor for the use of two services: transportation and other services. For both types of services, older respondents are more likely to use these services. While employment importance is predicted by county residency, age, monthly income, number of people in the household and source of income, the use of employment services is explained by primary language of the household and county residency. Non-English households and residents outside of Tacoma are less likely to use these services. These differences in explaining importance and access illustrate that there is a perceived need for many services by different demographics, but many of these respondents are not utilizing these services.

Conclusions

The needs assessment survey developed by Pierce County Community Connections (CC), Making a Difference in the Community (MDC) and the Division of Governmental Studies and Services provides a wealth of information regarding the low-income population in Pierce County. Substantial useful data were collected examining opinions regarding importance of services, utilization of services and perceived ease of access by respondents. This information should help both CC and MDC identify the needs of the low-income population and methods for improving access and utilization of these services.

As mentioned, many respondents indicated that several services were most important for improving their situation. These included affordable housing, affordable dental care, subsidized housing, assistance with paying rent, food assistance, cash assistance and help finding a job. However, the majority of respondents are *not using* the services they indicated were important. Only a few services were utilized by a majority of respondents: food assistance, medical insurance, and dental insurance. With the exception of these services, many respondents indicated services were hard to access. It is not possible to ascertain from this data *why* most respondents are not utilizing the services they deem most important to improving their situation. This could indicate that the low-income population in Pierce County does not know all the services that are available for improving their situation and helping to alleviate poverty. It may be beneficial to consider how to spread awareness of several of these services, particularly services that feature large gaps between perceived importance and actual use by respondents.

The needs assessment also reveals a difference between respondents in the reported perceived importance of certain services, the utilization of some services and perceptions regarding ease of access. Differences in these reported perceptions and experiences exist between Tacoma residents and those residents located outside of the city, between Non-English and English households, and across different sources of income. Regression analysis also suggests that age is another important factor in both perceived importance and use of services. These findings indicate that service agencies within Pierce County, especially agencies that serve primarily these specific groups, could possibly increase awareness of the services they provide through campaigns targeting these groups.

The information provided by respondents in terms of services that are seen as important for improving their situation could also indicate service areas that need more resources to adequately address the needs of this population. For instance, housing services are clearly very important, as evidenced by the number of respondents that indicate affordable housing, subsidized housing and rent assistance are most important for improving their situation. Tacoma residents in particular seem to perceive a need for more housing services. This may indicate that for this area more information regarding housing services and more resources for these types of services will benefit the low income population.

In conclusion, the information provided in this needs assessment should help CC and MDC identify the needs of the low income population in Pierce County. Additionally, it provides amble information to help target specific groups and the services needed most to improve their situation. While clearly all groups would benefit from certain services, such as housing, other services are more beneficial for certain groups. This information will help service organizations within the county to effectively address the needs of low-income individuals.

Appendix

Service Categories (Regression Analyses)

Housing

- Affordable housing
- Subsidized housing
- Rent assistance
- Home repairs
- Loan programs
- Help finding housing
- Temporary housing
- Emergency shelter
- Homeless services
- Help paying utility bills

Employment

- Job training
- Help finding a job

Education

- Adult education/G.E.D.
- English language classes
- Preschool
- Parenting skills
- Nutrition Education

Health

- Affordable medical
- Affordable dental
- Substance abuse
- Mental health
- Family counseling
- Help with life skills
- Help to meet personal care needs
- Developmental screenings for children
- Developmental disability services

Transportation

- Public transportation
- Free Shuttle service

Other

- Help applying for Social Security benefits
- Help applying for disability benefits
- Senior services
- Legal help
- Cash assistance
- Food Assistance

Wage Categories (Group Comparisons/Regression Analyses)

Wages/Steady Income

- Earned Income
- Self-employment Income
- Worker's Compensation
- Unemployment
- Pension

Guaranteed Benefits

- SSI
- Social Security Disability
- VA Benefits
- Social Security
- TANF

Other

- Relatives, Friends, and Partners
- Child Support
- Investment Income
- Earned Income Tax Credit

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